House & Home

THE MARKETING AND MANAGEMENT PUBLICATION OF HOUSING AND LIGHT CONSTRUCTION February 1969

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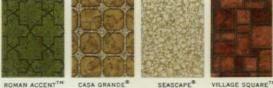
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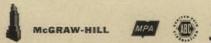
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EDITORIAL

The new language of people who talk to themselves

From "block grant" to "viable"-House & Home's very special definitions of the very special words so dear to the housing industry's talkative critics

FEATURES

Housing for people who have everything-but don't want it 70 In a new West Coast project, \$38,750-\$49,500 townhouses make their biggest appeal to couples who are tired of maintaining homes worth up to \$115,000

How to run an apartment empire like a motel chain

That's the aim of a 34-year-old former real estate man who calls himself "the nation's No. 1 landlord" and is set up to manage 35,000 units in 14 states

The best of traditional and contemporary

Yesterday's design need not be old-fashioned, just as today's need not be cold and emotionless. Here are three architect-designed houses that make the point

Spray-on plastic for thermal insulation

If you want insulation that's at least twice as effective as any other-and if you don't mind spending more-chances are you'll soon be using urethane foam

Nine custom kitchens with ideas for the merchant-built house 94 Items in this H&H Design File: cabinets of translucent glass, backsplashes that are actually strip windows, a snack bar that folds up to form a backsplash

NEWS

Fanny May plans a move into conventional mortgages

Agency's Ray Lapin would extend new mortgage securities to conventional loans; he also wants legislation to guarantee such loans and set up a secondary market

Builder, beware!-NAHB chief sounds warning on equity deals 8 President Gene Gulledge cautions the homebuilding industry it may be giving up more than it gains when it allows lenders a share of its ownership or profits

Mobile home industry moving in on multifamily housing 24 Redman Industries makes the first purchase of a big apartment building company; it pays builder Jack Bertoglio \$61/2 million for Kansas Quality Construction Inc.

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Townhouses built by Brown & Kauffmann, selling for \$38,750 to Cover \$49,500. Architect: Donald Blair. Photo: Ernest Braun. For story see page 70.

NEXT MONTH

Five apartment projects for tight sites ... New ideas to add sales appeal to your house and apartment bathrooms . . . The Negro market: A first-of-its-kind survey turns up surprising results . . . An eight-house experimental project compares new approaches to low-income housing . . . New concrete forms that stay in place

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Convention '69: Houston gives NAHB its biggest and best

The National Association of Homebuilders, 47,000 strong, swarmed into Houston and overflowed it and every town or hamlet within 50 miles. And they staged an exuberant convention; from the moment NAHB's outgoing President Lloyd Clarke rode a bedecked stallion into the fabulous Astrodome to open the show, the convention was the biggest and brightest and best that either Houston or the builders had ever seen.

The larger-than-life aspects of space-age Houston and its Astrodomaine lent a wonderland atmosphere to the gathering. And the newness of it all overshadowed the convention's more conventional concern about tight money and its alarm over rising lumber prices.

The dream ride. The convention was guided by Houston's incredible promoter, Roy Hofheinz. Judge Hofheinz not only lured NAHB's silver anniversary meeting from Chicago, but also took command of it in Houston, cradling the conventioneers in opulence unlimited. He threw open his Astrodome for a bullfight, and his sevenfloor living quarters at the dome to a parade of builders and newsmen. And he helped rustle up the transportation the builders needed to enjoy his city, augumenting the meager taxi fleet of 600 with 1,100 private cars.

The colorful judge and the NAHB found themselves fast friends.

"It will be a long and happy marriage," said the judge. "We proved Houston can handle the convention, and we'll keep it."

Study in success. Total registrations ran to 47,000, an imposing 11,000 more than peak attendance in Chicago and 7,000 beyond NAHB's fondest pre-convention estimates.

"The unscheduled arrivals astounded us," said President Clarke. "The hotels are full. I don't know where they can be staying."

They were staying everywhere from Clear Lake City (25 miles away) to Galveston (50 miles) and Beaumont (80 miles), for Houston has only 15,000 hotel rooms. Yet for all of the difficulties, there were sur-



CONVENTION'S KEY MEN are (l. to r.) Stanley Waranch, convention chairman; Judge Roy Hofheinz, Astrodome's creator; Lloyd Clarke, NAHB's ex-president, and Houston Mayor Louie Welch.

prisingly few complaints. And Judge Hofheinz brushed off the housing woes:

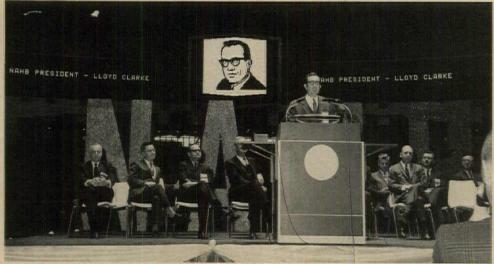
"If Chicago had had to absorb the extra enrollees we had here, you would have been quartered in Gary and Cicero."

"Some 8,000 women came here compared to only 1,100 in Chicago. Gary and Cicero are to the tastes of some conventioneers but usually not to wives and daughters."

Profit for both. At Houston's estimate of \$50 per day per visitor, the five-day meeting brought \$10.5 million into the city. And exhibitors provided additional income via transportation and erection costs in preparing their displays.

As for NAHB, it sold space to 470 exhibitors and overshot its own estimates of revenue from exhibitors by 50%. In all the Chicago years, the show never topped 370 displays.

The ingenuity and high style of some displays nearly outshone the products. Booths were spread through the wide-open spaces of the Astrohall, and builders roamed isles that were 30% wider and saw exhibits that were often two stories higher than those in



CONVENTION'S OPENING, shown here with President Clarke at rostrum, was marked by high jinks such as chorus of dancing girls, Clarke's entry on horseback and his picture on animated scoreboard.

Chicago's McCormick Place.

"We were coming into a new environment, so we tried new ideas," one exhibitor said.

The products emphasized homebuilding's growing sophistication—fewer earth-moving machines and more management devices and computers. There was a new emphasis on slick merchandising. And glamorous products included new bathroom fixtures, synthetic wood paneling and a profusion of new carpeting.

Controversy. The NAHB's board of directors triggered the only controversy of consequence. The board voted down a resolution urging the government to raise the $6^{3}4\%$ interest ceiling on FHA-VA mortgages to bring more money into the mortgage market. The vote brought immediate expressions of near outrage from most of the meeting's economists and financial leaders.

"I can't see the sense in that action," said Executive Director Oliver Jones of the Mortgage Bankers Assn. to a panel on mortgage financing. "It says to me that you really don't give a damn about FHA-VA mortgages."

The board warned homebuilders about two things—lenders' growing penchant for equity financing and the escalation of lumber prices.

Philadelphia builder Joseph A. Singer said, "The most expensive house to build right now is a log cabin."

Incoming NAHB President Eugene A. Gulledge announced the formation of a joint industry committee with Gene Brewer, president of U.S. Plywood-Champion Paper Co., to study the lumber problem.

New leaders. In an election without surprises, the directors elected Gulledge, of Greensboro, N.C., to succeed Clarke as president. Louis R. Barba of Chatham, N.J., became vice president and John A. Stastny of Chicago became second vice president and treasurer. Stanley Waranch of Norfolk, Va., was chosen to step aboard the leadership ladder as vice president and secretary.

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FEBRUARY 1969

7

Gulledge to builders: Beware of lenders' equity demands

NAHB's incoming president cautions builders that they may be giving up more than they realize.

Stepping into office when major lenders are demanding ever wider participation in the builder's equity or profit (NEWS, Dec.), Gulledge is concerned lest the financial giants gobble up large segments of the housing industry.

"They may ask only 3% of a builder's equity today, but it might be 10% tomor-



He ponders problems . . .

row, or 20%, or finally, the lender could be building and owning the property.

"This trend could trigger legislative inquiries to determine whether it is really good for the nation. If lenders feel that traditional methods cannot bring the return on investment that is needed for healthy growth, then this represents a departure that should be weighed for its effect on housing and upon the entire economy."

The cloudy skies. Gulledge concedes that the equity movement is not yet a fullblown storm, but he warns that it is more than just a cloud on the horizon.

"I understand that with many lenders, equity participation becomes a negotiating factor in every multifamily development that comes to them," he explains.

Gulledge also doubts the wisdom of mergers and acquisitions of major builders, especially by building materials producers. He feels that the advantages to a manufacturer of buying into successful housing producers might be offset by a reluctance among other builders to buy from companies they feel are competitors.

Warns Gulledge: "If a supplier of materials is going to become a competitor as well, it seems to me that builders will have to make a business judgement about the advisability of buying materials or products from that competitor."

Marry your own. Gulledge thinks that mergers or joint ventures between builders might be a healthier way of growing than selling out to, or merging with, major manufacturers or conglomerates.

"These sell-outs are a perfectly logical effort by successful builders to get their equities out of their companies, to give them a reliable pool of capital to draw upon or even to retire," he concedes. "But, although we are faced with a tremendous demand for housing, there will be hills and valleys in that boom. If a market grows slack, corporate boards might look to get rid of investments that are not pulling their weight. I wonder about the staying power of some of these sudden new converts to housing."

The rosy future. For all of these words of caution, Gulledges' views of the housing industry and his association's prospects are cheerful in the extreme.

At 49, the Carolina builder takes over the presidency when NAHB's fortunes have never looked better. Membership is at an all-time high of 52,000, the Houston convention was the biggest ever held, and the demand for housing is now out-running the industry's ability to produce it, and inventories of unsold or unrented housing are virtually non-existent.

Gulledge sees even wider growth for the apartment boom. He believes new types of multifamily developments will evolve for family living and for the single persons and young couples that comprise today's primary market. The construction of co-ops and condominiums represents another opportunity for builders, he feels.

"As our apartment dwellers get older and earn more money, builders may tackle the for-sale market here," Gulledge explains.



... and speculates on some possible solutions ...

Manpower. Like so many NAHB presidents, Gulledge is concerned about housing's labor supply. He now doubts that it is capable of producing all the housing that will be needed.

"Training new men takes a long time and present training programs are just a piddling effort," he points out. "There is no real commitment on the part of government or unions to take the crisis steps."

As one solution, Gulledge suggests that federal wage-hour laws be modified for better utilization of available workers.

"If we could work men 50 or more hours during a good-weather week without overtime penalties, we could compensate for the 30-hour week that bad weather will enforce. The men would average 40 hours pay for both weeks. Maybe what we should work for are guaranteed annual hours rather than a guaranteed annual wage."

Government. The new NAHB leader looks for excellent cooperation between housing and the Nixon administration. The appointment of George Romney as Secretary of Housing—"a production man who is also a sound administrator"—is encouraging to him. Says Gulledge:

"Romney has the background and the track record. He will seek out those parts of the housing assembly line that have stopped producing, and he will ask why."

Daniel Moynihan's role in the new Council on Urban Affairs also looks promising to Gulledge:

"We think Dan Moynihan's talents will be well used. The emphasis that his appointment gives to housing in urban areas is encouraging. He is enough of an iconoclast and a pin-pricker to keep bureaucrats from becoming settled. He can ask the difficult questions without having to suggest the answers."

The NAHB leadership will concentrate on helping the new administration get the most out of the Housing Act of 1968, according to Gulledge.

"The problems and tools are the same," he says. "Even much of the personnel will be unchanged."

City hall. Gulledge is convinced that another useful contribution he can make is to improve the communication and cooperation between builders and the nation's mayors. He has already won a welcome from the League of U.S. Cities.

"It's high time city halls stopped being critics of homebuilding and became part of the housing industry," he says. "We must educate each other in our differing problems. We hope to give local associations the tools to help educate the community that the problems of municipal growth are not caused by the builder."

And home base. Eugene Alexander Gulledge has been a builder in Greensboro, N.C., since 1946, when he and a partner built a small commercial building to house a planned auto parts business. (He sold it at a 50% profit before it was finished. His company (Superior Construction Corp.) does \$2 to $$2\frac{1}{2}$ million a year in houses,



... and decides that the building outlook is bright

apartments and light construction and plans more than \$3 million for 1969.

He is married to the former Ruth Stevens, whose family has been in North Carolina since before the Revolutionary War, and they have two sons, Keith, 22, a student at Brigham Young U., and Roger, 10.

-JAMES P. GALLAGHER NEWS continued on p. 12

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a patented adjustable sill. All of which mean no storm door is ever needed. In short, here's a beautiful door that will last a life time. Install the Ever-Strait door in your next home or project. (There are 28 designs to choose from.) Then say a few words to your prospect about each of the exclusive guality features the Ever-Strait door provides. You'll soon discover that the Ever-Strait door starts saying good

things about the rest of your house . . . telling your prospect that here, at last, is the kind of quality-constructed home he has been looking for. (You couldn't ask for a better opening.)

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11

Next for Fanny May—a move into conventional mortgages

President Raymond H. Lapin of the Federal National Mortgage Assn. proposes to expand the agency's new mortgage-backed security from FHA-VA loans to the conventional mortgage market.

Lapin also favors legislation, which has already been proposed, to take Fanny May and its sister agency Ginny May into the business of guaranteeing and trading in conventional loans. They now have statutory authority to deal only in FHA-VA mortgages, which account for a mere 14% of newhouse starts.

The effect of the new legislation would be to establish the first genuinely national secondary market in conventionals.

An extension of the mortgaged-backed security to the conventional area would require still further legislation, which might be proposed separately or wrapped into the bills extending the agencies' trading authority. The House Act of 1968 authorized Fanny May to guarantee bonds based on FHA-VA loans, and Lapin says merely:

"I would like to see legislation enacted to permit the same Ginny May guaranty for securities backed by conventionals."

A need for more money. The bond based on FHA-VA loans has not vet appeared. Regulatory details remain to be fretted out, and FNMA is busy trying to develop a reliable cash-flow history of government loans as a basis for interest rates. Reluctance among prospective issuers to bring out a new bond in the face of record interest rates is another cause for caution.

Lapin is convinced that the mortgage bond will increase traffic in FHA loans, but he now warns:

'The FHA is limited by budget considerations and loan ceilings, and bottlenecks are almost sure to develop.

"If we're going to do the housing job that's needed in this country, more money is going to have to be found. We'll either need a much bigger FHA program or we'll have to extend the bond device to include conventional loans. By using bonds based on conventionals and guaranteed by GNMA, we establish a broader base to secure funds."

Uncertain reaction. Lapin's proposals face varied reaction.

The National Association of Home Builders and the National Association of Real Estate Boards have supported legislation for the secondary market, but the savings and loan profession is opposed. The USS&L League, representing 5,100 of the nation's 6,160 associations, told a Senate housing subcommittee:

"The League does not support extension of Fanny May in the conventional market. The league finds itself in opposition to those who seek a solution to a recurrence of the 1966 crisis by the establishment of some new central mortgage bank or the broadening of Fanny May into the buying and selling of conventional mortgages.

"One basic weakness of such an idea for tight money is that there are not enough funds for the existing facilities-Fanny May and the Federal Home Loan Bank Systemto utilize their market support at anything approaching the desired level. Both agencies were restrained by the Treasury from issuing obligations during much of 1966. Adding a new dimension-a Fanny May dealing in conventional mortgages-would simply slice the same pie into smaller pieces."

Congress has insisted on seeing a unified plan from all interested parties, and a division in the ranks could spell doom.

Another obstacle may be the Treasury. Fanny May will be the initial issuing agent of FHA securities (so as to obtain the best rate and to avoid a proliferation of issues in the money market). With FNMA as the is-

Why those odd ups and downs of Fanny May stock? Well . . .

It's like this:

The stock seems to rise on falling earnings

The common shares were trading at 741/2 on May 5, when Fanny May was still a mouse-quiet little government agency.

One day later came the first Fanny May mortgage auction, held to a drumbeat of national publicity. The FHA mortgage rate was raised from 6% to 63/4 % the same afternoon. And weeks later the Housing Act of 1968 sailed through Congress, clearing the way for Fanny May to become a private institution.

The financial public discovered the little mortgage agency. Investors began theorizing about prospects and potential, and the share price climbed into the 80s.

Fanny May's new president, Ray Lapin, told the Senate Banking Committee in September that he knew of no reason for the rise. Share earnings for the June quarter suing agent, the Treasury is almost certain to exercise some control.

Treasury Department control will almost surely generate industry opposition.

Standardization. Another obstacle is likely to be loan standardization.

Despite Lapin's insistence that "it can be done," the hard and inescapable fact is that differences in state and federal laws now split the market by terms, types of investor, geographic limits, investor lending areas and variations in codes and underwriting. These differences pose an enormous stumbling block. -ANDY MANDALA Washington

had in fact fallen 10%, to \$1.46 from \$1.61. The stock price could move down as well as up, Lapin said pointedly.

Nobody paid much attention. The stock doubled, to \$160 bid, in November.

Lapin's next warning came in the agency's report on the September quarter. Earnings had now slipped to \$1.35, he pointed out, because higher interest rates were driving borrowing costs uncomfortably close to portfolio yields. Said Lapin almost plaintively:

"During Congressional testimony I indicated the sharp rise in the market price of the stock appears to have little relationship with the corporation's earnings.

The stock price had eased slightly, to 146, when Lapin's report appeared on Dec. 5. And this second warning seemed to have greater effect. By year's end the stock had traded down to 1331/2 bid, only 2 points above the book value of \$131.50.

HOMEBUILDERS' MORTGAGE MARKET QUOTATIONS

FNMA	E & HOME in week	A Sec. 203b-		FHA			oan Rates	Constants
Auction Prices Jan. 13	Discou	nt paid by builde n* 30-year imme Private mkt.	r id.w	Apts.,	Conver Comm. banks, Ins. Cos.	Savings banks, S&Ls	oan Rates Savings banks, S&Ls	Construction Loan Rates
61/4 %	City	634 %	Trend	634 %	75%	80%	Over 80%	All lenders
And the state of the state	Atlanta	61/2-8	Up 3/4	a	71/2-73/4	71/2-73/4	71/2-8	71/2+2
90-day	Boston	2	Up 1	8-10	71/4-71/2	71/2-73/4	8	7-71/2
commitment Average	Chicago	6	Steady	5	63/4	7	7+11/2-3	8
93.0	Cleveland	5-7	Up 1/2	а	7-71/4	7-71/4	71/4-71/2+1-2	73/4+1-2
Accepted	Dallas	6-7	Up 1	a	71/2	71/2+1	73/4+2	8+1
bid range 92.80-93.20	Denver	51/2-6	Up 1/2	а	71/2+	71/4+	71/2-73/4	73/4+1-2
32.00-33.20	Detroit	56	Up 1	а	7	7	7+1-2	71/2-73/4+1-2
180-day	Honolulu	7	Up ½	а	73/4-8	7¾-8	8+3-5	73/4-81/2+1-3
commitment	Houston	6-7	Up 1	а	71/2	71/4+4	71/4+4	71/2+11/2-2
Average 93.14	Los Angeles	61/2	Up 11/4	а	71/2-73/4	71/5-73/4	b	71/2-8+11/2-3
Accepted	Miami	6½-7	Up ¾	a	73/4	71/4	75/8	71/2
bid range	MinnSt. Paul	41/2-5	Up 1⁄4	a	71/4	71/4-71/2	7½+3	71/2-8+1
92.48-93.25	Newark	3-5	Steady	b	71/2	71/2	b	71/2-73/4+1-2
12-18 month	New York	b	-	а	7-71/4	7-71/4	71/4	71/2-73/4+1-2
commitment	Okla. City	4-6	Up 3/4	а	а	63/4+1	7+3	71/2-73/4+1-2
Average	Philadelphia	5	Steady	a	a	7	7+	71/2+2-3
94.63	San Francisco	7	Up 2	a	71/4-73/4	71/2-8	7¾-8+	8+2-3
Accepted bid range	St. Louis	6-8	Up 1½	а	71/2-73/4	71/2-73/4	71/2-73/4+1-3	71/2-8+1-2
94.50-94.84	Seattle	51/2-6	Up ½	а	71/2-73/4	71/2-8	7¾-8	71/2-8+11/2-2
	Wash., D. C.	6-7	Up 1/2	6-7	73/4-8	73/4-8	73/4-8	71/2+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, sr. vice

res., First National Bank; Detroit, Sherwin Vine, vice pres., Citizens Mortgage Co.; Honolulu, H. Howard Stephenson, vice pres. Bank of Hawaii; Houston, Everett Mattson, sr. vice pres., Lomas & Nettleton West; Los Angeles, Christian M. Gebhardt, vice pres., Colweil 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., Pranklin Capital Corp.; New York, Sigfred L. Solem, sr. vice pres., Dime Savings Bank; Oklahoma City, B. B. Bass, pres., American Mortgage & Invest-ment Co.; Philadelphia, Robert S. Irving, vice pres., Kardon In-vestment Co.; St. Louis, Charles A. Keller, vice pres., Mercantile Mortgage Co.; San Francisco, John Jensen Sr., vice pres., Bankers Mortgage Co.; San Francisco, John Jensen Sr., vice pres., Bankers Mortgage Co.; San Francisco, John Jensen Sr., vice pres., Bankers Mortgage Co.; San Francisco, John Jensen Sr., vice pres., Bankers Mortgage Co.; San Francisco, John Jensen Sr., vice pres., Bankers Mortgage Co.; San Francisco, John Jensen Sr., vice pres., Bankers Mortgage Co.; San Francisco, John Jensen Sr., vice pres., Bankers Mortgage Co. of California; Seattle, Kirby D. Walker, vice pres., As-sociated Mortgage Cos. Inc. NEWS continued on p. 16

When you want the beauty of wood, side with something better:

NEW CONCORDE Siding

Only Nature can match the grain and texture of CONCORDE. And dollar for dollar, nothing can match the selling power of CONCORDE.

CONCORDE Siding won't burn. It won't rot, warp, peel, or blister. It won't rust, dent, or rattle. It's termite-proof. And really weather-tight!

CONCORDE needs no painting. The 8 beautiful home colors (Colonial Beige, Valley Green, Autumn Gold, Salem Red, Birch White, Avocado, Antique Gray, Cedar Brown) are all protected by an invisible, polymer-plastic shield. Assures lasting, carefree beauty.

See your U.S.G. representative and see why you'll want to side with something better: New CONCORDE Siding. Or write us for more information: 101 S. Wacker Dr., Dept. HH-92, Chicago, Ill. 60606.

Shown: New CONCORDE in Colonial Beige.

Old players—and new—pour millions into the new-town game

Some old players anted up to protect their prior investments in new towns.

But to the new players the giant real estate projects look like money makersor at worst, ideal hedges against future inflation.

The old players include two pioneers of equity participation, John Hancock Life of Boston and Prudential Insurance Co. of Newark, N.J.

John Hancock has just taken control of El Dorado Hills, a 10,000-acre town east of Sacramento. The company had taken title to most of the land in 1966 in a \$14.5 million lease-back deal with the original developer, California's new-town pioneer Allan H. Lindsey. Now Lindsey's development company, El Dorado Hills West, becomes an outright Hancock subsidiary (H&H, June '66)

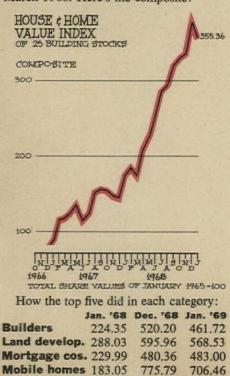
"We backed into the deal," says Hancock's Senior Vice President Gordon Emerson Jr., who becomes El Dorado's board chairman. "There were many creditors with overdue bills who could have conceivably forced the project into bankruptcy proceedings."

Hancock will reportedly invest \$5 million to build model houses, apartments and a shopping area-El Dorado's first construction since 1966.

The Prudential has taken a 50% equity participation in southern California's Westlake Village, a 12,500-acre new town being developed by American-Hawaiian Land De-

Housing stocks turn downward for first time in 10 months

HOUSE & HOME's index of 25 issues fell 5%, to 355.36 from 375.28, under the pressure of year-end tax sales and tight money talk. It was the list's first loss since March 1968. Here's the composite:



112.16 175.91 171.48

velopment Co. The insurance company will assume its own two-year-old loan-about \$25 million outstanding-and it will lend another \$30 million.

American-Hawaiian, headed by John Notter and Daniel Ludwig, will retain management control of the four-year-old project (pop. 5,000).

New players include two diversified corporations and three other companies with extensive real estate holdings.

Pittway Corp. of Chicago, an industrial holding company, has taken its first plunge into building by acquiring 50% of Nuns' Island's first 3,000 units and a small percentage of the island's development company, Metropolitan Structures Inc. of Chicago. The price: \$7 million. Nuns' Island is an all-apartment project 10 minutes from downtown Montreal. Projected population: 50,000.

"Real estate could become a truly important part of our company and its operations," says President Nelson Harris of Pittway. His company's shares trade on the American Stock Exchange.

Avco Corp., a conglomerate listed on the New York Stock Exchange, has acquired 51% of Rancho Bernardo, near San Diego, for an undisclosed price. Developers Harry Summers and W. R. Hawn of Dallas will continue to manage the 5,800-acre new town, which has attracted 4,500 residents in five years.

in Ventura, Calif .-- Ventura Savings and Loan Assn. and Coastline Mortgage Corp.

Metropolitan Life of New York, which now owns \$98 million worth of California real estate, has bought an undisclosed percentage of The City in Orange County. Other owners: subsidiaries of Kaiser Aluminum & Chemical, Great Lakes Carbon and Holiday Inns of America.

The Met also took title to the 200-acre site in a lease-back arrangement. In return, the Met committed \$33.7 million in mortgage financing for the first phase of construction, which includes a million sq. ft. of retail and office buildings.

World-Wide Realty & Investment Corp. of North Miami has agreed to buy Tierra Verde Island near St. Petersburg, Fla., from the Murchison brothers, the Texas developers. World-Wide will assume a \$7.3 million first mortgage held by the Pru, and it will issue \$1.7 million in convertible debentures to the Murchisons.

There are 150 houses at the six-year-old development, which was begun by the late Louis Berlanti and his son Fred. The Berlantis died in a 1963 plane crash.

Town Heights Development of Montreal has bought 1,550 acres west of Fort Lauderdale from Arvida Corp., one of Florida's largest real estate corporations, for a recreation community called Bonaventure.

Town Heights paid an average of \$1,357 per acre for the Arvida land.

NEWS continued on p. 20

Avco also owns two financial subsidiaries

HOUSING'S STOCK PRICES

BUILDING Colw Bramalea Cons. (Can.)	COMPANY	Jan. 6 Bid/	Chng. Prev.	сом
Bramalea Cons. (Can.) $10\frac{4}{2}$ $-1\frac{1}{2}$ Cont. Capital Bidg. (Can.) $6\frac{1}{4}$ $-\frac{1}{4}$ Cont. Christiana Oil b. $10\frac{4}{2}$ $-\frac{1}{4}$ Fordat Cons. Bidg. (Can.) 4.85 $+20e$ First N Cons. Bidg. (Can.) 4.85 $+20e$ First N Dev. Corp. Amer. $9\frac{4}{2}$ $+\frac{3}{4}$ Kissel Edwards Indus. $23\frac{3}{2}$ $+2\frac{3}{4}$ Lomas First Nat. Rity.b. $12\frac{3}{4}$ $-\frac{3}{4}$ Mortg. General Bidrs.b. $10\frac{6}{4}$ $-\frac{3}{4}$ Palom -General Bidrs.b. $10\frac{6}{4}$ $-\frac{3}{4}$ United Kauranagh-Smith) LANI AMerica America Nationwide Homes. 8 $-11\frac{4}{4}$ $-4Mida$ -Presidential Realty b. $23\frac{4}{4}$ $-\frac{2}{4}$ Canavi U.S. Home & Dev. 24 $+2$ Crawui Canavi U.S. Home & Dev. 24 $+2$ Crawui $-\frac{1}{4}$ $-\frac{1}{4}$ $-\frac{1}{4}$ V.S. Home & Dev. 24 $+22$ <td>PULL DING</td> <td>Close</td> <td>Month</td> <td>Colum</td>	PULL DING	Close	Month	Colum
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	Jan. 6	Chng.	
COMPANY	Bid/	Prev.	COMPANY
	Close	Month	
-Colwell	27	- 5	Forest City Entr.b
-Cont. Mtg. Investors o	341/4	+ 41/4	Investors Funding
Cont. Mtg. Insurance		- 7	Rouse Co
FNMA.	138	- 8	Tishman Realty o
First Mtg. Inv.	241/2	- 1/4	
Kissell Mtg.b.	121/8	- 3	MOBILE HO
omas & Net. Fin	133/4	- 11/4	Con. Chem. Co.b.
MGIC Invest. Corp	453%	- 33/8	-Champion Home
Mortg. Assoc.	22	- 1	Commodore Corp
Palomar Mtg		- 11/2	-DMH (Detroiter)
Southeast Mtg. Inv.	43/4	- 1/2	-Fleetwood b
United Imp. & Inv.b.		- 5/8	•Guerdon b
oniced mip. of my."	1474	- 78	Mobile Home Ind
LAND DEVELOPMI	ENIT		Monarch Ind
All-State Properties		I IZ	Redman Indus.b.
American Land	11/2	+ 1/8 - 3/8	Rex-Noreco
AMREP b	383/4		•Skyline b
AWINEF	30%	$-\frac{2\frac{1}{4}}{-\frac{1\frac{1}{8}}{1}}$	Town & Country I
Arvida	17%	- 1%	Zimmer Homes b.
Atlantic Imp	161/2		
Canaveral Int.b.	103/8	+ 11/4	Natl. Homes A.s.
Crawford	6	+ 21/2	Scholz Homes
Deltona Corp.b	501/4	- 21/2	Swift Industries
Disc Inc	51/8	- 1/4	
Fla. Palm-Aire	18	- 11/2	a-stock newly a
Garden Land	101/2	+ 3/4	price ASE. c-clo
-Gen. Devel.o.	27%	- 4	traded on date
-Gulf American b	221/8	- 1/8	MSE. h-closing
Holly Corp.b.	71/8	+ 1	able Compute
Horizon Land	31%	- 1/8	stock value index
Laguna Niguel	101/4	- 11/4	split. (NA) Not ap
Major Realty	131/2	+ 1/4	Sources: New
-McCulloch Oil b	40		Gairdner & Co., N
Scientific Resources	323/4	+ 6	Dealers, Philip I
(Sunasco.)			American Stock E
So. Rity & Util.b.	143%	+ 1/2	Exchange, Midwe
			Coast Stock Excha
DIVERSIFIED CON	PANI	ES	companies which
City Invest.		- 71/4	their income from
Cousins Props	57	- 6	actively traded.

	Jan, 6	Chng.
OMPANY	Bid/	Prev.
	Close	Month
orest City Entr.b.	271/4	- 11/4
nvestors Funding . b	311/8	- 61/4
ouse Co ishman Realty •	511/2	- 7
ishman Realty o	77	- 61/4
OBILE HOMES &	PRE	FAB
on, Chem, Co,b	301/4	+ 21/8
Champion Homes b	441/2	- 3
ommodore Corp.*	64	+ 2
DMH (Detroiter) b	321/2	- 7 1/8
Fleetwood b	403/8	- 23/4
Guerdon b	40 1/8	- 61/8
lobile Home Industries*	42	+ 3/4
Ionarch Ind.	301/2	+10
edman Indus. ^b	961/4	- 31/2
ex-Noreco	201/2	- 41/4
Skyline b	84	$-5 + \frac{3}{4}$
own & Country Mobile b	451/4 501/8	+ %
immer nomes	3078	- 072
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cholz Homes	401/2	+ 21/2
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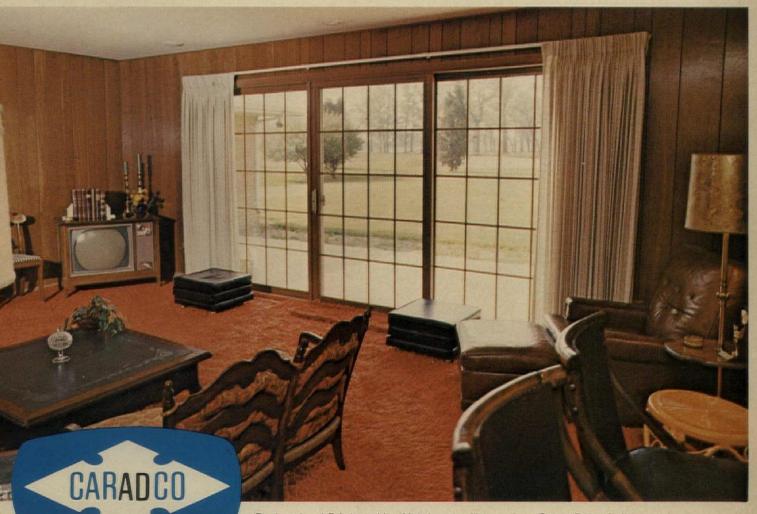
ORT-TERM BUSINESS LOAN RATES

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DAN SIZE	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 0-99 00-499 00-999 000 up	7.30 7.14 6.87 6.69 6.60	7.49 7.48 7.28 7.14 6.83	7.35 7.34 7.21 7.08 6.78	7.09 6.96 6.78 6.61 6.54	7.20 7.08 6.91 6.78 6.72	7.73 7.50 7.11 6.78 6.54
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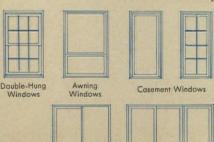
16

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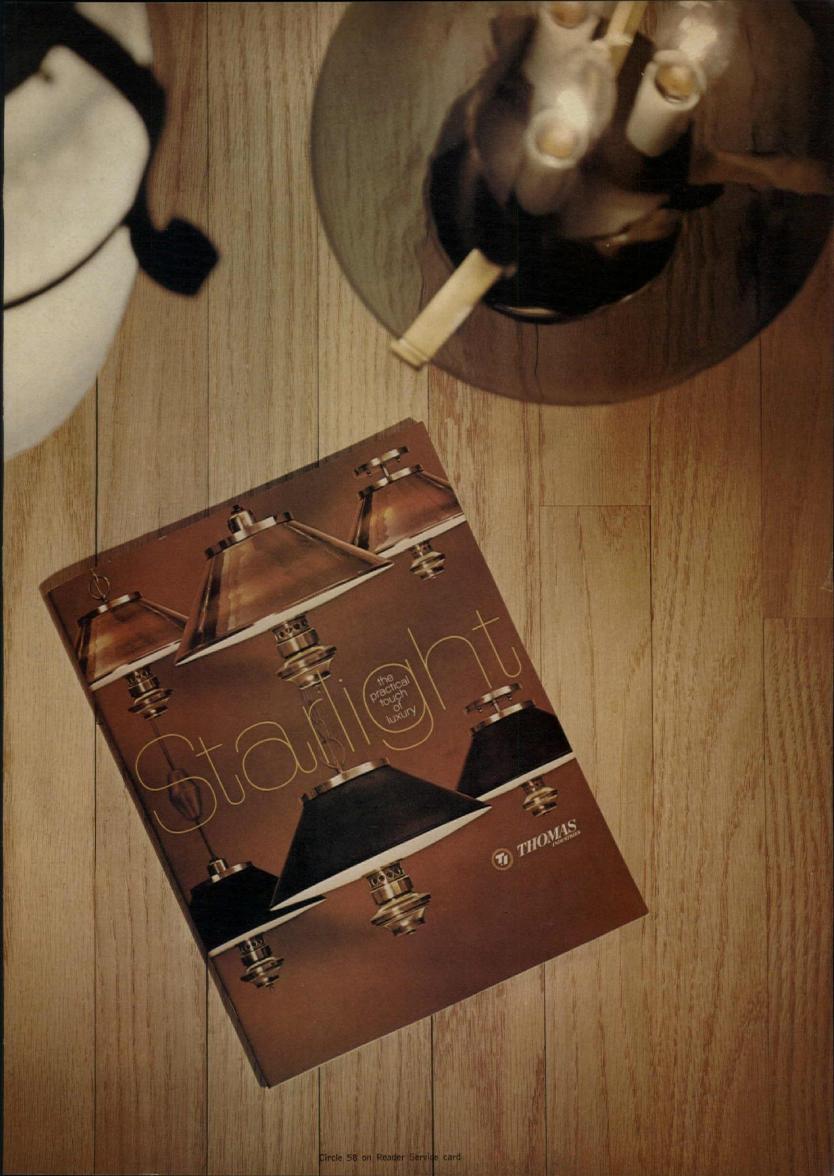
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St. George Romney meets the Washington monster—HUD

The many-headed monster sits in a fogshrouded area of Washington, oozing legislative laxity and defying capture.

Over the horizon rides the man of the hour, George Romney, full of the boundless self-confidence that only the jut-chinned Mormon could summon.

The oddsmakers are laying 8 to 5 that the HUD monster will bend Romney's lance, at least at the beginning.

The monster is formidable. To get the upper hand, Romney will have to reorganize a department that was never organized in the first place.

Past performance. The first housing secretary, Robert Weaver, had two years to meld the new department. He lost valuable time securing new urban legislation, and HUD's primordial bureaucracy flourished.

Weaver and supporters insist that the first HUD team achieved what it set out to do. Nevertheless, President Richard Nixon has clearly instructed the former Michigan Governor to do better.

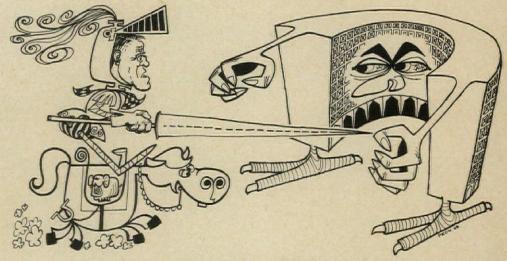
And if Romney does run true to past performance at American Motors and the Michigan statehouse, he will be capable of wizardry in grappling with HUD's disjointed organization chart, its many employees and its often-conflicting programs.

Follow that chart. Romney may have trouble learning where all his players are, let alone what they do.

The department's current organization chart—or charts, to be more precise—are part of HUD's Handbook 1100.1.

The handbook contains 16 separate organization charts, and each is detailed down through myriad levels of box diagrams.

Big payrolls are not new to the industry leader turned public servant. In fact HUD has only 14,534 employees compared to 44,000 for the state of Michigan and 21,000



at American Motors, the car maker Romney rescued from the edge of extinction.

But the HUD staff presents a special problem. Unlike workers for American Motors or Michigan, the HUD staff is scattered all over the country in semi-autonomous field offices.

For example, there are 100 persons in the HUD headquarters assigned to just one program—model cities, while Romney himself will direct a D.C. staff of 300.

It may well take every last one of the 1,121 HUD employees assigned to "administration" to monitor the 7,873 persons at the Federal Housing Administration and the 932 at FNMA-GNMA, one a HUD subsidiary and the other an affiliate.

The big picture. In naming Romney, President Nixon made it clear that he wanted to bring business-minded administration to HUD (NEWS, Dec.). The quicker Romney weeds out overlapping agencies, housing programs and employees, the quicker he can concentrate on the big job of fostering more and better housing for America.

The big job holds its own special challenges:

• The secretary must shape administrative machinery for the panoply of housing laws enacted by Congress at the end of Weaver's reign.

• He must lead the fight for any new urban plans that President Nixon may propose, such as condominium housing for the poor and tax incentives for builders.

• He must put the productive HUD programs into high gear.

In addition, the President has assigned Romney to mobilize the nation's thousands of volunteer agencies in a broad fight against social ills.

The pious but combative Romney may be riding into town on a white charger. That is his style. But he isn't fooling anybody.

To rule the HUD monster, the secretary will have to be a workhorse. —A.M.

Here's a portrait of the average FHA house—color it plain vanilla

It is a one-story slab with wood-frame construction and an attached two-car garage. Within its compact 1,175 sq. ft. of improved floor space, the six-room house has three bedrooms and two bathrooms.

The new house, which sits on a 7,842 sq. ft. lot, cost \$12.75 a sq. ft. to build. The market price of the improved lot is \$3,690, up 10% from 1967. And the sale price of the house, with lot, is \$18,808.

The average downpayment is \$1,120. and closing costs are \$430.

The average family buying such a house in mid-1968 earned \$10,580, or \$732 a month after taxes. Payments on the house's \$17,694 mortgage eat up \$141 a month.

This portrait of the average governmentinsured house was compiled with FHA statistics for the second quarter of 1968, the latest statistics available. The break-down:

Style—Some 84.3% of the houses have one story; 10.4% have two stories or more and 5.3% are split levels.

Basements—52.1% have slabs; 28% have crawl spaces; 15.3% have full base-

ments and 4.6% have partial basements.

Garages—58.2% have garages, of which 72.5% can accommodate two or more cars; 28.9% have carports, of which 19.4% can accommodate two or more cars and 12.9% have neither a garage nor carport.

Construction—77.4% are frame and 22.4% are masonry. Only 6.5% of the FHA-insured houses are prefabricated.

Features—68% have ranges; 54.2% have ventilator fans; 40.5% have garbage disposals; 30.5% have dish washers; 24.3% have central air conditioning; 20.8% have

U.S. Plywood ready to buy American Forest Products

The announcement by the two woodproducts companies came only three weeks after termination of merger talks between U.S. Plywood-Champion Papers and Johns-Manville Corp. and between American Forest Products Corp. and Kimberly-Clark. U.S. Plywood will pay \$93 million in

stock for the California-based company. U.S. Plywood, which owns 1.6 million refrigerators; 5.3% have automatic clothes washers; 4.4% have automatic clothes dryers and 2.9% have window-mounted air conditioners.

Bathrooms—65.5% have one and onehalf or two bathrooms; 26.2% have one and 8.3% have three or more.

Mortgages—65.9% are from mortgage companies; 12.8% are from state banks, 8.6% from national banks; 6% from savings and loan associations; 2.2% from insurance companies and 1.5% from savings banks.

acres of timberland, reported sales of \$950 million for the first nine months of 1968, up 12.7% from the like 1967 period, and profit of \$39.7 million, up 36.1%.

American Forest, for the first nine months of 1968, reported sales of \$102.6 million, up 24.6% from the like 1967 period, and profit of \$4.4 million, up 157%. NEWS continued on p. 24



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It's not just because these doors are surpassingly beautiful. It's something that transcends simple beauty. Pride of ownership, perhaps. A certain built-in warmth. Truthfully, we're not quite sure why our doors have such a strong appeal to potential home buyers. But we know they do.

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tic garage door operation. Keep an eye on the little lady, too. She's thinking about how the door actually improves the overall appearance of the house.

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Put The "OVERHEAD DOOR" electric in every house you build. We make them in styles and materials to complement every architectural preference. Talk to your nearby Overhead Door distributor. His number is listed in the *white* pages of your phone book. He can add that extra ingredient that makes every house you build a home.

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OVERHEAD DOOR CORPORATION General Offices: Dallas, Texas 75202 Manufacturers of The "OVERHEAD DOOR" and electric operators for residential and commercial buildings

First big mobile-home maker buys into multifamily housing

Redman Industries has just agreed to pay \$6.5 million in stock for Kansas Quality Construction, a garden-apartment and public-housing builder operating in 18 states.

"Our interest is in the entry into the multifamily market," explained Chairman Jack Redman at the mobile home company's headquarters in Dallas. "This is a perfect fit with our concept of becoming a total supplier to the housing industry."

The combination produces one of the most unique and powerful marketing forces in homebuilding.

Some experts now estimate that apartments will account for 800,000, or 47%, of an expected 1.7 million single-family starts this year, and that mobile home production will exceed 300,000.

"With so much of the market lying before us, it just makes economic sense as to what our new team could do," says Kansas Quality's Chairman Jack Bertoglio. "It will make us a dominant producer in the industry.'

Something for both. Redman gets Bertoglio, 32, and the company he founded in 1959 to provide complete service, from drawing board to turnkey delivery, for apartment investors. It has upped volume 50% to 100% in each of the last five years. It sold 1,825 units for \$20 million in 1968, earning \$415,000, and it has an order backlog of \$55 million.



BERTOGLIO

Bertoglio's company gets wide new buying power through Redman's 19 scattered plants, and the factories ease the supply problems for his entry into new building areas. He also gets the chance to experiment with modular units and a whole range of experimental products turning up in Redman's labs.

Government housing. Modules may permit Kansas Quality to move deeper into federal and public housing. It built \$3 million worth in 1968 and intends to increase that by 25% this year.

The consolidation will also help Bertoglio overcome some of the materials and labor shortages that will afflict virtually all on-site builders in the next five years. And the new power base may enable him to attract and hold more key executives.

"We'll be able to compensate them for their productivity," he explains.

Bertoglio started as a duplex builder in Kansas City, Kan., on an \$8,000 stake. He switched into apartments in 1962 and began reaching into other states, and he has been reaching ever since. He is now one of the nation's top half dozen apartment builders.

Kansas Quality is one of the few contractors offering the entire range of building services, from feasibility studies through plans and specs to financing arrangements and bidding on a not-to-exceed figure. The company will even assume management and reporting functions if investors request it.

Kansas Quality operates on a wide jointventure basis, and Bertoglio and Redman got together during venture discussions.

Redman's stock split. Redman's directors voted a 2-for-1 stock split on the day of the Kansas Quality acquisition. They also approved the purchase of Albritton Engineering Corp., a manufacturer of aluminum doors and windows in Bryan, Texas, for \$12 million in stock.

Redman's shares traded between 26 and 113 on the American Exchange in 1968 and were selling around 100 the day of the announcement. The company earned \$1.35 million, or 98 cents a share, on \$52.6 million sales in the year ending March 29, 1968 and expects sales of \$125 million in fiscal 1969.

NEWS continued on p. 28



Kingsberry kicks the bugaboos out of apartment building!



Kingsberry provides you with professional help to take full advantage of today's apartment demand. You'd expect Kingsberry to provide you with good apartment plans and soundly engineered construction packages. But Kingsberry does far more, to make apartments a sound and profitable investment for builders.

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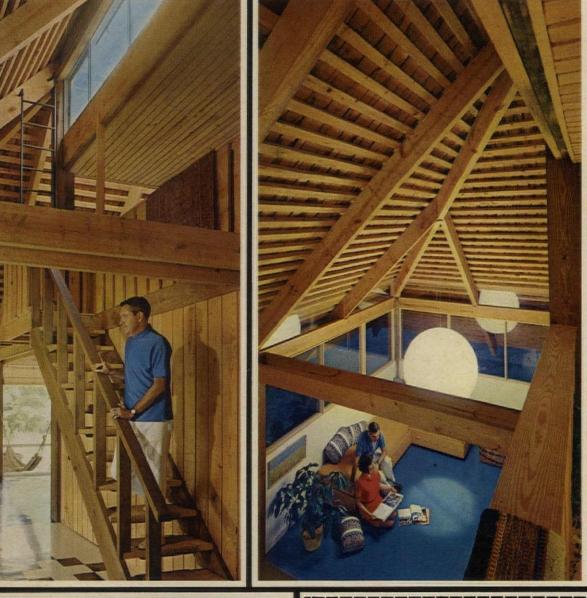




Airy spaciousness keynotes this kitchen, yet every foot has been utilized for the utmost convenience. Year round heating and cooling systems for easily adjustable heat in winter and coolness in summer.

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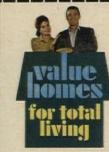
Rough sawn Southern Pine siding lends individual charm and a feeling of harmony with surroundings.

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framing is now coming out in the open with beams, roof decking and posts often exposed to decorate the interior.



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Congressman asks probe of Home Loan Bank Board policy

Rep. Richard T. Hanna has asked Chairman Wright Patman of the House Banking Committee to hold an inquiry into the operations of the Home Loan Bank Board.

The California Democrat says the agency that regulates the nation's savings and loan associations does not know its job.

Hanna contends the board has failed to maintain the growth rate of the S&L system that was prevalent in the 1950s. He blames "an absence of an adequate legislative charter, the lack of aggressive leadership, an inability to influence monetary policy decisions by the Federal Reserve, inadequate staff, preoccupation with regulations and poor management within the industry."

Hanna details his charges in an 80-page preliminary paper. He urges the Patman panel to examine the problems raised by the credit crisis of 1966 and to write legislation creating a bank board more responsive to the nation's housing needs.

Policy questions. The Hanna paper suggests several questions as the basis for an inquiry, and several deal with fundamental board policy. A sampling:

Will other institutions be able to assume such a large share of housing finance that the government need not stabilize the savings and loan industry beyond a certain minimal level?

What are the consequences of instability in the savings and loan industry? What is the cost to the government of insuring stability at a higher level of activity?

To what extent should the board continue to concern itself with general business conditions, such as the level of borrowing rates, to the general detriment of the housing industry?

Breakdown in '66. Hanna concedes that the board has served reasonably well in the past, but he says the squeeze of 1966 showed it is no longer adequate.

"While the system was able to provide its members with sufficient credit to meet the withdrawal demands, it was helpless to provide them with credit for loans that were needed to keep the housing industry stable." Hanna's theme is that the bank board has been unable to keep pace with changing economic patterns—and that the impact on S&Ls has been severe.

"The need for tight controls to assume the soundness of savings and loans may well have given way to the need to encourage increased competitiveness and inventiveness," he says.

Changes. Hanna argues for these structural reforms of the bank system:

• A less restrictive policy, permitting individual s&Ls to take maximum advantage of local conditions and of management resources in attracting and investing funds.

• Increased authority for the 12 district banks. —A.M.

Yeonas Brothers sell out to Olin Mathieson Chemical

The Yeonas Brothers group of familyowned companies was one of the nation's biggest homebuilding operations last year on sales of \$15 million.

Olin Mathieson Chemical Corp. of New York ('67 profit of \$54 million on sales of \$901.1 million) did not disclose how much it paid for the Washington, D.C., homebuilder.

Olin's President Gordon Grand said the building companies would continue under their present management team, headed by Stephen Yeonas. The companies have built 5,000 homes and 26 communities in Washington's Virginia and Maryland suburbs since 1946.

The chemical company also announced an \$80-million expansion of its homebuilding materials, forest products, metals and chemicals production.

The Yeonas deal is the latest in a string of homebuilding acquisitions by large, publicly held companies (News, Jan.).

NEWS continued on p. 32

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A proven product combining the best features of a paint and a stain, Cabot's Old Virginia Tints offer unique advantages to the builder and architect.

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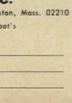
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Yes, I'm interested in		atic Shower/Bath control. Please send ave my local Powers Sales Engineer call for
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When they said, "Give us a home that takes care of itself"...the men at Reynolds

gave them one with aluminum in 49 places.

There's a house out in Wilmette, Illinois that's a lazy man's dream. It uses 49 different aluminum building products. Over four tons of aluminum, and just about every pound will save the owner work. It was built by the men at Reynolds to show just how many ways this metal can be used to make a homeowner's life easier.

The four handsome, classic columns in front, for example—extruded Reynolds Aluminum with a tough, baked-on enamel finish that will look new for years without repainting. Same goes for the siding and shutters made of Reynolds Aluminum; they will never rust, rot, chip, or peel.

The men at Reynolds developed prepainted aluminum Colorweld[®] back in 1955. And builders, as well as homeowners, have had good reason to be grateful ever since.

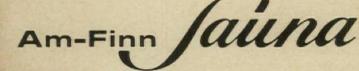
Those good-looking charcoal gray aluminum roof shingles and the easy-to-install roll soffit under the eaves are also products of the design engineering group at Reynolds.

Other aluminum work-savers in the house include the acoustical ceilings, windows and sliding doors, self-storing and combination doors, ductwork, column and railing kits, electrical conduit, flashing, gutters and downspouts, garage door, louvers and vents, even closet rods, screws and nails.

The men at Reynolds are old hands at developing new ways to save work and trouble for you and your customers. They can show you a houseful of ideas to help you build a better house or commercial building with aluminum. Call your local Reynolds office or use the coupon below.

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Please have a salesman call on me. Send me a complete Reynolds Product File.					
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What every over-confident builder should know about





If you're already offering free refrigerator-freezer, dishwasher, washer, dryer, self-clean oven and free home owners' policy in your new houses . . . or all this plus pool and 9-hole golf course in your latest apartment building . . . you may think you're a big jump ahead of the competition.

Don't believe it!

You're probably just neck-and-neck with the guy down the street.

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NEWS continued from p. 28



WOOD HUT was home to Seminole.

NEW HOME has appliances, rug.

Photos: Francis Gardner

Boatmaker builds a hull of a house for only \$2,500-to satisfy LBJ

The low, low-cost house must have delighted former President Johnson as much as it pleased the Seminole basket weaver who bought it.

After viewing low-cost houses in Central America last summer, President Johnson pleaded with the FHA to encourage such housing in the United States.

"I can buy an automobile for \$2,000, but I can't buy a home for less than \$7,700," he complained. "I want you to get me a house for \$2,500."

So the FHA stepped up a nationwide house hunt. Several mobile home makers built promising models, but none costed in below \$5,000 until inventor Larry Vita turned a boat hull upside down and added a front door.

Vita builds boats and homes in Fort Lauderdale, Fla. He had been experimenting with a porcelain-finish fiberboard for eight years. He reasoned that his lowcost panels could be used to sheathe houses as well as boats.

Vita heard one of the President's speeches about low-cost housing and telephoned the White House. A week later he was working with FHA's **Charles Dieman**, who has a reputation as a can-do bureaucrat,* and with FHA architect **Louis Cimijotti**.

Says Cimijotti: "The most exciting aspect of Vita's plans was Vita himself. He's a real inventor. He already holds eight patents, and he has another 15 pending."

Within two months the team had drawn plans for a house costing 2,500 without land. Enough lightweight panels for four 16' x 32' houses could be hauled by one low-boy truck, and four men could erect a prefab house in four hours (*photos, right*).

To escape building code restrictions, Vita sited the house on federal land—a Seminole reservation near West Hollywood, Fla. And he built it on December 24 as a symbolic Christmas gift to the outgoing President.

703 H

> The house gets a 25-year mortgage, insured under FHA's Sec. 233 for experimental projects.

> * Dieman was one of House & Home's Top Performers in 1968 (H&H, Jan.).

Monthly payments are \$26, which is within the budget of homebuyer **Ann Doctor.** Mrs. Doctor, a basket weaver, earns \$33 a week.

Says Cimijotti: "The house should prove that builders don't need \$1 million for the government to build a low-cost home." And, adds Vita: "I can make a decent profit."



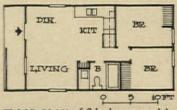
FRAME and floor up at 9 a.m.



SHELL nearly ready by 10 a.m.

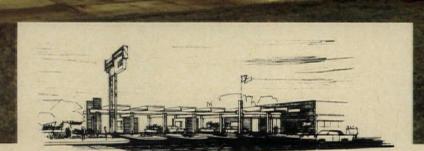


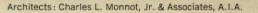
HOUSE awaits buyer at noon.



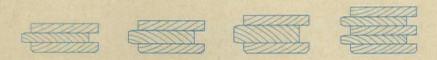
FLOOR PLAN of 2-bedroom model.

ARCHITECT BANKS ON LOCK-DECK[®] DECKING TO SOLVE DESIGN PROBLEM





Potlatch Lock-Deck[®] decking and laminated beams were specified as the complete roof system for this unusual drive-in bank building in Duncan, Oklahoma. They also form the integral basis for the structural design. The major criteria were permanent, durable appearance combined with capability for dismantling and moving. For more information on this unusual commercial structure write for a special Architectural Report on Drive-through Bank.





Lock-Deck is available in 4 thicknesses and factory finished in 14 colors, Electro-Lam beams in all sections up to 162 sq. in., lengths to 60'.

For details see SWEET'S Architectural File 1c/Po



Keeping pace with the current housing revolution and the new market which is beginning to take shape, the H. B. Ives Company is constantly adding new products and finishes to its already famous line of superior quality hardware. Today, Ives makes available to you 26 different lines in its pace-setting, budget-priced, self-service Bin-Pak. lves complete line of commercial and residential builder's hardware consists of more than 350 different hardware products in a wide range of finishes

Send for full line brochure.





New Haven, Connecticut

continued from p. 32



LEVITT'S PRAVER New manager for the North



LEVITT'S KAMUF New manager for the South

Major reorganization at Levitt

The nation's largest homebuilder, known for its autocratic central control of branch managers, has just created fully autonomous northern, southern, and midwestern divisions.

This change signals a drastic shift in management philosophy for Levitt & Sons, once run as the fiefdom of homebuilding king William Jaird Levitt.

The company, the first to build houses simultaneously in a dozen markets, used to appoint local managers who answered directly to a team of top executives at the Lake Success headquarters on Long Island.

But as the company grew, top executives found it difficult to monitor day-to-day operations. Says Levitt's new publicist, Jane Sharkey: "The top marketing man, for example, had difficulty just traveling around to all the subdivisions."

In an inter-office memo, President Richard Wasserman pointed out that the management shift also reflects a change in the kind of houses the company plans to build:

"Until now we have built essentially the same product in all markets. But we will be building new products, and we will be entering new markets that stretch over greater areas."

Douglas forms housing consultant group

Former Senator Paul Douglas has founded a nonprofit consultant group to aid private business in efforts to produce low-income housing.

Douglas said the National Housing Foundation, which will have headquarters in Washington, will encourage local coalitions of businessmen to promote better housing.

The foundation's trustees in-

Marincello's dreamer, Tom Frouge, is dead

Thomas Frouge, 54, who tried to build a new town across the bay from San Francisco, died of a cerebral hemorrhage Jan. 5 in New York City. His heart was later transplanted.

Frouge, an eastern builder, fought conservationists and credi-

He added: "The home staff must no longer be directly involved in the day-to-day routine of local markets if it is to plan for expansion."

The new regional managers will have full staffs to handle land purchases, merchandising and legal problems. The Lake Success staff will be available for questions.

Herbert Praver, the former senior vice president of all Levitt operations, becomes senior vice president for the northern division of New York, New Jersey and Pennsylvania. Nelson Kamuf, the former senior vice president for technical services, gets the South, which stretches from Washington, D.C. to Florida.

Richard Weiss, hired away last month by brother-in-law Lawrence Weinberg of California's Larwin Group, was in line for the mid-western command of Chicago and Detroit. Executive Vice President Richard L. Bernhard, who is responsible for all Levitt production, will manage the Midwest until a regional manager is named. Vice President Donald B. Ed-

wards in Puerto Rico will continue to report directly to Bernhard, who managed Island production until his promotion last year. And Regional Manager Andrew Lorant of France continues to report to Wasserman.

clude Milton P. Semer, former HUD general counsel; Charles A. Wellman, California savings and loan leader; James Price, chairman of National Homes Corp. and Richard O'Neill, editor of HOUSE & HOME.

O'Neill was a member of Douglas's Commission on Urban Problems, which issued its assessment of the state of American housing in December.

tors during the last four years in an effort to start his 2,138-acre new town, Marincello. Construction has not begun, but a Frouge Corporation spokesman says the death will not alter development plans. The company is now headed by Tom's brother John.

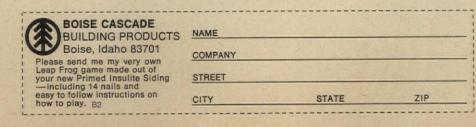
Play Leap Frog with our brand new Primed Insulite Siding

Send today for your very own Leap Frog game. It cleverly combines a challenge or two, and a little fun, with some serious business. And, it's free.

Although Leap Frog is a simple game, it's likely to try your patience. The rules state that you may only take a nail from the board after having "jumped" it with another. The object is to remove all but one lonely nail.

Naturally, the Leap Frog board itself is a rectangle of new Boise Cascade Primed Insulite Siding. Since you'll be staring at it for a while, there are a few things you should remember. For instance, new Primed Insulite Siding is "curtain coated" for a smooth and uniform surface. This special prime-coated surface makes painting a snap, which is a pretty big deal when you're talking about painting a whole house. Furthermore, Primed Insulite Siding has great dimensional stability. Once you've put it up, it won't "move" on the wall. It's also easy to nail, without the necessity to pre-drill, and has printed Guide Lines — top and bottom — for fast and accurate installation.

It's easy to be the first builder on your block to have a Leap Frog Game made out of our new Primed Insulite Siding. Just mail us the coupon. Or, if you can't stand games of any kind, simply call your local Boise Cascade dealer and order long, 16' rectangles of new Primed Insulite Siding. You can choose from three types: Horizontal Lap, Vertical Grooved Panels, and Plain Panels. Unlike Leap Frog, you just can't lose.



How new golf courses can save \$17,141 with AstroTurf[®] tees and greens

Here's what you won't need:

7 Power Green Mowers	\$ 3,640.00
1 Power Vertical Mower	620.00
2 Triplex Mowers	4,150.00
1 Power Sprayer-150 gal.	1,230.00
2 Power Aerators	1,410.00
1 Power Spiker	440.00
1 Rotovator	835.00
1 Power Top Dresser	965.00
1 Power Drag Mat	440.00
2 Fertilizer Spreaders	146.00
2 Hole Cutters	60.00
18 Cups	85.00
95 Green & Tee Valves	1,900.00
36 Tee & Green Sprinklers	720.00
Water Pipe	500.00
Total	\$17,141.00
Based on equipment recommended	for 18 tees
and greens by United States Golf	Association

E stablishment and maintenance of tees and greens used to be the expensive part of operating a golf course. Our list gives you some idea. AstroTurf tees and greens eliminate the need for a lot of costly equipment and supplies. They free your maintenance crew for other work. How?

AstroTurf is a grass-like, grass-green, nylon surface for tees and greens. It replaces grass in these critical areas. No seeding, feeding, weeding, watering, or de-bugging. And AstroTurf is instant. Install it and play on it right away.

For tees, AstroTurf is incredibly longwearing. Tee installations still look brand new in their second year at clubs across the nation. Club head slashes that ruined a turf tee never hurt Astro-Turf tees. (One AstroTurf tee, 15 ft. x 20 ft., costs \$750 plus installation.)

For greens, AstroTurf matches the playability of the nation's finest grass greens. Even the "bite," bounce and roll are the same. We tested 120 fine grass greens around the nation. Then we carefully engineered AstroTurf to play as well or better. Its allover uniformity eliminates putting hazards like mold spots, spike holes and worn areas. (One AstroTurf green, 4,000 sq. ft., costs \$8,450 plus installation.)

AstroTurf tees and greens are an investment in rapid readiness, minimum maintenance, and good play for a longer season. For complete information and a list of installations near you, write: Monsanto Company, Dept. 157, 800 N. Lindbergh Blvd., St. Louis, Mo. 63166.



AstroTurf tee at Bermuda Dunes Country Club, Palm Springs, California



Houston guide

H&H: Your Houston section in the December issue is really first rate. All of us appreciate the fine job. It created only one problem: All of a sudden our registrations have increased even more. I don't know how much of this popularity we can stand.

M. RAY NIBLACK, assistant executive vice president

National Association of Home Builders

Washington, D.C.

H&H: I would like to compliment you and thank you for the worthwhile service HOUSE & HOME gives to the builder and developer.

I have particularly enjoyed your Houston guide, as I had written for information on things to see and do, and your magazine provided much better information than I was able to obtain.

EUGENE RACKLEY Greenville, S.C.

Bob Schmitt in Strongsville

H&H: A belated letter of congratulations on your December article about Strongsville and [builder] Bob Schmitt.

Your reporter told it like it was, but the recall group didn't win that easily. Although [Mayor William] Behr was defeated by 433 votes, he and his lawyers brought another suit saying the wording on the ballot was confusing. This dragged on until December 20 when the court ruled the recall was legal.

[Dale] Finley is now mayor. Behr can take the case to a higher court. But he is out of office and does not have the backing he had.

While all the post-election court hearings were going on, an almost-completed home here in Ledgewood was bombed. A nice professional job—extensive damage, no clues.

If the bombing was supposed to scare us out, it had the opposite effect. The residents are just plain mad. No one has sold out, and I don't think any new buyers have been discouraged. We know we have something lovely here and are determined to protect our dream. Just like a serial in Ladies Home Journal,

Just like a serial in Ladies Home Journal, the events keep piling up. Mr. Ramsey, a Behr man defeated in his council bid and law suit to retain his seat, is filing another court case. [Robert] Lavery, union leader, has just been named the head of the Democratic party here in Strongsville. The beat goes on!

Keep tuned to our wave length. I don't feel we are out of the woods yet.

[MRS.] DOROTHY SIVEWRIGHT Strongsville, Ohio

Mrs. Sivewright and her husband own a house in builder Schmitt's new project.—ED.

H&H: That's a damn fine roundup on Strongsville. Hope you stick with the story.

GRADY CLAY, editor

Landscape Architecture Quarterly Louisville, Ky.

No-maintenance windows

H&H: In your December article on vinyl-clad wood windows and sliding doors for lowincome federal housing, you report:

"The other two [types of no-maintenance window units], comparably priced, were plastic-coated steel and coated aluminum. Vinylclad wood won out because it promised a higher 'R' value (thermal resistance) and because the architect had already had success with it in his own home."

We dispute that statement.

Our company has more than 50 installers,

servicemen and salesmen who are in daily contact with homeowners, apartment dwellers and builders. We have not found any convincing relationship between the type of window used and heating costs. As a matter of fact, we have found in a certain type and size of construction that the use of aluminum windows without storm windows had a lower heating cost than a similar construction using wood windows with storm windows, although at times we found the reverse to be true.

I think it can be concluded that heating costs are predominantly determined by the following: the living habits of individual families, the construction of the home or apartment, properly zoned heating, carefully supervised construction, proper insulation.

Certainly, any slight savings in fuel costs, even if true, would not justify, particularly in low-income housing, the tremendous difference in basic costs between the vinyl-clad windows and coated aluminum.

J. LEON FRIEDMAN, president Porta Aluminum Inc. Old Bethpage, N.Y.

If any reader has documented figures showing the relative effects on apartment construction, heating and maintenance costs of coated aluminum windows and vinyl-clad wood windows, H&H will gladly publish them whether they bear out or dispute reader Friedman's claims. ---ED.

More on mobile homes

H&H: After reading your October editorial several times, I feel that you are not as informed about developments in mobile homes as you could be. I also think you are confused about the real cost of living in a conventional single-family dwelling, which certainly includes more than just the monthly payment.

You note that the mobile-home price does not include many of the things that a singlefamily dwelling includes. This is not entirely so. In some projects a mobile home and property are sold as a package. In addition, the FHA is guaranteeing 25- and 30-year mortgages on an experimental basis in several areas, including one major city in Michigan. In fact, the U.S. Standards Institute Code 119.1 has been accepted in one of our cities, and FHA will guarantee the mortgage of the unit and the property plus improvements for a period of 30 years. I admit that this is only a beginning, but I think in five years you are going to see thousands of areas with conventionally-mortgaged mobile homes.

I disagree with your contention that adequately maintained houses appreciate. Generally, it's not the house that appreciates; it's the land, the location, interest rates, service fees and inflation. In fact, there are many times when an older home actually depreciates the property on which it sets because the home must be removed before the property can be used for its best purpose.

You could be quite right regarding the cost of a mobile home and all the extras totaling what the permanent cost of a mortgage would be for a \$25,000 house, However, the mortgage on that \$25,000 house would commit the owner for 20 to 30 years, whereas, the cost of mobile living would be drastically reduced at the five- to seven-year point. It seems to me that people, whether they move or not, are interested in the total cost of living for a long period rather than in the superficial criteria of the monthly payment.

DANIEL A. DOWSETT, executive director Michigan Mobile Home Assn. Detroit

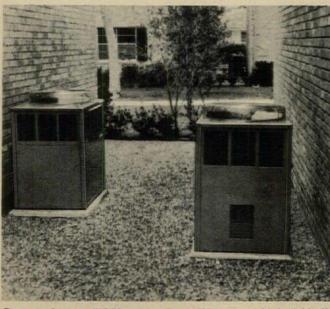
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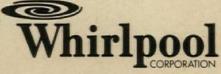
Flagler Gardens, situated in a tree-shaded park facing Lake Worth in West Palm Beach, is a complex of one and twobedroom apartments designed for pleasant adult living.

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Whirlpool central gas air conditioners are the choice in thousands of installations throughout the country because of their proven efficiency. Advanced design, including forced circulation of the ammonia-water solution by a diaphragm pump, together with the economies of gas, often provides savings in operating costs of 25% to 50% over other central air conditioners.

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and about the wide selection of Whirlpool central gas furnaces.



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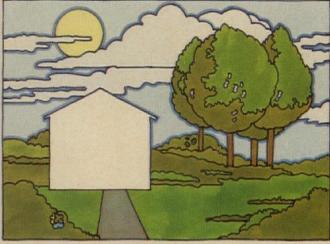
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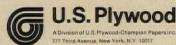


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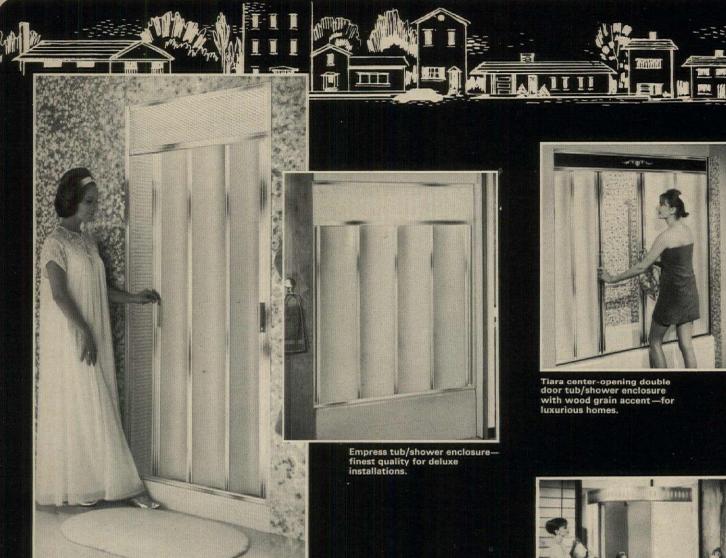
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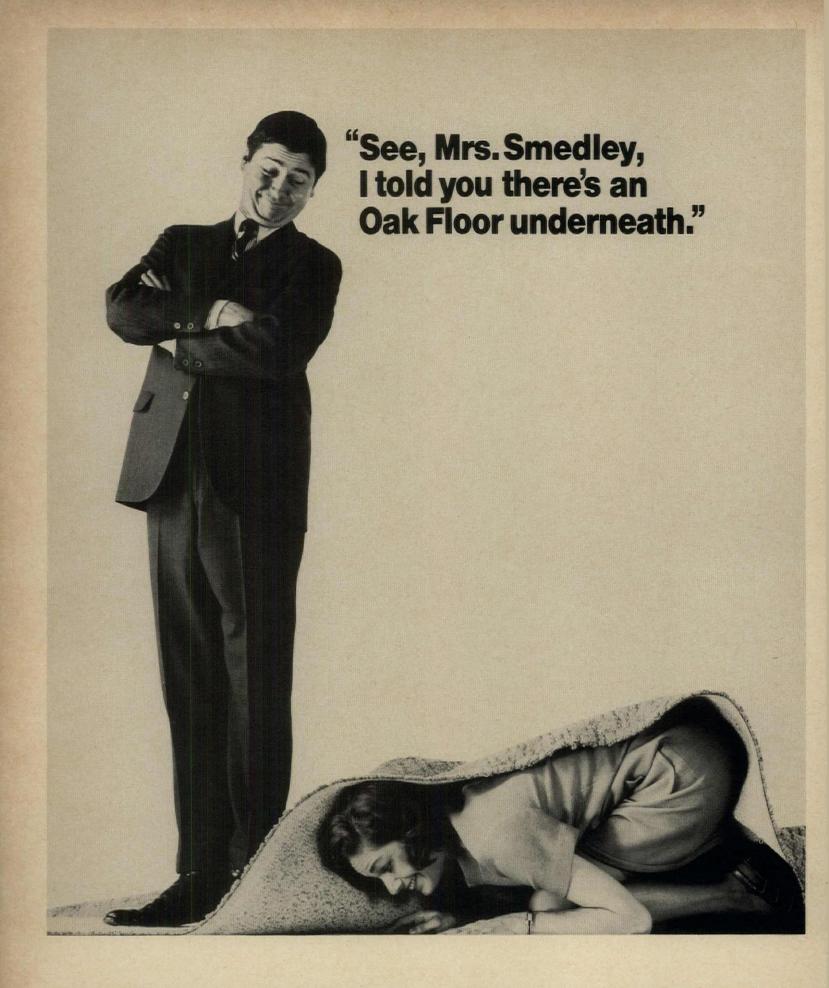


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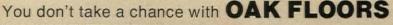
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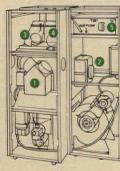


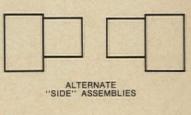
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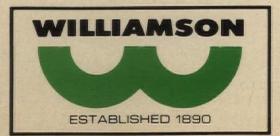
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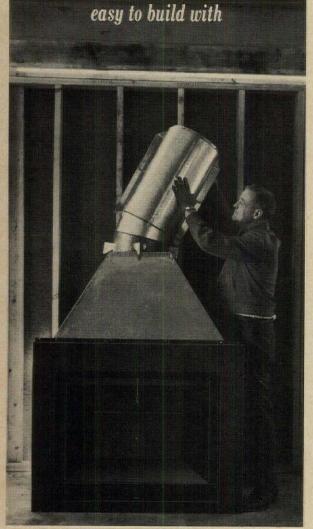


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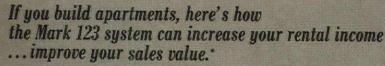
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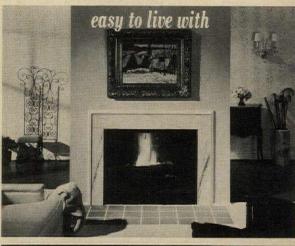


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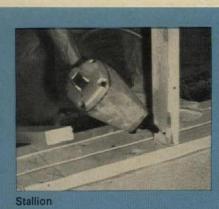






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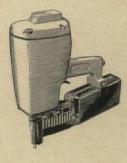


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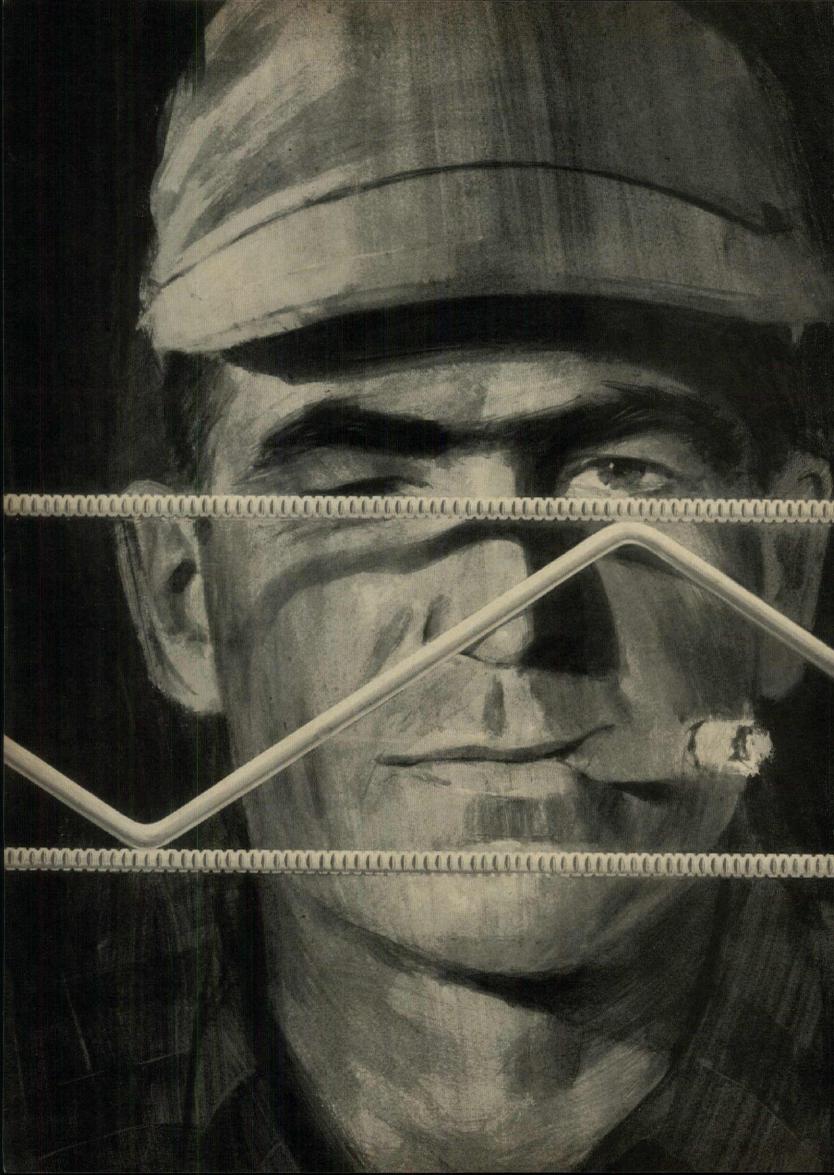
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House & Home

FEBRUARY 1969

EDITORIAL

The new language

We've all heard so much from the really big minds that we thought some definitions would be in order

Well, neighbors, there are a lot of folks outside our industry who think we have our bib overalls on backwards. They want to play a whole new ball game in housing and just leave us sandlotters out. But we still

think you might be interested in the new language these folks use in talking to themselves. So here are the definitions of some of the more important words in their lexicon:

- **block grant:** a piece of cake big enough to satisfy almost everybody in the state capital
- **bureaucracy:** a voluntary association of fun-loving kids, dedicated to helping each other out . . . and in
- **catalytic effect:** term used to describe a punch in the nose, being caught in flagrante delicto (Have you ever been seated in an outhouse when it was turned over?)
- central city: a rock-and-roll joint featuring "Government-By-Crisis" and the Deeply Concerned Five and their following, too
- cleanliness of line: phrase used by architects to describe work of other architects they wish would drop dead
- clout: what the head honcho has (and won't say how he got it)
- coherence: metaphysical term meaning "let it all hang out"
- commitment: what you must have continuity of . . . especially if you're running for office community participation: group therapy
- compensatory: a municipal ordinance the en-
- forcement of which insures that everybody gets theirs
- consensus: an agreement between two community groups on how to divvy up the boodle coordinate: to referee meetings between planners
- and communities
- creative play: password for getting into PTA meetings
- crunch: fourth and goal, and their red dog works
- **delivery system:** bringing home the pork barrel **dialogue:** maybe I'll listen to you, if you listen to me first
- economic utilization: phrase used by speculators to justify turning the only natural asset left in town into a parking lot
- enrichment: making it go over the budget
- environmental control: telling all your employees to shut up and listen
- **expedite:** preferential treatment given to the head honcho with the clout
- extrapolate: faking it
- feedback: an East Indian knockwurst consumed at ritual meetings of the planning commission

- Hexibility: a discotheque just two blocks away that accommodates everybody, including wedding parties, graduations, bar mitzvahs, communion breakfasts, even your Aunt Lillian
- glacial pace: the Building Department working at top speed
- housing mix: just add planners, heat to 325° for a nice crisp brouhaha
- housing phase: something everyone has to go through
- human scale: what buildings that come in way over budget have
- indigenous: a local pastry consumed in large quantities at block parties
- individual value: a hand-painted luminous necktie
- input: none of your business (see output)
- interface: a condition describing one whose nose has been rubbed in it
- involved: getting caught with your hand in the till
- limited dividend: an incantation
- **long-term investment:** a short-term investment that doesn't pay off
- maximum feasibility: served frequently at planning sessions, a Cambridge delicacy made of hot air, grand plans, passionate credulity and deep dedication . . . pinch of involvement couldn't hurt
- **methodology:** litany recited frequently by the engineering faculty to assure themselves that they still have a job
- mission-oriented: an engineer who holds a degree in being smarter than everybody else, unusually useful in applying stucco to fake Spanish design
- **money:** an authorization that turns into an appropriation, especially when no one thought it had a chance
- national dividend: the last piece of cake left over from the fun party
- national priorities: military domains held closely by certain Congressional committees
- new technologies: buzz word at the B-school, replacing touch football in Chevy Chase
- **new town:** a technique used by wishful thinkers to keep cash flow on big investments down to a mere trickle

non-profit: ritual mythology used to invoke low-cost miracles

- output: you couldn't understand it anyhow (see input)
- overview: blind-man's bluff, a game that starts when the faculty cocktail party starts falling apart
- parameters: an enveloping garment, sort of like long-handles, but with directions as to which part goes where
- **peripheral sprawl:** a posture assumed by architects when infuriated by the free movement of the private sector
- **pilot project:** a job that takes up all the money you could raise
- private enterprise: anybody who can make it work
- programmed: up tight and promised a commitment
- quality-of-the-environment: new perfume popular among planners
- readout: nagging, almost programmed in its predictability
- rehabilitation: sobering up period
- scale: what architects weigh their drawings on, to determine how much
- **strategy:** an excuse used by city planners to explain why nothing ever happens
- synergistic effect: how the whole damned program got out of hand
- systems analysis: examining the entrails of a frog for augurs of good times ahead
- tax shelter: something for rainy days and favorite grandchildren
- The People: your own private cheering section upward mobility: the ability to goof off in grad-
- uate school while your wife works to support both of you
- urbanologist: a guy who can tell by looking at you how much you can afford in consulting fees urban overhead: when you're living over your income in downtown Pottstown
- vest-pocket park: a concealed instrument used by planners to get their way
- viable: an enterprise that architects, bureaucrats, deep thinkers, sweet people, even journalists can't kill — RICHARD W. O'NEILL

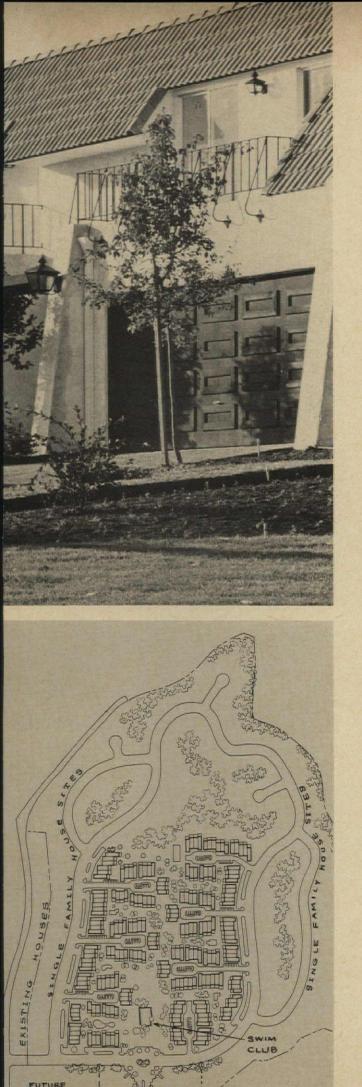


STREET VIEW shows facades softened by sloping tile roofs and deeply recessed second-floor decks.

SITE PLAN puts townhouses at center, large (to ½-acre) single-family house lots on high ground at sides and rear. Apartments and shopping will be started later.

REAR VIEW shows walled courts that give privacy from adjoining houses and bordering greenbelt.

Photos: Ernest Braun



FUTURE LUKURY

FICES SHOPPING Builders Wayne Brown and Sam Kauffmann sell already well-housed families with

Townhouses for the homeowner who has everythingbut doesn't want it

Well, maybe not quite everything. But the first buyers of these townhouses are mainly residents of nearby San Francisco suburbs who used to own detached houses valued as high as \$115,000. Most of these expensive houses required a good deal of upkeep, much of it by hard-to-get house and grounds employees; most contained valuable furnishings and possessions that made the house vulnerable when unoccupied; most were too big for a family whose children were grown and married, or off to college. In moving to Rinconada Hills, these buyers are grading down in price (\$38,750 to \$49,500), but up in the kind of living that they really want. And even before the January 15th opening of the project, almost two dozen of them had put down deposits.

What is the way of life these buyers want?

Mobility. These families travel a lot, both for business and pleasure, and they want to be able to turn the key in the door without having to worry about maintenance and protection of their property. Often they own vacation homes in distant areas, and they may stay there for weeks, or even months.

For example: one buyer sold his \$115,-000 house, bought both a Rinconada Hills townhouse and a small home in Palm Springs, and plans to divide his time between the two.

Convenience. Although the B&K townhouses are not small (up to 2,212 KAUFFMANN

sq.ft.), they aren't anywhere near as big as the houses that most buyers left behind. And all exterior maintenance is taken care of by a homeowners' association.

Privacy. Walled yards and interior courts protect residents from passersby, and sightlines from one unit to another are carefully blocked by walls and setbacks. Party walls soundproof each town-



continued

house from its neighbors; this is one of the strongest appeals Rinconada Hills has in competition with luxury apartments.

Environment. Rinconada Hills buyers have left fine suburbs and exurbs, and they demand the same atmosphere in any new housing. The design of the units (a contemporary derivative of early California style), the landscaping, the groves of old eucalyptus trees, the security guard at the main gate, the expensive single-family house sites around the perimeter of the property, all assure buyers that they are moving to a community as good as the one they left.

The 220 townhouses are the first stage in a planned unit development that is a joint venture

between B&K and Weyerhaeuser Co., the giant lumber producer. The PUD will eventually include 150 single-family house sites up to a half acre in size, 159 luxury apartments, a private swim club, a 10-acre shopping center and



seven acres of professional and office space. Among its other advantages, the planned unit concept permitted building the townhouses and roads on the treeless hills, thus saving groves of mature eucalyptus trees in the valleys.

About half the single-family sites will be sold off for custom houses, and half will be developed with semi-custom versions of B&K models now being built in nearby subdivisions.

Says Wayne Brown: "We feel that the custom houses will bring to Rinconada a measure of diversity that would be impossible under a single designer and builder. But we will retain design control because we wouldn't want the community hurt by an ill-conceived design."

Townhouse sales at Rinconada will be all plus business for B&K, which has built over 3,000 singlefamily detached houses in the suburban San Francisco area since 1954, and which expects to continue selling them at the rate of 250 a year in con-

ventional subdivisions. (Price range: \$30,000-\$50,000.)

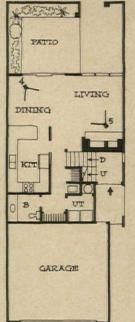
Rinconada Hills and its new townhouses are the first complete development done by the company's new design department, organized under the direction of architect Donald Blair in 1967. Blair, who had been in private practice in Portland, Ore., since 1955, had won dozens of awards for his custom houses and apartments, but had months at a time. They owned never worked with a merchant builder. a large home when their chil-

Blair says of his new assignment:

"The greatest asset is in having ex- a B&K townhouse. perts in every phase of housing immediately available. Answers are quick and accurate, and you don't have to wait until a project is half finished to find out if it's feasible. If something won't work, you'll be told mighty fast."



Mr. & Mrs. Harry Leiter are often travel dren were young, then bought a smaller house, finally bought





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LOWER LEVEL

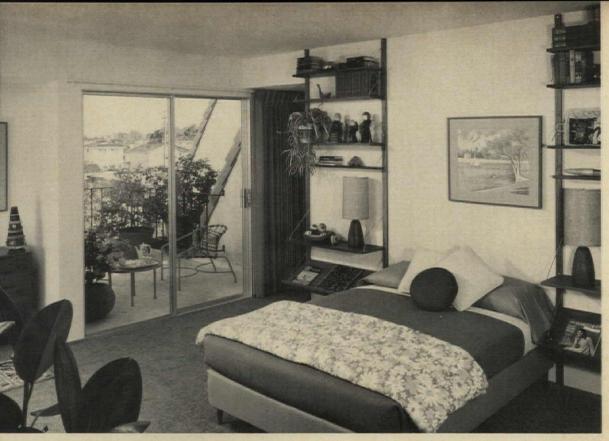
two bedrooms and 21/2 baths, Bedroom/den opens to the two-story living room or can be curtained off, making model ideal for a couple with occasional guests, a common market demand. This is B&K's only model without an interior patio.

\$45,000, TWO-STORY plan has

TWO-STORY LIVING ROOM with free-standing fireplace chimney adds feeling of spaciousness to both first and second floors.

Photos: Ernest Braun







MASTER BEDROOM is really a suite (*plan, opposite*) with its own dressing room and bath, a large walk-in closet, and a private balcony (*photo, left*), partially sheltered by an overhanging roof.

BALCONY BEDROOM/DEN (right) can be closed off from living area below by folding doors. Living room windows (right in photo) extend well above the second-floor level.

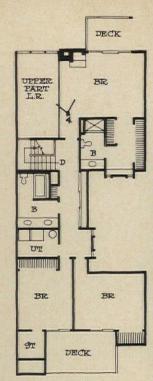
DINING AREA (below) is off living room, and directly below balcony bedroom (photo right). A passthrough opens area to the kitchen, still retains adequate feeling of separation.

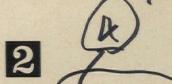




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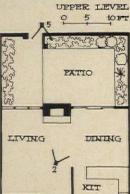






\$49,500 TWO-BEDROOM PLAN (right), project's largest, has three bedrooms and 2½ baths. Four separate outdoor areas give every room access to outdoors by either a deck or a patio.

GARDEN ROOM (*left*) gives all-important first impression to visitors. Floor is Mexican clay tile, and high side wall allows complete privacy. Jalousie windows flank wood paneling above outdoor snack bar.

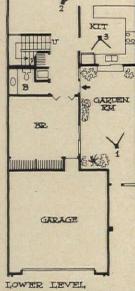




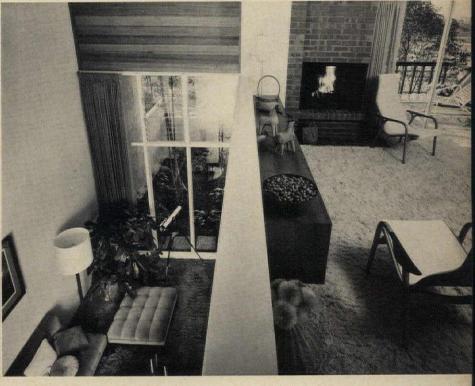
LIVING, DINING AREAS share fireplace, but can be completely separated by ceiling-track-mounted drapes. Paneled dining-room wall adds a touch of luxury.

KITCHEN WINDOW (*right*) is counter high. It can be used as a service pass-through for dining on the patio, also gives a supervisory view of front entry. This is a townhouse version of California's famous indoor-outdoor kitchen.







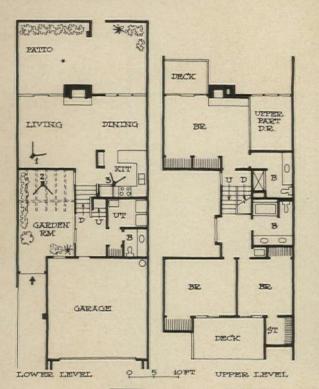


BEDROOM FIREPLACE (above) adds opulence to master suite. Two-story living room is at left.

REAR PATIO (*left*) is hidden behind stucco wall for privacy. Deck opens off master bedroom above.

continued

TOWNHOUSE MARKET continued



3

\$47,500, TWO-STORY PLAN (above) brings visitors down a long covered entry into an intimate courtyard (photo, below). The three bedrooms are all on the upper floor, but the master suite is on a different level, hence separate from the family and guest bedrooms.

dining area, is planned for minimum maintenance by families who don't want grounds work.



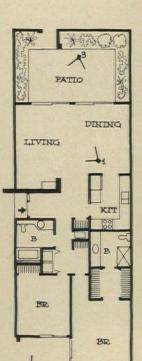
Photos: Ernest Braun

LIVING/DINING AREA (above) has brick and board-paneled fireplace flanked by glass walls that look out onto rear patio.

MODERN KITCHEN (below) has cabinets without protruding pulls, and luminous ceiling. Architect Donald Blair uses simple detailing for all ENTRY COURT (below) has trellised finish trim to help keep costs down without sacrificing the look of cus-tom construction that this market demands.









VAULTED CEILING (*above*) in living/dining area gives an open feeling to match the two-story living rooms in the other three models. Job in rear patio walls blocks view of passersby through entry.

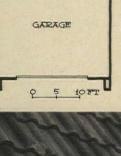
SMALL PATIO (*right*) is shared by bedrooms, each of which has sliding glass doors opening into it. Garage entrance is out of picture at right (*plan*, *left*).





\$38,750, ONE-STORY PLAN (right) is only single-level plan, lowest in price. Its side entry requires that it be located at one end of the townhouse blocks.

LARGE PATIO (*below*) extends the full width of the living/dining area. Pitch of red tile roof brings soffit height down to the 6'8" door-header level. Units at right show how staggered siting helps create outdoor privacy.

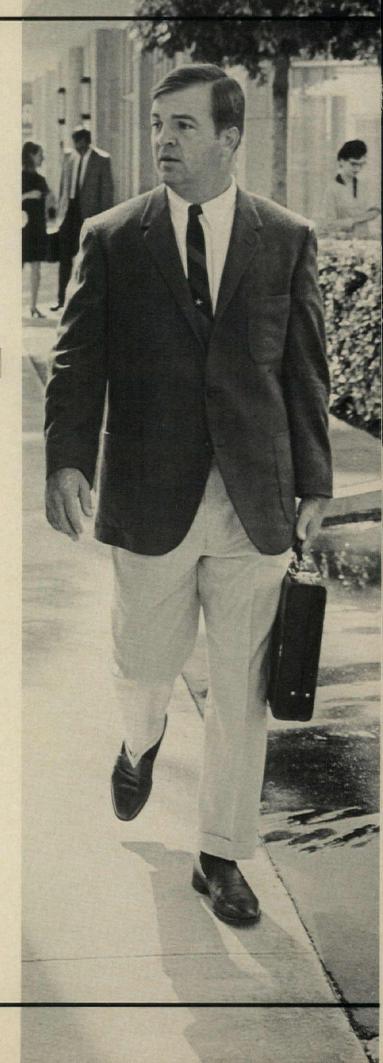




He calls himself "the nation's No. 1 landlord." Does he deserve the title? Judge for yourself as you read...

How this 34-year-old runs a nationwide apartment empire

His name is Walter Judd Kassuba. His empire is 35,000 garden apartments-17,000 rented, 5,000 under construction and 13,000 in final planning-in 14 states from Florida to Washington. And he's got a new twist. He not only retains all the apartments he builds (instead of selling them to investors) but operates them like a national motel chain. His national-brand advertising and his national quality and performance standards-old hat to Holiday Inn and Statlerare making him unique in the apartment industry. Says Kassuba: "I'm after a market that no one else has ever tried to claim." If the market is unique, so is the immensity of some of its problems. But this young man who worked his way up from fourplexes and eightplexes in Milwaukee has been keeping on top of the problems with a sensitive cost-control system that he never stops refining. For a closer look at Kassuba's ambitious empire and the system that makes it run. start reading the next page.



Kassuba bases his empire on a broad rental market: middle-income families

At least 90% of his apartments are within middle-income rental ranges: \$125 to \$175 for one bedroom, \$160 to \$210 for two bedrooms, \$180 to \$240 for three. The balance of his units cater to students near large university campuses in Texas, Florida and Michigan. Kassuba mixes students and families in a few projects but never in the same buildings.

Until recently he has built in cities of all sizes. But from now on he will leave the smaller cities alone and concentrate on large metropolitan areas. His reason: "We've found it's not very profitable to build in scattered cities that can't support more than one or two of our projects. The economics of managing those scattered jobs is against us. Our future is in developing large numbers of units in fairly consolidated areas."

Kassuba has already taken this approach in the Chicago market where he now has more than 10,000 units. Though his Kassuba Development Corp. is headquartered in Palm Beach, he keeps an area office in Chicago and also in Milwaukee. His 14state territory is officially divided into three regions – Chicago, North and South – supervised from the three offices.

Kassuba plans to consolidate his empire not only in big cities but also in big projects. More than half of his existing projects are well under 500 units. But from now on he will not consider sites unless they can accommodate 600 to 2,000 units, and he has already acquired some that will hold 4,000 units.

Kassuba wants renters to consider him "the nation's No. 1 landlord"

As his advertising explains, "No. 1" is intended to mean the best, not necessarily the biggest.

He is trying to develop and sustain this idea through a centralized advertising program run by a Palm Beach agency, Campbell-Dickey Advertising. Every ad, sign and brochure repeats the same symbols and promotion themes. Besides "No. 1 landlord," the term "Kassuba Trace" is used prominently. "Trace," meaning well-traveled path, is incorporated in every project name-e.g., Berkshire Trace, Meadow Trace, Walnut Trace-and its origin and meaning are always explained in detail in ads and brochures.

So far all of Kassuba's advertising has been local. The agency keeps a bank of assorted newspaper ads, and resident managers simply order them by number. They spend about 60ϕ to 70ϕ per apartment unit on sustaining ads each month, and \$75 per unit when renting up a new project. But a few months ago Kassuba expanded into regional advertising. He took full-page ads in *Life* magazine's Florida and State of Washington editions, aiming them not just at prospective tenants but at lenders and developers as well. For example, one ad asks the reader to write in "if you know a perfect place for a Trace."

While stock symbols and themes may be giving Kassuba a national brand image, they are not always effective in local markets. Says ad agency President Gilbert Dickey: "Sometimes it takes us a while to find the right posture for a local market. Ads that work well for one successful project can turn out to be useless for a new project just a mile away. Both sets of tenants may be in the same age and income group, but one may be professionals and the other workmen. So we keep trying different approaches until we learn how to communicate with them." Company policy is to keep vacancy and turnover within 3%, but in some new projects they range up to 10%.

Kassuba's advertising claims that the quality of his apartments doesn't vary from project to project. And his approach to building them backs up that claim.

Kassuba's production men use his apartments as experimental labs

They run performance tests on virtually every material, product and construction system Kassuba uses. These are usually inuse tests, with the performance data coming from maintenance records, resident managers and construction supervisors. Four examples:

1. One brand of passage lockset is specified for all Kassuba apartments because maintenance and repair records established that it stands up over others.

2. Only light fixtures that dissipate heate.g., wall-hung fixtures-are specified because they minimize lightbulb changing.

3. None of the projects has built-in lawn sprinkler systems because resident managers say they're too hard to maintain.

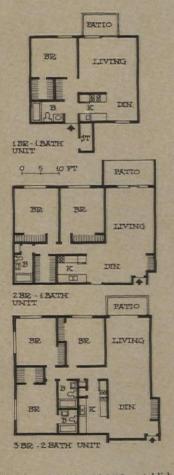
4. Exterior entry doors are heavy aluminum storefront units recessed into building facades to eliminate wind damage. "Experience proved there's not a door built that's strong enough to withstand wind damage," says Vice President Edward Van Leuven, who's in charge of contract negotiation and insurance.

Some of Kassuba's testing is done in manufacturers' laboratories. For example, a company that specializes in sound-deadening materials is helping to determine whether a new subfloor design is good enough to be substituted for Kassuba's standard system of lightweight concrete over wood. The experimental system-two layers of $\frac{1}{2}$ "

WALTER JUDD KASSUBA got an early start on the road to building his apartment empire. He spent summer vacations during college-Marquette University, business administrationworking for his father's Milwaukee real estate firm. At 19 he acquired a Wisconsin real estate license. At 22, two months after he finished college. his father died and he took over the firm. Within two years-including six months of active Army duty-he pushed annual sales from \$2.5 million to \$12 million and turned the firm into the largest commercial real estate company in the state. Next he tried his hand at building small apartment houses for sale to local investors, then built some for himself and tackled apartment management. This proved so rewarding that in 1960 he set up the Kassuba Development Corp. and sold the real estate company. Four years later he shifted his headquarters to Palm Beach, Fla., where he will soon move into a new five-story building tailored to his mushrooming organization. He now devotes most of his time to land acquisition, financing and transferring the problems of apartment management to regional offices which are rapidly becoming autonomous.



DESIGN VARIETY in Kassuba Traces comes largely from use of local architects who add some originality to construction formulas dictated by nationalized purchasing decisions and performance testing. Basic variations are brick veneer in Midwest projects, vertical wood siding on the West Coast, Exterior design is limited by 1) standard windows (currently anodized-aluminum horizontal sliders), 2) standard minimum distance between mud sills and grade and 3) standard siding panels (currently textured plywood and coated hardboard). Kassuba's squarefoot construction costs, as of 12 months ago, ranged from \$9.50 in the South to \$12.50 in the North. His policy on exteriors: "Just make them attractive. The real sales features in our apartments are environment and living space."



STOCK FLOOR PLANS establish square-footage ranges and layout patterns for local architects. As Kassuba considers room size one of his two biggest drawing cards, he tries to squeeze as much living space into floor plans as economics permits. Appliances, cabinets, carpeting and hardware are standardized by central purchasing, and plans are being considered for buying stock interiordecoration packages from one source as mobile-home companies do. mineral-fiber sheathing board under 15%" of hardrock concrete—is typical of the costsaving ideas that Construction Manager Bickley Stevens searches for in a sustained program to find the most practical compromises between highest performance and lowest cost. Says Kassuba: "Obviously, if you plan to keep your apartments, you build differently than if you're planning to sell. But you still can't build a Cadillac for Ford customers."

Feedback from resident managers is vital to this perpetual testing process. For example, the suggestion that all projects might have laminated-plastic kitchen cabinets was resisted by the managers when they learned that a low-cost laminate would have to be used to keep costs in line. The managers objected to the risk of damage—and thus costly repairs—inherent in a cheap laminate. So the only Kassuba projects that have plastic-clad cabinets are in Florida, the only state where builders don't have to pay a premium for cabinets with high-grade laminates.

But Kassuba is willing to pay a premium if maintenance savings compensate for it. He recently installed fiberglass bathtubs with integral sidewalls in one building to see if the extra \$25 per unit would pay for itself by eliminating leaks and grout repairs.

While production, purchasing and maintenance specialists dictate every component in the Kassuba Traces, they do leave room for originality in architecture.

Kassuba's project design is a blend of national formulas and local ideas

Whenever Kassuba moves into new areas, he hires local architects and local land engineers in an attempt to add fresh interpretations to his basic design and land-use guidelines. In planning, his two main objectives are big floor plans and maximum green space.

A basic Kassuba building has a central corridor, patio doors in every unit and covered outdoor parking. Interiors are finished with drywall, stock cabinets without pulls (a maintenance saving), stock hardware and stock sculptured carpeting (17-oz.) bought nationally. Eventually, the interiors, like those in mobile homes, may be finished with interior-decoration packages from a national supplier. Exteriors are suited to regional preferences - e.g., Midwest facades are brick veneer with wood panels under windows, West Coast exteriors are vertical wood siding, usually textured plywood. Buildings are clustered around open courtyards.

Besides these general formulas, Kassuba has guidelines for elevations and use of interior space. Examples: Buildings have to be set higher than many architects like in order to offset all risk of water draining into basements; basement areas must be only large enough to accommodate storage lockers and heating plants (it costs money to clean a basement); floor plans must fall within specified square-footage ranges and layout patterns.

Despite these limitations, Kassuba feels local architects are essential: "They help us avoid cookie-cutter design." He is now in the process of setting up his own architectural staff, but its purpose will be to speed up plan reviews rather than to displace local designers.

Kassuba banks heavily on the appeal of environment. He picks land with interesting features like trees and irregular terrain, also uses aerial surveys to help tailor the buildings to the site. Density averages 16 units per acre. Asphalt is kept to a minimum. But not all of the planning is concerned with esthetics. For the sake of long-term maintenance, much of the land engineering is devoted to site drainage to avoid erosion.

Projects are generally located on or near expressways – making them accessible and easy to see – and within reasonable driving time from shopping centers.

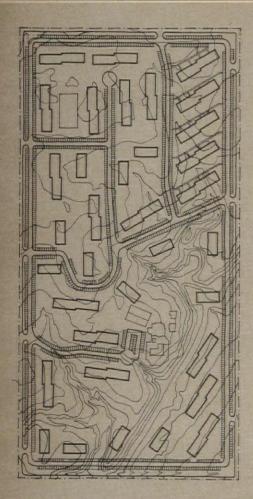
Kassuba develops his projects fast. He starts studying a city only three to six months ahead of site acquisition and begins construction the same year he buys the land. Four months after ground-breaking the first building is opened, and each additional building is finished every two weeks thereafter. From then on the project's success depends largely on headquarters' exhaustive profit-and-loss controls.

Kassuba keeps his projects in line with predetermined cost standards

"Most real estate people aren't oriented to profit and loss," he says. "They don't set up goals and worry about budgets. That's where we're different. I can look at gross income and expenses and see in a hurry where we're headed."

His goals and budgets are dictated by detailed cost standards and controlled by interrelated record forms that make it easy to size up a project's performance. The standards and forms are constantly being refined. "As we get bigger," says Rental-Division Comptroller Larry Baker, "we have to keep making our controls more detailed." A key control, for example, is the monthly Standard & Variance form, which compares standards for project income and expenses with actual figures and notes the variance. This form breaks expenses into 13 categories, but Baker says the breakdown must be still finer.

Standards for each project are reviewed quarterly, and every six months a project's



HILLY KASSUBA SITE for 1,048 apartments in suburban Chicago is a former golf course. Planners used maximum density, 14 units per acre, but carefully preserved land's character.



performance is analyzed in relation to its market.

If income for an established project falls below standard, Kassuba takes three steps: 1) uses professional shoppers to test the sales ability of the resident manager, 2) reviews the advertising program to see if it should be stepped up and 3) scrutinizes expenses for some previously overlooked problem like a resident manager who isn't supervising his labor force properly.

Kassuba turns his resident managers into businessmen and administrators

Full-time janitors and local contractors handle the maintenance work. The manager, working within an annual budget, is accountable for his project's cash flow and deals directly with all repair men and suppliers. Income is collected at the project and bills are paid from Palm Beach but through the manager. He is the only direct contact between headquarters and his project.

The resident managers are paid bonuses based on profit. So they have a vested interest in keeping expenses down.

Kassuba prefers managers with some business knowledge-generally couples between 40 and 55 – and pays them from \$10,000 to \$16,000 depending on project size. They are first trained in an established project for about a month, then assigned to one of the smaller projects – but never to a new one. New projects are always run by veteran managers until they are rented up.

Kassuba envisions setting up a central training school for new managers which might be combined with a testing center for new products and materials.

The resident manager's independence is not without limits. A divisional vice president checks with him at least three times a week. He can't spend more than \$200 for any single expense without an okay. And when he sends his monthly record of disbursements to Palm Beach at the end of each month, the divisional vice president gets a duplicate copy for checking. If he questions a bill, he can order headquarters to hold payment: A new system will soon be set up to let divisional managers see bills weekly instead of monthly.

Resident managers submit weekly rental reports that itemize new rentals, vacated apartments and notices received. These are summarized on a master report at headquarters and reviewed monthly. Headquarters also reviews a resident manager's effectiveness every three months with his divisional manager and brings together all resident managers for annual meetings.

Kassuba's three divisional managers, handling from 4,000 to 10,000 apartments apiece, are much overworked. One of them supervises projects in 16 cities, which is feasible only because he flies his own plane. But they will soon get assistants, and as the Kassuba empire expands, two more divisional men will be added.

One problem that can't be solved so easily is how to get tighter control of construction.

Kassuba is turning to big contractors to solve his construction problems

His problems, like every other builder's, involve labor. He gives subcontractors incentive bonuses for days saved in construction schedules. And his big projects offer them the advantages of job longevity and high unit volume. Still, dependable labor is scarce, and sometimes Kassuba has had to move into areas with his own crews because bids weren't low enough.

He uses three approaches to building. In Chicago he maintains a full-scale construction company with tradesmen on the payroll. Outside Chicago he has been subcontracting jobs, using regional supervisors – often former builders – and locally hired managers. But he is gradually giving up subcontracting and, when the price is right, turning entire projects over to general contractors with commercial divisions that carry tradesmen on their payrolls.

Ed Van Leuven expects large commercial contractors will soon be competitive in residential work and, with their advantage of not having to go to hiring halls for tradesmen, will offer a more practical way for Kassuba to build.

Kassuba doesn't use prefabricators except when they provide their own assembly crews. "We always price a job both ways – sticks versus panels," says Van Leuven, "and sticks usually come out cheaper." Reason: He buys lumber through big brokers for prices close to what the prefabbers pay.

But Kassuba doesn't belittle prefabrication. In fact, he predicts that labor problems will eventually force him into it on a large scale. He envisions six or eight staging areas set up to supply components and materials to his own projects in a 50- to 100-mile radius.

Some other plans Kassuba has in mind are regional shopping centers—he is already building local centers in some of his larger projects—and broad appliance-leasing programs to streamline maintenance and solve the problem of hard-to-get repair men. Says Van Leuven: "We'd like to give the job of equipment maintenance to the manufacturers." Whether Kassuba will add high-rises to his empire is questionable: "It's hard to get good cash flow from high rises. Garden apartments make more money."

-H. CLARKE WELLS



In Arizona ...



In Massachusetts ...



Yesterday's design need not be old-fashioned, any more than today's design need be cold and unemotional. That's the key lesson to be learned from these three architect-designed custom houses that combine ...

The best of traditional and contemporary

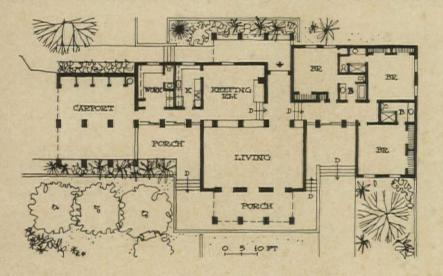
The pictures at left show a major virtue of traditional materials and basic forms fitting the houses into their surroundings. And the next six pages show what contemporary design and planning can do for living space.

In Maryland ...

continued



1 In Arizona: a washed-mortar, tile-roofed house for a desert setting



All things considered, this house has remained remarkably faithful to its ancestry, the adobe ranch of the early Southwest. The reasons are more than just esthetic: The tile roof and mortar walls don't suffer in the blazing heat and extreme dryness, and the small windows make the indoors cooler psychologically as well as in fact.

Such departures as there are from authenticity are also made in the name of practicality. The simple line of the front elevation (*above*) is broken drastically in the rear (*below*) to accommodate the plan. And an offset at the peak of the roof visible behind the chimney in the photo above—allows clerestories in the living room's inside wall.

Photos: Neil Koppes



ARCHITECT: Bennie M. Gonzales Associates BUILDER: Inland Constructors LOCATION: Carefree LIVING AREA: 2,765 sq. ft.

> **LIVING ROOM** gets extra light from a strip of clerestory windows. Front entry is just out of the picture at the extreme right. Keeping, or family, room can be seen beyond the low partition walls.



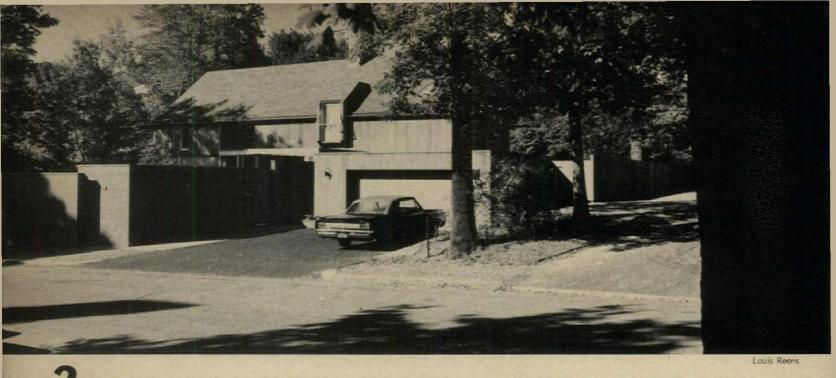
REAR TERRACE is partly covered by a massive porch, has a floor of oversized terra-cotta brick. Steps in foreground lead from carport (*see plan on facing page*). Pool is visible beyond the terrace wall.

KEEPING ROOM is shown here from the kitchen doorway. Living room is at right. A short flight of steps next to the fireplace leads down to entry level, and the corridor beyond goes to the bedroom wing.

REAR ELEVATION, seen from the swimming pool terrace, is broken by three jutting masses: master bedroom at right, living room in center and carport at far left.





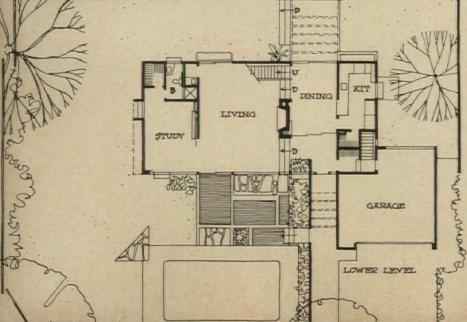


2 In Massachusetts: a farm-style house for a colonial neighborhood

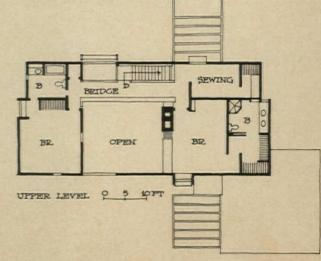


Although this is the most contemporary of the three houses, it is at heart a barn. This lets it fit in comfortably with surrounding houses (including Henry Wadsworth Longfellow's) and also supplies its chief assets: simplicity of design and structure and great vertical spaciousness. The architect (who is also the owner) has taken advantage of the latter with a living room that rises 26' to the ridge.

The site plan is well worth noting. A high brick wall encloses about three quarters of the lot (*photos above and left*), allowing the front and side yards as well as the rear to be used for outdoor living. The wall also permits large areas of glass on the first floor—unusual for a house in a heavily built-up area.



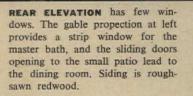
SWIMMING POOL is between the house and the street, but a high brick wall, visible at right, keeps the area completely private. The small dormer at right is for the second-floor master bedroom.



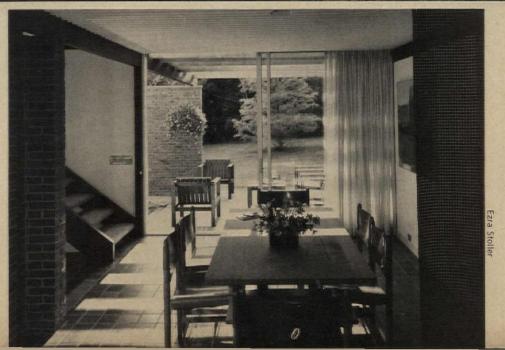
ARCHITECT: Hugh Stebbins BUILDER: H. Tobiason LOCATION: Cambridge LIVING AREA: 2,690 sq. ft.



LIVING ROOM is 26' high at the ridge. Both the balcony at right and the opening in the upper wall lead to a guest-bedroom suite. The firstfloor room at the far end is a study.



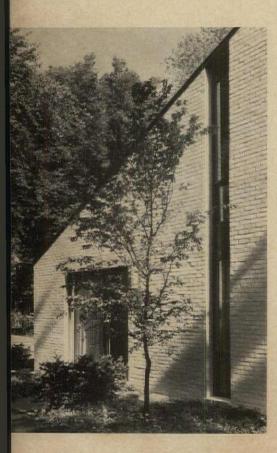
DINING ROOM occupies area between the kichen, beyond wall at right, and living room, beyond the brick wall at extreme left. Stairway leads up to the balcony and upstairs bedrooms,

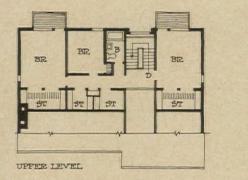


Ezra Stoller



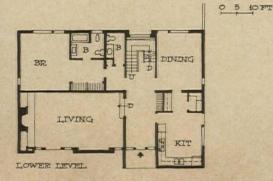
3 In Maryland: a formal, white-brick house for an old, established area





HIGH SLIT WINDOW admits light to living room downstairs and bedroom upstairs with a minimum loss of privacy. Sliding glass doors at left lead out from the dining room.

GARAGE



Two main problems faced the architect in designing this (his own) home: He wanted a distinctly contemporary house which wouldn't clash with adjacent houses. And he had to work a very small (80'x100') lot that not only brought those adjacent houses very close but also limited the area available for outdoor living.

As the picture above shows, while the final shed-roof design is decidedly contemporary in form, the texture of the brick and the formal handling of the facade give a long-established look. The house is set back far enough to conform with the neighborhood, but there's still room for a well-shielded rear court. The garage—far right in the above photo—is sited to be almost invisible behind the house. ARCHITECT: David H. Condon BUILDER: Hayes Brothers LOCATION: Chevy Chase LIVING AREA: 2,660 sq. ft.



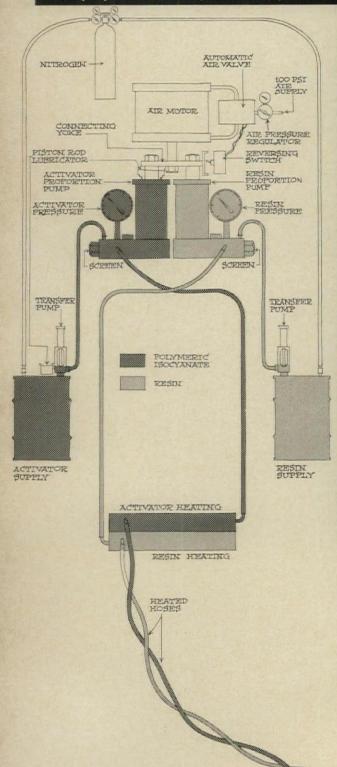
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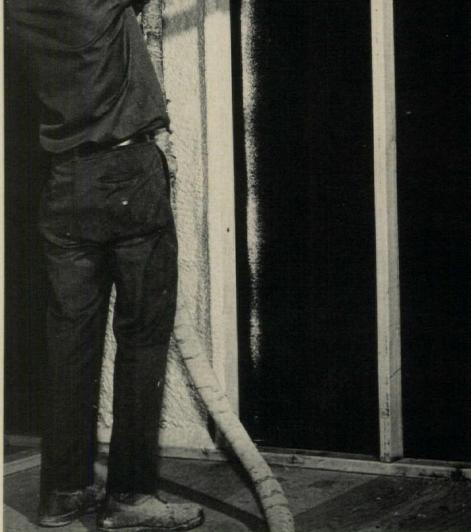
OPEN STAIRWAY helps to make an impressive, two-story entry. Dining room is to the right, living room to the left. The balcony above connects two sections of the sleeping area (*plan, facing page*).

REAR COURT was created by adding a fence to the corner between the house and the garage, at left. The two balconies are off the upstairs bedrooms, while the sliding glass door below the balcony at right leads to the master bedroom.

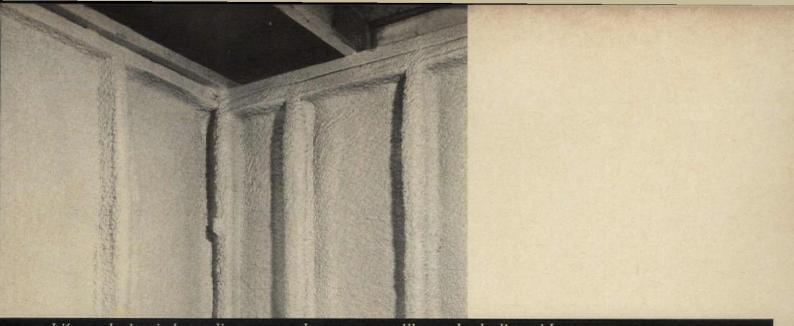


Spray-on urethane foam. . . If you want thermal insulation that's at least twice as effective as any other-

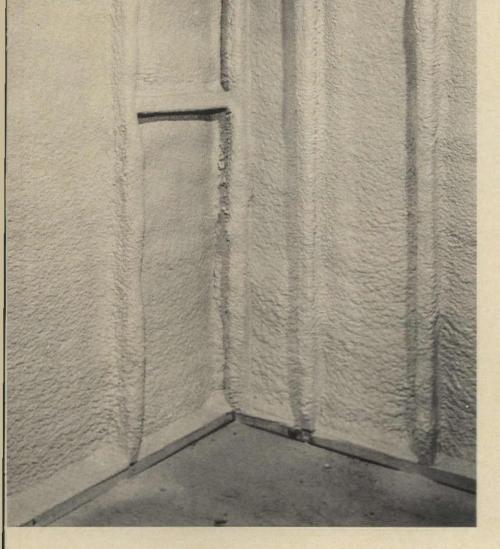




URETHANE SPRAY EQUIPMENT is easily mastered by small insulation contractors, but new operators need weeks of practice before they can spray evenly. The complete setup, costing about \$3,000, produces urethane by combining two liquid chemicals—isocyanates and polyols—and keeps it heated to above 50°F while it is pumped to the spray gun. Urethane, a cellular plastic, begins to foam instantly and expands to about 30 times its original volume in about 15 seconds.



and if you don't mind spending more-chances are you'll soon be dealing with...

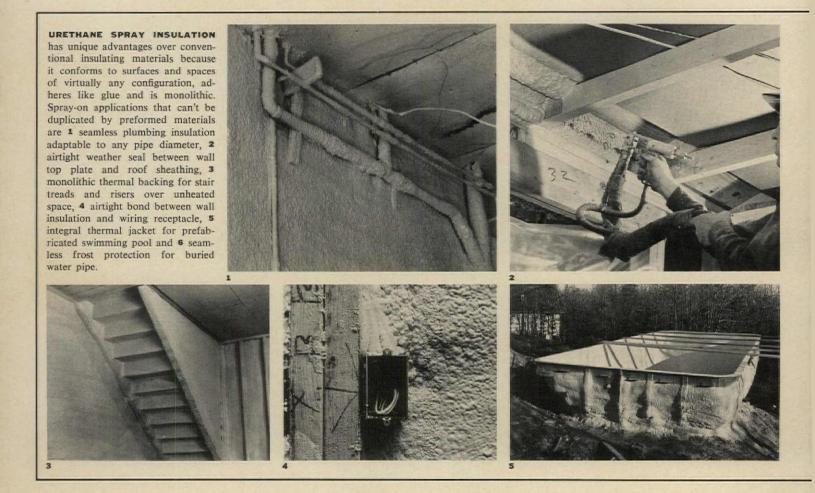


The urethane man —another trade moves into the housing market

The trade has been in existence about eight years. But only within the last two has its product become feasible for housing. The product is sprayed-on rigid urethane foam, a superior thermal insulator because it forms a monolithic weather-seal over any surface, expands to fill any space and is 95% gas cells. A 1"-thick layer gives as much insulation as 2" of fiberglass (see table, p. 92).

Spray-on urethane—whose more limited counterparts are poured urethane and preformed urethane slabs—found its first customers, around 1961, among manufacturers of thinwall refrigerators and freezers, refrigerated boxcars and trailers, and prefabricated metal industrial buildings. Then it branched out to industrial building sites as insulation for flat roofs and corrugated metal walls on remodeled factories and warehouses.

When spray-on urethane was first applied to housing, its performance was excellent, but its economics didn't make sense. The product had three problems that priced its applicators out of the housing market: 1) hard-to-use chemicals, 2) hardto-use equipment and 3) costly raw materials. But in the past two years at least two



of these problems have been reduced to the point where spray-on urethane is becoming profitable for insulating contractors who specialize in house remodeling and apartment construction. Here's why:

First, the chemicals now last longer in the contractor's store room. Urethane foam is produced at the job site by combining two basic chemicals-isocyanates and polyolsin the presence of catalysts and other additives. Chemicals offered to spray contractors in the early '60s had a shelf life of no more than six months, and some lasted only three weeks. So to avoid risking spoilage losses, applicators had to order exact quantities on virtually a job-to-job basis. Today's chemicals are commonly guaranteed for at least six months' shelf life and are actually good for much longer. Says urethane consultant James Orefice of Mobay Chemical Co.: "In practice, 18-monthold chemicals are widely used without any problems."

Second, sprayed-on foam now has a respectable flame-spread rating. It used to be extremely combustible, with a maximum rating of 100. But by adding flame retardants, the chemical manufacturers now provide foam with a Class II rating of 30. And for a premium, there are foams with a Class I flame-spread rating of 25.

Third, new additives give sprayed-on urethane more reliable bonding ability. The foam is supposed to stick like glue to any dry surface. But there used to be a catch: If the surface wasn't close to 70° F, the bond might be less than perfect. This problem was solved by the addition of freon, dramatically demonstrated by a recent job in Alaska where urethane was sprayed successfully in -40° F weather. Fourth, urethane spray equipment is becoming fairly dependable. The two classic headaches used to be chemical-mixing errors and clogged spray heads.

"You'd often hear of machines having 30% and 40% downtime," says Fred Werner of Gusmer Coatings Inc., spray-equipment manufacturer. "Sprayed urethane sets up in 15 seconds, so it was pretty tough to keep the spray head and other parts from clogging. And operators had a lot of trouble

Thermal-insulation scorecard: Urethane wins in most categories

Material	k factor	Density (Ib./cu. ft.)	Strength	(Ib./sq. in.)		Permeability Cost sq. ft.	
			Compressive	Flexural	Shear	(perms)	1" thick
Urethane Foam ¹	0.11	1.5-2	35	45	25	1-4	\$0.15
Class Fiber ²	0.33 0.45	0.7	-	_			\$0.013
Rock Wool ³	0.30	1.5-2.5	-	-	-		\$0.012
Vermiculite ⁴	0.26	5	-	-	-	No number— will pass vapor, won't absorb it	\$0.03
Polystyrene Foam ⁵	0.18 0.24	1.8-2.5	30	-	-	0.6-1.0	\$0.10
Cellular Glass ⁶	0.38	9	100	75	40	0	\$0.15

Data sources: 1. Mobay Chemical Co., Pittsburgh, Pa. 2. Johns-Manville, New York, N.Y. 3. Johns-Manville, New York, N.Y. 4. Vermiculite Industrial Corp., Port Newark, N.J. 5. Styro Sales Co., Long Island City, N.Y. 6. Pittsburgh Corning Corp., Pittsburgh, Pa.



SEAMLESS URETHANE ROOF for vacation houses is an experimental application by builder/urethane contractor Ray La Vigne (below) of Greentown, Pa. Sprayed onto sheathing in uneven strips to simulate shingles, the urethane serves as both insulation and finished roof. But manufacturers recommend adding a top coat of aluminum paint, neoprene or asphaltic emulsion to prevent erosion by sunlight, which can be as much as $\frac{1}{16}$ " a year.





keeping the two ingredients proportioned right. I've seen cases where the insulation never hardened or where it didn't bond to the substrate because the mixture was wrong."

These problems still aren't completely solved, but equipment makers have minimized them with cleanout devices and simplified calibration for chemical-proportioning gauges.

Another problem—price—is still a big obstacle for sprayed urethane. In-place cost per square foot is so much higher than for competitive materials that one applicator figures he loses at least three jobs out of five because of high bids.

Chemical manufacturers blame high prices on inefficient applicators and the excessive profit margins they use to protect themselves. Applicators put the blame on manufacturers' high chemical prices.

Chemical prices are probably as low as they'll ever become. For example, the price of isocyanate dropped from \$5 a pound in 1954 to 30ϕ and has currently leveled off at 33ϕ .

Applicators say they see no way to cut their own prices. "There are so many uncertainties in this business," says one, "that I have to plan on the basis of at least 25% profit." Because applicators are still so scarce, prices often depend on what the market will bear. They range from 25ϕ to as high as \$1 a sq. ft. for a standard 1" thickness of urethane. Applicators generally estimate their chemical costs at 13ϕ to 15ϕ a sq. ft., but their estimates of operating cost run from 7ϕ to 15ϕ , depending on how long they've been in the business.

After his initial cash outlay—\$3,000 for a spray machine and possibly another \$9,000 for a truck, materials and merchandising—a new applicator faces four knotty operating problems:

1. Training. Urethane sprayers need a high degree of skill to minimize equipment downtime and spray plastic layers uniformly. This skill is hard to find, and not every workman can learn it.

2. Wind. Urethane spray will float for miles in breezy weather—and stick firmly to whatever it lands on. Masking preparations have to be more elaborate than for spray-painting, and outside jobs close to neighboring houses and cars can only be done on virtually windless days.

3. Dampness. Urethane won't bond to a wet surface, so outdoor work can only be done in dry weather. Also, the foam components must be carefully guarded against moisture and temperature extremes. 4. Transportation. Urethane spray equipment takes time to unload, set up and reload for traveling. This is one reason applicators have always preferred to take on one 100,000-sq.-ft. factory roof a week rather than three or four house basements a day.

Another reason applicators still lean toward industrial jobs is easier price acceptance. Says Ray La Vigne, a Pennsylvania vacation-house builder who diversified to spray-on urethane (*above*): "It's a lot easier to persuade the owner of a company to pay a premium for superior insulation than it is to convince a homeowner."

Despite the problems in residential work, applicators are beginning to fight for it. A \$1-million-a-year foam-insulation contractor in Erie, Pa.—Robert Hushon—is going so far as to outfit an equipment van with bunkbeds and 500 gallons of chemical storage to make residential work feasible. His goal: four basements a day, for an average price of \$340, using a fourman crew—sprayer, helper and two laborers. A random sampling of applicators made recently by Mobay Chemical Co. showed that a substantial percentage are not only involved in house and apartment work but are doing it exclusively.

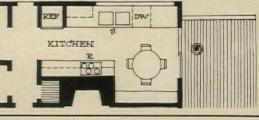
DESIGN FILE

Kitchens

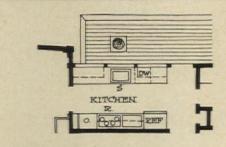
... have always been among the most merchandisable parts of the house. The custom kitchens on the next six pages are full of ideas on combining utility, livability and exciting design.

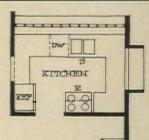


A long picture window replaces the usual over-the-sink cabinets in this kitchen. Together with the sliding glass door at right, which leads to a balcony, the picture window lets the room take advantage of the house's site—a steep hillside that affords a spectacular view over miles of valley. Architect: Mackinlay/Winnacker & Associates.



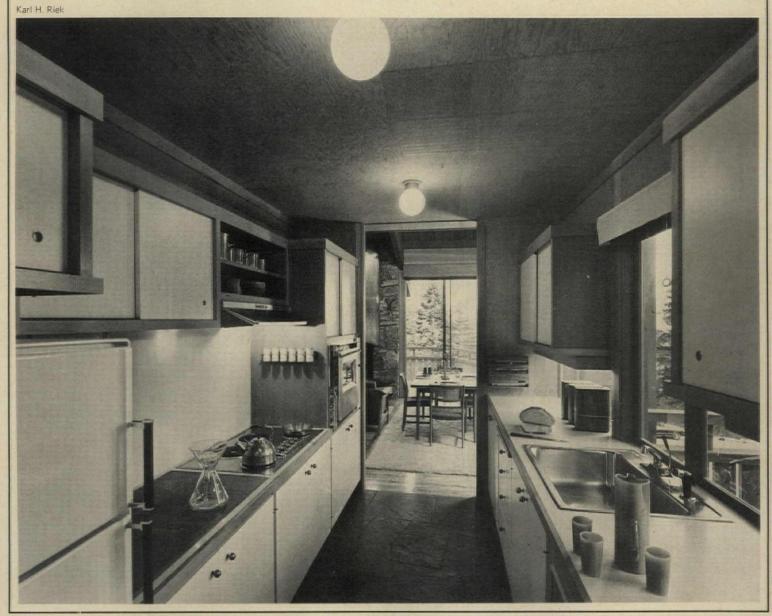






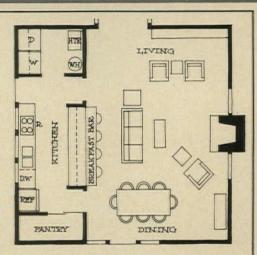
Counter backsplashes are actually low strip windows in this kitchen. They bring daylight to main working surfaces and also permit plenty of overhead cabinets. A full-height window is set in directly over the sink. Architect: Ostwalk & Kelly.

Storage space and natural lighting are combined here by making the backs and doors of the over-the-sink cabinets of translucent glass. Light from the windows behind the cabinets can then flood through into the kitchen. Architect: L. Ruocco.



DESIGN FILE





<u>A fold-down snack counter</u> offers the option of making this kitchen an integral part of the living/dining area, as shown at left, or closing it off entirely when food is being prepared for a more formal occasion. The counter becomes a backsplash when it is in the closed position. Architect: Wittenberg, Delony & Davidson Inc.

A free-standing counter makes this kitchen an integral part of the adjacent family room (*photo below*), yet masks it sufficiently so that pots and dirty dishes don't become part of the living area (*photo right*). Architect: Mackinlay/Winnacker & Associates.





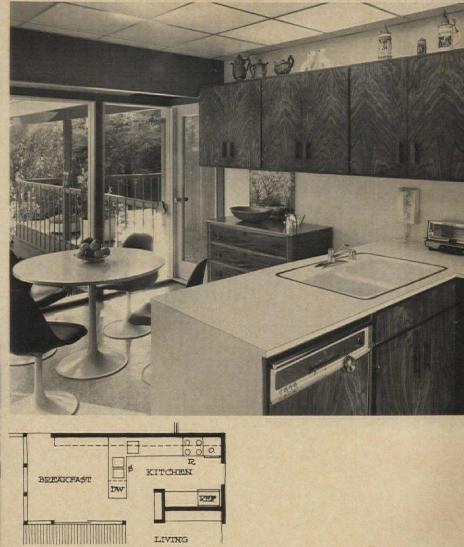


Extra storage space is gained here by running the overhead cabinets from the kitchen proper (photo below) on out into the adjacent breakfast room (photo right). The usual arrangement, cabinets hung over the peninsular counter, would block the kitchen from light and from the view through the breakfast room's glass wall. Architect: John K. Grist.



Soffits above the counters allow this kitchen to use a regular cabinet system under a very irregular, high roof. Working lights are set into the bottom of the soffit. The pie-shaped opening at the rear of the kitchen leads to an unusual type of side window (plan below). Architect: Ulrich Franzen.

DW KITCHEN DINING

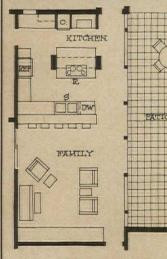




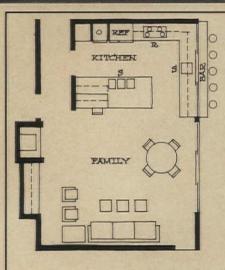
LIVING

DESIGN FILE





Rustic-style open kitchen has cabinets faced with random-width, V-joint boards, rough brick pillars on either side of the center island. The snack counter in the foreground has a wood-grained top. Behind the island and visible at left is an all-purpose counter which the housewife can use as a desk or general work area. The glass wall shown at the extreme right side of the picture looks out on a patio. Architect: Calvin C. Straub & Denis P. Kutch. Neil Koppes



Contemporary-style open kitchen, designed as part of a steel demonstration house, makes heavy use of ceramic tile on counter tops and sides. The wide island has a sink on the kitchen side and a buffet area with drawers below it on the other. Architect: Wexler & Perlin-Boggio.





Gerber. The fixture line that answers the question, "Can you satisfy a woman's craving for luxury and still stay practical?"



Gerber No. 21-212 Mount Vernon siphon jet elongated unit closet combination, No. 27-510 Hampton Bidet with rim-mounted 3-valve diverter fitting and pop-up drain.



Unabashedly dedicated to giving the practical woman the luxury she deserves.

Gerber fixtures are designed for luxury-loving women. They offer the most-wanted luxury features, yet are sensibly designed with the contractor in mind.

Example: The popular, elongated Gerber Mount Vernon closet. Beautifully sculptured lines. Quiet, jet-accelerated flushing, with silent mechanism. And practical for you, with extended horn and 2-bolt anchoring feature for fast, sure installation. Example: The Gerber Hampton Bidet. A truly modern luxury, for convenient, complete personal hygiene. Available with sparkling Crystalite handles and pop-up. Easy for you to install with rim-mounted diverter fitting.

We've lavished an abundance of luxury fea-

· Good Housekeeping

tures—and practical ones on all our fixtures, to satisfy every desire. Why not learn all the details? Call or write.



Gerber Plumbing Fixtures Corp. 4656 W. Touhy Ave. Chicago, Illinois 60646 Phone (312) 675-6570



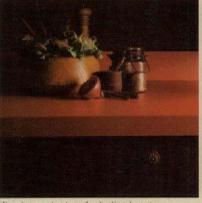
Stylish, versatile switches and receptacles

Slim-wall frost-free refrigerators

Hi/Re/Li® heat pumps, total comfort systems



Built-in dishwashers with filter-clean washing



Micarta counter tops for lasting beauty



Spacesaving stacked washer and dryer



Standard cabinets with custom features



Ranges, platforms, ovens; self-cleaning, too



Individual room heating and cooling

There's a better way to build...with Westinghouse

Fact: Westinghouse makes more products and systems for construction, offers more services, than any other company in the world.

Everything electrical, of course. Also everything to heat, cool, clean and move air.

All major appliances. Cabinets,

Micarta counter tops and wall surfaces for work-free interiors.

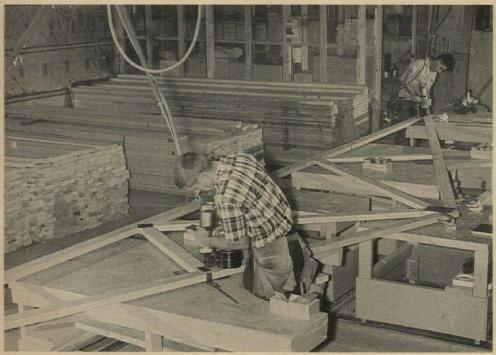
Plus vertical and horizontal transportation. And electrical distribution equipment and lighting.

Westinghouse also provides computerized electrical and mechanical systems studies. If you want this kind of help, call your local Westinghouse construction representative. His phone number's on the opposite page.

You can be sure... if it's Westinghouse



103





EXPANDABLE JIG for clinch-nailed trusses consists of roller-mounted tables on T-bar tracks.

TABLE-TOP HARDWARE includes toggle clamps.

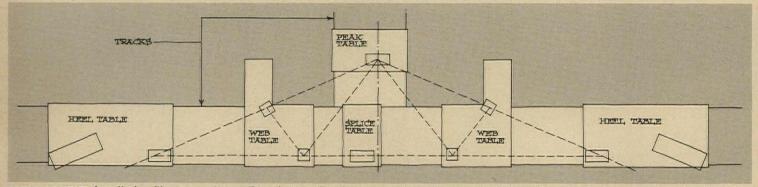
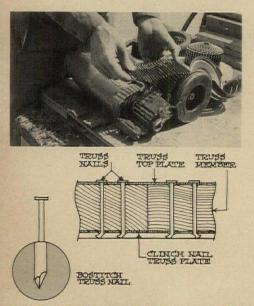


TABLE LAYOUT for clinch-nailing truss plates adjusts in two directions to permit positioning of clinch anvils under heel, web, peak and splice joints.

Clinch-nailed trusses save time and space in a small shop



POWER-DRIVEN CLINCH NAILS, in coils of 250, have specially beveled tips to facilitate bending. Truss plate designed for clinch-nailing is 20-ga. steel laminated to composition board.

Clinch-nailing is faster than regular nailing because it fastens metal connector plates to both sides of a truss joint with only one stroke of a power nailer (*photo and drawing, left*). This means all the nailing is done from one side, so clinch-nailed roof trusses don't have to be flipped over and thus don't need as much assembly-line space as conventionally nailed trusses.

Clinch-nailing used to be unfeasible for small assembly shops because it involved heavy hydraulic nailing machines. But now it has been adapted to a low-cost trussmaking system developed jointly by Ohio builder Bob Schmitt and nail-gun manufacturer Bostitch of Textron Inc. In place of heavy nailing machines, Bostitch has introduced a hand-held pneumatic gun that drives a 21/2" nail against a steel-alloy anvil. A truss joint, with steel plates positioned on both sides, is laid on the anvil, and the nail is fired through it. The impact bends the nail tip back onto the lower truss plate and clinches it as securely as the nail head clinches the upper plate.

Schmitt, a long-time proponent of in-thefield prefabrication, says the clinch-nailing set-up beats any previous system he has used for truss assembly. It reduces assembly time to three minutes or less for a two-man team—including the cutting of peak, heel and rafter joints—and requires about 50% less work area.

And the system is flexible because the anvils, one for each truss joint, are mounted on individual tables that roll on steel tracks. After the tables are positioned so that the anvils coincide with the joints, they are locked onto the tracks and truss members are clamped down.

For trusses of up to 40' span and 8-in-12 pitch, Bostitch sells a basic package that includes all the table-top hardware—toggle clamps, camber stops, clinch anvils, saw guides—plus nailing guns. The connector plates are standard 20-gauge steel, but those that receive the clinched-nail points are laminated to composition board. The nail points pierce the plate, are turned back by the anvil and securely enclosed in the board.

One rather cheap thing about this new Westinghouse dishwasher. Installation.



But don't take our word for it: Compare.

Make a careful comparison with other brands and you'll see that this Westinghouse dishwasher is the simplest one to install. Saving you time, labor and money.

But the real story of this dishwasher lies in its Filter-Clean system that keeps wash and rinse water free of food particles. Dishes get washed in clean, hot water at all times.

Another selling feature is Westinghouse multi-level power-washing that gets dishes cleaner—without pre-rinsing.

Plus a porcelain-on-steel interior that won't rust, the 145° Sanitizer, and a wetting agent dispenser that ensures spotless results.

Beautifully styled in a variety of decorator colors, too. You can be sure...if it's Westinghouse.

To help you build it better ... sales-clinching appliances (

NEW PRODUCTS

For more information, circle indicated number on Reader Service card p. 121

Flooring



Sheet vinyl can be installed without adhesive, or conveniently glued down. Oranges, reds and golds, in an interlocking pattern, give the design a stained glass effect. Intended to complement Spanish styling. Congoleum, Kearny, N.J. Circle 200 on Reader Service card



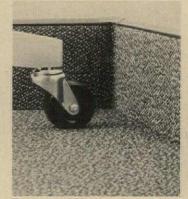
Solid vinyl tile has an embossed pattern called Monica, which is available in nine color combinations. Made in the lower cost household gauge (3/32"), the 9"x9" tiles are marketed for economy installations. Robbins, Tuscumbia, Ala. Circle 201 on Reader Service card



Parquetry tile simulates expensive wood flooring, is made in walnut, cypress, teak and pecan colors. For special effects, the 12"x12" tiles can be interlaced with 4"x36" planks with a straight-grain look. Kentile, Brooklyn, N.Y. Circle 202 on Reader Service card



Low-cost carpet is a new version of the original indoor-outdoor carpeting that will sell for \$3.95 per sq. yd. In 15 colors, and foam-backed, the carpeting comes 6' and 12' wide, and can be installed on, or below, grade. Ozite, Chicago. Circle 203 on Reader Service card



Base moldings are made of nylon carpeting to match over 75 colors and patterns in the manufacturer's line. Molding is 4" high in 54" lengths, backed with foam rubber, and capped with a vinylcovered metal trim. Commercial Carpet, New York.



Sheet vinyl simulates split sandstone or shale in varying shapes, sizes, and shades, with a mortar-like grouting that has the look and feel of real stone. Moisture-resistant backing permits installation on all grade levels. Armstrong, Lancaster, Pa.

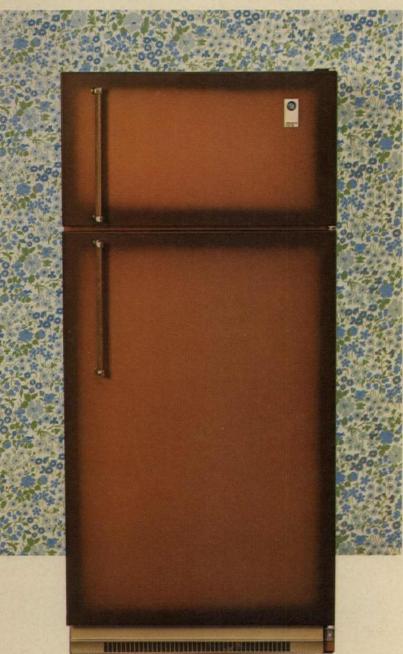
Circle 204 on Reader Service card

Circle 205 on Reader Service card



Vinyl-asbestos tile is designed to permit a wide variety of patterns with repetitive tile and no feature stripping. Tiles have two diagonal bands that can be positioned to many different squares and rectangles. Johns-Manville, New York, Circle 206 on Reader Service card

One thing about this Westinghouse Frost Free refrigerator is less than you'd expect. Cost.



But don't take our word for it: Compare.

Considering what it offers and what you pay for it, this is the top refrigerator value around.

From top to bottom, the 14 cu. ft. Westinghouse "Frost-Free" contains features women find irresistible.

For a start, take frost. Never in sight in the freezer or refrigerator sections. What else? Plenty. Two-position adjustable shelf, full-width, full-depth shelves, frost-free freezer that can hold 121 pounds, Porcelain-on-Steel Crisper to keep vegetables fresh and crisp, Whisper-Quiet mechanism, and a great deal more.

We didn't stint on the outside either. Model RJK42 comes in avocado, goldtone, coppertone, and white with attractive blue and gold interior accents.

In kitchen appliances as in everything we make, you can be sure...if it's Westinghouse.

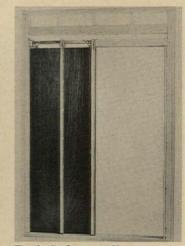
To help you build it better...sales-clinching appliances (

NEW PRODUCTS start on p. 106

Doors and Windows



Grillwork, of iron and steel, is ready-made for windows (*left*), entrance gates (*right*), or wall openings (*not shown*). Gates are 26" wide x 45" high, with a 12" decorative panel on top. Each pair fits a 4'5'' opening. Pease, Hamilton, O. Circle 207 on Reader Service card

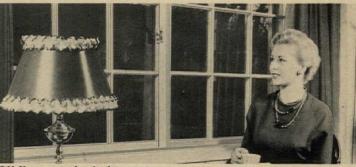


Pocket door unit can be installed by one man, and fits any wall construction. One frame fits any door size, from 2' to 4' wide, 34" to 134" thick, and up to 6'8" high. Large hanger wheels won't jump track. National Mfg., Sterling, Ill.

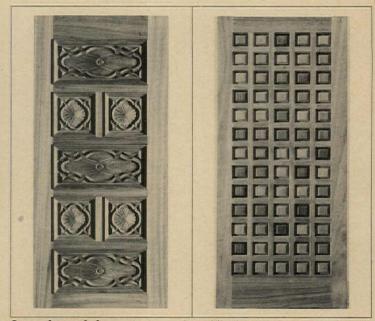
Circle 210 on Reader Service card



Lever latch is hammered steel in an old iron finish, as part of a line of door hardware in traditional styling. Can be used on interior or exterior doors, where the house is Mediterranean or Spanish in style. Broadway Supply, Kansas City, Mo. *Circle 211 on Reader Service card*



Sliding wood window claims a weather seal four times as effective as normal standards. Double glazing is included, and double pile weatherstripping seals the entire perimeter. R.O.W. Windows, Ferndale, Mich. *Circle 212 on Reader Service card*

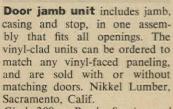


Carved wood doors are made from kiln-dried mahogany, walnut or pine, and the pattern can be on one side or both. Made to order in any height, width or thickness, in a wide variety of patterns. Acme Hardware Co., Los Angeles. *Circle 213 on Reader Service card*



insulated door eliminates need for storm door, because of highdensity foam core, and magnetic sealing edges. Sill is polyvinylcovered oak, and the frame is preservative-treated. Several options in glass panes. Crestline, Wausau, Wis.

Circle 208 on Reader Service card



Circle 209 on Reader Service card

New electric baseboard heat from Bryant.

NEAT PACKAGING: Start with the carton. A tear tape zips it open fast. And it can slip over the installed unit to protect against paint and plaster during final construction.

NEAT INSTALLATION: The heater cover snaps off by hand. The large wiring boxes at both ends have ¹/₂'' knockouts at bottom, end and side, with lots of room to connect leads. Pre-punched mounting holes line up with studs. NEAT APPEARANCE: The installed unit has no exposed screws, wiring or sharp edges. The die-cast end pieces are rigid and dent proof, while the specially formulated paint resists scuffs and scratches. A 50-pound youngster can stand on the center of the unit.

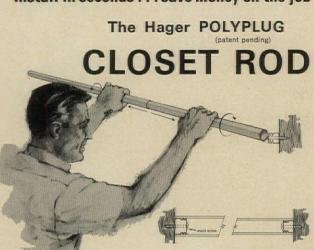
NEAT DESIGN: The three-inch top helps keep walls clean by diffusing heated air. It also keeps objects from dropping into the heater. A full-length thermal cutout automatically shuts off the unit in case of air blockage. And the Corox® heating element is guaranteed for five years.

Bryant "Neat Heat" units come in 2, 3, 4, 5, 6, 8 & 10-foot lengths, in both low and optimum density. An exclusive, neon night-light can fit into the wiring box cover at either end. Thermostat kits, decorative grills and other accessories are available.





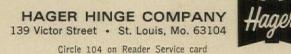
To help you build it better... the clean warmth of electric baseboard heat.



Seamless tubular zinc-plated steel rods slip over "end serts." Each "end sert" is a plastic anchor that attaches to wall with a single wood screw. A twist motion extends the telescoping rod flush with the wall surface.

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.





Install in seconds . . . save money on the job

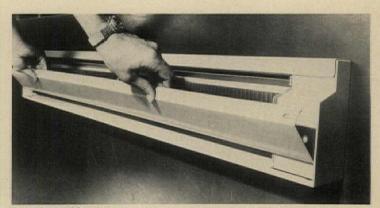
Interiors

NEW PRODUCTS

start on p. 106



Poly-foam beams are embossed to simulate hand-hewn wood, but weigh only 10 lbs. in a 20' length, install with adhesives. Two sizes, $(234''x4^{1/2}'')$ and 4''x6'') are available in dark, medium, and natural finishes. Reichhold, Cleveland, O. Circle 214 on Reader Service card



Baseboard heater can be wired and mounted in minutes, since wiring boxes are at both ends, and mounting holes are pre-punched. A sealing strip between baseboard and wall helps reduce streaking of wall above unit. Bryant, Bridgeport, Conn. *Circle 215 on Reader Service card*



Wood mantels are hewn on all sides from 3"x10" western red cedar. Made in even foot lengths from 5' to 8', and in two-foot lengths from 10' to 20'. Packaged with cedar brackets and mounting screws. Hewnrite, Farmingdale, N.Y. *Circle 216 on Reader Service card*

INFLATION IS ONE THING MONEY CAN BUY.

But money can also buy stability. The choice is yours. You and thousands of other businessmen *can* have a say in our economy.

It happens every time an employee purchases a U.S. Savings Bond through a company-sponsored Payroll Savings Plan.

It happens every time you reward a person for good work or good work habits through an incentive program based on Bonds.

U.S. Savings Bonds foster thrift through systematic installment-plan saving. "When you don't see it, you don't spend it" is the time-honored success formula of the Payroll Savings Plan. And today, Savings Bonds offer 4.25% when held to maturity of seven years, and Freedom Shares — offered only in combination with Series E Bonds — pay 5% when held to maturity of 41/2 years.

Promote Bonds — and you'll be promoting stability. For information on how to set up a Payroll Savings Plan in your plant, write to The Department of The Treasury, Savings Bonds Division, Washington, D.C. 20226.

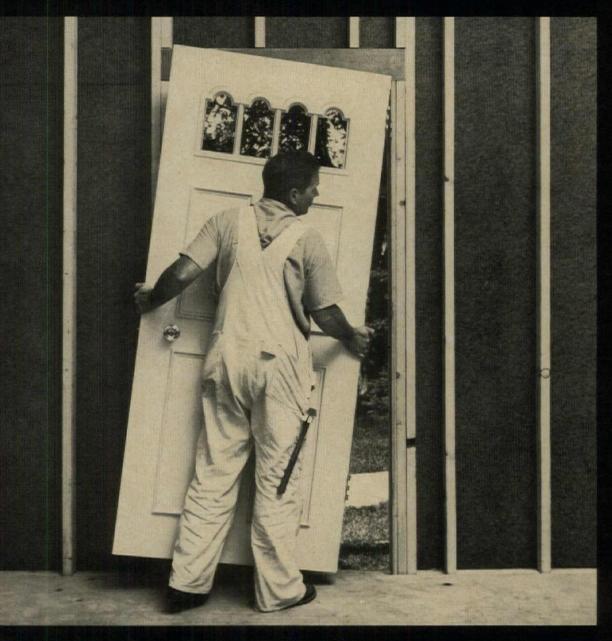


In your plant ... promote the PAYROLL SAVINGS PLAN for U. S. Savings Bonds

The U.S. Government does not pay for this advertisement. It is presented as a public service in cooperation with The Department of The Treasury and The Advertising Council.

6

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Easy touch.

Because of their lightweight construction, these aluminum doors require less labor, less time and less cost for installation. And maintenance is minimal. A foamed-in-place polyurethane core provides strength and superior insulation. There's no warping, no cracking, no splintering. And no red rusting from the inside out. Nicest part? No costly call-backs. Aluminum doors are prime-coated at the factory and can be finished in any color at the job site. Specify doors made of Alcoa® Aluminum.



Easy touch.

This good-looking aluminum door is so lightweight that it will swing open at the slightest touch. Its polyurethane core and aluminum skin combination gives it rigid strength and superior thermal insulation as compared to other metal or wood exterior doors.

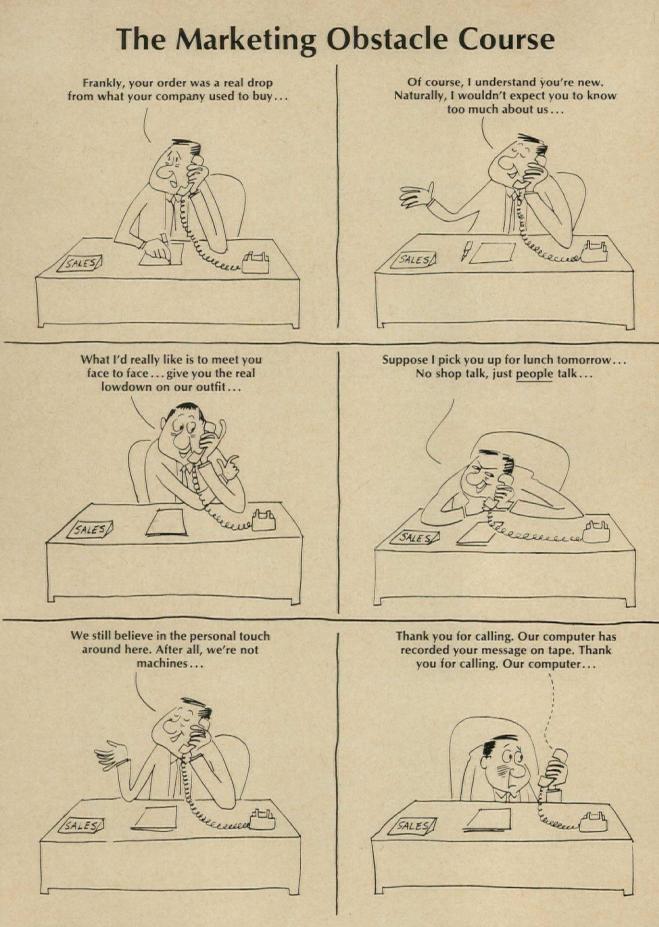
And it stands up to anything wind, weather and the kids can do. Won't warp, won't red rust, (is dent-resistant.



Durable aluminum for better homes

Change for the better with Alcoa Aluminum

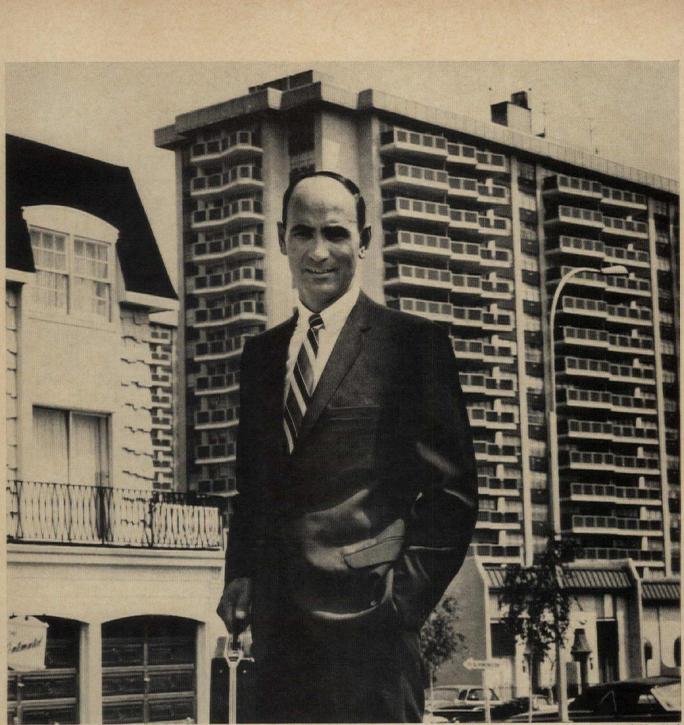




Fortunately, computers haven't quite taken over everything yet. They do get involved in purchasing decisions. And you can't sweet-talk a computer. But you can influence the people who influence the computer with consistent advertising in McGraw-Hill business publications. Ask yourself whether you're advertising often enough-

in the kind of magazine that talks business to the people you're trying to sell. And keep sold.





Gene Bolmarcich at Birchwood Park at Water's Edge, Bayside, Long Island, New York

Specify General Electric appliances and get one Bolmarcich free

It's a great deal. Just ask Morris Sosnow, President of the Birchwood Park Organization of Mineola, N.Y. His company enjoys a reputation for quality. So they knew exactly what they were getting in GE appliances when they specified them for their new 53-acre community, Birchwood Park at Water's Edge.

But the free Bolmarcich (we pay his salary) – that's another story. He's Gene Bolmarcich, the GE Contract Sales Representative assigned to the project. And here are just a few of the ways he was of special service to the builders and architects: • Met with Public Utility on feasibility study of power distribution.

• Brought in District GE Application Engineers to assist the Mechanical Consultant Engineer in planning air conditioning and heating systems.

• Enlisted the help of the General Electric Kitchen-Laundry Planning & Design Service for layout and design ideas.

• Called in GE experts to work with plumbing and electrical contractors on appliance installations in the kitchens . . . with the sheet metal contractor on heating and air conditioning. • Organized and coordinated equipment deliveries, so units arrived when needed—not before or after.

• And finally, Gene and other GE District personnel were at the Grand Opening to answer questions.

• Isn't that the kind of service you'd like?

Then call your GE Contract Sales Representative, We may not be able to give you Gene Bolmarcich, but **G E N** you'll get the same capable assistance.



Do-it-yourselfer J.D. Haggadorn tried to make Thermopane insulating glass. He almost blew his mind. At least he's got the right idea.

Thermopane[®] with the GlasSeal[®] edge is glass fused to glass at the edges so dirt and moisture can't get into the air space.

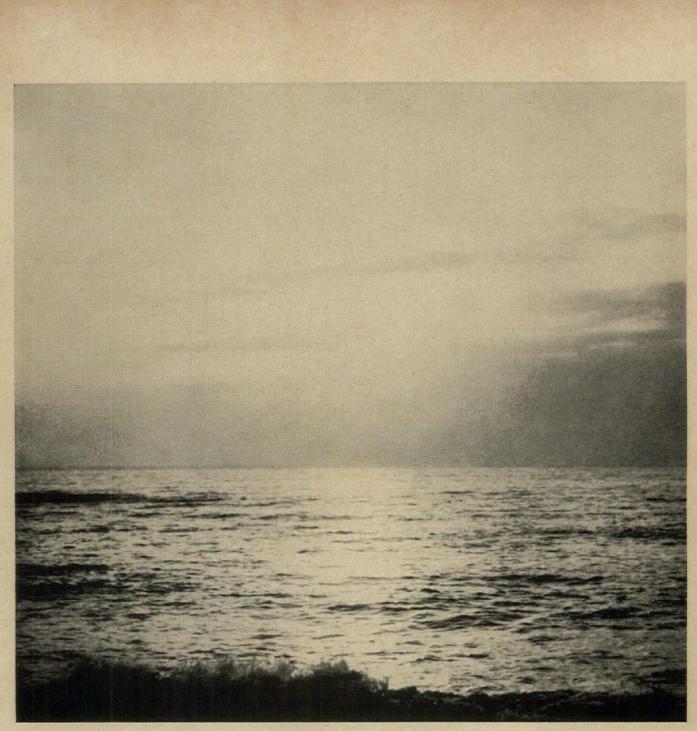
Sort of like a sealed bottle.

It comes already built-in to many kinds of good windows of numerous sizes and shapes.

So you don't have to blow any windows yourself.

Thermopane insulating glass is made *only* by Libbey-Owens-Ford, 811 Madison Ave., Toledo, Ohio.





Maybe this is the year you could have your overseas meeting over here.

you think to straighten out our balance of payments plant and head office? situation.

more than people who travel for pleasure. And if they meet you here, instead of you meeting them there, foreign currency is gained and your currency re-tained—and our deficit is thereby twice lessened.

There are other advantages too, both to you and your overseas connections.

Where else could East so easily meet West in a world congress or an international meeting of your counterpart professional or business association?

What other country could offer as many climates? As many convention-sized hotels? As many trade shows? Expositions? Exhibitions? As many visitable industrial plants? (More than 4,000 offer guided tours. And our universities, medical and scientific centers invite visits from overseas delegations.)

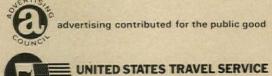
Where else could your overseas employees be as

That change of meeting place might do more than well trained and indoctrinated as in your own home

What better incentive could you offer your over-Because people who travel on business spend seas sales force or other personnel than travel awards to the U.S.A.?

And how else could you so easily keep track of your urgent concerns while attending an "overseas meeting?"

For more information on special "Busivisit" business programs, write to the United States Travel Service, Department of Commerce, Wash., D.C. 20230.







PEPPER TREE FARMS "New Country Community by Kaufman and Broad, shows off new ideas-and Cast Iron Pipe water system"

"Pepper Tree Farms is our newest Illinois development. Located near the suburb of Palatine, northwest of Chicago, it takes advantage of the natural beauty of the gently rolling countryside.

The community includes a creek, a lake, and a private swim and cabana club.

Pepper Tree Farms provides fine community living with a choice of five basic home styles, all with country living features such as rough-sawn cedar siding, roofs of specially designed asphalt rustic shakes, and custommade entrance doors.

But we've gone modern where it matters. Appliances, power service, plumbing fixtures, underground utilities-including a cast iron pipe water system.

As one of America's largest developers, we know that reliable cast iron pipe returns maximum benefits to us and to the home buyers.'

Builders seeking an easily installed water system that is tough and durable, put cast iron pipe in their

LOUIS BERKOWITZ, PRESIDENT, CHICAGO DIVISION, KAUFMAN & BROAD HOMES, INC.

plans. The foolproof system it provides gives high strength and corrosion-resistance for lasting life under all forms of adversity-high internal pressures and external loads.

Cast iron pipe does not absorb water or go soft. Modern push-on joints provide easy in-

stallation for fast start-ups and worryfree water service.

Free book. Ask for "Tract Develop-ment, Volume 2." It has 48 pages of specially selected articles by top landplanning authorities.





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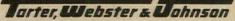
ANNOUNCING THE NEW INDOOR-OUTDOOR FENCING FROM TW&J.



Readymade Woodweave panels. The first fencing we know of being used for more than just fencing. Panels are being put up as screens, room dividers and planters on the inside and planter screens, patio wind screens and, naturally, fencing on the outside.

Woodweave's eight foot panels are precision woven from clear, dry California Redwood and factory finished. Panels come in 3', 4', 5' and 6' heights with harmonizing $3\frac{1}{2}$ ' and $5\frac{1}{2}$ ' gates available. Face pieces and top chamfered 4'' x 4'' posts complete the package.

Easy to stock and quick to turn, TW&J Redwood fencing is also available in post and rail and picket style. Write us today for more information and ideas on the indoor-outdoor fencing. No reason to be left out in the cold.



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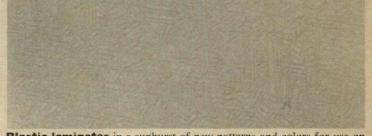


NEW PRODUCTS

Kitchens

start on p. 106

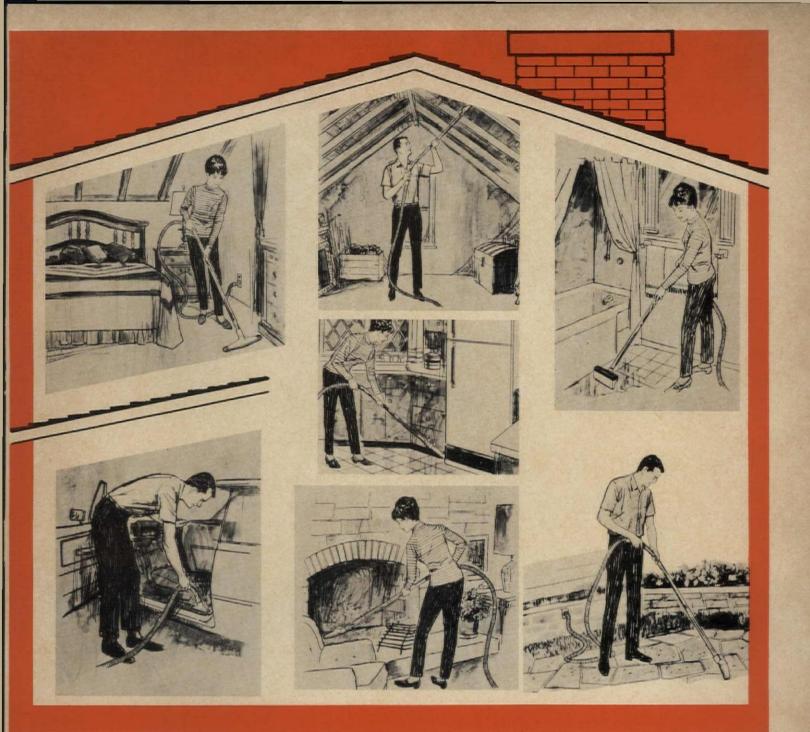
Double-tub washer will wash two different loads at the same time, even different colors and fabrics, without intermingling of water, detergent or bleach. Loads from three to 15 lbs. can be accommodated. Hotpoint, Appliance Park, Ky. *Circle 224 on Reader Service card*



Plastic laminates in a sunburst of new patterns and colors for use on kitchen countertops, and three colors in a simulated marble for bathroom vanities. Kitchen colors match new color trends in appliances. Micarta, Hampton, S.C. *Circle 225 on Reader Service card*



Surface range has hood-mounted controls above the 36'' cooktop, plus a barbecue well for indoor broiling, and an interchangeable Teflon griddle. Double oven (*left*) has one self-cleaning oven. Hotpoint, Appliance Park, Ky. *Circle 226 on Reader Service card*



Build in ALL-around convenience

The Jac-Vac* adds sales appeal to a home upstairs, downstairs, in the garage and even out on the patio!

Any woman who sees this new Whirlpool central vacuum cleaning system can quickly appreciate the many ways it will save her work . . . and get rid of messy dust bags, machinery noise and the recirculating of fine dust particles. The Jac-Vac goes over big with men, too, because it's great for such chores as cleaning the car and garage, picking up small, pesky shavings in the workshop or grass clippings from the patio.

There are both wet or dry Jac-Vac models. The "wet" type can be used for regular cleaning and with a "Jac-Mop" attachment to scrub floors, tile, windows, walls, shampoo rugs, etc.

Installation is simple with the special parts assembly. A Jac-Vac system can be put in along with plumbing or heating, or by a contract installer . . . or it's so simple you can do it yourself.

Doesn't this sound like an easy way to add visible value to your homes? It is! Send for proof.

V	whirlpoc	1 *Tmk.
•	CORPORA	TION
WHIRLPOOL Benton Harbo Please send n	m Systems Department HH-2 CORPORATION, Administrative r, Michigan 49022 ne all the facts on the Jac-Vac.	e Center,
Name		
Title Address	Firm	
City	State	Zip

Builders replace wall-to-wall headaches

with Harris BondWood®

Your customers expect flooring to be permanent not temporary. When they buy a home with temporary flooring that gives them wall-to-wall headaches in just a few short years, you know who will get the blame. You. And this can hurt. It can hurt your reputation and your future sales.

Builders across the country are avoiding this problem. They're rolling out the carpet and installing Harris BondWood. It's permanent. More permanent than the best foundation. Made of thick, solid hardwood that never has to be replaced—

BondWood is available in a variety of distinctive designs for adhesive installation over wood or concrete.

If "temporary" flooring is already giving you a headache, we can cure it. Just send the coupon below.



NEW PRODUCTS start on p. 106

Exteriors





Outdoor surfacing for balconies, sundecks, or poolside can be applied to exterior grade plywood or sound concrete. The silicone rubber compound is troweled on, cures in about 24 hours. Red, gray, and green. General Electric, Waterford, N.Y. *Circle 227 on Reader Service card*



Siding is weatherproof insulation board surfaced with Tedlar film that requires no painting. Choice of clapboard or board-and-batten in a satinwhite finish. Clapboards are 12' long. Homasote, Trenton, N.J. Circle 228 on Reader Service card



Percussion drill hammers its way into concrete at 15,000 impacts per minute, will drill a 1" diameter hole 3" into high-density concrete in that time. Can also be converted to a $\frac{1}{2}$ " drill for steel or heavy timber. Hilti, Stamford, Conn.

Circle 229 on Reader Service card



Mineral-fiber siding has a concealed nailing system that does away with adhesive, splines or slots. Nailing can be done $1\frac{1}{2}$ " from the edge without splitting. Six colors: gold, green, red, gray, yellow and white. National Gypsum, Buffalo, N.Y. *Circle 230 on Reader Service card*

New literature starts on p. 134

BOLD **CEDAR TEXTURES for the** MANSAR

IN 8-FOOT SHAKERTOWN SHAKE and SHINGLE PANELS

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shakes are captured in these rustic cedar panels.



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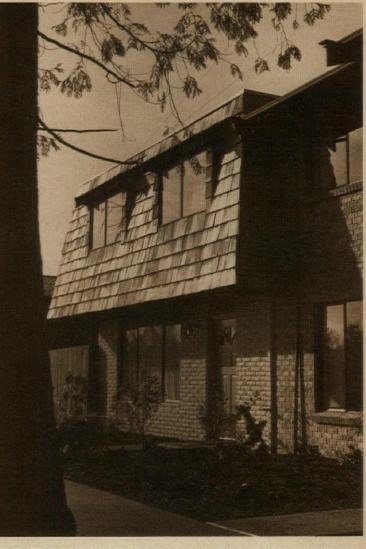
Premium grade shingles with a rough sawn face to enhance the depth and charm found only in natural red cedar.



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131

This closet has a furnace and air conditioner in it.

The top of this seemingly empty closet contains Bryant's 513 fan coil unit with an electric heating package attached to it.

Both units are designed for installation above furred ceilings in closets or hallways. Together, they're only 10½ inches high and take up less than 6 cubic feet of space overall.

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The 513 fan coil is designed for use with Bryant's Quietline[®] condensing unit installed either outdoors or through the wall.

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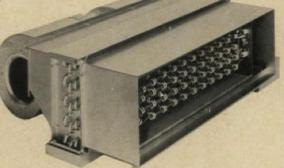
And a choice of heating packages: electric in 3, 5, 6, 8, 10, 13 and 15 KW sizes, or hot water coil.

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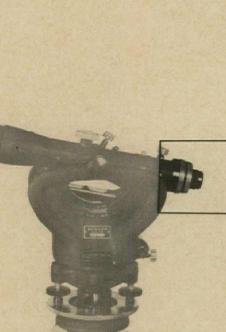


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NEW LITERATURE

For copies of free literature, circle the indicated number on the Reader Service card, p. 121

LIGHTING FIXTURES, Imported chandeliers, wal! brackets, candelabra and bulbs for residential and commercial interiors are presented in a 104-page brochure. E-Lite Company, New York City. Circle 300 on Reader Service card

SINGLE-LAYER PLYWOOD FLOORS. Four-page technical booklet describes the advantages of gluenailing a single layer of plywood to joists instead of installing separate subflooring and underlayment. Lower installation cost and increased floor stiffness are claimed. American Plywood Association, Tacoma, Wash. Circle 301 on Reader Service card

WALL-MOUNTED WATER COOLERS. Illustrated four-page brochure describes new cooler for commercial, industrial and institutional uses. Information includes cooling capacities, roughing-in dimensions and special features. General Electric, Chicago Heights, Ill. Circle 302 on Reader Service card

wood windows. Double-hung, casement, awning and glider windows, and wood-framed doors, are described in a 16-page illustrated four-color brochure. Marvin Windows, Warroad, Minn. Circle 303 on Reader Service card

MAGNETIC CONTROL SYSTEMS. A 28-page catalog shows a wide variety of magnetic visual control systems for scheduling, sales charts, inventories, tables of organization, maps, etc. Complete dimensional information is given, many accessories are illustrated and price lists are included. Methods Research, Staten Island, N.Y. Circle 304 on Reader Service card

APPLIANCES. Fully illustrated catalog covers every kind of appliance for building and remodeling, including ranges, ovens, surface sections, air conditioners, dishwashers, waste disposers, refrigerators, freezers, washers, dryers and water heaters, Hotpoint, Appliance Park, Ky. Circle 305 on Reader Service card

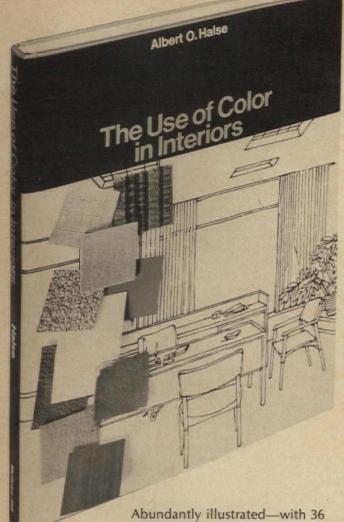
ALUMINUM NAILS. Types of aluminum nails, along with their advantages and some guidelines to their use, are contained in a 12-page four-color booklet. Aluminum Association, New York. Circle 306 on Reader Service card

FINISHING PLYWOOD. A 24-page revision of a 1963 brochure presents the latest information on the use of paints and stains for interior and exterior plywood finishes. Methods of preparing different grades of plywood for finishing and paint maintenance problems are also discussed. American Plywood Assn., Tacoma, Wash. Circle 307 on Reader Service card

WALL PANELING. New system that glues paneling to old walls without furring strips is described in 12-page brochure. Panels consist of thermoplastic film laminated to hardboard or other substrate material and finished in wood grain, solid colors or patterns. Modern Laminates, Holland, Mich. Circle 308 on Reader Service card

PREFAB FIREPLACES. A complete line of prefab fireplaces, both electric and gas-fired, is illustrated in a product literature kit that includes leaflets on free-standing models and built-in units. as well as all types of accessories and barbecue grills. Complete installation instructions are given for most models. Majestic, Huntington, Ind. Circle 328 on Reader Service card

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POLYETHYLENE FILM. Pocket-sized swatch book contains clear and black samples of film in 2-, 4- and 6-mil thicknesses, along with the colors, widths and lengths in which it is available. Extrudo Film, New York City. *Circle 309 on Reader Service card*

ARCHITECTURAL METALWORK. Sixty-eightpage book presents contemporary and traditional screen and railing systems. Included are treillage patterns, railings, pipe railing systems and expansion joint covers, as well as a selection of architectural bars, shapes and tubing in steel, bronze and aluminum. Application illustrations, sectional drawings and installation details are also included. Julius Blum, Carlstadt, N.J. Circle 310 on Reader Service card

VINYL PLASTIC LAMINATES. Brochure illustrates panels of vinyl fused to particle-board, hardboard or plywood and intended for use in cabinetry, furniture, shelving, partitions, dividers, etc. Finishes include wood grain and solid colors. Evans Products, Corona, Calif. Circle 311 on Reader Service card

SNOW-MELTING SYSTEM. Two-page bulletin describes a packaged snow-melting and de-icing system. Various boiler sizes permit the system to handle jobs as small as residential driveways. Raypak, El Monte, Calif. *Circle 312 on Reader Service card*

INSULATION BOARD SHEATHING. Eight-page brochure discusses the sheathing as a sound conditioner, insulator and bracing agent in exterior walls. Insulation Board Institute, Chicago, Ill. *Circle 313 on Reader Service card*

STEEL JOISTS. 1969 edition of *Standard Specifications and Load Tables* provides technical data necessary for specification of open-web and longspan steel joists to carry uniform loads on spans up to 96 ft. Steel Joist Institute, Washington, D.C. Circle 314 on Reader Service card

GYPSUM WALLBOARD PARTITIONS. Partition systems with Sound Transmission Classes of 58 and 59 are described in a 32-page booklet. Eightyfour gypsum wallboard systems are discussed. Additional topics covered include: floor-ceiling assemblies, sound control techniques for remodeling and above-grade applications using urethane insulating board in conjunction with gypsum wallboard. Celotex, Tampa, Fla. Circle 315 on Reader Service card

FRAMING ANCHORS. Design and specification sheet describes anchors designed to fasten lumber 2" nominal or thicker, (e.g., rafters and trusses) to plates, floor joists to beams, etc. Timber Engineering, Washington, D.C. Circle 316 on Reader Service card

MAN-MADE MARBLE. Four-color catalog contains illustrations, descriptive data and specifications on fortified marble products for homes. Products include columns, doorways and desks as well as a line of bathtubs, Venetian International, Dallas, Tex. Circle 317 on Reader Service card

LANDSCAPING. Booklet contains 63 photos and eight drawings illustrating ways for responsible citizens to improve appearance of home and community through landscaping. International Harvester, Chicago. *Circle 318 on Reader Service card*

REDWOOD. The wood's resistance to decay, termites and weathering is compared with the resistances of other common woods in a four-page



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brochure. California Redwood Assn., San Francisco. Circle 319 on Reader Service card

TILE BACKER BOARD. Specifications and installation tips for water-resistant gypsum tile backer board, designed for bathrooms, kitchens and other high-moisture areas, are contained in a four-page brochure. Georgia-Pacific, Portland, Ore. Circle 320 on Reader Service card

PREFINISHED MOLDINGS. Three molding types —vinyl-clad wood, vinyl-clad vinyl and prefinished metal—are illustrated in a four-page brochure. All three are available in a variety of woodgrain finishes. Installation tips are also provided. Masonite, Chicago. *Circle 321 on Reader Service card*

ROOFING SHINGLES. Descriptions and specifications of five styles of asphalt shingles are presented in a 12-page illustrated brochure. Bird & Son, E. Walpole, Mass. *Circle 322 on Reader Service card*

CEILING SUSPENSION SYSTEM. A concealed suspension system that uses interlocking "T"s to create a grid that's structurally stable by itself is described in a four-page brochure. Eastern Products, Baltimore, Md. *Circle 323 on Reader Service card*

SEALING COMPOUND. A new polysulfidepolymer-base sealant that makes tight joints between dissimilar construction materials is described in an eight-page two-color booklet. Thiokol Chemical, Trenton, N.J. Circle 324 on Reader Service card

STRUCTURAL WOOD PRODUCTS. Twelve-page booklet describes use of laminated-wood products in post-and-beam construction. Specifications and load-conversion charts are included. Potlatch Wood Products Group, San Francisco. *Circle 325* on Reader Service card

DRINKING FOUNTAINS. A 32-page catalog illustrates a complete 1969 line of drinking fountains, fountain accessories and electric water coolers. Included is an application chart that shows how drinking water requirements may be determined. Complete dimensional data is given for recessed, pedestal, free-standing, floor and wall-mounted models. Halsey W. Taylor, Warren, Ohio. *Circle* 326 on Reader Service card

PREFINISHED PANELING. A full-color literature kit helps introduce a new line of prefinished hardwood paneling and prefinished particleboard paneling. Included is information on the various patterns available and a description of the special finish. Boise Cascade Building Products, Boise, Idaho. *Circle 327 on Reader Service card*

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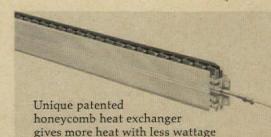
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