

THE MARKETING AND MANAGEMENT PUBLICATION OF HOUSING AND LIGHT CONSTRUCTION

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AUGUST 1969

Company of

New patterns for the old cluster

Alcou How to call houses to today's young families

Decorate with NuTone Hood-Fans

New NuTone"Heritage"looks like an expensive custom unit, yet is moderately priced



... The Quiet Ones

Only NuTone Hood-Fans offer you the engineering extra of Sound-Level Ratings. Every unit is tested and rated under actual conditions of use in completed installations. Each is abeled to be within the "comfort range" of sound. Switch on a NuTone Hood-Fan. Its powerful motor goes to work and quickly expels stale air, freshens the kitchen. Quietly.



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New "Heritage Series" shows NuTone people work as hard at styling as engineering. The elegant look of handcrafted detail will be admired in the most expensive homes. But you'll be surprised by its moderate cost. Choose from the wide selection of models to fit your installation. Widths of 30, 36, 42 and 48 inches. Six most-wanted colors, plus Brushed Antique Copper Enamel. An added plus: save the cost of a cabinet above the hood!



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V-34 Non-Duct Hood-Fans for installation where no ductwork is available. Hood, motor, 3 filters and a light in one, ready-tomount unit. Really works! Washable, Aluminum-Mesh Filter traps grease, Activated Charcoal Filter neutralizes odors, Fiberglass filter absorbs smoke. Deep hood reaches front burners. Available in 3 widths, 6 finishes.



V-19 Contemporary

V-11 and V-19 Series Hood-Fans are decorator-styled to match appliances. Rotary controls are up front for easy operation. V-11, for vertical discharge, has quiet Jet-Flow Power Unit, built-in discharge collar, built-in weather seal Damper. V-19 discharges either vertically or horizontally. Quiet cushion-framed Damper, built-in Duct-Collar and powerful Impeller-type Fan Blade. Choose from four colors or Stainless Steel; Traditional or Contemporary styling.





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RF-35 Roof Fan

RF-17 Roof Fan

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A MCGRAW-HILL PUBLICATION

VOL. 36 NO. 2

AUGUST 1969

EDITORIAL

The long-range need for mortgage money

FHLBB's decision to make five-year loans to s&L's for mortgages is a step in the right direction. But it's not enough to meet tomorrow's huge money demands

FEATURES

New patterns for the old cluster

Almost every efficient land plan uses the cluster in some form. Five examples show that the cluster concept has more possibilities than you might think

How to sell houses to young couples

They have their own way of life, and a big California builder has found that selling them requires a completely different merchandising approach

Design file: entrances

The first impression of a house is all-important. Six pages of ideas suggest ways to strengthen that impression both indoors and out

Award-winning builder houses

Nine houses, ranging from a \$23,000 tract model to a \$95,000 speculative home, were cited by the jury for the 1969 Homes for Better Living Program

NEWS

Scandal in Chicago: State probes city's prefab fiasco

The much publicized housing effort shows little but how not to shelter the poor. Illinois investigates \$1-million misuse of funds, studies other irregularities

12 The housing market at midsummer: Forecasts turn cautious Drum-tight mortgage credit and uncertainty over the tax surcharge dim prospects for a big comeback. The current prediction is for a mere 1.5 million starts

Do you think we have a housing crisis? Just look at Japan 20 Houses are small, only the rich can buy them, and land prices are up 500 fold. But U.S. need not pat itself on back-Japan builds at twice our per capita rate

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Cover: Cluster houses in Calabasas Park, Calabasas, Calif. Architect: Robert E. Jones & Edwin K. Hom. Builder: Kiely Corp. Photo: Julius Shulman. For story, see pg. 58.

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Scandal in Chicago—State probes fiasco in housing the poor

The attorney general of Illinois has turned up a misapplication of state funds and other irregularities.

And the end of the inquiry is nowhere in sight.

For it is clear to Illinois lawmen that there are many things about Chicago's prefabrication housing debacle that require investigation.

From the beginning the city's political machine thoroughly butchered the nation's first attempt to bring modular units to a big-city ghetto and its poor families:

• The first family moved into the units was moved right out again-in short, dispossessed.

• In 11 months only 85 of the announced 200 units have been built. And some were still unoccupied late in June.

That is the least of it.

Misapplied funds. The circumstances surrounding the prefab program seemed so bizarre to the new Republican governor, Richard Ogilvie, that in March he ordered Attorney General William Scott to investigate.

Some parts of the five-month probe led to dead ends. However, the attorney general has questioned the legality of the state's 1968 transfer of \$1 million for Chicago's modular houses. In June, he demanded that the Chicago Dwellings Assn., a quasi-public agency that purchased the 85 prefabs, return all \$1 million.

The attorney general was ready to sue. But the CDA agreed to pay. Its first payment of \$746,000 was made July 2.

Officials at CDA and city hall thought the return of the money would close the matter. They were wrong.

Investigation deepens. In an interview with HOUSE & HOME, a reliable source close to the city's prefab program described possible collusion, kickbacks and payoffs. The magazine arranged a meeting between this source and the attorney general's staff.

The attorney general's staff is now look-

Key Characters:

F. L. Cappaert, board chairman of Guerdon In-dustries of Louisville, who pulled out of Chi-cago's prefab experiment.

Richard J. Daley, mayor of Chicago, who accelerated the prefab program after Negroes rioted in April, 1968.

James C. Downs Jr., nationally known real estate consultant, who has a possible conflict of interest

James R. Price, whose National Homes of Lafayette, Ind., is vitally involved in the prefab program

William Scott, Illinois' new Republican Attorney General

Charles R. Swibel, the city's prefab kingpin, who has agreed to repay \$1 million taken from the state for modular housing under curious circumstances

ing into the source's statements and allegations, and it has offered the information to federal authorities, who have power to initiate criminal proceedings.

Says the source, who has asked that his name be withheld:

"I have enough information to curl some people's toes."

Conflict of interest? A neighborhood Chicago newspaper has posed the question of whether James C. Downs Jr., the nationally known real estate consultant, has a conflict of interest. Further information gathered by H&H indicates that while National Homes of Lafayette, Ind., was negotiating early last year to sell its prefabs to the city, Downs served as both a board member of National and as president of CDA

According to a CDA audit, the agency has so far purchased \$1.18 million worth of National units (75 townhouses at \$15,765 each).*

When asked, Downs said there is no conflict of interest. He noted that on June

14, 1968-weeks before CDA purchased any National units-he resigned from the National board and sold all his 2,000 shares of company stock. He adds that the Chicago Housing Authority (CHA) actually purchased the units, rather than CDA. Downs is neither a CHA officer nor a board member.

Downs also stated that Chicago's daily newspapers had investigated the conflict of interest question and found that "there is nothing to it." And it was learned that the attorney general is not pursuing the matter.

Yet in an interview last month (June 27), National's Chairman James R. Price acknowledged that 1) Downs helped bring National into Chicago, 2) Downs is "my personal economic adviser" and 3) National employs the Real Estate Research Corp., of which Downs is chairman, for special projects.

Downs remains the president of CDA. And National intends to continue supplying units to CDA.

The denials. All the persons involved in the prefab program vehemently deny any wrongdoing.

For example, two top city officials-Earl Bush, the mayor's press agent, and Charles R. Swibel, a leading housing administrator—emphatically deny published reports that they owned National Homes stock, which went from a low of 41/8 a share to a high of 343/8 in 1968. (On July 9, National Homes' opening price on the Midwest Stock Exchange was 193/8.)

Swibel documented his disavowal by showing his personal financial statement for 1968 to an interviewer. It showed no ownership of National Homes stock.

Bush has reportedly offered to disclose his holdings.

Swibel, the man who controls the dayto-day operation of CDA and CHA, reacted to an H&H interviewer this way:

* Includes \$17,500 for one special unit, extra fees for basements and siting costs.





FEATURED SPEAKER at elaborate prefab un veiling is Mayor Richard Daley. Housing chief Charles Swibel (r.) also spoke. Mayor and Swibel have promised to build 4,000 prefabs a year to replace city's 305,054 substandard homes.

PREFAB UNITS are rushed into place by National Homes as an answer to housing the poor. City first set the sale price for the four-bedroom units with air-conditioning at \$14,500. But the units cost \$1,000 more than that to produce.

"Your magazine must be part of the ig fix to stop modular housing. But I am elling you that your magazine isn't big mough to stop modular housing."

National's Jim Price had a rather more lunt reply.

In a nutshell. The curious tale of Chiago's effort to house the poor unfolds in pree chapters.

In August '68, contracts for 100 units ach were awarded to National Homes and fagnolia Homes of Vicksburg, Miss., a absidiary of Guerdon Industries.

Second, CDA received \$1 million from new state agency to finance the modular rogram.

Third, the first units were built in just en days and immediately unveiled to the ational press covering the Democratic conention. Mayor Richard Daley said the roject was a first step toward creating a nion-run factory that would supply Chiago's poor with 2,000 to 4,000 townouses a year.

The program seemed to be a major reakthrough. It had the potential to hatter the building code and craft union arriers that resist a nationwide flood of actory-built houses priced for the poor.

But the train of events leading up to he Chicago fiasco has, in fact, supplied mmunition for the opponents of prefabriation—and rendered the breakthrough llusory.

The plan. Swibel, the power in CDA and HA, says he began thinking of low-rise refabs as a substitute for high-rise public tousing in 1967.

Board Chairman F.L. Cappaert says his Guerdon Industries was to be the first mantfacturer in the 1968 program. "I was promised a contract by Christmas of 1967," the says. "But then National Homes got into the picture."

Guerdon's contract was delayed indefintely. And so began a bitter inter-company ivalry that was to plague the program.

National's Jim Price offers a different hronology. "Downs and Swibel called me to Chicago on March 16," he says. "But they seemed only mildly interested—until the riots."

Project acceleration. Chicago rioted April 5-7, the weekend after Martin Luther King's murder. Says Price: "On Monday Swibel and Downs called me again."

The riots deeply disturbed Mayor Daley, who feared a reprise during the Democratic convention in August. In an effort to show his good intentions, the mayor accelerated projects for Negroes. In this preconvention frenzy, as one politician called it, the mayor dedicated a new police station and built 15 swimming pools adjacent to public housing.

And he climaxed the crash effort by personally unveiling the first low-income prefabs in elaborate ceremonies on August 20—only days before the convention began.

Swibel, the real kingpin in the prefab program, says there was no crash effort. He says National Homes followed "a selfimposed deadline" when it built and landscaped its first eight models in 10 days. But sources at Guerdon say city housing officials threatened lawsuits if its models were not ready by August 20.

The manufacturers had no real difficulty with the August deadline. But, as Mayor Daley was to learn, his own housing bureaucracy was caught without proper sites, necessary zoning and money.

The money. The CDA got the \$1 million for modular housing from the Illinois Housing and Development Authority, a new agency that lends planning funds to notfor-profit groups. The authority, then controlled by Democrats, approved the interestfree loan on August 13 after only a slight delay.

It was this transaction, in particular, that prompted the new governor to order the prefab investigation.

The authority's former executive director, Darwin Kal, says the loan was authorized at a meeting of the authority's parent, the State Housing Board. Kal says he first learned of the meeting when the board's leader, Richard Blakley, asked Kal to sign the \$1 million voucher for CDA on August 1. Kal said he would not sign until he had studied the CDA proposal.

There was little to study. Kal found no contracts or other formal guaranties that the loan would be spent properly—or even repaid. He drew a contract for CDA to sign.

But he says Swibel, in turn, urged him to sign the voucher first. Says Kal:

"He phoned and assured me that all the legal procedures would be followed after I signed. He was my former boss at CDA in 1966, and he had recommended me for the authority job. In short, I trusted him. So I signed [on August 13]."

Kal's contract remained unsigned, despite letters he wrote to the State Housing Board, Blakley and CDA. "The directors of the State Housing Board didn't back me up," he says, "so I quit early in October."

Enter the G.O.P. The State Board's new Republican appointee, Daniel Kearney, now enters the story. Last February he repeatedly asked Blakley for documents on the CDA loan, the authority's largest to date.

On February 28, Kearney got the CDA loan dossier. (By then Blakley had left for a new job: executive director of CDA.) The file did not contain a contract or a note of debt. But there were two letters signed by Blakley. One, dated Oct. 29, 1968, and addressed to the CDA counsel, directed CDA not to spend the authority money until the State Housing Board received proper documents. The other, dated Feb. 10, 1969, and addressed to Swibel, said all CDA expenditures had been proper.

A letter written by Kal, urging that CDA follow legal procedures, was found misfiled in another folder.

Kearney also discovered that on Dec. 28, 1968—the very day he and Blakley agreed to withhold any more large transfers—the Housing Board issued \$750,000 to CHA and another \$992,000 to CDA for its 1969 budget.

So, while Blakley was still a state official, he approved the budget that he is spending now as CDA's executive director.

Kearney took the information to Gov. Story continued on p. 8

PREFAB LEADERS pose at party attended by 450 dignitaries on eve of model-house unveiling. From left, city housing official Charles Swibel, National Homes' Jim Price, CDA President Jim Downs and Roger Branigan. A company press release did not note that Branigan, then governor

TOWNHOUSES attract visitors to opening. Some 15,000 persons applied for the four-bedroom units. But, after 11 months, only 85 have been built.

of Indiana, was a member of National's board.



Now, no exterior Perma-Shield Narroline

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No exterior painting or scraping. Wood sill and jambs are covered with rigid vinyl.

Snapout perma-fit grilles made out of rigid vinyl make window cleaning easier.

No storm windows needed with welded insulating glass. Two, not four glass surfaces to clean. Triple glazing is also available.

> Sash slides smoothly against vinyl jamb liner... no sticking or binding.

> > Four step factory finish on exterior of sash won't need painting for at least 10 years.

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n-site painting with these Vindows from Andersen.

Perma-Shield Narroline won't need painting for at least 10 years

Meet the only modern, traditional window. It incorporates the best of modern materials technology without sacrificing the traditional window form that's been popular since Paul Revere's day. Starting with the classic, double-hung form, Andersen has designed the most maintenance-free window possible at a reasonable cost.

All surfaces exposed to the weather, except the sash, have a core of warm, stable wood, and a surface of rigid, weatherproof vinyl about 30 mils thick. (That's not just a coating, but a vinyl sheath* about as thick as the cardboard backing on a writing tablet.)

The wood sash is protected by a 4-step factory-finishing process* that won't chip, crack or peel...won't require painting for *at least* 10 years. On the interior, the wood may be finished to blend with any style of decor.



No exterior painting, no storm windows.

Welded, insulating glass is the most popular glazing option with Perma-Shield Narroline. And with it, owners can look forward to years of easy living—without the back breaking job of changing storm windows, without the usual painting or puttying every 4 or 5 years.

Still, no real cost premium.

As we've said, Perma-Shield Narroline Windows require no exterior on-site finishing. Builders across the country now "Patents pending



pay up to \$10 per window for a professional painter to put the outside finish coats on an ordinary double-hung window. Add the clean-up costs to that, and you know why there's little, if any, additional cost to homebuyers for the low maintenance advantages of Andersen Perma-Shield Narroline.



Exposure tests prove superiority of sash finish. Both samples have been exposed to sun and weather the same length of time, yet look at how the conventional paint at left is cracking and flaking, while the Perma-Shield Narroline finish is still smooth. It still looks good. Still protects the wood.

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Scandal in Chicago . . . (continued)

Ogilvie, who then issued a blistering press release announcing the investigation.

The CDA audit. A subsequent audit of CDA, requested by the attorney general, revealed that CDA had spent some of the authority's \$1 million improperly. By law, the authority's loans are restricted to development costs such as architect's fees. The audit shows that CDA spent money for such non-planning items as promotion (\$13,000), model hostesses (\$9,244) and guards, maids and janitors (\$50,047).

After studying the audit, the attorney general demanded the entire \$1 million.

When questioned by H&H, Blakley said only: "It takes money to build houses."

Swibel says he does not remember talking to Kal or receiving letters from him. In fact, says Swibel, he does not know Kal very well, though he recalls "endorsing" Kal for the authority job.

As for the money, Swibel says CDA always intended to repay the \$1 million loan: "I never thought it was a grant."

However, CDA listed the money in its quarterly report, dated March 31, 1969, as a "modular townhouse grant . . . \$1,000,000." And Swibel told some Chicago newsmen in March that he had no intention of returning the money.

The building. The tale of construction has as many odd twists as that of the financing.

When construction actually began, the rivalry between National Homes and Guerdon intensified—until Guerdon decided to leave town after completing only 10 houses.

Guerdon's Cappaert says that at one point his project manager reported that National Homes had purchased the crane that was lifting Guerdon's units into place. Guerdon was forced to close its site while company officials hunted for another crane. (National Homes later hired the project manager, David Wolff.)

Says Cappaert: "Jim Price wanted to stay and fight me toe to toe—and lose money along the way. So I left town."

Both Price and Cappaert say that they lost money in Chicago. (But both added that they are making money on prefabs in other cities.) Says Cappaert:

"I lost at least \$250,000 building my 10 units. I couldn't afford to stay."

There may be other reasons why Cappaert left.

A story from inside. A source inside the company says a series of decisions by city housing officials cut Guerdon's earnings. For example, CDA declined to pay Guerdon more for its units, though they were 15% larger than National's. And zoning regulations on a site assigned to Guerdon required expensive outer walls of brick. City officials declined to supply an alternate site.

And there were oversights. Guerdon's trucks, loaded with modules from its Mississippi factory, were parked outside Chicago for three days before city officials produced permits needed to drive to the inner-city building sites.

City officials even forgot to drive Guer-

don's executives to the big prefab unveiling, which featured National's models and a speech by Jim Price. The executives finally arrived by taxi—and late.

There may be even more behind Cappaert's departure.

An informant's story. An informant who met with the attorney general's staff says Guerdon left town because of possible collusion and pressure for kickbacks and payoffs. He says:

• An attempt was made to sell Guerdon \$3,000 worth of tickets to a football game in Soldier Field, a city-owned stadium.

• Guerdon was pressured to hire certain subcontractors and others with political connections.

• The pressure even extended to the hiring of model-house hostesses and guards. Bills for these services ran high.

• And demands were received from union men to keep some trades working.

The informant says: "The corruption was a crawling monster. Once it started moving, nobody could stop it."

When questioned, National's Price said: "I think Guerdon ran into union trouble; it's non-union. I have had a union factory for 25 years."

Legacy of haste. After Guerdon left, city housing officials began discovering troubles of their own.

In the preconvention furor, they had failed to study such questions as: 1) Does CDA have title to enough land? 2) Is the land zoned for four-bedroom units? and 3) Will FHA issue mortgage insurance?

The answer to all three was no.

National's first eight units—the houses unveiled to the press—presented typical headaches. Long after the units were built, the city learned that the site was zoned for a parking lot and the city's Department of Urban Renewal still held title. Transfer of title required time-consuming approval from HUD in Washington, D.C. Further, a neighborhood agency that has the final say on rezoning decided the units should be public housing, rather than middleincome housing.

So the Negro family that the city moved into one of the prefabs, just in time for the press fanfare, was quietly told to move out. The family balked, so finally in February the city delivered an eviction notice to the policeman, his wife and three children.

Meanwhile, CDA could not get FHA mortgage insurance, because CDA had not asked FHA until *after* the units were built.

With no FHA insurance available, CDA took an expensive policy from Lloyds of London that cost \$24,000 for four months.

Confusing instructions? In January, Swibel got rid of one-third of the CDA staff, and deputy director James S. Phillips left. Some who were fired or transferred to other departments now say that Swibel himself caused the confusion. A source said:

"He gave his orders over the phone. We never got anything in writing."

Swibel says the fuss about land title and FHA insurance was exaggerated. He contends that FHA will soon issue financing for the prefabs: a 46-unit cooperative and 30 condominium units. (The other nine units are leased to CHA as public housing.)

Says Swibel: "If we had waited to do every i, none of these units would have been built. We built housing. What housing ing have my critics built?"

National's Price says Chicago's land problems were unavoidable: "We need some laws changed so urban renewal land car be given to low-income homebuilders at no cost."

He also wants public housing and FHA officials to adopt identical standards, so that factory-built houses, normally sold to moderate-income families, can also be sold as public housing.

Price added: "After all we are building these houses for all the same families with 18 kids."

The factory. Swibel says the prefab program will enter a new phase in six months when Chicago industry creates its own housing factory. Says Swibel:

"I have gone through heartache for this factory. And the mayor wants it. Don't worry. It will be built."

To do it, Swibel will have to raise \$3.6 million from Chicago industry, and he will have to convince six craft unions to work together under one roof.

"The factory talk is a lot of _____," says National's Price. "Chicago doesn't have the land, the money nor a program. We can build all the units the city needs."

Larger story. Many political observers see the prefab fiasco as part of the larger story of Mayor Daley's vanishing power.

His prestige has been eroded by a string of reversals—the Democratic convention, the election of President Nixon and the elections of a Republican state governor and anti-machine alderman in Chicago.

Says one rebel alderman:

"A political machine serves the public in a general way. But first, it makes sure that there is something for its own workersmore jobs or something.

"This is bad enough when someone has it under control. But when a machine can fatten on its domain unrestrained, it is bedlam.

"That is what we are seeing in Chicago today." —FRANK LALLI

NEWS continued on p. 12



FIRST FAMILY to occupy a prefab gets key from CDA'S Jim Phillips as National Homes' Jim Price watches. Photo appeared in Chicago newspapers last August. Some months later, the family was dispossessed and Phillips left the CDA post.

New redwood plowed fascia... engineered to save time and cut expenses on your next job!

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Housing at midsummer—The money squeeze begins to hurt

For the housing and mortgage markets it is a period not unlike 1966, when uncertainty was the order of the day.

Housing is now clearly being hurt.

Economist George Christie of the F.W. Dodge Corp., the building statistics service, says starts will do no better than equal the 1.5 million units of 1968—and this at a time when demand for homes is far outrunning the supply. Christie had previously predicted 1.6 million units for the year, but the starts index fell in June for the fifth consecutive month.

Tight credit is to blame. Interest rates have run at or near records for most of the year. Federal funds have traded above 10%. Treasury bills have neared 7%. Eurodollars have approached 13%. The Federal Home Loan banks and the Federal National Mortgage Assn. have been paying 8% for money.

The tax surcharge, which was supposed to relieve the pressure on interest rates, squeaked through the House on a 210-to-205 vote and headed for an uncertain fate in the Senate. Chairman Russell Long of the Finance Committee warned that the nation should not be subjected to both the surcharge and spiraling interest rates.

"The people can take one or the other," he argued. "Not both."

It was Long's committee that had to clear the tax bill.

Mortgage slowdown. Except for savings and loan associations, private investors have deserted home mortgaging in favor of commercial and industrial loans on which they could take higher interest and a share of the equity.

Only Fanny May and the Home Loan Bank system are providing liquidity for the home loan market. The volume in the weekly FNMA auctions has run at exceedingly high levels, for seller-servicers find few other takers for loans.

Fanny May's President Raymond H. Lapin vows to support the FHA-VA market to the fullest extent possible. "So far," he says, "we haven't strained our resources."



Lapin points out that his agency is increasing its supply of money to the auction at a time when other investors are moving away from the mortgage market.

"They have happy alternatives," he noted. "We don't, so we are going to remain heavily committed to the market.'

New help for S&Ls. As for the conventional loan market, the Home Loan Bank Board announced it would begin making five-year loans to s&Ls. Chairman Preston Martin said the board would take firm commitments from associations that wanted long-term advances from the bank system. The board has never lent beyond one year.

Martin said he would seek the commitments to fix the amount of a debenture issue that the bank system will float to support the loan requests from associations. The proposal will carry a provision that the advances may not be repaid to the HLBB system in advance unless the S&L buys an equal amount of the debenture in the open market and uses the debenture as the repayment instrument.

For comment on Martin's action, see p. 53.

Savings and loan managers have already expressed their fears of another credit crunch, and new loan commitments are being made at their slowest pace since 1966. Association managers were waiting for the July reinvestment period to pass before making any decision as to whether to back out of the home lending market.

The U.S. Savings & Loan League esti-

Management experts will try to straighten out HUD

In his first annual report to President Johnson, Secretary Robert C. Weaver spoke in glowing terms about his new Housing and Urban Development Department's first year of operation.

Particularly did the former Cabinet member single out the fact that he had accomplished the difficult mission of "reorganizing five semi-autonomous agencies, many with overlapping authority, separate but similar programs, and uneconomic staffing patterns, into a cohesive, functioning organization."

Almost as an aside, Weaver conceded: "Some reorganization remains to be completed.'

That may go down as the greatest understatement in HUD's history. Almost three years later, Weaver's successor, George M. Romney is still trying to figure out what makes his department tick-if anything.

A \$445,158 face-lift. The department is still a conglomerate mess. Aside from numerous middle-management jobs that remain unfilled, several top posts have been vacant for months. Examples: the FHA commissionership and, until recently, the presidency of GNMA (see p. 32).

In one more effort to get organized, HUD has awarded a \$445,158 one-year contract to a management consultant service called Informatics. Its job is to come up with ways to streamline the HUD programs.

The service's contracts manager, David Clark, says the result should be new management systems that will smooth out all HUD operations. The principal approaches:

 Perform background studies of all current and proposed HUD systems to develop a "total management system operation" con-

mated that the nation's associations would lose something like \$1 billion, about half way between the \$588 million loss of Jul 1968 and the 1.5 billion in July 1966.

'Fight for survival.' The commercia banks' action in raising their prime lendin rate to 81/2 % brought home the fact that a crunch was imminent. Norman Strunk executive vice president of the U.S. Saving and Loan League, said the increase would heighten the problems of home mortgag lenders and of homebuilding generally.

Nathaniel Rogg, executive vice presiden of the National Association of Hom Builders, went further. "The homebuildin industry," he said, "is facing a fight fo survival."

"The nation needs a massive exercis in self-restraint but this restraint should b more evenly applied," Rogg argued. "Righ now, the homebuilding industry and hom buyers seem to be the only ones bein restrained-in fact, strangled."

No easy way out. The prime-rat increase ran into heavy criticism at hearing before the House Banking Committee, bu it did not appear the ceiling had been reached. Within days after Federal Reserv Chairman William McChesney Martin tol the panel that there was nothing the Fee could do to stop the prime rate action Chase Manhattan Chairman David Rocke feller was quoted as saying another prime rate increase was "inevitable."

As for the administration, it appeared ready to continue to try to brake the boom Its efforts up to midsummer had no worked, and the economy continued to roar along on heavy plant and equipmen spending and a high level of retail sales.

The administration counted on the sur charge extension as a major weapon, and its sights were set on the Senate.

For housing, the prospect of a long battle over the levy was not encouraging. More over, unless the bite of the surcharge be comes more potent than has been the case there is no assurance that housing will fare any better after extension. -A.M

cept, and to define systems needed at HUI between now and 1975. This will include modern electronic data equipment.

• Design, develop and implement an automated staff expense accounting system and integrated payroll system for all na tional and regional HUD offices.

 Prepare a time-phased operational plan for developing and implementing all HUI systems through 1975.

In short-cut! Stripped of jargon and stated in plain English, the goal is to show HUD how to cut expenses and reduce its nationwide staff of 14,000 souls. Clark says he doesn't know how much money or manpower can be saved.

As for Romney, mired in an organization not of his making, any help he can get is sure to be welcome. -A. M. NEWS continued on p. 16

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At long last—a proposal to get rid of mortgage discounts

The age-old dispute over discounts on FHA-VA mortgages may be resolved by a compromise in which everybody-and nobody wins.

After 20 meetings, the Presidential commission on mortgage interest rates has debated its way to a consensus proposal.

The panel, which was to have reported to Congress by August 1, is set to ask for legislation that would let lenders decide how to make government-insured loans. The compromise would let lenders 1) make loans at any interest rate they chose provided no discounts were attached or 2) continue to make loans under the present system of administered interest rates, with discounts.

Three-year trial. The proposal will call for a three-year trial for this modified free-rate system.

Commission members say the compromise will 1) satisfy those who want to abolish discounts in exchange for a free interest rate and 2) allow nationwide secondary market lenders, who need points to operate, to do business in the old way.

One commission member said the proposal is ingenious in that it will show Congress how free and controlled-rate systems work-at the same time.

The commission had been bogged for months in a dispute about freeing the FHA rate. Most members wanted to free the rate without making any mention of discounts, thus in effect permitting them. Congressional members, notably Chairman Wright Patman of the House Banking and Currency Committee, refused. Patman not only maintained that the rate must not be freed; he demanded that Congress reclaim control over administering the rate.

The ceiling is now set by Secretary Romney and is currently 71/2%. It reverts to its statutory limit of 6% on October 1 unless Congress extends the HUD secretary's authority or enacts legislation.

The debate. Patman, chief Congressional foe of high interest rates, argued that a free rate would not abolish discounts. He told Congress and the commission that when Congress permitted the FHA rate to rise above its 6% statutory ceiling, lending institutions had assured legislators that discounts would be held to a minimum. But whenever the rate was lifted, discounts continued to creep up. In early July, with the rate at 71/2 %, discounts were running at 8 points or better in some areas.

Such economists as Saul Klaman and Oliver H. Jones, both members of the commission, contended that discounts would not be so high if the basic rate was responsive to market forces. But Patman's view prevailed.

"We got nowhere with the free rate idea," one commission member said. "The compromise was the only way."

Defense of discounts. Patman and his supporters would have agreed to a free rate if discounts were abolished. That was anathema to the Mortgage Bankers Assn., of which Jones is executive vice president. The mortgage bankers, who originate loans

and sell them into the national secondary market, argued that discounts are built into the system and that to abolish them would be tantamount to killing the market.

Were discounts barred, the mortgage banker buying a loan from a builder at par would have to charge a premium above par to make a profit in the secondary market. Yet the market is simply not geared to premium operation.

Discounts usually permit the mortgage banker to make a profit without resorting to premium pricing. If he gauges the market trend correctly, he can often buy mortgages from builders at 97, for example, and sell them to investors at 98 or 981/2. That means a profit of \$1 or \$1.50 per \$100. A free rate without discounts would deny the mortgage banker this flexibility.

Savings banks and other investors were not so insistent on maintaining discounts. Klaman, economist and vice president of the National Association of Mutual Savings Banks, found that members of his association's mortgage committee voted overwhelmingly for a free rate without discounts. A similar survey of MBA members produced just the opposite result.

Delays. With the deep split in opinion, the commission had to ask Congress for two extensions-to August 1.

The delays enabled the commission to devise its compromise, which gives lenders the choice of how to make FHA-VA loans. Commission members believe local lenders will use the free rate, without discounts, and that national lenders will continue with the present system.

One commission member thinks th three-year trial will provide a good test: "] the market even returns to normal, we ma see the staging out of discounts entirely.

The big question. Such theorizing as sumes that Congress will go along with th commission, an assumption by no mear certain. The present session may simply ex tend Romney's authority to set the rate and action on the commission's report ma wait on the second session.

That would seem logical. If the length report gets in on time, Congress will hav only weeks before a Congressional reces running into September. With the surcharg claiming attention, the mortgage report might be delayed until Romney's rate-se ting authority expires October 1. In that case, Congress would almost certainly settl for a mere extension.

> -ANDREW R. MANDAL Washingto

Cleveland mortgage concern is selling out to a bank

The Mellon National Bank & Trust Co. c Pittsburgh has agreed to acquire the ou standing stock of Jay F. Zook Inc., a Cleve land mortgage banking house, for \$6.5 mi lion in Mellon shares.

Zook services \$450 million in mortgage Another bank, the Fort Worth (Texas National, has bought the J. E. Foster Sons mortgage company in that city. An in Los Angeles the Colwell Co., the na tion's fifth largest mortgage company, ha acquired the Charterhouse Investment Co an industrial-commercial mortgage deale

HOMEBUILDERS' MORTGAGE MARKET OUOTATIONS

Reported to HOUS FNMA							
Auction Prices	MinDow	A Sec. 203b- vn* 30-year immed nt paid by builder		Comm. banks,	onal Loan Int Savings banks,	Savings banks,	Construction Loan Rates
July 21 7½%	City	Private mkt. 7½%	Trend	Ins. Cos. 75%	S&Ls 80%	S&Ls Over 80%	Interest+fees All lenders
	Atlanta	6½-7	Up 2½	81/2-83/4 b	81/4-83/4+2-4	а	91/2-10+1-2
90-day	Boston	4	Up 3	73/4-8	8 ^b	а	8+1
commitment Average	Chicago	8-9		73/4-8	7.9 ^b	а	9-91/2+11/2
93.78	Cleveland	7–9	Up 3	73/4-8	71/2-8	а	91/2+2-3
Accepted	Dallas	6–8	Up 2	81/4-81/2	81/2-9+1	9-91/2+2	9-91/2+2
bid range 92,99-94,23	Denver	5-6	Up 1	81/2+1	81/4+1-11/2	8 ³ / ₄ -9+2 ^b	9+11/2
02100 0 1120	Detroit	5-7	Up 2½	7ь	а	а	10-12+2
180-day	Honolulu	7-71/2	Up 1¾	9-91/2	8-91/2+2-3	b	10+11/2-2
commitment Average	Houston	8b	Up 3	8 ³ / ₄ -9 ¹ / ₂ b	8 ³ / ₄ -9 ¹ / ₄ b	8 ³ / ₄ -9 ¹ / ₄ b	10
93.92	Los Angeles	7-8	Up 3	а	81/4-83/4+1	b	83/4-9+11/2-3
Accepted	Miami	8	Up 3	71/2+3-31/2	73/4-81/2+3-31/2	81/4-83/4+4	91/2+1/2-1
bid_range 92,50-94,43	MinnSt. Paul	8–9	Up 4	8 ^b	а	а	9+3b
92.30-34.43	Newark	5-7	Up 2	71/2 ь	7½ b	b	9-91/2+1-2
12–18 month	New York	4–6 ^b	Up 2	7½ ь	7½ b	7½ ь	81/2-9+11/2-2
commitment	Okla, City	5-7	Up 3	а	8+1	81/2+3	81/2-9+1-2
Average 95.07	Philadelphia	8	Up 3	7+2 ^b	7+2 ^b	а	91/2+11/2
Accepted	San Francisco	7-8	Up 3½	81/2-9	81/2-91/4	b	81/2-91/2+11/2-3
bid range	St. Louis	5-8	Up 2	$7\frac{1}{2}-7\frac{3}{4}+1$	73/4-8+1	8	8-91/2
93.95-95.75	Seattle	5-7	Up 2	8-83/4+11/2-2	81/4-83/4+11/2-2	81/2-9+11/2-3	9-91/2+11/2-21/2
	Wash., D.C.	6-8	Up 2	8b	8b	8b	9-91/2+2-3

* Immediate covers loans for delivery up to three months, future covers loans for delivery in three to twelve months. • Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones. • Quotations refer to houses of 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 7½% mortgage plus extra fees. w—for comparable VA loans also.

Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, chairman, Boston 5¢ Savings Bank; Chicago Robert H. Pease, senior vice pres., Draper & Kramer Inc.; 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 pres., 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, Robert E. Morgan, senior vice pres., Colwell Co.; Miami, Lon Worth Crow Jr., pres., Lon Worth Crow Co.; Minneapolis-St. Paul, Walter C. Nelson, pres., Eberhardt Co.; Newark, William W. Curran, vice pres., Franklin Capital Corp., NewYork, 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., FranstPennsyl-vania Banking & Trust Co.; St. Louis, Charles A. Keller, vice pres., Mercantile Mortgage Co. of San Francisco, John Jensen, senior vice pres., Bankers Mortgage Co. of San Francisco, John Jensen, senior vice pres., Continental, Inc.; Washington, George DeFranceaux, pers., the Berens Cos.

NEWS continued on p. 20

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IMPACTED HOUSES creep in patternless profusion over virtually every foot of expensive sites on the rim of Tokyo's business area.

SLUMS infiltrate Tokyo (*right*). Not all Japanese live this badly but most are deeply distressed by the inadequacy of their housing.



Builders abroad

A U. S. housing crisis?—Then just take a look at Japan

True or false?

• Most Japanese houses are little more than wooden shacks with paper-screen interior doors.

• Floors are usually of bamboo straw.

• Entire families often live in a single room—a living dining room by day and a bedroom by night, when a family mattress is spread over the floor.

• Japanese seldom invite guests, even friends, because homes are too humble.

• One reason for Japan's high productivity is that workers prefer to stay late at office or factory rather than go to squalid homes that are too hot in summer and too cold in winter.

• Much social life centers at public bathhouses because few homes have a bath.

Considering Japan's phenomenal economic rise of recent years, it would seem that all these statements are false, no more than lingering myths from a bygone day. As it happens, all the statements are true.

Japan has risen to second place in gross national product in the free world. The consumer is more affluent than ever. There is virtually full employment. It is seemingly paradoxical, then, that Japanese housing is as bad as it is. But therein lie the seeds of dilemma.

World's fastest builders. In its drive toward economic growth Japan has placed its priorities on building new industrial plants, paying scant heed to housing.

All Japanese consumers have grown more affluent—including landowners, real estate agents, carpenters, plasterers and cement mixers. While the potential home buyer is better off than he was, his income has not kept pace with the inflation in land, material and building labor costs.

Yet, in their new affluence, most of the 102,000,000 Japanese are increasingly discontented with their housing. They clamor for something to be done.

Something is being done. On a per capita basis, Japan's residential construction is the most rapid in the world. But that is not fast enough.

The Japanese five-year plan ends March, 31, 1971, and the Construction Ministry has targeted 6.7 million new homes by that time. Building is behind schedule, and probably only 70% of the goal will be met.

Goals in the United States are perhaps more ambitious—some 26 million new or refurbished units by 1978—but it is the performance comparison that is revealing. Japan started 1.2 million units in 1968 and will start between 1.5 and 1.9 million this year by contrast with the 1.55 million expected in the States. With half the population, Japan is thus building at twice the American per capita rate.

Land cost up 500 fold. Japan's fiveyear plan has nevertheless been criticized as being no program at all because government has left 60% of the target to private builders. But private building has lagged in the face of staggering obstacles.

Japan's urban plots were gobbled up for factory and office as the country plunged into industrialization. The industrial drive has swollen city populations. City planning being an alien concept, commercial buildings overflowed onto land that might have been reserved for homes. Houses can often be built only on property wedged in amongst cement factories, office building and fish stores. The picture is the same in Tokyo, Osaka, Yokohama and a dozen other cities. There is no sharp definition be tween residential and commercial areas.

In the competition, land prices have ballooned at a mind-boggling clip. The residential plot that sold at \$600 in 1946, a year after World War II, goes today for \$300,000. That's a 500-fold increase. The big jump came during the Korean War when Japan began its economic comeback Inflation in land continues, and prices have risen nearly 340% since 1960 (table, nex page).

Labor and money. Wages have climbed by more than 240% since 1960, and con struction workers are in chronic short sup ply.

Materials cost have risen sharply and the prospect is that they will continue to do so The limitation on log exports from the United States means that Japan must now import more expensive finished lumber, and that will raise prices.

The private builder is harried by a fearsome money market. Banks, tied by their own equity to the industrial establishment have been severely strained by loans to stee producers, automakers, shipbuilders and textile mills. Homebuilding has been the work of private individuals or small entrepreneurs using primitive methods. They wield small influence at the bank. A typica private home loan bears interest of 9.48% and must be repaid in 10 years. Large down payments are usually required. Often the terms are cash.

Landlords demand six months' to a year's



BOXLIKE APARTMENTS force tenants to hang out bedding in order to use rooms by day. Mix of buildings shows lack of site design.

STARTS will run between 1.5 and 1.9 million in 1969. The average units are small—about 660 sq. ft.



TOKYO COMPLEX built by Japan Housing Corp. has 3,092 units, but it will turn away thousands.

STARTS	AND CO	STS IN	THE '60s
	Units started c	wage	Land price index (1960-100)
1960 1961 1962 1963 1964 1965 1966 1967 1968	424,170 535,960 586,122 688,743 751,429 842,596 856,579 991,158 1,201,675	\$60.30 67.50 77.00 87.90 97.50 109.40 120.50 130.30 144.90	100 139 165 186 213 234 251 288 338

ent in advance. Payment of non-refundble key money running to several thousand collars is not unusual for the privilege of ecoming a tenant in high-rent buildings.

It is little wonder that only the well-to-do an efford to buy a private single-unit welling in Japan.

Government housing. For low- and hiddle-income housing, most Japanese look the government. Funds have been limited y other priorities, but the government proided 500,000 new dwelling units last year nd will build 573,000 this year. Only 800,-00 subsidized units have been built during 0 years of federal housing programs in the United States, and the recent annual prouction has been about 50,000.

Some 246,000 of Japan's homes planned nder the government program this year nvolve the extension of long-term and ow-interest loans by the Housing Loan Corp.

The scramble to get into government ousing is fierce. For 130 apartments made vailable by the Japan Housing Corp. in Tokyo in 1967, some 6,500 applicants clamred for the privilege of paying \$12,500 to \$14,000 for a three-room unit. Japan ells such housing, and the units were availble for cash or for 20 annual installments fter a down payment of \$2,800. Last Febuary, another Housing Corp. complex opened in Tokyo and found 8,053 appliants for each vacancy. Tenants were hosen by lottery.

Help on way. The Ministry of Trade and Industry, which for a decade has made levelopment of heavy industries a national policy, is switching emphasis. With Japan's arrival as an industrial power, the ministry will stress improvement in living standards. It has established a new housing industry section to building.

Meanwhile, the world's largest housing complex is rising in the Tama area on Tokyo's western outskirts. This project, being built by the Tokyo Metropolitan Government in cooperation with the Japan Housing Corp., includes medium and highrise apartment houses that will accommodate 400,000 persons by 1973. The government hopes the first 3,200 families can move in next March.

Japanese private industry, too, is gearing up.

Home building could become one of the driving forces in the economy in the next few years. The big trading and manufacturing companies are being attracted, and that promises to bring their capital and organizational resources into play. Their massproduction methods will change the character of the housing industry.

Big real estate firms such as Mitsui Real Estate, Mitsubishi Estate Co. and Sumitomo Real Estate have dabbled in homebuilding but their primary interest has been office buildings. Now all three, plus several other companies in their respective groups, are about to make serious advances into housing. The Sumitomo group is massing 13 member companies involved in banking and in making steel, cement, aluminum sashes, wood products and electrical equipment. Similar cooperative efforts are under way within the Mitsui and Mitsubishi groups.

Other big industrial and commercial firms are also moving in. The Asahi Chemical In-

dustry and Sekisui Chemical Co., makers of plastic building materials, are now interested in expanding into home construction. Matsushita Electric Industrial, which has prefabricated housing materials through a subsidiary, will start building homes. A major steelmaker, Nippon Kokan K.K., has established a subsidiary to prefabricate metal homes. One of Japan's Big Five construction firms, Taisei, is going into homebuilding, and such big trading firms as C. Itoh & Co. and Marubeni-Iida Co. are easing in.

New face for cities. Since land costs have priced the detached single-family house out of the market for all but the very rich, the industrial builders will maximize land utilization. A new vista of high-rise will replace the low silhouette of cities.

The trend to high-rise is already under way. In 1965, only 50 applications were filed for permits to build high-rise apartments in Tokyo. It was 400 in 1968.

Housing has advanced at a creep in comparison with the rest of the economy. Of Japan's \$142-billion gross national product last year, housing accounted for \$10 billion, or 7%.* But with the government's help, with scant prospect for abatement in the frenzied demand and with big industry turning to the problem, the homebuilding business is expected to grow between 20 and 25% annually during the next decade.

—Marvin Petal McGraw-Hill World News, Tokyo

* That is still twice the U.S. ratio. New housing accounts for about 3% of the American GNP.

A Pretty Face Isn't Everything

A pre-finished exterior siding has to be well built, too. Like our new Vinyl-Bond Insulite Siding.

Of course, we don't ignore pretty faces. We just make them last longer. Like our lovely new semi-gloss, satinsmooth Gold Vinyl-Bond and Avocado Vinyl-Bond, which you see below. These new colors are becoming as popular as the other two members of our beautiful family, Sandstone and White. That's because they all have a superior vinyl coating on every exposed surface. In fact, all four pretty faces are blessed with a written, 10-year guarantee against blistering, peeling, or cracking.

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You should know a few other things, too, about our new Vinyl-Bond Insulite Siding. For instance, since it's pre-finished, it can be put up during

any season. It can be easily installed with conventional carpenter's tools. And, it's easy to maintain. Some mild detergent and clean water will wash away any finger-marks or dust. Furthermore, along with colormatched accessories, you can order either Horizontal Lap Vinyl-Bond, or Plain Panels. Each is available in popular sizes.

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Please send me more information and samples of your new Vinyl-Bond Insulite Siding, available in four glorious colors: Gold, Avocado, Sandstone and White. Many thanks in advance. H&H

NAME	
COMPANY	
ADDRESS	
CITY	
STATE	ZIP



Lumber prices are down—and industry's blood pressure up

Midsummer prices for lumber and plywood are 50% below March peaks but the decline imparts small comfort to builders and provokes outright dismay in the lumber industry

The builders confine themselves to a faint hurrah, for they know lumber is down because homebuilding is down. Mortgage rates are to blame. Starts fell for five months through June, led down by the single-family houses that normally take building's largest share of lumber sales.

The lumber industry's discomfiture is twofold: economic and political.

Economics. Producers are caught between declining prices for sawed lumber and steady-to-rising prices for timber. The cost of logs from the national forests, where most of the nation's softwoods stand, rose 135% last year, and fervid bidding by Japanese export concerns is keeping quotations high.

The lumber giants own their timberlands, but most small producers buy from the federal forests at top-dollar. Many smaller mills have closed for two-week summer vacations, and some are expected to extend the recess until sawed-lumber prices rise.

Most mills have also had to absorb the costs of a recent labor settlement that may add \$5 per 1,000 board feet to the cost of lumber over the next three years.

Politics. The industry's second concern is political. With the lumber-price crisis at

LUMBER PRICES						
per 1,000 board feet in carload lots						
		Summer 1968	r March 1969			
Green Dougl Plywood, 1/4-		\$92	\$130	\$75		
interior g Sheathing,	rade	78	118 125	62 80		
FOREST I	PRODUCT	SALES	AND	PROFITS		
(F	First quarte	r '69—in	millions)			
	Sales		100 10	%		
5				9 Change		
Evans Prod Georgia Pac US Ply-	224.8 287.	4 +27.8 1	0.49 2.	86 +483.7 70 +61.0		
	294.1 347.	0 +18.0 1	2.71 16.	47 +29.6		
haeuser	224.6 273.	9 +22.0 1	18.10 30.	30 +67.4		

peak intensity last spring, the producers persuaded Sen. John Sparkman (D., Ala.) to introduce legislation labeled the National Timber Supply Act. It would raise the amount of timber the producers are allowed to cut in the national forests. That, say the producers, would stabilize lumber prices and reduce homebuilding costs for the lowincome families covered by government housing programs.

Amid the crisis atmosphere, support built to a point where 57 Representatives and 14 Senators had endorsed the bill.

With the price decline, however, the industry feared that support would erode. Conservationists were already beginning to ask embarrassing questions, and The New York Times declared in an editorial entitled "Raid on the Forests:"

"The National Timber Supply Act . . ought to be called the National Fores Ravaging Act. . . . Since federal agencie already possess administrative discretion t cut more timber if sound forest manage ment requires it, no blanket legislation b Congress is necessary."

The Times also pointed to lumber com pany profits (see box), and it added:

"The industry is suffering no hardship. Concessions to industry. As jitter spread, the Western Wood Products Asso ciation, a trade group, fired a telegram t Agriculture Secretary Cliff Hardin. warned of "economic chaos" in the industr if there was not an "immediate reasses ment" of federal timber valuation policy

Hardin had already made one major cor cession in April with an order to the Fores Service to sell additional logs from "thir nings and salvage timber." And the service promised to revise timber appraisal prac tices in July to correct the imbalance be tween lumber prices and stumpage costs.

But the timber-or ravaging-act wa another matter. Hardin and the Fores Service have asked Congress to delay a vot until it hears a report from a Presidentia task force-in October.

"There is no assurance the bill will pass, complained the newsletter for the Wes Coast Lumber Inspection Bureau. As sum mer drifted by, that assessment looked mor valid with each passing day.

Housing stocks down sharply; decline is second in a row

The general market's decline took HOUSE & Home's index of 25 housing stocks down from 429.82 to 391.90, or 9%, in the month ended July 7. It was the housing list's second monthly loss. Only the mobile homes gained. Here's the composite index:



	July '68	June '69	July '69
Builders	367.81	530.52	477.14
Land develop.	467.44	760.86	634.52
Mortgage cos.	372.09	627.78	530.63
Mobile homes	443.65	822.47	852.54
S&Ls	153.74	193.57	183.97

HOUSING'S STOCK PRICES

	July 7	Chng.
COMPANY	Bid/ Close	Prev. Month
	01036	MOILUI
BUILDING		
Bramalea Cons. (Can.)	61/8	-3.08
Capital Bldg. (Can.) Christiana Oil ^b	8 19	- ³ / ₄ - 4 ⁵ / ₈
Cons. Bldg. (Con.)	3.30	- 4 ⁵ / ₈ -1.50
Dev. Corp. Amer	121/2	-1.50 $-2\frac{1}{4}$
Edwards Indus	161/2	- 61/4
First Hartford RIty	161/2	- 11/2
First Nat. RIty.b.	73/4	- 15/8
Frouge	4	-/0
•General Bldrs.b.	95/8	- 23/8
•Kaufman & Bd. c.	391/2	- 1/8
Key Co (Kavanagh-Smith)	181/2	- 4
(Kavanagh-Smith)		
National Enviornment	19	- 6
(Sproul Homes)		
Nationwide Homes	9	- 13/4
Presidential Realty b	17½ 7¼	$- 2\frac{1}{4}$ - 8 ¹ / ₄
Revenue Prop. Ryan Homes	353/4	$- \frac{81}{4} + \frac{31}{2}$
Standard Pacific Corp	141/4	+ 3/2 - 21/2
U.S. Home & Dev.b.	28	- 21/2 - 31/2
·Jim Walter •	32 1/8	- 43/8
•Del E. Webb c	18%	- 25/8
Western Orbis b.	151/2	- 33/8
S&Ls		-70
American Fin	303/4	- 3
Belmont S&L a	301/2	+ 3
Calif. Fin	11	- 3/4
Empire Fin.b	281/2	
Equitable S&L	291/2	- 43/4
Far West Fin	183/4	$-\frac{1}{8}$ - 31/8
•Fin. Fed. c.	273/4	- 31/8
•First Char. Fin. • First Lincoln Fin.	41 ¹ / ₈ 10 ¹ / ₂	- 21/2
First Surety	9	$- \frac{2\frac{3}{4}}{- \frac{2\frac{1}{4}}{4}}$
First West Fin	5 63/8	- 2%
Gibraltar Fin. e	31	$-\frac{1/2}{-4^{3/4}}$
•Great West Fin. e	26	- 7/0
Hawthorne Fin.	131/4	- 11/4
Huntington Savings	18	
(First Fin. lof West)		
·Imperial Corp. •	151/2	- 1/2
•LFC Financial (Lytton)	151/8	- 3/8
Midwestern Fin.b.	101/4	- 3/8
Trans-Cst. Inv.	51/4	- 11/8
Trans World Fin.	16%	- 1/2
Union Fin. ^b . United Fin. Cal. ^c .	13 ³ / ₄ 19 ³ / ₄	- 25/8
Wesco Fin.	311/4	$-\frac{5}{8}$ + 1 $\frac{1}{2}$
MORTGAGE BANK	INC	T 172
•Advance	25	- 13/4
·Associated Mtg.	133/4	-2^{194}
Charter Corp. of Fla	59	- 51/2
		512

COMPANY	July 7 Bid/ Close	Chng. Prev. Month
•Colwell. •Cont. Mtg. Investors • Cont. Mtg. Insurance Excel Investment	26 38 24 ³ / ₈ 4	$ \begin{array}{r} - 3\frac{3}{4} \\ - 8\frac{5}{8} \\ - 7\frac{1}{2} \\ - 1\frac{1}{8} \end{array} $
FNMA First Mtg. Inv Kissell Mtg.b. Lomas & Net. Fin •MGIC Invest. Corp.e	206 21½ 13¼ 11 51½	-38 -7 $+ \frac{1}{4}$ -3 $-7\frac{7}{8}$
Mortg. Assoc. Palomar Fin. Southeast Mtg. Inv. United Imp. & Inv. ^b	201/2 9 45/8 8	$ \begin{array}{r} - 6\frac{1}{2} \\ - \frac{1}{4} \\ - 1\frac{3}{8} \\ + \frac{1}{4} \end{array} $
All-State Properities	ENT 2	- 1/8
American Land	1	- 11/8
•AMREP b	46	- 75/8
Arvida	21 15	$-\frac{1\frac{3}{4}}{-\frac{1}{2}}$
Atlantic Imp. Canaveral Int. ^b	17	- 3/8
•Deltona Corp.b y	6	- 2
•Deltona Corp.b y	521/4	- 53/8
Disc Inc. Don the Beachcomber	91/8	- 21/4
Ent. (Garden Land)	15	- 43/4
Fla. Palm-Aire	21	- 3
•Gen .Devel. •	321/4	- 3
•Holly Corp. ^b Horizon Land	4 7/8 48	- 15/8
Laguna Niguel	73/8	$-\frac{2\frac{1}{4}}{-\frac{1\frac{7}{8}}{1}}$
Major Realty •McCulloch Oil ^b	111/8	- 1/0
•McCulloch Oil b	443/4	-17'
Scientific Resources	263/4	- 33/4
(Sunasco) So. RIty. & Util. ^b	83⁄4	- 1
DIVERSIFIED COM Boise Cascade o		
City Invest.	66¼ 27¼	$-9\frac{3}{4}$ - 6 ³ / ₈
Cousins Props.	35	- 61/2
	te est	
SHOPT TERM	DUC	INCO

COMPANY	July 7 Bid/	Prev.
COMPANY	Close	Month
Forest City Entr.b Investors Funding b Rouse Co Tishman Realty c	275/8 283/4 461/2 305/8	$-5\frac{7}{8}$ $-7\frac{1}{2}$ -6 $+\frac{1}{8}$
MOBILE HOMES & PRI	EFAB	
Con. Chem. Co.b. -Champion Homes b. Commodore Corp.b. -DMH (Detroiter) b. -Fleetwood b. -Guerdon b. Mobile Home Industries b. Monarch Ind.e. Redman Indus.b. Rex-Noreco. -Skyline e. Town & Country Mobile b. Zimmer Homes b.	28 305/8 263/4 32 505/8 421/4 48 295/8 455/8 23	$\begin{array}{r} - 27_{8} \\ - 37_{8} \\ - 834 \\ - 938 \\ - 11_{8} \\ + 514 \\ - 2 \\ - 458 \\ - 618 \\ + 4 \\ + 514 \\ - 11_{2} \\ - 15_{8} \end{array}$
Hodgson Houses Natl. Homes A.« Scholz Homes Swift Industries	12 19½ 39 5	$ \begin{array}{r} - & 2\frac{1}{2} \\ - & 5\frac{1}{4} \\ - & 7 \\ - & 2\frac{3}{4} \end{array} $
a—stock newly added to price ASE, c—closing pr	table.	b—closin SE. d—no

a-stock newly added to table. D-Closing price ASE. C-closing price NYSE. d-m traded on date quoted. g-closing pric MSE. h--Closing price PCSE. k-not avai able. --Computed in HOUSE & HOME's 2! stock value index. y-adjusted for 2-for-split. (NA) Not applicable. Sources: New York Hanseatic Corr Gairdner & Co., National Assn. of Securiti Dealers, Philip Beer of Russell & Sax American Stock Exchange, New York Stoc Exchange, Midwest Stock Exchange, Paci Coast Stock Exchange, Listings include on companies which derive a major part of their income from housing activity and an actively traded.

SHORT-TERM BUSINESS LOAN RATES

LOAN SIZE	er year	7 other	8 North	7 South-	8 South-	4 West
	N.Y.	North-	Central	eastern	western	Coast
	City	eastern	cities	cities	cities	cities
\$1-9	7.76	7.88	7.79	7.37	7.56	8.09
10-99	7.65	8.03	7.81	7.20	7.42	7.81
100-499	7.30	7.76	7.60	7.09	7.21	7.53
500-999	7.13	7.48	7.49	6.79	7.23	7.26
1,000 up	7.06	7.18	7.26	6.84	7.18	7.18
Feb. '69 rates	in Fed. Res	. Bulletin,	Apr. '69	NEWS	continued	



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Guerdon to buy Ryan Homes—and spark building expansion

The purchase should benefit the publicly held homebuilder in two ways.

Guerdon Industries of Louisville, widely experienced in mobile homes and modules, can help Ryan Homes Inc. produce more inexpensive housing. Today an average Ryan house sells for \$27,000.

And Guerdon's parent, City Investing Co. of New York,* can provide capital to spur Ryan's geographic expansion.

Ryan Homes, headquartered in Pittsburgh, is headed by Edward Ryan. Brother Jim formed his own company in the Baltimore area two years ago (News, May '67).

Before the merger announcement, Rvan officials outlined these plans at a meeting of Wall Street analysts:

• The company will introduce a new Rymark series of homes selling under \$16,000 in September.

 It will soon begin building townhouses, garden apartments and recreation and shopping facilities for its subdivisions.

• It will revive its land operation. After poor earnings in 1966, Ryan had depleted its land holdings and stopped developing. It now has a \$3 million land inventory.

• It will form a real estate brokerage to handle old homes traded in toward new purchases.

• And Ryan will move into a new city within two months. The company already has 15 divisions in Pennsylvania, Ohio, New York and West Virginia.

Acquisitions. Ryan also wants to acquire builders of its own. Last month, two

* City Investing earned \$48.1 million on revenue of \$364 million in fiscal 1969 (April 30), up from \$12.1 million on \$207 million in 1968.

Ryan officials were scheduled to explore a merger with one medium-sized builder. A Ryan official says the company may

The merger-go-round

Here are the latest to take a spin.

The NAHB's 1964 president, Bill Blackfield, sold his Hawaiian development company to Pacific Lighting Co. of southern California for \$5 million. Two years ago, Blackfield switched from houses to hotels.

Bill Lyon, who heads American Standard's real estate subsidiary, announced the purchase of Continental Homes Inc., an international homebuilder based in Washington, D.C., and building in South America.

Amrep Corp. of New York, a land developer, agreed to pay \$3 million for the building and mobile home businesses of Don Pfaff and associates in Florida and New Mexico.

American Electronics Inc. of Fullerton, Calif., new to homebuilding, is negotiating to buy related California companies, Pacesetter Homes and J.W. Klug Development.

Kaufman & Broad, the national homebuilder, is making a \$5 million investment in Revenue Properties Co., a Toronto-based developer.

Chicago's Weil-McLain Co. is buying a New Hampshire prefabber, Gilbilt Homes. And Standard-Pacific Corp. of southern California is buying William B. Garcia and Co., a San Jose homebuilder.

form franchise operations with builders in areas that seem too small for a full division

Ryan may also try to increase its owr subcontracting ability through acquisitions The company recently bought a factory that produces kitchen-cabinet doors. And a wholly owned subsidiary does all of Ryan's plumbing, heating and carpentry in Pittsburgh.

Housing giant. The merger, which still faces shareholder approval, would create a company with sales of about \$230 million.

Guerdon has just announced earnings of \$6.1 million on sales of \$144 million in fiscal '69, ended April 30, up from \$2.2 million on sales of \$101.7 million in '68. (For more news of Guerdon, see p. 4).

Ryan Homes is operating at an annual earnings rate of more than \$3 million or sales of about \$90 million.

The merger announcement comes only months after Ryan offered its shares to the public and City Investing purchased 54% of Guerdon. Ryan approached City Investing before making the Guerdon deal.

Under the merger terms, Ryan share holders will receive one share of Guerdon stock for each Ryan share held. Ryan has 2.2 million common shares outstanding Shortly after the deal was announced Guerdon was trading on the American Exchange at 401/2 and Ryan was trading over the counter at 341/2.

Ryan-Guerdon is the second builder mobile home merger this year. In February Redman Industries agreed to pay \$6.5 million for Kansas Quality Construction, an apartment builder operating in 18 states.

-STEVE LOWMAN McGraw-Hill World News, Pittsburgh

Iowa's builder Lloyd Clarke merges his way to Memphis

The past president of NAHB has exchanged his several building companies for stock in the Alodex Corp. and has moved from Des Moines, Iowa, to Memphis.

Clarke becomes president of Alodex, a building company closely related to Holiday Inns of America, whose headquarters are in Memphis. Alodex was formed through the merger of Clarke's companies, principally Clarke Co. Ltd. of Des Moines, with Allied Mortgage & Development Inc. President Wallace Johnson and Chairman Kemmons Wilson of Holiday Inns become Alodex's chairman and vice chairman respectively.

Low-cost housing. Alodex, operating out of the Memphis suburb of Southhaven, Miss., has shifted emphasis from mortgaging. Johnson says the company is building \$16-\$18 million worth of housing, much of it in low-cost units, in Louisiana, Oklahoma and at Huntsville, Ala. It has just completed a \$3-million turnkey job in Knoxville, Tenn.

Alodex has just been named developer of a \$500-million renewal in Chicago's Skid Row. Alodex owns 75%; former NAHB President Martin Bartling, a U.S. Gypsum vice president, owns 10%; and Charles Swibel, a city housing official, 15%.

[Chicago, operating without federal



JOHNSON

CLARKE

funds, will assemble six blocks for Alodex. Swibel owns land in the site, so the city must buy his parcel and then sell it at Alodex's bid price of \$30.25 a sq. ft. Swibel could make a profit on the sale. Jim Downs of Chicago is making Alodex's use study. For more about Swibel, Downs and Chicago, see p. 4.]

ACKNOWLEDGEMENT

The table titled "Initial Stock Offerings," which appeared on page 20 of House & HOME's July issue in a story headlined "Wall Street will bet \$1 billion on housing," is copyrighted by Audit Publications Inc., New York City.

Alodex has devised a computer system to schedule the erection of components and the supply and division of labor. An industrialized housing division is casting construction panels and complete wall-and-ceiling units at a St. Louis plant, and Johnson predicts that the company's techniques will cut 30% from the construction costs of low and medium-rise apartments. John Hancock Mutual Life and U.S. Gypsum each invested \$1 million in Alodex's predecessor, Allied, largely on the basis of the new construction system.

Alodex stock. Alodex's 900,000 shares outstanding were trading over the counter at 31-33 shortly after the Clarke purchase. The company has filed an application with the Securities & Exchange Commission to issue additional stock.

Last year Clarke, at 39, became the youngest president of the National Association of Home Builders. He has developed land and built houses in Iowa since 1954, including tracts in Davenport and Waterloo, and he is putting up 300 units of lowcost housing in Des Moines (News, May). Clarke's brother John becomes Alodex's executive vice president in Des Moines.

NEWS continued on p. 32

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Two of the popular models of this new development located at Dundee and Hicks Roads near Palatine, Illin

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NEWS continued from p. 28

A quiet heart attack in the night —and financier Bart Lytton is dead

He was billed as one of the last tycoons, and he played the role.

Press and TV abetted him. They called him flamboyant so often that he sometimes got mail addressed to Mr. Flamboyant B. Lytton. Stories about him abounded in such terms as flair and showmanship, picturing him as something between a clown prince and maharajah of the savings and loan profession. He provided the quotes and the antics, and he went along with it all.

The facts were incredible enough. Born in New Castle, Pa., and educated at the University of Virginia, **Bart Lytton** became a newspaperman and screenwriter and did a brief stretch of Communist party membership.

But he wasn't a writer—"T've written better mortgages than movies," he would say later and in 1948 he turned to mortgage brokering. In 1956 he acquired a struggling Los Angeles s&L association with \$1.4 million in assets. By 1965 he had expanded it into Lytton Financial Corp., the nation's fifth largest s&L holding company with \$700 million in assets.

He became a patron of the arts and a public figure. He was photographed with Elizabeth Taylor and Richard Burton, and George Jessel introduced him as "the people's millionaire." He was always good copy.

And then it was all swept away. Lytton's holding company had overextended in California's building spree of the mid-60s. With \$2.8 million in debt that he could not meet and with his stock down from \$66 to \$4.60, Lytton strode confidently into a showdown meeting with creditors on April 24, 1968. He emerged 27 hours later to resign, paving the way for reorganization.

Lytton wrote the story of his downfall for HOUSE & HOME at the invitation of a friend, the magazine's financial editor. He dismissed a couple of his half dozen servants, sold his \$125,000 house and took up a life of faded majesty in an apartment.

And it was then—in the story and in anecdotes and interviews that turned up during this twilight period—that there emerged the picture of the Bart Lytton almost nobody had known.

He had given \$200,000 to John F. Kennedy's campaign in 1960, for instance. He had written to Treasury Secretary **Douglas Dillon** in 1961 to suggest that the S&L industry be taxed at least \$100 million annually—one year before several other big California holding companies were to pay a \$100,000 bribe to Senate page **Bobby Baker** to escape new taxes (News, March '67).

This other Lytton, for all his public cynicism about money, had



CALIFORNIA'S LYTTON The man almost nobody knew

an almost religious faith in homebuilding and ownership.

"I consider homebuilding the most important force in our society," he wrote. "Not only does construction provide more jobs than any other industry, but home ownership is the most stabilizing social force we have.

"My position has given me an opportunity to participate in the arts, in government, in civic projects and private philanthropy. I have come to the end of one period, but I intend to continue working for a world of opportunity and a world at peace."

After the debacle, Lytton did occasionally announce plans to work again: he would start an ad agency or produce films.

But his heart was not in it. In a moment of candor he confessed: "I've been a tycoon. I don't need to be one again."

Death came quietly, some 15 months after his downfall and a year after the passing of his good friend Howard F. Ahmanson, another of California's savings and loan titans (NEws, Aug. '68). Lytton's wife Beth went to wake him on a Sunday morning in their Los Angeles apartment. He was 56. He had been under a doctor's care for a heart ailment, and he had departed in the night.

New Yorker named head of Ginny May

He is **Woodward Kingman**, 43, a former banker and New York City councilman. He has just been appointed deputy assistant secretary for mortgage credit of HUD.

Kingman will also be the deputy commissioner of FHA and president of the Government National Mortgage Assn., the new corporation that operates the special assistance and management functions that were retained when the Federal National Mortgage Assn., or Fanny May, went private last fall.

Kingman has been a financial official with the International Telephone & Telegraph Corp. NEWS continued on p. 34

Color this roof quiet. New rustic tones that don't shout from the rooftops.

Available in "3M" Brand Heavyweight Textured Granules to makers of quality asphalt shingles.



Light Olive, Dark Olive, Green, Tan, Red, Brown, Charcoal, Black. Available in blends. Sure, homeowners want color. But more and more prefer quiet, mellow colors. That's why we created new "3M" Brand Heavyweight Textured Granules in these new rustic tones.

New colors sell themselves. Ask your prospect to compare colors. We did. And in 6 out of 7 cities across America, homeowners chose our new rustic tone granules over traditional blues, greens, maroons.

More texture, more profit.

Next show your prospect a shingle made with heavyweight granules and one with standard granules. Ask him to feel the difference in texture.

Okay, now point out how the larger, coarser granules are embedded deeper into the asphalt. How they offer more



3M Brand Heavyweight Granules

adhesive surface with less chance of



How they'll wear longer and take lots more abuse from sun, wind, hail and rain.

And you'll wind up selling a premium roof at a premium price!

Actual size. Ask your supplier today.

Ask him for asphalt shingles made with "3M" Brand Heavyweight Textured Granules. Or drop a line to Industrial Mineral Products Division, 3M Company, 3M Center, Dept. OAE-89, St. Paul, Minn. 55101.

EVERY TIME THE SUN SETS YOU MAKE MONEY WITH A GOOD MOTEL FRANCHISE.

AND THE SUN SETS EVERY DAY.

Call or write Franchise Department: Area Code 301, 593-5600 for details today. Before you waste another sunset. Quality Courts Motels, Inc., P. O. Box 890, Silver Spring, Maryland 20901. **NEWS** continued from p. 32

Builder wins only a splinter vote and it costs him a cool half million

The millionaire Congressman James H. Scheuer, first at the starting gate for New York City's mayoral primary, pulled up a distant last at the finish line.

The builder, a way-out liberal whose early campaign featured an appearance in the city's anti-Vietnam parade, ran into a strong conservative tide sweeping both parties. He trailed his own ticket of five Democrats and the combined field of seven contenders. He polled only 38,631 votes, substantially fewer than the 41,136 cast for novelist **Norman Mailer**, whose candidacy was widely regarded by New Yorkers as something of a joke.

Scheuer spent \$567,000 on his campaign. That figured to about \$14.67 per vote.

Although his candidacy had never taken fire, Scheuer seemed surprised at the result. He told supporters who heard the returns at his headquarters: "This has been in some respects a soul-shattering experience." He had been the first in the race with an announcement of candidacy last December.

The winners were City Controller Mario Proccacino for the Democrats with 252,283 votes and State Senator John J. Marchi, who polled 111,725 votes to score a stunning upset over Mayor John Lindsay in the Republican primary. All three meet in November, with Lindsay running on the Liberal ticket.

Scheuer was one of two candidates identified with the housing industry. The colorful Brooklyn architect **Vito P. Battista** entered the mayoral race but later joined Marchi's ticket as a candidate for

Lumber groups get new executives

James R. Turnbull, one of the plywood industry's top marketing organizers, is the National Forest Products Association's new executive vice president.

The association is a federation of 19 trade groups representing most of the nation's lumber and forest product companies in legislative matters, governmental af-



fairs and building code activity. Its headquarters are in Washington D.C.

Turnbull has resigned as executive vice president of the American Plywood Association in Tacoma, Wash., a position he hasheld since 1962. He was cited by HOUSE & HOME as one of the housing industry's Top Performent of 1965 for his efforts to improve homebuilding technology.

The plywood association's sec retary, **Bronson Lewis**, succeed Turnbull. The APA, formerly the Douglas Fir Plywood Association has headquarters in Tacoma Wash., speaks for 134 mills rep resenting 80% of the country' softwood production.

Both associations have jus elected new presidents. The APA has chosen **Russell Hogue**, presi dent of the Medford (Ore.) Corp The forest products group has named **Loran L. Stewart**, presi dent of the Bohemia Lumber Co of Culp Creek, Ore.



Wide World

LOSER SCHEUER And the first shall be last

controller. Battista lost the Republican nomination but will run in the fall as the Conservative party's designate.

Scheuer retains his post as representative from New York's 21st Congressional district (South Bronx), to which he was elected in 1964. He has built federally assisted housing in several cities, and he began his mayoral campaign with an attack on Lindsay's housing record—or lack of it—in New York.

But housing never became a major issue in the race.

Two village elections on nearby Long Island did turn on the issue of open housing, and its advocates were soundly defeated. A record number of 981 of Port Jefferson's 1,200 eligible voters rejected proponents of an open-housing ordinance and reelected two trustees who said such laws were unneces sary. In Belle Terre, two members of the village board who had helped approve an ordinance there were ousted.
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LETTERS

Lumber prices

H&H: Your news pages, from January to May, have devoted considerable space to the effects of high lumber prices on housing costs. In the May issue, your editors compounded the felony with this gratuitous prediction: "Lumber prices will remain high, even if lumbermen have to withhold timber from the market to assure supply shortages."

As you well know, you could find timber operators who are, indeed, withholding lumber or plywood from the market. Their motive is not to create artificial shortages. It is due entirely to the fact that their mills have had to be shut down because 1) no market exists for their products or 2) current lumber and plywood prices are so low, in relation to log prices (up 50% to 100% in a year) and labor rates, that lumbermen cannot operate.

Lumber and plywood prices currently represent the best bargain a builder could find in any of his supply areas. Yet I see no editorial mention of this fact in your June issue, when we are selling plywood at the lowest mill price in over five years.

We ask that you publish a few charts of historical lumber prices. What was such great copy in April and May should be equally interesting to your readers today, albeit not quite so satisfying.

In recent months, the timber industry again and again told our complaining builder friends that the market for our products is controlled by the buyers, not the sellers. Does it sound more believable now?

ROBERT D. FRENCH, advertising manager Potlatch Forests Inc. San Francisco

House & Home's June issue went to press before the big decline in lumber and plywood prices. The charts below show price trends since 1950. And for a complete story of the recent price turnaround—and the industry's troubles—see page 24.—ED.



Timber Supply Act

H&H: We are all interested in a vigorously productive future for the homebuilding industry. With that aim in view, I earnestly hope you will support the proposed National Forest Timber Supply Act.

The basic bill was introduced April 17 as

S-1832 by Senator John Sparkman [D., Ala. chairman of the Banking and Currency Committee and of its subcommittee on housing an urban affairs. In the House, the same bi carries the number HR-10344. In all, 1 Senators and 59 Congressmen from bot political parties have co-sponsored the ac reflecting wide concern in Congress. Afte hearings, the bill was reintroduced this wee by Chairman John L. McMillan of a Hous agriculture subcommittee dealing with na tional forests and by 35 other sponsors as HB 12025. This is the version to be considere by the House within a few weeks and, hope fully, by the Senate later.

Senator Sparkman well summarized th purpose of the National Forest Timber Suppl Act when he introduced it. He said that almost two-thirds of the nation's softwood sawtimbe is on federal public lands but that, unlik industrial and other private timber holdings the federal timber is being harvested far below "maximum justifiable rates compatible witt sound forest management."

Year-to-year appropriations have not provided "the assured investment of funds for improving timber growth and yield," and agency policies "are not firmly and perma nently oriented" to that aim, the Senato pointed out. The legislation "would establish a special fund to assure long-term financing of the management and development measure essential for optimum timber productivity of the national forests."

The bills apply exclusively to the National Forests, and would establish a "high timbe yield fund" out of receipts from harvesting over the next quarter-century. This fund would be used to increase timber yields by applying nine specified techniques, such as speedie regeneration after harvesting; thinning, prun ing and fertilization; development of superio growth stock, and building roads to facilitate thinning, salvage and understory-removal sales

Builders will want to know how the Timber Supply Act is going to keep prices down or lumber and plywood. We think it's the nearess thing to a remedy in sight. A more direct attack on prices doesn't appear practical—and has no responsible backers. The classic law of supply and demand still rules in the lumber industry. During the big price run-up of some months ago, the largest plywood manufacturer announced it would try to hold the line, but prices kept on rising. When prices inevitably began to tumble, a group of 15 plywood producers announced they were pulling out of the market. Yet prices kept right on plunging

The two banking and currency committees would have disclosed evidence of collusion in the lumber industry during their hearings in March and April if there were any. The National Association of Home Builders had some mighty angry leaders, but they didn't charge collusion. The Associated General Contractors do not charge market manipulations, either.

Yet Andy Mandala's article in the May issue of HOUSE & HOME assumed that the lumber/plywood industry can turn the supply spigot on or off at will, with the purpose, of course, of keeping prices high. We do not agree with him. There are too many producers and buyers. Mr. Mandala might have pointed out that NAHB vigorously supported the industry's urgent pleas for increased harvesting —and growing—of federal timber, not for market controls, as the real answer.

The action of supply and demand is a

Letters continued on p. 42



"For decorative effect and durability, I'll take Reynolds Aluminum Shingle-Shakes," says Miami builder.

219 squares of gleaming white Shingle-Shakes were used to top the mansard roof of this 61-unit apartment complex, as well as its bath house. Listen to what Mr. M. S. Jennings, Jennings Construction Company, has to say about his experience with Shingle-Shakes.

"Both the architect and I wanted a good-looking material with low upkeep. We picked Reynolds Aluminum Shingle-Shakes because of what our climate does to ordinary materials and finishes. We were very pleased, too, with their ease and economy of installation."

Mr. Jennings and his architect were also well aware of other Shingle-Shake features: 4-way interlocking design to withstand hurricane-force winds (approved by Florida's demanding Dade County Code); a high degree of heat reflectivity; a siliconized, baked acrylic enamel finish that lasts years longer than ordinary painted surfaces.

Architects, builders, and owners will appreciate the effects possible with thick-butt, heavily-textured Shingle-Shakes, as well as color treatments possible with a choice of Polar White, Terrace Green, Autumn Brown, Charcoal, Hunter Red, and natural aluminum.

See Sweets Architectural File 21d/Rey, or use coupon below for more information.



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That's why he chose KitchenAid dishwashers for his \$15,000,000 apartment project.

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He asked his wife if she had any trouble with the KitchenAid in their home. ("No," she said.)

And he asked himself what dishwasher has the reputation for being the best. (KitchenAid wins again.) So if you're planning to build or remodel any apartme kitchens, take a tip from Abe Pollin. Get KitchenAid dis wachers. Use their quality reputation to help

washers. Use their quality reputation to help sell the apartment. And stop worrying about dishwasher maintenance.

Want details? Call the KitchenAid distributor listed in the Yellow Pages under "Dishwashers". Or write KitchenAid Dishwashers, Dept. 9DS-8, The Hobart Manufacturing Company, Troy, Ohio 45373.





KitchenAid dishwashers-20 years of good old-fashioned quality.



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peculiarly double-jointed influence in the wood industry. The builder and materials dealers are intensely aware of its workings and vexations at the product marketing end. They were not so aware, though they are now more so, that the majority of mills in the biggest producing region, the 12 western states, must bid competitively for their raw material. These mills depend on outside sources for timber, and their chief source is public timber.

While lumber/plywood prices were rising in 1968, prices for National Forest stumpage in the West increased by 40% to 60%. Stumpage prices have not yet declined. Several recent timber offerings have been bid well past the \$200-per-1,000-ft. mark, or more than double sales made barely a year earlier.

Competition keeps stumpage costs eating into profits from finished wood products, and even the prospect of a pickup in housing construction sends log prices soaring. The recent lumber-plywood slump has led to numerous mill closures because of past commitments to high timber costs. Many mills that recently took contracts at \$150 or more to buy stumpage are in danger of shutting down in coming months. If some mills that have agreed to pay scarcity premiums for public timber fail to deliver housing materials, who will be to blame? We say that the government will be, because it has not managed its timberlands with much thought to the country's future and the growing needs of the public for lumber and wood products.

Why marshal our industry's major effort behind a bill that deals with one federal agency? The reason is simple: The National Forests contain 54% of the nation's softwood sawtimber, but they furnish only 28% of the sawlogs that go to lumber and plywood mills. A more plentiful supply of sawlogs is sorely needed, and that's where it has to come from.

Another way of describing the wide discrepancy between federal and commercial timberlands and their contributions to the nation's economy is this: Private timber owners are harvesting an average of nearly 3% of their inventory annually, but in the National Forests the cut is just under 1%. Private owners own 35% of the sawtimber, and they're providing 63% of the harvest. They can't be expected to meet rising needs because that would mean heavy depletion of their timber holdings.

Is there some other way to increase the supply of raw material for wood building products? There are other ways, and they will all be needed, but better management of our National Forests comes first. George Romney, Secretary of Housing and Urban Development, recently warned, "We will see an enormous increase in future lumber requireing goals by doubling housing production over the next ten years. Romney said an additional output of 15 billion board ft. per year, beyond present consumption of 41 billion board ft. of lumber and plywood, will be needed by 1978, just to meet housing requirements.

The southern states contain more forest land than does the West, but the Timber Supply Act applies mostly to the West, since the latter contains $7\frac{1}{2}$ times as much National Forest land as the South, and western National Forests have four times as much sawtimber per acre as the South. How can we boost lumber-plywood pro duction in the South? The real key lies in the region's 141 million acres of woodlands held by nearly one million individual owners. A comprehensive plan to boost their timbe yields is in the making, with broad industry sponsorship. This may involve new national legislation.

Canada boasts a tremendous acreage of tim ber, and many builders believe its present ex port of 5.5 billion ft. of lumber to the United States can be greatly expanded. But the Canadians have indicated that the United States cannot expect more than one billion ft. of additional lumber imports from Canada, which will continue to supply its other world markets. In fact, the world is approaching an era of timber scarcity, meaning it is unlikely that any large new sources of construction lumber can be found anywhere that would prove economically feasible for U.S. markets.

What about substitute materials? HOUSE & HOME frequently reports on builders who are trying a variety of nonwood systems. Admittedly, these have made some headway. They received quite a flurry of publicity during the recent months of high lumber prices, but some highly placed realists do not see substitutes as an immediate or sure solution.

HOUSE & HOME stated most plainly a year ago that wood systems for residential building were here to stay for some time to come. Gene Gulledge [NAHB president] stated it plainly, too, when he spoke for the timber supply legislation before the House Agriculture Committee on May 23.

Letters continued on p. 44



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ASG tempered glass is tough. It can withstand greater shock and impact than ordinary glass. And—if it does break—tempered glass crumbles into thousands of harmless granules.

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"If we did not have lumber, we would not have any homes," he said. "It is the best and normally the least expensive natural building material available, and it is the traditional building material of America. Craftsmen are accustomed to it, codes encompass it, and popular taste demands it."

Secretary Romney, when he announced support for federal timber legislation, warned it would be "unrealistic and dangerous to place our reliance on substitute materials."

The forest industries will continue as the major supplier of building materials. I say this with no smugness whatsoever but rather with the feeling that the wood products industry bears a solemn responsibility to help meet the country's need for housing, and to do so at reasonable costs.

We hope we can count on your support. WENDELL B. BARNES, executive vice president Western Wood Products Assn. Portland, Ore.

Rapid transit's impact

H&H: I thought the analysis of the impact of tomorrow's high-speed trains on our present bedroom communities was very interesting [News, June]. While the discussion concerns the Bay Area Rapid Transit System, it is of interest to the New York State Joint Legislative Committee on Transportation. A study of your article can help us to anticipate and prepare better future use of high-speed passenger trains in the Empire State.

ELI B. ENZER, director of projects N.Y. Joint Legislative Committee on Transportation Albany



Bay Area Rapid Transit train . . .



... and the sprawling route it follows

U.S. Homes merger plan

H&H: Your news story regarding U.S. Home and Development Corp. [May] contained several errors.

In the second paragraph there is this state-

ment: "Together, 20 builders of comparable size (sales of about \$5 million each) would post sales of \$1 billion and earnings of \$40 million." Twenty times \$5 million equals \$100 million, not \$1 billion. The \$5-million sales figure is the minimum criterion we have established for a key builder. Together, the key builders will eventually post annual sales of \$1 billion, growing to that size largely because they have combined their strength into a single large public corporation.

In another paragraph, the article states, "Last month, U.S. Home raised \$4 million by selling 315,000 shares of convertible debentures to the public." Perhaps a line of type was omitted, because the public bought 315,000 shares of common stock and \$4,000,-000 worth of 6% convertible subordinated debentures due in 1984.

More serious is the statement that "Winnerman himself attended a Colorado University seminar for 19 select builders from across the country who are investigating the merger concept. The seminar was arranged by housing professor Lee Evans, a U.S. Home consultant." This implies that the seminar was used by Prof. Evans as a device for putting me in contact with merger-minded builders, an implication that is unfair to Evans and insulting to the builders. The seminar was directed to the use of the computer as a tool in solving management problems in the homebuilding industry. It was planned without my advice or knowledge. Although Prof. Evans has done consulting work for U.S. Home, he has never been retained by us to initiate merger discussions. Further, a three-day seminar attended by 19 or more builders is not the appropriate Letters continued on p. 50



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lock the door, and the top oven cleans itself automatically.)

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And if you like, our Design Assistance staff will oduce some original variations on any basic sign. They can also suggest cost-cutting ways of tegrating these materials into the homes you ild. Just contact your local U.S. Plywood Office. 1. Weldwood[®] Paneling – Fine domestic and imported natural hardwood prefinished panels. Available in over 70 different colors and finishes.

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A few of the features that make the



There are fireplaces and there are prefab fireplaces. But, there's only one Majestic Thulman Prefab Fireplace! And, Builders from coast to coast are learning this fast! After they've experienced what the exclusive design features of the Majestic offers them — in economy of field assembly time — in faster, easier installation — in extra flexibility of finished fireplace, they wonder why they would ever use anything but a Majestic. A Majestic gives them a better fireplace and saves them money from every standpoint.

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Plus flue offsets available for any increment from 6" to 60" for any stacking arrangement in multiple floor installation.

America's Leading Fireplace Manufacturer





The Majestic Company, Inc.

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LETTERS continued from p. 44

environment for serious discussion of mergers Finally, if I had had any intention of usin the seminar as a vehicle for initiating merge discussions, I would have been thwarted by the program, which left little time for any thing but trying to solve a simulated compute problem. (The seminar, incidentally, was hele at Denver University, not Colorado Univer sity.)

In the next paragraph, George Kraus is reported to have said U.S. Home "hopes to pur chase one or two homebuilders this month. Mr. Kraus said no such thing. He is familia with both the full-disclosure regulations of the sEC and the time and care required it bringing merger negotiations to fruition. It our most euphorious moments, we never entertained the thought that we could conclud two mergers in a 30-day period.

The article states that U.S. Home am [builder] Roger Ladd "are now vying" fo [builder] Frank Robino of Wilmington, Del That was news to me. We did not talk to Mr Robino until after the article was published and then only to confirm what we suspected Ladd and Robino had already reached agrees ment to merge. We have always believed that it is futile to propose to the bride after she has married someone else. The section of the article describing ou

plan is also inaccurate. All of the key build ers with whom we merge will operate as at tonomous divisions-not just three or fou Basic to our concept is the knowledge that homebuilding is a localized business and that the only way for a national building compan to operate successfully is to have a builde in each market who has proved his ability t perform successfully in that market. Give that record of success, it would be foolis of us to try to change a key builder's metho of operation. Beyond that, each key builde becomes part of the top management team of U.S. Home, a method which enables us to ta the best source of management talent in th industry-successful builders. We have place no upper limit on the size of a builder wit whom we will consider merging.

Mr. Kraus is quoted as saying I may "offe the public \$15 million of stock in a land bank company this year, 'if the stock marke swings up.' " If someone made that statement it was not Mr. Kraus. Our plans for a national land bank, which have been known for som time, are in no way contingent on the per formance of the stock market. We believe that the land bank is our answer to the relate problems of spiraling land costs and the de velopment of land at something less than it highest and best use. We will implement th plan without any overbearing concern for the Dow Jones average of the day.

These errors have damaged the reputatio of Prof. Evans and created considerable mis understanding within the industry of our objectives. The fact that your magazine enjoy a reputation for accuracy makes the error all the more serious. They should be corrected

ROBERT H. WINNERMAN, chairma U.S. Home & Development Corp. West Orange, N.J.

House & Home deeply regrets two omissions First, sales of \$1 billion is indeed an ever tual goal; we should have made that clean Second, a line of copy explaining the common share offering was mistakenly dropped from the story. We stand on the rest of the article.—ED.



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Caradco Windows and Patio Door products are further detailed in Sweets $\frac{19c}{Ca}$ and Canadian file $\frac{8wmw}{Car}$

Dur financial institutions

Without major changes housing's money machines can't possibly keep up with the demand, but help is on the way

ast month, the Federal Home Loan Bank Board's chairman, Preson Martin, announced that his agency would make five-year adances, for mortgage purposes only, to savings and loan associaons. He will raise the money, which may add as much as \$5 billion year to s&L lending, by selling debentures backed by the full faith nd credit of the Federal Government.

It was a major victory for Martin, who is obviously Nixon's top noney man in the housing area, and it was a major victory for ousing, too. The FHLBB debentures will compete with other fedral agency issues, like Treasury Bonds, in the capital markets, and i's no big secret that the Treasury Department was dead set against etting the FHLBB do the same thing back in 1966. Reason: FHLBB bebentures simply make it tougher and possibly more expensive to reddle Treasury Department issues.

HOUSE & HOME, on this page, began pushing long-term advances, y the FHLBB system to s&Ls with a series of editorials starting in April 1967. Reason: The s&Ls must be able to borrow long (from the FHLBB system) to lend long (mortgages). In periods of tight money, short-term rates are higher than long-term rates, and if s&Ls can only get short-term advances from the system (which is all they could get in 1966), their mortgage lending stops—they can't afford o make mortgages, as in 1966.

However, last month's action by the FHLBB goes only part of the way in meeting the demand for mortgage money. We still face seribus shortfalls in mortgage supply in attempting to meet anything ike the demand for housing in the years ahead. So it is imperative hat we continue to make changes in the way housing taps the capital markets if we are to alleviate, for all Americans, the very evere housing shortages we face now and in the future.

Examining why our money machine does not work well enough s useful because it may suggest what further changes need to be nade in the machine. If you charted, on the same graph, using two different scales, the quarterly rates both of the Gross National Product and housing starts over the last 50 years in the U.S., you would probably find a telling correlation. Whenever the GNP rose sharply, the rate of housing starts went down shortly thereafter. And, conversely, whenever the GNP dropped sharply, the rate of housing starts some time after climbed.

That correlation hit us where we lived with telling effect in 1966 and now in 1969: tight money, used to cool off a booming economy, chokes housing. There are some who say that national economic policy in this country specifically singles out housing to bear the brunt of a cooling period, as in 1966 and now 1969. In 1966, goes this argument, housing bore 70% of the cooling-off load: housing dollar volume dropped by an amount equal to 70% of the contraction in the Gross National Product due to monetary restraint in 1966. The argument insists that housing is the economic scapegoat because the industry is generally made up of small business men who cannot effectively fight big government.

It's perfectly true that housing has played a contracyclical role in the American economy over the last 50 years. For instance, in the Great Depression, to get the economy rolling again by pumping money into it, the Home Owners Loan Corporation was created in 1932 to provide mortgage money. HOLC was the progenitor of the Federal Home Loan Bank System. In 1934 FHA was created to do more of the same. In 1946 the Veterans Administration accepted any lender's credit check on a borrower as sufficient okay for a VA mortgage. All of these measures boosted housing and got the GNP accelerating faster than it would have without them.

It may well be that the economic planners in Washington have, by design, used housing as their contracyclical weapon in controlling the American economy, but we doubt it, and let us explain why.

Mortgages and bonds are fixed-income investments. They only reflect the acceleration rate of the economy at their date of issuance, and they permit no hedge against inflation unless "kickers" are added to them. Stocks are equity investments that *do* reflect the economy very accurately over the long term and are always a hedge against inflation. Short-term loans are also almost equity investments because the turnover of short-term money obviously will reflect the economy.

That's why short-term rates can go right out of sight in tightmoney periods, and it's why mortgages increasingly look like poor investments to lending institutions—they want no part of mortgages.

Cooling the economy is done primarily through tightening of credit by the Federal Reserve System. When the Fed tightens, the commercial banking system becomes more restrictive in its lending policies and favors its traditional clientele—business and consumer borrowers. Mortgages and all bonds play second fiddle. Money in thrift institutions (which supply most mortgage money) would flow to the higher-rate-paying commercial banks, if the government did not keep a check on the commercial banks with things like Regulation Q, which limits the rates they can pay on big blocks of savings. Money in thrift institutions does tend to flow out into equity investments in tight-money (inflationary) periods, but at least the commercial banks can't soak it up like a vacuum cleaner.

At some point during his service with the Eisenhower Administration, Dr. Arthur Burns said, "General credit controls act selectively." Dr. Burns is back again with the Nixon Administration, and it's quite probable that he now knows whom they act selectively upon: the housing industry.

So while the Fed keeps a tight rein on the economy, the Nixon Administration is lifting some of the load from the housing industry by letting the FHLBB lend long. And they are getting a fair payoff in so doing: severe housing shortages help fuel an inflation as consumers bid up available housing. Let up on the shortage a bit and housing's contribution to an inflation is reduced.

It is our fondest hope that perhaps a new economic truth is at work in Washington—namely, that when the Fed tightens up on the commercial banking system to cool the economy in housingshort times, the effect is greatly diluted unless the mortgage supply is maintained. This line of reason obviously has merit. And the next thing the Nixon Administration could do is to permit either the FHLBB or FNMA to issue the mortgage-backed securities created by the 1968 Housing Act. These securities have languished too long in bureaucratic back rooms. They would effectively create an ongoing secondary market for conventional, FHA and VA mortgages backed by the full faith and credit of the Federal Government (in this case GNMA). —RICHARD W. O'NEILL

This cluster of duplex units lets every house take advantage of a golf-course view

<section-header>

The land plans at right and on the next six pages don't look very much like the clusters we're used to seeing, and they do things we aren't used to having clusters do. But they're clusters nonetheless, and the fact that they seem strange shows not that they're peculiar but that our conception of what a cluster plan is could stand some updating.

The truth is that the cluster plan has become pretty much stereotyped. To the builder or engineer, it is a series of identical cul-de-sac streets, each with a neat little circle of houses at the end; to the non-professional planning and zoning official, it is a device used by shady builders to cut costs and crowd more houses on already jammed land; and to the land planner, it is the holy grail that will save us all from urban sprawl.

There's a little bit of truth in all of these views. The cluster has too often been used repetitively and unimaginatively; builders have indeed employed it as a land-jamming device; and, on the positive side, just about every outstanding land plan makes use of the cluster to at least some degree.

But all of these stereotypes miss the point. The cluster is not a standardized kind of layout; it is a principle of planning. Its immediate function is to squeeze more houses onto a given site, and to do so without undue loss of privacy or esthetics; its broad function—often more honored in the breach than in the observance—is to create communities that use land more efficiently. And, toward these ends, the cluster can be used in an almost infinite variety of forms and patterns.

Each of the clusters discussed in this article is designed to do a specific house-squeezing job for a specific site. None necessarily represents the last word in its particular category, but each offers a fresh direction toward solving a land problem. And, hopefully, all of them can stimulate developers and planners alike toward more creative approaches to good land use. The four-acre site has 700 ft. of frontage on he course, and it slopes up enough so that, with careful handling, each unit gets at least a glimpse of the fairway below.

The key to the handling is a sort of cluster plan with wings. On the gentlest part of the slope, near the fairway, 14 duplexes are aranged in a conventional circular cluster so hat they can look outward to the course. On he sides and further back, where the slope becomes steeper, another 14 units, arranged roughly in rows, look over the tops of the houses below. (So most of these houses have living rooms on their upper levels.)

The duplex units make possible the project's high density-seven houses per acreand leave plenty of land for the relatively complex road pattern required by the siting. Since this will obviously be a golf-oriented community, a network of golf-cart paths enables any home owner to reach the course without crossing an automobile road. And each house has a golf-cart garage. Most owners will use the duplexes as second homes (the project is not yet built out, but all houses are sold; prices, \$40,000 to \$50,000).

The project, called Greenview, is in Costa Mesa, Calif. It was designed by Thomas/ Richardson/Assoc. and built as a joint venture by H.D. Development and Bios Inc.



elationship of the cluster to the golf course. Units at the rear of the cluster sit high enough on the site so that their owners can see over inits right on the course. Land olan (right) shows the tight siting nade possible by the use of duplexes.

AERIAL VIEW (below) shows early stages of construction. Golf course s in foreground; houses immediately adjacent to it are part of the front circle of the cluster.

Bob Krips Photography



These square clusters improve the streetscape in a community of walled patio houses...

Patio houses can provide wonderful living inside their walls, but walking down a street of patio houses can be like walking down a canyon—an unrelenting vista of walls and garage doors. So when Deane Brothers Inc. decided on patio houses for Lake Forest, their new project in Orange County, Calif., they asked architect John L. Chapman for a plan that would create a more inviting environment.

Chapman's answer, shown below, was a

series of four-house clusters, each served by a short road. The streetscape thus becomes a series of landscaped recesses, with only one or two garage doors visible. Also, road costs were cut considerably by the clusters, and the builder was able to put more money into fencing and landscaping.

One early problem, tight guest parking in the clusters, has been eased by decreasing the density slightly; it is now about 4.2 units per acre for the overall community.





TYPICAL CLUSTER has four patio houses grouped around a short private street. Houses nearest the main road are set back 15 ft. from it, thus permitting much more streetside landscaping than do most patiohouse communities.

LOT PLAN (*left*) shows key reason for community's more-open environment. In a conventional project, there would be a line of 60' lots along the street. With clusters like this, each pair of 60' lots is followed by a 20' private road that breaks the monotonous look.



and these square clusters to the amount of regrading ecessary in a steep hillside community The conventional way to handle this project, a 200-house portion of what will be a 3,550acre community in California's Santa Monica Mountains, would be to use pads. But this would have required heavy grading and consequent scarring of the hillside. So the architects, Richard Leitch/Sam Kiyotoki & Assoc.—together with the engineer, V.T.N. Co.—created the back-to-back cluster scheme shown here. The downhill cluster has two flat-site houses and two uphill houses; the up-slope cluster has two flat-site houses and two downhill houses. A sloping strip between clusters takes up about 25 ft. of rise. Result: The slope is handled in several small increments rather than two massive pads, less earth removing is necessary, and more of the heavily wooded land is left in its natural state.

Called Palisades Highlands, the project is being developed by Headland Properties Inc., a subsidiary of Sunasco Inc.



SITE PLAN (*below*) shows roads burved to follow contours. Vertical height between the roads averages to feet. The black dots mark the eventers of the private drives that ead into the individual clusters. Density is 4.3 units per acre. **PAIR OF CLUSTERS** is shown in section above and in two plans below. The upper plan includes the upstairs layouts of the two-level models, and the lower plan shows the downstairs layouts of the same models plus the flat-site houses.





A variation on the conventional cluster theme gives each house its own orientation to a lake

For a typical cul-de-sac cluster, the lot lay out is usually simple: pie sections around the circle and more-or-less rectangular sections on the straight-road portion. By contrast, the cul-de-sac below looks like a jig-saw puzzle gone wrong—but only on paper; in the flesh it handles a tricky planning job very neatly.

The problem grew out of an asset—a 22acre man-made lake created in the flat portion of a relatively rugged area. The archi-

tects, Robert E. Jones & Edward K. Hom, were asked to design a group of \$60,000to-\$80,000 single-family houses that would all share a view of the lake.

The solution to the problem involved three main factors:

1. The lots, with the exception of those right on the water, were offset in such a way that each has a section facing in the general direction of the lake. This produces a serrated outline around the cul-de-sac, as shown in the lefthand drawing at the bottom of the facing page. (Of course, the houses themselves were an important influence in determining the outline of each lot.)

2. Tapering greenbelts were left between the clusters as visual corridors so that houses farthest from the lake would still have a real view, not just a peek.

3. The houses and their pads were de-

signed so that as the sites step back from the lake to the road, the change in level lets one house look over another's shoulder without infringing on privacy.

The lake area is part of the first phase in Calabasas Park, a 6,000-acre community north of Los Angeles. It is being developed by Calabasas Developers Inc., a joint venture of Bechtel Corp. and Southern California Edison Co.



And, finally, here's a straight-line cluster for a problem strip of waterfront land From a narrow, academic point of view, it might be stretching things a little to call this a cluster. But from the functional point of view it is very much a cluster. It squeezes houses onto its site, does so without murdering privacy and uses the land very efficiently.

The land is a one-acre strip fronting on the water in Huntington Harbour, Calif. And while it is highly desirable from the water aspect, it is only 50 ft. from the Pacific



Coast Highway—a road that carries a contant load of heavy traffic and is lined with commercial property.

The obvious first step was to create priacy for the project as a whole. The designers, 3.A. Berkus Associates, ran a 7'-high maonry wall around the landward sides of the ot. Then, to give the neighborhood a characer of its own, streets and drives were made of cobblestone. And although house exteriors are all different, they share a basic shape (mansard roofs) and finish (wood shingles).

The high density (10 houses on the acre) dictated the simple lot layout shown in the drawing below. Conventional side setbacks are used, but a 5' easement on each lot lets each between-house alley be used by one home instead of being shared unprivately by two. These areas are handled as little entrance atriums, and the same first-floor siding material is used on the walls of both flanking houses.

Since Huntington Harbour is a seagoing area, the water side of the houses was an easy design job. Each house has a deck that projects over the sea wall, and a tide bridge leading to a float where boats can be tied up.

Houses in the project sold for from \$57,-000 to \$62,000. The builder was Mar-Crest Development Co.



PRIVATE COMMUNITY is created by a 7'-high wall that shields the project from a nearby highway. Note the cobblestone streets.

IN-LINE PLAN (*left*) puts most houses just 10 ft. apart. To accommodate varying distance between street and shoreline, some houses were made long and thin, others short and fat. Next-to-last house at left has backyard pool.

PASSAGEWAY between houses (*right*) serves as an entrance atrium for house at right, is completely private from house at left.



WATERFRONT SIDE of project has sections of deck overhanging a concrete bulkhead, private docks for boating homeowners.



how to sell houses to young couples



oung husbands and wives like the two at left are helping the Larwin Co. of Los Angeles sell 1,000 single-family houses this year in its new lower priced (\$20,490 and up) Tempo subdivisions. Says Marketing Vice President Michael Tenzer:

"These houses will account for a very significant part of our volume and profits in 1969. We are especially pleased because previously many of these young families were not responding to traditional marketing and merchandising approaches."

Here's the approach Larwin uses to reach this young-family market:

First you must have a clear picture of the buyer

Larwin's analysis of the first 350 families in its lowest priced Tempo subdivision (\$20,490 to \$27,490) revealed the following picture:

The husband is a blue-collar, skilled clerical or civil service worker. He and his wife are in their middle to late twenties. His income is about \$10,000. And he is a veteran of military service. Chances are only one out of four that he is a college graduate, but there's a good chance that he or his wifeor both-are taking evening courses at a local college or university. In only one out of four cases will the family have more than two children, and a surprisingly high 25% are childless.

The wife's income is significant. Half the women will have jobs, raising the average family income by \$1,500 to \$2,500. FHA and lenders will approve part or all of the wife's income in qualifying the buyer if she will make a written declaration that she does not in-

YOUNG BUYERS of a Larwin Co. house, Sandra and Charles Engelhart, are both 27, have three small children. They work at nearby McDonnell-Douglas aircraft plant; he is taking evening courses for a degree at Long Beach State College.

tend to have more children. Women in certain occupations, such as nursing or teaching, or women over 35 with a long work history, will get almost automatic credit for earnings.

You must talk to youth in its own language

Larwin found two years ago that the costs of its most popular models had outrun what most young couples could afford. The company also discovered that its older, more experienced salesmen were not getting through to these prospects and that much of what was considered its strongest merchandising was falling on deaf ears. For instance, market probing revealed that the decor and furnishing of model houses were out of tune with younger tastes, and that the Muzak piped into models and sales offices was not the music that turned the kids on.

"Young people respond to different appeals," says Tenzer. "Design, color, style, excitement and emotion are the keys. It is very much like the fashion business. Young people don't buy clothes and cars and food because of durability, economy or nourishment; they buy because of style, power and convenience."

Most of these buyers are coming out of apartments

The Larwin couples are not newlyweds forming new households; they have been married for an average of 6.7 years. In the lowest priced Tempo project, over 80% of them are moving from apartments or rented houses into the first home of their own. Only 35% have two or more cars. The young buyers will pay an aver-

"This is the biggest decision they've made, and they worry"

age \$22,000 for their house, just under double the family's average annual income.

Dress may make the man, but not the customer

Partly because of the freeand-easy California living, and partly because of the attitudes of younger people, Larwin salesmen have learned not to judge prospects by what they wear. Jon Clark, sales manager at the Cypress project says:

"We don't classify prospects by their clothes. Often these sales manager of the Tempo project in the Simi Valley (himself an antiquated 45):

"If the young buyer is a hot car buff, it helps to have your salesman drive a big-engined bomb rather than a black fourdoor sedan. The same goes for talking about skin-diving or surfing or the hottest rock records. It's something you can't fake: you're either part of that world or you're not, and if you are, you'll find it easier to relate to these kids when you talk housing to them."

Although Larwin salesmen



young people will drop in to our subdivision from a Sunday afternoon drive. He may be wearing a T-shirt, and she a sun dress or shorts, but we treat them like the potential buyers they are. In fact, when we see a man in a suit, shirt and tie we figure he's probably a shopping builder."

It takes young salesmen to sell young people

One of Larwin's first decisions was to use sales personnel in the same age bracket as the buyers. Says Dean Dillman, on Tempo subdivisions average only 26 years old, all are licensed salesmen with several years' experience behind them. Larwin trains no apprentices, preferring to hire men with records of successful real estate selling.

The customers' informality of dress does not carry over to the sales staff, who always wear conservative clothes, jackets and ties. Says Tenzer:

"They talk the language of youth but they convey a sense of responsibility and assurance. For all their casualness, these



young families know they are taking a serious step, and they want to have confidence in the man they're dealing with."

You have to set the stage for the audience you expect

Sales offices and model houses are built and decorated to appeal to younger people. Furnishings are light and modern, colors are bright and young. Displays are in strong color, and table-top models of both the subdivision and the over-all area are prominent.

Brochures are colorful, with abstract designs, cartoon-like illustrations and maps and bright, startling colors. Copy emphasizes the many recreation facilities within driving distance of the project: swimming, skiing, sailing, etc. The house is pictured as a base from which to have fun, rather than a sheltering nest in which to feel safe.

Even the right music music be used to set the Tempo stage Instead of the standard and semi-classical tunes that are played in models and sales offices in more expensive subdivisions, the ambient sound that Tempo projects is rock music —not the hard, screaming rock of the teenager, but modified tunes with a strong beat.

Cancellations are a big problem with young buyers

"Young families sometimes require both selling and reselling," says Tenzer. "Ofter they put down an impulse deposit on Sunday, then on Monday start worrying that they shouldn't have done it. It sometimes seems as though their at



titude is, 'Should we buy a nouse this afternoon, or some ce cream?' ".

Another factor contributing to a high rate of cancellations is the employment mobility of the husbands. Job-hopping is common if it offers even a slight increase in salary or responsibility, and often the couple. If this is suspected, the salesman will invite the parents to come in with their children and make his sell on both levels.

Since there is such a high level of impulsiveness and doubt in these purchases, salesmen must be "hard closers", helping the couple to make up

"The sales office must be as gay and exciting as the house"



change will take the family beyond commuting distance from the house. If this happens between deposit and closing, a cancellation is likely.

Larwin doesn't take backouts without a struggle. Says Dean Dillman:

"When we get a cancellation by phone or letter, we ask that the family come in and explain the circumstances. Often, the salesman finds that they really don't want to cancel, but are just afraid that they took a wrong step. Again and again we have had a couple come in to rescind their purchase, and wind up with them going to escrow."

Larwin feels that parents are often responsible for cancellations, communicating their own fears and doubts to the young their minds, assuring them that they are making a wise move. This approach differs radically from that used on second- and third-time house buyers, who usually know exactly what they want, what they can pay and when they want to move.

To sell apartment renters you emphasize privacy

Tenzer feels that the strongest appeal to the young couple is the privacy of the single-family house. After several years of having neighbors living above, below and beside them, the young couple want both personal and social privacy. They want freedom to have parties, to play loud records or to let the baby cry without worrying about the family next door. Larwin salesmen emphasize the idea of "doing as you please in your own home."

Economics is another basic appeal, but not the traditional appeal to equity build-up and appreciation of value. Apartment rents are jumping, and when the monthly rental of the apartment becomes more than the carrying charges on a newhouse mortgage, the pressure for ownership grows.

Says Dean Dillman: "Prospects pay lip service to tax deductions and inflation, but the buy is made essentially on a 'how much a month' basis."

Different family needs demand different products

Like most Los Angeles developments, the Tempo model areas offer a wide range of house sizes and prices, beginning with a 1,168-sq.-ft. "starter" model at \$20,490. This twobedroom basic plan can be expanded to include as many as five bedrooms and two baths. Buyers can have these additions from Larwin at fixed prices at the time of purchase, or they can expand the house later as family needs grow.

Other models are as large as 2,200 sq. ft. and are priced as high as \$27,490 in the Simi Valley, or up to \$30,990 on more expensive Orange County sites.

There are now three Tempo locations, and before the end of 1969 this number will be doubled. The reason: Larwin has found that even calloused freeway jockeys have limits on how far they will commute from home to work. The effective limit, says Tenzer, is between 25 and 30 minutes of freeway driving time, and this creates a direct relation between sales and employment centers. Says Tenzer:

"This means that there is not one big Los Angeles market for houses for young buyers, but a series of markets tied to major employment centers. We have to go where the jobs are, not hope that buyers will come where the houses are."

Concludes Tenzer:

"We feel strongly that these young families can be an even more important part of our volume in the years just ahead. We must come up with housing that meets their ability to pay, even if this means that both house and lot must be scaled down. If a family can qualify only for a \$22,000 house, the greatest value in the world for \$25,000 will be meaningless to them. But after we have achieved the house they need at the price they can afford, we still must do our merchandising in their terms."





design file

A home's front entrance is much more than just a way inside. It is the first impression a prospective buyer gets when he looks at the house, and, equally important, the impression he sees himself giving to visitors when he owns the house. On a close decision, the entrance can be the factor that makes or breaks a sale. So here and on the next four pages we offer you a variety of unusual ideas on 1) the approach to the entrance, 2) the entrance itself and 3) the foyer inside the door.

entrances

The combination of front steps and an entrance bridge allows this hillside house to be raised high enough to take advantage of a spectacular view. The building immediately at left is the garage. Architect: Tajima & Fuller. Builder: William Lawton. Location: Berkeley, Calif.

This house (below) sits well out from its sloping site, and it is built on pole piers to allow the ground below to remain undisturbed. A long entrance bridge gives access to the recessed entrance. Architect: David Kerr Burton. Builder: Fraser & Lehmkuhl Construction Inc. Location: Alamo, Calif.

Joseph W. Molitor

LIVING



A long entrance vista is made possible by a 30' atrium that stretches from streetside loggia with a sliding entry loor. Architect: Claude Oakland & Assoc. Builder: J.L. Eichler Assoc. Inc. Location: Walnut Creek, Calif.

Fraditional elegance (top, right) is eflected in this breezeway entrance with ts keystone arches and square posts. Garage is at left. Architect: Edwin A. Koch. Builder: Howard Littlefield. Location: Cape Neddick, Me.

A side entrance (photo and plan, right) was necessitated by this home's deep (205'), narrow (50') site, and the result is this handsomely landscaped approach between the house, at left, and court wall, at right. Architect, builder and owner: James Rodney Youngson. Location: La Jolla, Calif.





The entrance itself: you can blend contemporary and traditional

The impact of this entrance comes chiefly from the height of the front door; it is almost 2' higher than the customary 6'8", the height of the flanking glass panels. And a vertical design in the door itself adds to the effect. Architect: Wells & Parker. Builder: George H. Boyd. Location: Ruston, La.

The possibilities of mixing severity and warmth in an entrance are clearly shown here (*below*). The strongest contrast is afforded by the simple brick fin walls on the one hand and the richly panelled door on the other, with an added note from the long, shingled port-cochere roof. Architect: Maurice N. Finegold. Builder: Owen Gray & Son. Location: Bangor, Me.




The possibility of variety inherent in a traditional form is illustrated by the two entrances shown above. They are in two different rental projects, but built in the same town and designed by the same architectural firm. The doorway at left is topped by a conventional fan panel; the one at right has the same configuration, but the upper panel is elongated to about 13'. Architect: Danielson & Paine. Builder: Fred Schwaemmle (*left*) and R. L. Doyal & Sons Inc. (*right*). Location: Atlanta.

Here's a real mixture of the old and new (right). The four-panelled door was salvaged from the old house; it goes perfectly with the cedar-shingle siding. Yet there is no clashing with the contemporary elements of the house, as typified by the window at right and the high glass walls, visible through the open door. Architect: Kirk, Wallace, McKinley & Assoc. Builder: Blair Kirk. Location: Mercer Island, Wash.



Morley Baer





The indoor side of the entrance is almost as important as the outdoor

The foyer itself is relatively plain in this house; the impact a visitor receives on entering comes from looking across the foyer into the high-ceilinged living room in the foreground. Architect: Robert E. Jones & Edwin K. Hom. Builder: Kiely Corp. Location: Calabasas, Calif.

A planting area (*left*) is used in this house to dramatize the entry. The foyer, in the background, is relatively small, but it partakes of the landscaped indoor passage which leads into the living room in the foreground. Architect: Samuel T. Balen. Builder: Jacobsen Construction Co. Location: Madison, Wis.

> A foyer with a view (*right*) is made possible by a straightthrough passage from the entry (foreground), across the living room and out through a sliding glass door. A good deck leading to a gazebo heightens the panoramic effect. Architect: Anderson & Battles. Builder: John Madro. Location: Deerfield, Ill.



The character of this foyer is established by the strong decor of the carved door and the vertical strips of the flanking walls. Architect: Frank L. Hope & Assoc. Builder: Ralph Nelson. Location: San Diego. The design motif of this house (*right*) is Mexican, and the foyer, with its hexagonal-tile floor reflects it. There are two sets of heavily-carved double doors; one leads in from outdoors, and the other opens the foyer to the living room (foreground). Architect: Denis Beatty. Builder: D. Cappelletti. Location: Novato, Calif.

Ernest Braun





9 award-winning builder houses for 1969



What does a \$22,950 tract house (p. 78) have in common with a \$95,000 suburban mansion (p. 79)? Two things: Both were speculatively built, and both were among the award winners in the 1969 Homes for Better Living competition. Some of the nine merchant-built winners are in large-scale production tracts; some, like the one shown on this and the following two pages, are in small planned unit developments; and others are on individual lots in already developed subdivisions.

In each case, the jury (*below*) put great stress on how the house fitted its site, how well the floor plan worked and how the facade appeared as part of the overall streetscape.

Now in its fourteenth year, the Homes for Better Living program is sponsored by The American Institute of Architects in cooperation with HOUSE & HOME and *American Home* magazines.

Photos: Vince Finnegan & Associates



THE JURY: (top photo, l. to r.) Robert B. Price, FAIA, Tacoma, Wash.; John L. Schmidt, AIA, U.S. Savings & Loan League, Chicago, Ill.; and Fielding L. Bowman, AIA, New Canaan, Conn. Also (*in lower photo*, l. to r.) Charles E. Lamb, AIA, Baltimore; William E. Aubin, builder, Amherst, Mass.; Fred R. Smith, editor, American Home; and James P. Gallagher, senior editor, HOUSE & HOME.

MERCHANT-BUILT HOUSES in Spyglass subdivision, Pebble Beach, Calif. Architects: Burde, Shaw & Associates, Photo: Roger, Fremier, See page 74



HONOR AWARD

This house is one of several models in a cluster project (site plan, below) on 20 acres of leased land at Pebble Beach, Calif. The 2,600-sq.-ft. house is priced at \$79,000, and its lot rental is \$100 a month.

The architect—Burde, Shaw & Associates -planned the development as a series of motor courts opening off a traffic spine. Each house has a walled courtyard, and all models—ranging from 1,400 sq. ft. to 2,600 sq. ft.—are adaptable to varying site conditions and designed to be repeated throughout the subdivision. The builder is Harvey Kreftzech, and the developer is Spyglass Development Associates, which leased the land for 99 years from the Del Monte Properties Co.



VIEW FROM DECK is of adjoining house. Deed restrictions require at least 20 feet between houses and limit density to four houses per acre.



FLOOR PLAN orients major rooms to decks or private courts, with stairs, baths and dressing areas at the house core.

Photos: Roger Fremier





FRONT RECESSED ENTRY is flanked by head-high wall around private court that serves two bedrooms. Land planning preserved trees on the heavily wooded site.

SMALLER MODEL, next to awardwinning house, has carport instead of garage, only two bedrooms-both on first floor-and loft space under peaked roof.

100 FT





SECTIONS show how house can be adapted to different slopes by varying height of stairway, which links main living areas.





AWARD OF MERIT

All walls, floors and ceilings in this 912-sq.ft. house are 2"-thick, stressed-skin plywood panels, which were prefabbed and trucked to a remote vacation development in Point Reyes, Calif. The only framing members are floor and ceiling beams, 4' o.c. and either notched into or hung from the loadbearing panels.

This is the third house designed and sold in the Point Reyes project by the architect and developer, Hirshen/Van der Ryn. All incorporate the same panel system. Contractor: W. D. McIlvain. Price with land: \$25,000.

> PANEL SYSTEM is based on 4' x 8' units except in dropped living room (below), where 10'-high panels were used. Windows are framed into panels at factory.

DROPPED LIVING ROOM (below) is two steps below adjoining kitchen and dining area. Interior skins of panels are cedar plywood; exteriors are redwood.









PINWHEEL PLAN puts kitchen and bath at core of house and locates living and sleeping areas to capture sunlight and views.

SECTION shows simplicity of panel details at floor, ceiling and roof. Local code required conventional plumbing and wiring.

IONORABLE MENTION

No strangers to award-winning, marketleasing contemporary houses, builder oseph Eichler and architect Claude Oakand include this \$38,500 model in a 46nouse subdivision in Sunnyvale, Calif.

Steeply pitched roofs and glassed gable ends are used in all houses, but the gables' ize and direction are varied. In this house, he severely plain facade, another Eichler rademark, contrasts with the open atrium plan and the rear window wall (*photo*, *right*).



LIVING ROOM (*above*) is separated from dining room by free-standing fireplace; both rooms are open to the rear patio and yard. **ATRIUM** (*below*) is flanked by glass walls of tiled loggia, in foreground, and of bedroom, background. Entry, left, is a cross atrium.



SQUARE PLAN provides clean separation of living and sleeping areas. Atrium brings daylight into the center of the house.

PLAIN FACADE (*below*) is broken only by four slit windows—two flanking front door and one in each front bedroom. Siding is plywood sheets with battens.





AWARD OF MERIT

This 1,220-sq.-ft. house was designed to test a zero-lot-line layout with 40'-wide lots in a Sunnyvale, Calif., subdivision previously zoned for duplexes (rezoning permitted the same number of units).

Builder Don Bahl sold a trial group of 27 houses so fast, at \$22,950, that he has now introduced the model at another subdivision. To avoid monotonous streetscapes at both subdivisions, architects Robert Jones and Edwin Hom staggered the house setbacks, varied the orientation of the peaked roofs and designed seven different walls for the front patios.



FLOOR PLAN opens each room to a patio. Section of subdivision plan, left, shows staggered setbacks.



LIVING ROOM looks out into patio formed by garage and front- and side-lot walls. Patio paving and floors in living areas and kitchen are oversize Mexican tiles.

OPEN KITCHEN (*right*) is version of garden kitchen now almost universal in West Coast houses.

STREETSCAPE (*below*) shows varied orientation of peaked roof and varied design of patio wall.





IONORABLE MENTION

he market for expensive speculative housng is a very special one demanding a sure bel for the needs and tastes of well-to-do uyers. With that market in mind, John fadro built this \$95,000 house in Deereld, Ill., and sold it immediately. Among he luxury details contributing to the rapid ale were a copper roof, slate and exposedggregate walks and patios and extensive andscaping.

Madro and his architect, Anderson and Battles, are now planning a second highriced, speculative house in the same subivision.



J-SHAPED PLAN, enclosing large ntry courtyard, completely seprates living and sleeping areas on oth first and second floors. Photos: Hedrich-Blessing



LIVING ROOM is two stories high, and dining area is tucked under a balcony studio. Circular stairway, in background, from kitchen to balcony saves space.

STEEL ENTRY GATE is flanked by parallel brick walls, opens into courtyard from front driveway (*photo below*).

MANSARD-LIKE ROOFS (below) define living and bedroom wings. Gazebo, at left, opens off dining area; garage, right, is tied to house by high garden wall.





HONORABLE MENTION

This \$38,500 house, one of four prototype models in a small, heavily wooded planned unit development in Mill Valley, Calif., was designed for downhill sites. By putting the family-living areas and a parents' suite on the upper level and children's bedrooms below, architects John O'Brien and John Armstrong created a T-shaped house, with the large second floor overhanging the smaller ground floor.

A variation of the traditional mansard roof permits high ceilings in the living and parents' areas, where exposed wood decking contrasts with plasterboard walls. Leslie Smith is the land developer, and Robert Antonioli was the builder.

TREE-TOP DECK, high above the steeply sloping site, is an outdoor extension of the living room.

PARK

PARK

5

SITE PLAN, made up of oddly shaped lots, locates each house to minimize grading and foundations Houses are grouped around private drive instead of public streets.

0 50 100 FT

Photos: Philip Molten



ENTRY BRIDGE at left leads to upper level. Porch at right adjoins one of two first-floor bedrooms.



dren's bedrooms on first floor and master suite and living areas on larger second floor. Lower-level bedrooms are separated by bath and utility rooms. Bridge connects parking area on high side of site to entry on upper level.

SLOPING CEILING follows roof lines to create lofty feeling in living room, shown below, and other rooms on upper level of house.



PASSTHROUGH with bifold doors connects kitchen to dining room, which is partly screened from living room by stairway balusters.





AWARDS OF MERIT

The three award winners shown at right are all part of a 53-unit urban renewal project in San Francisco. They are also part of the first renewal venture by San Diego's American Housing Guild, a big tract builder. An AHG spokesman calls the project "one of our most successful."

The architect, Fisher-Friedman & Associates, designed four models-the duplex and the two single-family houses pictured here and a townhouse (not shown). Result: a price range of \$39,000 to \$85,000 within the three-block site. As the sectional drawings show, the houses were designed to capitalize on sloping lots.



SITE PLAN puts duplexes in row at left, townhouses in center and singlefamily houses on street at right, which is also shown in photo below.





DUPLEX MODEL has rental unit on top floor above two-story owner's quarters. Sidewall windows are only in houses at ends of duplex row (see site plan). Prices: \$79,950 to \$84,950.

GARAGE

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TECHNOLOGY



12'-WIDE SECTION is lifted by crane; on-site assembly work took only one day.



WALL PANEL is framed with 2x3s; interior finish is vinyl-covered gypsumboard.



ROOF TRUSS SYSTEM has ceiling panels nailed to joists before assembly is installed.



FLOOR ASSEMBLY PROCESS includes framing 2x6" joists and sill plates upside down (*left*); add-



ing steel grade beam (*center*), and reversing system before gluing underlayment to joists (*right*).



Neither the picture nor the plan above are much help in answering the question. In appearance, the house is an uninspiring,



L-shaped box. And while the layout works, it's reminiscent of typical post-war low-cost housing.

Research House VIII: NAHB takes a look at sectional construction

As the first step in a study that will continue into 1970, the new house is interesting chiefly because it shows that NAHB—traditionally conservative—is seriously considering sectional construction as a possible solution to the nation's housing problems.

Built under the auspices of NAHB's Research Institute in the South Bend prefab plant of Andrew Place, a veteran builder and a pioneer in advanced building techniques, Research House VIII was intended to support NAHB's claim that money, manpower and materials can be used more effectively by sectional construction than by stick building.

The claim has been made many times: that building houses on assembly lines permits more efficient use of labor and materials, economies through volume purchasing, minimal lost time due to bad weather, lower wage rates, lower construction financing costs and so on.

And the claim has validity, as proven by the development of a score of new industrialized-building systems and the experience of sectionalized-house producers all over the country.

Unfortunately, Research House VIII provides little that's new in support of the claim. But it does raise some questions:

1. Since many sectional systems are already in production, why build another one that offers almost nothing new in the way of technological innovation?

2. What can be learned about cost when the house is a one-of-a-kind prototype?

3. What can be learned about production by building the house in a plant not intended for this kind of construction, and by using workers who are unfamiliar with it?

4. Finally, if this house is to be a showpiece intended to stir up interest in sectional construction, why build a house that's minimal both in plan and design (*box*, *left*)?

Nevertheless, since this is only the first phase of the Research Institute's study on sectionals, other approaches may well be on the way. And since the Institute's laboratories are uniquely equipped for large-scale structural testing, it seems reasonable to assume that these approaches will include much more in the way of technical innovation than does Research House VIII.

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.



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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.

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





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







20-TON MODULE is guided into place by rigging crew. Unit has three walls; fourth wall is provided by previously placed module.

HINGED UNIT of precast concrete takes shape as it is lifted from casting bed by crane. Pickup fixtures are cast into floor/ceiling slab.

Hinge-connected panels fold to form boxes in this new stackup system

The hinges save time and money because they make it possible to precast concrete apartment modules in a flat casting bed.

So say architect Delp W. Johnson and builder William C. Harr, who are using the hinging system—called Foldcrete—to construct an 11-story, 110,000-sq.-ft. apartment building in Oakland, Calif. The job was bid at \$2,466,000; it would have cost about \$100,000 more if a slip form had been used, and about \$200,000 more with cast-in-place floor/ceiling slabs and walls.

Johnson and Harr (who heads Harvis Construction, Inc., the contractor on the job) cite two reasons for Foldcrete's economy:

Lower forming costs. Modules are cast in stacks up to 13 units high (above left), and the only formwork consists of 3x6''wooden edge strips around the perimeter and a bond-breaking compound to separate the stacked units. As each unit is lifted from the casting bed to the building by a 140-ton-capacity crane, the walls fold down to form a $13\frac{1}{2}x26x8\frac{1}{2}'$ box. Onsite casting eliminates transportation costs and of course there's no need for shoring, bracing, stripping and wet curing. Faster construction. The job is scheduled for completion in 10 months—six months earlier than with conventional construction, according to Johnson. So financing costs will be lower and rentals will start sooner. The 121 modules for the first half of the building were cast in 33 working days, and then placed in 12 days.

Applications of the Foldcrete system aren't limited to highrise buildings. Johnson, who owns the Foldcrete trademark, has developed plans for single-family houses that can be precast on-site at \$4.63 a sq. ft. for the basic shell.



CONNECTORS include (top) steel clips 6' o.c., joining slabs to walls, and (bottom) steel rods, two to a wall, which are welded end to end to form a continuous tie from foundation to roof.



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And it's got the greater built-in security of the Yale pin-tumbler mechanism.

You can see this lockset is matchless when it comes to security, but with enough decorator finishes to match any home.

Inside and out.

Antique by Yale.

YALES NAME IN LOCKS AND HARDWARE







FOAMED GLASS SHINGLES look substantial on an actual roof (left), but are easily installed (center). Ceramic surface is granular (right).

Traditionally shaped shingles in a material new to roofing: glass

The shingles above cast heavy shadow lines much like those on a premium-priced heavyweight shingle roof. But this roof by Corning Glass is of foamed ceramic.

The cellular glass is lightweight-255 lbs. per square—and easy to handle and install. Wedge-shaped tabs like those in the photo above are 5" deep and 9" wide and have a leading edge 1" thick. The tabs are laminated to asphalt seal strips that are nailed to the roof, as the drawing above shows, just like ordinary asphalt shingles. Unlike asphalt, however, the glass will not deteriorate in the sun, and it insulates the asphalt strips from the sun. The attractive muted colors-there are five: red, blue, green, brown and tan-are an integral part of the material and won't fade. Freezing and thawing won't harm the material either, and it is fire resistant.

In fact, it is so durable, if handled and installed properly, that Corning offers a 30year guarantee and recommends the use of metal flashings that will last as long as the roof.

The estimated price per square is \$37.50, but Corning plans to test market the roof only in Oklahoma for the next few months. Corning Glass, Corning, N.Y. Circle 200 on Reader Service card

This one tile was used to create all these custom floor patterns



The basic tile at left has a simple design. Four deeply cut grooves run diagonally across its surface. However, a wide variety of wall-to-wall floor designs can be created just by turning the basic tile this way and that as shown at right and below. Laid all in one direction, the tiles create a repetitive diagonal stripe. Side-toside, they form a wide chevron. Other arrangements produce squares, boxes and many other patterns. The 12"x12"x1/8" vinyl-asbestos tiles, in blue, cream or gold, alternate smooth-surfaced bands with the marble-veined textured surface of the corners and center. Johns-Manville, New York City. Circle 235 on Reader Service card





ALL PURPOSE DRILL will bore through $\frac{1}{2''}$ steel or 1" hardwood. Shown here: a workman cutting through $\frac{3}{6''}$ -thick aluminum with a $\frac{21}{2''}$ hole saw. The lowest-priced $\frac{1}{2''}$ reversing drill for construction work in manufacturer's line, it is 10%" long and weighs 7 lbs. Black & Decker, Towson, Md. Circle 201 on Reader Service card

TRUSS PRESS is a one-man operation, and manufacturer claims it is 25% faster than earlier models. The heavy-duty power pack provides continuous pump operation, more flexible hoses make handling easier, mountings swivel 360 degrees and redesigned clamp is lighter and stronger. Panel Clip, Farmington, Mich. Circle 202 on Reader Service card



Select the proper tool and save manhours of costly on-site labor

The dollars builders spend today for new tools, more tools, better tools—but the *right* tools for specific jobs—are really investments against tomorrow's spiraling labor costs. Not only is labor demanding and getting—premium pay, but already there are national shortages of every category of building labor. Some experts say the labor reserve has dwindled to next to nothing, and certainly in the industry fight to hold down labor costs, builders cannot afford to waste even minutes of expensive labor time.

Where men have been hand nailing truss plates, the air-powered truss press featured on this page may save time and increase production. Where men have been disassembling scaffolding to move it on the site, the mobile scaffolding equipment on p. 122 may cut time and steps.

Besides these two ideas, there are two dozen more featured in these seven pages of tools and equipment. Some are expensive heavy-duty pieces suitable only for the volume builder. Others are only simple gadgets to make ordinarily time-consuming tasks a little faster. One of them may help you cut time and steps from your own operation.



RADIAL SAW has a 14" blade that cuts 47_{46} " deep. A standard arm crosscuts 16" and rips 2834" wide, or a medium arm crosscuts 24" and rips 3634" wide. DeWalt, Towson, Md. Circle 203 on Reader Service card



It's a pneumatic floor stapler. Or an all-purpose power stapler.

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Tools and equipment



Vibratory plow attaches to trencher, installs cable underground without digging trench, threads cable into the ground. New isolated lift spring allows blade to vary depth while in operation. Charles Machine Works, Perry, Okla. *Circle 204 on Reader Service card*



Power shift tractor has three forward, three reverse speeds, all on a single lever. On-the-go shifting without braking or deceleration cuts cycle time, allows more versatility. Four-cylinder diesel engine develops 65 flywheel hp. Caterpillar, Peoria, Ill. 61602



Compact loader is only 59" wide, $81\frac{1}{2}$ " long, can make a 360° turn in its own length. Fourwheel-drive unit with diesel or gas engine can lift up to 1,500 lbs. up to $9\frac{1}{2}$ ' dump height, has 39 available attachments. J.I. Case, Racine, Wis.

Circle 207 on Reader Service card



Fork lift with hydraulic transmission leaves operator's hands free for speedier, more precise control of lifting operation. Available from 4,000- to 5,000-lb. capacity, with wide range of attachments. International Harvester, Chicago.

Circle 208 on Reader Service card



Articulated trencher, operated by one lever, digs a curved trench from 40" wide, 64" deep, to 12" wide, 30" deep, at up to 1,200 fph. Single lever controls speeds, forward and reverse, turns and braking. Davis, Wichita, Kans. *Circle 209 on Reader Service card*



Heavy-duty loader backhoe has a 16¹/₂' digging depth, a digging force of 11,350 lbs., a lift capacity of 5,200 lbs. to a height of 8'2". Ground-level reach from rear axle is 25'11". Several types of buckets. Deere, Moline, III. Circle 206 on Reader Service card



Small capacity mixer, only 78" wide and 84" high overall, has all the features of standard mixers. All hydraulic mixer, mounted on a oneton cab and chassis truck, has a 6' discharge chute. Universal Fluid Dynamics, San Francisco. *Circle 210 on Reader Service card*



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Tools and equipment



Paint applicator, primarily for outdoor work, gives a brush-like finish with the ease and speed of a roller. The 7"x4" flat nylon fiber pad holds enough paint to cover a 336-sq.-in. area, is replaceable. EZ Paintr, Milwaukee, Wis. Circle 211 on Reader Service card



Mastic applicators deposit a thin, even layer of vapor seal mastic over fiberglass duct joints. Spray (*top*) attaches to five-gal. pail; gun (*bottom*) has one-qt. cartridge, wide plastic tip. Owens-Corning Fiberglas, Toledo, Ohio. Circle 212 on Reader Service card



Tape applicator eliminates painstaking hand application of masking tape to walls, windows and baseboards, speeds paint preparation. Tight bond of tape to surface prevents paint seepage. Applicator may be used on carpet. Tape-On, Akron, Ohio. *Circle 213 on Reader Service card*



Steel tapes now come in 50 and 100' lengths, have white blades with 12" and 16" stud markings in red. Hand-contoured slim cases are rustproof, have re movable steel cover plates for cleaning or replacing blades. Stan ley Works, New Britain, Conn. *Circle 214 on Reader Service card*



Single vial levels are easily readable. Instead of two conventional vials, they have one 40% larger vial that can be preset to all-level or all-plumb positions. Levels come in five sizes. Mayes Brothers Tool Mfg. Johnson City, Tenn. Circle 215 on Reader Service card



Hand masking tool can reduce usual masking time drastically. Paper and tape are applied simultaneously, almost as fast as operator can walk. Lever-activated knife makes clean cut at end of run. Glover Distributing, Van Nuys, Calif. *Circle 216 on Reader Service card*



Pliers wrench is only 6" long (see matchbook for comparison), fits easily in one hand. Despite compact size, once it is adjusted for jaw pressure, it automatically locks tightly onto any item from a sheet of paper to a 1" pipe. Leverage Tools. Glenvil, Nebr. *Circle 217 on Reader Service card*



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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 3½' and 5½' 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.



Division AMERICAN FOREST PRODUCTS CORPORATION / San Francisco

NEW PRODUCTS start on p. 91

Tools and equipment



Brad nailer that drives color-headed brads flush with wood paneling so heads merge with surface, eliminates slow and costly process of nailing, countersinking, filling and color touching. Duo-Fast Fastener, Franklin Park, Ill. *Circle 218 on Reader Service card*



Concrete saw lengthens blade life, provides more accurate cutting because of new stronger frame, pivot-point bearings. Also new: integral steel skids, sloping reservoir, submergible pump. Clipper Mfg., Kansas City, Mo. Circle 219 on Reader Service card

Tools and equipment continued on p. 116

3. There are times when you need a superstiff plywood floor.

New 2.4.1° tests show the most economical way to get it.

Here's what the tests show: 2-in. dry lumber joists, spaced 32-in. o.c., with $1\frac{1}{8}$ -in. 2·4·1 tongue-andgroove plywood was found to be the most effective way to increase floor stiffness under heavy traffic.

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more readily available than 4-in. joists. (Use of dry lumber reduces joist shrinkage and cuts fastening and finish floor problems, too.)

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Concepts 114: Field-glued Plywood Single Floors: Compact, 6-page fact sheet on this new no squeak, no nail pop, no bounce, no call-back floor. Noise control information and diagram. Grade-use guide. Application instructions. Gluing recommendations. Recommended spans for field-glued floor systems. Case history information. (Circle service No. 52)

Plywood Guide for Residential Construction. Details on grades, applications, types of plywood construction under new Standard. Diagrams show wall, roof and floor construction. Grade-use guides. Suggestions for applying and finishing plywood paneling. (Circle service No. 53) Guide to Plywood Sheathing for Floors, Walls and Roofs. Diagrams and photos show uses and advantages of plywood sheathing. Information on diaphragm construction, special floor systems. Grade-use guides, load-span charts. Sound control and fire resistive systems. (Circle service No. 54)

Guide to Plywood Grades Under Product Standard PS 1-66. Has key definitions, species classification, veneer grades, basic grade charts. Facts on Identification Index. Span tables for roof sheathing and subflooring.

(Circle service No. 55)

Design and Installation, 2.4.1 Plywood. Revised data on this economical, $1\frac{1}{8}$ -in. thick combination subfloor and underlayment — standard 2.4.1 and tongue-and-groove. Diagrams. Installation notes. Span tables. Facts on the superstiff floor. (Circle service No. 56)

If you have any questions, just check the coupon and one of our 60 field representatives will call. Soon. Field offices: Atlanta, Chicago, Dallas, Los Angeles, New York, San Francisco, Tacoma and Washington, D. C. (Look in the white pages under American Plywood Association.)

American Plywood Association Dept. H Tacoma, Washington 98401 Please send me these free books: Plywood in Apartments Concepts 114: Field-glued Single **Plywood Floors** Plywood Guide for Residential Construction Guide to Plywood Sheathing for Floors, Walls and Roofs Guide to Plywood Grades Under Product Standard PS 1-66 Design and Installation, 2.4.1 Plywood Please have a field man call. Name Title Firm. Address City_ State Zip_ AMERICAN PLYWOOD ASSOCIATION ood quality-tested by the Division for Product Appr (DFPA

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See our insert in Sweet's Light Construction Catalog. For complete details, attach coupon below to your firm's letterhead.



NEW PRODUCTS start on p. 91

Tools and equipment



Utility body has "file-box" compartments behind weathertight double panel doors with baffles, channels that divert rainwater to ground, concealed-pin hinges that won't bind and keyed slam-action locks. Reading Body Works, Reading, Pa. Circle 222 on Reader Service card



Portable compressor is powered by a two-cylinder air-cooled diesel engine, delivers air at 88 cfm at 100 psi. Alternate 30"-wide hand trolley model will fit through standard doorways, weighs only 1,360 lbs. Atlas Copco., Hackensack, N.I.

Circle 220 on Reader Service card



Magnesium bull float is very light in weight and floats easily, yet magnesium is dense enough to work slab smoothly and keep concrete from building up. Floats come 8" wide and 42", 48", 54" and 60" long. Goldblatt Tool, Kansas City, Kans. Circle 221 on Reader Service card



Airless sprayer has separate air compressor that can be used at a distance for highly volatile materials or as an independent air supply. Patented gun produces high quality finish on all types of coatings. Spee-Flo, Houston, Tex. Circle 223 on Reader Service card

Tools and equipment continued on p. 120



ANY WAY YOU TURN, AMERICAN-STANDARD HAS A STAINLESS STEEL SINK FOR YOU.

NEW STAINLESS STEEL CORNER SINK.

An American-Standard exclusive! Fits neatly into kitchen corners. Saves space and steps. Perfect for compact kitchens. Self-rimming for easy installation. (Shown in 4 corners: Model SSR-4925-5)

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NEW STAINLESS STEEL BAR SINK.

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A great custom feature for kitchens, family rooms, play rooms. Selfrimming for direct installation into countertop. Available with either gooseneck or single lever faucet.

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NEW "JAM-RESISTANT" FOOD WASTE DISPOSER, TOO. Manual reversing switch provides instant "unjamming" action. Prevents service calls. Doubles life of unit. Model AS-308 (shown at left) also has new safety Push-Top starting switch, unique dual-shredding action, super-power ½

switch, unique dual-shredding action, super-power ½ hp motor and full one year warranty on parts and replacement labor.

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the home wrecker







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Glo-Tone Surface Mounts...each with multi-faceted, Plexi-Glo-Tone inserts...unlimited application...and patent pending.

Choose Mediterranean Silver, Brass, Avocado or Black with clear inserts; Mediterranean Copper or Harvest Gold with amber; or White with avocado at your Distributor's Showroom, or write EJS.

Shown: Surface mount No. 7413 with 13" diameter, 4¼" length, 3 lights — 60W each. Also available with 8", 10" and 16" diameter.



EJS LIGHTING CORPORATION 921 East Pico Boulevard, Los Angeles, California 90021

Circle 102 on Reader Service card

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NEW PRODUCTS start on p. 91

Tools and equipment



Ripper attachment, shaped like a big tooth, is an inexpensive tool that will rip out asphalt, frozen ground or other hard surfaces, is designed for easy interchangeability with the buckets of most manufacturers' backhoes. Cooper-Stanley, Arlington, Tex. *Circle 224 on Reader Service card*



Troweling machine has a fiv hp engine, special clutch that stop blades without cutting engin when operator releases handle Four-bladed 36"-diameter mode comes with one set of finish and one set of float blades. Stow Mfg., Binghamton, N.Y.

Circle 225 on Reader Service card



Concrete pump can handle standard rough and low slump mixes with up to 2" aggregate at up to 50/60 yds. per hour, pumps 150' vertically 1,000' horizonally, can be reversed to break jam. Whiteman Mfg. Pacoima, Calif. Circle 226 on Reader Service card



Welding gun is compact and weighs only $5\frac{1}{2}$ lbs. so it can be used in difficult areas and overhead. Welds a variety of studs up to $6\frac{1}{2}$ " long through $\frac{5}{6}$ " diameter. Triple-strut legs provide accuracy, consistency. Tru-Weld, Cleveland, Ohio.

Circle 227 on Reader Service card



Power drill is one of 20 drills and drivers now equipped with heavy-duty switch controls to increase tool life. Trigger contropermits operator to vary bit speed in forward or reverse for more control and accuracy than with single-speed drills. Skil, Chicago *Circle 228 on Reader Service card*

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NEW PRODUCTS start on p. 91

Tools and equipment



Monorail hoist, powered by an eight hp engine, will raise up to 1,500 lbs. of bricks, blocks or mortar. Will take 350' of cable, can be used with manufacturer's hoisting forks. Bridge opening: 54"x96". Blackwell Burner, San Antonio, Tex. Circle 229 on Reader Service card



Aerial platform, 4'x6', will hydraulically lift up to 700 lbs. to a 25 working height. One man can install the lightweight unit on a picku truck in only 15 mins. Remote control available. Veped Traffic Controls Oklahoma City, Okla. *Circle 230 on Reader Service card*



Elevator scaffold with a 6'x16'railed platform will lift men and materials to any desired height from 4' to 21'. Unit is mounted on heavy frame, hitches to back of truck for mobility, has a turning radius of 180 degrees. Blattner Mfg., Rozel, Kans. *Circle 231 on Reader Service card*



Scaffolding accessory is a bracket that enables a fork lift truck to lift and lower completely assembled pairs of scaffoldin, towers up to 40' high and move them from wall to wall or build ing to building. Morgen Mfg. Yankton, S.D. *Circle 232 on Reader Service care*

New literature starts on p. 13

Circle 105 on Reader Service card



Proven ways to better apartment management

Every apartment owner knows that professional management techniques mean the difference between a profitable and an even more profitable apartment project. With so many builders and entrepreneurs entering into apartment ownership today, a need has arisen for a basic guide to the problems and their solutions—inherent to apartment project operation.

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For your copy, send \$20, postpaid, to: National Apartment Assn., Book Dept., 5050 Westheimer, Houston, Texas 77027.

or copies of free literature, circle the indicated umber on the Readers Service card, p. 125

COPPER PRODUCTS. Three handy booklets covr many facts about electrical wiring, plumbing nd drainage and weatherstripping—all through he use of copper products. Copper Development assn., New York City. *Circle 300 on Reader Serv*the card

TRUCTURAL HARDWARE. A 1969 catalog hows a complete line of timber connectors inluding joist hangers, framing anchors, post caps nd new heavy-duty structural fasteners and hangers. Included: dimensional drawings, up-todate load tables, specifications and nail schedules. Simpson, San Leandro, Calif. *Circle 301 on Reader Service card*

BATH ACCESSORIES. Four-color folder displays solid brass and chrome towel trees, bars, rings and hooks, shelves and holders for soap, glasses or toothbrushes. Hall Mack, Cincinnati, Ohio. *Circle 302 on Reader Service card*

ARCHITECTURAL CONCRETE BLOCK. Booklet describes various types of designs for concrete blocks. Photographs of architect-designed homes,

shops and apartments illustrate the range of uses. Included are decorative masonry units for screening, ⁻¹ump block for texture, concrete bricks for durability and bas-relief patterned blocks for varying shadow patterns and surface designs. National Concrete Masonry Assn., Arlington, Va. *Circle 303 on Reader Service card*

HOT WEATHER CONCRETING. A technical card lists nine recommendations for placing, finishing and curing concrete during hot weather. Master Builders, Cleveland, Ohio. Circle 307 on Reader Service card

New literature continued on p. 134



Need technicians? Help yourself.

If you're like most businessmen, you're probably all too aware of the technician shortage. If current projections are right, one out of three new technical jobs won't have any applicants.

The National Industrial Conference Board and The Advertising Council are concerned about the shortage, too. As a public service, they've prepared a full-scale advertising campaign to get young people to take up technical careers.

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t affected by industrial fumes and that application is not unduly affected weather conditions. Its somewhat higher initial cost is compensated for by reduction painting, and virtual elimination of maintenance costs for many years.

For free brochure on the use of Geon vinyl in building products, write F. Goodrich Chemical Company, Dept. H-16, B.F. Goodrich Chemical Company 35 Euclid Avenue, Cleveland, Ohio 44115. **B.F.Goodrich**



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Roofing Nailer speeds shingling jobs



SOUND-DEADENING BOARD. A technical book let describes wall and floor assemblies with teste noise control and fire ratings. Drawings show vari ous types of wood and steel partition assemblie using gypsum wallboard. Georgia-Pacific, Port land, Ore. *Circle 308 on Reader Service card*

OVENS AND RANGES. Illustrated booklets give full details on a line of regular and self-cleaning gas and electric ranges and ovens. Highlighted decorator doors and ovens that cook on retained heat. Chambers, Oxford, Miss. *Circle 309 on Reader Service card*

Annual H&H indexes

Copies of House & Home's editorial indexes for 1965, 1966, 1967 and 1968 are still available. Each is an eight-page, cross-referenced listing of subjects covered that year by this magazine. To get copies (there's no charge) write to: Reader Service Dept., House & Home, 330 West 42nd St., New York, N.Y. 10036.

CERAMIC TILES AND VENEERS. Full colo photographs show the unusual designs available in a line of dimensional floor and wall tiles and ceramic exterior veneers. Large tiles are shown in half-life-sized photos as well as in sample installa tions. Specifications given. Interpace, Los Angeles *Circle 311 on Reader Service card*

CONCRETE FORM PLYWOOD. A revised bookle describes standards, grades, surfaces and sizes o plywood required for the best performance in concrete forms. Timber Engineering, Washington D.C. Circle 312 on Reader Service card

FIGURED AND WIRED GLASS. A 16-page catalog illustrates conventional and modern patterns in rolled, figured and wired glass. Specific types for specific functions—such as light diffusion, decora tion, or heat absorption—are shown, and ligh distribution charts are included. Mississippi Glass St. Louis, Mo. Circle 313 on Reader Service card

SWIMMING POOL HEATERS. A brochure discusses various sizes of units to efficiently hear home or community pools. Illustrated are steps for connecting plumbing and wiring. Included helpful charts and formulas, plus specifications Coates Electric, Kent, Wash. *Circle 314 on Reader Service card*

GLASS BLOCK. Black-and-white and four-color photos show actual residential installations of various types of glass block. Closeups depict the variety of patterns and shapes available, clear or in colors, transparent or translucent, individually or in prefabricated panels. Pittsburgh Corning, Pittsburgh, Pa. Circle 315 on Reader Service card

APARTMENT ACOUSTICS. Practical Sound Conditioning is a 24-page booklet that explains how the various types of sounds in multifamily buildings can be contained by concrete decks and walks and by plugging air leaks and isolating plumbing, etc. Booklet is approved by acoustical experts. Flexicore, Dayton, Ohio. Circle 316 on Reader Service card

FLORIDA ARCHITECTURE. A handsome 132page book describes and illustrates custom houses —from \$20,000 to \$70,000—as well as public housing, educational and commercial buildings and multifamily projects in Florida. Send \$4,00 to: Florida Assn. of the A.I.A., 1000 Ponce de Leon Blvd., Coral Gables, Fla. 33134.



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