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The only cushioned vinyl backed by 5 years of proven experience . . . insist on it.

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Incredible new cushioned floors by Congoleum-Nairn

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#### **EDITORIAL**

An incredible court decision—and its deplorable result Here's why the Supreme Court's recent ruling on prehung doors strikes a rough blow not only at prefabrication but also at the whole housing industry

#### **FEATURES**

Award winners in the 1967 Homes for Better Living Program Jurors cited 35 builder houses, custom houses and multifamily projects. H&H shows three of the winners here, will publish the others in coming issues

#### Small apartments for tight sites

Five successful projects demonstrate how to solve the key problems that arise when apartment buildings must be squeezed onto house-sized lots

How slums can be made really livable for \$12 a sq. ft. A Philadelphia remodeling specialist and a major building-products manufacturer team up in an eye-opening demonstration of efficient rehab techniques

#### Custom detailing with standard millwork

66

Traditional custom millwork is all but impossible at today's labor costs. But a custom builder shows how to achieve the same effect with off-the-shelf trim

Can builders make an honest buck on complex remodeling jobs? Yes, say three custom builder/remodelers, but only if they know how to 1) estimate accuracy, 2) pick the right subs and 3) work with architects

#### Valance heating/cooling edges towards housing

Year-round hydronic systems, hitherto limited to big buildings, may be available soon for houses. The reason: new, scaled-down hydronic cooling equipment

#### NEWS

#### Mortgage market takes a turn toward tighter money

12

After three months of easing, mortgage lenders are tightening their purse strings again, and the big culprit is a flood of corporate bond offerings

Controversial home-ownership plan arrives as '68 election issue 5 The freshest housing proposal of the year comes from a freshman Republican, Sen. Charles Percy, in what seems an opening round in the '68 Presidential race

Big new-town developer falls into bankruptcy reorganization The pyramid of rising land values that had supported Joppatowne stopped growing last month, despite sales of 1,300 houses and 500 apartments since 1962

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Cover: Award-winning apartment in Homes for Better Living competition. Architect: Jonathan Bulkley. Builder: Alison Hana. Location: San Francisco. Photo: Joshua Freiwald. For story, see p. 52.

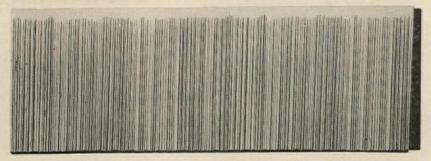
#### NEXT MONTH

Three ways a man-made lake is paying off in a significant new project . . . Can scientific personnel testing help you spot the right men for key jobs? . . . New developments in precast concrete . . . Award-winning custom houses

## Homes Come Mus









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#### Memo for '68: Watch Chuck Percy and his homeowner plan

Minutes after Senator Percy spoke to the National Housing Conference last month, a deep-dyed Democrat said:

"The Democrats had better hope the Republicans are stupid enough not to put this fellow on their ticket in 1968."

All Republican Percy had done was walk into a gathering of housing's far left-NHC is the unabashed champion of public housing-and bring the certified liberals to their feet for a one-minute standing ovation with a speech that may rank as one of the most significant ever delivered about the housing industry.

Almost everyone in the audience knew that Percy had come to plead for a homeownership plan for slum dwellers. That was what the former president of Bell & Howell had proposed last fall during his successful campaign for a Senate seat from Illinois. They knew, too, that although the proposal now contains many holes, it has captured the interest of Washington's politicians far beyond any Administration proposal this year.

What they hadn't expected was the persuasive Percy personality that accompanied the plea. From the moment Percy opened his 10 a.m. speech with a crack-"I am happy to take part in your sunrise service today"-to an impassioned closing line-"You have a disciple in your efforts for better housing, because I have religion"

he dominated his audience.

Straight off, he told the public housers. "Housing is the field in which I hope to make my contribution to the nation. In my opinion, housing and urban renewal are the most serious problems confronting America today."

Then Percy, now many times a millionaire, related how much home ownership had meant to his family, how his family had moved 19 times during his youth, how "my father was evicted eight times during the depression, and each time the quarters got a little smaller, until we finally ended in a three-room apartment. When my father died at the age of 73, he had never accumulated enough money for a down payment on a house. even though he wanted to own one."

Touring the slums of Chicago, East St. Louis and Rockford during his unsuccessful 1964 campaign for the Illinois governorship, Percy found that same pride of ownership manifested in a different way: "You see people polishing their cars and then going to their apartments and throwing their garbage down the front

"So when I awakened . . . to the fact that I wasn't going to be governor, I decided that I would do my best to fulfill my campaign pledges as a private citizen."

Then, he told NHC, he helped form a New Illinois Committee; it sponsored a "Call for Action" radio program that station wvon in Chicago beamed to slum dwellers. Listeners were advised of their rights under city housing laws and invited to report code violations to the committee.



ILLINOIS' PERCY A housing springboard to national limelight

Finally, Percy got to his plan to extend home ownership to slum dwellers. Essentially, he proposes setting up a national home ownership foundation as a private organization to make low-cost mortgage loans available for renovating slum dwellings, which would then be resold to slum dwellers. Percy wants to depart completely from the time-tested (and tortuous) FHA-FNMA financing. The foundation would raise money by issuing bonds (just as FNMA now does) and would lend the proceeds to local nonprofit groups for the repair and resale of dwellings. The federal government's role would be to guarantee the Foundation's bonds, thus letting the Foundation raise capital at far lower rates than those generally available.

The fundamental question asked by everybody in Washington is why the federal government should lend its credit rating to a private organization. Percy's answer to NHC: "Why not? What good reason can there be for the federal government not to stand behind the capital issues of a blue-ribbon national foundation dedicated to the improvement of slum housing and the diffusion of home ownership among the poor?"

His critics have also been pressing for assurances that the private foundation would operate in the public interest. Percy's answer: The foundation's charter could be changed at will by Congress; it would have to report to the President annually and would be subject to General Accounting Office audit; and the President would appoint one-third of its board members. All these safeguards, said Percy, would put the foundation "under closer public scrutiny than even so established an institution as the Federal Reserve."

What's more, Percy sees this mixture of private and public efforts as "the beginning of a trend-a trend toward other specialized institutions that operate through private initiative to solve public problems but that are under the close, continuing and effective review of the Congress and the American people."

When Percy introduced his home-owner-

ship plan in the Senate ten days after the NHC speech, The New York Times said it "received more fanfare than is usually accorded to proposed legislation from the White House." All 36 Republicans in the Senate endorsed the measure. So did more than a hundred gop members of the House, where it was introduced by Rep. William Widnall.

Despite all the drum beating, Percy's proposal faces a rocky, if not impassable, path in Congress this year. The Democrats still hold top-heavy majorities in both the Senate and House and aren't about to have their own housing plans upstaged by a freshman Senator.

The Administration indicated more than routine opposition when HUD Secretary Robert Weaver took the rare step of denouncing the Percy measure in a ninepage attack. Weaver said the plan "would not reduce housing costs enough to enable low-income families to afford home ownership . . . Despite glowing statements of good intentions and a bewildering maze of financial juggling, it provides a wholly inadequate subsidy.'

But the Percy plan cannot be buried that easily. It clearly represents a major Republican effort to "do something" for the nation's increasingly numerous city dwellers. For many years now the GOP has been losing presidential elections in the big cities with hardly a murmur of protest. When Ray Bliss took over as national party chairman in 1965, one of his first jobs was to make the Republicans more attractive in the Democrats' big-city strongholds. The nearly unanimous party support for the Percy plan indicated that party chieftains hold high hopes for it in their quest for big-city strength. As such, the plan could well become a hotly contested issue in the 1968 Presidential race, whether or not Percy is running.

Anent that question, Percy at this point has to be rated an outside choice. He has less public-service experience than any Presidential aspirant since Wendell Willkie. And at age 47 he is younger than most other frequently mentioned hopefuls.

But since arriving in Washington he has impressed some oldtimers with his ability to learn and react in a non-doctrinaire manner. The NHC speech was a case in point. Before the convention Percy sent a draft of the speech to two NHC elders-Nat Keith, the organization's president for more than a decade and the nation's first urban-redevelopment director, and Washington attorney David Krooth-along with a request for their frank comment. They responded with detailed criticisms. Percy studied their comments, then invited both men to his Senate office for more giveand-take on the points at issue.

Percy has used the same approach with almost every housing organization in Washington. So it was no surprise to hear one NHC veteran remark: "He's young, but he's open-minded, and he learns fast."

-KENNETH D. CAMPBELL

#### Housing outlook in Congress: big talk, little action

Congress is in no mood to pass much housing legislation this year. Such action as there is will occur in the appropriations process—the decisions on how much money Congress will permit to be spent on rent supplements, model city programs and other Housing and Urban Development Dept. plans.

The House voted 232-to-171 to halt the rent-supplement scheme by slashing its funds from \$10 million to zero for fiscal 1968. It was a major defeat for HUD, but the Administration hoped to recoup some funds in the Senate.

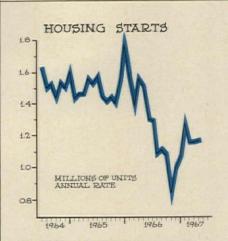
The House beat off an attempt to cut \$237 million from the model-city budget. Best guess: The program will clear the Senate with about half of the \$400 million the President requested.

There will be talk and laughter about the Administration's "rat scat" bill to provide \$20 million for rat elimination. The "rat scat" bill has the best chance of wending its way through the tortuous legislative process: The White House is committed to supporting the bill, it isn't going to offend anyone and it can serve as the mechanism to make minor special-interest changes in housing laws.

Worthwhile listening. But not all the talk can be ignored. Enough talk about a subject can transform an image or idea into a reality—at least a political reality.

And all this talk also covers up a truth that no one in the Administration likes to admit: The well of new ideas on how to solve America's housing crisis has all but dried up. That's one major reason HUD Secretary Weaver is pushing so hard for money to spend on research.

Sen. Charles Percy's home-ownership plan (see p. 5) is a case in point. The Democrats will likely seize upon technical defects to block its momentum. But the wide sponsorship of the plan is evidence of deep frustration in Congress with the gap between Administration plans for midincome housing and the lack of action.



#### STARTS CAN'T GET STARTED

April's housing starts rose to a seasonally adjusted annual rate of 1,171,000, or 0.9% above a March rate revised down to 1,161,000. February's rate was revised up to 1,163,000.

"For three months starts have been fairly constant," said President Leon Weiner of NAHB. "The only hopeful sign is an 8% rise in permits."

The Commerce Dept. said April's future-construction permits were at the highest rate in nearly a year. SEC registration for land? The mailorder land sales bill, a pet project of Sen.
Harrison Williams (D.,N.J.) would require most developers to file registration
statements with the Securities & Exchange
Commission similar to those for public
stock issues. Homebuilders vigorously oppose SEC-type registration, saying it can
be misleading and unduly costly. Legislative action is not expected to begin until
late June, which means chances of passage
this year are very slim.

Mortgage shuffle. Both NAHB and the National Association of Real Estate Boards are pushing differing proposals for some kind of central mortgage facility. Neither is likely to pass in 1967.

Any crystal-ball-gazing this year has to be modified, however, by the fact that any legislation not passed remains on the books for action next year.

For example, Sen. John Sparkman (D.,Ala.) was to begin hearings in mid-June on the whole problem of mortgage money, but his hearings are only to probe the problem, not to approve any legislation.

The senator has introduced a homebuilders' bill, and a realty men's bill. And he's willing to introduce both a bankers' and a savings-and-loan bill. However, he doubts anything will come to pass until the industry settles down in favor of one approach or another.

"Unless industry gets together," says Sparkman, "it's unlikely that any bill will get through Congress this year." Traditionally, on complicated and controversial measures such as this, Congress hesitates.

-JOHN B. NICHOLSON

#### Commerce flouts top-heavy majority and bars dry lumber

Any U.S. politician would be happy to count the majorities just racked up by the proposed dry-lumber standards in a housing-industry vote. Favoring the controversial standard were:

- 92% of lumber users, including builders.
- 81% of lumber producers by number,
   69% by production volume.
  - 77% of wood-product manufacturers.
  - 75% of lumber distributors.

The figures were derived by Commerce's Bureau of Census after a "weighting" formula was applied to returns. The West Coast Lumber Inspection Bureau, composed of foes of the standard, disputed the "weighted" results and said that in plain figures 86 producers opposed the revision and only 30 favored it.

The majorities announced by Commerce would be landslides. No American president since George Washington has come close to commanding such votes.

But the procedure for setting product standards for American business is a different matter, as proponents of the controversial dry-lumber standards (so-called because lumber size is related to moisture content) learned bitterly last month.

Under Commerce Dept. rules, an industry must be in "general concurrence" before a new standard can be accepted. But until now, Commerce has never defined what that meant.

Faced with the overwhelming majority for the dry-lumber standards, Commerce General Counsel Robert E. Giles made a ruling of sorts last month, His opinion: A 75% majority "would not, as a legal matter, be general concurrence."

Giles left open the question of how much higher the majority would have to climb. But rejection of the over-80% majority from the overall industry seems to indicate that Commerce is seeking near-unanimity.

What apparently concerns Giles and his associates is that about 44% of green-lumber producers of both Douglas fir and California redwood oppose the new standards. In Giles' view, all subgroups must also be in "general concurrence."

Court test? Proponents of the drylumber standards, disappointed by this turndown after five years of painstaking effort, are expected to test Giles' opinion in court. Their main arguments:

 The latest vote was conducted by the Census Bureau using a scientifically-selected sample of the lumber and housing industry.

2) About 4,453 business firms voted this year, 45% more than voted in the first balloting on the standards in 1964.

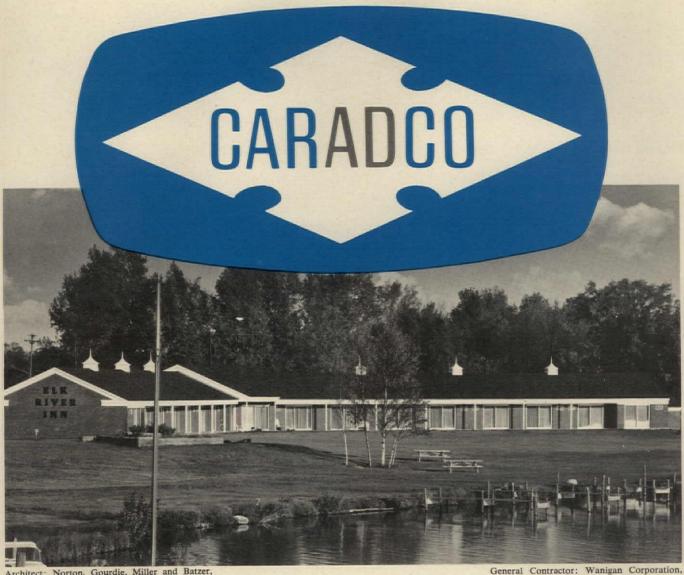
But Giles has ringed his opinion with enough "whereases" that a court test most likely would not turn completely upon the adequacy of the industry majority. For instance, the lawyers said the proposal should have included "performance criteria" and said Commerce should not have delegated power to determine stress values to a review board within the American Lumber Standards Committee, which framed the original proposal.

Future path? There is some talk that proponents may appeal to Congress, but one NAHB spokesman said bitterly, "It's obvious we don't have the political clout they [green-lumber producers] do."

Whatever the course, the added strength and slightly lower costs of smaller-dimension dry lumber will continue to elude the housing industry's builders and buyers for some time.

#### The "IN" Inns have Wood Patio Doors.

Have you noticed?

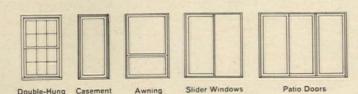


Architect: Norton, Gourdie, Miller and Batzer, Traverse City, Michigan

General Contractor; Wanigan Corporation, Elk Rapids, Michigan

#### CARADCO Wood Patio Doors

You'll be proud of every one you use!

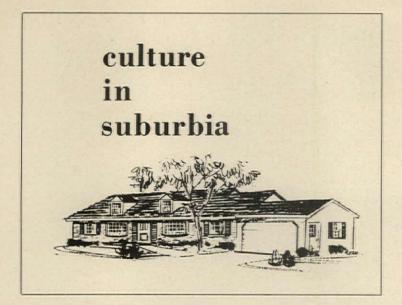


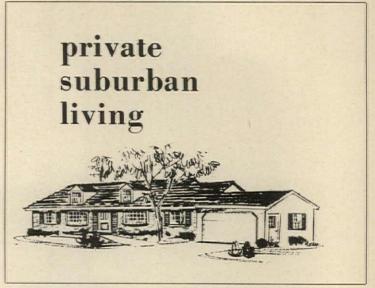
From the manufacturers of creative building products

#### CARADCO, INC.

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Caradco Windows and Patio Door products are further detailed in Sweets Light Construction  $\frac{6B}{Ca}$  Arch. File  $\frac{19c}{Ca}$  and Canadian file  $\frac{8wmw}{Car}$  or write direct to factory





#### Which ad would you run to attract uncommitted buyers?

You're wrong if you picked the ad headlined "Private Suburban Living."

But don't be upset: When the question was put to 200 directors of the National Association of Home Builders in mid-April, they reacted the same way. Most put the "Culture in Suburbia" theme at the bottom of a list of 24 appeals made in sample new-house ads.

**Topsy-turvy.** The astonishing fact is that NAHB's just-completed motivational study\* found that potential house-buyers reacted almost exactly the opposite way from builders. It said the "Culture in Suburbia" ad would most likely bring them out to look at model houses, all other factors such as price and location being equal.

The motivational researchers found that most of the items builders commonly advertise are given low marks by uncommitted buyers. Appeals to the quality of the product itself "are completely rejected by the buyers—because the buyers have come to expect these items in new houses," says Edward J. Detgen, the Owens-Corning Fiberglas vice president who headed the Housing Center committee sponsoring the study.

In short, builders have been going at the job of attracting new buyers backwards. Researchers say it's time for a change.

One million new buyers. Based upon the surprising findings, Detgen and his group are now talking about a nationwide ad campaign to entice perhaps one million new buyers into the new-house market each year.

How such a campaign would take shape is still very much up in the air. Detgen encourages local builders to study the report and incorporate its findings into their own regular advertising.

Beyond that, Detgen says, "We manufacturers have said to the builders: 'Tell us what you want to say and when you

\*Concept-Motivation Study on New Housing, available from National Association of Home Builders, 1625 L St., N.W., Washington, \$25. want to say it and we will try to find a way to get it done."

**Depth bomb.** Detgen and his aides are seeking a radical turnabout in homebuilder advertising because of the findings of the housing industry's first depth motivational study.

A year ago, Detgen's committee hired Market Facts, Inc., a Chicago-based market research firm whose work in the auto industry paved the way for successful introduction of the Mustang and Falcon, and told it to find ways to expand the newhouse market. Market Facts researchers contacted 7,952 persons in 45 marketing areas and followed up with detailed interviews with 1,014 families. These were all highly mobile families who planned to move within the next two years—but who had not made a definite choice between a new house, used house, apartment or other dwelling.

To the researchers, they represent a statistically accurate sample of the six million families who move annually. Market Facts showed these select families 24 sample ads in which only the headline and text (drawn from actual builder ads) were varied to make different appeals.

**How they rate.** Following the "Culture in Suburbia" ad, these were the most appealing headlines:

"Luxury Homes."

"Prestige Community."

"A Community for Children."

"Time for a Change."

At the other end of the scale, these four ads rated the lowest with the cross-section of potential buyers:

"Maintenance Free Home."

"Modern Features."

"Quality Guaranteed."

"New Home Values."

None of these four attracted more than 25% of the potential homebuyers.

Personality plus. Market Facts then put its sample ads into eight general motivation groups. The research group then ranked their appeal to uncommitted buyers on the basis of these major groupings:

Personality

Control (indicating luxury and spaciousness).

Sociability

Children/Family

Investment

Privacy

Convenience

Product

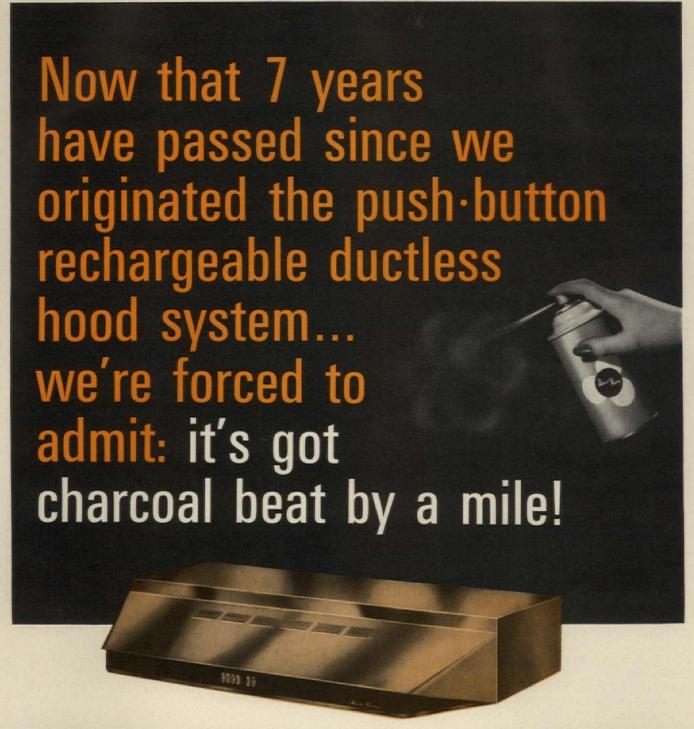
From their detailed interviews, Market Facts concluded that builders would get their best response by promoting locations as prestige communities and suggesting that buyers would be "moving up" by purchasing homes there. Appeals to culture go hand in hand with this, said the researchers, hence builders should stress such facilities as music centers, playhouses, libraries, drama groups, and school systems geared for adult education.

The "Time for a Change" appeal was also rated high by the researchers. People are vulnerable to appeals for a change, to meet new friends and use new facilities, said the researchers. "The concept is so ephemeral it can be promoted in many ways."

Market Facts sampled current homebuilder advertising and found that "personality and sociability are hardly mentioned at all in builder ads."

Sales clinchers. Financing and prices of new houses are used most frequently in current ads, with descriptions of the houses close behind. To the market researchers, this ad strategy puts the cart before the horse. Builders are using salesclinching arguments designed to aid committed buyers to make a choice between specific houses when they should be using a completely different set of arguments to attract new, uncommitted persons into first looking at new houses. Only after the person has looked and become committed do product distinctions become meaningful.

Homebuilders, concludes Market Facts, have hardly scratched the surface with their appeals to the uncommitted prospect.



Sure, we sell ductless hoods with standard charcoal filters. Low priced hoods. For installations where rock-bottom cost is what you're looking for. But often, you need something better. A deluxe hood. One that looks better, works better, gives your customer more. That's why Air King deluxe ductless hoods feature our push button-recharge filter system. No messing with char-

coal. It recharges to full-filtering capacity with a spray from an aerosol can. The modern way. See the *many* features that make Air King deluxe ductless hoods outstanding. Write for our catalog. PS: Other range hoods are now using our push button-recharge system. They're good, too. BERNS AIR KING CORPORATION 3050 N. Rockwell St., Chicago, Illinois 60618.



#### Where the speculative builders operate . . . A new survey lets you in for some surprises

Among the eye openers: Those conservative old South Carolina twins, Charleston and Columbia, built 99% of their new houses on spec in 1966; the percentage for Providence, R.I., was 86. By contrast, Miami built only 27% of its 1,934 new houses speculatively last year, Phoenix only 41% of 3,847.

Most of the 325 localities surveyed for an FHA census of unsold homes (just published\*) fall into a more readily recognizable pattern. Spec building predominates generally in the West, Southwest and South. FHA found, for instance, that Los Angeles, San Bernardino and the Anaheim-Santa Ana and Oxnard-Ventura metro areas built all of their houses speculatively last year. Contract building runs heavy in the Midwest and heaviest in the East.

An interesting sidelight of the FHA survey is the revelation that, despite a cutback in building, California worked off less of its new-house inventory in 1966 than had been generally believed. The state's 18 metro areas brought 18,679 unsold houses into 1966, some 6,203 of which had remained unsold for more than a year. The cities finished 1966 with 18,108 houses on hand, of which 8,018 had been unsold for more than 12 months. The same cities built only 35,318 new houses speculatively in 1966 against 43,049 in 1965.

\* Free on request from FHA, Washington, D.C. 20411.

Here is a breakdown of the 73 cities that each built at least 1,000 houses, contract and spec, during 1966:

#### NEW HOUSES BUILT SPECULATIVELY

76% AND OVER		26 TO 50%			
	Total	% on		Total	% on
City	Built	Spec	City	Built	Spec
Anaheim-			Colorado Springs	1,293	48
Santa Ana,			Sacramento	2,438	45
Calif.	10,039	100	Portland, Ore.	1,924	45
Los Angeles	9,204	100	Nashville, Tenn.	1.746	45
San Bernardino	1,925		New Orleans	2,486	44
Oxnard-Ventura.			Ft. Worth, Tex.	2.741	42
Calif.	1,639	100	Tampa-St.	-	
Charleston, S.C.	1,634		Petersburg	2,651	42
Columbia, S.C.	1,104		Hartford, Conn.	1,633	42
El Paso, Tex.	1,104		Omaha, Neb.	1,378	42
Huntsville, Ala.	1.072		Philadelphia	8,312	41
Providence, R.I.	1,256		Phoenix, Ariz.	3.847	41
San Diego	3,132		Lansing, Mich.	1,124	41
San Antonio	3,572	78	Salt Lake City	1.140	39
Charlotte, N.C.	1,578		Cincinnati	2,086	35
	-		Caguas, P.R.	1,589	35
51 TO 75	%		Flint, Mich.	1,469	35
	Total	% on	Albany, N.Y.	1.304	35
City	(CANDISTRATE)	Spec	Indianapolis	1.655	34
		-	Honolulu	2,075	32
Newport, Va.	1,213	75	Chicago	7,025	30
Little Rock, Ark.	1,380	71	Louisville, Ky.	2,271	30
Austin, Tex.	1,141	70	San Juan, P.R.	7,079	29
Seattle-			Baltimore, Md.	2,733	29
Everett, Wash.	2,630	6.9	Denver	3,988	28
Norfolk, Va.	1,493	68	Miami, Fla.	1.934	27
Houston, Tex.	7,272	67	Miani, Pia.	1,001	-
Atlanta	6,413	66	UP TO 2	5%	
Memphis	2,259	66		Total	% on
Vallejo-Napa,			City	Built	Spec
Calif.	1,635	65	ong	- unit	Cpcc
San Jose, Calif.	4,501	61	New York	10,448	25
Brevard			Pittsburgh	2,011	25
County, Fla.	3,506	61	Rochester, N.Y.	2,176	24
Tulsa, Okla.	1,410	61	Wilmington, Del.	1,546	23
Baton Rouge, La.	1,006	59	Detroit	8,410	19
Washington, D.C.	8,779	59	Buffalo, N.Y.	2,551	16
Kansas City	3,859	59	St. Louis	6,435	13
Oklahoma City	2.450	59	Dayton, Ohio	2,396	13
Orlando, Fla.	1,176	56	Milwaukee	1,048	13
Boston	1,583	55	Ft. Lauderdale,	1281	400
Birmingham, Ala.	1,667	54	Fla.	3,361	10
Dallas, Tex.	4,634	52	Ft. Myers-		
Richmond, Va.	1,780	52	Naples, Fla.	2,035	9
San Francisco-			Cleveland	3,286	8
Oakland	7.987	51	Minneapolis-	Season .	E Divis
Columbus, Ohio	2,355	51	St. Paul	2,335	7

#### New York wins housing lead; LA falls to sixth

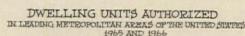
Leadership in homebuilding activity has moved east again after years of dominance by West Coast builders.

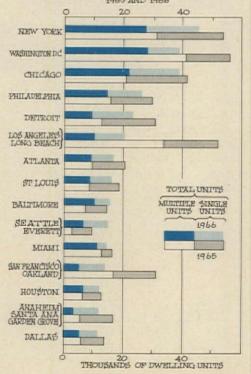
The five biggest homebuilding areas of 1966 are all located in the East or Midwest. New York displaced last year's leader, Washington, D.C., by a score of 44,866 to 39,194 private and public units. Chicago, Philadelphia and Detroit complete the top five in that order.

The Los Angeles-Long Beach area, for years the nation's busiest housing market, fell from third to sixth place last year as permits plummeted 60% from 51,705 to 20,733 units. The only other West Coast area to place in the top ten was Seattle-Everett, Wash., where starts climbed 59% to 15,294, largely on a boom at Boeing.

Security First National Bank of Los Angeles, which tabulated the 1966 leaders (graph), sees some signs that housing activity in the 14 southern California counties began recovering early this year, buoyed by a revival of apartment building. The bank blames overbuilding, tight money and slower population growth for making 1966 the slowest year since the 1930s.

A new FHA market study estimates Los Angeles' housing demand at 55,405 units yearly for the two years ending July 1, 1968, off 24% from the early 1960s.





#### Excellent spring sales hint at summer surge

Homebuilders' order books are bulging from a fat spring selling season. So reported Advance Mortgage Co. of Detroit last month after a nationwide survey of major housing markets.

But a cold, wet spring in the East has delayed the corresponding surge in starts. This increase is not expected to appear in official statistics until counts for the summer months beginning in June are tabulated.

According to Advance President Irving Rose, Eastern and Midwestern builders reported that sales from their models are outrunning their actual starts. One Chicago builder told surveyors his orders up to April 1 exceeded his entire 1966 output.

Although some orders normally fall through for credit reasons, most builders try to avoid the waste motion of processing certain credit dropouts by refusing their initial orders.

In Southwestern cities, mainly in Texas, Advance found speculative builders actively shopping for tract commitments. Construction lenders, however, are greeting them with caution in hopes of avoiding overbuilding.

Only in Los Angeles and San Francisco did Advance find buyers lukewarm to new-house purchases. But Advance reported a "fantastic rundown in the vacant inventory," especially in Los Angeles and Chicago. In LA, 9,500 units—or two-thirds of current demand—were consumed from inventory.

Apartment snap-back. Rose's market analysts reported apartment permits were rebounding to pre-tight-money levels relatively faster than one-family houses. Five cities—Pittsburgh, Cleveland, Dallas, Houston and Seattle—actually topped their 1966 multifamily pace in the first quarter of this year. Apartment builders in Denver, Detroit and Orange County, Calif., were above their corresponding 1966 levels in March. In Orange County, the booming Anaheim-Santa Ana-Garden Grove area southeast of Los Angeles, apartment starts swung from an 89% decline in the first two months to a 20% gain in March.

In some areas, apartment starts are being hobbled by shifts in local lending patterns. Washington, D.C. s&Ls are now lending only on multifamily projects where the owner maintains residence, typically duplexes and four-plexes. Local lenders have completely withdrawn from the St. Louis apartment market.

National apartment lenders who remain active have boosted their requirements on sponsor equity, minimum occupance before final closing, and appraisals, so that sponsors are finding commitments harder to obtain than in pre-tight-money days.

All markets report significant land price increases. In Atlanta, land is up 30% to 35% over a year ago in choice residential areas. In Washington, rezoning for apartments has slowed since a grand jury probe last fall (News, May) forced up prices on available land.

#### **CUSTOM-CARV** PLANT-ONS



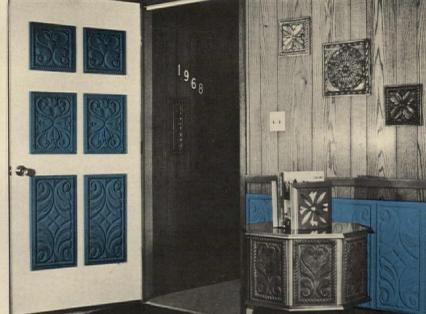
12" x 24"



3104 12" x 12"



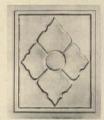
\*3108



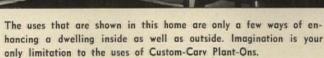
11" x 131/2"



3102 12" x 16"



\*3109 11" x 131/2"





3103 12" x 16"



3105 9" x 13"

3107



\*3110 11" x 131/2"





3201



3301 12" x 12"

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#### Mortgages: That bond bombshell seduces Mr. Money again

% YIELDS ON U.S. 414 BOND OF 87-92

The Other Woman is back in town.

She is an expensive blond doll named Miss Bond, and she is visiting all the credit marts with Mr. Money. This means just one thing for his meek little missus, Mitzie Mortgage: Money will be tighter for awhile.

Allegory, but it is fiction truer than truth. For the FHA market has turned toward tighter money.

Mortgages ran headlong into a tremendous overload of bonds in the nation's credit markets in mid-May. Result: FHA prices broke from a nationwide average of 98 to a soft 97, and yields to investors climbed from 5.88% to 6.02%.

Discounts charged to builders had already bottomed out in 6 of the 20 major cities that report mortgage rates to House & Home (table below, right). They were actually turning up in Atlanta, Miami and the ultra-sensitive barometer city of Dallas.

The turn. First news of the change seeped like a taste of hemlock through the Texas mortgage bankers' convention in Galveston. The word: Savings banker Bob Morgan's big Massachusetts Purchasing Group of 190 member mutuals had rejected a \$6-million package of FHA loans offered at 98 with half-point servicing fees (which translates to 99 with 38%). That meant a yield of 5.75%.

The group would offer only 96 with ½% servicing (ie., 97 with ¾%), to yield 6.02%—a price cut of two full points.

Then came word from New York's big Bowery Savings Bank. Asked to pay only the 97 with 38% servicing for a \$1.5million package, it said no. It cut its bid price to 96, then to 95. Met Life dropped to 96, and San Francisco's Wells Fargo Bank reduced its par bids to 98.

An FHA official at the convention seemed to scent the trend. He let fall a hint that the agency, which had been expected to cut its basic 6% interest rate, now would probably not do so.

"This is the turn," said Morgan. "There is no doubt that bonds are influencing the mortgage market. We will not pay what we have been paying [for mortgages]."

Added Senior Vice President August M. Strung of the Bowery: "Mortgage men just must realize that savings banks now have available alternate channels of investment; bonds, for instance."

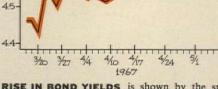
President John Gilliland of the Mortgage Bankers Assn. told a mortgage conference of the American Bankers Assn. in St. Louis: "A new credit crisis is at hand."

The big bond pile-up. The calendar for new-issue senior financing in the New York credit markets was \$7.1 billion in the week of May 8. That was only slightly under the all-time record of \$7.4 billion scheduled during St. Patrick's week.

Savings flowing into banks and savingsand-loan associations were still setting records as late as May 1, but bond yields were luring much of the money away.

"Bond yields were under pressure from a huge volume of corporate bond issues, active borrowing by state and local gov-





**RISE IN BOND YIELDS** is shown by the spurt of government's key long-terms from 4.43%, this year's low, on March 20 to 4.84% on May 9.

ernments, and expectations of larger Treasury borrowing to come," said the First National City Bank of New York in its Monthly Economic Letter.

Yields on the government's barometer bond, the 4¼ of 1987-92, had soared from their 1967 low of 4.43%, set March 20, to 4.84% on May 9. Fha mortgages traditionally maintain a 100-point yield spread above such government long-terms, but the bond's leap took it almost within 100 points of the 5.88% yielded by Fha loans prior to the market's change.

Double-A rated utilities, the bonds equating most closely with an FHA mortgage, offered even greater competition.

California Edison's \$80-million issue came on market in May with a yield of 5.78%, only 10 basis points less than the FHA yield before the latter turned upward.

**Pressure factors.** There were other influences in favor of higher rates.

The Federal Reserve Bank of New York cited "a very substantial swing toward greater optimism about the economy's prospects" in its *Monthly Review* for May.

Chairman John Horne of the Home Loan Bank Board warned the nation's s&Ls that the December-May movement toward easier credit was probably a temporary aberration. He all but ordered the associations to improve their liquidity and to prepare for much tighter money.

And a slight upturn in housing was improving the supply of mortgages.

"Builders have been coming to their mortgage bankers for forward commitments," said mortgage broker Ernest Rutgers in New York. "Our supply of FHA loans is better than it has been for some time."

The future. A long-term prediction of higher rates came from Albert M. Wojnilower, vice president and economist for the First Boston Corp. He said prospects now indicate a period of relatively high interest rates over the next decade, with the likelihood of extended shortages of capital for home financing. He added:

"The dinner fare for single-family home construction and its financing may be hasty and sparse for a good many years."

#### HOMEBUILDERS' MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending May 19.

	Discor	A Sec. 203b- unt paid by buil wn* 30-year im Privat	der	FHA 207 Apts., Discount	Conver Comm. banks, Ins. Cos.	Savings banks, S&Ls	Savings banks, S&Ls	Construction Loan Rates Interest+fees
City	6%	6%	Trend	51/4 %	75%	80%	Over 80%	All lenders
Atlanta	4	11/2-31/2	Up 1	а	61/4-61/2	61/2-63/4	7	61/2+1
Boston	3	Par	Steady	а	6	61/4-61/2	а	61/4-61/2
Chicago	31/2	2-3	Down ½	a	6	6-61/4	61/2	61/2+11/2
Cleveland	31/2	2-3	Steady	а	61/4-61/2	61/2	63/4 +1-2	61/2+1-2
Dallas	4	2-3	Up 1/2	а	61/4	61/4-61/2	6¾	61/2+1
Denver	4	1-2	Steady	a	61/4	61/4-61/2	63/4	61/2-61/4+1-2
Detroit	31/2	Par-1	Down 1½	8½-9b	6-61/4	61/4	61/2	63/4+1
Honolulu	4	21/2-31/2	Down ¾	а	61/2	63/4-71/4	а	7+1-2
Houston	4	21/2-3	Steady	а	61/4-61/2	61/2-63/4	63/4	63/4-7+11/2
Los Angeles	4	2	Steady	a	6-61/2	61/4-61/2	61/2-7	61/2-7+1-11/2
Miami	4	41/2	Up 1/2	a	61/2-63/4	61/4-63/4	6¾	61/2-61/4+1-11/2
MinnSt. Paul	31/2	11/2-21/2	Down ¾	8-9	61/4	6-61/4	61/2	61/2+1
Newark	3	2	Down 1½	8-9	6+1	6+1	6+1-2	63/4+1
New York	3	1-Par	Down 1/2	7-8	6+1	6+1	6+2b	61/2+1
Okla. City	4	1-3	Down 1	a	61/4-63/4	61/4-63/4+1	61/2-61/4+1	61/2-7+11/2-2
Philadelphia	3	Par-2	Down 1	a	6	6	61/4	61/2+1
San Fran.	4	Par-1	Down 1	а	61/4-61/2	61/2	6¾	61/2+11/2
St. Louis	4	2-3	Steady	а	61/4-61/2	61/4-61/2+1	63/4+1	61/2-63/4+1
Seattle	4	11/2-21/2	Down 1	a	6½	61/4-61/2	61/2-63/4	6¾
Wash., D.C.	31/2	2-31/2	Down 1/2	5-6	6+2-3b	6+2-3b	а	63/4+1-2

 Immediate covers loans for delivery up to three months, future covers loans for delivery in three to twelve months.
 Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones.

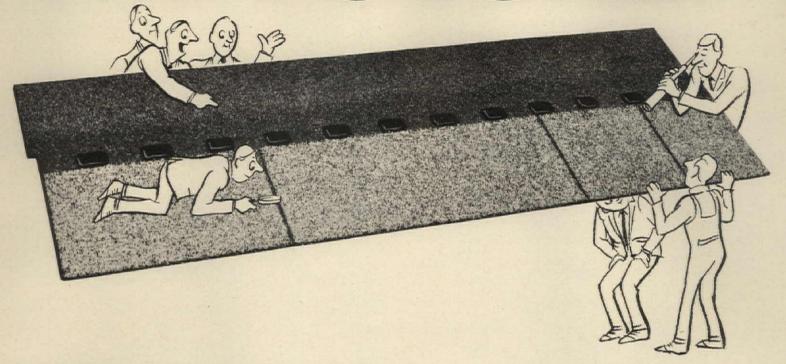
· Quotations refer to houses of typical average local quality.

\* 3% down on first \$15,000; 10% of next \$5,000; 25% of balance.

Footnotes: a—no activity. b—limited activity. c—Net yield to investor of 6% mortgage plus extra fees. w—for comparable VA loans also. x—FMMA pays ½ point more for loans with 10%. y—discounts quoted are net after seller pays ½ % marketing fee and ½% adjustment for stock purchase. Seller must pay 1%, of mortgage for stock calculated in \$130 units, of which \$30 is contribution to FNMA capital and \$100 is for a share trading at about \$72.

Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, pres., Boston 5¢ Savings Bank; Chicago, Robert H. Pease, pres., Draper & Kramer Inc., and Robert H. Wilson, pres., Percy Wilson Mortgage & Finance Corp.; Cleveland, David E. O'Neill, vice pres., Jay F. Zook, Inc.; Dallas, M. J. Greene, pres., Southern Trust & Mortgage Co.; Denver, Clair A. Bacon, pres., Mortgage Investments Co.; Detroit, Sherwin Vine, vice pres., Citizens Mortgage Co.; Honolulu, H. Howard Stephenson, vice pres., Catizens Mortgage Co.; Honolulu, H. Howard Stephenson, vice pres., Bank of Hawaii; Houston, Everett Mattson, vice pres., T. J. Bettes Co.; Los Angeles, Christian M. Gebhardt, vice pres., Colwell Co.; Minmi, Lon Worth Crow Jr., pres., Lon Worth Crow Co.; Minmeapolis-St. Paul, Walter C. Nelson, pres., Eberhardt Co.; Newark, William W. Curran, vice pres., Franklin Capital Corp.; New York, John Halperin, J. Halperin & Co.; Oklahoma City, B. B. Bass, pres., American Mortgage & Investment Co.; Philadelphia, Robert S. Irving, vice pres., First Pennsylvania Banking & Trust Co.; St. Louis, Charles A. Keller, vice pres., Mercantile Mortgage Co.; San Francisco, John Jensen, vice pres., Bankers Mortgage Co. of California; Seattle, Kirby D. Walker, vice pres., Continental, Inc.; Washington, James C. Latta, Sr. vice pres., Associated Mortgage Cos. Inc.

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#### Mortgage Guaranty: behind stock's rise, a decade of gains

The price of Mortgage Guaranty Insurance Co. shares has tripled in six months, from 15¾ in October to 23 at the new year to 50 in April. The run-up dramatizes one of Wall Street's brightest new success stories.

The Street likes nothing better than a fast takeoff. The big mutual funds have now moved in on MGIC,\* and the frenzy that surrounds their purchases makes the stock one of the most avidly watched issues on the American Exchange.

The price rise followed immediately upon several developments favorable to the Milwaukee loan insurer. It thus tended to focus attention on the immediate past and to obscure a long record of accomplishment. It is the record that truly provides the base for the recent advance.

Nothing but good news. The latest developments:

- Housing starts have turned up again, signaling a wider market for mortgage ininsurance. Experts agree that a genuine housing boom impends. The only question is when.
- Seven product manufacturers have just organized Home Capital Funds Inc. to offer 90% conventional loans nationwide (NEWS, May), and MGIC will insure

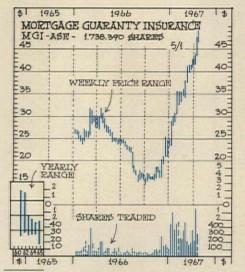


Chart: R. W. Mansfield Co., Jersey City.

the top 15% of each mortgage. It expects to insure 100,000 loans a year for Home Capital alone by 1972.

- An MGIC subsidiary, Commercial Loan Insurance Corp., has been formed to insure commercial loans up to \$250,000.
- Another subsidiary set up only two years ago, MGIC of Australia, began reporting profit in mid-1966.
- Mortgage Guaranty increased earnings by 31% to \$3.9 million, or \$2.23 a share, in 1966. And its first-quarter net

HOUSING'S STOCK PRICES

of \$823,535 in 1967 topped last year's record high for the same period by 6.4%.

Reasons for success. The company's 31% gain in earnings came in a period when housing starts sank to a nine-year low, dragging down insurance-application volume. But because tight money made MGIC's lenders cautious,† the applications that did appear were of higher quality. Hence rejections declined.

Three other factors also strengthened MGIC's position: 1) homeowners held onto the mortgages they had, so policy cancellations dipped; 2) tight money's higher interest rates increased the yield on MGIC's investment portfolio; 3) the drop in construction prevented a glut in the resale market and reduced the company's loss ratio by 25%.

The long road up. The latest accomplishments all read like a brand-new chapter, but they are in fact the outgrowth of ten years of growth and eight years of rapidly rising profit. The mounting earnings and a reduction in the company's risk are perhaps the most important factors in Wall Street's recognition of MGIC's potential, and neither is a recent accomplishment. Both can be traced all the way back to 1959 (earnings table, next page).

A Milwaukee real estate lawyer, Max † MGIC insures for 3,400 lenders, about 3,200 of them S&L associations.

# HOUSE & HOME VALUE INDEX OF 25 BUILDING STOCKS 100 LAND DEVELOPMENT 100 LAND DEVELOPMENT 100 SAVINGS & 140.20 176.62 MORTGAGE BANKING 100 BUILDERS MMJ S N J A O D F A J A O D F A 1465 1965 1966 1967 TOTAL SHARE VALUES OF JANUARY 1965=100

COMPANY	May 8 Bid/ Close	Prev. Month
BUILDING		
Capital Bldg. (Can.)	55é	********
Cons. Bldg. (Can.) Dev. Corp. Amer.	1.40	- 5¢
Dev. Corp. Amer	3/8	*******
Edwards Inds		+ 45é
First Hartford Rity	8	+ 11/4
First Nat. Rity.b	15%	T 174
Frouge		- 3/8
•General Bldrs.b	31/4	+ 1/8
·Kaufman & Bd.b	331/2	+101/2
-Levittb	25	+ 5/8
Lou Lesser Ent.b		+ 78
Pres. Real. A.b	95% d	I 3/4
Sproul Homes	13/4	T 78
U.S. Home & Dev	11/4	- 1/4
-Jim Waltero	33¾	+ 51/8
-Del. E. Webbo	35/8	- 3/8
PREFABRICATION		
Admiral Homes	1/2	
Albee Homes		+ 5/8
Continental Homes		+ 1/8
Inland Homesb	37/8d	- 1/4
-Modern Homes	21/4	- 1/8
Natl. Homes As	41/8	+ 1/4
Scholz Homes     Steel Crest Homes		+ 1/4 - 1/2 - 3/8
·Swift Industries		+ 3/4
-Switt Hidustries		T /4
S&Ls		
American Fin.	16¾	- 11/4
Calif. Fino		- 3/8
Empire Fin	91/4	+ 1/8
Fauitable S&L	171/2	
Far West Fin.	91/4	- 3/8 - 15/9
•Fin. Fed.	19¾	- 1%
First Char. Fin	27½ 3¼ d	+ 13/8
First Fin. West First Lincoln Fin	9	- 31/4 + 1/4
First Surety		T 7/4 + 3/8
First West Fin.	33/4 d	+ 1/4 + 3/8 - 5/8 - 1/2
Gibraltar Fin.	171/2	- 1/2
-Crost West Fin a	1.454	+1
Hawthorne Fin. Imperial Corp. eq. Lytton Fin.	8	+ 1/4
•Imperial Corp. eq	8	·mmi
-Lytton Fin.	61/8	- 11/8
Midwestern Fin.b Trans-Cst. Inv.	3%8	+ 1/8
I ITANS-USE INV	478	- 74

COMPANY	Bid/ Close	Prev. Month
Trans World Fin.  Union Fin. United Fin. Cal.  Wesco Fin.	67/8	+ ½ - ½ + ¾ - ½
MORTGAGE BANKIN  Advance  - Associated Mtg. Charter  - Colwell  - Cont. Mtg. Inv. Cont. Mtg. Inv. Cont. Mtg. Inv. FINMA. First Mtg. Inv. Kissell Mtg MGICb  Mortg. Assoc. Palomar Mtg. Southeast Mtg. Inv. United Imp. & Inv. United Imp. & Inv Molich  - Mortg. Assoc Millon - M	7 1/8 6 3/4 2 5/6 1 3 3/4 3 8 3/4 9 1/2 1 2 1/2 1 1 1 1/4 5 3/4 4 1/6 4 1/6 3 3/8 5 5	- ¼4 - ¾6 - ¼4 + 4¼ + 1¼4 + 1¼4 + 1¼4 + 1¼4 + 1¼4 + 1¼4 + 5%
LAND DEVELOPMEN All-State Prop. American LandAm. Rity. & Pet.b Arvida. Atlantic Imp Canaveral Intl.b. Christiana O.b. Cousins Props. Crawford. Deltona Corp.b. Disc Inc. Fla. Palm-Aire. Forest City Ent.b. Garden LandGen. Devel. °	30é % 7 % 8% 18 18 3½ 15½ 3½ 15½ 144 15% 4½	- 7.6 

COMPA	NY	May 8 Bid/ Close	Chng. Prev. Month
	ericanb		+ 11/4
·Holly Co	orp.b	11/8	- 1/8
Horizon I	and	65/8 31/4 d	+ 78
Laguna I	lig owhead	81/2	+ 13%
Major RI	ty	75é	+ 1¾ + 10¢
<ul> <li>McCullo</li> </ul>	ch Oilb	121/4	- 2
	& Util.b		
Sunasco		11¾	- 3/4
DIVERS	FIED COM	MPANIES	
City Inve	st.c	765/8	+11
Rouse Co		12	+ 11/4
Tishman	RIty.	271/4	+3%
MOBILE	HOMES		
	n Co	115/8	+ 1/8
Divco-Wa	yne	341/4	+ 21/2
Guerdon	Indus.b	67/8	+ 1½ + ½ + 8%
			+ 1/2
Skylineb.		24	+ 8%
a-stock	newly adde	ed to table. t	-closing
price AS	E. c-closir	ig price NYS	E. d-not

a—stock newly added to table. b—closing price ASE. c—closing price NYSE. d—not traded on date quoted. g—closing price MSE. h—closing price MSE. h—formerly Wallace Investments. q—formerly San Diego Imperial Corp. — Figures in HOUSE & HOME's 25-stock value index. x—adjusted for 4-for-3 split. y—tender offer.

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

#### SHORT-TERM BUSINESS LOAN RATES

Percent interest and (net ch	ange) in year	7 other Northern &	11 Southern & Western
LOAN SIZE (000)	New York City	Eastern cities	cities
\$1-10	6.60 (+ .86)	6.66 (+ .71)	6.91 (+ .84)
\$10-100	6.56 (+ .97)	6.81 (+1.01)	6.73 (+ .93)
\$100-200	6.38 (+1.04)	6.60 (+1.04)	6.52 (+ .93)
\$200 and over	6.09 (+1.10)	6.27 (+1.08)	6.29 (+1.06)
Source: Fed. Reserve Board	, Dec. 1966.		

<sup>\*</sup>The Madison Fund bought 40,000 shares, the Texas Fund 31,000, as new investments in the first quarter.

Karl, founded MGIC in 1957, when Wall Street well remembered the collapse of the private mortgage-insurance industry in the 1930s.\*\* The interest in MGIC in 1967 is a good measure of Karl's success in overcoming the investment community's sus-

The company has survived an inquiry into its friendly relations with former Senate page Bobby Baker (NEWS, Dec. '63 et seq.), and it has weathered two of the nation's severest post-war housing recessions. It doubled profits in the first, in 1960, and improved them again last year. Over the last decade MGIC's income account has built up this way:

	Millions		
Year	Insurance written	Net	Per Share
57	14	(.064)	(.35)
58 59	36	(.008)	(.01)
59	84	.094	.12
60	162	.234	.23
62	512	974	63
62 63 64	633	1.562	.94
64	723	2.306	1.33
65	809	2.952	1.70
66	670	3.868	2.23
Note: ()=lo	SS.		

A lower risk. In 1959 Karl found a way to reduce the enormous risk MGIC was incurring in its first two years, when policies called for payment of the full amount of the insurance on a bad loan. The procedure was for MGIC to foreclose the property and try to recoup something on the policy loss.

But all policies written since Jan. 1, 1959, permit MGIC to pay the insured lender 20% of a claim and to give up any right to the property. Insurance outstanding is \$3,003,818,619, but only \$20 million of that was written before 1959. MGIC is liable for only about 20% of the remainder, or approximately \$597 million.

#### It's a buyer for Lou Lesser: 49 % purchase, 51% promise

New York's City Investing Co. has finally agreed in principle to acquire 49% of Lou Lesser Enterprises and to take an option on the remaining 51%.

Price for the 49% is \$8.2 million in City Investing stock, which sold at \$74.25 a share the day of the agreement.

Lesser, a debt-ridden Los Angeles development company, has been seeking a buyer for nearly two years (News, Feb.) City Investing contracted to purchase Lesser last June, let the deal lapse, and then apparently resumed negotiation. The diversified investment company is the developer of the Sterling Forest industrialresidential complex near Tuxedo, N.Y.

City Investing will also increase its 16.5% holding in General Development Corp., the Florida land developer, to 40%

In another deal, Occidental Petroleum Corp. of Los Angeles has made a tender offer of \$41.8 million for all 500,000 shares of the Kern County Land Co., a San Francisco land developer.

#### Housing industry goes back to Congress over union bans on prefabricated products

The new battle began because in mid-April the U.S. Supreme Court nullified the ban on "hot-cargo" clauses in union contracts -a ban that homebuilders have assumed was in the Landrum-Griffin Act in 1959.

In a complex decision, the high court ruled that building trade unions could agree with contractors to preserve traditional job-site tasks by banning prefabricated products. The court's argument is that such agreements have a legitimate primary purpose of preserving jobs, and any auxiliary impact upon manufacturers is not a legal concern.

To reach this position, the Court said that in 1959 Congress intended to ban only hot-cargo clauses with a secondary purpose: i.e., clauses used by unions to force their neutral employers to stop using products of certain manufacturers or to stop doing business with certain other companies. In these cases the union dispute was really with the third party.

The decision gives labor unions a powerful new legal lever to halt introduction of prefabricated products in homebuilding. Housing industry leaders fear, in the words of NAHB President Leon Weiner, "it could set this industry back a century in its ability to progress."

The Supreme Court said the only redress was for the homebuilders and manufacturers to convince Congress to write a more precise definition of the "hot cargo" ban, and housing trade associations are joining forces in this effort. But it is certain to be a long and tedious process, since initial efforts to get a quick answer from Congress (via an amendment to a pending bill) were stalled in the House. And lawyers for the trade associations have not been able to reach agreement over the exact wording of labor-law changes needed to overturn the Supreme Court decision.

Doorways to trouble. The overthrow of the hot cargo ban started innocently enough four years ago in Philadelphia, when Frouge Corp., a Bridgeport, Conn. general contractor and new-town builder, ordered 3,600 precut and prefitted doors for a Philadelphia apartment development.

The Philadelphia Carpenters Union refused to handle the doors, citing a contract clause that prohibited members from handling "material coming from a mill where cutting out and fitting has been done for butts, locks, letter plates or hardware of any description," with or without a union label. Frouge promptly withdrew the prefabricated doors and substituted blank doors which carpenters hung after mortising for locks and routing for hinges.

But the National Woodwork Manufacturers Assn., representing the prefabricated door supplier, charged the Carpenters Union with the unfair labor practice of "forcing or requiring any person to cease using . . . the products of any other . . . manufacturer . . ." under the Landrum-Griffin Act. The National Labor Relations Board dismissed these charges, saying the clause in question was meant to protect carpenter work at the job site and was not directed against prefabricated materials. That set the stage for the court appeal.

Silence gives consent. The Supreme Court took the opportunity to make a major pronouncement upon "this most vital problem created by advanced technology . . . Before we may say that Congress meant to strike from workers' hands the economic weapons traditionally used against their employers' efforts to abolish their jobs, that meaning should plainly

But the Court found the legislative history of the hot-cargo clause in the Landrum-Griffin Act to be silent upon this issue. "The silence . . . is itself evidence that Congress . . . had no thought of prohibiting agreements directed to work preservation."

Work preservation, ruled a five-man court majority, is a primary issue between employer and his employees and can be subject to collective bargaining.

A four-man minority of the court disagreed sharply. "The relevant history fully confirms that Congress meant what it said," said Justice Potter Stewart. "In deciding to the contrary, the Court has substituted its own notions of sound labor policy for the word of Congress."

Tell it to Congress. The court majority rejected the Woodwork Manufacturers' arguments that economic and technological factors make bans on prefabricated products invalid in all circumstances.

'Those arguments are addressed to the wrong branch of government," retorted the Court.

But in recent years Congress has shown little heart for upsetting the delicate balance between labor and management. Even with a top-heavy Democratic majority, elected from many areas with strong labor support, Congress has bottled up a perennial bill to let building-trade unions picket and halt work at common job sites when the union has a dispute with only one company working at that site.

However, some indication that this reluctance may be ending came a week after the Supreme Court ruling, when the House labor committee approved this long-stalled "common situs" picketing bill. And homebuilders and contractors are determined to fight this bill with maximum force.

They are also ready for a showdown on the now-legal work-preservation clauses.

"I think you'll find that the unions will want this in their contracts, and they'll not go back to work till they get it," predicted NAHB First Vice President Lloyd Clarke in relaying the decision to his association's directors last month.

"I'm not sure this association is strong enough to get Congress to write a new law -but we'll have to find out."

NEWS continued on p. 18

<sup>\*\*</sup> Until the 1930s, private companies offered the only mortgage insurance. They withdrew during the depression, and until 1957 the insurance was available only through FHA (since 1934) and vA (since 1944).

<sup>\*</sup> National Woodwork Manufacturers Association et al. v. National Labor Relations Board, Cases No. 110 and 111, decided April 17, 1967.





#### FHA seeks apartment comeback with 90-day processing . . .

Times tough? Consider FHA's apartment mortgage men. They're in the most dynamic area of housing, offer the lowest equity payments in the business, and throw in a packet of special-purpose programs to boot.

Yet apartment builders bypass FHA offices in droves. Last year the federal agency accounted for only 9% of all apartment starts (vs. 13% of one-family starts) and has never handled more than 15% of all multifamily units during the apartment boom of the 1960s. That's a far cry from the days immediately following World War II, when FHA handled more than three-fourths of all apartments (graph).

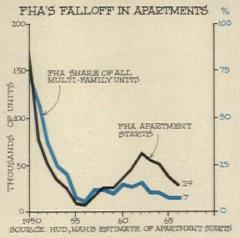
The reason is obvious: involved FHA red-tape that takes an average of 18 months processing time and "has closed all the loopholes," moans one sponsor.

In the past six or seven years, FHA has devised two or three procedural changes to speed up the paperwork; and now the whole process has been revised.

Too late. One major stimulus for the new procedures has been FHA's experience of making an apartment market survey only to discover, two years later when the paper work is finished, that the market is no longer there. Says FHA Commissioner Philip Brownstein, "We've got to speed up our procedure so that the market for the project is still there by the time our paper-work processing is finished."

Brownstein's new assistant commissioner for technical standards, Charles Dieman, and his lieutenants have come up with the "accelerated multifamily processing" (AMP) system to cut processing time to three or four months. The AMP system is now being tested in four district offices and will be required in all offices later.

Hot line. Ideally, the new system be-



FHA APARTMENTS have declined in volume and percentage of all multifamily starts since 1950.

gins with a time-saving phone call to FHA. Over the phone, FHA clerks will fill out an elaborate form. Here the sponsor will be asked to supply such information as: 1) mortgagee, if selected, and previous mortgagees he has engaged; 2) previous FHA projects or other corporations he's associated with; 3) builder and architect, if selected; 4) site characteristics such as cost, area, zoning and other details; 5) project data, such as units, rent schedule, estimated square footage, type of project; 6) cost estimates, including carrying charges and financing, legal, land and improvements; and 7) evidence of community support, if needed.

"We anticipate screening out many project applications right at this stage," says a Dieman assistant. "We want to focus our work only on projects that have been well thought-out in advance."

Face to face. Over the phone, the FHA officer makes a tentative date for a "feasi-

bility conference"—hopefully within two weeks.

Meanwhile, FHA's specialists start processing this information simultaneously. A credit rating is made and the market evaluated. The site is checked for special problems, and the zoning checked. Cost comparisons are made, on a square-foot basis, to make sure the project is at least in the general area of feasibility.

Then the sponsor comes in for an hourlong, face-to-face session with FHA's experts to evaluate feasibility.

By the end of that day, FHA says "yes" (or "no") and requests a formal application. This is a new form—2013X—that can be used, essentially, for any and all FHA programs.

Once the sponsor completes this form and submits necessary documentation, exhibits and drawings, the AMP system should need only ten days or so to make sure the plans conform generally to what was resolved in the feasibility conference. If they check, then FHA will give a conditional commitment.

Test runs. So far, the AMP system appears to be working well in the four experimental offices: Milwaukee, Chicago, Phoenix and San Francisco. Phoenix has the best track record so far: 31 days from initial telephone call to conditional commitment. The length of time is largely determined by how much information the sponsor has compiled before he makes the first phone call. Other changes:

- FHA technicians will work directly with the architect during the design stage to eliminate shuttling plans between architect and FHA offices.
- Fha's minimum property standards will become guides, not required minimums.
- FHA will encourage alternate product listings to minimize change orders.

#### ... and a major relaxation of rules for mid-income units

Slightly smaller room sizes—lower ceilings—shower stalls instead of bathtubs—closets without doors—slower elevators—and up to 50% fewer parking spaces.

These and many other changes in requirements go into effect in the next few months for multifamily projects financed under FHA Sec. 221d3 and d4 programs for moderate-income families.

FHA Commissioner Philip Brownstein has already agreed to the relaxed standards. But because of a printing delay in Washington, they won't be sent to district offices until late June or July.

In recent months the d3 and d4 programs have become FHA's biggest sellers, accounting for two-thirds of the 44,016 apartment applications in 1966.

But builders tackling the programs have difficulty designing within tight mortgage limits that range, in the case of two-bedroom units, from \$13,500 to \$16,000 in low and high-rise buildings respectively.

FHA hopes the somewhat relaxed

standards—pertaining mostly to amenities of design—will encourage greater use of the program.

Here's a rundown on the most significant changes FHA has made:

- The ratio of auto parking spaces to units has been cut up to 50%, depending on locality and type of building. For instance, the ratio of parking spaces to units drops from 1-to-2 to 1-to-4 in Washington.
- The permissable distance from parking space to unit entrance lengthens from 100' to 250'.
- The 8' planting strip between parallel parking bays has been deleted.
- Widths of parking spaces have been reduced; perpendicular spaces are narrowed from 9' to 8½', for example.
- Somewhat smaller room sizes are permitted. For instance, in one-bedroom units, living room minimums are reduced from 160 to 140 sq.ft.; dining rooms from 100 to 80 sq.ft.; kitchens from 60 to 50 sq.ft.; and combined living-dining-kitch-

ens from 270 to 230 sq.ft.

- Either a tub or shower is permitted.
- Kitchenette units need not be enclosed.
- Ceiling heights can be dropped from 8' to 71/2'.
  - · Closet doors are not required.
- Separate storage or linen closets are not required, and the coat closet may be combined with a bedroom closet. However, total closet space must equal the combined space of all of the previously required closets.
- Overall storage space has been reduced somewhat; for a two-bedroom unit, 112 cu.ft. (instead of 140 cu.ft.) is required.
- Elevator requirements have been relaxed a bit. For instance, one elevator instead of two is permitted in a seven- or eight-story project if there are only five units per floor. And required elevator speeds have been reduced according to a formula worked out with elevator firms.



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#### First 'model city' applications propose tests of new prefab plan and better fixup methods

More than 200 cities have lined up to take part in President Johnson's "model city" program to test new ways of dealing with the nation's urban slums. While Congress was still debating how much money to spend (and, indirectly, how many cities actually would be picked to go ahead with their plans), these early ideas were under study:

Detroit wants to test a new prefab concept developed by Neal Mitchell Assoc., Cambridge, Mass., using precast concrete beams, columns and spanners to frame prefab wall units. Hup has already given the Roman Catholic Archdiocese of Detroit a \$203,000 grant to build 17 test units. Target sales price: \$6,800, plus land, for three-bedroom units.

If successful, this building type would be used in downtown Detroit, target of "model cities" aid.

Louisville may establish a housing court to handle landlord-tenant relationships. "In this connection, a tenant-landlord responsibility law will be explored."

San Juan proposes to devise new architectural controls to take advantage of "certain presently overlooked but perfectly legitimate architectural resources successfully utilized in the past (the covered porch . . . the overhang, for instance)."

Atlanta wants to set up several "model" rehab projects including materials displays and stores to offer rehab components "at lowest possible prices." An "Architects & Builders Council" would advise homeowners about rehab and "act as a watchdog to see that fair remodeling costs are charged."

Most applications concentrate on ways



**NEW PREFAB SYSTEM** will be tested in Detroit to produce houses like this three-bedroom model.

of correlating the bureaucratic tangle of various programs—health, education, job training, welfare, crime prevention, codes, planning, public facilities and housing.

Nearly all have focused on near-downtown blighted areas. And all emphasize rehab rather than bulldozer renewal. The first cities to begin detailed planning were to be chosen in late June.

Frowns for unions. Several cities haven't hesitated to blame unions for inadequate use of new methods and technology. "Union regulations and conservatism in the construction industry may be largely responsible for hindering new methods," says Denver's petition. And says Detroit: "The unions and their spokesmen must be made to understand the urgency (for new technology) . . . the promoters of new technology, on the other hand, must come to realize that much of the objection . . . derives not so much from pugnacity as from necessity."

#### HEARINGS SET ON URBAN ILLS

The National Commission on Urban Problems last month released work panel assignments and a schedule of hearings that indicated only minor interest in building codes, thereby dispelling speculation that the commission will urge a federal code.

The commission will concentrate its studies in these five areas: 1) space, land use and physical environment; 2) housing costs, technology and design; 3) housing programs, including financing; 4) governmental structure and finance, and 5) social and human problems.

The group will become one of the first Presidential commissions to depart from the hothouse atmosphere of Washington and conduct firsthand hearings on housing's ills in the nation's major cities.

House & Home Editor Richard W. O'Neill, hearings chairman, and the staff have arranged this schedule: Pittsburgh, June 9-10; Los Angeles and San Francisco, July 2-8; Atlanta, July 20-21; Cleveland, July 28; Detroit, July 29; Houston, Aug. 10; Ft. Worth-Dallas, Aug. 11; Miami, Aug. 25-26; New York City, Sept. 7-8; Philadelphia, Sept. 21-22; St. Louis, Oct. 11-12, and Washington, Oct. 26-27.

Meetings of the 16-member commission will also be held at the sessions in Pittsburgh, Atlanta, Miami, Philadelphia and Washington.

#### NAHB exerting new pressure for unified residential code

Two and one-half years ago NAHB prodded three sponsors of regional building codes to begin drafting a unified residential code for use anywhere in the U.S.

Last month the homebuilders' trade association discovered to its chagrin that virtually nothing had been done.

NAHB President Leon Weiner fired "What's happened?" letters to presidents of the three regional code-writing groups of building inspectors—the Building Officials Conference of America, International Conference of Buildings Officials, and American Insurance Assn.\*

But the responses were disappointing and failed to turn up evidence that codedrafting work was anywhere near completion. To keep pressure on, NAHB officers huddled with officers of the three code groups at the BOCA convention in Baltimore last month. But the discussions faced the same problem that had thwarted the 1965 agreement—shoestring budgets that leave the proprietary groups little room for the luxury of writing a unified code.

NAHB President Weiner is reacting to wide suspicion that a federal building code is in the Washington works.

"The failure of the model building-code groups to solve this problem by private enterprise could well result in a federal building code being forced upon us.

"If we are faced with a federal code, don't be surprised," he told his directors.

NEWS continued on p. 29

#### Anti-bias crackdown: U.S. comes out swinging

In two bouts last month, the federal government gave well-publicized black eyes to two would-be challengers—the Illinois legislature and Cleveland labor unions.

Beyond that, Washington served notice it has finished shadowboxing on housing bias and is ready to take on all comers with its best punch—cutting off federal programs and financing.

In the main event, the Atomic Energy Commission squared off against the Illinois legislature. The prize in the fight: a \$375-million atom smasher that will employ 2,400 workers and operate at an annual \$60-million budget.

In February, the AEC publicly announced it would give the smasher to Weston, a Chicago suburb (News, Feb.). But by mid-April, under tenacious pressure from the National Association for the Advancement of Colored People and the National Committee Against Discrimination in Housing, the AEC was backpedaling fast. It warned that Illinois could well lose the prize unless it enacts a sweeping anti-bias law to open housing to atom-smasher employees of all races.

State legislators screamed "economic blackmail". But U.S. Sen. Everett Dirksen (R.,Ill.) phoned the speaker of the Illinois House of Representatives to urge passage—the first time he's intervened in his home state's five-year housing bias fight. And within hours the House passed a bill, 106-to-44, to ban discrimination in all housing except owner-occupied dwellings with more than four units.

The bill, nevertheless, faced an uncertain fate in the state Senate.

In the other bout—touted as a preliminary to a nationwide battle—the Housing and Urban Development Dept. withheld initial financing of \$900,000 for a Sec. 202 elderly housing project. It alleged that Cleveland's building-trades unions had a long history of discriminating against minority groups.

The dismayed sponsor of the \$3.3-million Federation Towers, Cleveland's AFL-CIO Federation of Labor, rushed to Washington to proclaim its innocence as all construction at the site halted. Ground was broken in March, and the Council already has contractors' bills totaling about \$316,000.

\* A fourth code sponsor, the Southern Building Code Congress, did not join the effort.

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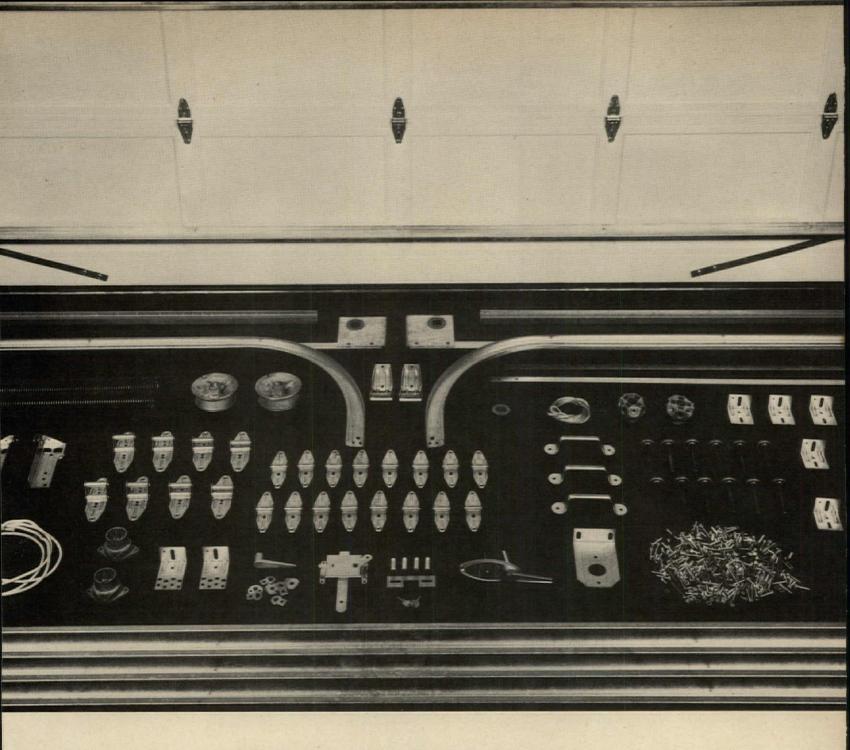
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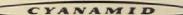
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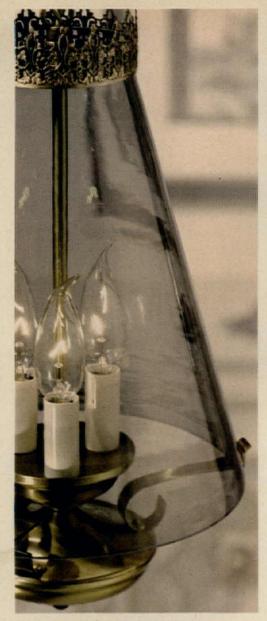
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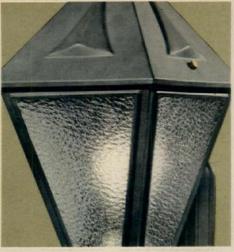
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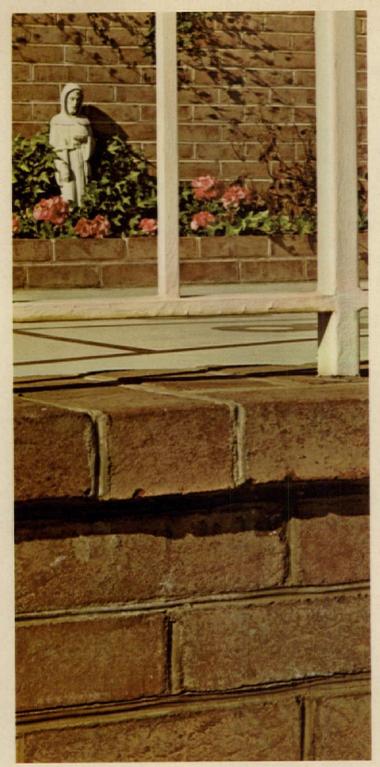
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RESCUER HAMMERMAN How to keep a new town running?



DEVELOPER PANITZ Time and cash ran out

#### Big developer files bankruptcy as pyramid of land values teeters

Cash and time ran out last month for developers of Joppatowne, the 1,250-acre planned community 16 miles northeast of Baltimore. Behind in mortgage payments, and down to only \$5,000 in cash, developer Panitz & Co. sought federal court permission to reorganize under Chapter X of the bankruptcy laws. Baltimore mortgage banker I. Harold Hammerman will run the company as court-appointed trustee.

President Leon Panitz claimed a net worth of \$5.3 million, with assets of \$22.4 million exceeding liabilities of \$17.1 million.

Panitz' pressing problem was that all but \$1.2 million of its assets are represented by appraised value or asserted market value of Joppatowne land, including capitalized ground rents. Mortgages are also based upon these higher land values, and the company had no funds to "meet debts as they mature."

Panitz & Co. bought the raw farmland that became Joppatowne in 1962 (H&H, Aug. '62), and the presence of the new community sent land values skyrocketing. The company paid an average \$170 for residential lots: now improved, the lots are valued at \$5,000 in the Panitz statement. Apartment land is valued at \$1,500 to \$2,500 a unit.

To most observers, Joppatowne appeared in the economic pink: 7,000 persons lived there in 1,300 houses and 500 apartments, and improvements worth \$45 million have been completed, including a marina, swim and tennis club and shopping center.

But by last year, company owners Leon Panitz, who holds 65% of stock, and Executive Vice President Lee B. Rosenberg, holder of 35%, knew the burden of mortgage payments was becoming top heavy, especially in view of a tightening money market and a resulting slowdown in the real estate market.

To lighten the burden, Panitz began negotiating to sell Levitt & Sons 400 lots in Joppatowne, plus a 1,523-acre tract on nearby Bush River. The lot-sale went

through early this year, but in February Levitt advised Panitz it would not exercise its option to purchase the Bush River tract, now valued at \$2,430 an acre.

Why the deal collapsed is a controversial matter: Panitz says that Levitt "was not willing to complete the transaction as originally negotiated." Levitt spokesmen say the company learned facts that made it unacceptable.

Whatever the reason, Panitz almost immediately went into default on a \$1,472,533 first and second mortgage on the Bush River acreage and a \$657,000 second mortgage on Rumsey Island, a separate section of Joppatowne, both due Zilkha & Sons, a New York City lender. The Bush River tract was subject to underlying purchase-money mortgages of \$729,000 and the Rumsey Island loan subject to a \$2,200,000 first mortgage, which is four months in arrears.

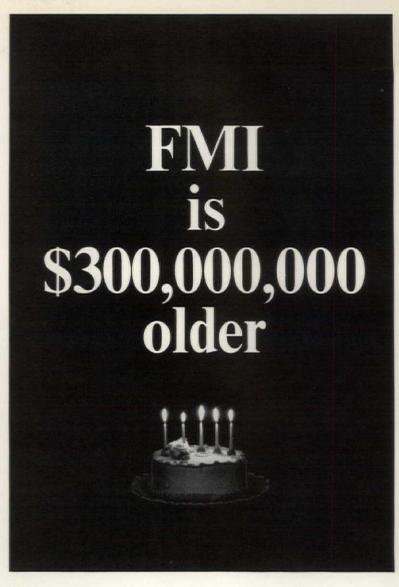
The denouement was swift: On Friday, April 21, Zilkha foreclosed on its two mortgages. Learning of the action, First National Bank of Maryland (which held a \$415,000 mortgage on Joppatowne's marina) that same day seized \$83,000 in the Panitz bank account, including \$30,000 in checks deposited earlier that day. Panitz was left with less than \$5,000 in cash.

During the ensuing weekend, creditors with claims over \$2 million orally threatened suit.

Monday morning Panitz & Co. sought federal court protection to avoid the "complete chaos" threatened by the cutoff of municipal-type services to unincorporated Joppatowne. Panitz had until then collected garbage and trash and maintained streets and parks, but the Friday suits jeopardized continuation. Worse, the public utility threatened to shut off electricity to the apartments and the sewage pumping plant.

In taking over, trustee Hammerman first moved to maintain essential services and complete 80 unfinished houses. A reorganization plan is due June 26.

NEWS continued on p. 34



Only a little over five years ago, First Mortgage Investors was founded as the country's first mortgage investment trust created under 1960 amendments to the Federal tax laws. In March, 1967, FMI passed the \$300,000,000 mark in mortgage funds advanced through a nationwide network of over 160 correspondents originating mortgage loans in 43 states and territories.

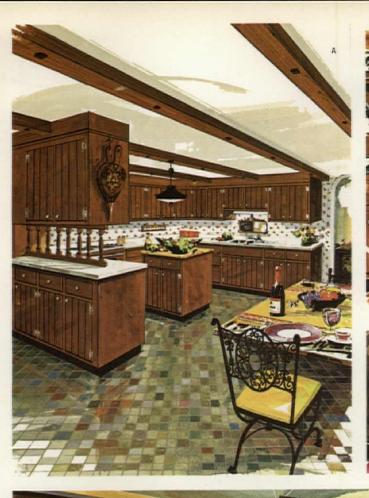
FMI makes mortgage loans financing the construction, land development or ownership of selected residential, commercial and industrial properties. In tight or easy money times, its customers have found FMI to be a ready source of funds. If you need mortgage money, contact the nearest regional office.



#### FIRST MORTGAGE INVESTORS

Regional offices of First Mortgage Advisory Corporation, investment advisors to FMI:

- 120 La Salle West, South Bend, Indiana Phone 219 232-1345
- 612 Petroleum Club Bldg., Oklahoma City, Okla. Phone 405 CE 6-3487
  27777 Silver Spur, Palos Verdes Peninsula, Calif. Phone 213 377-6580
  2964 Peachtree Rd., N.W., Atlanta, Georgia Phone 404 237-4009
  825 Forty-First Street, Miami Beach, Florida Phone 305 JE 2-7361

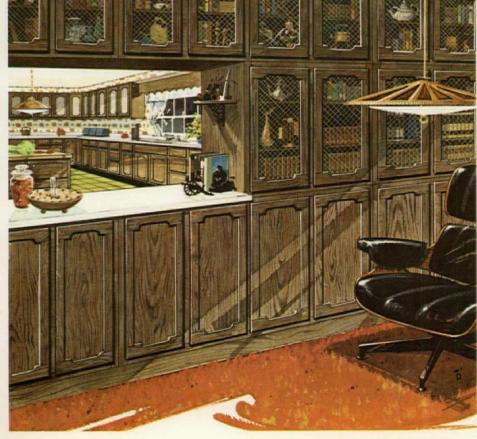














## Here's why more builders are trying and then buying Kemper cabinets

Greater design originality, superior finish, more styles to choose from, consistent construction quality, fast



dependable delivery and a good builder profit structure. That's the straight word from successful builders all over America when you ask them, "Why Kemper?"

Let's look at some of these exclusive Kemper product advantages more closely and see if they would benefit you and your customer.

Kemper's famous glue block and concealed mortise and tenon construction pays off in several ways. This extra step construction means cabinets arrive at your job site



square and true. This means installation goes as it should... no racking problems, and less fillers needed because of Kemper Engineering. This quality pays off for the buyer, too. You can turn over the keys with complete confidence that the most beautiful part of the home, your Kemper Kitchen, will remain that way for years and years.

With the introduction this year of Kemper English Oak, the most exciting Kitchen on the market today, builders have a tremendous selection of kitchen styles and finishes all readily available from one, convenient, dependable source. Kemper. As a builder you can choose such beautiful and popular kitchens as Traditional styled cabinets in both Fruitwood and French Walnut finishes, Provincial styling featuring the exclusive Kemper Varipanel® door in French Walnut finish, Colony Line V grooved door styling with



genuine cherry veneers and now, the new, the superb Kemper English Oak . . . an elegant Kitchen featuring full grained Oak, deep sculptured reversible doors and massive brass hardware.

Let's look at convenience features. All Kemper Kitchens offer such saleable conveniences as all metal, built-in bread-drawer inserts, handy cutlery drawers, sliding shelf kits, lazy susans and many, many others detailed in our full line, full color catalogs.

Finishing. That's a story we love



to tell. The well known Kemper finish is truly a remarkable thing. No short cuts here. Special polyurethane dips, conveyorized finishing lines and baking ovens deliver a consistently high quality finish on all cabinets. Kemper cabinets successfully resist the effects of household soaps, alcohol, boiling water



and coffee. Few cabinet manufacturers can back that claim with a guarantee. Kemper does. Kemper is the only Kitchen cabinet manufacturer licensed by the National Association of Furniture Manufacturers to offer the NAFM Warranty. That's your protection . . . exclusively from Kemper.

Can any company offer all these





superior product features and still be competitive? The answer is an emphatic yes! Kemper is one of the most competitively priced Kitchen Cabinets you can buy. Anywhere.

Don't you think it's time you stopped in to see your Kemper Distributor? He's in the Yellow pages. If you prefer, write Kemper for complete catalog information on the full line of Kemper Kitchens and bathroom vanities. Either way, you win.



KEMPER BROTHERS, INC. RICHMOND, INDIANA

- A Kemper Colony Cherry Kitchen
- B Kemper Colony Cherry Kitchen
- C Kemper Provincial styled door with reversible feature
- D Kemper Provincial styled Kitchen and den/library area
- E . Kemper Provincial styled Kitchen



GEORGIA-PACIFIC HAS THE BIG LINE OF SIDING FOR '67!

# Smooth or rough sidings, any pattern you want-plus new Crescent Sawn Redwood!

**G-P Brushed Knotty Cedar** has rustic beauty, plus the strength and ease of handling of plywood. Brushed finish also available in grooved and reverse board and batten. Rough Sawn Knotty Cedar available in lap, reverse board and batten, and Texture 1-11.





#### Crescent Sawn Redwood

G-P's newest Redwood Siding. Available in T & G or shiplap, no exposed nailing. Finger-jointed in matched or mis-matched natural shades. Circular-sawn pattern in light or heavy texture. Available in 4, 6, 8, 10 & 12 inch widths. Specified lengths available in finger-jointed products.

G-P Rough Sawn Kerfed Groove (Softwood Plywood) for a contemporary look. Rough Sawn Softwood also available in lap, T 1-11, reverse board and batten, and plain.





**G-P Exterior Overlaid** Particleboard has a superior surface that requires less paint and eliminates checking and grain raise. Available in either panel or lap in your choice of smooth, ribbed, or extruded board and batten.



EXTERIOR OVERLAID RIBBED



G-P CYPRESS PATTERN NO. 105

**G-P Tidewater Red Cypress** weathers beautifully with amazing paint holding ability. Available in Bevel, Pattern #105, Rough Board and Batten, and Rough Channel Rustic.

G-P Rough Sawn Lap (Softwood Plywood) A popular finish, delivered in exact



#### G-P Overlaid Plywood:

Reverse Board and Batten has been added to our overlaid line. With the G-P Medium Density Overlay, paint lasts twice as long. Also available in channel groove panels and lap up to 16' in length.

G-P Tempered Hardboard in horizontal lap or vertical panels. Factory-primed for exceptional paintability. Low cost - yet one of the strongest, most durable exterior materials made. Vertical panel available in either plain or rustic surface.





#### GEORGIA-PACIFIC

THE GROWTH COMPANY

G-P Rough Sawn Channel Groove (Softwood Plywood) is a traditional pattern with a rustic look. Channel Groove pattern available in G-P Medium Density Overlay, Hardboard.





G-P Texture 1-11 is a contemporary vertical siding panel for use in residential and commercial construction. In Rough Sawn Knotty Cedar or Rough Sawn Softwood Plywood. Georgia-Pacific's Big Line of sidings is bigger and better than ever! You'll find sidings for every application in residential or commercial work and to fit every budget. Over 65 patterns and surfaces in all!

#### G-P Lap Siding

Redwood, Hardboard, Overlaid Particleboard. Rough Sawn, and Smooth. G-P has them all, including Overlaid Plywood in up to 16 foot lengths. Our Redwood Bevel Sidings are available in your choice of factory treatments - factory sealed or paint primed.

G-P Vertical Siding in your choice of textured or smooth. G-P textured Vertical Sidings include the popular roughsawn for the rustic look, kerfed, and Texture One-Eleven, Brushed Cedar makes an ideal exterior wall or interesting decorator interior panel. G-P Smooth Vertical Sidings are available in a variety of patterns . . . overlaid particleboard, overlaid plywood, and hardboard.

\*Registered Trademark - Georgia-Pacific Corporation \*A Georgia-Pacific Trademark



Circle 44 on Reader Service card



#### **Builder indicted for 'tombstoning'**

Builder Ralph Staggs must face four counts of fraud for allegedly using false statements to obtain FHA and VA loans during the 1962 Phoenix housing boom.

Staggs's lawyers contend the Arizona builder (12,500 houses in the past 16 years) had no personal knowledge of the transactions. They came to light when a former employee, John Callahan, was convicted and given a suspended \$4,000 fine on similar charges.

Witnesses then testified that persons with good credit ratings were paid \$100 to sign false applications for FHA loans. The houses were then sold to other unqualified buyers, a practice known as "tombstoning." When foreclosures began mounting in Phoenix in recent years, investigators discovered the original loan applicants had never lived in the houses.

Staggs, 45, former Maricopa County Republican chairman and unsuccessful candidate for a state Senate nomination last year, is now completing several houses in his West-Town tract. Like many other Arizona builders, volume is off from boom years.

#### Banks again elect a renewal expert

Robert J. Koch

He is Harlan J. Swift, 52, of Buffalo, who steps into the presidency of the National Association of Mutual Savings Banks, an 18-state trade organization of the \$63-billion savings-bank business.

Swift is president of Buffalo's Big E, the \$621-million Erie County Savings Bank. He and the bank are the prime movers behind Main Place, a \$20-million private redevelopment that will provide a 744' shopping mall and a 26-floor office tower in downtown Buffalo.

The savings bankers' outgoing president, Frederick P. Smith, 52, played a major role in redeveloping downtown Burlington, Vt., as president of the Burlington Savings Bank (News, Jul. '66).

Robert J. Hill, 59, president of



SAVINGS BANKS' SWIFT Financial and civic leader

the New Hampshire Savings Bank in Concord, succeeds Swift as the savings-bank group's vice president. The office traditionally leads to the presidency.

#### Mortgage men tap Bacon and Pease

President Clair A. (Bus) Bacon of Denver's Mortgage Investments Co. will be the next president of the Mortgage Bankers Assn. He will succeed John A. Gilliland, first vice president of Stockton, Whatley, Davin & Co., Jacksonville, Fla., in October.

Lon Worth Crow Jr., head of the company of that name in Miami, becomes MBA's first vice president. Robert Pease, senior vice president of Draper & Kramer, Chicago, steps onto the promotion ladder as second vice president.



DENVER'S BACON
Now, a real chieftain

#### Planners pick renewal veteran

In its newly elected president, the American Society of Planning Officials has a rare combination of scholar and executor of tough housing and planning jobs, Lawrence M. Cox.

As executive director of Norfolk's Redevelopment and Housing Authority, Cox masterminded the nation's first urban renewal project in 1949. The Norfolk project is considered one of the most successful ever undertaken. Cox has also been housing, planning and land-reform consultant to both the Prime Minister of Peru and the high commissioner of Germany, General Lucius Clay. Periodically, he has turned to teaching, and during 1964 lectured at the Graduate School of Ekistics (the science of human environment) at the Technical Institute of Athens.



#### This shower head has extra spray channels in non-corrosive, non-stick plungers. Beautifully by Speakman.

From needle spray to flood pattern, showering under Anystream provides more pleasure than ever before.

Important new improvements include up to 33% more spray channels. This means a fuller and more even spray pattern. Just a flick of the lever handle and the channeled plungers move in or out... to give you *any* stream... invigorating needle... soothing gentle... normal rain... or full flood.

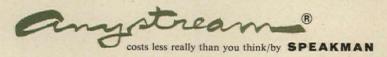
Another improvement. Anystream plungers are now made of black Lexan, General Electric's high temperature plastic. Lexan has extraordinary resistance to lime and other hard

water deposits. Non-corrosive, non-stick plungers mean that **Anystream** will give better performance the day it's installed and throughout the years.

The difference in shower enjoyment is all in the head. And with Anystream what a difference. Beautifully designed and exceptionally engineered by Speakman. Why not let Speakman quality speak for you.

Anystream shower heads available with water-saving Autoflo as option.

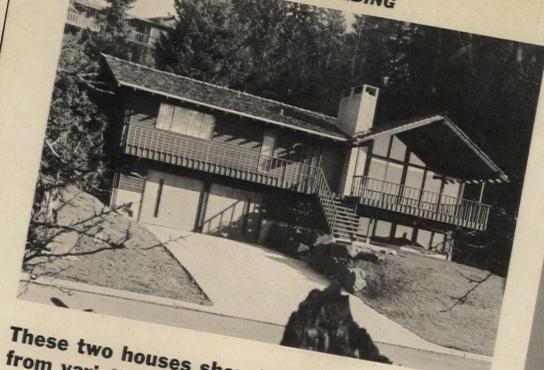
Send for complete descriptive literature without obligation.





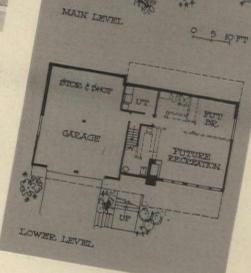
SPEAKMAN® COMPANY • Wilmington, Delaware 19899 • In Canada write Cuthbert-Speakman • 47 Duke Street, Montreal 3, Quebec

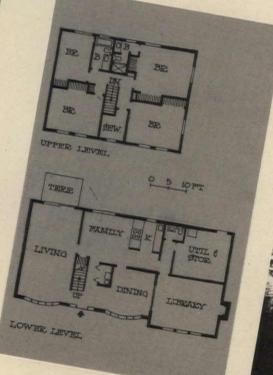
JUNE 1967 Circle 46 on Reader Service card



## These two houses show how you can benefit from variations on standard designs

The conventional design for this uphill site would have been a split-entry. Instead, Paul Burckhard and Dan Hermans, architects for builder Ola Groset of Edmonds, Wash., put the entry on the main floor and ran a long outside stairway up to it. Result: a saving of about 50 sq. ft. of indoor entry area, a separate foyer split-entries) and a cheaper staircase. Also, the unbroken deck rating on the upper level makes the house look cleaner and lower. At \$29,500, including an \$8,500 lot, the house was sold before





Garages are less important than extra living space in the Washington, D.C., area. So in this otherwise-conventional center-hall colonial, the architectural firm of Horowitz-Seigel used what dining room, and a utility and storage room off the kitchen to help compensate for the lack of a basement. The wing also helps is built in Annandale, Va., by Hyman Bernstein & Son. Price,



Letters start on p. 42

# prefinished redwood

## ...gives you prestige features to sell at a lower total building cost

Save money in application and finishing and create instant curb appeal with Simpson saw-textured and prefinished redwood.

Now you can give your customers the natural beauty and durability of California redwood in Simpson's Sierra Sawn bevel siding, Sierra Mansard roof system or Sierra Decking T&G, all rough sawn and factory prefinished in stains of Colorado Russet and Silverado Gray or in a clear water-repellent. (Install with color-matched nails and the job is completed as it goes up.)

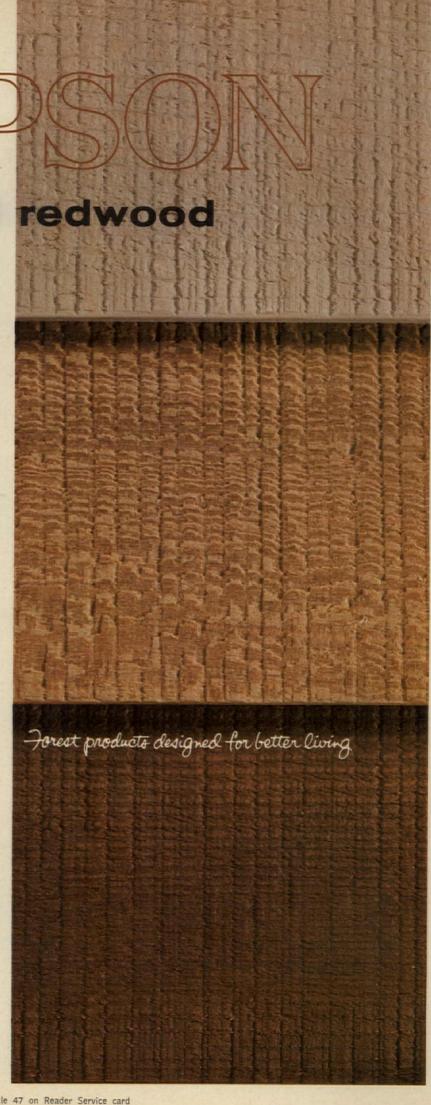
Find out what Simpson is doing with redwood to price it into the homes you build. Contact your Simpson redwood supplier or write Simpson Timber Company, 2000 Washington Building, Seattle, Washington 98101.



Through Simpson's participation, your customers are being told about redwood in 4-color ads by the California Redwood Association in House Beautiful, House & Garden and other prestige consumer magazines.



Other quality Simpson products include: Redwood, Fir and Hemlock lumber; Redwood, Fir and Hardwood plywoods; Decorative and Acoustical ceilings; Insulating and Building board; Standard and Decorator doors; Decorative and Structural overlaid panels



# BREAKTHROUGH! New Culligan space-age household water purifier



## First bottled water available without the bottles

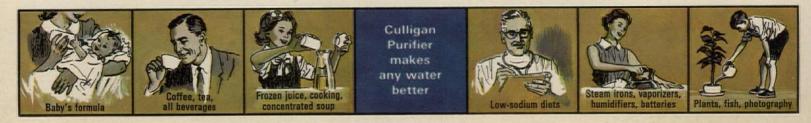
To Your Health! Have fresh, sparkling, crystalclear, delicious tasting purified water conveniently made right in your own kitchen-at the touch of a tap. Our new reverse osmosis kitchen appliance filters sediment, undesirable minerals, color, taste, odor, detergents and other organic contaminants. Medical authorities recognize that high quality water is important to family health.

How the Purifier Works. It simply connects to

your household water supply. No electricity is required. Your regular water is forced, by its own normal pressure, through a unique, semi-permeable membrane. This filters both dissolved and undissolved minerals and organic impurities, and permits only purified water to enter a built-in reservoir. It even purifies rusty, brackish, heavilychlorinated, or bad tasting water. To rent or buy this new convenience-to have bottled water without the bottles, just call and say-



Culligan Inc. and franchised dealers in the U.S., Canada, Europe, Latin America, Asia, Australia - Home Office, Northbrook, Illinois - Franchises available



# **Hurricane Seller**



The Everglades House in Ft. Lauderdale, Fla

Pease Ever-Strait Doors sell big to General Builders Corp. in Ft. Lauderdale, because hurricanes and humidity could have meant severe door problems for their oceanside condominiums. Problems like delamination, water leakage, warping. But they avoided these problems, with Pease Ever-Strait Doors. And not one door has ever had to be replaced!



In addition, Ever-Straits cut the cost of air conditioning. They are insulated with a solid foam core, and have magnetic weatherstripping which "grabs" for a leakproof seal. (Up North these features eliminate the need for storm doors.)

Get the straight story on doors—the Ever-Strait Story. Contact us before you install another door!

# Pease Ever Strait Doors Dept. H6, 900 Laurel Ave., Hamilton, Ohio

Patents No. 3,153,817; 3,273,287 and 3,238,573. Patented in Canada 1965. Other patents pending.

#### YOUR NEAREST SOURCE FOR PEASE EVER-STRAIT DOORS

CONNECTICUT, New Haven Batter Lumber Co. MASSACHUSETTS, Westfield O'Connor Lumber Co., Inc.

PA., Lancaster Keystone Aluminum Window Co.

DELAWARE, Wilmington Brosius-Eliason Co. NEW JERSEY, Bound Brook Sklar Door Corporation

Alco Structures, Inc.

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

Pittsburgh & Windher VIRCI

MARYLAND, Easton

PA., Pittsburgh & Windber Iron City/Whitjax Co. VIRGINIA, Roanoke Timber Truss, Inc. MASSACHUSETTS, Braintree L. Grossman Sons, Inc. N. Y., Lancaster & Rochester Iron City/Whitjax Co.

# Honeywell Electronic Air Cleaners, Total Comfort, coming on fast. May be "standard" soon.

# "We're the only local builder with the Air Cleaner standard, so we attract a

lot of attention."

Harold Grabow, Builder Developer of Waterford Village Waterford, Connecticut

T dd tH an for a www. www. fa A ch fii H

"Every home in Waterford Village is a Total Comfort Home. Heating, air conditioning, humidification control and the Honeywell Electronic Air Cleaner are all standard. Our Total Home Comfort system plays a major role in our advertising and literature. It has given Waterford Village a real comfort image with the public.

"Many of our prospects are already familiar with the Honeywell Electronic Air Cleaner. We deal with sophisticated clients who readily understand the benefits of air cleaning from reading the Honeywell advertising. Of course, if there are any allergies in the family, we have really hit the bullseye. Total Home Comfort is the new "hot item."



"Have one in my own home...I know its value."

#### Mr. Walter R. Zimmerer: Clover Hill Estates, Colts Neck, New Jersey

"My father and I are custom builders. We both have Honeywell Electronic Air Cleaners in our own homes. We know their value from firsthand experience.

"In our homes we offer humidity control, air conditioning and the Honeywell Electronic Air Cleaner. "About 60% of our customers order an Electronic Air Cleaner right away and our plumbing and heating contractor sells the other 40% within a year or so after they move in.

"I really stress the Electronic Air Cleaner because my homes are my sales exhibits, and I want them to look as good in five years as they do now."

# "Sell more Electronic Air Cleaners than air conditioning..."

Mr. Richard Tomko Vice President, Keyes-Treuhaft Co. Cleveland, Ohio



"Our firm is currently developing Landerwood Estates in Pepper Pike, Cleveland's finest suburb. Neither air conditioning nor the Honeywell Electronic Air Cleaner is standard equipment, but we do install a Honeywell blank frame so the Air Cleaner may be added later. We familiarize all of our clients with the benefits of both.

"We sell more Honeywell Electronic Air Cleaners than we do central air conditioning installations, and air conditioning is receiving a lot of publicity as the big item in building today. Customers readily understand the health aspects of clean air plus the fact the Electronic Air Cleaner cuts redecorating and dry cleaning expenses."

# "Total Comfort sold homes so I used it in office building."

Mr. Francis Koenig, Builder McLean, Virginia



"Previously, I have built homes in the Washington, D.C. suburbs. Each of my homes had a Total Home Comfort package consisting of central heating, air conditioning, humidity control and Honeywell Electronic Air Cleaning. The Honeywell Electronic Air Cleaner kept my homes cleaner and made them easier to sell.

"When I began building a 55 x 155 ft.

office building which I own, I wanted to give my tenants the same cleanliness which I gave my home buyers. They are mostly professional people and they want the best. I installed six banks of Honeywell Electronic Air Cleaners and had no trouble leasing the entire building. People are the same all over. Give them something with real value and they snap it up."

# "...like air conditioning was a few years ago."

Mr. Jack Monroe, Builder Atlanta, Georgia

"We are developing one 48-lot unit, Kinloch, and most of our homes are contract jobs. Consequently, the different features of the home are negotiated. We have no standard features as such, but the Honeywell Electronic Air Cleaner goes in most of our homes. In the homes where it doesn't go in, we usually include a Honeywell blank frame, because we feel the air cleaner will be added later. We used to leave space for air conditioning because the power unit was usually added later; now all our homes are air conditioned. We feel that this is the same position that the Honeywell Electronic Air Cleaner is in now. It will soon be standard.

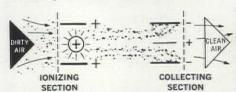
"We have literature on the Honeywell Electronic Air Cleaner, but we find most of our clients are already familiar with it. Some even bring it up before we do. I have two Honeywell Electronic Air Cleaners in my own home, so I can give a good testimonial if it's needed."





# Honeywell Electronic Air Cleaner removes 95%\* of the dust, dirt and pollen passing through it.

The Honeywell Electronic Air Cleaner fits in the return air duct of any forced air heating-cooling system and traps up to 19 times as many particles as ordinary mechanical filters.



In the Honeywell Two-Stage Electrostatic Precipitator, particles receive a strong positive charge in the ionizer section. As they pass into the collector, the electrical field created by the alternately charged positive and negative plates hurls the particles onto the negative plates, out of the airstream.

Only the large airborne particles can be seen, but the invisible particles do most of the real damage. They can irritate allergies, soil windows and drapes, and leave a dingy haze behind mirrors and pictures.

The Honeywell unit traps particles so tiny that it would take about 7,000 of them to stretch across this (.) dot!

In a new home, the Honeywell Electronic Air Cleaner may be included in the mortgage for under \$2.00 per month.

For more complete information and literature, write Honeywell, Dept. HH 6-419, Minneapolis, Minn. 55408.

\*As measured by the National Bureau of Standards Dust Spot Method.

# Honeywell



#### Heritage Village

H&H: Having just suffered through a frustrating 13 months selling the land, revising zoning and sweating out land planning and house design for a deluxe townhouse condominium here in Monterey, I found your cover story on Heritage Village [Apr.] most interesting and helpful.

The fascinating thing to me is the long-term participation financing by a moderate-size insurance company like Fidelity Mutual. Historically, residential financing has been the lifeblood of building. Like the first air planes I flew, we've come from the one- or two-year mortgage to the DC3 of FHA and FNMA.

Now, with jets and ssT [supersonic transport], we must nationalize conventional loans, have completely liquid small debentures on a central fund and, for larger projects, partnerships where builders can be free of money worries and thus give their full time to all the problems of building and selling.

Since its first issue, I've been an ardent admirer of H&H, and I think it even improves with age.

FRANK W. CORTRIGHT, vice president,

pension fund accounts Colonial Mortgage Service Co. of California Monterey

Team approach to trade-ins

H&H: Your March editorial was terrific! It is time for all of us in this industry to give creative attention to the vital problems of equity-transfer procedures and trade-in programs.

The task forces of NAREB and NAHB have already made significant progress in helping to bring these two great associations together in a long-range effort to find ways to unlock buyers' old-home equities. As joint chairman of each task force, I am encouraged by the interest that has been evidenced between the associations and their memberships. Shortly, a questionnaire will be mailed to members of each association in an attempt to gather vital information about existing programs, cooperation and interest in this topic. The results should be available by mid-year.

One of the things which may well have come out of the tight money year of 1966 is a closer working relationship between the various facets of the housing industry and a firm realization that we need each other, because we are one industry, not two or three! Some of the local groups formed, like Metropolitan Home Investment Association of Minneapolis, have combined the talents of builders, realtors, lenders and suppliers in a genuine attempt to influence public opinion for the good. Out of such groups may come the solution to other joint problems facing our industry.

DAVE STONE, marketing consultant Millbrae, Calif.

#### Computerized management

H&H: I have been traveling constantly since the March issue came out, and hardly talked to a single person, in perhaps a half-dozen cities, who did not volunteer that he enjoyed the piece on Consultron. You don't realize how many people read House & Home until you have an experience like this.

As an old reporter, with some understanding of the problems of gathering information, boiling it down and getting at the essentials in a clear way, I have nothing but admiration for the professional way in which the story was handled. I appreciate your editorial balance in neither shouting "gee whiz" or "pooh pooh" about the application of the computer to residential marketing, but just telling the truth.

> WILLIAM R. SMOLKIN W.R. Smolkin & Assoc. New Orleans, La.

#### Alside, not Alcan



ALSIDE HOUSE



House & Home's news story on Ryan Homes [May] referred erroneously to Emil Tessin as "designer of the ill-fated Alcan aluminum house." In reality, Tessin designed an aluminum house for Alside Corp., a venture discontinued in 1964. The entirely different Alcan house, designed by Alcan Design Homes of Montreal, is just going into production [News, Feb.] and could in no way be called "ill-fated."—ED.

#### Mislabeled Census report

Our April story on how the "marriage squeeze" affects housing referred to a Census Bureau report on household and family formations as Report Series P-20, No. 360. We were right about the number but wrong about the series. The correct series is P-25.—ED.

#### Toy tanks vs. dogs and cats



H&H: Congratulations to C. S. Hood and Jimmie Jones for developing a method of using a toy tank [above] to snake fire alarm wire over a suspended ceiling [Apr.]. Our research-oriented minds suggested a lightweight dog or cat might do the same job faster and be less encumbered by a large obstacle.

BRYCE L. FISH, wood technologist Simpson Timber Co. Bellevue, Wash.

#### Credit where it's due

House & Home's apologies to photographer Pedro Guerrero. His picture-credit line was inadvertently omitted from our May report on builder Donald Tarinelli's Fairfield, Conn., apartments.—Ed. EDITORIAL

Turning back the clock

# Does the Supreme Court's decision on prehung doors mean that the letter of the law is meaningless?

It may mean just that and worse. The Landrum-Griffin Act explicitly prohibits contracts that ban another employer's products. But some time ago the National Labor Relations Board decided, in effect, that the law does not mean what it says. Then on April 17, the Supreme Court, in what can only be described as an incredible decision, agreed. So now the building trades can boycott a prefabricated product—if any work traditionally done on it at the site has already been done before it reaches the site (see p. 15).

The decision effectively does three things that should be shocking to anyone in a democratic society:

- 1. It gives organized labor the legal sanction to operate in restraint of trade (for anyone else, that's illegal). Contractors and homebuilders in Cleveland, for example, faced a strike by carpenters demanding contract clauses against the use of prehung doors, trusses, kitchen cabinets and vanities prefabbed off the job site. The union eventually backed off when a wage raise was offered instead. But if it had pushed the issue, it would have been in a position to put a number of millwork companies, lumber yards and cabinet manufacturers out of business.
- 2. It limits the right of many construction workers to follow the trade of their choice. That, too, would be the effect of the Situs Picketing Bill (H.R.100) now before Congress. Arguments for the court decision and the bill are based on work preservation—on keeping for the building trades the site work they have traditionally performed. But both the decision and the bill give the close-knit AFL-CIO building-trade locals a dandy alibi for denying equal opportunity in construction.
- C. J. Haggerty, president of the AFL-CIO Building Trades Dept., has a stated policy against discrimination. However, he has virtually no control over the locals, most of which discriminate pretty much as they please. Last year, for instance, St. Louis locals shut down the Gateway Arch construction because of the presence on the job of Negro members of an independent union.
- 3. It raises the possibility of a cost spiral that would either price housing out of the market or put an end to a number of traditional building trades. The most expensive labor in a house is on-site labor. It averages \$4 an hour—almost 50%

higher than the average in manufacturing. And some trades in some areas—plumbers in San Francisco, for example—are now paid almost \$8 an hour.

On-site labor accounts for about 30% of the price of a typical merchant-built house. That figure could climb sharply if building-trade unions keep making it more difficult to capitalize on the economics of off-site prefabrication.

The possible upshot? House prices that are prohibitive because they are beyond the reach of most potential buyers.

The possible answer? A change in the way housing is produced. There is no magic in today's building methods. In fact, there are those who believe that industrial unions working in plants could produce just as good a house—and do it faster and at lower cost than it is now being done.

If it comes to that, the building trades will have simply hastened their own demise through their resistance to prefabrication. They will have gone the same way as the wet plasterers, who put themselves out of business in the mid-50s because of their insistence on a 30-hour work week.

Oddly enough, the building trades can have their cake and eat it, too. The Business and Defense Services Administration estimates that construction will need 4.2 million workers by 1975 (vs. 3.2 million in 1965). Some 70% of those jobs will be in skilled trades. But apprenticeship programs—with their low enrollment and 50% drop-out rate—can hardly be expected to fill that need. So even with all kinds of prefabrication, the building trades will have more than enough on-site labor to keep their people busy.

The Supreme Court decision is like telling a garment manufacturer to sew by hand instead of with machines. Says NAHB President Leon Weiner: "It is a decision which, unless we develop some new legislation, can set this industry back a century."

Justice Brennan, who wrote the court's majority opinion, put his finger on the crux of the problem: "It may be that the time has come for re-evaluation of the basic content of collective bargaining, but that's [a matter] for Congress." It's up to the housing industry—and every individual in it—to press Congress for corrective legislation that will permit progress instead of regression.

-RICHARD W. O'NEILL



#### MERCHANT-BUILT HOUSES

UNDER \$25,000

#### HONOR AWARD

Architect: Zaik/Miller (1) Builder: Architectural Construction Location: Portland, Ore.

#### HONORABLE MENTION

Architect: Wade & Hight Builder: Consolidated Construction Co. Location: Tuskegee Institute, Ala.

\$25,000 TO \$40,000

#### MERIT AWARD

Architect: Fisher-Friedman; Robert J. Geering, assoc. Builder: Sunset Petroleum Corp. Location: Novato, Calif.

Architect: Fisher-Friedman; Robert J. Geering, assoc. Builder: Braddock & Logan Location: Oakland, Calif.

Architect: Robert E. Jones Builders: Harlan Lee & Assoc., American-Hawaiian Land Co. Location: Westlake, Calif.

#### HONORABLE MENTION

Architect: Hayes & Smith Builder: Galli Homes Inc. Location: San Francisco

#### SPECIAL CITATION

Architect: Joseph Esherick & Assoc. Builder: Oceanic Properties Inc. Location: Sea Ranch, Calif.

OVER \$40,000

#### HONOR AWARD

Architects: Reid & Drosihn, Anderson & Stephens (2) Builder: Lawrence C. Olin Location: Tiburon, Calif.

Architect: Robert E. Jones Builder: Huntington Harbour Corp Location: Huntington Beach, Calif.

#### HONORABLE MENTION

Architect: Cross & Adreon Builder: Matthews-Schwartz Inc. Location: Bethesda, Md.

Architect: James F. Hilleary Builder: Joseph D. Judge Location: Ellicott City, Md.

#### SPECIAL CITATION

Architect: Volkmann & Stockwell Builder: Ira W. Coburn Inc. Location: San Francisco



William Maris









#### **CUSTOM HOUSES**

UNDER 1,600 SQ.FT.

#### HONOR AWARD

Architect: Hobart D. Betts (3) Builder: Charles L. Sauer Location: Quogue, N.Y.

#### HONORABLE MENTION

Architect: Paul W. McKim Builder: John Worobec Location: San Diego, Calif.

1,600 SQ.FT. TO 2,800 SQ.FT.

#### MERIT AWARD

Architect: Crites & McConnell Builder: Larew-Red Ball Engineering Location: Iowa City, Iowa

Architects: William H. Scarbrough, Samuel J. Cichello Builder: Clarke H. Pohl Location: Manlius, N.Y.

OVER 2,800 SQ.FT.

#### HONOR AWARD

Architects: Richard R. Moger; Arthur Lutzker, assoc. (4) Builder: Rouse Construction Co. Location: Clayton, N.Y.

Architect: George Nemeny (5) Builder: Aadne Aasland Location: Woodmere, N.Y.

#### MERIT AWARD

Architect: Fisher, Nes, Campbell & Partners; Charles H. Richter Jr., partner-in-charge Builder: Kenridge Construction Co. Location: Baltimore, Md.

Architect: Hugh Newell Jacobsen Builder: Jesse Dustin & Sons Location: Washington, D.C.

#### HONORABLE MENTION

Architect: George Nemeny Builder: Fetzer-Atwater Location: Rye, N.Y.

#### **GARDEN APARTMENTS**

#### SINGLE BUILDINGS

#### MERIT AWARD

Architect: Jonathan Bulkley Builder: Allison T. Hana Location: San Francisco

Architect: Robert Billsbrough Price Builders: Merit Co., Tacoma Housing Authority Location: Tacoma, Wash.

Architect: Lee & Roberson Builder: Ambrose Construction Co. Location: Berkeley, Calif.

#### HONORABLE MENTION

Architect: Paul Edward Tay Builder: Fritz & Blanchard Location: Long Beach, Calif.

#### MULTI-BUILDING PROJECTS

#### HONOR AWARD

Architects: Charles Warren Callister & John Morgan Payne; James Hahn, assoc.; Walz & MacLeod, assoc. (6) Builder: Paparazzo Development Corp. Location: Southbury, Conn.

Architect: Kamnitzer & Marks (7) Builders: Hyman and Janet Harrison Location: Sherman Oaks, Calif.

#### MERIT AWARD

Architect: Wurster, Bernardi & Emmons Inc. Builder: Gerson Bakar & Assoc. Location: San Mateo, Calif.

#### HONORABLE MENTION

Architects: David Jay Flood Jr.; Neil Morrison Wright and Tom White, assoc. Builder: Leslie L. Mitchell Construction Co. Location: Sun Valley, Idaho

Architect: Green & Savin Inc. Builder: Jerry J. Avison Location: Royal Oak, Mich.

#### TOWNHOUSES

#### MERIT AWARD

Architect: Fisher-Friedman; Robert J. Geering, assoc. Builder: Braddock & Logan Location: Alameda, Calif.

Architect: Ezra Gordon-Jack M. Levin & Assoc. Builder: S.N. Robbins Construction Co. Location: Chicago

**Architect: Richard Stowers** Builder: Donald Johnson Location: Santa Cruz, Calif.

#### HONORABLE MENTION

Architect: Angelikis & Bailly Builder: Regal Development Co. Location: Malibu, Calif.

Architect: Eberle M. Smith Associates Inc. Builder: Albert Nelson Construction Co. Location: Detroit





(6)



CUSTOM-HOUSE JURY: (left to right) Walter F. Wagner Jr., executive editor, Architectural Record; William Keck, AIA; (seated) William Kessler, AIA, jury chairman; Preston M. Bolton, AIA; Phineas Alpers, AIA.

# These are the winners in 1967's Homes for Better Living Program

The 35 awards listed on the opposite page represent both an honor roll of design and a House & Home preview. In the opinion of two blue-ribbon juries (above and below), they are the best custom houses, merchant-built houses and multi-family projects out of 402 entries in the 12th annual Homes for Better Living Program, sponsored by The American Institute of Architects, House & Home and American Home magazine. And all 35 winners will

be featured in this and future issues of House & Home: the custom houses for the design and planning ideas they offer builders; the merchant-built houses for the proof they offer that good design is indeed marketable; and the apartments and town-houses as representative of the best in a big and growing market.

The first of these features, including award winners and projects that barely missed awards, starts on the next page.



MERCHANT-BUILT AND APARTMENT JURY: (clockwise from right) Samuel Paul, AIA; David Condon, FAIA; Richard Leitch, AIA; (hidden) John L. Schmidt, AIA, United States Savings & Loan League, jury chairman; Alan C. Borg, building editor, American Home; James P. Gallagher, senior editor, House & Home; Robert Schmitt, builder, Berea, Ohio.

# Small apartments for tight sites: Here are five new and unusual designs for a growing market

On the next ten pages you will find not apartment projects, but apartment buildings. The largest of them contains only seven units; the biggest lot is less than one-quarter acre; and only one building cost over \$100,000. Taken as a group, they represent a promising market. Here's why:

They are on the scale of a large house, hence well within the capabilities of the average home-builder and his usual subcontractors.

They are relatively inexpensive, so they offer the modestly capitalized builder an opportunity for long-term investment.

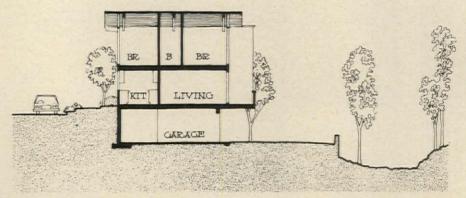
They are usually well located—in rezoned old residential areas near the center of town—so they rent quickly at good rates.

But with these advantages there are also problems. Putting five or six units on a lot originally laid out for one house makes it difficult to provide both easy access and indoor and outdoor privacy. And the problem of off-street parking gets tougher as the lot gets smaller.

To see how these and other problems were solved in five small apartments—three of them Homes for Better Living award winners—begin below.



STREET ELEVATION has blank walls, louvered doors and windows to maintain privacy. Clerestories under roof vaults admit extra light.

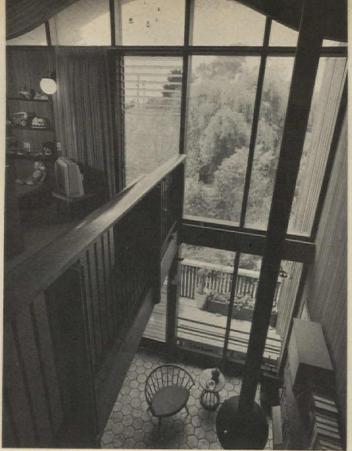


SECTION

0 5 10 FT

#### Award of Merit Homes For Better Living

ARCHITECT: Richard Stowers
OWNER-BUILDER: Donald Johnson
LOCATION: Santa Cruz, Calif.



TWO-STORY LIVING ROOM overlooks rear yard. High windows and balcony add feeling of spaciousness to the 740-sq.-ft, units.



CIRCULAR STAIRS save stairwell space. Door leads to foyer, closets and kitchen.



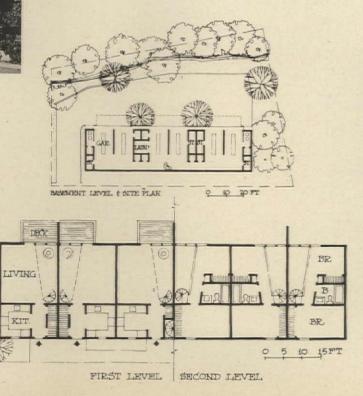
TILE FLOOR and redwood paneling help hold annual maintenance costs to \$10 per unit.

# Here's a way to make efficient use of a wide, shallow lot: close-to-the-street townhouses that open to the rear

Frontage is the most expensive dimension of a site; this lot has 135' of frontage compared with an average depth of only 78'. But there is ample room for a block of six 15'-wide rental townhouses along the front, an arrangement that drops per-unit land cost to \$3,000 at current values. (The site actually cost only \$5,000 a few years ago, but this project has helped boost values in the area enormously.)

To solve the problem of a shallow lot, the 24'-deep units are built just 10' from the front line. This leaves an average of 44' in the rear, enough for a drive leading to basement parking (section, facing page) and an attractive wooded strip behind the drive.

Construction cost was \$68,000, plus \$3,000 for landscaping. Rents are \$135, and the project has a waiting list.



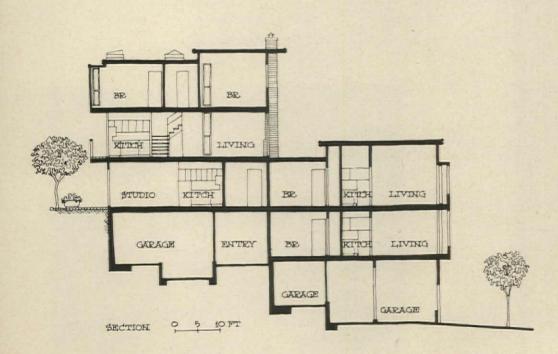


cantilevered balconies (section, facing page) overlook rear of sloping site. Entrances to basement parking areas are below balconies.

continued



## For a very small, very steep, very expensive urban site: a five-level building that touches lot lines on three sides

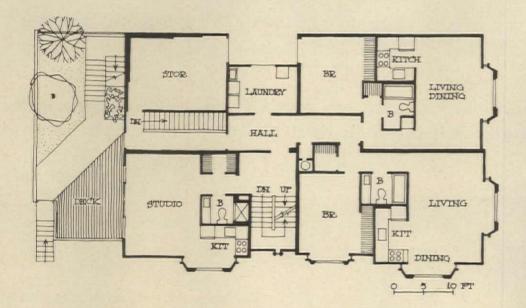


The lot is 38'x75' with a 43% slope, and it cost \$16,000. Economics demanded that it support seven apartments, the maximum permitted by zoning. And aesthetics demanded that it blend with its one- and twostory Victorian neighbors.

The final building is reminiscent of 19th century design. And to make the most of its small site, it is built right out to the lot lines on three sides; a 15' setback on the uphill side provides space for an entrance walk, outside stairway and deck. There are five levels (left): The first is for parking; the second includes garages and 2 onebedroom units; the third (plan, right) has one studio and 2 one-bedroom units; and the fourth and fifth include one studio plus a two-floor owner's suite. Construction cost: \$95,000, or \$12.60 a sq.ft. Rents: \$128 to \$180.



BAY-AREA DESIGN, with shingle siding and big bay windows, blends into older neighborhood. Downhill side has two double garage doors.





DINING AREA in third-level, one-bedroom apartment shows how window bays add to spaciousness. Shallow U-shaped kitchen is unusually efficient.



WINDOW BAY, projecting from building at right, has narrow slot windows set into side.

#### Award of Merit Homes For Better Living

ARCHITECT: Jonathan D. Bulkley BUILDER: Allison T. Hana LOCATION: San Francisco

continued



FACADE of front building is dominated by two walled balconies. Entrance to basement parking is at left, outdoor parking court is at right.

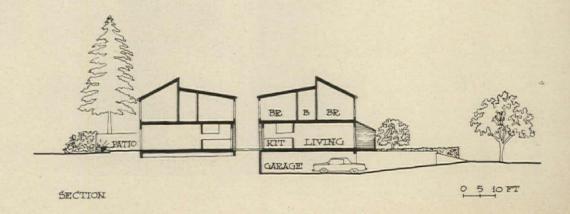
## Here's an unusual apartment layout for a deep, narrow lot: two buildings back-to-back, with an entry court between



SMALL SCALE lets front building sit inconspicuously between neighboring houses.

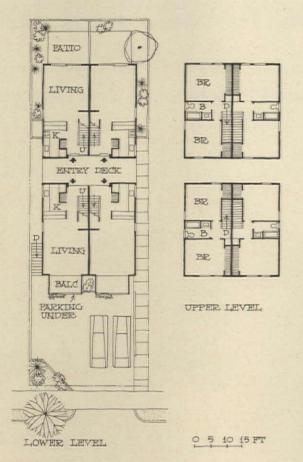
The lot—40' wide and 120' deep—is typical of those found in older residential areas that have been rezoned for apartments. Legally, nine units could have been built on it; practically, a nine-unit building with adequate parking space would have dwarfed its neighbors. So the owner settled for four 1,000-sq.-ft. townhouses, and the architects put them into two separate buildings (section, below), which are identical except for the basement parking under the front building. A side walk leads to a deck between the buildings (plan, right) from which all four units are entered.

Cost of the lot (including an old house that was torn down) was \$25,000, and the average construction cost was \$15,000 per unit. Rentals are \$180 for front units, \$190 for rear units.





**ENTRANCE WALK** runs along right edge of lot to area between buildings (plan). Low wall at left separates walk from front parking area.





**ENTRANCE DECK**, in 10'-wide pocket between front and back buildings, is hidden from street and visible only from upper floors of neighboring houses.

#### Award of Merit Homes For Better Living

ARCHITECT: Lee & Roberson; Eugene Lew, assoc.

BUILDER: Ambrose Construction Co.

LOCATION: Berkeley, Calif.



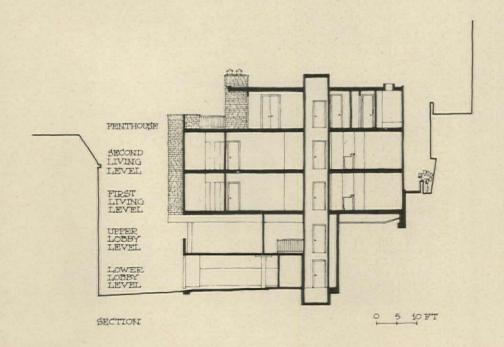
**LIVING ROOM** is seen here from end nearest patio doors. Kitchen pass-through is visible over table, sliding-glass entrance doors are past stairs.

**OLD FOUNDATION** (below) was incorporated into new two-story foundation (right) that simplified the structure, allowed building to be pushed to rear of lot to take advantage of view. Concrete staircase is a city-owned walkway. Street is at bottom of stairs.





# A bypassed lot made a fine site for this seven-unit apartment—once foundation problems were solved



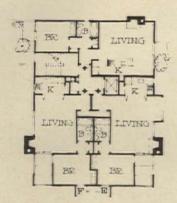
One builder had already made a pass at the 3,200-sq.-ft. lot, but the 35° slope defeated him. He did, however, leave behind an old foundation that became part of the present building.

A new two-story foundation is the key to this structure. It provided parking on both levels (plans, right) and established a platform above the slope on which a simple three-story frame building could be erected (section). There are 3 one-bedroom apartments on the first and second floors and a two-bedroom penthouse on the third. A small elevator connects all five levels.

Cost of the lot was \$30,000, and construction cost was \$145,000. Rents are \$165 to \$185 for the small units, \$350 for the penthouse.



PENTHOUSE



TYPICAL FLOOR



**DOWNHILL ELEVATION** shows upper parking level. First and second-level units have covered balconies, penthouse has open deck. Fire escape is at right.

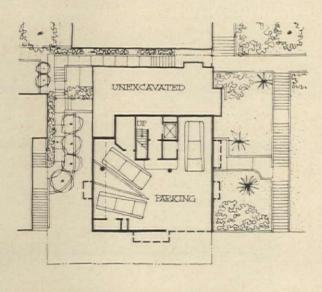


UPPER LOBBY LEVEL

O LO 20FT



**LIVING ROOM** of one-bedroom unit has large window at left of fireplace, glass doors to balcony.



LOWER LOBBY LEVEL 0 10 20 FT



MAIN ENTRANCE is off pedestrian walkway at second parking level. Structure is built right out to lot line on this side. Bay window above entrance projects over the line, provides dining alcoves for one-bedroom units.

ARCHITECT: Karl Treffinger & Assoc. BUILDER: Barnhill Construction Co.

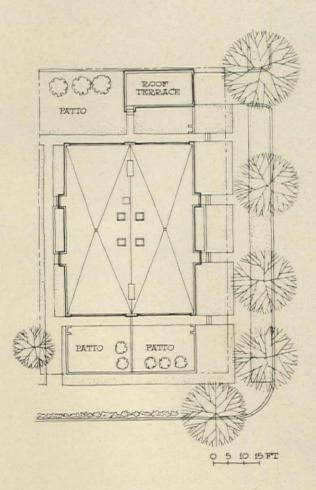
LOCATION: San Francisco

continued



MAIN ENTRANCES to two units are on street side of building. Vertical fins shield doors and bedroom windows. Single parking space is at right.

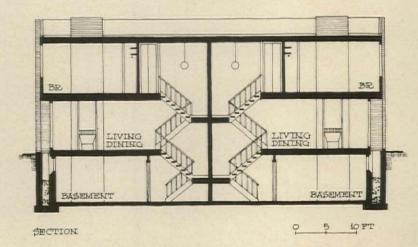
# This apartment building shows how much living space can be designed into an ordinary house lot

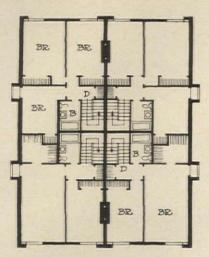


The corner lot is 100'x60', but city setback regulations reduced its buildable area to only 3,400 sq.ft. Within this space the architect put four townhouse units, each with 1,220 sq.ft. of living area and a full basement (section) that includes a family room and laundry. Two units have three bedrooms, the others have two. All have one and a half baths, and closet space is unusually generous.

The setback problem forced the owner to choose between outdoor-living and parking space. Since the city allows street parking, he decided on three walled patios, each with more than 400 sq.ft. of area; the fourth unit has a smaller patio plus space for one car.

Construction costs were \$100,000, and the site cost another \$10,000. Rents are \$235 and \$245.

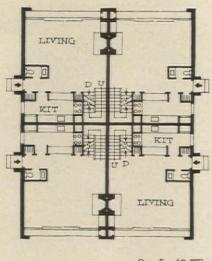




UPPER LEVEL



INSIDE WALK leads past patio gate to two house entrances beyond. Patio walls do not come under setback rules, can thus be close to street.



LOWER LEVEL 0 5 10 FT



FULL-GLASS WALL in front of living room opens to walled garden. Wall is high enough for privacy, low enough to avoid closed-in feeling.



**EATING AREA** is at opposite end of living room from patio. Snack bar at left can be closed off with bifold pass-through doors (plan, above).

ARCHITECT-OWNER-BUILDER: Henry Loheac LOCATION: Bayside, N.Y.



□ Before
 After 
 ▽

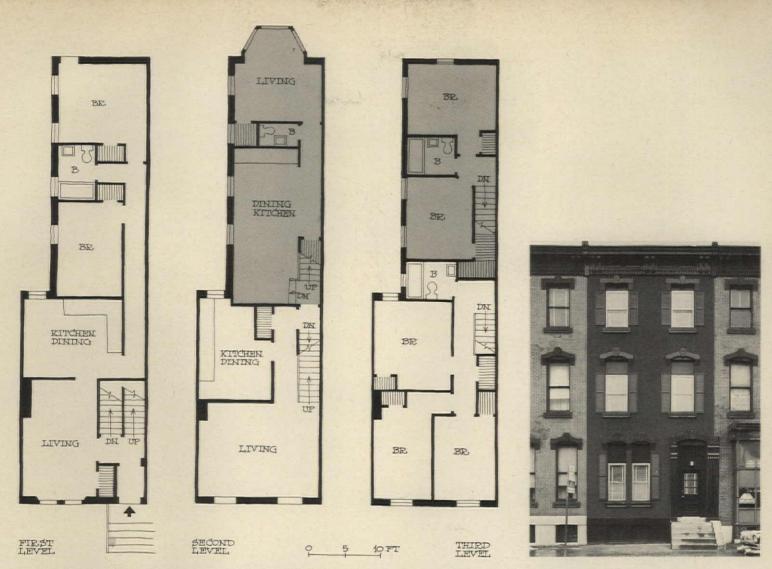


New experiment in low-cost rehab

# Can this be done to slums for \$12 a sq. ft.?

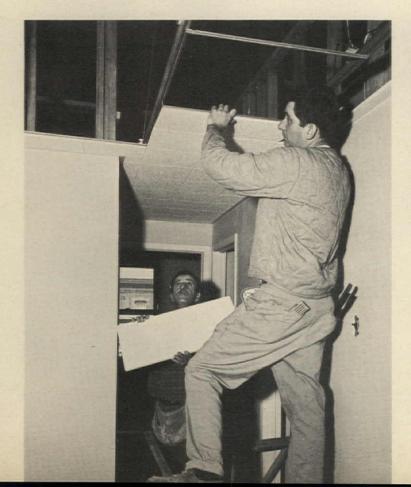
Yes, says Armstrong Cork Co., after completing a trial rehab job in Philadelphia two months ago. But it depends on whether low-income-housing authorities will go along with Armstrong's interior fix-up systems. Specifically, the company recommends suspended ceilings throughout (above) and dual-purpose flooring that can be used on countertops and bathroom walls (see p. 64). Philadelphia officials, who prefer plaster ceilings, have agreed to see how the hung ceilings wear.

For its structural work and floor plans, Armstrong used the expertise of a Philadelphia rehab pro, Hertz-feld & Horowitz Assoc. The building—a 70-year-old, three-story rowhouse—was uninhabitable when Armstrong leased it from the Philadelphia Housing Development Corp. Hertzfeld gutted it, replaced the windows (far right), and made a three-unit floor plan that avoided a third-floor walkup (top right). The job cost \$34,500 for three units of about 1,000 sq.ft. each.



#### Three floors, three apartments—but bilevel planning does away with the third-floor walkup

No apartment entrance is higher than the second floor because the top two floors are laid out like two small bilevel houses. Main structural requirement: an extra stairway between the second and third floors. The plan allows a small living room (photo at left) in the rear bilevel unit to double as a third bedroom with its own closet and an adjoining powder room. Separate forced-air furnaces and hot-water heaters for each unit are located in a full basement (stairway, first-floor plan).





#### A non-standard frame takes a stock window

But the fit is in width only, so Hertzfeld & Horowitz fills the gap at the top with plywood. When a building facade needs new veneer (this one needed only paint), Hertzfeld adds masonry to the old sill and pushes the new window to the top.

#### A pre-engineered ceiling cuts labor costs

Philadelphia rehab authorities normally require a plaster ceiling, which also means new framing, furring and lath. Armstrong's ceilings are hung on wires 3' below the old ceiling.

continued





Stair problems are solved by continuous vinyl

A flooring contractor bonded sheet vinyl to risers and treads to show how wear could be offset. All old stairs (*left*) were replaced by prefab stairs—30% cheaper than job-built. Center photo shows the new 8' ceiling height established below old 11'-high joists.

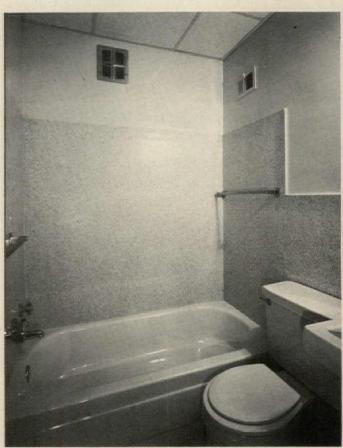


Kitchen flooring doubles as counter surface

Both countertop and backsplash are covered by sheet vinyl—applied by a flooring sub—instead of laminated plastic. Kitchen ceiling panels are a ceramic acoustical material that withstands moisture and repeated scrubbing.







Bathroom flooring doubles as wainscoting

Armstrong says this system is 50% cheaper than using ceramic tile, but isn't marketing it yet. Vinyl flooring is bonded to the walls and molded around a beveled 1x4 rail.

## Can manufacturers really make low-cost rehab profitable?

A lot of manufacturers are trying, but the answer is still maybe. Armstrong Cork's attempt (preceding three pages) is one of several by such big names as Borg-Warner, Glidden, 3-M, U.S. Gypsum and U.S. Steel. Their interest in rehabilitating low-income housing is easy to understand: Rehab is a building-materials market offering perhaps 15-million units.

But the manufacturers, wishing to remain suppliers, need remodelers to do the work. So the aim of their experiments is to develop remodeling systems that are so low-cost and so foolproof that they permit an average remodeler to jump into rehab with confidence that he won't lose his shirt.

Some of the systems are so ambitious that they will scare off any but the biggest contractors. A good example is so-called "instant rehab," in which a five-story tenement—15 apartments in all—is rehabilitated in 48 hours. This saves housing agencies months of relocation expenses and insures that tenants are not displaced.

But the work is formidable. Prebuilt bathrooms and kitchens are lowered through the roof and floors by a 230' crane. And 15 foremen and superintendents are needed to control the 354 workmen—60 strippers,

INSTANT REHAB, as demonstrated in New York City, employs a bathroom-kitchen-heating core.

200 carpenters, 25 plumbers, 25 iron workers, 12 painters, 10 electricians and 22 laborers—who work around the clock in three shifts.

When instant rehab was demonstrated in New York City in April, a radio control center was set up just to coordinate the superintendents' walkie-talkies. Precise costs aren't available, but the demonstration was called a success because it was completed in 47 hours and 52 minutes.

Aside from its high-pressure schedule, instant rehab can't be adapted by most

would-be rehab contractors because it is a total system designed for large buildings with repetitious floor plans. Its economies wouldn't make sense, for example, in the one-bath, two-story row-houses that crowd Philadelphia and Baltimore.

But most rehab ideas tried out by manufacturers are not total systems. Armstrong's suspended ceilings can be applied, codes willing, to any building and can be combined with other structural and finishing systems. The same is true of troweled-on mastic subflooring, expansible windows, prefinished drywall and many other ideas manufacturers have applied to rehab. It remains for a remodeler to put them together in the combination that makes most sense for a particular job.

Every high-volume rehab specialist learns to standardize to some degree on stock products and systems. Hertzfeld & Horowitz, Armstrong's contractor, adapts stock-size windows and doors to all its jobs. It uses a stock wrought-iron railing at stair wells, prefab chimneys and prefab stairs. And it manages to adapt standard floor



FOUR-MONTH REHAB, as practiced by Hertzfeld & Horowitz, makes use of stock components.

plans to most of its jobs because they are virtually all two- and three-story Philadelphia row-houses. In fact, once a Hertz-feld house is gutted, the rebuilding goes ahead much like new construction—starting with a carpenter laying out partitions on the subfloor. The job takes up to four months, but Hertzfeld's sq. ft. prices—as low as \$9—are well under those of 48-hour rehab.

When Hertzfeld and Armstrong teamed up, they produced a profitable blend of hard-nosed experience and laboratory enthusiasm. The manufacturer applied its wares in a dozen new ways, making code men uneasy, while the specialist stuck to its cost-cutting tricks of the trade. Result: a job that has unusually attractive interiors, and also proved economically feasible. Armstrong got an education in rehab, and Hertzfeld & Horowitz got on-the-job exposure to some new systems which it may adopt if local housing officials give their okay.

That kind of teamwork could be the answer to cracking the low-cost rehab market. Instead of creating rehab formulas in a vacuum and waiting for remodelers to give them a try, manufacturers could approach the market in a more practical way by studying veteran remodelers in the field. This is being done already in new construction by manufacturers that assign technical men to spend days and even weeks at new housing tracts to determine builders' methods and needs.

Granted, it's hard to find specialists in housing for low-income families. But many high-volume rehab men are not in low-income work at all. And they are as much in need of standard products and systems as the slum specialist. Urban remodeler John Halligan, who does \$1-million worth of higher-priced rehab in Chicago's Old Town area, has systematized both construction and finishing, and he redesigns manufacturers' products to make them more suitable to his work. Two examples: Halligan makes his own luminous-ceiling grids out of wood molding strips and builds an electric space heater into an under-



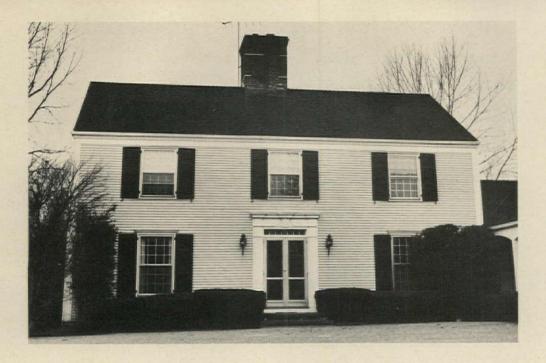
HIGH-PRICE REHAB is being overlooked as testing ground for systems manufacturers.

counter cabinet door to save storage space in bathrooms.

Manufacturers cannot put profits into rehab without the help of rehab experts. No one can write a rehab manual or produce an all-purpose rehab system without knowing a lot of those experts and the great variety of jobs they do.

-H. CLARKE WELLS

# DESIGN FILE



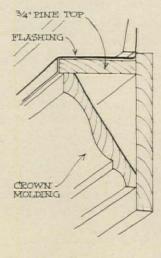
# **CUSTOM DETAILING WITH STANDARD TRIM**

Fels Hecht of Chappaqua, N.Y., a builder and interior designer, has felt a squeeze that is familiar to many custom builders. His houses are traditional in design, like the one above, and they absolutely demand appropriate detailing. But the high cost of special millwork and the growing shortage of skilled trim carpenters have combined to make the price of custom millwork prohibitively high.

Hecht's solution—which he has used successfully in houses priced over \$100,000—is artful application of off-the-shelf trim. It is inexpensive, and easily applied by a careful carpenter who can use a miter box. And the effect, as these six pages show, can be just about as good as the real thing.

#### WINDOW CORNICES

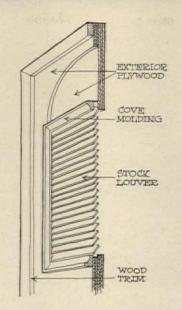
Colonial farmhouses seldom had more than a flat casing over their windows, but the more elegant colonials had a heavy cornice. Hecht builds cornices from wide crown molding, puts mitered returns at the ends and mounts them on the clapboard directly above the window. The effect can be seen in the house pictured above.





#### CUPOLAS

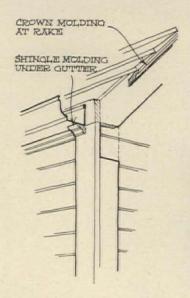
Essentially, Hecht's cupolas are plywood boxes with corner boards and hip roofs. Stock gable louvers with extra trim around the frame are set in the sides, and above them is a bandsawed arch backed with another piece of plywood. The unit is built in the shop and put in place after the house roofing has been put on.





#### CORNICES AND RAKES

Colonial design seldom includes overhangs, but it does demand a heavy eave and rake shadow line. Hecht uses a large gutter for his eave cornice, and finishes it below with a continuous strip of shingle mold. The rake trim is a projecting crown molding rather than the conventional strip of shingle mold.





#### FLAT-ROOF CORNICE

"A weak cornice can make a flat roof look bald," says Hecht. His solution is similar to the eave cornice above, except that the frieze board is widened so that it extends well below the shingle mold under the gutter.



continued

# DESIGN FILE continued



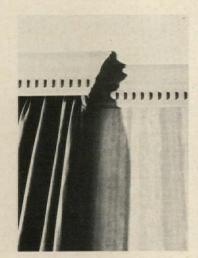
# mannamagamaria

#### CUSTOM PANELING. . .

This fireplace wall is in a house Hecht built several years ago, when costs were lower. The panels and rails are built up in the traditional way, and the fireplace surround and dentil crown molding are custom-milled.

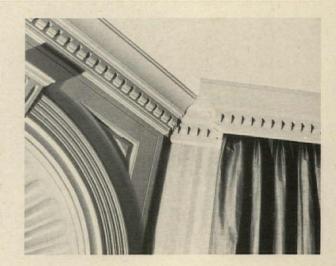
#### ... VS. STANDARD TRIM

This wall, built in a recent Hecht house, is almost as rich looking as the one above. Its "panels" are strips of molding glued to wallboard, and both the fireplace and the dentil crown molding are stock items.



#### CURTAIN VALANCES

Valances built below the ceiling molding often have a tacked-on look. Here the molding is set out above the windows, producing a heavier, more permanent effect. Hecht also carries his crown across the top of corner cupboards (right). The crown shown here is custom-milled, but stock crown like that in the photo above would work equally well.

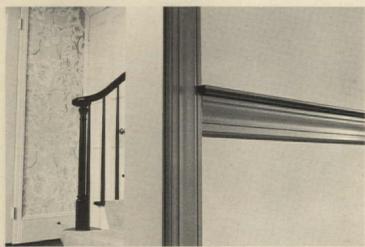




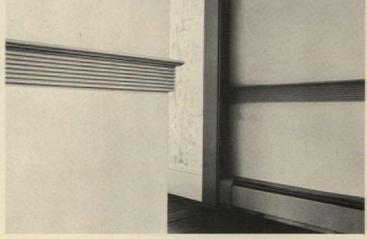


#### INTERIOR DOOR CASINGS

The narrow door trim found in so many so-called "colonial" houses today is completely out of place in authentic colonial design. All of Hecht's doors are cased with 4" molding. And two additional door-trim ideas are shown above: a small keystone block set in the center of the top casing (these must be specially milled, cost between \$3 and \$4 apiece), and fluted 4" molding (right) around doors in the more formal rooms of the house.







#### COLONIAL CHAIR MOLDING

Hecht considers stock chair mold too small, uses instead a strip of 4" stock casing topped by a cut-back piece of window stool.



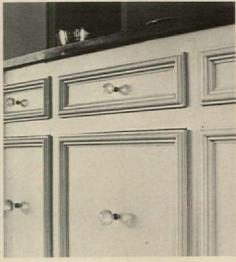
#### FLUTED CHAIR MOLDING

This is similar to the rail at left, except that the stool piece does not lap over the casing and hide the top flute.



# DESIGN FILE continued





#### TRIM FOR BUILT-INS

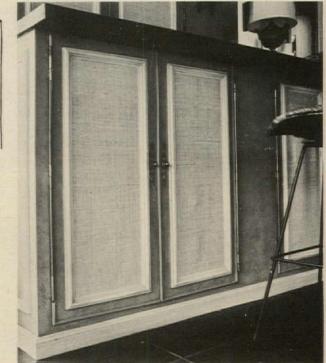
This built-in sideboard (<u>left</u>) echoes the rest of the dining room--fluted casings with a top keystone block, and crown dentil molding above the upper shelves. The doors and drawers are given added importance by a strip of panel molding glued around their perimeter (<u>above</u>).

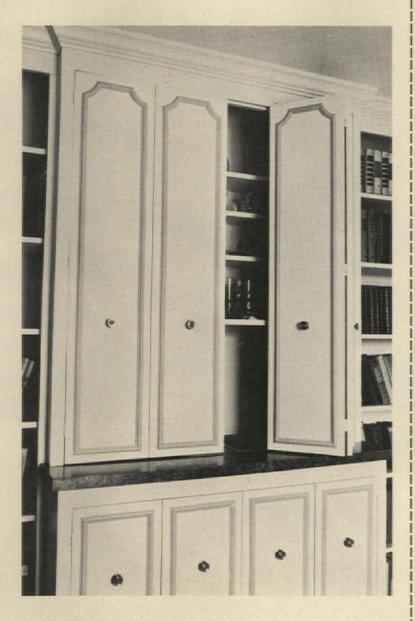




#### CABINET TRIM

Here is an example of what Hecht can do with ordinary plywood doors. Frames of panel molding are glued over stretched pieces of grass cloth, and a narrow bead is applied around the perimeter of the doors. Result: an attractive French Provincial look. Only non-stock items are the curved top moldings shown above.

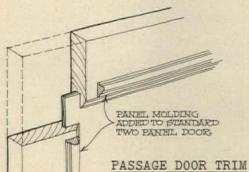




#### MORE CABINET TRIM

These bifold doors are trimmed out much in the same way as the doors on the bottom of the opposite page, except that the molding used is smaller and less expensive. It is the type commonly used to face kitchen cabinet doors, and the concave corner sections at the top are available as standard pieces.





"This is the cheapest two-panel door I can buy, " says Hecht. But when its plywood panels have been framed with an extra strip of molding glued to the rails, and an ornate lockset has been mounted, the result is a handsome French Provincial door.



REMODELED HOUSE is an expanded version of a standard California ranch model. Before and after plans on facing page show how living

and dining space was added on one side of house, kitchen and baths were enlarged on the other side. More pictures are shown on p. 74.



**ORIGINAL HOUSE** was typical tract model, well located, but too small for owner.

# Can builders make an honest

The answer is a qualified yes—and the qualifications in question are those of the builder. For example:

The winning bid on the remodeling job shown here was \$14,157. The contract called for moving an outside bearing wall, rebuilding part of the roof structure over the original rafters, relocating all kitchen and bathroom plumbing and completing all work in 90 days.

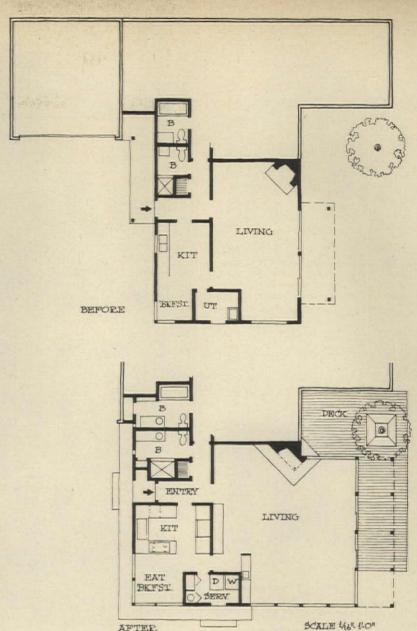
It was no job for the average "suede shoe" remodeler—he wouldn't have had the technical know-how to cope with it. It was no job for the average carpenter-remodeler—he wouldn't have had the necessary estimating skill or the ability to manage all the trades involved. But it was just the job for

custom builder Al Homer (H&H, Oct. '66) of Los Angeles, who has built new houses and remodeled old ones to the plans and specifications of demanding architects.

Homer bid this job so accurately, and managed it so efficiently, that his actual costs topped his estimate by only \$177. He won the job primarily because his bid was the lowest of four—the highest was \$19,000—but also because the quality of his previous work impressed architect Paul Hoag, who designed the alteration (see p. 75).

In estimating the job (see cost breakdown, p. 74), Homer allowed himself 10% for profit, plus only 2% for overhead. His usual—and safer—overhead



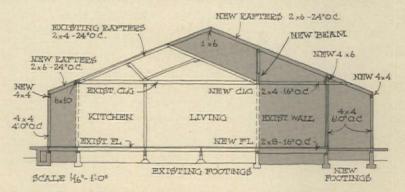


# buck on complex remodeling like this?

figure is 5% but, he says, "I made this bid at the height of the drought (last year's housing slump), so I was willing to shave it a bit to get the job."

Homer's contingency allocation—only \$450—was also marginal. And, as matters turned out, it was more than eaten up by several performance failures by subs—notably, one who reneged. About half the items in his breakdown of expected costs were based on firm bids by subs; the rest were his own estimates.

Homer uses remodeling to fill the time and profit chinks in his new-house construction business. His annual volume averages from \$300,000 to \$400,000. Normally, only about 10% of this is in re-



SECTION shows how roof framing was extended to cover new areas of the house. Note steel beam, which provides clear span over new living room.

Photos: Roger Marshutz



REAR TERRACE was originally a simple concrete slab. Remodeled house (right) has a broad expanse of open and covered deck areas, which are natural extensions of the living room.





**LIVING ROOM**, with awkward corner fireplace (above) was almost doubled in size (right). Fireplace was improved by a coating of plaster and made a true focal point in the room.



## How builder Homer estimated the job ... and how it actually came out

Operation	Method	Estimate	Cost	Difference
Excavation	Est.	\$	\$ 75	(\$ 75)
Concrete	Bid	675	675	
Masonry	Bid	250	250	
Carpentry,				
rough and				
finish	Est.	1,450	1,560	(110)
Lumber, rough	Est.	735	620	115
Lumber, finish	Est.	160	75	85
Cabinets	Bid	1,382	1,382	
Sash & doors	Est.	200	227	(27)
Plumbing	Bid	1,558	1,558	
Wiring	Bid	810	810	
Sheet metal	Bid	182	182	
Roofing	Bid	450	595	(145)
Plastering	Est.	500	750	(250)
Insulation	Est.	110	95	15
Rough Hdw.	Est.	20	32.50	(12.50)
Finish Hdw. A	llowance	150	150	
Tile	Est.	160	270	(110)
Countertops	Bid	390	450	(60)
Weather-				
stripping	Est.	25	25	
Painting	Est.	950	760	190
Structural	******	000	11,000	
iron	Est.	137	150	( 13)
Windows,	1300.	101	200	1 20%
doors, screens	Rid	900	900	
Shower doors		175	175	
Floor covering		168	220	(52)
Light fixtures		50	87.50	(37.50)
Cleanup	Est.	185	310	(125)
Permits & fees		45	60	(15)
	Est.	450	0.0	450
	AAAA.			100000
Totals		12,267	12,444	(177)
Overhead (2%)		603	603	
Total		12,870	13,047	
Profit (10%)		1,287	1,287	
Grand totals		14,157	14,334	(177)

modeling. But there are still so few custom houses being built in Los Angeles (and so many bidders for those few) that the remodeling share of his work will jump to about 33% this year.

He shoots for the same profit margin on both remodeling and new construction. But remodeling's smaller dollar volume raises problems. "Remodeling is profitable, but I can't make as much money for the same expenditure of my time," says Homer. "I have to visit each job every day, whether it's a \$16,000 remodeling or a \$60,000 house. Of course, remodeling takes less time, but not that much less."

To take some of the risk out of the risky remodeling business and to get optimum performance by his subs, Homer sticks to practices like these:

1. He gets all change orders in writing —whether they're by the owner or the architect—and bills them immediately.

The plague of all remodeling, he says, is what he calls "finger pointing"—the owner points to something that's not on the blueprints and says to a mechanic, "As long as you're here, would you mind doing this."

Says Homer: "If you don't catch these

on-the-job changes right away, you'll never get paid for them at the end of the job."

- 2. He tries to avoid costly on-the-job errors by urging his men to be sure they understand the blueprints. But, he says, "It's hard to get your supers, let alone your subs and mechanics, to take plans home and study them. That's one reason why I visit my jobs constantly."
- 3. He avoids making small insurance claims (even justified ones) that might result in higher overall rates.
- 4. He does much of his own accounting
  —"The more bookwork you do yourself,
  the better you know your costs."
- 5. Instead of phoning a long list of subs when he has a job to figure, he sends out preprinted postcards, inviting subs to come in and bid at a specified time and place.
- 6. He avoids the "it's deductible" attitude toward business entertainment and other gray areas of costs: "It might be deductible, but it's deductible from your profit."

Homer usually makes firm bids on remodeling jobs. But some other custom builders prefer a cost-plus approach. For two examples, see pages 76 and 77.





as well as inefficiently laid out. Creating good working space (top, right), dining space (bottom, right), and bathroom space (plans, p. 73) required moving one exterior wall an expensive 3'.



#### How an architect looks at remodeling problems . . . the builder's as well as his own

Paul Sterling Hoag, AIA, architect on the remodeling job shown on the previous four pages, has some thoughtful observations on why such work is so tough to do well and profitably. Says he:

"I never met an architect or builder who preferred remodeling. For most of us, it is a fill-in between new houses.

"Budgets are difficult to set and to live up to. Builder and architect know that remodeling costs are far more unpredictable than new work, and thus they are nervous and on the defensive. If they guess too high, the owner might drop the project or get someone 'not so expensive'. Too low, and they face the guillotine later on. The owner's private mental reservations cut even our lowest estimates to something he is better prepared emotionally to believe at that minute.

This sets the stage for the cheapest possible builder-bidders the architect has the courage to call in. He won't take one he knows is dishonest or incompetent, but he will try again with a man who gave him problems on a previous job, and will embrace with hope any new man who can produce a few testaments to his 'good intentions and honesty'

'Most builders are either carpenters or broker-builders, except for those rare jewels, the skilled businessmen with craftsmen's ideals. The carpenter is often a good craftsman, but invariably a bad businessman, and some seem incapable of any control over their subs. The broker must tightrope between 'giving away his profit' by correcting mistakes, and bullying his subs into correcting their own work at their own expense. There is also the competent, young, businessman-sub who is on his way up to bigger jobs, but he isn't available for remodeling very long.

"Subs are the key to the whole problem. The big competent ones can't, or won't, be bothered with small remodeling jobs. Of the small ones, the craftsman who does his own work usually has standards of quality, but is under constant pressure to compete with low priced work offered by subs trying to keep small crews busy on too-scattered jobs, and is unable to supervise each job

properly and continually.
"This guy is the quality destroyer, the one who has to be threatened with withholding of payments, or paid off in disgust. If forced to correct his work on one job, he doesn't raise his standards, but tries to make up his losses on the next job.

"The honest contractor faces serious problems arising from this situation. If he can negotiate a cost-plus contract, and has a knowledgeable, well-heeled client, he might get the best subs, turn out a good job and still make a reasonable profit. It does happen. Such builders get a reputation for being 'expensive, but good', but they need affluent clients. The mass middleincome remodeling market won't even ask them to bid.

"The architect is relatively helpless. He can acquire the knack for 'smelling' costs, but must be braced for the frequent bad guess. He feels caught between the roles of 'greedy wastrel' and 'wet-blanket'. In a nutshell, we wouldn't be caught dead doing remodeling if we weren't architects, and didn't love to design."

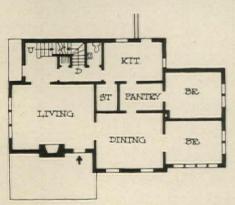


original house was already being remodeled and enlarged when this photo was taken.



REMODELED HOUSE has lengthened one-story wing plus front extension which, along with terne-metal mansard roof, hides original fireplace chimney.

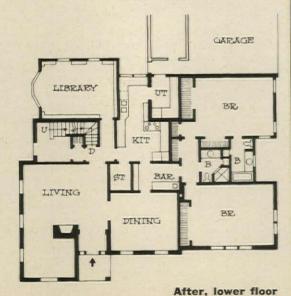
## Cost-plus contracts made good sense on this complex rebuilding job . . .



Before, lower floor



Before, upper floor



BR BR BR

But in revamping and expanding this rundown old house in a Nashville, Tenn., suburb, custom builder E. C. Scruggs departed from the usual cost-plus contract: He based his 10% profit and 5% overhead on his estimate instead of on actual costs.

"This arrangement is fairest to the client," says Scruggs, "and he knows I don't benefit if costs turn out higher than expected."

Scruggs, who builds custom houses costing from \$40,000 to \$150,000, also takes many of his subcontractors' bids on a costplus basis: "It never pays to hold a sub's feet to the fire for a bidding mistake due to unforeseen trouble." And he bases his choice of subs on the nature of each job: "One who is just right for a \$40,000 house may not be painstaking enough for a \$150,000 job. Conversely, the painstaking sub could break you on a less expensive house."

Scruggs got the job shown here because he had previously built a house for the same architect (Steinbaugh, Harwood & Rogers) and client.

"This was a special case," he says. "It might have cost less to tear down the old house and build a new one on the same site. But zoning would not permit this."



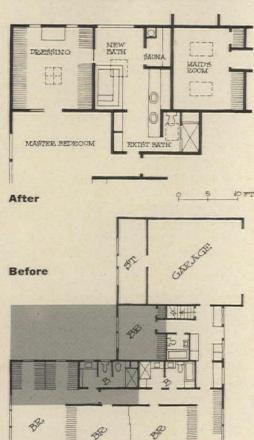


Photos: Ben Schnal



NEW BATH includes obscure, double-glazed window, mosaic-tile counter, theatrical lighting between mirrors, sauna (top) and sunken tub.

### . . . and on this addition of an opulent—and expensive—bathroom



To Long Island custom builder Leslie Lowey (H&H, Oct. '66), the best way to take a complex remodeling job is on a cost-plus contract.

"First," he says, "I know just about what my profit will be. Secondly—and more importantly—I think I can save money for the customer. Why? Because I include only my profit and overhead. I don't need the usual 5% for contingencies."

Lowey's contract on this new master bath and dressing room allowed him 10% for profit, 10% for overhead and a \$700 design fee (since he was the designer as well as the remodeler). The contract price —\$17,987—included such luxuries as a sauna, a sunken tub and extensive and expensive cabinetry.

Lowey's 10% overhead may seem high to remodelers who are used to getting through a job fast. He agrees, but points out that this job took 289 supervisory hours and stretched out for six months. Delays were partly due to a long wait for imported tile (paid for by the owner and not included in the contract) and partly because of the time required to make dozens of color and materials selections.

Lowey worked closely with the clients' interior designer, Virginia Whitmore Kelly,

who designed most of the cabinets. He had to sub out the cabinet work to a store-fixture manufacturer because he couldn't find a residential-cabinet maker who could give him the quality the job demanded.

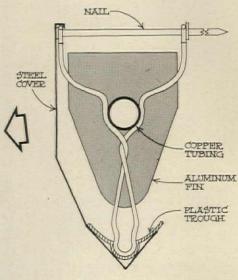
"I like to work with professionals as long as they are in on the job from the beginning," says Lowey. "If they come in later, they often demand changes that can run costs up considerably."

Highly customized remodeling like this demands top-grade subcontractors, says Lowey. So he follows these rules:

- 1. Always try to get the best subs, even though they might not normally do remodeling. You never know when they might need the job.
- 2. Get firm subcontract bids, even if you are on a cost-plus basis.
- 3. Try to get multiple-job subs, like rough carpenters who will also do the foundation and concrete work.
- Make down payments to your subs a good one will demand them—and set up precise pay schedules.

This contemporary house in Great Neck, N.Y., is an old friend to Lowey. He designed and built it in 1953, did a \$5,000 dining-area and porch addition in 1958 and took on the job shown here last year.

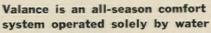




valance unit—attached to wall near ceiling—heats, cools and dehumidifies by circulating hot or chilled water through finned tubing.

# Valance heating/cooling edges toward housing

Homebuilders probably won't notice it for a while. But valance heating/cooling, which came onto the market 12 years ago and has been catching on in institutional buildings, is being scaled down to residential size. What's more, the manufacturers are about to take some of the mystery out of it by writing a design-and-installation manual. Valance has been expensive, and it has operating problems. But it also has advantages that no other heating/cooling system can offer.



Water is circulated through finned tubes concealed behind a valance at the juncture of wall and ceiling (above). In summer the water is chilled to between 35° and 45°F. In winter it is heated to the temperatures used in conventional hydronics baseboard—180°-plus.

Air circulates through the finned tubes by gravity and is distributed by convection and radiation (*drawings at top right*).

So valance heating/cooling is silent and creates no drafts—two reasons why it is catching on among hospitals and nursing homes.

Besides heating and cooling, valance dehumidifies in summer. Excess moisture condenses on the fins and drops into a drain trough hung beneath them. The trough is pitched, so the water can drain toward a piece of tubing through an outside wall and be evaporated. In large apartment systems condensation becomes a big factor: It must be drained into sewers and may even be used for watering shrubs.

But valance is not a true "total comfort" system, as the term is defined by the warmair industry. It heats, cools and dehumidifies—but, being a pure-hydronics system, it doesn't filter air. For true total comfort, the customer would have to add his own portable air filter.

To the hydronics industry, however, valance makes perfect sense. It lets plumbers and equipment manufacturers offer an hydronics heating/cooling package without resorting to ducted cooling. For some time now, hydronics people have tried to meet total-comfort competition by promoting hot-water baseboard heating coupled with direct-expansion cooling through overhead ducts. But when a sheet-metal man bids his half of the combination job, he often switches the customer to ducted heating/cooling and cuts out the plumber.

# Valance cools well—but may need add-on baseboard for heating

In fact, the Institute of Boiler and Radiator Manufacturers (I-B-R) has tested such a system — baseboard-plus-valance — and found that it works much better than plain valance. Reason:

Unassisted valance heating may fail to



TWO-TON CHILLER—scaled down from much larger institutional equipment—makes valance cooling feasible for single-family houses. Companion boiler at right provides valance heating. Installation shown is used by Meenan Oil Co. of Hicksville, N.Y., for remodeling work.

block drafts at large windows and other areas of high heat loss. But sections of baseboard—plumbed into the valance tubes—counteract the drafts (drawings at right). During the cooling season, shut-off valves isolate the booster sections from the rest of the system.

In an I-B-R test house, the baseboard sections added 10% to installation costs. But operating costs dropped 11% (see Bulletin 484, Engineering Experiment Station, University of Illinois).

Not all manufacturers agree that valance needs baseboard, but right now they aren't publicizing facts one way or the other.

# Valance is still so young that accurate costs are hard to find

In the absence of a standard valance manual, bids have varied widely from contractor to contractor, but I-B-R, which hopes to put together a manual later this year, offers the following operating-cost comparisons:

- 1. Cooling with valance costs 5% to 10% less than cooling with chilled-water fan-coil equipment.
- 2. Heating with valance costs 15% more than heating with baseboard.
- 3. Heating with a combination valanceand-baseboard system costs only 5% to 10% more than heating with baseboard.

Conclusion: Heating and cooling with valance-baseboard is as economical as heating and cooling with baseboard plus other types of cooling.

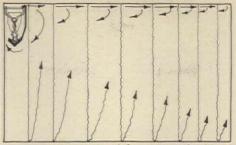
There is one catch, however. Installation costs have been high because water chillers are more expensive than direct-expansion cooling units. To beat this, a major valance manufacturer has now come out with a two-ton chiller (lower left) scaled to single-family houses. It may start a trend.

### Valance will find its way into new housing through remodeling

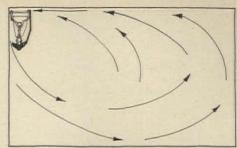
Two advantages, aside from comfort, make valance an asset to remodelers. It is 1) flexible to install and 2) easy to add to an existing heating system.

Valance is also easy to zone—both in heating and cooling—so it is ideal for addon rooms. It permits a heat source where floor space can't be used—as in kitchens (top left)—and permits cooling where there is no space for ducts. In fact, tubing can save so much over ductwork in complicated construction that valance becomes very competitive despite the high cost of its chiller.

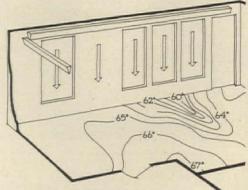
Some homebuilders might eventually turn to valance to solve complicated design problems—e.g., how to control heating and cooling in a split level, or how to conceal heating and cooling in a contemporary house which has exposed framing and decking.



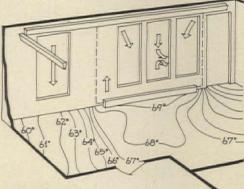
WALANCE HEATING produces no noticeable air movement. Hot water heats upper air, creating a blanket of warm air that spreads across the ceiling and radiates heat to the room below.



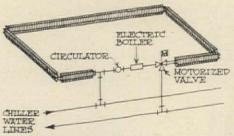
VALANCE COOLING, like heating, is silent. Chilled water cools upper air, which floats downward by convection and replaces warmer air at lower levels. Condensation is drained off.



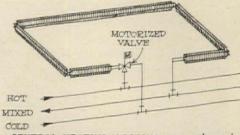
SIMPLE VALANCE HEATING can't stop drafts under large single-glazed windows. Temperature patterns above were recorded in meagerly insulated University of Illinois test house.



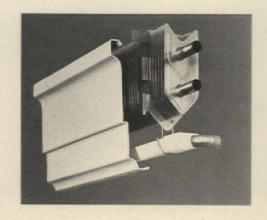
VALANCE-PLUS-BASEBOARD solves draft problem, as temperature patterns under triple window indicate. Baseboard section, an extension of valance tubing, can be shut off for cooling.



ADD-ON HEATING with central cooling is one way valance makes sense in a newly expanded house with existing central heating. Chiller cools whole house; compact boiler heats added rooms.

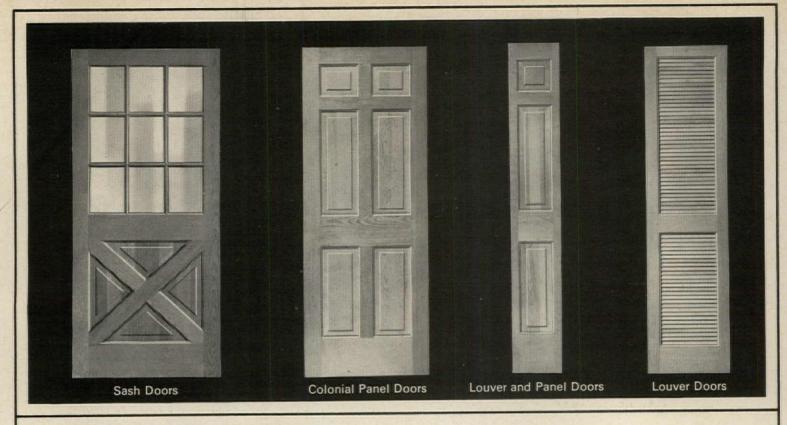


**CENTRAL HEATING/COOLING** uses a three-pipe system to distribute hot and chilled water through zoned valance loop. Thermostat controls a motorized valve which regulates water flow.



# Valance resembles baseboard installed upside down

The only major difference—except for location on the wall—is the condensation trough under the finned tubes. But in residential use, another difference may be more obvious to housewives: Valance is completely exposed. It can be painted or wallpapered, but a better solution might be more attractive molded covers.



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A jam of new homes sales prospects.

He'll do it with air. Lennox Living Air®. And the LIVING AIR promotion for your new homes.

LIVING AIR is the distinctive feature that gives your new homes extra ownerappeal. It's fresh outside air brought into your home's Total Comfort System, filtered, then warmed or cooled, and ducted to every room.

Such a unique and highly salable point-of-difference is a natural for trafficbuilding promotions. That's where your Lennox Territory Manager comes in. Loaded with promotion materials he can make available to you.

For starters: ready-made publicity releases, newspaper ad ideas, billboard designs, scripts for radio commercials.

You can even have a custom phonograph record, professionally scripted and narrated. In his own home, your prospect will hear reviewed all the reasons for choosing your home. Location. Educational facilities. Transportation. And LIVING AIR for comfortable, modern living.

And for your model home use: LIVING AIR signs, decals, wall-hangings, feature cards. Plus LIVING AIR balloons for the kiddies.

Backstopping your Lennox Territory

Manager are his headquarters promotional facilities, supplying you with a direct mail service. And personalized brochures. All at nominal cost.

Your Lennox Territory Manager knows how to get the most from your LIVING AIR promotions. He'll help you plan them.

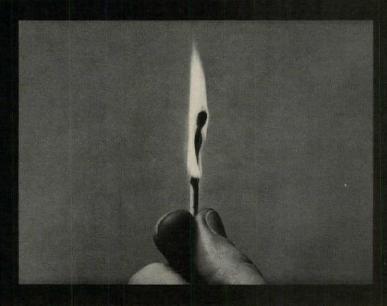
(But it'll be up to you to handle your traffic jam of prospects.)

Lennox Industries Inc., 239 South 12th Avenue, Marshalltown, Iowa.

\*Territory Manager (T.M.): the "old pro" Lennox factory representative who works directly with dealers and their builders, architects, engineers, contractors, schools.



# Who knows what there is to know about fire resistance?

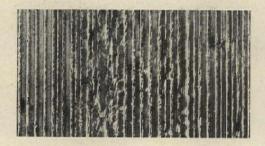


# The Gypsum Association knows.

Get the newest information on fire tests. Send now for "Design Data/Fire Resistance." It's yours for the asking. Free. And any time you build, remember that gypsum products offer you superior fire resistance and sound control qualities, plus low cost-in-place. So mail this coupon. We won't try to sell you anything. That's not our job. Because we're strictly in the information business. Gypsum Association, 201 N. Wells St., Chicago, Ill. 60606.

For more information, circle indicated number of Reader Service card p. 103



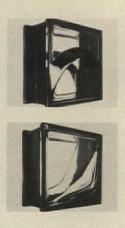


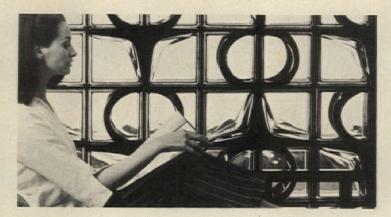


# Imitation barn board works better than the real thing

Instead of splitting or disintegrating like century-old weathered boards, this imitation goes on as neatly as new wood. Why? Because it is new wood—striated (above) and chemically treated by a patent-pending process that simulates natural weathering. Its warm-gray color continues to mellow

when exposed to real weathering. Boards come in three sizes—1x8, 1x10, and 1x12—and in lengths of 10' to 16'. They come shiplapped, or with square edges if matching battens are used. Vermont Weatherboard, Hardwick, Vt. Circle 290 on Reader Service card







# Glass block takes on a new face—contemporary sculpture instead of plain grid lines

Masons can create a variety of sculpturedglass walls by combining two new molded blocks (above, left). Both have raised surfaces that resemble molten glass, and are framed and accented by fired-on black ceramic (known as "frit" in the glass industry). The patterns are 1) a sharply angled crescent and 2) a semi-circle. Like conventional glass block, the new ones are hollow and hermetically sealed, so they provide thermal insulation.

But unlike the old, the new blocks must be laid up with black mortar. Reason: Black mortar blends with the blocks' black borders and eliminates the grid effect caused by contrasting mortar lines. The new blocks cost twice as much as the old and, because black mortar costs twice as much as regular mortar, their installed cost is proportionately higher. Dimensions of the new block are 8"x8"x4". It requires a channel with 4½" inside dimension. Pittsburgh Corning, Pittsburgh. Circle 291 on Reader Service card



# A snap-together shower stall needs no mortar, no caulking

The walls are sandwich panels: plasticlaminate faces bonded to a ½"-thick polystyrene core with a ½" melamine backup sheet. The floor—simulated stone—is a one-piece molded unit with integral drain. To assemble the package, a workman fits the panels' bottom edges into a floor flange, and snaps their side edges into extruded aluminum channels (right). Corners are finished by gluing on laminate-clad moldings. Estimated setup time is one hour. The package comes in eight colors and two sizes: 36"x36" and 32"x48", both 76" high. Fiat, Plainview, N.Y. Circle 292 on Reader Service card



New products continued on p. 92

# Geon vinyl makes a material all over

# difference any house

There's more to the story of vinyl in building products than most builders and architects realize. It goes beyond the fact that vinyl makes a material difference . . . in siding that retains its beauty; in drain/waste/vent systems that refuse to corrode or rust; in vinyl-clad windows that promise lifetime maintenance savings; and in gutter systems that do not peel, dent, corrode, or need paint.

There's a material difference in vinyls, too. For each building product, there's a Geon vinyl compound specially engineered

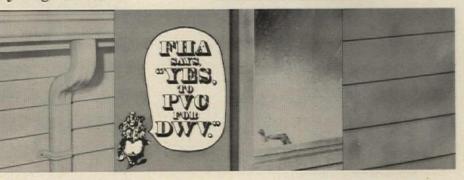
to give optimum performance. We manufacture only the vinyl raw materials. As the world's largest maker of vinyl compounds, we have spent countless hours and dollars developing Geon vinyls for building products.

For better building, use

vinyl every chance you get. For better vinyl, insist on Geon vinyl. Write for new building products folders, one on siding, gutters and downspouts, the other on windows. B. F. Goodrich Chemical Co., Dept. H-10, 3135 Euclid Ave., Cleveland, Ohio 44115.

B.F.Goodrich Chemical Company

B.F.Goodrich



# **Baths**



Carved vanity, with reinforced framing and solid-core doors, comes in 1' to 4' modular widths. Model shown is finished in grey-black with old-brass hardware. Other styles: colonial and modern. Mutschler, Nappanee, Ind. Circle 230 on Reader Service card



Enameled-cast-iron lavatory-20"x12"-is suggested for narrowcounter installations. Lavatory comes with left- or right-end centerset fitting. In white and six pastels including lilac. Universal-Rundle, New Castle, Pa. Circle 299 on Reader Service card



Caned-panel seat that carries out Early American or period theme will fit all regular bowls. The polyethylene panel is available in choice of walnut-woodgrain, antique-white or oysterwhite finish. Bemis, Sheboygan Falls, Wis.

Circle 234 on Reader Service card



Slip-proof surface is the result of embossing on shower floor. Receptor is one-piece highdensity molding that simulates marble and is said to be 80% lighter than conventional cast shower floors. It rests directly on sub-floor. Kinkead, Chicago. Circle 235 on Reader Service card



Bathtub enclosure consists of shatter-proof architectural-plastic panels set in anodized-aluminum frames. Assembly is designed to fit all standard 5' bathtubs. Decorative panels come in a wide selection of patterns. K-S-H, St. Louis.

Circle 231 on Reader Service card



Oval wood-framed cabinet in a traditional design has wideswing door. Burnished-gold wood frame is fashioned in a floral design. One-piece steel cabinet body is finished in baked enamel. Size: 20" wide, 28" high, 55/16" deep. Miami-Carey, Cincinnati. Circle 232 on Reader Service card



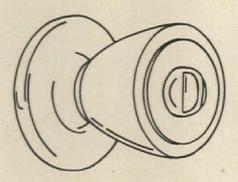


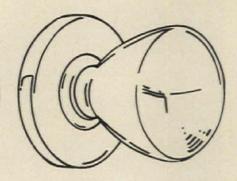




Prefabricated hydro-pool is delivered to installation site ready for assembly. Parts (top) include fiberglass modules, filter, pump and air inlets. Sealant is applied (above left) prior to bolting and final caulking. Jacuzzi, Berkeley, Calif. Circle 236 on Reader Service card

# Which lock is panic-proof?





# Lock "A"

2 steps to unlock and open:

(1) First you must turn the button in the center of the knob... before you can (2) turn the knob and open the door.

This lock is not panic-proof.

# Lock "B"

3 steps to unlock and open:

(1) First you must turn the knob counter-clockwise, (2) then, let go of the knob so it can pop out, (3) finally turn the knob and open the door.

This lock is not panic-proof either.

# Weslock

1 step to unlock and open:

Just turn the knob to open the door and escape. Easy. Instinctive. Your four year old child can do it...even if he panics.

All Weslocks are panic-proof. Panic-proof is the only way we make locks.

Every day, **32** people die in fires.\* Must they die? How many can be saved by installing panic-proof locks?

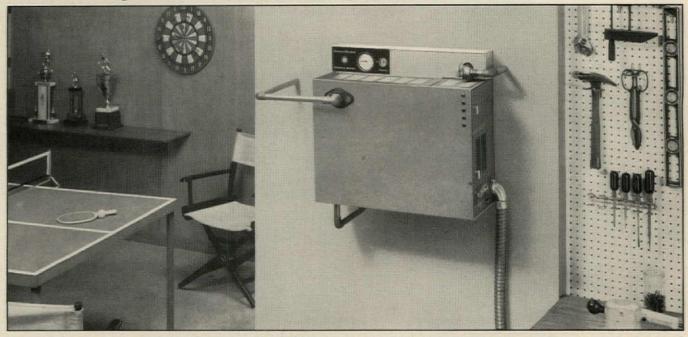
\*National Fire Protection Association figures.



LOS ANGELES . CALIFORNIA

# The quality of hydronic heat, the appeal of electricity

with this new American-Standard electro-hydronic comfort system



If you build Total Electric Homes, or plan to, you should know about electro-hydronic heating. Hydronics-the modern version of clean, even, hot water heating—has been used mainly with gas or oil. Now, with the new Electra\* electric boiler developed by American-Standard, you get a superior electrohydronic heating system for about the price of a good resistance-panel installation. The wall-hung Electra boiler weighs only 90 lbs., takes no floor space. Cast iron sections and low-density elements assure high efficiency and long life. Four models, with outputs from 34,000 to 82,000 Btuh meet the heating requirements of practically any home you might build.

Two men install the complete system-boiler and Heatrim\* baseboard panels-in just one day. ■ Why is electro-hydronic heating so good? It's even and steady because the temperature of the water circulating through baseboard panels is truly modulated. The trim, compact panels provide complete decorating freedom. Rooms are draft-free from floor to ceiling. The entire home is comfortable. And as with any hydronic system, you can easily zone the home into comfort areas, each with its own thermostat. For details, see your American-Standard contractor. Or write American-Standard, Plumbing and Heating Div., 40 W. 40th St., New York, N.Y. 10018.



PLUMBING & HEATING DIVISION



# **Drive 16d nails with one blow!**

# New STALLION portable pneumatic nailing tool

Now the advantages of fast single-blow pneumatic nailing with a portable cartridge-fed tool are available wherever 16d nails are used—for nailing studs in frame construction, for example, or, in industry, for the manufacture of crates and pallets.

The Stallion saves time and effort, eliminates waste of nails, makes every

nail count with power to pull boards tight. 4,000 to 5,000 nails per hour is a practical on-the-job speed, including reloading time.

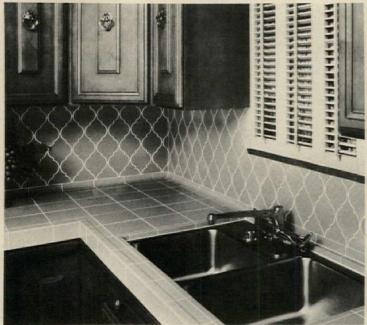
For all its power, the Stallion weighs only 11 pounds. It operates on compressed air at 80 to 100 p.s.i.

Write for price and where-to-buy information, and for a demonstration.

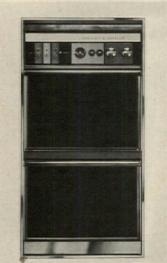
16d box nail,  $3\frac{1}{2}$ " x .135" (10 ga.) shown actual size above. Also drives 16d sinker nails,  $3\frac{1}{4}$ " x .148" (9 ga.), left, and 16d common nails,  $3\frac{1}{2}$ " x .162" (8 ga.). Nails conform to Federal Specification FF-N-105a, Interim Amendment-2, April 7, 1964.



# Kitchens



Variegated backsplash tile has handcrafted pattern reminiscent of Moorish design. Tile is also effective when used as accent wall or as flooring. Ten colors range from pastels to dark olive. Stylon, Boston, Mass. Circle 216 on Reader Service card



Gas double oven has two 20" ovens (upper unit also serves as broiler and rotisserie). Doors are black glass-transparent when oven light is on, opaque and mirrored when light is off-set in a brushed-chrome frame. Gaffers & Sattler, Los Angeles. Circle 217 on Reader Service card

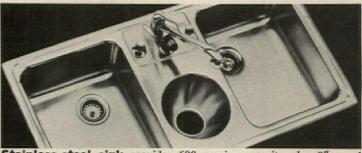


truded polyvinyl chloride converts shelving to a sliding-door cabinet: Doors are inserted in track and snapped onto shelf front. Track is also used (above) for cabinet ends. In 4' and 6' lengths. Gossen, Milwaukee.

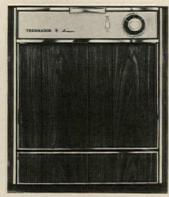
Circle 220 on Reader Service card



Surface range-33"-incorporates a lift-up, rimmed top. Model is available with thermo-controlled front burner. Colors include chrome, avocado, shaded coppertone, bronze green. Chambers, Cleburne, Tex. Circle 218 on Reader Service card



Stainless-steel sink provides 600 cu. in. capacity plus 9"-round compartment for disposer. Back ledge has been removed to increase compartment space and simplify cleaning. Includes single-lever faucet and aerator. Elkay, Broadview, Ill. Circle 219 on Reader Service card



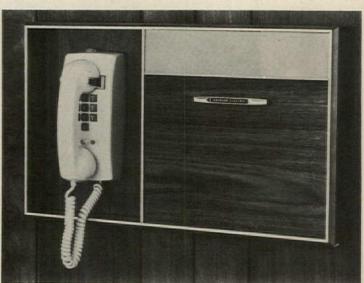
Deluxe dishwasher incorporates nickel stainless-steel interior with lifetime guarantee. Features: stainless trim strips, adjustable top plate that adapts to cabinet heights, leg levelers that adjust from 331/2" to 341/2". Thermador, Los Angeles.

Circle 221 on Reader Service card



Backsplash tile-in 11 ramic designs—is 41/4" square. Tiles can also be used on accent walls, as inserts in tub alcove, on fireplace walls, or as borders for tiled wall areas. Above: four patterns. American Olean, Lansdale, Pa.

Circle 222 on Reader Service card



Wall-mounted telephone message center-with an extruded aluminum frame and wood-grained finish—can be surface-mounted with three screws, yet projects only 2". Door folds down for writing surface. Emerson Electric, St. Louis. Circle 215 on Reader Service card

# The Kitchen Aid Hood control program.



It might happen to you. You install a dishwasher and it floods over. Your customer's in hot water. And so are you.

We at KitchenAid did something about it. Our engineers developed a special dual fill valve to prevent over-filling and flooding. It's special. It makes the odds about a Wice to one against any KitchenAid builtvalve is a little thing. But it's many little things like this that make KitchenAid dishwashers so dependable.

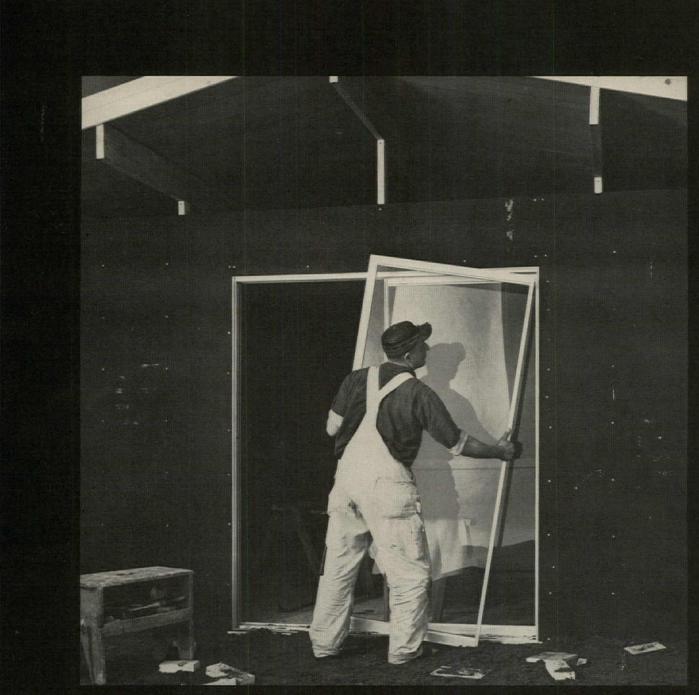
So tell your pros-

(Ask your lender.)

See your distributor. Or write Dishwashers, Department 7 Hobart Manufacturing Com Ohio 45373.

Dishwashers

pects about it. Point it out as another sign Manufacturing Company, makers of commercial dishwashers and food waste disposers,



# Easy does it.

You save both time AND money when you install quality-built aluminum windows and sliding glass doors. Installation is fast and easy because of the pre-engineered tolerances of warp-free, lightweight

aluminum. Once properly installed, doors and windows of Alcoa® Aluminum will work smoothly and effortlessly for years. No costly call backs for you.



Easy does it.

The trademark of aluminum windows and sliding glass doors is easy opening and closing, any time of the year. No warping. No sticking. No rotting. Strong, care-free aluminum is above all that. And quality aluminum units

provide all-weather protection against wind, rain, sand and dust, because of complete encasement in self-adjusting weatherstripping.

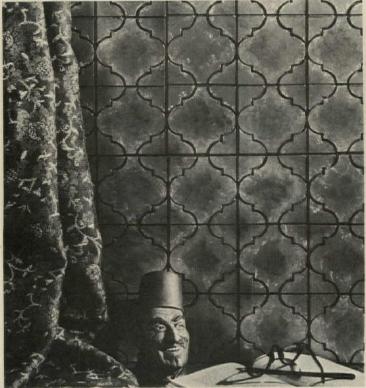
Durable aluminum for better homes



Change for the better with Alcoa Aluminum



# Interiors



**Self-sticking wall panels,** reminiscent of Spanish tile, are patterned to form a continuous wall design in tones of terra cotta. The 12"-sq. panels adhere to all painted, paper or tile surfaces. Decrowall, Yonkers, N.Y. Circle 205 on Reader Service card



Scuff-resistant panels consist of vinyl laminated to 4'x8' hardboard. Panels come in seven patterns that can be used for an entire room or in combination like the feature wall with woodgrained paneling shown above. Abitibi, Detroit.

Circle 206 on Reader Service card



Feature strip—a 1"-wide tongue-and-groove insert extruded of high-impact plastic—adds contrast to manufacturer's solid-color or wood-grain planking. Colors include white, gold and black. In 8' or 10' lengths. Barclay, New York City.

Circle 207 on Reader Service card



Handprint wall covering, in soft flocks, is part of a new collection that also includes foils. Above: a bold floral design for both residential and commercial installations. Imperial Wallpaper Mill, Cleveland. Circle 208 on Reader Service card



Limestone-patterned vinyl wall covering simulates cut limestone in 13 colors. Eight-mil vinyl sheet is laminated to flame-retardant cotton backing. It comes in 54" widths and 30-yd. rolls. Laminating Services, Louisville, Ky. Circle 209 on Reader Service card



Plastic laminates are grained and shaded to simulate silvery weathered siding (background) or printed in pastel tones of blue, pink, yellow, green or beige on white (foreground). Print is suggested for bathrooms. Formica, Cincinnati. Circle 210 on Reader Service card



Hardboard shelving system consists of wood-grained shelving on choice of wall-installed standards, floor-to-ceiling tension poles or cantilevered posts. Supports are anodized aluminum. Shelves are walnut or white. Dorfile, Portland, Ore. Circle 211 on Reader Service card

# Meet Dr. Haladay, W.D.

He makes Day & Night house calls. Any call that calls for a change in the weather. He consults. Plans. Engineers. Contracts. Installs. Services. Everything in heating and air conditioning—from the smallest home to the largest development or commercial complex. And everywhere he goes, the weather inside is better than the weather outside. For he's a factory-trained professional—a Day & Night Weather Doctor. Mail coupon for information on Day & Night.



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HIGH RISE WALL-BEARING METHOD IS NEW IN APARTMENT CONSTRUCTION

If you could get a superior fireresistant structure, at a lower cost, and move your tenants in a month or two earlier, you certainly would want to look into it.

A recently-revived method of construction, wall-bearing, with Flexicore precast concrete decks is making news in high-rise apartment construction.

Take the Miamiview development in Ohio. This is a two-building wall-bearing project, one 7 stories, one 8, with a total of 181 units. Project manager Jack Small said, "It's like putting up a series of one-story buildings, and not much more complicated. It saves construction time and gets the tenants in sooner."

Owner Julius J. Cohen, builder of over 3000 apartment units in the middlewest, says, "This system is more economical, but our big objective is to hold tenants and build a good reputation. These are top-quality buildings."

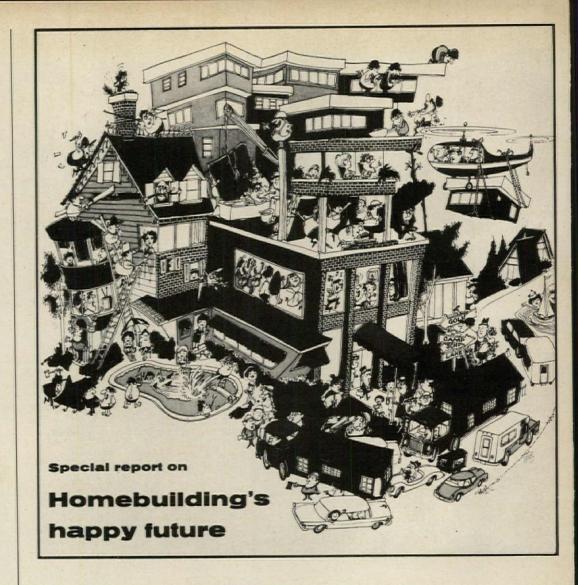
This method gives you a kind of "structure package" including not only economy and speed, but cellular floors for built-in ductwork, firesafe construction for low insurance rates and more profitable investment.

Send for 16-page "High Rise Wall-Bearing" report. Talk it over with your architect. Write The Flexicore Co., Inc., Box 825, Dayton, Ohio 45401.

Robert E. Smith Vice-President and Manager



Write for Wall-Bearing Report.



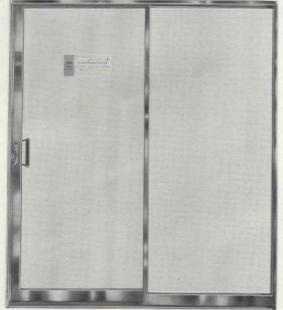
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# GOOD OLD DEPENDABLE



Schumacher aluminum sliding patio doors are available in gleaming anodized aluminum or in electrostatic white. Extensive size range and glazing options. Factory-assembled wood surround slashes installation time, and eliminates problems that can result from local shop assembly.



Whatever kind of wood louver door, blind or shutter you want, Schumacher makes it, and makes it right. Wide range of sizes and styles.



The ever-popular six-panel Colonial door by Schumacher. Quality-minded construction in Ponderosa Pine. A door with character and beauty all its own.



Cafe doors — louvered as shown or in raised panel style — have a dozen uses in almost every building. No rights and lefts: top and bottom are wide enough for you to create your own designs. Complete kit includes all hardware.



104E1

# SCHUMACHER!

We wouldn't expect you to get wildly excited about the fact that we've been in business since 1889. However, you may find it worthwhile to consider that nobody piles up 78 years of experience in the building products business without learning how to make the kind of products the market wants, or without learning

how to get those products to you through a network of reliable building materials dealers. We've managed to learn how to do both, as you know if you're a Schumacher customer. If you're not, it's evident we still have a lot to learn, and you could be a big help in educating us by mailing the coupon below.

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Gentlemen:

Please send complete information on: 
Schumacher Carlswood sliding patio doors, 
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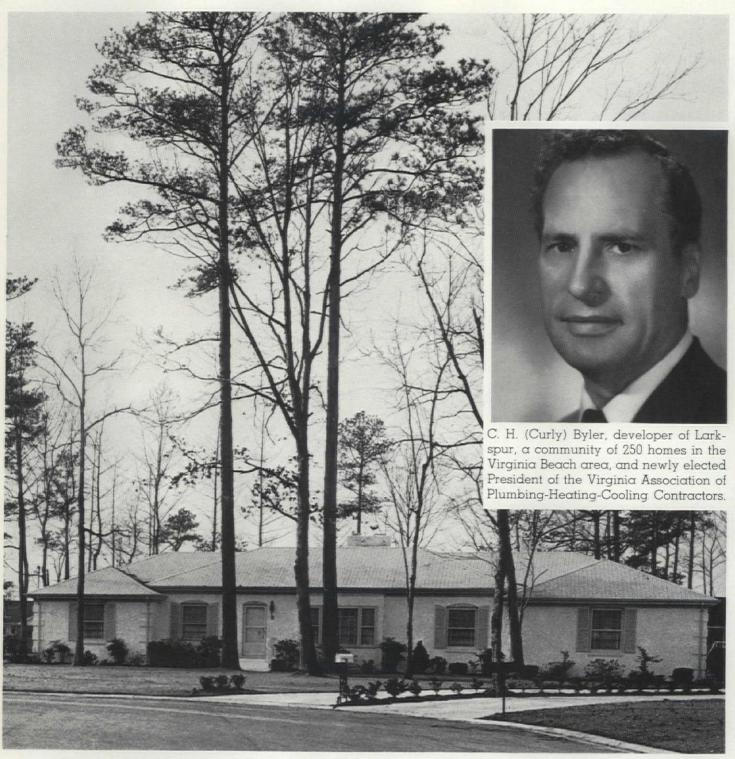
Home builder, C. H. (Curly) Byler, Virginia Beach, Virginia, doesn't take gambles. Not in today's market. It's just too risky. So he likes to give his buyers what they want. Oil heat.

"Oil heat doesn't cost any more to install, either," says

Curly. "And, it's clean. White walls stay cleaner. No call-backs to worry about. The oil companies do that job for us."

"We really don't have any competition from electric heat. It simply costs more, once you add up all the

# "You can't build a house We give the buyer what



extras, like extra insulation, and different types of windows. And, of course, the operating cost is much higher."

Oil offers plenty of other advantages to the builder, and to the homeowner. Interested? See your oil deal-

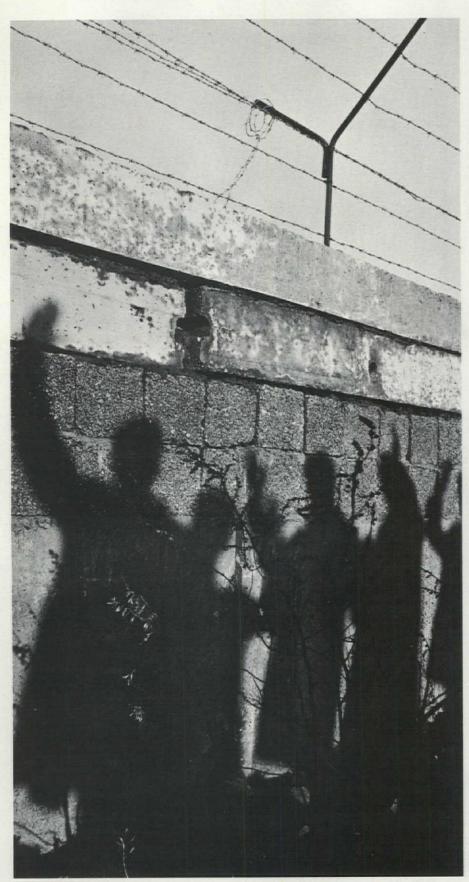
er, or write National Oil Fuel Institute, Inc., 60 East 42nd Street, New York, New York 10017.



HEAT HOT WATER
AIR CONDITIONING
TOTAL ENERGY

# on a gamble. he wants: Oil heat."

Wouldn't it be interesting if you could divide up a country in two, try one economic system on one side, another on the other?



# Well, somebody has.

The country, of course, is Germany. On one side of the Wall, an economy based on communism; on the other, an economy based on the free enterprise—or free choice—system.

It's the classic testing situation. After the War, the same bombed-out cities in both East and West Germany. The same depleted labor force. Same political, economic, social chaos. Practically laboratory conditions for evaluating the economic systems of free choice and communism.

Seventeen years later, East Germany ranks tenth among the nations of the world in industrial production.

But even more remarkable is the economic growth of West Germany. West Germany generates five times as much electric power as the East. Produces 25 times as many automobiles. Six times as much cement. Ten times as much steel. Nine times as many housing units.

Butter is still rationed in the East and costs the worker \$1.25 a pound (two hours' average wages). Coffee sells at \$8 to \$10 a pound; chocolate \$1.20 for three ounces; gasoline \$1.40 a gallon. And the East German buys these commodities, when he can get them, out of an average salary of \$35 a week. His West German neighbor buys these same commodities at one-third the price, out of an average salary two times higher.

There seems to be a lesson in basic economics here. About central planners who set prices. Pre-determine profits. Eliminate the competition that generates research and development. Impose the standardization that encourages stagnation, apathy.

We Americans learned that lesson the easy way. Through the experience of over two hundred years of a free choice system that has worked—and still works—to the economic good of us all.

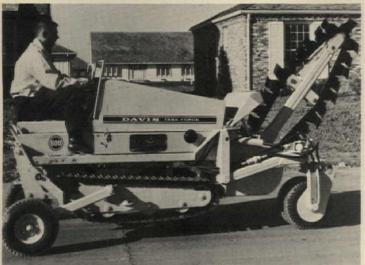
The funny thing is, there are influential people right now, in our country, who'd like to make some changes in our economy. They admit it's done pretty well by us, but they'd like to "fix it a little." They think Mary Jones, the Great American Shopper, has too much choice. They think she's confused. Or, maybe, just not too bright. They think the government ought to protect her.

For instance, why should she have to choose among 17 different kinds of olives? Wouldn't it be easier if there were only four? So let's standardize. The question is: who sets the standards? You can bet it won't be Mary Jones. She's not bright enough. So, let some government official do her shopping for her.

But, we wonder, will he know that Mary's husband likes his olive with an almond in it?

**Magazine Publishers Association** 

# **Tools and equipment**



**Wide-track trencher** has optional wheels that allow operator to drive to job, then retract hydraulically when he is ready to trench. Both 10" cleat and street-style tracks are available. Speeds up to 1600' per hr. Davis, Wichita, Kan. Circle 260 on Reader Service card



Portable generating plant—a lightweight source of auxiliary electric power—weighs only 98 lbs. Unit provides 1750 watts and is powered by a 4 h.p. gasoline-driven engine. It is mounted in a steel carrying frame. Dolly is optional. Onan, Minneapolis. Circle 261 on Reader Service card



Turnbuckle form brace allows for 6" adjustment in form alignment and bracing. It is commonly nailed to a 2x4 extension, although 2x6s or 4x4s may be used. Brace may be used on any forming system with nailing surface. Symons, Des Plaines, III. Circle 262 on Reader Service card



Portable pressure blaster—for removing paint, rust and corrosion—is filled with abrasive and hooked up to air supply. Agitator keeps abrasive free-flowing. Equipment: 20' hose, nozzle assortment, filler funnel, hood. Inland, Omaha. Circle 265 on Reader Service card

New products continued on p. 108



May be finished in elegant wood tones or to match walls or woodwork.

Happiness is "his and hers"

for right or left door swing.

storage for those intimate secrets

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

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

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

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		PO BOX 766-EN, MADISON, INDIANA 47250

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

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cates that those who vote for House & Home build four times as many houses and apartment units as those who single out any other magazine!

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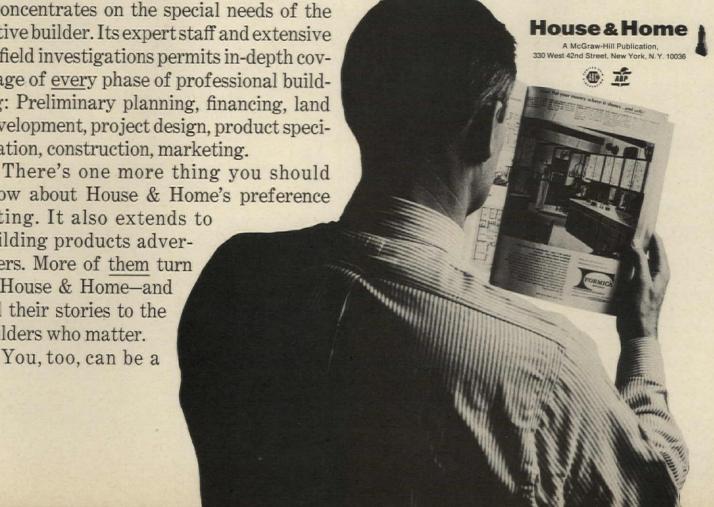
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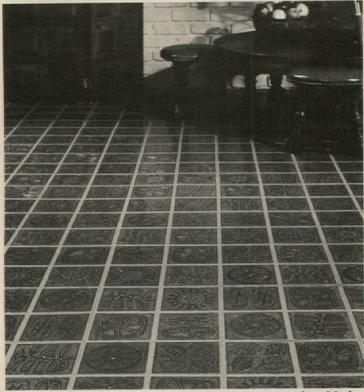
know about House & Home's preference rating. It also extends to building products advertisers. More of them turn to House & Home-and tell their stories to the builders who matter.

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part of the preferred medium, the medium that gets your ad in the hands of the right people. Just ask your House & Home representative.



# Floors



Solid-vinyl tile simulates handcrafted patterns of ancient Mexico. Design is available in six colors embossed with authentic clay-stamp patterns. Tiles are 12" square, 1/8" thick. Robbins, Tuscumbia, Ala. Circle 240 on Reader Service card



Rotogravure-printed tile consists of several laminated vinyl layers. Two series shown above—one simulates marble, the other random pebbles—are offered in a total of nine color combinations. Tile can be installed above or below grade. Kentile, New York City.

Circle 241 on Reader Service card



Peel-and-stick tiles—9" square—come backed with their own adhesive, protected by a layer of treated paper. Paper strips away readily and tiles are pressed firmly into place. Can be applied directly over old floor covering. Flintkote, New York City.

Circle 242 on Reader Service card



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Cushioned vinyl flooring in 6' sheets with asbestos backing may be installed above or below grade. Design simulates glazed tile, hand-set in pebble grout. It comes in choice of four colors: champagne, copper, gold and avocado. Congoleum-Nairn, Kearny, N.J.

Circle 243 on Reader Service card



Spanish-design flooring features a geometric arrangement of small Spanish tiles in a choice of three color combinations. Pattern shown offers tiles in clusters of brown, orange and gold on a textured beige background sprinkled with metallic accents. Armstrong, Lancaster, Pa.

Circle 245 on Reader Service card



Marbleized vinyl features a cushioned back and a random swirl pattern. Color choice includes coral, mahogany, silver grey, light tan, white tipped with bronze, and beige flecked with coral and turquoise. Flooring comes in 6' sheets. Mannington Mills, New York City.

Circle 244 on Reader Service card





Vinyl-asbestos flooring with an embossed pattern of random chips is suggested for modern decor. Textured design masks heel marks. Flooring comes in choice of four colors: opal, mint, honey and peach. Johns-Manville, New York City.

Circle 246 on Reader Service card

New literature starts on p. 111

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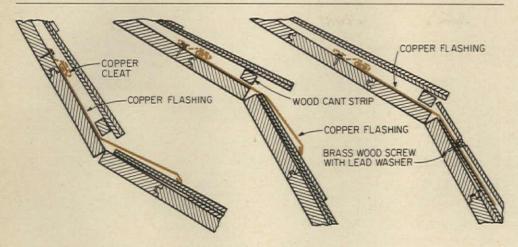
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More than 40 pages display contemporary buildings that incorporate copper as a major design element. And line drawings illustrate details (above).

Also included: data on physical properties, structural requirements, available sheet sizes and weathering characteristics. Color photos—of samples exposed for up to five years—illustrate weathering cycle. Copper Development Assn., New York City. Circle 394 on Reader Service card

For copies of free literature, circle the indicated number on the Reader Service card, p. 103

BATHROOM IDEAS. Informative booklet for builders and remodelers tells what's new in bathrooms: from floor plans to finishes. Includes latest ideas in wall and floor coverings. Twentysix pages, with illustrations. Philip Carey, Cincinnati. Circle 339 on Reader Service card

INLAID VINYL FLOORING. Illustrated brochure shows full color range for 6'-wide sheet flooring, suitable for both residential and commercial installations. Congoleum-Nairn, Kearny, N.J. Circle 350 on Reader Service card

CERAMIC MOSAIC TILE. Four-paneled display portfolio presents more than two hundred samples to simplify tile selection. Tile is designed for both exterior and interior applications and is available with a full range of trim. Amsterdam, New York City. Circle 351 on Reader Service card

PLYWOOD CORNER BRACING. Instruction sheet tells how to install plywood corner bracing instead of let-in corner bracing, details test results that back installation recommendations and includes a table for easy cost comparisons. American Plywood Assn., Tacoma, Wash. Circle 352 on Reader Service card

PLUMBING AND DRAINING PRODUCTS. Wall chart presents a comprehensive range of products for high-rise apartment and commercial installations. Specifications and "in-site" construction drawings are shown. Blake, Indianapolis, Ind. Circle 355 on Reader Service card

ELECTRIC-DUCT HEATERS. Twenty-four page catalog illustrates and describes four heater series. Included are dimensional data, ratings information, code requirements, wiring diagrams and points to remember during installation. H. W. Tuttle, Tecumseh, Mich. Circle 356 on Reader Service card

**TRAILER SELECTION.** Chart recommends the proper size trailer for more than 350 pieces of construction equipment—listed by make, model and weight. Equipment sizes range from 2,900 to 42,000 lbs. Miller Tilt-Top Trailer, Milwaukee. Circle 357 on Reader Service card

ELECTRIC BASEBOARD EQUIPMENT. The 1967 directory contains listings of verified equipment from 39 participants whose products meet NEMA standards. National Electrical Manufacturers Assn., New York City. Circle 340 on Reader Service card

VARNISH AND NATURAL-WOOD FINISHES. Full-color brochure illustrates natural-wood finishes and offers complete specifications for surface preparation and application. A simplified finishing guide recommends proper finish for wide range of wood surfaces. McCloskey Varnish, Philadelphia. Circle 341 on Reader Service card

SINK FRAMES. Special features including "punch out" corner supports are examined in a full-line brochure that includes step-by-step installation instructions. Kinkead, Chicago. Circle 342 on Reader Service card

SINGLE-CONTROL FAUCETS. Installations in kitchen, lavatory and shower settings are illustrated and described in a 12-page catalog. Accessory items are included. Vance, Chicago. Circle 395 on Reader Service card

FINISH COATINGS. Seventy-page color brochure describes entire 900-product line for residential and commercial applications. Discusses properties, best uses, coverage potential, drying time, recommended thinner and colors. Includes exterior wood and masonry primers and finishes, and interior enamels. Celanese Coatings, Louisville, Ky. Circle 321 on Reader Service card

CUSHIONED VINYL FLOORINGS. Full-line pamphlet illustrates color range for five patterns. Congoleum-Nairn, Kearny, N.J. Circle 322 on Reader Service card

**DOOR CHIMES.** Two new models get the spotlight in a full-line catalog that includes non-electric chimes, push buttons, bells, buzzers and transformers. Philip Carey, Cincinnati. *Circle 323 on Reader Service card* 

FIBERGLASS DUCT SYSTEMS. Round ducts and duct board are the subject of a 12-page brochure that enumerates the advantages of three product lines, gives specifications, and shows fabrication steps. Johns-Manville, New York City. Circle 344 on Reader Service card

**LARGE LAMPS.** Eight-page technical publication summarizes characteristics and performance data for three light sources: conventional incandescent, Quartzline and mercury. Tables list physical and electrical characteristics. Single copies free. G.E., Cleveland. *Circle 345 on Reader Service card* 

**DRAWING AIDS.** Underlay aids and graphic devices include charts for drawing interiors, exteriors and products in perspective with variation of scale, distance and elevation. Graphicraft, Westport, Conn. Circle 346 on Reader Service card

commercial flooring. Comprehensive technical bulletin for interior designers includes a portfolio of contemporary commercial and institutional interiors. Also: criteria for selection of resilient flooring. Armstrong, Lancaster, Pa. Circle 347 on Reader Service card

SNAP-ON SLIDING DOOR TRACK. New snapon track converts shelving to sliding-door cabinets. Several shapes are available. An illustrated product sheet shows how it works. Gossen, Milwaukee. Circle 348 on Reader Service card

ARCHITECTURAL INDEX. HOUSE & HOME is one of eight architectural publications included in latest index (published annually to help architects keep abreast of construction changes as reflected in leading publications). Index is a complete reference guide to published information on specific buildings, building types, materials and construction methods. For a copy send \$6 to: The Architectural Index, P.O. Box 2399, Norman, Okla. 73069.

REDWOOD PLYWOOD. Advantages as both exterior siding and interior paneling are enumerated in a full-color specification brochure. Also: surface textures, grades and patterns. Pacific Lumber, San Francisco. Circle 324 on Reader Service card

OIL-FIRED AUTOMATIC BOILERS. Eight-page bulletin—with schematic drawings and tables—describes boilers for large residential and commercial installations, Crane, Chicago. Circle 325 on Reader Service card

VINYL-SPONGE MATTING. The physical and performance characteristics of \( \frac{4}{n} \) vinyl cushioned matting for commercial use are detailed in a full-color data sheet. Crown Rubber, Fremont, Ohio. Circle 326 on Reader Service card

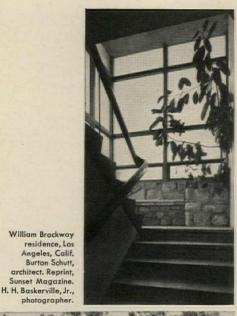
TRUSS-PLATE CONNECTOR SYSTEM. One-press assembly system that can produce 80 to 100 trusses a day is examined in a four-page folder. System can produce monoplane trusses for spans ranging from 20' to 50' and slopes of from 2½-in-12 to 7-in-12. Timber Engineering, Washington, D.C. Circle 327 on Reader Service card

CARVED PANEL DOORS. Embossed reproductions of panel designs highlight several full-color information sheets on carved Douglas-fir doors. Doors have doweled joints and may be painted, stained or antiqued. Nicolai, Portland, Ore. Circle 328 on Reader Service card

FLOORING SELECTION. Illustrated 24-page booklet examines installation characteristics of several flooring types and shows full color range for each pattern. Congoleum-Nairn, Kearny, N.J. Circle 329 on Reader Service card

MASONRY AND CONCRETE SAWS. The advantages of manufacturer's line of saws and accessories are enumerated in an 18-page booklet. Clipper Mfg., Kansas City, Mo. Circle 305 on Reader Service Card

ROUGH-SAWN SIDING. Full-color brochure on Southern Pine siding examines grades, patterns, sizes and finishing steps. Also: specifications and application instructions. Southern Pine Assn., New Orleans. Circle 301 on Reader Service card

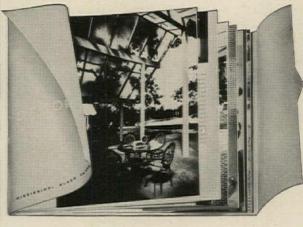


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NEW YORK • CHICAGO • FULLERTON, CALIFORNIA LARGEST DOMESTIC MANUFACTURER OF ROLLED, PLYWOOD GRADES. Guide contains brief specifications and summarizes most common uses of exterior and interior grades of softwood plywood. Also: synopses of principal changes in the industry's new standard. American Plywood Assn., Tacoma, Wash. Circle 302 on Reader Service card

**CONSTRUCTION EQUIPMENT.** Close to onehundred tools appear in a fully illustrated 32page catalog. Included are concrete vibrators, generators, soil compactors and concrete screeds, plus a complete line of accessories. Skil, Chicago. Circle 300 on Reader Service card

sheet describes a new transformer used to convert normal 115-volt housepower to the 24 volts necessary to operate thermostatically controlled systems. Dimensional specifications are presented in a schematic. Westinghouse, Greenville, Pa. Circle 306 on Reader Service card

SHELVING IDEAS. A pocket-size folder in full color illustrates space-saving decorating ideas using adjustable shelf hardware. Ideas include living-room, family-room, study-corner, and laundry-storage treatments. For a copy send 10¢ to: Knape & Vogt Mfg. Co., Grand Rapids, Mich. 49505.

JOINT-SEALANT INSPECTION. Six-page form for resident engineers, project superintendents and architect's representatives is designed to aid field inspection of joint preparation and sealing. A four-page companion guide offers tips on joint cleaning, priming, and the use of bond-breakers and back-up materials. Thiokol Chemical, Trenton, N.J. Circle 360 on Reader Service card

WATERPROOFING AGENTS. Waterproofing chemicals for concrete, masonry and wood are the subject of a product brochure. Information on chemical properties, uses and application methods is included. Chemstop, Burbank, Calif. Circle 307 on Reader Service card

TECHNICAL-BULLETIN INDEX. More than 200 bulletins—describing products for the plastics, paint, coatings and adhesives industries—are listed in a comprehensive index. Goodyear, Akron, Ohio. Circle 308 on Reader Service card

SIDING GUARANTY. Prefinished siding—guaranteed ten years against peeling and blistering, 25 years against hall damage—is the subject of a four-color folder. Masonite, Chicago. Circle 315 on Reader Service card

BUCKET LOADER. Brochure details improvements—like greater breakout force and 15% more horsepower—in manufacturer's loader. Included: description of new walk-through operator compartment that permits easy access from either side. Caterpillar, Peoria, Ill. Circle 316 on Reader Service card

HIGH-SPEED HIGHWAY TRAILERS. Seven models, ranging in rated capacities from 1,000 to 18,000 lbs., are presented in a 12-page brochure. Trailers are designed to haul construction equipment. International Harvester, Chicago. Circle 317 on Reader Service card

**POURED FLOOR.** A report shows the results of tests comparing the spotting and staining resistance of various flooring materials—asphalt, solid-vinyl and vinyl-asbestos tile—with manufacturer's poured floor. Seamless Systems, St. Louis. *Circle 318 on Reader Service card* 

TRANSLUCENT FIBERGLASS PANELS. Post-card-size idea folder in full color illustrates several residential uses for panels in three weights. Also: information on colors, lengths, widths and finishes. Barclite, New York City. Circle 319 on Reader Service card

**IMPORTED FLOORING.** Brochure describes and illustrates parquet flooring in three woods from the Far East. Patterns may be combined for cus-

New literature continued on p. 116



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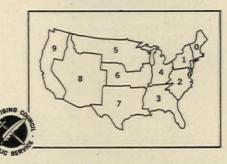
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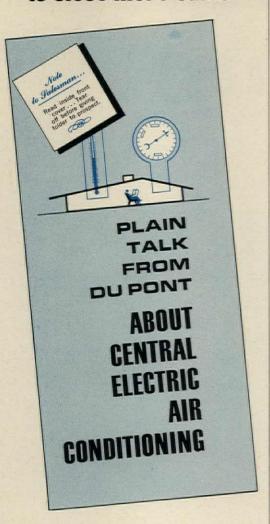
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# **NEW LITERATURE**

starts on p. 111

tom effects. Bangkok Ind., Philadelphia. Circle 320 on Reader Service card

RESIDENTIAL LIGHTING. Decorative lighting-fixture collection—including drops, brackets and fixtures for bathroom or kitchen—is described and illustrated in a full-color catalog. Sixteen pages. Halo, Rosemont, Ill. Circle 330 on Reader Service card

PLYWOOD STANDARDS. Data sheet correlates plywood grades produced under old commercial standards with new grades produced under current standards. Four tables include sanded and touch-sanded grades, concrete form grades and unsanded sheathing grades. Single copies free. American Plywood Assn., Tacoma, Wash. Circle 331 on Reader Service card

HARDBOARD. Specification file contains fullcolor illustrations showing how and where to use hardboard. Also: information on finishing, conditioning, sizes and load-bearing factors. Forest Fiber Products, Forest Grove, Ore. Circle 332 on Reader Service card

PREFINISHED HARDBOARD PANELS. Technical bulletin tells how to apply panels directly to existing walls without furring. Illustrated. Masonite, Chicago. Circle 334 on Reader Service card

**CERAMIC-TILE ADHESIVE.** Product characteristics of a new emulsion-type adhesive—non-flammable, water and freeze resistant—are enumerated in a data sheet. Evans, Columbus, Ohio. Circle 335 on Reader Service card

wall coverings. Forty-one-page sample book displays 33 wall-covering patterns in a wide range of colors. Samples include four wall-covering types, and a chart summarizes physical characteristics of each. Stauffer Chemical, New York City. Circle 336 on Reader Service card

ROOM AIR CONDITIONERS. Supplement to 1967 directory lists certified data for 34 new window models and 25 through-the-wall models. Data includes cooling capacity, amps and watts. Copies of the new supplement have been mailed to all directory subscribers. Architects, builders, dealers and others in the trade may have their name added to subscription list by writing to Stephen Kasprzak, Executive Secretary, Room Air Conditioner Certification Program, NEMA, 155 East 44th Street, New York, N.Y. 10017.

Joint Fillers and Sealants. More than 50 waterstops—including standard multi-ribbed and split-flange types—are described in an eight-page catalog. Also included: three joint fillers and two sealing compounds. Electrovert, Mt. Vernon, N.Y. Circle 337 on Reader Service card

### WOOD FASTENERS AND BUILDING SYSTEMS.

Compact full-line catalog presents information on sizes, packaging, suggested applications and recommended safe working values. Timber Engineering, Washington, D.C. Circle 338 on Reader Service card

### **H&H** editorial index

House & Home's 1966 editorial index, an eight-page reference guide, is now available.

It includes a cross-reference listing of all subjects covered last year by H&H—115 in all, from acoustics to zoning—plus a combined, chronological table of contents of major articles.

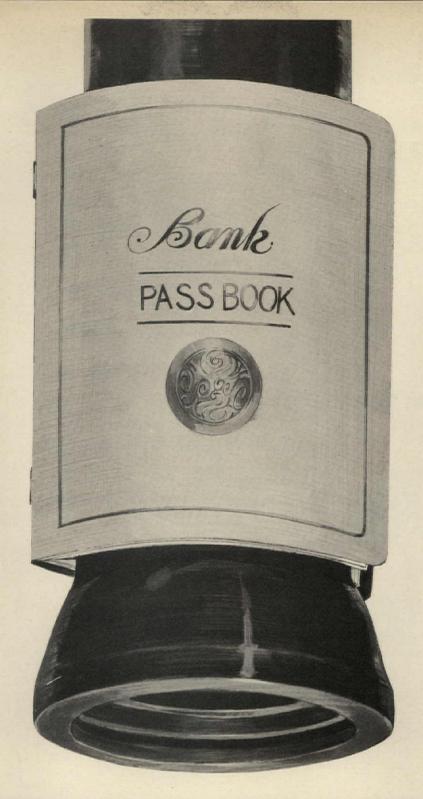
If you'd like a copy of the new index (there's no charge), write to: Reader Service, House & Home, 330 West 42 Street, New York, N.Y., 10036

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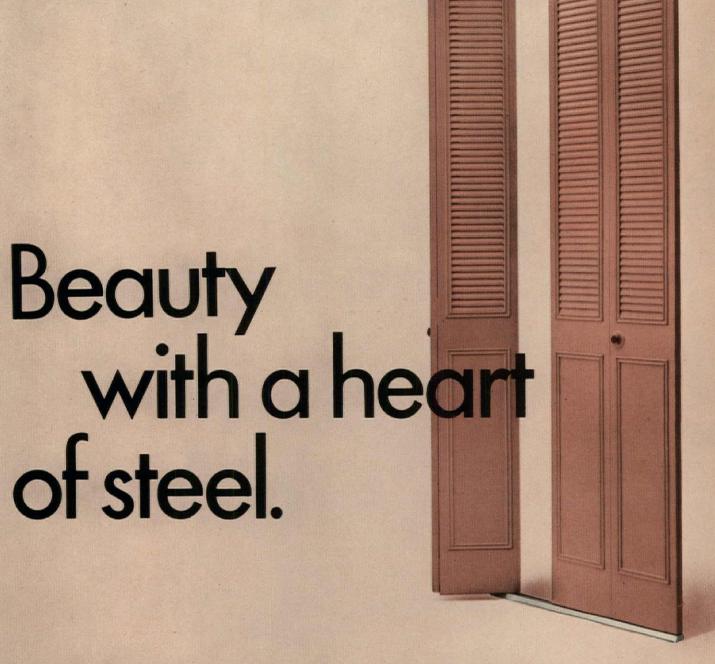
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117	Caradco, Inc. Cast Iron Pipe Research Asso-			Glenn P. MacNerland, 1375 Peachtree St. (404) 875-0523
11	ciation Clear Fir Sales	104E2, E3 M2, M3	National Oil Fuel Institute	BOSTON 02116
2nd Cover 38	Congoleum-Nairn, Inc.	N2, N3 S4, S5		James R. Schaffer McGraw Hill Bldg.,
30	Culligan, Inc.	104W2, W3	Norris Industries	607 Boylston St. (617) 262-1160
		1, 2	NuTone, Inc.	CHICAGO 60611
101	Day & Night Mfg. Co.			Robert M. Brown; John L. Filson; Ray W. Stoddard, 645 N. Michigan
116	DuPont de Nemours & Co., Inc., E. I. (Freon)			Ave., (312) 664-5800
	me., E. I. (Freon)	22-24	Overhead Door Corp. Ozite Corporation	Milton H. Hall, Jr.; James O. Green;
		85, 86	Ozite Corporation	55 Public Square (216) 781-7000
16, 17				DALLAS 75201
4th Cover	Edison Electric Institute Emerson Electric Co. (Builder			Richard Poole, 1800 Republic National Bank Tower
	Products Division)	104W5 95	Pacific Lumber Company Paslode Company	(214) 747-9721
		39 45-48	Pease Woodwork Company Potlatch Forests, Inc.	Edward C. Weil III, 1700 Broadway,
29	First Mortgage Investors	45-46	rottaten Potests, Inc.	(303) 255-5483 HOUSTON 77002
102	Flexicore Co., Inc.			Kenneth G. George, 2270 Humble Bldg.
118	Float-Away Door Company Formica Corporation			(713) 224-8381
104W4, M1 S3, SW2	Fraser & Johnston Company	104W7	Rain Bird Sprinkler Mfg. Corp./Rainy Sprinkler Sales	Donald Hanson, 1125 W. Sixth St.,
		81	Red Cedar Shingle & Handsplit Shake Bureau	(213) 482-5450
82, 83	General Electric Co.		Shake Dareat	NEW YORK 10036 Caswell Speare
32, 33 105	Georgia-Pacific Corp. Grote Manufacturing Co.			500 Fifth Ave., (212) 971-3686
88	Gypsum Association			PHILADELPHIA 19103
		104E1, N1 4	Schumacher Company, F. E. Shakertown Corporation	John C. Jackson Six Penn Center Plaza
		37 109	Simpson Timber Company Smith & Loveless	(215) 568-6161 PORTLAND 97204
116 40, 41	Harris Manufacturing Co. Honeywell, Inc.	104W1 35	Southern California Edison Co. Speakman Company	Harry Abney, Mohawk Blvd.,
114	Hunter Division (Robbins & Myers, Inc.)			222 S.W. Morrison St., (503) 223-5118
				SAN FRANCISCO 94111 Robert A. Mierow, 225 California St.,
				(415) 362-4600
44	ITT—Bell & Gossett	108 34	Timber Engineering Company Triangle Products, Inc.	
43	I-XL Furniture Co., Inc.			PRODUCTION MANAGER
				Vito De Stefano McGraw Hill, Inc.
80	Jessun Door Co	10451 5371	Vancouver Plumond Co	330 West 42nd St. New York, N. Y. 10036
80	Jessup Door Co.	104S1, SW1	Vancouver Plywood Co.	(212) 971-3204

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# If they step onto CUSHIONED VINYL CORLON you're a step ahead.

Right away, they'll know you offer something special, something different. Nothing like it has ever been available before.

Thick vinyl-foam backing. It makes Cushioned Vinyl Corlon feel surprisingly soft and comfortable underfoot. This floor quiets the sound of traffic and reduces the transmission of noise to rooms below.

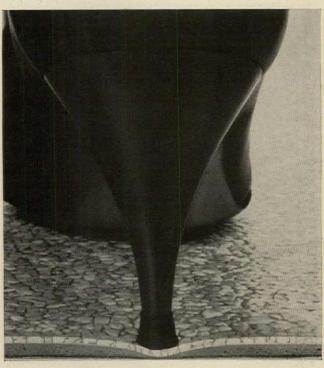
Wearability. For all its underfoot comfort, Cushioned Vinyl Corlon is as tough as any floor Armstrong makes for the home. Even spike heels won't leave dents in it. It gives underfoot, then comes right back.

Sealed seams. To begin with, Cushioned Vinyl Corlon is installed in 6-foot-wide rolls, so seams are minimized. Where there is a seam, it's sealed and completely water-proofed by a new installation technique developed exclusively for Cushioned Vinyl Corlon. Over 5,000 flooring mechanics have been trained in this method.

Consumer awareness. 90 million home-makers have already been exposed to Cushioned Vinyl Corlon in 14 top magazines. Coverage continues throughout 1967. Cushioned Vinyl Corlon is also being featured in commercials on Armstrong's weekly TV show, "The Big Valley," and TV musical spectaculars, "Brigadoon," "Carousel," and "Kismet." Builders who feature Cushioned

Vinyl Corlon receive floor identification signs, wall plaques, literature—everything needed to make the most of consumer awareness.

Shown here is Cambrian Cushioned Vinyl Corlon—one of two complete pattern lines in two price ranges. Your Armstrong representative can give you all the details on both and the hard-hitting sales aids behind them. Call him today. Or write: Armstrong, 306 Sixth Street, Lancaster, Pa. 17604.



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FLOORS BY Armstrong



