

# House & Home

THE MARKETING AND MANAGEMENT PUBLICATION OF THE HOUSING INDUSTRY

OCTOBER 1968



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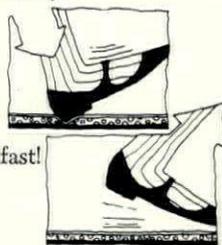


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# House & Home

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The new tricks include new methods, new equipment, new hardware and new ingredients. Result: Poured concrete can now do a better job at lower cost.

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Built with technology developed to house the poor, this 412-unit townhouse project commands \$225 rentals, was fully rented while still under construction.

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The face is formal in the cities and open in the suburbs, as you will see in this portfolio of eight award winners from the Homes for Better Living Program.

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His Marshall Plan for Our Cities incorporates President Johnson's own proposals; HOUSE & HOME's writer at the Chicago convention assesses Democrat's plan.

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The building industry makes a show of its prestige and power but fails to unite; the result is that Big Labor walks off with the prize—an OK for situs picketing.

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**Cover:** Center mall of La Paz Plaza, a village shopping center at Mission Viejo, Calif. Builder: Mission Viejo Co. Architect: Burke, Nicolais, Kober & Archuleta. Photo: Julius Shulman. *For story, see page 68*

## NEXT MONTH

How prefab vacation houses made a major resort community feasible . . . Sixteen pages of award-winning house designs . . . A new survey shows what tenants like and don't like about garden apartments . . . Steel prefab packages find a new market among apartment builders . . . Specialists help an apartment builder tighten control of his multi-project operation

# National Aluminum Thermal Doors.....

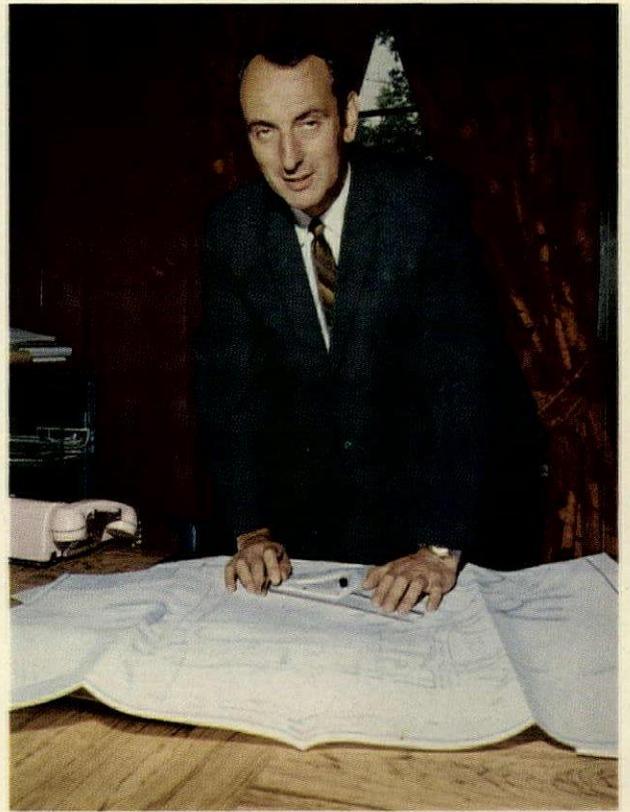


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## Candidate Humphrey promises housing more of the same

If you liked President Johnson's billion-dollar urban redevelopment programs, you will love a President Humphrey.

Even before his landslide nomination at the Democratic convention last month, the Vice President had proposed nothing less than a "Marshall Plan for Our Cities."

Such an effort, incorporating President Johnson's most ambitious housing plans, would cost the U.S. much more than the \$14 billion it poured into the original Marshall Plan to rebuild Europe.

Hubert Horatio Humphrey points out that he is proposing only "new mechanisms to stimulate private enterprise." He endorses the type of government-business partnerships that evolved during the Johnson Administration. He simply wants much more of the same.

Humphrey's unwavering praise for the programs and personnel of the Johnson Administration has sparked speculation that, as President, he would choose a man from within HUD as the next Housing Secretary. Two possibilities: Ray Lapin of FNMA and Philip Brownstein of FHA.

**Expert on housing.** Observers throughout the housing industry hailed the Vice President and his running mate, Sen. Edmund Muskie of Maine, as experts on housing. The ticket, says the National League of Insured Savings Associations, "augurs well for housing and home financing institutions."

Humphrey has wide experience with city problems. He was mayor of Minneapolis in 1948—a fact he recites nearly every time he faces a microphone. More important, he was the Administration's liaison with the country's mayors. In four years he visited 240 cities in all 50 states, winning nearly unanimous praise from the mayors themselves.

San Francisco Mayor Joseph Alioto, then a possible running mate, told convention reporters in Chicago:

"The Vice President has accomplished the most for the cities. But he has let the credit go to the President."

Muskie championed the Model Cities law in 1966. When the original "demonstration cities" bill stalled, he rewrote it with the President's personal approval and managed its floor fight to passage.

Muskie also wrote the rent supplement compromise, gearing subsidies to public

Fred Ward, Black Star



**HUBERT HUMPHREY & CO.** flash winners' smiles to cheering Democratic Convention. With Vice President is his silver-haired wife Muriel, running mate Sen. Edmund Muskie of Maine and wife Jane.

housing limits, that assured passage.

This year, as a member of the Senate Banking and Currency Committee, he won FHA insurance for vacation houses.

**Promises from HHH.** The Vice President and his supporters say urban redevelopment would be President Humphrey's first concern—aside from Vietnam. Humphrey confidant Walter Heller, former chairman of the Council of Economic Advisers, told convention reporters:

"Full funding of the 1968 Housing Act would be Mr. Humphrey's first domestic order of business." (The price tag is \$5.3 billion.)

The Vice President promises to attack decaying cities in five ways:

1. Create a National Priority Council in the White House to "sharpen domestic priorities."

2. Streamline housing bureaucracy through "a fundamental reorganization of all federal activities."

3. Expand the Model Cities program and create at least one pilot city by 1976 "to test new ideas in land use, housing technology and community leadership."

4. Spur state and local initiative, possibly by sharing taxes with areas that adopt regional plans, by providing federal subsi-

dies for land purchases and by withholding grants and mortgage insurance from towns that fail to modernize their land-use statutes and building codes.

5. Launch his Marshall Plan, financed through an Urban Development Bank. The bank's regional branches in ghettos would extend loans and loan guarantees to businessmen, nonprofit groups and quasi-public corporations "found essential to urban development."

**Money for cities?** The question Humphrey must face is: Can the U.S. afford billion-dollar rebuilding programs?

Johnson Administration officials say privately that the fiscal '70 budget will have no large sums for new city programs.

And Humphrey's own economic advisers, led by former Budget Director Charles Schultze, estimate that only about \$3 billion will be available in fiscal '70—if the Viet fighting stops in January. (Administration officials are deeply skeptical of even that modest peace dividend.)

During the convention debate over the Vietnam platform plank, Kenneth O'Donnell—an aide to former President John Kennedy—said the domestic planks calling for billions of dollars to meet the urban crisis showed "the height of irresponsibility." He said: "We will not have the money unless we are able to disengage ourselves from Vietnam."

But the Vice President, an indomitable optimist, says he could raise billions by asking Congress for a "prior lien" on taxes of our expanding national income and for "a fair share of any peace dividend."

In essence, Humphrey will ask the country for a moral commitment to rebuild our cities—"to make up our minds to pay what it costs, both in resources and in commitments." And he will warn again, as he has warned before:

"All these dreams will come to naught if [GOP nominee Richard] Nixon is elected."  
—FRANK LALLI

### Platform praises Johnson Administration's housing record

The Democratic candidates are both proud of the Johnson Administration's record on housing. And the platform may well serve as a model for campaign oratory.

That platform, which does not mention the 1966 credit crunch, states:

"For the first time in history, a nation is able to rebuild . . . all of its substandard housing, even while providing housing for millions of new families.

"We will assist private enterprise to double its volume . . . to an annual rate of 2.6 million units.

"Democrats are proud of their housing record. But we are also painfully aware of how much more needs to be done."

In a further example of the Democrats' politics of self-congratulation, Housing Secretary Robert Weaver presented himself to convention delegates as "living, breathing proof that we Democrats keep our promises"—in this case to create HUD.

(Weaver, who has announced his resignation two years after his appointment by President Johnson, has been criticized for timidity by sections of the housing industry.)



**HOUSING LEADERS** at convention are Wisconsin HBA's Gary Barzak, s&L's Mrs. Arthur Courshon, builder Tony Frank, and Rev. Channing Phillips.

## Housing at the convention: a voice muted in disunity

Compared to organized labor's united roar, the housing industry's voice at the Democratic National Convention was virtually a whisper.

Big Labor won a platform pledge to remove "unreasonable restrictions upon . . . situs picketing" and to cooperate with unions (not builders) in expanding home-building's labor force.

Building leaders had to settle for platitudes about more housing "for all Americans."

Yet housing did find a part of its voice as its leaders flocked to Chicago.\* Some of the leaders even played prominent roles:

- Builder Michael DiSalle, former Ohio governor and former executive at the new town of Reston, Va., inflated the Ted Kennedy boomlet. With back-room help from Chicago Mayor Dick Daley and other would-be kingmakers, DiSalle was claiming 1,000 first-ballot votes until Kennedy refused to run.

- Arthur Courshon, chairman of Washington Federal s&L in Miami Beach, helped persuade Florida Sen. George Smathers to throw his support to Vice President Humphrey. Other Southern leaders followed his lead, assuring Humphrey's first-ballot nomination.

Mrs. Courshon, like her husband a Humphrey worker, was hostess at a Chi-

\* Partial convention roll-call: California builders Eli Broad, Alan Cranston, Victor Palmieri and Joseph Eichler; Illinois consultant James Downs and former Sen. Paul Douglas; Sen. Walter Mondale of Minn.; former NAHB head Bernard Boutin of N.H.; Pennsylvania builder Matt McCloskey; Tennessee mortgage banker Herschel Greer and s&L executive Horace Davila of Puerto Rico.

ago reception for the Vice President. The Veep thanked her with a dance—and a kindly hug.

- The Rev. Channing Phillips, president of the Housing Development Corp. in Washington, D.C. (NEWS, April), became the first Negro nominated at a major political convention. He was selected by a caucus of the convention's 337 Negro delegates and alternates.

**The disunity.** Despite these performances, all the housing leaders interviewed by HOUSE & HOME in Chicago—with the notable exception of NAHB's Joseph McGrath—agreed housing's voice was muted.

Said Delegate Gary Barzak, the state executive officer for the Wisconsin HBA:

"It is unfortunate that this convention did not concern itself more deeply with the housing industry."

Developer Anthony Frank, a California delegate and former s&L man, explained:

"The housing industry just isn't united—here or elsewhere."



**THE EYES HAVE IT.** HOUSE & HOME's Frank Lalli casts a vote for actress Shirley MacLaine.

(Indeed, though major housing associations sent staffers to Chicago, no joint meetings were called.)

**Platform complaints.** Most delegates said the platform was disappointing. Said Frank:

"The housing plank is just an echo of the Johnson Administration's old policies." But labor, especially George Meany's AFL-CIO building trade unions, could hardly complain. Said *The New York Times* of the platform:

"Mr. Humphrey has the sanction of his party to expand his long alliance with and . . . favoritism toward . . . trade unions."

Why? Labor's 166 delegates from 39 states (plus 94 alternates) delivered nearly unanimous support for Humphrey.

**Builders in exile.** Joe McGrath, NAHB's man at the convention, insisted that housing had gotten "prominent attention" in both the Democratic and Republican platforms. (McGrath's son worked on the Democratic platform staff.)

McGrath dismissed the situs-picketing pledge as "irrelevant."

McGrath, wearing a shiny HHH pin, was interviewed while sitting outside the convention hall. After the interview, he asked whether the reporter had an extra pass to enter the hall. The reporter did not, so NAHB's convention "observer" was left sitting outside.

Inside, George Meany and 60 union men filed into a special box to watch the nomination.

They had "Honored Guest" passes.

—ANDY MANDALA

## Going public—Ryan Homes and Mobile Home Industries are the latest

Ryan Homes, a seller of single-family houses, is offering 500,000 shares and Mobile Home Industries 400,000.

Both are combination offers of new shares and stock held by officers. The stock will trade over the counter initially.

Ryan set a maximum offering price of 22½ and MBI indicated a price of \$12.

Ryan is based in the Pittsburgh suburb of Scott Township. President Edward M. Ryan owns more than 50% of the outstanding stock (NEWS, May '67) and will own 25% after the sale.

The company sold 2,384 houses and earned \$1.7 million on \$61.9 million revenue in 1967. It expects to sell 2,400 this year, and it earned \$1 million (54¢ a share) on \$32 million revenue in the first half. Models range from \$15,000 to \$60,000 and the company is building in 150 subdivisions. It claims to be the third largest of the nation's builders.

Of the Ryan shares, 250,000 are being sold by the company to pay a mortgage loan and to retire notes and short-term bank debt. The other 250,000 shares are

being sold by stockholders.

Mobile Homes Industries was organized in Florida in May as a holding company for 19 corporations, most of them mobile home sales concerns. The principal organizers were E. C. Allen and R. G. Gardner, owners of the 19 companies.

The companies' earnings (pro forma) have gone from \$317,000 on sales of \$4.3 million in 1963 to \$785,000 on \$13.2 million in 1967. Earnings were \$765,000 (95¢ a share) on \$15.8 million in sales for the first nine months of fiscal 1968 (May 4).

# The Chrysler Corporation comes wheeling into housing

Detroit's third biggest auto builder is the first of the Big Three to move into land development and homebuilding.

Chrysler has quietly revved up to three residential projects in just three months.

The auto giant joins a long rollcall of major corporations that have staked claims in housing. Some others: Alcoa, Connecticut General Life, Humble and Gulf Oil, General Electric, U.S. Plywood, Westinghouse and, most recently, Union Pacific (story right).

Chrysler moved into real estate in September 1967, when it organized Chrysler Realty Corp. to finance and build dealers' facilities. Now the subsidiary, which has \$100 million to invest in residential and industrial properties,\* has made a low-key announcement of plans for three major housing developments in greater Detroit.

**No little plans.** Says an experienced builder who has had talks with Chrysler:

"The company wants to move into housing in a big way. The board chairman [Lynn Townsend] realizes that, thanks to Chrysler's wide borrowing power, building can be a highly fruitful field."

The parent company has never looked

stronger. Chrysler's share of the U.S. auto market has grown from 10.3% in 1962 to 18.4% for the first seven months of 1968. And profit has jumped from \$11 million on \$2.1 billion sales in 1961 to a projected \$280 million on \$7 billion sales in 1968.

All three projects announced by Chrysler Realty's President Edwin Homer are of ambitious proportions:

**Ann Arbor**—Construction of 360 townhouses has begun on a 60-acre site near the University of Michigan. "We're building in conjunction with an experienced builder" is all that Homer will say.

**Bloomfield Township**—Chrysler Realty outbid several major developers to get 744 acres of the late Senator James Couzens' estate for \$8 million. The tract, the last large section of undeveloped land in the area, adjoins the plush Detroit suburb of Bloomfield Hills. The Couzens family (whose fortune was built on an early investment in Ford Motor stock) had hired planners Edward Scheverria and Julian Whittlesey of Washington to design a planned unit development, and Bloomfield officials believe Chrysler's project will follow the blueprint.

**Troy**—Chrysler Realty is starting a 1,678-acre planned unit development in this close-in suburb this month. The design carries a \$100 million price tag and calls for the sale of 600 dwelling units a year

for ten years. Eventual population: 25,000.

**City rebuilding.** Vice President Thomas Killefer of the parent Chrysler Corp. says management is studying inner-city redevelopment "as a benefit for Detroit."

Killefer admits that such construction "might not be profitable in the usual terms for the stockholders." But he adds:

"We are the biggest taxpayer in Detroit and the biggest employer, and we are aware of our responsibilities here."

—MARIANNE FRIEDLAND  
McGraw-Hill World News, Detroit

## Union Pacific is venturing into housing in California

The UP is the second big railroad to enter homebuilding. The Penn-Central cleared the track with its purchases of three big land developers—Arvida, Great Southwest Corp. and Macco Realty (NEWS, Sept. '65).

Now Union Pacific has created Upland Industries Corp. as a subsidiary to join Pyron Co., a developer in Whittier, Calif., in building 500 houses on a 178-acre site there. The companies will operate under the name of Northwest Whittier Properties.

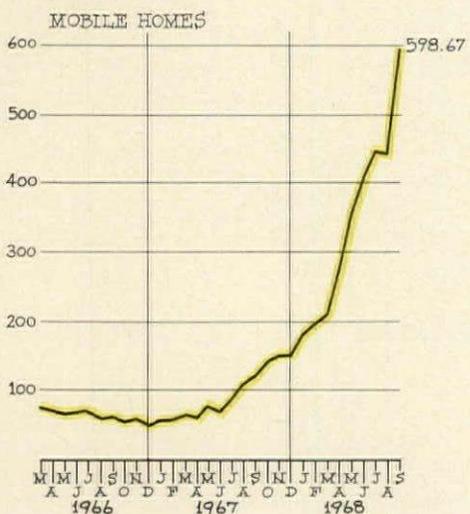
The railroad has invested \$22 million in California industrial land in the last three years, but the Whittier project represents its first residential effort.

\*Chrysler Realty has arranged with Lazard Freres, New York City, for the private placement of \$100 million of 25-year 5% notes guaranteed by the parent company.

## Housing's stocks up again; look at those mobile homes!

The HOUSE & HOME index of 25 issues rose from 293.35 to 319.44, or 9%, for the month ended Sept. 3.

The mobile home index leaped from 439.95 to 598.67, or 36%. Skyline, for instance, went from 120 3/4 to 185. The index has quadrupled in a year. Here is how it looks:



How the top five did in each group:

	Sept. '67	Aug. '68	Sept. '68
<b>Builders</b>	178.71	389.94	420.42
<b>Land develop.</b>	224.50	438.20	429.57
<b>Mortgage cos.</b>	193.28	401.74	430.52
<b>Mobile homes</b>	117.72	439.95	598.67
<b>S&amp;Ls</b>	130.17	174.14	184.29

## HOUSING'S STOCK PRICES

COMPANY	Sept. 3 Bid/Close	Chng. Prev. Month	COMPANY	Sept. 3 Bid/Close	Chng. Prev. Month	COMPANY	Sept. 3 Bid/Close	Chng. Prev. Month
<b>BUILDING</b>			•Colwell.....	28 1/2	+ 6	Forest City Entr. <sup>b</sup> .....	19 1/4	+ 3 1/2
Bramalea Cons. (Can.) <sup>a</sup> .....	10%		•Cont. Mtg. Investors <sup>c</sup> .....	25 1/2		Investors Funding <sup>b</sup> .....	16 1/2	+ 5 1/2
Capital Bldg. (Can.).....	5 1/2	+ 1 1/2	Cont. Mtg. Insurance.....	29	+ 8	Rouse Co.....	37	+ 3 1/2
Christiana Oil <sup>b</sup> .....	9 1/2	+ 2	FNMA.....	142 1/2	+26 1/2	Tishman Realty <sup>c</sup> .....	54 1/4 <sup>d</sup>	+ 4 1/4
Cons. Bldg. (Can.).....	3.40	+ 35¢	First Mtg. Inv.....	31 1/2	+ 6 1/2			
Dev. Corp. Amer.....	7 1/2	- 1	Kissell Mtg <sup>b</sup> .....	10	+ 1 1/2	<b>MOBILE HOMES &amp; PREFAB</b>		
Edwards Indus.....	19 1/4	+ 2 1/4	Lomas & Net. Fin.....	9 1/2	+ 1 1/4	Con Chem. Co. <sup>b</sup> .....	27 1/2	+ 4 1/4
First Hartford Rty. <sup>b</sup> .....	11	+ 1	•MGIC <sup>b</sup> .....	139 1/2	+13	•Champion Homes <sup>b</sup> .....	39 1/2	+ 5 1/2
First Nat. Rty. <sup>b</sup> .....	5 1/2	+ 1 1/2	Mortg. Assoc.....	13	+ 2	•DMH (Detroit) <sup>b</sup> .....	26 1/4	+11
Frouge.....	4 1/2	- 1/2	Palomar Mtg.....	8 1/2	+ 1 1/4	•Fleetwood <sup>b</sup> .....	32 1/4	+ 6 1/2
•General Bldrs. <sup>b</sup> .....	10 1/2	+ 3 1/4	Southeast Mtg. Inv.....	5 1/2	+ 1/2	•Guerdon <sup>b</sup> .....	44 1/2	+ 7 1/2
•Kaufman & Bd. <sup>b</sup> .....	57 1/4	+ 2 1/4	United Imp. & Inv. <sup>b</sup> .....	13 3/8	+ 1 1/4	Princess Homes.....	36	+ 9 1/2
Key Co.....	15 1/2	+ 6 1/4				Redman Indus. <sup>b</sup> .....	75 1/2	+24 1/2
(Kavanagh-Smith)			<b>LAND DEVELOPMENT</b>			Rex-Noreco.....	38	+ 7 1/4
National Environment.....	21 1/4	-13 1/4	All-State Properties.....	1		•Skyline <sup>b</sup> .....	185	+64 1/4
(Sproul Homes)			American Land.....	1 1/2	+ 1/4	Town & Country Mobile <sup>b</sup> .....	47	+12 1/2
Nationwide Homes.....	6	+ 5/8	•AMREP <sup>b</sup> .....	24 1/2	- 3/4			
•Presidential Realty <sup>b</sup> .....	18 1/4	+ 3 1/4	Arvida.....	14 1/2	+ 1/2	Natl. Homes A. <sup>e</sup> .....	29	+ 8 1/4
Revenue Prop. (Can.) <sup>a</sup> .....	15 1/2		Atlantic Imp.....	18 1/2	+ 1 1/2	Scholz Homes.....	28 1/2	- 1
U.S. Home & Dev.....	21 1/2	+ 2	Canaveral Int. <sup>b</sup> .....	8	+ 1	Swift Industries.....	13 1/4	+ 6 1/2
•Jim Walter <sup>e</sup> .....	96 3/4	+ 4 1/4	Crawford.....	4 1/2				
•Del E. Webb <sup>e</sup> .....	14	+ 1 1/2	Deltona Corp. <sup>b</sup> .....	35	+ 3/4			
Western Orbis <sup>b</sup> .....	10 1/4	+ 3	Disc Inc.....	3 1/2				
(Lou Lesser Ent.)			Fla. Palm-Aire.....	9 1/2	+ 2 1/2			
<b>S&amp;Ls</b>			Garden Land.....	8	+ 2 1/4			
American Fin.....	37 1/2	+ 2 1/2	•Gen. Devel. <sup>e</sup> .....	21 1/2				
Calif. Fin. <sup>e</sup> .....	15 1/2	+ 2 1/4	•Gulf American <sup>b</sup> .....	17 1/2	+ 3/8			
Empire Fin.....	26	- 1 1/4	•Holly Corp. <sup>b</sup> .....	5 1/4				
Equitable S&L.....	23 1/4	+ 3 1/4	Horizon Land.....	20 1/2	+ 2 1/2			
Far West Fin. <sup>e</sup> .....	26 1/4	+ 3 1/4	Languna Niguel.....	9 1/4	+ 1 1/2			
•Fin. Fed. <sup>e</sup> .....	35 1/4	+ 5 1/4	Major Realty.....	13	+ 1 1/2			
•First Char. Fin. <sup>e</sup> .....	38 1/2	+ 2 1/2	•McCulloch Oil <sup>b</sup> .....	30 1/2	- 2			
First Fin. West.....	15	+ 3	So. Rty. & Util. <sup>b</sup> .....	7 1/2	+ 3/8			
First Lincoln Fin.....	16 1/2	+ 3 1/2	Sunasco <sup>e</sup> .....	30 1/2	+ 3/8			
First Surety.....	11 1/2	+ 1 1/2						
First West Fin.....	4 1/4	+ 3/4	<b>DIVERSIFIED COMPANIES</b>					
Gibraltar Fin. <sup>e</sup> .....	37 1/2	+ 2 1/4	City Invest. <sup>e</sup> .....	47 1/2	+ 3/8			
•Great West Fin. <sup>e</sup> .....	27 1/4	+ 3/4	Cousins Props.....	46	+ 2			
Hawthorne Fin.....	19 1/2	+ 4 1/4						
•Imperial Corp. <sup>e</sup> .....	16 1/4	- 1/4						
•Lytton Fin. <sup>e</sup> .....	12	+ 1 1/2						
Midwestern Fin. <sup>b</sup> .....	10 1/2	+ 1 1/4						
Trans-Cst. Inv.....	3 1/2	- 1/2						
Trans World Fin. <sup>e</sup> .....	21 1/2	+ 2 1/2						
Union Fin.....	20	+ 2 1/2						
United Fin. Cal. <sup>e</sup> .....	27 1/2	+ 3 1/4						
Wesco Fin. <sup>e</sup> .....	34 1/4	+ 2 1/2						
<b>MORTGAGE BANKING</b>								
•Advance.....	17 1/2	+ 3 1/4						
•Associated Mtg.....	16 1/4	+ 2 1/2						
Charter Corp. of Fla.....	34 1/2	+ 7						

### SHORT-TERM BUSINESS LOAN RATES

Average % per year

LOAN SIZE (000)	N.Y. City	7 other North-eastern	8 North Central cities	7 South-eastern cities	8 South-western cities	4 West Coast cities
\$1-9.....	7.11	7.21	7.30	6.89	7.16	7.68
10-99.....	7.07	7.48	7.26	6.83	7.02	7.37
100-499.....	6.82	7.33	7.06	6.65	6.85	6.95
500-999.....	6.64	7.09	6.90	6.53	6.72	6.80
1,000 up.....	6.52	6.90	6.76	6.37	6.86	6.54

May rates in Federal Res. Bulletin, July 1968

NEWS continued on p. 12



Symtrol Valve Company, a subsidiary of Symmons Industries Inc.

**This is our new Temptrol '76,  
the non-scald Shower valve you  
won't get burned with.**

**It's a lot of class for a little cash.**

Our new Temptrol '76 pressure-actuated non-scald shower valve costs just about what you're now paying for conventional shower systems. Maybe a little less.

Installed, it looks like a million dollars.

There's never been a valve like it built for the home market before.

It's an all bronze and stainless steel unit,

easy to install and maintenance free, that maintains the hot-to-cold water ratio right through the shower. No matter what happens to the water supply, nobody ever gets burned (nobody who uses it, nobody who specifies it, nobody who installs it).

But maybe the real beauty of the Temptrol '76 is that it'll last and look good for the life of the house.

And make you look good, too.

Our new Temptrol '76 is the most revolutionary part of the Bathroom Revolution. We've got a booklet that tells you how you can get in on it. Just write: Symtrol Valve Company, 445 C St., Boston, Mass. 02210.

**Temptrol '76**



# The shangle

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



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



# Behind closed doors—a dispute over new mortgage bonds

Fanny May has a tiger by the tail.

For two months it has been trying to draft rules for the federally guaranteed bonds that private mortgage companies can issue under the 1968 Housing Act. The new Government National Mortgage Association will issue the guaranty.

Private issuers and investment bankers have grown increasingly impatient. Mortgage companies believe the new securities, issued by private institutions and secured by FHA and VA, will keep money flowing into the mortgage market. Investment bankers see the issues as another prime security, readily salable because it will carry the full faith and credit backing of the U.S. government. As for savings and loan associations, one expert says the mortgage-backed securities are a ticket to begin coining money.

Fanny May is no less excited about the possibilities, but its half-dozen closed-door meetings with the financial experts have verged toward pitched battle. It's the mortgage men against the investment bankers.

**Quarrel over packager.** Investment bankers want to create one central packager to pool all issues. Wall Streeters argue that one packager can obtain a higher yield.

But the mortgage bankers want to be free to sell small private placements, and that means several packagers.

The investment bankers counter that small issuers will flood the market place, creating confusion and depressing yields.

The mortgage men's foremost spokesman was Oliver H. Jones, senior director of the Mortgage Bankers Association. Jones's position paper set the tone for the first meeting between officials of FNMA, the MBA and the investment banking community, and he offered a compromise on packaging.

Jones would establish several regional packagers for the securities, all of which could pool the loans of issuers in respective areas and sell large blocks of securities each time they go to the market. At the same time, Jones reasons, private placements should be permitted in order to let small mortgage bankers use the device.

**Dimensions of the bonds.** Debate has also developed over the size of the issues and the denomination of the securities. One investment banker demanded issues ranging upward from \$500 million. Arguments ran the gamut from \$5,000 to \$100,000 on denomination.

The National Association of Mutual Savings Banks sent representatives to a separate meeting with FNMA, and they expressed fear that the new bonds might suck small savers' deposits out of thrift accounts. The savings bankers urged FNMA to restrict the issues to large denominations that appeal primarily to major investors.

The savings and loan associations did not seem worried about competition from the issues. They proposed \$15,000 as a bond denomination, the amount to which federal insurance of S&L savings accounts is limited. This, they said, would keep the prospect of disintermediation at a minimum and, at the same time, permit associations to offer the



JONES HALLAHAN

new bonds to savers who want to invest beyond the insurance limit. The reasoning: Since the securities are backed by the full faith and credit of the U.S., they would be as good as government bonds—at higher yields.

One S&L expert, William H. Hallahan, a former Home Loan Bank Board member, estimated that an issue sold in late August would have to carry a coupon of about 6 1/8% to 6 1/4%, or about the same as FNMA participation certificates.

Hallahan says the S&L industry is best equipped to issue these securities.

"The S&Ls have the wherewithal to produce the mortgages needed to back these securities," he contends. "Unlike mortgage companies, which warehouse loans, S&Ls ordinarily produce mortgages for their own account. So the associations are in a better position to overmargin the issues than are mortgage companies, which broker all their loans in order to get capital to produce more mortgages."

**Existing mortgages.** Spokesmen for the S&L associations told FNMA that existing mortgages, as well as new loans, should be accepted as security for the new issues.

The associations generally agreed to overmargin the mortgages that support the issues—this to compensate for the expense of prepayments and foreclosures. For example: a 6 3/4% loan placed in a pool might call for a total pledge of 110% of debenture debt service; a 6% loan might require an overmargin of 120%-130%.

Some disagreement has arisen as to the proper method of assessing GNMA's guaranty fees. The savings and loans made one proposal, based on the fact that they are supervised lenders. The S&Ls feel that because they are closely watched by the bank board, FNMA might establish a rate structure for GNMA fees based on whether the issuer is supervised or non-supervised.

**Commercial bankers.** A separate meeting with the American Bankers Association was largely exploratory on the part of the ABA. Insofar as commercial bank participation is concerned, FNMA officials are concerned about policing these issues so that the proceeds return to the mortgage market.

President Ray Lapin and FNMA's officers have done more listening than talking in their meetings with all groups. The government men have said merely that they will insist that the proceeds of the new issues go back to the mortgage market.

Most of the major issues have remained unresolved, and there is every indication that FNMA is going to continue to proceed at a snail's pace—"in order to do it right the first time," says President Lapin. It is a safe assumption that 1968 will pass before the first mortgage-backed security is issued under the new program.

NEWS continued on p. 16

## HOMEBUILDERS' MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending Sept. 13.

FNMA Auction Prices Sept. 20 6 3/4%	FHA Sec. 203b— Discount paid by builder Min.-Down* 30-year immed. w Private mkt.			FHA 207 Apts., Discount 6 3/4%	Conventional Loan Rates			Construction Loan Rates Interest+fees All lenders
	City	6 3/4%	Trend		Comm. banks, Ins. Cos. 7 1/2%	Savings banks, S&Ls 8 1/2%	Savings banks, S&Ls Over 8 1/2%	
90-day commitment Average 96.81 Accepted bid range 96.60-96.94	Atlanta	4-4 1/2	Down 1/2	a	7 1/2	7-7 1/4	7 1/4-7 1/2	7 1/2+2
	Boston	1-2	Down 1/2	a	7	7 1/4-7 1/2	a	7-7 1/2
	Chicago	4-5	Down 1/2	4	6 1/2	7	7+4	7 1/2
	Cleveland	4-5	Down 1/2	a	6 1/2	6 1/2	7+1-2	7 1/4+1-2
	Dallas	4-5	Down 3/4	5-6	7 1/2	7 1/2+1	7 1/2+2	7 1/2-7 3/4+1
	Denver	4 1/2-5	Weaker	a	7-7 1/2	7 1/4	7 1/2-7 3/4	7 1/2-8+1-2
	Detroit	4-5	Same	a	6 1/2-7	7	7+1-2	7 1/2+1-2
	Honolulu	5	Down 3/4	a	7 1/2	7 1/2-7 3/4	7 3/4+3	7 1/2-8+1-2
	Houston	3-6	Down 1/2	a	7 1/2	7 1/2	7 1/2	7 1/2+1 1/2
	Los Angeles	3 1/2-4	Down 1/2	a	7 1/4	7 1/2	a	7 1/2+1 1/2
180-day commitment 96.93 Accepted bid range 96.75-97.23	Miami	4-5	Down 1/2	a	7 1/2	7-7 1/4	7 1/4-7 1/2	7
	Minn.-St. Paul	3 1/2-4	Up 1 1/4	a	7	7 1/4-7 1/2	7 1/2	7 1/2+1-1 1/2
	Newark	4-5	Down 1	5-6	7 1/2	7 1/2	b	7-8+1+2
	New York	b	—	a	7-7 1/4	7-7 1/4	7 1/4	7-7 1/2+1
	Okla. City	3 1/2-5	Down 1 1/4	a	b	6 3/4-7+1	7 1/4-3	7 1/2+2
	Philadelphia	3-4	Down 1/2	a	7	7	a	7+1 1/2-3
	San Francisco	3	Down 1 1/4	a	7-7 1/4+1	7+1 1/2	7 1/4+2 1/2	7 1/2+1 1/2
	St. Louis	4-5	Steady	a	7 1/4-7 1/2	7-7 1/4	7 1/2-7 3/4	7 1/2-7 3/4+1-2
	Seattle	4 1/2-5	Down 1/2	a	7 1/4-7 1/2	7 1/4-7 1/2	7 1/4-8	7 1/2-7 3/4+1 1/2-2
	Wash., D. C.	4-5	Down 1/2	4-5	7 1/2	7 1/4	7 1/4+	7 1/2+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; 20% of balance.  
 Footnotes: a—no activity, b—limited activity, c—Net yield to investor of 6% mortgage plus extra fees, w—for comparable VA loans also.  
 Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, pres., Boston 5¢ Savings Bank; Chicago, Robert H. Pease, pres., Draper & Kramer Inc., and Robert H. Wilson, pres., Percy Wilson Mortgage & Finance Corp.; Cleveland, David E. O'Neill, vice pres., Jay F. Zook, Inc.; Dallas, M. J. Greene, pres., Southern Trust & Mortgage Co.; Denver, Clair A. Bacon, sr. vice

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



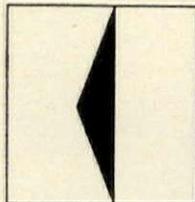
## Kardon keeps on building

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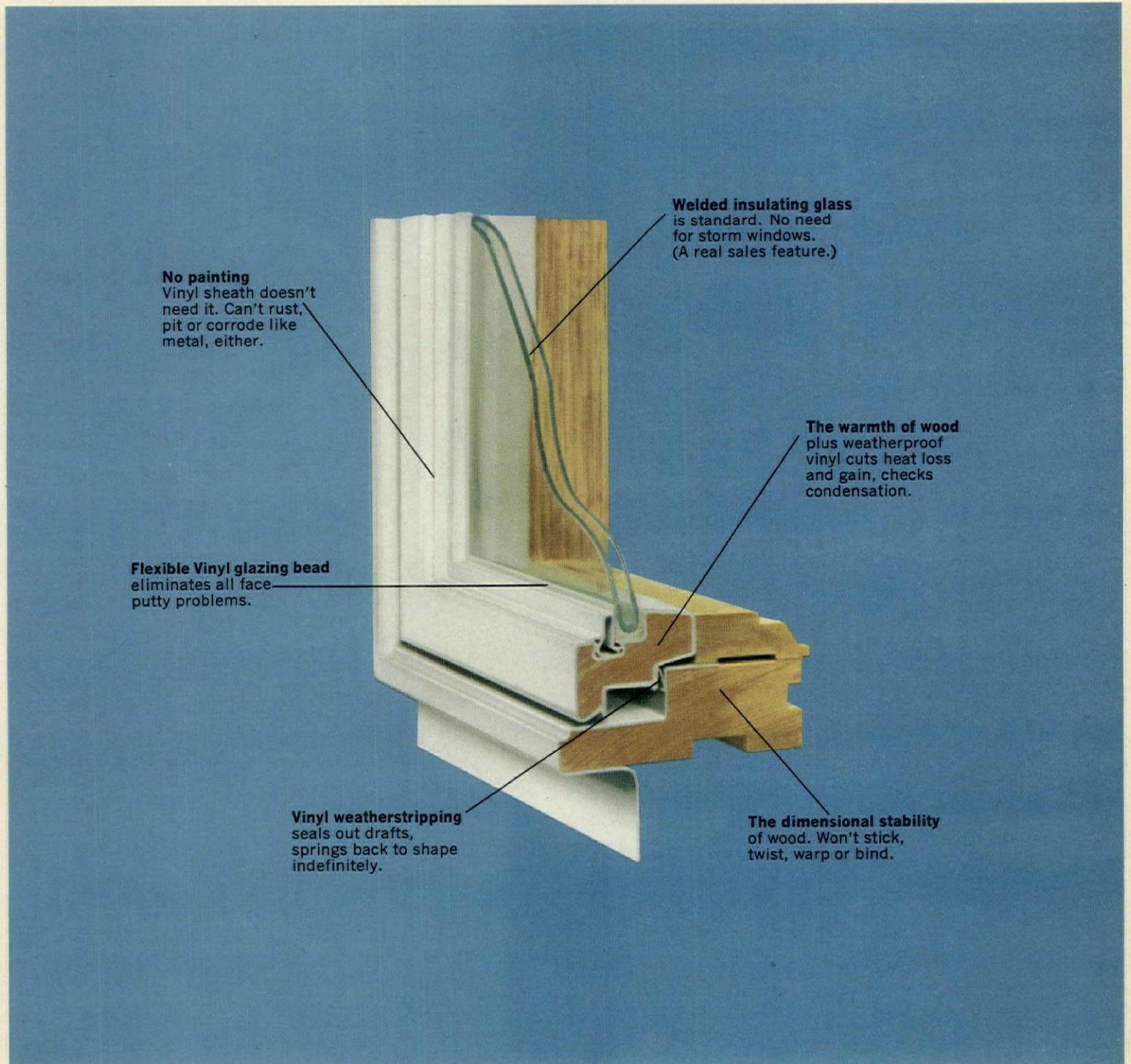
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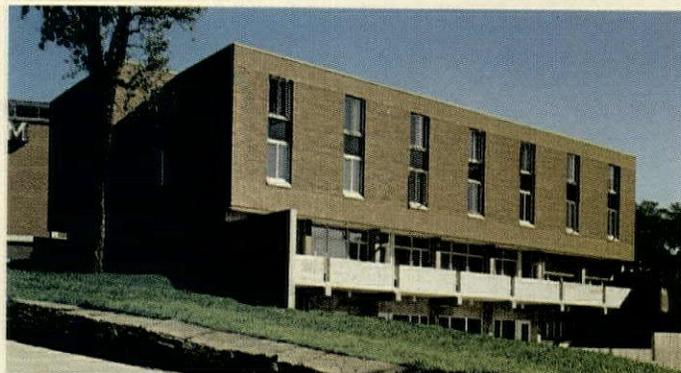
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Choose casements, awning style, fixed types, single or multiples right from stock. There are 26 basic Perma-Shield sizes and 3 sizes of gliding doors—6, 8 and 12 feet.

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**Emma Norton Methodist Girls' Residence, St. Paul**. Difficult elevation could make window maintenance a nightmare, but there's little or no maintenance with Perma-Shield. They've been performance proved on thousands of residential and commercial jobs like this one—exposed to every climate over the last 9 years.  
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Architect: George F. Panuska, Virgin Islands.

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# Perma-Shield Windows

## Victims count losses from another Arizona land scandal

Those losses—from operations of Alco Industries of Phoenix—may reach \$10 million. The victims are scattered from New York City to Honolulu.

Alco is the umbrella for the twin Arizona Land and Arizona Discount Corps. and a dozen other letterhead companies. The whole house of cards collapsed in involuntary bankruptcy in a federal court in Phoenix June 6.

More than 5,000 buyers face a struggle to clear title on land now valued at less than one-fourth of its \$8 million price tag. Some 4,500 stockholders stand to lose \$1.8 million in investments. And uncounted creditors expect to forfeit \$150,000 due on unpaid bills.

Two salesmen have been formally charged with taking money on bogus land sales. A suit claims violation of Iowa's Consumer Fraud Act and seeks to void \$250,000 in sales.

An estate of only \$16,500 remains from assets originally valued in millions.

**A weak beginning.** Alco began to die almost as soon as it was born.

Arizona Land organized in 1958 and began selling stock and 62,000 acres along Route 66 near Holbrook, 230 miles north of Phoenix. Thomas J. Long 2d was president and Jack W. Glidewell was vice president.

Arizona Discount was formed in 1959 to produce cash by selling shares and reselling the time-payment contracts generated by Arizona Land.

By October 1961 the twin corporations had collected \$1.8 million from stock sales and \$1 million on land sales. Both concerns declared stock and cash dividends, and they reported total assets of \$3.8 million.

But even then they were in trouble.

They were \$200,000 in arrears in mortgage payments on the Holbrook property. They had defaulted on several land transactions. They were being sued. They were \$19,000 behind in office rent, and their bank accounts were frozen by court order.

**A merger into trouble.** Over the next seven years, which included a merger into Alco in 1965, both ALC and ADC continued to founder.

Alco's high-pressure sales tactics produced faulty sales contracts. A money-back guaranty for misrepresentations sent the bad-contract rate to 25%-50%.

Mail-order sales, which constituted 65%-70% of Alco's business, fell to a trickle after scandal engulfed another Arizona mail-order operation, Lake Mead Rancheros (NEWS, March '63). The sales-contract market suffered because of publicity surrounding the failure of Western Growth Capital Corp., a third land-sale operation.

The covey of letterhead companies spawned by Alco became liabilities. Desert Sun Engineering lost \$100,000 on a dam project; Sweetwater Farms defaulted on a \$192,000 land deal.

Alco's overhead reached \$100,000 a month on high salaries and big commissions (15%-35%).

And Alco's management was in diffi-

culty. Long was convicted of 1961-2 income-tax evasion. Glidewell resigned in 1967 and demanded \$26,000 for past services. (He got \$9,400.) A Holbrook sales agent, Ned Warren, was a Sing Sing grad.

**Promotion tactics.** Yet Alco survived into 1968—partly on slick promotion.

Alco was built around the Holbrook property, a stretch of sandy rangeland. There are a few houses, a few places with water, a few paved roads, miles of wagon ruts and hundreds of street signs that extend far beyond even the trace of a rut.

But out-of-town salesmen showed movies of lush land with plenty of water and with schools, shopping facilities and roads. They implied that this was the company's Holbrook property, and sales soared.

Alco had paid \$1 million for the Holbrook spread, or \$17 an acre. The land sold at \$200 an acre at first and at \$1,200-\$1,500 by 1967.

**Duplicate sales.** Lots were sold two and three times to different buyers, and some now have as many as six competing title claims. Lots were sold without being released from mortgage obligations. They were sold for back taxes without buyer knowledge because Alco did not pass on tax payments, and lots went unrecorded because Alco did not issue deeds.

Sales contracts that had already proved worthless were often sold to investors. Several investors received no time payments because Alco did not pass them

along from buyers. Investors were talked into trading sales contracts for unsecured Alco notes and were left without security or equity.

Alco's assets were like rubber. From 1960 to 1966 the stated value of the Holbrook property shifted from \$1 million to \$2.2 million to \$1 million to \$4.6 million, depending on management's need. Inflated assets were multiply mortgaged. Alco never commissioned a certified audit or issued a certified financial statement.

The Arizona attorney general stepped in last year, ordering Alco to appoint a trustee to handle contract collections. Last March the state real estate department halted Alco's land sales. The Arizona corporation commission forbade the exchange of contracts for unsecured notes. The bankruptcy followed.

**A slow demise.** But it will be a lingering death.

Joseph S. Stern, elected a permanent trustee by Alco's creditors, will press a search for further assets. The federal bankruptcy receiver, John H. Thompson, warns that it may take years to decide who owns each lot at Holbrook.

The Iowa suit is expected to linger into 1969, and other suits from that state are expected to follow. And the county attorney's office in Phoenix is still busy gathering evidence for possible new criminal charges.

NEWS continued on p. 20



COUNCIL OF PRODUCERS packs New York discotheque with stock analysts at 8:30 a.m.

### Panel of giant builders dazzles Wall Street analysts

The meeting was billed as a press breakfast.

But ten builders, representing their self-promoting Council of Housing Producers, ducked the newsmen's toughest questions—such as the prospects for their proposed “federal turnkey program” to build low-cost housing (NEWS, Sept.).

Instead, they offered a generous serving of homilies about a desire for more mortgage money, an expanded labor force—and, yes, a better tomorrow. In a forecast that some considered visionary, the Council said it would build 7% of the industry's three million houses in 1980.

None of that is news. But there was a significant story—the audience.

Seventy of Wall Street's most influential analysts turned out at 8:30 a.m. to pack Sheppard's discotheque in New York's Drake Hotel.

Says panel member Eli Broad of Kaufman & Broad:

“A few years ago, the financial community thought homebuilders wore overalls and went bankrupt regularly. But it is learning that this industry is studied by capable, sound businessmen—with limitless futures.”

That knowledge, Broad adds, “paves the way for heavier Wall Street investments in homebuilding.”

# Here! New '69 CHEVROLET TRUCKS!



## Now there are even more reasons why Chevrolet is more truck.

For '69 Chevrolet goes to new lengths in modern pickup design. Fleetside pickups with up to 8½-ft. boxes for bigger payloads! Built to do more work on rough construction jobs!

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More trucks are Chevrolets  
because Chevrolet is more truck!

# Outdoor features of Decorative Concrete mean increased sales for your homes

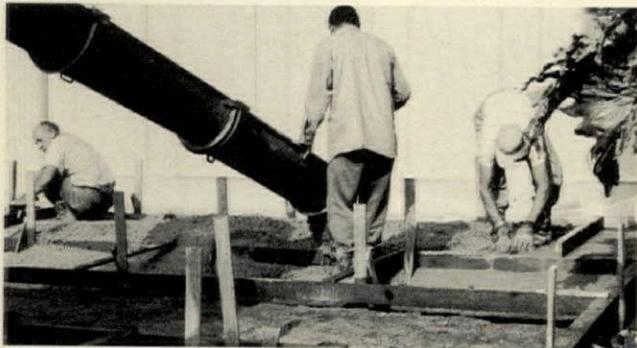


Concrete Contractor : Lloyd Massey, Orange Coast Concrete Contractors, Newport Beach, Calif.  
Landscape Architect : Richard Beeson

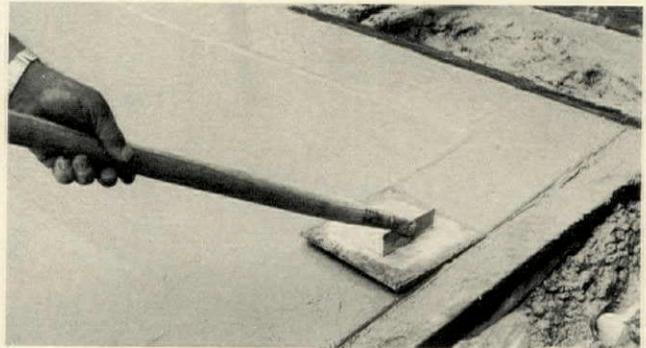
Decorative concrete features are providing additional sales impact for home builders across the country. They're an easy method of adding a special touch to the exterior setting of your homes. With more and more home buyers interested in outdoor living, the creative use of these basic features can be the deciding factor in the final purchase. Read on the opposite page how this attractive driveway was built combining an exposed aggregate finish with ribbons of brick.

# Here's how it was done

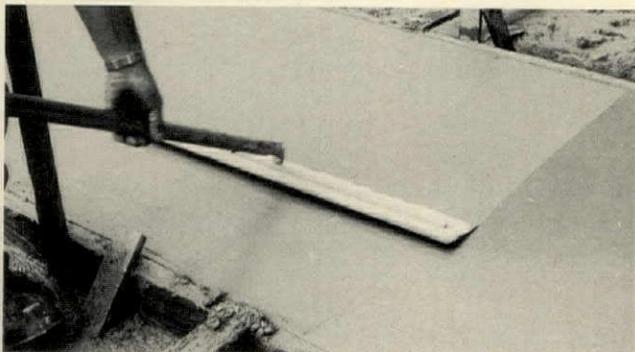
These on-the-job photos show how the attractive driveway on the opposite page was built.



1. When forming is completed, concrete is delivered to the site by ready mix truck. As concrete is discharged, one man positions the chute while two others begin screeding immediately.



5. An edging tool is then used to secure the aggregate at the edges. This is final step before concrete sets up enough to begin the hosing and brushing operations.



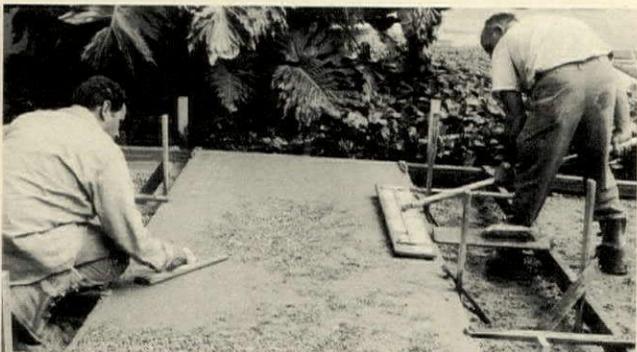
2. After screeding and tamping, the surface is smoothed with wooden floats. Final smoothing is done with this bull float. The surface is then ready for the aggregate to be seeded.



6. Medium-bristle push brooms are used for major brushing. The man with the hose touches up areas missed by the large brooms. This is the final step in producing the exposed aggregate finish.



3. Colorful aggregate of uniform size (1/4- to 1/2-inch on this job) is seeded from shovel. In background two finishers have already begun tamping in aggregate with wooden hand floats.



4. As aggregate embedment is completed along the edges one finisher uses a wood bull float to cover the center. Floating is continued until all aggregate is completely embedded.

Forms were removed the following day and the ribbons of brick laid in a mortar bed over 4 inches of concrete. Curing of the concrete may be done using a variety of non-staining materials such as water-tight paper, polyethylene film or a sprayed-on membrane compound.

Summary of labor and materials:

**Concrete work:** 61 man-hrs., including 16 of forming

**Area:** 949 sq. ft.

**Concrete:** 4" thick

**Amount of concrete:** 12 yds.

**Aggregate surface:** 16 sacks of Mexican Pebbles



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Dept. 10-94

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An organization of cement manufacturers to improve and extend the uses of portland cement and concrete

I would like to know more about installing decorative concrete. Please send me a free copy of the "Cement Mason's Manual." (U.S. and Canada only)

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## Edgar Kaiser heads new National Housing Partnership

The chief of California's Kaiser Industries will direct the partnership whose job it is to rebuild the nation's cities with the help of private enterprise.

President Johnson appointed Kaiser and 15 other incorporators of the partnership, authorized under the 1968 Housing Act. The list included Everett Mattson, senior executive vice president of Lomas & Nettleton West of Houston, Tex., the world's largest mortgage banking house; Leon N. Weiner, past president of the National Association of Homebuilders, and George Meany, president of the AFL-CIO.\*

The partnership is designed specifically to

\* Some others; David Rockefeller, chairman of the Chase Manhattan Bank; Edward Etherington, Wesleyan University; Edward Daley, president, World Airways, Oakland, Calif.; John Loeb, senior partner, Carl M. Loeb, Rhoades & Co., New York City investment bankers; John Wheeler, president, Mechanics & Farmers Bank, Durham, N.C.; James Ling, chairman of Ling-Temco-Vought, Dallas, Tex., and Gilbert W. Fitzhugh, chairman, Metropolitan Life.



KAISER



MATTSON

pump mortgage money into low-income projects and blighted areas. It will be the housing industry's counterpart of Comsat in the satellite communications field, the difference being that only private business—and not individuals—may become stockholders in the beginning. Individuals can come in later, however.

The incorporators will set up a private corporation whose goal, Kaiser said, will be to finance construction of 20,000 to 50,000 low-income housing units a year.

"I'm an optimist," Kaiser said, "so I hope

that we will be able to build more."

The corporation hopes to obtain working capital of \$200 million to start, and Kaiser says it is sure of \$100 million. He says that is enough to support borrowing power of \$4 billion with government loan guaranties and the prestige of the corporation stockholders.

Kaiser said he and his colleagues had approached 25 concerns, including U.S. Steel and General Motors, and that all had shown interest. He said he hoped to have stockholders and a permanent board at work by next spring and the first ground broken by midyear.

Kaiser was chairman of the President's Committee on Urban Housing, which recommended creation of the corporation. The President said of the new partnership:

"It will create an adequately capitalized, professionally managed corporation to help reach our goal: a yearly average of 600,000 housing units for low- and moderate-income families over the next ten years." (About 50,000 are now being built each year.)

## Kansas City's home builders battle plumbers to save a new code that offends the union . . .

The Kansas City dispute may be decided by voters, the courts or both.

At issue are licensing and materials provisions of a new plumbing code passed by the City Council.

The code ends union-controlled city licensing of journeymen plumbers. Contractors, still licensed by the city, now govern selection of plumbers.

The code also drops restrictions on plastic pipe and other new materials. The building code engineer can now approve any material which meets city standards.

**Union's challenge.** Kansas City had to revise its code to get federal funds. But the new code's future is in doubt.

Plumbers want a public referendum to ban the code. Their lawyers may also seek an injunction to halt code enforcement.

Builders oppose the union stand but say the referendum might very well kill the code. They remember that suburban Independence defeated a new code 2-to-1 in 1965. But builders doubt any injunction can be obtained.

The new code was introduced in May and passed on August 9. Plumbers have protested; builders have praised the code.

**Attack.** The plumbers charge:

- Failure to license journeymen will create inferior workmanship which could effect water purity. "Television repairmen are licensed," says Executive Secretary Frank Babcock of the Associated Plumbing Contractors, "but they don't want to license someone involved with possible pollution."

- Ending materials restrictions will reduce quality of installation and increase homeowner repair expense. "We just want plumbing materials to last longer than the mortgage," says business manager Louis Stine of Plumbers Union Local 8.

- The code is builder retaliation for success of a three-month plumbers' strike

last summer. A \$1.65 hourly wage increase was the result (News, Oct. '67).

- The code was written in secrecy and sprung without proper notice or any consultation. And it's politically motivated by an anti-union city administration.

**Defense.** The builders respond:

- Knocking out the licensing requirement will enlarge and remove the union strangle hold on plumbing's labor force. "This could lower wages," says Donald Ong, chairman of the local HBA's labor committee. "Because there is such a labor shortage plumbers demand and get higher than scale."

- There is continued city licensing of plumbers, but only of master plumbers. "This just puts responsibility where it should be," says HBA President Carson Card, "on the contractors."

- The code ends union membership discrimination. Until seven months ago there were no Negroes in the 1,000-member union. (The NAACP is supporting the new code.)

- Permitting use of plastic pipe and other new materials will allow new techniques to save time and money. "Many states, many cities and the FHA and HUD approve plastic pipe," says Executive Vice President Leo D. Mullin of the local HBA. "Only the cast iron and copper groups and the union are opposed."

**In the middle.** Councilman Donald G. Stubbs is caught between plumbers and builders. He shepherded the new code through a year of writing, hearings, revision, committee votes and final passage.

"Since the beginning," says Stubbs, "it's been impossible to get a compromise on this code between the two sides. But then, the way to write a plumbing code that protects public interest is not necessarily by compromise."

## . . . And BOCA's plumbing code starts a court fight in Chicago

The Building Officials Conference of America publishes the new plumbing code. The Cast Iron Soil Pipe Institute opposes it.

The BOCA code sanctions plastic pipe for drain, waste, vent and water service. But CISPI has obtained a temporary injunction which stops code printing and disseminating.

Plastic pipe, claims BOCA, can save 20 to 50% in time and 10 to 30% in dollars. Yet, argues CISPI, plastic pipe could economically hurt its members and BOCA didn't follow "normal procedures" in publishing the new code.

The injunction came after BOCA had mailed 320 of its new plumbing codes. And BOCA says towns in Illinois, Pennsylvania and Connecticut have already adopted the code.

Since 1965 CISPI has won plastic pipe code injunctions against the Southern Building Congress and Ohio State Board of Building Standards. If CISPI wins again, BOCA says it will take a year to prepare and publish another code.

## Schlick quits U.S. Plywood; helped lead way into housing

John T. Schlick, 53, who had a major role in taking his company into homebuilding and urban development, has resigned as an executive vice president and director of U.S. Plywood-Champion Papers, New York City.

The company said Schlick resigned for "personal reasons," and all hands declined comment when asked whether a policy dispute prompted the move. The company had named J. Lynn Johnston as vice president to monitor all real estate activity and to reassess the company's posture in this field.

A. W. Teichmeier, a marketing vice president, replaces Schlick.

NEWS continued on p. 26

# Eye stoppers... but not life stoppers!

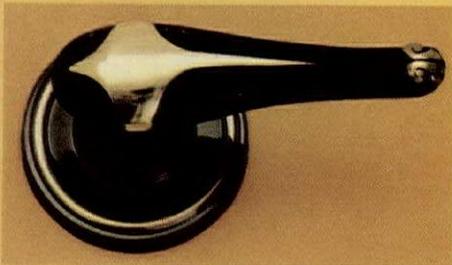
Rich, traditional styling... outside **and** inside the home. It's eye stopping elegance the homebuyer can't resist.

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All locks in this home are guaranteed  
to be panic-proof. They lock  
people out — but never in.  
**panic-proof. escape. save lives.**

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Paper a room in your model home and they'll look at the view.



Panel it with Weldwood and you give them something to look at.

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

They'll stand about 18 inches from it. Staring.

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

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

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

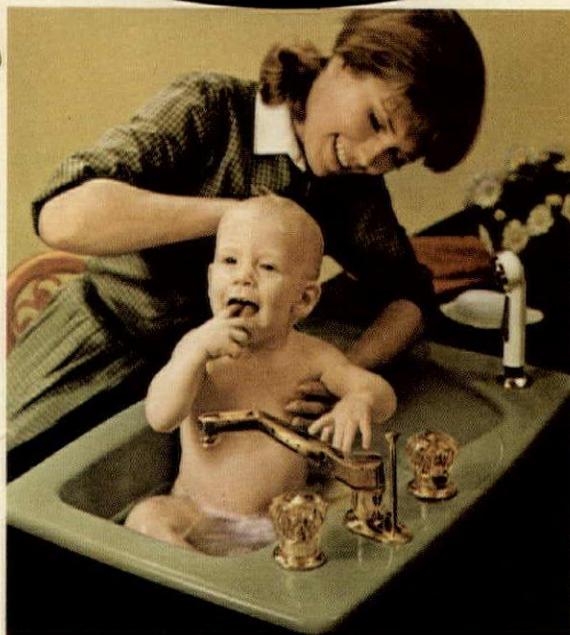


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This is our new Lady Fair lavatory in vitreous china: Avocado, with gold electroplated fittings. Frankly, we designed it as a shampoo center: that's why the big, wide basin, the built-in spray arm. But now our test families tell us it makes an ideal baby bath. Pop grabs it for shaving ... the twins use it side by side. Seems it's a bathroom laundry, too: just the thing for washing out lingerie. One woman writes that she and hubby snack by the bedroom TV—and guess where she rinses the plates! (Wonder if it would take a Volkswagen?)

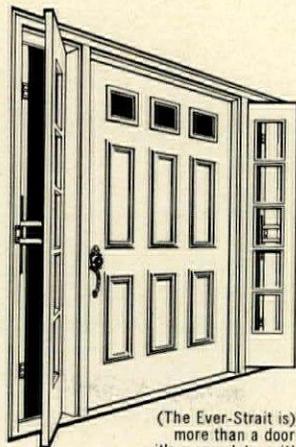
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Kohler Co., Kohler, Wisconsin



# The "System" door: you can't beat it.

It's called the Pease Ever-Strait door. But it's *more* than a door—it's an entire *prehung entrance system* . . . complete with frame, magnetic refrigerator-type weather stripping, a patented adjustable sill, and glazed lights . . . all factory assembled! So you save a bundle on installation, and on reduced call backs, too.

The Ever-Strait door is a *weather-proof, warp-proof, sound-proof* masterpiece. It is available in 28 basic styles of single, extra wide



(The Ever-Strait is) more than a door . . . it's a complete unit!

single, and double door combinations, with over a dozen matching sidelight and toplight options to choose from. (Including the "sales appeal" of Ever-Strait's exclusive *ventilating sidelights* . . . screened on the inside, hinged to swing open and let in summer breezes.)

Compare the Ever-Strait "System" to any mere door; see if you don't agree it's unbeatable. And . . . if you can't beat 'em, why not *join* 'em?

**Pease  
Ever-Strait Doors®**  
Dept. H-10, 900 Laurel Ave., Hamilton, Ohio 45012

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

**Manufactured by Pease Woodwork Company, Inc., and available from the following distributors:**

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CONNECTICUT, New Haven Batter Lumber Company, Inc.  
DELAWARE, Wilmington Brosius-Ellason Company, Inc.  
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FLORIDA, Miami Architectural Hardware  
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ILLINOIS, Franklin Park Rock Island Millwork

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NORTH DAKOTA, Fargo Structural Products, Inc.

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## Costs win waiting game: Delay in building is expensive

In fact, waiting just one year to build can mean a rise in costs of over 10%.

A Florida builder kept hearing customers say they'd put off building a home "until prices come down." He set out to discover how expensive that delay can be.

Using figures from May of '67 and May of '68, the builder computed price changes on 69 major items in one of his models. He found 44 items increased, 24 stayed the same and one—glass sliding doors installed—decreased.

The total difference was a rise of \$2,040 or 10.9% (see chart).\*

Labor and not materials accounted for much of the cost jump. This is reflected by increases of \$95 in framing hardware-carpentry labor, \$151 in mason labor through beam, \$178 in electric, \$241 in plaster and stucco, \$248 in pool and \$322 in plumbing.

This extra expense wasn't absorbed by the builder. Price tag on the model during the 12 months went from \$24,798 to \$27,348, up 10.2%.

The figures omit land costs, which have risen 40-fold in 20 years and are still going up (NEWS, Aug.). They make the waiting game even more expensive.

\* At midyear the Chicago region's construction costs index was 8.5% higher than at mid-year 1967. Uptown Federal S&L keeps tabs.

	May, 1967	May, 1968		May, 1967	May, 1968		May, 1967	May, 1968
Survey	\$ 20	\$ 20	Structural steel	9	9	Kitchen cabinets installed—Kitchen counter tops inst.	655	730
Plans	100	150	Roof trusses	575	604	Vanities installed	210	210
Permits	75	75	Sheathing plywood	410	464	Other preassembled millwork	95	95
Electricity for construction	18	20	Framing lumber	462	485	Plant liners	5	6
Water for construction	12	12	Framing millwork	79	83	Garage doors installed	93	98
Scalp lot	15	15	Soffit plywood	98	103	Mason labor outside flat	80	84
Insurance	18	20	Fascia board	82	101	Concrete—outside flat Mesh—driveway	295	307
Footing steel	74	74	Framing hardware—Carpentry—frame	700	795	Shower enclosure installed	30	30
Footing concrete	141	151	Roofing	791	786	Medicine Cabinets	137	144
Foundation block	91	103	Electric	608	786	Mirrors	99	99
Foundation mortar & cement	13	13	Heat pump	1073	1111	Glass & side lites installed	21	21
Masonry sand	24	24	Windows—not installed	209	209	Lighting fixtures	362	381
Foundation fill	85	85	Window installation	29	29	Appliances	476	496
Plumbing	1117	1439	Glass sliding doors installed	450	447	Paint	535	540
Soil treatment	25	25	Lath including styrofoam	648	678	Wallpaper installed	118	160
Mesh for concrete under roof	56	56	Plaster & stucco	920	1161	Cleaning—house	70	82
Moisture barrier	17	17	Insulation	98	98	Cleaning—yard	30	45
Mason labor through beam	775	926	Ceramic tile & entry floors	457	625	Pool	1915	2163
Concrete under roof	439	457	Grading	50	50	Keystone	151	160
Terrazzo	158	158	Prehung swinging doors	73	80	Screen enclosure	611	649
Tie beam steel	87	87	Bifold doors, jambs & hardware	147	151	Gutter		
Wall block	266	287	Trim lumber & millwork	322	338			
Wall mortar & cement	43	43	Trim hardware	124	130			
Percast sills	33	35	Carpentry labor—trim	260	296			
Concrete for tie beam	130	135				<b>Total</b>	<b>18,697</b>	<b>20,737</b>

## End of an era: Bill Zeckendorf files in bankruptcy

A HOUSE & HOME headline asked in 1957: "Will Bill Zeckendorf be the nation's biggest builder?"

He very nearly was, for he rebuilt the skylines of New York City, Denver and Los Angeles. But debt overwhelmed him, and he lost \$52 million in 1963 and 1964.

The end came in U.S. District Court in

New York City last month, three years after his realty company, Webb & Knapp, went bankrupt itself. Zeckendorf asked for Chapter XI, listing liabilities at \$79 million, assets at \$1.9 million.

Zeckendorf is 61. His wife Marion died in an airplane crash last March.

NEWS continued on p. 30

Plan Hold Square Tubes take only half the space needed to store an equal number of round tubes.

Square corners give easy access to rolled drawings—no binding against sides as in round tubes.

### Why our Square Tube Files handle more rolled drawings...more easily

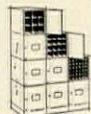
Every square inch of these 15 1/2" square steel cabinets can be utilized for rolled drawings up to 50" in length. Modular units come in 36, 16, or 9 tube sections. Can be used individually on a desk, or stacked to form a permanent master file. Write for catalog of 31 unique filing systems to P.O. Box 3458, Torrance, California 90510.



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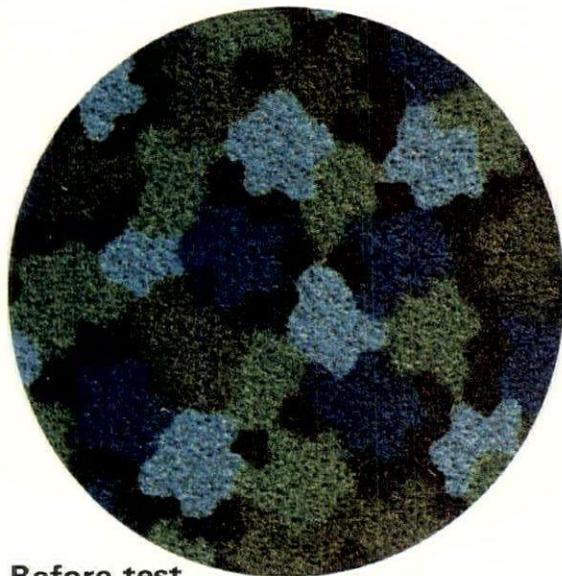
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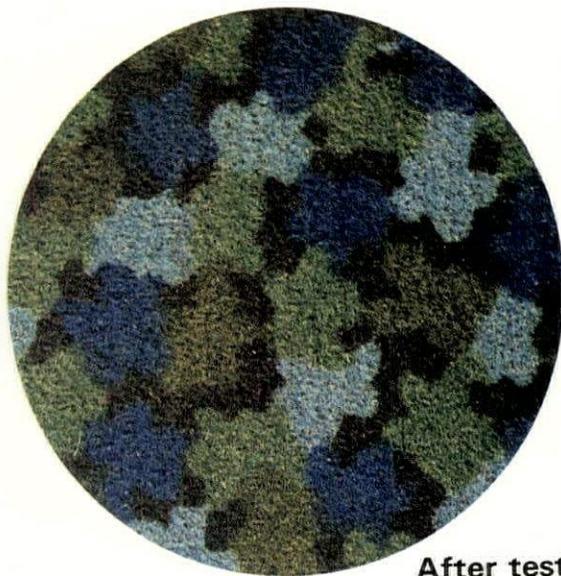
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**Nearly 1½ million people  
at Grand Central Station  
tried to run Ozite  
into the ground...**



Before test



After test

## ...Grand Central Station Test proves Ozite Futuristic Carpet almost like new after equivalent of 15 years home wear!

### Better Fabrics Testing Bureau concludes Ozite Futuristic shows little change in appearance and texture after traffic by 1,380,000 people!

Carpeting places as busy as Grand Central Station? Use the carpet *proved* there. Ozite Futuristic Carpet.

The Better Fabrics Testing Bureau put Futuristic in a street-level corridor connecting the main waiting room of Grand Central Station with the main station. There it stayed for 30 days for a prolonged accelerated wear test . . . tromped on and stomped on by nearly 1½ million people . . . vacuumed three times a day, shampooed once a week.

At the end of the test, sample plugs were uniformly vacuumed and shampooed, then photographed. A carpet showing original appearance or no noticeable change would rate "0". Ozite Futuristic Carpet was rated an amazing "0.5".

(To see why look at the above unretouched photographs of Futuristic Carpet before and after the test!)

The Bureau reported that neither the appearance nor texture of Futuristic was noticeably altered by the prolonged test in which 1,380,000 people passed over the installation. Their interpretation of the test indicates that Ozite Futuristic will show sat-

*isfactory retention of appearance and texture after 15 years normal in-home use!*

### Futuristic—a new concept in multicolor patterned carpet

What gives Futuristic its exceptional durability? The way it's made, for one.

Futuristic is the first multicolor patterned carpet ever manufactured by the "needlebond" process. The construction is dense and firm, the surface flat . . . making Futuristic less "crushable" and far more resilient than ordinary carpets.

What's more Futuristic has a 100% nylon face for extra toughness. And even the rubber backing is made to withstand extraor-

inary punishment. It's a high-quality high density foam rubber cushion that is *impregnated* into the back of the carpet—not just laminated or bonded.

### Sharp multicolor patterns never before possible

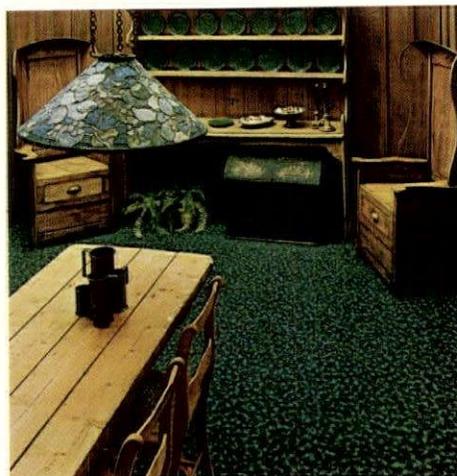
Ozite's unique silk-screening technique applied to the flat "needlebond" surface of Futuristic results in *complete color penetration* of the face fiber—providing exceptional colorfastness, distinct design detail, and successful use of a wide variety of colors in a single pattern!

Choose from a full range of dramatic designs—from the bold and brilliant to the soft and subtle—all with a sharpness and clarity never before possible in a multicolor patterned carpet.

### Priced far less than other quality multicolor patterned carpet

Here's another amazing feature of Futuristic Carpet: Ozite's economical high-speed needlebond manufacturing process makes it possible to produce and sell Futuristic at a cost far less than you'd pay for other high-quality multicolor patterned carpet.

See your Ozite dealer or distributor for details about the finest commercial carpet value on the market . . . Ozite Futuristic!



# Ozite<sup>®</sup> FUTURISTIC CARPET

©Ozite is the registered trademark of The Ozite Corporation, Merchandise Mart, Chicago, Illinois

# Gutter systems of rigid Geon vinyl will not rust, corrode, rot, peel, dent, flake, scale

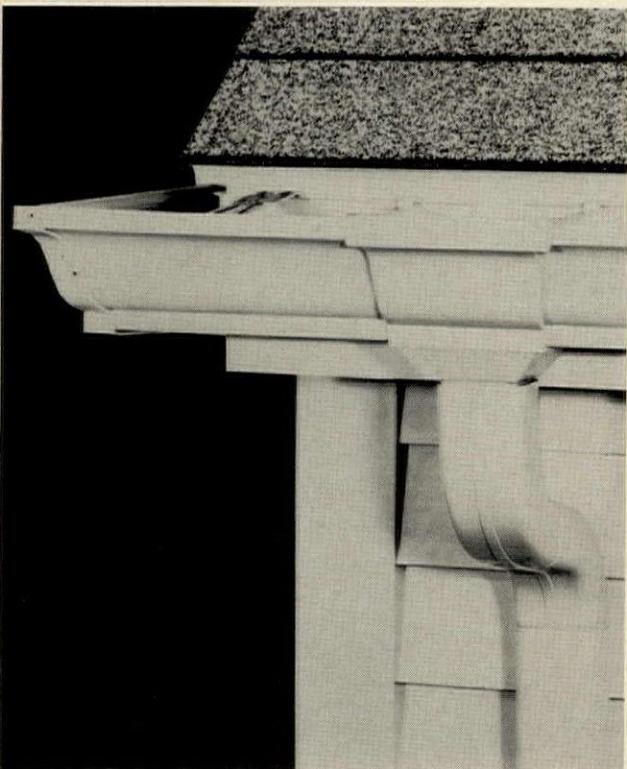


Photo courtesy: Bird & Son, inc., E. Walpole, Mass.

# or call-back.

That's because they are solid vinyl, and the color goes through and through. Rigid Geon vinyl sheds rain water and chemical roof wash without being bothered by them. Geon vinyl is making the material difference in many building products . . . windows, siding, pipe, conduit, gutters, downspouts, shutters, electrical raceways. And the difference is that they take care of themselves so that you won't have to. B.F. Goodrich Chemical Company, Dept. H-13, 3135 Euclid Avenue, Cleveland, Ohio 44115.



**B.F. Goodrich Chemical Company**

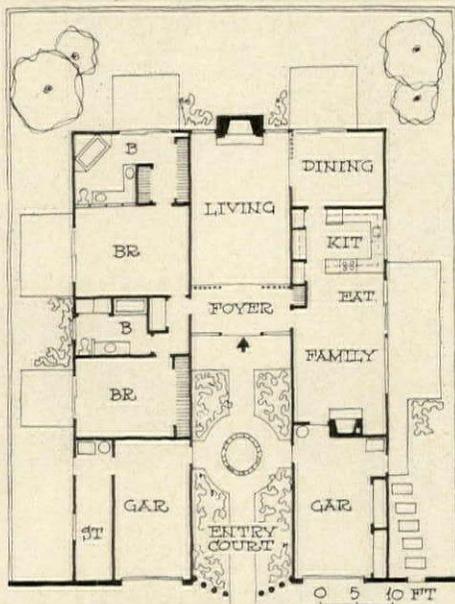
a division of The B.F. Goodrich Company



## For sale: a patio-house builder's marketing formula



**PATIO-HOUSE FACADE** screens a 1,900-sq.-ft. plan (below) by abutting house walls on each side.



**ENTRY COURT** flanked by one-car garages insulates glass-walled entrance foyer from street.

Builders seeking a fast way to gear up a subdivision of patio houses can now buy the whole formula in kit form.

Contents: ten plans with estimating take-offs, 30 elevations, landscape layouts, advertising copy, 16-page brochures—and arguments that help sell zoning boards on the narrow lot widths and high walls that make patio houses feasible.

Builder Mel Hansen is selling the formula after testing it for two years through 46 sales in conservative Portland, Ore. He has sold patio-house plans to other Portland builders and is now offering them nationally under the trade name Carriage House.

Hansen's narrow-lot designs—ranging in price from \$29,000 to \$37,000 minus land—are aimed at empty-nesters and apartment dwellers. Yard maintenance is minimized by covering most of the lot with indoor and outdoor living (plan) and by limiting street setbacks to an average 22'. Privacy is intensified by building a 7' masonry wall on side and rear-lot lines and by placing garages and a deep entry court in front. Each room has a patio with built-in lighting designed to glamorize interiors at night.

Says Hansen: "We bridge the gap between the big house and the apartment." Most of his buyers have, in fact, been apartment dwellers.

Move them up to the elegance of

### "Thai-Teak" Floors

WITHOUT MOVING THEM OUT OF THEIR PRICE RANGE!

Thai-Teak (Botanical name, *Tectona Grandis*; imported from Thailand) is lustrous and luxurious . . . easy to maintain with just an occasional waxing . . . withstands the hardest wear . . . resists termites, rot, decay . . . is available at a cost that compares with medium-priced carpet and vinyl . . . and comes in 85 different patterns.

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

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

GENUINE IMPORTED  
**THAI-TEAK**  
PARQUET FLOORING



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**BANGKOK INDUSTRIES, INC.**  
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Please send details on Thai-Teak Custom Flooring.  
 Please have your representative call on me.

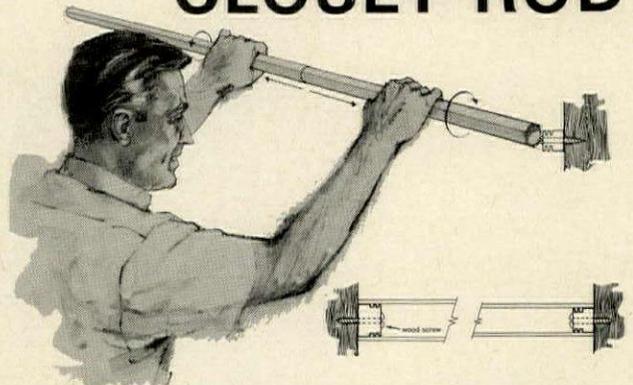
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Install in seconds . . . save money on the job

The Hager **POLYPLUG**  
(patent pending)

### CLOSET ROD



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

The low competitive price and the fast installation are money-saving advantages builders welcome.

Available for all closets up to twelve feet. See your Hager dealer for range of sizes and prices.

**HAGER HINGE COMPANY**  
139 Victor Street • St. Louis, Mo. 63104



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

CERAMIC  
VALVE PLATE



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

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

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

The Flow-Matic cartridge, including these ceramic valve plates, was developed and is patented by Price-Pfister.

Write for new brochure describing the complete Flow-matic line.

PRICE PFISTER BRASS MFG. CO.

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Sold only through wholesalers • Warehouses in these principal cities:  
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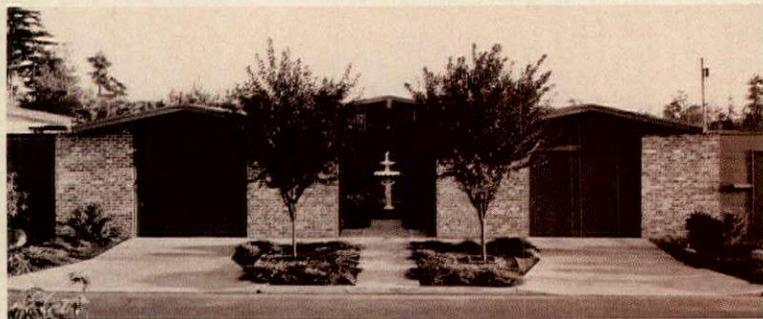


"TOMORROW'S DESIGN TODAY"

31

Presenting the

# Carriage House



## Newest Market-Tested Housing Discovery A Sure Road to Greater Profits!

With our CARRIAGE HOUSE plans and program you can attract a market of 25,000,000 "affluent" people who want a distinctive home and way-of-life *without* a big house—a big yard—and the "common-wall" neighbors of apartment and townhouse living.

GET HIGH DENSITY, SINGLE FAMILY UNITS.

CREATE A NEW AND EXCITING ENVIRONMENT.

**REDUCED YARD SIZE** — CARRIAGE HOUSES are designed *depth-wise* on a narrow lot as opposed to conventional placement paralleling the street on a wide lot. In this manner the house takes a greater portion of the lot, eliminating large yard maintenance.

**PRIVACY ON A SMALL LOT** — The entire CARRIAGE HOUSE lot perimeter is screened for maximum privacy and prevents windows from looking into neighbor's windows and yards looking into yards — keeps owner's pets in — neighbor's pets out — provides security from intruders.

**SLIDING GLASS DOORS IN PLACE OF WINDOWS**—Privacy screening allows abundant use of sliding glass doors which lead to *outdoor patios from every major room* — even baths. This extensive use of glass expands interior space outside — makes interior rooms feel more spacious and small yards appear larger. Visual and actual communication with the yard are everywhere. Up to 30% more interior light penetrates the home, and rooms are light and cheery.

**CURB APPEAL** — The facade is extended the *entire width* of the lot bridging both side yards to create a wide home appearance plus total interior yard privacy. Each CARRIAGE HOUSE features an attractive entry court.

**AVAILABLE TO YOU** — DETAILED CONSTRUCTION BLUEPRINTS, MATERIALS LISTS, SPECIFICATIONS AND INFORMATIVE DATA GAINED THROUGH ACTUAL MARKET-PROVEN SALES.

*Fill out the coupon below and get all the details.*

To: L. M. BRUINIER & ASSOCIATES, INC. c/o CYPRESS INVESTMENT CO.  
9655 S.W. Canyon Rd. Dept. MH-1 Portland, Oregon 97225

Please send me 16-page booklet of colored CARRIAGE HOUSE illustrations, prices and details.

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CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

(Send \$1 to cover cost, handling and postage)

## NEWS



**BABOON AND BUILDER BROAD**  
"I filmed a gazelle's birth"



**BUFFALO AND BUILDER WATT**  
"The tsetse flies ate us up"

## Safari! HOUSE & HOME tracks down big builders in the African bush

California homebuilder Eli Broad and wife Edith crouched in the Treetops Hotel in the Kenya bush, peering down on a waterhole.

After midnight a cheetah crept from the bush, moved silently forward and sprang onto the back of a Thomson's gazelle.

The Kaufman & Broad president zeroed in on the cheetah—with camera—and filmed the kill.

Two days later, in his suite in the Nairobi Hilton, Eli Broad said: "That kill and the birth of a gazelle I also filmed that night were highlights of our safari."

Broad was the third California builder to find a touch of the exotic in the African bush this summer. Because HOUSE & HOME follows big builders virtually everywhere, it followed them into Africa.

The three—Broad, Ben Deane of Deane Brothers and Ray Watt of Boise Cascade—insist that neither was trying to outdo the other.

But for the builders, all industry pace-setters, that steamy African landscape was THE place to be. And it will be again. President Dick Wasserman of Levitt & Sons is off to Africa in December.

Broad and his wife, who flew down from K&B's Paris office on impulse, toured 13,000 miles of East Africa in 18 days. They saw it all—from Ernest Hemingway's Mount Kilimanjaro to actor Bill Holden's Mount Kenya Safari Club. Broad still found time to monitor K&B's efforts to purchase U.S. companies. When HOUSE & HOME's Kenya reporter, John Platter, caught up with him, the builder was juggling transoceanic phone calls.

Said Platter: "Mr. Broad, I pre-

sume. I am from HOUSE & HOME."

Broad's reply is on the record. It was: "You must be kidding."

Ray Watt, interviewed back in California, was the first to venture into the bush. Aside from tsetse flies ("They about ate us up."), Watt and 22-year-old son James had a successful hunting safari.

"It is just like in the movies," says Watt. "We set up camp every night and ate with silver knives and forks."

When he wasn't luxuriating alongside a water hole, Watt was shooting—a cape buffalo that measured 52½ inches across its horns and a leopard.

His month in Kenya and Tanzania was the first long vacation of his life. "The real joy," says Watt, "was being able to spend time with my son—to discuss philosophies—and stuff like that."

Deane's safari was also something of a family outing. He and his wife, son and daughter-in-law were among 20 people on a "cultural safari" led by Jean-Pierre Hallet, a Belgian explorer, author and friend of the pygmies.

Deane, an individualist, bucked safari tradition. He refused to wear white hunter outfits ("That's tourism") and he didn't shoot a thing ("What could I do with an elephant head—wear it?").

While touring Tanzania, Deane's party encountered the spear-carrying warrior Masai. They showed about as much aggression as any American Indian would show a tourist in the Southwest. The Masai demanded 50 francs for being photographed.

—BARBARA LAMB  
McGraw-Hill World News,  
Los Angeles

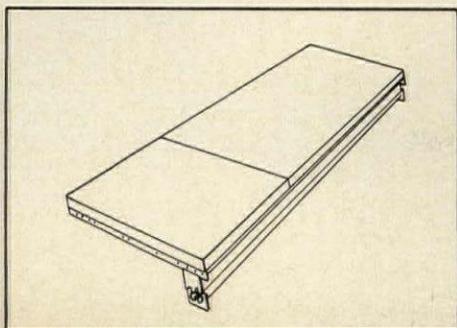
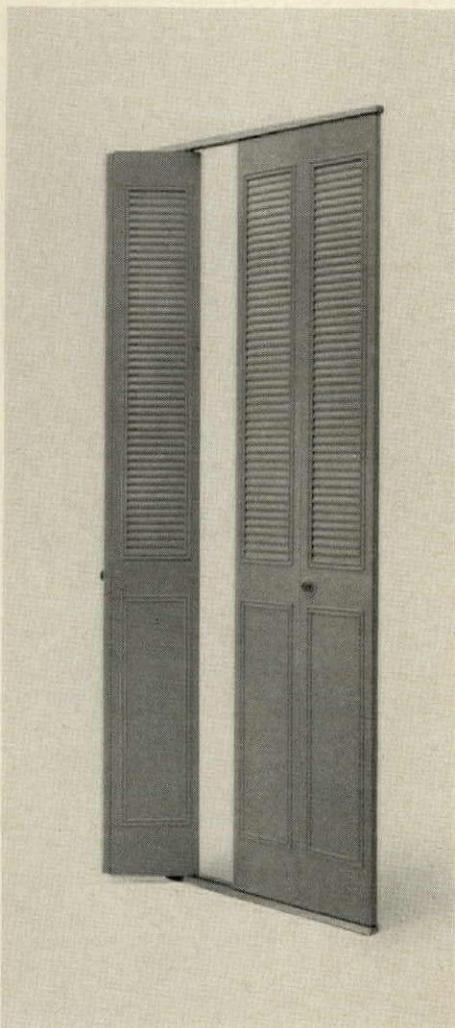
NEWS continued on p. 36



**ELEPHANT AND BUILDER DEANE**

"What could I do with an elephant head—wear it?"

# Float-Away Door announces **no** price increase.



If you were a Float-Away dealer, you'd already be selling the finest metal bifold and expandable shelf available at any price.

And now, with no price increase and the same top quality line, you'd be more competitive than ever.

But, our closet system dealers can offer more than the best.

They can offer the most.

For starters, Float-Away is the only closet door manufacturer who can make closet doors to meet oddball opening sizes. An invaluable service to the rehab or high-rise builder.

If you're supplying a rehab or high-rise customer, we can develop special delivery installation programs that could save him hundreds of hours.

And Float-Away doors, (available in five decorator styles), can be installed by unskilled labor.

All this plus a quality closet door and shelf line that hasn't gone up a penny.

If you'd like to become a Float-Away dealer or customer, contact us in Atlanta.

We're opening some new territories and we wouldn't want you to lose your competitive edge.

## **FLOAT-AWAY<sup>®</sup>**

**COMPLETE CLOSET SYSTEMS**

Department HH-9, 1123 Zonolite Road, N.E., Atlanta, Ga. 30306/Phone (404) 875-7986

# Thermopane is for guys who have better things to do than mess around with storm windows.

With Thermopane\* insulating glass in your windows, there's nothing to put up. Or take down. Or mess around with. You even cut your window washing in half (Thermopane has only two surfaces).

So tell your builder you want Thermopane in all of the windows of your new house. Choose any style of window you want — double hung, casement, awning or sliding.

He can get them for you with Thermopane in them.

All you have to do then, tiger, is get out there and cheer.

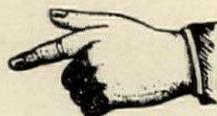
If you'd like a copy of our colorful Thermopane booklet of architectural styles and window treatments, send 10¢ to:

**LOF** Libbey-Owens-Ford Co.  
GLASS Toledo, Ohio 43624

**WARNING:** There are many imitations of Thermopane insulating glass. For your own protection insist on the real thing. Only Libbey-Owens-Ford makes Thermopane.



The Name  
of the Game  
is Living.®

 *This advertisement  
appears in Life Magazine.*

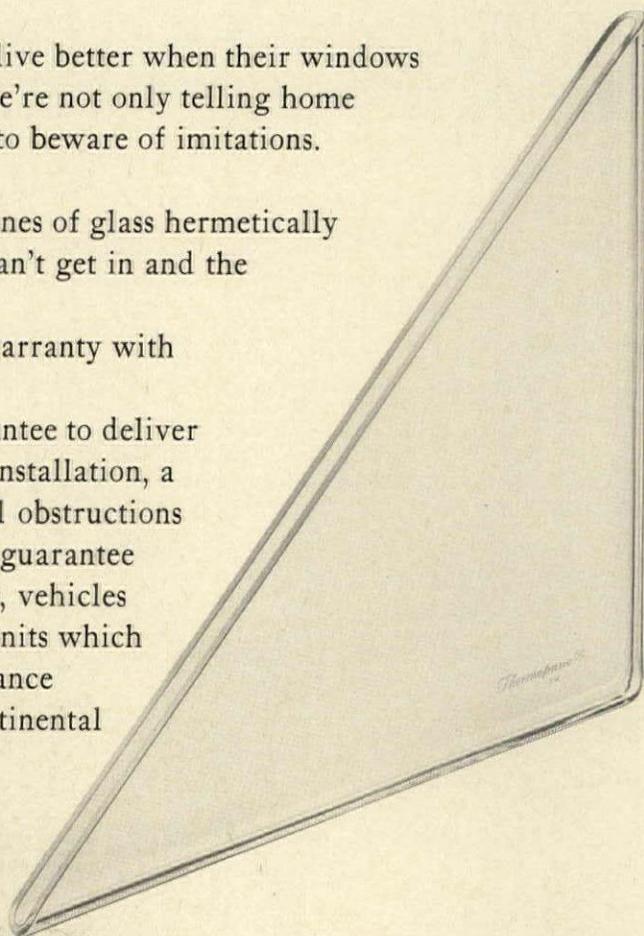
*Home buyers are fans.  
Are you?*

"The name of the game is living." And people do live better when their windows are glazed with Thermopane® insulating glass. We're not only telling home buyers about Thermopane . . . we're telling them to beware of imitations. So give them the real thing. Why mess around?

Thermopane with the GlasSeal® edge is two panes of glass hermetically sealed at the edges . . . a glass-to-glass seal. Dirt can't get in and the dry, clean, insulating air won't leak out.

Thermopane is so reliable, we offer a 20-year warranty with each unit that reads:

"For 20 years from date of manufacture, we guarantee to deliver without charge, to the shipping point nearest the installation, a replacement for any unit which develops material obstructions of vision between the interior glass surfaces. This guarantee does not apply to Thermopane units used in ships, vehicles or commercial refrigeration; to broken units; to units which have not been handled, installed or used in accordance with our instructions; to units used outside the continental United States; or to replacement units beyond the period covering the original unit. We make no other guarantee or warranty, express or implied, respecting this unit."



**Libbey-Owens-Ford Company, Toledo, Ohio 43624.**

What every  
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builder  
should know about

Am-Finn *Sauna*



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

Don't believe it!

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

So how do you unload yours — first, fastest, with the best profit — to your highly pampered, demanding buyers and tenants?

Simple. Pamper them a lot more — at little extra cost — with Am-Finn Sauna.

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Inc.

Dept. HH 108

Haddon Ave. & Line St., Camden, N. J. 08103

Please send me complete information on Am-Finn Sauna.

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Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

## NEWS

continued from p. 32

### Mortgage Bankers' incoming leader: shrewd pro with gentleman's touch

Creative Photographers

The man taking over as president of the Mortgage Bankers Association in Chicago this month would rather lose out on a multi-million dollar loan than learn that his company's delinquency rate is rising.

Lon Worth Crow, who still proudly carries the Junior tag, feels so strongly about responsibility toward personal debt that he wrote a pamphlet about how to keep delinquency rates low. The story became a best seller in the mortgage profession.

At 55, Crow shares most of his time between mortgage banking and community service. It's a habit he inherited from his father, a Florida realty pioneer who helped found the University of Miami in the boomday twenties. Lon Jr. heads the Lon Worth Crow Co. and is a busy board member of the university.

His employees describe Crow as a demanding boss, but the term softens when they explain that he works "eight days a week" and that "nobody in the company works longer or harder." The company publishes a delightfully informal house organ called *The Crow's Nest*, which continually reflects a high level of morale.

Intimates in the profession describe Crow as at once the most competent and yet the kindest of executives. He is noted for diplomacy and for use of the soft touch in the clinches, and he explains it with an allusion to his undergraduate career at the University of Florida.

"I was a boxer," he likes to say, "not a slugger."

There is a high degree of formality maintained in the bright new Miami headquarters of the company, which maintains branches in Fort Lauderdale, North Palm Beach and Orlando. It is a formality considered necessary by a boss who thinks seriously about the responsibility of



MORTGAGING'S CROW

A boxer—not a slugger

servicing \$272 million in mortgages. Crow won the MBA's distinguished service award in 1964.

For the future of his own industry, Crow considers it vital for mortgage bankers to develop a higher degree of knowledge and sophistication in order to maintain their position.

"We have to know more about what we are doing and what we can do," he says. "We are changing from a one-generation business to an institutional type of business. We can no longer operate as a friend of somebody who owns an insurance company or a bank. We must deal on a higher level of financing techniques."

Crow resides in Coral Gables with wife Patricia and their children, Michael and Karen.

—FRED SHERMAN  
McGraw-Hill World News, Miami

### NAHB, prefabbers in trial marriage

The Home Manufacturers Assn. has moved its headquarters from Louisville, Ky., to join NAHB in the National Housing Center in Washington.

The HMA has 60 active members, most of them prefabbers and component-home companies; NAHB claims 50,000.

Both associations emphasize that the move is a one-year trial alliance, not a merger. Separate identities will be maintained. Then why the alliance?

"We have to develop programs to build our image, our membership and our products' acceptance," explains Don Gilchrist, HMA's new executive vice president. "We can do this more effectively with NAHB's resource help."

"Working with HMA will strengthen our knowledge of manufactured housing and component homes," says M. Ray Niblack, NAHB's assistant executive vice president. "Our unity will strengthen legislative efforts."

President Lloyd E. Clarke of NAHB takes an even longer view: "This is the first step toward a day when most trade associations in and allied with homebuilding will have headquarters in the housing center."

**BUILDERS:** Donald MacAdam has been appointed vice president in charge of new community development by R. A. Watt Co. of Los Angeles. Watt Co. is a subsidiary of Boise-Cascade.

НА ЛУЧШИХ КВАРТИРАХ В КАЖДОМ  
СОСЕДСТВЕ ЕСТЬ ОКНА ИЗ ДЕРЕВА.

ПРАВДА ЛИ? **OR...**



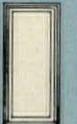
The Better Apartments in Every  
Neighborhood have **WOOD WINDOWS.**  
Have You Noticed?



Developer: R. T. Milord Company Architects: Bartholomeo & Hansen



DOUBLE-HUNG WINDOWS



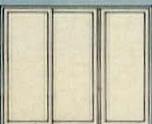
CASEMENT WINDOWS



AWNING WINDOWS



SLIDER WINDOWS



PATIO DOORS

## CARADCO

**C200' Casement Wood Windows**  
are double weatherstripped and factory primed

Other features and options: Insulating Glass with leak-proof Vinyl Glazing • Removable Vinyl Grilles • Variety of sizes and combinations • 1<sup>3</sup>/<sub>4</sub>" heavy duty sash • Custom-engineered Storms and Screens • Hinge design permits sash removal without tools.

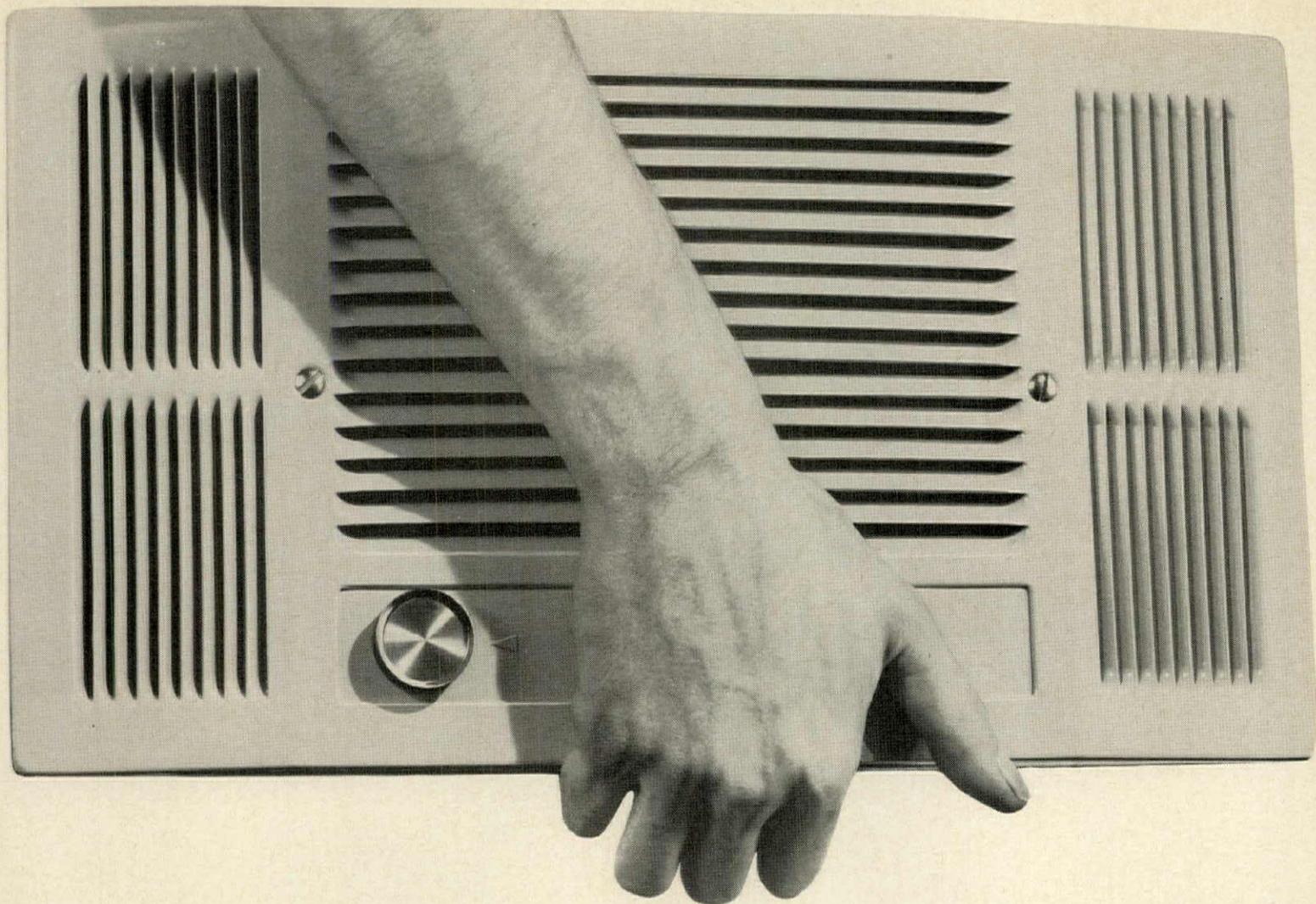
**CARADCO, INC.**

Dubuque, Iowa

Subsidiary: Caradco Eastern, Inc., Pemberton, New Jersey



Caradco Windows and Patio Door products are further detailed in Sweets Light Construction <sup>6B</sup>/<sub>Ca</sub>, Arch. File <sup>19c</sup>/<sub>Ca</sub> and Canadian file <sup>8wmw</sup>/<sub>Car</sub> or write direct to factory



# this is your heating plant!



**Ideal Primary Or Secondary Heating For Large-Tract And High Rise Construction Or Remodeling**

*Individual-Room Electric Heating from 1000 to 2400 Watts: Low in Cost...Ingeniously Easy to Install...Individually or Centrally Controlled. Who Needs a Furnace!*

A new concept in primary electric heating! No long line of baseboards, no duct runs, no space-stealing furnace or boiler to buy, install and maintain! Air King's new compact individual Trim-Heat wall units let you heat one room or an entire home to individual satisfaction. Available in 120 and 240 volt models, with built-in or wall-controlled thermostats. Units are designed to let you field-convert to the wattage you need for each loca-

tion in a few seconds. The fan-forced heat is gentle, even, draft-free and exceptionally quiet. And all you see is a simple, tastefully designed 15" x 8" grill that extends only 1/2" from the wall. Initial cost is designed for budget heating...our exclusive "flex-a-box" makes rough-in and installation a breeze...and you can forget about call-backs! Write for information:

Berns Air King Corporation, 3050 N. Rockwell, Chicago, Ill. 60618.

## **Air King**

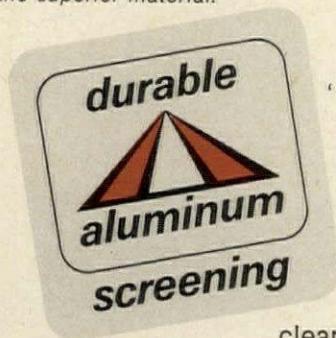
**NEW *Trim-Heat* ELECTRIC WALL HEATERS**



Arnold Stang, Television and Screen Personality

## "If I buy ONE of your HOMES will I GET STUNG?"

This label shows you use the superior material.



"Not on your LIFE, Mr. Stang! As advertised in LIFE magazine, the quality home has durable aluminum screening throughout.

Aluminum screening is stronger. Won't fade or become brittle. Flame proof. Rodent proof. Stays cleaner and tighter."

Arnold Stang, the unstung hero of screening, is emphasizing these strengths of aluminum screening to the millions who read LIFE. You can assure your prospective buyers — very easily and tastefully — that you use this quality material.

Send for your model home tie-ins. They're free.

Send to: Wire Weavers Association, 441 Lexington Ave., New York, N.Y. 10017

**FREE QUALITY-EMPHASIZERS FOR BUILDERS.** For your model home sales room—tasteful plastic-enclosed reprints of the LIFE advertising, plus a small durable sign for the screening itself.

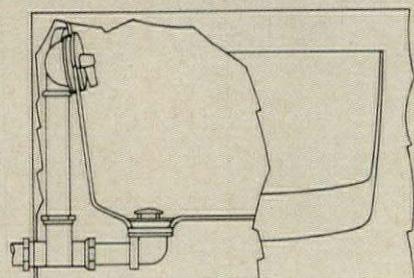
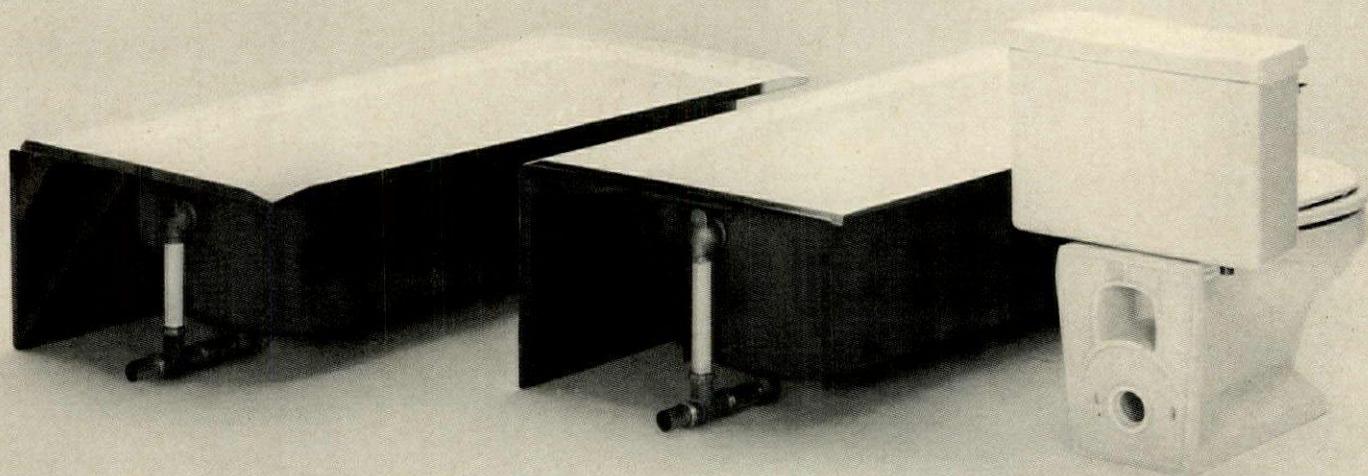
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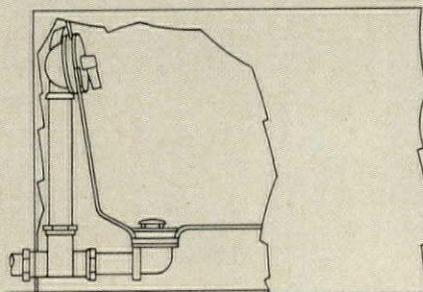
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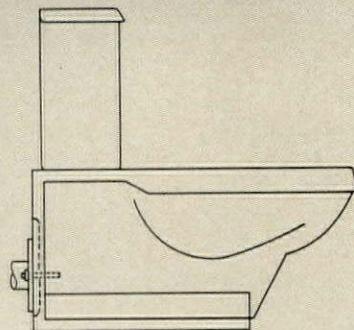
# Rough-in through the wall.



**The Sarasota** tub, formed steel with acid-resisting enamel, features a raised outlet that permits waste line to be installed through the wall.



**The new Nile** tub, cast iron with acid-resisting enamel, has a raised outlet that permits installation of a horizontal waste drain from bath to wall.



**The Orlando** floor-mounted, back-outlet closet fits flush with floor and wall.

## Eljer shows the way.

Here's good news for builders who prefer reinforced concrete or slab construction. Now, with the addition of the new Nile tub, Eljer has the most complete line of fixtures that rough-in through the wall. Including tubs of both cast iron and formed steel.

The Nile has an exclusive feature found on all Eljer cast-iron tubs—buttons that prevent spalling of enamel at edge of apron when the tub is pushed along the floor during installation.

For more about these compatible-with-slab-construction fixtures, consult the Yellow Pages for your Eljer plumbing contractor. Or write Eljer, Dept. HH8, P.O. Box 836, Pittsburgh, Pa. 15230.

MASTER  
CRAFTED **ELJER**  
SINCE 1904 FINE PLUMBING FIXTURES

Eljer Plumbingware Division / Wallace-Murray Corporation

# When you build a home you build it to last... right down to the fixtures.



Today's buyer looks for quality and value. You know it, we know it and they demand it.

That's why everything that is designed and built must carry through the feeling of beauty, quality and value.

We, at Artolier, take great pride in our Cast Aluminum line.

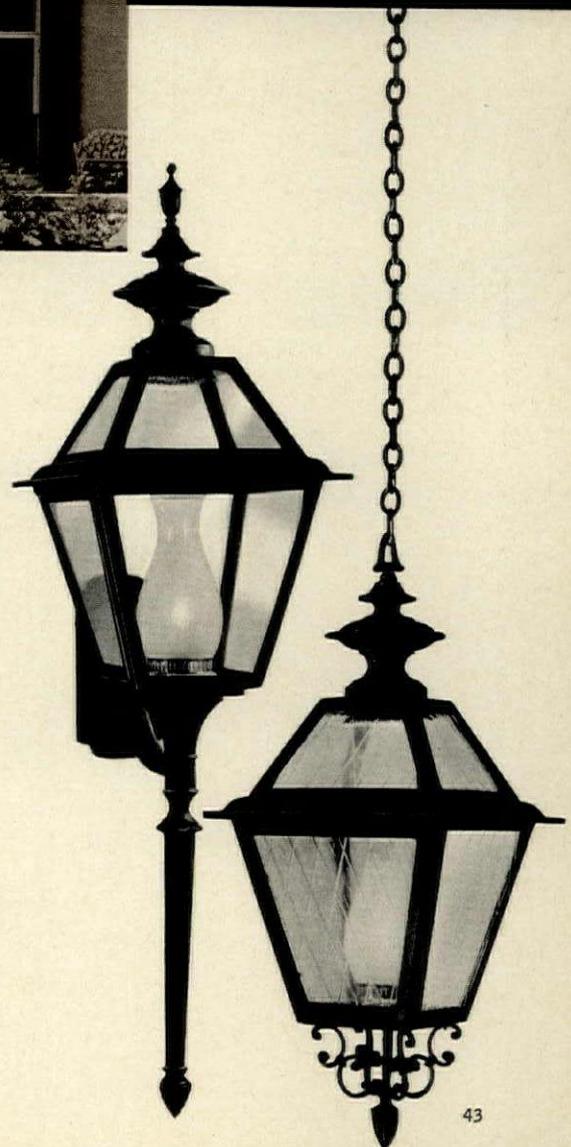
Pride in knowing that it was built out of a need by the building industry, not out of a convenience for Artolier.

Pride in knowing our fixtures will last as long as the house will stand, or even longer.

And, the pride in seeing more and more architects and builders using Artolier than ever before.

If you are interested in seeing our Cast Aluminum series as well as the complete line of Artolier Lighting, send one dollar to: Artolier Lighting, a division of Emerson Electric, Garfield, New Jersey 07026.

 **Artolier Lighting**  
we're proud but practical.





## You won't have to show them the air conditioning ...they'll feel it...and it will help you sell.

The minute they walk from the summer heat and humidity, into your air-conditioned model home, you'll see how much central air conditioning can do to provide the right climate for selling. They relax, ask questions, show more interest. It gives you that competitive edge that changes

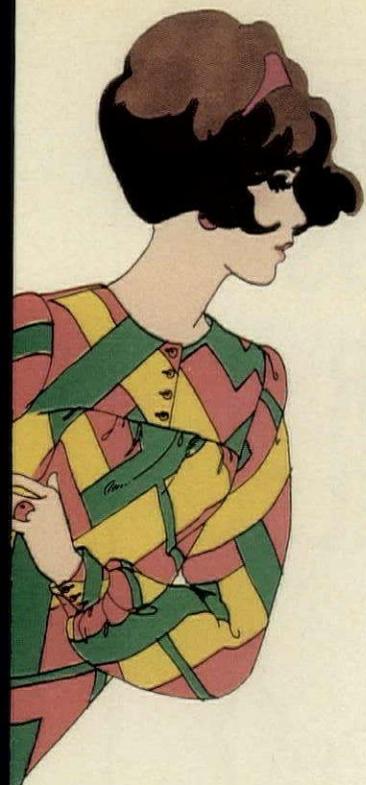
Du Pont makes FREON® refrigerants, not air-conditioning equipment.

the "lookers" into buyers. Give yourself this sales advantage by making central air conditioning a standard feature included in the selling price. And don't forget to mention all the other benefits beyond cooling. The buyer and his family will get a healthier, allergy-free climate, with more

cleanliness and privacy, and higher resale value. Remember, it's a lot easier for the customer to sit down and write a deposit check, in the comfort of an air-conditioned model home.

**DU PONT**  
REG. U.S. PAT. OFF.

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# MEET AMERICAN OLEAN'S WENDY. SHE'S SHOWING THOUSANDS OF YOUR PROSPECTS

## HOW TO TELL A QUALITY HOME.

Wendy is American Olean's spokesman to millions of prospective home buyers. Through full-color, full-page ads in top home magazines, she's telling 38 million potential prospects how to judge the quality of a home by the quality of its baths. She's telling them how to recognize such quality bathroom features as genuine ceramic tile by American Olean. She's telling them how to get the most bathroom for their dollar in the homes they buy.



## THIS BOOKLET SHOWS YOU HOW TO SELL A QUALITY HOME.

American Olean's *How to Sell a Bath* booklet was prepared especially for you, the home builder. It shows how the potent sales appeal of modern ceramic tile bathrooms can be an important factor in selling homes. It's packed with practical tips on how you and your salesmen can fully exploit the quality features home buyers are looking for. To get your free copy of *How to Sell a Bath*, just fill in the coupon.



Genuine  
ceramic tile  
by

# American Olean

A Division of National Gypsum Company  
Executive Offices: Lansdale, Pa.  
West Coast: Pomona Tile Mfg. Co.

**American Olean Tile Company**  
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Lansdale, Pa. 19446

Please send me my free copy of *How to Sell a Bath*, plus a full-color Decorating Guide.

Name \_\_\_\_\_ (please print)

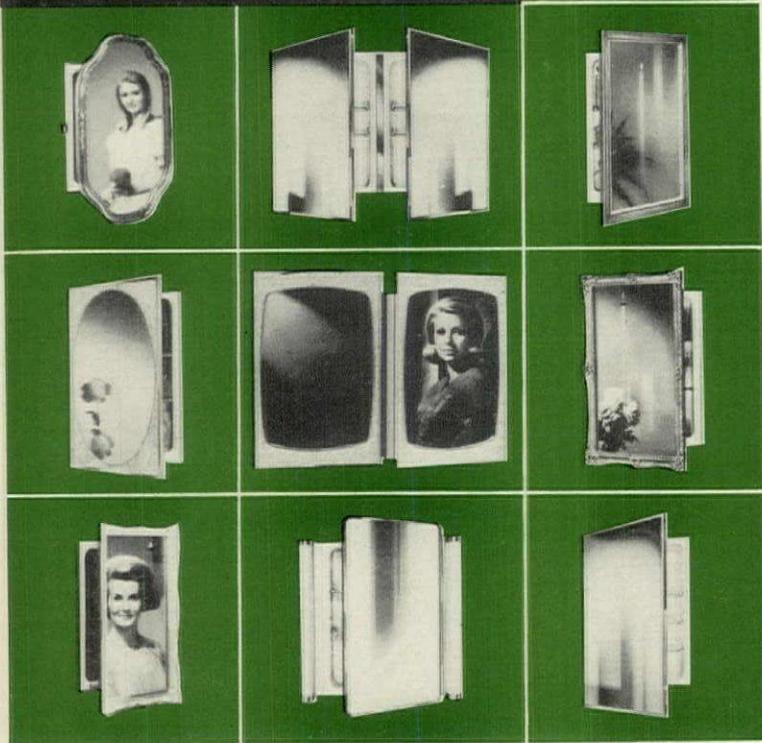
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Whatever you want in a swing-door bathroom cabinet, Grote has it... with a wall mirror to match

35 swing-doors in stylish metallic or elegant carved wood



No bathroom cabinet gives more convenient storage for the money or easier installation than the timeless favorite of so many builders, the swing-door. Or more glamor, when you buy Grote. For the Grote line of 35 swing-doors gives you the gamut from stylish practicality in metallic frames to the ultimate in decorator-inspired elegantly carved wood. Recessed, or surface-mounted with the built-in look. Simply invert the cabinet on the job to switch the door swing.

Two years ago we bought a whole mirror plant, renowned Hagemann of Shelbyville, Ind., to bring you ALL the sales magic of mirrors. Not only the industry's broadest variety of styles but, when you buy Grote cabinets, you can get wall mirrors to match. Neat trick to sell a home or rent an apartment weeks earlier. Send coupon to see all our sales tricks.

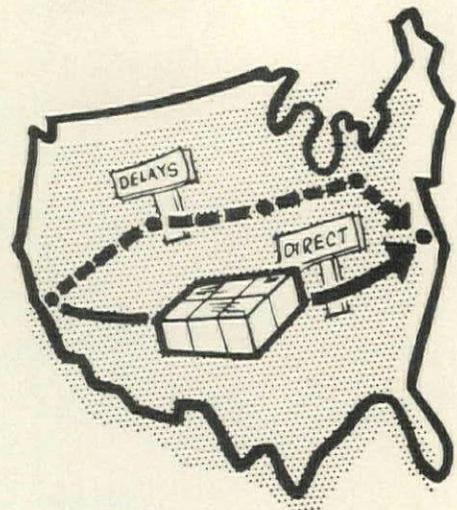
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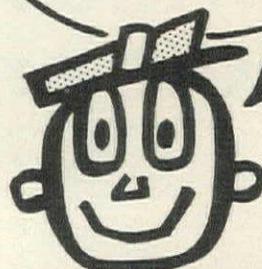
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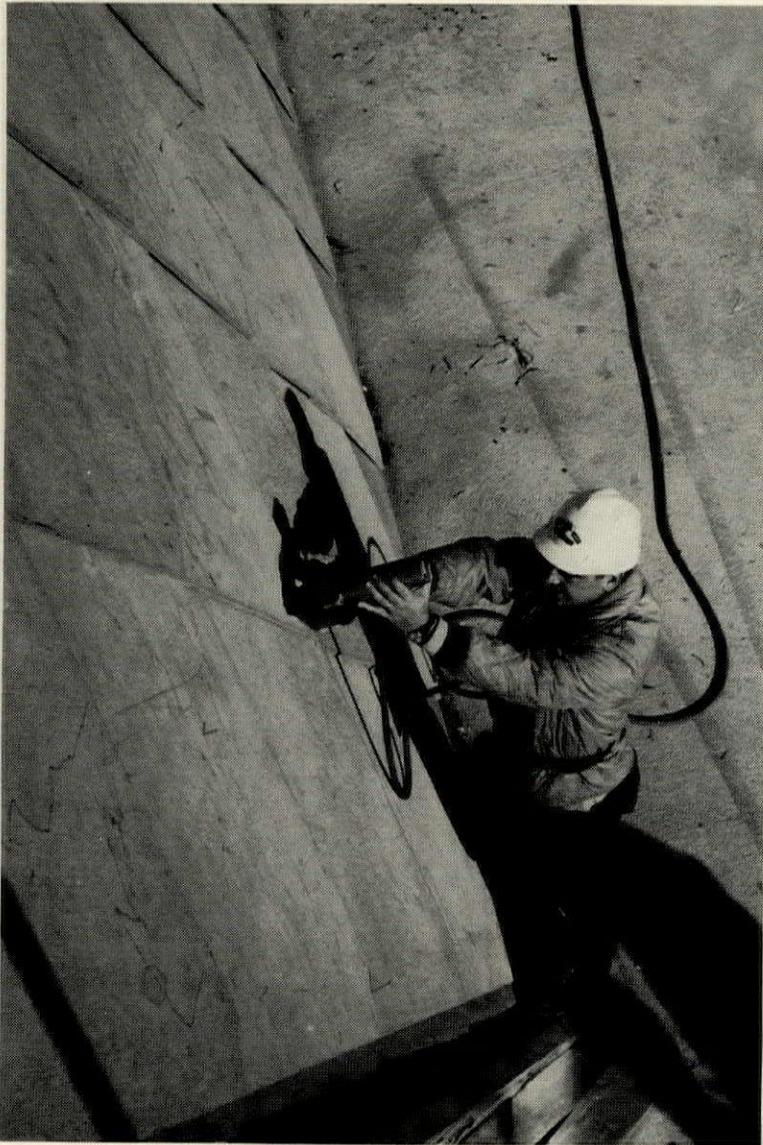


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The job: fastening of 4 x 8 foot exterior plywood panels overlapped to create giant shingles.

The problem: get it done "yesterday."

Enter Bostitch. The Bostitch Mark II pneumatic stapler with touch trip. Sturdy enough to drive 2" long 16-gauge staples through the two layers of panels. And fast enough to get this job done when it had to be done.

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Build it better and faster with

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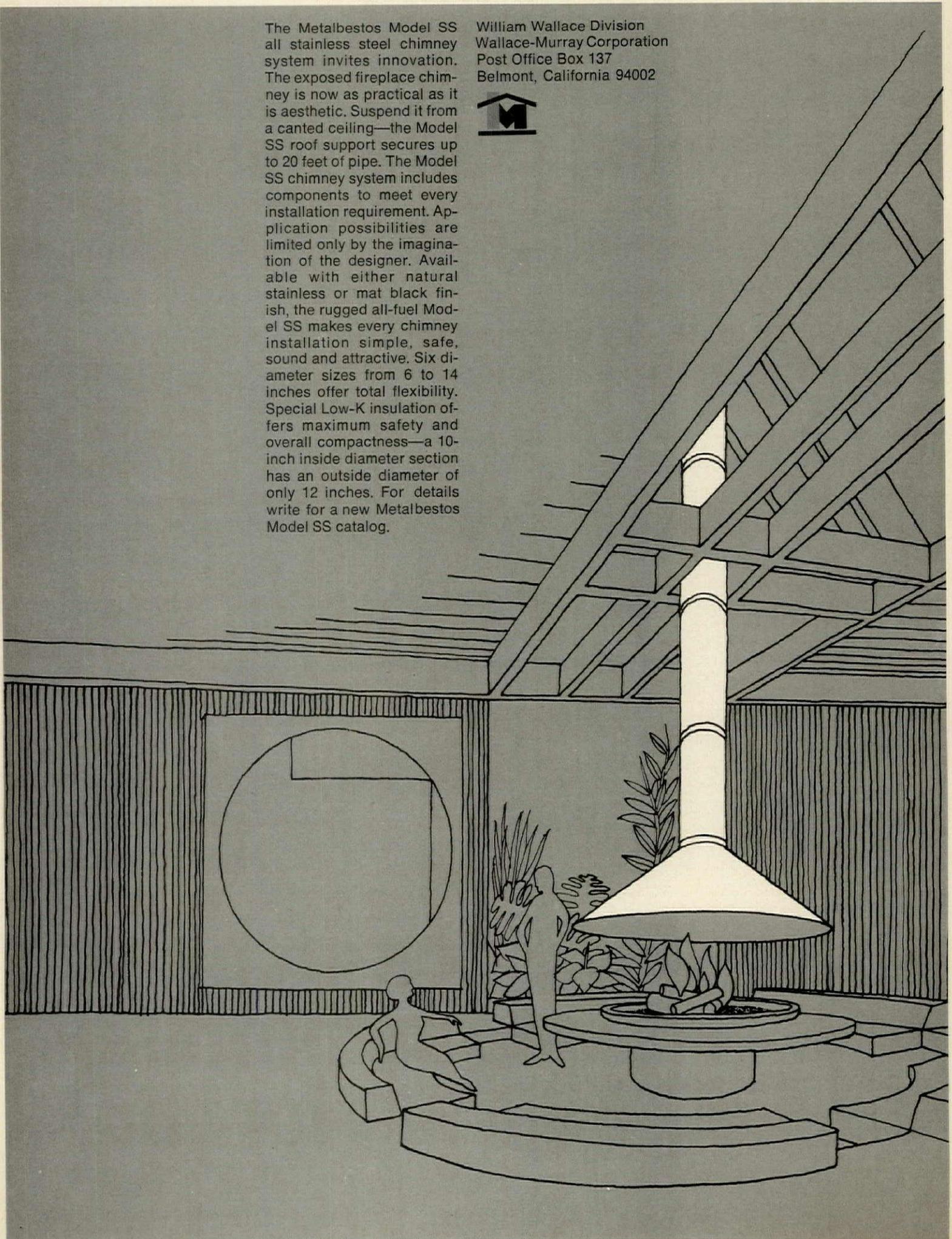
A **textron** COMPANY

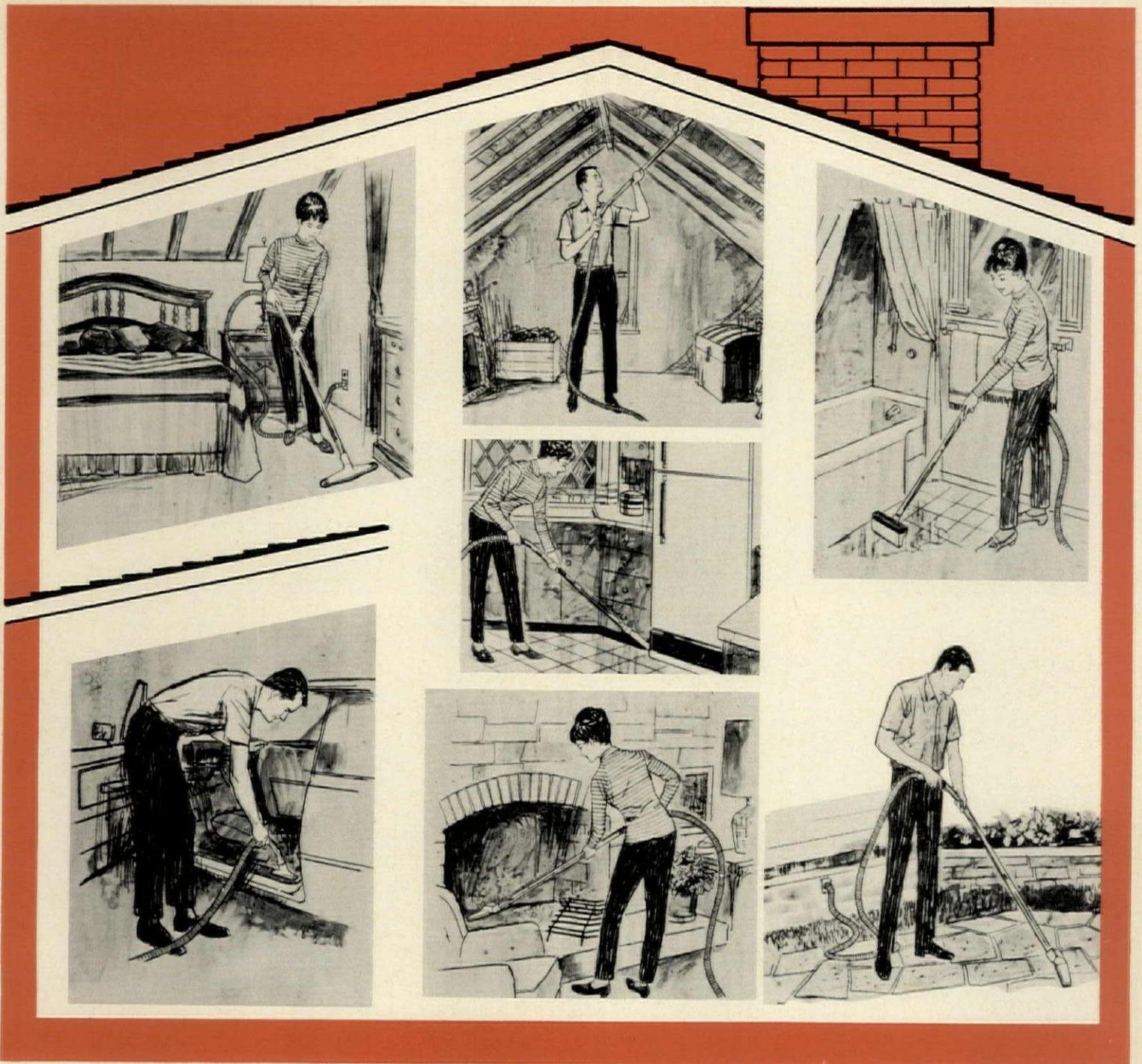
# Bostitch can do something for you.

# chimney innovation

The Metalbestos Model SS all stainless steel chimney system invites innovation. The exposed fireplace chimney is now as practical as it is aesthetic. Suspend it from a canted ceiling—the Model SS roof support secures up to 20 feet of pipe. The Model SS chimney system includes components to meet every installation requirement. Application possibilities are limited only by the imagination of the designer. Available with either natural stainless or mat black finish, the rugged all-fuel Model SS makes every chimney installation simple, safe, sound and attractive. Six diameter sizes from 6 to 14 inches offer total flexibility. Special Low-K insulation offers maximum safety and overall compactness—a 10-inch inside diameter section has an outside diameter of only 12 inches. For details write for a new Metalbestos Model SS catalog.

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## Build in ALL-around convenience

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

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

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

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

you can do it yourself.

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



# Whirlpool

CORPORATION

\*Tmk.

Central Vacuum Systems Department HH-10  
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Please send me all the facts on the Jac-Vac.

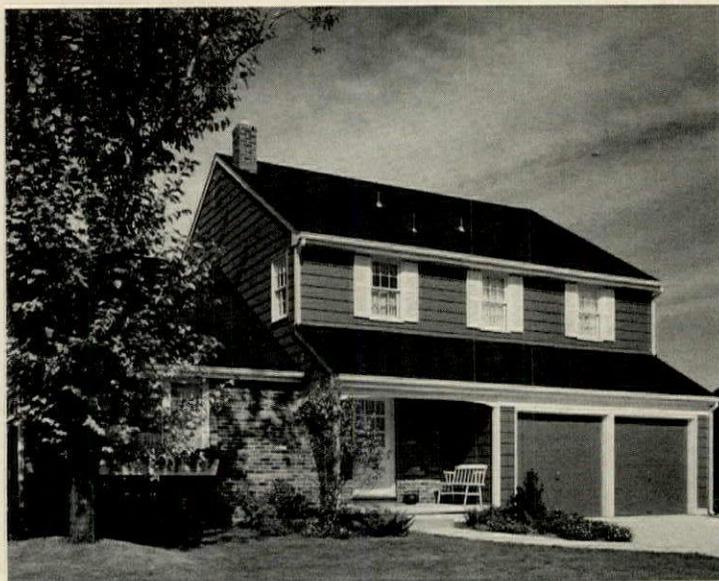
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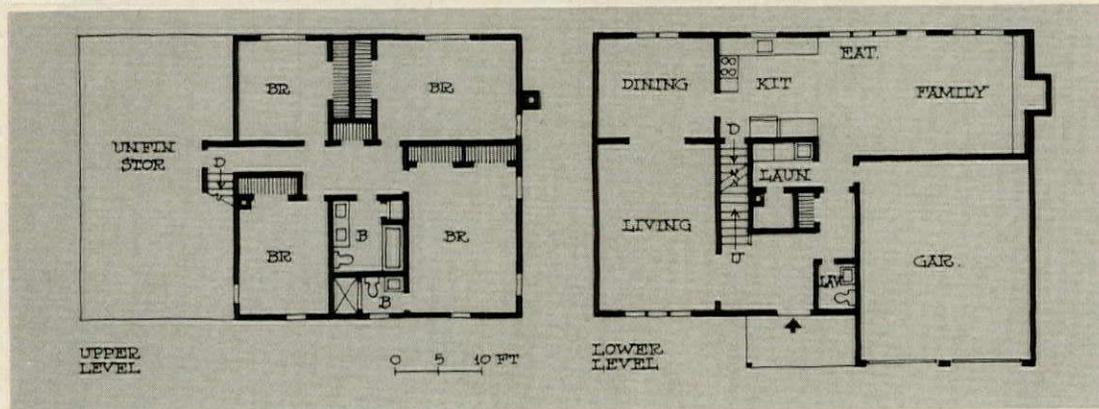
# Would you believe these two houses have a lot in common?



Photos: Paul E. Voegtlin

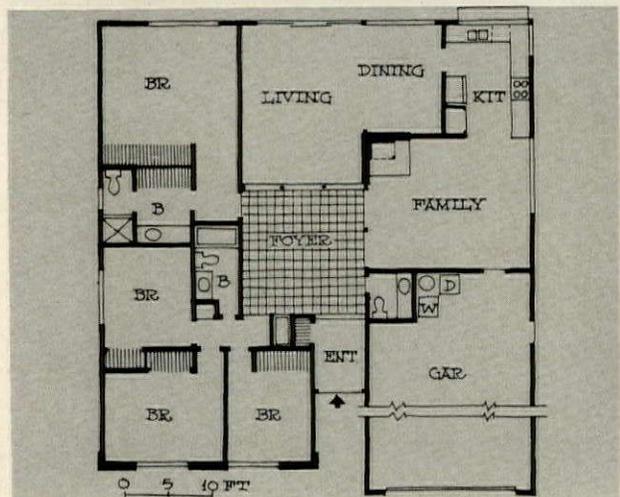


Probably not. One is a two-story colonial, the other a one-story with a mansard roof. And they are being sold by two different builders at opposite ends of the country. But despite their obvious differences, they are very similar. They offer almost exactly the same living area and the same rooms at very nearly the same price (the colonial's higher tag reflects higher building costs in the Northeast and a full basement). Most important, both are excellent examples of the kind of living possible in today's medium price range.



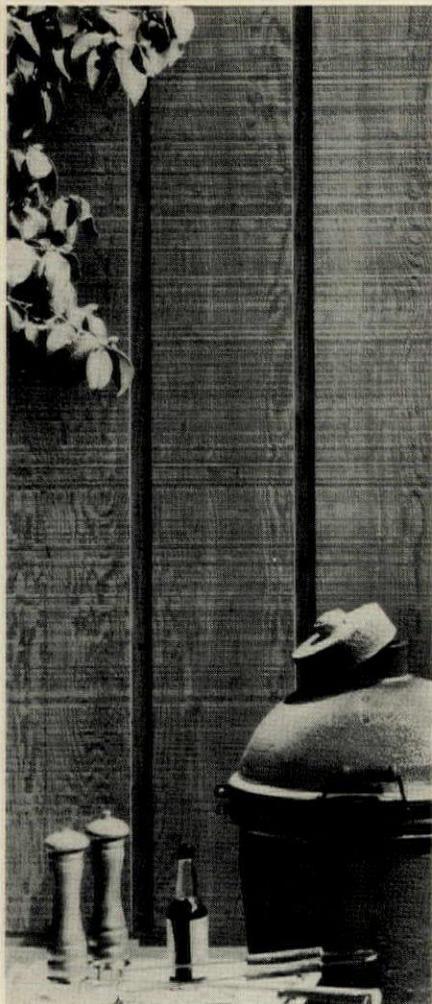
**NEW JERSEY MODEL** is a variation on the traditional center-hall colonial plan. A two-car garage is tucked into one side of the house; it projects out to the line of the front porch, leaving enough room behind for a big family room immediately off the kitchen (*above, left*). Living and dining rooms are in a one-story wing to the left. The center-hall area includes the usual front closet plus a laundry, pantry and powder room. Builder Bob Scarborough sells this house in Haddonfield, a Philadelphia suburb, for \$31,800. Living area is 1,950 sq. ft.

Photos: George Lyons

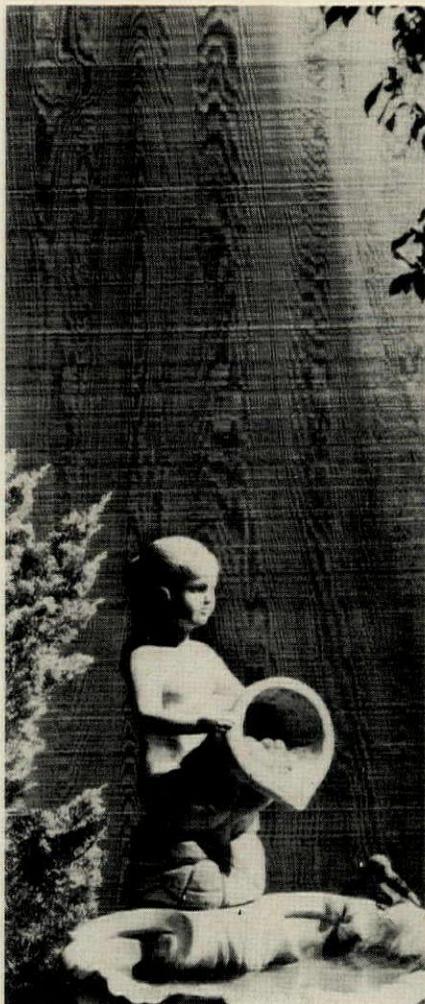


**CALIFORNIA MODEL** looks like a small ranch from the street but actually has 1,935 sq. ft. of living area, thanks to its nearly square floor plan. Core of the house is a 13'x13' indoor court (*bottom, left*); off it open a 3-bedroom-and-bath section; a master-bedroom suite; living and dining rooms and kitchen that face the rear yard; a big family room, and a garage that also holds a powder room and laundry. Priced at \$28,650, this model is the best seller for American Housing Guild in a 150-house project in San Diego. Architect: Naegle & Malone.

Letters start on p. 58



Clear Heart Saw-Textured Inverted Batten Pattern



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A-Clear Brush-Textured Texture 1-11: Grooves 4" o.c.

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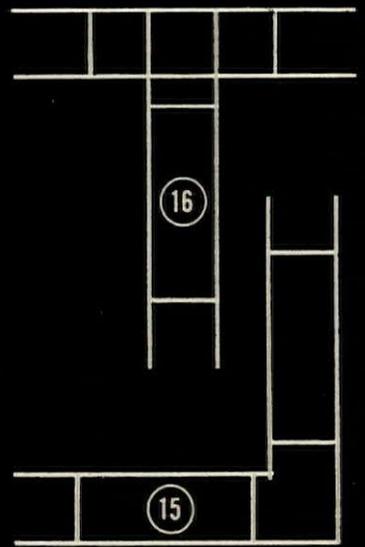
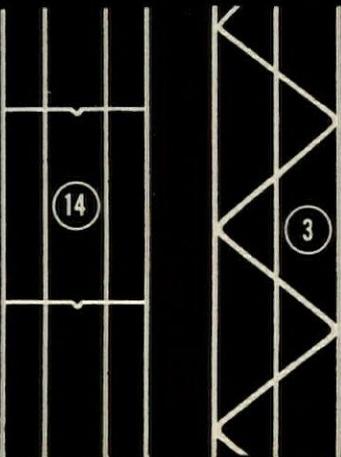
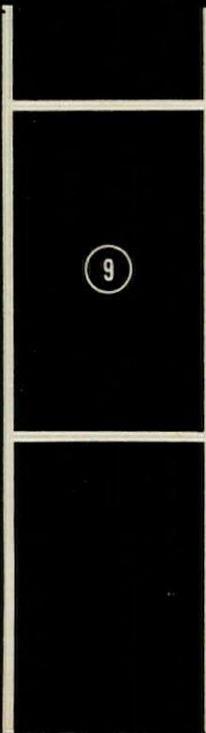
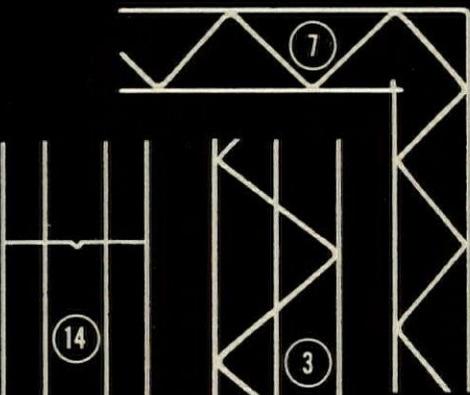
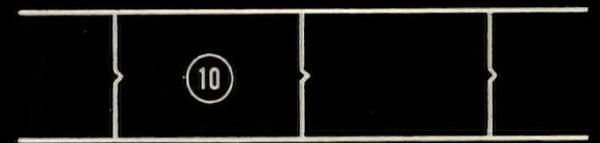
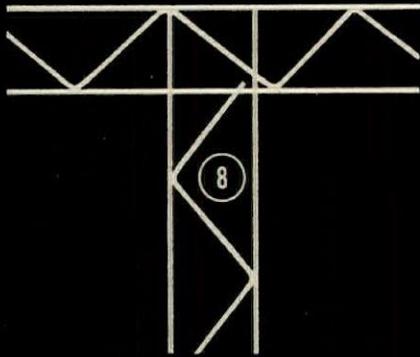
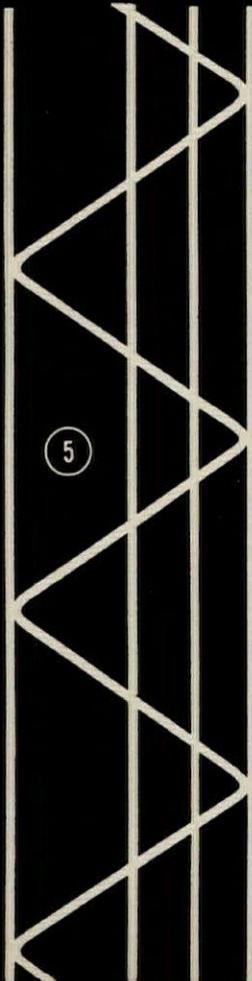
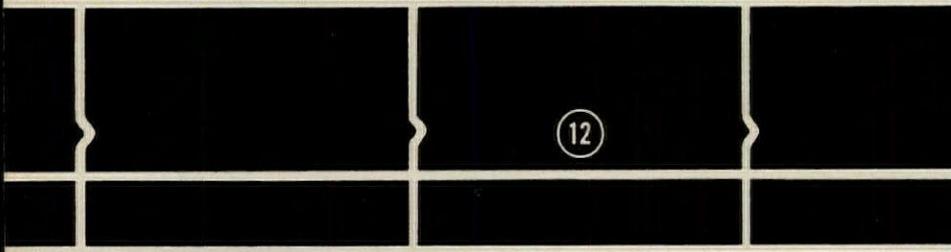
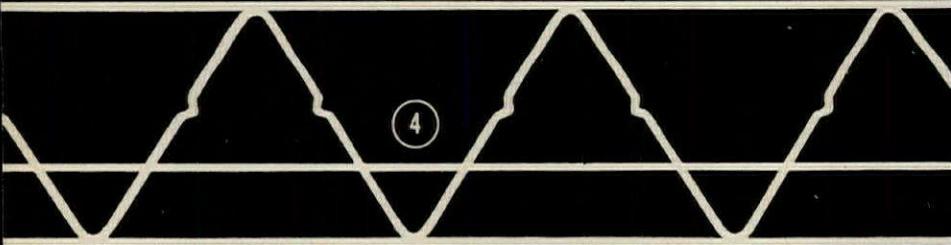
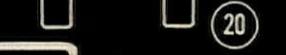
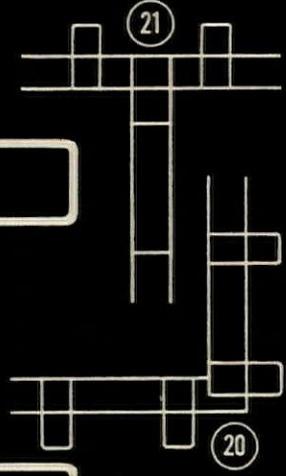
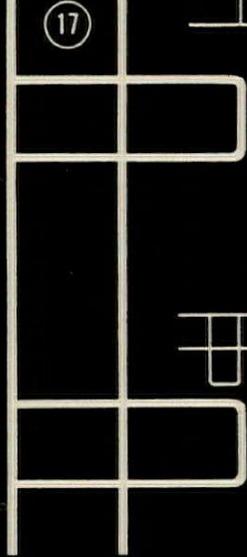
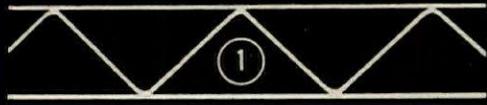
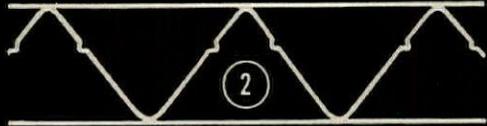
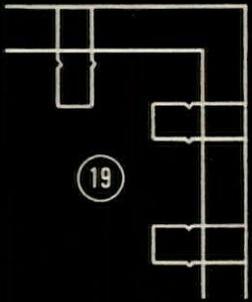
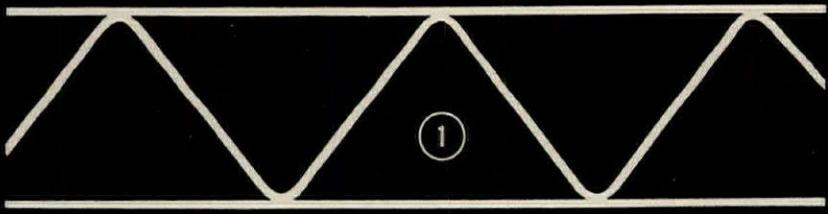
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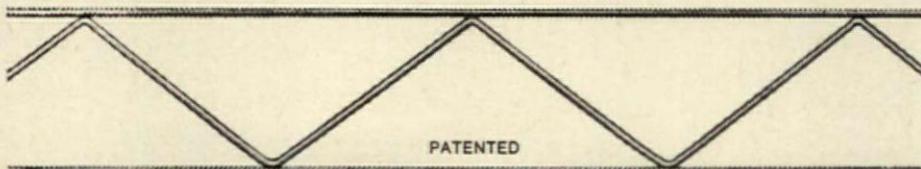
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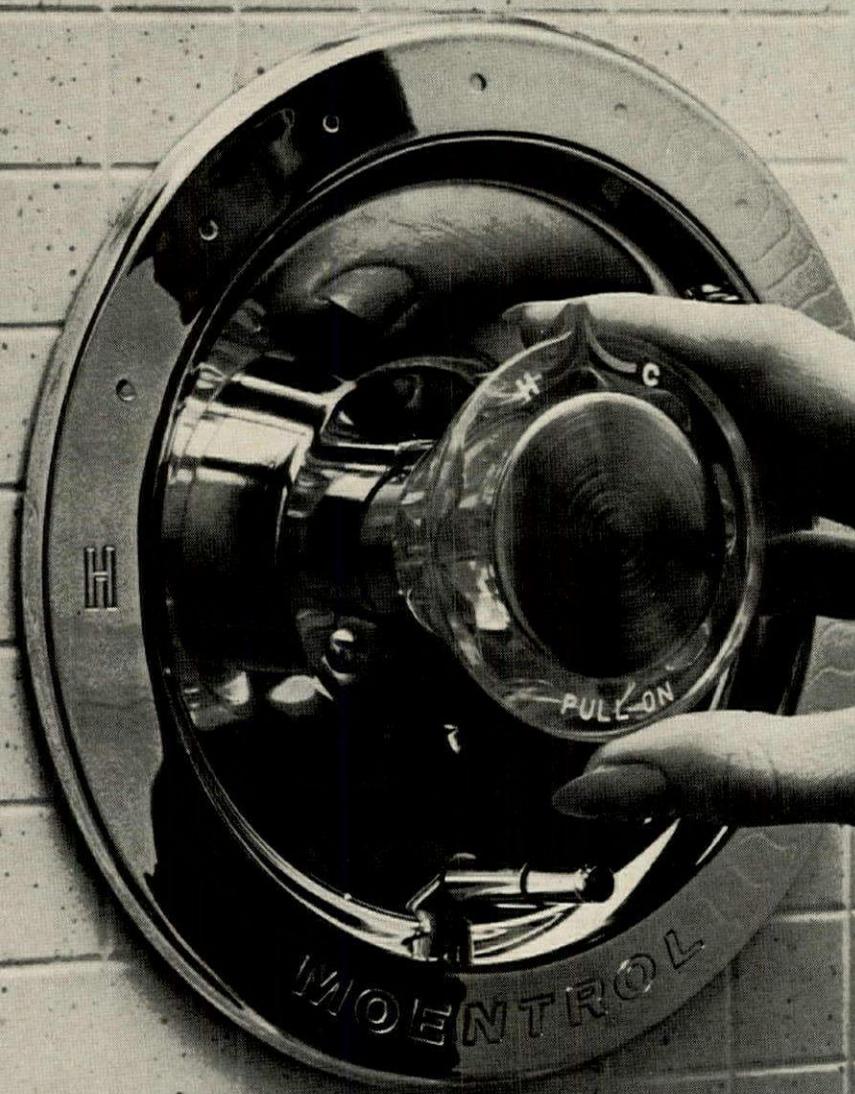
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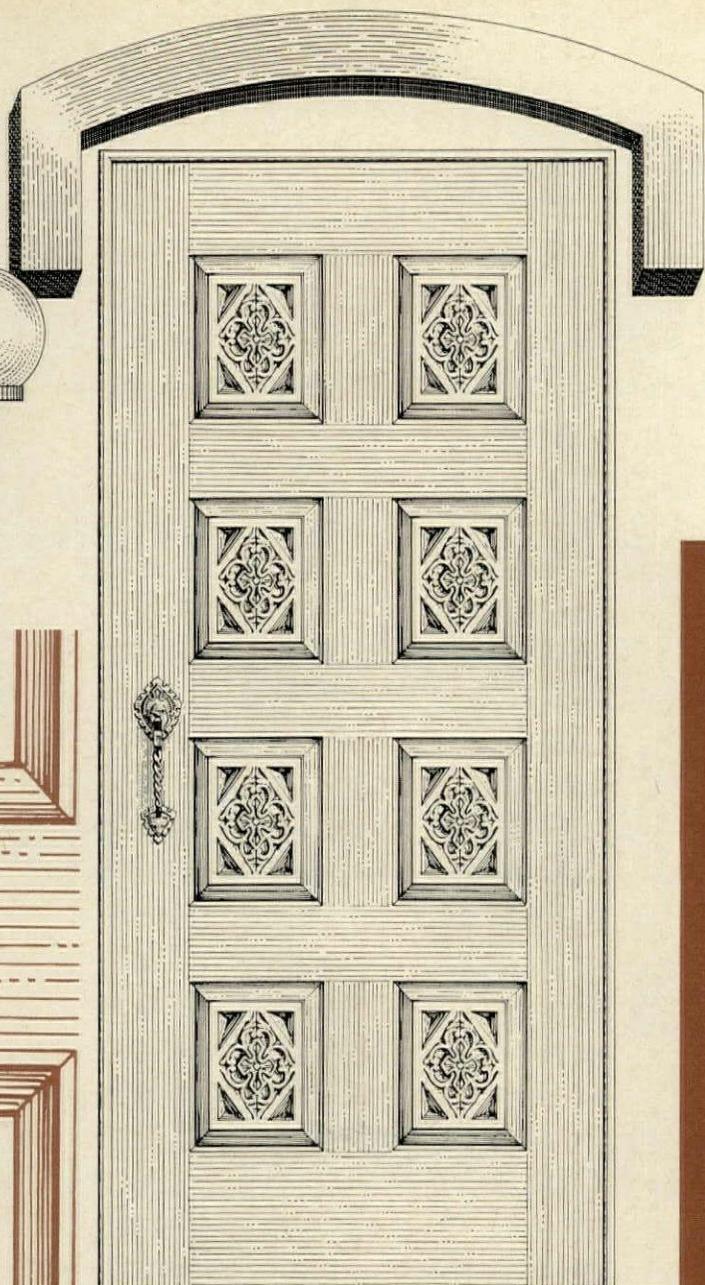
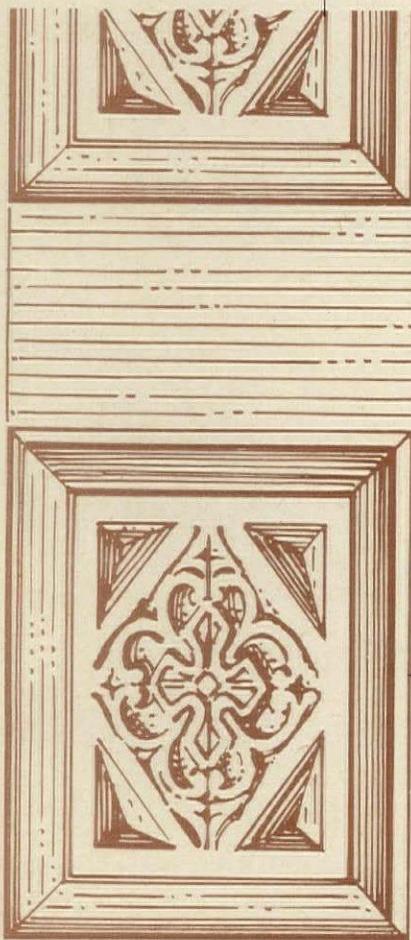
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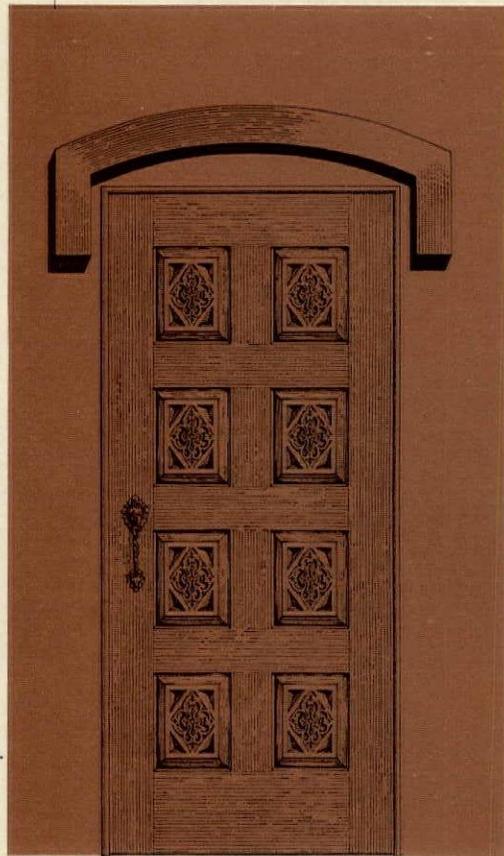


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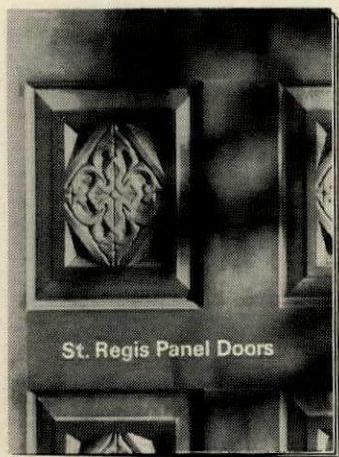


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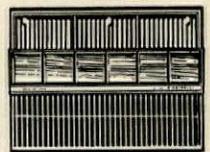
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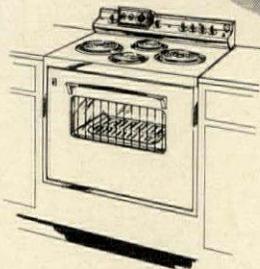
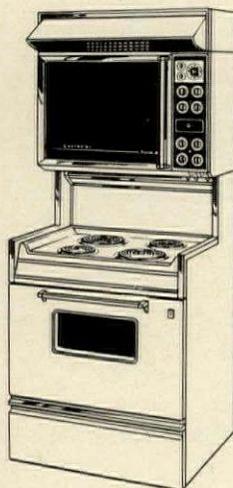
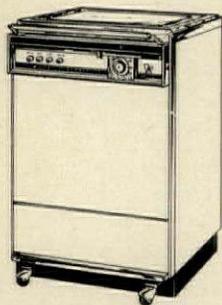
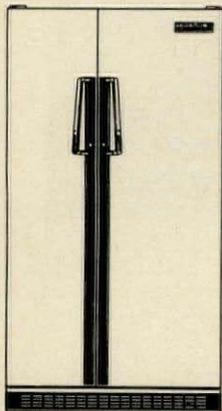
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**Good design: Round three**

H&H: Regarding the letter from Mr. Gene Ballin [Aug.], I feel that I must get involved in this controversy over what is good or bad residential design.

Although the main purpose of this letter is not necessarily to defend the architectural style of Mr. Ballin's house [photo, below] I think he should be entitled to a more just criticism of his design than appeared in the May and August issues.

It is perhaps true that it lacks the simplified clean-line look typical of contemporary architecture, but in 1961 this clean line "Contemporary-Rustic" style was just about nonexistent and certainly was not popular with the homebuyer in the East.

By studying the photograph as best I could it seems that Mr. Ballin was trying to achieve an Oriental-Tropical atmosphere by incorporating certain elements: for example, a simulated shoji entry door, the typical Japanese lantern entry fixture, the modified hip roof and, of course, the Japanese garden. Perhaps a window or two are out of scale with the total structure and other items could be evaluated in more detail, but the fact that this house was a complete breakaway from the popular Early American or colonial-type architecture and was successful should be to Mr. Ballin's credit.

We, as architects and builders, would like nothing better than to escape this "colonial fever" which people seem to prefer, especially in this part of the country.

RAYMOND E. SCHENKE, AIA  
Garden City Park, N.Y.



*It may be, as Mr. Schenke suggests, that the house in question was intended to achieve an Oriental-Tropical atmosphere. But in that case, why leave those skinny little black shutters—the hallmark of illegitimate colonial design—on the two completely different front windows?—Ed*

**The Mob in real estate**

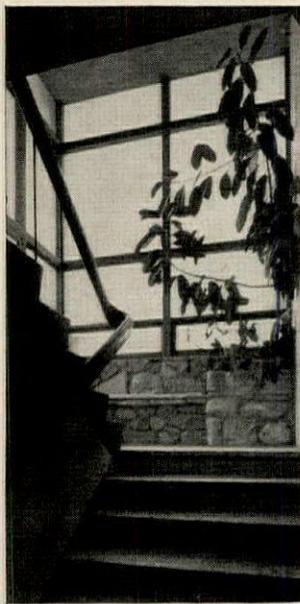
H&H: "The Chicago Crime Commission annual report is in the hands of the printer. . . . It will contain a detailed account of the Messino case [NEWS, Aug.] as well as other matters which may be of interest to [builders].

VIRGIL W. PETERSON, executive director  
Chicago Crime Commission

**NAHB execs**

H&H: This deserved recognition of the dedicated professionals who have done so much to make NAHB and the HBAs what they are today is a great contribution to the furtherance of the good HBAs throughout the country.

EDGAR W. TEASLEY, executive vice president  
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of Greenville, S.C.



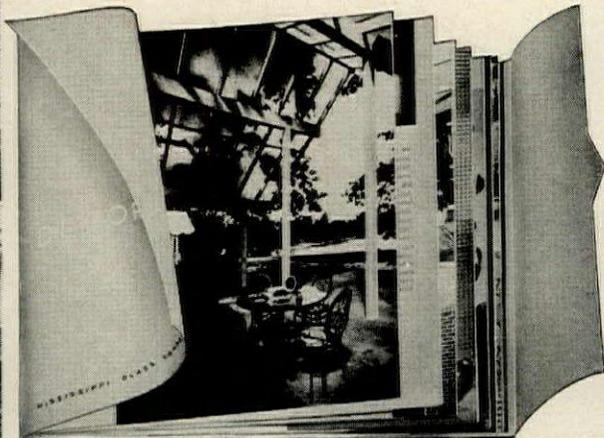
William Brockway residence, Los Angeles, Calif. Burton Schutt, architect. Reprint, Sunset Magazine. H. H. Baskerville, Jr., photographer.

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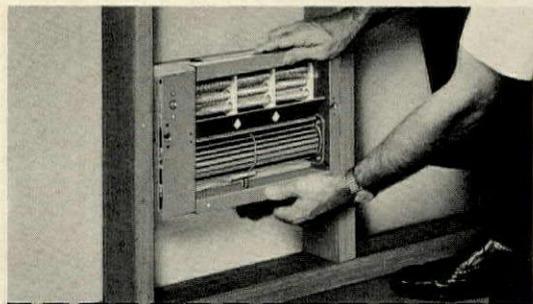


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"I used to think a dishwasher was just a dishwasher," Houston builder Jim McConn said. "Then about 2 years ago, I installed my first KitchenAid dishwasher and my customers taught me differently."

"To them, KitchenAid is more than just a dishwasher. It's a sign of quality. It's something special that makes my whole house special."

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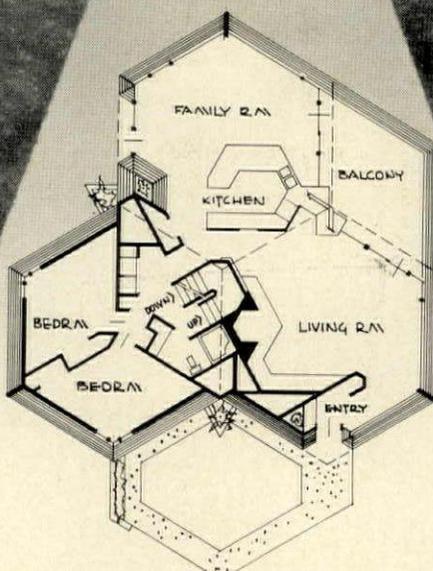
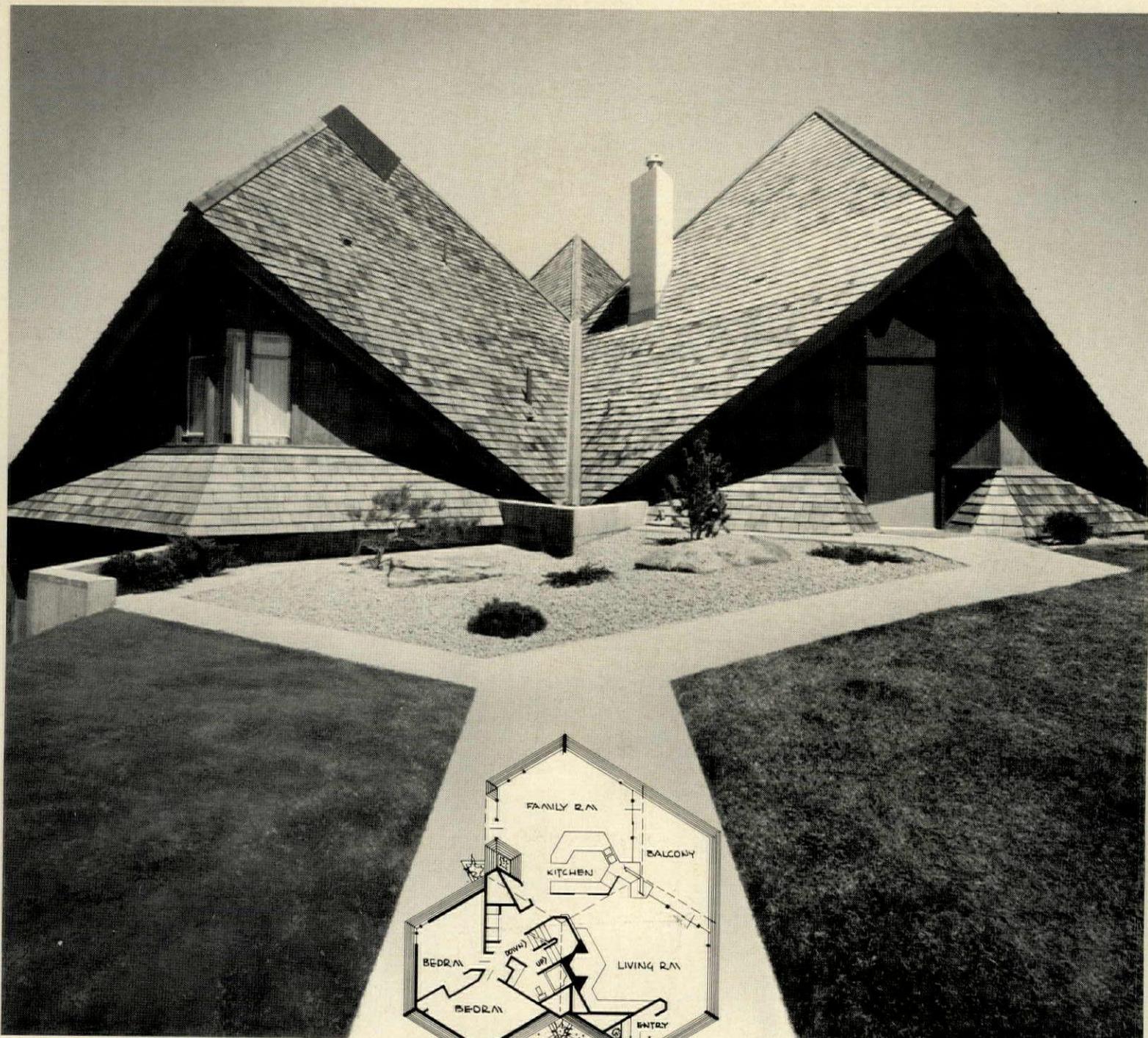
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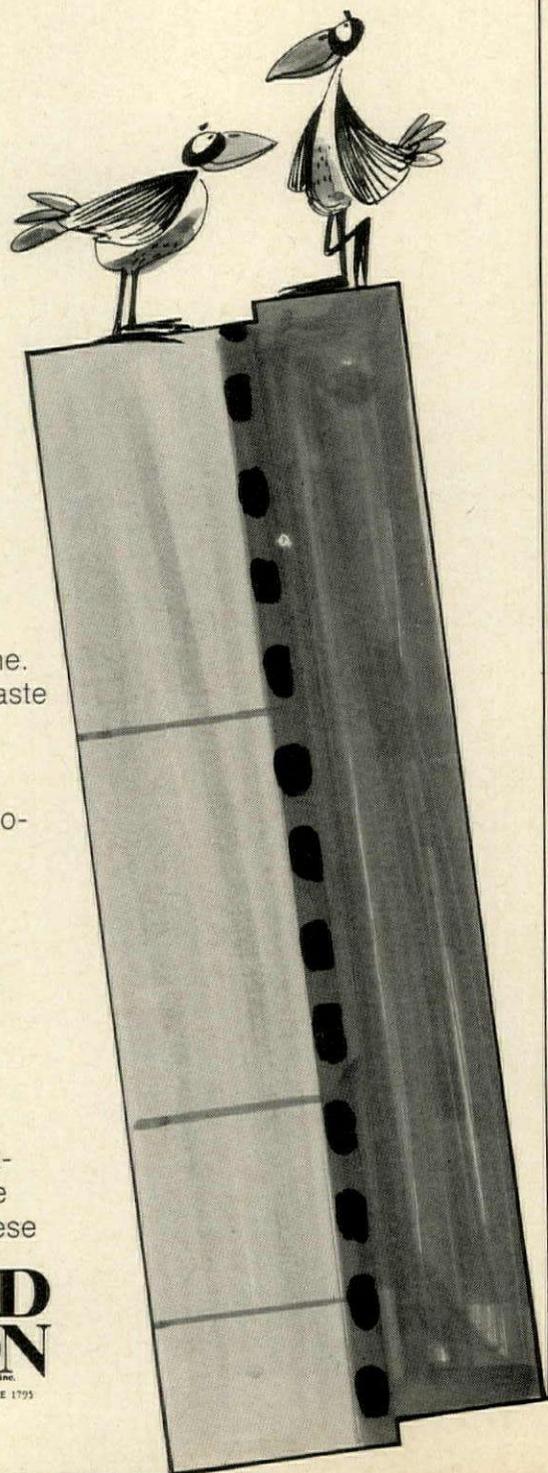
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## EDITORIAL

*An open letter to lotus eaters***The passionate credulity of mobile-home boosters is the faith of those for whom all problems have simple answers**

Now, don't get us wrong. We are not about to blast mobile homes. On the contrary, we think they have their points. More and more of them are well built and provide adequate housing for millions of Americans. One evidence of this is the soaring value of mobile-home stocks (*see p. 8*).

However, there is great confusion today about the costs of mobile homes compared to the costs of improved realty. Too many people who should know better have the mistaken—and dangerous—idea that mobile homes can answer the pressing need for low-cost housing. If mobile homes can provide adequate living, the cost per month to the buyer—and/or to the government agency subsidizing the buyer—is not low. In fact, it's as high as the monthly cost of any other adequate housing.

The confusion stems from the simplistic comparison of mobile-home price tags, roughly \$6,000 to \$15,000, with new-house prices, which run from \$13,000 to you-name-it. But that's like comparing apples with oranges.

*There are three basic reasons why mobile-home prices and new-house prices aren't comparable.*

1. Unlike the price of a new house, a mobile home's price does not include the cost of land, land improvements, transportation to the site, utility hookup, foundation, title search, closing costs and other service fees.

2. Unlike new houses, most mobile homes cannot be financed by ordinary mortgages. Just the reverse, mobile homes usually can be financed for only about ten years, and usually the note is discounted like consumer financing, so interest rates run as high as 16%. Few lenders will lend up to 20 years on a mobile home since its value can be expected to deteriorate down to nothing in 17 years. And few lenders will lend at interest rates that real property enjoys because a mobile home is a chattel and can be dragged away or stolen.

3. Unlike adequately maintained houses, mobile homes do not appreciate with age. When a mobile-home owner has had his use of his home, he can sell it like a used car—at a big loss—or he can wear it out until it is worth nothing.

So the cost of a mobile home is illusory. When you add the high interest on a chattel mortgage, rent for a site in a decent mobile-home park and extra charges for utility connections and transportation to the site—the total cost would allow most mobile-home owners to own a \$25,000 house.

*Why, then, do people buy mobile homes?* First, you can buy and sell a mobile home in about 40 minutes. No lengthy horsing around with lawyers, city clerks and lenders. When you buy, you simply make your down payment and worry about the big monthly expense later. When you sell, you can get out easily by taking your depreciation with a stiff upper lip. Or you can just disappear in the night, because what's left isn't worth that much. Also—and this is important—if you are old and find qualifying for an ordinary long-term mortgage out of the question, most mobile-home dealers will be glad to sign you up at 14% to 16% on an eight-year note.

*Okay, you ask, why raise this big rigmarole about mobile homes—stuff that any smart guy knows anyhow?* Well, we're not so sure any smart guy does know it anyhow. In fact, quite a few people, including some in fairly high places, still believe that the way to house the poor may be with mobile homes. We'd just like to remind them that this easy out won't cost less and may cost a lot more in the long run. Such housing starts off as a liability to any community that owns it. And it usually becomes a deteriorating sore within a few years because neither the poor nor the city can maintain it.

In sum, we think mobile homes are okay, if that's what the customer wants *and can pay for*. But essentially the same money would be much better invested in improved realty than in a depreciating chattel. And when it comes to low-income subsidized housing, we're sure that the government agency or non-profit group owning such housing is asking for nothing but trouble. It can never be an asset to its locality. It will always be a liability.

—RICHARD W. O'NEILL



## **The village shopping center: a new "must" on the developer's list of facilities**

The handsome new shopping mall shown at left is obviously a great asset to the community it serves, and to the builder developing that community. But it's the kind of extra feature that can wait until the project is built out. And even then the developer is better off turning it over to a specialist than messing around with it himself. Right?

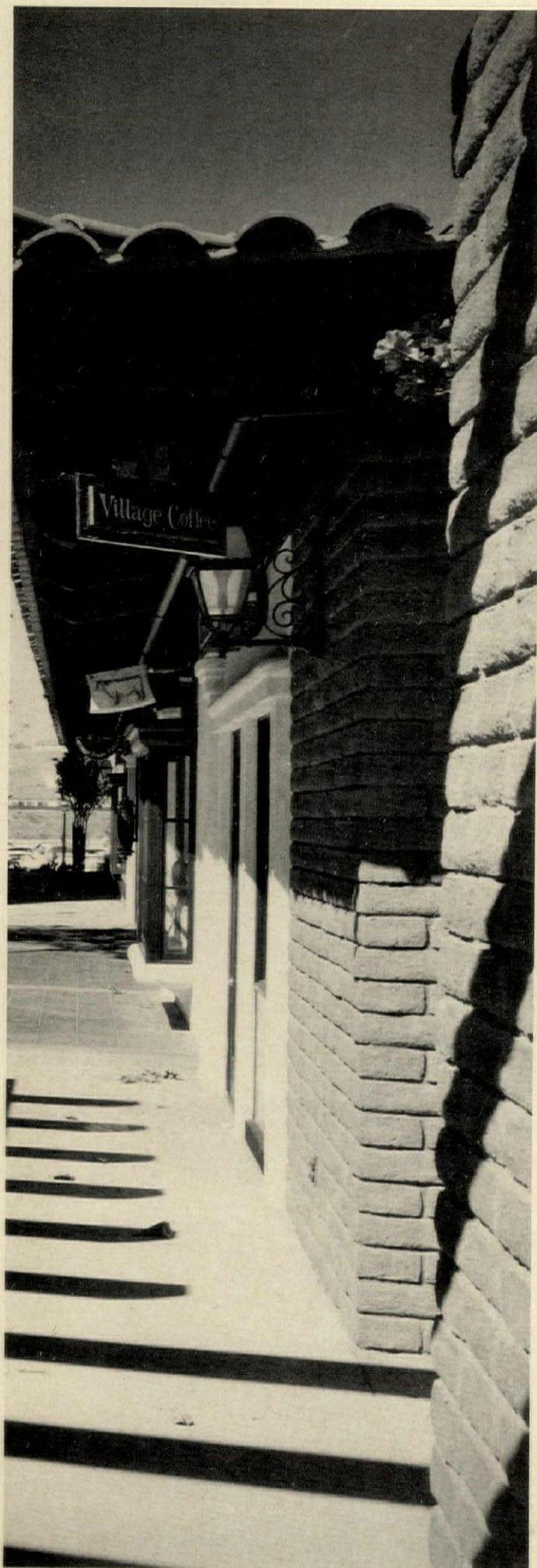
Wrong. In any new community with more than 1,500 or so families, the village shopping center is becoming just as vital a facility as recreation centers, schools or churches. Prospective buyers will balk at having to drive miles in to downtown shopping or out to a big regional center just for their daily groceries. Says Philip Reilly, president of Mission Viejo Co., which built the center at left: "Before the center opened people used to say, 'But you're so far out of Los Angeles.' Now we never hear that. And the center has created a real community feeling."

Nor is the village shopping center an expensive, profitless extra—like the recreation club, for example. A well designed and run center can return its owner a gross of more than \$5 a sq. ft.—more than most apartments and proportionately much easier to manage.

Putting it another way, while the big regional shopping center has become the exclusive domain of the highly capitalized specialist, the village shopping center can be the exclusive—and very profitable—domain of the community developer.

It's not a simple domain. While the design, construction and financing aspects are not far different from those of house and apartment building, setting up and operating a successful retail development is a tricky business with little margin for error. Ultimately it demands the help of experts in the field.

*But every developer should know the basic whats, whys and hows of village shopping centers. That's what you'll find on the next six pages.*



## The village shopping center is, in every sense, the developer's baby

That is to say, it is almost always built in a new community and owned by the community's developer. The village center is a vital part of the life of a new community, and its attractiveness can be a strong merchandising element; a developer would be foolish not to maintain complete control over its design and management. And since a center can be very profitable indeed, he would be equally foolish not to keep it as an investment.

*The village shopping center is not a random collection of stores, but a fairly specific entity with definite limits.* There will, of course, be variations to meet local needs, but generally speaking it's safe to define it thus:

*Size:* from 30,000 to 60,000 sq. ft. of building area. Anything much smaller falls into the category of a convenience center; anything much larger begins to resemble the regional center. Most village centers cover from three to five acres of land.

*Market:* families within a radius of one to two miles. Many people like to be within walking distance of shopping, and most people dislike a drive of more than a very few minutes. As a rule of thumb, 5,000 people is the minimum population necessary to support a center, and most shops and markets will want a growth potential considerably beyond the minimum before they commit themselves

to long-term leases or large operations.

*Types of services:* those related to frequent purchases or use. For example, the supermarket is a prime element in a village shopping center, and so is a cleaning shop and, often, a bank. Conversely, stores catering to occasional major purchases like furniture or men's clothing belong in the regional, not the village center. Professional offices for doctors, dentists, etc., are often included in the village center.

*There are two reasons why new village centers are seldom built in existing communities:* Commercially zoned land in built-up areas is so expensive that it puts a low ceiling on a center's potential profitability; and such areas seldom have much room for growth—a deterrent to investors and potential tenants alike.

This rule is best proven by exception. Builder Lawson Ridgeway of Dallas has done one 30,000-sq.-ft. center in an already built-up community, and he plans two more in similar areas.

Says Ridgeway: "We happened to find three areas that needed shopping centers, and we're getting good experience. But it's not profitable enough to do on a permanent basis. Once these are built, we'll only build village centers in our own housing projects."

## The center's tenant mix is based on the neighborhood's everyday buying

The primary need, of course, is food, and the food store (nine times out of ten it's a full-fledged supermarket) is invariably the biggest single shop in the center. Typically, it will have from 10,000 to 15,000 sq. ft. of area. And as will be explained in more detail below, it is from the very beginning the keystone of the center.

The pharmacy is also a major tenant in almost every village center; it generally has about 3,000 to 5,000 sq. ft.

The variety store (or the five-and-dime of pre-inflationary days) is often included in larger village centers, especially if surrounding houses are in the low to medium price range. Typically it has 7,500 sq. ft.

More and more, the branch bank or savings and loan is becoming the fourth major tenant of village centers. Among its assets is the fact that its lease, like that of the supermarket, can be used to finance the building of the center. Its size varies considerably, and often it will occupy a free-standing building.

Other basic tenants occupy smaller areas. They include:

Dry cleaning and laundry shops. This is such a strong business that its lease is sometimes acceptable to a lender.

Beauty parlors—except in very low-income areas.

Barber shops.

Coin-operated laundries—especially in lower-income areas.

Small eating shops of the hamburger, ice cream or tea-room variety. The larger, higher priced restaurant is almost never part of a village center.

Beyond this list, the type of tenant will depend to a large degree on the market. As the income level rises, more and more specialty shops begin to appear: florists, meat markets, women's sportswear, liquor stores, bakeries, cheese shops, travel agencies, gift boutiques, etc.

Professional offices, notably for doctors and dentists, are often part of a village center. But as a community grows to the point where it requires two or three or more

centers, it usually makes more sense to build a separate building. For example: La Paz Plaza at Mission Viejo (p. 74) which has both a doctor's and a dentist's office, also has enough land set aside for a 20,000-sq.-ft. professional building.

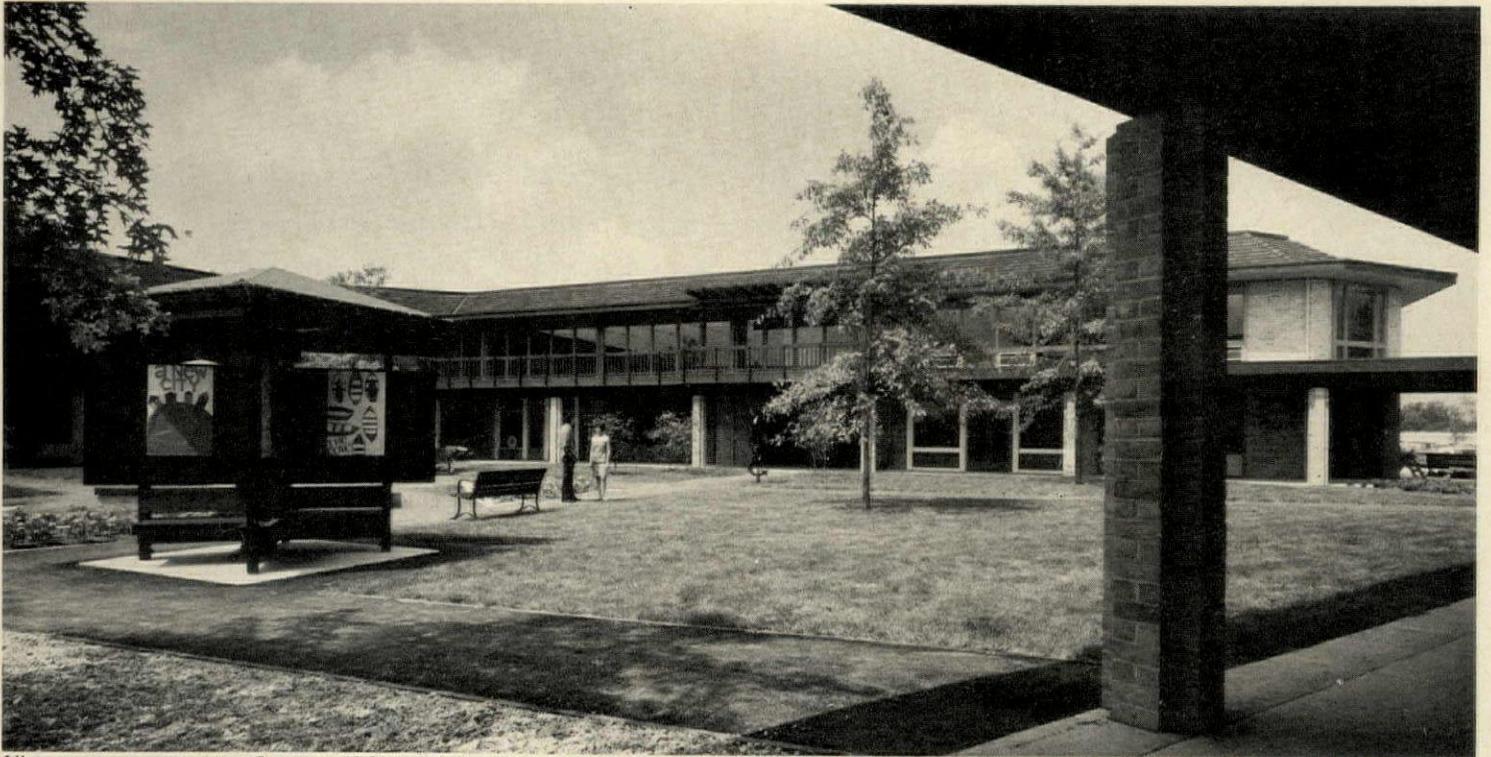
Business offices don't often appear in village centers. But sometimes the developer himself will occupy space; the Mission Viejo Co. has a large office suite on the second floor of La Paz Plaza. And in the new town of Columbia, midway between Washington, D.C. and Baltimore, Columbia Associates occupies offices in Village Green (opposite).

*Attracting potential tenants to a new center is seldom a problem if the community and its developer have good reputations.* The problem is more likely to be how to select the best tenants.

An example is given by William Swan, marketing director of Westlake, a new town north of Los Angeles:

"When we built our first village center," says Swan, "we had a waiting list of prospective tenants. We decided what services the community needed. We looked into the financial past of the prospects—the worst thing that could happen in a new center would be to have failures—and since most of them had shops in other areas, we checked to see how nice a job they were doing. Then we made our choices." (With 15,000 sq. ft., and lacking a supermarket, Village Center is actually a convenience rather than a village shopping center. But there is little difference between the two as far as the process of judging tenant quality is concerned.)

*Picking a successful tenant is important to the developer because, as the owner of the center, he gets a slice of the action.* Leases vary according to the type of store, but almost all stipulate a minimum rent (\$3 a sq. ft. is a reasonable average) plus a percentage of the gross when it goes over a predetermined figure. And in a successful cen-



View across center court of commercial area (plan, below) shows shops on lower floor of building, glass-walled business offices on upper floor.



Arcade permits shoppers to reach all shops without being exposed to rain.

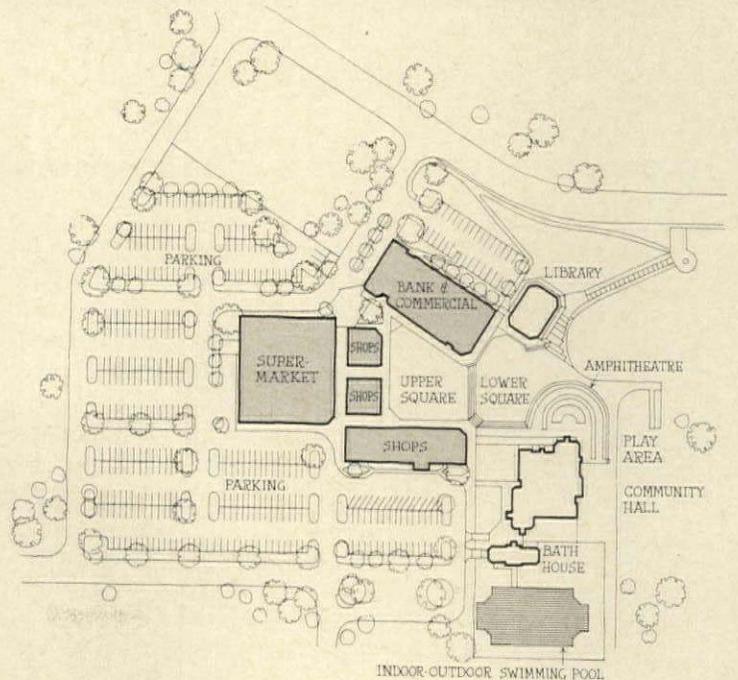


Landscaped walks, pergolas and a fountain give center a parklike atmosphere.

### *A shopping center that is part of the core of a new-town village*

When Columbia, the 15,000-acre new town between Baltimore and Washington, was first planned, its most interesting feature was the creation of separate villages (H&H, Dec., '64). Each village was roughly two miles in diameter and would eventually have a population of between 2,500 and 3,500 families. That's just the right market for a village shopping center, and Columbia's first such center—Village Green in Wilde Lake—is shown here.

There is 50,000 sq. ft. of commercial area in Village Green, and it includes a supermarket, bank and about 19 shops. The second floor is unusual in that it is leased to businesses—including Columbia Associates (the project's developer), a newspaper and an insurance firm—rather than to professional tenants.



*continued*

ter, this percentage can come close to equaling the minimum.

This method of renting also helps solve a timing prob-

lem common to new communities: Early tenancy of a center helps sell houses or rent apartments, but it also means less income for the tenant at the start.

## **The supermarket is the key to the village center—and its terms are tough**

It's almost always the biggest tenant in the center; it does the most business, and so returns the most rent (minimum plus overage) to the developer; it brings in shoppers who then patronize other stores; and its lease is the essential one when the developer goes looking for money (with a good supermarket lease, the developer may be able to mortgage out the whole center).

All of these things make the supermarket the most sought-after tenant for the village shopping center, so it's not surprising that supermarket people are notoriously hard-nosed when it comes to leases. They pay the lowest rent of all tenants (usually about half of the center's average), and they are very choosy indeed about where they put new stores.

*On the other hand, supermarkets have been in a squeeze of their own for the past few years—a squeeze that works to the benefit of the village center.*

The regional shopping center used to be the prime location for supermarkets. But regionals have been getting much, much bigger, and they have become increasingly dominated by huge discount and department stores. The supermarkets have found themselves increasingly relegated to a back corner of the site. And because people don't shop at department stores every day, or even every week, the supermarkets suffered from a lack of day-to-day buyers—their bread and butter.

"So today," says Clayton Sanders, real-estate manager for Lawson Ridgeway and former executive of a supermarket chain, "supermarkets don't like to go into regionals. They're looking more and more to the village."

And says Roger M. Laberty, executive vice president of ThriftiMart stores, a West Coast supermarket chain: "We're interested in going into small centers, and we're always on the lookout for promising ones."

So while supermarkets are tough, they're seldom unreasonable. Says Laberty: "If we find a center with a good potential, we'll help the developer with surveys and with zoning if he needs it. And while we like to stick pretty close to our standard lease, if the developer is faced with unusually high land costs, we'll usually move our rent up a little."

And says Sanders: "The best way to get the top rate out of a supermarket is to sell them on the future of your area. This means you have to really know your market."

But while a good market area is the prime requirement, supermarkets have other important criteria for selecting a location. Here are the two most important:

*Quality and variety of other tenants in the center.* "We want to be in with a nice tenant mix," says Laberty. "The more people visit the center the better it is for us."

*Reasonable protection from competition.* Says Laberty: "We don't want to wake up some day and find there are three other supermarkets right next door. And the developer will also do better if he protects one market. The overage from a healthy business is as important to him as to the supermarket; he's a lot better off getting \$5 a sq. ft. from one store than a bare minimum of \$1.75 from two of them."

ThriftiMart has found an interesting way out of a bind that more and more supermarkets face: how to get established in a new and promising area, and at the same time avoid having to operate a big store where there aren't yet enough people to make it profitable. The system, being used at both Mission Viejo and Westlake, is based on a development plan that includes more than one village shopping center. Here's how it works:

The first center gets a small convenience food market, usually between 5,000 and 6,000 sq. ft. This serves the area during its early growth; by the time it is overloaded, the next center is opened with a full-sized supermarket. In the case of Mission Viejo, two more centers are planned for the area now under development, each with a supermarket in the 20,000-30,000-sq.-ft. class.

To the developer trying to lure a supermarket into his center, Sanders offers this advice:

"Look around within a radius of a couple of miles. There may be other markets, but perhaps there's no A&P. And maybe A&P would like a market in the area.

"Or maybe there is an A&P, but it's not too new or big a store and it's not in the world's best location. So you call A&P, ask them how that store is doing, and would they possibly like to move to a bigger building in a better location."

## **No one should tackle a village shopping center without the help of experts**

"Knowing how to handle leases," says Lawson Ridgeway, "is 75% of doing a village shopping center." And it's significant that when he decided to undertake village centers, he went out and found a man (Clayton Sanders) whose previous job was handling leases for a supermarket chain.

Sanders himself echoes the necessity of expert advice.

"The first thing I'd do is find an attorney who's familiar with leasing. And I don't mean one who studied it in law school, I mean one who really works at it.

"Then I'd get a real estate broker with lots of experience in handling retail property.

"And finally, I'd look for an architect who has designed and supervised retail stores."

Sanders concedes that this kind of talent isn't easy to find. One way he suggests is to go to nearby communities (so

there will be no worries about competition) and ask other retail-center developers whom they would recommend.

But while the intricacies of leasing require the aid of specialists, someone has to coordinate the legalities with such items as design, layout and market research. Someone has to remember to take the supermarket lease to the lender before it's signed, so that if the lender doesn't like a clause the whole deal doesn't blow up. Someone has to know enough about construction to keep from signing a lease calling for a \$1.75-per-sq.-ft. rate when land and building costs make \$1.80 the break-even point.

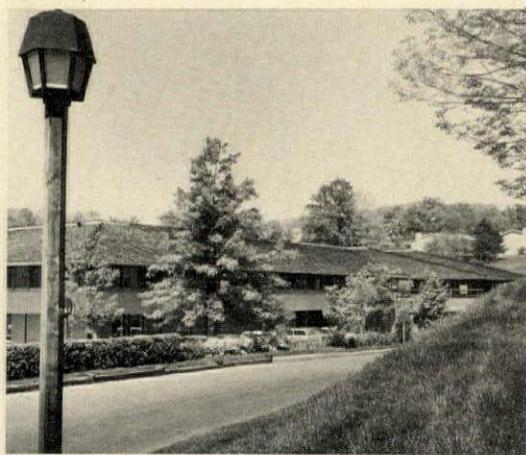
Inevitably, this someone is the developer himself. "He has to do his homework," says Sanders. "He has to learn the basic principles of all parts of the process before he starts. Otherwise he'll have to learn them the hard way."

BFGJ Studios Inc.



Center's 38,000 sq. ft. are under one roof. Parking deck will be added.

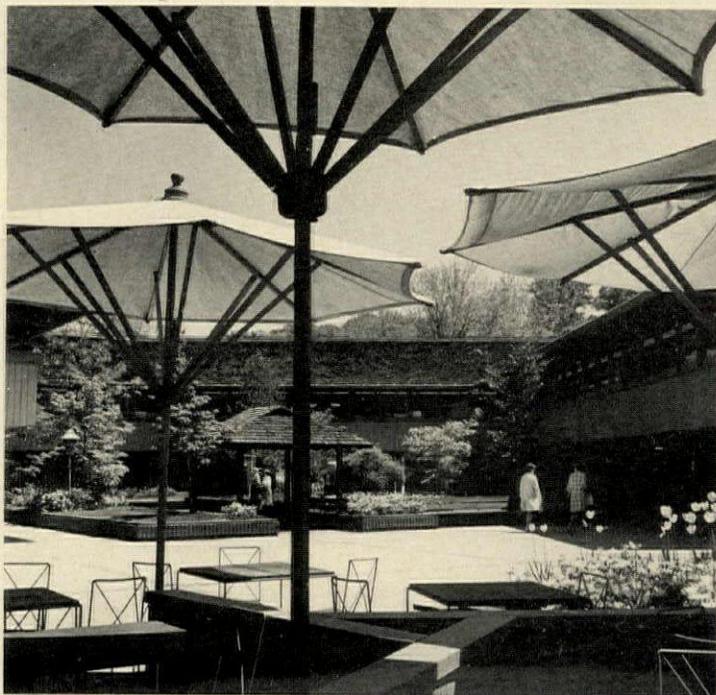
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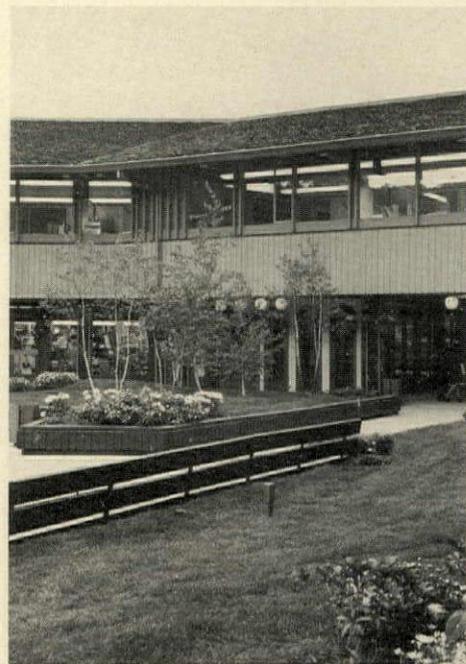
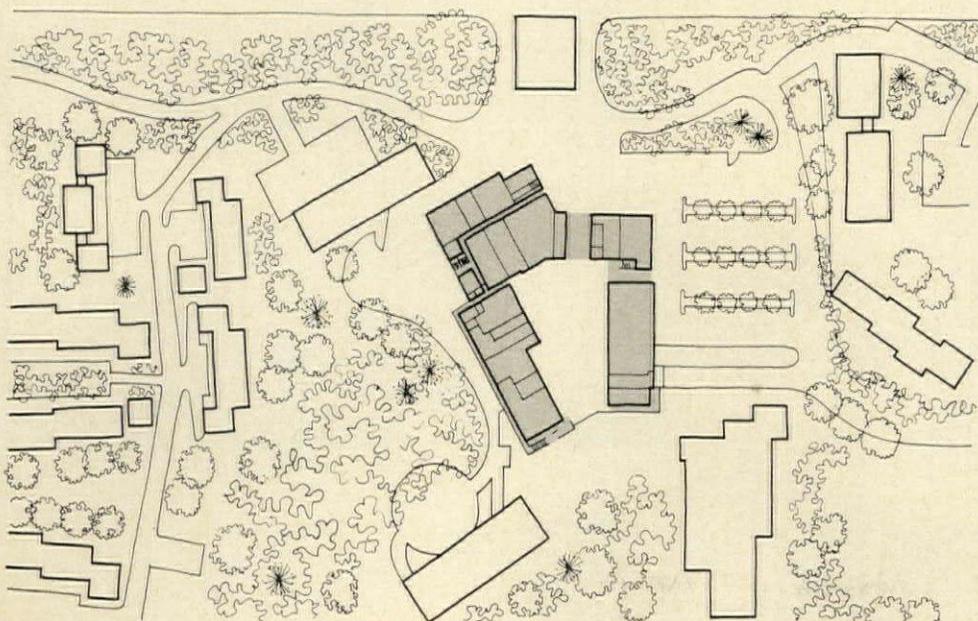
From road, center looks like landscaped apartments.

### *A sophisticated shopping center for a close-in, high-priced community*

Cross Keys is an unusual project in an unusual place, and its shopping center reflects that fact. The village's 68 acres are developed with high-priced townhouses and high-rent apartments, and the site is in a highly desirable section about 15 minutes from the center of Baltimore and ten minutes from other shopping centers. So on the one hand Village Square draws tenants from outside the project, and on the other, it has nearby competition for everyday purchases. Thus its stores tend to be both expensive and specialized and include, among others, better women's wear shops, two gift boutiques, a travel agency, a bakery and a cheese shop. There are also professional offices, and the entire second floor is leased by the Rouse Co., the project's developer.



Outdoor tables in front of center's small restaurant add European flavor.



Entrance walkway leads under second floor offices.

*continued*

## *A center that brings an established feeling to a far-out new community*

And that community feeling, according to Philip Reilly, president of Mission Viejo Co., is why Mission Viejo is currently growing at the rate of about 500 people per month.

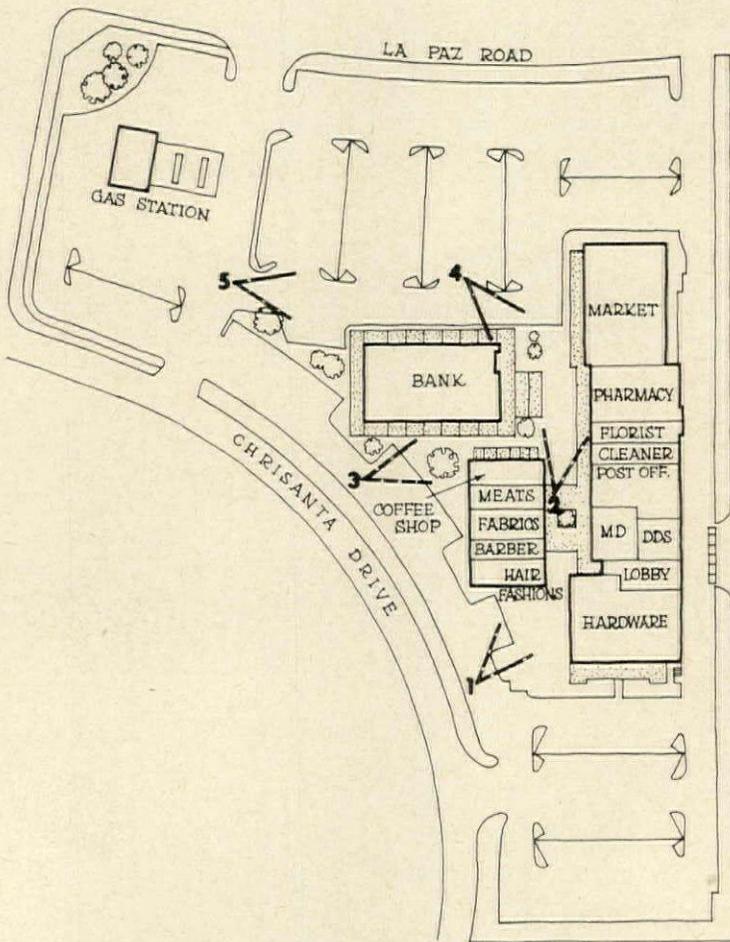
Four years ago the project's location—in Orange County 25 miles south of Los Angeles—was far enough beyond the accepted development fringe to make shopping inconvenient at best for early buyers.

"We found a certain amount of sales resistance," says Reilly, "partly because of the shopping and partly because there was nothing that people could feel was the center of their community."

La Paz Plaza opened when there were about 1,000 people living in Mission Viejo. "It's had a strong effect on sales," says Reilly. "The feeling is we're not as far out as we were."

There is 43,000 sq. ft. of building area in La Paz Plaza, plus a 1,600-sq.-ft. service station and parking for 190 cars. Tenants include a small convenience market and a branch bank. Mission Viejo Co.'s offices occupy the second floor.

Photos: Julius Shulman



Entrance court (I on plan, left) has kiosk with directory of shops.



One-story food market (2) is at left of pharmacy with offices above.



Seats are built in open areas (3) to help create casual neighborhood air.



Landscaped center court (4) is the unofficial hub of the shopping center.



Bank (5) is separate from rest of center. Food market is at far left.



## Poured concrete: An old standby does new tricks

And the new tricks are designed to benefit the building industry, which consumes nearly a third of all ready-mixed concrete. They include new equipment, new hardware, new methods and new chemical ingredients that make poured concrete perform better at lower in-place costs.

*Looking for more versatile formwork?* Consider hollow-core polystyrene blocks that are laid up as forms, then left in place after the pour to become an integral part of concrete walls. They add superior thermal insulation, provide vertical chases for ductwork, pipes and wiring and accommodate any surface finishing material. Or consider embossed forms that mold decorative patterns—striations, trapezoidal ribs, simulated brick—into poured walls and eliminate finishing costs.

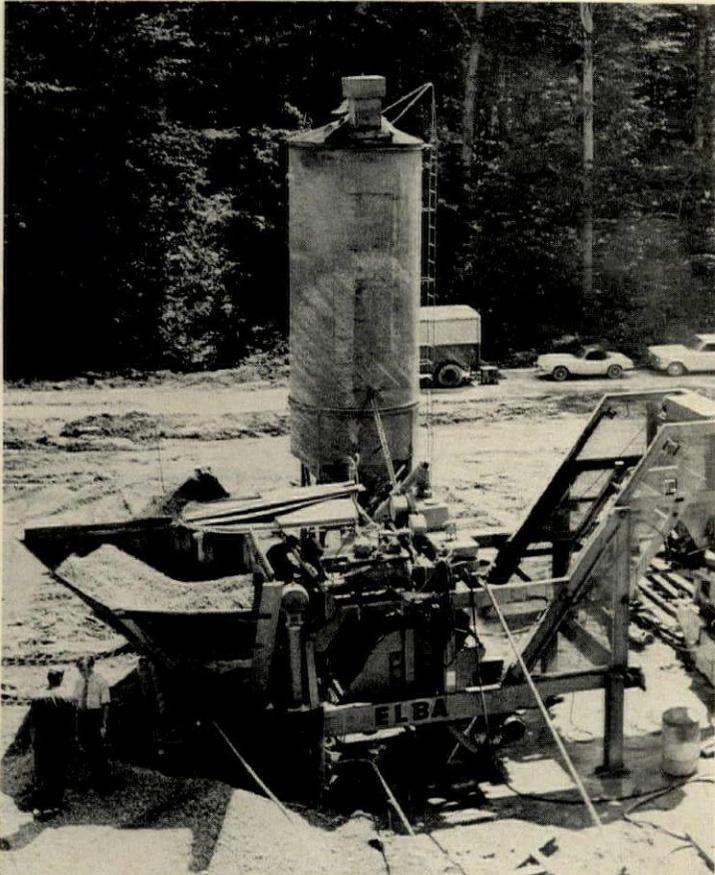
*Looking for a way to eliminate formwork?* Check into concrete-extruding machines that squeeze out perfectly formed curbs and gutters almost as fast as a man can walk along the street.

*Looking for instant-curing concrete?* A Dallas company has developed one for the Air Force that cures to the strength of 28-day-old concrete in a half-hour, in rain or snow, and at temperatures ranging from  $-5^{\circ}\text{F}$ . to  $110^{\circ}\text{F}$ .

*Innovations like these are helping poured-concrete suppliers resist challenges from other materials, including precast concrete.* Examples:

Easier-to-use post-tensioning hardware for concrete not only makes it harder for steel manufacturers to come up with a competitive packaged-steel foundation, but is also an effective alternative to prestressed/precast concrete. Cheaper and faster formwork helps keep the brick cavity wall from making deep inroads into high-rise construction. And portable concrete plants set up at high-rise job sites (*opposite page*) help ready-mix suppliers resist inroads by precast-panel fabricators.

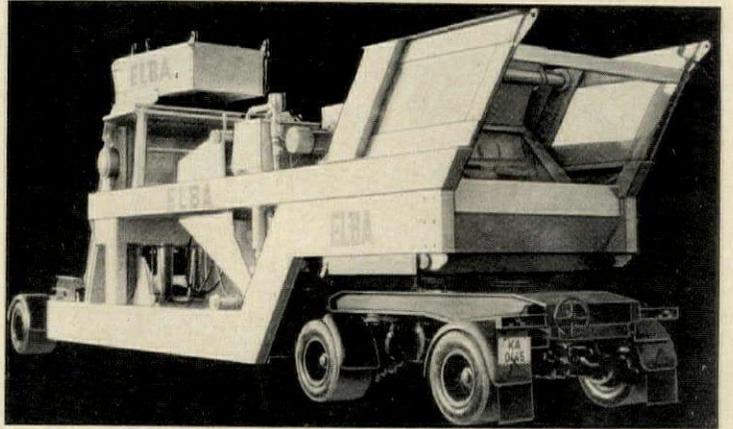
*For a look at some of the new poured-concrete technology that is already paying its way at building sites, see the next five pages.*



**SELF-CONTAINED PLANT** makes 45 cu. yds. of concrete per hour. Components include aggregates bin, left; cement silo, rear; concrete hopper, right.



**CONCRETE PUMP** of 60-cu.-yd.-per-hr. capacity receives concrete from mixing-plant chute and conveys it directly to formwork a short distance away.



**RUBBER-TIRE TRANSPORT** carries compact concrete plant to the construction site. The equipment can be set up for full production within one day.

## For big jobs: A mixing plant on wheels makes ready-mix trucks obsolete

This self-contained mixing plant puts ready-mix trucks out of business because it produces concrete in large volume right at the construction site. Concrete contractors transport the plant on its own wheeled chassis, and in one day set it up within yards of the builder's concrete formwork—close enough so that concrete can be pumped directly from the plant into the forms.

*Contractors like the mobile mixer.* For example, Breckling Concrete Co. of Cleveland is phasing out part of its large fleet of ready-mix trucks so it can adopt the on-site plant for all its construction jobs. Says president George Breckling: "It saves us time, labor and money. Time, because a lot of our jobs are an hour away from our central plant, which means we would waste two hours for each ten cubic yards of concrete delivered by truck. Labor, because the mobile plant needs just two men—one to operate the mixing controls and one to run the pump. Money, because we cut out the costs of servicing and operating trucks."

*Builders like the mobile mixer, too.* Soon after Breckling started using the machine on a 16-story apartment building (right) for builder Carl Milstein, the job super claimed that construction costs were running \$500 a

day less than for previous poured-concrete jobs. The reasons: "There's no confusion of ready-mix trucks moving back and forth across construction areas. And we have immediate control of mix and slump." Milstein is the first Cleveland builder to use a complete concrete mixing plant at the job site.

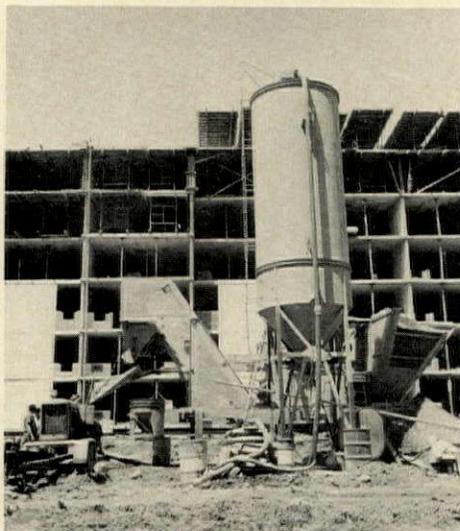
The machine's compactness and mobility don't diminish its ability to produce high-

quality concrete. Variations in mix consistency don't exceed 5%—a figure so low that users claim the machine uses less concrete than conventional plants. Breckling's saving is as high as one 100-lb. bag of cement per cubic yard.

*The machine is also fast.* It can mix any high- or low-slump concrete in 30 to 50 seconds, depending on the quality of the aggregates. In a test by Pittsburgh Testing Laboratories the machine produced 4,000 psi concrete in 30 seconds.

Aggregates, cement and water—stored in the machine—may be mixed automatically or manually. Pneumatically operated gates feed aggregates into a weigher-batcher that tips them into a mixer simultaneously with cement, water and additives. The mixer operates for a pre-set time in ground position, then—continuing to mix—climbs up rails to discharging height where it tips the concrete into a storage hopper. From that height the concrete can be dumped into a pump, crane bucket or truck agitator.

The machine comes in five sizes: 20, 32, 45, 60 and 80 cu. yds. per hr. It is manufactured in Western Germany but has American electrical controls. American-Elba Co., Zelienople, Pa. *Circle 250 on Reader Service card*



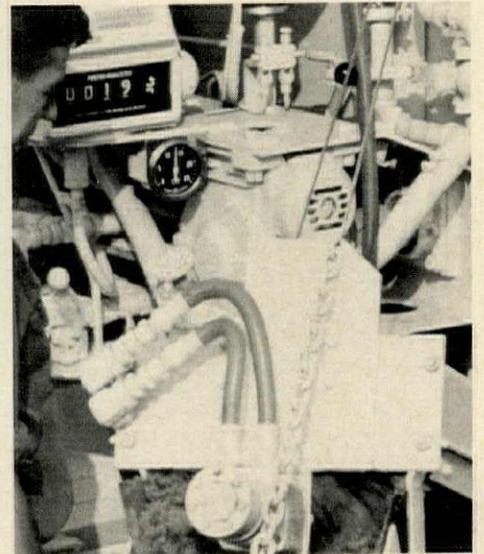
**POURED-APARTMENT JOB** in Cleveland is builder Carl Milstein's first use of on-site concrete plant.



**TRUCK-MOUNTED MIXER**—a 6-cu.-yd. model—produces and delivers specification concrete in minutes.



**STORAGE COMPARTMENTS** for sand and aggregates are loaded from top. Cement and water are kept in sealed tanks. Materials are proportioned, mixed and metered from central control panel (below) at rear of truck.



## For small jobs: A delivery truck that mixes concrete to order after it gets to the site

The customer doesn't tell the driver/operator what kind of concrete he wants until the truck arrives. He doesn't have to, because in just two or three minutes the operator can 1) proportion the materials, 2) mix them and 3) start pouring concrete into the customer's forms. And when the forms are filled, an automatic delivery-ticket printer shows the customer how much concrete was poured to within one-tenth of a cubic yard.

Unlike conventional ready-mix trucks, which transport pre-mixed concrete from a stationary plant to the job site, this truck carries only unmixed ingredients—cement, sand, water and aggregates. They are stored in bins or tanks, and are blended and

mixed by handwheel controls at the rear of the truck (photos above).

The benefits of this combination mixing plant and delivery system are numerous:

1. One man can produce concrete to any specifications at any job site the vehicle can reach.

2. Travel time and extreme temperatures cannot affect the quality of the concrete because it isn't produced until minutes before it is placed.

3. Mix specifications—both strength and slump—can be changed in a minute while pouring is taking place.

4. Materials proportioning, mixing and pouring can be intermittent or continuous with no effect on the concrete's quality.

5. The machine can be kept on standby at construction sites to avoid the job delays that ready-mix suppliers can cause.

The last benefit is so appealing to some apartment builders that they have bought the mixer themselves. One of these—Sanford Construction Co. of Vernon, Ala.—keeps a mixer on hand for little jobs like pads and footers. The machine stands idle much of the time, but Sanford says it pays for itself by doing away with one- to two-hour waits for ready-mix trucks during which 15 to 25 men stand idle.

Four models are available—4, 6, 8 and 10 cu. yds.—for mounting on a truck or trailer. Concrete-Mobile, Lancaster, Pa. *Circle 251 on Reader Service card*



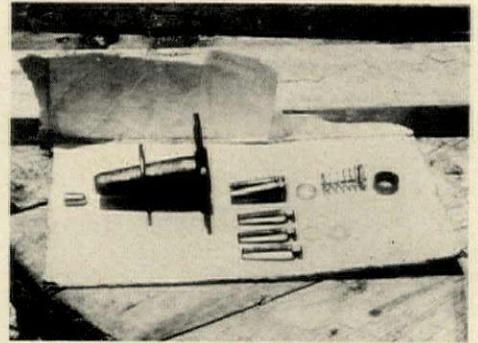
**SMALL MODEL** of 4-cu.-yd. capacity is powered by truck engine. Pouring rate is one cubic yard per two to four minutes, depending on type of mix.



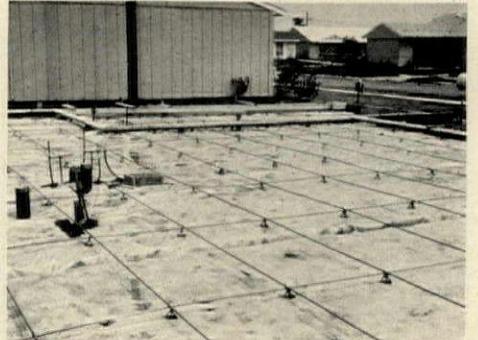
**LARGE MODEL** of 10-cu.-yd. capacity is mounted on a trailer and powered by auxiliary engine. Mixer operators are trained at manufacturer's factory.



**LOAD TEST** showed that 15' of undercut house slab could support 123,000 lbs. after post-tensioning.



**ANCHORING HARDWARE** includes automatic anchor, tension vise and spring, sponge-rubber seal.



**SHEATHED TENDONS** are lightly tensioned and set on chair supports before slab is poured.

## For high-strength jobs: A post-tensioning system anyone can master

Post-tensioning—used instead of conventional concrete-slab reinforcing—makes slabs 10 to 20 times stronger and saves money in the process. But post-tensioning has never been part of the average home-builder's technology because of engineering and installation complexities.

This easy-to-use system reduces post-tensioning to a package of basic hardware (drawing, right) that any two-man slab crew can master. And offered with the package is a computer-programed design service that determines exactly how to post-tension a slab to best suit specific soils and climates.

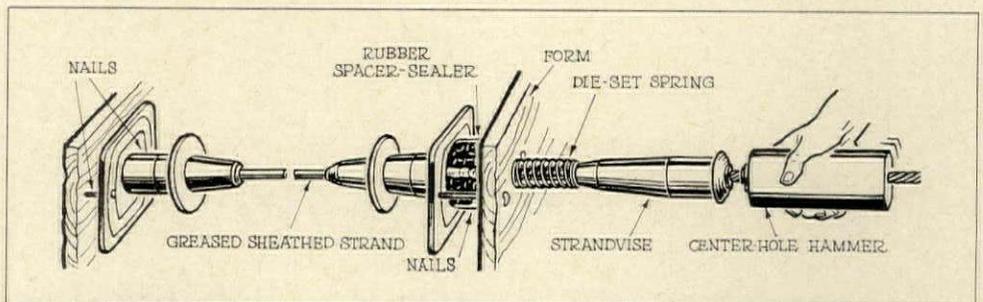
Builders in Louisiana—where this streamlined system was developed—say that post-tensioned slabs cost about 20% less than conventional FHA Type III slabs. Specific savings range from \$100 per 1,000-sq.-ft. house to as high as \$700 for a 1,500-sq.-ft. house.

The component that makes the system practical is a 4"-long anchor that automatically grips and permanently locks steel-strand tendons at both their dead-end and their tensioning end. The dead-end anchor is nailed to one side of the slab form, the tensioning anchor is nailed to the opposite side. A sheathed and greased steel strand,  $\frac{3}{8}$ " in diameter, is locked into the dead-end anchor and fed through the tensioning anchor.

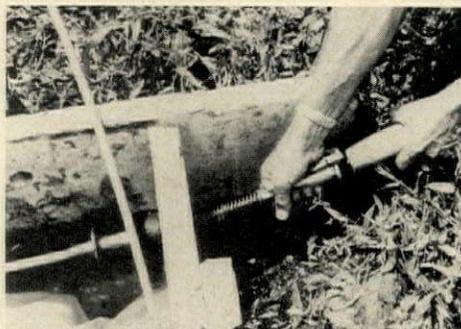
Before the slab is poured, the tendons are put under light tension with a hand-held hammer. After the slab is poured, and while

the concrete is still green, a hydraulic jack stretches the tendons automatically to the full tension called for in specifications. Typically, the tendons are drawn to a pressure of 19,000 lbs. when the concrete has reached a strength of 2,000 psi. After tensioning, the protruding tendons are burned off inside a rubber-sealed recess in the tension-anchor case, and the cavity is filled with caulking and cement grout.

Properly designed post-tensioned slabs are impressively strong. For a load test in Texas, a 15' portion of post-tensioned slab was cantilevered into space by undercutting it to a depth of 2' and a massive dead load applied to the unsupported end (photo, above). Failure finally occurred when the load exceeded 123,000 lbs. Kelly System, Avondale, La. Circle 252 on Reader Service card



**TENSIONING SYSTEM** for  $\frac{3}{8}$ " steel strands requires  $\frac{3}{4}$ " holes drilled in slab forms for jacking.

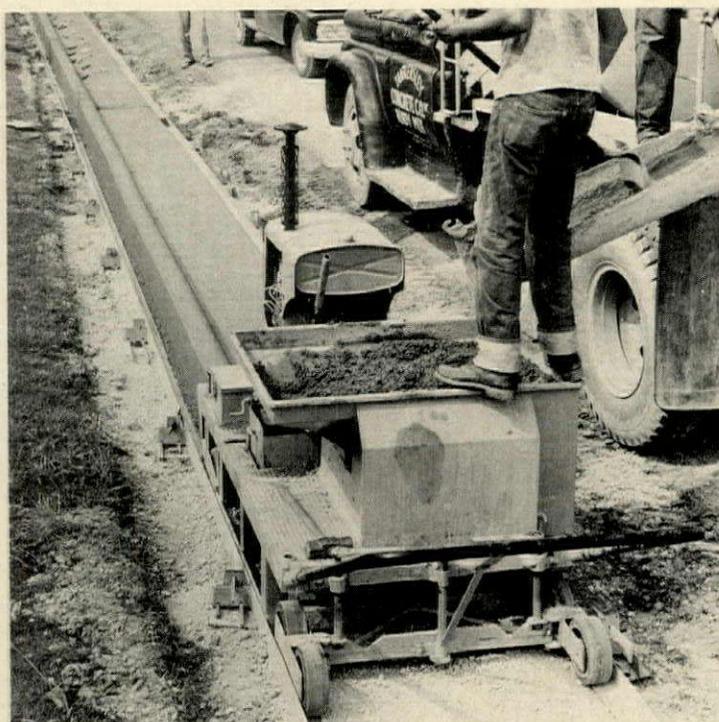


**CENTER-HOLE HAMMER** locks steel-strand tendon by compressing spring in tensioning anchor.



**HYDRAULIC JACK** pulls tendon to specified final tension by ramming anchor chuck into place.

continued



**CONCRETE EXTRUDERS** form curbs (*left*) and integral curb/gutters (*above*) at speeds of up to 35' per minute. Concrete mix should be free from slump.

## For fast jobs: A self-powered extruder lays curbs without forms

Concrete extruders not only eliminate formwork but also do away with hand finishing. Result: They can lay a 6" x 8" concrete curb at the rate of 30' to 35' per minute (*photo, left*), and larger designs—up to 18" wide—at the rate of 12' per minute. They can also lay integral curbs and gutters at speeds of up to 7' per minute (*photo, right*).

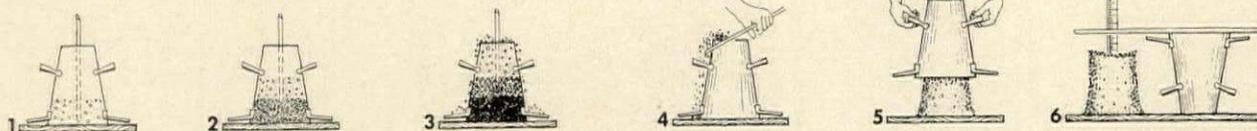
Only two men are needed to operate a curb extruder, one to steer and one to feed. Steering is simply a matter of guiding the machine along a string line or chalk mark

while a second man feeds the machine's hopper. An offset extrusion chamber allows curb placement close to buildings or poles, and rubber-tired wheels that adjust horizontally and vertically are used to compensate for inclines and declines.

Curb-and-gutter extruders run between angle-iron tracks that are staked into the ground at proper grade and alignment. They require some hand finishing in making expansion and contraction joints.

Concrete extrusions require a relatively

dry or stiff mix—a concrete with zero slump (*box, below*). The recommended formula per cubic yard is: 1,950 lbs. of sand, 517 lbs. of cement, 1,442 lbs. of  $\frac{3}{8}$ " gravel or crushed stone, and 16 gallons of water. Mix consistency is so vital to the success of concrete extruding that no water should be added to the mix until the transit mixer arrives at the job, allowing the operator to test the material and bring it up to proper consistency. Power Curbers, Salisbury, N.C. *Circle 253 on Reader Service card*



## For accurate jobs: A 1½-minute field test keeps slump consistent

All the test requires is a standard-size slump cone and a 24"-long steel rod. The cone has foot rests; the rod should have a bullet point and a diameter of  $\frac{5}{8}$ ". Concrete samples are extracted and tested at three or more regular intervals during a pouring operation, but not at the beginning or end of the pour.

To set up the test, dampen the inside of the cone and place it—wide mouth down—on a level, moist, nonabsorbent

surface. Keep the cone pressed down firmly by standing on the foot rests, and do the following (*drawings*) in not more than 1½ minutes:

*Step 1:* Fill the cone  $\frac{1}{3}$  full of concrete (by volume) and rod the sample exactly 25 times.

*Step 2:* Add more concrete until the cone is  $\frac{2}{3}$  full and rod without penetrating the first layer of concrete.

*Step 3:* Fill the cone to overflowing

and again rod 25 times without penetrating the lower layer of concrete.

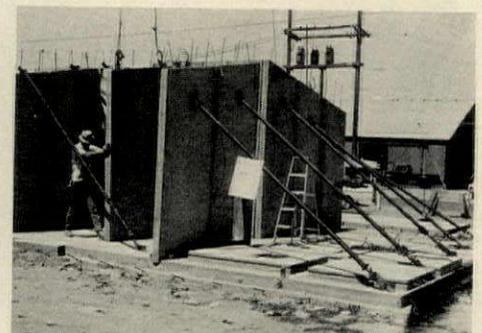
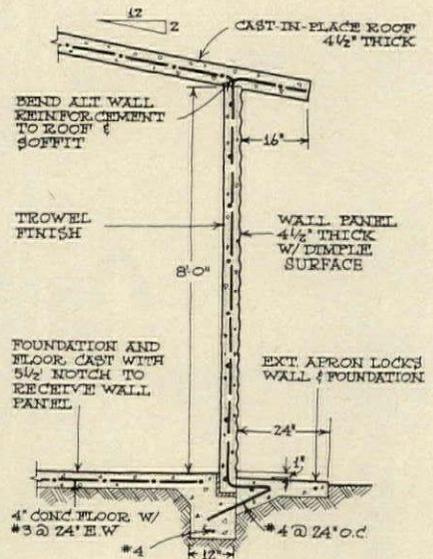
*Step 4:* Remove excess concrete from the top and base of the cone.

*Step 5:* Lift off the cone without disturbing the concrete, invert the cone and place it next to the concrete.

*Step 6:* Lay a straight edge across the top of the cone and measure down to the top of the concrete sample to determine degree of slump.



**CAST-IN-PLACE ROOF** for all-concrete house ties together tilt-up walls by means of overlapping reinforcing bars (see also drawing at upper right). Roof pour for 768-sq.-ft. house takes three hours.



**TILT-UP WALLS** are braced (photo) before poured roof and apron anchor them (drawing).

## The all-concrete house: A monolithic roof locks together precast walls

In this case—a low-income demonstration house in California—the walls are cast on the floor slab and tilted into place. A poured roof and a poured apron around the perimeter of the foundation lock the walls in place through intermeshed reinforcing bars (drawing, top right).

*The system is inexpensive and fast.* Portland Cement Assn., which designed it for the California Department of Housing and Community Development under a federal grant, says a 768-sq.-ft. prototype house took 30 working days and cost less than \$10 a sq. ft.

*The system is flexible.* It can be used for detached or multifamily housing and allows for future expansion. End walls are cast with no openings so that additional living units can be attached to enlarge a single-family house or add to a townhouse complex.

*The system is simple.* Only the most basic skills and equipment are required. All concrete is cast flat and is finished with standard techniques. All components are cast in place except exterior and interior walls, and those are limited to 4'x8' panels (smaller under windows) weighing a ton or less so that small-scale equipment can handle them.

Three men erected the exterior and in-

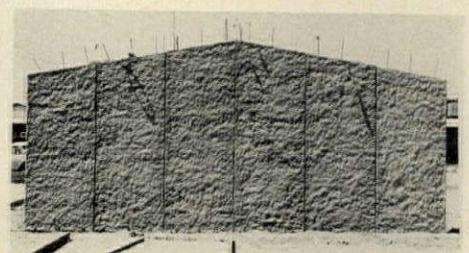
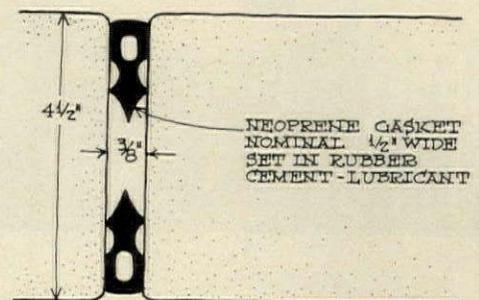
terior walls for Portland Cement's three-bedroom house in four hours. A coat of paint or sealer was all the decorating required for the smooth-surfaced walls, and the concrete roof was topped with built-up rock.

Tilt-up walls are an old idea developed for low-cost farm buildings. But Portland Cement has added at least one new twist. It casts the exterior wall panels on polyethylene sheets laid over rounded aggregate. Result: a dimpled surface (photo, right) that resembles stucco. Electrical work is simplified by laying out wiring and outlet boxes in the casting beds. A 3/8" gap is left between exterior wall panels so the seam can be filled with a neoprene gasket set in rubber cement.

Casting a roof in place is not a new idea, either. A homebuilder in Ft. Lauderdale, Fla.—Jack Sullivan—has already turned to poured roofs as a competitive alternative to wood-truss roofs (TECHNOLOGY, March '68). He merchandises three advantages: 1) 50% lower fire and wind-storm insurance rates, 2) lower air-conditioning costs and 3) minimal roof maintenance. But his biggest selling point is price: Sullivan's buyers pay the same for a poured-concrete

roof as they would for a wood roof.

Portland Cement's roof—4 1/2" thick, like the walls—is made with lightweight concrete and has a 2-in-12 pitch. The roof slab doubles as ceilings inside but is covered with an acoustical material.



**WALL TEXTURE** is created by casting tilt-up panels on plastic sheets laid over rounded aggregate. Panel seams are sealed by neoprene strips.



## Psychedelic selling: see-through furniture in rainbow colors

A sense of fun in a model house can be just as effective—and twice as memorable—as the usual embalmed, furniture-store-display look.

Even casual visitors to Hayman Homes's San Francisco townhouses can't help being startled and amused by the almost-furniture in bright colors. And since people remember what startles and amuses them, the decor achieves its objective: to make the house unforgettable.

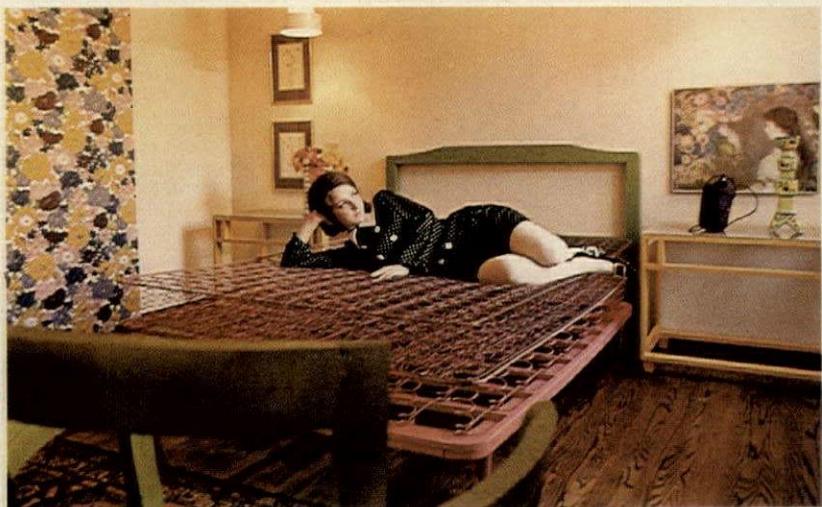
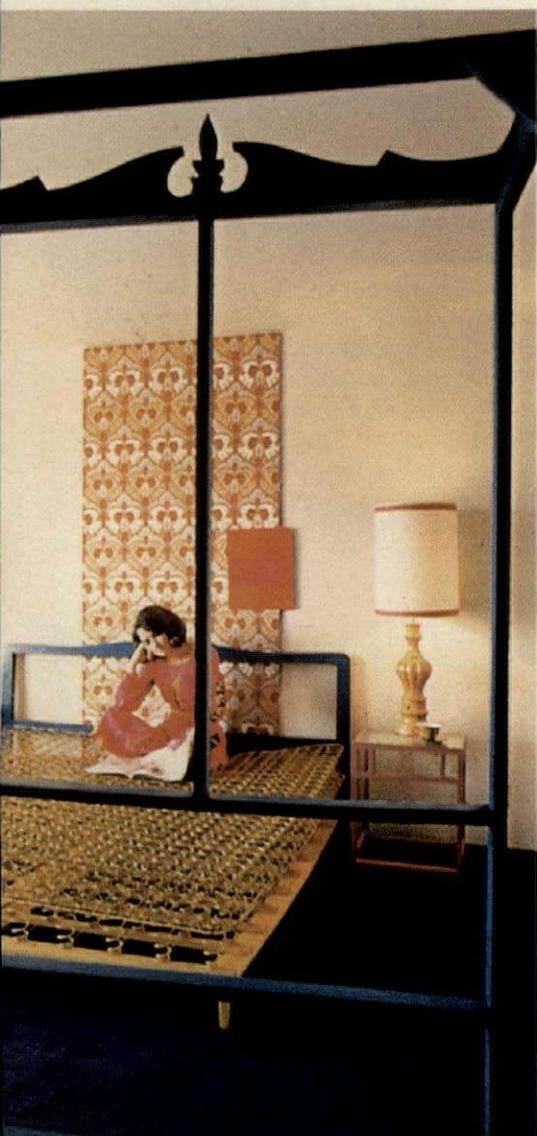
On only half a normal furnishing and decorating budget, interior designer Charles Lester provided the illusion of a fully furnished model without adhering to any one style that might repel some potential buyers.

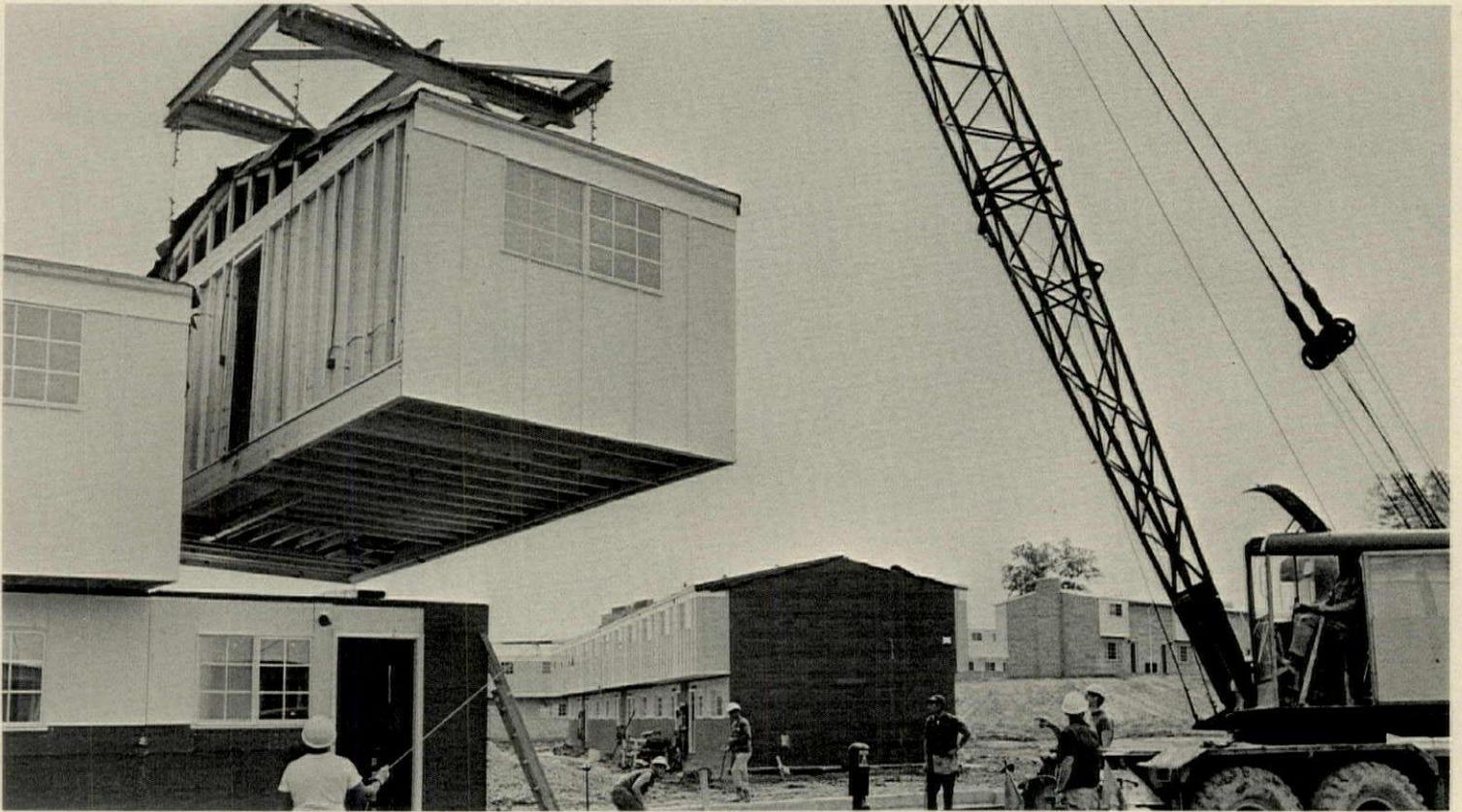
Lester bought bare-wood frames from sofa, chair and bed manufacturers; designed three-dimensional simulations of tables, chests, desks and dressers; bought ten-cent-store lamps—then sprayed everything in vivid shades of primary colors. And to enhance all this, he used off-white drapes, pinned swatches of strongly patterned fabrics to walls, and scattered Oriental and Scandinavian rugs on the floors.

Lester takes no profit on furniture markups, so there was no pressure to buy more—or more expensive—pieces. His fee is \$10 per design man-hour, and he gives each job a guaranteed estimate. If fewer hours are needed, the fee is reduced, but if it takes longer than estimated, the guarantee holds. All purchases of furniture and materials are billed at actual designer cost, plus only a nominal bookkeeping fee.

Architect for the \$48,000 townhouses: Hayes & Smith.







*Latest step forward in modular-box technology*

## Stackup townhouses invade the middle-income rental market

These 1,145-sq.-ft. townhouses rent for \$225 a month plus utilities, yet they were built with technology originally developed to house the poor. The present tenants couldn't care less; all 412 units in this modular-box project—the Fairways, in suburban Rochester, N.Y.—were signed up for while the project was still under construction.

Construction costs aren't impressively low. They came to \$12.13 a sq. ft., and to that must be added \$5,000 per unit for land and site work.

But the manufacturer-builder-owner—Stirling Homex Corp. of Avon, N.Y.—wouldn't build any other way. Says President David Stirling Jr.: "We've taken the speculation out of building by gaining much closer control of the whole building process.

We know exactly what each unit costs us. Our materials handling and scheduling problems are greatly simplified. Bad weather—which we have plenty of in Rochester—is no longer a serious problem. And we have more uniform quality control than would ever be possible for a conventional builder.

"Adding up all these savings, we've found that industrialized construction is 20% cheaper than conventional construction."

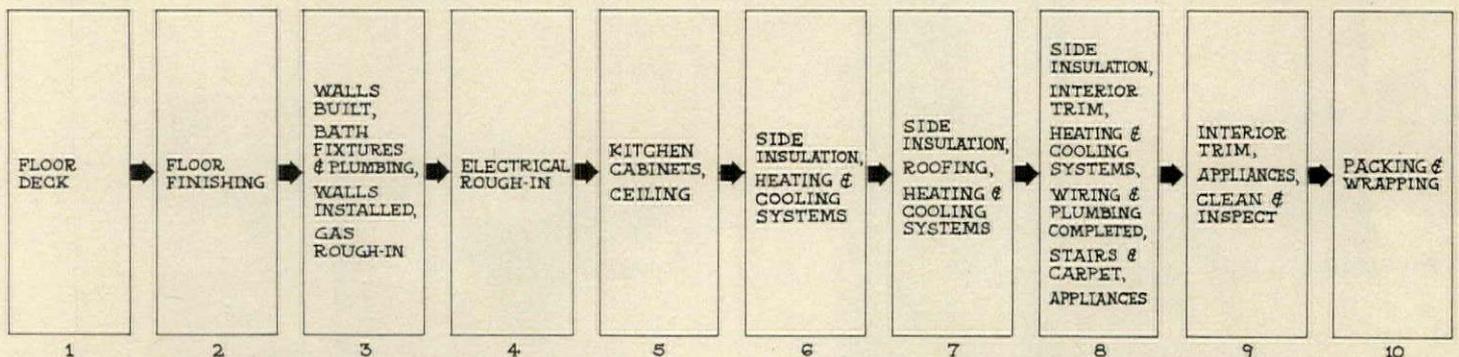
Stirling is well qualified to compare costs. Since he arrived from Canada five years ago, he has built and managed 2,000 apartment units, all of them conventionally constructed. He soon became acquainted with mobile homes and his interests turned to sectional housing.

Stirling Homex now operates a modular-

box plant (*plan, below*) in which 65 workers turn out a prefinished housing module every 45 minutes. (Each of the townhouses is comprised of four 80% complete modules.) The plant contains so many new advances in sectional-house engineering that patents have been applied for on at least 36 machines and processes.

Extra finishing touches make Stirling's townhouse construction costs higher than those of low-income stackup projects. For example, brick veneer—including false chimneys—was added in the field to dress up gable ends and first-floor facades.

But low shipping costs helped counterbalance the extras: The townhouse project is only four miles from the Stirling Homex plant.



**PRODUCTION SEQUENCE** on ten-station assembly line turns out a module every 45 minutes. Output will be doubled by addition of new line in 1969.

## Finishing touches keep stackup townhouses from looking too industrialized

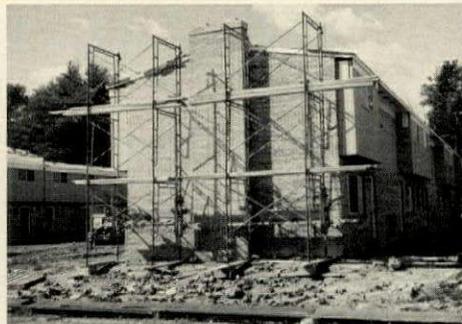


**EIGHT-UNIT TOWNHOUSE ROW** combines two exterior finishes: plywood with laminated plastic film on second story, brick on first story and end

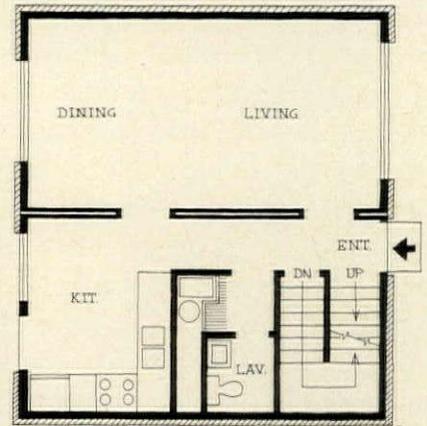
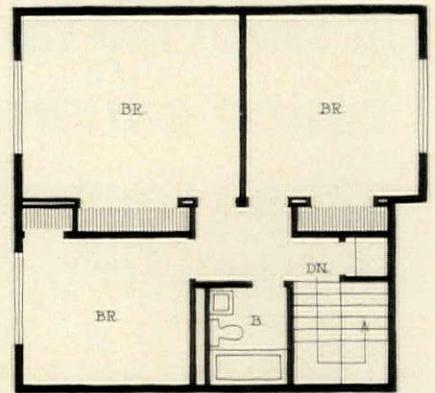
walls. Chimneys are for appearance—units are individually gas-heated and cooled. Rows are in pairs, back to back, with parking areas between.



**FIRST-FLOOR MODULE** is lowered into place on masonry block foundation; longitudinal I-beam supports the 25'-long unit at its center.



**BRICK VENEER** is the biggest on-site finishing job. It compensates for its extra cost by giving the appearance of conventional construction.

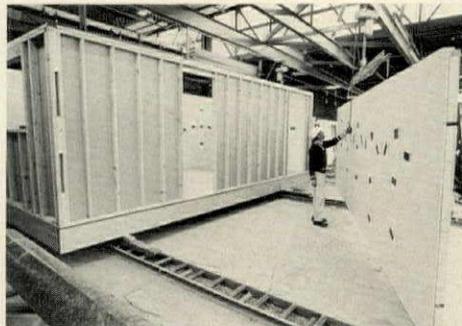


**LOWER LEVEL FLOOR PLANS** comprise four modules per living unit. Second story (top) incorporates an extra-long module to add aesthetic interest.

## Ten-station production line turns out modules for two townhouses a day



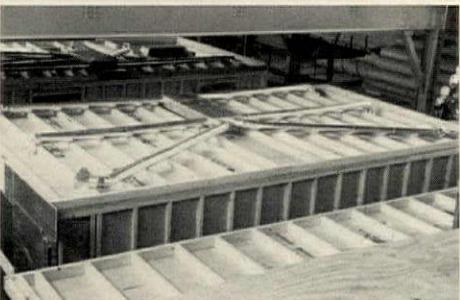
**FLOOR DECK** is sheathed after being assembled upside-down to assure precise joist alignment. Glue-nail fastening guarantees structural rigidity.



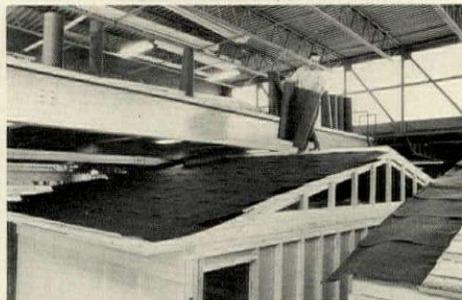
**INTERIOR WALLS** are assembled off-line, chain-hoisted onto floor deck. Modules are advanced by hand along conveyor rollers, visible at bottom.



**CEILING UNIT** is turned over after being fabricated upside-down on platform above assembly line. Unit is then lowered onto module.



**DUCTWORK** for individual heating and cooling systems is fabricated in place from 5"-diameter tubing after first-floor ceiling has been attached.



**ROOFING** is 240-lb. asphalt shingles over double layer of 15-lb. asphalt-impregnated felt. Overlapping felt provides for joining modules at site.



**MODIFIED FORKLIFT TRUCK** carries wrapped five-ton module from end of assembly line to specially designed flatbed trailer for delivery.

## The two faces of today's townhouse: urban formality and suburban openness

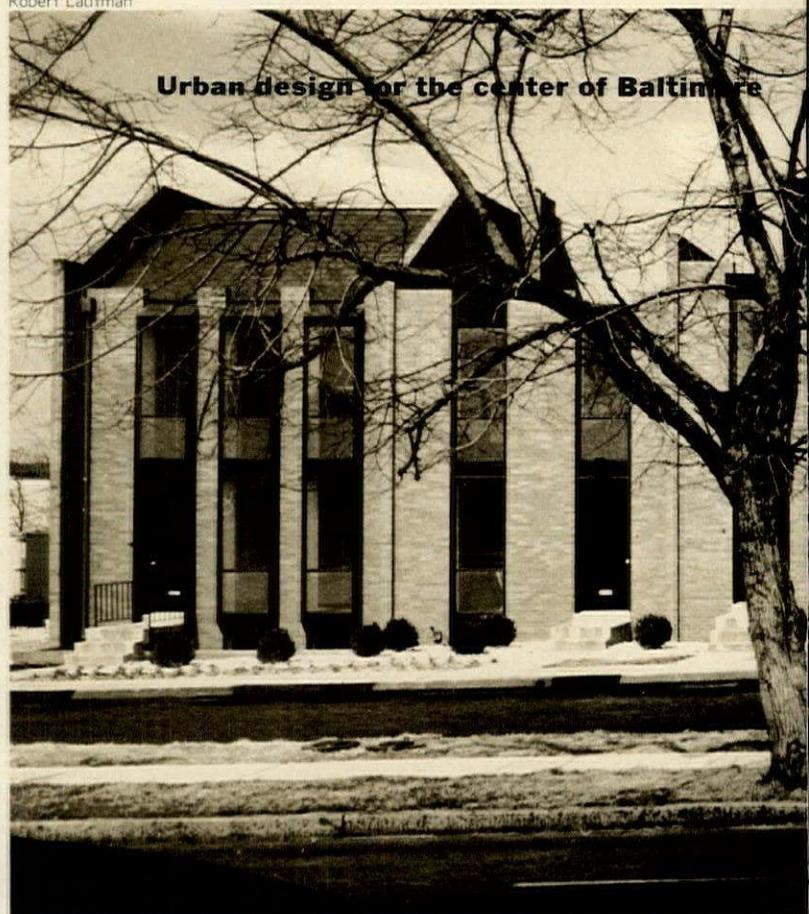
**M**ost builders think of townhouses as a purely urban housing type—and rightly so. Beginning more than a century ago, the high cost of urban land, plus the need to group houses along mass transit routes, made the row house the logical answer to single-family housing in the centers of our cities. And today's urban renewal programs have given a new impetus to this venerable form of in-city housing.

But over the past decade the townhouse has found another place to grow—the newly developed suburbs. Builders, architects, land planners and even planning and zoning boards have discovered that townhouses, with their small lots, permit far better land use—especially in terms of green space—than conventional detached houses without significantly increasing the overall density. Where the urban townhouse tends to be formal (*next six pages*), its suburban cousin (*starting on p. 94*) usually takes on the forms and finishes of the single-family house with which it competes. Where the urban townhouse turns inward for privacy, the suburban version often turns outward towards the countryside it has helped preserve.

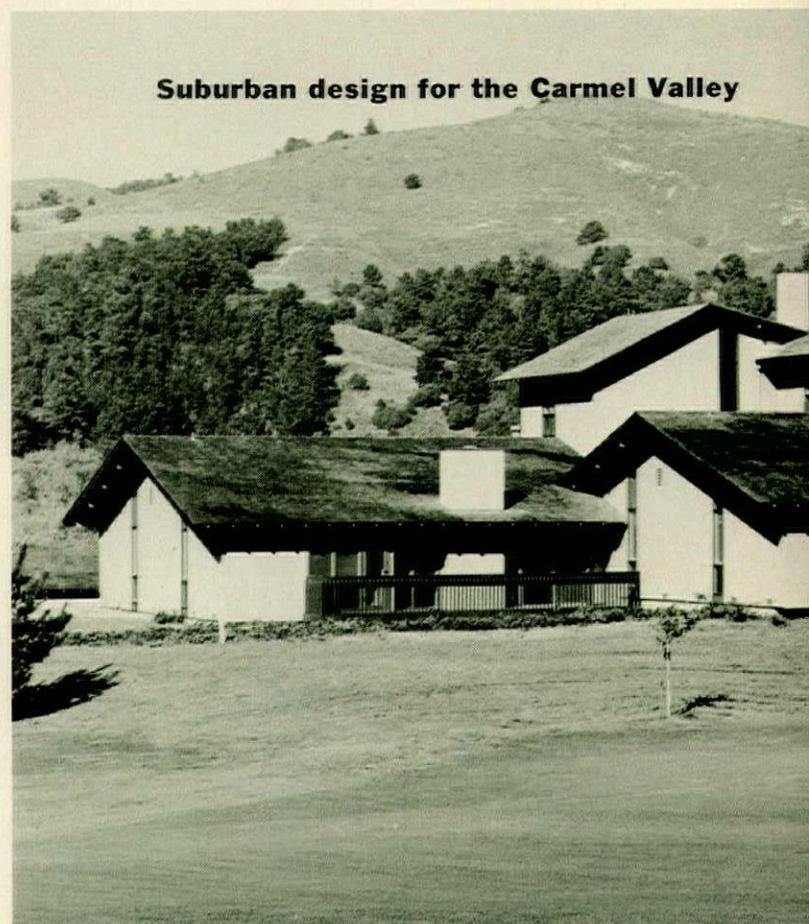
In this year's Homes for Better Living Program\* the jury looked at 47 entries and found the standard of design and land use so high that it cited eight projects for awards—almost one out of every six. For a closer look at the eight, both urban and suburban, see the next 13 pages. . . .

\*Sponsored by The American Institute of Architects, HOUSE & HOME and *American Home* magazine. The jury: architects John L. Schmidt (chairman), K. Zane Yost, A. Robert Fisher, and Gene Leedy; builder Otto Paparazzo; and editors Alan C. Borg (*American Home*) and James P. Gallagher (H&H).

Robert Lautman



Urban design for the center of Baltimore



Suburban design for the Carmel Valley

Mortey Baer



Photos: Robert Lautman



**STREETSCAPE** is strongly urban, yet it avoids the monotony of traditional row-house blocks.

AWARD OF MERIT

**A small project that borrows and enhances the elegance of its 19th-century neighbors**

**T**he 37 townhouses in this project border a handsome old neighborhood and are intended to act as a buffer against encroaching blight. Two blocks of deteriorating houses were torn down to provide a site large enough to be effective as a barrier between already-blighted and still-salvageable neighborhoods.

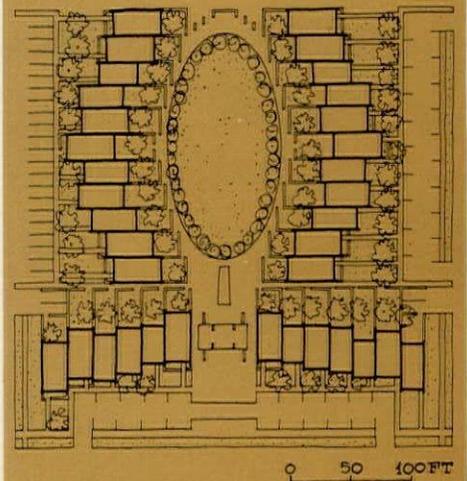
Although the design is uncompromisingly contemporary, many of the materials and details echo the nearby older houses: Dark brick and mortar, slate roofs, bay windows, and the traditional Baltimore white marble front steps all contribute to the harmony of old and new. Each house has its own private walled patio, which, in most instances, faces onto a central park open only to residents and their guests (*site plan, below*). Price: \$22,500 to \$43,000.

BUILDER: Ames-Ennis Inc.

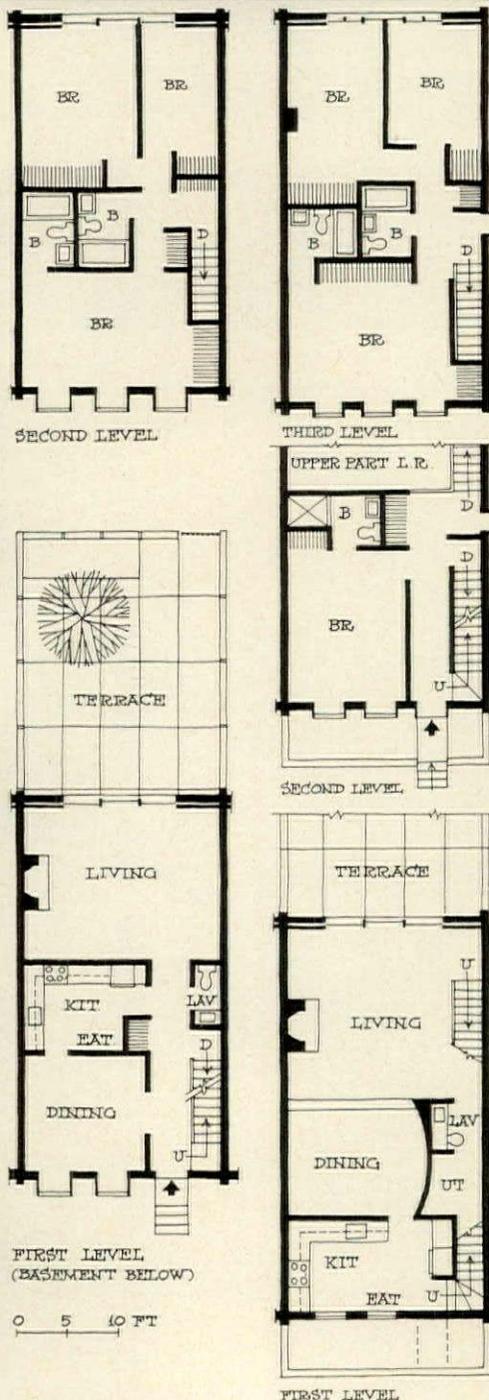
OWNER: Stanley I. Panitz

ARCHITECT: Hugh Newell Jacobsen

LOCATION: Baltimore, Md.

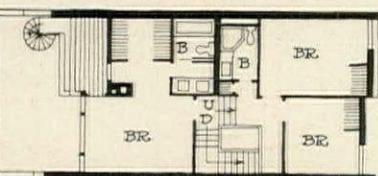


**LIVING ROOM** at rear of house (*above*) opens onto walled court (*below*). Staggered siting and brick lot-line walls provide privacy from houses on either side.

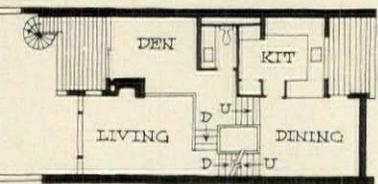


**FLOOR PLANS** (*above*) show two- and three-story houses. Four different models give an unusual range of choice for a project this small.

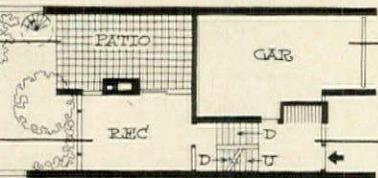




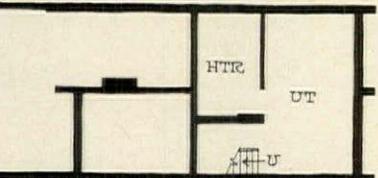
THIRD LEVEL



SECOND LEVEL



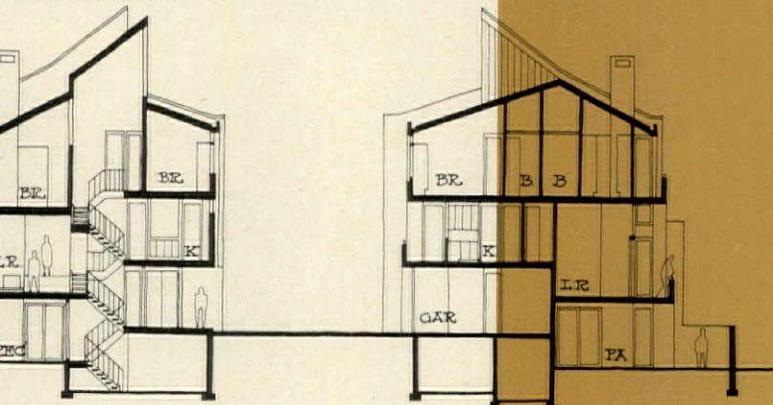
FIRST LEVEL



BASEMENT

0 5 10 FT

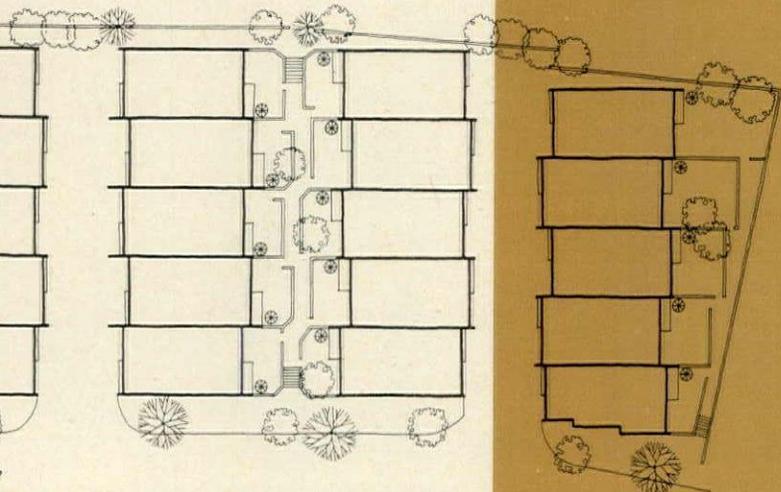
**STRIED LEVELS** (floor plans, above, section, below) allow workable separation of rooms within the narrow (24') house width.



A-A

0 5 10 FT

SECTION B-B



AWARD OF MERIT

**A compact townhouse group that puts 20 units on just one-third of an acre**

**N**ormally, the site—four old house lots near Harvard University—would have been developed with apartments. But both the city planning office and the developer preferred family-size units, so lot size and setback rules were modified to allow 20 houses to be built on the 29,160-sq.-ft. site.

Each house has three bedrooms, two and a half baths, separate dining room, garage, playroom and several balconies. Total living area is 2,151 sq. ft. The four rows of five houses (*site plan, below*) are separated by paved front entrance courts and walled rear gardens. Price: \$58,000.

BUILDER: *Victor Iocco*  
 OWNER: *Chauncy Village Co.*  
 ARCHITECT: *F. A. Stahl & Associates*  
 LOCATION: *Cambridge, Mass.*





**OPEN-TREAD STAIRS** create spaciousness. Dining room is in foreground, overlooking living room.



**STREET VIEW** shows how end-on siting avoids usual row-house look.



**PASS-THROUGH** divides kitchen and dining room, adds cabinet space.



**TWO-STORY LIVING ROOM** overlooks garden and foyer/porch.

*continued*

HONORABLE MENTION

**A high-density project that makes the most of a hillside and a panoramic view**

**T**he 150' x 96' site is in a newly fashionable older neighborhood just minutes from downtown. It commands a sweeping view of the Ohio River, and the problem was how to assure that all nine houses would be able to enjoy that view.

By stepping three rows of houses down the 10° slope (*section, below*) and by putting all living areas on the second floor, each unit was given a clear view over the rooftop on the next lower level. Garden patios open off the first-floor bedrooms, and they are fenced for maximum privacy.

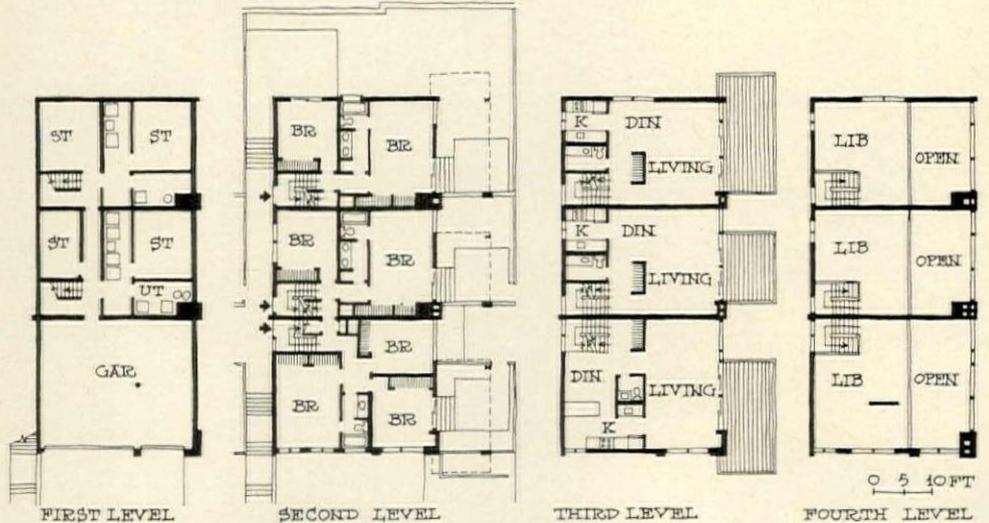
Five units were sold at sale prices of from \$28,000 to \$42,000, and four were leased at rentals of \$250-\$425.

BUILDER/OWNER: *Towne Properties*  
 ARCHITECT: *Jones/Peacock/Garn & Partners*  
 LANDSCAPE ARCHITECT: *John Jacobs*  
 LOCATION: *Cincinnati*

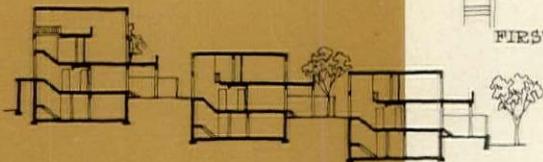
Photos: Walter Burton



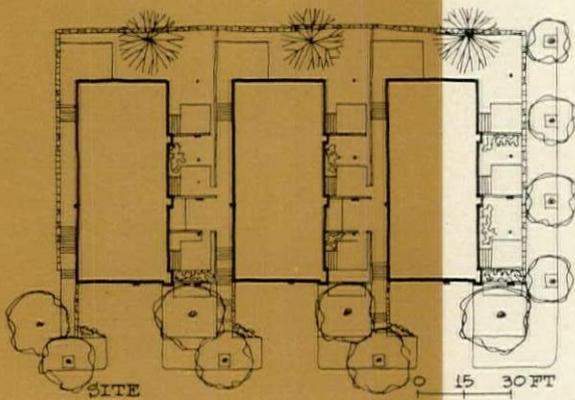
**BRICK, STONE AND WOOD** harmonize with exterior materials used in older neighboring buildings.



**LARGE UNITS** (*plans, above*) have three stories, with library overlooking two-story living room. Three units share basement storage.



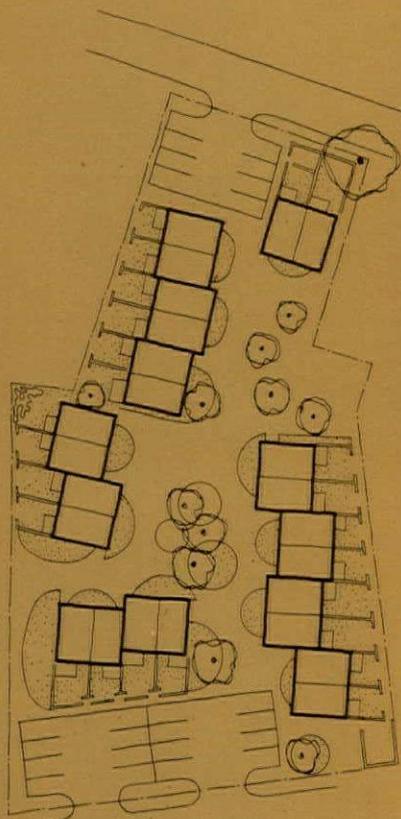
SECTION



SITE



**STEP-DOWN SITING** is shown from outdoors (*left*) and indoors (*above*). Big areas of glass on upper floors look out over the river.



HONORABLE MENTION

**A 221d3 cooperative  
that gives new hope  
to families in  
a slum neighborhood**

**T**he 24 families who bought these houses now have a sense of neighborhood and permanency in the midst of a typical urban mixture of shabby old wood-frame houses and mixed industrial areas.

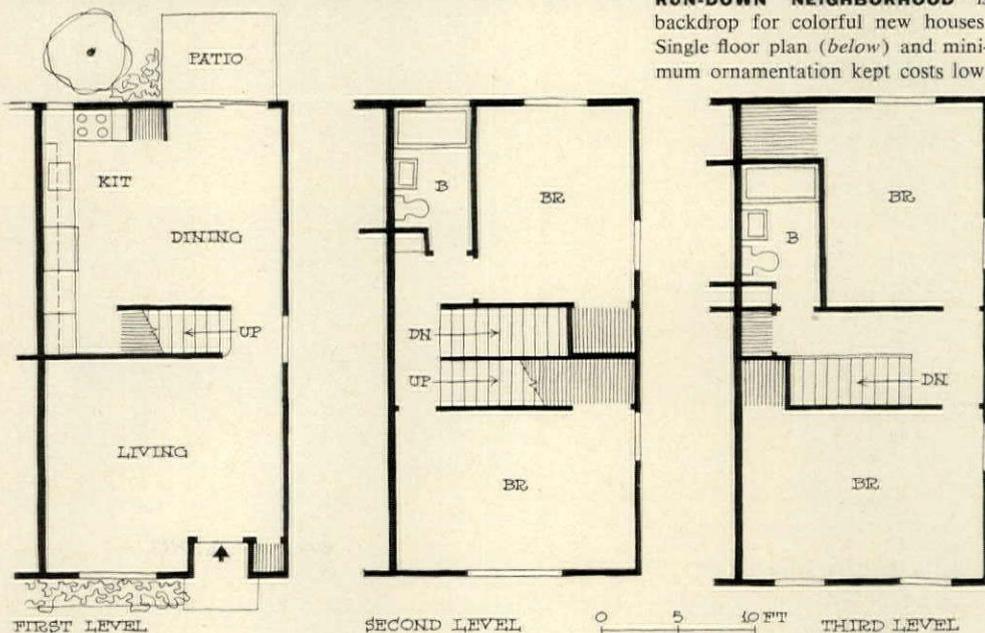
To contrast with the surrounding run-down red brick buildings, the houses were finished in pastel-colored stucco. Outdoor living areas (*site plan, above*) include private gardens for each family, a central plaza that is the focal point of social activity, and a play area for small children.

Expansion attics and roughed-in plumbing allow room for two more bedrooms and a bath if the family gets larger. Construction costs were \$11 per sq. ft., and terms were \$600 down and \$120 per month carrying charges.

BUILDER: *Palmer Tarinelli Const. Co.*  
ARCHITECT: *Fielding L. Bowman*  
LOCATION: *Bridgeport, Conn.*



**RUN-DOWN NEIGHBORHOOD** is backdrop for colorful new houses. Single floor plan (*below*) and minimum ornamentation kept costs low.



**PAVED PLAZA** (*below*) will take tough treatment from kids at play but is softened by trees and greenery in raised circular planters.

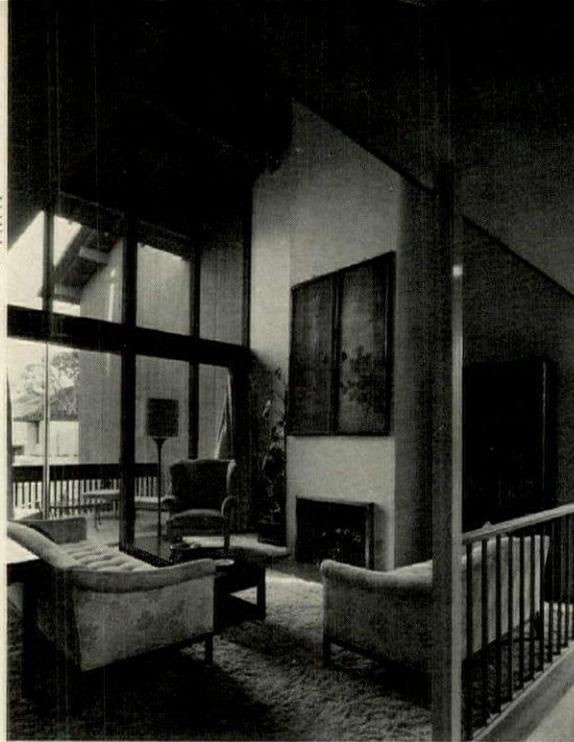


*continued*

## Townhouses in the suburbs: a new way to save open space

**O**ur sprawling suburbs, with their desperate lack of usable open space, were created chiefly by inflexible zoning regulations. The projects on the next seven pages prove that when these regulations are relaxed to permit density zoning with townhouses, the result can be a much more open community than the usual four-to-the-acre detached house project—even at double or more the latter's density.

Al Weber

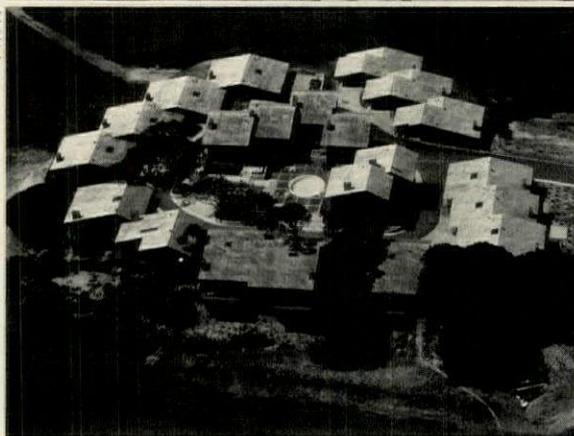


**HIGH CEILING** of two-story living room continues out past window wall. Deck beyond also serves dining room ("C" unit plan, below).

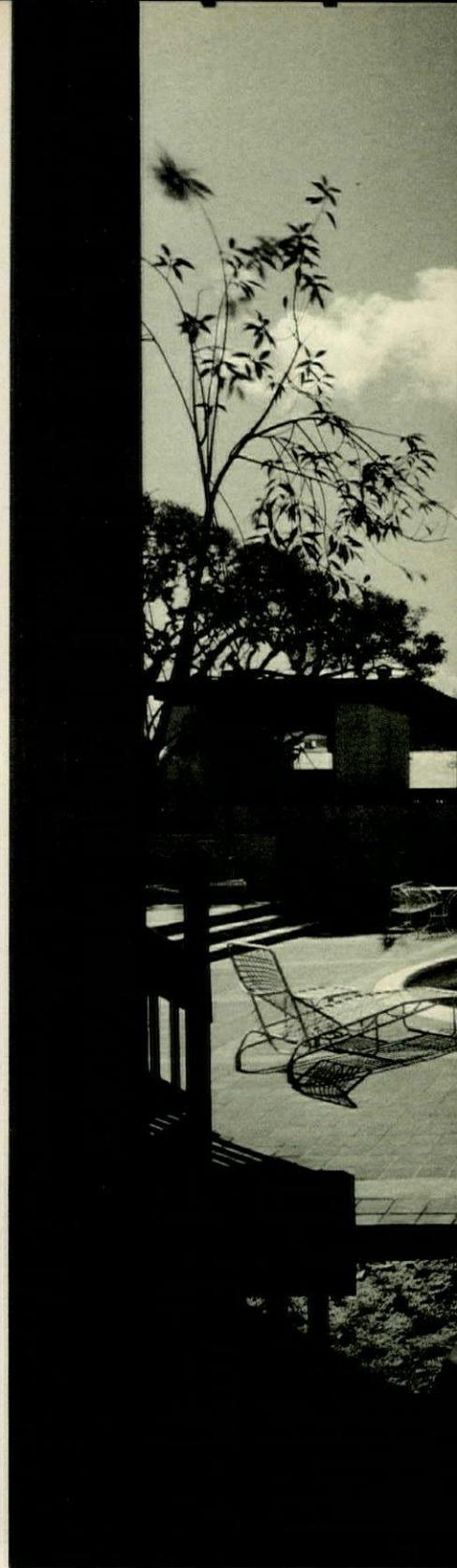
Morley Baer



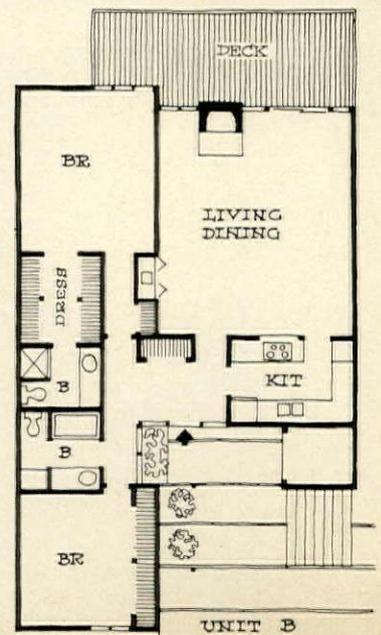
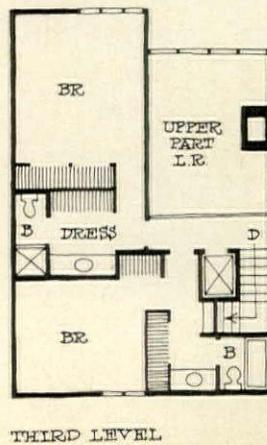
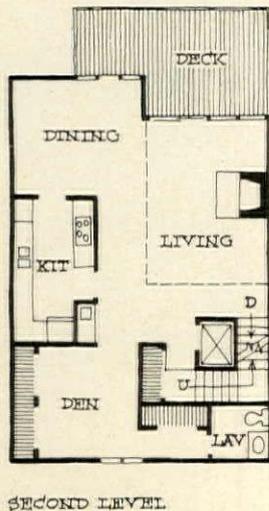
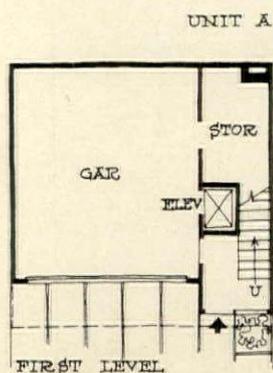
Al Weber



**AERIAL VIEW** (bottom, right) and ground level photo (top, right) show how ring of houses completely encloses landscaped inner court.



0 5 10 FT





Al Weber

AWARD OF MERIT

**A tightly grouped project designed as part of a golf course community**

**T**hese 21 luxury townhouses (see also bottom photo, p. 86) are built on a knoll surrounded by fairways. They were designed to offer an alternative to the large-lot, single-family houses that make up the bulk of a golf-oriented community located in the middle of the Carmel Valley.

The sweeping views outward from the knoll contrast sharply with interior courts which are shielded by the two rings of buildings (site plan, below). The loop roadway is depressed slightly so neither outward nor inward views can be interrupted by automobiles.

Units range in size from 1,421 sq. ft. to 1,953 sq. ft., and in price from \$48,500 to \$60,000.

BUILDER: *Filo Corp.*

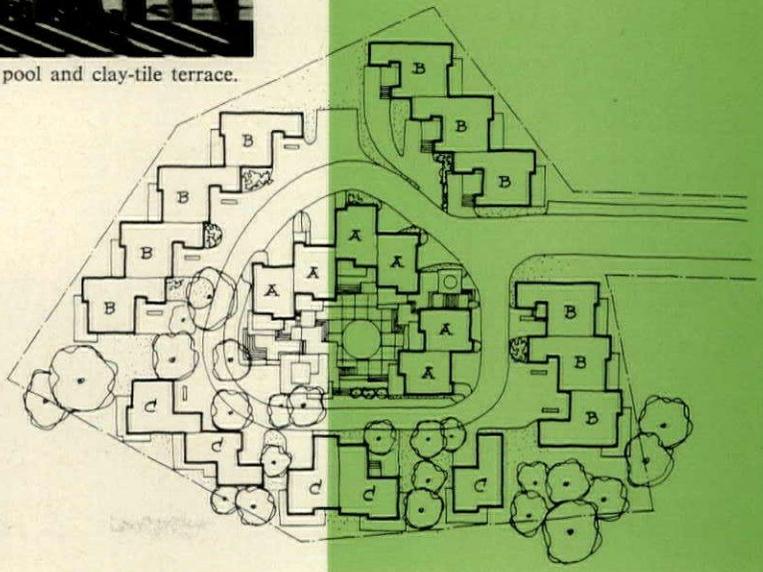
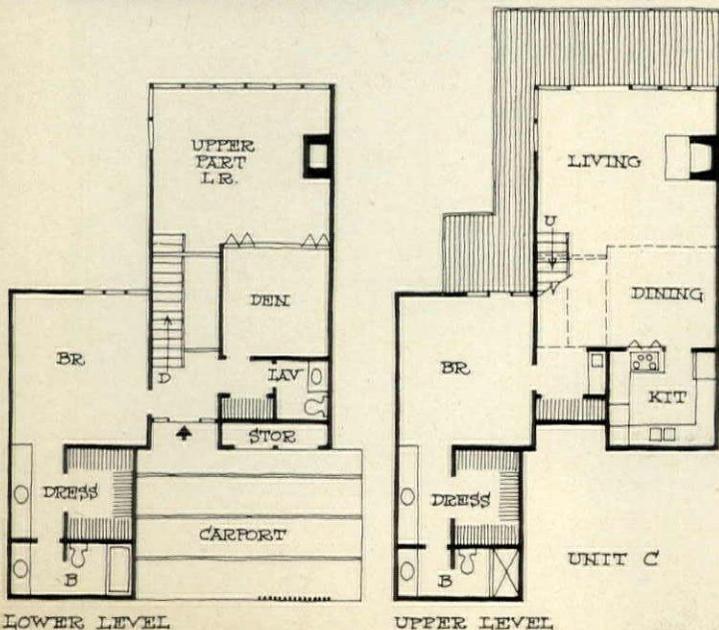
OWNER: *Burchfiel Meadows Inc.*

ARCHITECT: *Hall and Goodhue*

LANDSCAPE ARCHITECT: *Richard Murray*

LOCATION: *Carmel Valley, Calif.*

**CENTRAL COURT** secluded from the street features community swimming pool and clay-tile terrace.



continued

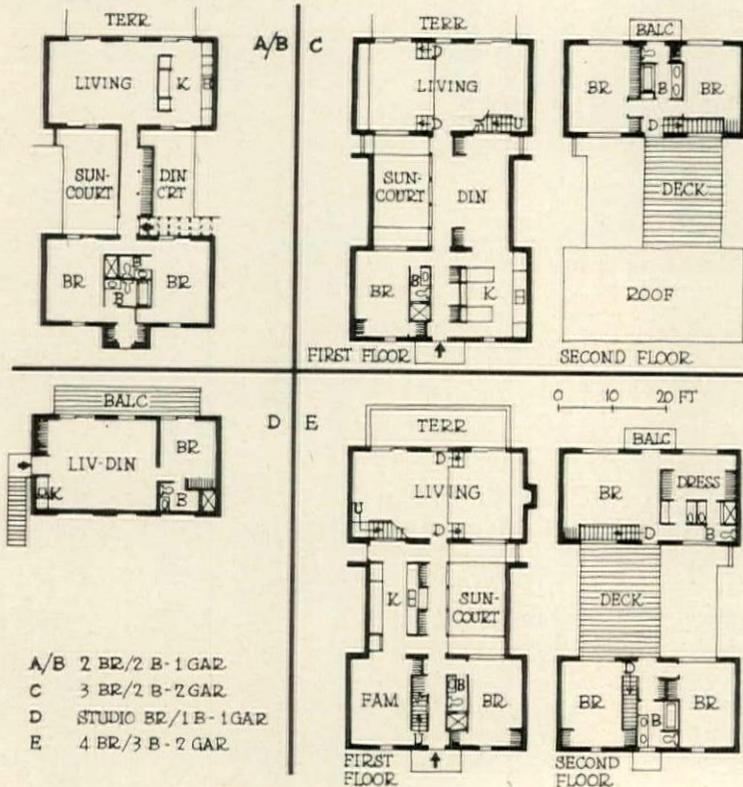


Photos: Lionel Murphy

**EXISTING TREES** were carefully preserved. Most house groups were sited in already existing clearings.



**INSIDE COURT** is screened for insect protection. It could be closed in if future needs demanded expansion of the house.



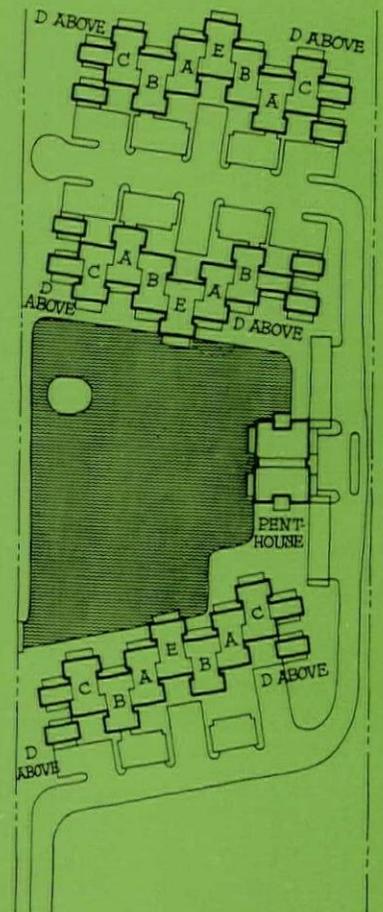
HONORABLE MENTION

**A luxury condominium project that includes a variety of unit sizes**

**T**hese townhouses enjoy a density down in the single-family subdivision range: 53 units on 8 oceanfront acres. They were designed to blend into a neighborhood of expensive homes, but to broaden the potential market both economically and sociologically, the architect included units that range in size from one to four bedrooms and in price from \$15,000 to \$50,000.

A low, marshy area in the center of the site was excavated to create a lake (*site plan, below*), and to provide fill for building sites and roads. Grey brick, rough-sawn wood and anodized aluminum were used to keep maintenance to a minimum.

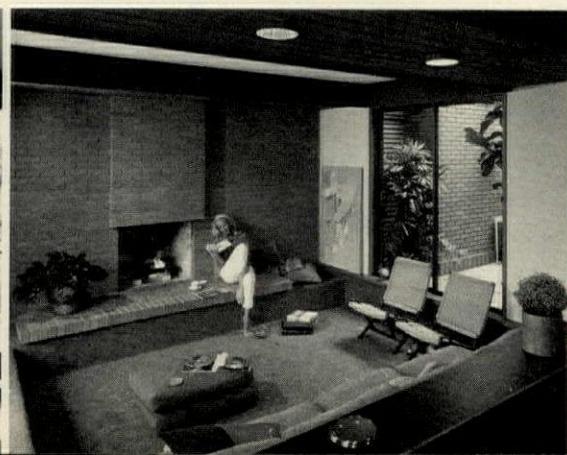
BUILDER: Logan & Currin  
 ARCHITECT: Frank Folsom Smith  
 LOCATION: Sarasota, Fla.





**INTERIOR VIEWS** (below) show care taken with details. Pictured (l. to r.): kitchen, conversation area of living room and bedroom.

**LIVING ROOM** (above) opens into screened court. Slatted sunshields shelter big windows from both glare and rain.



## HONORABLE MENTION

**A low-density project  
that retains a  
rural feeling in  
a new town**

**T**he 390 units in this condominium are the second townhouse development in a 500-acre segment of the giant Irvine Ranch—88,000 master-planned acres on the edge of Los Angeles. The site plan (*below*) is a variation of the greenbelt concept, with a series of culs-de-sac (averaging 30 houses each) backing onto greenbelts leading to recreation areas. Overall density is only 6½ units per acre, including recreation facilities and internal circulation.

All houses are on leased land (average land rent: \$21 per mo.), and there is a monthly maintenance charge of \$20 per unit. Six different floor plans (*opposite page*) range from 1,260 sq. ft. to 2,500 sq. ft., and in price from \$21,995 to \$28,995.

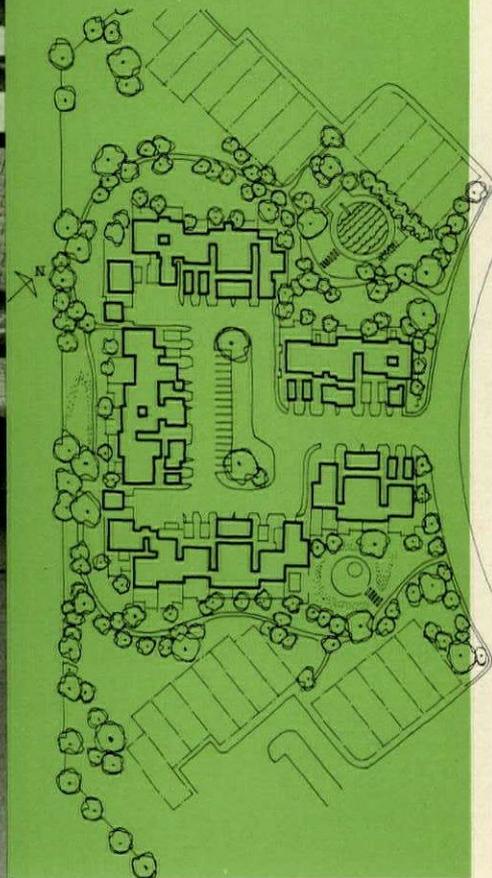
BUILDER: Swartz-Linkletter Co.

ARCHITECT: Thomas/Richardson/Associates

LANDSCAPE ARCHITECT:

Sasaki, Walker Associates

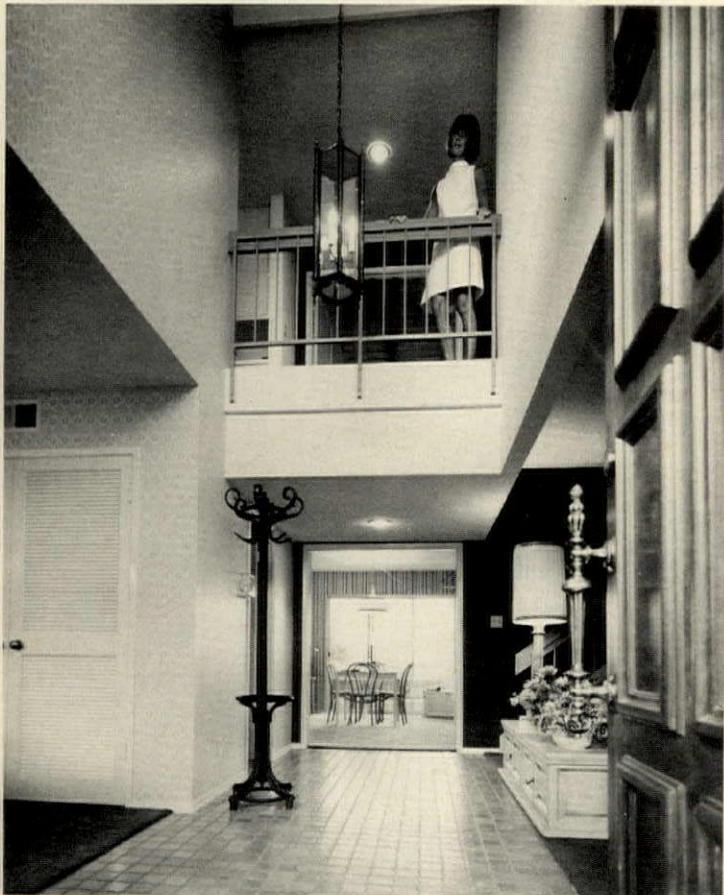
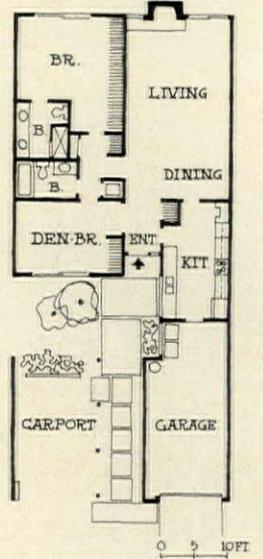
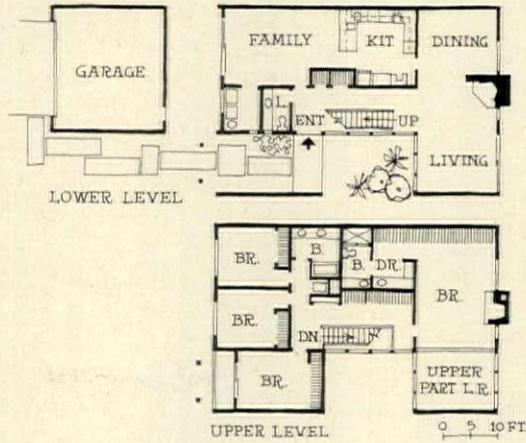
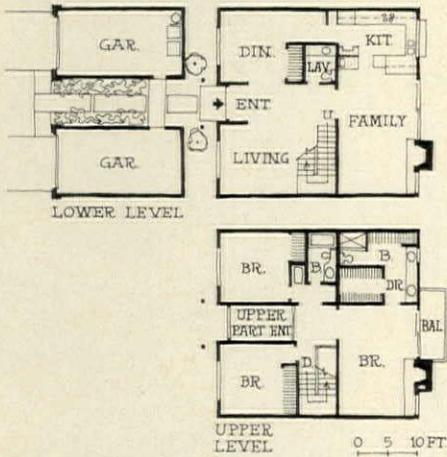
LOCATION: Irvine, Calif.



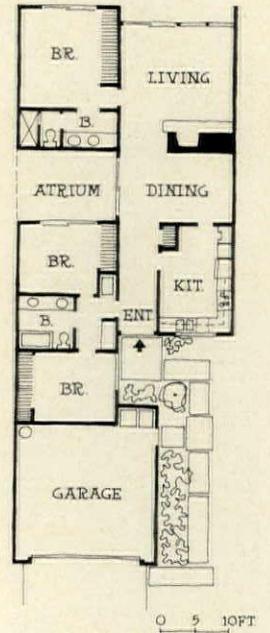
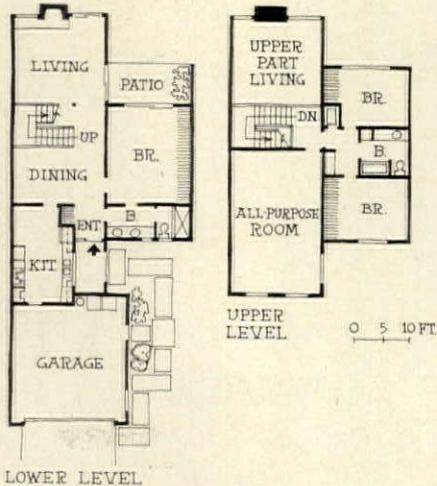
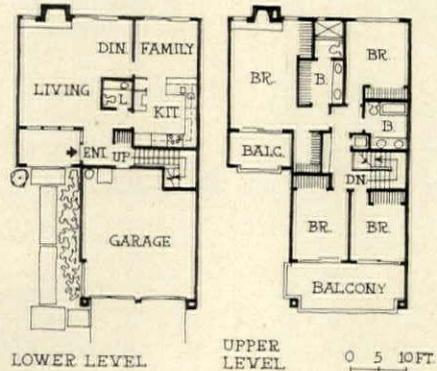
**SECOND FLOOR PORCH**, a throw-back to yesterday's spacious verandas, looks out over one-floor houses to green areas beyond.



TIGHT GROUPING of houses gives an urban feeling to street (top), but rear greenbelts are open (bottom). Entry (above) is designed for privacy.



TWO-STORY ENTRY gives an opulent first impression, also provides easy circulation to any room in the house from the front door.



continued

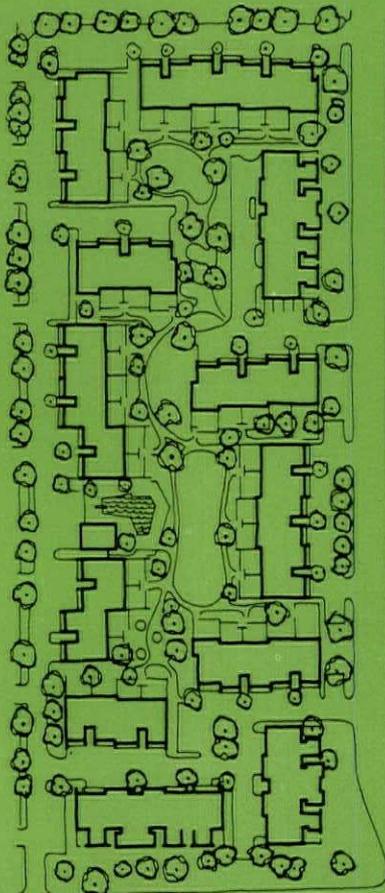
HONORABLE MENTION

**A rental project  
that can be  
converted to  
condominium ownership**

In the present strong rental market, these townhouses have almost no vacancies. But the project was designed so it can become a condominium, permitting the owner to sell off individual units if the rental market slips. Each house is self-sufficient, with its own heating/cooling system and two-car garage.

The project's site is relatively flat. But a monotonous feeling was avoided through a series of interconnected green spaces (*site plan, below*) and minor contouring of the land. Lots facing into commons were raised 2½' above grade to provide visual privacy for patios whose fences are only 3½' high. Rentals: \$285 to \$290 a month.

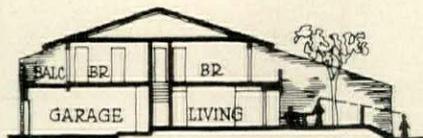
BUILDER/OWNER: *The Crockett Co.*  
ARCHITECT: *Dale E. Selzer*  
LANDSCAPE ARCHITECT: *Richard B. Myrick & Associates*  
LOCATION: *Irving, Tex.*



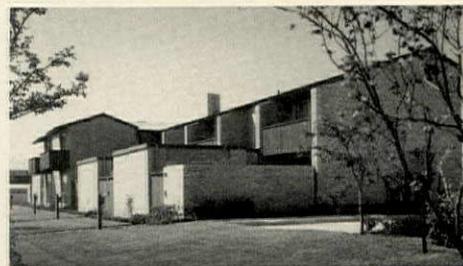
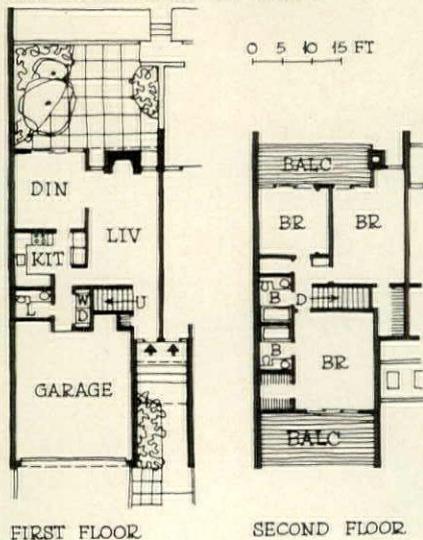
Photos: John Rogers



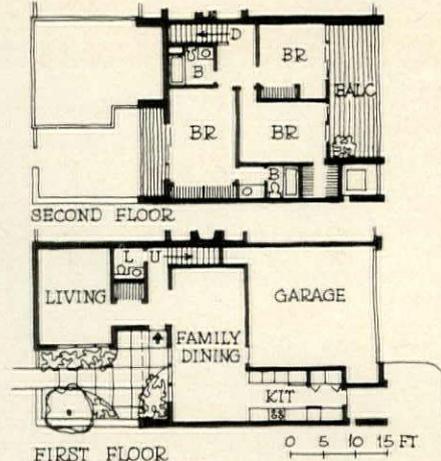
**LARGE BALCONIES** (6'x16') open off second-floor bedrooms and overlook central green spaces.



**SECTION** shows how raising houses 2½' above grade and pedestrian walks creates privacy for patios.



**ENCLOSED PATIOS** (*above and plan, below*) open off living rooms of houses that do not face directly onto major open spaces.





**Why offer  
floor monotony?**



FAMOUS  
BRUCE  
PREFINISH

Area rug by Edward Fields, Inc.

## **Personalize your homes with dramatic Bruce Fireside Plank.**

Today many home buyers are bored with the institutional look of wall-to-wall monotony, so give them something to get excited about. Give them the rich, dark coloring and alternate-width oak planks of permanent-type Bruce Fireside Plank Floors.

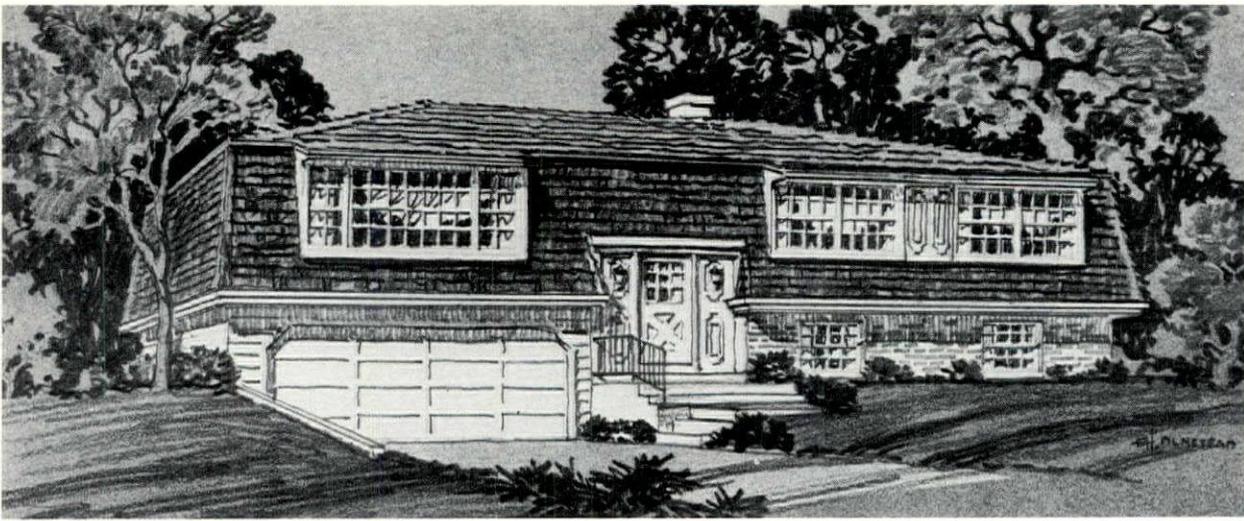
The remarkable Bruce Tuf-Lustre Finish on Fireside Plank will keep its beauty for years because it's baked into the wood at the factory to resist stains and

scratches. The prefinished feature saves on your installation time and labor costs, too.

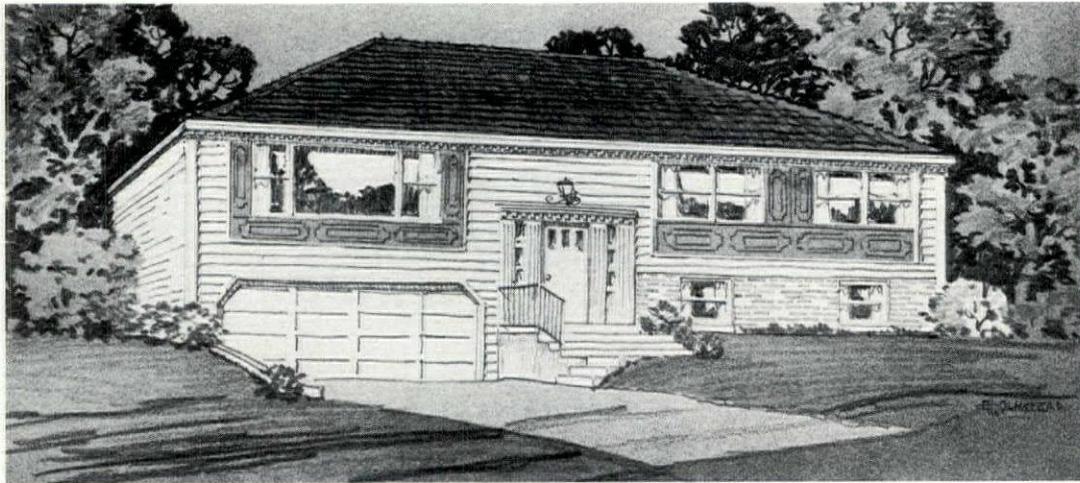
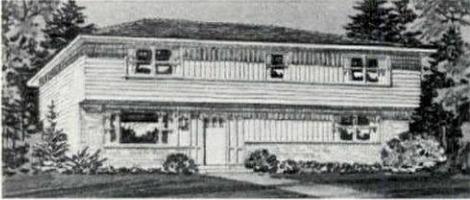
Put excitement and individuality into your homes with beautiful Bruce Fireside Plank. See our catalog in Sweets' or write for more information on nationally advertised Bruce Hardwood Floors.



E. L. BRUCE CO., INC., MEMPHIS, TENNESSEE—38101  
*World's largest manufacturer of hardwood floors*



# Ballantrae



***"A hidden asset at Ballantrae—  
its cast iron pipe water distribution system."***

LEONARD W. BESINGER, JR. *President*  
MERITEX CORPORATION, CARPENTERSVILLE, ILL.

"Ballantrae is a planned community located in rolling countryside 25 miles northwest of Chicago. Our home designs and project features reflect our experience in building over six thousand dwellings in the Chicago suburban area. This new community will ultimately have over 250 homes. Plans later call for townhouse apartments adjoining a golf course.

"Ballantrae, like our many other successful developments, offers fine values to the home buyer. We insist on quality in our homes—and naturally are happy to offer residents quality underground as well. Cast iron pipe is used entirely in Ballantrae's water distribution system. Its reliability and ruggedness make it the obvious choice."

This forward-looking developer, like other alert and growing builders, looks to the permanence of cast iron pipe. Its proven long life, resistance

to corrosion, its high strength and ability to withstand a combination of severe conditions of internal pressure and external load, the fact that it doesn't absorb water or go soft, all are of paramount concern to the developer—and home buyer! This strength, plus the added economies of speedy installation, with bottle-tight push-on joints, make it an investment with an assured return.

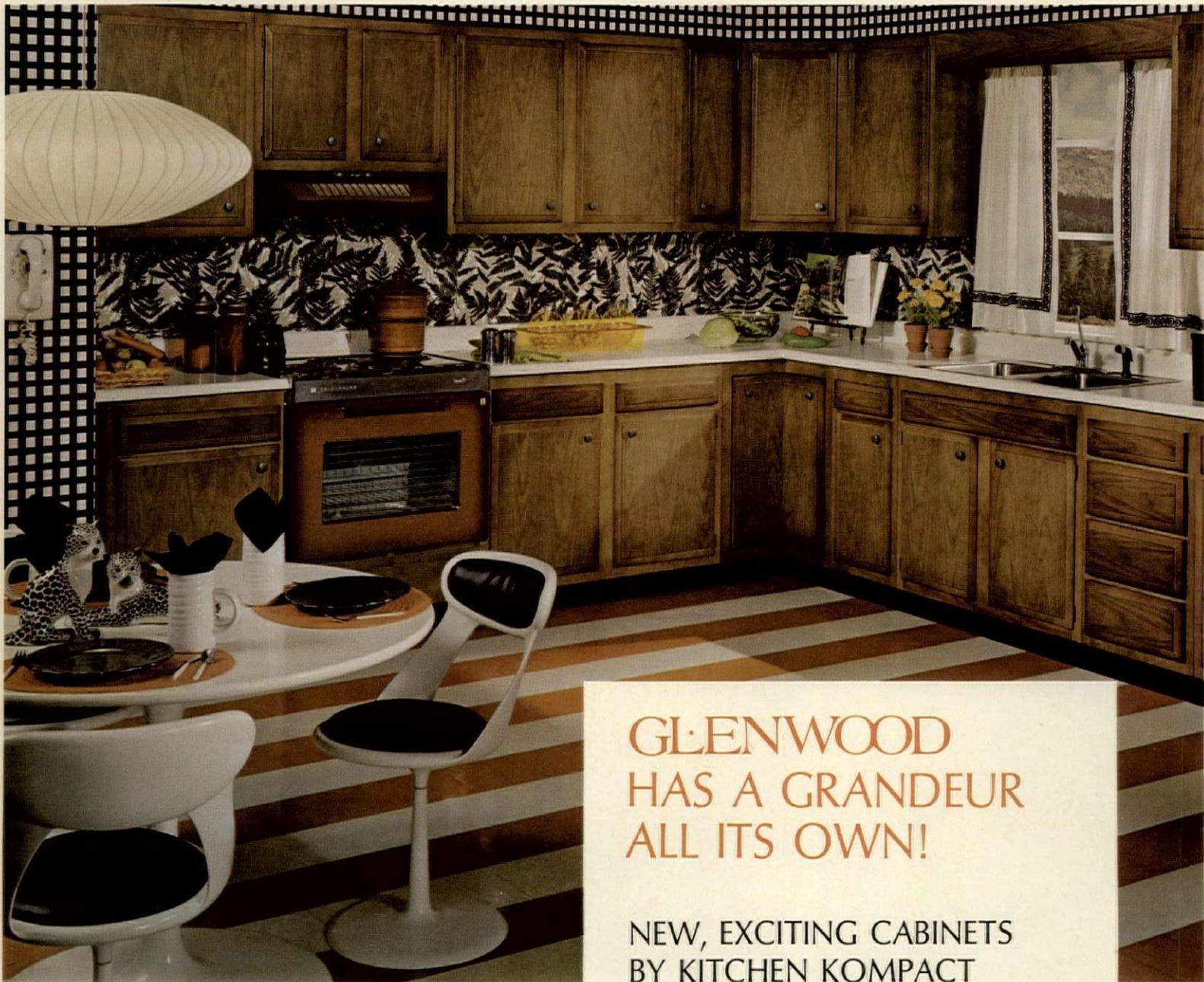
Send for a free copy of "Tract Development, Volume 2," a 48-page book containing useful ideas and information. It's a specially assembled collection of articles by outstanding authorities.



*Nothing serves like*  
**CAST IRON PIPE**



THE MARK OF PIPE THAT LASTS OVER 100 YEARS



## GLENWOOD HAS A GRANDEUR ALL ITS OWN!

### NEW, EXCITING CABINETS BY KITCHEN KOMPACT

Now, Kitchen Kompact introduces a great new look to kitchen cabinets. It is Glenwood—an aristocratic walnut finish and grain pattern with clean, classic styling. Glenwood has a grandeur all its own!

Kitchen Kompact cabinet construction equals its stylish appearance. Drawers are of one-piece Durium—a new, high impact-resistant material that is virtually indestructible. An improved, roller-free suspension system makes drawer action even easier.

All KK cabinets wear the famous Mobil “Family Proof” finish—a highly resistant finish, formulated exclusively for Kitchen Kompact. So exceptionally tough, the KK finish is resistant to household chemicals, mild acids, water and alcohol, even nail polish.

See the two distinguished KK lines soon: new, exciting Glenwood and the exceedingly popular Mellowood. You couldn’t recommend a cabinet with more value to your customers.

Kitchen Kompact is available from fully stocked distributors in most major markets. Look in the Yellow Pages for your nearest KK distributor.

*Kitchen Kompact cabinets have been “Quality Certified” by the National Kitchen Cabinet Association. It’s your assurance of proven performance and satisfaction.*



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American-Standard  
has the Hot Ones for '68!

# The wild one

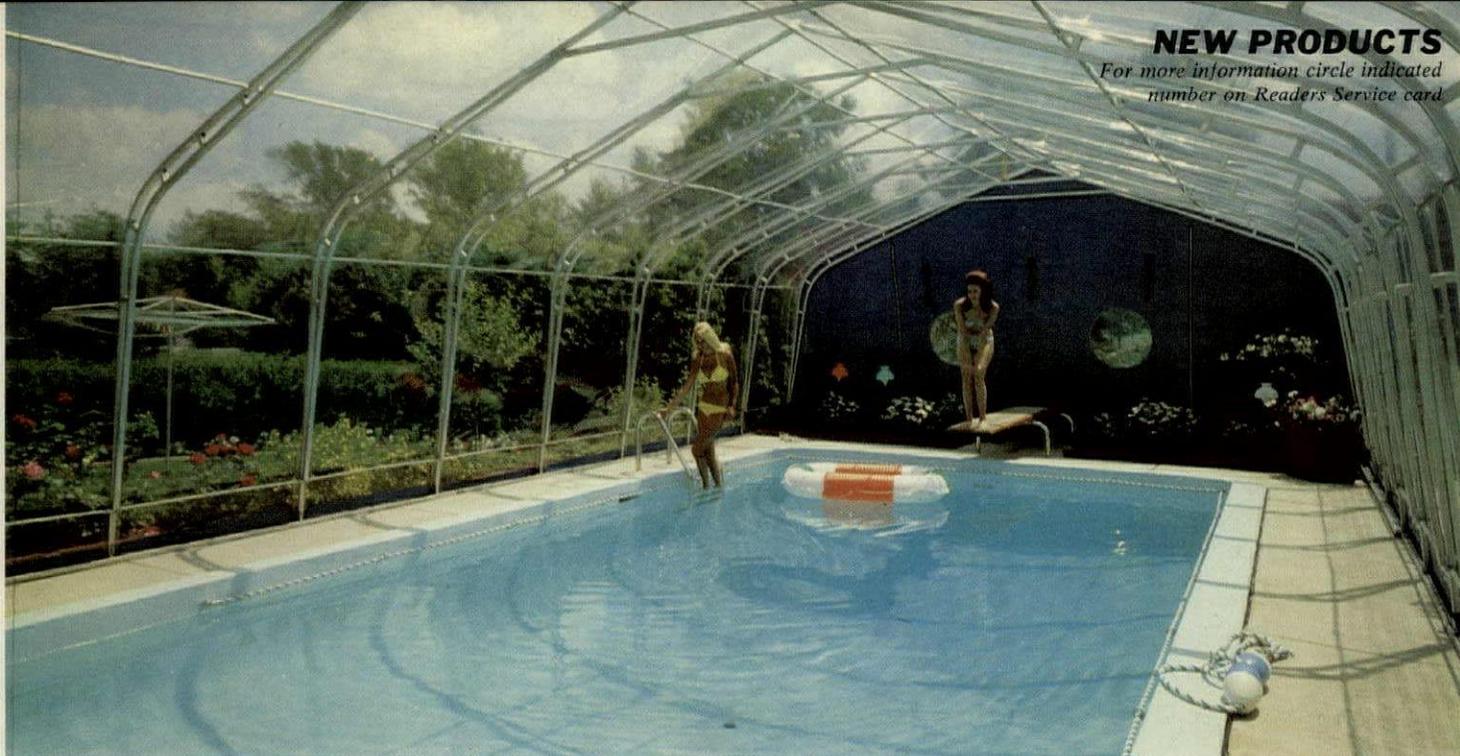
The sporty Fiesta<sup>™</sup> makes other kitchen sinks look like they're standing still. Once women get their hands on that souped-up instrument panel, there's no stopping 'em! And smart, successful builders like J. S. Hovnanian of Holiday-On-The-Green, Mt. Laurel, N. J., know it. He's turning prospects into home buyers right now with a Fiesta sink in each of his model homes. We're backing Mr. Hovnanian and you up all the way with advertising that's reaching (and pre-selling) 137 million people. That's pretty wild, too!

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This nationally advertised trend-setting product is being featured by builders all over the country. Reason? To help sell more homes faster. For more information and details on the special promotional program call your nearest American-Standard representative, or write us. American-Standard, 40 West 40th Street, New York, N. Y. 10018.

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STANDARD**

PLUMBING & HEATING DIVISION



**Here's an accordion-like dome to cover swimming pools . . .**

The see-through enclosure—which makes it possible to offer homebuyers a 12-month pool season—combines steel struts with a transparent covering of rugged, noncracking vinyl.

In the winter the dome can be closed and heated easily (although the sun on warm days will eliminate the need to add additional heat). In the summer the struts glide back like an accordion in tubular aluminum tracks to give the homeowner an outdoor pool open to the sun. And between

these temperature extremes, the steel-and-vinyl enclosure—called Aquadome—can be folded partly back for varying degrees of protection.

Sizes are available to fit almost any conventionally shaped pool—from 24' wide, 11' high and 28' long on up. Larger units are 28' wide and 12' high, increase in length in 4' increments. Prices start at \$1,400. For information from Cascade Industries, Edison, N.J., *Circle 275 on Reader Service card*



**FOR POOLSIDE:** Manufacturer recommends a special adhesive to combat moisture.

**. . . and indoor-outdoor carpet to surround them**

Although only one manufacturer has gone so far as to suggest lining the pool itself with its indoor/outdoor carpeting, most okay laying the carpeting at poolside.

The carpeting shown at left is Armstrong's Weatheron, a needle-punch, polypropylene-olefin product recommended for patios and porches and, like most outdoor carpeting, also for indoor use. Polypropy-

lene, says Armstrong, is the most moisture-resistant of all known fibers; hence its use around pools.

Another entry in this versatile material—shown in the two photos below—is patterned carpeting manufactured by Ozite. For information from Armstrong, *Circle 276 on Reader Service card*. From Ozite, *Circle 277*



**FOR PATIOS:** Polypropylene carpet can be loose-laid, installed with cement or double-faced tape. The patterns shown are brick (left) and mosaic (right). Both come in rust, red or green in 12' widths.



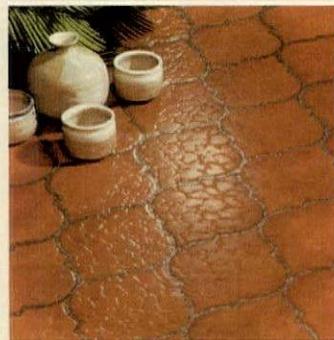
**Interiors**



**Resilient flooring**, with hexagonal vinyl chips of varying shapes and sizes embedded in a clear vinyl grout, is available in eight colors. Above: sun gold. Flooring is backed with moisture-resistant asbestos, comes in 6' widths. Armstrong, Lancaster, Pa. Circle 222 on Reader Service card



**Three-dimensional panels**—10" or 12" square—are molded of a velvet-like foam in six available patterns. The panels can be cleaned, are sound-absorbent and are easily applied with either adhesive or staple tabs. Cromwell-Sealy, New York City. Circle 223 on Reader Service card



**Cushioned-vinyl flooring** in a Spanish mood is designed to simulate Moorish clay tiles set in mortar. Colors include pompeian red (photo), willow green, zinnia, avocado, honey and gold. Congoleum-Nairn, Kearny, N.J.

Circle 224 on Reader Service card



**Hand-painted tiles** imported from Italy blaze with brilliantly colored designs. The 7 $\frac{7}{8}$ "-square tiles weigh 4 $\frac{1}{4}$  lbs. per sq. ft., and are heavily glazed to withstand traffic. Giovanni Bellini, New York City.

Circle 225 on Reader Service card



**Oak-grained hardboard planks** are used both horizontally and vertically in the room shown above. The random-scored planks are made with tongue-and-groove edges and are prefinished to simplify maintenance. Marlite Paneling, Dover, Ohio. Circle 226 on Reader Service card



**Woodgrained vinyl-plywood paneling** with wide accent grooves looks like natural wood. The prefinished panels come in four tones, including olive pecan (above), and in 4' x 7' or 4' x 8' sheets. Abitibi, Birmingham, Mich. Circle 227 on Reader Service card

New products continued on p. 108

# The Paneled Bath

Newest selling idea in baths  
... exclusive from Formica!



A totally new look is now possible with FORMICA® brand Panel System 202. Smooth surface has no grout lines to get dirty, nothing to chip, crack or crumble.

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Center core of foam conforms to slight irregularities in subwall for firm, smooth installation.

Backing sheet insures permanent bonding to subwall.



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Panel face is durable FORMICA® brand laminated plastic. Maintenance-free; won't discolor; wipes clean with damp cloth.



Remodeling? FORMICA® Panel System 202 goes over almost any surface as is (even ceramic tile).

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## Leadership by design



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**Kitchens**



**Designer-door appliances**—shown with cabinets by Del-Mar, (also photo, right)—let builders match any decor. The doors are standard on refrigerators, and an optional framing kit is available for ranges and dishwashers. Frigidaire, Dayton, Ohio. *Circle 229 on Reader Service card*



**Dual-faced cabinets**—reversible door panels have a classic design on one side (above), colonial on the other—are grained like pecan wood. They feature a baked-on protective finish and adjustable shelves. Del-Mar/Mengel, Atlanta, Ga. *Circle 230 on Reader Service card*



**Double-compartment kitchen sink** is made of nickel-bearing stainless steel that is hand-rubbed to give it a satin finish. As an added convenience, the model shown has two drainboards. Elkay Mfg., Broadview, Ill. *Circle 232 on Reader Service card*



**Double-decker gas range** that fits into 30" of space includes a broiler that converts gas heat to infra-red rays; solid-state ignition; and see-through glass doors. Both range and dishwasher at right come in several colors. Caloric, Topton, Pa. *Circle 231 on Reader Service card*



**Smokeless rotisserie-broiler**—13½" high and 26" long—mounts on the wall (photo) and folds up when not in use. Unit has a heat reflector that prevents smoking and grease spatter. In several colors. Nautilus, Freeland, Pa. *Circle 233 on Reader Service card*



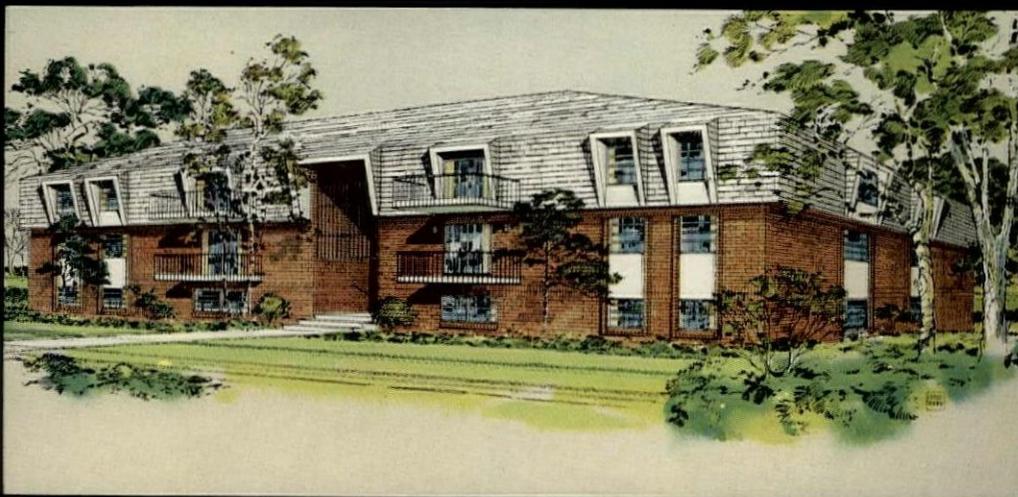
**Keep-hot hood** is one of eight that may be used with a new roof-mount ventilator. It uses two 250-watt lamps for warming food and plates and comes in 30", 36", 42" and 48" widths. In stainless or enameled steel. Thermador, Los Angeles. *Circle 234 on Reader Service card*

*New products continued on p. 116*

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*Home design: Bruce O. Fast, Potomac, Md.*

An indoor/outdoor atrium pool covered with large, graceful domes of PLEXIGLAS acrylic plastic provides a cool center of interest and a powerful sales attraction in home design. The transparency of PLEXIGLAS brings indoors the light and beauty of the outdoor scene. The grey tint of the domes effectively filters the sun's heat and glare to provide a comfortable interior environment.

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A cover of PLEXIGLAS over an atrium pool allows construction economies and great design latitude. The domes can be supplied to the job site framed and ready for easy installation. Walls surrounding the atrium require no costly weatherproofing because the domes provide complete enclosure.

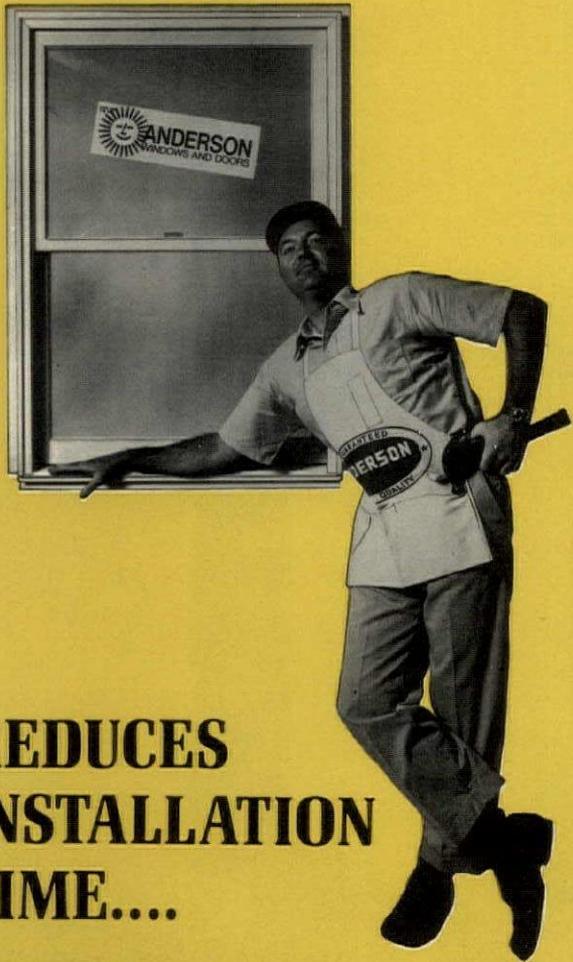
There's always something new under the sun with PLEXIGLAS. Write for our brochures on dome enclosures and the PLEXIGLAS Solar Control Series of glazing tints. We will also provide names of experienced dome manufacturers.

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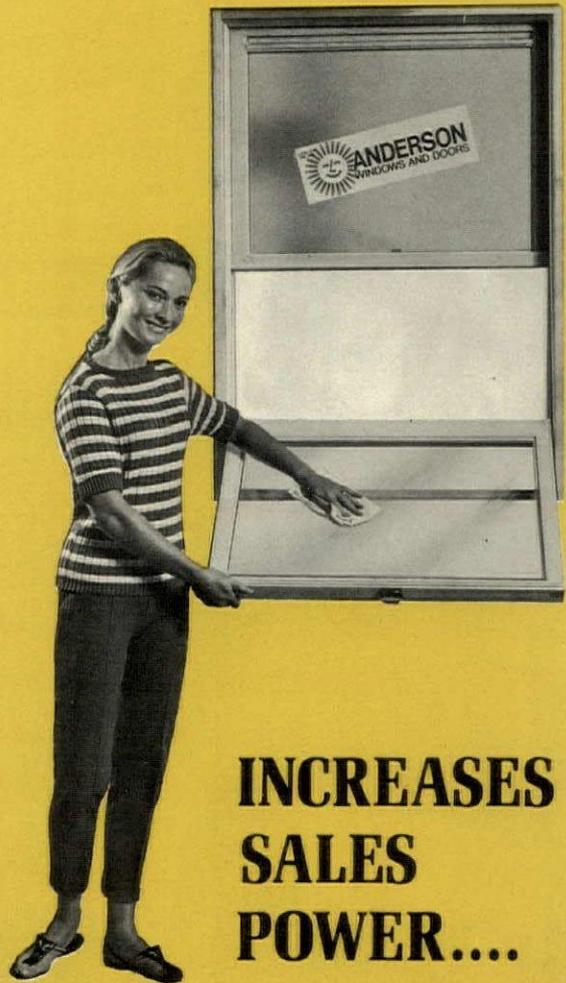
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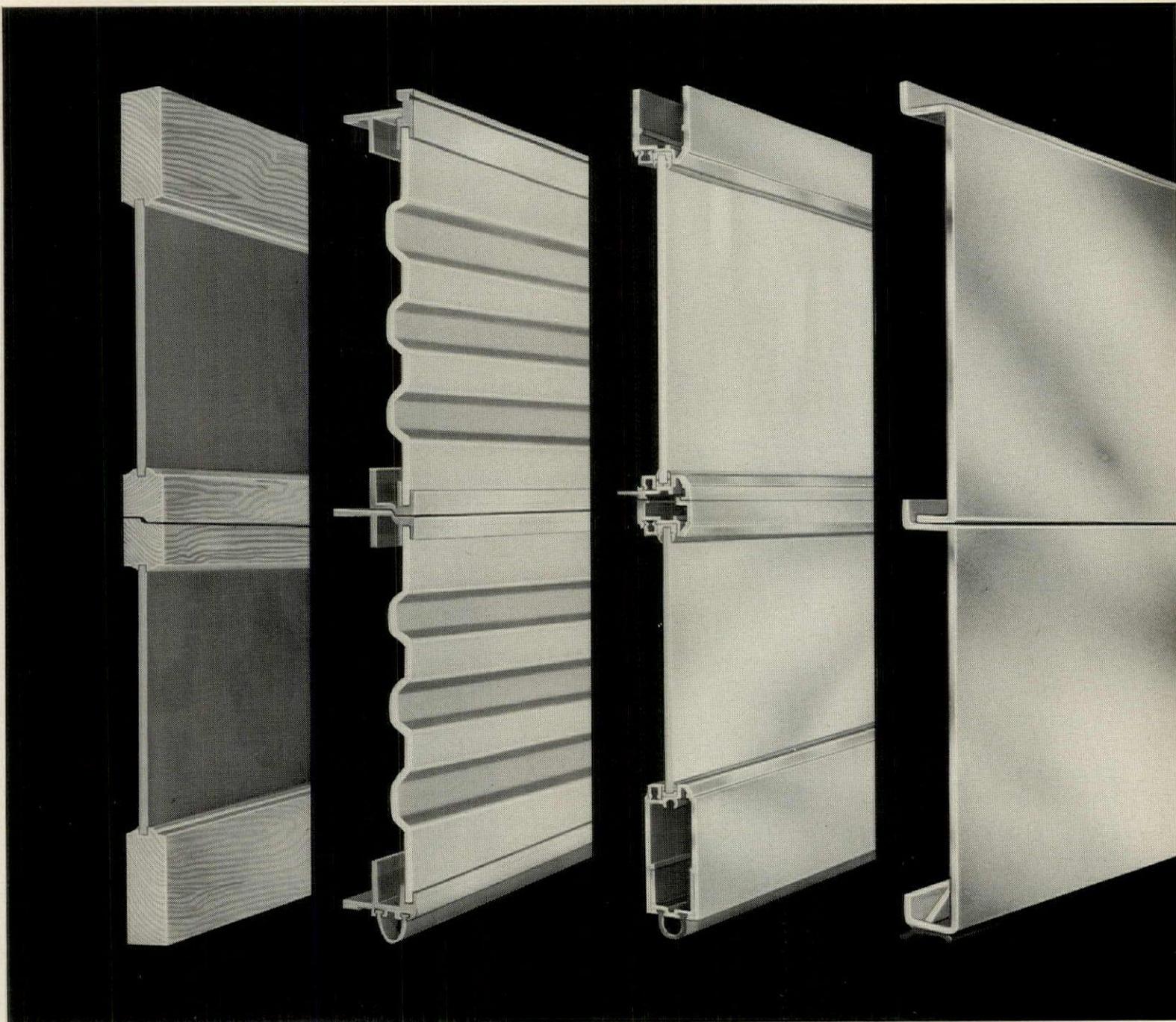
DESIGN PATENTS — US-DES 211,456, US-DES 211,457, US-DES 211,458

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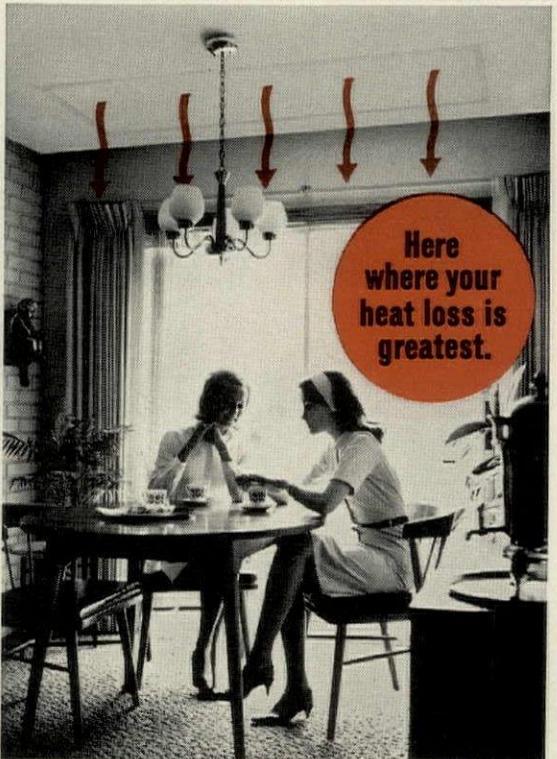
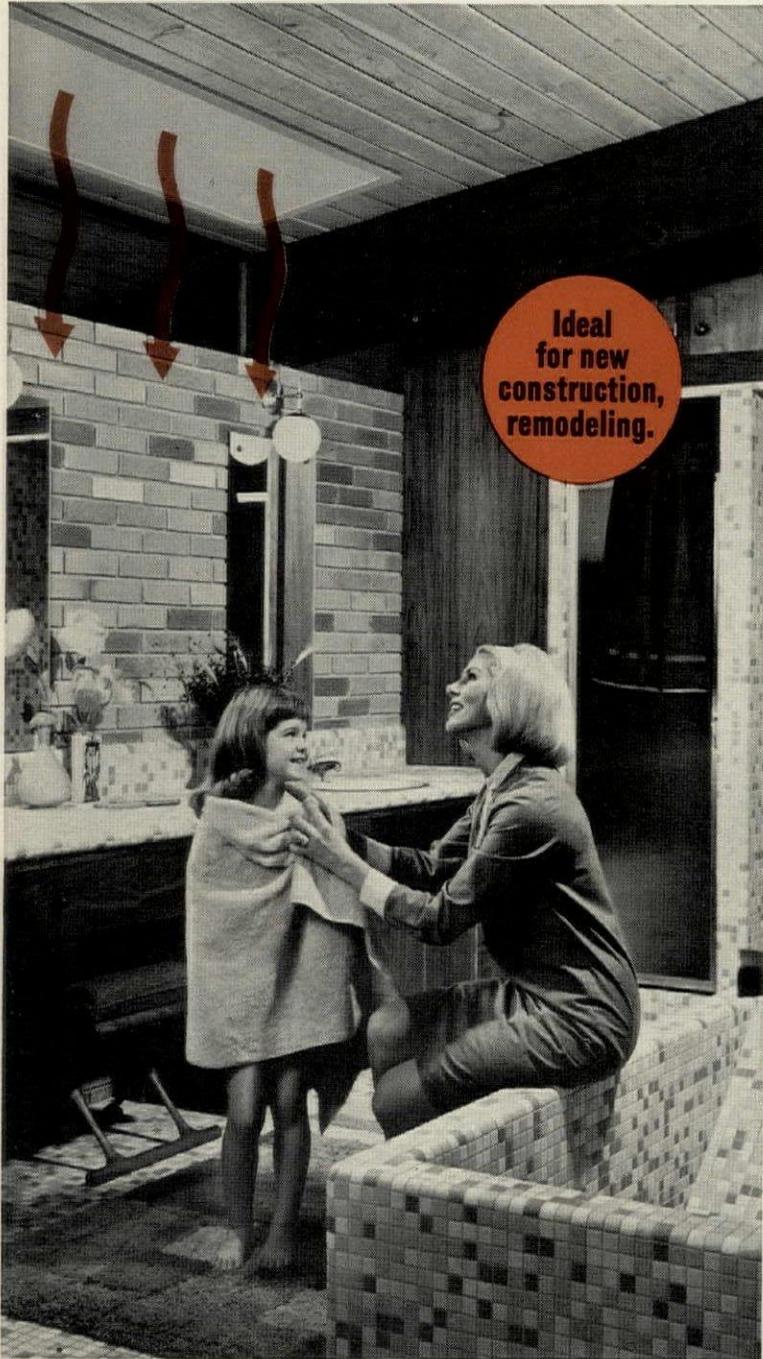
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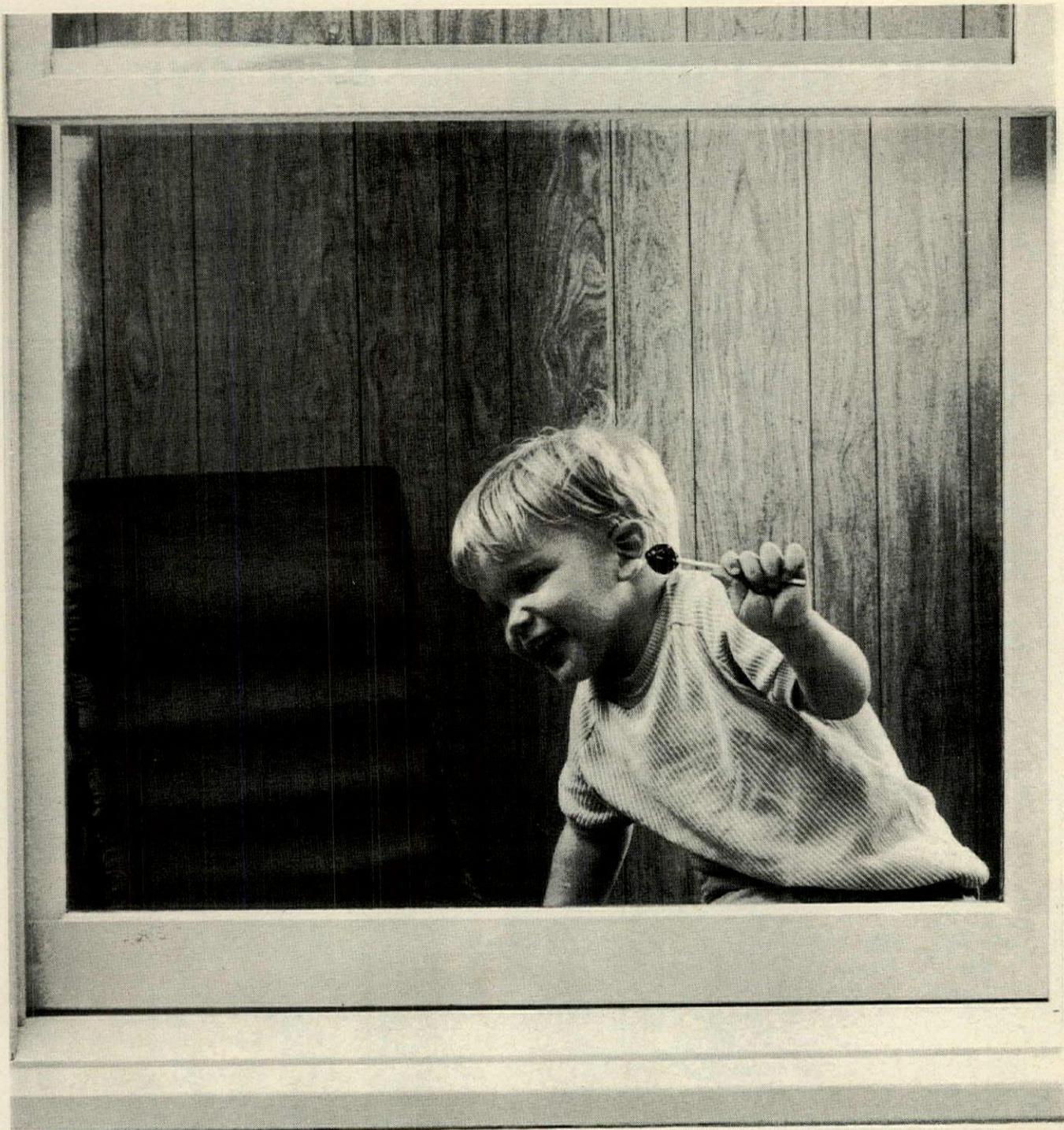
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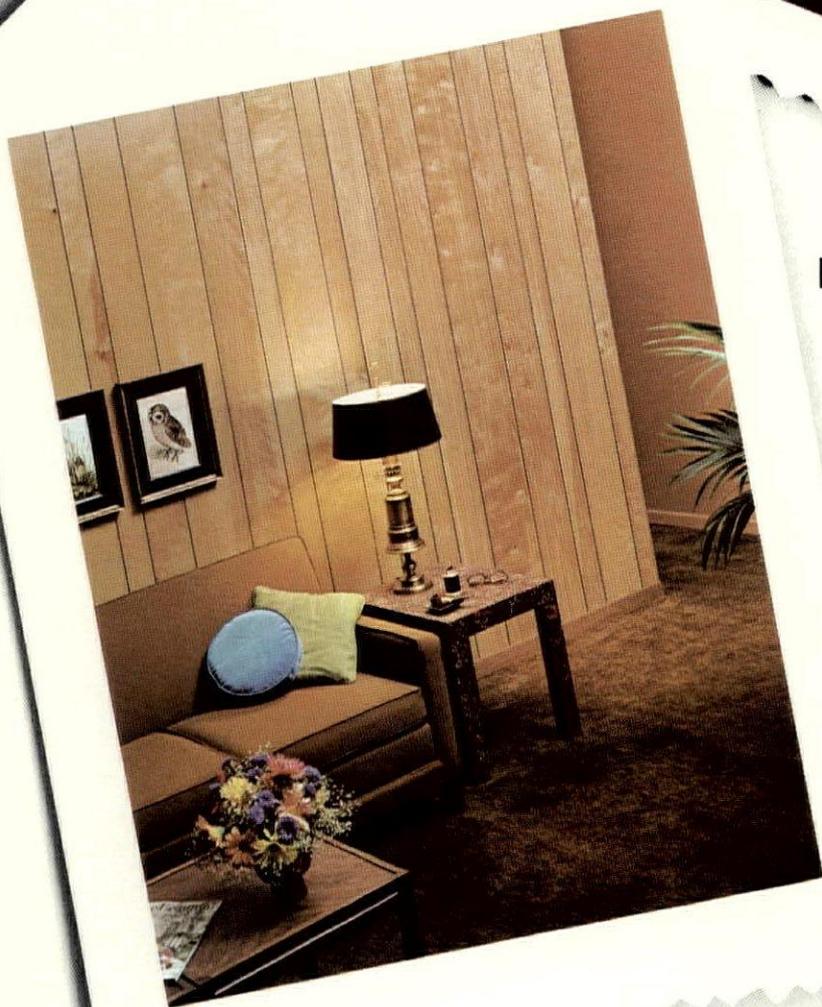
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Gene Bolmarcich at Birchwood Park at Water's Edge, Bayside, Long Island, New York

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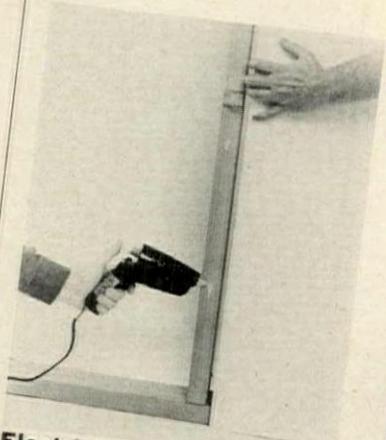
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**NEW PRODUCTS**  
start on p. 105

**Tools and equipment**



**Wheeled loader** uses one lever to regulate both direction and transmission speed. Available: four general-purpose buckets as well as rock, side-dump and multi-purpose buckets and a rear-mounted ripper-scarifier. Caterpillar, Peoria, Ill. Circle 218 on Reader Service card



**Electric glue gun** that can bond an almost limitless range of materials uses a cartridge of a hot-melt polyethylene-based glue that melts in the gun's chamber and then solidifies. The glue sets in less than a minute. United Shoe Machinery, Reading, Pa. Circle 219 on Reader Service card



**Pneumatic nailer** drives a range of nails from 6- to 16-penny, prepackaged in clips that load easily into tool's magazine. Nailer has a lightweight aluminum body and can be used in a vertical, horizontal or overhead position. International Staple, Butler, Pa. Circle 220 on Reader Service card



**Loader tractor** with hydrostatic drive allows one-foot control of both speed and direction: one pedal controls forward travel, a second controls reverse. Drive is optional on two loader tractors and industrial tractor. International Harvester, Chicago. Circle 221 on Reader Service card

New products continued on p. 119

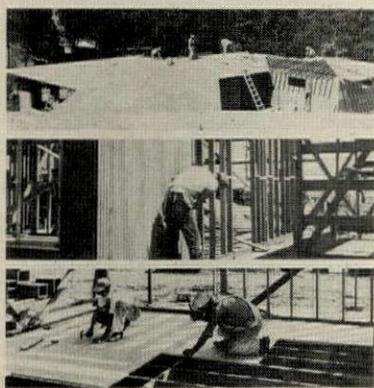
# New literature on plywood

Here are a dozen booklets on plywood—new products, building systems, guides to grades and uses.

To get free copies, just circle numbers on Reader Service Card at back of book.

## Plywood Construction Guide

for residential building / American Plywood Association



**Plywood Construction Guide for Residential Building.** Explains types, grades, applications for plywood under the new Standard. Diagrams showing wall, roof and floor construction methods. Grade-use guides. Suggestions for applying and finishing plywood paneling.

Circle 31 on Reader Service Card

**How to Buy and Specify Plywood Under New Product Standard PS 1-66.** Facts on how new Plywood Standard makes buying and ordering easier. Details on Identification Index. Grade-use guides and span tables for decking, subflooring and sheathing.

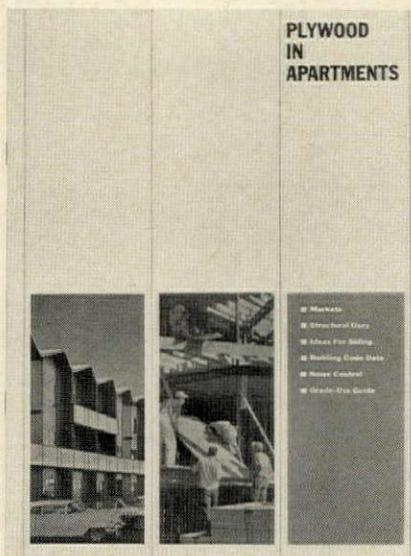
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**Pocket Guide to Plywood Grades Under PS 1-66.** Compact booklet has key definitions, species classification, veneer grades, basic grade charts. Facts on Identification Index. Span tables for roof sheathing and subflooring.

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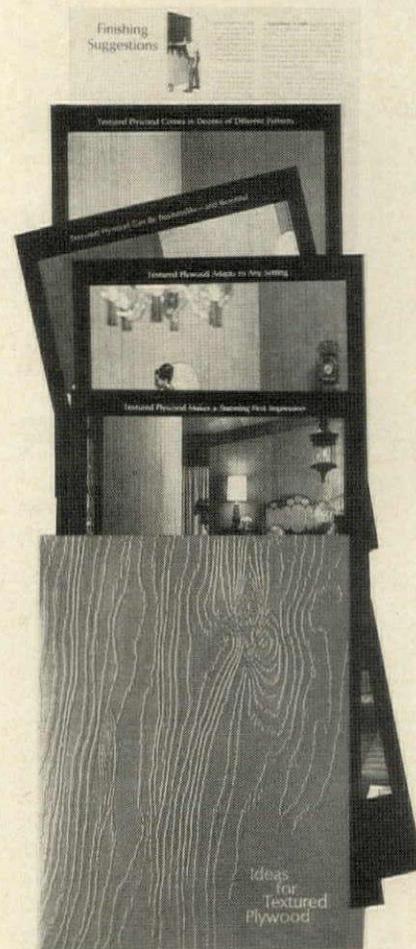
**The Add-A-Room Modernizer's Operating Manual.** Basic details on the remodeling business. Facts on market trends, guides for promotional programs, finding prospects, effective sales presentations. (Enclosure tells how to get merchandising kit, plans for two room additions.)

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**Plywood in Apartments.** Back in print and completely revised. 28-page booklet tells about advantages and efficiencies of plywood in apartments. How to cut on-site costs with plywood subfloors, wall sheathing, roof decks. Includes span tables, grade-use guides. Recommended panel thicknesses and nail size combinations. Facts on applying plywood direct to studs. Dozens of ideas for siding. How to vary designs with curved panels, etc. Facts on insulating walls, floors, ceilings for noise control. Fire-resistive construction.

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**Textured Plywood Portfolio.** Latest publication on textured plywood. Beautiful full-color photographs show the many new varieties, patterns and species. Suggestions for dozens of exterior and interior applications. Ideas for paneling, siding, redecorating or remodeling; for office buildings, apartments and restaurants. Application and finishing suggestions; brand names, list of manufacturers.

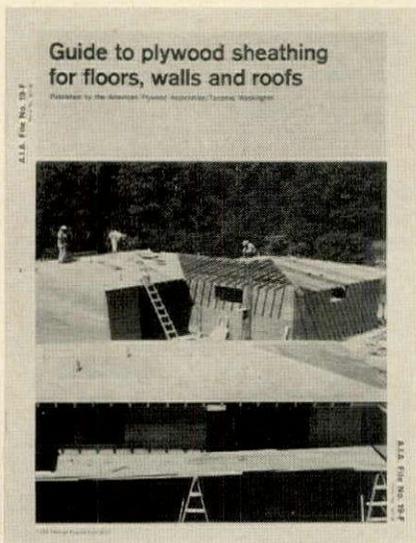
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(Continued on next page)

# New literature on plywood

(Continued)

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**Guide to Plywood Sheathing for Floors, Walls and Roofs.** Diagrams, photos show uses, advantages of plywood sheathing. Facts on diaphragm construction, special floor systems (including plywood and plastic foam over concrete). Grade-use guides, load-span charts; sound control and fire resistant construction systems.

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**Guide to Plywood Underlayment.** Illustrated step-by-step directions for plywood underlayment installation. Recommended fastener sizes and maximum support spacings for various plywood thicknesses. Data on new tongue-and-groove underlayment.

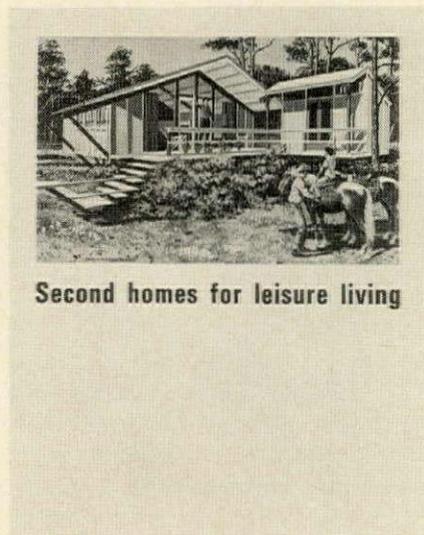
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**Texture 1-11, MDO and Rough Sawn Siding Data Sheets** list uses and advantages, specifications, technical data (structural properties, thermal insulation, etc.), and finishing recommendations. Also diagrammed application instructions.

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**Plywood Roof Sheathing Cost Study.** TAMAP (Time and Methods Analysis Program) research results show how builders can cut costs with plywood sheathing. Includes preplanning schedules; methods to improve labor efficiency; ways to cut handling costs and fastening, cutting and layout time. Informative charts, diagrams, photos and examples explain planning and cutting schedules. Recommended list of tools and equipment.

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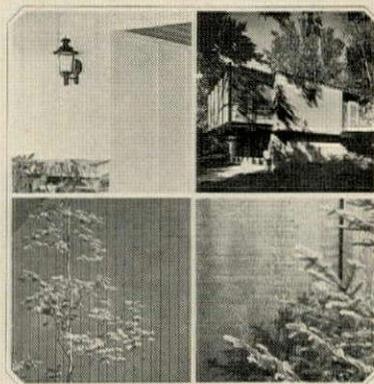


Second homes for leisure living

**Second Homes for Leisure Living.** 48-page color booklet has drawings and floor plans for 24 vacation and year-round leisure homes — from A-frame cabins and mountain chalets to Cape Cod style cottages. Also ideal for retirement. Book tells how to get complete plans with lists of all materials needed. Some plans come with photographs of unit under construction to simplify the building job. Excellent idea book for your customers.

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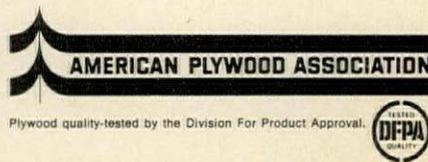
**A guide to distinctive plywood sidings**  
Presented by the American Plywood Association



**A Guide to Distinctive Plywood Sidings.** Full-color 24-page booklet illustrates uses and installation of plywood sidings. Facts on insulation values, strength and durability. Useful table on plywood finishes, types, uses and basic characteristics.

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For more information about plywood and other plywood publications, write American Plywood Association, Dept. H, 1119 A Street, Tacoma, Washington 98401. Or get in touch with one of our 60 field service representatives. Regional offices: Atlanta, Chicago, Dallas, Detroit, Los Angeles, Minneapolis, New York City, San Francisco, Tacoma, Washington, D. C.



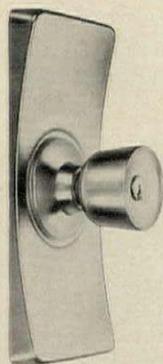
## NEW PRODUCTS

start on p. 105

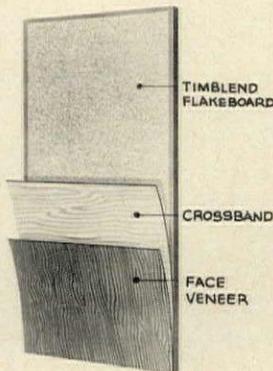
### Doors and windows



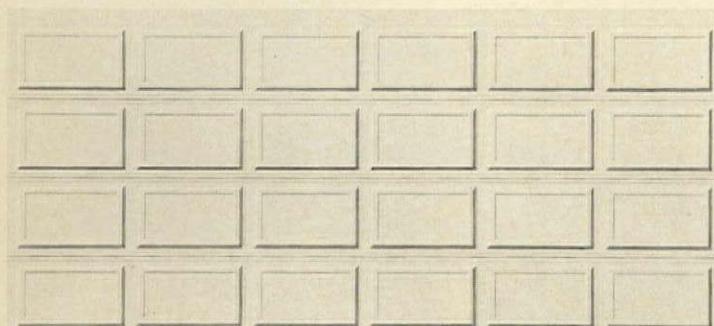
**Packaged bifold doors** with adjustable and reversible factory-installed hardware and fascia strip are made of Western pine. The 6'7"-high doors come presanded in three styles. Jessup Door, Dowagiac, Mich. Circle 263 on Reader Service card



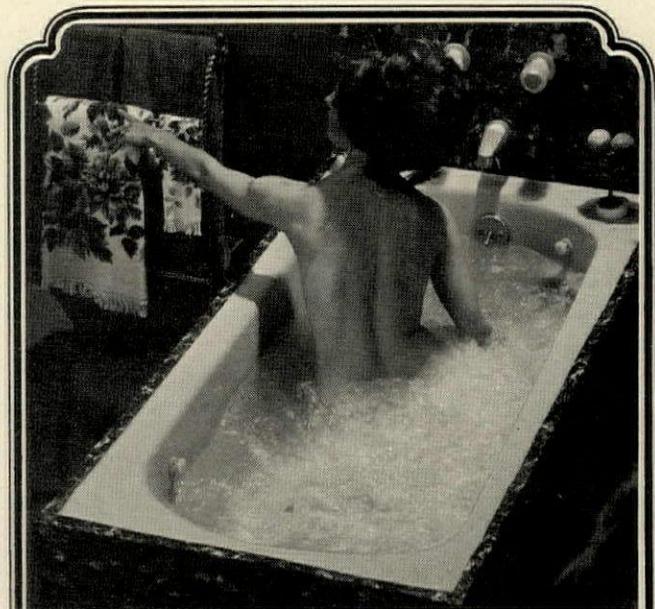
**Rectangular escutcheon**—8"x3½"—has a sweeping concave face with a contemporary feeling. The escutcheon also protects the door from mars and scratches from heavy use. Available in brass, bronze and aluminum. Sargent, New Haven, Conn. Circle 261 on Reader Service card



**Flakeboard door core** is made in three thicknesses and two densities for manufacturing both residential and architectural doors. The smooth core reduces the chance of sanding through face veneers. Weyerhaeuser, Tacoma, Wash. Circle 262 on Reader Service card



**Raised-panel garage door**—four sections high—incorporates machine-molded panels of weatherproof hardboard that can be stained or painted. Widths are 8', 9' or 16'. Automatic operation is optional. Overhead Door, Dallas. Circle 260 on Reader Service card



## built-in roman bath

by **Jacuzzi**  
WHIRLPOOL BATH

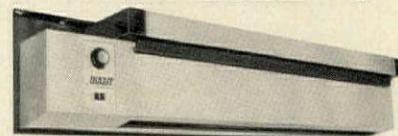
Jacuzzi builds its famous Whirlpool Bath right into a 5 or 6 foot colored, contoured tub. And it installs like any other tub. Your next project is sure to be a faster seller when you include Roman luxury by Jacuzzi. Write us for details.

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- REQUIRING NO SPECIAL VENTING, WIRING OR PLUMBING
- AND IS TECHNOLOGICALLY THE MOST ADVANCED WHITEPRINTER EVER MADE

YOUR LOOKING FOR  
**DIAZIT!** PRICED FROM **\$249!**

For big new free no-obligation catalog circle reader service card now! Or write:

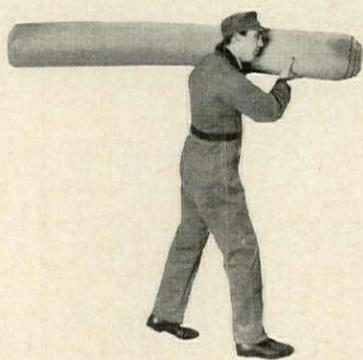
**Diazit® Company Inc.**

Route U.S. 1, Youngsville, North Carolina 27596 • Phone (919) 556-5188

Circle 101 on Reader Service card

New products continued on p. 120

# Builders replace wall-to-wall headaches

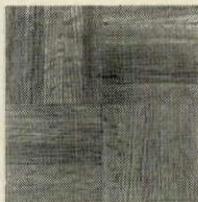


with Harris BondWood®

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

Builders across the country are avoiding this problem. They're rolling out the carpet and installing Harris BondWood. It's permanent. More permanent than the best foundation. Made of thick, solid hardwood that never has to be replaced—BondWood is available in a variety of distinctive designs for adhesive installation over wood or concrete.

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



## SPECIAL OFFER!

- Please send two aspirin for temporary relief of my wall-to-wall headaches.
- Send free literature about BondWood's permanent cure.

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Dept. HH 108 • Johnson City, Tennessee 37601

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**HARRIS HARDWOOD FLOORING**

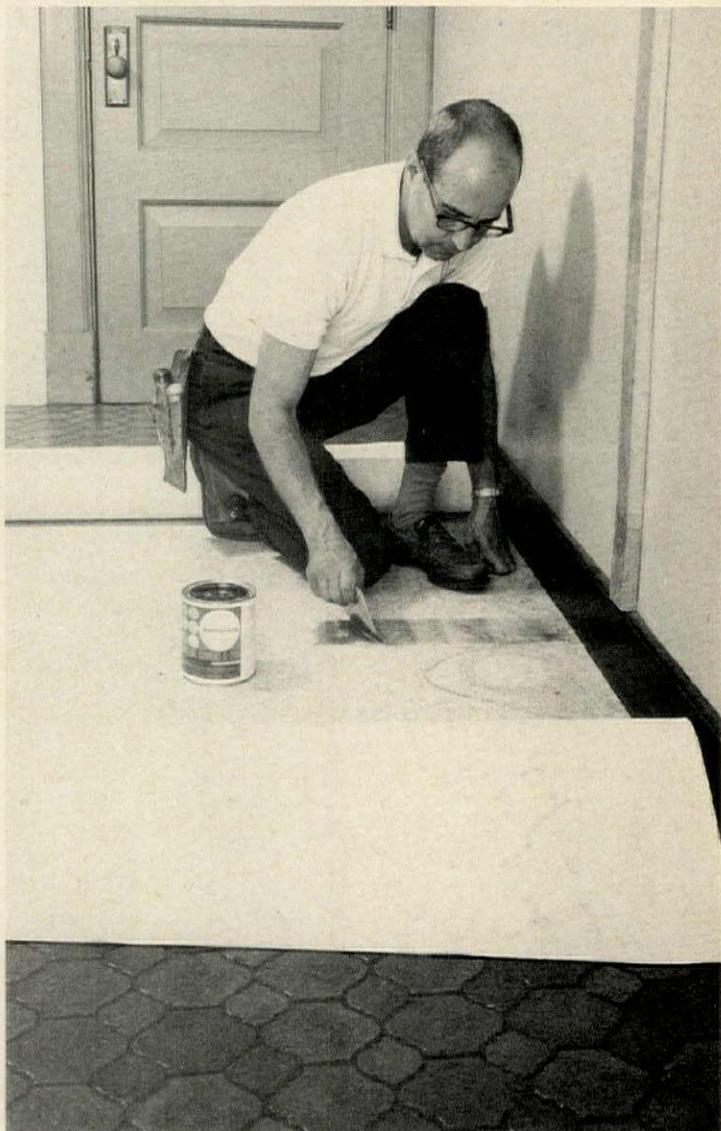
*Since 1898*

PARQUET • COLONIAL PLANK • STRIP • STAIRWORK

## NEW PRODUCTS

start on p. 105

### Coatings and adhesives



**One-component adhesive** allows perimeter bonding of sheet-vinyl flooring directly to existing resilient flooring. Quick setup time lets installer apply new flooring 15 to 20 minutes after adhesive is spread. Armstrong Cork, Lancaster, Pa. *Circle 204 on Reader Service card*



**Acrylic-based caulking compound** adheres to glass, glazed-ceramic tile and other smooth surfaces. Standard colors are grey and white, additional tones are available in quantity purchases. West Chester Chemical, West Chester, Pa. *Circle 209 on Reader Service card*



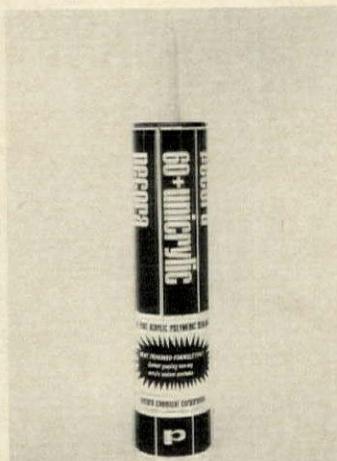
**Pointing mortar**—its expansion is .002 to .004" per cu. in.—can be used on cracks and joints in wood, brick, stone and concrete. Self-curing, it can be applied in temperatures as low as 10°F. Added use: to waterproof stone and brick. X-Pando, Long Island City, N.Y. Circle 205 on Reader Service card



**Exterior house paint** incorporates a fungicide to resist mold and mildew from moisture condensation. Paint is said to be peel- and blister-resistant, and to keep its gloss. It dries in six hours, may be recoated in 24. Pratt & Lambert, Buffalo, N.Y. Circle 206 on Reader Service card



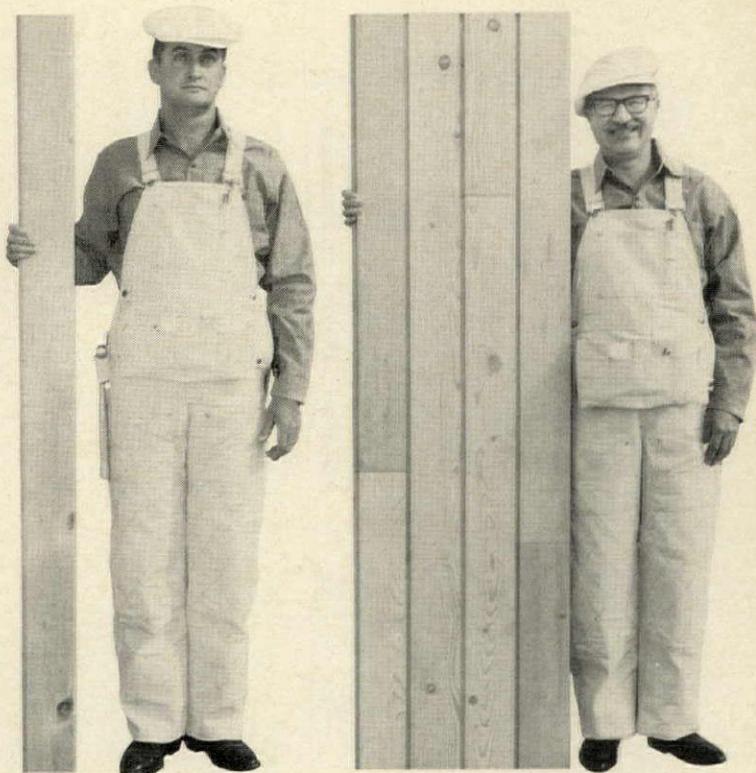
**Tub and tile caulk** gives a watertight seal around ceramic and metal surfaces that will not crack or peel. Excess wipes off easily with a damp sponge; and tools can be rinsed with plain water. In 11 oz. cartridges. Franklin Glue, Columbus, Ohio. Circle 207 on Reader Service card



**One-part acrylic sealant** is ready to apply without preheating, extrudes easily at 60°F. or above. The sealant is manufactured in several colors, and in both bulk containers or standard caulking cartridges. Pecora Chemical, Philadelphia. Circle 208 on Reader Service card



**Concrete resurfacing** bonds securely to worn floors, can be used to fill ruts, smooth rough surfaces, bed ceramic tile and serve as an underlayment for resilient flooring. Compound is self-curing and comes in grey and red. Preco, Plainview, N.Y. Circle 210 on Reader Service card



## BOND-DECK CUTS DECK LAYING COSTS IN HALF AT NO EXTRA COST TO YOUR CREW.

Bond-Deck comes in panels — rather than pieces, which means easy laying of four runs in the time it would normally take to lay one. You save money and your crew saves work, which saves you money again.

Bond-Deck is T & G quality white fir panelized decking made up of four individual 2 x 6's finger-jointed to form eased edge splices matching the rated strength of the wood itself. It comes in two patterns and surfaces — Channel-Groove or V-Groove and smooth or saw-textured face. Prefinished or not. Premium or architectural grade.

To find out which is best for your application, call your local TW&J jobber or write: Bond-Deck, P. O. Box 3498, San Francisco, California 94119. The price is right.

**Tarter, Webster & Johnson**

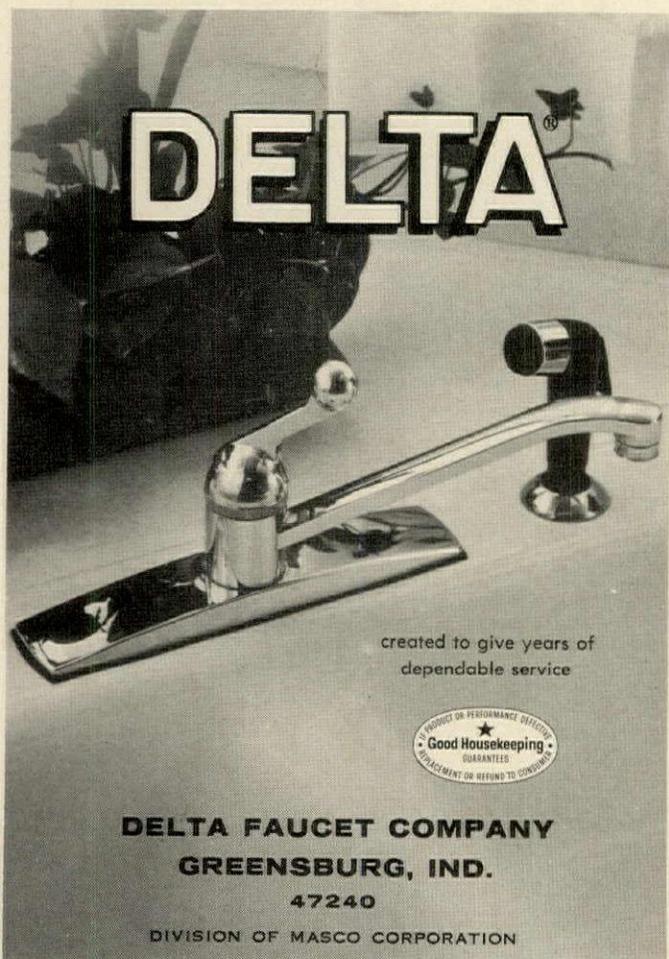
Division / AMERICAN FOREST PRODUCTS CORPORATION / San Francisco

New products continued on p. 122

## NEW PRODUCTS

start on p. 105

### Lighting



**DELTA**<sup>®</sup>

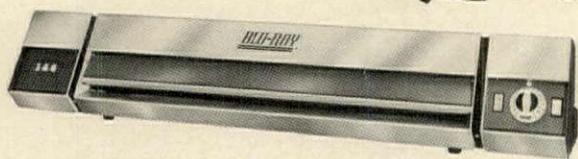
created to give years of dependable service

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Circle 104 on Reader Service card

*Quick Henry,  
the prints!*



*If you need quick copies, stop waiting and start saving with the Blu-Ray 146 whiteprinter.*

With the Blu-Ray 146 semi-automatic, diazo printer-developer, you make check prints on-the-spot—fast and cheap—much cheaper than sending out for blueprints.

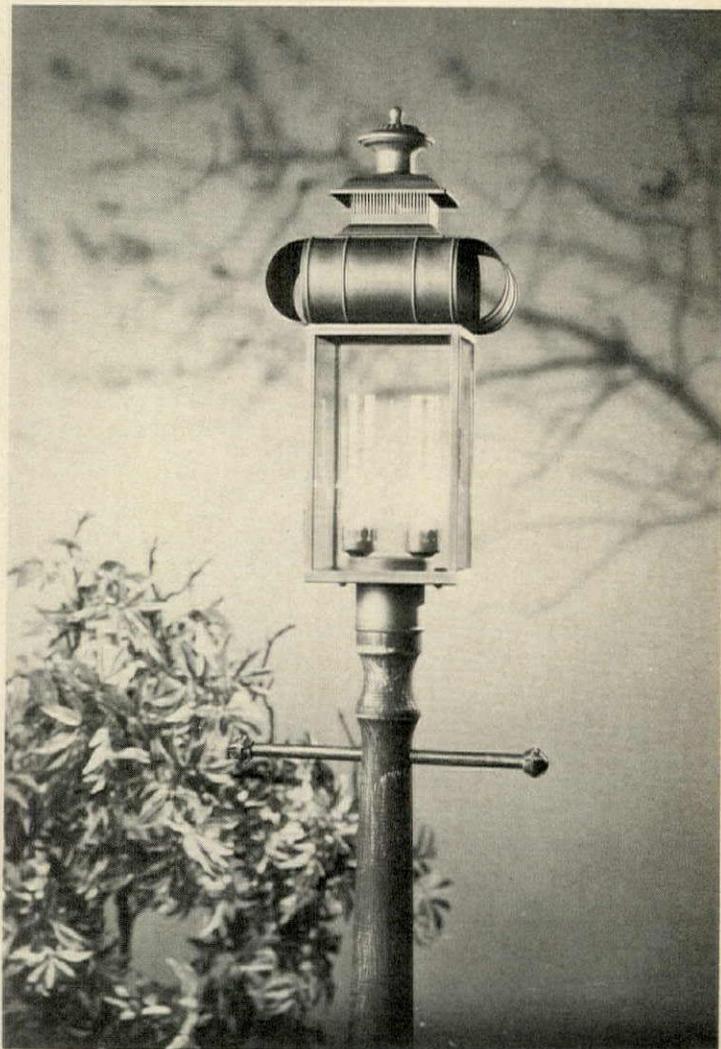
The table-top 146 is inexpensive to buy, yet a rugged performer that will work for you all day long. It's the sturdy, quality machine in the compact whiteprinter field and backed by Blu-Ray's exclusive 1-year warranty.

Anyone (even Henry) can operate the table-top 146, just set it up where it's handiest and its 47" throat will take up to 46-inch wide prints and expose and develop them sharply for 1c per sq. ft.

Send today for Free brochure and/or a demonstration by one of our 600 dealers coast to coast.

**BLU RAY**  
INCORPORATED

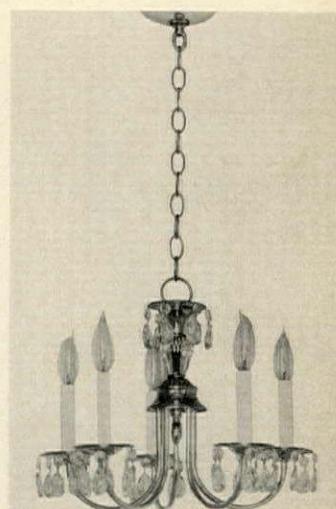
3724 Westbrook Road  
Essex, Conn. 06426  
Phone (203) 767-0141



**Post lantern** of weathered brass and clear glass looks like an English coach lamp (note vented top). The lantern is 10½" sq. and stands 25" high. It takes two 60-watt bulbs. Thomas Industries, Louisville, Ky. *Circle 211 on Reader Service card*

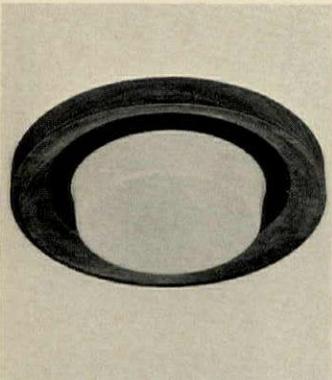


**Two-light pendant** in Spanish style combines the look of olive-green distressed wood with slate-color wrought iron. The complete line includes three- and five-light chandeliers, and one- and two-light brackets. Lightcraft, Cincinnati, Ohio. *Circle 215 on Reader Service card*

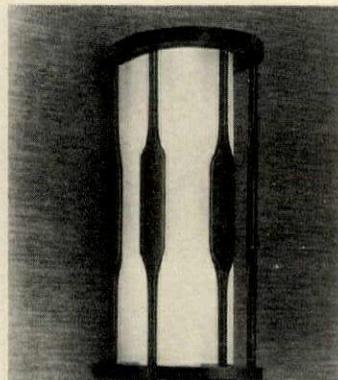


**Medium-priced chandelier**—a five-light model—is made of polished brass and imported crystal. The chandelier's five arms have a diameter of 17" and it can be hung up to 36" from the ceiling. Del-Val Manufacturing, Willow Grove, Pa. *Circle 216 on Reader Service card*

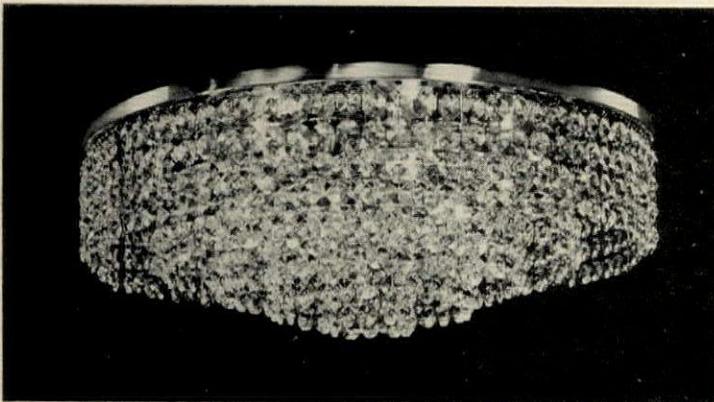
# build in versatility



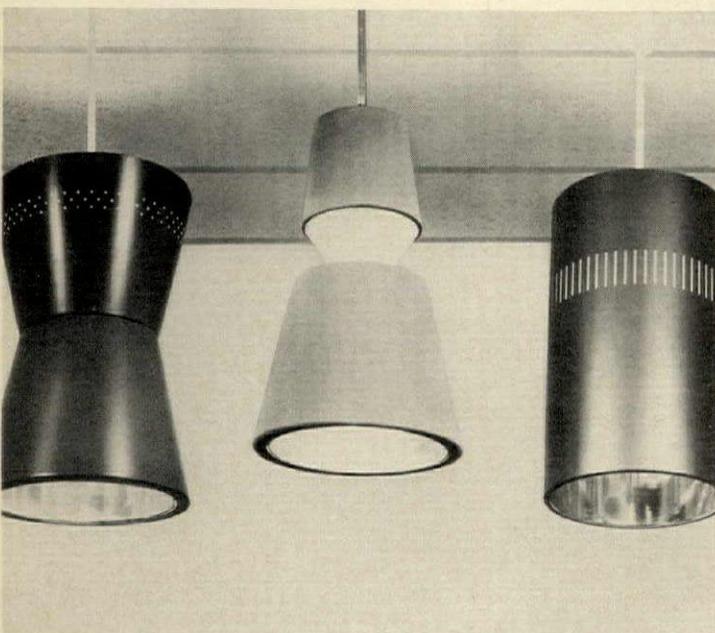
**Recessed ceiling fixture** combines round (photo), square or rectangular solid-walnut frame with a choice of common lens styles. Solid black strips of heavy-gauge steel set off the grain of the walnut. Air King Lighting, Van Nuys, Calif. Circle 212 on Reader Service card



**Wall fixture** is derived from a Shaker design of the 18th century: the characteristic spindles are fashioned from American walnut, with rims of hand-finished oxidized brass. The fixture accommodates two 60-watt lamps. Emerson Electric, St. Louis. Circle 213 on Reader Service card

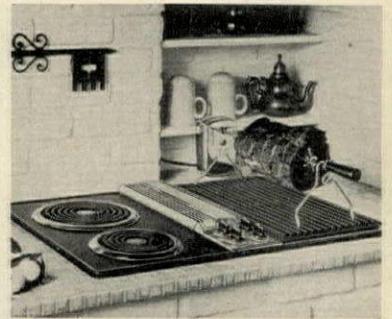


**Crystal-covered fixture**—available in two-, three- and six-lamp versions—is suggested for entry halls, as well as for bath/dressing areas and bedrooms. Hundreds of highly polished beads cover the design. Lightolier, Jersey City, N.J. Circle 214 on Reader Service card



**Pendant-mounted luminaires** for apartment lobbies and commercial interiors come in three shapes (above). They are designed for 400-watt mercury or Metalarc lamps and come factory-wired. In colors. Sylvania, Danvers, Mass. Circle 217 on Reader Service card

New literature starts on p. 124



## with Jenn-Air's new countertop broiler

Jenn-Air's countertop broiler cooks everything with the same delicious flavor as an outdoor charcoal grill . . . but none of the smoke and mess. It's the ultimate in modern living for kitchens. Permanent grill rock, electrically heated to constant high intensity, sears in genuine charbroiled flavor. A unique surface vent snares smoke and odors at grill top level and exhausts them outdoors . . . no need for bulky overhead hoods.

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**JENN-AIR CORPORATION**

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Circle 106 on Reader Service card





### New report tells how Playboy Club-Hotel was designed for guest comfort and enjoyment

 If you are interested in designing or investing in any type of multi-unit residential property—motel, hotel or apartment—you'll want this colorful, informative booklet.

It describes the beautiful new Playboy Club-Hotel at Lake Geneva, Wisconsin, a year-round resort and convention center.

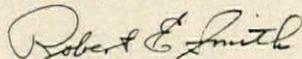
A variety of special accommodations are included among the 300 rooms. Most noteworthy is the Hugh M. Hefner penthouse which is large enough to accommodate 200 party guests.

Flexicore concrete floors and roofs provide fire-resistant and sound-deadening construction throughout the six residential wings. The precast slabs were placed during winter months in weather that would have stopped ordinary concrete pours.

If you want to see photos, examine floor plans and inspect the luxurious accommodations at the Playboy Club-Hotel . . . and learn more about the advantages of Flexicore precast concrete construction, be sure and send for this booklet.

Flexicore buildings can be erected fast. They save interest on construction loans, save premiums on construction insurance, cut down on on-the-job labor.

Write The Flexicore Co., Inc., P.O. Box 825, Dayton, Ohio 45401.

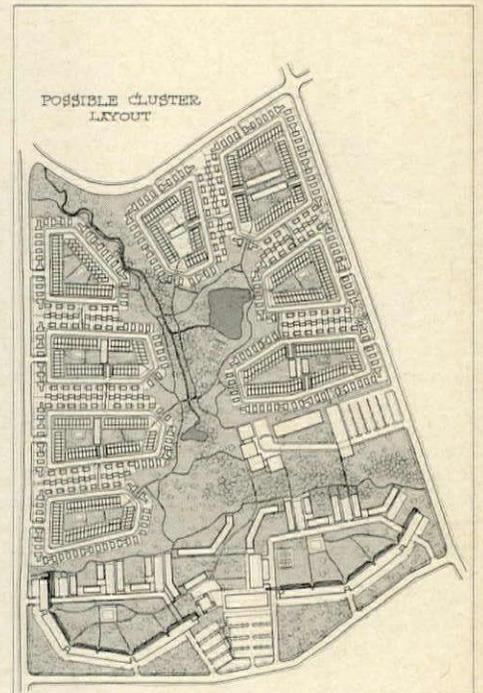
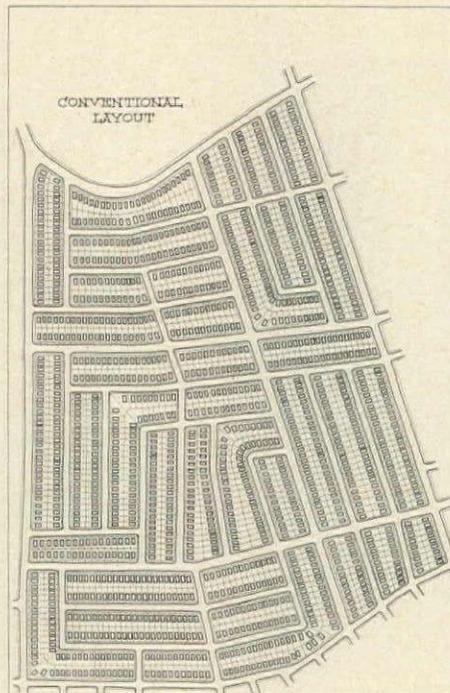


Robert E. Smith  
Vice-President and Manager



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## NEW LITERATURE



### A planning guide for NYC's remaining vacant land

New York City's Planning Commission approved planned-unit developments back in August 1967, and this 40-page booklet is intended to show builders how to save much of the open space still remaining in Staten Island, Queens, and the farther reaches of the Bronx. The guidelines would be equally useful to builders and developers in any major city that still has undeveloped acreage within its boundaries.

The strongest argument for the PUD approach is made by showing four alternatives to gridiron platting, all with the same—or greater—density. But the suggested new versions (*one of which is shown above, at right*) have acres of open space, lower development costs and a wider variety of housing types. New York City Planning Commission. *Circle 375 on Reader Service card*

*For copies of free literature, circle the indicated number on the Reader Service card p. 111*

**WHOLESALE LUMBER.** Distribution directory—60 pages—compiled by the National-American Wholesale Lumber Assn. lists 292 independent wood-product firms and 50 member manufacturing firms. Three sections list each member firm alphabetically, identify firms selling in each of ten geographic regions, and provide detailed information on species and products handled. National-American Wholesale Lumber Assn., New York. *Circle 352 on Reader Service card*

**ACOUSTICAL CEILINGS.** Acoustical ceiling tiles and panels are discussed and displayed in three new brochures. Johns-Manville, New York City. *Circle 353 on Reader Service card*

**LIGHTING.** Full lighting line, including chandeliers, surface mounts, bathroom lighting, accent spots and outdoor fixtures, is displayed in a 74-page catalog. All photos—some showing fixtures installed—are in color. EJS Lighting, Los Angeles. *Circle 354 on Reader Service card*

**PANELED PINE DOORS.** A Mediterranean-style interior door of Ponderosa Pine gets the spotlight in a specification sheet with a full-color illustration. Ponderosa Pine Woodwork, Chicago. *Circle 384 on Reader Service card*

**HANDRAIL SYSTEM.** Colorful plastic-sheathed aluminum posts, plastic handrail mouldings and aluminum supports and fittings make up a system designed to facilitate fabrication. A 16-page

brochure for architects includes assembly drawings and illustrations, engineering drawings with details and dimensions of all system components, and instructions for design and erection. Julius Blum & Co., Carlstadt, N.J. *Circle 389 on Reader Service card*

**LOW-COST HOUSING.** Assessment procedures for housing built under section 221d3 of the National Housing Act are discussed in a report derived from a recent survey. Included in the booklet are a chart showing the maximum income limits for occupancy, and two maps illustrating which states exempt—and which tax—projects constructed under the section. For a copy send \$1 to: International Association of Assessing Officers, 1313 East 60th St., Chicago, Ill. 60637.

**LIGHTING.** Lavishly illustrated catalog in full color displays a wide variety of lighting designs from outdoor fixtures to crystal chandeliers. Virden, Cleveland. *Circle 304 on Reader Service card*

**ROOF TRUSSES.** A folder describes the design, fabrication, shipment and assembly of split-ring roof trusses. Included are two typical truss designs and a listing of others available. Timber Engineering, Washington, D.C. *Circle 308 on Reader Service card*

**AUTOMATIC IRRIGATOR.** Underground moisture-control device that automatically feeds moisture to trees, shrubs and plants is the subject of an information sheet. Manufacturer promises water savings. R&W Distributors, San Diego, Calif. *Circle 309 on Reader Service card*

# Air-conditioning: Good idea

**PATIO BLOCKS.** Concrete blocks with an exposed-aggregate finish can be used for patio, path or swimming-pool areas. An illustrated brochure shows several installations. Jewel-Tex, Plainview, N.Y. Circle 300 on Reader Service card

**SWAG-HUNG FIXTURES.** More than 50 fixtures—ranging in style from Mediterranean to traditional—are displayed in full color in an eight-page brochure. All come with 18' of wire, a 15' chain, and line, switch, plug and mounting hardware. PrestigeLine, Amityville, N.Y. Circle 301 on Reader Service card

**TRUCKING COSTS.** Forty-two-page report compares the operating cost of privately owned trucks with those that are leased. While the study is aimed primarily at owners of eight or more trucks, information is also contained for single-truck operators. Findings are illustrated by six charts. University Research Center, Chicago. Circle 302 on Reader Service card

**NAILING.** Fastening of residential buildings and farm structures is the subject of a 40-page booklet. Common procedures—including the nailing of wall and roof framing; sheathing; subflooring, underlayment; furring; and formwork—are displayed. The nails involved in each case are tabulated to help the builder determine quickly whether nails under consideration are meeting common standards. For a copy send \$3 to: Wood Research & Wood Construction Laboratory, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

**PLASTIC PIPE.** How to install plastic pipe in hot and cold water distribution systems is described in an illustrated folder with step-by-step photos. It also discusses pressure ratings and cites advantages of cpvc (chlorinated-polyvinyl-chloride) plumbing. Evanite Plastic, Carrollton, Ohio. Circle 303 on Reader Service card

## Annual H&H indexes

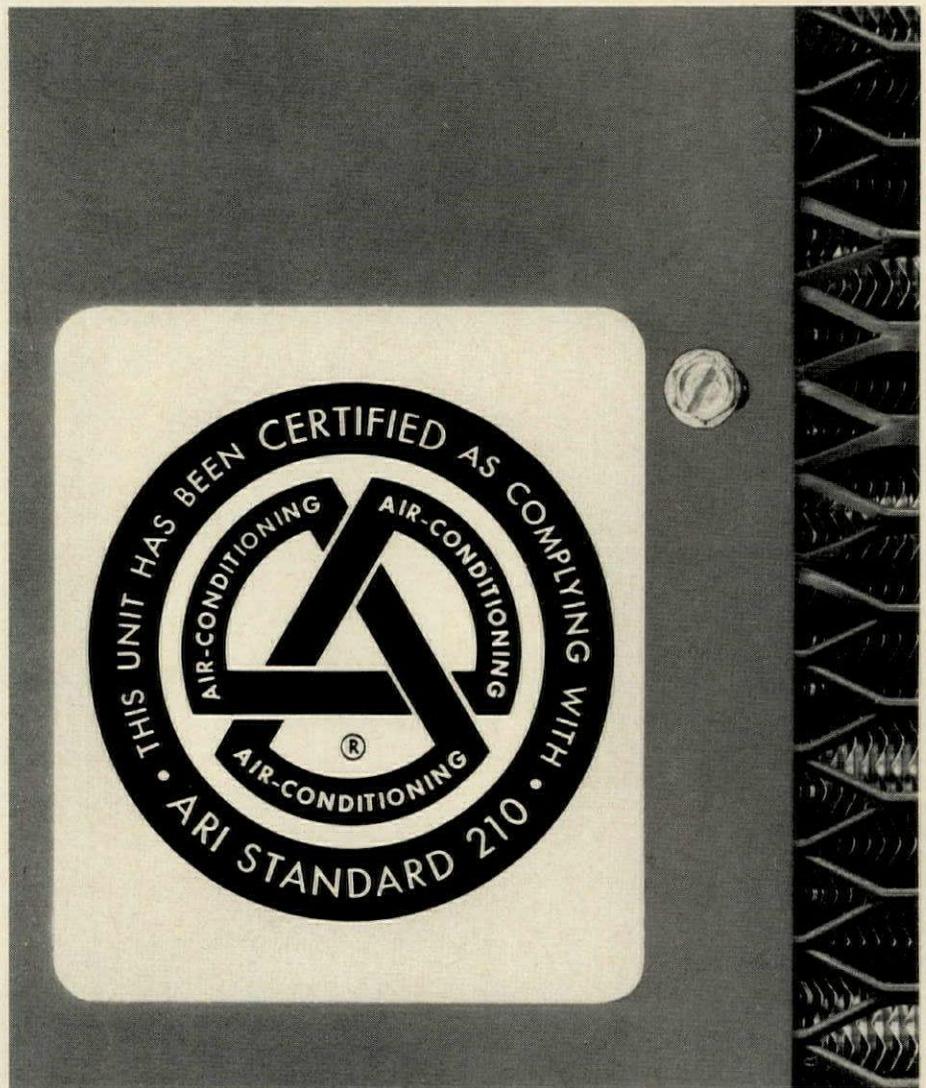
Copies of House & Home's editorial indexes for 1965, 1966 and 1967 are still available. Each is an eight-page, cross-referenced listing of subjects covered that year by this magazine. To get copies (there's no charge) write to: Reader Service Dept., House & Home, 330 West 42nd St., New York, N.Y. 10036.

**RESILIENT FLOOR TILES.** Eight-page catalog discusses thicknesses, patterns and colors suitable for commercial installation. Includes full-color illustrations. Flintkote, East Rutherford, N.J. Circle 305 on Reader Service card

**HIGHWAY TRAILERS.** The advantages of owning a heavy-duty, high-speed trailer are cited in a 12-page brochure. Seven models with capacities from 1,000 to 18,000 lbs. are discussed. With specs. International Harvester, Chicago. Circle 306 on Reader Service card

**DIRECT-APPLICATION FIREPROOFING.** Vermiculite fireproofing applied by machine to steel and concrete is the subject of a technical bulletin. Fireproofing has fire-resistance rating of from one to five hours, depending on the structural assembly. Vermiculite Institute, Chicago. Circle 307 on Reader Service card

*New literature continued on p. 128*



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ARI's Seal on unitary air-conditioning equipment\* tells you that the manufacturer has:

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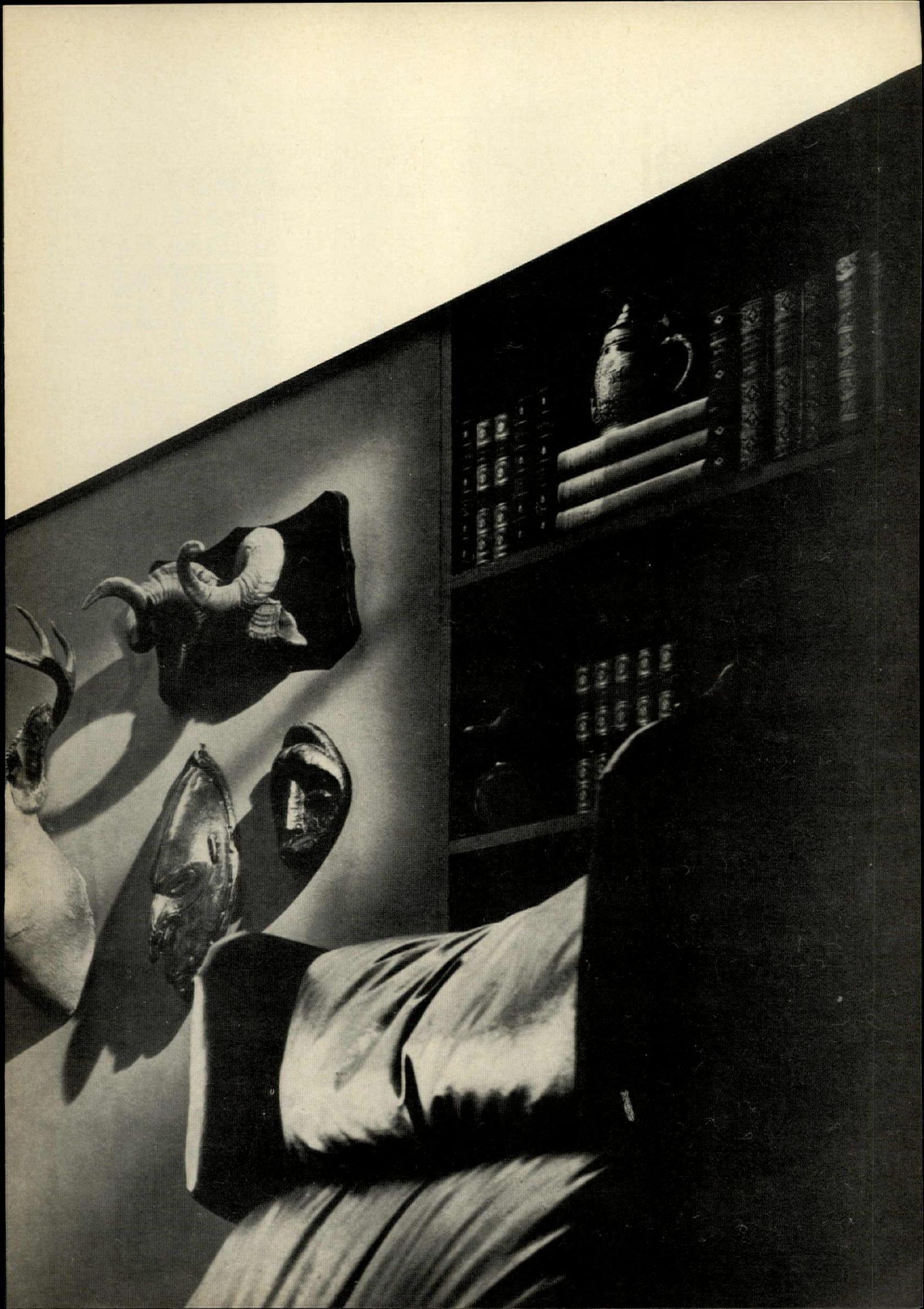
## Opportunities unlimited are a National responsibility

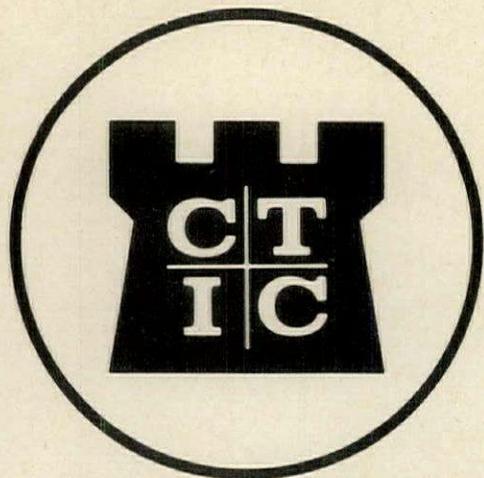
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111 W. Washington St., Chicago, Ill. 60602

## NEW LITERATURE

starts on p. 124

**ADVERTISING AND PROMOTION.** "Guidelines to successful advertising and promotion in multi-family housing" is the title of a 44-page booklet offered by the National Association of Home Builders. Inside: "the advertising budget and what it should buy . . . developing a project theme . . . promotion check list. . ." The booklet is free to NAHB members; \$4 to non-members, from: The Compendium of Multifamily Housing, National Association of Home Builders, 1625 L St., N.W., Washington, D.C. 20036.

### Annual H&H indexes

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

**PATTERNED GLASS.** Sixteen-page full-color booklet features close-up photos of 36 glass patterns, many shown in actual installation. Included: irregular designs with strongly linear motifs, safety patterns with wire and several patterns with designs beneath the surface. A specifying section supplies necessary data: thickness, light transmission, weight per sq. ft. and maximum dimensions. American Saint Gobain, Kingsport, Tenn. *Circle 350 on Reader Service card*

**POWER TOOLS.** Portable tools—including routers, drills, rotary and percussion hammers, circular, sabre and jig saws, belt sanders and electric screwdrivers—are displayed in a master catalog that details complete specs and lists available accessories. Black & Decker, Towson, Md. *Circle 351 on Reader Service card*

**PRESSURE-TREATED LUMBER PILING.** The advantages of using pressure-treated timber are cited in a 12-page illustrated booklet. J. H. Baxter & Co., San Mateo, Calif. *Circle 357 on Reader Service card*

**WHITEPRINTER-DEVELOPER.** A dry whiteprinter that can be either wall-mounted or set on a table makes prints up to 42" wide. It handles sepias—without turning them over—black line and foils. A specification brochure includes instructions, Rotolite, Stirling, N.J. *Circle 358 on Reader Service card*

**PLYWOOD SIDINGS.** Full-color installation photos highlight a comprehensive 24-page guide that examines manufacturer's four siding lines, cites advantages of each. Discussed: features, technical data, application instructions, framing and nailing schedule. Detailed application and construction diagrams are included. With specs. U.S. Plywood, New York City. *Circle 359 on Reader Service card*

**OIL-FIRED BOILER PACKAGE.** Photographs, special features and a list of equipment—burner, circulator, heater, thermostat and wiring, etc.—plus options are contained in a four-page brochure. Crane, Chicago. *Circle 355 on Reader Service card*

**HIGH-STYLE ENCLOSURES.** A line of tub-shower enclosures is displayed in full color and described in an eight-page brochure. Information on sizes and styles. Showerfold, Chicago. *Circle 356 on Reader Service card*

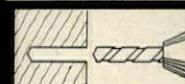
# FIRST on the market . . . and still the BEST!

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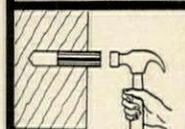
27 SIZES  
FOR NO. 4  
SCREWS  
THRU  
1/2"  
LAG



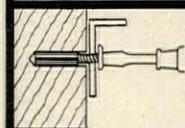
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TO  
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DRILL HOLE



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in Any Solid  
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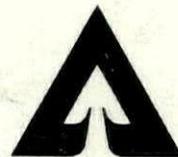
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