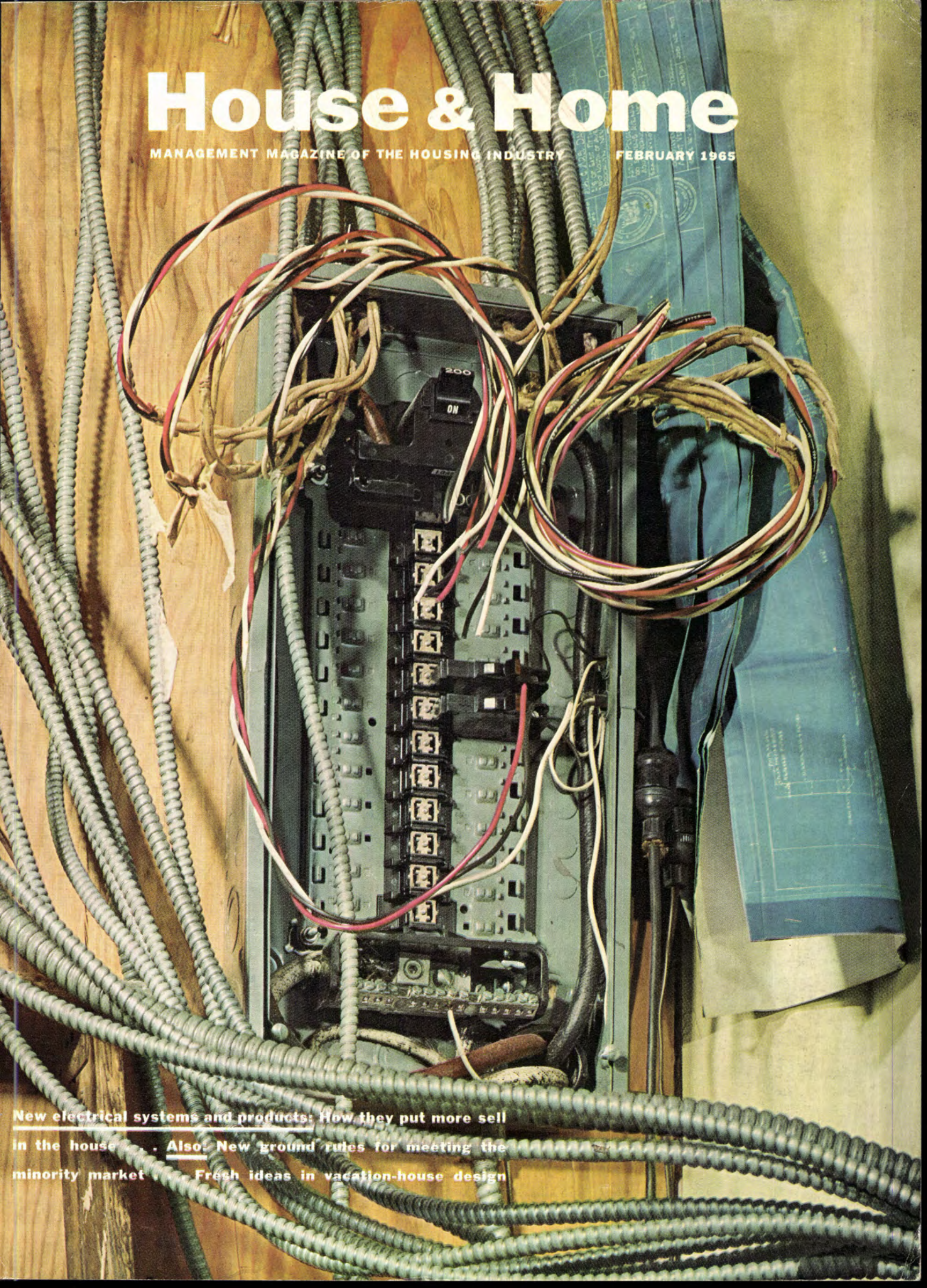


House & Home

MANAGEMENT MAGAZINE OF THE HOUSING INDUSTRY

FEBRUARY 1965



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in the house . . . Also: New ground rules for meeting the
minority market . . . Fresh ideas in vacation-house design



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'Spring' is soft and warm



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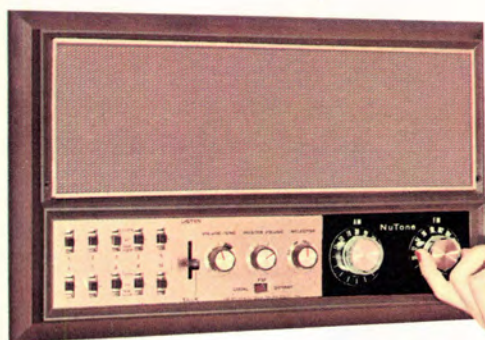
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See Next Page



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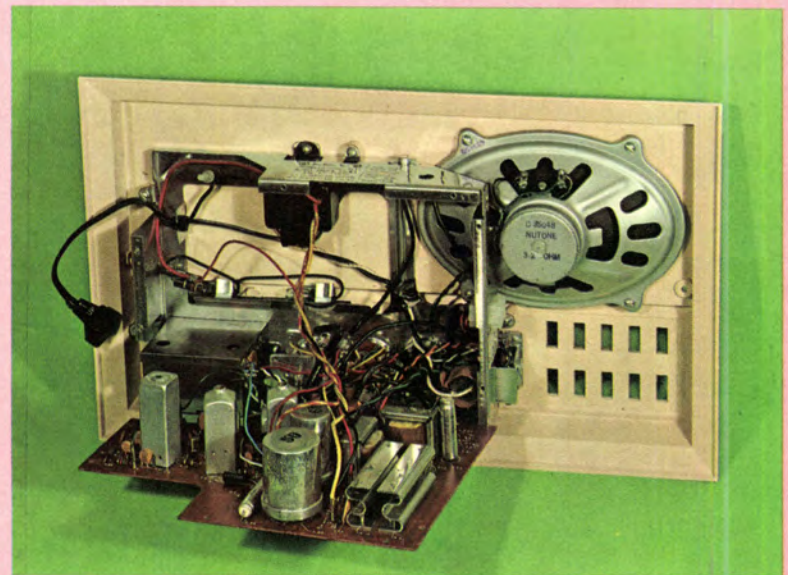
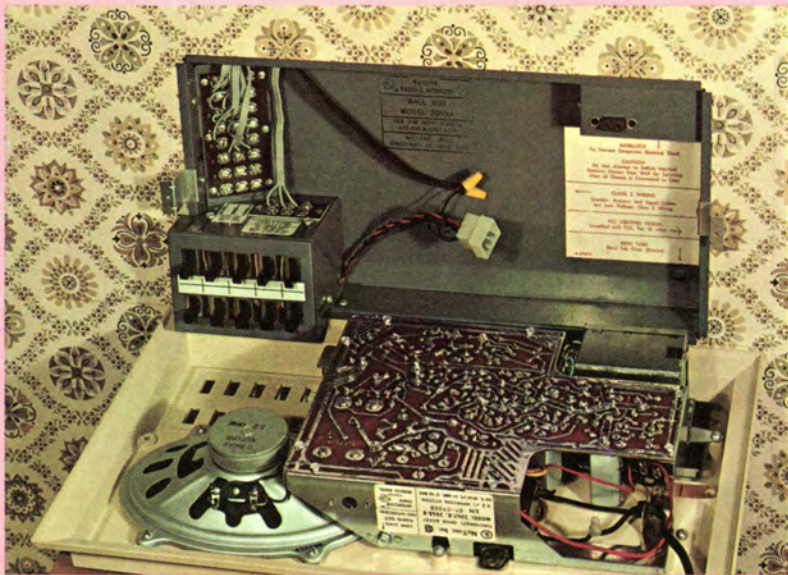
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Model 2068-67



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Inside views show the solid quality of NuTone's new 3-Wire Transistor System



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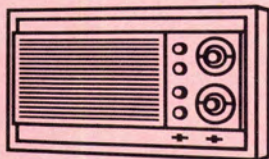
Crystal clear intercom . . . with automatic override. Local and Distance Regulator . . for best reception. AFC, large (5 x 7) ceramic magnet master speaker. Plug-in units & color coding save installation time. Easy access to either side of printed circuit board.

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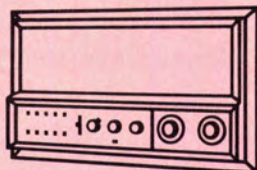
NUTONE

NuTone

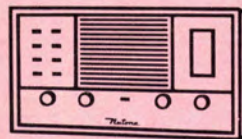
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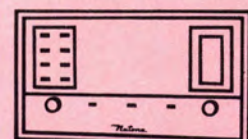
Model 2561-62
8-Wire Transistor



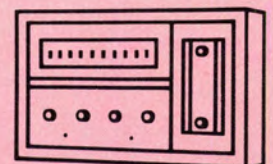
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PUBLISHER

Eugene E. Weyeneth

ASSISTANT TO PUBLISHER

Blake Hughes

CIRCULATION MANAGER

Henry G. Hardwick

ADVERTISING SALES MANAGER

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House & Home

A McGraw-Hill/DODGE PUBLICATION VOL. XXVII NO. 2 FEBRUARY 1965

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While tax rates spiral up, the quality of community facilities spirals down. Needed: broader tax bases and more suitable assessments

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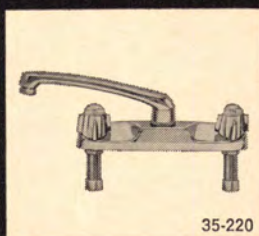
A portfolio of outstanding houses for 1965, including plans, elevations and selected design details . . . report on HOUSE & HOME's Round Table on better land use

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WASHINGTON INSIDE

Policeman for lumber grademarks?

Rep. James Roosevelt's small-business subcommittee, poking into the controversy over forged grademarks, urges more self-policing by lumber groups. But lumber producers fear trade-association rules to compel grade marking by mills would violate antitrust laws. That being the case, Roosevelt's group would have Congress require grademarks on all lumber shipped interstate.

Six Canadian lumber associations have stolen the march on U.S. producers. Beginning June 30, they'll grademark at the mill all lumber shipped to this country.

Pressure for bigger fix-up loans

Housing-industry men want FHA to follow the Home Loan Bank Board in letting Federal S&LS boost home-improvement terms to eight years and \$5,000. Congress may find it difficult to hold FHA limits at five years and \$3,500.

Disaster boosts lumber prices

Lumber and plywood prices jumped following the California and Oregon floods, which at one point closed one-third of U.S. plywood mills. One company, Simpson, airlifted 15,000 sq. ft. of redwood plywood to keep building going in the San Francisco area.

Some mills have reopened, but full production depends on how fast new logging roads can be built. What is more, entire mill ponds of logs must be replaced.

One government housing salesman?

Capitol Hill men are considering a single agency to handle sale of FHA and VA reposessions and surplus military housing.

Bias attack on renewal

A challenge to renewal in Santa Fe Springs, Calif., could have nationwide implications. A judge temporarily stopped city officials from clearing 65 acres because 99% of the families forced to move were of Mexican descent. The judges said this violated the 1964 Civil Rights Act.

URA's new long-term lease rules

Their gist: cities are barred from leasing 1) renewal land intended for sales housing to individuals, 2) land intended for subdivisions to several separate builders. Also, apartment leases must be for 25 years.

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FEBRUARY 1965

President Johnson raises the curtain a bit on his 'Great Society' planning for the cities

The President clearly plans to enlarge the mission of a proposed Housing and Urban Development Dept. beyond anything yet suggested.

"I propose we launch a national effort to make the American city a better and more stimulating place to live," he said in his State of the Union speech. "In our urban areas, the central problem today is to protect and restore man's satisfaction in belonging to a community where he can find security and significance."

Johnson's speech revealed this framework of probable federal action:

- *The government will promote metropolitan planning.* Said the President: "The first step is to break old patterns—to begin to think, work and plan for the development of entire metropolitan areas."

"New and existing programs will be open to those cities which work together to develop unified long-range policies for metropolitan areas."

Administration sources say this means that a new system of dual grants (or grant bonuses) will probably be proposed to Congress this year. The formula for allocating money to localities for open-space buying—30% of purchase price if the community follows an areawide master plan, only 20% if it doesn't—may be applied to urban renewal, sewer- and water-line grants and other aids.

Adds HHFA Administrator Robert Weaver: "I believe the time has come for communities in metropolitan areas to take a searching look at what it costs them to carry on community business in the present fragmented and uncoordinated way."

- *The government will spend more to*

end water and air pollution. Johnson pledged "new programs of help for basic community facilities. . . . We will step up our effort to control harmful wastes, giving first priority to the cleaning up of our most contaminated rivers."

Already Rep. John Blatnik (D., Minn.) is pushing a bill to spend \$2 billion a year on community facilities from water and sewer lines to new streets. Blatnik wants the federal government to pay two-thirds of the cost in all cities (sewer and water grants are now limited to towns under 50,000 population) and three-fourths in depressed areas.

- *The government will step up its efforts to save open space.* Said the President: "We must make a massive effort to save the countryside and establish—as a green legacy for tomorrow—more large and small parks, more seashores and open spaces. . . . More ideas for a beautiful America will emerge from a White House conference on natural beauty which I will soon call."

Since 1961 the Interior Dept. has been increasing its opposition to homebuilding in beauty spots (NEWS, May '63, Dec. and p. 11). Now developers can expect greater use of scenic easements and more open-space land buying by municipalities. Urban Renewal Commissioner William Slayton suggests land banks of open land for future urban uses. He points out: "An open field is still fair game for the subdivider; a clear stream is cheaper than a new sewer."

To date, Johnson has kept his housing proposals under wraps. But Administration sources say there will be changes, including more stress by the renewal program on rehabilitation of older houses.

Kaufman & Broad takes over Lusk Corp. to become homebuilding's new sales leader

The combined sales of the two apartment and homebuilding firms in calendar 1964 were over \$55 million, well ahead of the \$41.1 million figure posted by Levitt & Sons, the current leader.

President Robert F. Lusk Jr., who founded his company in Arizona in 1953, becomes a K&B vice president. K&B makes Lusk Corp. a subsidiary by exchanging 159,303 of its shares at the rate of one for each 7¼ shares of Lusk. (On the day of the deal, K&B stock rose 1½ to 19½ on the American Exchange, so the transaction involves stock valued at \$3.1 million.)

K&B is borrowing \$5 million to pay down Lusk debt. Lusk lists \$10.8 million in current liabilities in its June 30 statement and it has \$3.5 million tied up in land.

"We will use the land profitably—or sell it—within five years," Broad emphasized. "We're builders, not land developers."

Broad estimated Lusk's sales for calendar 1964 at \$25 million. K&B sales of \$30

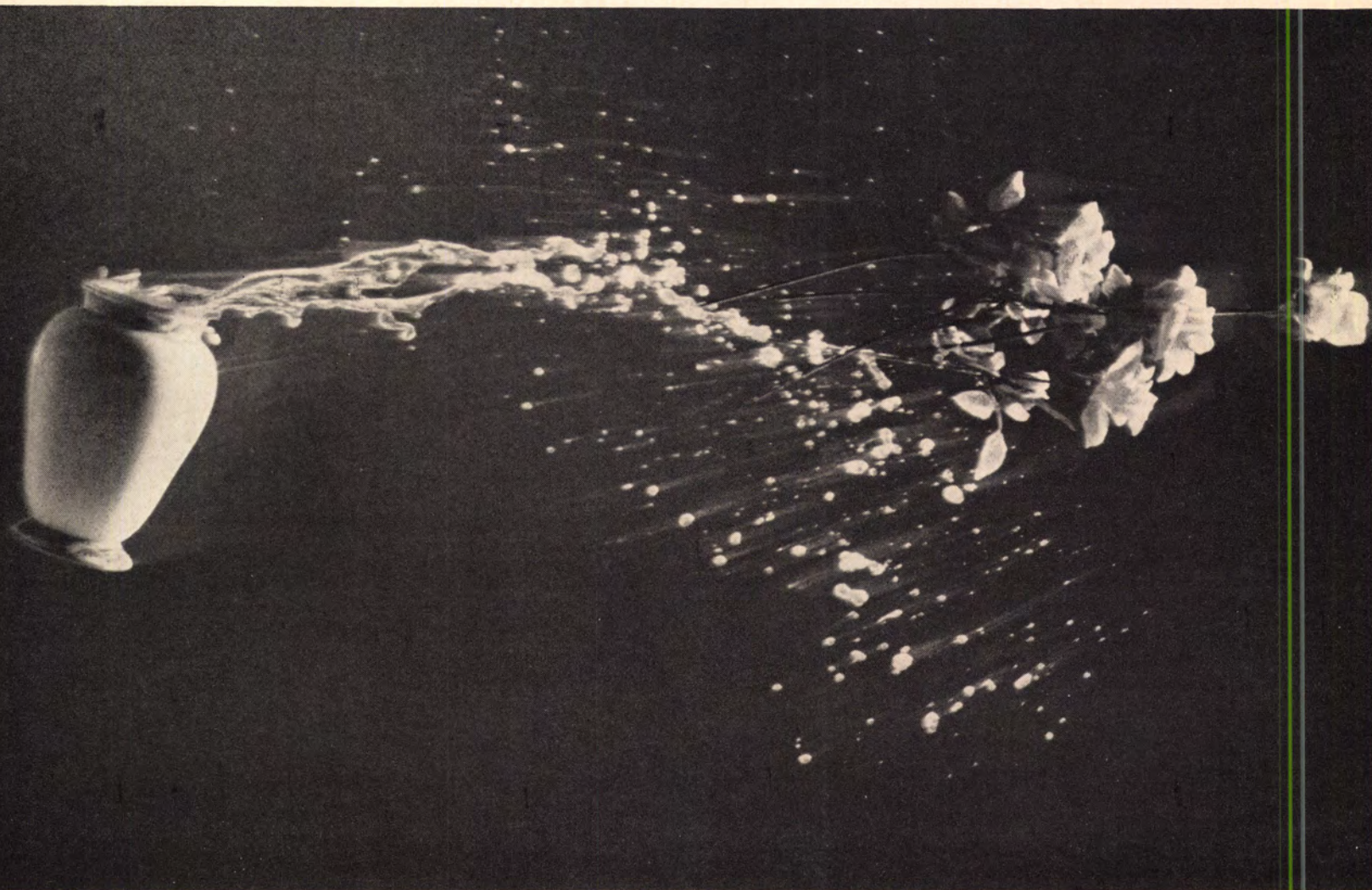
million for the year ending Nov. 30 were announced at the time of the acquisition. They were down from \$31.8 million in 1963, and the net skidded from \$1.25 million to \$957,050, or 23%. Broad blames a decline in the Phoenix market and slow deliveries in Chicago and Los Angeles for the drop.

Eichler drops merger talks with Sunset International

"We just didn't reach a meeting of the minds," says President Joseph L. Eichler. His Eichler Homes Inc., the San Francisco builder and developer, has called off negotiations to merge into Sunset International Petroleum Corp. of Los Angeles.

Sunset had announced a "preliminary agreement" to pay \$5 million in notes and debentures for 11 Eichler homebuilding sites and to assume liabilities of \$30 million (NEWS, Jan.). Eichler was to retire. He said at the time that the understanding was "very preliminary" and was "full of contingencies."

Acrilan® turns off the Friday night fights.

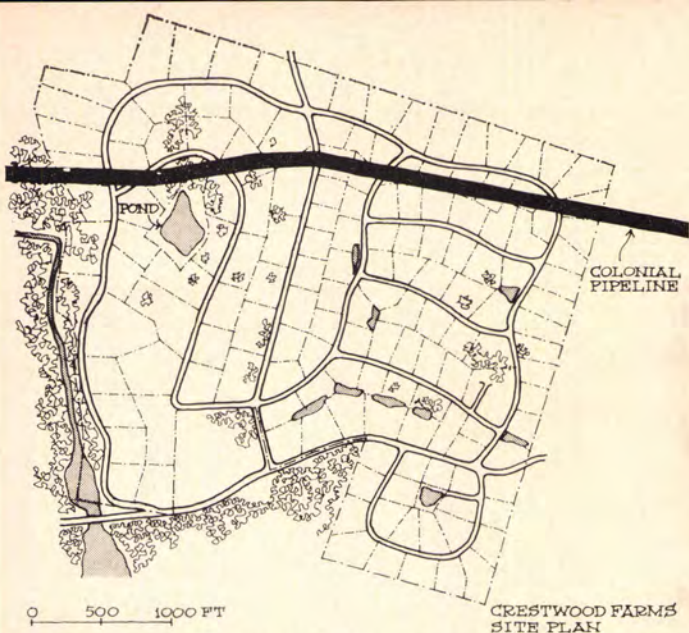


In fact, it turns down the volume on the family upstairs for all time. (It also silences prospective tenants who think new apartment buildings aren't built the way they used to be.) All quality carpeting muffles footsteps and effectively quiets airborne noises. But quality carpeting made with Acrilan® acrylic fiber in the pile is a builder's carpeting. Acrilan looks like luxurious wool. But it is longer wearing and more resilient than wool. Its colors last longer. Acrilan is easy to maintain. Mothproof, mildew-proof, non-allergenic. We've more to tell you. Write Contract Carpet Merchandising, Chemstrand, 350 Fifth Avenue, New York 1, N.Y.



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OFFENDING PIPELINE cuts a 50-foot swath through Developer Frederic Lang's 250-acre Crestwood Farms tract in southeastern Pennsylvania.



PROTESTING HOUSEWIFE takes her stand in front of pipeline company's bulldozer as part of landowner's attempt to halt construction crews.

How do you tame an invading pipeline? A stubborn developer shows one way

Developer Frederic A. Lang was trying to build a 250-acre community southwest of Philadelphia when the world's largest pipeline came tunneling in.

How to stop it—or at least keep it safe?

Surprisingly, no local or federal agency seemed to have jurisdiction over pipeline safety. Colonial Pipeline Co. of Atlanta was spending \$367 million to take its 1,600-mile conduit from Houston to Linden, N.J. The company had the imposing support of nine petrochemical corporations that had formed it, and it had the right of eminent domain.

Yet Lang and his neighbors have fought Colonial to a standstill. Results to date:

- Two state commissions have stepped in to order safety adjustments.
- The Chester (Pa.) County Commission is drafting an ordinance to control pipeline operations in the interest of safety for homes and property.

Breakfast with a bulldozer. Here's how Lang ran his successful safety crusade:

He and 40 neighbors organized the Southeastern Pennsylvania Landowners' Assn. Chester County is fox-hunt country, and one morning the neighbors sat down to tables with sparkling silver service for a "hunt breakfast"—right smack in the muddy path of Colonial's bulldozer.

The landowners took their stand (or seat) on two basic points:

- That the pipe was unsafe, and . . .
- That Colonial—and natural-gas companies too—have long invoked eminent domain unlawfully.

Lang, a licensed professional engineer, fought Colonial on its own ground. He argued that the pipe was too thin (.281" instead of .382"), that it was not buried deep enough (only 30") and that only 20% of the welds were properly inspected. He said the line endangered development of his Crestwood Farms tract (where to date he has sold a dozen lots for \$35,000-to-\$50,000 houses).

"I believe Colonial will try to condemn my land and pay me off at some low price set by appraisers eager to collect their fee from Colonial," he said. "Then Colonial will tell me that it is too dangerous for me to build houses or sell lots along the line."

Courtroom surprise. The pipeline company rushed into Chester Common Pleas Court to try and unseat Lang's blocking breakfasts. Colonial President Ben D. Leuty implied that the landowners were mere troublemakers seeking higher prices for easements, and Colonial won an immediate injunction against interference with construction.

Then came a surprise.

Colonial had asked that the case be concerned only with eminent domain, but Judge T. A. Riley Jr. ruled that his court had jurisdiction over pipeline safety. He told the company to inspect every joint by radiography.

Colonial had to reweld 80 of 93 joints.

How safe are standards? Lang's group then financed an independent inspection of the rewelded joints and found that two did not meet standards set by the American Petroleum Institute. They even questioned the whole range of standards set by various industry associations. They argued that, because no public body had jurisdiction over pipeline safety, the associations devised safety minimums to suit gas and

oil companies rather than protect owners.

The landowners took their new objections, and their earlier complaints about pipeline depth and thickness, to the Pennsylvania Utilities Commission. After an investigation that took ten months, PUC ordered Colonial to repair and inspect by radiography ten defective welds.

Colonial put sleeves on the welds but did not reinspect by radiography. This did not satisfy the landowners, but the commission accepted the job.

Impasse on eminent domain. Although Lang persuaded the Chester County Commission to draft a new ordinance on pipeline safety, he is not through fighting. His accomplishments thus far will benefit builders and developers. But he has also opened a Pandora's box on a larger question that is important not only to builders but also to owners of property everywhere: i.e., is a privately owned private cargo pipeline truly a public utility and has it any right to invoke eminent domain?

This question will be adjudicated first in Judge Riley's tribunal, but is likely to go all the way up to the Supreme Court.

Bias ban back-dated on renewal, public housing

HHFA has now banned race bias on all urban-renewal land unsold by Jan. 3, 1965, and in all public housing built since 1937.

The renewal order, applied under the 1964 Civil Rights Act, means developers buying about 9,000 cleared but not yet resold acres must agree to avoid race bias regardless of the land's use. Until now, bias curbs applied only to projects approved after Nov. 20, 1962.

The public-housing order directs local housing agencies to end race bias in the 572,000 units built since 1937. Until now, only about 60,000 units—those built since the 1962 presidential executive order banning bias in federally aided housing—have been forced to comply.

Homebuilders have complained that the government expects private builders to offer homes without bias when they use FHA or VA financing while local public-housing administrators are free to discrimi-

nate in old units. PHA rates only about 20% of the nation's projects as completely integrated.

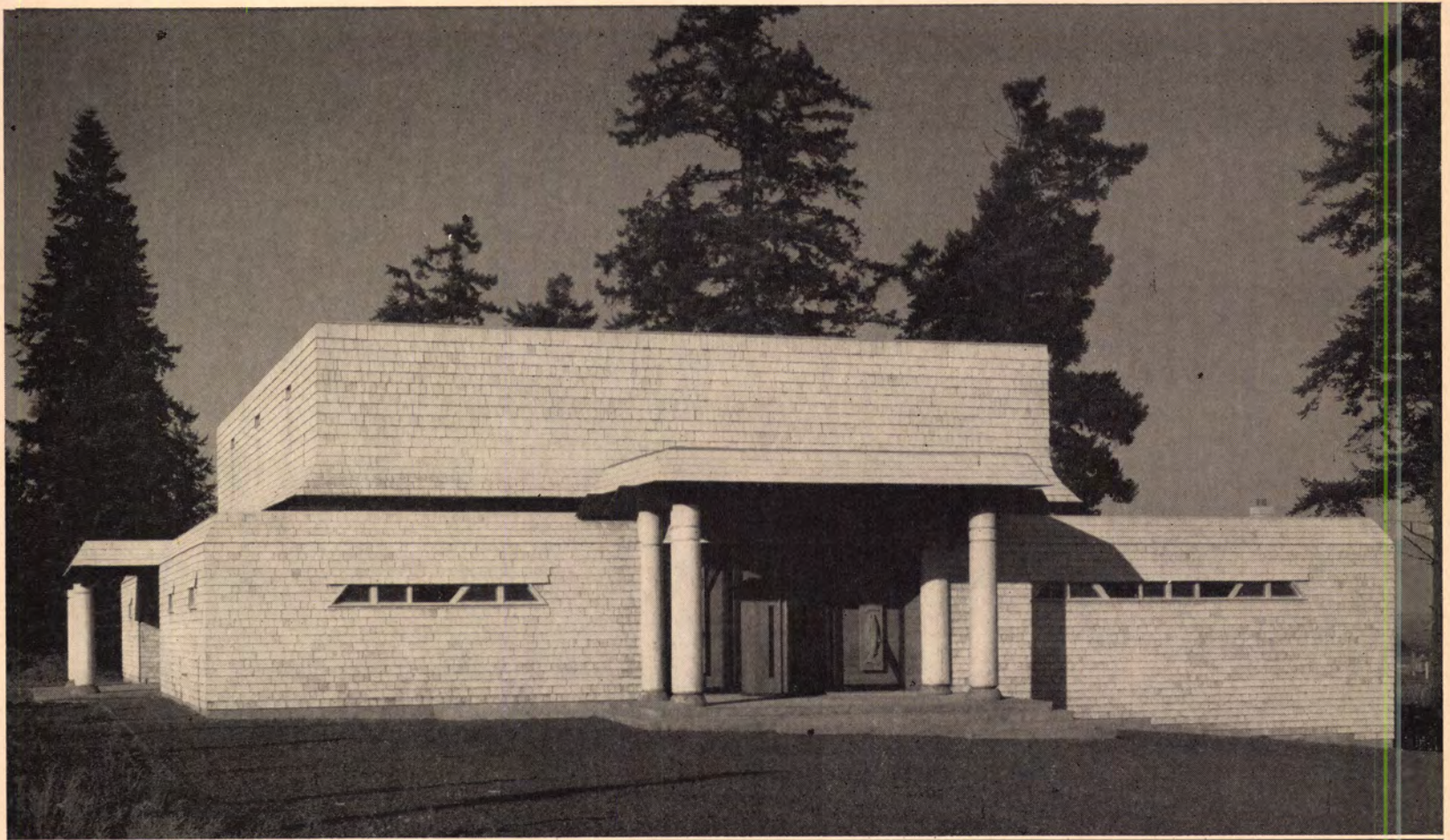
California's Proposition 14 passes its first court test

But two other legal challenges await the new constitutional amendment that gives owners "absolute discretion" in choosing tenants.

A Santa Ana Superior Court upheld the amendment in effect by rejecting Negro Postman Lincoln Mulkey's \$100,250 suit. He had said Apartment Builder Neil Reitman refused to rent to him because of his race.

But Negro Tenant Clifton Hall in Sacramento and a mixed-race couple in Los Angeles have sued to void Proposition 14. Hall's suit is friendly. His landlord, Crawford Miller, agreed to be a defendant.

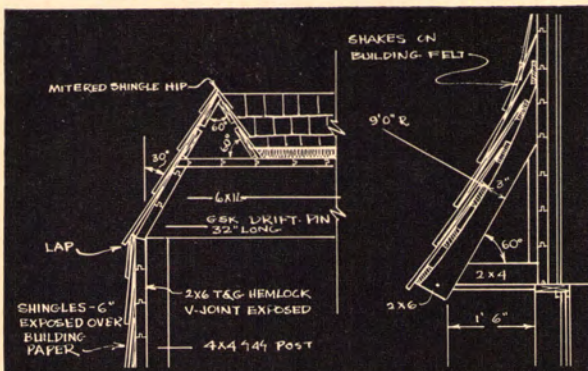
NEWS continued on p. 11



They'll talk your language:
Red Cedar Shingles and Handsplit Shakes

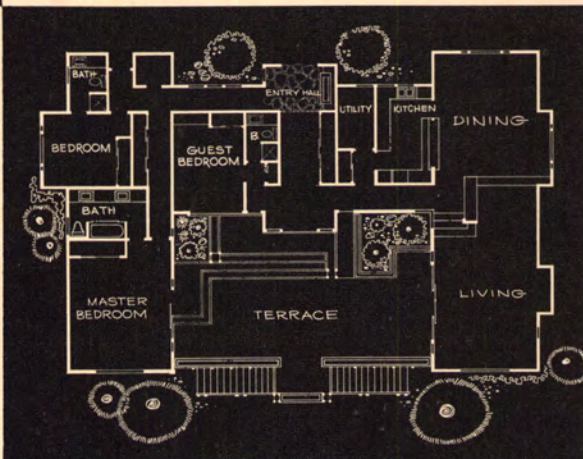
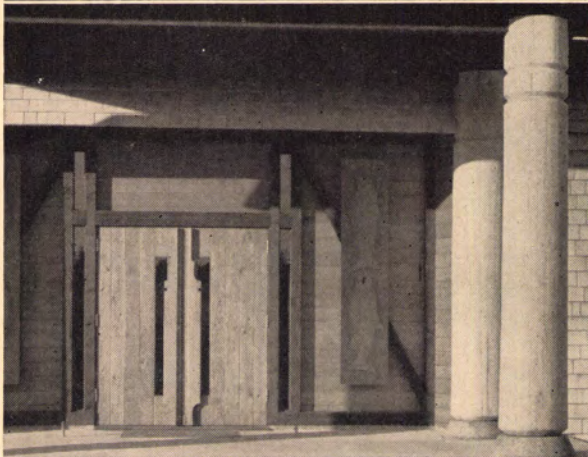


Whether you are building a dignified-but-rustic Indian community hall or a posh lakeside vacation home, you'll have no trouble getting the roof to look exactly right — if it's Red Cedar Shingles or Handsplit Shakes. Consider the selection you have. All the way from highly textured split shakes to smooth sawn shingles. In varying lengths and thicknesses. And aside from good looks, there isn't another roofing material available that *combines* all these practical, salable advantages: light-weight but strong, durable in the worst weather, dimensionally stable in spite of temperature and humidity variations, highly efficient insulation. Properly applied, a red cedar roof is never a call-back problem. For any information on these products, write Red Cedar Shingle & Handsplit Shake Bureau, 5510 White Bldg., Seattle, Wash. 98101. (In Canada: 1477 West Pender St., Vancouver 5, B.C.)



This Swinomish Indian Community Hall in northern Washington carries Certi-Split handsplit-resawn shakes (24" x 1/2" - to - 3/4" with 9" to weather) on upper sidewalls, and Certigrade No. 1 shingles, 16" long with 6" to weather below. Architect was Henry Klein. Builder was Dawson & Strengholt.

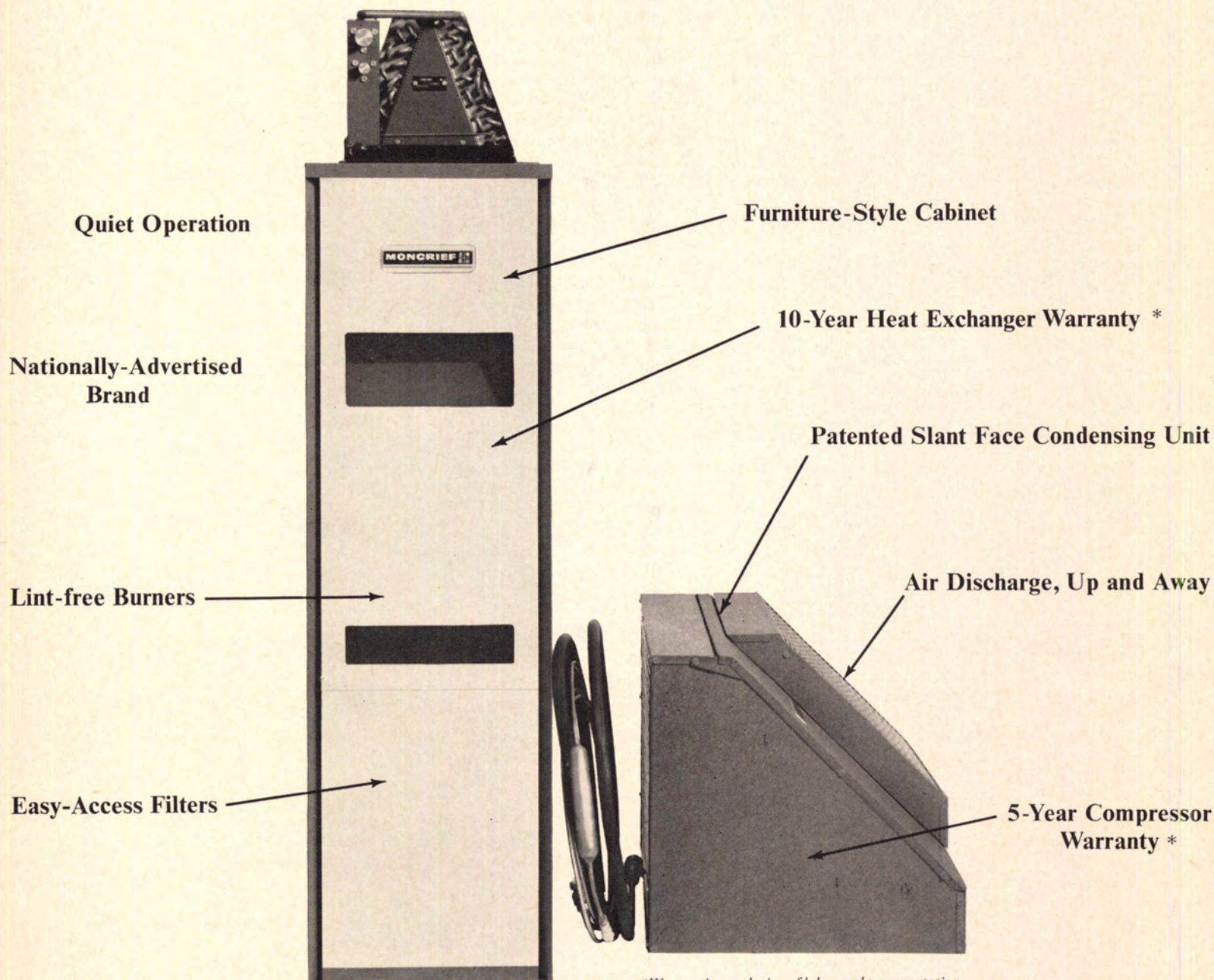
The Tahoe vacation house designed by architect James D. Morton is roofed with Certigrade No. 1 shingles, 16" long, with 4 1/4" to the weather. The builder was Ernest Hoxsie.



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Can a giant town meeting find an exit from snob zoning's one-way street?

The suburbs of Hartford, Conn., like those of many a U.S. metropolis, are already well down that street. Result: low-income families, chiefly Negroes, are confined to the city by large-lot zoning and consequent high housing prices in the suburbs—and may well make up the bulk of Hartford's urban population in 25 years.

But, unlike all but a handful of their counterparts in other urban complexes, Hartford's businessmen and political leaders are trying to do something about it.

Snob zoning—Hartford's thoughtful citizens see it as a surface symptom of deeper racial, educational and growth problems—has long been a special target of a local building-industry leader, President James Bent of the Hartford Federal S&L.

No sooner was Bent elected President of the Greater Hartford Chamber of Commerce than he began turning community wheels to reverse Hartford's one-way drive. Result: plans for a massive Town Meeting for Tomorrow. Bent, seeking a leader from the city's nationally known life insurance industry, persuaded Chairman Olcott D. Smith of the Aetna Life Associated Companies to take charge. Invitations went to 500 community leaders—from selectmen of Hartford's 29 satellite towns to insurance executives. Almost 100% accepted.

Toothless planners. But Smith's aides felt that talk without a clear-cut purpose—and without a hard factual background—would be futile. His Chamber staff raised \$60,000 from businessmen and assigned a team of the nation's leading political scientists to study Hartford's ailments. The six-man team—led by Ralph W. Conant, assistant to the director of the Joint Center for Urban Studies at Harvard-MIT, homed in on the underlying attitudes behind Hartford's racial, housing and planning problems. Their reports (cost: \$32,000) were issued weekly before the town meeting to wide newspaper publicity. Their key finding: Hartford's Capital Region Planning Agency (CRPA) was virtually toothless when it came to enforcing land-use and zoning in a comprehensive plan adopted in June 1963.

Despite a flood of reports and plans, CRPA, like many other regional planning agencies, is "incapable of decisive planning," Conant reported. The 34 members, appointed by Hartford and its suburbs, "approve of CRPA as an advisory body, a clearing house of information, but are not willing to grant it authority. Most of them voice support of regional planning but point by point many actually oppose it."

Talk it out. When Town Meeting convened, Smith split it into 13 discussion groups, all following the same outline and all charged with filing written reports on how they thought the Hartford region should develop.

The concentrated talkathon—seven and one-half hours in two days—produced sparks on a wide range of center city-vs.-

suburb issues, but none touched more sensitive nerves than planning and zoning, the area's second toughest problem (according to a pre-meeting poll by *The Hartford Times*).

Hartford Planning Director Dennis Barker argued that zoning restrictions in the suburbs compounded Hartford's housing problems and hit Negro families hardest. Negro groups complained that realty agents refused to show suburban homes to qualified Negroes and had developed many dodges around Connecticut's housing antibias law. Suburban officials replied that Hartford wanted to gain control over suburban land use and zoning to ease its own problems. Planner John Potter of suburban Windsor argued that land use is not a proper regional concern.

"I want to say just the opposite," replied Developer and Builder Robert M. Stone of Manchester. "One basic fault in our structure is that we dump off what we don't want on our borders, often leading to duplication of facilities." Added President George Spoll of the Hartford Home Builders Assn.: "Present zoning practices are drying up the pool of economically feasible sites for lower-income families."

Erudite overviews. At luncheons delegates heard talks that put Hartford's problems in larger perspective. A community-law expert—Norton E. Long of Brandeis University—derided "petty squabbling" over such questions as "who's going to have to take the incinerator, or who's getting stuck with the garbage dump, or who's going to be stuck with the poor

Negro? Not me. Somebody else. So we constantly look around for who is going to be the fall guy or the sucker."

Oddly, noted Long, the metropolitan areas containing the bulk of U.S. population and wealth "are afflicted with fiscal anemia which makes them go hat in hand to the state capitals and Washington." In his view most champions of local government are the very persons who oppose taxes high enough to make local solutions possible.

Met areas are competing directly with each other for new industries and business, Long said. "But if you divide the place into this crazy quilt of town on town on town, you can't conceivably manage the real estate of a region to make it as competitive as possible."

How to compete. Long and several other speakers told delegates that the best way to compete was to work out practical political solutions to their problems.

"If you have been spoiled . . . by residence in executive suites and the country club suburb, this may not be your dish," said Long.

As the conference ended, delegates voted to make the Town Meeting a permanent body to study Hartford's problems and bring in solutions. A committee of the 26 seminar chairmen and joint chairmen will take charge.

Does this mean the leaders of Hartford's suburbs will yield their sovereignty to a regional group—especially in land use and zoning? No—but they are willing to talk.

Los Angeles tests new way to keep open space

Out of Los Angeles' boiling fight over development of the Santa Monica Mountains has come a novel approach to preserving open space.

A new ordinance, effective in January, lets subdividers dedicate hillsides and other scenic land to the city in return for a go-ahead on cluster subdivisions.

Los Angeles had previously been reluctant to accept such land donations because the city had to shoulder the cost of maintaining the land.

Now the new ordinance applies California's time-honored assessment district laws to this problem. Specifically, the new houses would be included in an assessment district and pay up to 25¢ per \$100 of assessed value into a fund to maintain the open space. The city would clear away underbrush, plant fire-retardant greenery and install water lines to keep the hillsides safe but open.

City officials hope perhaps half the 20,000 acres in the Santa Monica Mountains could then be kept free of new homes. Final fate of the mountains—and of Sunset International Petroleum's plan for a 3,400-acre new town there—is up to California's legislature. Some mountain-area residents are pressing the state to buy the

entire 20,000 acres for a natural preserve by floating a \$150 million bond issue. But a spokesman for state officials says, "It's obvious there isn't enough money to purchase the entire area." Mountain residents plan to appeal to the legislature. Meanwhile, Los Angeles council has lifted its temporary ban against building there.

Elsewhere, two other disputes between developers and open-space adherents are ending.

- Near Washington, developers who wanted to build high-rise apartments on the Merrywood estate atop the Potomac palisades have sold the land at an unrevealed price. The Interior Dept. obtained a scenic easement limiting the site's use to one-family houses (News, Jan. '63 *et seq.*).

- In nearby Maryland, State officials won a court order forbidding Worcester County officials to bulldoze a road across Assateague Island. The 38-mile-long barrier reef is the last stretch of uninhabited Atlantic shore between Cape Cod, Mass., and Cape Hatteras, N. C. Pressure for development has been rising since a new bridge to a virgin state park opened last September. The Interior Dept. has asked Congress for \$12 million to buy the land.

NEWS continued on p. 15



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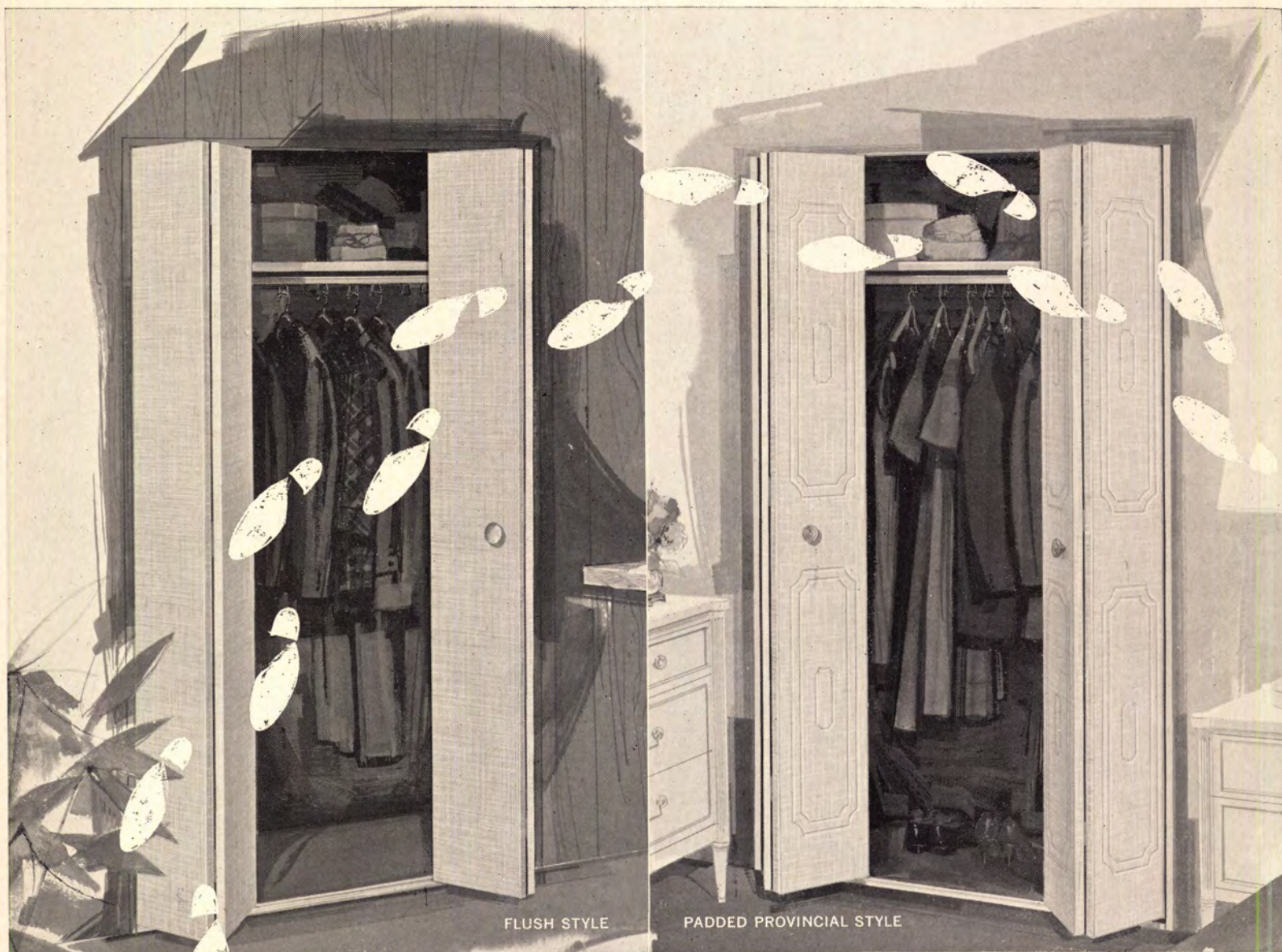
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Dec. 5, below. The Leigh booth at the 1964 NAHB show is carpeted with both types of our new vinyl door panels—flush and padded Provincial.



Dec. 6-10, below. For five days the panels were punished by thousands of men's shoes and by the tremendous impact of scores of ladies' spiked heels. Panels were cleaned nightly with commercial floor-cleaning equipment and compounds.



Dec. 11, below. After absorbing five days and nights of punishment far worse than any door material would ever be expected to take, Leigh vinyl door panels look almost as good as new.



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Photos: Foto Booz



AMERICAN-STYLE MODELS helped Builder Haim Eliacher sell 458 of these row houses in

two months in Lima, Peru. His Project Viru is one of 77 housing projects built or planned in 17

Latin and South American nations with U.S.-guaranteed loans. Note tot-lot at left.



MODEL-HOUSE FURNISHINGS, shown here in living room, are the first used in Peru.



COMPACT KITCHEN contains pull-down ironing board and snack bar, right foreground.



BATHROOM has modern fixtures and medicine cabinet. High window vents shower steam.

How to succeed south of the border: build fast, get a 100% loan and use U.S. sales methods

Ever since the Alliance for Progress took some of the sting out of the formidable risks of building in Latin America, more and more U.S. builders have headed south.

As a result, the Latin building business is undergoing a revolution. Runaway inflation can still rob a project of its profit before the last house is sold, but builders like Haim Eliacher of Wellesley, Mass., are finding that the risks are decreasing, the red tape and financing harassments are fading and the market is almost bottomless.

In Lima, Peru, Eliacher's Development Corporation International (DCI) is well along on the first project (*shown in photos*) processed by FHA's newly formed Latin American division for the Agency for International Development. His verdict: the FHA-AID marriage could profit by improvements but is vastly better than AID's previous handling of its own applications.

Eliacher undertook his Project Viru—1,000 houses on a 69-acre site—because he was the first builder able to get completely guaranteed mortgages and one of the first not faced with the lack of long-term mortgage money that has stymied much Latin American building.

AID will now guarantee 100% of a 5¼% loan for new housing, with a 2% guarantee fee. Congress is expected to add to the \$250 million already set aside for the loans (and builders have already applied for 77 projects costing \$405 million). The builders' risk ends when the houses are sold. Before Congress approved this change, builders had to take a 10% risk.

With this guarantee, the Peruvian equivalent of the U.S. Home Loan Bank Board is dramatically increasing the supply of construction money and cutting interest rates on long-term loans for buyers. For instance,

buyers in Project Viru will pay 11¾% interest, (including 3½ points for contingencies—mainly currency devaluation) instead of the normal Peruvian rate of 16½%. Mortgage terms: 20 years, 20% down. New York Investment Banker Carl M. Loeb Rhodes is lending the money, and the Peruvian HLBB, Banco de la Vivienda del Peru, services the loans.

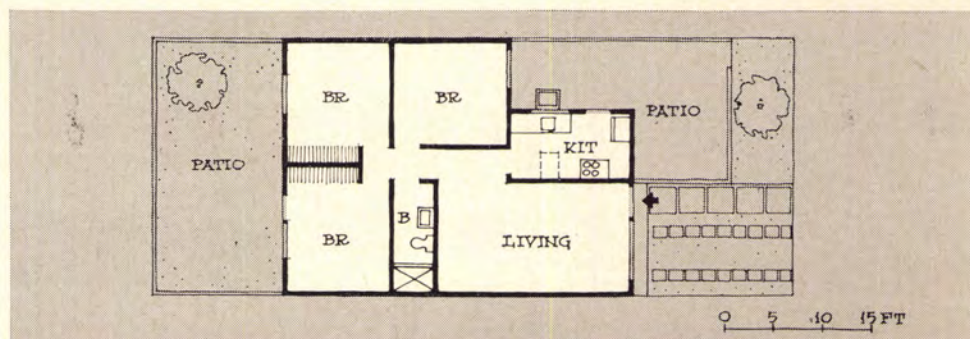
DCI is using only local labor and materials. Construction is brick with poured concrete roofs designed by Peruvian architects to carry future second floors.

Eliacher offers five models, with three and four bedrooms and 800 to 950 sq. ft., for \$5,200 to \$6,000. His U.S.-style merchandising includes a two-color brochure explaining home ownership and the principle of a mortgage, newspaper advertising, bumper stickers and a nursery for buyers' pre-school children. But perhaps his biggest innovation has been the first use of furnished model houses in Lima.

With these sales methods—plus attractive mortgage terms—Eliacher sold 458 units in the first two months after opening. But despite his success, he now says he misjudged two aspects of the market: 1) all houses should have had four bedrooms, instead of the 15% to 20% planned, and 2) maid's quarters should have been included in 10% of the houses.

DCI is affiliated with Development Corporation of Puerto Rico and will soon merge into Rexach Construction Co. (H&H, Aug. '63). Eliacher hopes to build other projects in Lima, where half of Peru's three million home-buying prospects live.

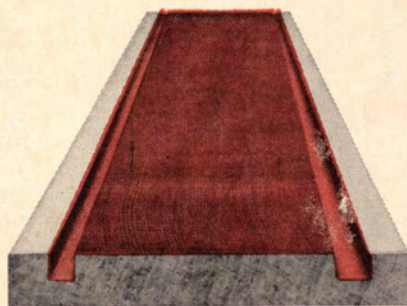
By then he hopes the FHA-AID operation will have decentralized for smoother operation. For instance, building sometimes halts while inspectors fly from Washington.



TYPICAL THREE-BEDROOM PLAN packs 850 sq. ft. between two walled patios. Front wall is

only 3'9" from lot line, so entire house can fit on 26¼' x 65½' (8 x 20 meters) lot.

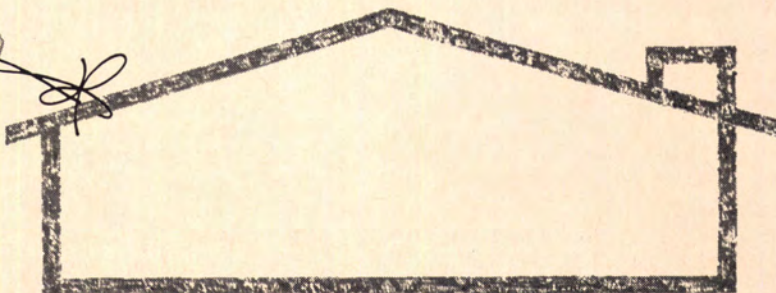
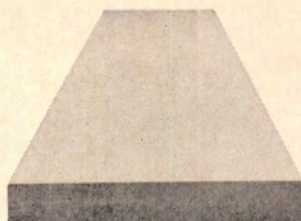
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2..



3.



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Post office counts give FHA new vacancy data

Postmen have recently made vacancy counts in the 14 key markets listed in the chart below. The counts are not adjusted for seasonal use of apartments. But they are sufficiently accurate to allow FHA to judge the probable market impact of apartments currently under construction.

FHA's new vacancy counts reflect a growing trend toward better local market

data. More and more local homebuilder associations and lenders are employing consultants to study their areas more closely. San Francisco, Portland, Ore., Houston and Charlotte have long benefited from such studies. And the Memphis HBA has just contracted with Memphis State University for new computer research to turn up market data.

AREA	HOUSES				APARTMENTS			
	Vacant %	Units	Under Const. Units	% of Vac.	Vacant %	Units	Under Const. Units	% of Vac.
Atlanta	2.5	5,241	2,137	41	6.3	4,389	6,540	149
Cuyahoga County, Ohio*	1.5	765	175	23	4.0	2,109	2,234	101
Dallas	3.8	7,701	813	11	17.4	9,858	5,650	57
Detroit	1.4	7,162	4,750	66	4.4	2,225	4,493	201
Flint	2.4	2,452	868	35	12.3	904	271	30
Fresno	3.0	2,875	765	26	10.9	1,374	915	66
Los Angeles County*	3.1	6,364	740	11	10.2	35,778	21,182	59
Monmouth County, NJ	2.6	2,605	445	17	11.4	1,904	1,401	74
New Orleans	2.1	3,284	2,412	74	4.0	4,361	2,930	67
Omaha	2.5	3,120	529	17	10.3	2,009	1,148	57
Rochester	1.3	1,988	948	49	3.5	1,077	1,076	100
Salt Lake City	2.6	3,091	1,206	39	14.7	2,674	1,967	73
San Bernardino-Riverside	4.7	8,713	1,831	21	23.1	5,997	1,737	29
Syracuse	1.7	1,505	596	40	4.2	2,006	777	39

* Survey covered less than entire county.

How are trailers doing? FHA's survey gives the first hint

FHA's post office vacancy counts are also giving a first-ever look at mobile homes.

There is little agreement on what the figures mean. FHA turned up 45,678 trailers, with 4% vacant, in 31 areas.

The Mobile Homes Manufacturers Assn. cautions against comparing this rate with permanent housing. Reason: house trailers near military bases are often rented (like apartments) but most others are owner occupied (like houses). Too, more trailers are used seasonally than one-family homes.

Here is FHA's first look at how many trailers are occupied and where they are: Abilene, Tex.: 270 units (5.2%); Anchorage, Alaska: 2,411 units (4.2%); Atlanta, Ga.: 2,012 units (3.1%); Atlantic City, N.J.: 385 units (9.9%); Augusta, Me.: 235 units (15.3%); Baton Rouge, La.: 481 units; Binghamton, N.Y.: 491 units (4.9%); Brownsville, Tex.: 381 units (11.5%); Des Moines, Iowa: 1,263 units

(6.2%); Detroit, Mich.: 4,662 units (1.7%); Flint, Mich.: 2,873 units (1.6%); Fort Walton Beach, Fla.: 713 units (7.3%); Fresno, Calif.: 1,367 units (5.8%); Lancaster area, Calif.: 1,660 units (1.8%); Lansing, Mich.: 820 units (1.6%); Lompoc area, Calif.: 2,381 units (4.8%); Montgomery, Ala.: 429 units (19.1%); New London, Conn.: 424 units (8.3%); New Orleans, La.: 2,299 units (5.8%); Odessa, Tex.: 537 units (12.8%); Omaha, Neb.: 1,994 units (4.1%); Rochester, N.Y.: 1,242 units (4.2%); Salt Lake City, Utah: 1,342 units (8.9%); San Bernardino-Riverside: Calif.: 5,745 units (1.8%); Syracuse, N.Y.: 732 units (4.1%); Wichita Falls, Tex.: 494 units (2.6%); Brevard Co., Fla.: 5,533 units (3.1%); Kings Co., Calif.: 245 units (2.0%); Los Angeles Co., (part), Calif.: 534 units (13.1%); Monmouth Co., N.J.: 1,282 units (2.5%); Seminole Co., Fla.: 421 units (1.4%).

KEY HOUSING INDICATORS

		1964	1963	% Change	
		DOLLARS (millions)			
Dodge residential contracts	Nov.	1,482	1,519	—	2
	11 months	19,284	19,191		UC
ENR advance mass housing plans	Dec.	982	599		64
	12 months	8,827	7,551		17
ENR advance apartment plans	Dec.	591	302		96
	12 months	4,897	3,485		40
ENR advance house plans	Dec.	183	154		19
	12 months	1,755	1,962	—	11
UNITS (000)					
Starts, private nonfarm	Nov.	106.7	117.9	—	9
	11 months	1,428.6	1,488.3	—	4
Starts, seasonal rate	Nov.	1,391	1,544	—	10
New houses sold	Oct.	47	44		7
	10 months	496	489		1

Sources: F. W. Dodge Co., division of McGraw-Hill; Engineering News-Record; Census Bureau; HHFA. UC—Change less than 1%.

New listings show cities wanting to sell renewal land

Renewal agencies in 16 cities are offering parcels of over five acres for both single- and multi-family use. The land is cleared slum property and usually subject to restrictions on lot coverage by buildings, when buildings are to be completed, and similar details. Land for single-family housing is offered in these areas:

Carrollton, Ga., Darby Township, Pa., Decatur, Ill., Fresno, Calif., Gadsden, Ala., Greensboro, N.C., Jefferson, Mo., Jeffersonville, Ind., Lincoln Park, Mich., Oakland, Calif., Rogersville, Tenn., San Francisco, Stockton, Calif., Sylacauga, Ala., Toledo, Ohio and Waterloo, Iowa.

Land for multi-family use is offered in these areas:

Bristol Township, Pa., Buffalo, N.Y., Chattanooga, Tenn., Chicago, Ill., Fargo, N.D., Gadsden, Ala., Greenville N.C., Jeffersonville, Ind., Lincoln Park, Mich., Madison, Wis., Oakland, Calif., Portsmouth, Va., Redonda Beach, Calif., Richmond, Va., San Francisco, Calif., Tampa, Fla. and Toledo, Ohio.

Tracts of less than five acres are offered in six cities for one-family use and 16 cities for multi-family use. A complete list is available from the Urban Renewal Administration, Washington, D.C. 20410.

Second city requires buried wires in new subdivisions

Livonia, Mich., (pop.: 90,000) becomes the nation's second city to ban overhead wiring in new residential areas (see p. 67). Carlsbad, Calif., did so last fall.

Livonia, one of Detroit's fastest growing and largest suburbs, now requires developers to put all distributor lines for telephone and electrical service underground. The developer is responsible for the entire cost but is free to work out any cost split with the utilities.

Both developers and the Detroit Edison Electric Co. opposed the ordinance on the grounds that separate localities should not set up ordinances with varying terms. Detroit Edison requires builders to pay the extra underground installation costs (average \$300 to \$400).

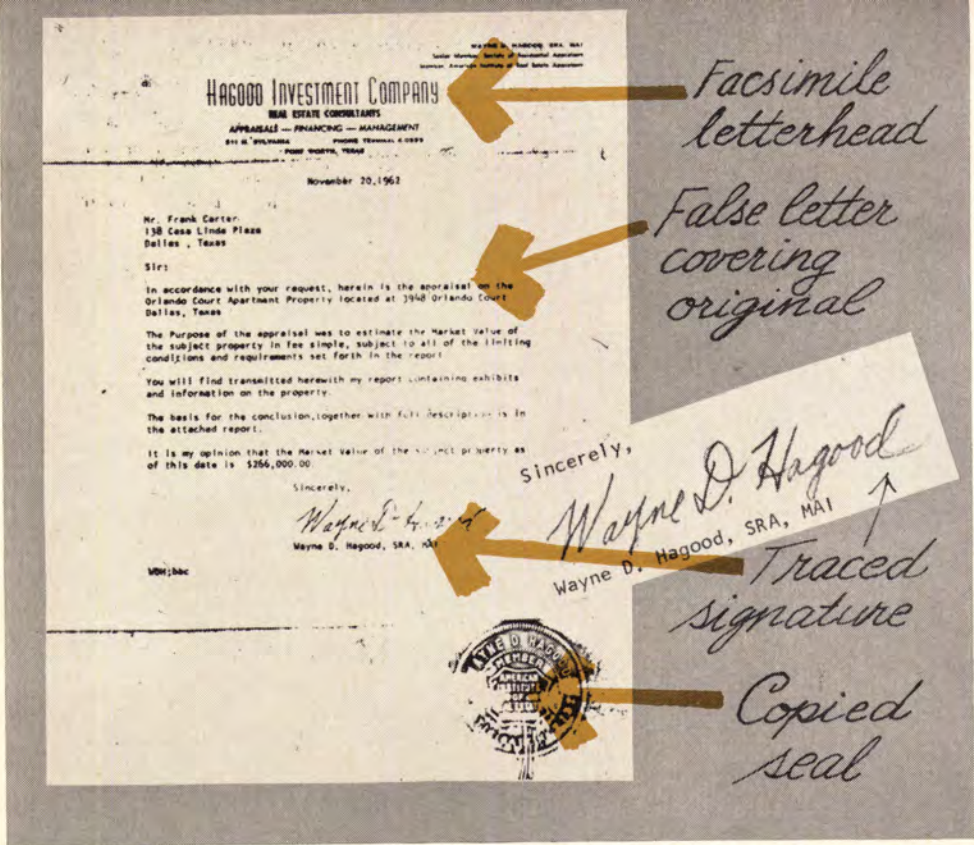
City officials who sponsored the ordinance argued it would improve appearance, enhance property values and lessen damage and power failures in tornadoes and similar storms.

Can apartments on stilts solve the shortage of city sites?

Planners in two Eastern cities hope so.

In Union City, N.J., local officials plan apartments and offices over approaches to the Lincoln Tunnel. In Philadelphia, the City Planning Commission is studying six potential sites over railroads for middle-income and public housing.

The new interest is prompted by a 1964 Housing Act change which lets renewal agencies acquire air rights over railroads and highways for low- and middle-income housing.



FORGED APPRAISAL was made by Dallas promoter, who laid it over true appraisal, copied appraiser's letterhead and seal by machine and traced the legitimate appraiser's signature.

praiser's letterhead and seal by machine and traced the legitimate appraiser's signature.

Appraisers warned: forged, inflated and slipshod valuations sap confidence in their profession

A Dallas promoter, Clinton Thiel Stephens, has drawn five years in federal prison for mailing the forged apartment appraisal above to a Chicago mortgage banker.

Discovery came by pure happenstance when the loan application landed on the desk of a former Dallas resident in the offices of Salk, Ward & Salk of Chicago. Startled by the apparent rise in property values in a neighborhood he remembered, he telephoned Wayne Hagood, the Fort Worth appraiser listed on the document, and asked about the appraisal.

Replied Hagood: "What appraisal?"

This and other recent forgeries, notably in the Dallas-Ft. Worth area, have brought a warning from President Joseph G. Kuehnle of the American Institute of Real Estate Appraisers. He tells lenders to insist on seeing original appraisal documents, tells appraisers to apply their seals to every valuation, and to be sure the document doesn't fall into the hands of a third party.

A bigger problem. Serious as they are, forgeries are pure frauds perpetrated outside the appraisal profession. But they call attention to two far more subtle abuses that are infiltrating the profession and threaten to undermine confidence in the appraisers themselves: 1) Inflated and slipshod valuations and 2) dual sales contracts which win higher mortgage loans.

Says former Vice President Jerome L. Howard of the National Society of Real Estate Appraisers:

"Most investors now tell us frankly and bluntly that they know that any mortgage loan correspondent who wishes to get a predetermined value in any appraisal can do so without difficulty from many appraisers having professional designations."

Adds the National Association of Real

Estate Boards in a policy statement.

Mortgage lending in excess of property values "may eventually result in an economic crisis harmful to the whole fabric of the real estate economy."

Howard, president of Mortgage & Trust Inc., a Houston mortgage banking institution, made one of the most serious indictments ever rendered against the appraisal fraternity by one of its own:

"In practically all parts of the country investors [have] found they cannot depend on the ability and integrity of an appraiser just because he has a professional designation. The professional appraiser in general has let himself be used by mortgage companies, brokers and other clients."*

The reasons why. Howard ticked off the reasons for this loss of faith:

- When investors' representatives visit a distant city to check loans, they frequently find sales prices that have been misrepresented. "If only the appraisers would talk with the buyer, seller and agent, reported sales prices could be factual."

- Rental incomes are grossly overstated. "Investors also say that vacancy allowances are often based on percentages learned in appraisal school, not in the market place."

The mortgage investor, says Howard, "believes that the moral and ethical standards have become so low that correct appraisal techniques are often used by skilled appraisers to veil thinly [the] valuations for mortgage appraisals that are substantially in excess of the market value of the property."

Result: insurance companies and other nationwide lenders are doing more of their own appraising and loan checking.

*In a speech to the Southwest Appraisal Conference, Austin, Tex.

Dual contracts. Vice President Richard W. Baker Jr. of the New York Life Insurance Co. told a panel at the Los Angeles convention of the National Association of Real Estate Boards that dual appraisal contracts have now become an "extremely serious threat to the entire mortgage business."

The property price shown to a lender is falsely overstated in a dual contract. Once the mortgage is signed, sale is made to the homebuyer under a second, or dual, contract drawn with a lower price.

"We [New York Life] took positive measures to protect ourselves against this several years ago," Baker said, "but now we find serious instances of this practice occurring in three widely separated states." (The only state Baker would identify was Oklahoma.)

"In one case," Baker said, "we have reason to believe that every contract for the past few years in one of the largest and finest subdivisions in the city concerned, even those with large down payments, had been falsified to preserve an artificial pyramid of values."

New twist. Lending experts at the NAREB meeting disclosed that builders have developed a dual-contract refinement:

- The builder offers a house at \$28,000, lets the buyer finance \$25,000 and takes the buyer's note for \$3,000.
- A mortgage for the theoretical price of \$28,000 is closed with a lender.
- Once the builder has his \$25,000 and title to the house is transferred, the builder tears up the buyer's \$3,000 note.

Result: The buyer has, on property worth only \$25,000, a mortgage against a false sales value of \$28,000.

Banks may become prime source for construction loans

The big news in today's bullish mortgage market is that savings and loan associations are not raising their interest rates.

This could mean that savings may shift to banks—and make them more willing source of builder money.

The net savings inflow of the nation's s&ls dropped for five consecutive months through November, and the U.S. s&l League predicts a further decline this year. Commercial banks in New York, Chicago, Cleveland, Detroit, Houston, Los Angeles and San Francisco all rushed to raise savings dividends from 3½% to 4% when the Federal Reserve Board eased Regulation Q in November. Their move was clearly aimed at siphoning further savings from the s&ls, whose estimated net gains of \$10.7 billion in 1964 were \$300 million short of 1963.

Yet only a handful of s&ls in Los Angeles* and St. Louis have upped rates in response. Some 77% of them paid 4¼% or less through 1964 and plan no change. And Bayside Federal in New York City actually cut from 4¼% to 4%.

NEWS continued on p. 27

*Most southern California s&ls pay 4.85%. A few small associations have gone to 4.95% and two, Liberty in Los Angeles and Systematic in Daly City, pay 5%.

Carpets in the single-family mortgage package? Many S&Ls rush in where FHA fears to tread

As a result, carpeting has become one of homebuilding's hottest new sales tools. Some examples from a HOUSE & HOME survey:

- In a sluggish Denver market, Builder John Hall offered homes at the same terms as FHA—with one different item: a conventional mortgage that included carpeting. He sold 177 houses in nine weeks.

- In Salt Lake City, says former NAHB President Allan Brockbank, a few builders have bootlegged carpets into FHA houses, where it is excluded from the mortgage, because carpeting sells homes faster.

- The Los Angeles Times real estate section has begun to resemble a carpet catalog, with model homes listing floor coverings by brand names (see cut). A HOUSE & HOME spot check of four single-family developments found carpeting offered in all. Some builders carpet all floors, others only the living room, halls and master bedroom.

- S. V. Hunsaker & Sons will lay 300,000 sq. yds. (62 acres) of wall-to-wall, nylon, continuous-filament carpets in its new houses and apartments in California and Nevada in 1965.

Runaway sales. Carpet sales have tripled in the past ten years, and the carpeters can thank the nation's savings and loan associations. More and more S&Ls are in-

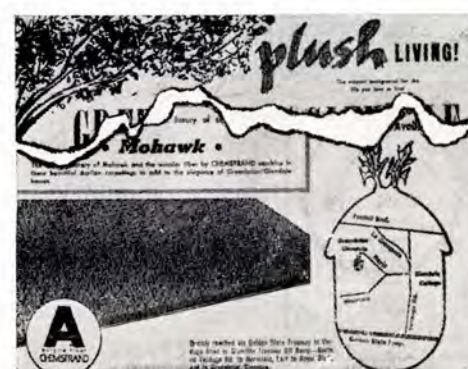
cluding carpeting in conventional single-family mortgages. The practice is almost universal among state S&Ls, especially in California and Texas. And it is widespread among federals despite the Home Loan Bank Board suggestion that federals follow FHA rules. No specific S&L regulation bars carpeting and the U.S. S&L League has been campaigning for five years to make the carpet price part of the loan.

Impasse in Washington. The FHA says wall-to-wall carpet can be installed as a finished floor over suitable underlayment, but the carpet is not part of the realty because it's a rapidly deteriorating asset.* Hence the buyer pays for the carpet over and above the mortgage amount. If the agency catches a builder bootlegging carpet into a house, it reduces its loan insurance by the estimated value of the carpet.

The National Association of Home Builders has been pressing since 1953 to get FHA to insure carpeting in houses (as it does in apartments if replacement money is held in escrow). But a Senate committee told FHA in 1958 to notify it before changing the rules on one-family homes, and FHA never has.

Says FHA Commissioner Phil Brownstein: "With the high foreclosure rate we

*Single family regulation 907-3.1.



CARPETS' SALES APPEAL is stressed in typical ad for a southern California subdivision.

continue to experience, this would be a poor time to liberalize terms—and I consider this a liberalization."

Protecting the dealer. Powerful outside forces also urge FHA to stand pat. Hardwood floor producers oppose any rule change. The American Carpet Institute, which enlists 19 large manufacturers, hesitates to press FHA lest it offend the carpet industry's two best customers, the National Retail Furniture and Retail Merchants associations. Both groups fear including carpeting in FHA mortgages would bring mill-to-builder sales, bypassing retailers.

But HOUSE & HOME's survey of 113 builders who offer carpets finds the distribution has not changed. More than 52% buy most of their carpeting from retailers, and 38% get it from local distributors.

MORTGAGE MARKET QUOTATIONS

Prices are those received by mortgage bankers on resale of loan to investors. They allow for 1/2% servicing. Builders may negotiate a slightly different price from mortgage bankers on original loans. Reported to HOUSE & HOME in week ending Jan. 8.

City	FHA 5 1/4% (Sec. 203) (b)				FHA 207 Firm Commitment	Conventional Loans		Construction Loans
	FNMA Sdtry Mkt	Minimum Down 30 year	35 year	30 year		Comm. banks, Ins. Cos.	Savings banks, S & Ls	
Atlanta	97 1/4	98-98 1/2	97 1/2-98	97 1/2-98 1/2	a	5 1/2-6	5 3/4-6 1/4	6+1
Boston local	98 1/4	par-101	a	par-101	b	5-5 1/2	5-5 1/2	5 1/4-6
out-of-st.	—	97-98	97-97 1/2	98	b	—	—	—
Chicago	97 3/4	98 1/2-99 1/2	97-98	97 1/2-99	99-par	5 1/2-5 1/2	5 1/4-6 1/4	5 1/2-6+1-1 1/2
Cleveland	97 3/4	98 1/2-99	97 1/2-98 1/2	98-99	99-par	5 1/2	5 1/2-6	6+1
Dallas	97 1/4	97-98	97-97 1/2	97-98	99-99 1/2	5 1/2-5 3/4	5 1/2-6	6-6 1/2+1-2
Denver	97 1/4	98-99	a	97 1/2-98	99	5 1/2-6	5 1/2-6 1/2	6+1 1/2-2
Detroit	97 1/4	98-99 1/2	97 1/2-98	98-99 1/2	99 1/2-par	5 1/4-5 1/2	5 1/4-5 1/2	6+0
Honolulu	97 1/4	97 1/2-98	97	97	a	5 3/4-6 1/2	6-7	6+1-2
Houston	97 1/4	97-98 1/2	97-98	a	98 1/2-99 1/2	5 1/2-6	5 1/2-6 1/4*	6-6 1/4+1
Los Angeles	97 1/4	98 1/2	98 1/2	98	par-100 1/2	5 1/2-6	5 3/4-6.6	6-6.6+1-2 1/2
Miami	97 1/4	97 1/2	97	a	a	5 1/2-5 3/4	5 1/2-6	6+0-1
Newark	98 1/4	par	b	par	99-par	5 1/2-5 3/4	5 1/2-6	5 3/4-6+1
New York	98 1/4	par	par	par	par-101	5 1/2-6	5 1/2-6 1/2	5 1/2-6 1/2
Okla. City	97 1/4	97 1/2-99	97 1/2-98 1/2	97 1/2-99	a	5 1/2-6 1/2	5 3/4-6 1/2	6+1-2
Philadelphia	98 1/4	par	99 1/2	par	par	5-5 3/4	5 1/4-6	5 1/2-5 3/4+1
San Fran.	97 1/4	98 1/2-99	98 1/2	98-99	99-par	5 1/2-6 1/2	5 3/4-6.6	5 3/4-6.6+1-2
St. Louis	97 1/4	97 1/2-99	a	97-99	a	5 1/2-6	5 1/2-6 1/4	5 1/2-6 1/2+1-2
Wash. D.C.	97 3/4	99	99	99	99	5 1/2-5 3/4	5 1/2-5 3/4	5 3/4-6+1

* Immediate covers loans for delivery up to 3 months, future covers loans for delivery in 3 to 12 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 with respect to design, location and construction.

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

Footnotes: a—no activity. b—limited activity. d—limited 0%. e—limited 5 1/2% available. f—in isolated instances on choice loans. h—depending on % of down payment. j—lower rate for companies with prime credit rating. l—limited 5 1/4%. w—for comparable VA loans also. x—FNMA pays 1/2 point more for loans with 0.1%. y—prices quoted are net after seller pays 1/2% marketing fee and 1/4% adjustment for stock purchase. Seller must pay 1% of mortgage for stock calculated in \$120 units, of which \$20 is contribution to FNMA capital and \$100 is for a share trading at about \$84.

Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, pres., Boston 5¢ Savings Bank; Chicago, Harry N. Gottlieb, vice pres., Draper & Kramer Inc.; Cleveland, David F. O'Neill, vice pres., Jay F. Zook Inc.; Dallas, M. J. Greene, pres., Southern Trust & Mortgage Co.; Denver, Allen Bradley, vice pres., Mortgage Investments Co.; Detroit, Sherwin Vine, vice pres., Citizens Mortgage Co.; Honolulu, H. Howard Stephenson, vice pres., Bank of Hawaii; Houston, Everett Mattson, vice pres., T. J. Bates Co.; Los Angeles, Christian M. Gebhardt, vice pres., Colwell Co.; Miami, Lon Worth Crow Jr., pres., Lon Worth Crow Co.; Newark, William W. Curran, asst. vice pres., Franklin Capital Corp.; New York, John Halperin, J. Halperin & Co.; Oklahoma City, M. F. Haight, 1st vice pres., American Mortgage & Investment Co.; Philadelphia, Robert S. Irving, vice pres., First Pennsylvania Banking & Trust Co.; St. Louis, Sidney L. Aubrey, vice pres., Mercantile Mortgage Co.; San Francisco, Frank W. Cortright, sr. vice pres., Bankers Mortgage Co. of California; Washington, D.C., Hector Hollister, exec. vice pres., Frederick W. Berens Inc.

CONVENTIONAL LOANS (combined averages)

	Nov.	Oct.	Year ago
New homes	5.75	5.75	5.82
Existing homes	5.94	5.91	5.97
Interest charged by various lenders, new homes			
S&Ls	5.85	5.88	5.93
Life ins. cos.	5.47	5.49	5.49
Mortgage companies	5.68	5.69	5.76
Commercial banks	5.62	5.61	5.61
Mut. sav. banks	5.53	5.51	5.55

	Length of loans (Years)		Loan to price %	
	Nov.	Year ago	Nov.	Year ago
S&Ls	24.5	24.2	76.4	75.5
Life ins. cos.	26.6	25.8	70.1	68.7
Mortgage companies	27.3	27.9	73.4	77.7
Commercial banks	19.1	17.3	62.1	60.1
Mut. sav. banks	24.4	23.1	67.7	69.3

Source: Federal Home Loan Bank Board

NET SAVINGS DEPOSIT CHANGES

	% change from		Year to date	% change from 1963
	Nov. '64	Nov. '63		
Mut. sav. banks	\$310	30	3,577	33
S&Ls	845	5	8,867	-4
Commercial banks ..	800	14	13,100	-3

NEW YORK WHOLESALE MARKET

FHA, VA 5 1/4%
 Immediate: 97-98 Futures: 97-98
 FHA, VA 5 1/4 spot loans (On homes of varying age and condition)

Immediate: 97-97 1/2
 Note: prices are net to originating mortgage broker (not necessarily net to builder) and usually include concessions made by servicing agencies. Majority of loans being sold today are spots.
 Prices cover out-of-state loans, reported the week ending Jan. 8 by Thomas P. Coogan, president, Housing Securities Inc.

NEWS continued on p. 33.



WIN!

Insulite Vinyl-Bond Siding for your next model home

25 WINNERS!!! Just select the 5 most important added values of building with Insulite Vinyl-Bond Siding...and rank in order!

HERE'S ALL YOU HAVE TO DO:

Read the 12 added values of building with Insulite Vinyl-Bond Siding. Write the numbers of the top five you select, in order of importance, in the entry blank.

You may enter as often as you wish, but all entries must be postmarked by April 15, 1965.

This contest is open to all builders actively engaged in the home construction field.

All entries will be judged by the Spotts Corporation, St. Paul, Minn. on the basis of how close they come to matching a ranking made by builders who are now using Insulite Vinyl-Bond Siding. In case of ties, a blindfold drawing will determine the winners.

The 25 winners will be notified before May 15. All entries become the property of Insulite and will not be returned.

Employees of the Minnesota and Ontario Paper Company, its advertising agency and the judging agency are not eligible.

Decision of the judges is final. Contest void where prohibited by federal, state or local laws.

CHOOSE FROM THESE ADDED VALUES

1. Insulite Vinyl-Bond Siding has the selling power of a 10 year written guarantee.
2. Choice of the 4 most popular colors in both horizontal lap and vertical panels.
3. Complete exterior wall system—including siding, color-matched caulking, corners and battens—all from *one* source.
4. Home buyers can save \$500, \$1000, even \$1500 over 10 years on paint and labor costs.
5. The factory finish won't check, blister, crack or peel.
6. Saves the cost of on-the-job priming and painting of siding.
7. No waiting for painting weather; factory finish helps keep the job on schedule.
8. *Excellent* dimensional stability, proven with Insulite Primed Siding on more than 500,000 homes.
9. Long lengths, variable laps and "reversability" mean less waste, fewer joints and easier planning of courses.
10. Beautiful alone or combined with other low-maintenance materials like brick and stone.
11. Only 5 common accessories needed for a fast application; fewest accessories of any factory-finished siding on the market.
12. Deep shadow lines and satin finish give this new siding outstanding curb appeal.

INSULITE[®]

VINYL-BOND SIDING



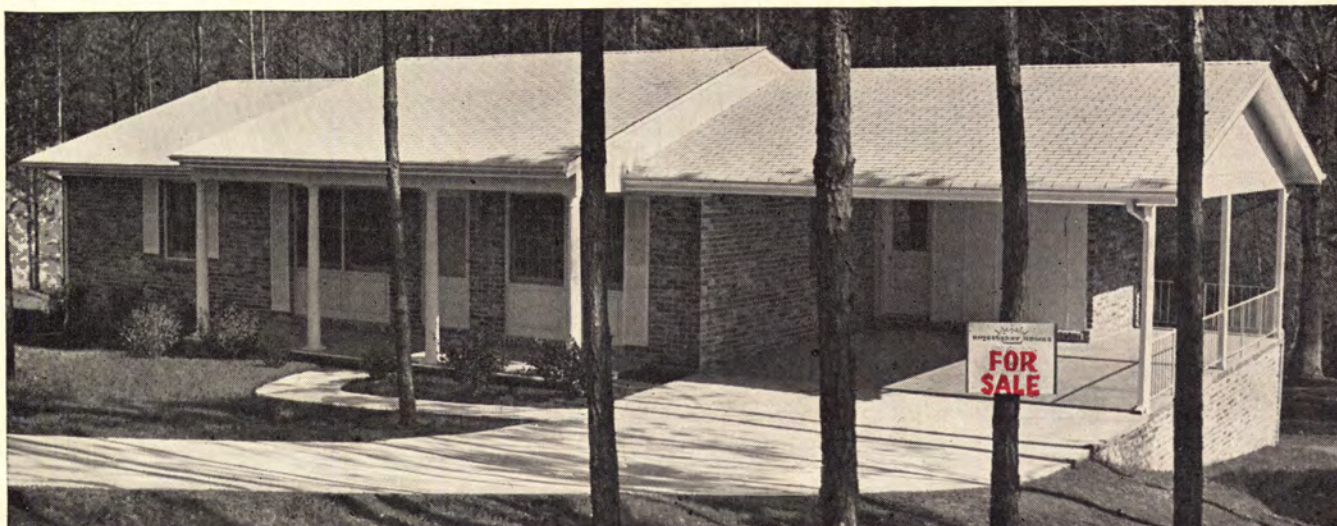
ADVERTISED IN LIFE MAGAZINE

INSULITE DIVISION OF MINNESOTA AND ONTARIO PAPER COMPANY, MINNEAPOLIS 2, MINN.

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Insulite Vinyl-Bond Siding Added Value Contest Judges HH
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___ 1st choice Name _____
___ 2nd choice Title _____
___ 3rd choice Firm _____
___ 4th choice Address _____
___ 5th choice City _____ State _____ Zip _____



The Whitehall. A three-bedroom, 2 bath home that's tailor-made to please—over 1200 square feet of customer appeal. Beautiful styling, unique design, low construction cost. These features—and more—combine to make the Whitehall one of Kingsberry's most popular models. Priced to sell for about \$14,725-15,500—plus lot.

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Kingsberry homes are so popular they almost sell themselves. What they don't do for themselves, Kingsberry's Total Marketing Program *does* for you. This program — the most complete and effective "how-to" plan in the industry — is just one of the many built-in extras available to all Kingsberry builders. In fact, Kingsberry offers *everything* you need to make your building operation a profitable one — planning, cost control, national advertising, financing, sales training, and Kingsberry's famous "2-for-1" co-operative advertising plan. Get started toward more business and bigger profit. Mail the coupon below.

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5096 Peachtree Rd., Chamblee, Ga.
Phone Atlanta: Area Code 404, 457-4301

Jerry Nowak, Vice President—Marketing
Kingsberry Homes Corporation—Dept HH-9—5096 Peachtree Road, Chamblee, Georgia
Yes, I'm interested. Please rush me more information on the Kingsberry Value Story.
I have ☐ lots ready to build on. ☐ I'm interested in construction financing.

Your name _____
Firm name _____
Address _____
City _____ Zone _____ State _____

Six leading land developers net \$46 million from loans and new offerings of stock

Land developers are finding ready support for their projects among current stockholders and commercial banks and insurance companies.

GULF AMERICAN LAND of Miami, largest Florida developer (\$94 million in sales), made three loans totaling \$17 million to complete its year's financing plans. Gulf refinanced an \$8-million loan, repayable in about 40 months, from A. I. C. Financing Corp. of Chicago. Then Gulf borrowed \$8 million, repayable in two years from eight banks, including First National Bank of Boston and Chemical Bank New York Trust Co. Finally it borrowed \$1 million from Prudential Life Insurance for ten years. Gulf says interest on loans varies from 6% to 6½%.

Another Florida developer, ARVIDA CORP. of Boca Raton, went to Aetna Life Insurance Co. for a \$12-million loan, largest of its kind made by Aetna in Florida. Terms: 6% for 15 years. The loan will consolidate outstanding Arvida debt, especially short-term loans, says President Brown L. Whatley. Aetna earlier committed \$4,750,000 for two Arvida condominiums in Boca Raton. Whatley reports \$2,121,000 of apartments sold on firm contract to date.

Near Los Angeles, LAKE ARROWHEAD DEVELOPMENT refinanced its short-term loans with a \$5.2-million package from a bank syndicate headed by City National Bank of Beverly Hills. President Jules Berman calls this a "major milestone" for Lake Arrowhead because it extends present two-year loans to eight and nine years and provides a revolving \$1.5-million

development fund. The company is developing land around a 780-acre lake in the San Bernardino Mountains, 75 miles from Los Angeles. It recently sold more than half of a 389-lot offering in six weeks (at prices from \$5,900 to \$20,000). More than 100 houses costing up to \$75,000 have been built.

A second California developer, MACCO REALTY, raised \$2,866,000 through offering \$1.5 million in debentures and \$1,426,000 in stock. Macco netted 96% of face value from its debentures, offered through 13 underwriters. Macco Corp., owner of 89.6% of company stock, would give up only a small portion of control if all debentures were converted into their maximum of 207,000 common shares. Proceeds will aid Macco Realty's development of the 87,500-acre Vail Ranch in Riverside County and 4,928-acre Bryant Ranch in Orange County.

HORIZON LAND of Albuquerque raised \$1,646,000 with combination stock and debenture offering to current stockholders. Proceeds are for debt repayment and working capital for its projects in Arizona, New Mexico and Texas.

DISC INC. borrowed \$8 million from Prudential Insurance to develop 2,205 acres three miles outside of Washington, D.C. in Prince Georges County, Md.

Stocks steady. A firming stock market lent stability to HOUSE & HOME's 86 housings stocks, whose average of 8.59 was off only 0.3% for the month. Mortgage banking and land development categories gained an average of 2%.

Here are the averages for selected stocks in each housing group:

	Nov. 6	Dec. 1	Jan. 8
Building	5.20	5.03	5.00
Mortgage banking	10.15	9.49	9.68
Prefabrication ..	8.03	7.99	7.80
S&Ls	14.89	14.33	14.16
Land development	5.66	5.57	5.68
AVERAGE	8.91	8.62	8.59

Richards Studios

Ken McLaughlin



SARKOWSKY



DOELGER

Two West Coast builders expand their operations

Builder Herman Sarkowsky's privately owned United Homes Corp. of Seattle has bought one of Portland, Ore.'s largest builders, Douglas Lowell Inc. No price was announced. Lowell has built 3,000 homes in Portland in the past 17 years.

The move consolidates Sarkowsky's Portland operation; since he began operations there three years ago his sales have grossed \$1.5 to \$2 million annually.

Big San Francisco Builder Henry Doelger is planning a 7,000-acre community on the San Mateo coast. Wilsey, Ham and Blair will design 10,000 units for the project, including single family units priced from \$20,000 to \$50,000, and apartments.

Land developers report gains from new marketing methods

GULF AMERICAN LAND CORP., developer of Cape Coral and other Florida projects, increased its sales 35% to \$94.4 million last year, making it tops among land developers. This increase reflects, in part, Gulf American's new "parallel marketing," which, says new President Jack Rosen, is a technique of complementing one sales program with another in a different media.

HORIZON LAND introduced a new direct selling program last year in which hand-picked salesmen sell directly to the "cautious but often more affluent buyer." Result: sales at Horizon's southwest projects increased 32% to \$10.2 million.

Company	Period ending	Revenues (000)	% change	Net (000)	% change
Advance Mortgage	Oct. 31 ^a	\$2,774	10	\$209	-54
Colwell Co.	Sep. 30 ^a	3,650	10	418	22
Community R & D	May 31	5,495	18	(437)	c
First Nat. Realty	Sep. 30 ^a	3,443	34	116	-61
Frouge Corp.	June 30	9,017	-30	(114)	d
Garden Land	Aug. 31	3,760	212	1,651	338
Gould Properties	Sep. 30	2,449	15	97	31
Gulf American	Aug. 31	94,364	35	10,596	62
Harnischfeger	Oct. 31	102,931	20	2,518	92
Horizon Land	May 31	10,242	32	849	b
Lake Arrowhead	Oct. 31	7,198	63	1,458	74
Steel Crest Homes	Aug. 31	3,378	11	301	e
Tishman	Sep. 30	19,218	-4	3,009	-5

^a—six month report. ^b—profit of \$4,865 in 1963. ^c—loss of \$402,499 in 1963. ^d—profit of \$23,975 in 1963. ^e—Company changed accounting to report only income from construction in progress in fiscal 1964. It earned \$410,627 in fiscal 1963 on old accounting basis.

HOUSING'S STOCK PRICES

COMPANY	Dec. 1 Bid/Close	Jan. 8 Bid/Close	COMPANY	Dec. 1 Bid/Close	Jan. 8 Bid/Close	COMPANY	Dec. 1 Bid/Close	Jan. 8 Bid/Close
BUILDING			BUILDING			LAND DEVELOPMENT		
Adler-Built Inc.	20¢	25¢	Jim Walter ^c	24 3/8	23 3/4	All-State Prop. ^b	1 1/8	1 1/8
Capital Bld. Ind.	80¢	85¢	S&Ls			• American Land	1 1/4	1 1/8
Cons Bldg. (Can.)	8	6 7/8	American Fin.	15	14 1/2	Am. Rlty. & Pet. ^b	2	2 1/2
• Dev. Corp. Amer.	1 3/4	2 1/8	Brentwood	7 7/8	7 3/4	Arvida	5 1/8	6 1/2
Dover Const.	3 1/2	3	Calif. Fin. ^c	5 3/4	5 1/8	Atlantic Imp.	14	15 1/4
Edwards Eng.	4 3/8	4 3/4	• Columbia	8 1/2	7 1/2	Canaveral Intl. ^b	3 1/8	3 3/8
Edwards Inds.	3 1/4	3 1/4	Empire Fin.	12 1/2	12 1/4	Christiana O. ^b	5 3/4	5 3/8
Eichler Homes ^b	5 1/2	5 1/8	Equitable S&L	22 3/4	21 3/4	Coral Ridge Prop.	1 1/8	1 3/4
First Nat. Rlty. ^b	2 1/2	5/8	Far West Fin. ^c	17 1/4	16 1/2	Cousins Props.	16	16 1/2
• Frouge	4	5	Fin. Fed. ^c	35	35 1/4	Crawford	3 1/2	2 5/8
General Bldrs. ^b	2 d	2 d	First Char. Fin. ^c	24 3/8	22 3/4	Deltana Corp. ^b	10 1/2	10 1/8
Hawaiian Pac.	6	6 1/4	First Fin. West.	8	7 3/8	• Disc Inc.	*	3 1/8
Kavanagh-Smith	3 1/8	3	First Lincoln Fin.	21 1/2	24 7/8	Fla. Palm-Aire	2	2
Kauffman & Bd. ^b	16 3/4	17 5/8	First Surety	7 1/4	6 3/8	Forest City Ent. ^b	5 3/8	5 3/8
Lou Lesser Ent. ^b	5 1/8 d	5 3/8	First West Fin. ^c	11 1/2	11 1/2	Garden Land	5 7/8	5 3/4
Levitt ^b	6 3/8 d	6 3/4	Gibraltar Fin. ^c	26 1/8	27 1/8	Gen. Devel ^b	4 1/4	4 3/8
Lusk	2 1/4	2 5/8	Great West. Fin. ^c	11 1/8	11	Gulf American ^b	5 3/8	5 3/4
Pac. Coast Prop. ^b	8 7/8	9 1/4	Hawthorne Fin.	8 3/8	8 1/4	Holly Corp. ^b	7 1/8	13 1/16
Pres. Real. A. ^b	7 7/8	7 7/8	Lytton Fin.	14 7/8	13 1/8	Horizon Land	17 1/8	23 9/16 d
U.S. Home & Dev.	7 1/8	3/4	Midwestern Fin. ^b	3 1/2	3 3/8	Laguna Nig. A. ^b	9 3/4	9 1/2
Del. E. Webb ^c	6 1/2	7	San Diego Imp. ^c	8 3/8	7 7/8	• Laguna Nig. B. ^b	5 3/8	5
Webb & Knapp ^b	3/4	3/8 d	Trans-Cst. Inv.	9 1/2	8 3/4	Lake Arrowhead	8 3/4	8 3/8
PREFABRICATION			Trans Wrld. Fin. ^c	13 3/4	13	Macco Rlty.	6 7/8	6 3/8
Admiral Homes	1	1	Union Fin.	9 3/4	8 1/2	• Major Rlty.	14¢	13¢
Albee Homes	2 3/4	2 7/8 d	United Fin. Cal. ^c	14 3/4	14	• McCulloch Oil ^b	8	9 1/8
Gt. Lakes Homes	2 1/2	3	Wesco Fin. ^c	24	24 1/2	So. Rlty. & Util. ^b	1 1/4	1 1/4 d
Harnischfeger ^b	30	28 1/2	MORTGAGE BANKING			Sunset Int. Pet. ^b	8	7 7/8
Hilco Homes	3 1/8	5/8	Advance	8 1/4	7 1/8	a—stock newly added to table. b—closing price ASE. c—closing price NYSE. d—not traded on date quoted. g—closing price MSE. h—closing price PCSE. —not included in averages.		
Inland Homes ^b	7 3/8 d	7 d	Associated Mtg.	7 3/8	7	Sources: New York Hanseatic Corp., Caidner & Co., National Assn. of Securities Dealers, American Stock Exchange, New York Stock Exchange, Midwest Stock Exchange, Pacific Coast Stock Exchange. Listings include only companies which derive a major part of their income from housing activity and are actively traded.		
Madway Mainline	10	9	Charter	7 1/8	1 1/4			
Modern Homes	3 7/8	3 7/8	Colwell	13	12 3/4			
Natl. Homes A. ^b	2 7/8	3 3/8	Cont. Mtg. Inv.	20 1/8	21			
Richmond Homes	3 3/4	3	• FNMA	82 1/2	86 3/4			
• Scholtz Homes	2 3/4	2 1/4	First Mtg. Inv.	14 1/2	14 1/8			
• Seaboard Homes	3¢	1 1/16	• Kissell Mtg. ^b	8	6 1/2			
Steel Crest Homes ^b	12 3/4	13	MGIC	22 1/2	23 1/2			
Swift Homes	2 1/4	2 1/8	Palomar	1 1/2	1 1/2			
• Western Shell	9¢	10¢	• Southeast Mtg. Inv.	10 1/2	10 5/8			
			United Imp. & Inv. ^b	3 7/8	4 5/8			
			Wallace Invests	2 7/8	3 7/8			

Builder quits public housing agency to oppose its high-rise apartments

Builder **Ray C. Hallberg** has resigned from the Housing Authority of Portland, Ore., and is going into court to fight its plans for high-rise public housing for the aged.

He acted after a year of conflict with six other commissioners and Executive Secretary **Gene Rossman**. Hallberg does not attack the philosophy of public housing but argues that the Portland authority can better serve more needy people by building low-rise units on cheaper land. He has also called the authority "high-handed, secretive and arrogant" in conducting business without his knowledge. He told Mayor **Terry D. Schrunk** he could not discharge his duties "under this kind of bitter controversy."

After quitting, Hallberg, a member of the Portland Home Builders Assn., sued to forestall the authority's purchase of a \$290,000 site for 300 apartments in northwest Portland and to bar any purchases pending a court test of Oregon's public housing law. The city council had approved the northwest site for a high-rise apartment.

Earlier objections by Hallberg had balked the authority's purchase of another area, known as the Ice Arena site because it had been occupied by a skating rink. The option price was \$324,000, and Rossman had said high-rise construction would cost \$12,355 a unit, or \$1,500 more than the median value of all private homes in Portland. Hallberg forced a reappraisal that trimmed \$100,000 from the option price. Then the purchase collapsed.

Hallberg was supported by the Portland Home Builders Assn., Board of Realtors, Junior Chamber and the Oregon Apartment House Assn. The housing authority's attorney, **Verne Dusenbery**, acknowledged during the



PORTLAND'S HALLBERG
Are high-rise costs too high?

dispute that the other commissioners had purposely left Hallberg out of their deliberations because "he would turn on his publicity machine."

Hallberg, 47, heads Hallberg Homes Inc. and builds 150 subdivision houses a year in the \$12,500-to-\$18,000 range. His Bay-Roc apartments won an FHA award last year.

His concern over high-rise public housing is echoing across the country. The Chicago Housing Authority ordered a staff study of towers after the Very Rev. Msgr. **John J. Egan**, director of urban affairs of the Chicago archdiocese and a national figure in public housing, protested the effects of "elevator culture" on tenant families. And New York's City Housing Authority is experimenting with its first one-story public housing. Eight buildings with 144 apartments for the aged are under construction on Staten Island at a cost of \$2,770,000 (or \$19,500 a unit).



BUILDER OF YEAR honors were heaped on Builder Don N. Schneider of Fullerton, Calif., by the Building Contractors Association of California. Schneider has built 4,000 homes since 1946 and still found time for a host of other activities, including the presidency of the Home Builders Council of California, legislative arm of the state's homebuilding and light construction industry, and membership on the Contractors' State License Board.

Top NAHB lobbyists switch assignments

Joseph McGrath, NAHB's governmental affairs director and a staffer since 1952, is leaving to head Action Inc.'s new local development service, which is financed by a \$575,000 Ford Foundation grant.

A former Justice Dept. attorney, McGrath will help local businessmen set up local development funds and advise nonprofit groups like churches and unions on sponsoring housing projects.

McGrath's chief aide on Capitol Hill matters, Legislative Director **Henry Shine**, shifts to Housing Center director, NAHB's chief contact with manufacturers. No successors have been named.

RETIRING: **Melvin H. Baker**, 79, chairman of National Gypsum Co., Buffalo, since 1952. **Colon H. Brown**, 54, succeeds Baker.

At FHA, **Carlos W. Starr**, head of operations, and **Lemuel Showell**, property disposition chief, are the first to leave as many agency brass round out 30 years.

Omaha mayor indicted in zone bribe

Mayor **James Dworak** of Omaha and three other past or present city officials have been indicted on charges of seeking bribes from a would-be townhouse builder.

Also indicted: Councilmen **Stephen Novak** and **Ernest Adams** and former Planning Commissioner **C. R. (Barney) Buttner** and Contractor **Ronald Abboud**.

The Douglas County grand jury returned indictments after Builder **John T. Coleman** of Chicago charged, in *The Omaha World-Herald* and to law officers, that Mayor Dworak agreed to accept a \$25,000 campaign contribution and then promised not to veto rezoning for Coleman's proposed \$1-million Omaha townhouses.

"As my efforts to obtain the necessary rezoning proceeded, I began to get feelers for payoffs from local government officials," Coleman was quoted.

Coleman said Buttner was to get \$10,000 out of Abboud's \$100,000 contracting fee. He also said he wrote checks of \$5,000 and \$2,000 to Abboud, who, Coleman claimed, later wrote checks in the same amounts to the two councilmen.

CATCHING UP: A U.S. court in Oklahoma City has fined five homebuilders who pleaded guilty to making false statements on loan applications (NEWS, Dec. '63). They are **Melvin Earl Hatley**, fined \$8,000; **Benny L.**

Harry Held, 64, a housing advisor to both President **Kennedy** and New York Gov. **Rockefeller**, retires as senior vice president of the Bowery Savings Bank, New York City.

ASSOCIATIONS: **John F. Stewart** has been elected president of the National Oak Flooring Manufacturers Assn. He is president of Stewart-McElrath Oak Flooring Co. in Macon, Ga.

Dallas mortgage bank promotes two officers

One of mortgage banking's elder statesmen has left the presidency of Southern Trust and Mortgage in Dallas.

At 68 **Aubrey M. Costa** eases into the chairman's seat with the company he founded in 1924. He developed Southern Trust into the nation's 23rd largest mortgage banking operation, with 130 employees and \$325 million in servicing. Costa is a past president of the Mortgage Bankers Assn.

Senior Vice President **M. J. Greene** becomes president and chief executive of Southern Trust.

Nall, \$4,000; **Jesse William Mashburn**, \$2,250; **Howard L. Coleman**, \$6,000 and **Bill Wayne Slater**, \$1,500. Four other men, indicted on the same charges, await sentencing or trial.

Two California savings and loan officials must serve 60 days in jail after pleading no contest to charges stemming from an exchange of loans totaling \$1,625,000 (NEWS, Jan. '64). **Jefferson Beaver**, 54, a civic leader who founded Trans-Bay Federal S&L to lend to Negro homebuyers in San Francisco, and former President **Carl K. Shaw** of General S&L in Sacramento were ordered to stay out of the S&L business for three years.

A U.S. court in Chicago has convicted **Howard B. Quinn**, former chairman of the defunct Beverly S&L, of misapplying \$648,000 of the association's funds. The Beverly was liquidated by the Illinois Department of Financial Institutions (NEWS, Nov. '63).

Three former executives have been fined \$15,000 each and sentenced to five years in prison for their parts in misapplying \$250,000 in funds of Chicago's Concord S&L, which was seized by the state along with Beverly. They are former President **Ralph T. Hickey** and **Frank J. Graves** and his son **James**.

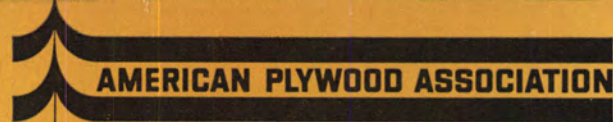
On the heels of the convictions a tenth Illinois S&L—\$112-million Marshall—was seized by the state.

Urban Land Institute picks youngest leader

Robert T. Nahas, just turned 42, is the youngest man ever elevated to the presidency of the 28-year-old national planning and development group. An Oakland, Calif., resident, he succeeds another Bay Area man, **Maurice G. Read** of Berkeley, who becomes National Association of Real Estate Boards president.

Nahas has developed several apartment-shopping center complexes in northern California and chaired a land development committee which began land planning in southern Alameda County.

Another nine-page report to builders from

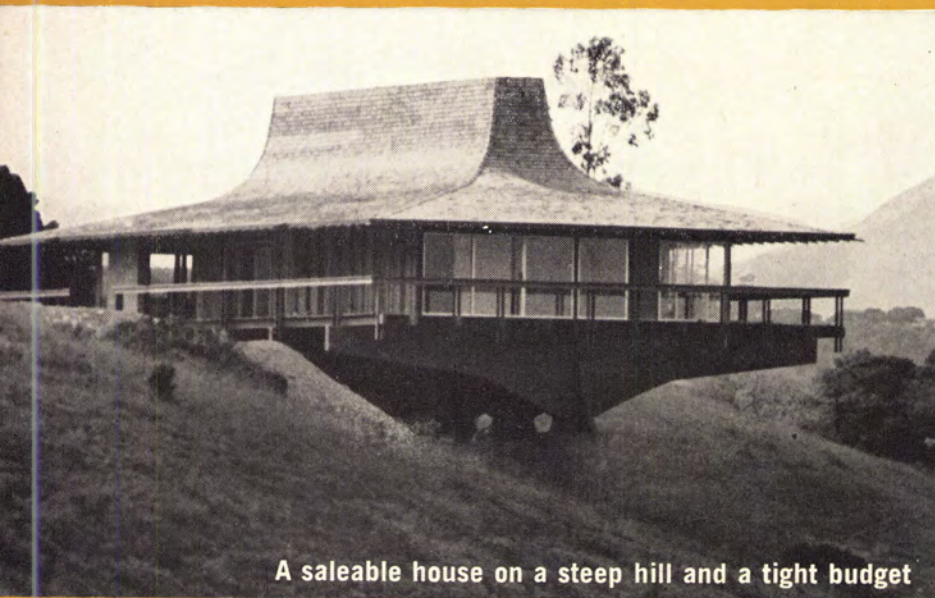


AMERICAN PLYWOOD ASSOCIATION

The new name for Douglas Fir Plywood Association.
Quality-tested by the Division For Product Approval.



FOUR MORE BUILDING PROBLEMS SOLVED WITH PLYWOOD



A saleable house on a steep hill and a tight budget



Quality compacts at a profit



Keeping big operations on schedule



A house to build in bad weather

A house designed for midwinter construction



NAHB 1963 EXPERIMENTAL HOUSE

BUILDER:	W. Evans Buchanan
DESIGNED BY:	NAHB Research Institute
LOCATION:	Rockville, Maryland
SPONSOR:	National Association of Home Builders

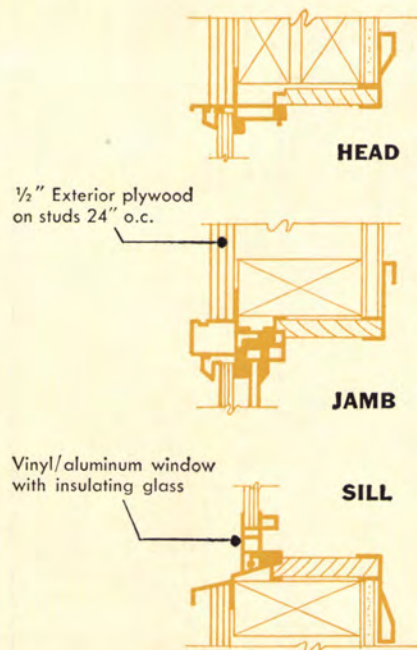
NAHB's 5th research house was deliberately planned for wintertime construction. It demonstrates new materials and methods that let you keep building right through the worst weather, and keep your labor costs to the bare minimum. Sidewalls and roof are Exterior plywood, presurfaced with tough plastic film. (Du Pont's Tedlar on walls, Hypalon on roof.) The plywood came through rain, snow and rough treatment during construction without a mark — and needed absolutely no painting or finishing at the site.

The use of plywood in this house is important to builders for a number of other reasons. You build with big compo-

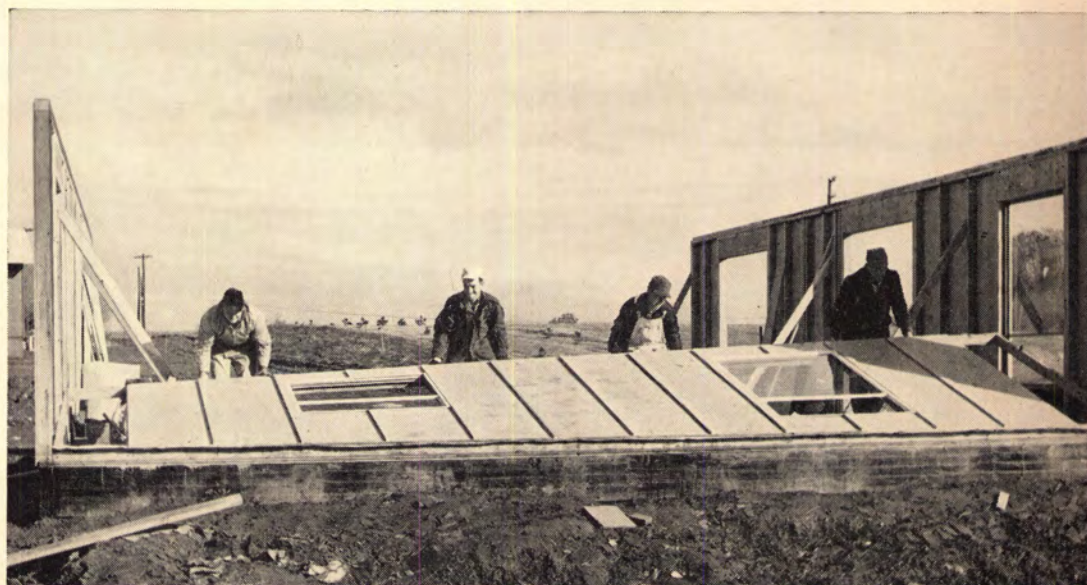
nents — so you close the house in quickly. You use materials that combine plywood's traditional strength with the durable protection of factory-applied plastic surfaces — so they do two jobs at once. One thickness of Tedlar/plywood serves as siding as well as sheathing; Hypalon/plywood provides roof sheathing and finish roofing, all in one step. Finally, you can offer home buyers a better break on maintenance. Du Pont predicts that Tedlar-coated plywood won't need painting for 15 years — maybe 25. For information on these and other new presurfaced plywood products, write American Plywood Association, Tacoma, Wash., 98401.



SECTION (exterior wall)



High-speed roof system uses 2 x 10-ft. Bermuda shingles made of Hypalon-surfaced plywood. It took four men six hours to install, starting at eaves with concealed nailing and folding up successive courses of the shingles. Hypalon film acts as a continuous hinge at interlocking horizontal joints.



To make the 28-ft. tilt-up wall sections, 1/2" Exterior plywood, presurfaced with Tedlar, was fastened to studs on 24" centers, then battens were blind-nailed to cover stud nails. Battens, window casings, trim and plywood soffits are also Tedlar-surfaced.

(continued)

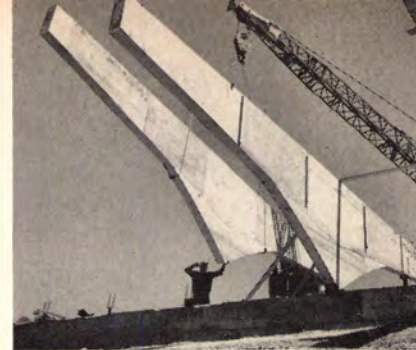
☑ ANOTHER BUILDING PROBLEM SOLVED WITH DFPA PLYWOOD



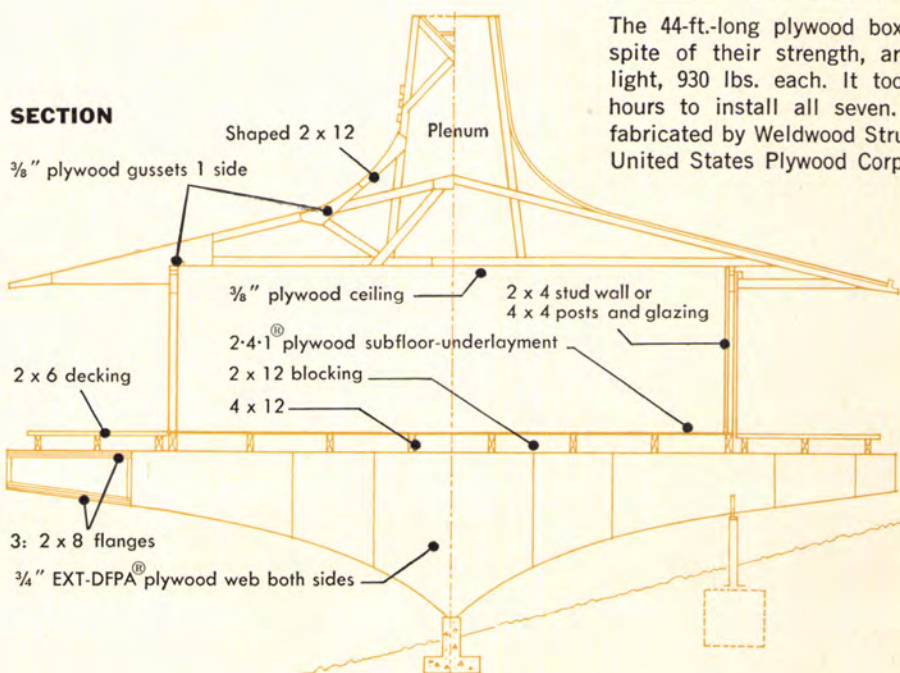
"HANGING GARDENS" HOUSE

BUILDER:	Twentieth Century Homes
ARCHITECT:	R. R. Zahm, A.I.A.
LOCATION:	Marin County, California
SPONSORS:	American Plywood Association West Coast Lumbermen's Association

This house had to be built with plywood



The 44-ft.-long plywood box beams, in spite of their strength, are relatively light, 930 lbs. each. It took only two hours to install all seven. They were fabricated by Weldwood Structures Div., United States Plywood Corporation.



Key to the low cost is the single footing wall and the seven plywood box beams, which bear the entire vertical load. Beams are bolted to the foundation wall through steel bearing plates and stabilized by pipe columns connected to concrete pads near the uphill end. The house itself is simply a plywood-and-glass box built on a platform. The superstructure is held rigidly together by the diaphragm strength of plywood shear walls, floor and ceiling.



Curved plywood soffits conceal pipes, wiring and insulation under the floor. Pre-painted panels of 1/4" EXT-DFPA plywood were sprung between 4x12 framing. This is an easy way to conceal the clutter under a hillside house. The heating and cooling system are also out of sight, in the attic plenum.

A steep site and a tight budget: this combination creates some of the toughest problems a builder can face. Here's a house in Marin County, California, that solves them all with one simple structural concept.

Seven plywood box beams, resting on a single reinforced concrete foundation wall, support a platform on which the house is built just as though it were on a level lot. Site preparation, usually extremely expensive in hillside construction, was less than \$100. The whole substructure came to only \$2.33 per sq. ft. This took care of everything up to and including the floor platform: foundations, box beams,

purlins, plumbing, wiring, insulation, soffits, the 28x72-ft. plywood floor and the 7-ft.-wide perimeter redwood deck.

Twentieth Century Homes of San Rafael built the house on speculation and sold it for \$65,000. It was designed to demonstrate a practical solution to hillside construction problems, and was so successful that the architect, R. R. Zahm, is planning 17 medium-priced homes with the same support system. It could be adapted to build on almost any grade at costs comparable to those for level lots. For more information on plywood box beams and components, write American Plywood Association, Tacoma, Wash., 98401.

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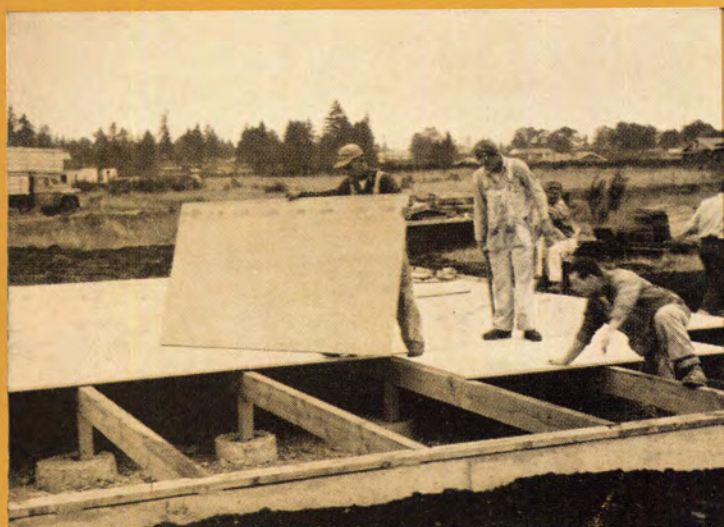
Big builders use plywood to keep on schedule

Mayer/Peterson makes money by building good houses fast. They can go from foundation to closed-in house in less than a day because they build with big plywood parts.

"We just don't have time for archaic methods—putting thousands of small pieces together at the site," says Curt Peterson. So they use plywood and components, keep on-site labor to a minimum and stick to their schedules. "We can build so quickly that the buyer moves in before we get the bill from the supplier," says partner Kurt Mayer. "Very little of our capital is tied up, and overhead is cut to the bone." They buy the whole house as a package, so

ordering, delivery and accounting are greatly simplified.

Mayer/Peterson built ten homes in Parkland, Washington in 1959. They'll build about 200 this year. In general they still use the system they started with. For example, wall components are of two standard types: four-ft. pre-framed sections with plywood sheathing on studs, to which siding is applied at the site; or entire wall sections with sheathing and siding. A typical time-saver, worth about two man-hours per house: they apply PlyScord® sheathing without precutting to fit at roof edges, then cut at eave-line. The pictures below show how they build a house in a day.



1. Foundation was poured the day before. Plywood floor on this model is 2•4•1, the 1½-in.-thick combination subfloor-underlayment, with supports on 4-ft. centers.



2. The rest of the parts come just as the floor is completed. Buying is simplified because plywood sheathing, wall panels, flooring, trusses and even interior partitions all come from the same supplier.



4. By 10:30 (2½ hours after the start of work) the crew is ready to lift prefabbed gable ends into position. Almost at the same time, they begin installing trusses which are waiting inside on the floor.



5. PlyScord roof sheathing is stacked alongside the house so the crew can reach it easily. Mayer/Peterson have never used anything but plywood for roof decking on their houses.



Most Mayer/Peterson houses are between \$10,000 and \$17,000 and are in medium-sized developments like this, a group of 17 near Lakewood, Washington. Most of these were sold before completion. All houses use plywood component systems, but vary widely in siding and architectural styles ranging from ranch to colonial (below).



3. Wall components for this M/P model have plywood sheathing on studs; siding will be applied later. Components are stacked on the floor platform near where they'll be used.



6. As soon as roof sheathing is on, the house is enclosed and doors can be hung. Interior work—which uses as many prefinished parts and materials as possible—can start any time. It's 1:30.



FOREST HEIGHTS AND MONT VISTA

BUILDER: Mayer/Peterson
 ARCHITECT: L. S. Higgins, A.I.A. & Associates
 LOCATION: Pierce County, Washington



"FANTASTIC" HOMES

BUILDER: Ron Mitchell Corp.
ARCHITECT: Mary Lund Davis, A.I.A.
LOCATION: Tacoma, Washington

Plywood is your key to profits in compacts

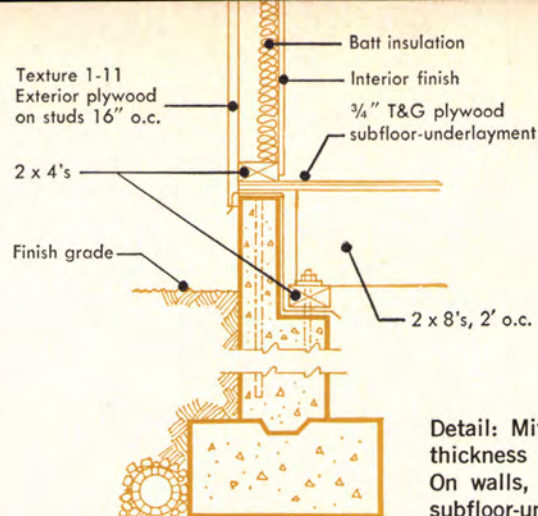
Ron Mitchell of Tacoma, Washington, builds compacts at a profit by keeping costs down and quality up — with plywood construction. He has no trouble selling them because he gives the buyer what he wants.

"Low-cost housing does not have to look cheap or small," says Mitchell. All his homes are architect-designed, and have clean, simple lines and attractive siding treatments. He uses a variety of plywood sidings, including the new rough-sawn plywood seen on the contemporary house above, a national award-winner for design. Mitchell's construction methods are geared to use of components which

he fabricates in his own plant. He uses as many other time-saving plywood techniques as he can (see details at right).

Currently, he sells about a home a day. Sizes of compacts range from 800 to 1,100 sq. ft., prices from \$6,250 to \$9,450 on buyer's lot. Mitchell also builds larger homes from 2,500 sq. ft. on up, at prices from \$10,000-\$20,000.

With the National Plan Service, the American Plywood Association has developed seven compact home plans, which are available to builders. (This does not include the "Fantastic" home above.) For more information, write American Plywood Association, Tacoma, Washington 98401.



Detail: Mitchell cuts costs by using one thickness of plywood for two purposes. On walls, it's siding-sheathing; on floors, subfloor-underlayment.



Wall sections are prebuilt in Mitchell's own plant, to save on-site labor. He uses timesaving equipment such as power nailers to fasten plywood to studs. Walls of this house are Texture 1-11® plywood,

except for panels over and under windows. These are smooth plastic-overlaid plywood for contrast. Floors in most houses are T&G plywood, either 3/4" or 1 1/8" (2·4·1)®, combining subfloor-underlayment.



It takes about four man-hours to apply plywood roof sheathing to one of Mitchell's compacts. The house on this page, a little larger than the one at left, has 1,008 sq. ft and sells for about \$70 a month on buyer's lot. It's called the "Holly" and was designed by Robert Bruce Waring of the American Plywood Association.

American Plywood Association is the new name for Douglas Fir Plywood Association

The new name reflects our members' growth and progress. Instead of making plywood only from Douglas fir, and only on the West Coast, the industry now makes a wide range of plywood products from some 20 different species of wood — and in plants in many parts of the country.

Although the name is new, you can still specify DFPA plywood. These familiar letters in our grade trademarks still mean quality in plywood certified by the association. But instead of Douglas Fir Plywood Association, they now stand for Division For Product Approval. For more information or technical data on plywood, write: American Plywood Association, Tacoma, Washington 98401.

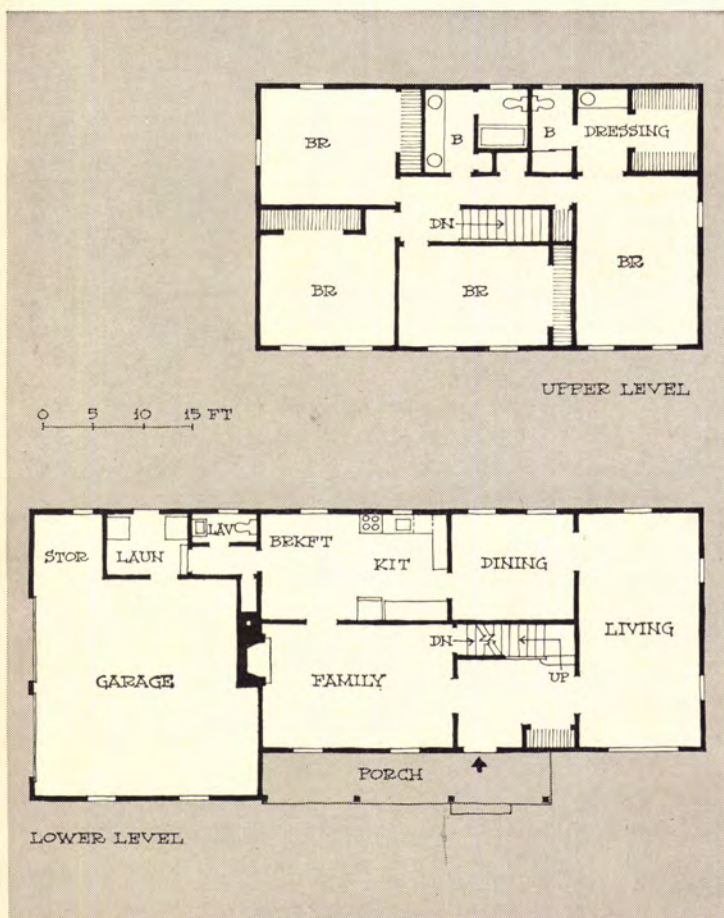


The new name for Douglas Fir Plywood Association. Quality-tested by the Division For Product Approval.

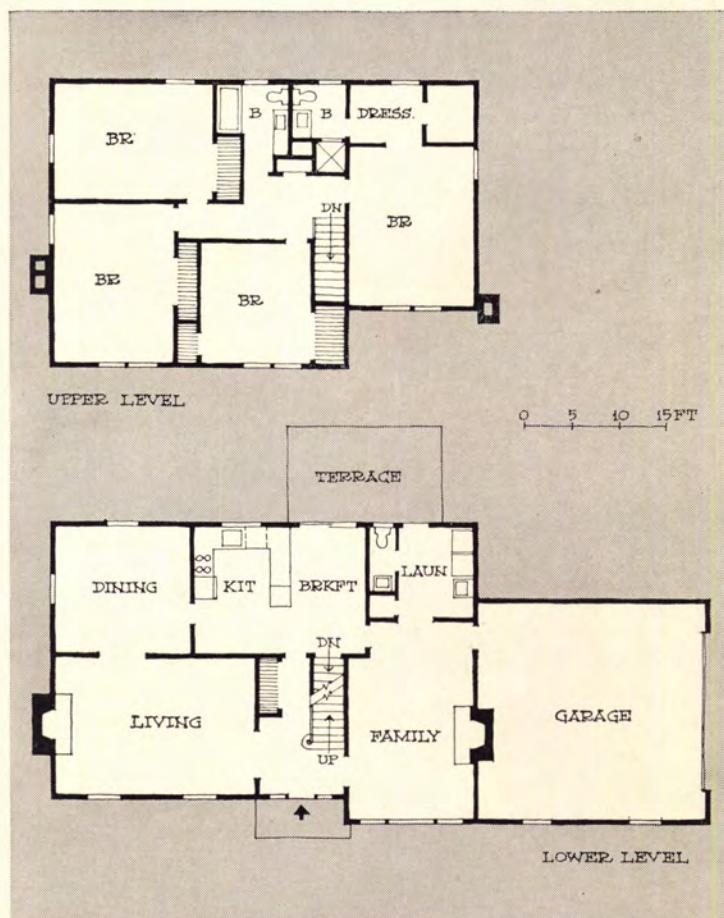


WHAT THE LEADERS ARE BUILDING

Lubitch & Bungarz



MERCHANT-BUILT COLONIAL has 2,335 sq. ft., sold for \$27,000 to \$32,000 in three New Brunswick, N.J., communities.



CUSTOM-BUILT COLONIAL has 2,300 sq. ft. of living space and sold for \$43,900 in a Wilmington, Del., community of 75 homes.

These two Colonials improve on traditional two-story plan

And while the variations are relatively minor, they make possible traditionally simple Colonial exteriors with the kind of interior planning today's buyers want.

Center halls divide the formal living areas from the informal family areas because the dining rooms have been moved from their customary front location and replaced by family rooms. And there is space for big master bathrooms with dressing areas because

upstairs hall space is held to a minimum. Upstairs baths are back to back, and all plumbing is on the rear walls.

In the plan at left the builders, Atlantic Seaboard Home & Development Corp., have pushed into the oversize garage for extra laundry, lavatory and storage space and for access to the rear lot. By placing the stairway lengthwise, they have opened up space for a fourth bedroom.

Since June the builders have sold 73 houses from this model.

In the slightly larger plan at right, Designer Warren Lewis has created space for a workable kitchen arrangement at the rear by turning the living room sideways. And he has put a closed laundry-utility room directly off the family room with access to the rear lot and the garage. This custom house was built by William P. Johnson & Sons.

Leaders continued on p. 46

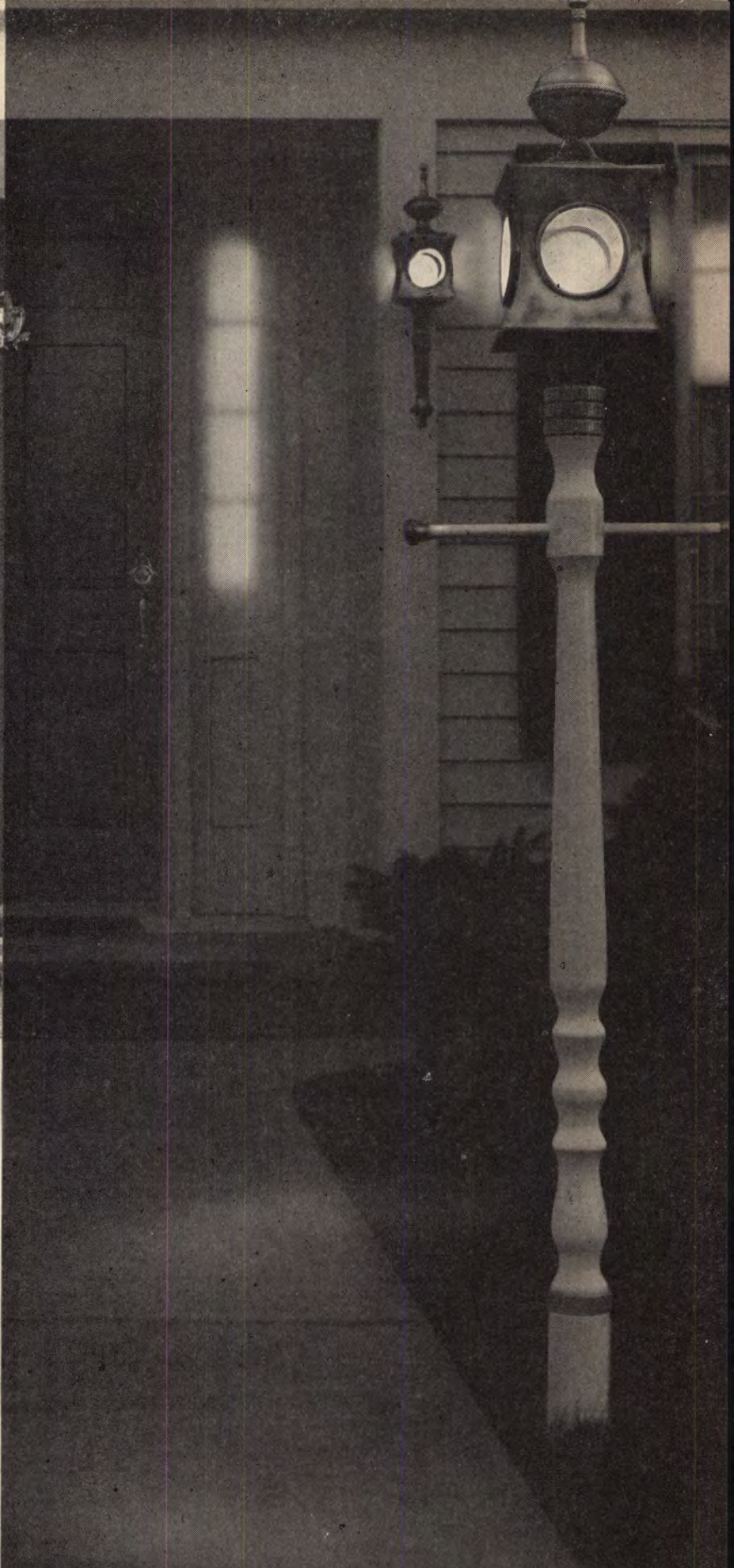


Artolier Lighting

Your most effective sales aid by day

Begin your selling at the front door with quality lanterns. Nationally advertised Artolier lighting instills customer confidence instantly and pre-sells for you round-the-clock.

Want to see more effective sales aids? Visit your Artolier distributor...you'll be sold too! For complete "Artolier



Artolier Lighting

Your most effective sales aid by night

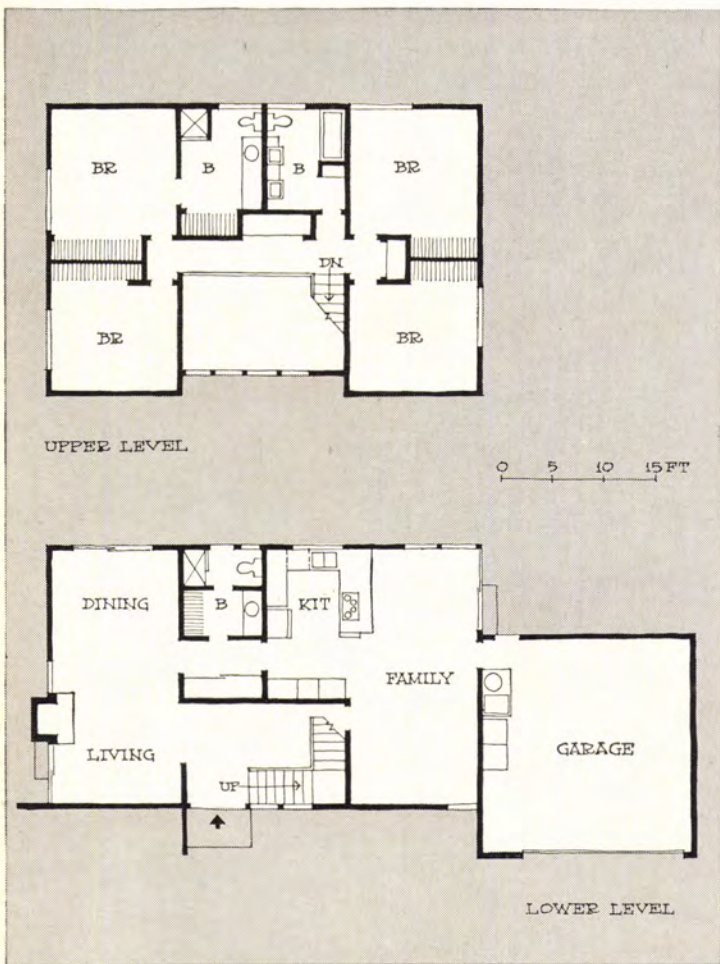
Begin your selling at the front door with quality lanterns. Nationally advertised Artolier lighting instills customer confidence instantly and pre-sells for you night and day.

Want to see more effective sales aids? Visit your Artolier distributor...you'll be sold too! For complete "Artolier

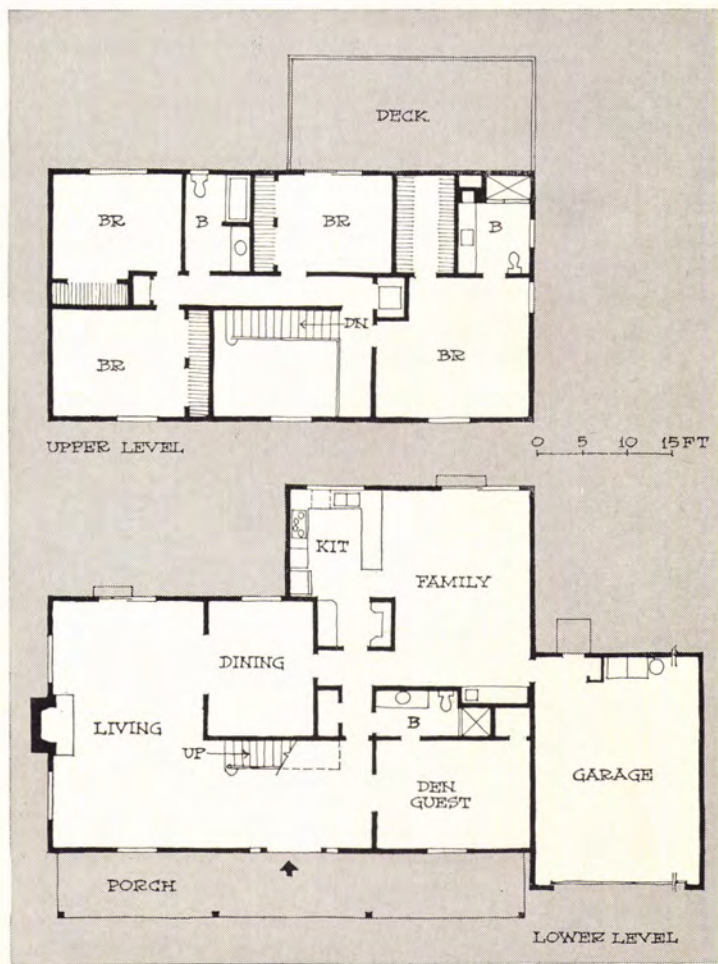
WHAT THE LEADERS ARE BUILDING

starts on p. 44

Rene Laursen



\$35,000 CONTEMPORARY has 2,000 sq. ft. of living space. Builder Leo J. Shanahan made six sales from this model in Tustin, Calif.



\$49,250 CONTEMPORARY has 2,900 sq. ft. of living area. Twenty-two houses have been sold from this Chatsworth, Calif., model by Harlan Lee.

These two contemporaries adapt the two-story plan to open living

Both break away from the traditional Colonial plan in several ways:

Center halls, entered through double doors, are impressive two-story entrance foyers with galleries on the second floor. Although formal living areas and informal family areas are separated from each other, the areas themselves are open: in both houses, living and dining rooms and entries are virtually one big room; family rooms are separated from kitchen

only by dining counters, and they have access to outdoor living areas and garages. Laundries in the oversize garages also have direct access to the rear yards.

In the plan at left, the first floor bath is divided into a dressing/powder room for guests and a bath with shower and outside door for daytime use by children. Bedrooms are buffered from one another by back-to-back closet walls, and the two in the front of the house

gain extra space from the second-floor overhang.

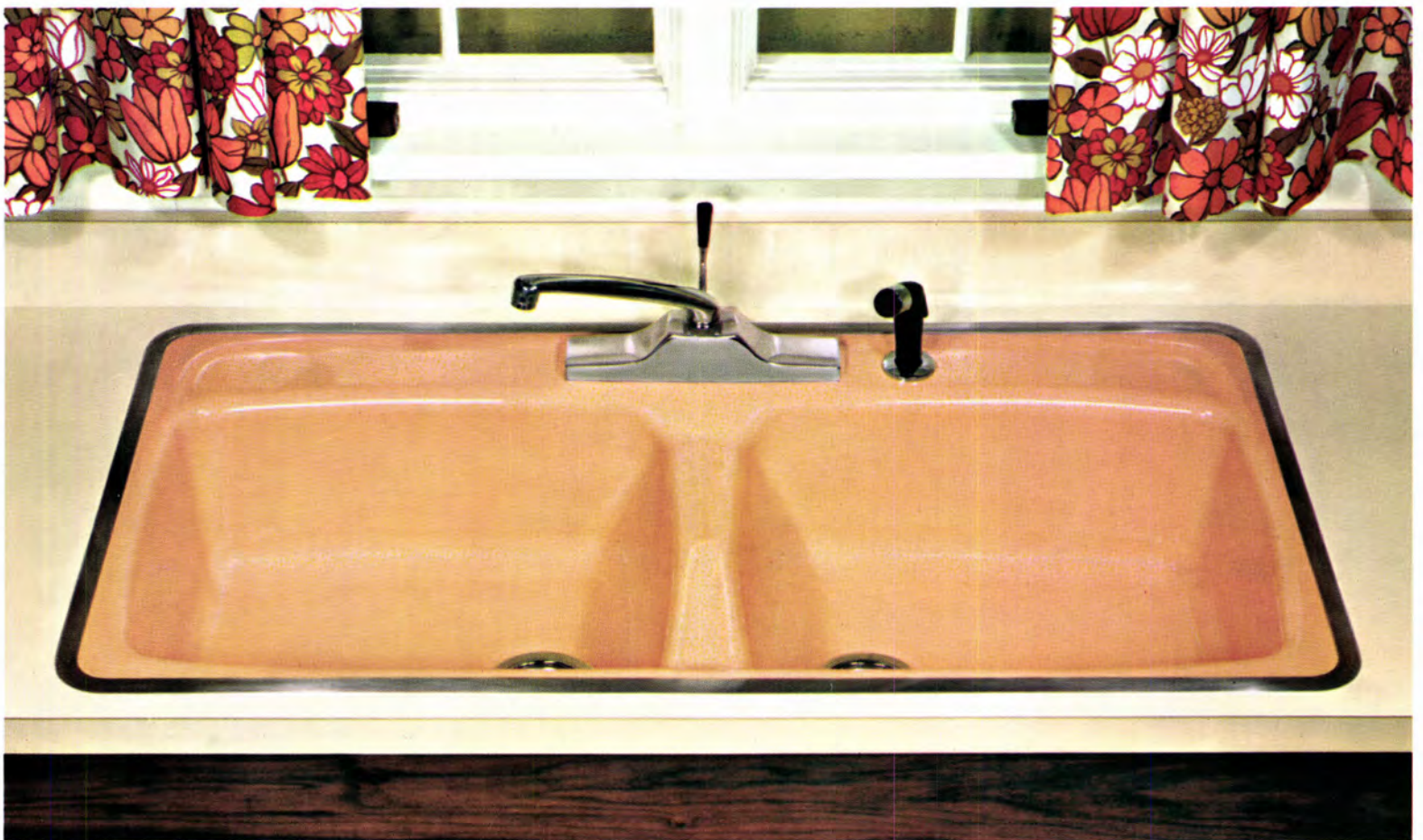
The plan at right includes a den (or guest bedroom) on the first floor, isolated from family-room noise by a walk-in closet and by its own bath, which can also be entered from hallway. Other features include an oversize closet in the master bedroom suite, a sun deck off the second bedroom, and a pantry between the kitchen and dining room.

Letters start on p. 54

And now American-Standard brings you

Gourmet Melon^{*} —a color to feast your eyes on

It's the richest, boldest new kitchen sink color
—lifetime-color-fused to lifetime cast iron. The hardest-
wearing sinks, the easiest sinks to clean are now
also the most beautiful. And the price is right!



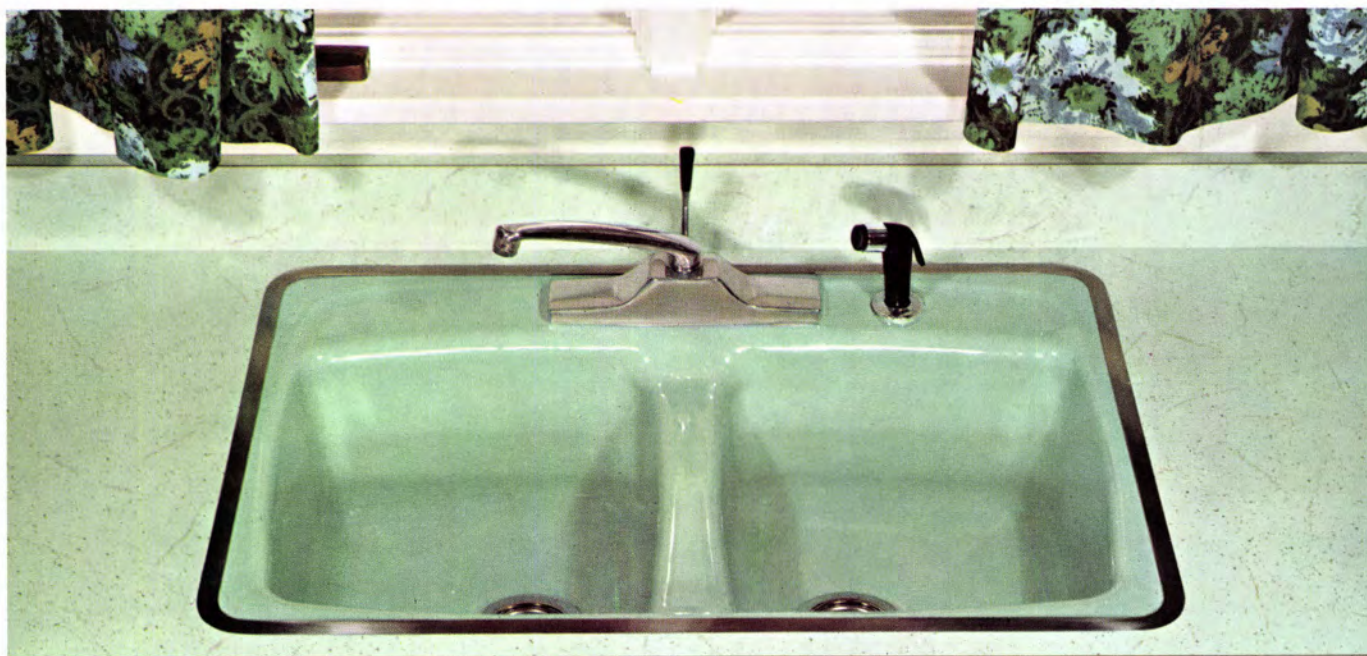
Gourmet Melon—in all the world there's no color like it! Only American-Standard has it. Most women can't resist it, especially in a setting of natural wood tones. But for those who may, there are six other lovely colors and white in this all-new collection. All in acid-resisting enamel, fused to durable cast iron for good looks that last and last and last.

*TRADEMARKS ARSS CORP.

**Why color...why cast iron?
Turn the page for the convincing answers!**

Let's turn on the color in the sink! The kitchen is where you close a lot of your sales. And the sink is where the housewife spends about 70% of her kitchen time. Now you can put new and exciting colors in the heart of the kitchen. These new American-Standard Custom-Line* sinks cost you only a trifle more than conventional sinks that prospects pass by without a second look.

The quality is for keeps! These cast iron sinks are chip-resistant, dent-proof and *quiet*. And with disposers, these sinks will not vibrate noisily like thin, stamped metals. Cast iron also makes possible the extra-thick coat of fused-on enamel that defies acids, scouring and pitting.



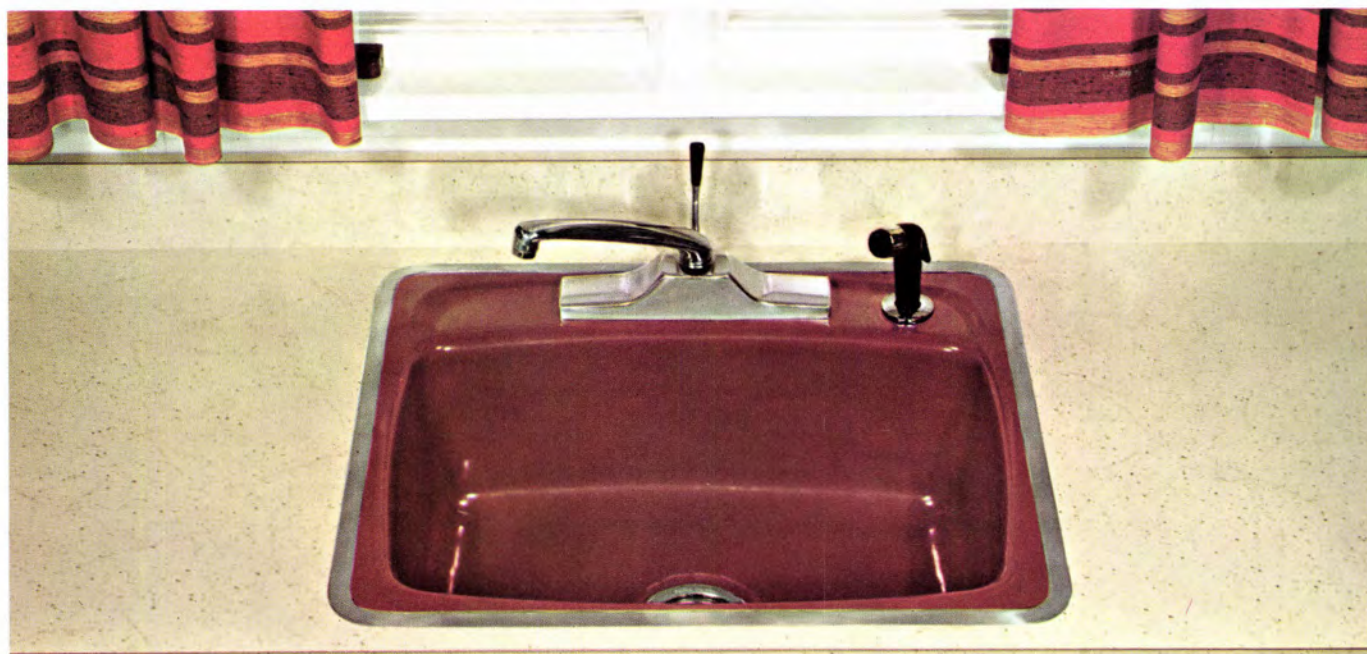
Surf Green* is one of the shining beauties available to you in the American-Standard color series. Your prospects will be enthusiastic over the newly restyled Single Lever faucet, too. Especially when you assure them of no drips, no leaks, no washer changing, ever.



Spice Mocha*



Fawn Beige*



Coppertone you know as the most popular color in kitchen appliances. And now American-Standard offers Copper-tone and six other colors (plus white) in kitchen sinks, for beautiful harmony or contrast with your cabinets, counters and appliances. They add an economical plus to your kitchens.



Venetian Pink*



Manchu Yellow*

Color sells! So turn on color in the kitchen sink. Get full details now from your American-Standard plumbing contractor. Or write American-Standard, Plumbing and Heating Division, 40 West 40th Street, New York, N.Y. 10018.

AMERICAN-STANDARD



WE HAVE 10,000 OTHER COLORS



These ten panels are representative of the infinite choice of colors, shades, textures, and sizes available to you in brick. Countless combinations can be formed by varying bonds and patterns. Nearly countless are the uses to which brick can be put: Walks, driveways, retaining walls, facades, floors, exposed interiors, screens, fireplaces, bathrooms, porches, patios, pools. Variety, versatility, beauty—these are unique attributes of brick. Together they spell low-cost elegance and sales appeal.

Let brick sell for you.

scpi

STRUCTURAL CLAY PRODUCTS INSTITUTE
1520 18th Street, N.W., Washington, D.C.

Cabinet status for housing . . . Staten Island replies . . . New towns

Housing cabinet post

H&H: Your editorial [Dec.] endorsing a cabinet post for housing was in effect a plea for the creation of a new executive department charged with responsibility for the solution of urban affairs.

The editorial states: "Few would favor a stronger federal role in urban affairs if there were some other way of solving our urban problems." Amazingly, the editorial disregards completely the political revolution now under way in all 50 states—a revolution which during the short span of 1965 to 1966 is calculated to make all state legislatures urban dominated and oriented.

This revolution was sparked by the U.S. Supreme Court decision in June, 1963, directing that all state legislatures must be apportioned on the basis of population. It is regrettable that your editorial failed to make any reference to this.

The editorial states that the HHFA administrator cannot provide the leadership that housing and urban programs now need. However, the 1961 and 1964 housing laws, developed through the leadership of the HHFA administrator and his staff constitute an emphatic rejection of your apparent gross misconception of the power and influence of this agency. HOUSE & HOME must be aware of the tremendous strides in urban renewal and the new program for subsidizing the housing needs of America's great middle class during the past four years. How could a cabinet-rank department bring these problem areas to Congress with greater urgency than has been displayed by the present Administration?

The editorial states that "Cabinet status for housing could broaden grants and loans for new community facilities—and lead to FHA loans for new land development." To what extent does the community facilities program administered by the HHFA need broadening?

The editorial states that thousands of cities, towns and villages have their own set of land controls, i.e. zoning ordinances, etc. and that presumably a cabinet rank department would convert these from "meaningless land-use patterns" to a single and therefore meaningful land-use pattern developed by Washington for everyone.

HOUSE & HOME, a business-oriented publication, has not read history or, having read it, has failed to grasp its meaning. Surely the validity of the above assumption is challenged by history and the record of dying institutions whose growth was stifled by single direction and control. We are a great nation because of

our divided opinions and not in spite of them.

Our Association agrees with H&H that "government is not an enemy but an instrument to accomplish common goals." At the same time, our Association rejects the naive and boundless faith, entertained by more and more business leaders and editorial writers, in the power and duty of the federal government to remedy any and every type of environmental maladjustment.

ED MENDENHALL, president
National Association of Real Estate Boards
Washington, D.C.

H&H does not share NAREB President Mendenhall's apparent faith that leaving things as they are (and may be) will solve our urban problems in the future. Congress and the proposed re-apportionment in various states have not made clear that state legislatures will be urban-oriented, but even if they are, city-oriented legislators in the past have shown little inclination to fight for anything other than local belly interest when it comes to land use determinations in their own districts. Local government debt—incurred primarily in providing community facilities—has increased almost four-fold since World War II, and property taxes levied to offset that debt have doubled, to a point where they have become an actual brake on new-house sales (see p. 59). Shifting some of this tax burden to a broader base clearly cannot be accomplished under present conditions. We believe emphatically that a cabinet post for housing would shed a far more constructive light on urban problems and provide a more workable base for federal efforts toward their solutions.—ED.

Copyrighted plans

H&H: It seems to be fashionable now for a builder to apply for a copyright on all his house plans. A builder in the Tampa area (a woman) has obtained a copyright on "her" plans and devotes almost half of her brochure to threatening other builders who might infringe on her [copyright] with prosecution to the fullest extent of the law.

In the first place, she is a bit presumptuous, because her plans are not particularly good, nor are they unique. In order to obtain a copyright, the law says that plans must be original. In whole or in part her plans are a copy of dozens of homes that have been built since before she was born. If she can make this "exclusiveness" stick in the building trade, she will put 75% of the builders in America out of business.

W. H. KURTZ
Martin & Hucknall
St. Petersburg, Fla.

Appraisal penalties

H&H: Your article "Quality quest: city bans overhead wires, lender requires air conditioning," [NEWS, Dec.] has misconstrued my release to your St. Petersburg correspondent.

First Federal of St. Petersburg is penalizing, through the appraisal, any home with 1,200 sq. ft. of living space that does not provide for air conditioning. This would affect mortgages in the range of \$15,000 plus.

The penalty would be of a lesser amount

if ducts were installed without the unit. However, if neither were provided then the penalty would be more in line with the cost of installation.

ROBERT C. ELSTON, vice president
First Federal S&L of St. Petersburg
St. Petersburg, Fla.

Staten Island

H&H: Your Staten Island article [Nov.] stimulated a great deal of thinking and some controversy. The problems which were obvious to us have not always been handled with vision and dispatch. Now that the bridge is here, there is a sudden awakening by many. Good and persistent planning and work will help solve many of the problems such as sewers, zoning and master planning as pointed out in your article.

We would like all of our community leaders to read this article.

ALBERT MELNIKER, vice president
Staten Island Chamber of Commerce
Staten Island

Sunset's income

H&H: In your January issue you list some financial information relative to Sunset International Petroleum Corp. The sales and earnings data are correct, but your readers should know that the \$5.2 million of net income reported for fiscal 1964 actually represents an increase of 23% over the previous year and not a decrease as your article indicates.

EDWARD L. BRENNAN, research dept.
Hardy & Co.
New York City

New-town planning

H&H: Your discussion of Columbia [Dec.] certainly matched our hopes for a clear and comprehensive review of the techniques employed in this signal enterprise. The importance of economics as a development consideration, particularly in achieving community balance, is beginning to receive the proper attention it deserves and we have been heartened by Jim Rouse's coordination of social, physical and economic disciplines in a most realistic approach to the planning function.

We think Columbia represents the successful beginning of a fresh approach to this whole business of urbanization and we applaud its early recognition by your fine journal.

DAVID B. ASHTON, president
Ashton Associates
Los Angeles

H&H: You quote me as saying that: "We have to turn loose the resources of the public sector for more urgent problems." The point I tried to make was that we should avail ourselves of more of the resources of the private sector, not the public. Only in this way can we reduce or hold the line on property taxes.

I believe Jim Rouse is going to be able to hold down the property taxes in Columbia because he is allowing private enterprise the opportunity to meet these public needs, rather than depending entirely on the public sector.

WAYNE E. THOMPSON, city manager
City of Oakland, Calif.

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EDITORIAL

Rising property taxes: a tightening brake on new-house sales

In the last decade property taxes have increased twice as fast as personal income. The average tax on FHA homes has more than doubled since World War II and now eats up more than 27% of all monthly mortgage payments. So, not surprisingly, surveys show that buyer apprehension over rising taxes is one of the biggest deterrents to new-house sales. Taxes, in fact, have priced many families right out of the market and confined others to less house than they could otherwise buy.

Behind the spurt in taxes is the growing need for community facilities—brought on by the tremendous growth in suburban housing. Local spending for facilities has risen from \$9 billion in 1946 to about \$37 billion today and is increasing almost 10% per year. To help meet these expenses, municipalities have increased their debts almost fourfold since World War II—from \$16 billion to over \$60 billion.

Even so, the growth in facilities is lagging behind housing's growth. Former Congressman Albert Rains points out that the present supply of local public works is less adequate than it was 25 years ago, when depression-spawned public programs caught up with most of the needs in most places. And optimistic estimates show it will be years before communities can provide the public works needed right now.

So what's the answer? Federal grants for local community facilities offer an immediate solution. And the tax burden in some suburbs has become so heavy that their only alternative is to ask for federal aid.

But so far, federal grants and public-facilities loans have proved inadequate. Now Rep. John Blatnik (D. Minn.) will introduce a program in Congress to provide \$2 billion a year for local public works and community facilities (*see p. 5*).

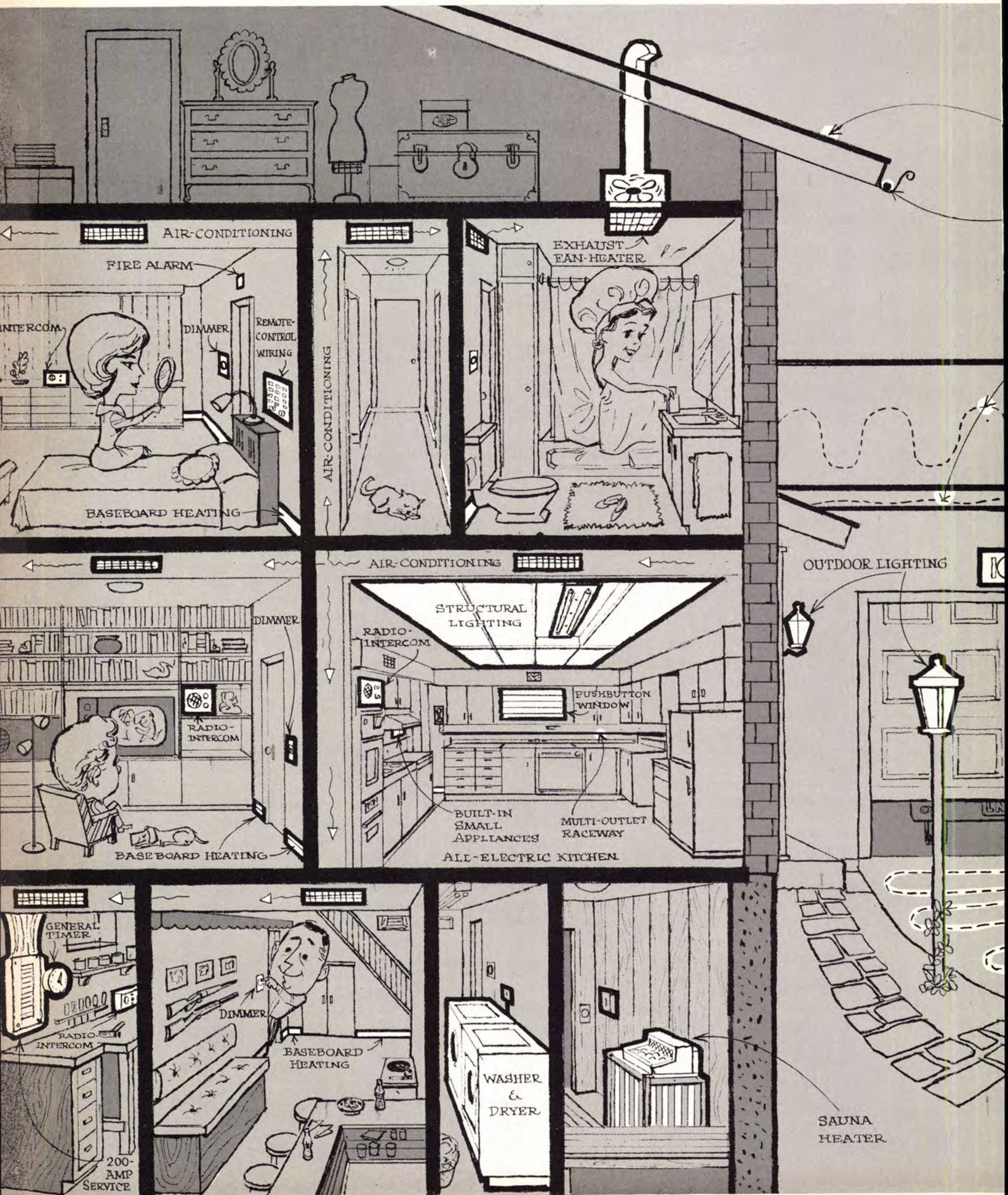
Blatnik's bill would greatly ease the pinch on buyers and builders alike (federal taxes have a much broader base than local property taxes). But long-term solutions lie properly with states and local governments. And the reapportionment of state legislatures should develop a new climate of opinion in which states become true partners of local officials in grappling with community problems.

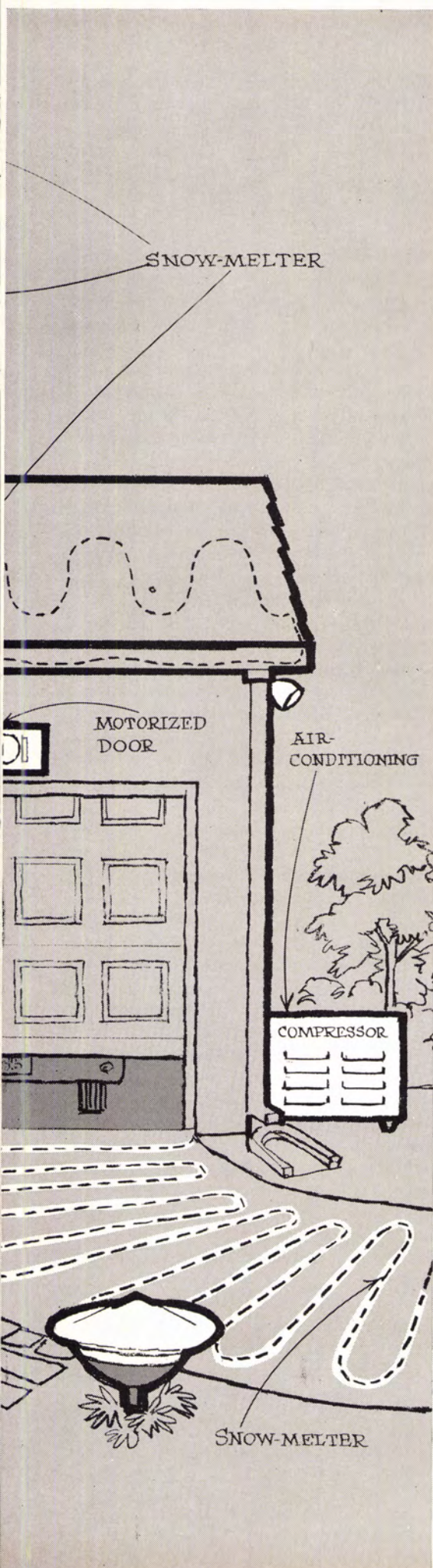
As states and municipalities jointly consider the problem of financing community facilities, they should raise three questions about the present property-tax system: 1) Is it a satisfactory revenue producer? 2) Is it equitably derived? 3) Do its economic effects benefit the public interest?

The answer to all three questions is no. Present taxes clearly fail as revenue producers. And they are not equitably derived because ownership of improved property is no yardstick of the ability to pay and most facilities benefit the community as a whole rather than just the owners of improved property. Finally, present property taxes collide with the public interest because they cut into new-house sales. Every new house sold generates, for the community, three to four times the income that could be derived by investing the price of the house itself. What's more, each new housing start can create as many as three new local jobs.

So it's clear that some of the burden of local taxes must be shifted from housing to a broader tax base. The easiest way to broaden the base would be to relate assessments more closely to market value—particularly assessments on vacant land, which are sometimes as little as 1% of the true value. A better, but politically less popular, way to broaden the base would be to shift more of the assessment from improvements on the land to the land itself. This would produce more income from vacant land held by speculators—and thus drive down the price of the land. It would also produce more income from slum property—and thus help eliminate slums.

Finally, the tax base could be broadened by a less liberal definition of tax-exempt properties. Some experts estimate that more property has been taken off American tax roles since the turn of the century than has been added. In New York City the assessed value of tax-exempt property has risen \$5 billion in the last ten years, and in Los Angeles County it has doubled in the last 12 years. All together as much as 30% of all real property may be tax exempt today. In some areas, up to 10% of a typical homeowner's property tax bill may represent taxes paid for someone else's exemptions.





The all-electric house: a stronger sales-builder than ever before

Like the idealized version at left, it offers comfort, convenience and glamour. And its sales are booming: they doubled during the past three years, and if the electrical industry's estimates are right, they'll double again in the next two.

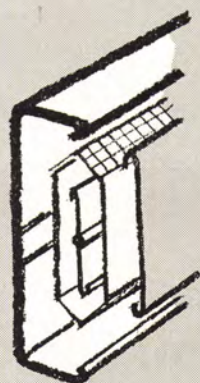
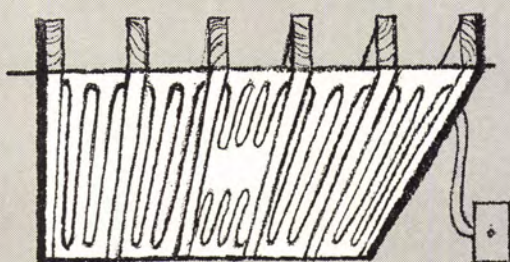
The key to this healthy sales picture is costs: the all-electric house carries an increasingly attractive price tag. Here's the story that electrical utilities and manufacturers are telling builders and homebuyers today:

Electricity itself is getting cheaper. Kilowatt-hour rates for the all electric house are at an all-time low and still dropping. Electric heat is the reason for the drop: the average all-electric house uses five times more electricity than a gas- or oil-fueled house—25,000 kwh vs. 5,000. So each new all-electric house means five times the normal electrical load, giving the utilities such a rapid increase in business that they can keep lowering their rates.

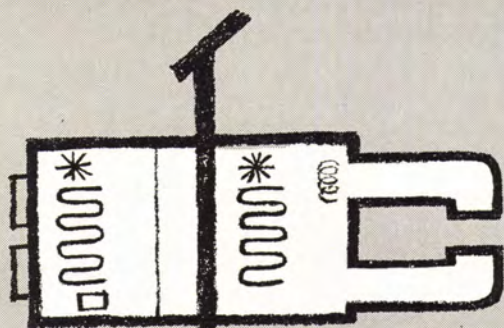
Operating costs of the all-electric house—specifically, the costs of electric heating—are dropping. Better insulating standards and materials are making electricity strongly competitive with established heating fuels, and also making it possible to heat with lower-capacity, hence cheaper, equipment.

The cost of selling the all-electric house is getting lower. Because they have such a big stake in its success, the electrical utilities are publicizing low operating costs all over the country, persuading homebuyers with facts and figures that the all-electric house is the most efficient house.

To see why the sales record of the all-electric house is growing by leaps and bounds, turn the page.

BASEBOARD
UNIT

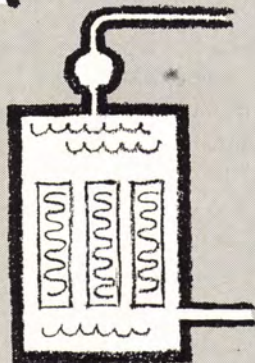
CEILING CABLE



HEAT PUMP



FURNACE



BOILER

Electric heat is on the rise

In 1956 most utilities charged between 1.5¢ and 1.75¢ per kilowatt hour for electric heat. Today the range is from 1.2¢ to 1.5¢ for all-electric houses (regular domestic rates average 1.7¢), and in some areas—Kansas, Oklahoma, Mississippi and Arkansas, for example—rates are down to 1.0¢.

As rates have dropped, the number of electric heat installations in houses and apartments has climbed: 200,000 in 1956, 700,000 in 1960 and 2 million in 1964. By 1980, according to the Federal Power Commission's recently released "National Power Survey Report," there will be 19 million electrically heated homes, and utilities' regular domestic rates will be 1.2¢ per kwh—which means that rates for all-electric houses should be well under 1.0¢.

The steady drop in rates, however, is not the whole story. It does not, for example, explain entirely this fact: until last year, residential electric heat installations had been increasing at the rate of 15% a year; but in 1964 the rate suddenly jumped to 36%. According to the Electric Heating Assn. there are two other significant forces behind this sudden increase.

1. *Insurance companies are giving all-electric houses reduced fire-insurance rates.* At least four Pennsylvania insurance firms have adopted a 10% reduction, and companies in 20 other states have applied for permission to offer a similar reduction. All-electric houses are considered a preferred risk because of their better-than-average wiring systems and because they do not contain a flame or flammable fuel supply.

2. *Apartment builders in many areas are turning more and more to electric heating systems.* For example, 90% of all new apartments in the Pacific Northwest have electric heat (vs. 50% of new single-family houses), 82% in western Massachusetts and 50% in southern California.

Another factor—research and development—is beginning to have a strong effect on the electric heating picture.

New technology is spurring electric heat's growth

Electric heat, as most builders know it, is resistance heating—heating with a hot wire. The most popular—and usually the least expensive—way to install resistance heating is the packaged baseboard unit which works chiefly by convection. The most aesthetic form of resistance heating is the concealed ceiling-cable system, and a new system, introduced at the end of 1964, may soon give that type of heating a big lift. It is an electrode-on-gypsum board package (see box, opposite) that makes radiant ceiling heat almost as convenient to buy and install as other pre-engineered, factory-finished electric heating units (i.e., baseboard, wall panels, duct-coil or furnace).

Resistance heating's big advantage is that it permits each room to have an individual thermostat. That is what makes it so appealing to apartment owners and tenants. But baseboard and ceiling resistance heating has one disadvantage: it uses no ductwork, so it cannot incorporate an air-conditioning system.

BASIC ELECTRIC HEATING SYSTEMS use resistance wires, cables or coils. Baseboard heats and distributes air by convection. Ceiling cable in plaster produces radiant heat. The heat pump, a reverse-cycle air conditioner with resistance-coil boosters for heating below 20°F, circulates conditioned air through ductwork. Electric furnaces and boilers supply hot-air and hydronic heating through conventional duct and pipe distribution.

because utilities keep making it a better buy

Manufacturers of electric heating equipment have at hand three ways to combine resistance heating and ducted systems: the electric furnace, individual heating coils placed in duct openings and the heat pump. The heat pump is basically an air conditioner which can be reversed so it pumps heat into the house as well as out. At present it is the most promising of the ducted resistance-heat systems; it is used extensively in the South, and during the past year it made news by moving as far north as Ohio. Dayton builder (and HBA president) Robert Miller sold 45 heat-pump-equipped houses ranging from \$21,000 to \$27,000 with 1,700 to 2,000 sq. ft. of living space. He guarantees annual heating costs at \$130 to \$150, cooling costs at \$35 to \$45.

But while cooling a resistance-heated house means installing a separate air-conditioning system, that job is nowhere near as formidable as it was two or three years ago.

Central cooling is both cheaper and easier to install

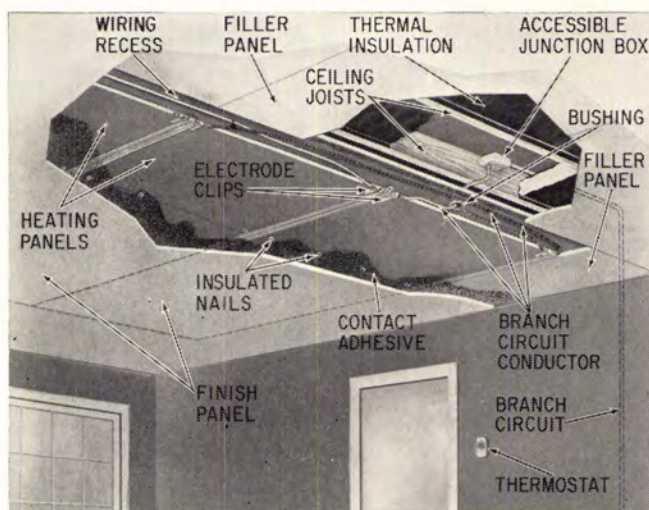
One all-electric project in Topeka, Kans., (Lake Shore Estates) has central air conditioning added to a ceiling cable heating system for an installed cost of less than \$450 in houses 1,620 to 1,826 sq. ft. in size. The air conditioner—a self-contained unit completely preassembled and precharged—is mounted against an

outside wall and ducted to the rooms through a soffit over the kitchen cabinets and a dropped ceiling in the central hallway.

This low-cost installation is not an isolated case. The installed value of the average 3-ton system dropped from \$1,150 to \$1,100 last year, and the price of cooling smaller houses with 2- and 2½-ton units is down to an average of \$700. One reason is quick-connect flexible tubing, which has reduced installation time for the conventional system—outside condenser, inside cooling coil and air circulator—from two days to less than one. A second reason is lighter-weight equipment, and a third is compact equipment—like low-cost attic-mounted units that are ducted through a dropped hallway ceiling without conventional ductwork.

Bigger air-conditioning breakthroughs are on the way. The most noteworthy is thermoelectric cooling, which operates without compressors or refrigerant coils. This extremely lightweight and compact system, in the development stage since 1926, got its first commercial tryout in 1964 when Carrier Corp. installed it in the Racine, Wis., office building of the Johnson Wax Co. It is still too expensive for the residential market, but its simplicity makes it a promising system for the future.

While new equipment design is important to electric heat's success, house design is even more important. To see why, turn the page.



Copper-core gypsum board: new way to put electric heat in ceilings

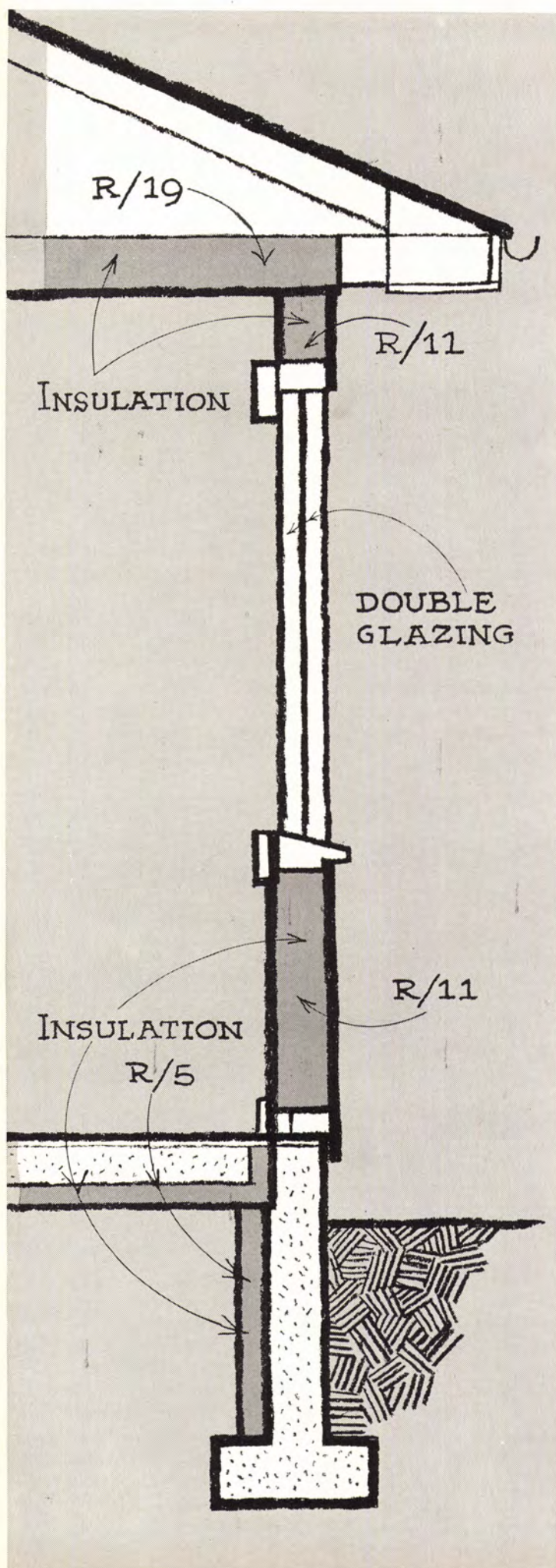
This packaged system—the gypsum-board industry's answer to electric ceiling cable in plaster—was introduced by U.S. Gypsum Co. two months ago.

Instead of electric cable, the Thermalux system uses a copper electrode as the large-area electrical resistor. The copper is insulated by an asbestos coating on both surfaces, and it comes

laminated to a gypsum-board base panel 4' wide and in standard lengths from 6' to 12'. The base is fastened to the ceiling joists with insulated nails, and branch wiring is connected to the panels with electrode clips. Nonheating filler panels are used to complete the base layer, and then high-density surface panels ¼" thick are applied with contact adhesive.

Installed cost ranges from 40¢ to 75¢ per sq. ft. That means—assuming the in-place cost of a conventional ceiling is about 15¢ per sq. ft.—that the extra sq. ft. cost for electric heating can be as low as 25¢. And around Chicago, where Thermalux has been installed in 80 houses and a 108-unit condominium, only 60% of the ceiling area needs the electrode panels.

continued



Better insulation is the key

Even with today's low rates, in most areas electricity is a more expensive heating fuel than either gas or oil. But the electrical industry has done what neither the gas nor oil industry has done: it has insisted that full insulation be part of the electric heating package. A builder who tries to install electric heat without adequate insulation will run into the combined—and adamant—opposition of his electrical sub, the local electrical distributor and his local electric utility.

This industry-wide effort has paid off. Today's average all-electric house costs no more—and often less—to heat than the average gas- or oil-heated house.

A vital factor in the electrical industry's success in promoting better insulation is an education program aimed at electrical contractors, builders and insulating contractors. Some examples:

Members of the National Electrical Contractors Assn. (NECA) are given a training course in all the elements of an electric heating installation. They are taught how to calculate heat loss accurately and how to reduce it to a degree that will make equipment and operating costs acceptable to builder and homebuyer.

Electric utilities are conducting training sessions. A Boonsboro, Md., electrical sub, Siebert Schifler, took such a course from Potomac Edison Co. Result: he has doubled his volume of electric heating installations in each of the past three years—25 in 1962, 50 in 1963, 100 in 1964—by adopting the concept of selling not only the equipment but everything related to it. Schifler's package includes not just wiring and fixtures but insulation and storm windows and doors.

There is also a growing number of all-electric builders who are becoming expert in the design needs of an efficient electric heating system. Indiana all-electric Builder Ralph Williams, now about halfway through his 450-unit "Williamsburg on the Wabash" apartment project in West Lafayette, plans carefully in terms of window area and insulation. He calculates heat loss through windows even with double-glazing (a 6' sliding glass door raises heating costs about \$24 a year, he estimates). He uses formulas for keeping window area to an economical minimum (about one-tenth of wall area). The attics of his two- and three-story, Colonial-style buildings are blown with 9½" of cellulose-fiber insulation (*see below*) which he knows will settle to 8", and the sidewalls are full-blown. And, of course, all this insulation also cuts heat gain in the summer, allowing Williams to cool each of his apartments, both one- and two-bedroom, with a single ¾-ton through-the-wall air conditioner.

New types of insulation are reaching the market

Incentive from electric heating interests has spurred developments in insulating materials to produce more effective and less expensive heat barriers. A popular one is cellulose fiber, a blown insulation which has become associated specifically with electric heating. It is an extremely lightweight material which fills voids effectively and can be applied in greater—and thus more efficient—thicknesses than other blown insulations because it tends to

ELECTRICAL INDUSTRY'S INSULATION STANDARDS are based on: 1) Maximum winter heat-loss limits for electrically heated houses, 2) maximum summer heat-gain limits for electrically cooled houses, 3) recommended weatherstripping, glazing, vapor barrier and ventilation practices.

to electric heat's competitive operating costs

settle less. And just around the corner are plastics. Polyurethane-foam insulation was sprayed on framing at a rate of 50 sq. ft. per minute in a southern California demonstration last year by Poly-Systems & Chemical Co. of Hawthorne. Foamed-in-place urethane was tried in a house by West Penn Power Co. of Greensburg, Pa., but while it reduced heating costs about \$50 annually, the extra cost of nailing forms to the framing and removing them after the foaming proved to be so high that it would not be recovered for about 18 years.

Better insulation like this opens up new possibilities for electric heat. An indication of what's to come can be seen in some non-residential designs. A commercial building planned for electric heating and cooling could have its entire lighting system tied into the comfort system—exhausting the lighting heat to the exterior in the summer, distributing it through the interior in the winter.

Operating-cost guarantees help sell electric heat

Such guarantees are plentiful now. They are given not only by electrical contractors but also by electric utilities and insulation

installers and manufacturers. And insurance companies are backing them.

The value of the guarantee is threefold. First of all, it wins over the builder by relieving him of callbacks related to the heating system. Second, it gives the builder an excellent selling point to use on his own prospects. Third, it gives the electric utility ammunition to use in promoting future installations. When the actual heating costs prove lower than the original estimates, as often happens, the resultant saving makes a dramatic talking point for ads and brochures distributed around the utility's service area (*see box below*).

A typical guarantee works this way: whenever the annual heating costs for any house or apartment exceed the estimate, the owner or tenant pays the increase up to 10% of the guaranteed cost, and the company backing the guarantee reimburses him for any further increase. (The 10% cushion keeps the tenant from becoming too casual about leaving doors and windows open in cold weather.)

Electric heat is only one part of the all-electric house. For news on other electrical developments, turn the page.

Electric-home merchandising focuses on heating costs

Though economy and comfort are both basic selling themes for the electric heat industry, the big emphasis right now is on the former. All this year the Edison Electric Institute will be running advertisements in consumer magazines, presenting testimonials from builders, mortgage lenders, architects and consumers.

Each ad tells the same story: electric heat is inexpensive to operate.

The industry is loaded with figures to back up this story. The figures come from minutely detailed cost studies conducted by electric utilities wherever there are all-electric homes. Two notable 1964 examples:

1. Southern California Edison Co.'s cost study of Ross Cortese's Rossmoor Leisure World in Seal Beach, Calif. The \$90-million Gold Medallion retirement community came up with an average monthly electric bill of \$10.50 per unit.

2. Commonwealth Edison Co.'s study of operating costs at Marina City, Chicago's famous twin-tower apartment complex. The study was announced in newspaper ads with the

headlines, "Proof of the low cost of all-electric living, including electric heat . . . after 12 months, 238 out of the first 248 tenants have electric bills at or below original estimates . . . 197 tenants received refunds on their monthly budget bills."

Reports of these studies are meant for builders' ears as much as for consumers', and they are getting results.

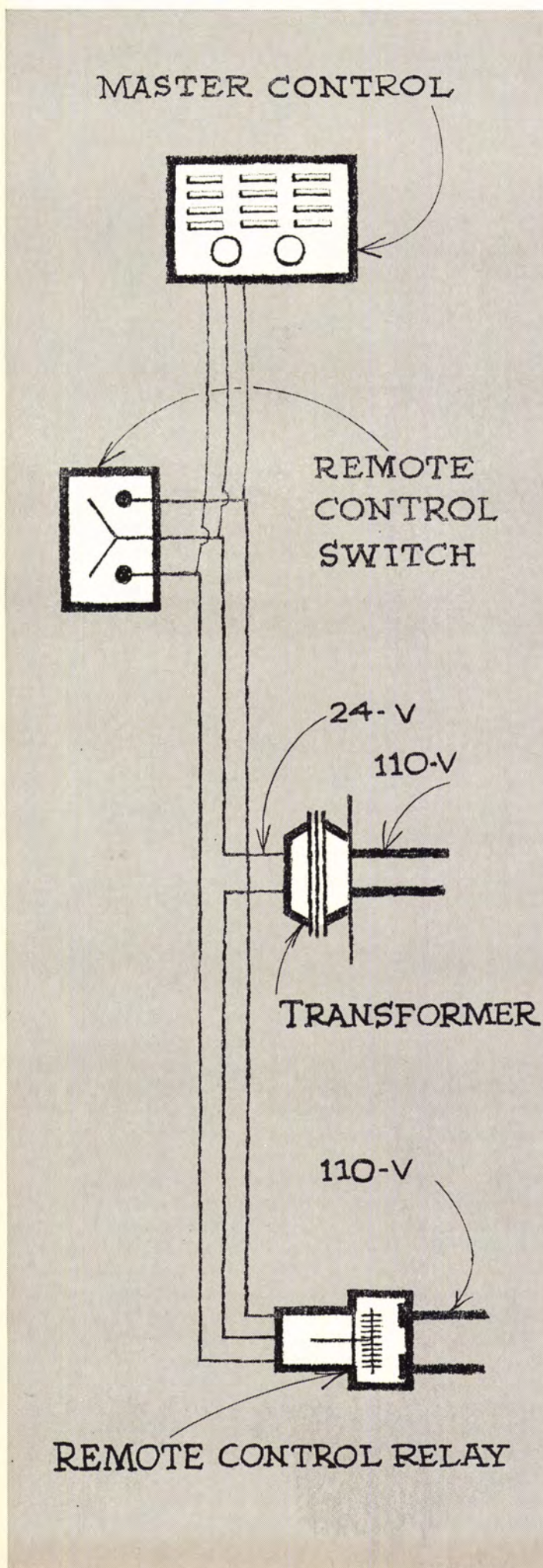
There had never been an all-electric apartment house in Topeka, Kans., until Builder Ken Blosser built one there two years ago. Since then, with only two exceptions, every new multi-family project in Topeka has been all electric. Blosser's first all-electric apartment job (he has since built a second and taken over an all-electric house tract in Topeka) became Kansas Power and Light Co.'s sales model—and an extremely effective one—when a cost study during the building's first heating season showed that kilowatt consumption was 34.6% below the utility's estimate. (Blosser uses a through-the-wall air conditioner with an integral resistance heater in the living area and electric base-

boards in the bedrooms.)

Merchandising to and for the builder by the electric heat interests has never been as well organized and as widespread as it is today.

The most recent addition to the electric-heat forces—which are led by the Edison Electric Institute through its Gold Medallion Home and Live-Better-Electrically programs conducted with local utilities—is the Electric Heat Assn. This influential group, now about a year old, has a 30-man board of directors representing utilities, coal producers, coal-carrying railroads, insulation manufacturers and manufacturers of electric utility apparatus and home-heating equipment. (The coal industry's interest in electric heat is the growing demand for steam-produced electricity vs. hydroelectricity, a demand which the all-electric house is largely responsible for.) Besides encouraging the adoption of quality standards for electric heat equipment and house design as related to heat loss (*story above*), the new association publicizes electric heat.

continued



Today's electrical luxuries

That has been the trend since the start of the post-war boom, and there's no indication that the trend is changing. It is most easily seen in the kitchen: in the late 1940s builders like William Levitt who offered an oven and range with the house package were considered innovators; today the builder who offers an oven, range, dishwasher, range hood and garbage disposer is merely providing the basic necessities. He has to go much further to put himself in the innovator class.

There's still room for electrical extras in the kitchen. Of the major appliances, the refrigerator is not yet standard equipment, even though more and more manufacturers are marketing built-in models. The freezer is another logical extra; it is offered as standard equipment in the all-electric Lake Shore Estates (see p. 62) where it stands in the kitchen as a mate to the refrigerator.

Smaller built-in electric appliances promise to become standard equipment. The barbecue, one of the recent additions to the growing list of built-ins, is now available (from Purcarb Inc.) as an electric unit that uses a quartz resistance element; its infrared rays are supposed to surpass the radiant-heat intensity of charcoal. Built-in toasters are now on the market, and so are built-in coffee makers. And built-in food-mixing centers, although they have been available for several years, are still rare enough to be considered extras.

The multi-outlet surface raceway, considered a kitchen extra not long ago, is now included in wiring manuals. The University of Illinois' Small Homes Council-Building Research Council recommends it in a recently published circular (G4.2) for homeowners.

The foregoing items, while certainly extras, have a definite functional role. But there is also a growing demand for sheer convenience. An example is the electric window. Kalloys Electric Windows, which had been limiting its market to nonresidential builders, displayed one of its units to builders for the first time at the 1964 NAHB convention. The response took the company off guard: a prefabricator in New Jersey ordered some for his display houses, and calls came from builders in Detroit, Cleveland and Florida who also wanted to try them in models. In each case, the builders intend to install the push-button window (an awning type) in only one room—the kitchen—to complement the more conventional electrical equipment.

Leased appliances: newest market-building tool

The idea behind leasing—now being done by a few utilities—is that leased equipment uses as much electricity as sold equipment and furthermore, it is often easier for the customer—with his usually tight credit situation—to lease an appliance than to buy it. And it goes without saying that the utility also wants to create an unswitchable user of electricity.

Western Massachusetts Electric Co., American Electric Power System and many other utilities have been leasing water heaters, and some are leasing ranges as well. In Kansas stripped-down electric ranges are rented for \$3 a month to expose people to electric cooking. At the end of 18 months the renter can apply half of her rental to the purchase of a new electric range. The

REMOTE-CONTROL WIRING in General Electric system uses two circuits: the conventional 120-v circuit for lamps and outlets and a 24-v control circuit for switches and relays. All switches can be operated individually or in combination from master control panels.

are tomorrow's standard equipment

utilities' best prospect is the newlywed who wants the opportunity to try electric cooking before she buys.

A much more ambitious kind of appliance leasing by utilities may result from field tests now being run by Westinghouse Electric Corp. In some 50 houses the company has installed an in-the-wall utility package that supplies heating, cooling, hot water and air cleaning through easily replaced components (H&H, Nov. '64). Utilities could conceivably own and service units of this type, relieving the homeowner of purchasing and repair expenses.

Lighting adds glamour to the all-electric house

In today's market good lighting is no longer merely functional. Luminous ceilings not only make kitchens and baths easier to work in, but also add a feeling of space to the rooms. Valance and soffit lighting adds to the general illumination and at the same time accents textures and finishes. Outdoor lighting provides security and also visually extends indoor living areas to patios.

Lighting controls add to both the usefulness and the appeal of

good lighting. One of the most dramatic is the dimmer. Most prospects visit model homes during the day, so one manufacturer, Lutron Electronics, tells dealers the most effective way to demonstrate its dimmers in daytime is to use unfrosted flame-shaped bulbs in a crystal chandelier. The dimmer's acceptance can be seen in the company's record of tripled sales during each of the last three years. An indication of the dimmer's largely glamorous appeal: the guarantee cards returned by customers show it is used nine times out of ten in the dining room.

A much more elaborate control is remote-control wiring, which lets the homeowner switch on every light in the house from a single location. Robert Van Patten added \$75 to his per-unit wiring costs to install a remote system in some 300 houses in his Clifton Knolls tract in upstate New York. Nine circuits are wired into two master switches located in the master bedroom and kitchen. These switches control outdoor lights as well as all indoor lights (except those in bedrooms). This remote layout, complemented by an intercom system in about 40% of the houses, plays an important role in Van Patten's model showings.

Underground wiring: another extra that may soon be standard

That's because 1) the cost of underground wiring is getting down close to the cost of overhead wiring, 2) lenders are permitting the extra cost to be added to the homebuyer's mortgage, and 3) communities are passing ordinances banning overhead lines.

Ten years ago the cost ratio of underground to overhead residential distribution was ten to one; today the ratio is one and one-half to one.

New equipment, and utilities' acceptance of it, is the chief reason the extra cost has been cut so sharply.

Louisville (Ky.) Gas and Electric Co. cut its installation charge by 20% two months ago. That's 40% under the charge in 1960 when developers started to put underground wiring into Louisville suburbs. The utility has now had enough experience with its packaged system—transformers at the base of streetlight poles—to make a flat charge of \$1.70 per front foot for underground electric cables to residential lots instead of using a complicated formula to compute costs individually for each new subdivision. To the developers who helped pioneer the system under the old prices, the utility is giving refunds totaling \$50,000.

Southern California Edison has re-

duced its underground premium by 50% since 1960. It now charges developers from \$100 to \$200 per lot (average: \$137). The reduction is a direct result of switching to a new installation method—preassembled cable-in-duct.

Commonwealth Edison of Chicago charges builders an average of less than \$100 a lot for underground service (H&H, Aug. '63) and gives all-electric builders rebates that more than cover this amount.

Puget Sound Power & Light expects to offer underground wiring at no extra charge to builders later this year. A recent change in the Washington State code permits joint burial of electrical and telephone cables in the same 30" trench. (Washington is the second state to so change its code.) That reduces the cost, but it isn't what will make underground wiring free to the builder.

The extra cost of underground service becomes free when it is written into the mortgage.

Lenders and FHA representatives in the western Washington area served by Puget Sound Power have agreed that underground wiring enhances the value of a house sufficiently to include

the extra cost in the mortgage. And—to guarantee that the builder won't have to use a cent of his own money to bury cables—the utility will finance it. The result probably will be the disappearance of overhead residential wiring in the utility's service area.

But there is still a more effective way to eliminate overhead wiring—prohibit it.

That was done last year in Carlsbad, Calif., (pop. 12,000). The city councilmen got tired of arguing about whether utility poles should be in alleys behind the house or in the streets, so they passed an ordinance banning them—the first such ordinance in San Diego County. Fortunately, the difference in cost between overhead and underground lines had been reduced to between \$100 and \$300 per house, so there was no resistance from developers and the local electric and telephone utilities.

Developers in Livonia, Mich., (pop. 90,000) were not quite that receptive, however, when a similar ordinance was passed in their city a few months ago; the extra cost is still about \$400. The city officials' reasons were twofold: to reduce wind-storm damage and raise property values.



SUBCONTRACTOR'S SALESMAN talks with homebuyers about changes they want made in

builder's basic electric layout. Variety of electrical equipment is displayed on office walls.

Joseph Ruskin

New man on the builder's sales team

This subcontractor offers homebuyers a custom electric package—and manages the job from beginning to end

The 45 Long Island homebuilders who use Newbridge Electric Co. can give their buyers carte blanche on electrical changes without ever changing a drawing, pricing out a fixture or making a callback. Newbridge takes the entire job off their hands—and at competitive prices that are hard to beat.

This comprehensive custom package is the brainchild of Abel Burkett, 43, and Herbert W. Hobish, 42, two engineers who formed Newbridge Electric 16 years ago.

They reasoned that a builder would let his buyers customize electrical systems if he were relieved of the sea of details and the chances for costly error which customizing involves.

Newbridge Electric now operates a salesroom, where a salesman (*above*) helps homebuyers convert their ideas into wiring, outlets and fixtures. Newbridge makes all drawing revisions, refigures prices and supervises changes in the field. And it guarantees to handle all electrical callbacks di-

rectly for a year after the buyer moves into his new house.

Newbridge's system benefits everyone: the builder by giving him an extra sales tool at no extra cost; the buyer by tailoring his electric system to his needs for much less than it would cost to remodel it later on; and, of course, Newbridge Electric itself by increasing its volume. Of the 2,000 houses Newbridge wired last year, 1,000 involved customizing, and the final package was often twice as big.

How Newbridge Electric copes with the problems of custom changes

Unlike most subcontractors, Newbridge is reluctant to take on builders who don't offer their buyers a customized electrical package. Such customizing puts a burden on the sub: he must be sure every job will be done accurately, on time and without interfering with a builder's other trades.

But with a full-time staff of one salesman (left), three warehousemen and three clerical workers, Newbridge partners Burkett and Hobish have come up with a smooth-working system. Here, they say, are the basic rules they follow:

1. *Specialize in single-family housing.* Burkett and Hobish refuse to bid on heavy construction jobs because they know such jobs would hinder the maneuverability they need to meet the sporadic demands of homebuilders. Occasionally they take on apartments and commercial work, but only if they have already worked with the builder on houses.

2. *Keep detailed records on every job.* Newbridge uses modified Gant charts that show at a glance how much electrical work has been done on each house. The charts were developed by Burkett, who holds a graduate degree in industrial engineering from New York University.

3. *Stock enough materials to serve builders without delay.* Hobish, an electrical engineering graduate of Virginia Polytechnic Institute, maintains a warehouse with enough inventory to equip 200 houses at once.

4. *Build a work-in-progress inventory during slack seasons.* Newbridge anticipates a builder's electrical work and offers to assign electricians even before he calls for them. Reason: to assure a steady supply of dependable labor by avoiding peaks and valleys in requirements.

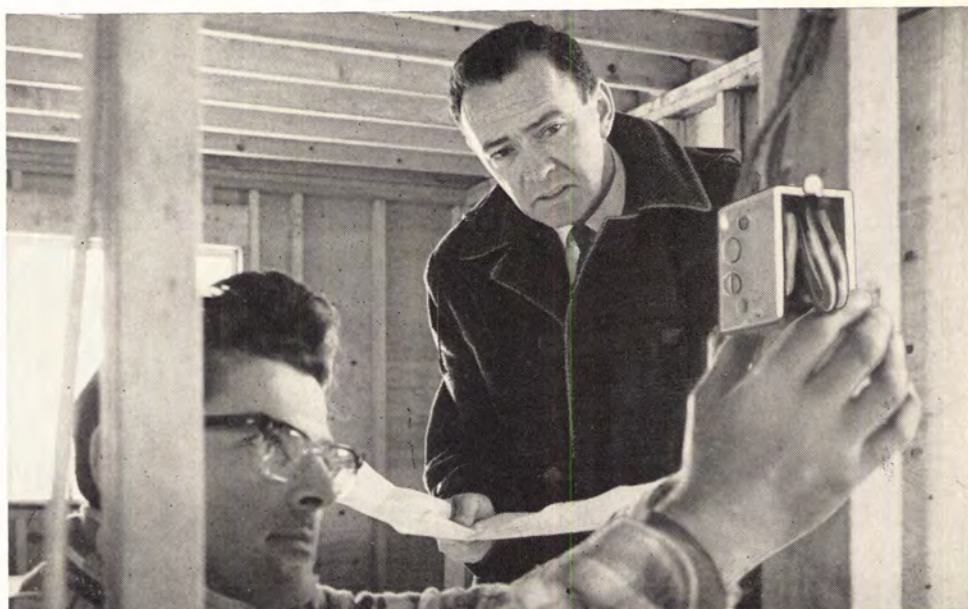
5. *Inspect every job every day.* "It's not only a matter of seeing that things are done right," says Hobish, "but also of spotting delays by other trades that may force us to adjust our schedule."

6. *Use two-way radios.* Newbridge has five radio-equipped vehicles (two trucks and three cars) which let the partners keep in contact with each other and make quick scheduling decisions while at builders' sites or driving between jobs.

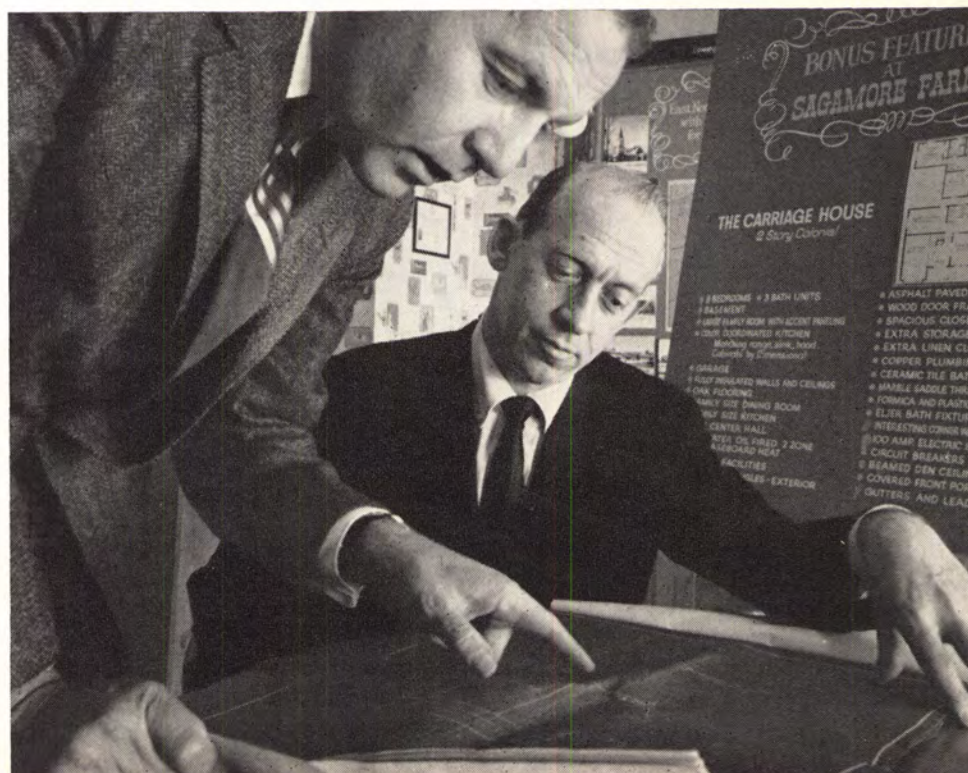
To see how Newbridge customizes a standard electrical package, turn the page.



WIRING CHANGES are checked on house plans by Newbridge partners Burkett and Hobish.



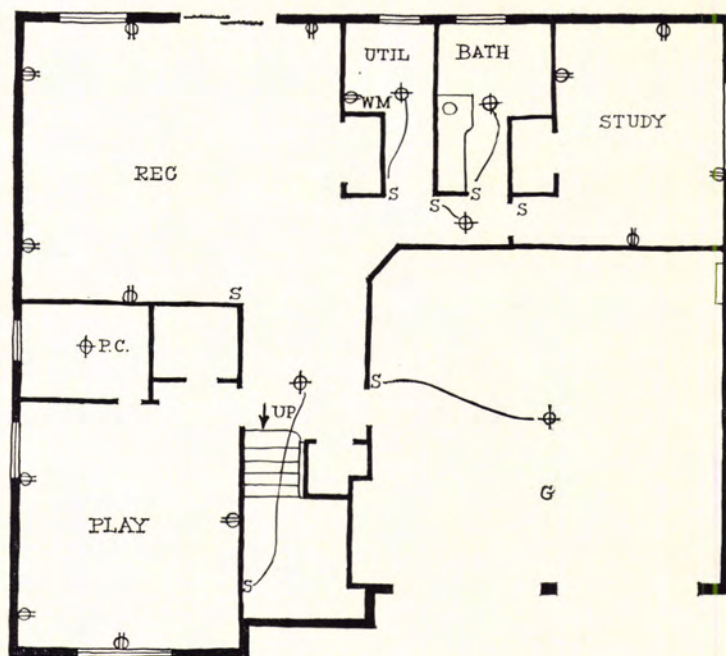
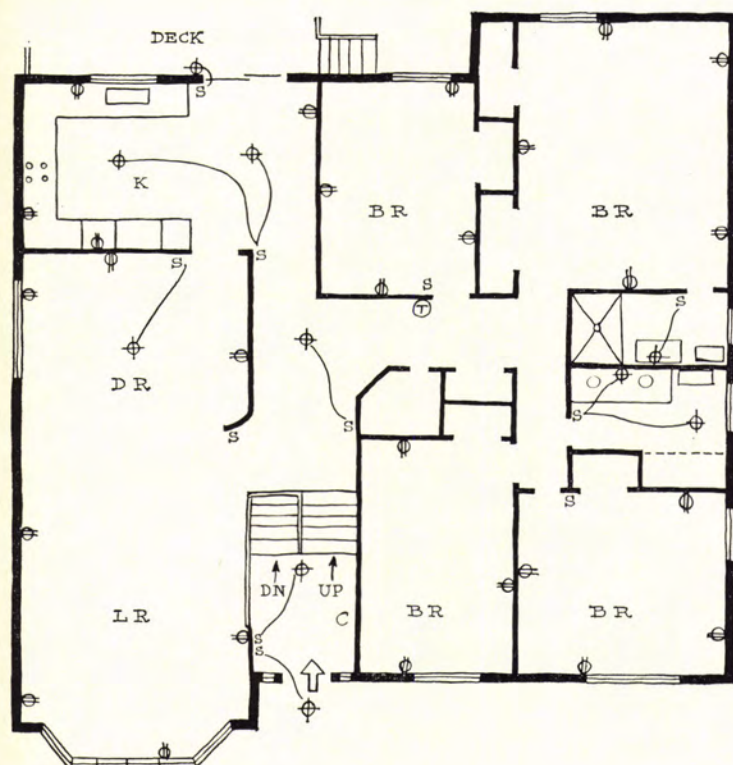
ON-SITE INSPECTION is made by Hobish. Either he or Burkett visits every job daily.



WIRING FOR NEW MODEL is planned by Burkett with Builder Ben Wolkow of Syosset, L.I.

continued

STANDARD WIRING PLAN



100 AMPERE SERVICE BOX

LEGEND	
S = SWITCH	T = THERMOSTAT
S ₃ = THREE-WAY SWITCH	WM = WASH MACH
⊕ = RECEPTACLE	C = CHIMES
⦿ = FIXTURE OUTLET	D = FIRE ALARM DET.
PC = PULL CORD FIXTURE	W.P. = WATER-PROOF REC.

Here's the basic electrical system in a builder's \$33,000 model . . .

The wiring plans above illustrate Newbridge Electric's merchandising philosophy: don't overload the model house with a lot of preselected electrical extras. Instead, keep the standard package simple, and let each buyer add the extras he wants.

With that thought in mind, Newbridge's builder-customers install basic electrical systems in their models but point out to every buyer that he can order a wide variety of options and extras directly from the electrical subcontractor.

As soon as a house is sold, Newbridge sends the buyer a basic wiring plan, like the one at left above, and invites him to its showroom (see p. 68) to make custom changes. Salesman William Britton notes the changes, and a new wiring plan is drawn. Newbridge keeps one copy, sends one to the buyer and sends one to the

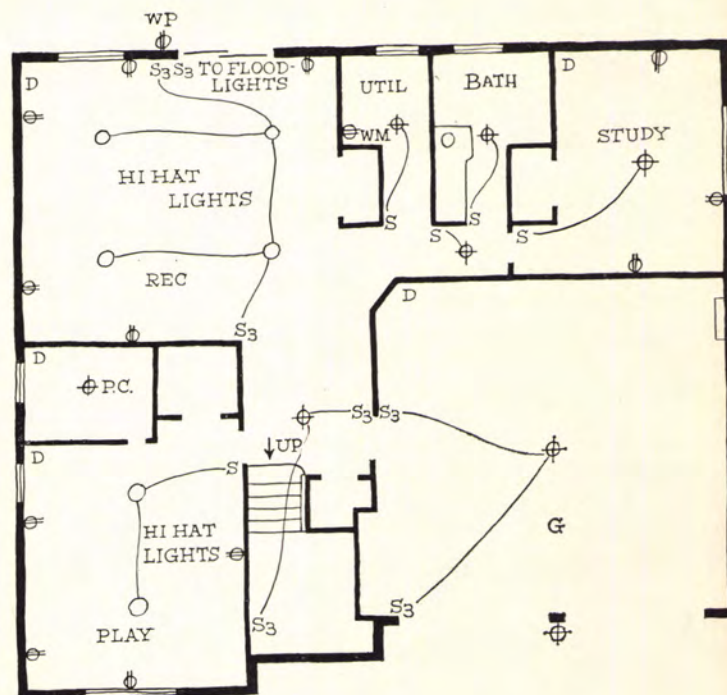
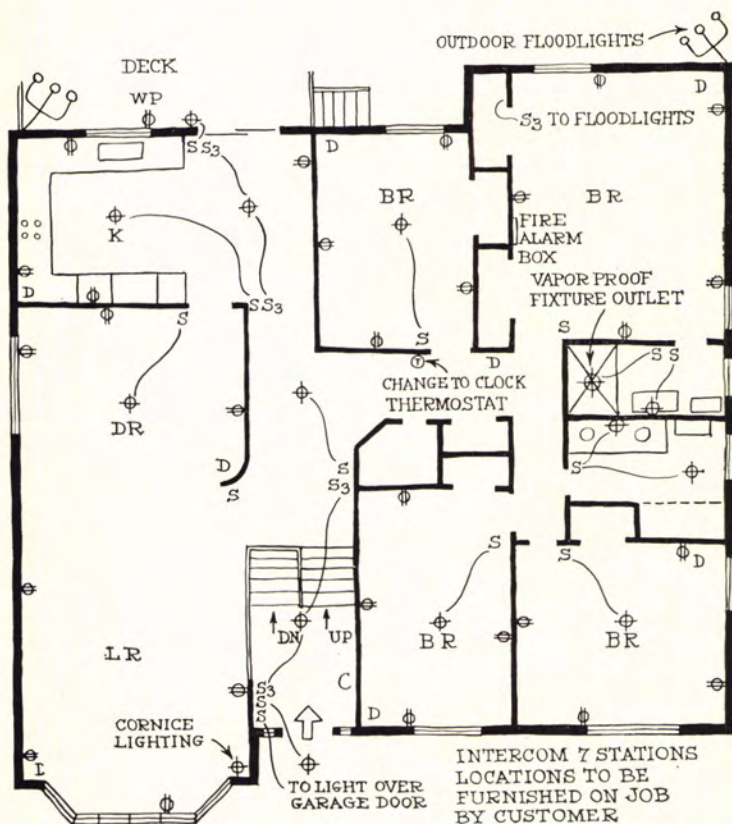
builder if he asks for it.

The plan at right shows how extensive such changes can be. The buyer of this split-entry model ordered the electrical extras that buyers most often request from Newbridge. Items:

- Waterproof exterior outlets—ordered by almost every buyer who requests custom changes.
- Special clock outlet—included in 90% of custom changes.
- Built-in TV and radio antenna—75%.
- Outdoor spotlights—75%. Says Britton: "Buyers are becoming very security minded. They see a need for outdoor lights that they snap on from a bedroom the minute they hear a strange noise outside."
- Fire alarm—25%.
- Intercom—15%.

Most buyers also want some kind of

CUSTOMIZED WIRING PLAN



200 AMPERE SERVICE BOX

... and the custom system Newbridge installed for one buyer

recessed lighting—cornice lighting, luminous ceilings, etc. And they want a path of light through the house that they can initiate at the door with a three-way switch.

"All told," sums up Newbridge partner Hobish, "buyers usually ask for more electrical work than you find in most so-called all-electric houses."

What about electric heat? "We'd like to see it come," says Hobish. "Then we'd be heating contractors, too. But the local utility is not promoting it." (Long Island Lighting Co. has little incentive to lower electric rates because it is also the local gas utility.)

Long Island builders are particularly enthusiastic about two phases of Newbridge's program:

1. Direct-to-the-buyer selling adds versatility to the builders' own merchandising

efforts. Says Karlis Kalnajs, Long Island Division manager of General Builders Corp.: "Our own salesmen are not trained to talk about electrical work in the same way that Newbridge is."

2. On-the-spot inspection of custom changes relieves builders of a difficult supervisory problem. Says Gerald Monter, president of the Long Island Home Builders Institute: "There can be as many as 80 changes in the electrical system of any one of our houses. And since we build 350 houses a year, checking on these changes ourselves would be a headache."

The Newbridge-type system is not limited to electrical subs—at least on competitive Long Island where builders are constantly seeking ways to smooth their operations by shucking off some of the detail. Monter, for example, refers buyers

to his painting and concrete subs so they can select colors and patio materials in the same way they choose wiring. And Builder Ben Wolkow (*see p. 69*) has the same arrangement with his tiling sub.

Says Wolkow: "I used to build in Albuquerque, where we did everything ourselves. But now I can't agree with builders who feel they must control everything that goes into a house. By using subcontractors this way, we have more time to concentrate on design and merchandising."

But Wolkow warns that a builder must have confidence in his subs before he recommends them to his buyers: "After all, the buyer pays as much as \$200 to \$300 directly to the subcontractor for custom changes. If the sub fell down on the job, I guess we'd have to make good on the extras the buyer paid for."

Here are six new townhouse designs for the higher-income market

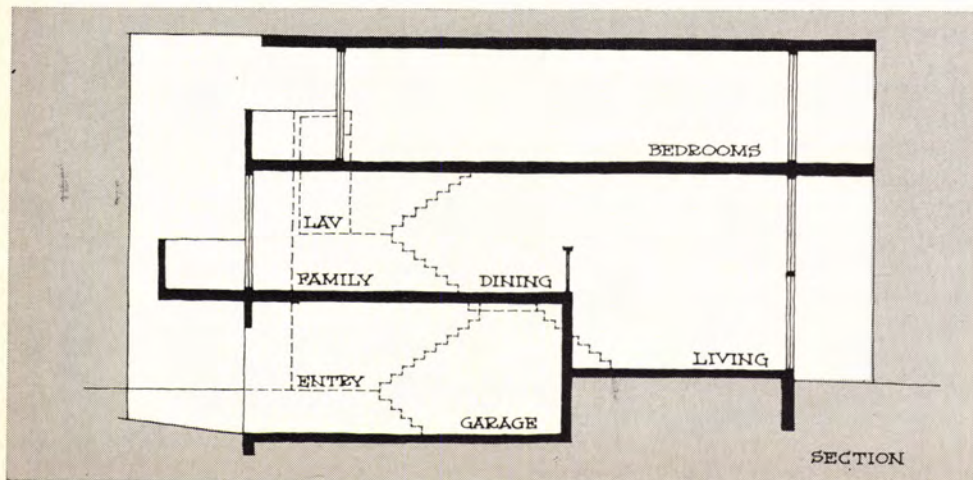
They range in price from \$28,200 to \$47,500, in size from 1,500 sq. ft. to almost 2,800 sq. ft. And they offer many of the features that are selling higher-priced detached houses—up to five bedrooms and 3½ baths, big master bedrooms with adjacent dressing

rooms, separate dining rooms, well-zoned floor plans and private outdoor living areas. These townhouses are, in fact, better planned and better designed, and offer more amenities, than many of today's successful higher-priced detached houses.



FRONT VIEW shows how garage was played down by putting a balcony over it.

Split-level design makes this house better looking and more livable



It drops the garage below grade so the garage door does not dominate the facade. It adds spaciousness to the dining room by opening it, via a mezzanine, to the two-story living room. And it puts a lavatory on a mid-level landing where it can serve both the second and third floors. There are 2,000 sq. ft. of living area, excluding two balconies and the two-car garage. Price: \$45,000.

Architect: Mogens Mogensen. Builder: Hillpark Homes. Location: Menlo Park, Calif.

CROSS-SECTION shows four levels plus landings. Garage is dropped 2' below grade.



REAR VIEW shows high living-room windows. Spur walls add to privacy between houses.

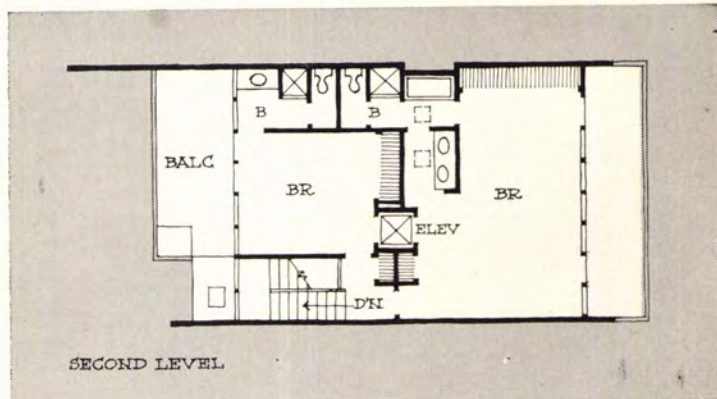
Photos: Vano-Wells-Fagliano



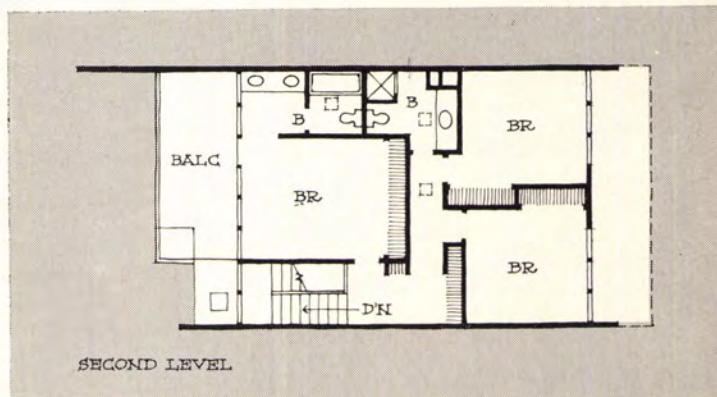
HIGH LIVING ROOM, open to dining room at upper left and to rear patio at right, is 16' x 24'.



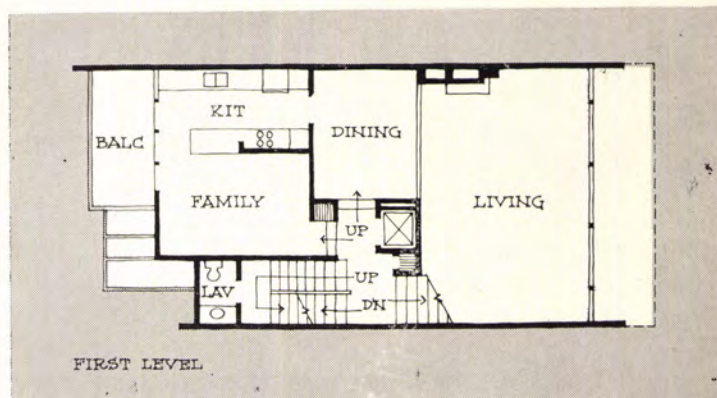
L-SHAPED FAMILY ROOM opens to front balcony. Kitchen is behind the short wall at right.



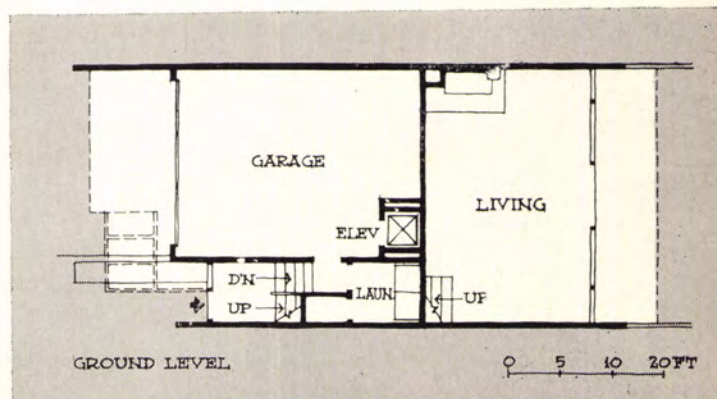
TOP LEVEL, with two bedrooms and two baths, has spacious master bedroom suite in rear.



ALTERNATE TOP LEVEL, with three bedrooms and two baths, is in model without elevator.

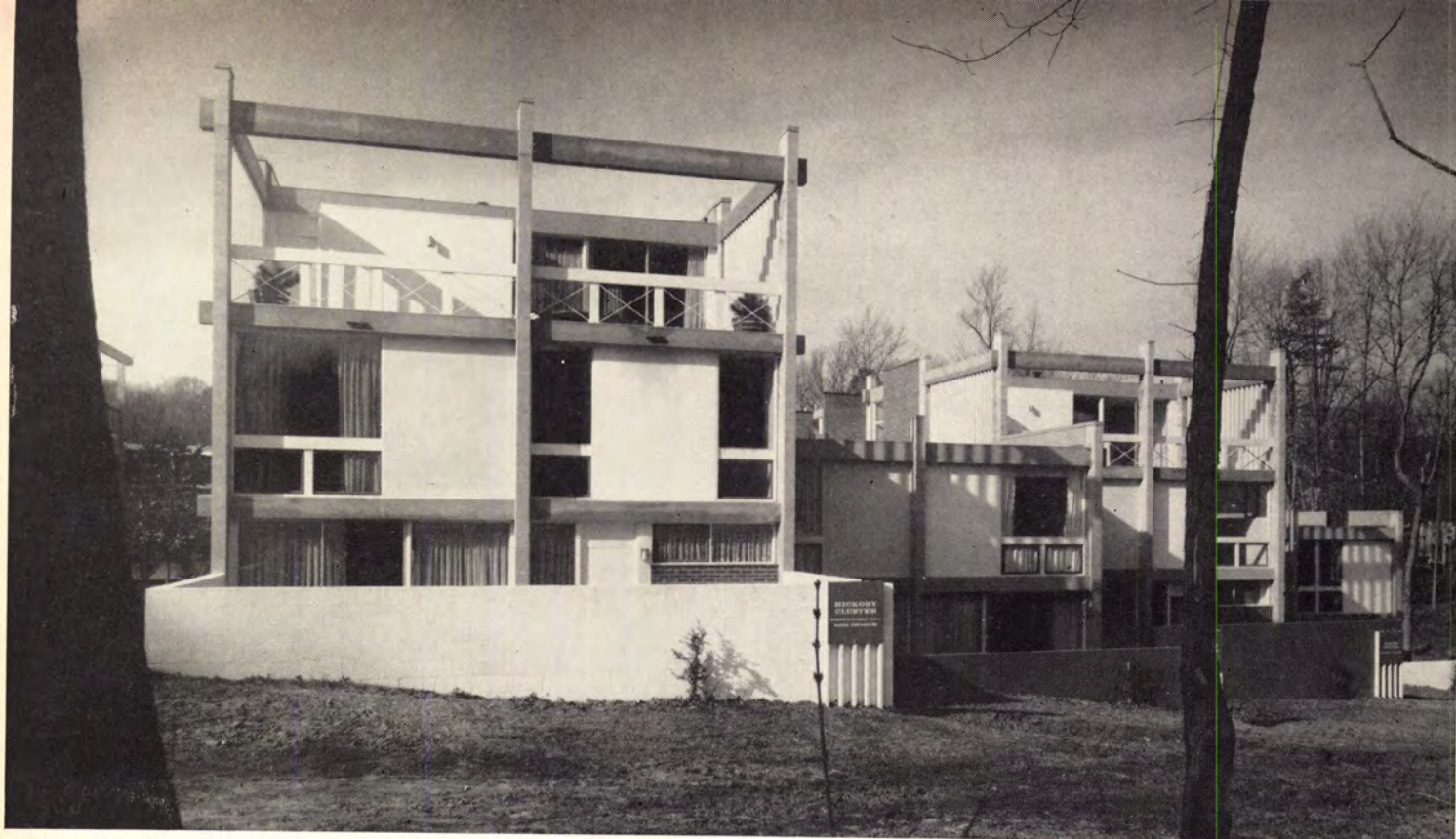


MIDDLE LEVELS include kitchen, family and dining rooms and living room, down five steps.



LOWER LEVEL has entry hall, two-car garage, utilities, storage area and laundry.

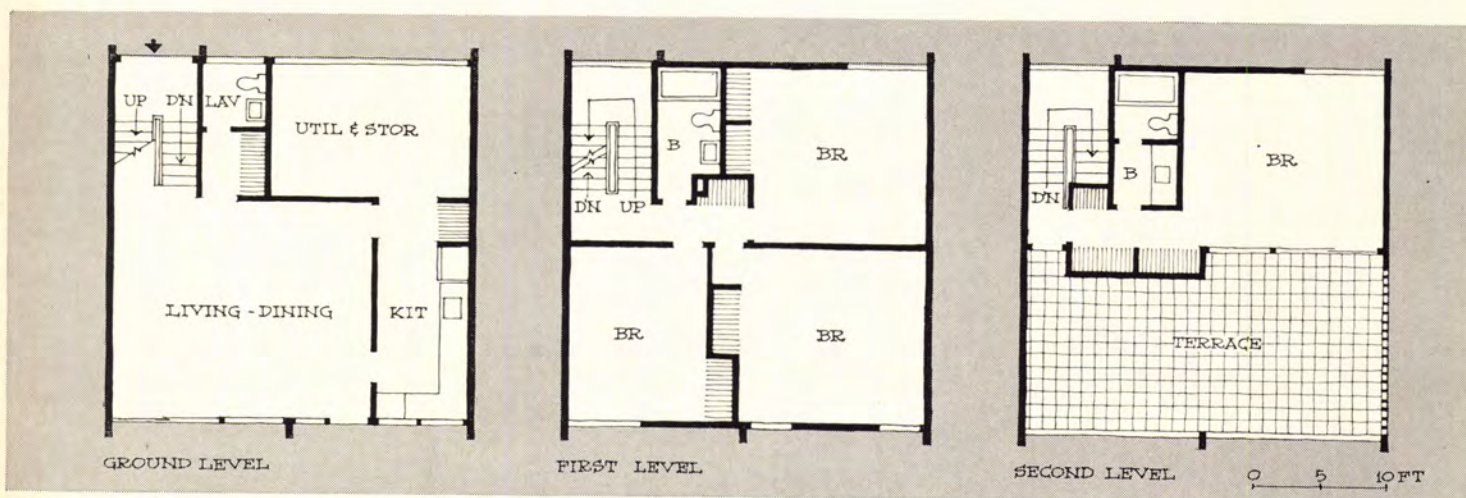
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REAR VIEW shows strong space modules established by masonry-block columns and concrete

beams. Terrace walls also serve as retaining walls where terraces are slightly below grade.

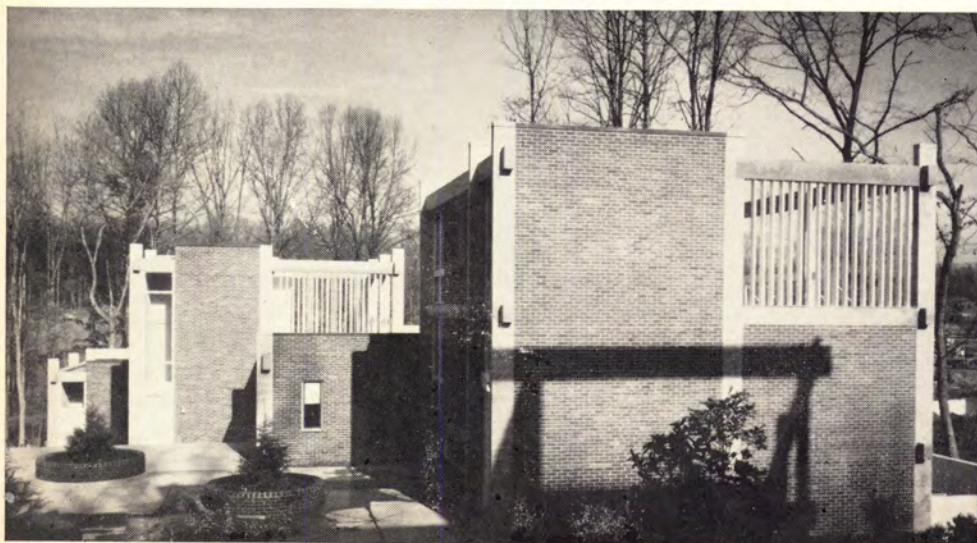
Photos: Robert Lautman



FLOOR PLAN of three-story model (photo, above) provides 1,800 sq. ft. of space. Price: \$36,000.

Typical two-story model, at \$24,400, is identical to three-story but without third level.

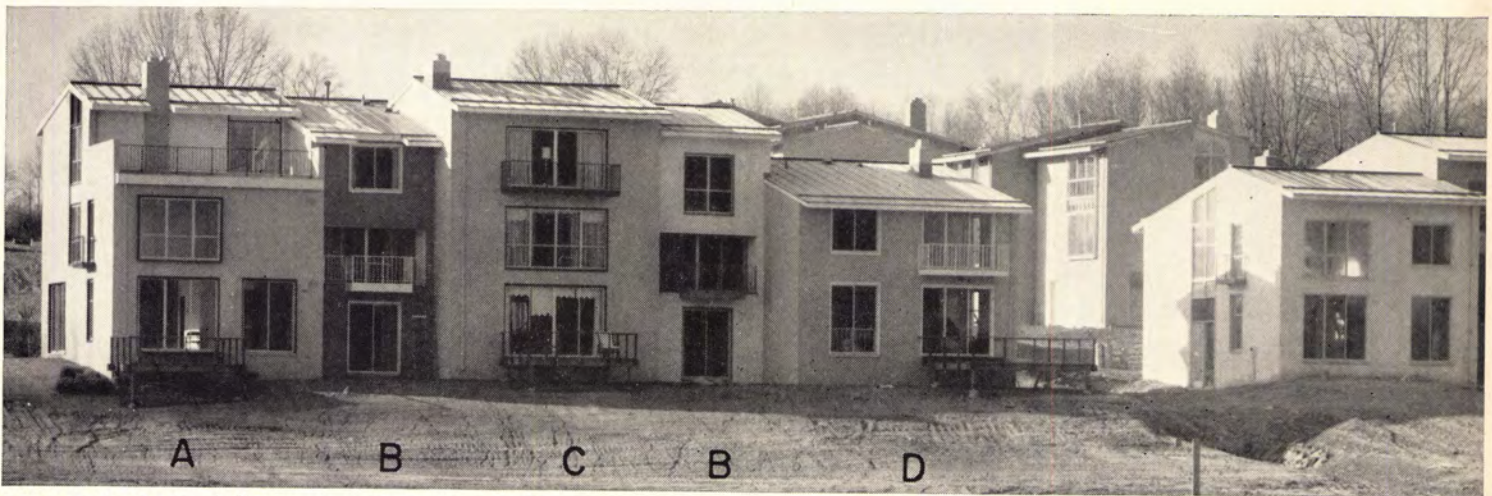
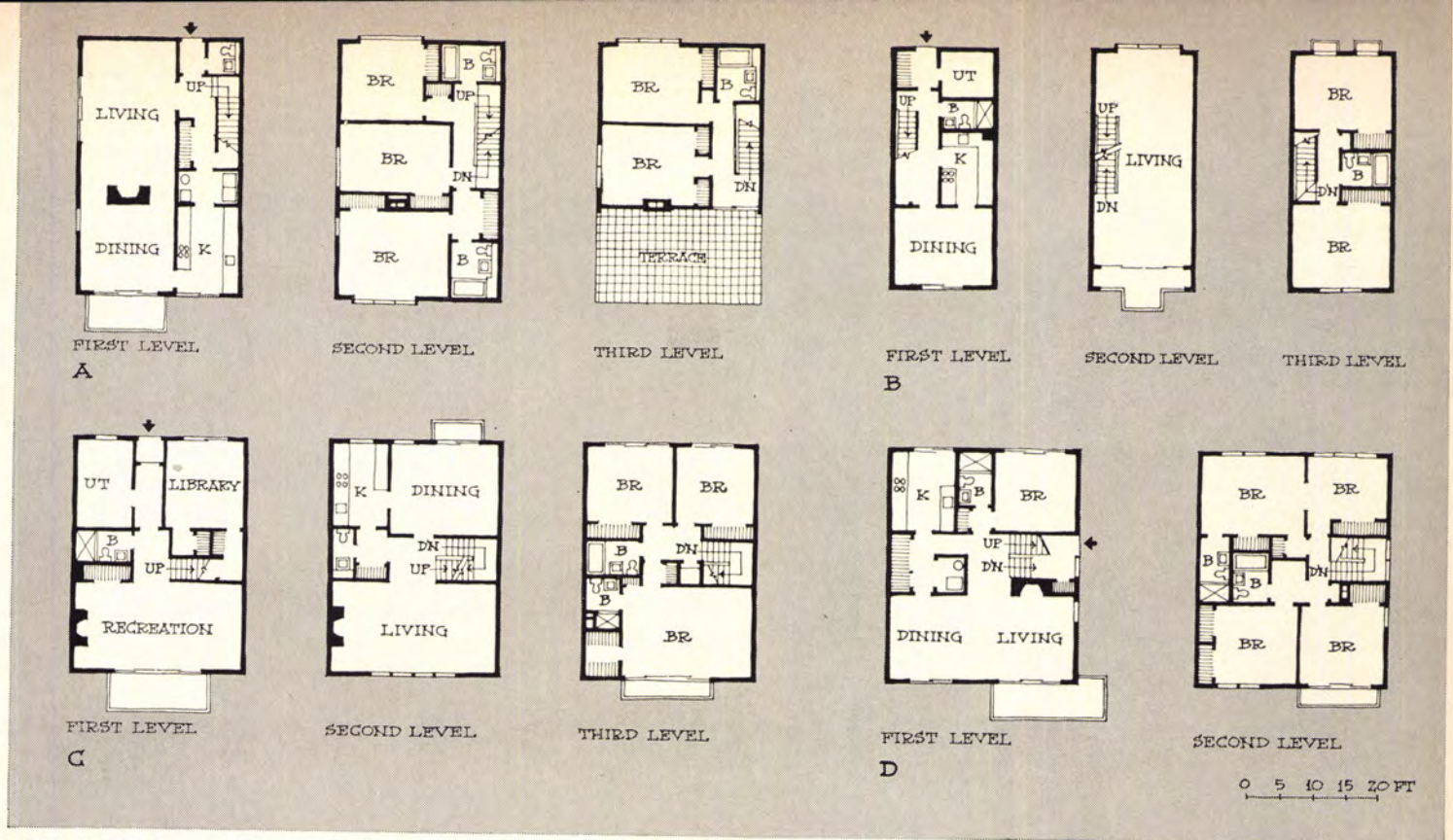
Space-frame design ties together two- and three-story houses



The grid pattern formed by the strong horizontal and vertical members dominates the design and makes the difference in height seem natural. In some models, half the top level is a roof terrace which, because of its openness, helps minimize the height difference.

The 90-house group, now being built in the new town of Reston, Va., includes models priced from \$23,000 to \$43,000 for 1,200- to 2,200-sq.-ft. living areas. Two-story models have two or three bedrooms, three-story models up to four bedrooms. Several models include roof terraces. Architect: Charles M. Goodman Assoc.

SIDE ELEVATIONS are more conservative. Brick walls are built flush with columns.



REAR ELEVATION of five-house section gains design interest from varied roof heights and set-

backs. Plan A is priced at \$40,700, Plan B, \$28,200, Plan C, \$44,400 and Plan D, \$34,300.

Mixed design avoids the monotony of the traditional row-house look



And it makes possible a wide range of plans and prices within a single block of houses. The five-unit block shown above provides a rich variety of shapes and facades. And it includes four distinctly different floor plans ranging in size from 1,450 sq. ft. to 2,300 sq. ft. and in price from \$28,200 to \$44,400.

Two-story models are set on a slightly higher grade and some three-story models on a lower grade, so the difference in roof heights is not too pronounced. Like the townhouses on the facing page, these units are in Reston, Va. Architect: Chloethiel Woodard Smith.

FRONT ELEVATION is more homogeneous than rear but varied by different window treatment.

continued



Minority housing: a puzzling market starts to shape up

Most of the terrible things predicted to follow the two-year-old presidential order on nondiscrimination in the sale of federally assisted housing have not happened. But neither have most of the great gains expected for minority housing. The President's Committee on Equal Opportunity in Housing has accomplished little, because its enormous education-and-persuasion assignment got only a token budget and staff under former Pennsylvania Gov. David L. Lawrence.

But working with the idea of the Negro as a housing market has taught many builders a lot. Now, at least, we know the most important questions to ask:

1. If a suburban subdivision is honestly offered to all comers, will Negroes flock to buy? *No.*
2. If you sell any houses to Negroes, will you automatically lose your white buyers? *No.*
3. Does subdivision size affect the problem. *Yes.*
4. What income group is the strongest in the non-white housing market? *Upper middle and above.*
5. What are attitudes of FHA and leading mortgage lenders toward minority homebuyers? *Mixed.*
6. Can you build large sales volume in Negro housing? *Yes.* In integrated projects? *Yes—but.*
7. Is the desire for new housing being encouraged among Negroes by their community leaders? *No.*
8. Has any large integrated project done well? *Yes.*

HOUSE & HOME interviewed builders from coast to coast. Some were pioneers, others newcomers to the Negro market. *For more detailed answers based on their experience, plus a look at an award-winning integrated project, see the next six pages.*

COURTEOUS SALESMEN are important for first-time buyers entering the new house market.

continued

Builders, North and South, have tackled the minority market—and gained some hard-learned answers

The significance of these answers is that they are based, not on social theory, but on the hard realities of the marketplace.

1. Negro families have been slow to buy new suburban housing even when it is open to all buyers. In St. Louis, Builder Alfred H. Mayer made only seven of his 800 1964 sales (prices: \$15,000 to \$30,000) to Negro buyers. In Wilmington, Del., only a handful of Negroes have taken advantage of an open-occupancy policy quietly adopted by local builders. And in Baltimore, Marvin Gilman, builder of Sutton Place, a luxury apartment with an open-occupancy renting policy, reports: "When rumors were going around that over 40% of our tenants were Negroes, I was still trying to sign my first lease with a Negro family."

What's restraining Negro buyers? Builder Mayer says simply, "I'm sure the slowness of their move into new houses is due to economics." But other industry leaders point to another reason: fear of moving into an unfamiliar—and perhaps unfriendly—environment.

"For a Negro to move to the suburbs is to break away from his group and his security," says President Sheldon Rose of Edward Rose & Sons, Detroit builders. And Executive Director James Reynolds of the Colorado Anti-Discrimination Commission notes: "The average Negro lacks confidence that he could adjust to a new suburban community. I believe most Negroes prefer to live in town near their friends and social interests."

2. Large subdivisions can absorb a few Negro buyers without any appreciable effect on sales to whites. Builder Mayer did find that he often had to resell the lots next door to Negro buyers, and he has had some other cancellations. But he says, "Our volume lets us absorb this until we find unprejudiced white buyers."

Philadelphia Builder Hyman Korman has sold more than 100 houses in three months in his new Blue Bell Manor development in the Eastwick redevelopment area although the proportion of Negro buyers has held steady at about 7% to 8%. In Detroit there is a long waiting list, both Negro and white (although no notation is kept of race), for Sheldon Rose's Chateaufort townhouses. Eichler Homes' open-occupancy policy (H&H, Feb., '64) has never hurt sales in its many California subdivisions. And ten Negro buyers had no effect on the runaway success of Bill Levitt's 1,905-house project at Matawan, N.J.

3. Small projects (20 to 30 houses) may have a much more serious sales problem with integration—even when the percentage of Negro buyers is no greater than in a large development. One St. Louis builder, Fisher & Frichtel, built a 35-unit townhouse project in St. Charles, Mo., then found that not enough whites would buy, and not enough Negro prospects could qualify. Many builders—particularly in the South—avoid building for Negroes because they fear that it will hurt their sales to whites, even in completely different areas. Rejection by white buyers, plus inability to find enough qualified Negroes, is the biggest fear of small builders entering the open-housing field.

4. Sales to Negroes are strongest in the upper-middle and upper-income brackets. St. Louis Builder Mayer's seven Negro buyers all bought his same top-priced, bestselling model. In Atlanta, where the market for Negro housing is strong (although the segregated pattern is unbroken), Alexander Associates sold 28 houses at \$25,000 to \$45,000 in the first two months after opening an 88-home subdivision. The same company is now starting an apartment for Negroes that will command rentals of \$110 to \$130—about \$40 higher than present local levels.

Los Angeles Builder Ray A. Watt has sold 1,200 houses to

Negroes in ten years—almost all at \$21,000 to \$27,000. And Cleveland's Federal Homes has moved into the \$24,000-to-\$30,000 custom market. Previously Federal sold some 500 houses in six years by tapping a vast pool of Negro veterans who had not used their VA eligibility.

In the low-income minority market, two excellent townhouse projects, built in Wilmington, Del., by NAHB Vice President and Treasurer Leon Weiner and Local NAHB President Sidney Paul, took more than five years to sell out. Says Weiner: "I think we should have aimed at a higher-price market." California's Ned Eichler—who, with his father, pioneered open housing—says, "There is no big market for low-cost new housing for minority groups in California."

5. Mortgage money can still be a problem, although FHA has liberalized its credit criteria for minority buyers. Wilmington's Sidney Paul complains, "If FHA had used different credit criteria from the beginning, my subdivision would have been closed out a year ago. Now that they have changed and are demonstrating their moral responsibility, one of the most disheartening things is to send FHA-approved cases to large lenders and have them rejected because of credit disapproval. I had to shop these cases around to many lenders and pay exorbitant points to get them placed. I feel this is a sad situation."

On the other hand, Bankers Mortgage Co. of California has agreed to accept all FHA- or VA-approved buyers in Barrett Homes' award-winning Richmond subdivision (see p. 80) for placement with major lenders like Bank of America and the Bowery Savings Bank. And Builder Ray Watt notes, "Lenders are gaining confidence and knowledge of the credit risks involved. In the past we had to put more of our own money into the program and pay higher fees for this financing."

Philip Emmer of Gainesville, Fla., has set up an experimental program (NEWS, Jan.) with FHA and the Kate Maremont Foundation to permit homebuying by families who do not pass credit checks but whom the builder considers good housing risks. Back of Emmer's effort is his conviction that low-income minority buyers should have credit criteria different from those of middle-class white buyers (less emphasis on retail credit judgments, garnishments, used-car repossession, etc.). Most upper-income Negro buyers now qualify as easily as whites for mortgage money.

Louisville Builder James S. Taylor notes that FHA and VA tend to downgrade a second source of family income—a significant point because among Negro homebuyers many wives hold jobs (see p. 82). But, Taylor says, conventional lenders accept working wives or second jobs as reliable income sources.

6. Some builders report impressive sales in the Negro market—but only in all-Negro developments. Chicago's Arch Hermanns has delivered 900 houses in his Maple Park project, where prices range from \$16,500 to \$40,000. He finds no objection that all buyers are nonwhites.

"They're like the foreign communities of a few years back, where national groups preferred to live together," says Hermanns. "I find little interest in integration in my projects. All the buyers want is the right to pull themselves up by the bootstraps without outside interference."

Allan R. Hoffman, president of St. Louis County Realty Co., has built and sold 350 houses (\$13,950 to \$38,500)—mostly on vacant tracts. He says his biggest problem is finding land acceptable to his increasingly critical buyers.

Both of Ray Watt's Los Angeles projects are all Negro, but "not by design," says Watt. "We just build houses and sell them to whomever wants them." Watt's projects consistently draw about an equal number of Negro and white lookers—primarily because he never mentions race in his advertising. He expects to make roughly 2,000 sales to Negroes in the next six years. In Charlotte, N.C., Builder Charles Ervin sold 46 houses averaging \$15,200 within six months after opening a new subdivision. He had started with a lower-priced Negro project and found that

Here are four examples of houses that builders are selling to the minority market



IN ST. LOUIS Builder Allan Hoffman's \$15,950 model is in the local all-brick tradition.



IN MIAMI Builder Arthur Shandloff put this four-bedroom, \$13,400 model downtown.



IN SAGINAW, MICH. American Redevelopment Corp. sold 10% of its duplexes to white buyers.



IN LOS ANGELES Ray Watt's four-bedroom, 2½ bath Del Amo Hills model sells for \$27,995.

many prospects wanted better houses, on bigger lots.

7. Negro leaders still give secondary importance to new housing—integrated or not. Jack Wood, associate executive director of the National Committee against Discrimination in Housing, says the Negro community has given highest priority to education and job opportunities but claims that government—both local and federal—could do more to encourage integrated housing: "If they had spent the same effort in the past two years to break down segregation in housing that they spent for 25 years in encouraging it, we would have gotten a lot further."

A ten-city HOUSE & HOME roundup of builders in the Negro market brought unanimous agreement that the Negro community was doing little to motivate families to buy the new housing their incomes would permit. Even in states with strong fair-housing laws, few minority families are seriously trying to buy new houses (see above). There is some feeling that Negro community leaders (clergymen, politicians, businessmen, etc.) are not too eager to see the most stable families abandon the central city for suburbia.

One Miami builder, Arthur Shandloff, has sponsored Sunday afternoon lectures in the city's Negro area to convince potential buyers that they can have the housing they need at down payments and terms they can afford. And Ray Watt says, "Many Negroes don't believe they are qualified to buy, so the salesman must prove it to them."

8. Major integrated subdivisions are still rare. Even when many white prospects are attracted to open-occupancy projects, they turn away when they see a preponderance of Negro buyers. But whites are likely to put aside their objections when terms are better than those normally available. For example, Detroit's American Redevelopment Corp. sold 10% of its 221d3 houses (above) to white buyers. The same pattern is true in New York State, where Mitchell-Lama middle-income projects attract buyers and renters of all races. Says one builder: "There is a point where self-interest outweighs prejudice."

For a look at a 450-house subdivision that sells on an integrated, nonquota basis, turn the page.

continued



Joshua Freiwald



ROOFLINE VARIATIONS and various building types eliminate the monotony that characterizes many tract developments.

This may well be the best integrated subdivision in the entire country

But it didn't get that way overnight; there are no instant successes in this field. Builders Richard and John Barrett put ten years' effort into Richmond, Calif.'s Plaza I and II, and Parkview urban redevelopment areas (*above*), before they could say, "The operation is finally making money."

After a full decade, they now have 450 houses sold, at prices that range from \$14,750 to \$32,000. "Today we're selling over 100 houses a year, and the rate is increasing," says Barrett Vice President John Tolan. "Also, we will soon start a 357-unit 22ld3 rental apartment which we will sell to the Kate Maremont Foundation (NEWS, Jan.) under a turnkey arrangement. This should add to the appeal of the entire project."

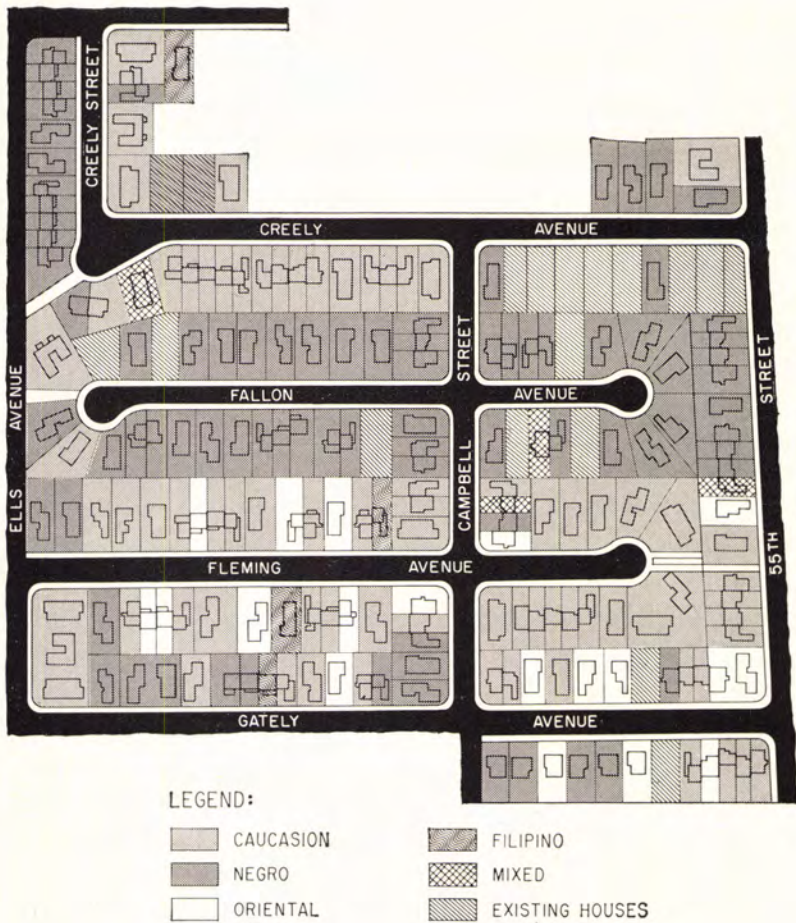
Like all pioneers in urban renewal and the uncharted world of integrated housing, Barrett found that delays and red tape in public agencies, plus gaps in marketing knowledge, doubled estimated construction time. Their four projects are on waterfront land previously used for temporary World War II housing. It was a full year from the day they bid on the first section until

they took title; it was another full year before their first sale.

Vice President Tolan feels that there are two big reasons for the success of the project today. The first lies in the changed attitude of major mortgage lenders. Where previously FNMA was the only market for their mortgages, they now have \$3 million in commitments through Bankers Mortgage Co. of California for placement with Bowery Savings Bank and a few others, plus \$1½ million direct from the Bank of America. Bankers Mortgage is paying the full FNMA price of 98¼. But even more important, they have agreed to accept every buyer approved by VA or FHA, and will give consideration to the income brought in by working wives, as well as the often-held second job of the husband.

"Second big reason for our increased success this year," says Tolan, "is the increasing number of buyer referrals from our residents. We have been able to cut our advertising and promotion costs and spend less to attract good prospects."

Barrett's experience has taught them four important rules for success in an inter-racial project:



RACIAL CHART shows no strong pattern of clumping in Parkview. Cul-de-sac land and street plan replaced the original gridiron.

Karl H. Riek



LIVING-DINING AREA in a three-bedroom, \$17,200 model, with a beamed ceiling and sliding glass doors opening to a rear patio.

Joshua Freiwald



TWO-STORY HOUSE was a bestseller at \$17,300. It has an offset entry, left, double garage, three bedrooms and 1½ baths.

1. Get the best in design. All the houses in the three areas were designed by top architects, Donald Hardison and Vernon Demars, and have won many honors (including a First Honor Award in the 1960 Homes for Better Living design program).

2. Don't build to the bottom of the market. With houses ranging up to \$32,000, both Barrett and the Richmond Redevelopment Agency are obviously aiming at middle- and upper-middle income families. In fact, the agency bought up and demolished 60 post-war minimum-quality houses in the area that did not meet the standards they had set for the Barrett houses.

3. Don't try to achieve some artificial quota. White prospects' decisions to buy are not based on a token number of nonwhites, but on the appeal and value of the housing. "We tried to save every interested white prospect, but never turned down a nonwhite because of percentage. We don't believe such juggling can work."

4. Use the same sales methods as in any subdivision. Barrett sales personnel are trained to treat all customers alike, and the model house area has four to six furnished, landscaped models

open at all times to give buyers the widest choice.

Barrett is still warily assessing some possible hazards to volume sales, principally the depth of the market for integrated housing in their higher price brackets. Although 50% of their Negro buyers are professionals or technicians, statistics (p. 82) indicate that only 3% of San Francisco-Oakland Negroes are in those occupations, which means they may have already sold most of these prospects. But the growth of job opportunities in education and government for nonwhites in the area convinces Barrett that the 3% figure may not reflect the percentage today—and tomorrow.

Another concern is a rise in the average age of their buyers from 33 in 1958 to 40 years old today, since this age group is a declining part of the population. They feel the rental units in the 221d3 apartments will help them attract more young families.

One solid advantage: they approach the future with accurate, in-depth information on their buyers, six years in the gathering.

For a look at 14 significant charts on the makeup, occupations and incomes of 190 of Barrett's buyers, please turn page.

continued

These charts show that integrated housing buyers are much like all buyers

THEIR JOBS ARE . . .	1958	1964
Professional, technical & kindred workers	35.9%	34.3%
Manager, officials & proprietors	12.2%	12.4%
Clerical & kindred workers	13.2%	17.8%
Sales workers	1.9%	4.1%
Craftsmen, foremen, operators & kindred workers	23.6%	21.9%
Service workers, laborers and household workers	13.2%	9.5%

NOTE: Government agencies and other public employees, 1958—29.2% 1964—53.7%

JOB OPPORTUNITIES are growing, as shown by the increase in the clerical and sales fields and the drop in laboring categories.

THEY HAVE CHILDREN . . .	1958	1964
Families with... NO CHILDREN	33.3%	23%
1 CHILD	21.4%	31.6%
2 CHILDREN	30.9%	27.2%
3 CHILDREN	7.2%	10.7%
4 CHILDREN	4.8%	4.3%
5 CHILDREN	2.4%	2.7%
6 CHILDREN	—	0.5%

FAMILY SIZE is similar to any population cross-section. Only 7.5% have four or more children, and 81.8% have two or fewer.

THEY BUY INSTEAD OF RENTING . . .	1958	1964
Families who formerly OWNED HOMES	21.4%	29.4%
Families who formerly RENTED HOMES	78.6%	70.59%

SECOND-TIME BUYERS now account for three out of ten sales, reflecting equity built up in earlier purchases of existing houses.

PRICES AND DESIGNS . . .	LOT SIZE	PRICE RANGE	NO. OF BUILDINGS
HOUSE TYPE			
Town Houses (SEMI-ATTACHED & ATTACHED)	30 x 100 TO 35 x 100	\$14,650 TO \$17,300	99
Detached Houses	50 x 100 TO 75 x 120	\$16,500 TO \$28,900	77
Duplexes	60 x 100	\$23,100 TO \$24,750	10
Triplexes	75 x 100	\$29,940 TO \$32,000	4
TOTAL			190

HOUSE PRICES show sales' concentration in medium-price range but lowest-price model (\$14,650) was dropped for lack of sales.

THEY SELECTED THESE HOUSE DESIGNS. . .

1958

ORIENTAL 15.5%

ORIENTAL 20%

NEGRO 13.8%

NEGRO 18%

CAUCASIAN 70.7%

CAUCASIAN 65%

TOWNHOUSES

SINGLE FAMILY
DETACHED HOUSES

DUPLEXES &
TRIPLEXES

CAUCASIAN 100%

1964

MIXED 3%

MIXED 1.3%

FILIPINO 2%

FILIPINO 2.6%

ORIENTAL 9.1%

ORIENTAL 6.3%

ORIENTAL 14.5%

NEGRO 41.4%

NEGRO 54%

CAUCASIAN 44.4%

CAUCASIAN 27.6%

CAUCASIAN 91.7%

TOWNHOUSES

SINGLE FAMILY
DETACHED HOUSES

DUPLEXES &
TRIPLEXES

NOTE: 84 houses sold in 1958; 187 in 1964

HOUSE DESIGN breakdown reflects growth of sales to Negroes. Lower incomes have kept them from buying duplexes and triplexes.

THEY FINANCED . . .	1958	1964
VA Sales	78.6%	37.4%
FHA Sales	21.4%	56.7%
Other	—	5.9%

NATIONWIDE DROP in VA sales is duplicated in Barrett buyers, but percentage of conventional loans is lower than national average.

Here is the best study yet of buyers in a major integrated subdivision

The statistical information dramatized in the charts on these two pages may well be Barrett Construction's greatest contribution to the market for open occupancy housing. For the first time, a reliable sampling (190 families) has been made of occupational and financial similarities and differences among white, Negro and oriental buyers in the same project. Even more important, the continuing research program shows some changing patterns in the six years between 1958 and 1964—changes that builders can project into present and future marketing tactics.

Of special importance is the growing number of nonwhite families who have moved into the white-collar and managerial ranks, primarily in government. Two-thirds of Parkview's Negro buyers are professional, technical or clerical workers, although only 11% of the Negroes in the San Francisco Bay area fall into this category. FHA and some mortgage lenders acknowledge what Barrett's research proves: working wives are common in a large percentage of minority-group homebuyers, and their incomes can and should be considered in qualifying for a mortgage.

Negroes' jobs and incomes are better

OCCUPATIONAL BREAKDOWN...

	WHITE	NEGRO	ORIENTAL	% NEGROES S.F.-OAK. METRO. AREA
Professional, technical & kindred workers	31.6%	50%	75%	3.3%
Manager, officials & proprietors	16%	-	12.5%	1.9%
Clerical & kindred workers	18.4%	16.7%	-	7.7%
Sales workers	2.6%	-	-	1.8%
Craftsmen, foremen, oper- ators & kindred workers	21%	16.7%	12.5%	32.1%
Service workers, laborers and household workers	10.5%	16.7%	-	40.4%

DISTURBING STATISTICS (at right) are still-low percentages of Negroes in better jobs, but figures may be out of date today.

EACH FAMILY EARNS...

	1958	1964
CAUCASIAN	\$7,176	\$10,143
NEGRO	8,292	10,273
ORIENTAL	6,048	8,800
FILIPINO	6,720	9,000
MEDIAN INCOME	\$7,200	\$9,946

EARNING POWER of Barrett buyers proves you can attract stable families with good incomes to in-town renewal area housing.

FINANCIAL PREFERENCES...

	VA	FHA	Other
CAUCASIAN	38.2%	55.3%	6.6%
NEGRO	42.7%	53.7%	3.7%
ORIENTAL	19%	66.7%	14.3%
FILIPINO	—	100%	—
MIXED	50%	50%	—
TOTAL	37.4%	56.7%	5.9%

MORTGAGE PREFERENCES of white and Negro families are similar, except for conventional loans on highest priced houses.

THEY MADE THESE DOWN PAYMENTS...

	1958	1964
NO Down Payment	10.7%	26.7%
Under \$700	66.7%	36.4%
\$700-\$2,000	13.1%	22.5%
Over \$2,000	9.5%	14.4%

DOWN PAYMENTS show increase in no-down VA's, but at same time large down payments on expensive houses also jumped.

Negro wives' income is very important

THEIR WIVES WORK...

	1958	1964
Caucasian	26.7%	27.6%
Negro	72.7%	59.8%
Filipino	33.3%	50%
Oriental	14.3%	14.3%
Mixed	—	50%
% of Total	32.1%	41.1%

WORKING WIVES are increasing overall, but Negro percentage is dropping, possibly reflecting growing earning power of husbands.

INCOME, NEGRO...

	HUSBAND	WIFE
0 to \$999	0	0
\$1000 to \$1999	0	5
\$2000 to \$2999	0	3
\$3000 to \$3999	0	9
\$4000 to \$4999	2	15
\$5000 to \$5999	8	11
\$6000 to \$6999	19	5
\$7000 to \$7999	20	1
\$8000 to \$8999	15	0
\$9000 to \$9999	10	0
\$10000 to \$10999	3	0
\$11000 to \$11999	1	0
\$12000 and above	4	0
MEDIAN INCOME	\$7550	\$4532

FAMILY MEDIAN INCOME \$10273

NEGRO WIVES are likely to work (59.8%), and their income gives their families the highest average income (chart at left).

INCOME, ORIENTAL...

	HUSBAND	WIFE
0 to \$999	0	0
\$1000 to \$1999	0	0
\$2000 to \$2999	0	0
\$3000 to \$3999	0	0
\$4000 to \$4999	0	1
\$5000 to \$5999	3	1
\$6000 to \$6999	5	0
\$7000 to \$7999	0	1
\$8000 to \$8999	6	0
\$9000 to \$9999	5	0
\$10000 to \$10999	1	0
\$11000 to \$11999	0	0
\$12000 and above	1	0
MEDIAN INCOME	\$8500	\$5500

FAMILY MEDIAN INCOME \$8800

ORIENTAL WIVES usually do not work (only 14.3% do), and as husbands earn little more than Negroes, total income is lower.

INCOME, CAUCASIAN...

	HUSBAND	WIFE
0 to \$999	0	1
\$1000 to \$1999	0	0
\$2000 to \$2999	0	1
\$3000 to \$3999	0	3
\$4000 to \$4999	0	8
\$5000 to \$5999	3	4
\$6000 to \$6999	14	3
\$7000 to \$7999	19	0
\$8000 to \$8999	14	0
\$9000 to \$9999	6	0
\$10000 to \$10999	2	0
\$11000 to \$11999	4	0
\$12000 and above	14	1
MEDIAN INCOME	\$8106	\$4875

FAMILY MEDIAN INCOME \$10143

WHITE WIVES also are employed (27.6%) in very similar income brackets as Negro wives. Only three women earn above \$7,000.



Vacation houses: new designs for a growing market

It's hard to find agreement on the present size of the vacation-house market: estimates range from 75,000 to 125,000 units a year. But it's easy to find agreement on the market's future: it will be much, much bigger. Two of the latest indications:

A 1964 survey by the University of Michigan Survey Research Center found that 10% of all families are thinking about "the possibility of buying a second home."

Home Building Plan Service of Portland, Ore., which sells 6,000 house plans a year to builders, has seen its sales of vacation-house plans rise from zero seven years ago to nearly 2,000 in 1964.

The market is growing in quality as well as in quantity. Today's typical vacation house is not a shack; it seldom costs less than \$4,000, and the average price is more than \$10,000. And good vacation-house projects are as well planned as the best of today's first-house communities (*see p. 86*).

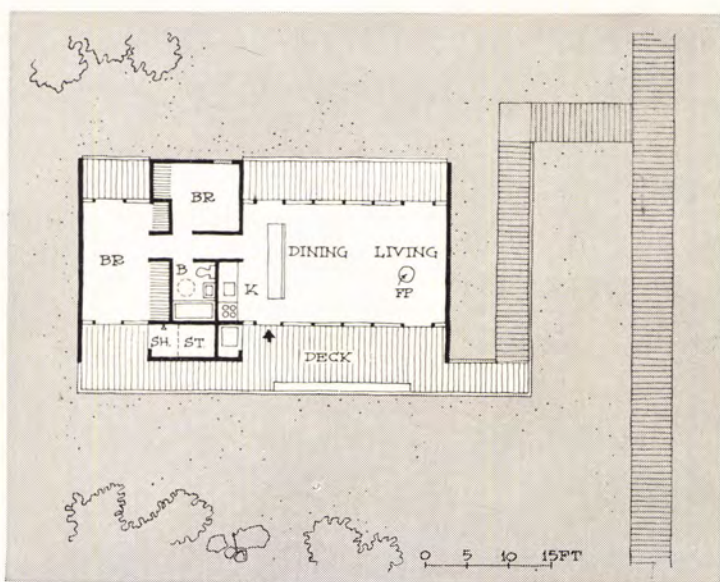
Design is even more important for vacation houses than for first houses. Says Ralph Rittenour, president of Home Building Plan Service: "Most people are conservative in buying a first house, but they'll go much further with a vacation house. They want design with real flair. And they want good plans because many of them buy a vacation house as a future retirement house."

To see six houses—and a vacation development—that fill these requirements, begin at right.

BEACH HOUSE typifies today's imaginative vacation-house design. Details are on facing page.



RECESSED GLASS WALLS permit sheltered outdoor living space on ocean side of house. Doors at ends of walls let sea breezes sweep through rooms (see plan below).



FLOOR PLAN provides 900 sq. ft. of inside area plus 600 sq. ft. of deck on two sides.

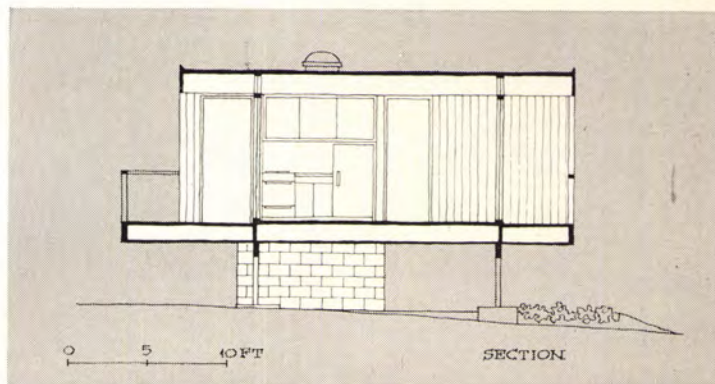


SIMPLE FOUNDATION consists of piers and posts. Cross-bracing resists racking stress.

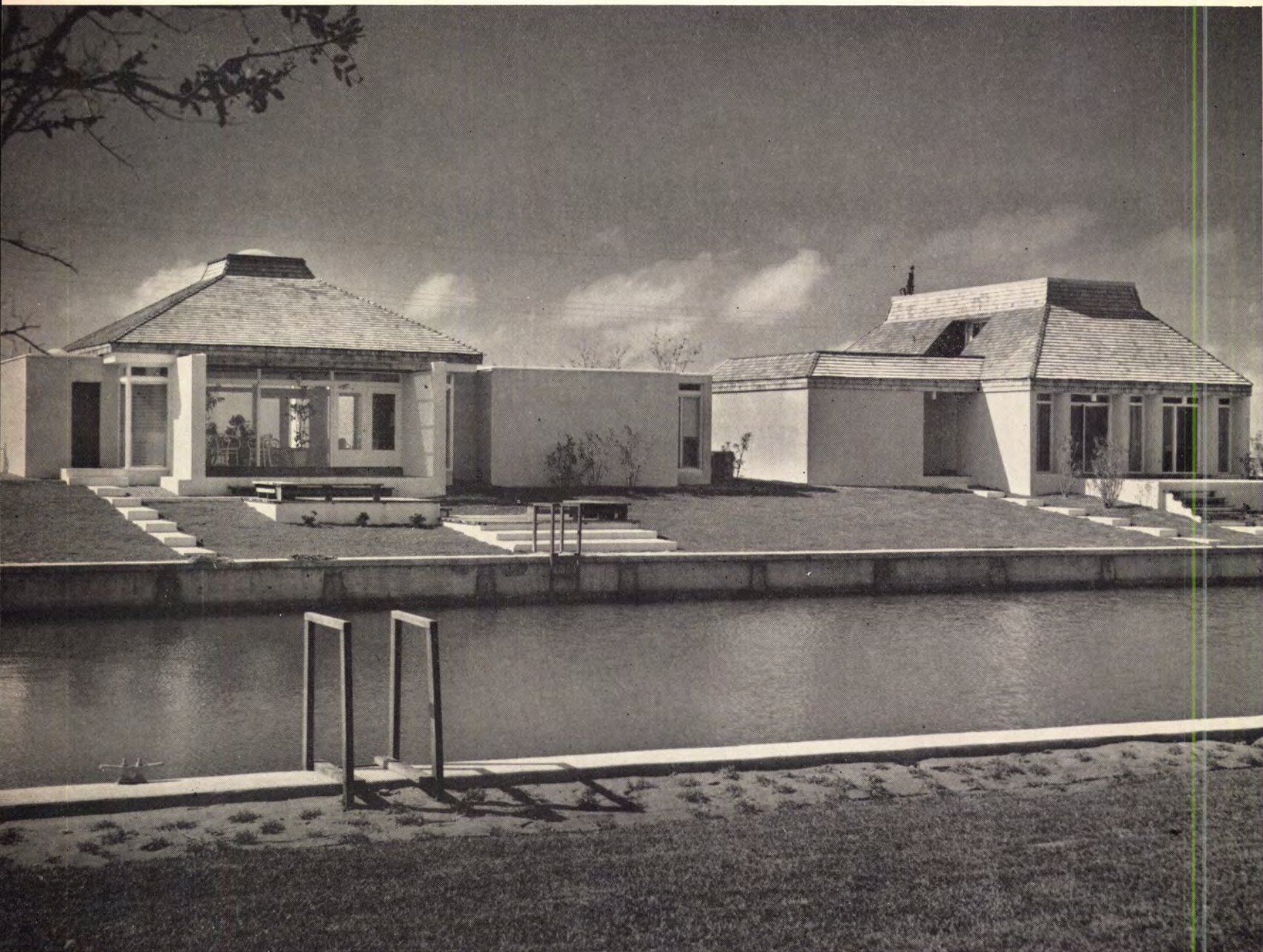
This precut beach house on stilts was built in nine days

Architect Richard Meier designed it as a simple rectangle with solid lumber walls of 3x6 t&g. Boynes Falls Log Homes, a Michigan company, made up the precut package and supplied a six-man crew to erect it on Fire Island, N.Y. Total cost was less than \$12,000, and about \$9,000 of this figure covered the package and the cost of transporting and erecting it.

The house is supported by 14 wood posts which rest on concrete piers. This simplified the foundation work and also lifted the house above hurricane water. A small masonry-block room at ground level (section, right) supports the weight of the bath and kitchen and provides utility and storage space. A wood ramp leads up to the living level.

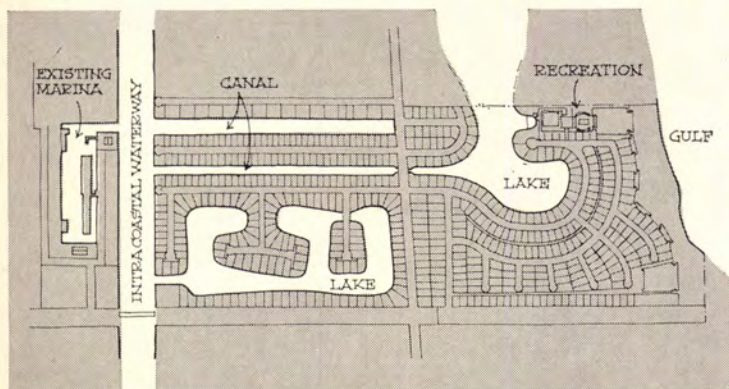


CROSS-SECTION shows position of utility room, relation of foundation posts to bearing walls.



TROPICAL DESIGN is reminiscent of houses in Bermuda and Nassau. One story model, left, has two bedrooms, two-story model has three. Other models will be priced from \$15,000 to \$60,000.

Here are two prototype houses for a 3,000-acre vacation project



LAND PLAN of first section puts 78% of lots on water. Lot prices range from \$4,000 to \$25,000.

They were designed by Architect Clovis B. Heim-sath for Bryan Beach Inc., a firm which is developing an 8,000-house vacation project on an island near Houston. Although they are not standard models in the usual sense, they set the design theme on which future homes—speculative and custom—will be based. Prices: about \$21,000 on \$7,000 lots.

Land at Bryan Beach has been filled to above-hurricane levels, making the houses fully insurable and hence easily financed. This fact, combined with the clean design and good land planning (*drawing, left*), has sold 140 of the first 150 lots developed in less than a year. One-third of the buyers want vacation houses, one-third plan to retire to their houses and one-third will use them all year round.

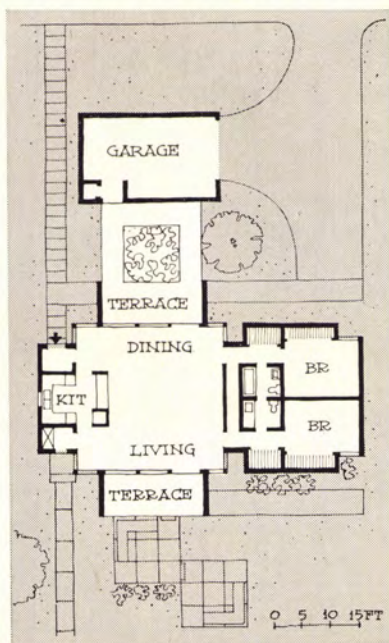
One-story model



ENTRY TERRACE has deep roof overhang. Walls are masonry block with stucco finish.

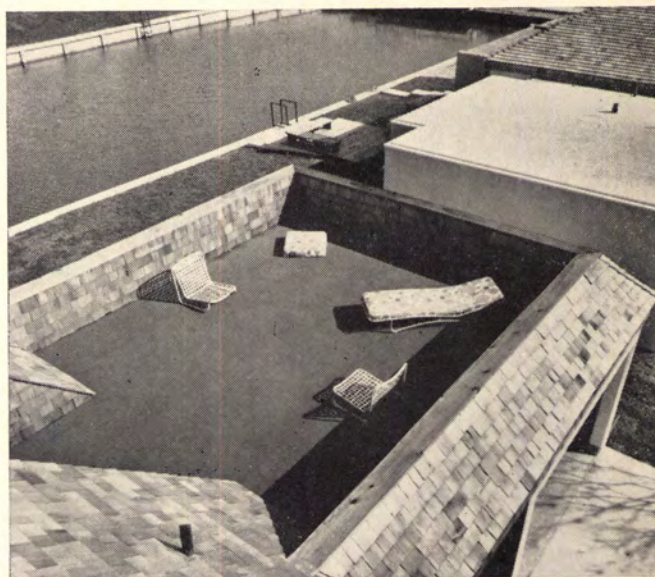


LIVING ROOM has tile floor for easy maintenance. Kitchen is beyond pass-through at right.



FLOOR PLAN shows glass walls opening to view of canal (photo, above) and to rear terrace.

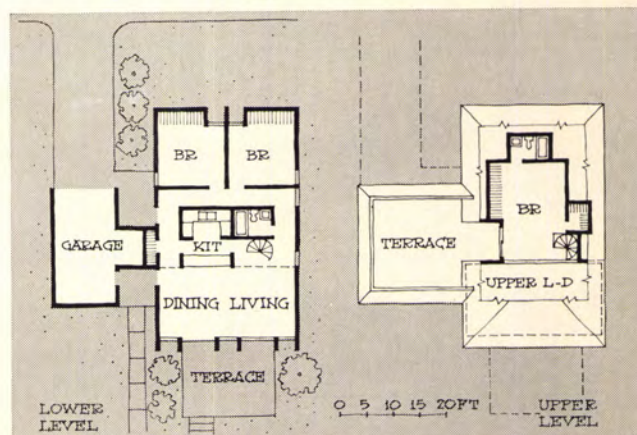
Two-story model



SUNBATHING PORCH opens off second-floor bedroom, has solid side walls for privacy.



SECOND-FLOOR BALCONY overlooks living room. Circular stairs save space, retain openness.



FLOOR PLAN has 2,300 sq. ft. of area. Downstairs bath and kitchen form a utility core.

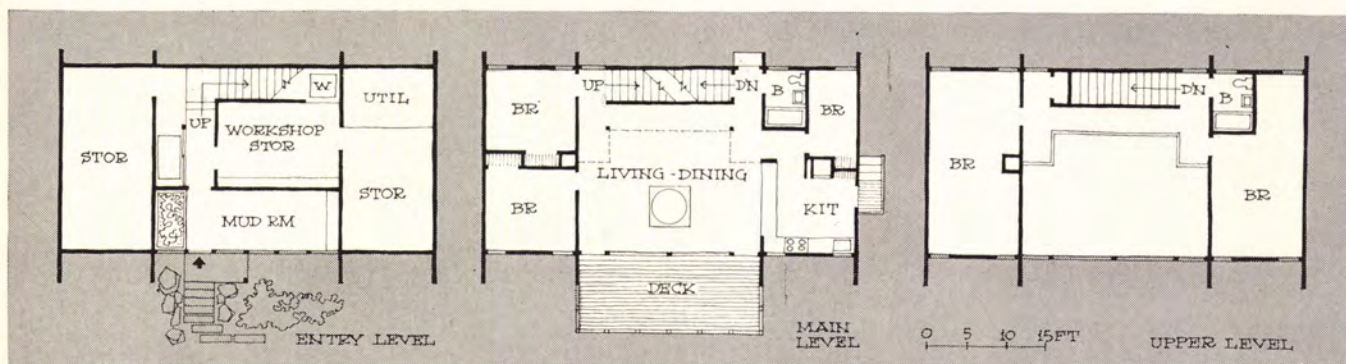
continued



HIGH WINDOWS in 48'-long front wall let people in living room look out over tops of trees. Short

fin walls help shelter balcony from wind, also support front overhang of roof.

Photos: X de Gery



THREE-LEVEL PLAN has entry, storage and utilities on bottom, living and parents' areas

on second floor and children's area on top floor. Balcony on top floor serves as corridor.

This three-level house is designed and sited for a view

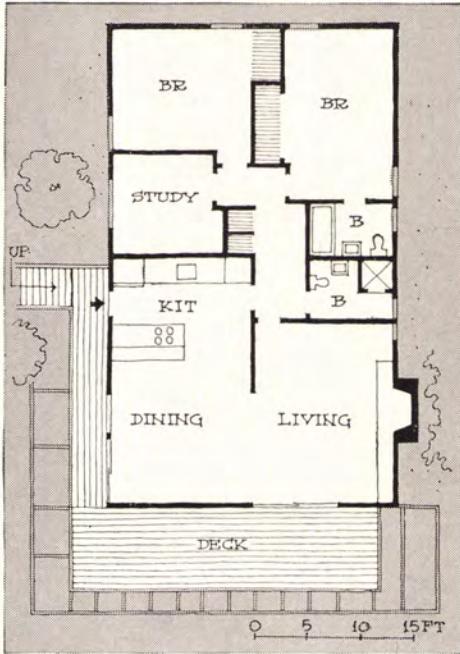


It has a two-story living room with windows that run up to the roof. And it is turned so that its gable end is along the length rather than the width, permitting more—and higher—windows facing the view, and also allowing the lower level to be cut into the hillside with a minimum of excavation. Side walls are without windows because other houses flank the 80' lot.

The house was designed principally as a two-family ski lodge. Two parents' bedrooms and a small single bedroom are located on the living-room level; two children's dormitories and a second bath are on the top level. Architect John C. Worsley designed the house in Squaw Valley, Calif., for his own family. It cost \$20,400.

TWO-STORY LIVING ROOM has free-standing fireplace in center, balcony on rear wall.

Photos: Leland Y. Lee



FLOOR PLAN is conventional except for entrance, which must be reached by steps up to side deck.



GABLE ELEVATION has deep roof overhang and deck supported by cantilevered 4x6 girders.

This small house is textured to match its woodland setting



Its high-pitched (6") roof is covered with hand-split cedar shakes; siding is rough-sawn redwood clapboards set vertically rather than horizontally; roof decking is 2x6 t&g cedar exposed on the inside; and interior walls are covered with prefinished wood paneling. And to provide design relief, Architect K. N. Hayakawa used a stack bond with dark mortar for the foundation walls and chimney.

The house is set lengthwise on a slope, and instead of excavating deeply, Hayakawa built up the front foundation and put a deck in front of the living room. The ground-level space is used for a utility room and for a carport that doubles as a boat-storage area. Located in Big Bear Lake, Calif., the house has 1,240 sq. ft. of space, cost \$16,000.

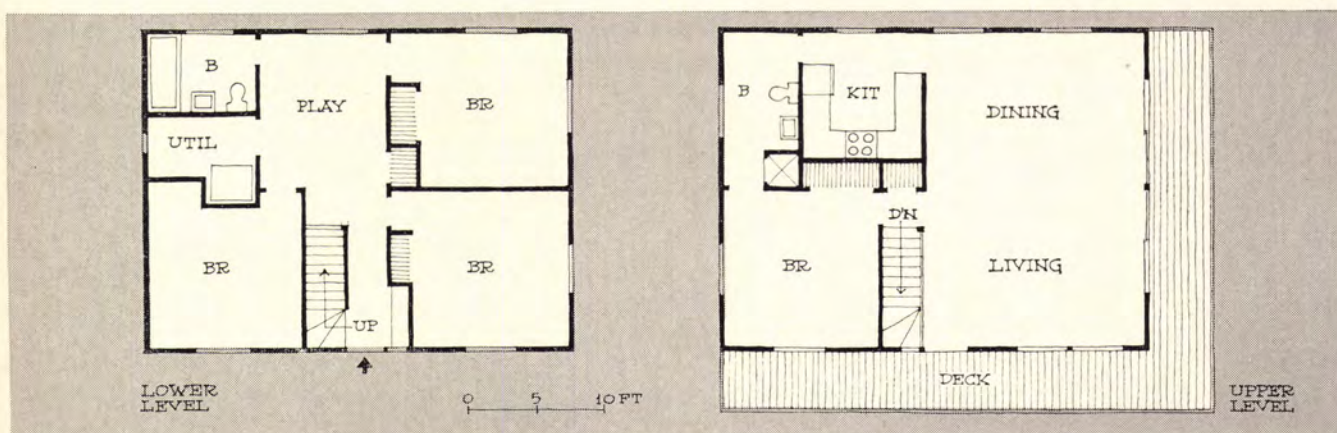
LIVING ROOM shows spacious feeling achieved by high roof, gable-peak windows.

continued



TWO-STORY HOUSE has ground-hugging look because it is encircled by a wide deck. Stairs, visible at far left, lead up to deck and provide direct access to living area on second floor.

Lisanti



TWO-LEVEL PLAN reverses normal design, puts three bedrooms, bath and playroom on lower

level, living area on upper level for better view. Kitchen package is supplied by prefabber.

This vacation prefab sells for \$13,000—completely winterized



It is supplied as a panelized package that can be erected on the site in from one to four days. Its price includes 1,570 sq. ft. of finished space on two levels, all mechanical components, insulation, insulating windows, a septic tank and all site labor and materials. The same house sells for \$11,300 without heating and insulation, and a one-story version, built on piers, is priced at \$8,900 winterized or \$7,400 unwinterized.

The house is one of several standard models offered by Stanmar Inc. of Sudbury, Mass. Stanmar shipped 300 packages last year, the majority of them to vacation-house developers, as far west as Illinois. And while most were sold as vacation houses, about 10% were built as permanent homes.

LIVING ROOM on upper level opens to deck through glass doors on three sides (*see plan*).



TOP: Left—Colonial Plank; Right—BondWood; BOTTOM: Left—Straight Edge; Right—BondWood Domino

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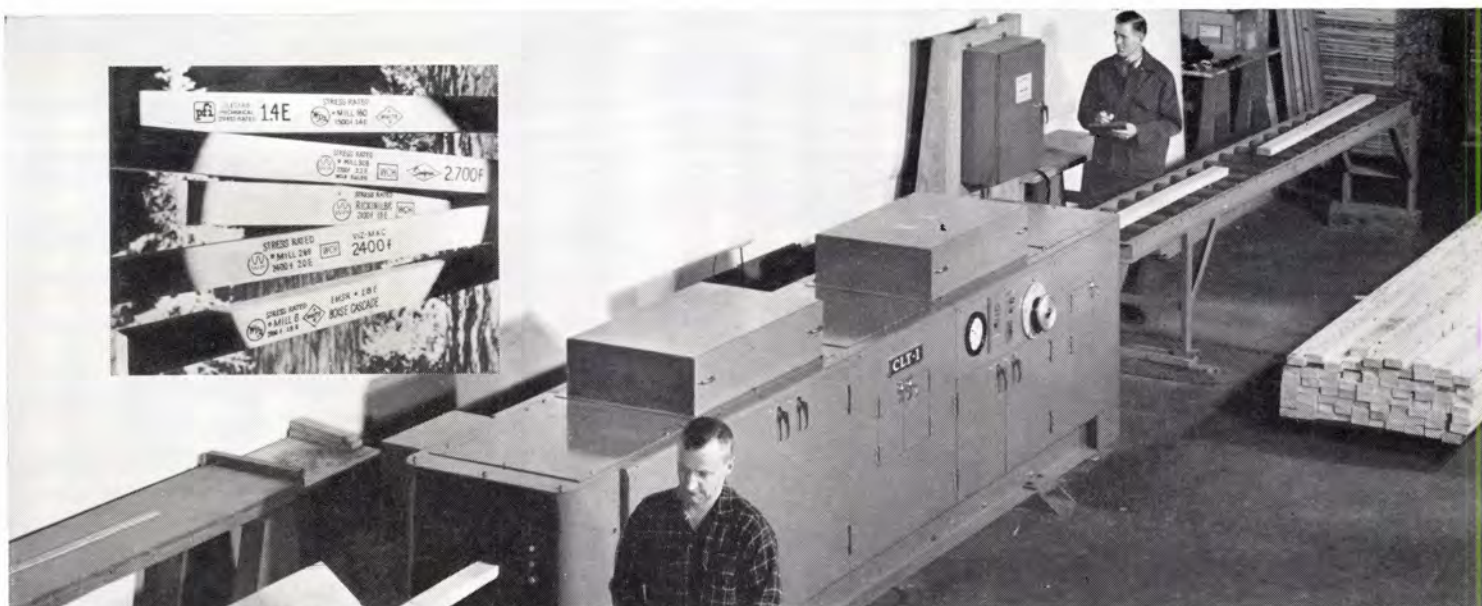
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ELECTRONIC GRADER stamps two ratings on lumber: stiffness ("E") and bending strength ("F"). Tables relate these to specific loads and spans.

Machine-graded lumber cuts framing costs by reducing over-specification

A builder who makes the switch from visually graded framing lumber might save over 25% in reduced materials and freight costs.

Take a theoretical 28'x40' one-story house with limited attic storage and light roofing. First, the floor: designed for a 40-lb. live load, it needs 62 joists 16" o.c. Visual-grade standards call for 2x10s, but electronic machine-grade standards say 2x8s will do. The saving is 290 board ft. Second, ceiling joists: visual-grade standards say 2x8s, machine-grade standards say 2x6s, and another 290 board ft.

are saved. Third, rafters: the visual grader requires 2x6s on 16" spacing, the electronic grader allows 2x6s on 24" spacing. The difference between 42 and 62 rafters is 320 board ft. Total saving: 900 board ft., multiplied by current lumber prices and freight rates.

Machine-graded structural lumber is at least four years old, but to date few builders have looked into it. The several Western lumber manufacturers who are producing it (100 million board ft. in 1964) find their biggest customers among prefabbers.

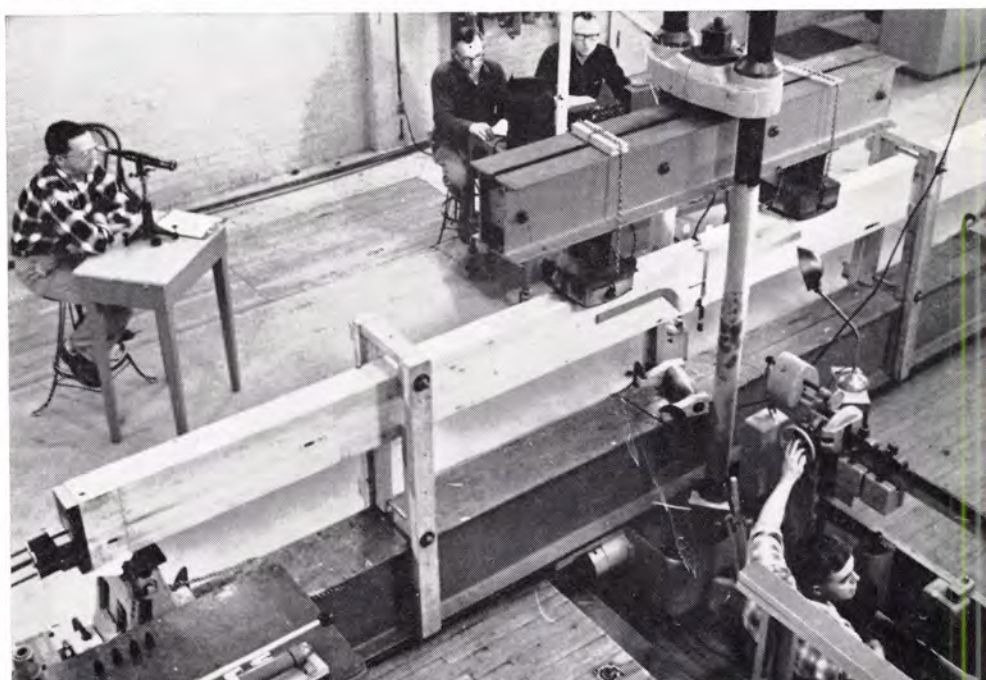
One obstacle has been lack of proof that the machines are accurate. They compute the strength of a piece of lumber by measuring its stiffness. They deflect the lumber two ways, measure the force required to deflect it, arrive at a strength grade and stamp it on the lumber (*above*). Now, to test the validity of this method, FHA is sponsoring extensive performance studies of machine-graded lumber which include comparisons with performance of visually graded lumber. The outcome should strongly affect its acceptance.

Prestressing makes glue-laminated wood beams 30% stronger

So reports U.S. Forest Products Laboratory. And note: they are talking about beams made of common-grade lumber. Prestressing, the lab has discovered, makes use of the lower grades' high compressive strength to offset their low tensile strength. Clear top-grade lumber is just the opposite: high tensile, low compressive strength.

Dozens of beams were tested at the Forest Products lab, all made of L-3 Douglas fir, the lowest laminating grade. Each beam had nine laminations. A cable was inserted in a hole through the lower half of the beam and drawn taut by a hydraulic jack and hand pump, creating an upward bow or camber in the beam. Several prestress levels were tested until it became evident that the most desirable one for the L-3 grade was 1,300 lbs. per square inch (psi.)—the net difference between 1,800 psi. of compressive stress in the lower laminations and 500 psi. of tensile stress in the top ones.

The claim that prestressing boosts bending strength 30% is based on mechanical loading tests (*photo*). Now a second test phase is subjecting prestressed beams to long-term static loads. Purpose: to see how seriously creep or shortening will reduce the compressive prestresses.



PRESTRESSED-BEAM TESTS involved loading glue-lam beams to the point of failure to determine gain in bending strength induced by taut cable.

Technology continued on p. 94

SURPRISE!



Finishes and patterns above are Formica's Harvest Cherry, 535, and Yellow Mayflower, 203.

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TECHNOLOGY

starts on p. 92



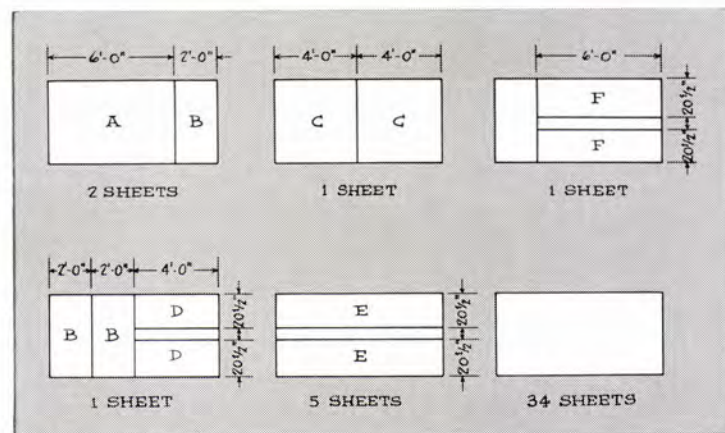
MATERIALS CONVEYOR is one of several ideas studied by APA-NAHB roof analysts in program aimed at reducing sheathing labor costs one-third.



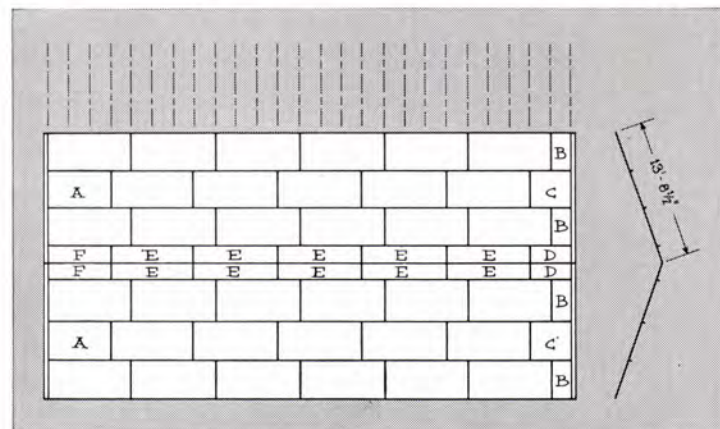
POWER FASTENER, used after all panels were positioned and tacked, saved one hour of labor on 2,000-sq.-ft. roof compared with hand nailing.



ROOF-LEVEL PLATFORM that adjusts to pitch holds plywood stack close to job. Another idea: sharpened hammer claws help workmen position panels.



LAYOUT PLAN determines exact number of plywood panels needed for roof and permits positioning of full sheets for most economical cutting.



CUTTING PLAN for roof at left results in less than half a sheet of left-over plywood out of 44 panels. Cutting and numbering are done on ground.

New roof sheathing study shows how to save 15% on labor and materials

Follow the recommendations soon to be published by the American Plywood Assn. and NAHB, and—if you are among the 65% of builders who use plywood for sheathing roofs—you could save as much as \$24 on a 1,600-sq.-ft. roof. That estimate is based on the two associations' joint study last year of roof construction on 14 houses; the roofs included all styles and ranged in area from 1,240 to 2,257 sq. ft.

Don't expect revolutionary cost-cutting ideas from the study, but rather a manual of good practice incorporating just about every com-

mon-sense roof-sheathing technique.

A preliminary report (the complete findings are supposed to be available to all builders this spring) shows the average builder spends 10¢ a sq. ft. to buy and apply plywood roof sheathing. But he could reduce that to 8½¢: careful layout and cutting could save him 1¢ and smarter materials handling and fastening could save ½¢.

Layout is the No. 1 cost-cutting area because materials account for 88% of roof sheathing costs—and almost all of that (96%) is the plywood itself. The study points up the

importance of a 16" or 24" module for trusses or rafters to minimize plywood cutting and leftovers (*see plan above*). Recommended maximum for scrap: 3%.

Labor costs, while only 12% of the total, can be reduced one-third according to the APA-NAHB report. Handling and fastening methods that save steps and reduce crew size (*photos above*) are the keys here because labor costs break down this way: 42% for materials handling, 33% for fastening, 17% for measuring and cutting, and 8% for preparing to work.

SURPRISE!



In 1965, Formica again does the unusual... with the
FORMICA \$100,000 WORLD'S FAIR HOUSE **Sweepstakes**

**ANOTHER GREAT MODEL HOME PROMOTION
TO BUILD TRAFFIC... SELL HOMES... FOR YOU!!!**

In 1964, the FORMICA World's Fair House Builder Program helped bring over 2 million people to more than 160 model homes.

Now, in 1965... an even bigger model home program. \$100,000 in prizes in a fabulous Sweepstakes. Offer your prospects a chance to win a \$50,000 version of the famous FORMICA World's Fair House, plus 2,500 other prizes!

Here's how you can participate:

- Agree to build, furnish and show a house with 3-or-more bedrooms in the \$25,000 or up class.
- Use five or more applications of FORMICA® products plus two American Cyanamid Company ACRYLITE® products.

You build the house... Formica Corporation will build the crowds!

Every visitor to your model home (and to the FORMICA World's Fair House in New York) will be eligible to win prizes... simply by filling out an entry blank. Formica Corporation will build interest with national advertising and will provide a complete merchandising and promotional program for your local use.

A proved traffic builder!

The 1964 record proved the amazing pulling power of World's Fair House models... as many as 10,000 people in one day! With the added attraction of the \$100,000 Sweepstakes, 1965 traffic will be greater than ever for model homes featuring beautiful, maintenance-free FORMICA products, the contemporary material for today's best selling homes.

Let "something extra" sell more houses for you. Find out how you can participate in The World's Fair House Sweepstakes.

Write today to Dept. M-511, Formica Corporation, Cincinnati, Ohio 45232.

**Spectacular prizes
bring spectacular crowds**

- **GRAND PRIZE:** \$50,000 version of The World's Fair House, including lot.
- Brand new 1966 automobiles.
- Household appliances.

PLUS thousands of additional prizes including:

- Home entertainment centers, FORMICA® laminate surfaced furniture, MELMAC® dinnerware, electric blankets of CRESLAN® acrylic fiber, ACRYLITE® products, BRECK® beauty kits, and many others.

NOTE: Offer void in States where prohibited by law. Employees and their families of American Cyanamid Company, its divisions, subsidiaries, and advertising agencies are ineligible to participate in this Sweepstakes.

the surprise of



FORMICA® is our trademark for various products including our brand of laminated plastic. Insist on this identification to avoid imitations.

BUSINESS IN THE MAKING

HOUSE & HOME presents locations, sponsors, architects and estimated costs of representative new projects costing over \$500,000 as gathered by ENGINEERING NEWS-RECORD and F. W. Dodge Co., division of McGraw-Hill Inc. to alert builders, lenders and contractors to new business.

ALABAMA—BIRMINGHAM: Apartment and swimming pool, \$900,000. Sponsor: Ross Development Co. Plans: James E. Ford. HUNTSVILLE: 25 apartments, \$1 million. Architect: Clyde Fleming & Assoc.

CALIFORNIA—REDLANDS: 80-unit apartment, \$1,080,600. Sponsor: Stern Built Homes. Plans: Richard S. Bild, Encino. SAN RAFAEL: Community development, \$10.5 million. Sponsor: Perma-Bilt Enterprises, San Leandro. SANTA ROSA: 60-unit apartment, \$820,000. Sponsor: Les G. Bettini. Plans: Millard F. McKamey Jr. SUNNYVALE: two 47-unit apartments, \$900,000. Sponsor: Lindsay Development, Palo Alto. Plans: Kenneth P. Elvin, Los Altos.

CONNECTICUT—BRIDGEPORT: Garden apartments, \$500,000. Sponsor: Doris Walman. Plans: Fred Gellert. KILLINGWORTH: 58 houses, \$2 million. Builder: Harold Conti, Milford. MIDDLETOWN: Garden apartments, \$1.2 million. Architect: John M. Pacelle Jr., Southington. OLD LYME: 50 houses, \$2 million. Builder: Lifetime Homes.

DELAWARE—DOVER: 172 houses, motel and shopping center, \$8 million. Builder: Kentwood Construction.

DISTRICT OF COLUMBIA—13 houses, \$650,000. Builder: A. L. Wheeler. Plans: Byrd and Bryant; four garden apartments, \$875,000. Sponsor: Boulevard Builders, Silver Spring, Md. Plans: Victor Smolen.

FLORIDA—DEERFIELD BEACH: Condominium apartments and swimming pool, \$750,000. Architect: Richard W. Dodge, Pompano Beach. Engineer: Dracos & Assoc. FT. LAUDERDALE: Condominium and swimming pool, \$600,000. Builder: Crystal Lakes Development Corp., Lighthouse Point. Plans: Romano & Sullan, Pompano Beach. HOLLYWOOD: Condominium apartment, \$500,000. Sponsor: B. B. H. Corp. Plans: Joseph H. Dodds. JACKSONVILLE: 50 houses, \$650,000. Builder: Soforenko Homes. MIAMI: Garden apartments, \$3.75 million. Sponsor: Nineteen Corp. Plans: Theodore Gottfried. Engineer: W. C. Gorman.

GEORGIA—ATLANTA: Apartments, \$1 million. Sponsor: Julian Lecraw. Plans: Ted Levy. FOREST PARK: 30 apartments, \$750,000. Sponsor: Colonial Village, Atlanta. Architect: Theodore O. Skinner, Atlanta.

ILLINOIS—CHICAGO: Condominium apartments, \$30 million. Sponsor: Dunbar Builders. Plans: A. R. Belrose. DES PLAINES: 24 houses, \$700,000. Builder: Panoramic Builders, Northfield. Architect: Footlik & Rose, Morton Grove. HOMEWOOD: Three condominium apartments, \$1.5 million. Sponsor: Eagle Construction, Chicago Ridge. Plans: R. H. Weldon, Chicago. NAPERVILLE: 240 houses, \$7.2 million. Builder: Palco Development Corp., Skokie. Plans: Footlik & Rose, Morton Grove.

INDIANA—GRAY: 98 row houses, \$1 million. Sponsor: Shamrock Engineering Co. Plans: David Kaplan. INDIANAPOLIS: Two 158-unit apartments, \$2 million. Sponsor: Kessler Blvd. Apartments. Plans: Architects Coordinate; Four apartments, \$2.5 million. Sponsor: Riverhouse Apartments. Architect: David F. Snyder Assoc.

IOWA—OTTUMWA: Three apartments with 14 townhouse units, \$5 million. Sponsor: Bruce Realty, Milwaukee, Wis.

KANSAS—LAWRENCE: Eight apartments and swimming pool, \$500,000. Sponsor: Merlin Stickelber, Tulsa. Plans: Don H. Honn, Tulsa. MISSION: Townhouse apartments with 520 suites, \$3 million. Sponsor: Enterprise Development Corp., Kansas City. OVERLAND PARK: Six apartments, \$500,000. Sponsor: Sy Yukon, Kansas City, Mo. Plans: Boyle & Wilson. TOPEKA: Apartment, \$750,000. Architect: Keine & Bradley.

KENTUCKY—LOUISVILLE: Apartment, \$1 million. Sponsor: Guy Ramsey, Tell City, Ind. Plans: Kenneth D. Mock.

LOUISIANA—METAIRIE: 105 houses, \$1.26 million. Builder: John R. Neyrey Construction.

MAINE—TOPSHAM: 100 houses, \$1.25 million. Builder: John B. Bouchard.

MARYLAND—CHEVY CHASE: 76 townhouses, \$1.5 million. Builder: Monroe Warren. Plans: Bagley-Soule. HYATTSVILLE: Garden apartments, \$1 million. Plans: Zubkus-Zemaitis Assoc., Washington, D.C. ROCKVILLE: Garden apartment, \$5.2 million. Sponsor: Rosansky & Kay Construction, Washington, D.C. Plans: William L. Mayne, Alexandria, Va. TOWSON: Townhouse and apartment development, \$6 million. Sponsor: Maurice Berk, Silver Spring. Plans: Cohen-Haft, Silver Spring. Engineers: Duncan Gray, Washington, D.C. UPPER MARLBORO: Garden apartments, \$1 million. Sponsor: Southeast Props., Washington, D.C. Plans: Zubkus & Zemaitis, Washington, D.C.; also planners for garden apartments, \$1 million. Sponsor: Central Assocs., Washington, D.C.

MASSACHUSETTS—ROCKLAND: 20 houses, \$500,000. Builder: Tedeschi Realty.

MICHIGAN—DETROIT: Medium- and low-rise apartment, \$3 million. Sponsor: Nelson & Mervin Grosberg. Plans: Eberle M. Smith. MELVINDALE: Garden apartment, \$2.1 million. Sponsor: Redmont Apartment Co. PLYMOUTH: Townhouse apartments, \$1 million. Sponsor: American Redevelopment Corp., Huntington Woods. Plans: Sanford Rosen, Detroit.

MINNESOTA—BLOOMINGTON: 92 row houses, \$1.8 million. Builder: Maurice Mandel Inc., Minneapolis. Plans: George Kolinsky, Minneapolis. WHITE BEAR LAKE: 50 houses, \$750,000. Builder: National Funds, Minneapolis.

MISSISSIPPI—BILOXI: Apartment and swimming pools, \$1.25 million. Sponsor: Jake and John Mladinich, West Beach. Plans: Robert D. Ladner.

MISSOURI—ST. LOUIS: 28 houses, \$1 million. Builder: Burton W. Duenke, Creve Coeur; 500 houses, \$5 million. Builder: Holiday Development Corp., Fenton; 75 houses, \$2.175 million. Builder: Grimes Bldg., Normandy; 80 houses, \$1.5 million. Builder: George Kerr, Jr.

MONTANA—BOZEMAN: Apartment, \$500,000. Sponsor: Northwest Development Corp., Missoula.

NEBRASKA—OMAHA: 20 apartments and 210-unit row houses, \$1 million. Sponsor: Bert L. Smolker, Detroit. Plans: Green & Savin, Ferndale, Mich.

NEVADA—RENO: 240-unit apartment, \$2.5 million. Sponsor: A. Bernard Muth. Plans: Avila Enterprises.

NEW JERSEY—ISELIN: Garden apartments, \$1.5 million. Sponsor: Paul Goldman, Union. Plans: Gerber & Pancini, Newark. JERSEY CITY: 52 houses, \$1.25 million. Builder: Lehigh Valley Estates. Plans: Neal M. Tanis, Clifton. MONMOUTH BEACH: Garden apartments, \$1 million. Builder: Walter Mihm, Sea Bright. Plans: Howard O. Drasnoff, Philadelphia, Pa. NEW BRUNSWICK: Garden apartment, \$1.8 million. Architect: John Fisher. PARSIPPANY: Garden apartments, \$1 million. Builder: Waverly Builders.

NEW MEXICO—ALBUQUERQUE: Apartments, \$6 million. Sponsor: The Lusk Corp.

NEW YORK—EAST ISLIP: 42 houses, \$1 million. Builder: Bruce Soloff, Oyster Bay. Plans: Alvin Cassens Jr., Valley Stream. JAMAICA: Garden apartments, \$3 million. Sponsor: Joseph Timpano. Plans: Sidney Goldhammer, New York City. Structural Engineer: Leon Selzer. HOWARD BEACH: 60 houses, \$1 million. I. C. R. Construction, Woodmere. Plans: Stanley H. Klein, Jamaica. HUNTINGTON: 200 houses, \$4 million. Builder: Pickwick Builders, Plainview. Plans: Rapson E. Baum, Jamaica. RIVERDALE: 60 townhouses and apartment, \$4.5 million. Sponsor: Henry Kibel.

NORTH CAROLINA—RALEIGH: 51-unit town apartments, \$800,000. Sponsor: Call & Assocs., Newport News, Va. Plans: Frank B. Simpson. WINSTON SALEM: Six apartments and shopping center, \$700,000. Sponsor: Richard F. Simpson. Plans: Robert F. Arey Assoc.

OHIO—CINCINNATI: 100 houses, \$1.5 million. Builder: Meier Bros; 393 houses, \$6.5 million. Builder: Kermer Const. Corp. COLUMBUS: 1,000 houses, \$20 million. Builder: Sunburg Hills Inc.; 1,500 houses, \$37.5 million. Builder: Metzger Bros. MEDINA: 500 houses, \$10 million. Builder: Louis E. Molnar, Bay Village. Plans: J. Norman Stark & Assoc., Elyria.

OKLAHOMA—TULSA: Townhouses and apartment, \$2.3 million. Sponsor: Bowlwood Estates, Midwest City; 218 houses, \$5.4 million. Builder: Patrician Homes.

PENNSYLVANIA—SCRANTON: Garden apartments, \$2.75 million. Sponsor: Bellefonte Apartments Inc. Plans: Bucher Meyers, Silver Spring, Md. WARMINSTER: 200 houses, \$2.5 million. Builder: Oakwood Homes, Hartsville.

RHODE ISLAND—CRANSTON: Four 80-unit apartments, \$1 million. Sponsor: W. J. A. Realty. Plans: Joseph D. Falcone. NEWPORT: Apartment, \$2 million. Plans: Frost & Pierson, Greenwich, Conn.

TENNESSEE—NASHVILLE: 106 houses, \$1.4 million. Builder: Martin Construction.

TEXAS—GALVESTON: 66 houses, \$1.32 million. Builder: Evans & Sweeten. PASADENA: 80 houses, \$1.6 million. Builder: Coym & Tillison, Houston.

VIRGINIA—CHESAPEAKE: 250 houses, \$2.5 million. Builder: Frederick P. Gabriel, Norfolk. Plans: Melvin M. Spence, Norfolk.

WISCONSIN—MENOMONEE FALLS: 160 townhouses, 18 houses, \$2 million. Builder: Meadows Inc., Milwaukee. Plans: Charles Harper, Milwaukee. FRANKLIN: houses, \$1 million. Builder: Mark Homes Inc., Milwaukee.

New products start on p. 111



Missed the show?

Here are the highlights:

Show-stopper was the Bird & Son line with its big-selling idea. The idea? Materials to keep exteriors maintenance-free from rooftop to ground. The line? Bird solid vinyl siding, shutters, downspouts, gutters . . . and Architect® Mark 25 Shingles. All to be backed by dramatic radio, magazine, newspaper ads.

Bird solid vinyl siding won't peel, dent, pit, or rust. Won't rot or feed termites. Won't show scratches. Won't need paint, patching. Won't conduct lightning. Will save homeowners fix-



up bills, and add resale value. Guaranteed by Bird for 20 years.

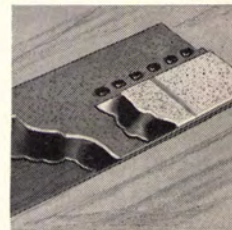
Bird solid vinyl shutters have all the no - maintenance qualities of Bird solid vinyl siding (above). With color matched screws. Easy to install.



Bird solid vinyl gutters and downspouts can't rot, rust, peel. Won't show scratches. Won't be affected by rain, melting snow, rotting leaves.



Bird Architect Mark 25 shingles are hurricane-proof. New design (no cutouts), new colors give homes a richer look. Guaranteed by Bird for 25 years.



For information about Bird line and deals

**BIRD & SON, inc., Box HH25,
East Walpole, Mass.**

Please tell me about

- ☐ Bird solid vinyl siding and shutters
- ☐ Bird solid vinyl gutters, downspouts
- ☐ Bird Architect Mark 25 shingles
- ☐ Bird builder programs
- ☐ Bird distributor programs

Name

Firm

Address

City..... State..... Zip.....

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FEBRUARY 1965

Circle 32 on Reader Service Card

WHY IS FLAMELESS ELECTRIC HOME HEATING THE CHOICE OF MODERN BUILDERS THROUGHOUT AMERICA?

Representative builders offer candid comments which help to explain why over 300,000 new homes built this year will feature flameless electric heat

Despite their widely scattered locations, builders Donald Geitgey, James Canna, Homer and Lynn Valentine and James Foley all enthusiastically agree that flameless electric heating is a major sales feature, recognized and asked for by prospects, in the homes they build.

Behind their switch to electric heat lies one simple fact: installing electric heating insures them a bigger—and faster—return on their investment.

Throughout America, more and more builders are recognizing the growth in national acceptance of electric heating, and are taking advantage of its great profit potential. Already, nearly two million homes are heated electrically, and new electrically heated homes are being built at the rate of over 800 a day.





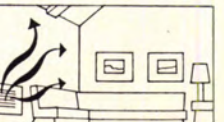
Why not find out how you, too, can profit with modern flameless electric home heating? First chance you get, talk it over with your local electric utility company.

LIVE BETTER ELECTRICALLY

Edison Electric Institute, 750 Third Ave., New York, N.Y. 10017



ONLY FLAMELESS ELECTRIC HOME HEATING OFFERS YOU SO MANY DIFFERENT TYPES OF EQUIPMENT TO CHOOSE FROM!

 <p>Baseboard units take up little space, permit room-by-room temperature control. Two types are available: radiant or hot water.</p>	 <p>Ceiling cable is invisible. Wires less than $\frac{1}{8}$" thick are concealed within ceilings. Each room's temperature is individually controlled.</p>	 <p>Heat pump heats home in winter, cools it in summer. One thermostat setting maintains any desired year-round temperature.</p>	 <p>Wall panel heaters, with heating coils behind decorative grilles, provide radiant heat with natural or fan-forced convection.</p>	 <p>Central systems are available for either hot water or warm air heating in which flameless electric units supply the heat.</p>
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"MY HOMES GO UP FASTER now that I'm installing electric heating," reports Donald Geitgey of North Canton, Ohio, "and they move faster, too. After four years now working with electric heat, I just wouldn't waste my time—or my money—installing anything else."



"MORE SALES APPEAL is a big plus with electric heat," says James Canna of East Haven, Connecticut. "In my first electrically heated development I sold 53 homes in just 38 days. Prospects really go for the modernity, cleanliness and comfort electric heat offers."



"GROWING CUSTOMER DEMAND for electrically heated homes is a fact we've really become aware of here in the Los Angeles area," report Homer and Lynn Valentine. "Our prospects have been pre-occupied on electric heat, and are clearly looking for it in new homes."



"EASY INSTALLATION is the big feature for me with flameless electric heat," reports James Foley of Lexington, Kentucky. "Equipment like this lets me save on labor and construction time, and that's a combination for increasing profits that's hard to beat."



cedar-sawn

**save more
money than
a cross-
eyed pig...**



Money saver. That's any piggy-bank, cross-eyed or no.

And that's knotty Cedar-Etched and Cedar-Sawn siding from Evans.

Without sacrificing quality or the rustic beauty of rich, rough-hewn Cedar, Evans' new Cedar-Sawn and Cedar-Etched plywood panels will save you money on construction cost five ways. Here's how:



cedar-etched

1. NO CORNER BRACING NECESSARY Cedar-Sawn or Cedar-Etched braces itself.

2. NO SHEATHING REQUIRED Sturdy, strong and thick, Evans cedar siding needs no sheathing.

3. CUTS FINISHING COSTS May be left natural without finishing — or toned with exterior oil base stain.

4. LESS APPLICATION TIME Cedar-Sawn and Cedar-Etched go up faster than other types of siding such as board & batten or horizontal siding.

5. LESS MATERIAL WASTE No overlapping means less waste.

Cedar-Sawn and Cedar-Etched come in $\frac{3}{8}$ " or $\frac{1}{2}$ " thickness. Available in 4' x 8', 4' x 9', or 4' x 10' panels, and in many distinctive groove patterns. Meets F. H. A. requirements.



EVANS

the action line

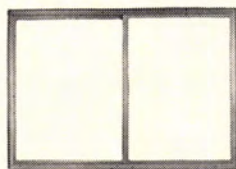
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Building Materials Division • P. O. Box 3295 • Portland, Oregon

Our Customers Said, "Quiet, Please!"



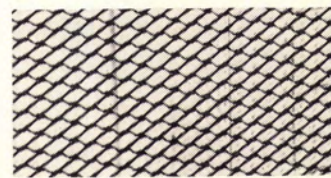
COUNT ON YOUR MAN FROM MANUFACTURING TO DELIVER THESE, TOO:



STEEL, STAINLESS STEEL, AND ALUMINUM WINDOWS — the biggest selection in the industry! Complete catalogs are available, and be sure to ask about the new FREEDOM Stainless Steel Window — first of its kind to be mass-produced and priced accordingly.



ONE AND ONE-HALF-HOUR CERTIFIED STEEL FIRE DOORS for any hazardous location. You pay no premium for this certified protection because new Republic Fire Doors are "stock" even though they do carry this ASTM 1½-hour fireproof rating. Be sure to get our new brochure.



METAL LATH AND SCREENS in finest quality. Lath is palletized to stay flat—ends are trimmed clean and square. Wide lath available to reduce laps and joints.

So We Designed the New Imperial Acoustical Steel Door



A very hush-hush design, the new IMPERIAL Full Flush Door features a full honeycomb core to stop sound in its noisy tracks. At 60 closures a minute, all you can hear is the click of the latch! Handsome is as handsome does, too, and its new-as-this-hour design is flush, smooth — not a seam to be seen. Adaptable to every interior, new IMPERIAL comes with snap-in glazing bead for easy conversion to any glass or louver treatment. (Means that every IMPERIAL Door in stock can answer many, many requirements.) And, for more savings, IMPERIAL is *reversible* — no "handing." No trouble to hang square, IMPERIAL will *stay* square because it's made of heavy gage steel with a complete perimeter channel fully welded — no sag, bind, warp, or split, ever. Rust-inhibited, all surfaces are five-step phosphatized — and IMPERIAL is preprimed so you're not delayed by paint preparation. We prepackage the doors to protect these surfaces, thus you can be sure every one is ready when you need it. Need doors right now? Ask for IMPERIAL, the finest door made today. We'll deliver immediately, out of complete stocks waiting in our network of warehouses.

■ MANUFACTURING DIVISION
OFFERS THE MOST COMPLETE
SELECTION OF STANDARD DOORS
FOR RESIDENTIAL, COMMERCIAL,
AND PUBLIC BUILDINGS.



Example: Series 50 1 $\frac{3}{8}$ " Steel Doors and Frames and Series 57 1 $\frac{3}{4}$ " Steel Doors and Frames, available from warehouse stocks in a full choice of leaf design and glass sizes. Both styles are inherently fire-resistant and can be supplied in Underwriters' Labeled quality. Both styles are five-step rust-proofed by phosphatizing and are furnished with a high quality baked-on prime coat. A complete catalog will be sent on request.

New Imperial Doors are available now in two models — the "Windsor" Series 638, 1 $\frac{3}{8}$ " thick, and the "Barclay" Series 634, 1 $\frac{3}{4}$ " thick. Both feature full flush design, easily adaptable to any glass or louver treatment, integral hinge reinforcement, integral lock reinforcement, and integral fully welded perimeter channel.



MANUFACTURING DIVISION

REPUBLIC STEEL CORPORATION

Youngstown, Ohio 44505



CALL THE MAN FROM
MANUFACTURING!



MANUFACTURING DIVISION

Republic Steel Corporation
Dept. HO-1010, Youngstown, Ohio 44505

Please send literature on the following:

- ☐ New Republic IMPERIAL Doors
- ☐ Standard Doors and Frames
- ☐ FREEDOM Windows ☐ Steel Windows
- ☐ Aluminum Windows
- ☐ Fire Doors

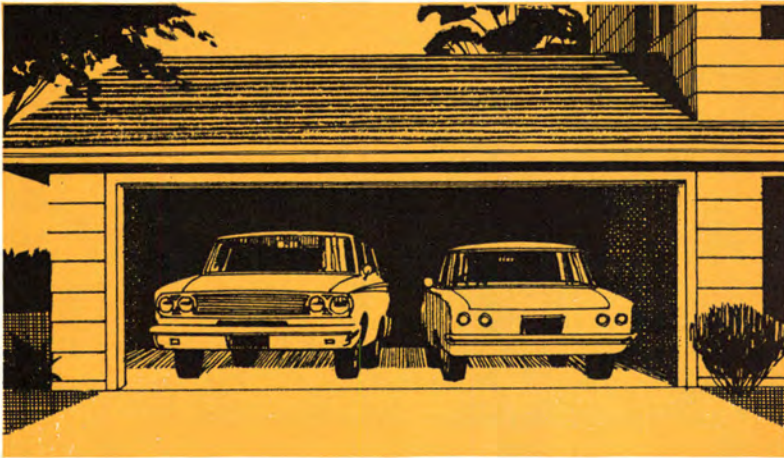
Name _____ Title _____

Company _____

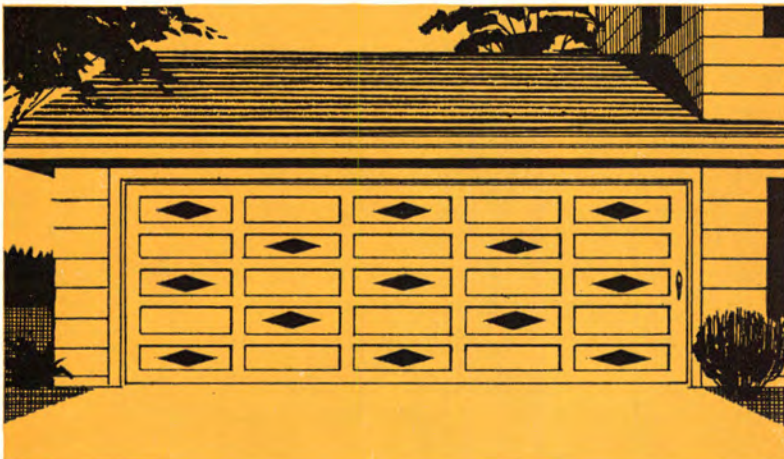
Address _____

City _____ State _____ Zip _____

To whet folks' appetite for a new home...



Take one garage and give it the wide look with an 18-foot door



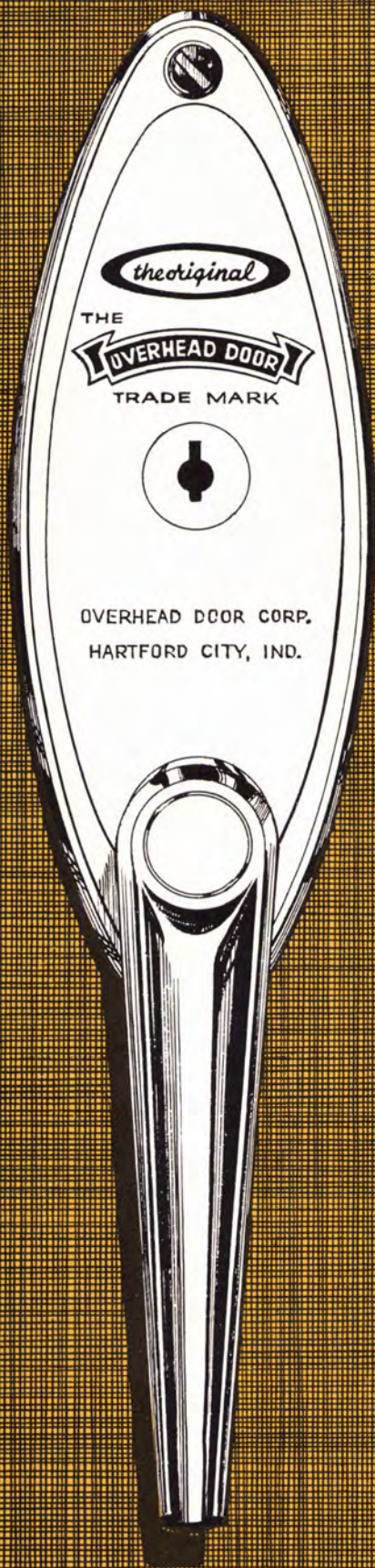
Doll it up to taste with custom add-on designs



Make it automatic for that rich flavor



Screen it in for a bug-free patio to add the “frosting on the cake”



And only one company can supply you with all these ingredients.

1. The "OVERHEAD DOOR" can give your garages the big, wide, roomy look with an 18-foot door that fits the needs of today's cars and today's low, wide architecture. 2. The "OVERHEAD DOOR" can give your homes the individuality of custom add-on designs—and save money at the same time! One builder in the Chicago area estimates he saves \$15 a door with our add-on design service. 3. The "OVERHEAD DOOR" offers you AUTO®-MATE Automatic Garage Door Operators with fresh, modern sales appeal. Famous "OVERHEAD DOOR" operators give you the dramatic demonstration that helps close more home sales faster; saves interest costs, too. 4. The "OVERHEAD DOOR" makes your garage a "Convertible Breezeway" with this guaranteed, roll-up screen. It comes in a range of sizes to fit any garage opening, to convert any garage into an extra room or patio. Also gives you extra valuation.

Check your "OVERHEAD DOOR" Distributor today for details on sales, service, and installation of residential, commercial, and industrial doors.



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EMSR TRUSS MEMBERS AND FLOOR JOISTS

Engineered for exact strength so joist, rafter and truss members may span farther, be more widely spaced or used in narrower widths.

PLYWOOD SHEATHING

Fortified glue guards against delamination. Nailing guide marks speed application. Quality innerplies — strong, stiff and light.

★★★ 5 ★★ STAR LARCH UNDERLAYMENT

Dent resistant, smooth surface, puncture-proof, super nail-holding dense Larch face is ideal base for synthetic tiles or carpet.

Dependable Trend-Setting Structural Members

You build with confidence when you specify "truly engineered" EMSR lumber developed by Potlatch. Save time and materials cost... gain strength and freedom of design... depend on the "E" rating conveniently stamped on each piece. Write for your copy of the Potlatch EMSR Structural Lumber Manual.

Complement sound framing with sheathing and sub-floor of Potlatch structural plywood. Manufactured of top quality western woods under rigid Teco Quality Control.

And remember the wide selection of Potlatch decorative plywoods for luxury interiors. See your Potlatch supplier or write for complete details on the Potlatch Plywood Family.

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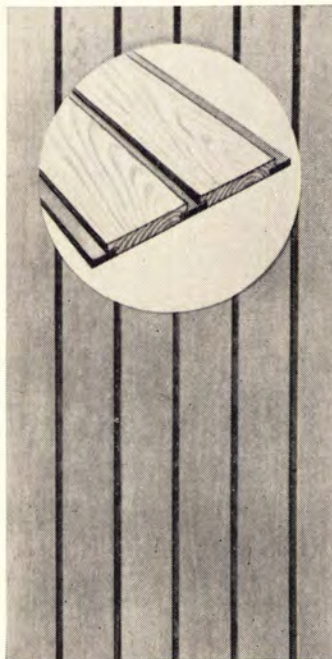
NEW PRODUCTS

For more information, circle indicated number on Reader Service card p. 137.

Interior materials

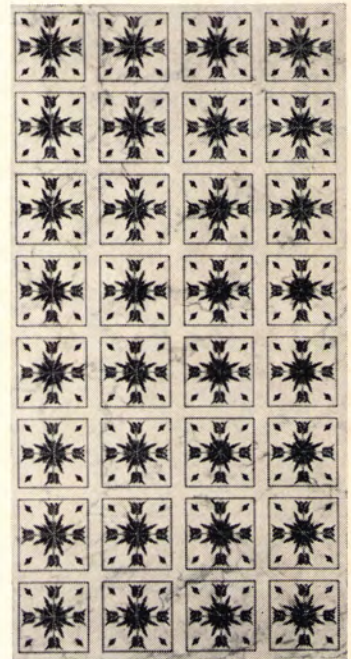


Carved modular wood panels have t&g edges for easy assembly. Sunburst pattern is shown above. Kiln-dried heart redwood is treated to give aged appearance. Prices range from \$12.50 to \$22.50 a panel. Panelcarve, Santa Barbara, Calif. (Circle 300 on Reader Service card)



Reverse-batten paneling is precut or shiplapped for easy placement. Any color finish can be applied before installation. Panels do not require any special mouldings around doors and windows. Southern Pine Assn., New Orleans.

Circle 301 on Reader Service card

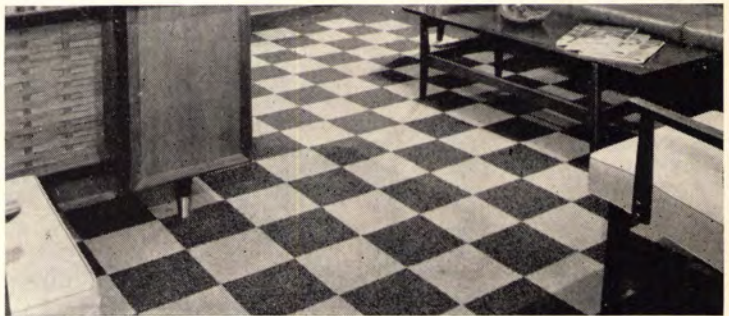


Four-color screen print is designed for countertop installation, looks like Spanish tiles. Tulip is available in 36" x 72" sheets in crimson, cocoa beige and mint blue on complimentary backgrounds. Pionite Lifetime Laminates, Sanford, Me.

Circle 302 on Reader Service card



Dimensional paneling is of wood fabricated into cast panels up to 12' long. Colored and translucent casting material is available. Wood projecting from the surface gives a three dimensional effect. Inlaid Resins, Sunset Beach, Calif. (Circle 303 on Reader Service card)

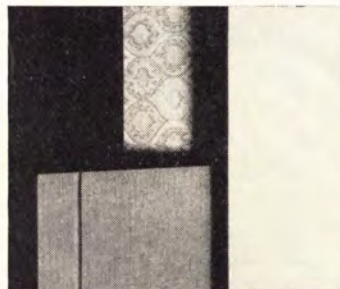


Rug-tile combination has 12" squares of carpet bonded to a tile base. The sections interlock to obscure seams. Flooring offers simplicity in replacing worn sections and flexibility. Roxbury Carpet, Saxonville, Mass. (Circle 304 on Reader Service card)



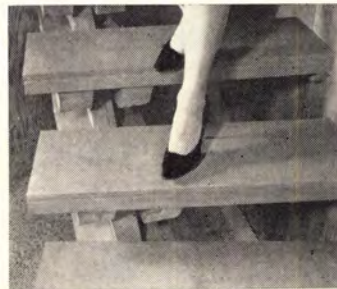
Wall paneling, called Imperial Plateboard, is offered in nine new color tones. New Century Cherry (above), three other cherries, four walnuts and two oaks are included in the line. Mar-Gard finish insures durability. Abitibi Corp., Detroit.

Circle 305 on Reader Service card



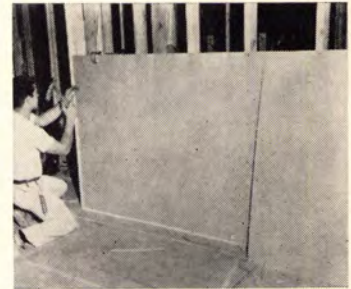
Vinyl paneling has a hard-board base. Vinyl surface will not fade, crack or chip and is easily cleaned. Manufactured in a variety of sizes, the panels come in four standard patterns. Direct stud installation is possible. Evans Prods., Portland Ore.

Circle 306 on Reader Service card



Nonskid surface material has a plastic-impregnated, waffle-patterned overlay on plywood. This easily installed material comes in natural tan, brown or black. Panels 4' x 8' are priced at 50¢ to 55¢ a sq. ft. Simpson Timber, Seattle.

Circle 307 on Reader Service card



Sound-deadening board is gypsum board with a polystyrene foam-paper laminate. Silent-Cor is only 1/2" thick, yet reduces noise as effectively as many thicker materials. Wallboard can be nailed directly to studs. Monsanto, St. Louis.

Circle 308 on Reader Service card

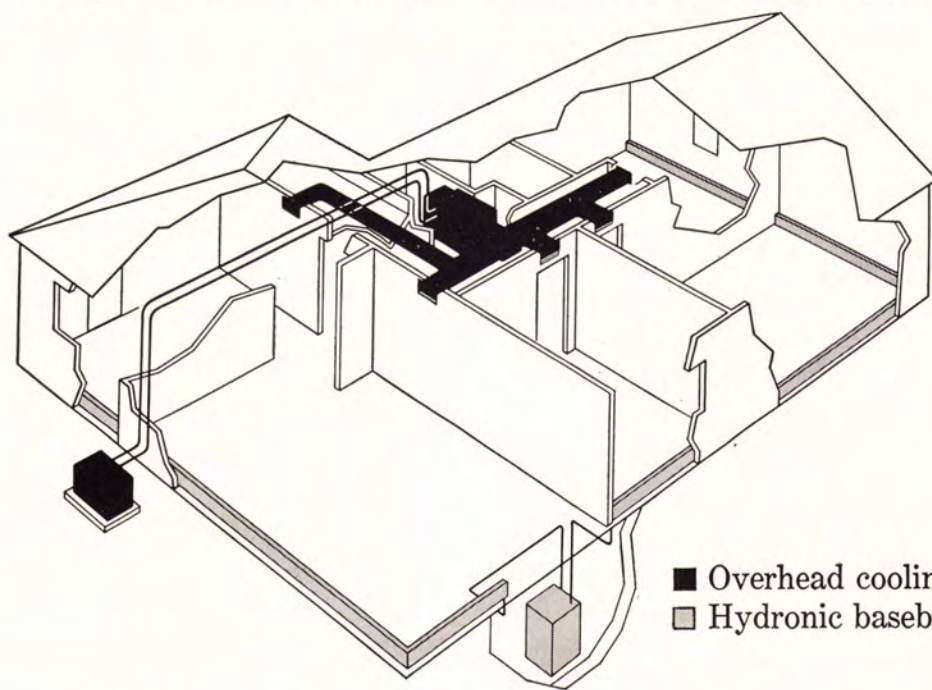
New products continued on p. 113

And now American-Standard brings you air conditioning and baseboard hydronic heating

at prices your home buyers will pay

Here's quality air conditioning to team up with your quality hydronic heat. It gives you the combined savings of factory assembling and easy installation. And it doesn't eat up living space. The packaged evaporator-blower unit, for example, can be tucked away in the attic, dropped ceiling or even a closet. The packaged condensing section can be placed outside the house. The two units are quickly connected with pre-charged tubing and only minimum duct-work is needed. You'll have a year-round comfort system that is definitely superior because it is engi-

neered to the scientific facts of air behavior. Clean, draft-free, hot water *heat rises* in winter from slim baseboard panels. Filtered *cool air descends* in summer from small grilles in or near the ceiling. *No system that forces both warm and cool air through the same compromise outlet can match this performance.* You can assure prospects that you are giving them the best. Get more details and estimates now from your American-Standard heating contractor. Or write direct to American-Standard, Plumbing and Heating Division, 40 West 40th St., New York, N.Y. 10018.



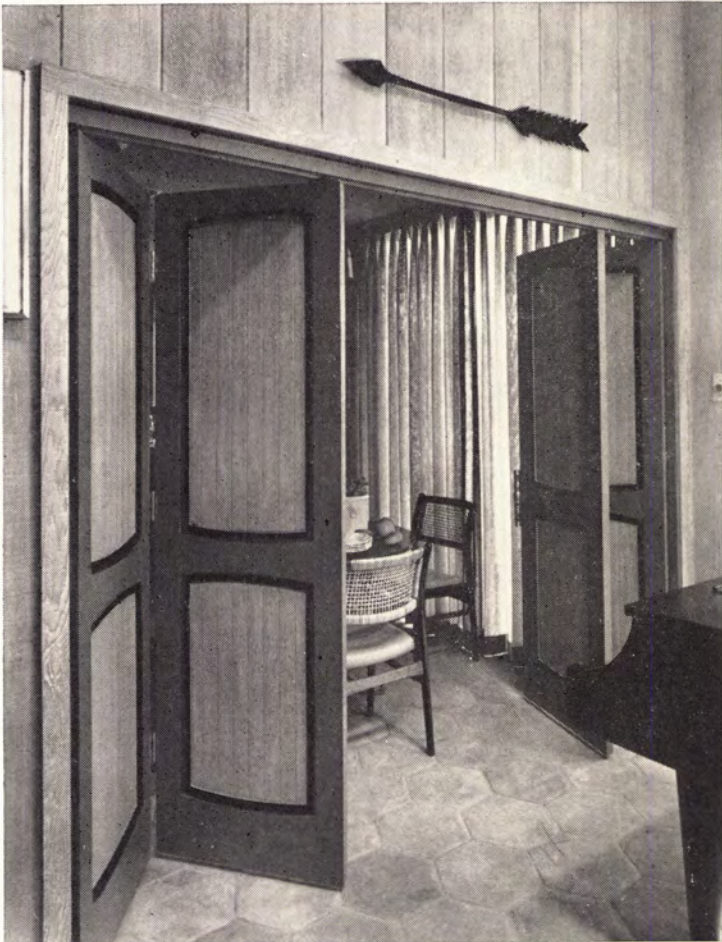
■ Overhead cooling
■ Hydronic baseboard heating

AMERICAN-STANDARD

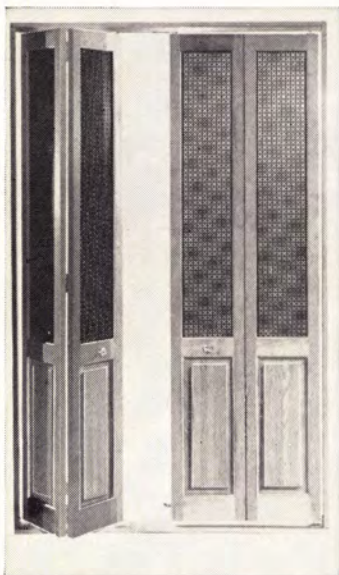


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AMERICAN-Standard
PLUMBING AND HEATING DIVISION

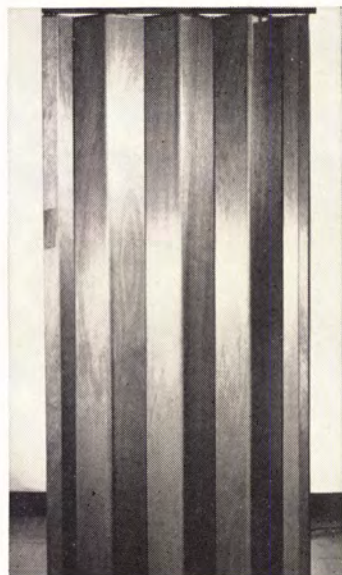
Doors



Bifold archway doors are made from passage doors hung in pairs. The doors have curved rails and planked panels and three different paint tones. Two complete lines of designer-styled doors are available. Simpson Timber Co., Seattle. (Circle 309 on Reader Service card)



Grillework inserts in sheet-lace Italian motif or block-inset design distinguish these two- or four-door bifolds. Completely preassembled units come with all hardware and are hinged in the factory. Panelboard Mfg., Newark. (Circle 310 on Reader Service card)



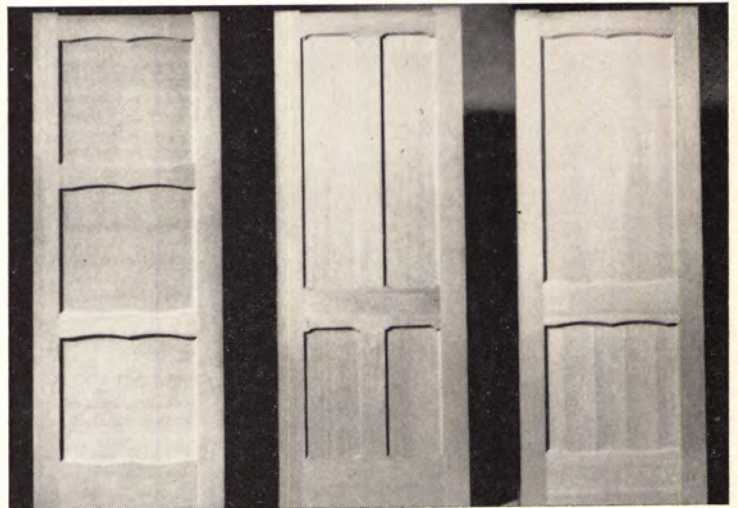
All-wood door has panels 5 1/8" wide and astragals 5/8" wide. Nylon wheels are used as rollers and steel hinges on top and bottom add to the door's strength. Doors are preprimed for easy finishing. Woodfold Sales Co., Tacoma, Wash. (Circle 311 on Reader Service card)



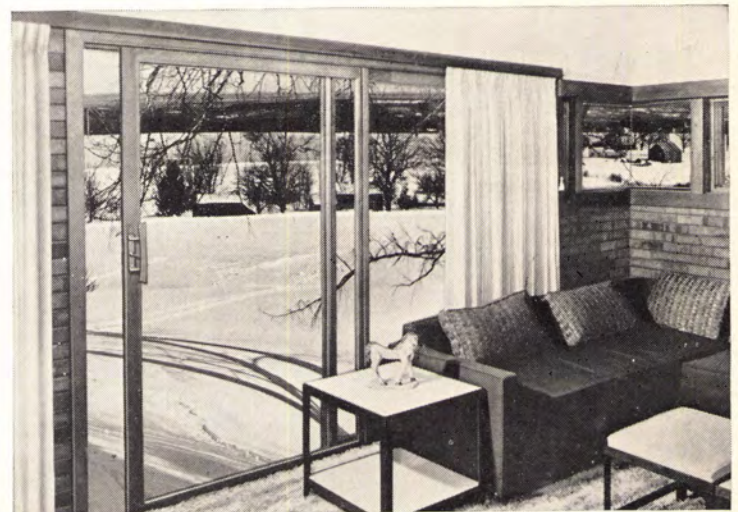
Sliding glass door is said to block water infiltration with a nonsiphoning sill that works on a pressure equalization principle. Doors come in light bronze, medium bronze and black finishes. Threshold is weatherstripped. Kawneer Co., Niles, Mich. (Circle 312 on Reader Service card)



Textured folding door has basket-weave design of 1" nylon connectors interwoven with vertical hardwood strips. Wovemaster comes in walnut, off-white, cherrywood, beige, gray and natural. New Castle, Prods., New Castle, Ind. (Circle 313 on Reader Service card)



Provincial doors are available in panel, chevron, louver or folding styles. Doors have check-free surfaces that can be stained, painted or antiqued. Square-cut sticking makes finishing easier. Clear Fir Sales, Springfield, Ore. (Circle 314 on Reader Service card)



Sliding wood patio door is of crafted millwork with recessed steel reinforcements. Wood parts are toxic treated for permanent protection from moisture. Head and sill are double weatherstripped. R. O. W. Window Sales, Ferndale, Mich. (Circle 315 on Reader Service card)

New products continued on p. 115



* BRIGHT NEW IDEA—A BUILT-IN DIMMER!

Progress has it **now**...and at popular prices! A fixture with 100 percent adjustable lighting (from low to bright and all shades between) built right into it. No additional wiring is needed! Leave it to Progress to lead the way. With products bristling with built-in appeal. With store displays designed to handle any situation. With a consumer catalog filled with page after page of fixtures plus professional decorating ideas—all in full color. With prices right in line with the biggest-buying market. With "cover-to-cover" distributors who stock the entire line for immediate delivery. When it comes to lighting, Progress really means business. Shouldn't you be looking into it?



Progress Manufacturing Co., Inc.
Castor Avenue & Tulip Street
Philadelphia, Pa. 19134

Name _____

Store _____

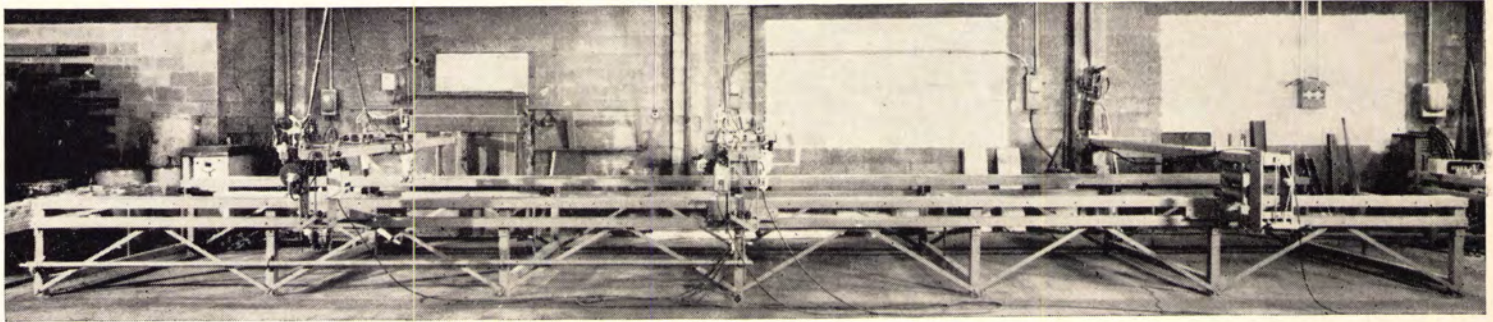
Address _____

City _____ State _____ Zip # _____

PROGRESS MANUFACTURING CO., INC.
PHILADELPHIA, PA. 19134

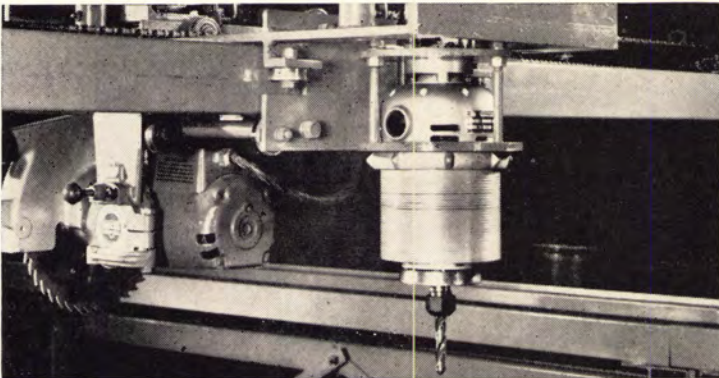
progress The new Progress 108 Catalog shows you hundreds of items—many brand new—all in full color. It's yours for the asking. Mail us this coupon.

Tools and equipment



In just 20 man-hours a builder can make panels for a whole house on this machine

It is basically a jig table with three movable overhead structures: a 16d nailer (*above, right*) for framing; a stapler-nailer (*above, center*) for fastening the sheathing and a panel saw and router (*above left and far left*) for sawing the sheathing and routing out window and door areas. The machine is designed to produce as few as 40 houses a year profitably, but a three-man crew can turn out more than one house a day on it. Houses can be panelized from conventional blueprints, so special shop drawings need not be made. The machine occupies a 15' x 40' floor space and the manufacturer provides operator training. Craft-built Systems, Cedar Rapids. (Circle 316 on Reader Service card)



Retractable blade on utility knife is made so that as the tip becomes dull, a section can be broken off to expose a sharp new edge. The NT Cutter retails for \$2.98 with two extra 12-section blades. Blades cost about 20¢. C&O Ltd., Los Angeles.

Circle 317 on Reader Service card



Pneumatic caulking gun for 1/10 gallon paper cartridges lists for \$39.50. The lightweight unit has a transparent cartridge holder so contents can be easily identified and a removable handle for close-quarter operation. Semco, Los Angeles.

Circle 318 on Reader Service card



Extension drill is 60" long to facilitate drilling joists from the floor below. It can handle 4" holes in wood and 1" holes in masonry and fits all 1/2" drills. It weighs 6 1/2 lbs. and lists for \$54.40. Price & Rutzebeck, Hayward, Calif. (Circle 319 on Reader Service card)

Office equipment



Dictating machine has 3"-wide tape 50' long with exposed writing surface for notes on one side and magnetic recording media on the back. Tape moves about 3" a minute and records about three hours a tape. Ansafone, Inglewood, Calif.

Circle 320 on Reader Service card



Whiteprinter has servo-motor generator drive that gives continuous speed adjustment, reversability and constant torque. Blu-Ray Model 842 is a 42" combination printer-developer that produces diazo copies for 1¢ a sq. ft. Blu-Ray, Essex, Conn.

Circle 321 on Reader Service card



Paging system is a tone-plus-voice unit which consists of a compact transmitter, mike, antenna, control unit and ten receivers listing for \$1,530.00. Extra transistorized pocket receivers can be added to the system. Round Hill Assoc., New York City.

Circle 322 on Reader Service card



Mobile radio uses UHF channels since VHF channels are congested in most areas. Accent 450-UHF unit has the speaker built into the control head. It plugs into the radio unit for dashboard or trunk installation. General Electric, Lynchburg, Va.

Circle 323 on Reader Service card

New products continued on p. 118



217¹/₂ tons of Bryant air conditioning

That's right. 217½ tons. And here's why:

Atkinson Square is a modern office complex in Indianapolis, Indiana, made up of 24 buildings in all. Some buildings have a single tenant. Others house several. The varying air conditioning requirements are met by 33 individual control zones.

The advantages of the Bryant multiple unit installation outweighed those of central station equipment. Furthermore, the Bryant installing contractor offered the owner-builder the most in terms of value per dollar invested,

quality equipment and a better system. And Bryant was competitively priced.

Compared to central station equipment, this installation initially cost considerably less; provided greater operational efficiency; eliminated possibility of entire-system shutdown; eliminated the need for a full-time maintenance man and the owner-builder anticipates lower service and maintenance costs over the years.

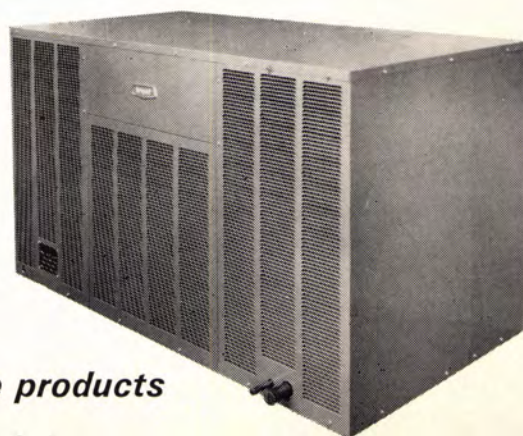
Whatever your heating or air conditioning problem, call in Bryant. We'll work with you to develop the most efficient



Owner and Builder: Warren M. Atkinson. Bryant Contractor: Air Conditioning Equipment Company, Inc.

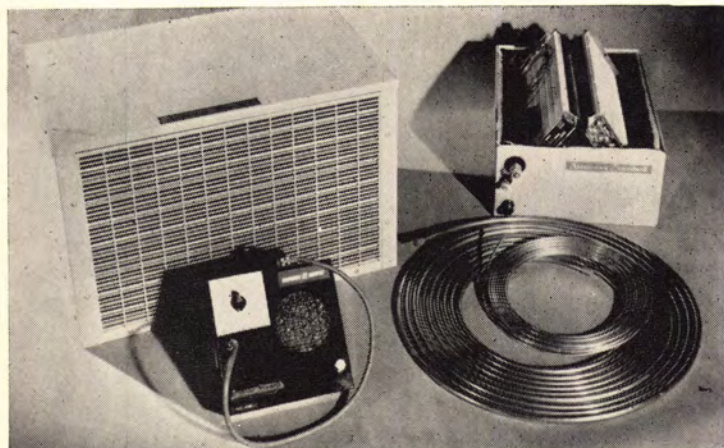
installed here!

system at the lowest cost consistent with the performance you expect. Call our local distributor or factory branch and see how well Bryant will meet your specifications. Bryant Manufacturing Co., 2020 Montcalm Street, Indianapolis 7, Indiana.



Bid with **bryant** *58 years of dependable products*

Heating and air conditioning



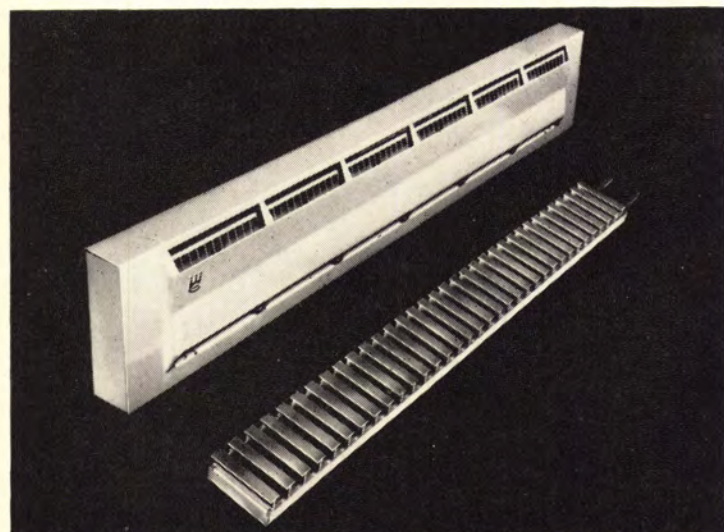
Cost-cutting air conditioner has new self-charging system that eliminates expensive coupling valves and extra tubing needed in most precharged systems. Field charging takes only two minutes. American-Standard, New York City. (Circle 324 on Reader Service card)



Power roof ventilator has humidistat to turn it on when moisture-laden air builds up in the attic in the winter. In summer a thermostat turns on the fan to help cool the attic. Unit retails for \$114.50 with controls. Kool-O-Matic, Niles, Mich. Circle 325 on Reader Service card



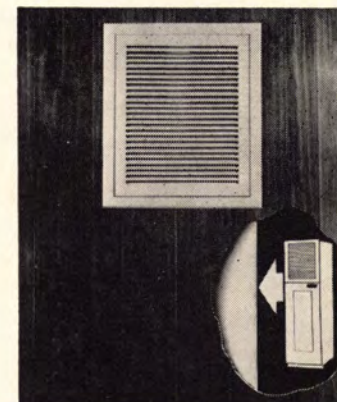
Cast iron boilers for gas or oil come in capacities ranging from 48,000 to 125,000 Btu. Packaged units are available with all accessories including zone-control valves and domestic hot water coil. Edwards Engineering, Pompton Plains, N.J. Circle 326 on Reader Service card



Electric baseboard heater has a heat-storing element that reduces temperature variations between on and off heating cycles. Crest units are prewired in 3', 4' and 6' lengths only 2½" thick. Meier Electric, Fogelsville, Pa. (Circle 327 on Reader Service card)



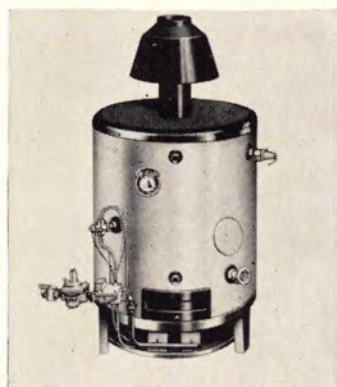
Compact boilers of cast iron are appliance styled with wood-grained front panels that can be changed to match any decor. Models up to 350,000 Btu are only 20" wide. Prewiring and prepiping cut installation time. Slant/Fin, Richmond Hill, N.Y. Circle 328 on Reader Service card



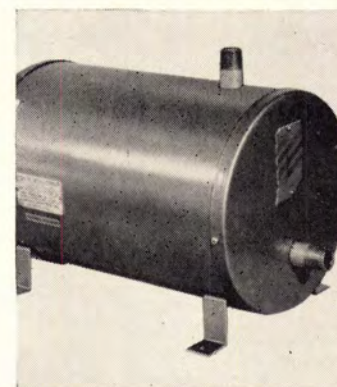
Mobile-home furnace is a compact unit for concealed installation with zero clearance behind walls. Oil and gas models are made in 35,000 to 65,000 Btu sizes. Gas models of Solar-Pak work on LP or natural gas. Coleman, Wichita, Kans. Circle 329 on Reader Service card



65-gallon gas water heater has a full replacement guarantee for ten years. PGD-65 is glass lined, has a pedestal base and features a space-saving draft-diverter for installation where overhead space is limited. A. O. Smith, Kankakee, Ill. Circle 330 on Reader Service card



Commercial water heater has copper tank and high gas input. At 100° rise it will supply 168 gals. per hour continuously. Thermostat is adjustable from 120° to 180°. A valve for two-temperature hot water service is available. Ruud Mfg., Chicago. Circle 331 on Reader Service card



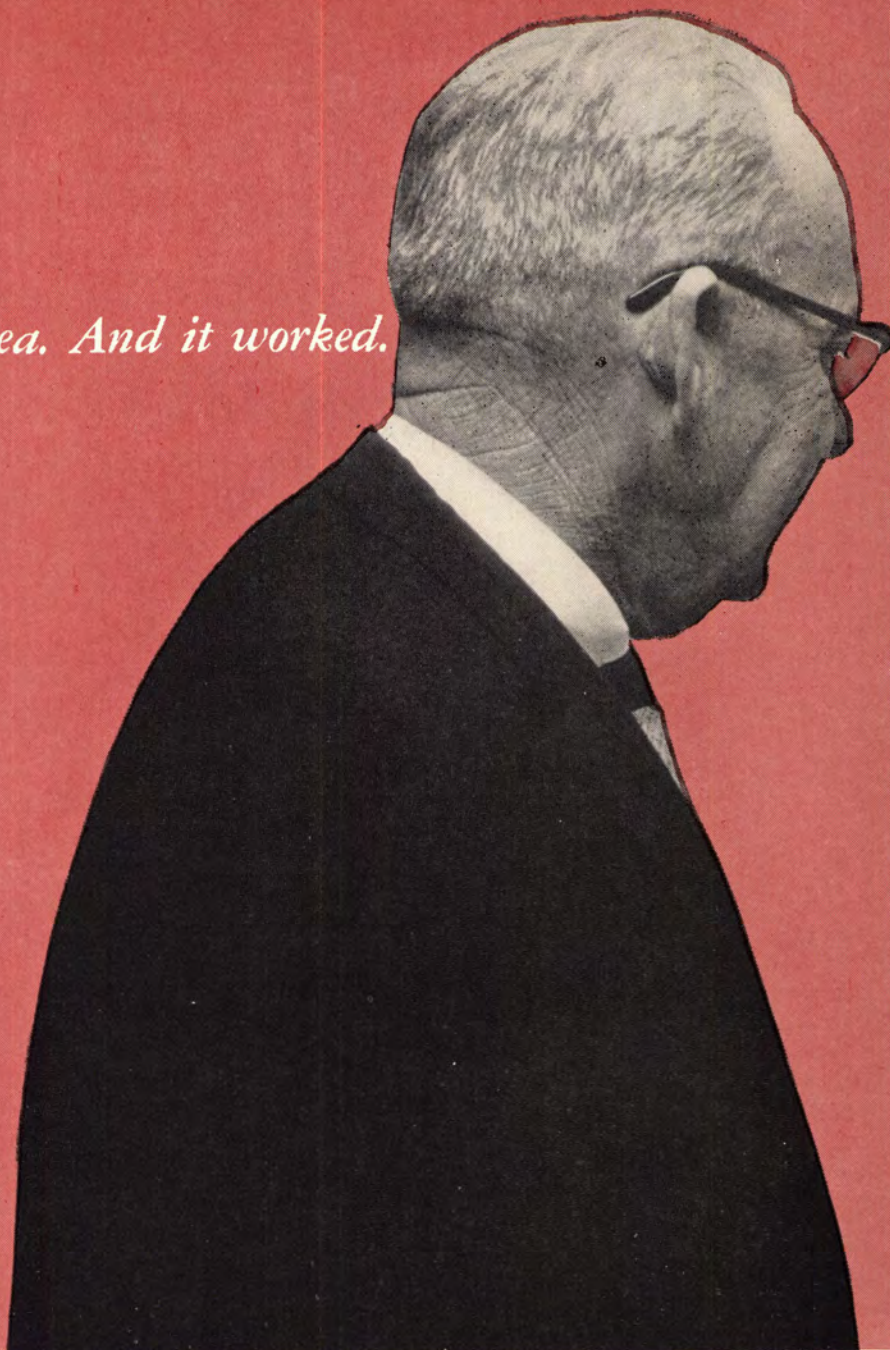
One-gallon water heater is installed near sink or tap to supply instant hot water and to heat water in line as it comes from main water heater. Unit, 8" in diameter, is electrically heated and sells for less than \$25.00. Hoosier Inds., La Porte, Ind. Circle 332 on Reader Service card



Oil-fired water heater has 20-gal. capacity for small installations like vacation houses and trailers. Glass-lined unit has an aspirating burner which gives it a recovery rate of 40 gals. per hour. Glass-Lined Water Heater Co., Cleveland. Circle 333 on Reader Service card

New products continued on p. 120

He built his home around an idea. And it worked.



K. C. Ensor, a Copper Award Home builder, is President of the K. C. Ensor Construction Company. This company has erected more than 4,000 homes in the Denver area since 1932.

Denver builder Ken Ensor did something different last fall. He built a model home that featured extensive use of copper, brass and bronze. He included gleaming copper gutters and downspouts...copper roof flashing and attic ventilators...a copper fireplace hood...copper switch plates...copper wall tiles and range hood...bronze weatherstripping...solid brass and bronze hardware...and he even used an X-Ray wall to show the copper plumbing and copper drainage piping. Then he promoted what he did.

In Ensor's words, here's what happened...*"A record opening—and a high level of traffic of well-qualified buyers!"*

Did it cost Ken Ensor more to use copper? Of course it did. Copper, brass and bronze have never been sold as the cheapest materials. But you'd be surprised at how *little* the difference really was. The rain carrying equipment cost more. The plumbing and drainage lines cost less. But the unquestioned *sales value* that was added to the house by the builder's use and emphasis of these features, more than

compensated for any slight difference in cost.

More lookers came to see the model house. And more lookers became buyers. How? By *demonstrating* quality and value rather than just talking about it.

In today's market, isn't that more than half the battle?

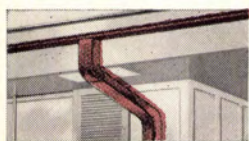
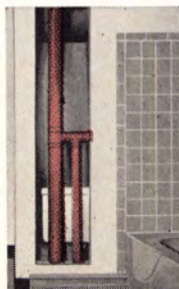
ON THE EXTERIOR "The copper ventilators, flashings, gutters, downspouts and decorative trims on the exterior excited comment from the public prior to their entry into the home. They liked the 'no painting' feature."

IN THE INTERIOR "The warm bronze and copper tones used in the interior decoration blended with and accented the copper metals used in the home, creating a 'welcome home' feeling."

IN THE BATH "The unique 'X-Ray plumbing wall' in the bathroom created a great deal of interest and permitted people, many for the first time, to see compact copper plumbing and drainage components that are normally hidden behind a finished wall."

IN THE KITCHEN "The copper range hood, accented with copper tile and blending with the bronze-tone built-in range and oven, brought favorable comment."

IN THE FAMILY ROOM "The family room, with the fireplace accented by a sheet copper hood, gave a feeling of relaxation and warmth that invited people to linger."



Copper Development Association Inc., 405 Lexington Avenue, New York 10017

Make your windows a selling point with these stars



The PPG TWINDOW® stars make your windows visible—remind home-buying prospects of the advantages of wood windows glazed with PPG TWINDOW Insulating Glass.

The stars tell your prospects they'll never need storm windows. They'll have less fogging and frosting. Rooms will stay cooler in summer. And warmer in winter—for lower heating bills. That's why it will pay you to feature TWINDOW Glass Edge Insulating Glass in wood windows in your homes. Contact your wood window supplier today.

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**PPG makes the glass that
makes the difference**



Kitchens

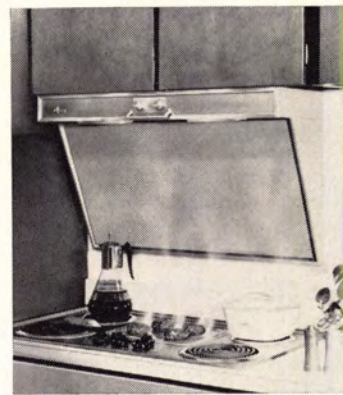


One piece-unit includes hood, fan, backsplash, panel lighting, surface burners and oven. Smoke, heat and odors from cooking are exhausted by a twin blower in the hood section. Gas range has eye-level controls. NuTone, Cincinnati. (Circle 334 on Reader Service card)



Electric range has pull-out cooktop that fits flush with cabinet fronts when not in use. Eye-high oven and surface unit fit on a base cabinet. Also included are a barbeque and a radiant-heat broiler. Whirlpool, Benton Harbor, Mich.

Circle 335 on Reader Service card



Range hood with peripheral exhaust has ducts on all four sides of panel for eliminating cooking odors and fumes. Panels come in all appliance colors and three standard sizes. Unit operates on three speeds. Fasco Inds., Rochester, N.Y.

Circle 336 on Reader Service card



Stainless steel sinks are offered in 32 new models. Included are a 42"x21" regular rim and a 43"x22" self-rimming sink. Sinks have a satin finish and an edge that prevents water accumulation. American-Standard, New York City. (Circle 337 on Reader Service card)

NEW PRODUCTS

start on p. 111



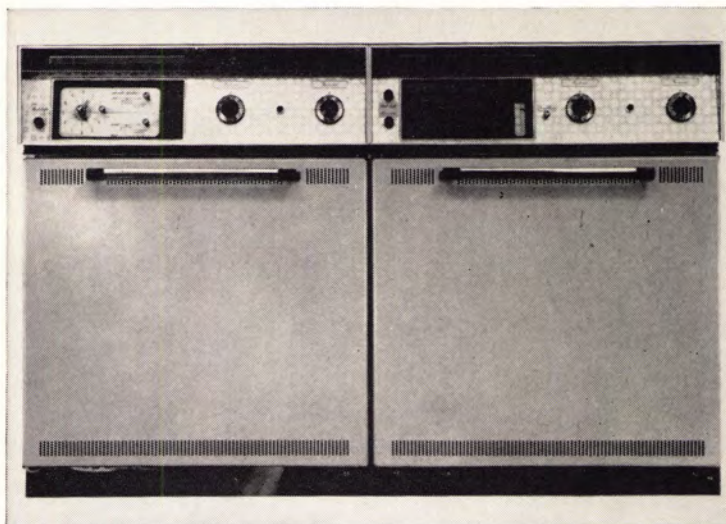
Built-in refrigerator with freezer is 27" wide, leaves space for storage cabinets above. Unit has 1/2"-thick decorative door panels. No defrosting is necessary, and fully adjustable half shelves are included. Revco, Deerfield, Mich.

Circle 338 on Reader Service card

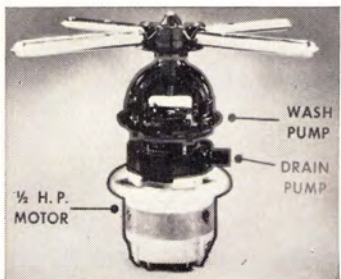


Kitchen cabinets are made of furniture wood. Book-matched pecan gives a balanced grain pattern. Five-coat, baked-on finish is tough and durable. Hammered copper hardware is included. United Cabinet Corp., Jasper, Ind.

Circle 339 on Reader Service card



Ovens come in four models in single, bi-level double and side-by-side designs. Automatic cooking and infra-red broil and rotisserie heat are offered. Compact models have side-swinging doors. Thermador, Los Angeles. (Circle 340 on Reader Service card)



Dishwashers have new four-way wash action for higher velocity and better cleaning. New motor does not increase water usage. The line includes top loading and convertible portables and free-standing models. KitchenAid, Troy, Ohio.

Circle 341 on Reader Service card



Kitchen cabinets have stainless steel vertical strips projecting beyond the door and drawer fronts for distinctive decoration. The cabinets are Formica-surfaced in Mandarin Teak. Hinges are completely hidden. Yorktowne Kitchens, Dallastown, Pa.

Circle 342 on Reader Service card

Not all patio doors can display this selling shield.



Only safe ones.

And home buyers recognize the shield. It's in PPG's national advertising campaign.

They look for it. It means quality and value in the home you show them.

Specify HERCULITE® K Tempered Safety Glass in your sliding glass doors.

Then you can display this nationally advertised safety shield, too. Get the shield—and safe doors—from your patio door supplier.

Pittsburgh Plate Glass Company
Pittsburgh, Pennsylvania 15222

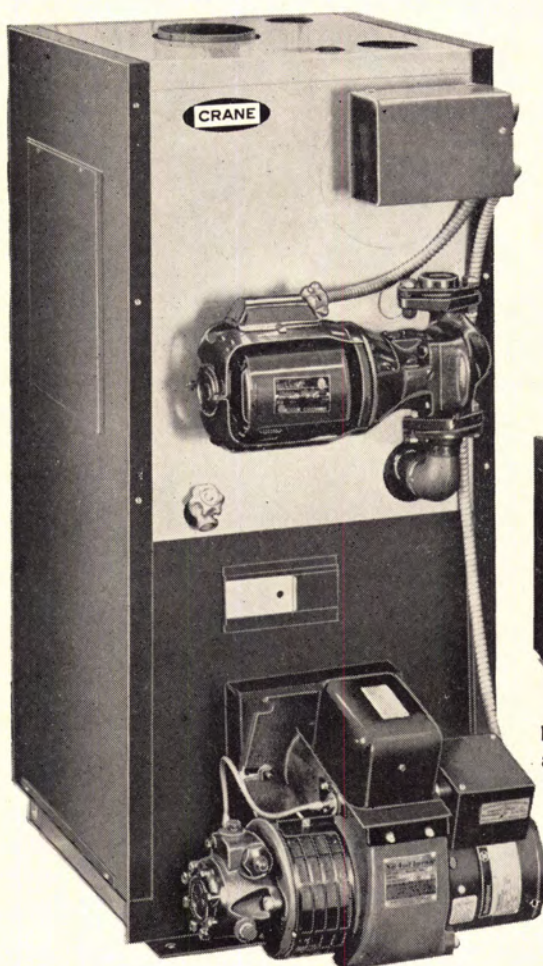
PPG makes the glass that
makes the difference



New products continued on p. 126

another
It's a great year to be
using Crane; our compact
 new Sunnyday 12 installs fast,
 services easily, heats quickly.

Sunnyday 12 comes with flush
 jacket—in Sheffield Silver
 and Midnight Blue.



Enclosing jacket is
 also available.

The Sunnyday 12 oil-fired packet gives the new homeowner a lot more usable space for his money. Only about 4 feet high, 2 feet across, 1½ feet deep, it fits nicely in just a few square feet of floor.

It's a boon for modernization jobs, too, because it installs so easily. All controls are up front so it moves through existing doorways without bumps, scrapes or catching (enclosing jacket—optional—keeps all controls, burner and circulator covered).

Servicing? A snap. One-piece cover plate opens all flueways to you at once. It's the kind of heating plant homeown-

ers will really appreciate—for years to come. Our new cartridge-type combustion chamber gives them quick heat, quiet heat, economical heat because it burns fuel more completely.

The Sunnyday 12 comes completely assembled and wired in five models. Water packets, with or without air elimination equipment or domestic hot water heater. A steam packet, less tankless water heater. From 72,000 to 162,000 Btuh.

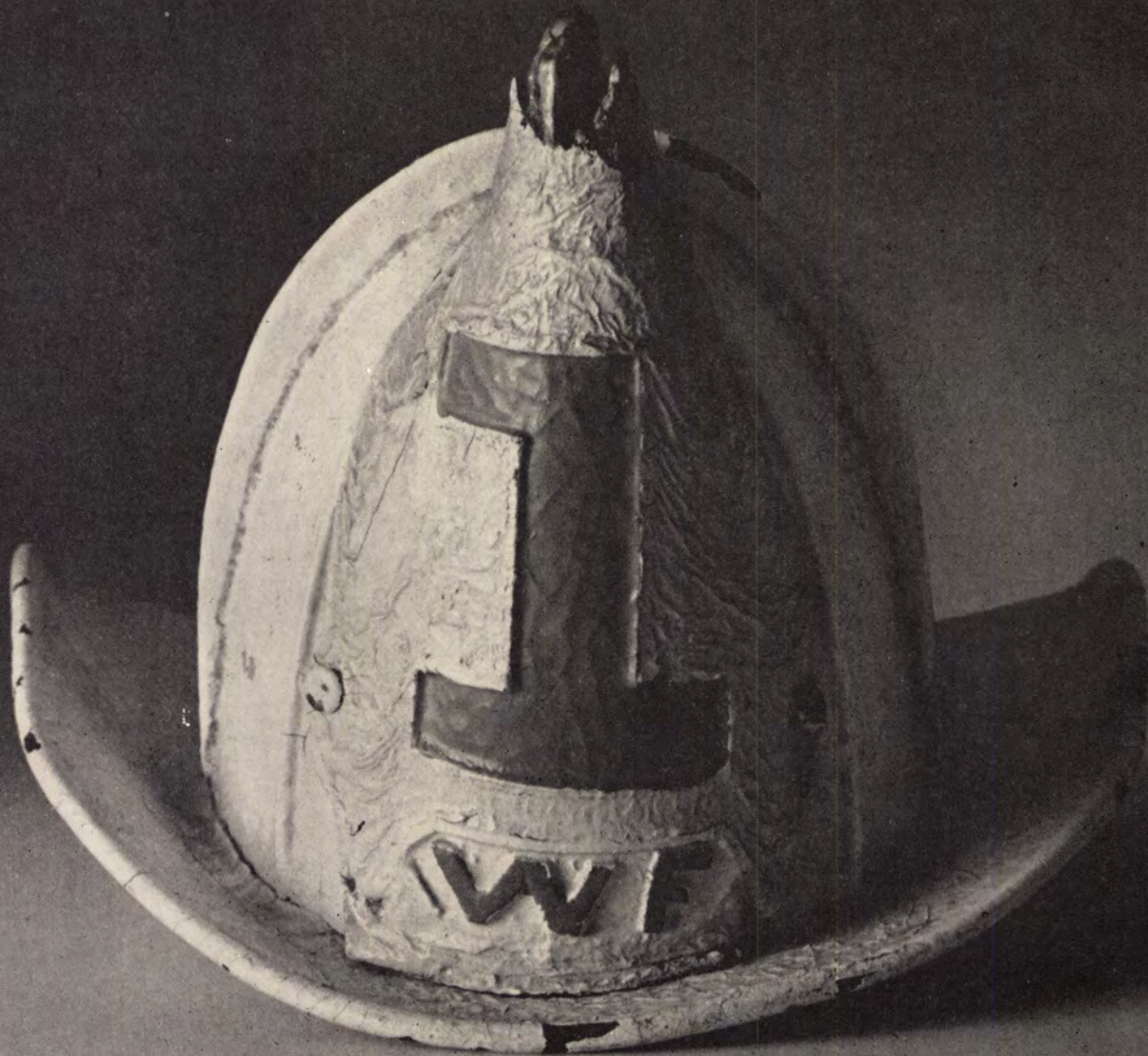
Why not see your Crane contractor? He'll be happy to tell you more. Or write us: Crane Co., Box 780, Johnstown, Pennsylvania 15907.



Sunnybase hydronic custom baseboards provide uniform warmth wall to wall and floor to ceiling. Wood-grain finish or basic white for painting.



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ASK THE MAN WHO WEARS ONE

Men with long experience in fighting fires can tell you plenty about the importance of **time** as a safety factor. **Time** that allows fire equipment to speed to the scene. **Time** that assures family safety. Priceless extra minutes, extra hours of fire resistance are offered by today's new, improved Bestwall FIRESTOP gypsum wallboard. Extra protection is built into the core, through the

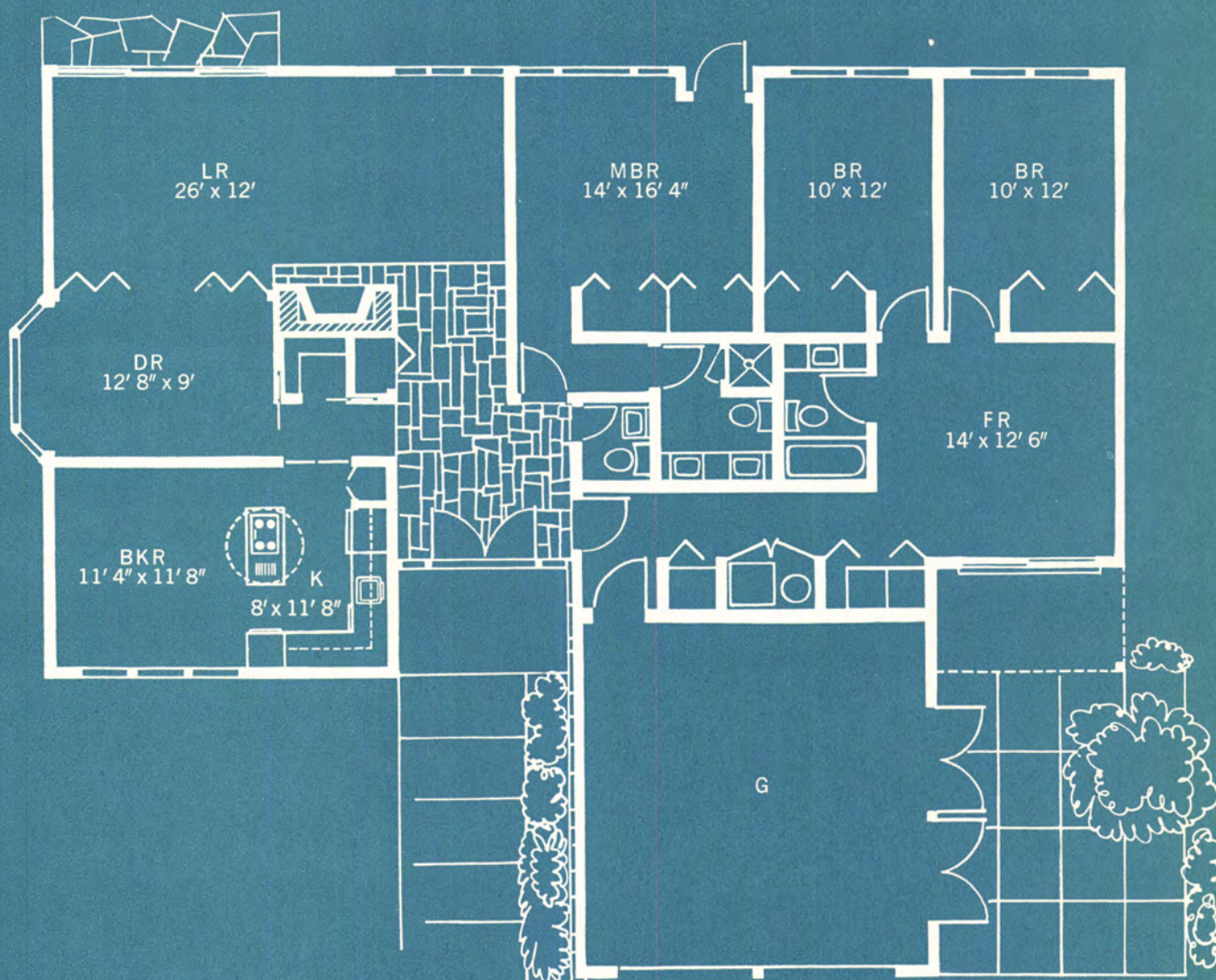
use of specific amounts of incombustible glass fibers and unexpanded vermiculite. In various assemblies, FIRESTOP meets Building Code requirements from 45 minutes to 3 hours for interior wall and ceiling construction — making this famous Bestwall product one of the lowest-cost fire resistant materials available today. (See Sweet's A.I.A. File No. 23-L for detailed information.)

BESTWALL GYPSUM COMPANY • PAOLI, PA.

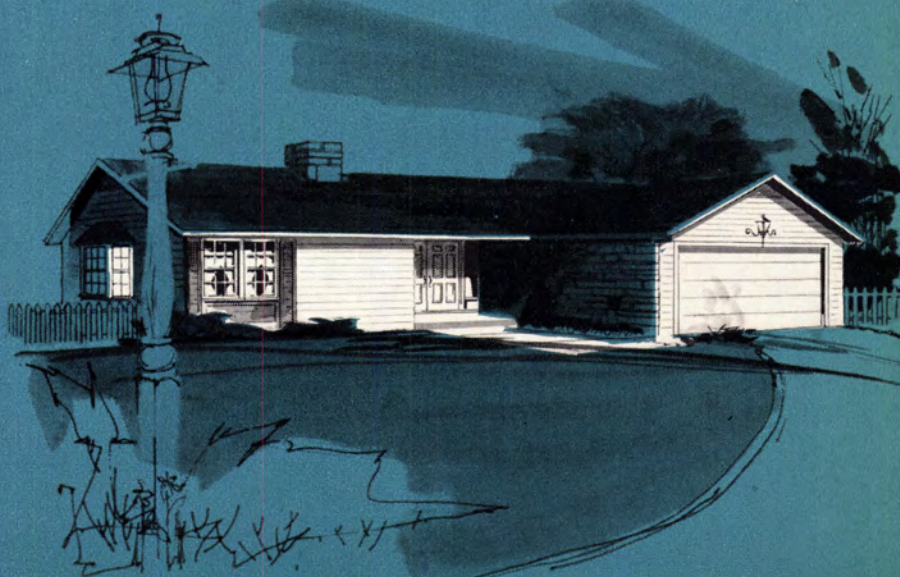


What can you expect from Ponderosa Pine Woodwork's Unexpected House?

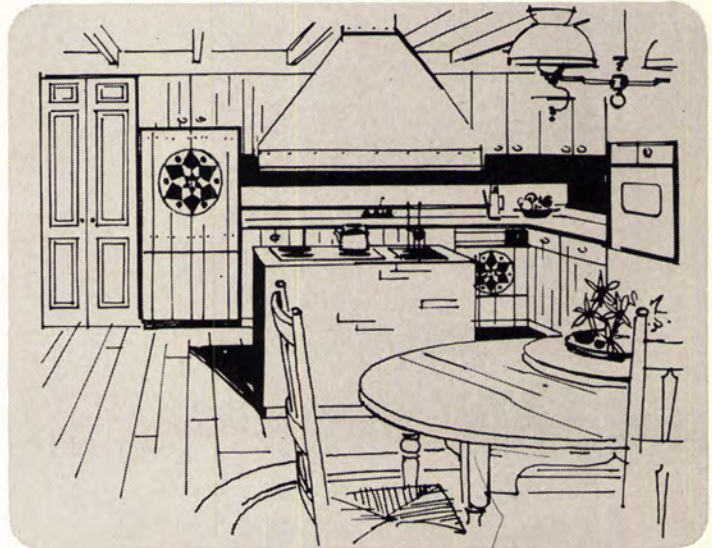
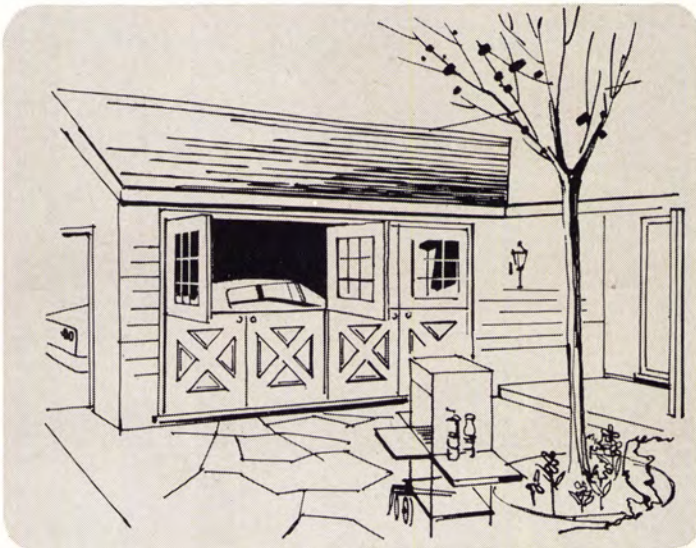
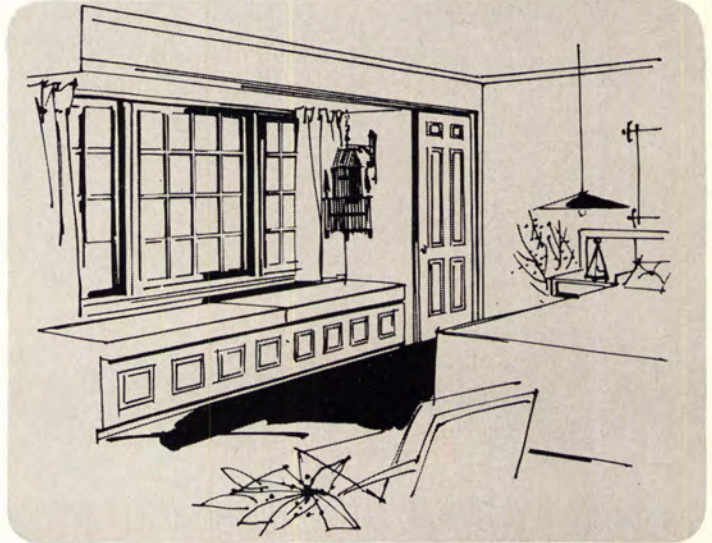
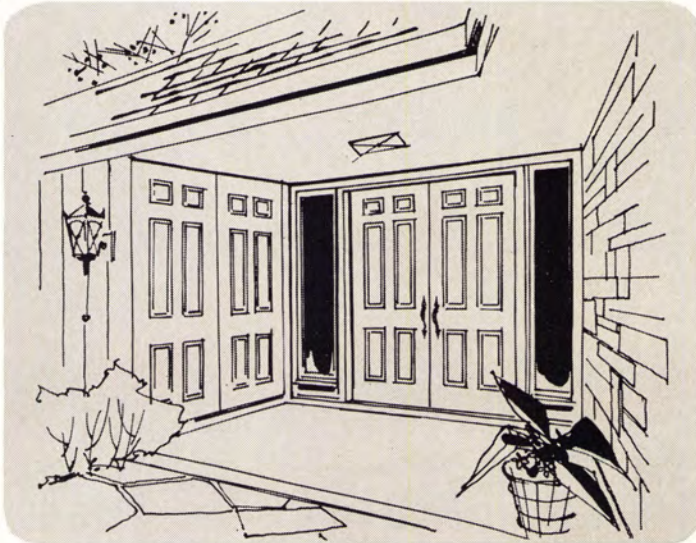
Unit 4 in an award-winning series.



Plenty of exciting selling ideas because this is Ponderosa Pine's Unexpected House. Three bedrooms, 2½ baths, 1920 sq. ft. of value . . . designed to build and sell competitively . . . yet full of luxurious surprises.



Plenty!!!



Our unexpected entry features a pair of elegant Ponderosa Pine panel doors . . . and a second pair used as accent panelling. Combined with rough stone, these crafted wood doors make a really dramatic impression.

Inside is a spacious bedroom suite with its own private garden . . . and a big bay window overlooking it all. This Garden Room Suite has lots of light . . . plenty of extra room . . . and privacy, privacy, privacy!

The garage is "convertible" . . . with Ponderosa Pine dutch doors that make it an outside party room any time at all . . . in no time . . . good weather or bad.

But the biggest surprise is the Old-Fashioned Kitchen of Tomorrow. It sports the roominess of old-time farm kitchens . . . plus a genuine old-fashioned walk-in pantry . . . plus all modern conveniences . . . plus an island work area . . . *plus* the exclusive line of Kelvinator Originals—the never-before appliances with unusual patterns, designs, and colors! The Pennsylvania Dutch design shown is only one of many decors to let the woman buyer choose-it-herself.

Sound interesting? See for yourself. Send us this coupon.



H H

PONDEROSA PINE WOODWORK

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Gentlemen: Please send me the following:

_____ Sets of complete working drawings at (\$10.00 first set. \$2.00 each additional)

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Ponderosa Pine Woodwork creates these award-winning plans to show the newest, most popular uses of products made by our members. Feel free to use any ideas you see.



darling...

*nobody but nobody
puts a salesman
in your sink—like
In-Sink-Erator*

Give the Lady a disposer she can trust! In-Sink-Erator performs better, has more quality features, needs less servicing than any other disposer!

A woman wants a home with a disposer. Surveys prove it again and again. No disposer is more desired or more appreciated than In-Sink-Erator Model 77.

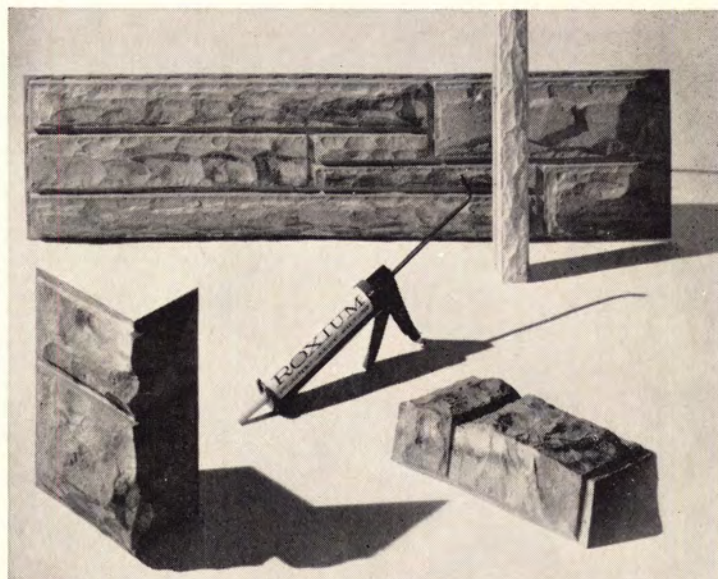
This disposer grinds in both directions, doubles shredder life, thanks to patented automatic reversing switch. Its exclusive Self-Service Wrench frees accidental jams quickly to help prevent customer complaints and costly call-backs.

Exclusive Detergent Shield guards against corrosion damage from caustic agents. And there's a full 5-year protective warranty—proof of superior engineering and design! Models for homes and apartments in all price ranges.

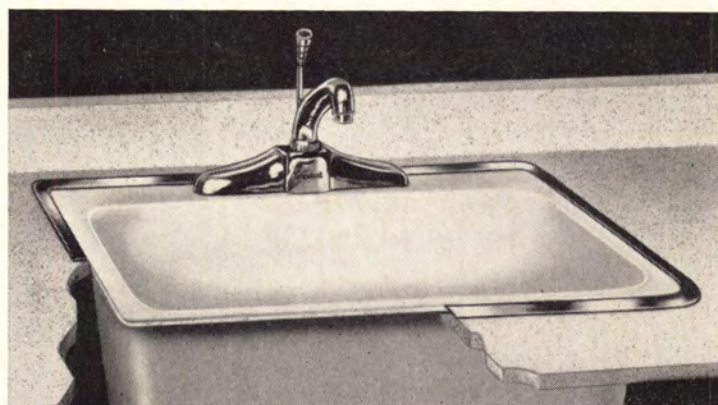
Call your Plumbing Contractor, or write for information and FREE sales aids.

ISE® In-Sink-Erator®
Originator and perfecter of the garbage disposer

IN-SINK-ERATOR MANUFACTURING COMPANY • RACINE, WISCONSIN



Simulated stone panels are formed from crushed stone imbedded in a glass-fiber-reinforced base. Roxite units measure 12" x 48" and come in three shades. Panels are simply nailed in place over new or old work. Terox Corp., Chicago. (Circle 348 on Reader Service card)

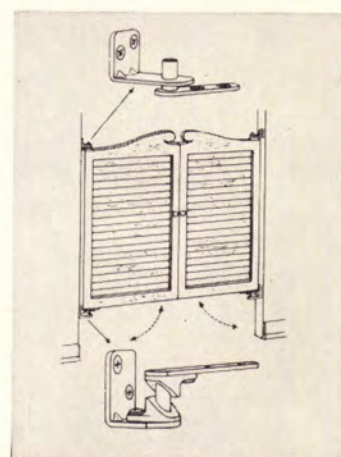


Built-in laundry tray is made of acid-resisting enameled cast iron. It is designed for counter-top installation and features an integral rear ledge for fittings. Called the Ledgesmont, it is 24" wide. American-Standard, New York City. (Circle 349 on Reader Service card)



Panel adhesive is now available in cartridges for convenient application in bonding panels, sheeting, ceramic tile, acoustical tile, glass and wood to vertical surfaces. Can be used as caulking or as a sealer. Continental Chemical, Wakefield, Mass.

Circle 350 on Reader Service card



Cafe-door pivots cause door to swing back to center by gravity. They also hold doors open at 90° on either side of the opening. Number 150F satin brass pivots have an adjustment feature to align the doors in the jamb.

Stanley Hardware, New Britain.

Circle 351 on Reader Service card

NEW PRODUCTS

start on p. 111



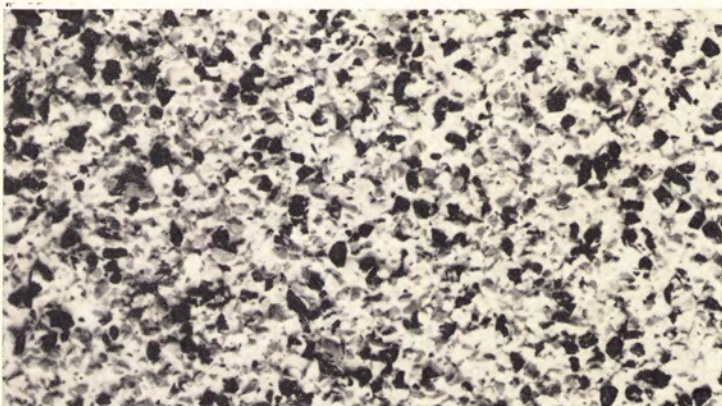
Duct tape that stays pliable and tacky down to 20°F has a polyethylene-laminated cloth backing and a low temperature pressure-sensitive adhesive. It can be used to seal all types of duct work and to secure insulation. Arno, Michigan City, Ind.

Circle 343 on Reader Service card



Snow-white grout of dry-set type remains workable for large areas and allows fast application. It is recommended for grouting ceramic, glass, mosaic and vitreous tiles. Tiles don't need to be wet. Commercial Paste Co., Columbus, Ohio.

Circle 344 on Reader Service card

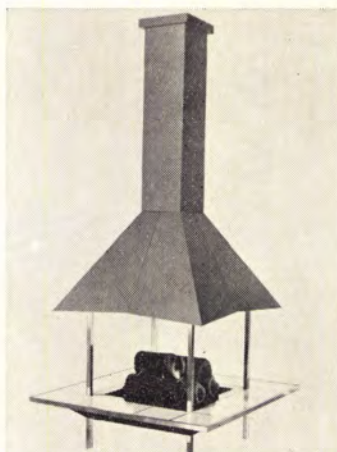


Wall coatings for concrete include Textane (made of polyurethane and selected aggregates), Armite (an epoxy-based spray formulation) and Neolon (an all-weather exterior coating using synthetic rubbers). Desco International, Buffalo, N. Y. (Circle 345 on Reader Service card)



Six-sided cupola is made of solid redwood 1" or more thick. The copper roof needs no painting. Model H Cupola is made in two sizes: 36" wide by 40" high or 40" wide by 47" high. Stephenson & Co., Cleveland, Ohio.

Circle 346 on Reader Service card



Gas fireplace is a free-standing metal frame model with a simulated tile hearth and a realistic ceramic gas log. The Regency is made with manual shut-off or safety shut-off valve. In red, blue, white or brown. Majestic, Huntington, Ind.

Circle 347 on Reader Service card

New products continued on p. 132

We test 3 out of 10. You score 100%.

To ASSURE you of 100% performance, every year three out of every ten basic unitary* air conditioner models made are tested for performance and capacity under ARI direction. *Makers' specs on every new model are evaluated by ARI engineers; models with least apparent margin of excess capacity are tested first.* Further selection is on a statistical basis; all testing is conducted by the Electrical Testing Laboratories. In a given year approximately one-third of all basic models are put through punishing lab tests.

Units which fail to deliver rated cooling capacity must be improved, rated correctly, or withdrawn. Those which pass carry the ARI Seal of Certification. A manufacturer who fails to make corrections loses the Seal on *all* his models.



DEMAND THE ARI SEAL. It protects architect, builder, contractor, dealer, engineer, and user. Write for further information and free directories of Certified Unitary Air Conditioners and Heat Pumps.

*Unitary includes packaged air conditioners (single units, two-piece "split" units, or heat pumps) rated below 135,000 Btuh in capacity, excluding room air conditioners.

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All-Electric Report U.S.A.

News of all-electric Medallion homes and apartments across the country



Every day, more and more builders of modern homes and apartments are switching to total-electric construction, equipped by General Electric.

The many advantages of total-electric living have proven such outstanding sales values that Medallion homes and apartments equipped by General Electric are consistently outselling competitive units.

But added saleability of your product is only one of the advantages to you as a builder. You also get:

- Engineering and design assistance for heating, cooling, lighting, kitchens and laundries.
- Customized promotional programs to take your sales message to your prospects effectively and efficiently.
- Coordinated scheduling of equipment deliveries to save you headaches and speed your construction.

Interesting? For details on how General Electric's program for total-electric homes and apartments can go to work for you, contact your General Electric Major Appliance distributor, or send in the coupon below.

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Briardale, Oklahoma City, Oklahoma, where builder Bill Allen has combined the sales advantages of total-electric kitchens with modern electric furnaces and air conditioning. The comfort of electric climate control, coupled with a guaranteed operating cost has made these Gold Medallion Homes one of Oklahoma City's most successful new communities.



401 East 1st St., Tustin, California, is a 102-unit Gold Medallion apartment built by the Skoff Construction Company. Each total-electric apartment features a complete General Electric kitchen and radiant ceiling cable heating, set in the pleasant atmosphere of beautiful California landscaping.



Tara Town Houses, Indianapolis, Indiana, sold 102 Gold Medallion condominium units in just three months. Built by J & L Realty Inc., each of the 130 town house units will offer owners a General Electric built-in range, refrigerator, Disposall® waste disposer, water heater, washer, dryer, electric base-board heat and central air conditioning as part of the purchase price, resulting in sales far ahead of competitive projects.



Shepherd Hills Country Club, Wescosville, Pennsylvania, is a picturesque community developed by Robert Friedman and Paul McGinley who utilized General Electric's program to help make this total-electric community an outstanding sales success. Modern Gold Medallion homes are served by an underground power distribution system that maintains the beautiful country club setting, complete with club house, swimming pool and golf course.



Saturn Apartments, Cocoa Beach, Florida, has 106 Medallion garden apartments featuring complete General Electric kitchens and Weathertron® heat pumps, for year-round climate control. The tremendous success of this total-electric apartment project led builder Raymond W. Tompkins to again apply General Electric's products and builder program to his 140-unit all-electric motel, now ready for construction.



Wood columns, beams, and planks, all attached to an attractive wood fence, make a garden path a way of beauty. In outdoor designs, wood is as durable as it is versatile. Architects: Burde, Shaw & Associates.

Build well to sell well . . . with **WOOD**

Working with wood, you can build your houses with the features home-buyers want most . . . and still cut construction time and costs right down the line.



Beamed ceiling and overhang, bright skylight, broad louvered windows, and appealing wood siding harmonize perfectly with each other and with the natural wooded surroundings. Wood is uniquely at home on any site.

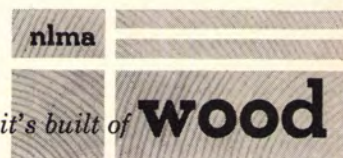
You build homes faster and make sales faster, when you build with wood. Wood is the traditional favorite of both builders and buyers. Builders are partial to wood, because of its easy workability and its ready availability.

Buyers are partial to wood, because it can be enjoyed in so many ways for so many years. Buyers realize and appreciate the charm and value of wood . . . in wood siding, paneling, flooring, beams, and built-ins—as seen in NLMA's color, national magazine advertising to the consumer market.

One important thing more. Wood, with the UNICOM system of modular construction, saves you more time than ever, and more money than ever, on the site. Precut and preassembled sections go into place faster . . . in any style of home.

For more information on UNICOM, and how you can build well to sell well with **WOOD**, write:

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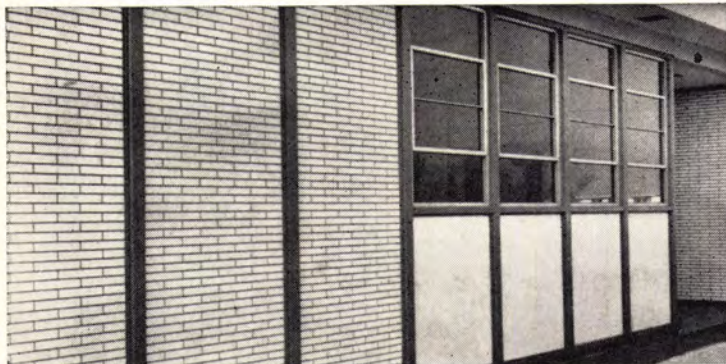
Incomparable for custom built-ins, wood can bring distinctive selling features like these to a dining area: storage shelves, a serving counter, and folding doors, to conceal them. Architect: Laurence Schwall, A.I.A.



This window-door combination has a way in and a way out, plus a view in and a view out. House plants, plates, and figurines enhance the arrangement's Colonial beauty. Wood adds charm to walls, top and bottom.

NEW PRODUCTS

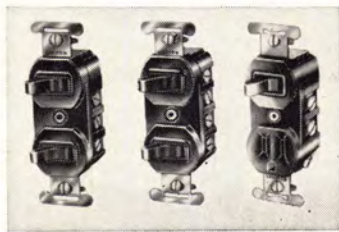
start on p. 111



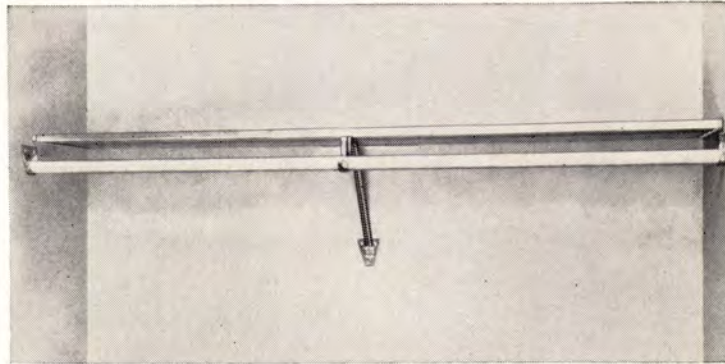
Masonry curtain-wall panels have a surface that simulates brick colors, designs and textures. The lightweight, fire-resistant panels are designed to fit into most curtain wall systems. Century Brick Corp., Erie, Pa. (Circle 352 on Reader Service card)



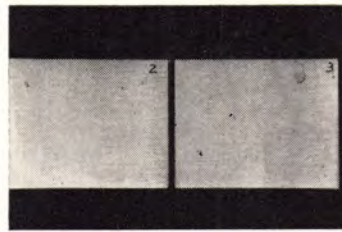
Carport-patio cover has a canopy of corrugated rigid vinyl. It is offered in white and a variety of colors. Retail prices: from about \$200 to \$375, depending on size. It is said to be maintenance free. Thoss Prods., North Manchester, Ind. Circle 354 on Reader Service card



Three-way quiet switches are designed to conserve space. Three combinations offered: 2 three-way switches, a three-way and a single pole switch and a three-way and a grounded outlet. Each mounts in a single wall box. Leviton Mfg. Co., Brooklyn, N.Y. Circle 355 on Reader Service card



Closet shelf bracket for drywall construction needs no screws for fastening. A toothed bracket is simply hammered into the wallboard to provide load-bearing support. Finish is bright steel. Perma-Fix Co., Fair Lawn, N.J. (Circle 353 on Reader Service card)



Plywood primer, with vinyl acetate latex base, is formulated to conceal cracks and checks as plywood ages. Resyn 2802 forms a tough flexible film that stretches to bridge the gaps when the plywood cracks. National Starch, New York City. Circle 356 on Reader Service card



Joint compound has long wet-life; it doesn't spoil in opened container. Ready Mix dries with little shrinkage, sands to a smooth surface and takes any type of decoration. Sealer comes in five-gallon pails. Bestwall Gypsum, Paoli, Pa.

Circle 357 on Reader Service card

New literature starts on p. 145

"My company has been successful bidder on many jobs I couldn't touch without SPEE-FLO HYDRAAIRLESS EQUIPMENT"



So says Mr. Fred Hephinger, President of Hephinger Painting and Decorating Company, New Philadelphia, Ohio. The subject of the conversation was the Spee-Flo Model 28-100 HydraAirless and Patented H-Gun purchased in June of 1962 after a series of tests against competitive units. The unit has now been proved on such jobs as Hillsdale High School near Haysville, Ohio; The Methodist Churches of Brentwood, Dover, and Mingo Junction, Ohio; and Jefferson Union School of Richmond, Ohio.

Here's what Mr. Hephinger had to say:

"This is the only airless unit which I own and operate which is trouble-free."

"I have had absolutely no maintenance costs on this unit."

"This unit has applied over 3,000 gallons of material including latex, flat oils, clear varnishes and lacquers, and exterior materials."

"In every case Spee-Flo equipment has permitted me to make additional profits."

"Material savings have run from 20 per cent to 33 per cent depending on material."

"We have been the successful bidder on many jobs because we can count on Spee-Flo equipment to operate without interruption."

"On one job the speed of application with this equipment permitted us to paint a ceiling deck with 7-inch ribs in about half the time estimated."

Spee-Flo has many other testimonials just like this. Why not put Spee-Flo in your profit picture. Write today or contact the Spee-Flo Representative in your area.



the feature that melts snow... sells more homes

Give prospects something special to think about—Chromalox electric snow-melting step mats that make steps safe at the flip of a switch. This ready-to-install assembly is specially designed for embedding in concrete steps. Basic 2-step and 3-step mats can be combined for four or more steps. Other Chromalox snow melting equipment available for driveways and sidewalks. Write today for Bulletin M60100.



CHROMALOX electric heat
Edwin L. Wiegand Company, 7770 Thomas Blvd., Pittsburgh, Pa. 15208

Circle 53 on Reader Service Card

Circle 69 on Reader Service Card ➤

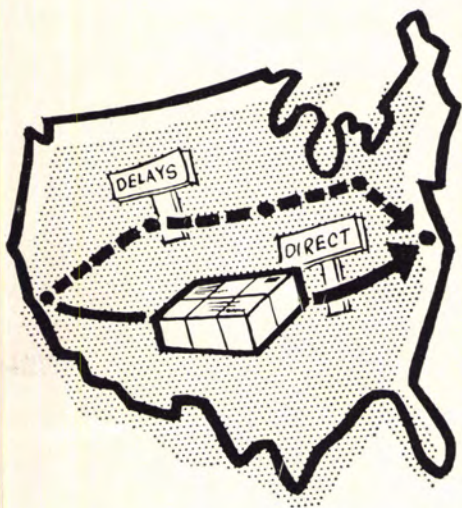


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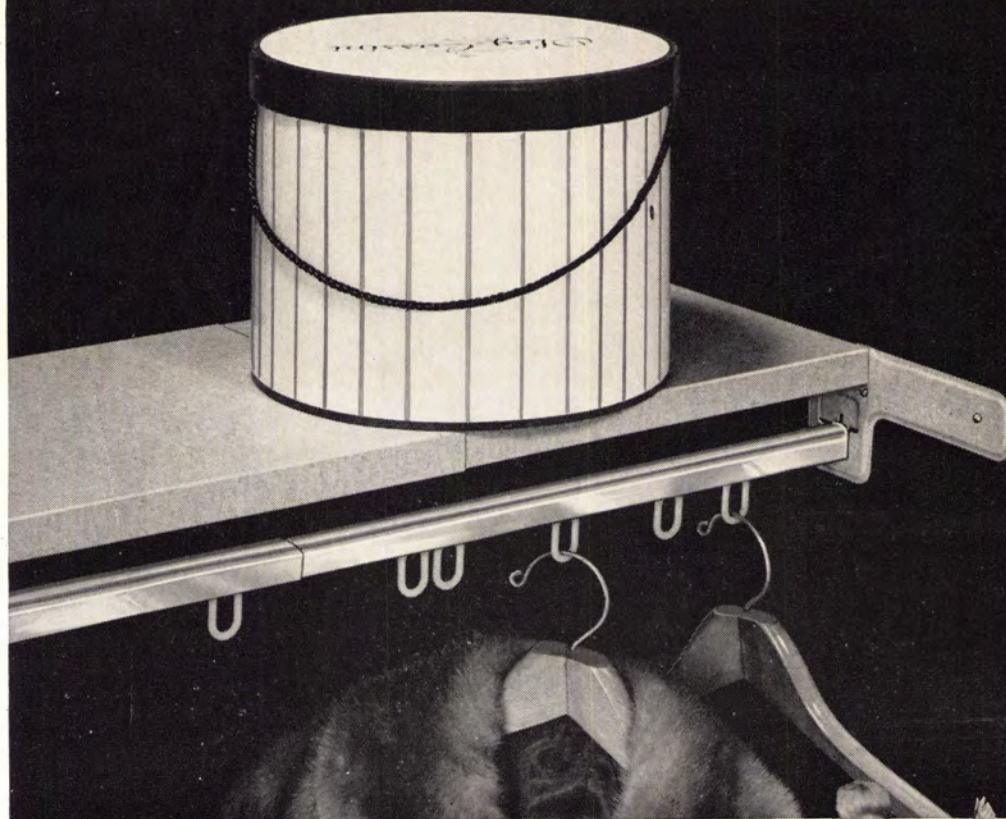


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Honeywell electronic air cleaners are standard

Crofton, a new community in the Washington-Baltimore-Annapolis area, is recognized as one of the most advanced planning projects in the country.

And Honeywell Electronic Air Cleaners are standard equipment in all of the homes already built . . . in all of the single-family homes that will be built . . . in all of the 1000 planned apartments . . . in all of the stores in the community's shopping center.

We asked W. Hamilton Crawford, President of Crofton Corporation and its parent company, Crawford Corporation, to tell us why . . .

"Well, for three reasons: First, we know that cleanliness ranks high with new home buyers. We want Crofton families to enjoy the convenience of cleaner homes, with less

dusting, cleaning and redecorating.

"Secondly, the high pollen efficiency of the Honeywell Electronic Air Cleaner should be important in this area of the country, and should have a really big appeal.

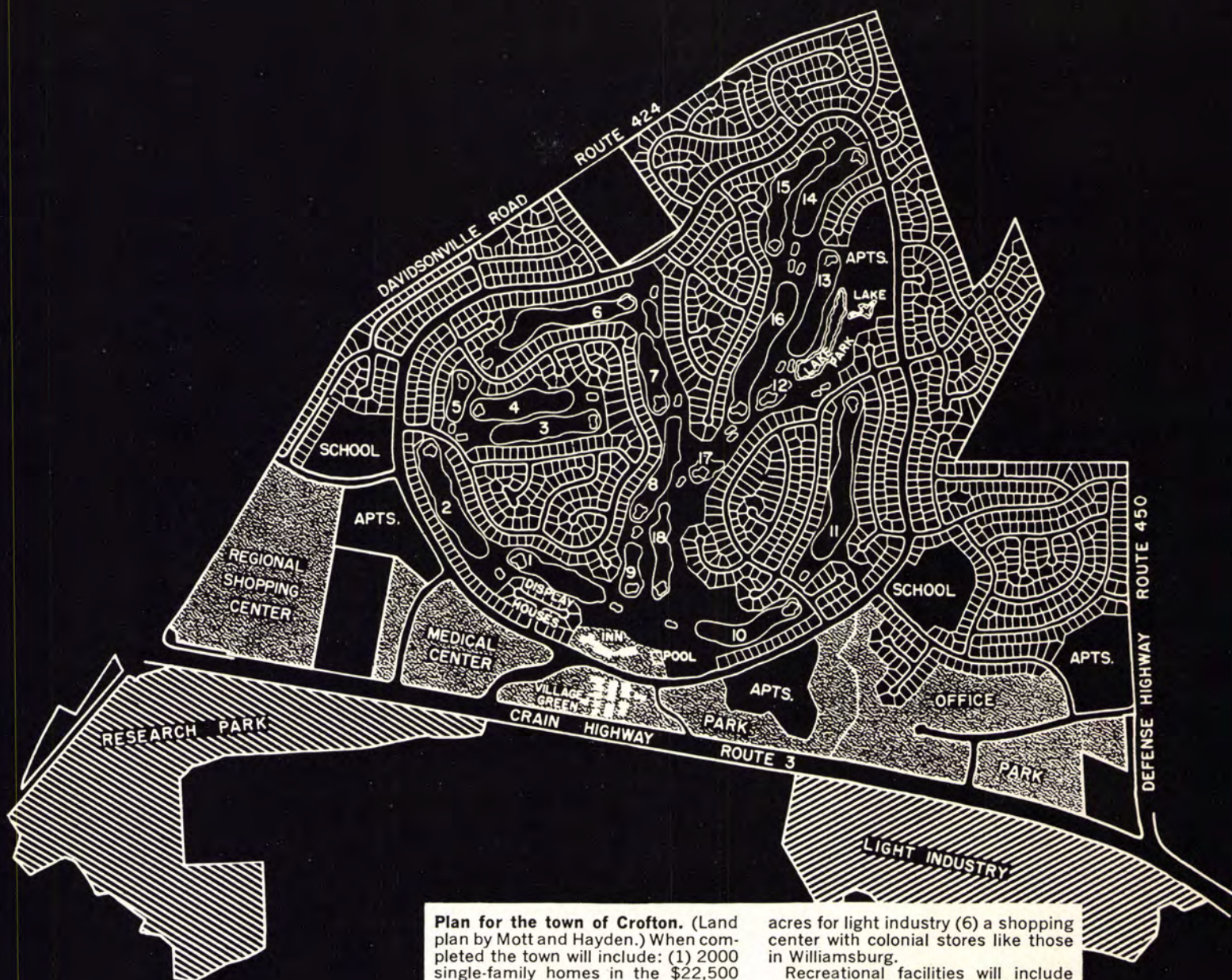
"And finally, we are convinced that electronic air cleaning should be an integral part of the environment in every truly up-to-date home."

Naturally, Mr. Crawford's remarks please us. And we feel Crofton homeowners will be just as pleased with the performance of their Honeywell Electronic Air Cleaners. The unit can actually remove up to 95%* of the airborne dust and pollen . . . including the tiny particles of smoke, cooking grease and bacteria that can pass right through ordinary filters. And, it can cost as little as \$1.50 a month added to the mortgage.

There's a good chance your prospects are already familiar with the advantages of Honeywell Electronic Air Cleaning. Honeywell air-cleaner advertising reached over 3 million of them last year in *HOUSE & GARDEN*, *HOUSE BEAUTIFUL*, *HOLIDAY* and dozens of other outstanding consumer magazines. On top of all that, we've beefed up our promotion program with air-cleaner commercials on network television.

Look into it.

Why not add the unique appeal of Honeywell Electronic Air Cleaning to *your* homes. It could be just the modern "exclusive" you need to attract more quality-home buyers. Call your local heating and cooling dealer, ask for a demonstration and price it. Or, fill out and mail the coupon directly to Honeywell.

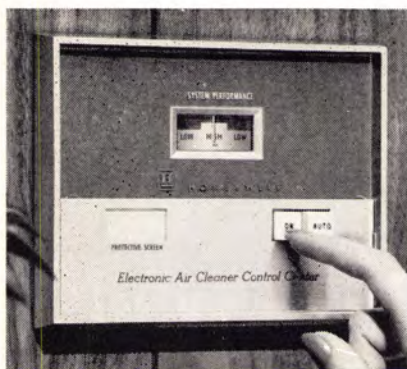


Plan for the town of Crofton. (Land plan by Mott and Hayden.) When completed the town will include: (1) 2000 single-family homes in the \$22,500 to \$33,000 price range. (2) 1000 2-to-4 bedroom town houses and garden apartments (3) some medium rise apartments (4) a 125-acre park for industrial research facilities (5) 117

acres for light industry (6) a shopping center with colonial stores like those in Williamsburg.

Recreational facilities will include several swimming pools, tennis courts and a small lake stocked with fish. Notice also the 18-hole professional golf course which winds through the entire area.

equipment in the entire town of Crofton, Maryland.



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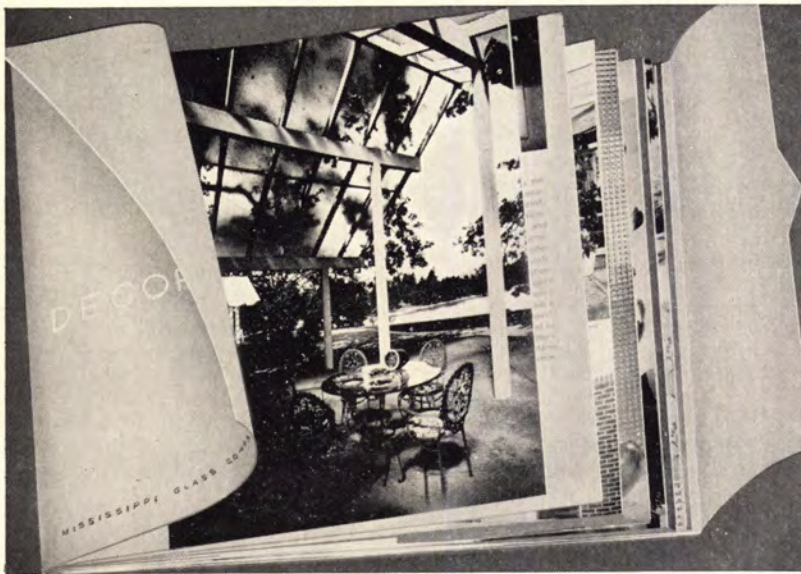
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NEW LITERATURE

For copies of free literature, circle the indicated number on the Reader Service card, page 137.

Catalogs

CONCRETE ACCESSORIES. 8 pages. Control joints, water stops, joint fillers, vapor barriers, chamfer strips, bearing pads, U-joints and elephant trunks. Specifications, illustrations and installation details. Structural Specialties Corp., Syosset, N.Y. (Circle 201 on Reader Service card)

WATER SYSTEMS. 12 pages. Complete ratings, latest list prices and ordering data for jet pumps, shallow-well systems, submersible pumps, utility pumps and cellar drainers. Goulds Pumps, Seneca Falls, N.Y. (Circle 202 on Reader Service card)

METAL LATH AND ACCESSORIES. 16 pages. Specifications and illustrations of lath, corner bead, door and window casings, clips, channel, nails, ties and plugs. Bostwick Steel Lath Co., Niles, Ohio. (Circle 203 on Reader Service card)

TRACTOR-LOADER. 16 pages. 150-hp model 977H is described and accessories are shown. Caterpillar, Peoria, Ill. (Circle 204 on Reader Service card)

LIGHTING FIXTURES. 12 pages. Low-priced line features Hobnail group, outdoor lighting equipment, transitional and modern fixtures. John C. Virden Co., Cleveland, Ohio. (Circle 205 on Reader Service card)

LOCKSETS AND BUILDERS' HARDWARE. 16 pages. Locks, installation tools, special keying systems, trim rosettes, latches, strikes, sliding door locks, displays and merchandising aids are shown and described. Kwikset, Anaheim, Calif. (Circle 206 on Reader Service card)

LIGHTING FIXTURES. 104 pages. A total of 754 fixtures and accessories are shown in color illustrations including 190 newly announced items. Fixture types are grouped for easy reference. Thomas Inds. Inc., Louisville, Ky. (Circle 207 on Reader Service card)

DECORATIVE FOUNTAINS. 24 pages. Permanently installed and self-contained distribution units, lights, sound equipment, pumps, parts and price lists. Mermaid Fountains, Miami, Fla. (Circle 208 on Reader Service card)

Technical literature

LAMINATED BEAMS AND ARCHES. 20 pages. Provides basic design data, specification guide, product information, and lists engineering services available. Also includes uses and details of laminated members for churches, schools, commercial and industrial buildings and homes. Weyerhaeuser, Tacoma. (Circle 209 on Reader Service card)

ARCHITECTURAL OUTDOOR LIGHTING. 12 pages. Illustrates bullets, brackets, floods, mercury vapor units, quartz-iodine floods and sealed-beam floods. Stonco, Kenilworth, N.J. (Circle 210 on Reader Service card)

STOREFRONTS AND ENTRANCES. 100 pages. Full and quarter-sized details. Price manual also available. Northrop Architectural Systems (Arcadia), Los Angeles. (Circle 211 on Reader Service card)

VENTILATING PRODUCTS. 8 pages. Kitchen hoods including island, peninsula and pass through models; oven hoods, wall fans, bathroom ventilators and ventilator lights. Trade-Wind, Pico Rivera, Calif. (Circle 212 on Reader Service card)

PLASTIC FINISHED HARDBOARD. 8 pages. Color pictures of wood grain finishes, solid colors and decorative patterns are shown. Specifications and

New literature continued on p. 151



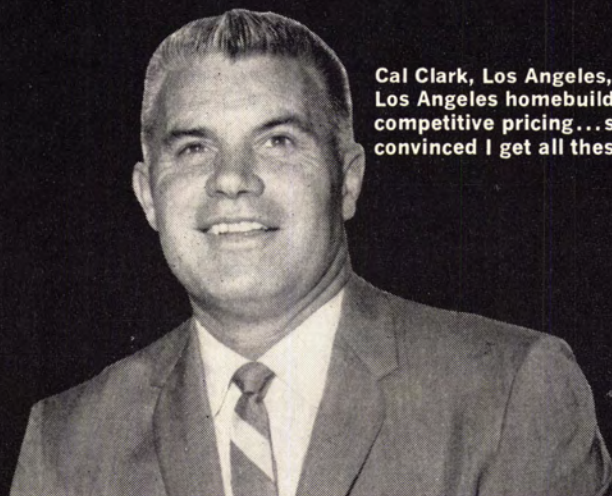
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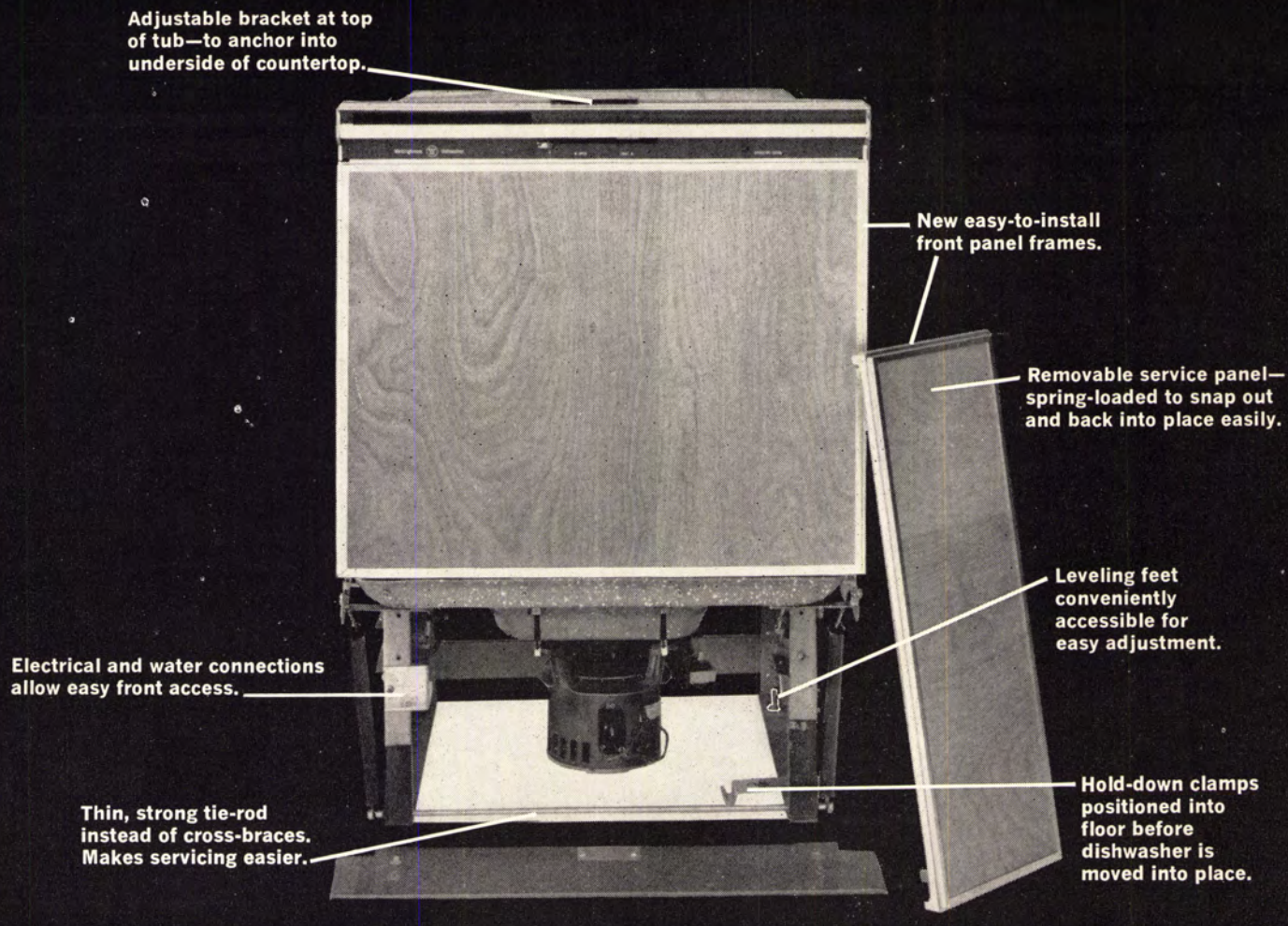
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dishwashers save up to one half hour
in installation time.**

and there's a model for homes in each price range.

With Westinghouse, you can select a dishwasher to fit the type of home you're building, at an appropriate price. Yet all three models give you Westinghouse quality and Westinghouse customer acceptance. All three give you complete flexibility in front panel finish. And all three save you up to one half hour in installation time.

Model SUF4D. Designed especially for tract homes. Fully automatic, front-loading, handles service for 15*. Single wash, latch lock start with operating signal light.

Model SUF4C. For medium-priced homes. 3-cycle, fully automatic, handles service for 15*. Timer knob control with 3 selections for rinse-hold, double and single wash cycles.

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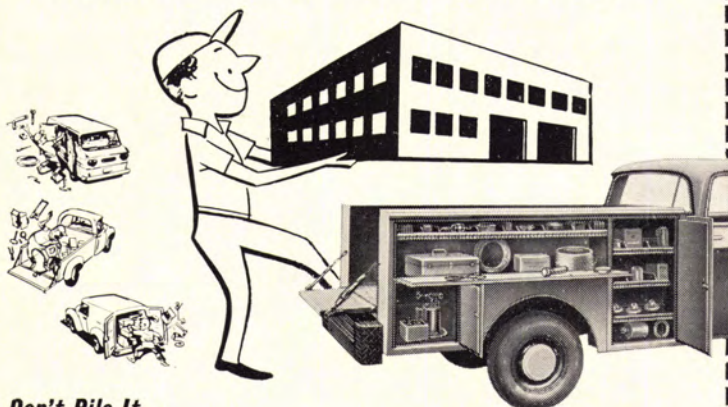


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Circle 60 on Reader Service Card

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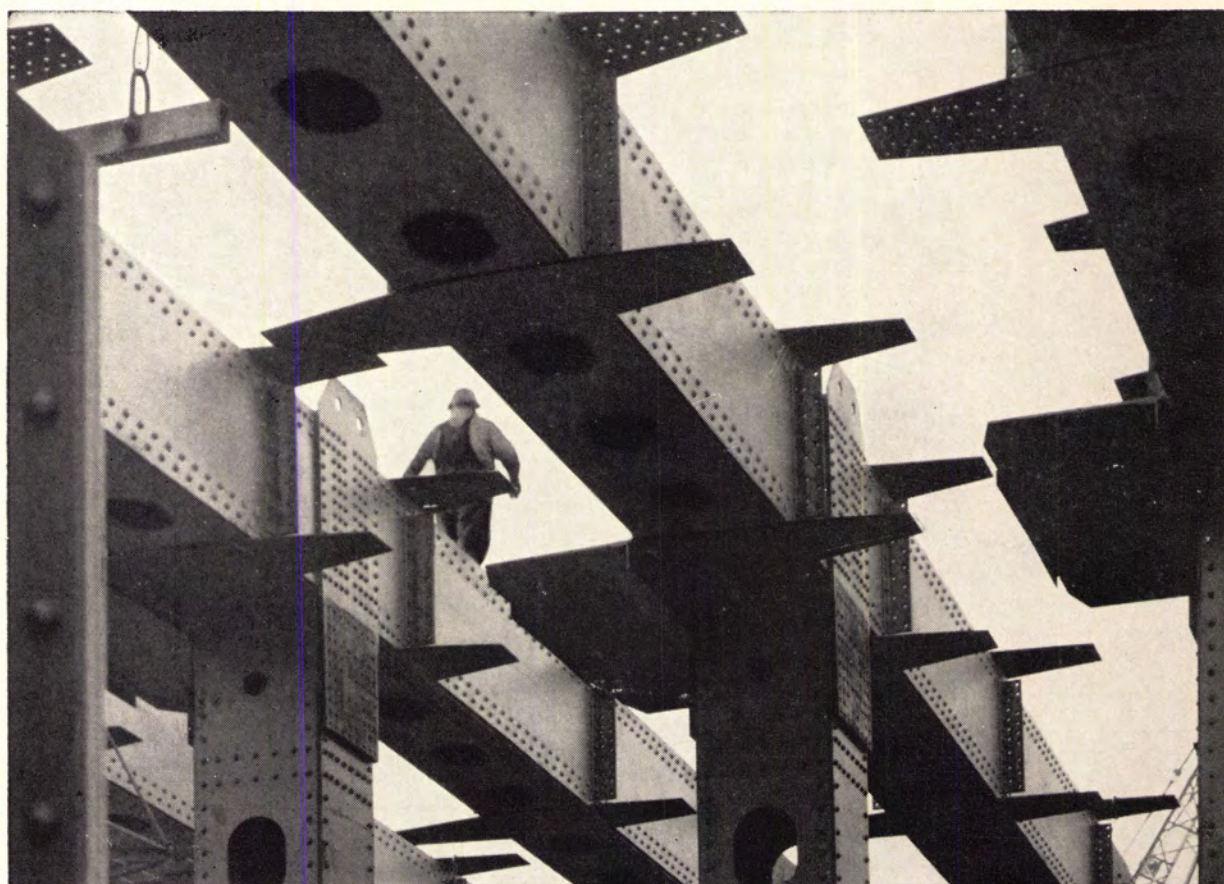
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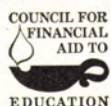
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Published as a public service in cooperation with The Advertising Council and the Council for Financial Aid to Education

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FEBRUARY 1965

NEW LITERATURE

starts on p. 145

accessories are described. Mars Wall Products, Dover, Ohio. (Circle 213 on Reader Service card)

METAL SERVICE DOORS. 16 pages. Descriptive and technical information about roof scuttles, smoke hatches, sidewalk doors, floor doors, ceiling access doors and basement doors. Bilco, New Haven, Conn. (Circle 215 on Reader Service card)

INSULATING MASONRY WALLS. 4 pages. How to use silicone-treated perlite loose-fill insulation; tables of U values for cavity, concrete block and veneer-type walls. Test reports on moisture penetration. Charts of material coverage requirements. Perlite Institute Inc., New York City. (Circle 216 on Reader Service card)

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RADIO AND COMMUNICATIONS SYSTEM. 8 pages. All-transistor unit retails for \$199 with master, four remotes and complete installation kit. Fasco Inds., Rochester, N.Y.

FLUSH PULLS. 4 pages. 20 recessed pulls come in various price ranges in solid and plated-brass and chrome finishes. Stanley, New Britain, Conn. (Circle 229 on Reader Service card)

WALL POSTER. 4-way fold. Opens to show samples of 34 types of prefinished plywood. Jones Veneer & Plywood, Eugene, Ore. (Circle 230 on Reader Service card)

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MOTEL

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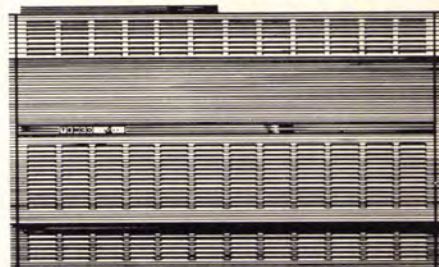
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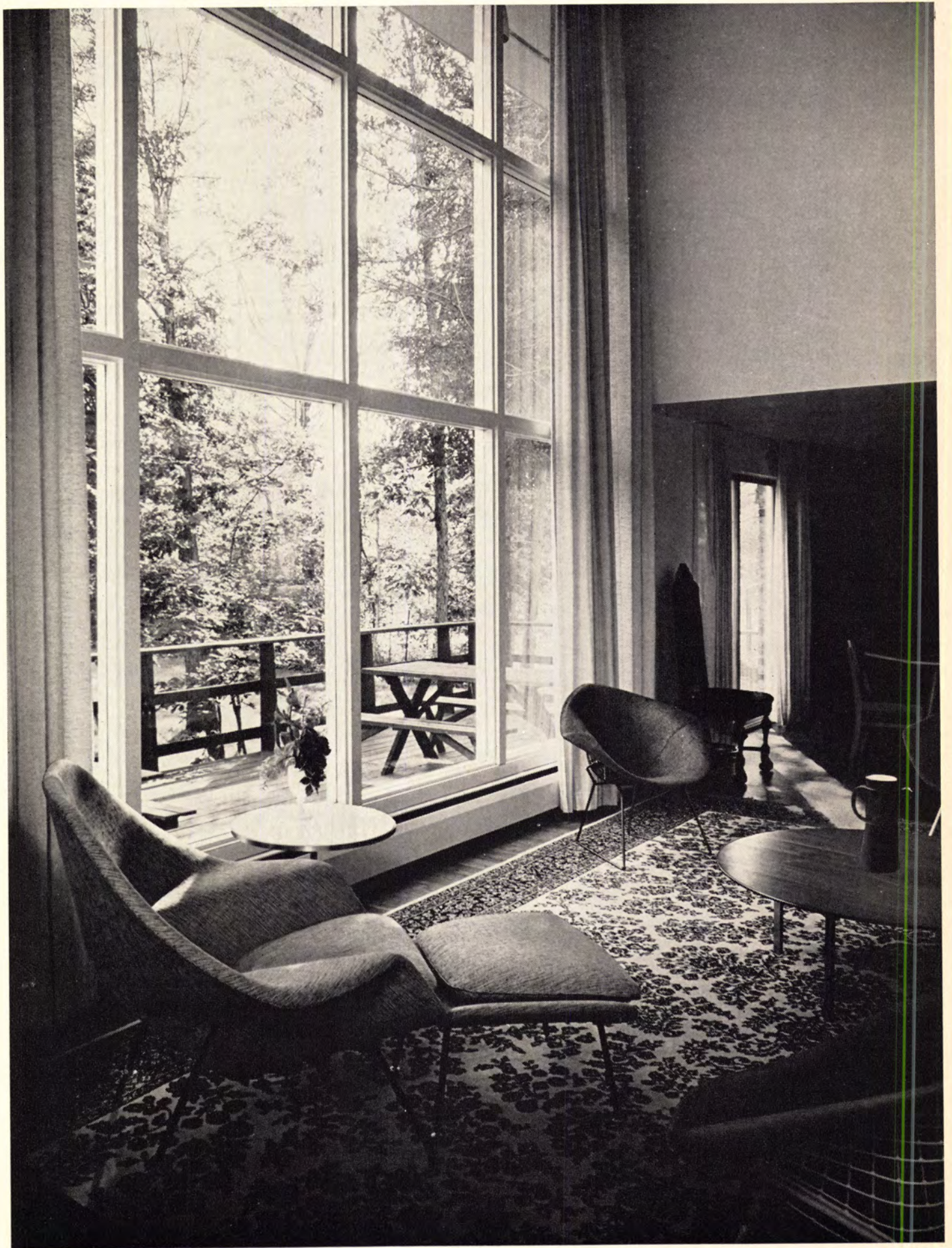
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**After you've sweat the plans,
sweat the bids,
sweat the banks,
sweat the schedule,
and now you're proud of what's up
and the owner's proud of what he bought...
realize that part of the beauty is comfort
and part of the comfort is Janitrol.**

It's the important part. And with Janitrol you can forget about the callbacks, breakdowns and complaints caused by inadequate systems. It's a beautiful way to run a business.

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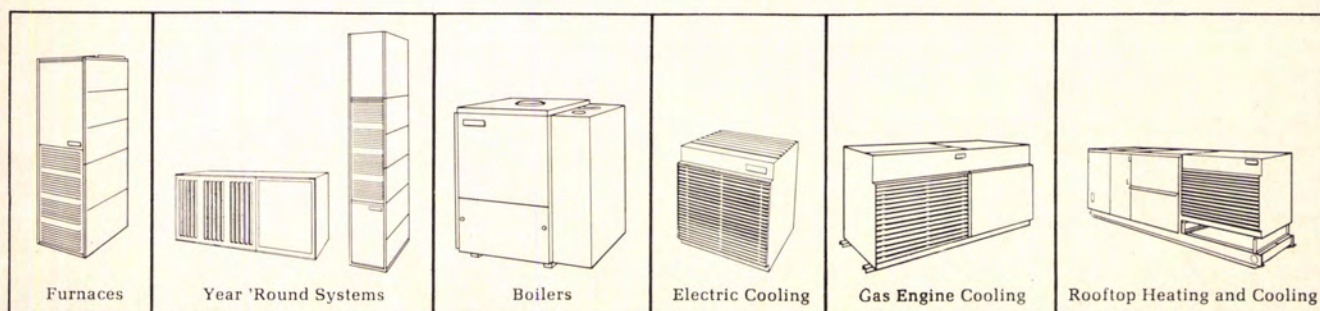
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with one eye for **STYLE**
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and the best-known name in building materials, too!

It costs very little extra to give your homes the luxury of a sheet vinyl floor, the most wanted resilient flooring in America today. Tracino Corlon costs only a little more than vinyl-asbestos tile, but it adds much more in sales appeal. And, if you're using Embossed Linoleum, you'll find the cost is about the same.



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Two additional designs: Mosaic and Marble.

Because Tuscan has Armstrong's exclusive Hydrocord Back, you can have it installed at any grade level, even in a basement directly on concrete (except where excessive alkaline moisture makes the use of any resilient floor impractical).

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