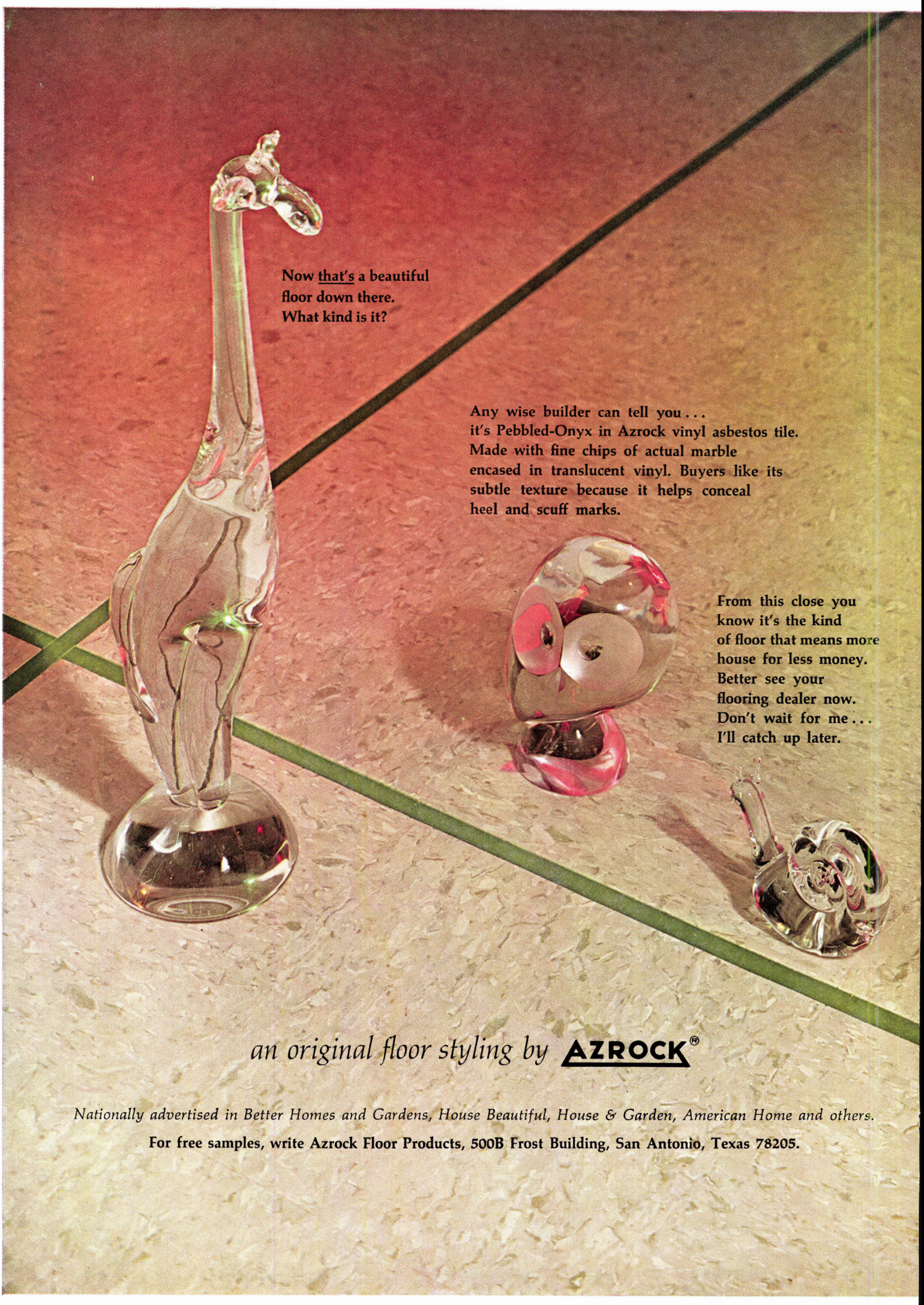
House & Home

MANAGEMENT PUBLICATION OF THE HOUSING INDUSTRY NOVEMBER 1965

Preview of next year's new products

Also: Housing's outlook for 1966... Top performers of 1965



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House & Home

A McGRAW-HILL/DODGE PUBLICATION VOL. XXVIII NO. 5 NOVEMBER 1965

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The housing industry is facing a new and considerably younger group of buyers. Selling them requires better houses and more knowledge of why they buy

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Builders warned to produce rent-aided units—or else **5**
Also: FHA answers builders' questions on rent supplement rules . . . Higher discounts win mortgaging's Battle of Chicago . . . Acute labor shortage pinches Detroit homebuilding . . . Bernard Boutin resigns as NAHB's top staffer to rejoin government . . . *Complete* NEWS *index on p. 5*

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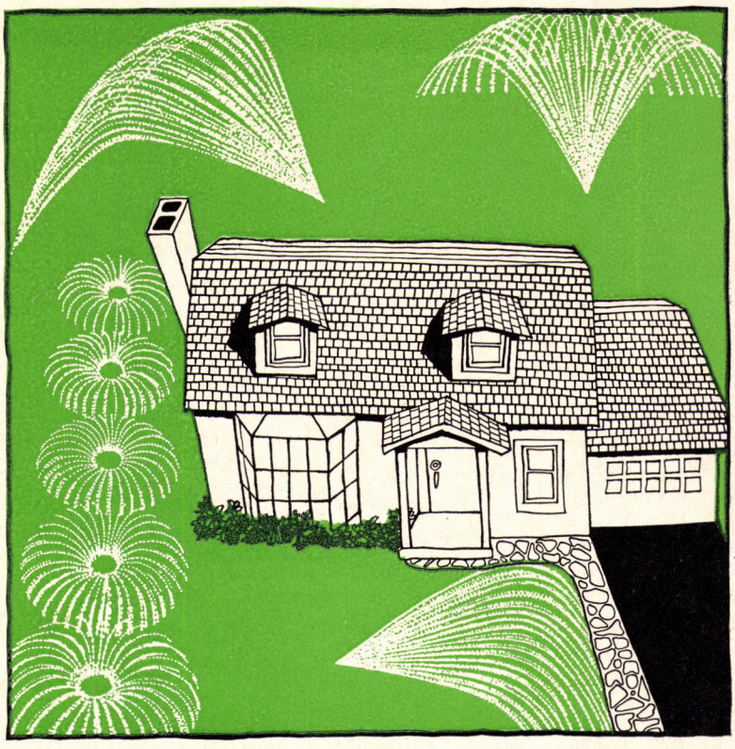
Cover: Product display area at NAHB convention, Chicago. Photo: Oscar & Assoc.

NEXT MONTH

Housing technology: when are all those new ideas and systems going to get off the ground? . . . What's selling across the country and why: a report from the 21 most important housing markets



Moist O'Matic® system shown here costs $189.95, covers from 5,000 sq. ft. to 8,500 sq. ft. depending on water pressure and yard layout.

Completely automatic underground sprinkler system for as little as $100.00

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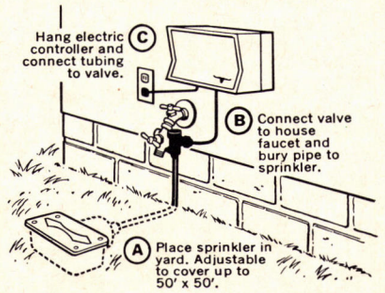

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WASHINGTON INSIDE

'No down' plan popular
FHA's new program of virtually no down payment for veterans to purchase their first homes is catching on quickly. After one and a half month's experience, the program has attracted 10,400 requests for certification of veteran's status. How many of these actually became sales isn't known.

Market analysis furor
Just as some FHA staffers feared, public release of its housing market analyses finally kicked up a fuss. No demand for more multifamily units in Cincinnati, FHA declared, just as a 391-unit project was proposed for the city's river-front urban renewal area. Cincinnati congressmen complained, URA Commissioner Bill Slayton donned his ambassador's hat and made a peace mission to the city, but the vacancy rate problem remained unsolved. Lesson: renewal alone cannot create market demand.

More sparks for underground wiring
Pressures are mounting to kayo FHA's rule that wiring in new subdivisions must go underground if feasible, (NEWS, Oct.). Fuel oil interests have cried foul play to Commissioner Phil Brownstein, saying local utility companies are absorbing more of the cost of going underground only if the houses are all electric. Brownstein's reply: he's against coercive tactics, nasty competition and all that, but FHA isn't about to get mixed up in the fuel battle.

Beautiful talk
The President's penchant for prettiness is spawning symposiums on the subject. The new Housing Dept. is thinking of sponsoring one and will participate in a Seattle talkfest. Objective: gather together some experts, create a consensus, and then try to figure out how to achieve beauty without beastly costs. Other federal agencies are pursuing the same course, too.

Labor's love lost
Organized labor's pet bill to ban state right-to-work laws has died in the Senate for this year and most insiders say it is dead for 1966—an election year when Congressmen shun controversial issues.

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Builders and bureaucrats warned: produce rent-aided units—or else

The nation's builders are on the spot with Congress. So are housing's bureaucrats.

This year Congress finally heeded a long-standing industry plea and let private builders get rent supplements for new units to house the nation's low-income families (NEWS, Aug.).

Now Congress wants action—200,000 new units in the next four years. Builders felt the ". . . or else" mailed fist in Congress last month when Sen. Paul Douglas, the Illinois Democrat who helped frame the rent-supplement legislation, warned rent-supplement backers with a blunt, no-mercy speech to an NAHB-sponsored workshop on rent supplements. Douglas' key sentence:

"I must warn you, if this does not bring new housing for low-income families, Congress will turn to other means." Listeners had no doubt that even more far-reaching subsidy programs were the "or else."

Builders. Congress sees rent supplements as a way of harnessing the profit motive for the public good, said Douglas. "One of the most marvelous things is that you [builders] can do good for mankind and make 6%," he added. "I want you all to make a reasonable profit—enough profit to do a good job."

Douglas is counting upon builders to team with nonprofit groups—principally churches and labor unions—to sponsor many of the rent-aided units. "This will not succeed unless nonprofit sponsors invest money as well as time," he said.

Bureaucrats. "Congress will not permit this program to founder on the rock of local or state or national bureacracy," he continued. "We will make sure there is no sabotage in Washington or any state.

"I plead with you [officials] to write the regulations in plain English so even a PhD. from the University of Chicago can understand them."

Turning to FHA brass, he spoke bluntly: "We want to house 200,000 disadvantaged families in less than four years. I expect this to be a traumatic experience [for FHA]. But I expect you [leaders] to imbue your staffs with a sense of urgency—which is sometimes the most difficult thing to get in a public agency."

Opponents. But no one at the Washington workshop thought those 200,000 units would go up overnight. Guesstimates placed the first units six to 18 months away from the market.

Local zoning boards pose even more potential processing problems than FHA. The same neighborhood groups that have all but killed public housing in large cities may rally against rezoning potential sites for rent-aided projects. These groups usually say they fear that an influx of low-income families will depreciate their homes.

Hopes in some quarters that rent-supplement projects will be built in the suburbs —where resistance to low-income families

National Publishing Co.

SENATE's DOUGLAS
Rent supplements . . . or else

is traditionally fiercest—are adding to builders' fears for the site selection process.

FHA Commissioner Phil Brownstein favors suburban sites because cheaper land can keep rents low. Others, like retiring President Charles Abrams of the National Committee against Discrimination in Housing, look to suburban sites to help low-income Negroes move from central-city ghettos.

Workshop participants speculated on several possible counter moves sponsors and builders could take:

First, they need not announce intentions of applying for a rent supplement while they are seeking rezoning. Land use, not the income of occupants, is the controlling factor in zoning.

Second, even after a project is built, they need never reveal publicly that the occupants are receiving rent supplements. This would keep any project from being cursed as a "low-income project." Builders were supported in this by social workers who argued vehemently that all information about recipients of rent supplements should be held in strictest confidence.

Pushers. The homebuilding industry is solidly committed to overcoming such obstacles through its trade association, NAHB. Action Inc., the national council for better cities, recently set up a new division to encourage private nonprofit housing. Other groups—Realtors, mortgage bankers and mortgage lenders—concluded the new law and rent aids offered many opportunities during a session of the Mortgage Bankers' Assn. convention last month. This was a turnabout for many in the lending profession who had opposed all such legislation.

Top-level officials are stoutly behind rent aids. A refreshing change of attitude at the Washington session was the give-and-take between homebuilders and FHA brass. FHA men willingly described their regulations even before they had been officially printed, and builders probed for fishhooks in the rules.

For the questions they asked and FHA's answers, turn to page 6.

Rent-aid rules: FHA spells them out for builders

NAHB's workshop on the new rent-supplement program (*see p. 5*) produced a remarkable dialogue between FHA brass and builders. The common goal: to explain the fine points of FHA's new rules for the pioneering program so private builders can compete with public housing in sheltering the poor.

FHA cautions that applications cannot be processed until Congress appropriates money to pay supplements. At press time the House had killed the appropriation but Senate restoration was expected. A sharp battle in House-Senate conference appeared virtually certain.

In any case, here are the questions:

The owners. *Who qualifies as an owner to receive rent supplements?*

The law says a "housing owner" may be a nonprofit organization such as a church or labor union; a cooperative; or a limited distribution entity, which can be a corporation, partnership or individual.

Can Sec. 221d3 submarket projects now being processed get rent supplements?

Yes, if the commitment was issued after Aug. 10, 1965. A Sec. 231 project for the elderly can be converted before final closing of the mortgage. A Sec. 202 project committed after Aug. 10 may receive supplements without limit.

Can you combine one-family and multi-family units in one project?

Yes, if over-all cost falls within the mortgage limits for a Sec. 221d3 submarket project. (*See* H&H, *Sept., p. 9*).

Can these units be leased with an option to buy?

Yes, but only with individual units capable of being separated from the project operation. Tenants must have potential for increasing their income to assume ownership.

Can a builder help organize a nonprofit sponsor and then do the building?

FHA will avoid any so-called "captive" nonprofit sponsors. FHA will be looking for an organization with a continuity and background, and a knowledge of the social consequences of sponsoring a project for low-income persons. Goodwill and good intentions are not enough.

Will this sponsor have to co-sign the mortgage?

No. FHA will rely upon its ability to undertake fund raising if the project gets into financial difficulties.

Can any sponsor sell or refinance a project later?

No. The project must be held and operated for 40 years.

Must nonprofit sponsors have 2% working capital since they get a 100% mortgage?

The loan can include working capital.

Can a builder advance the front money for planning to a nonprofit group in exchange for the construction contract?

A builder can advance anything that can be included in the mortgage—such as architectural drawings. But he cannot make a gift or loan to induce his choice.

Does FHA *object to a nonprofit sponsor contracting to select a certain builder?*

No, on a normal cost-plus contract.

Can units be rehabilitated?

Yes, if the rehabilitation elevates substandard units to standard ones, or if half the mortgage goes for repair work.

Profit ceiling. *What is the return for a limited distribution sponsor?*

A maximum 6% on an 11.11% equity (or an 88.89% mortgage).

Can a builder carry that 6% forward if it isn't earned in a given year?

Yes, it can be cumulated.

Aid ceiling. *How much rent supplement can the owner of a project get?*

The supplement cannot exceed 70%—or be less than 5%—of the project's rent roll. When a sponsor applies, FHA will estimate the annual supplement and the number of months for rent-up. Then the sponsor will rent to eligible or noneligible tenants as he chooses.

Will FHA *require any fixed percentage of units be filled with rent-aided families?*

No. It could be 100% supplemented, it could be none. But 25% of units must be held for rent-aided families during rent-up. The sponsor will have to use his skill in filling it with any mix he wants. FHA hopes there will be a certain mix of aided and nonaided families, because the agency thinks it will be best to avoid a concentration of problem cases in one project.

Can this supplement amount change?

It can be raised or lowered by 10%.

Can the owner receive rent supplements for units vacant during rent-up?

No, FHA pays only for occupied units.

The tenants. *What qualifies a tenant to receive rent supplements?*

All tenants who receive rent supplements must have incomes below maximums to be established for each area. In addition, they must also be in at least one of five groups: 1) elderly, over 62, 2) displaced by some public action, 3) victims of a natural disaster declared by the Small Business Administration, 4) handicapped or 5) now living in substandard housing. FHA will review each application and determine the subsidy each can receive.

What is a "substandard" house?

One that is dilapidated or lacks plumbing facilities.

Can a family living in crowded but not substandard quarters qualify?

No.

What happens if a family moves in and the husband gets a raise in three months?

FHA will review incomes every two years but not every month. FHA will be responsible for any verification of income.

Can the owner evict a tenant for not paying his 25% of income or other reasons?

He must use his own judgment. FHA will not intrude in landlord-tenant ties.

Can a single person rent a two-bedroom apartment with Uncle Sam picking up the higher rent tab?

No. FHA has set these maximum and minimum ocupancies: 1 bedroom, 1-2 persons; 2 bedroom, 2-4 persons; 3 bedrooms, 3-6 persons; 4 bedrooms, 6-8 persons.

Will FHA *recognize the extra costs that might arise from managing and maintaining a project with families where unemployment, absence of a father, delinquency and other social problems are common?*

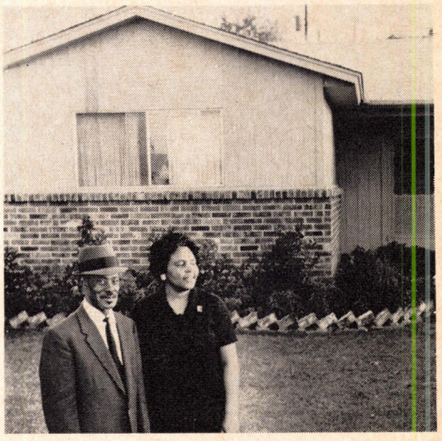
FHA recognizes that the management may have to provide a social service worker, extra maintenance, and possibly collect rent weekly. But the agency is depending upon sponsors to estimate its cost. FHA believes rents will be higher than a similar nonsupplemented project.

Will FHA *field offices recognize these extra costs?*

(By Franklin Daniels, assistant commissioner for multi-family housing): Yes. Underwriters are being told to process these projects backward from other projects and determine what rents are needed to support the mortgage, not vice versa.

"If there are any questions about your reception in any office, I am asking you as a personal favor to let me know."

McGraw-Hill World News



First rent-aided family graduates to home ownership

Last month Mr. and Mrs. Nathaniel Lewis became owners of their first home (*photo, above*) and began paying $59.85 on a $9,000 loan.

The Lewis' moved into their house as renters 13 months ago. They were one of 25 families in a test to show that low-income renters, when aided by rent supplements, can accumulate enough equity to become homeowners. HHFA, NAHB, the Tulsa Homebuilders Assn. and Tulsa renewal officials sponsored the test.

Under rules like those of the nationwide rent-supplement plan (*above*), the family accumulated a $300 down payment in 13 months—twice as fast as was expected.

Twenty of the other 24 families have accumulated an average of $55 toward purchase, and the remaining four families have dropped out. Fifty more houses are now being completed by Seminole Hills Assoc., formed by Builders Andy Latch, Ramon King and Don Herrington for the rent-aid test.

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Not many people have. These magnificent satin etched bronze and nickel finishes have been kept under wraps during a thorough market testing program. Builders report that these new finishes meet their needs for something new in doorway decor. That's why they are immediately available on the popular Bel Air design knobs, and the smart new Copa design knob too (both belong to that exclusive club — the Kwikset "400" Line). These quietly elegant new finishes were created by etching and embossing an antique finish in bronze metal. The finish is black oxidized, then highlighted by fine hand sanding to bring out a deep rich tone. A heavy nickel plating over bronze is used for the etched nickel finish. Both finishes are permanently protected by Kwikset's exclusive plastic coating. Your Kwikset representative invites you to see his new etchings. Does his line sound familiar? It should — it's America's best-seller.

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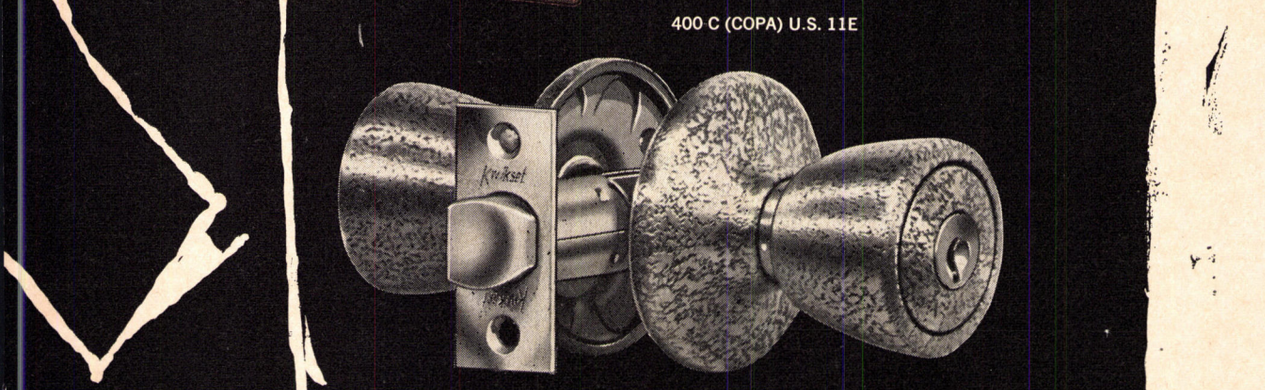

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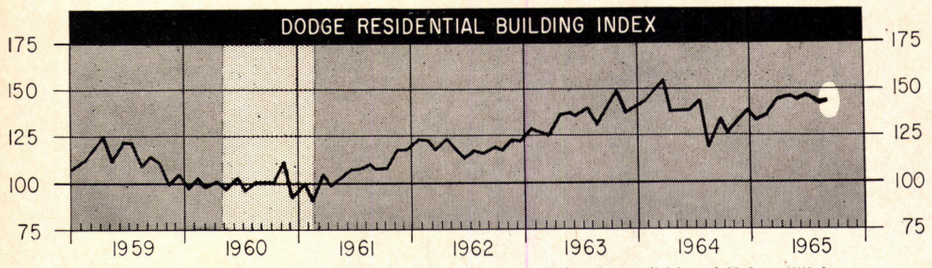


Based on contract value, 1957-59=100 (seasonally adjusted). Lighter shaded areas represent general business recessions. F. W. Dodge Co., a division of McGraw-Hill Inc.

Viet Nam and homebuilding: will fear of inflation speed up house sales?

The answer may well be yes if buyers can be persuaded that a new house is a hedge against inflation. And that, in fact, is the tack some builders and mortgage men were taking last month.

"Today's $15,000 house may be worth as much as $20,000 in ten years," said a New Jersey mortgage banker.

"Our houses have increased 20% in value in three years," boasted a Los Angeles builder.

This sales appeal can be a powerful stimulus with today's upgrading buyer, who, according to a new study (*see p. 92*), tends to buy as an investment.

Half true. What's more, it has a measure of statistical backing. The median price of new one-family houses sold by merchant builders jumped from $18,000 in 1963 to $21,000 in mid-1965.

NAHB attributes this rise primarily to soaring land costs, up 15% yearly, and to the desire of buyers for more space and more amenities. In fact, FHA statistics show construction costs have declined on a square-foot basis.

And half misleading. But housing economists caution against any assumption that inflation of new-house prices will carry over to used-house prices.

Implicit is a warning that builders using the inflation appeal may have disgruntled customers if prices do not inflate.

"There has been no inflationary trend in real estate during the past four years," says Economist James C. Downs of Real Estate Research Corp. in Chicago. "In cases where real estate prices have moved up, it has been for real estate reasons, not because of monetary reasons . . . On balance, there is only a leaning toward an inflationary posture at the moment."

Adds President Otto Preisler of Home Federal S&L in Chicago: "Not every house is an adequate inflation hedge. Although the Viet Nam crisis may have stimulated homebuying, it has not enhanced the value of all properties."

Whither land prices? Downs says he is "selectively bullish on land values" for three reasons:

1. "Entrepreneural speculators and long-time owners are increasingly showing signs of willingness (if not anxiety) to get out of land ownership—especially in large parcels. At the same time, substantial individuals and institutions are showing signs of willingness (again, if not anxiety) to get in on such pieces. The real reason for this series of actual and potential moves can be found in one word: cash. The former group doesn't have it, the latter has."

2. "The indicated slow-down in the shift from single-family houses to apartments [multi-family units are down from 38% to 35% of all housing] has given rise to the belief that we will resume our peripheral land expansion, thus giving more hope to land operators."

3. "In all this activity, there has been no pronounced value trend. Some lower prices have been forced on contract buyers who simply couldn't come up with payments and had to discount their deals to more liquid buyers. The biggest profits in 1965 have been made in improved central-city land, not in raw land."

Tight-money brake? Reports of higher mortgage discounts and interest rates (*see p. 16*) have renewed concern that tighter money might brake housing's pace.

Residential contracts tabulated by Dodge advanced in August, and the Dodge residential index moved from 138 to 141 (*graph above*). Since these contracts let to architects normally lead starts by some months, the Dodge count indicates activity will quicken in coming months.

KEY HOUSING INDICATORS

		DOLLARS (millions)	% change from '64
Dodge resid. contract	Aug.	$1,971	+17
	8 mon.	14,590	+ 1
ENR adv. resid. plans	Sept.	896	+33
	9 mon.	6,881	+ 9
ENR adv. apart. plans	Sept.	536	+42
	9 mon.	3,664	+ 5
ENR adv. house plans	Sept.	120	− 1
	9 mon.	1,341	+10

		UNITS (000)	% change from '64
Starts, priv. nonfarm	Aug.	130.4	− 7
	8 mon.	1,010.0	− 5
Starts, ann. rate	Aug.	1,384	− 7
Permits, ann. rate	Aug.	1,195	− 7
Starts, one-family	Aug.	87.4	UC
	8 mon.	648.7	− 1
Starts, multifamily	Aug.	43.0	−18
	8 mon.	361.5	−11

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

Prefabber puts national sales under one brand name

National Homes of Lafayette, Ind., following the lead of auto and appliance makers, will begin selling its houses under a single brand name January 1.

The label, Family-Tailored Homes, will be used by three National subsidiaries, Best Homes, Knox Homes and Lesco Homes.

Cnairman James R. Price said a year-long study showed buyers wanted a house guaranteed by a nationally known company. Hence National will guarantee in writing all material it supplies for five years and all workmanship of its dealers for one year. The company wants to double its force of 826 builder-dealers.

The new marketing move comes after National realigned its top management following disappointing sales in recent years. Its sales peaked at $93 million in 1959 and then leveled at $68 million.

Price said National's market researchers found that buyers expect distinctly different features at different price levels:

$11,000 to $13,000—spacious living room, good kitchen lighting (both artificial and natural), access to bedrooms without going through the living room, laundry located in utility room.

$16,000 to $18,500—two-car garage, plenty of hanging space in closets, stainless steel sink, chopping block, breakfast bar in kitchen or informal living area.

$20,000 to $25,000—distinct dining room seating at least eight persons, central air conditioning, fireplace, book shelves.

Producer's Council is asked to back urban design center

The center, proposed by the American Institute of Architects to improve environmental design in urban areas, will call on manufacturers for cash grants or the loan of technicians.

So said AIA President Morris Ketchum Jr. to 180 manufacturers at the annual meeting of the Producer's Council in Louisville. He pointed out that the nonprofit center would eventually become self-sustaining through royalties.

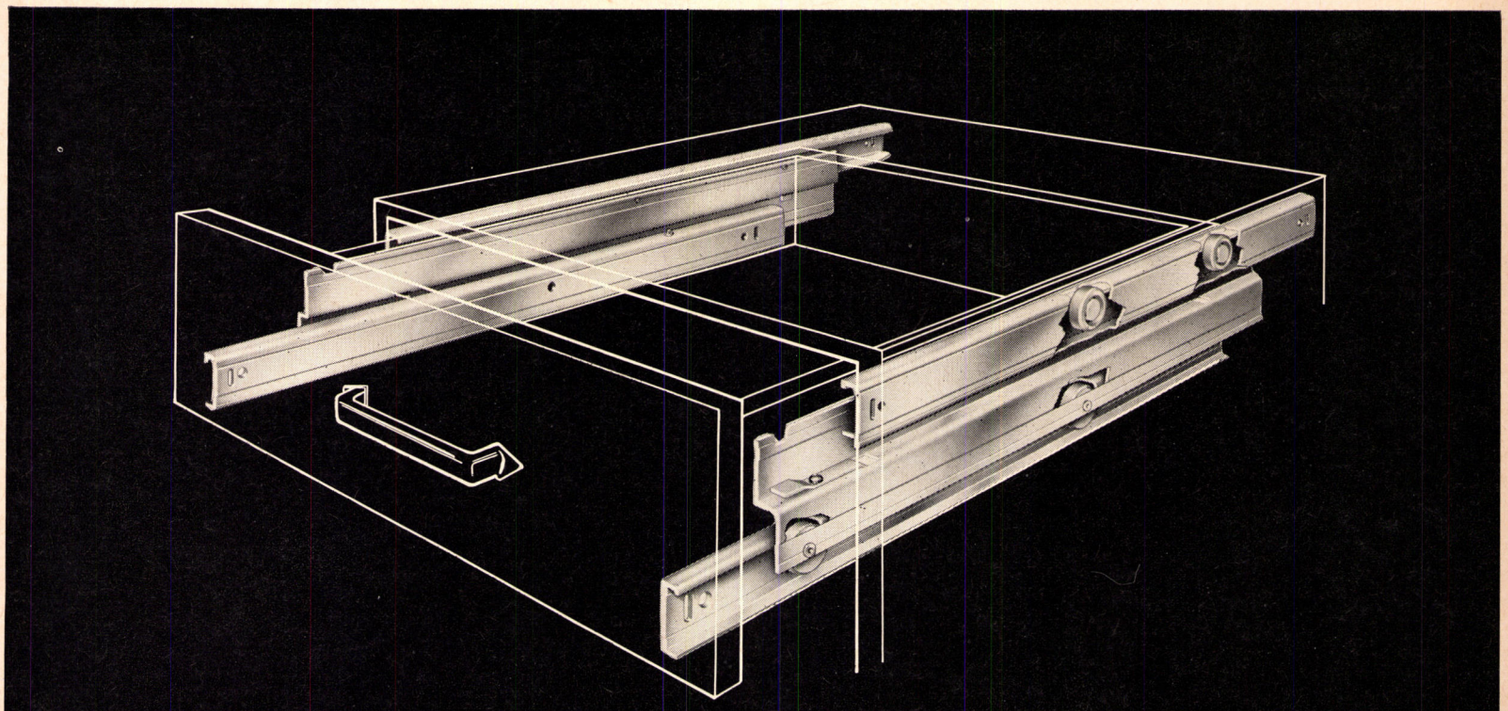
The center would try to reshape everything from dull store posters to ordinary street signs, and it would propose an increased use of ponds in open areas. It would also suggest new ideas for trash receptacles, benches and lighting fixtures.

St. Petersburg votes down urban renewal by 3 to 1

The Florida city said "no" by 35,000 to 12,000 votes, a wider margin than even renewal's most optimistic opponents expected. Only one of 80 precincts supported renewal—by a margin of four votes.

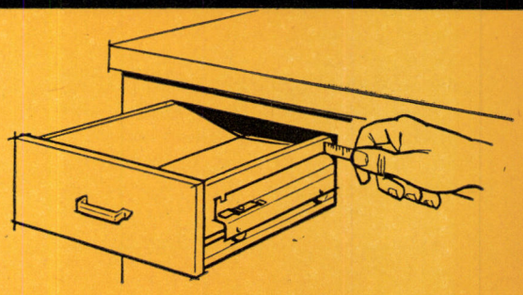
President J. E. (Doc) Webb of Webb City department store led the opposition with full-page newspaper ads warning:

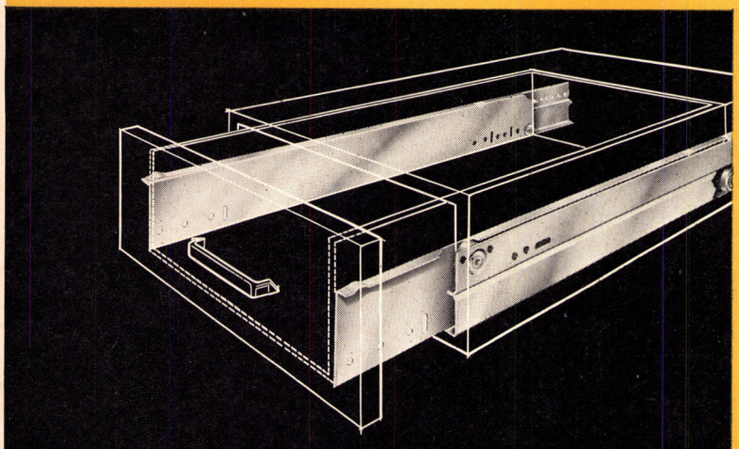
"Renewal is a disaster."



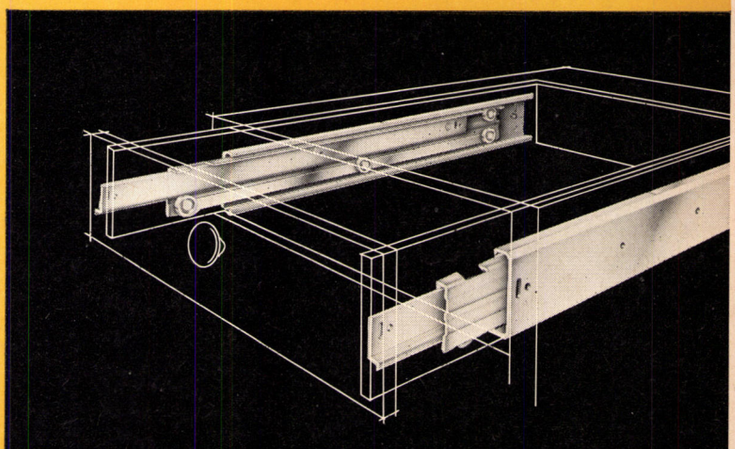
No. 1395 full extension slide—50 lb. capacity

Just ½″ side clearance does it for these three new K-V drawer slides!





No. 1330 extension slide—75 lb. capacity



No. 1440 full extension slide—100 lb. capacity

From these three new slides, you can select just the one you need for any installation — for storage of the lightest to the heaviest items. And they're so convenient to use, requiring a minimum of clearance—just ½″ on each side. Each slide installs easily, will glide easily and smoothly for a lifetime, and is available in a variety of lengths. For drawers to meet every storage need — for drawers that won't sag, wobble or stick even under maximum loads — get K-V drawer slides! P.S. If one of the new ones isn't just exactly what you want, we have *eleven* more in a complete range of sizes and capacities. Ask your K-V representative or send for our catalog.

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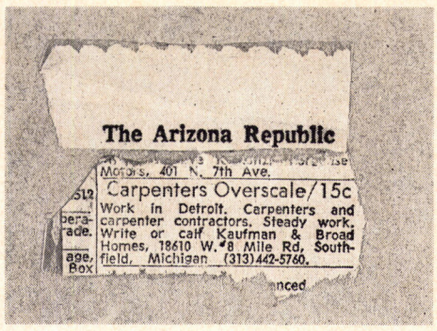
Labor: carpenter shortage hurts Detroit homebuilding

One company has cancelled 30 house orders because, after waiting eight months, it couldn't find enough carpenters. Other companies have simply closed down their sales departments. And the general manpower shortage is threatening to halt the city's three-year-old housing boom.

Says I. H. Yackness, Detroit Home Builders' Assn. executive officer: "Such shortages, especially among carpenters, may become characteristic of all building boom areas." And indeed, similar shortages are reported in three other prospering markets: Washington, D.C., Rochester and Charlotte, N.C. And NAHB Builders' Economic Council members last month singled out labor shortages as their No. 1 worry.

Higher bidders. Homebuilders have been particularly punished here because the carpenter shortage has ignited a wage-war that rivals even the most cutthroat gasoline wars. Homebuilders can't match the wages paid by the Michigan highway contractors, who are using carpenters to rough out cement, or by industrial, hotel and motel builders, who pay well over scale and offer doubletime on weekends.

"Scale has gone out the window," says David Stephens, acting sales manager for Kaufman & Broad Homes, one of Detroit's largest homebuilders "What can we do?"


The Arizona Republic

Carpenters Overscale/15c

Work in Detroit. Carpenters and carpenter contractors. Steady work. Write or call Kaufman & Broad Homes, 18610 W. 8 Mile Rd, Southfield, Michigan (313)442-5760.

THIS AD in Arizona and California papers brought 30 carpenters to Detroit—and ten promptly quit.

Imports? Resourceful officials at K&B first thought they could get around their competitors by advertising for carpenters in other towns. Since July, ads promising as much as 15¢ over scale (*see photo*) have been placed in newspapers from Los Angeles to Tucson. They attracted about 30 men. "But getting them here," says Stephens, "is only half the problem."

About ten of the carpenters immediately sized up the wage war and went off to the highest bidder, leaving K&B with three of its seven subdivisions idle. For the lack of carpenters, 240 basements are standing like open graves; delays for new houses are running close to a full year; and a few K&B salesmen, as frustrated as the buyers, quit.

Meanwhile, for the first time many homebuilders have begun putting carpenters on their payrolls instead of subcontracting their carpentry. And some builders fear that workmanship is slipping badly and that call-backs will increase.

"The carpenters don't worry," says Yackness. "They know they won't be fired."

Colleges organize to train builders' middle management

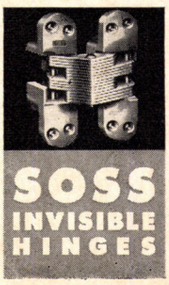
Twenty-four universities that offer four-year degree programs in light construction have named a group of experts to find out what the homebuilding industry wants in the way of graduates trained for middle management. When the colleges find out, they will tailor curricula to builders' needs.

"Our committees will be comprised of academicians, but they will work closely with such industry associations as NAHB and the Associated General Contractors," says Byron M. Radcliffe of Michigan State, an associate professor of building construction who heads the new Associated Schools of Construction. The group was organized by the 24 colleges on the Michigan State campus last month.

open your new home with a flair for elegance . . .

When guests arrive, swing wide with pride your doors on SOSS INVISIBLE HINGES. When the doors are open, only the richness of gleaming, golden brass is neatly, briefly seen. When closed, the hinges hide themselves. Doors and walls remain flush, achieving a customized unity in beauty. Ugly exposed doorjambs and yawning gaps between doors and walls are gone.

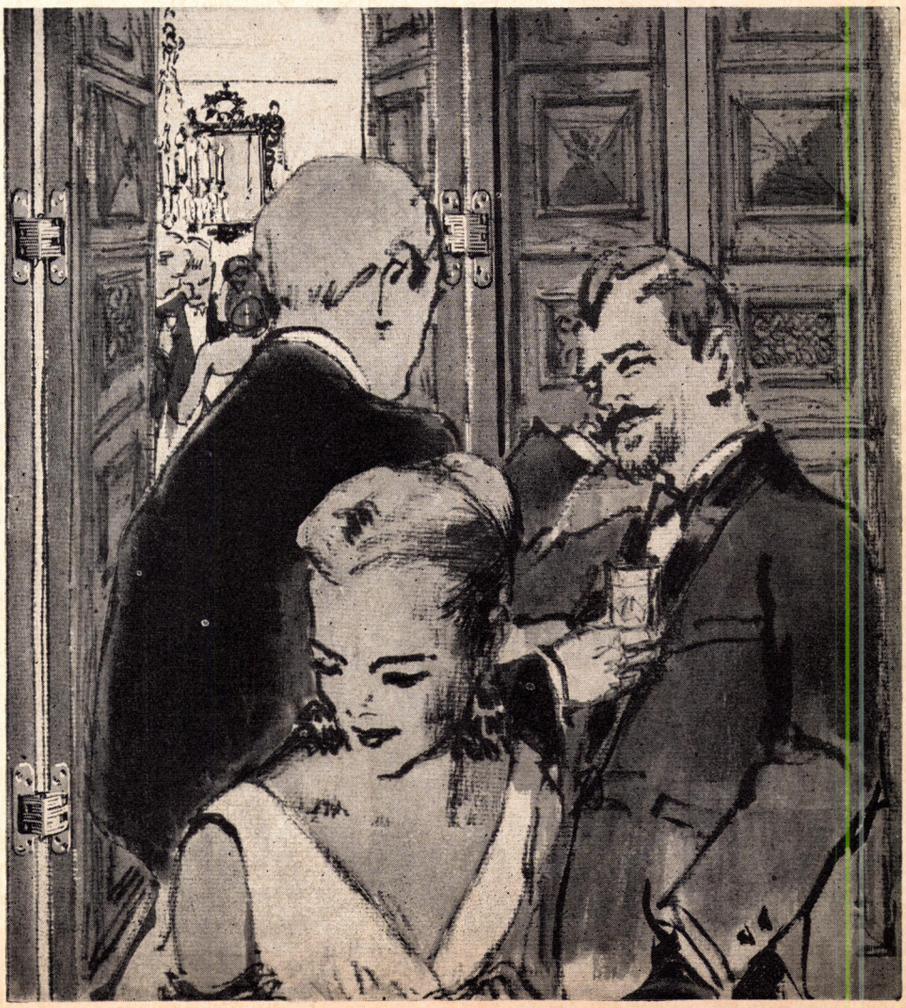
Custom touches of elegance tell guests a lot about your home and you. SOSS Invisible Hinges say such nice things to them, so discreetly. That's why leading architects have recommended Soss Hinges for over fifty years.



For full information and prices, write to:

SOSS MANUFACTURING COMPANY

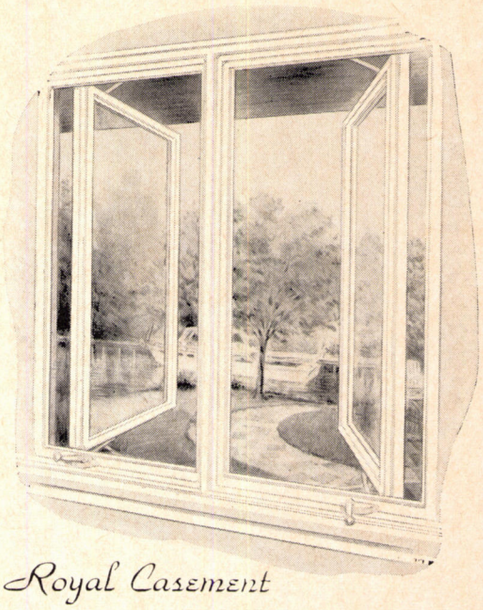
AHH-11 P.O. Box 38, Detroit 13, Michigan



Circle 23 on Reader Service Card

The Lif-T-Lox

removable and balanced

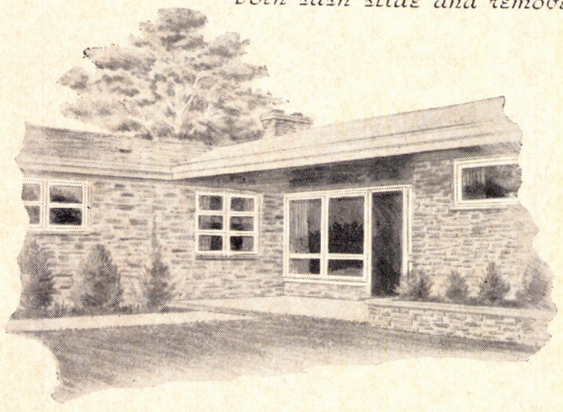


Royal Casement

concealed self-locking hardware and two complete planes of weatherstripping

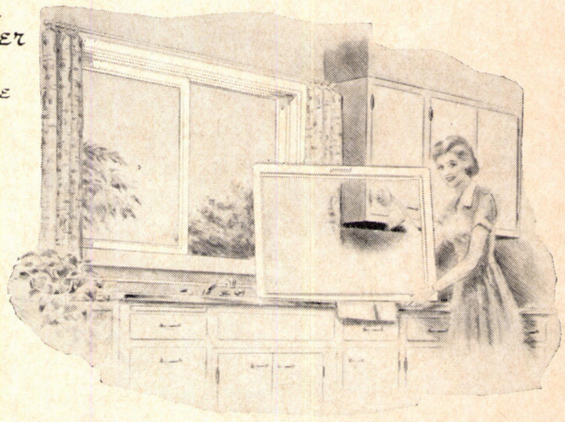
High-Lite Glider

both sash slide and remove



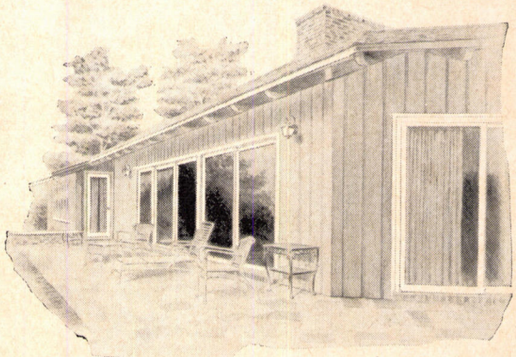
Sure-Lok Awning

1, 2 or 3 unitized vents work simultaneously with one operator



Insul-Dor

laboratory tested 5 times as weathertight as established standards



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R·O·W Window Sales Co.

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Ferndale, Mich. 48220

Circle 24 on Reader Service Card

City crisis: time is running out for regional planning

That was the concensus among 30 business and professional men from widely different fields who met in St. Louis last month to suggest ways the housing industry can help improve the city's environment.

The meeting was called by the St. Louis Homebuilders Assn. following a national conference on environmental design sponsored by NAHB a year ago. And it was the first time builders anywhere have asked for help from such a wide range of local talent.

The conferees ranged over St. Louis' problems—from the ability of its police to the value of urban renewal—and after three days came up with four guidelines for improving their tired metropolis—and others that suffer from the same malady. The four:

1. There is a desperate need for solid regional planning—right now. This concern added a sense of urgency to the meeting: something must be done before another building boom to rid local planning boards of political-minded imcompetents and to liberalize restrictive zoning codes.

Too much of past zoning, the group felt, has maintained the status quo instead of reaching out for bold, new ideas to meet the complicated problems of modern life.

2. Older citizens must get out of their rocking chairs and plunge into city affairs.

3. The businessmen who make their money in the city but sleep in the suburbs must lead the region's revival. The broad base of professional support needed to meet the problems of environmental needs has not been available mainly because experts, such as the conference members, have never before been asked to help. (Detroit's non-partisan mayor, Jerry Cavanaugh, has sparked the resurgence of that city by getting leading businessmen involved in civic affairs.)

4. People must be educated to the ever-growing needs of an urban area. St. Louis must have areawide agencies to provide better transportation, sanitation, air and water pollution removal, housing standards and recreational areas.

But the conference members were uncertain about how to convey a sense of urgency about regional planning to apathetic city dwellers—or to small-town suburban residents, whose first love is home rule.

St. Louis is a classic example of a large city that has seen its most ambitious plans sabotaged by the home-rule-happy suburbs that surround it. Several city-county mergers have been proposed, but the city—which is boxed in by the Mississippi to the east and the mushrooming suburbs to the west—is only one of 96 municipalities that make a hodge-podge of political control in St. Louis County.

A key issue considered by the conference members was whether to propose the creation of a permanent Council on Environmental Design in an attempt to focus attention on the County's regional problems. Should the agency be new or part of an expanded office? Who would run it? There was little agreement when the conference adjourned.

Local Home Builder Association President Everett Schneider, who called the three-day meeting, immediately announced that an expanded second conference will be planned. He was especially pleased with the lively exchange of ideas which caused some of the discussions to explode like grenades. One group didn't stop talking until 3 a.m. The biggest discussion stimulant: conferees were sequestered for three days in a Washington University conference center in the Ozark foothills, 60 miles from the bustle of their St. Louis offices.

Builder Emil Hanslin, who staged the first national environmental design for NAHB last fall, was delighted with the broad-ranging talk.

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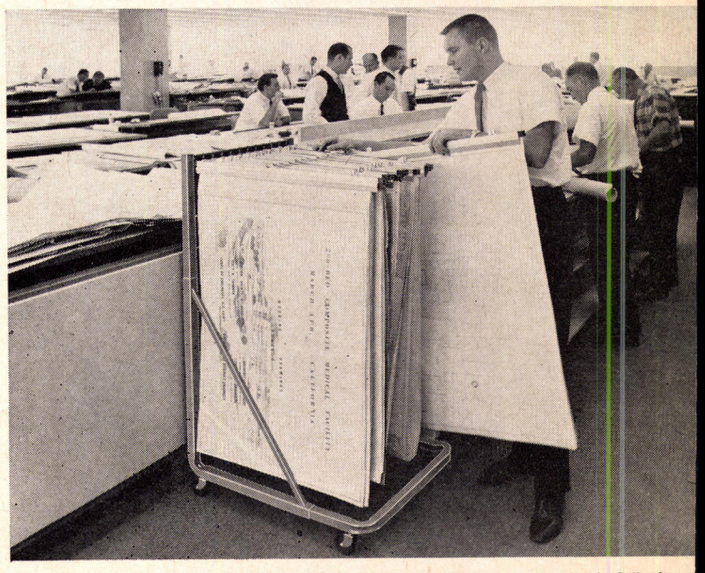
AT THE NAHB SHOW, Booths 915-916-917



Photographed in the Los Angeles office of Welton Becket and Associates, Architects & Engineer

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7 lengths! 2 power levels!
5-year guarantee on heating elements!
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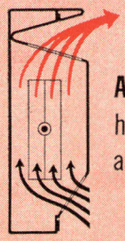

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Circle 27 on Reader Service Card

Uncle Sam vs. California: must lenders slow a recovery?

Washington says yes—to the pained surprise of the 281 California savings and loan associations that think the California housing market shows signs of revival.

The Federal Home Loan Bank Board's newest member and most ardent Democrat, Michael Greenebaum, brought the harsh word to 1,000 executives at the prestigious California S&L League's Los Angeles convention last month.

The charge. Greenebaum delivered one of those blistering reprimands unheard in California since the stormy days of the state's arch-antagonist, former HLBB chairman Joseph P. McMurray. Greenebaum warned the S&L men:

You are still overlending, at a time when housing cannot absorb the money.

"New housing permits in the first half of 1965 were one third less [than in the same 1964 period.]

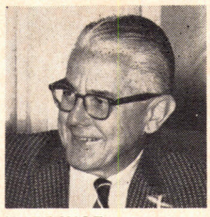
"Thus far in 1965, you have reduced your lending only slightly compared to that of the preceding year.

"Until a market correction is completed, lenders and builders will need to proceed with caution and not inventory housing for some nebulous future demand."

You are lending Uncle Sam's money.

"You have not reduced lending as much as savings inflow has fallen. As a result, you have borrowed heavily from your Home Loan Bank. [The nation's 12 district banks serve as credit pools for member S&LS.] In July your advances outstanding were 10.9% of savings capital. Tne national percentage was 5.7%.

GREENEBAUM



HARDINGE

"I am sure it was not the intention of the Federal Home Loan Bank Act to have ever-increasing advances serve as permanent capital for S&LS."

Grieved incredulity. But is the California housing market really that bad?

S&L leaders reacted to Greenebaum more in sorrow than in anger. In the last two years their industry has come under new state regulations more severe than those of any other state and the policing is paying off in new confidence among Eastern investors. More, the S&LS were reveling in a true California sunburst of sparkling statistics. Examples:

- Rates paid on savings are down, at the government's urging, below 5%.
- Slow-paying loans plus acquired realty are down 2.4% for the second quarter.
- S&L stock prices are trending upward, after a ten-month slide, on reports of the great things Viet Nam war preparations would do for California (NEWS, Aug.).
- Good earnings. For instance, a strong third-quarter report from Gibraltar Financial, one of the state's half dozen giant holding companies, said 1965 earnings would top even last year's $1.26 million.

Rebuttal. A factual reply to Greenebaum came for the league's executive vice president, Franklin Hardinge Jr.

"We cut lending 18% last year and will cut 20% this year, with construction lending accounting for most of the decline, and that is not 'slightly less.' It makes no sense to cut it any more because there is still strong loan demand.

"In the last 60 days, there has been a noticeable reported increase in the real estate market. Sales of single-family homes are stepping up quite substantially.

"If we paid back half the current borrowing [from HLBB] of $2 billion, we would take $1 billion out of the mortgage market and drive interest rates up at least half of one per cent."

Incoming President Elwood L. Hansen added: "Mr. Greenebaum is certainly at odds with administration policy, which is for the lowest possible rate for borrowers. We don't want to create a short supply of money."

Mortgage company stock rises on talk of higher interest

Spurred by reports of higher interest rates and tighter money in the offing, investors bid up mortgage banking and mortgage investor stocks last month.

HOUSE & HOME's index of nine mortgage companies rose 2.7% to a 13.13 reading. Mortgage trusts continue to pace this section, as First Mortgage Investors of Boston rose 2¾ points to 20⅞ and Continental Mortgage Investors, also of Boston, advanced 1 to 33. Two mortgage bankers, Advance Mortgage of Detroit and Associated Mortgage of Washington, each went up ⅜.

Land development companies jumped 4% to 5.59. Cousins Properties of Atlanta rose 2½ to 14½ and Lake Arrowhead, a southern California developer, jumped 1¼ to 8.

Investors cooled on last month's leaders, the stock savings and loan companies. The index of 23 S&L stocks slumped 8%.

Largely because of the S&L weakness, the H&H index of 78 housing company stocks dropped 3% to 8.03. The averages:

	Aug. 9	Sept. 7	Oct. 11
Building	4.36	4.33	4.24
Prefabrication	5.98	6.25	5.95
S&Ls	11.36	12.65	11.63
Mortgage banking	11.76	12.78	13.13
Land development	5.34	5.38	5.59
AVERAGE	7.75	8.29	8.03

HOUSING'S STOCK PRICES

COMPANY	Oct. 12 Bid/ Close	Chng. From Prev. Mo.
BUILDING		
• Adler-Built Inc.	15¢	....
• Capital Bld. Ind.	72-75¢	+
Cons Bldg. (Can.)	4	....
• Dev. Corp. Amer.	3½	− ½
Dover Const.	2⅝	− ½
Edwards Eng.	4⅞	....
Edwards Inds.	1⅜	+ ¼
Eichler Homes[h]	3½	+ ⅛
First Nat. Rlty.[b]	1⅜	....
• Frouge	5⅞	+ ¾
General Bldrs.[b]	2	− ¼
Kavanagh-Smith	3	+ ⅛
Kaufman & Bd.[b]	11⅞	−1
Levitt[b]	8¾	+ ⅞
Lou Lesser Ent.[b]	4½	− ⅝
Lusk	⅜	− ⅜
Pres. Real. A.[b]	10¼	+ ¼
• Sproul Homes	3⅝	− ⅜
U.S. Home & Dev.	⅝	....
Del. E. Webb[c]	4½	+ ¼
PREFABRICATION		
Admiral Homes	1¾	− ¾
Albee Homes	17⅛[d]	− ¼
Gt. Lakes Homes	1⅝	− ⅜
Inland Homes[b]	6¾[d]	− ½
Madway Mainline	11	....
Modern Homes	2⅛	− ⅛
Natl. Homes A.[g]	3	− ¼
Nationwide Homes	1⅛	a
• Scholz Homes	3¼	+1¼
• Seaboard Homes	⅛	....
Steel Crest Homes	6½	+ ¼
Swift Industries	2¼	− ¼
• Western Shell	K	
Jim Walter[c]	21⅝	−1¼
S&Ls		
American Fin.	17	− ⅝
Brentwood[b]	8⅛	....
Calif. Fin.[c]	5	− ¼
• Columbia	6	....
Empire Fin.	10¼	− ¾
Equitable S&L	17⅝	−1
Far West Fin.[c]	11⅝	−2
Fin. Fed.[c]	24⅛	−3⅝
First Char. Fin.[c]	25	− ¾
First Fin. West	7	− ⅜
First Lincoln Fin.	13⅜	−1⅝
First Surety	5⅛	...
First West Fin.[c]	6⅝	−1⅝
Gibraltar Fin.[c]	21⅝	− ⅜
Great West. Fin.[c]	12⅜	−1⅛
Hawthorne Fin.	8½	−2½
Lytton Fin.[c]	11⅜	−1⅞
Midwestern Fin.[b]	3⅝	− ¼
San Diego Imp.[c]	8	− ¾
Trans-Cst. Inv.	5	− ⅞
Trans Wrld. Fin.[c]	10¾	− ¾
Union Fin.	7½	+ ½
United Fin. Cal.[c]	9⅝	−1½
Wesco Fin.[c]	18⅛	−1½
MORTGAGE BANKING		
Advance	8	+ ⅜
• Amer. Mort. Ins.	19½	+ ¼
Associated Mtg.	9[d]	+ ⅜
• Atlas Cred.[c]	8¾	....
Charter	1	....
Colwell	14	− ½
Cont. Mtg. Inv.[c]	33	+1
• Cont. Mtg. Ins.	8½	+ ⅜
• FNMA	86¾	−1½
First Mtg. Inv.	20⅞	+2¾
• Kissell Mtg.[b]	4¾	− ¼
Lomas & Net. Fin[p].	3	− ⅛
MGIC	24⅝	− ⅝
• Mortg. Assoc.	6⅜	+ ½
• Southeast Mtg. Inv.	11¾	+1
United Imp. & Inv.[b]	4⅝	− ⅛
LAND DEVELOPMENT		
All-State Prop.[b]	⅝	$\frac{3}{16}$
• American Land	1½	− ⅛
Am. Rlty. & Pet.[b]	2½	....
Arvida	6½	− ⅜
Atlantic Imp.	18[d]	−2
Canaveral Intl.[b]	1½	− ⅛
Christiana O.[b]	4⅜	− ⅛
Coral Ridge Prop.	2⅝	− ⅜
Cousins Props.	14½	+2½
Crawford	2⅞[d]	....
Deltona Corp.[b]	11	− ¾
• Disc Inc.	2¾[d]	− ⅛
Fla. Palm-Aire	2⅛[d]	− ⅛
Forest City Ent.[b]	4¾[d]	....
Garden Land	5¼	+ ½
Gen. Devel[b]	5⅛	+ ⅝
Gulf American[b]	8¼	+ ¾
Holly Corp.[b]	11/16	−1/16
Horizon Land	1⅝	....
Laguna Nig. A.[h]	9	− ⅛
• Laguna Nig. B.[h]	3⅞	− ¼
Lake Arrowhead	8	+1¼
• Macco Rlty.	15¾	+2⅛
• Major Rlty.	28¢	−07¢
• McCulloch Oil[b]	7½	− ½
So. Rlty. & Util.[b]	1⅝	+ ⅛
Sunset Int. Pet.[b]	6½	+ ⅜

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. k—not available. p—formerly Wallace Investments. •—not included in averages.

Sources: New York Hanseatic Corp., Gairdner & Co., National Assn. of Securities Dealers, Russell & Sachs, 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.

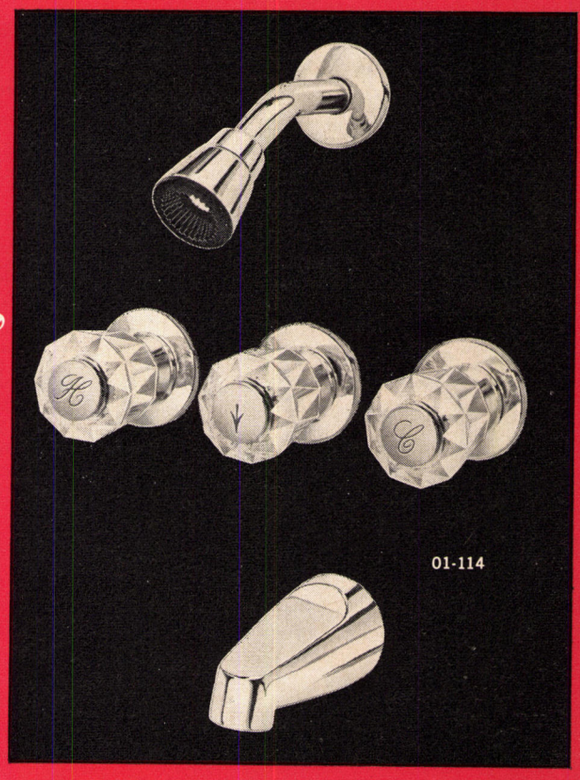
SHORT-TERM BUSINESS LOAN RATES

Percent interest and (net change) in year

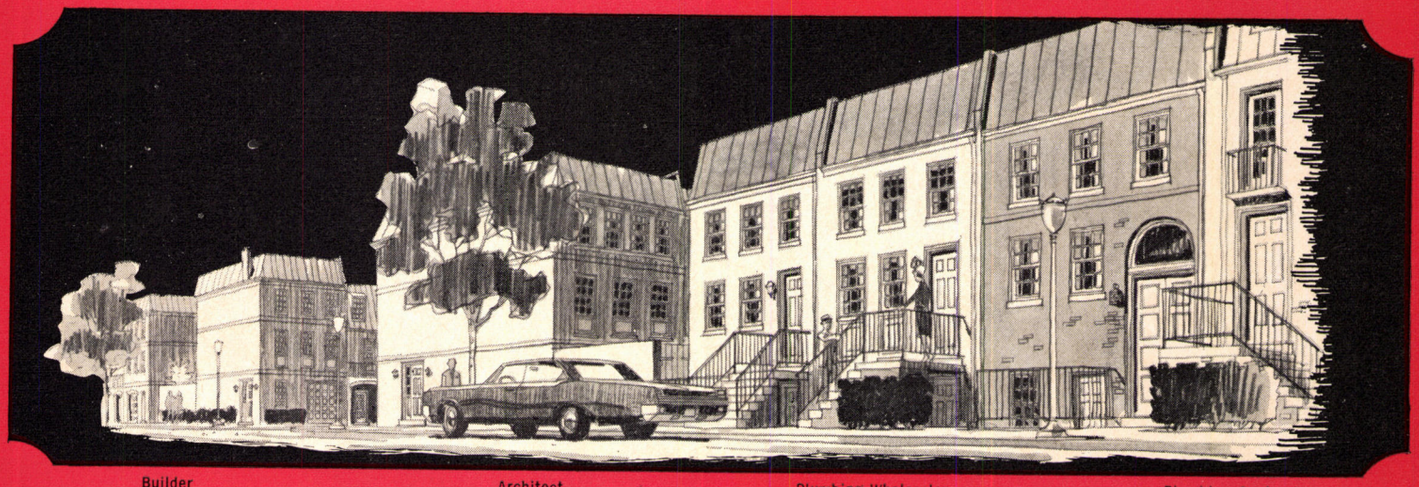
LOAN SIZE (000)	New York City	7 other Northern & Eastern cities	11 Southern & Western cities
$1-10	5.62 (−.02)	5.88 (+.05)	6.00 (+.07)
$10-100	5.39 (+.03)	5.58 (+.03)	5.71 (+.10)
$100-200	5.07 (+.02)	5.32 (+.05)	5.42 (+.08)
$200 & over	4.62 (−.01)	4.85 (−.04)	5.06 (−.01)

Source: Federal Reserve Board, June, 1965.

The Best of Yesterday, Today and Tomorrow



Town Square—for Elegance in Urban Living



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Mortgaging's Battle of Chicago: higher discounts win

Mortgage rates have firmed and discounts charged to builders are rising again in the wake of the most eventful national mortgage convention since 1958.

Immediately after 3,400 members of the Mortgage Bankers Assn. met last month in Chicago, yields to investors buying FHA Sec. 203b residential mortgages in the secondary market generally rose by 0.07%.

Each .07% rise in yields normally adds ½% to the discount builders must pay for FHA mortgages.

Yields rose from a range of 5.12%-5.19% to 5.19% flat in New York and Chicago and from 5.03%-5.17% to 5.10%-5.24% in Boston

Discounts jumped responsively in 8 of the 18 cities where HOUSE & HOME takes the pulse of the builder's mortgage market (*see chart*). Increases ranged from ¼% in Washington's prosperous sales area to ¾% in Miami.

Although mortgage bankers opposed the higher yields, they scored a partial victory by withstanding psychological and economic pressure to pay yields all the way up to 5.25% and 5.31%.

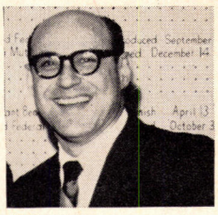
Psychological war. Commercial and savings bankers moved into Chicago with a rallying cry provided by Savings Bank Economist Saul Klaman: "Mortgage markets have firmed!"

They set up command posts with military precision in the Blackstone and Drake and waited while the mortgage men, fatigued by interminable registration delays, struggled to establish defensive positions in the Hilton Hotel. Then, before the mortgage men could organize, the bankers drove spearheads deep into their lines as buyers called for 5.25% and 5.31% yields.

H&H staff

CAMERON

Walter Daran



KLAMAN

Deeper probing assaults exploited the initial breakthrough, and the general attack quickened at receptions staged by the big bankers on the third day. By dawn of the convention's fourth and last day the mortgage bankers' lines were in disarray and Dr. Klaman was proclaiming: "We'll be at 5.25% yield when we get off the train in New York."

Counterattack. But the mortgage bankers rallied. President J. Stanley Baughman of the Federal National Mortgage Assn. and HHFA Administrator Robert C. Weaver warned against price panic. President Robert M. Morgan of the National Assn. of Savings Banks told of the mortgage production opportunities provided by the FHA in urban rebuilding and land finance programs. His words brought new hope to mortgage bankers desirous of expanding their activities.

By afternoon of the final day, the mortgage men had concluded that much of the argument for higher yields was psychological. Veteran mortgage bankers like Clifford Cameron and Aubrey Costa of Dallas took command and counseled against any price stampede. When the final convention session ended, the profession had reestablished its defenses and regained its confidence.

When investors got off the train in New York, the average yield had been held to 5.19% although strong economic pressures were still running in favor of the investors. For a report, turn to p. 18.

Mortgage Banker membership open to S&L correspondents

The Mortgage Bankers Assn., with 863 member companies servicing $50 billion of the nation's mortgage debt, will now admit to full membership any savings and loan association using the mortgage correspondent system.

MBA's new hospitality is an indirect result of the Housing Act of 1964, which let S&Ls invest 5% of assets in any metropolitan area. Explains MBA Executive Vice President Sam Neel:

"As more S&Ls began using mortgage banking firms to originate and service loans, and as additional mortgage banking firms actively sought the S&L business, it became evident that it would be to the benefit of both for MBA to open its membership to S&Ls."

MBA will also upgrade to full membership S&Ls which became limited members before 1953. Since then other S&Ls have been barred.

SECONDARY MARKET FHA & VA 5¼%

Money center	Sec. 203b & VA houses Yield to Investor	Trend	Sec. 207 Apts. Yield to Investor	Trend
Boston	5.10-5.24	Up. 07	a	a
Chicago	5.19	Up. 07	5.12-5.16	Static
New York	5.19	Up. 07	5.12	Static
Philadelphia	5.12-5.19	Firmer	a	a

a—No activity

CONVENTIONAL LOANS RESALE MARKET

Packages of conventional loans, privately insured by MGIC, available for purchase by S&Ls. Loans are in metropolitan areas, originated by mortgage bankers and commercial bankers and listed with Mortgage Guaranty Insurance Co., 600 Marine Plaza, Milwaukee. Address inquiries c/o Jack Dittmann. Typical offerings reported the week ending Oct. 8.

Loans available (millions)	Location	Net % Yield to investors[a]
$10.0	California	5.75
2.0	California	5.875
2.5	Georgia	5.50
10.0	Hawaii	5.75
5.0	Michigan	5.50
3.5	Michigan	5.75
2.0	N. Carolina	5.50
1.0	S. Carolina	5.50
1.0	Wisconsin	5.50

a—Net after insurance fees and servicing.

NEW YORK WHOLESALE MARKET

FHA, VA 5¼s

Immediates: 96½-97 Futures: 96½-97

FHA, VA 5¼ spot loans (On homes of varying age and condition)

Immediates: 96½-97

Note: Prices are net based on a servicing fee of ½%. Majority of loans being sold today include concessions made by servicing agences which would be reflected in higher prices. Prices cover out-of-state loans, reported the week ending Oct. 15 by Thomas P. Coogan, president, Housing Securities Inc., New York City.

HOMEBUILDER's MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending October 8.

City	FHA 5¼s (Sec. 203b) Discount paid by builder FNMA Scdry. Mkt.[xy]	Min. Down* 30-year Immed.[w]	Trend	FHA 207 Apts. Firm Commitment	Conventional Loan Rates Comm. banks, Ins. Cos. 75%	Savings banks, S&Ls 80%	Savings banks, S&Ls Over 80%	Construction Loan Rates Interest+fees All lenders
Atlanta	2¾	1½-2½	Weaker	a	5½-5¾	5¾-6	6-6¼	6+1
Boston	1¾	par+1-par	Weaker	par+1-par[b]	5¼-5½	5¼-5½	5½[b]	5¼-6
Chicago	2¼	½-2	Steady	a	5½-5½	5½	5¾-6	5½-6+1-1½
Cleveland	2¼	1-1½	Steady	a	5½-5¾	5½-5¾	6-6½	6+1
Dallas	2¾	2-3	UP ½	½	5¾-6	5¾-6	6-6¼	6+1
Denver	2¾	1-2	Up ½	a	5¼-5½[z]	5¾	6-6½	6+1-2
Detroit	2¾	½-1½	Up ½	1-1½	5¼-5½	5½-6	5¾-6	6+½
Honolulu	2¾	1½-2½	Steady	a	5¾-6½	6¼-7	6¾-7¼	6½-7+1-3
Houston	2¾	2½-3	Up ½	a	5½-6	6¼	6¼-6½	6+1½
Los Angeles	2¾	1½	Steady	par+1-par+½	5¾-6¼	6-6.6	6¼-6¾	6-6.6+1-2
Miami	2¾	2⅓-2¾	Up ¾	½-1	5½-6	5¾	6	6+½-1
Newark	1¾	1½	Up ½	par	5½	5¾	5¾-6	6+1
New York	1¾	par	Weaker	par+½-par	5½	5¾	6	5¾-6+½-1
Okla. City	2¾	1½-3	Up ½	a	5½-5¾	5½-5¾	6-6¼	6-6½+1-1½
Philadelphia	1¾	par	Steady	par-1	5½-5¾	5¾-6	6	5-6+1
San Fran.	2¾	1½-2	Steady	par+½-par	5¾	6	6¼-6.6	5½-6½+1½-3½
St. Louis	2¾	1-2½	Weaker	par-1	5½-6	5¾-6	6-6¼	5¾-6½+1-2
Wash., D.C.	2¼	1¼-2	Up ¼	½	5½	5¾	6[b]	5¾+½-1

* Immediate covers loans for delivery up to three months, future covers loans for delivery in three to twelve months.
• Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones.
• Quotations refer to houses of typical average local quality.
* 3% down on first $15,000; 10% of next $5,000; 25% of balance.
Footnotes: a—no activity. b—limited activity. w—for comparable VA loans also. x—FNMA pays ½ point more for loans with 10%. y—discounts quoted are net after seller pays ½% marketing fee and ¼% 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. z—applies to 66% loans.
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, Clair A. Bacon, exec. 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. Bettes Co.; Los Angeles, Jack N. Grigsby, vice pres., Colwell Co.; Miami, Lon Worth Crow Jr., pres., Lon Worth Crow Co.; Newark, William W. Curran, 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, Charles A. Keller, vice pres., Mercantile Mortgage Co.; San Francisco, John Jensen, vice pres., Bankers Mortgage Co. of California and Charles E. McCarthy, vice pres., Bank of America; Washington, James C. Latta, sr. vice pres., Frederick W. Berens Inc.

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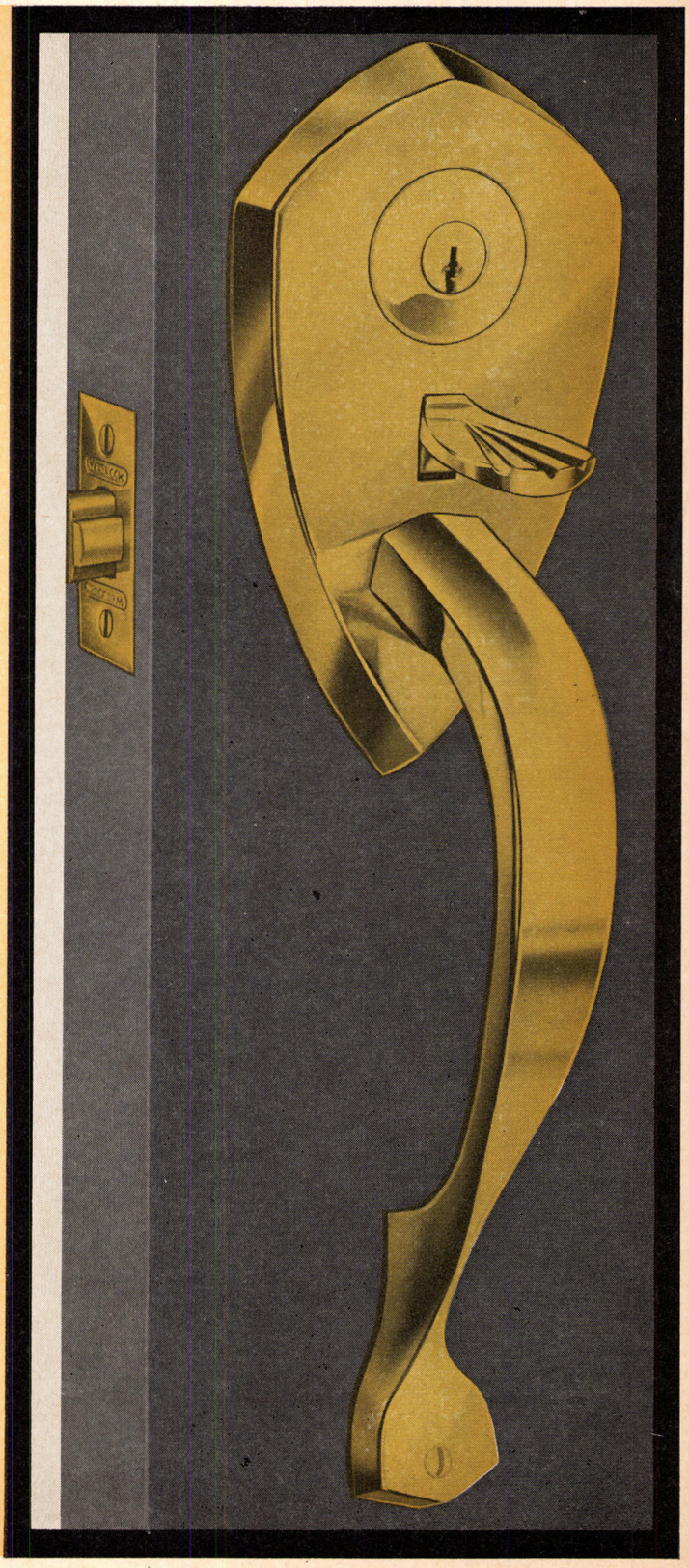

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Tighter money: unsold mortgages squeeze the builder

A nationwide scramble for cash has generated three dramatic new forces now combining to boost the cost of mortgages and construction loans. The trio:

1. *Intense competition for commercial bank money.* The competition was born of spectacular new outlays for plant, up from $45 billion in 1964 to $51 billion this year and a predicted $55 billion in 1966. Banks provided only $700 million of last year's external financing for plant but must supply $4.5 billion in 1965 and again in 1966. Because other borrowers also want the bank money, and because liquid assets of commercial banks have declined sharply in the last three years, a general rise in interest rates is now considered certain. Construction loan rates will go up.

2. *A ¼% rise in long-term bond yields since January 1.* And Economist John K. Langum warned the Mortgage Bankers Assn. convention in Chicago that yields on new corporate bonds will climb another 25 basis points (or ¼%) within a year, with a corresponding rise in mortgage interest. He did not mean that FHA mortgage interest and yields would escalate by the same 25 basis points, but he clearly predicted a considerable increase. A higher yield for the investor in the secondary market usually translates into a higher discount for FHA loans charged to the builder at the other end of the mortgage production line.

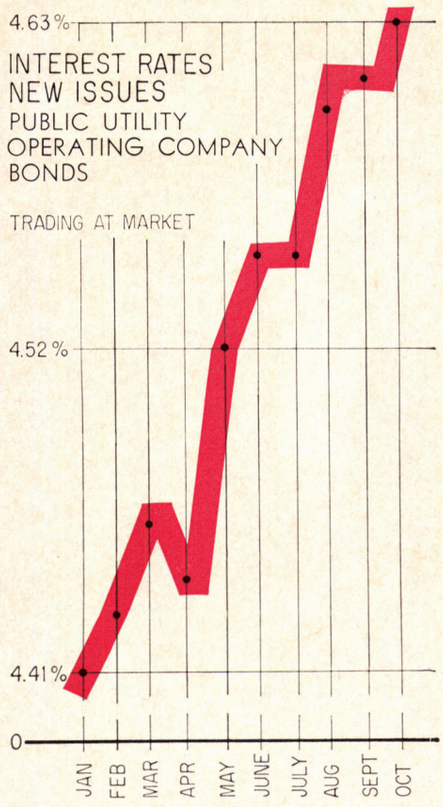
3. *An abundance of warehoused mortgages.* Of the three forces now boosting money costs, this one affects the builder most directly. It can increase the discount he pays and restrict the willingness of mortgage bankers to make future commitments to buy his mortgages. Of the three forces, this one also provoked the most excitement at the Chicago convention—in part because it is also the only one over which the mortgage banker exercises some control.

Mortgage bankers use warehousing—technically a revolving collateral line of warehousing credit—because they lack money to finance all the loans they close. The mortgage banker deposits these unsold mortgages as collateral for a commercial bank loan equal to their purchase prices.* Most commercial banks expect him to sell his mortgages to an investor, usually a savings bank or insurance company, within six months.

Speculation. A mortgage banker warehousing for longer periods is generally waiting for a better deal. He is, in effect, playing the mortgage market.

"Holding for a better price is not the way for the mortgage banker to do it," explains President Ray Lapin of Bankers Mortgage of California. "It is not his function."

*Or their face value, whichever is less. For example: if the committed price is at a premium of 1%, or 101, the bank will advance 100% or par. See ch. 19, *Mortgage Banking*, Pease & Kirkwood, McGraw-Hill.



TREND IS UP AND UP in interest on bonds that most closely resemble mortgages.

Higher rates, fewer commitments. The warehouse buildup has already triggered these developments:

- Investors are demanding higher yields because they scent plentiful merchandise.
- To discourage a further buildup, mortgage bankers are raising discounts to builders and cutting back forward commitments to buy builder mortgages.
- Commercial banks, which often need the loan money for other purposes, are raising interest rates on loans to finance warehousing.

All this leads to a basic question: how much warehousing is too much? Results of a just completed MBA survey will show that 226 mortgage houses had warehousing lines averaging $6 million for a total of $1.35 billion coming into 1965. Another 637 failed to respond to the survey, so the true warehoused total is obviously much higher.

Evidence of a sharp rise since January 1 also mounted during the convention. King Upton, vice president of the $1-billion First National of Boston and a commercial banker not inclined to overstatement, said dryly:

"One can state without equivocation that the normal rise in loans to mortgage bankers for closed single-family house mortgages has shown a very substantial jump."

Estimates of the jump run to 40% to 50% nationwide. And this is supported by a careful survey of leading banks in Boston and New York City, the two national warehousing centers. A major New York bank, the heaviest buyer of FHA paper among commercial banks, gave precisely the same figure. Half a dozen other New York banks refused to reveal volume but said it was up sharply, and virtually all reported requests from mortgage banking houses for time extensions and volume increases.

Rising rates. Inventory is not up appreciably in the regional warehousing centers—Atlanta, Dallas, Los Angeles and San Francisco. But this is probably true only because the regional centers have raised their rates and thus driven most excess inventory off to Boston and New York, which still lend warehousing money at 5%. Evidence:

Vice President Charles E. McCarthy says the Bank of America, which is not increasing its line in San Francisco, raised warehousing rates to 5¼% two months ago "because of the normal demand for more money by most commercial and industrial borrowers."

In Los Angeles Senior Executive Vice President Hal Mendon of the United California Bank and Vice President Paul J. O'Brien of Security First National both say they have recently raised rates "selectively" to 5¼%. Dallas banks are raising gradually. And in Atlanta, Vice President Walter L. Jackson of Citizens and Southern National says his rate is going to 5⅛% and 5¼%, depending on the customer's standing.

Upshot: "The East may go to 5¼%," says Robert Morgan, president of the Boston 5¢ Savings Bank and of the National Assn. of Savings Banks. "There is tremendous pressure on the lines."

Why not sell? With rates going up and warehouses bulging, why don't mortgage bankers sell? The solution to their problem is not that simple.

Warehouses are full because savings banks are not taking down—buying—the inventory. Many banks committed themselves up to portfolio limit in the first half (NEWS, Aug.) so now they simply have no leeway. Others are waiting for higher returns. And the pressure developing under yields—evident for months in higher discounts for builders (NEWS, Sept. *et seq.*)—was stressed repeatedly at the MBA convention.

Cause for concern. For the last six months, two writers in *The Mortgage Banker*—the MBA's economic adviser, Miles Colean, and Economist Oliver Jones have been issuing subtle warnings against warehousing. And Harry P. Bergmann, chairman of the American Bankers Assn.'s mortgage finance committee, told the Chicago convention:

"Mortgage bankers are making competition for money more intense by asking for extensions of warehousing lines."

Several of HOUSE & HOME's mortgage advisers say they have been reducing their lines for months. One major California company has, in fact, all but eliminated

continued on p. 25

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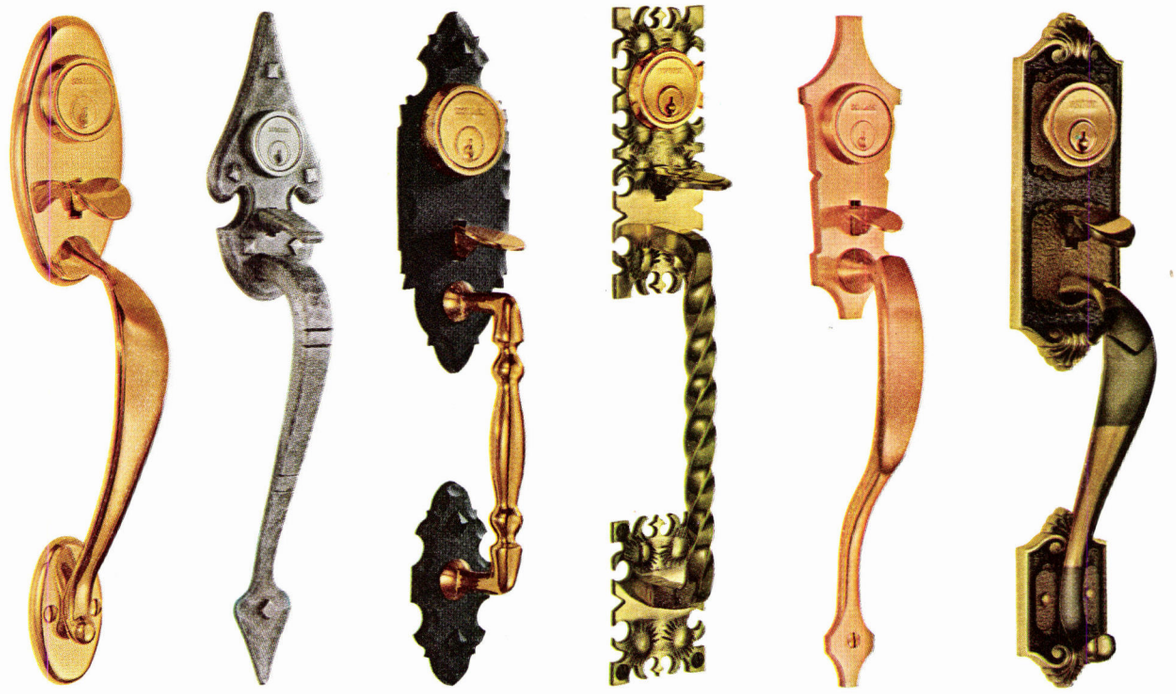

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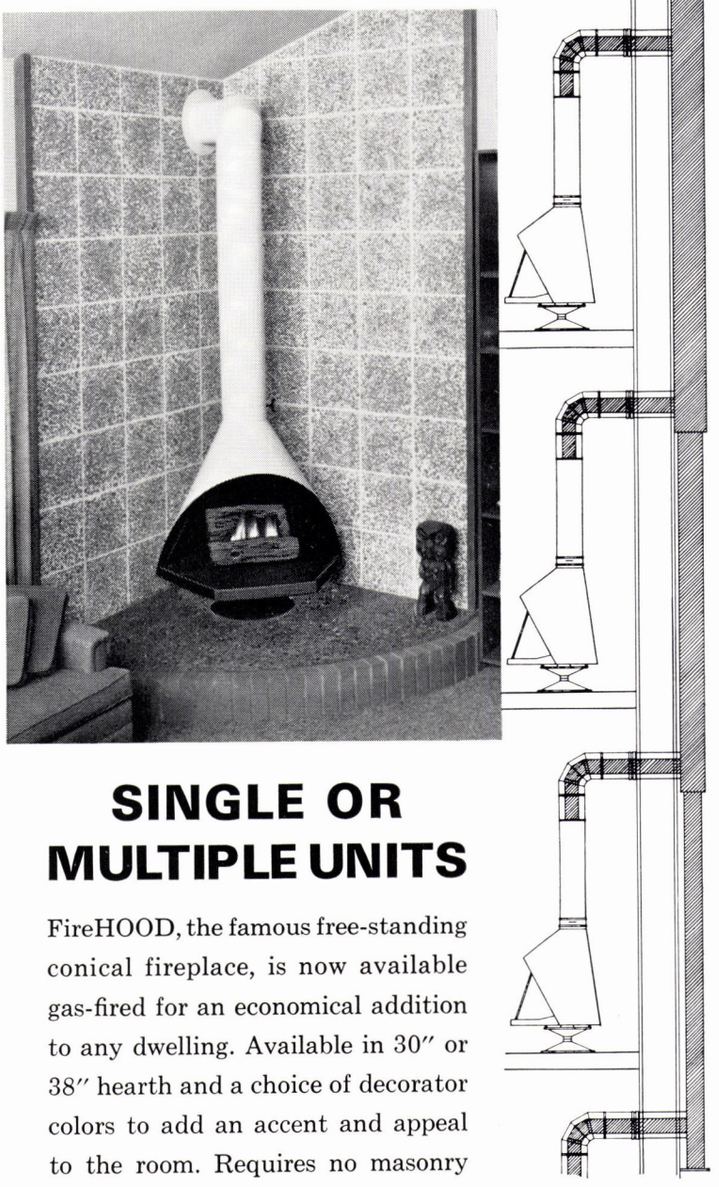

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NEWS

continued from p. 28

Prefabbers press Congress for national performance standards

After two years of backroom deliberation, the Home Manufacturers Assn. last month called for federal establishment of national building standards.

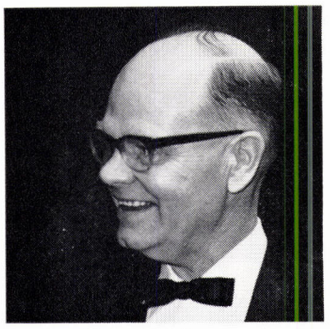
HMA is the first major trade organization to decide that the need for uniform standards outweighs any possible reprisals by miffed local building inspectors.

Traditionally, inspectors who administer the thousands of often-conflicting local building codes have bitterly opposed any attempts to go over their heads. They have conjured up the specter of federal building inspectors strangling housing to death with red tape. But HMA called for national performance standards which local communities would be free to accept or reject.

Because of the interstate nature of their business, prefabbers have for years been plagued by diverse requirements. Result: any innovation by prefabbers led almost certainly to financial suicide, says HMA Executive Vice President **Albert Reidelbach Jr.** And, says Research Committee Chairman **John C. Odegaard,** national standards could cut costs upwards of 20% without jeopardizing quality or durability.

At last month's convention HMA called on Congress to establish a new or expanded federal agency to develop national standards. It suggested that a board of appeals, chosen from the industry, supervise the agency.

"This panel of experts," said HMA, "would act to assure and guarantee that standards selected or rejected were technically justified and free of political, regional, selfish or otherwise biased opinions."



HMA's GUSTAFSON
A first for a sales effort

The resolution echoed President Johnson's promised Temporary National Commission on Codes, Zoning, Taxation and Development (NEWS, April).

HMA also formed a code-exchange program to provide members with tested solutions to local code problems. Each member was urged to send code-problem reports to HMA's Washington headquarters, where they will be cross-indexed. When members face problems, HMA will send them an appropriate case history from its files.

The prefabbers honored **M. O. Gustafson,** president of Imperial Homes, Griffin, Ga., by giving him the first **Eugene E. Kurtz** Memorial Award for his contributions to HMA. Gustafson, a member of the HMA's Board of Directors, helped spark an association sales improvement program and a sales managers' conference. Kurtz was the late president of Inland Homes.

New NCDH leader urges antibias drive

New York State Senator **George R. Metcalf** (R.) has begun his tenure as president of the National Committee against Discrimination in Housing by suggesting that **President Johnson** aim the new Housing and Urban Development Dept. entirely toward providing integrated housing. He also wants Congress to require municipalities to adopt fair-housing codes before they can get federal renewal aid.

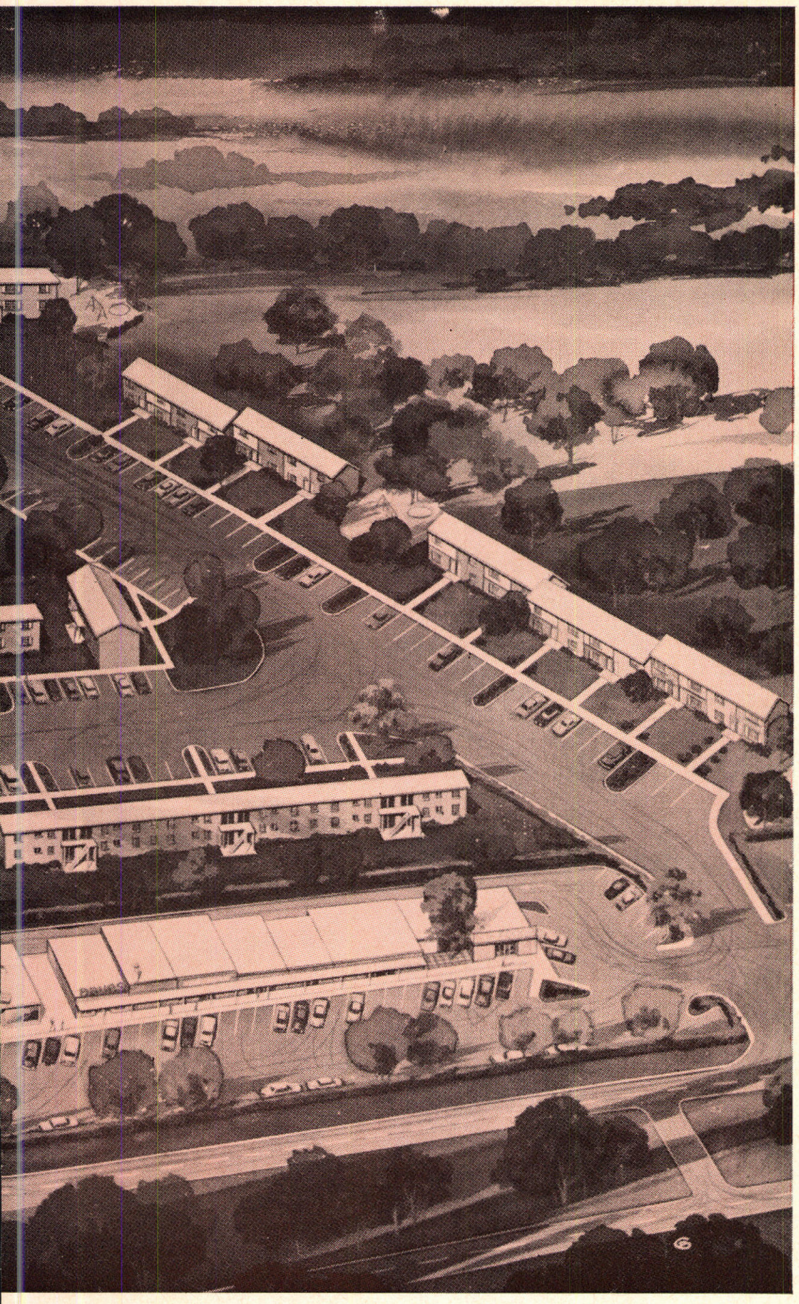
Metcalf, co-sponsor of New York State's fair-housing laws, succeeded **Charles Abrams,** who resigned to become chairman of Columbia University's city planning department and director of its new Institute of Urban Environment.

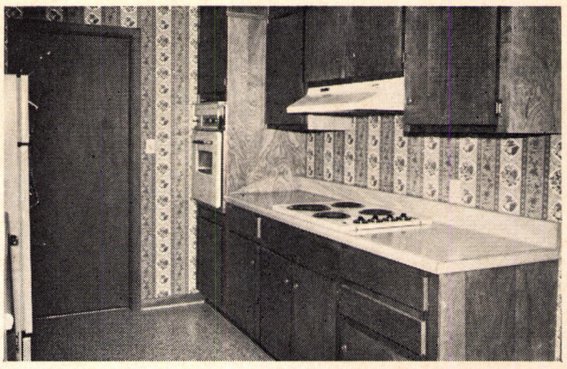
National Homes, Lafayette, Ind. has appointed **Arthur E. Thake** vice president of manufacturing.

Harry G. Stewart has resigned as executive vice-president and general manager of L. C. Major & Assoc., Inc. to direct a new land management division. His first assignment: plan, design, finance and manage a 5,000-acre Colorado tract.

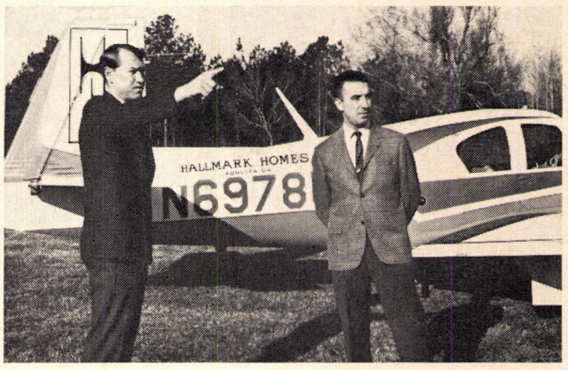
Stephen G. Thompson, former public relations vice president for Webb & Knapp, is new vice president of public relations for the American Institute of Real Estate Appraisers. Thompson has edited the association's newsletter, *The Appraiser,* since 1959.

DIED: **Robert V. Blackstock,** 41, a pioneer in developing housing components through the Lumber Dealers' Research Council and owner of his own Seattle lumber company, Sept. 22 in Seattle.

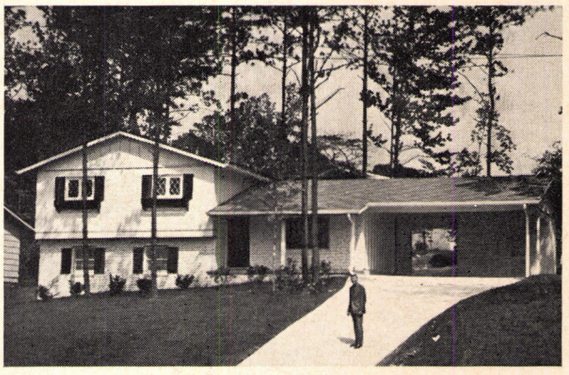




A typical Hallmark kitchen features an RCA WHIRLPOOL built-in oven, cooktop, dishwasher, disposer and refrigerator-freezer.



Builder Everett Knight of Summerville, S.C., points out to Mr. Mulherin the boundaries of a recent land purchase he intends to develop.



This attractive Hallmark split-level home with RCA WHIRLPOOL home appliances is one of their many best sellers.

Doubled their sales each year for the past three years—that's the record of Hallmark Homes, Inc., one of the South's leading makers of homes and apartments. "Since we opened our doors," said A. T. Mulherin, President, "we have delivered 1,000 homes and 400 apartments, each complete with RCA WHIRLPOOL built-in appliances." Mulherin pointed out the thing he particularly likes about Whirlpool's Full-Line Concept is that he does business with one man instead of three or four. "It's a real time-saver," he said. "When I want an answer, one call does it. I get the top quality I need, and all of the appliances are beautifully coordinated by color and design; there's no mismatching. And, when I want service, one call handles that, too," added Mulherin. Why not find out how the Whirlpool Full-Line Concept can help you save time, save paper work and please your prospects . . . your RCA WHIRLPOOL distributor has all the details; call him today.

FULL-LINE CONCEPT
© WHIRLPOOL CORPORATION 1965

RCA whirlpool
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Wood windows vs. metal windows:

here are the facts.

A metal window frame is cold. Cold to touch. Cold to be near. It's the nature of metal, caused by what heating engineers call excessive thermal conductivity.

Are metal windows really "refrigerators?" Unfortunately, it's true.

Findings listed below show heat loss of various materials 1" thick, 12" square, with only 32 degree difference between inside and outside temperatures:

HEAT LOSS	Wood.....25 BTU's per hr.
	Glass.....186 BTU's per hr.
	Steel.....9,984 BTU's per hr.
	Aluminum....45,312 BTU's per hr.

Source: ASHRAE Guide and Data Book 1965, Chapters 4 and 24.

The chart tells the whole sad story. Aluminum conducts heat over 1770 times as fast as wood.[1] Thus a wood window frame is over 1770 times as effective in preventing costly heat losses through radiation as aluminum, the most common type of metal window.

1) ASHRAE Guide and Data Book 1965, Chapters 4 and 24.

Take a single-glazed window unit with an 80% glass area. This unit, manufactured from wood, insulates 10.7% better than when made of metal. And when insulating glass is used, that figure soars to 25.8%![2]

Cold metal surfaces, as they conduct heat from a room, also conduct heat from the body, causing chills. In addition, as warm air comes against a cold surface, it cools and drops rapidly to the floor. This creates a cold draft.

In fact, these metal-caused cold drafts can reach velocities of *12 feet per second.*[3] Pretty windy for a family living room.

Since wood, by its nature, is so superior an insulator against heat radiation, you can expect well-hung quality wood windows to be virtually free of the greater heat loss and chilling drafts caused by metal window units.

Excessive thermal conductivity in metal causes another problem, too. *Condensation.*

To be comfortable, every house should have humidity. (About 30-35% is average.) But when this normal humidity touches a freezing metal window frame, it condenses.

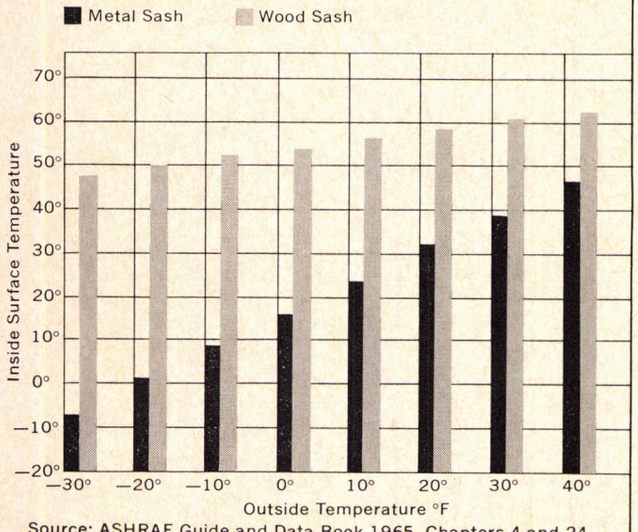
Condensation can build up with amazing rapidity on metal frames . . . even form ice. And . . . water drips . . . all over the sill, the moulding, and the wall. This can be damaging, costly . . . and infuriating to a housewife whose wallpaper has been ruined. This type of condensation is impossible with quality wood windows.

2) ASHRAE Guide and Data Book 1965, Chapter 24.
3) Electricity in Building Magazine, Sept., 1964.

Here are the cold hard facts about metal windows.

Inside Surface Temperature of Aluminum and Wood Sash.
Room temperature 70°. Outside wind velocity 15 mph.

Chart shows comparative inside surface temperatures as outside temperature drops. Example: when air outside is 20° wood sash is 59°—aluminum sash is 32°!



Source: ASHRAE Guide and Data Book 1965, Chapters 4 and 24.

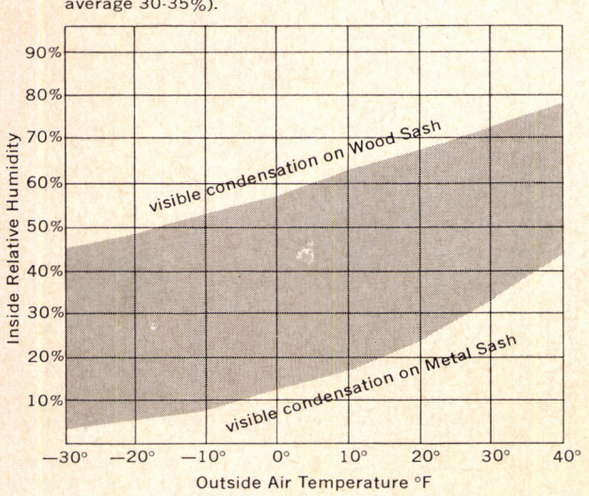
In summer, heat radiation is still at work—and the metal frames that made rooms colder in winter make rooms hotter in summer.

Of course, air conditioning can keep any house cool—at a price. But here again, the cost of air conditioning a home with metal windows *has* to be higher than a home with ponderosa pine windows if all other factors are equal.

Get the undiluted truth on condensation.

Visible Condensation of Inside Surfaces.
Room temperature 70°. Outside wind velocity 15 mph.

Chart shows comparative condensation on inside surface as outside temperature drops. Example: when outside temperature is 20° it would take as much as 69% inside relative humidity before condensation would appear on wood sash—but condensation will form on aluminum sash with just 22% inside relative humidity (and, most homes average 30-35%).



Source: ASHRAE Standard Psychrometric Chart

Wood windows are a matter of good taste, too.

Today's creative architects and builders are constantly searching for new dimensions in home design.

This calls for imagination and insight. It also requires a nearly infinite variety of window styles and designs for them to choose from.

Beautiful ponderosa pine wood windows offer this variety. Stock ponderosa pine windows are readily available in every type, every style and every size imaginable.

Is it any wonder that more architects, more builders and more home buyers are insisting on the natural beauty and practicality of wood windows?

Of course there are still some people who take windows for granted. But you can change all this and profit from it, too. Trouble-free windows make quicker, happier sales.

Just point out that windows are 30 to 70% of the exterior of a home. Explain that choosing the right window is much, much more than a simple matter of cost or practicality. *It's also a matter of good taste.*

And good taste says just one thing: a fine home just has to have wood windows.

Reprints of this message available free on request.

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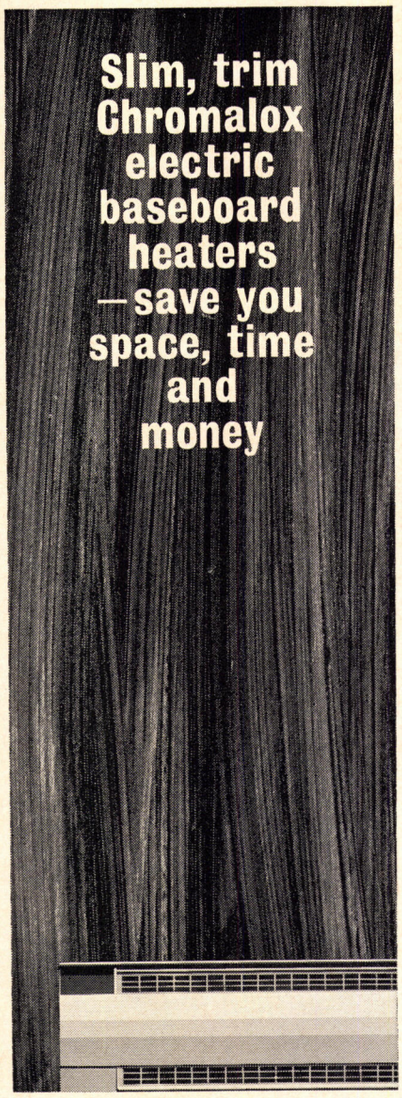

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ALABAMA—BIRMINGHAM: Apartments, swimming pool, $500,000. Sponsor: Temple Bernard. Architect: Fritz Woehle. DECATUR: Apartment, $500,000. Sponsor: Carriage House of Decatur. c/o John Windhorst. HUNTSVILLE: 400 houses, $6 million. Builder: Hunter & Mitchell.

ARKANSAS—LITTLE ROCK: 72 houses, $800,000. Builder: Felix Green; 200 houses, $3.2 million. Builder: Little Rock Builders.

CALIFORNIA—NOVATO: Garden apartment, $2 million. Architect-engineer: Transamerica Engineers & Assocs., San Francisco. OXNARD: 350 dwellings, $3 million. Sponsor: Heltzer Enterprises, Los Angeles. Plans: William Bray, Los Angeles. PACIFICA: Housing, $7 million. Architect: Arthur Peter Lenz, San Francisco. SAN DIEGO: 93 houses and 75 townhouses, $3.8 million. Builder: Lake Terrace Homes; 100 residences, $3 million. Builder: Richard E. Eckenweiler, Hacienda Heights. SAUSALITO: Residential development, $2 million. c/o Transamerica Engineers & Assoc., San Francisco.

CONNECTICUT—HAMDEN: Three apartments, $2 million. Sponsor: Tagmar Inc., North Haven. MANCHESTER: Garden apartments, $3.6 million. Architect: Abraham W. Geller, New York City. NEW LONDON: Seven apartments, $1 million. Sponsor: Hilton Construction, New Haven.

FLORIDA—GAINESVILLE: Garden apartments, $650,000. Architect: Leslie T. Ellias, Atlantic Beach. HOLLYWOOD: Apartments, $3 million. Sponsor: Sunrise Golf Villas. Plans: Arthur A. Frimet. MIAMI: 60 houses, $1.8 million. Builder: Kings Bay Estates. OCALA: Houses and club house, $1 million. Sponsor: Eric Powell, Cocoa Beach. WEST PALM BEACH: Garden apartments, $700,000. Architect: Victor Gruen & Assoc., New York City.

GEORGIA—ALBANY: Apartments, $2.5 million. Sponsor: Electro Sonic Corp., Decatur. AUGUSTA: Apartments, $1 million. Sponsor: J. Coleman. DECATUR: Townhouses, $1 million. Sponsor: Hamilton G. Ansley, Atlanta. Plans: Henry D. Norris, Atlanta.

ILLINOIS—CHICAGO: Row houses, $1 million. Builder: Arthur M. Gorden. Plans: George Fred & William Keck. COLLINSVILLE: Condominium apartment, $5 million. Sponsor: Donald Dougherty. DECATUR: Apartments, $1 million. Sponsor: Del Clow Co., Lubbock, Tex. Plans: Karl Megert, Lubbock, Tex. GRANITE CITY: Apartments, $1 million. Sponsor: Washington Development Co., Pine Lawn, Mo. MUNDELEIN: Apartments and bath house, $1 million. Architect: John E. Tobin, Waukegan. PEORIA: Apartment, $1.5 million. Sponsor: Grand View Corp. Architect: R. T. Christiansen, Chicago.

LOUISIANA—MARRERO: 69 houses, $600,000. Builder: Anthony Abraham, New Orleans. METAIRE: Apartments, $2.5 million. Sponsor: Park Whitney. Plans: James Buchanan Blitch, New Orleans. NEW ORLEANS: Apartments and swimming pool, $8 million. Architect: Morris Lapidus Assoc., Miami Beach, Fla.

MASSACHUSETTS—BEVERLY: Apartment, $2 million. Architect: Smith-Burne Assoc., Malden. BOSTON: Apartment, $5 million. Sponsor: c/o George Garfinkle. CAMBRIDGE: Apartment, $1.5 million. Sponsor: Nor Realty. Designers: K. George Najarian. MELROSE: Apartment, $1.3 million. Sponsor: Congregation Retirement Homes Inc. c/o The First Congregational Church, Melrose. Plans: Frank E. Pernam, Maldan. NEEDHAM: Apartment, $1.5 million. Architect: Aldo A. Minotti, Waltham. PITTSFIELD: Garden apartments, $550,000. Sponsor: Pittsfield Assocs. QUINCY: Garden apartments, $1,140,000. Sponsor: Milton Realty. Plans: George E. Ross, Braintree. WENHAM: Dormitory, $1.1 million. Sponsor: Gordon College. Architect: Arland A. Dirlam Assoc., Boston.

MICHIGAN—ALLEN PARK: Apartment, $800,000. Sponsor: Ed Rose & Sons, Detroit. Plans: P. F. Assoc., Oak Park. DEARBORN HEIGHTS: 29 houses and apartment, $1.9 million. Architect: Tobocman & Lawrence, Detroit. NORTHVILLE: Row apartments, community building and swimming pool, $50 million. Sponsor: Bert Smokler & Co., Southfield. ST. CLAIR: 62 houses, $992,000. Builder: Highland Construction, Detroit. SOUTHGATE: Apartments, $1,540,000. Sponsor: Samuel Brody & Sons, Detroit.

MINNESOTA—BROOKLYN PARK: Row houses, $5 million. Architect: Metropolitan Design, Minneapolis. EDINA: Apartment, $3 million. Sponsor: c/o Hitchcock & Estabrook, Minneapolis. MINNEAPOLIS: Apartment, $2 million. Architect: Ralph Rapson Architects Inc. WHITE BEAR LAKE: Apartment, $1 million. Sponsor: James L. Sexton, St. Paul. Plans: Progressive Design, St. Paul.

MISSOURI—BRIDGETON: 50 houses, $750,000. Builder: Benymer Development. ST. LOUIS COUNTY: 73 houses, $1.5 million. Builder: Cnarles Marchbanks, Lemay. Plans: Rudy Beuc, Webster Groves; Houses, $1 million. Builder: Keeny-Toelle Real Estate Co.; 130 houses, $1.5 million. Builder: Meridian Construction Co., University City; 25 houses, $500,000. Builder: Papin Builders, Crestwood; 120 houses, $2.5 million. Builder: Wylwood Construction, University City. Plans: Barrie B. Fox, Overland. VALLEY PARK: 103 houses, $1.5 million. Builder. Washington Development, Pine Lawn. Plans: Duncan & Smith, Kirkwood.

NEW JERSEY—BAYONNE: 40 houses, $1.25 million. Builder: County Village. Architect: James Rothstein, Jersey City; 120 houses, $5.4 million. Builder: Steve Muss. Architect: Joseph Bronikowski. BELVIDERE: Garden apartments, $5 million. Sponsor: Anderson Construction, Orange. Plans: Peter M. Grygotis, Roselle. HAMILTON: Garden apartments, $2.8 million. Sponsor: Jack Burstyn, Union. Plans: Benjamin Nienart, Elizabeth. MANALAPAN: 125 houses, $1.5 million. Builder: North American Development, Bradley Beach; 688 houses, $6.88 million. Builder: Levitt & Sons, Matawan. MATAWAN: Garden apartments, $1.6 million. Sponsor: Burstyn & Gold, Union. Plans: Burton Appel, Newark. NORTH PLAINFIELD: Garden apartments, $1.6 million. Sponsor: G. R. Holding Co., Teaneck. Plans: Leonard G. Feinen, Hasbrouck Heights; Garden apartments, $1.5 million. Sponsor: H&W Gardens, Woodbridge. Plans: Burton Appel, Newark. SPRING LAKE HEIGHTS: Garden apartments, $1.5 million. Sponsor: Donato Russo Enterprises, New Shrewsbury. Plans: Jerome M. Larson. WANAQUE: Garden apartments, $2 million. Sponsor: Cali Assocs., Kenilworth.

Business continued on p. 60

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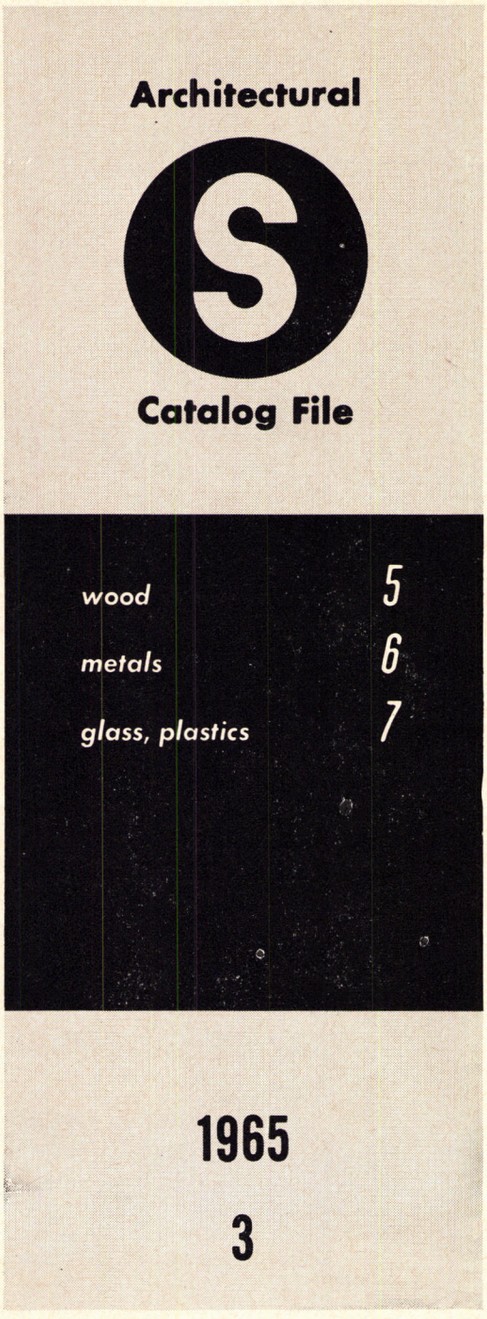

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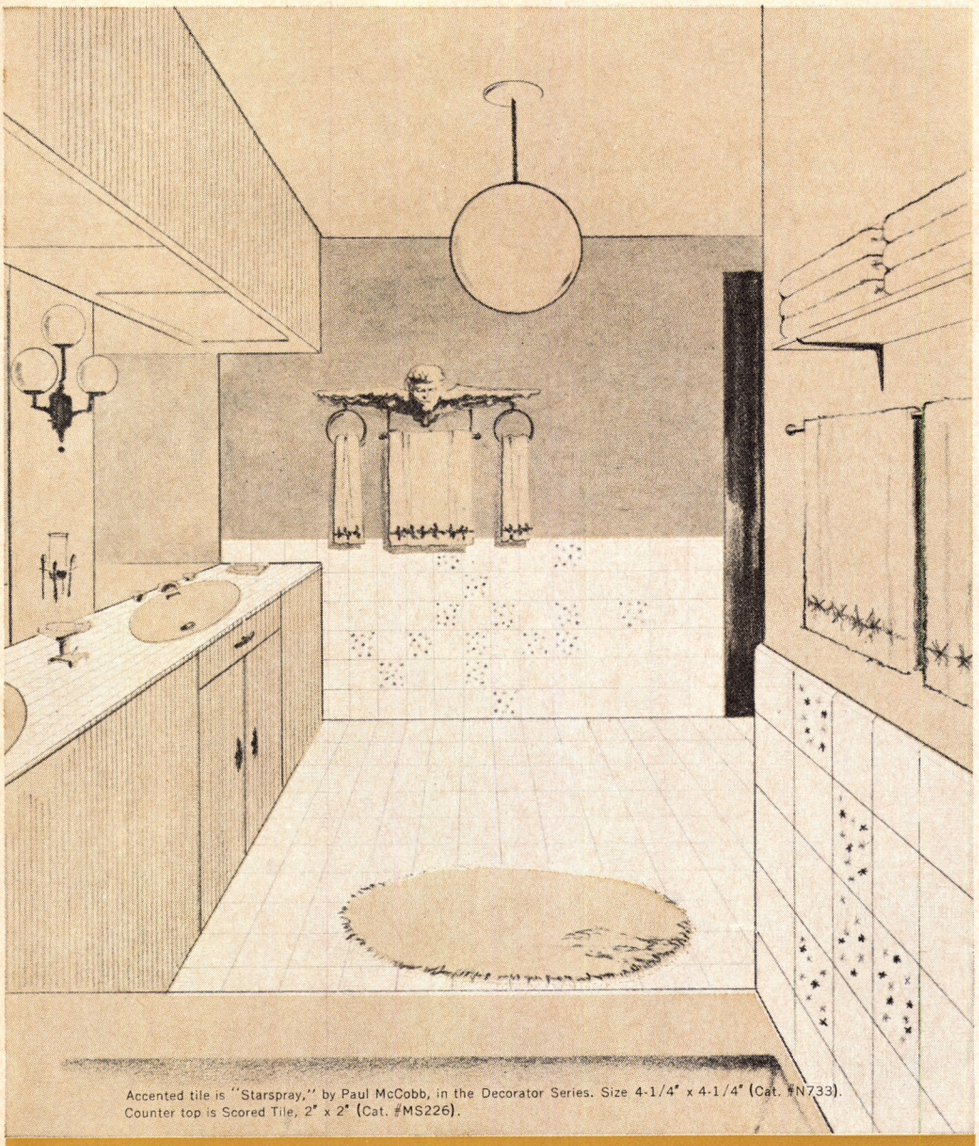

Accented tile is "Starspray," by Paul McCobb, in the Decorator Series. Size 4-1/4" x 4-1/4" (Cat. #N733). Counter top is Scored Tile, 2" x 2" (Cat. #MS226).

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BUSINESS

starts on p. 158

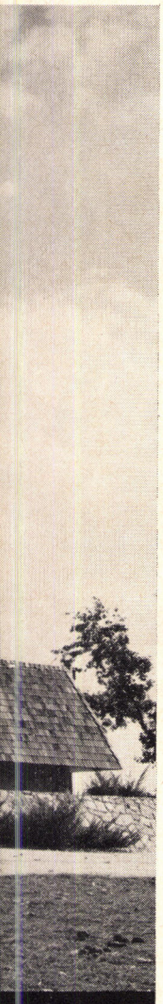
NEW YORK—ATLANTIC BEACH: 74 houses, $1,850,000. Sponsor: Herbert R. Mandel, Brooklyn. Plans: Alwin Cassens Jr., Valley Stream. CARMEL: 77 houses, $1.5 million. Builder: Dr. George E. Dickinson Jr. CHITTENANGO: 165 houses, $4.5 million. Sponsor: Bridgeport Lumber Co., Bridgeport. COMMACK: Garden apartment, $2 million. Sponsor: Raymond Kass. Plans: Constantine Vichey, New York City. ELTINGVILLE: 40 houses, $1.2 million; 50 houses, $1.5 million. Architect: Diamond-Sanko, Staten Island. NANUET: Garden apartments, $2.5 million. Architect: Martin Gebhardt & DiPaola, Fairview, N.J. NYACK: Garden apartments, swimming pool, recreation center, $1.75 million. Sponsor: Alfred J. Ellish, Monsey. Plans: Architectural Design Assoc., Spring Valley. SPRING VALLEY: 200 houses, $3 million. Builder: Rubin Josephs Inc., Monsey. WALLKILL: Garden apartments, $1.25 million. Sponsor: c/o Joseph Realty Co., Teaneck, N.J. Plans: Louis J. Mineo Jr., Emerson, N.J. WEST HAVERSTRAW: Garden apartment, $560,000. Sponsor: Builders Corp. of America, Maywood. Plans: Percy S. Simon, Teaneck, N.J. YAPHANK: Houses, industrial park and shopping center, $4 million. Sponsor: Krinsky Organization, Centereach. Plans: Charles Luckman Assocs., New York City.

OHIO—COLUMBUS: Houses, $500,000. Builder: Jewel Builders; 108 houses, $1,728,000. Builder: Virginia Homes Inc. MADISON: 75 houses, $2,250,000. Builder: Nick Square. MAUMEE: 28 houses, $750,000. Builder: Albert J. Corey. NORTH ROYALTON: Condominium apartments and swimming pool, $2 million. Sponsor: Kimberly Development Inc., Cleveland. Plans: Donald J. Smith & Assoc., Cleveland. TOLEDO: Apartments, $600,000. Sponsor: Diversified Builders.

PENNSYLVANIA—HAMPTON TOWNSHIP: 33 houses, $990,000. Builder: Work Real Estate, Allison Park. PITTSBURGH: Housing project, $1.5 million. Sponsor: East Liberty Inc. Plans: Felix Drury and John Pekruhn. PLYMOUTH TOWNSHIP: Garden apartments, $4.8 million. Sponsor: Harold Epstein, Philadelphia. Plans: Richard Erlichman, Philadelphia. SOUTH HEIDELBERG TOWNSHIP: 200 houses, $3 million. Sponsor: Edison Park, Wyomissing. UPPER ST. CLAIR TOWNSHIP: 17 houses, $500,000. Builder: Ralph J. Cortes, Pittsburgh.

TEXAS—EL PASO: Townhouses, $800,000. Sponsor: Sam Guido Jr. Plans: Harry M. Fania. HOUSTON: 60 houses, $1.8 million. Builder: Tom Overstreet; Townhouse apartments, $700,000. Architect: Arthur Steinberg; 25 houses, $500,000. Builder: H. R. Buck: Townhouses, $1.5 million. Builder: James L. Phillips. Plan: Langwith, Wilson and King.

VIRGINIA—ALEXANDRIA: Apartments, $15 million. Sponsor: Beauregard Properties Partnership. Plans: Anthony F. Musolino, Washington, D.C. ANNANDALE: Apartment, $5 million. Sponsor: Wedgewood Assocs. Plans: Morton W. Noble, Washington, D.C. CHARLOTTESVILLE: Apartment $950,000. Sponsor: Hayes Gardens Inc., Richmond. Plans: Tiffany Haley Armstrong, Richmond. FAIRFAX: Garden apartments and 261 townhouses, $4 million. Sponsor: Duke Assoc. c/o Marvin Dekelboum, Washington, D.C. Plans: Morton Noble, Washington, D.C.; Apartments, $4 million. Sponsor: Metro Investment & Development Co., Washington, D.C. Plans: Morton W. Noble, Washington, D.C. NORFOLK: Apartment, $1 million. Sponsor: D. L. Garcia. Plans: Dudley, Rightmier, Morrisette & Assoc. ROANOKE: 120 houses, $1.5 million. Builder: Fralin & Waldron Inc. VIRGINIA BEACH: Apartments, $2 million. Sponsor: Bernard Jaffe, Silver Springs, Md. Plans: Cohen, Haft & Assoc., Silver Springs, Md.



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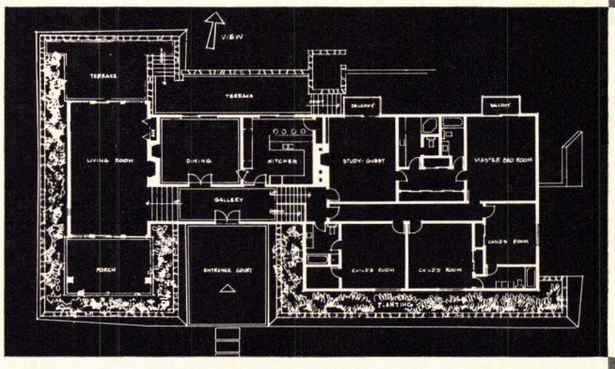

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The Messiah Lutheran Church is in Santa Cruz, California. *Architects Robert A. Bennighof and Associates* selected Certi-Split No. 1 Handsplit-Resawn Shakes 24" x ¾"-to-1¼", 10" to the weather.

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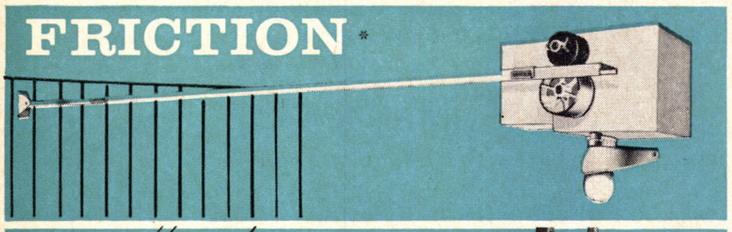

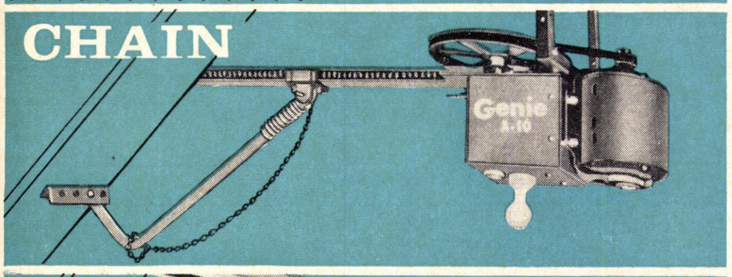

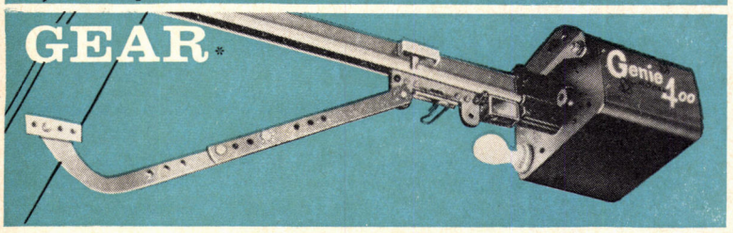

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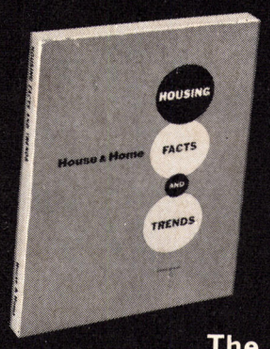

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MAIN ENTRANCE to Plum Grove Village is marked by brick and wood fencing emphasizing privacy. Landscaping is maintained by village association.

Privacy, plus a complete package of services, appeals to the

The empty nester, according to Chicago Builder Albert Riley, is the man whose children have grown and gone, leaving him and his wife rattling around in a big, hard-to-maintain house.

"He's not under any pressure to move," says Riley. "If you offer him the right house, the right community and the right way of life, he'll buy. But if he doesn't like it, you can't give it to him."

Riley's formula for enticing the empty nester is embodied in Plum Grove Village, a 15.3-acre community of 80 townhouses, grouped as one- and two-story fourplexes and priced from $28,000 to $37,000. Plum Grove's success—since a May opening 40 houses have been sold—is due largely to Riley's astute handling of two key features:

1. Privacy is provided on both the community and individual unit level. The village is to be completely fenced in and will have only two entrances. Streets are owned by the community, eliminating public traffic. And each house has private outdoor living in the form of a 500-sq.-ft. patio with 8'-high brick walls.

2. Maintenance-free living is provided in a package that costs each resident $32 a month. It includes maintenance of all community areas, plus landscaping and maintenance of the exteriors of all private units. Owners are responsible only for the interiors of their houses.

Buyers in Plum Grove Village own their houses and lots outright. Further, they are stockholders in a village association which owns and controls all open land and roads. They may lease their houses but only if the association approves. And when they sell, the association has first refusal.

Riley's company has a contract to manage the village for five years.

"By that time," he says, "the more responsible owners will be in key posts, and we can turn over the management to them."

Riley became interested in the empty-nester market when a few people asked him to build them smaller houses in good locations.

"It was hard to find good locations," he says, "so I decided to create one. And I made it big enough so it would have its own identity."

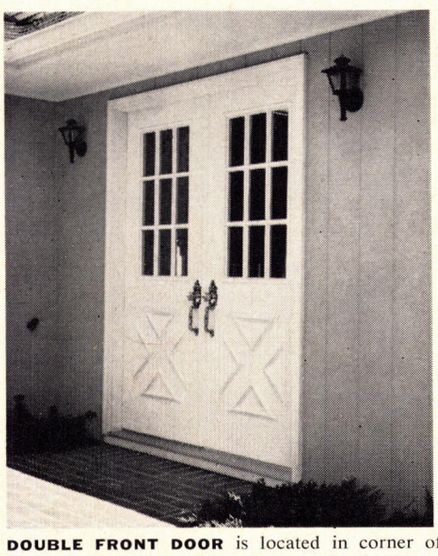
Financing has been no problem. Most buyers are well-to-do and have high equity in their present houses. As a result, eight sales out of ten are cash.

"But these buyers won't buy a blueprint," Riley adds. "The community must be a discernable reality. So the further along the job is, the faster we sell."

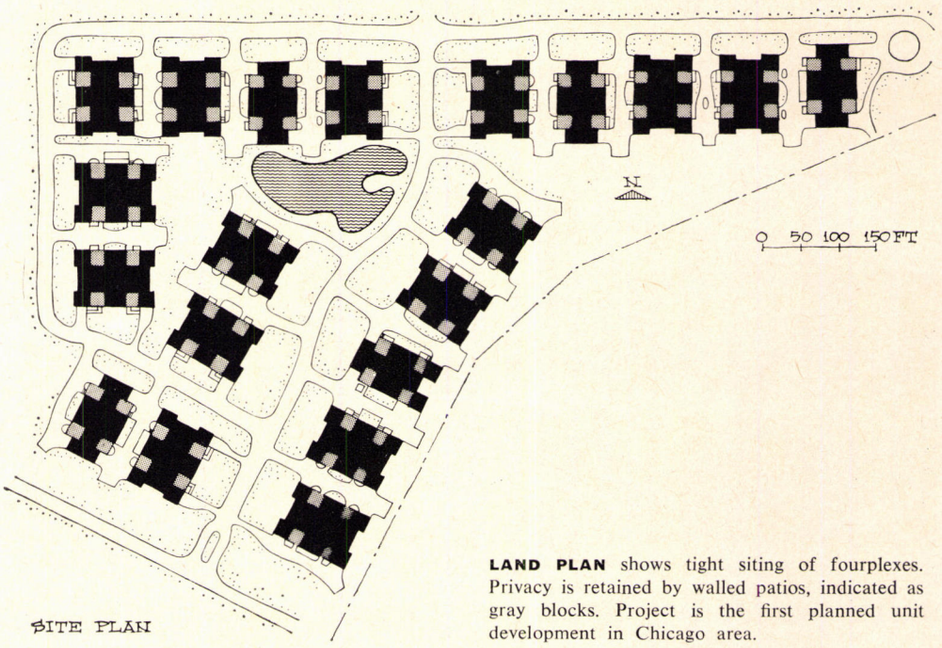
Riley plans more villages of the same type at a rate of about one a year.

"We'll offer a wider range of price and size," he says, "plus more design cohesion and more units per building."

WALLED PATIO doubles as entry court, entered through door at center. Living room is visible through sliding glass doors at left.



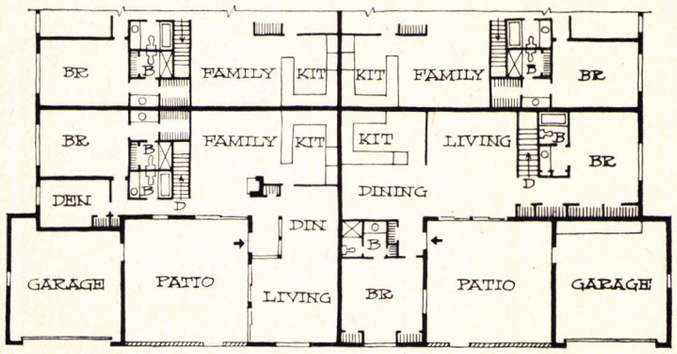
DOUBLE FRONT DOOR is located in corner of patio. Rough-sawn siding is actually Masonite hardboard with factory-molded finish.



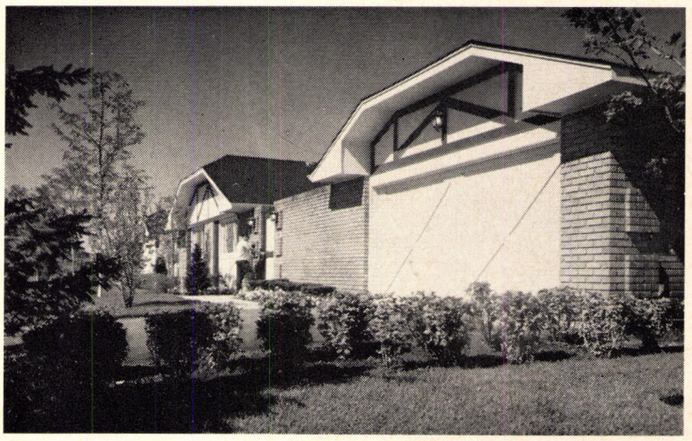
SITE PLAN

LAND PLAN shows tight siting of fourplexes. Privacy is retained by walled patios, indicated as gray blocks. Project is the first planned unit development in Chicago area.

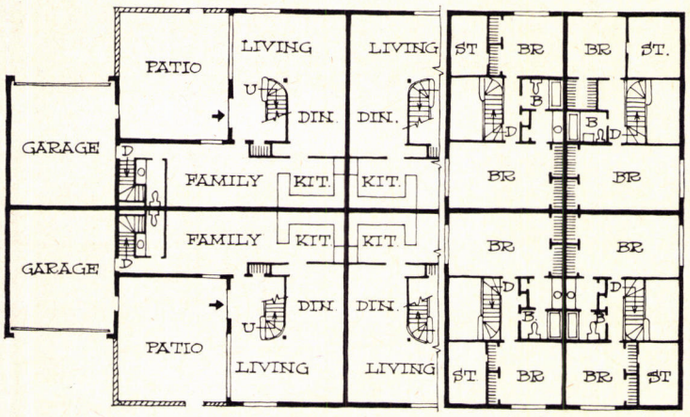
well-heeled 'empty nester'



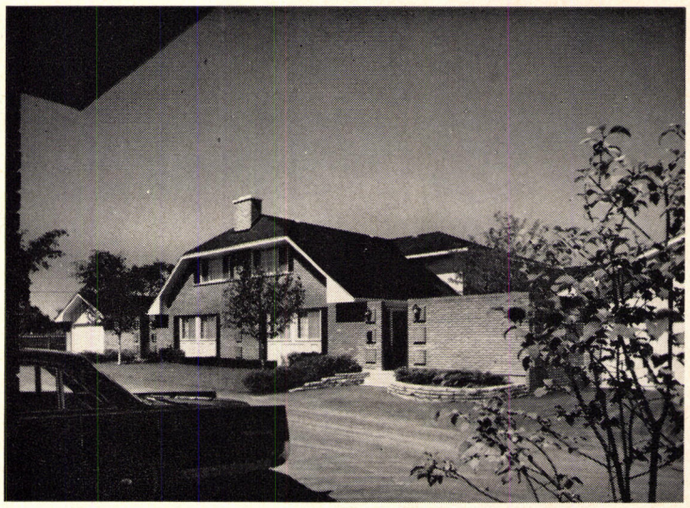
ONE-STORY PLAN shows two possible room arrangements for two-bedroom units. Baths and kitchens for all four houses are relatively close together.



ONE-STORY FACADE has deep overhangs with half-timber design on gable ends. Two thirds of all houses in the project are one-story models.



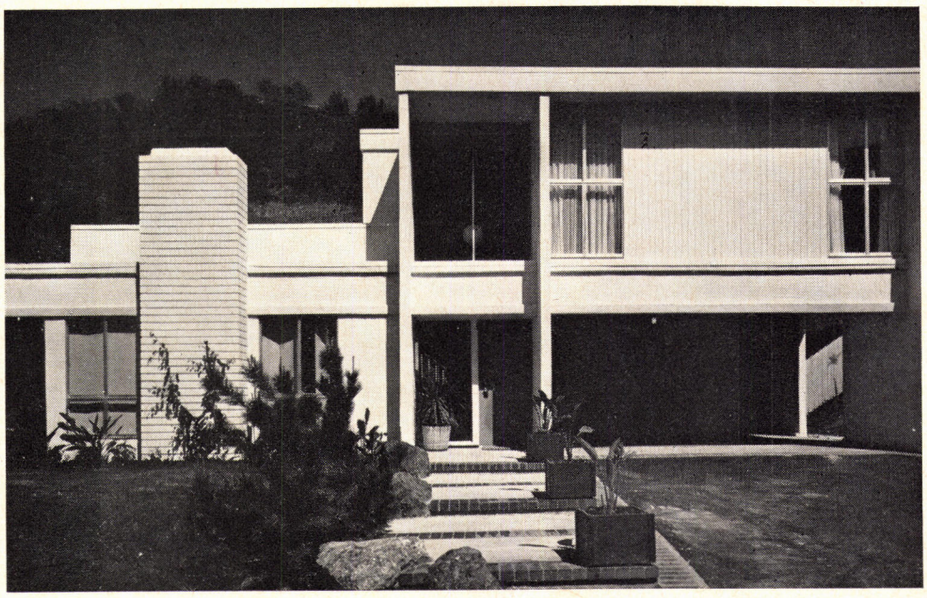
TWO-STORY PLAN has two bedrooms and a compartmented bath on second floor. Party walls between houses are carefully soundproofed.

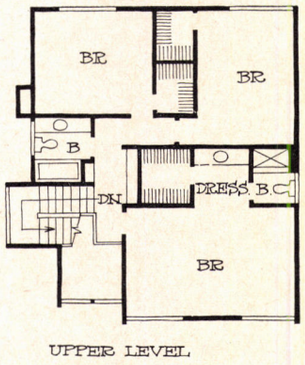


TWO-STORY FACADE has same roof treatment as one-story model. Door in brick wall leads to patio. Architects: Schiller & Frank.

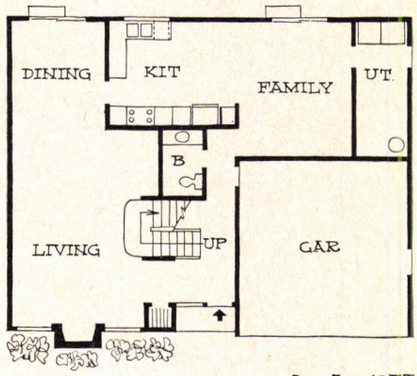
Leaders continued on p. 72

Sheedy & Long





UPPER LEVEL



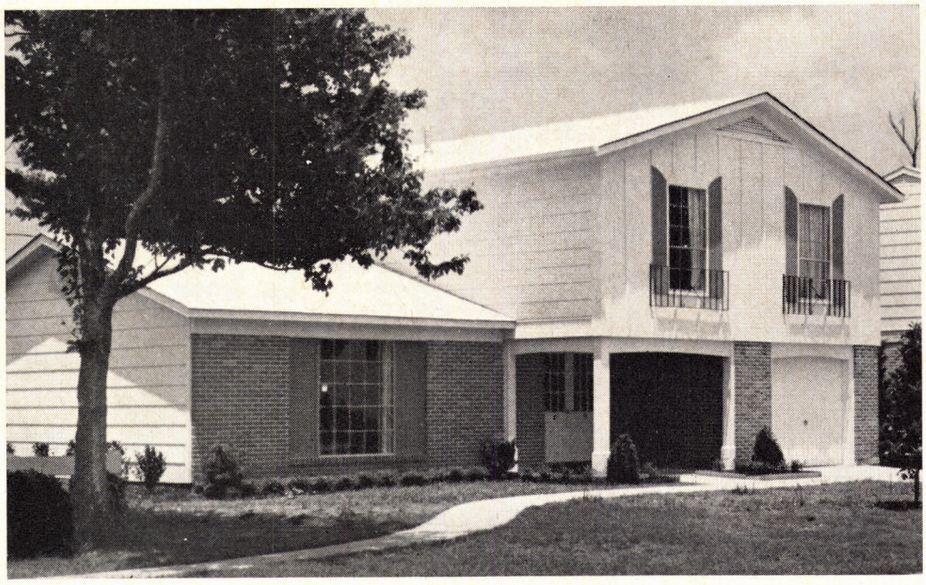
LOWER LEVEL

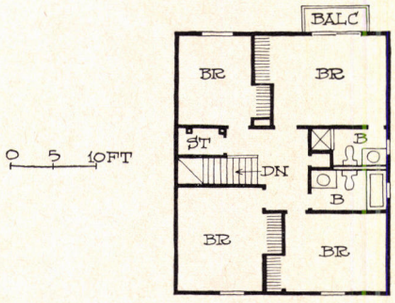
0 5 10FT

A one/two-story house done in contemporary style . . .

Harlan Lee-Byron Lasky Co. opened this half one-story, half two-story model this summer, and it is now the most popular of four models. It has accounted for 12 of the first 26 sales in the builder's newest Encino, Calif., project. The community will eventually have 165 houses including, besides this model, one-story, two-story and tri-level models.

Price of this house on a 70′ x 65′ lot is $42,000. Features include: a two-story entry, a semi-open suspended staircase, a 10′-high living room and walk-in closets in each of the three bedrooms. Total living area is 2,050 sq. ft. Architect: Dan Saxon Palmer & Assoc.





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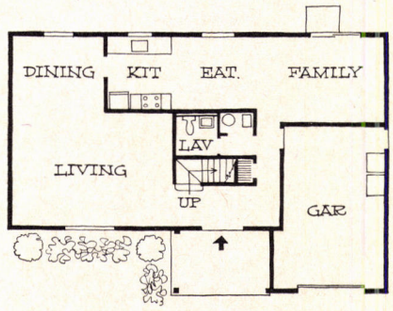

LOWER LEVEL

. . . And a smaller, traditional version of the same plan

Like the model shown above, this one/two-story house is also a bestseller. It was introduced this summer in two 600-unit New Orleans projects by Dover Construction Co. Since then 75 have been sold, though there are twelve other more traditional and less expensive models available. During the same period, total sales in both of the projects were 125 units.

This $19,995 model is on a 60′ x 115′ lot and has 1,785 sq. ft. of living space. Features include: four bedrooms, an extra walk-in closet upstairs, a two-story living-dining area, a beamed-ceiling in the family room and a private balcony off the master bedroom.

Letters start on p. 76

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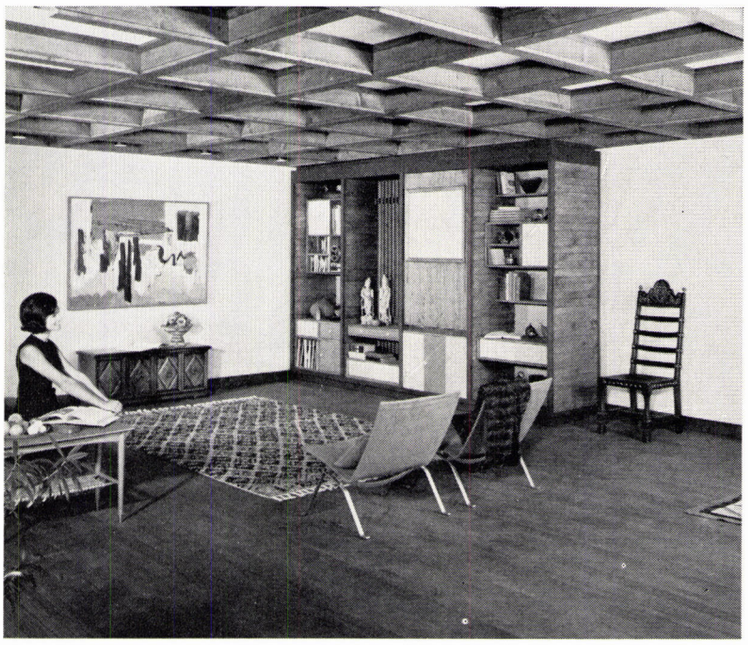

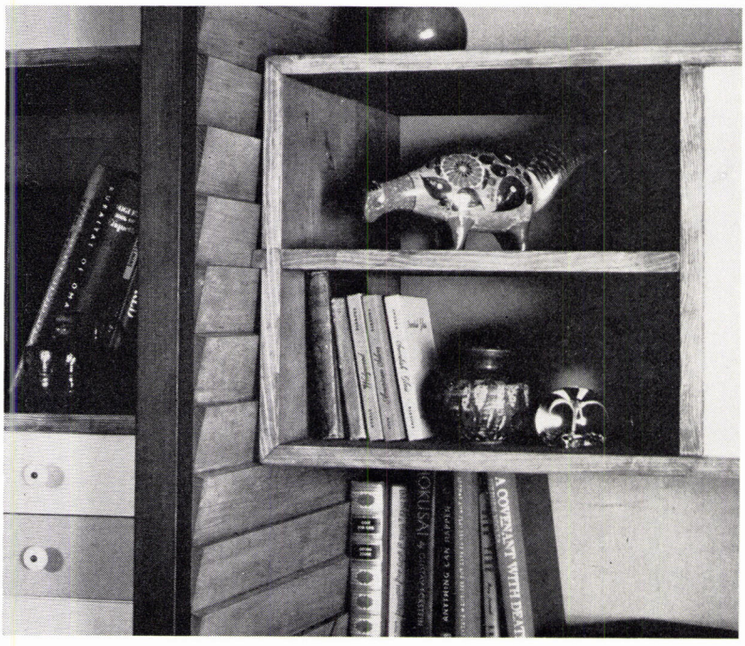

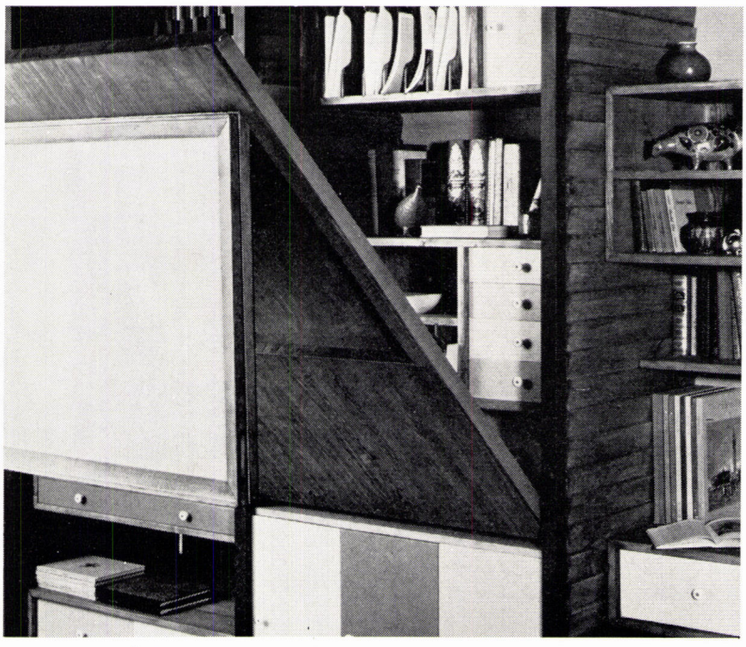

Include a movable wall (full of storage) and watch the sales roll in.

Here's a great new sales feature from Western Wood . . . designed to win sales and influence buyers. It's the Caravan storage wall that lets home owners actually move it around to shape space and create rooms. It can stand with its back against the wall; act as a peninsular room divider, or serve as an island of family activity in the middle of the room.

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LETTERS

Plain vanilla: pro

H&H: As a subscriber to your magazine for several years, I take particular aversion to your September editorial ["Not everyone likes plain vanilla"] extolling the virtues of contemporary design.

You use the terms "contemporary" design and "good" design interchangeably as if to imply that a house must be of a contemporary design in order to be well designed. This, of course, is a fallacy. Not all contemporary houses are well designed; nor do contemporary houses similar to the "award winning" houses depicted in your September issue appeal to more than a small fraction of the homebuying public.

Windows are completely obscured for instance, by a solid wall built on three sides of the Japanese-style house on p. 66. True, the walls do appear to enclose a small area of yard between the walls and the house, but how many homebuyers would want their view cut off from the front and sides of the house? And how many homebuyers could afford to build a three-bedroom house with its own exterior walls and then hide it behind a solid masonry wall 12′ high? And how many buyers prefer bathrooms with no exterior windows? Is there any advantage in the curved roof line which probably adds 25% to the cost of the roof? And why is there any advantage in a free-standing garage or carport separated from the basic house by an open space?

And how many buyers would pay the quoted price of $60,000 for this house without land when they could build a house with as much space along conventional lines for perhaps half this amount?

In depicting the unusual and the bizarre instead of the practical, HOUSE & HOME is doing its readers a disservice. Most of your readers are faced with the cold realities of doing business in a competitive market. How to build good houses profitably is still their primary concern. It should be your primary interest.

ROBERT M. LAIRD JR., manager
Florence Laird Agency
Aiken, S.C.

We suggest a more careful reading of the editorial, which included passages like "builders should ferret out and cater to all kinds of tastes," and "the most effective marketing tool . . . is a broad architectural spectrum." And rather than using the words "good" and "contemporary" interchangeably, the editorial twice used them as a coupled phrase, meaning we have the same distaste for bad *contemporary as we have for bad traditional or bad no-style-at-all.*

Is Reader Laird really sure that the award winners would appeal only to a "small fraction" of the homebuying public, and if he is, would he advise the industry to ignore this, or any group of potential buyers?

Finally, H&H *is deeply interested in "how to build good houses profitably." But we are equally interested in raising housing and environmental standards through better design, planning and technology.*—ED.

Plain vanilla: con

H&H: As a subscriber to H&H, and a residential designer by profession, I agree wholeheartedly with your editorial in the September issue. Also, the Design Round Table discussion was most interesting.

I think your editorial holds the key to success for many homebuilders and designers. You have said in words what so many professionals think, but unfortunately their thoughts never materialize.

ROBERT R. CHANDLER
Designers Plan Service
Shreveport, La.

Patio houses

H&H: Your article on patio houses [Sept.] got a terrific amount of information on three pages, and in very lucid detail.

Typical of reaction to the article was this comment, that of the bank-branch manager with whom we do business: "Some of the people at the head office have been very lukewarm about your project. Wait till they see this."

R. T. HARKNESS, secretary-treasurer
Starlite Homes
Milpitas, Calif.

Errata

H&H: We have been receiving your excellent publication for many months and have always found it to be an exceptionally fine magazine.

We were astounded, however, at the inaccuracies which appeared in your article headlined "Medicare foreshadows vast changes for retirement housing, nursing homes" [News, Sept.].

For example, our name is not "United Convalescent Centers." It is "United Convalescent Hospitals Inc."

Letters continued on p. 78

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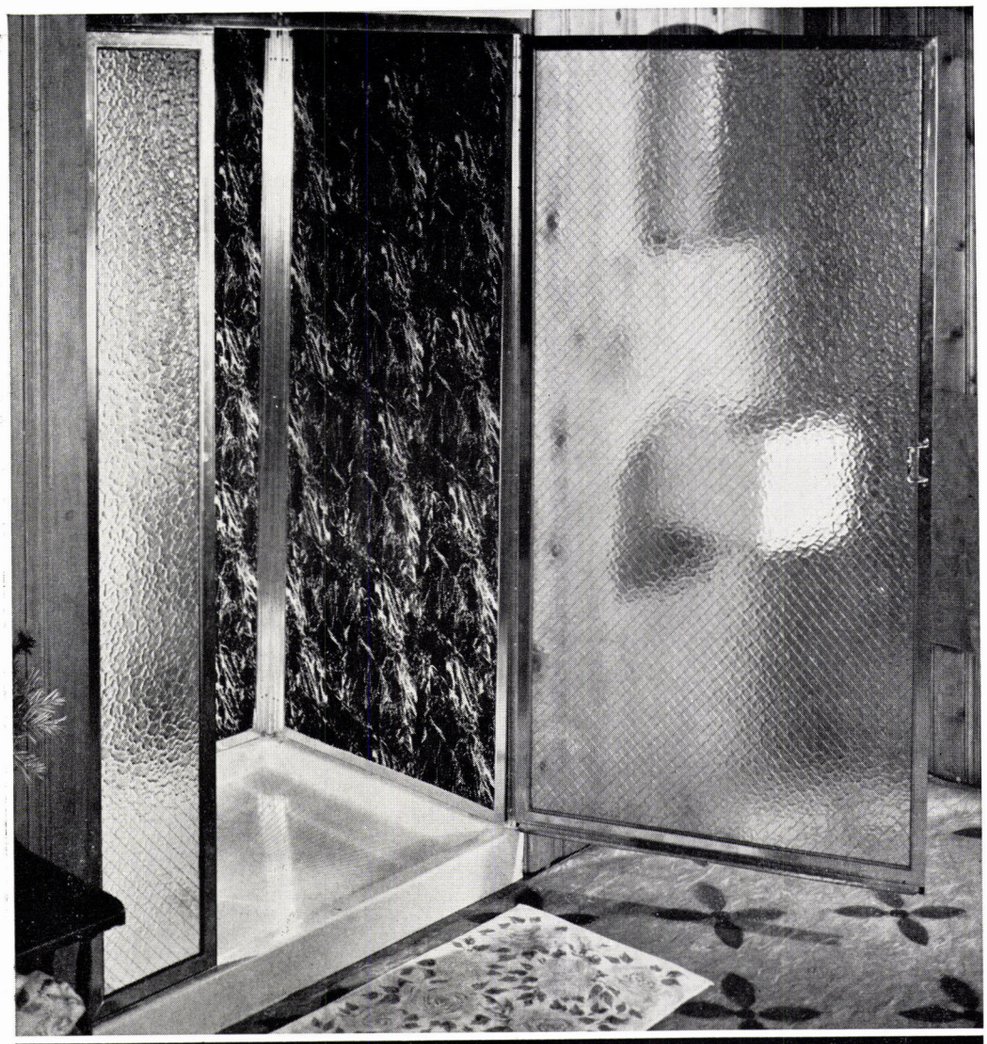

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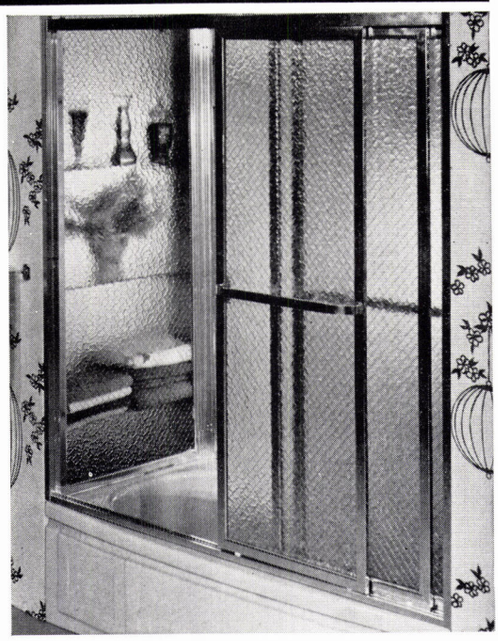

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LETTERS

start on p. 76

Our company is not "backed by the Evinrude Co. and Singer Frances Langford." Ralph Evinrude individually and his wife are important stockholders in some of our convalescent centers.

We did not open our ". . . fourth convalescent center in Jacksonville last month." This is our ninth operation, and we will have twelve in operation by the beginning of next year.

CHARLES Z. WICK, president
United Convalescent Hospitals Inc.
Beverly Hills, Calif.

H&H regrets the errors. Our information came from a high FHA *official who has been connected with the convalescent home field for years, so we had no reason to doubt its accuracy.*—ED.

Design Round Table

H&H: We enjoyed the report on your Design Round Table [Sept.], but would like to take you to task in one respect. It was not clear that home manufacturers contribute a great deal to the design of houses not only because they supply 20% or more of detached houses but also because conventional or component builders copy them.

JAMES L. PEASE JR.
Pease Woodwork Co.
Hamilton, Ohio

H&H: I congratulate you for your fine presentation of the results of the Design Round Table.

You may be interested to know that I am continuing to pursue the work of better design for use by lumbermen and builders, and I am hopeful that this year a program will at least be started in this direction.

CLARENCE A. THOMPSON, president
Thompson Lumber Co.
Champaign, Ill.

Slow selling award winner

H&H: We are quite proud of the job that our architect has done on our award winning houses [Sept.]. However, they appear to be more modern in design than the buyers like, and though we have had a slow season anyway this year, these houses have been extremely slow to sell.

On the other hand, we feel that as soon as a community is created around them, they will move.

ALAN E. BROCKBANK, president
Alan E. Brockbank Organization
Salt Lake City

Good taste but bad manners

H&H: Congratulations on your good taste in the selection of your August cover and for your complete lack of manners in not giving credit to the professionals responsible for the research and restoration of this historically certified structure at 108 Delancey Place, Philadelphia, in not mentioning the architects. It was the work of John D. Sacksteder and myself who were then practicing as Sacksteder and LeVine.

NEWTON LEVINE, AIA, associate professor
Auburn University
Auburn, Ala.

EDITORIAL

Selling or not selling the consumer

If you don't know where you're going any road will get you there

To put it another way, if you don't know why people buy new houses, you probably don't sell many of them. And selling is bound to get harder and harder for two reasons.

First, of course, is the fact that today there is no shelter shortage; no one has to buy a new house or rent a new apartment.

Second, both the consumer and his values are changing in ways that we are only just beginning to be aware of. Our old selling patterns are becoming less and less valid, and can no longer be used as a basis for approaching a new housing market.

Take a good look at our consumers of today and tomorrow. 46% of our population was not born when Pearl Harbor was attacked; 40% of our population was not born at the beginning of the Korean War; and 11% of our population was not born when John F. Kennedy became President. The average age of Americans in 1945 was 38. By 1968 it will be 25.

Today's young people don't have the same approach to living—or the same ideas about housing—that we who lived through the depression and one or two world wars share. Many of our attitudes toward housing and selling are colored by our own experiences—experiences which mean nothing to young buyers today.

So the question is, how to find out what makes today's young buyer buy?

One clue lies in the automobile market. You can buy a good three-year-old car for less than $1,000, and about 15 million used cars will be sold next year. But at the same time, U.S. consumers will buy more than 9 million brand new cars—simply because they have styling and features unavailable in used cars.

By comparison, used houses outsell new houses four to one. True, a good location can make a used house far more attractive to a particular prospect than any new house in the same price range. But in many cases the low price of those used houses is enough to offset the advantages of the new houses.

What can we do about it? We obviously have to produce better quality, more desirable housing than we do now. Many builders may object that such better housing will be beyond the means of many current buyers. That is true. But it is also true that such better housing will interest people who are now buying used houses—or who aren't buying any houses. And remember, this is an affluent society. In 1955 only 40% of U.S. families had annual incomes in excess of $5,000. By 1963, 63% were making over $5,000 and by 1970 the average family income may be over $10,000.

How can builders make new houses more desirable? There are two ways:

The first way is by using the newest and best products and materials. Products are changing and improving faster than you might think, and experts estimate that in ten years 30% to 40% of the products in a manufacturer's line will be products that are not there now.

Second, the housing industry can take a cue from the garment industry. Every manufacturer in the garment industry knows that he must have lines for five seasons per year: Spring, Summer, Fall, Winter and mark-down. Unless he changes his lines constantly, he is dead.

Housing is not, of course, a seasonal commodity in this sense. But a builder can change his line every few months by adding a new model that is better and more attractive than his previous ones. This will stir up interest, build traffic and ultimately make prospects dissatisfied with their old houses.

The housing industry must do a continuing job of analyzing the needs and desires of new young prospects. And it must accept the fact that our whole pattern of selling is going to have to be changed in the years ahead.

Fortunately, we have help from an unexpected source. For the first time in housing's history the academicians have come to our assistance with in-depth sociological research on why people buy the houses they buy. Some of their findings—outlined on the next four pages—could change your marketing patterns overnight.

—RICHARD W. O'NEILL

Are you selling a home—or an investment?

As a homebuilder, you may be in the securities business, whether you know it or not. Every time a prospective buyer looks around your model houses, chances are he's thinking about the investment he's going to make—perhaps more than he's thinking about the home he's going to live in.

This surprising view of what the buyer wants emerges from a study by Sociologist Carl Werthman of "why people buy in planned communities." Werthman's study is based on 102 tape-recorded interviews and 789 mail questionnaires in two planned communities—Foster City, near San Francisco, and Janss/Conejo, 40 miles north of Los Angeles. Here are his most significant findings.*

Prospective homebuyers always keep investment in mind when they look at a house

You may have overlooked the investment motive because it is stimulated by the very same features that have long appealed to homebuyers. But a subtle change has taken place in the buyers' orientation. Yesterday buyers thought only of their own needs in a house. Today, the report shows, buyers think more and more about the fellow they'll have to sell to when they move. Some buyers carry this concern so far they will actually reject a house that satisfies them to choose another that would appeal to someone else.

Says an automobile salesman interviewed in the study: "We don't need a house this size. We bought this size house because the people moving into this area later will be people with growing families."

Says a business owner: "We like that type of architecture [in another subdivision] . . . but I would never invest money in something that might be difficult to sell."

The buyers in the study may seem uncommonly impressed with resale values. But they have every reason to be. They live in a state where house values have been rising steadily: of the prior homeowners in the study, 83% at Foster City and 74% at Janss/Conejo claim they made $2,500 on their old homes when they sold. At Foster City, 69% of all the buyers are so impressed with the resale possibilities they expect to make at least $4,000 when they sell their new homes. Some 53% feel the same way at Janss/Conejo.

Buyers don't always feel this optimistic about resale values, according to the study. But even when they don't, the investment motive influences their approach to homebuying. Buyers who aren't looking for huge profits when they sell are, nevertheless, concerned about protecting the equity they invest in a house.

Of course, few buyers consider improvement costs when they make their investment calculations. But that doesn't seem to matter.

"The problem of whether declared profits are real or imaginary is less important than the fact that people believe they exist," says Werthman.

He also warns his readers against regarding buyers as real estate speculators bent only on making substantial profits by buying and selling homes.

"Investment is an orientation or perspective, used to evaluate houses and communities on the market," he says.

All this buyer concern with the house as an investment bristles with implications for builders' merchandising.

The key merchandising point: to sell a house as an investment, talk about its resale value

This point can be elaborated in three ways:

1. If you don't demonstrate the investment value of your houses, you let buyers draw their own conclusions about what may be your most important selling point.
2. When you talk features to a buyer, he may be converting everything you say into a sales talk for a potential resale buyer. If he concludes that you have drawn a picture that fits him too closely, he may decide that the house will have only limited appeal on the resale market—too limited for him to buy.
3. If your market research demonstrates only what buyers want in a new home, it fails to give you everything you need. The research should also show what buyers feel *other buyers* want in a home.

Your job of developing a merchandising campaign around appeals to investment motives can be facilitated by knowledge of buyers' social and economic status.

A buyer's socio-economic standing influences the way he judges housing as an investment

To determine a buyer's socio-economic status, Werthman used a subdivision grading system. Here's how it worked:

One of five class standings—upper working, lower

*Werthman's study is part of a broad analysis of large developments by the University of California's Community Development Project, which is financed by the Ford Foundation and directed by former Homebuilder Edward P. Eichler (Eichler Homes). Copies of the study are available for $4 from the Center for Planning and Development Research, University of California, Berkeley.

middle, solid middle, upper middle and wealthy upper middle—was assigned to each of 12 subdivisions at Foster City and Janss/Conejo. Standings were based on the average income, average education and predominant type of occupation of people living in each subdivision. Then each individual automatically acquired that status of his subdivision, regardless of his own income, education and occupation.

Werthman found that buyers' views toward investment differ at different rungs on the socio-economic ladder. In general, his research showed two main areas of difference between upper- and lower-class buyers.

1. House vs. community. Upper-class buyers "invest" in the community. But lower-class buyers put greater stock in the house itself.

2. Profit vs. protection. Upper-class buyers look for houses that offer them protection against investment loss. In short, they're concerned about losing money when they sell. "I didn't expect to make any money on this place when I moved here," says a wealthy upper-middle-class engineer, "but I sure wasn't counting on taking a loss."

An upper-middle-class electronics designer makes the same point: "Yes, protected home value entered our decision to move here."

But lower-class buyers consider a house a good investment if they can expect to sell it for more than they paid for it.

"This house is worth a hell of a lot more than they sold it for," says an upper-working-class truck driver. "By the time I sell, all the prices here will be drawn up to scale, and I expect to make quite a bit."

This attitude goes much deeper than the straightforward desire to make a profit—or at least avoid a loss—when he resells.

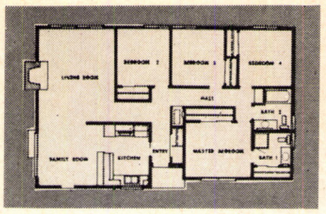
Investment value is important to buyers because it helps them climb the socio-economic ladder

"There is a general belief," says Werthman, "that by parlaying equities into down payments as fast as land values continue to rise, a 'hard working' and 'ambitious' young couple, burdened with the misfortune of being born into the lower-middle class, can climb to the top of the middle-class housing hierarchy without appreciably increasing their 'monthly payments.'"

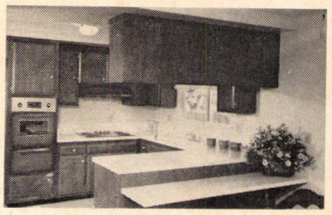
Says an upper-middle-class airline pilot: "We made a few thousand dollars on our last home, enough to pay a $6,000 down payment on this one. We'll live here five to seven years, long enough to build up an equity at least. Then, if possible, we'll move to Mill Valley."

To some buyers, the market value of their present homes is a vital link to the kind of life they can expect in the future. An upper-middle-class engineer describes the relationship: "Five years ago the people I knew who bought homes were buying them at $19,000; now they are worth $28,000. Someday I want to afford a house that may be worth $35,000

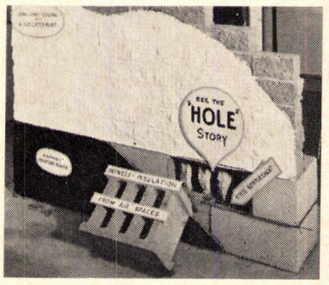
Here are the factors deemed most important by each class of investment-minded buyers



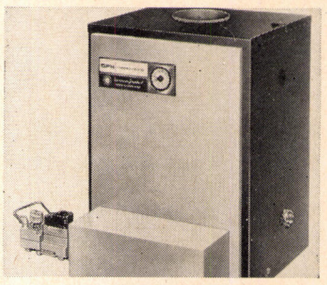
SPACE, or square footage, is major concern of buyers in upper-working-class and lower-middle-class.



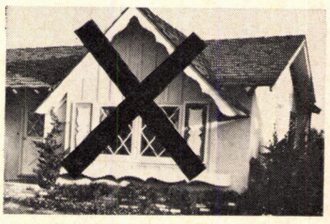
KITCHENS with built-ins make biggest impressions on buyers in working class and lower-middle class.



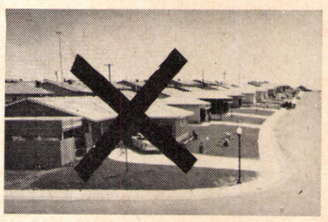
CONSTRUCTION QUALITY, as demonstrated in this cut-away display, is what solid-middle-class buyers seek.



HEATING SYSTEMS and air conditioning also makes biggest impression on solid-middle-class buyers.

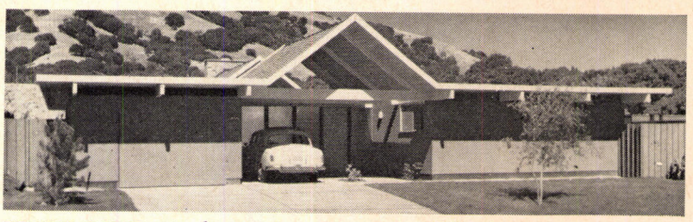


DESIGN FRILLS are most repugnant to solid-middle-class and young upper-middle-class buyers.

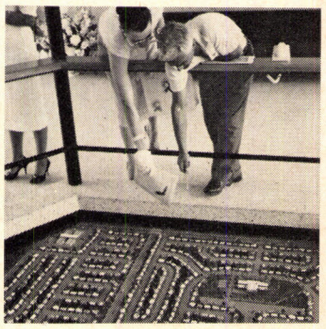


TRACT LOOK gets strongest rejection by solid-middle-class buyers, who seek variety of house styles.

ATTRACTIVE STREETSCAPES register first on older upper-middle-class buyers, who look for natural amenities to help them escape tract look.



DESIGN MERIT appeals most to young upper-middle-class buyers, who long for distinction of custom houses but cannot yet afford them.



COMMUNITY PLAN is more important to wealthy upper-middle-class than house design and quality.

WAY OF LIFE that fits their status is uppermost in minds of wealthy upper-middle-class buyers.

continued

'That applied ornamentation! Think of those red shutters in front.

in today's prices, so if I expect to get to this $35,000 house, my present house has to keep rising in value the way my friends' houses did."

A buyer's status also determines the value he puts on specific features

He looks at these features not only in terms of what he himself wants to live with but also in terms of how they will appeal to the person who later buys his house (*see pictures, p. 93*).

Buyers in the upper-working class and lower-middle class tend to look first for space and the visible extras they associate with higher priced homes—baths, for instance, fancy doorknobs, decorative lighting fixtures and well-equipped kitchens.

Says an upper-working-class housewife: "The Roman shower is catching. It's very attractive. It's a step-down thing and very fancy. The builder puts in real pretty light fixtures and just a lot of things that appeal to women."

Says a lower-middle-class construction supervisor: "We picked this particular house [partially] because it's got a white rock roof which is a little better than a colored rock roof."

Solid-middle-class buyers reject exterior frills and gingerbread and attach importance to "invisible" assets like good heating systems and quality construction.

Says a solid-middle-class auto salesman: "Dutch Haven houses [houses in an upper-working-class subdivision] were cute. But I don't think we are at the age where we are looking for something cute."

Says a solid-middle-class engineer: "The quality of the work in the home is very good. It's very well built, and I did study this carefully."

Emphasis on space and quality drops off sharply in both the solid-middle and upper-middle classes. Both these groups are more concerned about avoiding the tract look of development housing. But they differ somewhat on what makes for the non-tract look. The typical solid-middle-class buyer simply seeks out a subdivision where there is a variety of house styles. But the upper-middle-class buyer lays greater stress on shady, hilly streets that offer attractive views. Young buyers in this group see architectural merit as an escape from the tract look and are particularly repulsed by artificial ornamentation.

Says one young buyer: "Our home doesn't have Spanish grills, and it's not all messed up. I'd just as soon they didn't have so much glop in front of those homes [in an upper-working-class subdivision]. That applied ornamentation. Think of those stupid red shutters in front. Ugh! I hope everyone plants trees."

Buyers in the wealthy-upper-middle class don't assess houses in terms of space, extras or design. They take these features for granted and, instead, seek what Researcher Werthman calls a "style of life" that symbolizes wealth.

Says a wealthy-upper-middle-class widow: "We wanted to live in the country, and my daughter has a horse. We needed a lot of ground and the area was more important than the house. We wanted a place where we would have country living and yet have the type of living—the standard of living—to which we are accustomed."

But, regardless of their status, most buyers follow certain rules when they evaluate a house

Like buyers' attitudes toward communities (*below*), these rules are not spelled out in Werthman's study. But they are readily apparent to anyone reading his report. And in every case their aim is the same: to reduce the buyer's risk and increase his chances of moving up the social ladder quickly.

Rule 1. Buy the lowest priced home in a subdivision.

Says an upper-working-class sales manager: "I got one of the cheapest homes here. This will make my home worth more when I'm ready to sell."

Says a solid-middle-class mathematician: "We bought this particular house because it was the cheapest house in this tract . . . We felt that by having the smallest investment in a neighborhood, we would come out better than the person next door."

Rule 2. Buy in a subdivision that's next to the highest priced subdivision in the community.

Says an upper-middle-class manufacturer: "The thing that entered into my decision as far as Lynn Ranch [highest-priced subdivision in Janss/Conejo] goes was that I knew the Lynn Ranch homes were expensive, and being near them would not hurt the value of our home."

Rule 3. Don't judge a subdivision by its highest priced homes. It's the lowest priced house in the subdivision that establishes class image and, therefore, the investment potential.

Says a wealthy-upper-middle-class retired army officer: "This subdivision will be exclusive because the minimum price level is high enough to keep the area from becoming trashy."

Says an upper-working-class truck driver: "$18,000 homes would bring down the value of this neighborhood" [where prices range from $22,500 to $27,000].

In Janss/Conejo, 60% of residents would oppose the building of a subdivision of low-priced homes ($14,000 to $16,000) anywhere in the community. The lowest priced homes in Janss/Conejo at the time of this report were priced at $18,000.

Rule 4. Watch out for nearby vacant land. It's a potential location for lower priced houses.

Says a wealthy-upper-middle-class widow: "I'm worried about what they're going to do with a piece of vacant land right here."

Rule 5. Watch out for low down payments. They bring in buyers who may lower the subdivision's socio-economic level.

Says a lower-middle-class repairman: "The price of the house isn't as important as the down payment.

Ugh! I hope everyone plants trees.'

If a large down payment is required, you get higher class buyers. Low down payments bring in anybody and everybody. I think these buyers would bring down the value of our house because the majority of them don't keep up their homes like you or I would."

Regardless of their status, most buyers evaluate community facilities in much the same way

And buyer attitudes toward most facilities may come as a surprise to builders and developers. For instance:

1. Overhead wiring jeopardizes investment. Says an upper-working-class sales engineer: "When you go into a place that has wires and TV antennas, you think to yourself that it doesn't look very nice and that maybe just working people live there. At least, that's what I think."

And says a wealthy-upper-middle-class engineer: "I'm afraid nobody will want to move to an expensive place like Lynn Ranch without underground facilities."

2. Recreational facilities are important not because the buyer expects to use them but because they will enhance resale values. Rare is the buyer who expects to use his community's recreational facilities. But he is always looking ahead at the prospective resale buyer who'll probably be impressed by them.

At Foster City, for example, only 16% of the buyers interviewed said they planned to use the project's man-made lagoons very often, but 88% expected their house values to improve because the lagoons were there. At Janss/Conejo, only 6% expected to use the golf course often, but 55% saw the course as an aid to the resales.

But some buyers are concerned about what they consider a lack of recreational facilities for children.

Says a wealthy-upper-middle-class real estate man: "There's nothing here for the teenagers, and I think it is a very sad thing. I haven't made a study of the delinquency, but I think there's an awful lot of it in this tract. A lot of it never hits the headlines. A lot of girls are getting into trouble."

3. Parks don't count. More than half of the Janss/Conejo residents called the parks in their community "inadequate," yet the presence or absence of parks seems to have had little influence on their buying decisions.

4. Churches don't count. Most buyers are not influenced by the proximity of churches, as this upper-middle-class sales manager shows: "Say, I got a terrible admission to make. I don't even know if there are provisions for churches here in Foster City."

In Janss/Conejo 75% of the new homeowners said they would have moved into the community even if it had no church of their faith.

5. The best thing you can say about a store is that it is far away. Says an upper-middle-class electronics designer: "We didn't want to be too close to stores. We thought that this was a good area because it was far enough away from the shopping area. There aren't all the facilities we like, but there are enough."

Says an upper-middle-class engineer: "I grew up around working people. The houses were old, and you had a few stores scattered around. I like the planning here—no little stores on the corner to make the place look run-down."

6. The quality of schools is not as important as their location. Says an upper-working-class packaging designer: "We wanted to be within walking distance of the school. We didn't want the children to have to cross any busy streets to get there."

By and large, only upper-class buyers look for quality in a school system, but even these buyers make subjective evaluations.

Says an upper-middle-class electronics designer: "The schools here are good. The old school [where we formerly lived] seemed not as good; they were short of everything. I guess it was just a lower income bracket around the school—so the school wasn't really as nice."

Werthman concludes that the community plays two roles: it fixes the social position of the buyer and, at the same time, it contributes to the resale value of his house. And, he says, these two roles are "inextricably linked." The community that goes furthest in raising the status of a buyer also makes the greatest contribution to resale value.

In a newly opened tract, buyers judge the status level and investment value from the master plan

Planning in a new project plays the same two roles that the community plays in an established area. The buyer converts planning into an anticipated class image, and at the same time he regards planning as a major factor in protecting the investment he will make in his new home.

How crucial is this factor? A 72% majority of Foster City buyers say they would not have bought homes there if there had been no master plan. And 47% of Janss/Conejo residents would not have bought without the reassuring presence of the Janss Corp., which they looked upon as the equivalent of a central planning agency.

In essence, buyers interpret planning as a promise by the developers—as the developer's part in a sort of joint compact.

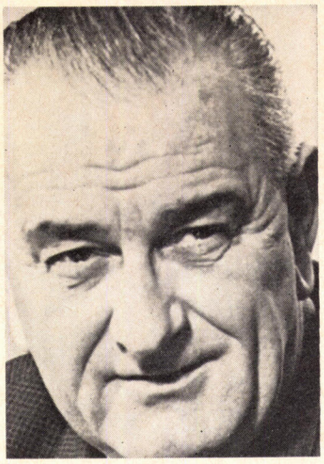
"Many people," says Werthman, "simply defined the Fosters and the Janss Corp. as 'investors' like themselves and thus tended to see the developers as 'senior partners.' "

An upper-middle-class engineer puts it this way: "Janss is in the business of making money and I think he has done a good job of it. As a result, he's planning in a way that's sounder and he has more long-term interest in the area than the other people who build around here and then disappear."

Lyndon B. Johnson

"No man and no woman ever grows too old or too successful to forget a childhood home that was without lights, without water and without covering on the floor." These words of Lyndon B. Johnson, on signing the Housing Act of 1965, bespeak the essential compassion of the strongest presidential advocate of better housing since Franklin D. Roosevelt. The Johnson program is the most significant housing legislation since FDR founded FHA to resuscitate homebuilding in the 1930s. The tall Texan's interest extends to all homebuilding, and the industry will long remember him as the president who would shelter an entire nation.

United Press International



United Press International

John J. Sparkman

Alabama's junior senator has done more to promote better housing than anybody else now in Congress. At 66, this master strategist and old friend of LBJ, has just won perhaps his toughest legislative battle by piloting the highly controversial rent supplement plan through Congress. He has consistently supported wider lending power for savings and loan associations since he entered Congress in 1936. With the aid of such legislation, that industry has become a $125-billion giant. This year the Sparkman Amendment, an 11th hour addition to the housing cabinet bill, preserved the separate identity of FHA and won the praise of mortgage bankers and builders.

Norman Strunk

This year the policy spokesman for the U.S. Savings & Loan League has devised the new concept of "urban maintenance lending" to persuade private lenders to move boldly into urban renewal, an FHA preserve until the 1965 Housing Act opened it to S&LS. Strunk's action pointed the way to broad new business opportunity for the nation's 6,300 S&L associations and homebuilders. And by taking private enterprise deeper into renewal, he insured the application of strict new standards for lending and building in an area where criticism has arisen on both counts. At 49, he is in his 15th year as the League's executive vice president.

Vincent Finnigan

Vincent Finnigan

John E. Horne

The new chairman of the Home Loan Bank board moved with dignity and a firm hand to silence the bickering between the government and the savings and loan associations. Regulations that he wrote this year not only persuaded California's S&LS to give up a savings rate war; they inspired new confidence in all associations. Horne also won legislation that opened the new frontier of renewal lending to S&L participation. With his oft-professed view that the HIBB is the protector and promoter of the public interest, John Horne, at 57, remains at once one of the best governmental friends of the homebuilder and the American homebuyer.

Bernard L. Boutin

This enlightened New Englander took over the executive vice presidency of NAHB and streamlined the national organization from top to bottom before President Johnson recalled him for the poverty program 11 months later. "People, not paperwork, make things happen," was Boutin's credo, and he gave builders a clearer voice in the organization that, he feels, must be the catalyst for new ideas on how to build better. Oriented toward private business, Boutin, 42, pushed to completion NAHB's uniform system of accounts to help builders determine their cash position. It gives them tighter control over their money and their business.

Fred Schnell

Herrington-Olson

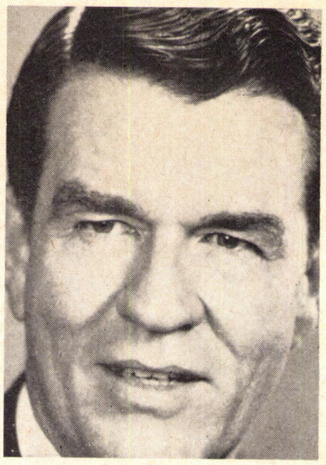
Richard H. Barrett

After ten years of painstaking—and expensive—effort his Barrett Homes Inc. has developed the nation's best integrated subdivision and proved it can pay. Against the explosive background of a nationwide struggle for civil rights, Barrett's quiet and dignified success with his 450-unit Plaza development in Richmond, Calif., may provide the first national guidelines for builders moving into the uncharted field of integrated tract marketing. Dick Barrett, at 42, won a 1965 award for "reverse integration" from the Associated Homebuilders of Eastbay. He also completed the best analysis yet made of who buys in integrated tracts—and why.

TOP PERFORMERS OF 1965

Charles Clifford Cameron

This dynamic young leader of the Mortgage Bankers Assn. stood almost alone to rally private lenders and builders to the defense of the FHA in the dark days when it seemed about to disappear incognito in a welter of alphabet soup. His testimony at Congressional hearings and his persuasiveness in Senate corridors helped win passage for the Sparkman Amendment to the Cabinet bill, thus preserving FHA's integrity. At 45, the tireless Cameron traveled 150,000 miles in a speaking and educational campaign to strengthen the private lending industry's correspondent system, an arrangement that keeps mortgage money available locally.



Fred Schnell

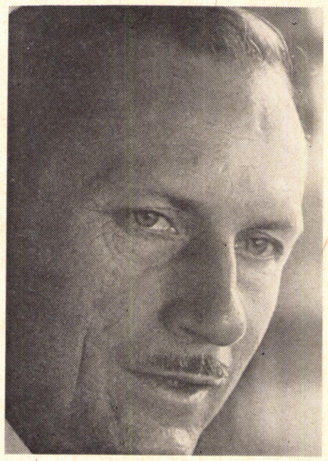
Perry Willits

NAHB's diplomatic president gave the year's virtuoso performance of iron hand in velvet glove. He led the building industry's successful campaign for the Housing Act, with its controversial rent-supplement program. A builder's builder, Willits long ago realized that this federal rent program to house a nation's near-poor would open new opportunities for private builders to compete with public housing. Floridian Willits, at 52, worked in the industry's behalf until he suffered a heart attack. He returned to run NAHB and his own five building corporations with his quiet, familiar skill as his one-year term as association leader drew to a close.

Edmund J. Bennett

Bennett's homes have won 30 design and planning awards in ten years. Last year, this Washington builder-developer won his second award in the AIA-HOUSE & HOME Homes for Better Living program (in 1960 his entry took top honors). Keyes, Lethbridge & Condon of Washington designed both homes, and this same builder-architect team won the 1961 AIA-NAHB citation for "cooperative effort to create better houses and communities," an honor that has gone to only one other builder—California's Joseph Eichler. NAHB chose Bennett, 44, to build its 1965 Research House in Carderock Springs, his $16-million development near Washington.

George de Vincent



Francis D. Lethbridge

He and his partners in Keyes, Lethbridge & Condon have shown how to create an effective relationship between architect and builder. Not only have they designed houses of singular beauty and subdivisions of prize-winning quality for Builder Ed Bennett (*at left*), but they have also shown the exciting results attained when builders and architects each appreciate what the other is trying to do. An intense designer highly conscious of harmony between house and site, Lethbridge, 45, feels it is possible to plan good housing only if he has control over subdivision and land planning. His firm has planned Bennett's homes—and communities—for ten years.

Edward M. Ryan

The president of Ryan Homes has just demonstrated how homebuilders can burst free of the restraints of limited local operations. In expanding his father's tiny custom-house company into a 12-city combine building in 350 subdivisions, Ed Ryan has discovered the successful balance between decentralized responsibility and centralized services. One sales secret: he offers Ryan homes in an unprecedented variety of locations and builds in a broad price range—$14,000 to $45,000. At 42, he remains the dominant force in Pittsburgh homebuilding. His 1965 volume will be $60 million, almost all in single-family homes, up 33%.

William R. Smolkin

This brilliant young analyst of future housing needs has pioneered the use of computers to reduce the cost of market research and so help builders meet buyer demand. At minimal cost his Consultron service (sponsored by Barrett) tells builders how to price and even how to design single-family houses. He is making apartment market research an almost exact science; his apartment Consultron forecasts demand in metropolitan areas and determines feasibility. And Smolkin, 42, has recently evolved a technique for forecasting next year's housing demand in any area on the basis of its growth in household formations over the last decade.

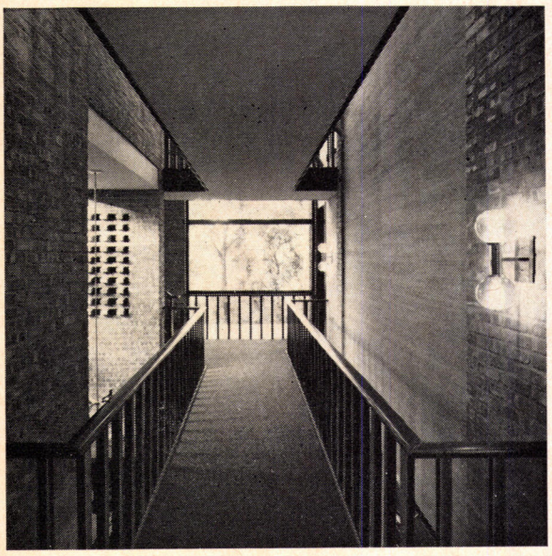
This was the homebuilding industry's most exciting year in Washington since 1934. It brought a bold new rent-supplement plan to house the nation's poor and it added a department of housing and urban renewal to the Cabinet. Stirring events are produced by leaders, and the outstanding success of the Johnson shelter program makes the President the outstanding choice among the homebuilding industry's top performers of 1965. HOUSE & HOME cites two other government officials who played vital roles in promoting new housing legislation and salutes four building and lending leaders whose help was important in passing the new laws. But 1965 was also an exhilarating year of developments in private homebuilding. These developments brought two builders, an architect-builder team and a market analyst top-performer recognition.

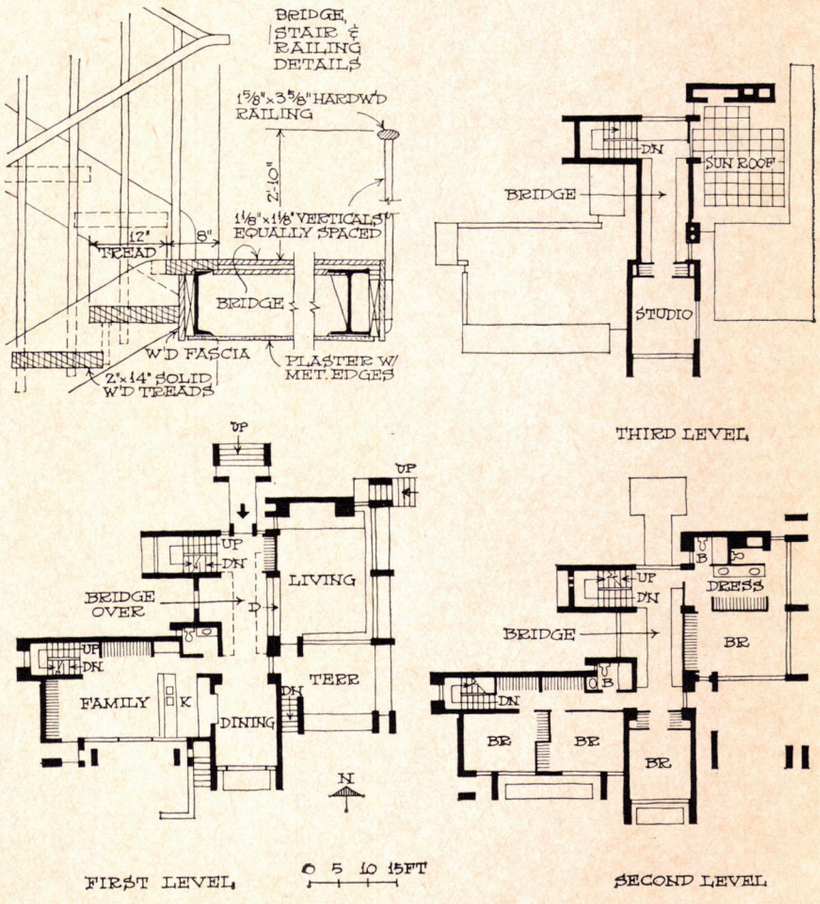
Fourth in a series on planning and design ideas

BRIDGES, BALCONIES AND STAIRCASES

FHA statistics say that one out of every six new houses has more than one living level—a 50% growth in the past two years—so the importance of efficient and attractive vertical circulation is more important than ever. Stairs, balconies and bridges perform two functions: 1) they connect different living areas and 2) they are the dominant interior design elements. Done well, they help a house's livability, and they can give a dramatic look and feeling to the rooms they serve. This month's Design File brings you four pages of examples.

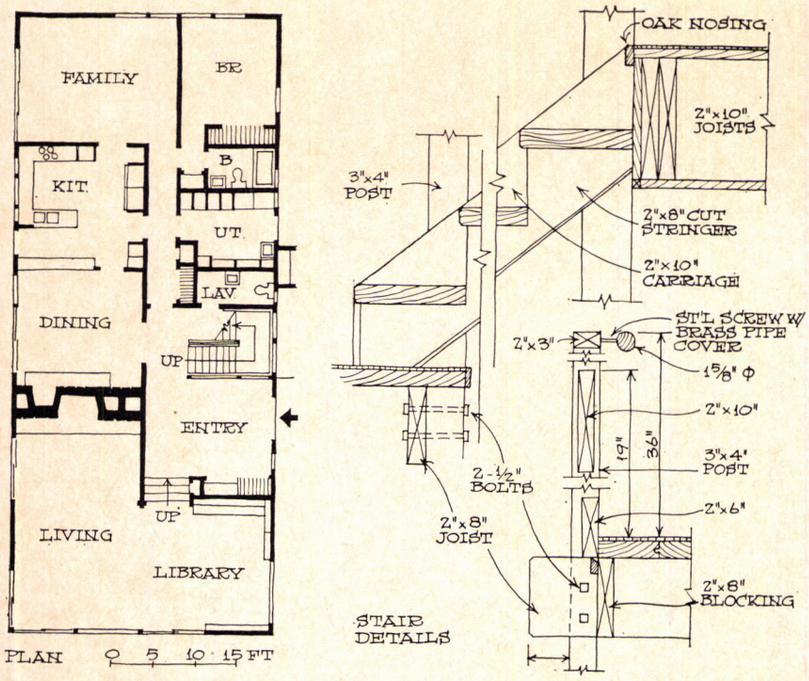
Baltazar Korab



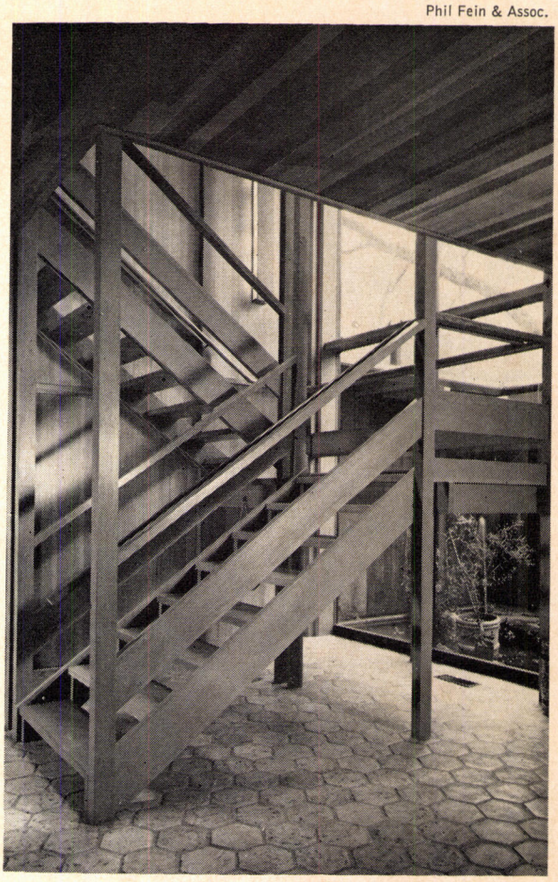


OPEN BRIDGES ELIMINATE TUNNEL-LIKE HALLS

Framed in steel, they form the backbone of both the second and third floors of this award-winning three-level house (June). They connect separate areas of the sleeping and studio floors, with full wall windows at one end providing daylight. A primary stairway serves all three floors, while rear stairs give a second exit from the children's bedrooms on the second floor. Architect: Edward D. Dart.



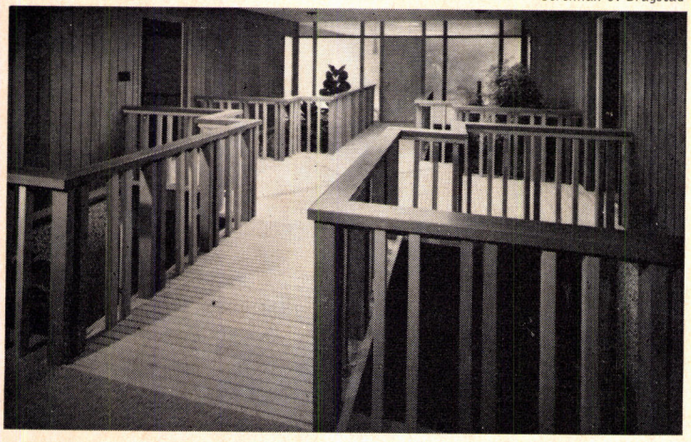
Phil Fein & Assoc.

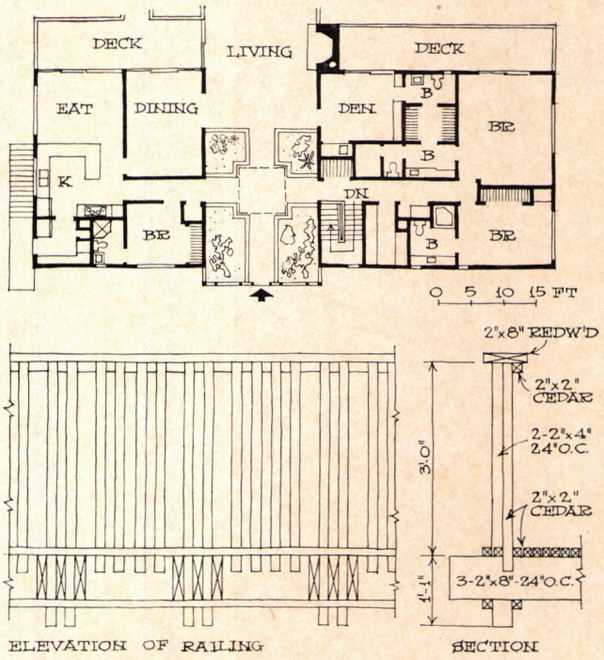


A SIMPLE STAIRWAY IN A CENTRAL LOCATION

Because it adjoins the entry, this staircase is the focal point of the house and all traffic. Architect Joseph Esherick created this simple design from standard dimension lumber.

Jeremiah O. Bragstad



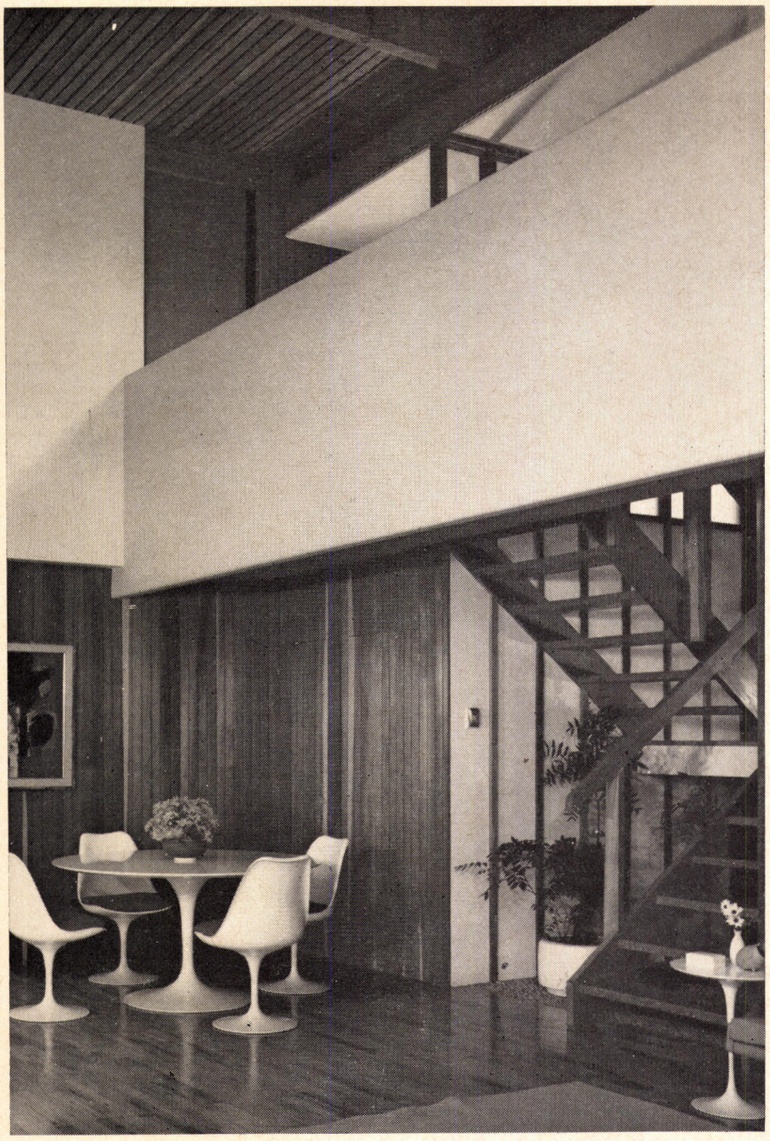


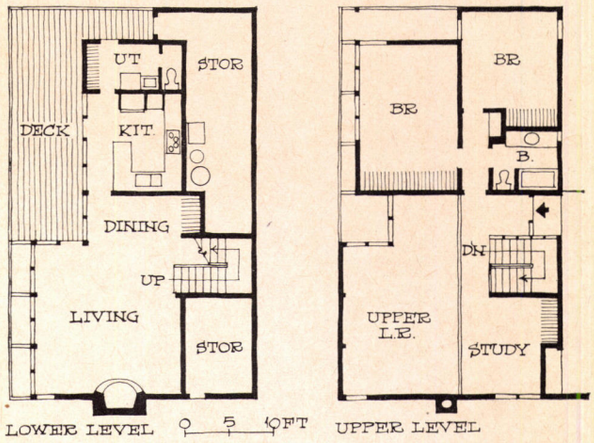
A FOUR-WAY BRIDGE CHANNELS TRAFFIC FLOW

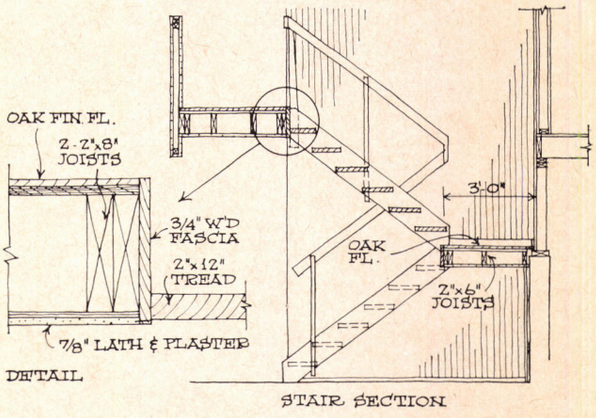
This skylighted entry bridge acts like a cloverleaf highway intersection, routing traffic to separate areas of the house. The cruciform shape is open at all four corners to landscaped areas below. Architect: Ian Mackinlay.

continued

Leland Y. Lee

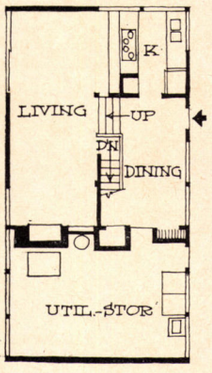


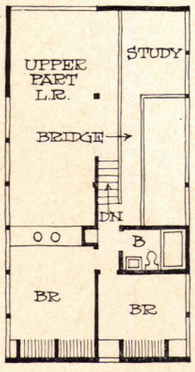




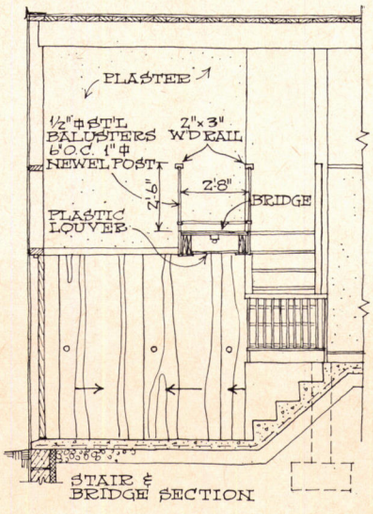
BALCONY SERVES AS A DRAMATIC ENTRY HALL

The upper-level main entrance of this house leads directly onto the balcony overlooking the living area and the simple open staircase leading down to it. Architects: Tryon & Foy.





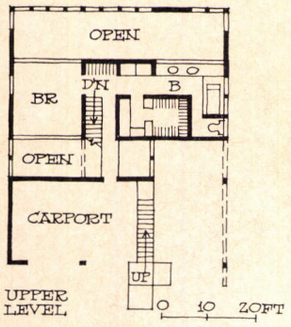
LOWER LEVEL UPPER LEVEL
0 10 20 FT

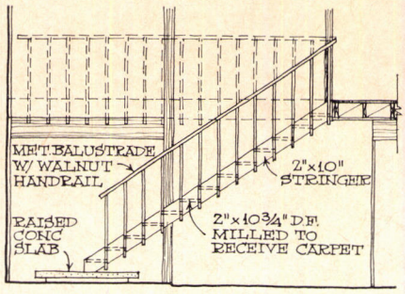


Lisanti

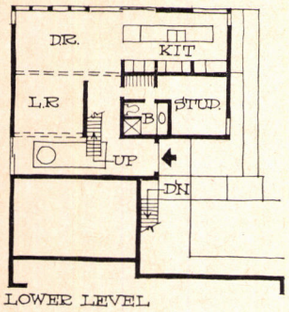
A BRIDGE CONNECTS TWO SECOND-FLOOR QUIET AREAS

Two bedrooms and a studio at opposite ends of this house are linked by a bridge open to the living room and the entry below. The tri-level design cost only $16,000, plus land. Architect: Jules Gregory.





STAIRWAY ELEVATION

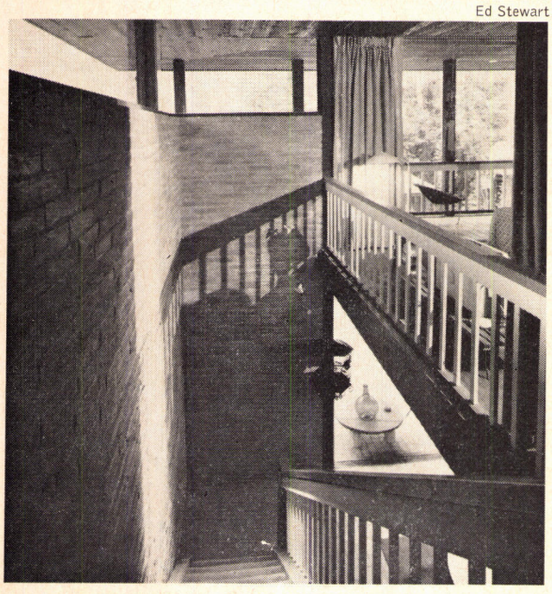


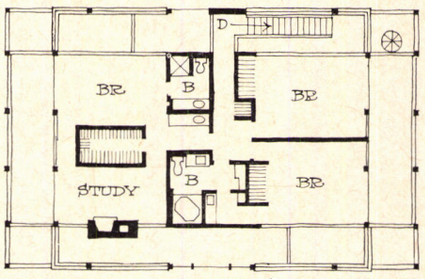
BRIDGE TO A BALCONY BEDROOM

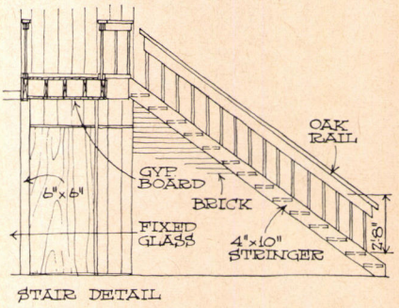
A private entry from garage to master bedroom suite avoids the first floor living area. The bedroom-dressing area is a continuous balcony overlooking the space below. Architects: Buff, Straub & Hensman.

Julius Shulman

Ed Stewart

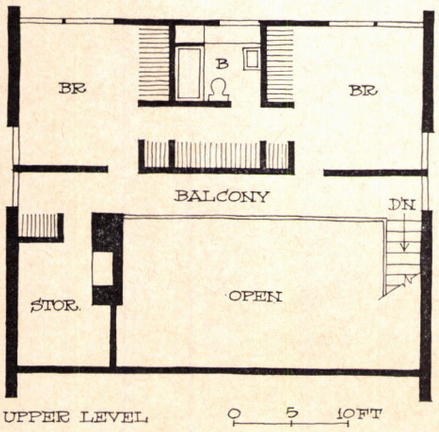


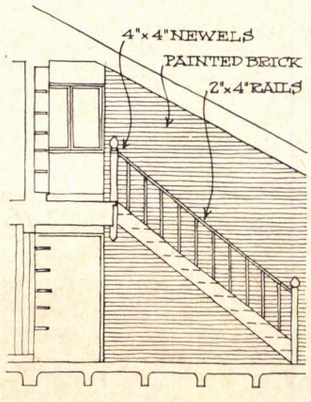




A WHOLE-FLOOR BEDROOM BALCONY, OPEN ON TWO SIDES

All three second-floor bedrooms in this house are suspended between two-story-high open spaces and open onto protected outdoor sitting porches (shown on plan). Architect: Thomas A. Bullock, partner, Caudill, Rowlett & Scott.

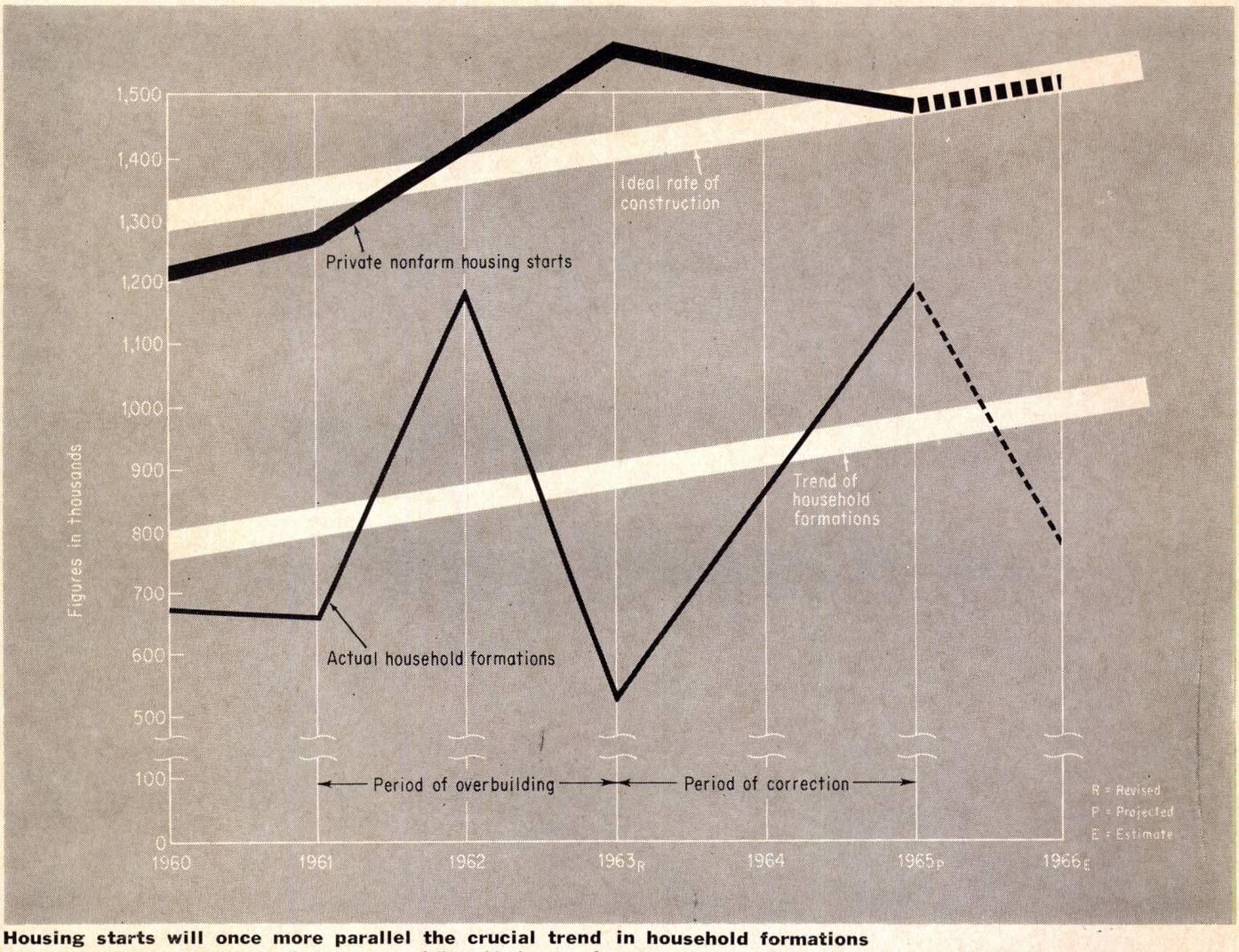




Lisanti

A BALCONY SERVES AS AN UPSTAIRS BEDROOM HALL

The two bedrooms opening onto this balcony are well screened from the two-story living area below. Balusters, rails and newel posts are of traditional design. Architects: Morehouse & Chesley.



Housing starts will once more parallel the crucial trend in household formations
From 1961 to 1963 overbuilding pushed starts out of line with the rate of household formations, the major base for housing's growth. Then came a period of correction—(late 1963 through 1965). With overbuilding absorbed, the industry is ready for an upturn next year. Source: Dept. of Commerce.

Housing's 1966 outlook: a swing from recovery

As the graph above shows, it took two years to correct housing's period of overbuilding. Now, with the correction made, private nonfarm starts are about ready to rise again. Next year they should reach 1,530,000—up 2.3% from this year's projected 1,495,000. And a 3% increase in contract value will push total volume up about 5%—to $22.3 billion. But, what is more important, the industry is on the verge of long-term growth.

Household formations hold the key to housing's growth

The slippage of the last two years looked like an unexplained hesitation in housing's inevitable growth. But it has really been a necessary correction. From 1960 to 1963, the trend in housing starts got too far ahead of the trend in household formations, which account for the bulk of housing demand. By 1963 private nonfarm starts had reached 1,582,000—23% above their 1960 level. Meanwhile, household formations were up only 13%.

Specifically, in 1963 the number of housing starts outstripped the number of household formations by almost 800,000. This is far too wide a gap to be filled by replacement demand (generated by demolitions of roughly 400,000 housing units a year).

By George A. Christie
Senior economist and head of the economics staff of F. W. Dodge Co., division of McGraw-Hill Inc.

Most of the discrepancy between starts and housing formations resulted from a surge in apartment construction (*graph at top right*). In fact, virtually all of the 1960-1963 growth was in the apartment sector—up from 258,000 new units and 21% of total starts in 1960 to 589,000 new units and 37% of total starts in 1963. Since then, apartment starts have leveled off. This year they will hit about 560,000—or 37½% of total starts. By contrast, single-family starts have followed a fairly level course for five years, varying no more than 2½% each year from their 1960 total of 972,000.

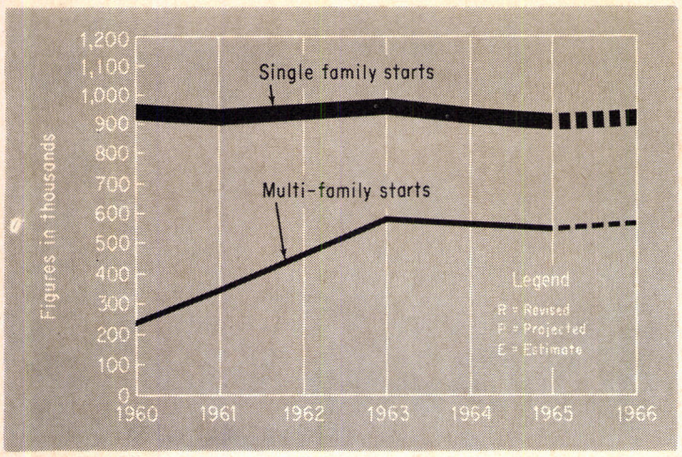
Thanks largely to the recent restraint of apartment builders, the housing industry is finally recovering from its period of overbuilding. And by next year, household formations (plus demolitions) will again catch up with housing starts. This will provide the underpinning for a new uptrend. But . . .

Housing's upturn will not begin until late in 1966

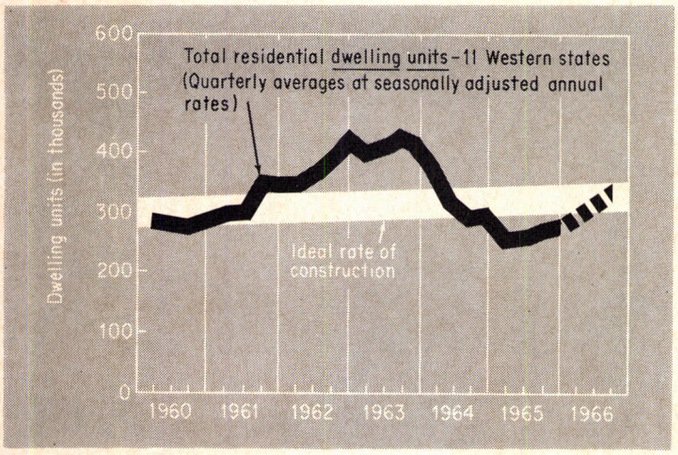
Why? Because the industry still must overcome three obstacles:

1. The West must recover from its boom-and-bust gyrations (*box at right*).

2. The mortgage market must adjust to a recent slowdown in the growth of savings deposits and to the pressure exerted on the money market by successive waves of plant expansion. Aver-



Both house and apartment starts are due for a slight rise
Single-family starts should rise 1.6% to an estimated 950,000 in 1966; multi-family starts should be up 3.6% to 580,000. Source: Dept. of Commerce.



Fluctuating Western starts will be back on the beam
Overbuilding in 11 Western states, worse than elsewhere in the U.S., is now being corrected. 1966 outlook: rising starts. Source: F. W. Dodge.

to healthy growth

age conventional mortgage rates have already tightened up slightly since hitting their low point of 5.72% in March. By August they were up to 5.76%. But before the tightening can become anything more than a temporary brake on housing, the money market is likely to loosen again (*see p. 18*).

3. Builders will have to cut back in a few markets because they will not be able to attract enough skilled workers away from commercial and industrial construction. In some of these markets, notably Detroit, this is already happening (*see p. 10*).

How will the 1965 Housing Act affect homebuilding? Its new programs, especially rent supplements, are bound to stimulate building—but not until they're fully under way late next year.

Housing's upturn, when it comes, will last for many years

Beginning in 1967, marriages will increase rapidly. And single men and women will start moving out of college dormitories and away from parents in record numbers. Together, marriages and the increase in single adults living alone (or with nonrelatives) will push household formations from an annual average of 800,000 to more than 1 million. Apartment builders will be the first to benefit from this push because population growth will still be clustered in the young and old ends of the age scale. A significant increase in homebuyers is still more than a year away.

Next year's housing upturn hinges on recovery in the West

Eleven Western states* hold the key to 1966 housing starts for two reasons:

1. Homebuilding activity in the West moves in wide cycles which materially influence the national picture.

2. Housing in the rest of the country can be expected to show little net change next year because gains in some sections will simply cancel out declines in others.

The nationwide gain in housing starts between 1960 and 1963 followed the lead of starts in the West, (*see graph at immediate left*), which rose sharply to 427,000 units in 1963. Since then, housing in the West has been on the wane, pulling down total starts despite a counter movement in the rest of the country.

The key to the West is an ideal annual rate of 350,000 starts. Over the last half dozen years, this is the number of units that has just about satisfied the demand for new and replacement housing. Beginning in the last quarter of 1961, builders moved ahead of this ideal rate, reaching a seasonally adjusted annual rate of 359,000 units. The following year, they averaged 374,000 and, in the last quarter of 1963, hit an anual rate of 437,000—87,000 units over the ideal rate.

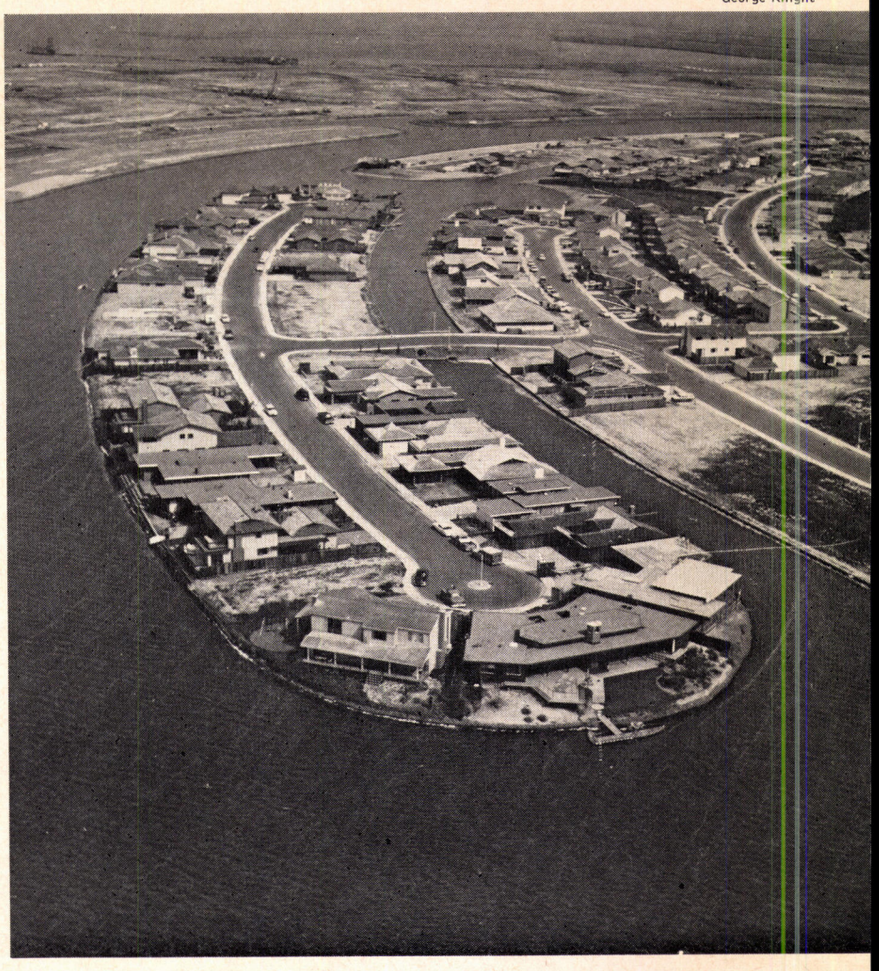
Early in 1964 the correction began. By the last quarter, construction was down to a seasonally adjusted annual rate of 308,000 units. But the correction had not yet run its course. Despite a temporary upturn early this year, the annual rate fell again to 272,000 units in the second quarter. This is about as far below ideal rate as the last quarter of 1963 was above it.

Most of the correction has taken place in apartments (just as in the nation as a whole). In Los Angeles and five surrounding counties, for example, apartment starts had dropped 13.8% to 13,476 in the second quarter of this year—the lowest level in three years, according to the Residential Research Committee of Southern California. Meanwhile, single-family starts in the same area rose by 6.7% to 12,844.

But Western apartment building should pull out of its decline this year. And by the last quarter of 1966, the annual rate of starts in the West should return to the ideal 350,000. Actual starts in 1966 should total about 320,000—35,000 more than the projected rate for 1965. And these 35,000 units will account for all of the nationwide gain in starts next year.

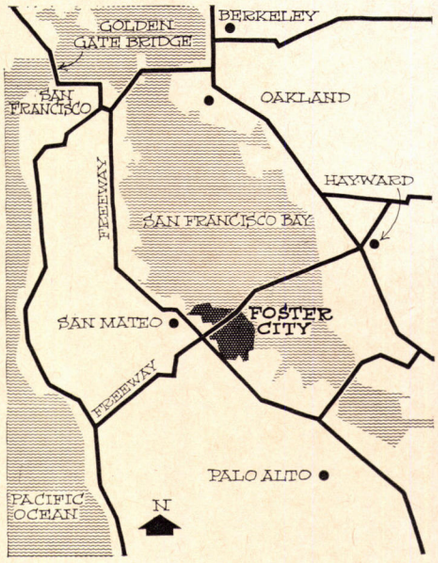
*Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming.

George Knight



If impossible ground like this . . . can be turned into a community like this . . .

There's no such thing as unbuildable land



GOOD LOCATION is what prompted the Foster City investment. Residents are close to population centers on both sides of San Francisco Bay.

Developers around San Francisco Bay used to call the crusted mud of Brewer's Island unbuildable. But today there are 450 families living on it and another 400 houses under construction. By 1972 the 2,600 acres of former marshland are expected to hold 35,000 people in a self-contained community—Foster City—worth $650 million.

For the developer, T. Jack Foster & Sons, the original site had just one feature in its favor: location. Foster City is 15 miles from San Francisco, borders San Mateo and is connected directly by bridge to the other side of the bay (*map, left*). It will have 13 miles of shoreline on San Francisco Bay.

Everything else on the site was against the developer. First, the island was 5′ below high-tide level. It had been used only by farmers who took over the island around 1900, when it was a tidal marsh, and drained it. The dikes they built still protect the island from flooding, but years of drying have caused the mud to settle and develop a hard, thin crust.

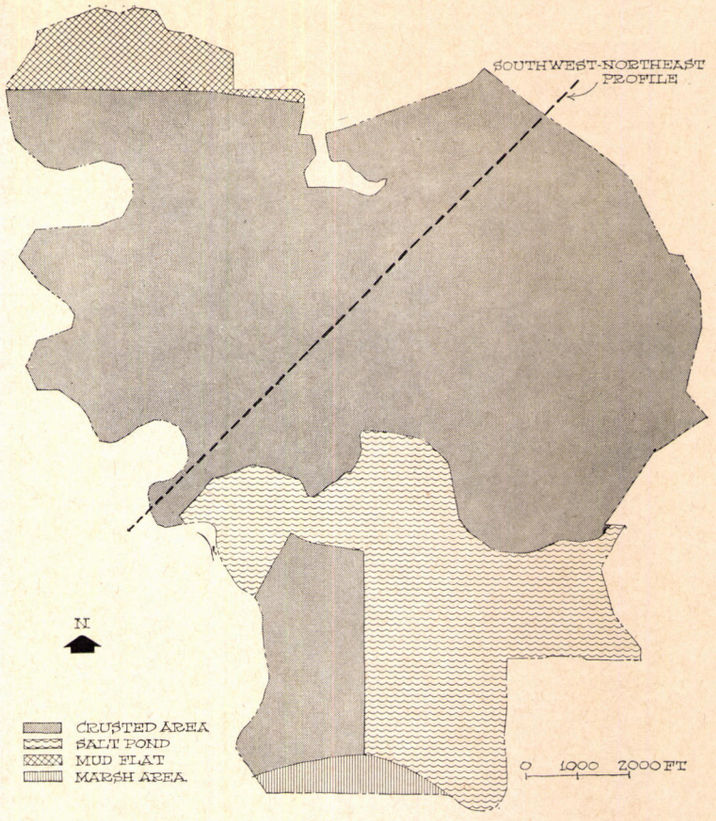
Second, the nearest large-volume source of fill is five miles away—and underwater.

Third, the land would not support the heavy earthmoving equipment necessary for such a large-scale project.

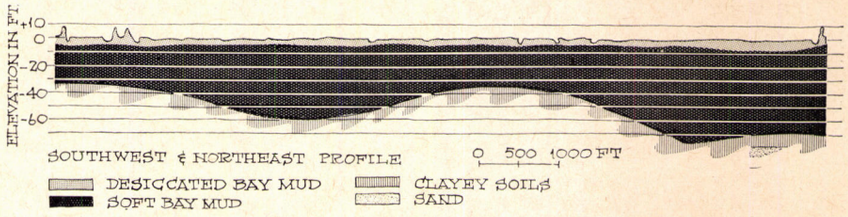
Fourth, earthquake-conscious officials around San Francisco Bay are highly skeptical about filled-land projects.

But Foster & Sons is licking all of these problems. Instead of trying to raise the island into a dome shape so storm water would drain outward from the center, it is turning the island into a saucer that drains inward to a man-made lagoon. The saucer design requires about two-thirds less fill—18-million cu. yds. The fill is brought by barge to an offshore basin and pumped onto the island. And it is placed with engineering care that has won FHA approval. *For the details, see the next three pages.*

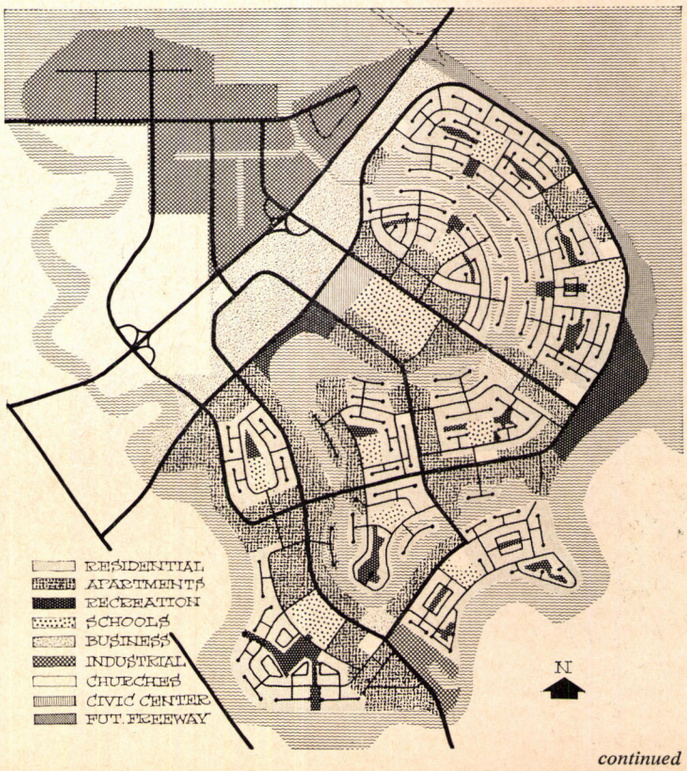
An unstable crust over 70′ of mud will become master-planned Foster City



SITE PLAN of the original Foster City land shows how soil conditions vary on the 2,600-acre former marsh, calling for several different kinds of treatment before fill can be placed. About 75% of the island had been used for farming (crusted area) and the rest for salt production (Foster & Sons bought the island from Leslie Salt Co.). The land consists of mud as much as 70′ deep (*see section below*) covered by a dried crust of varying thickness. Foster's method —placing a 5′ layer of high-compaction hydraulic fill over the entire island to raise it to high-tide level—requires that all the existing ground be smoothed. While the farmed areas will support lightweight earthmoving equipment, parts of the salt ponds, where the soil is softest, will support no equipment at all but must be bridged by placing dry soil on top. (How the land is prepared for hydraulic filling is illustrated in photos on the following two pages.)



SUBSURFACE SECTION of the raw site for Foster City contains a mud crust interlaced with sloughs and ditches dug by farmers who drained it 60 years ago. Despite the deep mud below, soil engineer Dames & Moore anticipates that the new layer of land being placed on top will settle only 1′ to 2′ in 50 years, and that differential settlement will be insignificant. One precaution: house foundations are unitized.



MASTER PLAN for Foster City is wrapped around a lagoon containing 14 islands linked to the main island by arching bridges (*photo, facing page*). The lagoon drains the island and creates 1,100 waterfront sites for custom houses. Other houses—there will be 5,000—range in price from $23,000 to $31,750. Most are being built by Kay Homes, Duc & Elliott and Eichler Homes. Over $5 million worth of lots have been sold to a total of 18 builders, and there are from 350 to 400 houses under construction at all times. To coordinate the production of land with the construction of houses, home sites are divided into nine neighborhoods developed in sequence and released to builders soon after final compaction.

continued

2,600 muddy acres must be scraped and rolled before and after filling

Foster City is virtually being developed twice. The first time is when the original ground is leveled and compacted to a smooth, sea-level surface to receive the hydraulic fill. The second time is when the fill is finish-graded.

Each operation involves a series of painstaking earthmoving and earth-treatment steps, all aimed at insuring that the 5′ of fill being packed over the island is uniform in density and moisture.

In the first grading, the native soil is compacted to about 80% of maximum density and dikes are scraped up to contain the fill. The dikes are about 3′ high, compacted to watertight density (about 90%), and laid out in wedge-shaped patterns 1,200′ to 1,500′ long with de-watering pumps at their apexes. Ditches about 2′ deep are dug at the center of these narrowing channels to keep the hydraulic fill's flow velocity at more than 1′ per second.

The ground on the floor of the channels must be extremely smooth so the fill flows freely and keeps the silt and finer sands—the slurry—in suspension to be drawn off by the de-watering pumps. If the ground is rough, water may settle and deposit silt, forming slurry pockets that have to be dug out later and refilled. Foster City engineers calculated the dike patterns through trial and error.

Lightweight tractors with dozer blades start working the fill during placement, compacting it and moving it to heighten the dikes as the fill level increases. When the fill finally reaches required grade, it is firm enough to support the 24-cu.-yd. scrapers and 75-ton compactors that compact the ground to its final density and level.

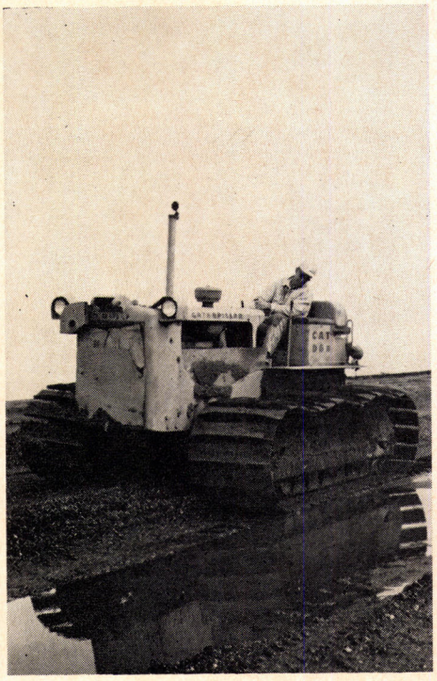
Preparing the native ground is by far the hardest part of developing Foster City. Because much of the soil is too soft to support normal-sized earthmoving equipment Bragato Paving Co., the prime earthmoving contractor, has had to bring in small-scale machines ranging down to lightweight farm equipment.

By plowing and disking an area of mud, for example, Bragato can dry out a surface layer thick enough so an 8-cu.-yd. scraper can make one or two passes over it. More disking permits further passes. Roto-tillers are run back and forth over soft ground in two shifts to make uniform working mats for heavy trucks. Compacting the mud is done by a progression of small rollers starting from five tons and working up to 20 tons (*photos, below*).

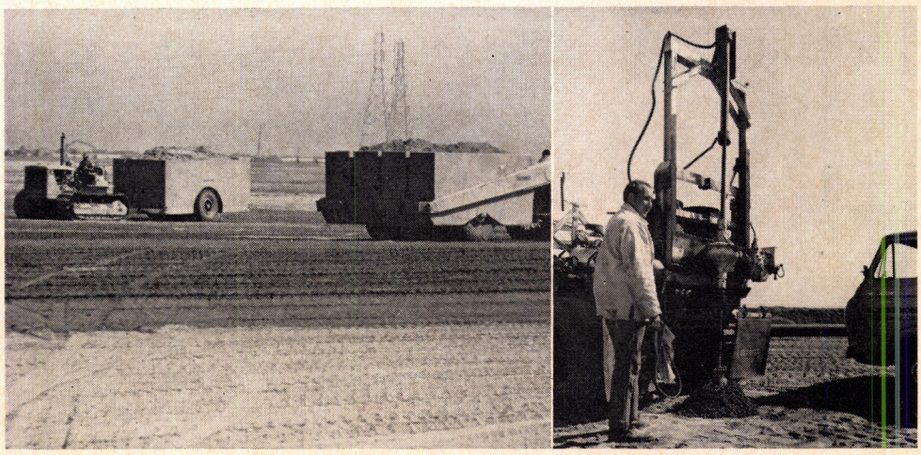
Photos: George Knight

1. Plowing is followed by disking, with a drying period after each. This strengthens muddy soil so scrapers can make cuts in it.

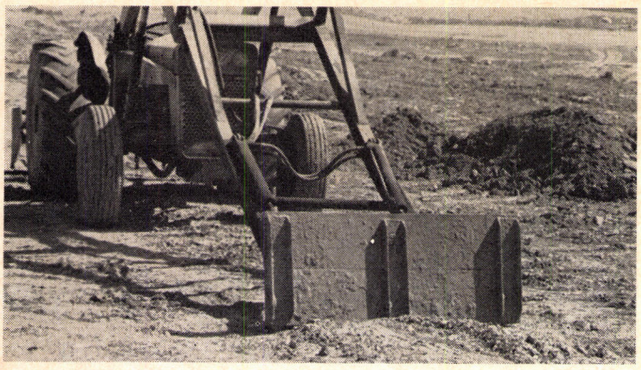
2. Small 8-cu.-yd. scrapers are used for leveling the soft soil prior to filling. They get mired down less often than 20-cu.-yd. machines (*top right*) and are easier to pull out. When existing land is cut, columns of earth are left to mark original grade (*bottom right*).



5. Crawler tractor with extra-wide track shoes squeezes water from newly placed hydraulic fill before big scrapers move in for final grading.



6. Box compactors of 50 and 75 tons can usually achieve final compaction—90% to 95%—in two or three passes by operating in teams. During compaction, the soil engineer, Dames & Moore, drills up to 30 test cores a day to sample density of fill and to help expose hidden slurry pockets.

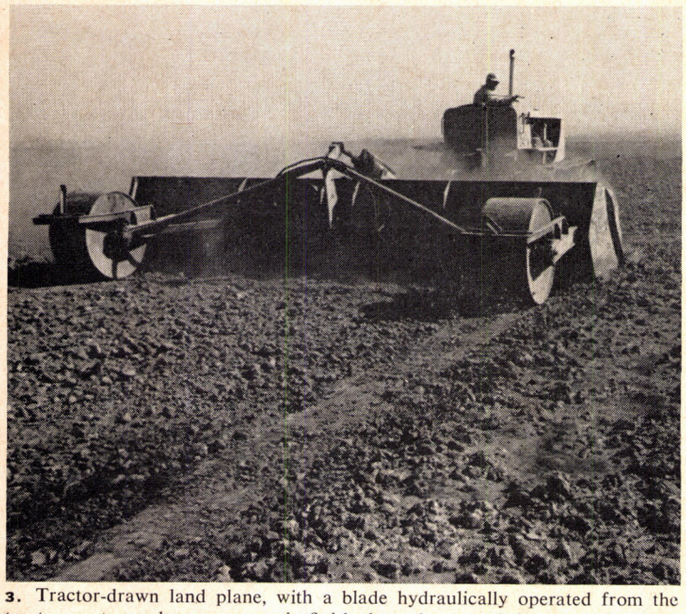


Tools tailored to job needs are part of Foster City's earthmoving arsenal

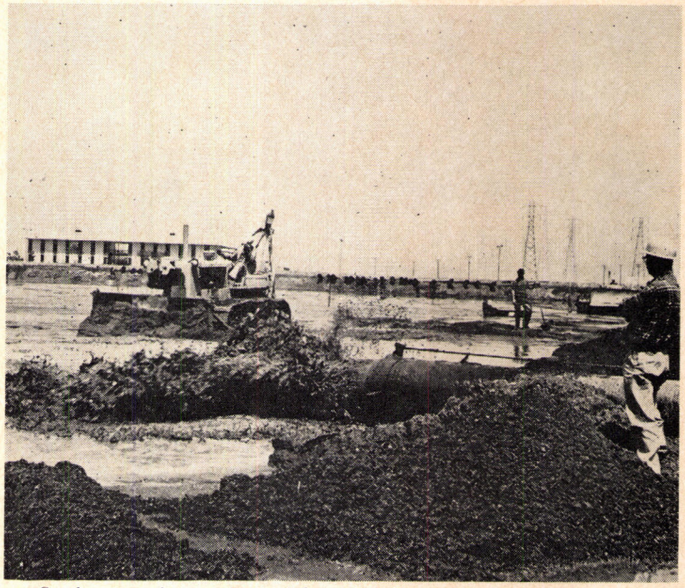
As the soil problems arise, Bragato Paving Co. solves them by adapting its present equipment or creating new machines.

Muddy fill sticks to the backs of earthmoving trucks. A loader bucket is too bulky for scraping out the mud, so Bragato built a slab-shaped "back scratcher" (*photo, left*).

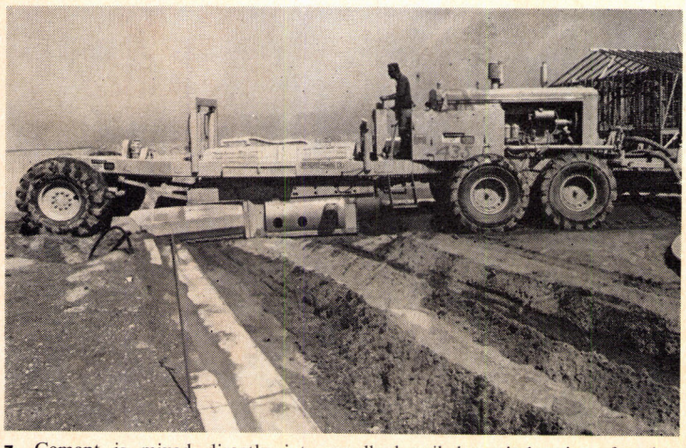
Cement-treated road base requires slight scarifying after the first heavy compaction and fogging in order to break up laminations. Then the base is re-rolled, oiled and allowed to cure for seven days. Bragato's pint-size scarifier is made of ¾" bolts evenly spaced along a length of channel iron (*photo, right*).



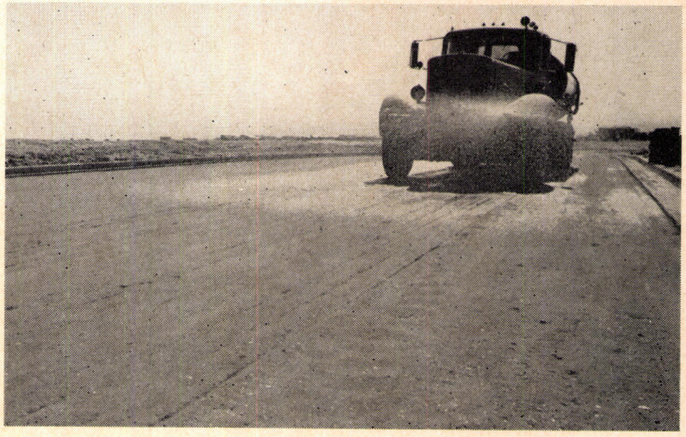
3. Tractor-drawn land plane, with a blade hydraulically operated from the tractor seat, produces a smooth finished grade on existing ground. Next, the soft soil is compacted by lightweight rollers (some as small as five tons).



4. Sand-water mixture, dredged from San Bruno Shoals five miles away, is pumped by second dredge into fill areas from 350,000-cu.-yd. off-shore transfer basin. Sand is deposited as water and silt flows between dikes.



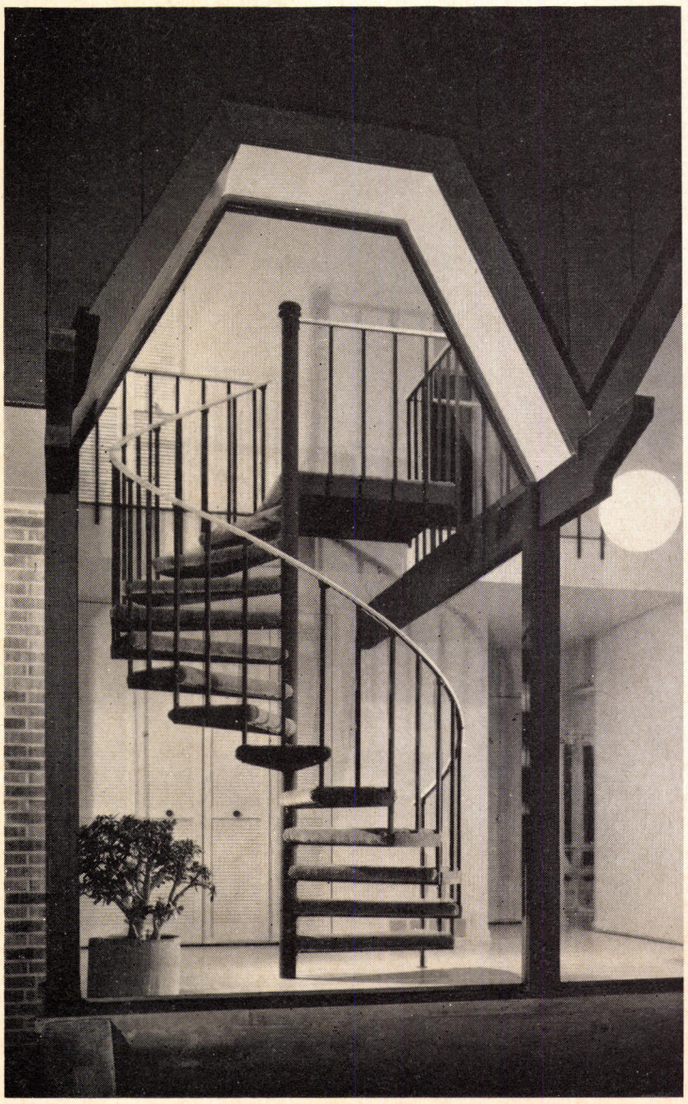
7. Cement is mixed directly into roadbed soil by windrowing, forming a 5" to 7" base for all streets and boulevards. High-quality sand fill makes this possible, saving $600,000-worth of trucking in aggregate for rock base.



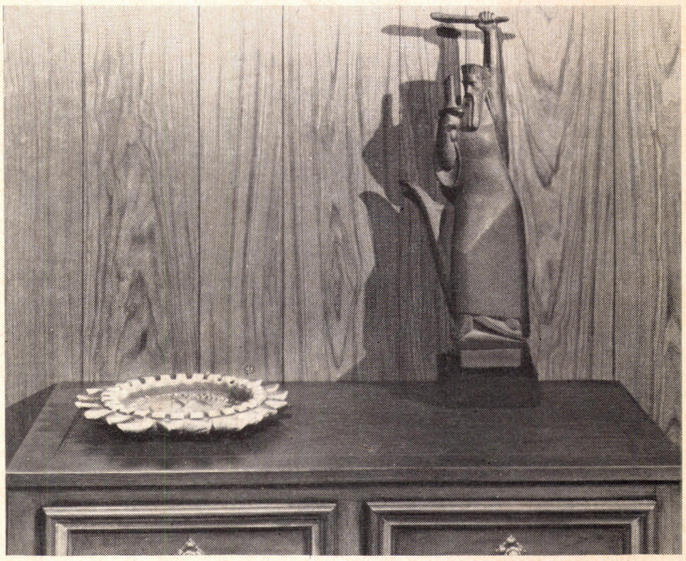
8. Fogging provides the moisture required in cement-treated road base. After cement-and-sand windrows are shaped down by a grader, the mixture is compacted by a 12-ton roller, then a 30-ton roller, with fogging in between.

1960 NEW PRODUCTS

Interiors

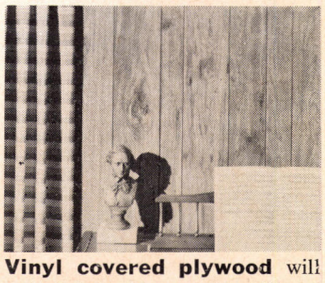


Spiral staircase can be installed in a few hours, according to the maker. PresTeel is offered with seven types of tread including safety plate and oak. Conventional stairs are also available. Woodbridge Ornamental Iron, Chicago. *Circle 101 on Reader Service card.*



Wall paneling, with an oven-baked melamine plastic finish, is ¼" or ⅛" thick. Theme-Line comes in ten color-pattern combinations. Color matched nails on the score line eliminate surface nailing. Bestile, Ontario, Calif. *Circle 102 on Reader Service card.*

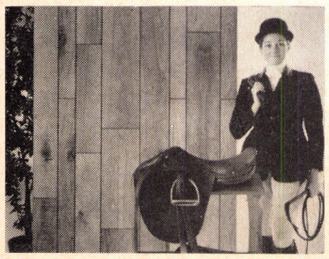
Vinyl wall covering, called Pastorale, is blue, gold, scarlet or charcoal printed on a white background. Fabric is pretrimmed 24" wide. More than 20 other designs are available—all of washable vinyl. Standard Coated Prods., Buchanan, N.Y. *Circle 103 on Reader Service card*



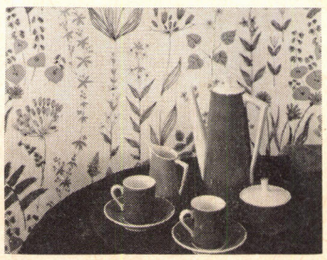
Vinyl covered plywood will not fade, chip, peel, split or scuff says the manufacturer. The Miravinyl line has four new panels in addition to Champagne Granada, above. All come in 3/16" or ¼" thickness by 4'x8'. Miratile Panel Prods., Chicago. *Circle 104 on Reader Service card*

The success of the houses you build next year will depend in large part on the products and materials you build into them. On the next 16 pages HOUSE & HOME *presents a preview of selected new and redesigned products manufacturers will offer in 1966. Many of them will be displayed at* NAHB'S *December convention in Chicago. And you can get further information about them by circling the indicated number on the Reader Service card on p. 141.*

Prefinished paneling has a wear-resistant Polymatic surface. Seven color tones include American Pine, left, and Contemporary, right. The panels have a lifetime guarantee. Welsh Panel Co. and Potlatch Forests, San Francisco. *Circle 105 on Reader Service card.*



Hardwood paneling called Huntsman, is designed for accent walls. The paneling has cross-scored grooves to give the effect of random planking. The prefinished panels come in cherry, pecan and walnut in 4′x8′x¼″ size. E. L. Bruce, Memphis.
Circle 106 on Reader Service card

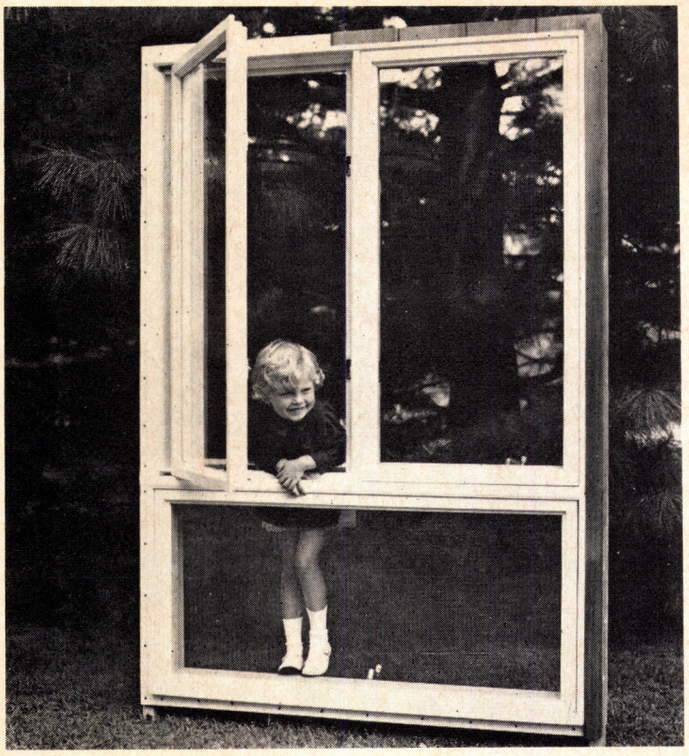


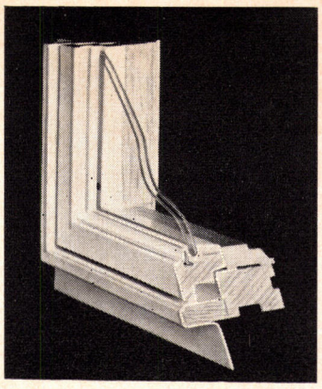
Vinyl wall covering is a floral pattern available in green with orange and yellow or greens with blues. Wall-Tex comes in 64 other patterns. Coverings are 27″ trimmed in rolls of 5⅓ yds. or 36 sq. ft. Columbus Coated Fabrics, Columbus.
Circle 107 on Reader Service card

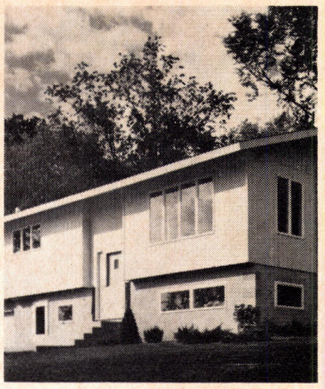
Hardboard paneling, called Pecky Teak, is medium brown with random grooves and color-coordinated fissures. The 4′x8′ factory finished panels are said to offer exceptional wear and dent resistance. Masonite, Chicago. *Circle 108 on Reader Service card.*

continued

Doors and windows

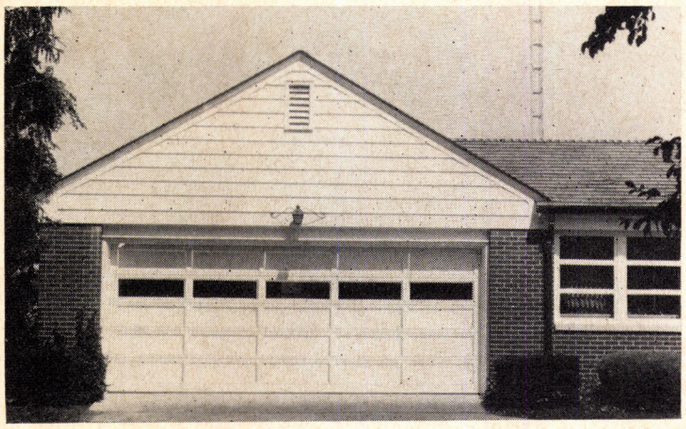




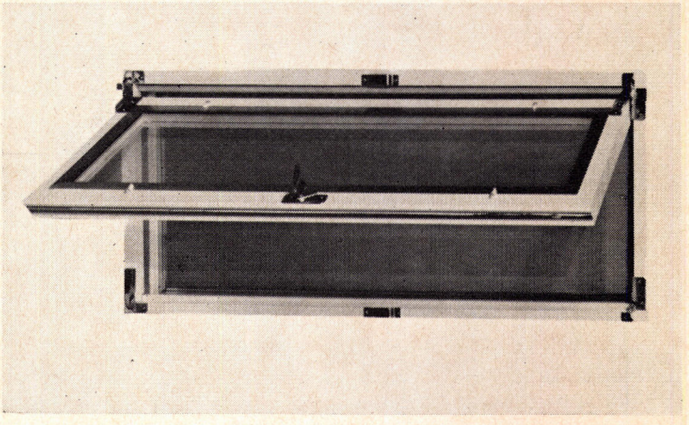


A maintenance-free window of vinyl-clad wood

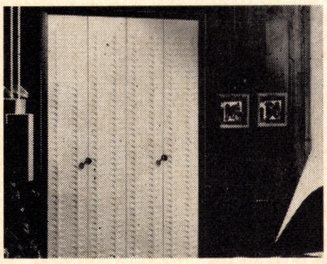
Rigid vinyl extruded over a treated wood core makes the sash of the Perma-Shield window (*see cross section, above, left*); the frame is made of pre-formed rigid vinyl bonded to wood. Mitered plastic corners are completely sealed by a special welding process. The off-white finish doesn't need painting and won't pit, corrode or weather. The window's interior trim is untreated wood. The casement windows and gliding doors, to be available early in 1966, are the result of seven years' research by Andersen and B. F. Goodrich Chemical Co. More than a thousand test windows were installed (*above, right*). Andersen Corp., Bayport, Minn. *Circle 109 on Reader Service card.*



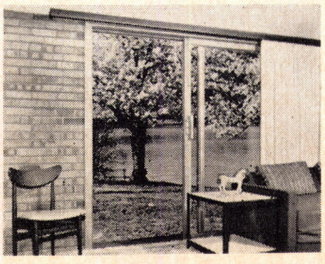
Overhead garage door is electrically operated with remote radio controls. The door is 18′ wide for extra large garages. A variety of other sizes and models are also available. Overhead Door Corp., Dallas. *Circle 110 on Reader Service card.*



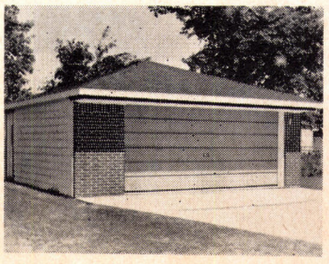
Basement window has a reversible sash that can be hinged top or bottom. The unit comes in three sizes all with a prime coat of paint and preservative treatment. Storm panels and screens are optional. Malta, Gahanna, Ohio. *Circle 111 on Reader Service card.*



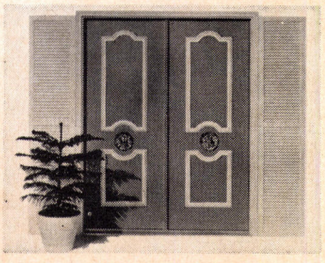
Bifolding doors, made of Royalite, are said to be stain, scuff and scratch resistant. Available in white and 61 decorator colors, two- and four-door styles. Doors are packaged with complete hardware. American Screen, Chatsworth, Ill.
Circle 112 on Reader Service card



Wood patio door has double weather stripping at head and sill, and checkrail weather stripped interlock. Vertical wood sections are steel reinforced. Ball bearing wheels are said to be adjustable. R.O.W. Window Sales, Ferndale, Mich.
Circle 113 on Reader Service card



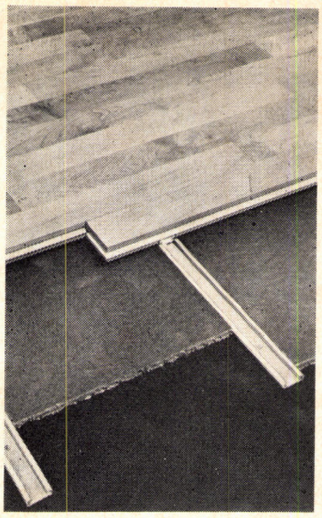
Garage door has six sections. Straight track door has pinch-proof joints, recessed lock handle and a continuous interlocking hinge. The units are factory finished and available in all standard sizes. Taylor Garage Doors, Detroit.
Circle 114 on Reader Service card



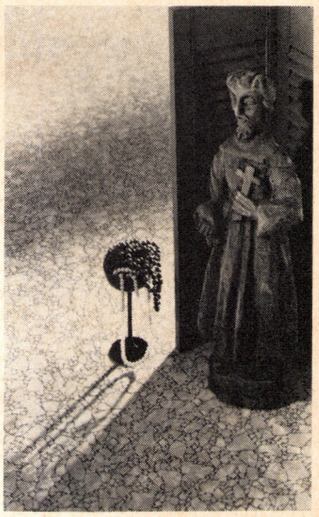
Doors have three dimensional raised plastic mouldings that are impervious to moisture and won't crack or peel, according to the manufacturer. The warp-free doors come in 26 designs in single or double models. Pease Woodwork, Hamilton, Ohio.
Circle 115 on Reader Service card

Floors

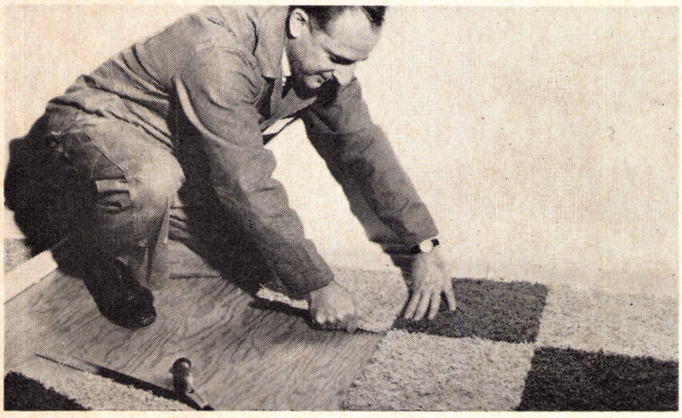
Ceramic tile, called Certosa, can be used for both interior and exterior walls and floors. The 6″ x 9″ tiles are available in Blue, Green, Gold, Pompeii, Indian Red, Chocolate and Amber. Stylon, Boston. *Circle 116 on Reader Service card.*



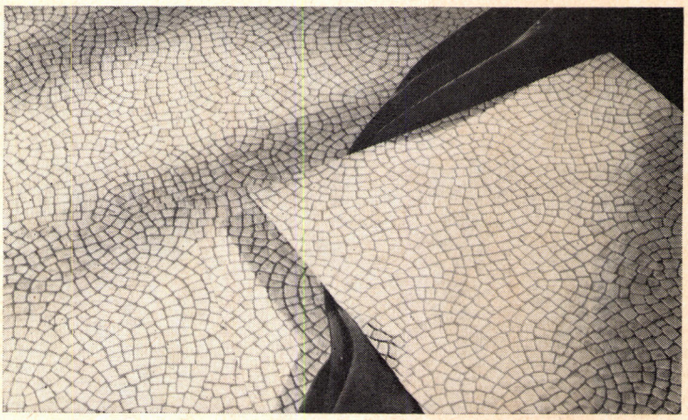
Wood floor system locks strip flooring into steel runners with clips. Runners are anchored in concrete subfloor. System is guaranteed for two years, and it is reportedly economical to install. Robbins Flooring Co., White Lake, Wis.
Circle 117 on Reader Service card



Cushioned flooring, called Comfortflor Vinyl, is designed specifically for the new-house market. The flooring can be installed easily even in cold weather, according to the maker. Two designs are offered. Congoleum-Nairn, Kearny, N.J.
Circle 118 on Reader Service card

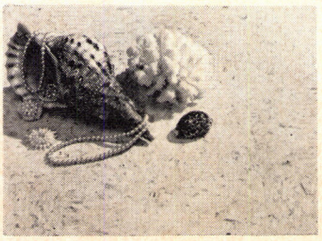


Interlocking rug-tiles form a continuous surface and do not require adhesives. The 12″ square polystyrene tiles are covered by seven carpet grades, which are available in 40 colors. Roxbury Carpet, Saxonville, Mass. *Circle 119 on Reader Service card.*

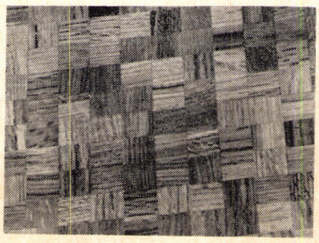


Vinyl-asbestos tile, called Swirl Chip, simulates hand-crafted ceramic tiles, says its manufacturer. The 12″ square tiles are offered in Chartres Taupe, Canterbury White, Rheims Beige and Gothic White. Armstrong, Lancaster, Pa. *Circle 120 on Reader Service card.*

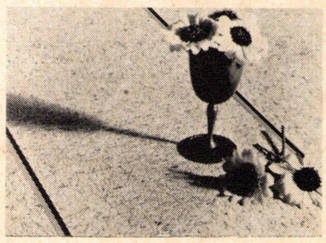
Weather-resistant carpet can be used indoors or outdoors. Its manufacturer says the carpet will not fade in sun nor absorb moisture, therefore it won't rot, shrink or mildew. The carpet is offered in ten colors. Ozite Corp., Chicago.
Circle 121 on Reader Service card



Vinyl tile is offered in four color combinations: Shell White (with beige chips), Surf White (green chips), Pearl Gray (gray) and Sand Beige (brown and white). The 12″ square tiles are 3/32″ or ⅛″ thick. Johns-Manville, New York City.
Circle 122 on Reader Service card



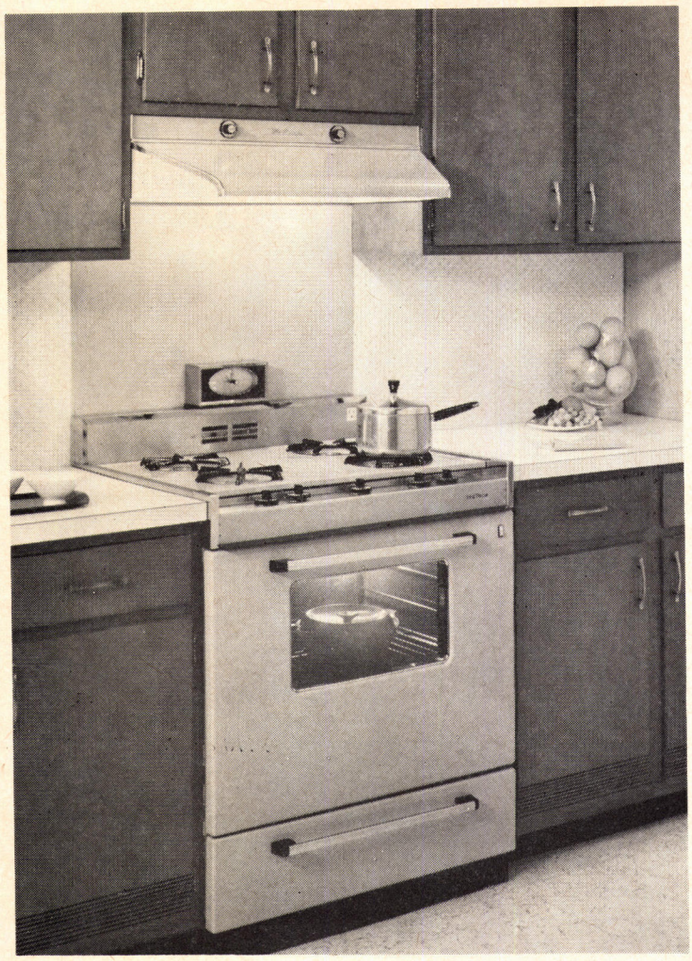
Hardwood flooring, called Domino, is 5/16″ thick. Each 18″ x 18″ unit is composed of several butt-jointed 9/10″ squares. Pieces can be replaced, if damaged. Offered in red, oak, white oak, maple and walnut. Harris Mfg., Johnson City, Tenn.
Circle 123 on Reader Service card



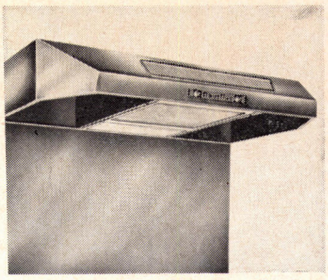
Embossed vinyl tile has flakes of marble encased in a stone-chip pattern. The tile, Terrazzo, is offered in white and brown, and white and copper. Its manufacturer says it is grease-proof and stain resistant. Azrock, San Antonio.
Circle 124 on Reader Service card

continued

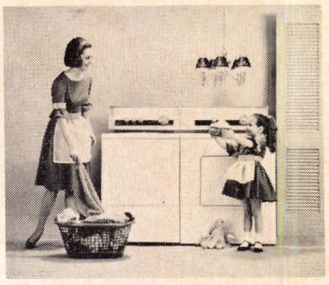
Kitchens and laundries



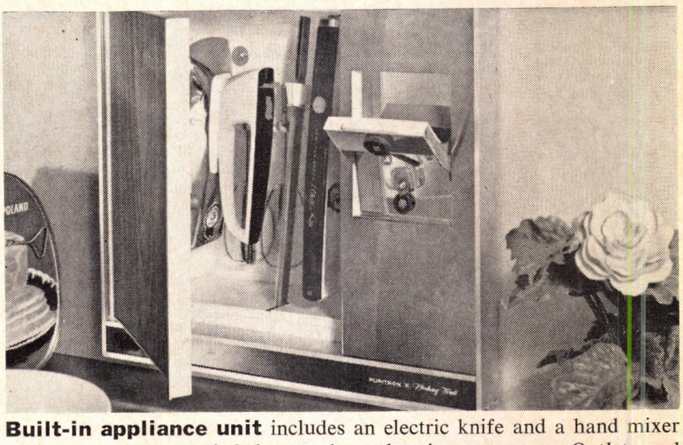
Color-coordinated ranges come in copper, yellow, pink, turquoise, white and brushed chrome to match manufacturer's hoods and splash plates. Ranges, both gas and electric, require 30″ of space. Nutone, Cincinnati. *Circle 125 on Reader Service card.*



Ductless hood has air filtering system at the front to cover forward burners. The system includes a double mesh aluminum grease trap and a charcoal filter. A built-in light is at the back. Available in decorator colors. Nautilus, Freeland, Pa.
Circle 126 on Reader Service card



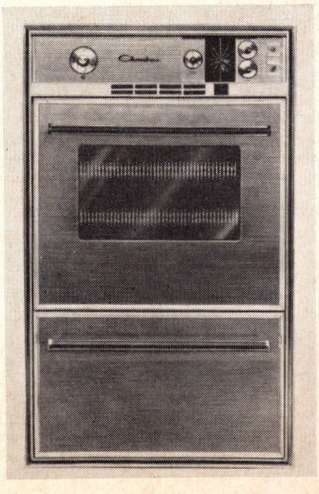
Washer has a 16-lb. load capacity but can accommodate 2-lb. loads without special attachments. Unit also has a sediment ejector. Dryers have foot pedal to open door. The Silhouette line includes five washers and six dryers. Hotpoint, Chicago.
Circle 127 on Reader Service card



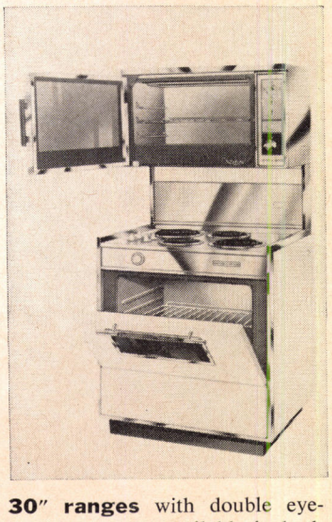
Built-in appliance unit includes an electric knife and a hand mixer behind a walnut paneled door and an electric can opener. Outlets and cord storage space are provided. Unit protrudes 1½″ from the wall. Puritron, New Haven. *Circle 128 on Reader Service card.*

Six-cycle dishwasher has a revolving upper tray that is easier to load, the manufacturer says. During the washing operation, the tray spins for maximum washing exposure. Pre-rinsing of dishes is not necessary. George D. Roper, Kankakee, Ill.
Circle 129 on Reader Service card

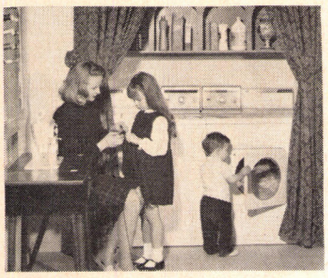
Teflon-coated oven liners which can be removed and washed in the sink or with a damp cloth, are included in this 36″ range. Unit has two broiler ovens and a griddle. Finish is off-white shaded to beige. O'Keefe & Merritt, Los Angeles.
Circle 130 on Reader Service card



Built-in oven has vinyl covered door handles, double-glass door panel and an oven light switch. A rotisserie is optional. Available in both gas and electric in Satin Chrome, Antique Copperlux and five porcelain colors. Chambers, Cleburne, Tex.
Circle 131 on Reader Service card

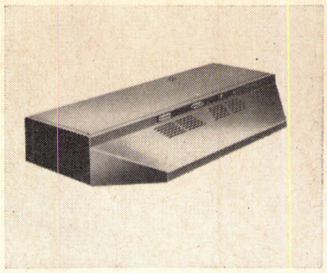


30″ ranges with double eye-level ovens are available in both gas and electric. The top oven contains a broiler. The units include a selector switch that permits either oven to be converted to automatic operation. Gaffers & Sattler, Los Angeles.
Circle 132 on Reader Service card

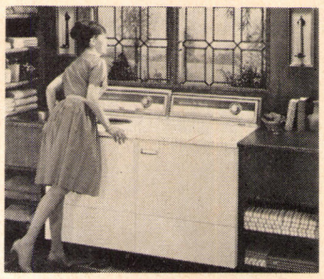


Washers and dryers come in five models each. Washers have a self-cleaning filter and a low agitation speed. Dryers have an automatic control to select dryness and a positive control air flow system. Whirlpool, Benton Harbor, Mich.
Circle 133 on Reader Service card

Range hood comes in wall-mount, peninsula, pass-through and island styles. The unit has seven basic shapes for countertop areas from 30″ to 96″. Two packaged blower systems are offered with capacities to 375 CFM and 900 CFM. Broan, Hartford, Wis.
Circle 134 on Reader Service card

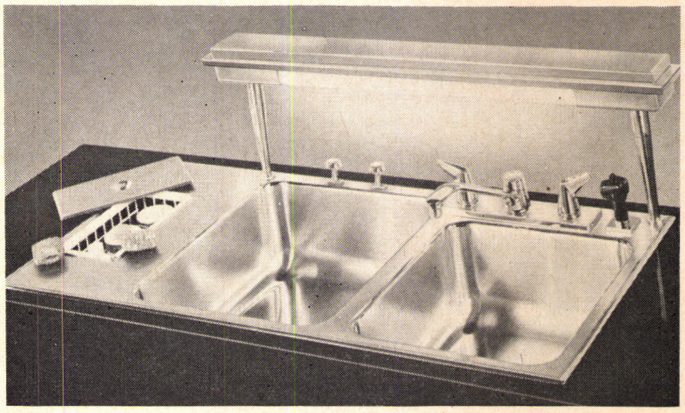


No-duct hood has an activated charcoal filter and an aluminum filter to catch air-borne grease. The 2600 Series has eye-level light and fan controls. The unit, made of Paint-Lok steel, is offered in all standard widths. Ventrola Mfg., Owosso, Mich.
Circle 135 on Reader Service card

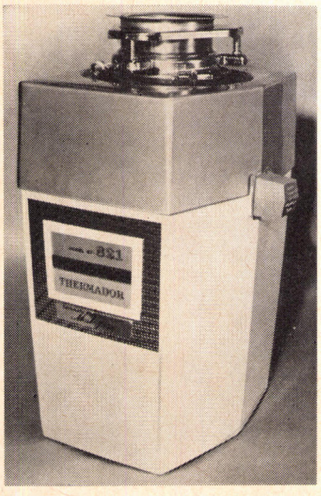


Washer-dryer line has backguards of simulated wood. The washers have an agitated soak cycle for exceptionally soiled clothes and a setting for rerinsing. The dryers have porcelain-on-steel drums, a lint trap and a fluffing cycle. Kelvinator, Detroit.
Circle 136 on Reader Service card

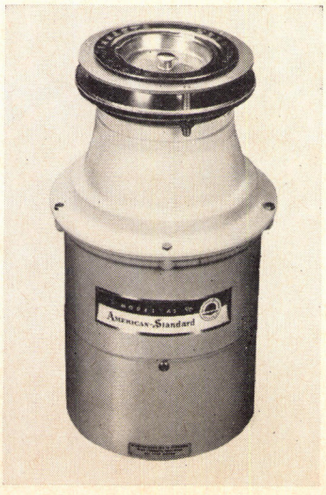
Dryer has automatic controls that are said to measure room temperature and humidity for precise dryness. Matching washers accommodate 14-lb. loads. A setting for delicate clothes is included. General Electric, Louisville. *Circle 137 on Reader Service card.*



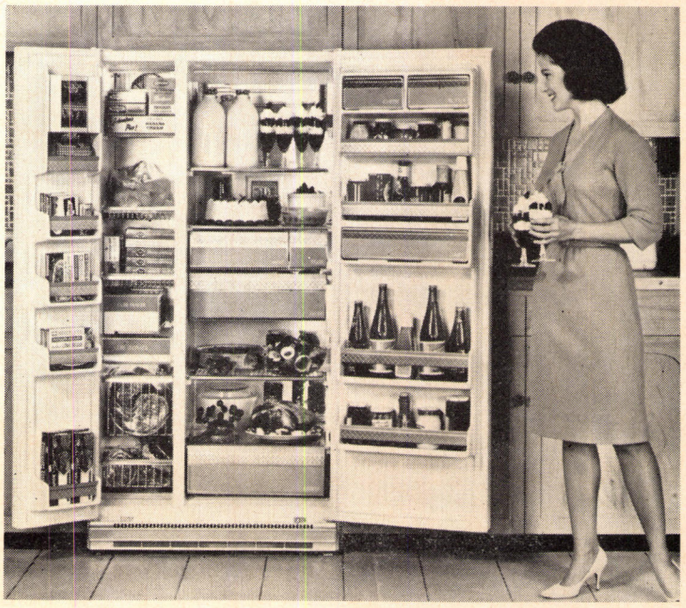
Stainless steel sinks in one-, two- and three-bowl types have remotely controlled pop-up drains. The Florentine line has a built-in fluorescent light. The model shown includes a storage bin for detergents. Just, Franklin Park, Ill. *Circle 138 on Reader Service card.*



Disposer has a detergent shield to prevent corrosion and a "self-service handle" for repairs. The GT 821 line has four models including lock cover and continuous feed types. The motor is covered with an alloy seal. Thermador, Los Angeles.
Circle 139 on Reader Service card



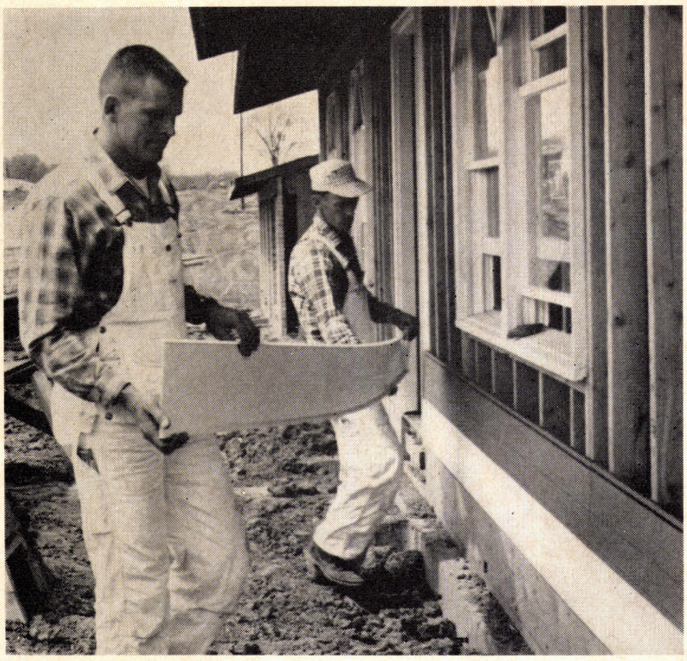
Jam-proof disposer has hammermill cutting action. Unit also has a two-lipped seal to prevent water entering the bearings. A long aluminum tailpiece simplifies installation, according to the manufacturer. American-Standard, New York City.
Circle 140 on Reader Service card



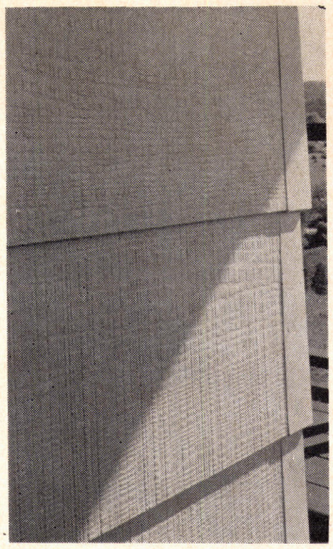
Refrigerator-freezer has foamed-in-place polyurethane insulation. The unit is 33″ wide and 64″ high. The freezer area, left, has a 5.6 cu. ft. capacity—the refrigerator holds 13.4 cu. ft. Admiral, Chicago.
Circle 141 on Reader Service card.

continued

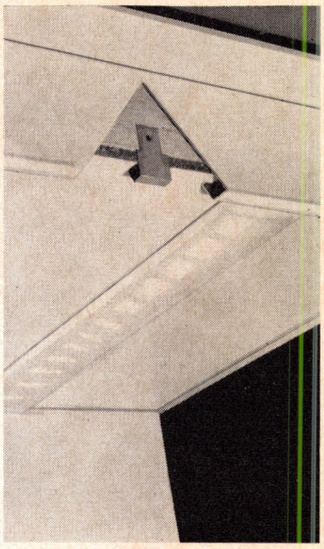
Exteriors



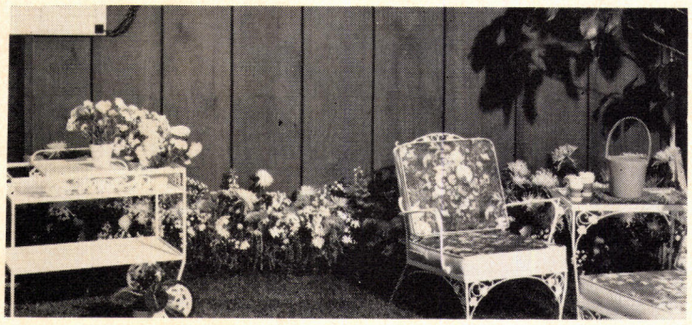
Rigid vinyl plastic siding will not show abrasions, mars, scars or scratches and won't peel, corrode or blister, says the manufacturer. Installation is with nails through insulation board. Comes in 12′6″ length. Mastic Corp., South Bend. *Circle 173 on Reader Service card.*



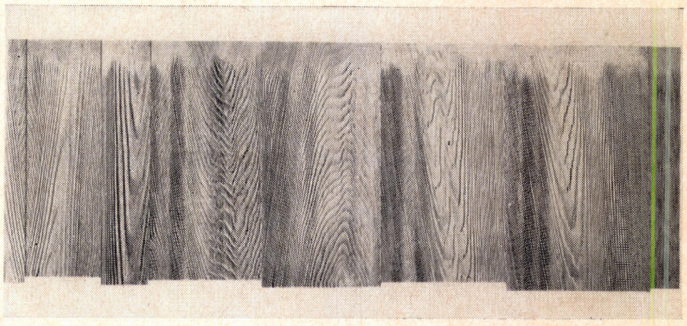
Rough sawn siding, which takes paint or stain, comes in lap (*above*) plain or grooved types. Ruf-X-Ninety has a ten-year guarantee on the surface finish and a 25-year guarantee against exposure damage or defects. Masonite, Chicago.
Circle 174 on Reader Service card



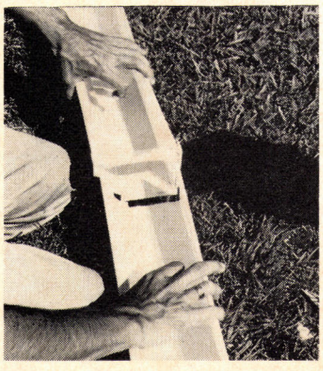
Soffit system, called Vinyl-Bond, includes panels, three color-matched metal accessories and a louvered venting strip. The wall angle and fascia cover are said to simpify installation. Soffit system does not require painting. Insulite, Minneapolis.
Circle 175 on Reader Service card



Textured siding has rough sawn surface aligned across the panel width. The fir- or cedar-faced siding can be stain finished or left to weather naturally. Size: 4′, 8′, 9′ or 10′ long; ⅜″ or ⅝″ thick. U.S. Plywood, New York City. *Circle 176 on Reader Service card.*



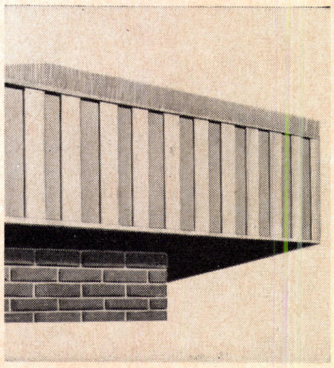
Side wall shake panel, called Surf-Ply, has a brushed surface. The cedar shakes are bonded into a three-ply wood panel that is said to be sturdy and durable. Factory-finished panels come in 4′ or 8′ widths. Shakertown Corp., Cleveland. *Circle 177 on Reader Service card.*



Gutter and downspout are made of rigid vinyl. The system, which is 5″ wide, will not chip, dent, rust, or conduct electricity, says the maker. Included are: gutters, downspouts, corners, elbows and caps and collectors. Monsanto, St. Louis.
Circle 178 on Reader Service card

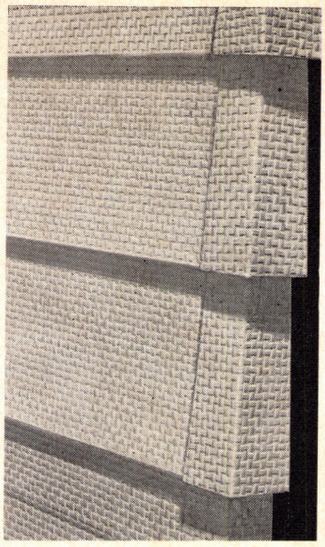
Fence panels which are textured on one side and sculptured on the other, can be alternated in any combination. Pine slats and cedar posts are treated for termite protection and water repellancy. Potlatch Forests, San Francisco.
Circle 179 on Reader Service card

Pre-primed panels have a light gray acrylic latex paint baked on. The surface is said to have superior paint-holding properties and resistance to chalking and deterioration. One coat of finish paint is required. St. Regis Paper, Tacoma.
Circle 180 on Reader Service card

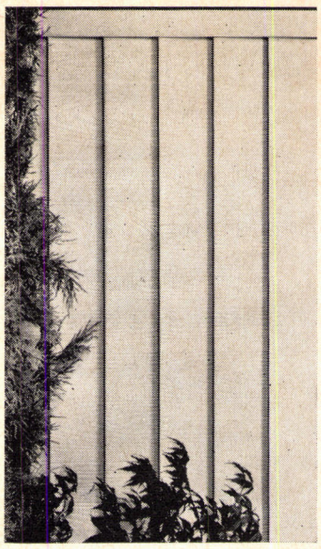


Fascia panels are factory prefabricated in colored aluminum. Colors available: cream, green, black, white and red. Units have automatic expansion joints and concealed nailing designed for weather-tight closure. Cheney Flashing, Trenton, N.J.
Circle 181 on Reader Service card

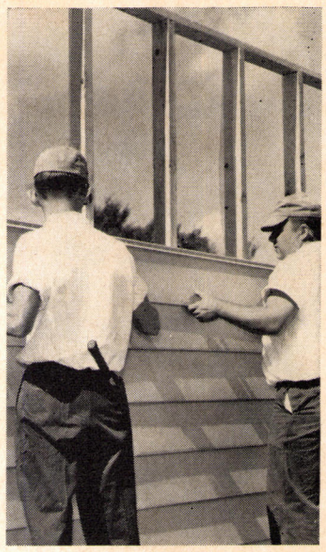
Steel siding is coated with zinc for additional protection. The siding resists denting and hail damage and does not require backer board, according to the manufacturer. Siding is applied with ordinary tools. Aluminsteel Corp., Hammond, Ind.
Circle 182 on Reader Service card



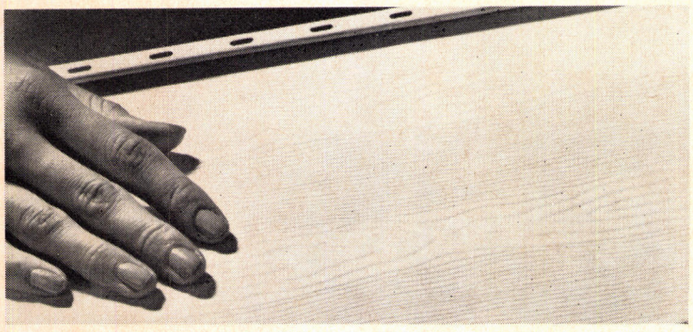
Aluminum siding has textured pattern double embossed into the surface. Panels are finished with an acrylic enamel paint. Six colors are offered—white, light green, sandalwood, gray, pastel blue and yellow. U.S. Aluminum, Franklin Park, Ill.
Circle 183 on Reader Service card



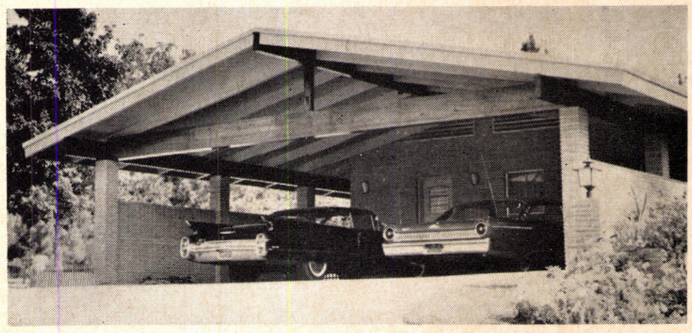
Embossed aluminum siding is designed to create a deep-grained wood effect. Panels are covered with polyvinyl chloride finish. A lifetime guarantee against staining, cracking, peeling and flaking is included. Alside, Cuyahoga Falls, Ohio.
Circle 184 on Reader Service card



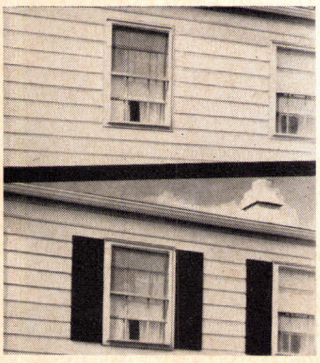
Aluminum panel is installed directly over studs. Material consists of an enameled aluminum panel, polystyrene insulating foam and a heavy covering of bonded aluminum foil. Panels are said to be maintenance free. Alsco, Akron, Ohio.
Circle 185 on Reader Service card



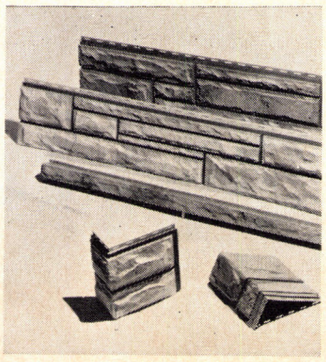
Wood-grain aluminum siding is designed to duplicate rough-cut timber. Siding comes in 8″-wide clapboard and New England style double 4″. Available in white, green, gray, beige, coral and ivory. Alcoa, Pittsburgh. *Circle 186 on Reader Service card.*



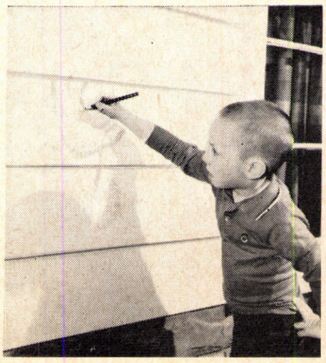
Laminated wood beams are designed for use as headers over large windows, sliding doors, patio openings, etc. Beams are said to be fire resistant, strong and maintenance free. Koppers, Pittsburgh. *Circle 187 on Reader Service card.*



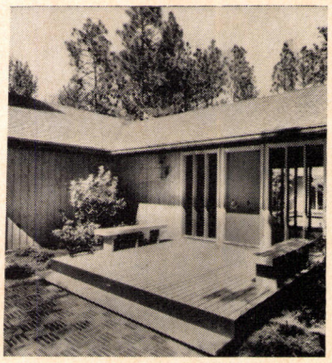
Exterior shutters are vinyl coated styrene. They will not dent, warp or peel and don't need paint, says the manufacturer. Installation strips are included. Available in white, black and green. New Castle Products, New Castle, Ind.
Circle 188 on Reader Service card



Glass-fiber siding is designed to look and feel like stone. Panels, of crushed stone imbedded in glass fiber, are premortared and have no exposed nails when installed. Two styles and colors are offered. Bolen International, Chicago.
Circle 189 on Reader Service card



Aluminum siding has a smooth polyvinyl chloride finish said to be four times as thick as ordinary finishes. A transferable lifetime guarantee against chipping, flaking, peeling and splitting is included. Alsar, Southfield, Mich.
Circle 190 on Reader Service card

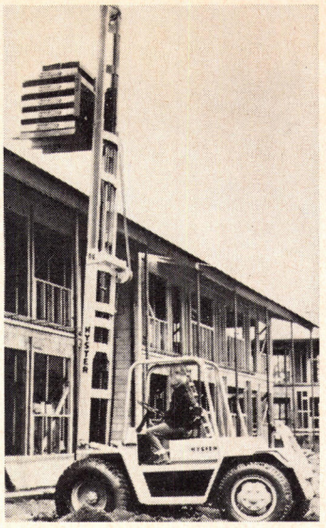


Rough sawn siding has a stain-type finish that combines preservatives, water repellents and pigment. Siding is durable and easy and inexpensive to apply, according to the manufacturer. Southern Pine Assn., New Orleans, La.
Circle 191 on Reader Service card

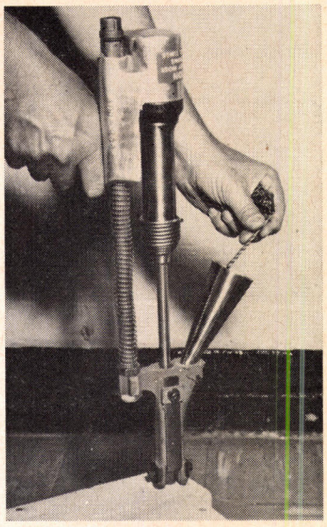
continued

Tools and equipment

Lightweight rammer, Model GVR 30, delivers up to 1,050 blows a minute. The portable unit has an air-cooled, 1-cylinder, 2-cycle gasoline motor. Soil layers up to 10″ in depth can be compacted with this machine. Wacker, Hartford, Wis. *Circle 230 on Reader Service card.*



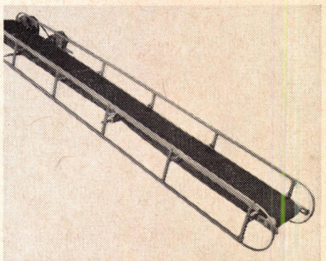
Lift truck, with a three-stage upright, can lift up to 3,100 lbs. 30′ into the air. The truck has wide profile, rough terrain drive tires and a built-in towbar for highway-speed towing from job site to job site. Hyster Co., Portland, Ore.
Circle 231 on Reader Service card



Nailer handles any bulk nail from 6d to 16d and drives as many as 50 nails per minute, according to the manufacturer. The unit weighs 7 lbs. Nails are dropped into the funnel and the trigger is pulled to operate. United Shoe Machinery, Boston.
Circle 232 on Reader Service card

Wide-track trencher has a flotation of 2.69 psi in mucky or sandy areas. Three track sizes available: self-cleaning 8″ and 10″ cleat tracks and 10″ street tracks. A variety of attachments are also offered. Davis, Wichita, Kan. *Circle 233 on Reader Service card.*

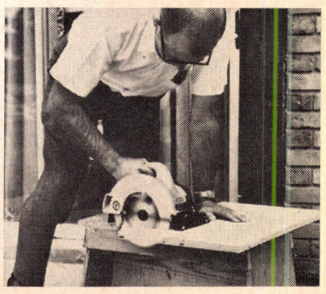
Shovel loader has a single-arm boom with a lift capacity of more than 3¾ tons. Four-wheel drive for power and traction and front-wheel steering for road-speed safety are included, says the manufacturer. Massey-Ferguson, Detroit.
Circle 234 on Reader Service card



Portable belt conveyor is 13′ long. The lightweight unit is said to move large loads up inclines up to 35°. Extensions of 6′ and 12′ are available. Drive roll has permanently lubricated ball bearings. Stone Conveyor, Honeoye, N.Y.
Circle 235 on Reader Service card

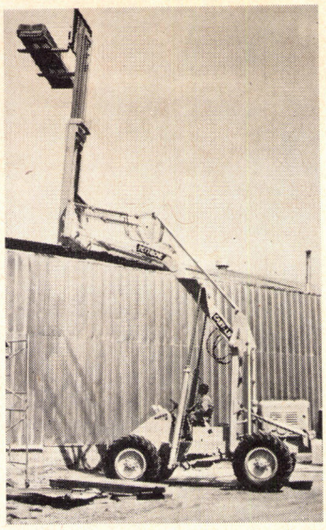
Tractor shovel, with four-wheel drive, has a 67 h.p. engine. The machine has a 1-cu.-yd. bucket and a 5-cu.-yd. backhoe. Also included are power steering, lights and parking brake. Clark Equipment, Benton Harbor, Mich. *Circle 236 on Reader Service card.*

Finish nailer automatically nails and countersinks 1½″, 1¾″ and 2″ nails. Machine is said to increase productivity 50% over conventional methods. Model FN-83 is portable and air driven. Duo-Fast Fastener, Franklin Park, Ill.
Circle 237 on Reader Service card



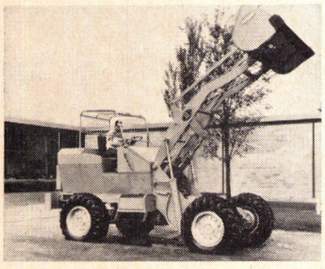
Circular saw is double-insulated to guard against electrical shock. Tool has a combination blade, a wrap-around handle and sawdust ejector. Model 75 has a 10 amp, 4,500 rpm motor and self-lubricating bearings. Rockwell, Pittsburgh.
Circle 238 on Reader Service card

Truss system includes two pneumatic nailers, steel truss plates, truss nails, jig for truss part assembly, design manual, air compressor and accessories. According to the manufacturer, the system is low in cost. Bostitch, East Greenwich, R.I.
Circle 239 on Reader Service card



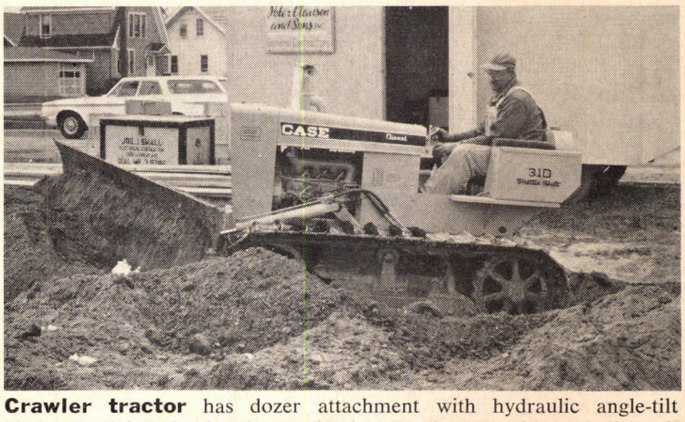
Forklift has a hydraulic forward reach to extend loads 12′7″ forward without moving truck. The unit can lift 3,500 lbs. to a height of 36′. Four-wheel drive and four-wheel power steering are included. Pettibone Mulliken, Chicago.
Circle 240 on Reader Service card

Trencher, called Model H12 Ditch Witch, has two-wheel drive that is easy to steer and operate, says the maker. The 12 h.p. model has a backfill blade designed for easy attachment. Charles Machine Works, Perry, Okla. *Circle 241 on Reader Service card.*

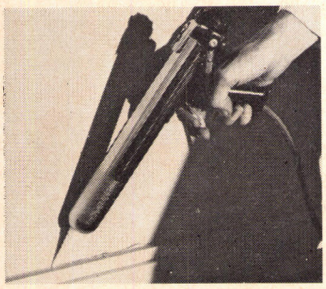


High lift loader elevates 3,000 lbs. to 40′ heights. Controls for loading, lifting and reaching are power-hydraulically controlled from the cab. The 4D3-40 has high oscillating planetary-type axles and a four-speed transmission. Lull, St. Paul.
Circle 242 on Reader Service card

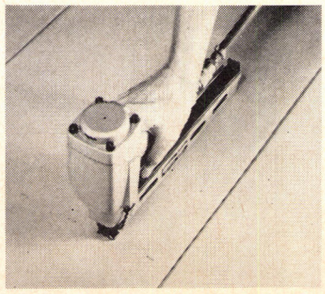
Wheel loader has power shift transmission — eight forward speeds and four backward ones. Model JD500 comes with either ⅞ cu. yd. or 1¼ cu. yd. materials bucket. Machine also has a single-lever loader control. John Deere, Moline, Ill.
Circle 243 on Reader Service card



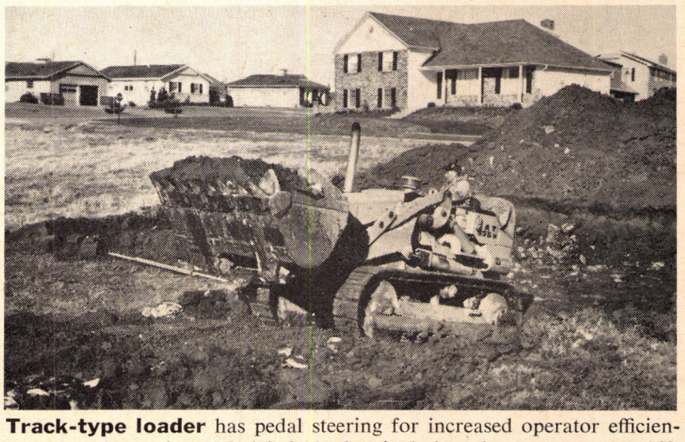
Crawler tractor has dozer attachment with hydraulic angle-tilt blade. Model 310 also has a loader attachment with a ¾-cu.-yd. bucket capacity and a 14′ backhoe with a 190° swing. Engine is gas or diesel fueled. Case, Racine, Wis. *Circle 244 on Reader Service card.*



Sealant gun comes in four air-powered sizes: 2½, 6, 8 and 12 oz. The lightweight gun allows use of manufacturer's disposable plastic cartridges and accessories. A removable handle is included for hard-to-reach applications. Semco, Los Angeles.
Circle 245 on Reader Service card



Lightweight stapler is designed for gypsum lath applications. Magazine carries over 140 16-gauge 7/16″ crown staples in lengths up to 1⅛″. The 4-lb. Model C is said to be suited for overhead work. Spotnails, Rolling Meadows, Ill.
Circle 246 on Reader Service card



Track-type loader has pedal steering for increased operator efficiency, says the maker. Model 955 also includes planetary power shift transmission and automatic bucket controls. Nine bucket sizes with capacities to 2⅜ cu. yds. are available. Caterpillar, Peoria, Ill.

continued

Your choice of small units was never bigger

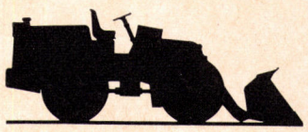
Light earthmoving and materials-handling equipment guide

Today, there are dozens of pieces of equipment for any earthmoving or materials-handling job; the table at right lists almost 50 different models of the size and type most useful in light residential work.

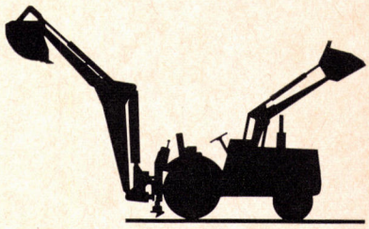
Equipment like this plays a real cost-cutting role in homebuilding. While land development costs continue to spiral upward, earthmoving and materials-handling costs have remained at almost the same level as in the 1930s, despite an inflated dollar. And they remain at the same level because manufacturers have offered better and more efficient equipment every year.

As an industry we are committed more and more to power machinery: our labor costs continue to rise while power costs have tended to flatten out. If you are using only a few pieces of earthmoving and materials-handling equipment now, it's a safe bet you will be using much more in the future.

To help you pick the machinery best fitted to your operation, the table at right lists equipment capacities, dimensions, speeds, weights, turning radii, attachments and engine types in six different job categories.

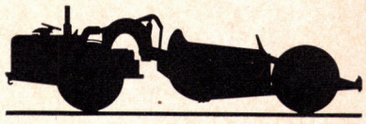


MAKE	MODEL
ALLIS-CHALMERS	TL-12
BALMAR	60-1
CATERPILLAR	922
JOHN DEERE	1010
	2010
	2010 (heavy du
	JD500
ERICKSON	K-15
INTERNATIONAL	3414
MASSEY-FERGUSON	356
	470
MICHIGAN	35A
	45A
NAPCO-CRAB®	42PG, 44PG®
OLIVER	550-578
TROJAN	114

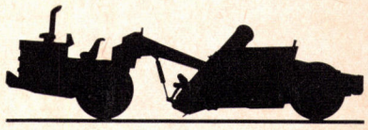


MAKE	MODEL
ALLIS-CHALMERS	40
	60
DYNAHOE	120
	A
	C
OLIVER	1650
	550
	770

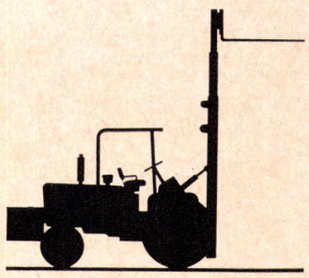
MAKE	MODEL
ALLIS-CHALMERS	H-3, HD-3
CASE	450
CATERPILLAR	933
JOHN DEERE	JD350
	JD450
INTERNATIONAL	TD-6, T-6



MAKE	MODEL
EUCLID	S-7
TOURNAPULL®	D



MAKE	MODEL
JOHN DEERE	5010
TOURNAPULL	10E2



MAKE	MODEL
ALLIS-CHALMERS	40
	50
	60
JOHN DEERE	2010
HYSTER	Pioneer 60
	4,000 Series
INTERNATIONAL	5,000 Series
KWIK-MIX®	S-10 Moto-Bu
	R-18 Moto-Bu
LULL	4D3 Series
MASSEY-FERGUSON	204
	551
OLIVER	

For more information on the equipment listed at right, circle the number after the manufacturers name (*below*) on the Reader Service card, p. 141.

WHEEL LOADERS
Allis-Chalmers, Milwaukee. *Circle 247.*
Balmar Tractor Corp., Baltimore. *Circle 248.*
Caterpillar Tractor Co., Peoria, Ill.
Deere & Co., Moline, Ill. *Circle 250.*
Erickson Corp., Minneapolis. *Circle 251.*
International Harvester Co., Chicago. *Circle 252.*
Massey-Ferguson Inc., Detroit. *Circle 253.*
Clark Equipment Co. (MICHIGAN), Benton Harbor, Mich. *Circle 254.*
Napco Industries Inc., Minneapolis. *Circle 255.*
Oliver Corp., Chicago. *Circle 256.*
Trojan Div., Yale & Towne, Batavia, N.Y. *Circle 257.*

WHEEL LOADER-BACKHOES
Allis-Chalmers, Milwaukee. *Circle 258.*
The Hy-Dynamic Co. (DYNAHOE), Lake Bluff, Ill. *Circle 259.*
Oliver Corp., Chicago. *Circle 260.*

CRAWLER LOADERS
Allis-Chalmers, Milwaukee. *Circle 261.*
J. I. Case Co., Racine, Wis. *Circle 262.*
Caterpillar Tractor Co., Peoria, Ill.
Deere & Co., Moline, Ill. *Circle 263.*
International Harvester Co., Chicago. *Circle 264.*

SCRAPERS
Euclid Div., General Motors Corp., Hudson, Ohio. *Circle 265.*
LeTourneau-Westinghouse Co. (TOURNAPULL), Peoria, Ill. *Circle 266.*

ELEVATING SCRAPERS
Deere & Co., Moline, Ill. *Circle 267.*
LeTourneau-Westinghouse Co. (TOURNAPULL), Peoria, Ill. *Circle 268.*

LIFT TRUCKS
Allis-Chalmers, Milwaukee. *Circle 269.*
Deere & Co., Moline, Ill. *Circle 270.*
Hyster Co., Danville, Ill. *Circle 271.*
International Harvester Co., Chicago. *Circle 272.*
Koehring Co. (KWIK-MIX), Port Washington, Wis. *Circle 273.*
Lull Engineering Co., St Paul. *Circle 274.*
Massey-Ferguson Inc., Detroit. *Circle 275.*
Oliver Corp., Chicago. *Circle 276.*

New products continued on p. 133

LOADER CAPACITY					DIMENSIONS				STEERING		ENGINE		TRAVEL SPEED			WEIGHT	ATTACHMENTS
Bucket (cu yd.)	Lift (lbs.)	Carry (lbs.)	Breakout (lbs.)	Max. dumping height	Height	Width	Length	Ground clearance	Front rear	Turning radius	Gas	Diesel	Low m.p.h.	High m.p.h.	Reverse m.p.h.	(lbs.)	
1, 1⅛, 1½, 2	9,500	4,000	14,500	8′4″	6′1½″	6′9″	15′8½″	1′3″	Front	19′11″	77 h.p.	77 h.p.	1st-3.0	4th-21.2	4.0-27.9	12,120	Lift fork, crane hook, back-filler blade, bucket teeth.
¾	3,200	3,200	4,700	8′0″	6′4″	5′2″	13′0″	1′5¾″	Cross-drive	20′3″	62.5 h.p.	56.3 h.p.	ten speeds	ten speeds	two speeds	7,900	Special buckets, pallet forks, logging forks, bull-dozer blade.
1½-3	10,500	10,500	19,900	8′7″	8′11½″	7′4¾″	16′9″	1′3½″	Rear	20′6″	—	80 h.p.	1st-3.8	2nd-18.9	5.0-20.4	16,925	Side dump bucket, multi-purpose bucket, lumber fork, spill plate, lift-arm extensions.
⅝	2,000	2,000	3,000	8′2¾″	6′1″	6′3″	14′1½″	1′6″	Front	27′	40 h.p.	40 h.p.	1st-1.7	5th-15.8	3.5	5,111	Counterweights, bucket teeth, lifting hooks.
⅝	2,000	2,000	3,000	8′1″	6′2¾″	6′3¾″	14′4″	1′4⅝″	Front	30′	50 h.p.	50 h. p.	1st-2.2	4th-15.8	3.0-9.0	6,440	
⅝	3,200	3,200	4,700	7′11″	6′2¾″	6′3¾″	14′4″	1′4⅝″	Front	30′8″	50 h.p.	50 h. p.	1st-2.2	4th-15.8	3.0-9.0	6,860	
⅞	3,700	3,700	5,100	8′	6′9⅞″	8′	15′½″	1′5⅜″	Front	30′	77.7 h.p.	80 h. p.	1st-1.6	8th-17.0	1.9-5.4	8,604	
½	1,500	1,500	—	9′	5′2″	4′10″	9′3″	7½″	Full-reversing side drive	10′10″	30 h.p.	—	—	4 max.	4 max.	3,970	Quick-change tool bar, sand bucket, pallet forks, dozer blade.
⅝	2,500	2,500	4,500	8′8″	5′1″	6′7″	13′10″	1′1″	Front	10′3″	43.5 h.p.	43.5 h.p.	1st-1.4	4th-14.4	2.1-6.0	5,200	Dozer blade, swinging drawbar.
1	7,000	4,000	7,050	9′9″	5′9″	6′3⅝″	15′5½″	1′2¾″	Front	13′8″	67.7 h.p.	65.5 h.p.	1st-1.86	4th-20.60	1.85-20.50	10,900	Fork tines.
¾, 1	7,550	7,550	6,500	10′11″	7′0″	6′8″	16′11″	1′3″	Front	22′5″	66.5 h.p.	71 h.p.	1st-4	4th-24	4-24	10,455	
¾	7,500	7,500	—	8′5″	7′0″	6′8″	16′7″	1′3″	Front	22′3″	66.5 h.p.	77 h.p.	1st-4	4th-24	4-24	10,100	Snap-mount backhoe, back-filler blade, scarifier, side dump, high-lift boom, forklifts.
1	8,850	8,850	—	8′4″	7′0″	6′8″	16′10¼″	1′3″	Front	20′6″	75	77	1st-4	4th-24	4-24	11,200	
1¼	8,000	6,000	10,500	9′6″	6′2″	7′1″	16′4″	1′2″	4-wheel	13′6″	73 h.p.	85 h.p.	1st-2.9	4th-18.4	2.9-18.4	14,000	Backhoe, special loader buckets, dozerblade, hi-lift, tower lift, side boom, log forks and skidder.
¾	2,500	2,500	3,825	9′1½″	4′10″	5′7″	14′1″	1′4″	Front	14′	44 h.p.	42.5 h.p.	1st-1.5	6th-11.6	1.56-3.22	4,466	Backhoe.
¾, 1¼, 1½	11,850	7,500	—	8′10″	7′0″	7′6″	17′5″	1′4″	Front	21′5″	105 h.p.	76 h.p	1st-3.3	4th-20.8	3.3-20.8	13,000	Forklift, backfill blade, backhoe, crane hook, scarifier teeth, high-lift arms, side dump bucket.

WHEEL LOADER-BACKHOES

LOADER CAPACITY				BACKHOE CAPACITY				DIMENSIONS			ENGINE		TRAVEL SPEED			WEIGHT	ATTACHMENTS
Bucket (cu. yd.)	Lift (lbs.)	Carry (lbs.)	Max. dumping height	Bucket	Max. digging depth	Max. lift, full extension (lbs.)	Max. lift, transport (lbs.)	Length	Ground clearance	Width	Gas	Diesel	Low m.p.h.	High m.p.h.	Reverse	(lbs.)	
¾, ½	2,500	2,500	8′5″	2.2-6.5 cu.ft.	10′	5,500	—	25′8″	1′8″	5′7½″	40.6 h.p.	—	—	—	—	7,400	Dozers, forklift, side booms, drop hammers, scarifiers, rear blade.
¾, ⅞	3,200	3,200	8′7″	6.7-9.9 cu.ft.	14′3″	8,800	—	33′7″	1′6″	6′5″	56.8 h.p.	44 h.p.	1st-2.5	4th-18.8	5	10,180	
¾	2,500	2,500	8′6″	5.3 cu.ft.	12′	2,000	2,000	31′10″	1′	7′6″	65 h.p.	—	1st-3.6	3rd-17.8	4.4-8.9	10,200	Vertical stabilizers, backhoe, ripper tooth, four-in-one loader bucket.
1⅛	4,000	6,000	8′6″	7.5 cu.ft.	13′6″	1,300	2,500	34′10¾′	11″	7′11″	77 h.p.	89 h.p.	1st-3.4	3rd-17.2	4.3-21.8	13,900	
1¼	4,000	7,000	8′6″	⅜ cu.yd.	16′	2,600	5,200	36′2″	11″	7′9″	—	89 h.p.	1st-3.4	3rd-17.2	4.3-21.8	14,900	
1	5,000	6,500	9′	—	15′	1,800	—	24′3″	—	—	78 h.p.	78 h.p.	—	—	—	11,680	
⅝	2,500	3,000	8′5″	—	10′	—	—	—	—	—	43 h.p.	41 h.p.	1st-1.5	6th-14.6	1.6-4.1	6,271	
¾	5,100	6,000	9′2″	—	14′	2,200	—	35′5″	—	6′½″	53 h.p.	52 h.p.	1st-2.2	6th-17.3	2.3-4.0	11,304	

CRAWLER-LOADERS

LOADER CAPACITY					DIMENSIONS				TRACKS		ENGINE		TRAVEL SPEED			WEIGHT	ATTACHMENTS
Bucket cu. ft.	Lift (lbs.)	Carry (lbs.)	Breakout (lbs.)	Max. dumping height	Height	Width	Length	Ground clearance	No. of shoes ea. side	Ground contact (sq. in.)	Gas	Diesel	Low m.p.h.	High m.p.h.	Reverse	(lbs.)	
¾-⅞	3,600	3,600	18,000	9′	4′5/16″	5′2″	9′11/16″	10″	34	—	32 h.p.	32 h. p.	1st-1.1	4th-4.8	1.2-4.8	7,300	Backhoe, scarifier, angle dozer, side boom, pallet tines.
¾-2½	4,500	4,500	—	—	—	—	—	—	—	—	58 h.p.	57 h.p.	—	—	—	—	Power angle/tilt blade.
1⅛-1½	—	—	—	7′8″	6′3¼″	5′10″	14′2″	1′½″	34	1,788	—	60 h.p.	1st-1.6	4th-5.8	2.0-7.2	17,450	Lumber fork, ripper teeth, angle and straight dozers.
¾	4,000	4,000	9,000	8′2″	6′4″	5′1⅛″	12′7¾″	1′1¼″	36	1,904	42 h.p.	42 h.p.	1st-1.4	4th-6.5	1.9	10,970	Ripper, fork, timber loader, angle dozer, bulldozer.
1⅛	5,500	5,500	12,000	8′7″	6′4″	5′5⅜″	14′3″	1′2¼″	36	2,585	57 h.p.	57 h.p.	1st-1.3	4th-6.7	1.7-6.4	14,505	
1⅛	—	—	18,600	7′8″	5′7¼″	6′	13′3″	8⅞″	37	1,737	55 h.p.	55 h.p.	1st-1.6	4th-5.6	1.8-3.6	14,125	Angle dozer blade, scarifier, skid grapples.

SCRAPERS

SCRAPER				TRACTOR		DIMENSIONS					TRAVEL SPEED			WEIGHT	ATTACHMENTS
Capacity (cu.yd.)	Length of cutting edge	Depth of cut	Depth of spread	Gas	Diesel	Height	Width	Length	Ground clearance	Turning radius	Low m.p.h.	High m.p.h.	Reverse m.p.h.	(lbs.)	
7	6′9½″	10½″	1′8″	—	135 h.p.	8′11½″	8′0″	29′10″	1′2″	28′	1st-3	4th-25.5	3	26,500	
7.3	7′	unlimited	1′8″	—	134 h.p.	9′1½″	8′0″	28′4″	1′2½″	23′8½″	1st-2.9	5th-26.1	2.8	22,830	10 cu. yd. self-loading scraper, 11-ton hauler.

ELEVATING SCRAPERS

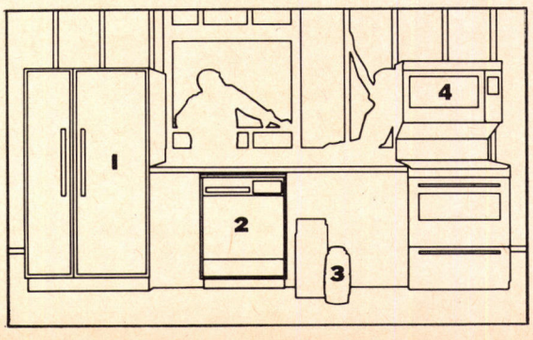
SCRAPER				TRACTOR		DIMENSIONS					TRAVEL SPEED			WEIGHT	ATTACHMENTS
Capacity (cu.yd.)	Length of cutting edge	Depth of cut	Depth of spread	Gas	Diesel	Height	Width	Length	Ground clearance	Turning radius	Low m.p.h.	High m.p.h.	Reverse m.p.h.	(lbs.)	
8	7′6″	10″	1′5″	—	129 h.p.	9′3⅜″	8′0″	32′10½″	1′5″	28′	1st-2.6	8th-26.1	5.3-14.2	28,500	Wedgefoot tamping roller, water wagon, disk harrows.
10	7′6″	1′	1′3″	—	134 h.p.	9′4″	8′	31′4″	1′3″	28′	1st-2.9	5th-26.1	2.8	30,000	9 cu. yd. scraper, 11-ton hauler.

LIFT TRUCKS

HOISTING Capacity (lbs.) @ 24 in. load center	MAST HEIGHTS			MAST TILT		DIMENSIONS			ENGINE		TRAVEL SPEED			WEIGHT	ATTACHMENTS
	Extended	Collapsed	Max. lift	Forward	Backward	Width	Length (without forks)	Ground clearance	Turning radius	Gas	Diesel	Low m.p.h.	High m.p.h.	Reverse m.p.h.	(lbs.)	
4,000	12′6″	7′6″	10′	6°	8°	5′6″	9′2″	9″	7′7½″	51.5 h.p.	—	—	22	22 max.	—	
5,000	12′6″	7′6″	10′	6°	8°	5′6″	9′4″	9″	7′8½″	51.5 h.p.	—	—	23	23 max.	—	
6,000	12′6″	7′6″	10′	6°	8°	6′0″	10′8½″	9″	13′0″	77 h.p.	—	—	25	25 max.	9,250	Lay-down tilt cylinder, Mast heights to 30′.
5,000	16′5″	9′10½″	14′5″	7°	12°	6′3¾″	12′9¾″	—	23′4″	50 h.p.	50 h.p.	1st-1.2	4th-15.0	1.2-15.8	8,400	Load guard, mortar hopper, swing boom, dozer blade, hydraulic rotator, cement-block forks, hydraulic bucket.
5,000	24′	9′10½″	21′7″	7°	12°	6′3¾″	12′9¾″	—	23′4″	50 h.p.	50 h.p.	1st-1.2	4th-15.0	1.2-15.8	8,675	
6,000	14′4″	7′9″	9′4″	12°	12°	6′9½″	11′4″	1′½″	12′6″	73 h.p.	—	1st-5	3rd-18.6	5-18.6	12,000	Tow bar, fork hold-down, towing brake, 3-stage upright (to 30′2″).
4,000	—	7′10″	10′6″	10°	10°	—	12′1½″	—	—	33.5 h.p.	—	1st-1.9	4th-12.7	2.2-15.1	—	Hydraulic bucket, swing boom rotator, scraper blade, mortar hopper, side shifter.
4,000	—	9′10″	14′	10°	10°	—	12′1½″	—	—	33.5 h.p.	—	1st-1.9	4th-12.7	2.2-15.1	—	
4,000	—	10′1″	21′6″	6°	14°	—	12′3″	—	—	33.5 h.p.	—	1st-1.9	4th-12.7	2.2-15.1	—	
5,000	—	8′6″	12′	20°	10°	—	12′3″	—	—	41.3	40.4	1st-1.9	5th-16.8	2.3-20.5	—	
5,000	—	10′1″	14′	20°	10°	—	12′3″	—	—	41.3	40.4	1st-1.9	5th-16.8	2.3-20.5	—	
6,000	—	8′6″	12′	20°	10°	—	12′3″	—	—	41.3	40.4	1st-1.9	5th-16.8	2.3-20.5	—	
6,000	—	10′1″	14′	20°	10°	—	12′3″	—	—	41.3	40.4	1st-1.9	5th-16.8	2.3-20.5	—	
1,000 (15 in. center)	9′5″	5′8″	7′6″	2°	10°	2′10″	5′8″	—	5′1″	✓	—	—	4 max.	4 max.	1,600	32″ X 48″ tilting platform, 10 cu.ft. hopper body, 5 ft. utility blade.
1,000 (15 in. center)	8′8″	5′6″	7′	2°	10°	3′9½″	6′8¾″	—	7′	✓	—	—	12 max.	12 max.	2,050	18 cu. ft. dump body, 42″ X 59″ platform deck, 5′ utility blade.
3,000	—	12′2″	40′	12°	12°	8′5″	26′	1′	—	116 h.p.	—	—	25 max.	25 max.	16,800	Tilting carriage, fork stops, fork-stop catch shield, hod buggy, instant-shift fork carriage, crane attachment, material bucket, concrete hopper.
5,000	—	10′7½″	32′	12°	12°	8′5″	23′3″	1′	—	116 h.p.	—	—	25 max.	25 max.	15,750	
4,500	—	12′2″	26′	12°	12°	8′5″	25′10″	1′	—	116 h.p.	—	—	25 max.	25 max.	15,850	
6,000	—	10′7½″	21′	12°	12°	8′5″	23′1″	1′	—	116 h.p.	—	—	25 max.	25 max.	14,750	
5,000	13′6″	8′3″	10′	20°	10°	6′4″	11′1½″	9″	12′2½″	40 h.p.	—	1st-2.4	2nd-17.8	2.4-17.8	7,786	Block forks, hydraulic side shift, mast extension, hydraulic material bucket, angle dozer.
4,000	11′2″	6′10½″	8′6″	9°	14°	5′6½″	10′6″	11″	12′	37 h.p.	36 h.p.	1st-1.5	6th-14.6	1.6-4.0	6,400	Hydraulic scoop bucket, concrete block forks, dozer blade, log clamp.
4,000	13′2″	7′10½″	10′6″	9°	14°	5′6½″	10′6″	11″	12′	37 h.p.	36 h.p.	1st-1.5	6th-14.6	1.6-4.0	6,500	
3,500	15′2″	8′10½″	12′6″	9°	14°	5′6½″	10′6″	11″	12′	37 h.p.	36 h.p.	1st-1.5	6th-14.6	1.6-4.0	6,600	
3,500	17′2″	9′10½″	14′6″	9°	14°	5′6½″	10′6″	11″	12′	37 h.p.	36 h.p.	1st-1.5	6th-14.6	1.6-4.0	6,700	
2,000	23′11″	9′10½″	21′0″	9°	14°	5′6½″	10′6″	11″	12′	37 h.p.	36 h.p.	1st-1.5	6th-14.6	1.6-4.0	7,177	

Build in

NAHB CONVENTION
See the Tappan Time Machines • Booths 1159-1164 • 1261-62
December 5th thru 9th, 1965



1. **Tappan Refrigerator-Freezer:** Tell her it's like having a 20-cubic foot supermarket right in her kitchen, and no defrosting ever. Fits in a space just 36 inches wide, and has a built-in look with cabinet-matching door inserts. Also white, coppertone or Lusterloy finish.
2. **Tappan Reversa-Jet Dishwasher:** The built-in dishwasher with reversing spray arms that work in one direction, then the other—to remove sticky foods most dishwashers can't get. Choice of three models, which Tappan thoughtfully made very easy to install.
3. **Tappan Disposer:** Cutting blade with 60-degree setting makes short work of hard-to-handle foods. Power reverse clears jams quickly, easily. The quiet food waste disposer with more do's than don'ts!
4. **Tappan "Holiday 400" Range:** Give her what she likes —a choice of *either electric or gas*. Two ovens, one at eye level and one below. Infinite heat control on surface units. And Tappan's easy cleaning features.

Tappan Time Machines

Today's housewife has better things to do than cook food and wash dishes. She runs a family taxi service, plunges into civic activities, shops, entertains. And often she has a full time job outside the home.

So, she needs and wants a kitchen she can get out of. Tappan can help you give her just that, in the home you want her to love and buy.

Feature Tappan Time Machines—appliances designed to save her time and do more of the kitchen work automatically. Set and forget cooking, more thorough dishwashing, fast garbage disposal, big refrigerator and freezer storage that never needs defrosting. And all made so that they clean like new in minutes instead of hours.

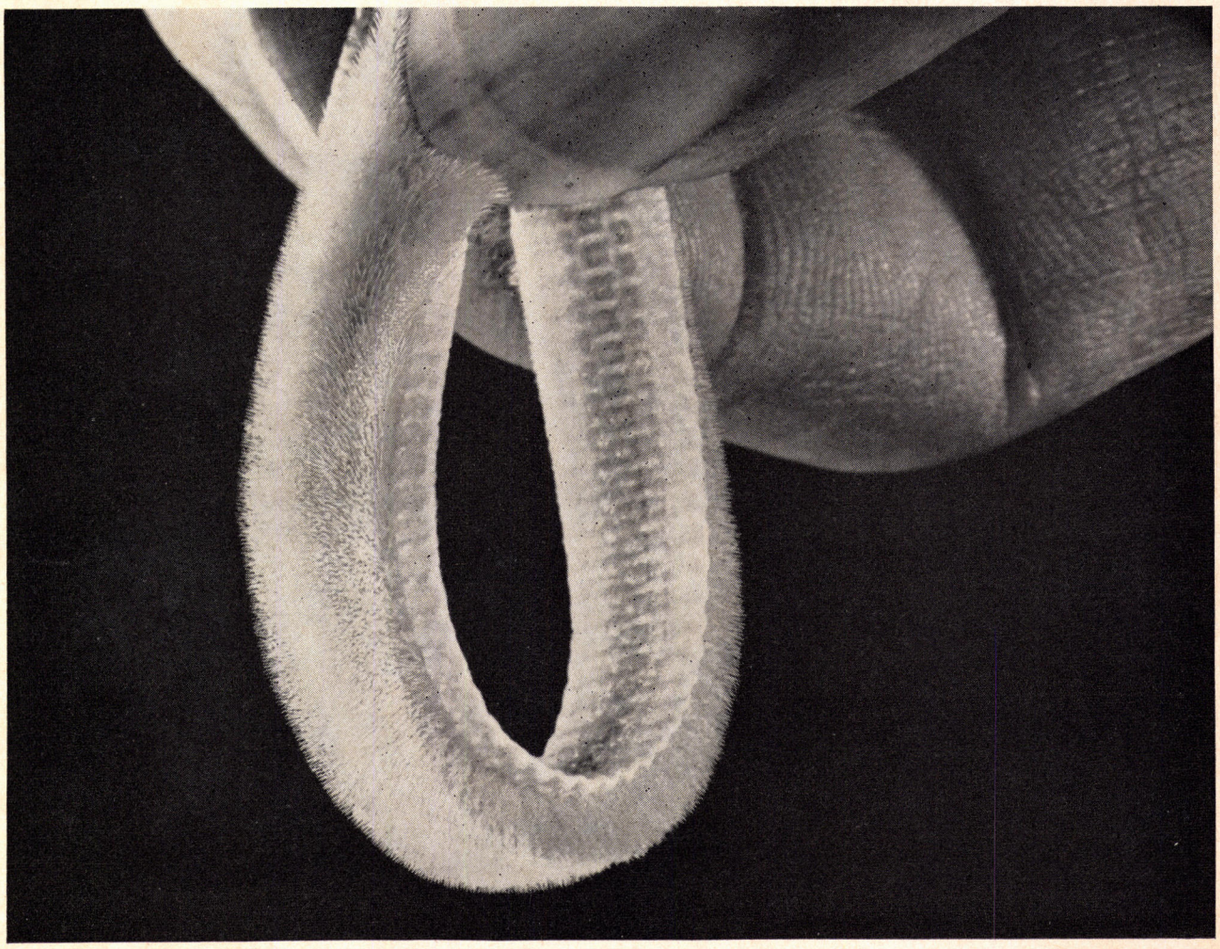
You get what you want from Tappan: a wide variety of models and prices, including Tappan's new Profile Line range in gas or electric. (You've never had a range this good at prices so low. It's a built-in that slips in. And helps you sell houses.)

Remember Tappan when you plan your models. Because once she loves your kitchen, can a sale be far behind? For information on Tappan Time Machines (and how to merchandise them) write, Dept. H11, The Tappan Company, Mansfield, Ohio.

TAPPAN
APPLIANCES

The Tappan Company, Mansfield, Ohio • Tappan-Gurney, Ltd., Montreal

The advantages of Poly-Pile* are as plain as its no's



no sticking, binding, friction, drag **no** deformation in temperature extremes **no** early deterioration from use **no** permanent set **no** gaps, cracks, rattles, singing **no** dents **no** mildewing, no rotting, no fraying

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Circle 79 on Reader Service Card ➤

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We thought our Golden Olive 6452 wall tile was such a rousing good idea that we made a companion floor for it.

It's called Mosaic 3304-VCDA Olive ceramic mosaic tile. Everything our wall is, our new floor is.

Stack one (or both) up against our 6447 Gold Dust wall tile. Or our countertop of Faientex 1391 Old Gold. Or accessories that run hot or cold.

You'll come off in perfect harmony every time. We guarantee it. Because totally color-compatible tile is the only kind Mosaic makes.

No one Mosaic color ever overpowers any other Mosaic color. Not even if you, too, get carried away with something like a Golden Olive.

Talk to your Mosaic Representative, Service Center or Tile Contractor about that. And about price ranges, alternate colors, samples and availability while you're at it.

Check through your Yellow Pages under "Tile Contractors-Ceramic". Or inquiries may be sent to The Mosaic Tile Company, 55 Public Square, Cleveland, Ohio 44113. For comparable colors in the western states, write: 909 Railroad St., Corona, Calif. 91720.

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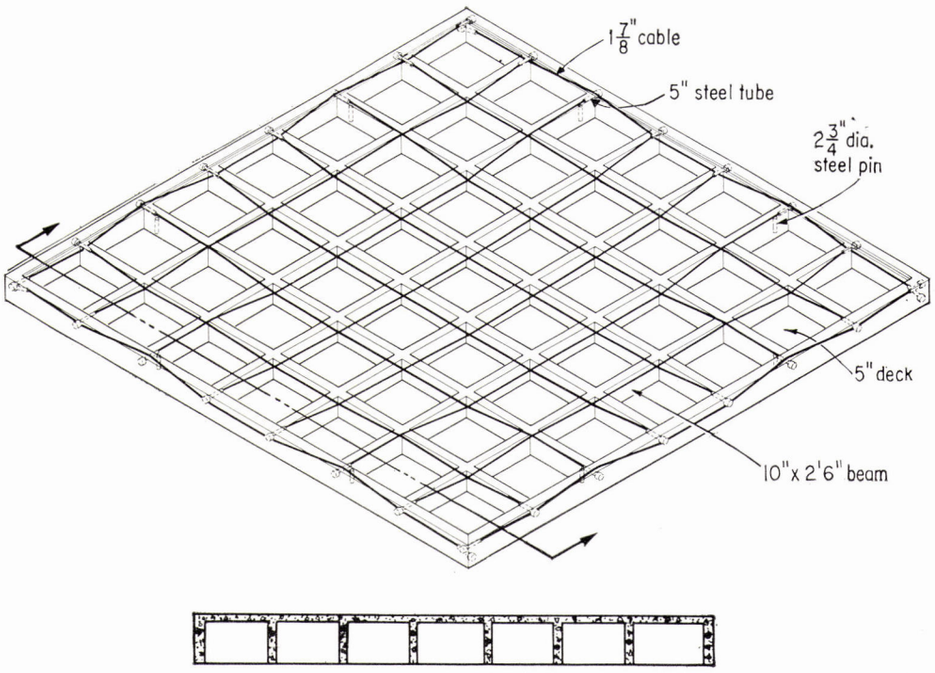
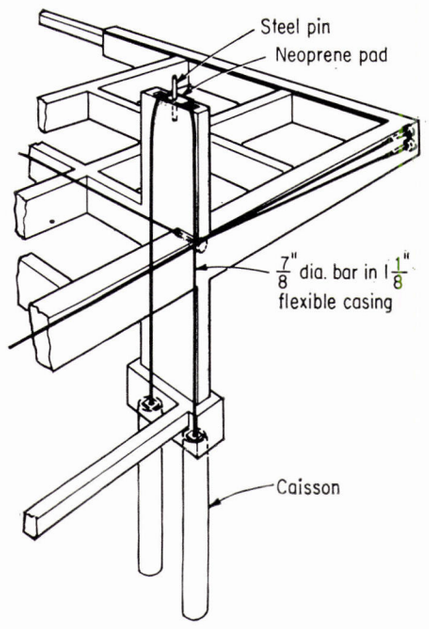
"Mosaic" is the trademark of The Mosaic Tile Company



WAFFLE ROOF DECK, designed on 8′ module, contains a single post-tensioning cable in each rib. Cables are woven at bearing points so they will follow, and thus counteract, bending moment.



SUPPORTING COLUMN and floor are tied to caissons. Steel pin ties column top to roof.

A prestressed concrete system that's poured on site

A homebuilder can produce the clear-span concrete house shell shown here for $3 to $4 a sq. ft. And he needs neither a crane nor special engineering knowledge.

So say the system's designers, Architect Paffard Clay and Engineer Jacques Kourkene of San Francisco, who expect soon to take the house into tract production.

The house doesn't require heavy equipment because the components don't come from a prestressing factory. All the concrete is poured in place, and the prestressing is done at the site with lightweight post-tensioning hardware.

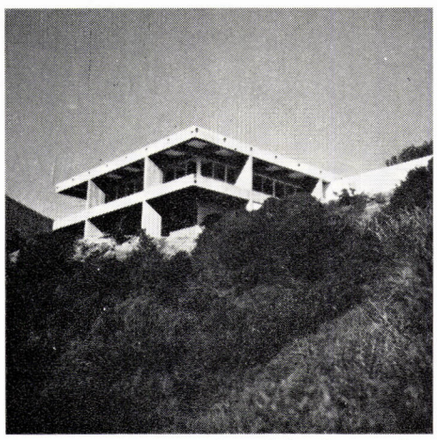
Post-tensioning is already a familiar term to the few builders who prestress their own concrete floor slabs as insurance against cracks. And while the idea of post-tensioning an entire concrete house is considerably more ambitious, the method is still the same: steel tendons placed in forms before pouring and stretched to the required tension when the concrete has partially set.

The key to the Paffard-Kourkene system is a tensioning device that is both easy to use and cheap to make. It is a steel tube, 5″ in diameter and about 18″ long, with a 2″ hole in one end and open at the other end. As the prestressing cables are laid out in the form, a tube is placed at the end of each one. The separate wire strands —20 strands in a 1⅞″-diameter cable— are drawn through the tube. They are secured in the holes of a threaded tensioning tool placed against the tube on shims. The tool is screwed out in the tensioning process and recovered for reuse (*see holes in unfinished roof face, below*). The tube is packed with grout which permanently anchors the stretched cables.

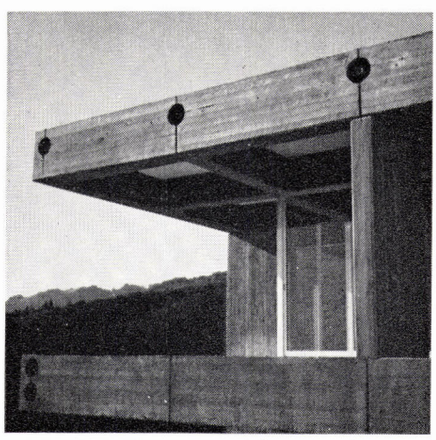
In the house shown here, the system permits a partitionless main living level of more than 2,000 sq. ft. The two 57′x57′ waffle decks for first floor and roof contain some three dozen tendons of identical weight and length running in two directions (*see roof drawing, above*). They follow the shape of the bending moment and are tensioned to the point of no deflection under dead load. Each of the eight bearing columns (*above, right*) is prestressed by two bars fastened to dual-drilled caissons.

Because the shell is monolithic, there are no structural fastening problems. The roof deck is connected to each of the columns by a 38″-long steel pin and cushioned against seismic stress by a ¾″-thick neoprene pad at the base of the pin.

But while post-tensioning is feasible for homebuilders, Paffard and Kourkene feel it won't win wide acceptance until three accessories become available: 1) lightweight, demountable formwork in modular sizes, 2) less expensive equipment for pressure-pumping concrete (which permits thinner supporting columns) and 3) off-the-shelf post-tensioning hardware on a rental basis. So far, only the last is in sight for homebuilders.

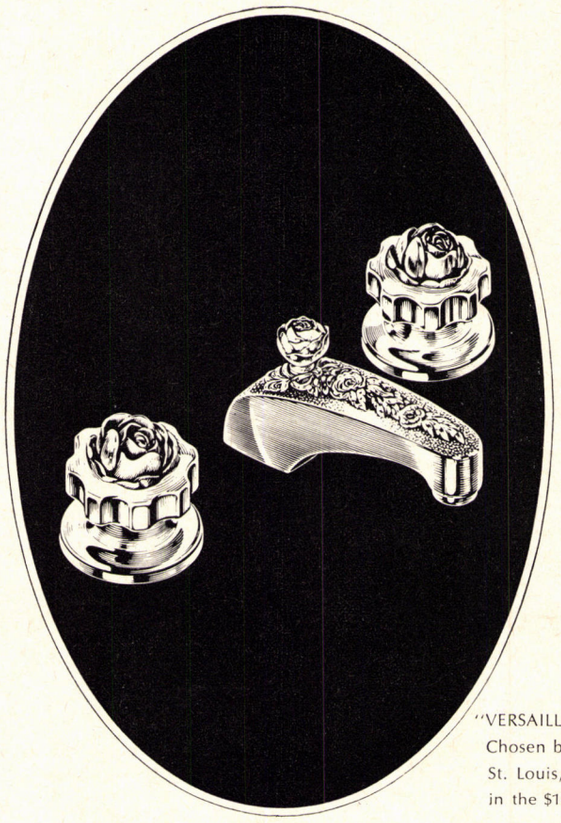


PRESTRESSED SHELL has all bearing members —eight columns—outside main living area.



CABLE TERMINALS are left exposed at deck edge for tensioning about two days after pour.

We'll see you at the NAHB Show



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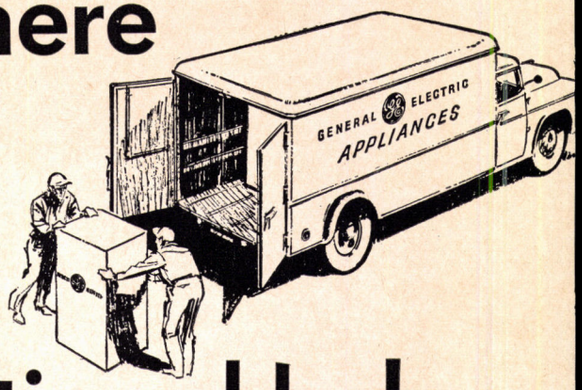

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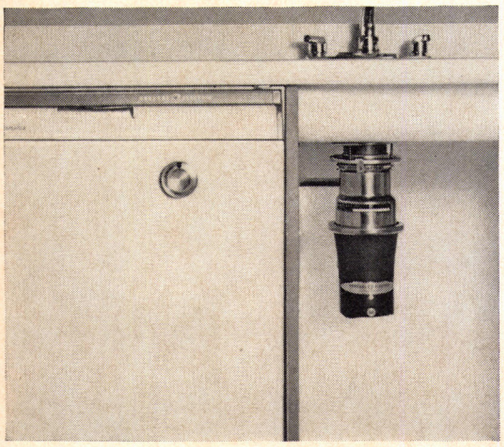
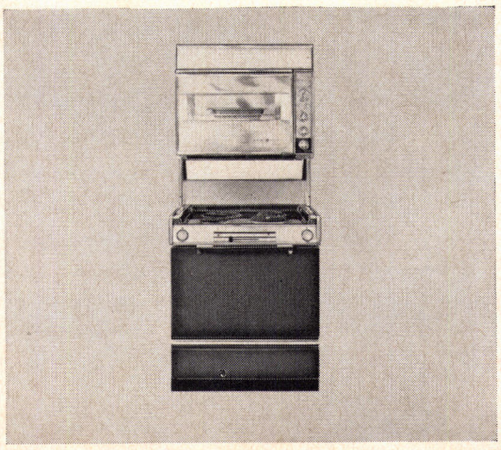
This unique custom-planning service is conducted by a highly trained group of professional designers and planners with headquarters in Louisville, Kentucky. The charge for this kind of help is extremely nominal.



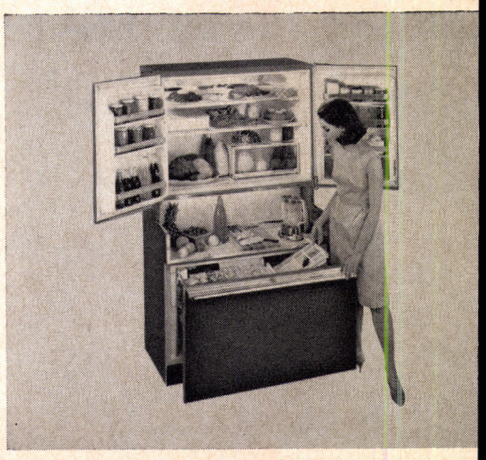
SD-200A DISHWASHER AND FC-100 DISPOSALL UNIT

Featured in the Westbury Manor Americana Kitchens are the SD-200A Dishwasher and the FC-100 Disposall® unit. The dishwasher features a swing-down door for easy front loading and unloading. Has THORO WASH* action. Flushaway Drain eliminates prerinsing or scraping. Just tilt off food scraps. The FC-100 Disposall unit is a continuous-feed food-waste disposer. Virtually all major metal parts exposed to water are of stainless steel or brass.



J-796 AMERICANA RANGE

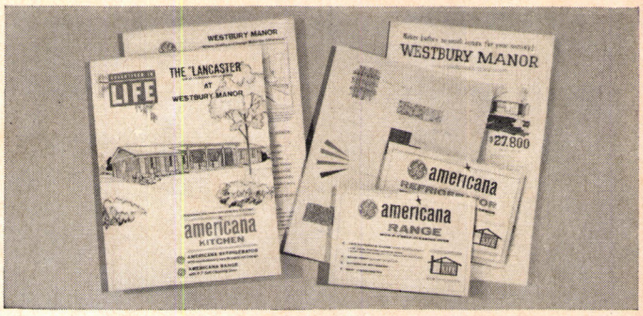
This elegant G-E Americana range has no equal for beauty or utility. It's a complete cooking center in itself. The master oven below is a P-7Ⓣ oven. It cleans itself electrically. And it includes an oven rotisserie and meat thermometer. There's a second full oven above at eye level. There are also four high-speed Calrod® surface units, one with Sensi-Temp Ⓣ automatic control. And—there's a unique 2-level vented exhaust system to carry cooking odors outside.



TDF-15C AMERICANA REFRIGERA

The dramatic breakfront Americana Refrigera is one of the most effective shopper-stoppers home appliances today. Attractive French doors cent the fresh-food storage area above. There's illuminated countertop with its own cutting boa Below—a huge roll-out freezer drawer with am frozen-food storage space and its own Auto-Fill Maker. And with the Americana, there's no defro ing ever, top or bottom.

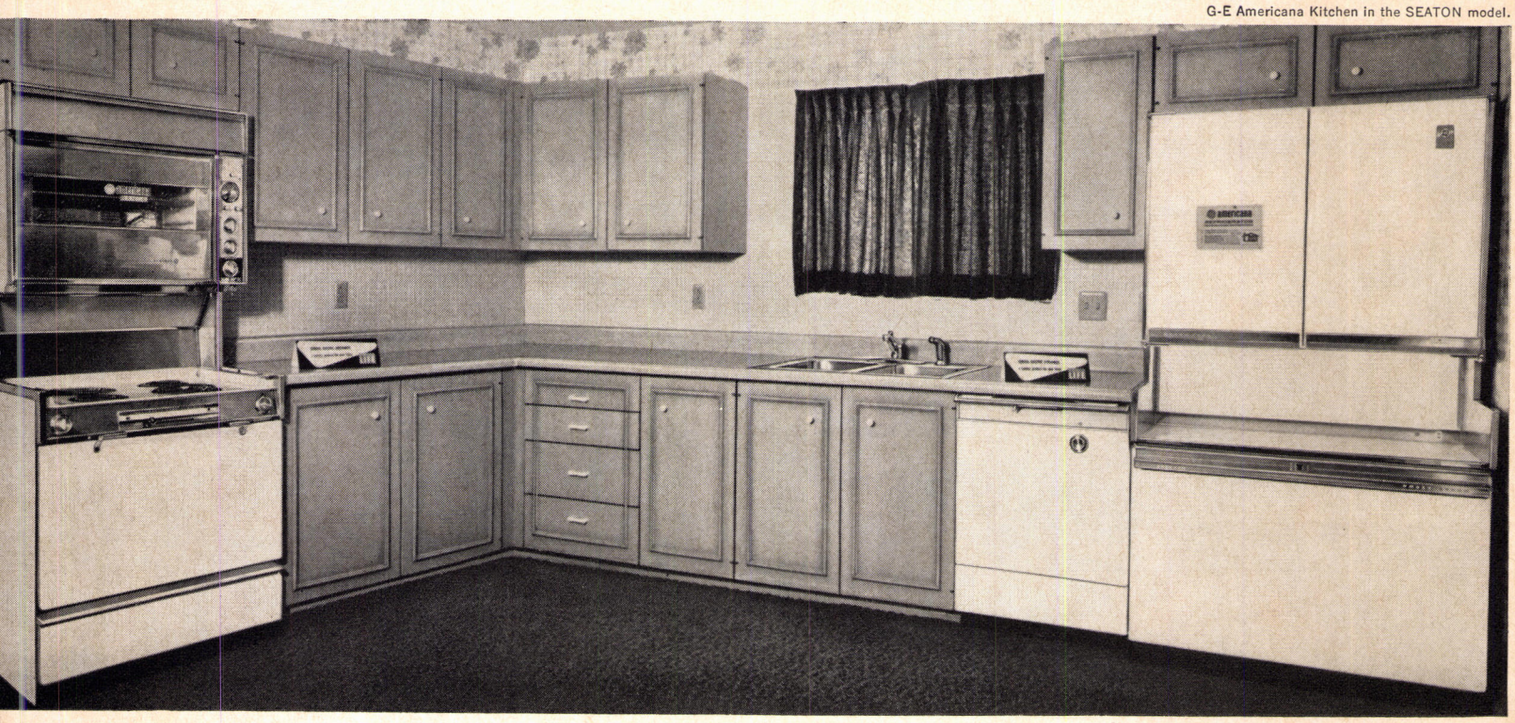
*THORO WASH is General Electric's name for more than one level of washing action, coupled with Flushaway Drain.



For example, General Electric not only designed the kitchens for the Spartan Builders, Inc. of St. Louis, Mo., but also worked in co-operation with LIFE Magazine in a variety of ways to help promote the project. Together they created an impressive array of methods and promotional materials to describe the Americana appliances, present the uniquely designed G-E Americana Kitchens and sell the entire Westbury Manor subdivision.

Marvin Deutsch, Pres., and Barry Solomon, Vice Pres., of Spartan Builders, Inc. in front of their SEATON model.

G-E Americana Kitchen in the SEATON model.



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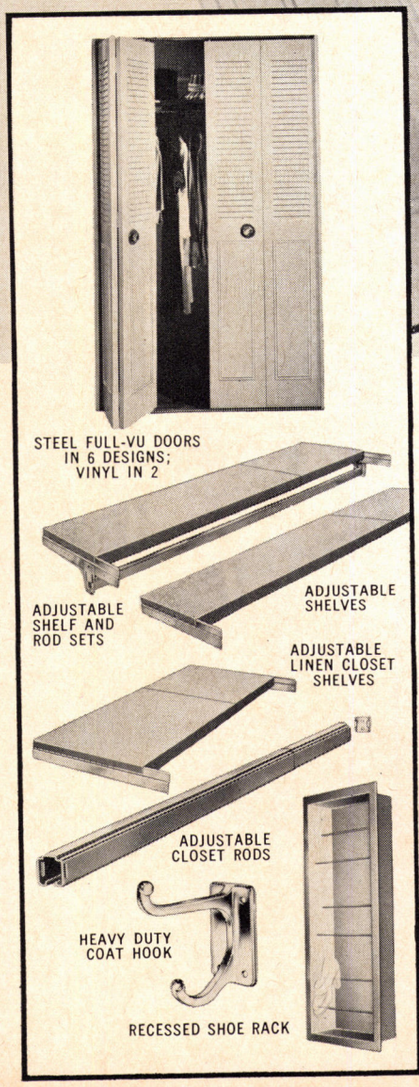
CHEVROLET

NEW '66 WORKPOWER TRUCKS!

Circle 82 on Reader Service Card



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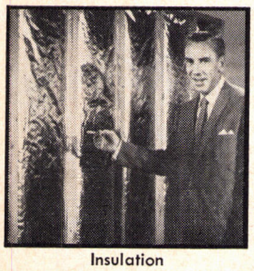
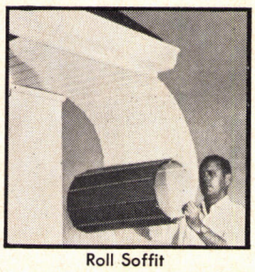
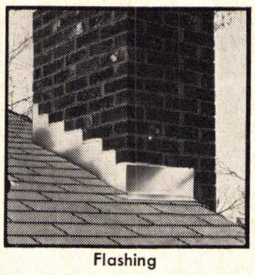
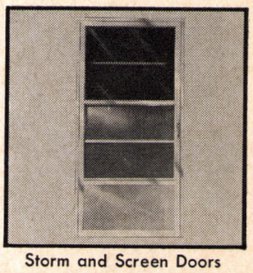
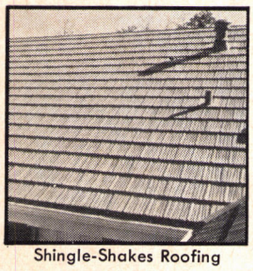

Insulation


Roll Soffit

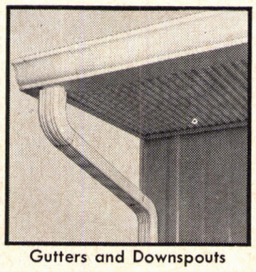

Flashing

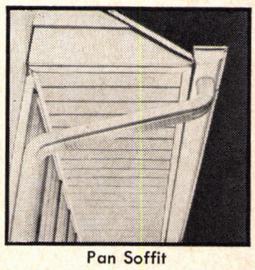
Nails


Storm and Screen Doors

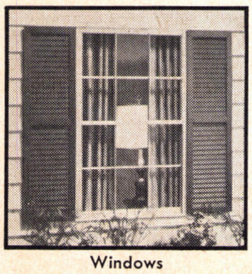

Shingle-Shakes Roofing

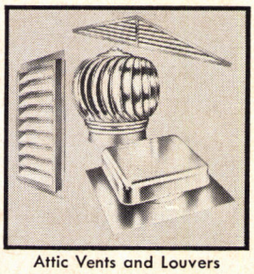
Columns and Railings

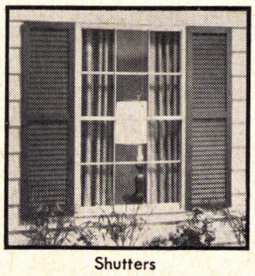

Gutters and Downspouts

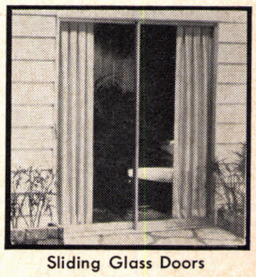

Pan Soffit

Awnings


Windows


Attic Vents and Louvers


Shutters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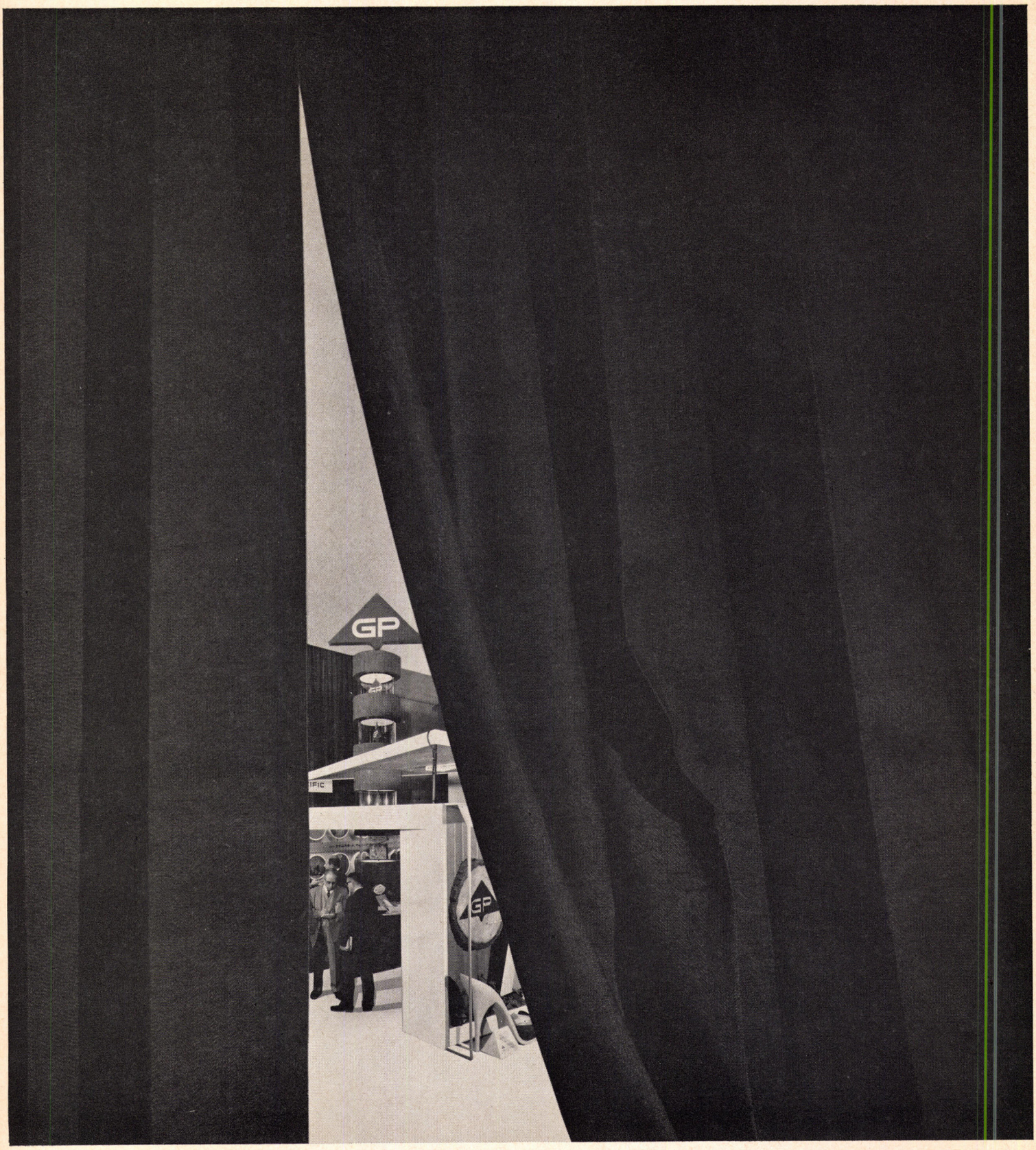

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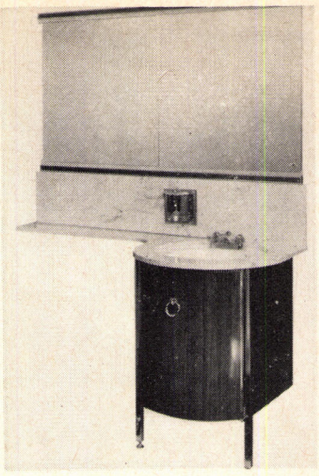
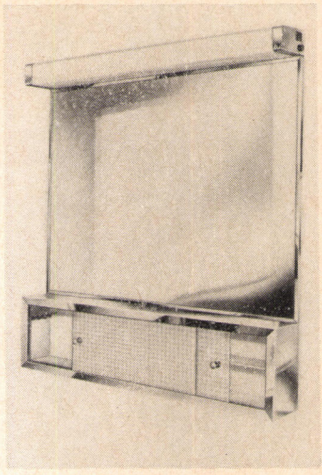
Circle 100 on Reader Service Card

Baths

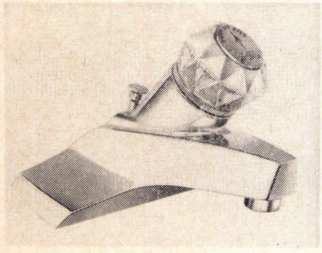
One-piece bathtub has built-in supports for quick leveling. The 5′ tub comes in a range of colors with right- or left-hand drains. Construction is acid-resistant enamel fused to steel. Norris-Thermador, Los Angeles. *Circle 192 on Reader Service card.*



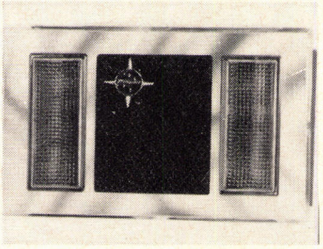
Vanity with man-made marble or laminated tops in a range of colors is reportedly waterproof and stain resistant. The doors have magnetic latches. The anodized aluminum medicine cabinet has two mirrors. Standard-Meriton, Brooklyn, N.Y.
Circle 197 on Reader Service card



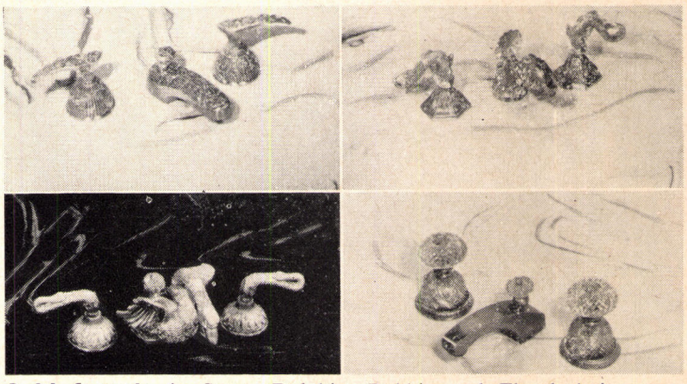
Mirror-vanity has mirrors framed in stainless steel with padded backing. Three models are available with a choice of doors (mirror, honeycomb glass, plastic) and light fixtures (incandescent, fluorescent, diffused). Grote, Madison, Ind.
Circle 198 on Reader Service card



Single-handle faucet has a hermetically sealed, ceramic valve unit. The faucet is triple-coated with chrome. Three models are offered: 8″ top-mounted and wall-mounted sink faucets and a 4″ lavatory faucet. Price Pfister, Pacoima, Calif.
Circle 193 on Reader Service card



Heater-ventilator-light for ceiling installation provides heat and ventilation with a forced-air radiant heater. The chrome-framed unit has an output of 120 watts of diffused light plus a night light. Rangaire, Cleburne, Tex.
Circle 194 on Reader Service card

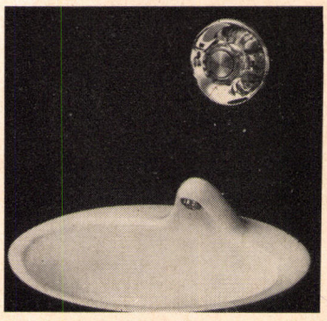


Gold faucets in Swan, Dolphin, Robbin and Floral designs are protected by an epoxy coating, according to the manufacturer. Other bathroom fixtures, such as shower-heads, are available in matching gold or chrome. Gerber, Chicago. *Circle 199 on Reader Service card.*

Bathroom cabinet is offered with hinged or sliding doors. Both have one-piece, all steel construction and mirrors guaranteed for five years. Sliding model is 29″ wide x 21½″, and the hinged unit is 16¼″ x 24¼″. Miami-Carey, Cincinnati.
Circle 195 on Reader Service card

One-dial shower faucet has a pressure-balancing valve that reportedly maintains temperature and water volume at all times. The valve can be easily adjusted and repaired. The faucet is brass, triple-coated with chrome. Moen, Elyria, Ohio.
Circle 196 on Reader Service card

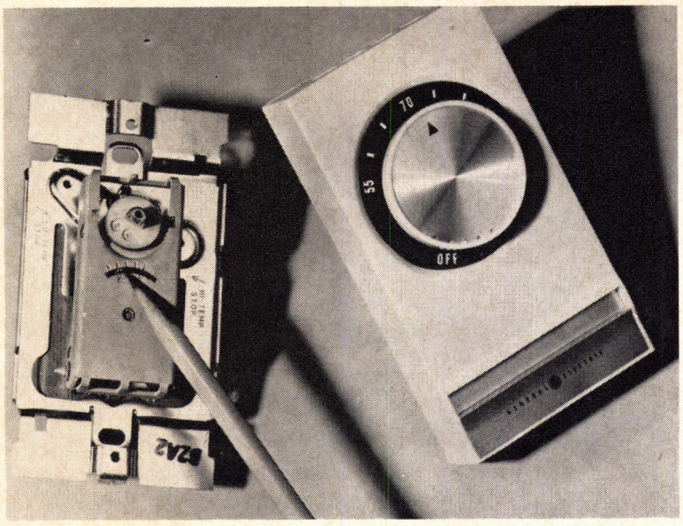
Slip-resistant tub, called Safeguard, has a built-in, foot-gripping safety surface of textured enamel. The surface is said to be comfortable to sit on, attractive, acid resistant and easy to clean. Kohler Co., Kohler, Wis.
Circle 200 on Reader Service card



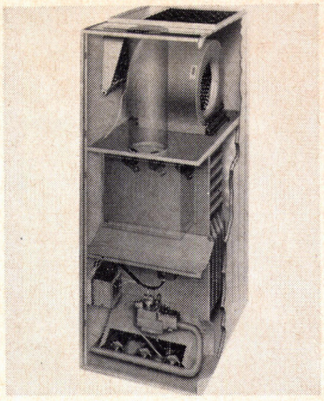
Cast-iron lavatory, called Cobra-lav, can reportedly be color matched to all major plumbing fixtures. Shapes offered are round, oval and rectangular. It connects quickly to the one-piece valve. Graning, El Monte, Calif.
Circle 201 on Reader Service card

New products continued on p. 134

Heating and cooling

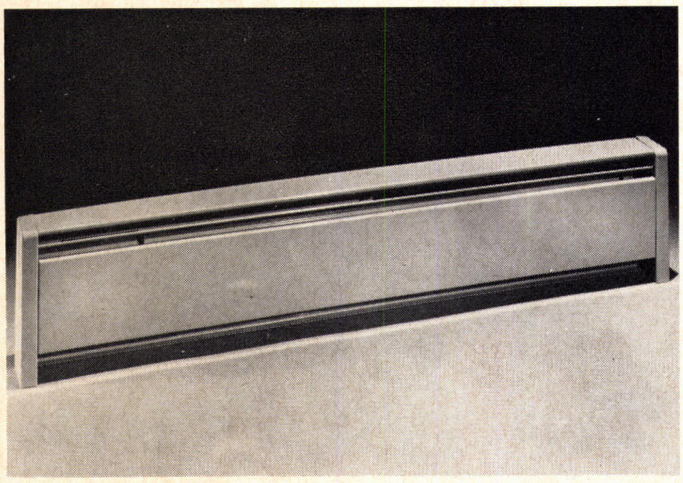


Electric heat thermostat, called Dial-A-Load, automatically maintains selected comfort ranges by matching the wattage load. The thermostat reportedly needs only one adjustment during installation. General Electric, Morrison, Ill. *Circle 207 on Reader Service card.*

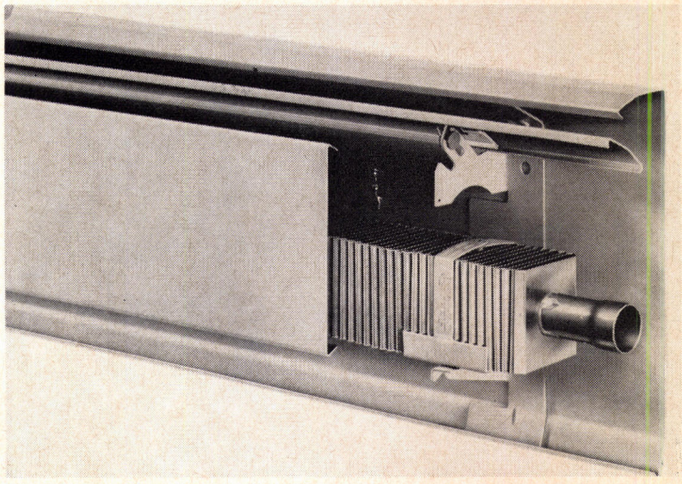


Gas-fired furnaces have a one-piece cabinet that is 28″ deep and 15″ wide. The units, says the manufacturer, run silently and are easy to install. Their heating capacities range from 65,000 to 200,000 Btus. Chrysler Corp., Dayton.
Circle 211 on Reader Service card

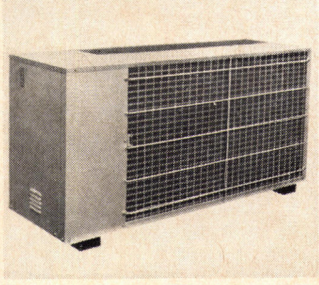
Electric baseboard heater comes in five models and two lengths: 38″ and 72″. The fan-forced unit has a sealed bearing motor. It has walnut front panels and a sand-tone case. Martin Stamping & Stove Co., Huntsville, Ala.
Circle 212 on Reader Service card



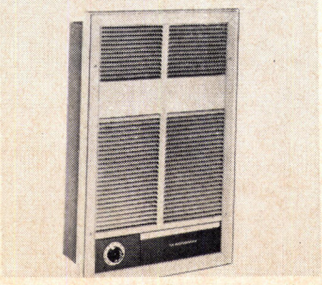
Hot-water electric heater is designed for rooms that have short wall lengths. The 6′ long, 1,380-watt unit is rated at 4,690 Btus. It is offered in permanent and portable models. International Oil Burner Co., St. Louis. *Circle 208 on Reader Service card.*



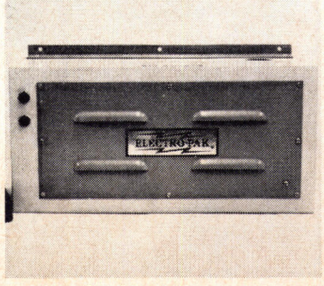
Baseboard heater is 3½′ long. According to its manufacturer, it can join lengths of 3′, 4′, 5′, 6′, 7′ and 8′ to fit walls without costly measuring or cutting. It comes completely assembled. Slant/Fin Corp., Richmond Hill, N.Y. *Circle 213 on Reader Service card.*



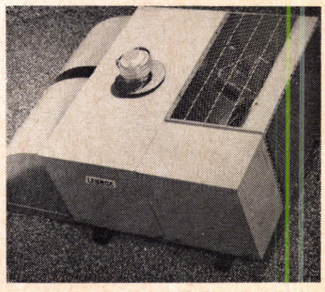
Condensing unit, called 95J, has a cooling capacity of 95,000 Btus. The 8-ton unit is 26″ wide, 36″ high and 72″ long. It can be used year round. Nineteen other models are included in the line. Fraser & Johnston Co., San Francisco.
Circle 209 on Reader Service card



Electric wall heater, called The Mediterranean, is designed for flush installation between 16″-o.c. studs. It has a low-speed self-lubricating motor and an automatic circuit breaker to prevent overheating. Federal Pacific, Newark, N.J.
Circle 210 on Reader Service card



Hydronic heat generator is designed for mobile homes, apartments and other small areas. It may be wall hung. The prewired electric unit has a heating capacity of 34,000 Btus. Size: 9½″ x 20″ x 8½″. Electro-Pak Corp., Reading, Pa.
Circle 214 on Reader Service card



Heater-air-conditioner is installed outdoors. The electric cooling units range from 2 to 22 tons, and the gas heaters are rated from 60,000 to 490,000 Btus. It has a permanent washable filter. Lennox Industries, Marshalltown, Iowa.
Circle 215 on Reader Service card

New products continued on p. 136

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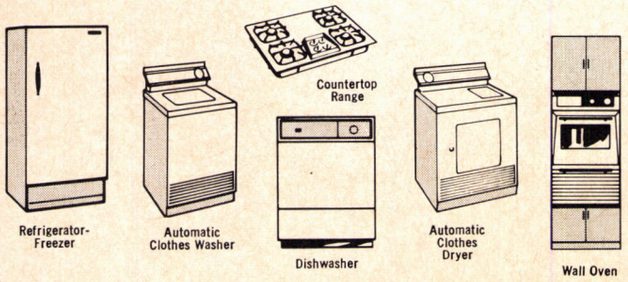

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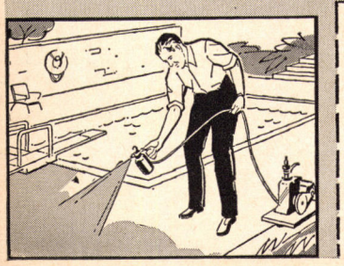

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Heating and cooling

Oil burners don't require combustion chambers on wet-base models. They have capacities ranging from 275,000 to 3,000,000 Btus. Nineteen models are offered for steam, forced circulation and gravity hot water. All have fully insulated steel jackets. American-Standard, New York City.
Circle 223 on Reader Service card

Gas-fired boiler produces almost instant heat, according to its manufacturer. It is offered in three sizes with heating capacities ranging from 10,000 to 150,000 Btus. Bryant Mfg., Indianapolis.
Circle 224 on Reader Service card

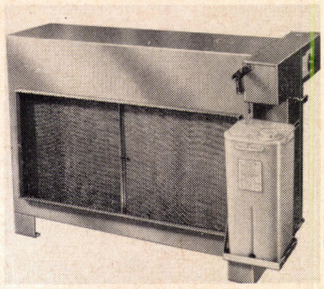
Semi-deluxe water heater, called PGX Vanguard, comes with a ten-year guarantee. The gas fired unit has a permaglas glass-lined tank with 30-, 40- or 50-gal. capacities. The manufacturer says the pre-set burner and pilot never need adjusting. A. O. Smith, Kankakee, Ill.
Circle 225 on Reader Service card

Humidifier is designed for installation on warm air furnaces. The unit, which is 11½" wide x 12" high x 13¼", is based on the rotating-drum principle. It produces up to 24 gal. of pure vapor a day. Lobb Humidifier Co., Berkley, Mich.
Circle 226 on Reader Service card

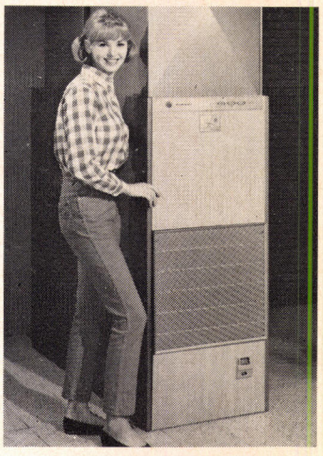
Electric water heater, called Tap Temp, can be used as a booster or a primary water heater. The steel tank, which is offered in white or gold baked enamel, is available glass-lined or galvanized. Hoosier Industries, La Porte, Ind.
Circle 227 on Reader Service card

Horizontal gas furnaces, called Heatwaves, have heating capacities ranging from 60,000 to 140,000 Btus. Units are shipped pre-wired and assembled. The furnaces have inshot burners and die-formed heat exchanges. Southwest Mfg., Aurora, Mo.
Circle 228 on Reader Service card

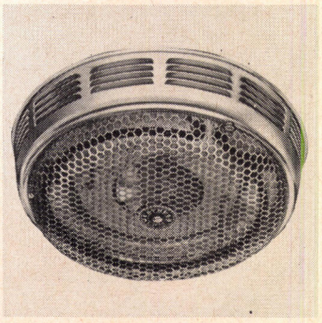
Stainless steel humidifier works efficiently with any forced warm-air furnace, according to its manufacturer. It can be mounted flush on a duct, plenum or furnace. The unit's capacity is rated at 18 gal. a day, and it is guaranteed for one year. Auto-Flo Corp., Detroit.
Circle 229 on Reader Service card



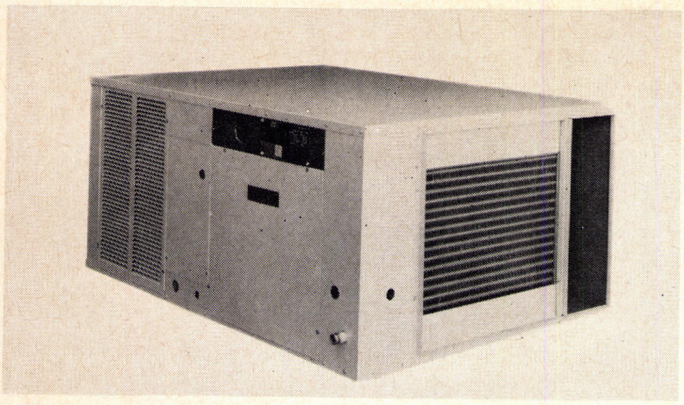
Self-washing air cleaner is designed for forced warm-air heating-cooling systems. It is preassembled and wired for easy installation. A traveling manifold, 7-gal. detergent tank and manual timer are included. Honeywell, Minneapolis.
Circle 216 on Reader Service card



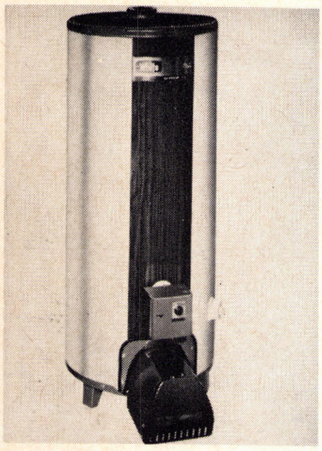
Heating-cooling unit has a sealed-combustion gas heater with a capacity of 25,000 Btus. The cooling unit has a capacity of 8,500 Btus, and it operates on a 110 volt, 60 cycle household current. Unit is 49" x 26" x 11". Sears, Roebuck, Chicago.
Circle 218 on Reader Service card



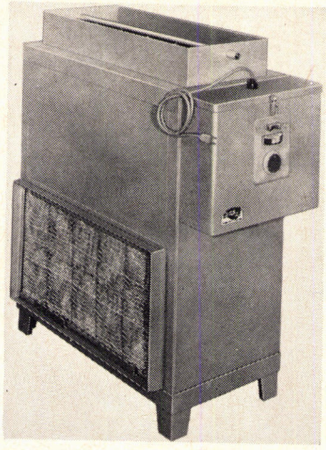
Radiant ceiling heater is installed like a lighting fixture. The infra-red, forced-air heater is rated at 4,266 Btus. It has an all aluminum housing and perforated grille. Its diameter is 12⅝". Ventrola Mfg., Owosso, Mich.
Circle 221 on Reader Service card



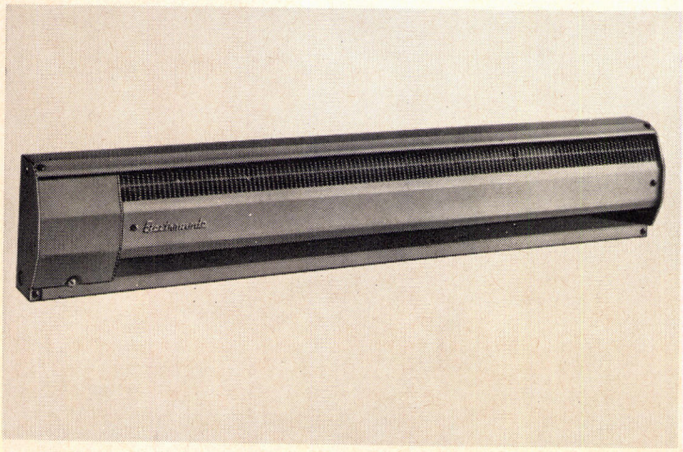
Electric cooling and gas-heating combination has a thermostat that switches the motor from high-speed for cooling to low-speed for heating. The heavy-gauge steel cabinet has a baked enamel finish. Janitrol, Columbus. *Circle 217 on Reader Service card.*



Oil-fired water heater has a 40-gal. capacity. It is shipped completely assembled and prewired. The lightweight unit has a heating capacity of 46,200 Btus. Its tank has a five-year guarantee. White Products, Middleville, Mich.
Circle 219 on Reader Service card



Electronic air-cleaner collects about 95% of all air particles, says its maker. It has a steel-reinforced cabinet with an enamel finish. The unit has a built-in washing system. Electro-Air Cleaner Co., McKees Rocks, Pa.
Circle 220 on Reader Service card



Electric baseboard heater is available in four lenths: 36″, 52″, 68″ and 100″. The golden bronze unit has a full-length safety switch, a stylized grille and a cast-aluminum heating element. Electromode, Rochester. *Circle 222 on Reader Service card.*

New products continued on p. 138

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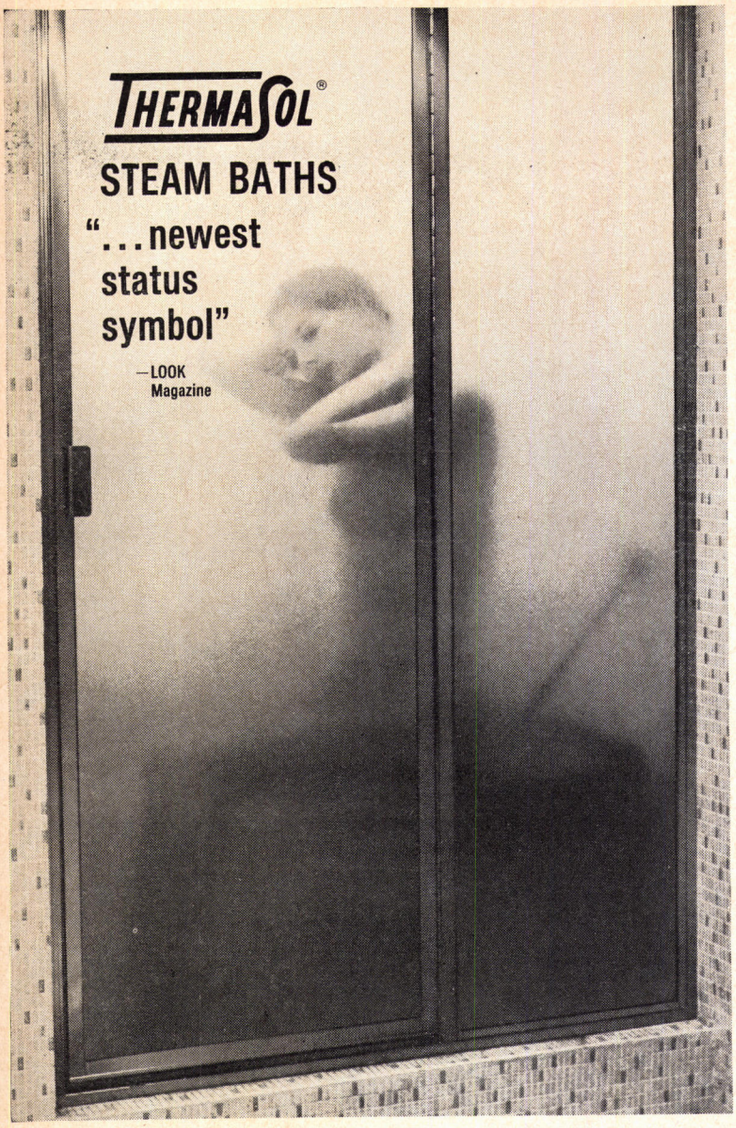

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Electrical fixtures and wiring

Switching dimmer is rated at 400 watts, 120 volts and 60 cycles. Li/Trol has independent control knob and rocker switch to permit a predetermined brilliance level. Federal Pacific Electric, Newark.
Circle 165 on Reader Service card

Compact circuit breaker is designed for installation in mobile homes. Devices for 120/240-volt AC service have a single-screw cover and extra neutrals to meet mobile-home wiring standards. I-T-E Circuit Breaker, Philadelphia.
Circle 166 on Reader Service card

Switch plates of anodized aluminum come in a range of colors including Silver Satin, Crystal Burgundy and Brushed Gold. The units have a quiet floating action rocker-arm toggle. Feathertouch, Whitinsville, Mass.
Circle 167 on Reader Service card

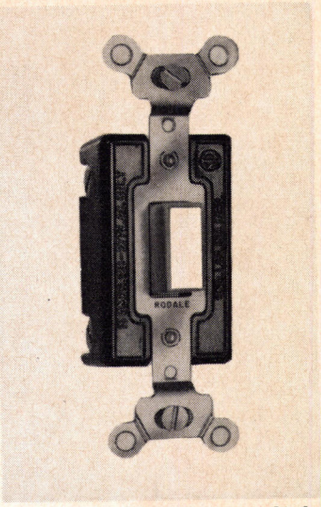
Circuit breakers have molded-case E-frames. Breakers are available in one-, two- and three-pole models in any integral or fractional current rating from 0.100 to 100 amp at up to 240 volts AC. Heinemann Electric, Trenton.
Circle 168 on Reader Service card

U ground duplex outlet has eight wire holes for rapid, continuous wiring, says the maker. Unit also has screwless terminals, double wiping spring bronze contacts and a corrosion resistant finish. Circle F Mfg., Trenton.
Circle 169 on Reader Service card

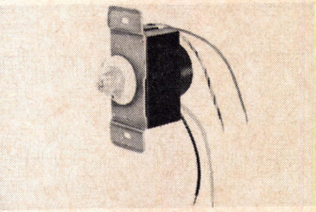
Surface wiring unit has redesigned cover that is said to provide tilt clearance for easy assembly or removal. The extended lead edge of the cover allows base alignment. Wiremold, Hartford, Conn.
Circle 170 on Reader Service card

Incandescent dimmer has a switch that can be tapped on or off at any light level. Dim-R-Lite is fully warranted and self-contained. Visionaire Electronics Corp., Los Angeles.
Circle 171 on Reader Service card

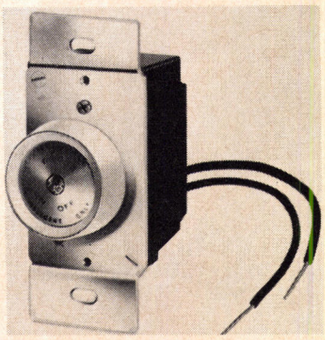
Rotary light control is three-way. Lights can be switched on or off from two locations, but dimmer is controlled from one only. Model RDCP-3-600 is rated at 600 watts, 120 volts AC for incandescent lamps. Slater, Glen Cove, N.Y.
Circle 172 on Reader Service card



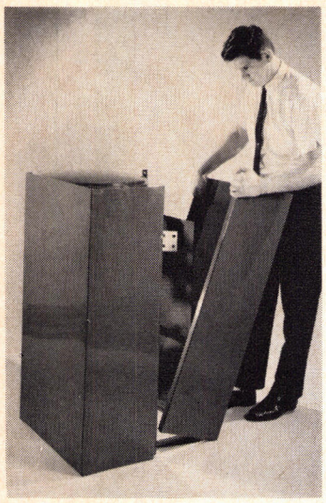
Illuminated-button switch has touch control. No special wiring is required and the unit will fit standard outlet boxes and wall plates. The switch operates fluorescent or incandescent lighting systems. Rodale Mfg., Emmaus, Pa.
Circle 157 on Reader Service card



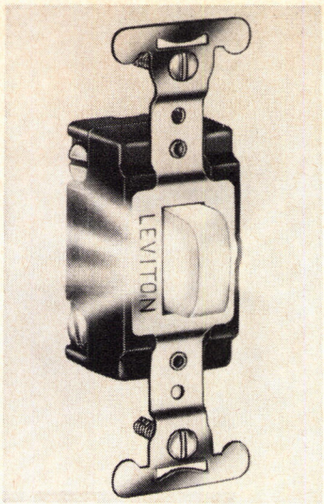
Fluorescent dimmer has ivory knob and can be used with any standard switchplate. LFD 10 can control from two to ten F40/RS lamps. Mounting screws and wiring connection diagram are included. Superior Electric Co., Bristol, Conn.
Circle 160 on Reader Service card



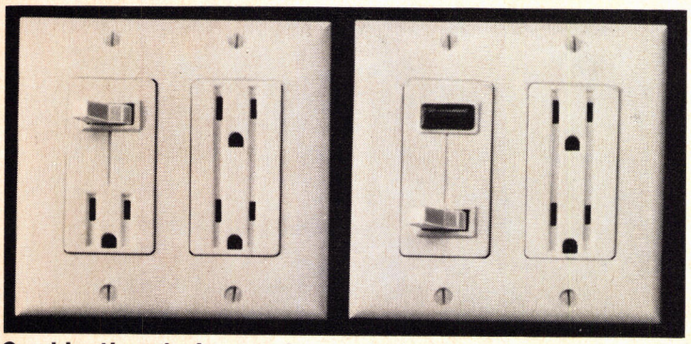
Solid-state dimmer for incandescent lighting has 500-watt capacity. On/off positions are controlled by pressing knob. Single-pole and three-way types are offered and two other models are available. General Electric, Providence.
Circle 162 on Reader Service card



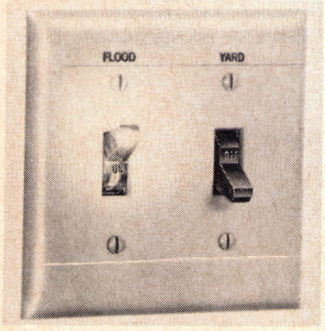
Pad-mounted transformer for underground residential distribution systems comes in sizes from 25-kv to 167 kva. It can be used for either loop feed or radial feed operations. The unit is said to be tamperproof. Allis-Chalmers, Milwaukee.
Circle 158 on Reader Service card



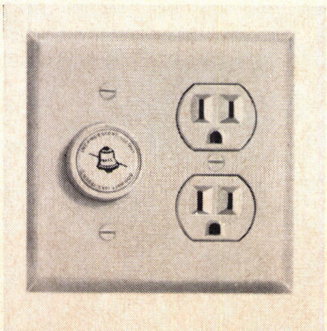
Lighted push button switch, designed for use on stairways, halls and bedrooms, is available in single-pole and three-way models. The device is approved for full-rated capacity fluorescent or tungsten loads. Leviton Mfg., Brooklyn. N.Y.
Circle 159 on Reader Service card



Combination devices and receptacles have AC quiet switches and split circuit wiring. Devices have a break-off feature that allows 16 different wiring applications with seven catalog numbers, says the maker. Slater, Glen Cove, N.Y. *Circle 161 on Reader Service card.*

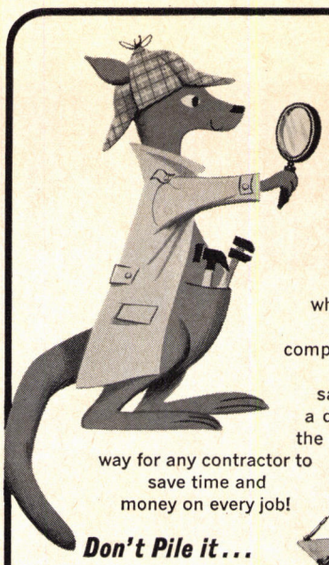


Pilot-light switches are available in six lighted toggle colors. Signal switches are designed for controlling out-of-sight lighting—garages, porches, basements, etc. Available in 15 and 20 amp ratings. Sierra Electric, Gardena, Calif.
Circle 163 on Reader Service card



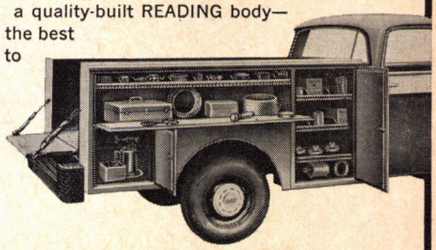
Dimmer switches have built-in circuit filters to eliminate interference. Aluminum heat sinks are said to minimize heating. A range of wall plates are available in 12 finishes. Units have a one-year guarantee. Bell Electric, Chicago.
Circle 164 on Reader Service card

New products continued on p. 146



You don't need a private eye!

You don't need a detective, a mind reader or an X-ray machine to find even the smallest parts—when you "file" your tools and equipment in the job-planned compartments of a READING Utility Body. Everything is easy to see, easy to find, safe from pilferage and weather. Get a quality-built READING body—the best way for any contractor to save time and money on every job!



Don't Pile it... FILE It in a

Reading ***Job-Planned Utility Body***

Made by master mechanics for master mechanics. See your local truck dealer... or for name of local distributor send this advertisement with your name and address.

READING BODY WORKS, INC., Dept. CE-65, 420 Gregg Avenue, Reading, Penna.

Circle 89 on Reader Service Card

NEW from SPEE-FLO

ALL-ELECTRIC AIRLESS SPRAY UNIT

for only **$695.00**

LEKTROSPRAY

Just plug into any 15 AMP., 115 V circuit and go!
Does the work of 2 H.P.

This revolutionary new portable unit weighs only 135-pounds and is complete, ready to spray with no extras to buy. It is equipped with the Patented H-Gun for quality atomization. Using a siphon pump operating from the original container, the LEKTROSPRAY will spray 400 square feet in less than ten minutes even with heavy viscosity latex and enamel.

The LEKTROSPRAY operates on heated air using the energy normally lost by ordinary compressor systems. RESULT: A powerful, compact industrially rated unit that is a "paint shop on wheels." Simple to operate and trouble-free with no hydraulic recirculation required .

Write for literature or see your local Spee-Flo distributor for a demonstration.

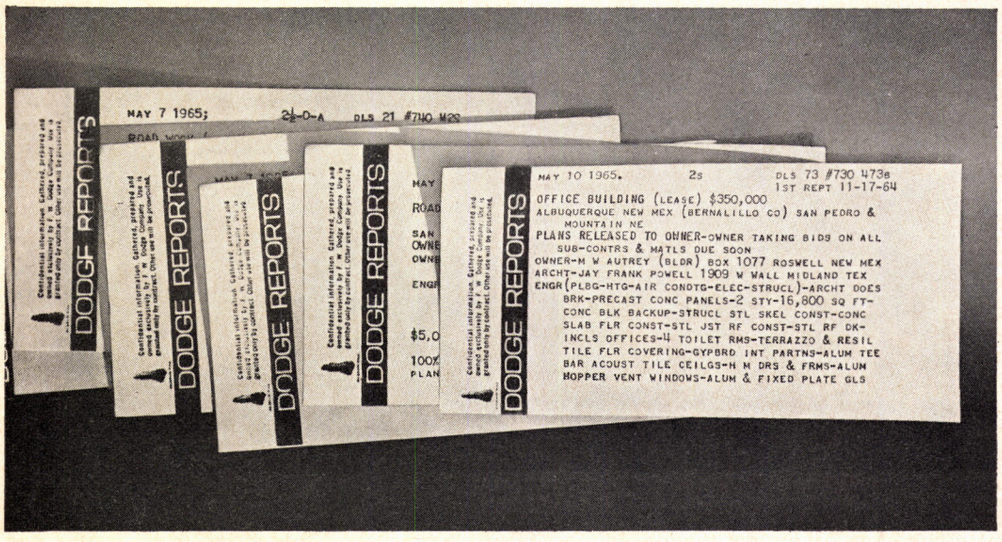
The SPEE-FLO Company
6614 Harrisburg Blvd., Houston 11, Texas
Offices in Major Cities
Export Offices: New York City
Sets new standards for quality finishing

THE H GUN

Circle 90 on Reader Service Card

What keeps the $68 billion dollar construction industry so uniquely well informed?

on new jobs...on selling opportunities...on new materials and trends...

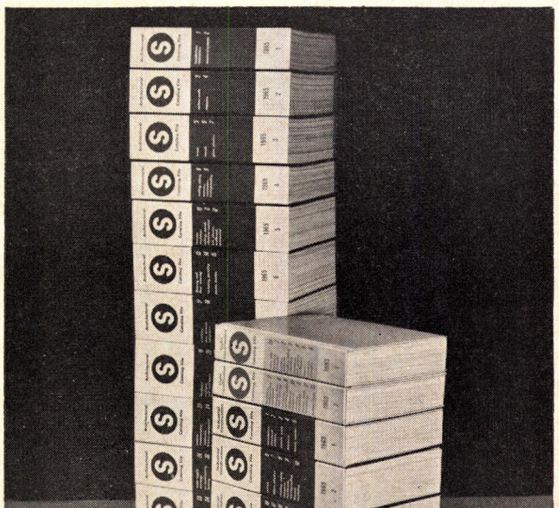


UP-TO-THE-MINUTE PROGRESS REPORTS on 120,000 construction jobs per year. 45,000 alert, aggressive contractors, subcontractors and material suppliers daily employ Dodge Reports, a unique kind of construction news service: unique in format; unique in completeness of information supplied; unique in flexibility. Each day, two million individual job slips tell firms selling new construction what actions to take to find the best job opportunities available for them. Now available in 38 states, Dodge Reports will soon expand into other areas. **If you operate in Arizona, Nevada or Southern California watch for the arrival of . . .**

Dodge Reports

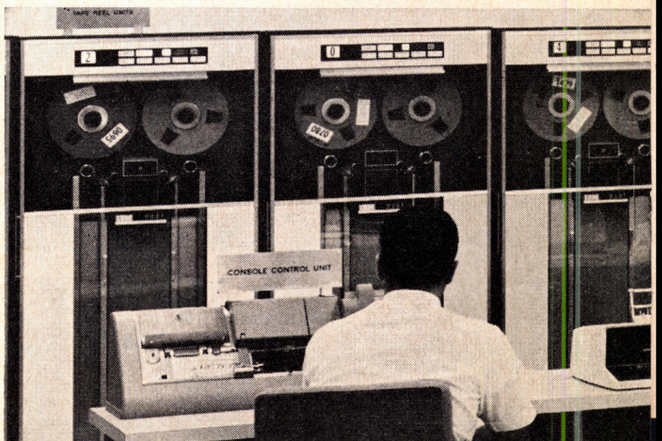
PREFILED MANUFACTURERS' CATALOGS covering products of more than 2000 manufacturers—containing more than 23,000 pages of detailed information. Sweet's Services include design and production of manufacturers' catalogs for distribution to specifiers and buyers of architectural, light construction and industrial products and materials. Complete sets of catalogs are distributed each year to more than 100,000 architects, engineers, general contractors and leading industrial firms. For product specifications, the standard of the industry is . . .

Sweet's Catalog Service



SALES MANAGEMENT TOOLS for firms selling to new construction. Construction Activity Statistics and descriptions of individual projects are combined in tailor-made sales management information systems to provide guidelines for establishing territorial potential, deploying manpower, evaluating performance and forecasting future demand. More than 1400 regional and national companies now employ Dodge Marketing Systems at national, district and field selling levels. In planning marketing strategy to the construction industry there is no substitute for . . .

Dodge Construction Statistics

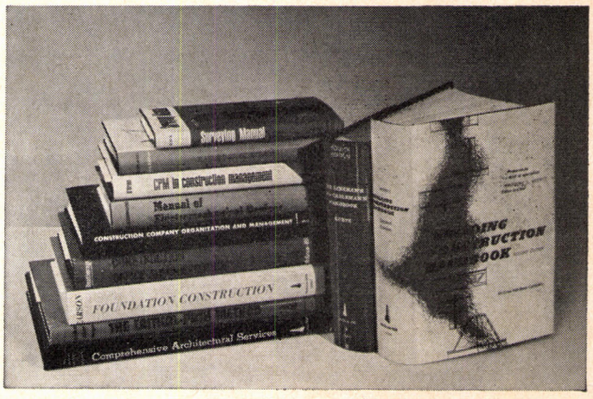


INDUSTRY NEWS, data, new product developments and applications through 7 well-known McGraw-Hill Publications. Business leaders get news and information about industry, finance and government through *Business Week* (circulation 448,411), America's leading general business magazine. Contractors and engineers rely on *Engineering News Record* (circulation 89,229) and *Construction Methods and Equipment* (circulation 51,696). Architects, designers and specification writers depend on *Architectural Record* (circulation 42,124), leading publication in its field. Home builders read *House and Home* (circulation 132,534), for news and trends of the industry. Electrical contractors and distributors subscribe to *Electrical Construction and Maintenance* (circulation 51,522) or *Electrical Wholesaling* (circulation 13,291).

McGraw-Hill Publications

SPECIALIZED TECHNICAL BOOKS covering standards, theory, application data for the entire industry. Illustrated below are a select few of the many familiar McGraw-Hill Books which are found in the libraries of professionals of all types in the construction industry . . . to train personnel, to design, to select materials and to establish construction standards.

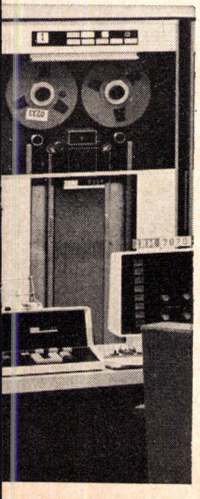
McGraw-Hill Technical Books



THOUSANDS OF ARCHITECT PLANS and specifications are available in Dodge Plan Rooms. To help material suppliers and subcontractors figure current jobs out for bids, Dodge now maintains more than 100 Plan Rooms in principal cities in 38 states — and will soon open additional rooms in strategic spots in Arizona, Nevada and Southern California.

This service to the construction industry speeds up the bidding process; saves countless hours of valuable time; simplifies communications between architect and potential subcontractors and suppliers. Each year, many thousands of plans and specifications on important construction projects are filed by architects in . . .

Dodge Plan Rooms



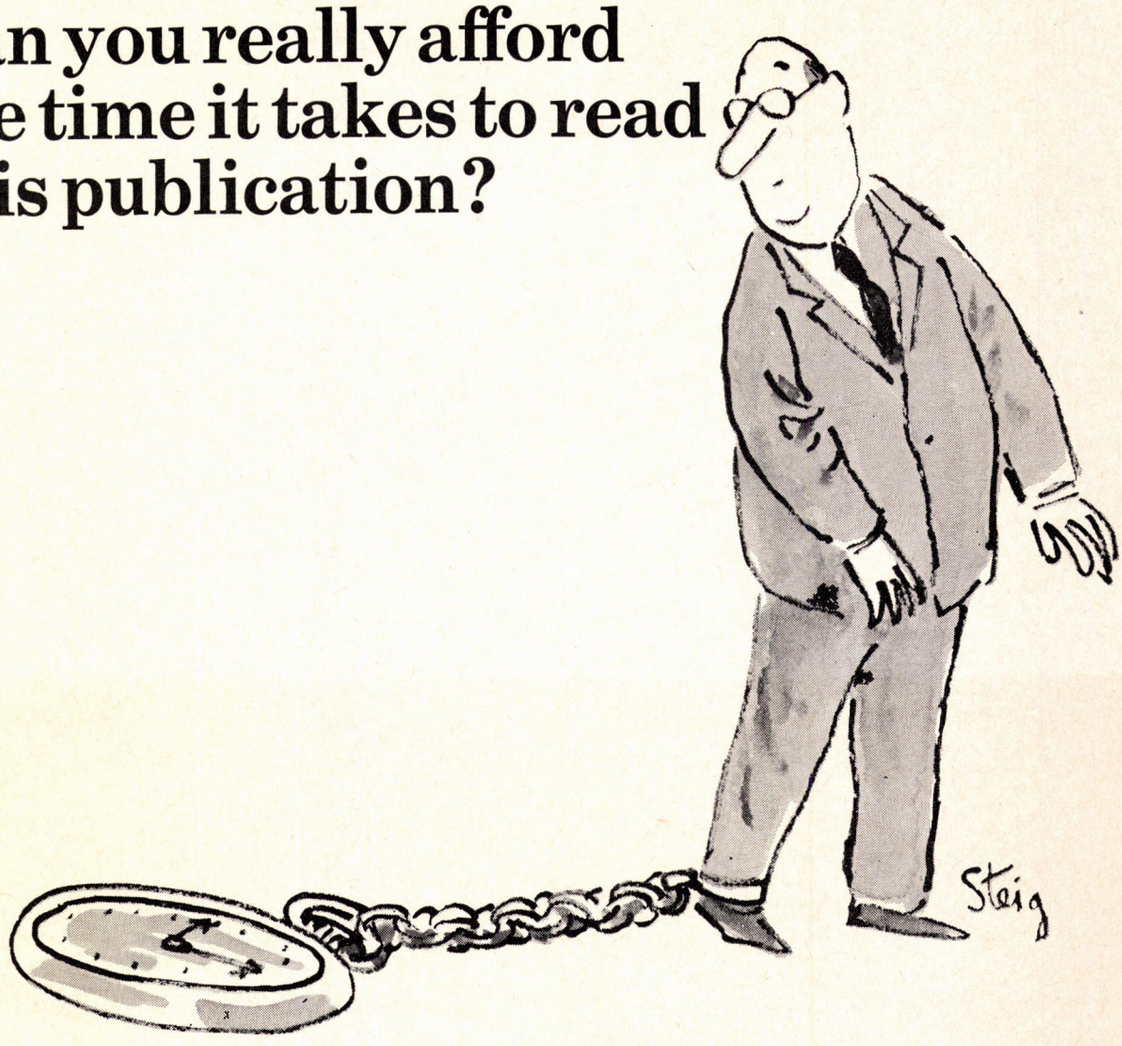
...or in three words Dodge/McGraw-Hill

F.W. DODGE COMPANY A DIVISION OF McGRAW-HILL INC. 330 WEST 42nd STREET, NEW YORK

Circle 361 on Reader Service Card

To Company Presidents:

Can you really afford the time it takes to read this publication?



You really can't afford not to, can you?

We don't know where you're reading this publication: In your office; in your home; in a hotel room; or in transit. But we do know that wherever you are, every minute of your time is valuable. And every minute you spend with us has to pay off.

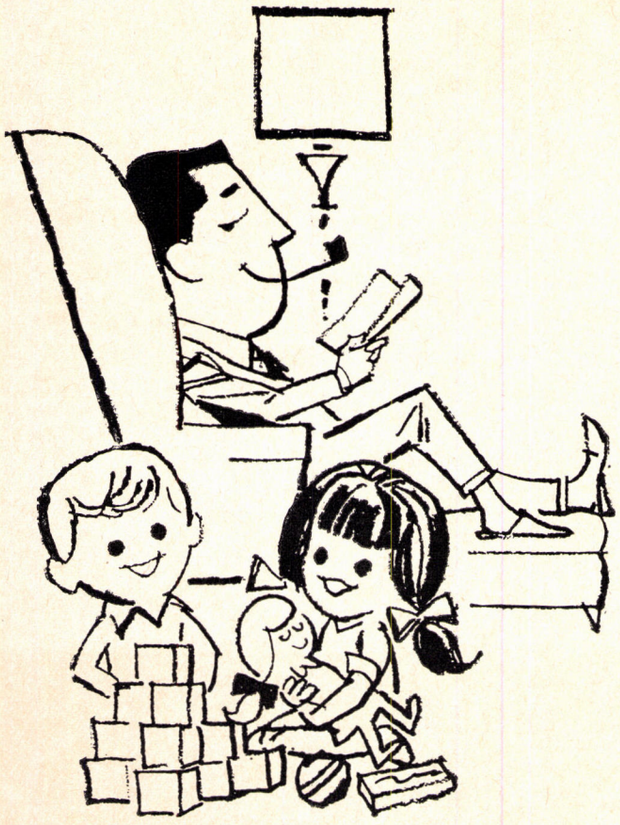
That's why we work so hard, not to waste your time but to save your time, by giving you every important piece of news and information you need – as fast as it happens, exactly as it happened, and what's likely to happen as a result.

When you open our publication, we know you mean business. So do we.

House & Home

MANAGEMENT PUBLICATION OF THE HOUSING INDUSTRY

A member of American Business Press, Inc. ABP



HOUSE & HOME readers spend time with the magazine. 87% of the subscribers read the magazine at home, but 47% read it in the office as well. The average subscriber picks it up five or six times a month and spends about 2 hours with each issue.

HOUSE & HOME
Management publication of the housing industry

A McGRAW-HILL/DODGE PUBLICATION
330 West 42nd Street
New York, N. Y. 10036

BUILD FAST—BUILD EASY BUILD QUALITY AND VARIETY WITH

FORD HOMES

FAST, because you get a more completely fabricated house with more items factory assembled into larger sections.

FLOOR PANELS may be as large as 8 x 28 feet and come to you with finish flooring laid, sanded and filled.

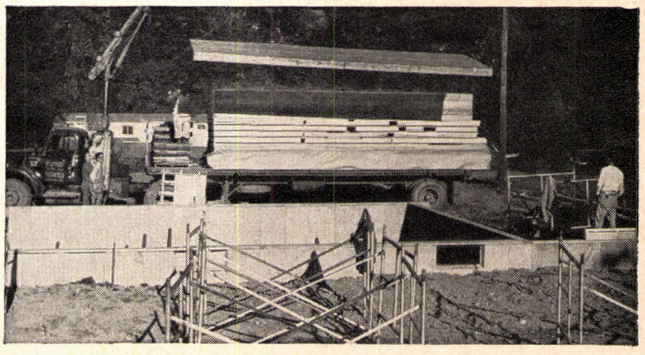
WALL PANELS up to 16 feet long with sheathing and drywall applied and insulation, rough wiring, doors, windows and trim all factory installed.

CEILING PANELS 8 feet wide with drywall applied to underside of joists and insulation and rough wiring installed.

ROOF PANELS with rafters 16" o.c. and plywood sheathing applied.

EASY because the sections are swung into place with an hydraulic crane that is mounted on one of the tractor-trailers that delivers the house.

QUALITY because Ford Homes are engineered for structural soundness and are built of top grade, brand name products.



VARIETY because Ford Homes are available in all styles including ranch, cape cod, split-level, split-foyer and two story.

And FORD Homes are under roof in one day!

Get your share of the quality market, with the complete Ford Quality Package. Write on your Company letterhead!

IVON R. FORD, INC.
375 W. Main Street, McDonough, N.Y.
Manufacturing Franchises Available in Some Areas

USO
IS THERE...
ONLY IF YOU CARE

The USO is a marine's chance to unwind over a cup of coffee 200 yards from the barbed wire edge of trouble. If you care.

The USO is a warm American greeting for a lonely sailor away from the teeming streets of a foreign port. If you care.

The USO is a smile lighting up a soldier's tension-creased face as Bob Hope entertains on a Southeast Asian battleground. If you care.

The USO is there, only if you care. Only your donations enable the USO to bring a little touch of home into the lives of our 2,300,000 citizens in uniform—lives they are pledged to risk wherever freedom is threatened. Someone you know needs the USO. Someone you know wants a choice of conduct during his off-duty hours. Someone you know wants a haven in a hostile world. Someone you know needs a reminder that folks back home really care.

Show him you care. Give to the civilian-supported USO through your local United Fund or Community Chest.

USO is there, only if you care.

ADVERTISING COUNCIL · PUBLIC SERVICE ·

Thulman Fireplace Installation in Crofton Community by Crawford Corporation. Price range $27,000 to $40,000.

Now... add the sales-closing luxury of a fireplace... for less than $285 installed!

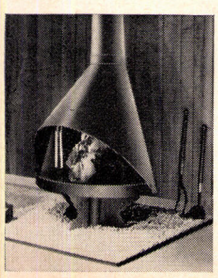
New ease! New economy! And for half the price of masonry! In as little as two hours you can equip any home—in any price range—with a low-cost Thulman factory-built fireplace. Put it in any room, directly against sub-flooring, beams, joists with absolute safety. Forget bracing, footings, foundations, insulation. Finish with any style mantel and facing. Here's one low-cost example:

COST OF FIREPLACE AND CHIMNEY	Model L36-01-1W Thulman Unit, delivered	$222.60
ERECT AND FRAME	2 hours @ $4.50 for carpenter plus lumber	16.00
FACING AND HEARTH EXTENSION	49 bricks, plus 6 sq. ft. rough slate	32.00
TRIM AND FINISHING	Job-built moulding and shelf	14.00
	TOTAL COST	$284.60

Take your choice of front-opening and corner units. The heavy steel firebox (24″ high, 36″ wide) is lined all around with heat-resistant material. Two outer casings provide surface cooling air space. Built-in damper and pre-built chimney components included.

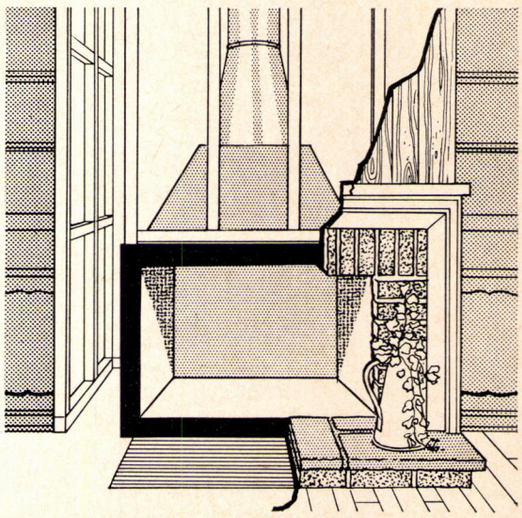
For beauty, safety, economy it's Thulman

A complete, factory-built package from hearth to chimney-top ■ U. L. approved. Meets all major building code standards and requirements ■ Built-in air circulation means perfect safety, even against wood surfaces ■ Can be installed in any room with any decor, surrounded with any material ■ Built with care to last as long as the house it's put in ■ Perfect sales feature for medium-priced homes, apartments, beach homes, recreation rooms



New "Glo-Lite" free-standing fireplace units—
Low-cost decorator units, easy to install. Red, Black or White. Life-Time Porcelain. 36″ opening. Fits any 7″chimney. Send coupon or phone.

THULMAN EASTERN CORPORATION
687 Baltimore National Pike
Ellicott City, Md. 21043
Phone (301) 465-3636



Patented features make Thulman units easy to install, long-lasting.

THULMAN-EASTERN CORPORATION
687 Baltimore National Pike
Ellicott City, Maryland
Area Code 301 465-3636

Please send me complete data on
☐ Thulman Fireplace units. ☐ Glo-Lite Fireplace units.

Name_____

Title_____

Company_____

Address_____

City_____

State_____ Zip Code_____

This little tag packs a powerful message

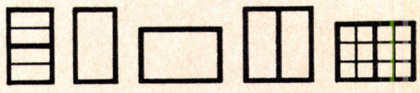
It's NEW and it hangs in every Malta window

It proudly tells of the best window guarantee in the business. It works overtime to assure your customers of the quality you've chosen. It backs your personal pledge of value and satisfaction. It reflects Malta's effective quality control. It recommends highly the dependable Malta distributors who have enthusiastically accepted this warranty plan, assuring their local cooperation. And it will help sell homes to today's quality conscious home buyers.

Malta window materials and workmanship have always been guaranteed. And you have come to expect a lifetime of satisfaction and good service from them. Now, with this warranty in writing for every one of your customers, you can recommend Malta Quality Windows with confidence.

Malta's 10 Year Warranty covers every window in the line; Malt-A-Matic, Malt-A-Magic, and Duo-Magic; Malt-A-Vent; Malt-A-Casement; Malt-A-Glide; Vinaline and Malt-A-Dart.

Send today for a descriptive folder illustrating the dynamic promotional material available for builder and/or dealer local advertising. It's yours for the asking.

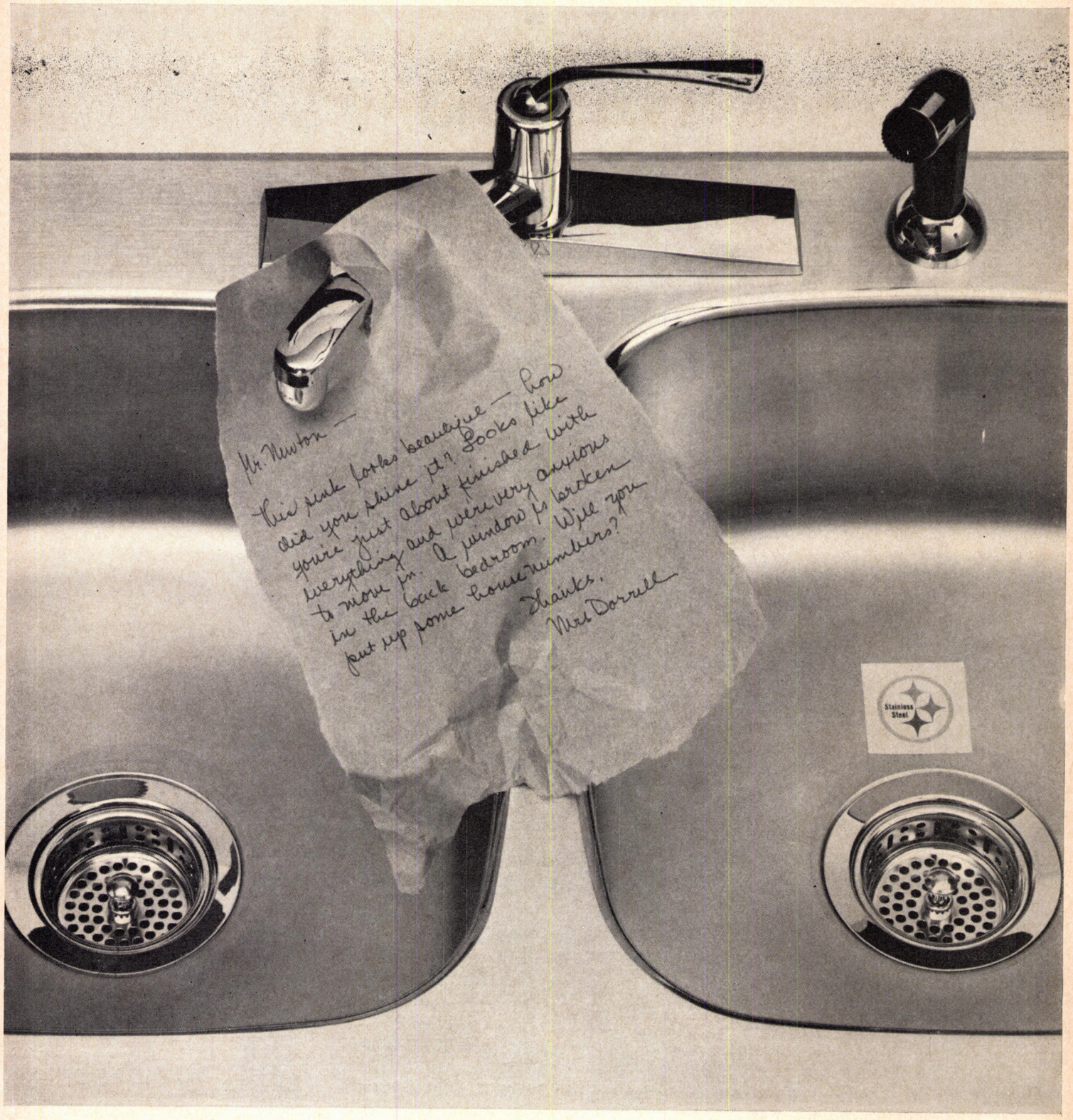


Malta

The line and the design for creative window planning

MALTA MANUFACTURING COMPANY ▪ GAHANNA, OHIO 43020, U.S.A.

W2



Dear Mrs. Dorrell:

The builder didn't shine this sink at all.
It's stainless steel. It looks that way when it's delivered, and it will always look that way because it won't chip or stain; and constant use just enhances its beauty.
It's the best material in the world for a sink —
ask any gal who owns one.

P. S. The builder will fix the window, and the house numbers will be up by the time you move in.

USS **United States Steel**

TRADEMARK

U. S. Steel does not manufacture sinks, but sells stainless steel to companies who do. If you'd like more information on the many types and sizes available, we'll be happy to send your name to manufacturers. Just fill in this coupon and mail it to United States Steel, Room 8425, 525 William Penn Place, Pittsburgh, Pa. 15230.

Name_____

Company_____

Address_____

City_____ State_____ Zip_____

"To a woman, appliances mean everything. To me, Hotpoint means sales!"

Ray Boone, Secretary-Treasurer
Heritage Construction
Fullerton, California

Our developments encompassing some 1000 homes in Brea, Diamond Bar, Ventura, San Jose and Foster City, California have taught us that women look extra-hard at our kitchens. What they see can often make or break the sale! That's why we switched to Hotpoint. We install Hotpoint double-oven ranges because they have outstanding features that women respect. This respect adds up to a powerful selling tool for us . . . makes it easier to convince prospects of the total quality of our homes."

Ray Boone installs Hotpoint appliances for one good reason: they help him sell. Take a tip from a successful builder. Call us.

Hotpoint

first with the features women want most

A Division of General Electric Company • Chicago, Illinois 60644

Williamson's "5 Steps to Comfort" give your homes proven sales edge

With a WILLIAMSON "5 Steps to Comfort" Total Indoor Comfort Control Package, the new home builder has a merchandising package to rival the modern kitchen or bathroom.

1

Heating . . . WILLIAMSON offers you a complete choice of warm air furnaces in three price ranges; Gas, Oil, and Electric fuels; Hi-Boys, Lo-Boys, Counter-Flows and Horizontals.

2

Air Distribution . . . exclusive WILLIAMSON Seal-Tite duct, pipe and fittings delivers all the comfort your "Total Comfort Package" produces. Special air flow design minimizes air friction, reduces noise.

3

Humidification . . . a powered humidifier to maintain the proper relative humidity in the home. Protects the family against respiratory ailments and skin irritations. The answer to desert-dry winter air.

4

Air Conditioning . . . central air conditioning units in styles and capacities to fit any size home you're building. These units are matched to fit the style furnace you've selected.

5

Air Purification . . . built-in electronic Air Cleaner (not a filter) electro-statically removes up to 90% of all airborne contaminants—dust, pollen, bacteria, even cigarette smoke. Keeps home clean and air hygienically pure.

Now get all "5 Steps to Comfort" in one complete builder package from WILLIAMSON. Write today for your free copy of the twenty page, three color "5 Steps to Comfort" brochure detailing advantages of Total Indoor Comfort Control merchandising package.

WILLIAMSON

The Williamson Company
Builder Dept. K-72, 3334 Madison Road
Cincinnati, Ohio 45209

Circle 94 on Reader Service Card

Avoid the last minute JAM!

Make your reservations NOW!

This is the last call. But we can still help you out for convention and hotel accommodations and into 1965's biggest jam session of 30,000 influential leaders of the home building industry — builders, architects, engineers, building material dealers and distributors.

This 22nd Annual Convention of the National Association of Home Builders is the most profitable back-scratching get together of the year. It's the World's Fair of home building. There'll be 450 big exhibits of what's new... a wide variety of programs with top notch speakers on every phase of our business.

Don't wait. Avoid the jam. Contact your local Home Builders Association today or write us for advance registration and hotel accommodations.

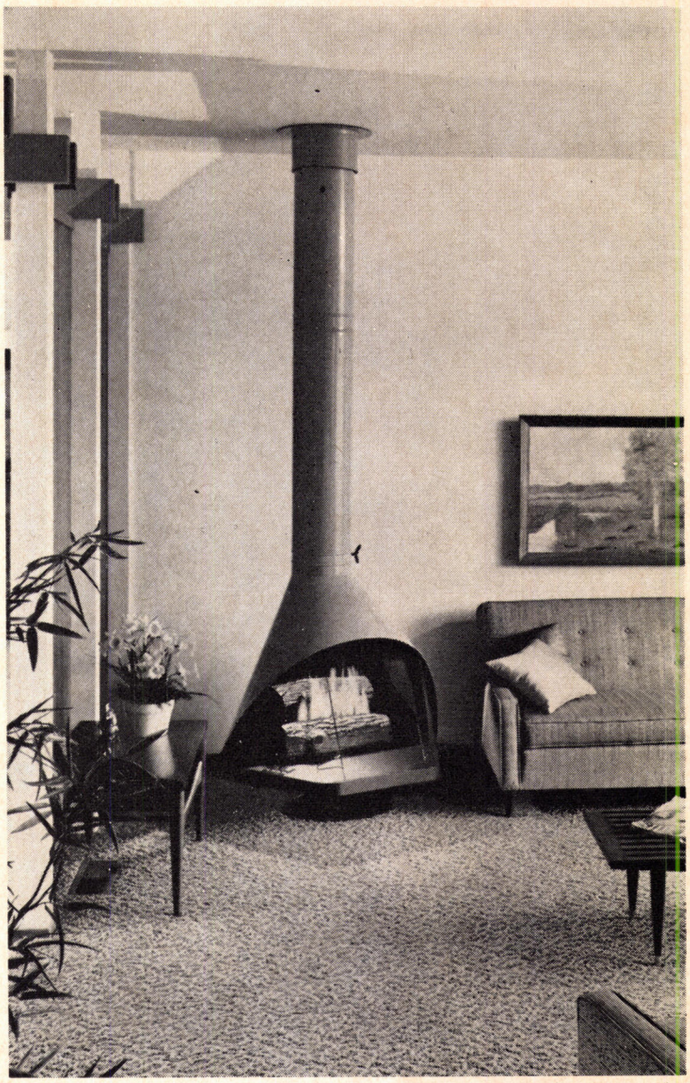
National Association of HOME BUILDERS Annual CONVENTION EXPOSITION Chicago December 5-9 1965

PLAN TO ATTEND

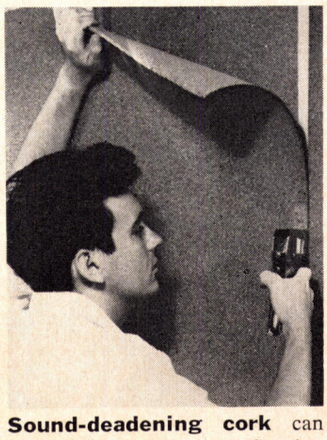
NATIONAL ASSOCIATION OF HOME BUILDERS
140 South Dearborn Street
Chicago, Illinois 60603

22nd Annual NAHB Convention

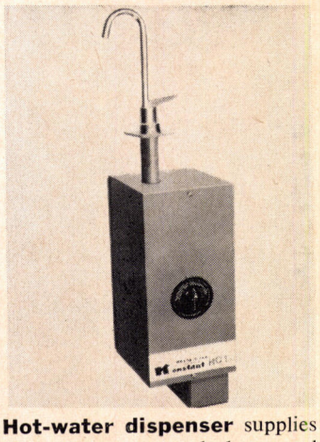
December 5-9
McCormick Place
Chicago



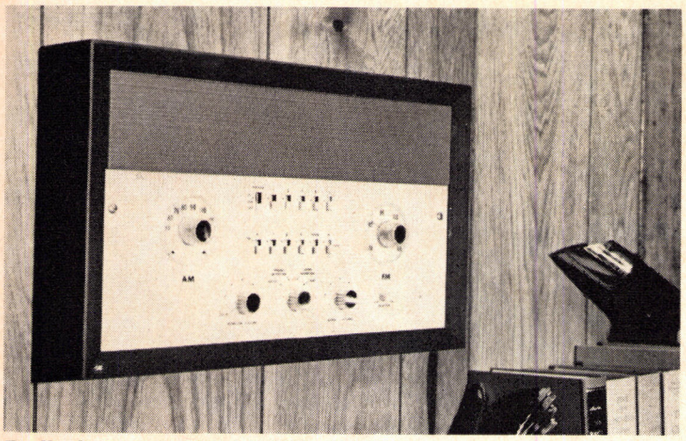
Gas-fired firehood comes with ceramic gas log and prefitted controls. The lightweight unit, which is offered in a range of colors, can reportedly be installed quickly into any gas vent or masonry chimney. Condon-King, Lynnwood, Wash. *Circle 142 on Reader Service card.*



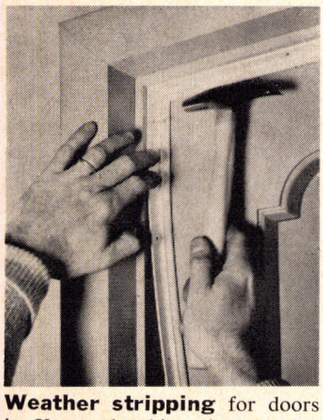
Sound-deadening cork can be installed underneath flooring or behind gypsum wall board. It is offered in 4′ wide and 100′ long rolls or in sheets. It can be stapled, nailed or laminated into place. Dodge Cork, Lancaster, Pa.
Circle 143 on Reader Service card



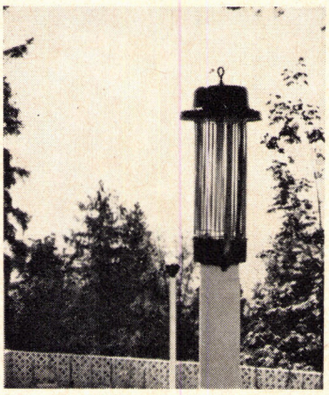
Hot-water dispenser supplies 60 boiling cups each hour and it fills itself. The manufacturer says instant hot water can in some cases cut cooking time by a third. Three easily installed models are offered. Manesco, Manhasset, L.I., N.Y.
Circle 144 on Reader Service card



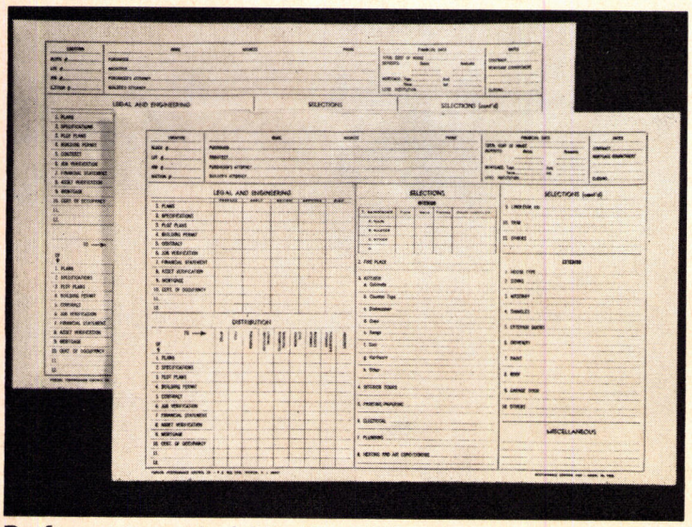
Radio-intercom, Model 5000 AM-FM, comes complete with three room speakers and a door speaker. A record player and six other room speakers can be added. Its frame is walnut. Smaller models are available. Rangaire Corp., Cleburne, Tex. *Circle 145 on Reader Service card.*



Weather stripping for doors is Koroseal white vinyl, which is nonconductive, fadeproof and marproof, says the manufacturer. It can be trimmed to size, nailed in place and kept clean without special products. Ever-Roll Mfg., Dayton.
Circle 146 on Reader Service card



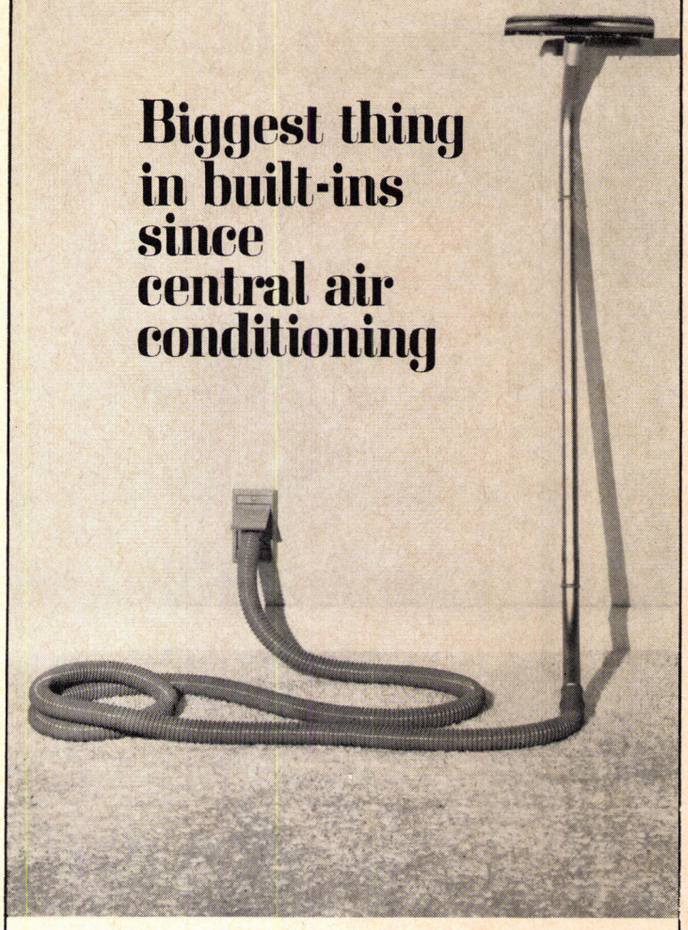
Insect killer, called Zeropest, eliminates need for sprays and chemical products, says the manufacturer. Insects are attracted by a black light and killed by an electrical grid. Ten models are offered. Zeropest, Burnaby, B.C., Canada.
Circle 147 on Reader Service card



Performance control file allows builders, salesmen or contractors to list information under printed headings on the face of the manila envelope. The envelope is secured by a string clasp. Percon Performance Control Co., Trenton, N.J. *Circle 148 on Reader Service card.*

New products continued on p. 150

Biggest thing in built-ins since central air conditioning



MagiVac
BUILT-IN CLEANING SYSTEM

CAPTURES THE IMAGINATION OF EVERY HOUSEWIFE!

The house without central vacuuming will soon become as obsolete as today's home without central heating and air conditioning! That's why you should include MagiVac in your plans NOW to safeguard the present and FUTURE value of your homes! MagiVac says "completely modern" to prospects . . . puts you one giant step closer to the dotted line!

• Up to 5 times more powerful than leading portables • Outcleaned the two most commonly used commercial rug cleaning units in tests by the National Institute of Rug Cleaners* • Reaches deep down dirt other cleaners miss — sends allergy-irritating dust out of the house . . . out of the air you breathe • Operates at peak efficiency start to finish because there's no dust bag to clog and gradually reduce cleaning power • No heavy equipment to lug . . . no cords to tangle . . . remotely located power unit for "noiseless" operation • Built and warranted by the John E. Mitchell Company, AAA-1 manufacturer of the famous Mark IV automobile air conditioner and other fine products.

*Details of tests available on request

Sign, attach to your letterhead and mail today!
JOHN E. MITCHELL COMPANY/MAGIVAC DIVISION
3800 Commerce • Dept. E • Dallas, Texas

Gentlemen: Please rush free literature on the MagiVac central cleaning system.

Signed:_____

Circle 95 on Reader Service Card

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.

GENERAL ELECTRIC

Construction Market Development Operation
General Electric Co., Appliance Park, 6-230
Louisville, Kentucky

I'm interested in General Electric's program for all-electric construction. Please send me more information on:

☐ Medallion Homes and Apartments
☐ All-electric Commercial Construction

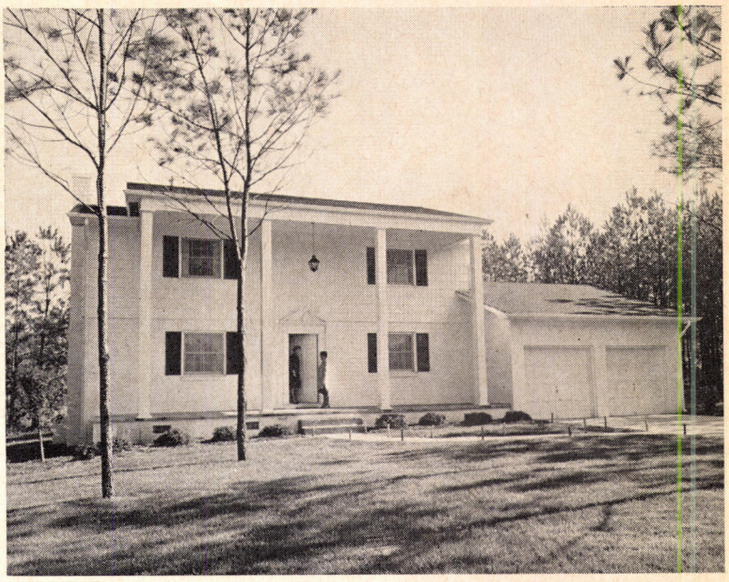
Name_____

Company_____

Address_____

City_____ State_____

X5-11



Les Chateau, Atlanta, Georgia, is a project of Lafayette Building Corporation, which has planned 400 houses as different as fingerprints—but uniform in electrical excellence. Each house has a complete General Electric kitchen and laundry room as well as a Weathertron® heat pump for year-round climate control and greater sales appeal. Kitchens and bathrooms have luminous ceilings, all fireplaces are toplighted, and dining room lights feature dimmer controls.

Town Square, Washington, D. C., combines modern Gold Medallion living with authentic Federal architecture. Built by Bresler & Reiner, this townhouse condominium project offers electric heat and cooling by General Electric, as well as appliances and intercoms. Town Square is an example of the best in today's urban renewal.

Vista del Lago, Wilmette, Illinois, is a Gold Medallion project by J. S. James & Company. Over 90% of the 104 luxury cooperative apartments were sold before topping-out ceremonies. In addition to a complete General Electric kitchen with individual washer-dryer combination, each apartment features room-by-room climate control with ceiling-cable heat and individual Zoneline air conditioners. Vista del Lago was designed by Hausner & Macsai, Architects, and the general contractor was George Sollitt Construction Co.

The 600, Bloomfield, Connecticut, developed by Green Acres, Inc., is the first all-electric apartment community in the Greater Hartford area. Each of the 156 units will feature General Electric refrigerator-freezer, built-in range, dishwasher, Disposall®, an 80-gallon water heater and ceiling-cable heat. Each apartment has its own G-E washer, dryer, and two-ton air conditioner located in the basement. Except for exterior lighting, all wiring is underground.

Whispering Palms, Rancho Santa Fe, California, is an attractive 297-acre residential-recreational community built by the Cavanaugh Development Company, which has completed such successful projects as Foxglen, Glenmeade, and Laguna North. Each home has a General Electric kitchen and two 30-gallon quick-recovery water heaters. Interior and exterior lighting equipment was custom-designed. Both utility lines and fire hydrants are underground to maintain the beautiful setting.

They pay to be raided

so you don't get robbed

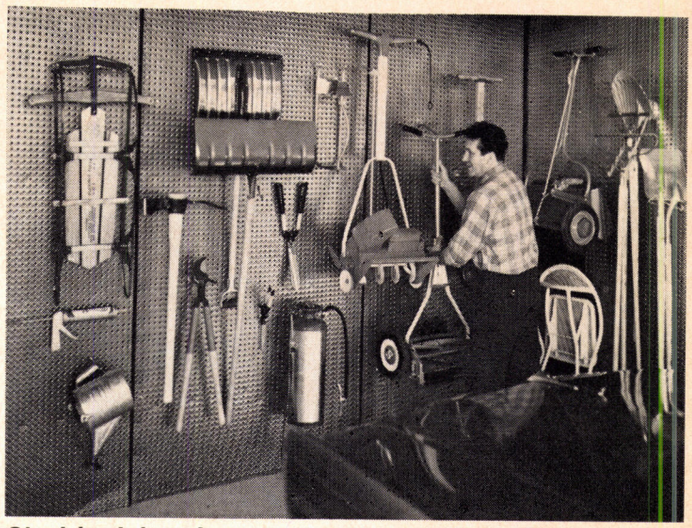
To be sure unitary* air conditioners deliver all of the British thermal units of cooling claimed, manufacturers who account for more than 90% of production pay ARI engineers to raid their warehouses. Last year, engineers evaluated makers' specs and performance data on 2,200 models. Then one out of every three basic models was tested by the Electrical Testing Laboratories for performance and capacity. Those which failed were improved, rated correctly, or withdrawn. Only those which passed carry the ARI Seal of Certification.

Under the expanded Certification Program, participants rate equipment capacity in Btuh, submit data to ARI, and empower ARI engineers to seize units for rigorous testing. Makers' specs for every new model are evaluated. Those with least apparent margin of excess capacity are tested first. Further testing is done on a statistical basis.

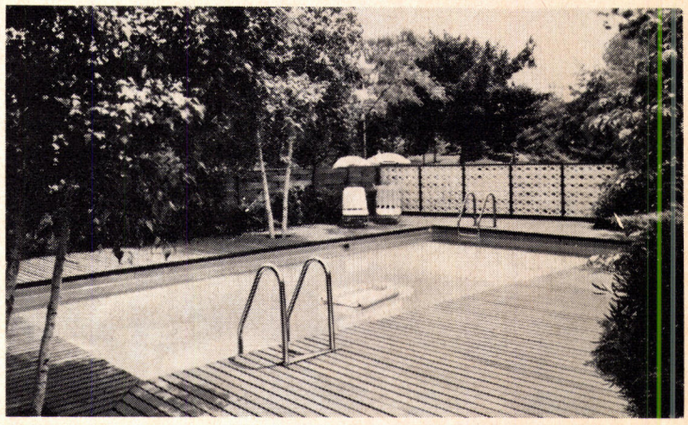
DEMAND THE ARI SEAL. It protects architect, builder, contractor, dealer, engineer, and user. Write for further information and free directories of Certified Unitary Air Conditioners and Heat Pumps.

*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.

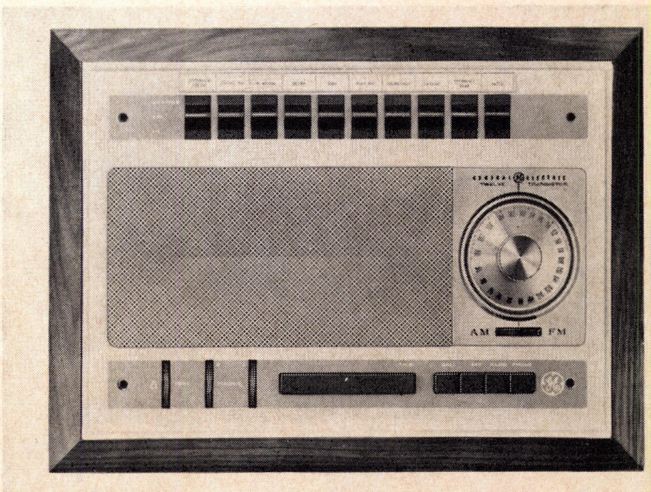
AIR-CONDITIONING & REFRIGERATION INSTITUTE
1815 NORTH FORT MYER DRIVE • ARLINGTON, VA. 22209



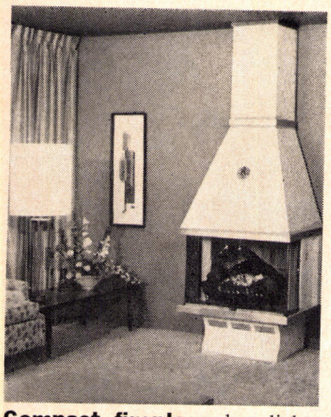
Steel hook-board can reportedly support 150 lbs. The Perf-Panl is .030" thick with 3/16" indented holes or .036" thick with ¼" holes. It can be cut with carbide table saws or tin snips. National-Standard, Niles, Mich. *Circle 154 on Reader Service card.*



Steel-walled pool with vinyl liner slopes down from a wide shallow end to a narrow deep end. Seven sizes are offered from 16′ x 32′ (with depths of 3′4″ to 5′) to 20′ x 40′ (depths of 3′4″ to 8′). Major Pool, South Kearny, N.J. *Circle 155 on Reader Service card.*

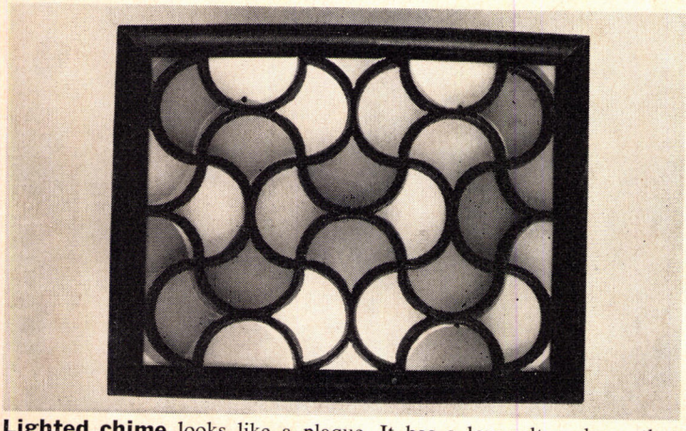


Built-in radio intercom comes with three indoor stations and an outdoor one. The system is designed for easy installation. It has 3½" indoor speakers and a 4" outdoor speaker. General Electric, Schenectady, N. Y. *Circle 156 on Reader Service card.*

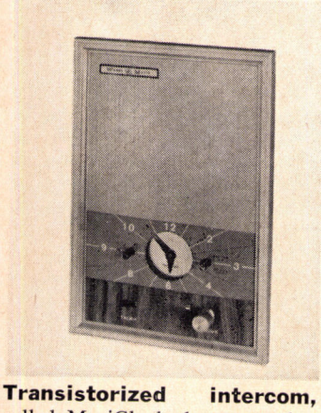


Compact fireplace has lightweight parts that slide together without special tools for quicker installation, says its maker. For safety, the hood has three layers of aluminized steel. The unit comes in three colors. Stratton & Terstegge, New Albany, Ind.
Circle 149 on Reader Service card

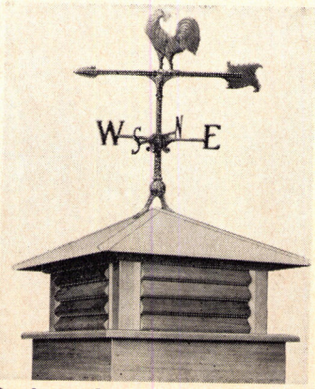
Gas incinerator has six burning areas that consume all refuse without emitting smoke or odor, says its manufacturer. It shuts itself off, and its silicone-based cabinet is said to remain cool at all times. Calcinator, Bay City, Mich.
Circle 150 on Reader Service card



Lighted chime looks like a plaque. It has a low-voltage lamp that reportedly will last two years. It sounds two notes at the front door and one at the rear. A lantern chime is also available. NuTone Cincinnati. *Circle 151 on Reader Service card.*



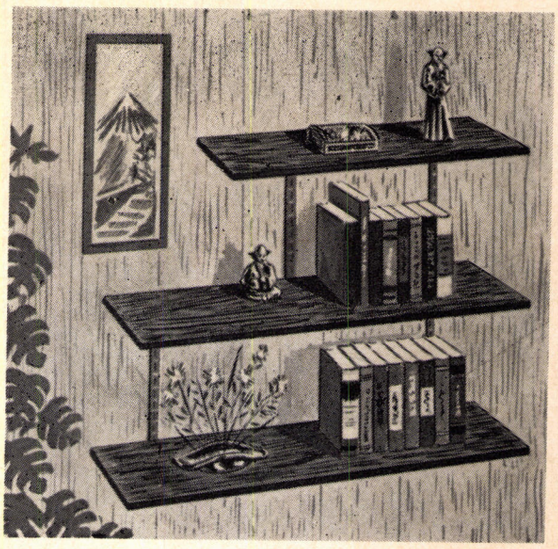
Transistorized intercom, called MusiClock, has a speaker and an AM-FM radio alarm clock. A year's operation of its low-voltage system reportedly costs $3. The compact intercom can be snapped into a wall. Meriton, Los Angeles.
Circle 152 on Reader Service card



Rectangular cupola is 24" x 30", and its long side runs along the ridge line. A 36" square model, which provides maximum ventilation, is also offered. In all, six styles in 20 different sizes are available. Manor House, Warsaw, Ind.
Circle 153 on Reader Service card

New literature starts on p. 154

NEW RAILITE LAMINATED SHELVES



★ Available in Rich Walnut Woodgrain in Six Sizes
8" x 24"
8" x 30"
8" x 36"
10" x 24"
10" x 30"
10" x 36"

RAILITE SHELVING | is made with RAILITE, a high pressure plastic laminate.

★ **RESISTS**—cigarette burns, alcohol and juice stains, and scratches.
★ **Wipes clean** with a damp cloth.
★ **Be your own decorator;** many attractive shelf arrangements are possible.

See us at
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RAILITE SHELVING
Manufactured by
KENMORE INDUSTRIES, INC.
Lowell, Mass.

Circle 97 on Reader Service Card

DELTA® SINGLE HANDLE BALL FAUCETS

The faucet shown in this photograph is over 10 years old and has not required one service call. It looks, acts and IS as good as the day it was installed. Multiple-millions of Delta Faucets are in use throughout the country proving that Delta is your greatest choice for faucets. Quality, dependability and service are synonymous with Delta, the greatest name in faucets.

free literature upon request . . .

DELTA FAUCET COMPANY
GREENSBURG, INDIANA
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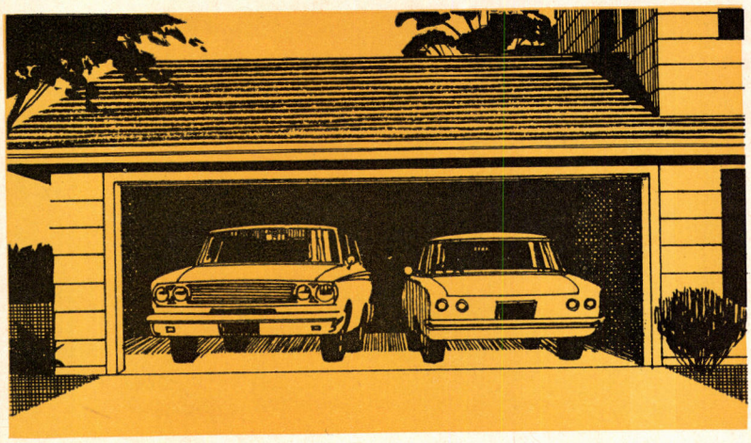
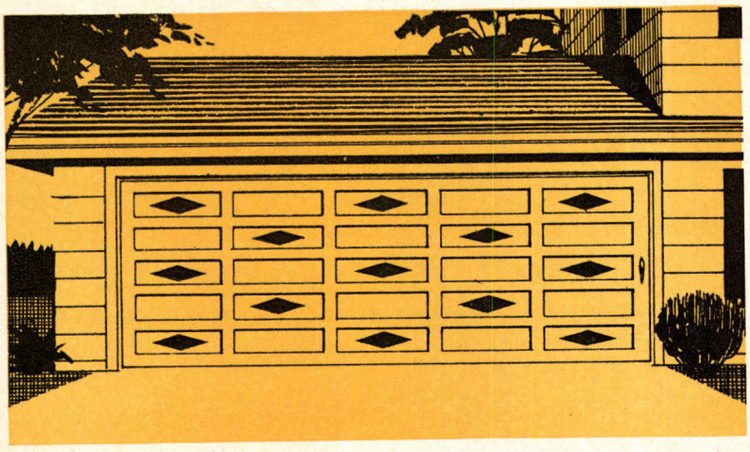
Circle 362 on Reader Service Card

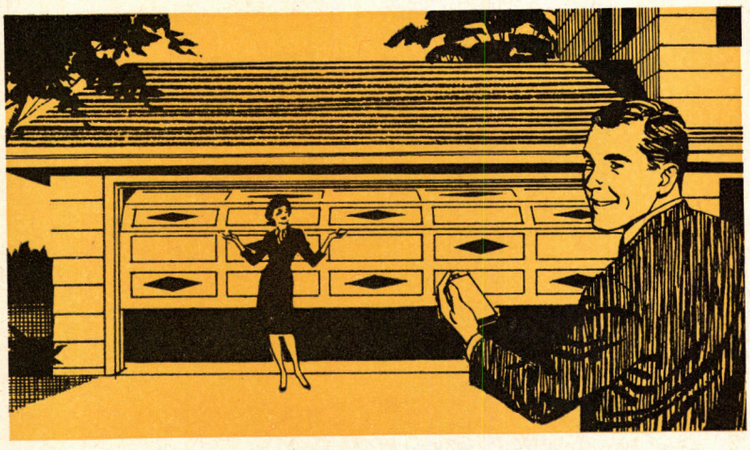
To whet folks' appetite for a new home...



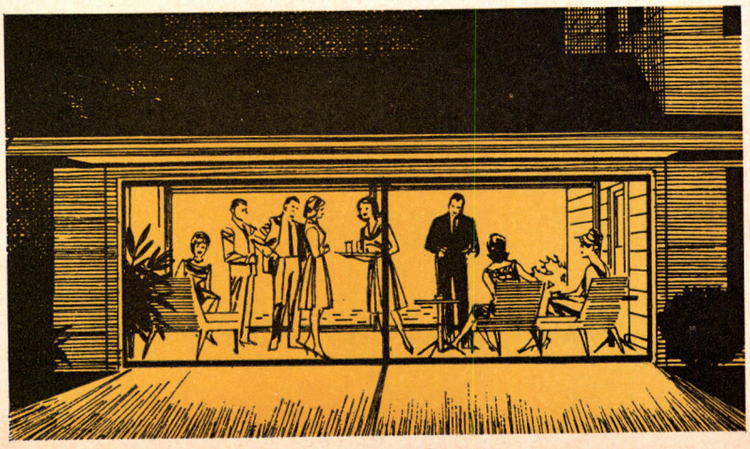
Take one garage and give it the wide look with an 18-foot door



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.

THE "OVERHEAD DOOR" TRADE MARK

Made only by

OVERHEAD DOOR CORPORATION, General Offices: Dallas, Texas
Factories: Hartford City, Indiana; Dallas, Texas; Portland, Oregon; Oxnard, California; Cortland, New York; Hillside, New Jersey; Lewistown, Pennsylvania; Nashua, New Hampshire; Athens, Ga.
In Canada: Oakville, Ontario.

Circle 363 on Reader Service Card

what every builder should know about Kemper kitchens...

Kemper's Traditional Kitchen in a French Walnut finish

Each month more and more builders are installing Kemper wood kitchen cabinets and Kemper bathroom vanities in their homes. You, too, should seriously consider Kemper cabinets if you have not already done so. **Competitive pricing** permits you to offer a line of top quality, extremely saleable cabinets at a price lower than you would expect. This keeps you competitive in your market without eating into your profit. **Full line of styles** and sizes offers you a complete selection. Choose from such popular styled kitchens and vanities as Traditional, Provincial and Colony Line in fruitwood, walnut, and cherry finishes. **The industry's finest** and toughest finish is yours through a remarkable finishing process that is exclusively Kemper Brothers. **Your type of construction**, with strength that you, as a builder, will recognize and appreciate. **Dependable delivery** is assured through our revolving 35,000 cabinet inventory. **A furniture quality guarantee** is our written promise to you. Kemper is the only kitchen cabinet manufacturer licensed by the National Association of Furniture Mfgrs. to display the NAFM Seal and offer its exclusive warranty. **Send for** our free, comprehensive, full color kitchen cabinet and bathroom vanity catalogs. In the meantime, why not talk with your nearby Kemper distributor? He's listed in the Yellow Pages.

Kemper Kitchens are featured at The Better Living Center, New York World's Fair!

Kemper

BROTHERS INCORPORATED • RICHMOND, INDIANA

NEW LITERATURE

For copies of free literature, circle the indicated number on the Reader Service card, page 141.

CABINETWARE. 32-page catalog in color shows complete line of knobs, pulls, hinges and backsets. Amerock Corp., Rockford, Ill. (*Circle 277 on Reader Service card*)

BITUMINIZED FIBER PIPE. 16-page booklet gives information about piping for sewers, land drainage, etc. Properties and laboratory test results given. Bituminous Pipe Institute, South Milwaukee, Wis. (*Circle 278 on Reader Service card*)

LOCKSET. 2-page brochure gives descriptive data, finishes, specifications and pricing information about lever handle lockset. Arrow Lock, Brooklyn. (*Circle 279 on Reader Service card*)

LIGHTING. 100-page catalog contains pictures and descriptions of 354 fixtures in a variety of finishes. A slide-rule type chart to assist in selection of the proper fixture is also available. Emerson Electric, St. Louis. (*Circle 280 on Reader Service card*)

PICKUP TRUCK COMPARTMENT. 5-page product bulletin describes compartments and range of options available for custom fitting. Pierce Auto Body Works, Appleton, Wis. (*Circle 281 on Reader Service card*)

HARDWOOD PLYWOOD. 16-page booklet pictures application for material in wall panels, flooring, kitchen cabinets, doors and specialty products. For copy: send 25¢ to Hardwood Plywood Manufacturers Assn., 2310 South Walter Reed Dr., Arlington, Va.

KITCHEN COUNTERS AND CABINETS. 6-page folder has pictures and specifications. Other kitchen cabinetry also discussed. Kitchen Kompact, Jeffersonville, Ind. (*Circle 282 on Reader Service card*)

HEATING AND AIR CONDITIONING PRODUCTS. 2-page application guide sheet discusses pumps, compressors and mechanical power transmission equipment. Worthington Corp., Harrison, N.J. (*Circle 283 on Reader Service card*)

FASTENING SYSTEM. 12-page product bulletin shows fastening system that doesn't require drilling. Specifications given and types and sizes of studs shown. Ramset, New Haven. (*Circle 284 on Reader Service card*)

CAST-IRON BOILER. 4-page folder shows unit in cut-away drawing. Specifications included. Thatcher Furnace, Garwood, N.J. (*Circle 285 on Reader Service card*)

ELECTRIC HEATING. Workfile includes nine publications including brochures on insulation, the all-weather comfort standard, comfort calculator and how to control moisture in homes. For copy: send $1 to National Mineral Wool Insulation Assn., 1270 6th Ave., New York, N. Y.

MORTAR SAND. 4-page technical bulletin discusses gradation, deleterious substances, alkali-aggregate reactivity, bulking, proper handling and stockpiling. Portland Cement Assn., Chicago. (*Circle 286 on Reader Service card*)

CONSTRUCTION MATERIALS. 16-page catalog illustrates and describes expansion joints, t&g joints, dummy joints and variety of joint sealing compounds. W. R. Meadows, Elgin, Ill. (*Circle 287 on Reader Service card*)

SINK AND TUB FITTINGS. Folder shows and describes Imperial 1000 line. The Royal Brass Mfg. Co., Cleveland, Ohio. (*Circle 288 on Reader Service card*)

HARDWARE. 4-page brochure describes keylocks, privacy locks, passage sets, dummy knobs, dummy entry locks and closet sets. Weslock, Los Angeles. (*Cirele 289 on Reader Service eard*)

PLYWOOD ROOFS. 12-page publication explains use of fire-treated plywood. Insurance rates are discussed. American Plywood Assn., Tacoma. (*Circle 290 on Reader Service card*)

WASHING MACHINE SUPPLIES AND DRAINS. 6-page folder shows and describes space saving units. Guy Gray Mfg., Paducah, Ky. (*Circle 291 on Reader Service card*)

ROOF TRUSSES. 8-page brochure describes trusses designed and built with timber connector system of construction. TECO, Washington, D.C. (*Circle 292 on Reader Service card*)

AIR CONTROL. 40-page catalog has illustrations, dimensions, packs and weights of complete line of registers, grilles, diffusers, screws and blind rivets. Leigh Products, Coopersville, Mich. (*Circle 293 on Reader Service card*)

SEALED COMBUSTION HEATERS. 4-page product bulletin shows gas wall furnaces and gives descriptions and specifications. Ohio Foundry & Mfg., Steubenville, Ohio. (*Circle 294 on Reader Service card*)

SPRINKLER INSTALLATION DETAILS. Catalog shows decals that illustrate pipe connections, fittings, wiring details, conduit, valve boxes and risers. Rain Bird, Glendora, Calif. (*Circle 295 on Reader Service card*)

ADHESIVES AND SEALERS. 4-page catalog has application and property information of complete adhesive line. 3M Co., St. Paul. (*Circle 296 on Reader Service card*)

INCANDESCENT LIGHTING FIXTURES. 28-page catalog lists specifications and photometric data for more than 185 models of recessed, semi-recessed and surfaced square fixtures. Art Metal, Cleveland, Ohio. (*Circle 297 on Reader Service card*)

CARBON ODOR FILTER. 4-page bulletin explains veed-tray construction. Capacities and dimensions are listed. Cambridge Filter, Syracuse. (*Circle 298 on Reader Service card*)

HUMIDIFIER. 2-page product bulletin lists features of self-contained humidifier and gives specifications. Atwater-General Corp., Watertown, Wis. (*Circle 299 on Reader Service card*)

WIRING DEVICES. 132-page catalog covers complete line of wiring devices. Prices, technical information and wiring diagrams included. General Electric, Providence, R.I. (*Circle 301 on Reader Service card*)

ELECTRIC HEATING. 4-page brochure has specifications and technical data on complete line of electric heating equipment. Recessed and flush-mounted baseboard units are included. Hotpoint, Chicago. (*Circle 302 on Reader Service card*)

FLOOR UNDERLAYMENT. 2-page folder describes Resin-TITE flakeboard. Product description, properties and installation instructions are included. Roseburg Lumber, Roseburg, Ore. (*Circle 304 on Reader Service card*)

ELECTRIC HEATING AND COOLING. "Electric Heating and Cooling Handbook" contains over 150 tables, diagrams and charts. It is designed to provide a single, up-to-date reference source for factual and technical data about the subject. For copy: send $20.00 to Sales Division, Edison Electric Institute, 750 Third Ave., New York, N.Y. 10017.

RIGID VINYL. 8-page brochure gives properties of Geon vinyls and shows typical products for which it can be used. B. F. Goodrich, Cleveland, Ohio. (*Circle 305 on Reader Service card*)

BRICK. 8-page booklet shows uses of Z-Brick. Suggestions for application are included. Z-Brick Co., Seattle. (*Circle 306 on Reader Service card*)

LIGHTING. 32-page catalog includes information on built-in, recessed fixtures and exit lights. The Kirlin Co., Detroit. (*Circle 307 on Reader Service card*)

Circle 388 on Reader Service Card ➤

Let us admit this right off: the soft sell is strictly for builders faced with hard competition. It's for the man caught between one rival's "free" electric kitchens and another's "free" automatic garage doors and landscaping.

At that point, such a builder has several choices. All of them expensive. (The *most* expensive being to do nothing.)

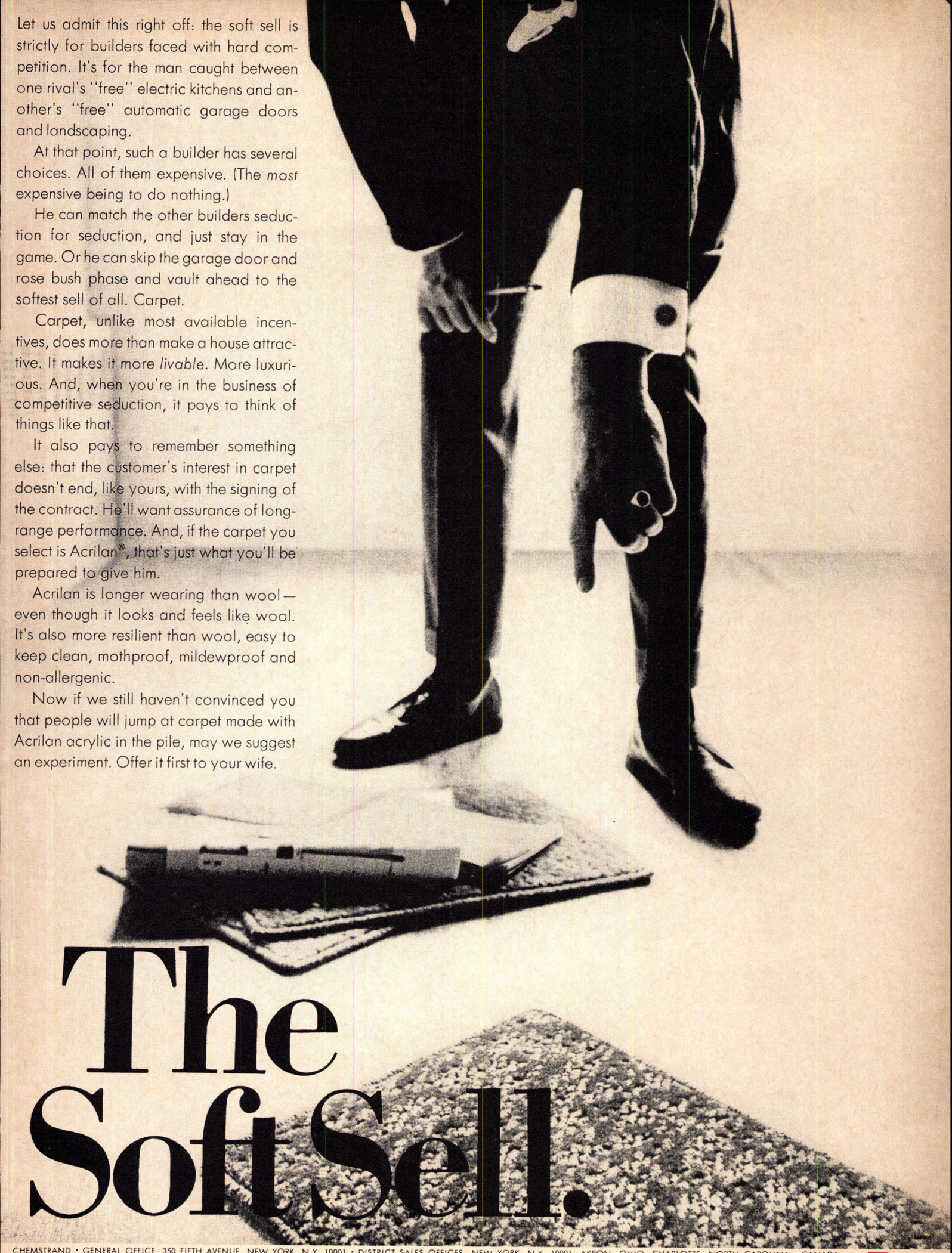
He can match the other builders seduction for seduction, and just stay in the game. Or he can skip the garage door and rose bush phase and vault ahead to the softest sell of all. Carpet.

Carpet, unlike most available incentives, does more than make a house attractive. It makes it more *livable*. More luxurious. And, when you're in the business of competitive seduction, it pays to think of things like that.

It also pays to remember something else: that the customer's interest in carpet doesn't end, like yours, with the signing of the contract. He'll want assurance of long-range performance. And, if the carpet you select is Acrilan®, that's just what you'll be prepared to give him.

Acrilan is longer wearing than wool—even though it looks and feels like wool. It's also more resilient than wool, easy to keep clean, mothproof, mildewproof and non-allergenic.

Now if we still haven't convinced you that people will jump at carpet made with Acrilan acrylic in the pile, may we suggest an experiment. Offer it first to your wife.



The Soft Sell.

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THESE ARE AMONG THE MILLS NOW LICENSED BY CHEMSTRAND: FOR ACRILAN: BARWICK, BIGELOW, CABIN CRAFTS, CALLAWAY, CORONET, CRESTLINE, DOWNS, FORREST, GULISTAN, HARDWICK AND MAGEE, HIGHTSTOWN, JAMES LEES, LOOMWEVE, MAGEE, MASLAND, MONARCH, PHILADELPHIA CARPET, ROXBURY, WUNDA WEVE. IN CANADA: BARRYMORE CARPETS, CROSSLEY/KARASTAN, HARDING CARPETS.

ACRILAN
acrylic fiber
CHEMSTRAND

The word is already getting around...

McKinney is presenting A BLOCKBUSTER at the NAHB CONVENTION in CHICAGO

Although just recently introduced, the ROTON Hinge by McKinney has the industry buzzing. It undoubtedly is the biggest advance in functional design in the last 100 years. The ROTON is not a modification of an existing hinge nor is it a limited-application hinge. It's a startling new idea in hinges . . . architecturally beautiful, performance proved and applicable to residential and commercial as well as institutional use.

You're sure to be asked about the ROTON. Get all the facts . . . and enjoy the excitement at

McKinney

BOOTHS 705 & 706

OPPORTUNITY

For a future with a well known Midwest Manufacturing Firm. We are now offering exclusive distributorships for a patented product. No competition. Factory trained personnel will assist you in setting up a tried and proven advertising and merchandising program. 100% mark up. Investment guaranteed. Minimum investment $1,000. Maximum $14,000. All replies confidential.

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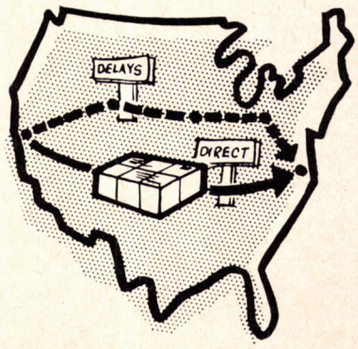
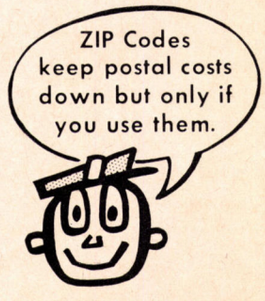
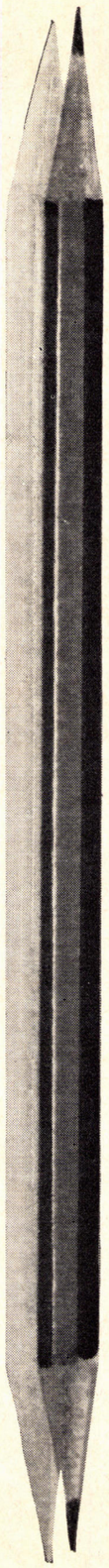
ZIP CODE SPEEDS YOUR PARCELS



1. Packages are shipped by more direct route.
2. They are handled fewer times.
3. There is less chance of damage.



The college contribution



is a two-way street

There are two ways to look at it.

There's the contribution the colleges make to business.

That's crucial.

Business employs about 42% of all college people. It uses their brainpower and skill in developing new products and methods. It fills management posts.

In the other direction, there's the contribution business makes to colleges.

The colleges welcome it. They need all the funds they can get. They're helping to prepare leaders for management, but the cost of education is going up.

In fact many colleges are having to turn away applicants—100,000 a year, says one estimate.

If business wants college talent, it must keep colleges in business. It can help finance their need for classrooms, facilities and especially teachers.

In this light, your aid-to-education program is an aid to your company.

SPECIAL TO CORPORATE OFFICERS—A new booklet of particular interest if your company has not yet established an aid-to-education program. Write for:

"How to Aid Education—and Yourself"
Box 36, Times Square Station
New York, N. Y. 10036

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COUNCIL FOR FINANCIAL AID TO EDUCATION

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