

# House & Home

MANAGEMENT MAGAZINE OF THE HOUSING INDUSTRY

DECEMBER 1963



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# House & Home

December 1963

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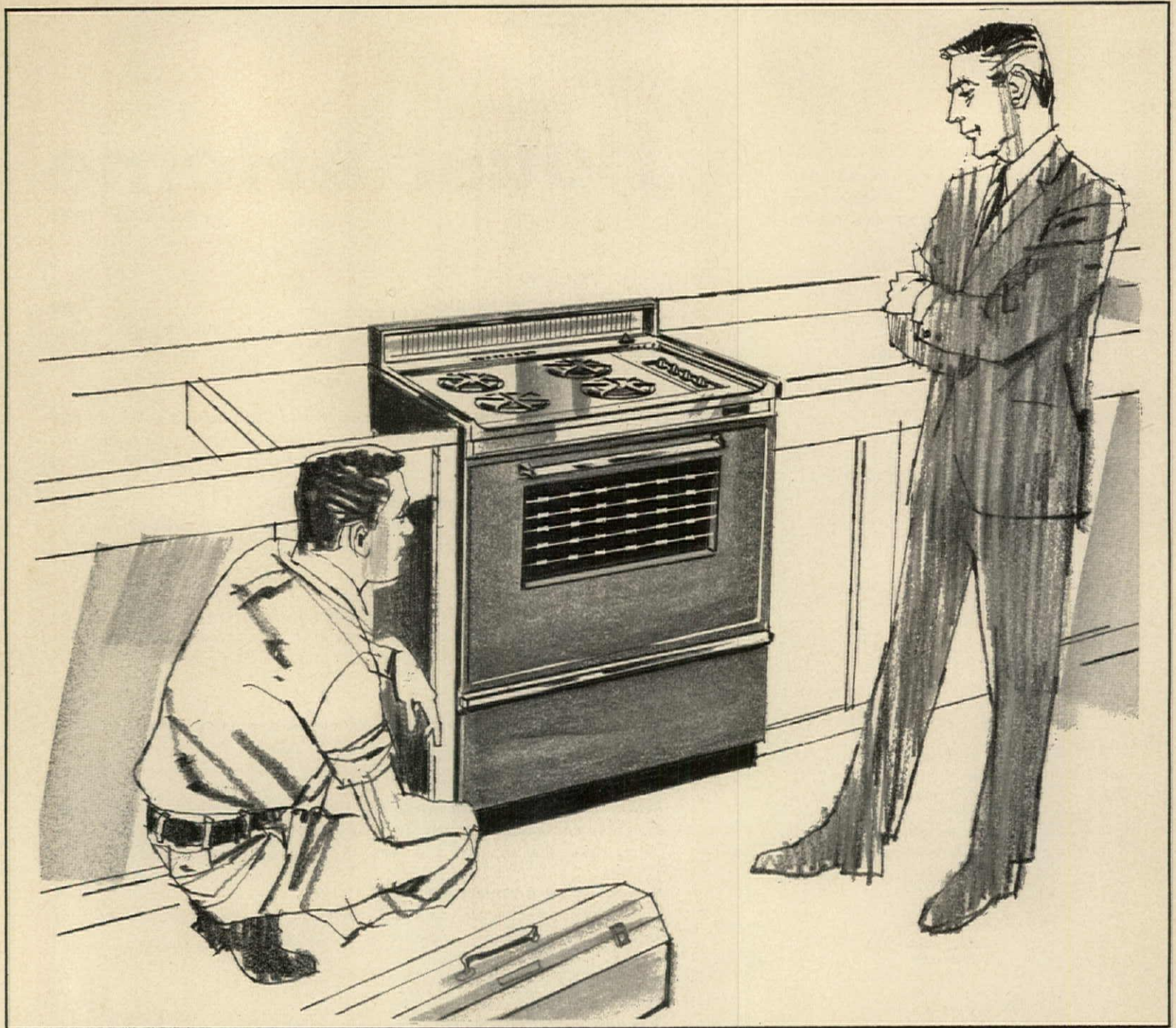
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COVER: Townhouses by Architect Marion Bagley. Builders: Lee Rubinstein and Jay Hyman. Photo: Fred M. Hublitz. For story, see p. 114

## NEXT MONTH

The economics of professional teamwork. . . . Factories in the field. . . . FHA's first design awards. . . . Profile of NAHB's new president, William Blackfield. . . . What can be done to bring order out of building code chaos





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### Civil rights: the timebomb election issue that keeps ticking

The one clear fact emerging from last month's off-year elections is that civil rights—including anti-bias laws for housing—will stay inside the polling booth through the 1964 Presidential election whether politicians want it there or not.

On election eve, most pollsters predicted the Kennedy Administration's moderate posture on civil rights would alienate both status-quo minded whites and integration-minded Negroes—and lose votes both ways. So the Administration is seeking Republican aid to pass civil rights legislation soon in hopes that integration will disappear as a '64 issue.

The returns show even this plan may not work. In Philadelphia, for example, candidates gave civil rights only passing mention. But down-the-line Republicans spread the word that Negroes were about to move into this or that white neighborhood, and Democrats felt they couldn't openly attack this whispering campaign. Result: Negroes gave Democrat Mayor James Tate nearly all of his disappointing margin while traditionally-Democratic Irish and Italian wards deserted Tate.

The 61,000-vote margin was far below President Kennedy's 331,000-vote landslide in 1960, and, many analysts felt, may mean trouble for Kennedy in 1964. Democrats reply that Kennedy will not let the civil-rights issue go by default and that the heavily-Catholic Irish and Italians will not desert him.

Elsewhere, head-on clashes this year produced some bitter surprises for rights adherents. Kentucky Republicans attacked a public-accommodations order by outgoing Gov. Bert Combs and came within 15,000 votes of winning.

Candidates may have to decide right now how they will treat civil rights in 1964. Already some groups have launched campaigns to put housing integration on '64 ballots in Illinois and California, which control 59 electoral votes (*see p. 17*). Both are delicately-balanced states. President Kennedy carried Illinois by 8,858 votes in 1960 and lost California by 35,623 votes.

### Renewal and planning issues less controversial than expected

While Congress is just warming up to an expected struggle over renewal subsidies next year (NEWS, Nov.), last month's elections suggest that renewal still makes good political sense at city hall despite the built-in liabilities of buying slum property and uprooting residents en masse.

Mayors who have relied heavily on renewal won handily. Richard Lee of New Haven plugged his redevelopment work (H&H, Sept. '61) and won a sixth term by 11,000 votes. Mayor John Collins campaigned to "Keep Boston on the Go" with a vast downtown rebuilding program and upped his winning margin over 1959.

But in cities where renewal work has been slowed or questioned, citizens showed no hesitation in recording their displeasure. Cleveland, blasted by the General Accounting Office last summer for tearing down allegedly sound buildings (NEWS, Aug.), turned down a renewal bond issue after passing issues in 1953 and 1960. Realtors fought the \$8 million issue and apartment owners kept eight girls busy telephoning voters to urge no votes.

### Pleas continue for federal regulation of mail-order land

The combined federal-state crackdown on fraudulent land sellers which began early this year (NEWS, Mar.) has now brought convictions in California and Oregon and an indictment in Arizona.

A federal jury in San Francisco convicted Realty Dealer Edward Johnston of Beverly Hills on 19 counts of mail fraud in selling arid desert land in Nevada as the Comstock Ranch. In Portland, Ore. William F. Gressinger, 43, drew a six-month jail term and a \$1,500 fine for operating a vocational school without a license. Officials are still trying to find out how students at Gressinger's Simmons Institute just happened to invest in Gressinger's Oregon land promotions. And in Phoenix, a federal grand jury indicted Lake Mead Land & Water Co. and its chief officer, Marvin Lustiger, on 19 counts of mail fraud for selling desert wasteland.

Despite tougher state laws, some observers are calling for more federal regulation. They point out that 150 investigations, reported early this year by postal inspectors, have so far led to federal indictments involving only five operations. Real Estate Commissioner J. Fred Talley, Arizona, speaking at the National Association of Real Estate Boards convention, put it this way: "The states cannot handle this by themselves." Already, Talley noted, the few federal indictments "have had a wholesome effect on the industry. Complaints have dropped sharply."

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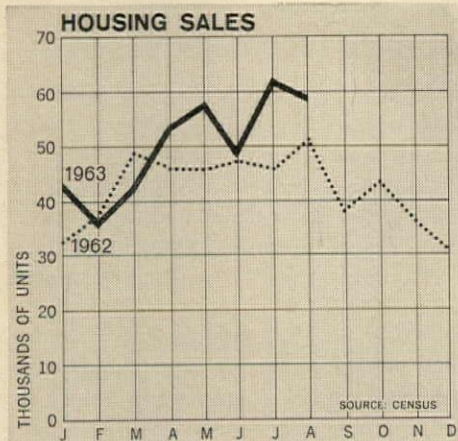
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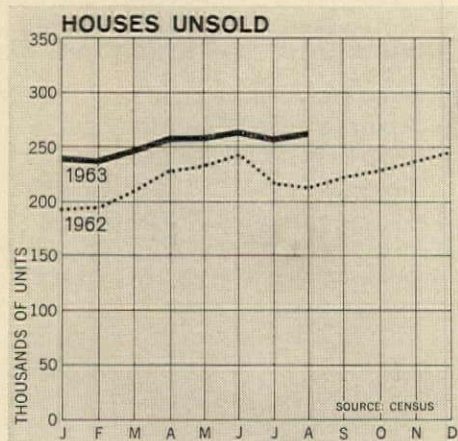
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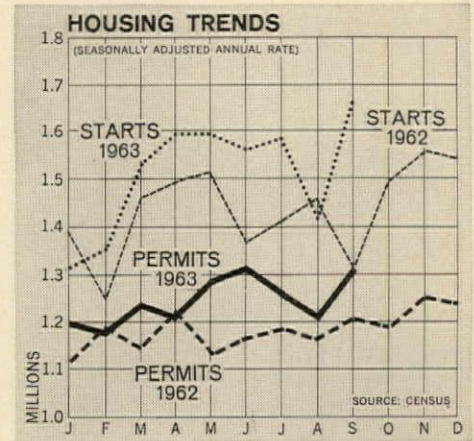
# Housing finishes '63 with a solid statistical report card



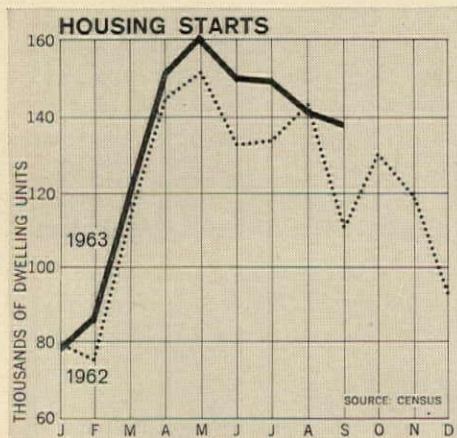
Census has now been collecting monthly figures on housing sales for 20 months and trends are emerging. First tentative finding: sales are somewhat less seasonal than starts, with peak months 70% higher than low months compared to the 100% up-and-down swing of housing starts (see below). July and August are biggest sales months.



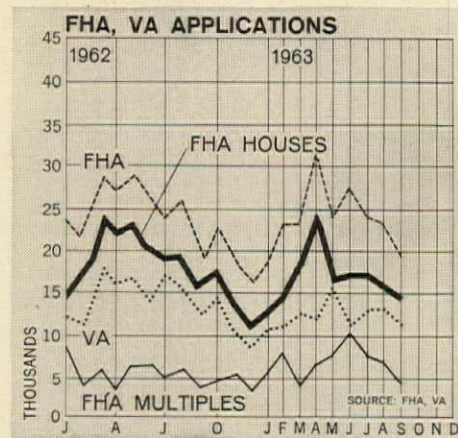
For the first time the Census figures give a glimpse into homes available for sale by merchant builders. This count (which excludes owner-built homes and houses built on contract) shows unsold homes have climbed gradually to 263,000 at August's end—or 48% of the 551,500 houses builders sold in the preceding 12 months.



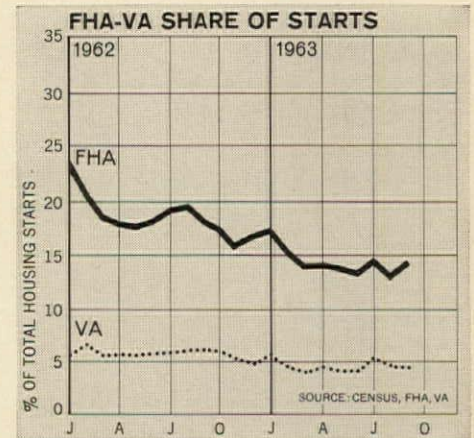
Except for a brief lapse in August, the seasonally adjusted annual rate for private non-farm starts has ranged well above last year for nine months. Thanks to volume building in the South, September's rate of 1,654,000 is tops since June 1955. Permits are also running above 1962 and hit a seasonal rate of 1,322,000 in September.



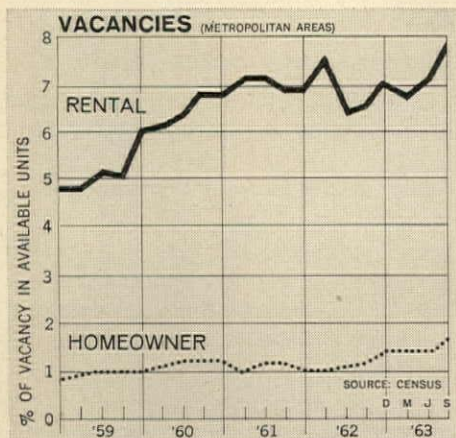
Private non-farm starts led those of a year ago for all nine months except August. September's 138,700 starts held fairly close to August's 140,400. Through the first three quarters of this year 1,185,100 units have been begun, 8% more than during the like period of '62. The Houston boom gives the South the biggest sectional gain.



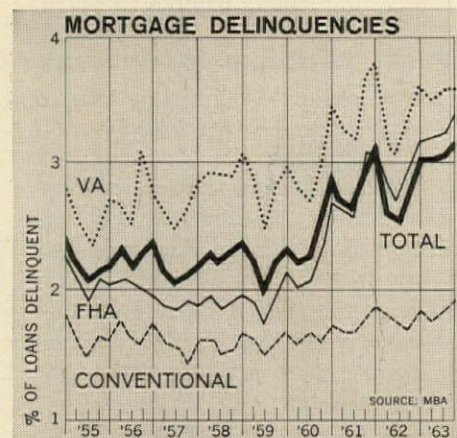
Through September, FHA applications are 5% down from a year ago at 217,115 applications. One family homes are off 10% while multi-family units are up 27%. Existing home applications are at near-record levels and FHA now says about 10% of these may be new but never-occupied dwellings (see p. 17). VA requests are down 19%.



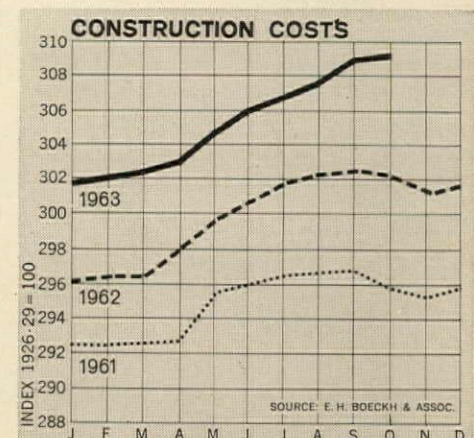
The share of new homes financed FHA and VA has been shrinking since 1958. FHA's share fell from 17% in January to 13.3% in August, the lowest since June 1957; through September is 14%. VA's share for the first nine months is 4.6% and the latest trend is down (from 5.1% in July to 4.3% in September).



Apartment vacancies in metropolitan areas have been moving steadily upward since mid-1962. In the third quarter the jump from 7.2% to 7.8% indicates more new apartments hit the market. Homeowner vacancies are also creeping up, and the third-quarter 0.2% jump to 1.6% was the biggest in four years.



Mortgage delinquencies over 30 days have been rising slowly through the year. They hit a new peak of 3.17% of 3 million loans in the third quarter, up 0.07% from mid-year. But a Mortgage Bankers Assn. survey shows foreclosures in process dropped 0.03% in the quarter to 0.33%. FHA and VA collection troubles are easing.



The Boeckh index of residential construction costs has been climbing steadily this year, and advanced 0.7% in the third quarter to 309.2. Col. E. H. Boeckh says vinyl film and sheeting prices are poised for a rise. He expects a 4% price boost for steel to show up in higher prices for structural shapes, plates, and rod.



## ...and new data to aid merchant builders

The graphs on the opposite page show how housing is making a running start into 1964.

The eye-popper is starts: September's seasonally-adjusted rate of 1,654,000 private non-farm units is the highest monthly pace since June 1955, suggesting that 1963 may displace 1955 as the second biggest postwar housing year. Through September 1,185,100 private non-farm units were started, 8% over 1962.

Readings are also bullish in a new joint HHFA-Census Bureau report, set up early in 1962 and now starting to produce facts that merchant builders can use to guide their near-term marketing and building plans.

The report is the first measure of market facts that experts could only guess at before: 1) number of homes sold by merchant builders monthly, 2) their median sale price, 3) number of unsold homes, and 4) median asking price of unsold houses.

Census, which collects the data for HHFA, has cut the time lag from data collection to public report from nearly six months to two months, fairly short for a new statistical series. And it is issuing the bulletins every month instead of every three months as at first, also giving builders more up-to-date information.

The first two graphs on the opposite page show the latest HHFA-Census findings: Builders sold 122,000 homes in July and August—26% above the level for July and August 1962 and the best combined two-month record in the series. Census says it does not yet know how seasonal such bursts are.

Builders averaged 3.1 months from start to sale in August, down from 3.5 months in July. Their homes sold for a median \$18,200—3% below July's \$18,600.

At August's end homes for sale totalled 263,000 (including 24,000 authorized but not started)—up 21% over August 1962 and nearly a half-year's supply based on sales for the previous 12 months (*see graph*). Census counts "a small but negligible number" of model homes, houses built to rent, and homes for which permits have expired in this category.

### The apartment boom shows no signs of abating.

Multi-family starts are running 21% ahead of 1962, with 421,300 units started in the first nine months. One-family homes are up only 2% to 764,000.

The apartment share of the housing mix had been trending downward since it hit 42% in January, but the downtrend was reversed slightly in September, apartments accounting for 34.3% of starts. Through nine months, units for two or more families constituted 35.5% of all starts.

Apartment building is spreading to smaller cities, but ten met areas accounted for half of all U.S. apartment building permits in the first six months of the year: Los Angeles, New York City, San Francisco, Washington, Houston, Chicago, Atlanta, San Jose, Dallas, and Cleveland.

Apartment owners are finding that furnished apartments have turnover rates nearly twice as high as unfurnished units, according to the first survey on the subject by the Institute of Real Estate Management. Garden apartments have the highest turnover for unfurnished buildings.

### Materials producers' profits are strong, but delinquencies are rising.

Third-quarter earnings reports by materials producers are cheering the industry. Eighteen producers charted by the *Wall Street Journal* showed earnings up 18.9%, compared to a 15.2% increase for 514 companies. One notable exception: Cement company profits are down 8.8%, largest drop in any category.

Housing is going so well—two-thirds of private construction's growth this year is in residential building—that Chairman Roger Blough of U.S. Steel says: "The rest of private construction is up 1.5%; that's where the lag is and [where] the economy needs improvement. That's [also] the reason the change in the depreciation rates was beneficial."

Faster tax-depreciation for plant and equipment spending is expected to boost capital outlays next year, and economists say the gross national product will hit the \$600 billion level in the first quarter of 1964. NAHB pegs its rosy 1964 forecasts on a tax cut next year, and soundings by the University of Michigan indicate consumers are in the mood to spend for houses and cars in the first half of 1964. Beyond that, confidence may weaken, researchers warn.

Despite this optimistic tone, housing still has worrisome spots. Mortgage delinquencies measured by the Mortgage Bankers Assn. inched up 0.07% to 3.17% in the third quarter. MBA notes that delinquencies for FHA and VA loans are declining while conventional loans show increases.

### MARKET MURMURS

- Detroit builders have hit upon a way to pacify buyers whose homes aren't completed on time because of a severe carpenter shortage. Since 1956, slack seasons have forced about 6,000 of Detroit's 19,000 carpenters out of the trade. Now, with the city enjoying a building pickup, builders can't find enough craftsmen. Solution: The local homebuilders association told the story to Detroit real estate editors, then got reprints of the resulting articles ("Trying to hire a carpenter? Get in line," advised one) for builders.

- Douglas Fir Plywood Assn. is finding the under-\$6,000 income market surprisingly "delicate." Last spring DFPA hit six northwestern met areas with an extensively-publicized, 1,200 sq. ft., three-bedroom, one-bath house selling for \$10,000 on a \$1,000 to \$1,500 lot. But prospects resisted appeals to buy "compact" or "low-cost" homes. Concludes DFPA: Even at this low price, a home is apparently a status symbol, so buyers balk at labels implying minimum shelter. DFPA will change its appeal and expand nationwide next spring.

- More builders are getting customer advice—before they build. Brown & Kauffman of San Francisco's peninsula area has set up a Women's Design Congress of 15 women, including five from its most recent housing developments. And Builders Arthur Goldberg and Paul Waters invited visitors to suggest changes in a two-bedroom model before going ahead with 240-units in Matawan, N.J. Some changes: four new electrical outlets and larger bedroom closets.

### Two new fraud schemes hit lumber dealers, homeowners

A professional gang apparently has hit upon a nearly-foolproof scheme to defraud materials producers and sawmill operators.

The Texas Lumbermen's Assn. says the gang has already victimized suppliers to the tune of \$60,000 and \$70,000 in Fort Worth and Dallas and fears the operation may spread to other areas. Here's how the gang operates:

It picks out a well-known local tradesman (in Dallas, it picked a sheet rock hanger) and sets him up as a lumber dealer, including an \$8,000 bank account, refurbished warehouse, and a Dun & Bradstreet credit rating based on a fictitious credit statement. For about two months they operate normally.

Then the gang buys every scrap of material it can get—in Dallas, it bought lumber, shingles, doors, plywood, and felt—in a two-week period, sells it as quickly as possible to anyone who will buy for 75¢ on the dollar, and skips town before the bills come due. Advise the Texans: "Check carefully on the background of new firms in your area."

And Congressional probes checking into rising home foreclosures have turned up hints some foreclosures may be the work of gypsters. The operators take over mortgage payments for hard-pressed owners without taking title, pay arrears, then rent the homes while letting maintenance slide. After milking the property, they skip out—causing a foreclosure.



# Surprise in land prices: the rise has slowed to a walk

HOUSE & HOME's sister magazine FORTUNE has just looked in 53 cities at prices of prime development land—acreage within commuting range of a city and on a road but without water or sewers. The surprising findings:

- The average yearly increase in median prices slowed dramatically. Prices rose 17.7% in the 1953-60 period but only 10.1% more since 1960.
- Nearly two-thirds of the cities reported below-average increases, and 13 reported no change since 1960. Concludes FORTUNE: "In most of the nation's notable fast-growth areas, high prices have slackened land sales to a point approaching general stalemate between buyers and sellers . . . This does not necessarily mean that the general asking price level has dropped—or is about to. Instead general prices in these urban-fringe and outer suburban areas seem to be stuck on dead center, with few takers."
- At the same time, in-city land values, which slumped with the rush to the suburbs beginning in 1945, "are tending to respond to local needs and prospects that often include rising demand," the survey found. FORTUNE's sizeup of city and suburban land in several key cities:

TUNE's sizeup of city and suburban land in several key cities:

**Stalemate areas.** In **Salt Lake City**, subdividers cannot meet high asking prices, and new high-rise apartments are building downtown, where land prices are high but stable. In **Albuquerque**, builders have leaped-frogged over high-priced land, and the City Planning Commission urges: "Legislation should encourage development within the urban fringe by abolishing tax laws which favor non-development and unnecessarily burden the developer." In **Denver**, suburban land prices began leveling off in 1959-61 as developers built up major land reserves and several new apartments went up downtown (NEWS, Feb.).

**Older industrial areas:** In **Pittsburgh**, the gleaming Gateway Center has failed to halt a decline in Golden Triangle land prices. In **Chicago**, in-town land is up a bit at \$4,800 to \$23,000 a front foot, but distant fringe land is hard to sell; one builder of 100 homes 42 miles from the city had to rent most of them. In **Detroit**, the suburban boom has slowed. Former slum land near downtown cleared with federal aid started selling at 50¢ a sq. ft., jumped to \$1, may

be bringing \$1.50 before very long.

**Rejuvenated cities:** In **Boston**, speculators cannot count on quick profits from suburban land and the city's vigorous renewal program has cleared land that is on the block at \$14 a sq. ft. for office building use. In **Philadelphia**, renewal has helped keep center city land values strong. In **Atlanta**, 40,000 new residents have been pouring in yearly since 1960. Prices of suburban land are up 50% to 75% while city land prices are up only 10% to 25%.

**Great exceptions:** In **Houston**, **Los Angeles**, and **San Francisco**—all major growth areas—housing demand is strong enough to keep land prices on the rise. **Houston** land has soared from \$1,000 to \$15,000 an acre in some locations around the Manned Spacecraft Center. In the **San Francisco** suburbs, much buying is still speculative at prices of \$15,000 an acre in San Mateo County south of the city and \$11,000 to \$12,000 across the bay south of Oakland. Around **Los Angeles**, a predicted 88% increase to 17 million residents by 1980 is boosting land prices by \$800 yearly to a current range of \$16,000 to \$18,000 an acre.

## LOCAL MARKETS

### Are low-budget vacations hurting Miami?

Despite talk that this market shows signs of a comeback after a major slowdown 18 months ago, (NEWS, Apr. '62), evidence of a resurgence is weak or contradictory at best.

Last year about 10,000 units were started, slightly more than half of them multi-family units. The first half of 1963 shows permits for only 2,200 one-family units and 2,600 apartments. Some realty observers estimate only 9,000 units will be started this year.

But Homebuilding Economist Charles Kimball reports his field surveys show that while permits are trending down, actual one-family house starts are increasing. House sales, too, rose each month through September, and unsold inventory is at its lowest point in two years, says Kimball.

Biggest homebuilder this year will likely

be F&R Construction, which will start about 300 homes in four communities on the southwest side. Biggest builder at one spot will be Miami Lakes, with about 200 homes on the northwest side. Both are far below the 2,000 homes builders like Herb Heflter of Centex Construction started in Miami just a few years back.

**Why the turnaround?** Editorial Board Member Fred Sherman of the *Miami Herald*, a veteran observer of the housing scene, says Miami was going full blast then because "we were all feeding on each other." A lot of people moved to Florida and made downpayments on homes, so homebuilding boomed and in turn gave jobs to more men who bought homes, too. Gradually, lower and lower price homes with downpayments as

low as 1% in many instances were built.

Then something happened. With the construction of huge new hotels for tourists, the nature of the tourist trade changed. Where once vacationers paid \$50 a day for rooms plus all the extras, new convention goers and their wives started coming in—and spending only \$25 a day. The glamour vacation spots suddenly changed to Nassau, Puerto Rico, Jamaica, and other off-shore islands.

This hit hard at little homeowners families, including many who could afford owning homes only because wives worked parttime catering to the rich women who came to patronize furriers, hairdressers, and the like. As the vacationers changed, the little housewives lost their jobs. With income cut, many families simply abandoned their homes and foreclosures soared (to 2,063 in 1962). The slowdown cut Miami's inflow of population from a peak of 50,000 yearly to 5,000 now.

**Cleaning up the backlog.** The abandoned house is still a drag on Miami's housing market, but FHA is making remarkable strides. Some areas like Carol City (see photo) are still hard-hit.

Last year, FHA sold only 1,025 of the homes it repossessed. This year FHA surpassed that by the end of July, and its total 1,760 sales through September nearly matched the 1,763 foreclosures. FHA's inventory of 2,348 homes on June 30 made the Miami office fifth highest in the nation. The four leaders: Tampa, with 4,734 homes; Fort Worth, 3,403; Detroit, 2,668; Topeka, 2,355.

—ROBERT W. MURRAY, JR.



**FORECLOSED HOMES** in Carol City highlight FHA difficulty in cleaning up pockets of distressed

housing. Untidy exteriors and building machinery still parked on lawns add to the resale problem.



## Return to the city: fact or myth?

Typewriter sociologists in the American suburbs are busily trying to gauge a prime housing-market question: is today's migration into or away from those bedroom precincts?

The trend was suburbanward in the 1950s but the last three years have seen HHFA use renewal and mass transit subsidies in new ways to try to reverse some of the emphasis.

Private developers trying to sort the facts from publicity pipe dreams, have found solid evidence scarce. But now, two just-divulged studies indicate the trend to the open spaces is still strong:

- The Census Bureau has just tabulated 1962 building permits showing for the first time the split between center city and suburban building. The findings: half of the 1,186,000

units authorized are in the suburbs around big met areas, while core cities had 33% and the remaining 17% was outside met areas. Suburbs account for 55% of all one-family homes and 41% of all apartments. But without a count of previous years no one can yet say whether the center-city share is going up or down.

- A special survey by the Northeastern Illinois Metropolitan Area Planning Commission showed Chicago is losing about 5,000 persons a year (vs. a 7,000 loss annually in the 1950s) while all but six of Cook County's 108 suburbs are gaining population.

Speakers at a fall conference tried to assay the trend from their own experiences, but what they said seemed to depend a lot on

where they live. Their comments:

"Suburban living expenses are going through the roof, and this is why the boom in apartments will continue," Builder Richard J. Fox (Fox-Built Homes, Plymouth Meeting, Pa.) told 180 builders and architects at a National Design Center seminar in New York.

But San Francisco's wry young modern architect Robert Anshen saw a different problem: "Although most of our subdivisions in urban renewal and subdivisions of new land are completely different, one can still find traces in both of the old American idea that we have so much land to use that it will never run out. We need more and more cluster town houses in the country and cluster high rise building in both city and country to make proper use of our remaining land."

## PLANNING

### More courts slap down forced donations for parks

Builders and developers who refuse to donate land or cash for parks (and sometimes schools) have won support of the highest courts in two more states—Kansas and Illi-

nois. Oregon's highest court (NEWS, Mar. '61) and a lower Minnesota court had already sided with developers (NEWS, Feb.).

Many cities, in their zeal to preserve open

space, require builders to donate part of their land—usually 5% to 10%—for parks and recreation. Most cities back up their demands by ordinance, but a few make the donation the unofficial price of subdivision approval.

Either way raises prickly legal problems. Attorney and Planner Norman Williams Jr. of Princeton, N.J., writing for *The American City*, says three recent court decisions show this is "one of the few areas where planning law is now in retreat."

Three decisions—the two in Kansas and Illinois and one in New York—set new guides for both builders and planning commissions.

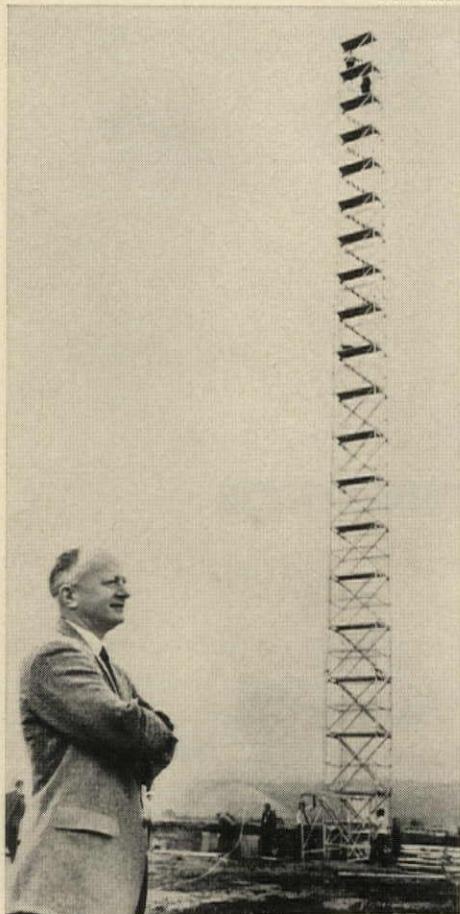
1. In Kansas, officials of McPherson (pop. 9,996) failed to get Coronado Development Co. to donate 10% of the appraised value of land (in a new tract) to a recreation fund. A city ordinance required the donation. But the state Supreme Court ruled that state subdivision laws do not authorize cash payments.

2. In Illinois, even a state law permitting donations was overruled. The supreme court said Mount Prospect (pop. 18,906) may require donations only when the need is "specifically and uniquely" due to the subdivider's work. The court said Pioneer Trust & Savings Bank need not make payments to a school fund because the 250 units planned on land the bank held in trust would add relatively few children to crowded local schools.

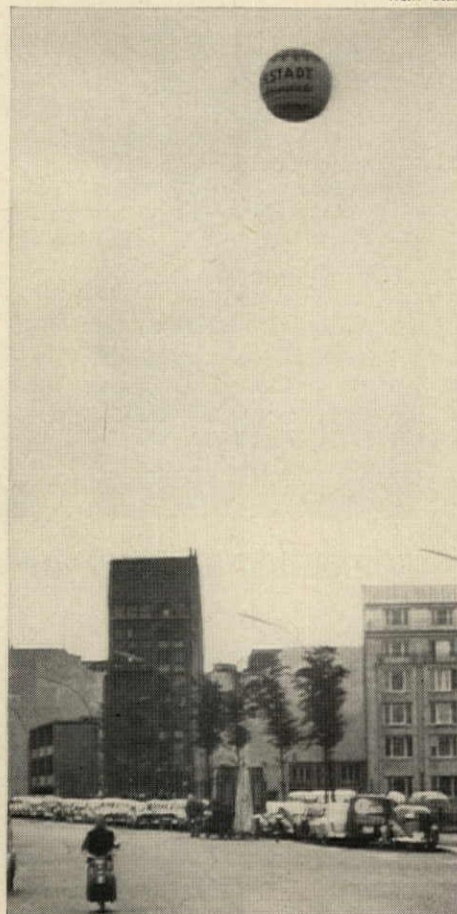
3. In New York, an appellate court upheld an earlier ruling (NEWS, Mar. '61) that Newburgh could not demand \$50 a lot from Gulest Associates in a 46-home subdivision. The court's reasoning: State law was vague in defining "recreation activities."

Williams, a zoning law expert and former New York State planning director, says legislatures should clarify the ground rules for both planners and builders: "A carefully drawn statute along these lines would presumably be valid, provided it clearly specifies that the land (or cash) is to be used for the benefit of the residents of the development involved."

Dick Dubois



H&amp;H staff

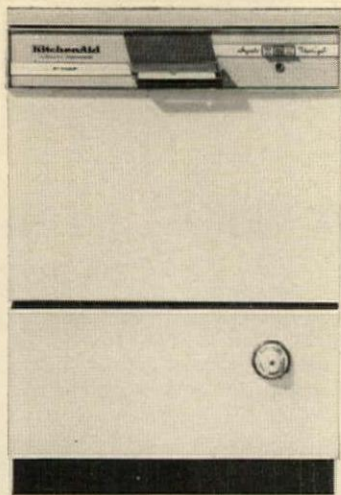


### Cities find new ways to see how a high-rise affects views

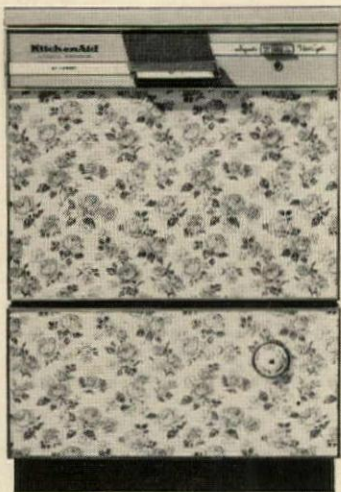
Mayor William Johnson of Berkeley, Calif. had his own scaffolding company spend \$7,000 raising this 144' structure (left) to give Berkeley citizens a yardstick on two 15-story

hotel towers some residents claimed will obscure the city's view. Hamburg, Germany flew a balloon 16 stories high and photographed it from various neighborhoods.

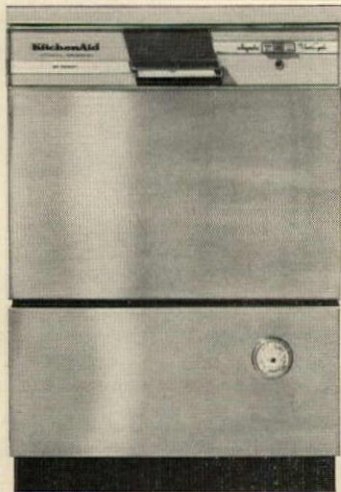




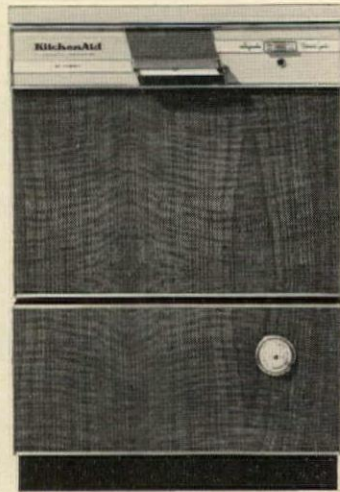
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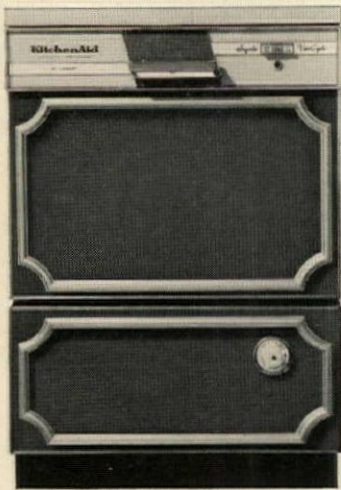
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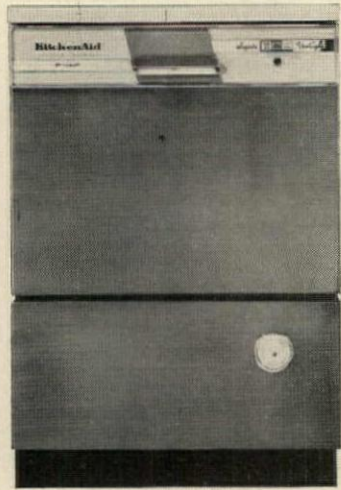
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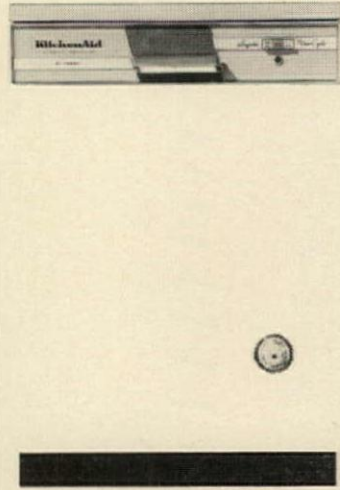
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## HOUSING POLICY

## HOUSING IN CONGRESS: A SPARSE RECORD

MEASURE	WHAT IT DOES	STATUS	PROSPECTS
Housing for elderly	Adds \$50 million to existing \$225 million authorization for Sec. 202 direct loans.	Passed; signed into law	—
Military Housing	Lets Defense Dept. build 10,200 on-base units; cripples FHA Sec. 810 rental program.	Passed; signed into law	—
Tax bill	Curbs real estate depreciation; tightens rules for multi-corporate operations; lets elderly avoid capital gains tax on home sales.	Passed House; Senate hearings	Dim
HHFA budget	Appropriates money to operate HHFA in fiscal year ending June 30 (see below).	House cut requests; in Senate	Compromise likely

## Why Congress will take so little action on housing this year

Ten months after it convened, Congress has finally passed and the President signed two bits of housing legislation.

In most years both measures would be considered minor, but as the chart above shows, the pair is probably all that Congress will enact affecting housing this year.

Behind Congress' reluctance to change housing laws this session is the desire of housing subcommittee leaders in both houses, Sen. John Sparkman and Rep. Albert Rains, to limit housing legislation to non-controversial items endorsed by both parties. Sparkman and Rains, both Democrats from Alabama, understandably want to avoid raising the issue of integration in federal housing.

If controversial housing measures get onto the floor of either House, they fear race bias issues might be injected into the debate—to their embarrassment. So Republican leaders have acquired a practical veto over what Congress considers. So far they have blessed one bill which boosts the politically-popular elderly housing program.

**What went through.** Congress sped through a bill authorizing HHFA to contract for another \$50 million of subsidized loans under the politically popular Sec. 202 for housing for elderly persons. President Kennedy signed quickly.

Before HHFA can spend the money, Congress must also appropriate it in a separate bill. HHFAdministrator Robert Weaver has already asked the Senate appropriations committee to add the \$50 million to the House-passed budget bill. Passage is expected.

The measure boosts to \$275 million the money available at 3½% interest for 50 years to non-profit groups like churches, labor unions, and public housing authorities not limited to public housing. Sec. 202 lets rents be cut \$15 to \$20 monthly below what private builders can offer. It has proved so popular that HHFA has loaned or committed \$150 million to build 13,000 units since Congress first set up the loans in 1959.

At the same time FHA has tightened Sec. 231, which permits 5¼% insured mortgages for non-profit groups. Under the tighter new rule FHA will not insure sponsors who include lifetime-care contracts in their projects. Reason: FHA fears it might have a moral and legal responsibility to care for elderly residents if a project fails. Non-profit groups

are battling the change, which could slow the 231 program.

**What went wrong.** But Congress, at the behest of a Senate committee not directly involved in housing, has crippled the FHA Sec. 810 military housing program. The program insures mortgages on privately built rental housing near military bases. And builders had thought it was safely extended until Oct. 1, 1965 by a minor bill in September. Then the Senate forced through a clause in the military construction bill requiring specific Congressional approval of all future Sec. 810 units.

The practical effect: New projects won't enter the Sec. 810 pipeline for perhaps another year—the next time a military construction bill goes through Congress. So, with Sec. 810 expiring in less than two years, FHA and builders will have about 11 months to get any new projects under way. Some 2,800 units under construction and 1,600 units in preliminary stages escaped thecrippler.

### Furor over Gruening bill may tighten FHA inspections

The Senate housing subcommittee has ended hearings on two bills to give FHA homebuyers more protection against structural defects by showing little inclination to send either bill to a vote this year. But the upshot of the hearings may well be more-thorough FHA inspections of new homes.

The hearings started out to air the plan of Sen. Ernest Gruening (D., Alaska) to require FHA builders to post indemnity bonds—an issue stirred up by a *Saturday Evening Post* article (NEWS, Nov.). But witnesses threw strong support behind a last-minute proposal by Sen. Jacob Javits (R., N.Y.) to let FHA repair "substantial defects" in new homes without first foreclosing them as present law requires. HHFAdministrator Robert Weaver, FHA Commissioner Philip Brownstein, and NAHB spokesman Alan Brockbank of

Salt Lake City all backed the principle of the Javits bill. All would limit FHA repair power to major structural defects which make homes unlivable. So the Javits measure is likely to be included in any 1964 housing bill.

It was Subcommittee Chairman Sen. John Sparkman (D., Ala.) who zeroed in on inspections. Said he: "I have definitely felt there have been deficiencies in FHA inspections."

Sparkman pressed for cutting inspectors' workloads—now averaging 12 houses a day—to four daily. The present pace lets inspectors spend only 40 minutes at each house, Sparkman contended.

Weaver agreed that buyers of FHA homes "should be able to rely upon some reasonable standard of inspection performance." Brownstein was amenable, but pointed out one practical problem: FHA has difficulty recruiting inspectors at \$7,095 to \$11,145 salaries.

In backing the Javits' bill, Weaver and Brownstein are bucking stiff opposition within



Vince Finnigan

## GRUENING



Eli Aaron

## JAVITS

the Kennedy Administration. The Treasury Dept., Federal Reserve Board, and Comptroller General all argue that FHA was set up to insure mortgages for lenders, not to insure homeowners against building defects. A Treasury letter says the Javits and Gruening bills would bring "novel and fundamental" change to this concept.

Fumes Sen. Gruening: "It is a reactionary letter saying in effect that the home buyer be damned."

NEWS continued on p. 15

## WASHINGTON INSIDE

• Congress has just discovered that the administration's subsidized middle-income housing program under FHA Sec. 221d3 could put part of FNMA's operations in the red. FNMA buys the 3½% 221d3 loans with money borrowed from the Treasury at the same rate—but must service them from its own funds. So far it has picked up only 23 mortgages for \$38.5 million. But it has another \$100 million in commitments and is authorized to buy up to \$750 million. If 221d3 gets that big, its servicing costs might mean losses for all of FNMA's special-assistance programs. Only Congress could bail them out with extra cash.

• The U. S. Savings & Loan League's fight against a tax boost for S&Ls last year pushed it into fifth place among high-spending lobbyists (with \$113,014). Freest 1962 spender was the National Committee for Insurance Taxation, with \$181,767, a group which won its fight over insurance-company taxation. Also in the over-\$100,000 category: National Housing Conference, public housing's No. 1 lobby, \$101,602.



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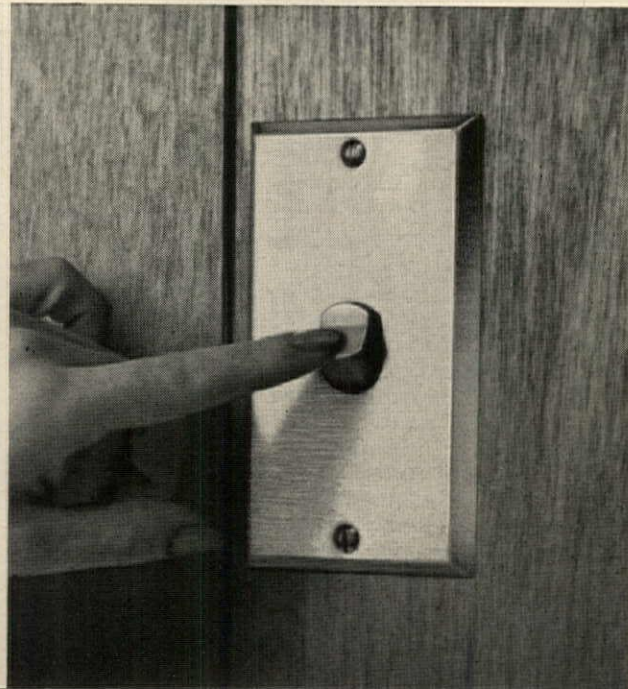
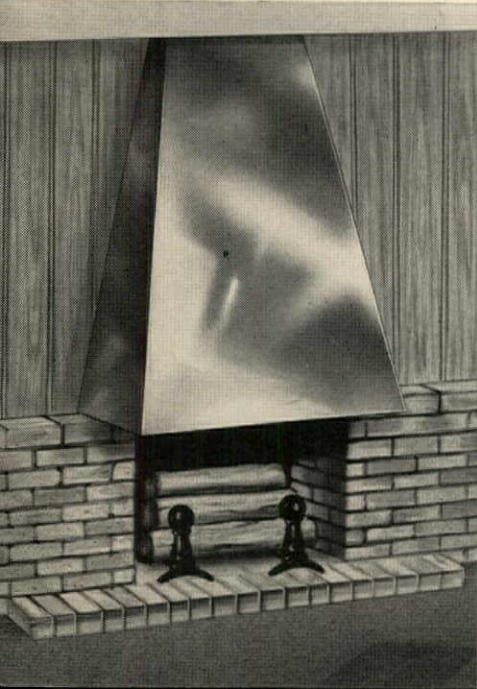
But superior durability is just one of the quality features that homebuyers will appreciate in stainless steel building products. From switchplates and fireplace hoods to doors and windows, stainless



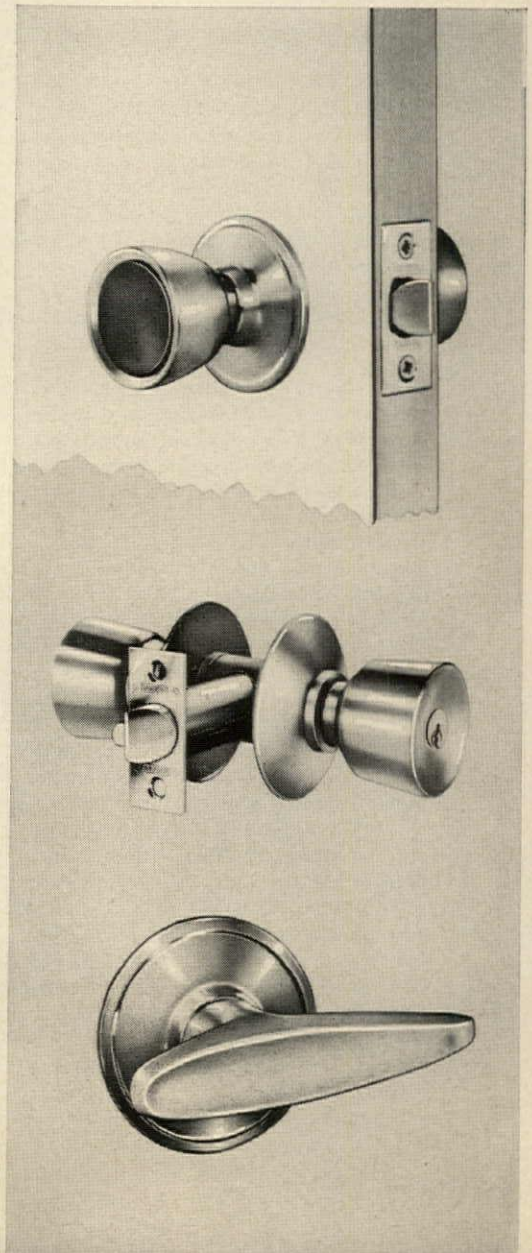
"Freedom Windows" by Republic Steel Corporation, Youngstown, Ohio.

Fireplace hood by PM Mfg. Co., 2245  
White Plains Road, Bronx 67, N. Y.

Switchplate by Pass & Seymour, Inc.,  
Syracuse 9, New York.



Locksets by Sargent & Company, New  
Haven 9, Conn.





# outside



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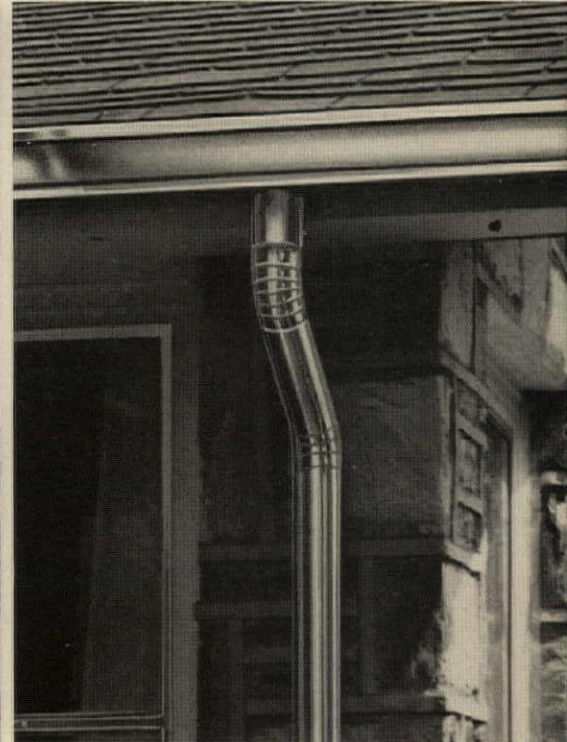
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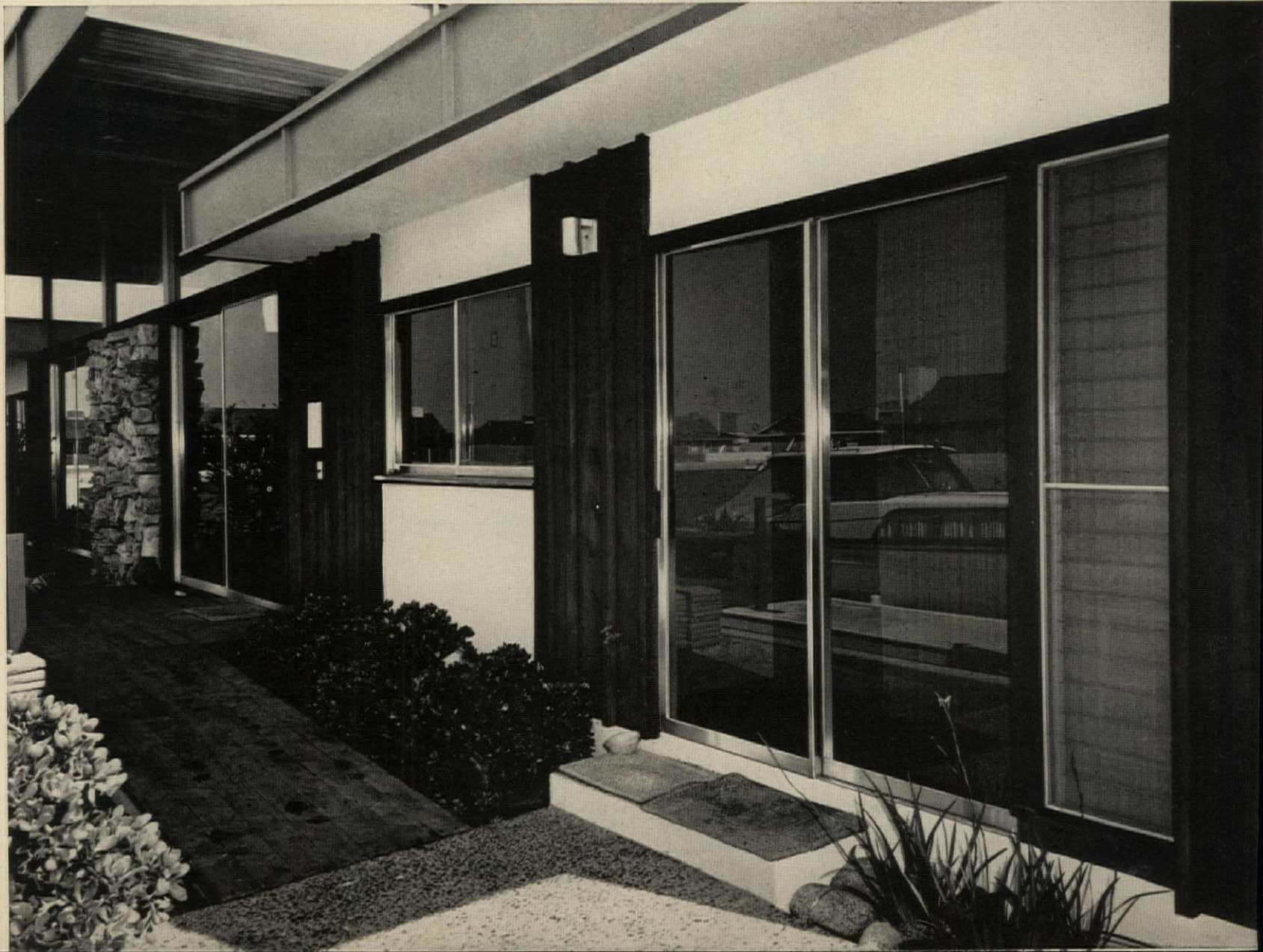
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## RESEARCH

Photos: H&amp;H staff



**BEGIN NEW** federal research to speed better technology, urged Commerce's Herbert Holloman.



**PRIVATE INDUSTRY** must fill the vacuum of government will, argued Builder Alan Brockbank.



**PROFIT-MOTIVATED** industry is already a world research leader, said SCPI's Douglas Whitlock.

## Struggle over federal research aid heads for new showdown

The building industry rally staged by the U.S. Chamber of Commerce was supposed to be the exclamation point ending dreams of federal officials to move into housing research and technology. But it is proving instead to be a colon: more is coming.

The Chamber started planning its rally of building leaders last spring after Assistant Commerce Secretary J. Herbert Holloman called building a "lagging industry" in its technology. Holloman was pressing Congress to spend 1.6 million for basic research into materials and construction methods.

But by the time the industry leaders convened at Chamber headquarters in Washington, they had pounced on the Holloman proposal so forcefully that the House had killed the request for funds and Dr. Holloman had decided not to ask the Senate to restore the money.

So it was a subdued but not defeated Holloman who came before the 286\* building industry representatives at the Chamber's mid-October meeting. Holloman and John P. Eberhard, a consultant to his Office of Science and Technology, still plugged for industry blessing for their ideas. Together they pressed the idea that the government should 1) collect data on what the housing industry is doing in research, 2) set up national standards and criteria, and 3) explore some of the social aspects of housing.

**A new twist.** Eberhard proposed for the first time that the Commerce research program be accompanied by a national building industry alliance, to bring together the many professions and trade associations (123 in all) in housing. No appropriation would be required, he said.

This idea caught most of the speakers who followed off balance, and few offered direct comment. But Board Chairman Douglas Whitlock of the Structural Clay Products Institute, one of the key figures behind the Chamber rally, scoffed at the idea as "indefinite." "I wonder if we haven't got an alliance right here — without labor," said Whitlock. "I think labor should join with us, because there have been some pretty rough accusations thrown at them and they should have to defend themselves the same as we are. We don't need a national building alliance. We've got one right here in this room."

\*84 from professional and trade groups 107 from business organizations, 31 federal officials, 25 from state and local educational institutions, 31 trade and general press, and eight others.

**How much research?** But Whitlock and 15 other industry speakers could not come up with a precise answer to how much research the housing industry itself was doing.

Research Vice President C. H. H. Weikel of Bethlehem Steel argued that many times it was impossible to say whether basic research in the steel industry would benefit housing or utilities or any other particular industry. Senior Vice President James H. Binns of Armstrong Cork Co. added that housing benefits greatly from basic research in chemicals, plastics, electronics, and utilities, yet Commerce Dept. failed to count this spending when it called building "backward" because only 0.3% of its total sales goes for research and development. Economist George Cline Smith of New York pointed out that the figure is based on "some very inadequate research on research done by the National Science Foundation." NSF, he explained, "uses the standard industrial classification for its industry breakdowns" which confines construction to contract construction. "The remarkable thing is that on this basis they found any research at all," he cried.

Whitlock agreed that no one knows how much building research is being done. He called collecting such data a proper government responsibility. "The census of research I'm talking about is one that puts all the facts at the disposal of the industry user without an opinion of what the facts mean."

**Who sets standards?** While industry leaders without exception condemned government's entry into research, they couldn't agree on who should set up uniform standards

and criteria which most seemed to favor.

The government's Eberhard argued that the National Bureau of Standards should have a major role in this with strong help from the private Building Research Institute.

Vice President Gordon W. McKinley of McGraw-Hill granted that much can be done through the National Bureau of Standards and constant improvements of building codes to improve building productivity. "But one of the greatest forces for innovation is competition—competition in design, competition in materials, competition in equipment, and competition in assembly techniques."

And while the industry leaders were outspoken in condemning backward building codes for retarding technological progress, they shied away from endorsing a national building code based on national standards.

Weikel of Bethlehem Steel expressed the typical view: "I am much opposed to a nationwide building code. A national code implies national product acceptance. As long as we have many different local codes, we can always get someone to try new ideas."

**Showdown ahead.** In the wake of the meeting came strong reaction. Government officials confided they felt the program was rigged so government's already existing technical services through FHA, the National Bureau of Standards, and Agriculture's Forest Products Laboratory had not been fully explored. President Leon Chatelain of BRI said BRI's decade of experience means it is "the logical organization to act as the focal point for building research and development."

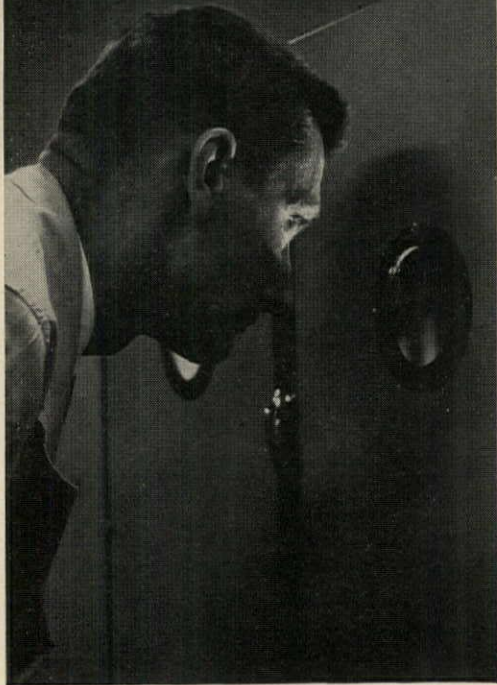
Most vigorous reaction comes from Builder Alan Brockbank of Salt Lake City.

"The meeting itself proved there is a need for more research to be done. It meant there is a vacuum, and if private enterprise doesn't do it, the government will." Brockbank argues that neither BRI nor NAHB nor any other organization can do the research job alone.

He wants to give new consideration to an idea that NAHB has been pressing for years without success: Builders should contribute \$1 or \$2 a unit into a research fund. So far the idea has bogged down over details of collection.



# RESEARCH



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Houses and apartments must be designed by a registered architect and built and completed since January 1, 1961 in any of the 50 states. Outstanding architects, housing industry leaders, and the editors of HOUSE & HOME and *American Home* will judge the entries. Awards will be made on the basis of outstanding contributions to better living through residential design, site planning, and construction. Winners will be announced at the AIA convention June 14-19, 1964. Awards will be made in three categories:  CUSTOM HOUSES designed specifically for an individual owner, in three classes according to size: a) Under 1,600 sq. ft. of living space. b) 1,600 sq. ft. to 2,800 sq. ft. c) Over 2,800 sq. ft.  MERCHANT-BUILT HOUSES designed for a merchant builder and sold speculatively, in three classes according to sales price, including land: d) Under \$15,000 e) \$15,000 to \$25,000 f) Over \$25,000.  GARDEN APARTMENTS (walk-up) built for rent or sale. Buildings shall not be over three stories in height from grade, must comprise four or more living units, and may be single buildings or one of a group: g) Single buildings (or townhouse blocks) h) Multi-building groups.

Pertinent information shall be submitted on the registration blank below by January 26, 1964, accompanied by a payment of \$10 for each house or apartment entered. Any number may be entered. A separate registration blank must be submitted for each. Upon receipt of registration blank and fee, each entrant will be sent, for each house or apartment entered, an 8½" x 11" binder and full instructions for preparation. It must be completed and postmarked no later than March 22, 1964. It is registration slip so that you receive the correct binder for your entry.

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builder \_\_\_\_\_ address \_\_\_\_\_

submitted by \_\_\_\_\_ address \_\_\_\_\_

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## SEGREGATION

## Is FHA nudging itself out of the new house market?

Responsible Washington sources are raising this disturbing question in the wake of a new move by FHA to close alleged loopholes in the Kennedy Administration's order barring race bias in housing.

And these sources predict that the effect of the tightening may be to shrink still more FHA's already plummeting share of housing starts. (This year so far, FHA's share of private nonfarm starts has dropped 20%—from 19% to 14% of the total.) But FHA Commissioner Philip Brownstein says: "We've reached the bottom." He predicts starts will rise.

**Closing the loopholes.** In its latest order FHA closed three loopholes:

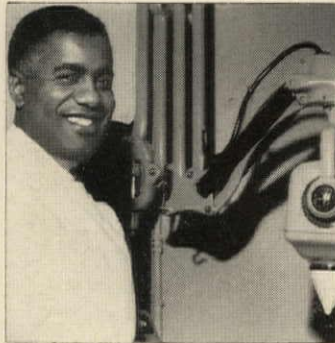
1. Builders must take a no-bias pledge even for extension of commitments that were exempt under the original order. All issued before Nov. 20, 1962 rate such exemption.
2. Builders who delay seeking commitments until houses are complete—to escape the order by selling new housing as if it were existing construction—must sign. Buyers of new houses less than a year old must make 10% down payments, vs. 3% for homes built under FHA inspection.
3. Builders and land developers who sell land to home owners for subsequent construction under FHA—by contract—must now sign the pledge. The rule is aimed at builders who were making two transactions of selling and building. They could escape the bias edict on both counts because the house, built by contract, would never legally be for sale.

**New escape routes.** Even FHA sources concede that the agency will have trouble policing its rules. One question is how far it can go to control builders and developers.

What is to prevent a developer from selling lots without FHA approval on a discriminatory basis and then directing buyers to a different builder, who would then put up houses under contract on the same lots? FHA admits that even the new rules cannot get close to balking such techniques. How prevalent such practices are the agency does not know.

FHA admits that its own statistics do not show whether builders were making much use of loophole No. 2—financing new homes disguised as old ones—before it rushed up new rules. Statisticians say the cases of new but non-occupied homes being sold as exist-

R. J. Quinlan



**FAIR HOUSING'S RICHIE**

*Leads Cleveland integration drive*

ing houses might run as high as 10% of the existing-home applications—or to 51,800 units for the first nine months. But nobody really knows. Official suspicion was so strong the agency slammed the door anyway.

Critics project results of the crackdown one step farther by saying it will trigger discrimination inadvertently. Here's why:

New FHA homes are already clustered in the low-price end of the market—a median of \$15,151 in 1962 compared to the \$18,200 that Census says is median for all new houses now. Conventionally-financed houses probably average nearly \$20,000.

White families, whose incomes average 91.5% higher than those of non-white families, can afford higher prices and bigger down payments than Negroes, most of whom can usually qualify for only low-priced homes. So if new FHA home building shrinks, the Negro's choice will narrow even further.

**Blast at VA.** Rep. Olin E. Teague (D., Tex.) meanwhile entered the controversy over an Orlando, Fla. builder blacklisted by the Veterans Administration over his failure to sell to a Negro buyer on Merit Island off Cape Canaveral (NEWS, Sept., *et seq.*).

Teague said he is "most disturbed that an attempt is being made to inject racial politics into the veterans' program."

He asserted that evidence on which VA based its suspension clearly showed that the houses involved were not covered by the President's anti-bias order. "Furthermore," he noted, "it was not shown that the veteran at any time made a bona-fide offer to purchase by offering a down payment or offering

to sign a purchase agreement."

A builder is obligated to carry out his commitment when he signs a non-discrimination pledge, Teague noted. He added: "On the other hand, the builder has a right to expect that he will not be harassed by racial groups and he certainly has a right to expect fair treatment from VA in cases of alleged discrimination."

The builder, House & Home Ltd., is represented by Washington Attorney Herbert Colton, who has filed a brief with VA protesting the action. Colton, also NAHB's general counsel, was acting as a private attorney and not as an NAHB lawyer as reported in HOUSE & HOME last month. Other developments on the housing integration front:

- In Cleveland, Fair Housing Inc., a realty brokerage organized to sell homes to Negroes in white neighborhoods, offered 6,000 shares of stock at \$10 a share. It reports 800 sold in two weeks. Realty experts call it the first attempt to float stock to finance a practice Realtors describe as block busting but rights leaders contend is fair housing.

- This is the second try at selling public stock to integrate housing. Builder Morris Milgrim and his Planned Communities Inc., Princeton, N.J., went to the public in 1961 with an issue of 10,000 shares of 10¢ par value stock for \$100 a share. They said they sold \$280,000 and stopped the offering. The company planned to build integrated housing communities in and between Washington, Philadelphia and New York. They have not been built.

- In Philadelphia, the Rev. Leon H. Sullivan of Mt. Zion Baptist Church has announced that rights groups will move 500 colored families into the northeast section, where most of the city's new homebuilding is concentrated. Many of the white residents moved to the section to escape Negro move-ins in other areas. Says Negro leader Sullivan:

"They are going to move in beside some of you. They are not going to ask for help. All will be under 50 years of age. And there will not be a single criminal record among them."

White residents rioted when Negroes moved into the Philadelphia suburb of Folcroft (NEWS, Oct.). Friends Suburban Housing in Ardmore, a brokerage placing Negroes in white neighborhoods, says this was the first violence its clients had encountered in 62 integrated move-ins.

## Storm rises over petition to kill an anti-bias ordinance

Tacoma, Wash., has just adopted the nation's most sweeping ordinance against race bias in housing—and thereby triggered a legal free-for-all significant for both sides wherever the rights controversy erupts.

Tacoma's law not only carries a \$250 fine or 30-day jail term for brokers convicted of bias in sales or rentals. It applies across the board to private sellers, apartment operators, hotels, and retirement homes. It makes it a misdemeanor for a neighbor to try to persuade an owner not to sell to a Negro.

**Tumult of protest.** Incensed realty men gathered 11,450 signatures in three days on a petition to kill the ordinance or submit it to referendum. They ultimately filed 16,000, although only 4,257 were required.

But Regional Vice President Jack Tanner of the National Association for the Advancement of Colored People got a court writ prohibiting validation of the petitions on the ground that the ordinance was of an emergency nature and thus exempt from attack by petition under the city charter. When

President Gordon C. Fors and the Tacoma Board of Realtors got Tanner's writ nullified by an appellate court, Tanner threatened to take the case to the state supreme court.

Tanner's campaign raises a new question in the continuing struggle over civil rights: how far will rights groups go to thwart petition drives against housing bias legislation?

**Crucial for two states.** The question is critical for California, where the California Real Estate Association is campaigning for 468,000 signatures to put on the '64 ballot



a constitutional amendment killing state or local legislation against race bias in housing once and for all. Its specific target is the Rumford Fair Housing Law, shoe-horned through the legislature in the final hectic hours of its session last summer (NEWS, Aug.).

Illinois has no state law,\* but the Illinois Real Estate Association is soliciting

\*Ten cities, 11 states and the Virgin Islands now have legislation against race bias in housing. Seattle has an ordinance up for a vote March 10.

## MATERIALS & PRICES

# Lumber dealers take hard look at their own exposition

Big trade shows show signs of leveling off in attendance and activity.

NAHB was down to 30,000 persons last year from an average of 34,500 at its two '61 conventions (H&H, Jan). Now the exposition of the National Lumber & Building Materials Dealers Assn. shows other symptoms.

The exhibitors' list at NLBMDA's latest Chicago show shrank 25% (from 170 in '62 to 126). The association divulged no cash or attendance figures, but its officers conceded that the balance sheet would probably carry its first red ink since the annual exposition was started in 1954. Exposition Director E. F. (Al) Walsh's estimated attendance as "about the same as last year," when it was reported as just under 10,000 dealers, wives, guests, and press. The NLBMDA claims 11,000 members selling \$9 billion worth of merchandise a year.

**Heading off revolt.** The exposition brought demands for a reorientation of policy and for streamlining of the show, and these were backed by the old device of a threat to secede. The big Northeast Retail Lumbermen's Assn. (1,100 dues' payers at \$18 each) urged the NLBMDA executive committee to 1) reshape the 130-member board of directors for tighter management, 2) trim last year's \$300,000 budget to \$180,000, and 3) act now to get defecting associations back into the fold. Otherwise, said Northeast, it too would leave by July. The Mid-Atlantic and Wisconsin Retail Lumber Dealers Assns., with 350 and 700 members, and the New York (City) Lumber Trade Assn. with 40, had made their exits during the year. Northeast's disaffiliation would be a body blow.

Skillful diplomacy by President Leslie G. (for Grant) Everitt and Executive Vice President Thomas T. Sneddon headed off the revolt. Everitt, president of the Everitt Lumber Co., Fort Collins, Colo., said reforms similar to those demanded have been under consideration since a meeting of all 29 federated associations' managing officers in August. And he promised a new study of the specific demands.

"We'll reconcile," he pledged. "We're too big an association to have no problems, but both sides faced this and solved it amicably. There'll be some changes made."

**Leader from Dixie.** The changes will be carried out by a courtly Carolinian who speaks softly and smokes a big cigar. The newly elected president of NLBMDA is William T. (for Theodore) Spencer, 57, head of the

510,000 signatures to force a referendum on the issue of whether a state legislature should pass any housing bias laws. The campaign began after Chicago adopted an anti-bias ordinance (NEWS, Nov.)

**Fear of conflict.** Success for both drives would force the explosive black-and-white issue onto the ballot in two of the most populous states in a Presidential election in '64. The politicians' widespread fear of just such a development was capsuled by Gov.

Edmund G. Brown when he pleaded with the CREA to call off its campaign.

"I think it's inadvisable to have a racial war in this great liberal state," he said.

The CREA turned Brown down cold.

**Echo in East.** Realtors in New York voted to try to get the legislature to amend the Baker-Metcalf anti-bias law to preserve the property owner's right to sell as he wishes and the broker's right to obey the owner's instructions. The law bans bias by brokers.

Spencer Lumber Co. of Gastonia, and his first act upon assuming office in January will be to direct an executive committee study "to recommend ways to improve NLBMDA's financing function and future."

Wearing a 10-gallon gift hat from the Texas delegation and puffing contentedly on a corona, Spencer spoke of the absent associations in soothing terms. Said he: "We want them back—we'll welcome them back. We'll listen with all reason. We're just like a

Oscar & Associates



**FIRST IN HALL OF FAME** for lumber dealers is W. Calvert Brand, who gets Dealer-of-Decade Award from NLBMDA President Leslie G. Everitt. Brand is with Dunlap & Co., Columbus, Ind.

football team. If one wants to go alone, we won't get far with the ball."

**Budget issue settled.** Northeast lost its move for the severe budget cutback, but the total was reduced from \$300,000 to about \$258,000. The secret vote of the 14-member executive body was authoritatively reported at about 2 to 1. Executive Vice President Sneddon emphasized that the saving would result from a retirement and the elimination of a staff position. He said there will be no curtailment of services.

**Exposition with style.** Once the pre-session in-fighting ended, the exposition moved into high gear as a spectacle. Costumed Texans ran wild with six-guns to promote next year's jamboree in Dallas (Nov. 14-17), cuties danced on roofs to prove that soundproofing works, and mechanical marvels nudged the lumber industry another year closer to automation.

The Truss Fabrication Div. of J. D. Adams Co., a Colorado Springs lumber equipment manufacturer, moved a complete roof-truss factory onto the convention floor to show dealers how to manufacture 25 trusses an hour with a three-man crew.

**Sound of silence.** Eleven of the nation's top manufacturers teamed in a dramatic sound-control exhibit consisting of two 3-room units, each with apparently identical kitchen, bath and recreation room. Audiences locked inside each in turn and subjected to heavy decibel abuse from outside agreed that the contrast was a difference between thunder and silence. Speakers emphasized sound conditioning as one of the lumber dealer's primary sales weapons in new homes in '64.

*Other convention developments:*

- NLBMDA reported continued success with its Home and Property Improvement (HAPI) program of combined sales training for dealers and wholesalers. It will include 14 wholesalers and 1,200 dealers in nation-wide classes by mid-winter.

- President W. Evans (Bucky) Buchanan of NAHB had a few words of warning. "Mortgage money may be more critical," he told dealers at their kickoff breakfast. "I don't think we'll build any 1½ million units in '64. Analyze your market. The word is CAUTION."

**Confidence galore.** But if the word was caution, the mood was of confidence.

"We have learned to compete," President Everitt told his dealers in a wildly applauded keynote speech. "This exposition has a new polish, and we know our way."

The performances at the exposition gave every indication he was right.

## Another building code limit on lumber falls in the South

The Southern Building Code Congress has adopted an idea from last spring's Wood Round Table (H&H, June).

SBCC thus takes the lead among the four proprietary model codes in allowing 15% greater strength for repetitive members such as trusses, joists, and rafters. SBCC says it will recognize "where appropriate" American Society of Testing & Materials standards justifying the increased load. The change applies only to bending, tension, and compression parallel to the grain.



## PEOPLE

## Behind John Dickerman's resignation as NAHB's top staffer

Four and a half weeks before NAHB's annual convention, Executive Vice President **John M. Dickerman**, 49, unexpectedly resigned.

President **W. Evans Buchanan** quickly announced that NAHB's staff will operate from now on under the co-equal administration of two of Dickerman's chief aides, with the elected NAHB president exercising more direct staff control.

The new arrangement gives co-equal power to **Oliver W. DeWolf** and **Nathaniel H. Rogg**. DeWolf, 51, a former Associated Press newsmen covering the Senate, was director of administration. He now becomes acting executive director. Rogg, 50, who has headed NAHB's economics department since 1954, will take the new post of staff vice president to coordinate policy moves for the association. Buchanan said



Fred Schnell

**NAHB'S DICKERMAN**  
Sudden exit after 17 years

no other staff changes are planned.

Dickerman turned in his resignation without warning Nov. 8, at the conclusion of a hectic week of finance committee and executive committee sessions. He announced plans to become a consultant in the housing indus-

try, drawing on his background of 17 years' experience with NAHB. Dickerman is a lawyer, was counsel of the Airline Pilots Assn. before joining NAHB as legislative director in 1947. He succeeded **Frank Cortright** as top staff man for the association 12 years ago this month.

Although Dickerman's resignation came at the busiest time of the year for NAHB staffers and officers, Buchanan insisted it will not disrupt headquarters operations or this month's convention. Said Buchanan: "It won't hurt the continuity of the organization. There is an overall feeling this will work out fine." He added that "John Dickerman contributed an awful lot during the 17 years he worked here," but declined to elaborate on circumstances of Dickerman resignation.

All Dickerman would say was that he had found himself in

disagreement with the executive committee on management and salary policies, and so resigned. NAHB first announced DeWolf would become acting executive director, then a day later announced the permanent new positions for DeWolf and Rogg.

How permanent remains to be seen, since the appointments apparently were made almost on a moment's notice. In any case, Dickerman's resignation brings to an end periodic reports over the past few years that one or another NAHB president planned to oust him. Some executive committee members were deterred from going along with such action for the good reason that they did not know who would be better in the job or, indeed what the job ought to be exactly. Now Dickerman has relieved them of the question of whether he should be replaced.

Jerry Dempnck



**DETROIT'S FOLEY**  
Too young to retire

### Former HHFA chief Foley heads an S&L

"This business gets in your blood and it's hard to quit."

So saying, **Raymond M. Foley** has ended the retirement he began a year ago. He has just been appointed president of the \$25-million Colonial Federal S&L in the Detroit suburb of Grosse Pointe Wood.

Foley, 73, rose from Michigan FHA director to FHA commissioner and then to HHFA administrator under President Truman (1947-53), a period that produced his best remembered quote:

"What America needs is a good \$6,000 house."

Resigning when the Eisenhower Administration took office, Foley was a housing consultant in Washington until his attempt at retirement.

Foley succeeds **Walter E. Powers**, president for nearly 11 years, who died in Florida, Oct. 13.

### Builders dig deeper for technology aides

Industrial Engineer **James A. Downie**, 30, has left The Stanley Works, New Britain, Conn. to join Lifetime Homes in Old Saybrook. His move exemplifies the quickening turn of the building business to scientific management: He will head time and motion studies and direct a switchover to other industrial engineering methods.

Lifetime, a fast-growing "business first, builder second" organization (H&H, Apr. '62) had earlier utilized Downie on a consulting job. After that, confesses **C. R. Sykora**, vice president of construction and sales at Lifetime: "We found reasons to sit back and look at operations which we had been satisfied with before."

Downie, who had been a work-study engineer on the celebrated TAMAP studies, began applying TAMAP techniques to sales, office procedures and administration, even passing them along to subcontractors. One old-line plumber took heed, began prefabricating waste and vent lines, and caught up with the company's five-buildings-per-week schedule (a rate he'd never mastered in pre-Downie days).

**PREFABBERS:** **Joseph H. (for Henry) Schulte**, 52, has moved to vice president for merchandising of Scholz Homes, Toledo prefabricator. Schulte joined Scholz (3,000 homes a year, \$4.5 million assets) after eight years

as merchandising director for Henry Kaiser's housing division, three years as president of his own New Products Institute, and nine as a merchandising consultant to Builders **Fritz Burns** of Los Angeles and **David Bohannon** of San Mateo, Calif.

**BUILDERS:** In hotly competitive Phoenix, President **Ralph E. (for Eugene) Staggs**, 41, is taking Staggs-Bilt Homes away from its focus on one-family homes to begin Arizona's biggest mobile homes park at Mesa, a suburb.

### Former Ohio governor leaves housing job

After six months on the job, former Ohio Governor **Michael V. DiSalle**, 55, has stepped down as executive head of the \$500 million satellite city of Reston, 18 miles from Washington, D. C.

Spokesmen for Reston Developer **Robert E. Simon Jr.** say that in taking the job DiSalle had agreed to divest himself of his law practice and other ties in Columbus, Ohio. But at the end of the half-year, DiSalle and

### OPINIONS AND INSIGHTS

• President **R. Peter Straus** of Radio Station WMCA in New York City, reporting to listeners on what happened to 7,000 slum-housing complaints funneled through the station to the city in seven months: "For three-quarters of the tenants we've had to recommend more than one city agency. In over 1,000 cases, we've had to refer them to three or more. For the tenants this is a big pain in the neck. For our city, it's just plain waste and inefficiency. And it's one of the chief reasons why the slums of New York keep getting worse . . . If all the studies ever done on housing-code enforcement in New York were ground into confetti, you could launch the greatest parade in history."

• Builder **Edward Eichler** of Palo Alto, Calif., sizing up plan-

ners: "As a profession you have spent your youth declaiming all the horrors of slurburbia and fighting, unfortunately with considerable success, for more and more controls. Your most nefarious scheme has been zoning, that device by which the rich secure their position at the expense of the poor and underprivileged."

• Designer **Emily Malino**, explaining what homebuyers want: "Builders have gotten bogged down in a morass of new products to sell homes. Gimmicks don't sell homes. If they did, why would anybody bother about design?"

• President **Lowell Douce** of the Ohio Association of Real Estate Boards, telling how Realtors can avoid government control: "The only way is to do a better job of policing ourselves."



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Simon agreed his roots were too deep in Ohio and he could not continue at Reston.

Says DiSalle: "I simply had to make a decision on time." The

first lake and golf course completed, drawings for first buildings are out to contractors for bids and models will open in the spring.

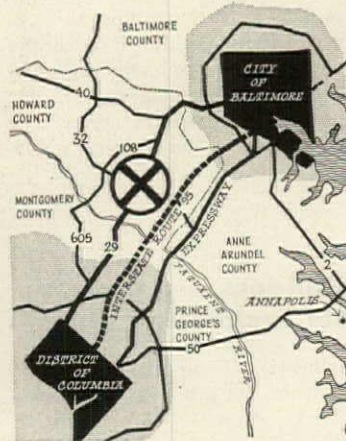
## Texas-sized land deals move East

Mortgage Banker **James Rouse** of Baltimore has assembled one of the largest tracts in the East Coast megalopolis.

After a year of dealing, his Community Research & Development Inc. bought 100 farms totaling 14,100 acres midway between Washington and Baltimore. The price: \$18.8 million, or \$1,335 an acre.



**BALTIMORE'S ROUSE**  
Plugging a gap in megalopolis



planned community for 12,000 to 15,000 residents.

Californians, who customarily buy larger tracts than builders in the crowded Northeast, are continuing to do so. Builder and Investor **R. B. Todd** and former Labor Leader **John W. Quimby** have teamed up to plan a \$70 million retirement community on 12,000 acres 40 miles north of San Diego. Land cost: \$6.5 million. Todd and Quimby say seven international labor unions will provide mortgage money for the community and promote it to their members.

Near San Francisco, the Draper Companies, primarily shopping center developers, paid \$10 million for 1,000 acres on San Pablo Bay, including 200 acres for apartments and 160 acres of potential bay-front homesites.

And the Texans? Former FHA Commissioner **Julian Zimmerman** announced his Lumberman's Insurance Co. would build the largest single project in Houston's history: 25 buildings on 40 acres costing over \$4 million. Two 12-story apartment buildings will start the project.

Rouse a former president of Action Inc., the private organization promoting better cities, has hired **William Finley** away from the National Capital Planning Commission, and Finley will plan a \$1 billion satellite city for 100,000 persons.

Two other deals are almost as big. Builder **Ross Cortese** a runaway success with his Leisure World senior-citizens colony in southern California, has bought 1,000 acres outside Washington, D. C. in Montgomery County, Md. He plans 10,000 units for the elderly. Builder **Leon Weiner** has assembled 1,100 acres five miles from downtown Wilmington and will build a \$60 million

## Lumber dealers' chief plugs diversification

A second-generation lumber dealer, **William Theodore Spencer**, 57, Gastonia, N.C., is new president-elect of the National Lumber and Building Materials Dealers Assn.

He took over his family-owned Spencer Lumber Co. in 1950 and increased sales 30% to \$1 million a year with a full-service line including components. "In the future, dealers must enter remodeling and homebuilding," he says.



**NLBMDA'S SPENCER**  
Expanded services make the money



## Three fined in Alabama FHA scandal

Four years after a splurge on FHA commitments in Alabama came to light, former state FHA Director **Charles B. Holliman** has been found guilty of conspiring to defraud the U.S. and fined \$500.

Two other principals in complex land deals accompanying the binge, former State Republican Chairman **Claude O. Vardaman** and Huntsville Real Estate Dealer **Carl B. Thomas**, were fined \$3,000 each and placed on a year's probation.

All were convicted in federal court in Birmingham after pleading no contest to an indictment (NEWS, Jan.) charging that Vardaman used his political influence to get Holliman appointed and that Vardaman, his wife, and Thomas bought land and resold it to builders at handsome profits with a guarantee of FHA commitments that Holliman issued "in consideration for his appointment." The grand jury charged that the U.S. was thus deprived of Holliman's "loyal and faithful service."

Holliman entered his plea only when the government dropped charges that he was paid "money and other valuable considerations" by Vardaman for the commitments. "The indictment had been returned on the theory that there was evidence of bribery," says U.S. Attorney **R. Macey Taylor**, "but there was none."

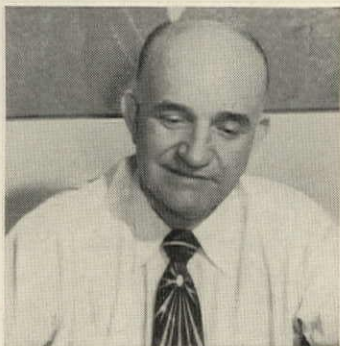
"These charges were not true," says Holliman. "I am indeed grateful that the U. S. attorney has stricken them." His own attorney, **Frank Bainbridge**, says Holliman was innocent of all charges and that, but for the expense, he would have stood a jury trial to clear himself. But when Holliman drew a fine of only \$500 and no probation, the attorney says, his client decided to end the matter there. He resigned his FHA post after the indictment and is now in the real estate business in Birmingham.

Charges against Mrs. Sue Vardaman, indicted with her husband, were dropped at government request in September. Vardaman declined to seek re-election as state GOP chairman in June.

Eight co-conspirators were named by the grand jury but not indicted. They included Builders **James Folmar** and **Henry Flinn Jr.**, whose market woes four years ago led HOUSE & HOME to ask questions that put local newsmen on the trail of the scandal (NEWS, Oct. '59 *et seq.*). F&F had erected 1,438 unsold low and middle-priced homes in Mobile, Birmingham, Gadsden, and Huntsville. Of these, 900 were FHA



**FHA'S HOLLIMAN**  
Bribe charges were dropped



**GOP'S VARDAMAN**  
End of a commitment splurge

Sec. 221 homes, supposedly authorized only to help relocate families displaced by public action. H&H correspondents uncovered land deals in which the Vardamans, Thomas, and other GOP figures made a \$1 million profit turning over tracts bought at \$850,000.

And four years later, only 44 Folmar and Flinn homes remain unsold: 28 in Huntsville, 14 in Mobile, and two in Birmingham.

**DIED: John Wellborn Root**, 76, senior partner of Chicago's architectural firm of Holabird & Root, Oct. 24, on Cape Cod, Mass. In the 1920s he helped free American architecture of its period bonds, and his A. O. Smith engineering building in Milwaukee foreshadowed much present-day building design. Root served on the Chicago Plan Commission for a decade. In 1958, he won AIA's Gold Medal.

**DIED: Walter H. Bennett**, 94, former president of New York State Bankers Association, Oct. 7 in Bronxville, N. Y.; **Joseph G. Rice**, 66, board chairman First Federal S&L, Phoenix, on a business trip, Oct. 8 in Los Angeles; **James M. Banner**, 55, president of James D. Landauer Associates Inc., real estate consultants, Nov. 1 in New York City; **Warren (Buzz) Wittmann**, 44, builder of 2,000 homes in 12 years, Nov. 9 in Columbus, Ohio.

News continued on p. 45

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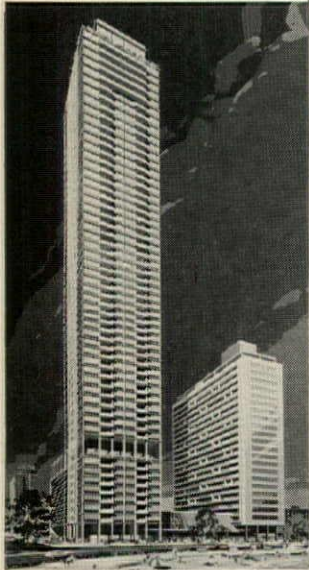
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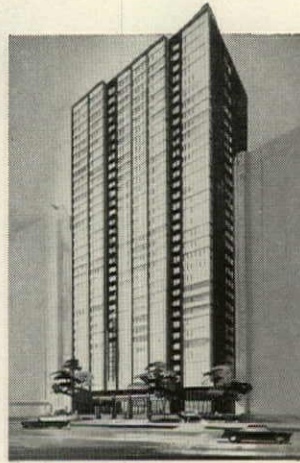
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**World's Tallest Apartment Building**  
1000 Lake Shore Plaza  
Location: Chicago • No. of units: 141  
Owner: Harold L. Perlman and Associates  
Consulting Architect: Sidney H. Morris & Assoc.  
Building Design and Construction:  
Chicago Highrise Corporation



**The Willowick**  
Location: Houston, Texas  
No. of units: 140  
Owner: Gerald D. Hines  
Architect: Neuhaus & Taylor  
Contractor: Harvey Construction Co.



**1440 North Lake Shore Drive**  
Location: Chicago  
No. of units: 250  
Owner: Harold Wallach, J. Wexler  
Architect: Hirschfeld, Pawlan & Reinheimer  
Contractor: Carl E. Erickson & Company



**Regency House**  
Location: Houston, Texas  
No. of units: 100  
Owner: William Dickey  
Architect: Turner and Geyer  
Contractor: Spaw-Glass Company



**Williamsburg Square**  
Location: Phoenix, Arizona  
No. of units: 66  
Owner: Fleetwood Construction Corp.  
Architect: Schreiber & Schreiber  
Contractor: Fleetwood Construction Corp.



**Kenilworth Apartments**  
Location: Wilmette, Ill. • No. of units: 82  
Owner: Morris A. Walter and Arthur Pancoe  
and Joseph Meyerhoff Corporation  
Architect: A. Epstein & Sons  
Contractor: Edward Gray Corporation



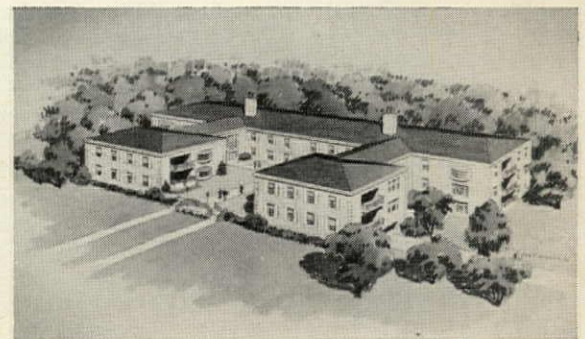
**James Whitcomb Riley Center**  
Location: Indianapolis, Indiana  
No. of units: 526  
Owner: James Whitcomb Riley  
Architect: Perkins & Willis  
Contractor: Huber, Hunt & Nichols



**Waters House**  
Location: Grand Rapids, Michigan  
No. of units: 100  
Owner: C. A. Sarafis  
Architect: Wold & Bowers  
Contractor: Aalsburg Construction Co.



**Sky Park Manor**  
Location: Lincoln, Nebraska  
No. of units: 84  
Owner: C. W. Olson, S. A. Solheim  
Architect: Selmer A. Solheim  
Contractor: Olson Construction Company



**Georgian Court Estates**  
Location: Utica, New York  
No. of units: 168  
Owner: Wm. D. Ryan Co.; Sibley Corp.  
Architect: Corgan and Balestiere  
Contractor: Northeast Construction Managers, Inc.



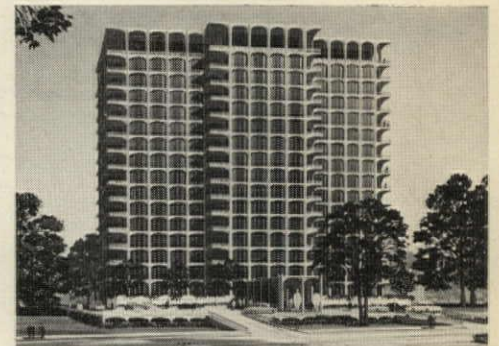
# *cabinets been selected apartment house builders?*



**The Lake Summit**  
Location: Milwaukee, Wisconsin  
No. of units: 104  
Owner: Wellston Corporation  
Architect: M. B. Coisman  
Contractor: Wellston Corporation



**World's Largest Apartment Building**  
Outer Drive East  
Location: Chicago • No. of units: 940  
Owner: The Jupiter Corporation  
Architect: Hirschfeld, Pawlan & Reinheimer  
Contractor: Crane Construction Company



**Inwood Manor**  
Location: Houston, Texas  
No. of units: 140  
Owner: Dr. Ernest L. Wilkinson  
Architect: Neuhaus & Taylor  
Contractor: Manhattan Construction Co.



**1300 Lake Shore Drive Building**  
Location: Chicago  
No. of units: 148  
Owner: Thirteen Hundred Lake Shore Corp.  
Architect: Chicago Highrise Corporation  
Contractor: Chicago Highrise Corporation



**The Barclay House**  
Location: Clayton, Missouri  
No. of units: 150  
Owner: Zale Realty  
Architect: Sternberg & Associates  
Contractor: George L. Cousins



**812 5th Avenue**  
Location: New York City  
Units: 29  
Owner: Winston-Muss Corporation  
Architect: Robert L. Bien  
Contractor: George A. Fuller Company



**El Refugio Apartments**  
Location: Santa Barbara, California  
No. of units: 110  
Owner: Sidney Lewis  
Architect: Wassily Von Biskupsky  
Contractor: Sidney Lewis



**3150 Lake Shore Drive**  
Location: Chicago  
No. of units: 204  
Owner: Lake Shore Management Co.  
Architect: Shaw-Metz  
Contractor: Crane Construction Co.

## *Price was not the reason!*

THE I-XL FURNITURE COMPANY, INC.

Goshen, Indiana





24" MODULES FOR TRUSSED ROOF  
48" MODULES FOR ROOF SHEATHING

STANDARD ROOF SLOPES

48" MODULES FOR TRUSS &  
GABLE SPANS

16" MODULES FOR WINDOW &  
DOOR LOCATION & STUDS

16" MODULES FOR DOORS,  
WINDOWS & STUDS

48" MODULES FOR OVERALL  
HOUSE WIDTHS

16" MODULES FOR WINDOW  
& DOOR PANEL SIZES

16" MODULES FOR FLOOR JOISTS  
48" MODULES FOR FLOOR SHEATHING

48" MODULES FOR OUTSIDE  
OVERALL DIMENSIONS AND  
FLOOR SHEATHING

MODULAR MASONRY FOUNDATION

THE UNICOM HOUSE disciplines the modular co-ordination of all elements, as illustrated in this schematic drawing of a 48-inch module home. Although design based upon the UNICOM grid system recognizes standard components, non-standard components may be used if described fully by the designer and incorporated in the UNICOM plan.



# unicom: WHY USE IT?

Because new engineered grid system cuts labor time and cost, eliminates waste, builds a better house of WOOD

That's why!

UNICOM's uniform modular component system makes homes of wood all the better to build . . . with a disciplined, accurate, fast method of construction. Your job is organized from beginning to end for any type of 1-, 1½-, 2-story, split- or bi-level house you plan to sell.

The modular planning grid, with its equal spaces of 4, 16, 24 and 48 inches, is your guide for width and length. Its 4-inch unit is basic in all UNICOM planning. Your walls, windows, and door panels are determined by multiples of the 16- and 24-inch units.

Standards are set for first floor heights, too: 8'1½" from the top of the subfloor to the bottom of the ceiling joists. Second floor heights vary with the style of the house. But roof slopes and overhangs are standardized, and floor-to-floor dimensions are uniform for ready-made stair components.

Lower inventory, interchangeability of parts from any UNICOM supplier, construction on the site or fabrication in the shop, the use of standard lumber sizes throughout . . . these important UNICOM advantages provide greater economies, superior work-



1-story variations



1½-story

2-story



Split-level variations



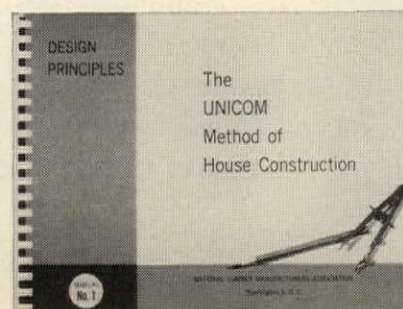
Bi-level variations

manship with the building material traditionally preferred by your prospects.

The benefits of UNICOM and the inherent qualities of wood together help you build the best homes . . . the best-selling homes . . . in your community. For more information on better building with wood and UNICOM, write:

NATIONAL LUMBER MANUFACTURERS ASSOCIATION  
Wood Information Center, 1619 Massachusetts Ave., N.W., Washington 6, D.C.

UNICOM MANUAL NO. 1: "The Unicom Method of House Construction" . . . 122 pages of building principles, drawings, and modular planning for basic homes of wood. Single copies of Manual No. 1 are available without cost to those associated with or supplying the home building industry. Your request should be made under professional letterhead, and sent to UNICOM, National Lumber Manufacturers Association, 1619 Massachusetts Avenue, N.W., Washington 6, D.C.





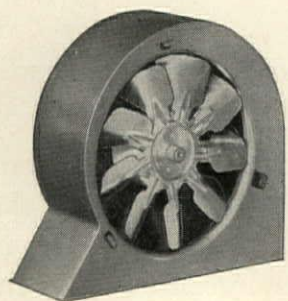


*Introducing the new*

**Leigh**

**GLO-VENT RANGE HOOD**

**TRANSLUCENT FACE PANELS SPREAD A SOFT LIGHT**



*Performance where it counts—in the heart of the hood. 9-bladed fan in scroll housing, totally enclosed G-E Unitized motor.*

Big consumer appeal has returned to range hoods! Look at this beauty! Clean, squared off lines—with face panels that spread a soft glow of light—glamorizing colors and woodgrains of nearby counter tops, appliances and cabinets.

The Leigh Glo-vent is a marvel in total use of modern carefree surfaces: two ceramic-hard translucent panels—a diamond patterned, anodized aluminum control panel. And the all-steel case has a new super tough, plastic base, automotive type finish.

Delivers top performance. The Leigh Glo-vent has an 8-inch, 9-bladed mixed flow fan powered by the famous G-E Unitized motor. It runs whisper quiet, with power to spare for long ducts—exceeds F.H.A. requirements. UL approved, including translucent face.

The new Leigh Glo-vent is offered in three types: Versa-Duct, Deluxe Duct-Free and Economy Duct-Free. Your choice of 24", 30", 36" and 42" sizes.

Once your prospect touches the light switch, she'll never settle for less. Yet the price to you is competitively low. You can profit with Leigh Glo-vents for homes in any price range.

Get the full information on this smart, new, fashion-wise range hood. The Leigh Glo-vent. See your supplier. Or write for bulletin 353-L today.



**LEIGH MAKES MORE THAN 150 PRODUCTS FOR THE BUILDING INDUSTRY**

**LEIGH PRODUCTS, INC.**, 2563 Lee St., Coopersville, Mich. 49404  
 East Coast Warehouse: Leigh Corp., 255 East First Ave., Roselle, New Jersey 07203. West Coast Warehouse: Leigh Industries, Inc., 2645 Yates Avenue, City of Commerce (Los Angeles), California 90022. Made in Canada by: Leigh Metal Products Ltd., London, Ontario. Western Canada Sales Agency: E. H. Price Ltd., Winnipeg, Regina, Calgary, Edmonton, New Westminster



## MORTGAGE MONEY

## HLBB stirs up a hornet's nest with its crackdown on S&Ls

The Home Loan Bank Board's war on rising s&L dividend rates, which Chairman Joseph P. McMurray says threatens the reputation and solvency of the entire \$100-billion industry, has reached a new crescendo.

The board has taken its most drastic step yet against s&Ls paying up to 5% on savings, a practice it fears will lead to unsound lending. It intends to impose (effective Jan. 1) three new curbs on s&L growth which will limit s&L's ability to pay top dividends (see box).

The crackdown has the industry seething. For the first time in his 2½-years in office, some of the s&L fraternity's leaders are sniping at McMurray, widely praised until now for forceful leadership.

**Balloon goes up.** McMurray announced his rules in Honolulu, where they got a cool but temperate reception from the National League of Insured Savings Assns. (see p. 46). Two weeks later he took his prescription to San Francisco, where the U. S. s&L League's reaction seemed favorable—at least in McMurray's view—but where criticism and resentment built to seismic proportions in the convention corridors in the three days after McMurray's appearance.

Focus of objection was McMurray's reserve requirement (see box). If an s&L had savings of \$100 million on Jan. 1 and net income of \$5 million, its reserve requirement at year's end would be the basic 10% of net, or \$500,000.

If the same s&L grew 20%, it would have to put in reserve an additional 8% of the second 10% of annual growth. The second is \$10 million, and 8% of that is \$800,000. The total reserve payment would be \$1.3 million—the basic \$500,000 and the added \$800,000.

For 30% growth, the reserve requirement would be \$2.2 million—the basic \$500,000 plus \$800,000 for the 8% of the second 10% of growth, plus \$900,000 for 9% of the third 10% of growth.

**Why S&Ls object.** Research Director John Stafford of the U. S. League says 250 to 300 s&Ls would fail to meet the standards today and would thus be affected. Adverse results apparently will be "fairly evenly distributed geographically" Stafford's analysis showed. The 300 would not automatically have to cut dividends; they could seek a waiver from the HLBB. s&L growth is usually low in areas where s&Ls have low incomes, and associations conforming to such patterns are safe under the regulation. But Stafford warned that a high-rate grower in a low net area should do some serious checking to make sure he can meet the new rule.

s&Ls holding companies also object to McMurray's plans because adverse publicity tends to depress stock prices.

**Effect on housing.** Experts say the new rules will have two results in housing.

1. They will nudge s&Ls to reduce the fees they charge builders and developers for loans, since the s&L can count as current income only a 1% fee on a mortgage loan or a 2% fee on a construction loan.

2. This will in turn put s&Ls under pressure to raise interest rates on mortgages to offset



**BANK BOARD'S McMURRAY**  
Rx: bigger reserves vs. fast growth

the loss in income from fees.

**Flareback.** Directors of the League which represents 5,400 of the nation's 6,300 s&Ls, gave pro-forma endorsement to the rules in a policy statement. Feeling in the ranks was anything but sympathetic. One s&L officer accused McMurray of trying to be a czar. An attorney for a holding company confided to reporters his plans to circumvent the reserve requirement by selling debentures, and President Howard Edgerton of the giant California Federal in Los Angeles said he doubted the industry would accept the new rule. He warned that southern California s&Ls would pounce on it during the 30 days the HLBB gives to hear complaints. One s&L official forecast the changes would start "a revolution in the industry against the HLBB."

Still others cried that McMurray was tarring the whole industry with the sins of a few

### PROPOSED S&L RULES

- Reserves would be pegged to growth after Jan. 1. s&L's must now assign only 10% of pre-dividend earnings to reserves regardless of growth rate. The proposed rule would require them to put into reserve this basic 10% plus 8% of all growth over 10% and another 9% of all growth over 20%.
- The entire amount of income from fees on loans may now be treated as current income, available for dividends to stockholders. Under the new rule an s&L could count as current income only a 1% fee on a mortgage loan and a 2% fee on a construction loan. Above that, fee income would be amortized over eight years.
- As the ratio of bad loans to reserves rose, the amount an s&L could borrow from a regional Home Loan Bank would be curtailed. Details are not public.

s&Ls in Chicago (NEWS, Aug. et seq). They were particularly incensed that he chose "to wash the industry's dirty linen in public."

**Inside stories.** McMurray stood fast. "We operate in a fish bowl," he said. "I'm not going just to confer with this industry. This is a public business, and the public must be served first." And McMurray noted that:

- The foreclosure rate for s&Ls is 10.67 for every 1,000 loans in California vs. a national rate of 3.9.
- Five other states—Arizona, Florida, Alaska, Nevada and Texas—have rates 40% above the national rate.
- Chicago's s&L scandals are just beginning to surface. The Federal s&L Insurance Corp. has picked up three associations with \$55.4 million assets (NEWS, Nov.). Insiders now say FSLIC may eventually have to pick up \$250 million.

An effort led by the New York Savings Association League to expel capital stock s&Ls from the U. S. League failed to win support. Directors turned it down, 45 to 2.

### MORTGAGE YIELDS STEADY BUT TIGHTER MONEY MAY LIE AHEAD

Reports of tighter money ahead are rippling through the mortgage market, but lenders discount them.

The reports started after NAHB President W. Evans Buchanan told the National Lumber and Building Materials Dealers Assn. in Chicago that investors were becoming more selective. And the Home Loan Bank Board reported a pause in this year's trend toward easier and easier terms. Its evidence:

September new-home mortgages averaged 73.5% of purchase price and 24.2 years—down from the August figures of 74.2% and 24 years. But in September one of every four new-house loans was for more than 80% of purchase price; in January only one of every five loans hit that category.

The immediate effect on FHA-VA trading? Virtually none, according to HOUSE & HOME's survey of 18 key cities. FHA paper gets closer scrutiny, but terms and discounts are unchanged on deals that go ahead.

Assistant Vice President John F. Burnie of Citizens Mortgage Corp. in Detroit sums up reaction; "There is talk," he says, "but so far only talk. Everyone has a reluctance to be the first tightener."

Most cities report prices firm with yields still on the 5.06%-to-5.08% plateau. One hint of a rise comes from a comparison by Investors Central Management Corp. of FHA-VA and AA utility-bond yields in its portfolio since 1958. Bond yields have virtually paralleled FHA yields since 1959. But in the last three months FHA yields have dropped while bonds have turned up. The outlook: FHA yields may follow bonds.

More lenders are turning from homes into commercials because of good risks and attractive yields, reports the National Association of Real Estate Boards. First evidence: The Dime Savings Bank of Brooklyn, which holds \$605 million in Long Island home mortgages, said it would put "several million" into commercial and industrial loans.



## New federal S&L rules: National League rolls with punch

The Home Loan Bank Board and members of the National League of Insured Savings Assns. sparred like wary giants in mid-ring when the league's annual meeting opened in Honolulu on the issue of new federal S&L controls.

HLBB Chairman Joseph P. McMurray un-corked details of his three curbs on high-dividend S&Ls at an opening session. (see p. 45). New President Robert S. Messersmith at first called McMurray's speech a "bombshell." But after closer analysis he moved to still all but the most moderate criticism, and even devoted much of the closing day to persuading League members to forego injudicious outbursts.

**Why he changed.** Two circumstances explain such restraint:

1. McMurray had voiced deep concern at the action of some Los Angeles S&Ls in raising dividend rates on savings to 5% (NEWS, Nov.) and had warned that new regulations were coming. There had been talk of standby government controls on rates, favored by President Kennedy.

2. So there was an undisguised feeling of relief when McMurray confined himself to three specific changes and sidestepped out-and-out controls.

**That 'not-guilty' feeling.** The new rules will affect most directly the stock S&Ls, which account for only 25% of the League's 550 members and which aim for the rapid growth

which brings profit for shareholders. Hence the bulk of the membership felt McMurray's reforms were not aimed at them, but at a group of companies centered in California.

Expectably, the loudest criticism came from the West Coast.

"The proposals put a penalty on growth," cried President Edward L. Johnson of Financial Federation of Los Angeles (assets: \$693 million). "Speeches like McMurray's also have a danger of injuring public confidence in the associations. It's incredible that a three-man HLBB should determine the rate paid to thrifty people on their savings."

**Policing wins support.** But the consensus was capsuled by Vice President Raymond D. Edwards of the \$562-million Glendale (Calif.) Federal S&L, who presides over the new 29-member Conference of Federal S&L Assns. of Southern California. He put it this way:

"Basically, I'm for measures that will help the industry short of total control. McMurray's proposals as a whole would be a real help. I think if an association can afford to pay a high dividend, that's okay. But if it can't, it shouldn't. I'm a conservative who favors long-term growth over skyrocketing dividends."

Summed up Executive Vice President Edward J. Hellmer of First Western S&L of Las Vegas (assets: \$153 million): "I'm not going to get excited. We're going to continue to grow."

But federal aides offered tranquilizing talk. HLBB Member John Horne helped soothe

the convention with some pacifying advice about his boss' speech: "Some of the members may be mistakenly interpreting this as an attempt to control dividends through the back door. This is not the case at all." Horne also insisted that the rules did not discriminate against California by intent. "We've had troubles in other places," he said. "Chicago and Texas have had their troubles."

**Views from Washington.** Rep Wright Patman (D., Tex.), chairman of the powerful House banking and currency committee, ladled out more soothing syrup. He praised the HLBB as a healthy, moderating influence and then, with an oblique reference to standby controls, added pointedly: "I would hate to see support given to this proposal by reason of the unsound practices of a few associations. Experience has taught us that when an agency has standby controls, there seems to be an irresistible compulsion to put these controls into active operation."

The League's own Washington staff played neutral during the convention, although one staffer did let slip a backstage lament:

"If they don't fight this, they may wake up one day and find they are government controlled."

But the final note was harmonious. The convention closed with the league's executive committee promising to hear all rebels before formulating a policy stand. But it was obvious that most National Leaguers had feared much stronger medicine, and were willing to take McMurray's pill like an aspirin.

## Bobby Baker probe enmeshes private mortgage insurers

The Senate probe into the possible conflicts of interest in the private business dealings of Bobby Baker, former secretary to the Senate Democratic majority, has taken a surprising turn into the S&L industry.

At stake is whether the budding group of private companies set up to insure conventional mortgages can draw upon S&L leaders for financial support as stock purchasers and business advice as officers and directors.

Baker started the chain of events bringing the new inquiry when he resigned his influential Senate post after his close ties to food vending companies dealing with government contractors were revealed. The Senate started a closed-door probe whose main lines of inquiry leaked to the press. So almost everything mentioned about Baker has become a political hot potato.

When it was learned Baker had made \$38,000 by buying stock of Mortgage Guaranty Insurance Corp. of Milwaukee, public attention focused on the nation's largest and most successful private insurer of conventional home mortgages. MGIC was organized in 1956 and its success in a field up to then left solely to FHA and VA is a key reason behind the dwindling FHA-VA share of housing's market. (see p. 6).

**The murky question.** News stories questioned whether some of the nation's leading S&L men had conflicts of interest by serving

Walter Bennett



**STOCK BUYER BAKER**  
Start of the trail to HLBB

as officers or directors of both the local S&Ls and MGIC, a company with which they did business. They prominently displayed—as if in revelation—facts that had long been public knowledge because they appear in MGIC's stock prospectuses registered with the Securities & Exchange Commission. Items:

Two former U. S. S&L League presidents, Henry Bubb of Topeka and Henry P. Irr of Baltimore, and former HLBB Chairman Walter McAllister of San Antonio, were on MGIC's board. Bubb is chairman. All three had purchased MGIC stock between July and October 1960 under stock options as inducements to join the company. Bubb bought 44,160 shares and Irr and McAllister 7,360 shares each at

prices ranging from 52¢ to \$2.50 a share at a time when the stock was traded over the counter at \$8.70 to \$23.50 a share. About 85% of these purchases were for \$1.5625 a share when the market price was \$21.90.

In 1962, MGIC received 4.9% of its \$512 million insurance written from six S&Ls and one life insurance company connected with MGIC officers and directors. Bubb's Capitol Federal S&L produced the largest single volume, \$11.4 million.

**The murkier rules.** Not only has the S&L industry long known these leaders' ties with MGIC; MGIC has also publicly pointed to them to show its high caliber leadership.

Now HLBB has begun wrestling with whether this is indeed a conflict of interest. Here the Board finds itself in a muddled legal field.

For years HLBB ran into strong criticism in Congress because it had never spelled out exactly what actions by S&L officers it considered a conflict of interest. Congressmen accused HLBB of acting without definite standards (NEWS, June) and once even pressuring another former U.S. League president, George West Sr. of Atlanta, to quit his S&L chairmanship because he also had interests in a lumber yard and insurance agency.

Early this year HLBB issued guidelines for judging S&L ties with builders (NEWS, Feb.) but left the conflict of interest issue to a still-incomplete study by former HLBB Member Ira



Dixon. Dixon has told the board he considers full disclosure of outside interests the most effective remedy, but HLBB has issued no rules.

In any case, S&L leaders' ties to MGIC are not uncommon: five directors of a smaller competitor of MGIC, American Mortgage Insurance Co. of Raleigh, N. C., told SEC when it went public (NEWS, Oct.) their S&Ls had originated 18% of AMI's insurance.

**Savings bank takes big step into participation lending**

Executive Vice President Arthur J. Quinn is taking the newly formed New York Bank for Savings into large-scale mortgage participations with pension funds and commercial banks. Banking leaders say it is the first such step of any size by a major savings bank.

New York State banking law has always let savings banks participate with each other, but it was only in 1961 that the legislature authorized them to enter participations with commercial and national banks, trust companies, S&Ls, and pension funds. Quinn has taken advantage of the change with an aggressive mortgage purchase campaign, first with the New York Savings Bank and now with its new merged identity as the Bank for Savings (NEWS, Oct.). He has on his books or on commitment about \$100 million in loans. Here's how his plan works:

Quinn, 49, makes his bank act more like a mortgage department than a broker. Unlike a broker, he risks his own bank's reputation and credit by taking 10% of the loan and passing on 90% to such institutional investors as the General Electric retirement fund. He does not retain servicing, and his payment consists of a 1/8 of 1% management fee.

Mortgage men call Quinn's operation a shot in the arm for the mortgage market. They say it has opened a new pipeline to big money that should keep flowing in any future tight money period.

**Bank offers 4 1/4% rate on home improvement loans**

The nation's largest mutual savings bank—the Bowery of New York (assets: \$2 billion)—is offering home-improvement loans at a discount of \$4.25 per \$100 per year, including life insurance, up to \$3,500.

The Bowery's move into remodeling loans comes at a time when FHA detects a tendency among other banks to make smaller uninsured loans on their own initiative at higher rates than the 5% maximum discount allowed on Title I home-improvement loans, which FHA insures. FHA says its average Title I loan has consequently risen to \$1,000.

The Bowery's plan works out to 8.5% true annual interest compared to the 9.47% annual yield of a Title I loan.

Title I is still the only FHA fixup program clicking. The big-ticket Secs. 203k and 220h have yet to get off the ground (NEWS, Oct.). But FHA, under Justice Dept. prodding, may soon order all Title I borrowers of over \$2,000 to sign a completion certificate in the presence of an officer of the lender. Builders say this imposes an unnecessary time burden on builders and borrowers without preventing frauds, and should drive borrowers to other noninsured lenders.

NEWS continued on p. 51

**MORTGAGE MARKET QUOTATIONS**

(Sale by originating mortgage who retains servicing.) As reported to HOUSE & HOME the week ending Nov. 8, 1963.

City	Conventional Loans <sup>w</sup>		Construction Loans <sup>w</sup>		FHA 207 Firm Commitment	FHA 220 Firm Commitment 35 years	FHA 203 <sup>b</sup> Min. Down 35 year Immed
	Comm. banks, Insurance Cos.	Savings banks, S & Ls	Banks, Ins Cos. & Mtg. Cos.	Interest + fees Savings banks, S & Ls			
Atlanta	5 1/2-6	5 3/4-6 3/4	6+2	6+2	a	a	97 1/2-98
Boston local	5 1/4	5 3/4 <sup>n</sup>	5 3/4-5 3/4	5 3/4-5 3/4	a	a	a
out-of-st.	—	—	—	—	a	a	97 1/2-98
Chicago	5-5 1/2 <sup>l</sup>	5-5 3/4 <sup>l</sup>	5 1/2-5 3/4+1-1 1/2	5 3/4-6+1 1/2-2	99-par	99-par	97-98
Cleveland	5 1/2	5 1/2-6	6+1	6+1	99-par	99-par <sup>b</sup>	97 1/2-98 1/2
Dallas	5 1/2-5 3/4	6 <sup>j</sup>	6+1	6+1	99-100	a	98-99 1/2 <sup>p</sup>
Denver	5 1/2-6	5 1/2-6 1/2	6+1 1/2-2	6+1 1/2-2	99	a	a
Detroit	5 1/4-5 1/2	5 1/4-5 1/2	6+0	6+0	99 1/2-par	99 1/2-par	97 1/2-98
Honolulu	5 3/4-6 1/2	6-7	6+1-2	6+1-2	a	a	97
Houston	5 1/2-6	5 1/2-6 1/4	6+1	6+1	98-99	98 <sup>bd</sup>	98
Los Angeles	5 1/2-6	5 3/4 <sup>h</sup> -6.6	6+1 1/2	6-6.6+1 1/2-2	99-99 1/2	99-99 1/2	98
Miami	5 1/2-5 3/4	5 1/2-6	5 3/4-6+1/2-1	5 3/4-6+1/2-1	99 <sup>b</sup>	a	97 1/2
Newark	5 1/2-5 3/4	5 1/2-6	6+1	6+1	99-par	99-99 1/2	98 1/2 <sup>b</sup>
New York	5 1/2-6	5 1/2-6 <sup>r</sup>	5 3/4-6	5 3/4-6 <sup>r</sup>	99 1/2-par	par+	99 1/2-par
Okla. City	5 1/2-6 <sup>b</sup>	5 3/4-6 1/2	6+1-2 <sup>b</sup>	6+1-2	a	a	97 1/2-98 1/2 <sup>h</sup>
Philadelphia	5-5 3/4	5 1/4-6	5 1/2+1	5 3/4+1	99 1/2	par	99
San Fran.	5 1/2-6 <sup>h</sup>	5 3/4-6 1/2	5 3/4-6+1-1 1/2	6-6.6+1 1/2-2 1/2	99-99 1/2	99 1/4-99 3/4	98 1/2
St. Louis	5 1/4-6	5 1/2-6 1/4	5 1/2-6 1/2+1-2	5 1/2-6 1/2+1-2	a	a	a
Wash. D.C.	5 1/2-5 3/4	5 1/2-5 3/4	5 3/4+1	6+1	par	par-1/2	99

**FHA 5 1/4s (Sec 203) (b)**

City	FNMA Scdry Mkt# <sup>y</sup>	New Construction Only				Existing <sup>r</sup> Min Down 25 year Immed
		Minimum Down*		10% or more down		
		30 year Immed	Fut	30 year Immed	Fut	
Atlanta	97 1/4	97 1/2-98 1/2	97 1/2-98 1/2	98 1/2 <sup>b</sup>	98 <sup>b</sup>	97 1/2-98 1/2
Boston local	98 1/4	par-101	par-101	par-101	par-101	par-101
out-of-st.	—	97-98	97 1/2-98	a	a	97 1/2-98
Chicago	97 1/4	98 1/2-99	98 1/2-99 1/2	99-par	98 1/2-99 1/2	99-100
Cleveland	97 1/4	98 1/2-99	98-98 1/2	99-99 1/2	98 1/2-99	98-98 1/2
Dallas	97 1/4	98-99 1/2	97 1/2-98 1/2	98-99 1/2	98-99 1/2	97 1/2-99
Denver	96 3/4	98-99	97 1/2-98 1/2	98-99	97-99	98-99
Detroit	96 3/4	98 1/2	a	99-99 1/2	a	98 1/2
Honolulu	96 3/4	97 1/2	97 1/2	98	97 1/2	97-97 1/2
Houston	97 1/4	98-99	98-98 1/2 <sup>b</sup>	99	a	98 1/2
Los Angeles	96 3/4	98	97 1/2	99 <sup>bc</sup>	98 1/2	98 1/2
Miami	97 1/4	97 1/2	a	99 <sup>b</sup>	a	98
Newark	97 3/4	99-par	99	par	99	par
New York	98 1/4	99 1/2-par	99 1/2-par	99 1/2-par	99 1/2-par	par
Okla. City	96 3/4	98-99	98-99	98-99 1/2	a	97 1/2-99
Philadelphia	97 3/4	par	par	par	par	99 1/2
San Fran.	96 3/4	98 1/2	98-98 1/2	99	98 1/2	98-98 1/2 <sup>k</sup>
St. Louis	97 1/4	97-99	97-99	97 1/2-99	97 1/2-99	97-99
Wash. D.C.	97 3/4	98 1/2-99	99	99	99	98 1/2-99

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

**VA 5 1/4s**

City	FNMA Scdry Mkt# <sup>y</sup>	New Construction Only	
		No down 30 year	Immed Fut
		Immed	Fut
Atlanta	97 1/4	97 1/2-98 1/2	97 1/2-98 1/2
Boston local	98 1/4	par-101	par-101
out-of-st.	—	97-98	par-101
Chicago	97 1/4	98 1/2-99	98-99
Cleveland	97 1/4	97-98 1/2	97 1/2 <sup>b</sup>
Dallas	97 1/4	98-99 1/2	97 1/2-98 1/2
Denver	96 3/4	97 1/2-99	97 1/2-98 1/2
Detroit	96 3/4	98 1/2	a
Honolulu	96 3/4	97 1/2	97
Houston	97 1/4	98-99	98-99
Los Angeles	96 3/4	98	97 1/2
Miami	97 1/4	98	a
Newark	97 3/4	99	99
New York	98 1/4	99 1/2-par	99 1/2-par
Okla. City	96 3/4	97 1/2-99	97 1/2-98 1/2 <sup>h</sup>
Philadelphia	97 3/4	99 1/2	99 1/2 <sup>b</sup>
San Fran.	96 3/4	98 1/2	98-98 1/2
St. Louis	97 1/4	95-99	95-99
Wash. D.C.	97 3/4	98 1/2	98 1/2-99

Footnotes: a—no activity. b—limited activity. c—for local portfolios. d—on spot basis. f—98 for loans over \$20,000. h—limited 6%. j—some 5 1/2 and 5 3/4 available. k—for 25 or 30 years. l—in isolated circumstances on choice loans. m—no fee if permanent loans included. p—1/2 point differential has generally disappeared. r—depending on % of loan. s—no fees to 1%. w—interest charged to borrower. x—FNMA pays 1/2 point more for loans with 10% or more down. y—plus 1% stock purchase figured at sale for 75¢ on the \$1. z—on houses not over 30 years old of average quality in a good neighborhood.

• Immediate covers loans for delivery up to 3 months, future covers loans for delivery in 3 to 12 months.

• Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones.

• Quotations refer to houses of typical average local quality with respect to design, location and construction.

**NEW YORK WHOLESALE MORTGAGE MARKET**

FHA, VA 5 1/4s  
 Immediates: 97-98 Futures: 97-98  
 Note: prices are net to originating mortgage broker (not necessarily net to builder) and usually include concessions made by servicing agencies.

FHA, VA 5 1/4 spot loans (On homes of varying age and condition)  
 Immediates: 97-98  
 Prices cover out-of-state loans, reported the week ending Nov. 8 by Thomas P. Coogan, president, Housing Securities Inc.

**CONVENTIONAL LOANS (combined averages)**

	July	August	September
New homes	5.82	5.82	5.81
Existing homes	5.93	5.93	5.94
(interest charged by various lenders, new homes)			
S&Ls	5.93	5.95	5.92
Life Ins. Cos.	5.55	5.51	5.51
Mortgage Companies	5.70	5.71	5.72
Commercial Banks	5.71	5.58	5.62
Mut. Sav. Banks	5.56	5.60	5.56

Source: Federal Home Loan Bank Board.

**NET SAVINGS DEPOSIT CHANGES**

(in millions of dollars)	% change Sept. '63 from Sept. '62	Year to date from 1962	% change from 1962	
Mut. Sav. Banks <sup>a</sup>	430	.02	2,378	4.2
S&Ls <sup>b</sup>	915	5.4	7,620	45.2
Commercial banks <sup>c</sup> (-500)	—	—	10,300	(-16.2)

<sup>a</sup>—National Association of Mutual Savings Banks. <sup>b</sup>—United States Savings & Loan League projections. <sup>c</sup>—Federal Reserve Board.



# New world of total-electric leisure equipped by General Electric



People took one look at this total-electric world and started buying apartments. Four months later, 1700 apartments had been sold in builder Ross W. Cortese's Rossmoor Leisure World.

Constructed expressly for the retirement market, this is the largest community of its kind in America. It is the first to include housing, medical, recreational and religious facilities at one centralized location.

In addition to complete General Electric kitchens, each of its 6470 Gold Medallion apartments is wired for comfort with radiant ceiling heat and room-by-room temperature controls. Appliances, heating, lighting and wiring equipment were supplied by General Electric.

Design and application engineers from General Electric worked closely with builder Cortese in preparing the electrical system tailored to Rossmoor's needs, from the underground distribution system to special wall outlets, placed 24 inches above the floor to minimize stooping.

General Electric's program for builders of total-electric Medallion Homes and Apartments offers you expert engineering assistance, combined with customized promotional support and top-quality products. To find out how it can simplify your construction and scheduling, and increase your sales or rental rates, send in the coupon.

Construction Market Development Operation  
General Electric Co., Appliance Park, AP-6, 230  
Louisville 1, Kentucky

I'm interested in General Electric's program for Medallion Homes. Please send me more information.

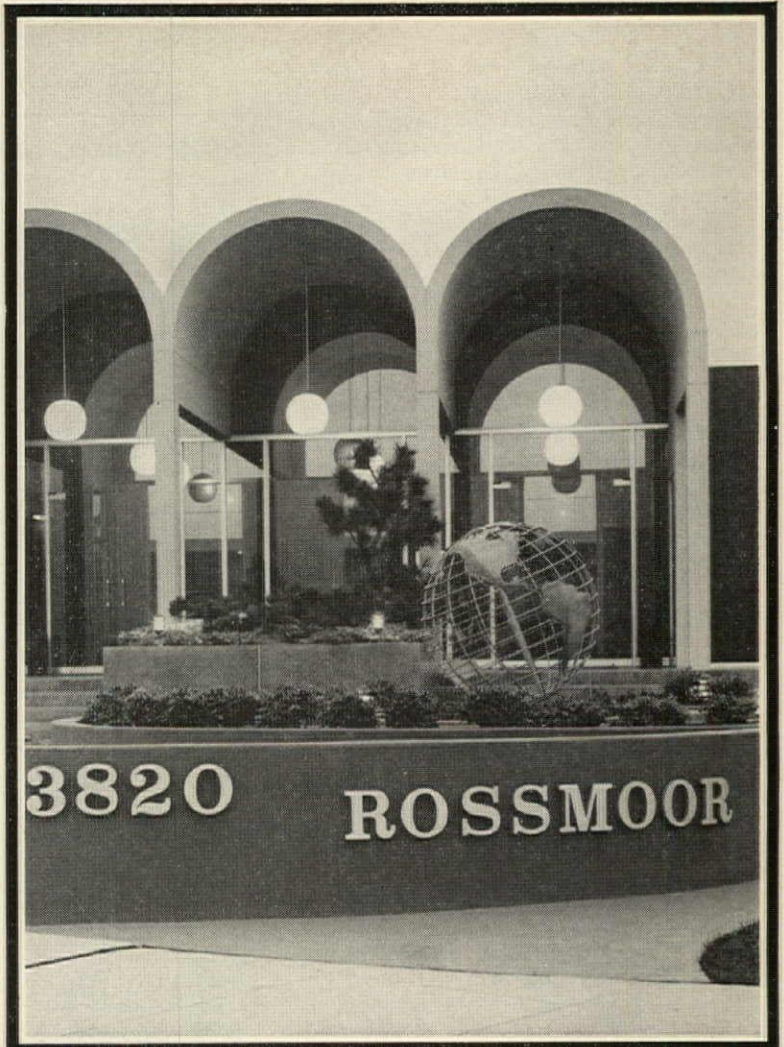
Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ HH-12

**GENERAL  ELECTRIC**

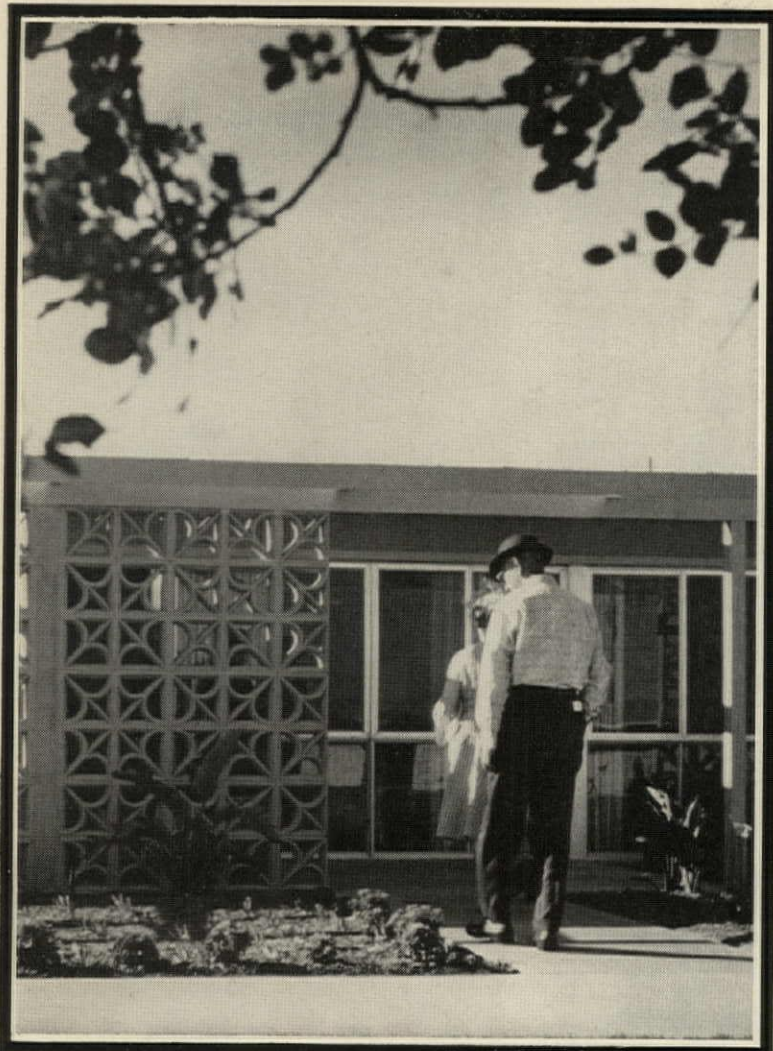


Rossmoor Leisure World—6470 total-electric Gold Medallion Apartments.



Modern kitchens feature General Electric push-button appliances.

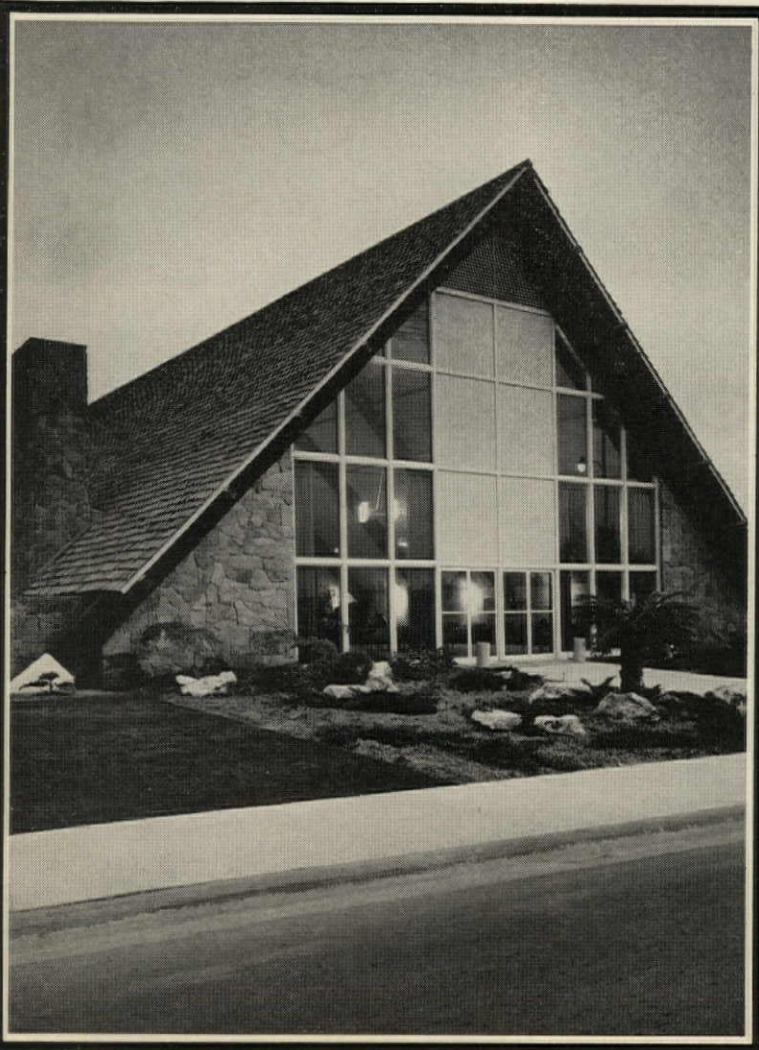




Underground power distribution eliminates unsightly overhead wires.



Light for living, both decorative and functional, expands living area.



All-electric clubhouses add beauty and recreational facilities.

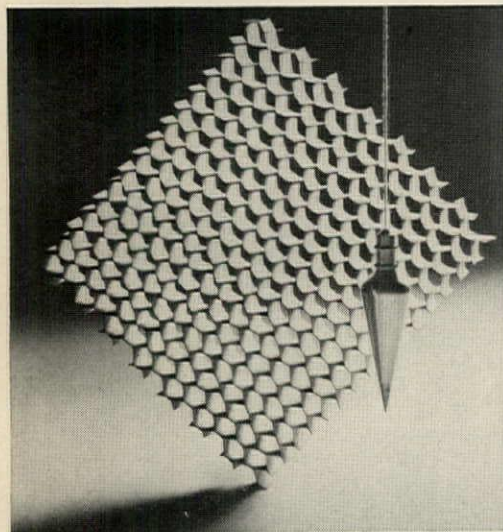


Each room has flameless electric heat with individual temperature controls.

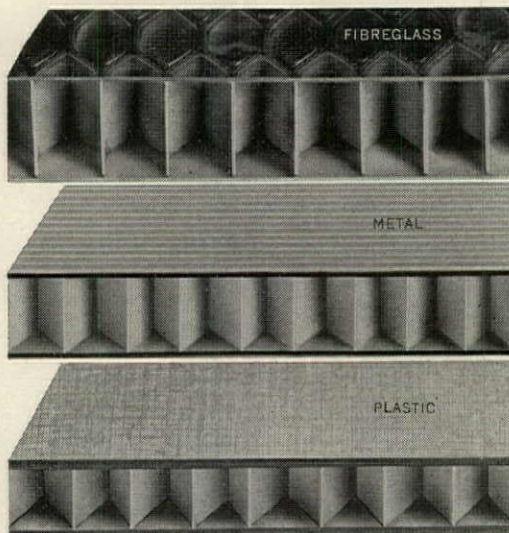


# Homebuilder's guide to Union Honeycomb cores

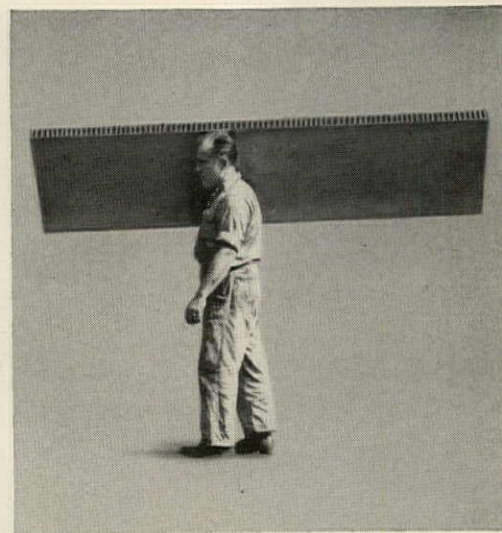
(The versatile structural core material that cuts pre-fabricated component costs)



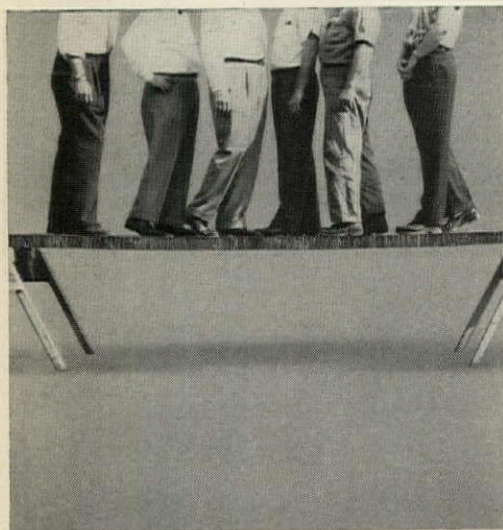
**WHAT IS IT?** Union HONEYCOMB is a cellular kraft structure which is ideal as an inner core for prefabricated building components. HONEYCOMB core panels can be extremely durable, low in cost and require minimum maintenance.



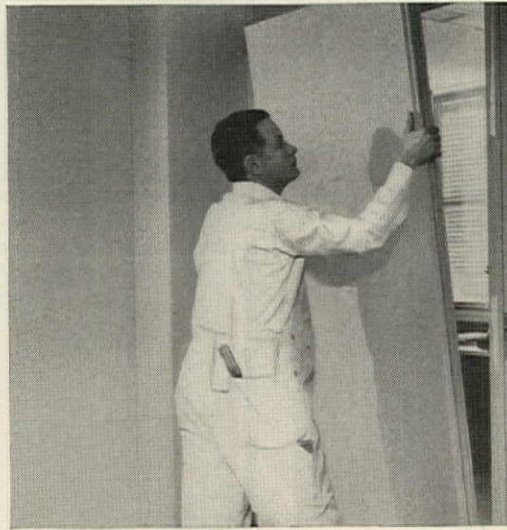
**WILL ANY FACING DO?** HONEYCOMB kraft cores bond well to metal, wood, plastics, hardboard, gypsum board and many other types of panel facings. Cores may be impregnated with various resins to add strength and other properties.



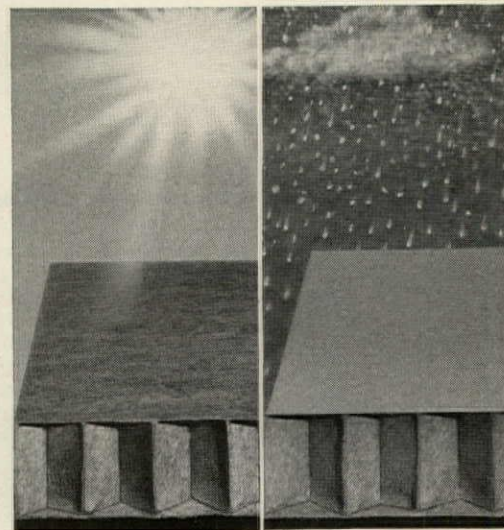
**HOW LIGHT IS IT?** Union HONEYCOMB cores weigh only .095 to .187 lbs. a board foot—depending on the basic kraft, impregnation and cell size. Their extreme light weight speeds fabrication, handling and assembly—cuts shipping costs.



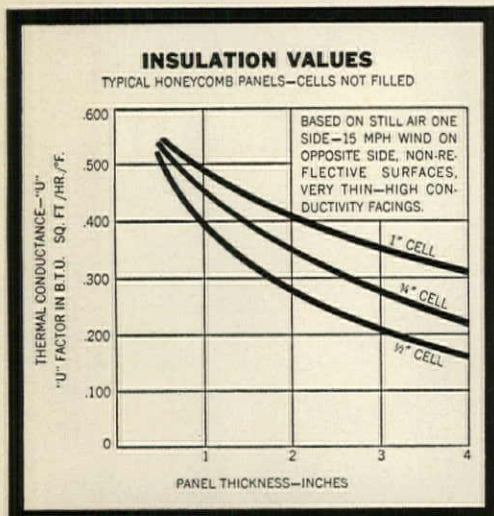
**HOW STRONG?** On a weight-for-weight basis Union HONEYCOMB is undoubtedly the strongest sandwich core material known. Despite their light weight the cores have corresponding crushing strengths of from 33 to 170 pounds per square inch!



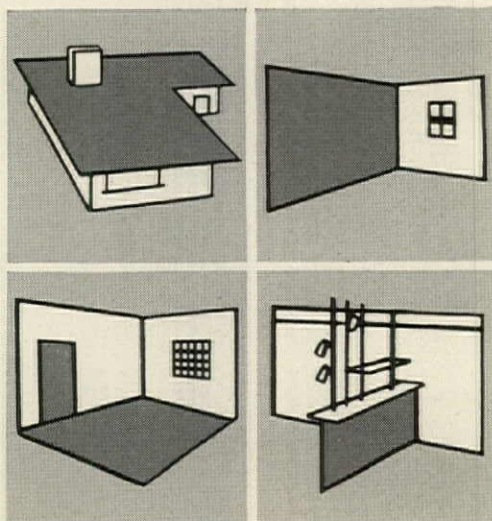
**IS IT EASY TO INSTALL?** Lightweight Union HONEYCOMB panel sections go up easily—keep labor costs to a minimum. The exceptional flatness of the sandwich panel structures also facilitates erection, finishing and maintenance.



**IS IT WEATHER-PROOF?** Even 200°F to sub-zero temperatures will not appreciably affect Union HONEYCOMB core components. After years of punishing exposure, panels properly constructed remain stable and fully serviceable.



**WILL IT INSULATE?** The sealed-air cellular construction of Union HONEYCOMB provides substantial thermal resistance (see chart). It has a sound deadening effect on thin faces and offers resistance to sound transmissions.



**WHERE IS IT USED?** Roofs, walls, doors, floors and partitions are among the many pre-fab components using Union HONEYCOMB. With different core grades and thicknesses available, a variety of structural characteristics is possible.

Union Bag-Camp Paper Corporation, Dept. HH-123  
233 Broadway, New York 7, N. Y.

Send me your free, illustrated booklet on the uses and advantages of Union HONEYCOMB cores.

I am interested in Union HONEYCOMB cores for:

Doors  Walls  Partitions  Floors

Miscellaneous Uses (specify) .....

Name .....

Title .....

Company .....

Address .....

City ..... Zone ..... State .....

**UNION-CAMP**  
HONEYCOMB CORES

Union Bag-Camp Paper Corporation, 233 Broadway, New York 7, N. Y.



## STOCK MARKET

## Thriving realty trusts try to shuck quick-profit image

Real estate investment trusts are like rich young men about town lately grown concerned over their reputations.

Trusts are of a different breed than syndicators,\* but the two have been closely associated in the Wall Street mind since trusts were legalized by Congress three years ago (NEWS, Oct. '60). The sins of the syndicates (NEWS, Jan. *et seq.*) have also been visited indiscriminately on the trusts in the public view, and the trusts are busily countering with a campaign for a new identity.

**Leader from Boston.** The quiet moving force behind the quest for a new image is President John H. Gardiner of the National Association of Real Estate Investment Funds, fledgling trade group of the trusts. Last month, Gardiner organized a rally of his industry in New York to present the new look while Wall Street and the financial press watched.

Measured by turnout, the conference was a hit.

More than 200 realty and trust men appeared—an attendance which buoyed Gardiner's hopes for the future. More evidence was shortly forthcoming: within two weeks three trusts, including two newly organized, sought Securities & Exchange Commission registration of \$5.4 million of stock and two others registered \$12.7 million. One of the new issues was a \$10-million offering by an established trust, B. C. MORTON REALTY TRUST of Boston, which will use net proceeds for undetermined acquisitions. SHAKER PROPERTIES of Cleveland made its first offering of 180,000 shares at \$15 a share. It will buy 147 apartments (generating 50% of its initial income) and a 33-store shopping center with the \$2,466,000 net proceeds plus other cash.

And the frosting on the cake appeared when LEADER-DURST CORP. of New York decided to change its name, shed its corporate form as a cash-flow investment company and reorganize as a trust. Said President I. Theodore Leader:

"As a real estate company we're in an industry with about the worst image in the world."

**Advice from an expert.** An alert young Chicago investment specialist is doing much toward charting the way for the trusts.

"The stress ought to be on long-term aspects of investment and away from the bugaboo of cash flow that has monopolized the thinking of the industry for 20 years," Vice President Abel E. Berland of Arthur Rubloff & Co., Chicago realty concern, told the NAREIF conference. When he finished, listeners mobbed him with pencils poised for every word of private advice.

"Change the framework of policy investment," counseled Berland. "There just isn't enough quality merchandise left if we think in traditional terms of income. The real opportunity is in growth. We must educate the investor to the ten and even 25-year outlook. There must be a reorientation of thinking from the leverage-minded to the equity-minded approach."

\*Trusts, investment companies, and syndicates all pool funds to buy realty. Their legal forms differ. Syndicates are usually limited partnerships. Investment companies are amalgams of syndicates, and trusts are unincorporated business associations.

H&amp;H staff



**NAREIF'S GARDINER**  
Force behind the trusts

**How to get rich.** Berland cited several routes to riches in realty as virtually foolproof for the investor who could afford to wait. Among them:

- Buy underdeveloped loft areas near city centers and let them increase in value as downtown grows.
- Buy—if you can—and hold packets on such glamour boulevards as Chicago's Michigan or Los Angeles' Wilshire; they make excellent sites for prestige apartments.
- Buy well located suburban apartments. Why? "Zoning will keep out competition for you."

**Outline of a policy.** Berland's long-range approach could provide some answers for the trusts. Born out of the Real Estate Investment Trust Act of 1960,\* they are still searching both for investors and investments. Gardiner, vice president of the Real Estate Investment Trust of America, Boston, lists 106 members for NAREIF, of which 21 are major trusts. He estimates the industry's gross assets at \$500 million. Some other experts say the average trust's equity is still only \$5 million and that trusts have yet to become a significant factor in equity investment or to spur mass investment in their own turn.

Trusts escape income taxes if they act as conduits by paying 90% of all income to investors. They must remain passive investors themselves and so cannot manage property. They are subject not only to strictures of the SEC and Internal Revenue Service but to numerous—and severe—state statutes.†

**Cry wolf.** Trusts have found it fashionable to complain about all this supervision. Special Assistant Attorney General David Clurman, who runs New York State's bureau for syndications and cooperatives, calls such talk nonsense. "The promoters thought state rules were going to put them in a strait jacket," he said. "The rules have helped the trusts survive. They have kept them from crushing

\*The trust idea was started by King William I of Belgium in 1822 with his Societe Generale de Belgique. It spread to Scotland in 1880 and to the U.S. (as a family affair) in the Boston Personal Property Trust of 1893. The Boston fund has paid a dividend every year since.

†Montana and the Dakotas still bar trusts. Twenty states prohibit trusts from borrowing against properties for more than two thirds of appraisal, and many require them to tell investors the source of payout funds.

themselves to death the way some other real estate organizations did."

**How they operate.** About 40 trusts have raised \$200 million through securities since 1960, but much of this has gone into banks or government issues. A HOUSE & HOME study of some top trusts nevertheless shows a substantial movement of money into mortgages and apartments, and many trusts make a point of their residential investments in annual reports or stock prospectus. Examples:

AMERICAN REALTY TRUST of Arlington, Va., headed by President Thomas J. Broyhill of the homebuilding Broyhill family, lists \$12.7 million assets as of Sept. 30. It owns six apartment projects with 685 units in Fairfax County, Va. and Baltimore, Laurel and Suitland, Md., plus a shopping center and office building. Its net income from rental properties was \$483,666, and it paid \$375,732 in dividends in fiscal '63. American has just filed to offer another 132,300 shares at an estimated maximum of \$11. Of total proceeds of \$1,445,000, the trust will use \$800,000 to buy a hotel and industrial plant.

CONTINENTAL MORTGAGE INVESTORS of Boston held \$54.9 million assets Sept. 30. CMI has put 91% of its assets into FHA and VA mortgages. It has \$18.6 million in FHA-VA permanents, \$6.2 million in FHA-VA loans warehoused for later resale, and \$25 million in construction loans.

In its first year of operation ending last March 31, CMI had interest and mortgage commitment income of \$2 million. After expenses it had net income of \$1.3 million to distribute.

FIRST MORTGAGE INVESTORS of Boston had assets of \$49 million Sept. 30, with \$22 million in FHA-VA permanent mortgages, \$15 million in construction loans and \$7 million in development loans—a total of 89% of assets. For its first full year ended Jan. 31, FMI had net income of \$665,137.

FIRST NATIONAL REAL ESTATE TRUST of New York City listed assets of \$14.7 million in its first annual report Dec. 31, 1962. The trust carries residential property investment before depreciation at \$2.5 million.

LIBERTY REAL ESTATE TRUST, a Florida business trust with headquarters in Oklahoma City, had assets of \$16.8 million Sept. 30. In nine months of this year it has upped its apartment investment from 4% of assets to 17% (\$2.8 million). It held \$391,000 in conventional mortgages for investment. For the first year of operation ended Dec. 31, 1962, the trust reported net of \$285,000 on assets of \$12 million.

U. S. REALTY INVESTMENTS of Cleveland listed \$35 million in assets at end of its fiscal year May 31. The trust had rental income of \$3.2 million with 19% from apartments in Cleveland and Columbus, Ohio; Erie, Pa., and Oklahoma City. After paying \$1.9 million expenses and deducting \$1.3 million depreciation, it showed a \$6,853 net loss.

New trusts seeking to register stock in October :

- B. F. Saul Real Estate Investment Trust, Washington: 30,000 shares at \$100 a share.
- First Western Real Estate Trust, Boulder, Colo: 200,000 shares at \$5 a share.

—EDWIN W. ROCHON



# Survivors of the shell-home shakeout start a rally

Shell-home makers proliferated following the sudden success of Jim Walter in 1959 (NEWS, Oct. '59), then wilted under murderous competition (H&H, Mar.). Now, the survivors are showing new life with heftier earnings reports and new management moving in.

JIM WALTER CORP. of Tampa is still king. It boosted shell-home sales 20% to \$36.1 million and total income to \$44 million in the year ended Aug. 31. Profit soared 59%—from \$1.8 million to \$2.9 million (\$1.49 a share). And the company added another \$979,000 profit from its 61% interest in Celotex Corp., Chicago-based materials producer bought a year ago.

President Jim Walter told stockholders the company has weathered the "trying 1960-62 period. The inexperienced and under-financed firms have departed the scene, and once again a small number of the more responsible firms are supplying a great market."

Walter's sizeup is buttressed in part by a report from the second largest shell maker. MODERN HOMES CONSTRUCTION of Valdosta, Ga. reports sales up 11% to \$25.1 million in the year ended Sept. 30. But profit sagged 15.5% to \$1,460,000 (88¢ a share).

New management has taken over MORRIS HOMES of Knoxville, which showed a \$354,000 loss on sales of \$4.1 million for the year ending Sept. 30, 1962. New President James M. Fail, representing a group which bought a controlling 140,001 shares at "slightly over \$1 a share," says Morris has written off expected losses from repossessions (now standing at 175 homes) and will show a second successive loss in its forthcoming report.

But Fail says mortgage servicing problems have been eliminated and Morris has negotiated new credit lines to let it begin construction and home-improvement lending. He is also asking holders of \$3 million in 8% debentures to voluntarily cut interest to 2% for three years. He hopes to use the cash thus freed to reopen the company's construction division, closed since June, and build on scattered lots with FHA Sec. 203i financing.

With stock prices near record highs, more companies are arranging financing.

GULF AMERICAN LAND CORP. of Miami, involved in a court battle for control of Fenestra Inc., Detroit materials producer (NEWS, Sept.), has been able to shift from short-term, high-interest borrowing (2½ to 3 years at 8% to 12%) to longer terms at lower rates. It is borrowing \$9 million, including \$7.5 million from Bankers Life & Casualty Co. of Chicago at 6½% for ten years.

MACCO REALTY is seeking SEC registration of \$4 million of convertible subordinated debentures to repay bank loans and loans from its principal owner, Macco Corp.

COLWELL CO., Los Angeles mortgage banking concern, privately placed \$2.5 million of 15-year notes.

HOUSE & HOME's average of housing stocks slumped 10.5% as shares of S&L holding companies suffered a sharp price break following talk of new federal regulation (NEWS, Nov.). The S&L list slumped 12%, with Lytton Financial dipping 7½ points. Only Empire Financial bucked the tide. In the same month, the Dow-Jones Industrial average gained 0.07% to 744.03, and the National Quotation Bureau average to over-the-counter stocks went up 1.4% to 142.27.

Here are HOUSE & HOME's averages of selected stocks in each housing groups

	Sept. 5	Oct. 2	Nov. 6
Building	6.58	6.29	6.09
Land development	5.38	5.23	5.88
S&Ls	24.85	21.90	19.30

Mortgage banking	12.54	11.64	10.91
Realty investment	5.83	5.95	6.19
REITs	11.00	11.00	11.25
Prefabrication	5.96	6.92	5.90
Shell Homes	9.30	8.58	8.80
AVERAGE	11.03	10.19	9.76

## HOUSING'S STOCK PRICES

Company	September 5		October 2		November 6	
	Bid	Ask	Bid	Ask	Bid	Ask
<b>BUILDING</b>						
Adler-Built Inc.	30e	40e	25e	35e	1/16	1/4
Capital Bld. Inds.	27 1/10	23 1/4	2.20	2 1/4	2.20	f
Cons. Bldg. (Can)	9	9 1/4	9	9 1/4	9 1/2	9 5/8
Dev. Corp. Amer.	1 1/8	1 1/2	1 1/2	1 7/8	1	1 3/8
Dover Const.	4 5/8	5 1/8	4 3/4	4 3/4	4 1/8	4 5/8
Edwards Eng.	4 1/4	4 5/8	5 1/8	5 5/8	3 5/8	4 1/8
Edwards Inds.	5/8	1	5/8	7/8	1 1/2	7/8
Eichler Homes	8 1/2	9 1/4	8	8 3/4	8 3/4	k
First Natl. Rlty.	3	3	1	1	3	
Frouge	2 1/4	2 5/8	6	6 3/4	3 5/8	4 1/8
General Builders	3	3	2 7/8	2 7/8	2 7/8	
Hawaiian Pac. Ind.	2 5/8	2 7/8	2 5/8	2 7/8	5 1/8	5 3/8
Kavanagh-Smith	3 7/8	4 1/4	4 1/4	4 5/8	j	
Kaufman & Broad	32 3/4	30 1/4	30 1/4	27 1/2	27 1/2	
Louis Lesser Ent.	9 1/2	9	9	8 1/4	8 1/4	
Levitt	5	4 7/8	4 7/8	5 1/8	5 1/8	
Lusk	1 1/2	1 3/4	2 3/8	2 3/8	2 3/8	2 3/8
Pacific Cst. Prop.	10	10	10	11 1/8	11 1/8	
U.S. Home & Dev.	1 1/2	7/8	1 3/4	2	1 1/4	1 1/2
Del E. Webb	11 5/8	10 3/4	10 3/4	9 3/4	9 3/4	
Webb & Knapp	9/16	1/2	1/2	9/16	9/16	

Company	September 5		October 2		November 6	
	Bid	Ask	Bid	Ask	Bid	Ask
<b>S&amp;Ls</b>						
American Fin.	18	18 1/4	17 1/4	18	16 1/2	17 1/4
Brentwood	14 1/8	14 1/8	12 7/8	13 3/8	11 1/2	12
Calif. Fin.	9 1/4	9 1/4	8 1/2	8 1/2	8	8
Empire Fin.	16 1/8	17 1/8	15 1/2	16 1/8	15 1/2	16 1/8
Equitable S&L	35 1/4	35 1/4	33 1/2	33 1/2	29 3/4	32 1/2
Far West Fin.	22 3/4	24 3/8	20 1/4	21 3/4	19 3/4	21 3/4
Fin Fed	58 1/2	58 1/2	52 1/4	48 1/2	48 1/2	
First Charter Fin.	44 1/4	44 1/4	41 1/4	34 1/4	34 1/4	
First Fin. West	14	14 1/2	12 3/8	12 5/8	10 1/2	11
First Lincoln Fin.	18 3/8	19 1/4	17 1/4	18 3/8	15 1/2	16 3/4
First Surety	20 1/4	21 1/8	18 1/8	19 1/8	16 1/8	17 1/4
First Western Fin.	46 1/8	48 1/8	22 1/2	24 1/8	18 3/8	19 7/8
Gibraltar Fin.	29 3/4	29 3/4	26 7/8	24 3/8	24 3/8	
Great Western Fin.	20 1/8	20 1/8	18 1/8	17 1/2	17 1/2	
Hawthorne Fin.	10 1/4	10 3/4	10 5/8	11	9 1/4	10
Lytton Fin.	38 3/4	41	39 1/8	41 3/8	31 1/4	33 1/4
Midwestern Fin.	6	6	5 1/2	5 1/2	5 1/2	
San Diego Imp.	13 3/8	13 3/8	12 1/4	11 1/2	11 1/2	
Trans-Cst. Inv.	17 5/8	18 7/8	15 3/4	17	14 1/2	15 7/8
Trans World Fin.	18 1/8	18 1/8	16 1/4	15 5/8	15 5/8	
Union Fin.	6 1/2	7	7	7 1/2	6 1/2	7
United Fin. of Calif.	29	29	25 3/4	24	24	
Wesco Fin.	49	49	42 7/8	39 7/8	39 7/8	

Company	September 5		October 2		November 6	
	Bid	Ask	Bid	Ask	Bid	Ask
<b>MORTGAGE BANKING</b>						
Advance	9 1/4	9 5/8	8 5/8	9	8	8 3/8
Associated Mtg. Cos.	8	8 1/4	8	8 3/8	8 3/8	8 3/8
Charter	2 3/8	2 5/8	7/8	1 1/8	2 5/8	2 7/8
Colwell	18	19	18 1/4	19	18 1/4	19
FNMA	89 3/4	99 1/4	84	87	87 3/4	90 3/4
MGIC	34 1/4	34 3/4	31 3/8	31 7/8	26 3/4	27 3/4
Palomar	6 1/2	6 3/4	5 3/8	5 3/4	5	5 1/4
Stockton, Whatley	10 1/2	11	10 1/4	11	10	10 3/4
Wallace Invests.	6 7/8	7 5/8	6 3/4	7 1/2	5 3/4	6 1/2

Company	September 5		October 2		November 6	
	Bid	Ask	Bid	Ask	Bid	Ask
<b>REALTY INVESTMENT</b>						
Brookridge Dev.	1/8	1/4	.03	f	1/16	3/16
Disc. Inv.	3 1/2	4	3 3/4	4 1/4	3 3/8	3 7/8
Gt. Amer. Rlty.	3 1/10	4 1/2	7/16	1/2	7/16	9/16
Herman & Appley	3 7/8	4 3/8	4 1/4	4 1/2	4 3/8	4 3/4
Income Props.	3	3 3/8	3	3 3/8	3	3 1/2
Kaymarb Cons.	3/8	3/4	d	d	m	
Kratter	9 3/8	9 3/8	8 1/4	8 1/4	10	
Mensh Inv. & Dev.	12	13	12 1/2	13 1/2	13 1/2	14
Presidential Rlty.	8 3/4	9 1/4	9	9 1/4	8 5/8	8 5/8
Rlty. Equities	6 3/8	6 3/8	6 3/8	6 5/8	6 1/4	6 1/4

Company	September 5		October 2		November 6	
	Bid	Ask	Bid	Ask	Bid	Ask
<b>SHELL HOMES</b>						
Aibee Homes	6 1/2	7 1/4	5 3/8	6 1/8	4 3/4	5 1/2
Modern Homes Const.	5 5/8	6	4 7/8	5 3/8	5 5/8	6
Morris Homes Corp.	3/4	3/8	e	f	1 1/2	7/8
Nationwide	1 1/4	1 1/2	1 1/4	1 5/8	1	1 1/4
U.S. Finance	7	7 1/4	6 3/8	7 1/4	6 3/4	7 1/8
Jim Walter	26 1/8	27 7/8	25	26 3/4	25 7/8	27 3/8
Western Shell	1/8	3/8	1/16	1/4	1/16	1/4

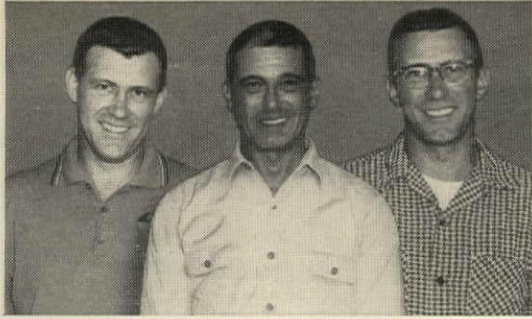
Company	September 5		October 2		November 6	
	Bid	Ask	Bid	Ask	Bid	Ask
<b>REAL ESTATE INVESTMENT TRUSTS</b>						
American Rlty. Trust	10 3/8	10 3/4	9 7/8	10 1/4	9 3/4	10 1/8
Contl. Mtg. Inv.	14 7/8	15 7/8	14 7/8	15 7/8	15 5/8	16 5/8
First Mtg. Inv.	14 7/8	16	15 1/8	16 1/4	15 3/4	16 7/8
First Ntl.	9 3/4	10 1/8	9 3/8	9 7/8	9 1/4	9 1/2
Liberty	6 7/8	7 1/8	7	7 5/8	6 5/8	6 7/8
U.S. Realty Inv.	8 5/8	9 1/4	8 5/8	9 1/4	9 1/4	9 7/8

Company	September 5		October 2		November 6	
	Bid	Ask	Bid	Ask	Bid	Ask
<b>PREFABRICATION</b>						
Admiral Homes	1 3/8	1 5/8	1 1/2	1 3/4	1 3/4	1 3/4
Crawford	4 1/2	5	3 1/2	4	2 3/4	3 1/4
Great Lakes Homes	6	6 3/8	8 1/2	8 3/4	7 7/8	8 1/8
Harnischfeger	17	17 1/4	16 1/2	16 1/2	16 1/2	16 3/4
Hilco Homes	7/8	1 1/8	7/8	1 1/8	7/8	1 1/4
Inland Homes	8 1/2	8 3/4	8 1/2	8 1/4	8 1/4	8 1/4
Madway Mainline	12 3/4	13 3/4	12	13	12	12 1/2
Natl. Homes A.	6	6 5/8	4 7/8	5 1/8	4 5/8	5 1/8
Richmond Homes	6 1/8	6 5/8	5 1/2	6 1/2	7 3/4	8 1/8
Seaboard Homes	3/8	5/8	d	d	5/8	1 1/8
Steel Crest Homes	4 3/4	5 1/2	5 1/4	6 1/4	6 3/4	7 1/4
Swift Homes	3 1/4	3 3/4	2 3/8	3 1/4	2 1/2	3

Company	September 5		October 2		November 6	
	Bid	Ask	Bid	Ask	Bid	Ask
<b>LAND DEVELOPMENT</b>						
All-State Props.	3 1/4	3 3/8	3 3/8	3 3/8	3 3/8	3 3/8
American Land	1 3/8	1 5/8	1 1/8	1 1/2	1 1/2	1 3/4
Amer. Rlty. & Pet.	3 3/4	3 3/4	3	2 7/8	2 7/8	
Arvida	5 1/4	5 3/4	4 3/4	5 1/4	4 3/4	5 1/4
Atlantic Imp.	15 1/2	16 1/4	16 3/4	17 1/2	17 1/4	18
CKP Dev.	13	12 3/8	12 3/8	12 3/8	12 3/8	
Canaveral Intl.	6	5	5	5	5	
Cons. Dev.	1 3/8	1 3/4	1 1/2	2 1/4	1 1/2	2 1/4
Coral Ridge Prop.	7 7/8	8 1/4	1 1/2	1 3/4	1 1/2	1 1/16
Cousins Props.	8 7/8	9 1/4	9 1/4	9 3/4	10 3/4	11 1/4
Christiana O. Corp.	6 1/4	5 7/8	5 7/8	5 7/8	5 7/8	
Fla. Palm-Aire	1 3/4	2 1/8	2	2 1/4	3 5/8	4 1/8
Forest City Ent.	5 3/4	5 3/4	5 1/2	5 1/2	5	5
Garden Land	4 7/8	5 1/4	6 3/4	7 1/4	5 3/8	5 3/4
Gen. Devel.	5 3/8	5	5	5 1/8	5 1/8	
Gulf American	4 1/2	4 1/2	4	4	4	
Holly Corp.	1	1	1	1	1	
Horizon Land	4 3/8	4 7/8	5	5 1/4	4	4 1/2
Laguna Niguel	11	11 7/8	12 1/8	13 1/8	14 1/8	15 3/4
Lake Arrowhead	5 1/2	6	6 1/4	6 5/8	7 1/4	7 5/8
Macco Rlty.	7 3/8	7 3/4	7	7 1/2	12 1/2	12 7/8
Major Rlty.	1/4	35e	3/16	1/4	5/8	1 1/8
So. Rlty. & Util.	2 5/8	2 7/8	2 3/4	2 7/8	2 1/2	2 1/2
Sunset Int. Pet.	6 1/4	6	6	6 3/8	6 3/8	
United Imp. & Inv.	2 3/4	3 1/8	3 1/8	3 1/8	3	3

Company	Fiscal year ends	1963		1962	
		revenues (000)	% change	revenues (000)	% change
Amer. Rlty. Pet.	Apr 30</				





**“WE’RE SELLING A NEIGHBORHOOD  
AS WELL AS A HOME.  
THAT’S WHY WE WANT  
CONCRETE STREETS!”**

*Say JOE, BOB and BILL HESS,  
Hess Brothers Construction Co., Chillicothe, Ohio*



*Some of the area’s finest homes are built here in Hesswood Hills.*

“We’ve already built and sold half a dozen homes, but first we had to sell prospects on the subdivision as a good place to live. Modern concrete streets can be as important as location, shopping and schools. Concrete streets are clean and attractive, make our homes look even better. And it’s easy to point out to potential home buyers how concrete’s long life and low upkeep costs will save them taxes and keep property values high if they ever want to sell.”

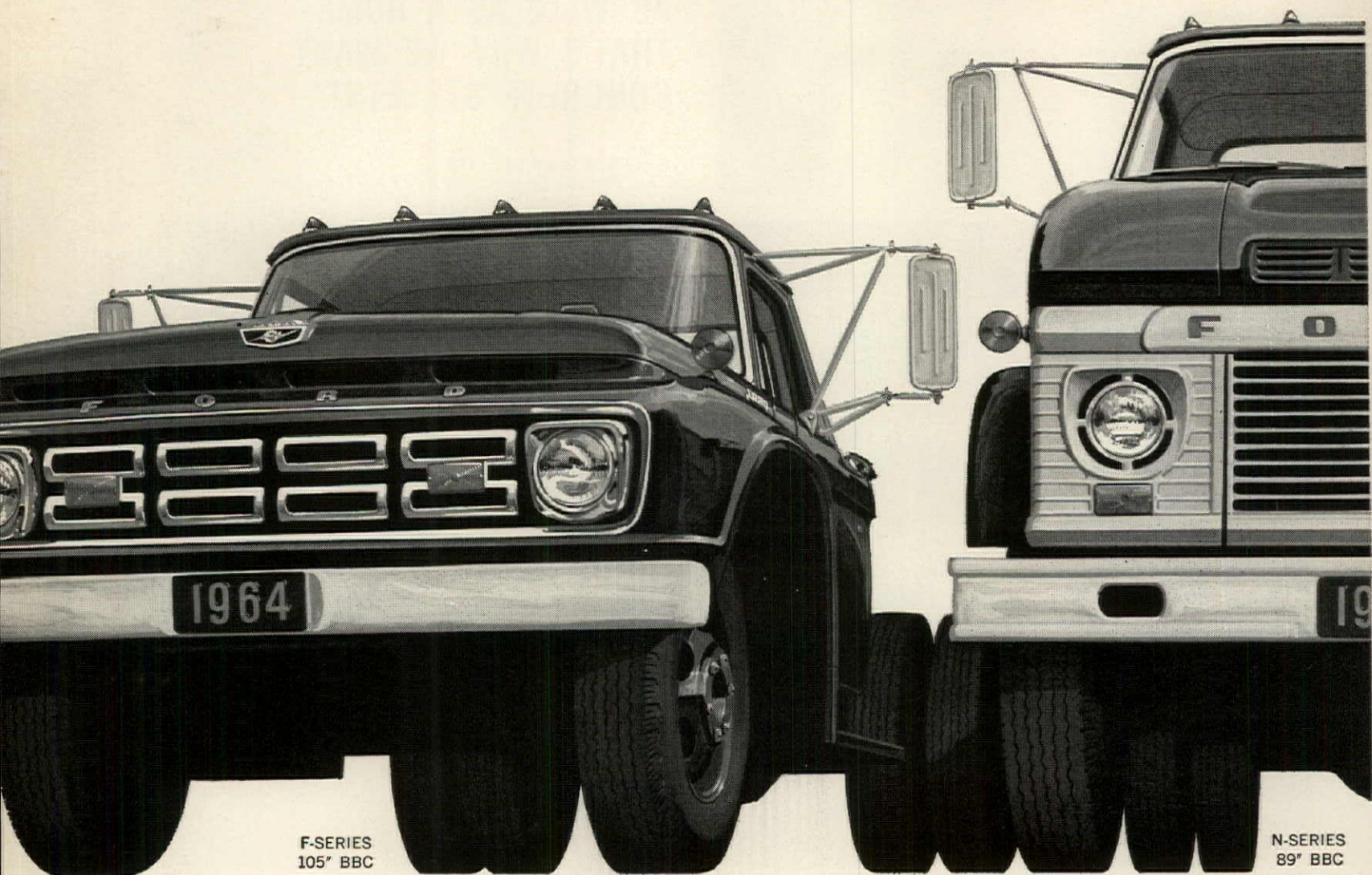
Leading builders everywhere will tell you: Paving subdivision streets with concrete is good business. Initial cost is moderate, paving is fast and easy. And once the pavement is in, homesites are readily accessible for construction work in all seasons and in any weather. And you won’t need temporary roads for hauling materials.

For help in site planning and design of concrete streets, write for free technical literature. (U.S. and Canada only.)

**PORTLAND CEMENT ASSOCIATION**  
Dept. A12-94, 33 West Grand Ave., Chicago, Illinois 60610

*An organization to improve and extend the uses of concrete*





F-SERIES  
105" BBC

N-SERIES  
89" BBC

# Now from FORD! 3 new

**New durability, new economy,  
and new performance—now  
available in Ford 600 through  
800 Series trucks!**

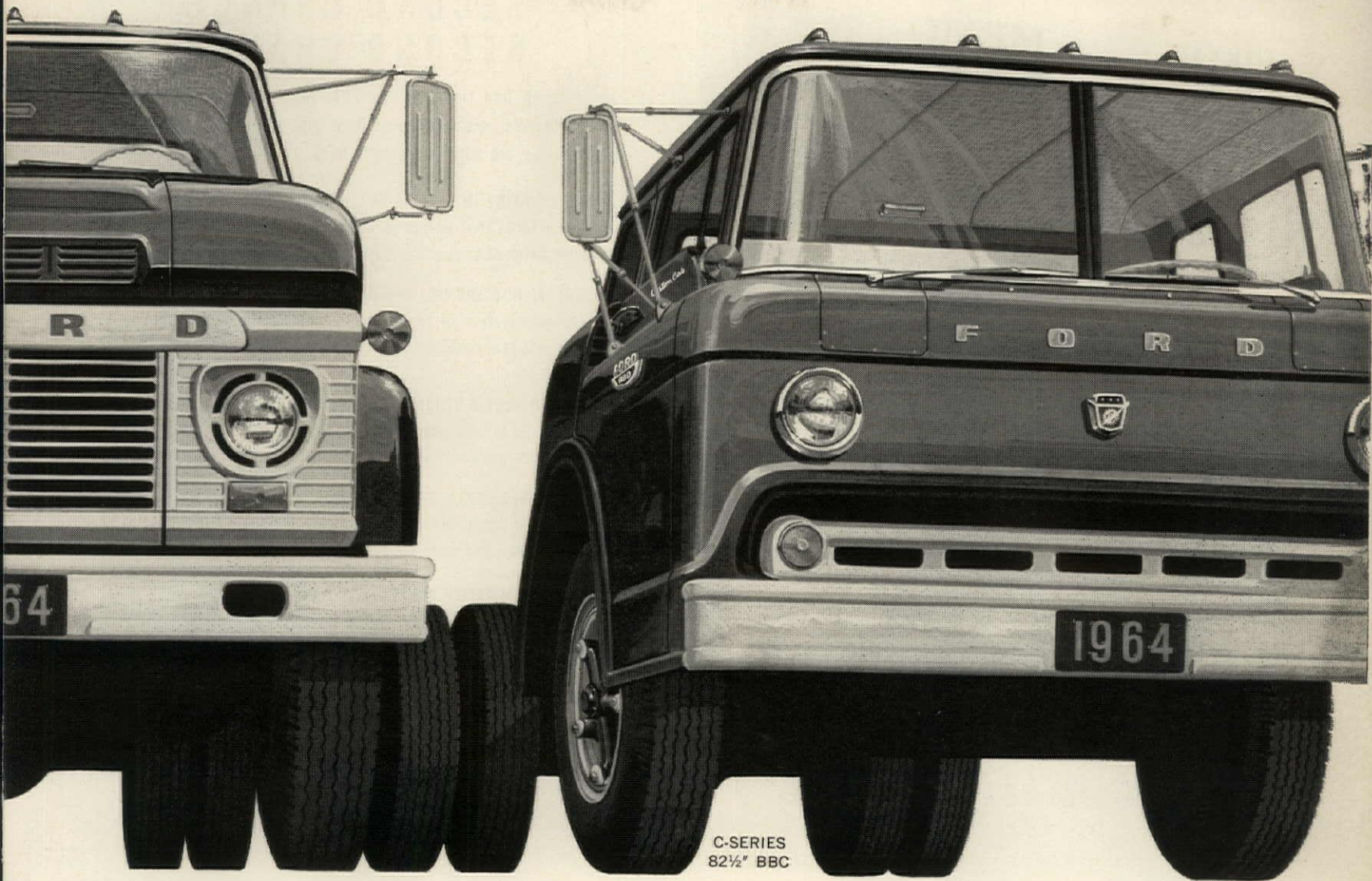
Ford's new *High Displacement* V-8's are designed for more durability, economy and performance! Higher displacements provide added power to maintain highway speeds at part-throttle . . . plus the reserve to reduce downshifting. You get better average road speeds, faster trips, and increased income per hour. More part-throttle operation and less shifting mean longer engine life . . . lower running costs. And Ford's proven Perma-Tuned transistorized ignition system is available to cut maintenance expense even further . . . improve performance and operating economy.

**330**  
**HD V-8** 186 horsepower . . . 300 lbs-ft torque Two-venturi carburetor with thermo-controlled air induction system cuts warm-up time, gives better fuel economy. Positive crankcase ventilation cuts sludge formation, prolongs engine life. Deep-skirt block gives extra rigidity and excellent crankshaft support.

**361**  
**HD V-8** 203 horsepower . . . 330 lbs-ft torque Two-venturi carburetor with thermo-controlled air induction system for economy. New 13-in. heavy-duty clutch has high torque capacity, lasts longer. Scroll-type water pump delivers a full 100 gallons per minute, yet takes less horsepower.

**391**  
**HD V-8** 235 horsepower . . . 372 lbs-ft torque Four-venturi carburetor and thermo-controlled air induction provide maximum power with economy. Rotor-type oil pump is about twice as durable as gear-type pumps and is more effective at idle. Pistons have a special top ring carrier that can double piston and ring life.





# High Displacement V-8's

**105" BBC F-SERIES** Dependable Ford F-600 thru 750 Series conventionals are low-cost workhorses that can handle most jobs economically and effectively. Max. GVW's to 25,500 lb., GCW's to 50,000 lb.\*

**102" BBC F-800** Designed for extra highway miles or severe off-road service, the Ford F-800 features a sturdier frame, plus independently mounted cab and front-end sheet-metal for maximum life. Short 28-inch bumper-to-axle dimension allows greater payloads in bridge-formula states. Max. GVW 27,500 lb., GCW 50,000 lb.\*

**89" BBC N-SERIES** Modern Ford short-BBC N-Series conventionals measure only 89 inches from bumper to back of cab for increased load-space, better weight distribution and greater payloads. Short BBC allows trucks to handle one-foot longer bodies within the same overall length and transfer more weight to the front axle. N-Series tractors can haul 40-foot square-nose trailers in 50-foot limit states. Wide-track front axle and narrow fender width (85 in.) give time-saving maneuverability. Max. GVW's 23,000 to 25,500 lb., GCW's to 50,000 lb.\*

**82½" BBC C-SERIES** America's most popular tilt-cab trucks, C-Series Fords have a short 82½-inch BBC dimension that permits longer bodies or trailers. Set-back front-axle design allows higher front axle loadings . . . greater payloads. Cabs are big, roomy and comfortable . . . easy to enter and leave . . . a great favorite with drivers. Cab tilts in seconds for rapid engine accessibility. Max. GVW's 23,000 to 27,500 lb., GCW's to 50,000 lb.\*

PRODUCTS OF  MOTOR COMPANY

\*Max. ratings for series offering the new Ford High Displacement V-8 engines. Many other series with modern Ford gasoline or Diesel engines are also available to meet virtually any trucking need.

**FORD TRUCKS** | For Outstanding Reliability & Durability



**VIKON**

**MEMO**

To: Architects, Engineers & Builders  
From: Charles J. Jensen, President  
Subject: A FREE CATALOGUE

I have a complete catalogue of Vikon's beautiful wall tiles and accessories reserved for you. It not only tells all about our company and our products, but opens the door to some esthetic and financial possibilities you may have been overlooking...Just write your name and address in the space provided below and I'll see that your free catalogue is forwarded by return mail.

Cordially,

*Charles Jensen*

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_

**VIKON TILE CORPORATION**  
WASHINGTON, NEW JERSEY

## SECOND CHANCE SECOND CHANCE

It's hard to find time, we know, to read everything you'd like. Maybe there's an article listed here that you missed in **HOUSE & HOME**. If so, we might be able to help.

**USE OF PAINT IN TOMORROW'S HOUSE.** Results of an industry Round Table that examined the costly communications breakdown between the paint and housing industries. (January, 1963)

**FEDERAL HOUSING AID: AN EDITORIAL.** A thoughtful and provocative examination of why Federal housing aid fails to get at housing's real problem—high cost—and instead makes it worse. (July, 1963)

**HOW TO PLOT A STRONG GROWTH PATTERN.** Case history of a successful builder who went from 35 houses to 875 houses in 10 years—and who tells how he planned it. (February, 1963)

**BASEMENTS: WHEN DO THEY MAKE REAL SENSE?** Basements can be an abomination; but they can also make some houses more livable and more salable. (March, 1963)

If you're interested in one of these articles, limited quantities of reprints are available. Just drop a note to **HOUSE & HOME** Reader Service, Rockefeller Center, New York, N.Y., 10020.

### House & Home

Management magazine of the housing industry

Member, Associated Business Publications

*where do captains of industry  
learn about cruising?*

**Simmons says:  
Sports Illustrated**

21% of all corporate executives earning  
\$25,000 or more are SI readers

*where do pool sharks  
get into the swim?*

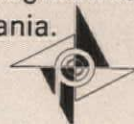
**Simmons says:  
Sports Illustrated**

18% of all households owning swimming pools  
are SI readers

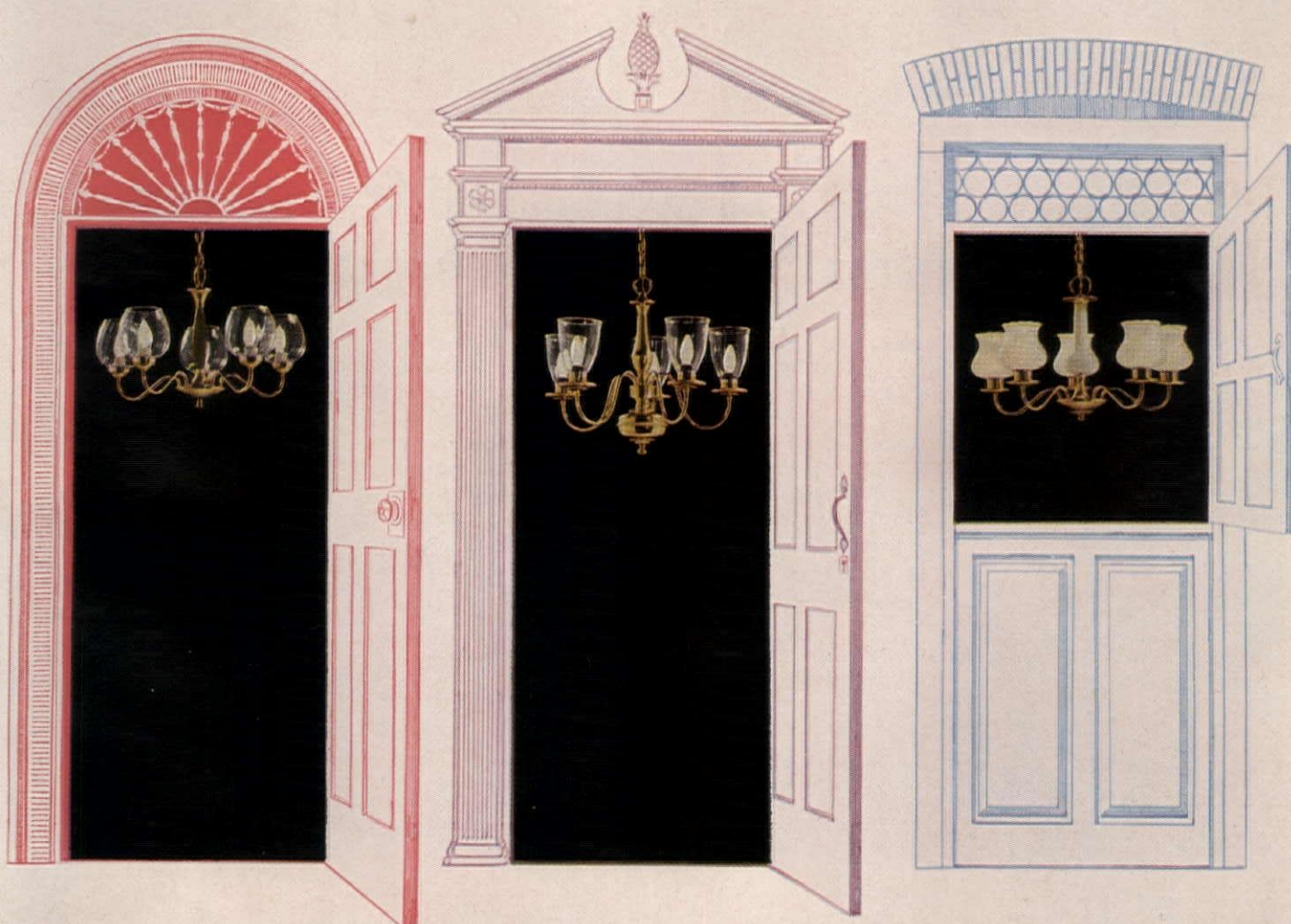


From chandelier to bent glass, from pendant to post lantern, Progress lighting fixtures lend variety to your homes, the touch of spice that makes sales easier. Increases value, too, by adding individuality at surprisingly low cost. And only Progress meets ALL your residential lighting needs, indoors and out! See your local Progress distributor, or send for catalog no. 107. It's filled with imaginative lighting ideas. **PROGRESS MANUFACTURING CO., INC.**, Philadelphia 34, Pennsylvania.

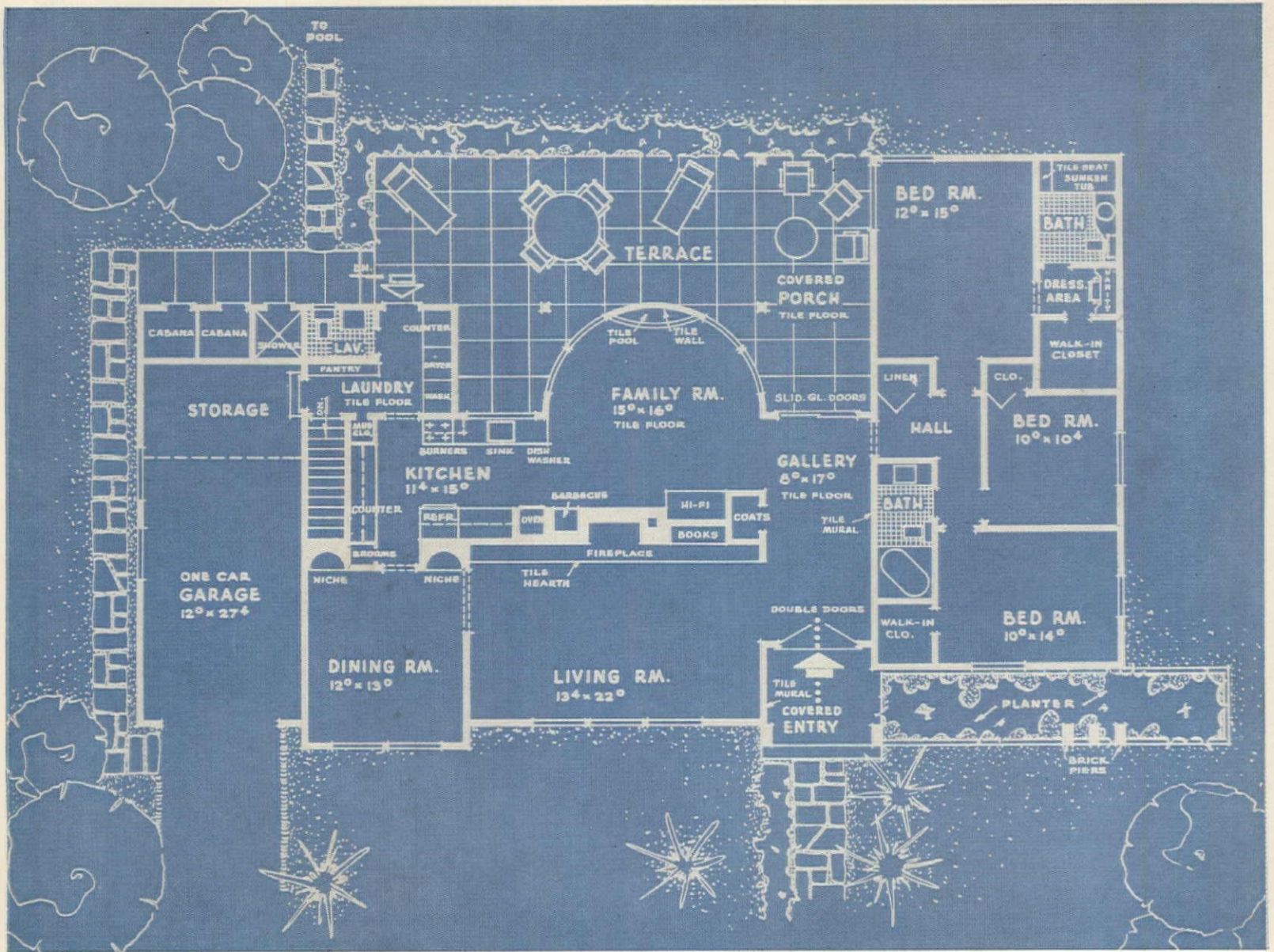
ILLUSTRATED LEFT TO RIGHT: P 4015 \$25.90, P 4019 \$62.05, P 4012 \$25.90. LIST PRICES: SLIGHTLY HIGHER IN THE WEST.



### VARIETY IS THE SPICE OF LIGHT







## The Worksaver House ... a New Concept in Home Design ... Features Ceramic Tile Throughout



Beauty and easy care combine in the Worksaver House to double its appeal to home buyers. To achieve this, prominent architect Herman York uses ceramic tile throughout the house (kitchen, family room, entryway, and baths) and for the terrace and exterior wall paneling. Says Mr. York, who has designed more homes than any other American architect, "Ceramic tile makes the Worksaver House *worksaving*." That's because ceramic tile is stainproof, scratchproof, waterproof, dentproof, fireproof. What more proof do you need to sell homes?



**FREE BOOKLET.** For fully detailed description of the Worksaver House and information on how to get plans, write: Tile Council of America, Inc., Dept. A-3, 800 Second Ave., N. Y. 17, N. Y., 900 Wilshire Boulevard, Los Angeles 17, Calif., or 5738 N. Central Expressway, Dallas, Texas.

NAME \_\_\_\_\_

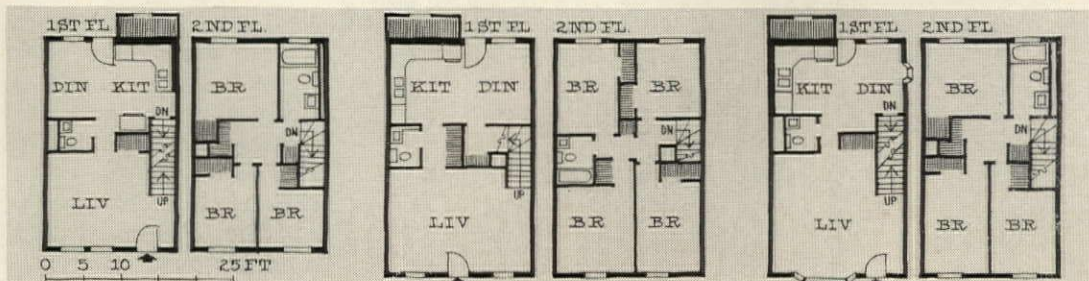
STREET \_\_\_\_\_ CITY \_\_\_\_\_ STATE \_\_\_\_\_





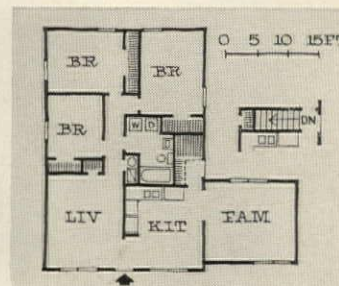


**U.S. STEEL HOMES'** townhouses aim at the growing high-density housing market and are designed in a variety of three- and four-bedroom versions (see plans). Models offer a half bath on the first floor, a full bath on the bedroom level. They range from 936 sq. ft. to 1,200 sq. ft. for \$12,500 to \$14,500. Prices include land, basements, air-conditioning, fully-applianced kitchens.

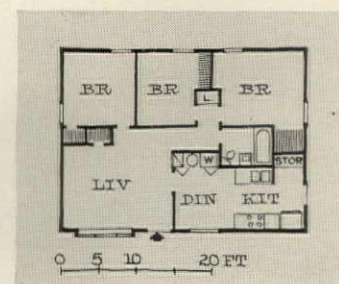
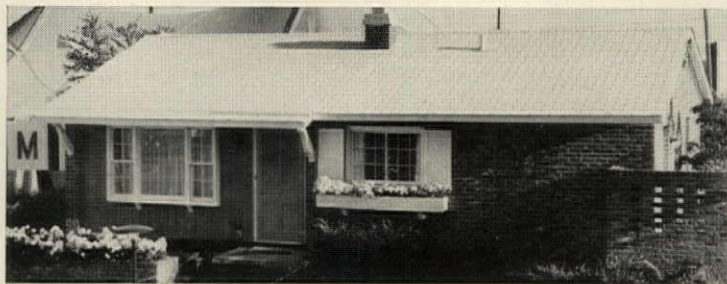


## Prefabbers' 1964 models aim at a wide variety of markets

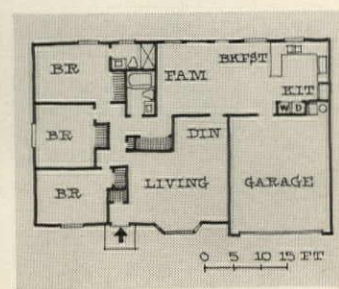
**NATIONAL HOMES'** three-bedroom one-bath, compact Trenton is part of the biggest prefabber's broad line of Futura models—designed for upgrading low-income buyers. The 914 sq. ft. model has marble window sills, sound-conditioned ceilings, a family room as a separate wing, and 20-year-guaranteed aluminum siding. This model has a laundry in a vented inside bathroom. Base price (without lot): \$10,450.



**WRIGHT HOMES'** three-bedroom, one-bath model, the State Fair Bonanza, is for the rural market. It was introduced at the North Carolina State Fair where some 3,600 visitors saw it each day. At the same time, 53 builder-dealers in the Southeast showed exact duplicates. The 855 sq. ft. model has a large combined kitchen and dining area (8' x 17'9"). It sells for \$8,500, without lot.



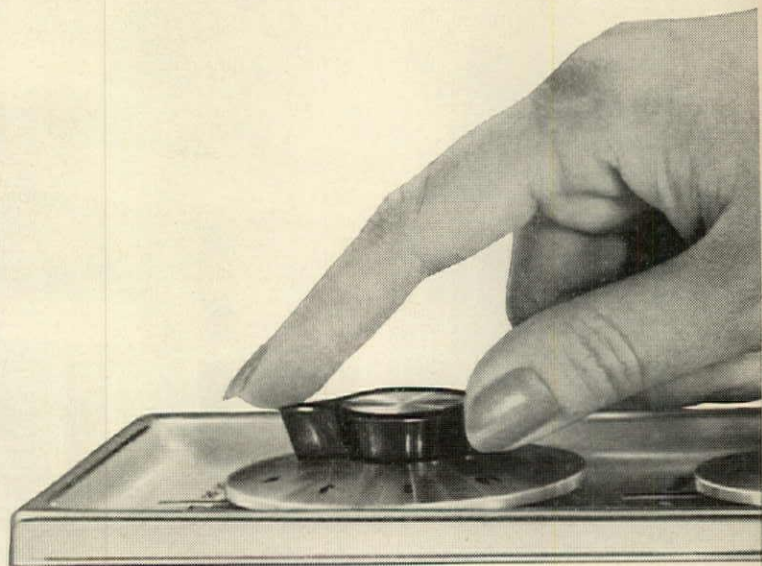
**SCHOLZ HOMES'** Briarwood 'B' is a bay-windowed, three-bedroom, two-bath version of an expandable plan that starts with a 32' x 32' basic house. This model is 1,728 sq. ft. including the 360 sq. ft. double garage. It is offered in a variety of frame, brick or stone exteriors. Price: \$18,000 to \$20,000 without land, depending on location. Consumers saw it published in *Bride & Home* (circ. 159,357) in October.



continues on p. 78



Roper turns on  
 new sales power  
 for your homes  
 with the newest,  
**most complete line  
 of interchangeable  
 gas and electric  
 ranges**



Now you can let prospects be real "choosy" about the kitchen. That's the way to sell more homes! Roper makes it easier. Lets you offer a wider choice of gas or electric. Because only Roper has such a complete line of gas and electric ranges that are completely interchangeable—size for size, shape for shape.

The 30-inch-wide *Roper Charm II* is the only double-oven gas range with the broiler in the top unit. Powered rotisserie at no extra cost. Lift-up cook top for easy cleaning. Loads of room in both ovens.

The new *Roper Eye-Level Charms*, in gas or electric, really charm. With exclusive safety slide-out top—rear burners lock "off" when top is in. Automatic "Cook & Keep" controls. And elegant!

Roper *Counter Built-Ins* and *Custom Built-Ins* come in gas or electric, too. And the cut-outs are identical. Find out how Roper makes it practical to meet any customer preference...with maximum quality.

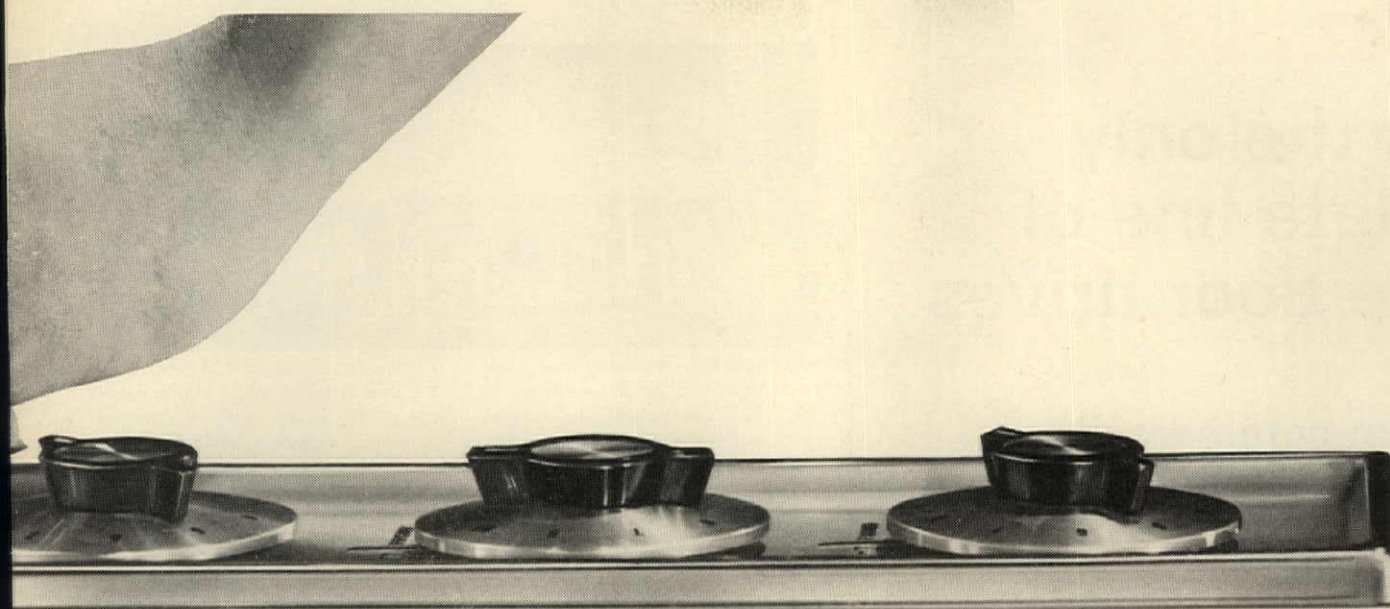


Roper Charm II—the only double oven gas range with eye-level broiler, 30" width



Roper Counter Built-Ins—Gas or Electric





**and Roper gives you an exclusive "Build-the-Builder" Plan!**

It'll help bring in more traffic for you, help you sell easier—it's an exciting package of tested ideas and materials especially designed for builders. Your Roper distributor has full details.



**PLUS FREE DELTA JET DREAM VACATIONS IN THE BAHAMAS!**

How'd you like to live like a millionaire in Nassau—on Roper? Of course you'd like a free trip to this island paradise! Your Roper distributor will tell you how you can be his guest on a Delta Dream Vacation for two. Call him today!

See what Roper has cooking for you at the **NAHB Exposition** December 11 to 15 McCormick Place, Chicago Booths 1047 to 1050

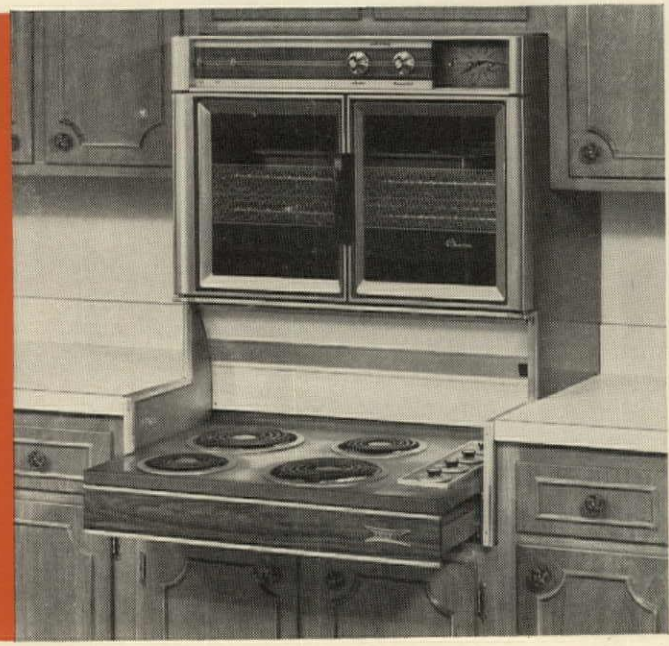
Gas and Electric Ranges by Roper



Four generations of America's smart homemakers have relied on ROPER  
Geo. D. Roper Corporation, Kankakee, Ill.



Roper Custom Built-Ins—Gas or Electric



Roper Charm—30" and 39" width—Gas or Electric



# ALLIANCE GENIE®

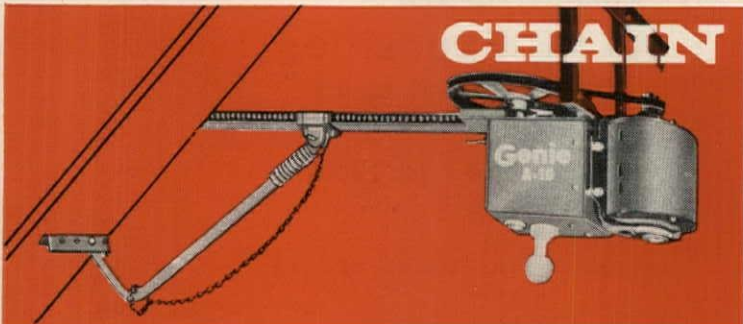
offers the only  
complete line of  
garage door drives

for custom-commercial-  
tract-industrial builders

## FRICTION



## CHAIN



## GEAR



Now you can order all three types of automatic garage door operators for your various building projects from one source — Alliance. And your profit is greater, too, when you include a Genie.

The building has more convenience appeal — your customers appreciate this extra quality equipment. Alliance Genie, with national distribution, has factory service available everywhere. See your dealer, or contact Alliance today for the Genie programs best suited to your building needs.

**GENIE keeps you in the  
driver's seat!**



The Alliance Manufacturing Co., Inc.

Alliance, Ohio

(Subsidiary of Consolidated Electronics Industries Corp.)

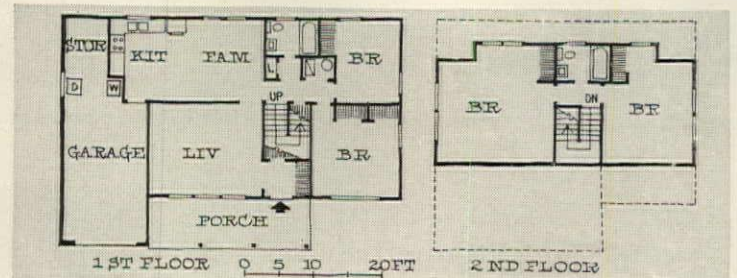
One of the world's largest producers of Sub-Fractional H. P. Motors.  
Manufacturer of the famous Alliance Tenna-Rotor and  
Genie Remote Control Garage Door Operator

## MARKETING ROUNDUP

starts on p. 75



**KINGSBERRY HOMES'** four bedroom Province model is aimed at both subdivisions and the odd-lot market. In this 1,652 sq. ft., 1½-story house, kitchen and family room are combined (247 sq. ft.). Exterior is brick, wood siding, hardboard, or shakes with a one- or two-car garage. Selling price: \$15,500 to \$17,500 (without lot).



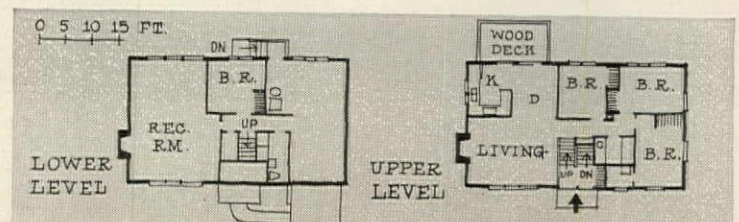
**INLAND HOMES** has added this three-bedroom model to its low-priced line. The 932 sq. ft. house meets FHA Sec. 203b specifications, will sell for about \$8,000 without

land. Buyers can choose from five floor plans and 12 exteriors. Sales features, reports Inland, are: an extra-large living room and double-size bedroom closets.



**FARWEST HOMES'** Pinedale model is shown in a carport arrangement of the split-entry floor plan (also available with attached garage). Roofing, flooring, and drywall are

not included since they may often be bought locally at a saving. The upper level has 1,008 sq. ft., the unfinished lower level, 1,008 sq. ft. Price: about \$15,000 without land.



Letters start on p. 86



## Another Winner\* From Dishmaster



# The New DISHMASTER® Bar-Boy Sink!

Costs no more than a sink with a quality faucet!

Now there is a compact, practical wet bar sink with the Dishmaster "Imperial" as an integral part! The Dishmaster Bar-Boy is perfect for kitchen, patio, family room—or even the galley in boats!

It features four storage wells for ice, bottles or food, and has a convenient cutting board that can be placed on top of any well for food preparation. Wells are constructed of polyethylene for insulation, and to prevent dripping.

The Dishmaster Bar-Boy Sink combination is the highest quality throughout—the same quality that has made Dishmaster America's best-liked dishwasher. Your inquiry to either address below will receive prompt attention. See the new Bar-Boy Sink at our display at the NAHB show booth 809.

- 302 Self Rimming Stainless Steel Sink with a coated bottom and sides to deaden noise and prevent condensation.
- Standard 3½" drain hole.
- Laminated maple cutting block, specially treated, lifts out for easy access to wells, remains handy for cutting.
- Standard fittings provide for easy installation of sink.
- Four polyethylene wells hold ice, bottles, ice cream scoops,



fruit, etc. Flush mount for a level, leak-proof surface . lift out for easy cleaning or cold storage.

■ Shipping Weight . . . 20 lbs.

■ Dimensions:

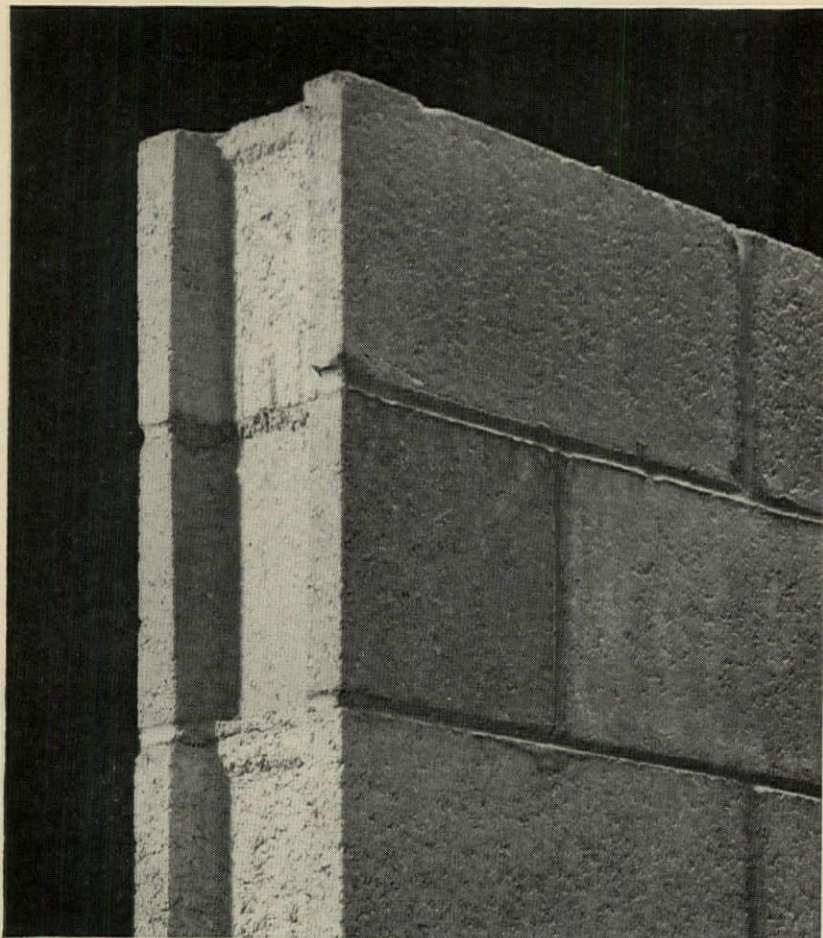
O.D. . . . .	18¾" x 25¼" x 6"
Sump . . . .	11" x 14" x 6"
Wells . . . .	4" Diameter x 5¼" Depth (1 quart cap.)

\*Dishmaster (and ONLY Dishmaster) has sold over a million dishwashers!

# DISHMASTER CORPORATION

2605 WOODWARD AVE., BLOOMFIELD HILLS, MICHIGAN, FE 4-3587, LI 2-5558 • 2208 S. GRAND, LOS ANGELES, CALIFORNIA, RI 7-7486

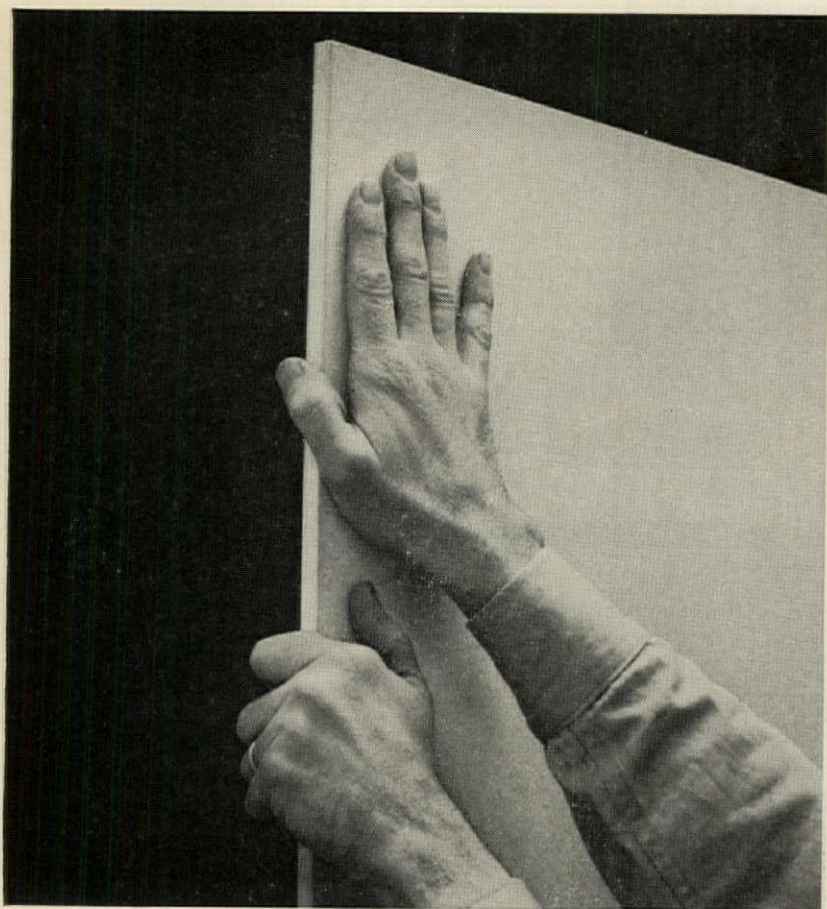




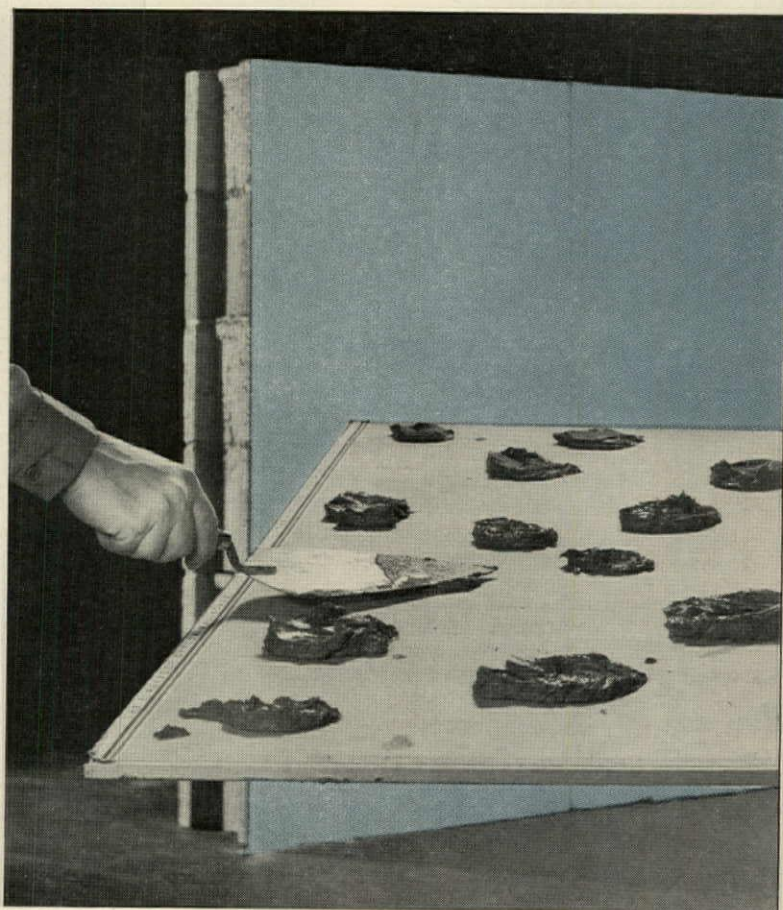
**1. To insulate masonry walls well:**



**2. Start with Styrotac® bonding adhesive.**

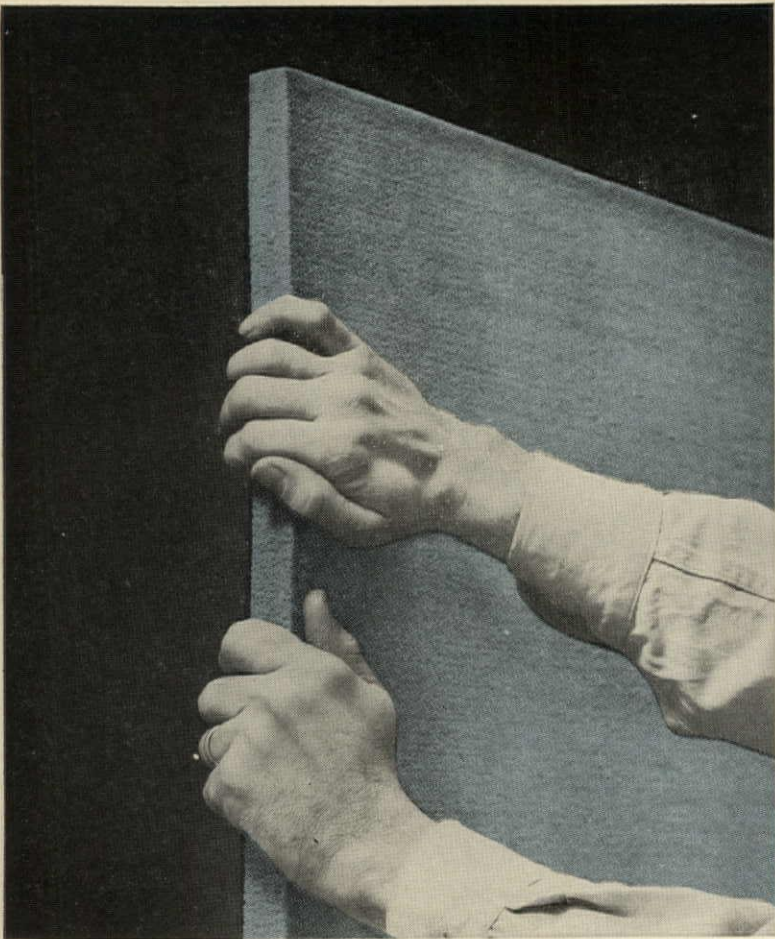


**5. Take wallboard. (Forget about furring.)**



**6. Apply Styrotac—no nails, no holes to fill.**

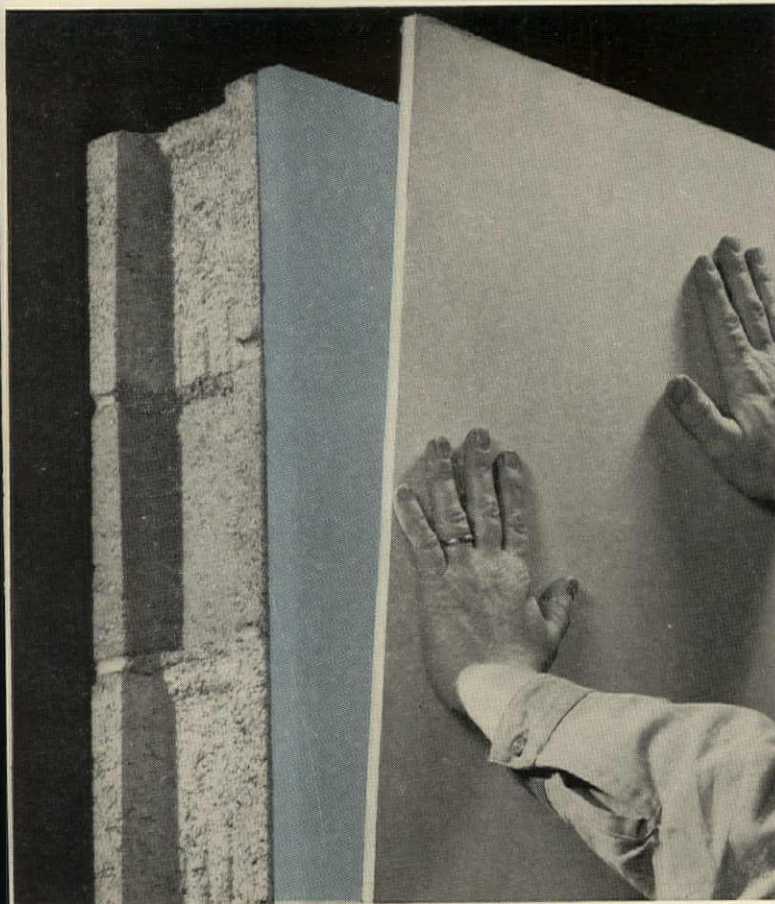




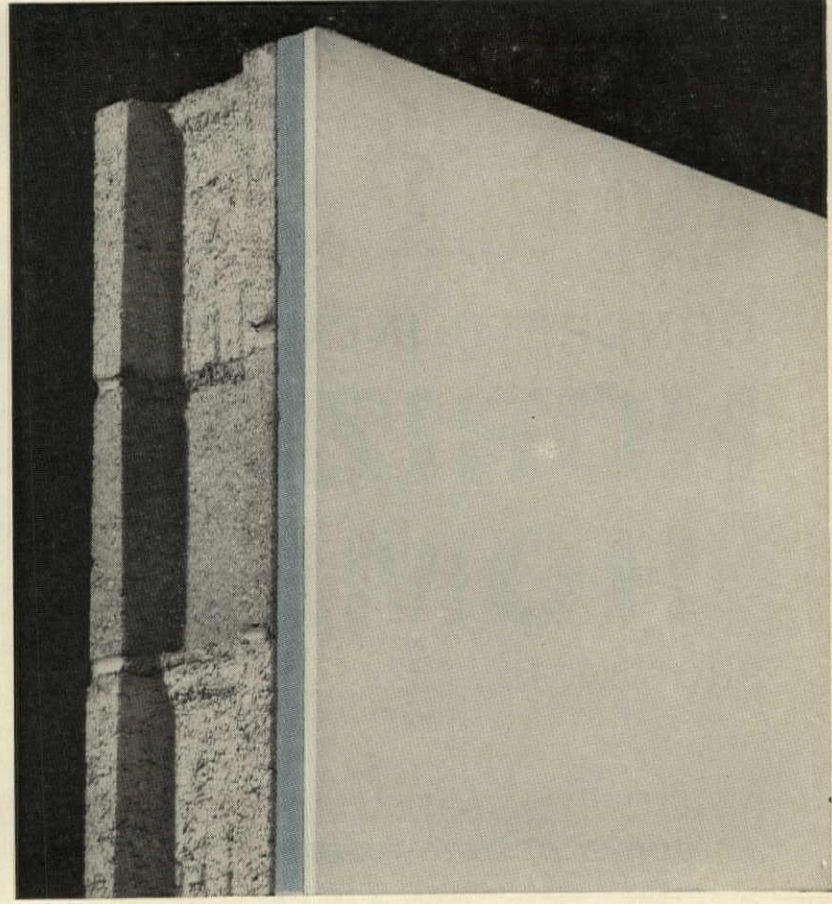
**3. Take Styrofoam® FR insulation board. If it isn't *blue*, it isn't Styrofoam FR.**



**4. Press Styrofoam FR into place. It installs fast, resists heat transfer, stays dry for year-round comfort.**



**7. Press on wallboard. No warping, no "pops!"**



**8. Any questions? See Sweet's Light Construction File, or write: The Dow Chemical Company, Plastics Sales Dept. 1013BP12, Midland, Mich.**



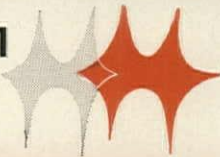




**NATIONAL WINNER OF BOTH DESIGN AND MERCHANDISING AWARDS** is this Horizon Home in Tampa, Florida. Architect Mark Hampton, A.I. A. designed the house chosen by a distinguished panel of architects for its many excellent design features. His prize: a trip for two to any place in the world.

# 1963 AWARD WINNERS CONCRETE INDUSTRIES HORIZON HOMES

PROGRAM



Crisp, clean lines of the interior reflect the spirit that characterizes the exterior of this award-winning home.

Once again, the annual Horizon Homes Program has been an outstanding success. Visitors by the thousands have toured the 1963 model Horizon Homes and have been impressed with the beauty and livability of modern concrete.

Across the country the imaginative uses of concrete in and around these homes are creating enthusiasm and tremendous buyer interest. Everywhere, architects and builders report the effectiveness of the wide publicity and promotional support—the dramatic response accorded the Horizon Homes.

## REGIONAL DESIGN AWARDS

**Western Region:** Riverside, California.  
Architect: Ruhnau, Evans, Brown & Steinman

**Rocky Mt. Region:** Englewood, Colorado.  
Architect: Langdon Morris

**South Central Region:** Fort Smith, Arkansas.  
Architect: Robert Wanslow

**Midwestern Region:** Indianapolis, Indiana.  
Architect: Fran E. Schroeder & Assoc.

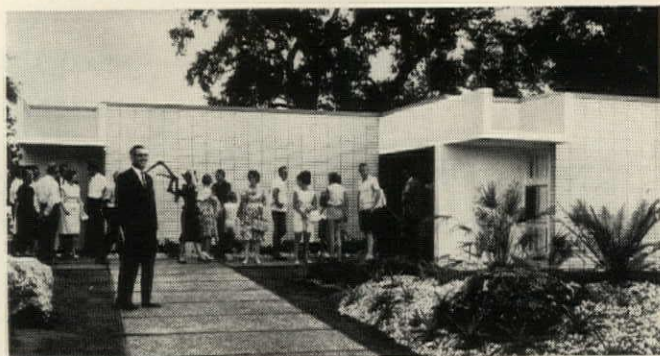
**Southeastern Region:** Durham, North Carolina. Architect:  
Carr, Harrison, Pruden & DePasquale, Assoc. Architects, AIA

**Eastern Region:** South Hadley, Massachusetts.  
Architect: Reinhardt Associates, Inc.





**CONCRETE IDEA CENTER** shows versatility of modern concrete, created added interest in the Tampa Horizon Home. The special merchandising awards jury selected the home as receiving the most effective selling support. Prize to Sunstate Builders, Inc.: a trip for two to any place in the world.



Crowds of people were attracted to this unusual home. Many expressed lively interest in the charm of modern concrete.

Again in 1964 architects and builders are offered a big opportunity to team up and share in nationwide programs developed expressly to showcase the freshest ideas in concrete and *help sell more homes*.

Literature detailing the new program will be available for the asking at the PCA booth at the NAHB convention. Stop by for your copy!

## PORTLAND CEMENT ASSOCIATION

*An organization to improve and extend the uses of concrete*

### REGIONAL MERCHANDISING AWARDS

**Western Region:** Riverside, California.  
Builder: Harry C. Marsh & Co.

**Rocky Mt. Region:** Englewood, Colorado.  
Builder: Better Built Homes

**South Central Region:** Houston, Texas.  
Builder: Pace Setter Imperial Homes

**Southeastern Region:** Mt. Airy, North Carolina.  
Builder: Blue Ridge Enterprises, Inc.

**Eastern Region:** South Hadley, Massachusetts.  
Builder: Desrosiers & Son, Inc.



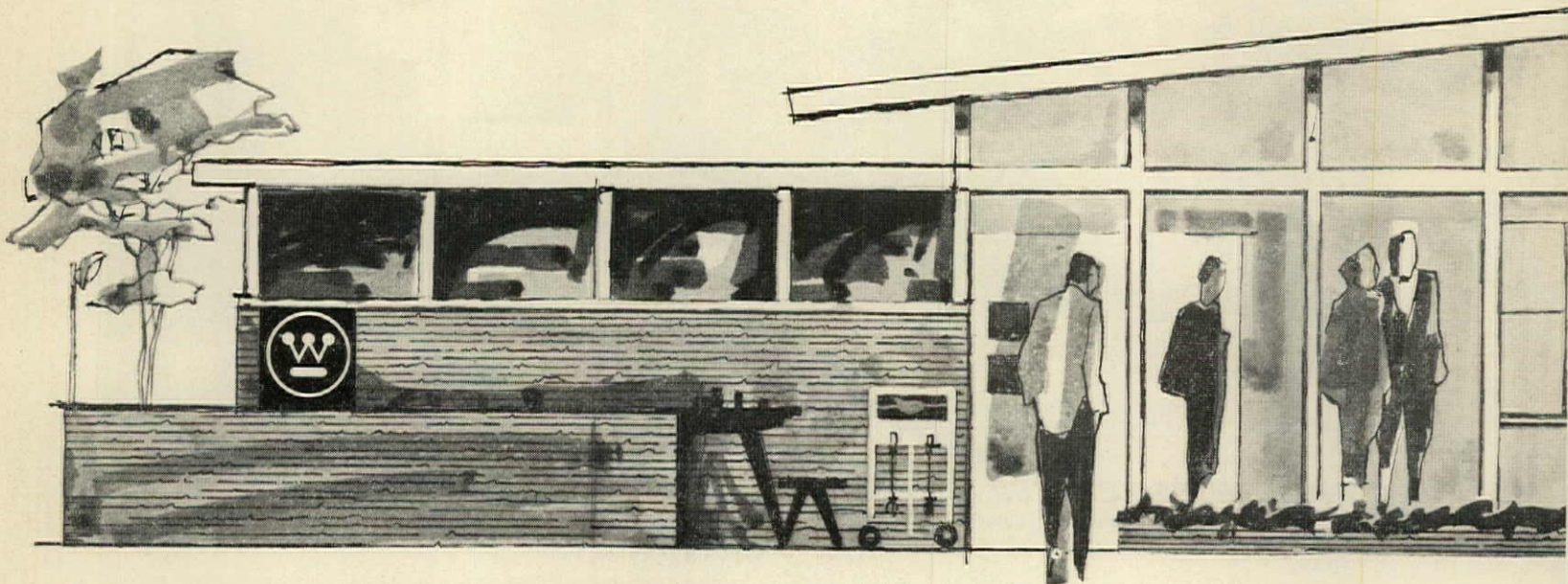
SEE THE WINNING DESIGNS  
AND MERCHANDISING IDEAS  
AT THE

**NAHB CONVENTION  
SPACES 440-441  
McCORMICK PLACE  
DECEMBER 11 TO 15**





Built so you can see the ways you'll save!



# OPEN H

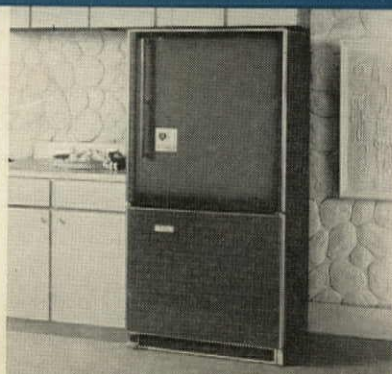
It'll be at the Chicago NAHB show! And it's unique! The great new 1964 Westinghouse appliances and Total Comfort Systems will be *in place and hooked up!* See how speedily the units can be slipped into place and connected. And how easily they can be serviced. Preview exciting

Micarta<sup>®</sup> patterns, pick up lighting ideas, press fashion plate switches. Learn how to save money on every house. **Ask about the Westinghouse RM program!** This Residential Marketing Program simplifies your product purchasing; it makes all Westinghouse appliances and

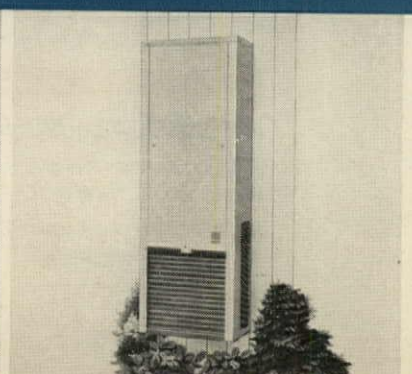
Walk around and behind  
these 1964 products...  
see for yourself  
how easily they install!



5-Cycle Dishwasher... fully Automatic!



Frost-Free Refrigerator-Freezer Combination

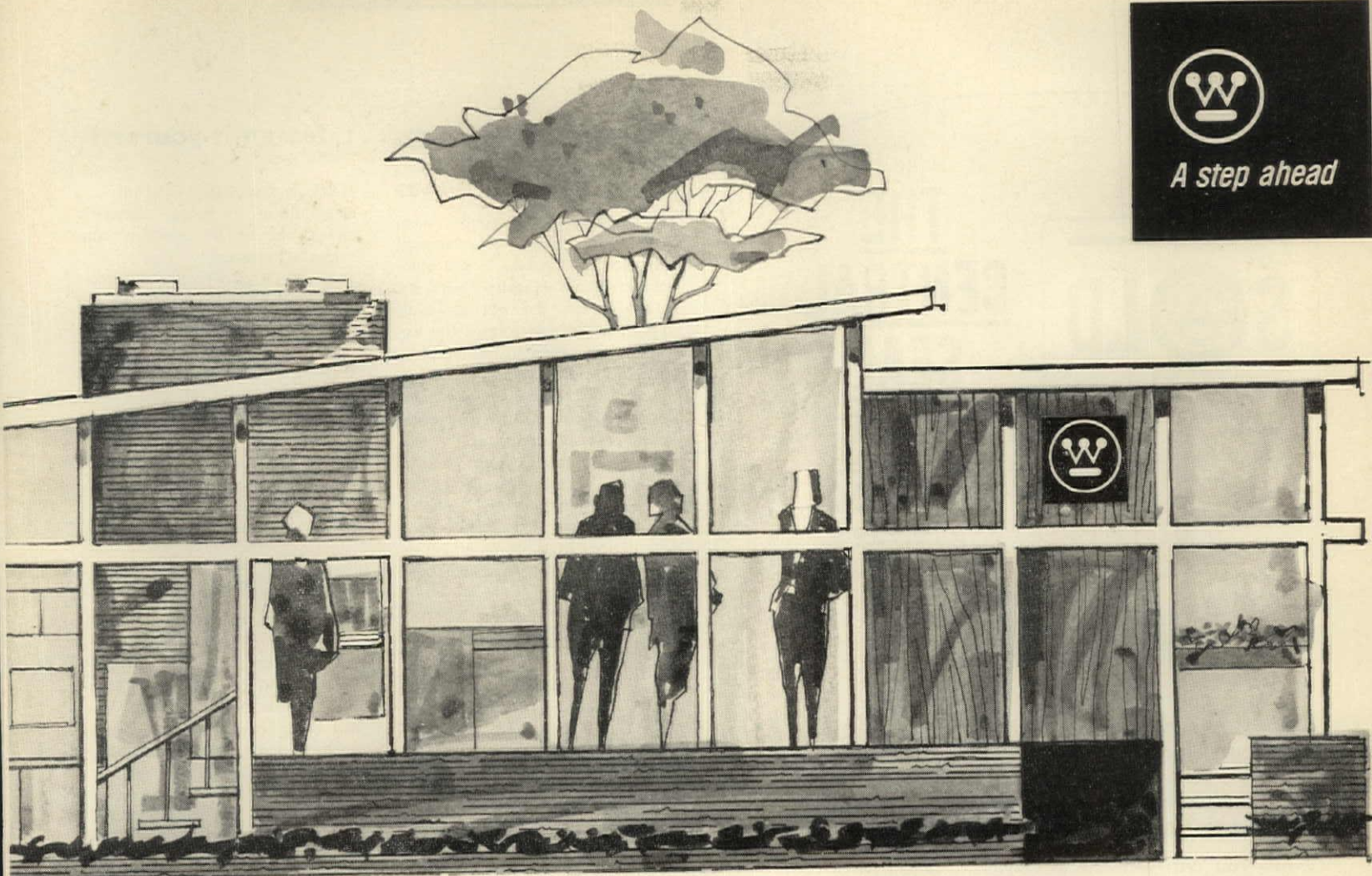


WhispAir<sup>®</sup> Central Air Conditioner





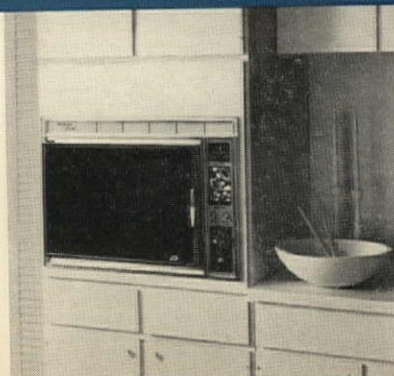
*A step ahead*



# HOUSE '64

equipment available to you through one contact—your Westinghouse Residential Sales Manager. He can help you develop personalized sales plans for your homes and apartments. In a nutshell: *One Man—One Plan—One Brand!* You can be sure . . . if it's **Westinghouse**

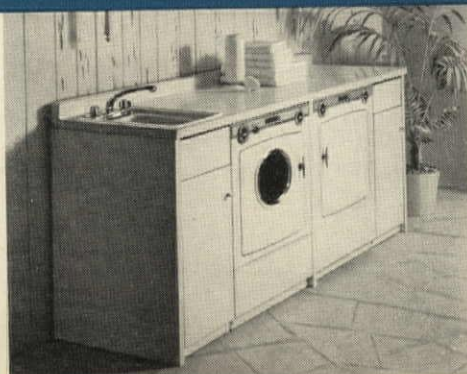
**Make 1964 a bigger, better year!**  
**Tie in with the Powerful Westinghouse**  
**"OPEN HOUSE '64" BUILDER PROMOTION!**  
**Get full details at the NAHB show!**



The Continental Built-in Oven



The Double-Oven Continental Range



New 88" Laundry Center . . . fits together many ways!

SEE OUR  
CATALOG



IN SWEET'S



## Underground wiring . . . design-it-yourself

## Who pays for wire buried?

H&H: Your statement (H&H, Sept.) that Cape & Vineyard Electric Co. "refused to sell (Developer Emil) Hanslin electricity if he buried the wiring—even though he offered to pay the extra cost and even to use all-electric heating systems" . . . is unfounded. We have a legal obligation to serve electricity to anyone in our area that desires it, provided such service would be economically sound and the installation . . . is approved by the local wire inspector. The method of distribution in a development is the decision of the developer, . . . who pays for it."

A. W. BLACKBURN, general manager  
Cape & Vineyard Electric Co.  
Hyannis, Mass.

*Developer Hanslin of New Seabury, who originally provided this intelligence, agrees the refusal was not to provide electricity, but to buy the distribution system at a later date. Writes he: "We desire to avoid an ugly wirescape. The telephone company not only was agreeable to underground wiring, but strongly requested to install it. The electric company's representative explained that the cost of overhead installation was one which we would have to bear and that arrangements could be made at a later date for gradual reimbursement. He further stated that underground service would not be acceptable for future purchase by his company and that we would have to accept the full responsibility for all added burdens of underground failures and problems."—Ed.*

## Design-it-yourself

H&H: I haven't words to describe our delight with your Design-it-yourself kit. [Oct.]

ROGER SMALL, architect  
Connecticut Contemporaries Inc.  
New Haven

H&H: . . . a most clever idea . . .

NEIL A. CONNOR, director  
architectural standards div.  
Federal Housing Administration

H&H: Indescribably delicious . . . In addition to being extremely clever, the article contains considerable message.

JOHN L. SCHMIDT, architect  
U.S. Savings & Loan League  
Chicago

H&H: The final result came as quite a surprise. It certainly makes a point.

W. EVANS BUCHANAN, president  
Natl. Association of Home Builders

H&H: Your what-not-to-do, never-a-dull-moment house is very amusing.

OLINDO GROSSI, dean  
School of architecture  
Pratt Institute  
Brooklyn, N.Y.

H&H: I just hope some builders (you know there are some), don't miss the point on your do-it-yourself kit and end up with something similar to your model. You laid it on pretty thick but then we have some that might misunderstand.

MARGARET GALE  
interior designer  
San Antonio

## Federal puppeteer

H&H: You did a masterful job in telling the story of how the housing picture has developed in this country. ("The Many Fingering Federal Puppeteer," H&H, June & July). One point that might well be further emphasized is that we find that in more of the government agencies involved with housing (and for that matter, other private industries), it is becoming less of a partnership between industry and government and more of an attempt by government to make it a parent-child relationship. . . .

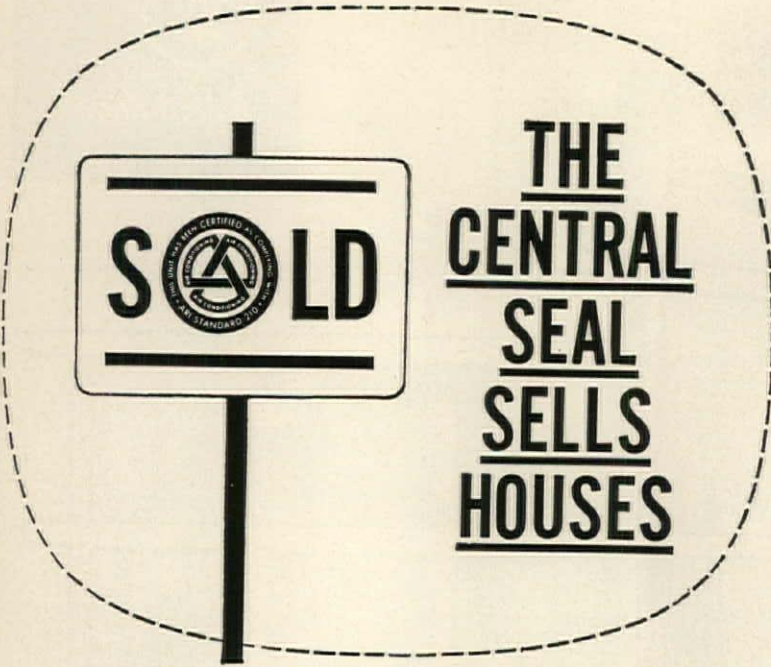
On the other hand, the building industry itself has sometimes failed to recognize that making housing available with almost no equity requirement from the buyer, through FHA minimum down-payment programs, merely serves to glut the market.

ARTHUR H. COURSHON, chairman  
Washington Federal S&L  
Miami Beach, Fla.

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Last year saw the big breakthrough in central air conditioning. More than 200,000 American families—north, south, east, and west—joined the 1,700,000 U.S. households already enjoying central air conditioning. The trend is up again this year.

Now you can sell the year-round benefits of controlled temperature, humidity, and air filtration at low cost and with the knowledge that the air-conditioning equipment you buy will perform as rated.

How? By insisting that it bear the ARI Seal of Certification. By doing so, you benefit from an industry-wide program whose participants make more than 90% of all central air conditioning. Cooling capacity is measured only in British Thermal Units per hour. ARI engineers check manufacturers' specifications. Equipment is selected at random for testing by the Electrical Testing Laboratories, Inc., of New York City. Any manufacturer's claims are subject to challenge by another participant in the ARI Unitary Certification Program.

Want to know how to offer the additional prestige of central air conditioning at the lowest possible installation price in *all* your new homes? (1) Write ARI for the new, free homebuilder's manual, "The Big Breakthrough in Central Air Conditioning." (2) Ask for the free ARI Directory of Certified Air-Conditioners. (3) Specify units bearing the ARI Seal of Certification.



**AIR CONDITIONING AND  
REFRIGERATION INSTITUTE**  
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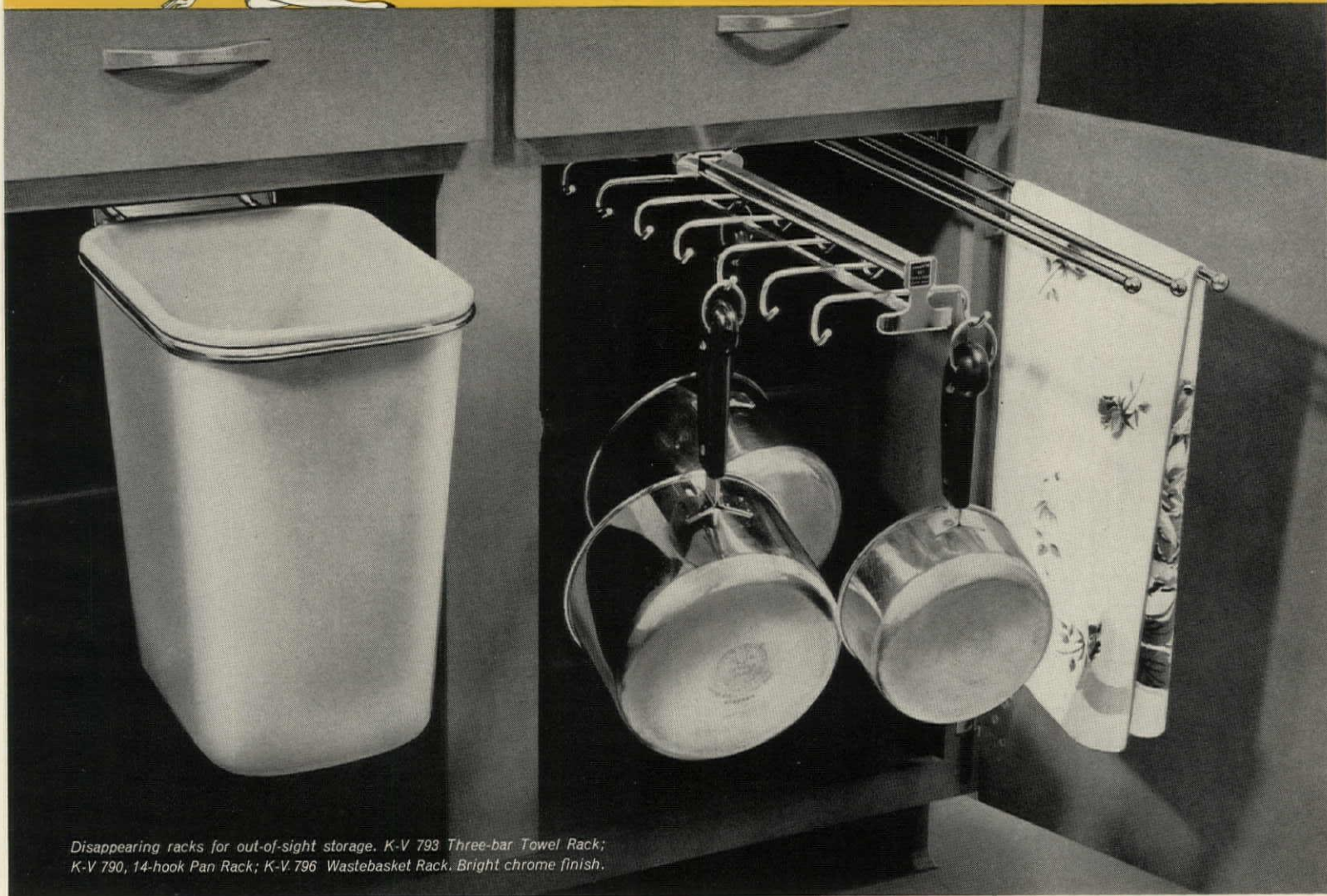




KAY VEE SAYS:

"Easy does it!"

**K-V products keep on selling  
kitchens—even after the sale!**



Disappearing racks for out-of-sight storage. K-V 793 Three-bar Towel Rack; K-V 790, 14-hook Pan Rack; K-V 796 Wastebasket Rack. Bright chrome finish.

K-V hardware and fixtures make kitchens easy to work in, easy to live in. Disappearing racks that give out-of-sight storage, and pull out for easy use. Drawer slides that let drawers roll open at a touch and close gently but firmly. Adjustable shelf hardware that

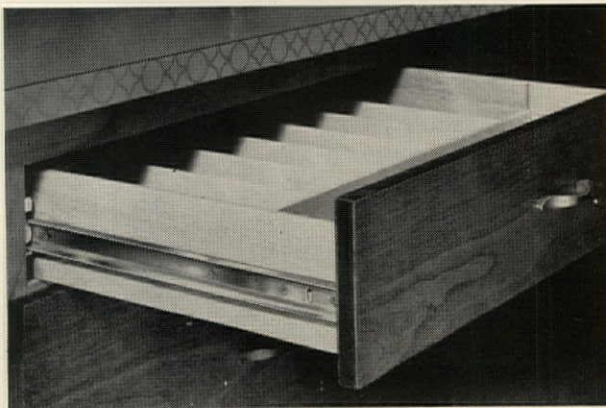


**KNAPE & VOGT  
MANUFACTURING  
COMPANY**

Grand Rapids, Mich.

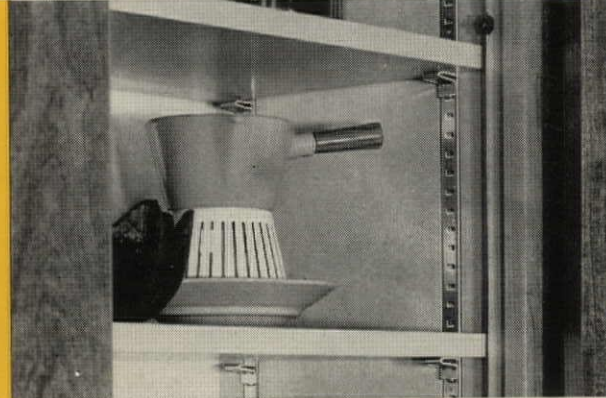
lets storage space change to suit changing needs. K-V products work day in and day out, give pleasure year after year. Yet, they are inexpensive and so easy to install. Ask your K-V representative or distributor about them—or send for our catalog, today.

MANUFACTURERS OF A COMPLETE LINE OF QUALITY DRAWER SLIDES, SLIDING AND FOLDING DOOR HARDWARE, CLOSET AND KITCHEN FIXTURES AND HANDY HOOKS FOR PERFORATED BOARD.

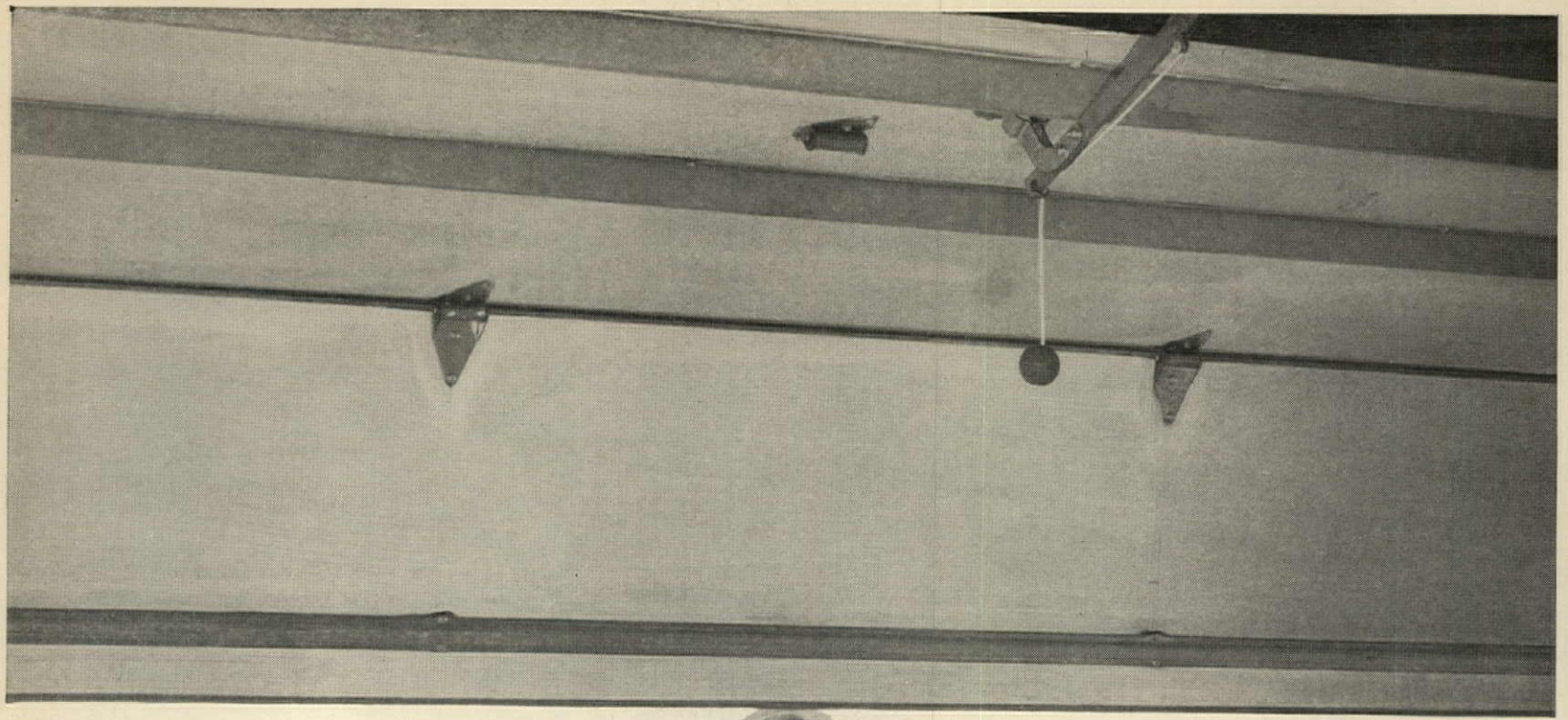


◀ 1300 Drawer Slide has positive stop with finger-tip release lever for easy drawer removal. Nylon ball-bearing wheels for easy, noiseless action. For loads to 50 pounds. Sizes from 12" to 28". Economical; easy to install.

▶ For built-in shelving, K-V 255 Standard available in 24" to 144" lengths; 1/2" adjustment. K-V 256 Support (3/4" long, 3/16" wide). Nickel, zinc or bronze finish.







CLINCH YOUR HOME SALES  
with  
**AUTO-MATE**  
FOR LESS THAN  
**\$150\***

*\*Overhead Door Corporation announces it is producing a quality operator at a price to its distributors which will permit them to sell for a price of less than \$150 installed (less wiring and travel).*

**This old-fashioned gas buggy?** It's a demonstrator that Ralph Markus used to dramatize the AUTO-MATE Automatic Garage Door Operator on his modern Marlis Homes. *Every* Marlis Home comes equipped with AUTO-MATE as a standard, no-extra-cost feature. But Mr. Markus is a true showman. What the car *really* demonstrates is that every home in his area *without* AUTO-MATE is as old-fashioned as this car! ■ Think what AUTO-MATE can do for *your* homes! Dramatic demonstration appeal. A prestige home feature. AUTO-MATE has all the fine-quality features—safety reversing, overload protection, UL approval, separate radio unit, extra garage-lighting circuits—features that have made "OVERHEAD DOOR" operators famous for years. ■ Here's the sales appeal that can help you close a sale faster—with top mortgage evaluation. *Include* AUTO-MATE as a no-extra-cost feature of *your* "package." Contact your "OVERHEAD DOOR" Distributor today for details—plus a complete point-of-sale display kit for your homes.







## NEW- FANGLED WAY TO SELL HOUSES!

"When we included the AUTO-MATE Garage Door Operator free with every Marlis home, we knew we had a winner. It's the greatest selling plus for us since built-ins!" says Ralph Markus, developer of Camelot and builder of 2000 homes in northwest Chicago suburbs.



**OVERHEAD DOOR CORPORATION**  
General Offices and Manufacturing Division: Hartford City, Indiana. Manufacturing Distributors: Dallas, Texas; Portland, Oregon; Cortland, New York; Hillside, New Jersey; Lewistown, Pa.; Nashua, New Hampshire.  
In Canada: Oakville, Ontario.

# SEE

the automatic selling power of AUTO-MATE dramatized in: "HOW TO SELL HOMES NOW THAT THE HONEYMOON IS OVER"

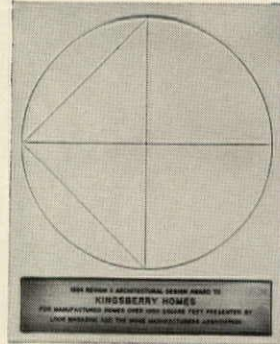
## NAHB SHOW

McCormick Place,  
Chicago  
Booth 864-964  
opposite Arie Crown Theater

Ralph Markus, President of Marlis Construction Company, is an enthusiastic booster of the AUTO-MATE Garage Door Operator.



# KINGSBERRY'S value-packed Stratford model wins Look Magazine H.M.A. Architectural Design Award



For the second year in a row, Kingsberry Homes has won a *LOOK Magazine-Home Manufacturers Association Architectural Design Award*. This award is presented annually to selected homes which excel in the use of interior space, in exterior appearance, and in practicality of design. This year, the Kingsberry Stratford was chosen as winner in the Over 1200 Square Feet Classification for Region II (Southeast).



**THE KINGSBERRY STRATFORD.** A split-foyer design with four or five bedrooms, two baths, den, recreation room, and a General Electric Dream Kitchen.

**THE PRIZE WINNING STRATFORD** has 2,477 square feet of appeal packed charm. The exterior appearance is highlighted by a stylish entry court, a cantilevered design, and a sunken garden and patio in the back. This beautiful home is truly designed to meet the needs of modern family living.

The Stratford has proved itself as a sales-winner, too. And no wonder... for many builders are finding they can make a sound profit while retailing this value-packed model at **LESS THAN \$9.00 A SQUARE FOOT** (excluding lot).

For more information on the profit-producing Stratford, or all of Kingsberry's 80 other models, mail the coupon today!

  
**KINGSBERRY  
HOMES**

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

## Kingsberry means VALUE...and value means BUSINESS!

send for FREE  
"Kingsberry Value"  
booklet



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**JERRY NOWAK, GENERAL SALES MANAGER**  
KINGSBERRY HOMES CORPORATION—DEPT. 00  
5096 PEACHTREE ROAD, CHAMBLEE, GEORGIA

Please send me "The Kingsberry Value Story" with complete information on how Kingsberry Homes can help me offer greater VALUE in my market.

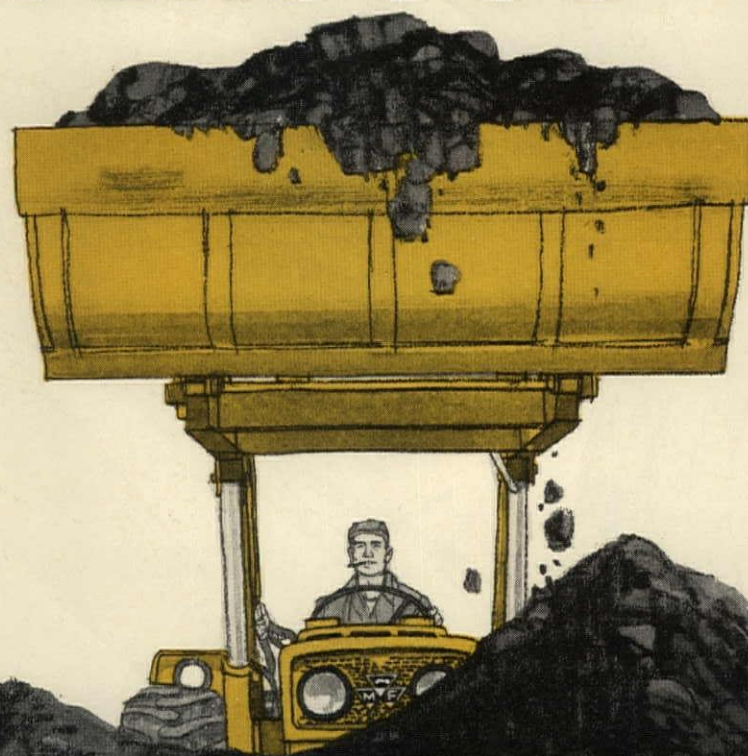
YOUR NAME \_\_\_\_\_ FIRM NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE # \_\_\_\_\_



# NEW FROM MASSEY FERGUSON



The closest thing to  
automatic loading yet!

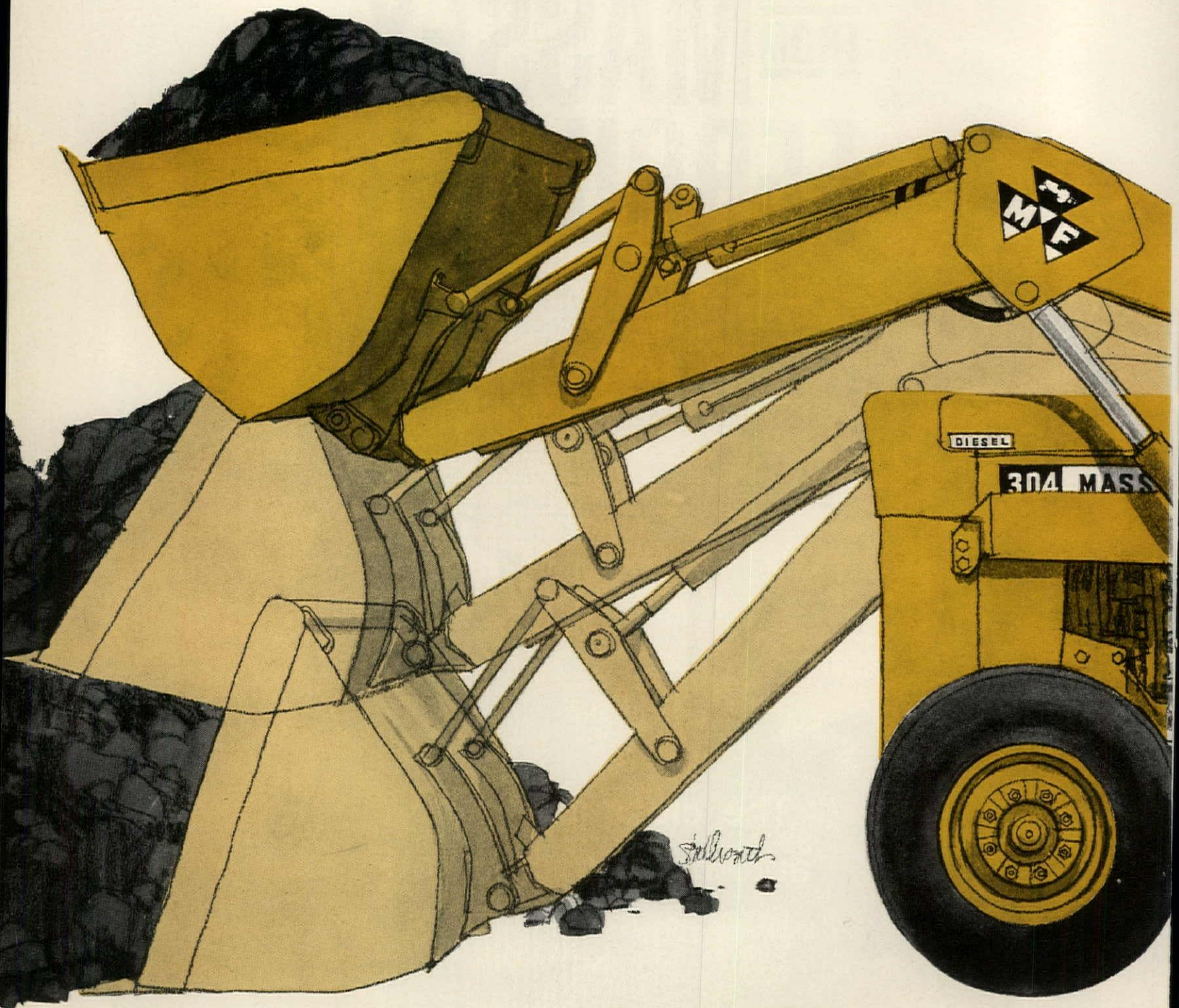


Two great new 60 HP Class tractors: the MF

# 302 & 304

With Manual Shuttle

With Instant Reverse





Load 6,325 lbs. and carry at 3 ft.

Load 4,070 lbs. and lift to 11' 7"

Load with 7,340 lbs. breakout force

Load with 37° bucket roll-back

Load with selective self-leveling bucket

And load and back out fast with

INSTANT REVERSE – no shifting,

no clutching, no levers to pull!



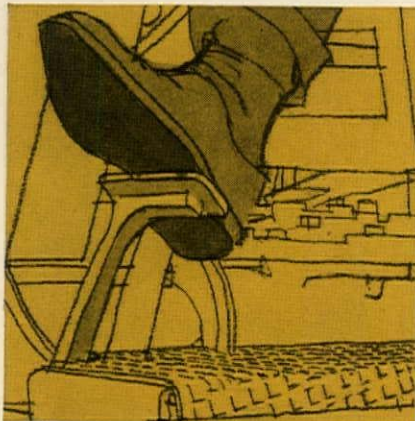




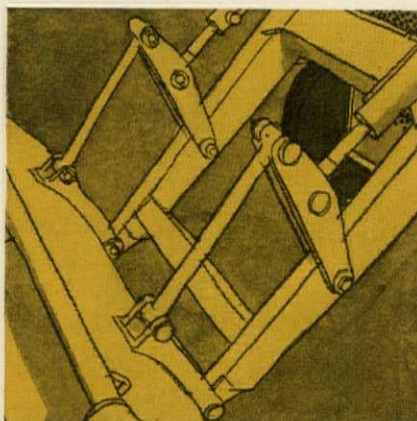
## Instant Reverse, selective self-leveling bucket and hydrostatic power steering give you the closest thing to automatic loading yet!

The new MF 302 and 304 Tractors give you more automatic features than you'll find on any other 60-70 HP tractor-loader. For example, on the MF 304 it's Instant Reverse. Just a touch of the toe . . . and away you go . . . forward or reverse without clutching or pulling levers. □ On the MF 302, it's the economical Manual Shuttle transmission. Shifts you forward or reverse, in any of 6 gear speeds, quickly and smoothly. □ Selective self-leveling bucket keeps 4,000 lb. loads level up to 11'7". Float position and "power beyond" are also standard

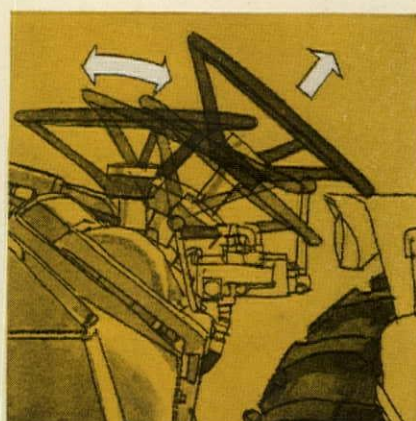
on the MF 300 Loader. □ Hydrostatic Power Steering System is fast, responsive and hydraulically powered for unexcelled handling ease. □ Hydraulic double-disc brakes assure straight, fast stops every time with minimum effort—even going downhill. □ It all adds up to make the MF 302 and 304 the most powerful, feature-packed tractor-loaders in their class—the closest thing to automatic loading yet! For more information, call your Massey-Ferguson Industrial Dealer now or write for a detailed brochure.



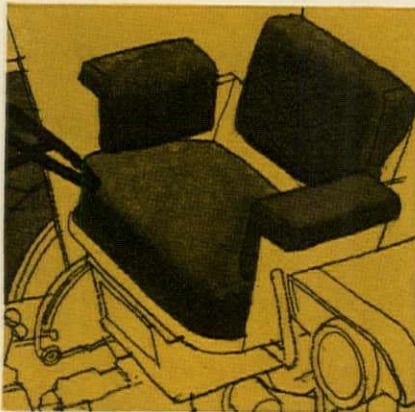
**Hydraulic double-disc brakes** develop high braking torque with low pedal effort—assures positive braking for straight line stops. Individual turning brakes provide maximum control in tight operating conditions.



**4-bar bucket control system** has dual hydraulic cylinders. Assures maximum load and dump capacity with 37° bucket roll-back at ground level and 53° dumping angle at full lift height of 11'7".



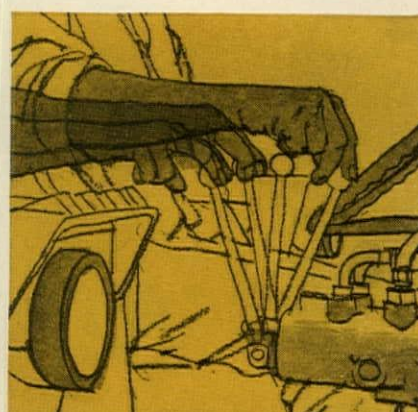
**New "Vari-Arc" steering wheel** adjusts to an infinite number of positions in a 90° arc for operator's maximum comfort when he's either sitting or standing. And roomy platform makes stand-up operation easy.



**Armchair comfort seat** is fully adjustable to each individual operator. Seat covering is weather, mildew and sun resistant. Full support back and padded armrests give maximum comfort on the roughest work sites.



**Differential lock** provides equalized traction for each drive wheel—even on the muddiest work sites. It gets the MF 302 and 304 through the slipperiest spots without rocking or shifting.



**Selective self-leveling loader controls** let you choose the leveling action you want . . . when you need it. Hydraulic loader valve also puts "power beyond" and float position stops at your fingertips.

*Specifications measured to IEMC definitions*

Call WESTERN UNION, OPERATOR 25, for the name of the nearest M-F Dealer



# MASSEY-FERGUSON

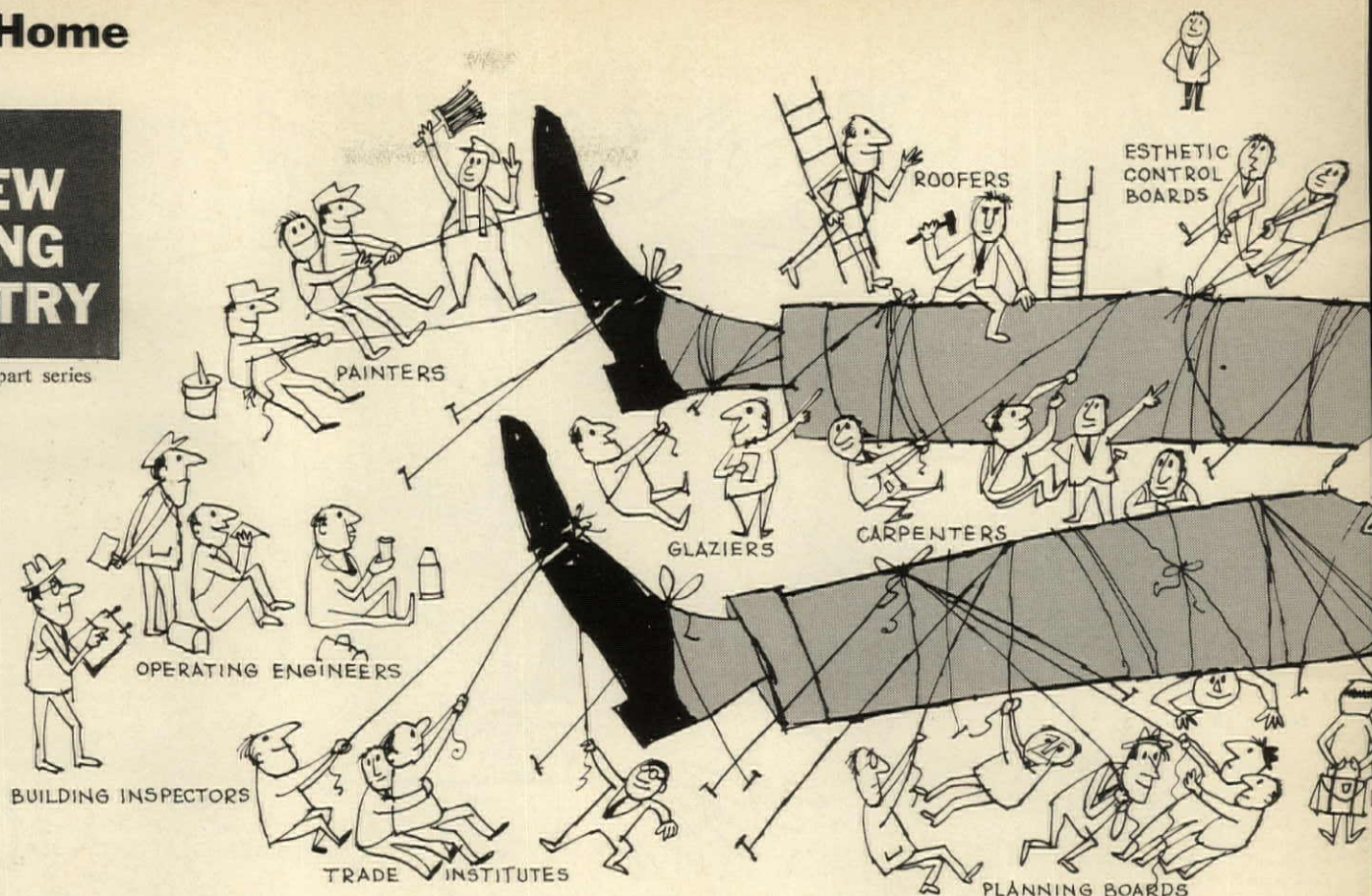
## INDUSTRIAL DIVISION

12601 Southfield Road, Detroit 32, Michigan



**THE NEW HOUSING INDUSTRY**

Part VIII of an eight-part series



*A host of Lilliputian ties fetter the housing industry. They grew out of its ancient heritage of local crafts, local markets, local controls. Today these are to the industry . . .*

## The albatross of localism

Nearly every schoolboy sooner or later encounters the albatross as a symbol of an unwanted burden imposed by others, through having to memorize some verses of *The Rime of the Ancient Mariner*, by Samuel Taylor Coleridge, a 19th Century English poet who took to opium in later years and even touched on housing, in a work that began, "In Xanadu did Kublai Khan a stately pleasure dome decree . . ."

Coleridge's mariner wore the corpse of an albatross he shot, tied around his neck as a punishment by shipmates who believed its slaughter meant bad luck. Some contend, with reason, that the housing industry, too, has an albatross around its neck—tied there for different reasons, but getting gamier all the time.

For years, thoughtful analysts of the housing industry have predicted that its advances in materials, methods, management—almost everything—are only forerunners of a big switch to full industrial organization and much greater efficiency, volume, and profit. But it hasn't happened. All over the nation builders still await the great snap-over. And progress remains a constant battle against a multitude of practical problems. Why? Consider these items:

- A builder who wants to operate in every part of the Cleveland market area must contend with no less than 50 building codes. Each imposes big or little differences on how he must build, with what, and how much of it. "A builder never knows what to expect, so he can't buy materials in large quantities," says Cleveland Builder Peter Rzepka. Or, indeed, standardize in a significant way.
- A leading home manufacturer got clearance to market in the Chicago area some years ago only after agreeing with local building trades to leave all doors unhung and windows unglazed to give local men more work—at more cost to the buyer.

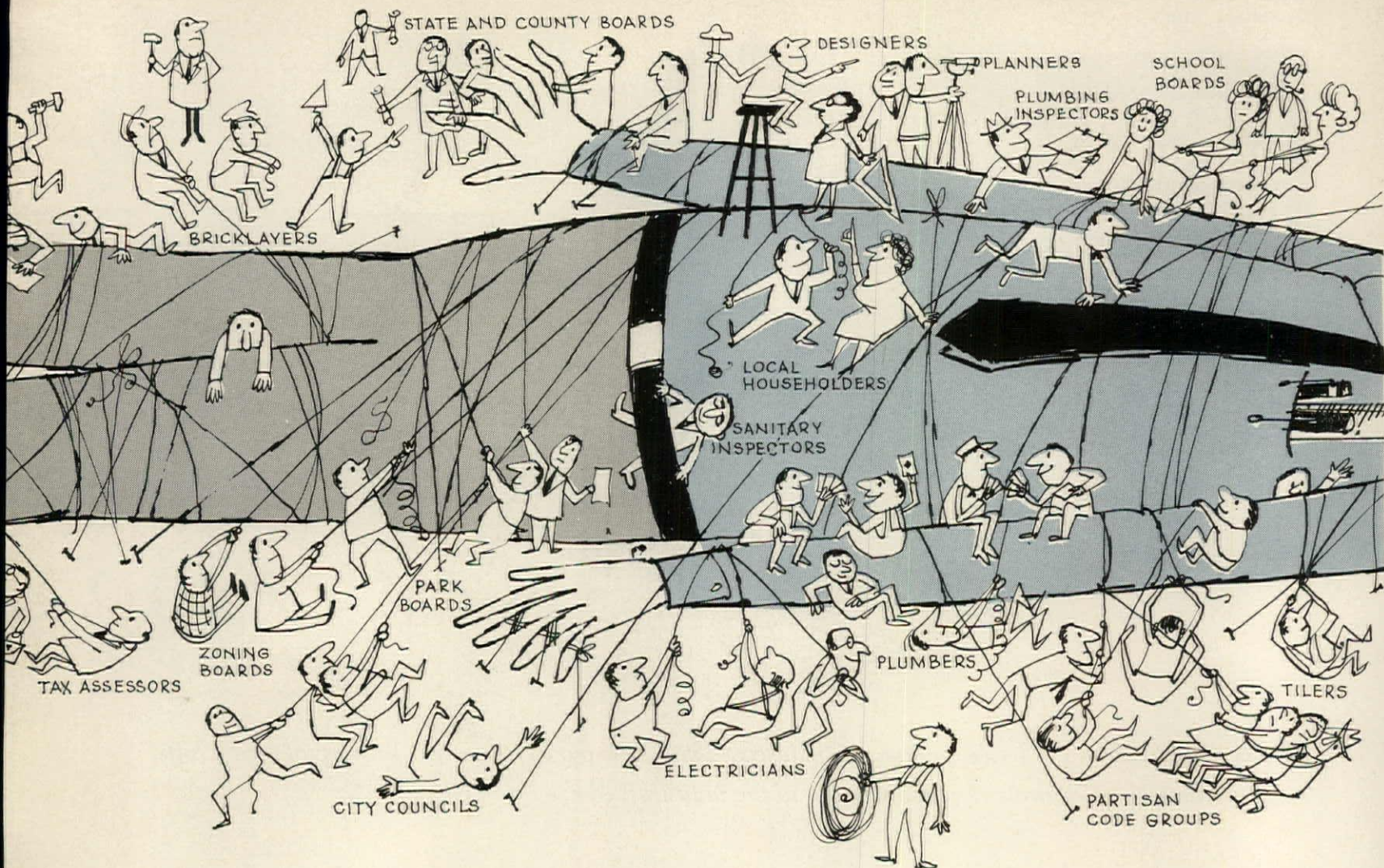
- Local boards in New York's fast-growing Westchester County have devised an array of tortures to discourage builders. These range from a three-year wait for approval of a preliminary plat (that isn't even mentioned in state law) to raising minimum lot sizes in approved subdivisions after improvements are installed.

Among the many problems that housing faces, these are only samples of a special group of basic, stubborn ones that are the chief reasons for housing's continued adolescence. Whether you think of them as an albatross around housing's neck, or ties binding a hapless Gulliver, the important thing is that they are imposed on the industry from outside. They center around the site and the strictures that local interests can impose on getting the house built there. Builders feel them most keenly, but they affect the fortunes of every link in the chain of housing production. They force the industry itself, to operate at all, to retain an outmoded and inefficient pattern of operation it might otherwise have shed long ago. So these problems are the No. 1 reason for housing's laggard progress into the same growth league as the producers of such hallmarks of the mass-production age as the family car, the jetliner, television, Kleenex, and Coke. They are all parts of a single overriding ailment that can be epitomized in the single word, *localism* (see box, p. 101).

The seven preceding articles in HOUSE & HOME's profile of the new housing industry have spotlighted struggles and changes that indicate the tempo of progress is stepping up. The industry is ever riper for the really big strides that will take it out of the horse and buggy era. This is a look at the forces of localism, how they inhibit the industry's thrust toward maturity, and why everyone inside and outside the industry should care about localism because everybody pays for it.

*continued*





**Localism burdens everyone with immense costs both directly and indirectly**

The direct dollar waste is the least of it. The staggering cost is what is lost because housing cannot make full use of industrial methods and technology, and in inflation of development costs by wasteful land use patterns, excessive improvements and land speculation fostered by isolationist local governments. These combine to keep the cost of housing so high that it is not only something the industry ought to be concerned about—it is something the buying public *is* concerned about, and it is becoming a national scandal. If you doubt it, look at the recurrent rash of items in the press, and articles in consumer and shelter magazines about the subject. The trouble is, the main thrust of such pieces is to gore the builder, not the real causes of the evil.

How much *does* it cost? The industry, chronically destitute of adequate figures on its own operations, has no reliable measure. But everyone agrees the tab is immense.

*Item:* An industry round table sponsored by HOUSE & HOME in 1958 calculated that selfish local (and sometimes not-so-local) interests masquerading behind concern for public good could add more than \$1,000 to the cost of a small house through specific code-enforced wastes alone, based on ten wastes that are still commonplace (e.g., needlessly heavy sheathing, needlessly costly electric cable).

*Item:* Miami Architect Jorge Arango ventures that if housing's progress had matched that of food production and processing, houses could cost half what they do.

*Item:* Wasteful big-lot zoning in the New York area will require an outlay of \$7,350 for highways alone, for each family expected to move to the suburbs by 1985, vs. \$2,950 (40% of the highway

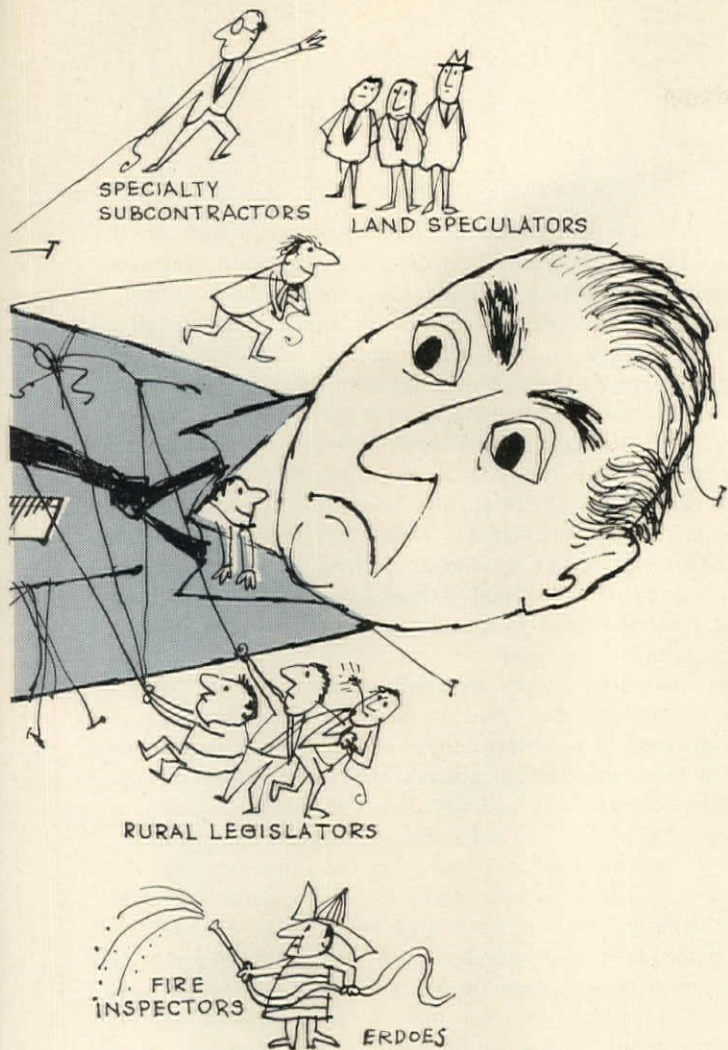
cost) for schools. So says the New York Regional Plan Assn.

So the cost of localism is much more than just a drag on the housing industry. It is also a major drag on the national economy and national standard of living. NAHB calculates that each \$1,000 spent by a buyer for his house generates another \$1,000 in related economic activity, and that each \$1,000 reduction in the \$15,151 median price of an FHA new house would let about 3 million more families qualify for homeownership. If even 3% of these chose to buy a new home, 90,000 new starts would result. The housing industry now accounts for \$26 billion a year in direct construction outlays, or 4% to 5% of Gross National Product. Indirectly, it would appear to account for roughly double that, or 8% to 10%. On this basis, the elimination of \$1 billion of direct, specific code waste alone each year might shoot the industry to \$31 billion. And the potential economic impact of the industry freed from localism makes the mind boggle.

**Localism may also be seducing us into creating a landscape few will want to live in**

The social costs of localism go far beyond the immediate question of how it prices much new housing beyond the reach of the quarter-plus of the nation that are ill-housed, important though that is. The anachronistic notion that each community where houses are built is self-sufficient and able to choose its own destiny without considering the communities around it or the forces of growth and change that are sweeping all of them, is prompting deep thinkers to question the future quality and organization of life in the U.S. Prestigious nonprofit groups in both New York and California have almost simultaneously issued dire forecasts. Their message: When each community has finished protecting its own





## Codes: housing's disgraceful cost-booster

The examples of specific waste are legion. Hardly a builder who knows his costs cannot cite at least a half dozen (*for many more, see p. 102*). As long ago as 1922, Herbert Hoover, then Secretary of Commerce, told Congress that conflicting and antiquated building codes were adding 10% to 20% to building costs. The situation remains pretty much the same today. Archaic specification codes require materials and techniques based on old ideas of strength and safety, exclude new ones that are cheaper and can perform better. Even the more flexible performance codes (which do not specify materials or assemblies but only how they must perform in a given application) may require engineered waste. Explains NAHB's Ralph Johnson: "We are faced with an ignorance factor rather than a safety factor," in setting the performance standards.

But even good codes (i.e., those that do not require specific wastes by today's engineering standards) differ from community to community. They prevent builders making full use of mass buying and standardization economies available to them right now. Pittsburgh builder Ed Ryan, for one, selling in nine localities there, must *price* identical models \$1,000 or more higher in some areas than others because of varying building and development regulations. He figures as much as \$800 in *cost* is from code wastes and differences. *And* they prevent him from using cost-cutters like plywood subfloors, roof trusses—let alone wiring harnesses, plumbing cores, or factory-assembled bathrooms.

### Even worse than the costliness of code waste is the costliness of code chaos

It not only limits savings today, but inhibits the housing industrialization that could yield big economies—because the same factory-made parts and components are not legal everywhere.

If you don't think this hurts, take a look at mobile homes, a rising competitor that now accounts for 12% of the total housing market, and is aiming higher. Leslie Jones, finance director of Mobile Homes Manufacturers Assn. says they already have a third of the under-\$10,000 market for housing, predicts they will take half of it in the next decade. The biggest reason: Mobile homes, free from the strictures of local codes, can be factory-built and marketed nationally without local interference.

By contrast: Prefabricator Donald Scholz invested more than \$100,000 in developing a prefabricated plumbing system to be manufactured in Ft. Wayne and shipped with each Scholz Home. But local code restrictions made it so hard for builders to use it,

*continued*

narrow interests, the total impact on traffic, taxes, air pollution, open spaces, and land use of the independent choices each has made will make none of them worth living in.

The problem is so serious that the American Law Institute is conducting a comprehensive review of zoning and planning law—and seeking the counsel of planners, architects, public administrators and civic groups in so doing. Aim: to see if the laws are serving the high public purposes they were devised for.

Predicts Developer-Builder Gerald Lloyd, president of Northern Properties Inc. of New York: "The refusal of local communities to recognize the irresistible force of growth foretells a constitutional crisis. Unless communities elect to accommodate this force voluntarily and intelligently, the option may be taken from them, and the responsibility assumed by larger units of government."

Says Stanley Tankel of the Regional Plan Assn.: "In a few years when the World War II babies have married and formed families there is bound to be a dramatic clash between these opposed forces. It could produce . . . an entirely new atmosphere of local responsibility, or a readjustment . . . in the power to control development, to tax and to spend."

Says Burnham Kelly, dean of Cornell's school of architecture: "There is no longer any defense for islands in metropolitan areas except by consent of the entire surrounding society."

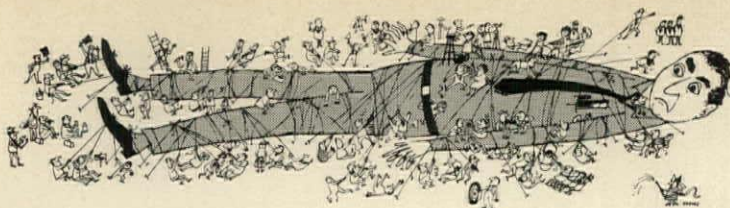
So the rumbles of change in the housing industry are echoed by rumbles, if not of change, of concern in the society it touches so pervasively. This gives broader meaning to the industry's struggle with the forces of localism, and suggests that powerful allies may be rallied. "The trend away from localism," says Burnham Kelly, "is inevitable and irreversible." Meanwhile, the problems remain knotty and far from solution. The worst are . . .

### THE ANATOMY OF LOCALISM

Localism—both the external forces and the internal pattern and problems they impose on the industry—has been vividly sketched by Burnham Kelly in his book, *The Design and Production of Houses*. Writes Kelly:

"The system of construction and mortgage finance, the basis of building regulation and inspection, and the organization of the design profession itself all show anachronistic allegiance to the notion that houses are and will continue to be assembled at the site by skilled craftsmen under the direction of contractors who have estimated what it will cost them to buy materials from local distributors and have them put into place according to drawings and specifications . . . Codes, zoning, and subdivision controls all tend to be one-sided, concentrating on community protection without noticing [that this may also produce] unnecessary and often unwise restrictions on sound and appropriate development ideas."





that Scholz finally had to junk the idea, though his system in-place would have saved one-third of the cost of materials and labor obtained locally.

"There is no sense whatever in letting local communities have varying rules on technical points for which requirements do not vary," says Burnham Kelly. Yet according to the White House science advisory committee, there are more than 5,000 local codes in force in the U.S. today—each one different from all the others in some significant way. Builders operating in all sections of Chicago must deal with 50 different codes; in Minneapolis, 30; and, as noted, in Cleveland, 50.

No other front-ranking nation permits such a riot of diverse local codes. England, France, West Germany, Italy, Russia—all have stepped in to provide national construction standards. Canada, with the help of our own FHA, has developed a national building code, maintained by its own National Research Council, which can be adopted (by reference—a major cost saver itself) by any community—and many Canadian cities have done so.

In the U.S., code responsibility is constitutionally reserved to the states—and in practice, delegated to local authorities. This is right and proper, because codes must be locally enforced, with proper recognition of local conditions. But this does not justify denying the nation the benefits of industrial efficiency in housing. Says Prefabricator James Pease: "Homebuilding is becoming a national industry and we need one set of realistic performance standards that all of us can agree upon and fight to get adopted in every community. The local code makers do not have the money or the leadership to determine what is right."

### Code chaos continues to exist partly because selfish and parochial interests fight reform

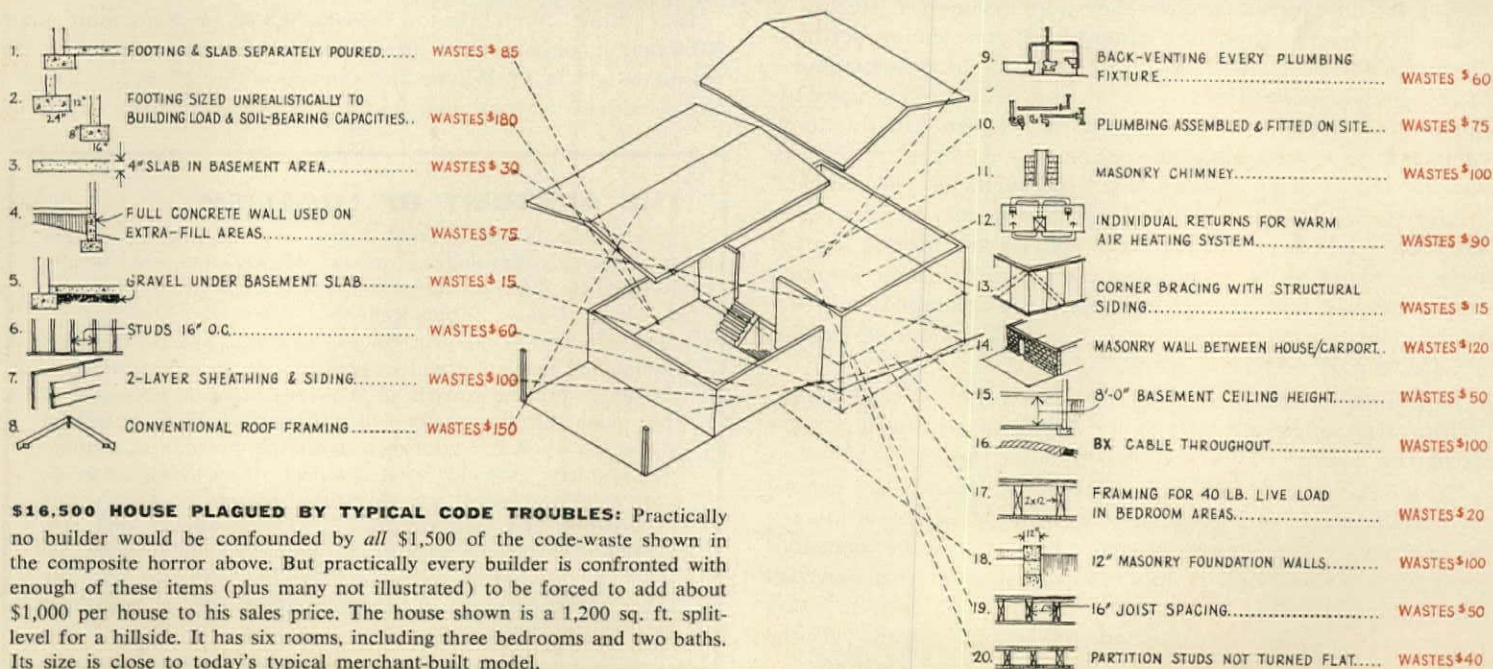
Sometimes the vested interests are visible only when aroused. In Chicago, drywall in new construction was permitted only after local plasterers withdrew their objections, conceding that insistence on wet plaster was reducing the amount of work for their trade.

Designers were turning to other materials. And when HHFA tried through its workable program to get certain Georgia and Alabama cities to ease up on what it thought was unreasonable insistence on cast iron soil pipe (to the exclusion of equally suitable pipe of other materials) it found itself in political hot water. Cast iron soil pipe manufacturers, concentrated in the Southeast, took the fight to Congress and HHFA had to back down. Scarcity of wood frame construction in brick making areas, or of masonry in lumber centers is partly a product of materials availability; often it is also a legally-entrenched favoritism. In Cleveland's unenviable code mess, builders say freely that special provisions are inserted in local codes by city and village council members who have friends with a vested interest—but no one is willing to be quoted for the good reason that he might never be able to do business in that town again.

With such pressures at work, local officials have little motivation to work for sensible codes. And no matter how good a code is when it is adopted, it is almost certain to suffer from the slender resources of local enforcement officials who are generally underpaid for their responsibility and who have little or no capacity to keep the code up to date. Says Housing Consultant Carl Boester: "The No. 1 ingredient of code waste is the operating official's interpretation of what the code says. Even a specification code calling for 2x4s 16" on center could permit a stress-skin panel if you turned the 2x4s sideways—but most local officials won't let you do it, even though there is nothing in the code that says how the 2x4s must be positioned, and the panel could be lighter, stronger, and thinner. Most of the code troubles come in cities of 50,000 population or less. The whole government is often made up of milk drivers, bread clerks, and insurance salesmen running the city on a part-time or weekend basis."

It has been left largely to building officials themselves, through their trade associations, to take the lead in writing better codes. They have produced four major national model codes: the *Uniform Building Code*, sponsored by the International Con-

## How code-enforced waste can make a \$1,500 difference



**\$16,500 HOUSE PLAGUED BY TYPICAL CODE TROUBLES:** Practically no builder would be confounded by *all* \$1,500 of the code-waste shown in the composite horror above. But practically every builder is confronted with enough of these items (plus many not illustrated) to be forced to add about \$1,000 per house to his sales price. The house shown is a 1,200 sq. ft. split-level for a hillside. It has six rooms, including three bedrooms and two baths. Its size is close to today's typical merchant-built model.



ference of Building Officials; the *Basic Code*, sponsored by the Building Officials Conference of America; the *Southern Standard Building Code* of the Southern Standard Building Code Congress; and the National Board of Fire Underwriters' code, which concentrates on the fire protective aspects of construction. They also played a part in establishing the *National Plumbing Code* and the *National Electrical Code*. All are well drawn, modern, and flexible.

### The model codes do not solve, and their existence may confuse the solution of, the code mess

The reason: They give an illusion of uniformity where little exists. This is because local communities which adopt them may do so in whole, in part, and change them at whim "to suit local conditions"—and most do. Says NAHB's Ward Buzzell: The model codes on which cities base their codes are developed by top authorities and are right up-to-date. But over 30% of the changes made "to suit local conditions" come from codes prepared on the local level some 20 years ago."

Moreover, the proprietary regional code groups do not have enough money to keep the codes up to date with new standards and better products. The biggest sponsoring group, in one recent count, had just over \$300,000 a year gross income, much of it from sales of advertising and fees (e.g., \$150 to consider a product, \$100 a year to extend the approval). Another had only \$77,000 a year to spend, and a third only \$50,000. So only one of them is even theoretically able to match New York State's \$275,000-a-year expenditure for keeping its model code—the best and clearest in the nation—up to date and servicing 421 subscribers. The result: Speed and thoroughness with which new products and standards are acted upon varies. Worse yet, language about identical matters varies from one code to another and opens the door to different interpretation even where the intent is the same. Finally, most model code groups act on proposed changes by majority vote of committee or even full convention—a technique that gives opinion, not knowledge, full play, and often

results in voting down their own engineers' advice (as when ICBO for the second time rejected NAHB's proposal to eliminate bridging between floor joists).

Yet the illusion provides a dense and friendly smoke screen for the vested interests who profit by the code muddle to block any serious efforts at code reform. And the illusion continues to bewitch such sober societies as the U.S. Chamber of Commerce, which last spring endorsed a finding of its own advisory committee—dominated by trade association executives—that the best solution to the code mess is for local businessmen and civic groups to press for wider adoption of the four proprietary codes (News, April). The same group has just staged another Chamber of Commerce meeting in Washington (see News) calculated to pour more cold water on the proposal advanced by Asst. Commerce Secretary J. Herbert Hollomon that Congress give him \$7.4 million for technical research in construction textiles, and food processing. A parade of 13 industry men—mostly producers—made it clear some industry quarters, at least, want no more government intrusion on building techniques and methods. Their central fear is if government gets into technical research, it will lead to federal decisions favoring one product over another.

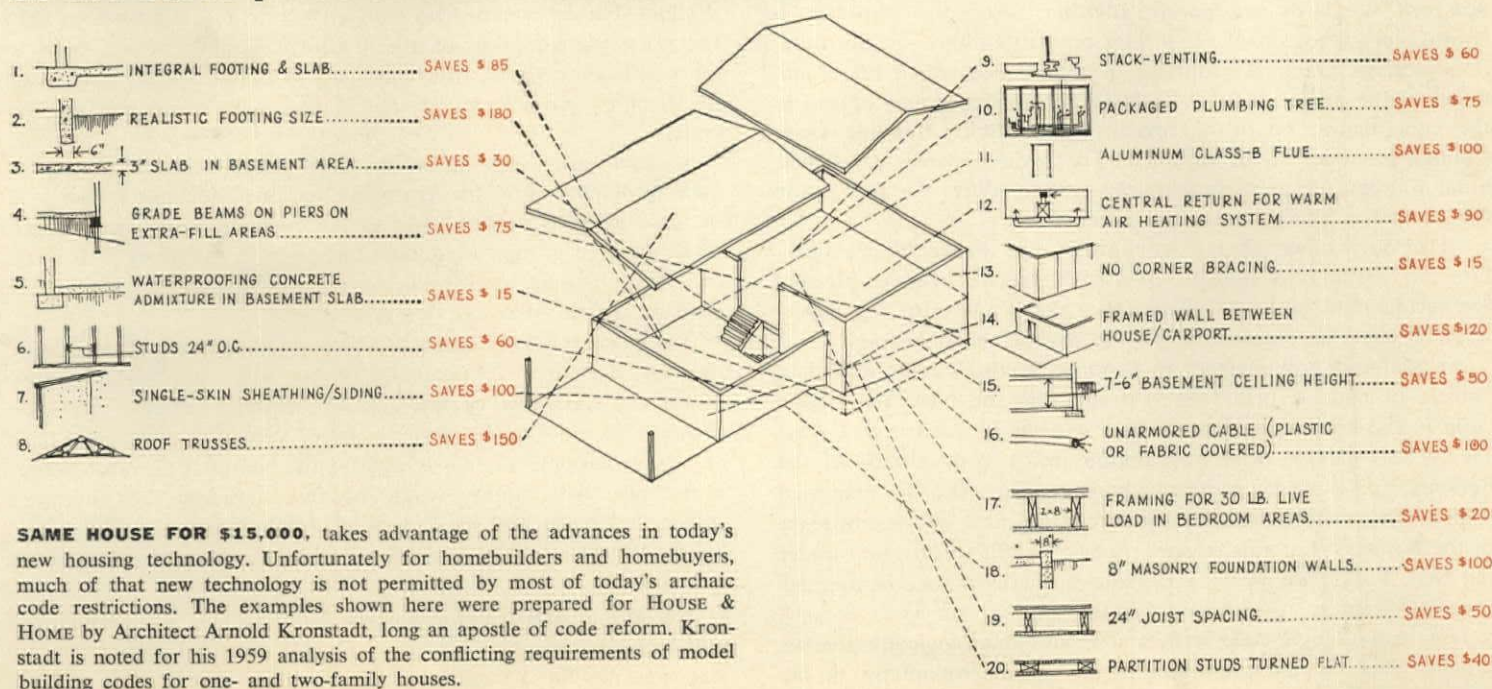
The Chamber's tubthumping was chiefly a flight from the spectre of a single federal building code to govern construction.

### Is a federal building code the answer to the building code muddle?

Speaking technically, it might be. Many other nations have chosen a national code in preference to the costs and wastes of code chaos. Yet the idea of a powerful federal body intruding into an area heretofore reserved to the states disturbs many of those most concerned with solving the muddle. Fortunately, a federal building code is not the only available alternative, though this is the bogeyman that has been conjured up for years by the leaders of the proprietary codes. Instead, most proponents of national code reform advocate national performance standards,

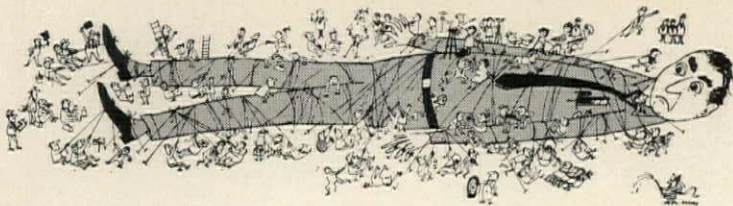
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## in the sales price of two identical houses



**SAME HOUSE FOR \$15,000.** takes advantage of the advances in today's new housing technology. Unfortunately for homebuilders and homebuyers, much of that new technology is not permitted by most of today's archaic code restrictions. The examples shown here were prepared for *HOUSE & HOME* by Architect Arnold Kronstadt, long an apostle of code reform. Kronstadt is noted for his 1959 analysis of the conflicting requirements of model building codes for one- and two-family houses.





available for local adoption without change but on a voluntary basis, with enforcement and administration on the local level. They are willing to bet that local officials, offered the convenience and guidance of an up-to-date national standard will use it in preference to the unwieldy and outmoded codes they now must use.

How would such a standard work? A good example, overlooked or ignored by perpetrators of the code muddle, exists in the New York State Building Construction Code, a performance code which uses nationally recognized standards established by industry groups or independent testing organizations. Established in 1950, it now serves 421 communities with a total population of more than 5 million (65% of communities in the state that are "codeable"—that is, big enough to benefit by a code. It is generally recognized as the clearest and most comprehensive on the books anywhere. It consists of four sections: residential one- and two-family, multiple dwelling, general construction, and plumbing. These are contained in four pocket-sized booklets, none over 200 pages long. They are accompanied by an advisory manual which illustrates and explains commonly used materials and methods which meet the code's performance standards in such clear terms that any layman can understand them.

Under the state law setting it up, adoption of the code is voluntary. Administration and enforcement are local responsibilities. Towns establish their own permit fees, hire inspectors, and even share their services with other towns using the code.

The code is kept up to date by a building code bureau in the state Division of Housing & Community Renewal. The bureau provides these services—all free—to communities using the code:

- Bulletins advising them of the latest generally accepted standards applying to the code, which are also compiled at least every six months in a booklet.
- Bulletins reporting what products have been reviewed and certified as acceptable by the code council.
- Aid in code interpretation, and in reviewing building plans that are too complicated or bulky for local officials to handle (e.g., a big industrial plant proposed for a residential village).
- Seminars and clinics for local officials, architects, builders, and others on the code, how it works, and how to use it.

Under the code, the local inspector is the judge of whether a given material or technique satisfies the code. The manual and accepted standards are purely advisory. And the inspector is entitled to ask for proof. If it does not satisfy him—or the situation presents practical problems in compliance which he cannot resolve—the owner, builder, architect, or producer may appeal to the construction board of review of the State Building Code Council for a review or variance. The review board's decision is binding unless *either* party takes the case to court. An application fee of \$10 is charged for this service.

"The only other charge we have," says Frederick Pavlicek, director of the code bureau, "is a \$100 fee to review a product for certification under the code. That doesn't pay for the paperwork. It costs as much as \$5,000 to review an application. . . ."

An architect and engineer by training, Pavlicek is an articulate apostle of code reform who is proud that the New York State code is the best in the nation—and expects to keep it that way. He is also gaining wide recognition inside code circles as the nation's No. 1 expert at code administration. And his nine-man staff of engineers is widely considered the most competent team in the business. For this reason, producers find certification under the New York code means acceptance in many more communities than subscribe to it—even outside the state.

How can a single code serve a state so climatologically diverse, ranging from Alpine conditions in the upstate mountains to the

hurricane-swept Long Island shore? Easily. "The only variation we have," says Pavlicek, "is the snow load requirements." They are handled—as they have been for a decade—by a primer-simple device of a map which establishes zones keyed to the winter snow load. Wind loads are predicated on a hurricane force of 75 mph. (Yet some self-anointed code experts still prattle about the difficulties imposed by diverse climate and other "local conditions.")

What about local rights? "This is a home-rule code," says Pavlicek. "No community has to adopt it. Any that does may disassociate itself from it after one year by holding a public hearing and so acting. Not one community in the 12 years the code has been in effect has seen fit to do so."

### **New York State's standards are so good that the U.S. could take them over as a starter**

The cost of keeping them up to date should be not more than \$1 million a year. And this would, as HOUSE & HOME said in November 1962, "be the one best way to save homebuyers \$1 billion a year." And it would be a good start toward a true set of pure standards that would accept a wall of cornflakes if it passed the physical tests in a laboratory. Whatever device is used, it is clear that it must be genuinely immune to local deviation, and at least as well serviced as the New York State code.

Such a standard could allow for all the significant "local conditions" in much the same way as the New York code allows for snow loads. It could meet all the phony arguments advanced by the profiteers of code chaos in whatever guise of sweet reasonableness. And it would make immensely easier the builders' search for a way out of the code mess. Builders *have* achieved the adoption of model codes in areas like St. Louis County, Grand Rapids (where it used to cost \$500 more to build a house on the south side of town than on the north side), and in Allegheny County, around Pittsburgh, where a three-year effort by builders has earned adoption of the BOCA code by 30 of the area's 129 communities.

More significantly, the Pittsburgh battle has been taken up by the newly formed Building Officials Conference of the Upper Ohio Valley, which will seek reform not only in Allegheny County but beyond in a tri-state area including Ohio, Maryland, and West Virginia. Similar reports of local gains come from Milwaukee, Los Angeles, Chicago, Omaha, and Denver. Yet in Wichita, builders teamed up with architects and engineers to fight for statewide adoption of the Uniform Building Code only to meet stiff competition, from other model codes and an association of 19 cities and villages around Kansas City promoting another code.

So such gains can never be much more than palliatives for local problems. For the emerging national housing industry, a national effort is needed. And as the code problems loom larger, more national groups are adding their weight to HOUSE & HOME's call for a national performance standard written and kept up to date by federal officials. Two of the latest:

- The National Association of County Officials, whose executive director, Bernard F. Hillenbrand, says: "HHFA might also require that these standards be met for all federal mortgage insurance actions. Would this be undemocratic? No! Not any more than any other national standards such as the National Elevator Standards Code. Any county would be free to adopt the minimum standards or not and local costs of participation would be negligible. Will it work? It works just fine for our Canadian neighbors to the north."

- The Home Manufacturers Assn. has received a recommendation from its research, development and technical committee to start pushing for a single federal performance standard.



## Labor: a not-so-silent partner of the status quo

Most builders and laymen tend to think of housing's labor problems in terms of makework and featherbedding that increase costs and cut efficiency. And with good reason. In union areas, wasteful practices enforced by union fiat can add, by some estimates, a whopping 10% in needless cost to the house.

Less obvious, but more damaging in the long run to housing's prospects of industrialization (and thus to private enterprise's chance of resisting more and more government intervention in the housing market) is how they also resist change. One way is to oppose code reforms that threaten their old-line methods, and thereby to add to code chaos generally. But even where codes permit innovation, unions may exercise an effective veto. They have been known to go so far as to insist on disassembling and then reassembling partitions in manufactured houses, or taking the glass out of factory-glazed windows and replacing it on the job.

The latest nationwide documentation of such practices comes from an NAHB survey (NEWS, Aug.) that showed 15% of builders say they generally face labor abuses in one form or another, with as many as 28% reporting them from areas where organized labor is strong. "The replies," concludes NAHB Labor Director John J. Riley, ". . . support our position that changes should be made in federal laws to equalize bargaining strength. . . ."

The survey also hints at why so many of the really big issues raised by labor's localistic interference in housing's progress have yet to be faced: Only 86 builders replied out of 778 who received NAHB queries—or about 11%, which suggests that a great many either aren't bothered or don't care.

### An ostrich stance on housing's basic labor problems can only prolong them

Builders have undoubtedly been smart to resist organization when and however they can, for labor has such unique privileges under law that in housing it almost always acquires—at once—dominance of collective bargaining. And because homebuilding remains about half open shop, organized builders have shied away from almost any dealings with national labor leaders. Now, in many cities where housing was not unionized until after World War II, builders find themselves shut out of bargaining by older general contracting groups. When this happens, builders often are faced with settlements on a take-it-or-strike basis. This means that some issues (e.g., carpenters' wages) which are vital to the profit margin in homebuilding, but of small consequence to general contractors, may be beyond builder influence. And work-rule innovations vital to housing's industrial evolution may be totally ignored.

All this is symptomatic of what thoughtful students of housing's labor problems like Harvard Economist (and top construction labor mediator) John Dunlop believe is the really basic one: "The homebuilding industry is, in many important respects, a part of the larger construction industry," and thereby enmeshed in two patterns of localistic interference characteristic of it:

**1.** *A localistic pattern of bargaining which is principally directed at protecting job opportunities and advantages of local union members, which is propped up by local contractors who find in it a means of protecting their own local interests. They may, for example, rig agreements to work against migratory contractors (who are generally bigger) by consenting to higher wage rates on jobs bigger than local contractors can handle—and perhaps in return get a break on rates or rules on smaller jobs. National unions developed primarily as referees to protect the out-of-town workman's interests in an industry where duration, place, and type of construction, and hence of labor needs,*

are highly variable. Yet national unions recognize that, by tradition, and principle, bargaining is handled by locals. So they remain mute on local efforts brought to bear against abuses.

**2.** *A localistic pattern of labor organization along craft lines dictated by the need for a saleable specialty applicable to a broad range of construction jobs. This, too, springs from the fact that construction jobs are constantly changing in time, place, and employer. The trouble is that craft building unions, by their very existence foster 1) resistance to change and 2) jurisdictional disputes that are especially hard on housing and inimical to its industrialization. Jurisdictional squabbles may be between crafts, or between locals of the same craft. One example: In Cincinnati, the Ohio Valley District Carpenters Council struck the Park Town urban renewal development to keep out trusses manufactured by Columbus Prefabber Austin Guirlinger's Cardinal Industries. Reason: Cardinal's trusses were made by another local. NLRB got a federal court injunction (and later found the local guilty of illegal hot cargo treatment of the trusses). But this delayed justice came after the development was completed. Two years later, the same local struck another development for the same reason, against the same firm (and last summer thereby evoked a broad cease-desist order by NLRB protecting all prefabricated parts).*

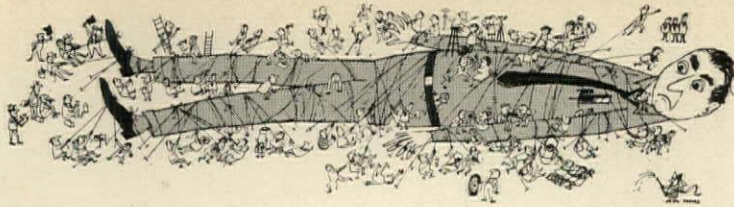
Both patterns are major obstacles to housing's industrialization. Yet housing needs to be much more industrialized before it can successfully argue for—or demand—sweeping reforms that it needs but the rest of construction does not. Meanwhile, the problems are likely to get worse—as more builders get bigger and more mobile, hence vulnerable to the protective teamwork of localistic employer-labor arrangements. There may be at least one way to crack this chicken-egg dilemma: *continued*

### MAD ENOUGH TO DO SOMETHING?

If you are, here are a few ways that builders can do more than gripe about the burdens of localism. Some builders are already trying them:

- Test the codes. Builder Robert Schmitt is leading one group of Ohio builders in a test of the ultra-restrictive code adopted by the Cleveland suburb of Parma—by building a house in deliberate violation of it, to see if he can get a building permit. If he can't, a court test may follow.
- Rally local influence in the building industry—Realtors, lenders, builders, architects—to get knowledgeable men appointed as building inspectors, zoning and code administrators.
- In company with other builders, promote code reform and take a hand in writing the code if need be. In the Milwaukee area, the local HBA has just succeeded in getting a nine-man commission appointed to choose a code for all 11 suburbs—and two are builders. In New York, builders promote the model state code.
- Promote sympathetic and knowledgeable candidates for your local appeals board.
- Get on local boards—zoning and planning in particular—that are open to lay citizens, by election or appointment.
- Give financial support to bodies genuinely promoting better technology, not just giving lip service to it—and encourage others to do the same.
- Develop local studies of zoning and tax facts, and use this ammunition in the press and before local boards to attack bad decisions, applaud good ones.





### Local builders in strong union areas should fight if need be for a seat at the bargaining table

For some years, a few thoughtful, if radical, housing analysts have contended that what builders ought to do is to sign up with union carpenters to perform all the work in housing. Harvard's Dunlop disagrees. Efforts to establish a single union for housing as long as it is part of the general construction industry, and as long as builders are unable to offer full-time, year-round employment to their workers, "have all the chance of a snowball in hades," he says. Further, homebuilders' practice of subcontracting so much of the house in so many little pieces tends to perpetuate the power of subcontractors who bolster the status quo.

What builders might do is to struggle for fewer unions on their jobs—on the ground that some specialties (e.g. sheet metal) are so little needed that another craft could do their work just as well (and more cheaply) without much loss of total employment.

"The craft structure transferred from the commercial building field where it grew up is not a very rational system for homebuilding," says Dunlop. "But as a matter of fact, you find that where builders are strong at the bargaining table, there is often a tacit rearrangement of the jurisdictional structure—or at least some relaxation of how strictly it is applied."

Builders should bargain in concert with other contractors, and with their own subcontractors. This applies especially to carpentry subcontractors, who are usually small entrepreneurs too weak and too ill organized to bargain effectively on their own, yet pass on their labor costs to the builder. Says Dunlop: "Separate negotiations, with the hope of securing advantageous contract terms, or the policy of abjectly following settlements developed by other general contractors, do not seem to lead to satisfactory results."

More important in the long run, Dunlop contends, is for national leaders of the housing industry to start talking to national construction labor leaders. This might begin as an exchange of views on an informal basis and perhaps move on to reviewing local situations. "It would be unrealistic to hope for strong

action by national labor leaders in local situations," says Dunlop. "But a great deal can be accomplished by persuasion and factual reports by responsible national officers." Dunlop contends that national labor leaders recognize that "in a competitive industry, high-cost practices may cut employment and union membership, surrender work opportunities to substitute materials or methods falling under the jurisdictions of other unions, create serious non-union competition and otherwise impair the position of the national union. Many demonstrations of the long-term negative effects of restrictive local practices come readily to the minds of national officers with a lifetime of experience. In housing as in other fields, the leadership takes the view that you cannot long stand in the way of machines, technological change, or progress."

### There are some signs that local labor's narrow view may be broadening

One came as long ago as 1958 when AFL-CIO Building Trades Dept. adopted its now famous ten commandments against featherbedding (H&H News, Mar. '58). Despite predictions they were just a publicity gimmick, they sparked antifeatherbed agreements by unions in a number of cities. Another sign came when general public reaction against the 25-hour week exacted by electricians in New York City in 1962 caused labor leaders to reverse—or at least slow down—their push for shorter hours. Purred C. J. Haggerty, head of the AFL-CIO Building & Construction Trades Dept: "The possible impact of the five-hour day has been greatly exaggerated. Our people don't follow patterns."

Among the other bits and pieces—bricklayers' approval of devices to help their members lay bricks faster on new-home construction, masons lifting a ban on fresnoes, plasterers letting dry-wall in—the most significant breakthrough is a special labor pact in force in Pittsburgh's experimental East Hills development. An attempt under Action-Housing Inc. sponsorship to get about 1,400 middle-income homes built at \$14,000 apiece in the city vs. \$18,000 under normal conditions, the development undertaken

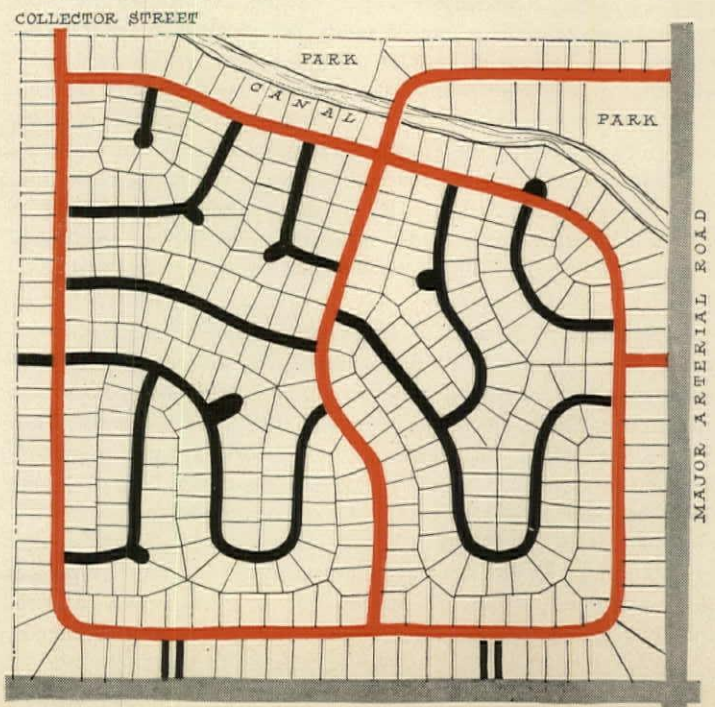
## How bad zoning and land planning can make a costly shambles out of

### Wrong way: \$225,000 for streets and sidewalks

1. Streets and Paving:			\$132,581
Collector	50,155.6 sq. yds.	\$ 80,249	
Residential	36,666.7 sq. yds.	49,067	
Plus Street Excavation & Grading	16,325 cu. yds.	\$ 3,265	
2. Sidewalks, Curbs, Gutters (46,400 lin. ft.)			\$ 92,800
3. Lot Grading (368 lots at \$100 per lot)			\$ 36,800
4. Sewers			\$ 75,550
Sewers	20,500 lin. ft.	\$ 51,250	
Manholes	81 at \$300 ea.	24,300	
5. Water			\$ 90,545
8"	10,200 lin. ft.	\$ 41,820	
6"	12,700 lin. ft.	41,275	
Hydrants	10	3,250	
Culvert	60 lin. ft.	4,200	
6. Engineering and Planning			\$ 62,560
<b>TOTAL COST</b>			<b>\$490,836</b>
(Total cost/lot)			\$ 1,334

Figures based on current (1963) per unit costs in the Denver Metropolitan Area.

**160 ACRES PLAGUED BY BIG LOT ZONING** (12,500 sq. ft.) become a traditional curvilinear hodge-podge of 368 units, nearly half of which front on heavily travelled collector streets (red). Too many of these also back up on main arteries at south and east. Other shortcomings: difficult access to houses within the perimeter of basic collector streets; limited park areas (only 4.4 acres, in just two spots); no provision made for a school unless it is poorly located in the park area at the northeast.





by Builder Roland Catarinella received financing, planning, and zoning breaks as well. But the biggest news was the labor break: The 29 craft unions in the Building & Construction Trades Council agreed to drop all bars to installing such pre-assembled items as wall units, kitchens, plumbing trees and tiled baths, sheet metal and electrical units. Power nailers are being used. Jurisdictional disputes do not halt work, but go through AFL-CIO procedures with the contractor awarding the work meanwhile. And if weekday work is rained out, union men work Saturday at regular pay.

The pact was admittedly a bid by Pittsburgh Labor Leader Anthony J. Furlan, head of the trades council, to get unions back into residential building which has been almost totally nonunion around Pittsburgh. "Somebody had to come up with something, somewhere," says Furlan. "There's no question about it—the assembly of some things like windows can be done cheaper at the factory. The man in the factory has a table and the equipment to do one thing over and over. At the site the man has neither table nor special tools, so it takes longer. And he's get-

ting higher wages. He [Catarinella] can experiment with any kind of new tool or preassembled unit he wants." Says Catarinella, after building 100 homes under the pact: "It has worked out fine. I figure we get about 5% more productivity from labor because of our freedom to run the job the way we want to." And two more builders have just signed up with organized labor on the same basis as East Hills!

It would be naive to say that the millenium in labor cooperation is just around the corner. The news is filled with fights like the 1962 battle over work quotas between NAHB and Shingler's Local 478 in California, which is still pending before NLRB. Or the more recent scandal in St. Louis over arrangements that set the number of steamfitters to work on a job according to the diameter of a pipe, not its length or weight. But the important thing is to tackle the problem, not shun it.

*Localism in codes and labor threaten, but looming still more ominously is localism's double threat to better communities as well as better houses. . . .*

## Zoning and planning: double-edged weapons in ignorant hands

"Madison Township, claiming self-defense, is about to introduce a new zoning ordinance that will make it virtually impossible for a new housing development to be built there." So began an item in the Newark, N. J. *Star-Ledger* one recent Sunday. Said Mayor John Keating: "It will be practically impossible to meet the requirements." Why? Between 1950 and 1960 the township population tripled, from 7,365 to 22,772 and grew almost another 7,000 in the three years following. "When we assumed office [in 1960] preliminary approval had been given for 3,000 one-family homes and 12 garden apartments. We denied final approval and were upheld in court in 1961. It was a precedent-setting case." Since then, until last year, the township gave no approvals to developers' proposals. "But three came in at once and we finally had to give them approval because they lived up

to ordinances and statutes. About 450 homes are involved. We dragged it out as long as we could—by finding little things wrong with their maps, checking on water and sewage facilities which the present ordinance requires they supply. Another thing that delayed them was an increase in the road specs—it more than quadrupled the cost of roadbuilding. There are," the mayor concluded, "a lot of disadvantages to letting developers come into a township indiscriminately. For example, in three years, we had to increase police from 15 men to 31."

This picture of embattled local officialdom well pleased with its reactionary misuse of local land and building controls to resist growth is familiar to most builders who operate on the urban fringe. And it underlines the fact that. . . .

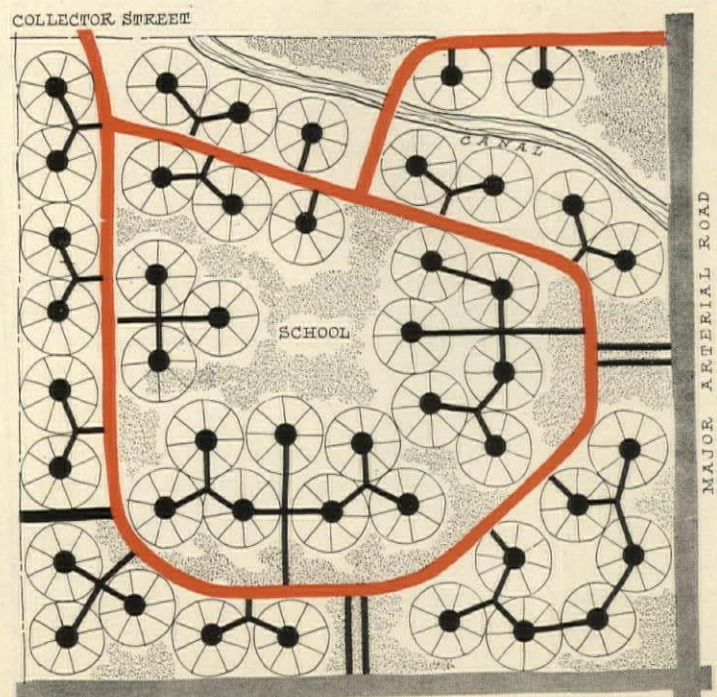
*continued on p. 195*

## a parcel which could be designed cheaper with amenities

### Better way: \$177,000 for streets and sidewalks

1. Streets and Paving			\$107,603
Collector	45,100 sq. yds.	\$ 72,160	
Residential	20,800 sq. yds.	33,280	
Plus Street Excavation & Grading			
	10,817 cu. yds.	\$ 2,163	
2. Sidewalks, Curbs, Gutters (35,400 lin. ft.)			\$ 70,800
3. Lot Grading (366 lots at \$100 per lot)			\$ 36,600
4. Sewers			\$ 72,500
Sewers	18,200 lin. ft.	\$ 45,500	
Manholes	90 at \$300 ea.	27,000	
5. Water			\$ 96,026
8"	9,330 lin. ft.	\$ 38,253	
6"	13,350 lin. ft.	43,388	
4"	3,300 lin. ft.	7,260	
Hydrants	9	2,925	
Culvert	60 lin. ft.	4,200	
6. Engineering and Planning			\$ 62,220
7. Planting			\$ 23,298
Trees	300 at \$3.90 each	\$ 1,170	
Turf	553,212 sq. ft. at 4¢/sq. ft.	\$ 22,128	
<b>TOTAL COST</b>			<b>\$469,047</b>
			(Total cost/lot . . . . . \$ 1,282)

**SAME 160 ACRES ZONED FOR 7,500 SQ. FT.** per lot take advantage of cul-de-sac planning. Result: 366 units reasonably separated from busy collector streets and main arteries: 25.5 acres of park area, including space for a centrally located school. Cost: \$21,789 less than the plan at the left, despite & Henninger Associates, technical advisors for "Innovations vs. Traditions in Community Development," a new study sponsored by ULI and NAHB.







**FURNISHINGS**—everything seen here except paintings—come with All-State's Leisurama homes, which are *not* sold unfurnished. Fireplace is \$650 extra.

H&H Staff

### Breakthrough in marketing?

## Fully furnished FHA models for second homes

Is there a market for new homes sold with all the furniture their buyers should need—right down to toothbrushes? Builder-Developer Herbert Sadkin, president of publicly held All-State Properties, has just set out to prove that there is, with these startling results:

**1.** In five weeks after beginning a sales campaign, All-State reports sales contracts totaling \$1.5 million for 80 houses, plus binders on another 290 which would produce another \$4.3 million of sales if converted to contracts.

**2.** Even though the houses are at Montauk—the wind-swept outer tip of Long Island, three hours from mid-Manhattan, celebrated once for prohibition bootlegging and now as a fishing and boating resort—FHA is insuring the mortgages for 30 years under its regular Sec. 203.

**3.** Even though the development is priced to attract moderate-income families, the average income of the first customers is over \$20,000 a year, reports Sadkin.

Leisurama models begin at \$12,990 (\$490 down, \$73 a month) for a 730 sq. ft. one-bath model whose only bedroom is a den off the living room with a pull-down bed in one wall. Best seller (pictured above) is an expanded version of the same house for

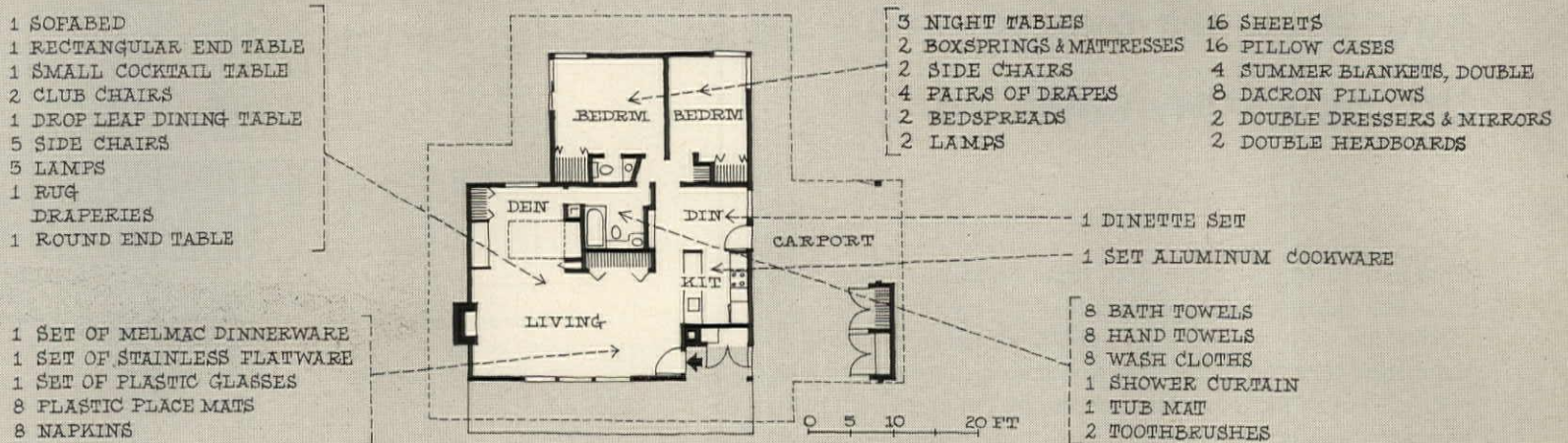
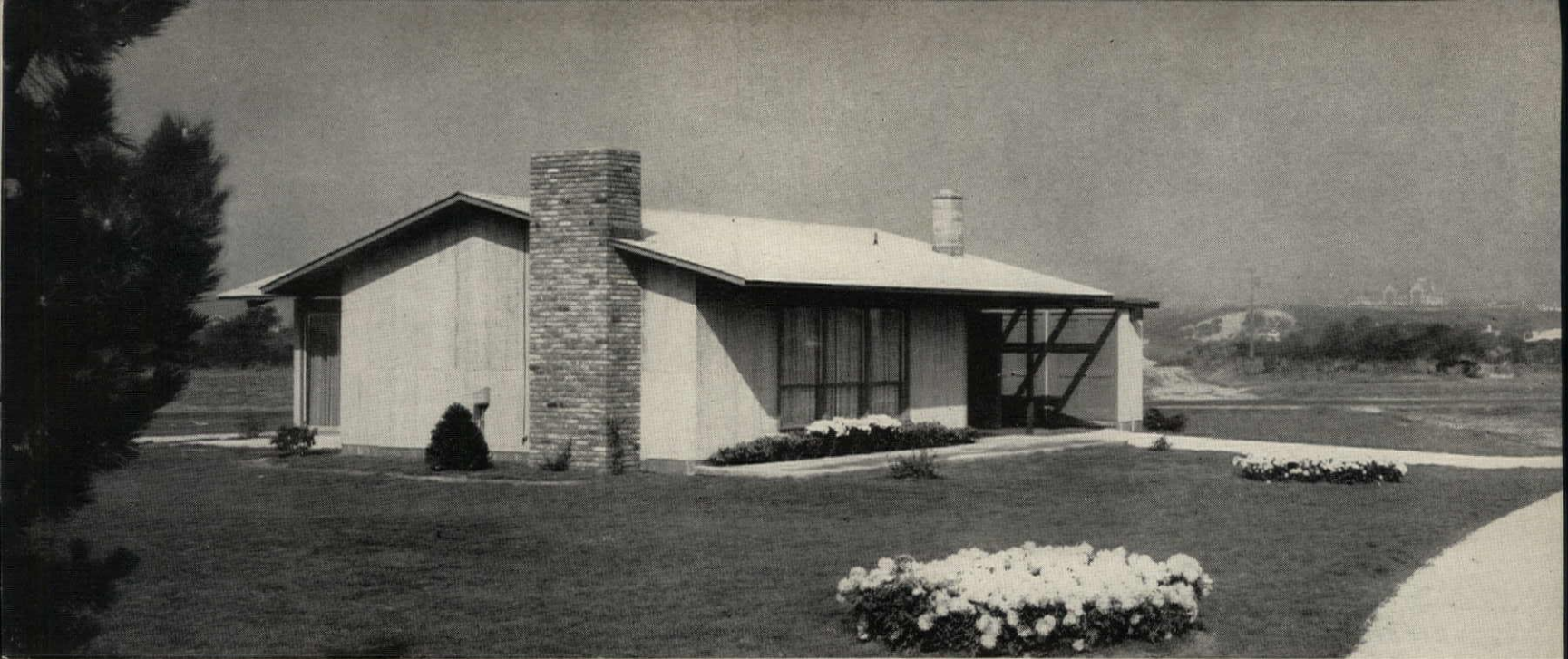
\$15,990 (\$890 down, \$84 a month) with a two-bedroom wing added. Also available: a two-bedroom, two-bath model of 1,047 sq. ft. for \$16,990 (\$1,090 down, \$94 a month).

All these prices include not only a full line of built-in appliances (electric stove, refrigerator, dishwasher, clothes washer-dryer) but also a complete package of furniture and furnishings (see diagram) from Macy's department store. Sadkin won't say what the furniture costs him but he does say that All-State is financing it with corporate funds and—believe it or not—amortizing it over the same 30-year term as the FHA mortgage!

Sadkin doesn't contend the furniture will last as long as the 30-year loan he is setting up on it but a 30-year payoff makes the furniture add only about \$4 to the mortgage payment (down payments also cover part of the furniture package). Sadkin figures "anybody financially strong enough to pass an FHA credit check can afford \$3 to \$5 a month for furniture."

Montauk being where it is, almost all of All-State's buyers are acquiring a second residence (the other dwelling for most of them is a New York apartment). And Sadkin correctly notes that by including the furniture in the house package he has forestalled one of the commonest causes for mortgage default: the high cost of furniture financed via costly consumer loans. "Our way of doing it makes a stronger mortgagor," argues Sadkin.





**PACKAGE**, depicted above, for the \$15,990 two-bedroom house spares buyers the chore of buying furniture and equipment—even bedding.

As Sadkin sees it, "this is one of the great breakthroughs in marketing and merchandising." He may be right. The idea has been tried before, notably about a year and a half ago in Chicago. It didn't catch on, probably because builders were dealing with year-round homes, not leisure homes. So too many potential customers already owned a houseful of furniture. One builder gave it up after three weeks. "The furniture package drew too many deadbeats whose credit didn't check out," he confided.

But a furnished house in the second-house market—so public response indicates—may turn out to be quite a different matter.



**MERCHANDISING** is focused on model in Macy's New York furniture department. As a crowd puller, Macy's calls it the "best thing since Santa Claus."

Sadkin is so happy with results he says he plans to give the idea a try at his 4,000-acre Lauderhill, Fla. satellite city (at prices ranging from \$13,000 to \$22,000 for house and lot).

Ideas come easily to ebullient Herb Sadkin. Most celebrated is the house All-State built at the Moscow Trade Fair in 1958—the one in which Khrushchev and Nixon had their kitchen debate.

If Leisurama clicks, it may also point to a good way developers can promote leisure lots. Since 1959, when All-State bought a 74% interest in the Montauk Beach Co. and its 3,000 acres, Sadkin had managed to sell only about \$1 million worth of lots, he says. Leisurama has doubled that in a month. And buyers are paying \$3,000 for a 75' x 100' lot on acreage that All-State bought into for an estimated \$1,500 per acre.

The houses themselves, designed by Raymond Loewy/William Snaith Inc., the industrial design giants, have pleasantly open plans and low-maintenance finishes (e.g., redwood plywood exterior and pre-finished mahogany plywood interior). An open-beam ceiling makes the cosy living room seem larger.

How do the critics like the furnishings? The New York *Herald-Tribune* (which dubbed Leisurama a "canned beach house") calls them "basic, sturdy, and well thought out" with "room for personalizing." It adds: "Anyone who has built a vacation house, furnished it, and recorded costs can testify that expenditures invariably exceed expectations. The Macy experiment consolidates costs."

For the hesitant, Sadkin has a rental plan, too. But sales so far are so good he says he may put it on the back burner.

Ellen Schaffer



## Today's top townhouses: how they are overcoming the ugly row-house image

Townhouse and row house both mean attached for-sale housing—but with a world of difference.

Unfortunately, some builders still think the difference is in name only. But the fact is that row housing has a bad image. It calls to mind the long drab lines of city buildings built many years ago with no green space around them, dull exteriors, and cramped interiors. And simply calling a row house a townhouse won't destroy this image.

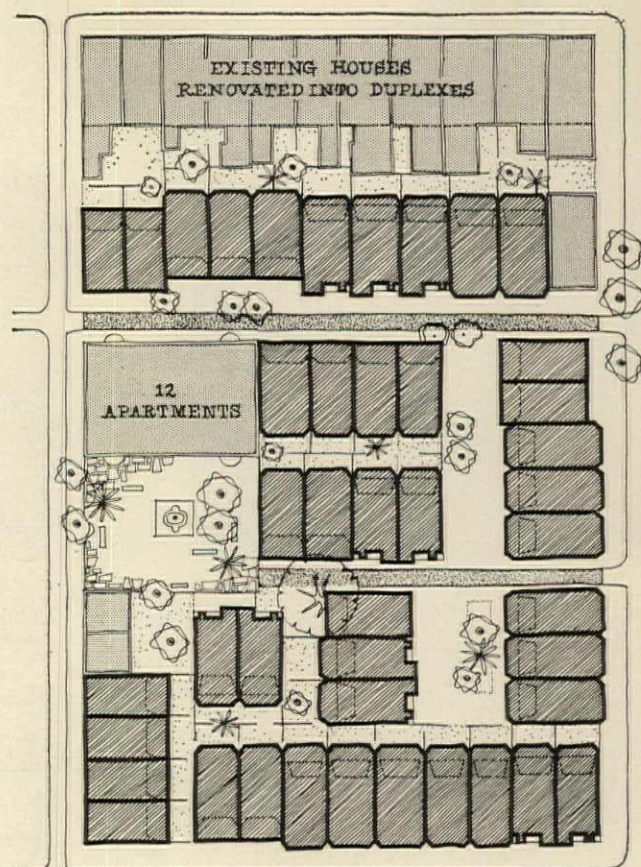
What will destroy yesterday's row-house image is exciting design and imaginative land planning. And nothing but the very best will suffice. Second-best won't overcome the inherited handicap. In no other type of housing is top design and top land use so imperative.

Some builders, architects, lenders, and others have already learned this to their profit. But to win over buyers—and to persuade public officials to rezone for attached housing—many more building teams must offer individuality in design of attached units, distinctive styling of separate buildings, and ample recreation and green spaces within their projects.

Moreover, top design and top land use are needed to convince buyers that townhouse living can be as fulfilling as life in single-family houses.

On the following pages you will see three new townhouse projects that meet the test of excellence—and that demonstrate new ideas to meet a variety of local market conditions at a wide range of prices.

And on pages 118 to 120 a fourth townhouse project makes another important point—namely, that efficient construction methods can spur the increasing demand for these houses. Townhouse design already has built-in savings from lower per-unit land costs and party walls. This advantage can be boosted by progressive building techniques.



**DOWNTOWN SITE** is 188'x287', will include 57 new townhouses in groups of two to eleven. An old loft building and a few historic row houses will be rebuilt to rent as apartments.

### On a high-priced downtown site, striking townhouses replace a row-house slum

These townhouses are notable for 1) their neoclassic design by Architect Frank Weise, who has also achieved startling diversity of exteriors and floor plans, and for 2) the privately financed urban renewal effort by Builder Louis Glanzberg of Robert Russell Homes.

Glanzberg and Realtor Harold Rosen spent two years assembling the 1¼-acre Camac Village site in a Philadelphia renewal area. Glanzberg paid \$400,000 for the land and a collection of old row houses and other rundown buildings. Half a dozen historic buildings are being preserved by gutting them and renovating them as duplex apartments. But others are being torn down to make way for 57 townhouses priced from \$27,700 to \$29,900.

Open space—at a premium because of the high land cost—is artfully used. Terraces behind the townhouses are set at different levels for privacy (*see photo*). And cobblestoned alleys have been turned into landscaped malls and planted with evergreens and flowering trees. Massive iron gates set off the street entrances of each mall. When 85% of units are sold, an owners' group will take title to common grounds and maintain them.

Glanzberg has made 14 sales since opening Camac Village a month ago, and he has already started assembling another block of land nearby for more townhouses.

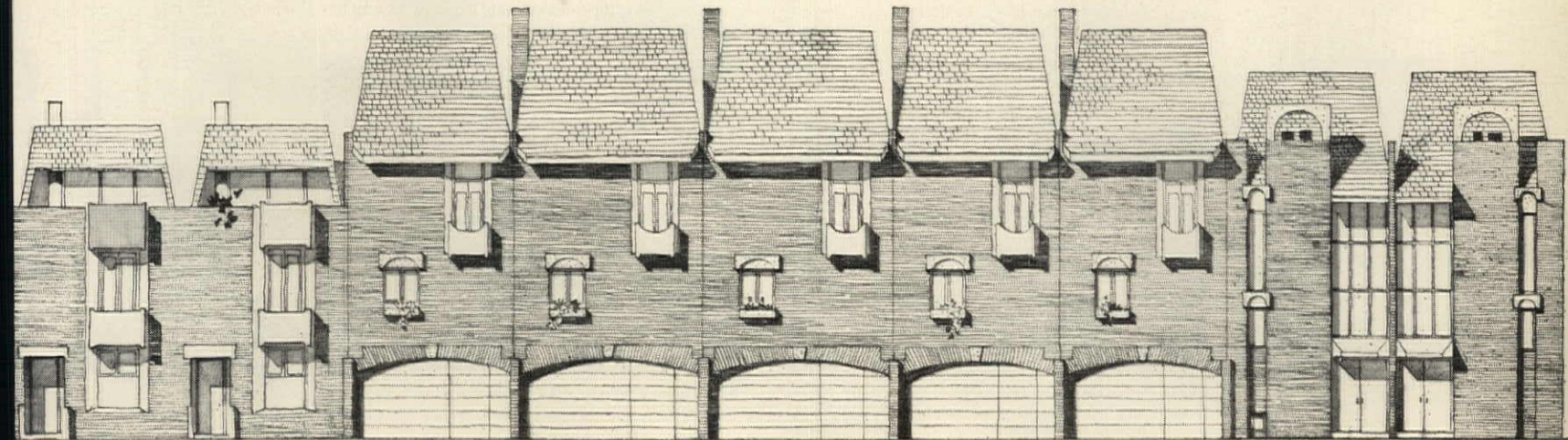




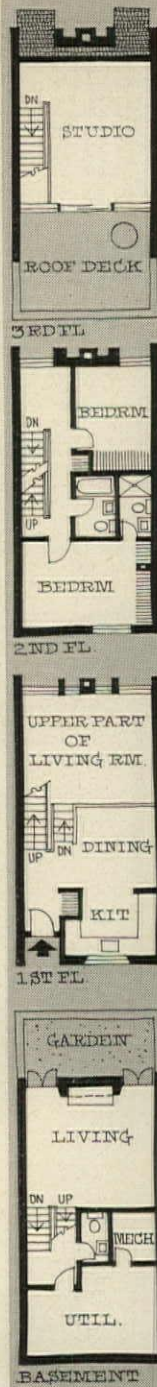
Lawrence S. Williams

**NINE TOWNHOUSES** are shown above on interior courtyard side and below on street side. Some have basements and three living levels, others have living areas on four floors. Some rear terraces are sunken and set into building to separate them from adjacent terraces.

*To see more of these houses, turn the page*







TOWNHOUSES continued

**THREE-STORY MODEL** with bay windows on street side has 1,270 sq. ft. of living space plus a full basement. The house is 15½' wide, 32' deep. On the street level are the front living room, dining area, and kitchen—all open to each other and all with a view through sliding glass doors to the rear terrace and landscaped courtyard. Circular staircase leads to two bedrooms and bath on second level and to a large studio and roof deck on top level. Price: \$27,700, lowest of the four models offered.

**FIVE-LEVEL MODEL** with two front balconies has 1,284 sq. ft. of living space in an ingenious floor plan. Guests enter on a level with the front kitchen and dining area, and a foyer looks over sunken living room. Stairway leads down from living room to a half-bath and 12'x14½' laundry. Above this split-level area are the bedroom floor with two full baths and, at top, a studio with a roof deck facing the street side. The deck has a balcony like the one off the front bedroom beneath it. Price: \$29,900.

Photos: Lawrence S. Williams



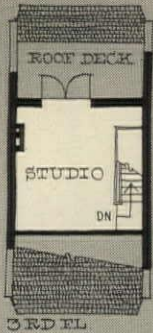
**LIVING-ROOM FIREPLACE** is screened from front entry and stairway by brick spur walls (see plan). Rendering (left) shows rear of house.



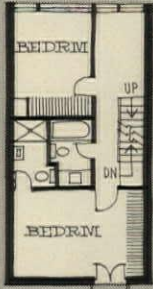
**12'-HIGH LIVING ROOM**, seen here from railed dining area, has French doors (behind drapes) to sunken terrace shown in rendering at right.



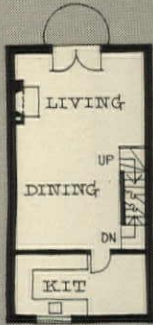




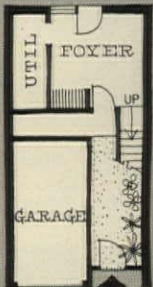
3RD FL.



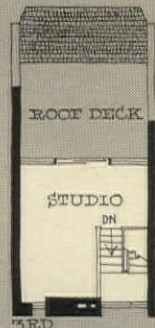
2ND FL.



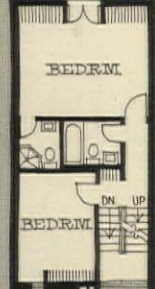
1ST FL.



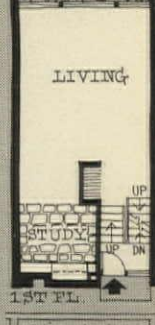
BASEMENT



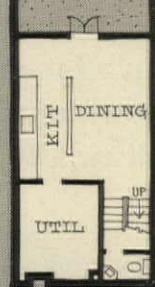
3RD FL.



2ND FL.



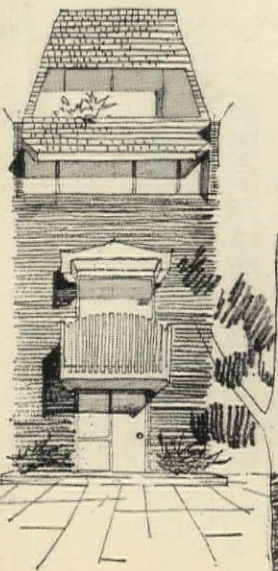
1ST FL.



BASEMENT

**MODEL WITH GARAGE** has large (10'x10') rear foyer reached by a hall from the recessed front door and opening to a terrace. The 1,370 sq. ft. model sells for \$29,900, has two full baths on the bedroom level and both a breakfast area in the kitchen and a formal dining area on the main living level. Like other Camac Village houses, this one includes combined gas heating and air conditioning, built-in range and oven, garbage disposer, dishwasher, fireplace, and roof deck with a view of downtown Philadelphia.

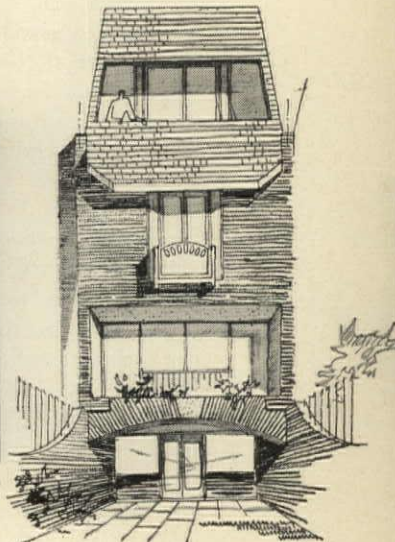
**LARGEST MODEL** has a split-entry plan. From the foyer, stairs lead down to dining room and kitchen and up to the 32'x15' main living area. At one end of the living room is a slate-floored study and fireplace; at the other is a glass wall looking out over planter (shown in rendering below right). Casement windows flank the massive white-brick chimney on the street side. The \$29,900 house has 1,674 sq. ft. of living space—plus a 100 sq. ft. utility room and 160 sq. ft. roof deck.



**BIG LIVING ROOM**, seen here from dining area, is 22½'x15½'. Fireplace, left, can be located in corner. Rendering shows rear of the house.

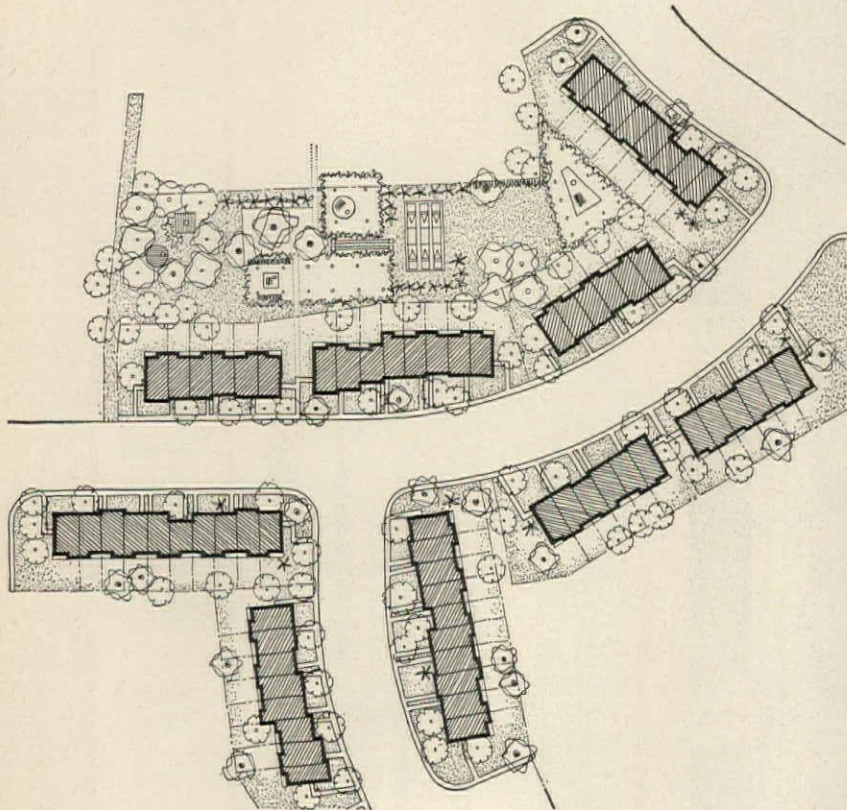


**BIG KITCHEN-DINING AREA**, (16'x15½') has 8x8 wood beams and 2x6 t&g floor and ceiling. It opens to sunken terrace shown in rendering.



continued





**SEGMENT OF SITE PLAN** shows how parks are provided close to houses. Facilities include a swimming pool and pond stocked with fish in one park, a ball diamond in another.

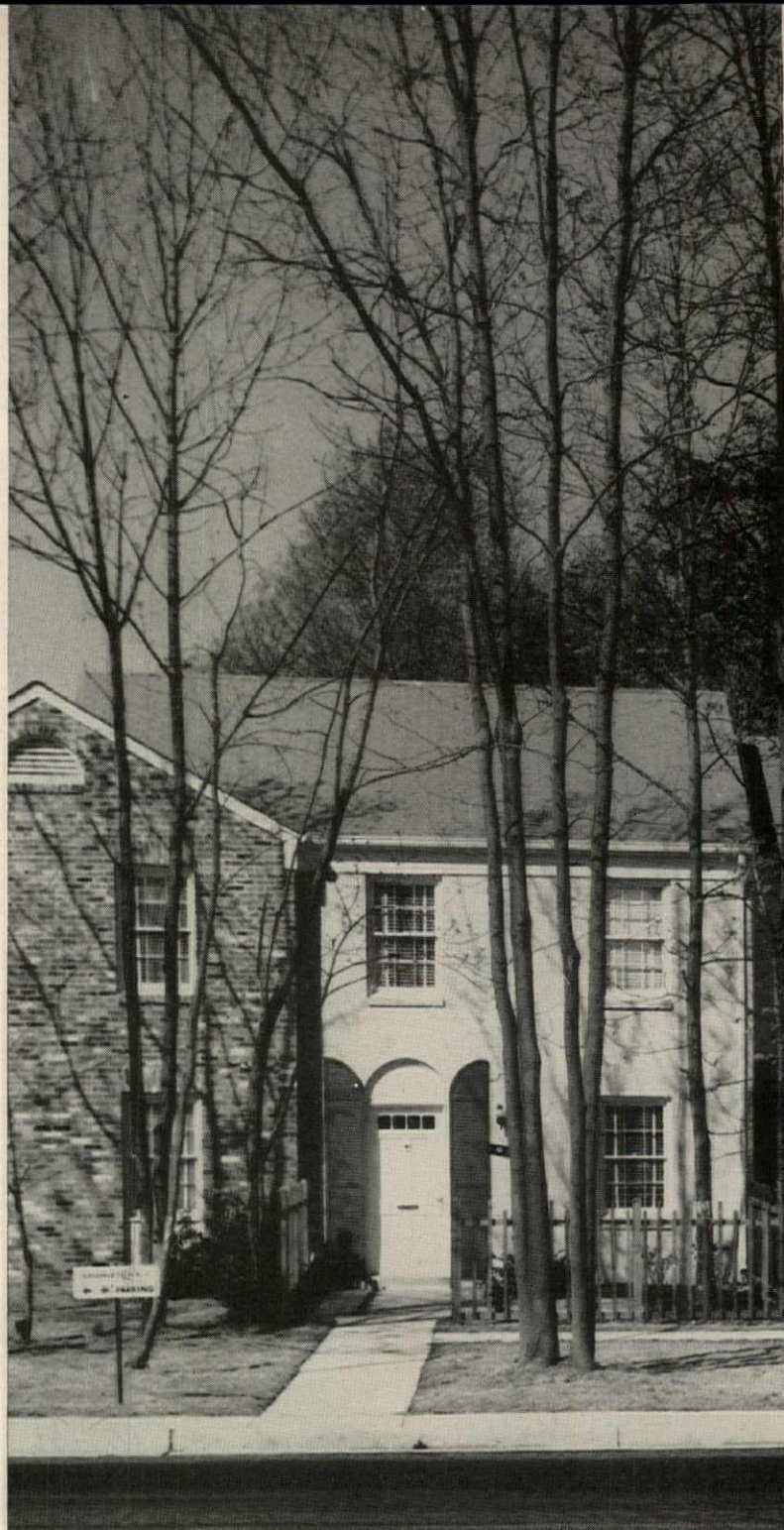
### In a far-out suburb, traditional townhouses around ample parks draw 160 buyers in two months

Builders Lee Rubinstein and Jay Hyman faced two crucial questions when they began their 900-home Georgetown South project in Manassas, Va., 29 miles south of Washington, D.C.:

1. Would their potential buyers be willing to locate as far out as Manassas, just about the last outpost of Washington suburban housing?
2. Would buyers accept townhouses in the suburban Washington market, where no townhouses had been built for sale in years and where no suburban areas had been rezoned to permit them?

The answer to both questions turned out to be yes. In two months, 160 families bought Georgetown South homes, and another 180 signed applications to buy. Why such response? Rubinstein and Hyman cite these key reasons:

- House designs, by Architect Marion Bagley, are in the Georgetown tradition, which has always had an image of luxury in the Washington market.
- The land plan, by Landscape Architect Thurman Donovan, groups the houses around community-owned parks of more than an acre each. The parks, maintained by homeowner assessments of \$3 a month, take up 25% of the 77-acre tract. Donovan and the builders worked closely with town officials to get the site rezoned for townhouses.
- House prices are unusually low for the area—\$11,490 to \$14,990.



Fred M. Hublitz



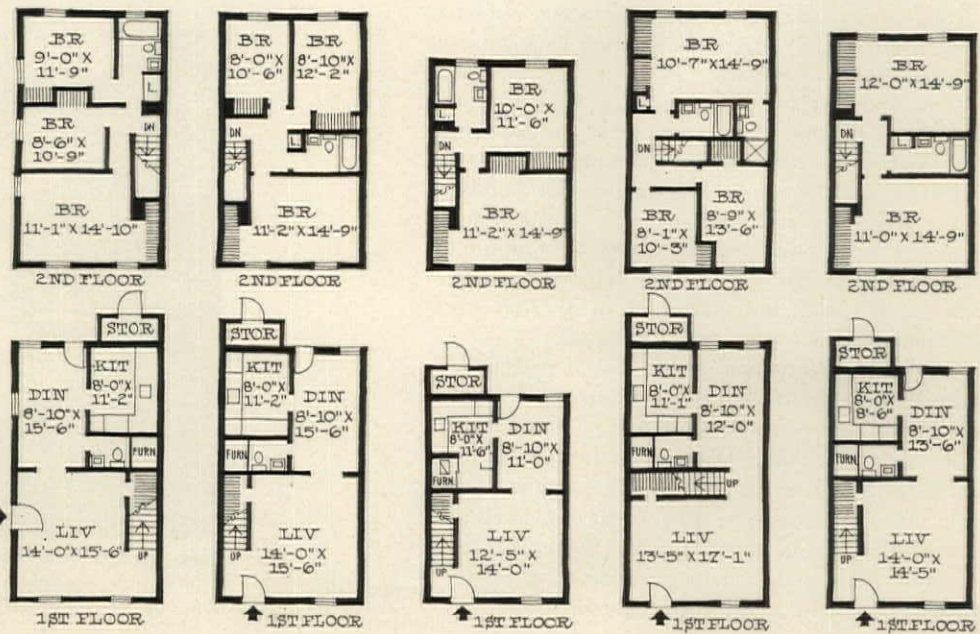




**VARIED FACADES** of adjacent units are achieved by five varieties of brick-and-clapboard siding, eight color schemes, and an assortment of fine detailing. Architect Bagley based the designs on his earlier designs for luxury rental units in Chevy Chase, Md. (H&H, July '61).

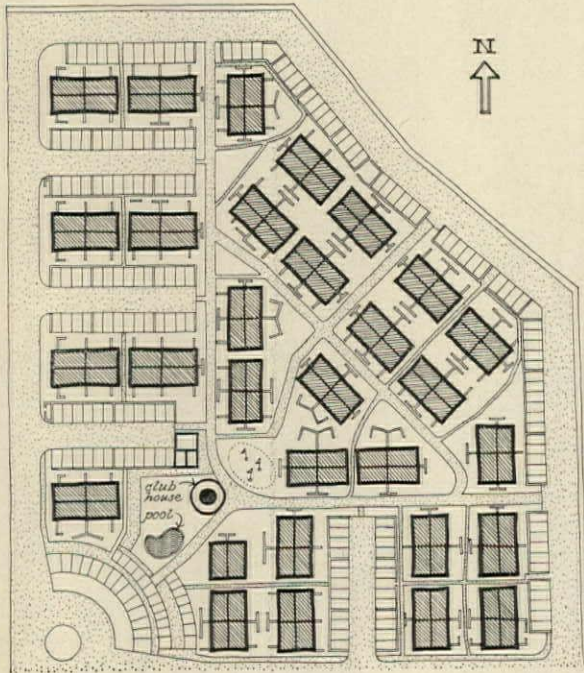
← **THREE DOORWAYS** shown at left are among six offered. At far left is a flat entablature, at center a curved pediment, and at the right a stone keystone in a flat brick arch. Stiles, muntins, and paneling vary in each door, and some doors cost as much as \$80.

**FIVE FLOOR PLANS** (right) for two- and three-bedroom houses have from 1,100 sq. ft. to 1,225 sq. ft. of living area and from one to 2½ baths. The plan immediately at the right is for end units, which are attached at right angles to rows of other units.



continued





**30 TOWNHOUSE BUILDINGS**—29 with four units and one with two—are on 7.4-acre tract next to a freeway intersection. The recreation area is at lower left.

### In a condominium project, sales are brisk for clusters of Pacifica-style townhouses

In Tustin, Calif., Builder Frank B. Ayres & Sons has rolled up 80 sales in three months in this 7.4-acre, 118-unit project—first in Orange County for condominium townhouses. Each of the \$15,000-to-\$19,300 houses is in a group of four, and each forms a quadrant of this building (*see land plan above and floor plan opposite*).

This unusual townhouse arrangement is Architect Wilson Woodman's ingenious solution to a complex problem. As he explains:

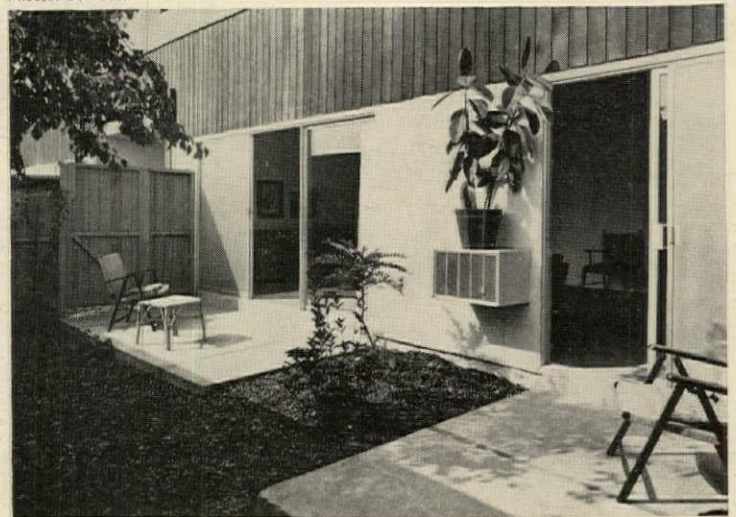
"The land cost \$30,000 an acre, so we had to plan for at least 15 units per acre to make the economics work out. Also, the Tustin Planning Commission limited us to 50% use of the acreage for buildings, walks, driveways and covered areas. By planning a perimeter street, we kept driveways to a minimum and found space for 179 garages. No one must cross a street to reach the recreation area. And every townhouse has a fenced outdoor area."

Originally, Woodman adds, "we hoped to give every unit an individual design, but this was ruled out by the high density required."

The two- and three-bedroom houses have built-in ranges and ovens, dishwashers, electric ceiling heat, and air conditioning. Buyers get individual titles to their houses and a share in the ownership of all common areas, which include a swimming pool (*opposite*), clubhouse, and putting green.



Photos: Don Bush

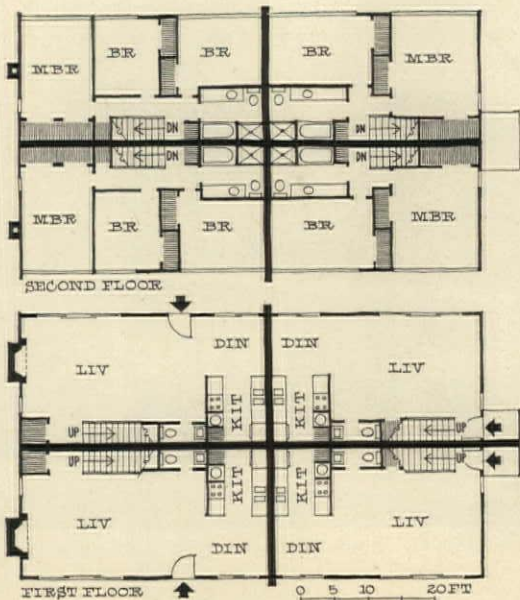


**TWO PAVED TERRACES** are provided with each townhouse, one off the dining area, one off the living room. Six-foot fences, which match vertical redwood siding, screen terraces from other houses and the parking area.





**STRIKING FACADES** of townhouse buildings are topped by Pacifica-style cupolas. Each building is made up of four 2-story, back-to-back houses. When complete, Tustin Village will have 28 three-bedroom houses—some with white chimneys for fireplaces—and 90 two-bedroom houses.



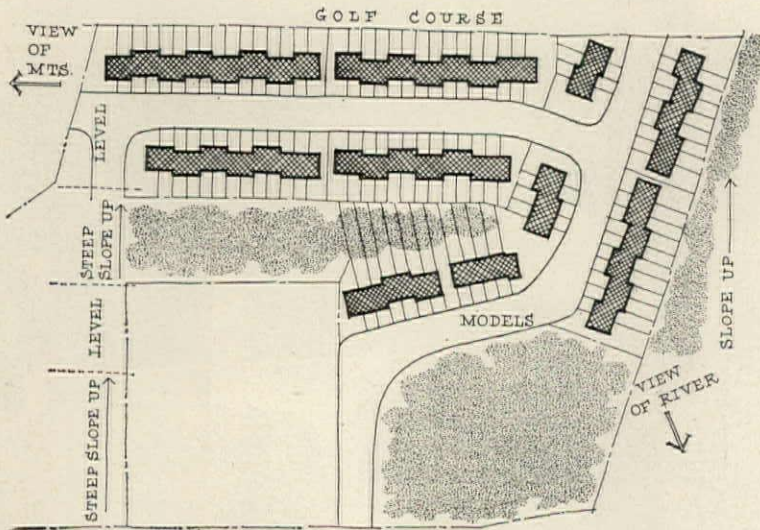
**TWO-STORY PLAN** (left) shows how each house backs up to another on two sides. Interior kitchens and baths are economically arranged along parallel axis of building. Two-bedroom units are 30'x18', have 1,080 sq. ft. of living area; three-bedroom units are 35'x18', have 1,260 sq. ft.

**RECREATION AREA** (right) is dominated by a hexagonal clubhouse with buttress construction. Besides swimming pool, facilities include a putting green beyond the clubhouse. Locker rooms and laundry are partly visible at left. Brick wall faces the site entrance.

J. Scott







**SITE PLAN** of the 99-unit project gives houses varied setbacks, so streetscape is not flat. Three-story houses are sited on hillsides to give two floors entrances at grade.

### Cost-cutting townhouse building system yields quality extras and produces a four-month sellout

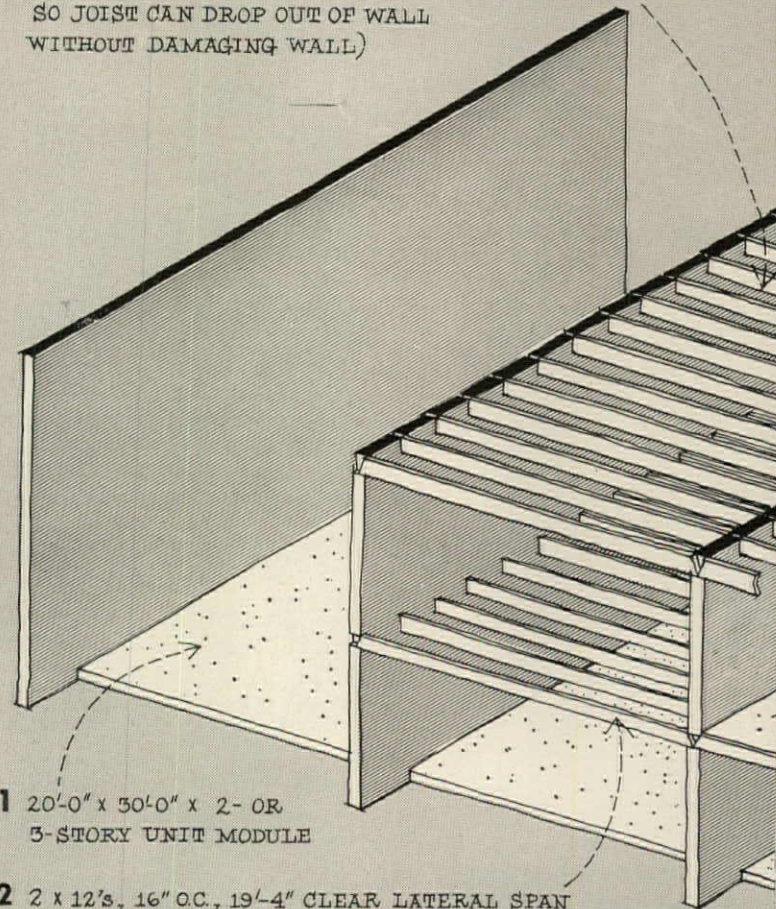
At the right is the heart of a construction system based on a 4' module that helped sell out in four months (and put under roof, too) a 99-unit townhouse project called Four Seasons in West Haverstraw, New York (H&H, Oct.).

The system, by Architect Matthew J. Warshauer and Builders Howard Beck and Fred Picker, used ideas not wholly new but way ahead of locally prevailing practice. On the all-union job, it saved enough to cover the added costs of 1) seven extras adding space or quality to each house (see box, p. 120), and 2) the architect's quality fee of \$10,000 (\$100 per house) for quality design work. The result was a project of disciplined contemporary structures priced competitively—\$10.95 per sq. ft. of living space—with so-so projects nearby. And while Four Seasons was selling out, a competitively priced project across the street sold only six townhouses.

Four Season's three-bedroom, 1½ bath model (1,460 sq. ft.) sold for \$15,990 on an improved lot worth a bit over \$4,000 (Northern Properties developed the land). Price per square foot: \$10.95; without land, \$8.22. Financing was conventional 10% down (minimum income, \$6,500). The four-bedroom, 2½-bath model sold for \$16,990, but with alternates and extras, prices of some houses went to \$18,000. Alternates and extras in the two basic houses gave buyers a choice of 27 floor plans.

8 4" INSULATION BATT'S IN CEILING (3" FRICTION-FIT INSUL. WITH POLYETHYLENE V.B. IN END WALLS)

3 2 x 12 FIRE-CUT EA. END (PER N.Y. STATE CODE SO JOIST CAN DROP OUT OF WALL WITHOUT DAMAGING WALL)



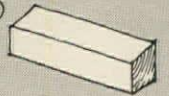
1 20'-0" x 30'-0" x 2- OR 3-STORY UNIT MODULE

2 2 x 12's, 16" O.C., 19'-4" CLEAR LATERAL SPAN (COST OF STRUCTURAL DECK: \$45. PER FLOOR)

6 JOIST HANGERS AT STAIRWELL (INSTEAD OF LEDGER STRIP)

7 2 x 3 PARTITION FRAMING

11 MODULAR PENETRATION (4'-0" O.C.) WITH 5'-9" x 5'-0" SLIDING WINDOWS AND 3 x 4 STAINED CEDAR TRIM (HORIZONTALS CHAMFERED FOR DRIP)

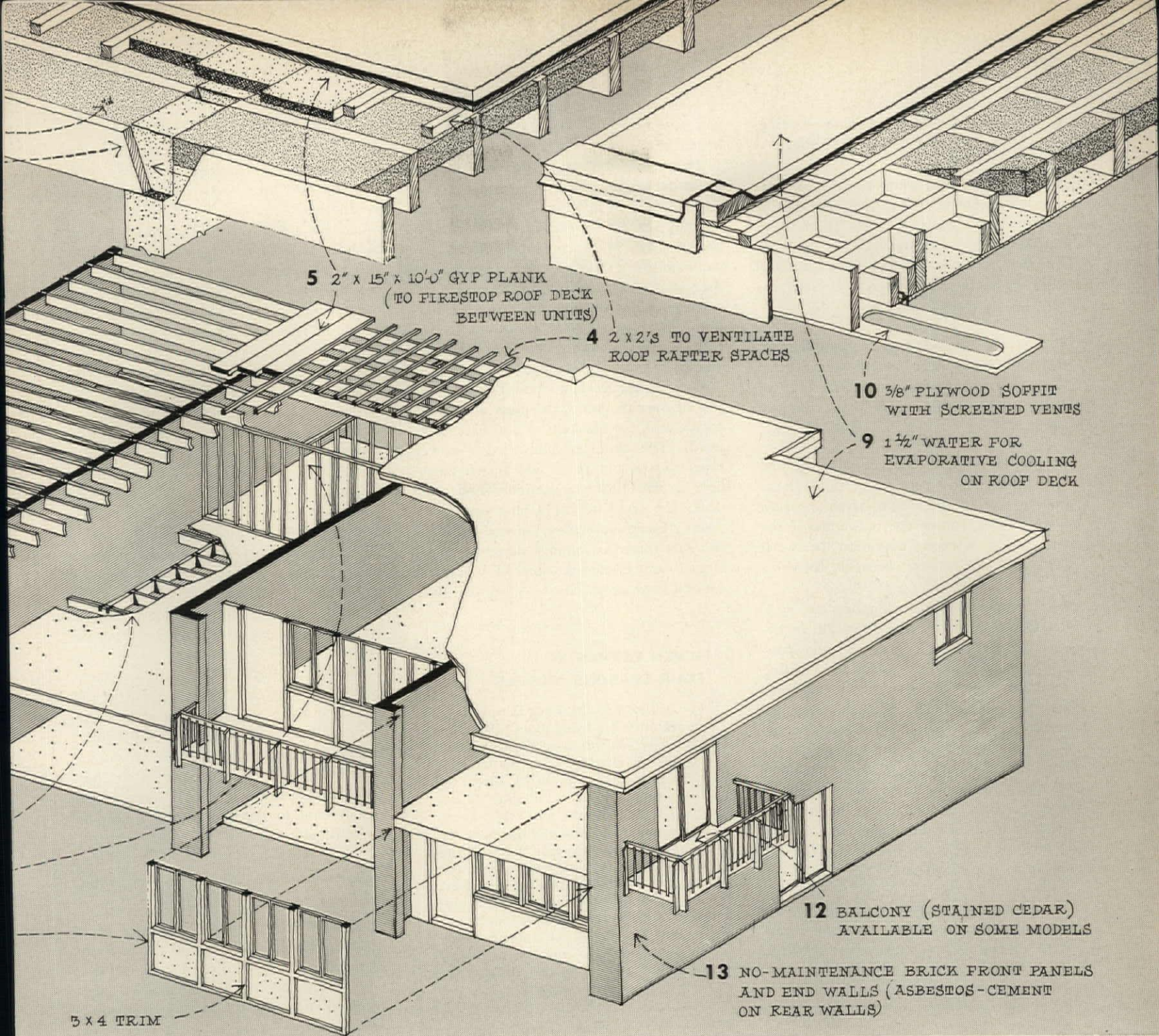


**SCHEMATIC DIAGRAM** of the construction system shows its key elements numbered in approximate sequence. The builders and architect took three months to engineer every detail in the seemingly simple system.



**FRONT ELEVATION** of a townhouse group shows the broad glass areas on both levels. Balconies were spotted for esthetic effect. There are nine styles of fronts and 27 floor plans. Each floor is roughly 20'x37'.





5 2" x 15" x 10'-0" GYP PLANK  
(TO FIRESTOP ROOF DECK  
BETWEEN UNITS)

4 2 x 2'S TO VENTILATE  
ROOF RAFTER SPACES

10 3/8" PLYWOOD SOFFIT  
WITH SCREENED VENTS

9 1 1/2" WATER FOR  
EVAPORATIVE COOLING  
ON ROOF DECK

12 BALCONY (STAINED CEDAR)  
AVAILABLE ON SOME MODELS

13 NO-MAINTENANCE BRICK FRONT PANELS  
AND END WALLS (ASBESTOS-CEMENT  
ON REAR WALLS)

3 x 4 TRIM

**Key to the system is a 20'x38' module spanned by a 2x12 framed deck**

The drawing above shows the basic elements (bold numbers) that Builders Picker and Beck and Architect Warshauer meshed into a system demanding close tolerances yet imposing no construction problems that average tradesmen cannot handle. They engineered, down to the smallest detail, for readily available products and materials. *How the system works:*

**1.** Foundations were poured by the builders' crews, and the mason contractor laid up solid 38'-to-41'-long concrete-block party walls on 20' centers. By using their own crews on foundations instead of a subcontractor, they kept the job on schedule, avoided holding up the mason.

**2.** When the party walls reached second-floor height, carpenter crews spanned them with a 2x12 framed deck. Many townhouse floors are framed front-to-back, but framing side-to-side gave a clear floor with no bearing walls for all later crews to work on. Each 20'x38' structural deck—2x12s with plywood subfloor and oak flooring—cost only \$45.

**3.** Ends of 2x12s were firecut (beveled) by two carpenters with hand power saws working at each end of a stack of joists. This eliminated walking from one end of a 20' 2x12 to the other. The two men worked four times as fast as one man would have walking back and forth. Ends of joists had to be firecut (New York State code) so that in a fire the collapse of a floor in one house could not pull down a

party wall by jacking it with the movement of a squared joist end.

**4.** To ventilate spaces between roof rafters (this helps cool the roof in summer, prevents moisture accumulation year round), the builders spanned the 2x12s in the roof with 2x2s running in the opposite direction. This left an air space right out to the ventilated soffits.

**5.** To firestop the roof deck between townhouses, Picker and Beck used three gypsum planks set side by side. Planks are the same thickness as 2x2s, so noncombustible roofing lies flat across party walls.

**6.** At stairwells, joist hangers, instead of a ledger strip, were used to hold abutting joists. This saved about \$3 a house in carpenters' time.

*continued*



7. Partition framing, all of it non-bearing, is 2x3s to save floor space and lumber.
8. In the well-ventilated roof, 4" insulation batts were stapled to the joists. But in unvented end walls, where a good vapor barrier was needed, the builders used unwrapped insulation (which holds itself in stud spaces by friction) and covered the wall with a polyethylene sheet.
9. To help insulate for air conditioning, the roof edges were raised with beveled blocking so the roofs could hold 1½" of water that will add evaporative cooling in summer.
10. Soffits were vented by running the ¾" soffit boards under a router head mounted on a radial saw armature (*see below*). The router cut out ends of the slot, and in a second operation the radial saw sliced out material between slot ends.
11. Fenestration was designed on a 4' module to work with the 20' width of living units and to use 4'-wide plywood span-drel panels, 3' 9"x5' aluminum sliding windows, and 3x4 cedar trim to accentuate the modules. The four modules are centered on each unit, so a full module of brick facing covers the party wall. Fenestration gives most kitchens four big windows. Horizontal cedar trim was chamfered for drip, and vertical cedar trim, at the edge of the window areas, was dadoed to take the edge of the brick. All trim was cut on the big radial saw.
12. Balconies—used only on models selected by the architect to balance the streetscape—were made of cedar, cost \$280 for an 18'x5½' area.
13. No-maintenance materials were used wherever possible: brick for front and end walls, asbestos-cement shingles for rear walls, aluminum windows, cedar trim.
14. In siting the houses (not shown on detail drawing), the architect and builders worked within the broad outlines laid down by Northern Properties, which developed the site. Varied setbacks added interest to streetscapes and kept them from looking flat. The extra cost? Only \$40 per house in slightly more construction time and added exterior walls at each jog in the setbacks. But the extra cost would have been higher if the construction system had been more complex. All three-story houses were set into hillsides, so the second-floor living rooms open to grade through sliding glass doors at the rear.

**Power tools were used wherever they could save time and money**

Builders Picker and Beck both say emphatically: "Time is money. Where you

can save time, you save both money and headaches."

Their No. 1 on-the-job time and money saver was a big radial saw under a plywood lean-to where one man pre-cut all framing (except for firecutting 2x12s). Although every house could be different because of the extras allowed, the preplanning that went into the job narrowed all cutting for the 99 units down to 12 schedules. The big saw was also used to cut exterior trim, including the soffit materials and chamfered and dadoed 3x4 cedar.

Power lines for hand power tools were run all over the job. Carpenters with hand power saws cut inside trim and firecuts in 2x12s. The chimney man used a power saber saw to cut in 15 galvanized chimneys a day through subfloors and roof decks (by hand he could have done only four). Electricians used power drills to run wire through framing and power hammers to cut chases in concrete block for conduit and deep boxes — so the wall

**SEVEN EXTRAS IN FOUR SEASONS MODELS**

For \$10.95 a sq. ft., Four Seasons buyers got: 1) a big living room (19' x 21') with a 12' wall of fixed glass and sliding glass doors; 2) a big master bedroom (19' x 15') with an 11' closet; 3) four kitchen counters, totaling 22 sq. ft., and 56 lin. ft. of kitchen shelf space; 4) underground wiring throughout the community; 5) 100 amp. indoor wiring with 12 circuits and 55 outlets per house; 6) hot-water heat with an over-size gas-fired boiler—125,000 BTU instead of the 75,000 BTU usual for houses of this size; 7) a 40-gal., rapid-recovery hot water tank. Air conditioning was an added-cost extra provided through the wall if the buyer wanted it.

would not have to be furred out too far to cover them. Roofers used a small electric winch on a ladder—a homemade "ladder hoist" — to raise roofing materials; carpenters used a power nailer to lay subfloors in a fourth of the time it would have taken by hand.

To prevent their men from interrupting productive labor by carrying things and walking, the builders kept a fork-lift truck on the job for materials handling. They also bought an old flat-bed truck for \$200 and used it to deliver materials and tools all over the job.

**The builders picked subs more for speed and performance than for price**

"You can't run a job like this," says Picker, "unless every sub and every crew is doing the job it should do at the right time and in the right time limits. If one sub gets to the job late, or takes much more time than he should, all the rest of

them will be held up. Holding up subs will cost you in service and a job well done. A sub loses money when he's held up, and he'll take it out on you one way or another."

To get a fast sub, for instance, Picker and Beck took a bid near the top for plumbing because they knew the sub would rough in his waste and supply lines "right on the nose." The stubs, for example, would be right in the partition line, and no one would have to chop up slabs to move some rough plumbing that was an inch out of line.

Each subcontractor had his own mailbox in the office where he could pick up work orders for changes and extras at any time. Each townhouse had its own spec sheet available to all subs in the office so extras and colors could be checked readily by any trade. All subs were paid regularly on Fridays. "Regular payment means more to most subs than a fat contract with irregular payments," says Howard Beck. "Our reputation for paying regularly cut prices almost as effectively as good negotiating on prices.

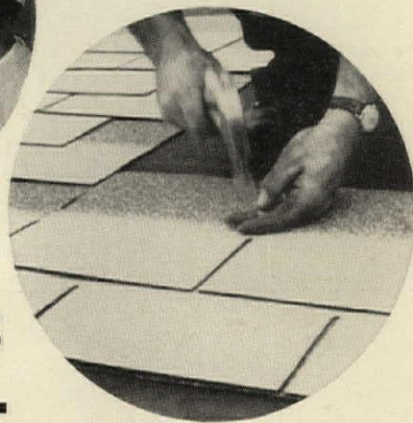
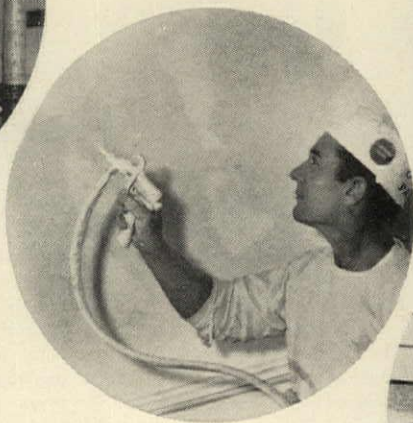
Picker and Beck did their own foundation work, rough and finish carpentry, and labor. "Rough and finish carpentry was critical. We couldn't afford to fall behind one bit, or we would hold up a lot of trades," says Beck. "We also had one of the best carpenter foremen in the business, so it made sense to keep these two trades on our own payrolls."

**Supervision was spread among subs, foremen, and the builders**

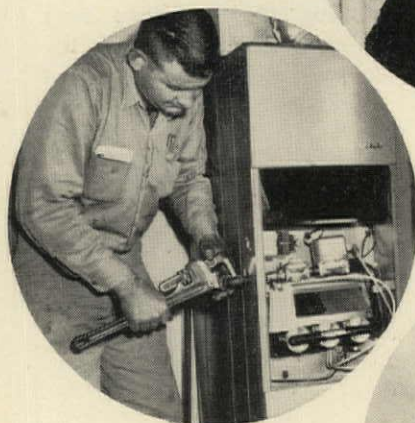
"Good supervision and enough of it makes our crews and the subs' crews run like clockwork," says Fred Picker. "Howie and I, our carpenter foreman, our labor foremen and the subcontractors themselves make up the six to a dozen supervisors you can find on the job any day. Off the job, Fred and I carry battery-powered tape recorders—\$100 items we can hold in our hands—that we dictate ideas into, either at home or as we are driving to and from the job. Then we exchange tape recorders and play back each other's ideas when we have a spare moment. This way we rarely miss a task to be done or a way to do something better."

Supervision played a big hand in permitting the wide range of extras. Says Picker: "Within our basic unit, we could allow almost any kind of extra or change simply by using a normal markup and letting the subs know of the change well in advance. Supervision made this change system work, because what an extra demands, besides a change to the buyer, is supervision." Handling the extras was not a design problem; most extras had been foreseen by Picker, Beck, and Architect Warshauer and built into floor-plan alternates in the original design.

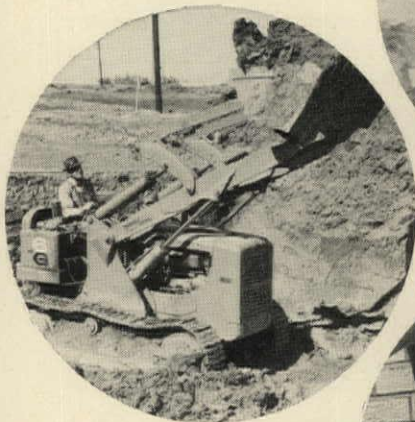




## TO SUB OR NOT TO SUB



*More subcontracting solves pressure on builders to cut overhead and conserve capital but its growth may impede housing's technical progress*



Survey after survey in the last two years has shown that builders are subcontracting more of the dozen operations pictured here—carpentry, painting, earthmoving, flooring, drywall, wiring, roofing, masonry, insulating, concrete work, plumbing, heating-cooling.

Subcontracting, of course, is one effective way to get good supervision. The plumbing sub usually works on the job right with his men and is in a much better position to see that it is done right than a builder busy with myriad items.

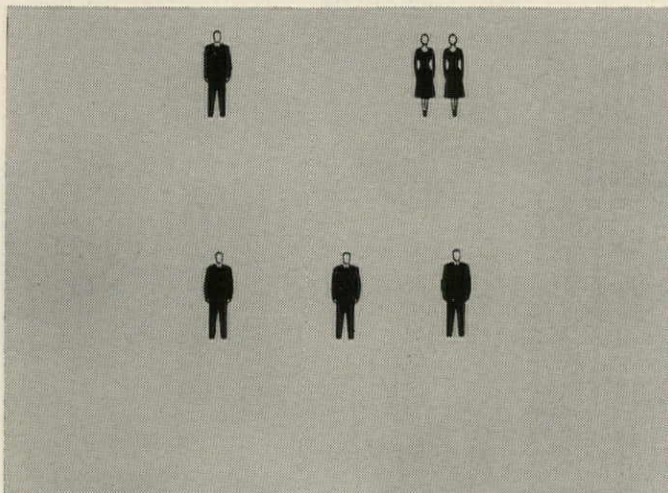
And the trend toward subbing seems likely to grow. Biggest reason: The 1961 Fair Labor Standards Act now forces construction companies grossing over \$350,000 to pay time-and-a-half after 44 hours work a week. This provision became effective Sept. 1. Next September, the overtime cutoff will drop automatically to 42 hours; in 1965 it will fall to 40 hours.

In housing, where overtime is common during the summer building season, this will nudge some builders toward subbing. The law does not prohibit a builder from firing employees and subcontracting their jobs to companies grossing less than \$350,000-a-year to avoid overtime costs. But the law does not let builders fire employees who have lodged claims for overtime, or who have a disagreement with the boss.

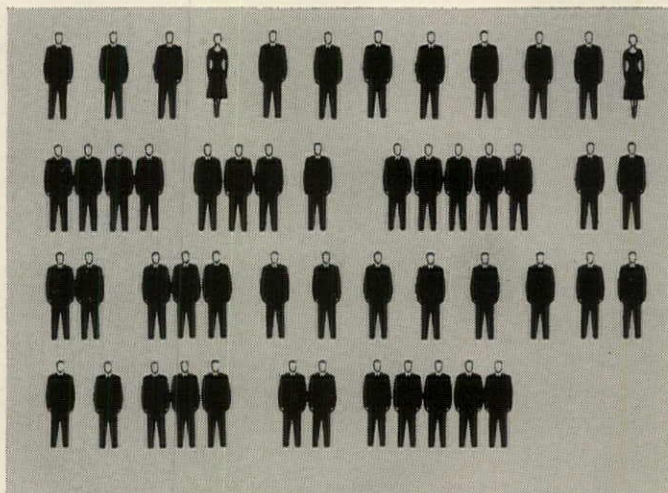
*Yet subbing remains a hotly debated management question. Why? See the next two pages.*



## TWO CONTRASTING VIEWPOINTS: SUB EVERYTHING . . . AND SUB NOTHING



**6-PERSON STAFF** is employed by Cleveland Builder Peter Rzepka who subcontracts everything, including sales. His weekly payroll is \$800 for himself, a partner, two secretaries and two field coordinators. His investment in equipment (business and duplicating machines and office furniture) is \$1,000. Rzepka builds 250 to 300 houses a year priced from \$18,000 to \$20,000. His subcontractors get 10% more than the detailed estimates he makes on costs of material and labor. Says he: "I rigidly limit my capital investment in equipment because I'd rather invest capital in land which I can turn over at the greatest profit."



**52-PERSON STAFF** is employed by Cleveland-area Builder Robert F. Schmitt who subcontracts nothing. His weekly payroll is \$8,000 for himself a part-time architect, an engineer, accountant, secretary, general supervisor, four foremen and 43 mechanics. His investment in plant and equipment (trucks, materials handling machines, business machines) is \$212,000. He builds (and sells himself) 75 to 100 houses a year priced from \$20,000 to \$60,000. He contends his integrated building system lets him undersell his competition. Upshot: Schmitt's sales stay ahead of his starts.

### Subbing fixes building costs for a contractor but it does little to reduce them

"I know I could build at lower costs if I did all the work myself, but I'd lose control of my organization and sell fewer houses."

The builder speaking was one interviewed in a recent survey-in-depth by HOUSE & HOME of 33 builders (60 to 2,000 houses a year) who gave their candid opinions of subbing and not subbing. This survey, too, shows subbing on the rise: 16 builders are subbing more, 13 subbing less, and five subbing about as much as when they started building. But principally the survey shows that builders use the sub system *not* to cut their direct costs but to cut overhead by avoiding a high fixed payroll in a market where fluctuating sales can give cash flow a roller-coaster curve. Some other findings:

- *Six builders who sub more say they do so to fix costs rather than cut them.* Almost every builder who subs less does so chiefly to cut his direct job costs, to control quality or to cut out a sub's profit. Says one: "If you have a lot of earth to move, there is no point in subbing it out and making the sub a millionaire." Says one who subs more: "Most of our subs are captives—so we can control them just as if they worked directly for us."

One big builder who subcontracts many operations and performs even more operations with his own crews says, "We do our own land development work because we like to do it and because we have found ways to save money (e.g., a system with fewer man-holes) and because we develop land for so many houses. Once we became staffed and organized to do major work like this it's almost impossible for any sub to beat our costs. On the other hand, we sub out all our basement excavation work simply because we found an expert sub who could beat our costs. We do all our own sheet metal, heating and air conditioning work. Several years ago we took over our heating sub and boosted our profits \$50 a house. How? Better buying, lower materials handling costs, and a new on-site joining system. On the other hand, we subcontract the complete drywall job from hanging it through painting it because we found a sub who would guarantee the painting job—and handle customer complaints—only if he hung and taped the drywall."

- *Many builders who sub more say they can capitalize on the specialization of the trades.* Yet they—as well as builders who sub less—take it upon themselves to introduce new techniques (and even some tools) that will cut theirs and their subs' costs. Says one: "If we didn't get them to try new methods, we'd go out of our minds watching money blowing out the window." Says another: "Getting subs to try new ideas is long and tedious. It's effective only if you make it mandatory, not optional." And another: "If a sub won't use a new method we're sold on, we get a new sub."

- *Subbing may get better supervision, but it probably costs more.* Many builders who sub more and even some who sub less say they sub to get better supervision. But for almost every builder who says something like, "Subbing is supervision with a built-in money incentive because the sub has a stake in the job" there is another builder who says, "We know when we sub that we still must supervise some, so we'd rather use supervisors to run our own jobs and help us make money. It's just smarter business."

- *Subbing can conserve capital if the sub carries the builder—* by buying all his own materials and waiting until the end of the job to be paid. But the converse is often the case. For example: 19 of the 33 builders surveyed are buying some products for their subs; and 19 pay their subs either monthly or weekly. Only two pay when the job is complete (the other 12 have a combination of paying arrangements). And even the builders who are carried by their subs concede that the practice is costly—that the saving in high-cost construction money may be more than offset by high subcontract bids. Says one: "We follow this insane practice, but it costs us dearly." Of the builders who buy products for their subs, 17 say they do so not to protect themselves from liens, but because they have more buying power (even on plumbing, wiring, heating, and air conditioning) and thus get lower prices.

- *No subs seem to have a lock on doing things at lower cost.* The same jobs that tend to be subbed by builders preferring the subcontracting system also tend to be taken over by builders who



want to do more building themselves. This paradox is notable in excavating and foundation work. On the other hand, one operation that almost always stays under a builder's direct control is painting. Why? Says one builder: "The paint is what everybody sees. We want the best job so we do it ourselves."

### Despite short-range appeal, subbing looms as a big obstacle to rational building

Except where subcontractors work almost exclusively for one builder (and so acquire an identity of interest with him in his sales—which in turn depend on costs) . . .

It is in a subcontractor's interest to get paid more for his work—or at least to make as much profit from it as he can.

And this leans in the opposite direction from a builder's interest: to build as economically as he can. Examples:

- On Long Island, contractor subs tend to bid on a cubic foot basis regardless of whether a house is designed for economical or wasteful framing. That's one reason why Long Island built so many split levels, whose framing is the most wasteful of all.
- Similarly, electricians tend to bid on a per outlet basis regardless of whether the electrical layout is planned for economizing or whether the outlets are just thrown in at random.

This is the immediate picture. Take a look at this long-range implication, too: Subcontracting is a main prop of local labor bargaining—a fact of life in construction which unhappily props up localism (see p. 99) with all its extra costs and wastes. State licensing laws (localism by law) also tend to prop up subbing. In Arizona, for example, general contractors including home-builders must subcontract sheet metal work, wiring, and plumbing.

### Like a good argument? Tune in on these two top builders who disagree on subbing

The contrast in viewpoints is vivid between South Bend's Andrew Place (75-100 houses a year), former chairman of NAHB's Research Institute, and Bethesda's Edmund J. Bennett (85 houses a year—see box), a management analyst turned builder. Both subcontract some operations and perform some with their own direct payroll employees. Here is what they have to say:

"The eventual objective should be to subcontract nothing," says Place. "When we subcontract, we subcontract by default—because we are not good enough managers to do the whole job. If a builder is smart enough to run the rest of his business—acquire and

develop land, sell houses, arrange financing—he ought to be smart enough to hand over to a much smaller manager than himself many of the jobs that his own supervisory staff could do. Admittedly, you need men who are trained for detail. A lot of us in the housing industry don't have enough trained men who know the proper details. Once you have built some volume and you need overhead personnel yourself, it is just as easy to get one supervisor of one trade to supervise several trades. If you have enough volume to hire a purchasing agent, it is just as easy for him to buy bathtubs as to buy lumber, shingles, and siding.

"The only thing that should keep a builder from doing everything with his own organization is lack of volume. If a man has such a small volume that he can afford to pay no one but himself, he has to subcontract virtually everything. But there is one irrefutable argument against subcontracting: If you subcontract, you must pay the price for someone else's overhead and profit."

"Our eventual objective is to subcontract everything," says Bennett. "The fully integrated or nearly fully integrated builder who subs little or nothing says that a building entrepreneur must absorb a portion of the sub's overhead and profit. That need not be the case. If you subcontract properly, you do more than just subcontract materials and the labor to put them in place. You are also subcontracting the materials purchase and invoicing and the warehousing and handling of materials by getting the sub to perform these jobs. You subcontract, in effect, the purchase and maintenance of tools and equipment. You subcontract the personnel problems—the recruitment, training, payroll and other functions for a lot of people. And you also get a certain amount of financial leverage because a subcontractor who is paid monthly is funding the payroll for a number of men who have already performed productive labor on a house."

So go the arguments. What is often left out is the personal predilections of building entrepreneurs. Builders who got into housing via the subtrades tend to sub less than other builders because they are more conscious of direct costs. Entrepreneurs who got into building as a business offering more return on capital than most tend to subcontract less because they are more conscious of overhead costs. Prof. James Gillies, author of *Management in the Light Construction Field*, argues that the case for subcontracting has been inflated. In housing, he notes, "the complex and highly structured organizational patterns so common in other industries have not developed. However, the difficulties and risks so often cited as negating the need for more complex organizations are overemphasized."

## A 10-POINT GUIDE TO BETTER SUBCONTRACTING

Management Analyst-turned-Builder Edmund J. Bennett of Bethesda, Md., who grew from a 14-house volume in 1959 to 85 houses this year, attributes his success to using the subcontracting system. Here are ten ways he suggest to get the best out of subcontractors:

1. Specify everything in great detail—brand names, colors, sizes. Specify what is not permitted, too. If you are not precise you will get the cheapest possible products.
2. Specify all odds and ends—anchor bolts, rods, screws, etc.—needed to perform work. A big waste in building is chasing around for items that hold up job completions.
3. When inviting bids, include a brief outline of the project history, names of your architect and engineer, and state broad ground rules for what is expected. Set specific dates for accepting bids. Invite prospective bidders to your site.
4. Send your own materials take-off, as detailed as possible, to bidders. This helps you know costs and judge fair bids, and encourages subs to bid low—but not carelessly low. Use the *National Estimators Handbook* to get unit labor costs for your area.
5. Make clear to bidders that your take-off is only a guide, not the basis for a bid. This encourages some subs to correct your mistakes, thus gives you clues to subs' competence.
6. Define work procedures—such as how the job shall be left at end of each day or weekend.
7. Provide uniform bid proposals to all subs. This helps small subs with no office staff, prevents subs from omitting some specs on their forms, and promotes easy comparison of bids.
8. Provide a detailed contract to the winning bidder. Include insurance provisions, price protection on materials, protection against sub's default, pay schedules, and other key clauses. Append bidder's bona fide proposal.
9. Set up a formal production and quality control system with copies of work orders to 1) the sub, 2) his foreman, 3) your field office, and 4) your job superintendent or inspector. Don't pay the sub until he submits a copy of work orders signed by your superintendent.
10. On the reverse side of work orders, print broad ground rules for all subs and directions to—and phone numbers at—job locations. This cuts down the amount of verbal instructions to men on subs' crews working for several builders. Ground rules should cover work schedules, contract prices, job measurement, inspections, etc.



## TOP PERFORMERS OF 1963

The dozen housing leaders pictured on these two pages come from companies or organizations whose mark on housing has been both constructive and unmistakable during 1963.

Collectively, the work of this dozen movers and shakers suggests many of the new directions the industry is taking as it moves toward maturity and a more industrial performance. Some stand for the growing professionalism of modern business management. Some have devised significant new technical advances. Many show profound concern (as do housing's carping critics) for the kind of communities we are creating.

As with 1962's Top Performers (who became ineligible this year), one striking fact about this group is its youth. The oldest is only 53, the youngest 30. The average age is 45 years. HOUSE & HOME salutes them all, and wishes them continuing success in the years ahead.



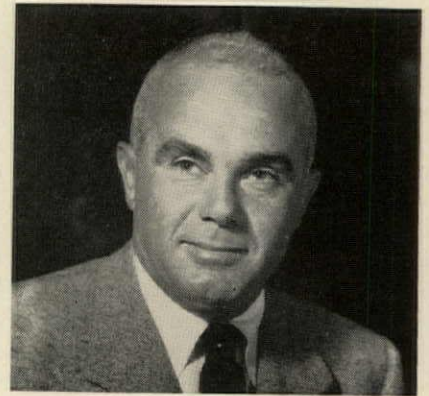
**ELI BROAD**

The meteoric rise of Kaufman & Broad (H&H, April), fastest growing among publicly-owned housing companies, has continued at a pace other builders can envy. Started in 1957 with \$25,000 capital, K&B last year grossed \$22.5 million, netted \$902,000 (\$1.49 a share). This year, President Broad, 30, predicts a 33.3% jump in sales to \$31 million, a 66.3% boost in profits to \$1.5 million (\$2.50 a share). K&B builds in Detroit, Phoenix, and Los Angeles.



**RICHARD J. CANAVAN**

As FHA's assistant commissioner for technical standards, Dick Canavan, 41, has brought deft leadership to the frustratingly tortuous task of modernizing the agency's time-encrusted underwriting and architectural rules. He supplied the administrative muscle 1) to put FHA's sweeping new land-use rules for planned unit development into effect swiftly, 2) to get its Sec. 233 experimental housing program moving, 3) to complete the first overhaul of its multi-family MPS since 1946.



**CARL M. FREEMAN**

Thoughtful land planning and thorough preparation of each plea have brought Freeman, 52, a Washington, D.C. apartment builder, unique success in convincing planning boards and citizens' groups to grant him high-density zoning. Zoning-stymied builders could well study his ways and means. His company designed, built, and owns 11 projects around the capital with a vacancy rate of 0.4% in 5,000 units, and has \$20 million more in apartments underway in five cities.



**HERBERT B. MC KEAN**

Machine grading, which takes the guesswork and waste out of measuring the strength of lumber by eye and opens the way for its much more efficient engineered use, became a reality this year. Most precise of the stress-rating machines is an electronic model developed from the idea of Dr. McKean, 52, research director of Potlatch Forests, that measuring the stiffness of wood could precisely tell its strength. Result should be better prices to mills, lower costs to builders.



**ROBERT M. O'DONNELL**

Among top-drawer land planners, Bob O'Donnell, 47, of the Denver firm of Harmon, O'Donnell & Henninger, has crisscrossed the nation preaching the gospel of better land planning to men who 1) need more convincing and 2) are in a spot to use it: builders. O'Donnell headed the NAHB-Urban Land Institute group that produced ULI Technical Bulletin 40, "New Approaches to Residential Land Development," best how-to-do-it study on high-density land use.



**ARTHUR J. QUINN**

In the two years that New York's state banking laws have let savings banks share mortgages with other lenders, Quinn, 49, executive vice president of the New York Bank for Savings, has built a \$100 million portfolio of FHA and VA participations. Quinn's bank keeps 10%, sells the balance to pension funds and commercial banks, many of which are new to buying realty loans. Mortgage originators keep the servicing. Quinn charges a 1/8% management fee.

Photos: Canavan by Walter Daran, Furlan by George Bower, Freeman by Brooks, Quinn by Fabian Bachrach, Broad by Joey Starr, Turnbull by Foster Ensminger Jr.





**ANTHONY J. FURLAN**

In 1962, Tony Furlan, 53, head of the Pittsburgh Building & Construction Trades Council, startled skeptics by signing a first-of-its-kind contract opening the door to new materials and methods, giving one builder carte blanche to innovate with machines, tools, and prefabrication, barring jurisdictional strikes. Results: 5% gain in productivity. Now, two more builders have signed similar pacts—and Furlan's men have more jobs in a largely open-shop housing area.



**M. JUSTIN HERMAN**

After San Francisco named Herman renewal director in 1949, the city's long-stumbling effort at slum clearance moved into high gear. Herman, now 53, former HHFA regional administrator, knows bureaucratic ropes well enough to make his innovations click. Sample: He devised a low-budget competition to sidestep builders' cries that bidding via models for renewal jobs costs too much. One result: Top-flight design is the hallmark of San Francisco renewal.



**WILLIAM T. LEONARD**

A onetime teacher Leonard, 35, realized when he became executive officer of the East Bay HBA three years ago that "housing is too big to learn it all, so I decided to specialize in condominium." Since then, he has become a prime promoter of housing's hottest new sales tool by organizing five seminars in California and Hawaii where 2,800 housing men have learned condominium's ABC's. East Bay's HBA membership jumped from 215 to 366 since Leonard took office.



**ROBERT F. SCHMITT**

Famed as one of the country's most efficient builders, Bob Schmitt, 45, of Berea, Ohio, let his operation be the guinea pig for the celebrated TAMAP study that turned up scores of new ways to cut on-site costs. This year Schmitt again made an unselfish contribution to everybody's insights into better building by digging out the management lessons inherent in the TAMAP study. He has twice been chairman of NAHB's Research Institute.



**EMIL A. TESSIN II**

Whatever their sales success, the design-for-production of Alside Homes' 22 crisply contemporary models portends much for the future of industrialized housing. Upshot of six years work by Vice President and Chief Designer Tessin, now 32, Alside houses went into production this year in a \$7½ million Akron plant where electronic brains control almost every manufacturing step. They also constitute one of prefabrication's biggest bets yet on the quality market.



**JAMES R. TURNBULL**

In his first year as executive vice president, Jim Turnbull, 51, has broadened Douglas Fir Plywood Assn.'s attack on industry problems. Among other items, he switched emphasis of its promotion and marketing from consumers to the trade, stepped up research (e.g. working with chemical companies to develop factory finishes), developed facts to unsnarl distribution mixups, and brought the first Southern Pine plywood mills into DFPA under a standard grading system.





**MAY:** Dallas innovation



**JUNE:** Ft. Wayne two-story



**JULY:** Tacoma contemporary



**AUGUST:** Detroit split-level



**SEPTEMBER:** St. Louis one-story



**OCTOBER:** New York split-entry

## Preview of six taste-makers: These houses may sway thousands of buying decisions in 1964

Few houses built next year will get more exposure than the six models you see at the left. Millions of magazine readers will scan their plans, designs, and equipment because they will be published in color by *Better Homes & Gardens* (circ. 6,200,000). And thousands of house shoppers will walk through them because they will be duplicated by builders throughout the country. What the readers and shoppers see is bound to influence what they demand in any house they buy.

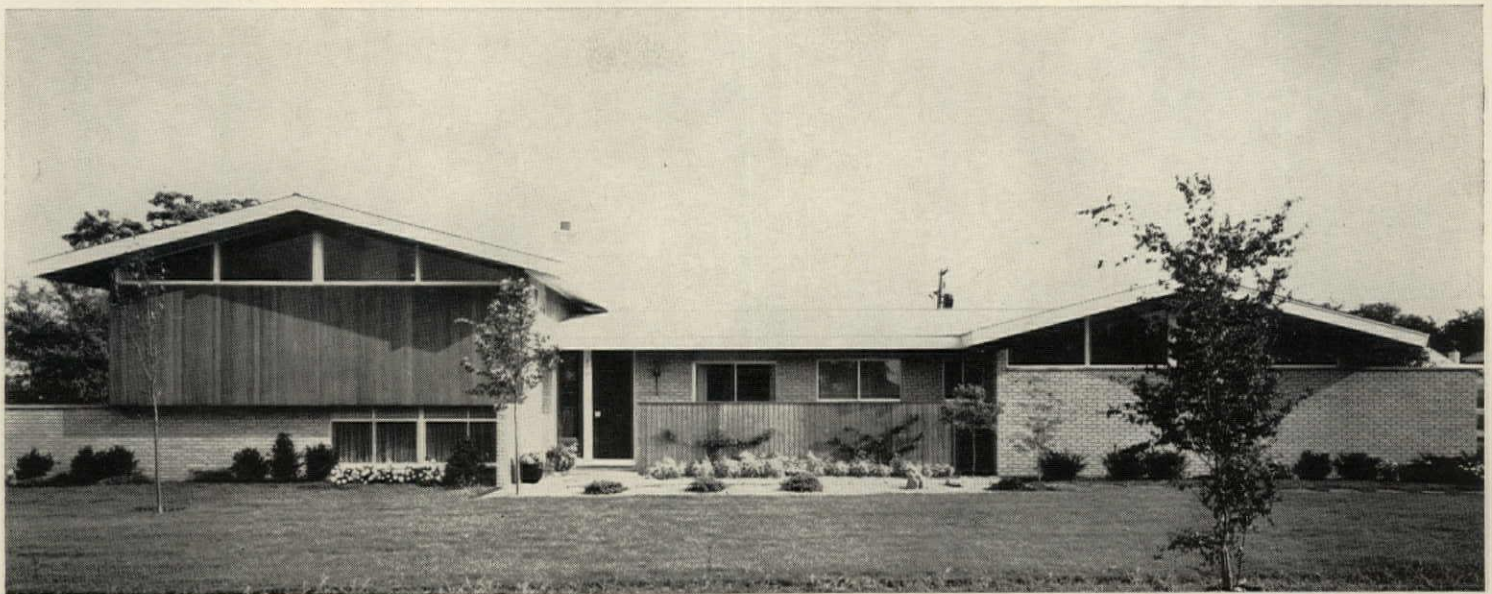
Five of the BH&G "Editors' Choice" houses are builders' models with sales-tested designs and details. The sixth (*top left and p. 129*), by a noted industrial design firm, is also a builder's model. But it departs somewhat from the norm and is likely to arouse strong comment both pro and con.

BH&G selected the models on the basis of plan, suitability to typical family needs, and variety of type (*see photos*) and price (\$17,000 to \$33,395 without land). Complete plans of the houses and materials take-offs will go to builders taking part in the promotion program (BH&G absorbs all professional fees).

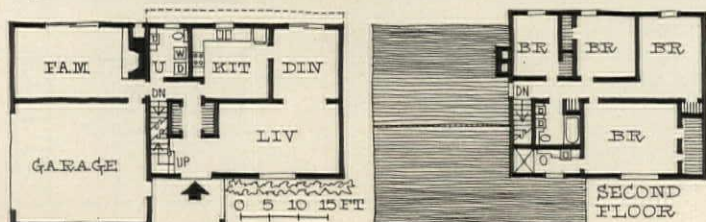
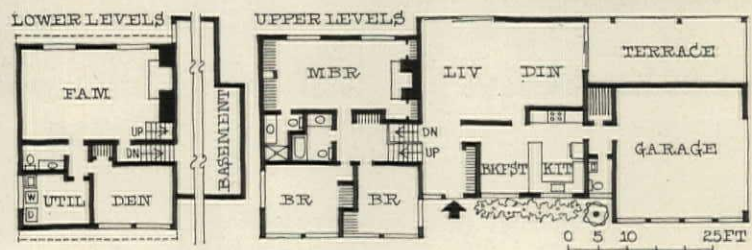
Starting next May, the magazine will publish one house a month. Besides this editorial backup, each builder of the house will receive a kit of promotional materials consisting of more than 90 items and a timetable for using them. Included: formats for newspaper ads and radio commercials, suggestions for directional and model-home signs, a training course for salesmen on how to show the model house, decorating and landscaping plans, and dozens of suggestions for promotional tie-ins with local businesses and civic organizations.

The program will be offered to builders at this month's NAHB convention—early enough for construction next Spring. (Forty-seven builders signed up to build one or more of the houses featured in 1963.) Most builders use the BH&G houses as traffic-pulling promotional models to augment standard models in a subdivision or to kick off a new development.





**SPLIT-LEVEL** by Architect George Fonville for Alliance Construction Co. is the biggest (2,518 sq. ft.) and most expensive (\$33,395) of BH&G's choices. Its plan, for varying family interests, puts the formal areas and bedrooms upstairs, with the family room and den below. A breakfast room (right), with a passthrough from the kitchen, provides a second dining area.



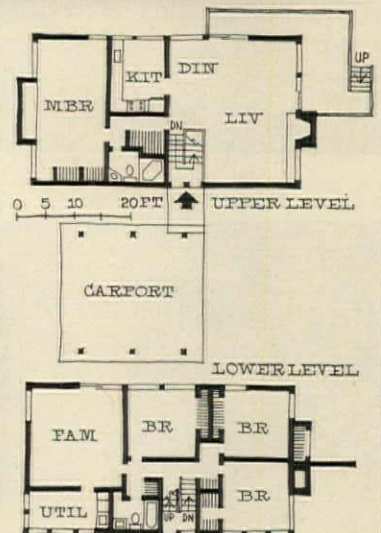
**TWO-STORY**, designed and built by Worthman Homes, is a modern version of the side-entry Colonial, adding a garage and family room to a time-tried floor plan. The family room (lower right) opens onto a rear patio, is well away from quiet rooms. The four-bedroom, 1,893 sq. ft. house sells for \$26,900.

continued

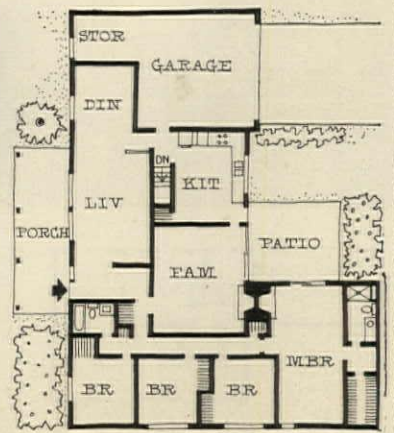




**SPLIT ENTRY** has a width-of-house master bedroom (21'x11'6") on the main floor—well away from children's bedrooms and a recreation room (left) on lower level. On a sloping site—as here—the recreation room can open to grade through sliding doors. Designed by Builder James Gibson, this 2,512 sq. ft. model sells for \$26,000.



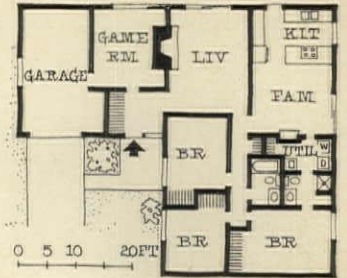
**ONE-STORY** with a southern flavor is by Architect Ralph Fournier for Builder Alfred Mayer, sets its family room (above) at the core of the house. A rear-entry garage lets the driveway double as a backyard play space. Living area: 2,087 sq. ft. Price: \$21,490.





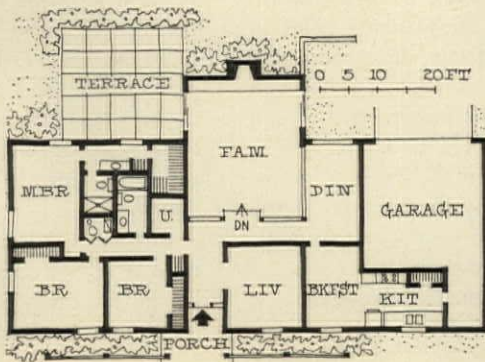


**CONTEMPORARY** offers 1,472 sq. ft. for \$17,000, is lowest price model of the group but includes three bedrooms and two baths. The living areas and kitchen are oriented to the rear, and a blank grooved-plywood facade is turned to the street. Both baths and a compact laundry-utility room are joined for plumbing economy. Architect: Robert Price. Builder: George Barclay.



**UNUSUAL DESIGN**—with louvered dormer and heavy post-and-beam portico—was developed by the Raymond Loewy/William Snaith industrial design concern for Builder I.P. (Ike) Jacobs. Says Snaith: "If we used the heavy fieldstone alone, the house would be a sod buster's fron-

tier dwelling." The designers retained the one-floor layout of a Southwest ranch home but added height with a cathedral ceiling in the large (19'x22') family room (below). By contrast, the parlor is small (12'6"x13'6"). Price: \$23,080. Living area: 2,130 sq. ft.





# FHA's new MPS: big step to good apartments

Not since 1946 have the rules governing FHA apartment construction been overhauled. Now after five years' work—and consultation with 200 agencies, manufacturers, and industry associations—FHA has rewritten, expanded, and upgraded its standards for multi-family housing.

The new Minimum Property Standards will go into effect next April or May. But FHA—with an eye to possible changes and regional exceptions—will first get the views of builders, manufacturers, and local officials at regional meetings starting early in the year.

FHA's new apartment rules are also a workable guide for builders, architects, and land planners. As such, they are likely to influence far more than FHA's share (now only 10%) of the multi-family market.

The MPS cover critical areas ignored by the 1946 Minimum Property Requirements. One example: noise control. And many of the new standards—notably those on site planning, concrete, elevators, and fire protection—are more comprehensive than the old MPR. What's more, the MPS are less ambiguous than the MPR, which had grown cumbersome under mountains of amendments. So they should be less liable to arbitrary—and often costly—interpretation by local FHA officers.

Some of the new standards—like those permitting wood-frame party walls and one exit per building—may well lead to sizeable construction savings. But the over-all result will be better designed, better built, and more livable apartments.

Certain sections of the 500-page MPS rate particular attention by the housing industry because they depart so sharply from the old MPR. Here are their key rules and recommendations:

## 1. New site planning rules give architects and planners much more design freedom

Under the old MPR, developers had to stick to one type of apartment building in a given project. They could build garden apartments, high-rise apartments, or center-city towers, depending on the density FHA permitted for the area, but could not mix types.

The new MPS give developers far more flexibility to capitalize on the potential of sites. They can build two, or even all three, types of apartment buildings, providing they don't exceed the permitted

density, and providing they meet the new MPS land-use requirements.

The key to these requirements is the graph on the opposite page—by all odds the clearest, most concise presentation of land-use regulations ever devised. It reduces 200 pages of site-planning rules to a single page. And it tells developers at a glance the maximum living area they can build on a site and the minimum they can devote to parking, recreation, etc.

The graph works on the basis of ratios, which are explained by the captions in the right margin. But the best way to understand the graph—and how to use it—is to apply it to a hypothetical project.

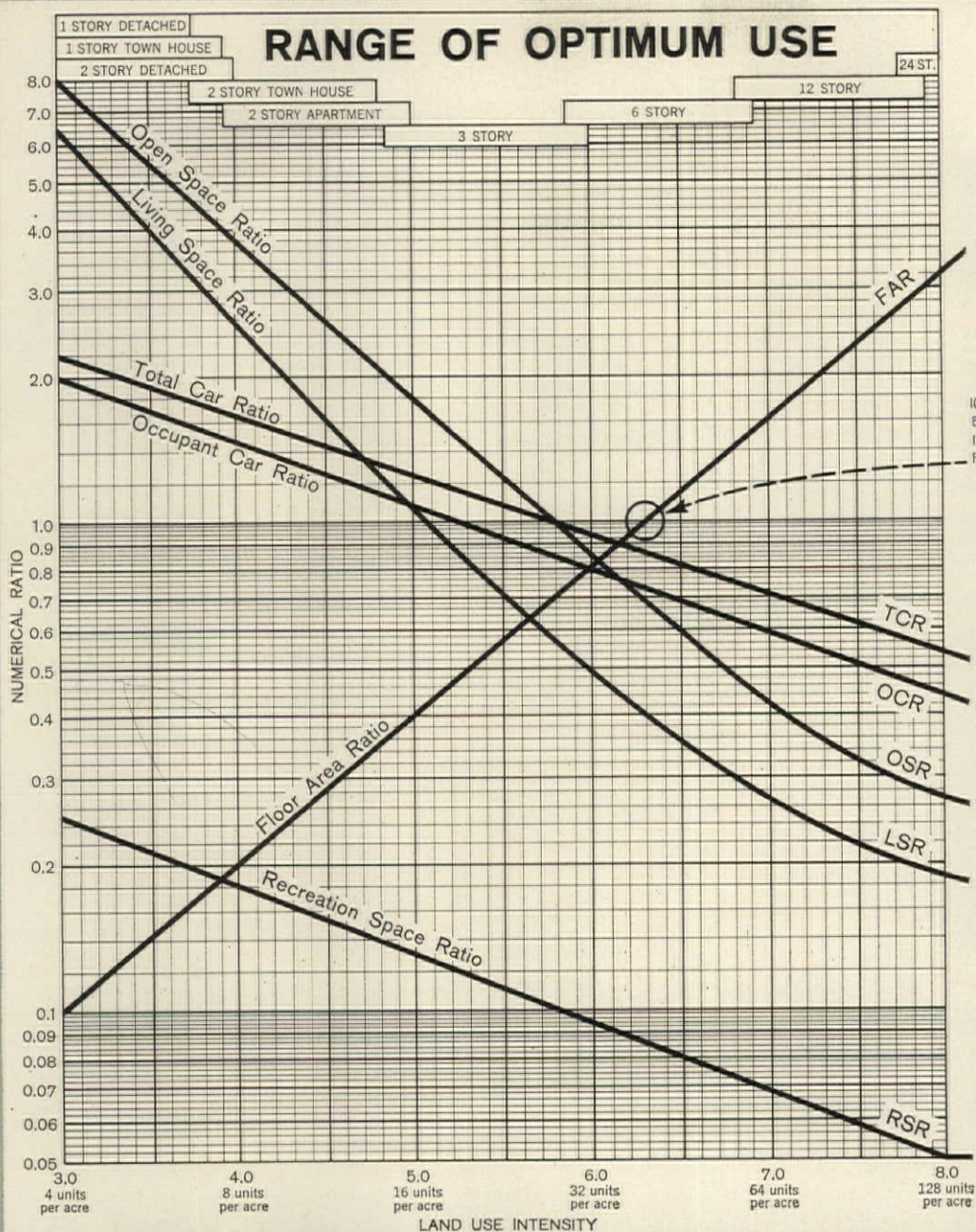
Builder X has applied for FHA financing for an apartment project. FHA analyzes

the site from the point of view of location, community, and timing, then assigns a land-use intensity ratio of 6.3 (about 40 units per acre).

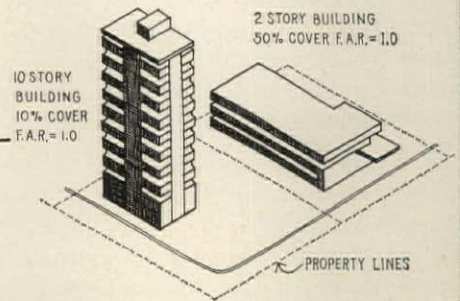
That's all Builder X needs to know. From here on he uses the graph. He finds the 6.3 ratio on the bottom scale, then reads up the vertical line above it. Each point where the line crosses a heavy black curve gives a numerical ratio, on the vertical scale at left of the graph. These ratios tell him his site-planning limitations. Specifically:

Builder X finds his maximum floor area ratio is 1.0 (circled on the graph), meaning he can build no more than one square foot of apartment floor area for each square foot of land area. (Floor area





Floor Area Ratio (FAR) is maximum square footage of total floor area permitted for each square foot of land area.



Total Car Ratio (TCR) is minimum number of parking spaces required for each living

Occupant Car Ratio (OCR) is minimum number of parking spaces without parking-time limits required for each living unit.

Open Space Ratio (OSR) is minimum square footage of open space required for each square foot of floor area.

Living Space Ratio (LSR) is minimum square footage of nonvehicular outdoor space required for each square foot of floor area.

Recreation Space Ratio (RSR) is minimum square footage of recreation space required for each square foot of floor area.

**LAND-USE GRAPH** is based on land-use intensity (bottom scale) set for project by FHA. Heavy black lines (defined in the right margin) repre-

sent various land uses. Resultant ratios (scale at left) give maximum and minimum proportions of project that must be devoted to each land use.

includes all indoor areas except garages, boiler rooms, commercial space, and common-use rooms like libraries, infirmaries, and recreation rooms. Land area is all land between property lines, plus half of any abutting right-of-way, plus half of any beneficial open space, like a public park, "with reasonable expectance of perpetuity.")

As the drawing at the right of the graph shows, Builder X can build anything from a two-story building that covers 50% of the site to a ten-story building that covers 10% of the site. But the bars at the top of the graph advise him that if his project has only one or two buildings, six stories is the optimum size.

Reading down the 6.3 line to the Total

Car Ratio curve, Builder X sees he must provide 0.83 parking spaces for each unit he builds. And the next lower curve, the Occupant Car Ratio, tells him that 0.63 spaces per unit must have no parking time limits so they can be used by the tenants.

Referring to the next curve, Open Space Ratio, Builder X finds that for each square foot of floor area, he must make available at least 0.68 sq. ft. of open space. (The MPS define open space as all uncovered outdoor area—parking, recreation, etc.—plus usable roofs, balconies, and patios. Half of all covered open area—roofed porches, carports, etc.—is also counted as open space.)

The Living Space Ratio curve tells Builder X that for each square foot of floor area,

he must provide at least 0.4 sq. ft. of outdoor area other than roads and parking space. And finally, the recreation space ratio curve tells him he must devote a minimum of 0.085 sq. ft. of land per square foot of floor area to recreation.

The new MPS also put definite limitations on yard areas next to living units. Specifically:

- Minimum depth of a yard next to a wall that contains the principal living room window is 10', plus 2' for each story, plus 1' for each 15' length of the wall.
- Minimum depth of a yard next to a wall with other than living room windows is 5', plus 1' for each story, plus 1' for each 15' length of wall.
- Walls without windows need no yard.

*continued*



## 2. New noise-control rules finally face up to the No. 1 apartment problem

Spurred by tenants' complaints about noisy neighbors, architects and builders have for years been urging FHA to set acoustical standards for apartments. The new MPS do just that. They are the country's first definitive acoustic standard (although New York's state code recognizes the need for noise control). And their construction and design requirements promise to give FHA apartments a level of acoustic privacy usually limited to luxury apartments.

The new rules are illustrated by the tables and details at right. Here is what they do:

- They classify different walls, partitions, and floor-and-ceiling systems according to how much each type cuts sound transmission (ratings are based on tests used in ASTM E 90-61T).
- They specify the type of wall, partition, floor-and-ceiling systems with specific im- used under a variety of conditions.
- They relate sound control to land-use. Reason: Outside ambient noise—like the steady hum of traffic—often reduces the irritating effect of interior sound transmission. In downtown apartments, for example, sound transmission is not as critical as in projects in quieter suburbs.
- They recommend—but do not require—floor-and-ceiling systems with specific impact-noise ratings. INRs are determined by tests called for in a recent FHA publication, *Impact Noise Control in Multi-family Dwellings* (H&H, May).

Specific MPS requirements like these will also improve noise control in new FHA apartments:

1. Separate quiet areas like bedrooms from noisy areas like elevator shafts and furnace rooms.
2. Place doors to living units so they are not opposite each other—and thus provide no direct path for sound. Otherwise each door must provide a sound-transmission loss of at least 33 decibels. All entry doors except those near the ends of corridors must have acoustic seals at head and jamb (detail at bottom right).
3. Avoid back-to-back bathrooms in adjacent apartments.
4. Insulate between heating ducts, medicine cabinets, and electrical outlets if they are in the same stud space between units (detail, right).
5. Caulk and wrap pipe and conduit where they penetrate party walls (detail, right). All pipe within party walls should also be wrapped.
6. Carry party walls through the ceiling unless adequate sound blocking (detail, right) is used between the ceiling and the floor above.

### SOUND TRANSMISSION LIMITS BY CLASS

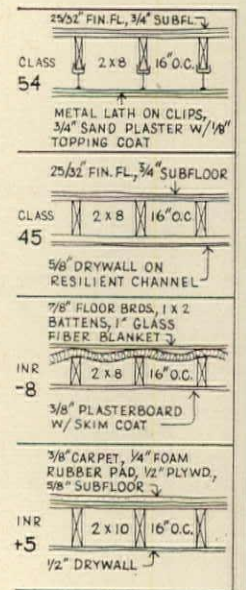
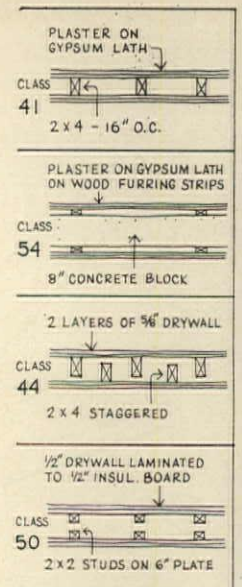
#### Partitions

Partition Location	Land use intensity under 6		Land use intensity 6 or over (1)	
	Bedroom next to partition	Other rooms next to partition	Bedroom next to partition	Other rooms next to partition
Living unit to living unit	Class 50	Class 45	Class 45	Class 40
Living unit to corridor (2)	Class 45	Class 40	Class 45	Class 40
Living unit to public space	Class 55	Class 50	Class 50	Class 45
Living unit to service and commercial space	Class 60	Class 55	Class 55	Class 45
Bedrooms to other rooms in same unit	Class 45	NA	Class 40	NA

#### Floors and Ceilings

Floor Location	Airborne sound		Impact noise rating	
	Land-use intensity under 6	Land-use intensity 6 or over (1)	Land-use intensity under 6	Land-use intensity 6 or over (1)
Floors separating living units	Class 50	Class 45	INR=0	INR-2
Corridor floors above living units	Class 55	Class 50	INR+5	INR+2
Living unit floors above public or service areas	Class 50 (3)	Class 45 (3)	INR-5	INR-8
Public or service areas above living units (4)	Class 55 (3)	Class 50 (3)	INR+5	INR+5

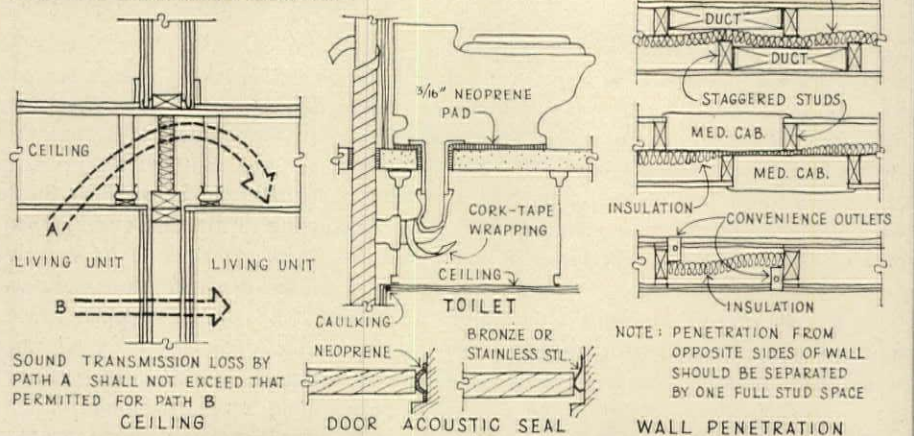
(1) In living units with year-round air conditioning and in units above eighth floor use Land use intensity under 6 column. (2) This is assuming corridors are carpeted. (3) Increase sound reduction capability 5 decibels when over or under mechanical equipment rooms. (4) Public or service areas over living units is not recommended; where it's unavoidable, special acoustic control may be required.



**SOUND-CONTROL REQUIREMENTS** for partitions, floors, and ceilings are shown in charts at left. Details, right, illustrate the construction

classes referred to in charts. Impact noise ratings (INR) referred to in the lower chart are recommendations, not requirements.

#### SOUND-CONTROL DETAILS



**CONSTRUCTION DRAWINGS** show methods stipulated by new MPS to block sound transmission between adjacent apartments. Aim of the

methods: to close up the holes and passages in party walls which are the chief cause of apartment-to-apartment noise.



### 3. New fire-protection rules: some tougher, some easier than the old MPR

The new rules are clear, concise, and complete—as many a building code is not. They contain many innovations. Some experts who have read them say they are the best set of fire-protection requirements ever published.

The rules are couched in the same language as fire-protection chapters in regional building codes. For example: The four basic building categories covered by the MPS are identical with the categories used in the BOCA, SBCC, and ICBO codes.

The heart of the new fire-protection rules is the pair of tables (right) which show (top) minimum fire-resistance ratings of structural elements and (bottom) maximum allowable heights and areas of the four building categories. The tables point up some of the key differences between the MPS on the one hand and the basic codes and the old MPR on the other.

*Item:* Nonbearing partitions not within living units (e.g. along a corridor) must be rated at one hour instead of 45 minutes. This means a wood-frame wall with 1/2" Type X drywall on both sides no longer is permitted. The drywall on both sides must now be 5/8".

*Item:* Unlike most codes and the MPR, the MPS boost the height limit of Type 3 (wood-frame with protected or noncombustible exterior) and Type 4 (wood-frame) buildings by one story—to four stories for Type 3 and three stories for Type 4. (The number of stories is counted from the first floor. Basements with no living units or less than half their area in living space are not counted).

*Item:* Area limits are now designated in square feet rather than number of living units—a recodification which should make it much easier for architects and engineers to work with the data.

(Note: If a building has an approved sprinkler system, height and area limits can, as before, be increased by 50%.)

The MPS also include significant fire-protection rules in these areas:

**Firewalls.** Fire-retardant framing is now permitted in some Type 3 and 4 buildings. (The details at right show MPS-approved construction.) This ruling is considerably more liberal than most codes but is limited to single-family row houses and to nonbearing walls. Bearing walls and walls in earthquake-prone areas must have double framing separated by three layers of 5/8" gypsum. In any case, floor, ceiling, or roof framing must not penetrate a frame firewall.

Like most codes, the MPS require that all firewalls be carried up through a combus-

### FIRE PROTECTION REQUIREMENTS

Minimum fire resistance ratings in hours

	Type 1 Non-combustible and fire resistive	Type 2 Non-combustible but not fire resistive	Type 3 Exterior walls non-combustible only	Type 4 Wood frame protected by 1-hour rating
<b>EXTERIOR WALLS</b>				
Bearing	3	2	2	1
Non-bearing (distance separation)				
Under 10 ft.	2	2	2	1
From 10 ft. to 30 ft.	1	1	2	1
30 ft. and over	NC	NC	1	1
<b>PARTY and lot line walls</b>	2	2	2	2
<b>Interior walls and partitions</b>				
Fire wall	2	2	2	2
Bearing (3)	2	1	2	1
Non-bearing (3) (4)	1	1	1	1
Partitions enclosing vertical openings	2	2	1	1
Columns, beams, girders, trusses (5)	2	2	1	1
Floor construction (6) (7)	2	1	1	1
Roof construction (8)	1	1	1	1
Construction enclosing boiler, heater incinerator or fuel (9)	2	2	2	2
Construction enclosing garage				
1. Within or attached to building				
For 1 to 4 cars	2	2	1	1
For more than 4 cars	3	2	2	1
2. Separate building				
For 1 to 4 cars	1	1	1	2
For more than 4 cars	2	2	1	2

(1) (2) Non-combustible and combustible (3) These walls include those separating living units or enclosing public corridors. Partitions within living units do not need fire ratings (4) In Types 1 and 2 constructions, fire-retardant treated wood may be used for non-bearing construction within living units. (5) Interior columns, girders and wood columns must be at least 8x8" and beams and girders at least 6x10" or 6x6" for roof only. (6) In Type 2 over 5 stories and Type 3 over three stories floor above basement or lowest story must be non-combustible, have a 2-hour fire rating. (7) Type 3 wood floors must be at least 3" thick, t&g or splined and topped with a 1" thick finish floor. (8) Wood roof construction must be at least 2 1/2" thick (9) Where space serves less than 25 living units, enclosure may have only 1-hour rating.

### MAXIMUM HEIGHT AND AREA LIMITATIONS

Floor area, per floor, in sq. ft. according to Type of construction

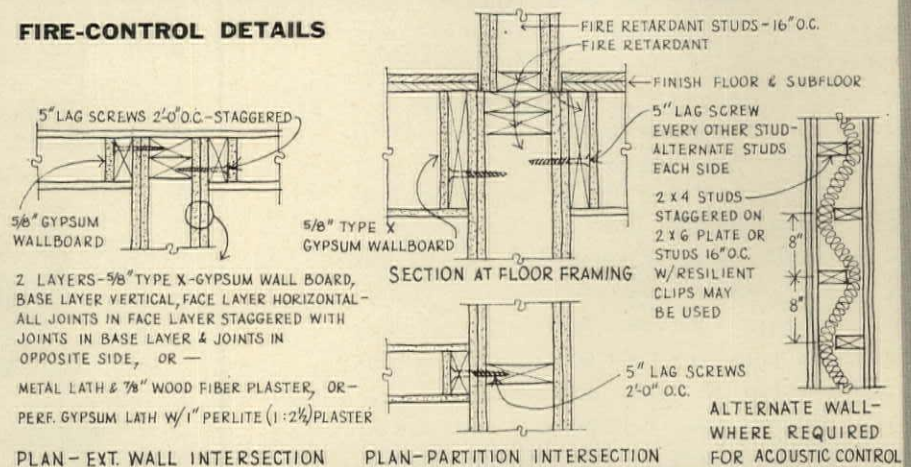
Maximum Height	Type 1	Type 2		Type 3		Type 4
		1-hour protected	Un-protected	Interior structure is heavy timber (3)	Interior structure is 1-hour protected	1-hour protected
Stories    Feet	1	2a	2b	3a	3b	4
7 or more	u	NP	NP	NP	NP	NP
6            85	u	3,000 (4)	NP	NP	NP	NP
5            70	u	6,000	NP	NP	NP	NP
4            55	u	8,000	3,000 (4) (5)	4,000 (5)	3,000 (4) (5)	NP
3            40	u (6)	10,000 (6)	5,000 (5)	7,000 (5)	5,000 (5)	3,000 (5)
2            30	u (6)	12,000 (6)	7,000 (6)	10,000 (6)	7,000 (6)	4,500 (6)
1            15	u (6)	14,000 (6)	9,000 (6)	12,000 (6)	9,000 (6)	6,000 (6)

(1) Unlimited. (2) Not permitted. (3) See notes 5, 6, 7, 8 above. (4) See note 6 above. (5) Type 2 unprotected and Types 3 and 4 buildings must be located in land use intensity areas of less than 6 if they are more than 2 stories in height. (6) These areas do not apply where there is only one exit. Refer to MPS for one exit acceptability.

**FIRE-PROTECTION CHART** (top) gives hourly ratings for various structural components. Buildings are typed according to combustibility of

structure. Height and area limitations (bottom) are aimed at containing a fire within the building in which it originates.

### FIRE-CONTROL DETAILS



**FRAMING DETAILS** show wall construction that can be used for nonbearing party walls between single-family row houses. All lumber must be

fire-retardant treated, have a 1 1/2-hour rating. Bearing walls must be double framed with three layers of gypsum between frameworks.

continued on p. 185



## Kitchens

### Eleventh annual preview

# NEW PRODUCTS FOR 1964

The significance of 1964's crop of new products can be summed up this way: There are more changes, and they are coming faster.

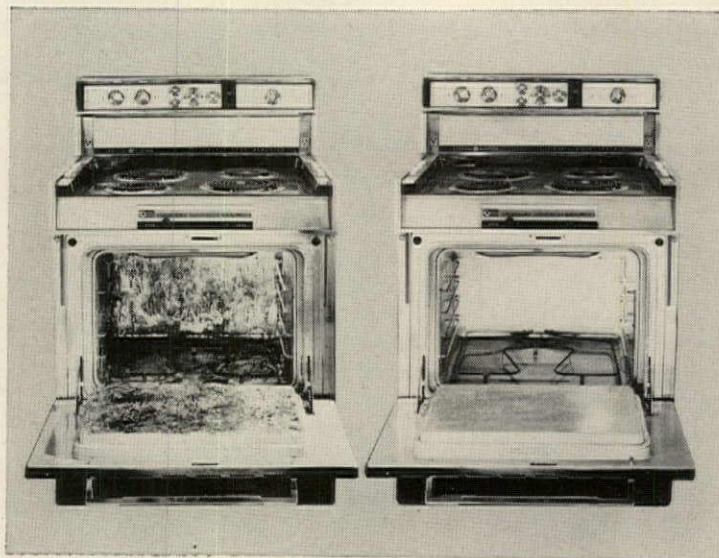
On the 16 pages that follow—and at NAHB's convention in Chicago this month—you will see, as always, new versions of established products. But you will also see an unusual number of products and materials that have never been on the market before. For example: In the field of prefinished siding (*p. 142*), two manufacturers are introducing steel clapboards and two others are unveiling solid vinyl clapboards. In the kitchen-appliance field (*right and p. 159*), several manufacturers will offer a new type of range—one with both an eye-level and a lower-level oven. And one company is making news with a self-cleaning oven (*right*) that should have enormous consumer appeal.

There is more emphasis on quality in 1964's new products. New roofing (*p. 168*) is not only more decorative but also heavier and longer lasting. A manufacturer of door hardware (*p. 162*) that made its name in low-priced locksets has just added a line of quality sets for the custom and commercial markets. And virtually every flooring company (*p. 151*) is expanding its lines of higher-priced decorative flooring.

You will find other new product news on the following pages: baths, *p. 136*; interior materials, *p. 138*; heating and air conditioning, *p. 140*; tools and equipment, *p. 155*; structural materials, *p. 163*; plumbing equipment, *p. 168*; and lighting and wiring, *p. 169*.



**Contemporary kitchen cabinets** have face-mounted doors with beveled edges to give a massive look. Doors have magnetic catches and can be installed for right- or left-hand opening. Kitchen Kompact, Jeffersonville, Ind. (For details, check No. 1 on the coupon, *p. 209*)



**Self-cleaning oven** in new range heats to 880F, decomposes all caked grease and dirt. Cleaning cycle takes 2½ hours; automatic lock keeps oven door from being opened while temperature is over 550F. General Electric, Louisville. (For details, check No. 2 on the coupon, *p. 209*)





**30" cooking center** has an eye-level oven and pullout cooking top. Electric Charm line has thermostatic controls on all surface units, optional oven rotisseries. George D. Roper Corp., Kankakee, Ill.

For details, check No. 3 on p. 209



**Slip-in gas range** is available with matching side panels so it can be built in or installed free standing. The top can be flush with counter or can lap over on the sides. Brown Stove Works, Cleveland, Tenn.

For details, check No. 4 on p. 209



**Built-in electric oven** has one-way glass door that is transparent when the oven light is on, opaque when the light is off. Maple oven cabinet, above, is also available from the manufacturer. Westinghouse, Mansfield, Ohio. (For details, check No. 5 on the coupon, p. 209)



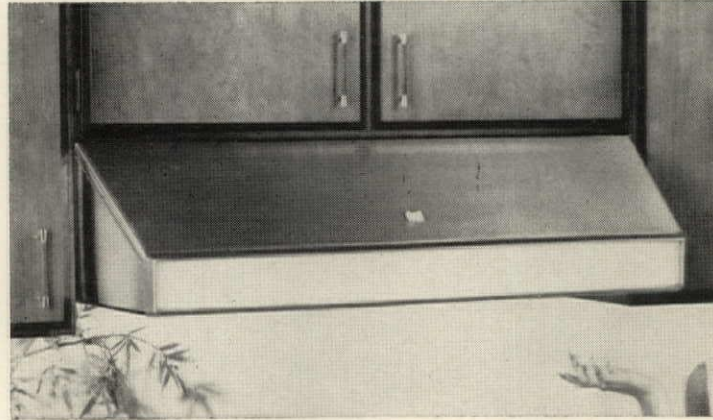
**30" gas range** with eye-level oven can be installed at any height convenient to the homeowner. Contempo units are fully automatic, come trimmed with chrome and lusterloy. O'Keefe & Merritt, Los Angeles.

For details, check No. 6 on p. 209



**Sliding racks**, offered for this manufacturer's line of kitchen cabinets, provide easy-to-reach vegetable storage with good air circulation. The racks lift out for easy cleaning. Longbell, Longview, Wash.

For details, check No. 7 on p. 209



**Range vent hood** has glass panels on both front and underside to give shadow-free lighting. Panel frame of Trade-Wind unit swings down for easy replacement of the fluorescent light tube. Robbins & Myers, Pico Rivera, Calif. (For details, check No. 8 on the coupon, p. 209)



**Economy model dishwasher** takes 24" of cabinet space, has almost the same capacity as the manufacturer's previous 30" models. Cycl-Jet has two wash and three rinse cycles. Youngstown Kitchens, Warren, Ohio.

For details, check No. 9 on p. 209



**Free-standing dishwasher** has 1 1/2" maple cutting board top. The front is available in several shades of coppertone units so it can be matched to kitchen appliances of other manufacturers. KitchenAid, Troy, Ohio.

For details, check No. 10 on p. 209



**Free-standing electric range** slides into place and still has the look of a built-in unit. Flair model is 40" wide, has an eye-level double oven and a pull-out surface-unit drawer. Frigidaire, Dayton. (For details, check No. 11 on the coupon, p. 209)

Kitchens continued on p. 159, for bathroom products see the next page



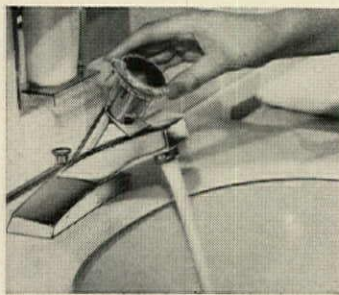
# Baths



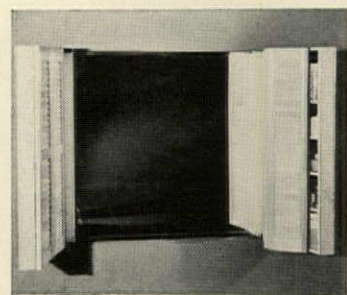
**Luxurious vanity** is 36" bowl base and 24" drawer base with plastic laminate counter. Matching shelf and drawer units are set on counter. Finish: spicewood (above) or white enamel with gold trim. I-XL Furniture, Goshen, Ind. (For details, check No. 12 on p. 209)



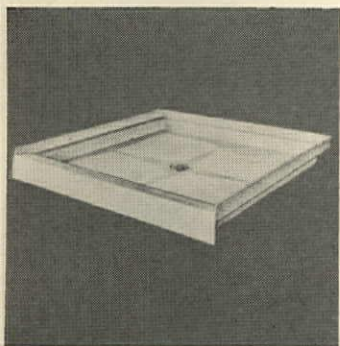
**Decorated lavatories** come in six patterns (four above). New Fashion Line also includes porcelain and gold-plate fittings, decorated toilet seats, and matching tile, wallpaper, and towels by cooperating manufacturers. Rheem, New York City. (Check No. 13 on p. 209)



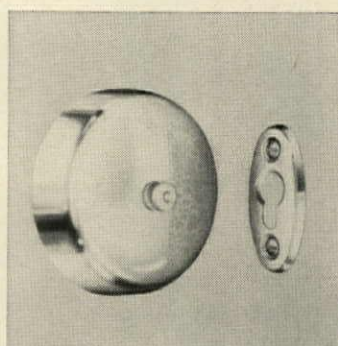
**Single-control faucet** is designed with a longer spout for submerged lavatory bowls but also fits standard lavatory edges. The High Rise has a cartridge valve to control temperature and volume. Moen, Bellwood, Ill. For details, check No. 14 on p. 209



**Side-storage cabinet** has a center mirror mounted on wall with lights and storage areas on either side. Panorama model comes with louvered doors (above) or with mirror doors. Miami-Carey, Middletown, Ohio. For details, check No. 15 on p. 209



**Molded-stone shower base** is 80% lighter than masonry units, can be handled by one man. Cascade unit includes a factory-installed brass drain, goes on subfloor, needs no pan. Fiat Metal Mfg., Plainview, N.Y. For details check No. 16 on p. 209



**Concealed clothes line** is wall-mounted in a chrome spool case. Ten-foot white nylon line provides extra bathroom drying space, can be used in houses, apartments, or motels. Hall-Mack Co., Los Angeles. For details, check No. 17 on p. 209



**Plastic shower base** is offered in a wide choice of decorator colors. The plastic is reinforced with glass fiber; the inside surface has a non-skid finish. Reinforced Plastics Inc., Willow Grove, Pa. For details, check No. 18 on p. 209



**Lavatory fixture**, the Cobra-Centerset, has combined spigot and control handle mounted out over the basin so water can be controlled without dripping soap on the back rim of the basin. Graning, Los Angeles. For details, check No. 19 on p. 209





**Vinyl bathtub cove** is pressed against tub and floor by hand. Strip 'N Stik has nondrying adhesive on back which is protected until installation by a strip-off sheet. Marken Plastic Corp., Los Angeles.

*For details, check No. 20 on p. 209*



**Vanity cabinet** is finished with unusual nutwood veneer, has plastic laminate counter top. Unit includes cupboards and a large concealed drawer at the right of the sink. Consider H. Willett Inc., New Albany, Ind.

*For details, check No. 21 on p. 209*



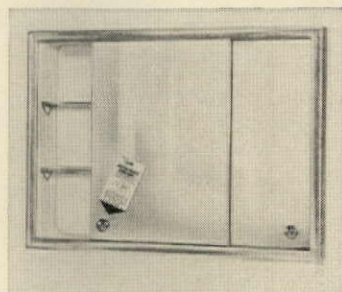
**Ornate vanity**, called the Victorian, is full ceiling height and recessed into bathroom alcove. It is one of ten designs, ranging from Victorian to modern, introduced for 1964. Formica Corp., Cincinnati.

*For details, check No. 22 on p. 209*



**Economy wall-hung toilet** is offered at the same price as many floor-mounted units. New coupling design permits fast installation by eliminating need for tank-and-bowl alignment. American-Standard, New York City.

*For details, check No. 23 on p. 209*



**Child-protecting cabinet** has keyless lock which requires finger pressure at two points plus a turning motion, thus makes it difficult for children to get at medicines. Grote Mfg. Co., Cincinnati.

*For details, check No. 24 on p. 209*



**Face-mounted cabinet** has built-in light at top, is finished in grained vinyl bonded to steel. Vinyl resembles wood, is also available in a variety of decorator colors. Jensen Industries, Los Angeles.

*For details, check No. 25 on p. 209*



**Double-lavatory vanity** is made up of modular components which can be assembled in many combinations. Golden Accent finish (above) has solid inlay panels. Mengel Wood Industries, Union City, Ind.

*(For details, check No. 26 on p. 209)*



**Shower enclosure** is framed in aluminum with satin gold or silver finish, has plastic folding doors in seven colors. Door is held shut with a magnetic catch, held open by a latch. Showerfold Door Corp., Chicago.

*(For details, check No. 27 on p. 209)*

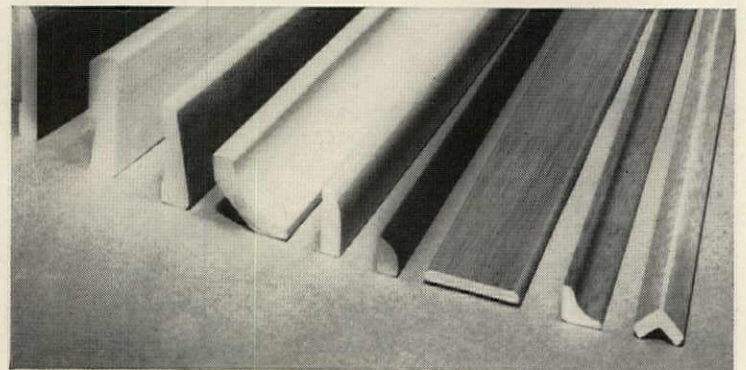
*Interior materials on the next page*



# Interior materials



**Acoustical ceiling** with metal suspension system has wood-finish grids  $1\frac{3}{4}$ " wide that extend 1" below the panels to look like beams. Glass fiber acoustical panels and translucent lighting panels are 3'x3'. Gustin-Bacon, Kansas City. (For details, check No. 28 on p. 209)



**Factory-finished moldings** are available in colors and finishes to match most wall paneling. Nine shapes cover most standard trimming needs. Polyethylene bags protect the finish before installation. E. L. Bruce Co., Memphis. (For details, check No. 29 on p. 209)

**Prefinished paneling** (left) comes in 33 wood veneers which sell for as little as 16¢ per sq. ft. retail. Choice of finishes, grades, colors, and random grooved or ungrooved surfaces. Jones Veneer & Plywood, Eugene, Ore. (For details, check No. 30 on p. 209)



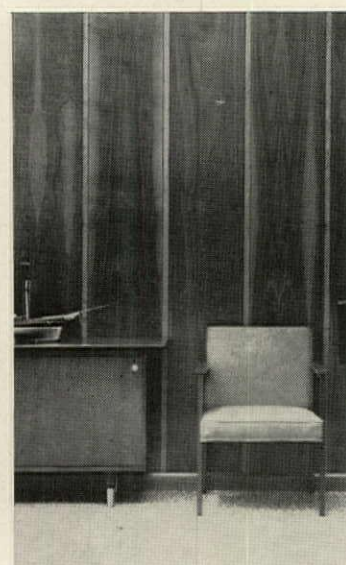
**Textured hardboard** has a factory-finished surface, egg-shell color with random fissures in gray. Marbltone panels are 4' wide,  $\frac{1}{4}$ " thick, 7', 8', 9', or 10' long. Typical 8'x12' wall: under \$35 retail. Masonite, Chicago.

For details, check No. 31 on p. 209



**Filigree room divider** of silicone-impregnated hardboard has a pattern of floral shapes within ovals. Panellaire Classic panels come in four sizes: 2'x4', 2'x6', 2'x8', and 16"x6'. Panelboard Mfg., Newark, N. J.

For details, check No. 32 on p. 209



**Hardwood wall panels** of walnut with pecan accent strips have a mar-resistant, no-flame-spread finish. Fire-retardant core is optional. Also offered in elm with walnut inlay strips. Georgia-Pacific, Portland, Ore.

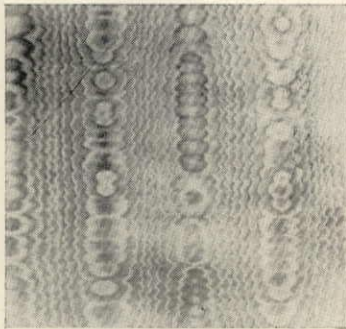
For details, check No. 33 on p. 209



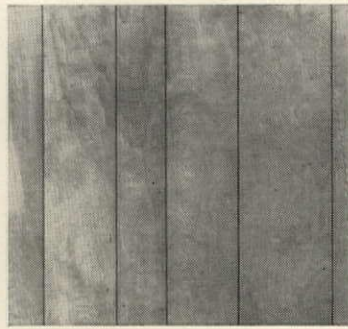
**Embossed ceiling tiles** come in four raised plastic designs. Berkshire (above) is a white paisley pattern on a white surface with tiny metallic highlights. About 32¢ per sq. ft. retail. Armstrong, Lancaster, Pa.

For details, check No. 34 on p. 209

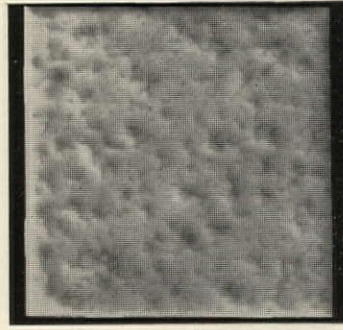




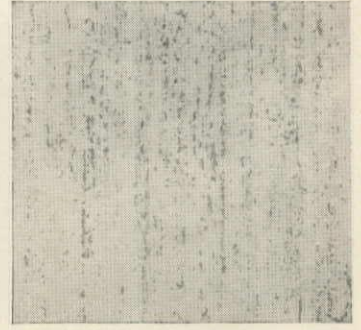
**Vinyl wall covering** comes in more than 100 designs, colors and textures at a suggested price of \$2.98 per roll (36 sq. ft.). Moire (above) is a textured watered-silk pattern. Richco, New York City.  
For details, check No. 35 on p. 209



**Prefinished hardwood** in antique birch (above) and pecan paneling is added to Forestglo's 11 woods and finishes. Maker says the finish will not crack or yellow; it cleans with a damp cloth. Weyerhaeuser, Tacoma.  
For details, check No. 36 on p. 209



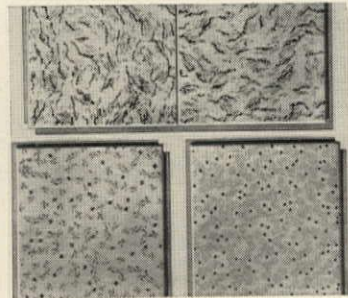
**Ceramic tiles** in a new series come with threads in seven colors running through a white field, and inversely, white on tan. Inca series is made in three sizes: 4" x 4", 6" x 6", 6" x 4". Interpace, Los Angeles.  
For details, check No. 37 on p. 209



**Hardboard panels** with a deep-etched, ivory-color surface are a reproduction of travertine marble. They may be used on accent walls in entries and as space dividers. Sizes: 4' x 7', 4' x 8', 4' x 10'. Celotex, Chicago.  
For details, check No. 38 on p. 209



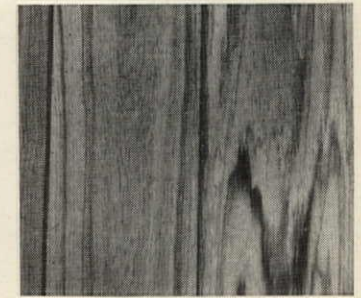
**Mineral fiber ceiling tile** now comes with an acrylic surface that has the same sound-absorption and attenuation ratings as uncoated tile. It also has a light-reflecting rating of 86%. National Gypsum, Buffalo.  
For details, check No. 39 on p. 209



**Ceiling tileboard** in acoustical line has three new designs. Chateau, top, a two-tone simulated fissure pattern, comes in two-tile units. Pendant and Carousel are 12" x 12". All have t&g joints. Insulite, Minneapolis.  
For details, check No. 40 on p. 209



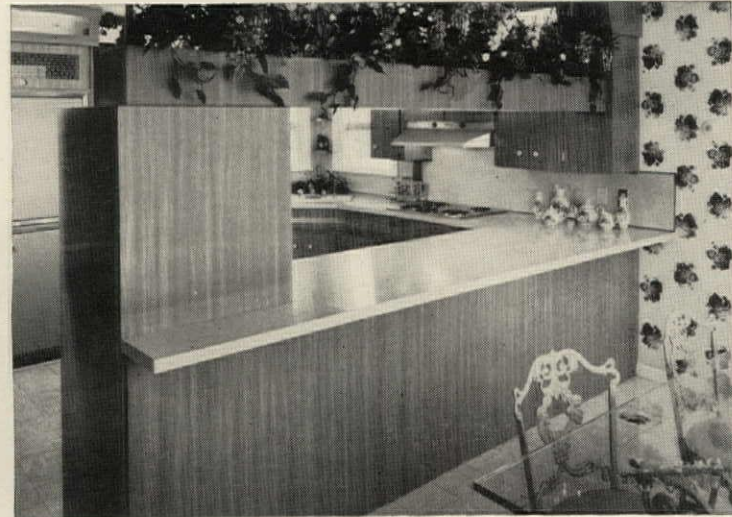
**Ceiling suspension system** of lightweight metal consists of three components: 10' wall moldings, 10' main runners, and 4' x 2' cross tees with wing tabs that lock into the main runners. Wood Conversion Co., St. Paul.  
For details, check No. 41 on p. 209



**Prefinished plywood panels** are now offered in four luxury wood veneers: teak (above), butternut, wormy chestnut, and Brazilian rosewood. Teak color runs from golden tan to dark brown. U. S. Plywood, New York City.  
For details, check No. 42 on p. 209

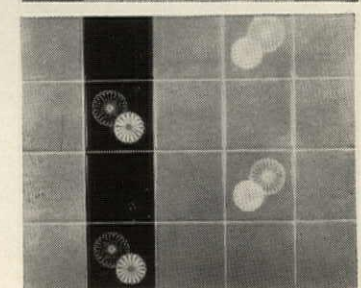
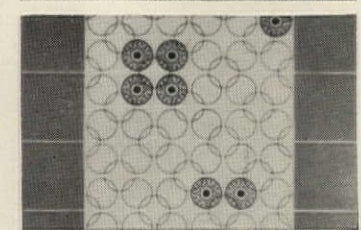
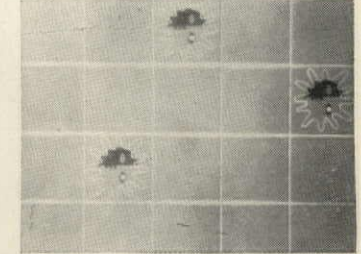


**Birch paneling** has gold-brown veneer with a baked-in finish that resists scratches and stains. Frontier Birch is priced for low-budget jobs, comes 4' x 8' with matching hardwood molding. E. L. Bruce Co., Memphis.  
For details, check No. 43 on p. 209



**Snack-bar divider** has all plastic laminated surfaces that wipe clean and resist food stains. Woodgrain finish is Platinum Walnut; counters and backsplashes are Pionite Encore. Pioneer Plastics, Sanford, Me.  
(For details, check No. 44 on p. 209)

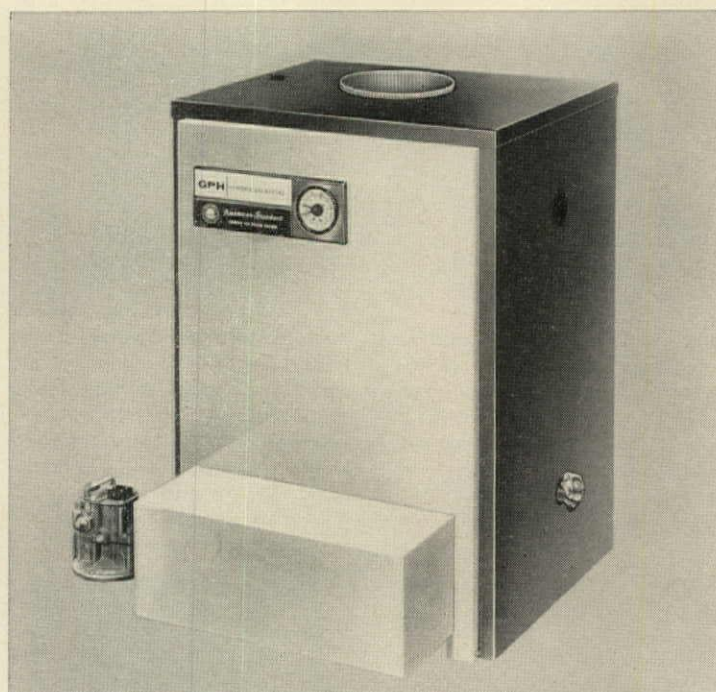
**Accent tiles** (right) can be random laid to give a custom look at little extra cost or grouped to form a decorative wall. Scored designs look like several smaller tiles; one includes a gem-like insert. American Olean, Lansdale, Pa. (For details, check No. 45 on p. 209)



For heating and air conditioning, see the next page

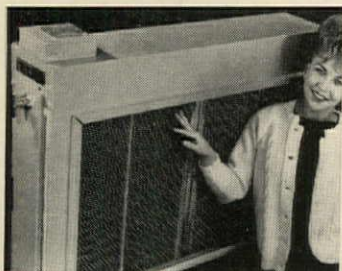


# Heating and cooling



**High-output hydronic boiler**, designed for medium to large homes, is available in 100,000 to 170,000 BTU capacities. The gas-fired unit has an integral system to separate combustion, air and water. American-Standard, New York City. (For details, check No. 46 on p. 209)

**Compact hydronic boiler** (left) provides continuous water circulation at constant temperatures. Magic Heat units come with capacities of 80,000 to 195,000 BTU, are packaged for quick installation. A.O. Smith Corp., Milwaukee. (For details, check No. 47 on p. 209)

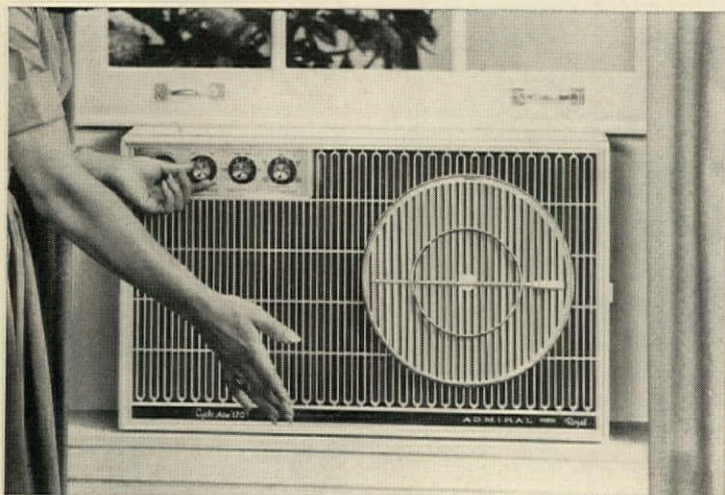


**High-Capacity air cleaner** filters out dust by electrostatic action, is designed for homes up to 4,600 sq. ft. in size. Control panel shows when filters need to be removed and washed. Honeywell, Minneapolis.

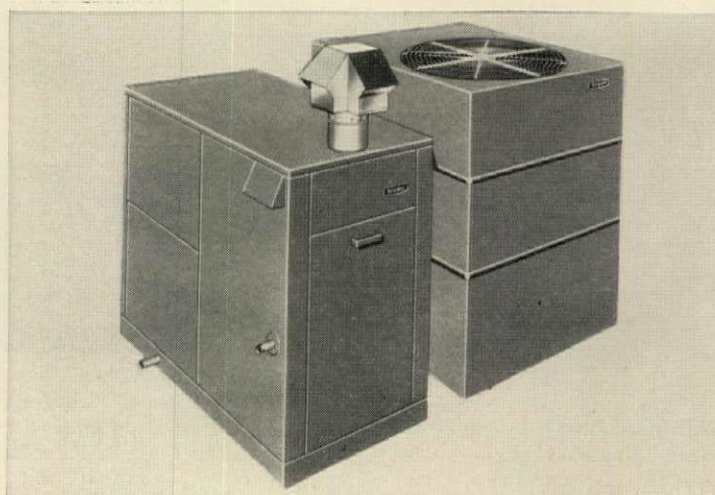
For details, check No. 48 on p. 209

**Tuck-in electric heater** fits in 4"x14" wall opening between studs. Unit uses either 120 or 240 volts, is shipped with interchangeable wattages of 1,000, 1,500 or 2,000. Arvin Industries, Columbus, Ind.

For details, check No. 49 on p. 209

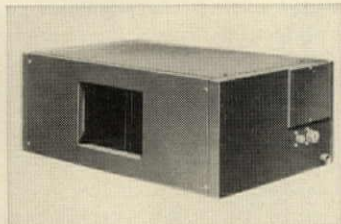
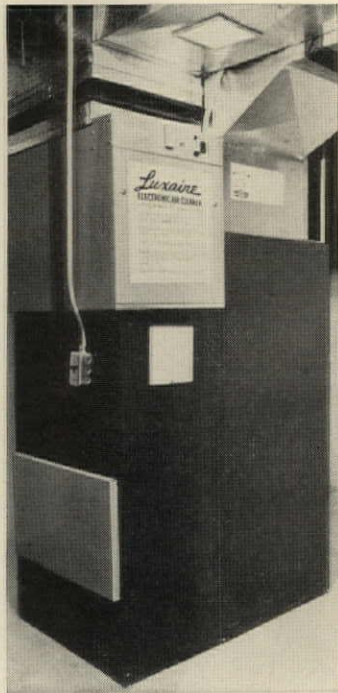


**Room air conditioner** has oscillating louver that spreads cool air more uniformly and cuts down drafts. Cycle-Aire unit installs in through-wall or window-sleeve mount. Capacity: 17,000 BTU. Admiral Corp., Chicago. (For details, check No. 50 on p. 209)



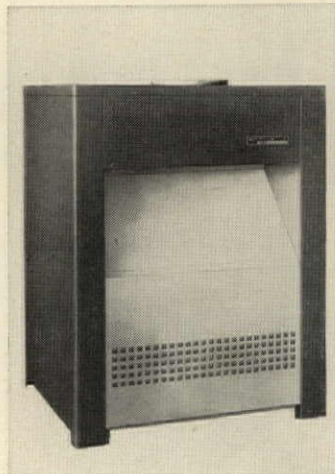
**Roof-mounted unit** provides high-capacity heating and cooling for commercial buildings. Gas-fired system offers heating capacities of 50,000 to 300,000 BTU, cooling capacities of three to nine tons. Bryant Mfg., Indianapolis. (For details, check No. 51 on p. 209)



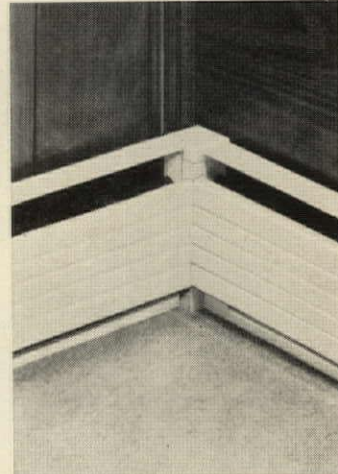


**Blower-coil cooling units** are designed for independent cooling systems in new houses with hydronic heating, or older houses with heating systems to which cooling cannot be added. Henry Furnace Co., Medina, Ohio.  
For details, check No. 52 on p. 209

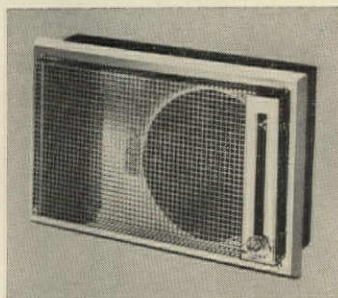
**Electronic air cleaner** (left) can be installed in duct system or as an independent unit. Luxaire operates on 120 volts and will remove up to 98% of airborne particles. C.A. Olsen Mfg., Elyria, Ohio.  
For details, check No. 53 on p. 209



**Gas-fired boiler** has built-in flue collector and draft diverter which eliminate need for draft hood. Capacities are from 120,000 to 540,000 BTU in hydronic or steam systems. Bastian-Morley, LaPorte, Ind.  
For details, check No. 54 on p. 209



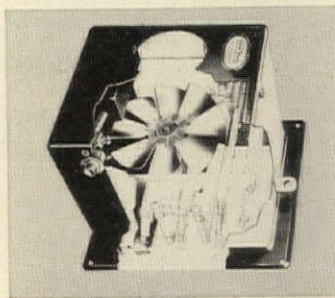
**Electric baseboard heater** has low-density output — 175 watts per foot — is designed to eliminate most wall streaking. Neutral beige finish fits most decorating schemes. Emerson Electric, St. Louis.  
For details, check No. 55 on p. 209



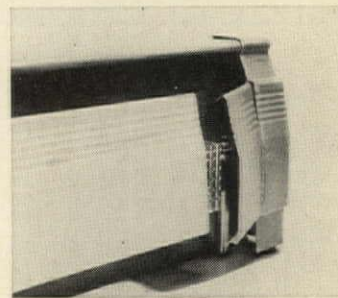
**Electric wall heater** operates on 120 volts, delivers 5,120 BTU with a 1,500-watt output. Unit weighs 7½ lb., takes up 15½" x 10" of wall space, comes with a stainless-steel finish. Fasco Industries, Rochester.  
For details, check No. 56 on p. 209



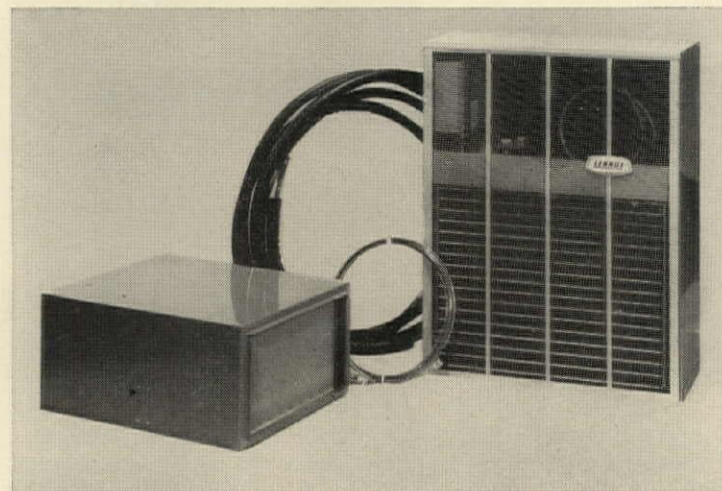
**Flow-control unit** permits single-valve link for primary-secondary hydronic systems. Duo-Flo handles both secondary supply and secondary return to the main line. Bell & Gossett, Morton Grove, Ill.  
For details, check No. 57 on p. 209



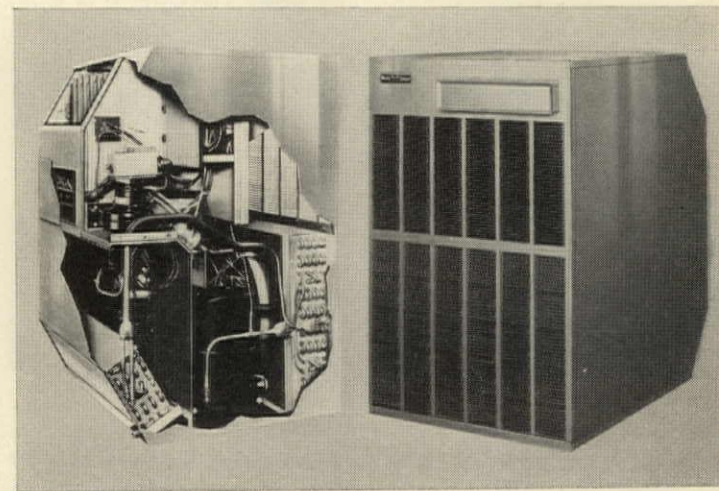
**Combination unit** includes ceiling heater, light, and exhaust fan in one 14"x8"x8" housing. Heater provides 1,250 watts; light is from two 60-watt recessed fixtures. General Electric, Providence, R.I.  
For details, check No. 58 on p. 209



**Hinged edge cap** for this company's line of baseboard convectors opens with finger pressure. permits easy access to pipe fittings, air vents, or hand valves. Edwards Engineering, Pompton Plains, N.J.  
For details, check No. 59 on p. 209



**Heat pump** designed for apartments fits in two stud spaces. It is also available as an air conditioner to which supplementary electric heat can be added. Lennox Industries, Marshalltown, Iowa. (For details, check No. 60 on p. 209)

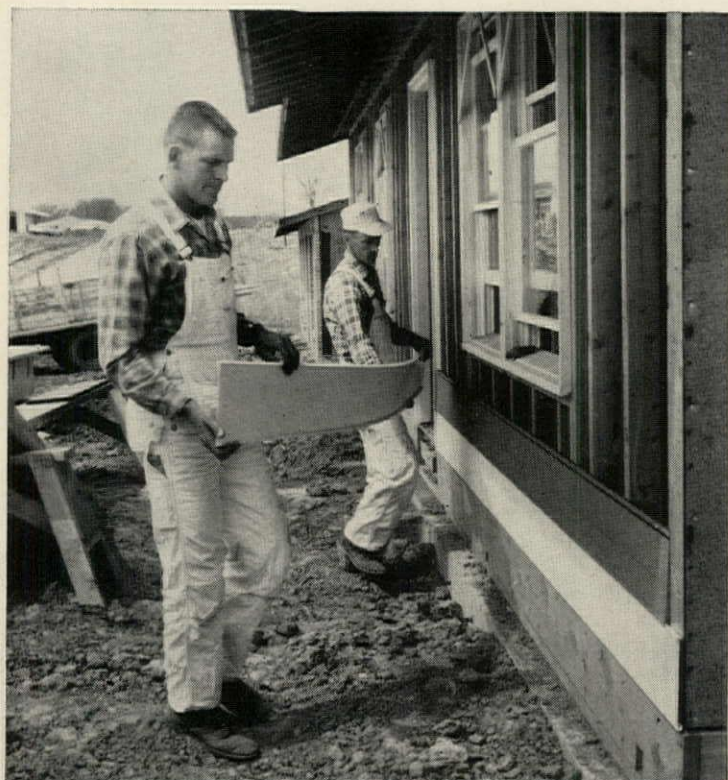


**Through-the-wall unit** for apartments needs no chimney, has blower for combustion air and exhaust gas. Gas heating input: 37,500 to 75,000 BTU; electric cooling capacity: 16,000 to 22,000 BTU. Mueller Climatrol, Milwaukee. (For details, check No. 61 on p. 209)

For siding, see the next page



# Siding



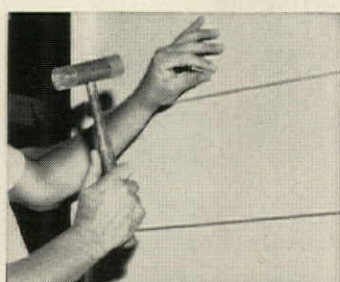
**Vinyl siding** (*left*) requires no nailing, clips over a moisture-resistant backer board of pressed fiber grooved to hold the siding. It comes in solid white in 12'6" lengths. Monsanto Chemical, St. Louis.  
For details, check No. 62 on p. 209



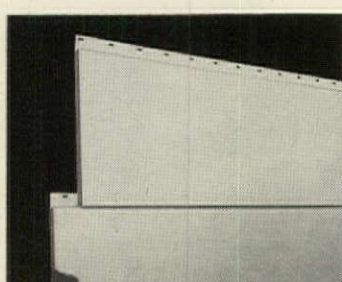
**Redwood plywood siding**, (*right*) called Inverted Batten Rufsawn, has 1½" grooves 12" o.c., is 5/8" thick. Sheets are 48¾"x8', 9' or 10', have factory-applied, water-repellent finish. Simpson Timber, San Francisco.  
For details, check No. 63 on p. 209



**Steel siding** is offered in several colors, including white, or baked enamel applied over galvanized and bonderized steel. Exposure is 8", butt depth is 3/4", and panels are 12'6" long. Aluministeel, Hammond, Ind.  
For details, check No. 64 on p. 209



**Prefinished wood siding** is warranted not to need repainting for seven years. Three-coat finish is topped with acrylic resin offered in five colors. Clapboards are 8" or 10" wide. Weyerhaeuser, Tacoma.  
For details, check No. 65 on p. 209



**Aluminum siding** is back-coated with acrylic for added protection and laminated to insulating fiberboard. Pile-On siding is available in a variety of colors. Lyf-Alum Inc., Oconomowoc, Wis.  
For details, check No. 66 on p. 209



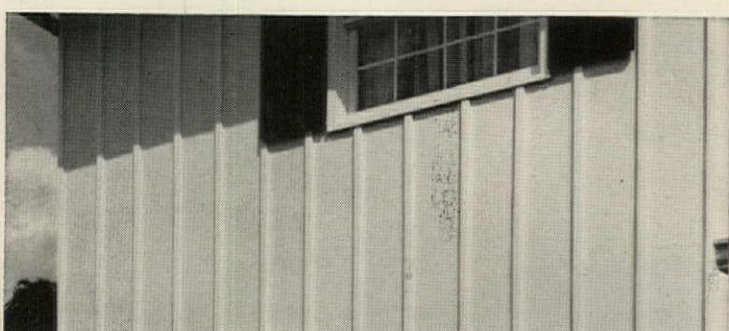
**Hardboard siding**, called Colorlock, has Videne polyester finish in white, green, beige, or gray. Locking strip in back of board permits application with no exposed nailing. Masonite Corp., Chicago.  
For details, check No. 67 on p. 209



**Steel siding** is fastened to sheathing with special clips. Rolled top edge holds bottom of next course above. Panels are 12' long, weigh 6½ lb. each, and come in a variety of light colors. Bethlehem Steel, Bethlehem, Pa.  
For details, check No. 68 on p. 209



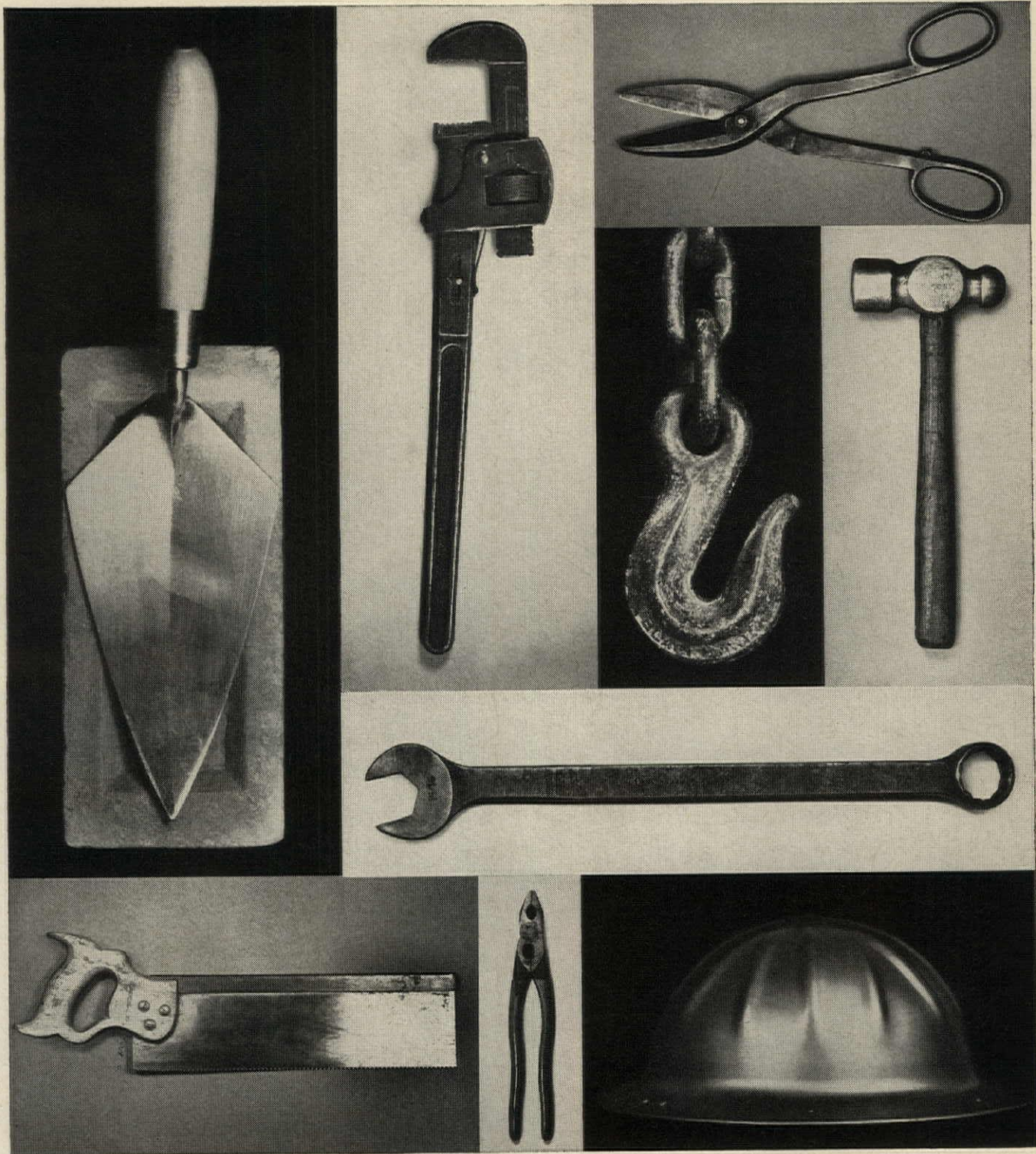
**Vinyl siding** has solid color all the way through, so requires no repainting. Cutting can be done with hand tools like tin snips. Sections are 12'6" long, applied over fiber backer board. Bird & Son, East Walpole, Mass.  
For details, check No. 69 on p. 209



**Plywood siding**, PF-15, is pre-finished with DuPont Tedlar film, guaranteed not to need paint for 15 years. Wood battens are nailed on, covered with snap-on Tedlar jacket. U.S. Plywood, New York City.  
For details, check No. 70 on p. 209

Roundup of new products for 1964 continued on p. 151





## Which job can you do in the Peace Corps?

Many countries in Asia, South America and Africa need craftsmen with skilled hands and minds to speed their progress. These countries are asking for qualified Peace Corps Volunteers who can help teach the skills basic to their future.

You may qualify for the Peace Corps if you are skilled as a mason, concrete finisher, electrician, heavy equipment operator, roofer, sheet-metal worker or construction foreman . . . or if you are skilled in diesel repair, carpentry, mechanics, plumbing or any one of a dozen other trades and crafts.

Any qualified citizen over 18 is eligible. There is no upper age limit. Married couples may serve together if both are qualified and have no dependents. Peace Corps assignments are for two years, including training in the language and customs of the country to which you are assigned.

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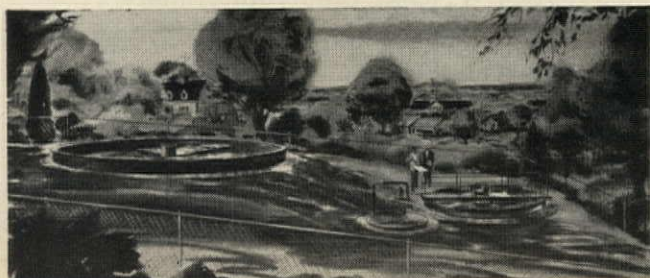
## *Go ahead, build!*

**Dorr-Oliver's CompleTreator takes care of the waste water treatment problem.** It's the most compact, most reliable and easiest to maintain on-site treatment system you can use. The CompleTreator® process consumes 85% to 95% of the waste, producing an effluent that is chemically and biologically stable and safe for disposal.

End of on-site treatment objections!

Why restrict your building projects to land within reach of city sewers . . . why worry about drainage fields . . . water table . . . type of soil? **Go ahead and build** with CompleTreator! Address: Dorr-Oliver Incorporated, CompleTreator Division, 77 Havemeyer Lane, Stamford, Connecticut.





For as little as \$300 a house (in the average 200-house development), a CompleTreator plant gives you the sales plus of low-cost, odor-free and trouble-free on-site sanitary treatment.

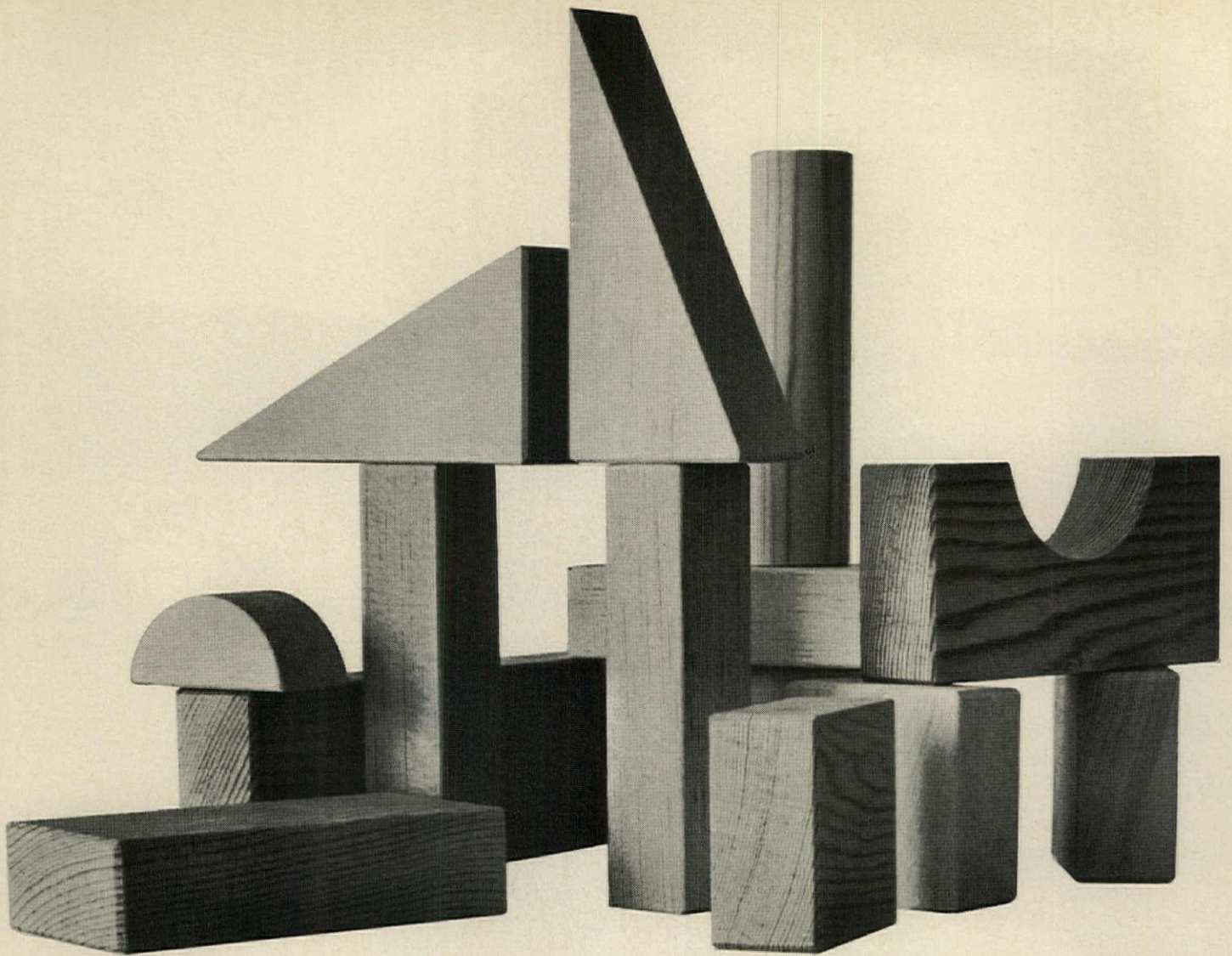
Land area used is amazingly small. Even the largest system—it'll handle 600 homes—takes up only 50' x 100'. The smallest CompleTreator (big enough for 30 homes) can be delivered, fully assembled, on a trailer truck. Write for bulletin—No. 73 "Compact Sewage Treatment Plants."



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**We mean business.**

**Homebuilding business.** And for alert advertisers, business right now is great. Starts are beyond forecasts and still climbing. A great market—fat and getting fatter—a gold mine for level-headed manufacturers who know how to sell to it. Who know what they're doing. Who know that most housebuilding and related non-residential light construction today is done by a builder team—smart, successful, management-minded men who don't fool around with hammers and saws. They're builders, architects, lenders, realty men, appraisers, distributors, dealers. They're your market, and they can make or break your product's sale. Another thing: they read HOUSE & HOME—more of them by far than read any other magazine in the field. That makes HOUSE & HOME offer your primary marketing opportunity in the rich housing industry. HOUSE & HOME—first in circulation, first in advertising, first in service to the industry. Playing around? You bet your life we're not. We mean business.

Good business—for products displayed and sold in **House & Home**  
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# Erect a National apartment for as little as 18.6¢ per sq. ft.

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National multiple dwellings cost less per square foot and go up faster, thanks to National's complete fabrication. In fact, National multiple dwellings are erected for as little as 18.6¢ per square foot. You get a faster return on your investment and incur less interest charges.

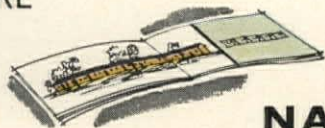
Fast, complete occupancy is insured due to

the built-in quality features which only National offers. This, plus the widest choice of designs in the industry, makes National's individual living units highly sought after. Many owners of National multiple dwellings report long waiting lists of people wanting to take advantage of living at its best... in a National multiple dwelling.



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Twenty-four pages in beautiful full color showing the complete National line of multiple dwellings. You'll find every conceivable style and design illustrated with detailed floor plans. Write or call today!



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Lafayette, Indiana

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Sustained excellence in manufacturing kitchen cabinets is the sum total of hundreds of successful operations, from the engineering that predetermines the construction of every part of every cabinet . . . through fabrication by skilled personnel working with the finest tools and machinery available to the industry . . . to utterly dependable shipping demonstrated by years of not missing a scheduled shipment. We are proud of assurances we constantly receive from customers that we have passed every test of excellence, and that for quality alone, or *quality-at-a-price*, or *quality-at-a-price-plus-service*, we have no equal in the kitchen cabinet industry.



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H&H-1263

*The Judge Jeremiah Sullivan House at Madison, Indiana, was built in 1818 and is one of the finest examples of Federal architecture in the Middle West. It is now being restored under the auspices of Historic Madison, Inc. The H. J. Scheirich Company is serving as co-sponsor of the restoration of the first floor kitchen.*







today's home buyers  
are electrically-minded ..... *that's why*  
circuit breakers  
*have tremendous appeal!*

More and more, electrical equipment and appliances are being provided and promoted as an integral part of the home. It takes adequate wiring to provide for these "built-in" electrical features and others that will be added later on.

You have a real, merchandisable selling feature when you install QO "quik-open" circuit breakers in your homes. You're providing far more than adequate wiring. You're providing a convenience that's easily demonstrated and readily appreciated. In fact, many buyers have come to consider circuit breakers "stand-

ard equipment" in the modern home. There are no fuses to replace. Even a child can restore service, quickly and safely. You're providing modern protection against overloads and "shorts." And—you're providing for future circuits as they're needed.

As your electrical contractor can tell you, Square D's QO is the circuit breaker that heads the list in quality and performance.

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# BEAUTY

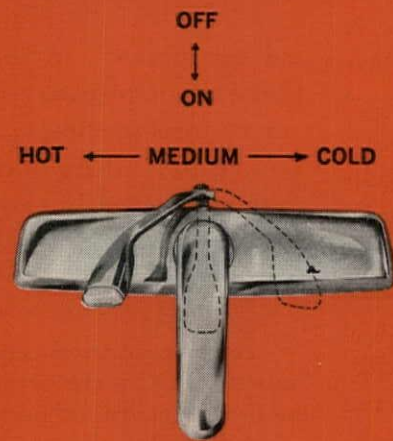
THAT SELLS

• The public demands elegance in today's home — and Price Pfister styling certainly gives it to them in kitchen and bathroom plumbing fittings. These new 'FLOW-MATIC' single handle faucets have good looks that speak for themselves. Price Pfister has been proven by installations in literally millions of homes and apartments all over America. Most of the nation's largest builders specify "brass by Price Pfister." They get more style, more quality — more value than from any other Brass!

# DURABILITY

THAT LASTS

A BUILT-IN SAFETY FEATURE Water always shuts off with handle in neutral warm position. Next user always protected against flow of extremely hot water as the moderate water temperature is known immediately by position of handle.

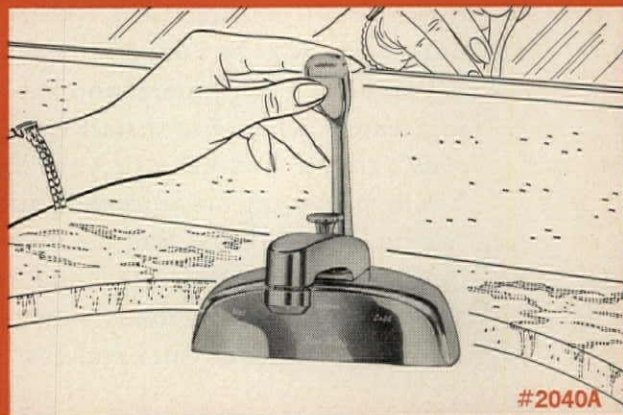
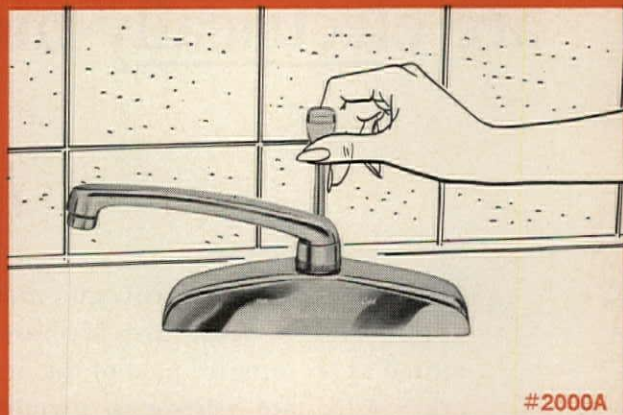


# PRICE

THAT SAVES

NEWS FROM PRICE PFISTER  
WORLD'S LARGEST EXCLUSIVE MANUFACTURER OF BRASS PLUMBING FITTINGS

## FLOW-MATIC SINGLE-HANDLE FAUCETS



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**Flooring**



**Resilient tile** flooring comes in 9" sections of 1" ceramic tiles in a rubber grid. Grid is light grey; tiles are white with accents in six colors and nine patterns. Sections are set in adhesive. Grid eliminates grouting. U.S. Ceramic Tile, Cleveland. (Check No. 71 on p. 209)

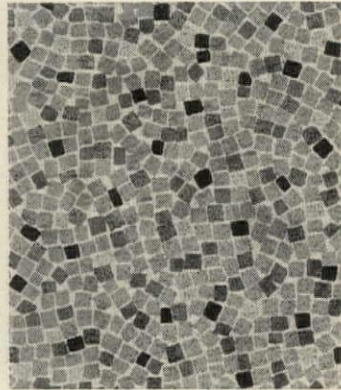


**Luxury vinyl** with a pattern inspired by paisley prints comes in seven color combinations and in matching solid colors. Paiselle is made in 12"x12" tiles and in 36"x36" sheets for on-the-job cutting of special-size insets. Armstrong Cork, Lancaster, Pa. (Check No. 72 on p. 209)



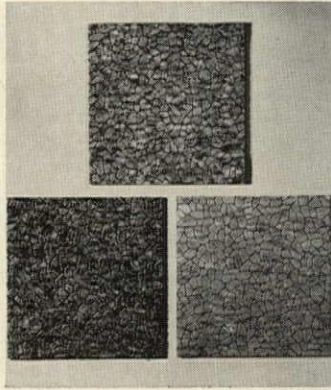
**Light-colored adhesive** is a white paste that can be used under translucent vinyl instead of costlier latex adhesive. SU-23 should not be used in damp places or on impervious surfaces. Congoleum-Nairn, Kearny, N.J.

For details, check No. 73 on p. 209



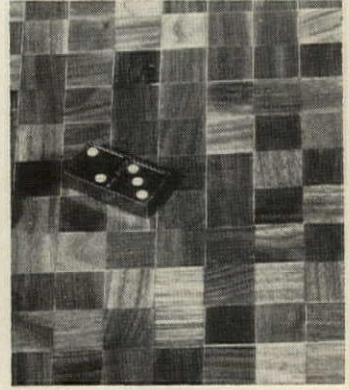
**Vinyl floor covering** in a new chip and mortar design is colored tan, gray, or taupe with multi-colored accents. Random Mosaic is made 6', 9', and 12' wide; about \$1.19 a sq. yd. retail. Sandura, Jenkintown, Pa.

For details, check No. 74 on p. 209



**Embossed vinyl-asbestos** is patterned after the texture and color of sea-washed pebbles. Terraflex Seastone tiles are made 9"x9"x1/16" in a choice of five variegated shades. Johns-Manville, New York City.

For details, check No. 75 on p. 209

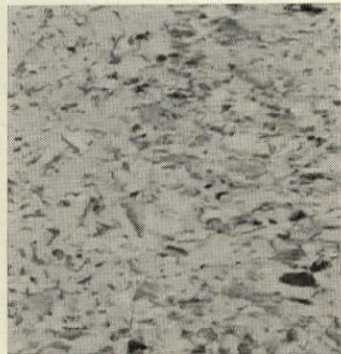


**Hardwood parquet** consists of 9/10" squares made into 18"x18" units. BondWood Domino is 5/16" thick, available in solid red oak, white oak, maple, or walnut. Joints are not beveled. Harris, Johnson City, Tenn.

For details, check No. 76 on p. 209

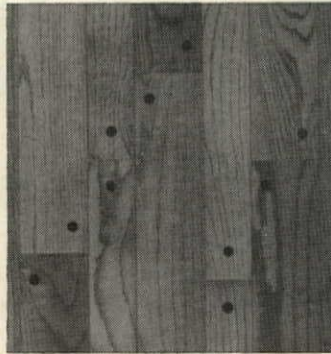


**Solid vinyl tile** is offered in a new pattern called Repousse. Tiles are 12"x12" and either .080" or 1/8" thick. Eight colors are available. Retail price: about \$1.50 a tile. Installed price: about \$2.50 a tile. Kentile, Brooklyn, N.Y.



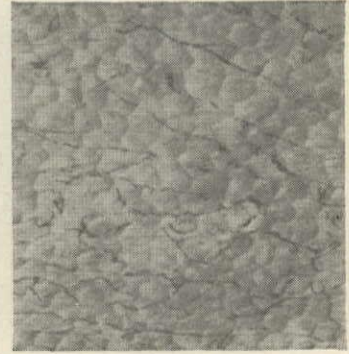
**Vinyl asbestos tile** has new three-dimensional pattern: random onyx, brown and white accent chips on a white-tinted field. Pebbled Onyx retails for 3¢ a sq. ft. more than regular vinyl asbestos. Azrock, San Antonio.

For details, check No. 77 on p. 209



**Factory-finished planking** is random pegged and comes in a new dark color. Shallow side bevels accentuate the plank effect. Ranch Plank alternates 2 1/4" and 3 1/4" wide strips. E. L. Bruce Co., Memphis.

For details, check No. 78 on p. 209



**Textured vinyl** flooring is offered with random color veins on a choice of five background colors. Romanesque is made in 12"x12" tile and 6'-wide rolls, retails for less than \$4 a sq. yd. Goodyear, Akron.

For details, check No. 79 on p. 209

New products continued on p. 155



For the first time! A national program that

**SIGN UP NOW**—put this \$1,000,000 worth

**TAPPAN**  
MILLION-DOLLAR  
Home-Selling  
Spectacular



**WIN  
THIS HOME  
AND  
THE  
TAPPAN  
KITCHEN  
IN IT!**

as seen on  
**The  
TODAY  
SHOW**  
starring  
**HUGH  
DOWNS**  
**NBC-TELEVISION**

**LETS YOU FEATURE YOUR MODEL HOME—  
AS A PRIZE YOUR PROSPECTS CAN WIN!** It's  
a sure-fire traffic builder! A big sweepstakes  
with hundreds of prizes given away! And first  
prize is a \$25,000 home. It lets you promote  
*your* model home as a prize home-hunters in  
your area can win just by coming out, seeing  
it, and entering while they're there! Tappan  
furnishes the prize structure—plus a com-  
plete merchandising package to make this  
sweepstakes work for you.



# draws people right to your model homes!

## of advertising and promotion to work for you!



**PUTS YOU ON THE NBC TODAY SHOW.** 40 commercials, delivered by Today Show personalities between March 16 and July 1, will be selling your prospects on builders who feature Tappan. And your local TV station will cut in—to direct them to local builders' homes.



**GIVES YOU A COMPLETE MERCHANDISING PACKAGE.** Indoor displays . . . outdoor displays . . . ad mats . . . radio scripts . . . television scripts . . . mailing pieces . . . promotion plans . . . everything you need to make this powerful program work *full power*—for you.



**PUTS YOU IN LIFE, LOOK, SUNSET**—With big, 2-page, 2-color ads announcing the big Home-Hunter's Sweepstakes—and listing your model home as a local sweepstakes headquarters.



**AND TAPPAN FOOTS THE BILL!** You feature Tappan appliances, Tappan does the rest. Contact your Tappan distributor or Tappan representative for full details. Or mail this coupon.

**Get the full story  
at the  
Builder Show  
Booth Numbers  
1343-1348**

The Tappan Company, Dept. HH 12-3, Mansfield, Ohio

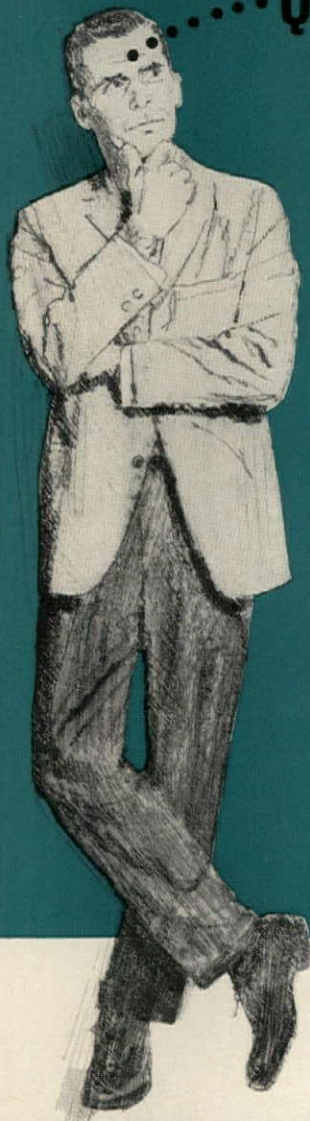
Send me more information on the Tappan Million Dollar Home-Selling Spectacular.

Name \_\_\_\_\_

Address \_\_\_\_\_

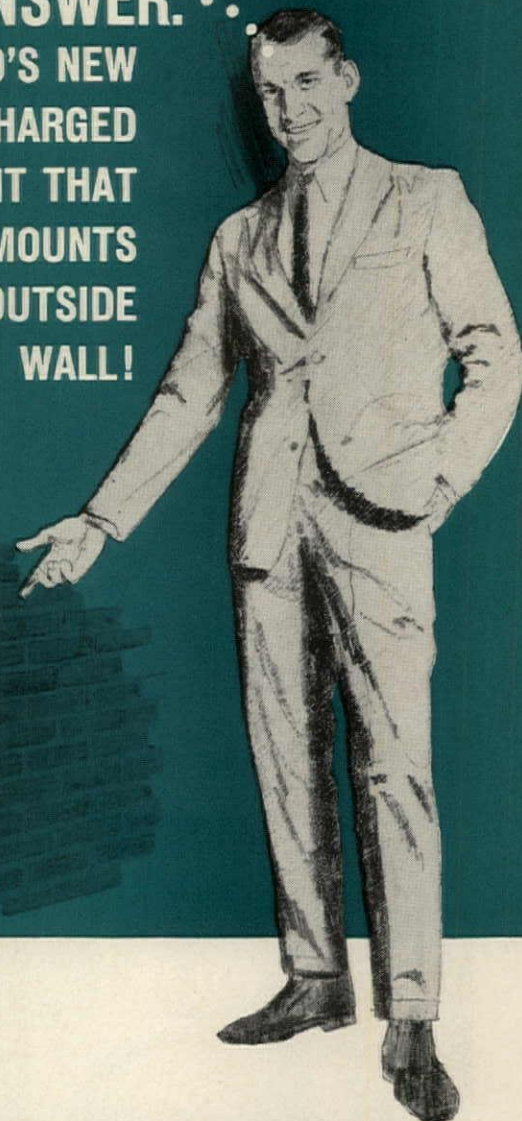
City \_\_\_\_\_ State \_\_\_\_\_



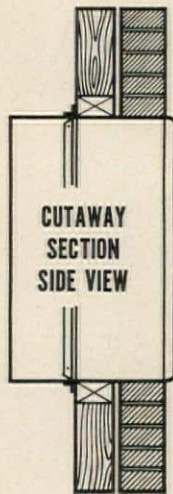


**QUESTION:**  
 WHERE CAN I FIND  
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 CONDITIONING  
 SPECIALLY  
 DESIGNED  
 FOR SMALLER  
 APARTMENTS?

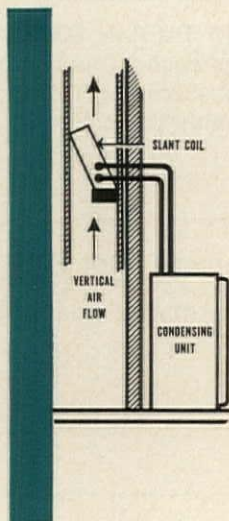
**ANSWER:** . . .  
 GM-DELCO'S NEW  
 PRE-CHARGED  
 UNIT THAT  
 FLUSH-MOUNTS  
 INTO ANY OUTSIDE  
 WALL!



**A QUICK-CONNECT SPLIT SYSTEM WITH 19,000 BTUH CAPACITY TO AIR CONDITION A 4-5 ROOM APARTMENT**



**IN-WALL INSTALLATION**  
 The condensing unit is designed for easy mounting in any outside wall, under windows, wherever there's free space available. The condenser unit measures only 24" high, 30" wide, 16" deep. Both air intake and discharge outlet are on the same side of unit. The cabinet is thoroughly insulated. Service access panel is quickly removed to expose all parts for inspection and service, if necessary.



**FREE-STANDING INSTALLATION**  
 At ground level, the condensing unit may be installed as close as three inches from the wall. The evaporator coil is designed for either vertical or horizontal air flow, and may be installed in the plenum above a high- or low-boy furnace, or in a horizontal duct run. Refrigerant tubing is completely charged and fitted with quick-connect couplings to speed up installation, reduce costs.



**WHERE DO I GET MORE INFORMATION?**

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See our exhibit at booth 922 The NAHB Show, Chicago December 11-15, 1963

THE NAME THAT INSPIRES RESPECT . . .

**GM Delco 365**  
**CONDITIONAIR**

DELCO APPLIANCE DIVISION • GENERAL MOTORS CORPORATION • ROCHESTER, NEW YORK



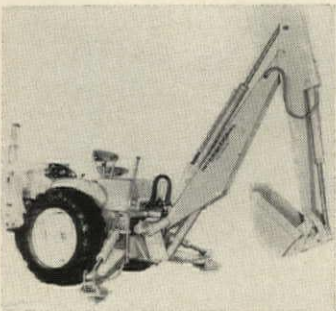
**Tools and equipment**



**Light-duty truck**, the F-100, has a straight-line bed (no rear wheel jogs) and a new heavy-duty tailgate operated by a one-hand latch. Wheelbase is 128"—6" longer than previous models; brakes are self-adjusting. Ford, Dearborn, Mich. (For details, check No. 80 on p. 209)

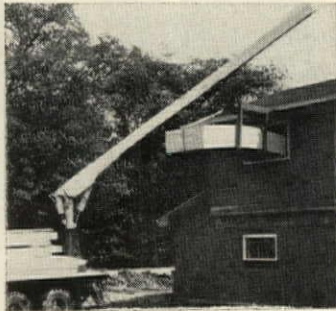


**Utility body** for pick-up truck has weathertight compartments with removable shelves and bin dividers, can be tailored to any equipment needs. Compartment doors slam lock, all open with the same key. Reading Body Works, Reading, Pa. (For details, check No. 81 on p. 209)



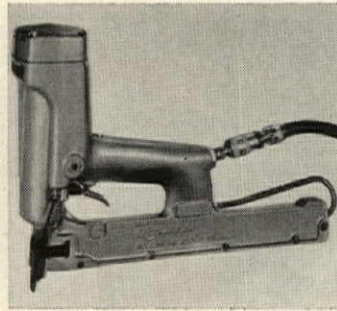
**Heavy-duty backhoe** has new two-pump hydraulic system that gives maximum crowd power, faster lift and swing operation. Model 3,140 can dig to a depth of 14½'. International Harvester Co., Chicago.

For details, check No. 82 on p. 209



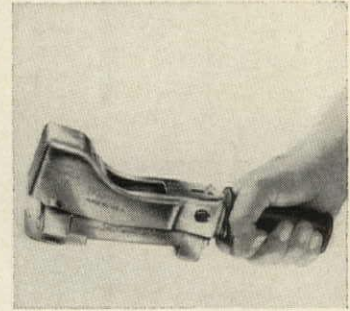
**Wallboard fork** lifts boards horizontally, as shown, or vertically to pass load through window or door. Hydraulic trolley boom lifts up to 24', enough to reach third-story window. Waterloo Unloader, Waterloo, Iowa.

For details, check No. 83 on p. 209



**Pneumatic brad gun** drives brads up to 1¾" long into soft and hardwood trim, countersinks them without marring or splitting wood. Nylon-coated brads can be used. Spotnails Inc., Rolling Meadows, Ill.

For details, check No. 84 on p. 209



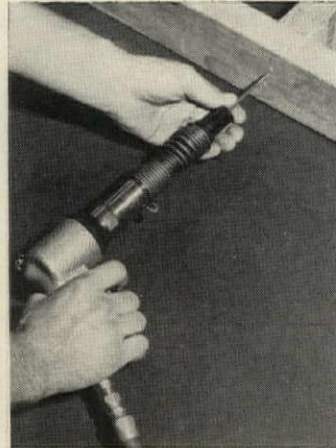
**Roofing stapler** drives 1"-wide staple ¾" long with one blow. Staple size permits use of four staples per 36"-shingle strip instead of the six previously required. Bostitch Inc., East Greenwich, R. I.

For details, check No. 85 on p. 209



**Drywall T-square** has holes at 16", 24" and 32" readings for fast marking of stud lines. Short end is 22½" long, long end is 48" to span the full width of a drywall panel. Goldblatt Tool Co., Kansas City, Mo.

For details, check No. 86 on p. 209



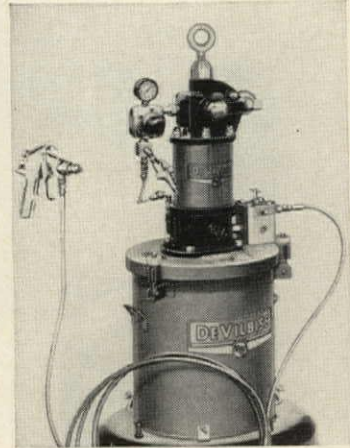
**Pneumatic nailer** handles 8d to 30d common nails, can also be set to drive 8" and 10" spikes. It will drive a 16d nail into oak in 2.8 seconds, into pine in 1.8 seconds. Timber Engineering Co., Washington, D. C.

For details, check No. 87 on p. 209



**Utility nailer** will drive up to 120 nails per minute in sizes up to 8d. Air-driven Powersert unit is fed by cartridges of 50 nails stitched together. Special purpose nails can be used. United Shoe Machinery, Boston.

For details, check No. 88 on p. 209



**Airless paint sprayer** has new high-capacity pump which permits application of a gallon of paint per minute per gun. Unit can feed two guns at once and still have ample reserve capacity. DeVilbiss, Toledo.

For details, check No. 89 on p. 209

New products continued on p. 159



# Revolutionary "HUBLESS"

**Fits Easily Within Standard 2 x 4 in. Framed Walls!**

NOW you can offer home buyers the greater value of a *streamlined*, 100% cast iron soil pipe sanitary system—from roof vent to house sewer connection!

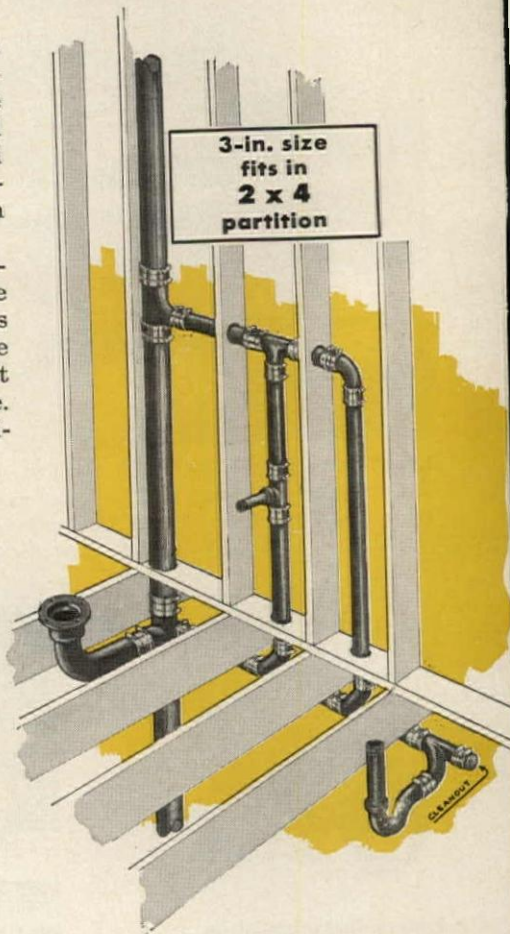
This system features 2-, 3-, and 4-inch  $\text{C}$  hubless drain-waste-vent-sewer cast iron soil pipe and fittings. It cuts your construction costs—the 3-inch size fits neatly into 2x4 walls—no furring needed! You don't have to compromise plumbing drainage quality for thinwall DWV copper tubing...or any other substitute for proven, genuine cast iron soil pipe!

The new Hubless Cast Iron Sanitary System is made up with  $\text{C}$  NO-HUB (patent pending) pipe and fittings—sponsored

by the Cast Iron Soil Pipe Institute. It utilizes a rugged shock- and noise-absorbing neoprene sleeve gasket joint. The gasket joint is protected by a corrugated (for gripping) stainless steel shield, held firmly in place—and the joint permanently fastened—by stainless steel bands with worm-drive clamps.

And, not one bit of the watertight, gas-tight protection, lifetime strength and the efficiency of the oakum-and-lead joint is sacrificed. Above or below ground, the  $\text{C}$  NO-HUB joint is designed to outlast the ordinary life of a residential structure.

Insist on new "Hubless Cast Iron Sanitary System" in your homes!



## NEW $\text{C}$ NO-HUB JOINT PERMITS FASTER INSTALLATIONS

**1**  $\text{C}$  NO-HUB cast iron soil pipe ready for joining. Note extreme simplicity of joint parts.

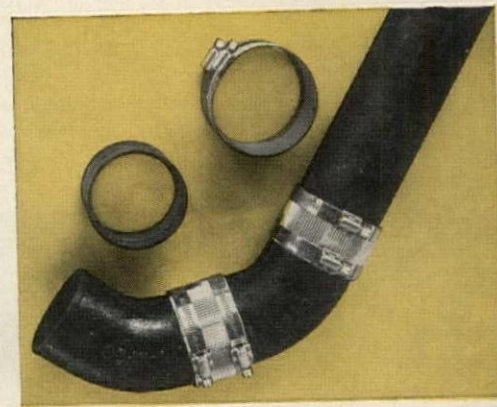


**2** Sleeve gasket is placed on end of one pipe. Stainless steel shield and band clamps are placed on end of other pipe.



**3** Pipe ends are butted against integrally-molded cushion inside of gasket. Joint is quickly assembled and permanently fastened.

**4** Fittings are joined and fastened in the same way. Making up joints in close quarters is simplified and easily done.



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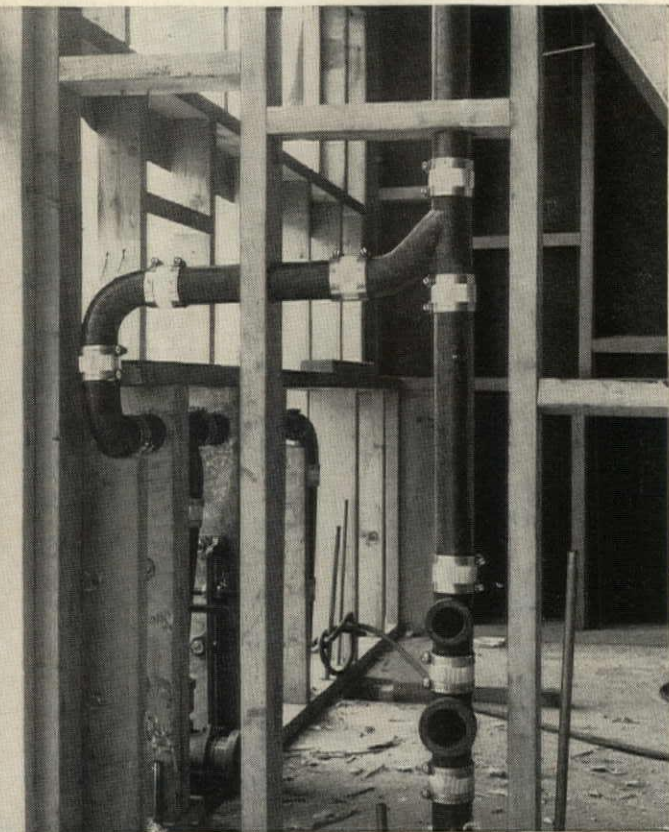
United States Pipe and Foundry Company  
Universal Cast Iron Manufacturing Company  
Western Foundry Company  
Williamstown Foundry Corporation

See...Feel...Hear the difference! Specify  $\text{C}$ —the way to buy modern...

# CAST IRON SOIL PIPE

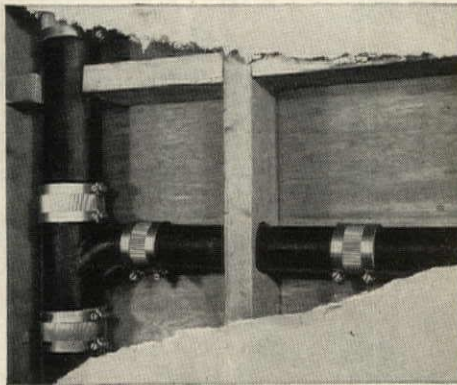
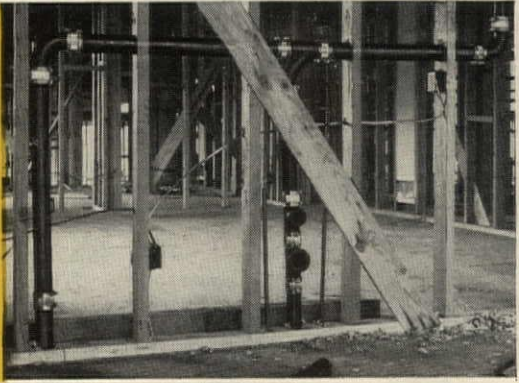


# Cast Iron Sanitary System™



☒ NO-HUB piping in bathroom wall. Drain-waste-vent piping fits easily in 2 x 4 in. framing with space to spare. Note economical use of short lengths of hubless pipe.

☒ NO-HUB kitchen plumbing wall. The 3-in. pipe and new joints make up quickly within the 2x4 in. studding. The tight neoprene sleeve gasketed joints can't leak. No need ever to break into wall for repairs!



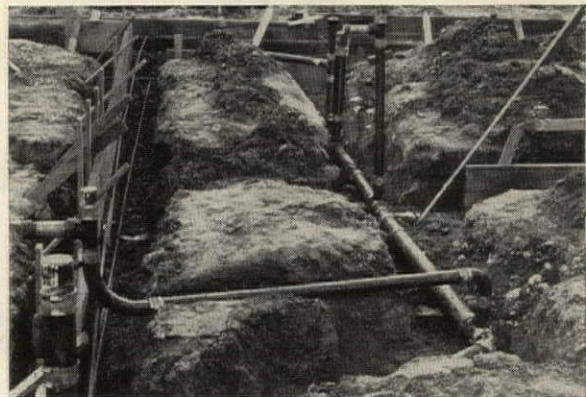
☒ NO-HUB fittings permit the most compact installations within 2 x 4 in. framing. Working in close quarters presents no problem to the plumber. Making the joint requires minimum access.

## NEW NEOPRENE-STAINLESS STEEL JOINT THOROUGHLY TESTED

This new "Hubless Cast Iron Sanitary System," made up with ☒ NO-HUB pipe and fittings, is a *proven* advancement in plumbing drainage technology.

The joint materials—DuPont neoprene sleeve gasket, stainless steel shield, and the worm-drive locking bands have been thoroughly tested for tightness and durability by a nationally known, independent testing laboratory. The neoprene gasket has been made to a specific formula to meet the various conditions to which it will be subjected above and below ground.

The new system has the unqualified backing of all members of the Cast Iron Soil Pipe Institute! Shown here are four roughing-in pictures of the new system in a California home.



☒ NO-HUB piping goes underground! We recommend the new "Hubless Cast Iron Sanitary System" unqualifiedly for under-floor drains. The neoprene sleeve joint resists abrasion, is flexible and leakproof. Roots can't penetrate it. Heat and acidic soils don't affect it. The stainless steel shield and clamps are highly corrosion resistant to outlast the ordinary life of residential structure.

### Send for FREE Specification Data!

You'll want this specification data on the new modern "Hubless Cast Iron Sanitary System." It will help you plan the most modern and durable plumbing drainage system for your new homes. Mail the coupon!



Cast Iron Soil Pipe Institute, Dept. K  
205 W. Wacker Drive, Chicago 6, Ill.

Gentlemen: Please send specification data on the new modern "Hubless Cast Iron Sanitary System."

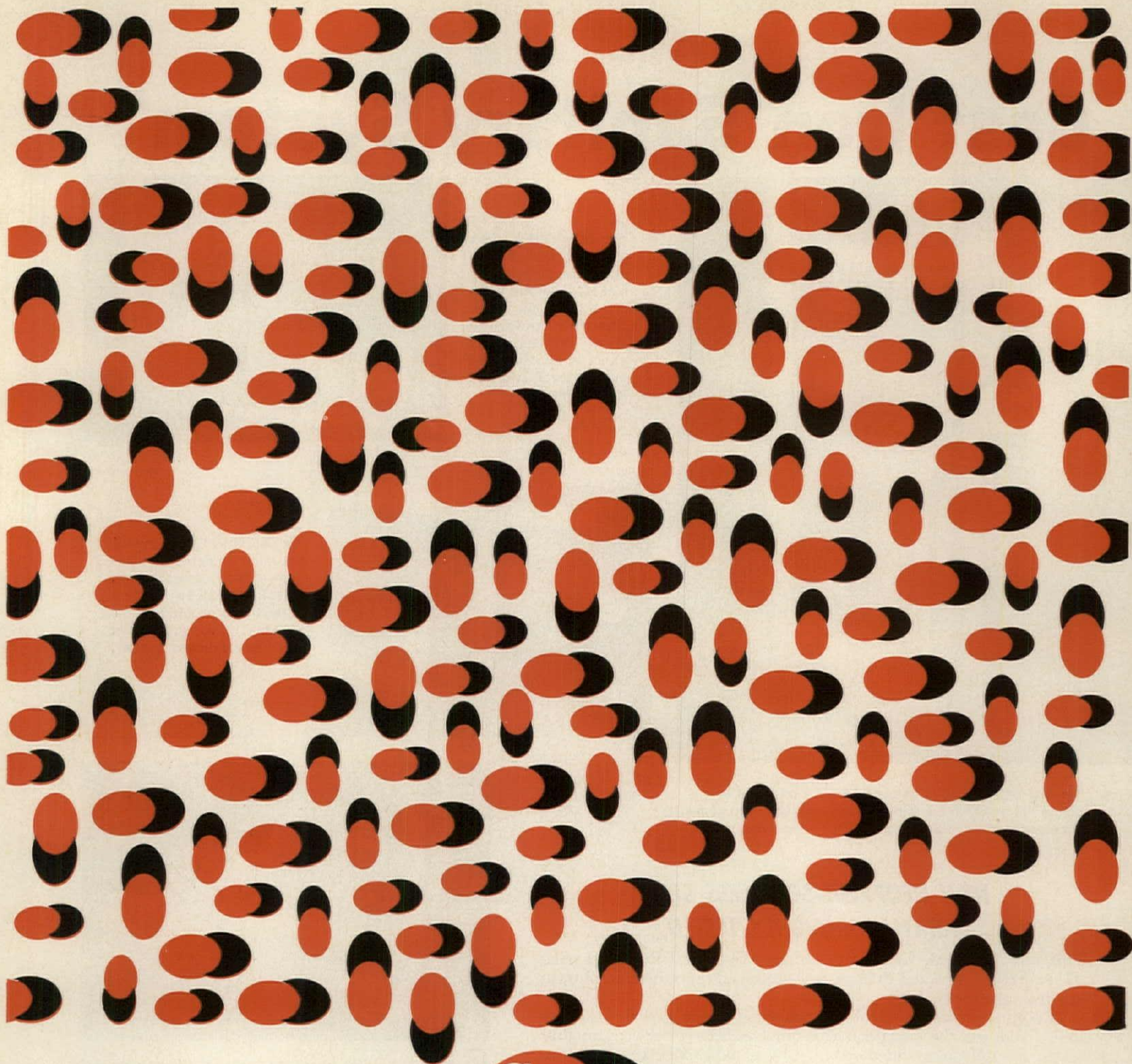
Your name \_\_\_\_\_

Firm name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_





**NEW EMBLEM FOR QUALITY BUILDING PRODUCTS ONLY**

If building is your business you'll be using rigid vinyls more and more. Sometimes it will be in products that are totally vinyl, other times in products that are partly vinyl— inevitable because of the versatility of this new material.

Since vinyl is our business, we are anxious that it be used correctly. So we have established an identification program that includes pro-

visions designed to assure quality and performance in products using Geon vinyl.

The presence of this emblem is your assurance that the manufacturer makes a high-quality product of proven performance, using Geon vinyl, "The Material Difference in Building". His guarantee covering workmanship and performance, coupled with his usage of quality

materials, is your assurance of many years of service.

Soon manufacturers will be using this new emblem. For facts on the properties of Geon rigid vinyl and our identification program, write B.F. Goodrich Chemical Company, Dept. CJ-6, 3135 Euclid Avenue, Cleveland, Ohio 44115. In Canada: Kitchener, Ontario.



**B.F. Goodrich Chemical**

a division of The B.F. Goodrich Company



**Kitchens**



**Free-standing gas range** has two completely equipped bake and broil ovens: one at eye level, the other below the four-burner cooking top. All oven controls are at eye level. Magic Chef, Cleveland, Tenn.

For details, check No. 90 on p. 209



**Bar sink** of stainless steel has four removable polyethylene wells in the wide side rim for ice, lemons, etc. Imperial model dishwasher is mounted on back of sink. Dishmaster Corp., Bloomfield Hills, Mich.

For details, check No. 91 on p. 209



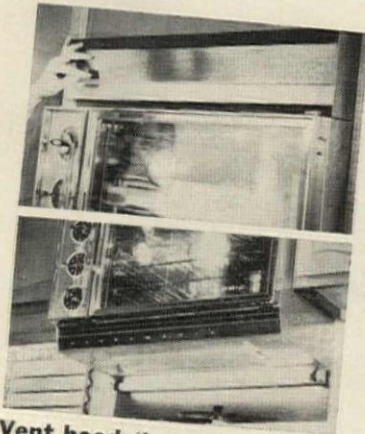
**Heavy-duty vent hood** is designed for large kitchens and indoor barbecues. Hood is 12" deep, 30", 42" or 48" wide, and available with a copper, aluminum or stainless-steel finish. Nu-Tone, Cincinnati.

For details, check No. 92 on p. 209



**Tri-level electric range** comes with disposable foil oven linings for easy cleaning. The 30" unit has automatic controls for both top and bottom ovens. Kelvinator Div., American Motors, Detroit.

For details check No. 93 on p. 209



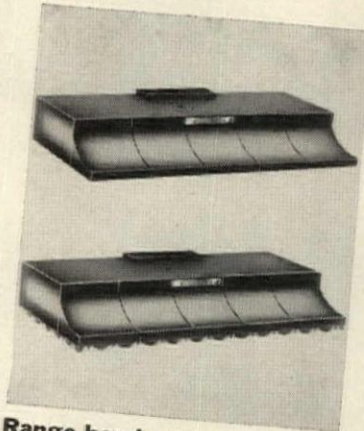
**Vent hood** (lower photo) for a La Carte 300 gas range draws cooking odors through two filters, then exhausts them outside. First filter is in hood; second (top photo) is above eye-level oven. Caloric, Topton, Pa.

For details, check No. 94 on p. 209



**Disposer** cuts vibration noise because a rubber mount suspends it free of the sink. The drain pipe connection also absorbs vibrations. Hush 3,000 has a swivel-mounted impeller to prevent jamming. Waste King, Los Angeles.

For details, check No. 95 on p. 209



**Range hoods** with copper finish and optional scallop trim are designed to match the trend toward traditional and colonial kitchen styling. Pushbuttons control the vent fan and double lights. Emerson-Pryne, St. Louis.

For details, check No. 96 on p. 209



**30"-wide range** offers an eye-level infrared broiler mounted above a gas oven and conventional broiler. Electric model has two conventional bake-and-broil ovens. All controls are automatic. Hardwick Stove, Cleveland, Tenn.

For details, check No. 97 on p. 209



**Norge** offers new high-capacity washer and dryer (gas or electric) that will handle loads up to 14 lbs. The amount of washer water can be cut down for small loads. Norge Div., Borg-Warner Corp., Chicago.

For details, check No. 98 on p. 209



**Hotpoint** washer can be set for six different washing cycles, will wash a 12-lb. mixed load or 14-lb. selected load. Dryer stops automatically when proper dryness is reached. Hotpoint Div., G. E., Chicago.

For details, check No. 99 on p. 209



**Westinghouse** washer and dryer can be stacked to save space. Washer automatically adjusts water level to match load. Dryer has 15% larger basket to match 12-lb. capacity of washer. Westinghouse, Columbus, Ohio.

For details, check No. 100 on p. 209

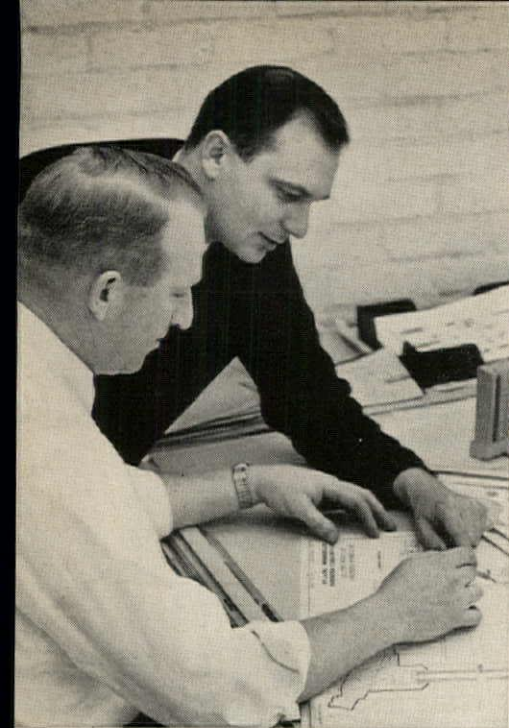


**Easy** washers now come with a lifetime warranty on agitators, stainless steel tubs, and transmissions. Dryers have dewrinkle setting that removes wrinkles from wash-and-wear and synthetic fabrics. Hupp Corp., Cleveland.

For details, check No. 101 on p. 209

New products continued on p. 162





**1** Andersen quality starts with designs based on 60 years' experience in creating pace-setting windows...



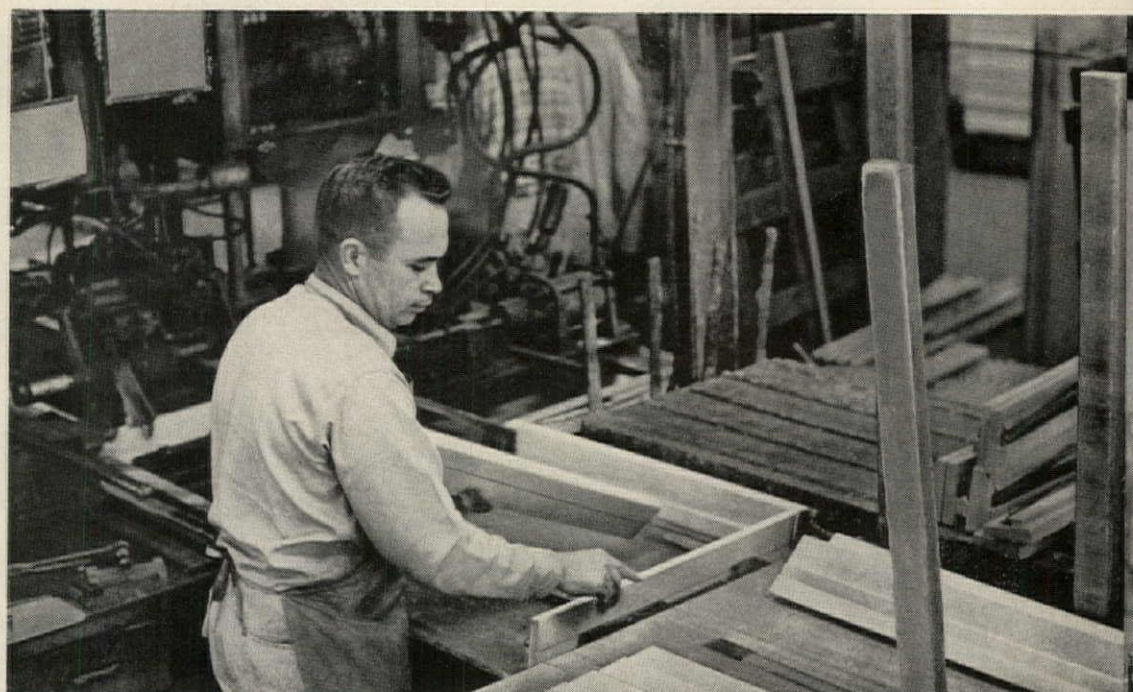
**2** using only the finest, moisture-controlled lumber...



**3** milling it on high-speed, high-precision machines...



**5** toxic treating it for lifetime protection from termites and decay...



**6** precisely assembling complete units—automatically squaring, nailing and drilling holes for...

## SLASH PROFIT-ROBBING CALLBACKS WITH

**NO MORE WINDOW CALLBACKS?** Not only possible, but probable. The secret lies in making windows where potential "headaches" are *designed out*... where skilled craftsmen take pride in *building in* quality at every step of the way. We just can't afford *not* to build them better... it's what makes our exclusive field-service program practical. Here's how we do it:

**PACE-SETTING DESIGNS... THE BEST MATERIALS.** Andersen quality involves selecting the best glazing, metals, lumber, plastics and glass (either vision-tested single glazing or Thermopane® or Twindow® welded insulating glass is used)... using each material only where it should be used! Take wood for example. Andersen starts with the finest kiln-dried pine, inspecting each carload for case hardening and moisture content. Assures windows free from warping, checking, paint blistering, binding and sticking.

**PRECISION MILLING.** Wood blanks are milled to precisely controlled tolerances. It's the reason for Andersen's extra-snug, extra-weather-tight construction... and the assurance of a lifetime of smooth, no-bind, no-stick operation.

**PENTA TREATING.** All exposed wood parts are completely immersed in a 3-minute bath of pentachlorophenol. Gives a lifetime of protection against staining, termites and decay.

**HIGH-ACCURACY ASSEMBLY.** Most Andersen Windows are squared, nailed and glazed on high accuracy machines. Virtually eliminates racked sash and frame problems. Produces a square, trouble-free unit.

**SPECIALLY DESIGNED HARDWARE.** Strong, handsome, custom designed hardware is built to exacting specifications. Designed to the specific needs of each of Andersen's seven types, hardware is built to insure smooth, silent operation for the life of the homes you build.

*Need more reasons for building with Andersen Windows? How about these:*

- Low installed cost**—with the Andersen Strutwall\*... the complete window-and-wall component... you can add Andersen quality at no premium in price. It's because Strutwalls are so fast and easy to install... reduce labor costs dramatically.

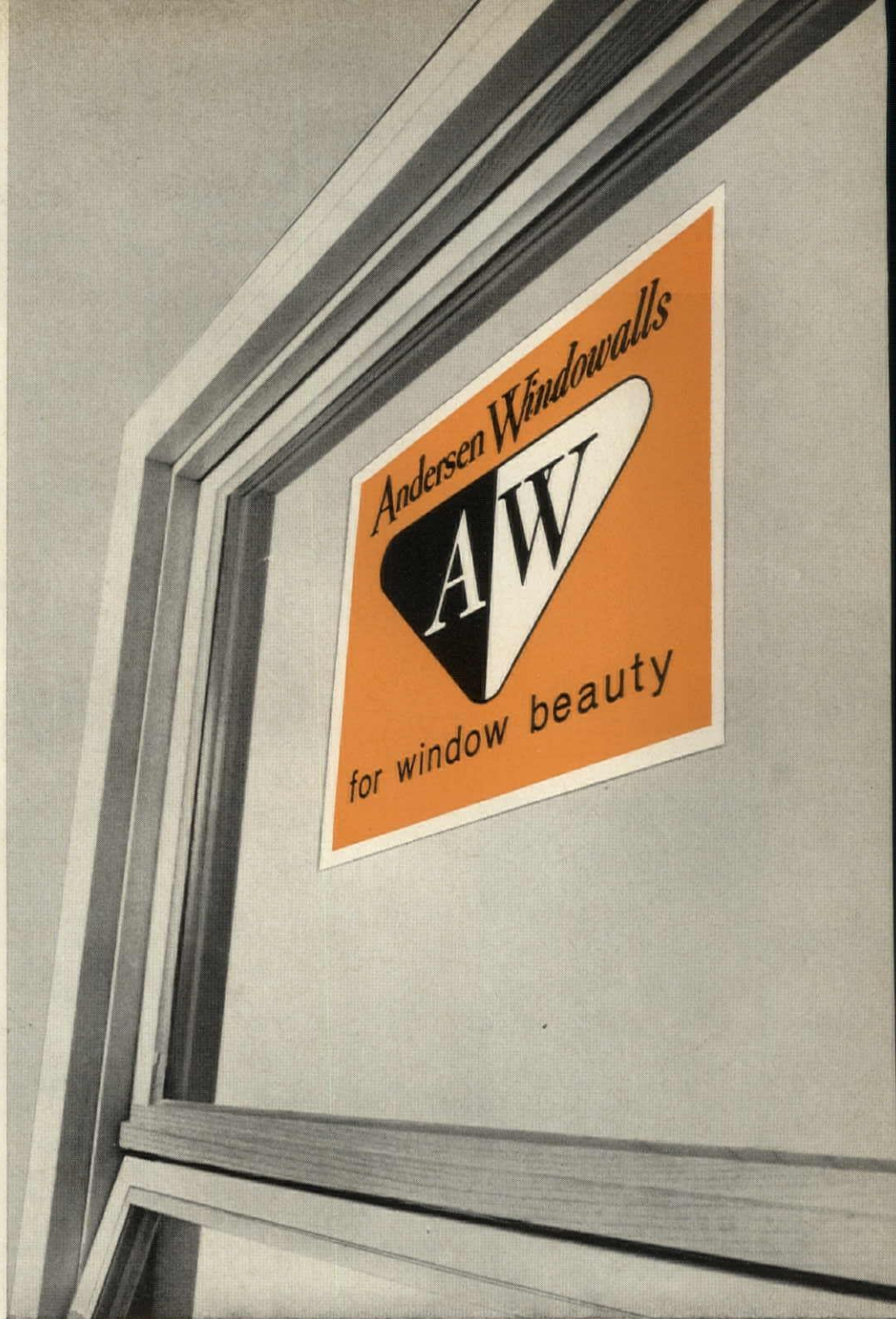




4 maintaining incredibly close tolerances . . .



7 durable, custom-designed hardware.



Result? Windows with potential "problems" designed out . . . quality built in!

## ANDERSEN WINDOWS MADE LIKE THIS!

- Selling power of the Andersen name**—your prospects know Andersen Windows through continuing advertising in *LIFE*, *BETTER HOMES & GARDENS*, *AMERICAN HOME*, *HOUSE BEAUTIFUL*, and *HOUSE & GARDEN*. They recognize the Andersen name as one of the best signs of quality throughout your homes.
- Fuel savings—a good selling point**—homeowners can save substantially on heating and cooling costs. It's because they're extra weathertight . . . up to 6 times tighter than windows that only meet commercial standards.

Isn't it time you let the extra quality of Andersen Windows cut your callbacks to the bone . . . put more sales appeal in your homes? Call your distributor or dealer for facts on the complete line.



QUALITY ASSURANCE is backed by Andersen's service team of 25 field-based specialists who are ready, at a moment's notice, to help solve on-site window application problems.

# Andersen Windowalls\*

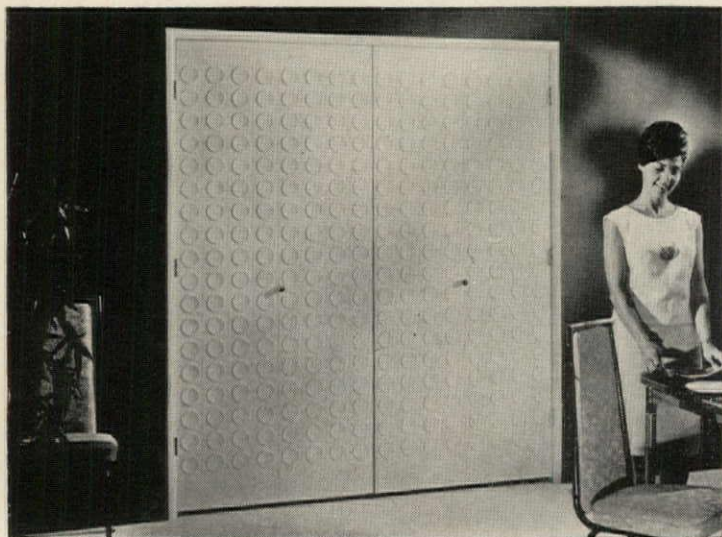
\*TRADEMARKS OF ANDERSEN CORPORATION



ANDERSEN CORPORATION • BAYPORT, MINN

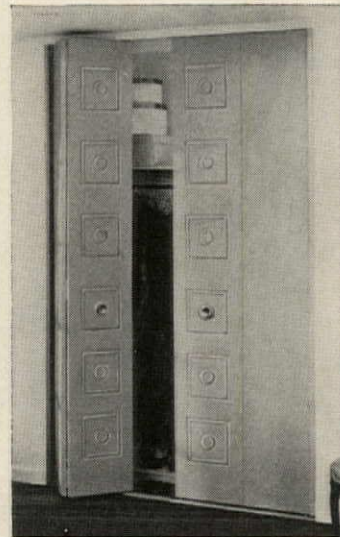


## Doors



**Plastic closet doors** (left) have decorated polystyrene skin on honeycomb-core panels. Factory hung in aluminum frames, they come with hardware installed, can be set in 10 minutes. American Screen Products, Chatsworth, Ill.

*For details, check No. 102 on p. 209*



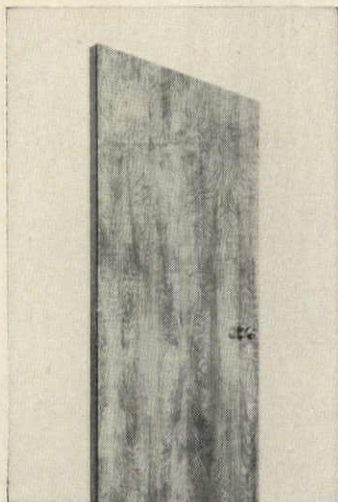
**Steel closet doors** (right) are made of extra-heavy (23-gauge) bonderized steel, zinc plated for rust proofing. Package includes wood door trim. Pattern shown is new Georgetown design. Float-Away Door, Atlanta.

*For details, check No. 103 on p. 209*



**Steel-framed closet door** has wood, plastic, or mirror facings, or combinations as shown above. Two- or four-panel Slimdor units are available in heights of 6'8", 7'6", or 8'0". Vega Industries, Syracuse, N.Y.

*For details, check No. 104 on p. 209*



**Wood-faced fire door** has 1½-hour rating, is UL-labeled for use in Class B openings. It is available in several hardwood finishes, has treated wood banding to permit on-the-job fitting. Weyerhaeuser, Tacoma.

*For details, check No. 105 on p. 209*



**Steel entry door** has acrylic-primed skin over foamed plastic core. It is prehung in wood frames, has adjustable aluminum sill and magnetic refrigerator-type weatherstripping. Pease Woodwork, Hamilton, Ohio.

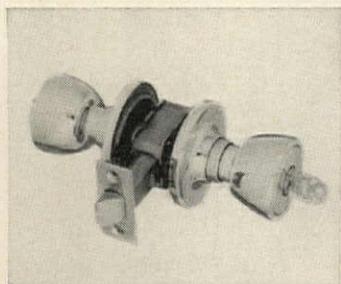
*For details, check No. 106 on p. 209*



**Combination door** has interchangeable panels of glass and fiber glass screen, plus a wood panel insert (in place, above). Twinsert comes in width of 2'6", 2'8", and 3'0". Simpson Timber, Seattle.

*For details, check No. 107 on p. 209*

## Hardware



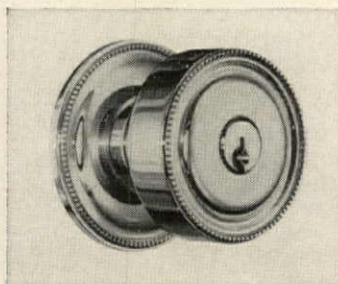
**Heavy-duty lockset** is designed for apartments, institutions, and custom homes. The new Custom Line is priced 27% below comparable pin-tumbler sets now on the market, the manufacturer claims. Kwikset, Anaheim, Calif.

*For details, check No. 108 on p. 209*



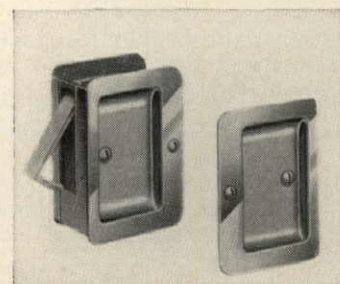
**Automatic closer** for sliding screen doors operates through a lever attached to screen frame. When closed lever lines up with frame edge, is hardly noticeable. The finish is anodized aluminum. McGraw Mfg. & Dist., Denver.

*For details, check No. 109 on p. 209*



**New beaded knob design**, called the Crown, is now offered in this company's A-series of locksets. Finish is oxidized brass. Knob is 2¼" in diameter, rose is 2⅝" in diameter. Schlage Lock, San Francisco.

*For details, check No. 110 on p. 209*

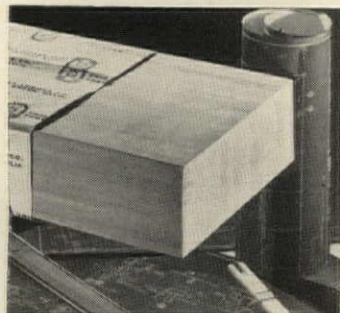


**Sliding-door locks** are designed to fit all types of sliding doors from 1⅜" to 1¾" thick and can be used in either right- or left-hand units. Available in nine finishes. Weiser, South Gate, Calif.

*For details, check No. 111 on p. 209*



**Structural materials**



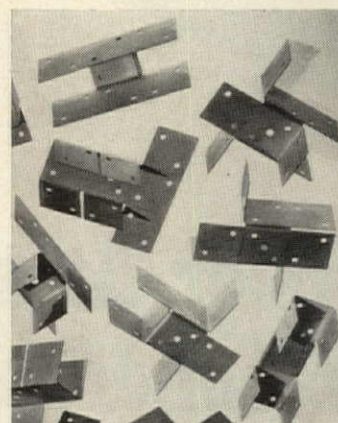
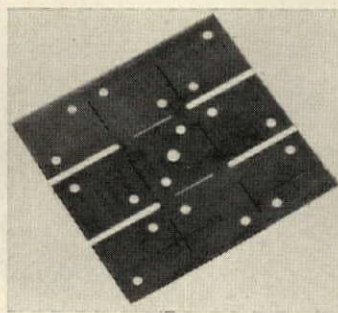
**Laminated beam** is built up of kiln-dried redwood layers 1" or more thick, glued with waterproof exterior-grade adhesive. Available in sections of from 3"x4" to 11"x16", lengths from 8' to 40'. Union Lumber, San Francisco.

For details, check No. 112 on p. 209



**Gypsum lath**, called Pinholath, has core reinforced with glass fiber, is covered with perforated paper that permits faster and more uniform water absorption, reduces slipping and dropouts. Bestwall Gypsum, Ardmore, Pa.

For details, check No. 113 on p. 209



**Multi-purpose bracket** can be bent and cut to form almost 1,000 different types of framing plates and brackets. Quickform lets builders inventory one item to meet virtually all bracket needs. Ray Laboratories, Chicago.

For details, check No. 114 on p. 209



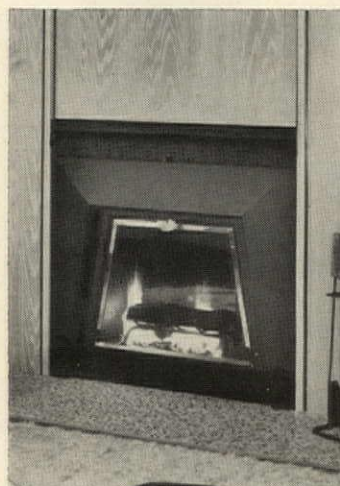
**Plastic adhesive** for bonding foam to masonry is supplied in 1½-lb. package which covers 400 sq. ft. when mixed with sand, Portland cement, and water. Styrotac has high initial tack strength. Dow Chemical, Midland, Mich.

For details, check No. 115 on p. 209



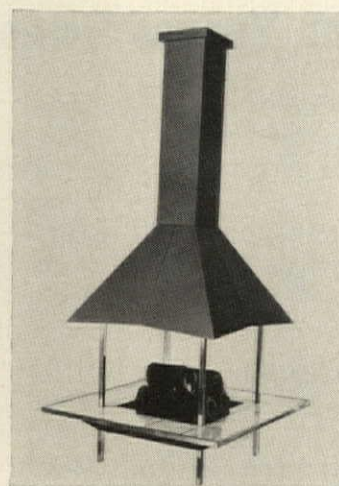
**Wood-fiber roof deck** can span up to 4' between beams. Easy-ply decking provides finished ceilings with washable white, striated, wood grain, or 1/8" cork surfaces. Deck sections are 2'x8' with t&g edges. Homasote, Trenton, N.J. (Check No. 116 on p. 209)

**Prefab steel fireplaces**



**Set-in fireplace**, the El Dorado, can be built into combustible walls with zero clearance, has insulating air space that exhausts warm air into the room. It burns logs up to 20" long. Space Planner, Tucson.

For details, check No. 117 on p. 209



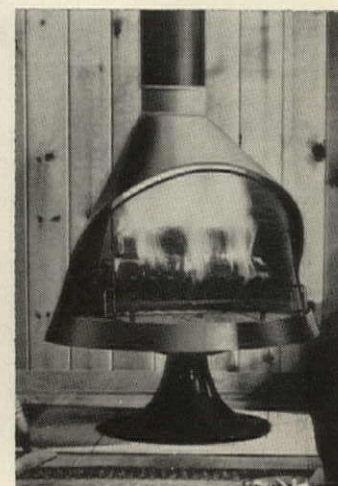
**Free-standing fireplace** is fired by 25,000 BTUH gas burner in a ceramic gas log. Regency hood and flue housing come in red, turquoise, brown, or white; hearth is white; frame is chrome. Majestic, Huntington, Ind.

For details, check No. 118 on p. 209



**Face-mounted fireplace** can be set against any wall, has ceiling-height decorative casing that covers the flue. The gas-fired Dyna Flame Nordic shown here is also available as a corner model. Dyna Mfg., Los Angeles.

For details, check No. 119 on p. 209



**Pedestal fireplace** burns wood or gas, is offered in three colors of fused vitreous enamel. This Heatilator unit has a removable screen and optional barbecue attachments. Vega Industries, Syracuse, N.Y.

For details, check No. 120 on p. 209

New products continued on p. 168



**“Chrysler Airtemp snap-in  
air conditioning helps  
us move homes faster...”**

**says Stephen G. Yeonas, President, Yeonas Homes, Wash., D.C.**



Stephen G. Yeonas

But that's not all. He knows the Airtemp unit we're giving him is first-rate... one that'll last for years. This fact means a lot to me, too.

“In a nutshell, Chrysler Airtemp snap-in air conditioning helps us move homes faster. That's why we're offering it as a built-in feature in today's Yeonas communities.”

“You ask why we now sell homes with Airtemp air conditioning built-in? Simple.” Says Steve Yeonas. “Today's customer is ready for it. And Chrysler Airtemp is a brand name he can trust.

“Today's buyer looks for more than the basic home. He wants to know what conveniences you have to offer. By making air conditioning a built-in feature, we have a mighty strong answer. A sales clincher.



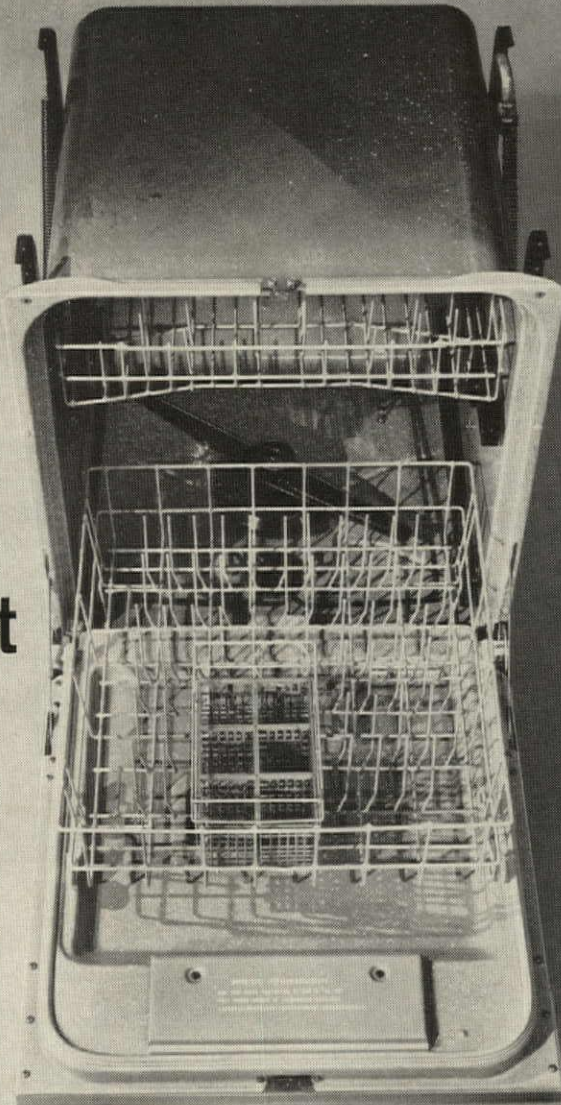
Yeonas' Monticello Woods & Stonewall Manor homes feature Chrysler Airtemp air conditioning and heating.

Chrysler Airtemp offers you the broadest line of snap-in air conditioners available. A wide BTU range to fit every home, handle every cooling requirement. Economical. Dependable. And Chrysler-Engineered. For more information, call your local Chrysler Airtemp distributor, or write to T. W. Kirby, Vice President-Marketing, Chrysler Corporation, Airtemp Division, Post Office Box 1037, Dayton 1, Ohio.





The most important  
dishwasher news  
you'll read  
this year

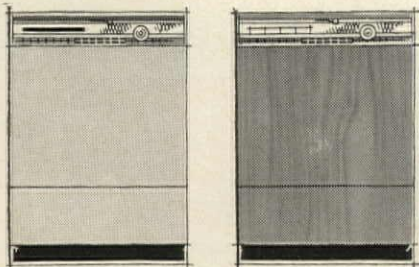


A recent test, made by a highly respected independent organization, rated the Hotpoint economy dishwasher (Model DA35) best of all the "builder" models tested. Superior in washing ability, drying ability and loading convenience—even better than most of the top-of-the-line dishwashers tested!

Yet you can include the wife-winning advantage of this truly fine dishwasher in every home you build for less money than you might imagine.

Here is the greatest value on the dishwasher market today—any way you look at it. And all plumbing and electrical connections are front and center for fast, easy installation, and low in-place cost.

Like our other undercounter units, this model is available in 7 finishes, or with an accessory kit for using wood paneling. Racks slide farther out for easy loading. And new sound-deadening construction makes it extra quiet. See your Hotpoint distributor for prices on this top-value dishwasher.



Two other built-in models: Model DA45—a little more money, a more deluxe model. Model DA65—top-of-the-line, with 4 pushbutton operated cycles.

# Hotpoint

A Division of General Electric Company • Chicago 44, Illinois

ELECTRIC RANGES • REFRIGERATORS • AUTOMATIC WASHERS • CLOTHES DRYERS  
CUSTOMLINE® BUILT-INS • DISHWASHERS • DISPOSALLS® • WATER HEATERS  
FOOD FREEZERS • AIR CONDITIONERS • ELECTRIC BASEBOARD HEATING





## CALWIRE® ON THE ROOF—SAVINGS IN YOUR POCKET



Calwire brand BOSTITCH staplers are great for roof work because of their versatility. For straight work in applying roof decking, operator simply walks along and pulls trigger from a standing position. Magazine on all Calwire tools can be turned to any angle so as to

This tool can nail off a roof up to six times faster than hand nailing, with a minimum of worker fatigue.



Air return in driving mechanism—only two moving parts. Staples from 1/2" to 2". Calnails from 1 1/4" to 2 1/2". Operates on as low as 40 P.S.I.

drive staple in proper direction to suit the job.

Call THE MAN WITH THE FASTENING FACTS on how you can start saving time, money, and manpower with Calwire brand staplers. He's listed under "BOSTITCH" in most phone books—or write direct.

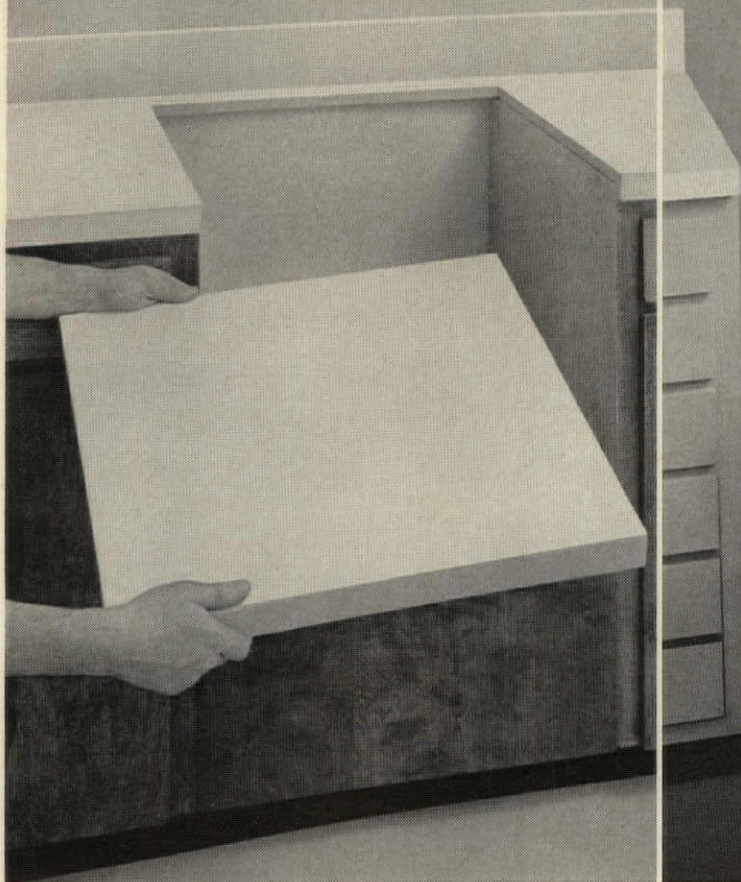
FASTEN IT BETTER AND FASTER WITH

**BOSTITCH®**  
STAPLERS AND STAPLES

532 BRIGGS DRIVE, EAST GREENWICH, R. I.



**Why pay for  
what you  
throw away?**



**This new Hotpoint  
can save you  
\$15 on  
countertops  
alone.**

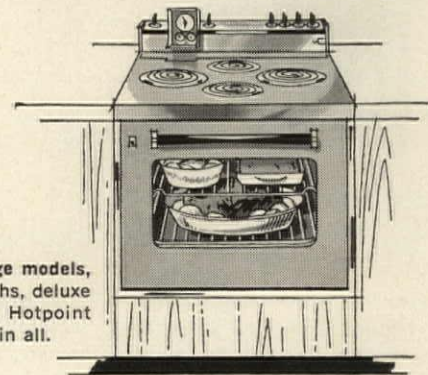


Every Hotpoint drop-in range can save you plenty on installation costs. The all-new 1964 Hotpoint Town & Country ranges sport a deluxe rear control panel that eliminates buying 4 to 5 extra square feet of countertop—at a minimum cost of \$3.75 per foot!

This drop-in (Model RF 19) slides in place between two base cabinets. The full-width control panel adjusts to match countertops from 22" to 25 $\frac{1}{4}$ " deep. Spring-loaded oven side filler strips and control panel end-caps assure a fast, perfect fit all around.

Plenty of features to impress your prospects, too, in this Town & Country range: 4 surface units, full-size oven, removable oven door for easy cleaning, and lustrous brushed chrome top and control panel. 7 door colors and finishes are available.

Give your kitchens the custom look without paying a custom price. Get full specifications and prices from your Hotpoint distributor today.



4 other drop-in range models, in 24" and 30" widths, deluxe or economy units. Hotpoint quality is identical in all.

# Hotpoint

A Division of General Electric Company • Chicago 44, Illinois

ELECTRIC RANGES • REFRIGERATORS • AUTOMATIC WASHERS • CLOTHES DRYERS  
CUSTOMLINE® BUILT-INS • DISHWASHERS • DISPOSALLS® • WATER HEATERS  
FOOD FREEZERS • AIR CONDITIONERS • ELECTRIC BASEBOARD HEATING



## Roofing



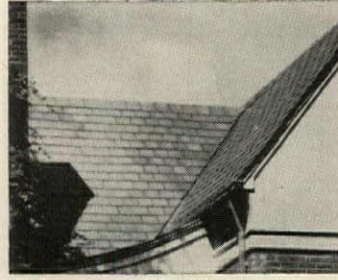
**Deep-textured shingles**, made with extra layers of asphalt and tough mineral granules, have a rugged look. Jumbo Woodtex 300 is a 300-lb. roofing with a 25-year bond. Bestwall Certainteed, Ardmore, Pa.

For details, check No. 121 on p. 209



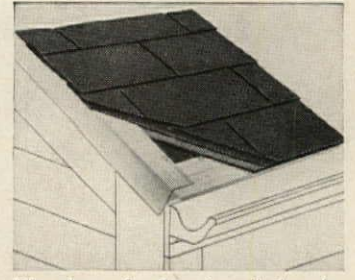
**Elastic roof flashing** forms a tight one-piece flanged sleeve around vents, columns, and roof contours. Wascoflex is self-extinguishing and resistant to fungi, mildew, and bacteria. American Cyanamid, Cambridge, Mass.

For details, check No. 122 on p. 209



**Asbestos shingles** are introduced with the surface texture and color of natural slate. Colorbestos Slates weigh 540 lb. per square, or half as much as slate, come in six weathered colors. Johns-Manville, New York City.

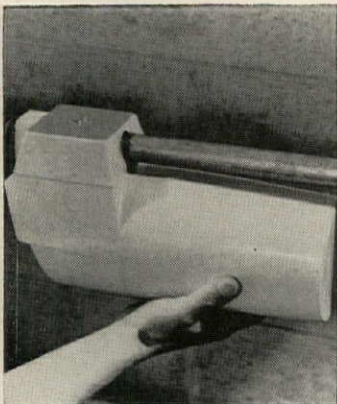
For details, check No. 123 on p. 209



**Vinyl roof edge** is nailed under first course of shingles, laps down to cover board ends. Available in four styles, four widths, and 10'-long sections, it is supplied white, can be painted. Bird & Son, East Walpole, Mass.

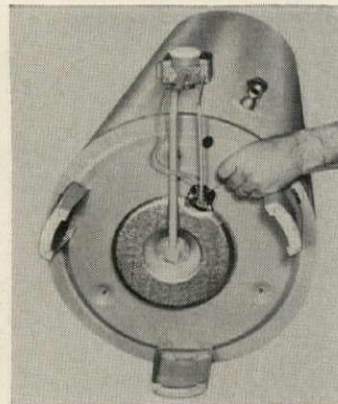
For details, check No. 124 on p. 209

## Plumbing



**Water fluoridator**, developed under contract with U. S. Public Health Service, feeds precise volume of fluoride into home water supply. It is rented and serviced by franchised dealers. Degna Corp., Paramus, N. J.

For details, check No. 125 on p. 209



**Doorless water heater** is ignited through bottom port, eliminates jacket discoloration often caused by leaks around a door. Crystalglas heaters have capacities of 30 to 100 gal. Bryant Mfg. Co., Indianapolis.

For details, check No. 126 on p. 209



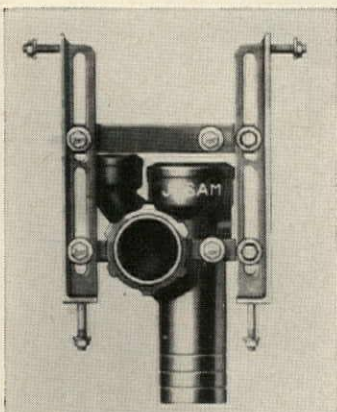
**Water softener** has timed automatic regenerating cycle with two water rinses following brine rinse. Sabre model, shown here, has capacities of 20,000, 40,000 or 60,000 gals. per week. Water Refining, Middletown, Ohio.

For details, check No. 127 on p. 209



**One-tank water softener** carries 10-year guarantee—five full years and five prorated. Top hood of Permaglas unit can be removed for adjustment by taking out two sheet-metal screws. A. O. Smith Corp., Kankakee, Ill.

For details, check No. 128 on p. 209



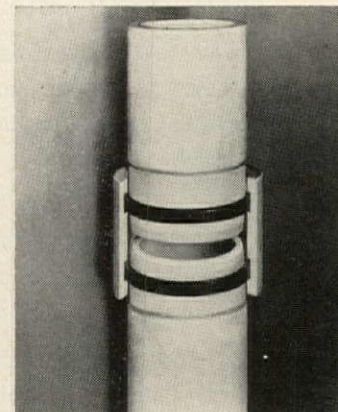
**Carrier** for wall-mounted toilet has bottom feet that transfer 90% of the load to the floor. Unit fits between 16" o.c. studs, is tested to support more than 400 lbs. Josam Mfg. Co., Cleveland.

For details, check No. 129 on p. 209



**Compression joint** for cast iron tubing can be formed in one minute, requires no special tools. Coupling is made of vulcanized rubber and stainless steel. American Brass & Iron Foundry, Oakland, Calif.

For details, check No. 130 on p. 209



**Pressure pipe** of asbestos-cement carries municipal water supplies up to 200 psi. Available in diameters of from 3" to 16" and standard lengths of 10' or 13', depending on diameter. Orangeburg Mfg., New York.

For details, check No. 131 on p. 209



**Wrought-copper fittings** weigh one-third less than cast fittings, require less heat for soldering because there is less metal, and provide smoother water flow, says the maker. American Brass, Waterbury, Conn.

For details, check No. 132 on p. 209

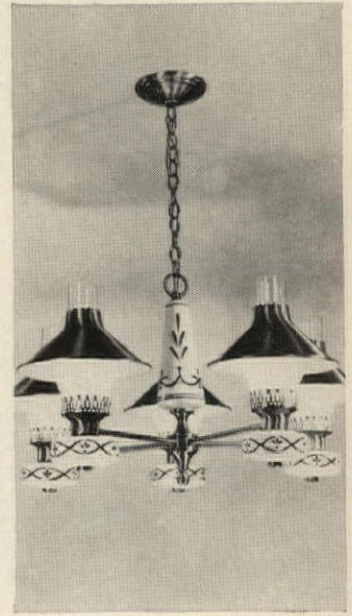


**Lighting and wiring**



**Four-bulb fixtures** (left) with decorative reflectors are mounted above and on both sides of vanity mirror for extra-bright make-up lighting. Ceramic pendant fixtures are hung at the right. Thomas Industries, Louisville.

For details, check No. 133 on p. 209



**Colonial chandelier** (right) is patterned after old-fashioned oil lamps, has brass chimney holders and hand decorated ceramic fonts. It is part of the manufacturer's new Collector's Group. Lightolier, Jersey City.

For details, check No. 134 on p. 209



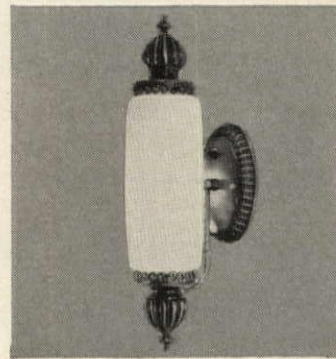
**Heavy-duty switches** have a capacity of 15 amp. at 120 to 277 volts, can be used for motors up to 1/2 hp. Available as single and double-pole and three- and four-way switches. Slater Electric, Glen Cove, N. Y.

For details, check No. 135 on p. 209



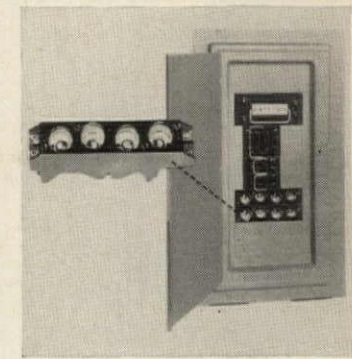
**Aluminum fixture**, called Space Shape, is cut from aluminum extrusions, can be used with or without a globe. Designed for outdoor use, it won an Alcoa Industrial design award. Emerson-Pryne, St. Louis.

For details, check No. 136 on p. 209



**Ornate bathroom fixture** has an antique brass finish and white opal glass, is part of a new line of bathroom lights. It is 19" high, 4 1/4" in diameter, has integral switch. John C. Virden Co., Cleveland.

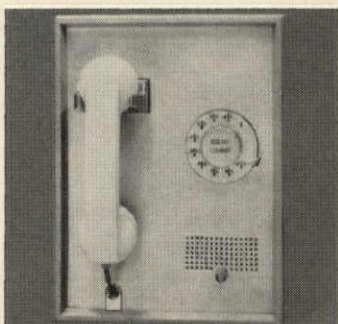
For details, check No. 137 on p. 209



**Plug-in fuse components** for service boxes let the electrical contractor make last-minute circuit changes without changing boxes, permit easy addition of circuits, reduce inventory. Murray Mfg., Brooklyn.

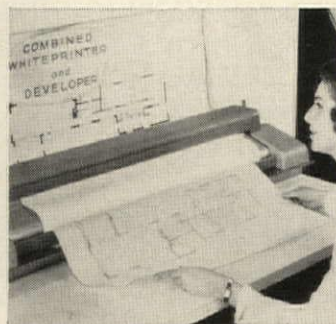
For details, check No. 138 on p. 209

**Miscellany**



**Recessed telephone** is built into the wall, has spring-wound retractable cord. Also available: Speakerphone attachment for hands-free operation and built-in internal communication system. Bell Telephone, New York City.

For details, check No. 139 on p. 209



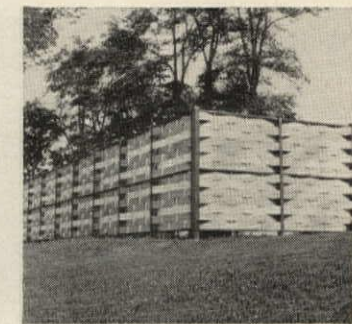
**Single-unit printer** combines whiteprinter and developer in one machine, makes dry diaze copies up to 42" wide. Diazo-Jet fits in space 60" x 12 3/4", can be wall-hung or set on table. Rotolite Sales, Stirling, N.J.

For details, check No. 140 on p. 209



**Grass dye**, called Turf-Tint, keeps lawns bright green all winter despite the weather. It can be used on all grass types, and is harmless to people, pets, and the grass itself. Bruce-Terminix, Memphis.

For details, check No. 141 on p. 209



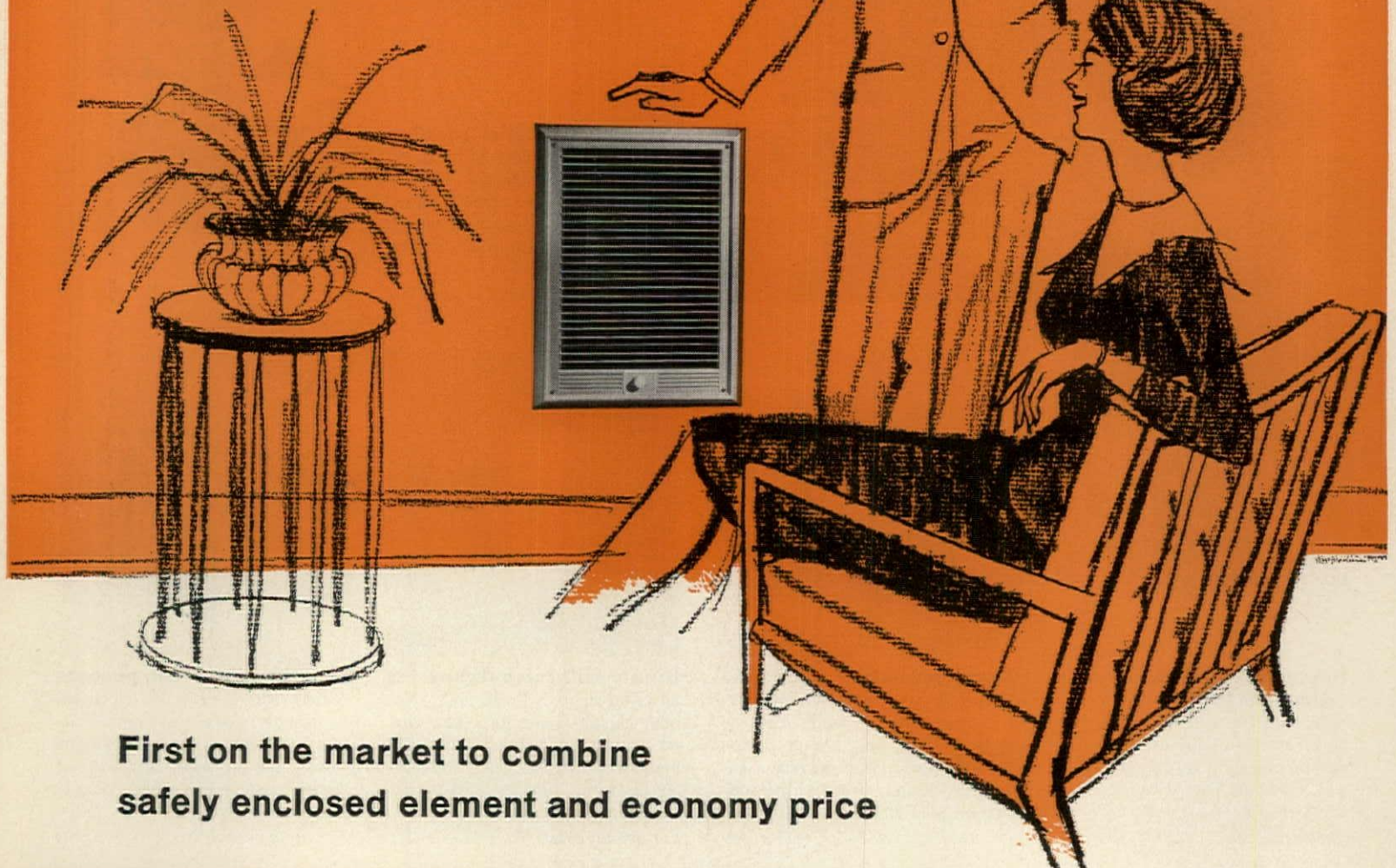
**Basket-weave fence** is formed by vinyl strips interlaced with wood strips to permit air passage. Vinyl comes in four colors: opaque white, translucent green, yellow, and coral. Barrett, Allied Chemical, New York City.

For details, check No. 142 on p. 209

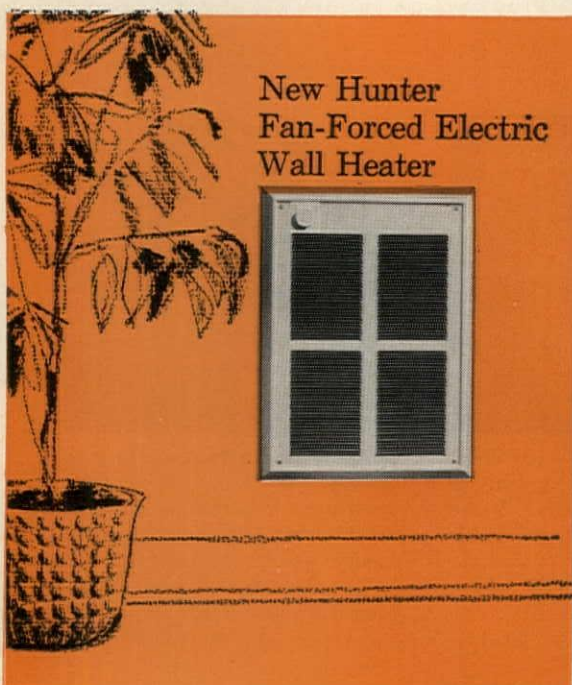
Publications start on p. 179



# New Hunter Radiant Electric Wall Heater



**First on the market to combine  
safely enclosed element and economy price**



**New Hunter  
Fan-Forced Electric  
Wall Heater**

Hunter presents the industry's first radiant wall heater (above) to combine fully-enclosed element with an economy price. Also the first fan-forced type (left) to feature open wire coils for fast warm-up, grille-concealed for safety. Radiant unit has wattages 1500 to 3000; fan-forced, 1500 to 4000. Both install fast, feature built-in precision thermostats, distinctive picture-frame styling and attractive heat-resistant beige finish. Backed by Hunter's 80-year experience in making quality equipment. *Send coupon for full details.*

*Hunter also makes convection baseboard, forced air baseboard, radiant ceiling cable, bathroom, portable, infrared and unit blower heaters.*

**HUNTER  
ELECTRIC  
HEAT**  
*It's Matchless!*



**MAIL TODAY FOR CATALOG DATA**

Hunter Division, Robbins & Myers, Inc.  
2434 Frisco Ave., Memphis 14, Tenn.

Please send your new . . .  Catalog sheet on new Hunter Wall Heaters.  
 16-page catalog on other Hunter Electric Heat products.

Name \_\_\_\_\_

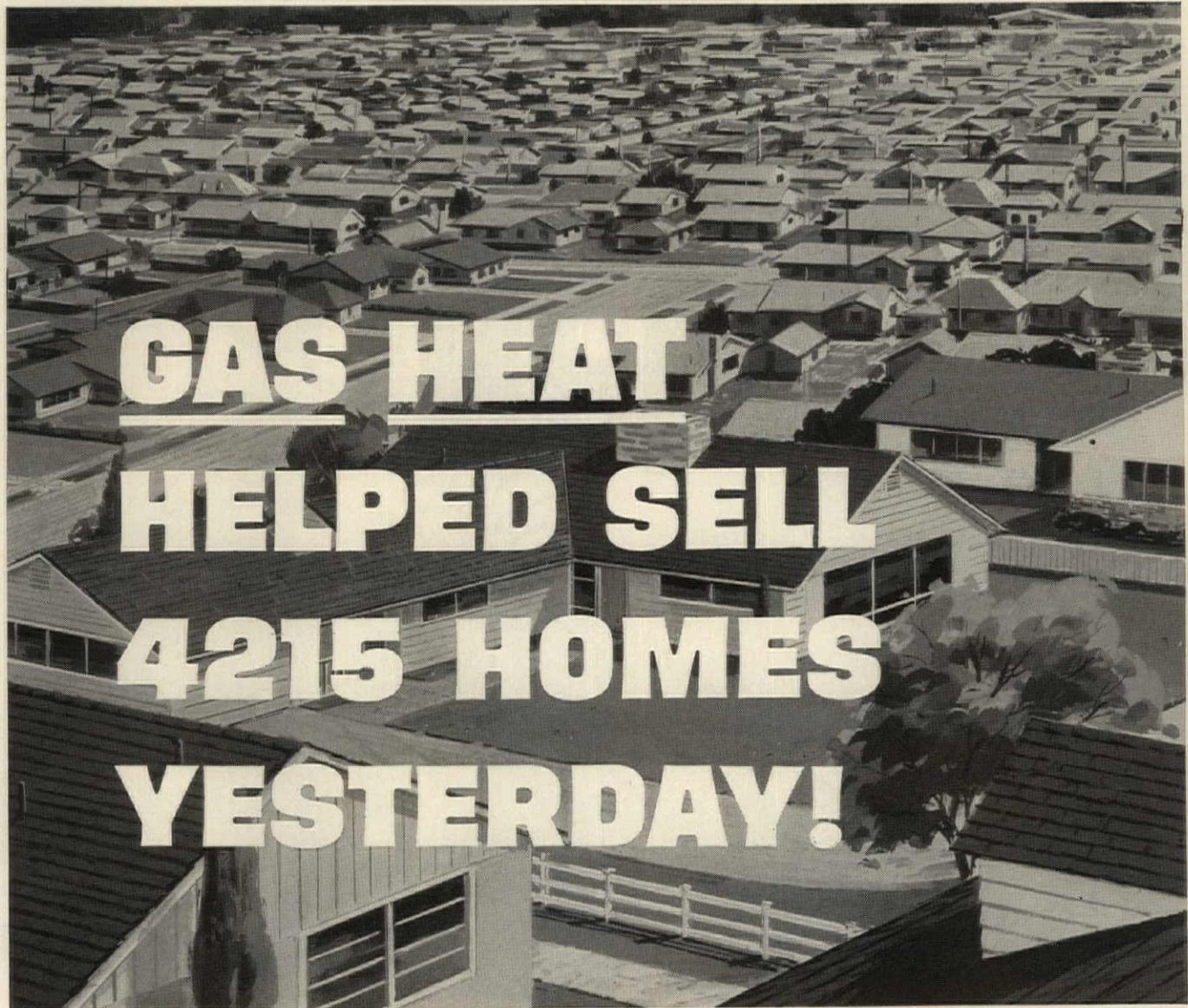
Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_







**Buyers prefer the advantages of modern Gas heat...  
and Gas offers these extra advantages to builders, too!**

Every day 4 times as many buyers select homes with Gas heat—as all other heating systems combined!

They know it's quieter, cleaner, more economical heating. They've been *pre-sold* on it. And you can give them dozens of other arguments for Gas heating, too. For example, Gas heat is *flexible*. You can offer its quiet, clean, economical advantages either as hydronic heat, hot water or steam, or as a circulating, filtered warm air system.

You can adapt Gas heat to every buyer's needs, too, whether he wants central heating or individual room heaters. With a Gas warm air system it's even possible to use the same ductwork for Gas air-conditioning—at the time of installation, or as a later "add-on."

And long after Gas helps you make the sale, you'll have *another* reason to thank it. There are fewer moving parts in a Gas system—less to go wrong. Which means more satisfied customers, fewer call-backs.

*This advertisement sponsored by the following*

**MANUFACTURERS OF RESIDENTIAL  
GAS HEATING EQUIPMENT**

BRYANT MANUFACTURING COMPANY • DAY & NIGHT  
MANUFACTURING COMPANY • EDWARDS ENGINEERING  
CORP. • JANITROL DIVISION, Midland-Ross Corporation  
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*in co-operation with The American Gas Association*

**It's smart sell to offer your prospects  
a chance to LIVE MODERN...FOR LESS...**

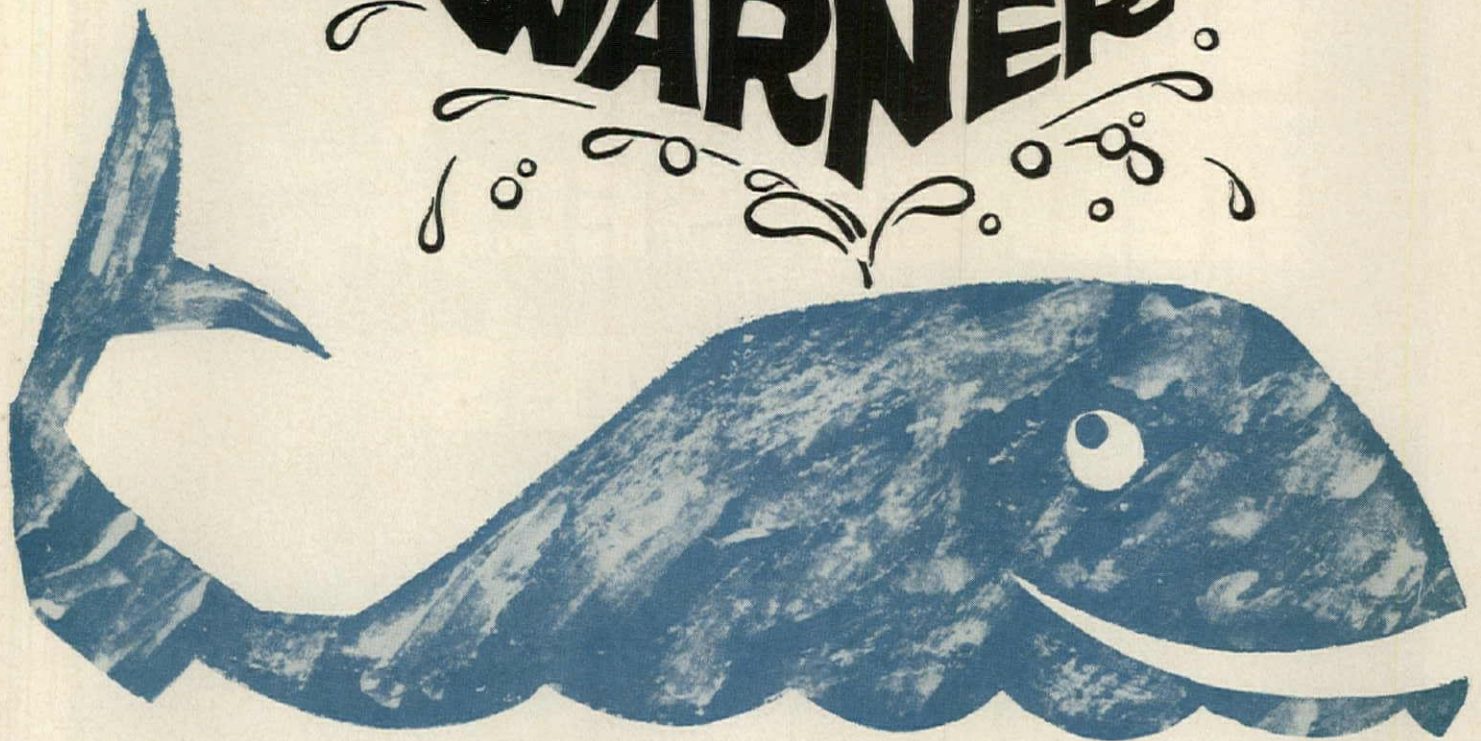
**WITH**

**GAS**

ONE-STOP SHOPPING AT THE A.G.A. UNIFIED GAS EXHIBIT—BOOTHS 1324 TO 1329 AND 1423 TO 1432.



# RAISE YOUR SALES WITH BORG-WARNER



Let the prestige of the Borg-Warner name plus Single Responsibility, Simplified Specifications, Quality Products, Accessible Local Sources, Promotional Assistance, "Total Bid" Savings and Package Financing sell your buildings faster and easier . . . at greater profit to you.



**MARBON CHEMICAL**, pioneers and developers of ABS plastic for Drain Waste and Vent Systems that are tougher, longer lasting, and easier to install than metal.

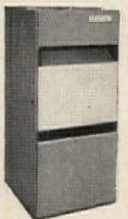
**NORGE APPLIANCES** offer you a complete selection of built-in appliances and laundry equipment.

**BORG-WARNER PLUMBING PRODUCTS** . . . decorator colors, advanced design for faster home sales.

**ALFOL INSULATION**, the permanent insulation that guarantees greater built-in sale and resale values.

**YORK AIR CONDITIONING** . . . low cost central systems—easy "quick connect" installations.

**BWAC PACKAGE FINANCING** . . . Deferred financing offers "garden apartment" builders more equity flexibility.



Raise your sales with Borg-Warner. Visit us in the Borg-Warner booth at the NAHB Show or write:

BORG-WARNER CONTRACT SALES DIVISION



YORK CORPORATION, GRANTLEY RD., YORK, PA.

**BORG-WARNER**



# MODERN RESIDENTIAL COMPONENTS OF STEEL combine quality and economy, increase sales appeal, lower costs

Sales appeal of homes and apartments goes up whenever you add a combination of high quality, low-cost maintenance, and greater durability. Manufacturers of basic building components made of Armco Special Steels offer you new opportunities to gain these sales-making advantages and at the same time cut construction costs.

This is why more and more steel is being used in residential construction. Builders are finding that modern steel components are often the more economical choice, and they add benefits that appeal to buyers. Steel components not only cost less to install, but they won't swell, sag or shrink, or require expensive, troublesome call-backs. You get added opportunities to cut costs and keep buyers happy.

Armco's Special Steels, by combining the strength and rigidity of steel with low-cost proved durability, help building product manufacturers provide you maximum value. They not only permit production of more economical, more durable steel building products, but fa-

cilitate the development of new structural units that enable you to build-in high quality at low cost.

## Armco ALUMINIZED STEEL Type 2

. . . sheet steel hot-dip coated in a bath of commercially pure aluminum. Combines strength of steel with surface characteristics of aluminum. Offers best buy for resistance to atmospheric corrosion. Used extensively for economical, maintenance-free roofing, wall panels and other exposed building components.

## Armco ZINCGRIP Steel

. . . sheet steel with a hot-dip coating of zinc that won't peel or flake during fabrication or erection. Full-weight commercial coating assures economical, durable corrosion protection. Armco ZINCGRIP® is supplied in a range of finishes for unpainted building components, and factory-painted products such as windows.

## Armco ZINCGRIP PAINTGRIP Steel

. . . all advantages of ZINCGRIP, plus a mill-applied paint-holding surface. Prevents flaking and peeling of paint. Armco ZINCGRIP PAINTGRIP® permits immediate painting, without surface treatment or need of special paints. Widely used in gutters, doors, windows—and recommended for all exterior metal components that are painted.

Armco also produces Stainless Steel and Enameling Iron for a wide range of building products such as highest quality sinks, bathtubs, hardware, and built-in appliances of all kinds.

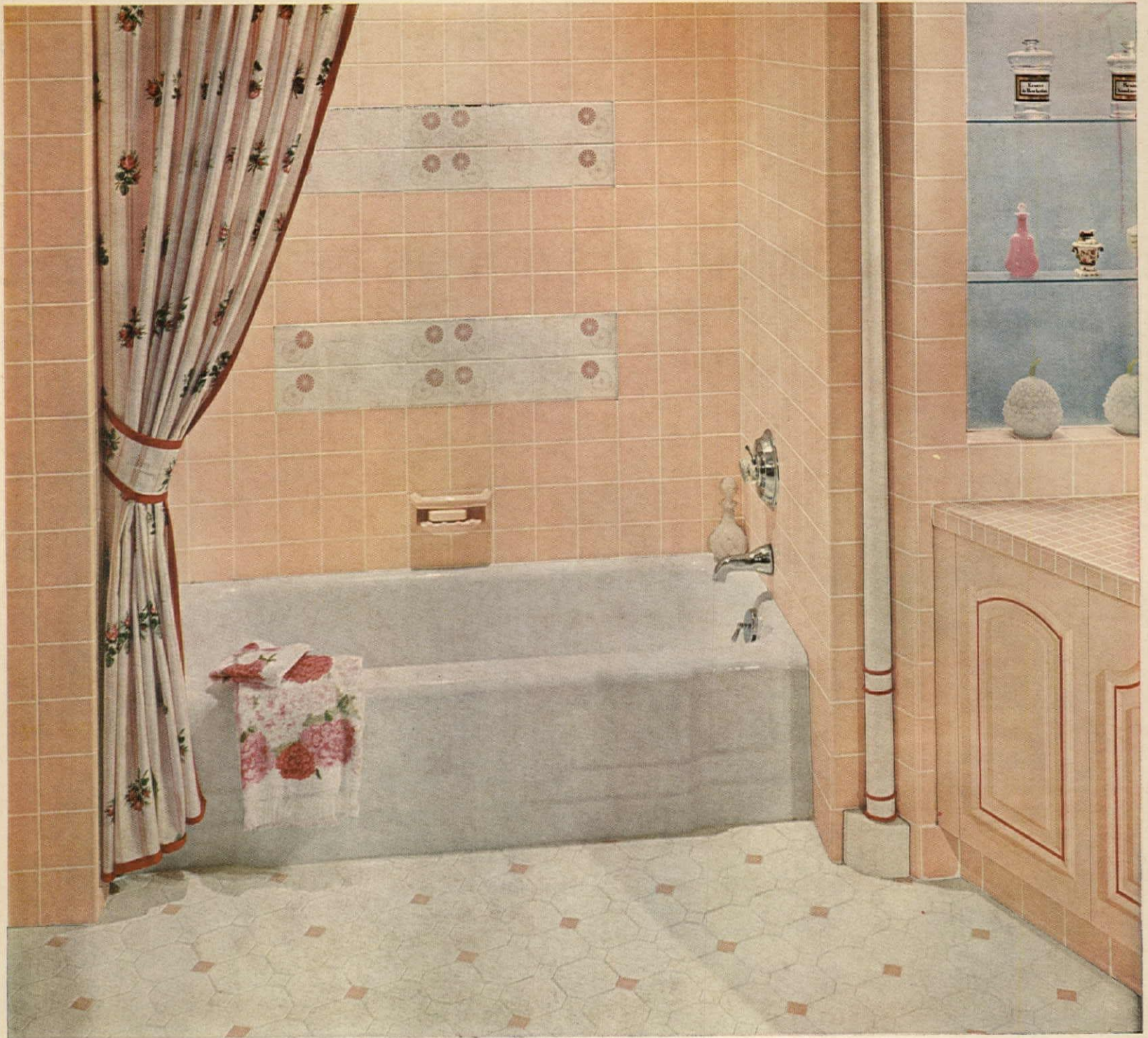
Turn the page, see how Armco Special Steels are being used to provide you with cost-cutting building components that help you sell.

For further information on Armco Special Steels for residential construction or cost-cutting products of steel, just write us. **Armco Division, Armco Steel Corporation, Dept. A-3023, P. O. Box 600, Middletown, Ohio 45042.**



Armco Division





Walls: Cr. Pink with N-1 decorated inserts. Floor: Cr. White Octagon with Cr. Pink and Cr. White Dots. Vanity top: SD-1, Cr. Pink. Plate 142.

## *It pays to be different with ceramic tile*



A few of the decorated tile designs.

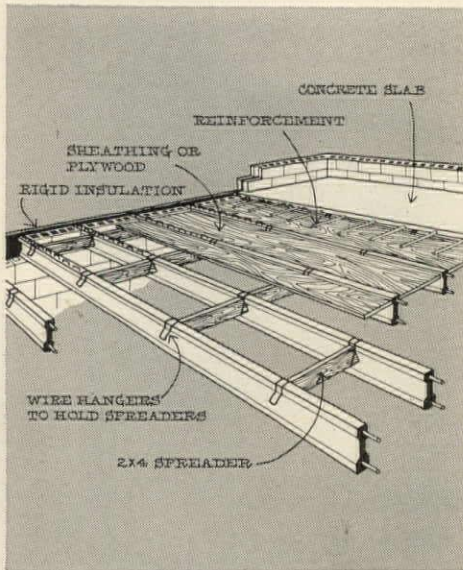
See how just a few of American Olean's colorful decorated designs spark up a bathroom wall . . . add a distinctive custom touch that today's home buyers respond to enthusiastically. These colorful inserts can be used in so many easy ways—for so little extra cost—to add important sales appeal to homes. Check your

American Olean tile contractor for samples and complete information. And write for color booklets 460 and 1041—filled with sales-building ideas for you.

CERAMIC TILE  
**American  
 Olean**



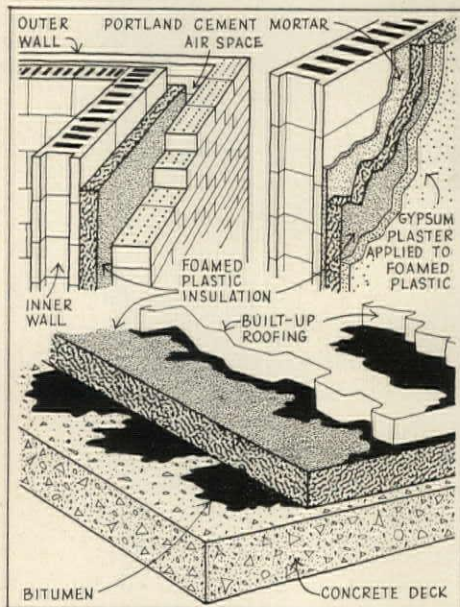
Steel Windows



**How to use concrete in homebuilding  
—a 40-page construction manual**

Virtually every use of concrete is covered in this manual: from standard footings, slabs, and foundation walls to unusual systems like the precast floor-joist method pictured above. Engineering data include sizes of concrete members, suggested mixes and aggregates, reinforcing methods, forming techniques, and additives. And there is an eight-page section on the choice and use of concrete masonry. Portland Cement Assn., Chicago.

For copy, check No. P1 on the coupon, p. 209



**20-page booklet shows where and how to apply foamed-plastic insulation**

Foamed-plastic is especially applicable to masonry construction, and this manual shows how it can be used in cavity walls and on masonry walls (top drawing), under roof decking (bottom drawing), as floor and perimeter insulation, as form-liner insulation, and as a base for plaster and drywall. Charts show U-factors for various insulation thicknesses and expected heat loss in various parts of the country. Dow Chemical, Midland, Mich.

For copy, check No. P2 on the coupon, p. 209

Publications continued on p. 181



**Economical, zinc-protected steel windows are quickly installed, won't warp, assure extra-long life**

With high quality windows made of Armco ZINCGRIP® Steel, you get important advantages that mean added sales appeal. These zinc-protected units not only assure long maintenance-free service but are also economical and easily installed.

You gain the rugged strength and rigidity of steel, too. The special zinc coating also provides excellent corrosion resistance that makes steel windows ideal for all residential construction.

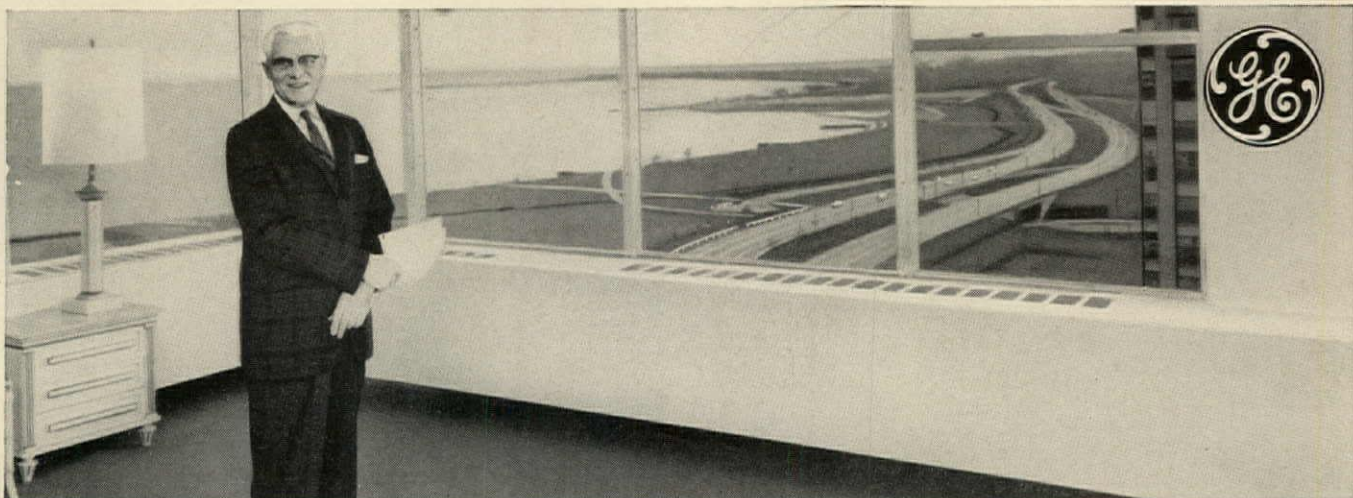
You can convert these advantages into sales benefits—add greater quality to your residential offerings without the penalty of premium cost.

Manufacturers offer you a wide choice of low-cost windows of Armco ZINCGRIP Steel, pre-painted in a full range of colors. Write us for names of companies using this zinc-coated steel for high quality, economical windows. **Armco Division, Armco Steel Corporation, Dept. A-3023, P. O. Box 600, Middletown, Ohio 45042.**

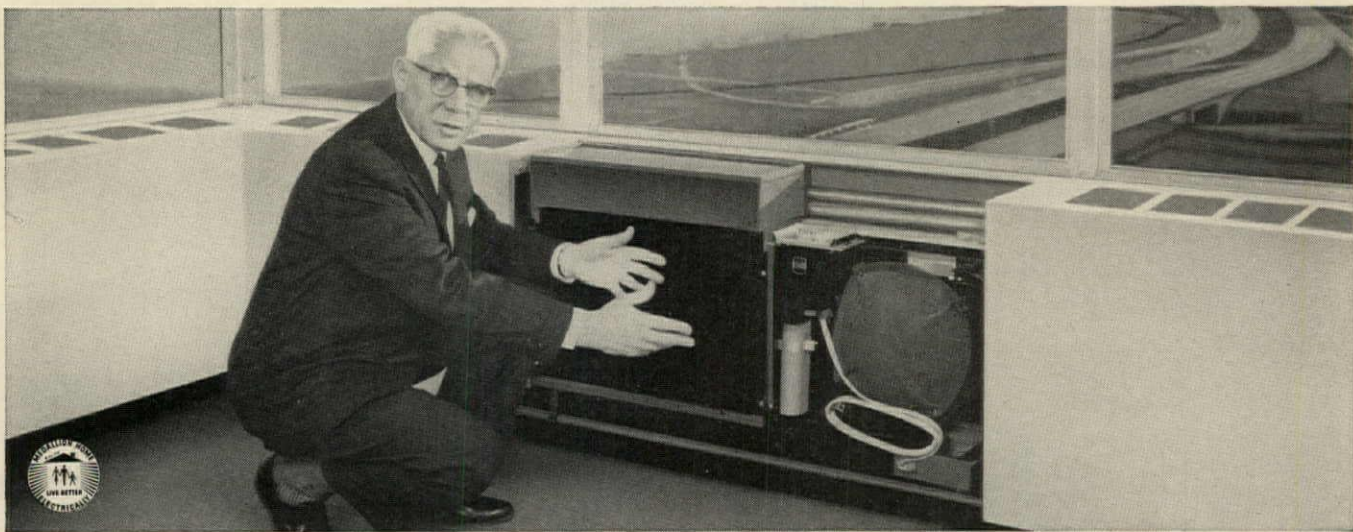


**Armco Division**





**“What we wanted were air conditioners that would go through the wall, give good cooling, be quiet, dependable, good-looking – and tie in with a hot-water heating system.”**



**“What we wanted, we got – 475 General Electric Zonline 42’s.”**



**Listen to Max Schreiber, co-owner of 5757 Sheridan – 20-story luxury apartment overlooking Chicago’s Lake Michigan beach front:**

“We’re completely sold on zonal air conditioning systems. They let tenants control their own temperature. They can bring in fresh, filtered air without opening windows, too. And, of course, if a central-plant system goes out, the whole building suffers. No danger of that with a zonal system.

“And we’re completely sold on General Electric. We’ve used their window units in our other apartments and found them most dependable and efficient.

“So when our architects, Loewenberg & Loewenberg,

recommended the new Zonline ‘42’ for 5757 Sheridan, we agreed right away. It was simple to build in these convactor cabinets with the air conditioner above, the hot water pipes below. The cabinet itself doubles as a window seat and shelf. Our tenants have heating and cooling in one good-looking, easy-to-get-at unit.

“And, in talking to our tenants, we found that they are very, very pleased with the *quietness* of the Zonline ‘42’. And that, of course, pleases us.”

Add the flexibility of zonal air conditioning to your next building with General Electric’s Zonline ‘42’. Build it in for cooling alone – or combine it with hot water or electric heating. For complete information, write to the General Electric Company, Room Air Conditioner Dept., Building 104C, Louisville 1, Kentucky.

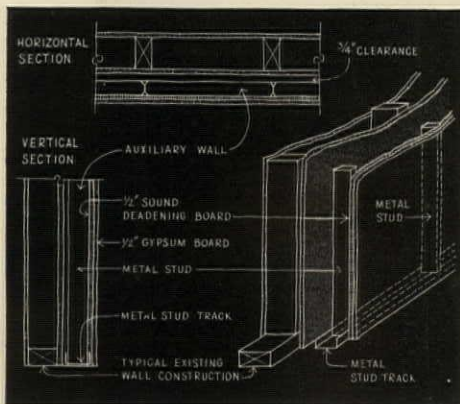
*Progress Is Our Most Important Product*

**GENERAL  ELECTRIC**

By any measure... There is nothing just as good as General Electric



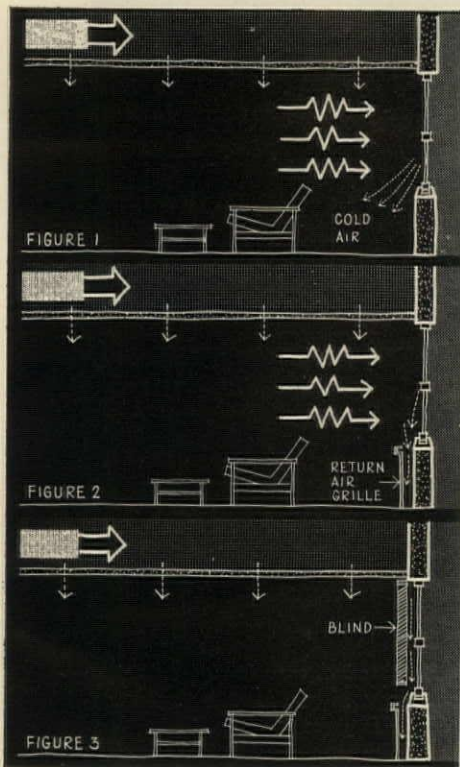
**Steel Roofing System**



**How to use insulation board to cut through-the-wall noise transmission**

Six newly-developed wall systems that reduce noise flow between rooms are illustrated and described in this booklet. All systems use conventional materials and techniques. Costs and acoustical characteristics of each system are given so the builder or architect can select the most economical one for handling his sound-control problem. An auxiliary wall system used in remodeling jobs is shown above. Insulation Board Institute, Chicago.

For copy, check No. P3 on the coupon, p. 209



**Draft-free ventilating ceiling is described in 24-page booklet**

No ceiling ducts or diffusers are used in this system; instead warm or cooled air is introduced into the plenum above the suspended ceiling and distributed evenly through the room from perforations in the ceiling tile. The booklet shows how to install the system, how the plenum principle works, and how return air grilles can eliminate perimeter draft areas around windows (drawings above). Armstrong Cork, Lancaster, Pa.

For copy, check No. P4 on the coupon, p. 209

Publications continued on p. 183



**Special steel roof components cut material and labor costs, combine strength and rigidity with exceptional durability**

The roof system on an award-winning apartment highlights the use of steel in achieving economical roof construction. Low material cost, efficiency of steel construction, and low labor costs emphasize the importance of this design.

Principal elements are interlocking roof panels of Armco ALUMINIZED STEEL Type 2, spanning from ridge to eave. This metal, with the strength of steel and appearance of aluminum, does not require painting to achieve remarkable durability in outdoor exposure. Other parts of this roof system also are made of this aluminum-coated steel.

Lower over-all costs of this and other steel roofing systems usually not only make possible more profit for you but also savings to the potential buyer. ALUMINIZED STEEL adds sales appeal because it gives maintenance-free service, never requires painting.

For more information, write us. **Armco Division, Armco Steel Corporation, Dept. A-3023, P. O. Box 600, Middletown, Ohio 45042.**



**Armco Division**





This attractive Early California "Monterey" home has proved very popular in "Prides Crossing"—Brown & Kauffmann's newest luxury home development.

**In Saratoga, California, this house sells for \$34,950**

*("...and concealed telephone wiring helps give it added sales value," says Wayne R. Brown)*

"As one of the nation's larger builders of higher priced developments, we know the sales value of concealed telephone wiring," says Mr. Wayne R. Brown, partner in the Brown & Kauffmann building firm.

"Concealed telephone wiring is of interest to our customers and proves to the buyer that we have considered his convenience even

in the hidden features of the home. It's one more quality feature which helps sell \$28,000 to \$35,000 homes at a volume pace."

\* \* \*

*For help in telephone planning your homes, call your Bell Telephone Company and ask for the Architects' and Builders' Service. Also, see Sweet's Light Construction File, 11c/Be. For commercial installations, Sweet's Architectural File, 33a/Be.*



**BELL TELEPHONE SYSTEM**

Visit the Bell Telephone Exhibit at the N.A.H.B. Convention, Booths 253 & 353, to see the latest in telephone wiring and services.



## PUBLICATIONS

start on p. 179

For copies of the free literature, check the indicated number on the coupon, page 209.

### Design aids

**SOUND ABSORBERS.** 12-page booklet explains acoustical and physical properties of the Geocoustic unit. Recommended requirements of typical rooms. Application data and specs. Acoustical correction method (patching). Pittsburgh Corning Corp., Pittsburgh. (Check No. P5)

**IDEAS FOR CERAMIC TILE.** 16 pages. Renderings of practical and unusual ways to use tile in the home. Stylon, Milford, Mass. (Check No. P6)

**POLE-TYPE BUILDINGS.** 12 pages. Shows use of pressure-treated poles to solve problems of building on difficult land. J. H. Baxter & Co., San Francisco. (Check No. P7)

### Catalogs

**STAINLESS STEEL SINKS** for the kitchen, lavatory, laundry, hospital, and sacristy. 32 pages. Photos, dimensions, prices. Also countertops and drainboards. Commerce Dept. standard for stainless steel plumbing is included. Zeigler-Harris, Los Angeles. (Check No. P8)

**ELECTRIC WIRING DEVICES.** 88 pages. Photos and specs of thousands of items. Rodale Mfg., Emmanus, Pa. (Check No. P9)

**FIRE SAFETY.** 44-page catalog of technical and educational publications. National Fire Protection Assn., Boston. (Check No. P10)

### Technical literature

**AUTOMATIC CONTROL VALVES** for hydronic heating-cooling units. 12 pages. Advantages and features of each valve are summarized, its operation explained. System diagrams, specs, capacity selection chart, and installation suggestions. American-Standard, Detroit. (Check No. P11)

**LUMBER,** 1964 manual. 32 pages. Span and stress tables for mechanically stress-rated lumber. Revised span tables for decking. Joist and rafter span tables for visually-graded lumber. 15¢. For copy, write Western Pine Assn., Yeon Bldg., Portland 4, Ore.

**GLUED-LAMINATED TIMBER.** Commercial standard effective April 1963. 15¢. For CS253-63, write Superintendent of Documents, U. S. Government Printing Office, Washington, 20402.

**ROUND FOREST PRODUCTS.** Procedure for inspecting preservative-treated wood poles, piles, and posts. National Bureau of Standards, Washington. (Check No. P12)

**FLEXIBLE POLYSULPHIDE SEALANTS.** 4 pages. Uses. Table of physical properties. Recommended preparation and coverage. Smooth-On Mfg., Jersey City, N. J. (Check No. P13)

### Product bulletins

**ALUMINUM WALL SYSTEM.** 4 pages. Advantages listed, physical properties discussed with graphs of load deflection and stress-strain curves. Drawings show wall section and construction cutaway. Security Aluminum, Detroit. (Check No. P14)

**DOOR CLOSERS.** 12 pages. Features, finishes, sizes, prices, specs, accessories, and selection charts for interior and exterior doors. Norton Door Closer Co., Yale & Towne Mfg., Bensenville, Ill. (Check No. P15)

**KITCHEN CABINETS.** 4 pages. Photo, dimension drawings, installation and construction details. Noblecraft, Hillsboro, Ore. (Check No. P16)

**TRENCHERS.** 4 pages. Photo, uses, dimensions. Charles Machine Works, Perry, Okla. (Check No. P17)

**WALL-HUNG DESK.** Data sheet. Photo, sizes. Modern-Aire Ventilating, North Hollywood, Calif. (Check No. P18)

Product bulletins continued on p. 209

## Steel Roof Drainage



### Stop paint peeling and chipping from gutters with Armco ZINCGRIP PAINTGRIP Steel

By installing gutters and downspouts of Armco ZINCGRIP® PAINTGRIP® Steel, you can eliminate one of the most persistent and costly customer complaints—paint peeling from roof drainage.

This special zinc-coated steel has a mill-applied surface treatment that prevents paint from becoming brittle and also "anchors" it to the metal. Not only that, it enables you to paint gutters and downspouts immediately after installation. No special treatments or special paints are required.

Roof drainage of ZINCGRIP PAINTGRIP Steel makes any home or apartment more attractive to the buyer, because he doesn't have to worry about the extra cost and irritation of premature repainting because of peeling paint.

For more information on Armco ZINCGRIP PAINTGRIP, write us. **Armco Division, Armco Steel Corporation, Dept. A-3023, P. O. Box 600, Middletown, Ohio.**

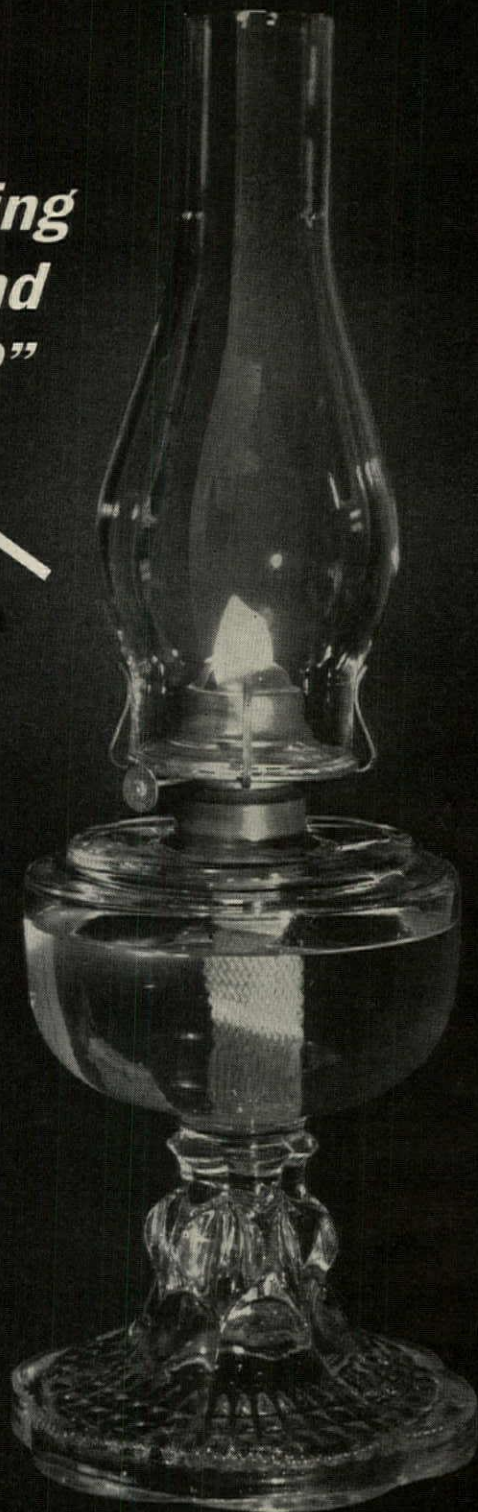
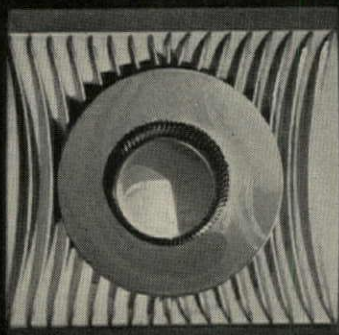


**Armco Division**



*"Humph!  
who's given home lighting  
the dimming range and  
economy that I have?"*

*"HUNT  
ELECTRONICS  
has!"*



Actually, there was a lot to be said for the Kerosene Lamp. It was romantic; it was economical . . . two benefits electricity has never been able to fully exploit . . . until now. Hunt Dimming Controls use the old Kerosene Lamp concept to bring out a new dimension in mood and effect, plus all the economy possible from modern Home Lighting.

Hunt Dimmers provide the desired amount of light, from Dark to Full Bright in either Incandescent or Fluorescent models and are fully guaranteed.

In controlling mood and effect, Hunt Dimmers also control power and economy . . . and prolong lamp life. (Incandescent bulb life is increased over 1,000% when burned at 75% of maximum rated wattage.)

If you're interested in both lighting economy and flexibility as two extras in Home Design, take a tip from us . . . the two-way switch is Out. Hunt Dimming Controls are In.

For complete information and specificational data on the Entire Hunt Line of Dimming Controls, contact your local Electrical Distributor or write the people who bring you the Brightest Ideas in Dimming.

  
**HUNT ELECTRONICS  
COMPANY**  
2617 ANDJON DRIVE / DALLAS, TEXAS 75220  
SEE OUR CATALOG IN SWEETS



## Steel Doors and Frames

MPS continued from p. 133

tible roof or hard up against the underside of a noncombustible roof. In Type 4 construction, firewalls should project at least 6" past exterior walls; otherwise, the exterior wall must be surfaced with a noncombustible material for 18" on both sides of the firewall.

**Exits.** Most codes and the old MPR require at least two well separated exits in each multi-family building—a provision which many code experts contend wastes as much as \$400 per dwelling unit in some types of construction. But the new MPS permit just one exit per building in:

1. A one-story structure with no more than eight living units in the building or between firewalls.
2. A two-story structure with no more than five units per floor. If any part of the building is combustible construction, gross area per floor must not exceed 4,500 sq. ft.
3. A two-story structure of duplexes with no more than eight units in the building or between firewalls. Each unit must have one exit on a protected passageway to the outside.
4. A three-story Type 1 or 2 (noncombustible) building with no more than four units per floor.
5. A Type 1 building four to six stories high with a maximum of two units per floor—if the exit is enclosed in a fire-resistive tower or stairway accessible from all units.
6. Any building in which each living unit has a direct exit to the outside.

**Balconies.** In Type 3 and 4 buildings, balconies must be of noncombustible material if they are more than three stories above grade on the facade where they are built. In addition, balconies in Type 3 buildings must be noncombustible if they are less than 30' from adjacent structures. And in Type 4 buildings, noncombustible balconies are required if they are less than 24' from neighboring structures on the second floor, less than 30' on the third floor.

**Interior surfaces.** Unlike most codes and the earlier MPR, the new MPS include a section which for the first time imposes flame-spread limits on interior finishes in multi-family buildings (*table below*). Flame-spread characteristics of finish materials are determined by ASTM Test Designation E-84 (surface burning characteristics of building materials) or ASTM Test Designation E-162-62T

### Flame-spread rating limitations

Location	Surface flame spread rating—maximum range
Enclosed stairways and other vertical openings	0-25
Corridors or hallways and other exits	25-75
Within living unit except for kitchen space	25-75 (1)
Kitchen space within living unit	25-75
Public rooms and entrance spaces	25-75
Service rooms, enclosing heat producing or other mechanical equipment, and all other fire hazardous areas	0-25

(1) Fifteen percent of the combined wall and ceiling area of any single room within a living unit except kitchen space may have a flame spread rating as high as 150.

**MPS TABLE** shows flame-spread ratings allowed in six interior areas. The lower the rating, the less fire-resistance required. *continued on p. 187*



## Attractive low-cost steel doors and frames are quickly installed, sturdy and sag-resistant

Steel doors and frames go in fast. Ready-to-install frames and "pre-hung" units require minimum labor, present no time-consuming problems. Installation costs are so reduced that the in-place cost of steel doors and frames is frequently less than those of wood.

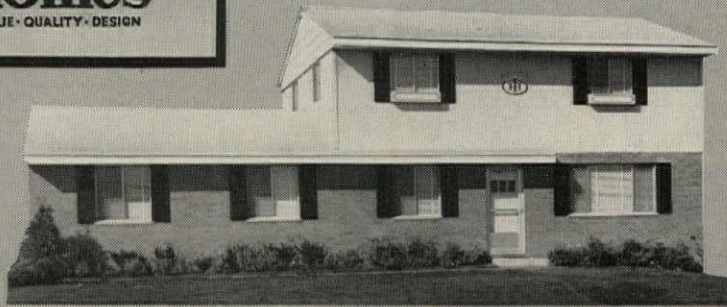
There's strong sales appeal in steel doors to home buyers. Doors fit snugly in their steel frames, which means less danger of drafts or heat loss. They also resist damage from rough service. And you have no customer complaints about sagging, warping or swelling. Costly call-backs are eliminated.

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E. I. Fisher, President.

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“We maintain a cost control ledger that reflects an exact detail of expense and investment on each house under construction. Thanks to our NCR System, we are able to keep our actual costs in line with our estimates and contracts with amazing accuracy.

“In addition to our home cost control program, our ‘33’ also handles Payroll, Government Reports, both General and Sub-contractor’s Accounts Payable Ledgers, plus individual Job Reports.

“One thousand words could not adequately describe the many advantages our NCR System has made possible for my Company. I am satisfied it returns 105% or more a year on our investment. Without hesitation, I recommend a similar system for any one in the construction business.”

*E. I. Fisher*

E. I. Fisher, President  
Imperial Homes, Inc.

NCR PROVIDES **TOTAL SYSTEMS** — FROM ORIGINAL ENTRY TO FINAL REPORT — THROUGH ACCOUNTING MACHINES, CASH REGISTERS OR ADDING MACHINES, AND DATA PROCESSING  
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(surface flammability of materials using a radiant heat energy source).

Almost every national organization concerned with fire protection had a say in the new fire rules: the National Fire Protection Assn., the Joint Council on Building Codes, the National Board of Fire Underwriters, the National Bureau of Standards, and Underwriters' Laboratories.

#### 4. Rules on concrete: much tougher than those in the one- and two-family MPS

Nub of the multi-family MPS on concrete is charted below. Charts spell out the 28-day strength requirements and mixes of concrete for seven different uses under three different weathering conditions (see map).

Like the one- and two-family MPS, the multi-family MPS call for at least five bags of cement per cubic yard of concrete. But the new MPS add these important requirements:

- Minimum cement content is raised to 5½ bags per yard if gravel or crushed-stone

continued on p. 189

Concrete minimums						
Compressive strength and cement content						
Type of Construction	Negligible Weathering (see map)		Moderate Weathering (see map)		Severe Weathering (see map)	
	Min. Comp. strength psi	Min. cement content bags per 1 cu. yd.	Min. Comp. strength psi	Min. cement content bags per 1 cu. yd.	Min. Comp. strength psi	Min. cement content bags per 1 cu. yd.
Foundations slabs or walls subject to wetting	4,000	6.0	4,500	6.25	5,000	6.5
Foundations and structure not exposed to weather	3,000	5.0	3,000	5.0	3,000	5.0
Slabs not exposed to weather	3,500	5.5	3,500	5.5	3,500	5.5
Foundations, structure placed in freezing weather but not exposed to weather	NA	NA	4,000	6.0	4,000	6.0
Foundation, walls exposed to weather	3,000	5.0	4,000	6.0	5,000	6.5
Concrete exposed to sulphate attack	5,000	6.5	5,000	6.5	5,000	6.5
Concrete subject to heavy foot traffic	4,500	6.25	4,500	6.25	4,500	6.25
Driveways, walks, porches exposed to weather	4,000	6.0	4,500	6.25	5,000	6.5

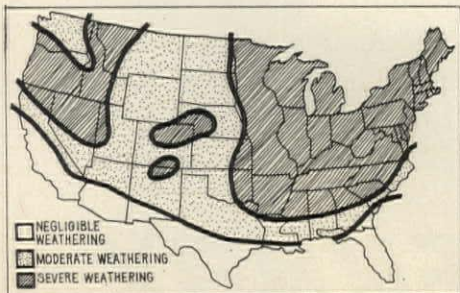


TABLE AND MAP relate mix and strength of concrete to weathering around the nation.

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Formed steel panels assure fast, simple erection. A variety of designs and sizes in a full range of colors enables you to use the advantages of steel wall panels in all types of construction.

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AIR CONDITIONING • HEATING

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MPS continued from p. 187

aggregate is less than 1" in size or if light-weight aggregates are used.

- Maximum water content per bag of cement is dropped from 7½ to 6½ gallons, including the free water in the aggregate.
- Air entraining—which was only recommended by the one- and two-family MPS—is required by the multi-family MPS for concrete exposed to freezing and thawing.

## 5. Elevator requirements: brand new—and the first published anywhere

The new MPS not only specify where elevators are required but also spell out performance standards.

In three-story buildings, one or more elevators must be installed if the local FHA office considers them essential to market acceptance of the apartments.

In four-story buildings, elevators are required unless market acceptance is likely without them and unless there are no more than four living units per floor.

In buildings of more than four stories, at least two elevators are required. But one elevator is acceptable in buildings up to six stories with no more than four living units per floor.

Performance standards (geared to total building occupancy, which is figured by multiplying the number of bedrooms by 1.75):

- There must be enough elevators—and they must be fast enough—to transport at least 6% of the building's occupants in five minutes.
- Maximum waiting time must not exceed 90 seconds for two or more elevators, 144 seconds for a single elevator.
- Minimum elevator speeds are 150' per minute in buildings up to six stories, 200' up to 12 stories, 250' up to 17 stories, 350' up to 21 stories, and 500' over 21 stories.
- Maximum running time per floor (assuming 9' between floors) must not exceed six seconds.
- In buildings under 20 stories, two elevators may serve no more than 600 occupants.
- Apartments must be placed no more than 180' by corridor from an elevator.

## 6. Room-size, storage, and insulation rules are more specific than the old MPR

New minimum room sizes are unchanged with these exceptions:

- The total required area of bedrooms in a four-bedroom unit has been cut from 400 sq. ft. to 380 sq. ft.
- A new category of combined space—living room-dining area-kitchen—has been added. It imposes minimums of 260 sq. ft. for one-bedroom units, 270 for two-bedroom units, 290 for three-bedroom units, and 310 for four-bedroom units.
- The room count for a combined living and bedroom has been raised from one to 1½.

(FHA now says it is changing some room-size minimums in its one- and two-family MPS to bring them into line with the new multi-family MPS. For example: Minimums for dining rooms or dining areas are being

continued on p. 191

## Steel Floor-Ceiling Systems



## Gain economy, strength and durability of steel in combined floor and ceiling systems

Interlocking steel panels, utilized in a new design for combination floor and ceiling, provide the required structural strength and attractive appearance for residential construction. Flat underside of panels serves as an attractive crack-proof ceiling. Plywood panels attached to upturned ribs of the panels supply a floor surface for wall-to-wall rugs or hardwood flooring.

Considerable savings are possible with such floor-ceiling systems—because of low material costs and reduced installation labor. Equally important is the trim, maintenance-free steel ceiling that adds worthwhile sales appeal.

When these components are made of Armco ZINCGRIP® Steel, both builder and buyer gain the extra quality of zinc-protected steel.

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sizes for various types of windows.

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raised from 80 sq. ft. to 100 sq. ft. for one-bedroom houses, from 110 sq. ft. to 120 sq. ft. for four-bedroom houses.)

*New storage requirements are generally stiffer. They are also spelled out—with drawings and detailed descriptions—to make storage more accessible. Some of the changes:*

- Closet space in bedroom No. 1 must be at least 5' long (vs. 3' in the old MPR).
- The linen closet must be at least 16" deep (vs. 14").
- Combined inside and outside general storage minimums—previously specified (at 150 cu. ft.) for studio and one-bedroom units but not for larger apartments—have now been expanded. The new minimums: 200 cu. ft. for two-bedroom units, 250 cu. ft. for three bedrooms, and 300 cu. ft. for four bedrooms.
- Inside storage minimums have been lowered from 150 cu. ft. to 100 cu. ft. for studio and one-bedroom units, and to 140 cu. ft. for two bedrooms. Requirements are unchanged for three- and four-bedroom units—180 cu. ft. and 200 cu. ft. respectively.
- Kitchen-storage minimums are up, but figures cannot be compared because in many cases the old MPR simply called for "adequate storage." Here are the new requirements:

In studio units, shelving must be at least 24 sq. ft. in wall and base cabinets (with at least 10 sq. ft. in each); drawer area, 4 sq. ft.; and countertop area, 5 sq. ft.

In one-bedroom units with kitchen areas less than 60 sq. ft., shelving must be at least 30 sq. ft. in wall and base cabinets (with at least 12 sq. ft. in each); drawer area, 5 sq. ft.; and countertop area, 6 sq. ft.

In one- and two-bedroom units with kitchens of 60 sq. ft. or more, shelving must be at least 48 sq. ft. in wall and base cabinets (with at least 18 sq. ft. in each); drawer area, 8 sq. ft.; and countertop area, 10 sq. ft.

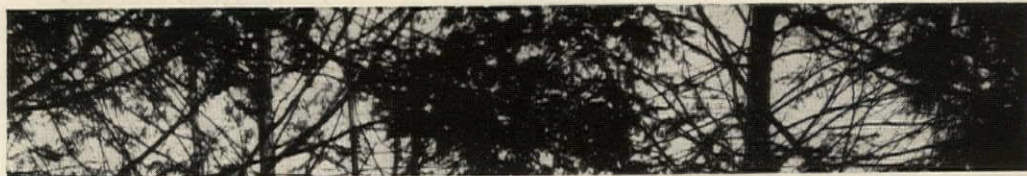
In three- and four-bedroom units, shelving must be at least 54 sq. ft. in wall and base cabinets (with at least 20 sq. ft. in each); drawer area, 10 sq. ft.; and countertop area, 12 sq. ft.

*Insulation minimums are slightly higher than in the old MPR, and meaningful heat-loss figures have replaced an old rule of thumb.*

For ceilings below an unheated space (and without heating panels), the required U-factor is now 0.12 compared with 0.19 in the old MPR.

The MPR permitted a total heat loss (in BTU) of 60 times the total square footage of an apartment building. But because of differences in number of floors, orientation, locale, design, etc., the actual heat loss could vary as much as 50% up or down. The new MPS solve this problem by specifying heat-loss minimums for each individual floor of a building at 25 BTU per square foot. But if either the floor or ceiling is next to unheated space, the allowable heat loss is 35 BTU; and if both ceiling and floor are next to unheated space, the allowable loss rises to 45 BTU.

The new multi-family MPS also do what few codes, the old MPR, and the one and two-family MPS have never done. They require builders to save all good trees not actually in the way of construction. Trees must be protected during construction by fencing, boxing, or planking. If a change in grade threatens the roots, retaining walls must be built.



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This is the classic design by architect Carl Koch, that has made Techbuilt famous. Measure its success in terms of the design awards it has won in ten years . . . the volume of profitable sales by builders . . . or the value and satisfaction it gives its owners.

Now, with the added advantages of Armco enameled steel walls, aluminized steel roof, and steel floor framing, you can offer your customers substantial savings on exterior maintenance . . . increased fire protection

. . . freedom from termite worries . . . shrink-free construction . . . all at no increase in cost.

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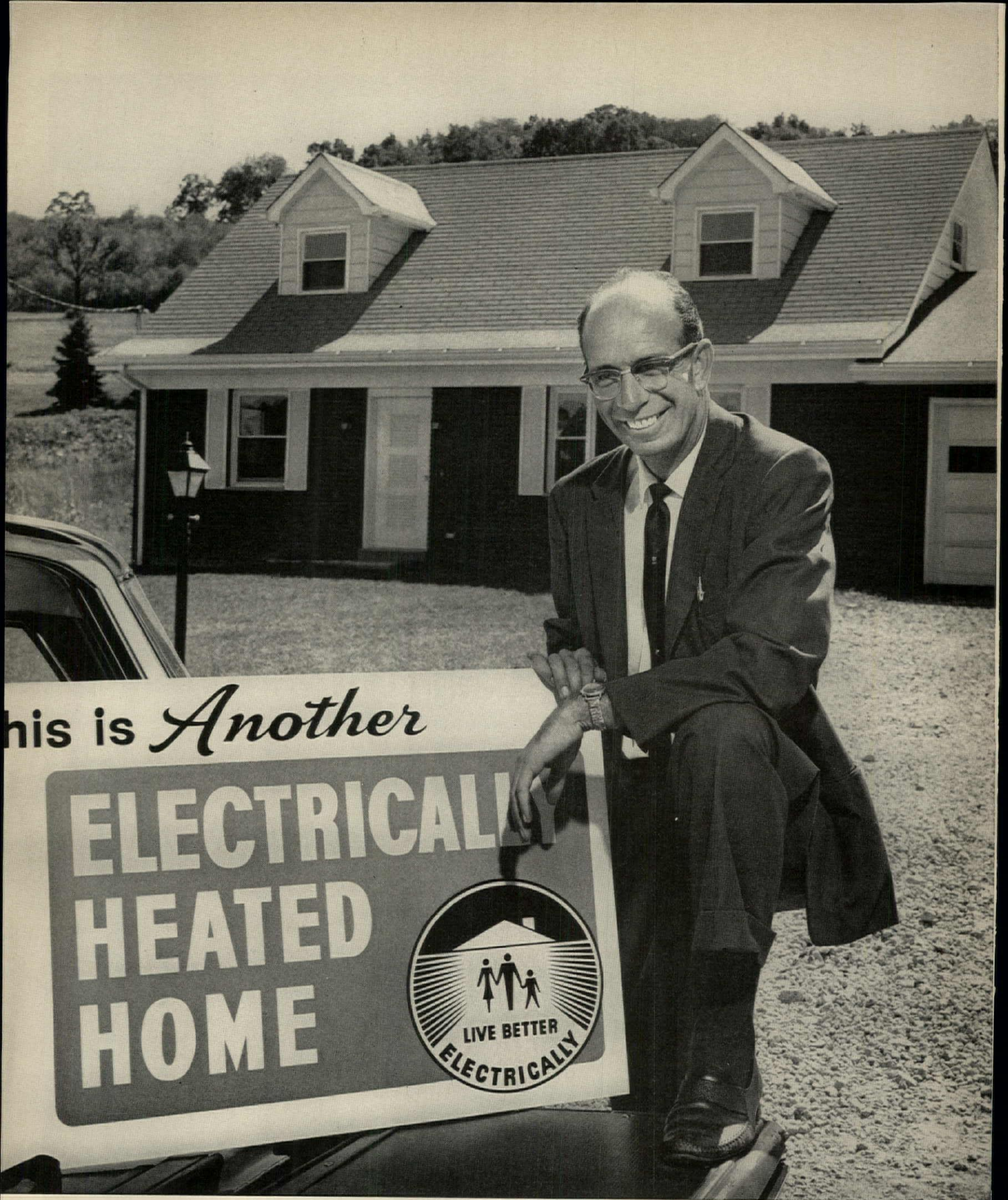
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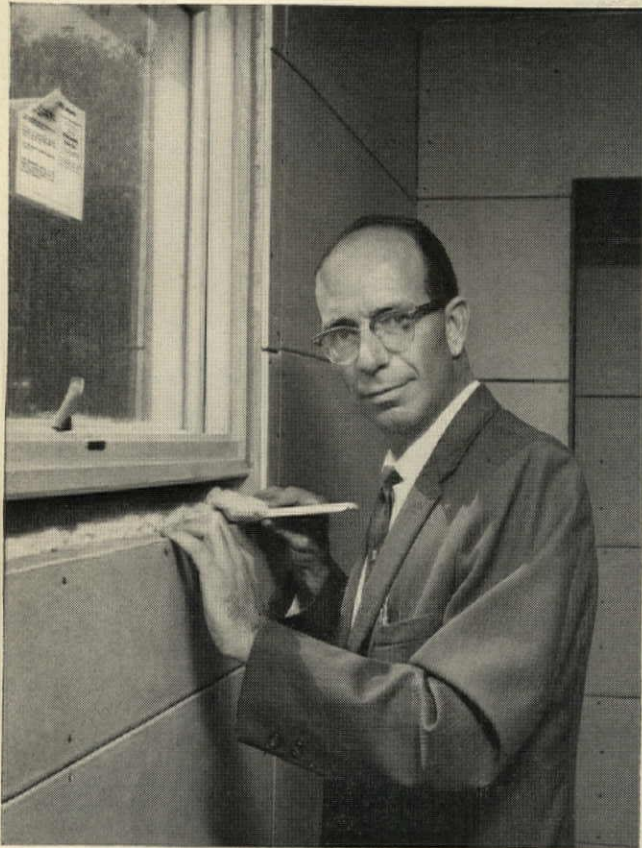
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"ELECTRIC HEAT CUTS COSTS on installation and gives you added sales appeal at the same time," Henry Motycki reports. "In fourteen years in the business, I've never seen anything that offers a builder a greater profit potential."





**"GOOD INSULATION** is the secret of complete success with electric home heating," comments Henry Motycki, pointing out as an example the careful packing around window frames. "It is so effective, I'm now able to guarantee 72° at 10° below zero."



**"ELECTRIC CEILING CABLE** offers a lot of advantages to a builder," says Henry Motycki. "It's efficient, fast and easy to install, and takes up no space at all. It's dependable, too—literally the only thing that can wear out is the thermostat."

## "I'M SELLING MY NEW HOMES FASTER NOW THAT I'M INSTALLING FLAMELESS ELECTRIC HEAT"

**Pennsylvania builder Henry Motycki tells how the sales appeal of electric heating is helping him move his homes faster and increasing his profits**

Like most successful builders, Henry Motycki, of Charleroi, Pennsylvania, has a very basic business philosophy. He tells you, "When you've got a big investment in materials and labor tied up in a new home, you just can't afford to let it stand around empty. That's why I figure that any builder who wants to turn a decent profit has got to make sure that the houses he's putting up will sell as fast as possible.

"This means I'm always on the lookout for ways to build extra sales appeal and extra quality into my new homes. And that's the reason why last year I went over to flameless electric home heating.

"Frankly, I don't see how the results could have been any better. Since I started installing electric heat the only house I haven't sold is my model—and it's not yet for sale!

"I've always felt that I've had pretty good success with my houses, but I've just never seen anything like this. It's

pretty clear to me that people around here really want electric heat, and I'm glad that I'm now in a position to give it to them."

Like Henry Motycki, builders all across America are discovering that it pays to build and promote electric heat in their new homes. This year, for example, it is estimated that 20% of all new homes will be heated electrically.

Why not find out how you can profit by using flameless electric heating in your new homes? First chance you get, talk it over with your local electric utility company.

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**THE TOTAL ELECTRIC HOME** that displays this Gold Medallion\* helps you to capitalize on the fast-growing customer preference for total electric living. And because a Gold Medallion Home uses a *single source of energy* for heating, cooling, light and power, you will profit more.

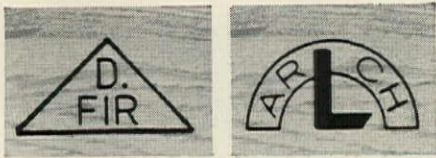


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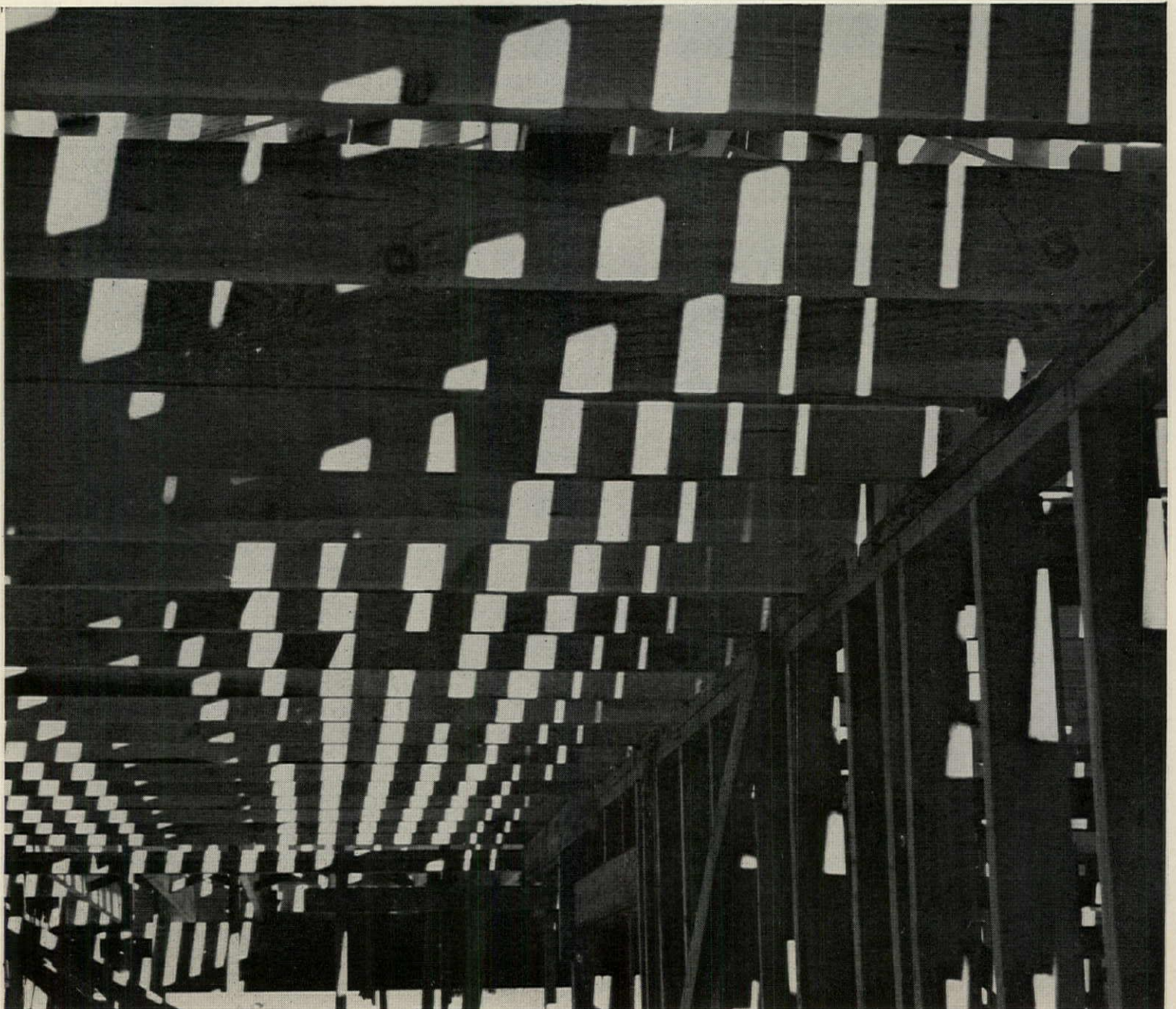
QUALITY SEASONED LUMBER FROM WESTERN PINE ASSOCIATION MEMBER MILLS



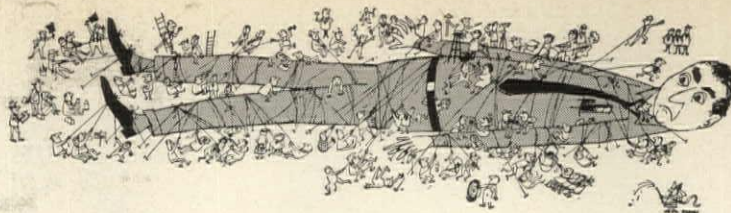
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**Next to bad codes, bad zoning and planning are now the housing industry's worst enemies**

Says David Craig, president of the American Society of Planning Officials (and Pittsburgh city solicitor): "Under the balkan conditions of municipal powers in suburbia, zoning and subdivision control are now viewed as key weapons in a complicated struggle for local prestige and position.

"In the hands of undersized political units zoning has been perverted from a device for rational land use allocation to a ploy in an elaborate game of municipal one-upmanship."

Many communities fervently wish they could accomplish what Madison Township thinks it has. Some are trying. In their attempts, it is quite possible that they can substantially cancel out the economic gains that housing can achieve through industrialized production. The reasons for this misuse of local power are an old story. As Builder Gerald Lloyd puts it, "the last man in wants to be the last man in," so taxes for schools, other services and improvements will not rise further. Other fears underlie and buttress the fiscal one: fear of shoddy development, of congestion in the community, of undesirable neighbors.

What makes this situation at least as intolerable as the code mess is that wise planning and intelligent zoning to carry it out could make all these fears groundless. But few communities have the vision to seek, or the sophistication to adopt, better solutions. "All they see," says Builder Lloyd, "is the top of the iceberg." A whole chain of atrocities results:

**Bad planning and zoning inflate building costs and keep builders from building better for less in four ways:**

**1. Big lot (or snob) zoning forces builders to build houses too costly for their biggest group of potential customers—or go elsewhere.** "We are forced to build 75% of our houses at prices 15% of our customers can afford," says Builder Ray Watt of Los Angeles. Says William Weismantel, assistant professor of architecture at Washington University in St. Louis: "In the last ten years in St. Louis County I estimate that at least \$8 million in unnecessary lots costs have been paid by homebuyers because of large lot zoning. Another \$8 million has been paid for unnecessarily wide street pavement in front of these houses." Weismantel calculates that St. Louis County has a 350-year supply of one-acre lots zoned, but only a four-year supply of 15,000 sq. ft. lots which the market prefers. Says Cleveland Builder Peter Rzepka with stark eloquence: "Excessive lot-size requirements are depriving people in the middle-income level of homeownership. Take raw land with a 100' frontage that is worth \$1,000 and add \$5,000 to it for development, you've got \$6,000 for it. The lot is in a working man's area where you should be building a \$15,000 house. Who's going to build it on that \$6,000 lot?"

**2. Rigid setback and side-yard requirements prevent flexible, often superior siting of the house on the lot.** In Dallas, where 30' setbacks and 5' or 6' side yards are the rule, Planning Consultant Charles Spivey comments: "They were great in the old days when everybody moved the cane rockers out on the front walk after dinner and read the paper while the light held, then visited until it got cool enough to go to bed. TV and air conditioning have changed all that. Now about all anybody does with that 30' is mow it and cuss it. It has no value for privacy or real livability. It is just waste." In most Cleveland suburbs, notes Architect Joseph Ceruti, zoning ordinances require driveways to be on the right side of the house. "This is ridiculous. It puts the service side of each house next to the living side of the adjoining house," he says.

**3. Rigid siting of the house on the lot combined with rigid dimension grids set down on irregular or wooded terrain can force builders to waste lots or trees or both in order to use the land at all.** In San Diego, American Housing Guild acquired a tract of rolling hills on Mt. Helix, a prestige area, and sought to divide it into half-acre sites. But engineering showed that with minimum disturbance of the natural terrain several choice lots a little under the half-acre limit could be created on hilltops—while in the canyons the sites would be much larger than the minimum. The requested variance was rejected by both the County Planning Commission and Board of Supervisors. Result: AHG must grade and fill, will have six fewer lots, and a less practical or beautiful lay-

out requiring more expensive roads. Total added cost: \$42,000.

**4. Excessive site improvements compound the wasteful evil.** Sometimes they approach the ludicrous: A Pittsburgh company developed a tract of land which lay in three communities, each with a different roadway specification. One required a street 6" wider than another; one required rolled curbs; another specified none. Efforts to get uniformity were rejected. The result: a hodge-podge that added thousands of dollars to the cost and served no good purpose.

In Honolulu, subdividers must install a \$475 fire hydrant which will provide water flow in 40-below temperatures, is designed for and used in such frigid locations as Duluth, Minn. Vice President David C. Slipper of Kaiser Industries says a standard hydrant (at \$175 on the West Coast, perhaps \$185 in Hawaii) would work as well in Hawaii, where the temperature seldom drops below 61-2 year-round.

Local communities use other tricks to boost the cost of doing business in them. The New York State Home Builders Assn. has just disclosed a catalog of hair raisers which the builders wisely had collected not by a builder but by Raymond M. Urquhart, village administrator of Bronxville, and a past president of the State City Managers Assn.

"Unrealistic subdivision regulations, excessively rigid local codes, needless delays in processing filed plats, political ineptness on the part of local planning officials, administrative personnel totally unfit for their technical tasks, citizen pressure groups which more often discourage responsible local decisions, fear of new land-use concepts, hostility, distrust, and many other weapons are regularly in use to increase housing costs and effectively resist population growth in suburban communities," concludes Urquhart.

**Bad planning and zoning waste land, encourage speculation, and blight the countryside**

The upshot of all the controls (by which the suburbs are defending themselves against what they see as invasion) is to send developers out of the suburbs and far into the countryside where restrictions are rudimentary or nonexistent. There whole cities are being shaped—for better or for worse—and, as Burnham Kelly points out, "before any effective representation of the public interest can be brought to bear."

Satellite city development need not be bad. Most of it, in fact, seems very good. The best is far more imaginative than the kind of development that is possible closer in under the strictures of perverted land-use controls. But simply moving subdivisions farther and farther out into the country is not satellite-city development. Such hop-skip-jump development is one reason U. S. cities gobble up four times as much land as they use. Much of what is left undeveloped is in scattered pieces that can never be developed efficiently. More is held off the market by speculators either able to wait until the restrictions ease up, or simply in expectation that prices will rise as developable land gets scarcer.

A study in the St. Louis area indicates that if land price trends and the supply remain the same, lots zoned at 7,500, 10,000 and 12,500 sq. ft. in St. Louis County will rise from \$2,500, \$3,500, and \$4,000 respectively in 1960 to nearly \$6,000, \$7,000 and \$7,000 respectively in 1965. But this could all be deflated if some of the 350-year supply of acre lots were rezoned. Says Builder Warren Jones: "Raw acreage advanced from \$1,000 per acre at the end of World War II to only \$1,500 per acre in 1953. But as the zoning shortage approached, by 1960 it had advanced to \$9,000 per acre. A fairly reasonable estimate: On a \$20,000 to \$25,000 house, possibly \$2,000 represents cost due to scarcity of reasonably zoned land."

Such bubbles can also burst and the "protection" sought boomerang into cheaper houses on much bigger lots than the community had expected. In New York's Westchester County, big-lot zoning has so curtailed land price inflation that land can be purchased in two- or four-acre zoning for less than \$1,000 an acre, reports Builder Gerald Lloyd. He adds: "It is possible to buy a two-acre lot more cheaply than a quarter acre lot—and in some cases we're getting lower cost construction on two-acre lots than we're getting on smaller lots. Incidentally, if that land at \$1,000 per acre were to be rezoned to quarter acre, the price could easily jump to as much as \$6,000 to \$10,000 an acre."

Outside lots are not the only product of poor zoning practice. Again in St. Louis County, Prof. Weismantel says: "It has not prevented but has encouraged ribbon residential development along quiet country roads, destroying the beauty of the countryside. Strip commercial and

continued on p. 198





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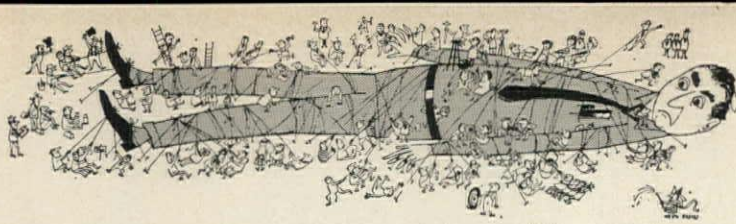
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THE ALBATROSS OF LOCALISM continued from p. 195

four-corner zoning in St. Louis County has ruined almost every major street and busy intersection in the city and county. Yet the logical competitors of such obsolete outlets—the big retail complexes—have not been provided for in zoning. I estimate that this has cost the area at least \$20 million in ruined streets.”

**In the long run, planning and zoning focused on narrow concern for community protection seem doomed to fail**

So predicts the New York Regional Plan Assn. for the New York Metropolitan area. So predicts California Tomorrow for the metropolitan areas of the Golden State. Why? Despite wide differences in sponsorship and location, both contend that the total impact of choices made by even the most sophisticated communities to serve their own parochial interests is likely to be against the general best interest.

California Tomorrow, a nonprofit committee of 21 leading California citizens, in a report last year titled “California, Going, Going . . .,” attacked state government for failing to protect the state’s natural resources in land and landscape, invented the term *slurb* to characterize the urban sprawl that is eroding the state’s beauty. Its latest blast, “The Phantom Cities of California,” attacks local government for failing to “conserve the bright land. For it is local government which retains almost exclusive control of the land . . . If the slurbs—sloopy, sleazy, slovenly, slipshod semi-cities—burden the community, it is because the community sired them. Existing local governments will not or cannot solve these problems. Yet in the name of home rule they demand the right to do so.”

Much of local government in California, the report says, now actually disenfranchises the public because it cannot deal with the regional character of many problems. Thus each community finds itself suffering from smog and traffic dumped into it by all the others and by the slurbs, where 75% of California’s post-World War II development has taken place. “Almost everybody despises, not the growth of the state, and the development of the land, which are inevitable, but irresponsible land development policies and practices. Yet in our cities and countries there is an appalling gap between our preferences and our accomplishments.” The report’s recommendation: some form of regional government to rationalize the actions that local governments are taking irrationally by themselves—a stronger county, an organ of the state, or a new kind of regional city.

In much lower key, but with more sober research, the New York Regional Plan Assn. paints a startlingly similar picture for the New York metropolitan region. But it is careful to say this is not a prediction—just a projection of present policies and trends (which it clearly hopes will be changed). RPA has put together today’s pattern of generally big-lot zoning (two-thirds of vacant land zoned for residential development in 1960 was for a half-acre or more and some communities have upped their zoning since) and population and job distribution projections. And it forecasts that in the next 25 years the region will gain about six million people. Housing them will require doubling the built-up area of the region, warns RPA, “urbanizing in the next 25 years as much land as we have in the last 300.” This foretells an entirely new pattern which Regional Plan calls spread city. It is not a true city because it lacks centers, nor a suburb because it is not a satellite of any city, nor is it truly rural because it is loosely covered

with houses and urban facilities. Spread-city will be so spread out (like southern California now) that about the only way to get around in it will be by auto. Most jobs will still be in-town. But spread city will be outside present suburbs. So it will mean long commuting. And there will also be reverse commuting as some firms seek cheap building space at the edge of spread-city. There will also be a good deal of cross-traffic within spread city.

“Only now that all the decisions of all the local governments have been added up is it clear that large-lot zoning does not save open country; it uses it up at a tremendous rate,” says RPA. The cost of this expanded tract development pattern will be substantial: doubled highways to handle more cars over longer distances; more sewer, water, and other community facilities to reach the spread-out houses; plus the greater travel distances to open space. RPA’s alternative: Based on existing development, to create a new pattern of balanced development clustered on public mass transit arteries as well as highways (because a rush-hour rider on public transit needs to be subsidized only 25¢ to 50¢ a day for a 25-mile round trip, while a rush-hour highway user must be subsidized about \$5 for the same trip in addition to what he pays in gasoline and other user taxes); a readjustment of tax structures for local governments (to relieve them of the choice between good development and their present tax rate); finally, renewal of the central city. This last, says RPA, is important: “Suburbanites have a stake in keeping cities attractive because if they are not, even more people will flood onto the vacant land surrounding them.”

One significant thing about these two reports is that they are far from the standard blast at builders for bringing blight to the countryside. Another is that they underline how irresponsible use of local controls does not stop population growth and new building—just forces it into other and less desirable patterns for everybody.

These same concerns are being echoed, in one way or another, from many other parts of the country. Items:

- California has adopted new legislation creating a State Planning Advisory Commission to establish planning districts upon the vote of two-thirds of cities and counties in any proposed region, and has cracked down on incorporation of paper towns and special districts.
- Mayor Raymond Tucker of St. Louis has called for a Missouri department of urban affairs to help solve urbanization problems.
- Connecticut has abolished counties altogether and replaced them with regions based on natural urban centers, offering each region an opportunity upon a 60% vote in favor, to organize a regional planning authority eligible for federal and state funds.

These concerns by thoughtful planners and officials are much more than just powerful ammunition for the housing industry as it strives to shed the shackles of irresponsible localism. They point the direction in which industry leaders have begun to steer and toward which the entire industry should throw its considerable weight, by more eloquent support and understanding use of cluster and density zoning, flexible land use and site planning. What is needed now is much more collaboration among zoning and planning agencies, builders, and manufacturers to press these concepts.

*Just as code waste and chaos get an assist from labor makework and featherbedding, so do bad zoning and land use get an assist from . . .*

## Real estate taxes: a scandalous inequity that cries for reform

Resistance to new housing in suburban communities (and especially to lower-price homes, is usually expressed through over-zoning and over-improvement requirements. But the resistance springs from fear of increased real estate taxes to pay for more schools, sewers, firemen, and other community services the newcomers will require. Most suburban communities are too small or too residential to be able to offset very much if any of such increased taxes with industrial or commercial development. Or else they are determined to keep industry out.

The fear is usually well-founded. For despite state and federal efforts to redistribute tax dollars for schools and community facilities, the amount of redistribution is usually so small that most of the tax load falls directly on the growing community. One answer to this (which is part of many proposals for rational regional zoning, land use, and

development patterns) is that the tax base on which stand-pat communities draw should be broadened to take in areas with nonresidential development which yields more tax per acre and involves many fewer children. Thus one community, under heavy pressure to admit new residents but resisting with inefficient and costly big-lot zoning because it fears added taxes, might be able to share the tax windfall (but not the aesthetic liabilities) of a nearby mostly nonresidential community—which may, in fact, be creating the residential pressure as people employed in it seek homes near their jobs.

“If finances are a main concern in local zoning,” says the N.Y. Regional Plan Assn, “one way to bring the best interests of such a locality into line with the best interests of all the localities of the region is to adjust the tax structure of local governments. If the taxing district



were enlarged to cover several municipalities and school districts, or a whole county, within this large area there would probably be enough variety in the use of the land—industry, commerce, families with children, families without children—so that no deliberate effort would have to be made to find uses that increase revenue without increasing expenditures. Each municipality and school district would retain full control of its own finances. . . . Taxes could be distributed by the taxing district on any of a number of formulas. . . . Each locality could levy an additional tax within its own area above that levied for the whole district.”

### **Real-estate taxes—as imposed in the U.S.— promote poor land use by encouraging speculation**

Many local tax assessors are so lax that even if development takes place in an area, land that is held off the market for speculative reasons is not taxed in proportion to its increase in value unless that increase is very marked and continues for a long time. Even then, the increase in taxes is likely to be insignificant compared to the unearned increase in value which the land assumes as it becomes locally scarce. So for the man who, as Builder Gerry Lloyd says, “has plenty of money and patience,” there is no important economic penalty for maintaining an artificial scarcity while prices rise. In fact, much if not most speculative land is held in fiscally strong hands in the U.S.

In some areas, like Dallas, the law even favors such wasteful, costly and sprawl-producing speculation. Land within Dallas’ city limits may be bought and placed under a special farm rating and taxes paid as if it were a farm, while the speculator waits for its price to rise. So another step toward eliminating land waste and costly land speculation would be to make sure that vacant land carries its full share of taxes—by re-assessing more often or perhaps by assessing it at 100% of value instead of far less as is common practice. Builder Lloyd suggests that assessors might practice creative valuation by assessing close-in land more heavily and outlying land less so, to encourage full and orderly development.

The practice of underassessing land and buildings and then applying real-estate tax rates to this undervaluation is open to scandalous abuses. As buildings grow older and neighborhoods change, the assessment becomes more a subjective judgment by the assessor. Result: in most communities older properties carry far less than their fair share of taxes, while new properties are carrying more than theirs. In Miami, for example (where Florida’s homestead exemption of \$5,000 has already set up an inequity between sale and rental properties), new homes are assessed at close to the target of 50%—and carry the burden of taxes. There are an estimated 50,000 older homes in the Greater Miami area paying less than \$10 a year in real estate taxes. Not unexpectedly, reassessment was defeated 10-1 at the polls two years ago.

Assessors are so subjective about their judgments and assessment

practices vary so widely from community to community that larger taxing districts often find it necessary to establish equalization procedures to smooth out the inequities. The problem was so urgent in Arizona this year that the legislature in special session created a director of tax equalization with the assignment of cleaning up inequities which, among other things, were giving new homes a black eye for raising taxes when vacant and commercial properties were carrying a miniscule tax burden. In New Jersey, a statewide assessment mandate has been delayed three years by a jittery legislature, but one Bergen County town which does assess at 100% has just won a lower court decision requiring all other towns to do likewise.

Another annoyance to builders is the practice of levying real-estate taxes on houses under construction, even though nobody is living in them to use the municipal, county and state services that they are supposed to pay for. Many builders find out when the assessor makes his rounds, then break ground just after so that they can have at least a year to build and sell the house without getting smacked with the tax. Pennsylvania has just enacted a law to prohibit taxing houses until they are occupied, in recognition of this widespread problem.

In some areas, on the other hand, notes Dennis O’Harrow, executive director of the American Society of Planning Officials, “houses are built, people move in—and the local governments receive no income for 18 months. In a rapidly growing community (like Park Forest, Ill.) the government is perpetually behind a financial eight-ball.”

So there is a strong case for statewide assessment standards everywhere, and exempting unsold houses from full taxation which raises their cost needlessly.

### **The basic tax reform needed is to harness the profit motive frontwards instead of backwards**

Some slum buildings pay off better than most other kinds of real estate—as much as 25% a year—if their owners can stay out of legal trouble. Why? The building usually is assessed on the basis of its age and condition rather than the income it produces. The landlord not only has no tax incentive to keep it from becoming a slum; he has a tax incentive to let it deteriorate.

Both land waste and land-price inflation could be reduced if localities shifted more of the realty-tax load onto the land and placed less on the improvements. This would give land-owners a tax incentive to turn their property to its most productive use rather than just the opposite as is the case now. Undeveloped suburban land is taxed so lightly that its price has inflated 300% since 1952. Such undertaxation encourages suburban sprawl. It prevents private enterprise from meeting the housing needs of low- and even middle-income families without subsidy in most cities. It is a major threat to building better because the more a builder has to waste on inflated land costs, the less he has to put quality and sales appeal into his house.

## **Three ways the industry should begin to shed localism now**

Two of them could, with the right combination of resources and influence, be started overnight. The third, because it involves some elements that are outside the industry, would probably take longer. They are:

**1. Housing industry research and development should be vastly expanded.** “Only through full exploitation of our scientific and technological capability can we produce enough housing of the right kind to lead, ultimately, to a general improvement in the living environment of the individual . . .” So says the White House Science Advisory Subcommittee on Housing. Yet few U.S. industries have been so perennially starved for basic statistical and market knowledge on which to base their operations. Despite impressive gains in the industry in the past 15 years, housing still fails to exploit technology as fully as it might. One reason, contend the White House advisers, is that it doesn’t spend enough. Most major-growth industries spend an average of 1½% of sales for research and development. On the basis of new dwelling units production of \$18 billion, that would be \$270 million for housing. How much does the industry spend? Nobody really knows, and it depends on whether you are talking about strictly housing research, or count pro-

ducers’ outlays in developing products and knowhow that may be useful in housing but also apply to the entire construction industry.

**2. The design side of the industry should come out of the ivory tower and into the factory.** Architects, traditionally mistrusted by builders except to lend style to their product, still have produced most of the notable design concepts that characterize today’s house. But as the industry moves more and more toward industrialization, architects will have to become much more familiar with the practical problems of fabricating, distributing, financing, site scheduling, erecting, and servicing the house.

One of the sorely missed links in housing’s efforts to strike out effectively toward the goal of an industrialized—or even substantially industrialized—house is the designer who understands industrial production, its costs, its potential, and its limits. Most architects don’t pay enough attention to dollars and cents problems even in today’s houses, builders contend. One reason is that the architectural schools don’t teach much more than the rudiments of cost under housing’s conventional systems of construction.

Last fall, Austin J. Paddock, U.S. Steel’s executive vice president for

*continued on p. 202*



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choice of a complete cooling-heating package  
or cooling only that adapts to any kind of  
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Diagram A illustrates one of several ways the cooling-heating system may be applied. The cooling coil fits on top of the furnace and is quick-coupled to the condensing unit, which may be installed through a wall or located completely outdoors on a concrete pad, in a breezeway or on the roof.

One of the many possible applications of the second system, a cooling-only package, is shown in Diagram B. Here a compact fan-coil unit is quick-coupled to the con-

densing unit. The fan-coil unit can be installed in a furred-down hallway or over a closet. This system, with or without ducts, can be used with almost any type of heating plant. One easy way to provide heating is to add an electric or hot water coil to the fan-coil unit.

The cooling-heating system is available in cooling capacities of 20,000 and 24,000 Btuh and with heating inputs of 70,000 and 80,000 Btuh. The cooling-only system capacities are 19,000, 21,000 and 25,000 Btuh.

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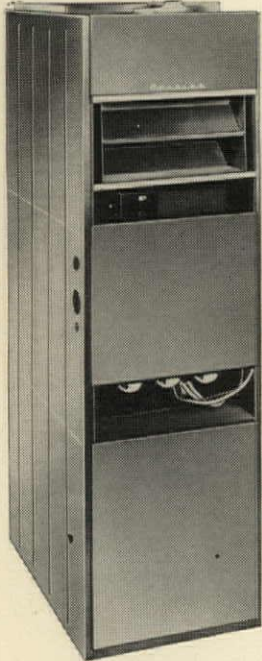
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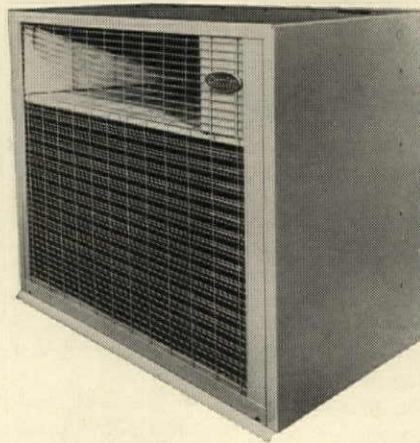
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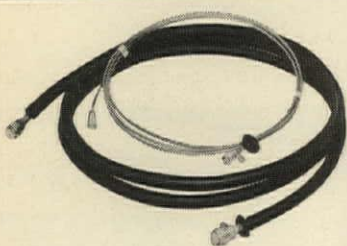
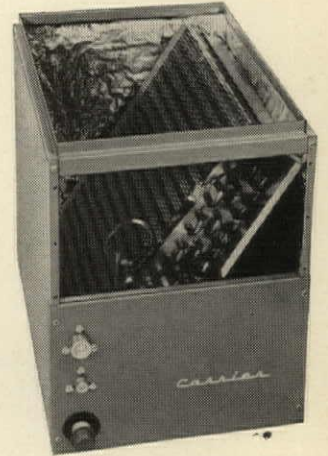
**CARRIER WEATHERMAKER FURNACE, Model 58BA,** is gas-fired, upflow type designed specifically for cooling and heating systems.



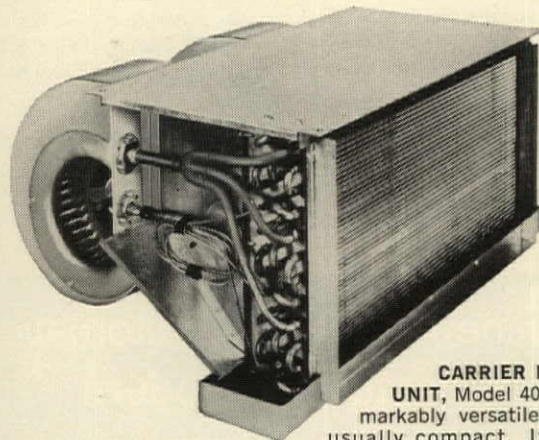
**CARRIER CONDENSING UNIT, Model 38GA,** is completely new air-cooled type fully wired at factory. Charged and fitted with quick-connect refrigerant couplings for fast installation. Weatherproofed outer casing serves as sleeve when unit is installed through wall.



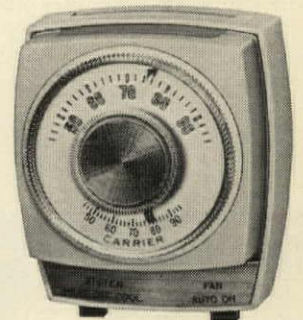
**CARRIER COOLING COIL, Model 28BA,** mounts on top of the furnace. Quick-couple fittings assure final connections without brazing.



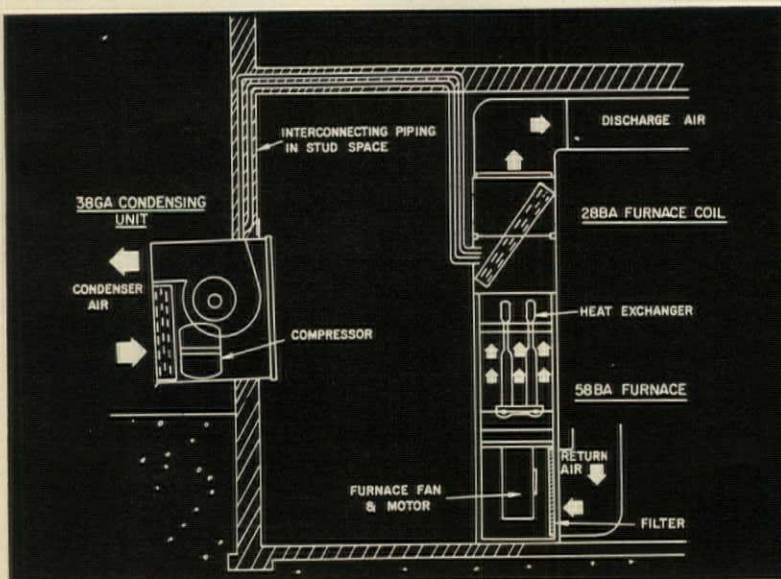
**QUICK-COUPLED REFRIGERANT TUBING,** available in lengths up to 35 feet. Furnished pre-charged, sealed. Suction line insulated.



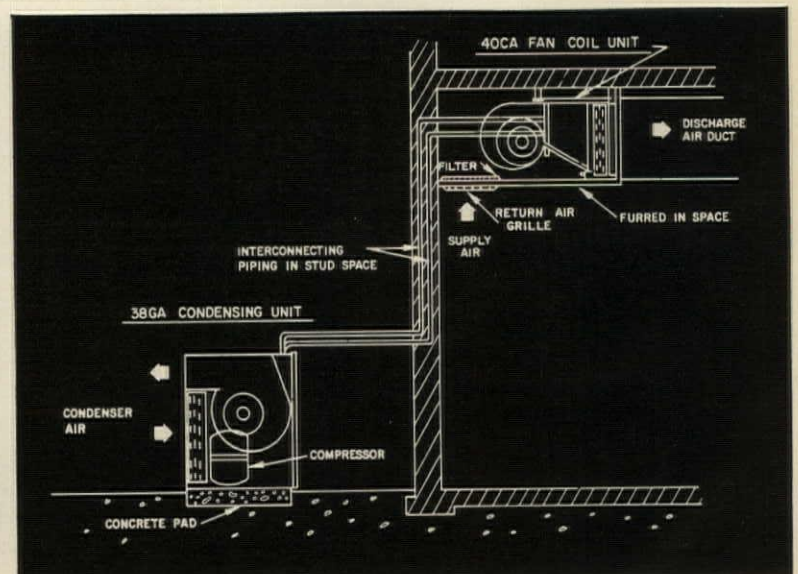
**CARRIER FAN-COIL UNIT, Model 40CA,** is remarkably versatile and unusually compact. It can be installed in a furred-down hallway or at the top of a closet and quick-coupled to condensing unit. Powerful centrifugal fan delivers cool air through ducts.



**CARRIER THERMOSTAT** is control center for either system. User dials temperature he wants, sets switch for cooling or heating.



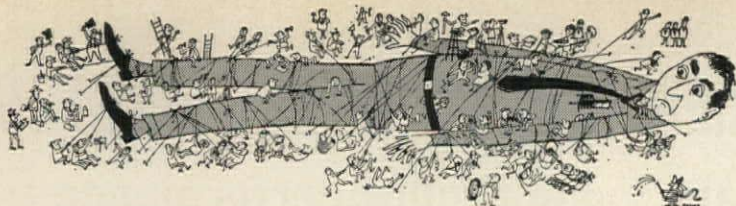
A. Here is a quick-coupled Weathermaker System using a Carrier gas-fired, upflow furnace, a cooling coil and a condensing unit. The cooling coil on top of the furnace is quick-coupled to the condensing unit to provide year-round heating and cooling. Unit can be installed through wall as shown or outdoors.



B. This cooling-only system can be adapted to many types of heating. The fan-coil unit is quick-coupled to the condensing unit, which may be installed through the wall as well as outdoors, as shown. A hot water or electric coil may be added to the fan-coil unit.

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**THE ALBATROSS OF LOCALISM** continued from p. 199

fabrication and manufacture, put the problem this way in a speech at the University of Minnesota on structural uses of new steels: "A general lack of academic training in this area is just as much a roadblock to a user's innovation and inventiveness as antiquated and prejudicial codes. Too many engineering and architectural schools have omitted courses in steel design, espousing the theory that students need only be exposed to theory; that design is the responsibility of the company which hires the graduate. A medical student isn't turned loose to practice medicine after learning only his theory. He is an intern first."

In tomorrow's housing industry, the architect who is not adept at using industrial methods and skilled at designing shelter well within their limits and potentials will have two avenues open to him: He may try to carry on with today's practice, leaving production design to others, in which he will, in Architect Carl Koch's words, "take on more and more attributes of the purchasing agent." Or he may turn to city planning, cope with the site, neighborhood, town, and perhaps even regional design.

It may well be that the principal producer of tomorrow's house will become a balanced team with all of these skills covering the full range from factory to site. There will have to be some drastic changes in the nature of architectural education before an adequate supply of talent will be available to meet the need.

**3. The industry must streamline its patterns of doing business—transferring both money and the product.** It is already starting to do so, tapping new pools of capital and developing more sophisticated ways of using its capital. If FHA wanted to knock a big prop out from under the old order of localism, all it would have to do would be to switch

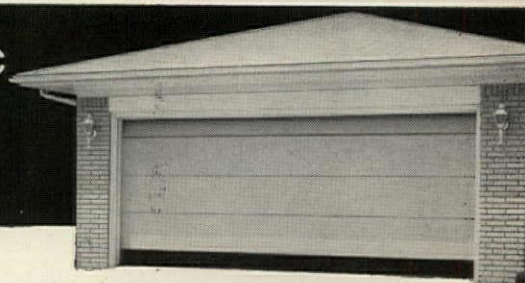
from insuring consumer loans to insuring production loans—or perhaps both. As it is, the traditional financing pattern of the industry in which builders use a combination of their own money and interim construction loans is cumbersome and costly. Builder Robert Schmitt of Berea, Ohio has worked up figures to show that interim loans cost 16% interest if you add in all the fees and discounts. Unsurprisingly, Schmitt says he can save \$300 a house by using a line of bank credit to finance a job.

Tomorrow's industrialized housing industry must attract big sums of long-term investment in production facilities, not in merchandise. Alside, for example, has just put an estimated \$7.5 million into creation of the industry's most fully automated house-factory. For most housing producers, however, the edgy dependency of the industry on the market and the whim of government through FHA makes long-term capital much harder to come by than it should.

The industry must also work much harder to shake the burden of operating under penalty-prone state laws governing foreclosures, property transfers, and the right to do business. Items:

- Slow and costly mortgage foreclosures raise the cost of borrowing substantially in some states. They give defaulting borrowers much more protection than 90% of them need, thus forcing the 90% to pay for the convenience of the 10% minority. How so? Homebuyers, who seldom want to prolong foreclosure, are lumped together before the law with farmers, who always do. Costs of foreclosure on a \$10,000 mortgage range from \$100 in Texas to \$1,200 in Illinois. Time runs from a month in Hawaii to 18 months in Kansas. Defaulting borrowers have from a year to two years' grace period to redeem their property in 18

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\* Styl-o-matic **AUTOMATICALLY OPENS and CLOSES** at a touch on a control button—located in your moving car or in your garage.

\* Beautifully styled **IN-YOUR-CAR CONTROL** operates your Styl-o-matic by radio. Portable; **NO** permanent installation—move it from car-to-car or have one for each car.

\* Styl-o-matic **AUTOMATICALLY TURNS ON GARAGE LIGHTS** as it opens; lights your way safely into your garage after dark.

\* Styl-o-matic **AUTOMATICALLY ALLOWS YOU UP TO 2 1/2 MINUTES** to go from the garage into the house **AFTER** the door has closed; then switches lights off. Also switches lights off if door is left open.

\* Styl-o-matic **AUTOMATICALLY REVERSES TRAVEL** if it meets an obstacle.

\* Styl-o-matic can be **INSTANTLY CONVERTED to HAND OPERATION** in case of power failure.

\* Styl-o-matic is **FULLY WARRANTED**—5 years on operator mechanical parts, 1 year on radio parts, unlimited on door panels.



Styl-o-matic comes as a complete budget-priced package, sold, installed and warranted by Crawford Door Co., world's largest builders of garage doors. It includes the famous Stylist Flush-both-sides Door (single or double width) and the sensational New Magi-matic Door Operator with automatic remote control.

This matched combination gives you the beauty of the newest flush-panel door and, the wonderful convenience of automatic control—being able to drive in and out of your garage in any weather, day or night, without leaving your car and without having to raise and lower an old-fashioned door by hand. Whether you are modernizing or building, **ASK YOUR CONTRACTOR**, about Crawford Styl-o-matic or call your local Crawford Dealer (listed in the Yellow Pages under **DOORS**). Or, write for free literature to **CRAWFORD DOOR CO.**, 20263-49 Hoover Road, Detroit 5, Michigan.



states. Result: FHA and VA mortgage discounts are often higher in over protected states than in their neighbors.

- Conventional mortgage limits in most states are relics of the days before FHA showed that high-ratio *amortized* loans based on sound appraisals are safe. All but four states set a ceiling of 75% or less; half at 66⅔% or less. Today, this localism is leading to evasion—some of it flagrant. Stories abound in housing circles today of builders who have turned down FHA loans on projects because inflated appraisals by some conventional sources of loans let them mortgage out.

- Open-end mortgages are widely recognized as sound and desirable financing tools and under common law are legal in all but four states. But only 25 states have codified the common-law priorities of the open-end mortgage. To make it easy to use, the rest should do likewise.

- High and often excessive closing costs, sometimes from inflated legal fees, sometimes from title searches ranging from \$50 to \$200 or more (depending on what state you are in), help make home-owners hesitate to trade up to better houses they can afford, and are an obstacle to mobile young couples who instead of renting might buy two or three times before settling into a permanent home. Simplified title-search procedures—which modern methods of data storage and retrieval make possible—might save half the \$300 million now spent annually on 4 million title searches.

- Real-estate investment trusts, exempt from federal taxes like any other investment trusts, are treated in some states like partnerships and their income taxed. This inhibits investment in rental real estate, is unfair and should be rectified where true.

- Laws threatening out-of-state lenders with stiff taxes as the price of doing such business as having a local agent buy a loan inhibit the flow of mortgage money to money-short states. Thanks to efforts by lenders and mortgage men, most states have adopted legislation exempting buying a loan from the list of actions that subject lenders to costly doing-business taxation. But some have not.

All of these steps were recommended years ago by an industry-wide Round Table conference sponsored by NAHB and HOUSE & HOME. Much of the model legislation to carry it out has been drafted.

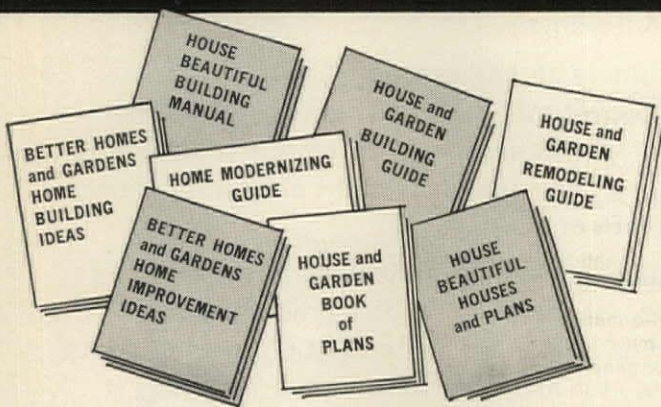
How important are streamlined ways to do business? Says Walter Hoadley, vice president and treasurer of Armstrong Cork: "No market in America currently is more complicated than the housing market. New homes, old homes, repair, and modernization activities are virtually inseparable. Yet far too many industry people fail to see the profound interrelated implications. Real-estate transactions . . . seem to be getting more and more involved and will worsen to the point of market strangulation unless realtors, builders, financial specialists, material suppliers, government officials, and all others interested in a more vigorous real-estate market give major attention to streamlining the process of buying and selling structures."

But these very complexities—in fact all of the complexities of the housing industry and of localism—make, says Burnham Kelly, "not only a jungle, but also a frontier. Many major corporations stand ready to invest, develop, and produce economically if only a way can be found to launch the first sound forays into this jungle. Powerful friends will follow if we can move."

This movement has at last begun. Much, much more remains to be done. —ROBERT SEAVER

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Crawford's new, low-cost Door-and-Operator package . . . advertised to millions in the home-building books that home-buying prospects buy and read



This year, home-buying prospects will be reading about STYL-O-MATIC, the beautifully styled, fully automatic door that makes the garage as modern, as convenient, as enjoyable to use as the rest of the modern home.

And, with all other appliances in the house automatic, why should a buyer be satisfied with anything less than STYL-O-MATIC? The garage door IS the largest and heaviest piece of moving equipment in any home; it makes sense to make it automatic. STYL-O-MATIC puts on a wonderful demonstration. Hand the wife the little transistorized remote control unit and let her enjoy the thrill of operating the STYL-O-MATIC from away down the driveway. That alone makes ordinary doors seem old-fashioned and that's just one of its features.

And, there's a complete merchandising kit to help you dramatize STYL-O-MATIC at point-of-sale. Ask your local Crawford Distributor, or, write us direct. Crawford Door Company, 20263-49 Hoover Road, Detroit 5, Michigan.


here's the **STYL-O-MATIC** package

**CRAWFORD STYLIST DOOR:** single or 2-car size; flush-2-sides; honeycomb core; lifetime warranty on panels.


**CRAWFORD MARVEL-MATIC GARAGE DOOR OPERATOR:** 5-year warranty on mechanical parts; 1-year on radio parts



**PURSE-SIZE RADIO REMOTE CONTROL UNIT:** operates door and lights from moving car. NO electrical connections. Clamps to car dash by magnets.




**PUSH-BUTTON WALL CONTROL** for in-garage use.




**Guaranteed FOR LIFE OF DOOR**  
The door is guaranteed for life of the door. A hardware product especially designed for the door. Crawford Door Company. Marvel-Matic Life Parts in all states for repairs of quality and lifetime service. Crawford Marvel Life Parts are guaranteed for life against failure in use. Crawford Door Company will furnish a replacement panel in Crawford Marvel Life Parts does not comply with this guarantee.  
Crawford Door Company  
Detroit 5, Michigan

**COMPLETE INSTALLATION** by factory-trained Crawford men.

**WARRANTIES** backed by Crawford and Crawford distributors. Centralized responsibility and service.



**LIFETIME GUARANTEE**  
The door is guaranteed for life of the door. A hardware product especially designed for the door. Crawford Door Company. Marvel-Matic Life Parts in all states for repairs of quality and lifetime service. Crawford Marvel Life Parts are guaranteed for life against failure in use. Crawford Door Company will furnish a replacement panel in Crawford Marvel Life Parts does not comply with this guarantee.  
Crawford Door Company  
Detroit 5, Michigan

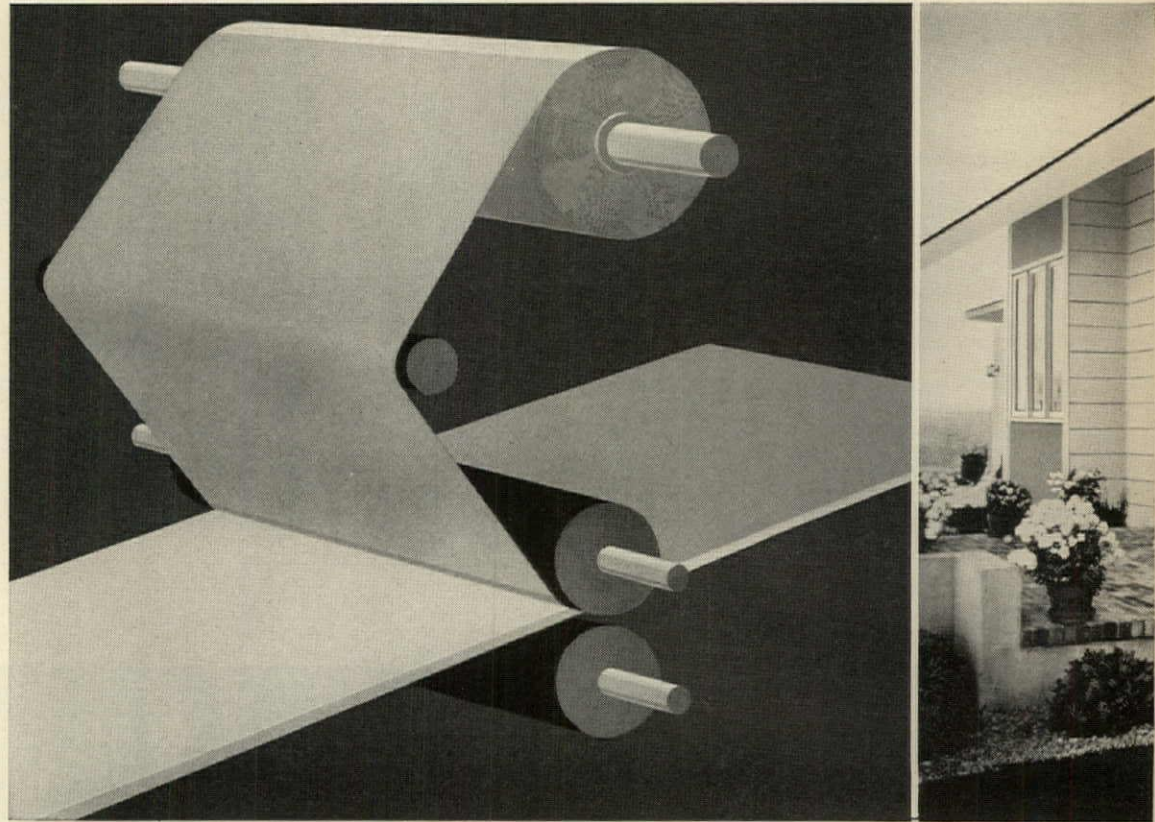


**COLORFUL MERCHANDISING KIT** and hand-out literature with space for your imprint.



# NEW: Du Pont TEDLAR®

## This tough film keeps home with minimum maintenance



### **TEDLAR: a film, not a liquid**

That makes a difference.

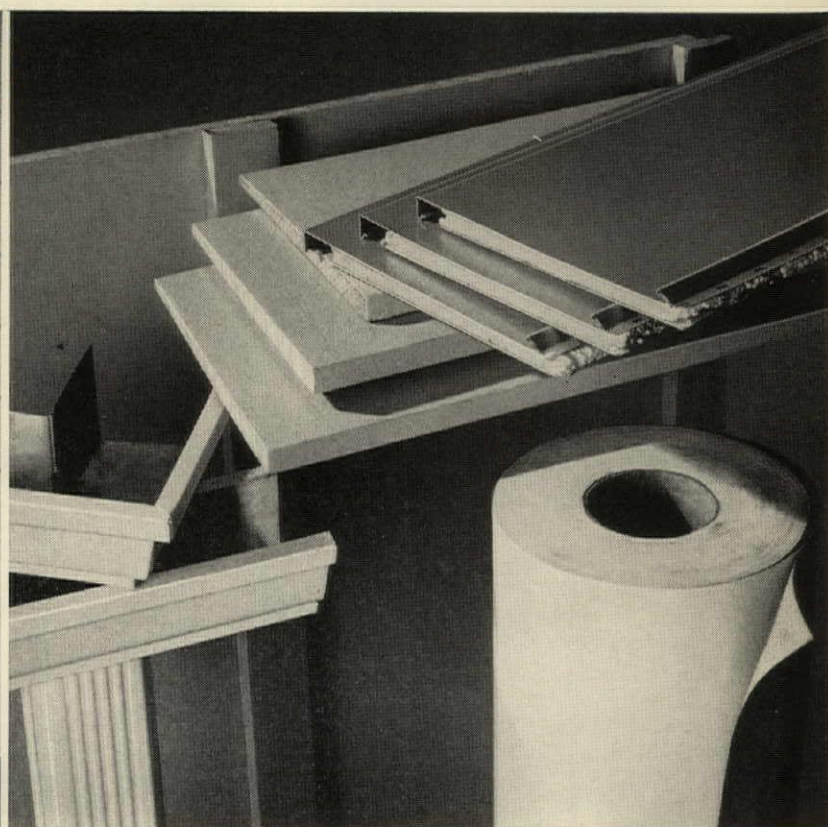
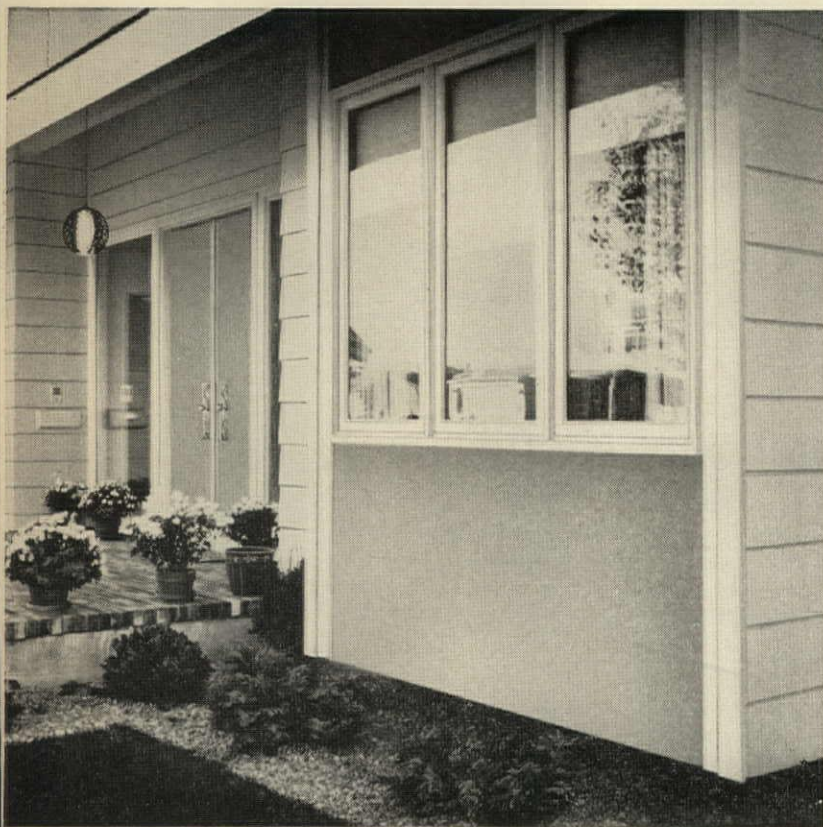
TEDLAR \*PVF film is an engineered, preformed surfacing material. This is why TEDLAR has uniform thickness and precise color match. It's checked for toughness, weather resistance and elongation before it leaves the Du Pont plant.

Bonded with special Du Pont adhesives to the building product (siding, for instance) by the product manufacturer, TEDLAR becomes part of the material it protects. TEDLAR resists scuffing and marking from on-site handling. It cuts call-backs to the bone. Siding and roofing can go up even during bad weather. TEDLAR helps make building more profitable for you.

\*Du Pont registered trademark.



# exteriors looking new for years



## **TEDLAR might outlast the mortgage**

This house is new. All of the siding is faced with TEDLAR. Barring earthquake, fire or flood, the siding could look much the same, without any refinishing, when the mortgage is paid.

How long will TEDLAR last? We don't know; we haven't been able to wear it out yet. However, we predict that when properly bonded to a stable material, a surface of TEDLAR may last as long as 25 years or more.

During this time, it won't noticeably fade or chalk. It will be hard to stain and easy to clean. Think how all this will sound to your home buyer. And you can demonstrate many of these features to him before he buys.

## **TEDLAR now on a variety of products**

TEDLAR is being used on plywood and aluminum lap siding, boards and batten strips, prefabricated built-up roofing, gutters, downspouts and doors.

With these products, you immediately have two powerful sales points. First, you can offer your customers the long life and full protection of TEDLAR.

Second, you can offer easy, low-cost maintenance.

Today's home owners want timesaving economical homes. Talk TEDLAR, and you'll have what they want plus a unique selling edge over your competition.

For more information, bonded samples and a list of manufacturers, write: The Du Pont Company, Film Department, Building Materials Sales Division, Box 44, Wilmington 98, Delaware.

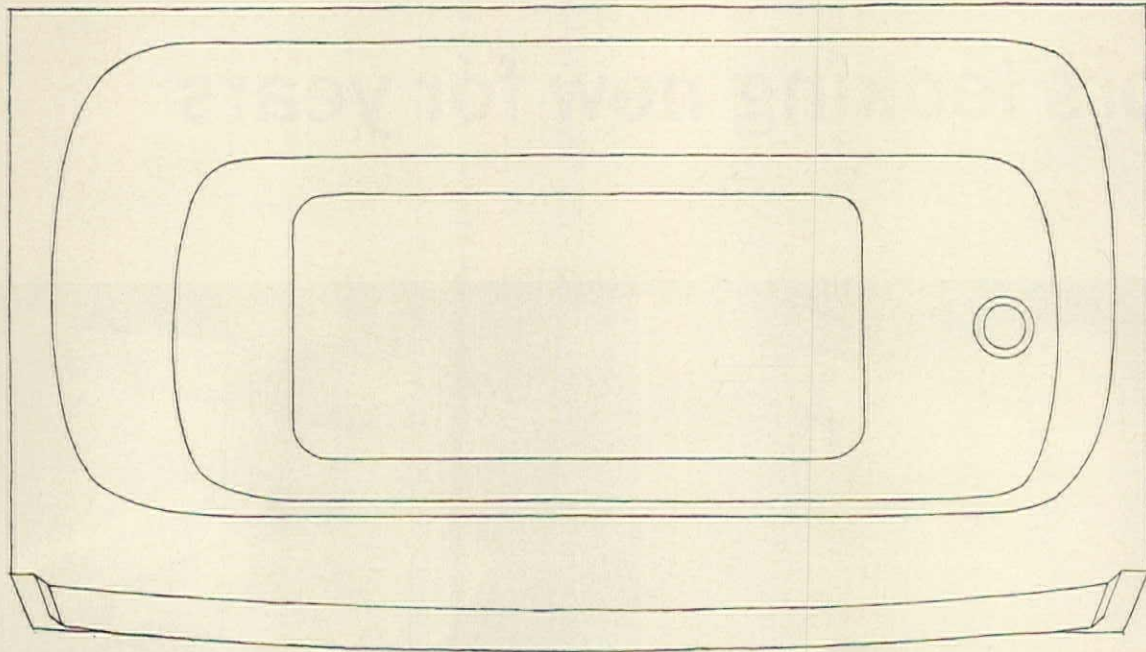


BETTER THINGS FOR BETTER LIVING... THROUGH CHEMISTRY

REG. U. S. PAT. OFF.



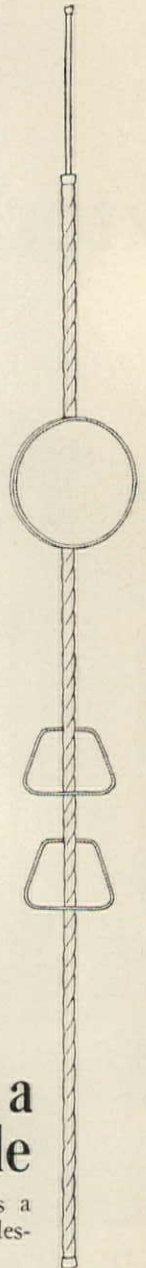
# How to build a better bathroom



## Take a porcelain-enamel-on-steel tub

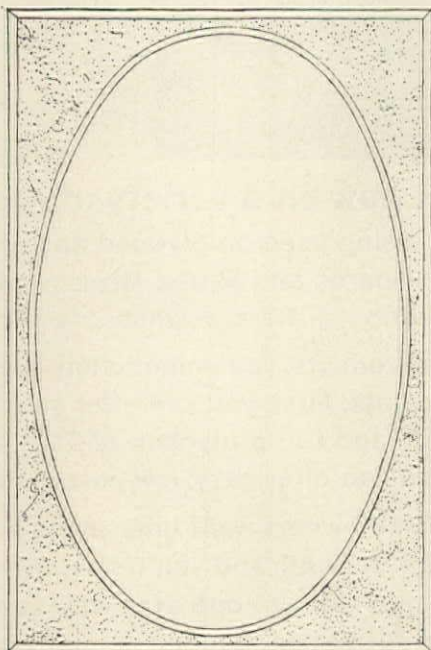
Steel bathtubs are easy to install because they're only  $\frac{1}{3}$  as heavy as cast iron tubs and require less bracing. The straight-line, square corner design of this model simplifies wall tile and floor covering installation. Your customers will like the clean lines and deco-

rator colors. Sales points on some models: a leak-proof wall flange protects against water seepage; a special surface is designed into the bottom to provide safety without mats. Best feature—steel tubs cost less than cast iron.



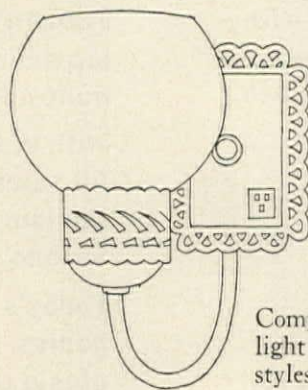
## add a steel mirror pole

Mirror convenience—decorator charm. And it doubles as a towel rack. This steel extra is inexpensive—but adds sales-building glamour. The chrome plate finish is long-lasting.



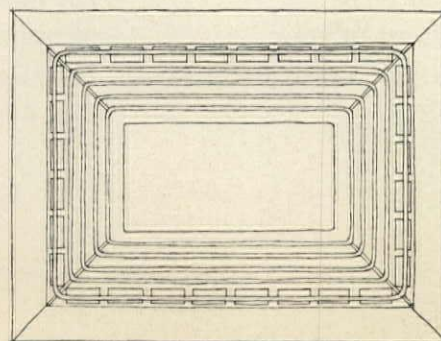
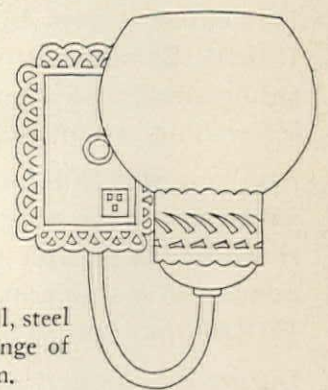
## a steel bathroom cabinet

There's a clean, shiny look about stainless steel trim which makes it ideal for bathroom cabinets. Stainless steel framed cabinets are available in a wide variety of modern designs, like this decorator model. One piece seamless steel body has no joints to collect dirt. Neat.



## light fixtures for charm

Completely wired, ready to install, steel light fixtures come in a wide range of styles, add charm to any bathroom.



## top everything with a heater-ventilator

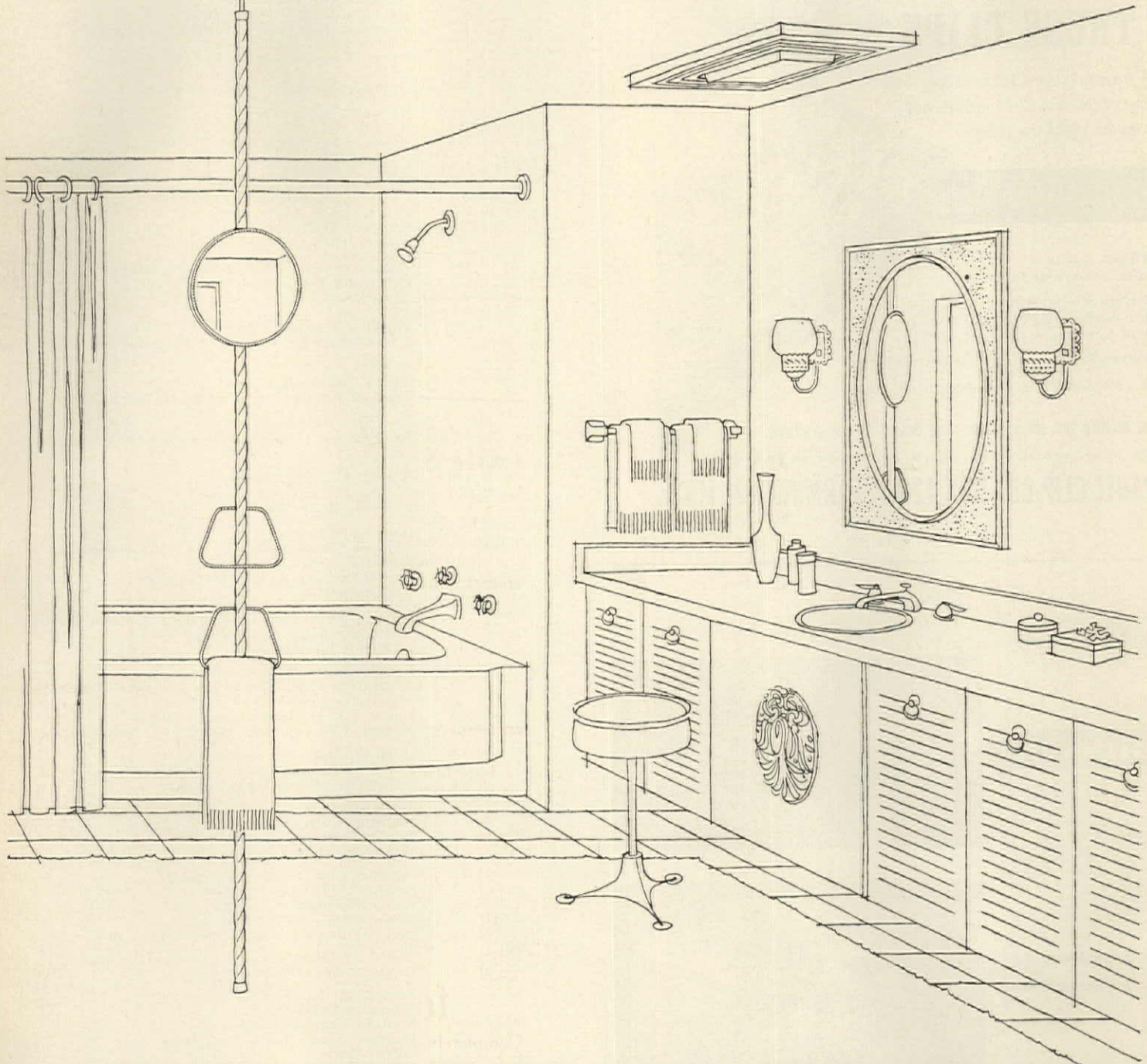
Style-conscious home buyers will appreciate the combined beauty and utility of this gleaming contemporary design. Just one unit for infra-red radiant heating, ventilation, and light. Installation is easy with the plug-in B-unit and hanger bars.



# United States Steel



TRADEMARK



## and you have a bathroom that looks like a million and sells

Visualize the ideal bathroom. It's clean, airy, bright and shiny. That's steel. Because it's nonporous, steel is ideal for sanitation. Both stainless and porcelain-on-steel are stain-resistant, and steel won't warp, shrink or buckle. You don't have to baby steel during construction, and because it's so tough you receive less call-backs. The steel you use in bathrooms might not sell your houses . . . but it'll help.

Want to know more about steel bathroom equipment made by reputable manufacturers? U. S. Steel will be glad to help you get additional information. Mail the coupon.

United States Steel Room 6931  
525 William Penn Place  
Pittsburgh, Pennsylvania 15230

Please send me more information on the steel bathroom components I have checked:

- |                                                             |                                                         |
|-------------------------------------------------------------|---------------------------------------------------------|
| <input type="checkbox"/> Porcelain-enamel-on-steel bathtubs | <input type="checkbox"/> Bathroom cabinets              |
| <input type="checkbox"/> Towel-rack mirror poles            | <input type="checkbox"/> Light fixtures                 |
|                                                             | <input type="checkbox"/> Heater-ventilator combinations |

Name \_\_\_\_\_ Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Code No. \_\_\_\_\_



# trusses

## on the job, for less with TRUSS CLIPS

A hammer and truss clips—all your crew needs to make roof trusses right on the job!



- Fast, low cost! No nails, presses or rollers.
- High strength, hardened, zinc-coated steel for positive, rigid joints.
- Free Truss design service furnished.
- Accepted FHA, and recognized codes.

Let us help you set up shop—free design service available.

Other self-nailing clips available. Ask your distributor for complete details.

**PANEL CLIP CO., BOX 423-K, FARMINGTON, MICH.**

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W denotes Western edition S denotes Southern edition

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specify Cabot's

inside...



House in Los Altos, Calif. Architect: Bolton White and Jack Herman, San Francisco. Interior paneling finished with Cabot's Stain Wax. Exterior Redwood siding and trim stained with Cabot's Creosote Stain.

outside...



## Cabot's FINISHES FOR REDWOOD

Enhance natural beauty of redwood

Easy to apply...economical too

**For exteriors:** Your choice of finishes — clear, natural, gloss, driftwood or stains in 35 distinctive colors.

**For interiors:** Stain, wax and seal in one easy operation with Cabot's Stain Wax.

Send for  
**FREE**  
COLOR CARD  
AND  
BROCHURE

**SAMUEL CABOT INC.** 1230 S. Terminal Trust Bldg., Boston 10, Mass.  
Please send your "Redwood Staining" Brochure



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**BI-FOLD MIRROR CLOSET DOORS.** Data sheet. Drawings of construction features, vertical section, horizontal section; specs, sizes. LaPorte, Plainfield, N. J. (Check No. P19)

**SUSPENDED CEILING SYSTEM.** 4 pages. Features described, grid parts and panel choices shown. Spec table and parts charts. Hastings Aluminum, Hastings, Mich. (Check No. P20)

**ELECTRIC FURNACE.** 4 pages. Component descriptions, blower capacities, specs, and dimensions. Armstrong Furnace, Columbus, Ohio. (Check No. P21)

**CONCRETE BLOCK** with an acoustical surface and a color-glazed finish. 4 pages. Acoustical data, chemical resistance, specs, colors. Burns & Russell Co., Baltimore. (Check No. P22)

**RANGE HOODS.** 4 pages. Three models. Features, photo, sizes. Leigh Products, Coopersville, Mich. (Check No. P23)

**DIAMOND-SEGMENTED SAW BLADES.** 4 pages. Blades listed according to jobs they do; sizes, prices.

**Hoffman Brothers Drilling Co., Punxsutawney, Pa.** (Check No. P24)

**SUBMERSIBLE CELLAR DRAINER.** Capacity and size data. Goulds Pumps, Seneca Falls, N.Y. (Check No. P25)

**NAIL-LESS METAL BRIDGING.** Data sheet describes advantages, installation, also lists sizes. Concrete Tie, Compton, Calif. (Check No. P26)

**BASEBOARD HEATING.** 4 pages. Photo cutaway, dimension diagram. Also describes features, charts IBR ratings, and shows types of trim. Iron Fireman Webster, Camden, N. J. (Check No. P27)

**LAND CLEARING EQUIPMENT.** 6 pages. On-the-job pictures. Tractor and loader attachments shown. Fleco Corp., Jacksonville, Fla. (Check No. P28)

**FACTORY-BUILT PUMPING STATION.** 6 pages. How it works, cutaway drawing. Smith & Loveless Lenexa, Kan. (Check No. P29)

**CERAMIC DOOR KNOBS.** Data sheet. Photos of 13 models. Sizes. David Allison Co., Roosevelt, N.Y. (Check No. P30)

**For more information** circle the numbers below (they are keyed to the items described on the New Products and Publications pages) and send the coupon to: HOUSE & HOME, Rm. 1960, Time & Life Building, Rockefeller Center, New York 20.

Note: HOUSE & HOME's servicing of this coupon expires Feb. 29, 1964. If you contact manufacturers directly, it is important that you mention the issue of HOUSE & HOME in which you saw the item.

### December

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Name.....Position .....

Firm.....Kind of business.....

Street .....

City.....State.....

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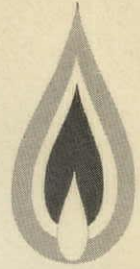
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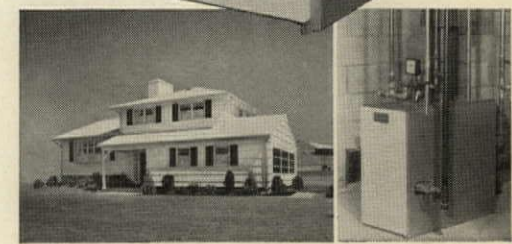
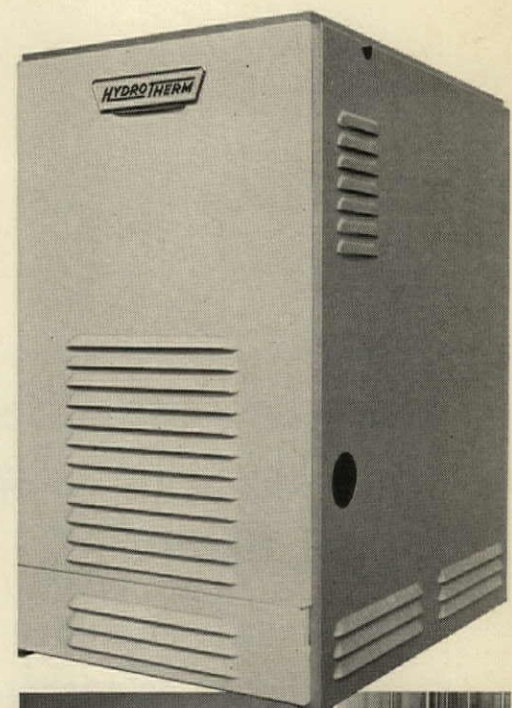
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When the  
heat's on...  
be sure it's



# HYDROTHERM



## Builders... SPECIFY HYDROTHERM

When you need the best... at a price you can build on... specify Hydrotherm!  
Gas fired Hydrotherms will assure years of heating comfort for your homes, regardless of size or type. And the industry's widest choice of sizes (eleven — from 50,000 to 300,000 BTU/Hr input) gives you "custom" size selection.  
Hydrotherms pass through standard doors, take little floor space, are simple and easy to install. Uniquely engineered horizontal boiler sections mean maximum fuel savings. And Hydrotherms are guaranteed for 25 years.

**WRITE FOR BULLETIN #HY-F100 TODAY!**

Also available: Packaged Hydrotherms, factory assembled with all hydronic accessories for even greater installation saving... and for heavy duty industrial applications (capacities from 360,000 to 3,600,000 BTU/Hr) ask about Hydrotherm MULTI-TEMPS.



Want more facts? Write today to:  
**HYDROTHERM**

Dept. HH-7 Northvale, N. J.



**See how the different styles of this new sheet vinyl flooring are keyed to today's most popular colors in appliances, furniture, fixtures.**

**This means Medallion Vinyl Corlon gives you an important new selling tool: ready-made color-coordination.**

New Medallion Corlon helps you decorate your models more effectively; speeds and simplifies your customers' color selections; makes it easier for new home owners to decorate with confidence.

**How Medallion is color-coordinated**—Medallion Corlon is essentially a white floor with accent colors in the 6 color ranges shown opposite (there's also a white on white). The accent colors in Medallion have been carefully coordinated with the color lines of the leading manufacturers of kitchen appliances, bathroom fixtures, ceramic tile, counter-top materials, and decorative accessories. Regardless of what appliances or fixtures you or your customer may choose in a given color, they'll coordinate perfectly with one of the seven Medallion Corlon floors.

**Why color-coordination is important**—Medallion Corlon ends the search for the right shade in flooring; ends doubt about which is the right shade. If you or your customer selects green, for example, as the basic color in the kitchen, it may be difficult to find the right green in flooring. So the natural course is to select a neutrally colored floor to be "safe," if not decoratively perfect. But you never have to compromise when you use Medallion Corlon. Given any basic color theme, Medallion is decoratively perfect: the varying shades of the basic accent color in each

Medallion styling harmonize with all other colors in the same family.

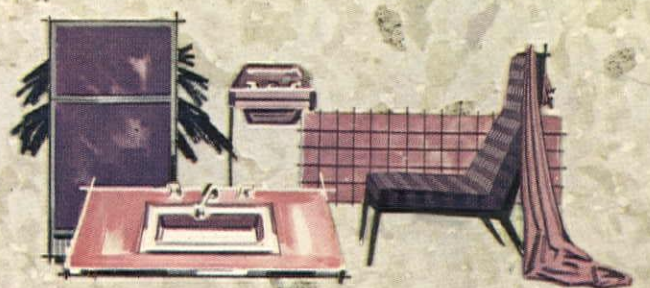
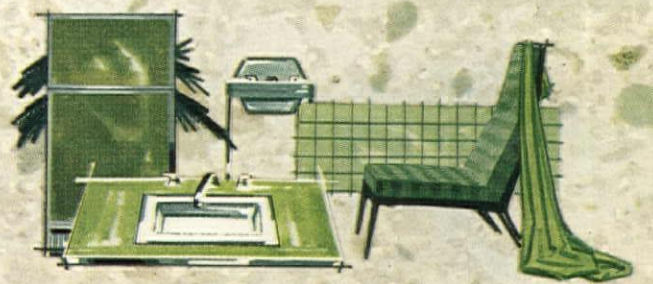
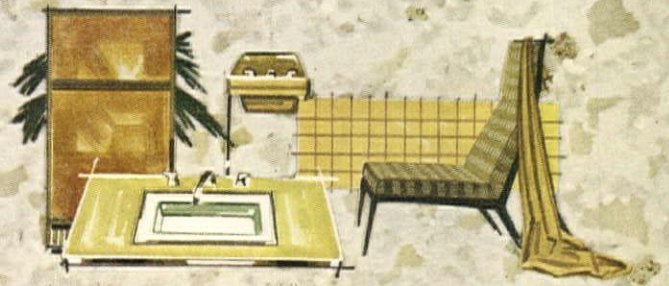
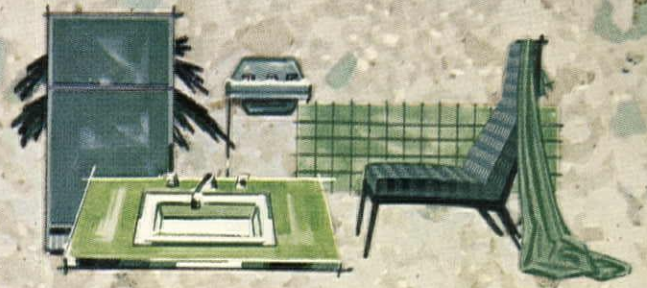
**Why it pays to use Medallion**—Medallion Corlon in your model home will add a professional decorator's touch of color planning that registers with your prospects and helps keep your homes in their minds. What's more, Medallion is economical, costing only 70¢-75¢ sq. ft. installed. And because it comes with exclusive Hydrocord Back, it can be installed anywhere in a home: above, on, or below grade—on sub-floors in direct contact with the ground (except where excessive alkali or hydrostatic pressure makes the use of any resilient floor impractical).

**Free sample kit demonstrates color-coordinating with Medallion.** Armstrong has prepared a set of 6" x 9" samples in all seven colors, specially designed to explain how color-coordination works with this new sheet vinyl floor. Send for this valuable sample kit on your business letterhead or enclose your business card. Write to Armstrong, 311 Sixth St., Lancaster, Pa. For information on Armstrong products and selling helps, contact your flooring contractor or the Architect-Builder Consultant at your nearest Armstrong District Office.

**TOP TO BOTTOM, STYLES 86405, 86402, 86401, 86403, 86404, 86406.**  
Hydrocord and Corlon are registered trademarks of Armstrong Cork Company.

**Armstrong** **VINYL** **FLOORS**





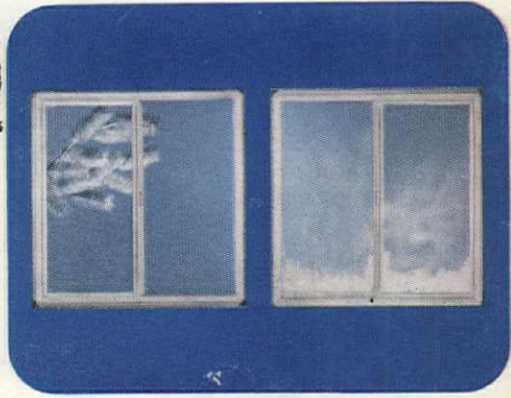


*Lady National* shows builders that...

# NATIONAL reached into the future for these features in 1964!



National's new warp-free aluminum exterior doors are insulated and magnetically weather sealed to keep out wind, rain and cold.



National offers trouble-free insulated "Thermal-Break" aluminum windows. No frost! No condensation! Another big National advantage is marble sills.



National features easy window care. Plastic mullions snap out and back in seconds . . . windows can be removed from the inside for easy cleaning.



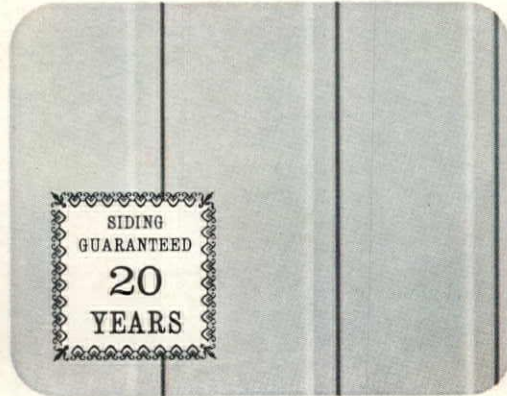
National's spacious kitchens abound with Mapletone cabinets. Adjustable shelves and plastic lazy susans!



Another feature found in all National Homes — molded kitchen drawers that never warp or stick. Easy to clean rounded corners.



Want to talk about luxury features? Here's one that's practical as well as beautiful: enduring marble-topped vanities in white and gold Regency styling!



People are sure to ask about upkeep. Show them National's maintenance-free sidings that are guaranteed 20 years against peeling, cracking or crazing. Then watch your home sales soar!



"Come and see all the wonderful new quality features found only in 1964 National Homes at the NAHB Convention, Chicago, Illinois, or December 11-15. Booth No. 1052"

**NATIONAL HOMES CORPORATION**

Lafayette, Indiana

