

House & Home

MANAGEMENT MAGAZINE OF THE HOUSING INDUSTRY

JUNE 1963



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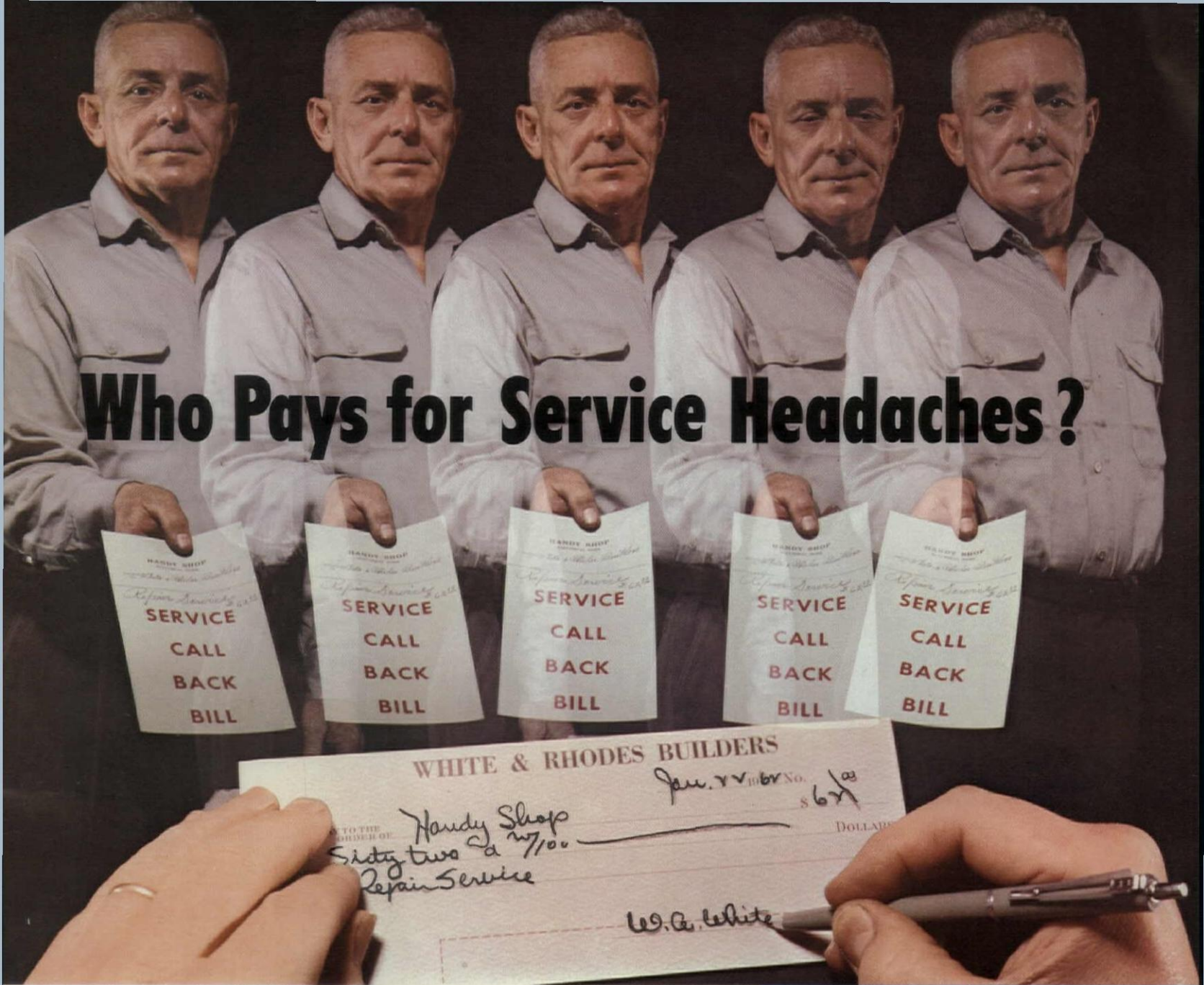
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— SEE NEXT PAGE →



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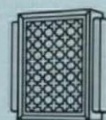
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See previous page

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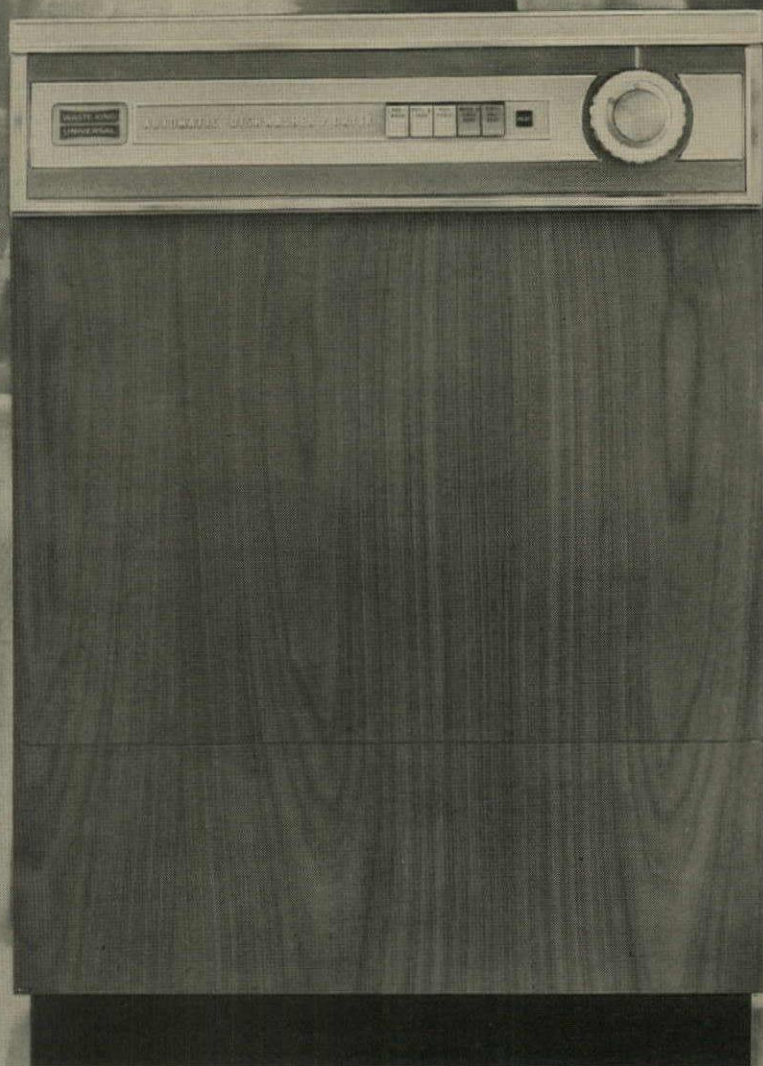
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Cover . . . House in Huntington Harbour, Calif. Architects: Smith & Kennedy. Builder: Christiana Oil Corp. Photo: Leonard Nadel

NEXT MONTH

Honor awards in the 1963 Homes for Better Living contest: six merchant-built and four custom-built one-family houses . . . How housing marketing consultants help builders increase their market penetration . . . The new housing industry: the many-fingered federal puppeteer, part 2.

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Is the rental housing boom fighting for its life?

Some housing men date the rental housing boom from the 1954 start of accelerated depreciation, when fast tax write-off of apartments gave builders a tax shelter that lets them pocket cash while showing a tax-deductible bookkeeping loss on income property.

Rental units now make up 38% of housing starts. Economists see no hint of trouble in the key economic indicators (*see p. 7*) despite widespread fears of rental overbuilding.

But in a sealed room on Capitol Hill the House ways and means committee may be writing new depreciation rules that could brake the boom. The Administration for the second straight year is demanding stringent new crackdowns. Builders and real estate men say they are in trouble (*see p. 16*). They are willing to go along with curbs of abuses by syndicators and some cash-flow realty companies. But they say the Administration plan would lock in investors for 14½ years, and so dry up investment funds.

Last year Congress ended speedy write-off for personal property, and some reform for real estate seems in the air this year. Quips an attorney representing the real estate industry: "Depreciation has a great future behind it."

Low-interest loans loom as anti-bias tool

A thread of talk running through the National Committee against Discrimination in Housing rally last month (*see p. 12*) was that low-interest loans would do more to end race barriers to Negroes than even a broad, tough anti-bias law.

Reason: full-time Negro wage earners take home only two-thirds as much income (\$3,789 in 1960) as whites, would benefit more from low-rate loans.

In this vein the Administration is quietly building its case for asking Congress next year to approve loans as low as 2%—vs. the subsidized 3½% loans under FHA Sec. 221d3. HHFA has just sent Congress a report saying a drop to 2% would open new multi-family projects to nearly one-fourth more families than qualify under 5¼% mortgages. The report was printed in full in the March 21 Congressional Record—without fanfare.

And Governor Edmund G. (Pat) Brown (D.) of California has just asked his legislature to set up a new state Housing & Community Development Dept. Some aims: to "lead the fight for lower interest rates on FHA-insured mortgage loans and for more low-interest loans made directly by the Treasury . . . [It] should be empowered to establish experimental projects to show the federal government what could be accomplished in California with expanded loan programs."

'64 preview: public housing faces a major overhaul

The race for new solutions to public housing is on in earnest—with overtones suggesting the issue may play a part in the 1964 Presidential campaign. Public housers are getting set to ask Congress next year to supplement the traditional construction of new units with public funds with two new plans:

- *Subsidies to renovate large, run-down homes and apartments for rental to low-income families.* HHFA has been experimenting with the plan in the last year (NEWS, July *et seq*) in Washington and New Haven. Philadelphia pioneered the idea by buying and fixing up 40 old houses in 1959 for an average \$8,864 a house—vs. an average \$18,000 for new high-rise units. The city plans to convert 500 more homes at a estimated cost of \$12,000 to \$13,000 each.

- *Rent supplements to let selected low-income families move into privately operated apartments.* First suggested in 1936 as an alternate to public housing, rent supplements have never been tested in practice because of fear of administrative snarls. Realtors, public housing's arch foe, have long endorsed rent supplements.

The Administration is also expected to ask Congress to approve 500,000 more units of traditional public housing. The last Congressional authorization of 100,000 units, in 1961, will be parceled out by June 30. Whether Congress would buy the idea is questionable.

In Albany, Gov. Nelson Rockefeller, front "GOP" runner to oppose President Kennedy, has just set a five-man committee to studying new solutions to public housing "which has followed a pattern without any substantial change in thinking or policy" in 30 years. But the committee includes only one housing-industry man, Senior Vice President Harry Held of Bowery Savings Bank. And it has a wafer-thin budget of \$25,000.

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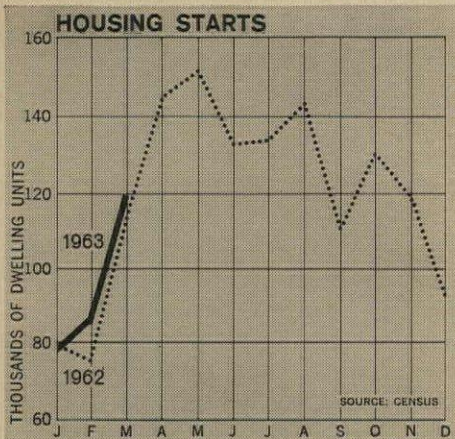
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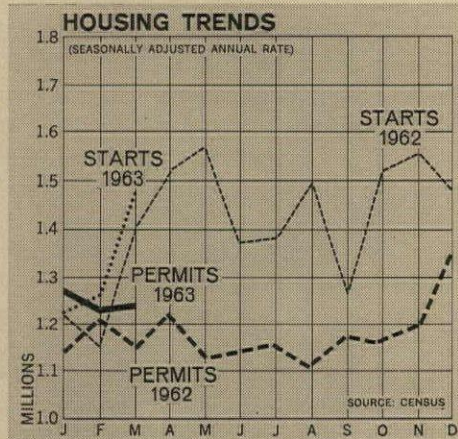
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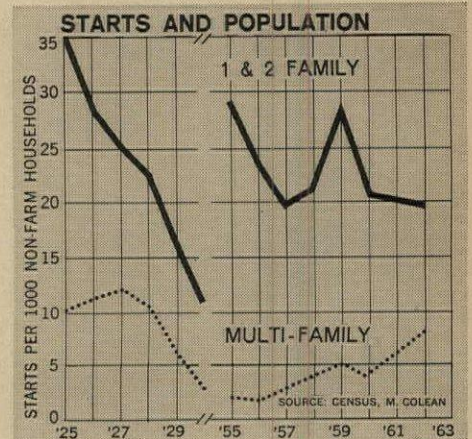
Nine barometers of housing: where they stand



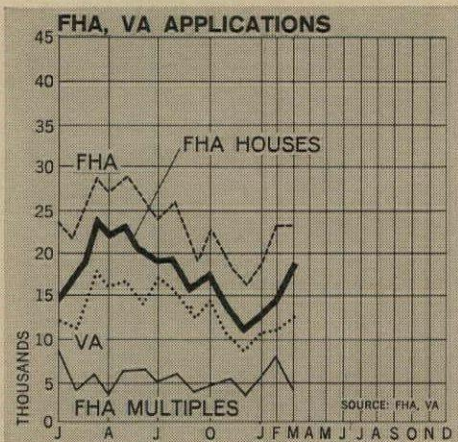
In the first quarter of 1963, private builders started 284,000 non-farm dwelling units, 6% more than in the same period in 1962. The March rise to 119,700 units includes some multi-family units delayed by winter storms. Public starts, at 6,700, bettered last year slightly; construction also began on 5,600 farm dwellings in the year's first quarter.



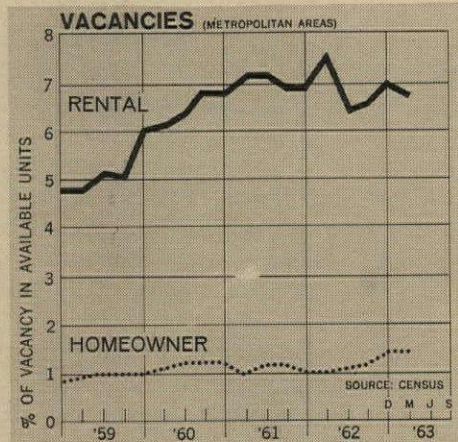
Private non-farm housing starts bounced back in March to reach a seasonally adjusted annual rate of 1,471,000, more than 17% above the February rate, and highest since November 1962. The seasonally-adjusted rate for building permits, gaining wider acceptance as a steadier harbinger of housing's future, is moving steadily up after a drop-off.



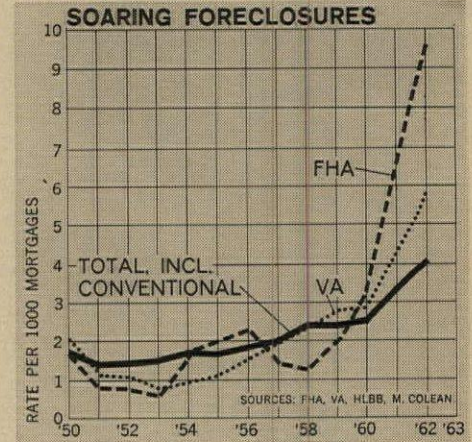
The ratio of apartment starts to non-farm households has risen sharply since 1960. But it remains low compared to the 1920s and will probably peak out well under 1927. One- and two-family starts, unlike their sharp decline in the 1920s, have held fairly steady since 1960 in relation to U.S. population, and are expected to continue to do so.



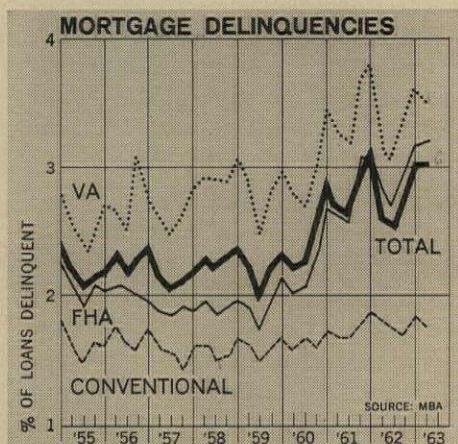
FHA new home applications totalled 18,776 in March, holding the adjusted annual rate just under 200,000—a near-low for six years. But April rebounded 27% to a 251,000 rate. FHA-insured multi-family activity slackened and the first quarter total lags 4% behind 1962. VA appraisal requests, 15,069 in March, are off 23% so far.



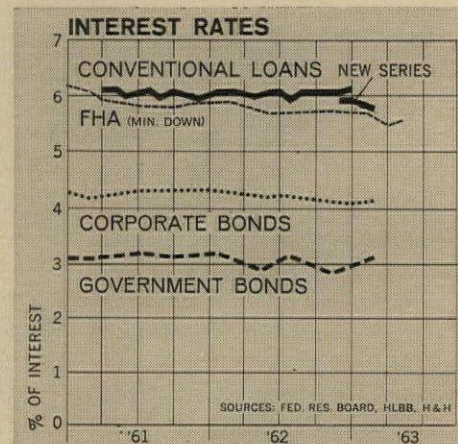
Rental vacancies in metropolitan areas dropped slightly in the first quarter—from 7% to 6.8% of available units. Homeowner vacancies, steady at 1.4%, were heaviest in the West (2%). Rental vacancies were highest in the South (8.8%), lowest in the Northeast (4.7%), mostly in older units. Only 19% occurred in units built since 1950.



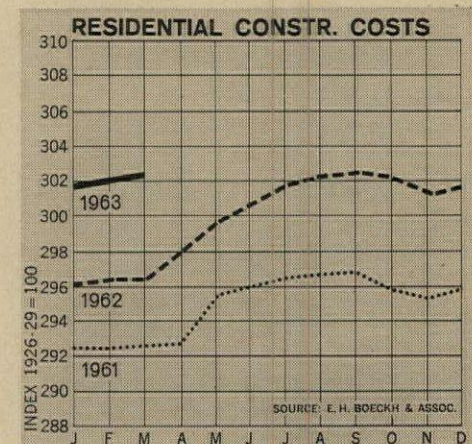
Foreclosures in 1962 continued to move steadily upward, paced by a sharp rise in FHA defaults. Foreclosures on 32,196 FHA-insured one to four family homes put the FHA rate at 9.76 per 1,000 mortgages outstanding during 1962. VA's rate on 21,860 claims reached 5.69, with the total, including conventional, at 4.12, the highest since 1939.



First quarter ratios of loans more than 30 days behind in payment are unchanged from the previous three months, but up from the same period a year earlier. On some 3 million mortgage loans, the overall ratio is up .35% from 1962 to 3.03%. VA mortgages have the highest ratio (3.45%), FHA largest increase (.49%) over last year.



The spread between yields on corporate bonds and FHA mortgages, as measured by H&H's Boston out-of-state quotation for FHA minimum-down, 30-year mortgages has narrowed to just over 1% in March. A new HLBB series on conventional loan interest covers all lenders and gives more geographic balance. The average rate is 5.86%.



Rising labor rates helped to push residential construction costs up another 0.3% the past year to a March level of 302.2 on the Boeckh index. And, says Col. E. H. Boeckh, "Increases to labor as well as the increased cost of steel and its allied components, not realized for some months, will be major causes of continued upward trends."

...and what they signal for '63

The graphs on the opposite page take the statistical pulse of how housing has performed through the first quarter of 1963, and provide substantial clues to answering the question housing men are asking on all sides: how strong is the current housing boom and will it bring overbuilding?

The apartment surge shows no signs of slowing. Apartments hit a new peak in February, latest month for which figures are available, at 38% of housing starts, up from 31% at the same point last year. Comparisons with the boom and shake-out of the 1920s are inevitable.

Lined up with the optimists is Economist Miles L. Colean. In the Mortgage Bankers Assn. quarterly economic report, he says: "The worst that lies ahead is a possible slowing of apartment building activity this year and next." The ratio of new apartment starts to nonfarm households is still "markedly below" the 1920s (see graph), he notes. "No repetition of the 1920s is at hand and no protracted period of absorbing burdensome surpluses is likely to follow," he predicts. Colean takes heart from the strength of the one-family market and the fact that rental vacancy rates in metropolitan areas dropped slightly in this year's first quarter. He predicts that 1963 apartment starts will equal and could slightly exceed 1962.

Somewhat less bullish is another consistently astute judge of housing trends, Armstrong Cork's Walter Hoadley. He finds the current apartment boom somewhat shaky and foresees "more caution and some temporary slowdown" for this year because tens of thousands of unrented multi-family units are due for completion shortly. Hoadley looks for another wave of apartment expansion to meet "rising needs and preferences of newly-weds" in coming years.

A provocative suggestion that such statistics as family formation, so basic to projections in the housing market, may have less application in the future to apartments comes from George Goodyear of Charlotte, N.C., former NAHB president and now active in the mortgage field. He points out that apartments in the Southeast, as in other urban areas, are now drawing heavily from old rooming houses.

Single men and women, often fresh out of high-school or college, now prefer to split expenses for an apartment in a decent neighborhood rather than live in "somebody's back bedroom on beat-up furniture," says Goodyear.

A check of builders' own plans strikes a disturbing note.

The spring survey of 436 members of NAHB's builders' economic council shows builders expect an increase in rentals, despite wide evidence of overbuilding. Some 72% report rental overbuilding in their areas: 12% call it heavy. Some 30% still plan to move heavily into rentals—from 1,921 units in 1961 to 12,667 for 1963.

Even more disquieting is the main reason builders give for this lemming-like rush into the market: holding their organizations together in a slow one-family home market. Another justification: lenders are pushing to get idle money invested.

Awareness of possible pitfalls ahead is contained in a stern, finger-shaking warning from NAHB: "The possibility of some enduring damage, both to a sound rental market and a sound sale-house market, should be a matter for serious consideration and analysis by both builders and lenders who are contemplating new projects in already saturated rental markets."

The stress on apartments is just one evidence of builders' efforts to cope with a more competitive, if steady, market. With housing starts (at an annual rate of 1,471,000 in March) and permits both running ahead of last year (see graphs) housing seems headed for a definite if modest expansion of activity. Other causes for cheer: a drop in the rental vacancy rate from a year ago (see graph) and steady delinquency rates, unchanged the first quarter from the previous one.

Two U.S. banks, sizing up the future, view housing with optimism.

A real estate survey by Chase Manhattan based on firms in 45 cities concludes that though the real estate market in the next few years "will be on a much more conservative basis . . . there is still a strong demand for sound properties." Bankers Trust finds "stability if not strength" in the apartment market and "underlying weakness" in one-family house demand.

Meanwhile, builders are feeling competition from other sources. Manufactured homes claim to have grabbed a bigger piece of the pie in 1962 for the tenth straight year. Their share rose from 16.5% in 1961 to 19.2% last year, according to the Home Manufacturers Assn. Prefabbers are now setting their sights on a 22%-23% share for 1963, with gains continuing to vary by region.

Even mobile homes are offering new competition (see *Phoenix market*, p. 8). Mobile homes, says Hoadley, now have 8% of the market, sell 100,000 a year.

The New York Times



APARTMENT SAFETY TEAM AT WORK

Apartment owners find a new rental aid: safety

The patrol dog and guard team making its rounds in a New York City apartment project, Knickerbocker Village, testifies to the new-found concern with safety in big-city apartments.

Knickerbocker, on Manhattan's lower East Side, hired the patrol to prevent vandalism in the neighborhood from spreading to its apartments. The patrol is from a private firm which also supplies guards for two other projects, including Webb & Knapp's new Park West Village.

And new research indicates safety may be more important in renting apartments (and selling houses) than builders have suspected. Atlantic Improvement Corp. hired Political Pollster Lou Harris (H&H, June '60), to find out what 2,400 middle-income New Yorkers wanted most in an apartment and came up with the eye-popping finding that 93% want more safety. That is more than double the 46% who favored the next closest item, more bathroom storage space. Result: Atlantic is forming a Courtesy Corps (headed by a former FBI agent) to supplement regular police protection at its Breezy Point apartments. The Corps will use watchdogs.

Vacation homes: housing bids for the recreation dollar

"For builders today there's no place like a home—unless it's a second home and you can get financing," quipped one builder at NAHB's first full dress vacation-homes meeting in April.

This pretty well sums up the sentiments of some 80 builders, prefabbers and suppliers who came to find out how to tap the market alternately described as a "billion dollar" one (by NAHB past president and moderator Carl Mitnick) and today's biggest competitor to the second car (by Ford Motor Co.). They got plenty of tips on prospects worth probing, pitfalls to avoid—and ample evidence that it is a market which still needs plenty of study.

On the item in which they were most interested—money—builders got scant encourage-

ment. A hoped-for easing of FHA rules for vacation home loans (NEWS, May) has failed to materialize yet. Biggest obstacle to FHA liberalization lies in the original law, which restricted FHA to houses suitable for year-round occupancy in areas with year-round economies. FHA's Alfred Jarchow stressed that a growing number of former resort-only areas like Florida and Minnesota lakes now meet FHA tests for economic soundness.

But for basic changes Jarchow put the next move up to the housing industry. Said he: "With the growth of the market, it may be time to consider new legislation designed to serve [it], and provide insurance on risks not now allowable." Such loans would probably

have to have shorter terms, lower loan-to-value ratio (e. g. 80%) than current FHA loan programs permit, he ventured. The logical force to push toward passage of such legislation: housing industry groups "like NAHB."

Heartened by this, NAHB is already at work on liberalizing changes. Further encouragement comes from mounting interest in the program expressed by Senators from resort area states like Leverett Saltonstall (R., Mass.), Teddy Kennedy (D., Mass.) and Philip Hart (D., Mich.) who hope thus to spur lagging state economies.

For more and more big, well-planned recreation-retirement communities, financing is less of a headache. Says vice-president Joseph

Basore of successful Cherokee Village in the Arkansas Ozarks (950 homes sold): "Once over the original hump of financing the development itself, we have no trouble getting 75% of sale price for 20 years at 6%."

Still sure to remain tough, though: financing for vacation homes on scattered lot or remote properties. It's prompting some builders to try other approaches like setting up their own financing. Typical is Harry Obermeier, whose fledgling Mercury Homes packages houses in the mountains within a fifty-mile radius of Denver, sold 30 homes last year, expects to sell 75 this year. Says he bitterly: "We can't get anything but add-on financing. We're working on warehousing mortgages ourselves."

Why large-scale builders grabbed 74% of a big market

A study of homebuilding in northern California gives new insight into the why large-scale homebuilders dominate that market.

Assistant Prof. John P. Herzog of the University of Wisconsin, in a just-published report*, finds that large-scale builders (who completed 100 homes in one year in the 1950-60 decade) increased their share of the market from 32% to 74% in the ten years. What Herzog reports about the big builders:

"The typical large-scale building firm, having been in business a mere 14 years, is a youngster. Fully one-half entered housing between the close of World War II and 1950.

"Their owners often are long on experience. Almost a third of these men had previous managerial or supervisory seasoning with other construction firms. An additional 25% were second-generation housebuilders and still another one-quarter had worked at one of the construction trades before becoming big builders . . . About 25% of the owners of large building firms were college graduates."

Corporate complexity. Big builders surround themselves with "as many as 50 legal entities, and rarely used less than five or ten." One builder had 80 lesser corporations with only a few active at a time.

"Compared with the elaborate corporate

**The Dynamics of Large-Scale Housebuilding*, Research Report 22, Real Estate Research Program, University of California.

structures that surround him, the big builder's internal organization is indeed a simple arrangement. This might be explained, at least in part, by the extensive use most firms make of subcontractors. Whenever a sub-contractor is used, an efficiency-control center is established outside the formal organization structure of the building firm. Use of sub-contractors simplifies a firm's internal operation, leaving only the problem of co-ordination, a task that must be performed in any event."

Why subcontracting? "Apparently he [the large builder] has difficulty attracting and retaining men as talented as himself because the middle management positions in his organization seldom offer promotional opportunities to potential junior executives.

"Knowing that the owners themselves occupy the top executive positions and that they rarely relinquish control or admit salaried employees to executive rank, young men tend to view the big builders as dead end streets . . .

"In the highly centralized form of organization used by most firms, practically all decisions of importance are made by one or two individuals."

Shifting markets. Herzog finds a paradox: in the five years when housing starts declined, large-scale builders increased their share of the market; in four of five years starts advanced, large builders dropped in their share of the market.

"Big builders were much more successful in resisting production cuts than were others and, because they were able to keep their volume up, it was unnecessary for them to shift into other types of construction where their staffs would not perform as efficiently as in housebuilding.

"The FHA-VA sector was known to be the least stable part of the market, so it was automatically assumed that the big builders' output would be unstable. Actually, their output was relatively stable. The really violent fluctuations took place outside the large-scale sector. During the decade, reduction in large-scale output never exceeded 17%, and this figure was reached in only one of the ten years studied."

Secret for growth. Big builders could not avoid cutting back production in times of tight money, but they were in the best position to use FHA and VA programs to stabilize output, says Herzog.

"Big builders were not only willing, but eager, to pay [discounts] because the only means of selling lots and receiving land-development profits lay in erecting houses on them and selling the package with liberal financing. Unable to realize the land development profits associated with tract building, smaller builders were forced to turn to conventional financing and forego the more liberal FHA-VA programs."

LOCAL MARKET

Phoenix housing slump bottoms out rapidly

A collapse in the housing market in Phoenix, talked of as a distinct possibility earlier in the year, now looks more like a temporary setback. With a backlog in December of some 1,200 completed but unsold houses, glum comparisons with Miami's recent shake-out did not seem unduly pessimistic.

Today the market has steadied, and unsold inventory is below 400 houses. Most builders have cut back slightly and are pushing sales hard, but they have not stopped building. Says one local builder: "There are no apparent signs of panic."

A Miami-wary FHA, whose tightening of credit helped prompt some scare talk, admits

it is screening loan applicants more diligently. But the agency denies emphatically reports that it limited the number of conditional commitments per subdivision.

This doesn't mean the battle for sales in Phoenix won't continue to be rough. A key reason for the drop in housing sales was unexpectedly severe competition from apartments, senior citizen rental homes (Sun City), condominiums, and — surprisingly — mobile-home courts (see p 136).

Apartments in the area, all with swimming pools, offer a special appeal. Unlike most Eastern cities, tenants can rent from month-to-month without leases while deciding

whether to stay in Phoenix.

There is other evidence of basic soundness in the market. Items:

- Building employment, after earlier layoffs which included salaried supervisors, is holding steady and has picked up for some builders.
- Rental housing's vacancy rate, not a problem this year according to most landlords, has begun its seasonal decline.
- The healthy rate of economic growth in the area appears able to catch up even with temporary overbuilding.

HOUSING POLICY

First funds voted for controversial federal research plan

Assistant Commerce Secretary J. Herbert Holloman has won a critical opening battle in his campaign to push the federal government into building research (NEWS, Apr.).

Congress has just voted \$625,000, half the amount requested, to get the new research program going this fiscal year ending June 30. Dr. Holloman also seeks \$7.4 million for the fiscal year beginning July 1.

Dr. Holloman conceived his civilian industry technology (crr) program to fill in broad gaps in research he claims exist. He argues that the construction industry spends only 0.3% of its total sales for research and development. As he sees it, building, textiles, and food processing account for less than 4% of the nation's privately-supported research, yet make up 10% of gross national product. Aerospace and electronics get 25% of private research, yet turn out only 3½% of gross national product.

Dr. Holloman plans to grant the money to universities and private foundations for basic research into construction methods and materials. No product development work will be supported, and researchers must share their findings with anyone, so no trade secrets will spring from taxpayer-backed research.

Is it needed? His proposal has touched off loud opposition from much of the building

Walter Bennett



COMMERCE'S HOLLOWAN
Ramrod for research spending

industry, especially from trade associations which have their own research programs. The trustees of the Research Institute of the National Association of Home Builders unanimously oppose the plan. Says NAHB: "We failed to find any other association that sought this money."

The U.S. Chamber of Commerce is also attacking the plan. Chamber Spokesman Douglas Whitlock, chairman of the Structural Clay Products Institute, contends it "presents a dangerously one-dimensional view of the building industry and its needs." And it would

"tamper with the delicate free enterprise mechanism of America's largest domestic fabrication industry . . . and compete with private research," he says. The chamber is calling a fall meeting of 138 trade groups to examine the whole idea.

Building men are also concerned because the Holloman plan is just one of several federal excursions into building research. The Defense Department is pushing its new relocatable house program. Defense is also trying ways to speed construction at overseas locations where the absence of building and zoning codes give freedom to experiment. Public Health Service is asking Congress for \$34 million to build an environmental center to study air conditioning, moisture in heating systems, and insulating. PHS is also interested in new ways to dispose of sewage.

One industry leader argues private industry should continue to do the bulk of research because it can do a better job of recovering money spent by cashing in on usable ideas. "We are going to have too much research of a social nature that we don't want if government does the job. The research must be kept in private hands," he says. "We have not done the job ourselves. We have not spent the money we should. Now, we have to do this on a bigger scale or we are going to lose the ball."

Will FHA blacklist lenders for 'trigger-happy' foreclosures?

FHA has just issued a pointed warning that it is beginning to list mortgagees who rush into "trigger happy" foreclosures.

The phrase comes straight from a February speech by Sen. John J. Sparkman (D., Ala.), chairman of the Senate housing subcommittee, implying that part of FHA's mounting foreclosure trouble (29,789 one-family homes were repossessed by FHA last year) may be caused by lenders foreclosing too quickly.

Now FHA uses the same phrase in a letter to all mortgagees: "Some mortgagees are instituting automatic foreclosure actions in accordance with a fixed time schedule (60 or 90 days after default, for example) without reference to any special facts and circumstances in the particular case. These lenders recently were referred to as 'trigger happy mortgagees.'"

"We do not believe that many mortgagees have diligently attempted to exercise relief measures . . . Field office directors are being instructed to identify and report those mortgagees whose collection policies and practices seem to be automatic and not in keeping with the intent and spirit of the FHA program."

The relief measure FHA is pushing: more use of forbearance provisions added to the law in 1959. Since then only 800 delinquent homeowners have won forbearances.

FHA staffers point out that a mortgage lender may sometimes profit from foreclosure, even though it is a lengthy and costly process. If a lender bought a mortgage at 96 (4% discount), he would add still more to his yield if he can foreclose early in the life of the loan and receive FHA debentures marketable at 98 or 99. And most foreclosures have

been coming in the first three years of a loan. So the profit in foreclosure may be "irresistible" to some, argues Sen. Sparkman.

What comes next? Mortgage men have been pressing for legislation to make forbearance more appealing. They point out that a lender loses all the interest during the delinquency if a forbearance becomes a foreclosure. FHA has been talking of asking Congress to amend the law so lenders can collect from FHA the interest they lose in such cases.

Meantime, Sen. Sparkman is plugging for more action by lenders to make forbearance work. In a talk to MBA's Eastern Mortgage Conference in New York, the senator recalled that in 1927, when he was a young lawyer, he himself had to seek a forbearance on his home mortgage. After some months he resumed payments and the mortgage was paid.

"Let me make it clear. I certainly do not suggest that lenders should pamper accounts which are chronically delinquent. I do suggest some forbearance in those accounts which show good payment records," he said.

In a month or two, when the FHA warning to lenders to take a friendlier view of forbearances has had time to sink in, Sparkman says his committee will look at the record, likely as part of a mid-June hearing on foreclosures. "We may then have some idea to what extent the FHA foreclosure rate increased because forbearance was not employed."

What about the backlog? FHA's bulging foreclosure roster is still growing and now totals 41,538 one-family homes. One-third of all FHA foreclosures are concentrated in five field offices: Topeka, Detroit, Tampa, Miami,

and Fort Worth. And nearly half of all FHA foreclosures are in military or defense housing where demand has slumped drastically, such as at Savannah River, Ga., Paducah, Ky., and Killeen and Laredo, Tex.

What to do perplexes builders in these high-foreclosure areas. Directors at NAHB's spring meeting debated several solutions—including selling the homes to public housing and military agencies—but came to no conclusions. FHA is working on two solutions:

- In seven offices, (Atlanta, Boston, Dallas, Indianapolis, Philadelphia, Sacramento, and Tampa) FHA is testing a new scheme of selling foreclosed homes. Until now FHA has held the mortgage loans itself. Now, it will sell the house under a normal FHA loan, privately held. And FHA will pay closing costs and any "reasonable and customary" loan discount.

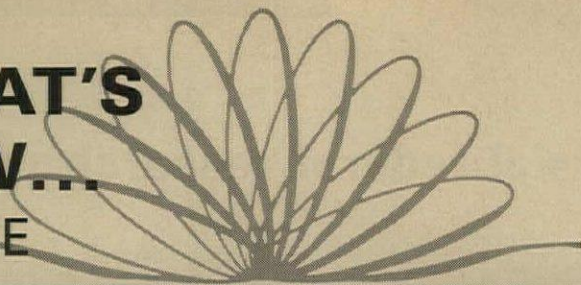
The change means foreclosed homes will be some \$500 to \$1,000 cheaper in out-of-pocket cash to buyers than comparable new FHA-financed homes. This unexpected competition is what concerns builders in areas already hard-hit by high foreclosures.

- FHA Commissioner Philip Brownstein, former chief benefits officer for the Veterans Administration, is borrowing a leaf from VA's book and is ordering FHA directors to step up renting of foreclosed homes.

FHA has always had power to rent foreclosed homes "under exceptional circumstances" but agency veterans have used it little. "Anything you can rent, you can sell," they contend. Result: FHA has rented only 2,974 of its 41,538 homes. VA, in contrast has rented 3,000 of its 22,600 foreclosures.

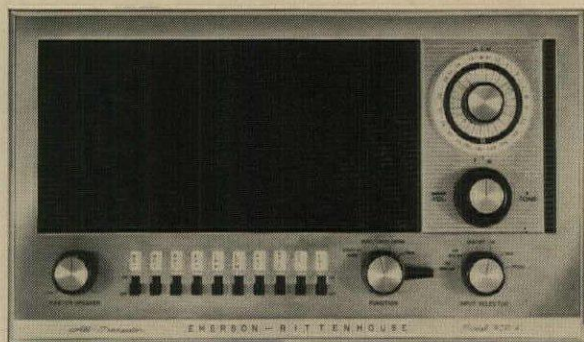
NEWS continued on p. 12

WHAT'S
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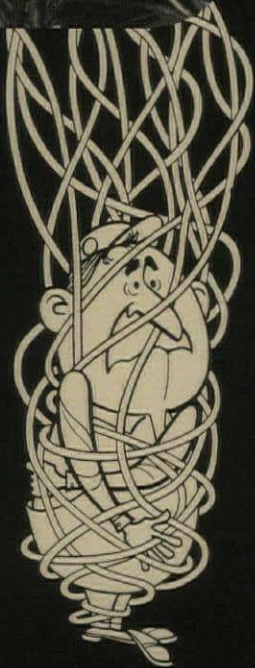
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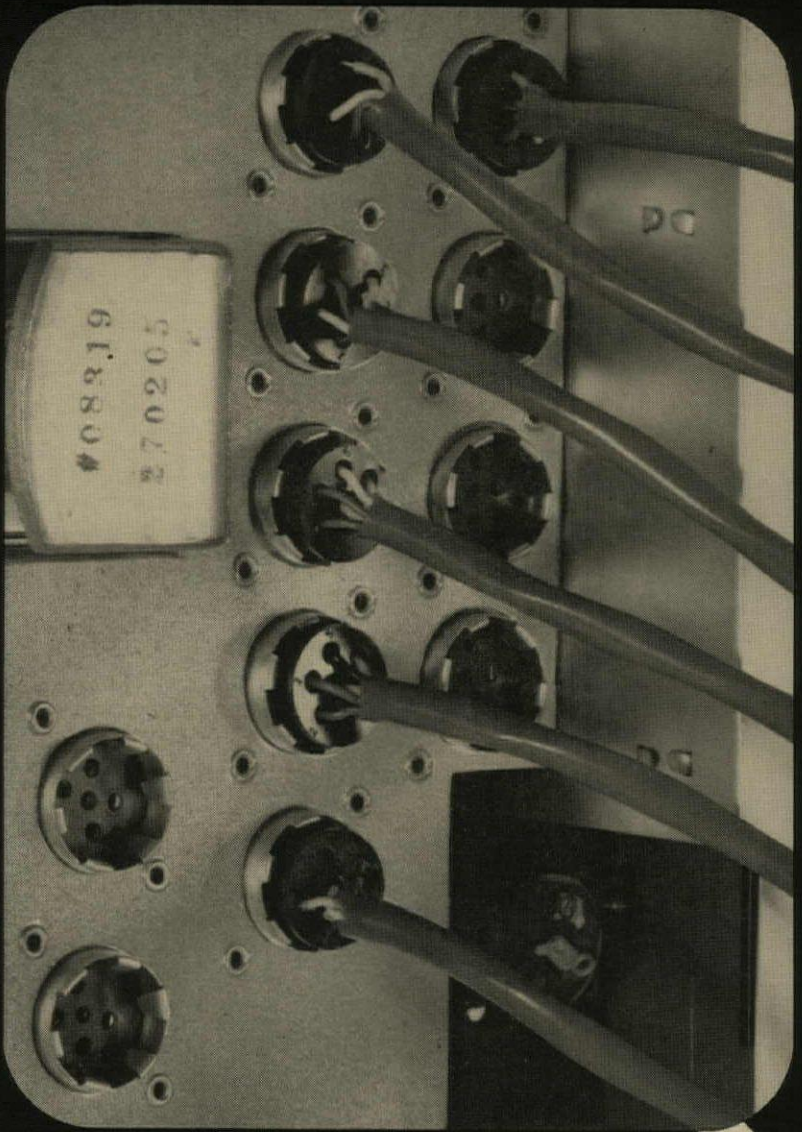
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over 50 connections*



*The new (Emerson-Rittenhouse) way -
just six plugs*

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The Administration



JFK'S LAWRENCE
"Extend the influence of 'good offices' "



HHFA'S WEAVER
"We've succeeded in one of five"



JUSTICE'S KATZENBACH
"If you lose a case, you lose years"



FHA'S BROWNSTEIN
"We will not send hearing officers"

Civil rights groups are disgruntled with the way President Kennedy's administration is enforcing his order of last Nov. 20 banning race bias in federally-aided housing.

At a rally in Washington sponsored by the National Committee Against Discrimination in Housing, they proclaimed their views. "On the record to date, we are forced to conclude that neither the broad spirit nor the limited letter of the order is being made a reality," said NCDH Chairman Algernon Black.

In an emotionally-charged opening session, NCDH confronted top Administration officers on how they were enforcing the order.

The President's Committee on Equal Opportunity in Housing has already persuaded military base commanders to stop taking listings of homes and apartments for rent to servicemen when race preference is shown, reported Chairman David Lawrence, former Pennsylvania governor.

Lawrence said he favored using the "good offices" of "the best resources which are available to the federal government" to carry out the order. But Lawrence hinted a dramatic new development may be in the offing. He is pressing President Kennedy to order all federal agencies to consider availability of "housing without restrictions" in deciding whether to build new or enlarge existing federal installations.

Faced with criticism that Kennedy had not taken the first step of appointing eight other public members of the President's committee five months after the order, Lawrence laid the delay to "security checks that take as long as two or three months." But word persisted that several housing industry leaders had declined appointment.

Deputy Attorney General Nicholas Katzenbach counseled: "We have learned the wisdom of proceeding on quite clear ground. It would be terribly unfortunate if the first case you picked, you lost." When Legal Chairman Joseph Robison of the NCDH prodded Justice to sue public housing authorities to end racial discrimination in public housing, Katzenbach revealed this is under study.

But when Associate Director Reginald Johnson of the National Urban League asked Katzenbach why Justice had not joined the legal fight before the U.S. Supreme Court by Builder Morris Milgram seeking to keep Deerfield, Ill. from appropriating (as a park) land planned for integrated housing, Katzenbach retorted he saw no way the case could affect the anti-bias order.

HHF Administrator Robert C. Weaver backed up Katzenbach: "Litigation isn't going to do anything if you get an adverse decision. You have to do your homework before you can go out like Sir Gallahad." HHFA has "successfully" ended one of five complaints, he added. In Weaver's views, HHFA has taken two other positive steps: 1) Houses repossessed by FHA are now sold on an open occupancy basis, with the result that about 100 Negroes have moved into white neighborhoods in California, another 100 in Illinois, Ohio, and Michigan, and significant numbers in Texas and 2) ten of the biggest urban renewal redevelopers have voluntarily agreed to observe the ban.

Builder Kimball Hill of Chicago, representing NAHB, challenged a question from the audience saying builders and the real estate

... and its critics



NCDH'S BLACK
"We are impatient with slow motion"



BUILDER HILL
"No order says a looker must buy"



BUILDER EICHLER
"The order lulls us to sleep"



URBAN LEAGUE'S JOHNSON
"Why no federal help in Deerfield?"

Chicago: riot over a new apartment

industry had "brainwashed the public" on race. Said he: "We are faced with the realities of the marketplace and the community, and something must be brought to bear to change this. This is a problem for the whole country, not the building industry."

Builder Edward (Ned) Eichler of Palo Alto, Calif., asserted the order was not being enforced in California because it covered only a small part of housing. He pressed for extending the order to resale of existing housing with FHA commitments.

After the kickoff the sponsoring NCDH joined with the National Association for Advancement of Colored People, the Urban League, and Congress for Racial Equality in calling on President Kennedy and his appointees to take steps to make the order "come alive." Washington Director Clarence Mitchell of NAACP heaped blame right on the White House doorstep: "If the President wants it to move, it will move." The President has adopted an "ineffectual posture" that seems to be "appeasing the elements in both the North and South who want the existing order of doing things."

Twenty days later President Kennedy named eight men (including three mortgage bankers and lenders and two labor union staffers but no homebuilder) to his Equal Opportunity in Housing Committee. Named: Chairman Earl B. Schwulst of Bowery Savings Bank, New York City; Mortgage Banker Ferd Kramer of Draper & Kramer in Chicago and chairman of Action Inc.; General Manager Theodore A. Jones of Supreme Life Insurance Co. of America and former NAACP head in Chicago; President Charles Keller Jr. of Keller Construction Co., New Orleans and president of the Associated General Contractors; former deputy HFA Administrator Jack T. Conway, now executive assistant to President Walter Reuther of the United Auto Workers; Housing Consultant Roland M. Sawyer of the United Steelworkers Union in Pittsburgh; Attorney Lewis H. Weinstein of Boston; Cyril Magnin, San Francisco department store head. Jones and Sawyer are Negroes.

First bias ban penalty hits realty concern

The Veterans Administration action against a small real estate company in a Chicago suburb comes under such clouded circumstances that it raises more questions than it answers for builders and real estate men.

Here is what happened: in mid-March, Milroy Realty Co. of Markham advertised availability of VA-repossessed homes in Chicago's southern suburbs. The Congress for Racial Equality (CORE) sent three couples—two white and one Negro—to answer the ads.

The white couples were shown three homes in all-white or predominantly-white neighborhoods. The Negro couple asked to see the list of VA homes but was offered only one house in an all-Negro neighborhood, said CORE.

But Milroy President Lee Roy Sohn, who started the company a year and half ago with his partner Milton W. Lewis, says his salesman was able to tell in a few minutes the Negro couple was not a legitimate prospect.

VA, after several weeks investigation, has just dropped Milroy for three months from its list of approved managers, ending its management of 84 foreclosed homes. But Sohn says he got no hearing before VA acted. He is appealing.

Ashland Avenue in southwest Chicago is a six-lane street dotted by stores of small merchants, unpretentious gasoline stations, and firms that distribute beer, brake linings, and plumbing fixtures. It is also a little Maginot line along Chicago's racial front. Like a vast army, Negroes have advanced up to the line from the east but have been held there, seething but unable to jump over the avenue and establish residence.

Last month a solitary scout from the army ventured out into the white man's land west of Ashland Avenue. What resulted was an ugly riot that was Chicago's most significant racial incident since mid-1961, and which points toward a turbulent future in the city's race relations.

Behind the trigger: vacancy. Focus of the struggle is a new, colonial-type, redbrick duplex apartment house which, though completed, has remained vacant for a year. It lies just one block west of Ashland, right in a neat lower-middle-class neighborhood populated mainly by persons of Italian descent. On a Wednesday night, residents of the area peeked from behind their curtains and saw a ghastly (to them) sight: a small, bespectacled Negro moving furniture into the duplex.

As if by spontaneous combustion, the flame of violence erupted. Several hundred people converged on the area, milling around, shouting abusive words, chalking on the sidewalk phrases like "We hate black bastards" (c.g.).

About 100 policemen rushed in. (They had been alerted that afternoon by a phone call to the Mayor's Commission on Human Relations that a move-in was intended.) Quickly, the riot flared out of hand. Rocks and bricks flew, shattering windows in the duplex, littering the place with glass, and striking a policeman and the Negro himself. Policemen were forced to bring in nine police dogs. Three persons were bitten.

Barricades sealed off the area. The cops moved quickly to quell the disturbance. Loiterers were packed off in paddy wagons. Ten persons were arrested, mostly juveniles.

Thursday dawned clammy and cold, and it was particularly bleak also for the slight, obviously frightened Negro who had appeared, Dorman Lewis, 50, married and the father of a 16-year-old son. Lewis came to the duplex in the morning and, when confronted by newsmen, stoutly contended that he didn't plan to move into the duplex at all but was merely a caretaker for the real estate firm seeking to lease or sell the three-bedroom apartments. Uneasy policemen circulated this word and

Lewis departed, but this did little to change the mood of the crowd. Housewives pushing baby carriages shouted epithets; sullen youngsters with ducktail haircuts shifted feet uneasily along the curbs. On Thursday, several others in the crowd were nipped by the dogs and 13 persons, seven of them teenagers, were carted off to the precinct police station, booked for unlawful assembly.

Still, the tension persisted. "You try to live among 'em," said one in the crowd, "and you got to carry a club." A woman bleated: "We don't bother them [the Negroes] and I don't see why they won't stay on their side. Would Mayor [Richard] Daley care to have those people move next door to him?" Said a squat woman with a bandana on her head: "Trying to stop them is like getting cockroaches in your house. One moves in and the next week you got a million."

False alarm. The significant thing about all this was that a violent mob had become worked up over a move-in who didn't actually move in. Lewis himself quickly faded from the scene and television blared the news that he had decided against trying to take up residence west of Ashland. Yet the crowd lingered through midnight Thursday, standing along the curbstones quietly, serving open notice that a further attempt to effect a Negro move-in would meet with renewed violence.

It was never firmly established whether Lewis was, indeed, only a caretaker or was actually attempting to take up residence. The real estate company handling the property maintained he was only a caretaker, hired to look after the duplex because vandals had severely damaged it and similar duplexes in the area. Negro groups said they didn't know who Lewis was but he certainly was not a man picked by them to make a test run.

Portent of trouble? One man who speaks for responsible Negro leadership in Chicago, calls the two-day incident the most significant race happening here in several years, dramatizing today's sharp and hostile class cleavage.

The Human Relations Commission points out that the violence contrasted sharply to the quiet moving of Negroes into white neighborhoods where the commission has had time to prepare neighbors in advance. But those who watched the unruly crowd and who took note of the fuzzy circumstances surrounding Lewis' appearance on the scene are convinced the fracas portends evil for the future and may be the forerunner of more and even more violent residential riots.

NEWS continued on p. 16



AFTER RIOT, Chicago policemen surround vacant new duplex only one block from predominantly Negro neighborhood.

Ernest Dellathoussaye

Report to Apartment Builders:

Individualized Heating/Cooling Systems by

Luxaire®

Saved \$300 Per Suite In This Apartment

In addition to substantial initial savings, Banks and Lee, builders, gained great rentability for their new Southview Apartments, Washington, D.C. because tenants can select the year 'round temperatures they prefer. They got lower maintenance costs, too, because no employee is required to operate these Luxaire systems.

Coming up next in the Southview development is one of the first high-rise apartments to be equipped with Luxaire individualized heating/cooling systems.

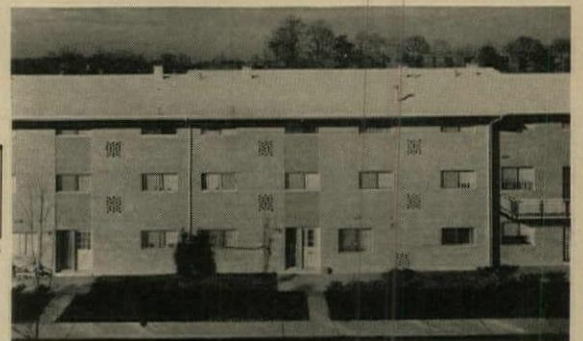
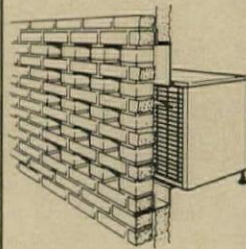
Luxaire is locally represented in most major cities to provide consultation service to architects and engineers, and installation supervision and maintenance service, when required. Local Luxaire stocks provide a wide choice of components tailored to every apartment requirement.

Luxaire individualized heating/cooling systems can mean substantial savings and greatly increased rentability at lower cost for you, too. Check with your local Luxaire distributor when planning your next apartment building. He has lots of ways to help you!



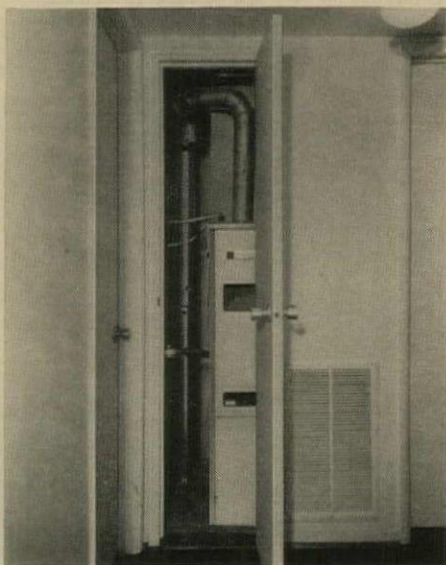
Luxaire Low-Profile Condensing Units hug Southview Apartment roof, serve cooling coils in individual suites through vertical chases.

EXCLUSIVE FEATURE

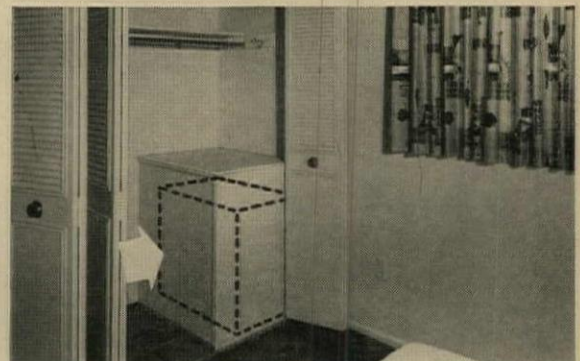


Attractive Brick Grilles in new Southview Apartments conceal Luxaire condensing units, with centrifugal blowers which make such concealment possible. Luxaire-built frame simplifies grille masonry.

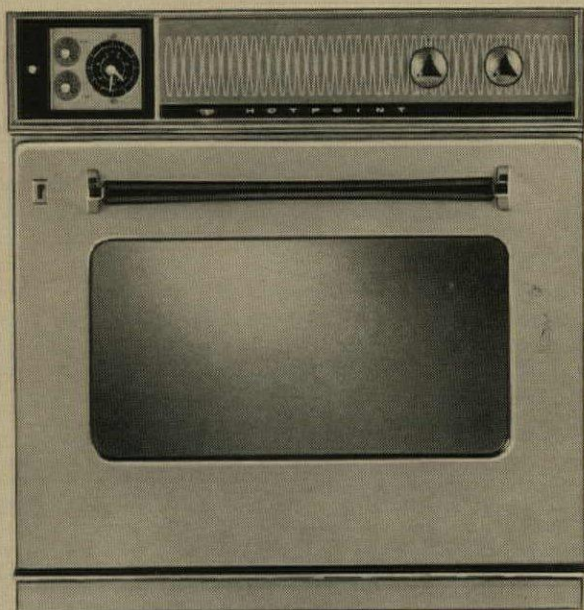
Compact Luxaire Heating/Cooling Components require as little as 2 square feet of floor space.



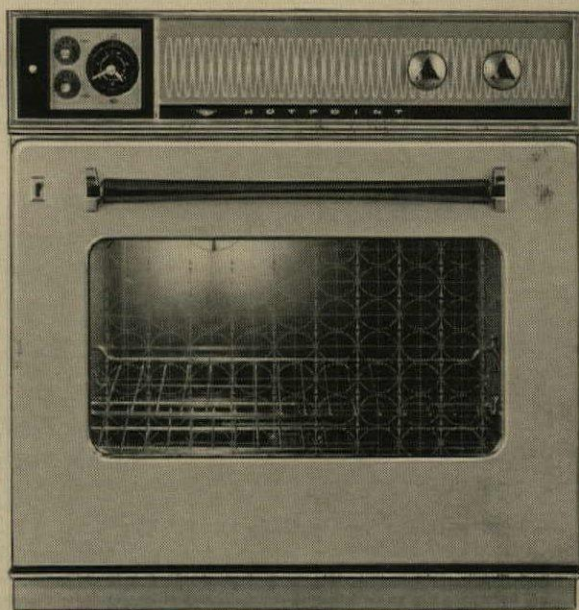
Through-the-wall Condensing Unit hidden in Southview bedroom closet is covered with pressed fiber-board soundproofing.



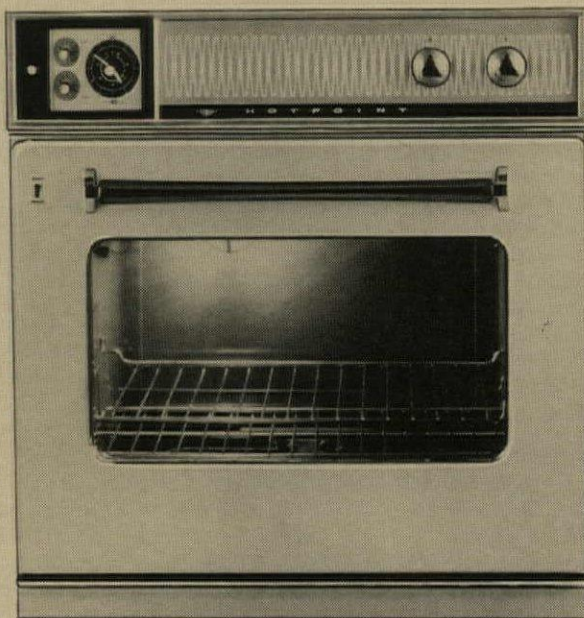
THE C. A. OLSEN MANUFACTURING COMPANY • ELYRIA, OHIO



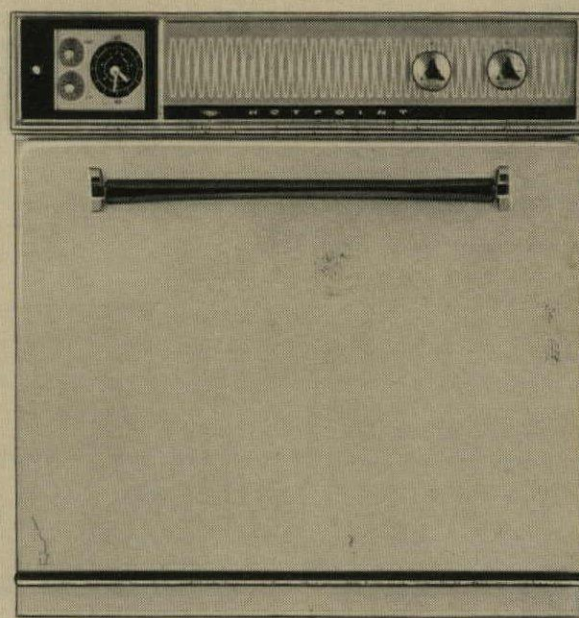
MIRRORED WINDOW



PATTERNED WINDOW



CLEAR WINDOW



NO WINDOW

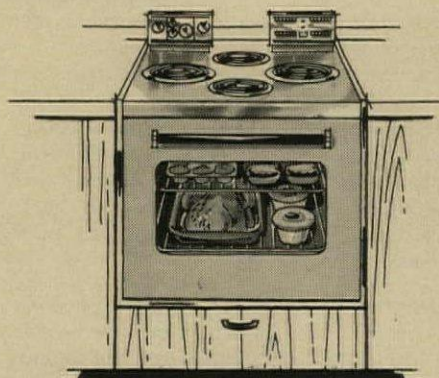
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NAHB DIRECTORS

Builders seek to scuttle two Kennedy tax proposals

Organized builders are alarmed over two of President Kennedy's proposed tax reforms: higher taxes on multiple corporations and sharp restrictions on real estate depreciation.

As a result, directors of the National Association of Home Builders, huddled in Washington for their annual spring meeting (combined with visits with their representatives on Capitol Hill) were urged to turn on the lobbying steam this year. Some measures of NAHB's concern: 1) for the first time builders were asked to fill out a questionnaire showing how their Congressmen stand on the two key issues and 2) a petition drive is being considered.

What worries builders most is the absence of Sen. Robert Kerr (D., Okla.), who died in January. Confided NAHB Tax Consultant Sylvanus Felix of Oklahoma City: "We have been able to block almost everything detrimental to homebuilders with one man—Sen. Kerr." Now Kerr is gone, and the builders were told to concentrate their fire on other key men, like Rep. Wilbur Mills (D., Ark.) and his tax writing ways & means committee.

And even if the two plans are defeated this year, Tax Counsel Leonard Silverstein warned they are "a measure of what the Administration has in mind and can recur."

One from many. The Kennedy tax proposal which alarms builders most would end the \$25,000 exemption from the 52% corporate gains surtax for corporations under 80% control by five or fewer persons (NEWS, Mar.). Present law classes separate corporations as brother-sister companies if they perform identifiable separate business functions, and each receives a \$25,000 exemption. "Under the proposal you would get only one surtax exemption no matter what function your separate companies performed. It would be totally immaterial what the companies did," warned Silverstein.

NAHB's survey of its 436-member Builders Economic Council shows 27% use from three to five corporations—and 13% operate under more than five corporate names, hence would be caught under the proposed rule. Predicts Silverstein: "It simply would add a measurable amount of tax paid by the building field—it would have a devastating impact." Asserts Felix: "It will be a tremendous destroyer of your stockpile of capital."

President W. Evans Buchanan of NAHB says the real problem builders face is convincing Congress the multi-corporate setup is uniquely suited to homebuilding. "You must show you need the multiple corporations because you are building in different locations with different partners. They [Congressmen] don't know the building business."

Depreciation shelter. To some economists the 1954 tax change which let building owners use accelerated or double-declining-balance depreciation has been the real cause of the apartment boom. Others, including the Securities & Exchange Commission, contend it also brought price inflation of buildings which led to the collapse of syndications (NEWS, Feb.).

Builders admit there have been abuses, as does the National Association of Real Estate Boards. But they say the Administration's proposed "cure may have economic effects worse than the disease." The cure:



NAHB'S RESEARCH HOUSE must be loved by Mrs. America if it is to be successful, said H&H administrator Robert Weaver (at microphone) in unveiling the house for directors. NAHB says four of five visitors since then have done just that. Features: Hypalon-coated plywood roof, pre-fabricated Bermuda stone wall, combined subfloor and finished floor.

The Administration wants to end all accelerated depreciation; owners could use only the straight-line method. Capital gains tax on the amount of depreciation recovered in a resale within six years would end. After that, 1% of the amount recaptured would get capital gains rates for each month the property is held from six to 14½ years.

"This would be a tremendous deterrent to investment in real estate," argues Felix. "We do not want any legislation that will dry up the source of funds to real estate," adds Silverstein. "By locking in investors for 14½ years, the proposal would make real estate for all practical purposes completely nonliquid and an unrealistic investment," says NAHB.

A forthright stand? President Kennedy's Executive Order banning race bias in federally-aided housing provoked an undertone of comment and circumlocution. Sample: asked if his plans for low-income housing were for Negroes, one builder said: "That's a word we

don't use anymore." Consensus: the order has had little effect so far on FHA builders (a view shared by civil rights adherents, see p. 12).

California and Texas directors urged NAHB to adopt as its own policy a proposed constitutional amendment known as the 'property owners' Bill of Rights' which has passed the Nevada legislature. Sample provisions: owners have the right to "occupy, administer, and dispose of property without legal interference" and pick "congenial tenants."

Former NAHB President Nels Severin, a Californian himself, and his resolutions committee opposed the idea as a poorly worded subterfuge to upset the Presidential anti-bias order. "If we want a policy statement in this area, why don't we have a more forthright statement?" asked Severin. Moreover, he contended, the measure was so loosely drawn it might operate to nullify zoning laws.

Protested Builder Robert Olds of Los Angeles. "This is not a matter of giving rights to 20% of the citizens, but to all citizens."

In the end, directors turned down the resolution by a wide margin. But President Buchanan served notice NAHB will not forget the anti-bias order. He named a special committee, chaired by Builder E. W. (Ted) Pratt of Royal Oaks, Mich., to investigate cases involving builders under the order, study the order's continuing effects, and advise NAHB on what its policy should be.

Industry togetherness. Buchanan revealed he was convening leaders of 22 trade associations in the housing industry in an effort to get more cooperation among all elements of housing. A week later the trade groups slipped into Washington and met privately at the National Housing Center.

Buchanan also is getting a selected 36 manufacturers together for a three-day 'Operation Muddy Shoes' tour of building operations to find out what builders' problems really are.

Builders angered by anti-carpet bill

Rep. Wilbur Mills (D., Ark.) has asked Congress to prohibit FHA from including carpet as part of a package mortgage.

Alabama units of the Retail Furniture Manufacturers' Assn. and Hardwood Flooring Assn. are pushing the issue.

Builders at NAHB's spring directors meeting viewed this countermove as a step backward in the long fight to get carpeting accepted under FHA-insured mortgages. In the mid-50s, builders (and HOUSE & HOME) began pressing FHA to include carpets as well as other built-in items buyers want with houses (e.g. ranges, refrigerators, room conditioners) on its list of eligible mortgage items.

The Senate banking committee in 1958 asked FHA to consult it before making any changes in items eligible under package-mortgages. FHA Commissioner Norman Mason left the list unchanged. Commissioner Julian Zimmerman was on verge of approving carpets, but left office before taking action.

Commissioner Neal Hardy felt apartments could be considered separately from one-family homes, and approved carpets for living

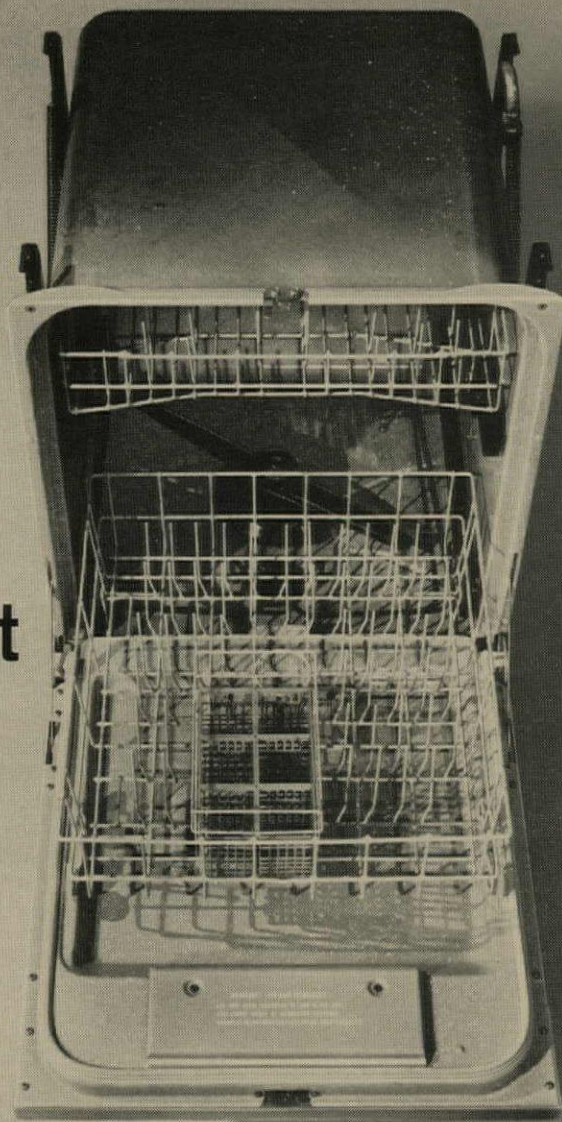
areas of apartments. (NEWS, Oct. '61). Public areas of apartments have been eligible for years.

Builders from Texas, where carpeting is sold built-in to many one-family homes, say buying practices there dispel some retailer objections. For one thing, retailers have in the past feared they would be bypassed. But Decorator Margaret Gale of T. J. Bettes Co., the mortgage banking giant, says Bettes will not buy direct, and neither do most builders.

Builders contend that selling carpeting with new homes sets up replacement markets in seven to ten years which retailers get. Builders get no FHA credit in house valuations for carpets in one-family homes, so some put in the cheapest carpet they can buy. "It seems to me this may give a black eye to both builders and carpet manufacturers and dealers," says one builder.

NAHB also notes that carpets-on-the-mortgage are legal in eight of every ten states covered in a recent survey. Most lenders favor including carpeting in loans on new property, the survey reports.

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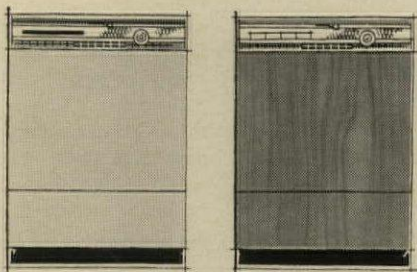


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AIA CONVENTION

Architects ponder how to recapture a grip on design

Meeting at Miami Beach (where there is precious little quality in architecture), some 800 members of the American Institute of Architects took a sad (and sometimes angry) look at the quality of today's architecture, took the blame, and took a few steps to try to do something about it.

"At a time in America of enormous wealth of money and extraordinary technological invention," cried Architect Robert Anshen of San Francisco, designer of many award-winning merchant-built homes, "what proliferates along the avenues of our great cities but symbols of the architect's abdication of his responsibilities: the glass box, the dreary imitative towers, the forbidding prisons of public housing. And all across this once beautiful land, the scourge of suburbia—the mindless, faceless malignancy of the tract."

A star-studded panel on the convention theme, "the quest for quality in architecture," hammered on the point that design quality is the architect's responsibility and bad design represents his failure to sell himself and his wares to entrepreneurs, builders, lenders, and the public. Said George McCue, art and architecture critic of the St. Louis *Post-Dispatch*: "It is the architect—who else?—who determines quality in the man-made environment. An architect who regards such values as esthetics, amenity, and humanity as paper-

hanging to be applied after the walls are up should relinquish his claim to being an architect and identify himself as an expediter."

The problem and the challenge. "Architects must go beyond technical ability to perform as requested to doing their part in moving society toward the goal of quality for all," said Anshen. Ada Louise Huxtable, critic and editor for architecture of the *New York Times*, argued that: "Economies and technology—the 20th century challenges that were to be the saviors of the new architecture have sabotaged it into standardized mediocrity . . . And [cost problems] have not yet been compensated for by technology." But she argued that many forces—newspapers and magazines, television, the "American cultural boom"—offer a public that is ready to listen to the architect and aware that desirable standards exist. "But," she warned, "it is also a gullible public. It accepts charlatans and pitchmen as easily as geniuses. It offers one guarantee only: the existence of a receptive audience. The rest is up to you."

After the panel discussion, AIA's new president, J. Roy Carroll Jr., 59, partner of Carroll, Grisdale & Van Alen of Philadelphia, summed up: "If the face of America is going to be improved, it is not a job for a few precious architects, but everyone of the 15,288



AIA'S CARROLL

"... each architect must take responsibility . . ."

members of AIA. Each must take a responsibility in his own town." Carroll succeeded Henry L. Wright of Los Angeles.

Expanded services. In its business sessions AIA tooled up to strengthen itself for the struggle thus defined. Delegates voted 1) a higher ceiling on supplementary dues to support the program, 2) addition of two vice presidents to handle the added load, and 3) mortgaging of part of the AIA's Washington property to finance a \$2 million headquarters building. Upcoming: a national competition for design of the new building.

ASPO CONVENTION

Planners rap zoning one-upmanship and archaic taxes

Gathered in Seattle for their 29th annual convention, the 1,000 professional planners and non-professional commission members in the American Society of Planning Officials put aside their rose-colored glasses to listen to some acid comments on the tainted way communities are using zoning and planning and outdated property tax systems.

Leading the burst of iconoclasm was Associate Professor William A. Doebele Jr. of Harvard. Said Doebele:

"Under the balkan conditions of suburbia, zoning and subdivision control are now viewed as key weapons in complicated struggles for local prestige and position. In the hands of undersized political units, zoning is perverted to a device for rational land-use allocation to a play in an elaborate game of municipal one-upmanship."

Land-use controls based on police powers are not appropriate to deal with cities' problems today, he maintained, because the original characteristics of cities have gone the way of the buggy whip.

The outdated theories: 1) the city would be a single political unit growing by annexation, 2) the city would absorb all immigrants easily, 3) the city needed little help from state or national governments, and 4) cities are distinct and separate units.

Today's fragmentation of local government, "racial metamorphosis in central cities—frequently swamping social assimilation institutions," greater state and federal involvement,

H&H staff



ASPO'S CRAIG

Banish planning commissions?

and the growth of megalopolis have made traditional land-use controls irrelevant.

The tax that binds. "The greatest villain, is not fractionalization, but an archaic taxation system that inevitably leads to irrational use of land," contended Doebele. "For unclear reasons, we regard real property taxation as immutable, but it is really only a crude form of income tax."

His thoughts reflect the mounting interest of planners in the tax system. A year ago ASPO members took their first-ever look at the growing push for reform of property taxes by placing taxes on land alone (NEWS, June '62). Last month a New Zealand surgeon, Dr. Roland O'Regan began stumping the nation on behalf of the land-value tax system widely

used in his homeland (NEWS, May). One result: a committee of the California Assembly, listened to Dr. O'Regan and, for the first time, approved for a floor vote a proposed constitutional amendment letting municipalities adopt land value taxes.

Besides tax reform, Doebele offered these other remedies for better control of metropolitan growth: 1) abandon metropolitan government attempts because the economic, political, and human facts of life are stacked against them, 2) move toward a common market in allocating metropolitan land use so residential and commercial users can locate within metropolitan areas regardless of city boundaries, and 3) redefine the rights and powers of local, state, and federal governments into a new type of three-tiered federalism.

Politicos, not planners. City Solicitor David W. Craig of Pittsburgh, elected ASPO president for the coming year, offered a different solution for the same problems.

His proposal: abolish separately-appointed planning boards as official institutions and transfer their policy work to the local elected governing body. Craig says only those communities whose public and political leaders have fully accepted planning are ready for this drastic change.

But he argues that political bodies, once they have become knowledgeable about planning, can accomplish what planning commissions working "above the battle" cannot.

NEWS continued on p. 29

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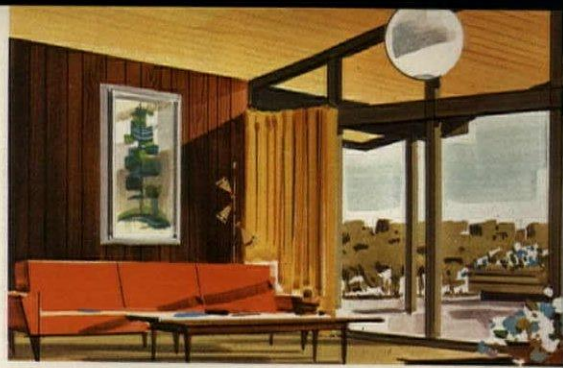
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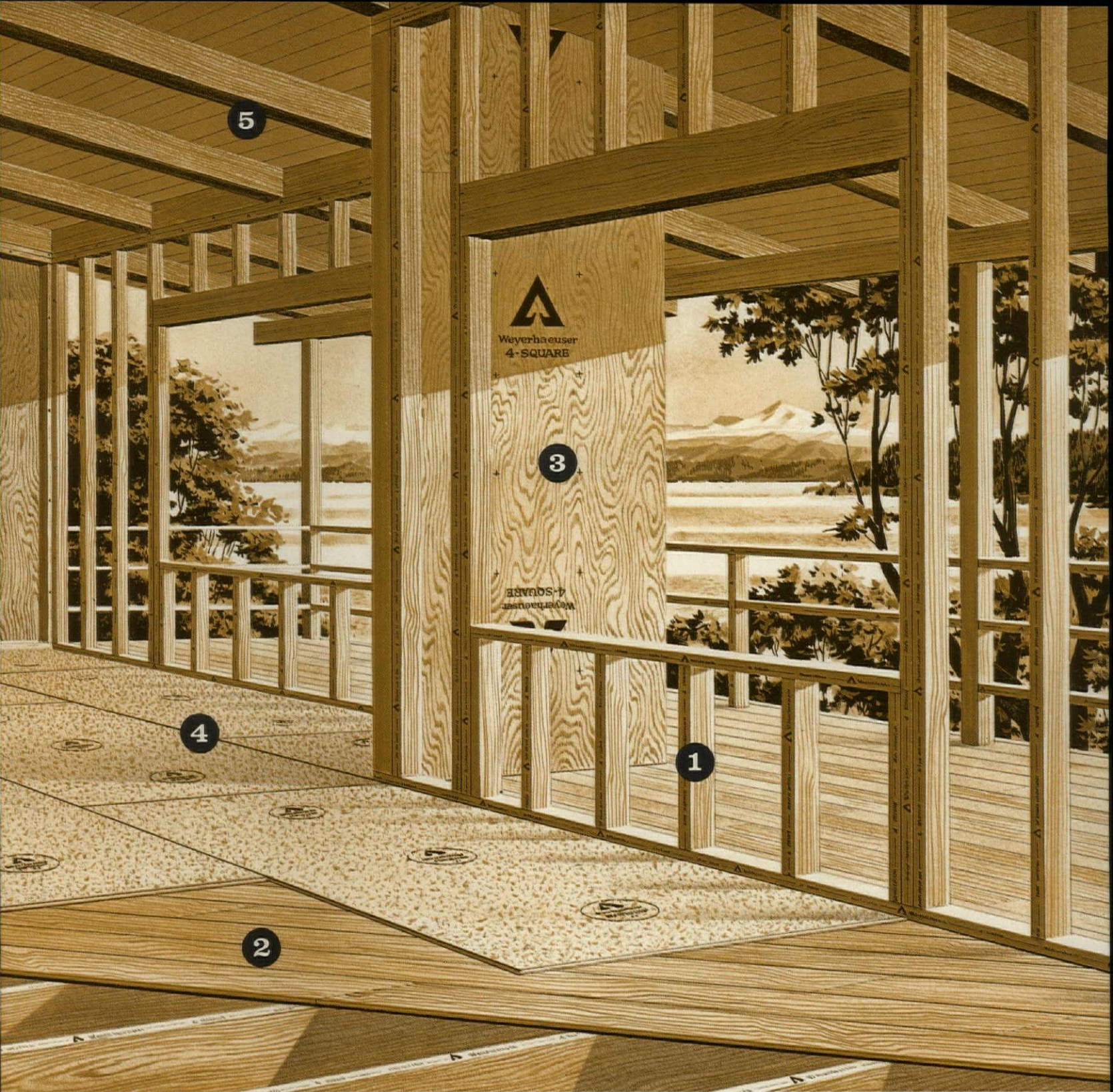
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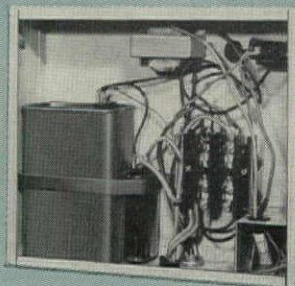


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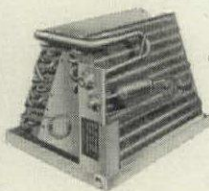
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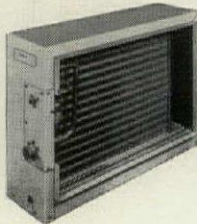
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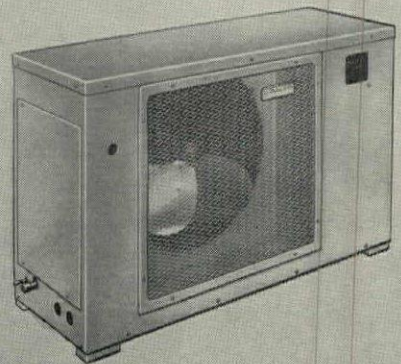
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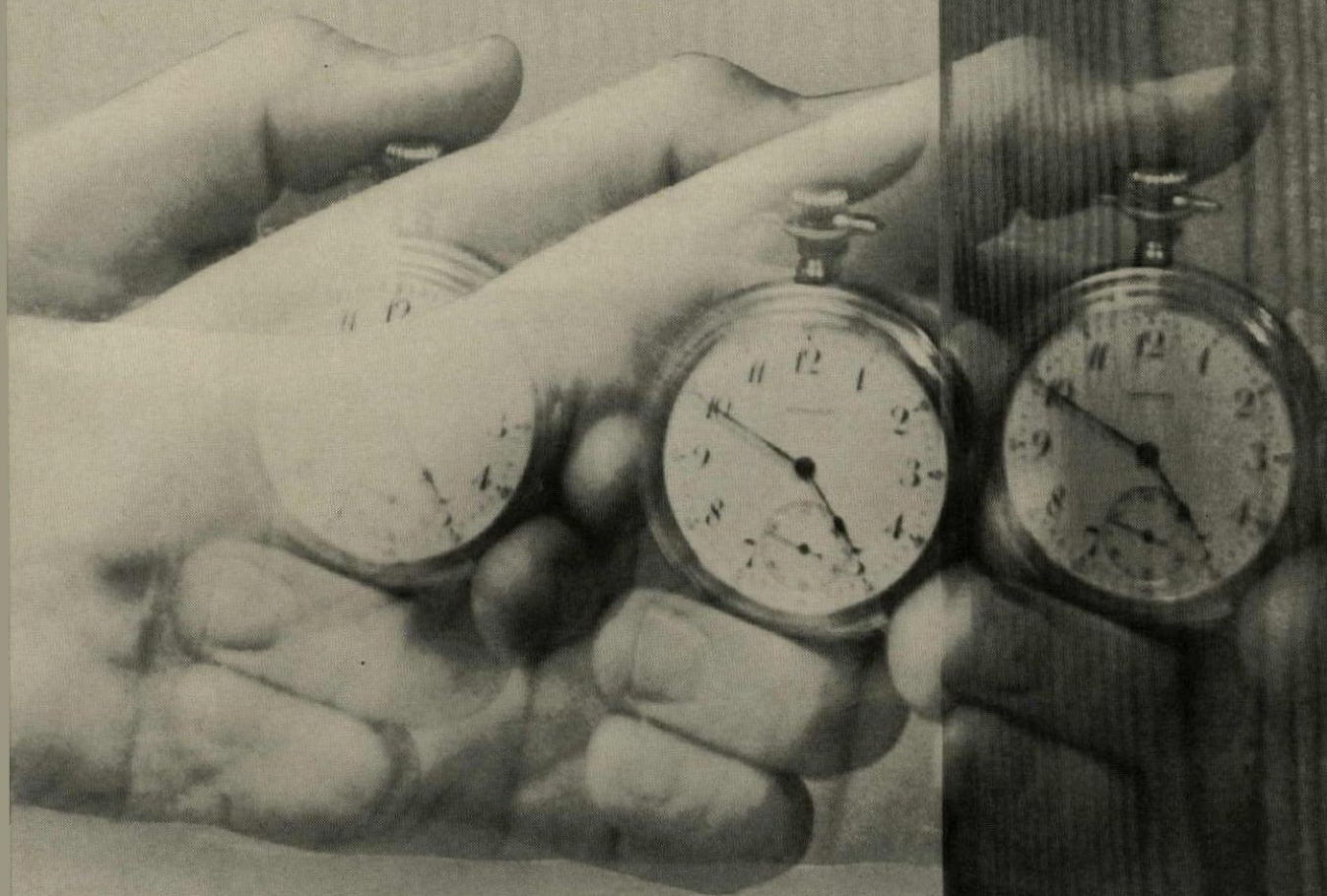
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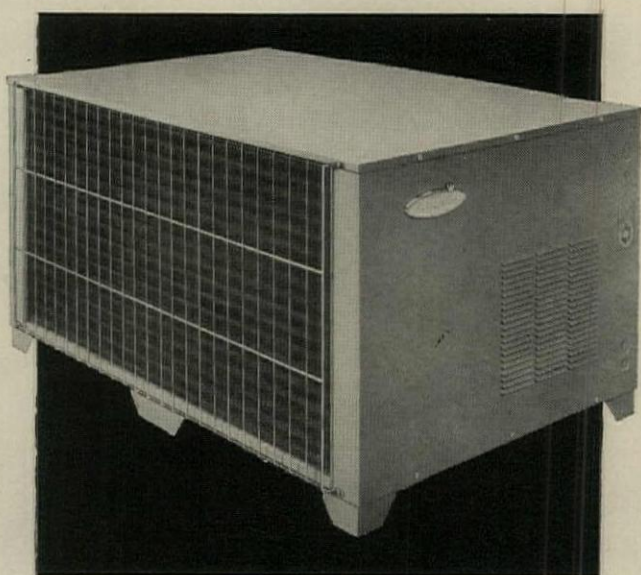
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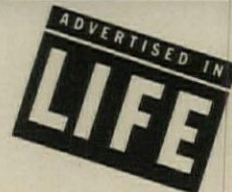
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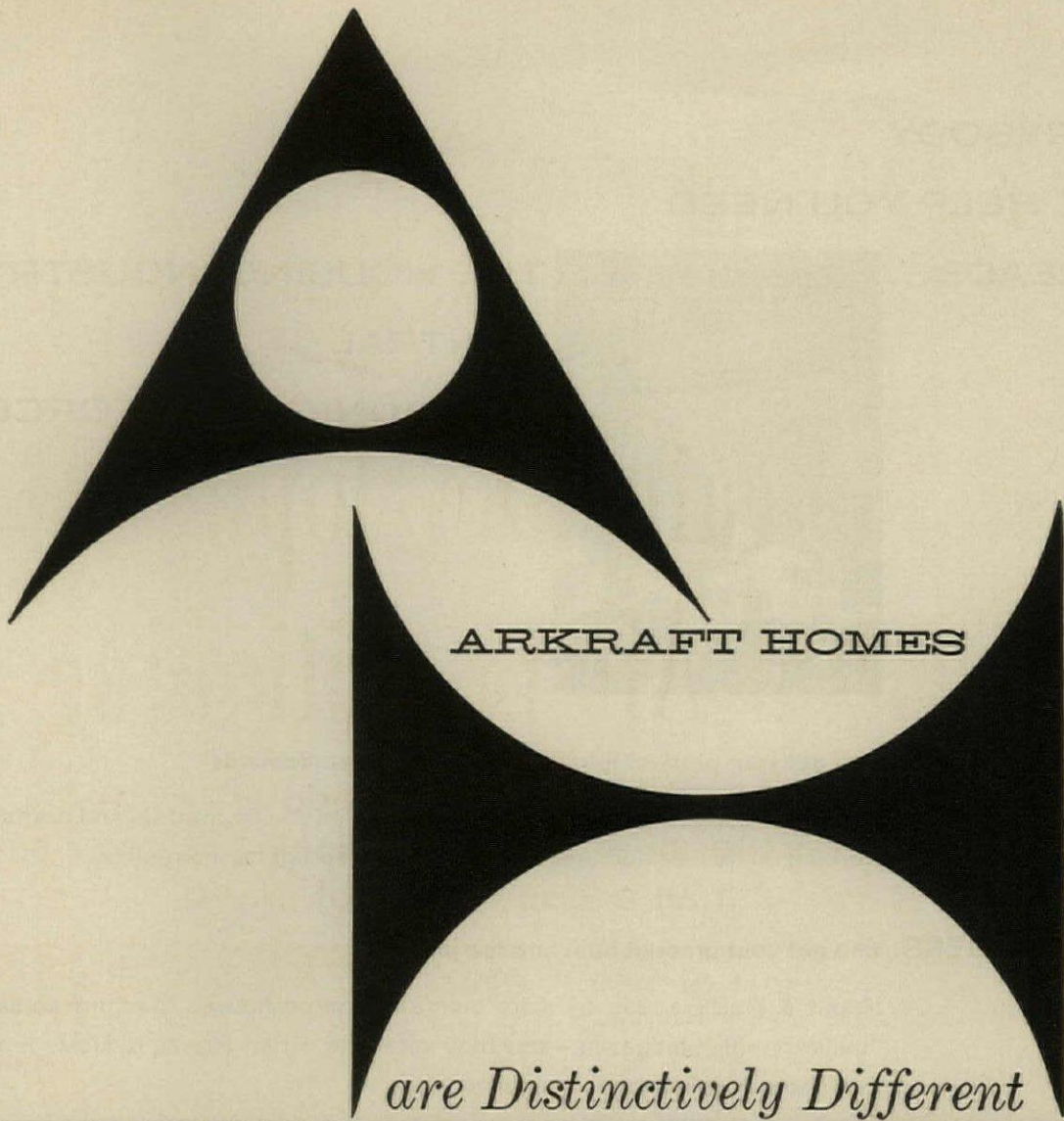
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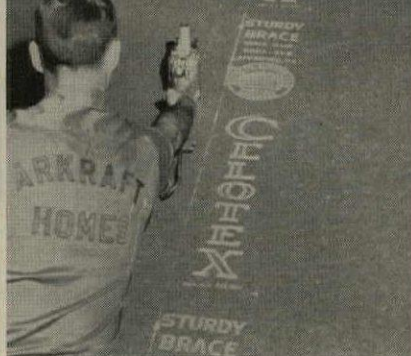
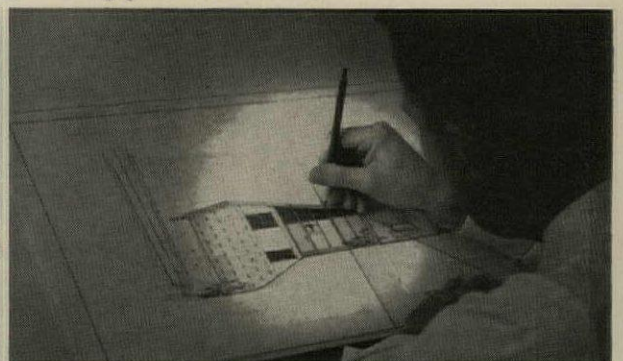
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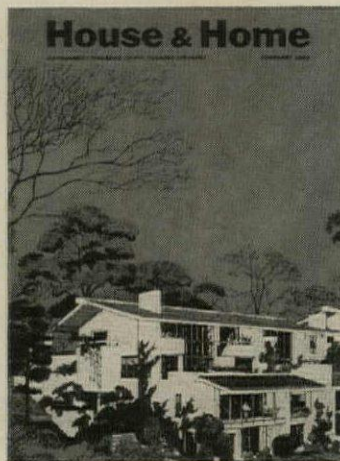


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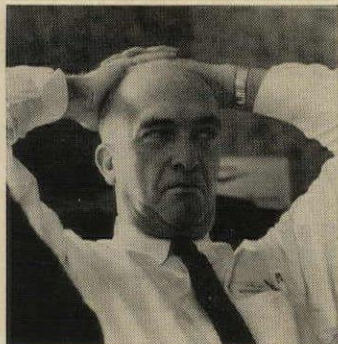
Kitchen heads new Action Inc. division to speed renewal

Action Inc. is setting up a new urban renewal division in Washington, with a separate staff and separate budget. It aims to fill a communications gap in renewal documented by Pittsburgh Attorney **Seymour Baskin** in an Action-backed study last year (NEWS, Oct.).

Initiator and temporary chairman of the new renewal effort is Redeveloper **Lewis E. Kitchen**, a seasoned renewalist who has built or is building renewal projects in St. Louis and Pittsburgh as well as his hometown, Kansas City. Action directors approved the new enterprise in Chicago at their annual meeting.

After a dozen years in renewal, Kitchen holds some practical

H&H staff



ACTION'S KITCHEN

Putting lessons learned to work

ideas on what makes renewal work—and often they don't conform to those held by renewal officials. Kitchen says no one should tackle renewal building unless the project includes a shopping center and a swimming pool in the former slum, "the things that make people want to live there." His reason: a sobering experience with a gleaming high-rise next to a belt of slums in Kansas City (NEWS, July '62).

Kitchen's No. 1 priority for Action's new division is an effort to get FHA and URA to simplify and co-ordinate their land-resale rules. With two agencies involved, Action says private redevelopers (and local renewal agencies) "need a reliable, up-to-the-minute source on how things can be done without interminable and costly delays." One side effect of the communications lag between the two agencies: Local agencies have trouble following the most successful land resale techniques, bringing "high costs, inequities, and delays in obtaining FHA mortgage insurance."

Kitchen's organizing drive, aimed initially at raising \$40,000, is being helped by some other renewal wheelhorses: Action

Chairman and Mortgage Banker **Ferd Kramer** of Chicago; Action President and Redeveloper **Albert M. Cole** of Reynolds Aluminum Service Corp., and former Action Chairman and Mortgage Banker **James Rouse** of Baltimore.

Action directors heard reports the organization is on firm financial ground (\$145,000 income, \$135,000 expenses for ten months through April). They returned Kramer and Cole to their posts for another year and added 31 newcomers to the board including President **W. Evans Buchanan** of NAHB.

ASSOCIATIONS: The National Association of Home Builders has filled two key posts vacant for nearly a year. **Lon B. Rubin**, 29, has become mortgage finance director in place of **David Clark**, who left to become vice president for United Mortgagee Servicing Co. Rubin, a certified public accountant and lawyer, was controller for Kahn Development Corp. in Bethesda, Md.

New multi-family housing director is **John Gallagher**, 36, former chief counsel for FHA's multi-family housing section. Gallagher steps into the post left when **James Neville** became an FHA zone director. Before joining FHA, Gallagher was attorney for the Washington Redevelopment Land Authority.

Directors of the Home Manufacturers Assn. have reversed a previous stand and agreed to let Executive Vice President **Alfred Reidelbach Jr.** continue publishing its quarterly house organ, *Manufactured Homes*, as a public relations activity.

Last of GOP holdovers leaves HHFA post

Assistant Administrator **Dan R. Hamady**, who has headed HHFA's international housing program since 1955, has been eased out. A native of Lebanon, Hamady pushed housing overseas with his knowledge of language (he spoke French and Lebanese) and free use of his own money (his family runs a Michigan food chain).

His replacement: Georgia-born **James A. Moore**, 43, Katonah, N. Y. A law school graduate at the University of Georgia, Moore has negotiated oil leases in Sumatra, Indonesia, Iran, Turkey, and France for both American Overseas Petroleum, Ltd. and Cal-Tex Oil Co.

Moulin Studios



U.C.'S WURSTER

Embalm nothing but the best

Dean Wurster retires to a full time job

William Wilson Wurster, dean of the College of Environmental Design at University of California and former dean of architecture at both U.C. and MIT, will leave his academic post June 30. "I'm 67 years old," chuckles Wurster, "and they retire people here at 67."

This scarcely portends enforced idleness for Wurster, a top contemporary architect (Wurster, Bernardi & Emmons) and internationally recognized as a key figure in the development of a bright new U.S. approach to residential design—the straightforward, relaxed Bay area school. Says Wurster of his future plans: "I have a very active business in San Francisco, and I intend to devote full time to it." Almost certain to succeed him: **Martin Meyerson**, now director of Harvard and MIT's Joint Center for Urban Studies.

Born in Stockton, Calif., Wurster's early interest in construction was nurtured by family-conducted walks to watch the city a-building. After graduating from the University of California in 1918, he shipped to sea in the engine room of a freighter. He got a license to practice architecture in California in 1922, opened his own office in 1926.

He started Wurster & Bernardi in 1944, adding partner **Donn Emmons** in 1946. Wurster and his team have won more than their share of awards for crisp, bold but always unaffected approaches to design problems ranging from urban renewal and office buildings to academic structures and hundreds of homes which helped to change the face of the Bay area. Recent Wurster projects include a U.S. consulate in Hong Kong, the embassy in London and a stint as professional advisor in the competition for a California governor's mansion in 1961 (awarded to Campbell & Wong).

Appointed architecture dean at U.C. in 1950, he was named in 1959 dean of a new College of

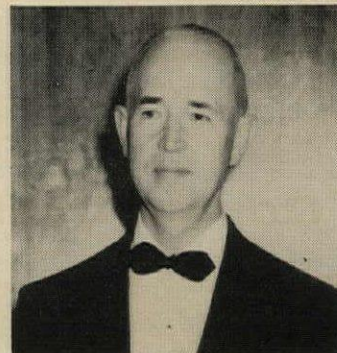
Environmental Design which he helped establish. It combined architecture, city and regional planning, and landscape architecture under one roof. Tall and soft-spoken, Wurster (whose wife of 23 years, **Catherine Bauer Wurster**, is a noted planner) is outspoken on problems of architecture and urban planning. Samples: on the controversial Embarcadero Freeway in San Francisco, "a visual calamity"; on architecture as a profession, "You cannot render a service by putting chocolate sauce all over the country."

But perhaps most revealing is the philosophy he takes with him as he leaves U.C.: "Building is a serious thing. You embalm the looks of a building for decades when you construct it—and it is dreadful to embalm anything but the very best."

Producers' Council gets new president

The Producers' Council will continue—even step up—recent efforts to strengthen its ties with homebuilders (NEWS, Nov.) under a new president, second in the post in eight months. Named to the job, an old hand in building materials marketing: **A. M. (Brig) Young**, 57, manager of marketing for Libbey-Owens-Ford Glass Co., Toledo. Young replaces **Don A. Proudfoot**, who relinquished the job he had held only since September 1962 after

Gerald B. Boyle



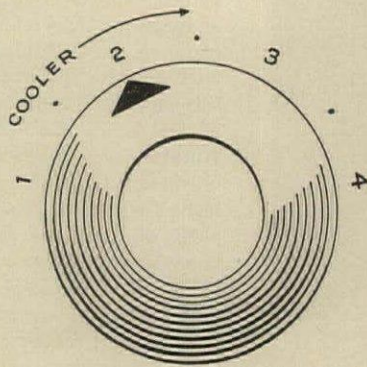
PRODUCERS' YOUNG

More help for builders

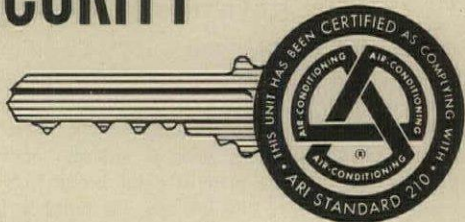
he left abruptly as general marketing manager of Barrett Div. of Allied Chemical Corp.

Born in Junction City, Kan., Young got into the sales field via an electrical engineering degree from Kansas State.

An eight-year veteran of Producers' Council work, Young has co-chaired the NAHB-PC joint committee. He also served on the National Housing Center advisory board and won NAHB distinguished service awards in both 1959 and 1960. He sums up: "From all this, I think I have a good idea of what builders need."



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HLBB'S CREIGHTON
After a long roasting, rest



CALIFORNIA'S SCOTT
After two years with S&Ls, promotion

Long-criticized HLBB aides quit

Ever since the Home Loan Bank Board seized the Long Beach Federal s&L in April, 1960, the board and its staff have been fending off sharp criticism from Congressmen led by Rep. **John E. Moss** (D., Calif.) over whether the board is highhanded in its dealings with s&Ls.

Moss accused the board of failing to set up guidelines for what constituted unsafe and unsound operation by s&Ls—a void only recently remedied (NEWS, Feb.). Moss, a former real estate man from Sacramento, contends the board has for years leaned too much on its staff, and let the staff deal on a personal basis with s&Ls instead of following written policies.

Moss has leveled some of his sharpest comments about staff activity at white-thatched **Thomas H. Creighton Jr.**, 62-year-old general counsel, and Supervision Director **John M. Wyman**. In a series of hearings Moss' subcommittee charged:

- Creighton failed to caution Wyman's supervisors they could not legally demand resignation of s&L directors. Supervisors continued to pressure for resignation in several cases: in one case **George W. West Sr.**, former president of the U.S. s&L League, quit as board chairman of First Federal s&L in Atlanta.
- Creighton did not have an overall compilation of board policies to advise members.
- Wyman's "informal methods of regulation, largely unrecorded and lacking procedural uniformity, place a vast machine of personal power in the hands of the director."

Both stoutly defended their actions, and at one point said their office was so busy with the investigations that they had little time for an overall review of board regulations.

Despite the criticisms, Board Chairman **Joseph McMurray** stood behind Creighton, whom he regards as an able attorney

with wide governmental experience. A native of Fairfield, Ill., Creighton first came to Washington in 1923 to work for the Office of Alien Property, leaving in 1927. In 1942 he returned, staying until he joined HLBB as chief counsel in 1956.

Now, with the new definitions of unsafe and unsound practices completed and Rep. Moss himself giving attention to other matters, Wyman has been shuffled off as director of a newly-created division of regulations aimed at helping the Board keep its rules "more fully and consistently conformed to the needs of s&L." His duties go to **Nathaniel LeMaster Armistead**, former vice-president of the Richmond Federal Reserve Bank, who gets a new title: director of examinations and supervision.

Creighton, too, will step aside to become Board consultant.

In Creighton's place comes **Kenneth E. (for Eugene) Scott**, 34, a stranger to s&L operations until he became deputy two years ago to California's embattled s&L Commissioner, **Preston L. Silbaugh**.

Some California s&L men see in Scott a possible foe, since he is identified with Silbaugh's views against expansion of holding companies. And he headed Silbaugh's office in Los Angeles, holding company heartland.

But s&L men also know Scott as a coldly analytical attorney—"extremely able with an excellent mind," says one. He won kudos from Silbaugh for streamlining hearing methods and codifying a jumble of s&L regulations.

DIED: Maurice K.M. (Mike) Murphy, 61, president of the Federal Home Loan Bank of New York and long-time s&L leader, Apr. 25 of a heart attack.

Murphy, president of the New York bank since 1954, was a past president of the United States s&L League (1949-50). Known affectionately as Mr. Savings &

Loan, he was noted for his staunch insistence on sound S&L practices. As president of the bank, he pioneered setting up new S&Ls in Puerto Rico, a key reason for growth of the island's homebuilding industry.

He was a director of Action Inc., national organization for good cities. He participated in two H&H roundtables, including the 1953 session which developed a proposal for President Eisenhower's housing program. Many of the ideas were embodied in the 1954 Housing Act.

DIED: **Clay Brown**, 61, Portland (Ore.) lumber wholesaler and one-time president of M&M Woodworking Co., former executive vice president of U.S. Plywood, Mar. 9 in Portland; **A. Stanwood Murphy**, 71, chairman of Pacific Lumber Co. and red-wood lumber dealer, Apr. 9 in San Francisco; **Luis Levin**, 64, secretary of Garden State Construction Co. of Irvington, Builders of apartment developments and homes, Apr. 16, in South Orange, N. J.; **George Strehan**,

78, architect and civil engineer who correlated the Building Officials Conference of America code and helped draft codes for New York City, New Jersey, and the National Board of Fire Underwriters, on Apr. 21, in Manassan, N. J.; **William Herbert Eaton**, 81, retired owner and publisher of *American Home* magazine, Apr. 21 in New York City; **Henry Dubin**, 70, architect, whose plans for one of the first steel-frame one-family homes won him a 1931 *House Beautiful* award, Apr. 22 in Chicago; **William C. Brooks**, 59, nationally known zoning expert, Apr. 21 in Baltimore; **Otis Scott Mansell**, 67, retired president (1948-57) and chairman (1957-60) of Celotex Corp., May 2, Hinsdale, Ill.; **Samuel R. Bishop**, 91, retired architect, who, as chairman of AIA's health and safety committee, helped draft a standard safety code for building, May 3 in Greenfield, N. Y.; **Thomas C. Grady**, 49, former president of Webb & Knapp's subsidiary, W&K Construction, May 3, Miami Beach.

CANADA

Command change for builders

The second executive meeting of 1963 directors of the National House Builders' Assn. (50 chapters and over 3,000 members) was about to break up in Toronto last month when John Caulfield Smith, 48, executive vice president for the past ten years, suddenly asked President C. J. McConnell to accept his resignation. He gave no reason for his move, which took most builders by surprise.

Smith took over the association in 1952 when it was a loosely-knit, squabbling organization of 1,500 members in 13 chapters and spearheaded the job of turning it into a cohesive voice of housing, doubling its membership.

In 1956, he was instrumental in setting up two of the association's most influential committees: research and liaison. The research committee has since completed four research houses using revolutionary building techniques and has won numerous changes in the building standards established by Central Mortgage & Housing Corp. under the NHA.

When the boom faltered in 1959, Smith began a speech-making tour boosting housing across the country. He aimed at telling the public what builders could do for them if some of the ground rules were changed (e.g. lower down payments and NHA loans

Dominion-Wide Photographs



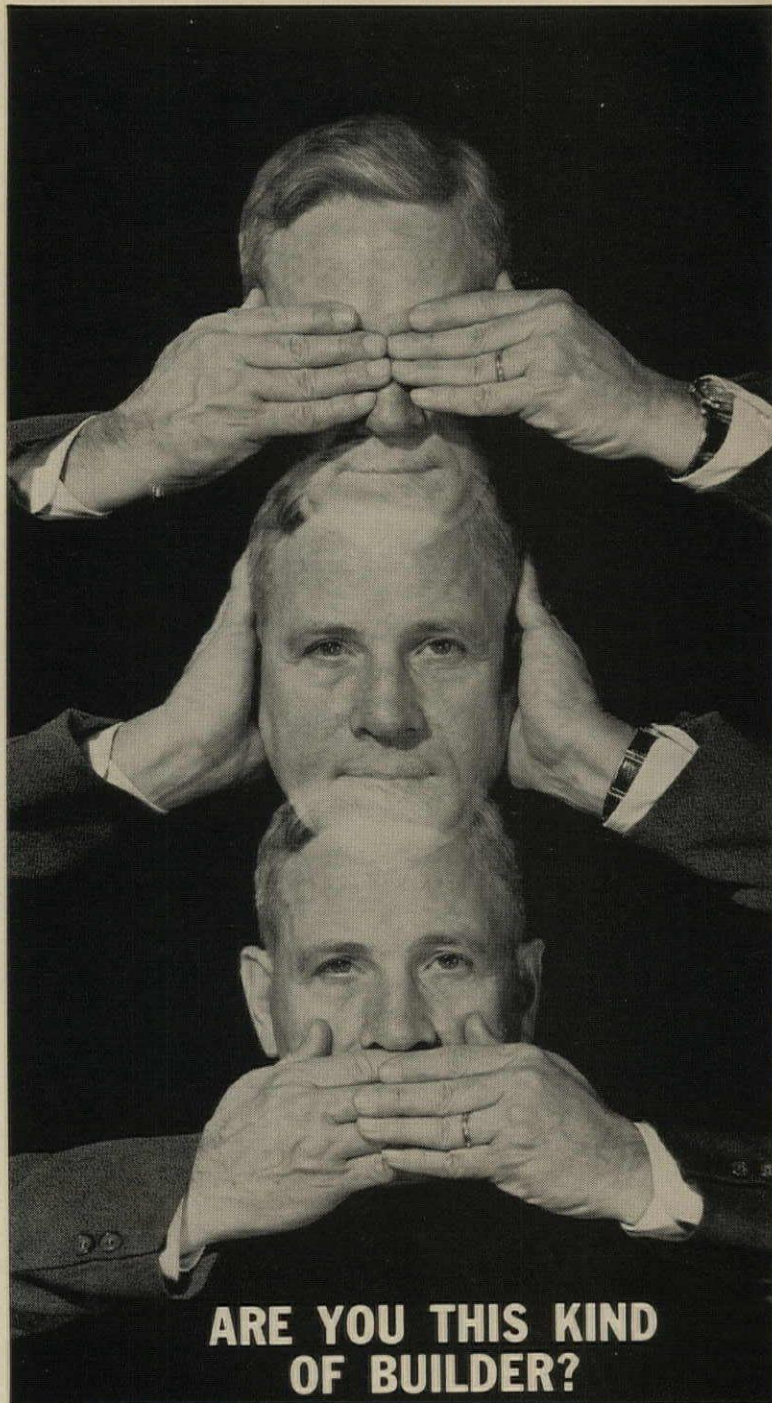
NHBA'S SMITH
Sudden exit for a pro

on existing housing).

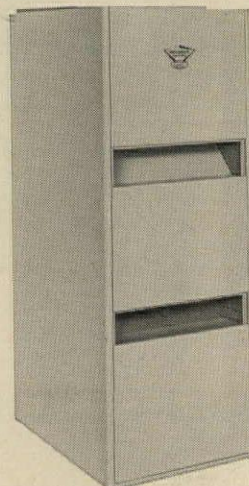
Quiet and conservative, Smith is a graduate architect who found writing and public relations more to his liking after the war. In 1946, he became architectural editor for Canada's largest publishing housing, MacLean-Hunter. In 1950, he opened his own public relations and editorial consulting firm in Toronto, joining NHBA two years later.

His successor is Bernard Joseph Bernard, 41, who joined NHBA as Smith's assistant in 1960. Bernard concentrated on ironing out problems of local association chapters. Before joining NHBA, Bernard was with the Canadian Chamber of Commerce as Ontario representative, assistant Ontario manager, and Alberta manager.

NEWS continued on p. 37



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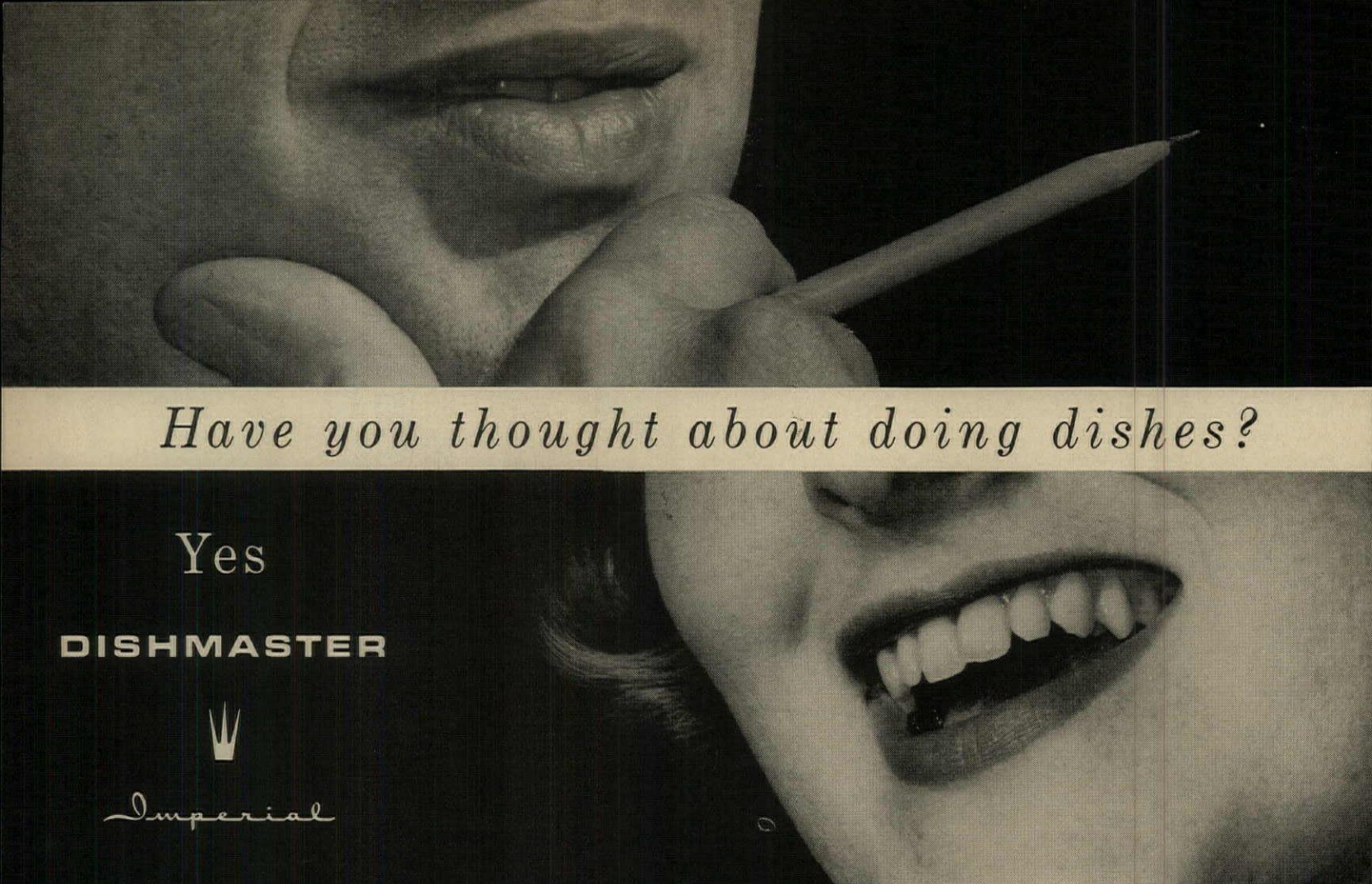
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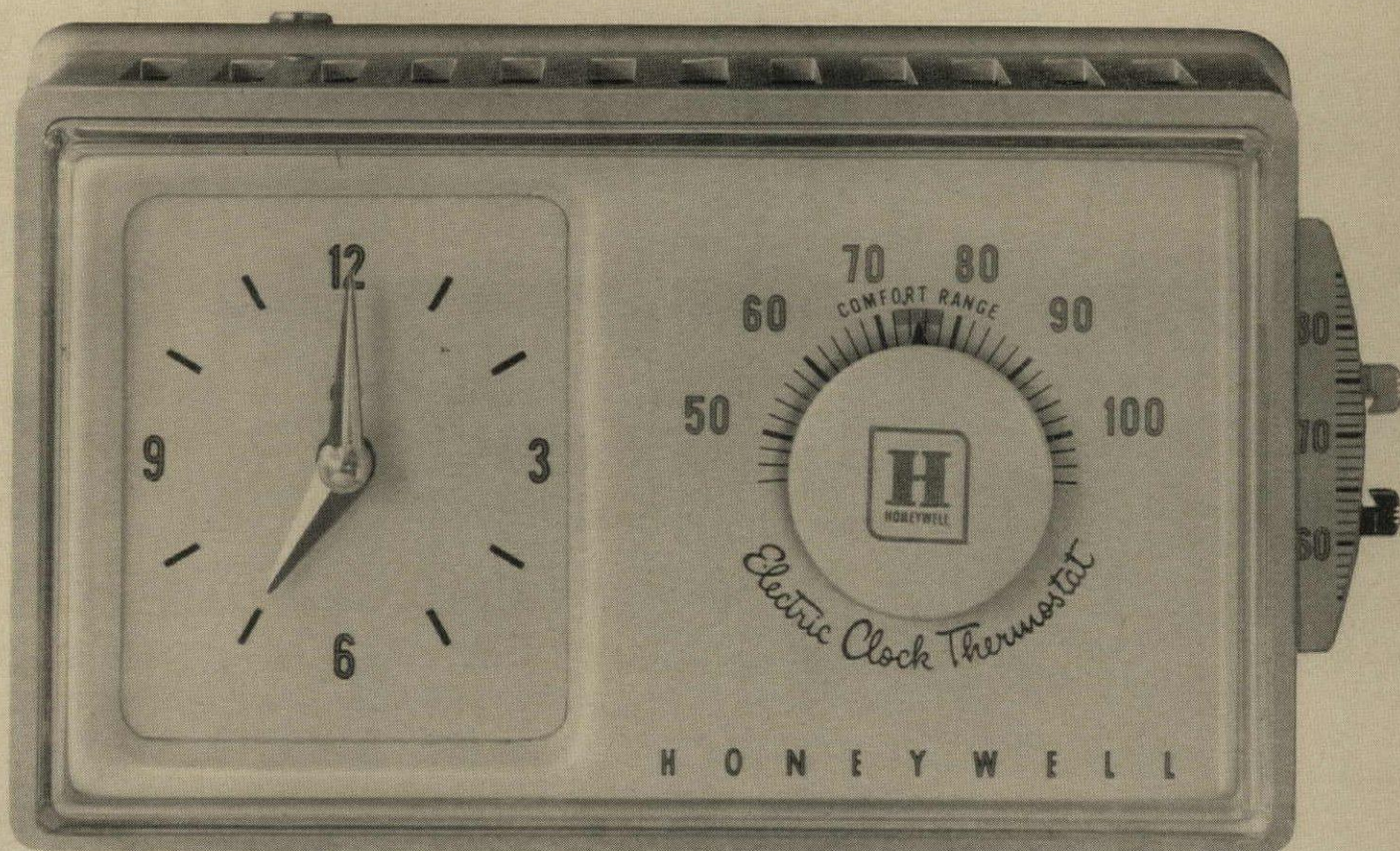
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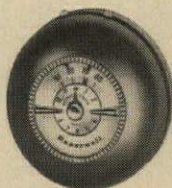
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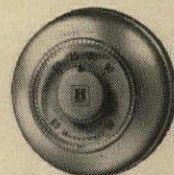
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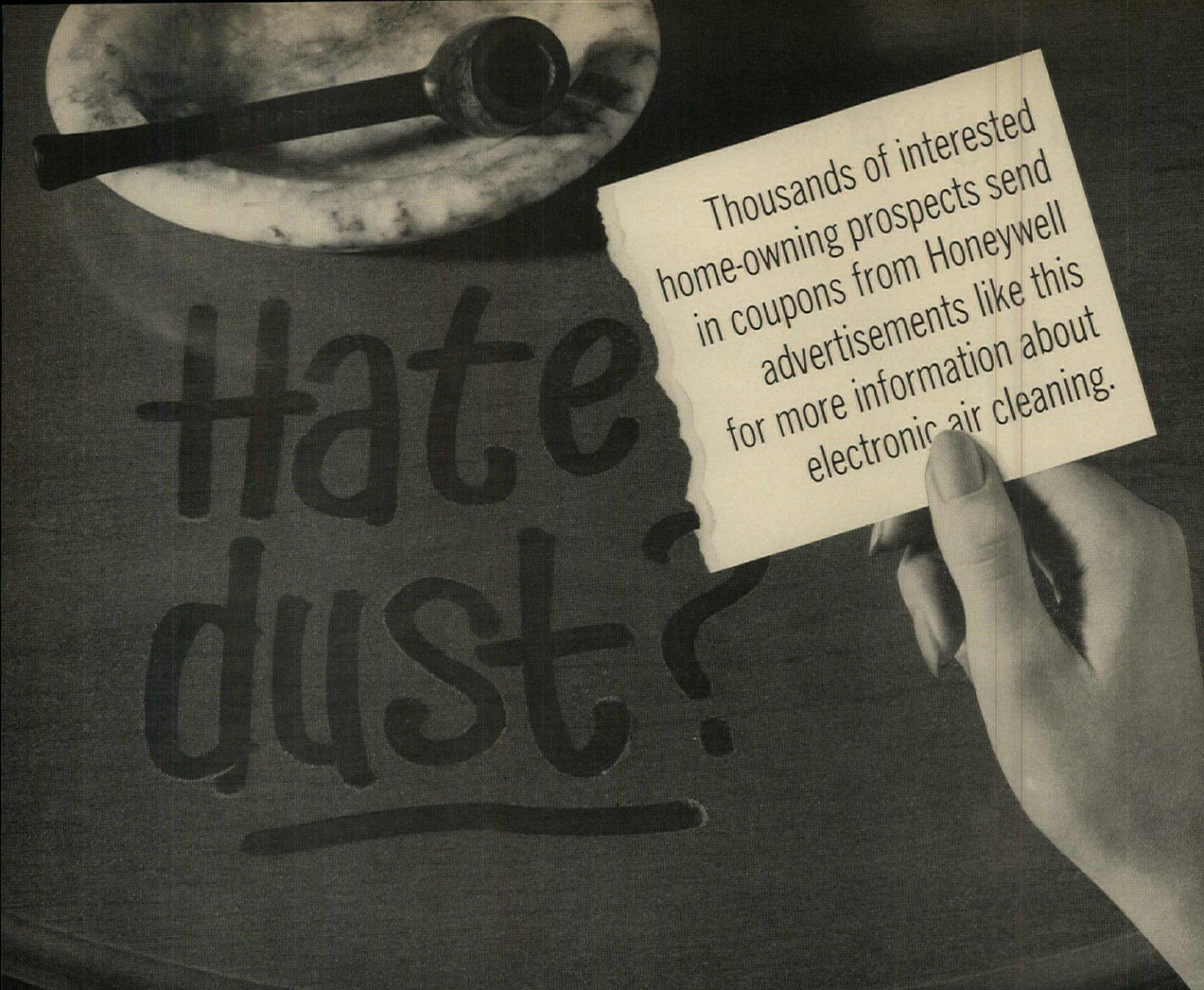
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Air cleaning has been proved practical for years in hospitals and other buildings where clean air is

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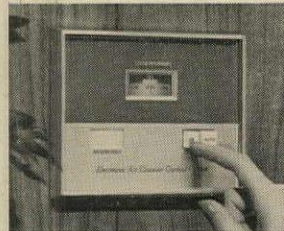
What a wonderful difference it makes! Air passing through the system will be freed of up to 99% of the pollen†—tobacco smoke and other particles will also be effectively removed. Mirrors and windows will stay sparkling—draperies fresh and clean—longer than before. You'll save on cleaning bills, too. You won't throw away the dust cloth, but you'll surely reduce dusting.

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†Electronic air cleaning is not a treatment. Be sure to consult your doctor. Ask him what it may do for you.



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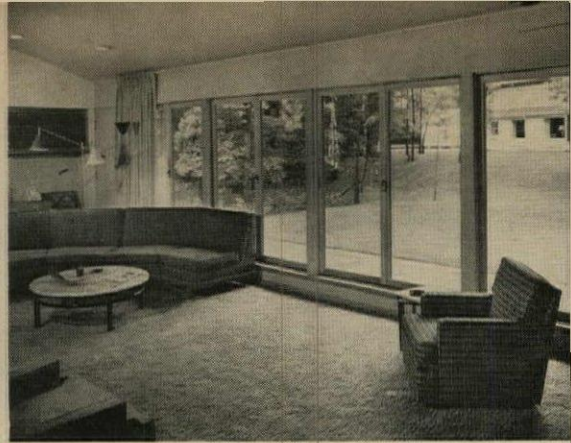


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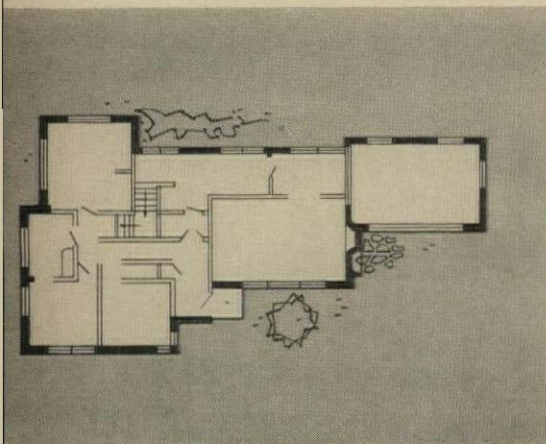
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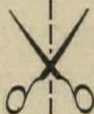
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MORTGAGE MONEY

Savings banks hint they may desert the FHA-VA market; discounts shrink

Discounts on FHA and VA loans have shriveled to the point where savings banks may soon switch the emphasis of their buying back to bonds.

This prophesy, aired at the Mortgage Bankers Assn.'s annual Eastern Mortgage Conference last month, raises the question of whether mortgage yields have now risen to their peak for this business cycle. The prediction came from Senior Vice President August Strung of Bowery Savings Bank of New York, the nation's largest (\$1.7 billion assets). The spread in yield between FHAs and VAs, at 5 to 5.06% after servicing, and long-term government bonds, at just over 4%, is now "extremely thin and would indicate this is not the time to be buying insured or guaranteed mortgages," he said.

Savings banks normally buy about 25% of new FHA and VA originations—and they are particularly big buyers of out-of-state loans. Strung predicts the slow-down in savings bank purchases may last three to six months. Many New York savings banks now have 75% of their assets in mortgages (vs. 69.5% at year end), Strung noted. In checking other savings banks, he found that they are likely to limit themselves to 80% of assets in mortgages. And balancing commitments against estimated net savings inflow shows the banks are close to this level.

Pension funds show signs of taking up some of the slack.

Their growing interest is exemplified by Paul L. Howell, who, as third deputy comptroller for New York City supervises the mortgage investments of New York City's pension funds (whose \$3.4 billion assets make it the biggest fund under one management except for federal civil service funds).

The New York fund, which represents 15% of all state and local retirement funds, set up a new mortgage investment department in 1962. In the past ten months it has bought \$113 million in mortgages—including \$20.6 million of FHA Sec. 207 loans, \$33.4 million of Sec. 213 co-ops, and \$5.4 million of Sec. 803 Capehart loans.

The fund wants to pour between \$12 and \$15 million monthly into mortgages, says Howell. It is interested in Sec. 220 urban renewal, Sec. 231 elderly housing, and Sec. 232 nursing home loans in addition to Secs. 207 and 213. The fund limits its purchases to multi-family loans.

Corporate pension funds, which invest heavily in common stocks, are "not a very good market," says Howell. But other state and municipal pension funds are swinging into mortgages. Some examples: California's State Employees' Retirement System (assets: \$1.6 billion) is "about ready to begin limited mortgage purchases;" Teachers Institute of New York has 55% of its \$1 billion assets in mortgages, and New York State Teachers' Funds bought \$80 million of mortgages last year; the New York Savings Bank Retirement fund holds 87% of its \$70 million assets in mortgages, yielding 4.99%.

Discounts are shrinking again and FNMA remains a prime source of loans.

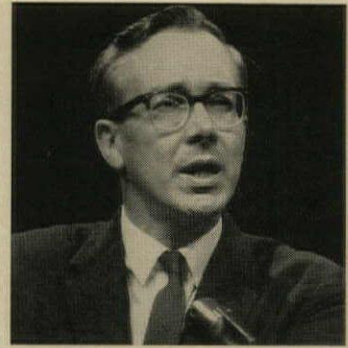
May marks the third straight month discounts on FHAs and VAs have decreased. Ten of the 18 cities in HOUSE & HOME's monthly survey report smaller discounts, in some instances by as much as 1-point. Mortgage men say the continued pile-up of savings means discounts will likely remain stable in the next three months.

And s&Ls in San Diego and San Francisco say they will cut their dividends to shareholders on July 1, following a scattering of s&Ls in Miami Beach, Cleveland, and Washington. All this means mortgage rates may turn around and head upward by year's end, forecasts Trustee and Secretary Jack R. Courshon of First Mortgage Investors of Miami.

With demand for mortgages outpacing supply now, the biggest source of loans continues to be Federal National Mortgage Assn. Mortgage sales from its secondary market portfolio hit \$165 million in April, and investors bought another \$100 million of special assistance loans. With such steady sales, Fanny May expects to sell a record \$1 billion in mortgages from all portfolios in the fiscal year ending June 30. Old high mark: \$575 million in 1954.

*Discounts on FHA Sec. 203b minimum down, 30-year immediate loans narrow in Atlanta from 97½-98½ to 98-98½; from 97-97½ in Honolulu to 97½; from 97½-98 to 98 in Miami. Discounts shrink up to a full point in other cities: from 97½-99 in Dallas to 98-99½; from 98½-98½ in Houston to 98-99; from 99 to 99-par in Newark; from 98-98½ in Oklahoma City to 98-99; from 99½ to par in Philadelphia; from 99 to 99½ in Washington; and from 98 to 98½-99½ in Los Angeles.

Walter Bennett



ECONOMIST HELLER
An all-or-nothing pill?

S&L men face a new worry: standby dividend controls

What started as a quiet, almost unopposed attempt to raise the ceiling on federal insurance of bank and s&L savings accounts from \$10,000 to \$25,000 is suddenly ballooning into a long-range problem for s&L men, the nation's No. 1 residential mortgage lenders.

On the eve of House banking committee hearings on the new ceiling, the White House unveiled a long-awaited report from Chairman Walter W. Heller of the White House Council of Economic Advisers and ten other top Presidential aides in effect spiking the idea unless 1) standby dividend controls are enacted on s&Ls, and 2) s&Ls are required to make cash deposits with regional Home Loan Banks.

President Kennedy promptly agreed with the Heller report and added: "I am requesting that draft legislation resolving these issues be prepared as soon as possible." Chairman Joseph McMurray of the Home Loan Bank Board, an original backer of the insurance coverage boost, quickly fell into line.

All-or-nothing. To s&L men, the rapid turn of events had the tone of an all-or-nothing choice which most observers predict will lead to a legislative stalemate this year. Indeed, McMurray noted that higher insurance ceilings would not go into effect until July 1964 anyway.

s&L men—who reacted violently in 1961 when McMurray informally suggested standby interest controls—now are taking the dividend-control threat in calmer fashion. They note that the Heller committee calls for flexibility in rate controls based on type of holder, maturity, location, or other characteristics, thereby partially answering objections to earlier proposals.

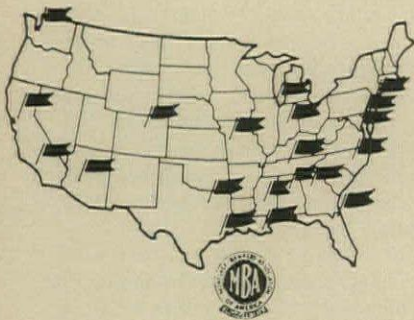
And the dividend lid comes at a time when informal official pressures are mounting to cut s&L dividends. McMurray and HLBB Member Joseph Williams praised s&Ls in Miami Beach, Washington, and Cleveland for slicing dividend rates. McMurray says he expects other s&Ls to follow in July, principally state-chartered s&Ls in San Diego and San Francisco. But it is still too early to tell if cutbacks from a prevailing 4.8% rate in California will become general.

Some Western s&L empires may try to buck the trend because they are vulnerable to rate cutbacks. One hint: First Western s&L of Las Vegas, subsidiary of First Western Financial Corp., is promoting in the East a 4.91% rate achieved by computing interest daily and compounding it monthly. Others, like Bart Lytton's Lytton Financial, get 40%

Some things
are too big
to handle
alone!



When you need mortgage financing or seek mortgage investments— You need a Mortgage Banker



Don't be naive. It takes a specialist to do the job right—moving, loans or investments. In the mortgage business a mortgage banker is the specialist. His expediting FHA and VA financing, for instance, lets the *mortgagor* avoid dependence on high cost local sources . . . makes it possible for the *investor* to safely place funds in areas remote from the home office.

Wouldn't *you* rather do business with a specialist? Consult your mortgage banker for complete information on all types of loans and investments.

Sponsored on behalf of the more than 2,000 MBA members from coast to coast.

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Cobbs, Allen & Hall Mortgage Co., Inc.
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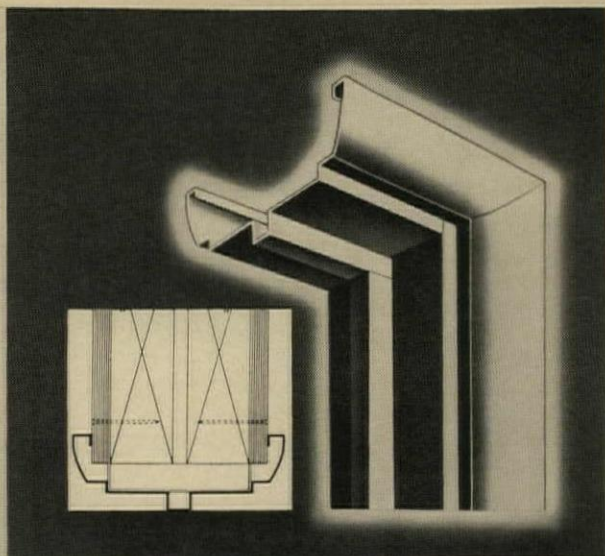
Be with you soon as we get
this Newport Door and Frame
up... 'bout two minutes

It's true! NEWPORT factory-fitted frame goes up in minutes, and unique hinge design gets NEWPORT Doors up in *seconds*. There's no mortising, fitting, sanding, or hardware preparation, and it fits so well, first time, it's no more than a one-man job.

Shipped prefinished with all hardware, to save you more time, the NEWPORT Door arrives in perfect condition—protected by a new zip-pack container. You're protected after the NEWPORT Door is up, too. Sturdy, durable steel with a whisper-quiet acoustical core, it won't *ever* warp, swell, shrink, or rot.

Ask your Republic Manufacturing Division man about the NEWPORT Door. *You'll* be ready for the next job sooner, too.

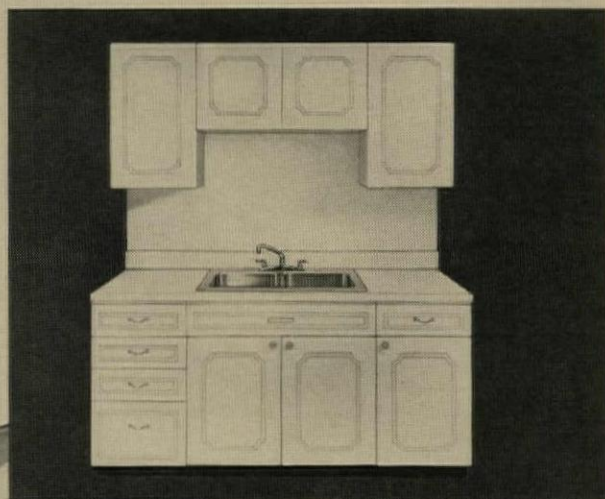
Strong
Modern
Dependable



ANOTHER TIME-SAVER . . . TARTAN DOOR FRAMES. A complete package, with frame, strike, and bumpers. Self-aligning and self-adjusting, eliminates mortising, finishing, sanding, and hardware preparation. No nail heads to putty in, and it's made of steel so it can't crack, warp, shrink, swell, twist, or rot. Call your Republic rep, or mail the coupon for complete information.



Note Republic's new zip-pack carton for NEWPORT Doors—protection in transit, protection in storage—then zip-easy opening on the job!



FIRST PUBLIC SHOWING! New Republic Provincial Kitchens with molding accents achieve the effect of high-cost cabinetry in durable time-proof steel. Easy to install in standard slip-together units. Washable, impervious colors include "Elegance," in off-white with gold molding highlight — "Chateau," in yellow and green — and "Montmartre," in copper and wood tones. Call your Republic Kitchens representative or write direct for advance information on these entirely new designs.

OTHER REPUBLIC PRODUCTS TO SAVE YOUR TIME (AND PROTECT YOUR PROFIT) ON THE JOB: Steel and Aluminum Windows / Roof Drainage Products / Patio Doors / Folding Closet Doors / Partition Studs / Metal Lath and Lintels / Steel Storm Sash and Window Screens / Steel Joists and Roofdeck / Corrugated Steel Pipe and Sub-drainage Pipe / Concrete Reinforcing Bars.



REPUBLIC STEEL MANUFACTURING DIVISION

BERGER • CONTAINER • CULVERT • TRUSCON
YOUNGSTOWN 5, OHIO

REPUBLIC STEEL CORPORATION
Manufacturing Division, Dept. HO-5963, Youngstown 5, Ohio

Hours mean dollars to us, too! Send information
or have representative call regarding:

NEWPORT Doors TARTAN Frames

Republic Kitchens

Other Republic Building Products—
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Name _____ Title _____

Company _____

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City _____ Zone _____ State _____

EVERYTHING in these apartment kitchens COMES FROM YOUNGSTOWN KITCHENS



Appliances, cabinets (in wood, steel, or laminate), a choice of styles, only Youngstown Kitchens has them all!

You get more than kitchens from Youngstown. You get a complete choice of kitchens. Every one is a winner—nationally advertised and nationally known for quality. Every one is complete—cabinets and appliances styled to go together.

Wood? Youngstown offers three stylings in smart Cinnamon Maple finish. Laminate? Youngstown puts low-maintenance woodgrain laminate fronts on dependable steel cabinets . . . in three different finishes. Steel? Youngstown offers these cabinets in colors . . . six basic colors and any special color made to order. Appliances? Youngstown offers built-in dishwashers, disposers, ovens and cooking tops, combination oven-ranges, and vent hoods in a wide variety of finishes.

You get everything for your kitchens from a single national source! Youngstown Kitchens gives you better design service, dependable quality control, prompt delivery and conscientious backing of every product sold. Call, wire, or send coupon below to see why so many apartments now feature Youngstown Kitchens.



Lost Mountain Manor, in Rochester, New York, features Youngstown Kitchens appliances and laminate-on-steel cabinets in all 84 apartment units. Woodgrain laminate finishes mean low maintenance and smart modern appearance. Renar Designs, Inc., Architects, and Emil Muller Construction Co., Inc., General Contractor.

YK **Youngstown
Kitchens**

a division of Mullins Manufacturing Corporation, Salem, Ohio

Youngstown Kitchens, Dept. HHM-063,
Mullins Manufacturing Corp.
Salem, Ohio.

Please rush full facts on the new Youngstown Kitchens line.

Name _____

Firm _____

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"THE HOUSE YOU DON'T HAVE TO PAINT"
 SAVES YOU MONEY... SELLS BEST!

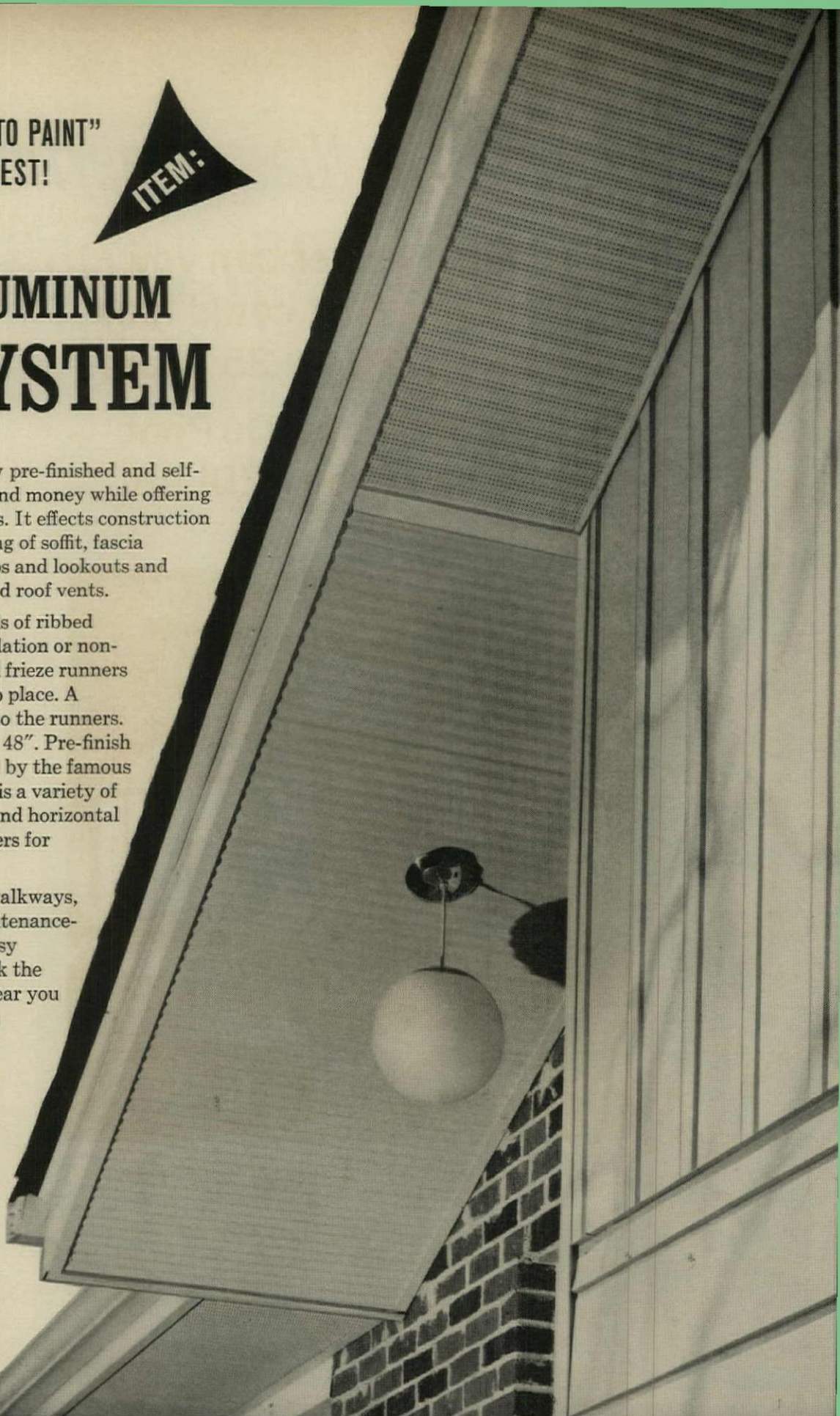
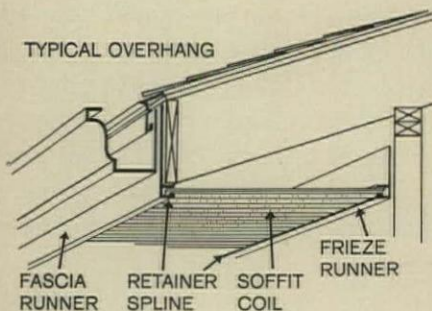
ITEM:

REYNOLDS ALUMINUM SOFFIT SYSTEM

This versatile soffit system is entirely pre-finished and self-supporting, saving the builder time and money while offering the homeowner continuing economies. It effects construction savings by eliminating on-site painting of soffit, fascia and trim areas, eliminating vent strips and lookouts and reducing the need of gable louvers and roof vents.

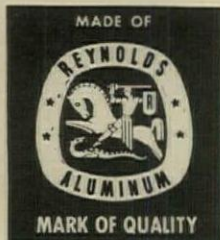
Reynolds soffit system consists of coils of ribbed aluminum sheet, perforated for ventilation or non-perforated, plus aluminum fascia and frieze runners along which the soffit sheet slides into place. A polyethylene spline seals the soffit into the runners. Coils are 50' long, widths from 12" to 48". Pre-finish is Polar White baked enamel, applied by the famous Reynolds Colorweld® process. There is a variety of fascia and frieze runners for sloping and horizontal conditions, and double channel runners for extra wide installations.

Reynolds soffit is ideal for carports, walkways, and apartments, too. In today's maintenance-conscious market it's the kind of "Easy Living" feature people want. So check the products shown below and see how near you come to "the house you don't have to paint"... the house that saves you money and sells best.



REYNOLDS ALUMINUM BUILDING PRODUCTS • Check this List for Information

TEAR OFF AND MAIL TO REYNOLDS METALS COMPANY, RICHMOND 18, VIRGINIA



- | | |
|---|--|
| <input type="checkbox"/> SOFFIT | <input type="checkbox"/> WINDOWS |
| <input type="checkbox"/> SLIDING
GLASS DOORS | <input type="checkbox"/> SHINGLES |
| <input type="checkbox"/> GUTTERS | <input type="checkbox"/> GARAGE
DOORS |
| <input type="checkbox"/> SIDING | <input type="checkbox"/> FLASHING |

Your Name _____

Company Name _____

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Watch Reynolds TV program on NBC: "The Dick Powell Reynolds Aluminum Theatre" Tuesday nights.

LAWSON[®]

KNOWN FOR QUALITY SINCE 1816



**GOLDEN OR SILVER CAMEO
WITH LIGHTS**

Single Cameo units in both gold and silver now are available with matching side lights of either gold lacquer or stainless steel. Send for complete catalog.

DOUBLE Beauty... Utility... Safety

TWIN CAMEO

in SILVER or GOLD

In 1962, Lawson captured the imagination of contractors, dealers and homemakers with its refreshing new and different "Golden Cameo" Medicine Cabinet.

There was instant demand for a "Silver Cameo" and a twin unit in both gold and silver.

Here you see the Twin Cameo, available with gold tracery matching a gold lacquer mirror frame, or silver tracery matching a stainless steel frame. A single wall opening $30\frac{1}{2}$ " x $19\frac{3}{8}$ " x $3\frac{1}{2}$ " accommodates this unit—overall size 33" x 24".

Write today for colorful catalog of full line of medicine cabinets and bathroom accessories.

THE F. H. LAWSON COMPANY

Department D-1 • Cincinnati 4, Ohio



OPENING DAY VISITORS line up to see the Quiet House, a \$19,800 ranch with three bedrooms, two baths, and \$500-worth of sound-control features.

Quiet House taps a surprising market for sound-conditioned homes

So reports President I. P. (Ike) Jacobs of Fox & Jacobs, Dallas, who built the Quiet House shown above to find out if buyers want a home with much of today's noise engineered out of it.

The house is a standard Fox & Jacobs Accent model (price: \$19,300) to which was added \$500 worth of sound insulating and absorbing features and extra-quiet mechanical equipment. The idea for the house, and many of its sound-control techniques, grew out of a HOUSE & HOME Round Table (Nov. '62).

Jacobs opened the house in January offering the sound-conditioning features as a \$500 optional-extra package. He plugged the Quiet House theme in his ads (left), but spent only the \$30,000 for promotion and advertising that he usually spends on openings. Results:

1. More than 4,500 people, a near record for a Fox & Jacobs opening, turned out the first day, despite 27F weather.
2. By May 1, 23 buyers, representing nearly half of all Accent sales, had paid \$500 extra for the sound-conditioning package.
3. Fox & Jacobs' sales have maintained their 1962 level, while the over-all Dallas market has dropped more than 30%.

These immediate results so impressed Jacobs that he is now making a modified sound-conditioning package (priced about 40% below the package used in the Quiet House) a standard feature, not just in the Accent line (\$16,000 to \$21,000), but in his Flair line (\$24,000 to \$30,000) and his low price Dimension line (\$13,000 to \$18,000) as well.

"The market is there—just waiting for us," says Jacobs. "People are more aware of the aggravation of noise than we ever dreamed."

Jacobs contends that the Quiet House has given him a strong competitive edge over the rest of the Dallas market. And he believes

that with sound conditioning he has introduced a feature that makes old houses obsolete and thus stimulates new-home sales.

FHA gave full credit in valuations for the sound-conditioning

As a result, buyers need only \$100 more than the normal down payment, and the additional monthly charge is just \$3. Says Edward Dee, FHA's Dallas director: "Sound conditioning adds value to the home. FHA recognizes the need for sound conditioning and most certainly approves its inclusion." As a result of the Quiet House, Dee adds, homeowners are starting to ask FHA the cost of sound-conditioning their present houses.

The extra price for sound-conditioning a house should not exceed 3% of the price of the house itself, Jacobs reports.

"Our new standard package is priced at about 1½% of the house price," says Jacobs, "and the complete package which we used in the Quiet House is 2½% of the price. We expect these figures to drop as our volume goes up and as we gain more experience."

What is the most effective way to sell sound conditioning?

To get answers, Jacobs went to two sources—experts and the buying public. Specifically:

His 14 top salesmen attended sessions with a psychologist to explore the motivational aspects of selling sound conditioning and to develop a sales approach which would find the best buyer response.

Informal discussions with consumer groups were held in the model to show people what sound conditioning meant and how the house performed, and to find out their reactions. Some of these sessions were taped and used as a guide in devising the sales pitch.

QUIET HOUSE ADS point up the everyday noises that sound conditioning cuts down.

continued on p. 54



Now... Magic Chef brings you new Color-Mates to put a touch of selling magic in your kitchens

Magic Chef Color-Mates give you a fabulously-styled kitchen package — range, dishwasher, disposer, hood and sink — in six handsome decorator colors. That's one big reason why more women cook on Magic Chef than on any other range.

And there are other good reasons, too!

- *Magic Chef ranges make your kitchens new, modern, automatic.*
- *Magic Chef's banquet-size ovens are bigger than ever, yet install easily in standard 24" cabinets.*
- *Oven and broiler doors are removable for easy cleaning . . . and for quick color changes.*
- *All ranges have a one-year service guarantee. Convenient inventory availability, too.*

National advertising, merchandising and good service are also part of Magic Chef's program to put magic in your sales. Put Magic Chef Color-Mates in your kitchens . . . soon!



"Magic Sentry" Pilot Ignition — Just flick a switch — for cool-safe-economical cooking.



"Magic Pantry" — Built-in cutting board, kitchen knife, condiment storage. Minute-Timer, too.

MAGIC CHEF®

CLEVELAND, TENNESSEE

MARKETING ROUNDUP

starts on p. 52

Fox & Jacobs' sales approach was based on two points:

- Emphasis should be put on the benefits a family would get from sound conditioning, rather than on its technical aspects.
- Sound conditioning should be presented as a basic ingredient of the house, and not as a temporary gimmick or fad.

In the early days of the Quiet House opening when traffic was heavy, salesmen relied heavily on demonstrations of sound-conditioning features which could be given to many prospects at a time. When the crowds thinned, salesmen went back to face-to-face selling, which Jacobs feels is more effective than group demonstrations.

Here is a cost breakdown of Quiet House sound-control features

These items subdue noise at its source:

An over-size, slower-turning circulation fan in the furnace—\$60.

Sound-absorbent lining in the return-air plenum—\$17.

Separate air-return systems for acoustically sealed rooms—\$35.

Low-noise-level grilles instead of standard stamped-metal grilles—\$12.

Sound-absorbent lining in the furnace room—\$14.

Acoustical glass fiber in the furnace blower housing—\$11.

A central exhaust unit in the attic for venting both bathrooms—\$14.

A quiet garbage disposer with double trapping—\$35.

A quiet dishwasher—\$19.

A redesigned kitchen vent hood—\$10.

No-slam gasketing for passage doors—\$19.

These items deaden noise within a specific area:

Sound-absorbing material around the washer and dryer area—\$30.

Moisture-resistant, acoustical ceiling tile in the kitchen and master bath—\$100.

Acoustical ceiling tile in one bedroom—\$56.

These items reduce noise transmission from one area to another:

Acoustical doors, with weatherstripping, in master bedroom and second bath—\$28.

Double-stud walls, with insulation between studs, in bedrooms and baths—\$40.

Electrical boxes and medicine cabinets installed so they are never back-to-back—no extra cost.

Also included at no extra price (because they were already standard in Fox & Jacobs' Accent houses) are silent light switches, carpeting, and glass-fiber heating ducts.

The modified sound-control package, now standard in all Fox & Jacobs houses, includes everything in the Quiet House package except acoustical ceiling tile, which is an optional extra.

Jacobs stresses the need for careful workmanship and good supervision in sound conditioning a house. The reason: Noise can leak through the smallest hole or crack and nullify the best sound barrier. But Jacobs says he has also found that his sound-conditioning features fit into his normal construction schedule without adding extra time.

Marketing roundup continued on p. 61

"When do you close a sale?"

"When I show 'em the Connor Kitchen"

Put a Connor Kitchen in the home and it says "quality" like nobody's business! Best thing about it for your business: you can go Connor quality without going overboard on cost.

First off, Connor grows their own trees to produce the superior north-country hardwoods that make the most popular cabinets. (Did you know Connor is one of the country's leading producers of quality hardwoods? No wonder they can sell the best cabinets for less!)

Connor cuts, grades, dries, and processes the lumber... selecting only the beautifully grained, unblemished northern birch that so appeals to your customers.

Now, Connor craftsmen go to work. These boys have had years of experience and take great pride in their work. They believe in sturdy mortise-and-tenon corners, solid Northern Hardwood core doors, dovetail drawer construction, and solid hardwood stiles and rails.

Then come those extra features the prospects' husbands look for: 3-point drawer suspension, nylon rollers, magnetic door catches, adjustable shelves, exteriors bake-finished so they're hard to nick but easy to keep clean. It all adds up to solid selling beauty without a sag or drag, with no binds or blemishes—not a complaint in a carload!

This is the incomparable quality that sells itself (and your houses) with full profit margins for you. Furthermore, Connor saves you time and money on shipping with two handy points of origination.

Now do you see why so many builders are selling with Connor?

Low-cost
controlled lighting
for outdoor
living areas
with the
**TWI-LITE
LUMINAIRE**

Ideal for patios, walkways, gardens, driveways, lawns, pools

The Westinghouse Twi-Lite Luminaire can be used with any ordinary incandescent lamp up to 150 watts to provide the right kind of light exactly where it's wanted outdoors. It's easily mounted on wall, post-top or pipe.

Features include a housing gasket that keeps out moisture, dirt and bugs... durable die-cast aluminum housing and stainless steel hardware are corrosion-free... baked enamel finish in a choice of four colors. For details, get in touch with your Westinghouse lighting distributor. Or write to Westinghouse Electric Corporation, Lighting Division, Edgewater Park, Cleveland, Ohio. You can be sure... if it's Westinghouse.

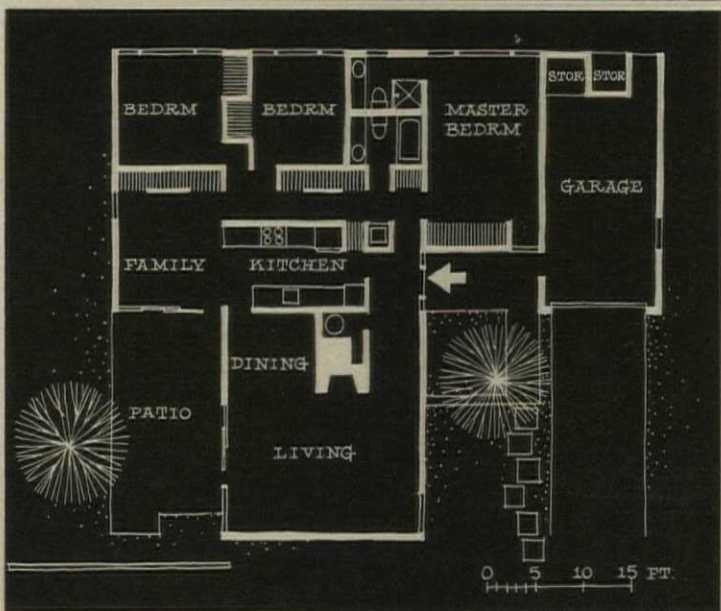
J-04495

We never forget how much
you rely on Westinghouse



MARKETING ROUNDUP

starts on p. 52



Here is the winning house in the first design contest ever run by a prefabber

The design above, by Architect G. Hugh Tsuruoka of Chicago, was picked over 429 other entries. Kingsberry Homes of Atlanta, the contest sponsor, plans to add the house to its manufactured-home line this summer.

Aim of the competition, says John Odegaard, Kingsberry's director of research and development (and one of the judges), was to "stimulate architects and designers to put more of their talent into single-family homes for the mass market."

For his winning design, Architect Tsuruoka received a \$1,000 prize. Kingsberry will also pay

its standard architectural fee when the house goes into production.

The contest judges (below) had this to say about the winning design: "It has excellent circulation from the foyer to all parts of the house; a good relationship among family room, kitchen, and living room and outdoor areas; good acoustical separation between the living room and the rest of the house; elevations unusual enough to be interesting and at the same time appeal to a mass market."

The house has 1,600 sq. ft. of living area. Its retail price will be about \$10 a sq. ft. plus land.



CONTEST JUDGES were (l. to r.) John King, NAHB director of research services; Robert Sherman, interior designer; James T. Lendrum, dean of architecture, University of Florida; and John Odegaard, Kingsberry Homes.

Marketing roundup continued on p. 63



A BIG NEW IDEA FOR BUILDERS!

THERMASOL[®]

STEAM BATH FOR THE HOME!

LOOK magazine hails the THERMASOL steam bath for the home as the newest status symbol. It's the biggest new idea to make homes more saleable to come along in years.



STEAM GENERATOR



TIMER



STEAM OUTLET HEAD

THERMASOL's patented electronic steam bath equipment allows the bathtub or stall shower to double as a steam bath without interfering with their normal function. Units are available for dry heat bathing, too.

THERMASOL is so small it can be installed on a shelf, in an attic or closet, in a vanity or hung in a dropped ceiling above the shower or tub. Operation is completely automatic. The bather sets the timer and steps into the tub or shower. In a few minutes, the entire enclosure is filled with steam. The temperature is controlled by the bather — from 70° to 160°. When the bath is finished, the shower is turned on and the steam condenses immediately. It uses only a quart of water and less than a penny of electricity per bath. There is an absolute guarantee against steam damage to tile, mastic, sheetrock, paint or wall coverings.

When homes and apartments are equipped with THERMASOL units, they become neighborhood showcases. THERMASOL adds quality and exclusiveness, and consumers know it.

Install THERMASOL in your model home. See how it generates that keen interest that means faster sales.

As low as \$295.00 list. THERMASOL is the **ONLY U.L. listed steam bath equipment.**

THERMASOL IS AVAILABLE AT YOUR PLUMBING WHOLESALER
ADVERTISED IN HOUSE BEAUTIFUL



THERMASOL[®]

702 E. 12th St., New York 9, N. Y.
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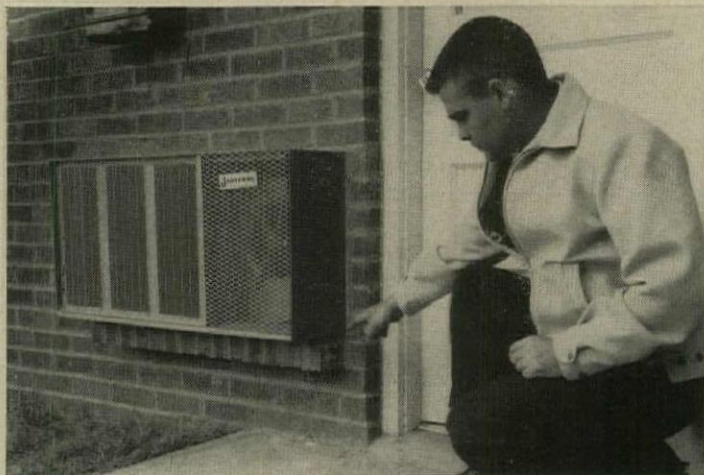
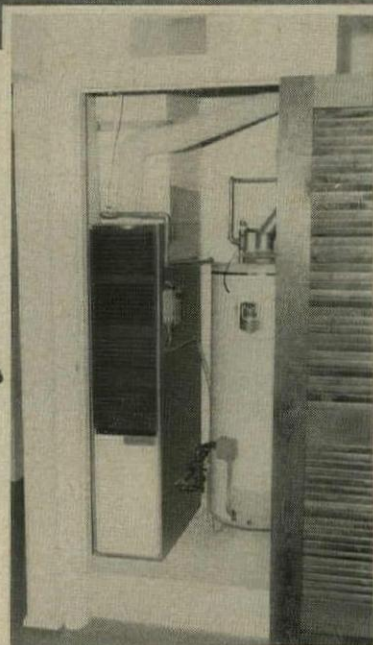
"Apartment heating and air conditioning is really simplified with the new Janitrol comfort package"

Robert E. Smith, Builder and President
Columbia Street Apartments, Newark, Ohio



Right: The 12-inch wide, 570 Series conditioner is installed in a central utility closet directly over the return air plenum.

Below: The through-wall condensing unit is flush with the inside wall, yet has only a slight exterior projection.



"Each apartment in this 12-unit project is individually year 'round conditioned by the new Janitrol 570 Series package, that has proved to be the most practical system we've found. Since we've built this plan before, we can appreciate the extra design features built into this equipment. We were most impressed with the ease of installation, flexibility of location and service accessibility of the 570 Series".

This all-new heating-cooling package is built and priced especially for apartments and small homes. Most models are only 12 inches wide to conserve floor space . . . cooling evaporator can install through-wall, on slab or on the roof . . . cooling is optional for either original installation or economical later addition. All units are completely factory-assembled, tested and feature a precharged cooling system with quick-connect couplings to speed installation.

Packages are available with nominal 1½, 2 and 3 tons of cooling and in heating capacities from 50,000 to 125,000 Btu./hr. for natural, mixed or LP gases, in either upflow or downflow models.

Free Application-Specification File. For complete information on all of the unusual features of the Janitrol 570 Series ask your Janitrol representative for Form J-379S, or mail coupon.

JANITROL DIVISION
Midland-Ross Corporation



Columbus 16, Ohio

Please send me your Application-Specification File on the Janitrol 570 Series Comfort Package.

Name _____

Address _____

City _____ Zone _____ State _____

JANITROL®
HEATING AND COOLING



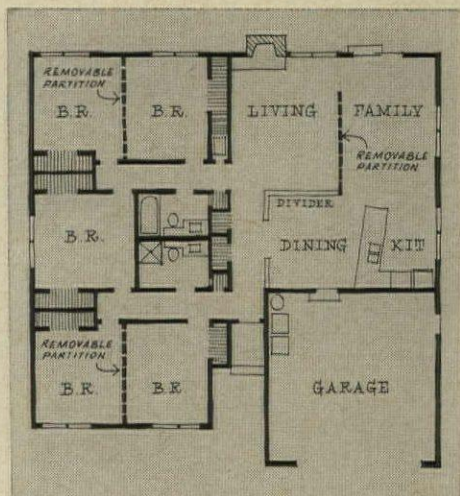
Movable partitions let owners change their floor plans at will

"They are a strong sales point—particularly with second-time buyers who foresee the need for rearranging their homes to meet their families' changing living requirements."

So reports California Builder Henry C. Cox who developed the partitions and now uses them in his houses (\$19,990 to \$24,500). Cox sold 250 houses last year in the Orange County communities of Santa Ana, Costa Mesa, and Tustin. As the typical plan below shows, the partitions permit radical revisions of both living and sleeping areas. Cox also uses them in his garden apartments (rental: \$145) to give tenants a choice of a second bedroom or an extra-long (27') living room.

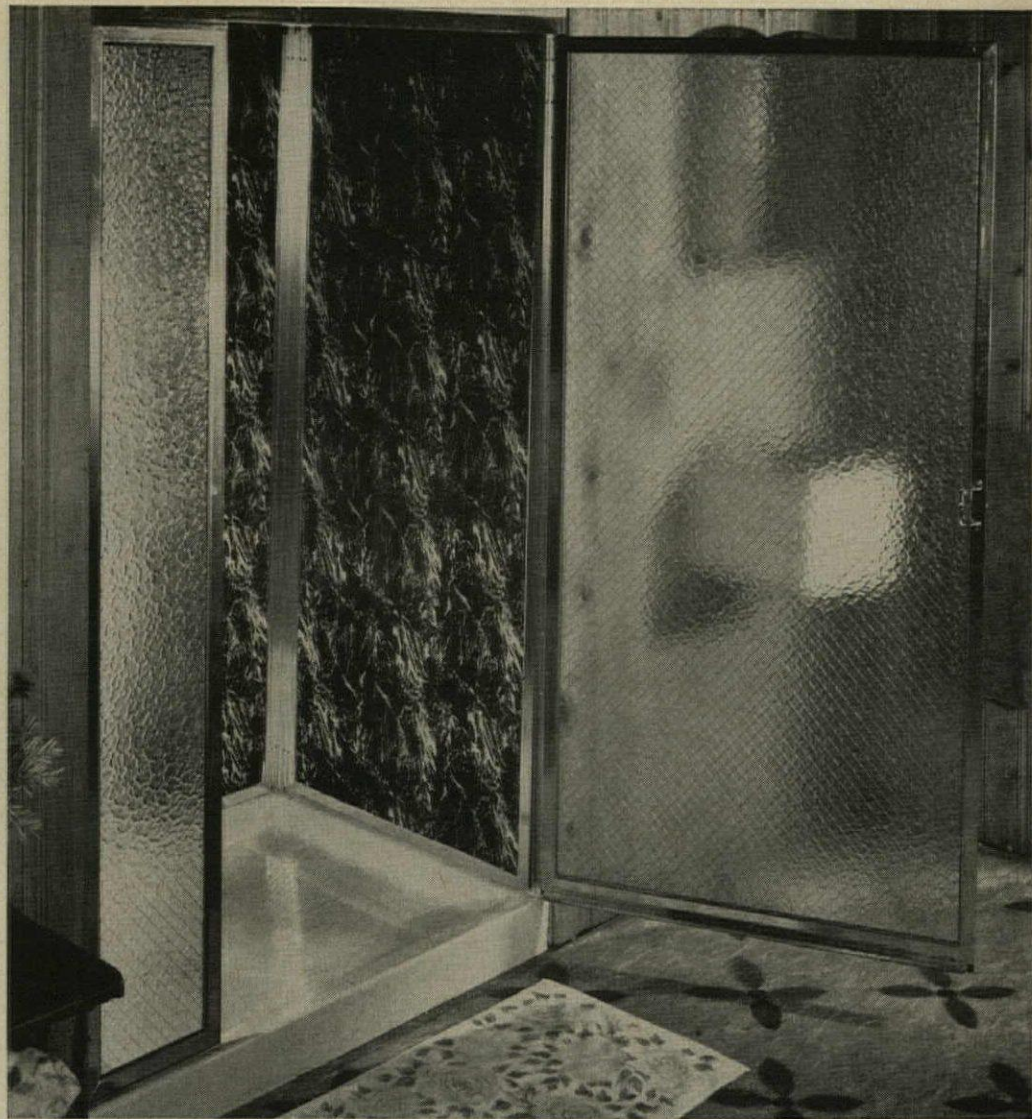
The partitions—4'x8' hollow-core doors joined by splines—are so easy to move that a do-it-yourselfer can make changes in two or three hours, according to Cox. They are set in a nailed-up ceiling channel, friction-clamped at the bottom with built-in leveling jacks, and finished with base molding.

Costs of the movable panels range from 30¢ to \$1.50 a sq. ft. depending on finish. Finishes include hardboard, hardboard with a baked-enamel surface, and plastic laminate.



TYPICAL PLAN shows how partitions can be removed to turn four small bedrooms into two large ones and to make one large area of living and family rooms. This is plan of 1,790 sq. ft. house that sells for \$22,900 with 90% FHA financing.

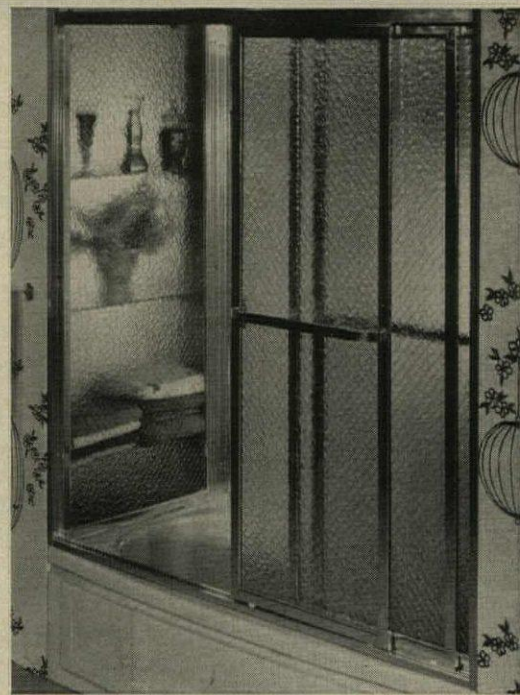
Letters start on p. 79



Give Your Bathrooms the LOOK of LUXURY with... Safety

New 7/32" Spraylite Misco Teams Decoration with Visible Protection

Tub enclosures and shower stalls glazed with handsome FHA approved Spraylite glass transforms bathrooms into sheer elegance and luxury with assurance of proven impact resistance. Fortified with Misco, diamond-shaped, welded wire netting, the bright wire mesh in Spraylite glass is clearly visible as a sturdy web of steel... serves as a constant reminder of its safety features. Home buyers will appreciate the hard, impervious surface of the glass that makes it carefree and wearfree... easy to keep spotlessly clean and sanitary. And glass does so much to add exciting beauty that brightens and enlivens the entire bathroom. For safer, more glamorous bathrooms, specify 7/32" Spraylite Misco. At most leading distributors of quality glass. Send for free literature. Address Dept. 9.



Fixtures, metal and glazing by St. Louis Shower Door Co., St. Louis 32, Mo.

MISSISSIPPI GLASS COMPANY
NEW YORK • CHICAGO • FULLERTON, CALIFORNIA



WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS



**"AN ATTRACTIVE
CONCRETE STREET MAKES
OUR HOMES LOOK BETTER,
SELL FASTER!"**

*Says KENNETH D. WOODS, President
Hilton Realty, Inc., South Bend, Indiana*



A new concrete street with integral curb and gutter in Riverside Manor, South Bend, Indiana

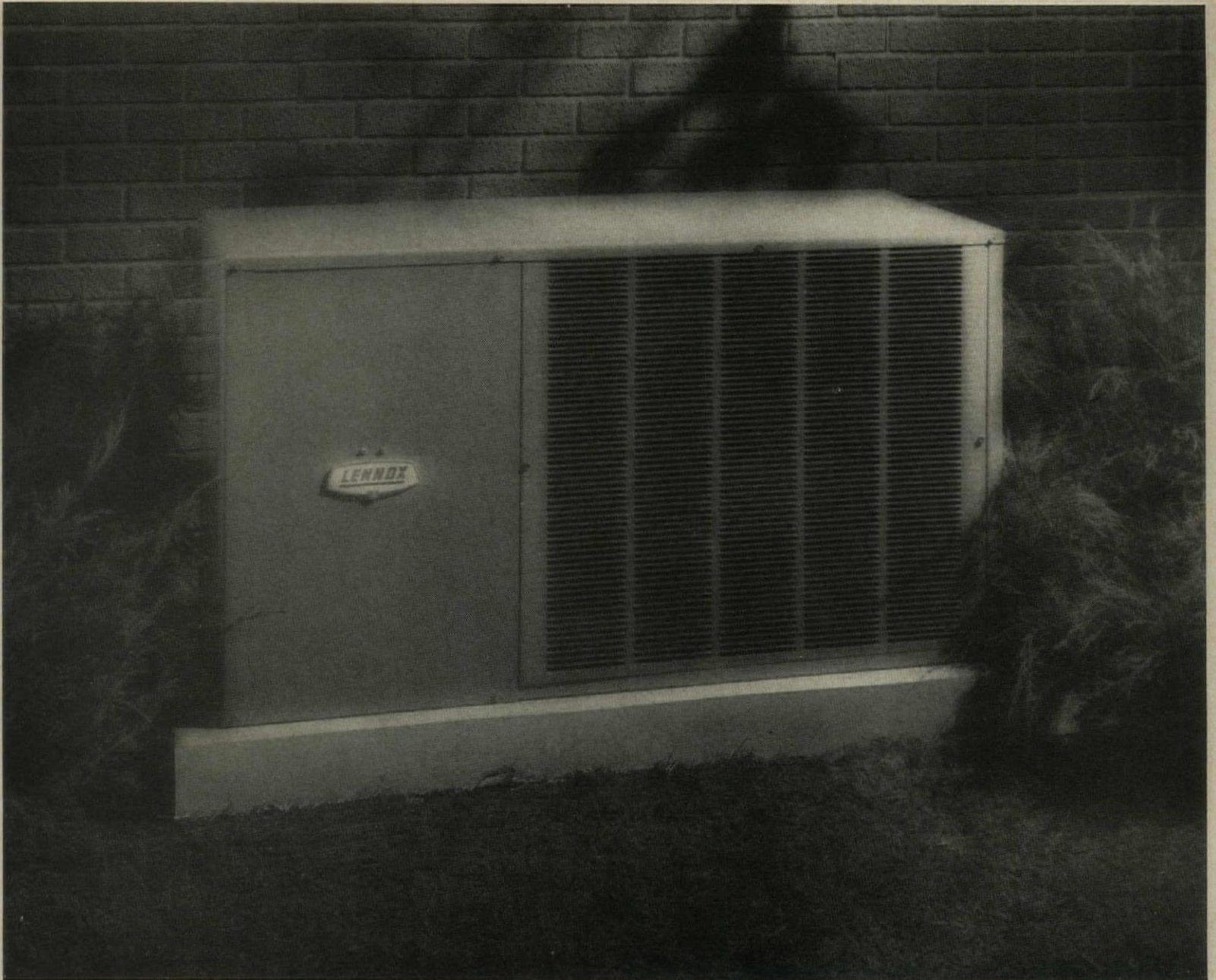
“WHEN we develop a subdivision such as Riverside Manor, past experience tells us it is just good business to pave the streets with concrete. Potential buyers appreciate the way concrete streets set off the new homes and give the whole neighborhood a modern, progressive look. We give concrete streets a good share of the credit for our successful home-selling campaigns. And not only that, concrete's long life and low upkeep help *keep* our customers satisfied.”

Builders everywhere are finding it pays to provide streets of modern concrete. Paving is fast and easy. Homesites are accessible for construction work in any kind of weather. And no temporary roads are needed.

Concrete's initial cost is moderate, upkeep cost is low. It offers true economy both for the builder and the taxpayer. And it's the popular pavement with home buyers.

PORTLAND CEMENT ASSOCIATION

A national organization to improve and extend the uses of concrete



Only a whisper in the night. With this newest Lennox condensing unit the rush and roar of yesterday's cooling is gone. Put it anywhere. A larger fan runs slower, yet provides straight-through, obstruction-free air flow . . . Whisper-quiet and low in power consumption. The double-muffled compressor and controls are housed in a separate compartment thickly lined with acoustical insulation to further "hush" operating sounds. ARI certified, this Lennox unit is completely assembled, charged and factory wired, ready to connect and operate. It's Lennox's newest, Model HS6-411.

Write LENNOX, 17 S. 12th Avenue, Marshalltown, Iowa.



AIR CONDITIONING • HEATING

LENNOX

"RCA WHIRLPOOL appliances helped make our quality story




Your greatest asset is our quality performance!

Whirlpool CORPORATION

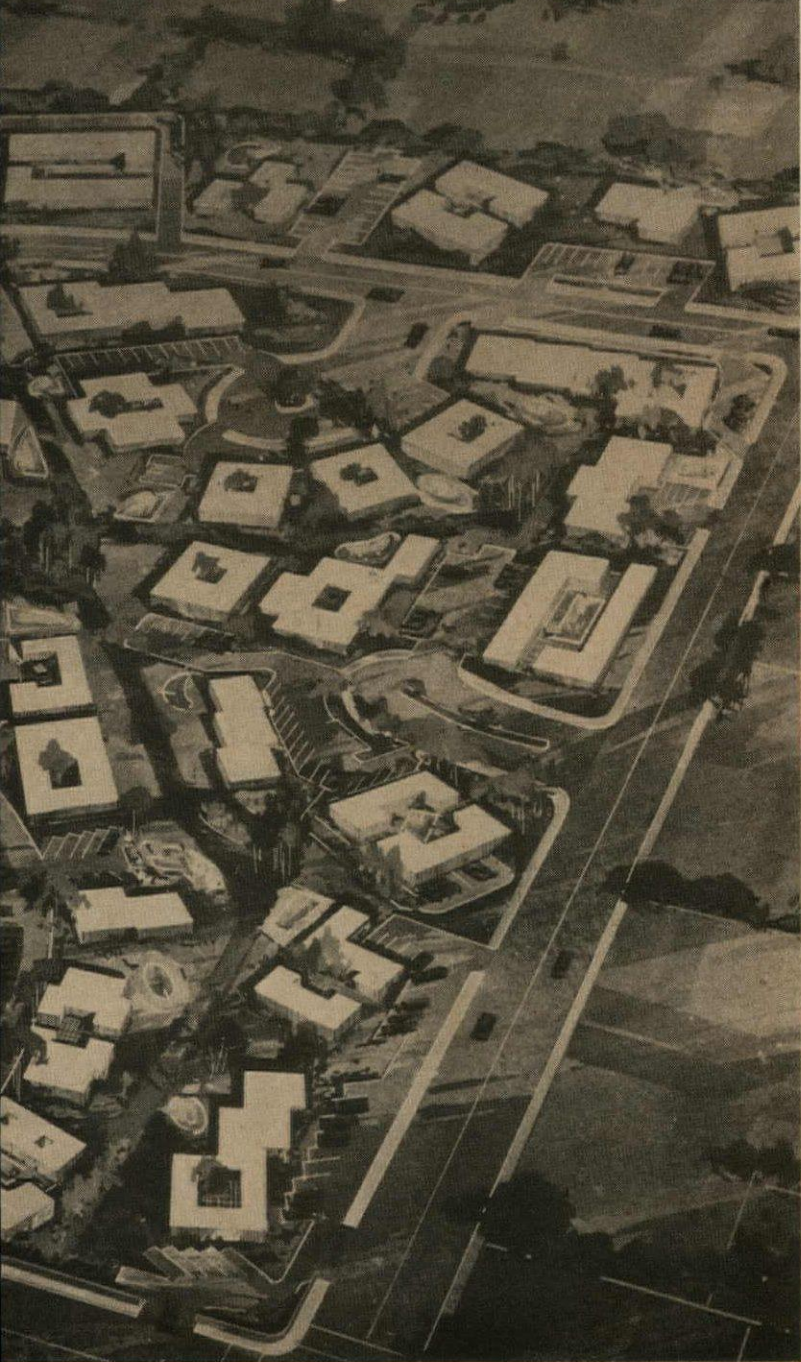
Contract and Builder Sales Division, Administrative Center, Benton Harbor, Michigan

Manufacturer of RCA WHIRLPOOL Automatic Washers • Wringer Washers • Dryers • Washer-Dryers • Refrigerators
• Freezers • Ice Cube Makers • Ranges • Air Conditioners • Dishwashers • Food Waste Disposers • Dehumidifiers

Use of trademarks  and RCA authorized by trademark owner Radio Corporation of America

in every unit even stronger..."

says Round-Up Real Estate, Inc.,
Las Vegas, Nevada



New Central Park West development offers buyers true luxury living including patios, pools and privacy at modest cost!

Shown here is the current example of *why* this young builder organization is growing so rapidly—it's called Central Park West and will contain 350 luxury apartments. In a word it's quality . . . they know how to build it and how to sell it. All kitchens will feature RCA WHIRLPOOL built-in oven, rangetop, dishwasher, food waste disposer and refrigerator-freezer.

Success didn't "just happen" at Round-Up Real Estate, Inc. They made it happen with imagination, long hours, hard work, close on-the-job supervision and demanding top quality from all their suppliers.

Like many other leading builders they're convinced that RCA WHIRLPOOL appliances add that "extra touch of value" to their homes and apartments, add more appeal, too. They also like the advantage and economy of *one-source ordering* for a full line of gas and electric appliances that can *increase discounts* and *decrease paper work*, better color and design coordination, too. Join up . . . it's easier to sell homes with RCA WHIRLPOOL appliances than sell against them.

In October of 1959 all they had was the urge to get into the realty business, very few listings, a 20' x 15' office and a great deal of ambition. Today they have either completed or have under construction approximately \$40,000,000 worth of building. That's the success story of the bustling, young Petersen family, owners and officers of Round-Up Real Estate, Inc. They are left to right, front row: Murray Petersen, President, Faye Petersen, Secretary; back row: Andro Petersen, Vice President and Treasurer and Dean Petersen, Executive Vice President.



GLIDE-A-MIRROR™

WARDROBE DOORS

PPG has combined all the most-wanted features of sliding mirror doors in a precision-engineered, completely finished by-pass closet door unit that can generally be installed in *less than one man-hour*. It's a unique new-home feature, with high style and elegant design... it adds luxury and spaciousness to any room.

GLIDE-A-MIRROR is complete and pre-assembled. You eliminate the problem of ordering tracks, doors, hardware and mirrors separately... no on-the-job assembly work.

Sizes to fit standard trimmed openings. Each GLIDE-A-MIRROR assembly includes two by-pass door units with track to fit standard 4', 5' or 6' wide by 6'8" high finished openings. In anodized gold-bronze, or anodized aluminum finish. Other finishes and custom sizes on order. Pocket Door models also available. Furnished with the finest quality PPG HIGH-FIDELITY® Plate Glass Mirrors, GLIDE-A-MIRROR doors meet the new FHA MPS 711-1.3 for glass. Available from PPG Branches everywhere.

1. Delivered completely assembled by your local PPG Branch when you specify. You can finish all trim and painting before installing the GLIDE-A-MIRROR assembled closet door unit. Because no threshold is required, floors can be finished, and fully carpeted prior to installation.

2. Install track. Track is simply screwed to head. Track and finished fascia (in anodized finish to match door) are a one-piece extrusion.



NEW specially-engineered sliding mirror doors...delivered pre-assembled...ready to install!

Installation savings can more than make up for the extra cost of this finished unit! There's no special framing or trim . . . no extra fascia . . . no threshold for normal openings . . . no furring . . . no doors to hang . . . no finishing costs . . . no extra labor or material cost. And, because they can be installed after *all* other trades have left the job, you avoid cleanup costs and risk of damage.

A merchandisable sales feature: PPG promotes GLIDE-A-MIRROR doors and HIGH-FIDELITY Mirrors on network TV and in full-color ads in leading magazines. Put this advertising to work for *you* . . . merchandise GLIDE-A-MIRROR units in your model home.

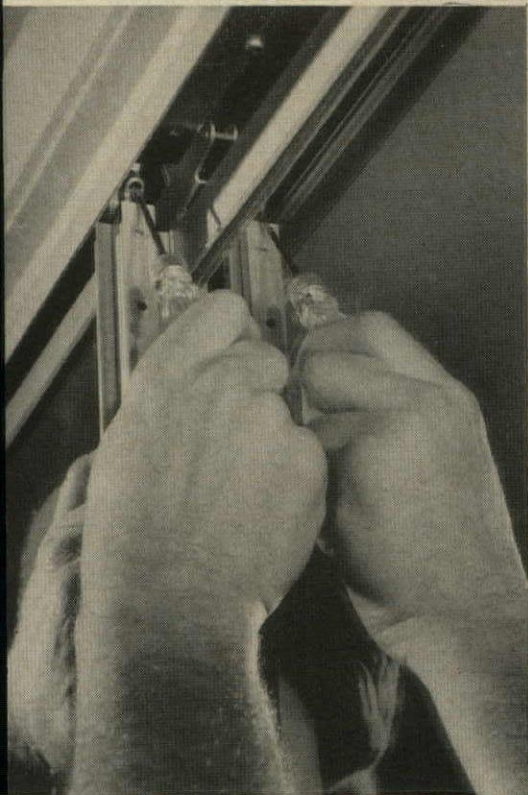


Pittsburgh Plate Glass Company

Paints • Glass • Chemicals • Fiber Glass In Canada: Canadian Pittsburgh Industries Limited

3. Suspend doors from track and adjust. The strong die-cast hangers contain positive adjusting screws for quick leveling.

PPG HIGH-FIDELITY Polished Plate Glass Mirrors are cushioned in a resilient vinyl strip. Note the full-length door handle, extruded in one piece with the swank, slim-line door frame.





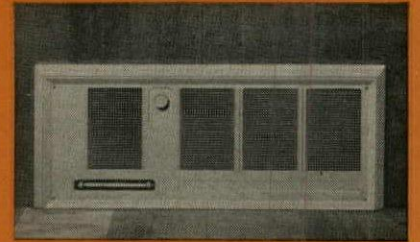
A week in the life

8:00 A.M.
MONDAY

Checks motel job. 34 new Hunter HEATLINER CONVECTION BASEBOARDS already installed—4 and 6-foot lengths in offices, 8 and 10-foot in rooms. Tells owner about Heatliner's new patented heat exchanger. Less power, more heat.



2:15 P.M.
MONDAY



Orders 56 Hunter FORCED AIR BASEBOARDS for Kenwood Apartments, with new trim kits for recessed installation. Figures FABs a natural. They combine advantages of radiant heat and forced air circulation.



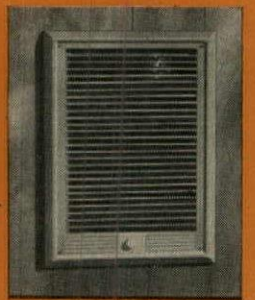
10:00 A.M.
WEDNESDAY



Wraps up specs for new Hunter CEILING CABLE for 22 homes in Westwood subdivision. Checks instruction sheet for installing in plaster ceiling. Reflects that this new, totally silent heat uses no valuable floor or wall space.



3:00 P.M.
WEDNESDAY



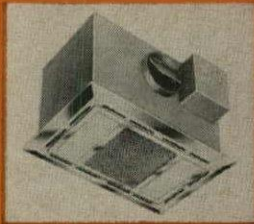
Checks on delivery of new Hunter RADIANT WALL HEATERS to federal housing project. Recalls Hunter won order hands down. These units first on the market with fully-enclosed heating element at economy price.



4:30 P.M.
FRIDAY



Phones for two Hunter TRIO BATHROOM CEILING UNITS for duplex on Waverly Street. Wonders why all builders don't use it. Modern. Attractive. Gives heat, light, ventilation—all in one.



10:15 A.M.
SATURDAY



Drops visiting architect at Lester Hotel. Meets new manager. Suggests Hunter VYCOR HEATER under marquee to warm guests on chilly nights. Explains how infrared unit heats with light, indoors or out ... warms people rather than air.



HUNTER ELECTRIC HEAT - It's Matchless!

of a busy builder . . . who's sold on Hunter Electric Heat

8:30 A.M.
TUESDAY

Recommends Hunter HEAT-MASTER CONVECTION BASEBOARDS for den addition to Hurley house: three 48" lengths, two 32", optional wall thermostat. Deluxe units can be painted to match panelling.



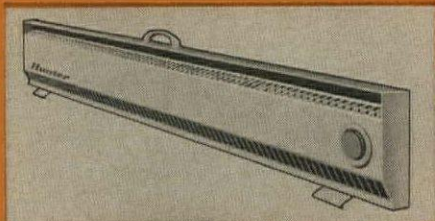
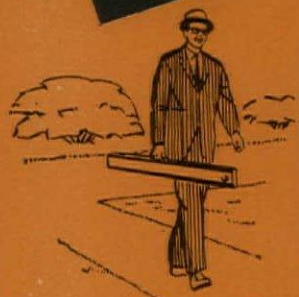
12:00 NOON
TUESDAY



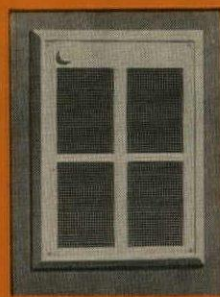
Lunches with Consolidated V.P. to discuss new addition to warehouse. Plans to use Hunter UNIT BLOWER HEATERS. Three should do it. They're powerful. V.P. can choose from 12 models.

5:30 P.M.
WEDNESDAY

Takes home Hunter PORTABLE CONVECTION BASEBOARD. Reminds wife it's only portable big enough to do the job (52" long), yet light enough (16 lbs.) for her or children to move from room to room.



11:00 A.M.
THURSDAY



Queries partner on low-cost housing development in Clairview. Suggests new Hunter FAN-FORCED WALL HEATERS. Only economical units with open wire coils and protective grille for heating efficiency plus safety.

4:00 P.M.
SATURDAY



Decides on 18th green to order more Hunter ELECTRIC HEAT CATALOGS. Resolves to compliment Hunter distributor on variety—every size, shape, type and style of electric heater a modern builder could need.



MAIL FOR NEW CATALOG

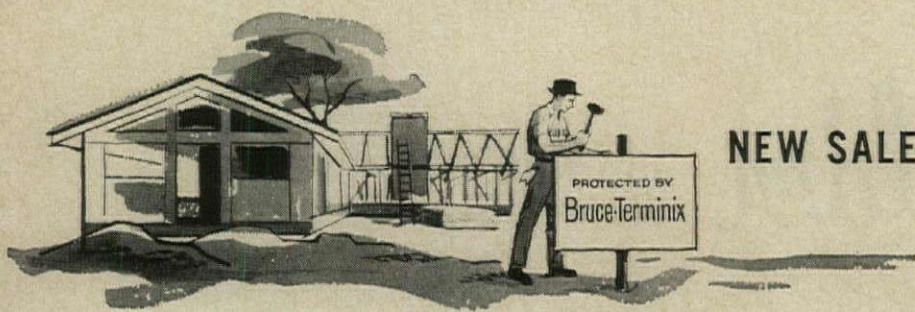
HUNTER DIVISION,
ROBBINS & MYERS, INC.
2668 Frisco Ave., Memphis 14, Tenn

Please send your new electric heat catalog to:

Name _____
 Company _____
 Address _____



HUNTER ALSO MAKES A COMPLETE LINE OF PORTABLE AND VENTILATING FANS FOR RESIDENTIAL, COMMERCIAL AND INDUSTRIAL USE.



NEW SALES AID FOR BUILDERS

\$5000 termite damage protection



Why many builders are switching from termite shields

U.S. Dept. of Agriculture, in Home & Garden Bulletin No. 64, says... "experience has shown that good shield construction and installation is rare. Also, no termite shield has been developed that is absolutely effective in preventing the passage of termites."

Bruce-Terminix Service offers maximum protection for the owner... and relieves you of future complaints and responsibility for termite attack.

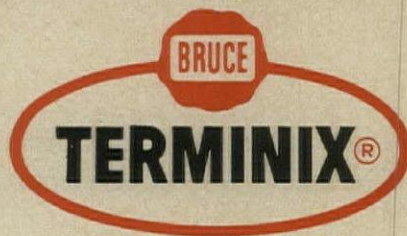
Renewable at the owner's option, the Terminix Protection Contract provides the home owner: (1) Periodic inspections, (2) Treating when found neces-

sary, (3) Repairs, up to \$5000, of any termite damage to structure and contents occurring after contract is issued. Performance is guaranteed by Bruce Company and insured by American Employers' Insurance Co.

Look in the phone book under Bruce-Terminix or Terminix and call your local company. You'll find their advice helpful and reliable on any problem involving termite protection for new homes, old homes, and homes under construction.

TERMINIX DIVISION, E. L. BRUCE CO. Incorporated
P. O. Box 397-AK, Memphis 1, Tenn.

Chemical treatment during construction
Protection without treatment for qualified termite-free structures
Treatment as required for infested structures



THE NATION-WIDE TERMITE PROTECTION SERVICE

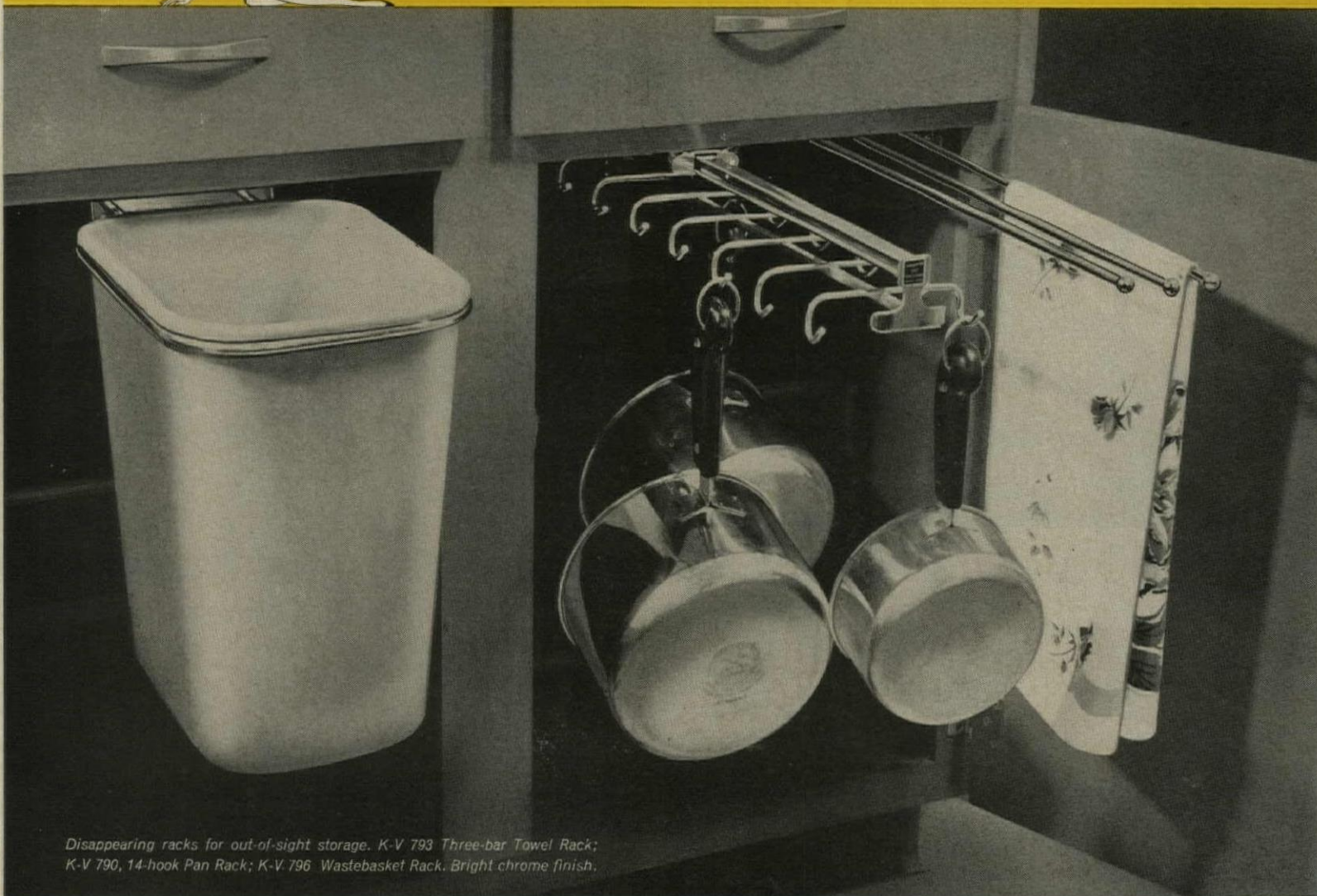


KAY VEE SAYS:

"Easy does it!"

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

SEE OUR
CATALOG
IN
SWEET'S



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.

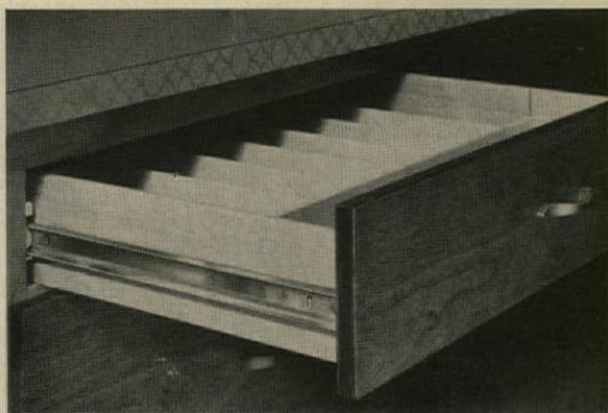
K-V hardware and fixtures make kitchens easy to work in, easy to live in. Disappearing racks that give out-of-sight storage, and pull out for easy use. Drawer slides that let drawers roll open at a touch and close gently but firmly. Adjustable shelf hardware that



**KNAPE & VOGT
MANUFACTURING
COMPANY**
Grand Rapids, Mich.

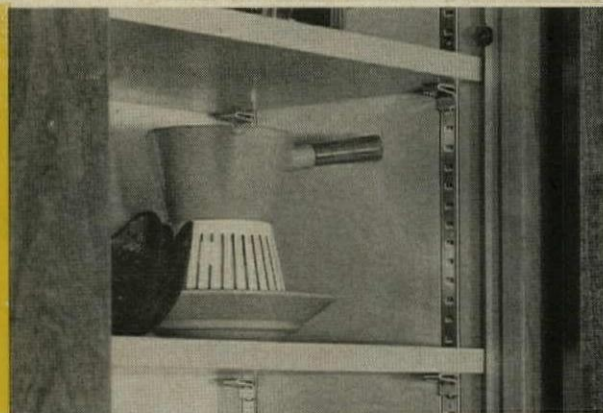
lets storage space change to suit changing needs. K-V products work day in and day out, give pleasure year after year. Yet, they are inexpensive and so easy to install. Ask your K-V representative or distributor about them—or send for our catalog, today.

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, 9/16" wide). Nickel, zinc or bronze finish.



Why this sign
will help you sell
more homes!



GO MODERN—GO GAS

When your homes are Blue Star Homes, things happen.

American Gas Association's million dollar-plus Blue Star promotion works for you. Powerful advertising, national and local, is beamed at home buyers. A complete kit of selling tools is placed at your disposal.


House hunters are told and sold on the extras found in Blue Star Homes . . . made familiar with the Blue Star Home sign . . . reminded in ad after ad to "look for this sign of a quality home." They're pre-sold on the advantages of the modern Gas appliances found in a Blue Star Home.

Your local Gas company representative will give you full details about how the Blue Star Home promotion will help you sell more homes. Ask him.

AMERICAN GAS ASSOCIATION

ONLY HOMES OFFERING BUYERS
THE ADVANTAGES OF MODERN GAS
APPLIANCES CAN BE CALLED
BLUE STAR HOMES.

Blue Star Sign means
home buyers can
LIVE MODERN
FOR LESS
... WITH


GAS



Home buyers' favorite...GAS HEAT!

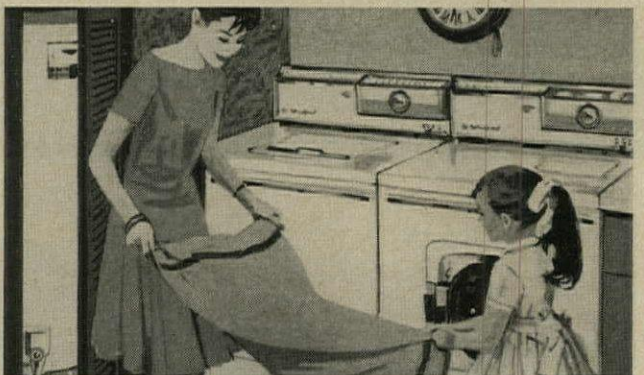
8 out of 10 new home buyers across the U.S. choose economical, quiet, efficient, clean, modern Gas heat . . . enjoy lower fuel bills, proved performance. More than 26½ million satisfied home-owners use Gas heat. Gas units can be planned to use the same ducts for both heating and cooling, so that Gas cooling easily can be added at any time.



Home buyers' favorite...GAS COOKING!

Gas ranges . . . built-in, wall hung, free standing, or slide-in . . . are far and away the most popular. Cost you less to install, too. And they feature modern advances like the Burner-with-a-Brain* that turns itself up and down *automatically* to hold the correct temperature. No finer ranges are made than those built to Gold Star standards.

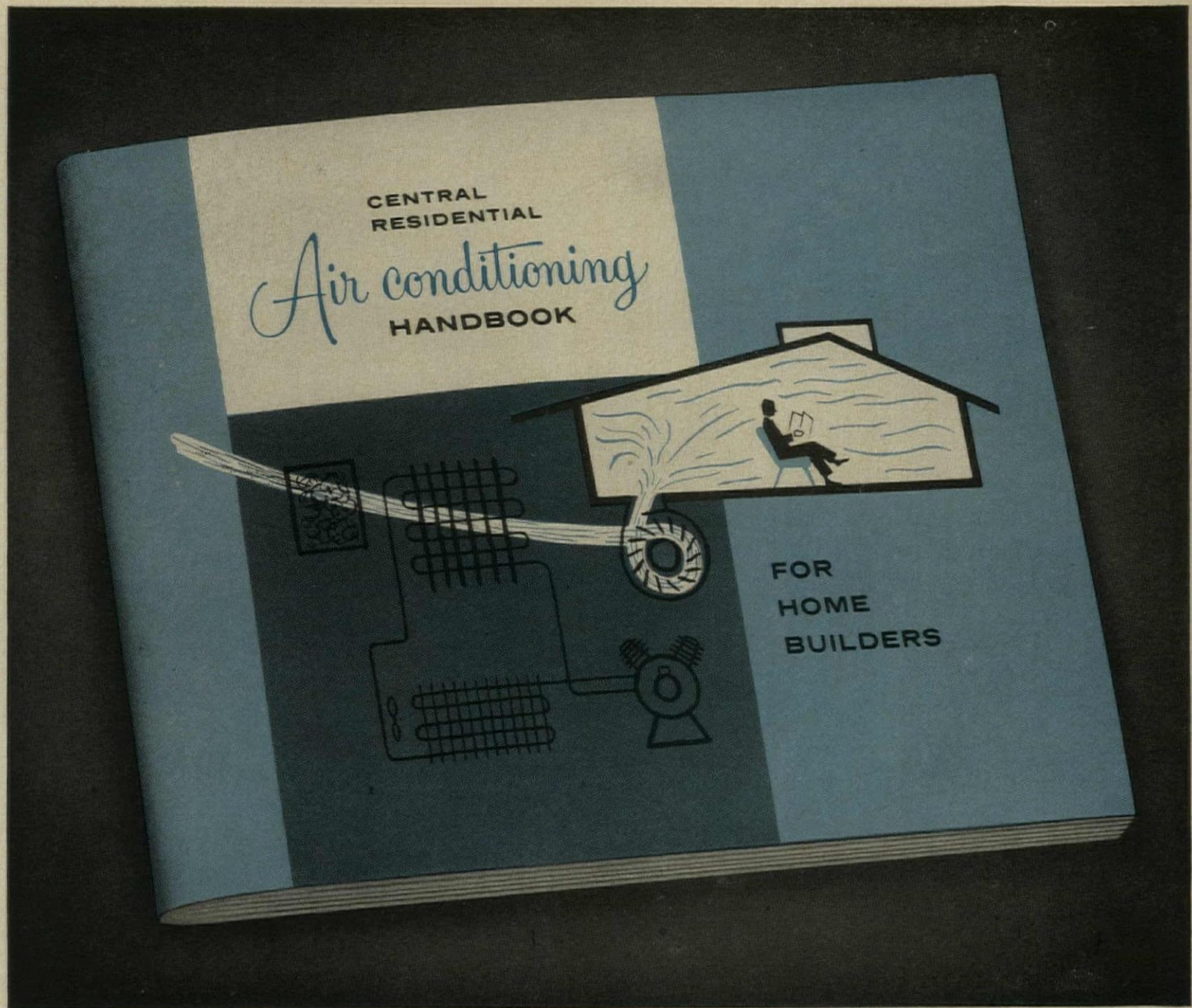
*A. G. A. Mark ©Am. Gas Assoc., Inc.



Home buyers' favorite...GAS WATER HEATING!

With economical, dependable Gas, homeowners are sure of all the hot water they need, when they need it. No wonder a Gas water heater is preferred. And a Gas dryer is faster, more economical, leaves clothes soft and fluffy, white and bright.

PLUS these modern features that make your homes more appealing to prospects: Smokeless, odorless Gas incinerators eliminate daily garbage and trash carrying, place your home in a cleaner, quieter, more modern setting. Gas refrigerators cost less to run, have less moving parts to break down, give new convenience in ice making with no trays. Outdoor Gas Lights add beauty, warmth, distinction to driveway, patio, yard, doorway.



Use this free booklet from Du Pont to help sell more homes, faster

Send in today for this brand-new, 36-page, illustrated booklet. For the first time under one cover, you get the complete story on central residential air conditioning in all its aspects. The booklet, specially written for home builders, thoroughly discusses such important questions as installation, cost, FHA financing, consumer benefits and selling methods. ■ Central residential air conditioning is now the fastest-growing feature in new-house construction



(126,000 units installed in 1957 to well over 300,000 units in 1962). And special promotions such as the "Crowning Touch" have proven that central air conditioning, promoted on a non-option basis, sells more houses, faster. ■ This new booklet will give you all the information for putting the sales feature of central air conditioning to work in your own houses! For your free copy, send the coupon to Du Pont Co., "Freon" Products Div. N-2420HH-6 Wilm. 98, Del.

MAIL COUPON FOR YOUR FREE COPY

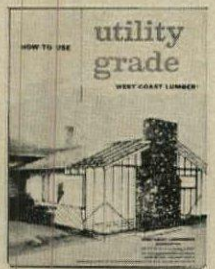
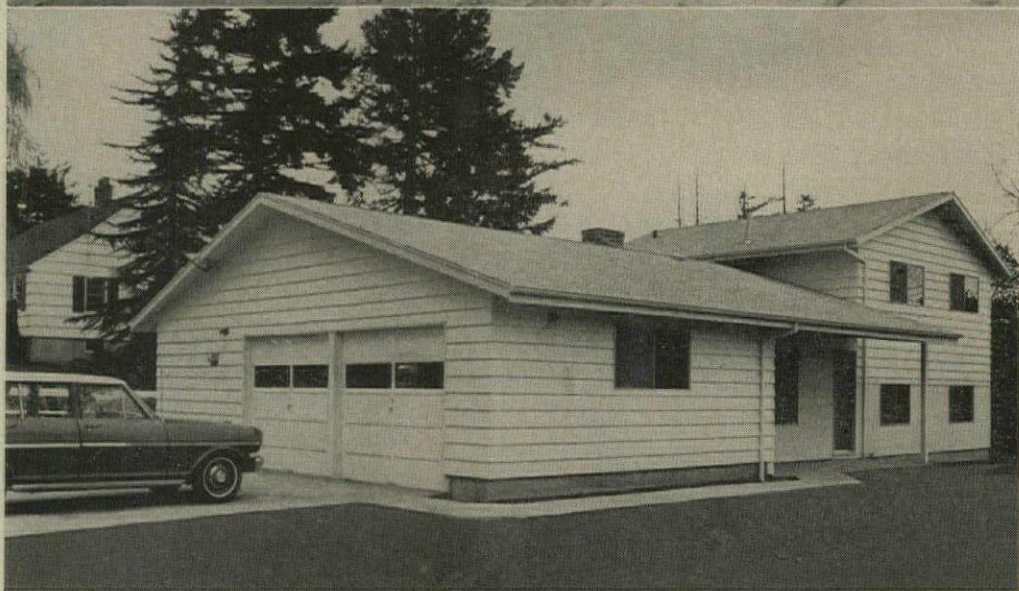
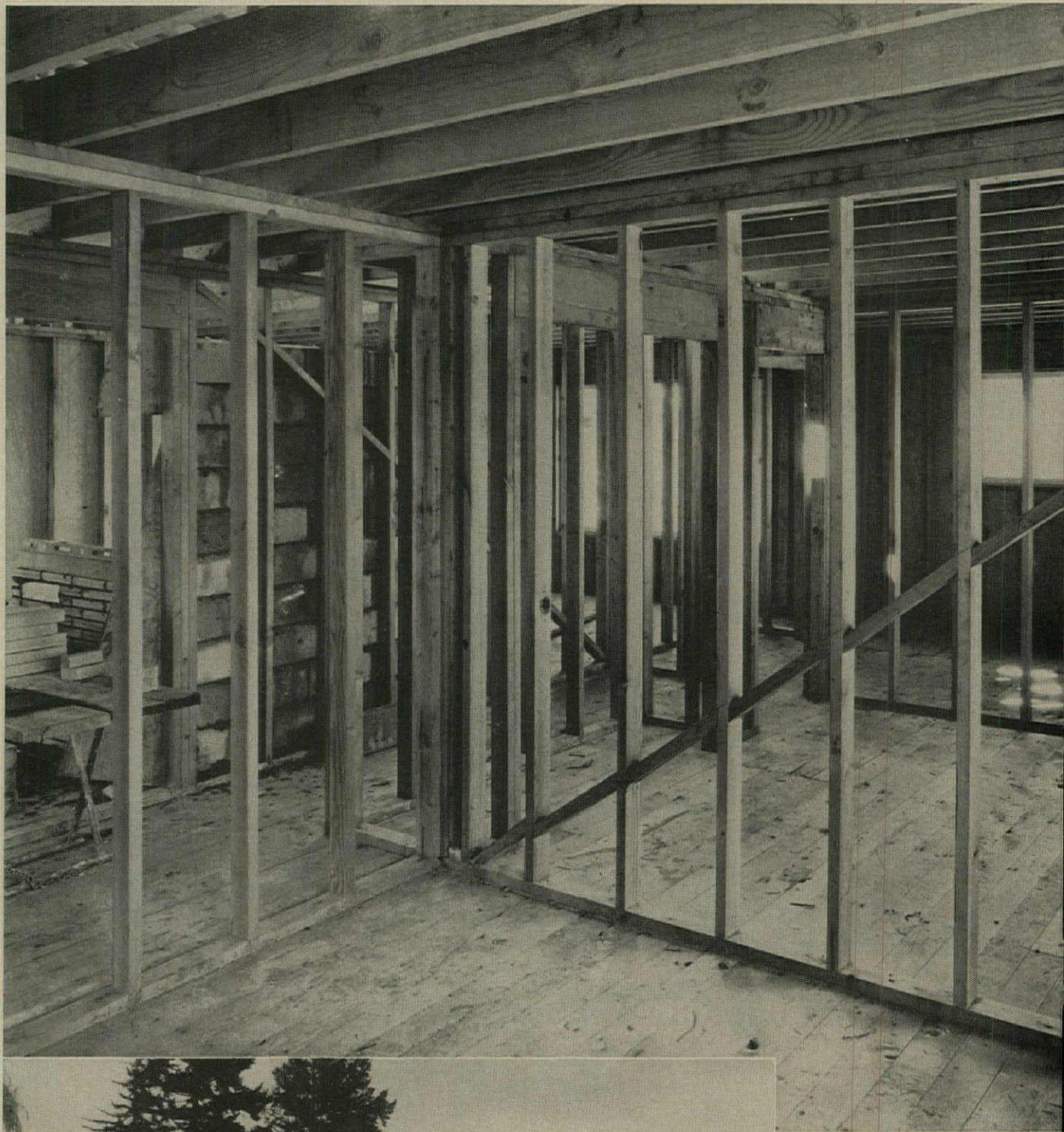
Du Pont Company
 "Freon" Products Division, N-2420 HH-6
 Wilmington 98, Delaware

Name _____ Title _____

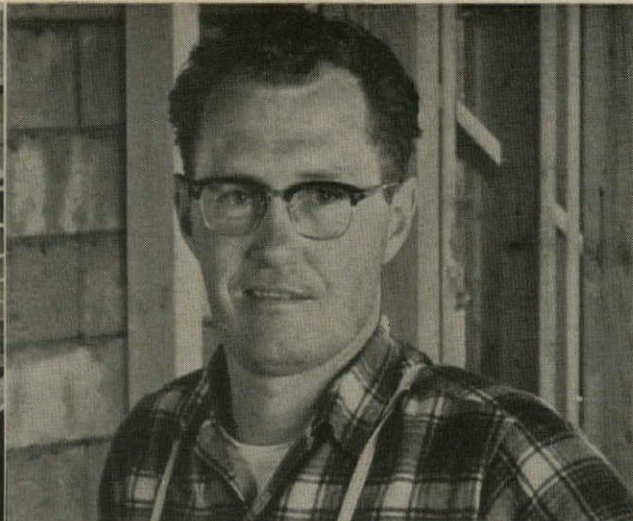
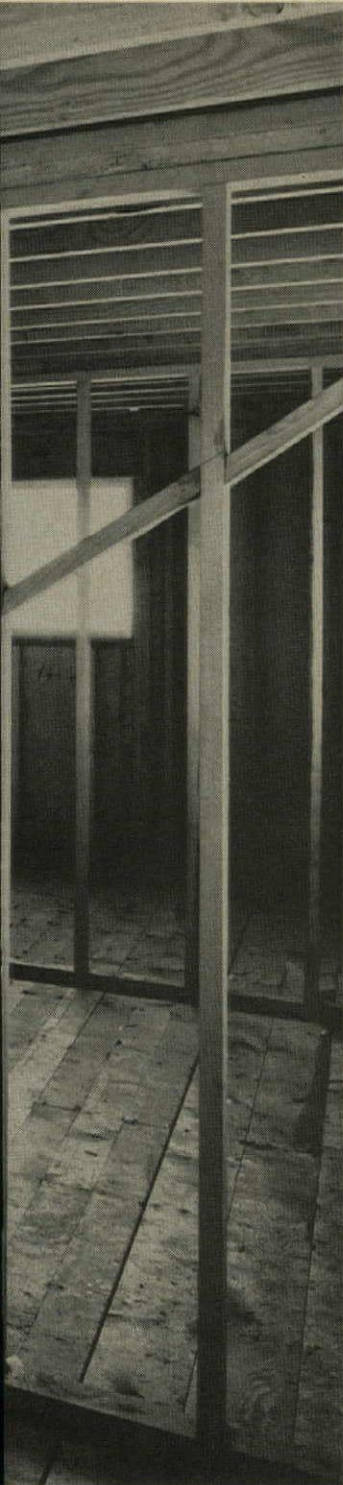
Company _____

Address _____

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



FREE TECHNICAL BUILDING FACTS
Utility Grade applications are illustrated, with easy to understand span tables.



"I've built quality homes with UTILITY GRADE West Coast Lumber for seven years,"

reports **DAVE STROUP**
Aloha, Oregon, builder

"I enjoy a reputation for building quality homes and also for staying competitive in the home selling market. West Coast Utility grade framing lumber saves me at least \$200.00 on each unit I build. It is this saving that I pass on to my buyers to give them more for their money. My homes are priced in the \$17,000 to \$20,000 range and they are financed conventionally or by FHA insured mortgage."

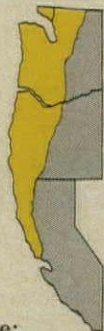
Utility grade West Coast Lumber is available in the popular West Coast Douglas Fir or West Coast Hemlock species. It is used for all types of light construction . . . joists, sub-flooring, studding, rafters, laminated decks and plank roofs. You can save money with this grade of coast region West Coast Lumber.

Your local retail lumber dealer is a dependable source of supply for Utility grade. Ask him to estimate your next house job.

Coast Region

WEST COAST LUMBER

MADE IN U.S.A.



**WEST COAST DOUGLAS FIR
WEST COAST HEMLOCK
WESTERN RED CEDAR
SITKA SPRUCE
WHITE FIR**

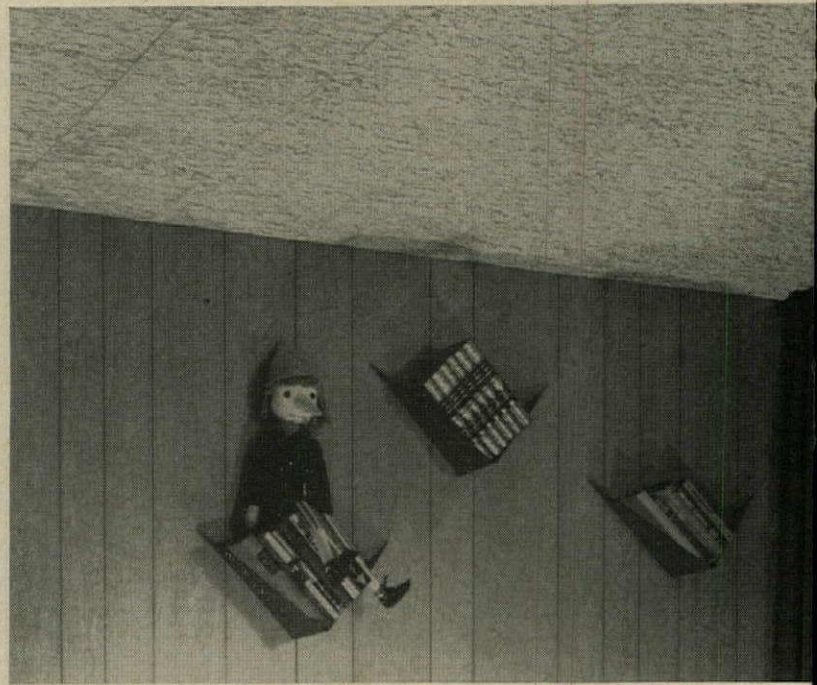
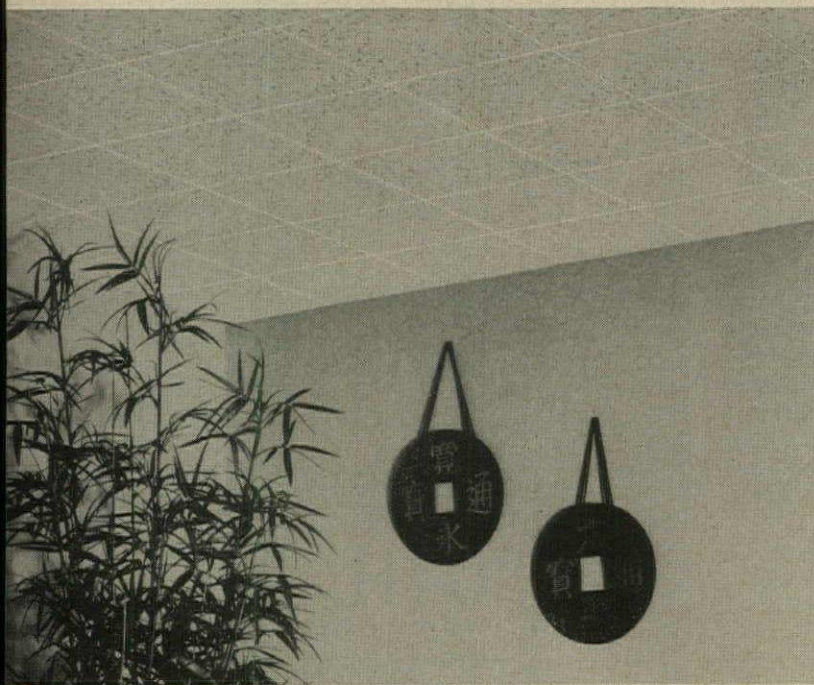
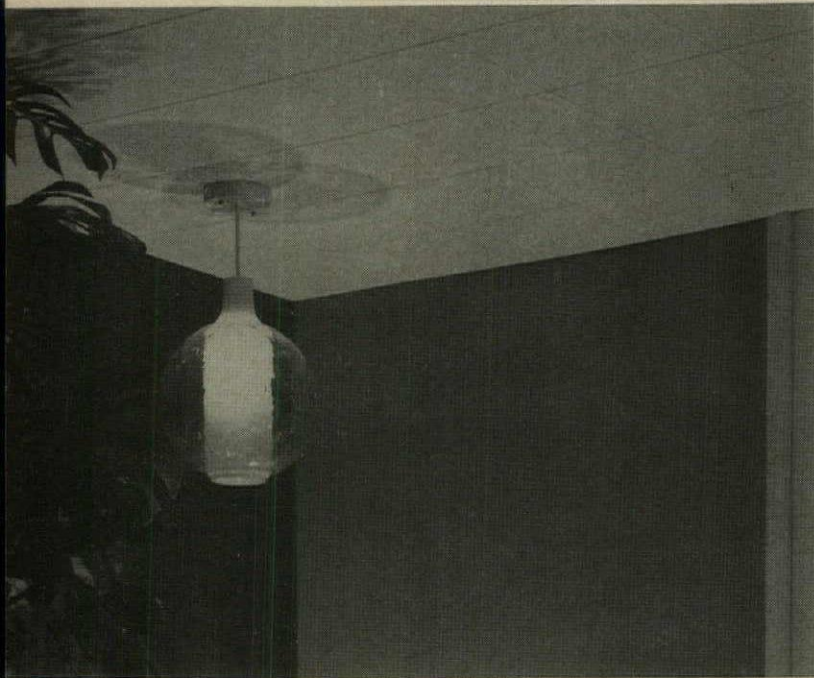
For your **FREE** copy, write:
WEST COAST LUMBERMEN'S ASSOCIATION
1410 S. W. Morrison Street, Portland 5, Oregon

THESE GRADE STAMPS ARE USED ONLY ON COAST REGION WEST COAST LUMBER

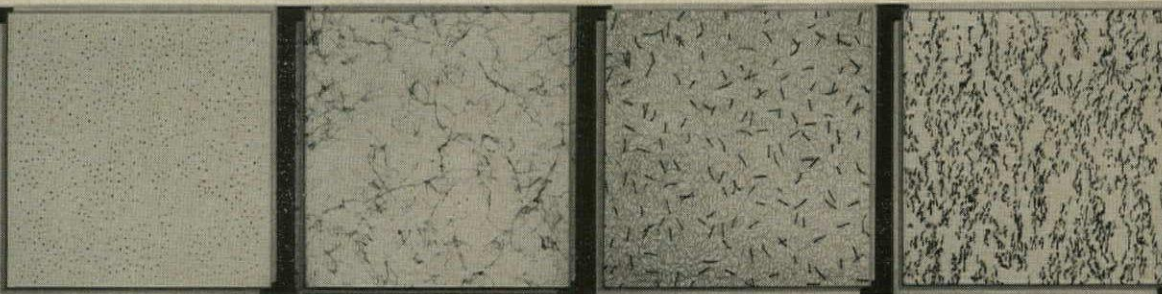


For WCLB lumber grading information write:
West Coast Lumber
Inspection Bureau
1410 S. W. Morrison Street,
Portland 5, Oregon

HARMONY PART OF OUR PRODUCT



FOR THE MOST VERSATILE TILE—LOOK UP TO CERTAIN-TEED! A first-class ceiling tile should excel in all departments . . . decorative beauty, sound absorption, insulation value. Certain-teed Ceiling Tile offers all this and more. It blends harmoniously with handsome rooms in any home; and because it absorbs up to 70% of all noise striking the surface, this tile helps keep things tranquil and quiet. Certain-teed Products Corporation, Ardmore/Pa.



PLANTS AND OFFICES THROUGHOUT THE UNITED STATES

Landscaping . . . trade-ins . . . nursing homes

Semantics of landscaping

H&H: I am concerned at the use of the word landscaping and landscape when usually what is being described is plantings. This implies that the profession is primarily concerned with planting when actually a small part of the planning done by the landscape architect is concerned with planting. Planting is definitely a part of landscape architecture but it should be referred to as such to make it clear it is only a part of the professional services offered.

The article [Landscape design pulled me out of the sales doldrums, Apr.] not only has some very sound advice on property development and how each site is a problem unto itself, but the economics should be of great interest to your readers. Readers will do well to heed Landscape Architect Bruning's advice to bring in the landscape architect at the beginning of a development. His advice on suitable land and its best use and on planning the individual parcels will bring returns well above his fees.

JOHN I. ROGERS, president
American Society of Landscape Architects

Carpet on the mortgage

H&H: If the makers of the new continuous filament nylons ignored the carpet industry and submitted a minimum standard with a five year guarantee to FHA, it would put an end to the whole carpet mess.

Model houses here usually have no carpets. The chief reason: Builders don't want even to suggest something to customers that means more cash out of pocket when they buy. If FHA had a minimum standard and included carpeting in home mortgage loans, it would be one of the best improvements we could make this year in the industry.

MARGARET GALE, interior designer
San Antonio

Rx for trade-in houses

H&H: I have traded more than 200 houses in the last ten years in the metropolitan New Orleans area. I have studied closely FHA trade-in housing and other information on the trading in of old homes on new ones.

Despite considerable action by many, including FHA and Congress, trading in of houses has probably not increased 5% in the last five years throughout the U.S. So I suggest that FHA freeze its valuation on a house taken in trade by a Realtor or builder for two years. We have been discouraged from trading houses because when we buy a house below market price, FHA reduces its value on the property when we get a buyer.

This penalizes the trader. By freezing the valuation for two years, FHA would improve traders' ability to borrow from banks.

JAMES D. RUSSELL, president
Trade-In Financing Corp.
New Orleans

Design aesthetics

H&H: Eichler's San Francisco townhouses [Thoughtful design and land planning pay off, Dec. '62] present an example of handsome design, individual unit privacy, and a happy relationship of housing rows, open

space, and auto storage. This seems a good solution to the problem of providing housing at increased densities with increased amenity.

I must say, however, that the Florida model house featured in the same issue [The most talked-about model houses of the year] seemed extraordinarily vulgar and overstuffed—a poor man's gaudy dream of a rich man's house.

WALTER ERIC CARRUTHERS JR., senior planner
Santa Clara County (Calif.) planning dept.

The new housing industry

H&H: We are so enthusiastic about the New Housing Industry series that we hope you will publish a reprint in booklet form.

JOHN F. BONNER, director of public relations
Mackle Brothers Inc.
Miami

H&H: Your article [New pools of capital, Apr.] . . . was very effective. It pointed up a premise which I have been trying to establish among financial people for a long time: that the organized development or building company is at least comparable to any other type of manufacturing firm. The only difference is that we change plant locations from time to time.

ROBERT H. WINNERMAN, president
U.S. Home & Development Corp.
Lakewood, N.J.

H&H: It was a wonderful job of collecting a lot of facts and putting them together concisely and with meaningful interpretation.

GEORGE H. KNOTT, editor
The Mortgage Bank
Chicago

Nursing homes

H&H: Your concise factual reporting in the nursing-homes article [Apr.] is a real service to homebuilders. Nowhere have I found as much information on the subject put together so convincingly. I hope your readers take careful note of the operating costs and start-up expenses you caution about.

JAMES M. POWELL JR., vice president
Crawford Corp.
Baton Rouge, La.

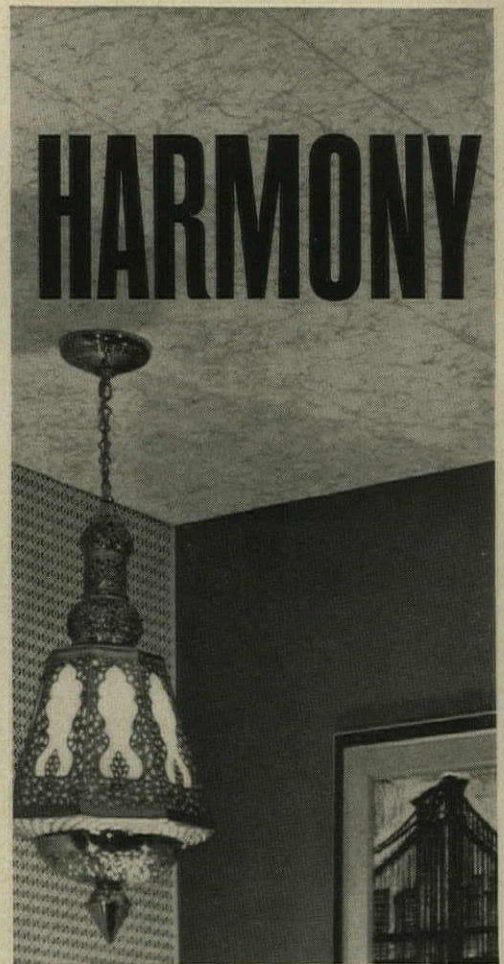
H&H: You are to be congratulated for pointing up the basic facts a builder should know before entering the nursing-home field. If I were to add one admonishment it would be that the builder should not proceed until he has secured the services of an experienced, qualified nursing home administrator to handle the day-to-day operations of a new nursing home.

WILLIAM E. BEAUMONT JR., president
American Nursing Home Assn.
Washington, D.C.

H&H: Your April feature on nursing homes presented realistically a subject too often avoided: the profit motive in planning a proprietary medical-care facility. Of all human motivations this one is most likely to fill the urgent need for more hospital and nursing-home beds.

We do not fully agree, however, with all

continued on p. 81



WHAT MAKES A JOB PROFITABLE?

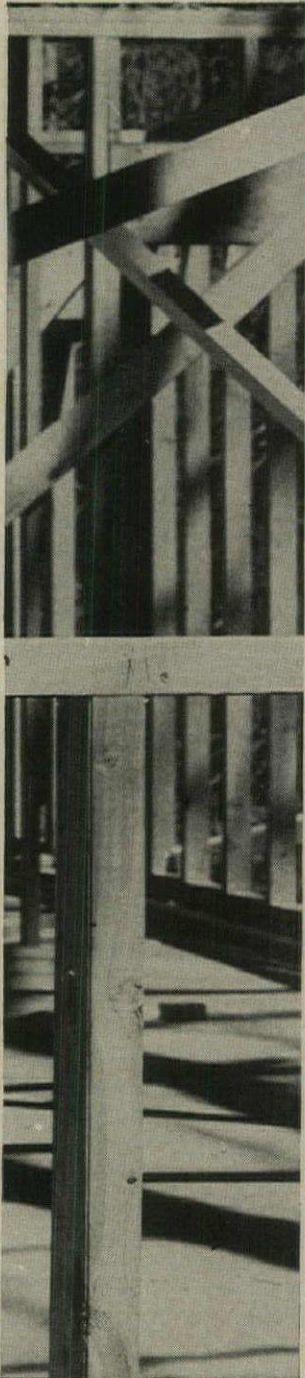
Today, construction trends are changing. Close attention must be paid to newer designs, materials and techniques . . . in order to achieve quality construction at minimum cost and in the shortest possible time. Only when these conditions are met will a job earn substantial profits.

To provide needed technical assistance to all building trades, Bestwall Certain-teed now provides a staff of Systems Engineers, including men who are experienced in many phases of design and construction. This service is available without charge.

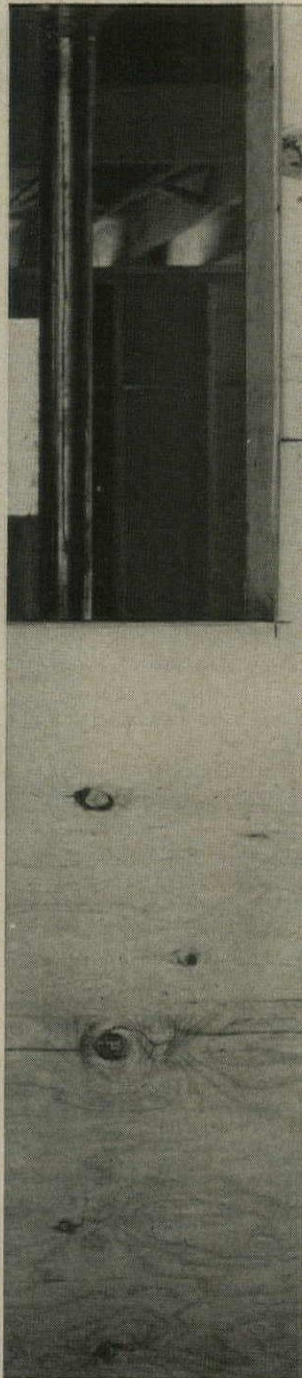
CEILING TILE, Lath and Plaster, Roofing Products and Roof Insulation, and Drywall Systems are among the installations where our Systems Engineers can be of assistance to you. Contact your Bestwall Certain-teed Sales Corporation office.

BESTWALL

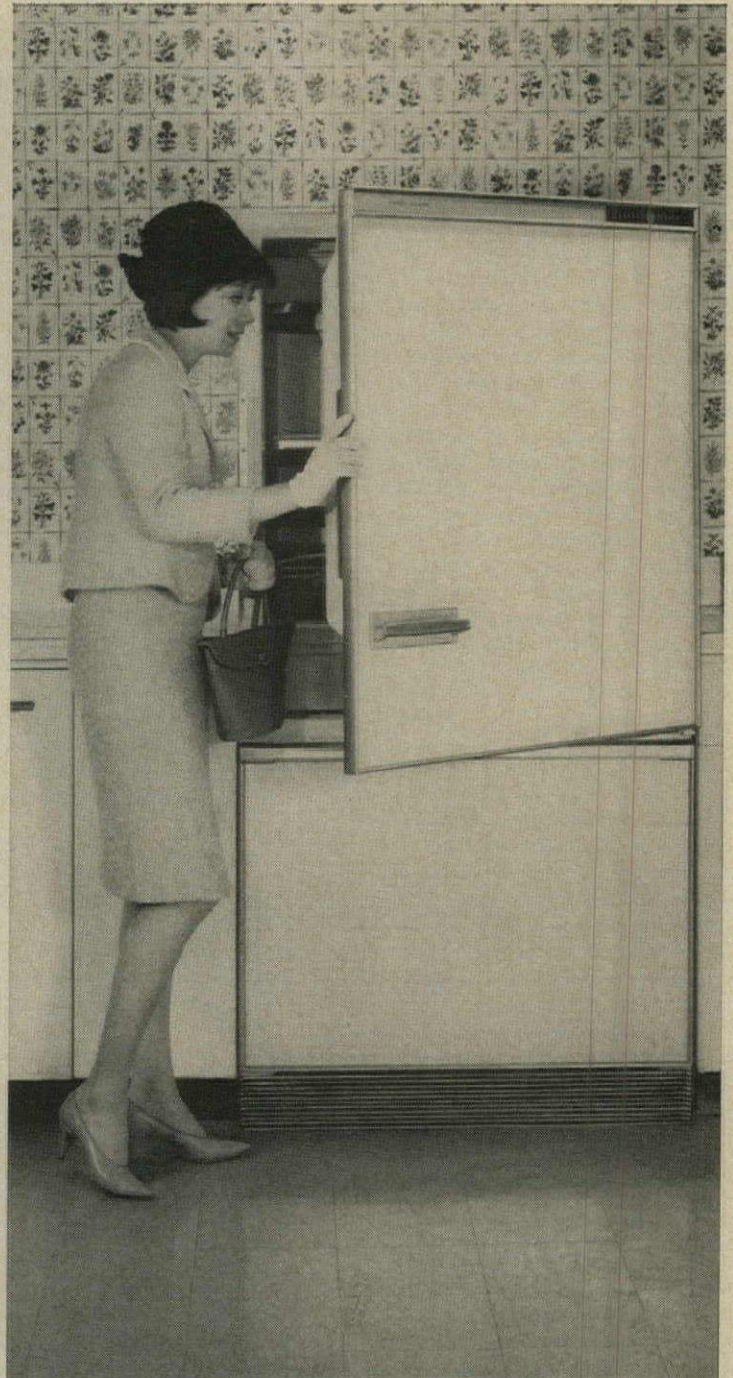
CERTAIN-TEED



You can show them the studs.



You can show them the sheathing.



But for quality they can see, show them the G-E Refrigerator.

You can talk about "hidden values" till you're blue in the face.

But when that lady walks into your kitchen and comes face to face with a General Electric refrigerator, she *knows*.

She knows you haven't cut back. She knows you've put the maximum quality into her kitchen—and that means she'll feel the same about everything. (And she'll get that feeling of confidence across to her husband, too.)

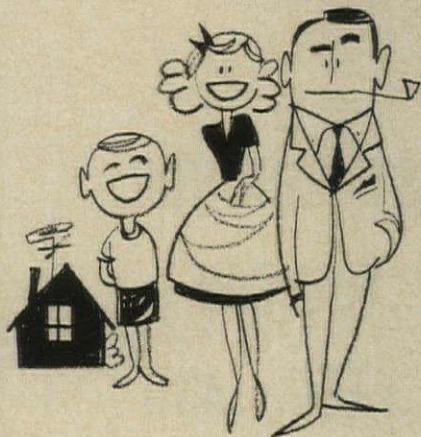
So why not put a dependable General Electric re-

frigerator into that hole in the kitchen? Why not turn an empty space into an honest asset—by putting the refrigerator *she* wants where it can do you *and* her the most good! See your General Electric distributor and find out how easy it is to put in a G-E refrigerator (especially when most prospective homeowners can include the price of the General Electric refrigerator in their mortgages).

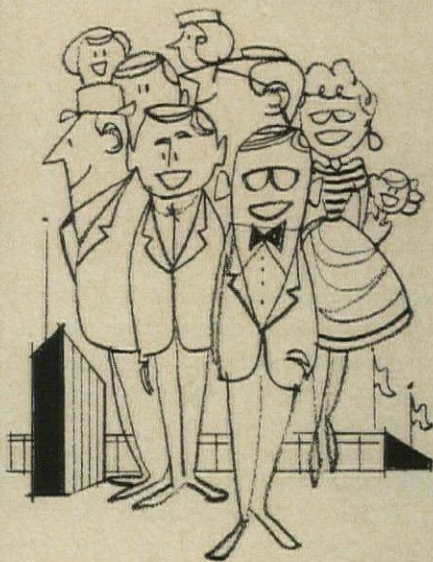
Household Refrigerator Department, Appliance Park, Louisville, 1, Ky.

GENERAL  ELECTRIC

only from
YEOMANS
SEWAGE
TREATMENT
...for a family



...or a crowd!



YEOMANS BROTHERS CO.
2003-8 N. Ruby Street, Melrose Park, Ill.

Send me the following literature:

- Single-Home, CAVITETTE®
- Up to 50 homes or equivalent, YEO-WAVE®
- Up to unlimited capacity, YEO-CONE®

SEWAGE PUMPING

- For basement toilets in single homes.
- For apartments, motels, etc. (Ejectors).
- For subdivisions, shopping centers, etc. (Lift Stations).

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T-6256

LETTERS

start on p. 79

the conclusions. We think your estimate of a \$1.3 billion construction market in nursing homes may safely be increased by about 50%. Your estimate seems based on: 1) an average cost per bed of \$4,000 and 2) a growing market of persons over 65. While \$4,000 a bed may be feasible in certain states and for unusually large projects, it can hardly be taken as average. Due to the high proportion of 40-to-50 bed facilities being planned (usually with expansion features included) a more reasonable estimate of average cost per bed should run above \$5,000. And nursing-home patients are not only persons over 65. There are a substantial number of people of all ages who have chronic disabilities, in addition to convalescents no longer in need of hospital care. Housing professionals should be aware of these groups along with the aged it entering the nursing home field.

FHA standards have on occasion been suspected of discouraging new design, and sometimes forcing a costly unwanted facility because of regulations. Thus, as Sandy Field notes, "they unnecessarily boost building costs." We think it is in order to congratulate HOUSE & HOME on an outstanding service performed through a most practical article.

GORDON POWERS, AIA
New York City

• *Consensus of nursing-home authorities is a \$1.3 billion-a-year market. Architect Powers designs in one of the nation's highest-cost areas.—Ed.*

Kudos

H&H: April is the best issue of HOUSE & HOME I've ever read. I especially like your sophisticated approach to management—CPM, profit story, etc. and your two perceptive roundups on markets.

KELLY SNOW, sales management consultant,
Palo Alto, Calif.

H&H: I found the April issue one of the best you have published in the last 12 months and more. I have also heard from many of my clients, who are among the biggest builders in the country, that they found it to be the same. They particularly liked the articles on the publicly-owned corporations and on the critical path system.

SANFORD R. GOODKIN, president
Sanford R. Goodkin Research Corp.
Sherman Oaks, Calif.

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HARMONY



WHERE'S THE BOOM?

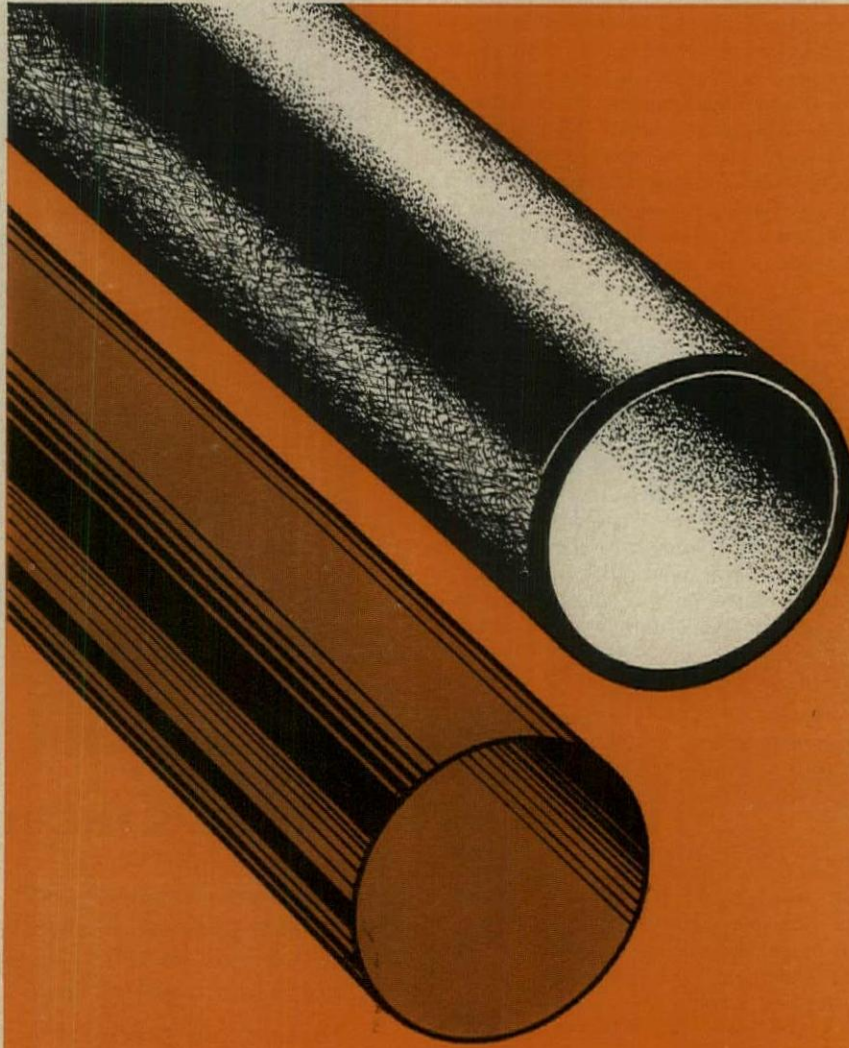
It's in the remodeling field. This fast-growing business is expected to total \$20 million in 1963—designated as Home Improvement Year.

To help you profit from this great business opportunity, Bestwall and Certain-teed provide the services of a newly enlarged staff of Systems Engineers. These men are experienced in many phases of design and construction, and offer guidance in finding the best markets, estimating remodeling jobs, preparing contracts, selecting appropriate financing, using proper materials and installation methods, and other services.

CEILING TILE, Drywall Systems, Roofing and Siding, Insulating Sheathing, Lath and Plaster are among the installations where our Systems Engineers can be of assistance to you. Contact your Bestwall Certain-teed Sales Corporation office.

BESTWALL
CERTAIN-TEED

What does DWV copper



**IN CAST IRON SOIL
PIPE...YOU CAN
SEE...FEEL...AND
HEAR THE DIFFERENCE!**

The facts on the adjoining page show the many advantages you get with cast iron soil pipe. They reveal with startling clarity the limited advantages you get from DWV thinwall copper tubing.

For instance: Cast iron soil pipe has a thick, strong wall. *Copper tubing has a soft, thin wall.* Cast iron soil pipe absorbs water noises and pipe vibration. *Thinwall copper tubing amplifies them.* Cast iron soil pipe can't be punctured accidentally by nails. *Thinwall copper tubing is puncturable.* And, cast iron soil pipe, in more than

a century of drainage service, has proved itself safely resistant to corrosive materials in ordinary sewage.

Homes in any price bracket reflect better quality and bigger value when you build with **CF** cast iron soil pipe specified for plumbing drainage and sewer lines. You know how today's buyers look for utmost freedom from maintenance expense—and here's a whole lifetime of it. Our FREE Kit of Merchandising Aids for Builders will help you make the most of your wise choice of cast iron soil pipe. Use the coupon below.



Alabama Pipe Company
The American Brass & Iron Foundry
Anniston Foundry Company
The Buckeye Steel
Castings Company

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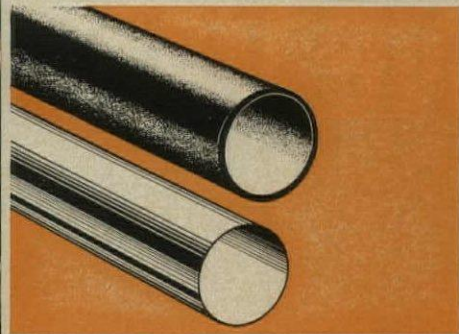
Buffalo Pipe & Foundry Corp.
Charlotte Pipe and Foundry Company
Glamorgan Pipe & Foundry Co.
Rich Manufacturing Company
Russell Pipe and Foundry Co., Inc.

Tyler Pipe and Foundry Company
United States Pipe
and Foundry Company
Western Foundry Company
Williamstown Foundry Corporation

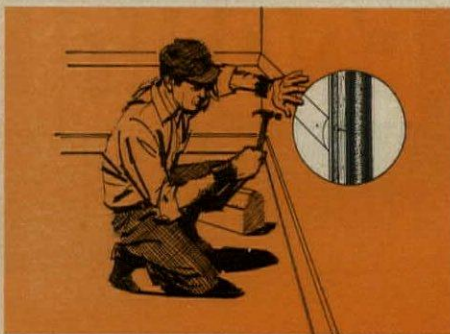
See...Feel...Hear the difference! Specify **CF — the way to buy modern...**

CAST IRON SOIL PIPE

drainage tubing fail to deliver?



Cast iron soil pipe—a rugged nominal wall thickness about four times that of soft, thin-wall DWV copper tubing. You can See... Feel...and Hear the Difference!



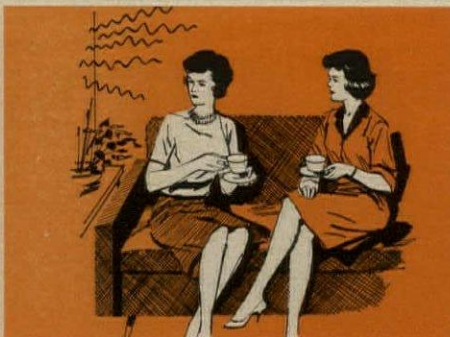
Cast iron soil pipe is nailproof! Accidental puncture of drain lines or stack can't happen with cast iron soil pipe. Plumber's "snake" does no damage from inside the pipe.



Cast iron soil pipe resists corrosive bathroom wastes that attack thinwall DWV copper drainage tubing—as demonstrated by actual experience. (Ask to see the evidence.)



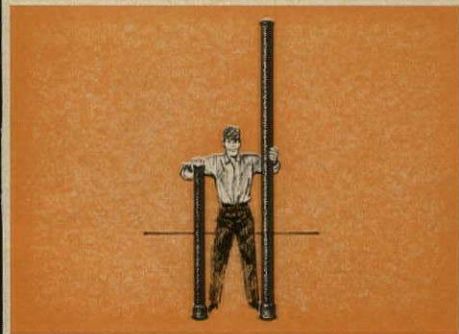
Cast iron soil pipe takes household chemicals in stride! Detergents and drain cleaners have little corrosive effect on cast iron soil pipe—even after many years of use.



No embarrassing bathroom noises! Thick-walled cast iron soil pipe muffles gurgling water sounds, quiets vibration noise—the sign of a quality plumbing installation. Thin-wall DWV copper tubing amplifies sounds.



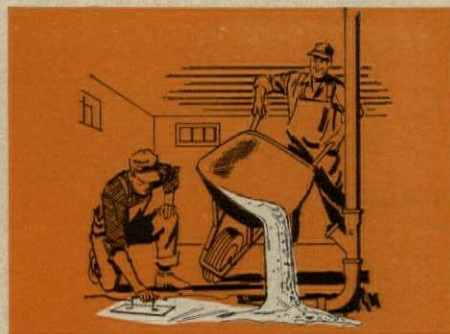
Cast iron soil pipe gives long, long service. It is not unusual to find cast iron soil pipe installations which have served through three generations—about 100 years.



Modern 10-foot lengths of cast iron soil pipe save installation time and cost. Fewer joints are needed in any drainage system in the house and to the street sewer.



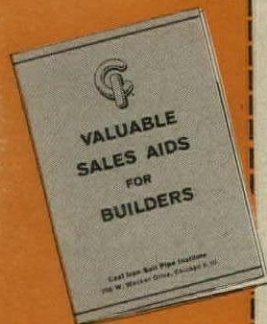
☞ *symbol of top quality. This insignia on cast iron soil pipe and fittings guarantees these products are American-made, and meet the rigid specifications adopted by the Cast Iron Soil Pipe Institute.*



Cast iron soil pipe under the floor and to the street sewer gives maximum protection against infiltration, root penetration, crushing, pipe-joint failure. No substitute drainage piping can match it.

START THE BALL ROLLING TODAY!

Mail coupon now to cash in fully on our national advertising campaign during the prime home-building and buying season!



Cast Iron Soil Pipe Institute, Dept. K
205 W. Wacker Drive, Chicago 6, Ill.

Gentlemen: Send your kit! We recommend cast iron soil pipe for all our buildings!

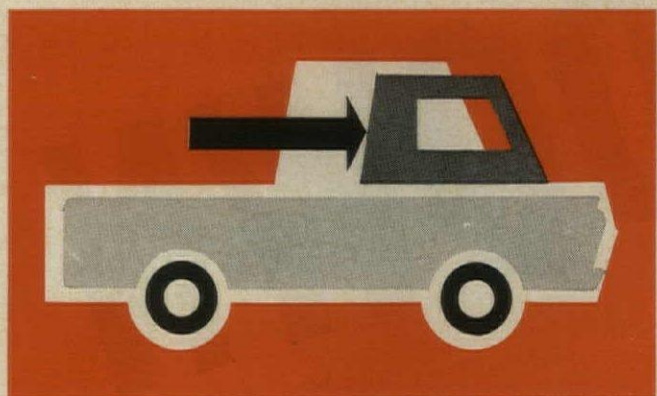
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 Your name, title _____
 Address _____
 City _____ Zone _____ State _____

'63 FORD ECONOLINE VAN

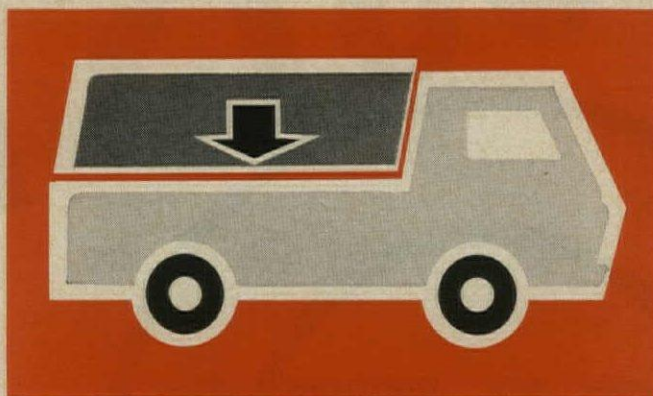


NEW WARRANTY ON ALL 1963 FORD TRUCKS. Ford Motor Company warrants to its dealers, and its dealers in turn warrant to owners, as follows: That for 24 months or for 24,000 miles, whichever comes first, free replacement, including related labor, will be made by dealers of any part with a defect in workmanship or materials. Tires are not covered by the warranty; appropriate adjustments will be made by tire companies. Owners will remain responsible for normal maintenance services, routine replacement of parts, such as filters, spark plugs ignition points, wiper blades and brake or clutch linings, and normal deterioration of soft trim and appearance items.

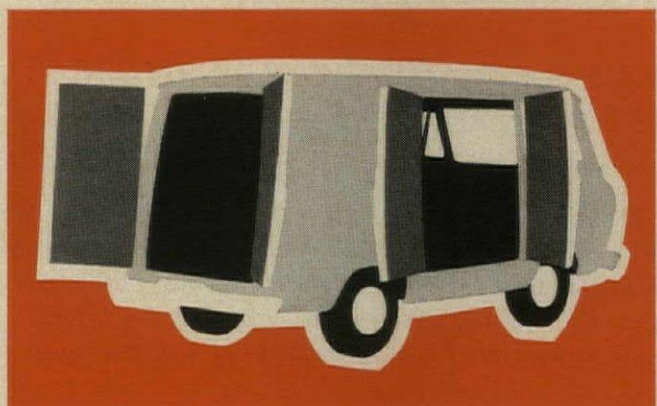
...the "covered pickup"



TAKE A PICKUP, MOVE THE CAB FORWARD SO YOU CAN SEE THE ROAD BETTER AND HAVE MORE LOADSPACE...



PUT A COVER ON THE LOAD AREA TO KEEP OUT THE WEATHER AND PREVENT THEFT...



PUT LARGE DOUBLE DOORS AT THE BACK AND SIDE FOR EASY LOAD HANDLING...



RESULT: A VERSATILE COVERED PICKUP—THE NEW 1963 FORD ECONOLINE VAN...

And for less money than some pickups!

Pickup users: get 204 cubic feet of protected, lockable loadspace... big 4-foot door openings for easy loading... 1,675 pound payload capacity... and get it for less money than you would pay for some makes of conventional pickups!

Here's a truck that can do most anything a pickup can do—and a lot more besides! It makes an ideal "workshop on wheels" and carries $\frac{3}{4}$ -ton loads with ease! Loading and unloading is easy, too—thanks to wide door openings and low, flat floor. The Econoline's shorter overall length makes it easy to handle, easy to park!

For load accessibility that's even better than a pickup's, the Econoline van's new eight-door option provides lower, easier unloading from any side: curb side, street side, front or rear! This puts every load within reach for easier, quicker handling.

Biggest surprise of all, you get these advantages at a price so low that it's even less than you'd pay for some pickups. Then add Econoline's low operating costs—savings on gas, oil, tires and maintenance that can average as much as \$100 yearly. See what a strong case you have for making your next pickup a van... a Ford Econoline van!

FORD ECONOLINE VAN

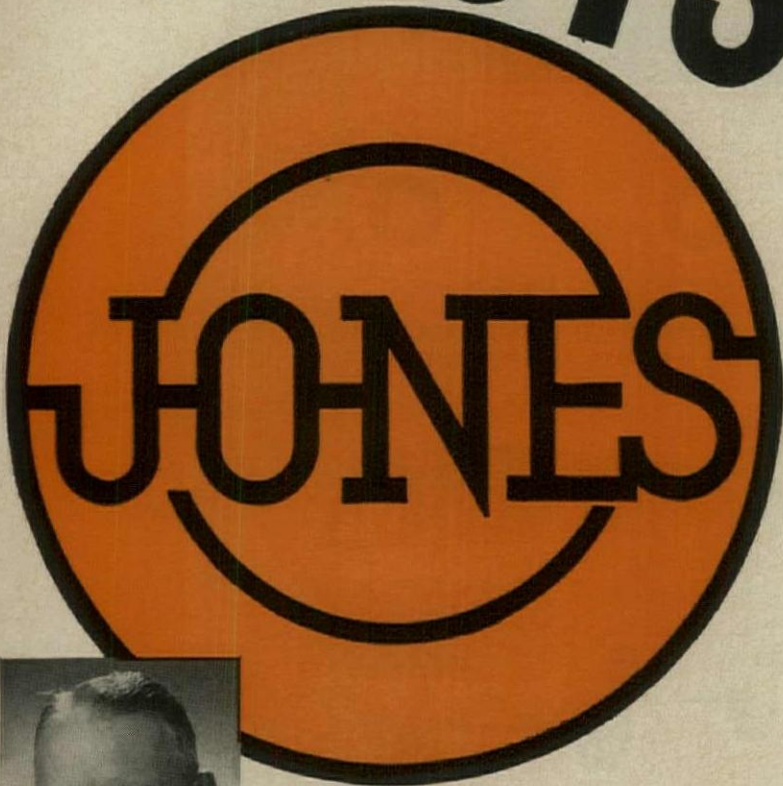
FOR 60 YEARS THE SYMBOL
OF DEPENDABLE PRODUCTS



MOTOR COMPANY

America's Successful Builders Report

"COSTS DOWN



AMERICA'S SUCCESSFUL BUILDERS REPORT . . .
"COSTS DOWN, SALES UP"

SUCCESSFUL BUILDERS ACROSS AMERICA REPORT
"COSTS DOWN AND SALES UP" wherever Jones prefinished
wall paneling is used. They have discovered that the in-place
cost of genuine hardwood plywood paneling compares favorably,
and in some cases costs less than painted dry wall construction.



"COSTS DOWN, SALES UP"
ALAN E. BROCKBANK, builder of
famous Chevy-Chase life-time homes in
Salt Lake City, Utah. "Jones paneling
has the luxury appearance at low cost
so vital in sales".



"COSTS DOWN, SALES UP"
GEORGE E. BELL, BELL & VAL-
DEZ quality home builders of Seattle,
Washington. "Our in-place cost of Jones
prefinished wall paneling is comparable
to finished dry wall".



"COSTS DOWN, SALES UP"
ANDY PLACE, PLACE & COM-
PANY, SOUTH BEND, INDIANA.
"Our buyers really like the beautiful
Jones hardwood panels in our model
homes".

No costly on the job delays, no mess. The easy to handle, labor
saving panels go up fast and need no further treatment . . . the
surface is protected and sealed with a special Vinyl-Tone factory
process that requires a minimum of the home-owners care.

Successful builders have also discovered that Jones wall panel-
ing has sales appeal. The more than 20 different patterns available
in the Lakeshore series satisfies the most discriminating home
buyer. Discover for yourself why any home at any price sells
faster with Jones wall paneling. Get in on the "profit-line" of
wall paneling now. Visit your nearest dealer and see the full line
of Jones low-cost wall paneling.

For added strength all Jones panels have Douglas Fir cores
and backs. Panels can be applied directly over studs on homes
being built under FHA requirements.

GENUINE HARDWOOD PLYWOOD

Pre finished

WALL PANELING

SALES UP"

LAKESHORE SERIES

GENUINE WALNUT, CHERRY, BIRCH. Selected from the choicest hardwoods, each 4' x 8' panel is carefully dried and milled to a superb quality. The natural phenomena of burls, swirls, knots, grains and textures are retained for added interest.

Each panel is Custom hand V-grooved and hand-stripped with a non-fading, non-chipping color dye. These prefinished panels offer unsurpassed charm to any priced home. Ideal for business and institutional buildings too.

LAKESHORE PRINT SERIES . . . Lakeshore Print panels are available in a wide variety of flawless true-wood grains. The clear, smooth, lifetime prefinished surface reflects the deep etched authentic pattern. Available in Walnut, Cherry, Winter Teak, Rosewood and Oak. The 4' x 8' panels are ready for installation, V-grooved or plain. The nine separate production processes assure you of exceptionally high quality and uniform finish throughout.

LAKESHORE TROPICAL-COLOR MAHOGANY . . . Genuine Phillipine Mahogany adds a touch of luxury and quality to any room. The Jones Vinl-Tone factory finished surface captures and permanently seals in the distinctive colors of the Far-East, producing a panel that belies its low cost. The V-grooves are shadow-toned in a contrasting color. Five different color tones are available. Dove Grey, Natural, Tusk Ivory, Charcoal and Frosted Ramin.

As members of the Hardwood Plywood Institute, all Jones production carries the grade stamp of this inspection agency.



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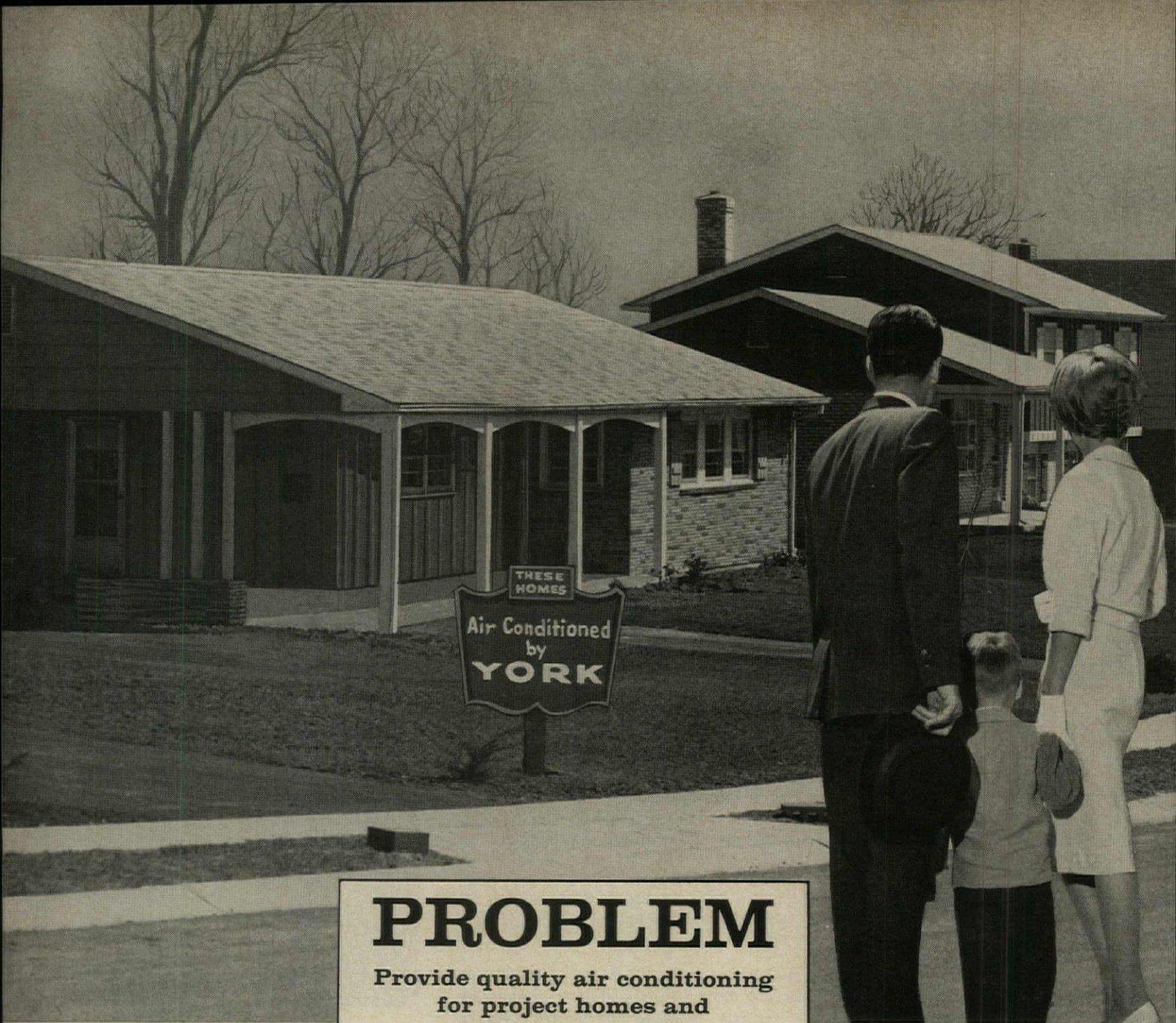


JONES VENEER AND PLYWOOD COMPANY

P. O. BOX 789, EUGENE, OREGON

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PROBLEM

Provide quality air conditioning for project homes and garden apartments

SOLUTION ... THE YORK that gives you application flexibility—

Here's a builders' package that makes it easy to install air conditioning in homes, apartments and small stores! It's the York Flex-O-Metic . . . the compact, versatile air conditioning system that assures low cost installation and customer satisfaction.

Application flexibility! The Flex-O-Metic system gives you a wide choice of location for cooling coil and furnace: in a closet, alcove, basement, utility room, attic or crawl space. Flex-O-Metic heat exhaust section is located outside the home,

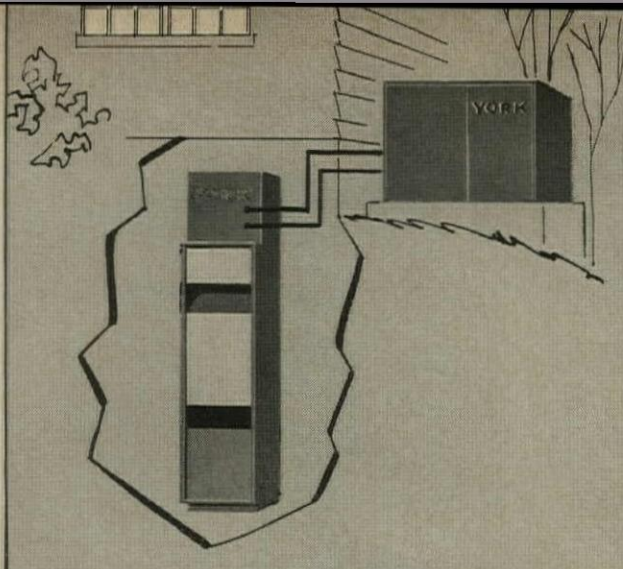
on a slab; or it may be installed on the roof where it is completely out of sight.

Teams with any furnace! The York Flex-O-Metic system may be installed with a matched Borg-Warner Furnace—or may be adapted to any warm air heating system, using the upflow type cooling coil. And, for 1963, there is a duct coil that lends itself to space-saving attic, alcove or crawl space installations.

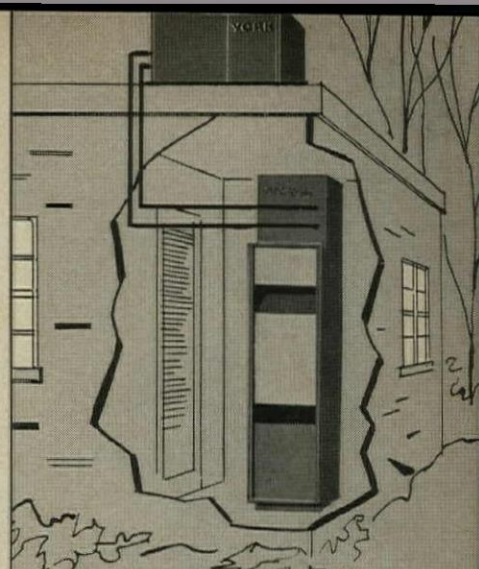
Easy, trouble-free installation! Flex-O-Metic systems feature famous York Quick-Connect Couplings; tub-

ing that connects heat exhaust section to cooling coil is pre-charged. Just a turn of the wrench makes the connection, with no field charging, no brazing, no field assembly of several parts.

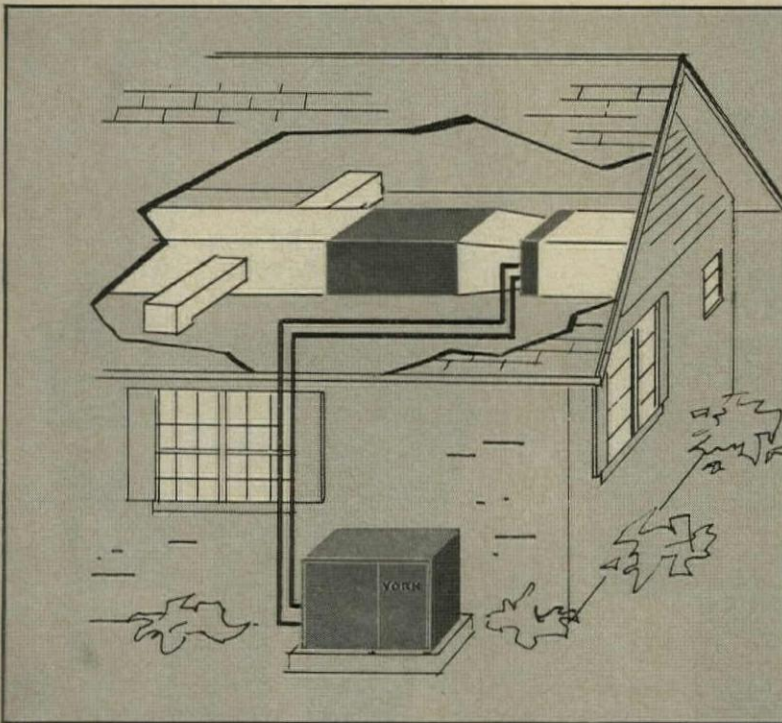
Quality cooling! The York Flex-O-Metic is an ideal system for builders who want to offer year-round comfort at competitive prices. The system is simple, flexible and compact; yet it offers true York quality. Available in two sizes—24,000 BTU/hr and 34,000 BTU/hr—the new Flex-O-Metic system meets the builder's need for a



With furnace installed in basement, upflow type coil is used. Flex-O-Metic heat exhaust section is located outside home, on a ground level concrete slab.



Rooftop location of heat exhaust section is widely used for garden type apartments. Furnace and coil are in closet or alcove.



Many ranch type homes have horizontal furnace, located in attic. Flex-O-Metic duct coil is used, with heat exhaust section located on slab outside.

FLEX-O-METIC Air Conditioning System

easy, low-cost installation!

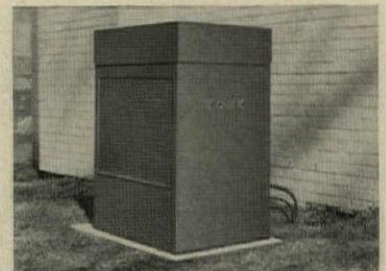
versatile air conditioning system for homes, garden type apartments and small commercial buildings.

Want more facts? For complete information on the York Flex-O-Metic and other advanced residential air

conditioning systems for builders, see your nearby York Sales Office; or write directly to York Corporation, York, Pennsylvania. In Canada, call or write Shipley Company of Canada, Ltd., Rexdale Boulevard, Toronto, Canada.



This symbol of the Air-Conditioning and Refrigeration Institute means that the equipment bearing it will render full performance under the ARI Standard.



Fully weatherproofed Flex-O-Metic heat exhaust section of zinc grip steel is finished with baked-on enamel for outdoor installation.

YORK CORPORATION

Subsidiary of Borg-Warner Corp.
YORK, PENNSYLVANIA

THE QUALITY NAME IN AIR CONDITIONING AND REFRIGERATION





WHY BUILDERS SAVE 3 MAN HOURS OR MORE

Quality Andersen Windows cost no more installed than so-called cheaper windows

With the Andersen Strutwall . . . the complete window-and-wall component . . . you can add Andersen quality at no premium in cost.

It's because Strutwalls are so fast and easy to install. They're delivered as a complete modular unit. There's no framing-up window openings. No shimming under sills. No plumbing of windows. No exterior casings required. No packing of insulation around window openings.

All you do is cut two side struts to length, tip Strutwall in place, and nail it in.

Compare this easy installation to the time-consuming steps to install "cheaper" windows and you know why hundreds of Strutwall users are cutting installation time and cost in half!

"Andersen Strutwalls cut 36 hours of labor costs out of our homes," says Grant Skinner, Skinner and LaPrise, Wallaceburg, Ontario.

"\$20 per opening is a big saving . . . and we get it with Andersen Strutwalls," says Jack Akre of Dakota Lumber & Builders, Inc.

"Our total savings with Strutwalls exceeds 30 hours each day," says Ed Ryan, Pittsburgh project builder. "Material savings are also big."

Need more reasons for building with Andersen Windows? How about these:

Fuel savings—a good selling point—homeowners can save 15% or more on heating and air conditioning costs with Andersen Windows. It's because they're extra weathertight . . . up to 6 times tighter than ordinary windows. Double sealed—with tension weatherstripping and a double contact between sash and frame.

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 on your windows as



THIS IS THE COMPLETE ANDERSEN STRUTWALL AS DELIVERED TO YOUR SITE. All jack studs, top and bottom nailers, glazing, hardware and side struts are factory installed. Sheathing, removable grilles, welded insulating glass, paint priming and plywood box headers are all available as factory options.



This sign in your windows puts extra sales appeal in your homes

PER WINDOW WITH ANDERSEN STRUTWALLS*

one good sign of the quality throughout the house. With America's "brand-name" windows in *your* homes, you have an immediate selling advantage.

"No callback" quality—with Andersen Windows you can virtually forget the nuisance and expense of window callbacks. Why? The secret lies in making a quality window where potential "problems" are designed out! Every Andersen Window is precision-built with factory controlled tolerances. Hardware is custom designed for each unit . . . insures smooth, silent, virtually trouble-free operation for the life of the homes you build. And, Andersen's field-based window specialists are only a phone call away . . . ready to solve any window problems that might arise at your building site *before* and after the home is finished.

Isn't it time you added Andersen Windows for more sales appeal in your homes? Call your distributor or dealer right away for complete facts about time-saving Andersen Windows. Or, send coupon for a time-and-motion study which shows how much time you can save.

SEND ME FACTS which show installation time savings possible with Andersen Strutwall Windows.

Name _____

Firm _____

Your Position _____

Firm Address _____

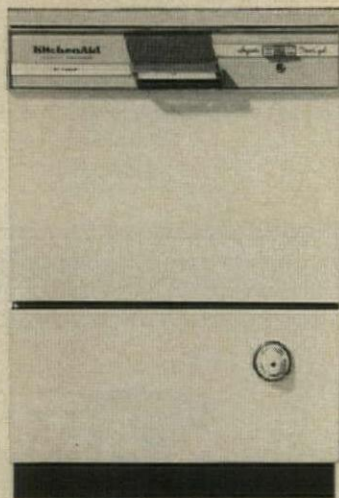
City _____ Zone _____ State _____

Andersen Corporation • Bayport, Minnesota

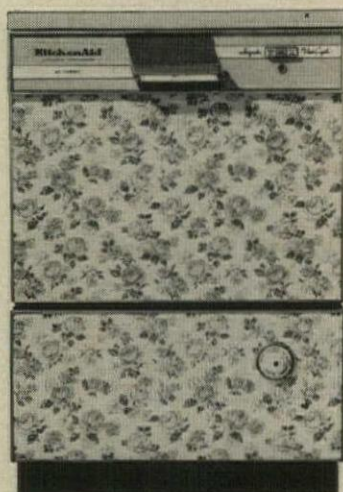
Andersen Windowalls 

... America's Most Wanted Windows

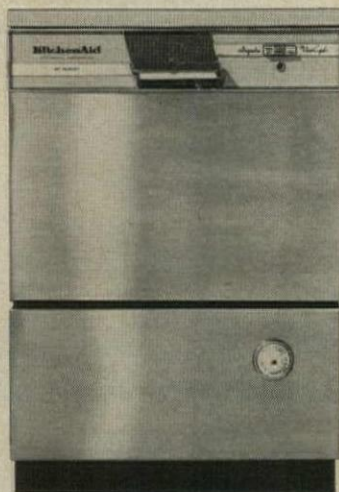
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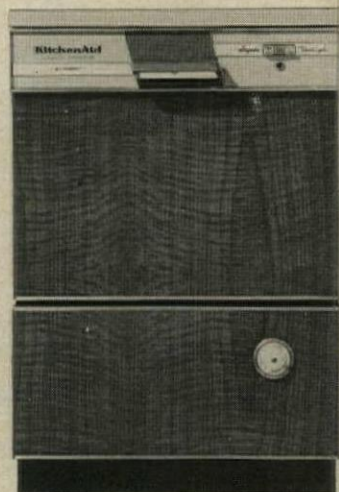
If you want, KitchenAid will dress up in...



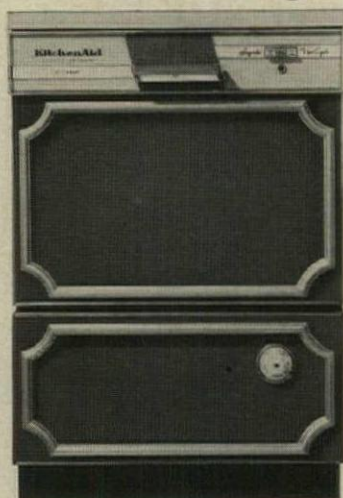
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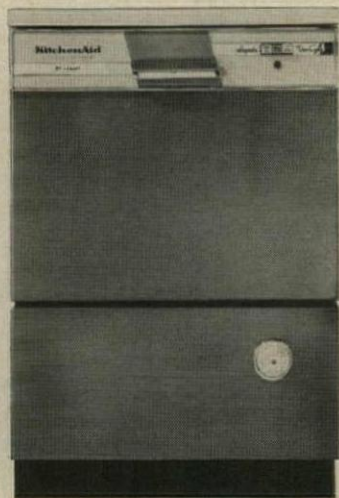
something bright



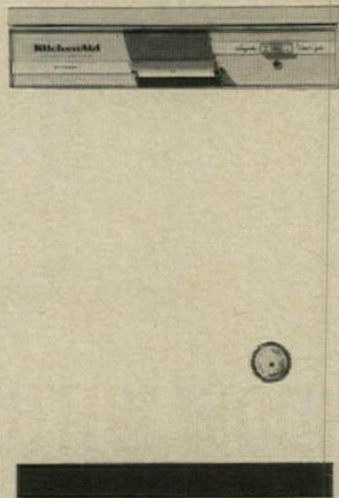
SOMETHING WOODY



something fancy



something antique



or something else.

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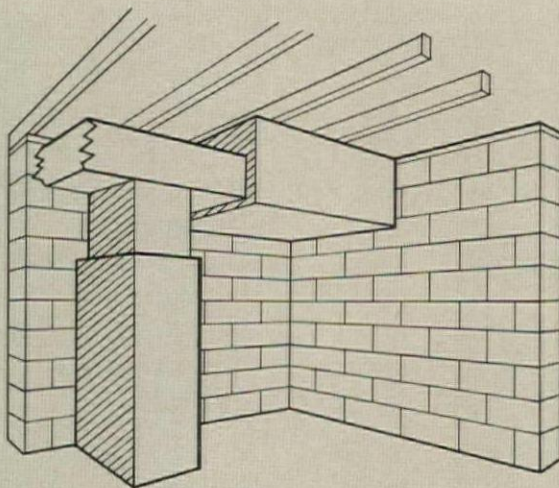
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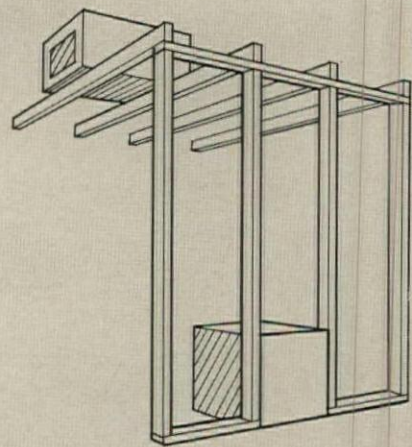
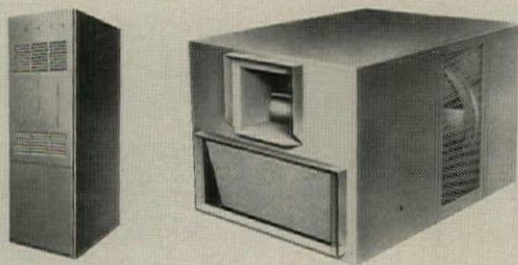
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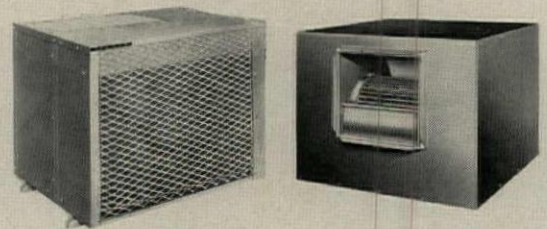
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Horizontal packaged cooling unit installed through-the-wall, ducted into central heating and cooling system.



Split-system cooling unit. Condensing unit installed inside or outside, connected to a horizontal fan-coil unit that can be installed in attic, basement, utility room or garage.



air conditioning that's sized right, right, priced right!

air conditioning engineers that are on call from your local TRANE Sales Office.

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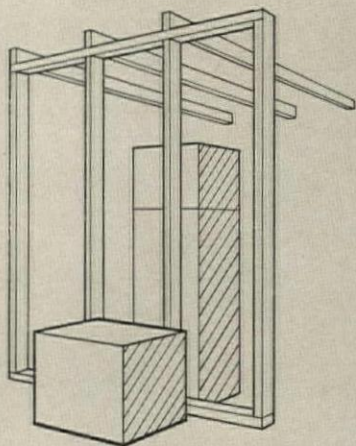
Air conditioning can be included from the start with TRANE furnaces, or your home buyers can add it later . . . easily, economically. Gas-fired furnaces available from 50,000 Btuh to 200,000 Btuh . . . oil models from 85,000 to 250,000 Btuh.

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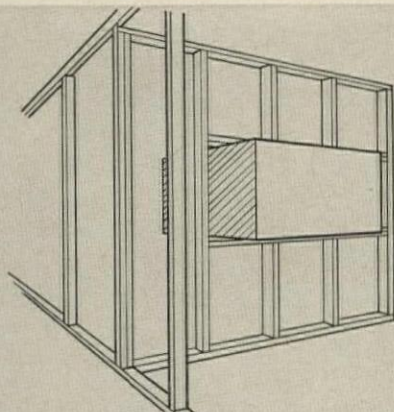
FOR ANY AIR CONDITION

Manufacturing engineers of air conditioning,
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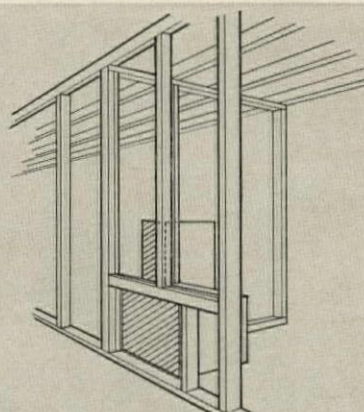
The Trane Company, La Crosse, Wis. • Scranton Mfg. Plant, Scranton, Pa. • Clarksville Mfg. Plant, Clarksville, Tenn. • Salt Lake Mfg. Plant, Salt Lake, Utah • Lexington Mfg. Plant, Lexington, Ky. • Trane Company of Canada, Limited, Toronto • 113 U.S. and 20 Canadian Offices.



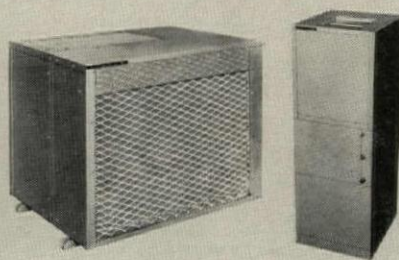
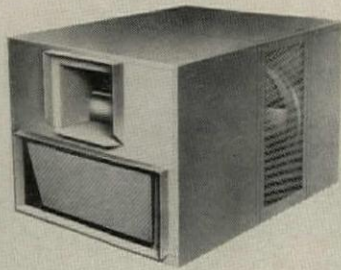
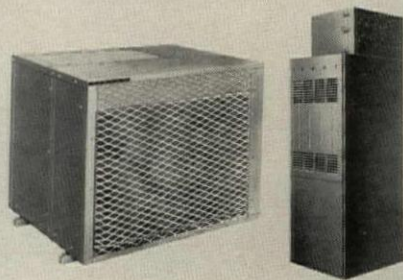
Split-system cooling unit with outside condensing unit and furnace-mounted evaporative coil.



Horizontal packaged heat pump can be installed through-the-wall of a standard frame house by cutting just one stud. By adding duct work it provides central system heating and cooling from one compact package! Also installs completely outside.



Split-system heat pump. Condensing unit, here installed through-the-wall, is connected with a vertical fan-coil unit that installs anywhere to distribute conditioned air throughout the house. Condensing unit also can be installed completely outside.



TAPPAN

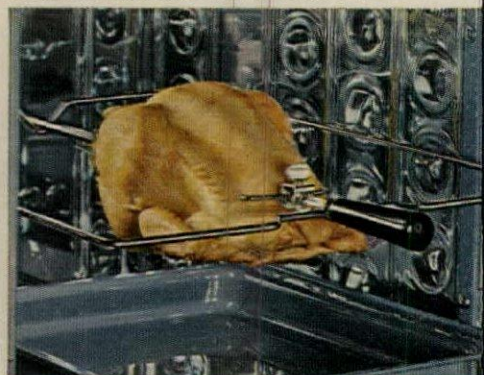
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New Tappan 41" double door refrigerator in 3 colors.
32" or 28" models with right or left-hand door.



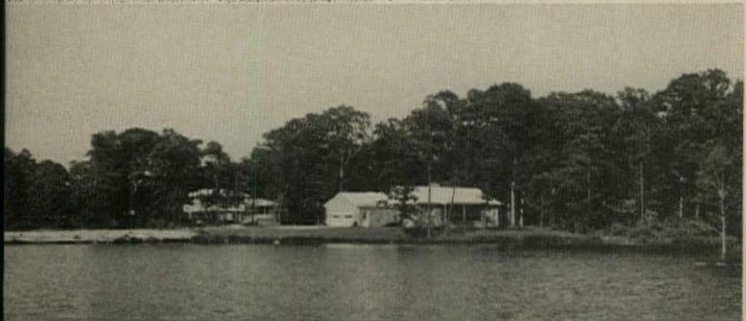
New '400' oven—built-in or countertop models.
Photo shows two units—one on top of another.





**The new
boom in
houses
by the
water**

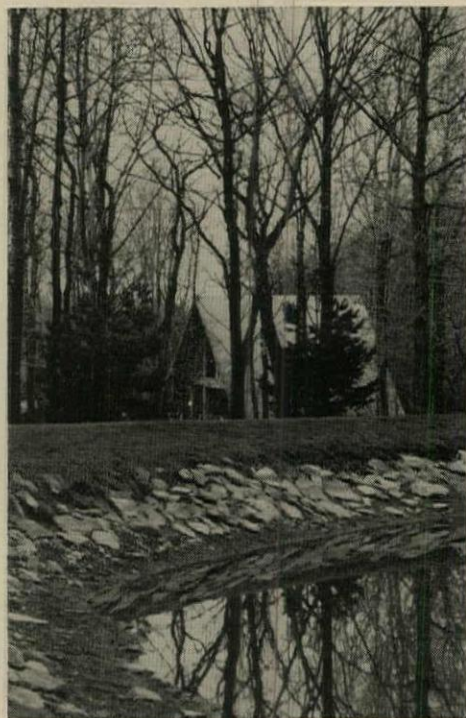
Housing on the water is a market that is growing out of bigger incomes, better expressways, longer weekends and vacations; out of people's growing interest in water sports and in getting away from it all; and out of a growing realization that unbuilt shorelines are fast disappearing. Capitalizing on the boom usually takes a lot of money, and it always takes a lot of imagination. On the next 12 pages: a look at the market and the exciting projects being built to meet it.



Jaques Studio



IN OHIO, five natural lakes are the heart of the 1,200-acre Hide-Away Hills all-year vacation house area 35 miles from Columbus. Sites without water frontage start at \$2,000. Lake-side properties will sell for \$3,600 and up. Developer: F. M. Donelson.



IN VIRGINIA (left), a tidewater peninsula has been developed to give most homes water access. Lake was stocked with fish. This is Developer William Witt's King's Grant, where 30 houses (at \$30,000 up) sold the first month.

IN PENNSYLVANIA, a series of man-made lakes on Bear Rocks' 1,200 wooded acres will provide recreation for the 1,000 families who will build second homes there. Houses built already range from \$7,000 A-frames to \$26,000 luxury homes. The developers, Scott Hamilton Realty Co., hope to finish the project within five years.

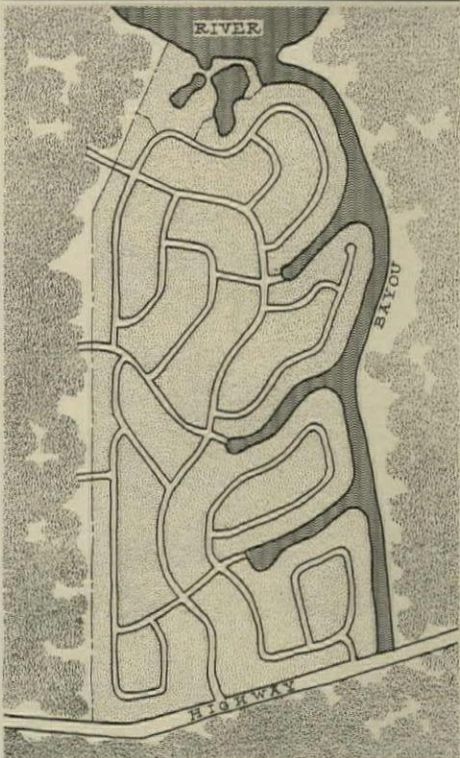
Across the country, water frontage is in high demand and short supply

Creating desirable water frontage for residential building is—in most cases—a high-stakes, blue-chip game. The raw land itself has grown costly. Development costs can be astronomical. But demand for either year-round or second homes on the water makes such development pay off. Today's buyers are willing and able to pay more to get the kind of living they want.

Case-in-point: During a recent five-day period, California's Macco Realty Co. sold 17 bayfront homes and six view lots in its Dover Shores development on upper Newport Bay, just south of Los Angeles. Sales totaled \$2.3 million. One lot brought \$42,100.

The highest-priced waterfront house sold for \$100,000.

Even when water provides only scenery, and not recreation, water-homesites bring premium prices. Near Detroit, Thompson-Brown Co. (H&H, Dec. '62) cleaned out seven low-lying, spring-fed acres in a new subdivision, and turned it into a lake ("too small for power boats and water skiing, and not yet stocked for fishing") at a cost of slightly more than \$1,000 for each of the 32 lots that border it. Lots that do not fringe the lake sell for \$7,500; Thompson-Brown sold its water's-edge lots for \$9,500 to \$11,500. Says President Robert Carey: "In this market, the demand for good



IN LOUISIANA, a bayou off the Tchefuncte River will be dredged to provide a maximum of water lots. Builder Charles Kornman started development of Riverside at highway, although an access road to the water was built immediately. Lots on water will sell for twice as much (\$25,000/acre) as interior sites.



IN FLORIDA, a Port Charlotte waterway provides access to the Gulf of Mexico for General Development's boat owning homebuyers. All of the developer's big Florida communities are on water, and all have yacht clubs with membership included in the house price. Some waterways are natural, others are dredged.

... so many markets will support expensive development costs

lake frontage far exceeds any possible supply."

And in some cases, just being near the water is enough for some families. Only 20 minutes from downtown Memphis, Midcontinent Corp. opened its Westwood Shores development beside a lake formed by an abandoned sand and gravel operation. Of the 151 lots in the first section, only 34 were directly on the lake (and cost \$1,000 to \$1,500 extra). But because all owners have fishing and boating privileges, there has been equal buyer-acceptance of both waterfront and interior lots.

One big reason for the boom in waterfront housing is the boom

in boating. Says one builder: "We're capitalizing on a boom that was created by the boat people." There are 7,468,000 pleasure boats in the U.S., according to *Yachting* magazine. Their owners want and need facilities to use them. But . . .

Interest in water sports—like boating, fishing, and water skiing—is not the only lure. St. Petersburg Builder Charles Cheezem asked 198 owners of waterfront houses why they preferred this kind of life. Almost half—among both retirees and working families—listed such reasons as view, relief from monotony, changing scene, and restfulness. Only 14% had lived on water before buying their pres-

continued

ent house. But 87% said they felt waterfront property was a better buy than other property. They knew why they thought so: 37% of the employed people surveyed and 16% of the retirees said they thought waterfront was a good investment because of supply and demand—"the waterfront is disappearing." The other reasons echo the major one: better resale value, 22%; appreciation or slower depreciation, 18%; more attractive to people, 21%.

"Retirees, whether interested in fishing and boating or not, prefer to live on the water," says Edward L. Markman, president of Key Realty in Sarasota, Fla. "In 13 years of Florida real estate development, I have never purchased owned or developed a piece of real estate that is not on the water. It has been a very successful pattern."

Even among the employed families surveyed by Cheezem, few put nearness to employment high on their list of preferences. The moral? Water reshapes the criterion for top location. Economist Robinson Newcomb has recently remarked on this difference:

"The question of *where* to build may be as important as *what* to build. Preferred locations today may depend more on their relation to recreational facilities and what people like to do week-ends, than on what they do during the week and where they work from Monday to Friday. Strange as it may seem, people may accept fighting traffic to get to work, providing they can run down to the beach, or tennis court, or golf course, evenings and week-ends.

"If people put a higher priority on access to recreation than on access to work, that is their privilege. I will not say they are

wrong. Neither will the wise builder."

Waterfront property is in short supply not because there isn't plenty of it, but because so much of it is hard to reach. The U.S. has 21,000 miles of ocean coastline, thousands more miles of shoreline on the Great Lakes. The TVA alone created 11,000 miles of water frontage throughout the mid-South. The nation's lakes and rivers are so numerous that no accurate count of them has been made. But only a small fraction of this shoreline is near the metropolitan areas that produce big housing demand.

Development costs often far exceed land costs

Item: Just 50 miles from Pittsburgh, Scott Hamilton Realty Co. bought 1,200 heavily wooded acres, interlaced with small streams, for \$250,000. Within two years, it invested another \$250,000 in facilities and improvements in Bear Rocks (p. 98). And to bring the 1,000 homesite project to completion, the company estimates that it will spend another \$750,000 in new recreation and housing facilities (including a \$300,000 motel).

Item: On the West Coast, Christiana Oil Co. (which develops land as a profitable subsidiary operation) is changing an 890-acre tidal slough into posh Huntington Harbour (cover and p. 104), a luxury, nine-island waterfront community of 2,000 families. Christiana spent \$6 million (on top of a land cost of \$7 million) for earthmoving, dredging, bulkheading, and utilities.

This is a case where housing proved to be a more profitable use of land than oil. When some of the existing wells on the land had to be abandoned, President Lewis W. Douglas Jr. ordered the rest

Fred Lyon, Rapho-Guillumette



LAGOON AT BELVEDERE ISLAND, showplace waterfront community on San Francisco Bay, was once a swamp. A quarter-mile long and landlocked

uprooted. The land they were sitting on was more valuable as residential and commercial real estate. For the finished land cost of \$19,371 per acre of buildable land, Christiana has 18 miles of waterfront and 200 acres of waterways, which were dredged to provide the fill for the 690 acres. Yet, with lots selling from \$17,500 to \$45,000, and with model houses priced from \$32,400 to \$45,000, the company has sold more than \$6 million in houses and land in six months.

It was the incredible appreciation of similar land near Los Angeles that brought Christiana into the purchase and development of this former gun club acreage. On nearby Lido Island, in Newport Beach, the price of waterfront lots has more than tripled since 1947. Today, they bring as much as \$375 per front foot.

Architects William L. Pereira & Associates have developed a master land-use plan for the acreage that considers not only the problems of the salt marsh, but also the relation of the project to the whole southern California community. An optimum land/water ratio was established as well as how much, and what, land would be devoted to residential, multi-family rental, religious and educational, and commercial uses.

Item: Another super-project on the other side of the country is Tierra Verde, where Tunnel and Highway Builder Louis Berlanti of New York, in a joint venture with Texas' Murchison Brothers, fused 15 smaller islands in the middle of Tampa Bay into six larger ones (see p. 103) with 42 miles of seawalls, at a total development cost so far (say the developers) of \$25 million. More than 90% of the 2,100 homesites have water frontage (as does all

the area reserved for high rise apartments). Single-family houses will take up 30% of the 2,000 acres, commercial another 30%, and 40% will be devoted to hotels, marinas, and recreational facilities.

The same ratio between land and development costs can hold for smaller-scale projects. Nicolet Anchorage (see p. 103), a 47-acre subdivision in Oskosh, Wis., is being developed by Architects Theodore Irion and Leonard Reinke. The land was a low-lying and swampy piece immediately behind the very desirable Winnebago Lake-front property, which is currently priced as high as \$100 per front foot. Developers has scorned it because of the amount of fill needed to bring it up to usable grade.

But the architect-developers determined that dredging a series of 65' wide channels would produce the needed fill at less cost than having it trucked in, and would give them 118 lots, all with water frontage and access to the main body of the lake. The land cost only \$47,000. Dredging, filling, and installing utilities cost another \$189,000. Now, the finished lots have a price range of \$2,500 to \$7,500, compared with an average finished lot cost of about \$3,000 for comparable sites in off-water subdivisions. Irion and Reinke feel the main appeal is to boat owners who want access to the lake without the stiff tab for lake frontage. One of their first buyers was a local Scholz Homes' dealer. He plans to build speculative homes in the development.

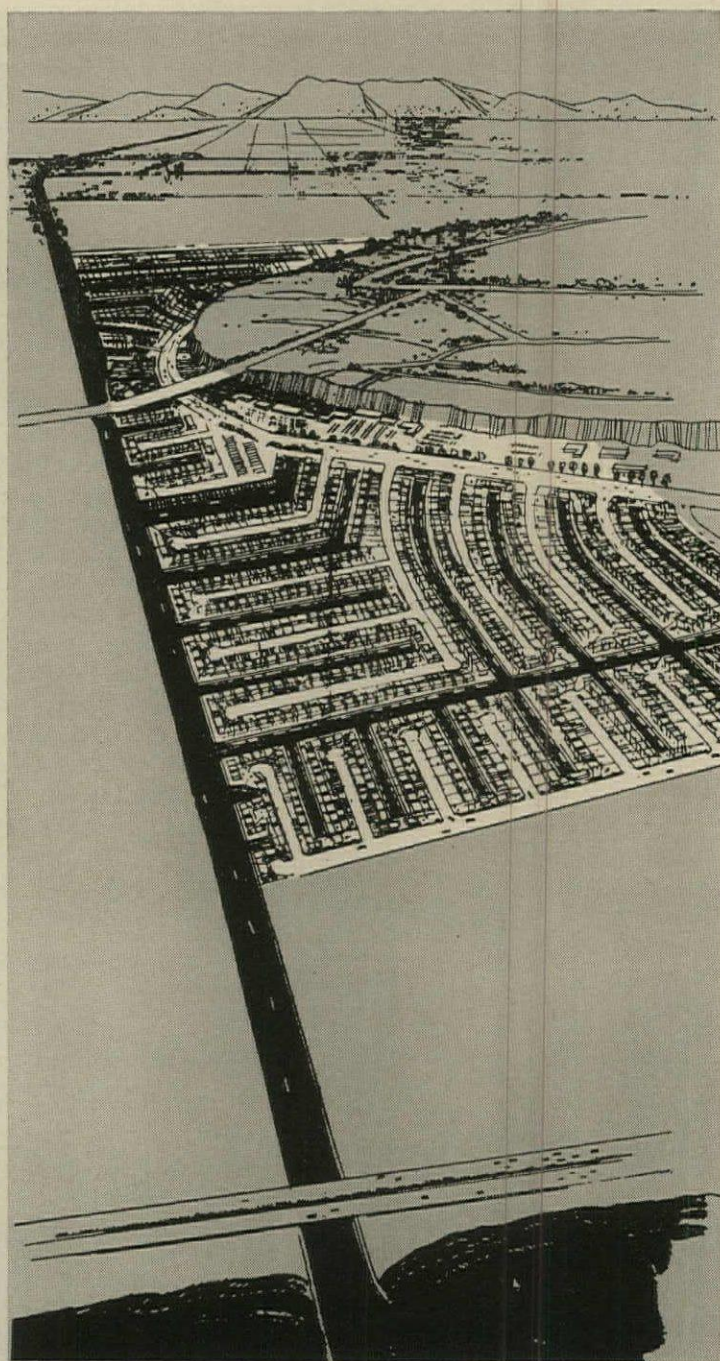
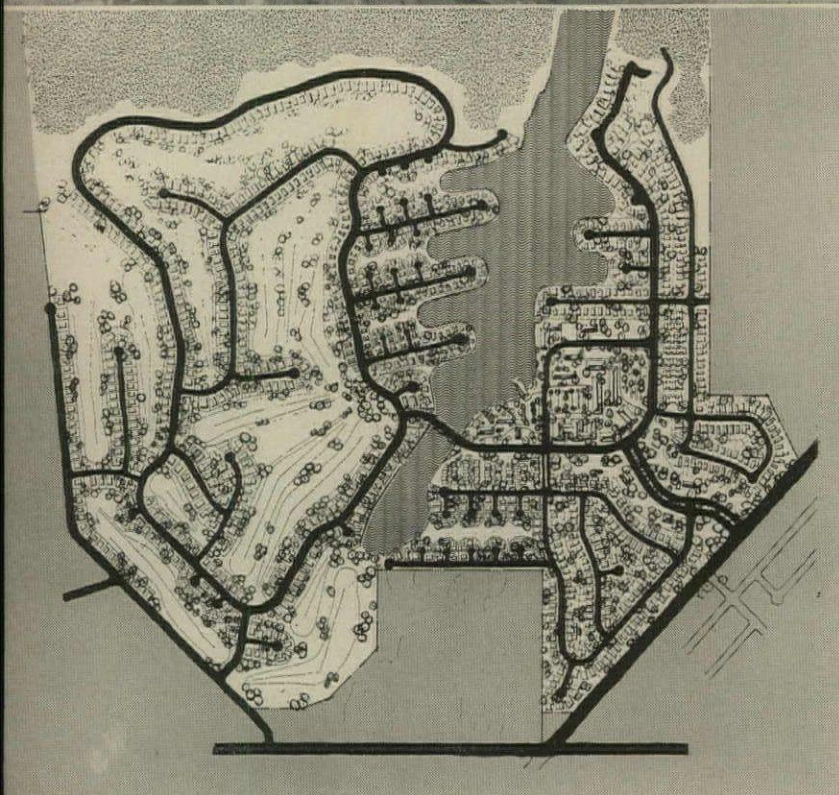
To see how developers across the country are making the most of their expensive waterfront land, turn the page.



(though it is sea water) it offers sailing and swimming to owners. Lots sold ten years ago for \$3,000—when development started—are now worth \$30,000.



Bart W. Winford



← **LAKE SAN MARCO** was created (see text below) by a 65' private dam and extensive dredging. Only 150 sites are directly on the water, but all residents of the 600-acre development have access to the lake through a recreation center.

KEYS MARINA will have 1,000 waterfront and bulkheaded lots on land once landlocked a mile from the ocean. Developer Louis Lesser will dig and bulkhead all channels before water is admitted from Santa Ana River channel.

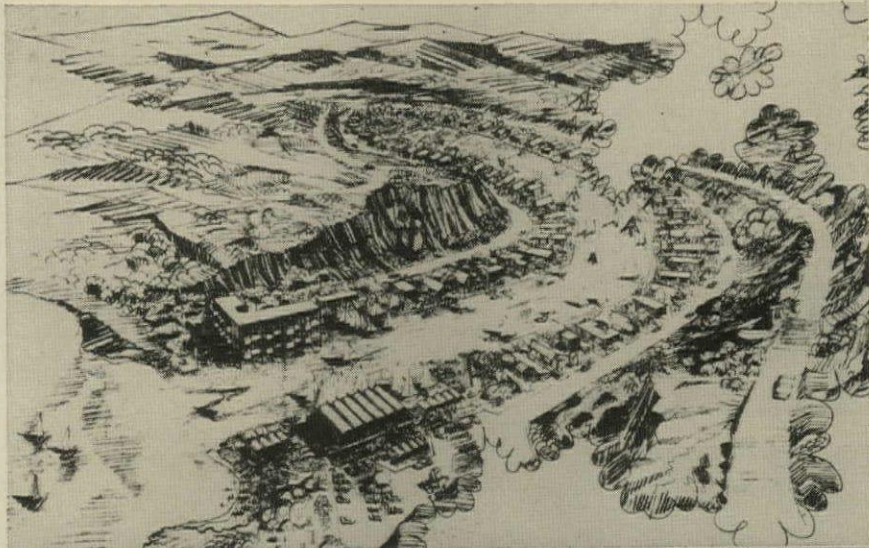
Skillful planning can create a maximum of water sites

All the developments shown on these two pages (and most water frontage projects) have two things in common: 1) they have used the tools of engineering and land planning to produce more buildable shoreline than nature created, and 2) their successful completion depended on the cooperation and help of various public and private bodies—from the U.S. Corps of Engineers to local water districts (see below)—not ordinarily concerned with residential housing development. For example:

Lake San Marco (above left), originally a private lake created by its own dam, was enlarged to 1½ miles by contour dredging

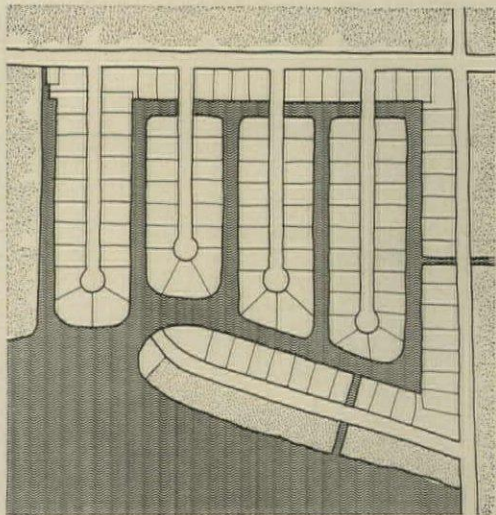
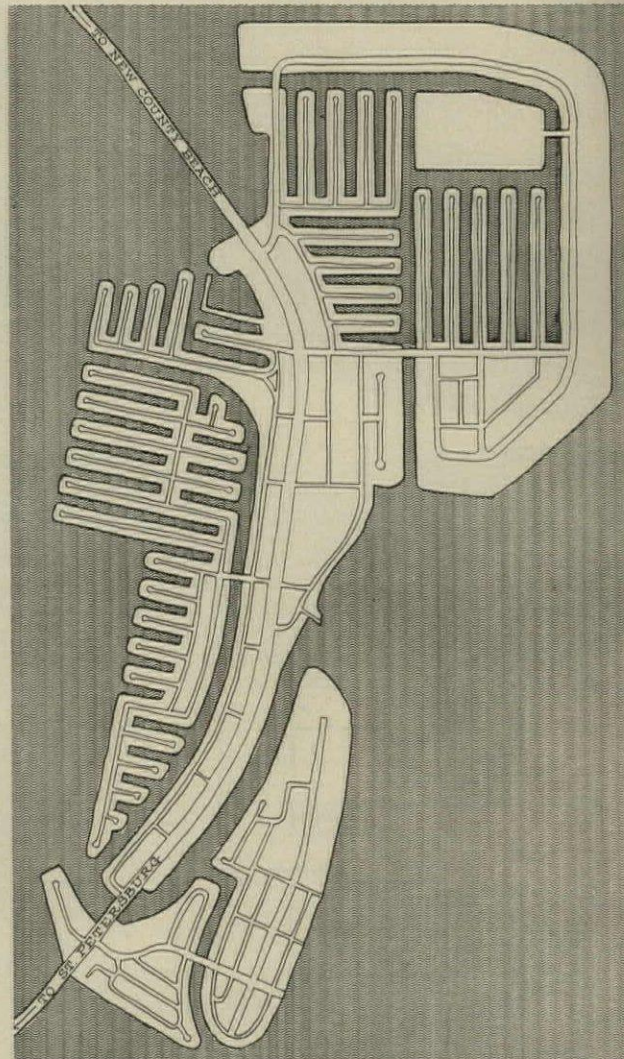
that created many more premium lots than would have been produced by straight-line dredging. To maintain a constant level in the enlarged lake, the developers (Frazar Brothers of Glendale, Calif.) arranged to buy 200 acre-ft. of water from the San Marco Water District via a 6' aqueduct from the Colorado River that crosses the property.

Keys Marina (above right) was completely landlocked except for its frontage on the high-diked Santa Ana River, whose use is controlled by the Orange County (Los Angeles) Flood Control District and the U.S. Corps of Engineers. Developer Louis Lesser



Bert W. Winford

SHELTER COVE, a 72-lot subdivision, is built around an L-shaped lagoon (1,400' long) dredged off a tidal reservoir. All but 51 of the 72 lots were sold within two weeks, at prices from \$7,500 to \$20,000.



TIERRA VERDE consists of six islands, created from 15 smaller ones plus sand dredged from Tampa Bay. Major highway from St. Petersburg (three miles away) runs through the development to a new county beach beyond.

← **NICOLET ANCHORAGE** in Oshkosh, Wis. was created from a lakeside swamp dredged down to underlying limestone to create boat channels for 118 homesites. Project is within city limits, has all utilities.



... but a lot of different government agencies get into the act

—in return for deepening the existing public channel, replacing a highway bridge over it, and extending jetties into the ocean—will be allowed to cut the dike and open all of his houses to the ocean. All interior channels will be dredged and bulkheaded before the water is let in. Estimated total development costs: \$12 million.

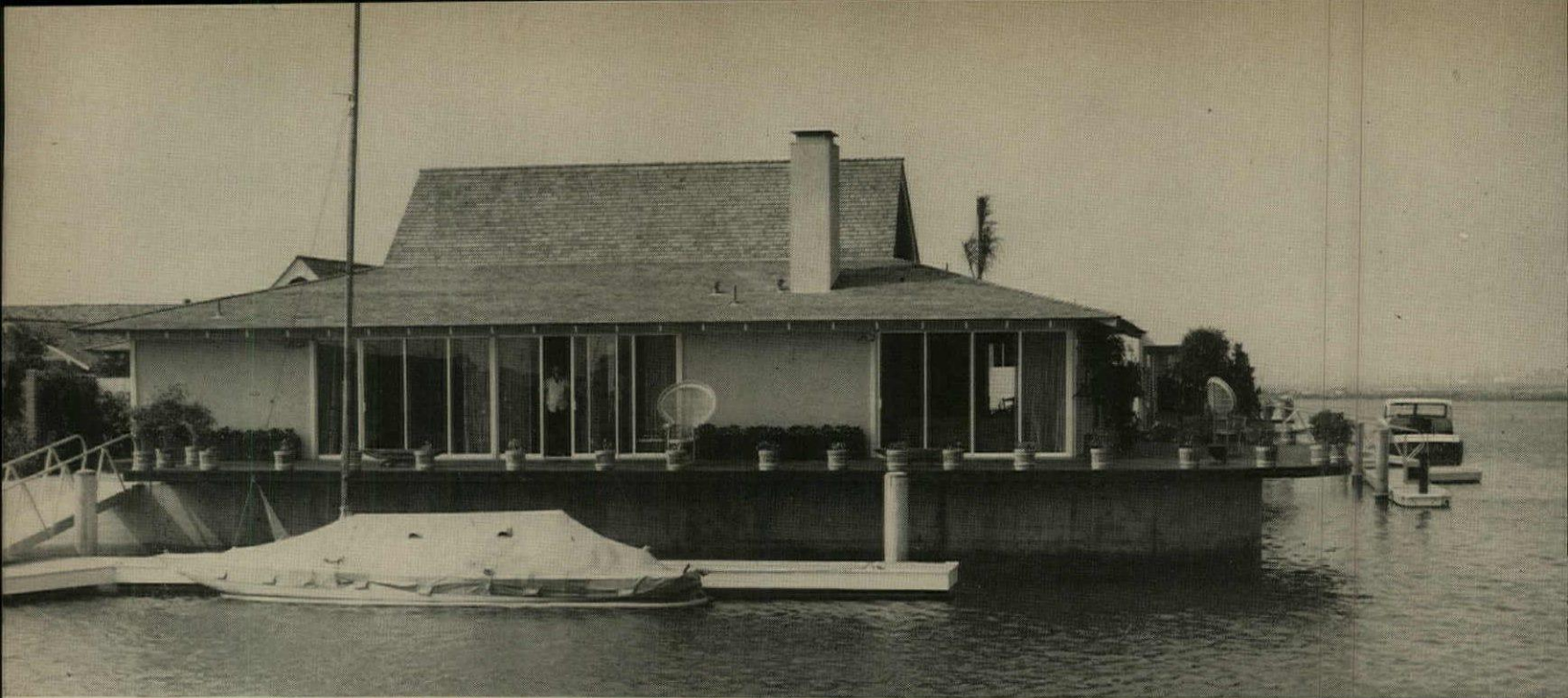
Shelter Cove (top left) is an 18-acre marina development created by dredging a lagoon off Carlsbad (Calif.) Harbor. The harbor itself was dredged as a 250-acre cooling water reservoir by San Diego Gas & Electric, and development required permission from the utility and the city of Carlsbad, which had leased surface

rights to the main body of water. The developer: Pirate's Cove Inc.

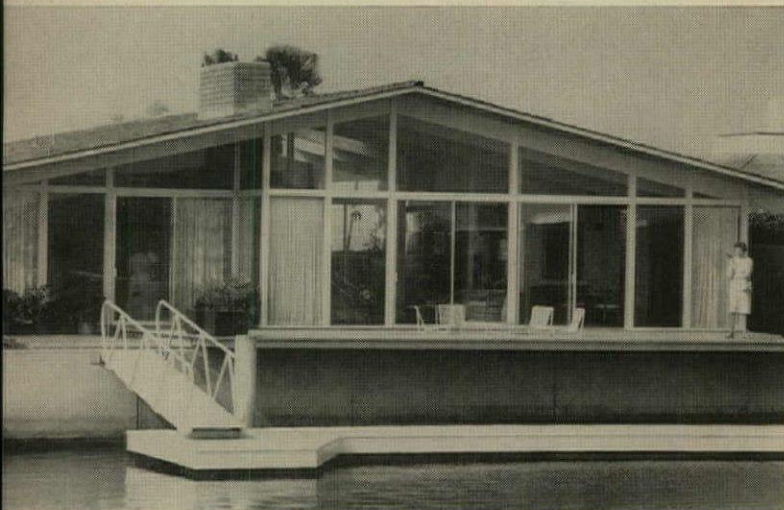
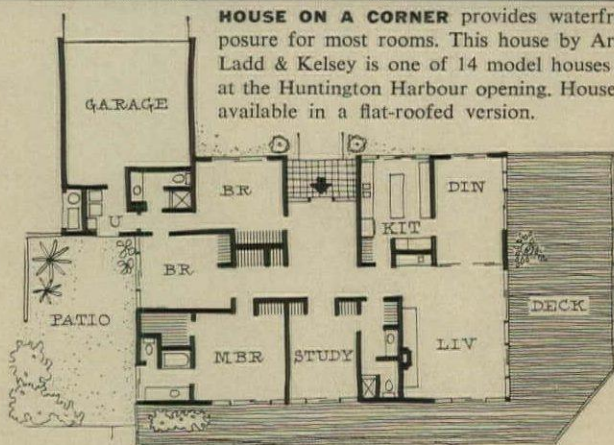
Nicolet Anchorage, a small swamp with a narrow access to Lake Winnebago, Wis., had to be coordinated by Architect-Developers Iron & Reinke with both state and government agencies, because dredging made it a part of a navigable waterway system. All channel work had to be recorded for the Corps of Engineers and Wisconsin's Public Service Commission.

Tierra Verde (above), was made possible only because of a new beachfront park, beyond Developer Louis Berlanti's 15 small islands, which brought a state highway from the mainland.

continued



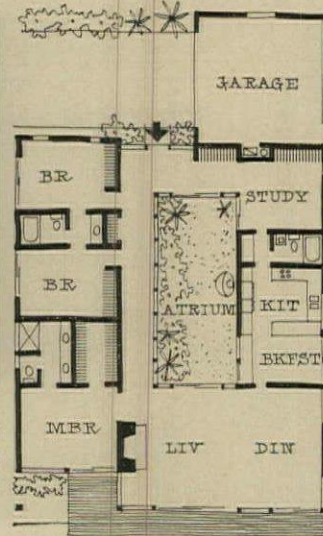
HOUSE ON A CORNER provides waterfront exposure for most rooms. This house by Architects Ladd & Kelsey is one of 14 model houses offered at the Huntington Harbour opening. House is also available in a flat-roofed version.



Photos: Leonard Nadel



ATRIUM HOUSE has all-glass wall facing water, but also offers an interior orientation to contrast with openness of the lagoon. Architects: Smith & Kennedy. This is another model at Huntington Harbour (in Huntington Beach, Calif.).

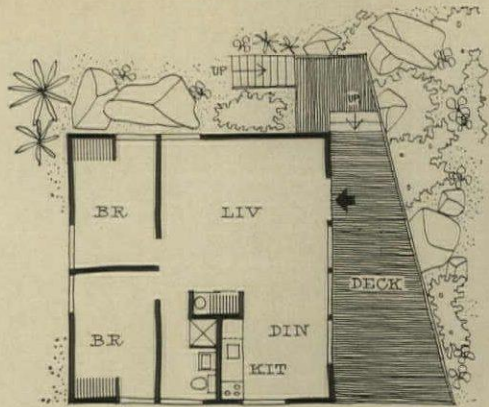


Waterfront designs should exploit the appeals of the water

Architect Roger Hooper, who designed the Belvedere Island house shown opposite, cites "one important design problem that none of us architects has solved: You can't sit on the deck of a lake or lagoon house and tell a bad joke without offending people sitting on the deck of their house a half mile away." But if noise bouncing across the water (especially from the growing throngs of motor boats) remains an unsolved design problem, most of the other design ideas that make a successful waterfront house have been solved. Usually the chief scenic attraction is the water itself, so the elevations which are most open should be on the water side.

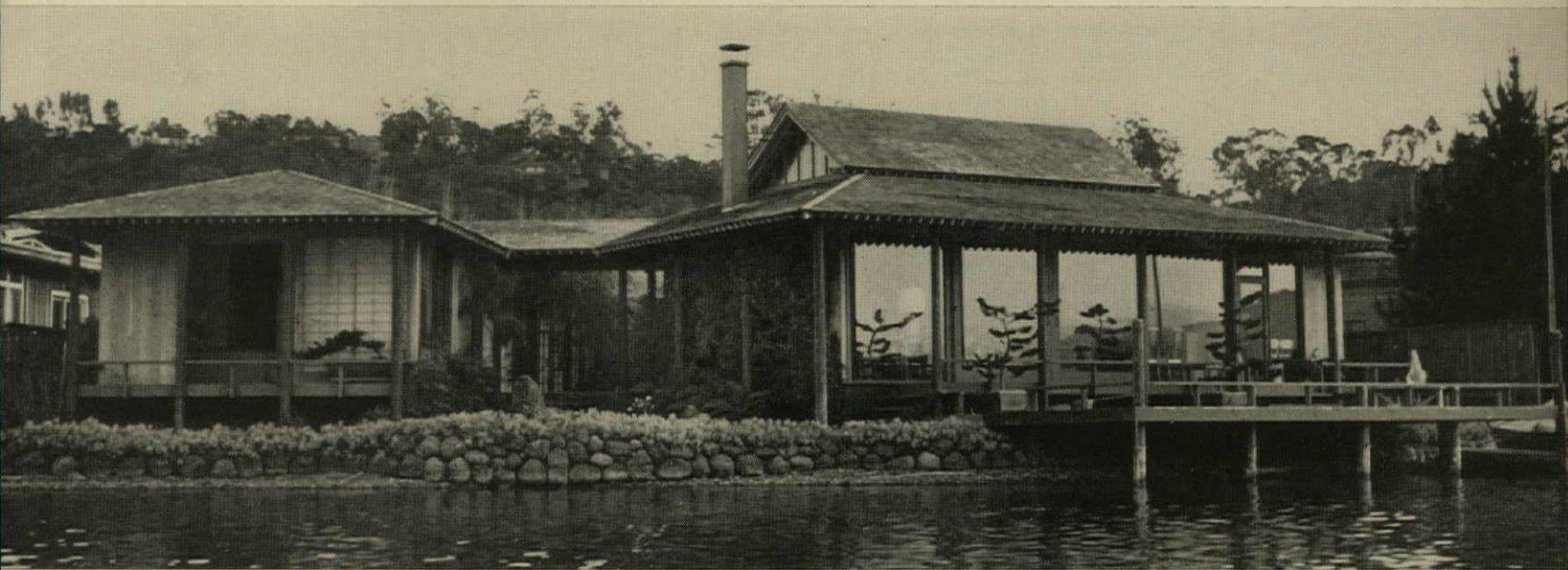
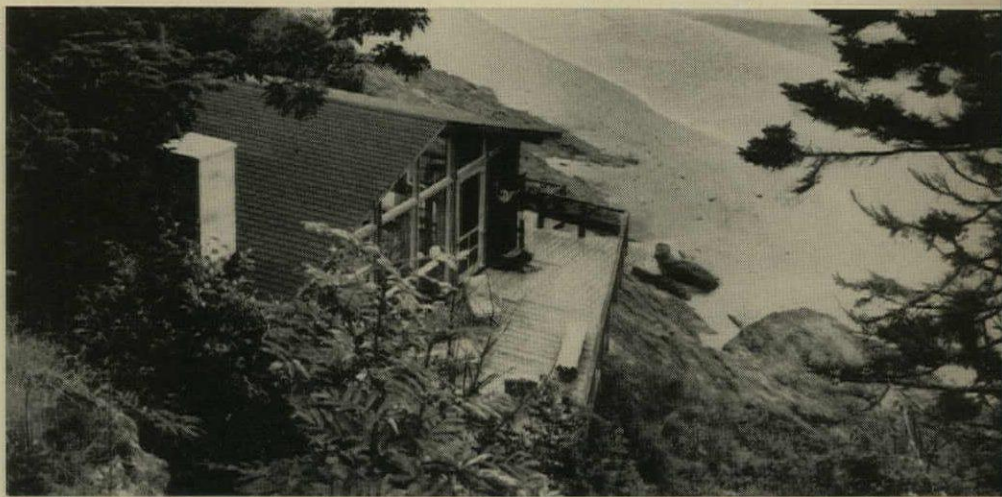
There should be free access via decks and docks, balconies, stairways, and terraces from the house to the water's edge. At the same time, sun and water glare can make open decks and large glass areas untenable without the shade of wide overhangs, awnings, screens, and sun-shades.

At the opposite end of the climate problem is the need for protection on cloudy and windy days, especially for outdoor dining. Atriums, sheltered patios, and windscreens are being used more and more to provide a change in environment from the busyness of the waterway and to give privacy from next-door neighbors.

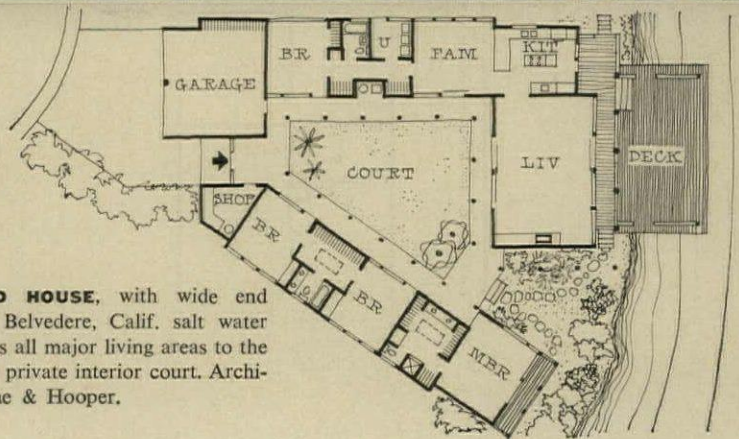


Lianti

COMPACT COTTAGE is Techbuilt model, built on bluff overlooking the water. Full-width (24') angled deck adds extra living and sunning area. Framing is post-and-beam, with modular panels. Location: Small Point, Me.



Gerald Ratto



PIE-SHAPED HOUSE, with wide end fronting on Belvedere, Calif. salt water lagoon, opens all major living areas to the water and to private interior court. Architects: Malone & Hooper.

... but should also offer privacy

Most waterfront houses put the master bedroom with the main living areas on the view side, with the children's and guest bedrooms to the rear. Baths and dressing rooms are often used as buffers. Some larger houses (above) zone some sleeping rooms in separated wings. A popular convenience is a shower-and-dressing room for swimmers that can be entered from dock or beach without going through the house. Another plan idea: Sometimes back-of-the-house rooms can be opened to the view with wider-than-normal hallways and doors.

Sun, water, and salt air are hard on many materials. Houses ex-

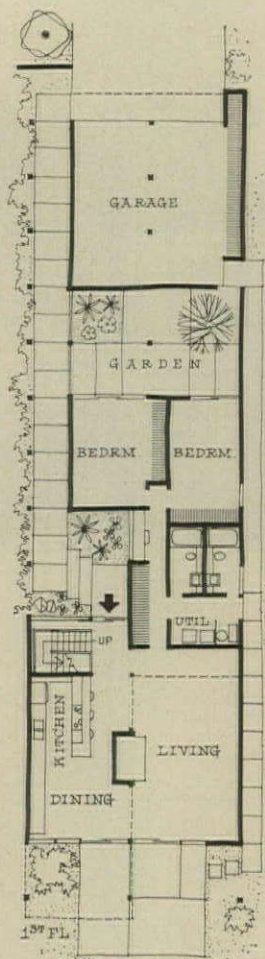
posed to waterfront weather should be high in resistance to the elements, low on maintenance. Unfinished woods that weather attractively, but require little or no upkeep, make handsome exterior walls. Cement-asbestos, stucco, and concrete block are also popular. Windows, doors and hardware must all be selected with the specific conditions of weather and exposure in mind, and difficult problems of humidity demand adequate ventilation.

Yesterday's beach shack or lake cottage is not good enough for today's buyer. He is seeking a way of living, and the house must contribute as much to this way of living as its surroundings.

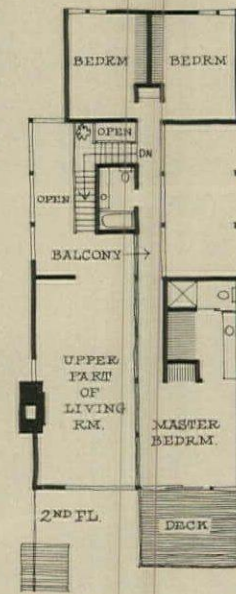
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ELBOW-TO-ELBOW SITING on narrow (40') lots dictated careful room placement and planning of these two custom houses. Solid walls (see plan) are used extensively on side elevations, while principal rooms are open to the ocean view. Both houses have two-story living rooms, with balcony-bedrooms overlooking this space and the beach and water beyond.



Photos: Leland Y. Yee



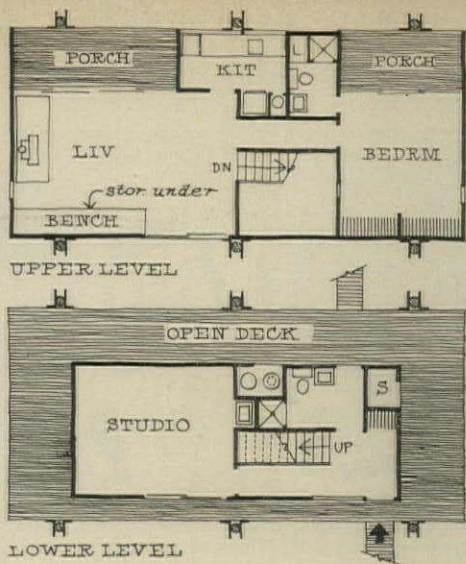
Design for houses on the water is often limited by the lot

Much water frontage is sold by the front foot, so narrow building sites and immediately adjacent neighbors are a common design problem. And the tight dimension is always on the desirable view side. Architect Edward H. Fickett tackled a double assignment in solving these problems in the Trancas, Calif. beach houses shown above. They were built by two families with different needs but with similar demands for a maximum of view and privacy.

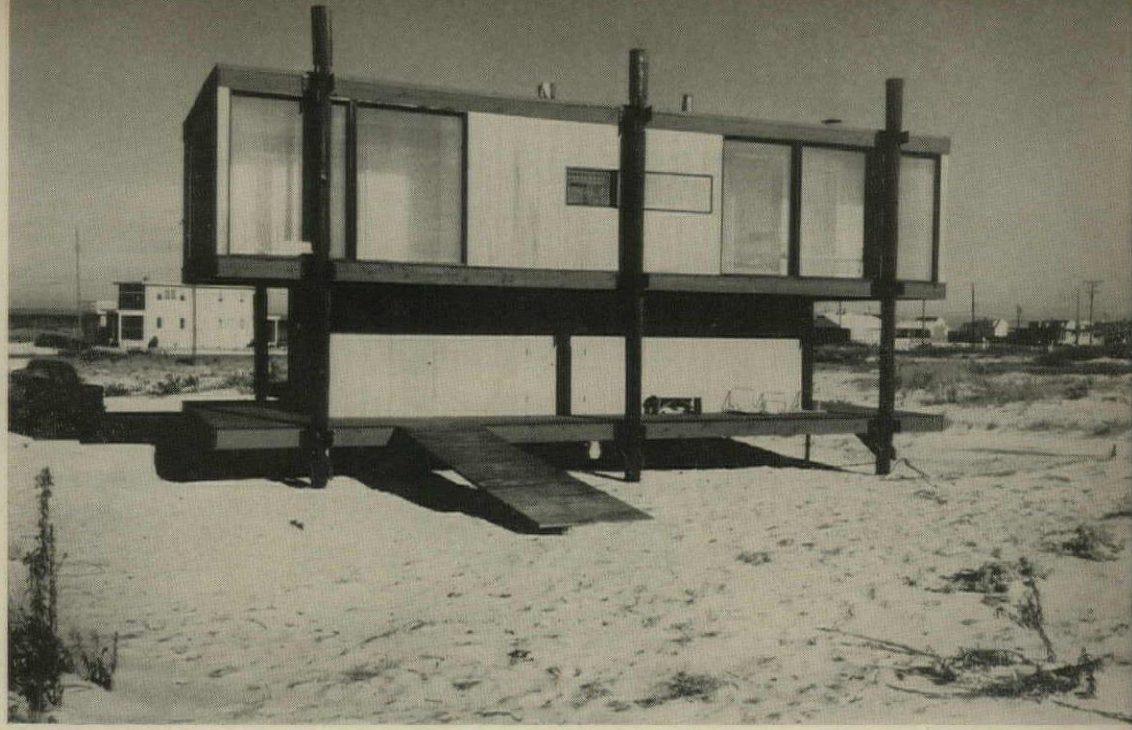
Luckily for Architect Fickett's solution, the clients did not insist on wholly different elevations. So he planned the ocean elevations of the houses as an apparent mirror pair and used many of the

same design elements in both, although the interior rooms and arrangement satisfied altogether different family requirements.

Both houses have interior courts: In one case (the house at left) the clients asked for space for sunning on windy days, and in the other case the requirement was a sheltered children's play area and outdoor dining space. Both houses orient living and dining areas, the kitchen, and at least one bedroom to the beach and ocean view. Post-and-beam structural systems are used on concrete slab foundations. Low maintenance materials are used heavily because of the salt weather.

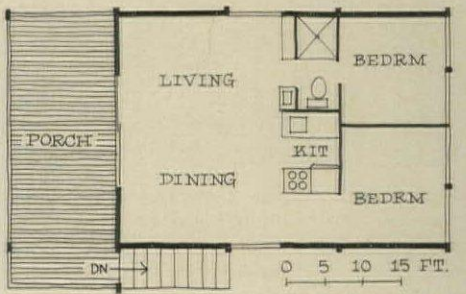


HOUSE ON STILTS looks out over New Jersey dunes. It sits on six poles driven into the sand. Architects Blake & Neski put living areas on upper level, studio below. Off-ground position left the house unscathed in a recent hurricane.



Photos: Hank Koch

TREE-HOUSE DESIGN of Miami vacation house minimizes dampness and permits views beyond the surrounding vegetation. Designer William Clayton's model was sponsored by National Lumber Manufacturers' Assn.



... but buyers will often accept fresh and free design

Perhaps because waterfront houses would be ridiculous if they were not oriented completely to the outdoors, or perhaps because families approach this kind of living in a spirit of fun, architects and builders have found that people will accept—even demand—non-conservative design that they would never dream of in a non-waterfront house.

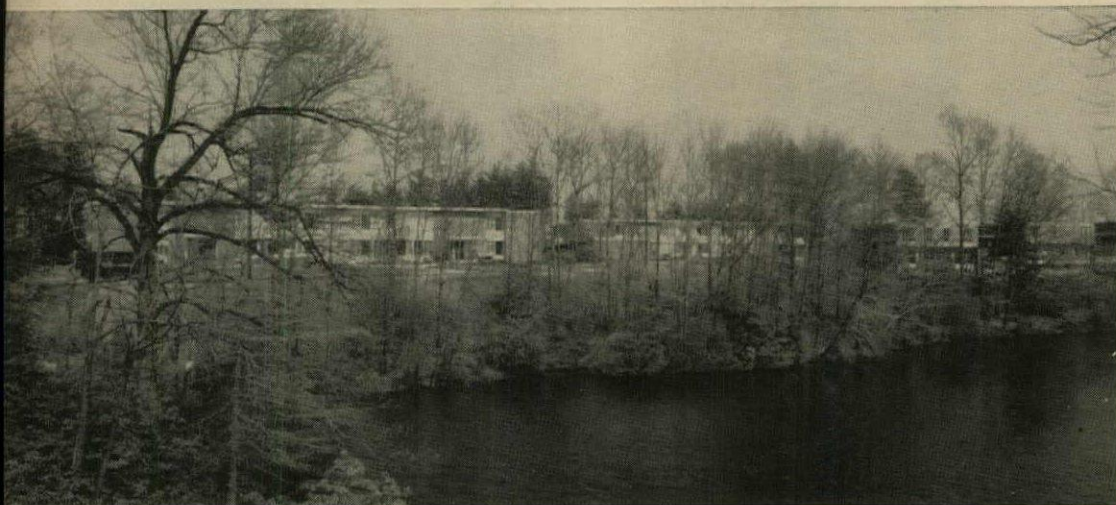
New York Architect Gordon Powers, who is designing a 75-unit cooperative apartment on the Jersey shore, explains:

“Conformity in the city may mean a conservative house, but at the beach it means free design. The first car may be a black

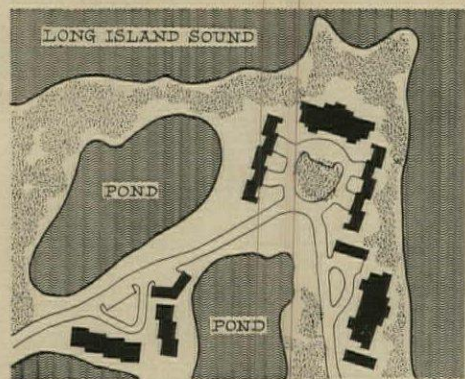
sedan and the first suit a gray flannel, but the second car is liable to be a red sports car convertible, and the leisure clothing as bright and gay as they make it. And, as a practical point, lenders seem to be more open-minded toward design in waterfront areas.”

When the Douglas Fir Plywood Assn. offered a book of plans for vacation cabins and cottages, almost all of advanced contemporary design by prominent architects, it sold 750,000 of them at the rate of 70,000 per month. Stilt houses (see above), A-frames, glass boxes, and other relaxed designs abound on ocean beaches and river and lake shores.

continued



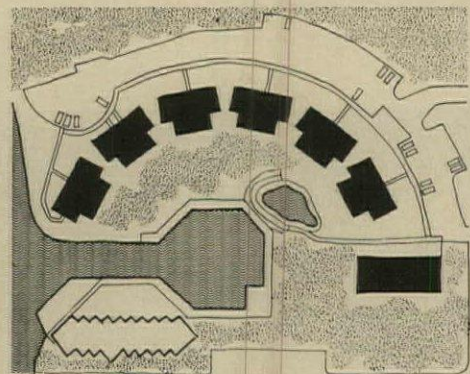
Robert Stajman



ON LONG ISLAND SOUND at New Haven, Conn., these apartments by Builder-Developer Veggo F. Larsen are sited so balconies or terraces all have an unimpeded view of the sound, or ponds, or both. Architects: Pedersen & Tilney.



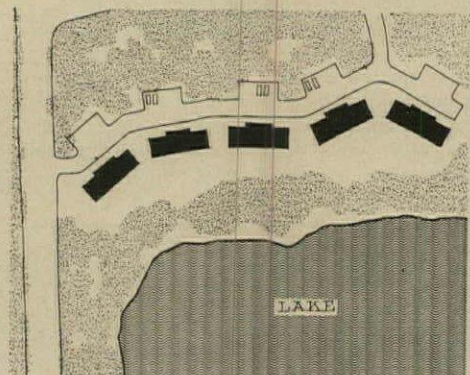
Westhampton Photo Studio



ON A BOAT BASIN dredged and bulkheaded off an inlet at Westhampton Beach, Long Island, Builder Robert Simon grouped eight units (with a total of 54 cooperative apartments). Architect: Michall Colli.



Craig



BY A LAKE on Cape Cod, Davenport Realty Trust built 30 apartments in five buildings. Grass terrace and wooded area slope down to the water, where four docks provide mooring for tenants' boats. Architect: Lloyd N. F. Spicer.

Rental and sale apartments make great sense for waterside locations

There are three reasons: 1) In an increasingly tough apartment market (H&H, Feb.), more and more builders are discovering that a location near water can give their buildings a vital edge over their competition. 2) In many areas, the astronomical inflation in the price of waterfront land dictates multi-family occupancy. 3) The appeal of convenient water facilities is especially attractive to two groups that make up the primary market for apartments: young couples and older families.

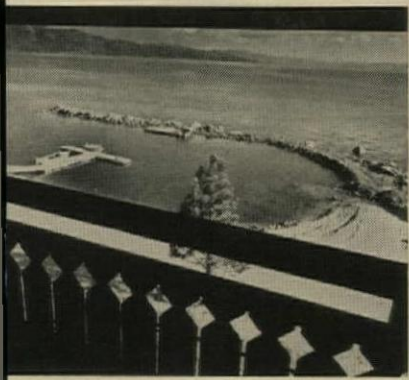
Sometimes the body of water can be a most unlikely possibility. Near Columbus, Ohio, Builder Julius Cohen bought a 31-acre site

just ten minutes by expressway from the center of the city. It had been overlooked for development because of a 7½-acre gravel borrow pit on the land. The natural springs that halted excavation made a lake of the pit. Now, Cohen is building 494 apartment units in 31 buildings grouped around the water. Says Cohen:

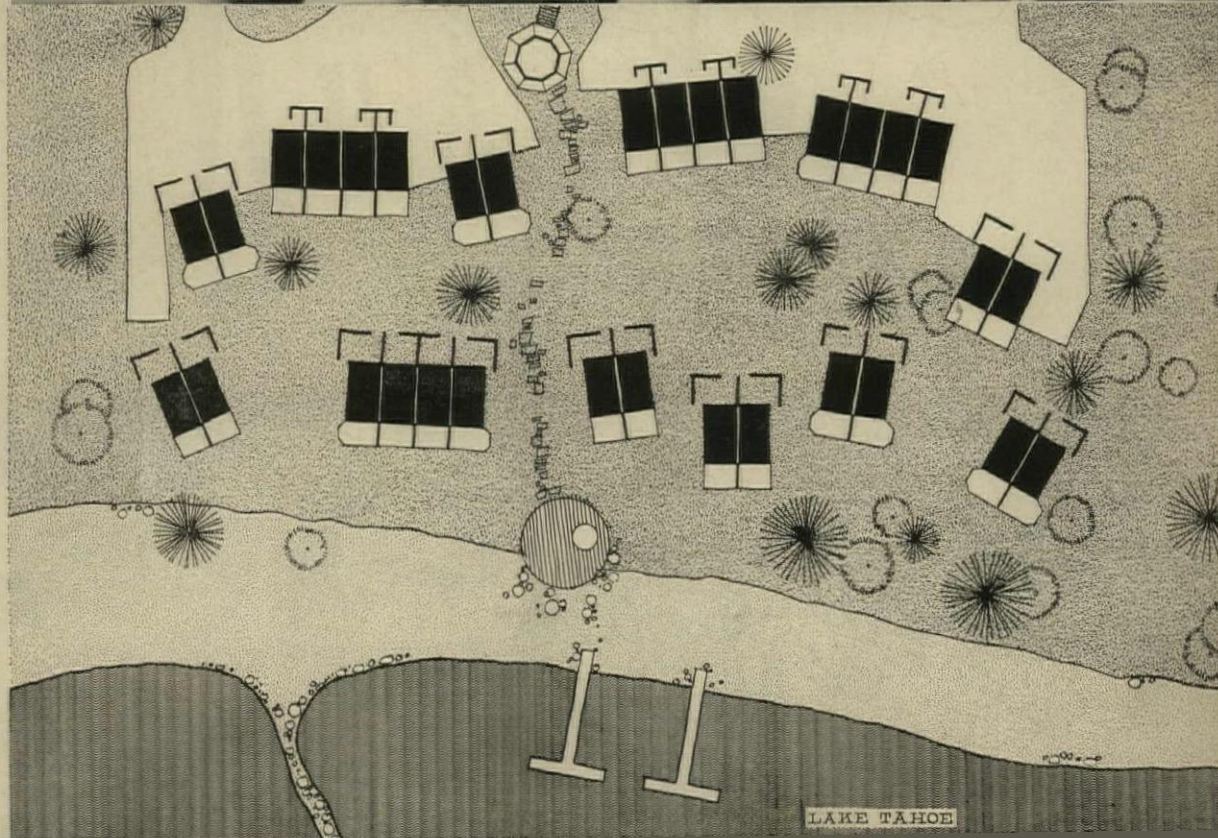
"There is no question that these apartments are more rentable than similar ones without water privileges. Our average rent of \$105 per month is about 20% higher than we could get on conventional sites. I'm sure our success in renting buildings faster than we can complete them is due to the lake and our site planning."

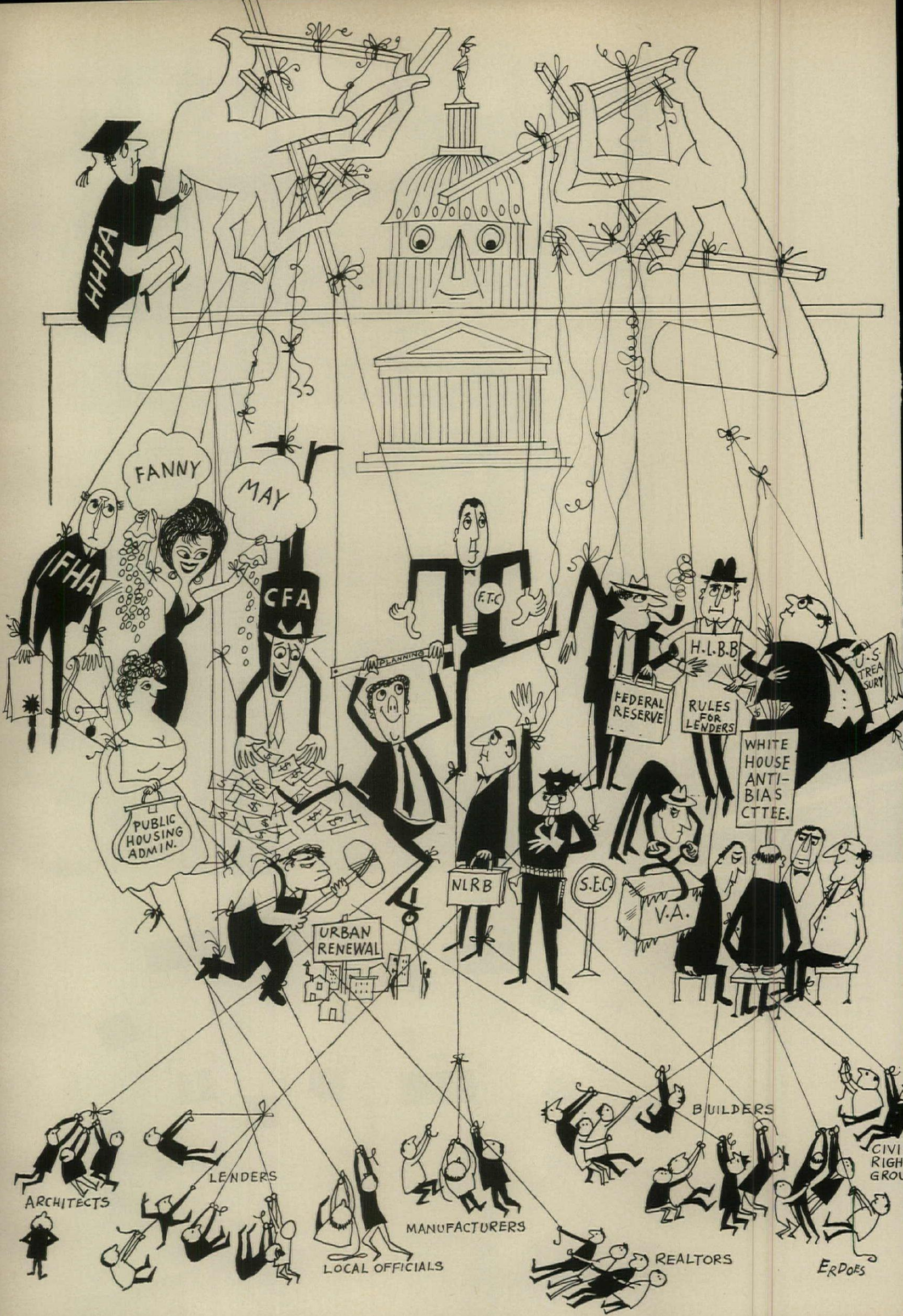


Hans Van Noid



ON LAKE TAHOE, these two-story condominiums make economic use of \$400-a-front-foot land. The 32-unit project (\$32,000 for a two-bedroom unit) is being developed by U.S. Plywood. Architects: Sherrill Broudy Assoc. and Don Sandy. This apartment development is part of a huge resort project, Incline Village, which is planned for 5,500 lots, plus a golf course and 3,000' of lakefront in two community beaches; to which lot owners will have common access.





HHFA

FANNY

MAY

FHA

CFA

F.T.C.

PLANNING

H.L.B.B.

FEDERAL RESERVE

RULES FOR LENDERS

U.S. TREASURY

PUBLIC HOUSING ADMIN.

WHITE HOUSE ANTI-BIAS CTTEE.

NLRB

S.E.C.

V.A.

URBAN RENEWAL

BUILDERS

CIVIL RIGHT GROU

ARCHITECTS

LENDERS

MANUFACTURERS

LOCAL OFFICIALS

REALTORS

ERDOES

The many-fingered federal puppeteer

Washington's dazzling array of housing programs is actually a maze of strings controlling the destiny of the housing industry, and the shape of much that is built. Which ones work for the common good?

New Frontiersmen like to say that the Eisenhower Administration's housing policy was just drift. By contrast, the Kennedy Administration's policy is drive.

The evidence is abundant. In the last two years, the federal government's chief instrument for housing, the Housing & Home Finance Agency and its satellite administrations, has been dishing out federal dollars—or making commitments to do so—at an unprecedented rate. For instance, more than \$1 billion has been earmarked for local urban renewal projects and surveys—37% of the \$2.8 billion the U. S. has put into slum clearance and renewal since it got into the act in 1949. More urban planning grants have been made to small (under 50,000 population) communities than in the preceding six years. The number of cities with workable programs to combat blight approved or in process has climbed 29% (to 1,293). Nearly 300 loans (at below-market interest rates) went to localities to finance public facilities like sewers, bridges, water systems, and offices—half the total since the program began in 1955. The rate at which public housing authorities are winning approval for new projects has soared to its highest level since 1952.

Outside the sprawling domain of HHFA, the Home Loan Bank Board, which oversees the destinies of 4,900 savings and loan associations with some \$80 billion of assets, has undergone a quiet infusion of fresh vigor at the hands of its energetic chairman, Joseph P. McMurray. President Kennedy himself, after 22 months of temporizing, signed an Executive Order prohibiting racial bias in federally-subsidized or insured housing. This controversial half-a-loaf leaves about 80% of new housing outside its scope—to the dismay and mounting anger of Negro rights crusaders (see *News*). But even so, it is more than Presidents before him have done to weed racial segregation out of housing.

Not only have old programs been revved up to a new speed, but the housing agencies have taken on at least seven brand new programs. These range from open-space grants to localities, mass transit planning, and demonstration grants to the successful but controversial FHA Sec. 221d3 under which the government not only insures the mortgage, but also makes the loan itself (at a subsidized 3 1/8% interest rate) on non-profit rental units for moderate-income families. And HHFA has hired 2,300 new people.

To HHFA administrator Robert C. Weaver, an articulate and urbane intellectual who holds a Ph.D. in economics from Harvard,

such statistics mean that "we are beginning to deal with our urban and housing needs on a scale commensurate with our urban growth and rising housing standards."

Few could dispute the fact that Weaver's HHFA has taken on new scope. Indeed, it is one of the fastest growing agencies in government—and one of the biggest subsidy dispensers. But many housing industry men are skeptical whether the new directions are good for 1) the industry and 2) the country. Some—notably mortgage bankers and real estate brokers—are outspokenly critical.

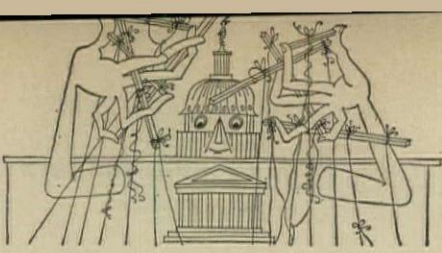
For Weaver has engineered the greatest shift in housing policy emphasis since the federal government first moved in on housing in the 30s. Today's \$25 billion a year housing industry was made possible by a bipartisan federal housing program conceived under President Hoover, born under President Roosevelt, expanded under President Truman, refined under President Eisenhower. Its emphasis shifted, but without a change in basic direction. Policies carried on pretty much alike under Democrats and Republicans helped 60 million people move to the suburbs, changed the U.S. from a nation 60% renters to one 62% home-owners, spawned the mass housebuilding industry, and helped housing at long last get aboard the industrial revolution.

Weaver's HHFA has not abandoned the old bipartisan programs. It has de-emphasized them. It has steered subsidies toward cities—and their crucial bloc of votes. It has been conspicuously inactive at new ways to help private builders build more privately financed houses and apartments. Indeed, Weaver himself has said that "today, HHFA is no longer an agency concerned primarily with housing and home finance." And he has suggested that one good recipe for racial desegregation in housing is to destroy the attitudes that make suburbs a status symbol.

Maybe this is at it should be. For few of housing's internal problems seem susceptible to Washington solutions, anyway. (One exception is building code reform—but Weaver has shown no inclination to tangle with this.) Cities *do* have pressing problems, not the least of which is their growing racial cleavage which Weaver, former chairman of the National Association for the Advancement of Colored People, has crusaded most of his adult life to erase.

As Weaver has noted at many a rostrum, the proportion of non-whites in U.S. central cities soared from 39% to 51% in the last decade, while the percentage of whites in the suburbs grew.

continued



Population experts like Philip M. Hauser of the University of Chicago see today's wave of migration from rural to urban centers as *the* crucial domestic problem. Hauser contends it has been disastrous both for the migrants—mostly untrained and unready for city challenges and discipline—and for society at large. For one thing, it has made federal intervention in local affairs commonplace. Now, contends Hauser, it begins to threaten orderly economic and social development.

The Administration's ill-fated effort last year to elevate HHFA to cabinet rank as a Department of Urban Affairs & Housing—with Weaver at the helm—does not mean that the idea is dead. Sooner or later, something like it is going to become a fact. This isn't likely to do much to simplify the jungle of agencies and programs the housing industry must deal with in Washington. Perhaps 20 federal agencies have a finger in housing, from the Agriculture Dept. to the Veterans Administration. FHA alone now has some 20 varied mortgage-insurance programs for this special purpose or that. Putting together a single slum clearance project can easily involve multi-faceted dealings with at least five agencies: HHFA, PHA, FHA, URA, and FNMA. Moreover as NAHB Economist Nat Rogg has observed, "each year the rules of the game change, so federal programs, no matter how helpful, tend to be upsetting factors and inhibit themselves in realizing their own assigned roles. The challenges in government are clear: better organization and more stable policy. That they will be realized in any near future is perhaps more dream than reality."

The argument about housing policies—and the programs that carry them out—revolves around ways and means. For there is clearly a national consensus for the hopes set forth in the Housing Act of 1949: "The Congress hereby declares that the general welfare and security of the nation and the health and living standards of its people require . . . the realization as soon as feasible of the goal of a decent home and a suitable living environment for every American family."

How to get there is more and more a matter for bitter dispute. A year ago, for example, the then president of the Mortgage Bankers Assn., Carton Stallard, complained about HHFA's "disturbing lack of, or indifference to, the functions of the private market and what it takes to make it work. What was at one time a free, independent group of operations—the Home Loan Bank system, FHA, and VA—all aimed at enlarging the private market, with a

public housing program running a disconsolate and diminishing fourth, has in a few years become a vast array of interrelated operations that affect the whole range of urban life." To Stallard, it is deplorable that FHA is becoming a "direct means of controlling building activity or determining whether this group or that is to obtain some special privilege in the distribution of mortgage funds."

Lately, another disturbing cry has begun to rise. Urban renewal, planning, and public works grants and loans, the complaint goes, are creating a new political juggernaut: a federal-city axis intended to perpetuate federal and local administrations in office. As the Philadelphia *Bulletin* has editorialized: "The beauty of urban renewal by massive federal aid lies in its convenience to local politicians and officials. The taxing is done from Washington; the good works are fashioned at city hall."

Such assaults do not move Bob Weaver to rebuttal. But he continues to be explicit about where and how his HHFA is going. "We want to revitalize the central city," he remarked in a college lecture last month. ". . . Americans are not interested in living in a series of satellite towns surrounding the ruins of their old central cities. . . [yet] around most of our large cities today are a series of such centers, all of them growing at the expense of the central city. . . We are developing heavy concentration in central cities of the poor, the old, and the discriminated-against. As a result we have many social problems—crime, social unrest, and other ills. . . Revitalizing cities is more than a real estate operation. It involves reaching and assisting the residents of slums and blighted areas. . . These things cost a great deal and place a heavy burden on tax resources because the higher taxpaying people are moving away from the central city. The state and federal governments should intervene to transfer tax revenues from the more affluent areas to the less affluent ones. . ."

Today, the federal government has commitments, investments, grants, and subsidy contracts in housing aggregating an awesome \$102 billion.* This is equal to 33% of the total national debt (although little of it is actually on the books as part of the debt). It is equal to 20% of the total annual U.S. output of goods and services. Like it or not—and many private housers have growing doubts about whether they do—the federal government's vast involvement with housing and allied urban affairs will continue. As political forces are now arrayed, it is likely to increase.

HHFA: the multi-purpose overseer—blazing new paths with subsidies

Just over a year ago, President Kennedy's attempt to use the reorganization route to elevate the Housing & Home Finance Agency to cabinet-status, after the House rules committee strangled his high-priority bill to do the same thing by legislation, backfired into one of the New Frontier's worst political defeats. The House of Representatives killed the plan by a lopsided vote of 264 to 150.

To be sure, politics—not housing—dominated the debate. The reorganization was a political hot potato made hotter by President Kennedy's advance announcement that he intended to name HHFA administrator Robert C. Weaver to head the new department. Weaver, already the highest ranking Negro in the federal government, would have been the first of his race to sit in the cabinet.

At this writing, the issue seems likely to be tossed into Congress' lap again soon. But the paradoxical fact is that whether or not it is ever called that, the sprawling HHFA and its \$102 billion

empire of loans, grants, hidden and not-so-hidden subsidies, mortgage insurance, research, plans, and pressures is already a powerful—if phantom—department of urban affairs. And it is one in which housing (as noted earlier) is playing and seems destined to play a shrinking role.

This is by no means all the Kennedy Administration's doing. Today's housing empire took 16 years to build.

HHFA was created by a Presidential stroke of the pen in 1947. Using his government reorganization powers, Harry Truman did away with the National Housing Agency and tucked the Federal Housing Administration, Public Housing Administration, and the

* The breakdown as of Dec. 31, 1962; \$49 billion of FHA insurance in force, \$39.6 billion of VA loans, \$6.4 billion of FNMA mortgages and commitments outstanding; \$4½ billion of public housing bonds guaranteed; \$2½ billion of renewal loans and grants outstanding. To all this, some might want to add the \$3.5 billion in Home Loan Bank advances outstanding and the \$76.7 billion in share accounts of insured S&Ls.

HHFA: study in complexity

Administrator Robert C. Weaver (right) of the Housing & Home Finance Agency heads an operation so diverse it has become one of government's big dispensers of subsidies.



CONSTITUENT AGENCIES (under HHFA co-ordination)



PHA: Marie C. McGuire subsidizes housing for 2.1 million low-income U.S. families.



FHA: Philip N. Brownstein insures private mortgages on rental, co-op, and owner-occupied residences.

CONSTITUENT AGENCIES (under HHFA command)



CFA: Sidney Woolner makes loans or grants for works, planning, college housing, etc.



URA: William L. Slayton runs renewal program, open-space and transit loans and grants.



FNMA: J. Stanley Baughman buys and sells FHA and VA mortgages to stabilize the market.

Deputy Administrator (post vacant)



GENERAL COUNSEL
Milton P. Semar drafts legislation, reviews HHFA legal obligations.

ASSISTANT ADMINISTRATORS (and their programs)



Administration: Lewis E. Williams is HHFA's house-keeper, directs personnel and budgets.



Int'l housing: Dan R. Hamady advises on U.S. role in housing-aid abroad. He is being replaced.



Senior citizens: Sidney Spector co-ordinates programs including 3½% direct loans.



Transportation: John C. Kohl oversees spending \$42½ million for mass transit loans and grants.



Program Policy: Morton Schussheim directs research and demonstration projects.



Community programs: F. David Clarke certifies local eligibility for renewal, public housing aid.



Public affairs: Fred A. Forbes handles public information, liaison with other agencies.



Metropolitan development: Victor Fischer meshes federal, state, and local planning.

Home Loan Bank Board under HHFA's wing. Thus the stage was set for what turned out to be—until lately—intermittent friction between HHFA and its satellites. For all three subordinate agencies had been independent; their top officers were (and still are) appointed by the President; and they had (and have) their friendly pressure groups that will fight to the end to keep their own sewing circle under a bureau that caters to their needs (local public housers for PHA, mortgage bankers for FHA, S&Ls for the HLBB, for instance). In essence, the conflict is much like the one built into the Pentagon by creation of the Defense Dept. atop the old line departments, now downgraded, of the Army and Navy. In 1949, Congress added slum clearance to HHFA's duties and the division that eventually became the Urban Renewal Administration was created. Federal National Mortgage Assn. joined HHFA via Presidential reorganization in 1950. The Housing Act of 1954 gave HHFA big new responsibilities in urban renewal, but tried—not too successfully—to hitch FHA to the job via special new renewal programs of easy-term loans. The same year saw creation of the Voluntary Home Mortgage Credit Program (VHMCP) to help channel mortgages to money-shy areas and minority borrowers so the government could avoid making direct loans. VHMCP was the brainchild of Carrol Shanks, then president of Prudential Insurance Co. and it depended on—and got—strong support from at least some private lenders. From January 1955 through last March, the program helped some 52,000 persons get FHA and VA loans totaling some \$554 million. Some 20% of the loans went to minority families. In 1957, when the Eisenhower Administration required applicants for direct VA loans to take a VHMCP-arranged loan instead if available at up to 2-points dis-

STAFFING THE HOUSING AGENCIES: A NEW TWIST ON PARKINSON'S LAW

Year	OA ¹	HLBB	FHA	PHA	FNMA	Total HHFA
1950.....	762	856	6,200	5,663	...	13,481
1951.....	845	425	6,041	5,356	672	13,339
1952.....	885	448	5,359	5,134	692	12,518
1953.....	810	444	5,503	4,523	692	11,972
1954.....	688	527	5,051	3,840	545	10,651
1955.....	909	521	6,146	2,836	579	10,991
1956.....	1,106	... ²	6,234	2,155	573	10,068
1957.....	1,421	...	5,937	1,778	662	9,798
1958.....	1,577	...	6,190	1,589	710	10,066
1959.....	1,630	...	7,007	1,492	815	10,944
1960.....	1,693	...	6,926	1,497	873	10,989
1961.....	1,812	...	7,145	1,501	908	11,366
1962.....	2,301	...	8,411	1,488	1,048	13,265

¹Includes URA and OFA. ²HLBB removed from HHFA in 1955.

PERSONNEL AND WORKLOADS in housing agencies suggest Parkinson's law is at work in spots. FHA lost 8% of the market between 1958 and 1962; applications fell 28%, units insured fell 35%, but employment rose 33%. PHA has lost employees steadily since World War II, but its expenditures (mostly subsidies) rise. HHFA headquarters employment is up 40% in the last two years.

continued



count, VHMCP business boomed at a 1,000-loans-a-month clip. In December 1959, VA backed away from this administrative effort to avoid government loans to consumers.

The Kennedy Administration has let VHMCP wither. In 1961, it even proposed to let the program lapse. Congress wrote it into the Housing Act of 1961 instead.

To the renewal thrust that dates from 1954, the New Frontier has added such embellishments as open space grants, mass transit grants, aid to depressed areas, metropolitan planning. This is hardly surprising, for the Kennedy Administration owes its election to the big city and the Negro vote. Yet HHFA's rainbow of grants and loans dismays many a critic who agrees with the desirability of their objectives. HHFA's pot of gold, says one veteran Washington economist, "is making a mendicant of every community in the U.S. The big question is: can you do all these things without demolishing local independence?" To this, New Frontiersmen reply that the initiative for projects must still come from localities.

The U.S. Chamber of Commerce, viewing HHFA's new directions with alarm, has just come forth with a recommendation that Congress slash its budget for next fiscal year by about one-third. Specifically, the chamber wants \$276 million chopped off HHFA's request for \$829 million. It would kill urban planning grants, direct loans for homebuying and rental by the elderly, mass transit aid, research, and low-income housing experiments entirely; would slice open-space sharply. The chamber cries that some programs benefit a few at the expense of the many, while others promote local dependence on federal handouts. To all this, an HHFA spokesman retorts: "The chamber is up to its usual no-progress policy."

FHA: creator of mass housing, engine of suburban explosion, prized pawn

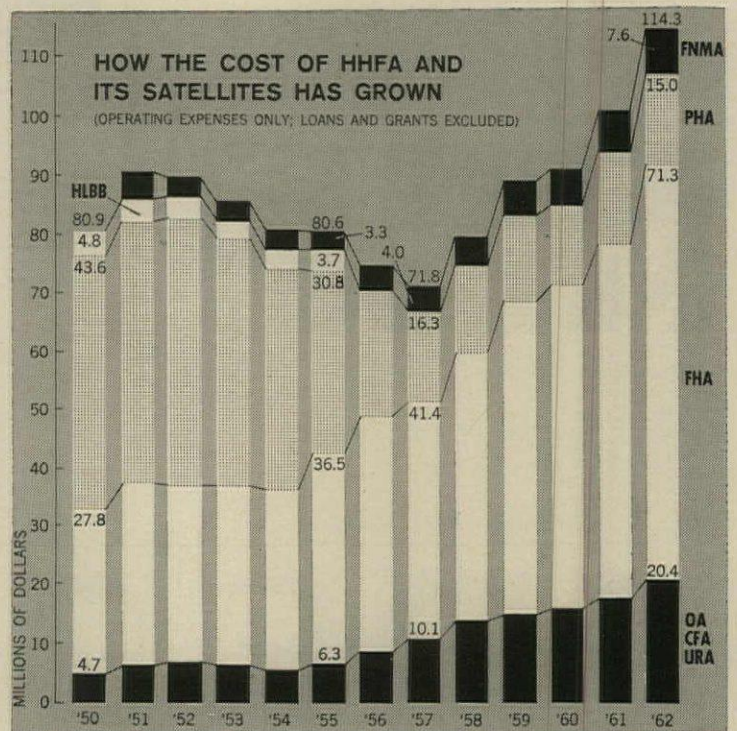
The Federal Housing Administration, by far the biggest and most potent of the agencies under HHFA's domain, was created in 1934 as a pump-priming device to get the housing industry started up again after its depression collapse. Its founders had no radical experiments in mind. Indeed, Marriner Eccles, the Federal Reserve Board chairman who played a key role in FHA's founding, said at the time that the only reason for setting up the agency was to encourage more investors through government insurance to put their money into long term mortgages instead of hiding it in the banks. So successful has FHA become that today it seems hard to believe that in 1934 it was widely denounced as "an incentive for people to go into debt, a regimentation of home financing, and another step towards the welfare state."

FHA triggered a revolution in the living habits of the nation, converting it from 60% renters to 62% homeowners. The instruments the agency developed and adopted produced changes in U.S. housing far more sweeping than anyone had dreamed possible.

FHA created the first truly national market for mortgages by developing a standard mortgage backed not only by its insurance, but also by sound minimum property standards and by a finding of economic soundness. This has helped to channel money to credit-shy regions and so done much to cut their high cost of borrowing. And the national market produced the city mortgage banker, almost non-existent before 1934.

FHA's unconditional forward commitment has fathered the mass homebuilding industry. How? It made it possible for builders to produce enough homes at one time and place to begin using industrial methods, thus for the first time letting housing begin to escape from horse-and-buggy technology.

FHA has demonstrated so convincingly the soundness of high ratio loans—if amortized—that conventional lenders have followed



BIGGEST COST of operating HHFA is FHA—but FHA generates more income from insurance premiums than it spends. Big recent expansion of HHFA has come under the Kennedy Administration. Expenses of the Office of the Administrator, URA, and CFA have risen some 33% since 1960. Public housing operations, trimmed during the 50s, have also begun to rise in cost again.

suit. Only high ratio loans (say, 90% or more) put housing within reach of the typical U.S. family. Before FHA came along, the average person had to make a 47% down payment to buy a home, and pay off a 6½% loan in 7½ years. Today, S&Ls and, in a few states, mutual savings banks may also make 90% loans (FHA's loan limit is now up to 97% on the first \$15,000 of appraised value for most programs).

FHA is indeed, as Economist Miles L. Colean has noted, "the most significant innovation in the homebuilding industry—and the one that has been the prime stimulant to most subsequent innovations." On June 27, 1963, the law that created FHA will be 29 years old. Over that span, the agency has insured one-quarter of the mortgages on new housing in the U.S.—some \$67 billion worth (6.7 million loans on one- to four-family homes and 12,000 loans on rental and other project loans). It has built up an insurance reserve of nearly \$1 billion—enough to withstand another depression like that of the 30s. And by splitting its insurance premium (½% a year on declining mortgage balances), half toward insurance reserves and about half toward operating costs, the agency has paid its own way. FHA has not cost the U.S. taxpayer one cent; and it has returned the Treasury more than \$1.3 billion profit!

Social reform vs. old principles

Yet today FHA is beset with problems, tugged in opposing directions by advocates of conflicting philosophies as to how it should now be used to advance the common American goal of better housing for more people.

On one side are the liberals, in Congress and the New Frontier, who would use FHA's mechanism and accumulated reserves as the instrument of vote-getting social change. This has a long history.

You might say the first hint of it came in 1937 when Congress authorized a higher loan-to-value ratio for the cheap-house end of the market at the same time it introduced the first 90% FHA loan. During World War II, Congress first began using FHA as an instrument to channel housing along special lines, and after the war Congress voted special FHA inducements to ease the politically explosive shortage of rental housing. These lures worked so well that Congress lived to regret them and to smear FHA with the windfall scandals of 1954, even though the Sec. 608 rental program had ended the rental housing shortage without costing either FHA or taxpayers a penny.

Congress has kept on adding new programs to FHA to serve popular purposes—military housing, re-housing of families displaced by renewal, housing for the elderly, nursing homes, trailer parks, renovation of rundown housing, condominiums, defense housing, experimental housing, and most recently, Sec 221d3 rental housing with below-the-market, subsidized interest rates built by nonprofit groups. For many of these, Congress has not only provided extra-easy terms, but has also instructed FHA to waive its customary insistence that the projects be economically sound.

Push to subsidize middle-income housing

By far the most controversial of these—today—is Sec 221d3, even though it aims (as Sen. John J. Sparkman (D., Ala.) let slip during Senate debate on it in 1961) “to provide a rental housing program which will replace the present public housing program.” Sec 221d3 offers 100% loans for 40 years to 1) private non-profit sponsors like churches, union groups, or companies formed for the express purpose of owning 221d3 projects, 2) public agencies (except those receiving money exclusively for public housing), 3) non-profit co-ops. It offers 90% loans to limited-dividend corporations and investor-sponsored co-ops. The interest rate is only 3½%, so Federally National Mortgage Assn. buys the loans—at the same price it pays the Treasury to borrow the money, which is substantially less than the Treasury itself can borrow money for 40 years. So the subsidy is concealed in layers of high finance. But one expert figures it could well run to \$5.9 million the first year on 221d3's first 60,000 units (\$580 million worth). These may well be built by the end of 1964. So far, FHA has made allocations for 17,000 units.

While the proposition was before Congress, its backers stressed the need to help families in the \$4,000 to \$6,000-a-year bracket. But FHA's income limits for 221d3 go all the way up to \$7,500 (in Chicago) and exceed \$6,000 for families with two children in 91 out of 120 cities where limits have been set.

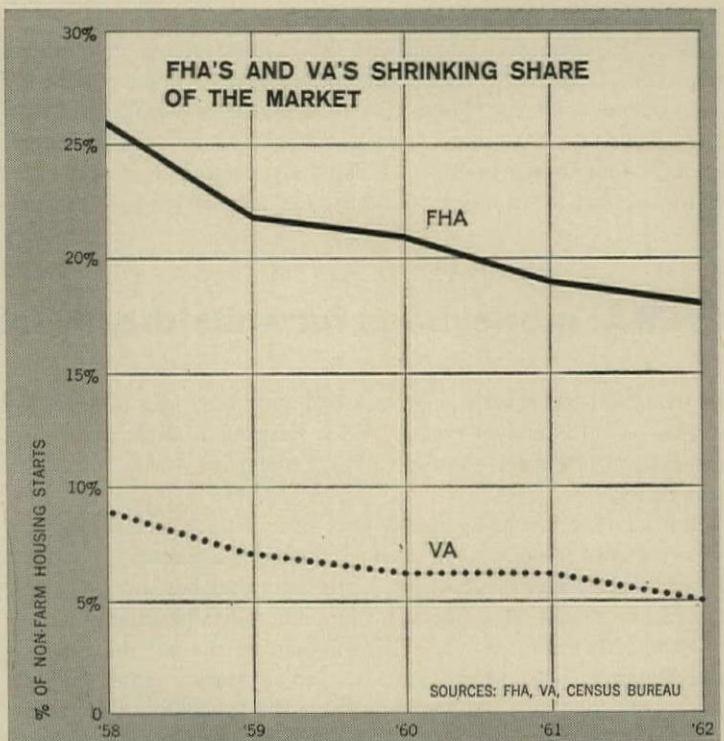
Most private enterprisers are horrified at such use of FHA. Economist Miles L. Colean calls it a “perverted market device to satisfy a supposed social need.” Why “supposed”? Because, so Realtors contend, families in the \$4,000 to \$6,000 bracket are *not* excluded from the housing market in almost all cities—provided you count in good used housing as well as new. Former President Alexander Summer of the National Association of Real Estate Boards has charged: “Dr. Weaver is putting more and more reliance on these programs with the view of gradually restricting the scope of the private market.”

To such cries, Weaver replies: “Many moderate-income people are now adequately housed. The important figure is how many are not. We don't have to make a market study to find out . . . The new programs contribute to the increase of our housing supply and we must have the sort of innovation they introduce to have FHA serve a broader market.”

Against this background, it becomes clear why some elements of the private industry have begun campaigning to strip FHA of its

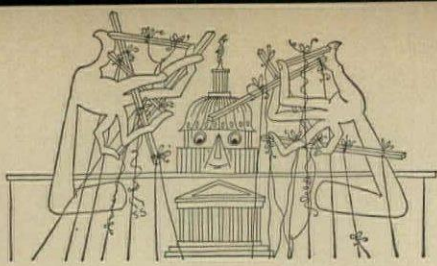
welfare-type programs. “FHA innovation has been added to innovation until the operation has become complicated beyond comprehension,” says President Dale M. Thompson of the Mortgage Bankers' Assn. MBA wants a “drastic reorganization of the ‘agency’ so it cannot be used to replace market judgments with ‘official judgments’ about what kind of housing should be financed—and therefore built. Realtors have just engineered introduction of a bill in Congress to divorce FHA from HHFA completely, letting it become an independent agency like the Home Loan Bank Board. Rep. John B. Anderson's bill won't get anywhere this year, for it faces strong Administration (and public houser) opposition. An independent FHA would make it much harder for Congress to consider future housing schemes in a single, catch-all package—a package which has made it possible for more than a decade to hold FHA hostage in the legislative process for much less popular programs like public housing. But Anderson's bill is also an advance counterattack against the recurrent proposal to elevate HHFA to a cabinet level Department of Urban Affairs & Housing. Most of the private industry opposes *this* idea. So Anderson's measure could gain support in time.

Meantime FHA, whose share of the housing market has been shrinking in recent years (*see graph*), is trying to put its operations in better shape. It is scraping off administrative barnacles, experimenting with new ways to speed up processing of applications (FHA's slow pace and complexity now lead many builders to escape by any means available). It is faring somewhat better, under the New Frontier, at getting permission from Congress to spend enough of its own income to function smoothly. And FHA's new commissioner, Philip Brownstein, has ordered his field offices to push harder to rent more of the 40,000 foreclosed one-family homes on FHA's hands. At the moment, FHA is acquiring houses faster than it gets rid of them. This, at least, is not yet cause for alarm because the recent rise in foreclosure rates appears to be leveling off.



FHA and VA accounted for 52% of nonfarm housing starts in 1947—their peak—and topped 50% again in 1955. The decline since has been continuous. Last year, FHA accounted for only 18% of nonfarm starts and VA for only 5%. Lenders blame FHA's decline on slow procedures and controlled interest rates—often below market rates which leads to discounts nobody likes.

continued



VA: the program most everybody likes, but many would kill

Since Congress enacted the GI home loan in 1944, some 5,928,914 veterans of the armed forces have availed themselves of its unique assistance to buy a home.

The VA house buyer gets more government help than the FHA buyer, though less than occupants of public housing or of FHA Sec. 221d3 below-market interest-rate rentals. The VA buyer gets a mortgage at moderate rates (the current interest ceiling is 5¼%). He buys his home at a price VA itself certifies is reasonable. He usually pays little or nothing down. In return, VA unconditionally guarantees to pay off the first \$7,500 (or 60% if that is less) of any defaulted loan in cash (not 20-year debentures as FHA does). Moreover, VA does not insist the lender deliver a sound property in return for the foreclosure payoff: If the house burns down or if vandals wreck it, VA pays anyway.

The curious thing about VA home loans is their astonishing survival in the face of hostility or indifference by federal housing officials, Congress, and, at times, even by the housing industry.

VA might well have stayed out of the home loan guaranty business altogether. But FHA begged Congress not to give it the job of helping some 2.2 million returning war veterans to find a place to live. FHA Commissioner Abner Ferguson marched up Capitol Hill and testified: "I just don't want the job of foreclosing on veterans' homes." So the nation wound up with two similar programs of government backed mortgage aid—a duplication which Builder William J. Levitt once asserted was wasting between \$500 million and \$750 million a year which the public pays. Said Levitt: "On a \$10,000 house with only one agency to do business with we could save close to \$300 per house. When we file an application on each house we pay FHA \$45. If the house is sold FHA, FHA returns \$25 (no longer, but this was true until earlier this year). If the house goes VA, we don't get a refund. So when the veteran buys a house from us it costs \$25 more—the same identical house—not one more shingle in it."

By 1956, even the chairman of the House veterans committee, Rep. Olin Teague (D., Tex.), announced that he opposed extending VA home loans for World War II veterans because the program "has helped lenders more than it has helped veterans." Homebuilders first fought to have VA loans extended. But in mid-1956 NAHB decided to go along with Teague's idea of merging VA and

FHA. Instead, Congress voted to continue the program unchanged. President Eisenhower suggested Congress let the eligibility for World War II veterans expire in mid-1960, but again, Congress ignored the idea.

Now, the end may be in sight. Since last July 25, World War II veterans have been losing their eligibility on a graduated basis. Korean War veterans, who have been eligible since July 16, 1952, will keep their eligibility until Jan. 31, 1975.

Up until the end of 1962, only 38% of the eligible World War II veterans (and only 19% of eligible Korean War veterans) had used the GI home-loan program. The figures would surely be higher had not Congress persisted in controlling the interest rate on VA loans through most of the 50s at a level too low to attract private mortgage money (except at deep discounts). For five years (1950-54 and 1957-58), Congressional liberals compounded this folly by fixing a limit on how big discounts could legally be.

Not only did frozen interest rates produce some of the liveliest policy squabbles of the 50s; they also gave the GI home-loan program a roller-coaster pace. Indeed, it was the economic myopia of self-styled liberals in Congress who said they wanted to protect the veteran which created the conditions in which the Federal Reserve was able to use housing as a major contra-cyclical device in the U.S. economy. VA starts soared to an all-time peak of 393,000—30% of all private non-farm starts—in housing's record boom year of 1955. But tightened (i.e., costlier) money choked off the program in 1959 and VA accounted for only 7.3% of starts.

Three times, Congress has reluctantly boosted the ceiling on VA mortgage interests—from 4% to 4½% in 1955, from 4½% to 4¾% in 1958, from 4¾% to 5¼% in 1959. The current 5¼% rate was—as usual—too little and too late. But the dramatic drop of mortgage lending rates generally since January 1961 makes VA's 5¼% fully competitive today. But now, the VA market is dwindling. Last year, VA accounted for only 5.4% of private non-farm starts. VA's day of glory in private housing seems long gone. But Congress is so chary of offending the organized veterans lobby, it is a fair bet that VA home loans will stay on the lawbooks—in one form or another—for years to come. If this is a luxury, the U.S. apparently can afford it. Moreover, many builders contend having two great agencies provides useful competition.

FNMA: moneybags for subsidized—and unsubsidized—U.S. mortgage loans

Federal National Mortgage Assn.—or Fanny May as it is generally called—is little known by the public because it deals only with professional lenders—banks, S&Ls, mortgage and insurance companies.

But its 25 years of operation have been a boon to housing and its president for the last 13 years, J. Stanley Baughman, a 29-year government careerist, commands a respect that borders on reverence from almost all segments of the contentious housing industry.

Fanny May was set up in 1938 as part of the old Reconstruction Finance Corp. to provide a secondary market outlet for FHA mortgages. The idea was to demonstrate the feasibility of mortgage associations authorized under the Housing Act of 1934. Some early FHA leaders correctly considered that without mortgage associations the government had stopped short of creating a system to speed the flow of mortgage money from one area to another. Nobody ever followed Fanny May's lead (it requires a giant

chunk of capital), and Congress repealed the authority in 1948, after adding VA loans to Fanny May's list.

In its quarter century, Fanny May has bought \$12 billion in FHA and VA loans, thus providing financing—directly or indirectly—for some 1,250,000 homes. It makes a profit (\$20 million last year) and pays taxes besides (\$21 million).

Thanks to an historic charter revamping in the Housing Act of 1954, Fanny May is now the only government agency with private stockholders (9,000 of them own \$90 million worth). The 1954 reorganization requires the agency to keep its \$5.6 billion portfolio of FHAs and VAs in three financially watertight compartments. Biggest and most important is its secondary market operation. Here, the agency buys and sells mortgages much as any other lender (except that it doesn't deal directly with the public). FNMA requires everybody who sells it a loan to put 1% of the loan proceeds into FNMA common stock—a requirement

intended by the GOP-controlled Congress which framed it to convert FNMA from a government-owned to a privately-owned corporation by 1968. Subsequent developments have put this out of reach. The stock purchase requirement has been cut from 2% to 1%, and FNMA's Treasury-owned preferred stock has been swelled to \$158 million. All the Treasury stock must be retired before FNMA can move to become a privately-owned agency.

Second compartment is FNMA's special assistance program by which Congress uses Treasury money to give extra financial support to mortgage lending with a social purpose that suits the party in power. The extra support is in the form of mandatory purchase at par, or 100¢ on the \$1, of mortgages for co-operative groups, elderly persons, disaster victims, members of the armed forces, civilian employees of defense installations, urban renewal,

and on property in Alaska and Guam. In 1958, Congress also gave FNMA a controversial \$1 billion to buy FHA or VA loans under \$13,500 at par—as an anti-recession measure. President Eisenhower denounced it as a raid on the Treasury, but signed the bill.

Third compartment is FNMA's management and liquidating portfolio, \$1.3 billion of old FHAs and VAs acquired between 1938 and 1954.

In keeping with its role of buying when mortgage money is scarce and selling when it is plentiful, Fanny May expects to sell a record \$1 billion of loans in the fiscal year ending June 30—70% of it in the secondary market. The record looms despite moves by HFA administrator Weaver (who is chairman of FNMA) to force the agency to price its re-sale mortgages out of the market. Aim: more funds for new housing—and lower interest rates.

URA: slum clearance—at staggering cost—with growing troubles

Urban renewal is a program in trouble. And paradoxically, the trouble is a result of its own achievements.

By the end of last year, federally subsidized renewal had resulted in demolition of 12,947 acres of blighted neighborhoods in 621 cities, and the creation in their place of some \$1.2 billion worth of largely gleaming new apartments, offices, factories, government buildings or other public facilities. Gone were some 218,000 units of unfit housing (along with some that was perfectly sound but stood in the way of replanning).

So far, so good. But the process hasn't been painless. More than 148,000 urban families have been uprooted by the bulldozers. And local authorities today are the unhappy owners of some 5,500 acres of cleared but unreconstructed former slum land.

These are renewal's most visible problems. The program is in political trouble over relocation. It is in real estate trouble over finding private sponsors to take those 8.6 square miles of cleared rubble off its hands—8.6 square miles in which the U.S. taxpayers have invested millions of dollars writing down the land from its acquisition cost to a price that will induce private investors to rebuild on it.

The relocation problem was well described this spring by James Q. Wilson, associate professor of government at Harvard. "An initial burst of enthusiasm has greeted renewal in almost every city where the idea has been broached," he said. "But after the first few projects were undertaken, the hidden political costs began to become evident. Voters who did not like being called slum dwellers and who liked even less being forced out of their old neighborhoods began to complain. As the enthusiasm of some of the civic boosters began to wane, many mayors began to wonder whether they were going to be left alone in the firing line to answer for projects which the boosters had pushed them into the first place.

"The political and social problems involved in relocating Negroes in other areas of the city are sufficiently formidable to make opposition to the renewal program as a whole very powerful. Most renewal areas are likely to be low income, often Negro, sections. Such people are more likely to have a limited perspective, an unfamiliarity with and lack of confidence in city-wide institutions, a preoccupation with the personal and the immediate, and few, if any, attachments to organizations of any kind with the possible exception of churches. They are intimately bound up in the day-to-day struggle to sustain themselves. The coalition of liberals, planners, mayors, business men, and real estate interests which originally made renewal so irresistible has begun to fall apart.

"Liberals who still see the reconstruction of the central city as a prime goal for government have begun to have doubts, particularly about redevelopment that involves wholesale clearance by bulldozers. They are disturbed by charges from many Negro leaders, whom liberals are accustomed to regard as their natural allies, that liberals have aided and abetted a program, which, under the guise of slum clearance, is really a program of Negro clearance."

As Professor Wilson notes, the "new style mayor is searching for ways of adapting" to such changing conditions. Mayor Richard Daley of Chicago, for instance, has just announced that he is abandoning the name urban renewal altogether. Henceforth, Chicago projects will be known as community improvement projects. More significantly, the mayor says Chicago will give up wholesale slum clearance and redevelopment in favor of more rehabilitation and conservation—with occasional spot demolition.

Is slum clearance becoming a political liability?

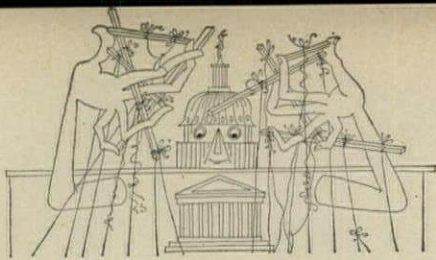
For Chicago, this is a drastic shift in policy. In the 1950-59 decade, with the aid of about \$100 million in federal funds, the city cleared and rebuilt a square mile of slums. On a per capita basis, Chicago has probably made the biggest renewal effort of any big U.S. city. And Mayor Daley has long been publicly committed to promoting renewal.

Why, then, such an about face? The fact is that the mayor realizes renewal isn't as popular as it was—and for the very reasons Professor Wilson cites. Mayor Daley was re-elected to a third term in April—but in the primary he suffered the indignity of a sharp drop in his former margin of victory. And not a few Chicago analysts lay vote defections to 1) fears by white residents that renewal will inundate their neighborhoods with displaced Negro families and 2) resentment by Negro families at being uprooted two and three times by slum clearance.

This problem is not confined to Chicago or a few other big cities. Says Executive Director Dennis O'Harrow of the American Society of Planning Officials: "Because the urban renewal agency has no complete plan for urban renewal for the entire city, there has been pillar-to-post relocation* of families, out of one clearance area into another clearance area, out of the second into a third,

*Of the 113,000 displaced families to whom URA has made relocation payments (\$200), 80% wound up in safe and sanitary housing—better than what they had before. The other 20% divide almost equally into families who moved into substandard housing after refusing non-slum quarters, left the city, or just disappeared.

continued



and so on. It may be only a tiny fraction of all displaced persons that get battered about two or three times. But this tiny fraction makes good newspaper copy to stir up those who haven't been relocated even once. But if the renewal agency designates all renewal areas far in advance, the agency is in for it again. Every designated project area is immediately under a shadow. Owners cease trying to keep up maintenance, real estate sales practically cease, or if a sale takes place, it is at distressed prices.

"Another facet of renewal that has left a bad taste is the replacement of slum housing by luxury apartments. At least they seem luxurious to the families that were displaced. And to taxicab drivers and a lot of other voters. The renewal agencies are caught. They must try to sell a cleared area. No one is going to buy unless he believes he can make money on the deal. A displaced owner complains: You took it away from me and gave it to him. Now, he's going to make a killing on my property. But if no one will buy the cleared area . . . the displaced owner complains again: You took it away from me and for what?"

As it has for some time, criticism of urban renewal is also coming from political right wingers. Whether it should be taken at face value is perhaps open to question, but lately the tone of the accusations has been growing more violent. Consider, for instance, the talk Rep. Bruce Alger (R., Tex.) has just made to the 51st annual meeting of the U.S. Chamber of Commerce. Renewal, he cried, "is a political weapon [which] . . . threatens to end local self-government." How? Said Alger: "It is an attempt by liberals, using the taxpayers' money, to reduce their opposition to ineffectiveness by buying off large sections of the business community . . . [It] is a planned alliance between local political leaders and the Kennedy Administration, aimed at keeping both in power." The President's first step to cement an alliance with city mayors, according to Alger, was his "boost the economy" program started in 1961. Mayors were to get federal funds for local projects which would insure continuation of their local political leadership.

URBAN RENEWAL: THE 13-YEAR RECORD

Year	Acres acquired	Acres re-sold	Cities participating	Dwelling units demolished	Capital grants authorized (000 omitted)
1950	na	na	253	na	na
1951	na	na	238	na	\$402
1952	na	na	153	na	54,098
1953	na	na	180	na	105,206
1954	na	na	188	na	146,608
1955	na	na	218	na	185,036
1956	1,659	459	265	na	220,775
1957	2,669	797	299	54,000	385,539
1958	3,858	1,336	386	70,728	611,875
1959	6,363	1,972	417	98,143	865,313
1960	9,952	2,763	475	138,600	1,029,526
1961	13,326	3,806	520	178,000	1,390,596
1962	18,912	7,390	621	218,000	2,949,793

PACE OF URBAN RENEWAL is speeding up. More than half of the federal subsidy authorized to buy up land and write down its cost for resale was approved by URA during 1962. The mix of renewal is also shifting—away from its residential beginnings toward commercial and industrial development. The law now lets 30% of capital grants go for non-residential projects.

He, in turn, would use his influence to maintain the President in power." Alger also asserted that renewal "has been so administered by the HHFA that many communities which did not require aid have been receiving it . . . adequate investigation by Congress (of renewal) will uncover wrongdoing that will send men to jail."

How we got where we are

Slums have been the target of housing reformers in the U.S. for nearly a century. But the idea that the government could use its constitutional authority to promote the general welfare for the forceable removal of blighted real estate did not get into federal law until 26 years ago. It came via public housing. The Housing Act of 1937 authorized federal underwriting of loans to local public-housing authorities equal to 90% of the cost of construction, plus subsidies to meet interest and amortization on tax-free 40-year bonds issued locally. Slum clearance was tied into public housing to justify condemnation of privately owned land. Not until the Housing Act of 1949 did Congress separate slum clearance from public housing by creating a separate division of HHFA to handle it (now the Urban Renewal Administration). The formula, then as now, was to buy up slumlords' property at the market price inflated by his abuse of the land, then resell it to somebody else who would tear it down and rebuild the area according to local planners' ideas of how it ought to be redeveloped.

Blighted real estate in the U.S. is usually taxed lightly, which means it is priced dearly. Why? All property is worth the difference between its anticipated cost and its anticipated income—capitalized. So it was clear to legislators that somebody would have to subsidize the gap between the cost of acquiring blighted property at its tax-inflated market price and the much lower price which a redeveloper can afford to pay for it and still build at a profit. The federal government decided to offer to pay two-thirds of this land write-down cost if localities put up the other third in cash or construction of public facilities and services.

The idea took hold at a snail's pace. In five years, HHFA authorized just over \$105 million for land write-downs. The Housing Act of 1954, the Eisenhower Administration's chief impact on U.S. housing policy, reshaped the program in two big ways:

1. It broadened the concept from the bulldozers-only approach to the triple-barreled clearance—redevelopment, rehabilitation, and conservation program we have today. It named the new scheme urban renewal—a coinage adapted from Economist Miles L. Colean's thought-provoking 1953 book, *Renewing Our Cities*, which had impressed on the shapers of federal policy the truth that all three methods are at work naturally and so might be speeded by the stimulus of subsidy.

2. It prohibited urban renewal grants (but not preliminary planning advances) to communities until HHFA certifies that they have workable programs to attack existing slums and prevent the growth of new ones. The underlying philosophy was that multi-million dollar federal subsidies to fight urban blight should be channeled only to cities that also used their own powers in the same direction. Or to paraphrase the old adage, Uncle Sam would help those who help themselves.

Workable programs, in the words of the man who ran HHFA's renewal operations at that time, James Follin, were little more than "seven promises" Cities are supposed to have: 1) sound local housing and building codes actually enforced, 2) a master plan for community development to end haphazard growth, 3) a basic analysis of blighted and threatened neighborhoods with plans for treating them, 4) a coordinated local organization to run the program, 5) financial capacity to carry it out, 6) adequate provision to rehouse displaced families in new or existing hous-

ing, 7) community-wide citizen participation.

Since 1954, every HHFA administrator (who must annually review and reapprove these city pledges) has admitted some cities are not doing what they say, especially in failing to enforce housing codes. For a decade, critics have correctly complained HHFA has credited cities with workable programs to qualify them for urban renewal and public housing subsidies when in fact their programs didn't work at all. Follin, who ran renewal until 1956 told *HOUSE & HOME*: "I had a gradual approach policy. I never tried to set any national standards. I always felt it was up to Podunk what kind of a housing code it ought to have and I was inclined to let Podunk flounder a little and find out for itself. Besides, when HHFA writes [as it did for a time] that some phase of a community's effort 'does not come up to national standards,' this gets labeled as 'federal domination.'" Neither HHFA administrator Albert M. Cole, no knuckle-rapper by temperament, nor any of his successors, has flatly rejected an application to approve a city's workable program. Cole occasionally delayed approval, occasionally threatened to refuse if more action wasn't forthcoming. Administrator Norman Mason once held up certifying San Francisco's workable program for four months, and he also delayed St. Paul's. Mason once explained: "The aim is to give the workable program more push without being arbitrary."

HHFA has a practical reason for such gentle enforcement: Its officials have long been convinced that if they really cracked down on channeling federal aid only to cities willing to work themselves to stamp out blight that Congress would repeal the proviso. A club muffled with feathers is better than no club at all. But as Carter McFarland, long time HHFA economist and now an assistant FHA commissioner, observed a few years back: "Many cities are cynical about the workable program . . . They just hire somebody to get out a report." The best progress has been where progress hits slum profiteering least: in writing codes and making community plans. Least action has come in citizen participation, neighborhood analysis, and code enforcement.

Rise of the federally-subsidized plan—and planner

The Housing Act of 1954 also put the federal government into the business of subsidizing regional planning. It authorized HHFA to make 50-50 grants (boosted to 66% in 1961) to state, metropolitan, or regional planning agencies. States redistribute the money to localities with less than 50,000 population. Since 1954, HHFA has ladled out \$45.5 million for 1,190 urban planning projects—\$32 million of it since 1961.

A small army of private planning consultants have hung out their shingles to help localities consume this money and lately critics have been complaining that the subsidies are so bountiful

they have led to needless planning.

Whatever the shortcomings of federally-subsidized planning, it is producing much planning that would otherwise not have been done. And it is producing it at a time when the need for regional planning is glaringly obvious. Whether much of the planning is good enough to solve the problems is a question.

Can urban renewal's formula cope with urban blight?

So far, urban renewal has committed \$2.8 billion of U.S. aid to clear away or fix up urban slums. All this and 13 years of trying have barely made a dent in the problem. Yet, as President Kennedy has noted, 14 million families (26% of the nation) are still ill-housed despite the dramatic improvement in housing conditions during the 1950-59 decade. Nobody has precisely calculated how many millions more it would take to rebuild U.S. cities with federal grants, but the cost would clearly be astronomical. New York City alone might need every cent of the \$2.5 billion Congress added to URA's grant authorization two years ago just to reclaim its 7,000 acres of blight and decay. Why? New York's slum prices are so inflated by overcrowding and undertaxation that redevelopment purchases have averaged \$481,000 an acre.

Unless we first take the profit out of slums and their creation, urban renewal under its present formula is likely to remain confined to piecemeal thrusts at slum pockets. Says Economist Louis Winnick of the Ford Foundation: "If renewal is to succeed in rejuvenating the enormous acreage of slums where market demand for new or rehabilitated real estate is plainly weak, a much larger burden will have to be thrust on the public purse . . . Unless government—which realistically speaking, means the federal government—is prepared to assume outlays which would dwarf the present rate of expenditures on land write-downs, most of our urban slums, I fear, will be with us indefinitely. I can see no evidence that the New Frontier, despite its dedication to urban reconstruction, is able to take on this burden, assuming that it were desirable to do so. We shall have to give deeper thought to less expensive and perhaps more effective programs aimed at improving the slum dweller rather than the slum."

Indeed, the idea of redeveloping people instead of the real estate is gaining momentum these days amongst housing's deep-think set. For urban renewal has opened a whole Pandora's box of urban problems—not only physical problems like transit, schools, and planning, but people problems like crime, juvenile delinquency, alcoholism, drug addiction, poverty, disease illiteracy, unemployment, and broken families. As Renewal Commissioner William L. Slayton has noted: "Some people resent the disclosures of long neglected slum problems—but these are, of course, to the credit of urban renewal."

PHA: neither a success nor socialism—but the nation's No. 1 landlord

No federal housing program has been fought longer or harder by the private housing industry than public housing.

The original public housing program—in today's form—squeaked through Congress by a two-vote Senate margin in the Housing Act of 1937. Opposition led by realtors and the U.S. S&L League almost killed it off in 1938 and 1939. NAHB's first executive staff chief, Frank Cortright, built his membership on the threat of public housing. Realtors, lenders, and builders staved off a postwar public housing program for three years.

For the last decade, the noisiest and headline-grabbing annual housing squabble in Congress has been over the 810,000 units

of public housing authorized by the Housing Act of 1949—even though this has generally produced only about 3% of the nation's yearly housing starts. Recently, as critics like the *Wall St. Journal* have noted, public housing has come under attack from its friends as well as its foes. "Who needs enemies?" headlined the *Journal* early this year. "Public housing friends complain of its failure to remedy social ills."

Today, a program that has been the target of more abuse than any other federal involvement in housing faces a shutdown, probably temporary. But neither its detractors nor its champions is responsible. Its 1961 authorization—100,000 units—will be ex-

continued



hausted by June 30 and Congressional pundits expect no housing legislation this year. Moreover, public housing will soon press against the \$336 million ceiling on annual subsidies.

Including its WPA inheritance the program now amounts 525,000 units, housing about 2.1 million people. Forty-year bonds covering construction costs are guaranteed by the Public Housing Administration. Last year's cost: \$156 million. The bonds are actually sold by local housing authorities and so get federal income tax exemption—a benefit removed from federal bonds in 1941. So public housing bonds today pay an average 2.97% interest while private developers of rental housing must pay (under FHA Sec. 207, for instance) 5¾% including the insurance premium.

The argument over public housing is *not* against subsidies to improve the housing of the poor. The national consensus is clearly for welfare aid to people who need it—for shelter as well as for food, clothing, and medical care. The battle is about:

1. The form and structure of federal aid. Opponents object to the public as a landlord and claim it is unnecessary. Realtors, for instance, have long espoused income supplements to let poor families rent private housing—an idea that is at last getting a test under federal auspices. Why are public landlords a bad idea? Critics say public housing projects become an easily organized political bloc of kept voters. A recent analysis by Pollster Samuel Lubell suggests that public housing projects indeed do deliver a lopsided vote in national elections.

Says Consultant Carl Feiss: "You're getting into a situation in which public housing children [half of the occupants] will themselves get married, live in public housing and raise children in public housing, and you'll get a new kind of dependence society."

2. The high cost of construction. During the Eisenhower era, PHA Commissioner Charles Slusser (who fought a seven-year war

with local authorities) imposed an informal \$17,500-a-unit ceiling. Now, it is quietly up to \$20,000.

New units pushing this ceiling—all in elevator buildings—far exceed the average \$15,489 value of new FHA homes bought by taxpayers who help foot the public housing bill. Private builders say they could put up units a lot cheaper. For instance, Builder Joseph Singer agreed in 1960 to build 98 townhouses for the Philadelphia Housing Authority for \$11,800 each instead of the \$17,000 the authority had been paying to build its own units. He was blocked by legal snarls. A year later, Builder Richard G. Kelly sold the neighboring Delaware County HA 37 townhouses built FHA for \$11,089 each—\$3,838 per unit less than the authority expected to pay to build under PHA red tape.

3. Social and aesthetic blight of monolithic projects. Modern brick towers and landscaped grounds look better than the slums they usually replace, but even PHA Commissioner Marie C. McGuire has complained about their "massiveness and monotony." Architects have long blamed restrictive rules and red tape for sterile plans and botched site layouts. Mrs. McGuire is campaigning against look-alike design. "We want smaller, non-institutional units so the people in them won't be identifiable as just "poor folk," she says.

4. Failure to cope with slum problems. Public housing now tends to concentrate problem families, and so even its backers are disappointed with its impact on deep-seated community problems like crime and disease. Moreover, uprooted occupants lose the social support of associations in their old neighborhoods. More than a quarter of the families in federal public housing lack one parent, usually the father. If their incomes rise too far, families must move out—often back into the slums. (Many public housers urge new laws to let over-income families pay more rent and stay—or buy their units.) PHA is now encouraging efforts to add more social services to projects—for human renewal. This would reverse the attitude once described by the late Henry S. Churchill, longtime public housing architect: "It wasn't love for humanity that put (public) housing over in the 30s, but the smell of rich and redolent pork."

5. Integration. Site selection squabbles are stymieing new projects in more and more big cities. Former acting PHA Commissioner Lawrence Davern once summed up the reason "in one word: integration." Behind this lies the American attitude that enrages Negro activists. Public housing is about 50% Negro-occupied and most white middle-class neighborhoods resist having a concentration of low-income Negroes introduced into their midst.

Against the many real and imagined objections, public housers point to the millions of U.S. families still living in substandard homes—some 7 million on welfare, for instance. The latest available Census data suggests that about two-thirds of the occupied substandard housing houses families with incomes below \$3,000.

A delegation of homebuilders talked to President Kennedy about the problem two years ago, came away from the White House meeting quoting JFK as saying: "There has been so much criticism of public housing programs there just must be a better way to do it."

Where does public housing stand? After a 30-year battle it has grown to about 1% of the U.S. stock of housing. But it has neither socialized realty nor rescued the poor. Its real weakness would seem to be its reliance on public landlordism—or investing in bricks instead of people. The aim of public housing deserves universal applause, but the depression-born system—intended to produce jobs first, clear slums second—apparently is too costly to help more than a fraction of the people who can use help.

PUBLIC HOUSING: ITS COSTS AND RESULTS

Year	Dwelling unit construction starts	Annual contributions paid by PHA	Ratio of subsidy paid to total U.S. liability	Total dwellings under management
1950	31,723	6,640,081	45.0	192,130
1951	69,407	7,732,974	52.7	211,281
1952	54,930	12,565,987	48.0	271,281
1953	31,985	25,880,708	57.0	344,000
1954	16,244	44,473,610	66.0	390,000
1955	8,568	66,592,937	73.1	413,558
1956	4,916	81,730,046	75.7	423,933
1957	20,653	90,634,813	77.7	429,500
1958	21,422	98,790,666	81.5	444,173
1959	15,759	115,366,664	86.7	464,915
1960	28,877	131,188,377	88.9	478,153
1961	30,079	145,321,952	87.4	498,367
1962	24,325	156,977,943	92.0	525,679

BIGGEST LANDLORD in the nation, federal public housing today is home to some 517,000 families, or more than 2 million people. But fiscal trouble looms because operating costs are getting so high residual rents are shrinking and the U.S. is called on to meet more and more of its maximum liability for public housing's debt service (92% last year).

CFA: swelling pipeline to funnel federal cash to local works

The Community Facilities Administration is an arm of the HHFA much better known to local and school officials than to the housing industry. For CFA is the Princess Papooli of housing: It has lots of money and loves to give it away. But not to private enterprise.

CFA is an outgrowth of programs for advance planning, disaster relief, and defense community facilities handed to HHFA in 1950 when the old Federal Works Agency was broken up. A quiet operation for years, it has expanded rapidly under the New Frontier. CFA's rainbow of favors now consists of five principal programs of grants, cut-rate or interest-free loans.

1. College housing loans. This 12-year-old program offers direct federal loans for up to 50 years at 3½% (the rate is based on the average cost of all Treasury borrowing, plus ¼% for expenses, and so does not accurately reflect the true cost to the U.S. of the long-term loans). Funds are available to any accredited college or university for non-classroom construction: dormitories, dining halls, student unions (some of which include beer halls), and infirmaries. CFA is supposed to make loans only to institutions which show they cannot borrow privately "at reasonable rates." For years, lenders (including mortgage bankers) have cried that CFA perverts the law by classifying anything much above its own rock-bottom federal rate as "unreasonable." CFA administrators retire behind cover of "intent of Congress"—and they have a point. More than 70% of eligible schools have applied for a loan. Up to the end of March, CFA had approved \$2 billion in 1,861 college housing loans. They financed accommodations for some 500,000 students, nurses, interns, and faculty plus 260 student unions. Loan defaults: zero. Congress has authorized the program to expand by \$300 million a year for two years more, which will swell it to a whopping \$2.875 billion. CFA happily lets private bond buyers pick up the short-term end of tax-free housing bonds of public universities since, as CFA Commissioner Sidney Woolner happily points out: "Market interest rates for early maturities of a long-term issue are often lower than our lending rate, which applies uniformly to all maturities." Last year, private investors bought \$166 million worth, while CFA took only \$54 million of college tax-exempts. Looking ahead at college enrollment, Woolner expects schools will want to borrow \$3 billion more by 1970, \$2 billion of it tax-exempt because private colleges share of the educational load is shrinking fast.

2. Senior citizens' housing loans. This program offers direct loans for up to 50 years at 3½% to private nonprofit groups and public authorities (except public housing authorities that have no other operation). The program, Sec. 202 of the Housing Act of 1959, thus lets consumer co-ops, church groups, labor unions, fraternal and service groups undercut the privately financed market for housing for persons 62 years old or older. Congress has authorized \$125 million in direct elderly loans, appropriated \$80 million (for once, Congress did not approve back-door spending). CFA has just announced it has committed all of the money. The \$76 million in loans actually approved will build 71 projects housing 6,900 people. Thirteen are occupied.

3. Advances for public works planning. Another program set up by the Eisenhower Administration's 1954 housing law (as a successor to two similar programs dating from 1944 and 1949), this lets localities get interest-free advances to plan what Woolner calls "every conceivable type of public work." Some \$3 billion of construction has resulted. The advances, which hire architects and

engineers, are repayable when construction begins. If a project is shelved, CFA forgets about the money. Through 1962, CFA had handed out \$70.4 million. California, Washington, Illinois, Louisiana, New York and Pennsylvania got about half of it.

4. Public facility loans. Congress enacted this one in 1955 without the support of the Eisenhower Administration. Object: to help small towns (10,000 or less pop.) borrow to finance such public works as sewers, water systems, civic centers, jails, bridges or streets. Until 1961 interest rates ranged between 4% and 5%. The Kennedy Administration got Congress to rejigger the interest formula in 1961, slicing the rate to 3¾% (currently) except for loans to communities in redevelopment areas whose rate is only 3½%. Congress also upped the eligibility to cities up to 50,000 pop. (and to 150,000 for cities in depressed areas). But the lawmakers left unchanged the law that no loan may be made "unless the financial assistance applied for is not otherwise available." CFA interprets this to mean not available at 3⅞% generally, or 3⅝% in redevelopment areas. Investment bankers cry foul, and no less eminent a lawmaker than Chairman A. Willis Robertson (D., Va.) of the Senate banking committee has complained to the Senate that CFA is 1) flouting the will of Congress and 2) pursuing a course that will let HHFA "take over the financing of all public works in hundreds of small communities throughout the country."

5. Accelerated public works grants. This \$900 million giveaway, voted last September as a move to slice unemployment, has become a hot political issue before Congress. CFA administers it for Commerce Dept's Area Redevelopment Administration.

The first \$400 million appropriated by Congress has been wholly committed (to 3,756 projects in all 50 states). Any community with a prolonged unemployment rate of 6% or more may receive grants totaling up to 75% of a project's cost so long as the bulk of the work occurs in 12 months and new job opportunities are created. Some 1,200 cities, towns, and counties covering about one-third of the nation's land area are eligible. Most of the awards have gone into such problem states as Pennsylvania, Michigan, and Kentucky, but CFA has deliberately spread around the first \$400 million in an effort to refute accusations that a political slush fund was being set up to help the Administration and friendly Democrats. The U.S. Chamber of Commerce calls for abolition of the whole ARA program. It charges that projects are not approved on a basis of economic need, and that federal agents are out beating the bushes (at taxpayers' expense) to drum up business. Agrees Rep. Otto Passman (D., La.): "This program is a damned monstrosity."

Where do HHFA's array of programs leave housing? Have they helped, or hurt efforts to raise U.S. housing standards? Clearly, they have helped in some ways—notably through FHA and VA. Now, federal aid via cheap-credit gimmicks may be stagnating further gains (of which more in part two of this article). In any event, the federal puppeteer has so many strings the industry may well be entwined in them for good. —GURNEY BRECKENFELD

Next month: an analytical look at the rest of the myriad federal agencies outside the HHFA fold that shape the course of housing. Among them: the Home Loan Bank Board, Federal Trade Commission, Securities & Exchange Commission, Federal Reserve Board, Tariff Commission, National Labor Relations Board, the White House Council of Economic Advisers, and the shaper above all others, the Treasury Dept. and its taxes.

Kitchens and baths get a new look of quality

Not long ago, kitchens and baths like those shown opposite and on the following four pages were seen only in expensive custom houses. But every photo here was taken in built-for-sale housing.

These kitchens and baths are not average. They are examples of the best handling of these all-important rooms in merchant-built houses and apartments. Most (but not all) are from higher priced houses—in the \$25,000 to \$35,000 bracket—but they show what can be done within the budget limitations of for-sale housing and can serve as a source of ideas for designers and builders in every price class.

What separates these kitchens and baths from the average is careful design. Their appeal to the market is not gimmicks or schmaltz—the tacked-on decorations and sales lures that mark so many of the so-called glamorous and luxurious baths and kitchens in built-for-sale housing. These kitchens and baths *are* glamorous and luxurious, but their appeal grows out of well designed space, simple materials, a sense of order, and good relationship to other rooms—kitchens to their indoor and outdoor eating spaces, baths to their bedrooms.

It is still true, as it has been for a long time, that all other things being equal kitchens and baths are sales clinchers. Today's buyers assume a full range of appliances and equipment. The sales appeal that more and more top builders are now developing is better and more thoughtful design.

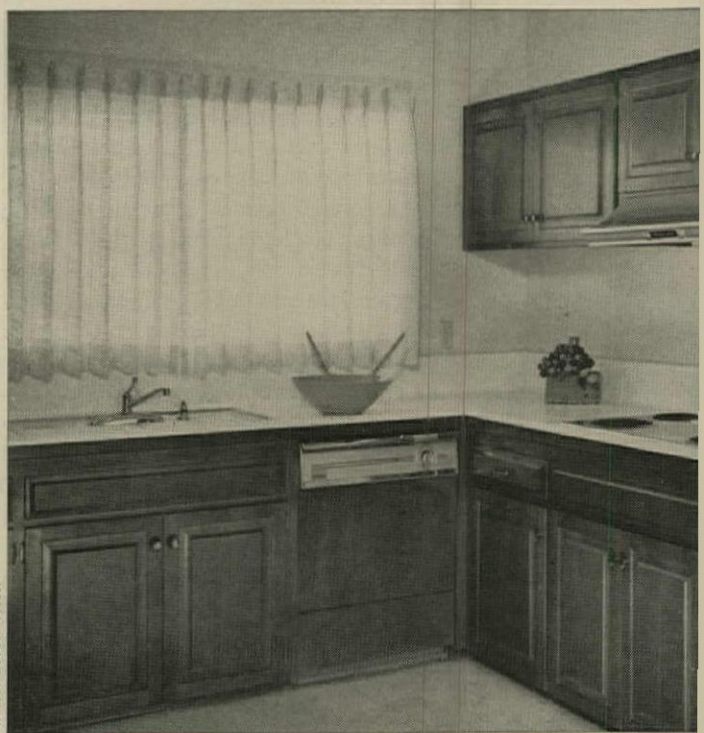
An evolving design idea: matching kitchens and baths

"When the kitchen and bath are designed with similar character," says Sales Manager Jon Shakespeare of Drogin Homes, Los Angeles, "they create a continuity in the house that reflects the over-all luxury we are trying to sell." This design approach has been common in custom houses for years. But many builders still mix different styles: provincial cabinets in the bath and contemporary cabinets in the kitchen—or vice versa. Adds Shakespeare: "We offer our buyers a choice of style—but the style remains the same throughout the house."

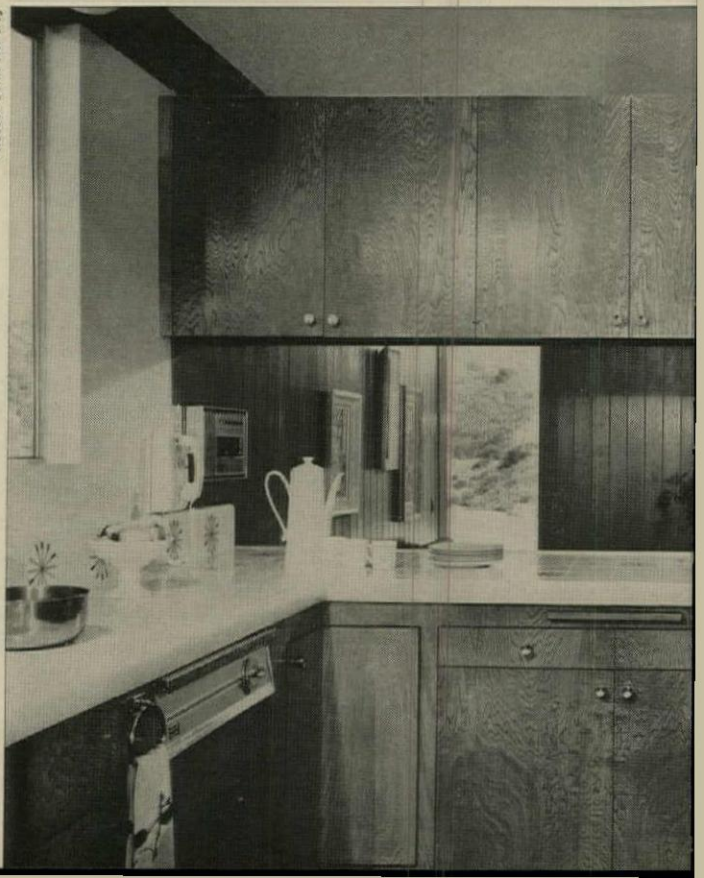
Photos: Robert C. Cleveland

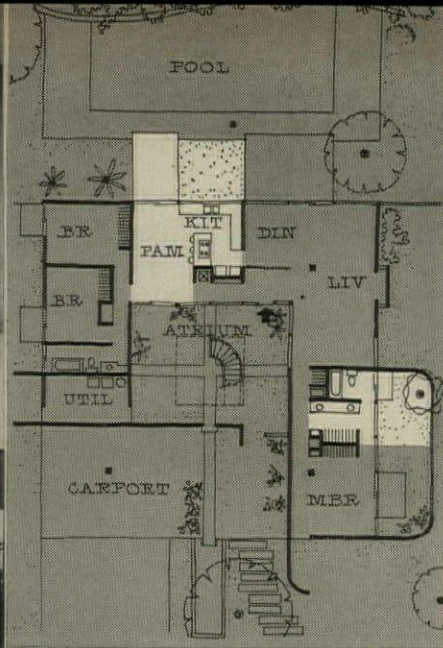


Photos: Busco-Nestor

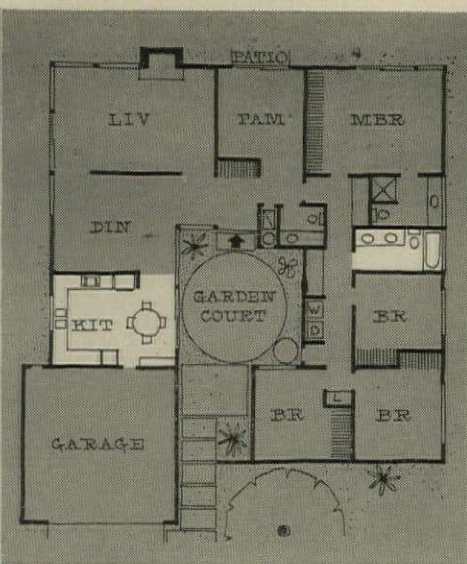
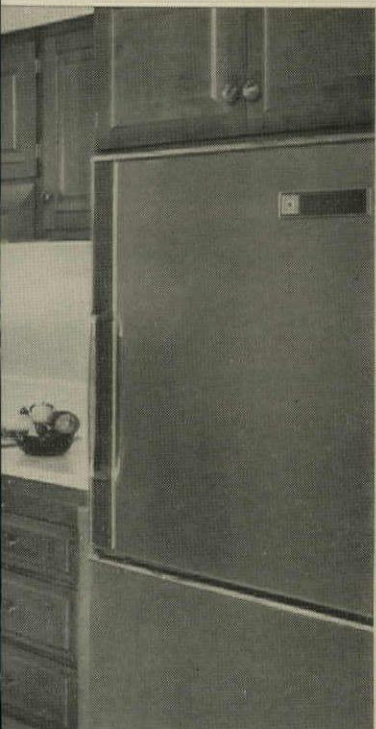


Photos: John Hartley

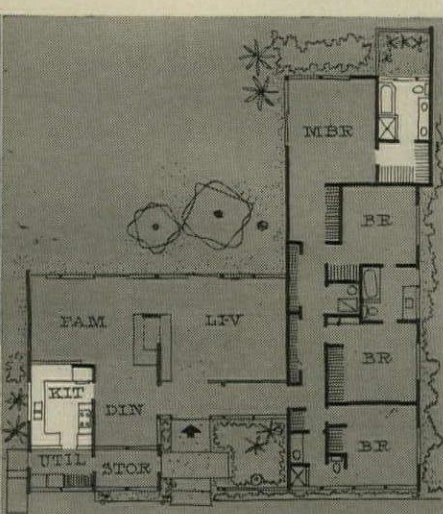
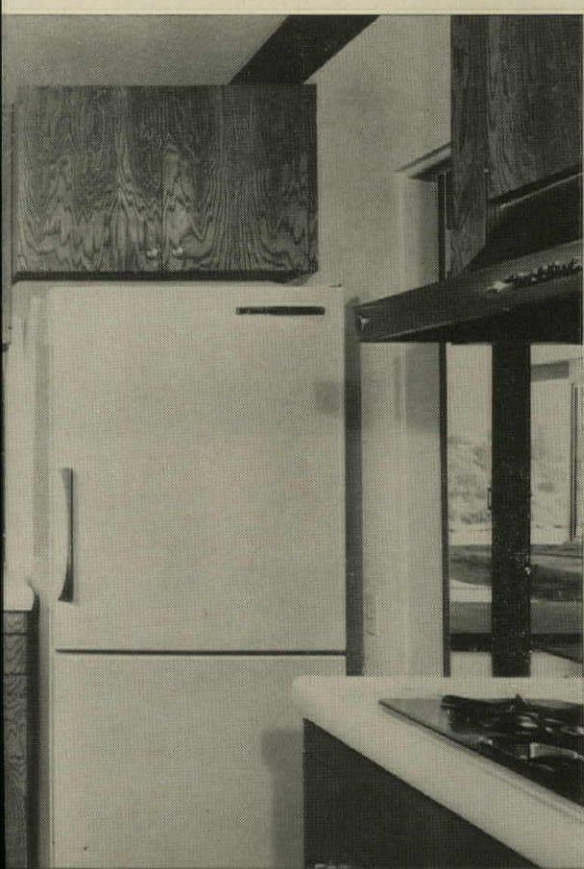




CONTEMPORARY KITCHEN AND BATH have identical cabinets and counters. This, plus the strong indoor-outdoor relationship of both rooms, emphasizes design continuity. Builder: Charles C. Richardson, San Diego. Architects: Hester-Jones.

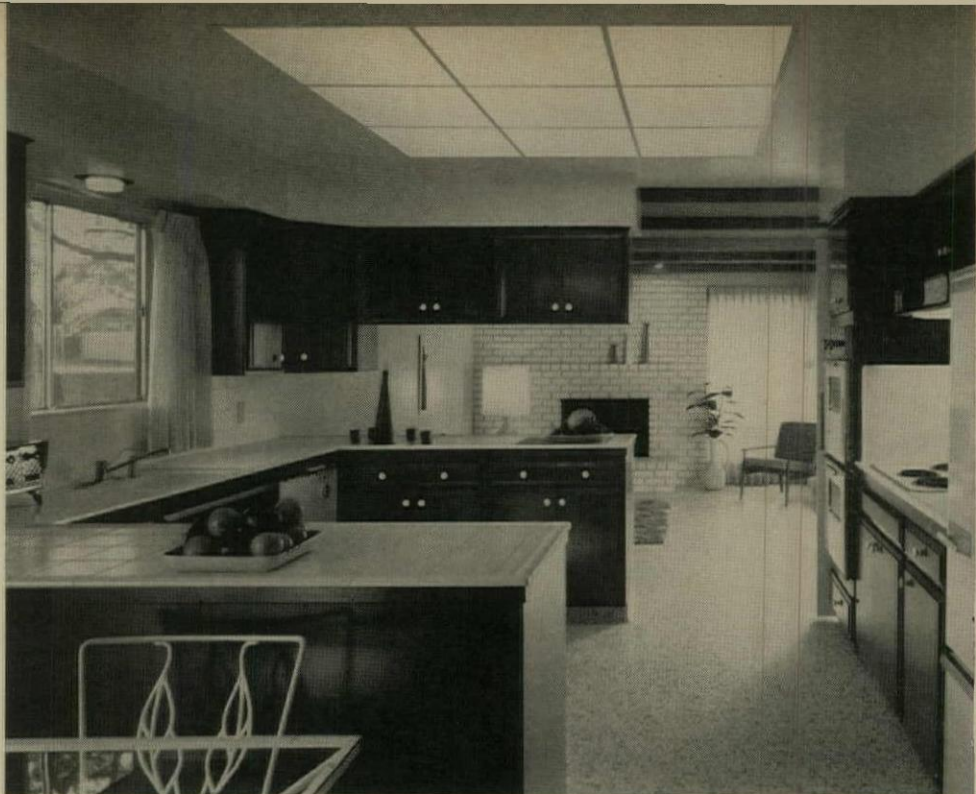


TRADITIONAL CABINETS of stained and antiqued birch add a look of quality and warmth to the kitchen and bath of this 2,274 sq. ft. development house. Builder: Drogin Homes Inc., Los Angeles. Architects: Thomas & Richardson.



SIMPLE ASH PLYWOOD CABINETS and light colored countertops (tile in the kitchen, laminate in the bath) give both rooms one character in this house built by Ronald B. Ordin Construction Co., Los Angeles. Architects: Benton & Park.





Ernest Braun

LUMINOUS PANEL has all the sales appeal of a full luminous ceiling but cost less (since the factory panels can be installed without fitting). Builder: Mackay Homes, Saratoga, Calif. Architects: Irving Caster and Richard Finnegan.

In kitchens: The workroom gets a furnished look

Today's best kitchens are planned to fit into today's family life. Many are open to major living areas, and almost all include space for family dining. Because they are lived-in rooms rather than simply workrooms, most buyers don't want kitchens with the clinical look in vogue in the '40s, or the room chock-full-of-equipment-and-cabinets of the late '50s. The best kitchens in the best production houses now have the calm, clean-lined look that, again, used to occur only in expensive custom houses.



FOUR EATING AREAS can be served from this family kitchen: the family room, a breakfast nook, the roofed terrace (background), and a formal dining room. Builder: Gale-Litt Associates, South Miami. Architect: Don Reiff.

FURNITURE-QUALITY CABINETS are a key sales feature in this house. "Buyers boast about the custom details, fine finishes, and craftsmanship," says Drogin Homes' sales manager. (See page 123 for another Drogin kitchen.)

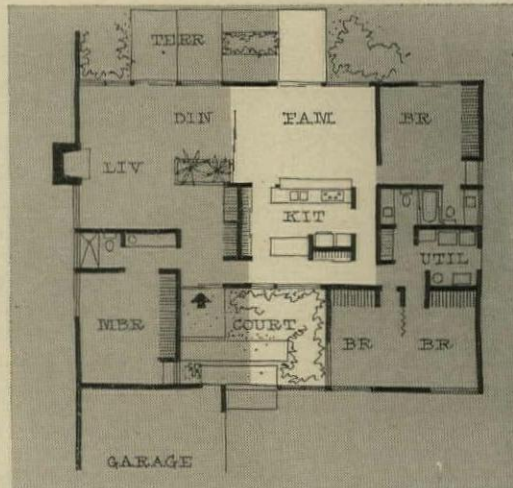
Charles Aqua-Viva



Photos: Julius Shulman



CENTRAL KITCHEN in this San Diego house does not seem confined because of the open floor plan and the thoughtful cabinet placement. Shelf hides kitchen clutter. Builder: Tech-Bilt Inc. Architect: Edward H. Fickett.



Three compact apartment kitchens

Herbert Georg Gleason

Plagett



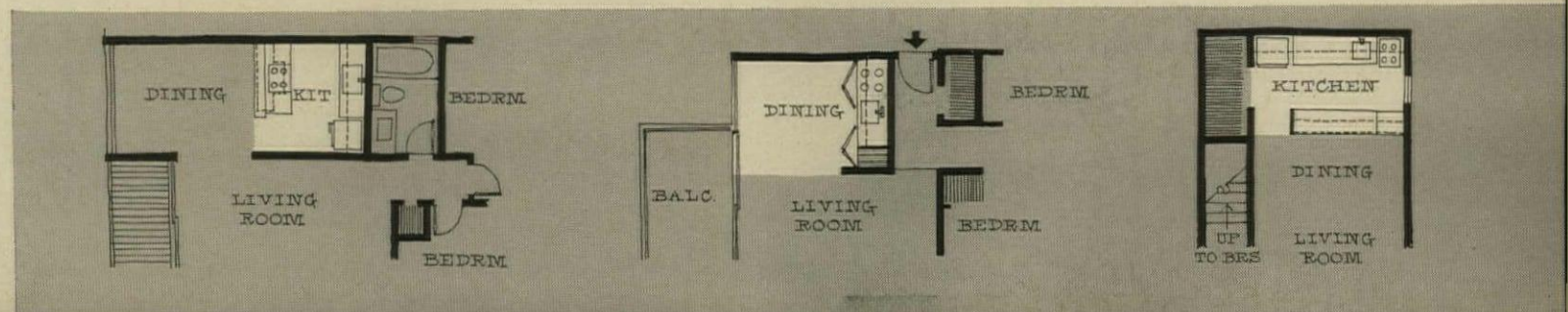
SHIELDED PASS-THROUGH has high-backed kitchen cabinet to provide visual separation and hide kitchen disorder from adjacent living-dining room. Builder: William R. Rosenblum, St. Louis. Architect: J. Richard Shelly.



COMPACT PULLMAN KITCHEN has under-counter dishwasher, refrigerator, and oven. It is easily concealed from living area by louvered doors. Builder: Leonard H. Carter, Springfield, Ill. Architects: Ferry & Henderson.



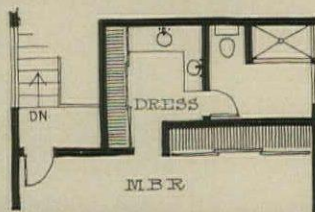
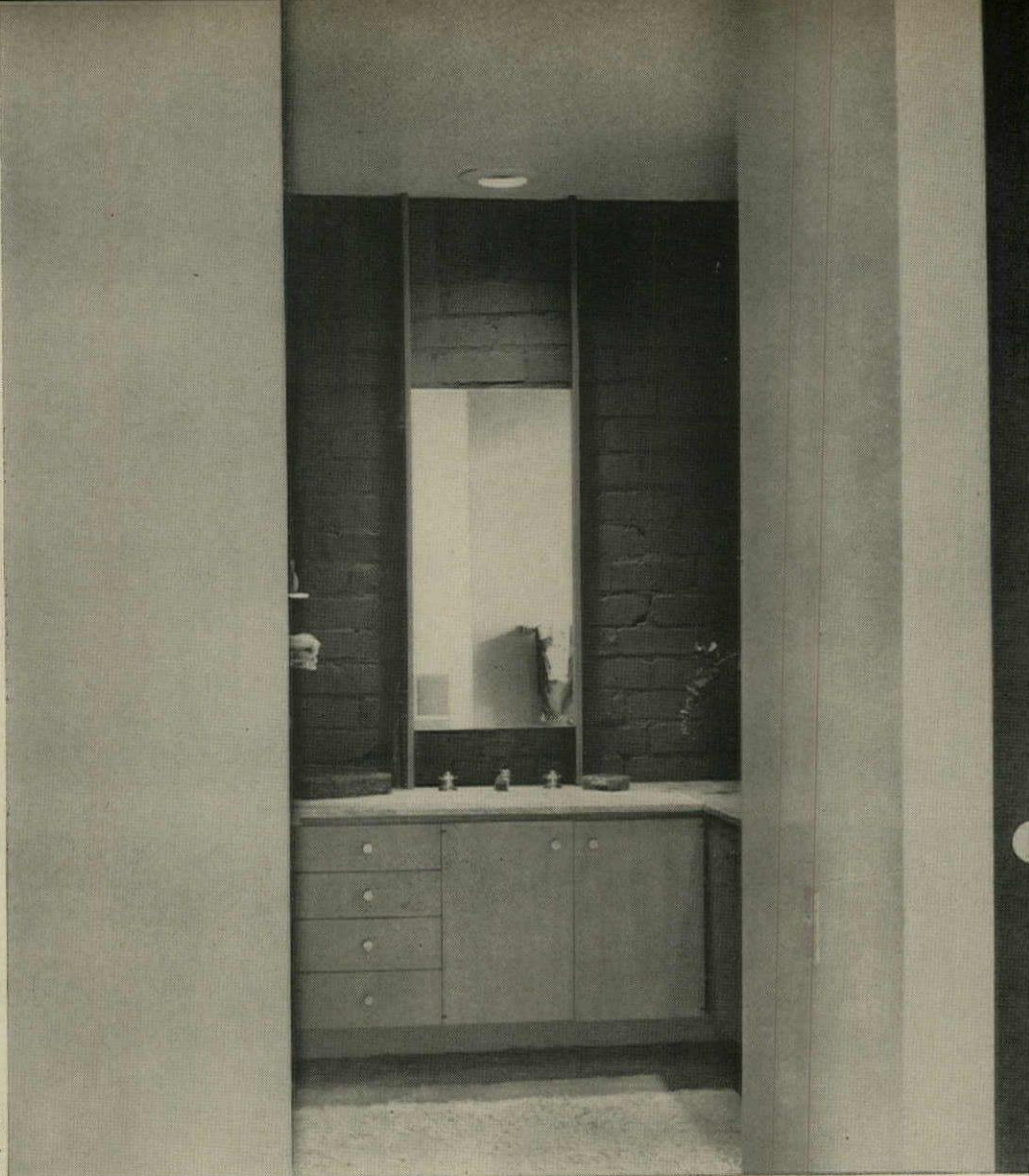
EATING-BAR STORAGE WALL separates kitchen from living space at low cost. It eliminates a door, rests on the floor, and need not be fitted to walls or ceiling. Builder: A. L. Drumwright, Baton Rouge. Architects: Berenson-Glenny.



In baths: gimmicks give way to better plans and finishes

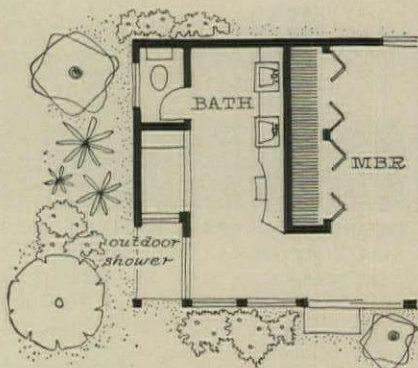
Bathrooms in the best builder houses and apartments are more handsome and better planned than the standard 5'x7' unit still common in production houses. The best baths are often planned for convenient use by more than one person. Moreover, especially in apartments, they are often planned so they can be entered from the hall—for guests' convenience—as well as from the bedroom. The compact planning of today's compartmented apartment baths is worth study by house designers.

Larry Frost



UNUSUAL MATERIALS—painted brick, acoustical plaster, and marble—plus unusual mirror treatment, give this cleanly designed bath custom elegance. Builder: Don Buhler, Beverly Hills, Calif. Architects: Richard Dorman & Associates.

Fred Farish



MIRRORED MASTER BATH has two mirror walls, which make it seem four times as big as it is. Toilet is separate compartment. Builder: Leo J. Shannahan & Son, Whittier, Calif. Designer: Robert J. Marvick.

Jim Mazzuchi



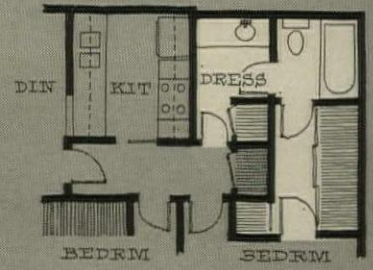
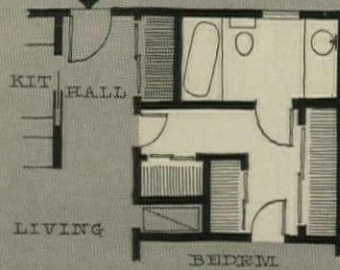
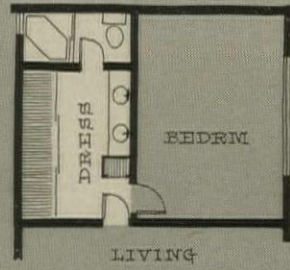
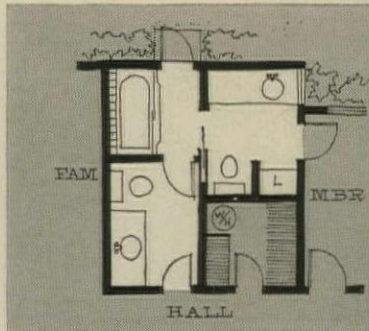
Rene Laursen



SUSPENDED LIGHTING PANEL bounces general lighting from ceiling while providing a good shaving light at the counter. Builder: Whitecliff Homes, Oakland, Calif. Designer: Edward Hageman.

POWDER ROOM has sit-down counters on both sides of the wash basin. Grillework, wall paper, and cabinets create provincial styling. Builder: Scholz Homes, Toledo. Designer: Donald Scholz.

WINDOWED CORNER in master bath has a large planter and opens to terrace with sliding glass doors. Builder: Costa Pacifica, Orange, Calif. Architects: Gildred & Hoerger.



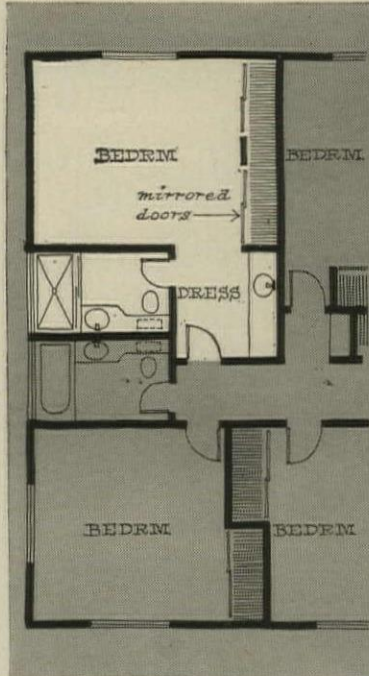
TWO-BATH COMPLEX has separate tub room that opens to master bath, family bath, and terrace. Builder: General Development, Miami. Architect: Herbert R. Savage.

APARTMENT DRESSING ROOM buffers bedroom from living room, adds wall space in bedroom. Builder: Jerome M. White, Los Angeles. Architect: Maxwell Starkman.

CLOSETED HALLS open this compact apartment bath to both the bedroom and the entry hall. Builder: Roberts & Co., San Mateo. Architect: R. R. Zahm.

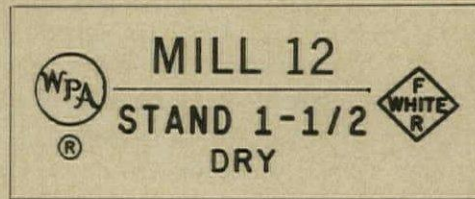
COMPARTMENTED BATH lets the vanity serve as part of the bath or as a separate powder room. Builder: Carl J. Batson, Nashville. Architects: Swenson & Kott.

Fred Farish



MASTER SUITE has one vanity in the dressing-entry, a second one in the bath. Builder: Alco-Pacific, Westminister, Calif. Architect: Robert L. Barnett.





... suggests eleven ways to cut the cost of better homes by \$200 million plus

This Round Table started so many things happening faster on so many long-overdue ways to use wood better that its report is behind the times even before it can be printed. The Round Table was held March 13-14, and within the next eight weeks:

- The American Lumber Standards Committee voted to make 1½" dry lumber at 19% maximum moisture content the new American standard, replacing the present 1⅝" standard that applies to both dry and green. The vote was 9 to 2, with two abstentions.
- The ALS committee also voted that green lumber sizes should be equated to the new 1½" dry standard, but did not specify what the green sizes should be.
- The Southern Pine Assn. dropped its opposition to 1½" dry, and the Southern Pine representative lined up with its supporters at the ALS meeting.
- The National Lumber Manufacturers Assn. announced that new tables for the new 1½" dry standard will shortly be issued. Some spans will be longer, none shorter, most the same. Until the new tables are issued NLMA will recommend the same spans for 1½" dry as now prevail for 1⅝" green or dry.
- The Western Pine Assn. issued a new grade-mark stamp for 1½" dry lumber (see drawing above).
- FHA dropped bridging from its requirements.
- FHA accepted electro-mechanical stress rating of lumber (see *p. 132*); so did the Southern Pine Inspection Bureau (but unfortunately the SPIB machine-grading supplement provides 11 stress levels that do not all parallel the nine levels previously established by Western Pine).
- Stress-rating machine orders began picking up.
- UNICOM and LuReCo got together to agree on a common stud length and to plan a joint effort to get more windows dimensioned to fit their framing.

The Round Table was co-sponsored by NLMA and Time Inc.'s magazines—TIME, LIFE, FORTUNE, ARCHITECTURAL FORUM, and HOUSE & HOME. It was a follow-up on an earlier HOUSE & HOME Round Table (July '60) at which today's new collaboration between the lumber industry and the housing industry and be-

tween the lumber industry and the paint industry got its start. It brought together leaders of all the important lumber species associations and the biggest lumber companies to 1) discuss their common problems with the leaders of all the housing industry trade associations and 2) *get something done about them.*

Participants included, among others, the chairman, the president, the executive vice president, and the research director of NLMA; the executive vice president and research director of the National Lumber & Building Material Dealers Assn. and the chairman and past chairman of their Lumber Dealers Research Council; the technical director of the National Association of Home Builders and the chairman and past chairman of the NAHB Research Institute; the executive vice presidents of the National Association of Real Estate Boards, the Society of Real Estate Appraisers, and the National Association of Mutual Savings Banks; the first vice president and the research director of the U.S. Savings & Loan League; two past presidents of the American Institute of Architects; and the assistant commissioner for technical standards and the director of architectural standards of FHA.

On the West Coast, the Round Table precipitated a battle royal between the dry lumber and green lumber forces because FHA's spokesmen on the panel had said: "FHA will have no choice but to accept 1½" dry lumber as a new non-standard size." First, the green sponsors made FHA back down on this assurance ("under pressure from various congressmen," according to Crow's *Weekly Letter*.) Second, the green forces seized control of the West Coast Lumber Inspection Bureau, turned out the chairman, and by a one-vote majority refused to authorize a 1½" dry grade stamp. For a few days it seemed possible that FHA's backdown and WCLIB's take-over might block 1½", but the U.S. Savings & Loan League stood firm, and on the basis of the league's approval the Western Pine Inspection Bureau went through with its new 1½" dry grade mark.

Even after ALS voted to make 1½" dry the new standard FHA still hesitated to accept it as a non-standard.

To ease the green lumber opposition, NLMA asked the American Lumber Standards Committee to approve a new dimension for green lumber to correspond with 1½" dry, with green thickness reduced from the present 1⅝" to 1 17/32" and green depths increased to 3 23/32", 5 21/32", 7 23/32", 9 25/32", and 11 27/32" from the present 3⅝", 5½", 7½", 9½", and 11½". These green equivalents were calculated by the Forest Products Laboratory, whose shrinkage figures were confirmed April 18 "within the limits of experimental error" by a re-check at Oregon State University at the insistence of green lumber proponents.

Here is the unanimous report of the Round Table

"All small houses are overbuilt. You can't say they are overengineered, because they are hardly engineered at all; they're just overbuilt." So said Professor Dietz of M.I.T. And all of us concur.

Cost of this overbuilding on one million houses multiplies out to something well over \$200 million a year in wasted material, wasted shipping costs, and wasted labor. Some of this cost of waste is passed on to homebuyers who might otherwise get better houses for less money, but in today's hotly competitive markets most of the cost must be absorbed by the builders if they want to sell their houses or absorbed by the lumber manufacturers if they want to hold their now-challenged monopoly in housing. So stopping the waste is urgently important to homebuyers, homebuilders, and lumbermen alike.

This waste of hundreds of millions of dollars reflects the waste of billions of board feet of lumber. The lumber industry is now spending millions of dollars to grow new trees faster than wood is currently being used, but that is no excuse for continuing to waste a great natural resource that for some species takes 100 years to replace, a great natural resource

for which we all anticipate a great increase in future demand.

None of today's overbuilding waste can be blamed on union featherbedding, for (unlike the plumbers and some other trades) the carpenters have never stood for make-work. Some of it can be blamed on lumber trade association jockeying for small competitive advantage for this or that species. Most of it is entrenched in obsolete span tables, FHA standards, and building code provisions (including many model code requirements).

And most of it stems from too many important people knowing too little about wood's fast-changing technology and how that better technology can best be applied to today's fast-changing systems for better homebuilding and best adjusted to the new ways other materials are being used, installed, and fastened.

Because today's costly overbuilding is so largely due to ignorance, confusion, and misconceptions, we hope the simple statement of our consensus on how to use wood better for less may save years in getting better structural engineering for houses understood, approved, accepted, and brought into general use.

Photos: Walter Daran



ARTHUR TEMPLE
The lumber industry has never had any sense whatsoever in its pricing.



MORTIMER DOYLE
How can anyone hope for unanimity among 40,000 lumber producers?

More millions have been spent on wood research since World War II than in all previous time

In this research all the lumber associations, all the big lumber producers, the Lumber Dealers' Research Council, NAHB's Research Institute, the federal government's Forest Products Laboratory, and many private research institutions have played important parts. Now the National Lumber Manufacturers Assn. is trying to coordinate the results of all this study into simpler and more uniform standards and a more economical construction system.

Because of this research the housing industry can now buy laminated wood, finger-jointed wood, pre-primed wood, prefinished wood, plasticized wood, film-surfaced wood, wolmanized wood, shrinkproof wood, warpproof wood, waterproof wood, fireproof wood—and soon it may get the benefits of irradiated wood and the savings of laser-cut and hydraulically-cut wood. Because of this research, the housing industry can now use new contact adhesives and new glues

as strong and durable as the wood itself; it can use new plate connectors, new Z-braces, new joist holders, new nails of copper and aluminum as well as steel.

Equally important, the wood industry and the homebuilding industry are now nearing an engineering breakthrough that would let dimension lumber be used much more efficiently and much more economically, utilizing its full dry strength without today's excessive safety margins and taking advantage of load-sharing and continuous design.

But this engineering breakthrough cannot be exploited without much better understanding throughout the lumber industry and much better understanding throughout the housing industry. It cannot be exploited until much more of today's knowledge is reflected in updated industry standards, span tables, code specifications, and FHA requirements.

And today the sad fact is that:

All today's span tables are obsolete because they reflect assumptions we now know are false

First false assumption is that stiffness (E) remains almost constant instead of varying with the fibre strength (f), so today's tables allow the same homebuilding joist spans for lumber rated at 1,200 f as for lumber rated at 3,050 f. Recent tests to destruction have now shown that fibre strength varies in close proportion to stiffness (see p. 132).

Second false assumption is that stress-grading is subject to so many errors that a six-to-one safety factor is often the result. With electro-mechanical stress grading the strength of each individual piece can now be determined quite closely.

Third false assumption is that the maximum stiffness it is safe to assume is 1,760,000 psi. Thousands of tests have now demonstrated that nearly a quarter of all southern pine, larch, and Douglas fir dimension lumber exceeds 2,200,000 E.

Fourth false assumption is that kiln-dried lumber takes the same span as green lumber surfaced to the same size. Fact is that after the green lumber shrinks in drying, the kiln-dried lumber will end up 7% stronger and 10% stiffer.

Fifth false assumption is that all joists will be used as simple beams. We now know that spans can be substantially increased by recognizing continuous or cantilevered design (see p. 154).

Sixth false assumption is that each joist and rafter must be strong enough to carry its maximum design load as if there were no adjoining members to share

it. We now know that strength allowances can be increased at least 15% by taking repetitive members into account (see p. 159).

Seventh false assumption is that no structural strength is added by flooring or sheathing. Fact is that both act at least partially as stressed skins and tend to produce a T-beam action.

Eighth false assumption is that all connections give equal structural strength. Fact is that the more rigid the connection the stronger the framing, and we can get much stiffer joints with dry lumber, much stiffer joints with threaded nails, much stiffer joints with today's new connector plates. Furthermore, where nails are used in double shear European standards allow much more value per nail than U.S. standards.

Span tables reflecting a number of these eight false and wasteful assumptions are incorporated in all FHA standards and code specifications for lumber framing, and FHA (but not the codes) arbitrarily adds eight to ten pounds of dead load per sq. ft. to the design load of floor joists where stiffness is governing. This means FHA assumes a load as heavy as a roomful of pianos.

The technical advisory committee of NLMA has been working on a complete updating and simplification of the span tables for more than a year. The sooner this job can be finished and the results accepted by FHA and the codes, the sooner homebuilders and homebuyers can start saving the money now wasted by present tables.

Here are other ways the model codes and/or FHA enforce waste of lumber

Neither the codes nor FHA has let homebuilders save the needless cost of bridging, which the Forest Products Laboratory pronounced almost useless in light construction nine years ago (see p. 155).

Neither the codes nor FHA allow the economies and the improved appearance made possible by the new low contour crawl-space design (see p. 161).

And the best that can be said about the model



EUGENE P. CONSER
When you cut the cost you make more sales.



GENE C. BREWER
These recommendations should be a great help.



FORREST W. GIRDNER
There is nothing permanent but change in our industry.



LEON CHATELAIN
Too many carpenters today are hatchet boys.



ROBERT SEIDL
We should think big about making wood work for maximum economy.



PHILIP WILL JR.
The lumber industry is moving out of the dark ages into the age of science.

continued



DON PERCIVAL
Without control over the fabrication you need big safety factors.



I. P. JACOBS
We are trying to fix it so an idiot can put a house together.



H. O. FLEISCHER
We have glues now as strong and as durable as the wood or more so.



RICHARD CANAVAN
When you actually make your application to FHA, you will have no problem.



ALBERT G. H. DIETZ
Electro - mechanical stress grading is a very significant development.



HERBERT B. MCKEAN
Machine grading will mean better prices to the mill but lower costs to the builder.

code provision for roof trusses (now used on more than half of all merchant-built houses and always oversized—see p. 159), is that none of the model codes even mentions them. (Many local codes requires trusses 16" o.c., which is nonsense.)

Machine grading, the biggest advance of all, has stalled for months in FHA and the codes

Machine grading (also called electro-mechanical stress rating) will at least double the availability of the stronger grades of lumber, vastly simplify the problem of grade standardization, take the guesswork out of stress values, and so end the need of down-rating so much lumber and setting up such big safety margins (100% to 500%) to allow for errors in visual grading.

Said NAHB Research Director Johnson: "It will let us use wood as a real engineered product." Said Builder Schmitt: "It will let us use the 30% to 40% of the lumber strength that we now have to give away." Said NLMA Chairman Temple: "The consumer will be the big winner; what the lumber industry stands to gain is a chance to compete with other engineered materials on even terms."

Best example of what machine grading can save builders is the NAHB 1962 research house, where using machine-rated joists of 2,200,000 psi stiffness permitted 2x8s 24" o.c. instead of 2x10s 16" o.c.—a lumber saving of 46 $\frac{2}{3}$ %, offset only by a 5% premium paid for the stiffer grade.

Best example of what machine grading can mean to lumbermen* is supplied by test samplings that found 75% of the Douglas fir classified Construction by visual inspection is in fact at least 10% stronger than the requirement for Select Structural and 50% is 40% stronger; 75% of the western larch now classified Construction is at least 20% stronger than the present requirement for Select Structural and 50% is more than 55% stronger.

What machine grading means to grade standardization and simplification is this: All today's 162 stress grades (as many as 45 for each of 12 species, none of them above 1,760,000 E, could be consolidated into just three grades (premium, standard, and utility), with seven strength-and-stiffness classifications running all the way up to 2,600,000 E; and all the span tables that now fill 46 pages could be consolidated on a single page. Since the strength of each separate piece would have been tested, there would be no need for separate tables discounting the different strength characteristics of the various species.

What machine grading means to the long debate over green strength vs. dry strength is there will be very little left to argue over. Thousands of tests have shown that the ultimate strength of each piece remains almost constant after it leaves the planer:

*Some lumber manufacturers hope that upgrading so much lumber from grades that now sell f.o.b. mill for between \$44 and \$68 Mbf to grades that sell f.o.b. mill for \$73 to \$80 will improve their average realization by as much as \$10 Mbf. Potlatch hopes for \$5 Mbf more for each 400,000 increase in E over 1,800,000, but others say the great increase in the availability of higher-rated lumber will have the two-fold effect of making better lumber cost builders less at the same time that it ends the millmen's need of selling so much lumber for minimum prices.

FHA representatives at our Round Table have been most helpful, and we are unanimous in expressing our thanks to them and in hoping that their constructive attitude will soon be reflected in FHA requirements and policies.

Its gain in strength and stiffness by drying is almost exactly offset by its loss in strength and stiffness by shrinking to smaller dimensions. So, says NLMA Chairman Temple: "Ninety percent of all today's arguments inside the lumber industry will be solved by machine grading."

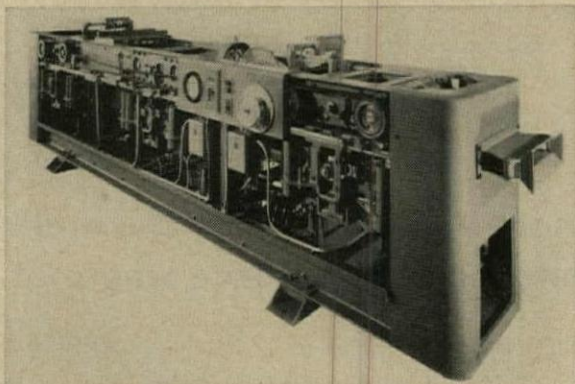
Machine grading is made possible by three new research developments:

1. Thousands of tests to destruction have disproved the old belief that stiffness (which is governing on almost all joist spans) remains constant regardless of bending strength. On the contrary, there is a close correlation between E and f; each 200,000 psi increase in E is paralleled by an increase of roughly 300 psi in f; and vice versa. Said Engineer Dietz of M.I.T.: "A lot of engineers will have to be re-educated on this, because for years they have been taught that defects have little or no effect on the modulus of elasticity."

2. Thousands of tests to destruction have disproved the old belief that the maximum stiffness it is safe to assume is 1,760,000 E. On the contrary, nearly a quarter of all dimension lumber of the higher-strength species like Southern pine, Douglas fir, and larch exceeds 2,200,000 E and nearly 10% exceeds 2,600,000 E.

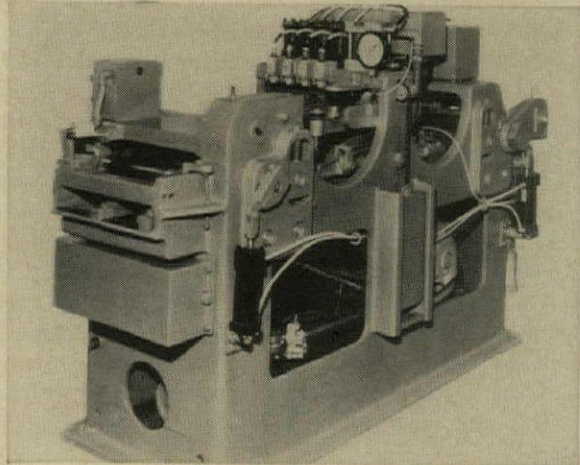
3. Thousands of tests have established a safe margin for error for calculating the stiffness of a joist by testing it as a plank (which is easy, whereas testing it as a joist would require impractical stresses). The modulus of rupture as a joist can be safely estimated as 85% of the value measured when tested as a plank.

Two stress rating machines are now available. Both develop reliable measurements that reflect all the interacting effects of knots, density, grain slope, growth rate, moisture content, and conformance to standard size. Both complete the calculation so fast that the E and f rating can be stamped on each piece before it leaves the machine.



Most precise of these machines is this electronic grader developed by Potlatch Forests Inc. in collabo-

ration with Industrial Sciences of Portland. It uses two transducers to measure the force needed to bend the board 5/16" in each direction as it passes through 1,000' a minute, averaging measurements taken every 6" and rejecting a board any part of which is below strength. It costs \$45,000. It is fast enough to stress-rate 250 Mbf a day and so serve the 500 to 600 biggest mills.



Second machine (above) was developed by Western Pine Assn. in collaboration with Tri-State Machinery Co. in Dallas. It operates by a system of rejection, applying in quick succession 2½ times the design load for a descending scale of f ratings until it finds the maximum f rating for the piece under test. This machine operates 400' a minute. It is priced at \$12,200 (plus \$2,500 for optional extras). Said NLMA Chairman Tempie: "Even the smallest mill can't afford not to buy one."

All the research and the engineering calculations for machine grading were complete three years ago and confirmed by the Agricultural Department's Forest Products Laboratory (and later NAHB's Research Institute laboratory). Machine designs were perfected two years ago by Potlatch and Industrial Sciences, eight months ago by Western Pine and Tri-State Machinery. Machine-grading rules were published by Western Pine 15 months ago and approved by the American Lumber Standards Com-

Accepting 1½" kiln-dry lumber would save close to \$100 million a year now wasted

Costliest waste of all is requiring the same dimensions for dry lumber as for green. This inflates the cost of kiln drying, wastes enough stumpage for at least another billion board feet of lumber, adds at least \$40 million a year to shipping costs by rail, abets the importing of green lumber from abroad, favors the use of green lumber that is sure to add millions of dollars to the homebuyers' cost of wall maintenance.

This waste is too big to wait three years or more for 2,500 Department of Commerce acceptors to accept 1½" dry as a new American standard (as the American Lumber Standards Committee recommended in May).

So for six months NLMA has been trying to get FHA to accept 1½" dry lumber as a new non-standard size and thereby let builders start using it right away. After many talks this request was

mitted ten months ago. Span tables correlating machine-graded strength with FHA standards were published by Potlatch six months ago.

But now this whole advance has been stalled waiting for FHA to recognize the newly-proven correlation of E and f, accept the accuracy of the machines, and incorporate the simplified span tables for machine-graded lumber in its property standards. Without FHA acceptance no lumber mill except Potlatch (the developer) has felt justified in buying a machine grader, so only about 500,000 bf has been sold machine graded. (This was accepted by local FHA offices in Idaho, Utah, and Colorado.)

Said Builder Schmitt: "Until FHA disseminates a bulletin to its field offices saying that machine grading and the accompanying grading rules and span tables are acceptable we can't get anywhere. Without FHA the lumber mills can't sell machine-graded lumber anywhere, so how can the mills afford to buy the machinery?"

Said Lumber Manufacturer Frankfort: "Once we get FHA clearance for electro-mechanical rating, the mills will be standing in line to buy the machines."

So one of our Round Table's most important developments was the assurance given by participating FHA executives that they will get busy at once on an engineering bulletin accepting machine grading and its accompanying span tables.

This will still leave a problem of code acceptance, for up to now only the Southern Building Code has specifically recognized machine grading. But all the model codes incorporate NLMA's national design specification by reference. So the lumber manufacturers expect little code trouble after FHA has taken the lead.

So far only Western Pine Assn. has set up rules covering the use of these machines, but nine southern pine mills have sent samples to Potlatch in Idaho for testing and as soon as these tests are completed the Southern Pine Inspection Bureau is expected to fall in line. Said General Manager Mersereau of Georgia-Pacific's southern division: "This is one of the most progressive and sophisticated steps the western lumber industry has ever taken."

formalized in a still-unanswered letter dated February 13.

All this makes it big news that at our Round Table participating FHA executives announced: "When, as, and if houses framed with 1½" dry lumber clearly so marked are submitted to FHA for mortgage insurance, I don't think FHA will have any choice but to accept them" and furthermore "FHA would presumably accept the Forest Products Laboratory's judgment on what spans to allow for 1½" dry." In effect, this would mean accepting 1½" dry for the same spans as 1½" green, for FPL is already on record that 1½" dry is both stronger and stiffer than 1½" green at the same depth. Said FHA Chief Architect Conner: "We have checked the FPL calculations and found them correct."

It is also big news that the U. S. Savings & Loan League representatives announced at our Round



GEORGE H. HJORT
The market will determine what we can get for this lumber with higher fibre and stiffness ratings.



LEONARD K. FLOAN
The stress grader is a very sophisticated piece of machinery.



DEL WANTROBA
The Western Pine grading rules fit both stress-grading machines.



PHILIP FRANKFORT
Western Pine has accepted this new mechanical stress grading and issued new span tables.



RALPH J. JOHNSON
The stress assumptions for trusses are nutty.



JOHN ARAM
The excess shipping cost of needlessly big dry sizes is staggering.

continued



HARRY BALCOM
We are all interested in getting dry lumber down to 1½”.



GROVER W. ENSLEY
Anything that strengthens the position of dry lumber helps the domestic lumber industry.



WILLIAM R. GARNETT
FHA has okayed 1-9/16” for Western Pine on the West Coast. Why not 1½”?



WILLIAM SNAITH
What is the public interest in the battle over 1½” dry?



GRAHAM NORTHUP
There is no question but what 1½” dry can do the job.



H. S. MERSEREAU
Dry lumber has been carrying a 7% penalty.

Table that the league will advise all its members (who now finance twice as many new homes as FHA insures) to begin accepting 1½” dry lumber at 15% moisture content for the same spans as 1½” green at once, without waiting for either FHA or ALS to take the lead*.

The day FHA and/or the U.S. League accept 1½” dry lumber as a non-standard size adequate for the same spans as 1½” green, architects will start specifying it, dealers will start stocking it, builders will start buying it, mills will start shipping it, and market action can be counted on to achieve this multi-million-dollar saving almost overnight. The saving on freight rates alone will make dry 2x4s cost less than green almost everywhere east of the Rockies, even if (as is most unlikely) the lumber mills do not pass on to their customers any of their

*Lumber surfaced 1½” dry is stronger and stiffer than lumber surfaced 1½” green to the same depth because the green lumber will shrink at least 2.35% in thickness and at least 2.8% in depth in drying to 15% moisture content after surfacing, according to FPL. (Other estimates run as high as 4%.) Strength and stiffness both decrease only in direct proportion to a decrease in thickness, but strength decreases as the square of the depth and stiffness decreases as the cube of the depth, so changing the depth has far more effect on both stiffness and strength than changing the thickness. An example: If a 2x8 is dressed green to 1½”x7½” it will shrink in drying (at 2.35% and 2.8%) to just a little more than 1 9/16”x7¼” (1.59”x7.29”). This would have about 1% less strength and 3% less stiffness than 7½”x1½” dressed dry. Since 1½” dry is both stronger and stiffer than lumber 1½” green to the same depth, it follows that any new size established for its green equivalent would have to be bigger or substantially deeper than the sizes now accepted interchangeably for both dry and green.

Here is how today's green vs. dry battle began where it stands now, and what to expect next

Everybody has agreed for years that dry lumber is stronger than green lumber. Dry lumber is so much stronger that until World War II and the war-born lumber shortage, green lumber always had to be dressed oversize to allow for its loss of strength as it shrank in drying. To cite a precise example, the Southern Pine Assn. says short leaf southern pine when dry has 75% more bending strength, 106% more compressive strength, 27% more stiffness, and 57% more nail-holding ability than green. Pretty much the same (in varying percentages) is true of other species.

Dry lumber is also much better, for green lumber is the No. 1 cause of nail popping and the No. 1 cause of plaster cracks. Green lumber can make paint blister and glue fail. Bent members of lumber that warped after being dressed green are difficult in conventional one-stud-at-a-time construction because they waste carpenter time that costs 10¢ a working minute. They are just plain impossible in panelized construction: What can a carpenter do to align a twisted green stud in one panel with a straight stud in the next panel?

In brief, dry lumber is so much stronger and so much better that FHA standards (in theory but alas! not in practice) have never accepted the use of anything else in any house covered by FHA mortgage insurance.

But the plain fact is that ever since 1942 dry lumber and green lumber have been used almost interchangeably over the same spans. Millions of

7% stumpage saving on the new size or any of their drying time saving. For example:

The new Mbf shipping weight will be 1,960 lb. for 1½” Douglas fir studs dried to 15%, vs. 2,200 lb. today for 1½” dried to 19%, so the rail freight cost to the Northeast at \$1.41 cwt would be cut from \$31.02 to \$27.63, which is \$7.62 less than the rail cost for green Douglas fir at 2,500 lb. Mbf. It is also less than the cost of shipping green lumber from coast to coast in American bottoms at \$27 Mbf, for the rail cost of \$27.63 is from lumber mill siding to lumber dealer siding, whereas the boat cost of \$27 is only from dockside to dockside. The \$7.62 saving on rail costs will more than offset the mills' charge of \$6 to \$7 for kiln drying studs. (The lower rail cost per Mbf will be good for the railroads too, for it will help them get more carloads of lumber to move.)

Unfortunately, the new size will not give the southern pine mills as big a dollar saving on shipping costs as the western mills, for much of the southern product is shipped by truck and most of it travels shorter distances. And that's where the trouble started.

To make the whole green vs. dry question easy for everyone to understand, here is a brief review of how the problem developed, how it started a bitter battle inside the lumber industry, what the Department of Justice has cautioned, and what the American Lumber Standards Committee has almost decided.

FHA houses have been framed with green lumber because FHA could not enforce its dry lumber standard. And in 1953 the American Lumber Standards Committee washed its hands of the whole problem by writing into its rules that “the shipping of green or dry lumber is a matter for each agency to determine in accordance with its own conditions.”

So over the past 20 years millions of houses have been framed with lumber surfaced green to the same size as dry and used for the same spans as dry. Out of this confusion—along with millions of nail pops and millions of plaster cracks—came one very good thing: A multi-billion dollar field test that proved beyond question that the green lumber used was perfectly adequate for the span-table spans, so dry lumber—being quite a bit stronger and quite a lot stiffer—would be perfectly adequate for longer spans if dressed the same size or perfectly adequate for the same spans if dressed smaller.

The field test was conclusive, but nothing was done to profit by what it proved.

That's where things stood three years ago when HOUSE & HOME's Round Table on the use of wood in tomorrow's house (July, '60) first brought the leaders of the lumber industry and the leaders of the housing industry together to start a joint attack on their common problems. This new cooperation led to the appointment of the Lumber Industry Grade Simplification & Standardization Committee, into whose work all the big lumber industry associations and some of the biggest lumber manufacturers were

drawn, with the Forest Products Laboratory sitting in to give technical guidance.

The deeper this committee got into the standardization of structural members, the more clearly it saw that standardization of sizes must be related to moisture content, so in May 1962 it formally asked the American Lumber Standards Committee to get back into the act and approve a new American standard of 1½" lumber dried to 19% average moisture content with a 10% tolerance up to 25%. This proposed 1½" thickness standard would leave width unchanged and therefore interchangeable with previous dry sizes for use in remodeling and repair.

Thus urged, the American Lumber Standards Committee last November reached the basic and momentous decision that the size of lumber should indeed be related to moisture content, so it appointed a subcommittee to make specific recommendations for equating green and dry. In January the subcommittee reached three further important decisions:

1. Dry lumber should have a maximum moisture content of 19% (necessitating a 15% average), with the tolerance suggested by the grade standardization committee cut to 5% and permitted only on re-inspection.

2. Technical questions should be referred to the Forest Products Laboratory as official technical advisor (this is important because FPL has gone on record again and again that lumber surfaced dry is much stronger than lumber surfaced green to the same size).

3. Green and dry lumber sizes should be correlated at 15% moisture content. This means either that green lumber must once again be surfaced larger (as it was before the war) to allow for its shrinkage, or dry lumber can be surfaced smaller. On this latter question the Department of Justice has already stated that any attempt to force larger-than-present sizes on green-lumber producers would be open to challenge under the consent decree that permits industry agreement on lumber standards.

The 15% average moisture content is itself a compromise, for in use lumber dries to not more than 12% in most parts of the U. S. southern pine is easy to dry to 12%, so southern pine spokesmen have often favored a lower moisture content and quite a few southern mills already make a practice of drying to 12%. Douglas fir is harder to dry below 15%, because Douglas fir comes mostly from large old trees with encased knots that fall out when dried to low moisture content and cause serious de-grade (without, however, reducing effective strength, since knots count as holes in stress grading), so the present dry lumber standard for the western woods has been not a maximum of 19%,

but an over-all average of 19%.

Still to be settled by the American Lumber Standards Committee after the Round Table met was the specific question of accepting 1½" dry with no reduction in depth as proposed by the grade standardization committee and, if yes, determining the green size to which this dry size should be equated.

The 1½" dry thickness is supported by the Western Pine Assn. (which has gone so far as to adopt and print up grade rules for the new size), by the West Coast Lumbermen's Assn., by the Northeastern Lumber Manufacturers' Assn., by the National Lumber Manufacturers' Assn., by some of the largest (but very few of the smaller) southern pine producers, and most vociferously by leaders of the NAHB (which is not yet allowed representation on the American Lumber Standards Committee) and the U. S. Savings & Loan League. It has also been approved by the ALS committee representative of the American Institute of Architects and the Associated General Contractors.

It is being fought hard by a strange alliance between the smaller west coast producers of green lumber and the outstanding advocates of dry lumber; i.e., by an alliance between a group of west coast green lumber mills operating through the Western Forest Industries Assn. (who have obvious reasons for fighting any change in the status quo that would lessen their present competitive advantage from having green and dry used interchangeably) and the dry lumber producers who have the majority vote in the Southern Pine Inspection Bureau (who would get less benefit than their west coast competitors from the freight rate savings a smaller dry size would permit). The southern mills have never admitted that green lumber is any good at all or that 1⅝" green is acceptable, so (despite the Department of Justice warning) they are urging a bigger-than-present ALS size requirement for green with the dry size left unchanged.

That is how things stand as of the date of our Round Table. Now, therefore, with only one dissent:

We urge the American Lumber Standards Committee to make 1½" dry a new American Standard. We urge the Department of Commerce to expedite its acceptance procedure so that the new standard can be accepted with much less than the usual delay. We thank FHA and the U.S. Savings & Loan League for the position they have announced at our Round Table. We are unanimous in urging FHA to speed up its procedures by notifying all its offices as soon as one office has set the precedent by accepting 1½" dry as a non-standard size, and we urge lumber manufacturers, lumber dealers, architects, and homebuilders to take full advantage of the new dry size—standard or non-standard—at the earliest possible moment.

More wood would be used more economically if there were fewer and simpler grades

How can architects, appraisers, lumber dealers, homebuilders, and homebuyers fail to be confused when they find Douglas fir offered in 28 structural grades ranging from Dense Select Structural through

Dense Select Structural MC 15, Select Structural, Industrial, Dense Construction, Construction, and on down to Standard—all with the same E factor and all taking the same joist spans wherever stiffness



N. B. GIUSTINA
1⅝" green has been accepted so long it can never be changed.



W. SCOTT SHEPHERD
What would happen if the green producers began selling 1½" green?



ARTHUR LAHEY
Not all green lumber producers oppose the thinner size for dry lumber.



NEIL CONNOR
We don't permit green lumber in FHA-insured houses, but we know it gets used.



LYMAN WOOD
You can design good trusses with any grade of lumber above utility.



GERALD PRANGE
The grade simplification movement started as a result of HOUSE & HOME's first lumber Round Table.

continued on p. 154



Trailers, once the vagabonds of housing (see above), have been transformed into ultra-modern mobile homes set in park-like communities (right) where their owners stay put just as long as the residents of conventional housing. A once critical and disbelieving housing world is now facing up to the fact that mobile homes are here to stay and constitute a growing segment of U.S. housing.



The mobile home: rising new giant in housing

Every tenth new house in the U.S. is now a mobile home. The industry producing these units and the entrepreneurs developing sites for them are growing at an unprecedented rate. Last year, mobile home manufacturers rang up a new sales record when they shipped 118,000 units valued at more than \$666 million. (These figures do not include 58,200 travel trailers valued at another \$105 million; these units are not permanent housing, so are not covered in this report.) Mobile homes are big business—with an estimated annual volume of \$1 billion including manufacturing, parks, services, suppliers, and land.

Conventional builders and much of the general public often criticize mobile homes. They cite lower building standards, lack of safeguards against storm damage, and mobile homes' comparative immunity to real estate taxes. Many people judge mobile homes in

terms of the ugly postwar trailer camps that still deface the countryside. Actually, today's mobile home parks compare favorably with medium-priced subdivisions, and in some notable instances look like luxury-priced communities (photo above). Comparing most modern mobile home parks with old trailer camps is as out-of-date as comparing one of today's well planned, medium-priced subdivisions with the cheap bungalows in early postwar subdivisions.

Today's mobile homes do not, as many believe, house only low-income families, military personnel, or vagabonds who prefer to move their homes from place to place. The typical mobile-home family has \$1,000 more income than the national average, says Stanford Research Institute. In some posh areas like Palm Springs, Calif. over half the population lives in mobile units. Mobile homes



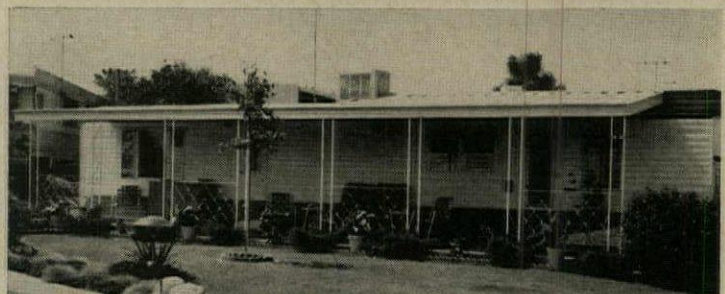
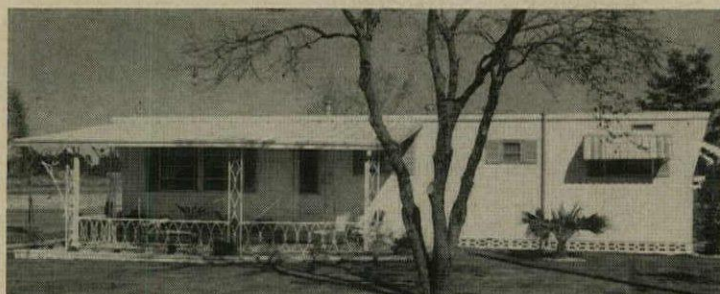
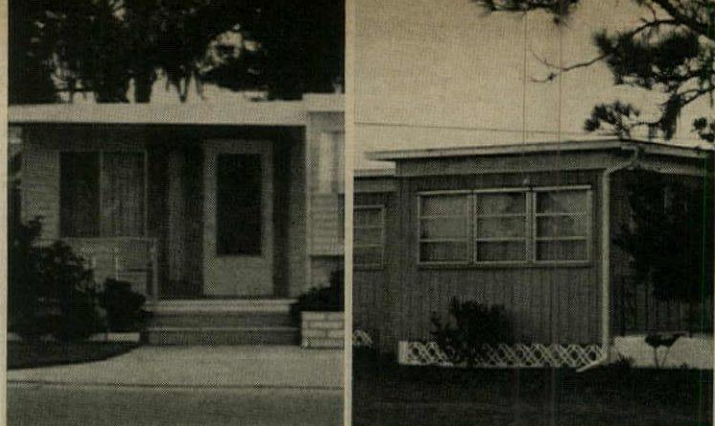
are generally only mobile from factory to site. The average length of stay on one lot is at least as long as most people stay in stationary housing. Today, 4,100,000 people live in mobile units.

Except for the fact that no mobile home is eligible for FHA insurance and most are not sold with long-term, low-interest mortgage financing, today's mobile homes rate as houses in every sense of the word: They are fully equipped with sanitary facilities, kitchen appliances, and furniture; some are even air-conditioned and contain dishwashers, garbage disposers, and fireplaces. Prices? On an average: \$10 per sq. ft. As of March of this year all new mobile homes built must meet plumbing, electrical, and heating standards set by the American Standards Assn. and enforced by the two trade associations representing the industry. Today's mobile homes look more and more like houses and live—even in a

compact way—just like houses, particularly now that they are growing in size (see *p. 138*) and lots they stand on are being sold (*p. 139*). Parks are being developed at the phenomenal rate of 1,000 per year, more often with 10 to 12 units per acre rather than the 18 to 20 per acre of older camps. Mobile park operators are beginning to sell mobile homes in their actual settings much as merchant builders sell from model homes. Financing of mobile homes shows signs of growing cheaper—and more like conventional mortgage financing (*p. 140*).

Many housing professionals see the mobile home as a stage in the breakthrough from primitive construction techniques toward mass assembly-line production. For a look at this rising giant in housing, turn the page; for an analysis of the industry's problems and potential, see *page 140*.

Now that mobile homes have sneaked up on housing disguised as something else they are starting to look more like houses

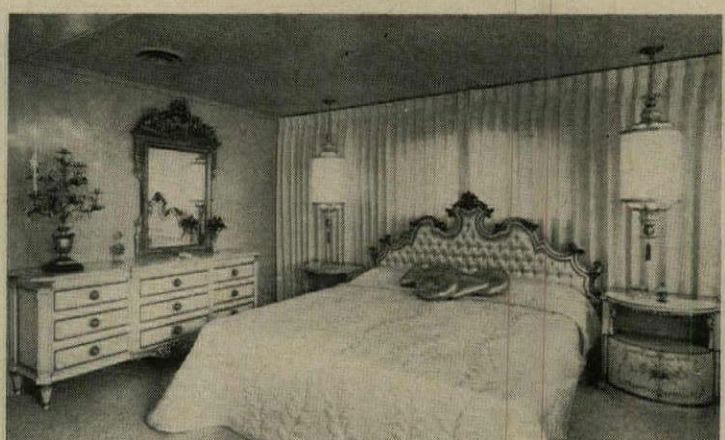
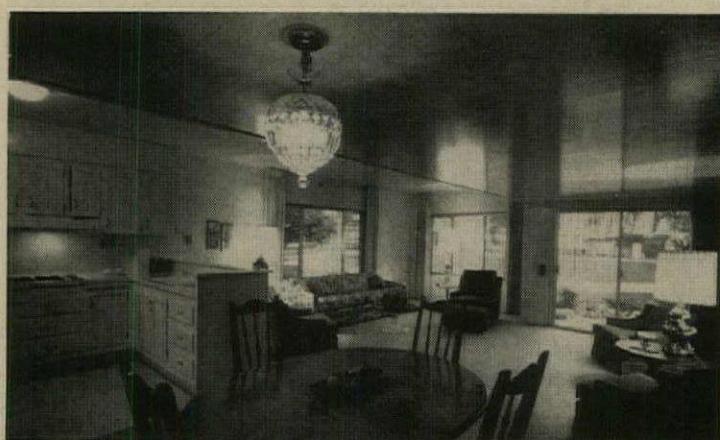


H&H Staff

The old auto-trailer look is disappearing . . . and mobile homes are getting more house-design elements

The low-slung home above is a display model shown by Mobilife Corp., Sarasota, Fla. developer of mobile-home parks in three states. The squarish outlines, shutters, awning, and wrought iron grill-work help make it look like a small cottage. In Florida, the wheels of many units are buried in the ground to provide a handsome relation of their

height to length and width. A conventional appearing front entry (top, left), square corners and rectangular shapes (top, right), and pitched-roof porch (directly above) contribute to a house-like appearance. More and more mobile units are trending away from the designs and textures of autos toward those familiar in housing.



Rooms inside mobile homes are getting as big as houses . . . and furniture is sold with the units

The living area in the mobile home above is in a 20'-wide bolt-together unit typical of most being sold in Swan Lake at Mira Loma, Calif. Average size of the newest mobile homes is 500 sq. ft. but many manufacturers are producing units 50' to 70' in length that expand to 20' or 22' wide, netting over 1,000 sq. ft. of interior space. Divco-Wayne

produces one unit with 1,280 sq. ft. The king-size bed in the bedroom of another 20'-wide unit (furnished by Bullock's department store in Los Angeles) dramatizes the size of big bedrooms. Furniture is normally included in the price of a mobile home, but purchasers can also buy furnishings on a custom basis.



Plumbing fixtures are the same as in conventional houses . . . and kitchen appliances are almost always built in

Bathrooms in most new mobile homes are the same or bigger than those in most conventional houses. Standard-size basins, toilets, and tubs are the norm. Wood paneling and plastic laminates predominate as wall surfaces. One big appeal of mobile homes is their minimum-maintenance interior and exterior surfaces. Kitchens are as fully applanced as any

house and may include name-brand garbage disposers, double ovens, refrigerators, clothes washers and dryers, dishwashers, vent hoods. New units are centrally heated; many are air-conditioned. Most closets combine the function of storage with partitioning and structural support for the roof and sidewalls.

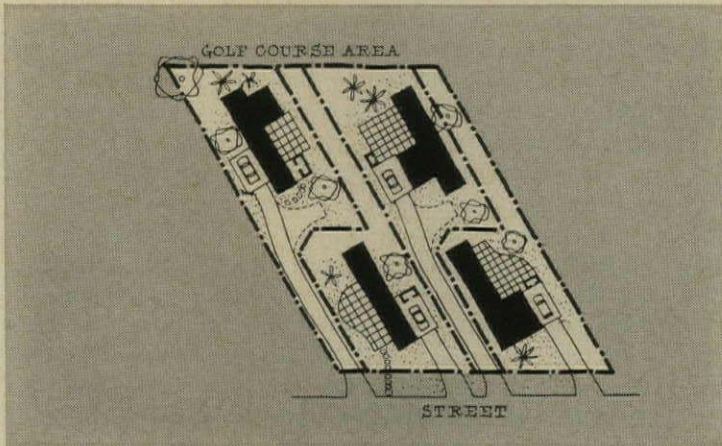


Some park entries look like entries of high-priced subdivisions . . . and now lots are being sold with some mobile units

The brick-walled entryway above leads into Mobilife Corp.'s Tri-Par Estates near Sarasota, a 2,000-space park adjoining a three-par golf course. Only stationary buildings in the park are for recreation and administrative purposes. Mobilife, biggest developer of mobile home sites, sells lots instead of renting or leasing them (prices: from \$1,300



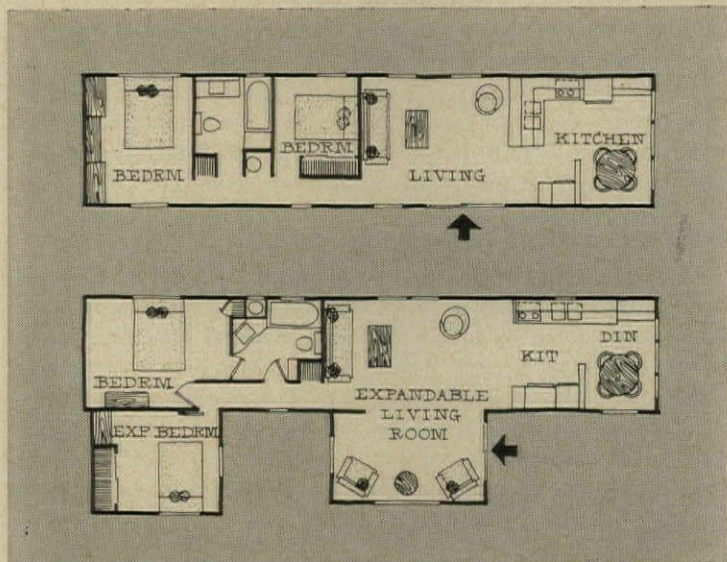
up, \$395 down, \$31.81 and up per month). Many buyers, like the retirees pictured at right, find this a more economical way of paying for mobile-home space. Up to now, about 50 mobile-home parks are selling lots—and the Mobile Home Manufacturers Assn. predicts the trend will grow.



Mobile home siting makes the most of narrow lots . . . and most new parks are planned with extensive community facilities

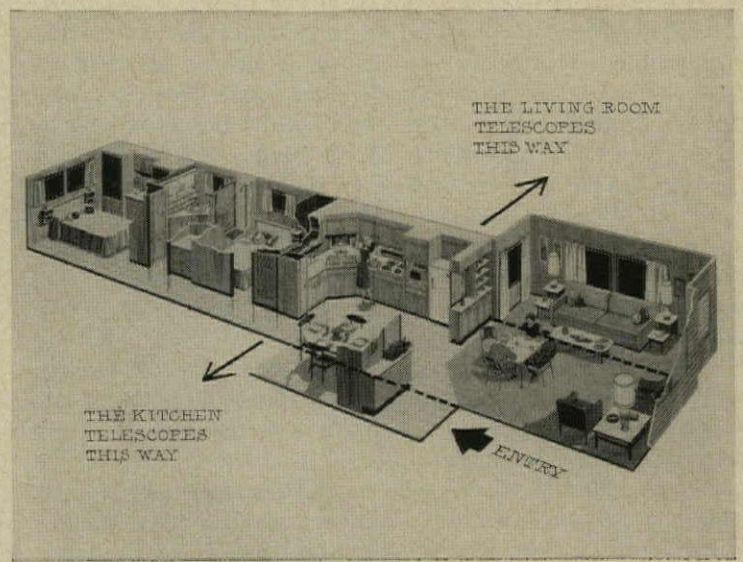
The four mobile homes on adjacent lots were arranged to provide a maximum of open space around each unit and individual access from each lot to the adjoining three-par golf course. Not many mobile-home lot layouts are as meticulously planned as this one for Mobilife's Tri-Palm Estates in Palm Springs, Calif., but most new parks are laid out

with lots running at an angle of 30° to the street. This makes it easier for mobile units to be brought in from the street and to keep the long sides of the units from facing each other across narrow yards. Swimming pools (right), community recreation buildings, or golf courses are usually planned in most good new parks.



Floor plans of mobile units are getting bigger and better . . . and some new models can be expanded in two directions

The two plans (left) show how similar units can provide a variety of room arrangements. Top plan has two small bedrooms and a full-sized bath; pull-out units (lower plan) allow two bigger bedrooms, a larger bath and a living room that is bigger than most mobile homes built in 1947. Both plans are for units built by the Terra Cruiser division of



Divco-Wayne, biggest mobile home manufacturer (nine plants in seven states, one in Canada). Some mobile units like the one by Skyline Homes (right) provide even greater variety of room arrangement by telescoping rooms from both sides. Twelve-foot-wide units are popular since they allow a wider corridor to bedrooms.

continued

nent dwellings (six months or more in one place) should conform to local building codes and be taxed as real property.

Builders complain that 75% of the annual output of mobile homes stays put at least that long. Mobile-homes manufacturers say the average stay is 28 to 30 months, but they readily concede that many mobile homes (nobody seems to know *how* many) stay put for as long as five to seven years.

Up to now, builders have gone nowhere with their soak-the-opposition formula. Not one of the 50 states taxes mobile homes as realty (although a movement to do so is gaining momentum in Florida). In California, it is even illegal to take the wheels off a mobile home. And mobile homes *do* pay taxes. California, whose laws have served as models for many other states, charges a \$150 license fee for a \$9,000 mobile home the first year. But this tapers off to only \$17 after ten years. After deducting \$6 for the motor vehicle department, the state divides the balance among city, county, and school districts. Mobile homes are also subject to local taxation as personal property.

But even so, builders argue that mobile homes pay less taxes than homes. The owner of a \$9,000 house in Fresno, Calif., would pay \$519.87 a year in realty taxes (a \$9.59 tax rate and 60% of market value assessments).

Mobile-home park developers contend they *do* pay a fair share of local taxes because: 1) Many parks are for adults only, 2) the average mobile-home family is only 2.9 persons vs. 3.4 persons in the average house, and 3) most park operators pay the cost of installing their own streets, water, sewage, and recreation facilities.

Dean Gillies, who is also a consultant to home-builder groups, sides with mobile homes on the tax question. Says he: "There is conclusive evidence that mobile-home parks and their residents pay their fair share of tax monies and other revenues to the community in which they are located." He adds: "If a community has the choice of the development of a high-density residential subdivision or a recreational or retirement mobile-home park, there is no doubt that from a strictly cost-revenue situation, the community is better off with the park."

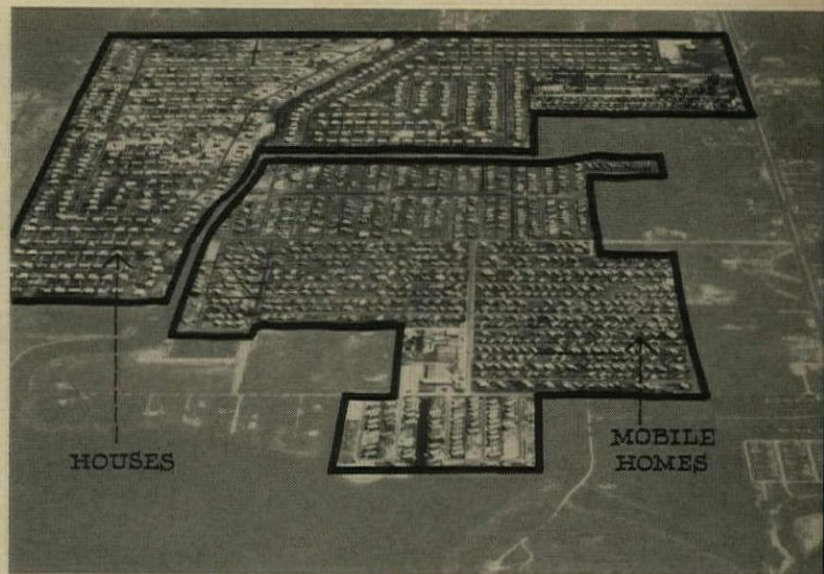
Mobile-home financing is growing more conventional

Like automobiles, most financing of mobile homes is by short-term loans from commercial banks. Down payments range from 15% to 33%, average 25%. Most loans run five to seven years at a true annual interest rate close to 11%. But 28% of 362 financial institutions reporting to the finance division of MHMA say they are now financing mobile homes over 10 to 14 years.

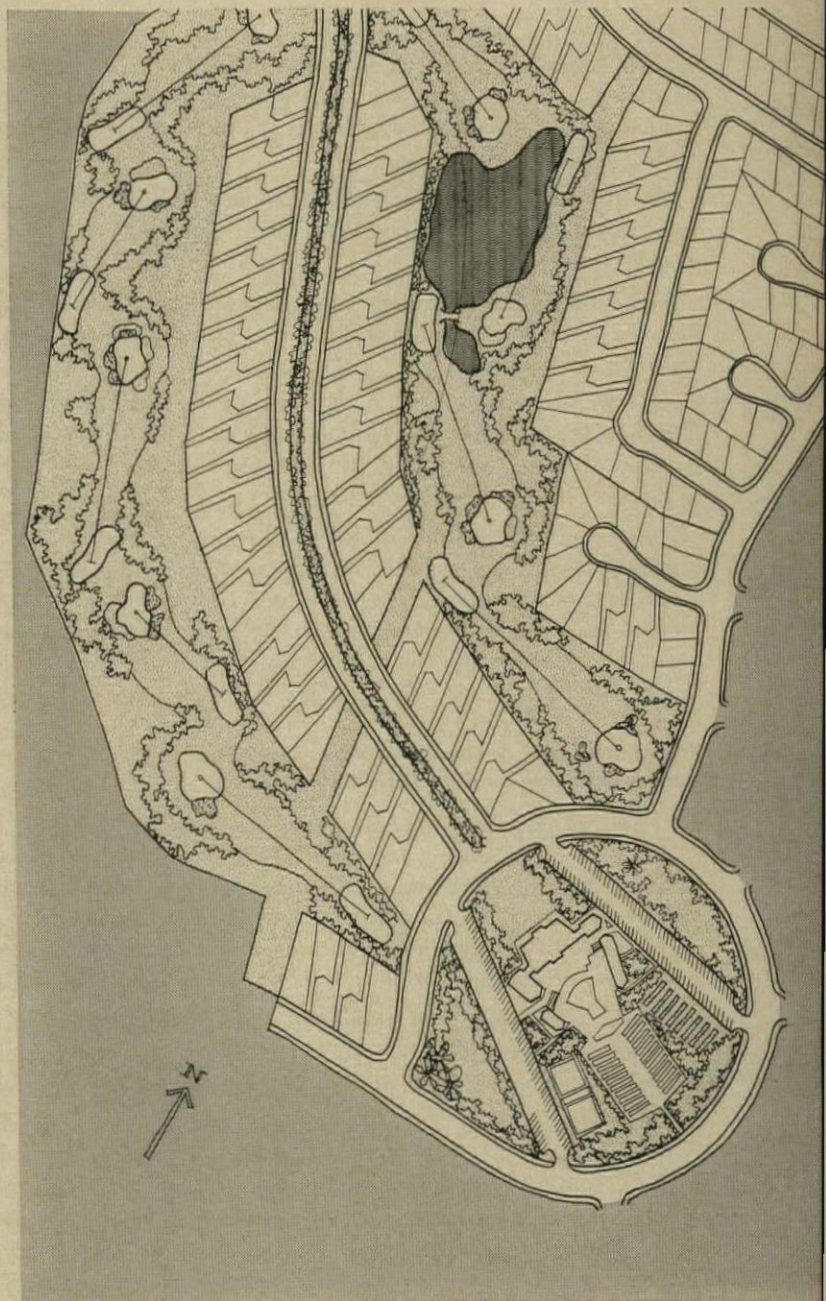
Park developers in particular contend automobile-type financing may have retarded growth. But long-term, low-interest financing may not appeal to dealers; they often get kickbacks from banks for selling 10.5% paper.

The last year has brought the first signs of revolution in mobile-home financing. Several Florida savings and loan associations have begun offering conventional mortgages with 10- to 15-year amortization at 6% to 7% simple interest. One company sells mobile-home lots to buyers with 15% down for a term of seven years at 6% to 7% simple interest (terms are arranged as monthly payments of principle and interest, are lower than the average rent charged in most parks). And it offers 15-year mortgage loans on homes and sites to which owners hold title. Indications are that conventional financing will grow.

Most mobile-home parks are still financed through non-bank sources since many institutions still view them as unproved investments. But if a park developer can borrow 60% of his total acquisition and development costs, he can often boost the net return on his own money from 18% to 22% plus recapture. The Trailer Coach Assn. reports that parks show a pattern of returns between 15.5% and 17.7% before depreciation and income taxes. Therefore, it contends, mobile parks are one of today's most attractive real estate investment opportunities. TCA says even higher returns can be expected from newer parks which fill up more rapidly and stay full because of their recreational areas. —EDWARD BIRKNER



SALE OF MOBILE-HOME SITES outstripped the sale of conventional houses in a neighboring Florida subdivision, 1,500 to 900 in one recent year. Mobilife, which developed the park, sells both homes and sites.



LAND PLANNING for Tri-Palm Estates, Palm Springs, Calif. puts a golf course amidst lots. More and more new parks are being planned with lower density per acre and more recreation facilities (circular area).

Can wage incentives and profit sharing help cut housing costs?

Few companies in the housing industry reward extra efficiency with extra pay or cut their employees in on profits. But those that do are enthusiastic about the results:

Says Builder Edward Ryan of Pittsburgh: "In seven years of steadily rising costs, our costs have dropped 20%. Most of the credit for that cut goes to our profit-sharing and incentive programs."

Says Builder Charles Ervin of Charlotte, N. C.: "Thanks to wage incentives, we've improved our construction efficiency 25% in two years."

Says Lumber Dealer Robert Everitt of Fort Collins, Colo.: "We have the figures to show that profit sharing makes us more efficient and increases our business."

Says Builder John Fischer of St. Louis: "A basic problem in homebuilding is finding and holding good men. Profit sharing has brought us better employees, at all levels, and kept them with us longer."

These four company presidents are voicing agreement with a principle long recognized by leaders in many U.S. industries: Employees will contribute far more to a company if they know that 1) their extra efficiency will bring them extra pay (wage incentives) and 2) they can count on a slice of company profits (profit sharing).

There are two basic differences between wage-incentive and profit-sharing plans

1. Profit sharing is based on over-all company performance. If a company makes money, all—or almost all—employees share in the profits. And the more profitable the year, the bigger the employees' share. Wage incentives are based on individual (or crew) performance. Whether the company makes a profit or not, workers who beat predetermined time standards receive extra pay.
2. Wage incentives can be applied only to employees whose performance can be accurately measured—i.e., in homebuilding to carpenters, tile men, plumbers, and others engaged in direct production.

Incentive pay is added to an employee's weekly paycheck in many industries, but in homebuilding it is usually paid monthly, quarterly, or semi-annually to simplify paperwork. Shares in profit-sharing plans are paid at the end of the year or held in trust for the employee until he leaves the company (deferred payment).

Builders Fischer (Fischer & Frichtel), Ryan, and Ervin and Lumber Dealer Everitt all offer their employees either profit sharing or wage incentives or both. Fischer & Frichtel, which sold

300 houses in 1962, has a profit-sharing plan for all of its 100 employees. Ervin Construction Co. (700 houses last year) has an incentive program for its 600 hourly workers and profit sharing for its 89 salaried employees. Ryan Homes (1,200 houses in 1962) has profit sharing for all its 210 employees, an incentive plan for its 140 field workers, and a bonus program, based on merit rating, for all employees. Everitt Lumber Co.* has profit sharing for its 100 employees, plus a special plan that lets managers of its 11 yards and one prefab plant invest in the company and receive a much larger share of profits.

What can other housing professionals learn from the incentive and profit-sharing plans run by these companies? Here are the answers:

Keys to a successful wage-incentive plan are practical units of work and realistic time standards

For both Ryan Homes and Ervin Construction Co., units of work are identical: all work performed by one crew of one trade on one house. Examples: framing a house, installing the heating system, installing drywall.

Why measure the work of crews instead of individuals? Because in homebuilding, unlike other industries, most jobs are done by two or more men working as a team.

But the two companies differ when it comes to setting standards. Part of the difference stems from the difference in the houses they build: Ryan builds in a wide price range (\$14,000 to over \$30,000), offers a variety of house types, and introduces a new model every few weeks. Ervin sells in one price class (around \$13,500) and makes far fewer model changes. So, with minor adjustments, his standards are the same as when he started his wage-incentive plan two years ago.

Ryan's standards are set by the top crew in each trade—framing carpentry, trim carpentry, plumbing, heating, etc. These crews build a prototype of each new model, and their labor times become the standard for crews on future production houses. Although these standards are set by Ryan's best crews, they are set on houses with which the crews are unfamiliar. So, Ryan points out, they can be beaten by other crews under normal working conditions.

Ervin's standards were established almost by accident. Two years ago, in an effort to stimulate production, he offered an

* Board Chairman Leslie G. Everitt is president of the National Lumber & Building Materials Dealers Assn.

efficiency prize—\$10 per man and a free dinner—to the crew in each trade that produced the most over a six-week period. "This raised production about 6%," says Ervin, "but the enthusiasm soon wore off because there was only one winner in each trade. So we tried to find a program in which everybody could win. We came up with our present incentive plan."

Ervin used the average efficiency of his crews during the competition—106%—for a standard. Today his average over-all efficiency tops the standard by more than 20%, and some crews beat the standard by up to 40%.

Ryan, too, finds his men top his standards by an average of 20%. "The typical crew beats par 80% of the time," says Andrew Temmel, who runs Ryan's wage-incentive program.

Both Ervin and Ryan include time over standard as well as time under standard in their systems. For example: If a crew runs into a spell of bad weather and takes ten hours longer than the standard to frame a house, that ten hours must be made up on subsequent houses before crew members can again start earning extra pay. But no deductions are ever made from an employee's base wage.

When a standard is beaten, the consequent savings are divided between the crews and the company. Ryan takes 18% out of the saving to cover overhead and divides the rest 50-50; Ervin divides the saving equally at the start and takes his overhead—about 9%—out of the company's share. Ryan's average employee makes 8% over his wage in incentives, and a few employees make as much as 24% more. Ervin's average employee makes 10% extra, and his top men make 20% more.

Both companies give their foremen a bigger-than-average slice of the crew's share of the savings. Ryan's crew leaders get from 30% to 40%, depending on the size and experience of the crew—the smaller and less experienced the crew, the tougher the crew leader's job, and so the bigger his percentage. The rest of the crew shares according to rating and experience—from 20% for the No. 2 man down to perhaps 5% for the newest and least experienced man.

Under Ervin's intra-crew breakdown, only the foreman receives a bigger portion. As part of a two-man tiling crew, for example, he would take 60% to the second man's 40%; as part of a four-man framing crew, he would take 30%, and the remaining 70% would be divided equally among the other three men.

Both companies find it necessary to make occasional small adjustments in standards when a job consistently pays too little or too much extra money. Ryan's problem is harder because of his frequent model changes. "We review our standards every six months," he says, "and make immediate changes if a standard is out of line. We have no trouble finding standards that are too high—the squawks are loud and clear."

Does quality suffer when incentive-spurred crews strive to beat time standards?

No, say Ryan and Ervin. In fact, both builders report their incentive systems have improved quality. Says Ryan: "We've noticed a definite drop in callbacks." Says Ervin: "Our callback costs are down \$20 a house."

Why no problems with quality? Ryan and Ervin cite two reasons:

1. In homebuilding (unlike some other industries), it's hard to cover up sloppy work because every part of a house is open to inspection at some stage in construction.

2. Both companies have written quality-control measures into their incentive programs. Ryan's crews are required to repair or re-do poor work on their own time. Ervin deducts the cost of repairing faulty work from the crew's incentive pay.

In actual fact, these punitive measures have rarely, if ever, been applied by either company. Says Ervin: "We've found that when our men work faster, they work much more accurately and make fewer mistakes. What's more, they have fewer accidents."

Besides direct savings, wage incentives offer Ryan and Ervin these indirect benefits:

1. Better production control. Says Ervin: "Daily reports on crew performance tell us which crews are consistently lagging behind standard—and thus reveal trouble spots immediately." Says Ryan: "We may have half a dozen crews framing identical models. If one drops below standard, we jump right in to find what's wrong—poor supervision, slow materials delivery, or whatever it may be."

2. Better employees. Says Ervin: "Most workers in the area know they can make more money with us, so we get the pick of the labor crop." Adds Ryan: "Sloppy or slow workers simply don't last. Crews and crew leaders won't tolerate a man who, by dogging it, is taking money out of their pockets."

3. Better use of manpower. Close analysis of production performance, prompted by the wage-incentive plan, showed Ervin his framing crews would work more efficiently if he reduced their size from six to four men.

4. Tighter schedules—and thus reduced financing and overhead costs. In two years Ervin has cut his construction schedule from 120 days to 90 days per house.

Do wage incentives inflate administrative costs? Ervin says his incentive plan has increased his office load "only slightly." The same clerk who previously handled only the straight payroll now also figures incentive pay. Ryan's incentive plan has actually decreased his administrative costs. Reason: Costs are now allocated to houses by crews rather than by individual workers. So a five-man crew is one entry, not five. This, Ryan notes, more than cancels out the additional figuring of incentive pay.

There are two types of profit-sharing plans—cash payment and deferred payment.

Under cash-payment profit sharing, employees get their slice of profits at the end of each fiscal year

Each employee's share is taxed as regular income. But the federal government imposes one requirement: The payment must be "reasonable" in light of services performed by the employee. Why this rule? To keep companies from funneling money into profit sharing that should rightfully go into the payment of dividends. In practice, the requirement is applied with leniency. For example: Cleveland's Lincoln Electric Co. has on occasion paid profit shares as large as employees' base salaries.

Everitt Lumber Co. has two cash-payment plans—one for all employees except yard managers and one for yard managers. Under the first plan, 6% of the company's net profit is earmarked for employees and pro-rated according to their pay level. "In an average year, this amounts to about 8% of an employee's salary," says President Robert Everitt. "In a good year it can go as high as 10%."

continued

Under the second plan, managers of the company's yards and prefab plant get 10% of their yard's net profit—say, \$3,000 at a yard that nets \$30,000. But outstanding managers who have been on the job at least three years are invited to invest in their yards and earn a larger share of profit. Here is how this optional arrangement works:

The manager may invest up to 25% of his yard's assets (inventory plus accounts receivable) and receive an equal percentage of the yard's profit. For instance: If the assets are \$100,000, the manager may put up \$25,000 of his own money. Then if the yard nets \$30,000, his share is \$7,500 instead of the \$3,000 he would get under the 10% plan.

"In practice," Everitt says, "the manager's share is somewhat smaller." This is because managers usually borrow investment capital from a local bank (which knows the company and considers its managers good risks), so interest on the loan slices their net gain. For example: If a manager borrows \$25,000 at 6%, his annual interest is \$1,500. So if his share of annual profit comes to \$7,500, his cash in hand at year's end is \$6,000.

Does a bigger share of profit for the manager mean less profit for the company? "In theory it should," says Everitt. "But in almost every case when we shifted a manager to the 25% investment-profit plan, the company's profit has stayed the same, and in many cases it has increased."

What if the yard's profit fails to justify the manager's share? The company buys out his investment in the yard and drops him back to the 10% profit-sharing plan.

"Of course, the optional plan's big benefit is more business for the company," says Everitt. "But the plan also helps us hang on to ambitious men with managerial potential. They all want to stay with us and get a shot at the gravy."

Under deferred-payment profit sharing, employees don't get their profit slice until they leave the company

Meanwhile, the company invests each employee's share in a trust fund. When an employee retires, resigns, or is fired, the amount he takes with him is a percentage of his share in the fund. And this percentage—the employee's vested interest—depends on his length of service with the company.

Deferred-payment plans—used by Ervin, Ryan, and Fischer & Frichtel—offer employees several tax advantages: 1) An employee pays no tax on money put into a company trust fund in his name. 2) The fund pays no tax on the income and capital gains it earns. 3) When the employee finally receives his share of the fund, it is taxed as a capital gain (25% maximum) rather than as ordinary income.

These tax advantages have prompted the Internal Revenue Service to put some restrictions on deferred-payment plans: 1) A company's annual allocation to its trust fund is limited to 15% of its payroll (but if less than 15% is put in one year, more than 15% can be put in the following year so long as the two-year average does not top 15%). 2) People at higher salary levels cannot receive higher percentages than those at lower levels. 3) If an employee wants to invest some of his own money in the trust fund, his investment is limited to 10% of his salary.

Here are answers—from Ryan, Ervin, and Fischer & Frichtel—to key questions on deferred-payment profit sharing:

1. Who's included? Ryan and Fischer & Frichtel include all employees. Ervin includes only salaried personnel.

Why the difference? Because of the character of local labor markets. Ryan and Fischer & Frichtel are in relatively stable markets. Many of their production workers have been with them

ten years or more. And their average wage level is high—roughly \$6,000 a year. Ervin, on the other hand, has transient labor—the average employment term is two years—and his wage scale averages only about \$4,000 a year.

"At this pay level," says Ervin, "men are more interested in cash than in long-term investment. And because they are transient, they wouldn't get much out of a long-term program."

All three builders agree that deferred-payment programs appeal most to salaried employees. These employees, the builders note, identify with the company rather than with a trade, so they think in terms of a permanent job.

When it comes to hourly workers, Ryan and Fischer see deferred-payment profit sharing as a forced savings program against retirement or emergency. Says Fischer: "I've been in this business since I was a kid, and I've never seen a carpenter retire with anything put away. Now some of our men have \$15,000 in the fund, and some of our foremen have \$20,000. Says Ryan: "I'd hate to think a man worked for me 10 to 20 years and had nothing to show for it except his weekly wage."

2. How much do companies put into profit-sharing trust funds? Fischer & Frichtel puts in 50% of its annual gross profit over \$50,000 but limits its contribution to 10% of the company payroll. Ryan allocates 10% of the company's gross profit. Ervin has no set formula but aims for 15% of gross profit and contributes less if, in his opinion, profit is inadequate. In the last three years he has paid in 15%, 10%, and 20%.

3. How long must an employee stay with a company to get 100% vested interest in a profit-sharing trust fund? Terms vary widely. For instance:

Ryan's requirement is 20 years. Employees participate after one year's employment, and their vested interest goes up in annual 5% increments.

Ervin's requirement is ten years. Although employees start to participate after one year, they get no vested interest until the end of the third year. At this point, their interest is 30%, and thereafter it increases 10% a year.

Fischer & Frichtel's requirement is seven years. Employees participate after one year, get a 30% vested interest after two years, and an added 15% a year from then on. Fischer thinks the seven-year period is too short: "Sometimes a man will quit just to get his profit-sharing money, and if he has been with us five or six years, he gets most of it. If the period were longer, he'd have more to gain by staying. We tried to make the period longer when we set up the plan [13 years ago]. But at that time the government felt the rapid turnover in construction labor made seven years a maximum."

Fischer also points out that deferred-payment programs, unlike cash-on-the-line plans, need constant promotion among hourly employees: "They tend to forget between annual statements. But when we have a bad year, and can't put the normal amount into the fund, everybody is unpleasantly surprised. And after that, everybody works harder."

Sums up Fischer: "Profit sharing gives our people a real stake in the company."

Sums up Ervin: "If a man stays with us five years, he may have a half interest in \$10,000. If he stays another five years, he'll have a full interest in twice that amount, plus what his share of the fund has earned. He's going to think twice before he leaves us."

—MAXWELL HUNTOON

Detailed information on profit-sharing plans may be obtained from the Council of Profit Sharing Industries, 400 W. Madison St., Chicago 6.



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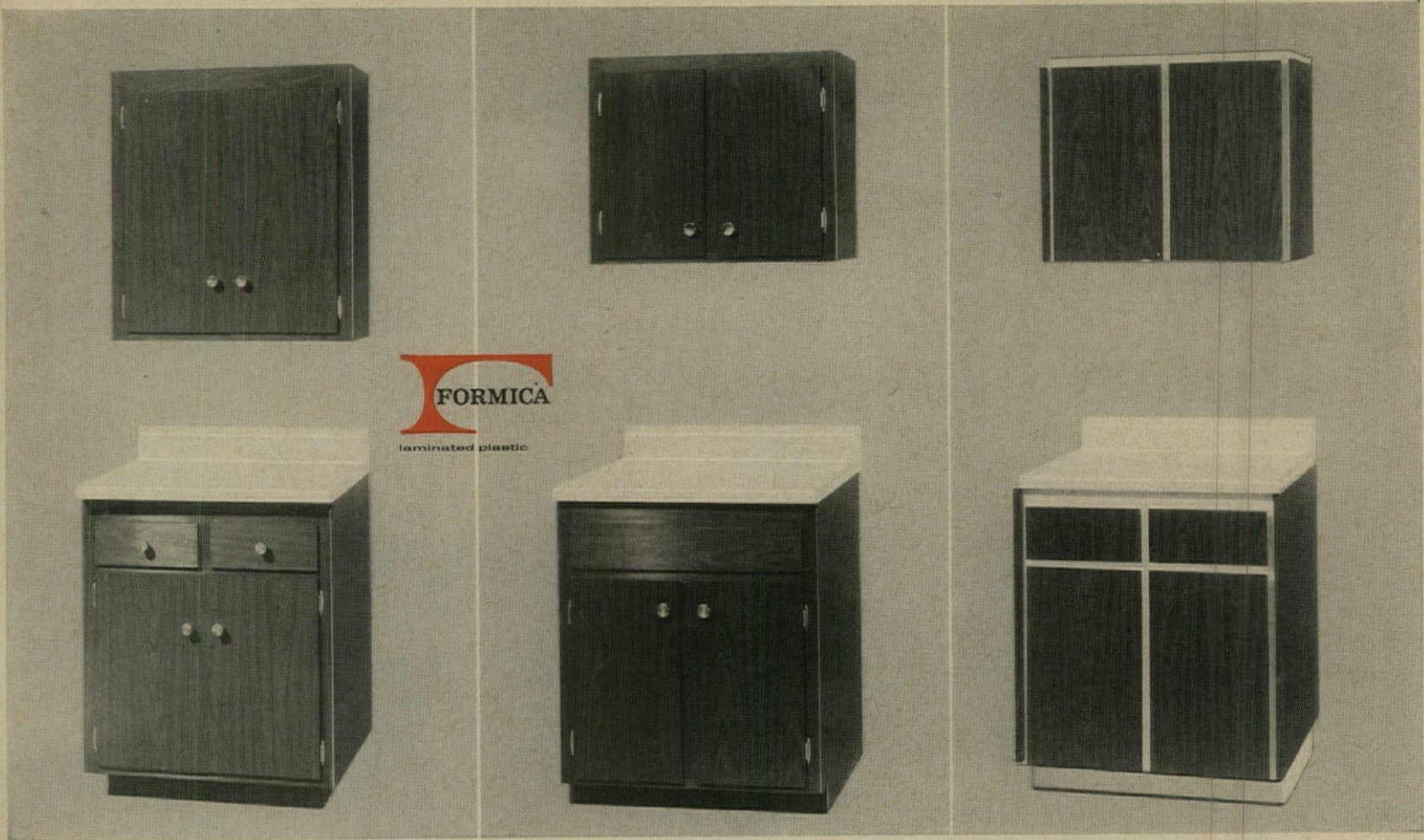
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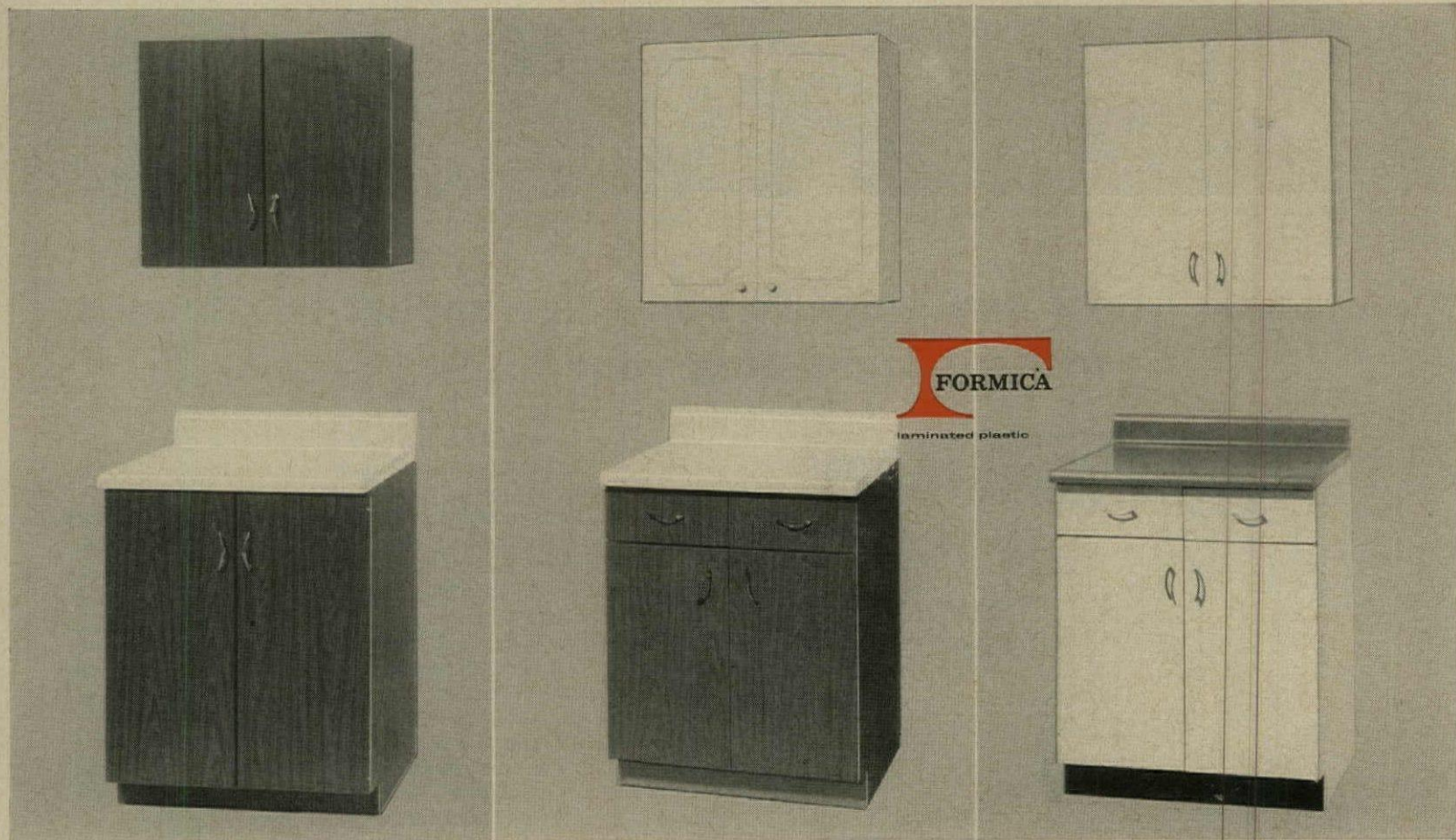
TURN THE PAGE



CALIFORNIA, Azusa
Condor, Inc.
Penn-Smith Cabinets
1148 West Kirkwall

CALIFORNIA, Cotati
Cotati Cabinet Co.

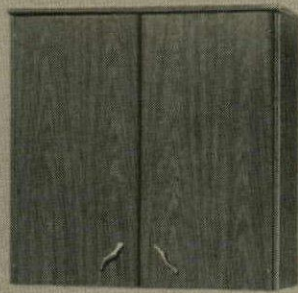
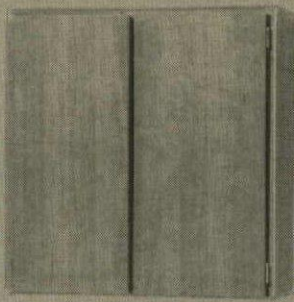
CALIFORNIA, San Bernardino
Sawyer Cabinet Mfg., Inc.
995 - 9th Street



CALIFORNIA, Los Angeles
Tedon Laminates, Inc.
3053 Treadwell Street

CONNECTICUT, Waterbury
Les Care Kitchens
Lewis Millwork Co.
168 Meriden Road

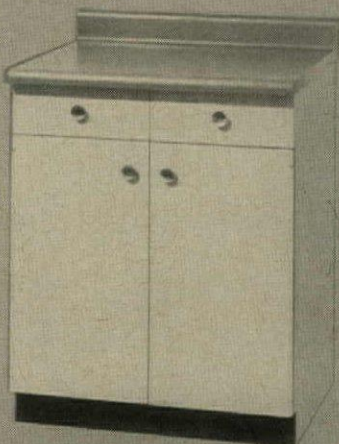
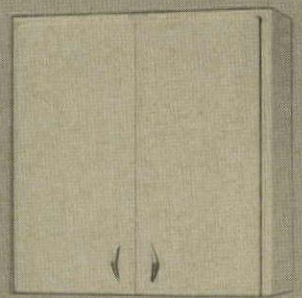
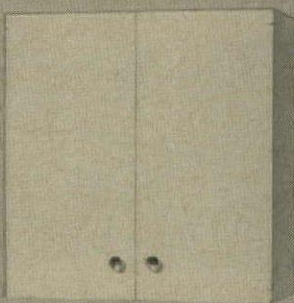
CONNECTICUT, Stamford
H. M. Scott Co.
396 South Pacific Street



COLORADO, Denver
Hessler Mfg. Co.
3359 Pecos Street

FLORIDA, Miami
Cabinets, Inc.
Subsidiary of
Air Control Products, Inc.
18000 State Route #9

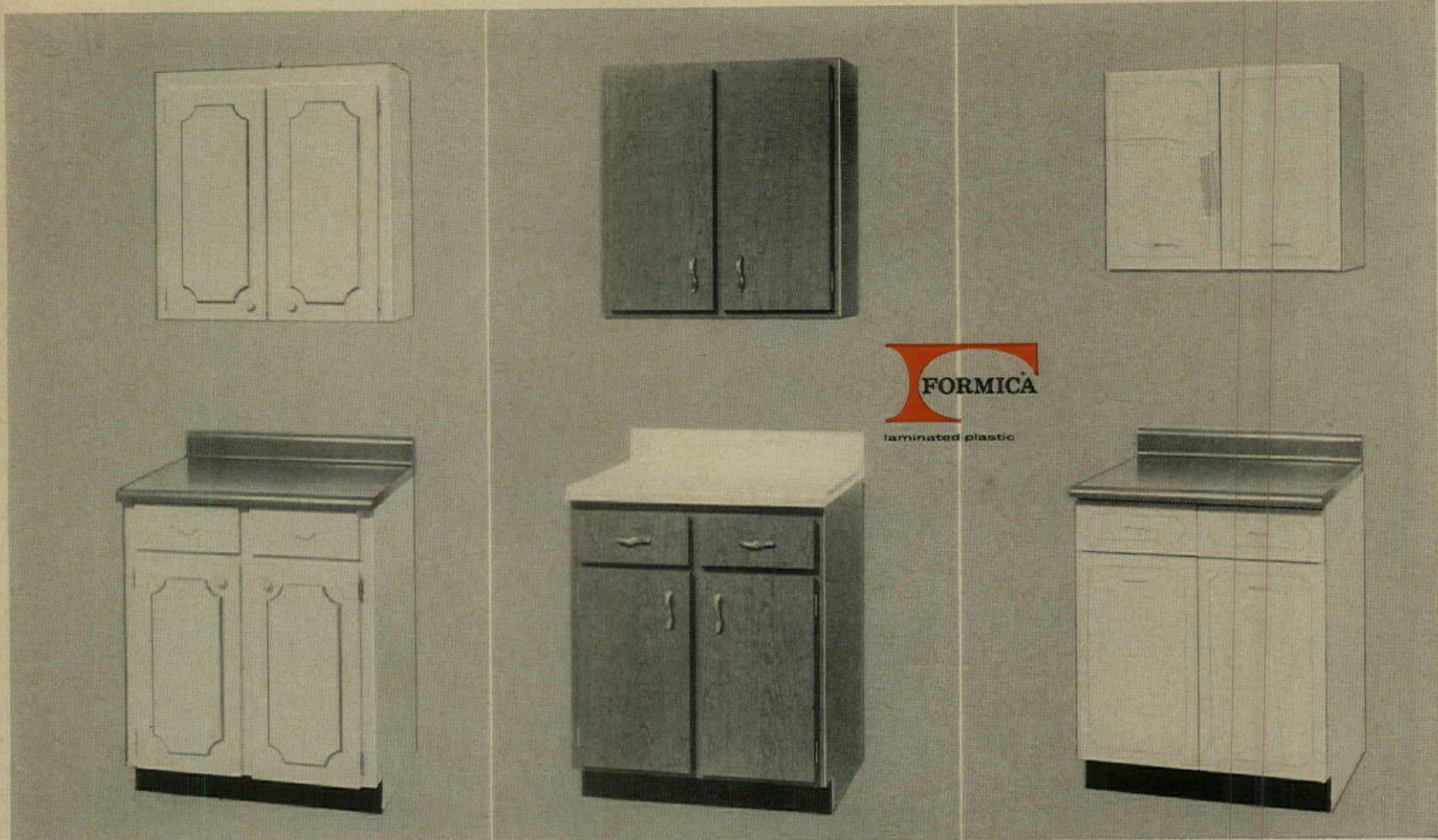
FLORIDA, Tampa
Oleson Industries, Inc.
(Florida Plastic Tops, Inc.)
5021 North 22nd Street



FLORIDA, Panama City
Walker Mfg. Co.
P.O. Box 325
Parker Station

FLORIDA, Ft. Lauderdale
Weldun Plastics Inc.
220 S. W. 27th Street

ILLINOIS, Chicago
Addison Plywood
6645 West Irving Park Road



ILLINOIS, Mundelein
 Builder's Custom Millwork, Inc.
 274 Anthony Avenue

ILLINOIS, Joliet
 Hi-Line Kitchens
 804 Wenberg Avenue

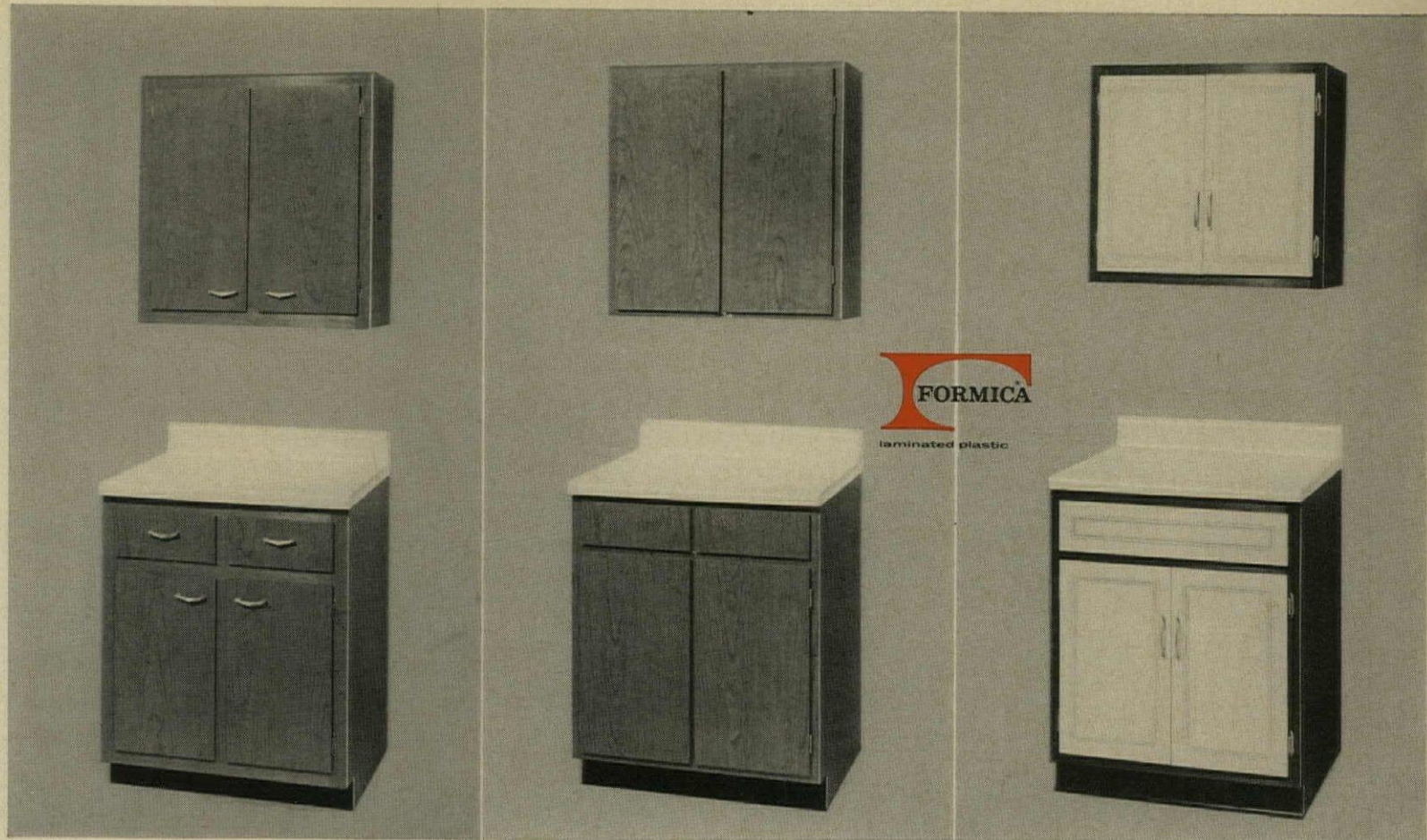
ILLINOIS, Chicago 24
 Keesler Steel Cabinets
 4045 West Roosevelt Road



ILLINOIS, Aviston
 Marcus Cabinet Co.
 Sugar Creek Township

ILLINOIS, Chicago
 A. L. Novak Co.
 2700 West Belmont Avenue

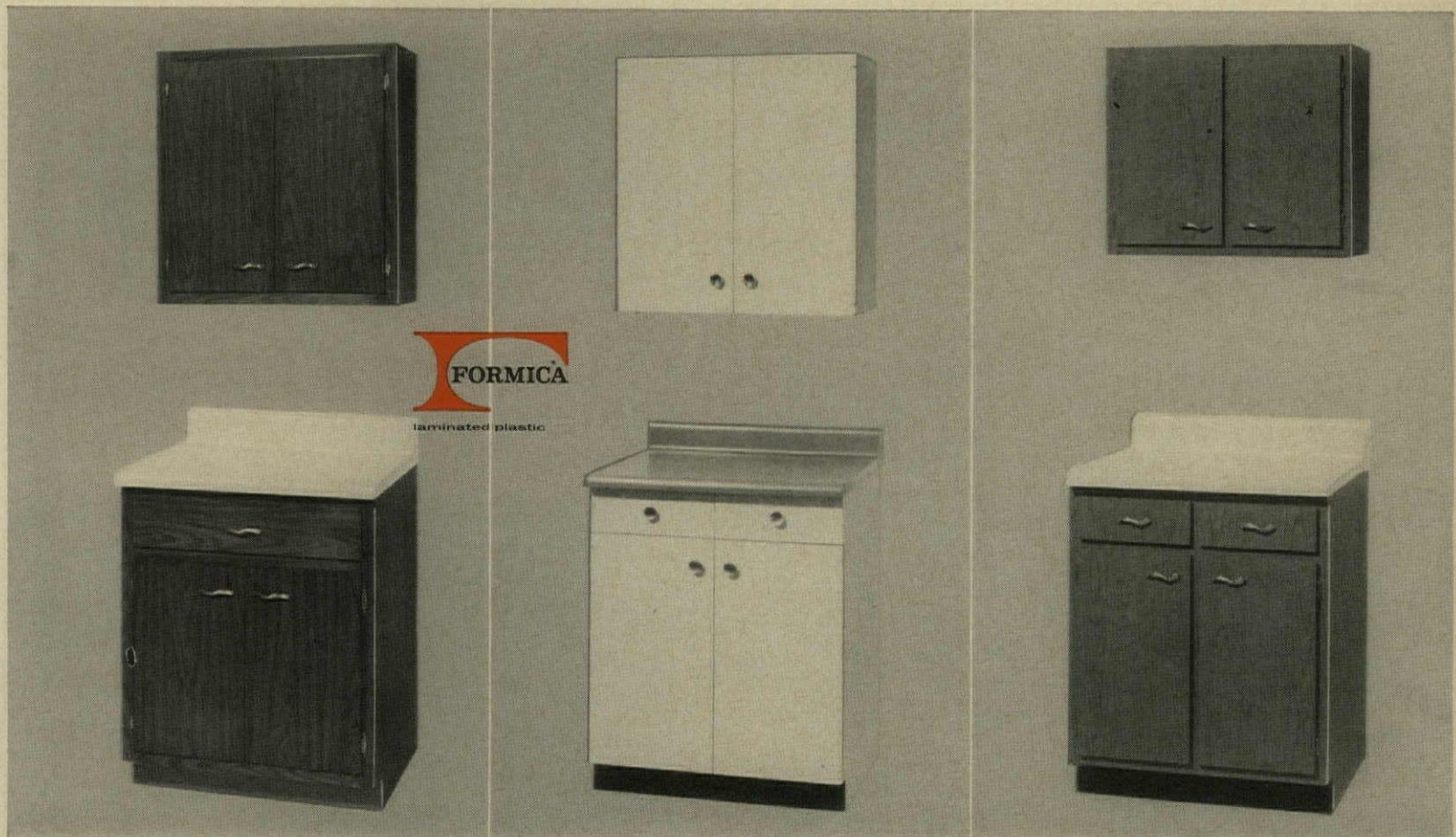
INDIANA, Anderson
 Gentry's Cabinets Inc.
 415 Main Street



INDIANA, Elwood
Hoosier Home Products
Division of Hoosier
Home Improvement Co.

INDIANA, Rensselaer
Northway Products Co.
1133 North Cullen Street

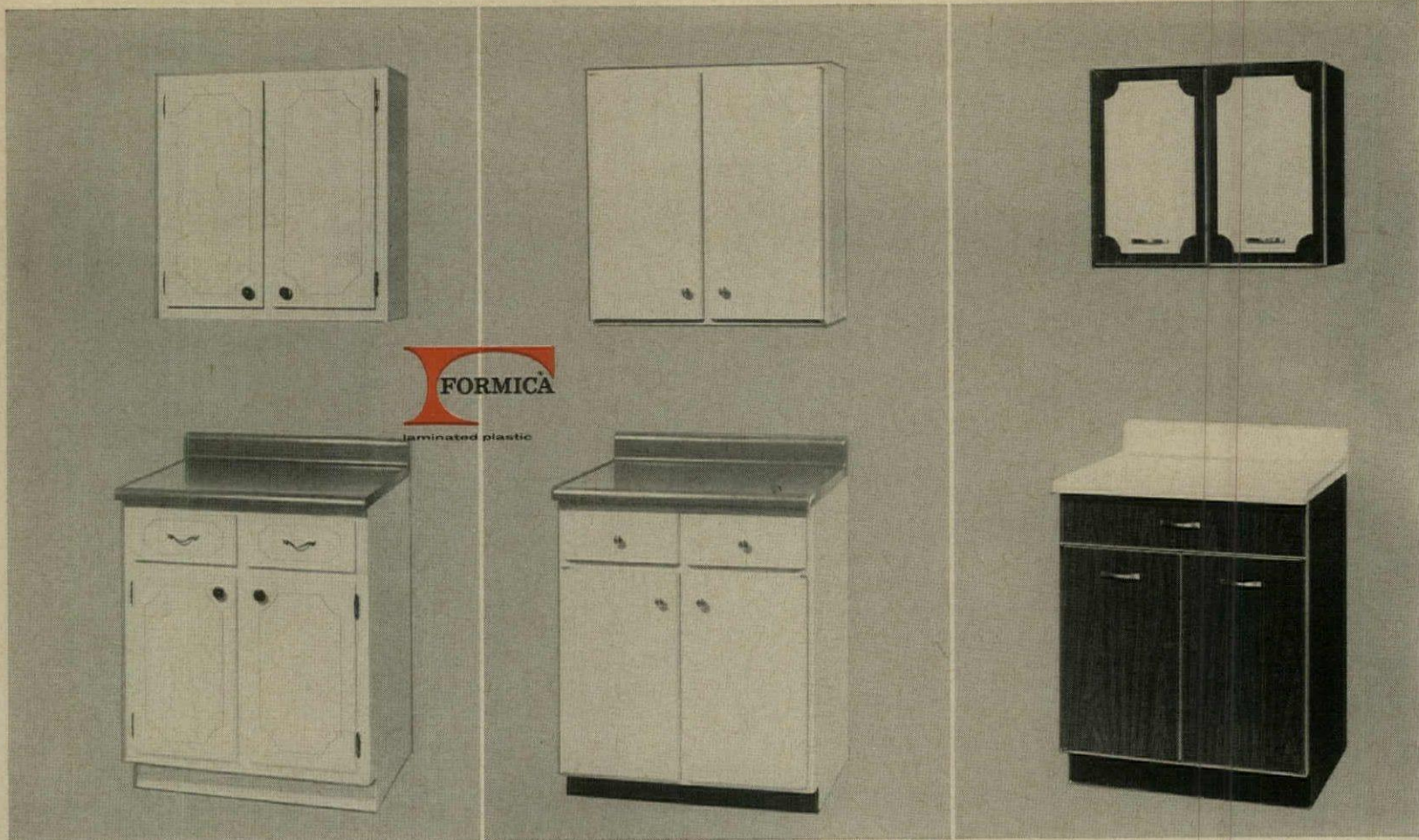
INDIANA, Indianapolis 8
Old Country Craftsmen
117 West 30th Street



INDIANA, Indianapolis 5
Rentsch Cabinet Co.
2311 Duke Street

KENTUCKY, Louisville
Bomar Mfg. Co.
1114 Bardstown Road

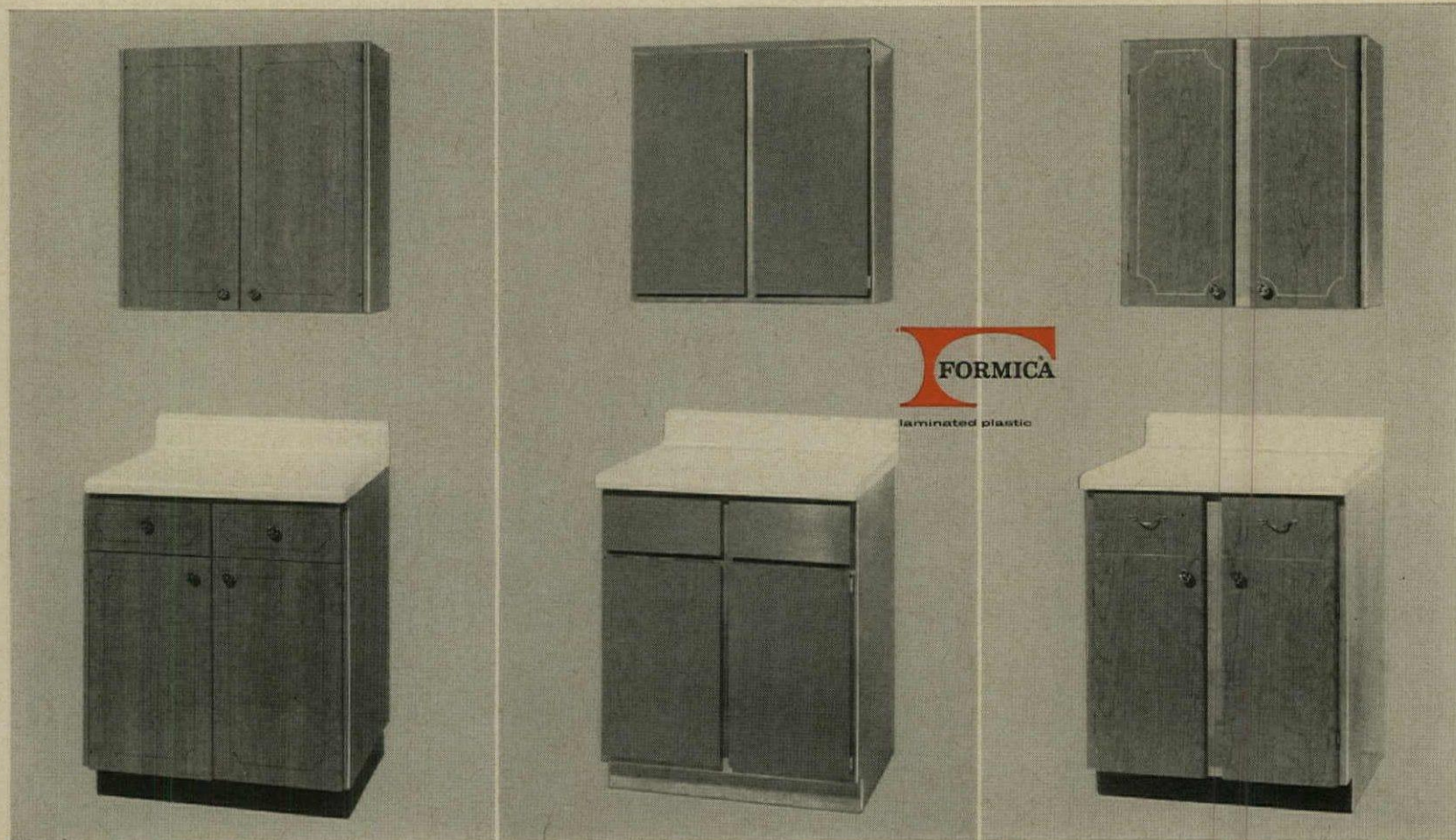
KENTUCKY, Louisville
Custom Cabinets, Inc.
6220 Strawberry Lane



KENTUCKY, Dayton
Kencabco Cabinet Co.
530 Hodge Street

MARYLAND, Ellerslie
Harold's Kitchen & Furniture Co.

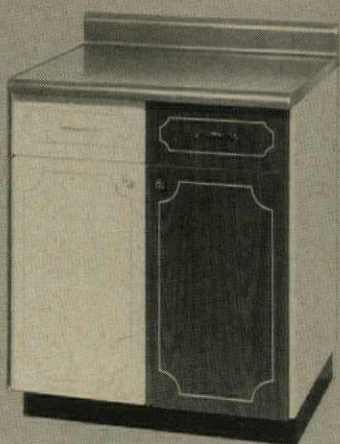
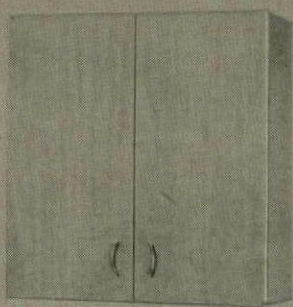
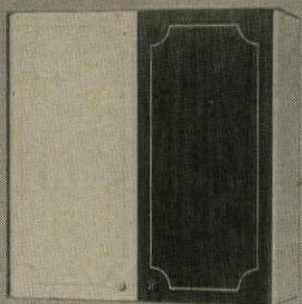
MARYLAND, Baltimore 15
Topcraft, Inc.
4207 Menlo Drive



MASSACHUSETTS, Holbrook
Farina Bros., Inc.
30 Union Street

MICHIGAN, Adrian
Merillat Woodworking Co.
2075 West Beecher

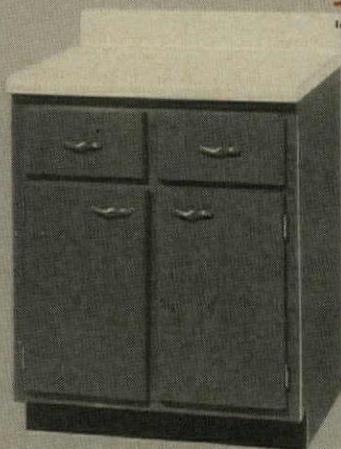
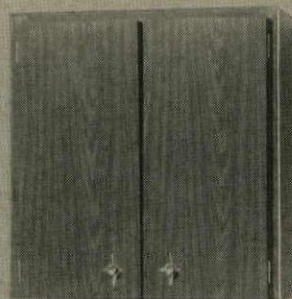
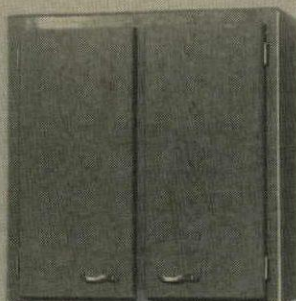
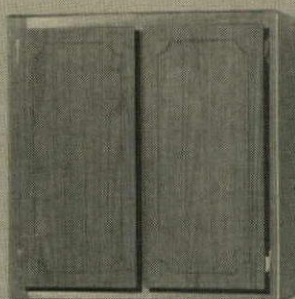
MISSOURI, Kansas City
Grandview Products Co.
8819 Prospect



MISSOURI, Maryland Heights
Kitchen Engineering & Mfg. Corp.
422 Industrial Court

MISSOURI, St. Louis 3
Regina Kitchens
DiFatta Mfg. Co., Inc.
718 North 21st Street

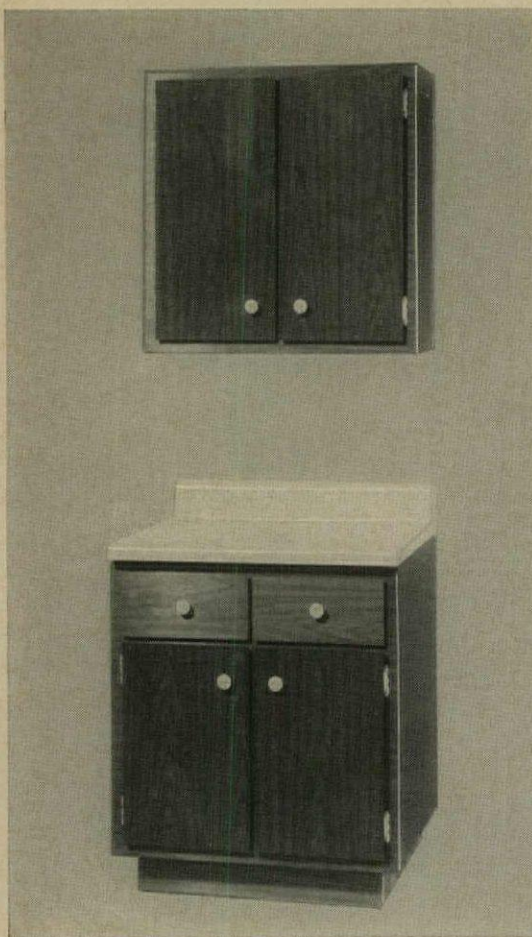
NEW JERSEY, Wenonah
Marmac Industries, Inc.
Wenonah Wood Products
Barkbridge Road



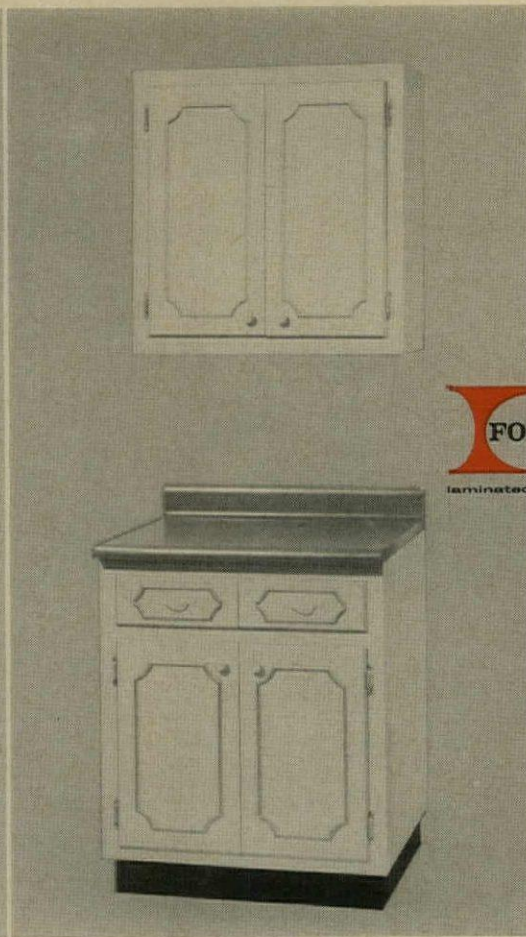
NEW YORK, Bronx 59
Bilt-Rite Furniture Products, Inc.
Aristocraft Kitchens
1120 Leggett Avenue

NEW YORK, Rochester
Custom Craft Wood Products
130 Union Ave.

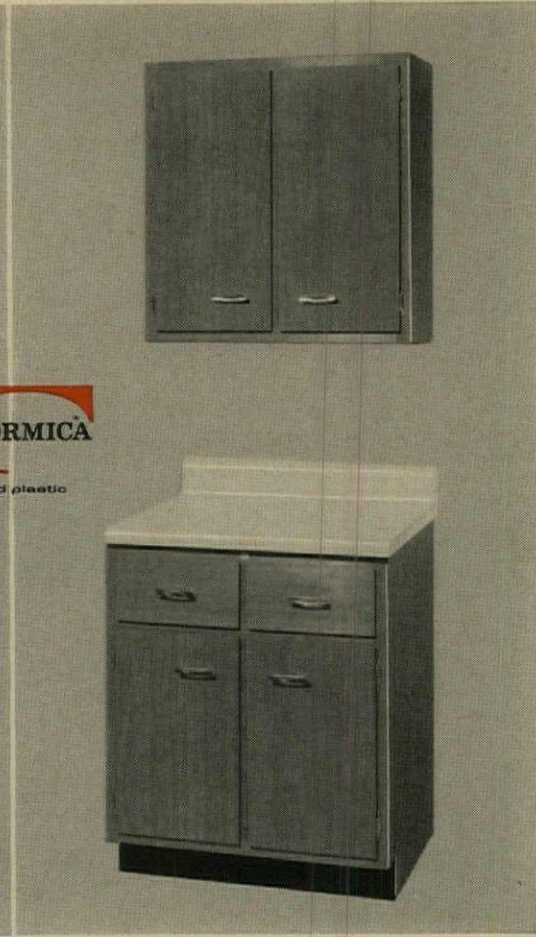
NEW YORK, Buffalo 7
Gondeck Plastics
1723 Niagara



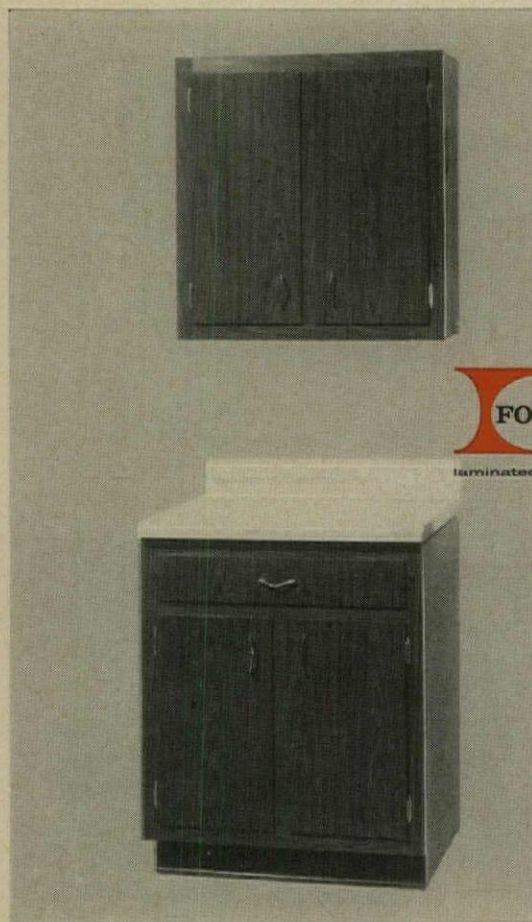
OHIO, Cleveland
Parma Top Co., Inc.
3000 E. 55th St.



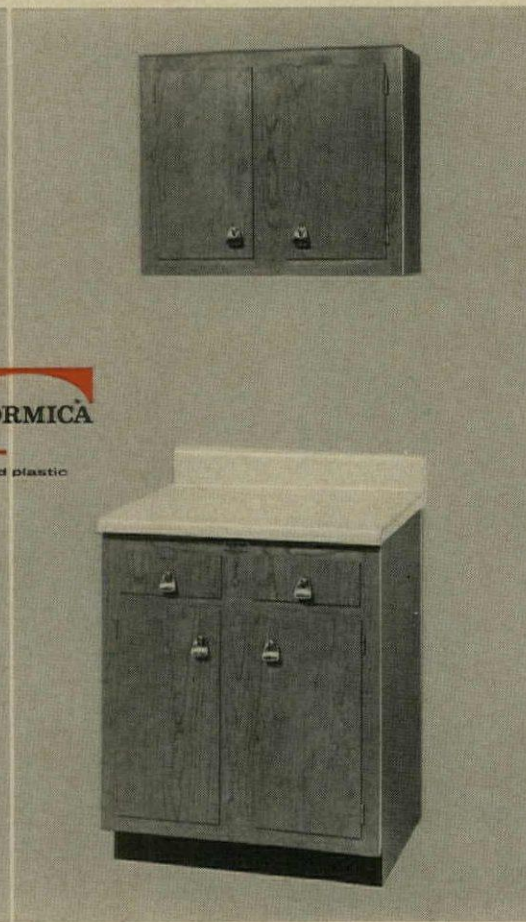
PENNSYLVANIA, Elrama
Drechsler Cabinet Co.



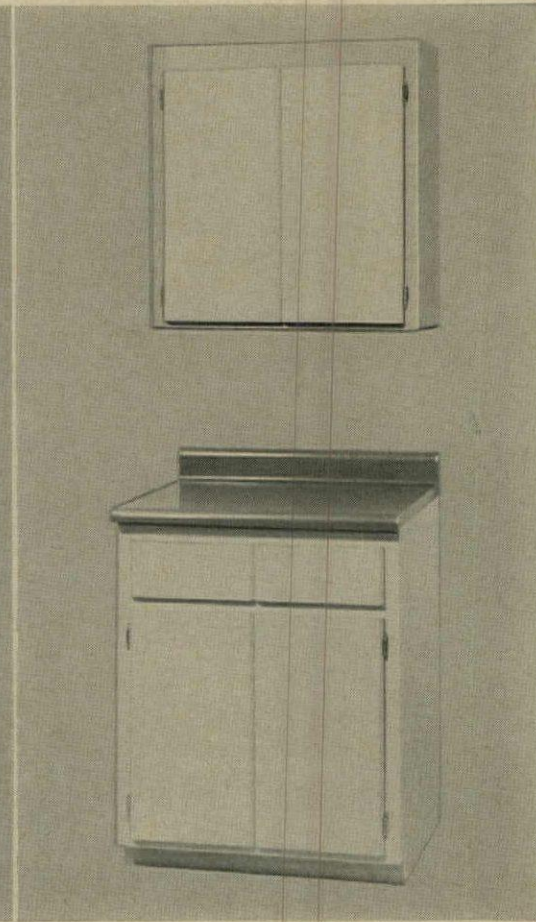
PENNSYLVANIA, Hamburg
Ernst Cabinet Works, Inc.
51 Primrose Street



PENNSYLVANIA, Pittsburgh 1
Custom Top Co.
146 - 46th Street



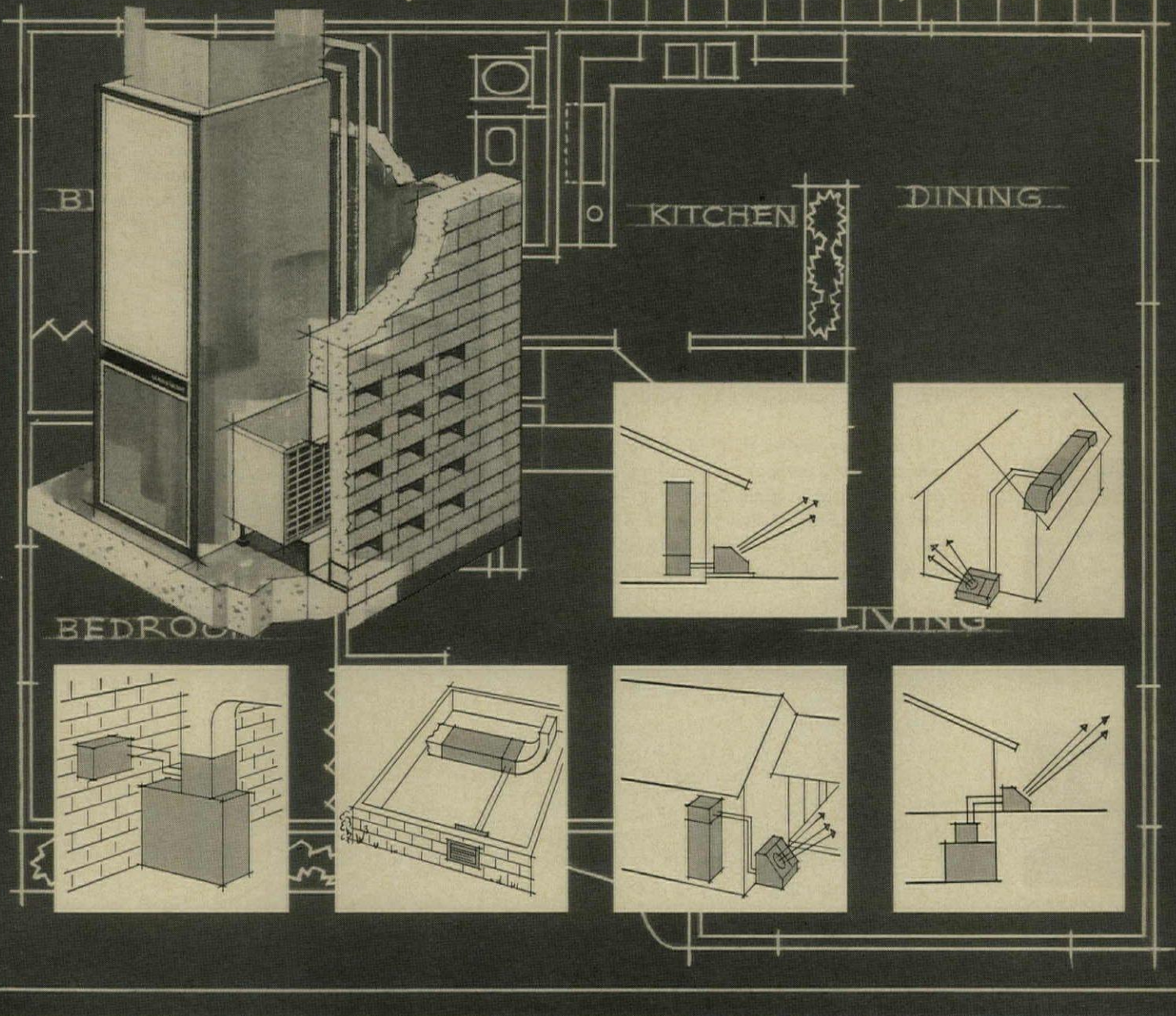
WEST VIRGINIA, Dunbar
Wholesale Services, Inc.
1400 Ohio Avenue



WISCONSIN, Menomonee Falls
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JAMES V. MORGAN
These advances will cut both first cost and maintenance costs.

governs? How can they fail to be still more confused by 34 structural grades of southern pine, most of them likewise taking the same spans, but none of them coordinated with the 28 grades of Douglas fir?

Consolidating and simplifying all these grades and coordinating the grade markings of the various species was the first job tackled back in 1961 by the Lumber Manufacturers' Grade Simplification & Standardization Committee (gssc). This committee has now proposed that for light construction all of today's 139 structural grades for dimension lumber (none of them exceeding 1,760,000 E) should be coordinated and consolidated into just two primary framing grades—standard and utility—with each species enforcing as nearly as possible the same re-

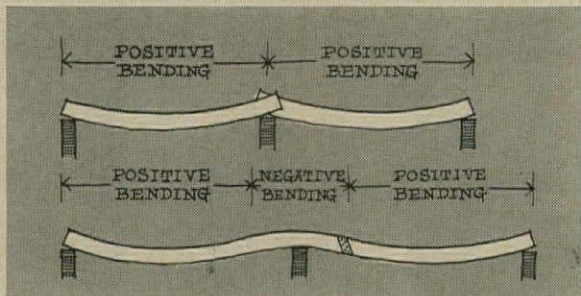
quirements for each grade. The differing span values for the various species would then be indicated by the letters A, B, C, D, and E, with A covering the three species with today's top E factor, southern pine, Douglas fir, and larch. In addition, there would be a premium appearance grade for framing lumber to be left exposed; and two higher stress levels (AA and AAA) would be added for the higher stresses that would then be made possible by the new machine rating.

In addition, the gssc has proposed that today's 18 finish grades should be consolidated and coordinated in just two—supreme and prime—and all today's 25 board grades should be consolidated and coordinated into four—premium, special, standard, and utility.

Cantilevered instead of simple joist design can save \$30 or more a floor in most houses

This is the newest idea for wasting less lumber in housing.

Everybody knows that, for deflection, continuous design over a support is more efficient and more economical than simple design with beams supported only by the ends (drawing below). The continuity effect of nailing joints with the maximum lap was shown to be nearly 90% by the NAHB Research Institute two years ago.



But no advantage has ever been taken of this knowledge in volume homebuilding. Until this year, in fact, no one talked much about its potential for savings; no one developed span tables for continuous design; no one developed the connectors needed for butting framing members end-to-end near the point of minimum moment a foot or two off the point of support; so no one even asked approval from FHA and the codes.

Now NLMA's timber engineering (TECO) subsidiary has developed such a connector (price 40¢ or say \$11.60 for a 1,200 sq. ft. floor), worked out complete span tables for cantilevered design, and completed extensive tests to show it is both easy and practical. Said Assistant FHA Commissioner Canavan: "The advantages of continuous beam construction are obvious." We all hope FHA will be able to accept it as soon as its inspectors have checked the TECO tests. Code acceptance of the principle and the span tables is not expected to be a problem, but TECO and any other manufacturer of metal or plywood connectors will need to get specific product approvals.

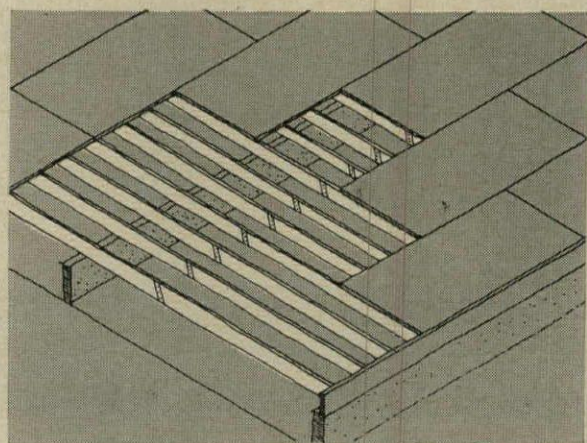
If approved, continuous joist construction promises these three savings:

1. In many houses it would permit 2" shallower joists; e.g., 2x8s instead of 2x10s for a 28' width

with one intermediate support. This alone could save \$30 or more under a 1,200 sq. ft. floor.

2. Less non-standard-length joists would be needed. For example, a 30' wide house could be spanned by an 18' and 12' piece (two standard lengths) instead of two 15' pieces whose non-standard length would involve cutting off and wasting 2' or nearly 7%.

3. Butting the joists instead of lapping them over the point of support (as almost all builders do) would save at least 1% of the combined length of the two lapped members.



Furthermore, with or without continuous joist design, joists butted in a straight line are much better than joists offset by lapping if a builder is to achieve the full economy of completely modular panelized floors like plyplank and 2-4-1 plywood (shown in drawing above).

Some architects and builders are afraid the lumber saving of cantilevered design would be lost on higher labor costs to make the rigid connections and on higher engineering costs to get longer spans approved. But our technical advisors point out that 1) all the necessary engineering is already spelled out in TECO's continuous-joist span tables, "so simple that any one who can read can use them," and 2) plate connections would be just as easy in joists as in trusses, which will be used in nearly half the houses built this year. Added NAHB Research Director Johnson: "The joint in the joist will be reinforced by the stressed skin action of a plywood or plyplank flooring or sub-flooring."

One further suggestion was offered by Engineer Dietz: "True continuity can be achieved by glue-scarfing the pieces—even a plain 1-in-10 scarf would waste only 0.83 bf in a 2x4 and about 1.06 bf in a 2x10 using 1½" thickness. Finger-scarfing would waste less. A good glue-scarf will develop just about

full strength and stiffness, something a mechanical fastener may not do. Fast scarf-jointing can be done by electronic heating of the glue line. A local yard could be set up to do this. Full-length joists could then be delivered, eliminating all field labor making a joint."

Easiest waste to stop is \$50 million a year for plywood thicker than DFPA recommends

Coast-to-coast market research has just satisfied the Douglas Fir Plywood Assn. that most builders use plywood one thickness heavier than DFPA recommends or the codes require, averaging more than 20% above what is needed. On a typical 1,500-sq. ft. house with plywood subfloors and plywood roof sheathing, this over-size would run up the cost more than \$50.

DFPA blames some of this waste on widespread failure to understand its grade-marking system, which now includes 32 grades for sheathing; so DFPA is working to develop a new nine-grade system that will probably disregard species and just stamp on each piece: 1) whether its grade is Structural (for box beams, stressed skins, etc.) Standard, or Utility; 2) whether it is waterproofed for exterior use; 3) its recommended span as roof sheathing and its recommended span as subflooring. A mark of "24-0", for example, would mean recommended for 24" spans as roof sheathing, but not recommended

at all for subflooring.

"With these numbers we think we'll have something everyone can understand and apply economically," said DFPA Executive Vice President Turnbull.

Some members of our panel questioned the adequacy of DFPA's recommended ¾" thickness for plywood roof sheathing, reporting that in many areas homebuilders and homebuyers alike have found ¾" unsatisfactory because it sags between the trusses. To this complaint NAHB Research Director Johnson answered: "That's just because the carpenter kneeled on the sheathing while he was nailing it in place. If he would nail before he kneels, ¾" plywood would not sag."

Said Builder Schmitt: "I can show you a thousand roofs over ten years old with ¾" sheathing where the trusses haven't telegraphed through."

DFPA is confident that if builders would use plywood more wisely and more thriftily they would buy even more of it (1962 total sales: 9 billion sq. ft.).

At least \$20 million a year is wasted because lumber lengths don't fit today's houses right

No builder uses 8' studs, but all builders still have to pay for 8' studs and some builders still have to pay the mill for cutting 4" or so off their studs so they won't have to pay freight on the 4" they can't use. Eleven years ago the Homebuilding Committee of AIA joined NAHB in urging lumber manufacturers to bring their stud length standard in line with the 7'8" length on which most homebuilders were standardizing—the stud length that goes with 8' dry wall. Most of us think it is high time the lumber

manufacturers paid serious attention to this joint request, for this 4" cut-off waste on studs adds up to about 200 bf or \$12 a house. On one million houses, this multiplies out to \$12 million worth of wasted lumber a year.

Making longer lengths available in 1' standard increments instead of today's 2' standard increments would save millions of dollars more because, for example, builders often have to pay for 2x8s 14' long when all they need is 12'4".

Most overdue change to eliminate waste is to save the \$ millions wasted on bridging

Way back in 1954, Forest Products Laboratory conducted careful tests and published a long report concluding that bridging contributes very little to the distribution of concentrated loads and therefore serves little purpose in light construction, though it might give lateral stability to the deep joists used in heavy construction.

But still today bridging is required by all the codes and FHA, including all the proprietary model codes that have a lumber section! In the intervening nine years builders have had to spend (and homebuyers have had to pay) well over a quarter of a billion dollars (at \$25 to \$85 a floor, mostly for

labor) for this extra that federal research found so nearly valueless so long ago.

Last year NAHB's Research Institute tackled the bridging question again and conducted still more exhaustive tests. These confirmed the Forest Products Laboratory finding that bridging is not much good for distributing concentrated loads ("On the average in houses it contributes only .003" to reducing deflection with a 250 lb concentrated load directly over the joist in the center of the span," said Research Director Johnson). And then NAHB went on to disprove the other three claims made by bridging advocates.



RALPH H. BESCHER
Wood can be used in the ground to last 25, 50, or 100 years.



JAMES R. TURNBULL
We were shocked by some of the things we learned from our market research.



JOHN ODEGAARD
There is a \$50 bill waiting for any builder who uses plywood ¾" instead of 1½".



DANIEL B. GRADY
Modular design leaves us freedom enough to get all the variety we need.



RICHARD B. POLLMAN
Mortgage lenders should take more interest in what modular design can save.



RAYMOND HARRELL
Something superfluous has gotten into truss design.

continued on p. 159

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4 staples

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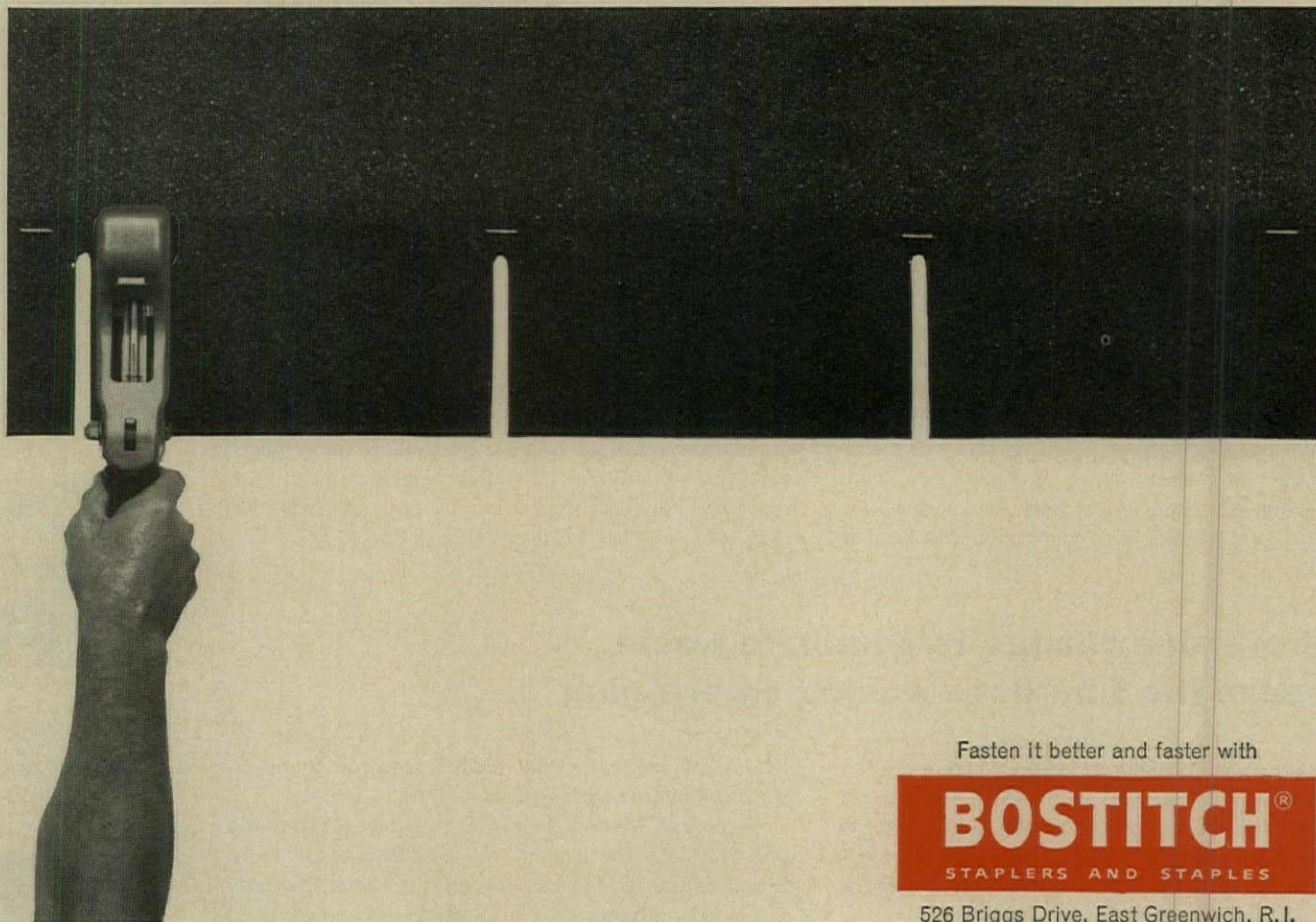
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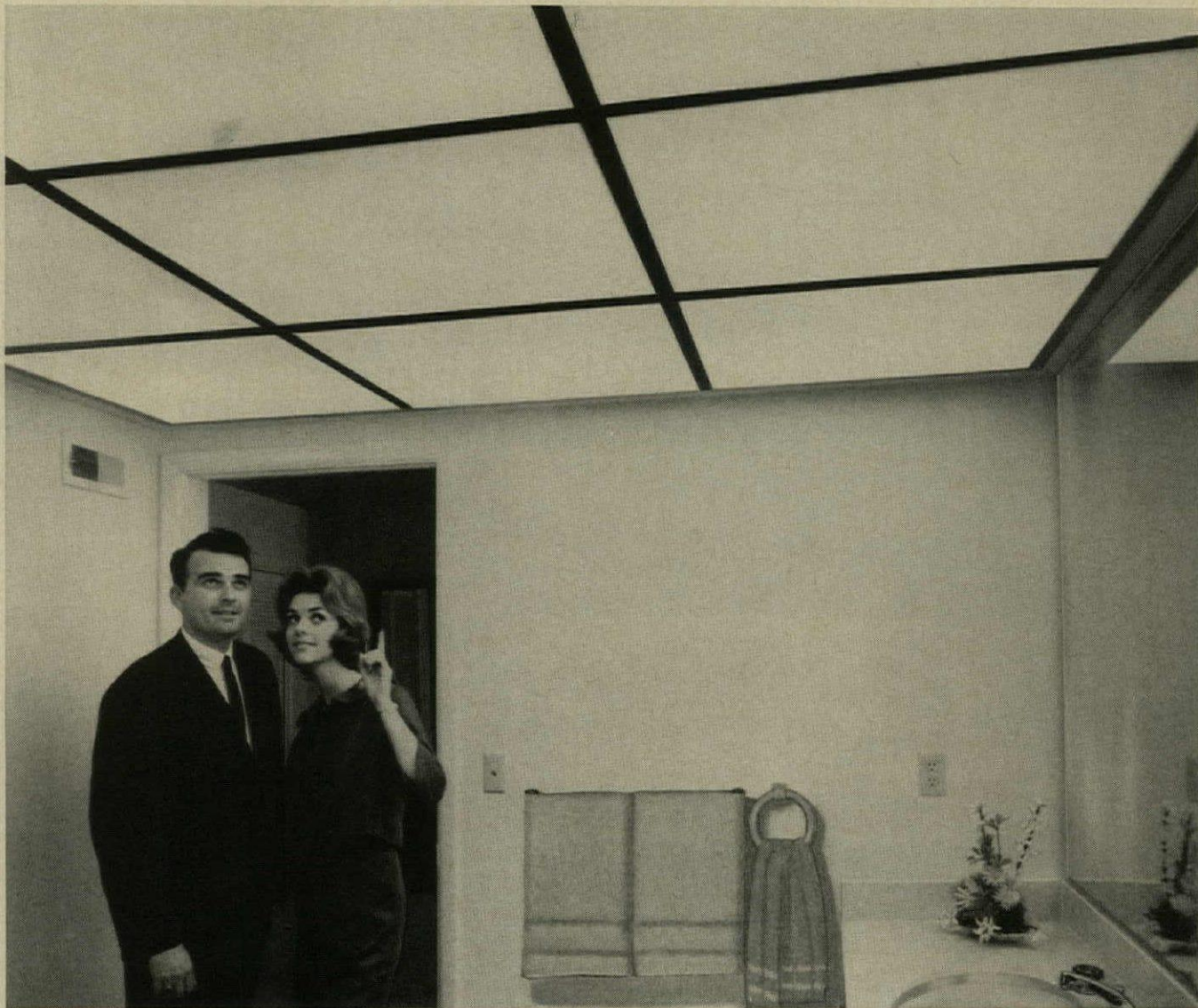


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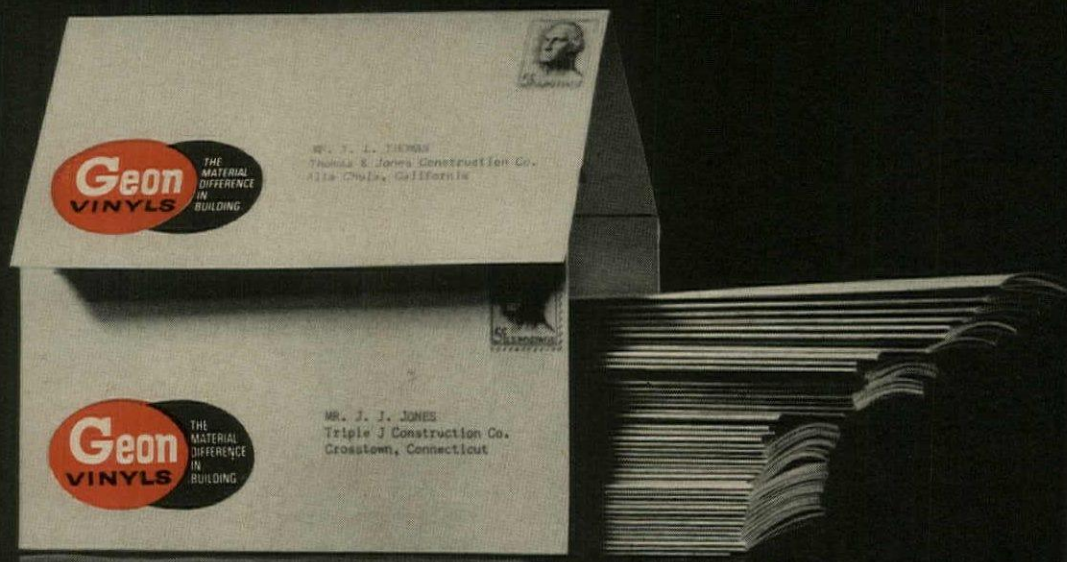
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Specifically, this NAHB research showed that:

1. Even if the joist had no lateral support at the ends and even if the joist had no compression support on the topside (neither of which conditions even occurs) a 2x10 could take a concentrated load of over 1,000 lbs. in the center of the span (e.g., four big refrigerators) before lateral support would become critical.

2. Even without bridging, span deflection perpendicular to the joists is much less than the accepted design deflection with bridging.

3. With bridging the effect of vibration is, if anything, more unpleasant than without.

Even if well-installed bridging were functional and worth its cost, the plain truth is that most bridging is so sloppily installed that it is completely useless. Said NAHB Research Director Johnson: "Our field research found that bridging, as commonly applied, is only one-sixth as effective as the cabinet-maker's-quality bridging we found almost useless in our laboratory. The reason is simple: Carpenters don't think it is worth a darn and they all hate the work, because to do it they either have to nail upside down standing on top of the joists, or nail overhead crawling on their backs like a snake under the house."

FHA and all the codes should allow 15% greater strength for repetitive members

In light-frame wood construction, builders have never been allowed to take advantage of the obvious engineering fact that loads are shared where the members are repeated at relatively close spacing. On the contrary, working stresses are still assigned on the assumption that each piece must carry its own load and each may be separately responsible for the safety of the structure.

Now, at last, the American Society for Testing & Materials has formally recognized the principle of load sharing (ASTM D 2018-62T). At the very least this will permit 15% higher working stresses (and perhaps as much as 20% or even 40%) for bending, tension, and compression parallel to the grain (but not stiffness) for joists, rafters, and trusses spaced 24" apart or less.

On most rafters (where bending strength is governing) this could permit sizable savings from longer spans, shallower depths, or lower grades. On trusses (where bending, tension, and compression strength are all important for one member or another), it could permit using 2x4s in many truss lengths and spans that now require 2x6s. On joists, where stiffness is more often governing, it could permit savings from the use of shallower or lower-grade beams on quite a few short spans, but on very few longer spans.

The Canadian National Building Code has already preceded ASTM

Armed with a 124-page report on this research, NAHB got NLMA to join in asking FHA and the model codes to drop their bridging requirement for light construction. As of the date of our Round Table ten months later, none had done so. The Southern Building Code turned the change down flat. The BOCA code-changes committee recommended rejection; the engineering subcommittee of the International Code recommended approval under the first floor, but not under a second floor. Final action by I.C.B.O. is still pending. Only the Public Housing Administration has taken a firm position, issuing instructions that no more of its money is to be spent for bridging.

So it is important news that the participating FHA executives announced at our meeting that FHA would soon issue an engineering bulletin that will drop bridging from FHA requirements for clear spans up to 15' if: 1) 25/32 t&g wood-strip finish is installed at right angles directly to joists 16' o.c.; 2) t&g wood-strip finish is installed at right angles to joists over a proper subfloor; 3) any other type of finish flooring is installed over proper underlayment over a subfloor.

And these flooring requirements would be waived for small spaces.

This bulletin would dispense with at least 90% of the bridging now required, and we are unanimous in urging the model code authorities to follow FHA's lead as soon as they can.

D 2018-62T two years ago by allowing 10% higher working stresses for load-sharing members. We can see no good reason for second-guessing ASTM on 10% vs. 15%, so we are unanimous in urging that U. S. span tables allowing at least 15% higher stresses should be accepted by FHA and all the codes.

Said Engineer Dietz of M.I.T. "This is an opening wedge to start engineers and others thinking about the interaction of all the parts of the house instead of just the individual member. This should lead to very much better engineering, which will eventually permit much greater economies than the initial saving ASTM has just spelled out for us."

To that end NAHB's Research Institute is working on continuity of floor joists and headers and the T-beam action of sheathing.

To that end the National Lumber Manufacturers Assn. is sponsoring and financing a major research at Virginia Polytechnic Institute to study the interaction of walls, partitions, floors, and roof. As the house is built the performance of each part will be measured and its contributory effect determined; then the entire building will be subjected to load until failure. All of us recognize the great importance of this research, and we share the Lumber Manufacturers' hope that it will develop sound information that will permit designing houses as a unit.

Every month's delay on saner truss standards costs homebuilders and homebuyers \$1 million

"All we know for sure about trusses is that they are all overdesigned and we're paying millions of dollars too much to get trusses much stronger than we need. Even the weakest trusses today are much stronger than joists and rafters; they require stronger wood and many more nails in the connections; but we still suffer from a fear complex that something will go wrong, even though there is not one reliably reported case of truss failure in two million houses truss-framed since 1955." So said Builder Schmitt, and everybody agreed.

Ten years ago this was hardly a problem, because hardly anyone was building with trusses. But today half the new houses are framed with trusses instead of rafters; builders are using much more than ten million trusses this year and paying much more than \$100 million to buy them. We can no longer afford to let truss engineering lag so far behind truss demand.

"We don't even know what standards a truss must meet," said NAHB

Research Director Johnson. "On any truss design you can get as many answers as there are engineers, and we end up with a six-to-one safety factor because there is no agreement on which engineers' assumptions are right.

"Some of these assumptions raise questions that aren't easy to answer, like how rigid is a semi-rigid connection? What kind of workmanship can we assume? How often will the truss be flexed in its weak direction by being picked up flat, and what will that do to the connections? What moisture content variation can we assume over how many cycles and so what nail-holding strength in the connectors? What about loads and what about cantilevered overhangs? How much can today's 2½-to-1 safety factor be reduced with machine-rated lumber?

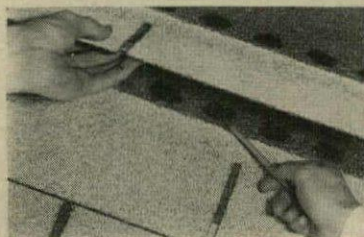
"And after you agree on all these assumptions you end with 26 simultaneous differential equations that you have to feed into a com-

continued on p. 161

“THE ONLY CALLS WE GET ABOUT BIRD ROOFS ARE COMPLIMENTARY ONES”

“We’ve never had a dissatisfied customer with Bird Wind Seal Shingle Roofs,” says Mr. Clarence J. Nopper, of Nopper Home Builders, Inc., Toledo, Ohio. “Homeowners are universally delighted with the outstanding quality of Bird Wind Seal Shingles . . . with the way they withstand the strongest wind storms, for instance. And the women always make a point of mentioning their exceptional beauty too.” □ “And speaking of beauty,” Mr. Nopper continues, “the new Bird Architect Vinyl Floor Coverings are really impressive. People are attracted first by the superb colorings and attractive appearance of Bird Architect® Vinyls, and they’re completely sold when they realize the long-lasting practicality.” □ From roofing to flooring, Bird both fulfills the desires and solves the problems of contractors, homeowners and builders like Mr. Nopper. Write us today for complete information.

BIRD WIND SEAL® SHINGLES



7 REASONS WHY YOU’LL LIKE BIRD WIND SEAL SHINGLES

- Powerful seals spaced for drainage
- Proved to hold fast in hurricanes
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- Install in the usual way . . . no pulling apart or turning
- Long lasting double-surfaced construction
- Guarantee bonded, with bonds backed by the Travelers’ Indemnity Company
- Advertised to your customers in consumer magazines

BIRD & SON, INC., EAST WALPOLE, MASS. • SHREVEPORT, LA. • CHICAGO, ILL. • CHARLESTON, S.C. • PERTH AMBOY, N.J.

puter because you won't live long enough to solve them any other way."

So for two years an industry committee sponsored by NAHB has been trying to get everyone involved to agree on a uniform method for calculating and engineering truss designs—the Joint Industry Advisory Committee on the Engineering Design of Residential Roof Trusses. One subcommittee is working on design standards and one on performance standards, and a team at Purdue University is working on a program for feeding the data into a computer. The first subcommittee's standards have been outlined and a first draft awaits completion of research work on joints and full-scale trusses currently

underway at the Forest Products Laboratory, Michigan State, and Purdue; the second subcommittee's standards have gone through nine drafts, and these standards are at last ready to go to the full committee for final approval. Everybody with a vested interest has been heard, so perhaps the upcoming truss standards can be formalized as American Standards within a year. We are unanimous in hoping it will permit at least a 10% saving under the costs imposed by today's too-stiff requirements.

Meanwhile, FHA still has a six-month backlog of truss designs it has not yet had time to figure out for acceptance or rejection under the present standards.

New low-profile framing can cut joist cost and drop crawl-space houses to slab height

This is the newest idea for building better for less with wood. Its dual purpose is to cut costs and give crawl-space houses the same low look that homebuyers like in slabs. It is so new that NLMA, which sponsored the Washington State University research that developed it, has not yet had time to ask FHA acceptance or model code approval.

The problem is how to drop the wood framing down within 4" to 9" of the ground when both FHA and many codes require an 18" height, on the theory that termites may build tunnels 18" high to get up to the wood.

The solution offered:

1. Poison the ground under the house. Said Builder Grady: "This costs \$50 to \$75 for a tract operation." Said FHA's Canavan: \$150 for a one-at-a-time house."
2. Lay \$10 worth of synthetic rubber perforated hose under the joist lines, so the soil poisoning can be repeated if necessary. (But some entomologists say re-poisoning would not be needed.)
3. Cover the ground with a good vapor barrier.
4. Provide closely-spaced (as close as 4') support for the joists on small concrete blocks resting on blobs of concrete poured on top of the vapor barrier and leveled off while still wet.

5. Termite-proof the joists. Because the close-spaced supports would permit joists only half the usual depth, this would cost as little as \$30 per house.

6. Space the joists 4' apart, spanning from joist to joist with ply plank, 2-4-1 plywood, or some other material accepted for 4' spans.

7. Use the space between floor and vapor-barrier as a heating plenum, thereby keeping the air dry and not conducive to termites.

Said Researcher McKean: "The cost works out just about the same as a slab — sometimes a little more, sometimes a little less, depending on the grade."

Said Builder Schmitt: "Soil poisoning is a better investment than termite shields — especially the way plumbers and heating men cut up the shields."

Said Researcher Fleischer of FPL: "This sounds like a good idea and perfectly practical."

Said Builder Grady: "This would be fine for retirement houses, where it is important not to have to step up."

Said Builder Schmitt: "The biggest saving of all would be the saving in winter construction. The cost of soil poisoning and wood treatment would be nothing compared to the extra cost of building on slabs in cold weather."

Right now builders could save \$ millions through the discipline of modular design

Without waiting for FHA and the codes to accept 1½" dry lumber, up-to-date span tables, machine grading, load sharing, wider spaced studs, unbridged joists, or any of the other ways better technology and better engineering can make it cost less to use wood better . . .

Architects and builders can save many millions of wasted dollars by subjecting their house plans to the discipline of modular design on either a 16" or a 24" module.

On all but the most thoughtfully dimensioned of today's houses this could be the biggest saving of all, reducing not only the cost of framing, but also the in-place cost of many other components. For example, some builders now waste almost as much money making their houses fit misfit windows as they pay for the windows; many builders spend \$30 or \$40 a house to cut off and throw away yards of wall-to-wall carpeting because they forgot to dimension their rooms to fit this costliest of common elements.

Two important systems for modular discipline are now available:

First of these in point of time is the Lu-Re-Co system, developed by the Small Homes Council at the University of Illinois on a grant from the Lumber Dealers Research Council. This was first introduced in 1954, when it pioneered the panelization of non-prefabricated houses, and it has since been re-evaluated and improved in many ways. It permits panelizing all walls and partitions on a 4' jig and offers its maximum economy when dry wall, sheathing, siding, and all doors and windows are positioned on the jig. It spaces studs 24" o.c. to compensate for requiring double studs where its panels meet; it uses

glue-nailed plywood to make box beams over bearing-wall openings that would otherwise require deep headers—headers that cost an average of \$40 a house and cause many plaster cracks by their unequal shrinkage. Its economy is hard for a small builder to beat if architect and builder are willing to accept the design limitations of its 4' module (with or without an occasional 2' panel filler) but many larger builders think they can frame their houses cheaper with larger panels.

Second of today's two modular disciplines is UNICOM, sponsored in 1962 by the National Lumber Manufacturers Assn. and developed with the most precise detailing by Designer Pollman. This is a completely flexible system based on either a 16" or a 24" module. It works equally well for large or small panels, tilt-up, or one-stud-at-a-time construction. It is detailed not only for one- and two-story houses, but for split levels too. It embraces not only wall systems, but also modular floor systems, modular stair systems, and modular truss and roof systems with modular 2' span increments from 12' to 32' and modular pitch increments from 2-in-12 to 7-in-12.

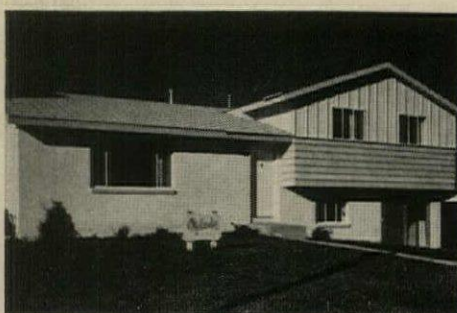
UNICOM is spelled out in complete detail with all the necessary drawings and all the necessary engineering data in two very fine works, one issued by NLMA in 1962, the second soon to be released.

Both Lu-Re-Co and UNICOM are so good that we wish their sponsors would get together and agree on the same stud length. We think it is too bad that UNICOM calls for studs 7'8½" long, Lu-Re-Co 7' 8" long, thereby discouraging the \$12-million-a-year saving we could expect from the standardization of stud lengths (see p. 155).

HERE'S BUILDER ACCEPTANCE! Since 1957



IN ILLINOIS: "No other building material has as much curb appeal."
William L. Lee, Palatine



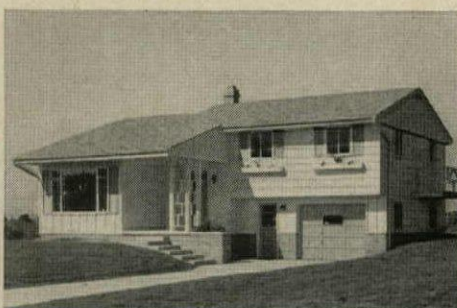
IN COLORADO: "Insulite gives our buyers more for the money."
Melody Homes, Boulder and Aurora



IN MINNESOTA: "Striking beauty pulls prospects in . . . pre-sells our homes."
Ray Kroiss, St. Paul



IN NEBRASKA: "Builds our reputation for quality."
Lippold Construction Co., Omaha



IN OHIO: "We use all three kinds of Insulite for design variation."
R. M. Jones, Inc., Toledo



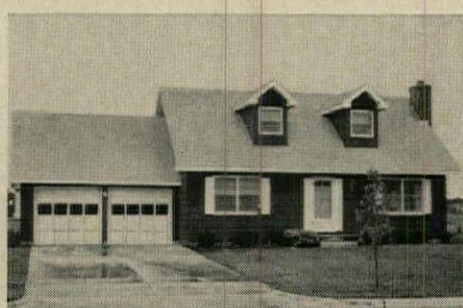
IN MASSACHUSETTS: "Good prime coat helps me lick the weather."
Andrew J. Lane, Hudson



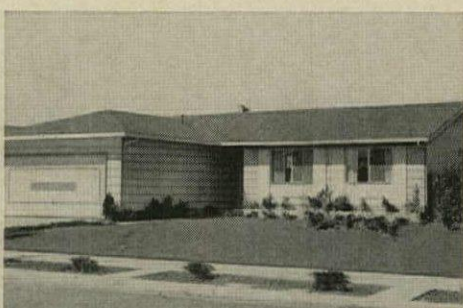
IN OKLAHOMA: "No knots or splits with Insulite."
David L. Dillion, Tulsa



IN KENTUCKY: "Goes up looking good . . . and stays that way."
Ball Homes Inc., Lexington



IN KANSAS: "Easier to handle, easier to nail than shakes or wood siding."
R. Eugene Lawrence, Wichita



IN CALIFORNIA: "No splits, no paint callbacks."
Leep Construction Co., San Jose



IN WEST VIRGINIA: "I've never had a siding callback since I switched to Insulite."
Mel Wright, Huntington



IN NEW YORK: "Insulite lets us start selling outside the house."
Orioli Bros., Penfield



IN VIRGINIA: "Saves time and money on the job."
Rashkind & Rosen, Norfolk



IN SOUTH CAROLINA: "Excellent dimensional stability."
Mauldin Co., Greenville



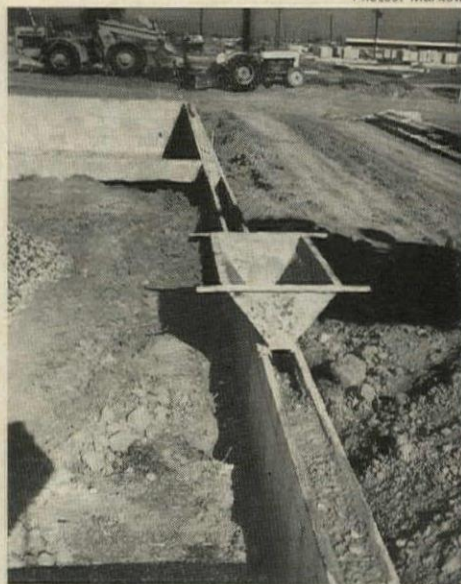
IN DELAWARE: "Here's quality I can sell."
Walter J. Ellis, Dover



FOOTING IS POURED (see chute, rear) to rough level in trench dug by trencher. Guide lines for top of foundation were staked in after trenching.



SPECIAL BLOCKS ARE SET into still-wet footing so upper edge aligns with line. Lugs on base of block penetrate into concrete.



CONCRETE IS PLACED inside row of stem blocks after footing has set. Sheet metal funnel is homemade; it can be handled by one man.

Photos: Markow

Foundation system eliminates form work and trowel work

The 8"x8"x22" U-shaped concrete blocks above are called stem blocks and serve as form, sides, and guide lines for a poured concrete foundation wall. No stakes, forming lumber, levels, or trowels are needed. "Once the foreman has set his lines almost anyone can put in the foundation," says Phoenix

Builder John Hall, who started using the system last year. "The new system is competitive with a formed concrete foundation wall—less than \$1.50 per linear foot—but it has two special advantages: It gives a smooth concrete finish without burrs, and it gives a foundation that is right on with a minimum

of labor and measuring. We never have to shim up the top of the foundation with mortar to get a level base for the wall."

Two 3/8" rods hung on wire hangers inside the block wall before concrete is placed reinforce the wall. Block is made by the Superlight Building Supply Co. of Phoenix.



Photos: Goldrath

MOTEL WALL SECTIONS, loaded on truck in erection sequence, are placed by crane.



SIX-MAN CREW sets all walls, ready for trusses, at a rate of 1,000 sq. ft. of floor area per hour.

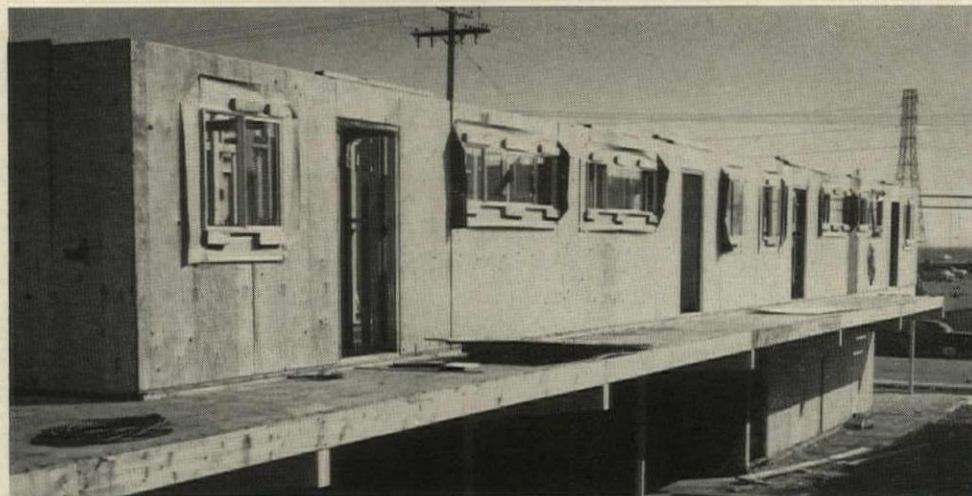
Prefabber speeds motel and apartment building with special components

In San Carlos, Calif. Prefabber TWM Homes worked out the system for Builder Shu Tan, who is erecting the motel shown at left and the apartment below.

Components for first-floor bearing walls in the three-story apartment are framed with 3x4 studs 16" o.c. Sheathing is 3/8" plywood which receives a stucco finish.

Components for two-hour fire walls (stipulated by San Carlos code) are framed with 2x6s 16" o.c. with two layers of 5/8" drywall on both sides. So the fire walls can also serve as shear walls, 3/8" plywood is fastened beneath the drywall on one side of studs.

Party walls between units have studs staggered 8" o.c. on a 2x6 plate, with insulation interwoven for sound control.



THIRTY-UNIT MOTEL was finished in 90 days. It is shown ready for roof and stucco exterior.



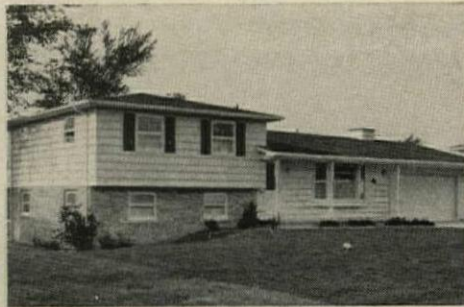
APARTMENT will be built with components.

Book reviews start on p. 168

Insulite Primed Siding is performance-prove



IN SOUTH DAKOTA: "Doesn't split when we nail or saw."
Tabbert Inc., Sioux Falls



IN MICHIGAN: "A beautiful, quality product."
Modern Builders, Lansing



IN PENNSYLVANIA: "The way Insulite takes paint is almost too good to be true."
Arthur W. Blaker, Yardley



IN TEXAS: "No guesswork. Insulite comes in uniform lengths and thicknesses."
Gladwin Construction Co., Arlington



IN OHIO: "Our carpenters like to work with it."
Sims Bros. Inc., Marietta



IN IOWA: "Looks great on homes in any price range."
Davenport Co., Sioux City



IN PENNSYLVANIA: "Saws in any direction . . . goes up with no splits or cracks."
Colosimo Construction Co., New Stanton



IN INDIANA: "Absolutely no paint blistering or cracking."
John Kleinops, Indianapolis



IN WEST VIRGINIA: "Wide widths, long lengths mean Insulite goes up fast."
C. F. Woodroe, Charleston



IN NORTH CAROLINA: "My buyers know and want Insulite."
Crestmont Bldg. Co., Greensboro



IN PENNSYLVANIA: "Pays off in appearance, performance and design versatility."
C. R. Lange, Ardmore



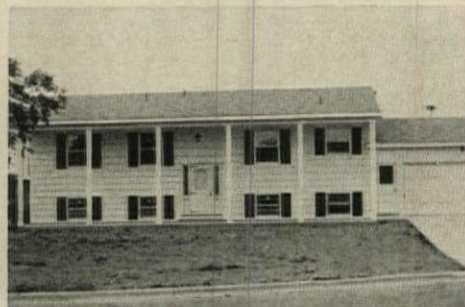
IN TENNESSEE: "Unmatched for lasting beauty."
McCallen Builders, Memphis



IN IOWA: "No shrinkage . . . joints stay butted!"
Star Homes, Sioux City



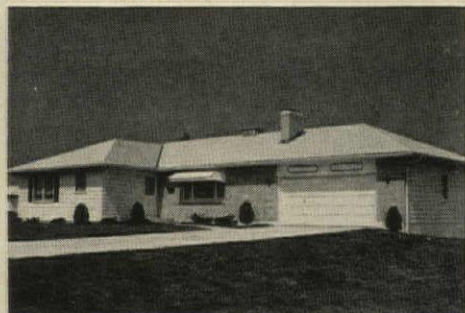
IN OHIO: "Terrific design flexibility with Insulite."
Wargo Realty, Sagamore Hills



IN MICHIGAN: "Every piece stays true . . . no warping, twisting or splitting."
James Boonstra, Grandville

ed on 375,000 homes coast to coast

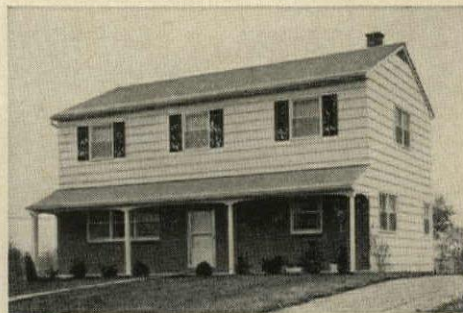
(And growing every month)



IN MISSOURI: "Goes up faster than shakes or wood siding."
Best Built, Inc., Raytown



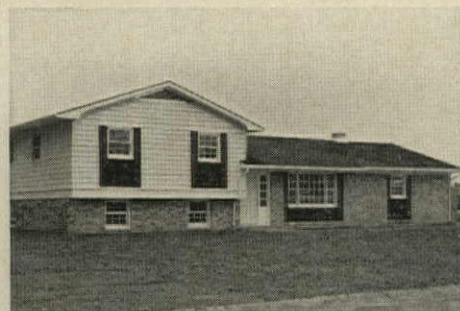
IN OHIO: "Reversible edges help us eliminate waste on gable ends."
Smith-Kettler Bldrs., Inc., Cincinnati



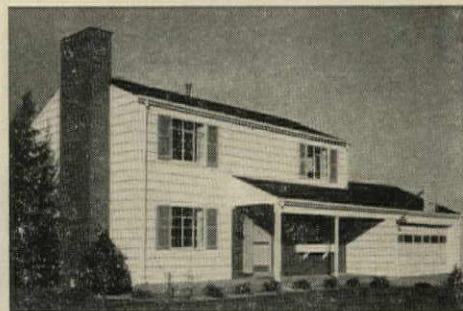
IN MARYLAND: "No shortages with Insulite. You get all the siding you pay for."
Florian & Kirschman, Baltimore



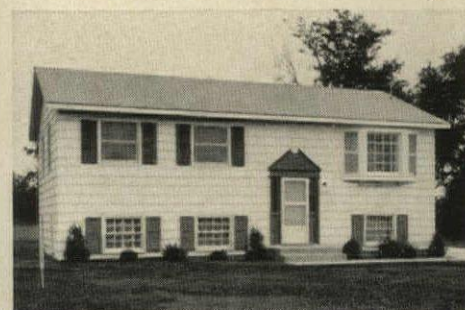
IN DELAWARE: "Little waste with Insulite Primed Siding."
Mike Toner, Wilmington



IN INDIANA: "Weather-drip edge stops paint blistering."
F & F Builders, Indianapolis



IN COLORADO: "Never a complaint in over 5 years."
H. B. Wolf Co., Denver



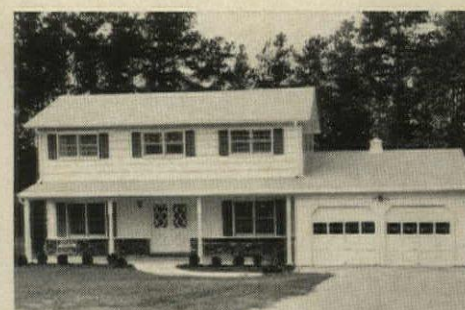
IN ILLINOIS: "Here's quality that I can save money on."
Shorewood Park, Inc., Joliet



IN TENNESSEE: "I can count on the price . . . no wild fluctuations with Insulite."
John R. Price, Realtor, Knoxville



IN CALIFORNIA: "Adds beauty to any style home."
Hal Porter Homes, Santa Cruz



IN GEORGIA: "Insulite takes paint beautifully."
Scott Hudgens Builders, Atlanta



IN NORTH CAROLINA: "We avoid the problems of grain, knots and splits."
Lashley-Austin, Inc., Raleigh



IN MISSISSIPPI: "I save time and money with Insulite."
Fonzo Finch, Jackson



IN OREGON: "Pre-priming means we can outlast the rainy days."
Cooley Construction, Portland

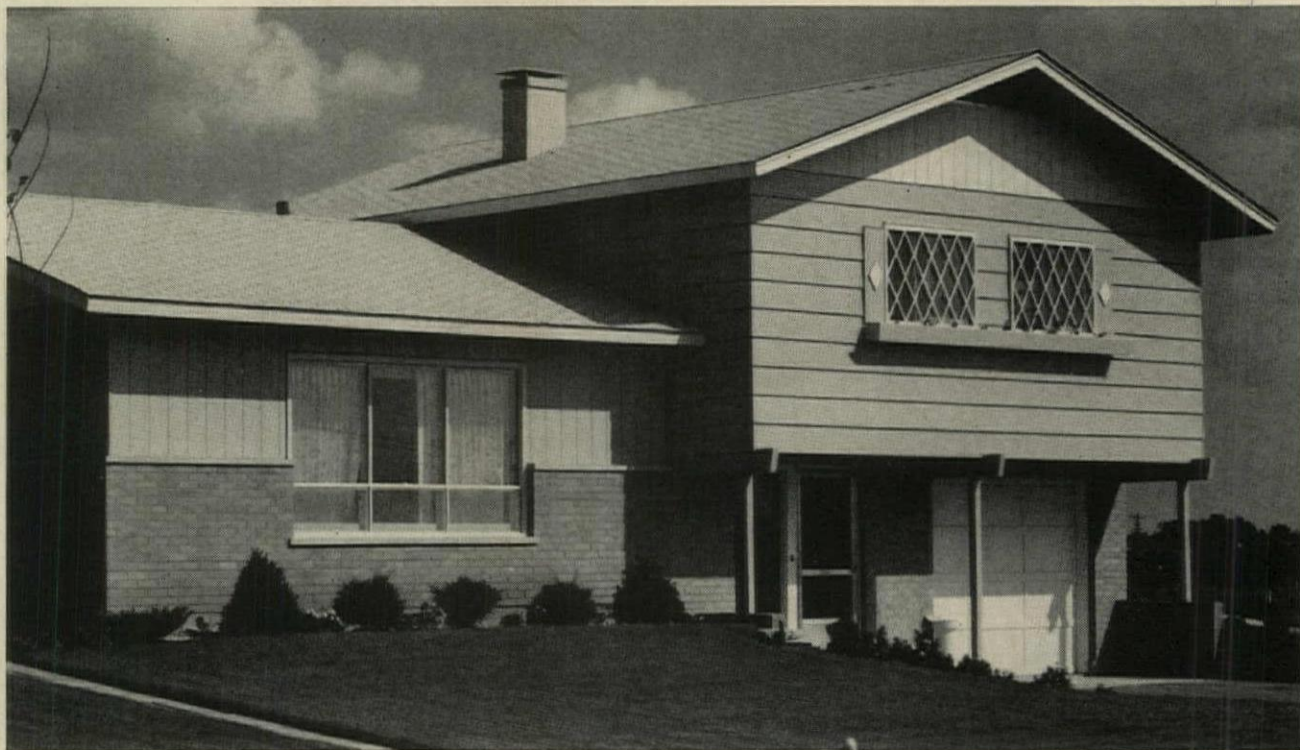


IN MASSACHUSETTS: "My customers like the way it looks."
R. P. Pidgeon, Wilbraham



IN INDIANA: "Callbacks? Not with Insulite!"
Lebrato Bros., Inc., Fort Wayne

375,000 homes built with Insulite



So why settle for less! Put the 4 proven advantages of Insulite Primed Siding to work for you

1. Extra design versatility! Now it's easy to add beauty and value to any home in any price range. Insulite Primed Siding is available in three styles . . .

- *Horizontal lap* . . . in 16' lengths, 8", 10" and 12" widths.
- *Vertical grooved* . . . 4' wide, in 8', 9' and 10' lengths.
- *Vertical plain* for board and batten construction . . . in 4' wide panels, 8', 9' and 10' lengths.

2. Goes up fast! Insulite is easy to handle, easy to work with, easy to nail into place. Saws like wood without wood's knots, grains or

splinters. No scantage; every piece is true to size.

3. Virtually eliminates callbacks! Offers exceptional dimensional stability. Many builders who have used Insulite Primed Siding for 5 years . . . even longer . . . report that they have never had a siding callback due to warping or buckling. Joints stay butted because expansion and contraction are reduced to an absolute minimum.

Furthermore, Insulite's special weather-drip edge stops wicking action, causes water to drip off outer edge . . . prevents water from seeping behind siding and causing wall deterioration and

paint blistering. And the factory-applied deep prime coat means Insulite takes paint beautifully, further resists paint blistering.

4. Curb appeal! Insulite's striking beauty pulls prospects in . . . pre-sells your homes. Extra smoothness . . . fewer, tighter joints . . . deep shadow lines . . . all work to create a lasting impression of beauty and value.

How about you? Isn't it time to put the proven advantages of Insulite Primed Siding to work for you? Before your next start, get all the facts from your Insulite Dealer. Or . . . for fact-filled, full-color brochure . . . write Insulite, Minneapolis 2, Minn.

INSULITE[®]

Primed Siding

Insulite Division of MINNESOTA AND ONTARIO PAPER COMPANY, Minneapolis 2, Minnesota





**“Coldest January in 20 years proved—
General Electric Zonelectric 42’s
heat as well as they cool.”**



“Who says electric heating is expensive?” queries H.R. Pearson, Jr., owner of Sunset Arms, new 23-unit apartment house in Topeka, Kansas. These apartments are heated and cooled by General Electric Zonelectric ‘42’ air conditioners with integral resistance heaters.

“The tenants in my Sunset Arms apartments went through 13 days of below-zero temperatures with biting 20 mph winds last January. Heating degree days (1452) were 30% more than normal...and not a complaint in the house.

“Not even about the bills.

“Total electric cost for one-bedroom units—electric heating, lighting, cooking, water heating and everything else—averaged \$21.28 for the month. Two-bedroom units

were almost as low, averaging \$26.66.

“I always knew General Electric’s Zonal ‘42’ cooling units gave tenants enough comfort control, that they were quiet, attractive, easy to install and maintain, and economical to operate. What I wasn’t completely convinced of, up to now, was that General Electric Zonelectric 42’s can do all this plus an effective economical job of heating... electrically.

“Sure you can quote me.”

This is one building owner’s experience. To get the facts for yourself about General Electric Zonelectric 42’s write:

General Electric Room Air Conditioner Department, Appliance Park, Louisville 1, Kentucky.

Progress Is Our Most Important Product

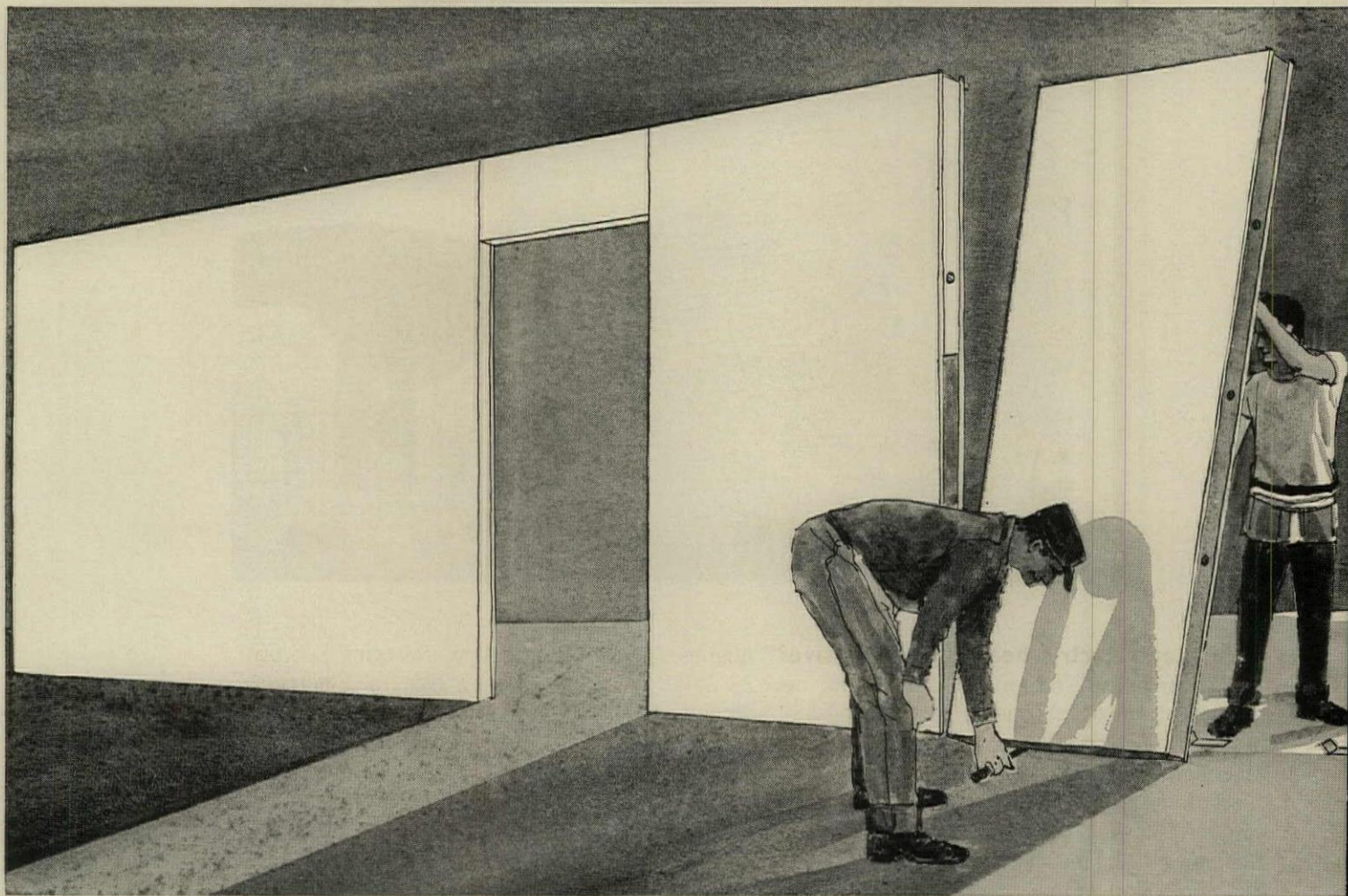
GENERAL  ELECTRIC

From U. S. Steel ... 7 ways to

These steel components helped speed construction of 1963 NAHB Research House

1. New steel-stud interior panels need no on-site cutting
2. New steel foundation system goes up fast in any weather
3. Popular steel exterior door installs in 20 minutes
4. New steel-wood beam installs fast—stays straight
5. Unique truss connectors cut labor 50%
6. New nail drives through steel
7. Experimental wire pusher cuts paneling costs

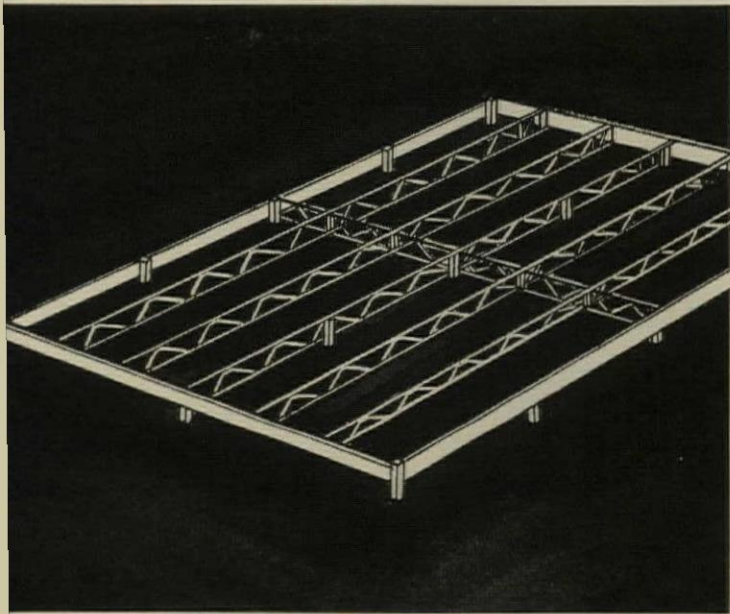
These steel home-building products, some available, some still in development, are only the first results from an all-out research program. U. S. Steel is calling on its fund of construction know-how to help home builders cut costs, speed construction, and build more saleable houses. Our work with NAHB on this practical building experiment is just the beginning. Watch for more exciting time-, motion-, and money-saving developments!



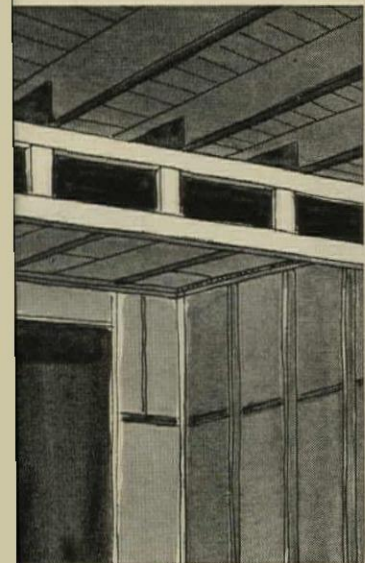
1. New modular interior partitions install quickly. These dimensionally stable and accurate interior panels are non-load bearing partitions. They are braced with steel and long-life adhesives for great dimensional stability. These panels go up as complete units, just as they are delivered . . . no on-site cutting is required. They align perfectly. Easily adapted to existing floor plans, they can be installed before or after the ceiling and/or flooring materials. Nail popping

is eliminated, reducing call-backs. They will be available in standard and insulated panels, in a complete range of sizes. Also available: header panels, edge fillers, splines, and door panels including pre-hung door and hardware. Plumbing is no problem; pipes and tubing less than 3 in. in diameter are easily installed inside, and electrical wiring can be easily routed through vertical channels.

save time, motion, and money



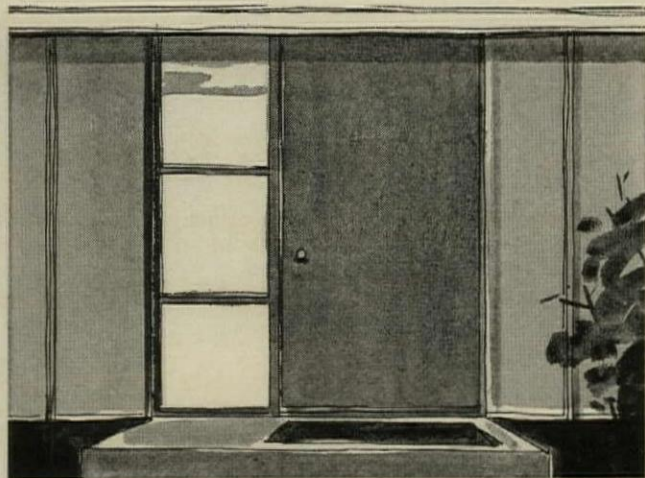
2. Steel foundation system installs fast in any weather. Four men can install this revolutionary steel foundation system in about half a day, in any weather. The only excavation needed is the boring of holes up to two ft. in diameter (depending on soil conditions) to accommodate the legs. House construction can start immediately. This system is structurally strong, completely termite-proof, eliminates cracking and spalling. Coated steel posts are secured in individual concrete pads, and joined with steel perimeter beams and interior steel joists. This system will adapt to any regular or offset rectangular plan.



4. Steel-wood beam installs fast, stays straight. A 14-ft. steel-wood beam cost only \$17.50 installed in the NAHB Research House. It weighed only 178 lbs., and supported 3.2 times its design load in tests. The 12-gage steel plates give it strength, and the 2 x 4 flanges cut the weight. Flanges and stiffeners are joined with masonry nails.



5. Truss connectors cut labor 50%. This truss connector, installed at each truss joint, is nailed from only one side, reducing labor by 50%. Both plates are formed in one piece that slides over the joint like a clip. Clinch nails are driven through the entire joint, including both plates of the connector, and are then turned back by a simple deflector, so that they clinch the entire assembly. Joints stay tight while handling, delivering or erecting.



3. Steel exterior door installs in 20 minutes. This steel door will never warp or stick. It weighs only 1/3 as much as conventional doors, yet has a solid sound and "feel." It comes in many different styles, primed and pre-hung, and installs in 20 minutes. This door virtually eliminates call-backs to adjust or replace doors.

6. & 7. New fasteners save time, cut costs. Two new joining methods contributed by U. S. Steel were a new wire pusher to speed panel installation, and a new nail that takes a ton of withdrawal power to pull out. The wire pusher (still experimental) installed paneling on a wall with savings of \$.30 per panel on studs, \$.53 per panel on furring strips, and \$.81 on underlayment.

The new nail drives through steel by hand or power driving equipment. It fastened the flooring of the NAHB Research House directly to the perimeter beams, and it can fasten the foundation perimeter beams to corner posts.

★ ★ ★

Send the coupon for more information. Some of these products are now available commercially, some are available on a trial basis, and some are still in the experimental stage. The modular steel interior panel, the steel exterior door, the steel wood beam and truss brace are available now. The foundation system and the nail are available to builders on a limited test basis. The wire pusher is still experimental.



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Modular interior partition All-weather steel foundation system Steel exterior door Steel-wood beam Truss brace Nail Wire pusher

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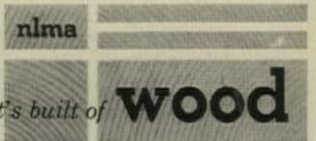
In its strip-paneled ceiling, in its random-planked floor, in its posts, beams, and bookshelves, this living room uses wood to create an unusual setting of comfort and hospitality. In any price range, the unusual comes easy with wood.

The more WOOD in the living room, the more sales appeal in the house

Exploit your prospects' preference for wood. Even a little wood does much for a living room . . . a lot more does a lot more. Elegant wood flooring promises pride of ownership, ease of upkeep. Paneled walls and ceilings surround the scene with warm, natural beauty . . . in patterns and tones to enhance any furnishings. Posts and beams give character to the room and the house. Built-ins add convenience, save space. Wood doors and windows complete the quality picture . . . of what today's home-buyer wants to buy.

As in the basic structure of the house itself, wood in the living room heightens *value* without raising cost. Use the design flexibility of wood, the easy workability of wood, to build the best homes . . . the best-selling homes . . . in your area. For more information on building better homes of wood, write:

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It's built to sell when it's built of

wood



Wood achieves a distinctive pattern effect in this living area, where the entire ceiling and much of the paneling are installed like bevel siding. A clear finish is used throughout the room to expose the natural variations of tone and grain.



Laminated beams extend outside to shelter the wood-decked porch. Wood panels the ceiling, frames the sliding glass doors and clerestory windows. Newton E. Griffith residence; Peterson, Clark & Griffith, Inc., architects.

Build-in a wonderful world of

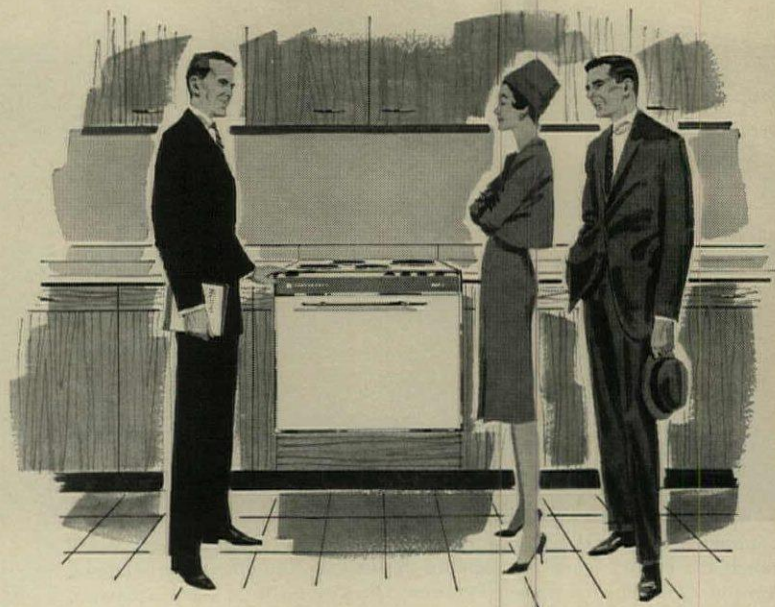


UP-CLOSE COOKING, EASY CLEANING FLAIR WALL OVEN. The jewel in any kitchen setting. And homemakers will visualize new facility in cooking and oven cleaning with the unique Glide-up glass door. Cook-Master Automatic Oven Control, of course.

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Appliances, alone, do not sell homes. Any more than nails and boards and bricks sell homes. What customers *do* want in a home is convenience, beauty, dependability, long life. Appliances are the means of giving them what they want, and if the appliances are Frigidaire, they join your *best* new home salesmen! These pages can reveal only a glimpse of the wonderful world of Frigidaire kitchen convenience and beauty. Your Frigidaire dealer or representative can open it wide for you.



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LUXURY COOKING IN A SMALL SPACE. **COMPACT 30" RANGE.** Looks—and cooks—as though it costs much more. Spacious 23" oven holds up to 6 pies at once. Easy (and inexpensive) to install in a cabinet, or between cabinets. No close tolerances required. Colors, brushed chrome or white.



THE WORLD'S EASIEST OVEN CLEANING **FRIGIDAIRE WALL OVENS.** Beautiful, too, in Kitchen Rainbow colors. Drop-leaf Door lowers all the way down, lets her step up close for easy cleaning. Pull 'N Clean lower oven. French Door model saves aisle space. Single and double oven models for every budget.



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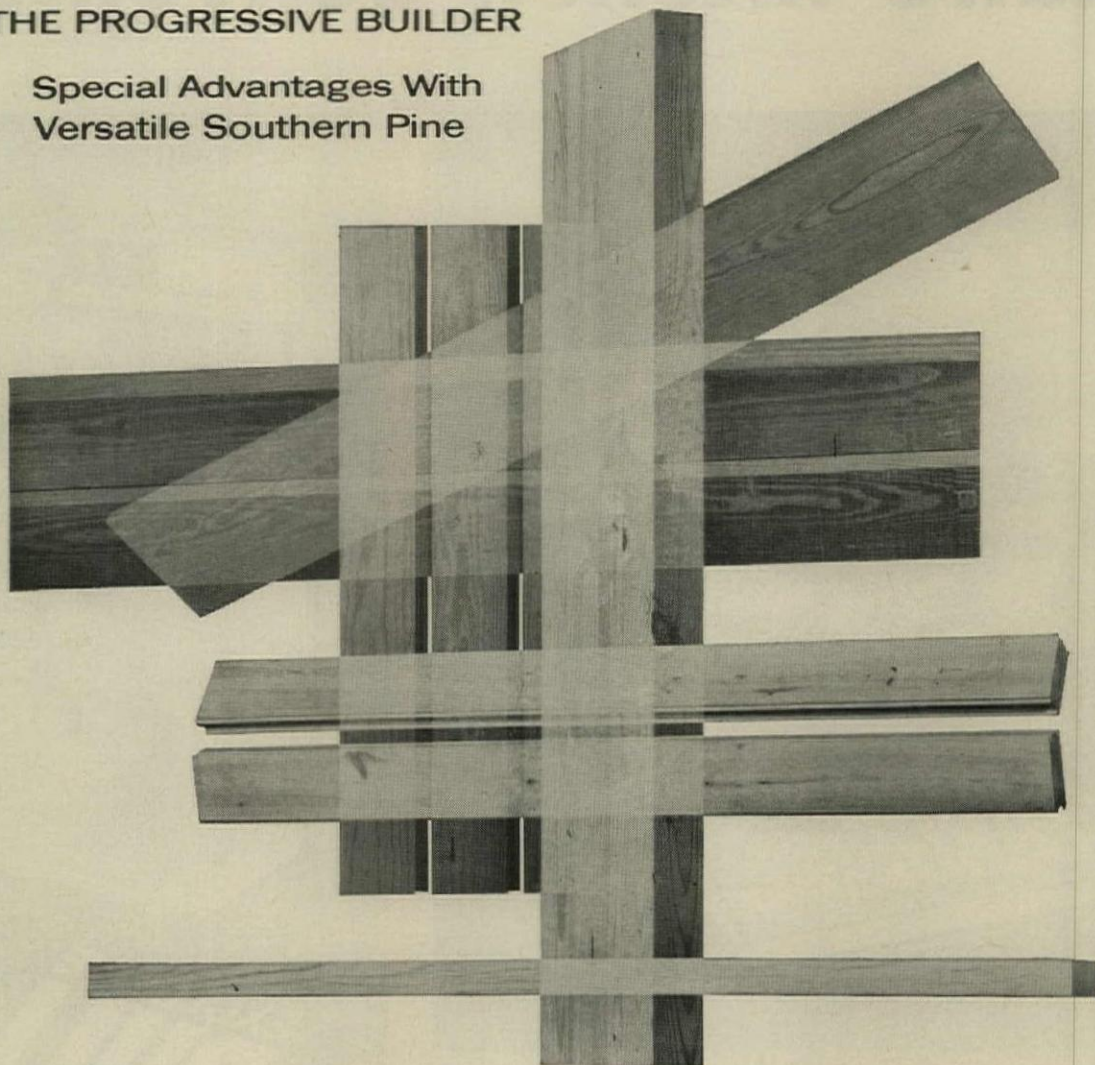
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Materials



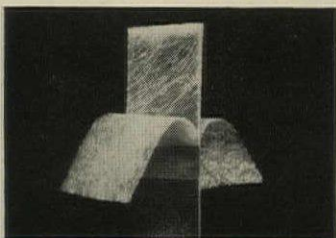
Asbestos-cement bulkhead (left) for waterfront development has 4¾"-deep corrugations, which give five times the lateral strength of conventional asbestos-cement bulkheads. Sheets are installed with normal jetting procedures. Lap joint holds alignment and keeps continuous contact between sections. Sheets are 32.9" wide, in 5', 6', 8', and 10' heights. Johns Manville, New York City.

For details, check No. 1 on p. 206



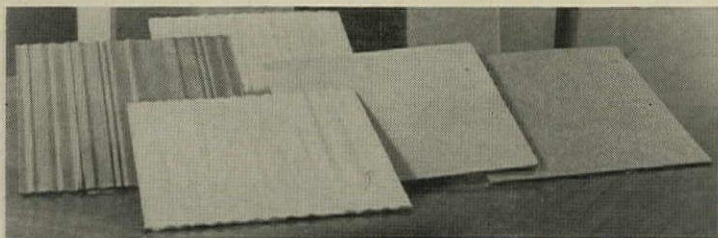
Fascia-soffit system of factory-enameled aluminum can be installed in four steps: 1) Interlocking soffit panels are placed in support strip on wall (photo, top right). 2) Each panel is nailed at the outer edge. 3) Fascia seals end of soffit (center) and 4) is held in place by pop rivets (bottom). Crown Aluminum, Pittsburgh.

For details, check No. 2 on p. 206



Fiberglass panel with a 20-year guarantee has two surface mats and center reinforcing, all of glass fibers. The three plies fuse when cured by acrylic modified resins. Superglaze panels come in standard sizes. Alsynite, White Plains, N.Y.

For details, check No. 3 on p. 206



Asbestos-cement panels with a plastic coating are guaranteed for ten years not to peel, blister, or crack; and to retain uniform color. Plasti-Clad has a pebble-like surface texture or vertical striations in six colors. National Gypsum, Buffalo.

For details, check No. 4 on p. 206

Insulation (right) fits snugly between studs and holds without tacking. Balsam wool blanket is slit vertically for easy tearing. Tux-In comes 7'10"x15", slit for 3", 5½", and 7" strips or 4" and 11½" strips. Wood Conversion Co., St. Paul.

For details, check No. 5 on p. 206



Flooring



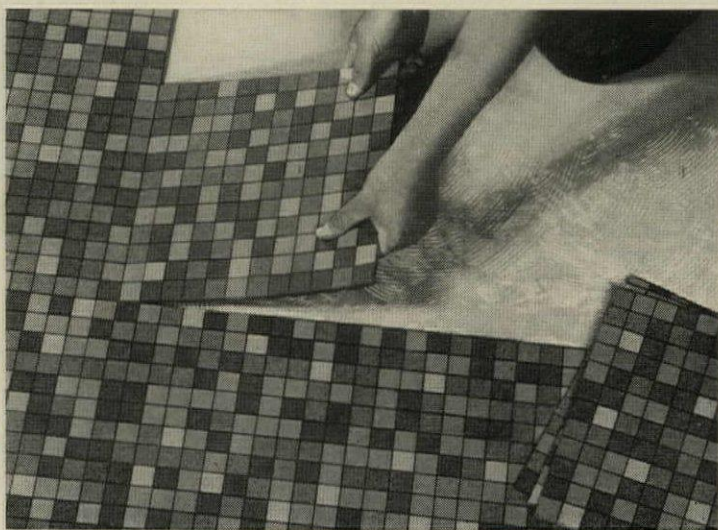
Resilient flooring (left) includes Hypalon for added resistance to denting, burns, and stains. Stiletto heels can dent Vistelle, but it recovers within 24 hours. Tiles come in ten colors, 9"x9" or 12"x12", ⅛" gauge. Armstrong, Lancaster, Pa.

For details, check No. 6 on p. 206



Ceramic-vinyl flooring comes in 12" squares (right) composed of 1"x1" ceramic tiles backed, grouted, and overlaid with vinyl. It is installed like vinyl, is resilient and color fast, comes in six colors. About \$1.40 per sq. ft. Stylon, Milford, Mass.

For details, check No. 7 on p. 206



New products continued on p. 187

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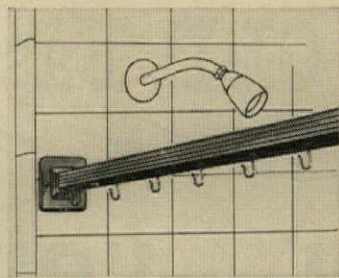
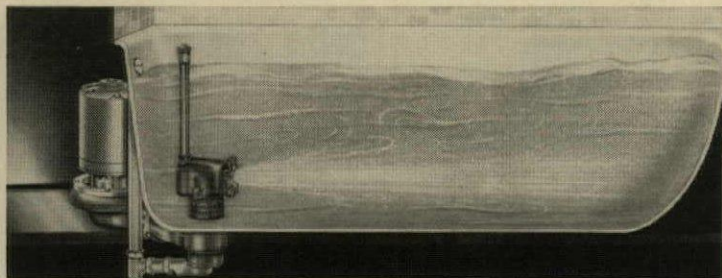
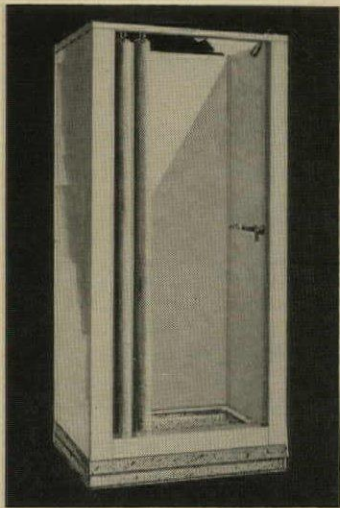
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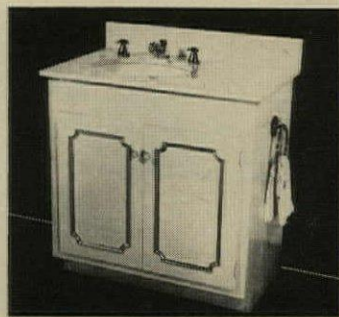
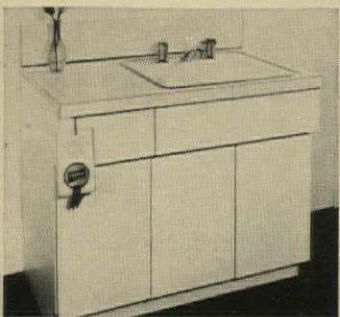
Baths



Lightweight shower (left) comes ready to install. Package includes Molded-Stone floor with factory-attached drain, stall, shower head and valves, curtain, and soap dish. Two sizes: 30" x30"x75" and 32"x32"x75". Fiat, Plainview, N.Y.
For details, check No. 8 on p. 206

Whirlpool bath can be installed in any standard tub. Model J-500 (shown) places pump in the wall behind the tub or in an adjacent closet. J-600 puts pump under the floor at the drain end of the tub. Jacuzzi, Berkeley, Calif.
For details, check No. 9 on p. 206

Shower-curtain track rod is for bathrooms where the shower is in the bath tub. The square rod is made of anodized and polished aluminum with rust-proof aluminum hooks which run smoothly on nylon slides. Shower Bar Sales Co., Hialeah, Fla.
For details, check No. 10 on p. 206



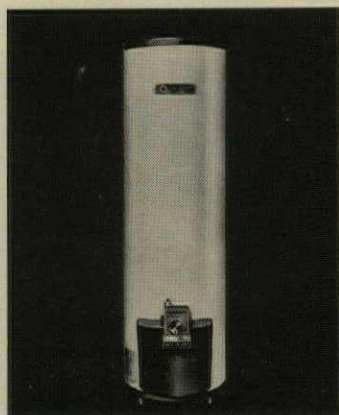
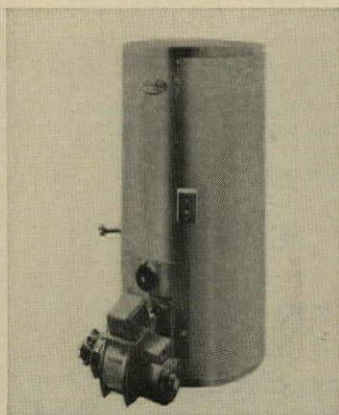
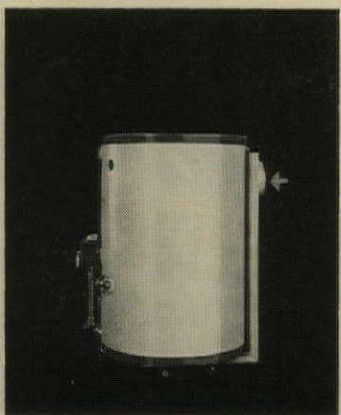
Concealed-drawer vanity has Borg-Warner bowl and fittings and Formica cabinet top. Other vanity cabinets are available with provincial styling or contemporary lines with a nutwood finish. Consider H. Willett Inc., New Albany, Ind.
For details, check No. 11 on p. 206

Decorative lavatory sink comes in a choice of 14K-gold patterns on vitreous china bowls with 24K-gold-plated fixtures. Sink is 19"x16". Marblelite tops are available in many sizes. Bowl lists for \$79, faucet for \$73. Ina Bath, Winnetka, Ill.
For details, check No. 12 on p. 206

Vitreous-china bowl with integral soap dish, concealed-front overflow, and anti-splash rim is 18" in diameter. It comes with 4" centers for single-handle fitting (shown) or 8" centers for other fittings. White or six pastels. Kohler Co., Kohler, Wis.
For details, check No. 13 on p. 206

Factory-built vanity comes assembled; only on-site labor is connecting water supplies and waste outlet. Century 21 has china bowl and marble, terrazzo, or Formica top. Also available without the cabinet. W. E. Joost Co., San Rafael, Calif.
For details, check No. 14 on p. 206

Water heaters



Oil-fired water heater has recovery rate of more than 60 gal. per hr. The M-40 has a glass-lined heavy-gauge steel tank, adjustable temperature control, and requires only a 4" flue opening. Ten-year guarantee. Glass-Lined Heater, Cleveland.
For details, check No. 15 on p. 206

Through-wall heater needs neither chimney nor flue. It vents through a 7¼" diameter wall opening (see arrow) with Tele-Vent which telescopes to fit any wall thickness. The 20-gal. Safti-Vent is only 31¾" high. Bastian-Morley, LaPorte, Ind.
For details, check No. 16 on p. 206

Oil-fired water heater has stone-lined tank and inlet and outlet tapings of silicon bronze to reduce internal corrosion. Tank bottom is copper-clad for fast heat transfer. The 52-gal. unit has glass wool insulation. Thatcher Furnace, Garwood, N.J.
For details, check No. 17 on p. 206

Glass-lined water heater has new thermostat which automatically adjusts recovery depending on the hot-water demand. Gas-fired Arcoglas Futura comes in 30, 40, and 50-gal. models. Ten-year guarantee. American-Standard, New York City.
For details, check No. 18 on p. 206

New products continued on p. 189

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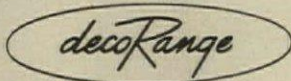
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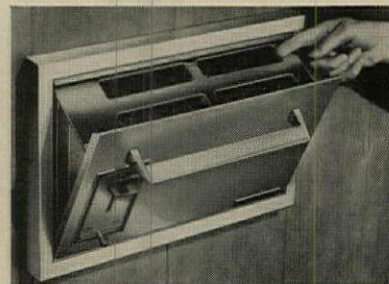
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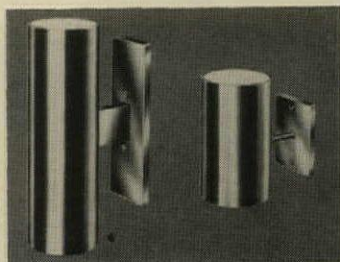


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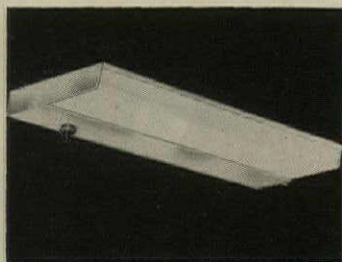
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Lighting



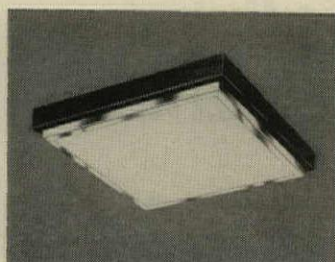
Down-light cylinders of aluminum are available in three sizes and a wide choice of finishes. The largest (left) also includes an uplight, is 18" high, 6" in diameter, extends 11" from the wall. Prescolite Mfg., San Leandro, Calif.

For details, check No. 19 on p. 206



Under-cabinet light for kitchen work areas or behind or under shelves, is 7/8" deep, 12" or 24" long, can be mounted in continuous strips. White baked enamel or stainless steel finish. Optional: 6' cord and plug, push-type switch. Alkco, Chicago.

For details, check No. 20 on p. 206



Recessed ceiling light with a walnut frame is offered in 100-, 150-, and 300-watt models. Square units have polished brass trim and a diffused glass lens. Depth from ceiling: 1 3/4". Moe Light Div., Thomas Industries, Louisville.

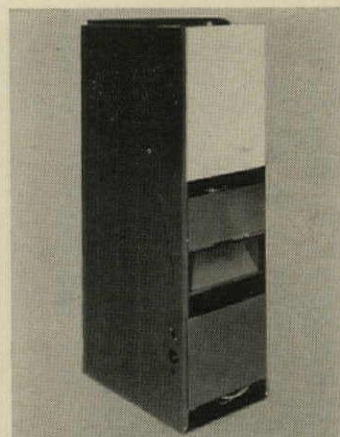
For details, check No. 21 on p. 206



Shelf light is a wall-hung unit for use over beds, desks, and other work surfaces. A concealed fluorescent bulb casts direct light down and indirect light up onto the shelf. Washable vinyl finish is laminated to steel. Lightolier, Jersey City, N.J.

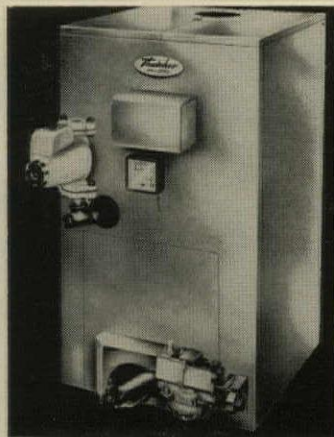
For details, check No. 22 on p. 206

Heating and cooling



Counterflow unit for either heating or cooling is available in sizes from 80,000 to 150,000 BTUH. The new Imperial models have belt-driven assemblies, permanently cleanable filters, and coated steel heat-exchangers. Payne Co., La Puente, Calif.

For details, check No. 23 on p. 206



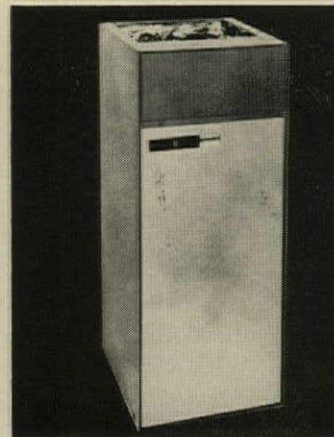
Gas-fired steel boiler has a 90,000 BTUH input. It is 32" high, 18 9/16" square, and comes completely assembled. The PBG-90 has a round heat exchanger of the vertical tube type. Tubes have removable stainless-steel baffles. Thatcher, Garwood, N.J.

For details, check No. 24 on p. 206



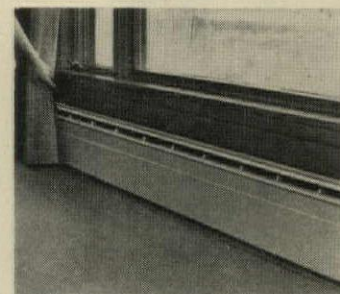
Downfiring oil burner has 150,000 BTUH output, is a compact 20"x20"x34". Wrap-around domestic hot-water coil eliminates need for a separate water storage tank. Piping is from the top for easy installation. Cameron Hydronics, Richmond, Va.

For details, check No. 25 on p. 206



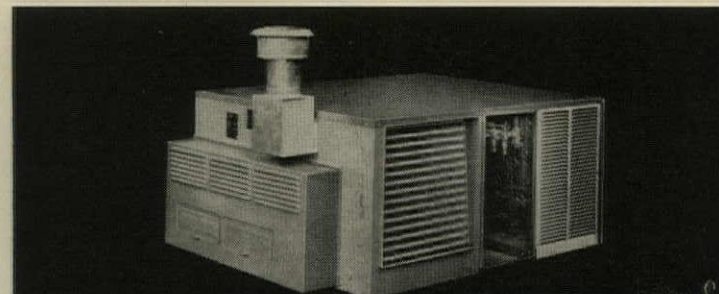
Electric furnace for ducted heating can handle 1,800 to 2,000 sq. ft. It operates equally well on upflow or downflow. LE-68 has the space and a motor blower for the addition of a 3-ton cooling coil. General Electric, Schenectady, N.Y.

For details, check No. 26 on p. 206



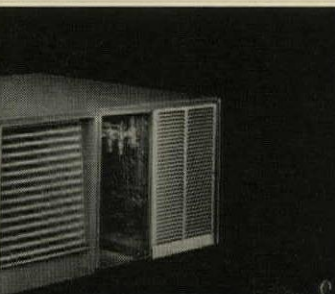
Hydronic-electric baseboard is factory assembled, installs with little piping. Each section has its own thermostatic controls so zoned heat is automatic. Sections are 35" to 299" long, 1,340 to 16,080 BTUH, and 400 to 4,800 watts. Crane, Johnstown, Pa.

For details, check No. 27 on p. 206



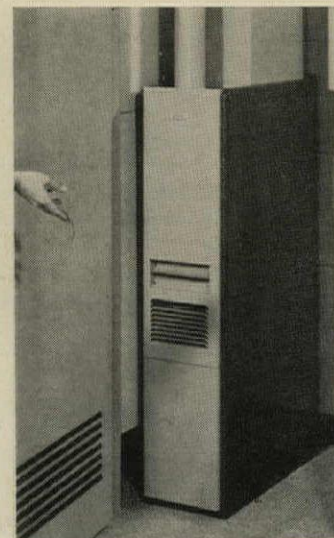
Horizontal gas furnace and matched cooling unit can be roof-mounted or put under the house, installed jointly (shown) or separately. Furnace is rated at 80,000 to 100,000 BTUH; cooling unit has a 3-ton capacity. Gaffers & Sattler, Los Angeles.

For details, check No. 28 on p. 206



Heating-cooling package (right) has a condensing unit that fits into two stud spaces. Matching furnace (11"x25"x53") has its own cooling coil. Two models: 1 1/2 tons and 51,000 BTUH or 2 tons and 80,000 BTUH. Lennox, Marshalltown, Iowa.

For details, check No. 29 on p. 206



New products continued on p. 192

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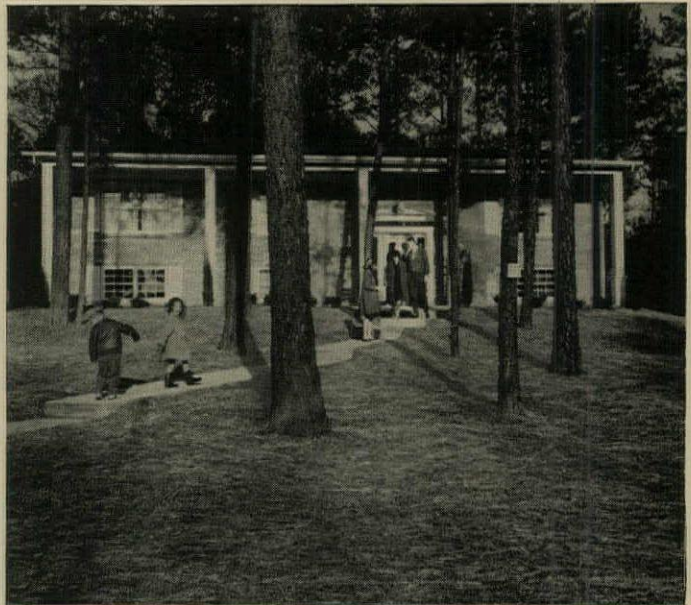
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HM-6



Birmingham Housing Corp., Birmingham, Ala. Builder Ed Lewis features Weathertron® heat pumps in all 7 of his projects. Taking advantage of General Electric's promotional assistance, Lewis had over 3500 people visit his homes the first two weeks after opening.



The 800 in Louisville is Kentucky's newest and tallest apartment building. Built by Drybrough Enterprises, this 247-unit Medallion Apartment features complete G-E kitchens. Builder Fritz Drybrough is using a customized General Electric promotion program to boost rental sellout.



Chicot Terrace, Little Rock, Arkansas. This brand-new, 85-home, Gold Medallion winner opened on February 10th and is already 25% sold. Every house in the Wickard-Baldwin, Inc., project is total electric and fully equipped from kitchen to heating plant by General Electric.

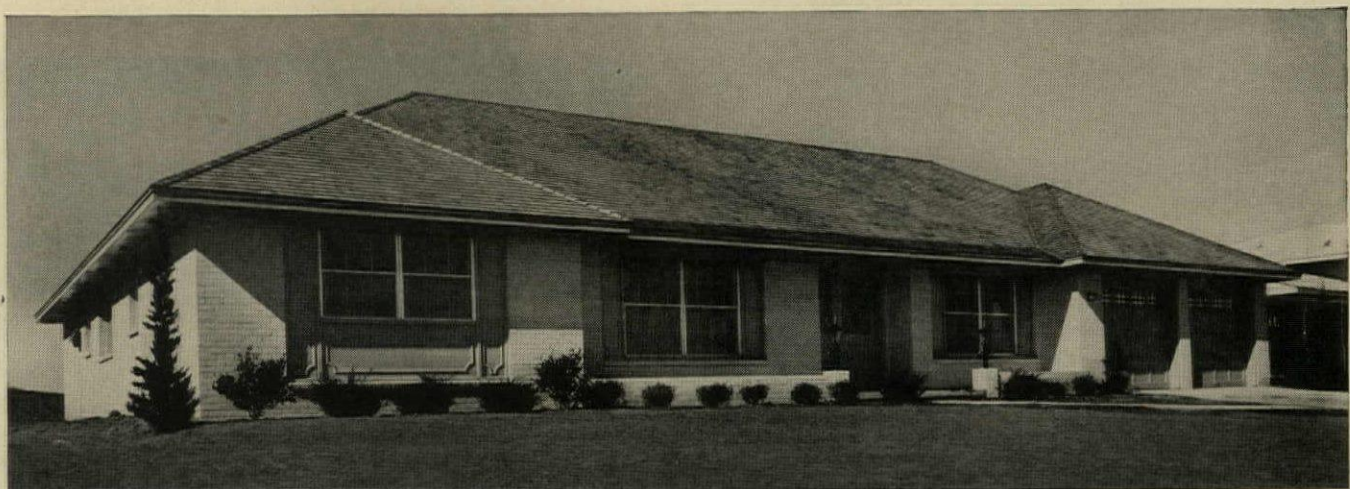


Clifton Knolls, Schenectady, N.Y. In the midst of a severe cold climate, these total-electric homes are kept warm with General Electric baseboard electric heat. Builder R. Van Patten says "... my buyers love it." 130 Gold Medallion homes are already sold; and another 500 are planned.



River College Manor Apartments, Sacramento, California. The first unit of 32 total-electric apartments was eighty percent rented three weeks after completion. Construction is

now under way on the balance of the 64 apartments. Builder: V. Hal Treadaway. Features: General Electric kitchen appliances, electric heating and cooling.



Southmont Estates, Tulsa, Oklahoma. The sale of one hundred and thirty General Electric equipped Gold Medallion Homes in only fourteen months led builder Irv Berman

to start a second Medallion project with a backlog of 10 homes sold. These homes feature General Electric kitchens, intercoms, heating and cooling systems.

WANT A TOUGH FINISH?



STAINS
and
VARNISHES

Super-Tough, Super-Resistant **SUPERTHANE** CLEAR PLASTIC COATING

Riddle: When is wood like a Rhinoceros?

Answer: When it's protected by a super-tough, super-resistant coating . . . like Superthane REZ. We can't think of another thing they have in common. Superthane REZ is a clear gloss plastic polyurethane coating that will greatly prolong the life and beauty of all woods . . . but whoever heard of a beautiful Rhinoceros?

The Best thing
that's Happening
to Wood!

REZ WOOD-TONES, INC.
Dept. 100, P. O. BOX 142, Springdale, Pa.

YOUR MOST PROFITABLE CONNECTION—



New **TRUSS CLIPS**

FOR LOWEST COST JOINING OF ROOF TRUSSES
AND OTHER WOOD COMPONENTS . . .

- Just a hammer and a Truss Clip is all you need for positive, rigid joints.
- Does the job in seconds without nails, presses or rollers.
- Ideal for builders and fabricators . . . shop or field use.
- High strength, hardened zinc-coated steel.

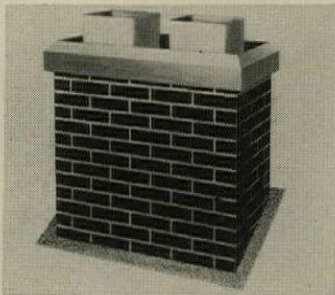
Ask your distributor or write for complete information.
PANEL CLIP COMPANY, BOX 423-K, FARMINGTON, MICH.

ACCEPTED, FHA AND RECOGNIZED CODES

NEW PRODUCTS

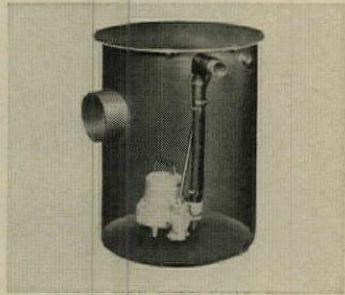
start on p. 185

Miscellaneous



Prefabricated chimneys come in three styles, including the double-flue unit shown above. Rough texture spatter paint process makes the steel chimney look like brick. 7" and 10" flue sizes are available. Vega Industries, Syracuse, N.Y.

For details, check No. 30 on p. 206



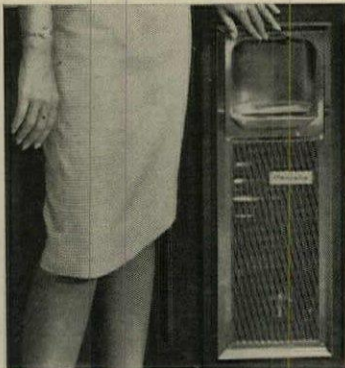
Steel sump, equipped with submersible Kenco pump, is 22" wide and 22½" high, has 2,000- to 4,800-gal.-per-hour capacity at a 10' head. Hide-Away sump is porcelainized inside and out. Sewer Guard Div., Cleveland-Detroit Corp., Cleveland.

For details, check No. 31 on p. 206



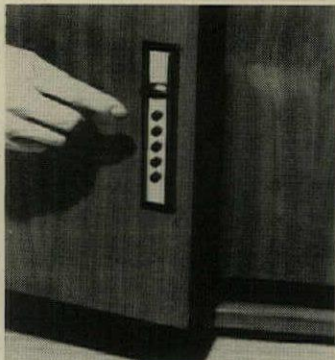
Self-storing ironing board flips out to 33" working height, is 15" wide, 23½" deep, can be built in under counter or free standing. Hide-A-Way board has a built-in plug, storage space for iron and accessories. Swanson Mfg., Owosso, Mich.

For details, check No. 32 on p. 206



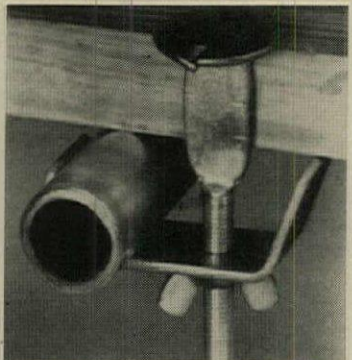
Hot and cold water comes instantly from dispenser that fits under standard counter height and takes only 8½" of counter length. Quick-Temp needs only two simple plumbing connections: one for water supply, one for drain. Rangaire, Cleburne, Tex.

For details, check No. 33 on p. 206



Push-button lock secures jewelry, liquor or other valuable items. You simply push any or all five buttons individually or in any order you select. Combination can be changed quickly without tools. \$8.95 retail. Simplex Lock, New York City.

For details, check No. 34 on p. 206



Scaffolding clamp has three parts: flanged bolt, steel clamp, and wing nut. The bolt is made 6" and 8½" long, has a 2" head with gripper tips to bite into wood decking and anchor it more securely to the scaffold pipe. Kelley Mfg. Co., Houston.

For details, check No. 35 on p. 206

Publications start on p. 194



Ivystone Farms by Prestige Homes Inc., Atco, New Jersey

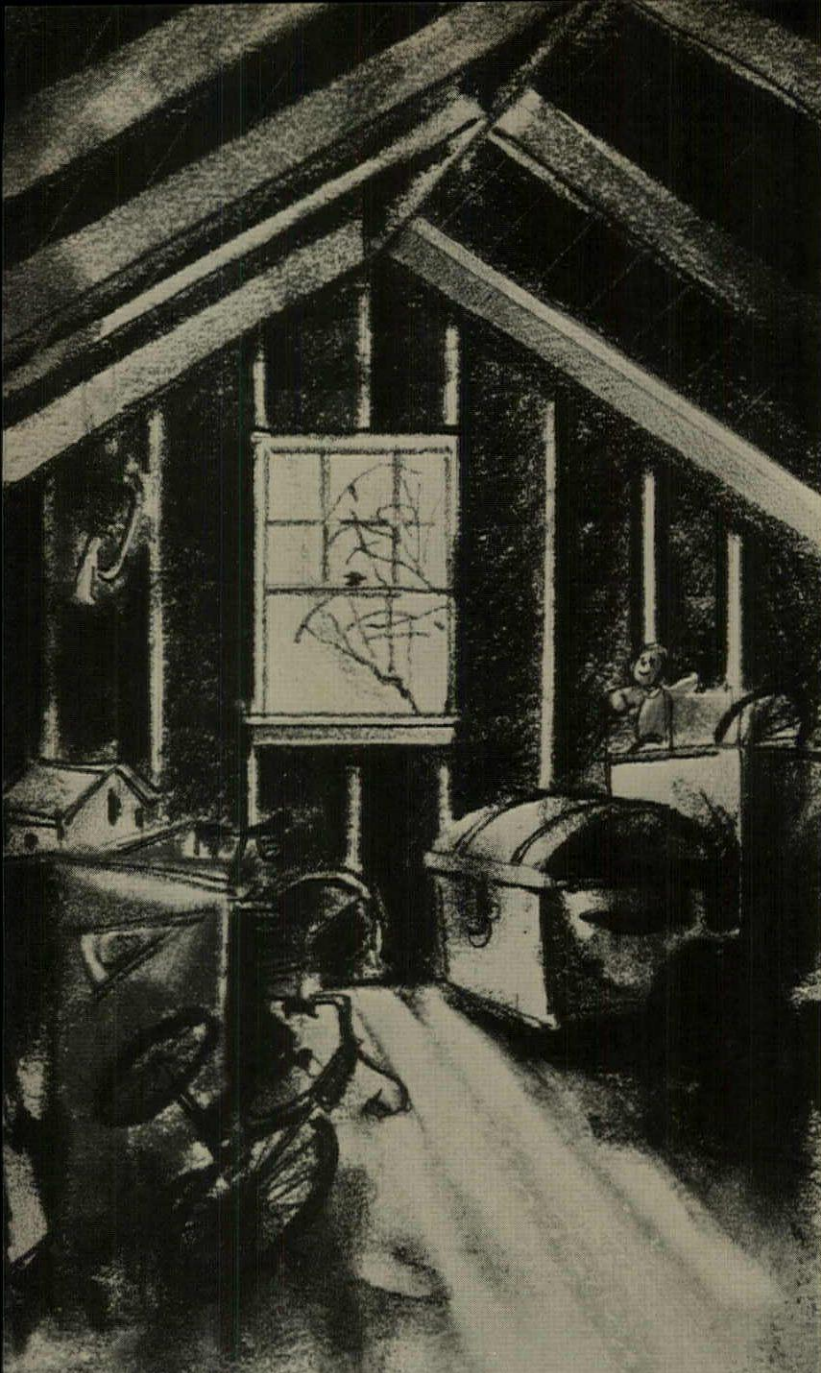
How to increase the floor space of your sample home without moving a single wall!

Just make use of that old friend, the optical illusion. If you put a pale cool color like misty green on the floor, the eye will trick itself into seeing that room larger. And, with Masland carpets, you have a hundred such colors to choose from, any of which will do the trick. Another thing, you can be sure that the color that appeals to you will also appeal to

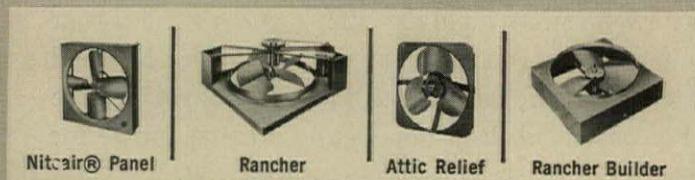
women, because only Masland carpets are styled by a woman for women. So, build the interior sales-appeal of your sample homes on a good foundation: put colorful Masland carpets on the floor; recommend that your buyers do the same. For on-the-job help in selecting a carpet, write for the name of the Masland Associate nearest you.

Since 1866 C. H. MASLAND & SONS • CARLISLE, PA.

The Magic of Masland Carpets

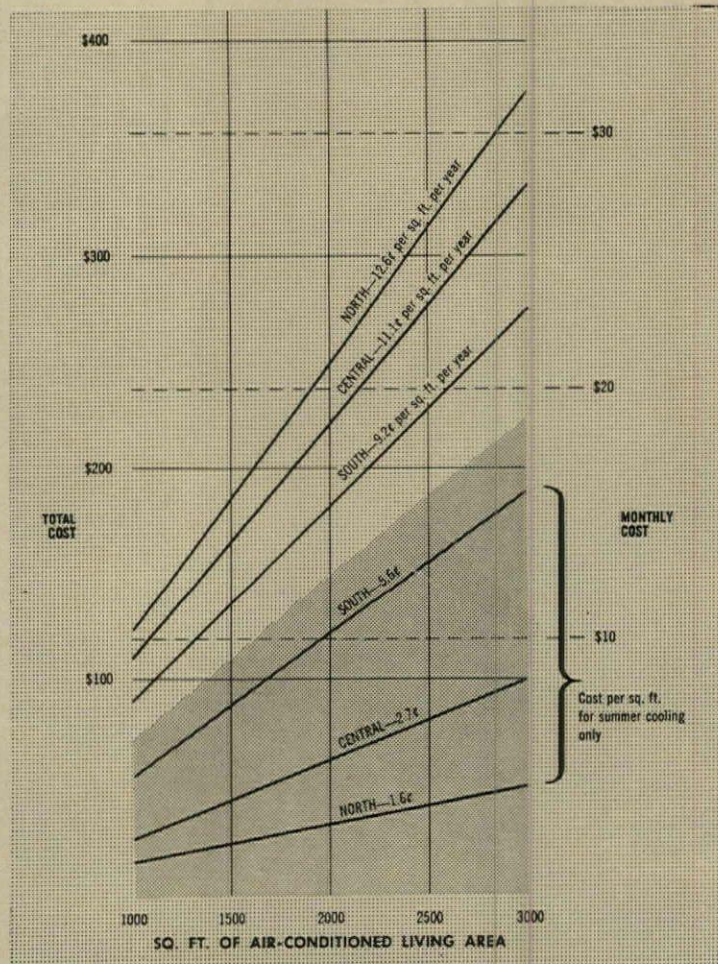


REMEMBER Remember the many treasures a small boy or girl could find hidden there? Today's attic looks different, of course, but one similarity remains. Tremendous heat builds up in all attics. Temperatures of 130° and higher are not uncommon. This trapped heat radiates down into a home's living area all night long, making sleep almost impossible. That's why Lau Attic Fans are big sellers in the spring and summer . . . Big profit makers too! Lau has everything you'll need to capture your share of this business; a complete line of competitively priced, quality fans and accessories and the national consumer advertising and sales helps needed to generate product interest. Write for a catalog on Lau's complete line of quality built attic fans and accessories.



LAU THE LAU BLOWER COMPANY
2027 Home Ave. Dayton 7, Ohio

PUBLICATIONS



HEATING AND COOLING COST GRAPH gives monthly or annual operating costs by zone, figured at 2¢ per kw-hr for power, 8¢ per therm for fuel.

Guide for central air conditioning

The 32-page handbook summarizes the advantages of central air conditioning, describes various types of installation and their costs, gives design suggestions, and discusses operation and operating costs (graph above). Diagrams and graphs explain the text. Also covered: what to consider when choosing an air conditioning dealer, how to get full FHA-evaluation credit, and tips on using air conditioning to sell more houses. Freon Products Div., DuPont, Wilmington, Del. For copy, check No. P1 on the coupon, page 206

New catalogs show choice of lighting styles

Emerson. 78 pages. Color illustrations and descriptive copy on 288 fixtures, of which 84 are new designs. Included are traditional and contemporary chandeliers, pull-downs and pendants, fixtures for children's bedrooms, fluorescent kitchen and bath lights, matching porch, wall, and post lanterns, path and garden spots, and many more. Emerson Electric Mfg., St. Louis. For copy, check No. P2 on p. 206

luminous ceiling kit is described with installation drawings. Wall, ceiling, and free-standing display panels are shown. Progress Mfg., Philadelphia. For copy, check No. P3 on p. 206

Progress. 80 pages. Photos and sizes of a complete selection of fixtures for any room and many outdoor uses in a wide variety of styles and finishes. A new

Globe. 84-page binder includes the Focus collection of correlated lighting: Squares, rectangles, ovals, circles, and cubes coordinated with a choice of walnut, birch, chrome, brass, and white finishes offer design flexibility and unity. An illustrated index precedes each section. Coefficient and calculation charts. Globe Lighting, New York City. For copy, check No. P4 on p. 206

For copies of free literature, check the indicated number on the coupon, page 206.

Directories

LAMINATED PLASTIC FABRICATORS. 80-page listing of qualified Formica fabricators: grouped 1) by geographic section, 2) by products sold. Formica Corp., Cincinnati. (Check No. P5)

ROOM AIR CONDITIONERS. 18-page listing gives NEMA-certified BTUH, current, and wattage ratings for more than 1,000 models. 1963 edition. National Electrical Manufacturers' Assn., New York City. (Check No. P6)

ARCHITECTURAL INDEX. 60 pages. Indexes editorial material related to architecture and planning that appeared in 1962 in ARCHITECTURAL FORUM, *Architectural Record*, *Arts & Architecture*, *HOUSE & HOME*, *Interiors*, *Journal of the AIA*, and *Progressive Architecture*. \$5. For copy write Ervin J. Bell, 517 Bridgeway, Sausalito, Calif.

Technical literature

RESIN-FIBER-SURFACED PLYWOOD. 24 pages. Physical properties, painting and finishing, test results, and chemical resistance are explained. Illustrations of uses. Specs. U.S. Plywood, New York City. (Check No. P7)

ACOUSTICAL GLASS: thin layers of glass assembled with elastic adhesive layers to maintain limpness and add weight. Also covered: Twi-lite laminated heat- and glare-reducing glass, and Comfor-lite—heat-and-glare-reducing units of glass and louvered screens. 8 pages. Amerada Glass Corp., Chicago. (Check No. P8)

CONCRETE AND MASONRY COMPOUNDS. 12 pages. Text discusses proportions, limitations, and alternate uses. Selection tables show properties, application, advantages, and coverage. Sika Chemical Corp., Passaic, N.J. (Check No. P9)

USE OF COLOR ON INTERIOR AREAS. 10 pages. Hue, value, chroma, reflectance, pattern, and contrast are considered in relation to their affect on room size and mood. \$1.50. Illuminating Engineering Society, 345 E. 47 St., New York City 17.

Catalogs

STAINLESS STEEL SINKS. 8 pages. Ten types, more than 100 models. Photos, drawings, and dimensions. Vance Industries Inc., Chicago. (Check No. P10)

FLOORING. 24 pages. Vinyl Corlon; linoleum, vinyl, vinyl-asbestos, asphalt, rubber, and cork tile. Patterns and colors are shown with general product descriptions. Chart compares resilient flooring data. Armstrong Cork Co., Lancaster, Pa. (Check No. P11)

VINYL WALL COVERING. 8 pages. 19 Vicrtex patterns with color choices for each are shown. Specs. L. E. Carpenter & Co., New York City. (Check No. P12)

DOORS. 8 pages. Sash, screen, louver, panel, French, and entrance doors. Photos, drawings, and finishes. Simpson Timber Co., Seattle. (Check No. P13)

PAINT. 28 pages. How to reduce painting costs; 100 color chips; drying, coverage, and thinning data. Barreled Sunlight Paint Co., Providence. (Check No. P14)

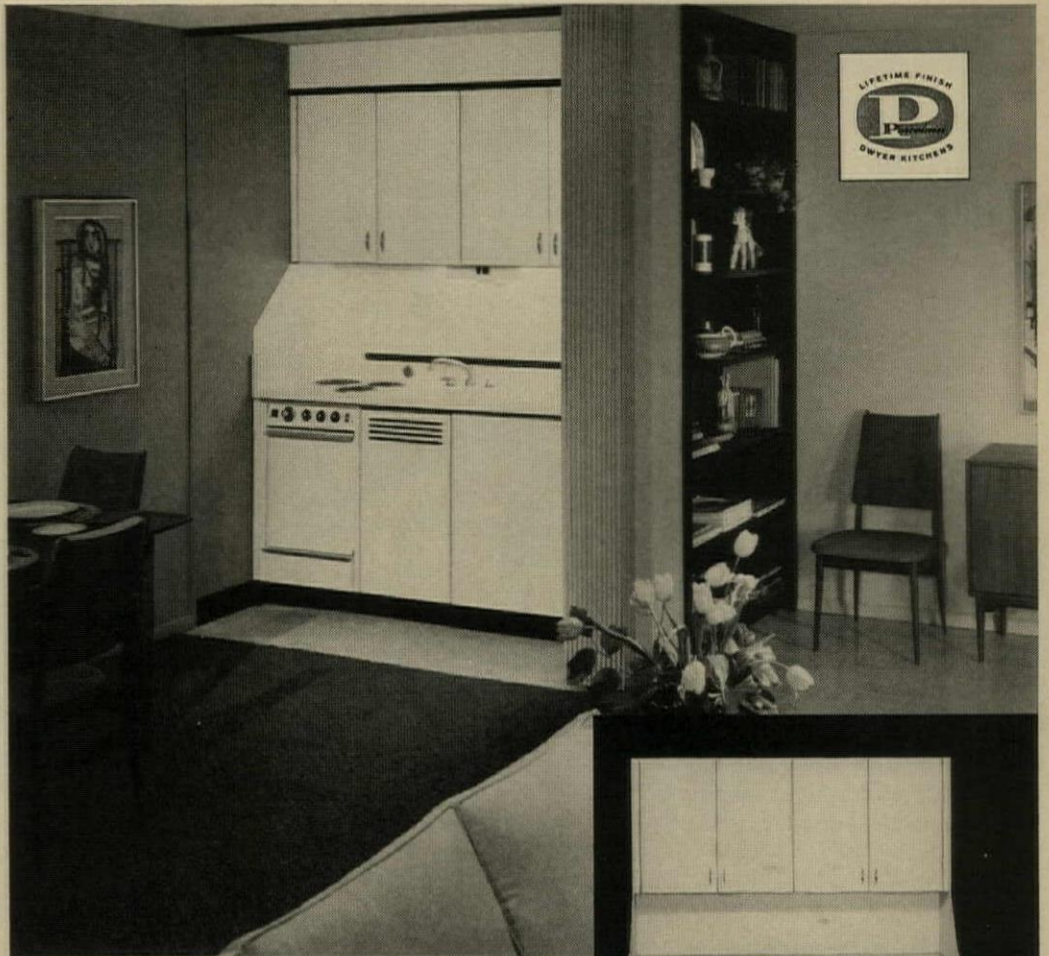
HEAVY-DUTY SHOP TOOLS and accessories including drill presses, saws, cut-off-machines, jointers, planers, and shapers. 112 pages. Rockwell Mfg., Pittsburgh. (Check No. P15)

LAVATORY CABINETS with many mirror and light combinations. 32-pages. Photos and specs. F. H. Lawson Co., Cincinnati. (Check No. P16)

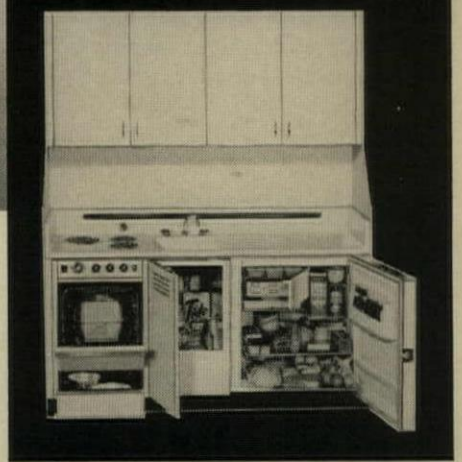
Publications continued on p. 198

Add space with **D**wyer

COMPACT KITCHENS



By combining full kitchen facilities into single, compact units, Dwyer Kitchens actually *add* space to floor plans, make them more attractive and livable. And recess models, like the Series 69 shown, disappear behind closures when not in use. Dwyer Kitchens meet institutional standards of quality—heavy-duty construction and vitreous porcelain finish assure durability and lasting beauty. Sizes from 39" to 72" in length, gas or electric rangetop and oven for standard or recess installation.



DWYER SERIES 69 KITCHEN

Recessed model shown is only 72" in length, yet provides refrigerator, with roll-out shelves and freezer, sink, storage, rangetop and oven. Choose from more than 35 Dwyer models, including a complete line of snack bars.

Dwyer

series

69

Write today for free catalog

Twenty pages in full color, illustrating and describing full line of Dwyer Compact Kitchens and Snack Bars with dimensional drawings and detailed specifications.



DWYER PRODUCTS CORPORATION, Dept.

MICHIGAN CITY, INDIANA

MORE & MORE TOP BUILDERS



JOHN R. GRUBB INC., Des Moines, Iowa. This is one of Grubb's many successful designs ranging from \$12,500 to \$30,000. Builds 160-175 homes annually. SHADOWCAST Lap and Panel Sidings.



ERVIN CONSTRUCTION CO. INC., Charlotte, N. C. This house, in Ervin's fully developed suburban Westchester community, is one of 500 priced \$13,000 to \$17,000, featuring 4 bedrooms, 2 baths. SHADOWCAST Lap Siding.



TRI-STATE PRE-BUILT HOMES, INC., Latham, New York. Tri-State system permits plan variations to fit buyers' needs. Up to 30 homes in this project, from \$20,700, including all appliances. SHADOWCAST Lap and Panel Sidings.



WISEMAN CONSTRUCTION CO., Hickory Hills, Illinois, will build 260 homes in Forest Hills subdivision, suburban Chicago. Already sold—185. Priced \$18,000 to \$20,000. SHADOWCAST Lap Siding is a sales feature of these quality homes.



LEE HAYWORTH CONSTRUCTION CO., Salina, Kansas. This attractive, spacious home is one of 10-12 in \$18,000 to \$25,000 price range planned by this builder. Superior value throughout, including SHADOWCAST Lap Siding.



THE CELOTEX CORPORATION
120 S. La Salle St., Chicago 3, Illinois



DORGER HOMES, Cincinnati, Ohio, specializes in fine custom homes, will build 50 in Cincinnati area this year. The \$55,000 home pictured has 4 bedrooms, 2½ baths, brick and SHADOWCAST Lap Siding.



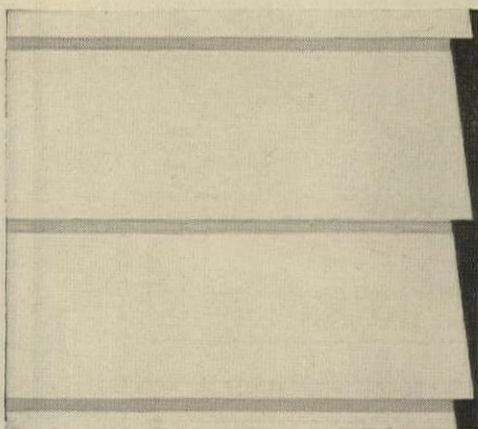
HALTEMAN HOMES, INC., Muncie, Indiana, builds 40-50 fine homes annually in its own, large, pool-equipped subdivision, Halteman Village. Price range \$18,000 to \$60,000. SHADOWCAST Lap and Panel Sidings.

SWITCH TO SHADOWCAST* SIDINGS BY CELOTEX

**Goes up fast...nails without dimpling...cuts costs
...and its smart good looks helps sell homes!**

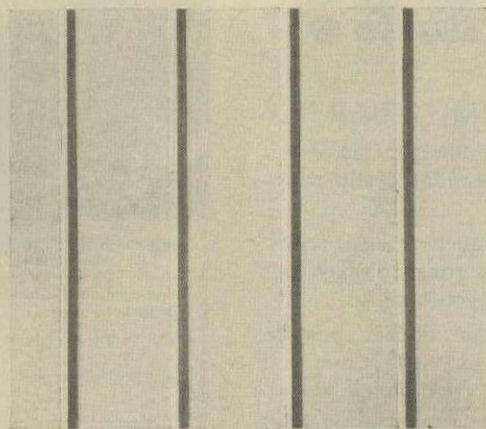
Made of special density hardboard, Celotex SHADOWCAST Siding saws and nails like wood—yet its smooth, tough, hard-to-dent surface has exceptional resistance to bumps, scuffs, hail. Nails drive flush without dimpling or fracturing the surface. Prime coated at the factory—you can wait two months to apply finish coat. Cuts waste—no shorts, no rejects due to knots or splits. These great new sidings will help sell more homes for you, too! See them at your Celotex dealer, or write for samples.

*Trademark



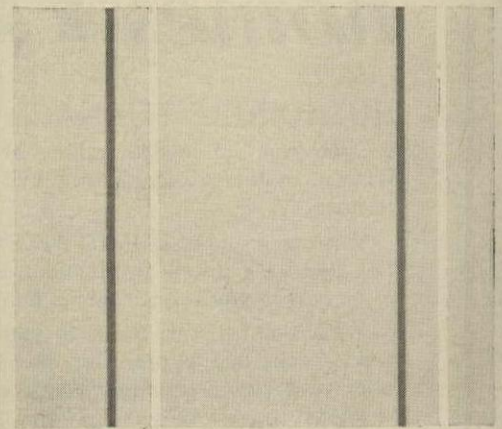
SHADOWCAST HORIZONTAL LAP

Long lengths for fast coverage, fewer joints. ¾" thick; 12" wide by 12', 16'; also 9" wide by 12'. Guide lines on both long edges simplify alignment, save time, minimize waste.



SHADOWCAST GROOVED PANELS

Grooves 4", 5½" or 8" o.c. Panels are 4' wide by lengths to 10'; ¾" thick. Shiplapped edges. With 16" stud spacing, needs no corner bracing to meet FHA requirements.



SHADOWCAST WIDE-BOARD PANELS

For use with battens. Ideal for fast, economy construction. ¾" thick; 4' wide; lengths to 16'. With 24" stud spacing, no corner bracing necessary to meet FHA requirements.

PUBLICATIONS

Publications start on p. 194

More catalogs

LIGHTING. 16 pages. The Debonaire Collection includes contemporary fixtures of glass, brass, and wood; early American styles; outdoor lights; and shielded fluorescent units. Federal Lighting Corp., Cleveland. (Check No. P17)

WOOD PRODUCTS: hardwood paneling and doors, overlay-surfaced and fir plywood, siding, sheathing, and hardboard. Photos, drawings, descriptive data, and selection tables. Georgia-Pacific Corp., Portland, Ore. (Check No. P18)

HEATERS, FANS, AND VENTS. 28 pages. Photos, specs, and accessories for each product. Installation and wiring diagrams. Fasco Industries, Rochester, N.Y. (Check No. P19)

PLASTIC-COATED PANELS. 6 pages. Wood-grains, gold flecks, solid tones; colors. Also reinforced fiberglass panels in 14 shades and translucent fiberglass panels in eight patterns. Barclay Mfg. Co., New York City. (Check No. P20)

LOADERS AND BACKHOES. 20 pages. Photos and diagrams. Dimensions, weights, operating and construction data for each part. J. I. Case Co., Racine, Wis. (Check No. P21)

LOUVERS: fixed and adjustable-pitch triangular models, slant-roof and rectangular-wall units, soffit, under-eave, and foundation vents. 4 pages. Leslie Welding Co., Franklin Park, Ill. (Check No. P22)

BATHROOM CABINETS. 10 pages. Photos, features, and sizes. Kent-Marco, Los Angeles. (Check No. P23)

CRAWLERS AND MOUNTED EQUIPMENT. 28 pages. Drawbar tractor and its dozers, loader, and backhoe; also scarifiers, winches, and pull hooks. J. I. Case, Racine, Wis. (Check No. P24)

LIGHTING. More than 350 fixtures shown. Del-Val Mfg. Co., Philadelphia. (Check No. P25)

Installation brochures

COMPACT INTERCOM SYSTEM. 4 pages. Wiring diagrams for desk, table, or wall mounting; and operating instructions. Beta Instruments Corp., Dallas. (Check No. P26)

FASTENING SYSTEM for sprinklers, water supply and waste lines using powder-actuated tools. 8 pages. Photos, drawings, and specs for hanging from steel and concrete. Ramset Fastening System, New Haven. (Check No. P27)

SOUND CONDITIONING. 8 pages. Illustrated construction techniques. Celotex Corp., Chicago. (Check No. P28)

HOW TO LAY A WOOD FLOOR. Detailed instructions for laying a floor of northern hard maple. Maple Flooring Manufacturers Assn., Chicago. (Check No. P29)

Product bulletins

GAS INCINERATOR. Data sheet. Features described, construction cutaway, dimension drawings, and specs. Caloric, Tipton, Pa. (Check No. P30)

VENTILATORS. Chart of FHA cross-ventilation requirements. Sizes for complete line; three new

models are shown. Leigh Building Products, Coopersville, Mich. (Check No. P31)

CRAWLER TRACTORS AND EQUIPMENT. Folder shows 22 tractors, loaders, and other units. Features and specs. Deere & Co., Moline, Ill. (Check No. P32)

BUILT-IN RANGES AND OVENS. Gas and electric models are shown, a 4-page folder on each. Specs and installation details. O'Keefe & Merritt, Los Angeles. (Check No. P33)

PLASTIC PAINT. 6 pages. Technical and application data on four basic types. Air Kote, New York City. (Check No. P34)

SUNKEN BATH TUBS. 6 pages. Renderings and sizes of three models. Crane Co., Johnstown, Pa. (Check No. P35)

OIL-FIRED STEEL BOILERS for forced hot-water heat. Data sheet. Five models: 105,000 to 245,000 BTUH input. Thatcher Furnace Co., Garwood N.J. (Check No. P36)

IRON RAILINGS AND COLUMNS. 4 pages. Construction and installation is described, parts and accessories listed. Versa Products, Lodi, Ohio. (Check No. P37)

TRENCHER-BACKHOE. 6 pages. Photos and descriptions of performance. Accessories. Specs. Davis Mfg., Wichita. (Check No. P38)

MASTER ANTENNA SYSTEM for apartment buildings and motels. 4 pages. Features are described, installation photos, wind-load data, electrical and architectural specs. Jerrold Electronics Corp., Philadelphia. (Check No. P39)

Publications continued on p. 206

Mr. Builder . . .

We'll install **HUMID-AIRE**^{T.M.}
in your model homes **FREE!**

HUMID-AIRE FURNACE HUMIDIFIERS . . .

. . . put from 7.5 to 68.5 gallons of moisture per day into a home . . . automatically, as required . . . *without* costly maintenance!

We're so proud of HUMID-AIRE'S uniquely efficient operation that we'll install an illuminated see-through display unit at no cost to you in your model home, if you qualify.

What does all this mean to you? Fewer dollars spent in service calls due to problems caused by dry air . . . and you offer your customers *completely comfort conditioned* homes.

HUMID-AIRE is the *plus value* that gives you a big sales advantage over your competition!

MAIL THIS COUPON TODAY FOR INFORMATION!



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Merchandise Mart, Chicago 54, Illinois
Phone: (312) 644-0700

Send complete information on FREE Humid-Aire Humidifiers for model homes.

Price range of homes built \$ _____

Quantity of homes built _____

Name _____ Title _____

Firm Name _____

Address _____

City _____ Zone _____ State _____

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BUILDING MATERIALS

Allied
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NEWS FOR BUILDERS!

**BARRETT OFFERS A BROAD LINE OF BUILDING MATERIALS BACKED
BY PRODUCT SERVICE AND A COMPLETE MERCHANDISING PROGRAM**

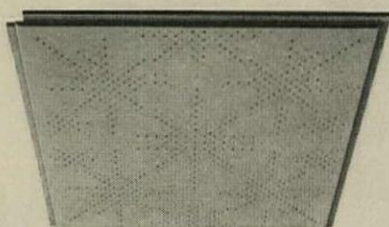


BARRETT[®]
BUILDING MATERIALS

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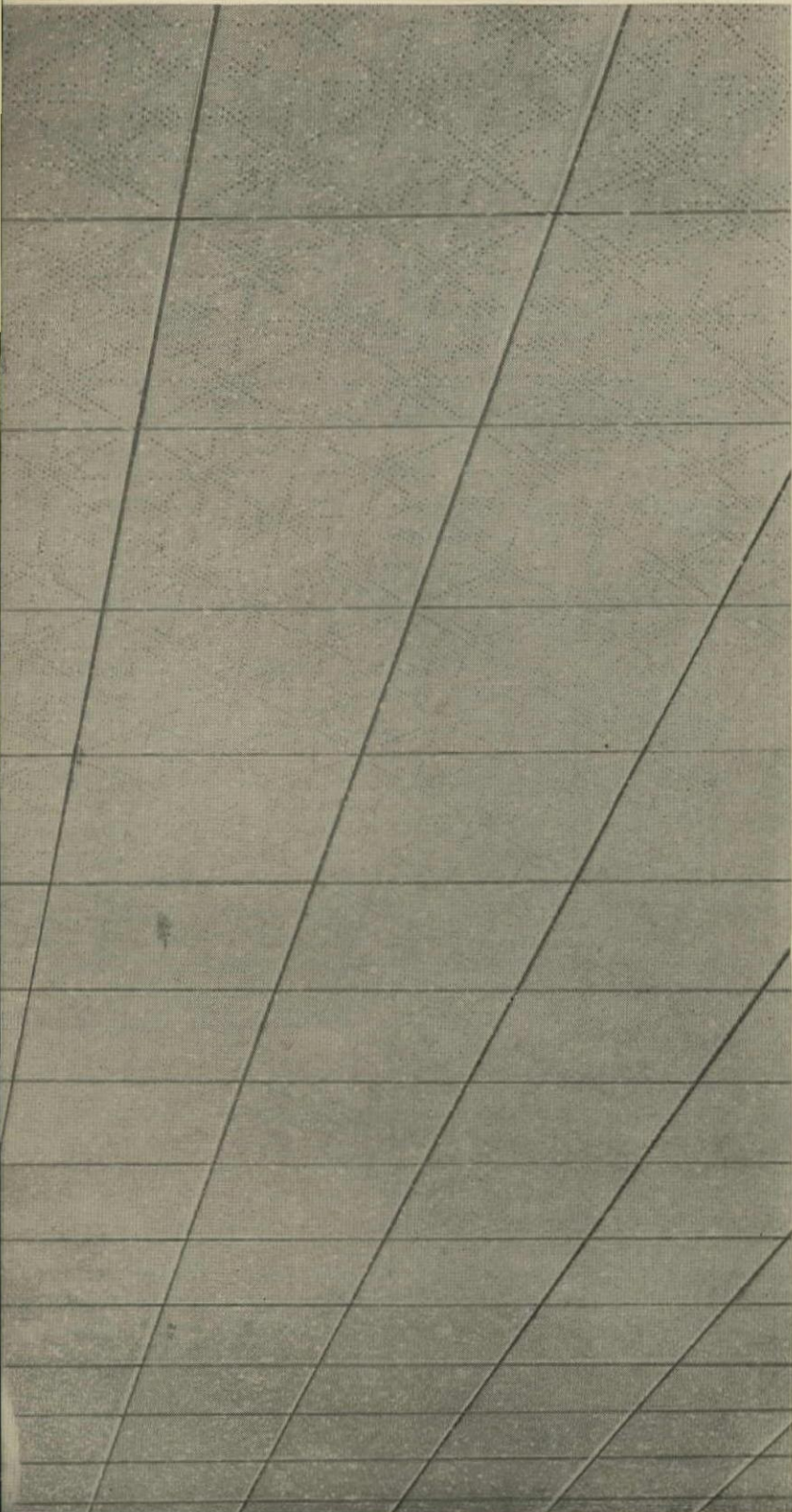


Add beauty to any room with Barrett's new Snowflake decorative acoustical tile that costs no more than plain acoustical tile.



OFFER BUYERS THE PROFITABLE PLUS OF SOUND

In the months to come, more and more buyers will be investigating sound conditioning. Leading manufacturers and builders are employing the latest sound conditioning techniques and quieter equipment for inclusion in new homes. The Insulation Board Institute has scheduled a nationwide promotion on the theme DECORATE WITH QUIET, to inform prospective buyers of new material developments and current exploration in sound conditioning. Your salesmen can use the benefits of sound conditioning and turn this growing interest into profit by showing prospects homes finished with Barrett ceiling tile.



BARRETT DELTA-STUD GYPSUM PARTITION SYSTEM CUTS ERECTION COSTS. Here is the most versatile all-gypsum system available for the erection of lightweight commercial partitions. Completely adaptable to accommodate required fire ratings up to two hours, sound transmission classes up to 40 with wall thickness from 3" to 4½".



A SHEATHING-SIDING COMBINATION THAT INSULATES AND GOES UP FAST! Save \$40 to \$80 a house with Barrett nail-base Rigidwall sheathing, a product so dense you can apply shingles directly to it, so strong it needs no corner bracing. Maintenance-free Barrett asbestos cement siding comes in the widest range of colors, colors sealed in plastic to prevent fading. Available in more locations than from any other manufacturer.



BARRETT SELF-SEALING 240 SHINGLES FOR AN ADDED SELLING FEATURE! Offer home buyers longer lasting, maintenance-free roofing protection with these quality shingles. Virtually hurricane-proof, they cost no more to apply than other shingles.

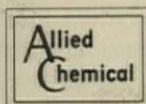



VINYL BUILDING PANELS FOR PATIOS, CARPORTS AND BREEZEWAYS! Here is a new, low-cost vinyl building panel for the fast erection of bright, light, colorful patios, breezeways and carports. Non-combustible, flexible, and available in new longer lengths, Barrett vinyl building panels weigh only 7½ ounces per square foot and can be handled easily on the job.



CONDITIONING WITH BARRETT CEILING TILE

Why use Barrett ceiling tile? For as little as \$33 extra per home, you can have the competitive advantage of offering home buyers sound conditioning in a bedroom, den or rumpus room. Easy to install, Barrett ceiling tile can be stapled or nailed directly to furring strips, or bonded to gypsum lath. With Barrett tile you eliminate the expense of ceiling board, taping and painting. Barrett's fast, on-time delivery ends costly on-job delays. Because of its extra strength, it requires no "kid glove" handling. For complete information contact your Barrett representative or write to us today.



TURN PAGE 

BARRETT'S COORDINATED MERCHANDISING AIDS ARE DESIGNED TO MEET HOMEBUILDERS' SELLING NEEDS

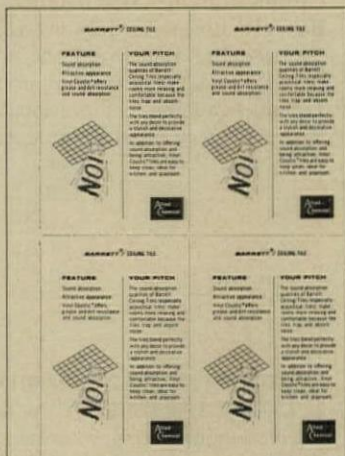
Here, for you from Barrett, are the ideas that received the highest award for merchandising materials in the 1962 NAHB "Ideas For Homebuilders' Contest"! All these valuable sales aids can be used with other manufacturers' materials to give you a completely coordinated program to help you sell your homes.

PRODUCT DISPLAY



Individual boards featuring customer benefits that can be used with other manufacturers' product information. In addition, you can obtain complete plans for easy-to-build displays, plus custom headers for identifying your developments.

SALESMAN "TIP" PAGES



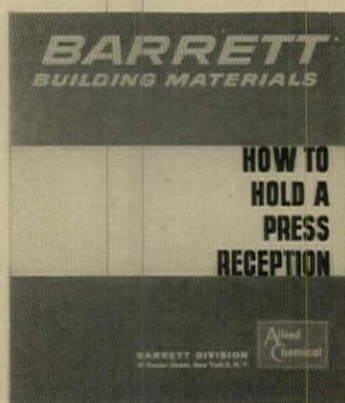
These pocket-size pages help your salesman learn more about the products used in your homes, help him answer customer questions and do a more effective selling job for you.

HOMEOOWNER PRODUCT PAGES



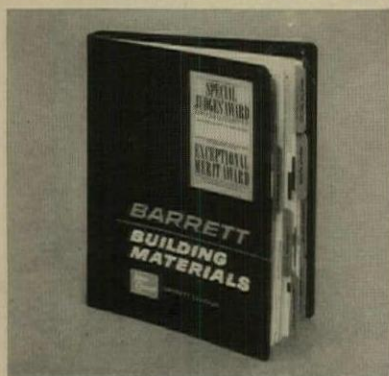
This material emphasizes the quality and benefits of the products used in the home and also gives valuable maintenance tips. These pages can be made into a buyer's manual and distributed to qualified prospects.

PUBLICITY GUIDE



Complete information on how to hold a press reception and obtain the best publicity coverage on the opening of new developments.

BARRETT'S AWARD WINNING CATALOG DESIGNED FOR HOMEBUILDERS



This valuable free catalog was designed to help homebuilders compare and select building materials more efficiently. It contains complete product information and specifications, building code information and the comparative sales advantages of various products used in new home construction.

Barrett is a registered trade mark of Allied Chemical Corporation.



- Please send me information about:
- Barrett's Award Winning Coordinated Merchandising Aids
 - Barrett's Award Winning Product Catalog.
- Allied Chemical Corporation, Barrett Division
40 Rector Street, New York 6, New York

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

- Please have a representative call.

(Dept. HH6)





Basic building materials for houses that sell!

The walls are up. The roof is on. The floors are down—but not *done* until they're carpeted.

That's the way most women feel about new houses. To them, carpeting gives every room a more finished, more luxurious look.

That's why you'll build houses that sell faster when you *finish* them—with carpeting of 100% Caprolan® nylon pile. Makes every room look more expensive. But it doesn't have to be more expensive.

Instead of investing in finished flooring, have your local carpet retailer install

carpeting of Caprolan nylon over plywood subflooring.

By working with a retailer, you can give your customers their choice from the widest possible selection of colors and patterns. (And you're not bothered with inventory, installation, or call-backs.)

By featuring Caprolan nylon carpets, you get all the extra sales-power Caprolan builds into famous-name carpeting. Beauty to match the homes you sell. Color that's deep-dyed to stay brilliant. Ruggedness to stand up to heavy traffic, year after year.

So to build homes that sell faster, include carpeting of Caprolan nylon in your basic building materials. And include it in the purchase price. It makes a package that no woman can resist!

American, Bemporad, Callaway, Lewis, Loomtex, Roman and Trend are just a few of the many fine mills making carpet of Caprolan nylon.

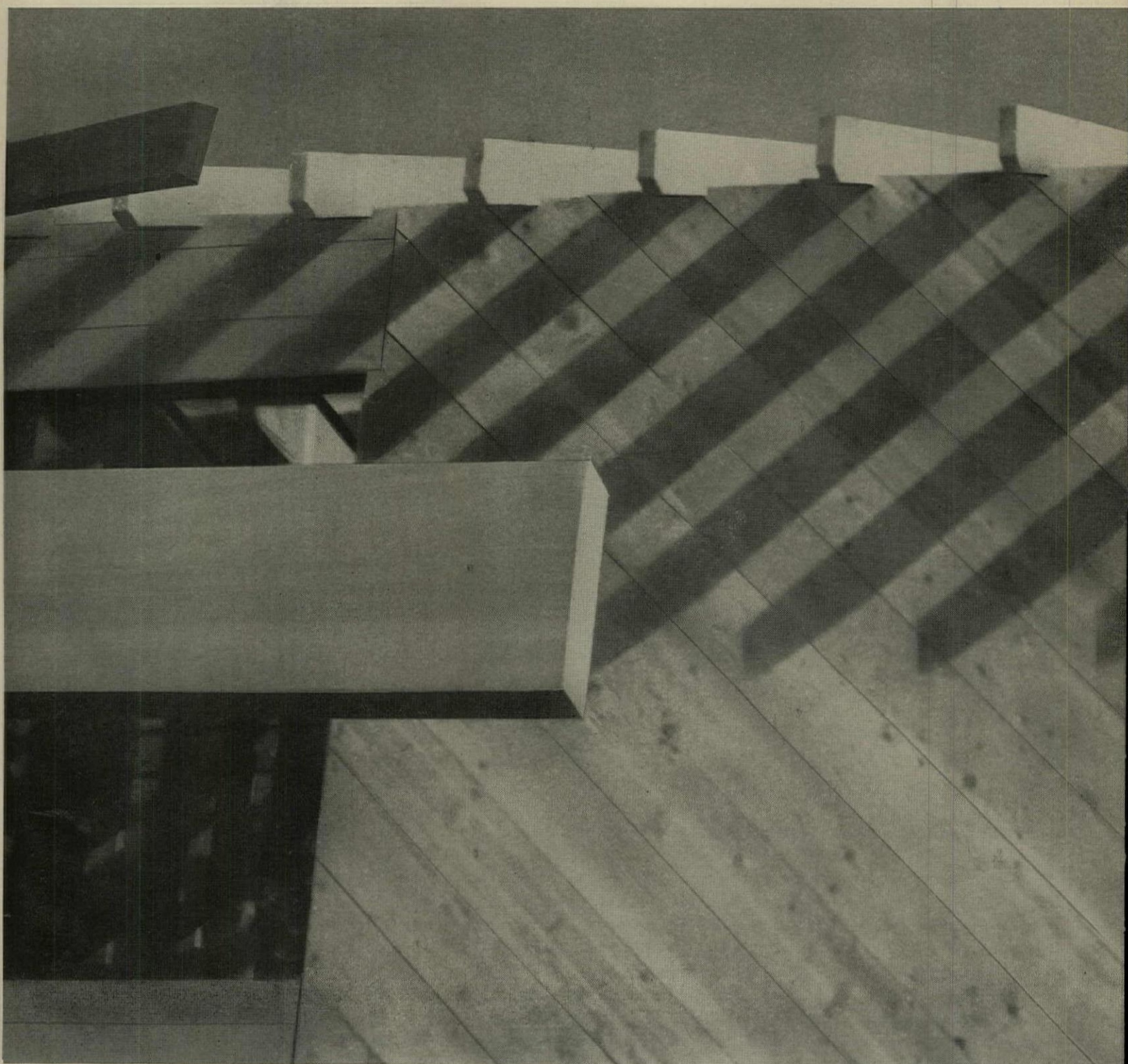
Fiber Marketing Dept., 261 Madison Ave., N. Y. 16, N. Y.



caprolan nylon

BUILD SOLID, STRAIGHT, TIGHT & TRUE

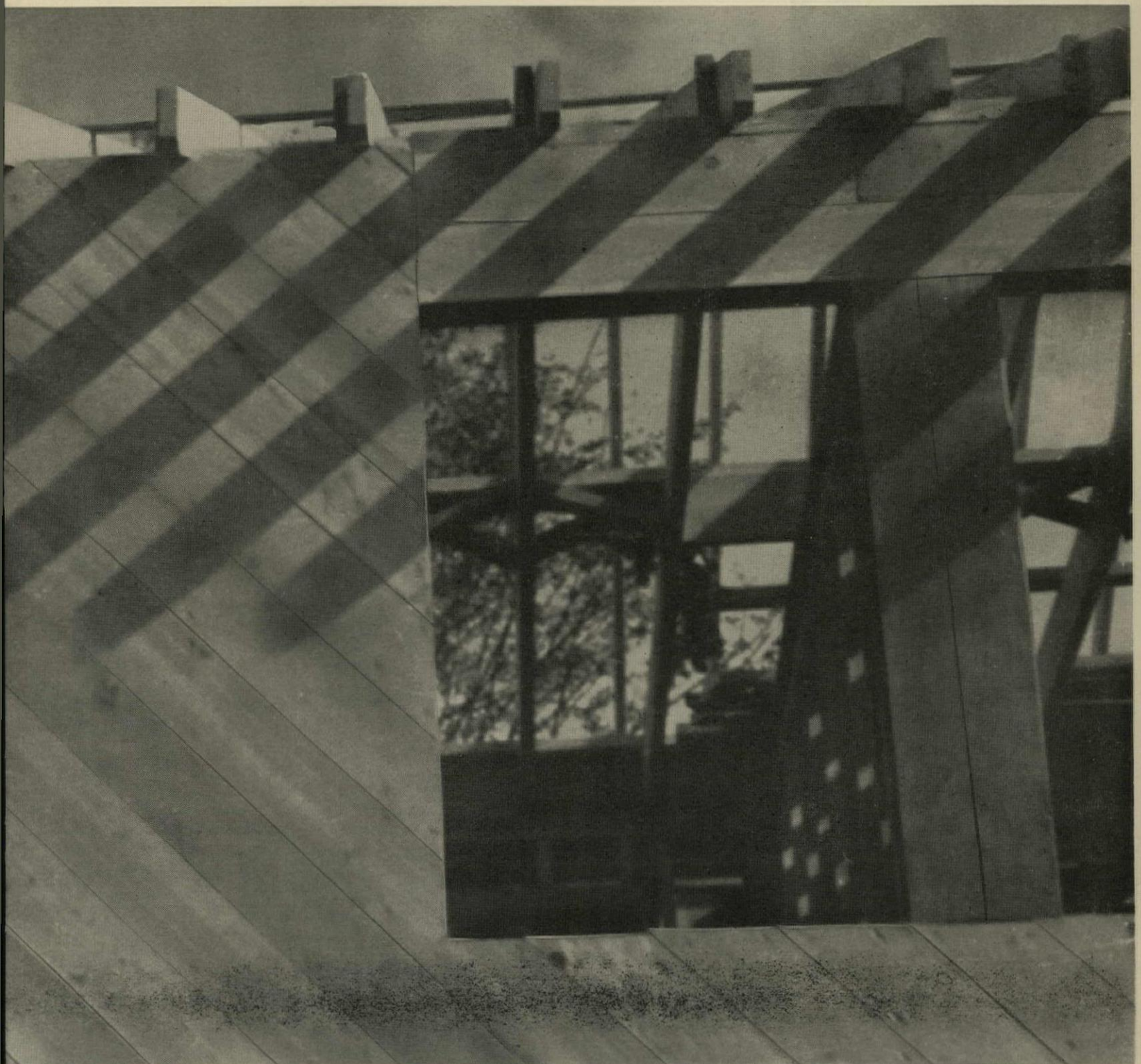
Here's a material you pay for only once . . . yet use many times on the same job! WPA grade and species marked pre-seasoned boards are ideal for stairs, forms, walkways, preliminary braces and other purposes before their final use . . . As **SHEATHING** . . . dry boards give greater nail-holding power . . . and nearly twice the insulation value of half inch plywood. Lumber sheathing also tends to line up studs and rafters. As **SUB-FLOORING** . . . WPA boards have nearly two-thirds more resistance to deflection than other commonly used materials. This stiffness is important because it prevents the floor from dipping, sagging and squeaking. As



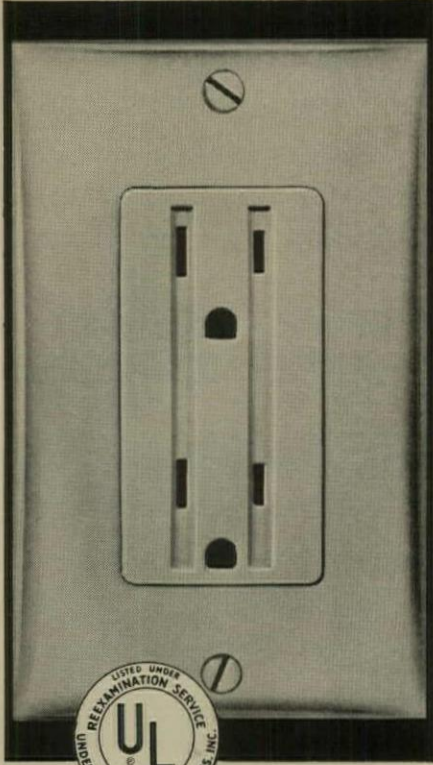
WITH PRE-SEASONED BOARDS

SIDING . . . WPA boards are light, easy to work with, take paint and stain readily . . . and furnish superior insulation. Considering all their uses . . . plus the low cost . . . WPA pre-seasoned #4 common grade boards are a real bargain! And they require no special on-site storage protection! Western Pine Association grade and species marked boards are available from your lumber dealer in the following species:

**PONDEROSA PINE • WHITE FIR • LARCH • DOUGLAS FIR • RED CEDAR • INCENSE CEDAR
SUGAR PINE • LODGEPOLE PINE • IDAHO WHITE PINE • ENGELMANN SPRUCE**



BUILDERS



PROFITS GO UP WHEN MEDALIST GOES IN

Medalist Specification Grade Wiring Devices . . . New modern design grounding receptacles. Available in 5 colors with matching wall plates . . . provides new wiring ease. Patented Speedwire system accepts up to eight #12 or #14 wires—permits internal splicing—eliminates wire nuts. Patented side-release permits instant change of hook-up. Meets all 1963 NEC grounding requirements. Full information on complete Medalist line of outlets and switches is available, write today.

Slater

ELECTRIC INC.

GLEN COVE, NEW YORK

PUBLICATIONS

start on p. 194

More product bulletins

EPOXY-RESIN PRE-GROUTED FLOORING. Data sheet shows five patterns, nine colors. Chemtronics Inc., Columbus, Ohio. (Check No. P40)

ALUMINUM BALCONY RAILINGS. Data sheet. Construction details and specs. Rainbow Aluminum Products, North Miami Beach. (Check No. P41)

FAN-TYPE ELECTRIC HEATERS. 4 pages. Photos and dimensions. Also bathroom fans and accessories. Broan Mfg., Hartford, Wis. (Check No. P42)

FIREPLACES. 4 pages. Explains Benefire heat, construction-time, and materials savings. Recommended flue tile sizes. Bennett-Ireland, Norwich, N.Y. (Check No. P43)

SEWAGE TREATMENT PLANT. 8 pages. Descriptions and diagrams of trickling filter process, four main components, and three-stage expansion. Tex-Vit Mfg. Co., Mineral Wells, Tex. (Check No. P44)

RADIO DESK STATION. 4 pages. Features, electronic characteristics of transmitter and receiver. General Electric, Lynchburg, Va. (Check No. P45)

For more information check 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 Aug. 31, 1963. If you contact manufacturers directly, it is important that you mention the issue of HOUSE & HOME in which you saw the item.

New products

JUNE

- 1. Johns Manville corrugated bulkhead
- 2. Crown fascia-soffit system
- 3. Alsynite fiberglass panel
- 4. National Gypsum asbestos-cement panel
- 5. Wood Conversion balsam wool blanket
- 6. Armstrong resilient flooring
- 7. Stylon ceramic-vinyl flooring
- 8. Fiat lightweight shower
- 9. Jacuzzi whirlpool bath
- 10. Shower Bar Sales curtain rod
- 11. Willett concealed-drawer vanity
- 12. Ina Bath decorative sink
- 13. Kohler vitreous-china bowl
- 14. Joost factory-built vanity
- 15. Glass-Lined Heater water heater
- 16. Bastian-Morley water heater
- 17. Thatcher oil-fired water heater
- 18. American-Standard water heater
- 19. Prescolite down-light cylinders
- 20. Alkco under-cabinet light
- 21. Moe recessed ceiling light
- 22. Lightolier shelf light
- 23. Paytone counterflow unit
- 24. Thatcher gas-fired steel boiler
- 25. Cameron downfiring oil burner
- 26. G.E. electric furnace
- 27. Crane hydronic-electric baseboard
- 28. Gaffers & Sattler heating-cooling package
- 29. Lennox heating-cooling package
- 30. Vega prefab chimneys
- 31. Sewer Guard steel sump
- 32. Swanson Hide-A-Way ironing board
- 33. Rangaire instant hot-water dispenser
- 34. Simplex push-button lock
- 35. Kelley scaffolding clamp
- P4. Globe lighting catalog
- P5. Formica fabricators directory
- P6. NEMA air conditioning ratings
- P7. U.S. Plywood resin-fiber finishing
- P8. Amerada acoustical glass
- P9. Sika concrete compounds
- P10. Vance stainless-steel sinks
- P11. Armstrong flooring catalog
- P12. L. E. Carpenter wall coverings
- P13. Simpson door catalog
- P14. Barreled Sunlight Paint catalog
- P15. Rockwell heavy-duty shop tools
- P16. Lawson lavatory cabinet line
- P17. Federal Lighting Debonaire line
- P18. Georgia-Pacific wood products
- P19. Fasco heaters, fans, vents
- P20. Barclay plastic-coated panels
- P21. Case loaders and backhoes
- P22. Leslie Welding louver line
- P23. Kent-Marco bathroom cabinet line
- P24. Case crawlers and equipment
- P25. Del-Val lighting catalog
- P26. Beta intercom system
- P27. Ramset Fastening System brochure
- P28. Celotex sound conditioning brochure
- P29. Maple Flooring Manufacturers brochure
- P30. Caloric gas incinerator
- P31. Leigh ventilators
- P32. Deere crawlers and equipment
- P33. O'Keefe & Merritt ranges and ovens
- P34. Air Kote plastic paint
- P35. Crane sunken bath tubs
- P36. Thatcher oil-fired boilers
- P37. Versa railings and columns
- P38. Davis trencher-backhoe
- P39. Jerrold master antenna system
- P40. Chemtronics epoxy-resin flooring
- P41. Rainbow aluminum balcony railings
- P42. Broan electric heaters
- P43. Bennett-Ireland fireplaces
- P44. Tex-Vit sewage treatment plant
- P45. General Electric radio desk station

Publications

- P1. DuPont central air conditioning guide
- P2. Emerson lighting catalog
- P3. Progress lighting catalog

Name Position

Firm Kind of business

Street

City State

I wish to enter a subscription to HOUSE & HOME for 1 year, \$6; 3 years, \$12; new; renewal (U.S. and possessions and Canada only)

Name Position

Firm Kind of business

Street

City State

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This free booklet sells your homes faster



...When you plan them... When you build them... When you promote them. Shows how you save precious floor space... slash furnace installation costs... make air conditioning profitable even in modestly priced homes. Includes "Operation Showmanship" custom tailored builder kit that features your homes... not Century equipment. Write today for your free copy "Century's 3-Step Program."

Century

HEATING-COOLING

Century Engineering Corporation • Cedar Rapids, Iowa

Second time around

Remember a story that ran last November in HOUSE & HOME called *The Challenge of Open Occupancy?* Associate Editor Bob Murray wrote it. It earned us one of the 1963 Loeb Awards "for distinguished business and financial reporting". That makes our second. (Present Managing Editor Gurney Breckenfeld got us our first in 1960, and we were the first business publication to be so honored.) This brings our total of citations for editorial excellence to twenty-four in ten years. Editorial quality helps make HOUSE & HOME first in circulation, first in advertising, first in service to the industry.

House & Home

Management magazine of the housing industry
Member, Associated Business Publications

Kitchen Kompact installed in smart New Orleans apartments



Studio Arms IV is one of several luxury type apartments built by the Dominion Construction Corporation in New Orleans. It is located in Jefferson Parish—just minutes from the heart of the city.



Kitchen Kompact "Fruitwood Birch" cabinets handsomely complement the stylish decor of the Studio Arms IV. Low "in-wall" costs, speed of installation, and smartness of design favored Kitchen Kompact as an ideal cabinet selection.



The attractive court and pool add casual charm to the 144-unit project. All units are two-bedroom and rent for \$175.00 per month. Owners report virtually 100% occupancy.



Gamble-Taylor Company tastefully furnished the apartments and installed Kitchen Kompact kitchen units. Walther Brothers is the New Orleans KK distributor.



Kitchen Kompact can meet most requirements for project installations, residential construction, and remodeling. KK's clean design *stays in style* year after year. Complete range of units in two popular finishes—mellow, friendly "Warm Tone" and delicately gentle "Fruitwood Birch."

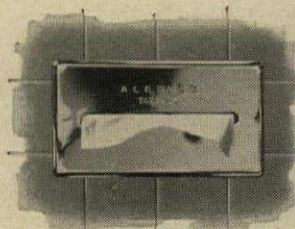
STOCKED NATIONALLY BY 100 DISTRIBUTORS IN ALL MAJOR MARKETS. A FEW SELECTED AREAS AVAILABLE FOR DISTRIBUTORSHIP. WRITE TODAY FOR FULL SPECIFICATIONS AND PRICES.

Kitchen Kompact INC. JEFFERSONVILLE, INDIANA

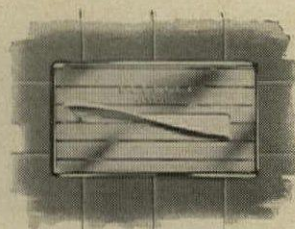


(for the Dispenser for Kleenex tissues)

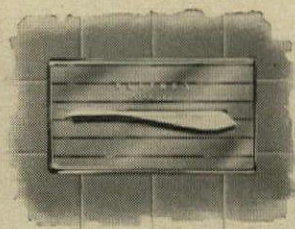
It's an extra added attraction—the kind home buyers appreciate. This built-in Dispenser makes a proper place for Kleenex tissues. Adds a modern touch to bathroom and kitchen alike! Smartly designed by Kimberly-Clark (in four handsome finishes) it fits flush into a 5" x 11" x 2¹/₁₆" recess. Holds a full box of Kleenex 300's (the world's most popular tissues). Is easy to fill. Easy to keep clean. Plan to build this economical extra attraction into your homes. For full information write: Kimberly-Clark Corporation, Department **HH-63**, Neenah, Wisconsin.



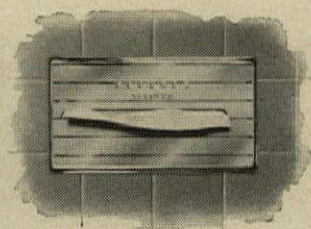
Mirror Chrome Finish



Chrome Stripe Finish



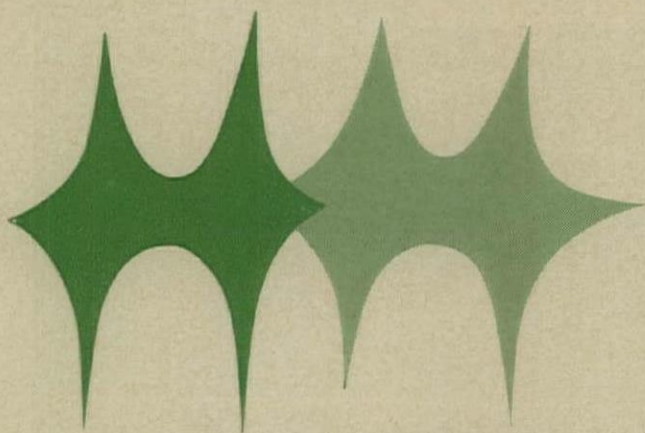
Copper Stripe Finish



Gold Stripe Finish

Kleenex is a trademark of Kimberly-Clark Corporation, Neenah, Wisconsin

Achieve national recognition for
your best home-building ideas



Enter the 3rd annual
**CONCRETE
INDUSTRIES
HORIZON
HOMES
PROGRAM**

The Horizon Homes Program—initiated in 1961—has established itself as an important industry effort to encourage home ownership and reward excellence in design, construction and merchandising of new homes. Once again, this sales-proven program offers opportunity for architects and builders to present their newest home-building concepts in competition for major national and regional awards.

Architects can enhance professional stature by participation in this proven program supported by strong national and local publicity. Teamed with an enterprising local builder, each architect can express his most exciting ideas in design, working with the many imaginative new forms, shapes, colors and textures of today's concrete.

Builders receive vital support to help sell more homes. Tying in with the extensive national promotion of the Horizon Homes Program, a complete kit of sales and promotion materials is provided each builder. It covers every phase of local Horizon Home merchandising from the initial planning stage straight through model home showing.

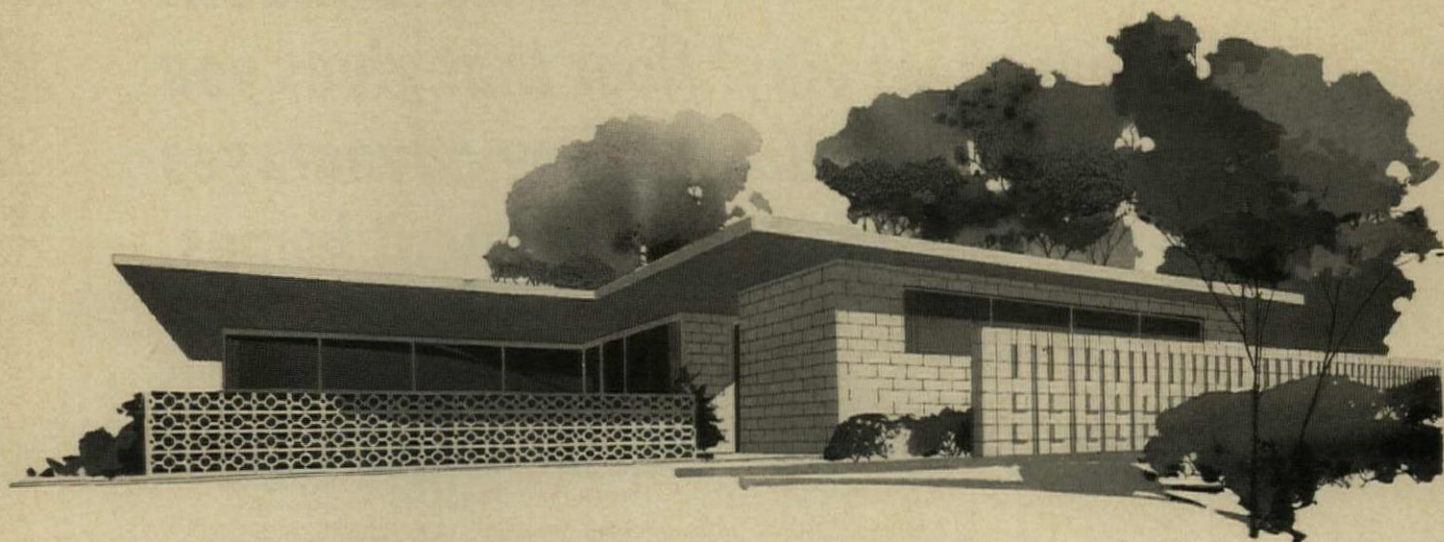
Two top prizes. The architect who wins the national design award and the builder who wins the national merchandising award will each receive a trip for two to any place in the world. Fourteen major regional awards are also to be presented.

To be eligible for the awards, model Horizon Homes must be shown any ten consecutive days prior to October 15, 1963.

Now is the time to get started on your Horizon Homes entry. For complete rules and eligibility requirements, contact your nearest PCA district office.

PORTLAND CEMENT ASSOCIATION

*A national organization to improve and extend the uses
of portland cement and concrete*



Plan now to join this distinguished roster of
HORIZON HOMES AWARD WINNERS

NATIONAL DESIGN AWARDS

1961

South Plainfield, New Jersey

Architect: Kuhn & Drake
Builder: R & S Builders

1962

Tucson, Arizona

Architect: William H. Cook, Cook & Swaim, AIA
Builder: Abril Construction Co.

REGIONAL DESIGN AWARDS

1961

Mashpee, Massachusetts

Architect: Robert Damora
Builder: Emil Hanslin Associates, Inc.

Winston-Salem, North Carolina

Architect: Don Hines, Stinson-Hall Associates
Builder: William T. Wilson, Wilson Bros. Lumber Co.

Rockford, Illinois

Architect: C. Edward Ware, AIA
Builder: Wojcik Construction Co.

Odessa, Texas

Architect: Peters and Fields
Builder: Tadlock Homes, Inc.

Hutchinson, Kansas

Architect: Miller, Hiatt, Hockett, Dronberger & Arbuckle
Builder: Warren Schmitt Construction Co.

Lehi, Utah

Architect: Dixon and Long
Builder: Leland J. Wells

Lynnwood, Washington

Architect: Dan F. Miller, AIA & Associates
Builder: Stewart & Potter

1962

Lakewood, New Jersey

Architect: John Robert Gilchrist
Builder: Robilt, Inc., Robert J. Schmertz, Pres.

Kinston, North Carolina

Architect: Rowland, Simpson & Ferguson
Builder: DuBose Construction Co.

El Paso, Texas

Architect: Garland & Hilles
Builder: E. H. Baeza

Garden City, Kansas

Architect: Lyman, Jones, Cobb & Benson
Builder: Masonry Products, Inc.

Salt Lake City, Utah

Architect: Arthur K. Olsen, AIA
Builder: Cannon-Papanikolas Construction Co.

San Diego, California

Architect: Hester and Jones
Builder: Charles C. Richardson Co., Inc.

NATIONAL MERCHANDISING AWARDS

1961

Avon, Connecticut

Builder: Louis M. Beckenstein, Green Acres, Inc.
Architect: Kane & Fairchild

1962

El Paso, Texas

Builder: Miele Construction Co.
Architect: Middleton and Staten

REGIONAL MERCHANDISING AWARDS

1961

Erie, Pennsylvania

Builder: Pastore Brothers, Inc.
Architect: Richard Weibel & Associates, AIA

Columbus, Georgia

Builder: Ray M. Wright, Inc.
Architect: Baldwin & Letson

Columbus, Indiana

Builder: Charles Gellius
Architect: Charles A. Totten, Jr.

El Paso, Texas

Builder: Willis Construction Co.
Architect: Dickson M. Skidmore

Springfield, Missouri

Builder: Ralph K. Manley
Architect: Joe C. Holcomb

Albuquerque, New Mexico

Builder: Frank Marberry
Architect: John Reed

Lewiston, Idaho

Builder: Walter Parr
Architect: William I. Parr

1962

Lakewood, New Jersey

Builder: Robilt, Inc., Robert J. Schmertz, Pres.
Architect: John Robert Gilchrist

Greensboro, North Carolina

Builder: Superior Construction Corp.
Architect: Loewenstein-Atkinson

El Paso, Texas

Builder: E. H. Baeza
Architect: Garland & Hilles

Salina, Kansas

Builder: Lee Haworth Construction Co., Inc.
Architect: Ron Richmond

Salt Lake City, Utah

Builder: Cannon-Papanikolas Construction Co.
Architect: Arthur K. Olsen, AIA

San Diego, California

Builder: Charles C. Richardson Co., Inc.
Architect: Hester and Jones

TRACINO CORLON: *A new sheet vinyl floor that gives you luxury floor selling advantages — yet is priced for development homes.*

This new Armstrong textured sheet vinyl floor comes in two distinctive designs: a handsome stone-chip effect with a hand-crafted inlaid look, Tracino Mosaic; and Tracino Marble, the graceful tracery marble effect shown across the page (Style 88021). Tracino was specially designed to give your prospects the advantages of luxury sheet vinyl floors at low cost: about 65¢ sq. ft. installed. That's just a little more than many kinds of linoleum and much less than other textured sheet vinyl floors.



Tracino Mosaic
actual scale



Tracino Marble
actual scale

Textured surface. Tracino features today's most luxurious and exciting flooring effect, the textured surface—previously available only in more expensive floors. The gently embossed surface helps hide scuff marks, indentations, and minor subfloor irregularities.

Most wanted styling. Tracino is as smart and up-to-the-minute as expensive high-fashion floors. It's available in the neutral stone colorings so popular because they harmonize with most home furnishings.

Fewest possible seams. Tracino comes in long rolls 6' wide, so it can be installed as an almost seamless floor. Housewives know that the fewer the seams, the easier a floor is to keep clean. And they can see that an uninterrupted sweep of flooring within a room, or from one room to another as shown in the photo opposite, adds a feeling of openness and spaciousness to your model . . . gives a home a more luxurious and expensive look.

The best known brand. When you offer an Armstrong floor, you're putting your prospects' trust in the Armstrong name behind your own good reputation. Years of satisfaction with Armstrong products, plus extensive advertising, have made Armstrong the best known and most trusted name in building materials.

Above-, on-, or below-grade installation. Tracino has the patented Hydrocord Back, so it can be installed anywhere in a home—even in a downstairs family room (except in unusual cases of excessive alkalinity or hydrostatic pressure). This applicability to all grade levels allows you to create a sense of design unity throughout your homes with the floor alone.

SALES HELP. For more information on how Armstrong floors can help you sell more homes faster, see your flooring contractor. Or call your Armstrong Architect-Builder Consultant at your Armstrong District Office. He can give you a choice of merchandising services, too. If you wish, simply write Armstrong, 306 Sixth St., Lancaster, Pa.



Armstrong VINYL FLOORS

Tracino, Corlon®, and Hydrocord® are trademarks of the Armstrong Cork Co.
 Tracino Marble design copyrighted by Armstrong Cork Co.