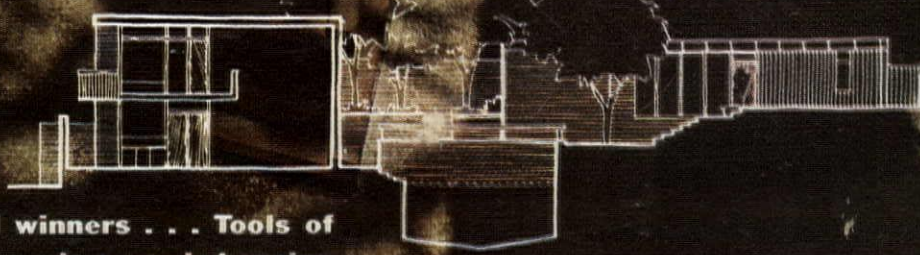


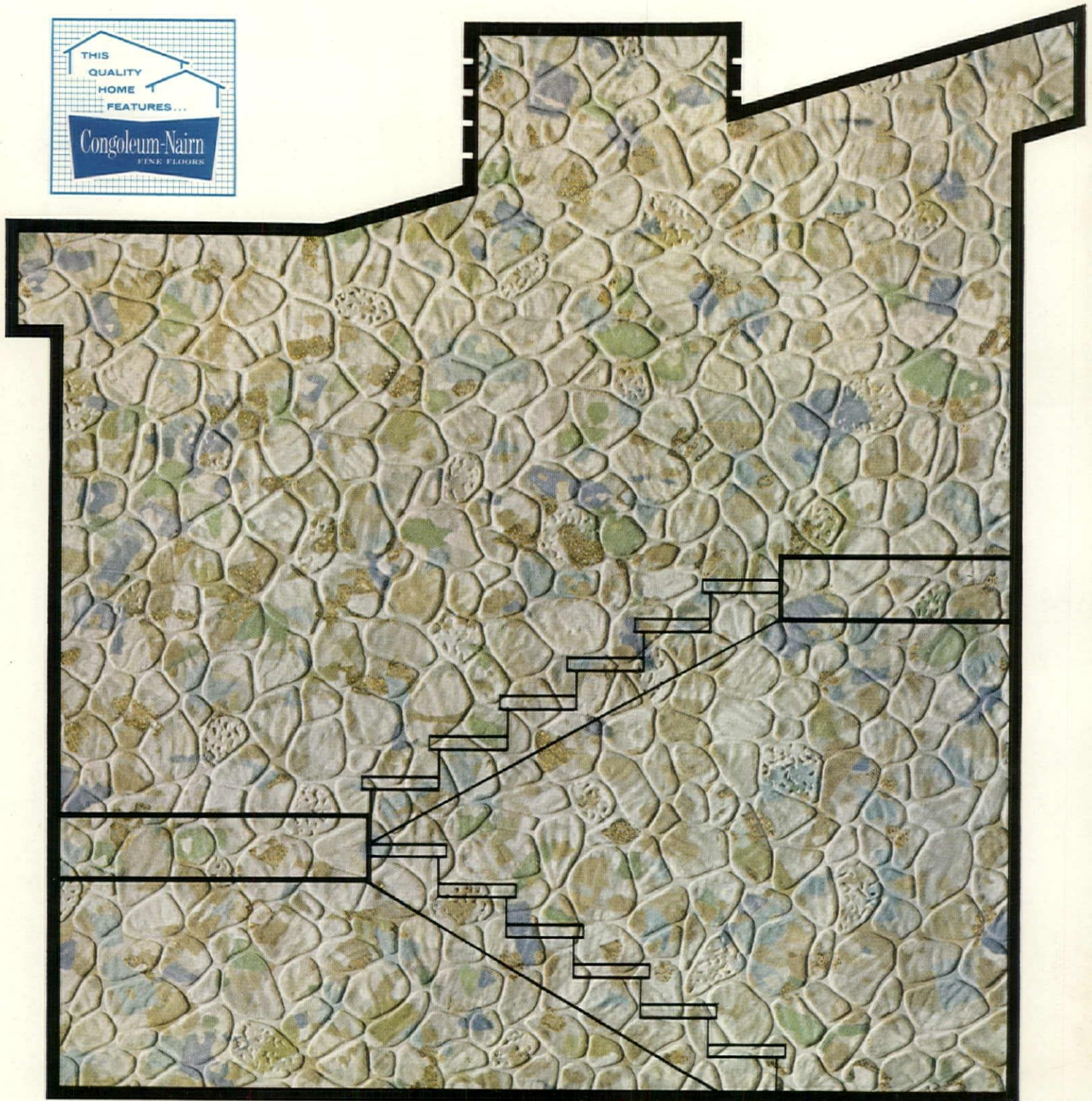
House & Home

MANAGEMENT MAGAZINE OF THE HOUSING INDUSTRY

AUGUST 1964



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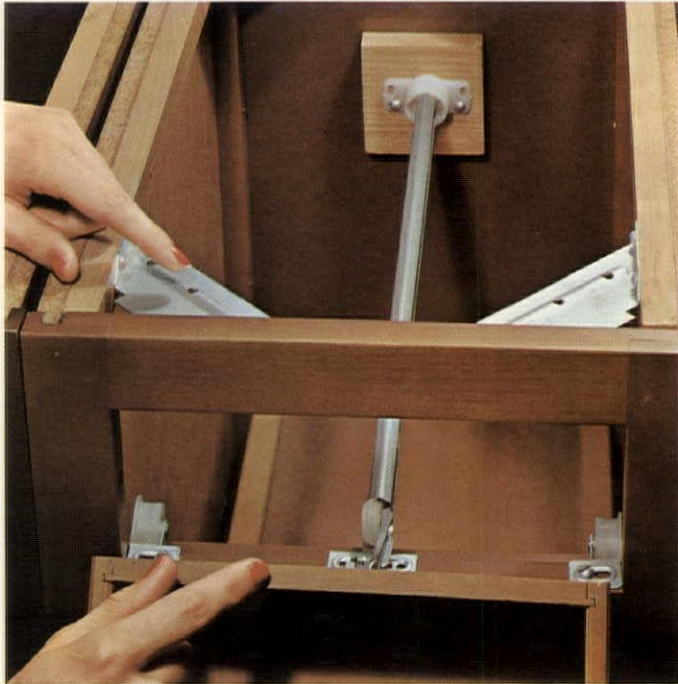
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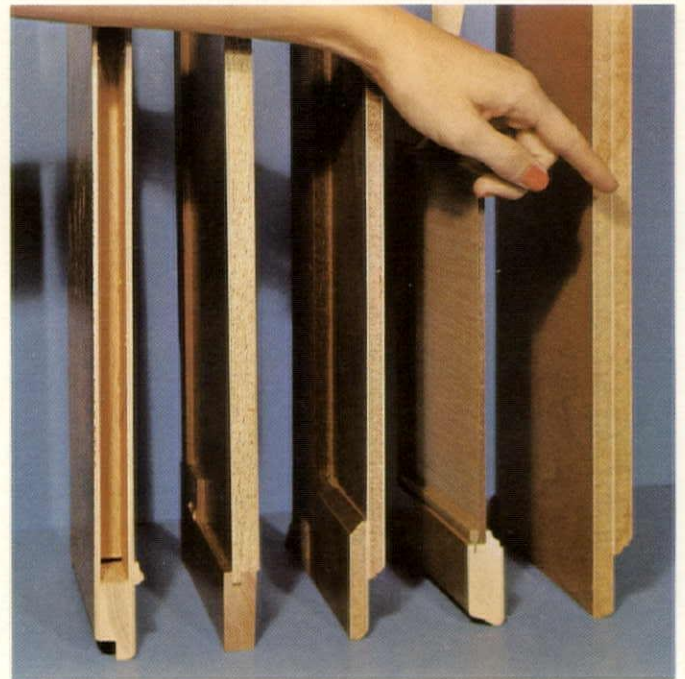
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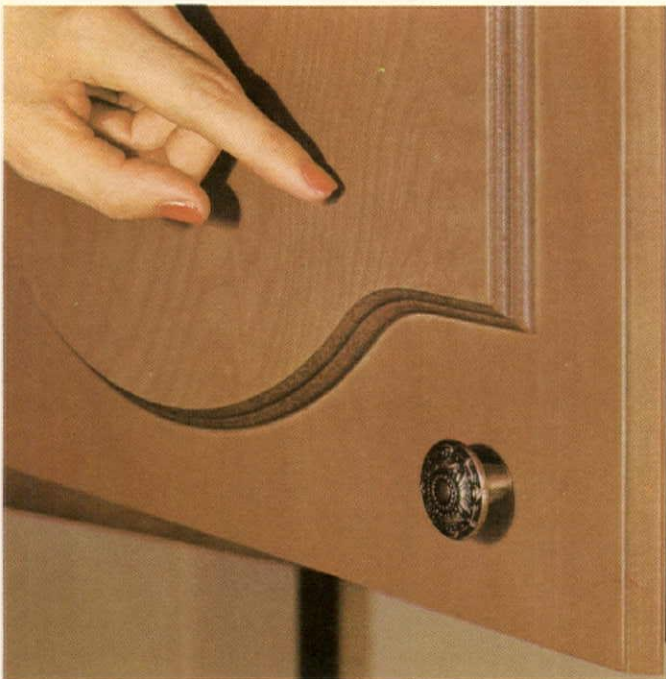
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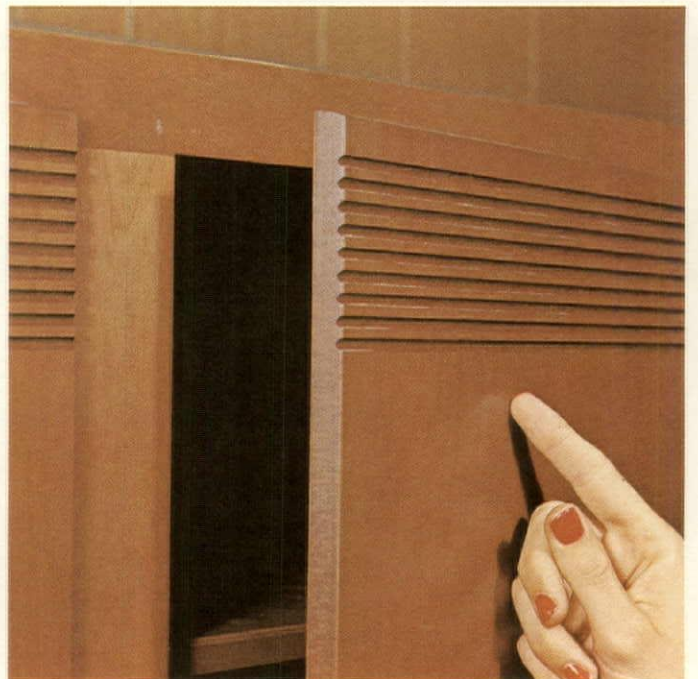
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Publisher's note

With this issue, HOUSE & HOME, published by Time Inc. since 1952, joins McGraw-Hill Publications.

There is no magazine which we at McGraw-Hill have regarded more highly than HOUSE & HOME. It has amply fulfilled our first requirement of a business publication: that it be a leader. Under Time Inc. HOUSE & HOME has led in circulation, in advertising, in reader preference—and in advocating needed changes in one of the nation's biggest, most populous and most basic industries.

But what does HOUSE & HOME's move to McGraw-Hill mean to you, the reader? We can best answer by telling you what it means to us. In assuming publishing responsibility, we will maintain and, if possible, improve HOUSE & HOME's standards of service (spelled out by the editors on p. 49) to readers, advertisers and the housing industry.

McGraw-Hill offers HOUSE & HOME potent help in maintaining these standards—first because it is the largest publisher of magazines for industry and commerce, second because it provides unique services and know-how geared to the needs of the construction industry. For example:

1. HOUSE & HOME will use all McGraw-Hill sources of construction-industry information. One principal source is the F. W. Dodge Co., a division of McGraw-Hill Inc. Dodge's services: daily Dodge Reports of activity in housing and light construction (prepared by more than 1,400 trained news gatherers); a cumulative activity record of the number, dollar value and type of buildings being constructed by builders and general contractors from coast to coast; data on construction costs and trends.

2. HOUSE & HOME will draw on the expertise of Dodge's specialized building economists—particularly their knowledge of costs and trends.

3. HOUSE & HOME will exchange information and ideas with the editors of seven other McGraw-Hill magazines and newspapers serving the construction industry—*Architectural Record*, *Chicago Construction News*, *Construction Methods and Equipment*, *The Daily Journal* (Denver), *Daily Pacific Builder*, *Electrical Construction & Maintenance*, *Engineering News-Record*. In fact, HOUSE & HOME rounds out McGraw-Hill's already broad construction-industry coverage.

Our objectives are clear: to provide the reader with editorial content that materially aids him in his business, and to provide advertisers with maximum coverage of the housing and light construction market for every dollar invested in HOUSE & HOME.

We think you will be pleased with the result.—E. E. W.

AUGUST 1964

House & Home

A DODGE/MCGRAW HILL PUBLICATION

VOL. XXVI NO. 2 AUGUST 1964

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Special report on land: why today's land costs are high—and still rising . . . how new planning ideas can cut costs and create better neighborhoods . . . how an earth-moving subcontractor holds down excavating costs



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Housing outlook: is all the worry justified?

Housing men puzzling over the second half of 1964 can balance many of the popularly cited minuses with some strong pluses.

On the gloomy side, private nonfarm housing starts have been trending downward since January. They touched 1,485,000 units in April and sagged slightly to 1,479,000 units in May, well below 1963 rates.

But building permit rates indicate the fall is over and the backlog of plans is still high. After peaking at year-end, permit rates have leveled at a 1,250,000-a-year pace.

Likewise apartment starts and permits have been falling since the first of the year, reflecting growing coolness by mortgage lenders (NEWS, June).

But widely advertised overbuilding "surprisingly is less widespread than anticipated," according to a just-completed survey by the National Association of Real Estate Boards.

Private residential construction put in place topped the 1963 pace by 7% through July. And an ENGINEERING NEWS RECORD survey of 14 cities finds builders speaking confidently of housing activity.

One-family houses are proving the steadiest market

Both the ENR survey and HOUSE & HOME's checks find solid activity in the one-family field. In both Dallas and Chicago single-family activity is leveling and lenders and builders look for a slow but steady climb upward.

Sales of 188,000 one-family homes by merchant builders were running 8.7% ahead of 1963 through April, according to a Census-HHFA tally.

And the same study shows merchant builders are relying heavily on FHA and VA programs. During 1963 fully 38% of the 566,000 homes sold by merchant builders were financed by either FHA or VA.

Latest reports also show FHA activity is picking up. FHA starts in May jumped 14% over April, mainly because of 6,758 apartment units started that month. New-home starts under FHA are still below 1963 levels.

Reapportionment may signal more state aids to builders

Industry observers foresee some fundamental changes for housing in the wake of the last month's historic U.S. Supreme Court decision ordering states to redistrict their legislatures on a one-person, one-vote basis.

Such changes could end the traditional dominance of rural areas over state legislatures. Less than 20% of voters can now control legislatures in 15 states, for example. This rural control has been a key reason why big-city mayors have sought federal aid for housing.

If city dwellers assume control, some changes might include:

- More state aid, like New York State's Mitchell-Lama plan, for middle-income housing. New York floats public bond issues backed by the state's credit, relends the money to builders at sub-market rates (now 4.1%).

- More tax breaks for renewal builders. Financially hard-pressed cities eye new renewal buildings for increased tax dollars. One redeveloper says his tax bill is so high he would have to get 107% occupancy to break even. Two possibilities: New York-style tax abatements and taxes tied to rent rolls as in New Jersey.

Don't look for such events overnight. Republicans plan to make a campaign issue of the Supreme Court decision, so the election may delay any sweeping changes until 1965.

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Stop-gap housing bill clears the way for major changes next year

WASHINGTON—As predicted, the 1964 housing bill is a minimum measure extending almost every HHFA program to a simultaneous cut-off with FHA on Oct. 1, 1965, and avoiding every possible area of controversy this session of Congress.

Sen. John Sparkman (D., Ala.) and his housing subcommittee have two reasons for going along with only stop-gap legislation this year:

1. By linking the FHA—favored as it is by Congress—with the more controversial urban-renewal, public-housing and subsidy programs, the Administration hopes to put maximum leverage behind a king-sized housing bill in 1965.

2. Caught between the three-month Senate embroilment in the civil rights bill and the political campaigning facing congressmen this year, a major housing bill would get short shrift between now and November.

Odds and ends for 1964. The stripped-down bill reported by the Sparkman subcommittee to the full Senate banking committee gives only a 15-month extension to public housing (45,000 units) and urban renewal (\$850 million for grants). It scuttles most of President Johnson's 1964 recommendations, including the FHA-insured land loans for new towns, the rise in the FHA mortgage ceiling to \$30,000 and authority for FHA to buy and lease existing housing in scattered locations to avoid concentrations of publicly housed families.

The bill will make these minor FHA changes:

- Add appeal to Sec. 203k big-ticket improvement loans (20-year, \$10,000 limit) by waiving the economic-soundness requirement outside renewal areas and al-



SENATE'S SPARKMAN
"We wanted a uniform date"

lowing cash payoffs instead of debentures when loans go sour.

- Encourage forbearance by lenders to owners in temporary economic straits by letting the lenders collect interest from the default date instead of the foreclosure date if the property is ultimately foreclosed.

- Let FHA repair major structural defects (not chargeable to the builder) without first foreclosing on the homeowner. This proposal was bitterly fought by NAHB, which said it would open a Pandora's box of owner griping and FHA intervention.

Surprise aid for conventionals. While doing little to help FHA increase its share of new housing starts from 1963's all-time low of 12%, Sparkman's subcommittee is urging these changes to increase the builder's supply of conventional loans:

- Quadruple the lending area of federal S&Ls by letting them lend within 100 miles of their home offices (vs. 50 miles now).

- Let federal S&Ls lend up to 5% of their assets in renewal areas instead of requiring groups of S&Ls to form investment trusts to invest in such projects.

- Boost mortgage limits for national banks from the present 20-years at 70% of value to a competitive 30-years at 80%.

The fate of these suggested changes is uncertain at best since they have been strongly opposed in the Senate in the past.

Trouble back home. Sen. Sparkman had another reason for not wanting to get into a knock-down, drag-out fight over housing: such a fight would cast him as a leading pro-Administration figure at a time when Administration popularity in Alabama is at a low. He comes up for re-election in 1966, and faces almost certain opposition from the forces of segregationist Gov. George Wallace. The pro-Johnson tag has already defeated one congressman in Alabama this year.

- Regardless of whether the full banking committee accepts or discards Sparkman's proposals, it is still a toss-up whether the bill can reach final enactment before the Democratic convention in late August. Chairman Albert Rains (D., Ala.) of the House housing subcommittee insists that he won't take up the bill until the Senate has finished with it.

Passage of this bare-bones interim bill would leave to the incoming 89th Congress the job of setting housing policy and direction for the second half of the '60s a period when new family formations, spawned by the post-World War II baby boom, are expected to boost annual housing starts to two million.

NAHB at war with Pentagon over family housing empire

WASHINGTON—The Pentagon has revealed a startling fact: the Defense Dept. has invested more money—\$3,165,324,000—in family housing than any other single item.

So last month NAHB mounted a frontal attack against what it called "a costly and unnecessary housing empire." NAHB President William Blackfield told the Senate:

- "Sales housing is arbitrarily excluded" from Defense surveys of housing.

- Defense seeks on-base units for isolated posts, yet "46% of (9,700) units approved by the House last spring are in or near metropolitan areas."

Blackfield pressed the Senate to order a two-year moratorium for on-base units until current base closings (NEWS, Feb.) have leveled. But the Pentagon's housing expert, Deputy Assistant Secretary John Reed, is firm in favoring rental units for military men subject to periodic shifts.

NAHB's initial push won limited success. The senators refused the moratorium, but added only 186 units to the House figure.

WASHINGTON INSIDE

► Cities gain, S&Ls lose voting power

Two votes last month measure the slow changes in voting muscle in Congress that may affect future housing legislation. Cities—with unexpected backing from suburbanites—won a two-year fight to get Uncle Sam to pay two-thirds of the tab for renovating or buying new equipment (up to \$375 million) for publicly owned transit systems. Rep. William Widnall (N.J.), the Republican's strongest housing voice in Congress, rounded up 39 key Republican votes, including nearly all suburban New York members.

Days before, S&Ls—housing's most powerful congressional lobby—lost a move to boost FSLIC and FDIC insurance of savings accounts from \$10,000 to \$20,000. The Administration and commercial bankers wanted tighter federal rules for S&Ls to accompany higher insurance coverage.

► FTC sidesteps appliance resale ban

The Federal Trade Commission has chilled Frigidaire's plan to halt resale of appliances

some builders have been buying directly from appliance manufacturers.

When dealers complained last year that builders resold unused appliances to competitors at below-wholesale prices, Frigidaire Division of General Motors proposed that builders be required to sell unused appliances back to the manufacturers (NEWS, Jan.). Now FTC has ducked this proposal, saying it was linked to a matter being probed by the Justice Dept. FTC's attitude miffs staffers of Rep. James Roosevelt's small business subcommittee, which heard the original complaints. They say they know of no parallel probe by Justice.

► Pre-election look at housing

Rep. Albert Rains (D., Ala.) will probably take his House housing subcommittee into 8 to 15 cities this fall to check urban renewal progress and how FHA is handling its foreclosure problems. Washington sources still insist Rains will become HHFA administrator if President Johnson is re-elected.

Rights law: last-minute compromise raises a key question for housing

WASHINGTON—The new civil rights law cannot be used to extend the late President Kennedy's 1962 anti-bias order to conventionally financed housing.

That limitation was written into the law in a last-minute compromise amendment by Democratic Senators Russell B. Long (La.), Albert Gore (Tenn.), John Pastore (R.I.) and Abraham Ribicoff (Conn.). The one-sentence amendment:

"Nothing in this title [Title VI of the rights law] shall add or detract from any existing authority with respect to any program or activity under which federal assistance is extended by way of a contract of insurance or guaranty."

The amendment's foggy language means that a president can still police discrimination in FHA or VA housing, but that he has no right to use the new law to extend the bias ban to housing financed by federally chartered or insured banks and savings and loan associations.

The key question. Not clear, however, is whether the amendment forbids the President's using his executive powers to

broaden the 1962 bias ban.

Sen. John J. Sparkman (D., Ala.) insists it does. Sparkman, chairman of the housing subcommittee, told the Senate:

"It will take affirmative, separate legislation and not merely an executive order under the so-called existing authority to include banks and s&ls as being within the purview of Title VI in its entirety." He said an executive order would be unconstitutional and "an attempted usurpation of legislative power by the President in the greatest of all fields of housing, the conventional [mortgage] market."

But such Northern rights backers as Hubert H. Humphrey (D., Minn.) and Clifford P. Case (R., N.J.) claim President Johnson still has sufficient powers beyond the rights law to extend anti-bias orders. They point out that the Senate rejected, 66 to 24, an amendment by Sen. Long to nullify the executive order. And, they say, this vote gives the ban a history of congressional approval and thus makes it less liable to a challenge in the courts. No court challenge has been filed but Sparkman has hinted possible test cases.

Puzzler on labor. The rights law's employment section forbids racial bias by employers or unions with 100 or more employees one year after the law's July 2 signing. This floor drops to 25 employees by July 2, 1968. An Equal Employment Opportunity Commission, yet to be named, will seek voluntary settlements of bias charges before taking them into court.

The section leaves unanswered an important question for builders: do the floors, stepping down from 100 to 25 employees include a builder's subcontractors and their employees? The tentative answer (subject to a commission decision): yes.

What of licensed professions? Yet another unresolved question concerns realty brokers, salesmen and other professionals who must obtain state licenses. The National Association of Real Estate Boards thinks they may be covered by the rights law's section that requires private business engaged in interstate commerce to serve customers without bias. But Washington legal men say it applies only to public accommodations in interstate business.

Builders oppose extending wage fringe bill to single-family housing

WASHINGTON—Now that the controversial Davis-Bacon wage fringe legislation has been signed into law, the housing industry is wondering whether it will be broadened to include labor on single-family houses.

As it stands now, the measure adds the cost of fringe benefits to wages on all federally-aided, multi-family projects of over 11 units.

What makes housing men nervous is an amendment (HR 7075) by Rep. James Roosevelt (D., Calif.) now before the House labor subcommittee. Ostensibly, the amendment sets up and clarifies review procedures for builders who want to appeal wage and fringe levels established by Labor Department specialists. But NAHB Labor Director John J. Riley insists that

as the amendment is written it will also bring FHA and VA single-family housing under the bill. And although Roosevelt's labor subcommittee aides deny this, NAHB plans to demand specific exemption of single-family housing, and has asked its local chapters to prepare testimony against the amendment.

The original Davis-Bacon bill was passed by the Senate last month by voice vote, and President Johnson quickly added his signature on July 2. The bill had cleared the House in January by a 357-50 vote with heavy backing from construction unions. Union officials make no secret of plans to require nonunion contractors using the affected FHA sections—220, 233 and all other FHA multi-family building over 11 units—to pay the same total con-

tract costs as union contractors, whose pacts contain health, welfare, pension and fringe items. In this way they say the bill will check nonunion competition.

Are work quotas lawful? builders ask federal court

BERKELEY, CALIF.—The Associated Home Builders of Greater Eastbay has asked a federal court here if a union can set work quotas and enforce them with fines. NAHB is supporting its chapter in the appeal from a National Labor Relations Board ruling (NEWS, Apr.). The Board ruled that Shinglers Local 478 could not apply dues toward such fines, but did not rule on work quota legality.

New lumber standards: light vote leaves the issue still in doubt

WASHINGTON—The Commerce Dept. last month unveiled a complex tabulation of votes on the proposed dry-lumber standards that left the \$100-million question for housing in mid air.

Commerce found that 60% of the 3,079 voters favored the new standards relating lumber dimensions to moisture content. But votes were cast by only 19% of the 16,100 lumber manufacturers, distributors and users who received ballots.

But Commerce gave no clue as to whether it deems these results the overwhelming approval which it and the lumber industry had sought before the new rules are adopted as voluntary commodity standards. Commerce says it will decide by

mid-August. Meanwhile Rep. James Roosevelt (D., Calif.) will hold a public hearing before his small business subcommittee on the standard's economic impact. Roosevelt says he wants to let small West Coast green-lumber producers—who strongly oppose the rules—make their voice heard before final action.

But the National Lumber Manufacturers' Assn., strongest backer of the new standards, calls the vote "a clear cut mandate" to adopt them immediately. NLMA Executive Vice President Mortimer Doyle points out that producers of 81% of U.S. lumber favor the standards, and 93% of specifiers, designers and related groups voted for them—"unmistakable evidence that the lumber

industry and its most important customers want superior wood products."

Support of the new standards was lowest among distributors, although distributors of 55% of the lumber represented voted for the change. Their apparent reason: fear that they would have to stock two lumber sizes. Under the new standards, dry 2x4s would be 1½" x 3⅝" while green would be 1⅞" x 3⅞". Both are 1⅞" x 3⅞".

Major producers are already shifting much of their production to the new dry sizes (NEWS, July). They find shipping costs are lower and thus give customers the benefit of a slightly lower price. Local s&ls are financing homes using the dry lumber, but FHA has not accepted it.

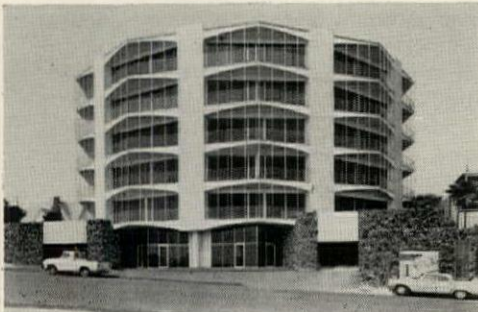
When Walter Wisznia finishes a job, he likes to walk away without worrying.



That's why he used KitchenAid dishwashers in the first Texas condominium.

Like any builder, Walter Wisznia doesn't want to have customer callbacks on appliances. He kept this in mind when he designed the unusual Executive House in Corpus Christi.

He specified KitchenAid Superba Vari-



Cycle or KitchenAid Imperial dishwashers for all units. The condominium apartments sell for \$21,900 to \$43,600. Condominiums must have nothing but top quality components that give long service. When people buy rather than rent an apartment, they expect the very best.

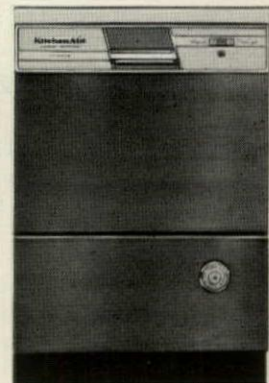


That's what prompted Walter Wisznia to demand KitchenAid dishwashers for his condominium. He knew the product had a good reputation and that customers had nothing but praise for it. He had also used KitchenAid in three of his own homes and never once had a service call. He also liked the fact that the unique KitchenAid Vari-Front panels let him match any kitchen decor.

All these facts made Walter use nothing but KitchenAid even though competitive brands bid many dollars less per dishwasher.

You can almost bet that Walter's new condominium projects planned for San Antonio and Houston will have KitchenAid dishwashers.

Your distributor can give many more reasons why you should install KitchenAid. See him, or write *KitchenAid Home Dishwasher Division, Dept. KHH-4, The Hobart Manufacturing Company, Troy, Ohio.*



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See KitchenAid in the Traditional Home at the House of Good Taste, New York World's Fair.

U.S. again wrestles with high closing costs, a drag on builder sales

WASHINGTON — The grab-bag of charges lumped under the "closing cost" tag has become one of housing's stickiest problems.

No one knows the precise impact of closing costs on housing sales. Best estimates show they cost new-house buyers upwards of \$300 million annually. FHA provides one clue: its latest tabulations (for 1962) show closing costs in some places, like Puerto Rico, are actually higher than average down payments on FHA-financed houses. And, the agency reports, nearly half of all FHA builders take advantage of FHA rules letting the buyer absorb closing costs in his mortgage. But this option is rarely available to builders using conventional financing.

A Senate subcommittee tried to probe closing costs in 1956, but shelved the inquiry because they are so complex (NEWS, Apr. '57).

Now the President's Consumer Advisory Council has recommended that his special assistant for consumer affairs, Mrs. Esther Peterson, ask all federal housing agencies to see what they can do to solve the problem—under present laws or by suggesting new legislation.

Same service, varied charges. The council resolution takes particular note of wide variations in closing costs for essentially the same services in federally financed home purchases.

FHA defines closing expenses as "incidental costs" including FHA examination fees, mortgagees' initial service charges, title search fees, deed and mortgage preparation fees, mortgage taxes and recording fees. Tax escrow and insurance premium deposits, also usually posted at closing, are not strictly closing costs, because they are prepayments on expenses the buyer must later meet.

Hearings on the Senate's ill-fated truth-in-lending bill documented the charges that worry the council. Items: attorney's fees ran from \$13 in Indianapolis to \$116 in Columbia, S.C.; title-search charges from \$3 in Grand Rapids to \$131 in Washington, D.C.; surveys cost from \$14 in Indianapolis to \$50 on Long Island. And total closing costs ranged from \$98 in Burlington, Vt., to \$657 in Grand Rapids.

FHA also told the Senate closing costs are rising faster than house prices. The 1953-to-1961 increase: from 1.7% to 2.0% of house value (or from \$174 to \$301 a house).

That money comes out of the buyer's pocket, after he has already stretched his finances to make the down payment. So, not surprisingly, more and more buyers are complaining more and more loudly.

Their cries have reached Dr. Richard L. D. Morse, who rallied the Advisory Council to action and drafted its resolution. Morse has headed the department of family economics at Kansas State University since 1955. His interest in closings quickened in 1960 when the Kansas attorney general bade him investigate a case of quadruple closing costs on a single building



CONSUMER COUNCIL'S MORSE
Power behind the probe

site. He found the land split into four quarters, each requiring a title search, appraisal fee and credit report.

Collusion? "The Consumers Council is especially interested in cases where there is some feeling of collusion," Morse says. He names no names, but hints at fixed legal and title fees and search costs.

And, some critics argue, while many a builder protests that high closing costs are the work of title or mortgage companies and hence beyond his control, he often

profits via an ownership in the same companies. Nor is he unwilling to cooperate with lawyers who insist on being present at closings, say the critics, even though they may do nothing more than collect a fee.

The builder's side. The other side is told by a Senate banking committee aide, John Lindley, who supplied data to support the truth-in-lending bill. He quotes a Virginia builder who paid a closing on buying his land and another to get a construction loan three months later. When he finally offered a house for sale, the buyer threw up his hands at the closing costs. Result: the builder paid closing costs a third time in order to save his sale.

The shape of reform. The Consumers Council wants a better explanation of why buyers pay different costs for the same service. Above all, it seeks some warning for the unwary buyer—this to protect him and the builder. Action may take these forms:

- A call for investigations by the Justice Dept. and Federal Trade Commission to determine if legal, mortgage and title groups are fixing artificial fees for closing services.

- A requirement that closing costs, like appraisal costs (NEWS, May '63), be disclosed to FHA buyers several days before the closing. FHA has already been asked to consider adding a footnote showing closing costs to its estimate of value.

How Bill Levitt frees his buyers of closing costs

BROOKHAVEN, N.Y. — Volume builders everywhere can learn from Levitt & Sons (1963 revenue: \$39 million) which not only absorbs all closing costs but also cuts most of them.

The table below compares closing costs normally paid by Long Island buyers with those paid by Levitt on a \$25,000 house with a 30-year, 90% conventional mortgage.

	NORMAL CLOSING COSTS (PAID BY BUYER)	LEVITT CLOSING COSTS (PAID BY LEVITT)
Credit report	\$ 5	\$ 5
Lender's appraisal and inspection fees	25	0
1% lender's service and origination fee	225	†
Recording charges	8.50	8.50
Internal Revenue stamps	0*	27.50
N.Y. State mortgage tax	112.50	112.50
Title examination and mortgagee's insurance	150	60
Survey	50	†
	\$576	\$213.50

* Stamp cost is usually paid by the seller.

† These charges are nominal, part of Levitt's overhead and not broken out individually in company's accounting.

President William E. Levitt, whose company has always absorbed closing costs, considers them a part of his over-all building cost. And he squeezes them as hard as he squeezes the cost of land, labor and materials. Here is how he trims:

- He eliminates the "unnecessary" lender's appraisal fee. If the bank inspects a house, it does so at its own expense.

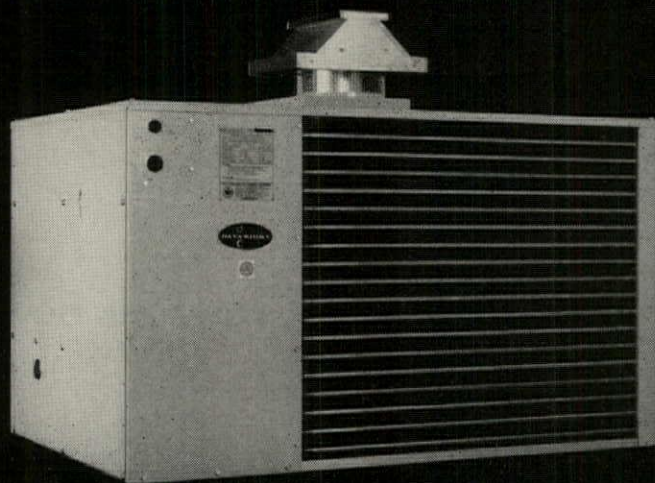
- He reduces the normal 1% lender's service and origination fee to a charge described as nominal by originating and brokering mortgages through his own mortgage department. Levitt arranges volume financing prior to any sales, then assigns mortgages in packages to a permanent investor (a bank or insurance company).

- He reduces title-examination and title-insurance fees because his purchases of large land parcels let him deal with major title companies on a wholesale basis. An indirect result: many Levitt buyers assume the company has already obtained a clear title, thus see no need to buy their own title policies. In any event, such mortgagors' policies, as distinguished from title policies insuring the mortgagee (bank or insurance company), are optional expenses and not part of closing costs.

- He reduces survey costs by using his own staff or consulting engineers.



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HOUSE & HOME



Bernie Photographs

NEW REMODELING CENTERS like this one in Grand Rapids, Mich., will put Whirlpool into the one-stop home modernizing business.



JOHN R. LIVINGSTON, Whirlpool executive, set up plan.

Whirlpool seeks top builders for new modernizing franchises

BENTON HARBOR, MICH.—“We want working men who are imaginative, skilled craftsmen, good businessmen and have established reputations in their communities.” That is Vice President John Livingston’s description of the men Whirlpool wants to run its new modernization centers (left).

In each city Whirlpool will assign an independent market research company to find who the local remodelers are and to check on their volume and the quality of their work. The researcher will pick six or eight top candidates, and Whirlpool field managers will then narrow these choices down to two or three by interviews. After further interviews and a credit and business check, Whirlpool will make a final choice.

The contractor who wins a franchise will be wholly responsible for his own purchasing, contract work and pricing and, to assure the financial stability of the center, Whirlpool will require that the contractor have \$10,000 to \$50,000 working capital to qualify.

The contractor will pay an undisclosed percentage of annual sales as a franchise fee to Whirlpool. Livingston says the amount is “nominal.” In return, the contractor will be able to buy Whirlpool appliances and other items like cabinetry, lighting and ceiling materials through a central purchasing system. The company’s finance subsidiary, Appliance Buyers Credit Corp., provides floor-plan financing.

Appliance maker steps into one-stop remodeling

BENTON HARBOR, MICH.—Whirlpool Corp. is going into the one-stop remodeling business. Under the name “Wonderlife,” the company plans a separate nationwide chain of remodeling centers specializing in “total systems”—kitchens, bathrooms, central vacuuming systems, etc. Four pilot centers have been set up in the Michigan-Indiana area over the past seven months, and all, says Whirlpool, report sizable increases in sales volume.

Whirlpool brass also sees the possibility of the Wonderlife operation moving into the new-house market as a subcontractor. “Good builders are subcontracting all over the place,” says Vice President John R. Livingston, head of Whirlpool’s home systems division and the man who developed

Wonderlife. “What we would provide would be a subcontract service for total systems. A builder would bring prospects into a center and say, ‘Pick out your kitchen.’ We’d even build a swimming pool in his living room if he wanted it.”

Whirlpool’s effort is the most ambitious yet by a major manufacturer to crack the elusive remodeling market (H&H, Apr.). Other producers have tried similar plans—primarily to sell their own products. Whirlpool’s approach is different.

“We are not interested in selling single products, either ours or anyone else’s,” says Livingston. “We are concentrating on marketing complete home systems, and we are selling a quality installation service.”



SPLIT-ENTRY MODEL in South Meriden, Conn., is typical of houses offered by dealer-builders in Weyerhaeuser Registered Homes program.



JOHN ARAM directs lumber maker’s move into building.

How the Registered Homes plan helps dealer-builders

TACOMA — Weyerhaeuser’s new program creates a nonfinancial business partnership between the company and the retail lumber dealer.

Dealers chosen to take part must pass a Weyerhaeuser business audit and complete a one-day marketing presentation. Dealers may then 1) manufacture components using a 107-page manual explaining the Lu-Re-Co system, or 2) build from 38 plans furnished by Weyerhaeuser.

Eight of the first 15 dealers are making components; three are building houses; and four have abandoned the plan because their markets changed or because they found it did not meet their needs.

Dealers-builders may choose from any number of Weyerhaeuser products, all of which will be warrantied for 20 years by Weyerhaeuser.

Each dealer pays a “substantial” annual service fee—not disclosed by Weyerhaeuser—and agrees to advertise and promote Registered Homes. Weyerhaeuser supplies 300 promotional pieces. The dealer supplies production facilities for roof trusses and wall sections, assigns one or more salesmen to the program and—if he builds houses—keeps a model open.

Weyerhaeuser guarantees the prices of wood products for all WRH homes, adjusting the quarterly.

Lumber giant widens aid to dealers and builders

TACOMA—Weyerhaeuser, the nation’s largest lumber producer, has begun a nationwide Registered Homes program in a bold move to keep the homebuilding market for the forest industries and to stem recent inroads by competing products.

Weyerhaeuser’s immediate goal is to help its dealers and their builders sell complete houses of guaranteed value. The program, pilot-tested for a year with 15 dealers, will be extended to another 40.

“Retail lumber dealers face changes in markets and marketing,” says Vice President John L. Aram, who developed the program. “They seek methods for adjusting to these changing conditions and search for means to reverse the ten-year

trend of diminishing profits.” Weyerhaeuser itself halted a three-year profit slide in 1962 and posted a 13% earnings increase on record sales of \$44 million in 1963, but its lumber sales actually declined.

The Registered Homes program offers a simple component-construction system with conventional building materials. It borrows some principles from the Lu-Re-Co Service Assn., from which Weyerhaeuser obtained a license in 1962. Highlight is a 20-year Weyerhaeuser warranty on its wood products plus one year by the builder on work and materials.

A financing plan will assure builders of construction loans and 90% conventional mortgages at a maximum rate of 6%.



What do you think your buyers will say when you tell them that your house's siding has a permanent finish (won't need painting) and won't dent, fade, chip, blister, discolor, scratch, crack, corrode, burn, rust, rot or entertain insects or vermin?



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You will be impressed by the special design feature of this vinyl siding that makes it very easy to install with regular tools. No need to paint, so it's finished the moment it's up. And the price is right,

compared to quality woods or metal.

Remember: when home buyers ask about maintenance, tell 'em there's none whatsoever. This siding is solid vinyl—not a laminate. The color is built in—won't chip, peel or wear off. Stands up to all extremes of weather and corrosive at-

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Plastics maker quits housing because codes delay use of foam panel

FORT WAYNE, IND. — Koppers Inc. has scrapped the most ambitious effort yet by a plastics producer to use plastics in housing.

The Pittsburgh-based company sold General Homes of Fort Wayne to a group of local investors who hope to lease the plant to another contractor for prefabricating houses with conventional wood-stud framing.

The sale ends Koppers' 2½-year effort to sell prefabs built with its foam-core wall panels. When Koppers bought General in November 1961, it converted all General models to the plastic panels.

But General President William B. F. Hall says sales were disappointing because of "unforeseen delays in obtaining approval of the homes by local building officials." The slow sales never let General reach the volume it needed to operate panel-production machinery profitably.

Three months ago Hall explained the difficulty to *HOUSE & HOME*: "We haven't had any turndowns but you have to work with each city separately and this delays the work. One of the crying needs is for one central place for product approval."

It still is, says Hall, and if a uniform building code ever becomes effective, Koppers may resume its foam core pioneering.

Second experimenter cuts back. In Akron aluminum fabricator Alside Inc. has trimmed operations of its Alside Homes Division to stem a tide of red ink.

Alside introduced a pioneering aluminum and plastic paneled house three years ago (*H&H*, Sept. '61). When the company

opened design centers in Akron and Detroit last year (*H&H*, Oct.), crowds waited over an hour to troop through models priced from \$15,500 to \$40,000.

But sales never approached the 50,000-yearly clip expected, and Alside Homes lost \$2,450,913 in the half-year ending last

March, cutting heavily into the parent company's profits from aluminum siding and gutters.

Alside has now closed the display centers and ceased taking orders from customers directly. But it will continue to accept orders from its dealers in other cities.

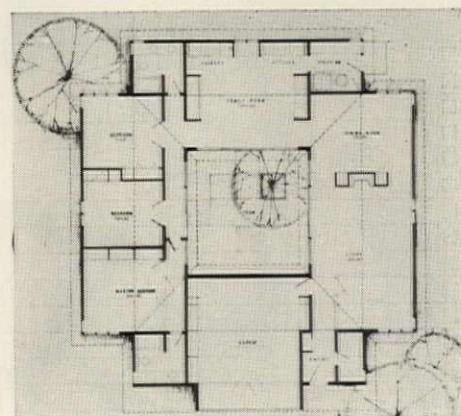


Atrium house will promote manufactured homes

WASHINGTON—Designed to improve the image of prefabrication among both builders and consumers, the 1,728-sq. ft. atrium house above will be built by the Home Manufacturers Assn. this fall in Washington, D.C.

Architect Robert Martin Engelbrecht designed the house for any possible site: because it looks inward to its atrium garden as well as outward, it could fit on the narrowest of lots and still give the owner a sense of privacy.

HMA member companies are expected to build duplicates of the atrium house in their own marketing areas after the Washington house has opened.



FHA softens enforcement of new apartment rules, widens experimental plan

WASHINGTON—FHA has told its district offices to be liberal in applying the new apartment minimum property standards which became effective July 1.

Building organizations—especially NAHB and the fledgling Urban Renewal Department of Action—were concerned that the new rules (*H&H*, Dec.) might boost apartment costs unduly. Some feared the rules would hit hardest at townhouses by requiring heavy fire walls.

FHA is asking that variances involving health and safety be referred to Washington, but says that other variances can be made by district directors. Both NAHB and URDOA have asked FHA to change dozens of specific items in the MPS.

Experimental remodeling. FHA is trying to pump new life into its moribund Sec. 233. The program was originally set up to insure new housing that incorporated hitherto-untried products or technology; now a new rule allows remodeling jobs of an experimental nature also to be insured under 233. FHA's insuring formula: the sum of 1) the cost of the property before renovating and 2) either the experimental fixup cost or the estimated conventional fixup cost, whichever is smaller.

The new rule stems from the fact that Sec. 233 has not gotten off the ground in the three years since it was written. One reason: materials producers and researchers who wanted to make in-service tests of new products had to build a complete house to do so. Another reason: manufacturers couldn't come up with enough new

ideas to get FHA approval. To date, just six experimental loans have been insured under 233; even NAHB's research house in Rockville, Md. (*H&H*, Nov., '63), which started out under 233, wound up with conventional financing. FHA brass hopes that the rule, by permitting insurance of less ambitious test projects, will spur activity.

Income taxes: collateral pledge no longer exempt

WASHINGTON—The Tax Court has ruled that homebuilders' taxable income includes profits posted with mortgage lenders as extra security for buyers' loans.

Builders have been using such collateral pledges for years to aid sales by reducing down payments. And this use of pledges received a boost this year when a materials producer, Certain-teed, offered to lend builders part of the money deposited with the lender (*NEWS*, Feb.) so they could offer conventional mortgages up to 95%.

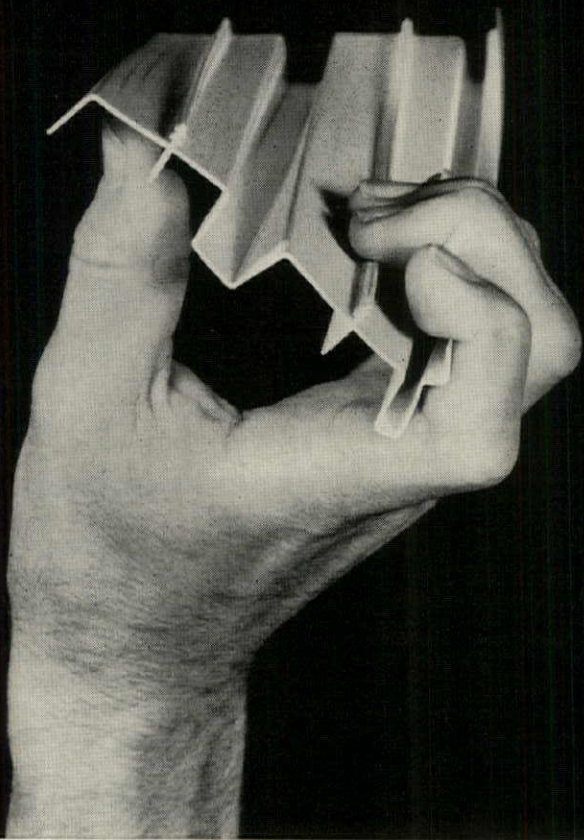
The Tax Court held out hope that in the future Congress would change tax laws to let builders claim the pledges as tax deductible additions to bad-debt reserves.

Another tax item: the Internal Revenue Service has issued an advisory opinion that

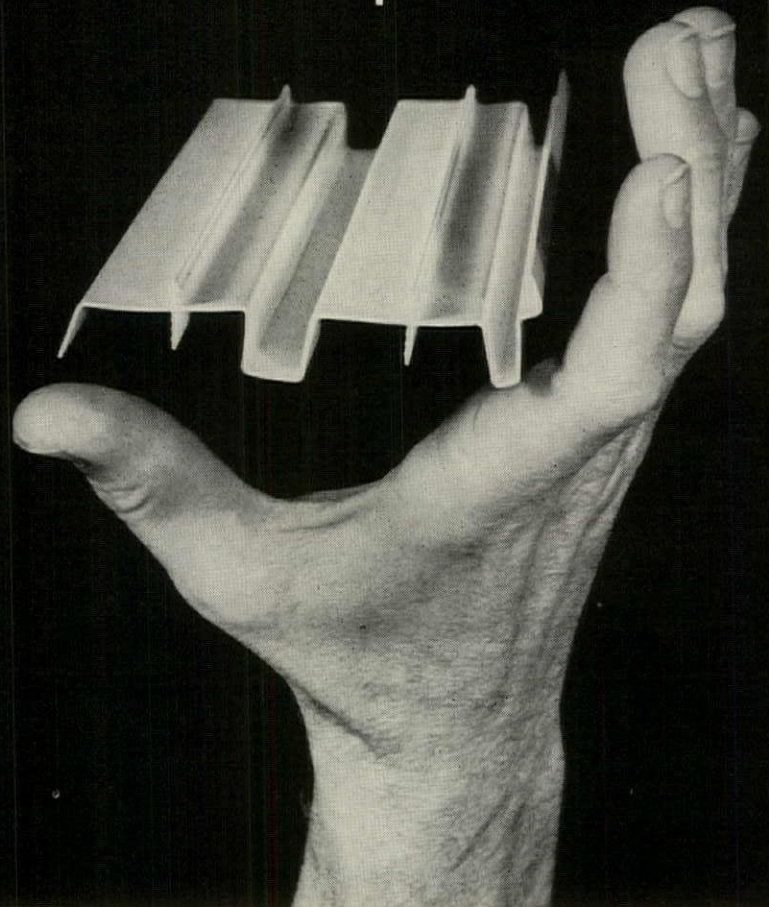
builders and other property owners may deduct the value of scenic easements from taxable income. The opinion, which lacks the full force of a tax ruling, stems from a controversial scenic easement which halted building of a high-rise apartment at Merrywood, Mrs. Jacqueline Kennedy's girlhood home (*NEWS*, Jan.). The Merrywood scenic easement limits building heights to 40'. A federal court will set the easement's value this fall (some experts say the value in similar urban areas could be \$2,500 an acre).

IRS is under pressure from Congress to publish the ruling to give it official status. The final ruling probably will require builders to reduce the book value of their land before they can benefit.

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have it
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splinter, virtually eliminates the need for painting. Vinyl drain/waste/vent piping resists corrosion, is light in weight, looks better on the job.

Indications are that rigid Geon vinyl gives building products manufacturers a chance to make products that enable builders to gain a breakthrough in installation techniques. The jamb liner shown above, for example, is used on Andersen Narroline Windows because

it holds its shape, lets windows open and close more easily, minimizes maintenance.

Ask your custom processor how rigid Geon vinyl can make a better product or component for you. Or write B.F. Goodrich Chemical Company, Dept. EN-8, 3135 Euclid Ave., Cleveland, Ohio 44115. In Canada: Kitchener, Ontario.



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Warning to banks may slow mortgage money

NEW YORK CITY—The nation's top S&L leader has just warned commercial bankers to go easy in the mortgage market. If they heed his warning, it could restrict one source of mortgage money for builders.

Eugene M. Mortlock delivered the warning when he became the first president of the U.S. S&L League to address a mortgage conference of the American Bankers Assn., whose members have poured \$9 billion into mortgages in the last two years.

Mortlock said real estate markets in several areas are saturated and apartments are overbuilt. And, he added, "Our post-war real estate boom is over."

Some commercial bankers seem inclined to agree. The influential First National Bank of Boston has told its correspondent savings banks in Massachusetts they should consider putting their money into long-term governments yielding 4.25% instead of mortgages returning 4.85% (after the banks pay a 1/2% state excise tax levied on out-of-state loans). Other banks specializing in mortgages do not seem so ready to give up on what has become a new

outlet for funds since 1962. Commercial bankers attending the ABA meeting gave scant attention to private mortgage insurance as a way of making 90% conventional loans, they told HOUSE & HOME. A ruling last spring by Comptroller James Saxon said they could exceed normal real estate loan limits when they relied on private mortgage insurance, and he later clarified this to indicate that insurance of the top 20% of a loan was sufficient. Mortgage Guaranty Insurance Co. of Milwaukee, largest mortgage insurer, says over 50 banks have signed for insurance and several are making the loans.

Nor are Mortlock's S&Ls showing any sign of backing off from their aggressive stance as mortgage lenders. A widely predicted drop in S&L dividend rates on the West Coast failed to materialize on the July 1 change-over date. Nationally two Houston S&Ls dropped their rates, but two in St. Louis raised and one lowered.

Despite today's competition for mortgage loans, discounts remain unchanged. HOUSE & HOME's survey of 18 key cities finds 1 1/2 points still predominant on FHA 30-year Sec. 203 loans.

HLBB sees 'interest conflict' in S&L-insurer ties

WASHINGTON — The Home Loan Bank Board has cautioned S&L officials against accepting directorships of private mortgage insurance companies with which their associations do business. An HLBB study recommends federal regulation of "potential conflict of interest" because the business S&Ls give the loan insurers increases stock value.

The study was based on operations of the Mortgage Guaranty Insurance Corp. of Milwaukee, the American Mortgage Insurance Corp. of Raleigh and Continental Mortgage Insurance Inc. of Madison, Wis. About \$450 million of their combined \$1.7-billion insured-loan volume comes from S&Ls whose officers hold their stock.

Will S&L men heed the warning? Former U.S. S&L League President Henry Bubb, head of a Topeka S&L and chairman of MGIC, thinks not.

Says Bubb: "I'll tell you just what I told Joe McMurray, [HLBB] chairman. Does this mean S&L officers should resign from all commercial bank boards, life and casualty boards, or abstract company boards with which they do business? You would have only preachers and teachers left."

MORTGAGE MARKET QUOTATIONS

(Sale by originating mortgagee who retains servicing). As reported to HOUSE & HOME the week ending July 10, 1964.

City	FHA 5 1/4s (Sec. 203) (b)				FHA 207	Conventional Loans ^w		Construction Loans ^w	
	FNMA Sdtry Mkt ^{x,y}	Minimum Down* 30 year Immed ^w	35 year Immed	Fut ^w		Firm Commitment Cos.	Comm. banks, Insurance	Savings banks, S & Ls	Interest + fees All lenders
Atlanta	97 3/4	98-98 1/2	97 1/2-98	97 1/2-98 1/2	a	5 1/2-6	5 3/4-6 3/4	6+1	
Boston local out-of-st.	98 1/4	par-101	a	par-101	a	5-5 1/2	5-5 1/2	5 1/4-6	
Chicago	97 1/4	98 1/2-99 1/2	97-98	97 1/2-99	99-par	5f-5 1/2	5 1/4-6 1/2	5 1/2-6+1-2	
Cleveland	97 1/4	98 1/2-99	97 1/2-98 1/2	98-99	99-par	5 1/2 ^f	5 1/4-6	6+1	
Dallas	97 1/4	97 1/2-99	98-99 1/2 ^h	97-98 1/2	99-99 1/2	5 1/2-5 3/4	6 ^h -6 1/4	6 1/2-6+1	
Denver	96 3/4	98-99	a	97 1/2-98 1/2	99	5 1/2-6	5 1/2-6 1/2	6+1 1/2-2	
Detroit	96 3/4	98 1/2	97 1/2-98	a	99 1/2-par	5 1/4-5 1/2	5 1/4-5 1/2	6+0	
Honolulu	96 3/4	97-97 1/2	97	96 1/2-97	a	5 3/4-6 1/2	6-7	6+1-2	
Houston	97 1/4	97 1/2-99	97-98 1/2	97 1/2-99	98 1/2-99 1/2	5 1/2-6	5 1/2-6 1/4	6-6 1/4+1	
Los Angeles	96 3/4	98	98	97 1/2	99 1/2	5 1/2-6	5 3/4 ^h -6.6	6-6.6+1 1/2-2 1/2	
Miami	97 1/4	97 1/2	97	a	a	5 1/2-5 3/4	5 1/2-6	6+0-1	
Newark	97 3/4	99-par	98 1/2 ^h	99	99-par	5 1/2-5 3/4	5 1/2-6	5 3/4-6+1	
New York	98 1/4	par	par	par	par-100 1/2	5 1/2-6	5 1/2-6 ^h	5 1/2-6 ^j	
Okla. City	96 3/4	97 1/2-99	97 1/2-98 1/2 ^b	97 1/2-99	a	5 1/2-6 ^b	5 3/4-6 1/2	6+1-2	
Philadelphia	97 3/4	par	99	par	par	5-5 3/4	5 3/4-6	5 1/2-5 3/4+1	
San Fran.	96 3/4	98 1/2-99 ^k	98 1/2	98-99 ^k	99-99 1/2	5 1/2-6 ^d	5 3/4-6.6	5 3/4-6.6+1 1/2-2 1/2	
St. Louis	97 1/4	97 1/2-99	a	97 1/2-99	a	5 1/2-6 1/4	5 1/2-6 1/4	5 1/2-6 1/2+1-2	
Wash. D.C.	97 3/4	99	99	99	99	5 1/2-5 3/4	5 1/2-5 3/4	5 3/4-6+1	

* Immediate covers loans for delivery up to 3 months, future covers loans for delivery in 3 to 12 months.
 • Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones.
 • Quotations refer to houses of typical average local quality with respect to design, location and construction.
 • 3% down on first \$15,000; 10% of next \$5,000; 25% of balance.

Footnotes: a—no activity. b—limited activity. c—for local portfolios. d—limited 6%. e—some 5 1/2% and 5 3/4% available. f—in isolated instances on choice loans. g—1/2 point differential has generally disappeared. h—depending on % of down payment. j—lower rate for companies with prime credit rating. k—higher price offered by correspondent for one insurance company. l—limited 5 3/4%. w—for comparable VA loans also. x—FNMA pays 1/2 point more for loans with 10%. y—plus 1% stock purchase figured at sale for 75¢ on the \$1.

Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, pres., Boston 5¢ Savings Bank; Chicago, Robert Pease, pres., Draper & Kramer Inc.; Cleveland, David O'Neill, vice pres., Jay F. Zook Inc.; Dallas, Aubrey Costa, pres., Southern Trust & Mortgage Co.; Denver, Clair A. Bacon, senior vice president, Mortgage Investments Co.; Detroit, Sherwin Vine, vice pres., Citizens Mortgage Co.; Honolulu, William J. Huckins, asst. cashier, Bank of Hawaii; Houston, Ross Fox, T. J. Bettles Co.; Los Angeles, Jack Grigsby, asst. vice pres., Colwell Co.; Miami, Robert Shirk, exec. vice pres., Lon Worth Crow Co.; Newark, William W. Curran, asst. vice pres., Franklin Capital Corp.; New York, John Halperin, J. Halperin & Co.; Oklahoma City, M. F. Haight, first vice pres., American Mortgage & Investment Co.; Philadelphia, Robert S. Irving, vice pres., First Pennsylvania Banking & Trust Co.; St. Louis, Sidney L. Aubrey, vice pres., Mercantile Mortgage Co.; San Francisco, Frank W. Cortright, sr. vice pres., Bankers Mortgage Co. of California; Washington, D.C., Hector Hollister, exec. vice pres., Frederick W. Berens Inc.

CONVENTIONAL LOANS (combined averages)

	March	April	May
New homes	5.79	5.79	5.77
Existing homes	5.94	5.92	5.92
(interest charged by various lenders, new homes)			
S&Ls	5.91	5.89	5.91
Life Ins. Cos	5.48	5.47	5.46
Mortgage Companies	5.74	5.70	5.62
Commercial Banks	5.60	5.62	5.56
Mut. Sav. Banks	5.60	5.56	5.50

Source: Federal Home Loan Bank Board.

NEW YORK WHOLESALE MARKET

FHA, VA 5 1/4s
 Immediate: 97-97 1/2 Futures: 97-97 1/2

FHA, VA 5 1/4 spot loans (On homes of varying age and condition)

Immediate: 96 1/2-97 1/2

Note: prices are net to originating mortgage broker (not necessarily net to builder) and usually include concessions made by servicing agencies. Majority of loans being sold today are spots.

Prices cover out-of-state loans, reported the week ending July 10 by Thomas P. Coogan, president, Housing Securities Inc.

NET SAVINGS DEPOSIT CHANGES

(in millions of dollars)

	% change from		% change Year to date	
	May '64	May '63	date	from 1963
Mut. sav. bank ^a	285	21	1,500	36
S&Ls ^b	977	1	3,612	-19
Commercial banks ^c	1,400	16	3,600	-16

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

These simplified mortgage quotes describe the market at a glance

HOUSE & HOME has simplified its mortgage quotation tables to give the builder a sharper, faster look at the market for mortgage money.

The FHA 10%-down category has been eliminated because its price today is seldom markedly different from 3% or 5% down loans. VA quotations have been con-

solidated with FHA prices where applicable. The FHA Sec. 220 category has been discontinued for lack of market activity.

NEWS continued on p. 18



When this shopping center went shopping,

Bryant's that's whose, and here's why:

The new State-at-Mapleton Shopping Center in Columbus, Indiana, is equipped throughout with Bryant heating and cooling.

Why Bryant? Because Bryant could meet the widely different comfort and equipment requirements of each building—drugstore, supermarket and bank.

The drugstore, for example, utilizes a perforated ceiling for air distribution. To supply dependable, year-round comfort at low installed cost and minimum maintenance, three Bryant roof-top All-

Weather heating and cooling units were specified. Installation was simple and economical. Chimneys, flues and the need for indoor space was eliminated. Zoned comfort control is provided by three individual thermostats.

In the supermarket, two Bryant 10-ton air conditioners, two 250,000 Btu/hr duct heaters and two blower packages meet the requirements.

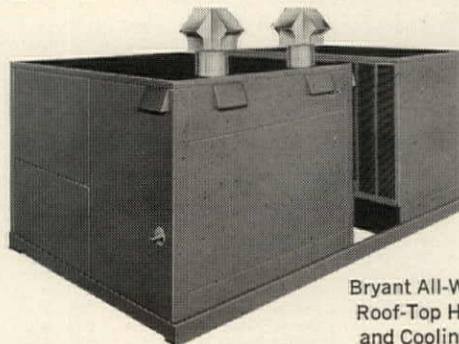
For the bank, with smaller space, less traffic and shorter business hours, the engineers specified two Bryant 125,000 Btu counterflow furnaces and one 4-ton air conditioner.



Architects: Harry Weese & Associates. Owner & General Contractor: Repp & Mundt. Bryant Dealer: W. A. Thomas

whose heating/cooling equipment was selected?

Whatever your problem, call in Bryant. We'll work with you to develop the most efficient system at the lowest cost consistent with the performance you expect from Bryant equipment. Call our local distributor or factory branch and see how well Bryant will meet your specifications. Bryant Manufacturing Co., 2020 Montcalm Street, Indianapolis 7, Indiana.



Bryant All-Weather
Roof-Top Heating
and Cooling Unit

Bid with **bryant** *55 years of dependable products*

Investment company joins Kaufman & Broad in townhouse venture

LOS ANGELES—Investors Diversified Services Inc. of Minneapolis has unveiled its second large-scale move into housing in as many months. It will team up with fast rising KAUFMAN & BROAD BUILDING CO. (1963 sales: \$31.8 million) in a 100-acre townhouse community in Southern California's San Fernando Valley. The project's sales potential: \$20 million.

IDS will put up the first \$3 million in capital, will also make the permanent mortgages on the homes. Construction will start next year.

Known primarily as an adviser to and seller of mutual funds, IDS last month agreed to help finance a 1,100-acre New Orleans community for Aurora Properties Inc. The agreement, worked out by former FHA Commissioner Julian Zimmerman and Mortgage Guaranty Insurance Co. of Milwaukee, lets Aurora offer 90% conventional loans to buyers.

JIM WALTER CORP., Tampa shell-home maker which rode out the collapse in shell stocks, plans to merge with Celotex Corp., Chicago building materials producer. Walter bought controlling interest in Celotex in June 1962 and now owns 61.3% of its stock. If stockholders of both companies approve, Celotex holders will receive 1.1 shares of Jim Walter common for one Celotex share. Jim Walter earned \$3 million for the nine months ended May 31 on revenue of \$115.9 million—up 17%.

GREAT WESTERN FINANCIAL CORP. of Los Angeles has changed top management, electing Stuart Davis, 48, chairman and C. W. Ford, 46, president. Former Chairman Warren Lee Pierson becomes executive committee chairman and former president John F. Marten has resigned to handle personal and family investment matters. A Great Western subsidiary was involved in making illegal loans to Builder Jay Parker of Sacramento (NEWS, Apr.).

New issues sell well despite slump in housing stock prices

HOUSE & HOME's index of 86 publicly owned companies dipped 2.6% last month to 9.97 while the Dow-Jones Industrial Average rose 3.9% to a record high of 845.45. All housing categories dropped.

Despite the falling prices, selected housing issues are being well received by investors. Close behind Sproul Homes' successful \$1.6 million offering (NEWS, July), former NAHB President George Goodyear completed a \$10 million offering of his new Southeastern Mortgage Investors Trust of Charlotte. Goodyear's first underwriters sold only 77,110 shares (at \$10) after the trust, which plans to invest heavily in FHA and VA mortgages, was cleared by SEC a year ago (NEWS, July '63). But he switched underwriters to a group headed by Hodgdon & Co. of Washington last

December and finished selling 922,890 shares at \$10 a share. The trust nets \$9 a share minus expenses not to exceed 2½% of sale price.

Last month Belmont s&L (assets: \$85 million) of Long Beach, Calif., was oversubscribed on a \$620,000 issue, Institutional Mortgage Insurance on a \$1,250,000 issue, and Madway Main Homes on \$1,750,000 of 6¼% debentures.

The H&H stock table has been revamped this month to reflect Wall Street's judgment of housing activities more accurately. Three categories—realty trusts, real estate investment and shell homes—have been deleted and some of the companies formerly listed in them have been switched to other categories. Three former shell companies—Albee Homes, Modern Homes and Jim Walter—are now listed under Prefabrication. Two realty trusts specializing in FHA and VA mortgages—Continental Mortgage Investors and First Mortgage Investors—are now classified under Mortgage Banking.

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

	May 5	June 2	July 8
Building	5.85	5.72	5.53
Mortgage banking	10.28	10.75	10.56
Prefabrication	9.15	9.06	8.59
S&Ls	20.88	18.58	18.24
Land Development	5.68	5.68	5.50
AVERAGE	10.84	10.24	9.97

HOUSING'S STOCK PRICES

Company	May 5		June 2		July 8	
	Bid	Ask	Bid	Ask	Bid	Ask
BUILDING						
Adler-Built Inc.	1½	1¾	30¢	35¢	27¢	37¢
Capital Bld. Inds.	2.10	2.15	2	2.10	2.05	2.15
Cons Bldg. (Can.)	10¼	10¾	9½	9¾	9	9½
Dev. Corp. Amer.	1¼	1¾	1¾	1¾	1¼	1¾
Dover Const.	4½	4½	4	4¾	3¾	4¼
Edwards Eng.	3½	3¾	4¾	4¾	4¼	4½
Edwards Inds.	¾	f	1½	1¾	½	1
Eichler Homes*	6¼	6¼	6¼	6¼	6¼	6¼
First Natl. Rity.*	2¾	2¾	2¾	2¾	2¾	2¾
Frouge	5½	6½	5	5½	4¼	4¾
General Builders*	2½	2½	2½	2½	2½	2½
Hawaiian Pac. Ind.	5	5½	6¾	6¾	4¾	5¼
S. V. Hunsaker	5¼	5¾	5¾	6¼	6¼	6½
Kavanagh-Smith	3½	3¾	3¼	3¾	2¾	3¼
Kaufman & Broad*	26½	24¼	24¼	23½		
Louis Lesser Ent.*	4½	4½	4½	4½	3¾	4½
Levit*	6¼	6¼	6¼	6¼	6¼	6¼
Lusk	3¾	4¾	3¾	4¾	3½	3¾
Pacific Cst. Prop.*	10¼	9¼	9¼	9¼	9¼	9¼
U.S. Home & Dev.	1½	1½	1	1½	1	1¾
Del E. Webb*	8¼	8¼	8¼	8¼	8¼	8¼
Webb & Knapp*	7¼	¾	¾	¾	¾	¾
MORTGAGE BANKING						
Advance	9¼	9½	9¼	9¾	8½	8¾
Associated Mtg. Cos.	8½	8½	7¾	8¼	8	8¼
Charter	2	2¼	1¾	1¾	1¾	1¾
Colwell	16¾	16½	14¾	15½	14	14¾
Cont. Mtg. Inv.	19	20½	18½	19¼	19½	20¼
FNMA	80½	83½	77¾	80¾	82½	85¾
First Mtg. Inv.	15½	16¾	17	18¼	15½	16¼
MGIC	28½	29¼	28	28½	27¾	28¾
Palomar	3¾	3¾	3¾	3¾	2¼	2½
Stockton, Whatley	11¼	12	12	12½	11	11¾
United Imp. & Inv.*	27½	27½	27½	27½	27½	27½
Wallace Invests.	4¾	5¼	4½	5½	4	4½
PREFABRICATION						
Admiral Homes	1¼	1½	1¾	1¾	1¼	1½
Albee Homes	4¼	4¾	3¼	4¼	2¾	3¾
Great Lakes Homes	6	6½	6½	7½	5¾	5¾
Harnischfeger*	20¾	23¼	23¼	25¼	25¾	25¾
Hilco Homes	¾	1¼	¾	1¼	1	1¼
Inland Homes*	7½	7½	7½	7½	7½	7½
Madway Mainline	14	15	14¾	15¾	13	14
Modern Homes Const.	5½	6¾	4½	5	4¾	5
Natl. Homes A.*	3½	3½	3½	3½	2¾	3
Richmond Homes	5½	f	6¼	7¼	4	4¼
Seaboard Homes	¾	¾	¾	¾	¾	¾
Steel Crest Homes	11¼	12¼	13	13¼	12½	13
Swift Homes	3¾	3¾	2¾	3¼	3	3½
Western Shell	6	12	06¢	12	2¢	10¢
Jim Walter*	34¾	29½	29½	28½		

SEC SUMMARY

New issues registered

Company & date	No. shares & offering price	Gross & net proceeds
Institutional Mtg. Ins., June 17, Augusta, Ga.	200,000 @ \$6.25	\$1,250,000; \$1,125,000
Madway Main Line Homes, June 26, Wayne, Pa.	3,500 @ \$500	\$1,750,000; \$1,525,000
Devils Nest Devel. Co., July 6, Lincoln, Neb.	110,000 @ \$12.50	\$1,375,000; \$1,238,000
New issues filed		
West Coast Financial, June 4, Beverly Hill, Calif.	1,250j @ \$1,000	\$1,250,000; \$1,168,750k
First Mortgage Insurance, June 4, Greensboro	\$1,795,910 @ \$1.67	\$2,999,169
Security Home Mtg. Corp., June 26, Washington, D. C.	1	\$5,000,000c
General Development, June 30, Miami	350,000 @ m	m
Penna. Real Estate Inv. Tr., July 2, Philadelphia	j	\$5,000,000; \$4,850,000
Guarantee Insurance Trust, July 10, Columbia, S.C.	300,000 @ \$2.50	\$750,000; \$675,000

PROFITS AND LOSSES

Company	Year ending	Revenues (000)	% change	Net (000)	% change
Advance Mtg.	Apr. 30	\$5,169	12	686	9
Arvida	Apr. 30	3,491	-45	(633)p	q
Associated Mtg.	Mar. 31r	3,137	27	283	-14
Cont. Mtg. Inv. Tr.	Mar. 31	3,751	81	1,942	48
Hilco Homes	Mar. 31	7,926	25	143	183
Steel Crest Homes	May 31n	3,564	77	626	109

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PEOPLE begins on p. 29



What new home prospect could resist it? This charming bedroom/bath floor features Kentile® Custom Cork Pegged Planks. Design in 4", 6", and 8" widths. It's the new kind of cork floor that cleans as easy as vinyl!

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The **RCA WHIRLPOOL** appliance "package plan" helps you offer maximum convenience and comfort in your homes and apartments. Country-kitchen charm or apartment-style efficiency . . . you don't have to make a choice when you specify RCA WHIRLPOOL appliances. You get *both* good looks and functional utility, plus the sales power of the heavily advertised RCA WHIRLPOOL brand name, seen by millions month after month in leading national magazines. Another advantage of this unique RCA WHIRLPOOL appliance "package plan" is that you enjoy the full-line selection of *gas or electric* appliances from *one* dependable source. Whether it's a furniture-styled air conditioner, a built-in dish-




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 sweat the schedule,
 and now you're proud of what's up
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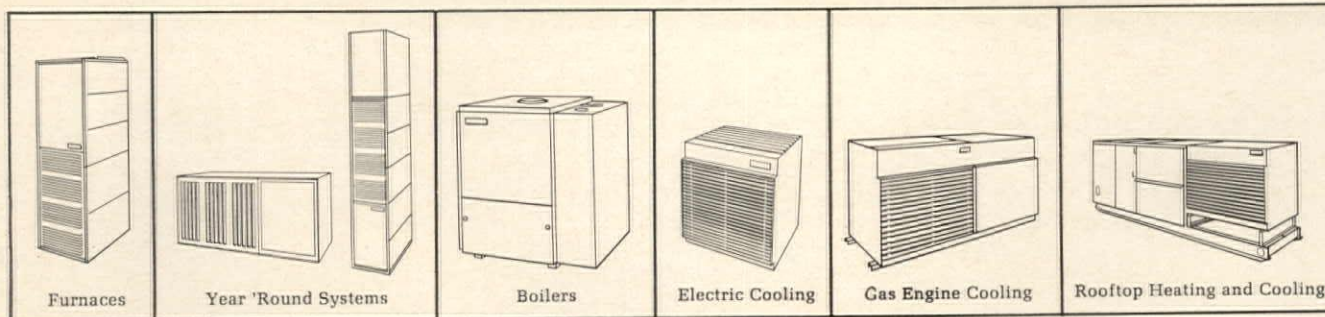
Another beauty of Janitrol comfort is its ability to help build your word-of-mouth sales. Low operational costs and comfortable year 'round living just naturally add to your reputation. Put Janitrol in your models . . . let 'em know you're quality all the way.

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JANITROL DIVISION
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As wood dries, it shrinks and changes shape. If uneven or uncontrolled drying takes place on the site or after construction, you've got potential trouble: cracked

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Lumber should dry under controlled conditions at the mill. This "locks" it into shape before it goes into the home. We call this "Pre-seasoning". You buy it straight, it stays straight. It also is lighter, stronger and holds nails better.

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ENGELMANN SPRUCE ■ WESTERN HEMLOCK
WESTERN RED CEDAR ■ INCENSE CEDAR

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AIA'S CARROLL (left) AND ODELL
"Americans have become inured to ugliness"

New AIA president aims to prod public into demanding better design

ST. LOUIS—The American Institute of Architects, meeting here last month, passed the mantle of leadership to **Arthur Gould Odell Jr.**, FAIA of Charlotte. He succeeds **J. Roy Carroll Jr.**, FAIA of Philadelphia.

Designer of a number of prize-winning commercial buildings, Odell has helped stir his fellow Carolina architects into crusades against ugliness in urban design. Now he hopes to do the same nationally. "The American people have become inured to ugliness," he says. "They're accustomed to garish billboards, straggling overhead wires and transformers that look like scabrous eggs." Odell says architects should take the lead in changing all this.

Odell's drive for better looking cities has yet to overcome the lack of interest of many of his fellow architects in single-family houses. Evidence: a provocative convention panel on problems of the one-family house attracted less than 50 listeners.

Advised Panelist **John Schmidt** of the U.S. S&L League (see p. 74): "Architects should spend more time talking with others in the community and less talking with themselves, more time listening to others, and less time listening to themselves." He urged architects to take the gospel of good housing design out into civic and womens' clubs, and invited them to join the U.S. League in creating a slide-film to show the public higher standards of design.

Robert Marquis of Marquis & Stoller, San Francisco, a peren-

nial winner of residential design awards, ticked off architects' problems in housing: "Builders do not need architects, since they can get acceptable plans from plan services and magazines. We find it hard to work in good conscience with a builder, because we must abdicate control. Anything he [the builder] doesn't like, he changes in the field, and we can do little or nothing about it. Finally, I am not at all sure that the tract development we know is the best way to house our future population."

But **Jack Cohen** of Cohen & Haft, Silver Springs, Md., bubbled. "We are working with ten or twelve builders, and are doing better work every year. We give them much more than a set of plans; we develop an entire program, therefore total communities." He acknowledged lack of control, but did not take the same umbrage as Marquis. "We ask what budget is, and what materials they intend using, then use that as our guide," he said.

WASHINGTON — **Robinson Newcomb**, one of housing's chief private economic consultants, is joining the Agency for International Development. Newcomb has over 20 years of federal service already and can push himself into a higher pension bracket by completing a quarter century.

Former NAHB Associate Economics Director **David Gillogly**, who had been working with Newcomb, has joined FHA.

Malcolm Burrows has resigned as National Housing Center director to join AID in Caracas.

Developers buy two ranches, estate as land deals get larger and larger

LOS ANGELES—Fast-rising Macco Realty Co. (News, June) has just stunned California, where large-scale land deals are becoming commonplace, by buying a ranch three times larger than San Francisco for a \$1 billion new town.

Macco Chairman **John MacLeod** calls the option taken on the 87,500-acre Vail Ranch 60 miles southeast of here "the largest acreage acquisition in southern California in modern times." The only comparable new town is the 88,000-acre Irvine Ranch in neighboring Orange County.

Macco says the **Henry J. Kaiser** interests will help in developing Vail Ranch. Until Macco unveiled its plans, Builder-Developer **Harris Goldberg**, 42, claimed the "largest" designation with a purchase only a week earlier of the 34,500-acre Hollister Ranch. Price: about \$12 million. The Hollister family has owned the ranch — with 17 miles of oceanfront between Santa Barbara and Vandenberg Air Force Base—for a century.

Goldberg, who started building in California with \$4,000 borrowed money in 1955, has assigned Planner **Victor Gruen** to master-plan the land. **Robert Trent Jones** is designing an 18-hole golf course.

In the Southland, Builder **Donald Bren** is planning still another new town. He paid over \$25 million for 4,500 acres of the O'Neill ranch near San Juan Capistrano. But he says 11,000 acres will be developed eventually. He has hired San Diego City Planner **James Toepfer** to do the job. Bren owns 40% of the venture. The nation's second largest heavy contractor, **George A. Fuller Co.**, also owns 40% interest, the O'Neills 20%.

Bren is negotiating to sell land to three builders on a novel formula: the sales price of the marketable homes was first figured; then a land price to yield these sales prices was set. Result: lot costs will be 80% of those in surrounding areas.

DETROIT—Birmingham Developer **Howard Keating** has bought the last large open space between Detroit and Flint, the 3,200 acre former **William E. Scripps** estate. Price was not disclosed.

Keating, who has developed communities in Boca Raton, Fla., as well as Detroit, plans a \$250-million community with 17,000 to 20,000 housing units, including 7,500 single-family houses, plus apartments and townhouses. He

has assigned **Donald Geake** to land-plan the community and keep its woods and lakes intact.

Plywood chief directs lumber groups' merger

TACOMA—The American Plywood Assn. has granted Executive Vice President **James R. Turnbull** a leave to help organize the Western Wood Products Assn., the result of a merger between the West Coast Lumbermen's and Western Pine Assns. The merged association is likely to concentrate on coordinated marketing and promotion to boost lumber's share of housing markets. Turnbull's assignment has aroused speculation that his APA may join in, but no official steps have been taken in that direction.

Elsewhere: President **Guy W. Wadsworth Jr.** of the Southern Counties Gas Co., Los Angeles, is nominated as president of the American Gas Assn.

The Foundation for Cooperative Housing has picked **Willard J. Campbell**, former administrative assistant to the president of Nationwide Insurance Co., as new president. The foundation through its subsidiary FCH Company is sales agent for 30 co-op housing projects in 24 states.

William F. Fitzgerald, Washington public relations officer, is the new executive director of the American Society of Appraisers.

Thomas G. Ayers, executive vice president of Commonwealth Edison, Chicago, has been elected Electric Heating Assn. president.

Mary E. Dunn of New York City has been elected president of the American Institute of Interior Designers.

Producers Council taps engineer for president

WASHINGTON — The Producers Council has nominated **Charles S. Stock** for elevation to the presidency at the annual meeting in New Orleans Sept. 22-25. He is first vice president of the council, a national association of building materials manufacturers and will succeed President **A. M. (Brig) Young**, marketing manager for Libbey-Owens-Ford Glass Co. of Toledo, Ohio.

The amiable, easy-going Stock is a professional engineer in Maryland and is vice president for marketing for the American Air Filter Co., Louisville. He and **Julian O. Heppes** of Ruberoid, the council's second vice president, have led a national campaign for closer ties to builders.

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Royal Commission bids Canada hike mortgage-money supply for builders

OTTAWA—Canada's prestigious Royal Commission on Banking and Finance, headed by Ontario Chief Justice **Dana Harris Porter**, has urged four major changes in the Dominion's residential mortgage market.

If accepted (and there is no indication yet of government reaction), the changes could ultimately free builders from the wide fluctuations in mortgage-money supply which have plagued them since the early 1950s. The recommendations:

1. The rate on National Housing Act mortgages, now set by the federal cabinet and examined every six months, should be freed to move with market forces. The commission holds that "the best approach would be for the maximum on NHA rates to homeowners to be set automatically at a margin [perhaps 1½%] above average rates on long-term Government of Canada bonds." The maximum would provide a limit for government guarantees to private lending. The commission said it expected actual NHA rates would be set below the maximum by the market. It noted that in the past the fixed NHA rate has often choked the amount of funds available to builders.

2. Canada's chartered banks, NHA lenders until interest topped

6% and cut them off at their traditional ceiling rate, should be allowed to re-enter the NHA field at its existing rates of 6¼%. The commission wants the banks back because they would broaden the sources of mortgage money considerably (they loaned \$300 million under NHA in 1958, their final full year).

3. The chartered banks should also be allowed to invest in conventional mortgages, a field now denied to them. The commissioners argue that the banks' experience in making NHA loans proves they are capable of moving easily into the residential mortgage picture. Bank reaction to both recommendations has been favorable.

4. The 66⅔% limit on conventional loans for all lenders should be raised to 75%. Besides stabilizing the mortgage market, the commission feels the changes would relieve Central Mortgage & Housing Corp., the government housing agency, from its heavy burden as a residual mortgage lender (CMHC's portfolio of NHA loans to builders and homeowners was almost \$1.3 billion at the end of 1962).

The Commission ignored suggestions by builders that NHA loans be extended to cover existing housing.

Lumber dealer opens design service center

NEW YORK CITY—**Adam D. Taylor**, president of New York's Taylor Lumber Co., has added a new wrinkle to the lumber dealer's role. In mid-Manhattan he has just opened the Architects Service Center, a one-stop facility for architects, builders, decorators and the public.

Taylor, 47, has been in the business since he loaded lumber on Manhattan's docks 31 years

ago. He started the design center, he says, because he was tired of running himself ragged looking for decorating supplies for interiors he was designing. His aim: to bring under one roof all decorating and interior construction components so they may be more easily purchased. Eighteen manufacturers of building products and interior materials are now exhibiting in the centers.

Detroit mortgage bank elects a new president

DETROIT—**Harold N. Finney**, 50, has been elected president and chief administrative officer of Citizens Mortgage Corp., one of the nation's top ten mortgage banking houses (over \$450 million in servicing). He moves up from executive vice president to the title vacated by **Stanley M. Earp**, 73, who has been re-elected board chairman and chief executive.

Finney was mortgage manager for the Equitable Trust Co. here when he joined Citizens in 1946. He has served on the board of governors of the Detroit Mortgage Bankers Assn. and on the FHA committee of the Mortgage Bankers Association of America.



CITIZENS' FINNEY
Heads one of top ten

Earp, a two-term MBA governor, led his company into the top ten with two key mergers. In 1948 he merged Earp Mortgage into Citizens and last year acquired Union Mortgage of Detroit.

Look for this seal

QUALITY CERTIFIED

The manufacturer warrants by affixing this label that this window or door is a duplicate of samples independently tested, inspected, and certified in accordance with American Standard Practice for Certification Procedures, ASA Z34.1, to comply with the applicable specifications of Architectural Aluminum Manufacturers Association.

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A Quality Certified label on a window or sliding glass door is a warranty that the product meets or exceeds AAMA standards as certified by an independent testing laboratory. And, regular unannounced in-plant inspections are made to assure you that every QC licensee is continually meeting these quality standards.

The Federal Housing Administration accepts the QC label on an aluminum window as evidence of meeting the new FHA Minimum Property Standards. This new FHA ruling, effective March 1, 1964, requires the QC label (or equivalent evidence of standards) for FHA-insured residences and apartments.

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Flynn succeeds Kurtz at Inland

PIQUA, OHIO—John J. Flynn, 35, has stepped up from executive vice president to president of Inland Homes Corp. He succeeded Inland founder E. E. Kurtz, who died shortly after Flynn's promotion (see below).

Flynn joined Inland in 1959, has served as president of Inland Mortgage Corp., a subsidiary, and headed the company's dealer-financing and marketing programs.

Replacing Flynn as executive vice president is Thomas S. Ferguson, responsible for production, engineering and research and development at Inland's four plants.

John R. Wilson has resigned after six years as president of Techbuilt Homes Inc. of Cambridge, Mass., to become vice president of City Investing Co. and Sterling Forest Corp. of New York City. He will be in charge of residential development at Sterling Forest, a 30-square-mile residential and industrial community in Orange County, N.Y.

SIRE plan chief gets 5 to 10 years in jail

NEW YORK—Albert Mintzer, 59, has been sentenced to five to ten years in prison for embezzling \$37,642 from investors in his now bankrupt realty syndicate, the \$18-million SIRE Plan (Small Investors Real Estate Plan). He still faces a 26-count indictment charging theft of \$1.2 million and a charge of stealing \$8,828 from his nephew's estate. As a lawyer he can also expect immediate disbarment.

Mintzer is the first major syndicator convicted by a jury in New York since the state attorney general cracked down on syndicators in 1962 (NEWS, Feb. '63). Special Assistant Attorney General David Clurman says "ten to 15 major investigations" are still under way.

In Newark, N.J., three civil damage suits were filed against syndicator Mortimer L. Schultz, his wife and officers of Office Buildings of America Inc. and its broker-dealer, First Jersey Securities Corp. The corporations were not named. Schultz, former president of Office Buildings, has been convicted of misusing \$1.5 million in operating the company.

In Topeka Builder Donald R. Elbel, who dazzled the 1959 NAHB convention by flying a \$75,000 Las Vegas floor show to Chicago, has been sentenced to 15 years in prison. He was convicted of looting the Coffeyville (Kan.) Loan & Investment Co. of almost \$2 million. The company collapsed when Arizona



INLAND'S FLYNN
Successor to company founder

s&L, Phoenix, went into receivership in 1959 for lending Elbel \$9 million on Kansas City real estate worth \$4 million. Elbel is appealing.

DIED: Stewart Bates, 56, president of Canada's Central Mortgage and Housing Corp. (the Dominion's FHA) for a decade, during which he was regarded as an ally by builders, May 24 of a heart attack in Ottawa; S. Howard Evans, 61, community development specialist for the U.S. Chamber of Commerce, June 11 in Youngstown, Ohio after being stricken with pancreatitis on a speaking tour. One-time (1952-56) official of the Urban Renewal Administration, Evans developed a self-help renewal plan calling for stiffer housing-code enforcement (NEWS, Apr. '61) and framed the Chamber's massive statistical analysis seeking to prove that renewal subsidies aid already-rich towns (NEWS, May); Morris Cafritz, 77, millionaire Washington apartment and office builder, June 11 in Hot Springs, Va., of a heart attack. Often in the public eye, Cafritz withstood critical questioning in the 1954 FHA windfall hearings by demanding that investigators define the term "windfall" (NEWS, Sept. '54). When integrationists picketed Cafritz's 5,359 apartments last year, he ended the incident by publicly supporting an anti-bias ordinance which later became law; Edith Brazwell Evans, 51, who, as editor of *Living for Young Homemakers* until its sale in 1961, influenced consumer tastes in housing, June 19 in New York City; Frank A. Collins, 65, developer of Wilmington and Philadelphia communities in four decades of homebuilding and a life director of NAHB, June 27 in Philadelphia; Eugene E. Kurtz, 49, founder of Inland Homes in 1952 and president until last month, July 4 in Dayton. Kurtz built Inland, of Piqua, Ohio, into one of the nation's largest home manufacturers 1963 (sales: \$6 million).



The nation's most desired motel franchise is now available to qualified builders of new motels in selected areas.

The Quality Courts Motels franchise offers:

- Professional site planning — including building site inspection and invaluable guidance.
- Proven standard motel plans, with professional architectural assistance: local code checking, plot plan development, complete working drawings and biddable specifications.
- Financing counsel to help you get the best mortgage at lowest cost: up-to-date information on loans, interest rates and brokerage fees.
- Central-purchase savings on furnishings and supplies through M&H, a Quality Motels subsidiary.
- Complete professional assistance in setting up your organization: personnel training, an experienced break-in staff to help you get under way.
- Profitable food and beverage service affiliation with Dobbs House, if desired.
- Assured higher occupancy through Quality Motels' advance reservation system and continuous national advertising program.
- The industry's most favorable franchise agreement, at a cost lower than many offering half as much.

If you would like to know more about this valuable franchise opportunity, write Bin Q-17, Quality Courts Motels, Daytona Beach, Florida.

Your HEART FUND GIFT fights them ALL

Heart attack
Stroke
High blood pressure
Rheumatic fever
Inborn heart defects



The Montrose. A fast-selling, three-bedroom, 2 bath model that's packed with powerful sales potential—over 1200 square feet of appealing livability. Beautifully designed by nationally known architect Henry D. Norris, AIA, the Montrose is ingeniously constructed using brand-name materials throughout. And construction cost is **low**, profit **high**. Priced to sell for about \$14,725 to \$15,500—plus lot.

Kingsberry means VALUE...



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It's easy to draw a crowd to a Kingsberry. As soon as the "For Sale" sign is up, people flock around. Kingsberry's *Total Marketing Program*—the most complete and effective in the industry—makes merchandising *that* easy. From *opening* to *closing*, Kingsberry has everything you need to build and sell at a profit—planning, financing, national advertising, sales training, and the most liberal co-operative advertising program in the industry. Kingsberry means **VALUE**, and value means **BUSINESS**—for **YOU**. We'll prove it. Just mail the coupon below.

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Jerry Nowak, General Sales Manager
Kingsberry Homes Corporation—Dept HH-3—5096 Peachtree Road, Chamblee, Georgia

Yes, I'm interested. Please rush me more information on the Kingsberry Value Story.

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Address _____

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MARKETING ROUNDUP



BUILT-IN BUNKS in children's bedrooms are made of steel to withstand rough use.



LARGE PLAYGROUND includes part of nursery school equipment that cost builder \$25,000.

Supervised nursery helps builder tap a neglected rental market

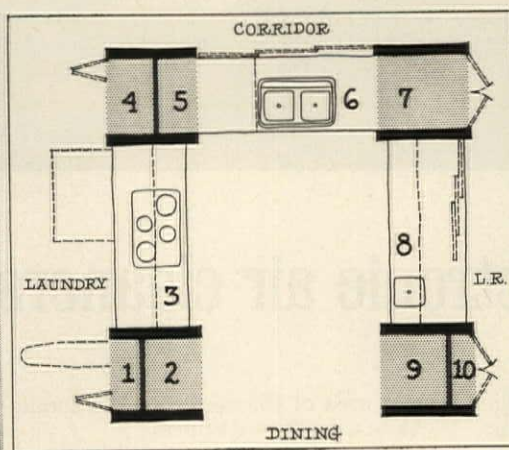
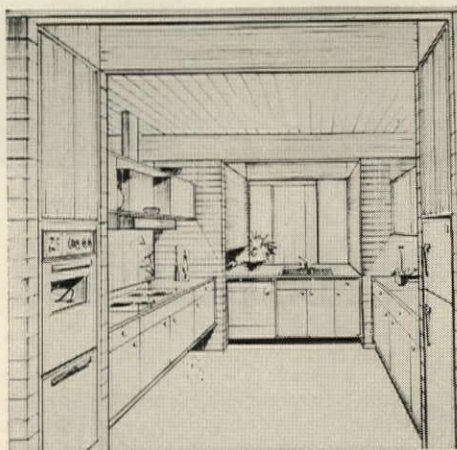
Most apartment owners take a dim view of families with children. Not so California's C. I. A. Corp. Its Cypress Gardens in Mountain View won't accept tenants unless they have children.

C. I. A. President Sidney V. Badger says the 56 apartments and townhouses are renting three times faster than comparable projects

in the area. One of their big appeals—particularly to working mothers—is a licensed nursery school with well-equipped indoor and outdoor play areas (*above*) and an all-day program including a hot noon meal, all for \$75 a month. Other features: built-in bunks (*above*) in second bedrooms and in children's alcoves off master bedrooms, liberal sound

insulation and low-maintenance hardboard siding (Masonite.) Each unit has its own patio or balcony with a sliding glass door.

E. G. Craig & Assoc. designed the project. Rentals range from \$130 to \$185. C. I. A. plans 104 more units plus a swimming pool, cabana, sauna bath and recreation building with fireplace.



Interior kitchen is open on all four sides

Conceived by aptly-named Designer Robert Kitchen of Santa Fe, it gives the housewife a control center from which to supervise family activities in the living room, dining room, laundry and corridor leading to the bedrooms. For formal entertaining, the kitchen has sliding panels that close it off from the living room and bedroom corridor.

The kitchen's four corners are made up of square storage units which are shared with surrounding areas. The lower-left unit (in

the drawing at right) holds the oven (2) and a broom closet (1); the upper-left unit holds a washer-dryer (4) and kitchen storage (5); the upper-right unit is a coat closet (7), and the lower-right unit includes the refrigerator (9) and a bar (10). Overhead storage cabinets hang above the range counter (3) and above the counter with an extra small sink (8). The kitchen was awarded first prize in General Electric's national kitchen design competition.

Tours for high school girls sell 1970's buyers today

Classes of more than 100 home economics students get special tours of Sycamore Homes development in Whittier, Calif. The students see demonstrations of house construction, are told what features to look for in buying a home (when they're ready). Builder Jack Conrad's idea: to make an early impression on future buyers and put across a pitch for his kind of building in small-volume tracts.

Copters whirl buyers to sites from downtown model house

Big Builder Edward Ryan of Pittsburgh has a new way to lure prospects: house hunting by helicopter. He bought a heliport in the city's Golden Triangle and is fitting it out with model house and displays. Newcomers to the area (Ryan has his eye on hundreds of incoming U. S. Steel transferees) first go through the model, then get an airborne tour of Allegheny County.

Says Ryan: "When they see an area they like, we'll land the helicopter and show them around." Ryan, with 88 subdivisions around Pittsburgh, is almost sure to have at least one model nearby.

IN GO
DUST, DIRT,
POLLEN



OUT COMES
CLEAN AIR
HOUSE-WIDE

Honeywell electronic air cleaners will be standard

Crofton, a new community in the Washington-Baltimore-Annapolis area opened for business this spring. And, Honeywell Electronic Air Cleaners were *standard equipment* in the model homes. In fact, they'll be standard equipment in *all* of the town's planned 2,000 single-family homes and 1000 apartments . . . and even in the shopping center stores.

We asked W. Hamilton Crawford, President of Crofton Corporation and its parent company, Crawford Corporation, to tell us why . . .

"Well, for three reasons: First, we know that cleanliness ranks high with new home buyers. We want Crofton families to enjoy cleaner homes, with less dusting, cleaning and redecorating.

"Secondly, the high pollen efficiency of the Honeywell Electronic Air Cleaner should be important in

this area of the country, and should have a really big appeal.

"And finally, we are convinced that electronic air cleaning should be an integral part of the environment in every truly up-to-date home."

Naturally, Mr. Crawford's remarks please us. And we feel Crofton homeowners will be just as pleased with the performance of their Honeywell Electronic Air Cleaners. The unit can actually remove up to 95%* of the airborne dust and pollen . . . including the tiny particles of smoke, cooking grease and bacteria that can pass right through ordinary filters. And, it can cost as little as \$1.50 a month added to the mortgage.

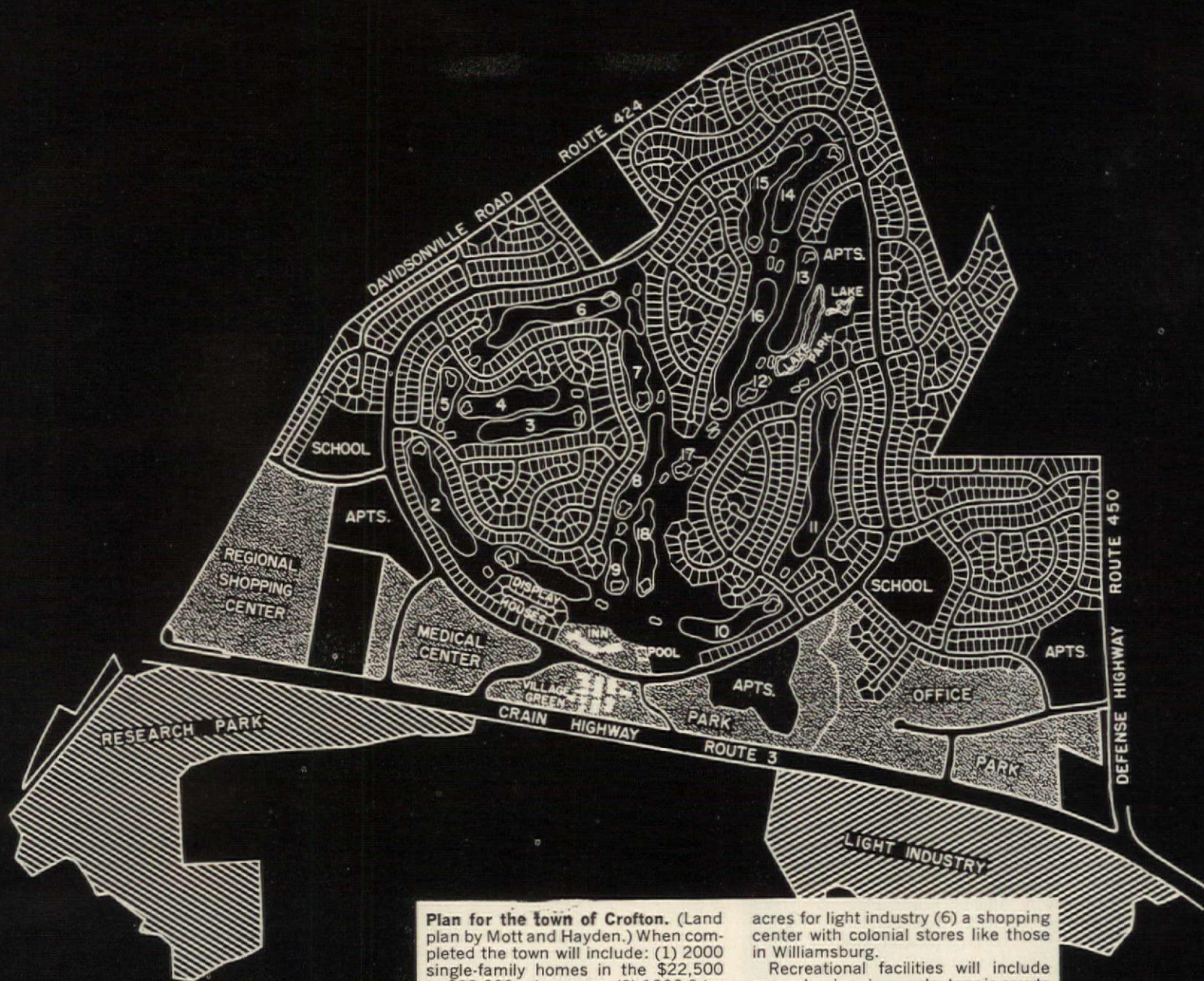
There's a good chance your prospects are already familiar with the advantages of Honeywell Electronic Air Cleaning. Honeywell air-cleaner advertising reached over 3 million of

them last year in House & Garden, House Beautiful, Holiday, and dozens of other out-standing consumer magazines. Our promotion program is still going strong . . . this year we've even added network TV.

Look into it.

Why not add the unique appeal of Honeywell Electronic Air Cleaning to *your* homes. It could be just the modern "exclusive" you need to attract more quality-home buyers. Call your local heating and cooling dealer, ask for a demonstration, and price it. Or, write Honeywell, Dept. HH-18, Minneapolis, Minnesota 55408.

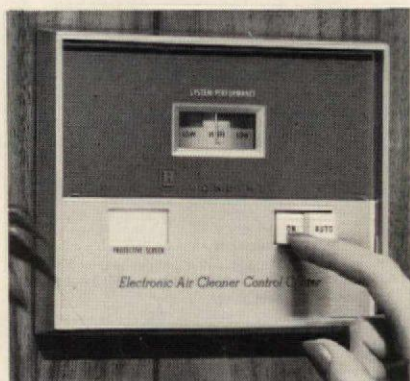
Honeywell



Plan for the town of Crofton. (Land plan by Mott and Hayden.) When completed the town will include: (1) 2000 single-family homes in the \$22,500 to \$33,000 price range. (2) 1000 2-to-4 bedroom town houses and garden apartments (3) some medium rise apartments (4) a 125-acre park for industrial research facilities (5) 117

acres for light industry (6) a shopping center with colonial stores like those in Williamsburg. Recreational facilities will include several swimming pools, tennis courts and a small lake stocked with fish. Notice also the 18-hole professional golf course which winds through the entire area.

equipment in the entire town of Crofton, Maryland.



Handsome and handy, this wall-mounted Control Center for the living area shows homeowners that their Electronic Air Cleaner is working at peak efficiency . . . also shows them when the unit needs cleaning. To your prospects it's an obvious symbol of the quality you've built into your homes.



Only 7 inches deep, the Honeywell Electronic Air Cleaner fits easily into the duct work of any forced-air heating or cooling system. While ordinary fiber furnace filters are only 5 to 8% efficient, the Honeywell unit has been rated at up to 95% efficiency. *(As rated by National Bureau of Standards Dust Spot Method.)



Offer it as an option. You can offer Honeywell electronic air cleaning as an optional feature in your homes just by having the low cost cabinet assembly installed along with the forced air heating/cooling system. Makes it easy for the buyer to add the Honeywell Electronic Air Cleaner later.

Townhouse ordinance

H&H: Memphis now has a workable townhouse ordinance, after a two-year struggle to bring townhousing to the attention of our members and our planning officials. This was achieved by close cooperation between our Association Zoning Committee and the staff of the Planning Commission.

We wish to thank HOUSE & HOME for supplying us with articles showing examples of townhouses in other cities and outlining the pros and cons on the subject.

FRANK H. BERFIELD, executive director
Home Builders Association of Memphis
Memphis

New tax law

H&H: In "Three ways the new tax law should boost housing's market" [NEWS, Apr.], you state that the "new law encourages homeowners over 62..." The age is 65, I believe.

MORRIS ADLER, tax consultant
Business Management Office Systems
Studio City, Calif.

• Reader Adler is right.—ED

Apartment design

H&H: Our pleasure in discovering the publication of our Baton Rouge apartment [May] was somewhat dampened because the landscape architect, Dr. Robert S. Reich, was not mentioned at all.

EDMUND J. GLENNY, architect
Berenson-Glenny
Baton Rouge, La.

H&H: Please send me more information about Builder C. J. Bonner's four-unit apartment in Tustin, Calif., pictured on page 105 of your May issue. The project seems identical to a project of mine in Atlantic Beach, Fla., also photographed by Alexandre Georges.

WILLIAM MORGAN, architect
Atlantic Beach, Fla.

• Our apologies to Architect Morgan. The project is indeed his.—ED

Re: Bill Blackfield

H&H: I have read with interest your article about Bill Blackfield [Jan.], but a few points should be corrected.

Bill Blackfield did no advertising and sent no clients to us. Instead, my office paid for and carried the advertising and called him when appointments were made.

Further, we received a maximum of 10% on lot sales and 3% (not 5%) on the value of the building contract which we sold.

He was not alone in offering fixed-price contracts. However, he and I did coordinate plans and programs in a more definite manner than many other builders.

HARMON BENNETT, C L U
Realtor and insurance broker
Berkeley, Calif.

From: Bill Blackfield

H&H: There is a misstatement of fact in your article about the new class of membership created in the NAHB [NEWS, June].

Under the by-law change it is mandatory for companies applying for a \$5,000 sustaining membership also to have a membership in one or more local associations. Your article makes it appear that this is optional.

Letters continued on page 43

Here is the number to call to get ANY number in the Progress Lighting Catalog



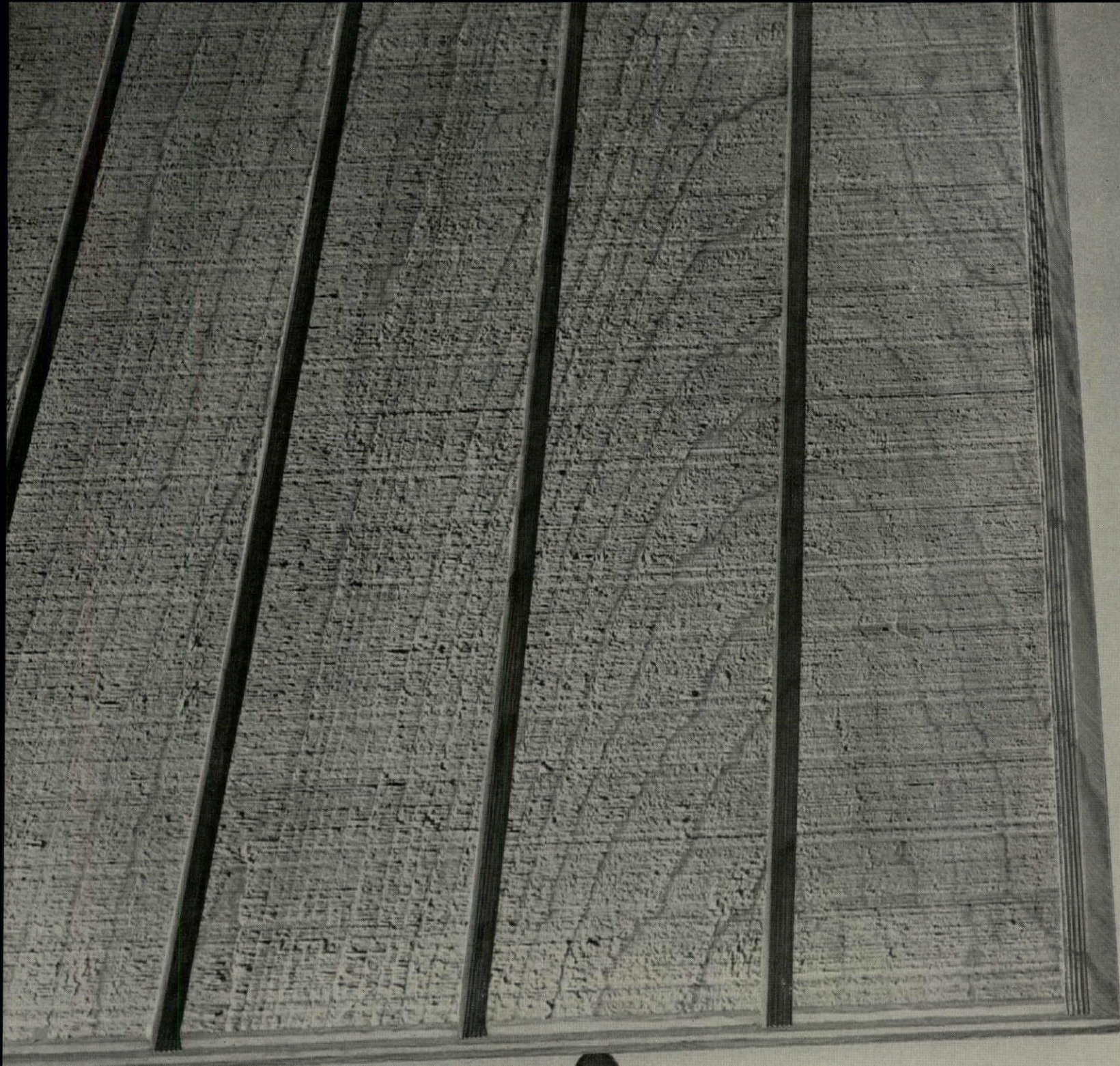
- ALABAMA**
Birmingham...Lighting & Lamps Whislers, Phone: 323-5842
Wells Lighting Studio, Phone: 322-3424
Huntsville...Huntsville Elec. Supply Co., Phone: 536-6621
- ARIZONA**
Phoenix...Regal Lighting Fixture Co., Phone: 264-7585
- ARKANSAS**
Blytheville...American Elec. Supply, Inc., Phone: PO 3-7023
Ft. Smith...Southern Electric, Inc., Phone: SU 2-6095
Little Rock...Adecock Lighting & Supply, Phone: MO 3-4109
- CALIFORNIA**
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Oakland...National Electric Supply, Phone: OL 3-0416
San Francisco...California Elec. Supply Co., Phone: 363-2020
Peelrite Mfg. & Supply Co., Phone: SU 1-4658
Stockton...Consolidated Elec. Dist., Phone: HO 6-2301
- COLORADO**
Denver...Central Electric Supply Co., Phone: 266-3211
- CONNECTICUT**
Hartford...Capitol Light & Supply Co., Phone: 527-8115
Electrical Wholesalers, Phone: 527-3238
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- FLORIDA**
Gainesville...Hughes Supply, Inc., Phone: 372-8471
Largo...Atlas Elec. Supply Co., Phone: 584-7604
Orlando...Central Electric Supply, Inc., Phone: 241-5664
Hughes Supply, Inc., Phone: 425-2661
Pensacola...Cesco, Inc., Phone: GL 5-8511
Sarasota...Brockman Elec. Supply, Inc., Phone: RI 7-2171
St. Petersburg...Hughes Supply, Inc., Phone: 862-1641
Tampa...Atlas Lighting, Inc., Phone: 236-5707
- GEORGIA**
Atlanta...Beck & Gregg Hardware Co., Phone: 521-2010
Cain Lighting & Supplies, Phone: 758-2626
Georgia Lighting Supply Co., Phone: TR 5-4759
Dalton...Southern Wholesalers, Phone: 278-1583
Marietta...Cobb Electric Supply Co., Phone: 427-6565
Savannah...Morris Electric Supply Co., Phone: 234-2296
- ILLINOIS**
Chicago...Bright Electric Supply Co., Phone: AR 6-4601
Brook Electric Supply Co., Phone: AR 6-2800 LA 5-2830
Crystal Lighting Supply, Inc., Phone: 586-0440
Dobkin Electrical Supply Co., Phone: SE 8-3700
Hylan Elec. Supply Co., Phone: AN 3-4100
Westinghouse Elec. Supply Co., Phone: TA 9-5000
Park Ridge...Lighting Showplace, Inc., Phone: 825-3309
Rock Island...Marlin Associates, Inc., Phone: 788-9371
- INDIANA**
Anderson...Dixon Electric Co., Inc., Phone: 643-6950
Aurora...Aurora Supply Company, Phone: 602
Ft. Wayne...Schlatter Hardware Co., Phone: 742-8311
Indianapolis...Central Elec. Supply Co., Phone: ME 5-8605
First Elec. Co. (Sub. of South Bend Elec.), Phone: ME 8-6421
Kulwin Electric Co., Phone: WA 5-9694
South Bend...Midwest Lite Co., Inc., Phone: AT 8-4427
- IOWA**
Dubuque...Universal Electric Co., Phone: 583-1765
Ft. Dodge...Electrical Materials, Phone: 573-7166
Washington...Sitters Elec. Supply, Inc., Phone: OL 3-2123
- KANSAS**
Coffeerville...Tri-State Elec. Sy. Co., Inc., Phone: CL 1-0484
Salina...Kriz Davis, Inc., Phone: TA 7-4497
- KENTUCKY**
Louisville...Belknap Hardware & Mfg. Co., Phone: 584-1341
The Brecher Co., Phone: 897-1561
- LOUISIANA**
Alexandria...Mid State Elec. Co., Inc., Phone: 442-4486
Baton Rouge
Moncreet & Brister Appl., Inc., Phone: DI 8-6732
Lafayette...Lafayette Elec. Supply Co., Phone: 232-1434
Lake Charles...Craft-Rushworth, Ltd., Phone: HE 9-9424
New Orleans...Lighting, Inc., Phone: 824-0202
- MAINE**
Bangor...Standard Electric Company, Phone: 942-6713
Lewiston...Lewiston Supply Company, Phone: 784-4083
Portland...Maine Hardware Stores, Phone: 773-5605
- MARYLAND**
Baltimore...Baltimore Gas Light Co., Phone: MU 5-7670
Excello Public Service Corp., Phone: 944-6700
People's Elec. Supply Co., Inc., Phone: PL 2-5335
Cockeysville...Balec Electric Supply Co., Phone: 665-1284
Salisbury...Artercraft Elec. Supply Co., Phone: 749-6181
Silver Spring...Beacon Elec. Sup. Co., Inc., Phone: JU 7-8000
- MASSACHUSETTS**
Boston...S. Blechner Co., Inc., Phone: LI 2-6493
Ralph Pili Electric Supply Co., Phone: 423-0121
Lawrence...Finberg Supply Co., Phone: MU 3-8755
Lowell...Atlantic Distributing Co., Phone: 458-6857
West Springfield...George Elec. Supply, Phone: 734-6429
- MICHIGAN**
Detroit...Center Electric Supply Co., Phone: 342-3200
Madison Elec. Co., Phone: TR 1-5160
Puritan Electric Company, Phone: UN 3-0503
Spina Electric Supply Co., Phone: WO 3-4400
Grand Rapids...Litscher's Wholesale Electric, Phone: 458-1385
Monroe...Monroe Electric Supply Co., Phone: 241-5383
Okemos...Modern Wholesale Elec. Supply, Phone: ED 2-6501
- MINNESOTA**
Duluth...Northern Elec. Supply Co., Phone: RA 2-0551
Minneapolis...Northern Elec. Supply Co., Phone: FE 2-4481
St. Paul...Lax Electric Co., Inc., Phone: 227-6601
- MISSISSIPPI**
Greenwood...Delta Plbg. & Elec. Supply Co., Phone: GL 3-5623
Gulfport...Gulfport Electric, Phone: 864-7731
Huntsville...Prichard Elec., Inc., Phone: 864-1819
- MISSOURI**
Kansas City
Kansas City Light & Fixture Co., Inc., Phone: VI 2-4201
Tiemann-Hess Electric Supply Co., Phone: BA 1-3358
Springfield...Southern Materials Co., Phone: UN 5-2822
St. Louis...Gross Chandlerier
Phone: Office & Factory, CE 1-1060 Showrooms, VO 3-1180
- MONTANA**
Great Falls...Glacier State Elec. Supply Co., Phone: 761-4220
- NEBRASKA**
Omaha...United Electric Supply Co., Phone: 555-4554
- NEW JERSEY**
Dover...Dover Electrical Supply Co., Inc., Phone: 366-2800
Ledgewood...Campbell Elec. Supply Corp., Phone: 584-7145
Paterson...Feldman Lighting Fixture Co., Phone: SH 2-7329
Vee Dee Elec. Supply, Inc., Phone: LA 5-2324
Pennsauken...Uhr Elec. Supply Co.
Phoners: NO 2-3496—(Phila.) WA 5-3000—(Phila.)
Phillipsburg...Fromm Elec. Supply Corp., Phone: GI 4-1185
Ridgefield Park...Vee Dee Elec. Distr., Inc., Phone: DI 2-5310
Toms River...Goodfriend Elec. Sup. Inc., Phone: DI 9-4100
Union...Surrey Electric Supply, Phone: MU 8-9430
- NEW MEXICO**
Albuquerque...Westinghouse Elec. Supply Co., Phone: 247-3646
Artesia...New Mexico Supply Co., Phone: SH 6-2773
- NEW YORK**
Albany...Tusang-Barbydt, Inc., Phone: 489-5576
Binghamton...Florance Electric Supply Co., Phone: 724-2455
Buffalo...Davis Electric Supply Co., Phone: 896-8903
Cohoes...Ontario Supply Corp., Phone: CE 7-4723
Glens Falls...Hill Electric Supply Co., Phone: RX 3-3436
Hicksville...Aetna Elec. Distr. Corp., Phone: WE 2-4408
Hornell...Florence Electric Supply, Inc., Phone: 324-5444
Lynbrook...Fairway Electric Supply Co., Phone: LY 5-5400
Mineola...National Elec. Supply Co., Phone: OL 1-2525
New York...Capitol Elec. Supply Co., Inc., Phone: LE 4-3546
Midway Elec. Supply Co., Inc., Phone: AU 6-2300
U.S. Electric Supply, Phone: CO 7-9472
Riverhead, L.I...R & M Elec. Supply Co., Phone: PA 7-3620
White Plains...Garfield Electric Supply, Phone: WH 8-8600
Yonkers...Goler Elec. Supply Co., Phone: YO 3-3527
- NORTH CAROLINA**
Charlotte...Southern States Sup. Co., Inc., Phone: FR 5-6081
Sanford...Capt. Rod Sullivan, Inc., Phone: 775-2325
- OHIO**
Cincinnati...Richard Electric Supply Co., Phone: 351-1010
Cleveland...Westinghouse Elec. Supply Co., Phone: 942-0702
Dayton...Westinghouse Elec. Supply Co., Phone: 224-9331
- OKLAHOMA**
Oilton...Economy Supply Company, Phone: UN 2-3224
Oklahoma City...Cook Electric Supply Co., Phone: CE 5-7461
Electric Supply of Oklahoma, Phone: CE 2-2108
Tulsa...Clark Electric Supply Co., Phone: LU 7-0128
Nelson Electric Supply Co., Phone: LU 5-1241
- OREGON**
Portland...Gardner Electric Co., Phone: CA 7-1254
Platt Electric Supply Co., Phone: 226-7631
Westinghouse Elec. Supply Co., Phone: 226-7363
- PENNSYLVANIA**
Bethlehem...Fromm Elec. Supply Corp., Phone: 867-0511
Exeter...J. Friedman Elec. Supply Co., Inc.
Phones: 654-3371, GL 7-7241
Gettysburg...M. A. Hartley & Co., Phone: 334-3175
Greensburg...Scott Electric Company, Phone: TE 4-4321
Harrisburg...Harrisburg Supply Company, Phone: 234-4109
Harrisburg Elec. Supply Co., Phone: 564-5803
Raub Supply Co., Phone: 564-1711
United Elec. Supply Co., Phone: 234-5917
Lancaster...Raub Supply Company, Phone: 397-6221
Norristown...Lighting Equip. & Sup. Co., Phone: CH 2-0722
Norristown Elec. Supply Co., Phone: BR 5-7211, 12
Philadelphia...Eastern Elec. Supply Co., Phone: PO 9-0400
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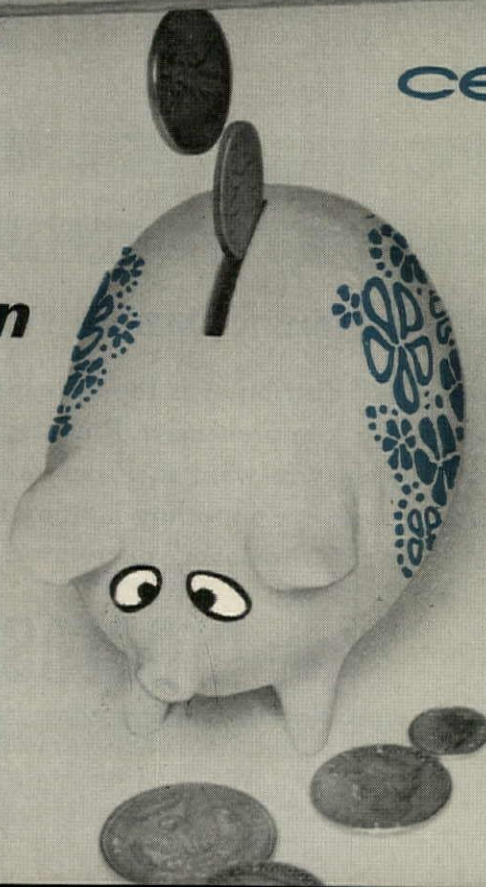
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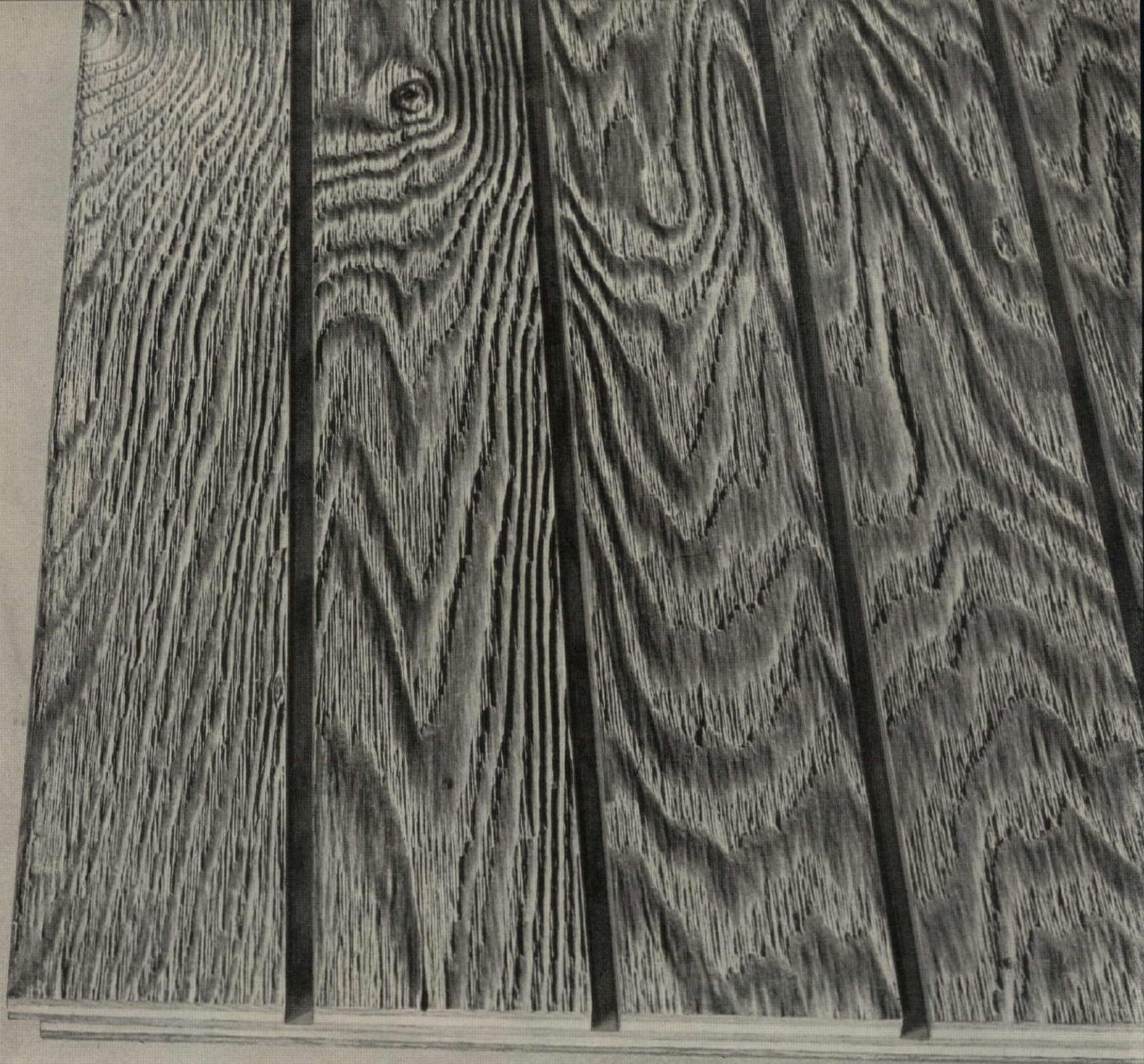
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Money saver. That's any piggy-bank, cross-eyed or no.

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

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



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

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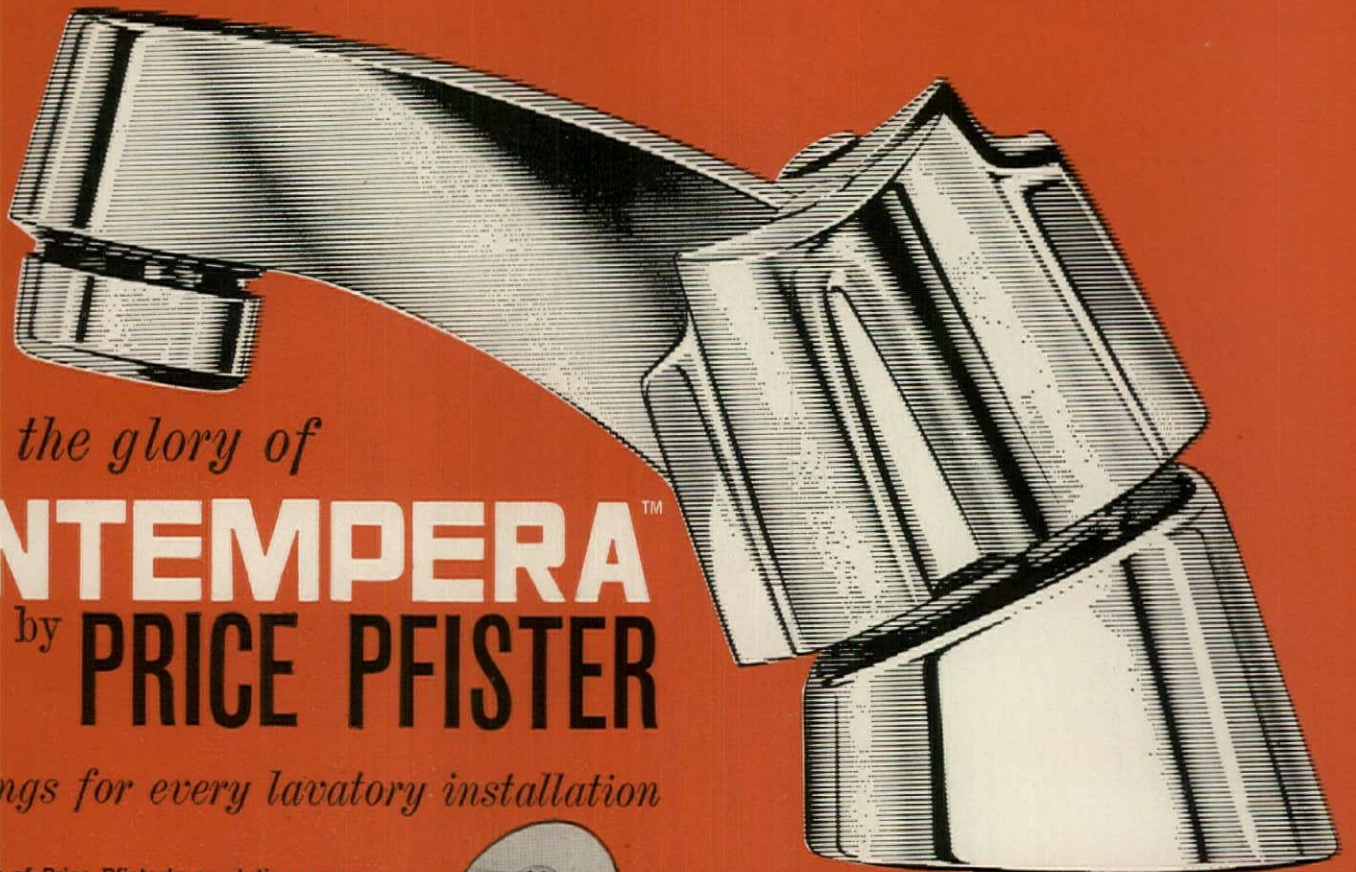
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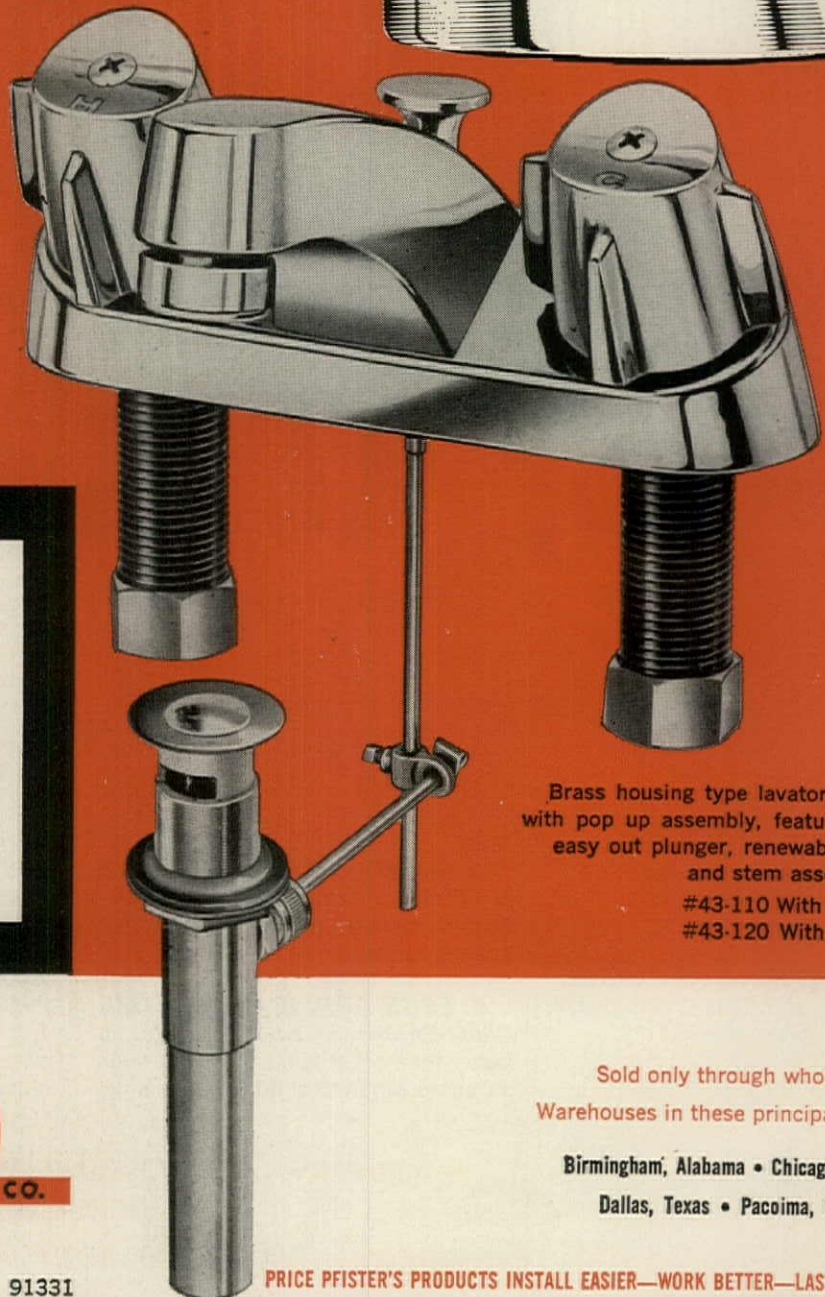
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4" fittings for every lavatory installation

Here, as part of Price Pfister's revolutionary new CONTEMPERA line of bathroom and kitchen fittings is the excitingly different 4" lavatory fitting.

The graceful sweep of its setback design makes it the ideal companion piece for its newly introduced lavatory mates — the completely matching tub and shower fittings . . . Builders specify . . . plumbers bid . . . CONTEMPERA . . . the ultimate in Plumbing Brass.

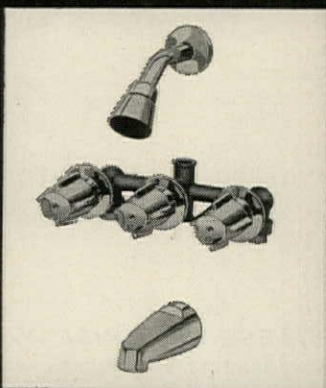
New, completely illustrated 8-page brochure on the entire CONTEMPERA line of bathroom fittings is ready now. Send for it today.



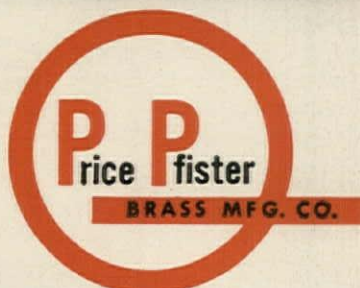
Brass housing type lavatory fitting with pop up assembly, featuring the easy out plunger, renewable seats and stem assemblies.

#43-110 With strainer
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LETTERS

starts on page 39

We went to great pains to make it clear to the board of directors and local and state executive officers of the NAHB that local membership would be a prerequisite and I regret to see any contrary impression circulated.

WILLIAM BLACKFIELD, president
NAHB, Washington

A push for pioneering

H&H: In your rebuttal to Elliott Brown [LETTERS, Mar.], you should have stated that the foundation of this nation is pioneering. Brown's remarks are typical of what planners face every day. It becomes difficult to advance new and untested ideas when confronted with such pessimism. HOUSE & HOME should be credited with advancing the cause of progress, which is wanting in many regions of the nation. Education is not only the responsibility of news media and the scholar, it is also the responsibility of the architect, builder, planner, and in this case, the planning commission.

Planning commissions should be receptive to new concepts, fearless of public criticism and educators of the community about the need for acceptance of new ideas.

PETER CUTHBERT, land planner
La Mesa, Calif.

Courtyard house

H&H: The Pacesetter Homes [May] and some others that I have seen are particularly bad examples of the use of an atrium. We were the originators of the atrium idea in merchant-built houses as long ago as 1958. In all of our houses the atrium is related to the plan of the house so that as many rooms as possible can take advantage of it. We would never think, for example, of placing the bathrooms so that they open to an area . . . that is not likely to be used for living purposes.

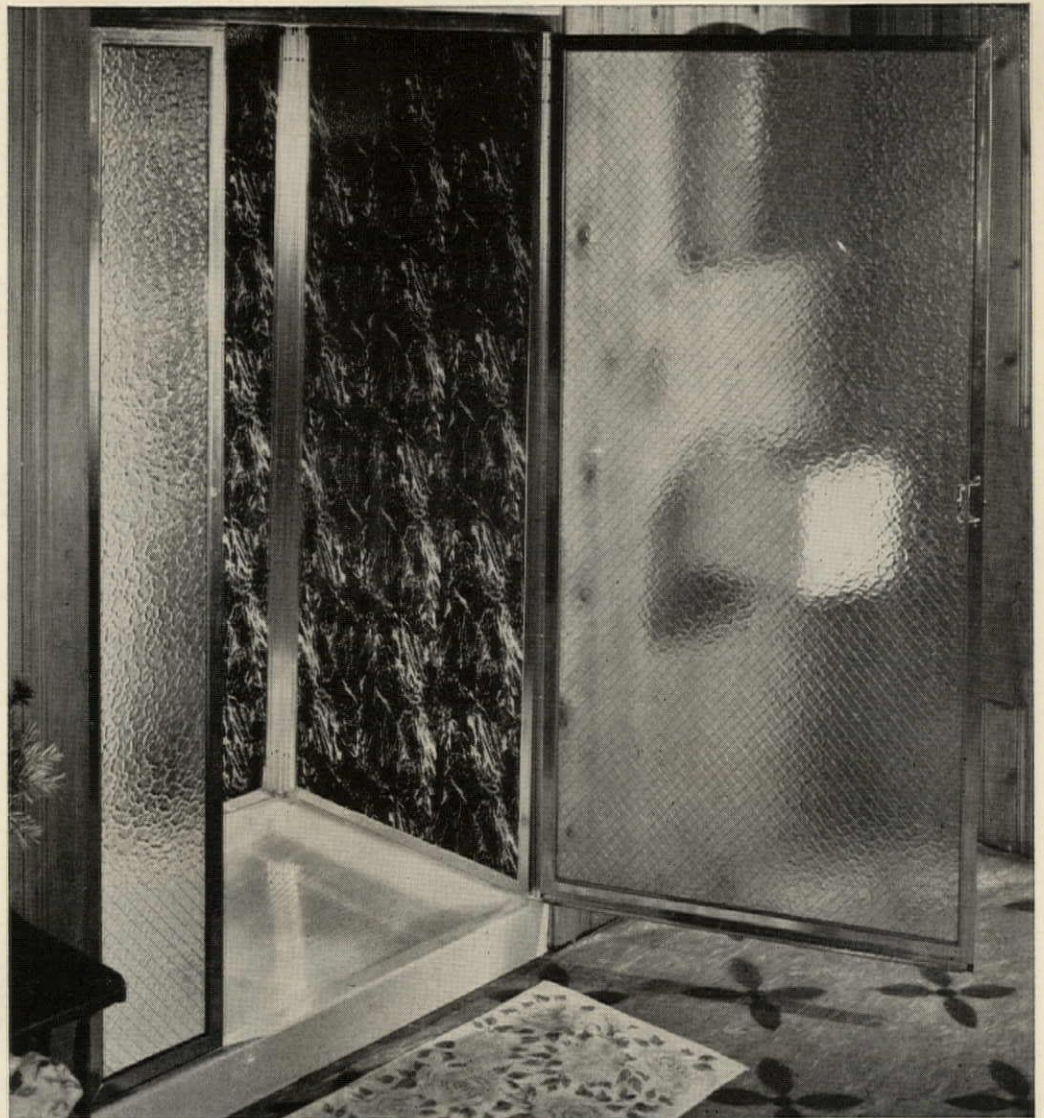
JOSEPH L. EICHLER, chairman
Eichler Homes Inc.
San Francisco

H&H: The Pacesetter Homes model has some discrepancies in the dimensions given. The out-to-out dimension is given as 48', the subdimensions add up to 48'2" out-to-out. The out-to-out dimension of the depth is given as 72', the subdimensions add up to 64'. The subdimensions of the children's bedrooms add up to 30'6" on one side and 31'6" on the other. On the master-bedroom-patio-garage side the subdimensions add up to 71'6".

WILLIAM C. BRIGGS
Hobart, Ind.

• H&H thanks sharp-eyed reader Briggs for keeping us on our toes.—ED.

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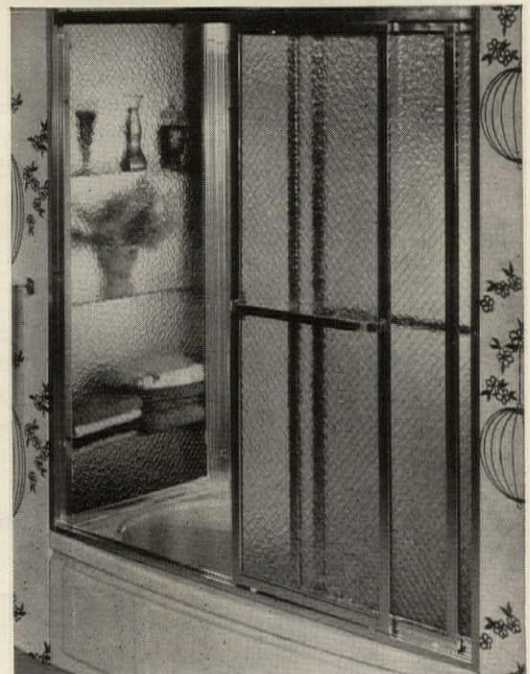


Give Your Bathrooms the
LOOK of LUXURY with... *Safety*

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

Transform bathrooms into sheer elegance and luxury with assurance of proven shatter resistance. Fortified with Misco, diamond-shaped, welded wire, the bright mesh is clearly visible as a sturdy web of steel . . . serves as a constant reminder of its safety features. The hard, impervious surface of the glass makes it carefree and wearfree . . . easy to keep clean and sanitary. And glass does so much to add exciting beauty that brightens and enlivens the entire bathroom. Specify 7/32" Spraylite Misco. At most leading distributors of quality glass.

*Meets all requirements of FHA code for tub enclosures and shower stalls (Interim Revision #13A).



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

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WHAT MODERN CONVENIENCE GIVES SO MUCH FOR SO LITTLE AS CIRCUIT BREAKERS IN YOUR HOMES?



Many builders wouldn't think of using anything but circuit breakers in their homes—simply because they provide the kind of electrical safety and convenience which today's electrical home should have. Trouble is, having provided this quality feature, too many builders fail to *tell* their prospective buyers about it.

You have a real, merchandisable selling feature when you install QO "quick-open" circuit breakers in your homes. You're providing far more than adequate wiring. You're

providing a convenience that's easily demonstrated and readily appreciated. There are no fuses to replace. Even a child can restore service, quickly and safely. You're providing modern protection against overloads and "shorts". And—you're providing for future circuits as they're needed.

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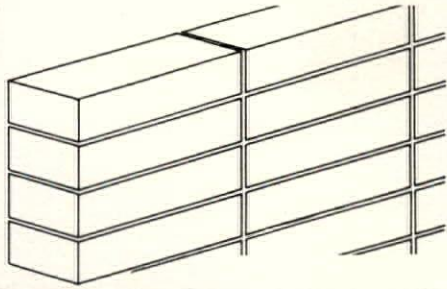
As your electrical contractor can tell you—there's one circuit breaker that heads the list in quality and performance. Specify Square D's QO...the finest breaker ever built!



May we send you the complete QO story?
Address Square D Company, Dept. SA-20, Mercer Road, Lexington, Ky.

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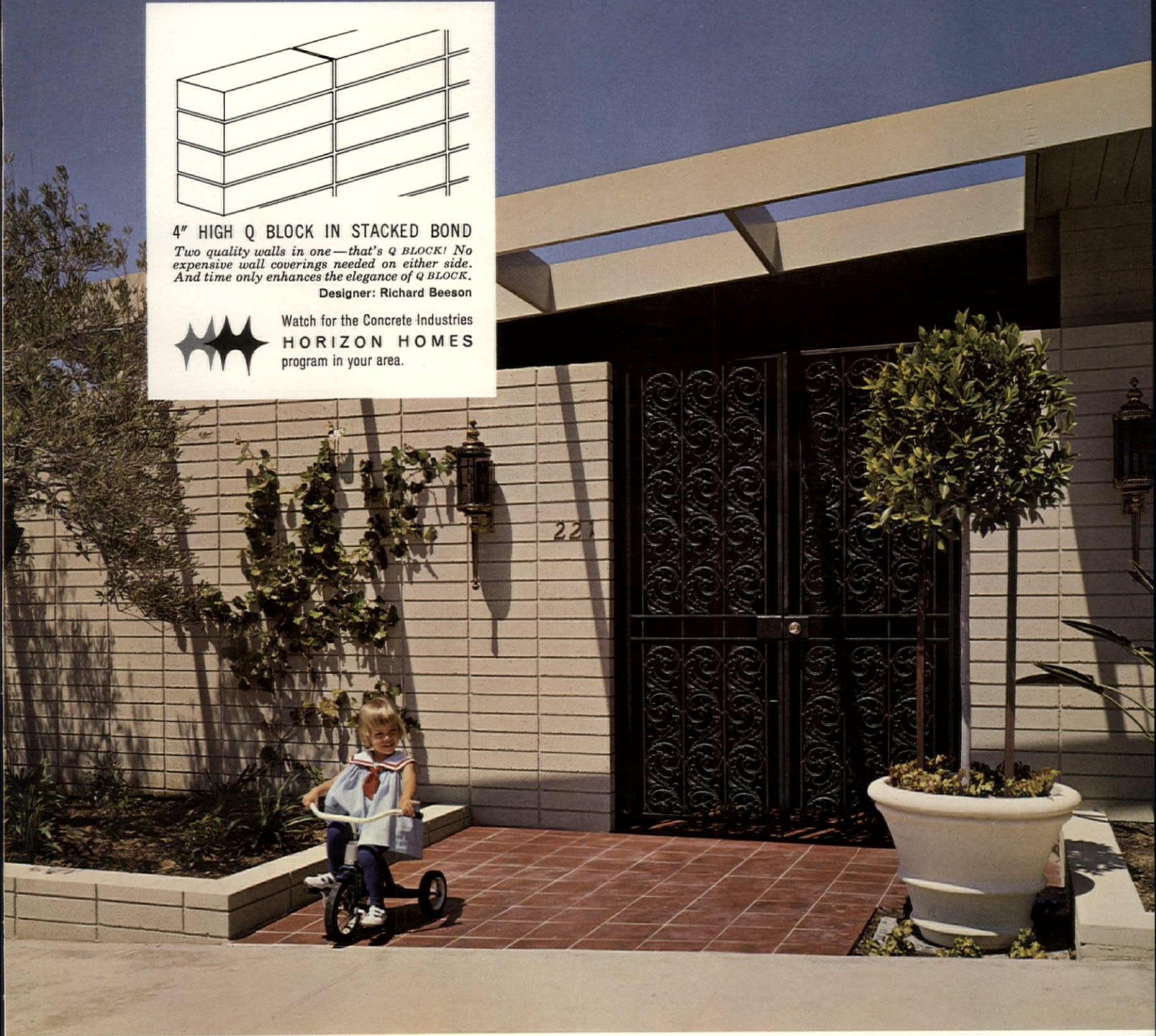
4" HIGH Q BLOCK IN STACKED BOND

Two quality walls in one—that's Q BLOCK! No expensive wall coverings needed on either side. And time only enhances the elegance of Q BLOCK.

Designer: Richard Beeson



Watch for the Concrete Industries
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Q BLOCK
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Q BLOCK creates new distinction in even the most conservative wall fashions. Countless varieties of Q BLOCK offer you unlimited design ideas. Stack versatile Q BLOCK in clean, simple renditions or offset it from others for more personalized and dramatic designs. Economical Q BLOCK gives you more style and space per dollar than any other home builder. Plus complete fire-safety, high sound absorption and low maintenance. Only NCMA members can make Q BLOCK. Write for your nearest Q BLOCK producer.

Q BLOCK is the new national standard of excellence for the highest quality concrete block in modern day design.



NATIONAL CONCRETE MASONRY ASSOCIATION • 2009 14th STREET NORTH, ARLINGTON, VIRGINIA



You can find "Ebby Halliday, Realtors" in the Yellow Pages

(You can find the real Ebby Halliday just about anywhere)



First, let us note that our purpose here is to remind all Realtors that the Yellow Pages is *the* place to advertise.

Ebby Halliday, Realtors—in Dallas—is a good example. Mrs. Halliday started her business in 1945. She's had an ad in the Yellow Pages for 18 years. Now her firm is nationally known, consists of 43 associates in 4 offices, and is one of the most successful operations of its kind, anywhere. (Sales of over \$12 million, last year.)

Naturally, the Yellow Pages can't take all the credit. But we do say it is an efficient complement to Ebby's drive and ingenuity. It's done its share—and then some.

Why can you find Ebby Halliday just about anywhere? We'll list just a few of her activities: She is a Vice President of the North Dallas Chamber of Commerce and the Beautify Greater Dallas Assn. She's also a Director of both the Texas United Fund and the Bank of Dallas. Ebby is active, and holds offices in the National Association of Real Estate Boards, too.

What's more, she has lectured in just about every state—on real estate and persuasive telephone techniques. (A subject on which she is an authority, and one dear to our hearts. Naturally.) We can't divulge

all her secrets here, but one is: "Smile. You'd be surprised how a smile is transmitted over the phone."

We can also divulge one of Ebby Halliday's secrets of success in real estate: "Advertise in the Yellow Pages. You're always there when people need your service." We agree.





This pegged oak floor helped sell 90,000 homes

And it can help you sell quite a few, too. Use Ranch Plank Flooring in a den for your model home and watch buyers' eyes light up. Its distinctive pegs and alternate-width strips give any room a charming, comfortable look. Like all Bruce Prefinished Floors, Ranch Plank has the famous Bruce baked-in factory finish that saves you time and money, gives home buyers long-lasting beauty underfoot. See Sweet's Files or write for catalogs.

E. L. BRUCE CO., MEMPHIS, TENN.—WORLD'S LARGEST IN HARDWOOD FLOORS

BRUCE
Ranch Plank
Floors 

Prefinished by modern Bruce methods for beauty, durability, economy



Lowell Siff needs House & Home in his business. He's a lawyer.

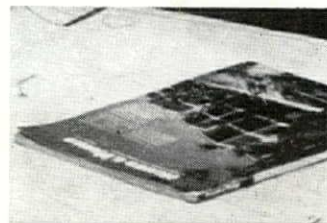
Lowell Siff is Marketing VP for F & S Construction Company—the dynamic and successful firm which has put up over 4,000 houses in the Chicago area since 1955. Lowell Siff is a lawyer. His friends call him Lowell. His associates call him overweight. The University of Chicago calls him *Juris Doctor*. His competitors and most everybody else calls him a builder. HOUSE & HOME calls him a reader.

Every year Lowell Siff passes judgment on the building materials and equipment used in F & S Construction Company's housing projects. He decides on materials and equipment for shopping centers, utility systems, community buildings—even

a striking new condominium apartment building in Chicago.

He's a top customer for manufacturers selling to people in the business. Is Lowell Siff unusual? Sure. But he illustrates an important and singular fact about HOUSE & HOME: regardless of title, regardless of the size or nature of his firm, if he's in the housing or related light construction business, chances are he reads HOUSE & HOME.

Like the 139,000 people who pay to read HOUSE & HOME every month. They're *all* in the housing business.



HOUSE & HOME—serves 139,000 people in the housing and related light construction business.

*low cost
fast application
high saleability*

SIDEWALLS OF RED CEDAR



PRE-FINISHED MACHINE-GROOVED SIDEWALL SHAKES



FOR BEAUTY, DURABILITY AND LOWEST APPLIED COST

This is how you can build better

WITH MACHINE-GROOVED CEDAR SIDEWALL SHAKES...

There are many long-lasting, factory-applied colors to choose from in machine-grooved sidewall shakes. But, wide variety of good colors is only part of the story. Cedar gives you something to sell. It has truly unique advantages unmatched by imitation materials.

It provides dimension thickness (nearly $\frac{1}{2}$ " at the butt) for deep horizontal shadow line. Machine-grooved sidewall shakes have bold and beautiful texture. They have the durability, strength, light weight and weather resistance which only cedar offers.

Cedar says quality with a tangible "something extra" to sell. Best of all, machine-grooved sidewall shakes are lowest in actual applied cost — because of low initial cost plus ease of application. Available also in 4' and 8' panels for even faster application, machine-grooved shakes can help you build better on *your* next home.

This Certigroove label is your guarantee of top quality based on rigid quality control and inspection.



...AND WITH REBUTTED-AND-REJOINTED SHINGLES

Rebutted-rejointed shingles are dimensionally square. Applied to sidewalls with close-fitted edges, they present a traditionally pleasing appearance. They're available in either the natural "sawed" face or with the exposed face smooth sanded. They weather beautifully without stain or paint . . . they also take either stain or paint well.

While particularly suited to "classic" design such as Cape Cod or Colonial, they lend themselves well to

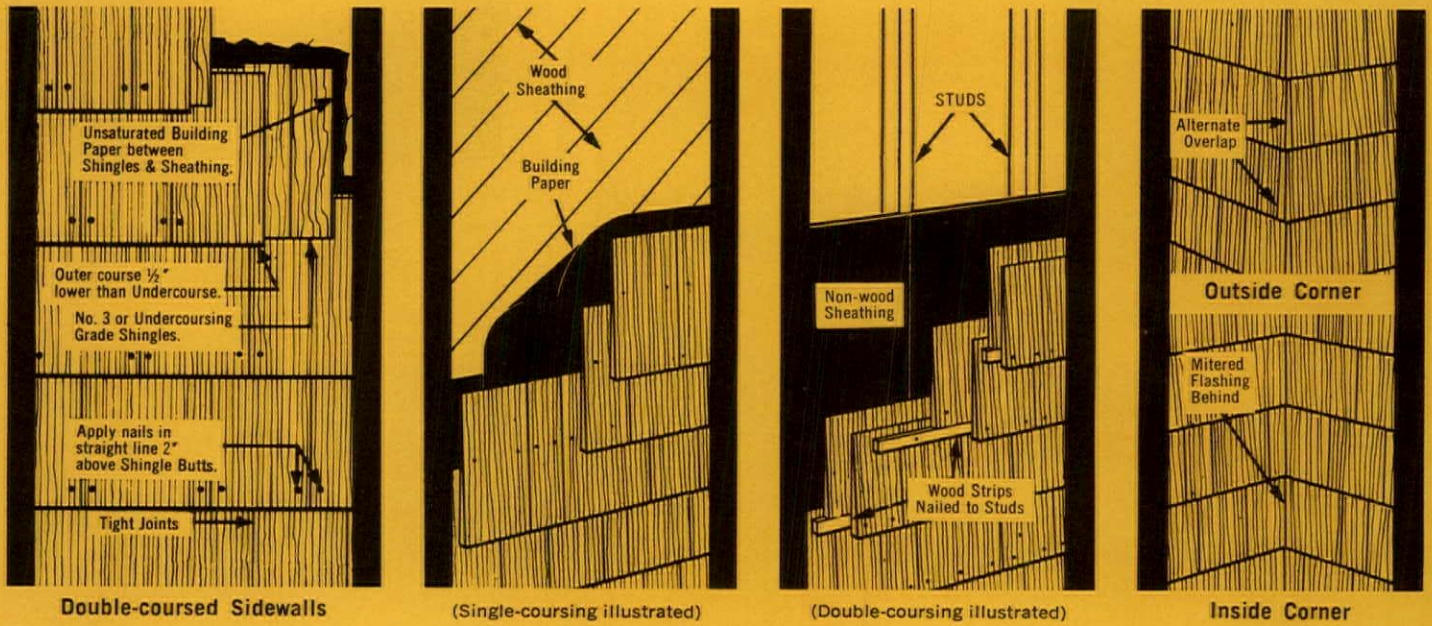
contemporary treatment. And, like machine-grooved shakes, rebutted-rejointed shingles give you unique advantages which only cedar offers. Available in 24", 18" or 16" lengths, these shingles make sense to both successful builders and demanding home owners.

This Certigrade label is your guarantee of top quality based on rigid quality control and inspection.



RED CEDAR Machine-grooved sidewall shakes and rebutted-rejointed shingles bearing the CERTIGROOVE and CERTIGRADE labels respectively, are sawed from premium-grade (No. 1) Western Red Cedar, *Thuja Plicata*, a great, slow-growing tree found in the

Pacific Northwest. The wood has extremely fine and even grain, exceptional strength in proportion to weight, low expansion and contraction with changes in moisture content, high impermeability to liquids, great durability, and a high degree of thermal insulation.



APPLICATION GUIDE

Machine-grooved shakes are always applied double-coursed. Rebutted-and-rejointed shingles may be applied either single or double-coursed. In double-coursing, shakes or shingles are applied at long weather exposures over a course of low grade shingles. Double-coursing gives deeper shadow lines and provides for greater coverage at lower cost. In single-coursing, shingles are applied much the same as in roof construction except that longer weather exposures are employed.

NAILING For double-coursing, each outer course shake or shingle should be secured with 5d (1-3/4") small-headed, rust-resistant nails driven about two inches above the butts. One nail should be 3/4" from each edge plus additional nails in wider shingles for a secure job. Each

undercourse shingle should be fastened with a staple or one or more nails.

For single-coursing, each shingle should be secured with 3d (1-1/4") rust-resistant nails driven about 3/4" from each edge and not to exceed 1" above the butt line of the succeeding course, with a third nail in the center of wider shingles.

All nails should be driven flush but not so that the head crushes the wood. Matching colored nails are available from some manufacturers.

CORNERS Outside corners should be constructed with an alternate overlap of shingles between successive courses.

Inside corners should be mitered over a metal flashing or they may be made by nailing a 1-1/2" or 2" square strip, S4S, in the corner and

jointing the shingles of each course to this strip. **FOUNDATION LINES** In double-coursing, shakes or shingles should be triple-coursed at the foundation line, using a double underlay. In single-coursing, shingles should be double-coursed at the foundation lines.

Length of Shingles (in inches)	Exposure of Shingles (in inches)	
	Single Course	Double Course*
16	6 to 7 1/2	8 to 12
18	6 to 8 1/2	9 to 14
24	8 to 11 1/2	12 to 16

* Assuming exposed course is face or butt-nailed.



RED CEDAR SHINGLE AND HANDSPLIT SHAKE BUREAU

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For specification data on standard cedar shingles and handsplit shakes, refer to the catalog insert on these products.

The Certigroove or Certigrade label on the bundle or package is your guarantee of consistent quality and grade based on rigid industry testing, inspection and quality control.



EDITORIAL

Yes, House & Home will still be the same forceful industry leader

As we move from the house of Time Inc. to our new home at McGraw-Hill, you probably wonder what changes you will see in House & Home. The answer is virtually none.

We bring with us the same expert knowledge of the industry, the same desire to help our readers upgrade housing and the same hope that they profit from what they read in these pages.

Our objective, as always, is to provide the best possible medium of communication to and among all housing professionals, a medium that will have maximum impact on its industry.

If there is any change at all, it will be a sharper focus on functional ideas and usable facts, on ideas and facts that can be applied and used right now by our audience of housing professionals. To help us do this job we now have at McGraw-Hill a comprehensive flow of construction information available nowhere else in the U.S.

We are still the management magazine of housing and light construction. This means we will still report every subject of basic interest to housing professionals: planning and architecture, building methods and technology, management and marketing, land buying and land development, urban renewal and rehabilitation; and special markets like condominiums, remodeling and retirement housing. And, of course, our News section will continue its up-to-the-minute, interpretive reporting of housing and light construction news including finance and legislation.

We bring to McGraw-Hill the same editorial skills that made House & Home a leader among business magazines. As you will see when you scan our issues now, our face hasn't changed, and we don't expect it to change much in the future. We intend and will make every effort to improve our presentation, now among the best in business journalism. As always, we will research, write and edit this magazine, not to

entertain our readers, but to give them the information they want in as fast a fashion as possible.

We still take strong stands on housing issues.

- We will encourage better building design, higher-quality building products.
- We will work for a more favorable climate for innovation—to slash red tape and revamp outmoded laws, codes and standards that keep builders and manufacturers from testing new systems and ideas in the marketplace.
- We will support any sound method to lower housing costs and make builders and subcontractors more efficient.
- We will push for a fresh approach to land use—an approach that will cut housing costs and, at the same time, keep new housing from marring the landscape.
- We will champion, and will do our utmost to help create, a better community image for the builder.
- Finally, we will strive for adequate housing for all Americans. And when it comes to low-income families, we believe this housing should be built at the lowest cost to the tax-paying public—that it should be FHA-aided housing, instead of public housing, wherever possible.

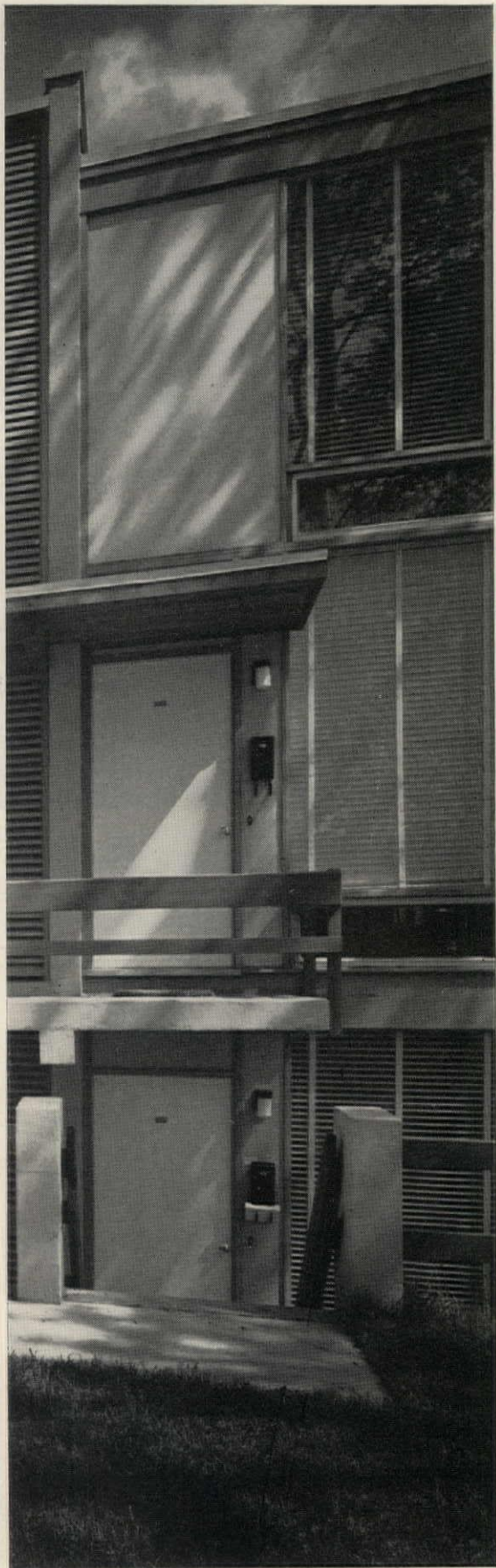
In short, House & Home's basic intent and approach to housing is still as it was stated in our first issue: "This is . . . a magazine whose clear and single purpose is to help Americans find a better way of living by giving them better homes at prices they can pay. . . . This magazine is conceived, written and edited for professionals—for those whose calling and life work is to design, finance, build or supply materials for houses. . . . Only professionals can combine design, materials, methods and finance to change the hard arithmetic of shelter and create for every man a home for the good life."

That has been House & Home's purpose for almost 13 years. It is still our purpose as we move from Time Inc. to McGraw-Hill.



Vest-pocket project in New Haven, Conn., renewal area is an Honor winner (p. 52). Its ground floor is a half-story below grade, so no apartment is more than seven steps up or down.

Malcolm Smith



1964 Award Winners

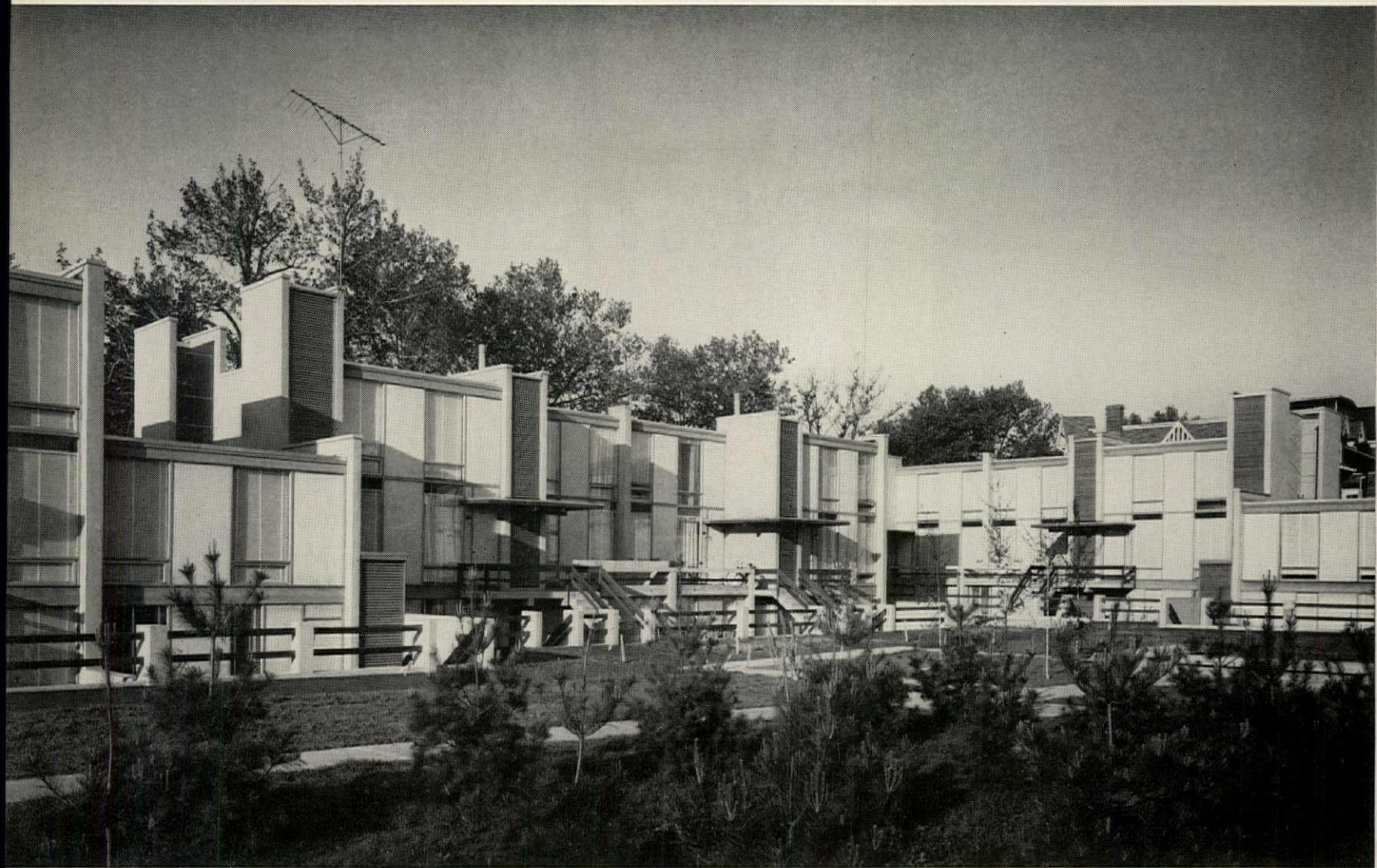
Ten apartments and townhouses take this year's design honors

Housing's big switch to apartments—579,500 units in 1963—showed clearly in the 1964 Homes For Better Living awards program. The jury cited ten apartments and townhouses compared with only five merchant-built houses shown, with the jurors, in last month's HOUSE & HOME.

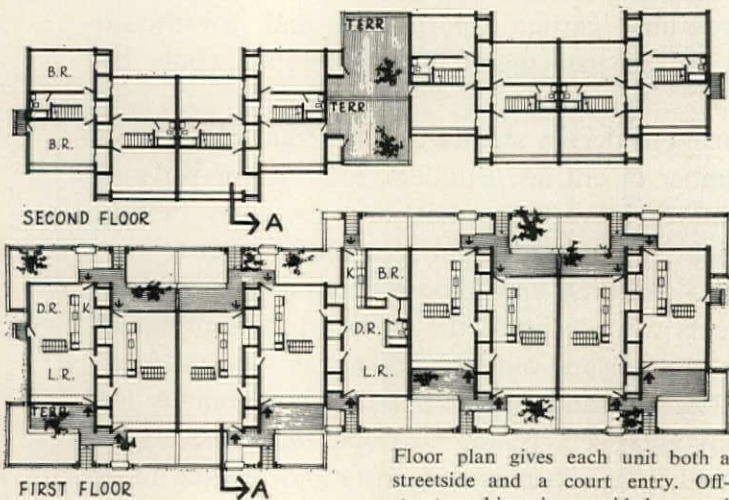
This year's program, sponsored by the American Institute of Architects in co-operation with HOUSE & HOME and *The American Home*, drew almost twice as many apartment entries as last year's—95 vs. 50. And for the first time since their 1962 inclusion in the program, garden apartments and townhouse entries moved past merchant-built houses (only 84 entries).

Apartment design standards rose right along with the number of entries. Builders, looking for ways to minimize their vacancy risk, are obviously betting more heavily on good architecture to appeal to tenants who can pick and choose in a renter's market. Architects who designed the HFBL winners provided as much indoor and outdoor privacy as sites and budgets allowed, standardized building components for economy and even created new ones where necessary (p. 59), kept a sharp eye on costs and worked in as many dwelling units as possible under local zoning and market demands.

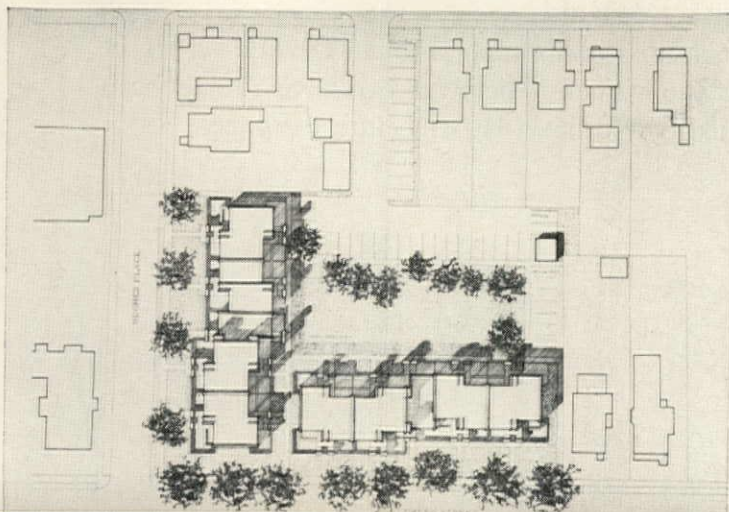
For photos, plans and problem-solving details of eight of the winners (the other two have already been published by HOUSE & HOME), turn the page.



Interior court provides a private outdoor area for tenants and a central massing of landscaping. Wood-louver towers are decorative.



Floor plan gives each unit both a streetside and a court entry. Off-street parking is provided around the court.



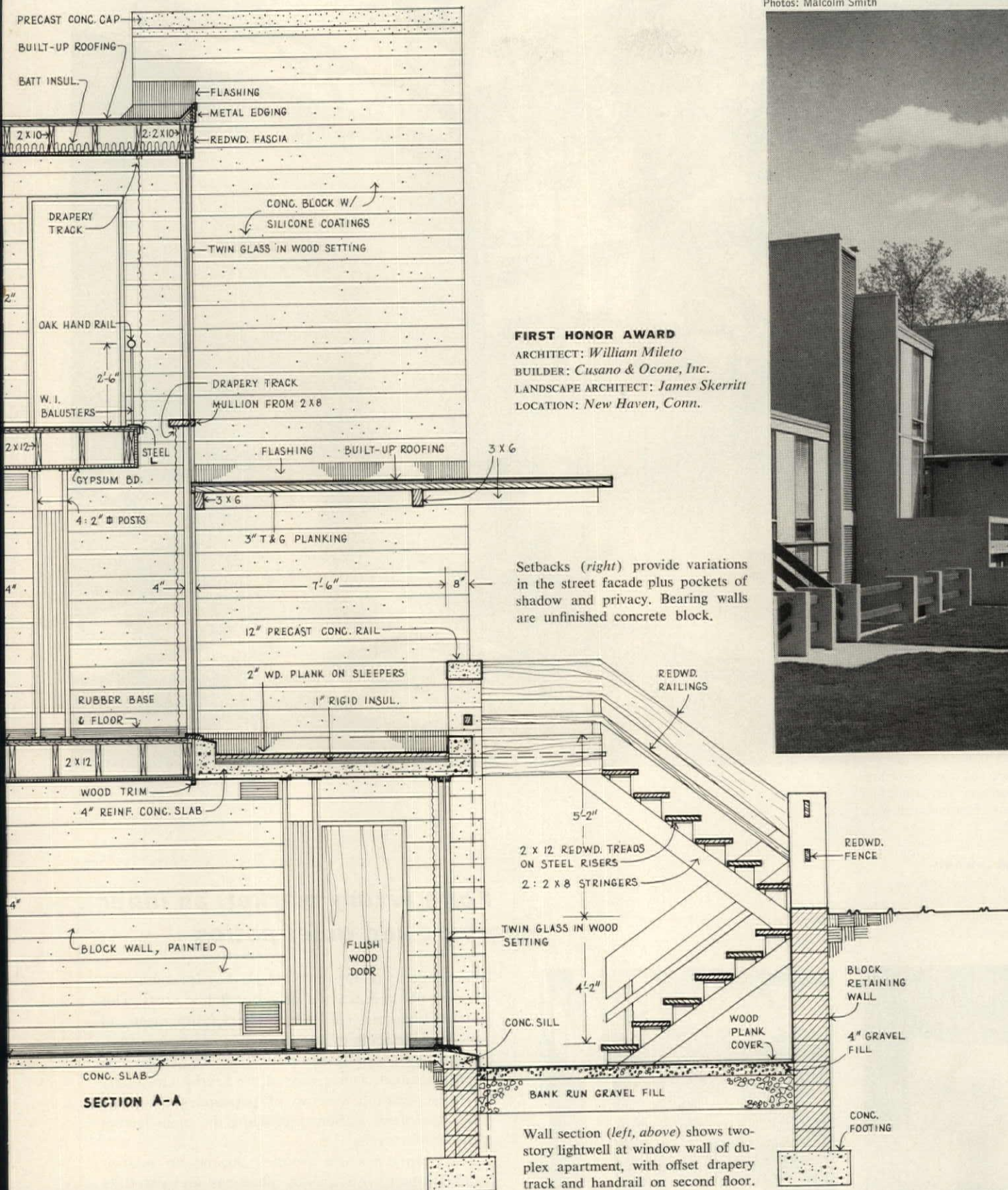
Offset planes and facades blend into a cityscape

The center-city location of this small (36 units) urban renewal project demanded close integration with the rest of the neighborhood and the highest possible individualism in the apartments. The site faces New Haven's famous Wooster Square and is surrounded by old two and three-story houses (*plan, below left*).

Economy dictated a minimum of apartment sizes and plans, so setbacks, roof planes, terraces and courts were offset from each other to create the informal variety typical of old neighborhoods.

Conventional three-story buildings would have required fireproof construction, plus direct exits from the top floor. To avoid these restrictions, the architects put all one bedroom apartments 4½' below grade, where they open onto sunken courts, and all duplex units 4½' above grade. So entry stairs are never more than a half-story up or down and fire exits are unnecessary. Construction costs averaged \$10,000 per apartment.

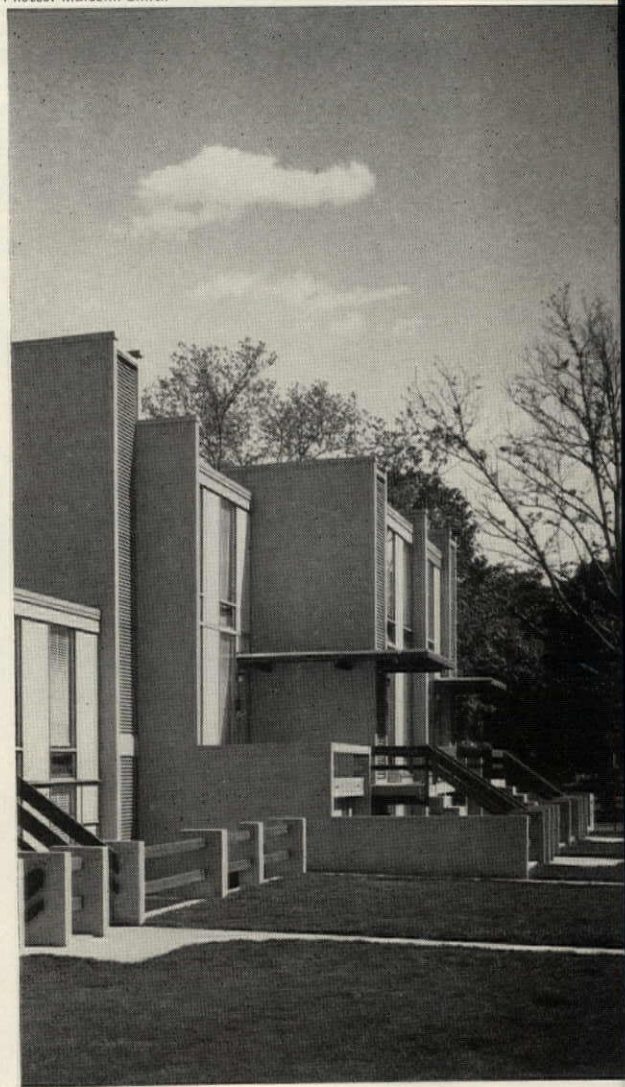
Autos enter through a driveway at the rear of the project, and all parking is off-street. Rentals, which include air conditioning, are \$117 for one-bedroom units, \$135 for two-bedroom duplexes.



FIRST HONOR AWARD
 ARCHITECT: *William Mileto*
 BUILDER: *Cusano & Ocone, Inc.*
 LANDSCAPE ARCHITECT: *James Skerritt*
 LOCATION: *New Haven, Conn.*

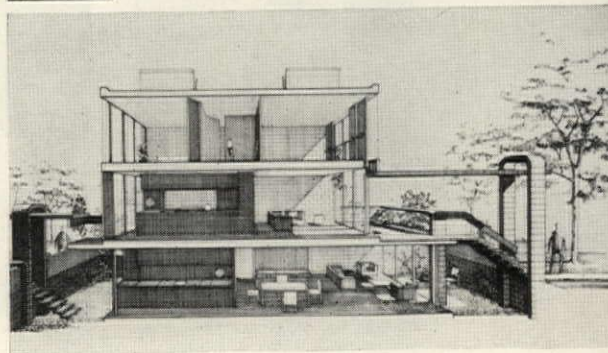
Setbacks (right) provide variations in the street facade plus pockets of shadow and privacy. Bearing walls are unfinished concrete block.

Wall section (left, above) shows two-story lightwell at window wall of duplex apartment, with offset drapery track and handrail on second floor.



Open stairway (left) to bedrooms makes first floor space seem larger. Separate heating and air-conditioning systems serve each unit.

Duplex apartment above a sunken ground-floor (right) gives privacy to both. Exterior stairs are only one-half story high.



continued



Light and shade and the contrasting textures of materials are blended in the central court. Live oak trees were carefully saved.

FIRST HONOR AWARD

ARCHITECT: *R. Gommel Roessner, AIA*
 BUILDER: *Robert C. Gray*
 LANDSCAPE ARCHITECT: *C. Coatsworth Pinkney*
 LOCATION: *Austin, Texas*

Photos: Dewey Mears



Canopied entrance—covered with copper—sets up a dramatic surprise by bringing visitors through a low space to the open court beyond.



Pebbled concrete, broken by redwood dividers, makes a handsome surface underfoot. Blank wood walls face court for extra privacy.

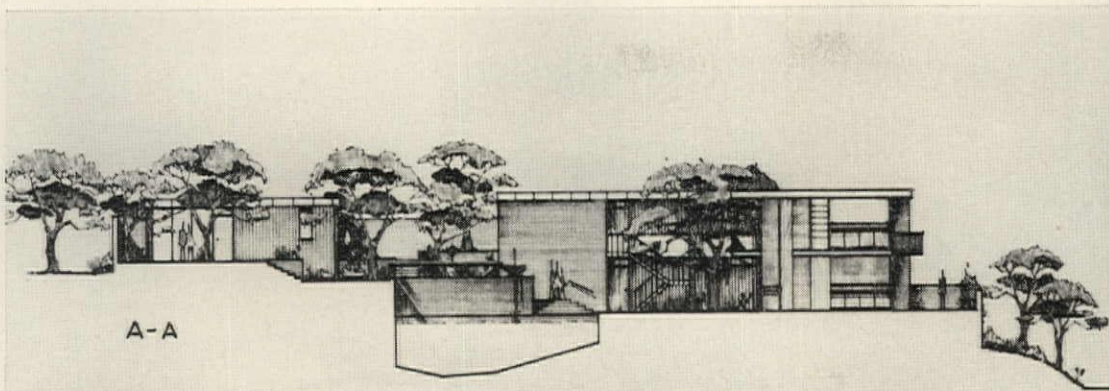
For a luxury market: an inner court and quiet patios

Upper-income renters demand privacy for each unit, a feeling of opulence and generous public areas. This 11-unit, high-rent (\$250 to \$300) group meets all three requirements even though it is close to a football stadium and only one block from an expressway.

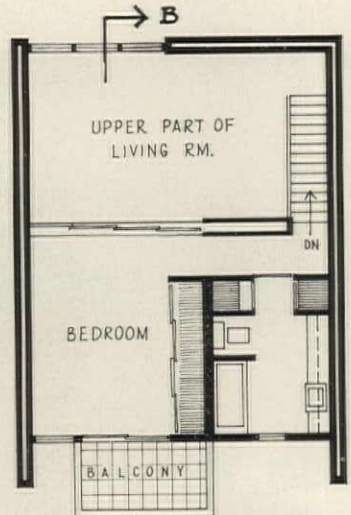
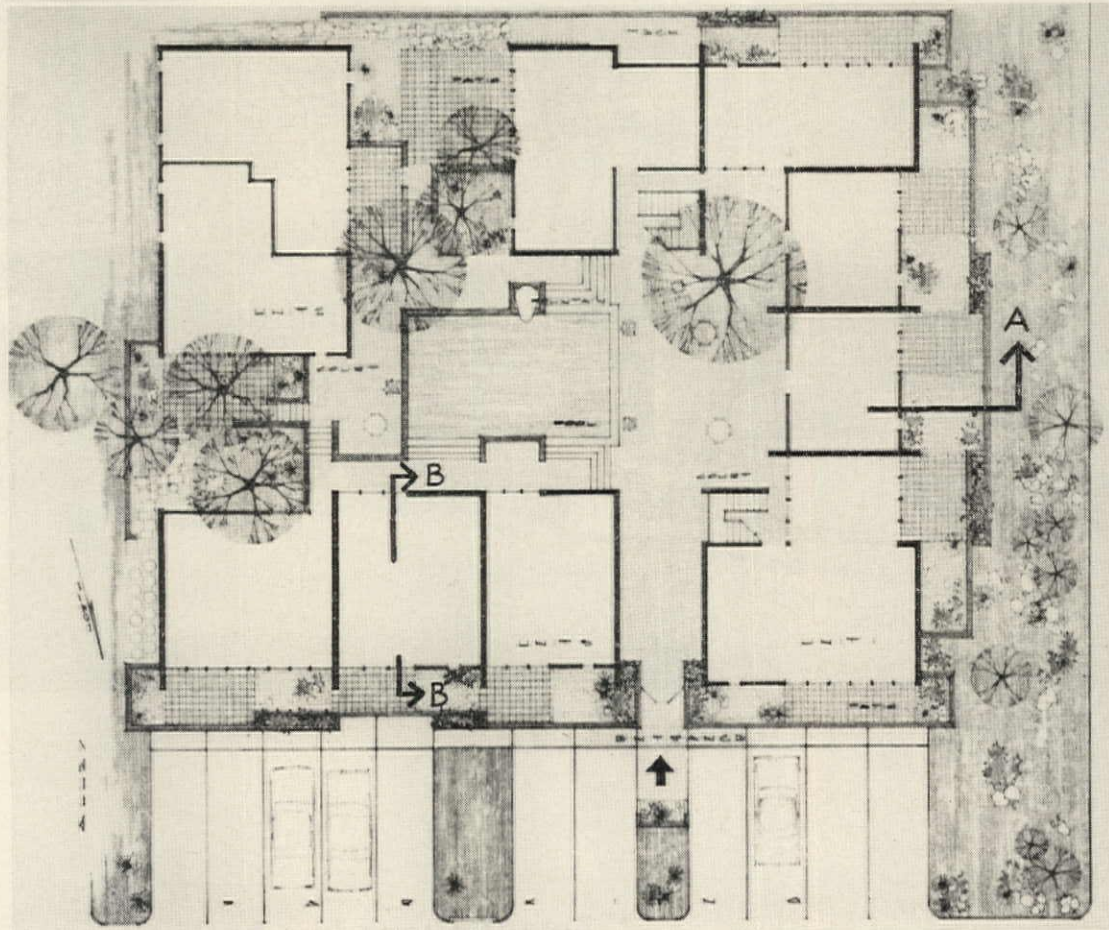
The architect, a professor at the nearby University of Texas, created a sense of personal privacy for every apartment without sacrificing the open feeling of the public areas.

Three buildings are grouped around an interior court (*above*) with a pool, plantings and carefully preserved trees. Apartments are well separated from each other, and each opens to a private outdoor area—an enclosed garden, balcony, or terrace. A single low-canopied entrance (*far left*) leads visitors into the cool, secluded atmosphere of the courtyard. Materials are simple and harmonious: brick, glass, redwood and copper.

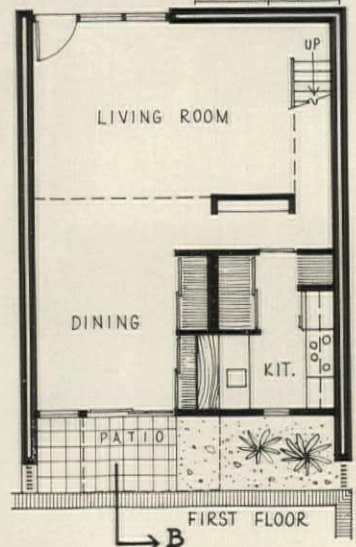
There are three floor-plans—an efficiency unit and two one-bedroom apartments, one of which is a duplex (*plan, opposite*) with a two-story living area and a balcony bedroom.



A-A



SECOND FLOOR



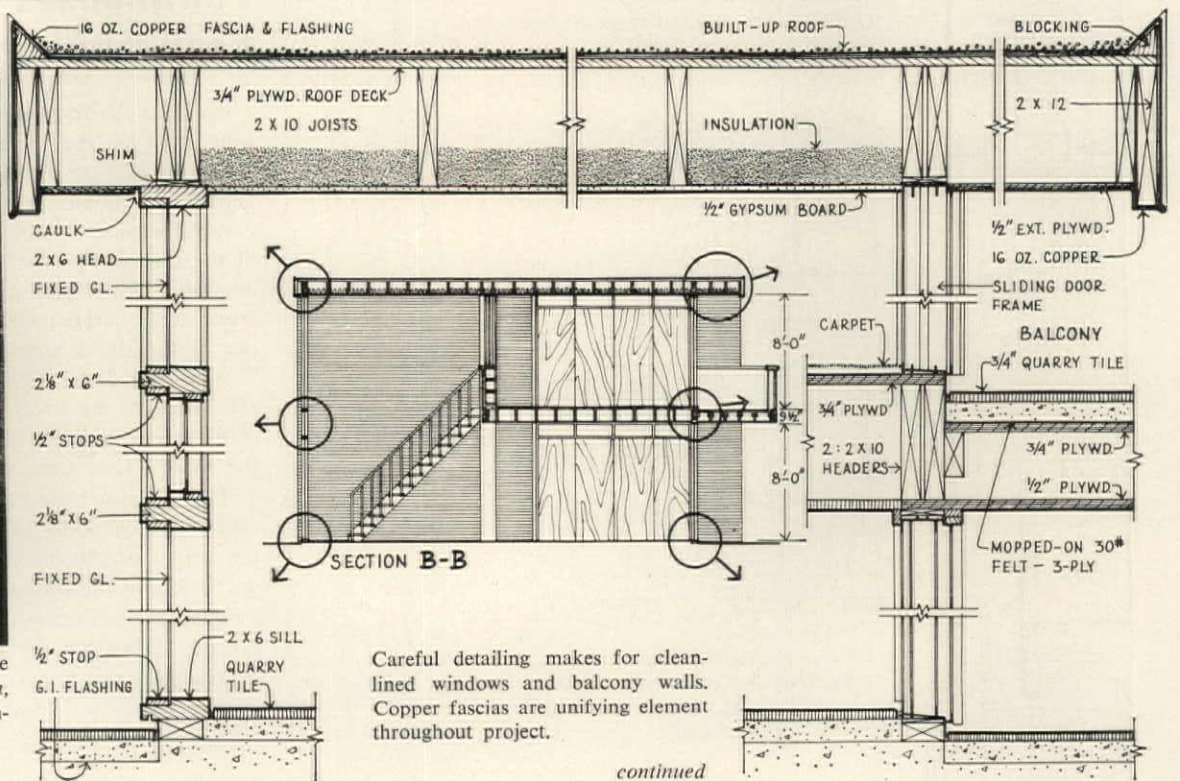
FIRST FLOOR

Two-story glass forms half of living room's front wall (plan, above). Low masonry wall acts as a partial screen from court.

Single entrance to plot (left), with locked steel gates, guarantees privacy and security to residents. Section shows drop in grade.

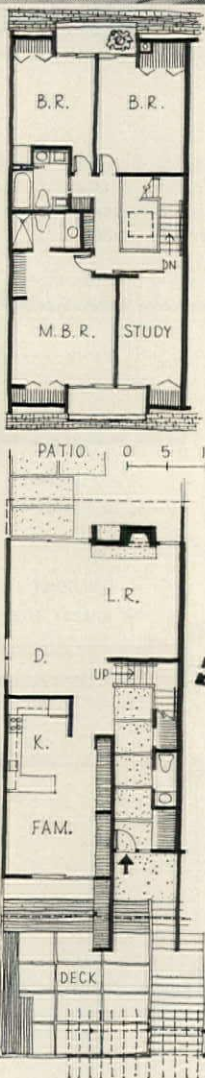
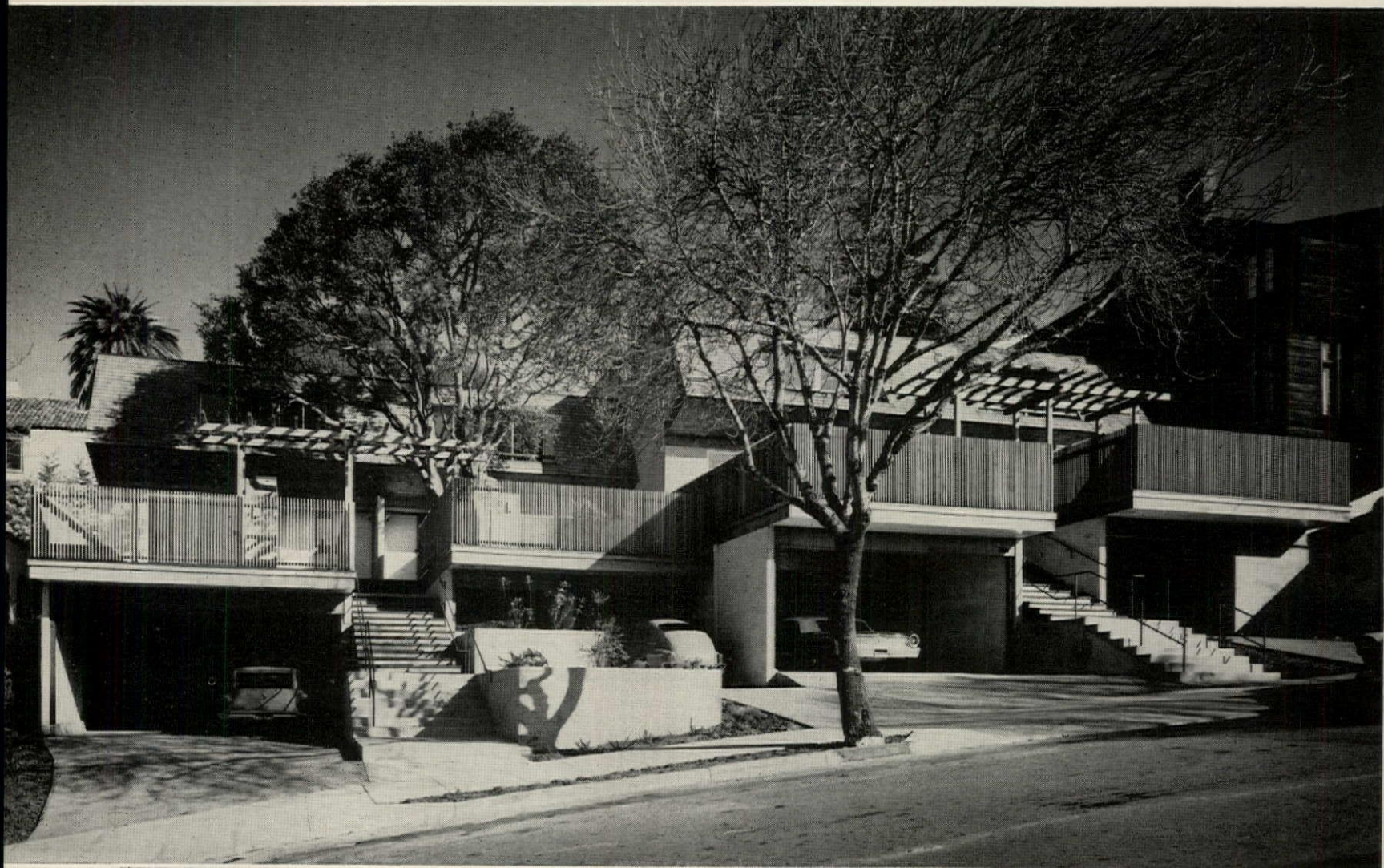


Soaring living area creates expansive feeling in 615-sq. ft. duplex (plan, top right). Brick outer wall is continued indoors.



Careful detailing makes for cleaned windows and balcony walls. Copper fascias are unifying element throughout project.

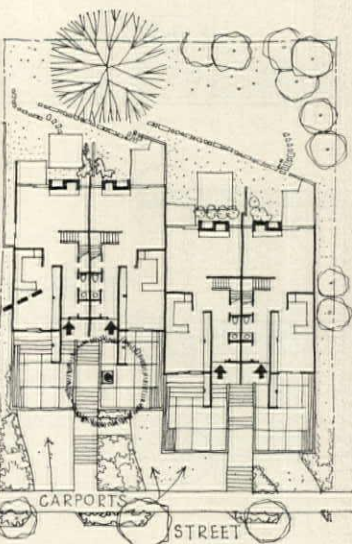
continued



Deep setbacks of living areas provide maximum screening from the street. Houses are staggered for privacy from each other.

AWARD OF MERIT

ARCHITECTS: *Robert B. Tucker, James S. Tuley and Donald H. Harms*
 BUILDER: *Hugo Muller, Jr.*
 LANDSCAPE ARCHITECT: *George Nichols*
 LOCATION: *Berkeley, Calif.*



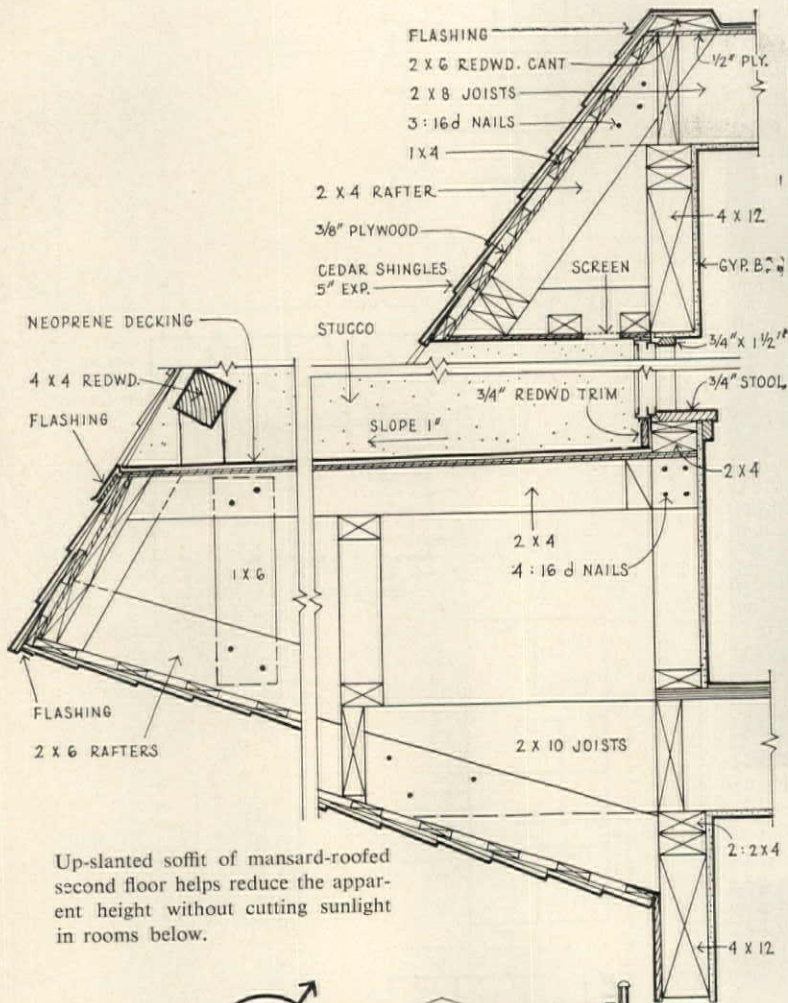
Offset plans separate pairs of units both front and rear. Living rooms are at rear to use full width of house and to eliminate traffic.

Townhouses in a built-up area keep front and rear privacy

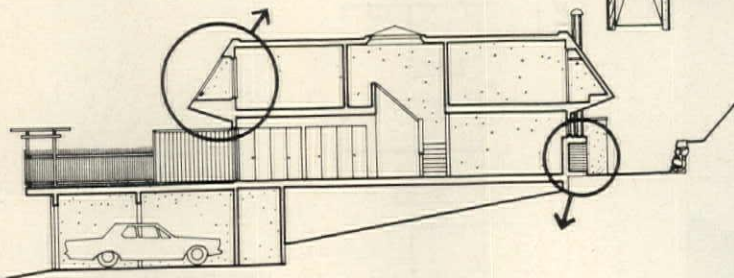
These four luxury townhouses (\$46,350 to \$47,850) were built on the former site of a rundown single-family house in a desirable neighborhood of well kept older homes (land cost: \$7,400 per unit). Zoning permitted four living units but no subdivision of the land into small lots. So the builders set up a condominium to give each townhouse its own private front deck, carport and rear patio, with the remainder of the site in common ownership.

All living floors (2,000 sq. ft. on two levels) are raised above the street (*section, opposite*) to permit south-oriented decks off family rooms and to make the living areas more private from the street.

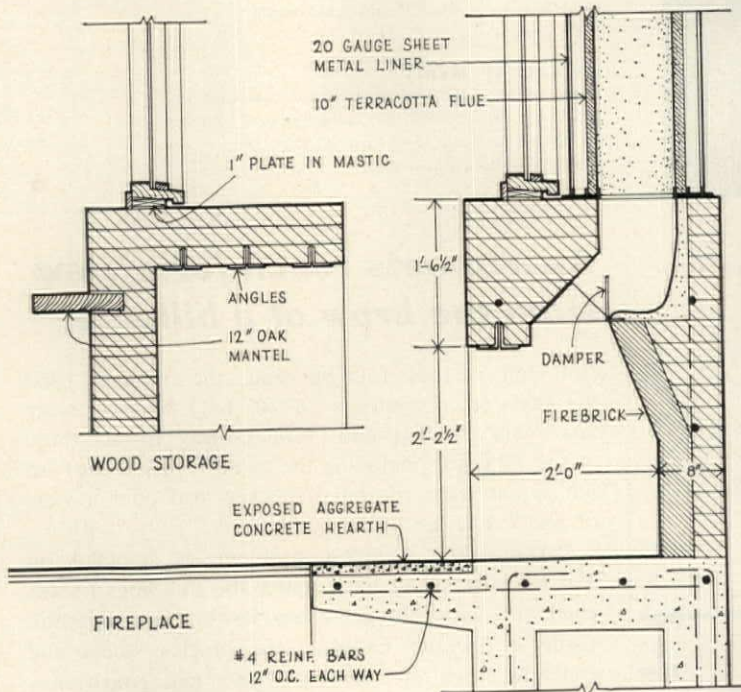
The architects used a mansard roof, enclosing second-floor bedrooms (*details, opposite*), to minimize the height of the three-story facade. Windows were set back into the roof to limit the line of vision from neighboring terraces—often a privacy problem in row houses. Storage walls and louvered redwood fences also screen the houses from each other and from outsiders.



Up-slanted soffit of mansard-roofed second floor helps reduce the apparent height without cutting sunlight in rooms below.



Section shows how sloping site is used to get front garages and rear patios. Plastic skylights illuminate interior baths and stairwells.



Window-topped fireplace (above and right) stands free of structure. Continuous header takes entire second-floor load.



Front deck is actually roof of carport below, screened from street and sides and accessible from family room and kitchen.

Photos: Morley Baer

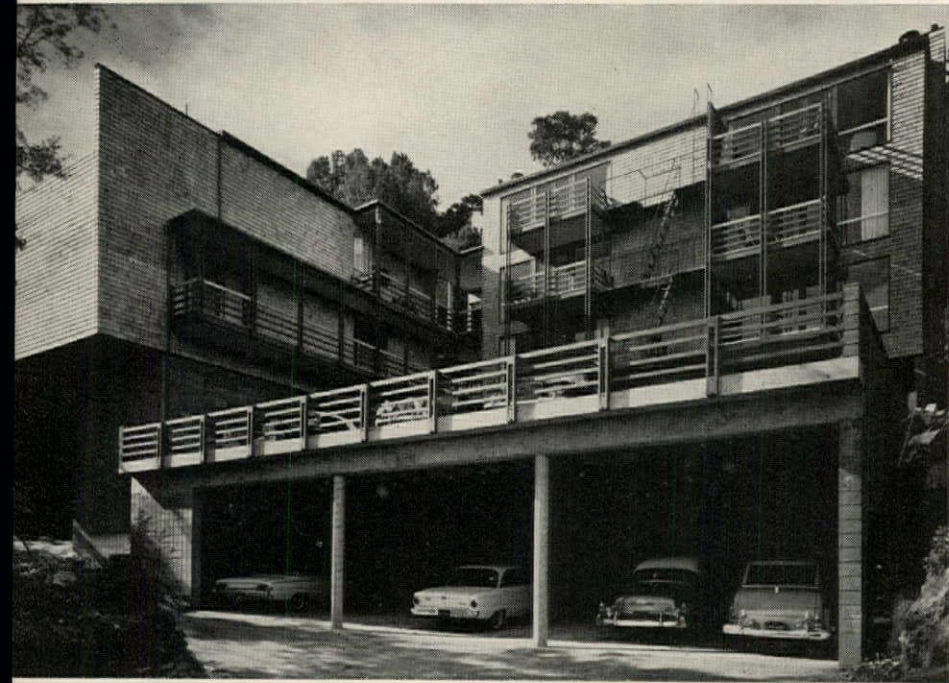


Rear living room looks onto private patio (below) and stone retaining wall for steep rear hillside. Floor here is at grade level.



continued

Photos: Morley Baer

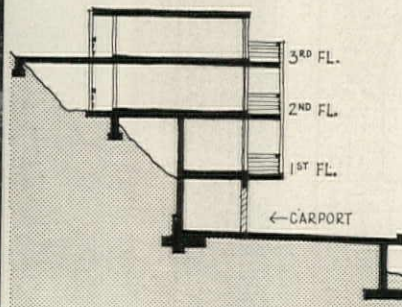


Garages were a problem: city demanded 1½ parking spaces per apartment, limiting living units to 20 instead of 24 allowed by zoning.

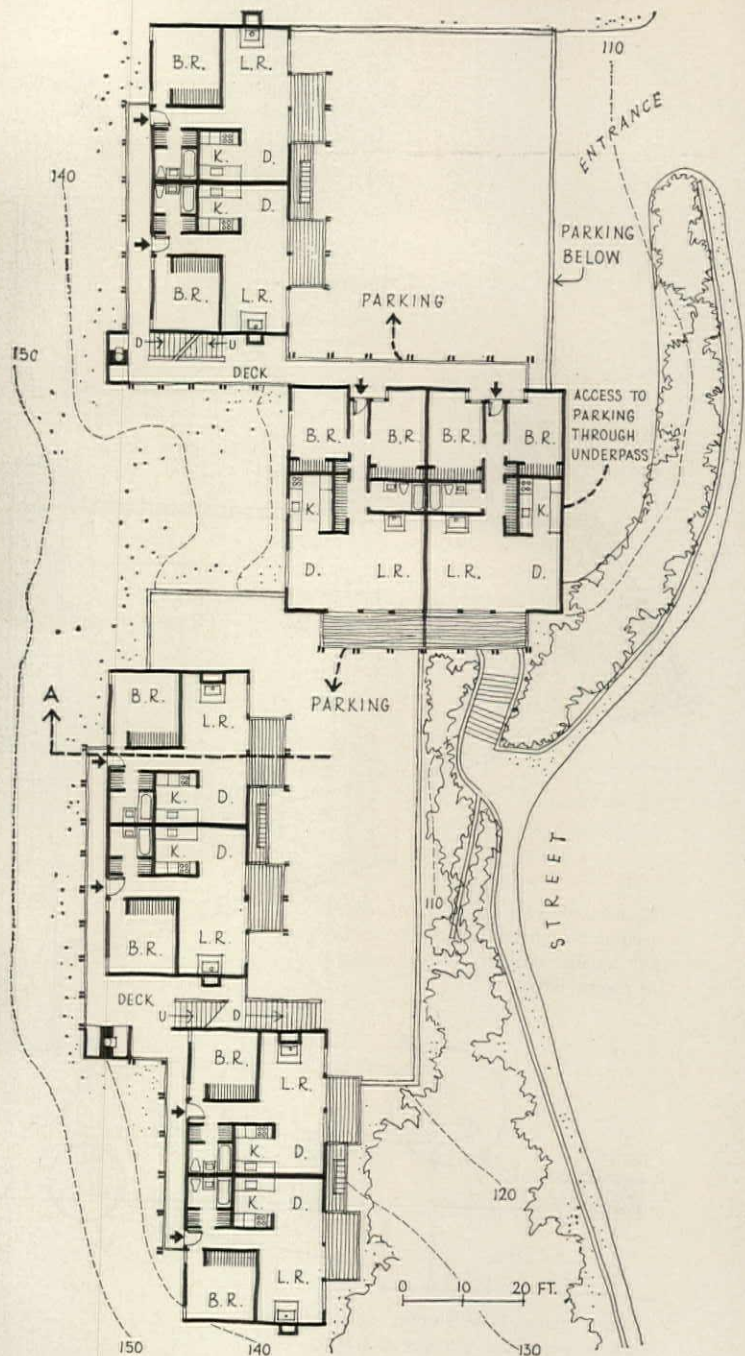


Private deck, oriented to the view, goes with each apartment. All exterior colors and materials were picked to blend into hillside.

Projecting block contains owner's penthouse, plus two units. Underpass gives access to parking areas from all buildings.



Cross-section of steep site shows skillful tying of building to the hill, but living areas are kept up and away from grade.



Siting of building, shown in plan, helped save existing 300' stone wall and hid all garages from apartment balconies.

AWARD OF MERIT

ARCHITECTS: *Campbell & Wong & Associates*
 OWNERS: *H. V. Smith, Jr. and Frank E. Taylor*
 BUILDER: *Baldwin, Erickson & Tait, Inc.*
 LOCATION: *Sausalito, Calif.*

Apartments reach for a view from the brow of a hillside

In laying out these four buildings, the architects used the site's steep contours (a 70' fall) to give every apartment a view of San Francisco Bay. In fact, three of the 20 units (including the owner's penthouse) jut out so far from the hill that they also offer a view of San Francisco to the south.

Parking—the toughest problem—is handled on two levels reaching back under the buildings. Autos enter and leave along a ramp starting at a downhill corner of the site. Exteriors are shingles, stucco and concrete block in a charcoal gray and gold-yellow color scheme that blends with the foliage and needs little upkeep. Rentals: \$175 to \$275.



Street elevation of four-unit building shows how it was sited on a cleared city block to provide open space on all sides, and to save mature trees.

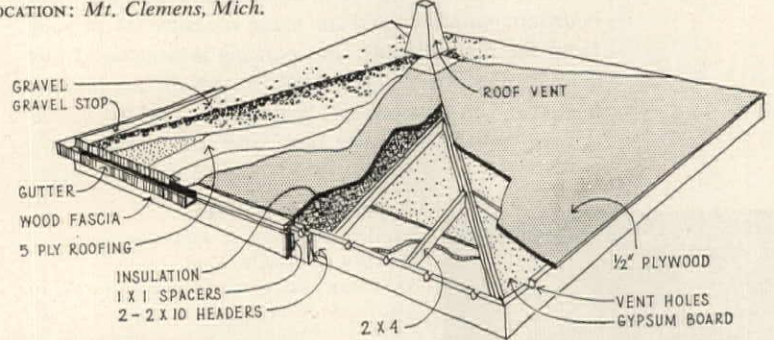
Pyramidal roofs cap multi-plan public housing

Clusters of the modular, prefabricated roofs are used over any of four different floor plans (below) for a wide range of family sizes. The low-silhouette buildings themselves—25 in all with 60 units—are the second successful effort by the architects and the local Housing Authority to provide outstanding design in low-rent (\$21 to \$55) housing on scattered downtown sites. The first, 40 units in the same mid-city area, was an AIA award winner.

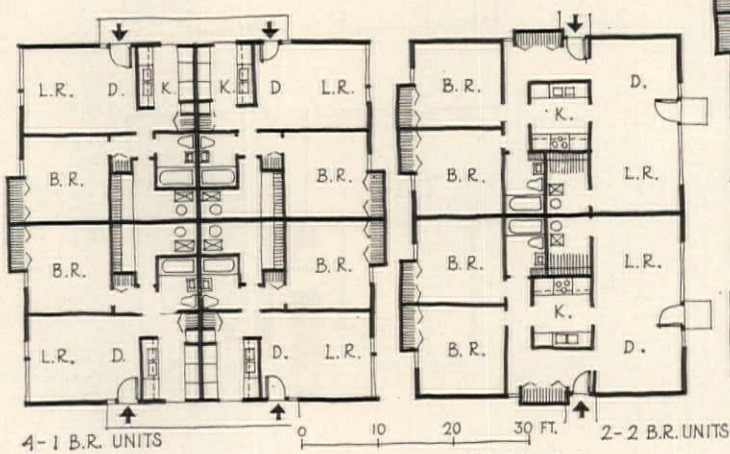
Construction is simple: masonry walls are broken only by floor-to-ceiling window and door panels and cantilevered prefabbed closets (see plans). Building costs averaged less than \$11,000 per unit.

HONORABLE MENTION

ARCHITECTS: Meathe, Kessler & Associates, Inc.
 BUILDER: Rodney Lockwood & Co.
 LANDSCAPE ARCHITECT: Johnson, Johnson & Roy
 LOCATION: Mt. Clemens, Mich.



Shop-built roofs were load-tested to prove their design soundness. Each 11½'-square, glue-nailed section, complete except for its dry-wall underside, cost \$90 (68¢ per sq. ft.).



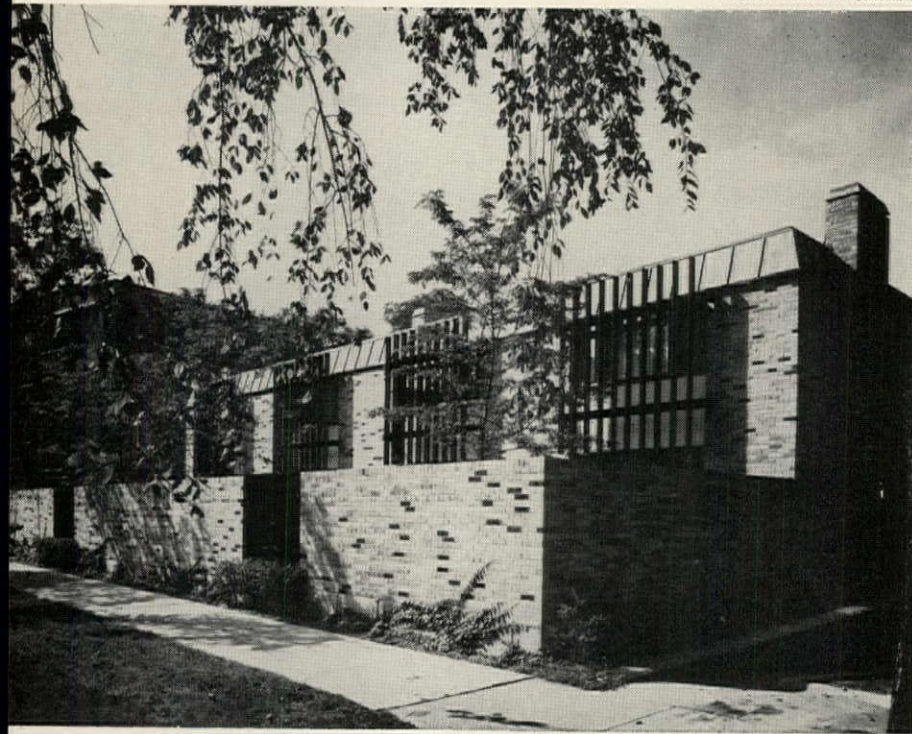
Variety of plans within identical exterior forms gives families a choice of one, two, four and five-bedroom apartments.



Spacious feeling of interiors stems from height of roof pyramids (10' at peaks). Floor area was also gained by cantilevering closets, right, beyond exterior walls.

continued

Photos: Orlando R. Cabanban



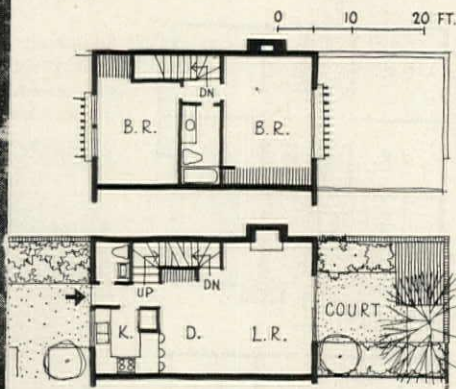
Walled rear terraces insure privacy in the inner city

Just 15 minutes from Chicago's Loop, this eight-unit townhouse group offers the privacy and garden living usually found only in suburbia. Reason: a single landscaped entry court, serving all the houses, saves generous footage for the 324-sq. ft., walled patios that open off rear living rooms.

Vertical wood louvers outside the second floor bedroom windows add an extra measure of privacy from the patios below, and parking is isolated at one side of the site. Land costs, based on zoning for high-rise, brought house prices to \$28,500 (20% down). Seven units have been sold since last fall.

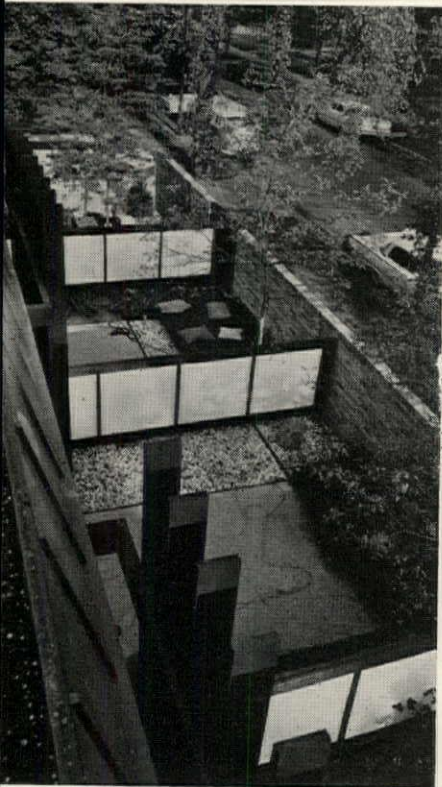
HONORABLE MENTION

ARCHITECT: *Theelin & Anderson, AIA*
 BUILDER: *E. Zari & Son*
 LANDSCAPE ARCHITECT: *Dean & Novak, Inc.*
 LOCATION: *Chicago, Ill.*



Two-bedroom plan is aimed at city dwellers with small families. Full basement can be converted to hobby area or recreation room.

Walled courts (18' x 18') are almost as large as the living and dining areas combined. Landscaping is included in the sales price.



Kent Oppenheimer

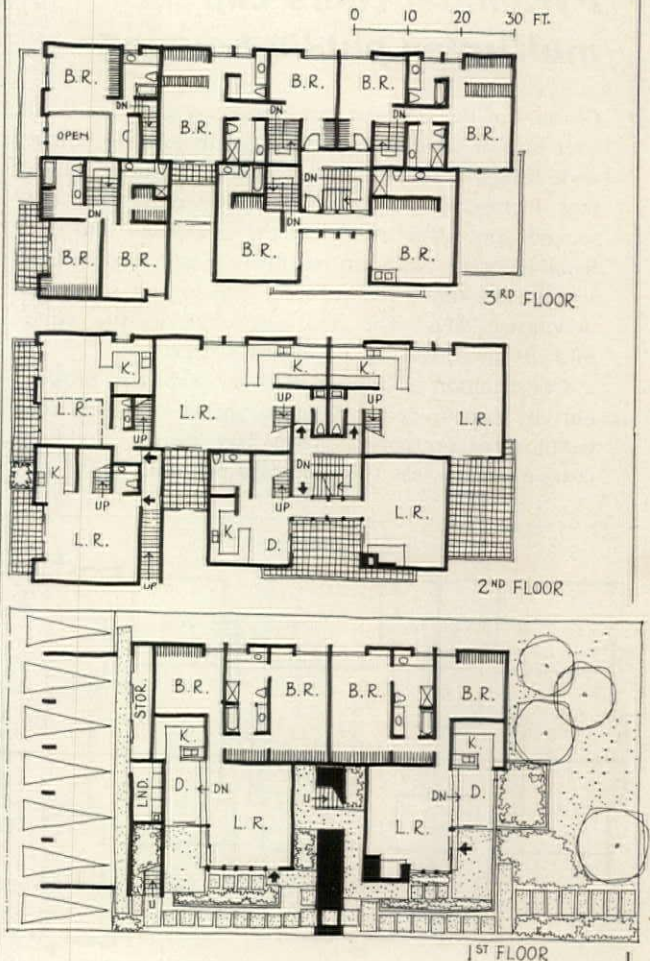
Strong building masses are framed with wood and stucco

The massive bulk and deep offsets of this small apartment building (seven two-bedroom units) belie its frame of pure convention. The architect's design permitted standard—and economical—building methods and minimized the kind of detailing that demands close-tolerance workmanship.

All parking is hidden at the rear of the building, off an alley, and both ground-floor patios and second-floor balconies have maximum privacy from each other and from the street. Duplexes on the upper floors include second baths. Rentals: \$175 to \$265.

HONORABLE MENTION

ARCHITECT: *Raymond Kappe*
 BUILDER: *C&C Development Corp.*
 LOCATION: *Los Angeles, Calif.*



Duplex apartments on upper floors eliminate need for an elevator, use the second-floor living area to separate bedroom levels.



Second-floor bridge links three separate buildings

What looks like a single building (*photo, above*) is actually three separate structures (*plan, right*) connected by an umbilical second-floor bridge. And in California's mild climate the bridge serves as an outdoor public hallway.

Even at the modest rentals (\$85 to \$95 for one bedroom, \$110 for two), no amenities were skimped. Apartments have private balconies or patios, and there is under-cover parking space for each of the nine units. On the west side (*left above*) vertical slat louvers outside the windows temper the heat and glare of the afternoon sun.

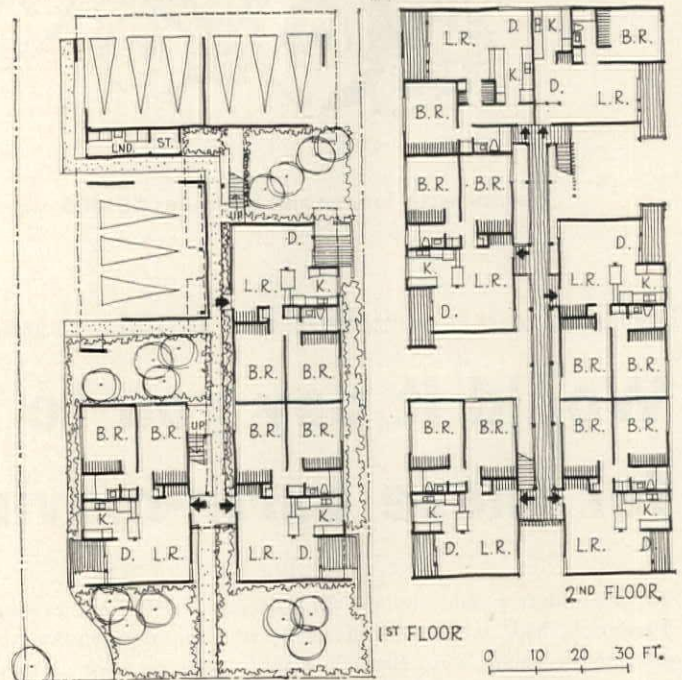
HONORABLE MENTION

ARCHITECTS: *Marvin A. Berman, AIA and James H. Cooke, AIA*

BUILDER: *Morris Kotoff*

LOCATION: *Pasadena, Calif.*

Blank walls (*photo above*) face the street on the deep, narrow lot (80' x 160'), and driveway along one side leads to rear parking.



HONORABLE MENTION

ARCHITECTS: *Campbell & Wong & Associates Allen Fong and Terry Tong, associates in charge*

BUILDER: *John A. Nelson, Inc.*

LOCATION: *San Francisco, Calif.*

Three-story townhouses free large area for landscaping

The eight houses in San Francisco's Diamond Heights redevelopment area were shown in *HOUSE & HOME's* February issue (p. 95). Instead of putting each house on its own lot, the architects designed them as four pairs. This permitted wider open areas for outdoor living and more opportunity for landscaping. The houses were also designed to minimize excavation of the steep site. Garages and storage space are tucked under two living levels.

HONORABLE MENTION

ARCHITECTS: *Marquis and Stoller, AIA*

BUILDER: *Jack Baskin*

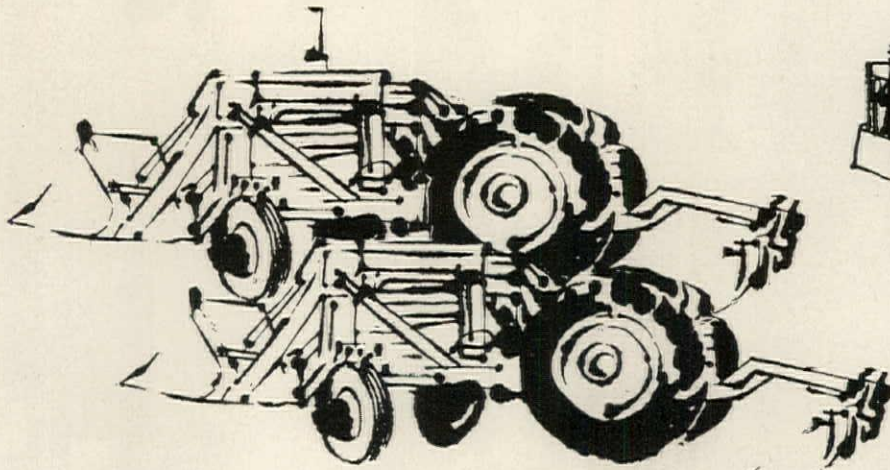
LANDSCAPE ARCHITECT: *Lawrence Halprin & Assoc.*

LOCATION: *San Francisco, Calif.*

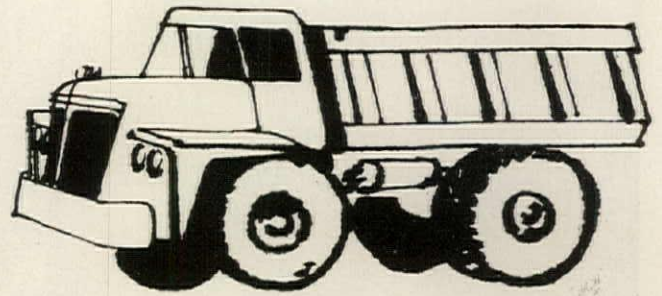
Private decks and patios in low-income urban renewal

Also published in *HOUSE & HOME's* February issue (p. 90), these FHA Sec. 221d3 units are still winning awards. Latest: an Award of Merit in AIA's 1964 Honor Awards program covering all building types.

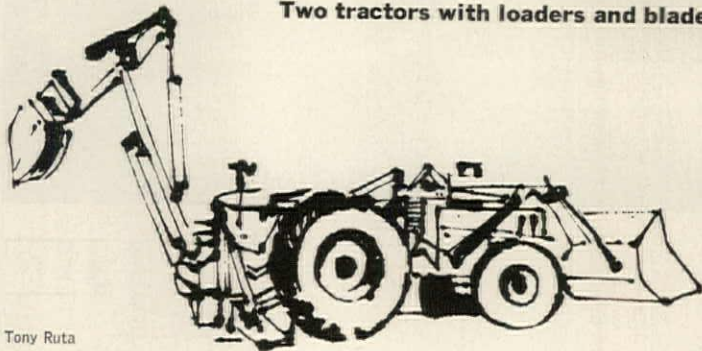
The three-block city site was developed with no interior streets and a continuous park including playgrounds, sitting areas, walks and plazas. Each apartment has a private deck or patio. Prices: \$410 to \$610 down and \$84 to \$140 per month.



Two tractors with loaders and blades: \$8,400

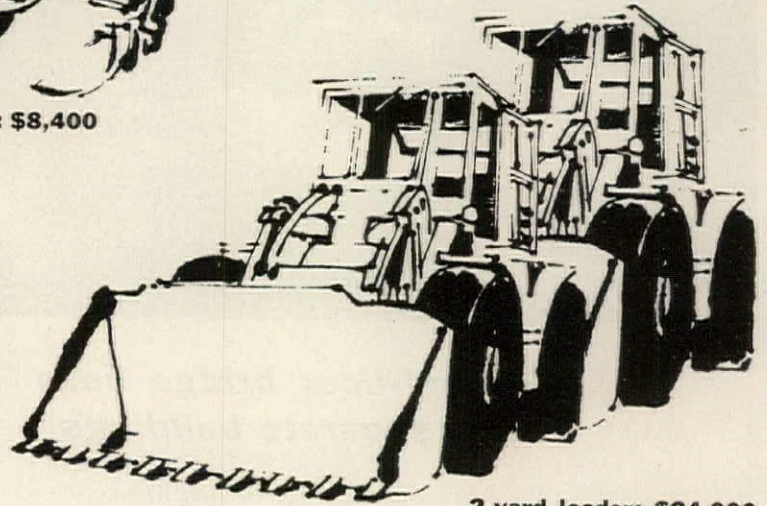


Dump truck: \$6,600



Tony Ruta

Tractor with loader and backhoe: \$5,000



2-yard loader: \$24,000

1½-yard loader: \$18,000

If you were building 100 houses a year . . .

Would it pay you to spend \$62,000 for these earth-moving machines?

Most builders would say no. But Builder J. William Brosius of Frederick, Md., who owns the array of equipment shown above, says emphatically, yes. Brosius started doing his own earth moving instead of subcontracting it eight years ago. Result: he is saving over \$70,000—more than the price of the machines—each year.

The bulk of this saving stems from better production control. "We don't save much in direct costs," says Brosius. "We have to buy and maintain machines and pay operators just like any sub. Owning the machines makes money for us because now we can use them when, where and how we want to."

Lack of this control was why Brosius decided to buy earth-moving equipment. His problem was a familiar one: his earth-moving sub worked for several local builders and in good digging weather they all wanted the sub at the same time.

"The one who screamed loudest usually got him," says Brosius, "and we weren't always the loudest. Sometimes we had to wait a week. We build prefabs (National Homes) on a tight schedule, so those delays hurt. What's more, we kept getting new operators who never got to know the job and needed constant supervision."

Brosius already owned one tractor and a dump truck when he added a 1½-yard loader in 1956. The following year he bought a 2-yard loader, and a tractor with a rear blade and a front-end loader. And two years ago he added a tractor with a loader and

a backhoe. "We build in two areas about fifty miles apart," he says, "and we now have enough equipment to take care of both at the same time."

Brosius has not ruled out all subcontracting. He still rents outside machines to handle peak loads or to do jobs requiring heavier machines than he owns. "In our latest subdivision we had to move 60,000 yards of dirt to get the right grades," he says, "so we hired a sub with a big pan. We had bought a pan a few years ago, but we didn't use it enough to make it pay. So we sold it. And on big jobs like that, a sub can be very efficient. He stays on the job until it's finished, and there are no scheduling difficulties. It's on smaller jobs, particularly excavations for houses, that we save money by owning our own machines." Here is how Brosius' machines save over \$70,000 a year.

These annual direct savings come to \$17,000

\$7,000 in operating costs. Brosius handles his earth-moving operation as if it were a separate corporation (which it isn't), charging machine time to each house at the price a subcontractor would get. He deducts depreciation (five years on a double-declining balance basis) and maintenance (an average of \$3,200 a year), then figures as direct savings the amount saved on all jobs plus the profit of the nonexistent earth-moving "corporation."

"Our earth-moving costs have dropped about \$4,000 a year," says Brosius, "and our earth-moving profit is about \$3,000 a year." But, he adds, the \$7,000 represents an average, not a fixed amount. Heavy maintenance costs—rebuilding a heavy loader, for example—will drop the savings while a trouble-free year may boost them.

\$10,000 in supervisory costs. "If we subbed our earth moving," says Brosius, "we'd need one superintendent watching almost full time. That would cost at least \$60 a house, or \$6,000 a year, at our normal volume. And we know from experience that the super couldn't stay on one job all day, so the sub's operators would make mistakes requiring anywhere from two to four hours to correct. That's another \$40 a house, or \$4,000 a year."

Brosius no longer needs an earth-moving super because, in effect, he has supers running his machines. "Our operators are completely familiar with our jobs," says Brosius. "They check their own grades, and they know just where to pile dirt and topsoil so it's out of the way of construction but close enough for easy re-spreading. Nor are operators hard to train. If you find a good man, he'll be a passable operator in three days and a good operator in three weeks."

But the big savings—\$54,000—are indirect

Items:

\$10,000 in fewer delays. "This is probably a conservative figure," says Brosius. "We estimate that a lost day costs \$100 in man-hours and overhead, and when we subbed our digging it was a rare house that wasn't held up at least a day at some point during construction." Another saving not included in the \$10,000: a \$75-a-day demurrage charge if the home manufacturer's truck has to wait to unload because a foundation isn't ready.

\$34,000 in higher volume. "We've been able to build—and sell—10% more houses with the same overhead and the same capitalization since we bought our own machines," says Brosius. "This is partly because delays have been almost eliminated and partly because we've been able to control our schedules so closely that our construction time has dropped from six weeks to five per house."

Brosius figures the savings this way: by the time the extra houses—ten, in this case—are ready to start, his overhead, based on the production rate before he owned the machines, has been covered. So the overhead on the extra houses becomes profit. "Those last houses are pure gravy," he says. "Figuring profit and overhead as a total of 17%, and taking \$20,000 as an average price, we clear \$3,400 on each of those ten extra houses."

\$10,000 in materials handling. Brosius' tractors and loaders do more than push dirt around; they also take on other jobs (photos, right) to speed up construction. Says Brosius: "We use the big loaders to carry materials, to lug concrete to a slab when the mixing trucks can't get in, to pull the trucks out when they get stuck. During bad weather last winter, we kept a 20-house subdivision going for a month this way—and saved at least \$3,000 in interest alone."

Builder Brosius prefers tires to tracks

Big rubber-tired loaders, says Brosius, can grade or dig foundations just as fast as a crawler can, and they have some important advantages over tracked machines. Specifically:

1. They cost less to buy and maintain. With crawler tractors, tracks are a major maintenance item.
2. They can run from job to job on paved roads, so they don't require a lowboy trailer and a truck to pull it.
3. They can be driven faster. Says Brosius: "If a loader is digging a basement when a trench on a nearby site needs filling, the loader can run right over and do it. Our tractors can backfill too, but the big machines do it faster, and also save wear and tear on the lighter tractors."



TRACTOR plays a dual role in one of Brosius' subdivisions. Backhoe operator trenching for sewer lateral (*top photo*) stops, places a load of shingles on the roof of an adjacent house (*bottom photo*) and is back on the trenching job within a matter of minutes.

Photos: H&H Staff

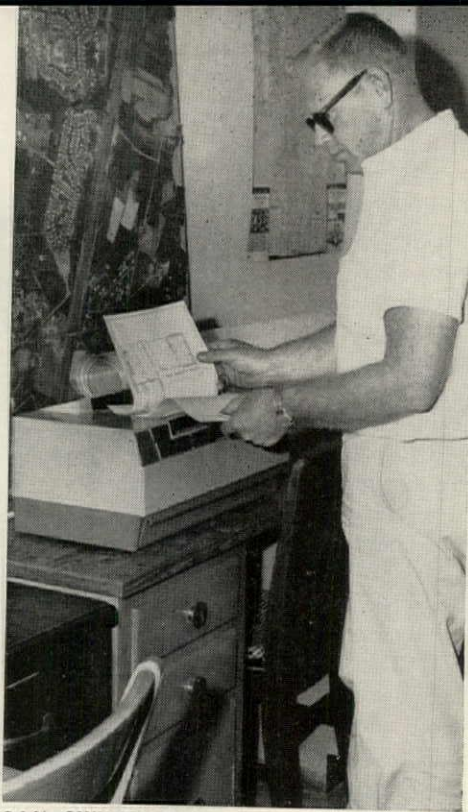


BIG LOADER also doubles as materials-handling machine. Here it picks up the shingles for an entire house, will carry them to the job over ground that is too rough and muddy for the supplier's truck. Brosius estimates that his earth-moving machines save an average of \$100 a house this way.



43% OWN CALCULATORS

Photos: Robert Willner



34% OWN PHOTOCOPIERS

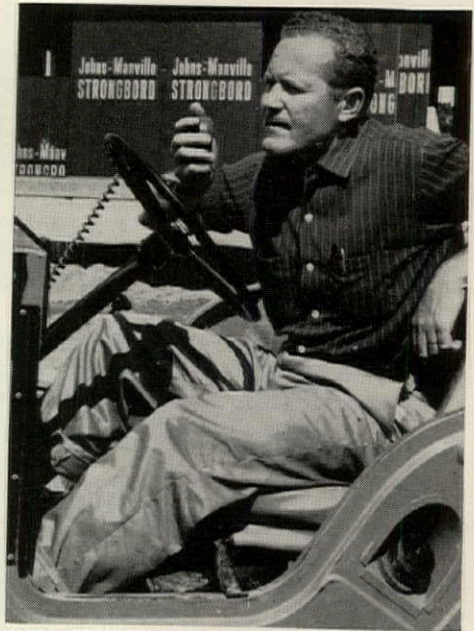


98% OWN TYPEWRITERS



30% OWN INTERCOMS

% OF BUILDERS WHO OWN THIS EQUIPMENT



14% OWN TWO-WAY RADIOS

Blakeslee-Lane



15% OWN ACCOUNTING MACHINES

Joey Starr



6% OWN PORTABLE RADIOS



22% OWN DICTATING MACHINES

Most builders know that construction machines can cut direct costs. But relatively few realize that business machines and communications equipment can trim overhead—an item that can account for as much as 10% of the price of a house.

Today's tools of management: are you overlooking these keys to lower overhead?

If you are, you're not alone. Most builders, whether they realize it or not, have yet to capitalize on the cost-cutting potential of business machines, control systems, communications systems and other tools of management.

That's the obvious conclusion to be drawn from a HOUSE & HOME study of the business and communications equipment used by the housing industry. The study is based on a questionnaire sent to 1,000 builder-readers whose volume last year ranged from under ten houses or apartments to well over a hundred. The study's most significant findings:

1. While almost all builders own such basic equipment as typewriters and adding machines, only a few own more sophisticated—and versatile—equipment like accounting machines and two-way radios (*photos, left*). This is roughly equivalent to owning hand tools like shovels, hammers and saws, but not power tools like tractors, electric saws and stapling guns.

2. More than 23% of the builders who answered the survey have invested less than \$500 in business machines and equipment, while only 17% have invested more than \$5,000—about the cost of one tractor with a loader and backhoe.

Why do builders own so little business and communications equipment? Apparently because they are not convinced of the potential benefits: 57% of the survey respondents said they did not believe business machines could lower their overhead costs.

But, as the builder case studies on the following pages show, business machines and communications equipment can and do reduce overhead. What's

more, they also cut direct construction costs by tightening control of builders' operations. More specifically, builders are finding that:

- Two-way radios, intercoms and walkie-talkie units cut costs by keeping decision-making personnel in constant touch with their areas of responsibility (*p. 66*).
- Control boards cut costs by making schedules easy to read quickly, schedule deviations easy to spot (*p. 68*).
- Copying machines cut costs by simplifying and speeding the reproduction of letters, standard forms and drawings (*p. 68*).
- Business machines cut costs by handling book-keeping chores in a fraction of the time required for hand-posting, and by making cost-control data available fast enough and in enough detail to reveal problems that can be corrected before they become expensive (*p. 70*).

There are also signs that business-machine manufacturers are taking a closer look at the building industry's specific needs. Two examples:

1. Burroughs Corp. has developed a contractor accounting system, available in several capacities to fit different-size building operations.

2. IBM is introducing a package of computer programs for use with its small 1440 data processing system. The program's purpose: to help builders schedule their jobs by the critical path method, to produce updated schedules and progress reports and to put important data in the form of bar charts.

For a look at today's management tools—their prices, their features and how some builders are profiting from them—turn the page.

Communication systems can save management's most valuable commodity—time

And time is in especially short supply for many builders today, because their operations are spread all over town. As big land parcels become scarcer, more and more builders are building in several small subdivisions at one time. And for many of them (14% of those answering the survey) the car-mounted two-way radio has become indispensable. In effect, it turns cars and trucks into field offices that are in constant touch with the main office and with each other. With some systems personnel on the road

can talk directly into telephones back in the office. Costs of two-way radio systems vary from under \$200 to over \$1,000 per station, depending on the type and degree of clarity.

Other types of communications systems include: wired intercom systems between offices or between office and plant; walkie-talkie radios which can be carried anywhere in the field; automatic telephone-answering systems and recording machines which allow reports and letters to be dictated in cars or at home.



Photos: Madlock

Operator at headquarters relays telephone calls to field radios.

Two-way radio links office to two projects

From a central downtown headquarters in St. Petersburg, Fla., Builder Charles K. Cheezem coordinates a 1,100-unit retirement community and a waterfront development on the far side of the county. Cheezem uses a General Electric two-way radio system with a 100-watt base unit (132-ft. tower), which keeps him in touch with eight stationary field units and with mobile units in key staffers' cars. The system's range: 20 to 30 miles. A headquarters operator can relay telephone calls coming into the main office to any of the radios. In the same way, field workers can have their calls relayed to lenders, buyers and suppliers at conventional telephones.



Workers at job get orders from headquarters.



Supervisor calls supplier from the job.



Accountant keeps tabs on work progress.



Lender gets call for construction draws.



Buyers are kept informed on move-in details.



Servicemen are dispatched quickly.



Scheduler in trailer uses radio to call . . .

Walkie-talkie directs on-site labor

Builder Edmund Bennett coordinates work at his 300-unit development in Bethesda, Md., through a walkie-talkie system of ten field sets and a base set in an on-site trailer. Field supervisors can talk with each other and with the trailer-based production scheduler over a half-mile radius. The field sets cost \$129 a pair, the base set \$175, plus \$100 for installation.



. . . field supervisor a half mile away.

Communicating equipment—a sampling of makes, models, prices and features

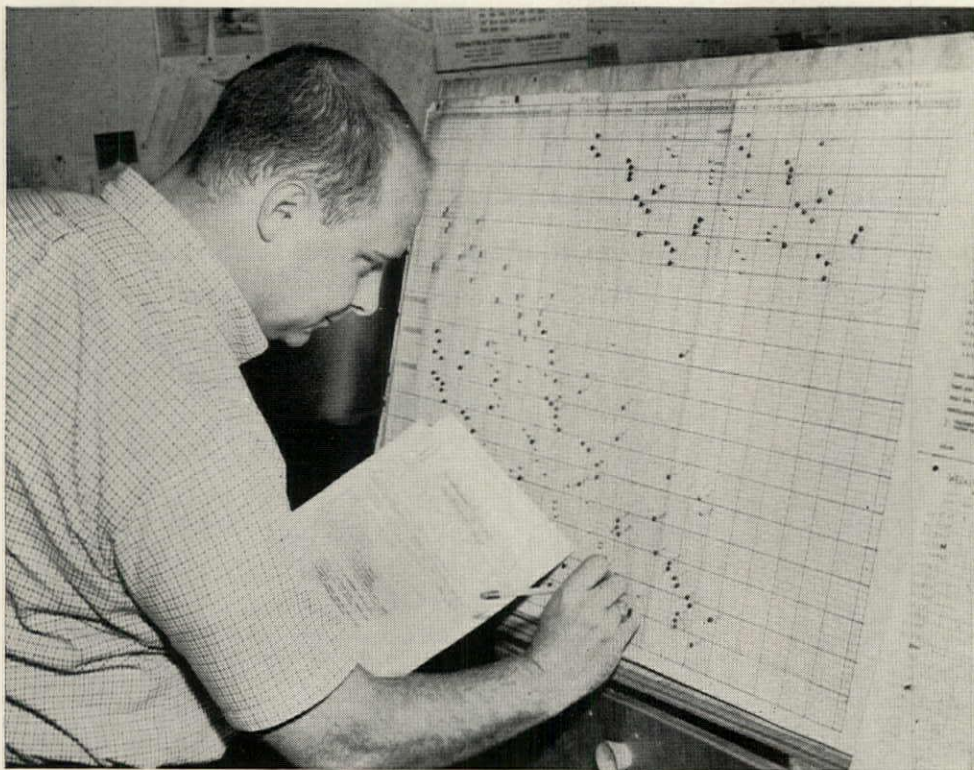
MANUFACTURER AND MODEL	PRICE (MONTHLY RENTAL)	RANGE	SPECIAL FEATURES
DICTATING MACHINES AND RECORDERS			
McGraw-Edison			
Edison Escort	\$396 (\$30)		portable (weighs 7 lbs.); uses rotating disc with 15 minutes recording time each side; separate transcriber is necessary
Edison Envoy	257 (25)		magnetic tape with an hour's recording time on each track
Edison Envoy Compact	207		same as above, but battery operated
Edison Voice Writer	420 (25)		same as Edison Escort, but heavier; used for office recording
Edison Voice Writer (transcribing model)	396 (25)		transcriber for disc recorders
Dictaphone Model 7	410 (25)		separate transcriber available
Telefunken Model 600	35		portable; ten hours of continuous use without recharging, re-usable magnetic discs
TELEPHONE-ANSWERING AND ALARM EQUIPMENT			
GT&E Service Corp.			
Electronic Secretary			
Short Play	(8.25-12.50)		automatically answers phone, takes 12 messages of 13 seconds each
Long Play	(21-31)		same as above, but takes up to two hours of messages
Answer Only	(8.25-12.50)		answers telephone, doesn't take message. Note: each Electronic Secretary has installation charge. Prices generally higher in Canada
Electronic Sentry	(12-15)		alarm system for unattended model home or plant. Automatically telephones a recorded message to police or other office when disturbed
RADIOS AND INTERCOMS			
General Electric			
Pacer Mobile Radio	\$398 (\$8)	from 2 mi.	compact, 15 watts
TPL Mobile Radio	1,000 (20)	from 2 mi.	compact, transistorized power, up to 100 watts
Message Mate Pager	210 (4.50)	from 1-8 mi. depending on power source	receives buzz when paged, voice at press of button
Voice Commander Walkie-Talkie	605.29	average 2½ mi.	
Porta-Mobile Portable Radio Station	880	average 5-10 mi.	operates on 12-volt power source; no tubes
Executone			
Intercom System	89 up, depending on number of stations	any distance inside buildings	builders' staff can install with manufacturers' supervision
Pocket Page System	120 per receiver	See Special Features	loop antenna must be strung around area to be paged; pocket unit receives only "beep"
Page/Reply System	Varies with number of units in the system	unlimited	wall units activate loudspeakers, person paged replies through another wall unit; more than one channel is available per system
Radio Corp.			
Sonar Business Radio BR-20	229.50	10-40 mi.	bracket mounted, 14 watts
Sonar Citizens Band Radio Model G	229.50	5-30 mi.	five watts
Sonar Citizens Band Radio Model E	179.50	5-30 mi.	five watts
Sonar Citizens Band Radio Model FS-23	229.95	5-30 mi.	23 frequency-synthesized crystal-controlled channels

To see how a computer speeds market research, turn the page

Simple aids like control boards and copiers keep tabs on jobs and cut paperwork

Most builders know the value of a control board. At a glance it shows the status of houses under construction: what trades are working in them and whether they are on schedule or behind. It is easy to post with colored pins, magnetic markers or just plain pencil marks. And it is inexpensive: you can pay up to \$200 for some elaborate boards, but others are available for less than \$10. Many builders simply make their own boards out of sheet material covered with lined paper (*see two examples below*).

Copying machines, like those at right, are less widely used (34% of the builders surveyed), but equally valuable. They can reproduce letters, legal documents, business forms, plans and drawings directly from the originals for pennies per copy. Prices of copiers vary widely—anywhere from \$100 or less for small units to several thousand dollars for white-printers that reproduce big drawings. As a general rule, the higher-cost machines produce lower-cost copies.



Photos: A. E. Apearauch

Control boards help police 150 jobs

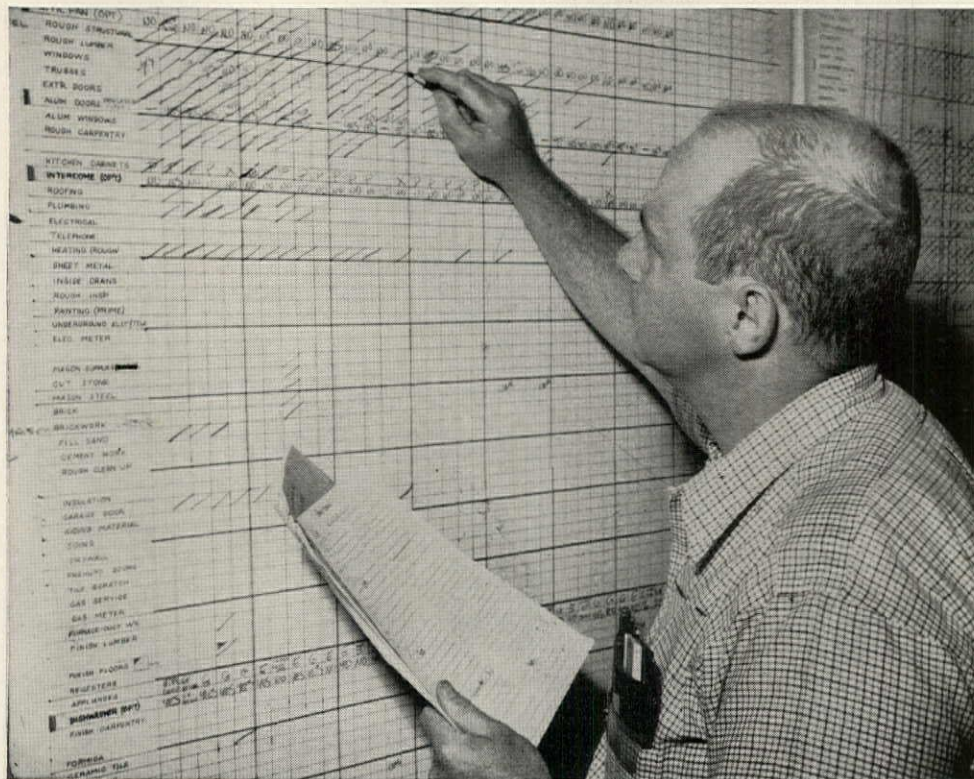
W. J. Pulte, Inc., of Birmingham, Mich., will build some 150 houses this year—no mean scheduling task. To check progress on every job—and keep field superintendents on their toes—Vice President David Kellett developed the control boards shown at left.

The general schedule board (*top*) has a vertical column for each working day, a horizontal column for each house. Kellett sticks different-colored pins in the board to show three key deadlines: 1) a black pin when a house should be ready for drywall, 2) a yellow pin when it should be ready for painting and 3) a red pin when it should be ready for final inspection. If a strike or other unforeseen problem threatens unavoidable delays, Kellett moves the pins to the right.

The labor-materials board (*bottom*) focuses on the step-by-step progress of each job. Across the top Kellett lists every house, its location and scheduled completion date. Down the side he lists labor and materials.

When materials' delivery or a job (by a subcontractor or Pulte's crews) is called for, Kellett makes a single slash in the appropriate box on the board. When the material is delivered or the job done, the field department makes a reverse slash (forming an X) in the box. The board also shows optional extras (e.g., incinerator, attic fan, insulating glass, aluminum doors, dishwasher, storms and screens and intercom) with a "yes" or "no" indicating the buyer's preference. All markings are grease-penciled on an acetate overlay and erased when a group of jobs is completed.

Schedule board shows when each house should be ready for drywall, painting and final inspection.



Labor-materials board shows progress on each house, lists 80 labor and materials-delivery categories.



Robert Willner

Copiers work fast at low cost

Norwood Homes of Houston copies real estate contracts and invoices with a Smith-Corona Marchant machine (*above*), which rents for \$26 a month. Copies cost 3¢ a-piece. Barclay Homes, Haddonfield, N.J., runs letters, plot plans, drawings, documents through an Ampto copier (*right*), which costs \$229.50. Copies average 4¢ each.



Floor plans are reproduced on white paper which picks up every detail.

Control boards and copiers—a sampling of makes, models, prices and features

MANUFACTURER & MODEL	PRICE (in dollars)	DIMENSIONS (in inches)	GRID PATTERNS	AVAILABLE PRINTED SYMBOLS
CONTROL BOARDS				
Blehart				
Sked-U-Cal	39.50	28 x 23	35 4" squares	self-adhering vinyl signals
Magna-Cal	24.50	34 x 23	35 4 1/2" squares	coding magnets
Magna-Cal Super	59.50	48 x 28	35 spaces (8" x 7")	
Klip-All	16.50	14 x 35		
	49.50	29 x 57		
Vis-U-All	36.50	38 x 28	25 horizontal lined spaces	magnets, magnetic card holders
GRAPHIC SYSTEMS				
Boardmaster	49.50	24 x 38 1/2	25 columns x 25 columns (625 spaces)	card strips
Magna Chart				
Mark III	69.50	18 x 24		500 magnetic symbols
Mark II	39.50	18 x 24	1" grid (23 vertical, 17 horizontal lines)	250 magnetic symbols
Mark I	29.50	18 x 24		125 magnetic symbols
Metal Chalk Board	9.50	18 x 24		magnetic arrows
METHODS RESEARCH				
Magnetic Control System	varies	20 x 24 to 48 x 144	standard grid patterns (1/4", 1/2", 1")	magnets, magnetic card holders
Flexitrol Control System	49.50	24 x 42	26 vertical, 25 horizontal (625 spaces)	card inserts
Steward				
Rot-A-Chart Mark II	67.50	25 x 23 1/2 x 2	80 vertical (1/2"), 168 horizontal (1/4")	
Rot-A-Chart Magnetic	72.50	25 x 23 1/2 x 2	same as above	magnets
Chart Magnetic	194.50	75 x 23 1/2 x 2	80 vertical (1/4"), 560 horizontal (1/4")	magnets

MANUFACTURER & MODEL	PRICE (in dollars)	FIRST-COPY COST (in cents)	MAXIMUM COPY SIZE (width & length in inches)	WHAT IT WILL COPY
COPIERS				
Anken				
Ampto 900	124.95	8.5	9 x any	all colors
Ampto 12	259.50	8.5	12 x any	" "
Economaster	199.50	8.5	12 x any	" "
Controller	349.50	8.5	11 x any	" "
Attache Contoura	214.25	8.5	9 x any	" "
Apeco Dial A Copy	1,195.00	3 1/2	11 x any	anything
Commodore Drycopy Machine	299.95	3	9 x any	"
A. B. Dick 120	225.00	5	10 x 15 1/2	"
104	134.00	5	9 x any	"
115	295.00	5	15 x any	"
103	99.50	5	9 x any	"
Ditto 350 Diazo	7,500.00	1	54 x any	translucent originals
340 Diazo	4,995.00	1	42 x any	" "
330 Diazo	2,750.00	1	42 x any	" "
320 Diazo	1,725.00	1	42 x any	" "
Masterfax	595.00	2	10 3/4 x 16 3/4	photos, opaque/translucent, rigid material
360 Diazo	9,295.00	1	54 x any	translucent originals
Eichner Addofax	259.00	4	8 1/2 x any	all metallics, inks
Rotolite Economy 18R	129.50	1	18 x any	anything reasonably translucent
Economy 27R	164.50	1	27 x any	" " "
Economy 42R	208.50*	1	42 x any	" " "
Expediter 18M	203.50*	1	18 x any	" " "
Expediter 42M	258.50*	1	42 x any	" " "
Diazo-Jet 42L	595.00*	1	42 x any	" " "
Savin Office Copier	1,195.00*	3 1/2	11 x 460	anything
Viewlex Viewfax Drycopier	225.00	2	10 x any	anything with carbon-base ink

*also available on lease

continued

Business machines can speed up everything from check writing to cost analysis

They range from simple adding machines to full-fledged computers, like the one below. And they can do routine jobs like posting bills and making out payrolls, special jobs like keeping a dealer's inventory, or complex jobs like breaking down construction costs into house-by-house, nail-by-nail lists.

Just what machines a builder uses depends on a number of factors: his volume, the complexity of his operation and, of course, what he can afford. Adding machines, owned by 94% of

the builders answering the survey, can be bought for less than \$300. Accounting machines can run up to several thousand dollars, and are sometimes rented rather than bought outright. And high-priced computers are almost always rented, at charges of from several hundred to several thousand dollars a month. Some builders (27% of those surveyed) work with computer service bureaus which take raw data, process them and return them in tabulated form—often within 24 hours.



Photos: Robert Willner

Computer speeds builder's cost control

Houston Builder Glen Norwood can now make quick changes in marketing tactics to counter monthly shifts in his direct costs and overhead. Reason: he uses a small computer (National Cash Register 390) to get:

- Weekly construction reports on every house showing budgeted costs for the week and costs to date plus their relation to sales price.
- Monthly income statements, balance sheets and sales analyses showing sales, costs of sales and per cent of gross profit recorded in each Norwood subdivision.

Norwood also uses an accounting machine (NCR 3300), which records cash disbursements and receipts and automatically prepares a paper tape for the computer. He added the computer last year when the accounting machine failed to keep up with a 47% increase in sales. He rents the computer for \$1,370 a month, the accounting machine for \$215. No additional employees were needed to run either machine. Norwood feels builders can profitably consider computers when their sales reach \$9 million. His are \$10 million.



Tape is spliced as it leaves accounting machine.

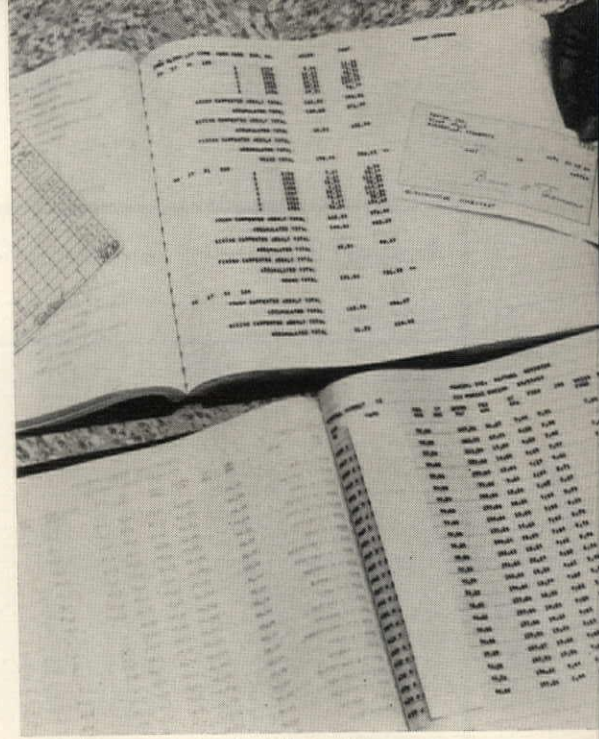
Computer at center is fed data from tape reader at right.



Payroll cards, sent to bureau, produce . . .

Service bureau posts cost in two days

Pentom, Inc., Minnesota builder of 500 houses a year, sends its payroll cards to Control Data Corp. on Tuesday and by Thursday gets labor costs fully allocated by job. (Materials and overhead charges are posted by hand.) Control Data also prepares Pentom's union and labor reports by drawing from a memory drum that cumulates earnings for each of Pentom's 350 employees, including 150 workers in Pentom's cement and painting subcontracting firms. The service costs about as much as Pentom would pay a single payroll clerk, yet does the work of several.



. . . job records showing labor costs.

Business machines—a sampling of makes, models, prices and features

MANUFACTURER AND MODEL	PRICE (MONTHLY RENTAL)	SPECIAL FEATURES
ACCOUNTING MACHINES		
Burroughs F 6,000 series*†	\$2,000-\$7,000	electro-mechanical; handles four accounting functions at once (including accounts payable, accounts receivable, payroll, cost analysis) adds alphabetic keyboard to numeric board
Burroughs F 1,000 series*†	3,000-7,000	
Burroughs F 4,000 series*†	12,000-14,000	electronic operation speeds up accounting; automatically recognizes account numbers
Monroe President*	1,200	simultaneous processing of journal, ledger and customer statements
Victor Comptometer Compu-Tronic 35*	5,995	electronic billing
ADDING MACHINES		
Addo-X 40 E-158	\$343	converts inches to feet
Remington Rand Model 3*†	335-375	totals 10 digits
Victor Comptometer models	295-375	enters 10 digits
Victor Comptometer Architect Special 16-58 54-260*	269	converts inches to feet, fractions to whole numbers
CALCULATORS (multiply and divide)		
Addo-X Model 4341	\$525	multiplication memory unit
Addo-X Model 4541	675	multiplication memory unit, accumulating register
Bohn Contex-10	139.50	portable (weighs six lbs.), manual operation enters 10 digits, totals 11
Bohn Contex-20	235	portable (weighs six lbs.), electronic operation enters 10 digits, totals 11
Curta Model 1	125	pocket size
Friden EC 130	1,990	
Remington Rand Model 4	169.50-229.50	
Remington Rand Model 8	79.50 to 149.50	portable (weighs 8 lbs.)
Remington Rand Model 99	599.50	accumulating register
Remington Rand Model 99120DX	475	same as above, but does not divide
SCM Corp. Transmatic 416	1,075	storage register, enters 12 digits, totals 16
Victor Comptometer Premier 79-88-54*	635 (25)	enters 13 digits, totals 14
COMPUTERS, SORTERS AND AUXILIARY EQUIPMENT		
Addo-X Adding Machines	\$2,600-\$4,600	punch paper tape that can be processed by any computer
Burroughs Paper Tape Punch*†	3,000 (75)	punches paper tape for processing by service bureau
Control Data 180 Data Collector†	3,500 (135)	punches paper tape for processing by service bureau
Friden APT-10†	2,050 (119)	punches paper tape for processing by service bureau
Friden ACPT†	2,450 (140)	punches paper tape for processing by service bureau
Friden Computyper CTP-S†	9,650 (480)	automatic writing-billing, operates from punch cards
IBM Punched Card System†	(300 up)	all accounting functions—equipment includes keypunches, sorters, verifiers, accounting machines
Monroe Punched Tape Adding Machine*	1,650	punches paper tape for processing by service bureau
Victor Comptometer Opti-Printer*	480 up	prints input (in readable type) for optical scanner of computer system; can be used as adding machine

*Machines are part of systems specifically designed for builders. †Training provided by manufacturer.

Research reports scan a city-wide market...

PRICE (in thousands)	SALES	STARTS	INVENTORY	AGE*		MONTHS SUPPLY
				I	S	
\$11 or less	74	105	74	177	131	12.0
11-13	253	219	154	167	157	7.3
13-15	173	180	95	165	165	6.6
15-17	126	123	81	156	112	7.7
17-19	135	156	85	118	128	7.6
19-21	115	175	96	119	118	10.0
21-23	89	154	83	129	83	11.2
23-25	71	116	70	123	120	11.8
25 or more	155	251	152	136	124	11.8
CITY TOTALS	1,191	1,479	890	145	133	9.0

*Average number of days a house has been on the market (I) and the average age of a house when sold (S).

All of Austin's sales, starts and inventory data for the preceding 12 months are broken down into price classes in this table, for the year ending Mar. 1, 1964. Builder Wayne Burns also gets reports covering the preceding 30 days.

break the market into ten separate areas...

REGION	SALES	STARTS	INVENTORY	AGE*		MONTHS SUPPLY
				I	S	
NW	313	321	183	154	146	7.0
NE	217	294	149	136	115	8.2
SW	158	173	99	150	157	7.5
N	154	183	121	119	152	9.4
S	103	111	65	125	120	7.6
WNW	90	124	78	135	135	10.4
SE	80	115	72	142	106	10.8
Cent.	32	78	63	157	111	23.6
E	32	62	48	189	66	18.0
ESE	12	18	12	266	62	12.0

*Average number of days a house has been on the market (I) and the average age of a house when sold (S).

This report includes the same information as at left, but shows it by market area rather than price class. Sales are greatest (26% of the Austin total) in the northwest area while inventory is lowest (seven months' supply).

Market research breakthrough

Computer punches out local housing facts

Most market surveys, however detailed and complete, are one-shot affairs that may be out of date within a few months. Now a Texas builder—Wayne Burns of Austin—has developed a new survey system which, by feeding facts through a computer, gives him a brand-new survey every month.

Four days after the end of each month, Burns is handed reports like those shown above. They tell him:

- Which houses have been sold in the past month in Austin's 55 subdivisions.
- Which houses remain unsold.
- Which areas—and subdivisions—are overbuilt and which ones offer the best sales opportunities.
- Which price ranges are neglected and which are overbuilt.
- What his competitors are doing, where they're leaving themselves open to attack, where they've been caught with sluggish sales and where they've cut prices to move inventory.

Result: Burns knows exactly where and how to expand his business. And expand he has. In 1962 he was building in one subdivision and one price range (under \$13,000); between 1962 and 1963 he boosted his sales from 80 to 121 houses;

this year he is building in 12 subdivisions and expects to lead the Austin market with 160 sales.

The new survey system costs less than \$200 a month to operate

Specifically, it costs Burns:

1. \$50 a month for deed-transfer data from a title company.
2. Two days' pay of a clerk who once a week spends half a day transcribing information on building permits.
3. \$50 a month for an hour's use of a local bank's computer.

Burns develops his reports from sources available to any builder or market researcher. Here's how he does it:

1. Once a week he sends a clerk to Austin's building department. On a specially prepared form, the clerk records each house assigned a permit during the past week, its size, its cost and its major features (e.g., number of baths, air conditioning, materials).

2. The permit data for each house is put on a separate punch card.

3. The punch cards—one for each house on the Austin market—are sent to the Stewart Title Guaranty Co.

4. When the title company records a deed transfer, it pulls the card representing that house. (The deed and the card are easily matched because the legal description is the same on both deed and permit.) On the card, the title company notes the name and address of the buyer, the date of the sale, the price, the lender and the mortgage amount, then sends the card to Burns.

5. At the end of the month Burns runs all the cards he has received through an IBM 1401 computer at the Austin National Bank. The computer records the month's transactions, sorts out the data and cumulates it for the preceding 12 months. (The tables above are based on data received by Burns during February.)

But setting up the system was a long—and expensive—job

Burns, who confesses he likes researching better than building, worked, with a computer programmer as a partner, for more than a year to gather background data. He dug back into three years' permits and a year's deed transfers to establish a picture of the Austin market. He spent

focus in detail on a single market area...

PRICE (in thousands)	SALES	STARTS	INVENTORY	AGE*		MONTHS SUPPLY
				I	S	
\$11 or less	8	2	0	0	463	0
11-13	22	4	4	276	226	2.2
13-15	47	32	17	209	167	4.3
15-17	43	33	20	217	96	5.6
17-19	41	43	22	138	168	6.4
19-21	49	57	32	131	133	7.8
21-23	36	52	30	126	112	10.0
23-25	30	35	22	123	139	8.8
25 or more	37	63	36	131	96	11.7
REGION TOTALS	313	321	183	156	146	7.0

*Average number of days a house has been on the market (I) and the average age of a house when sold (S).

This table analyzes the top line of the table at left. Sales activity in this northwest area is strongest (58%) between \$13,000 and \$21,000. But building activity is greatest (64% of all starts in the northwest) above \$19,000.

and finally zero in on one subdivision

PRICE (in thousands)	SALES	STARTS	INVENTORY	AGE*		MONTHS SUPPLY
				I	S	
\$11 or less						
11-13	(no activity in these price brackets)					
13-15						
15-17	2	1	1	0	48	5.9
17-19	10	10	5	96	236	6.0
19-21	19	15	10	157	167	6.3
21-23	23	25	14	133	118	7.3
23-25	20	24	14	142	134	8.4
25 or more	23	32	14	146	74	7.3
SUBDIVISION TOTALS	97	107	58	139	131	7.2

*Average number of days a house has been on the market (I) and the average age of a house when sold (S).

Figures for the most active subdivision in the northwest area, Allendale Park, show that while sales are highest in the \$21,000-to-\$23,000 class, opportunity may be greater in the next lower class where inventory is smaller.

like these—and updates them every month

months setting up a program into which he could funnel data on new starts and sales and out of which he could pull an up-to-the-minute analysis of the Austin market. His partner used almost 1,000 hours of computer time to test and debug the program before he and Burns were satisfied with it.

Burns also had to find a way to convert permits into sales; eventually he decided to wait 60 days before adding a permitted house to inventory. He had to find a formula for converting estimated land and construction costs into a probable sales price; the formula is now part of the computer program, and it rarely misses by more than 5%. He had to develop a shorthand to summarize the city-wide market; he came up with a division into nine price ranges, ten market areas (which follow Austin's census tracts) and all subdivisions within these areas.

As a result, Burns can tell at a glance what proportion of any builder's sales is in the \$15,000-to-\$17,000 price bracket, for example, or how much of a subdivision's inventory is priced above \$25,000. He can tell how long any new house anywhere in Austin has been on the market and how

many months' supply of houses any of his competitors has in inventory.

Now the system may be made available to other builders

As a start, Burns has arranged to market his service through Stewart Title Guaranty Co., which has offices in ten Southern states. At the same time, he is testing the system in other markets. He tried it in Waco and Corpus Christi, but dropped it in both cities because reports failed to reveal any opportunities for new builders. He is now testing it in four other cities, each selected for the special data-collecting problems it presents. Specifically:

1. Albuquerque's building department does not list building permits chronologically. Burns must go through all permits, dating back to 1918, to establish a starting inventory.

2. Dallas-Ft. Worth has 75 permit-issuing offices. Burns must find an economical way to collect information from all 75. (Researcher William Smolkin, who worked briefly with Burns last year, is now perfecting a data gathering technique of his own in New Orleans, which has six per-

mit agencies. Smolkin feels time can be saved by getting building departments to cooperate in collecting data and by taking only a sample of available data.)

3. Salt Lake City also has many permit-issuing departments (32). Burns is working with a local builder—Richard Prows—to prove that his new system can be adopted successfully in other markets and for other builders. The aim: to lift Prows' volume from 150 to 400 in a short time.

4. San Antonio poses a population problem of composition rather than size. Its large communities of indigent Mexicans create a potential demand for low-cost housing that is difficult to measure with standard starts and sales data.

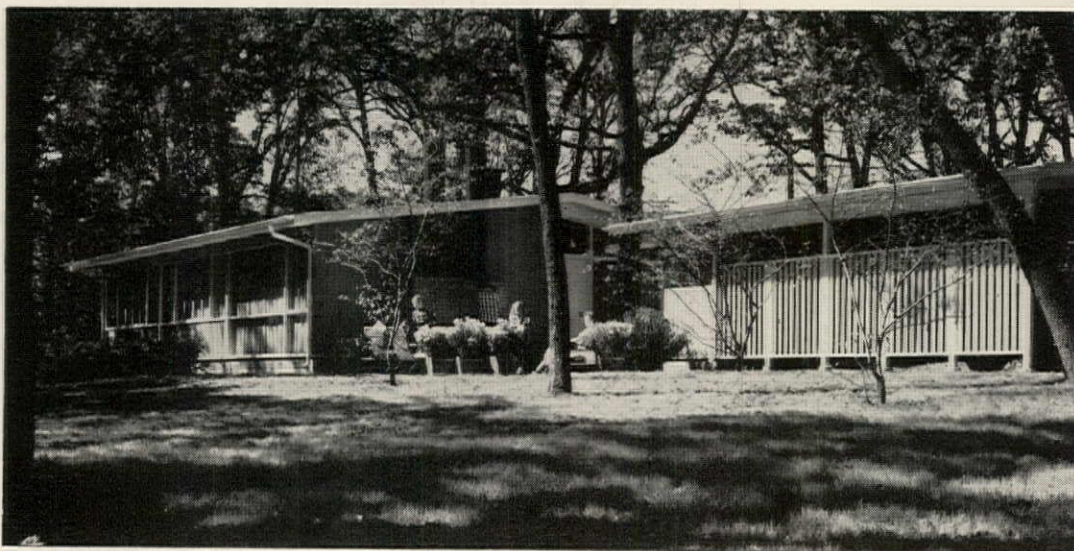
These tests, says Burns, are only the beginning. "We've barely scratched the surface. We plan to develop systems in these other cities that will make our work in Austin look primitive by comparison."

One improvement Burns hopes to make: to convert his research system into a forecasting program that ferrets out voids in a market before they appear. He plans to tie in his starts and sales reports with reports on population growth, retail trade, school attendance and other indicators.



Jim Haughton

This old standby is a safe bet for lenders . . .



Hedrich-Blessing

. . . but is clean contemporary like this even safer?

New S&L guide calls for fresh design ideas

The typical two-story at the top—"not bad perhaps but not great architecture"—has less "lasting value" than the contemporary house beneath it. That is what the U.S. Savings & Loan League is telling loan officers in a 56-page design manual, the second volume in a projected five-part Construction Lending Guide (Volume No. 1 deals with land planning).

It is a significant manual not only because of what it says but because of whom it is bound to influence. S&Ls finance half of U.S. home sales—and one-third of all new houses. So any standards they enforce as a group will be felt by builders all over the country.

The manual—written by Architect John L. Schmidt, a League director—supports good design in two ways:

1. *It spells out design principles to help loan officers evaluate houses.* There are tables of minimum room dimensions, zoned floor plans, efficient kitchen layouts, comparisons of over-textured and restrained exteriors and dozens of other examples of logical and tasteful design.

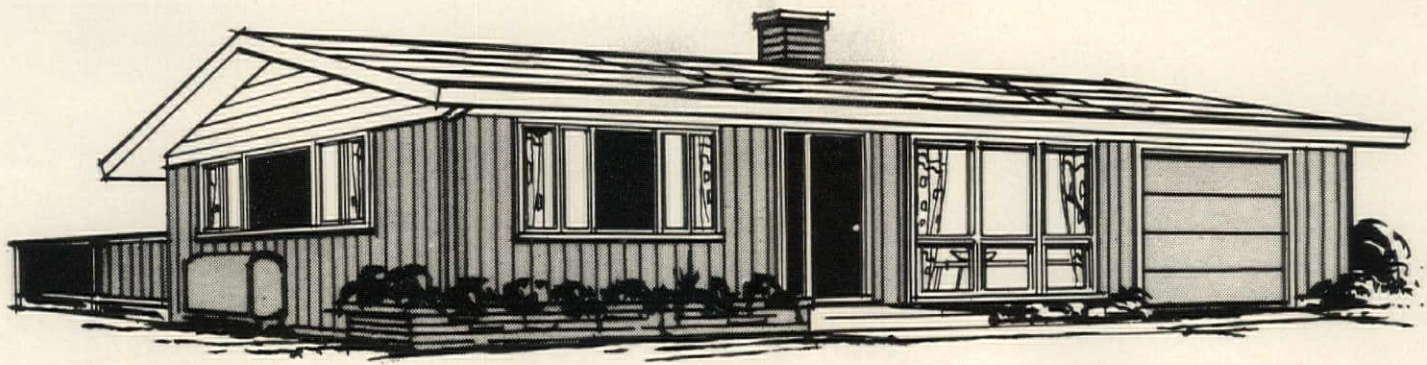
2. *It argues for open-mindedness.* Don't get nervous, the guide tells lenders, when a house is turned away from the street. That

may be the best way to get privacy, to turn major glass areas to the south or to fit the house to an irregular lot. Don't shun glass walls, windowless walls, open plans, front-yard privacy fences. In short: "Look beyond the normal solution, and don't automatically be against a departure from the normal."

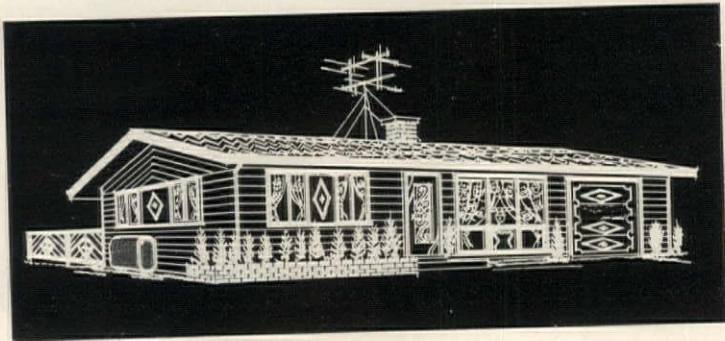
To open loan officers' eyes to fresh ideas, the guide leans heavily on contemporary examples. In a chapter headed "How About All that Glass?" there is a detailed argument in support of floor-to-ceiling glass. A chapter on open planning explains the advantages of informally partitioning living areas. Model indoor-outdoor plans emphasize sliding glass doors and one-level layouts. In fact, so much attention is given to what is new in design that good traditional architecture is virtually ignored.

The League says its long-range goal is to help the general public understand good design. And, it adds, nowhere can this help be more effective "than through the work of savings and loan associations as they make good design a part of a home loan package."

For a look at the kind of design S&Ls may soon be seeking—plus a 25-point floor-plan checklist—see the following three pages.



Long-term value lies in simple exterior treatments . . . watch out for 'jazzy' finishes



The League censures the example at left for its "razzle dazzle roof, heavy-handed treatment of trim areas, ridiculous ornamentation, accenting of downspouts and corner boards, scrolled aluminum door over the stained entrance door and evergreens in military formation." It asks for quieter exteriors like the one above: "harmony without monotony, variety without clutter." Look at color, it suggests, not as a surface embellishment, but as part of the architecture, bringing out the best design features and playing down the worst. For sharper evaluations of subdivision design, lenders are advised to see roofing samples and siding color chips with plot plans.



Favor well-proportioned, uncluttered design . . . resist the parts-and-pieces exterior



While the house above is not exciting, it follows closely the League's design principles: "It is simple, carefully organized visually and has a relationship of proportion from carport to house that results in a comfortable, well balanced design." The house at the left fails: "It lacks repose because of a poorly organized window pattern and an awkwardly high carport. The eye is merely attracted to the parts and pieces." In judging exterior appearance, the League's design guide asks lenders to consider these elements: logical expression of plan, proper proportions, visual organization, materials and textures, scale, simplicity and restraint. If a design succeeds on all those counts, the question of whether it looks conventional should be of no concern.

continued



Julius Shulman



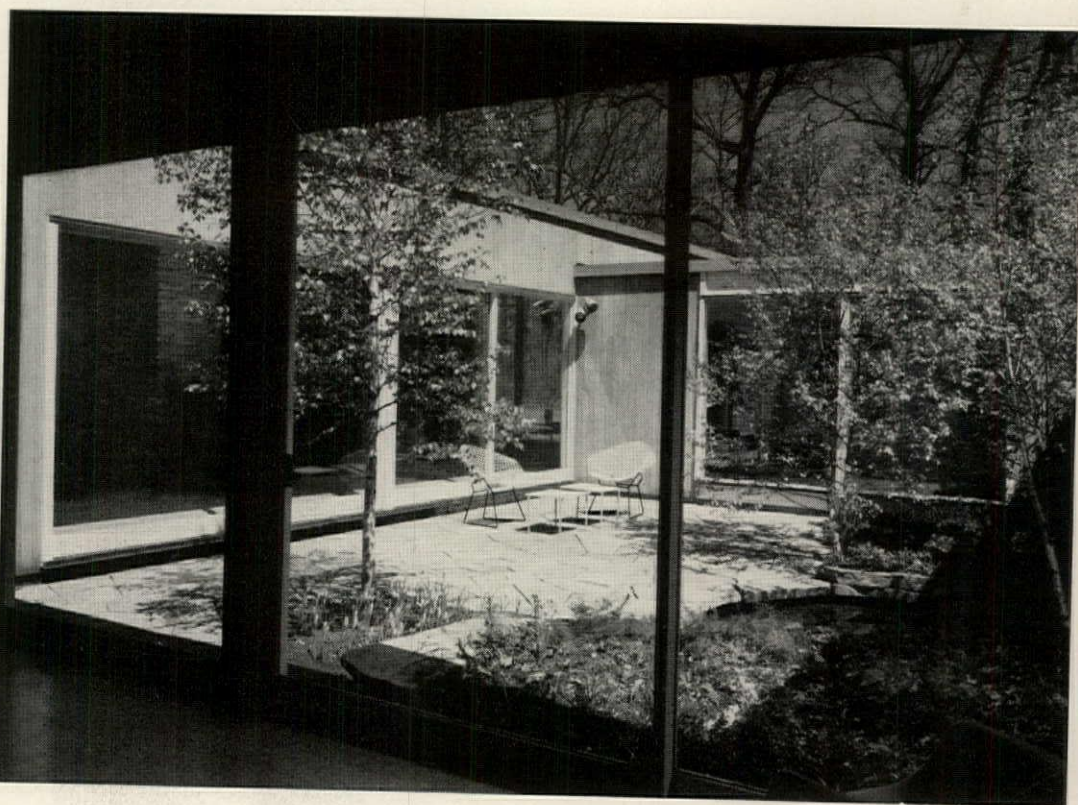
Give the open plan a fair hearing . . . it creates bigger and more useful living areas

With this sketch-and-photo comparison, the League suggests that eliminating full-height partitions is a smart way to improve the appearance and usefulness of tight living areas. But while the impression of greater space is desirable, the possibility that open

planning may violate privacy is not. Good plan zoning—"particularly the isolation of sleeping areas from the disturbances of work and living zones"—should be the loan officer's most important requirement (*see checklist opposite*).



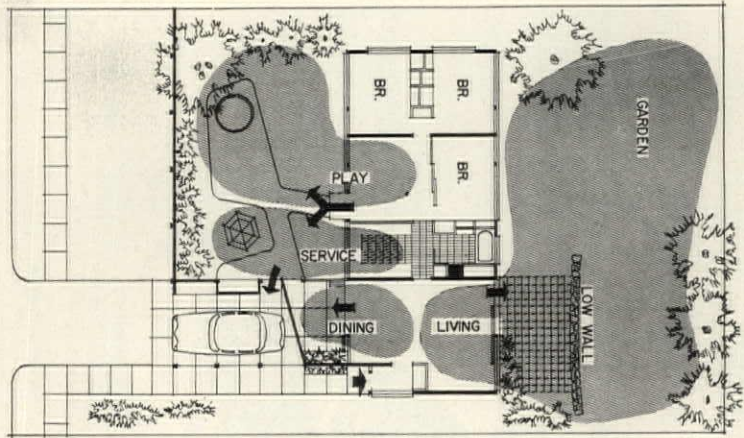
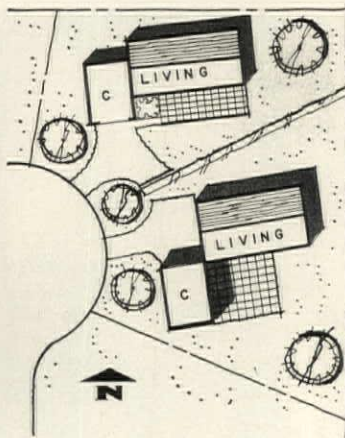
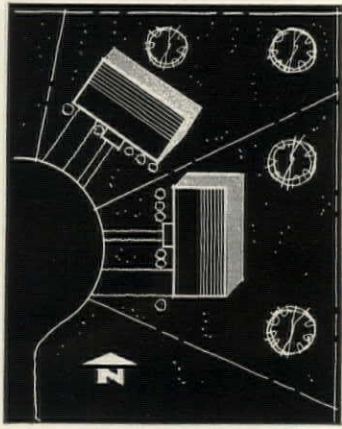
Hedrich-Blessing



Get used to glass walls . . . they enhance indoor-outdoor relationships

The point of the comparison above is that conventional windows restrict outdoor views to members of the household who are taller than 3'6", while floor-to-ceiling glass gives the children a break. Transparent walls, argues the design guide, make rooms

larger and more comfortable by borrowing space from outside, make the indoor environment more responsive to outside hourly and seasonal changes and add only slightly to heating costs (if the builder is willing to use insulating glass).



Don't worry about conventional curb appeal . . . good indoor-outdoor living is what counts

In the two drawings at left above are two solutions to siting houses on the east side of a cul-de-sac. One is the uniform face-the-street approach—illogical in this case because it turns living areas toward the west or southwest. The other is logical because indoor-outdoor living faces south and is protected from the west sun by a carport or garage. Forget the conventional image of curb appeal, urges the League, and rate the plan-site relationship according to orientation, sun control, privacy, lot size and shape,

view, topography, natural growth and ease of access.

Typical design guide plans show how to use every square foot of the lot as part of an indoor-outdoor pattern. The plan at right above shows a 1,000 sq. ft. house on a 6,000 sq. ft. lot with four separately defined indoor-outdoor areas. Departing from convention, the front areas are concealed from public view by opaque fencing, foliage and a carport storage wall. Window walls in each bedroom make the indoor-outdoor relationship complete.

Checklist for loan officers shows 25 ways to judge a plan

Builders and lenders both could use this list of reminders from the design guide. It covers the essentials—orientation, traffic and zoning—and calls attention to details like floor-to-ceiling closet access and outside entrances to basements.

- Are the major living areas of the house oriented to the south? If not, is there another consideration overriding south orientation—such as view or terrain?
- Is the west elevation protected from low sun angles?
- Are the outdoor areas well related to the plan?
- Is the kitchen handy to outdoor living areas?
- Is the route from the car to the refrigerator less than 30'? Can you move from garage or carport directly into the kitchen or work zone?
- Does the kitchen control major entrances (guest and family)?
- Is the kitchen layout functional?
- Can the washer-dryer area be reached from the kitchen without changing floor level? Is it within 20'?
- Can you move from kitchen to children's bedrooms without passing through other rooms? Is the route less than 20'?
- Is the living room free of through traffic and designed for flexible furniture arrangement?
- Can conversation circles focus on both the fireplace and the outside view?
- Is the living room visually separated from the front door?
- Is there an entry or foyer space at the guest entrance?
- Are there coat closets near the front and rear doors?
- Can children enter the house from outside play areas through the work zone or some entry provided for muddy shoes, coat hanging, etc.?
- Is there a half-bath or lavatory near the family or play areas? Is it easily accessible from the outside play area?
- Are the children's bedrooms separated from the living zone by change of floor level, other rooms or sound isolation?
- Is there a bathroom within 20' of the kitchen on the same floor?
- Is there adequate closet space for storing out-of-season clothes?
- Is there adequate closet storage space for yard and lawn equipment?
- Is the corridor layout simple and compact?
- Does each room have a good traffic pattern? For example, can the closets in the bedrooms be reached without having to go around the bed? Are bedroom windows and doors located so that furniture arrangements can be flexible?
- Do bedroom closets have full floor-to-ceiling access?
- Do bedroom windows have a sill height low enough for children to see out?
- If the house has a basement, is there an exterior entrance? Does the basement have sufficient windows for light and air?



How to cut construction money's high cost

The cost of construction loans, like any cost item, must come either from the builder's profit or the buyer's pocket book.

How much is the price of borrowing? Builders and their bankers (*photo above*) can often negotiate a reasonable price. If they don't, they may pay up to 20% for construction money. Builder Eli Broad, President of Kaufman & Broad (1963 sales \$31.8 million in Detroit, Phoenix and Los Angeles), gives an example of how much a \$10,000 construction loan could cost a small builder: "Most builders need this money for about 90 days, and I assume a minimum fee of 1% [\$100] and 6% interest [\$150 for 90 days]. Now count in title fees, surveys and other out-of-pocket costs, which will run \$50 to \$150. Arranging the loan will cost another \$100 in overhead and time. So \$10,000 for 90 days costs \$400 to \$500. On an annual basis, this is 16% to 20% simple interest. That's an expensive way to do business."

Here are the four surest ways to cut the cost of construction loans:

1. *Give your banker all the financial and business facts he needs to prove you're a good risk.* Tell him your plans, how you think they fit the market and what you hope to accomplish.

"If builders would develop closer ties with their bankers, they could get their construction money cheaper," says J. W. (Bill) Underwood of Jackson, Miss. He pays a straight 6% interest rate on the unpaid balance of the borrowed working capital for his building and component-manufacturing operations. And most lenders agree with Underwood. Says Mortgage Banker Thomas P. Coogan: "I don't think the average builder works closely enough with his banker."

2. *Shop around for the best deal.* Money, like other commodities, sells at different prices at different times. There

are not standard fees on construction loans. Builder Broad notes, "All charges are negotiable. So an alert builder can often get better deals by bargaining on every loan, especially when money is plentiful."

"Builders should negotiate while they can," says Assistant Vice President James E. Gorman of New York's Chase Manhattan Bank.

Besides negotiating charges, you may be able to reduce—or even eliminate—survey and appraisal costs, title fees, and the drawing up, reviewing and recording of documents.

Advises NAHB's Mortgage Department: "Builders should be more sophisticated about charges and fees, and go into the details of the construction loan agreement. Many items are similar to the inflated closing costs that a buyer sometimes has to pay. A savvy buyer often can avoid these hidden costs, and so can a builder if he knows what to look for."

3. *Develop an unsecured line of commercial credit* (see p. 80). Says Broad: "We never use construction financing. We use our own capital to finance our inventory of work in progress as fully as possible, and if we need more money than we have in working capital, we use unsecured commercial borrowing at costs under 6% per annum. We are presently paying 5½% simple interest, so we pay only \$137.50 for a \$10,000, 90-day loan that could cost some builders \$400 to \$500. This is the way most major U.S. industries borrow capital to expand."

Builders must develop their credit standing over the years, Broad points out: "If you have a sizable net worth, ready assets and a good business reputation, you can borrow on a line of credit. Our bank started us with only \$25,000, but now we have substantial open lines with banks in all the cities where we operate."

4. *Take out the loan in the homebuyer's name.* "If a qualified buyer seeks the construction loan and the permanent mortgage himself, the bank may often set up the entire loan on a permanent basis to the purchaser, thereby eliminating the builder's closing costs on the loan," says Builder Nils Johnson, of Cook & Johnson, Youngstown, Ohio.

If the buyer is not a minimum-down customer, and has a good credit standing, the deal may well be better than what the builder himself can arrange. When banks find that the builder is in a desperate cash situation, his negotiating position is weak. But the buyer can shop for the best deal on his mortgage. Of course, the bank will demand a first mortgage, so the builder must put the lot in the applicant's name, but there are many ways for the builder to protect himself. For instance, he can take back a second mortgage or a note—a wise method for a small builder with limited capital.

Right now competition for mortgages and temporary financing is lowering builders' costs. In the New York City area, for example, the Dime Savings Bank of Brooklyn offers 6%, no-fee, combination construction and permanent loans that eliminate one set of closing costs. Says Assistant Vice President Robert C. Frese: "The building loan is converted to a permanent mortgage when the house is completed and sold. There is a single closing with costs borne by the purchaser."

In California state-chartered S&Ls carry the principle further. They are placing 80%, 30-year mortgages at 6% to 6.6% on as many as 100 lots at a time, and charging a 2% to 3% discount and simple interest until the house is sold. This also eliminates one set of closing costs. Fees paid by the buyer at closing may let the builder recover one point of his original fee paid for interim financing.

Leading bankers tell why construction money carries such a premium—and what changes would bring the costs down

Mortgage bankers questioned by HOUSE & HOME cited three basic reasons why they charge so much for construction loans:

1. *Risks are high in many deals.* Says Vice President James Schneider of New York's Marine Midland Trust Co., a specialist in commercial financing: "Lending a builder working capital is tough, because he can go bust so easily. You have to be very careful in advancing construction funds since there is no guarantee that the money is going into the job. The builder may use it for something else entirely, and hope to close the permanent mortgage before he has to pay off his suppliers and subs. Or if you over-advance and the builder mortgages out, he can walk away and say, 'Okay boys, it's all yours'."

Says Gordon L. Pattison, Vice President of New York's First National City Bank: "Builders forget that this is a special kind of financing. It requires more time, energy and know-how, and the builder is asking more dollars against his net worth than any other kind of business. The builder is really asking the bank to be a major stockholder in his operation. Any institution granting a builder interim financing across the board would have to live with him."

2. *Laws make construction lending expensive.* Notes Marine Midland's Schneider: "You would have to change both real-property laws and banking laws if you wanted to change the system. State laws on mortgage lending all differ, and often increase the risk. A lender's ability to get possession in case of default varies widely. In New York State, for instance, we can

foreclose a mortgage and wipe out mechanics' liens. You can't do that in Virginia."

Even the instruments differ: in some states they are deeds of trust, in others mortgages. Changing the laws could eliminate some of the charges—recording, legal and title fees, for example.

3. *Yields are too low in relation to risk.* President Irving Rose of Advance Mortgage Co. says: "At the moment the yield to the lender on construction money is typically 8% to 12% gross, and the net is a hell of a lot less than the gross. I do not believe it can get any lower as things stand today in the money market. In terms of return, the net can't get lower because the banker can put the money someplace else for more net at less risk."

Economist Louis Winnick explains the rise and fall in the cost of construction financing this way:

"It all comes back to the classic textbook formula—the cost of using money will equal the pure cost of money, plus the administrative cost of making the loan, plus an amount to cover the risk as the lender estimates it on an actuarial basis. The market always equates the risk somehow. Perhaps imperfectly, but it does. You have to influence one of the elements in that formula to influence the cost."

Builders can do little about the pure cost of money or the administrative cost of making a loan. So their best hope lies in reducing the lender's risk. Like businessmen in other industries, they must convince lenders that their risks are minimum, so the charges should be the same.

A leading builder spells out four businesslike ways to win the confidence of mortgage bankers

J. W. (Bill) Underwood of Jackson, Miss., (H&H, Dec. '61) offers this advice to other builders:

1. *Maintain a respectable bank balance, and be sure the bank's loan officer knows about it.* "Don't just assume he knows your account, bring it to his attention." Underwood (a strong believer in substantial balances) keeps his average balance at 35% to 40% of his total borrowings, but many banks are pleased to see a 20% or more ratio.

2. *Keep your banker informed.* "He needs to know how your business is doing, and he won't be as liberal in his attitude if he is working in the dark. After all, he has examiners looking over his shoulder, so he must know enough about your operation to be able to justify the loans he

makes and the terms he extends to you."

3. *Cut your banker's cost of doing business with you.* "Prepare as many of the loan documents in advance as you can, and show your knowledge of your business by spelling out all details of each operation you seek to finance. Bankers sometimes generalize that 'all builders are slipshod', so give your bank a basis for making you an exception to this generality."

4. *Get new customers for the bank.* "Builders have unique opportunities to steer new homebuyers to a bank, and the banker will appreciate your awareness of its need for new customers."

Do Bill Underwood's rules work? Two years ago his bank invited him to join its board of directors.

continued

How an already efficient builder cut \$1 a sq. ft. from his costs by switching from construction loans to a line of bank credit

"Since I started using a line of credit last year, my building costs have dropped from about \$8 a sq. ft. to \$7 or less," says Builder Robert C. Schmitt of Berea, Ohio. "Part of the saving is in direct money costs, but a large part is in efficiencies I never could have achieved without the flexibility of a line of credit."

Schmitt, noted for his efforts to improve housing technology, made the change when an analysis of his operations showed him that the direct—and indirect—costs of construction financing added roughly 10% to the price of a house.

"For a long time," he says, "I concentrated on cutting physical costs, but I came to realize there are many other ways to save money—by quantity purchases of materials, ability to buy when prices are soft and a continuous scheduling of production. None of these are possible without an ample supply of ready cash."

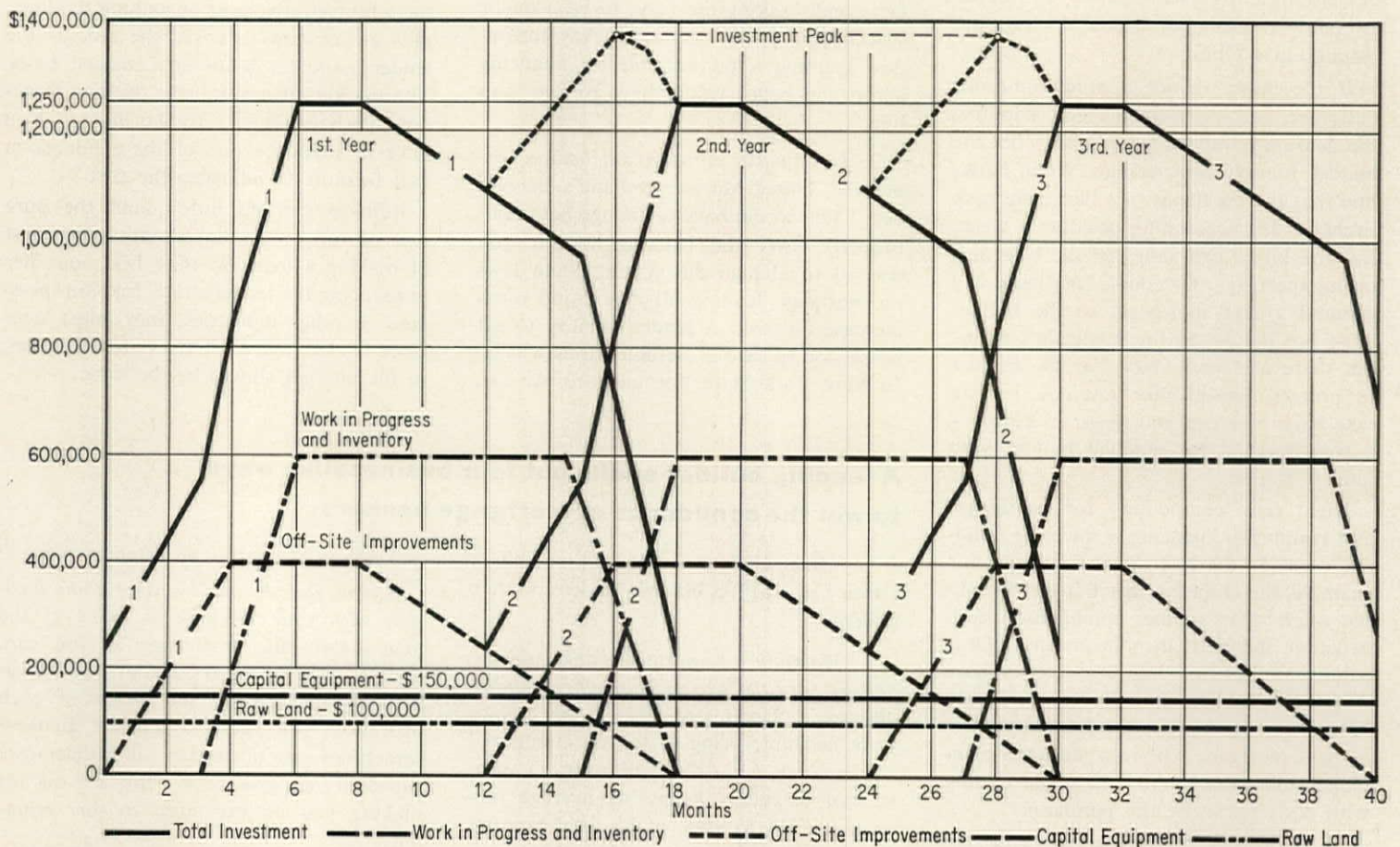
Schmitt also found, through a careful plotting and analysis of his production, (chart below) that the construction loan system actually makes the most cash available when it is least needed, and the least cash available when it is most needed. He comments wryly, "That's why builders can look so good in sales, and then go broke at the end of a job."

And there are other hindrances. In custom building, where the customer chooses the lot, converting from development finance to construction finance can take more time than building the house. Delays in waiting for inspections and surveys add to costs. But these delays are minor compared to the problem of an inadequate cash flow, claims Schmitt. "Builders can't build efficiently on a shoestring. Being a financial gymnast is the most rewarding talent a builder can have today."

On the West Coast, Builder Eli Broad

estimates that the builder who can avoid the use of construction financing could save from 4% to 7% of the sales price of a California house at current prices. The importance of this figure is shown by NAHB's Marketing Plan for Home Builders, in which Marketing Consultant William R. Smolkin (agreeing with Schmitt) states: "Unavoidable financing costs will often range up to 10% of the selling price, including mortgage discounts, interim loan interest and fees, carrying costs and absorption of closing costs." This 10% is enormous compared with the 8% that Smolkin budgets for gross profits, 4% for sales expense and 6% for overhead. In other words, the lender makes more than the builder.

And these fees and charges are imposed each time a new loan is made. Result: the more often the builder turns over his inventory, the higher will be the effective cost of his money; the higher the cost of the money, the more likely he will leave behind a part of his market because the needless costs of financing inflate the house's price without increasing its value.



THEORETICAL INVESTMENT PATTERN for a project producing 100 houses a year at \$24,000 each is based on an analysis of actual experience in recent developments by Builder Schmitt. Chart shows the investment required for each year's production, including the combined impact of overlapping cycles. Schmitt says the critical point comes at 16 months, when requirements peak at \$1,375,000, but construction loans (based on work in place) are at their lowest. Borrowing power on the first year's houses is low and dropping fast, and borrowing power on the second year's houses is just developing. By contrast, in the twelfth month, when construction funds are most available at the peak of production, requirements are lowest. "You're really flush right

in the middle," says Schmitt. "If you aren't making a profit, you can live high on the hog and then go broke at the end. If a builder is going to walk away from a job, here is where he will do it." Fixed investment assumes a constant \$150,000 in capital equipment, and \$100,000 in land. Offsite improvements, estimated at \$400,000 for 100 lots, peak at the end of four months, remain steady through the eighth, then decline. Work-in-progress curve includes a buildup of a \$200,000 materials inventory needed to maintain continuous production, houses under construction and houses completed but not sold. It assumes a six-week building schedule, two starts a week, not a simultaneous start for all houses.



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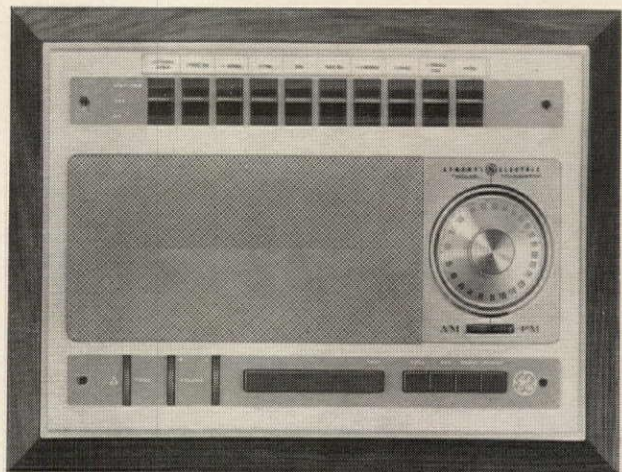
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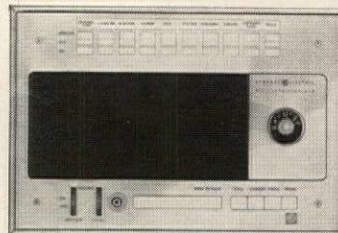
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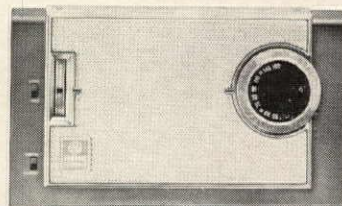
For the name of the supplier nearest you, contact your General Electric Major Appliance Distributor or write: General Electric Company, Built-In Electronic Products, 1001 Broad Street, Utica, N.Y.



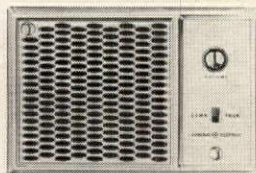
General Electric deluxe FM/AM master station with walnut frame.



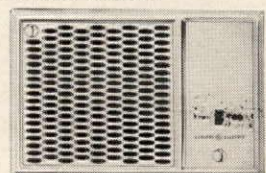
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With American Olean's wide variety of wall tile

colors, harmonizing floor patterns and scored and decorated tiles, you can have the smartest decorative effects easily and economically.

Check your American Olean tile contractor for full information. And send for color booklet "New Decorating Ideas"—packed with helpful sales-building suggestions.

CERAMIC TILE
**American
 Olean**



Wood beams and sunbeams work together to open this wall of windows on the great outdoors. The beamed ceiling gives this home the feeling of grandeur. Architect: Hewitt Wells.

Only WOOD makes homes so easy to build . . . so easy to sell



From start to finish, wood helps you cut costs and construction time. From room to room, wood offers the features home-buyers want most.

Wood has always been first in workability . . . easiest to cut, shape, fasten, and finish. Now, with the UNICOM system of modular home construction, wood saves you still more work and money at the site. Precut components and preassembled sections go into place faster . . . let you build *more* homes, of any style or size, in the same time with the same crew of craftsmen.

You build sales faster, too . . . because wood, the traditional favorite, can be used in so many new ways. Buyers recognize the added charm and *value* of wood siding, paneling, flooring, beams, and built-ins. The more wood you put inside and outside the house, the stronger its sales appeal.

Again and again, in LIFE's color pages, NLMA is urging millions to buy a new home of wood now. Are you building the ones they'll like best? For more information on building better with wood, write:

NATIONAL LUMBER MANUFACTURERS ASSOCIATION
Wood Information Center, 1619 Massachusetts Ave., N.W., Washington, D.C. 20036

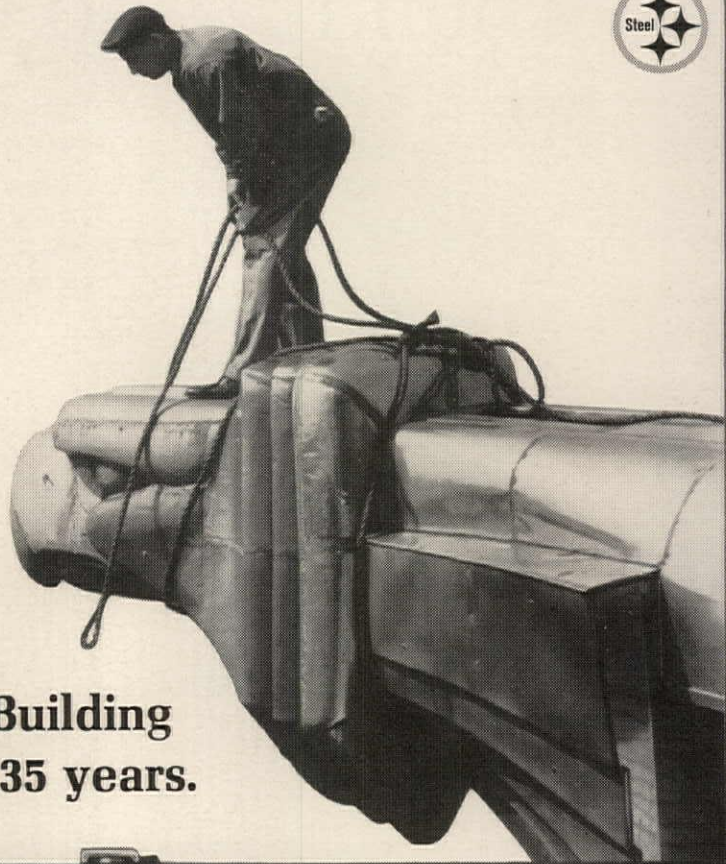
UNICOM MANUALS 1 & 2: "Design Principles" (122 pages) and "Fabrication of Components" (248 pages), graphically detailing the UNICOM method of house construction, are available at nominal cost to those associated with or supplying the home building industry. For free booklet describing UNICOM, write to: UNICOM, National Lumber Manufacturers Assn., 1619 Massachusetts Ave., N.W., Washington, D.C. 20036.

nlma

It's built to sell when it's built of **wood**



Building homes by the UNICOM method, in the shop or on the site, speeds construction, reduces time. Yet, never limits the imaginative use of wood in any way.



**The big bird
of the Chrysler Building
is spotless after 35 years.**

Expect the same from New Freedom Windows of Stainless Steel.

They're made of the same stuff: Republic ENDURO® Stainless Steel.

The gargoyle was cleaned in 1961 for the first time. There wasn't a spot of corrosion, not a speck of deterioration under three decades of Manhattan grime.

New FREEDOM WINDOWS can be kept spotless with just soap and water. They never need painting. They're engineered for strength to match their beauty. How long they'll last we can't exactly say because it's somewhere close to forever.

If you're building for sale, gleaming FREEDOM WINDOWS (single-hung, double-hung, or sliding) will make it more saleable.

If you're building for rent, FREEDOM WINDOWS will make it more profitable, because maintenance costs are next to nothing. How expensive is soap and water?

For this kind of freedom you pay a premium, true.

The most profitable premium you ever spent.

For a new, detailed brochure, write:

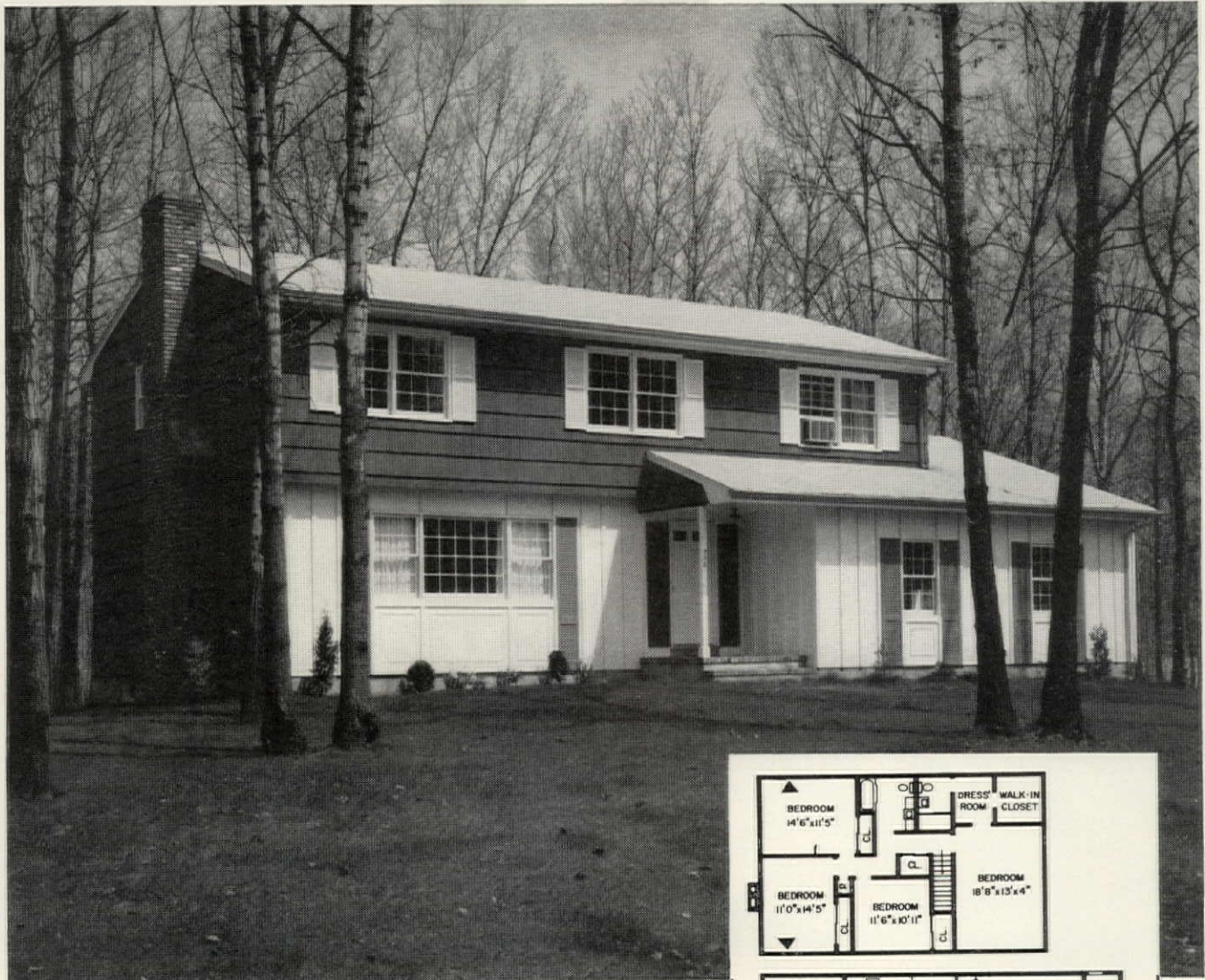


**MANUFACTURING DIVISION
REPUBLIC STEEL CORPORATION**

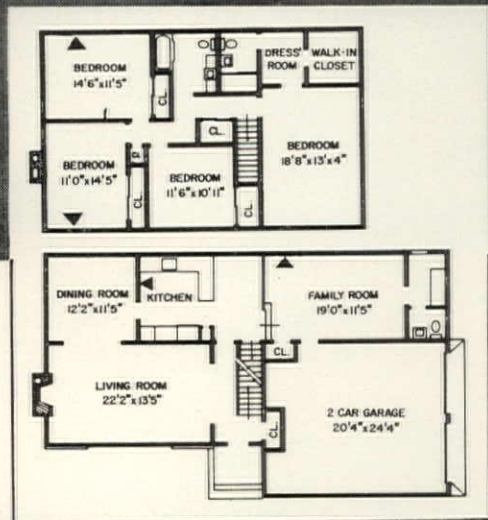
Dept. HO-8609, Youngstown, Ohio 44505



THE MAN FROM
MANUFACTURING



Builder: Mijo Construction Company Feature: Concealed Telephone Wiring



Customized Telephone Features



In Wyckoff, N.J., this house sells for \$35,500

"... and all our prospects respond enthusiastically to concealed telephone wiring," says Philip Cali, partner with Charles Baldanza of the Mijo Construction Company of Clifton, N. J. "We have concealed telephone wiring in all 60 of the homes we are building in Meadowbrook Farms. We let our buyers specify where the telephone outlets should be. It's certainly one reason why we are able to sell these homes so quickly." For help in telephone-planning your homes, call your Bell Telephone Company and ask for Architects and Builders Service.



BELL TELEPHONE SYSTEM

Serving you



WHAT EVERY BUILDER SHOULD KNOW ABOUT

KEMPER

KITCHENS

There are reasons why each month more and more builders are installing Kemper Brothers wood kitchen cabinets in their homes. Here is a brief outline why *you* should seriously consider Kemper Kitchens if you have not already done so.

COMPETITIVE PRICING

Here is a line of top quality cabinets . . . cabinets with extremely saleable styling and finish that are priced lower than you would expect. This helps to keep you competitive in your market without eating into your profit.

FULL LINE OF STYLES AND SIZES

Choose from Colonial, Provincial or Traditional styling in cherry, fruitwood or walnut finishes. In addition, Kemper offers the widest range of cabinet sizes in the industry including bathroom vanities and either base or wall hung occasional cabinets.

FINEST FINISH IN INDUSTRY

A remarkable finishing process that is exclusively Kemper Brothers increases toughness and moisture resistance many times over other finishing methods. Provincial door frames and drawer fronts are completely submerged (not just sprayed) in a deep penetrating polyurethane dip and all cabinets are treated with vinyl sealers . . . this means positively no warping through moisture penetration. Then, after vinyl based toners are applied to bring out and preserve the natural beauty of the wood, all door frames, drawer fronts and overlays are finished with a high temperature, baked-on plastic type finish that lasts a lifetime. Modern conveyerized ovens provide unequalled quality control and uniformly fine cabinet finish. The elastic qualities of this exclusive Kemper finish allow it to expand and contract with the wood it covers. This is the secret behind Kemper's long lasting finish that never cracks . . . never checks.

YOUR TYPE OF CONSTRUCTION

Strength that you, as a builder, will recognize and appreciate. Front structurals and overlays are solid hardwood and joined by concealed mortise and tenon. Cabinets are *fully* framed and generously glue blocked for additional strength. All cabinets butt snugly together . . . no racking problems with Kemper cabinets. Doors on the Traditional and Colony Lines are bookmatched and feature the time honored Coos Bay Core construction. Kemper doors have a 1/8" warp tolerance guarantee. *Does your present supplier provide you and your customers with this protection?*

DEPENDABLE DELIVERY

Kemper maintains a 35,000 cabinet inventory, 17 car rail sidings, 45 trailer docks and 1/2 million sq. ft. of manufacturing area to insure you of "on time" delivery throughout the year. Special protective packaging in addition to automated and conveyerized processing assures you of receiving factory condition cabinets "on time . . . everytime."

FURNITURE QUALITY GUARANTEE

Kemper Brothers is the *only* kitchen cabinet manufacturer licensed by the National Association of Furniture Manufacturers to display the NAFM seal and to offer this exclusive warranty to builders. *"Furniture which carries the NAFM seal of integrity is warranted by the manufacturer to be free from defects in workmanship, material and construction for a reasonable period of time, but not less than (12) months from the date of delivery to customer."*

There are still more reasons why you should install Kemper Brothers quality wood kitchen cabinets in your homes. Don't you agree it's time for you to talk to your local Kemper Distributor? He's listed in the Yellow Pages.

Illustrated at left is Kemper's popular Traditional Kitchen finished in fruitwood. Optional "Starburst" hardware (not shown) is available with Traditional Kitchens. Write for Kemper's full line, full color catalog today . . . It's free.



KEMPER BROTHERS, INC.

Richmond, Indiana, Tel. 2-4211



These gleaming, precision-made parts are essential in most air conditioners.

But a Lennox RFC system works like magic without them!

The expansion valve is gone. (The refrigerant line is self-metering.)

The relay and capacitors are gone. (The compressor motor starts unloaded.)

The liquid receiver is gone. (There's no costly over-supply of refrigerant to store.)

And no cap tubes to clog.

This pre-charged, factory sealed air conditioning system is as simple and fool-proof as a kitchen refrigerator.

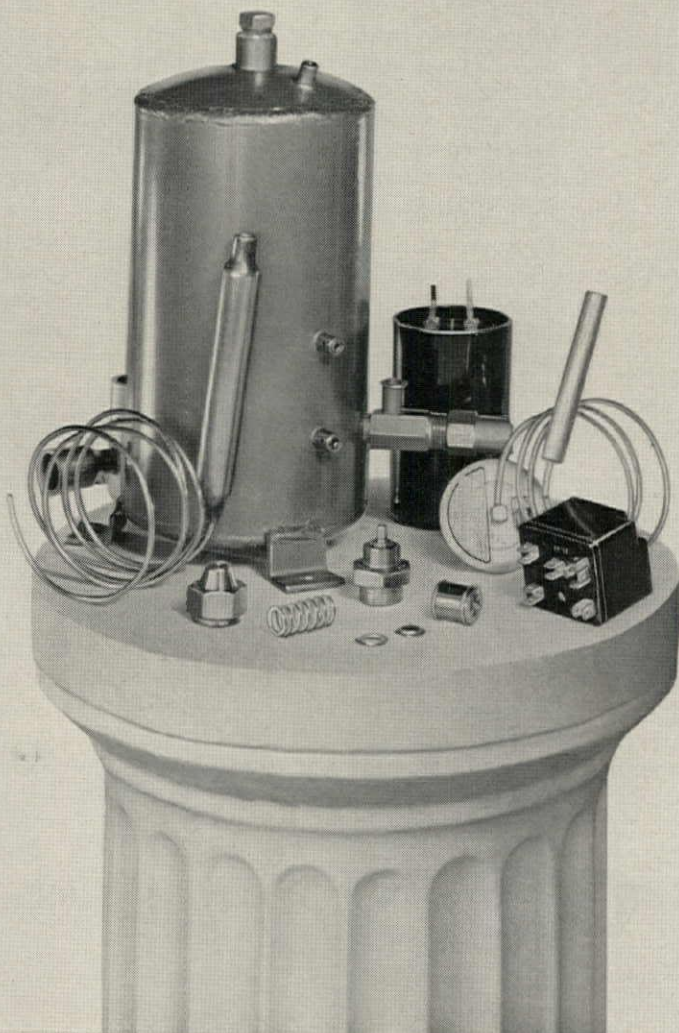
Almost as simple to install.

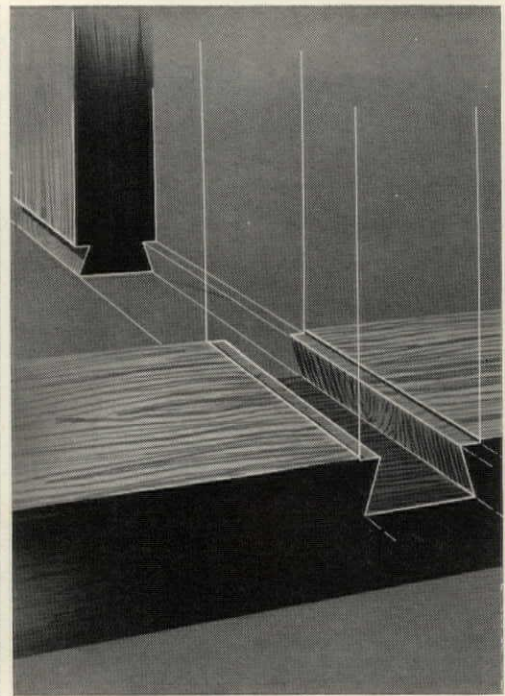
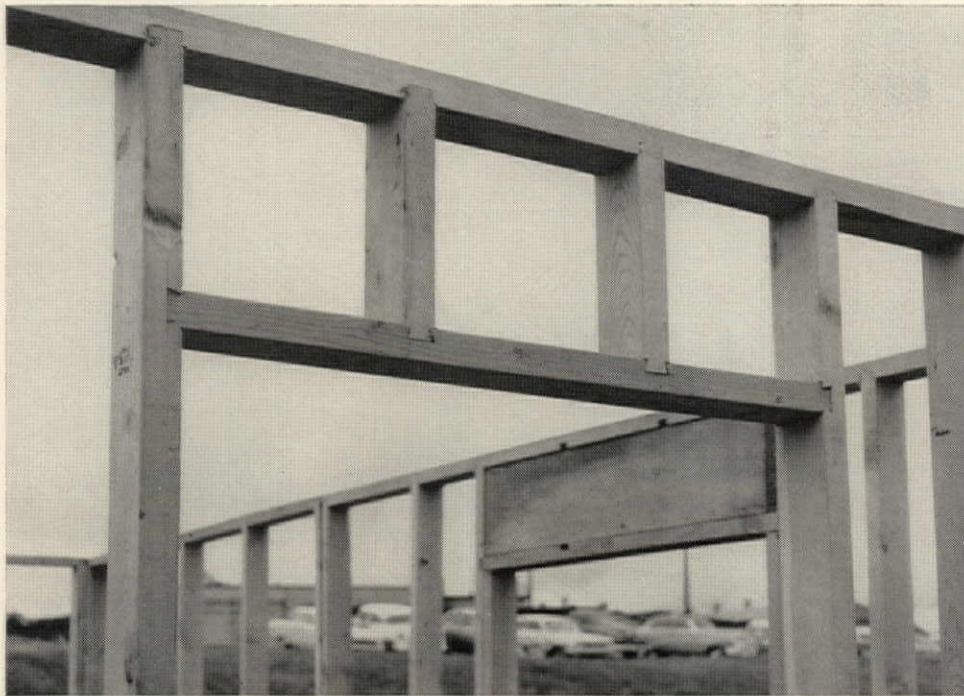
Almost as affordable.

Write for facts on RFC to Lennox Industries Inc.
341 South 12th Avenue
Marshalltown, Iowa.

LENNOX
AIR CONDITIONING · HEATING

Why did Lennox leave all these parts out of RFC™ Air Conditioning?





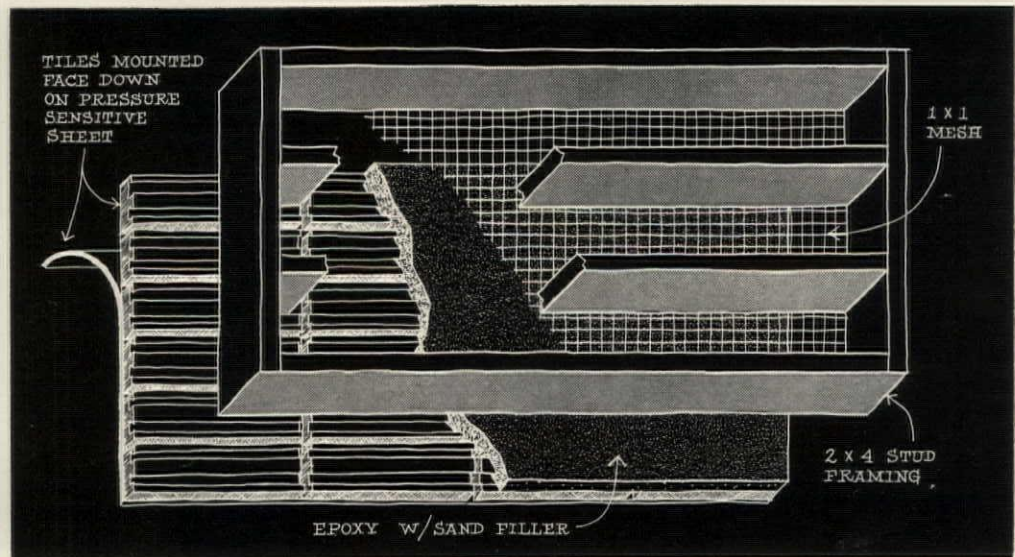
No fasteners are needed in this framing—new prefab system dovetails the joints

Keyed together in a pressed fit, the framing is panelized by an automatic assembly line in Fort Worth. Builders who have used it—and there are several in the Fort Worth area—say it costs no more than conventionally built framing and keeps vertical, horizontal and overall dimensions precise.

Framing dimensions are precise because a compensating cut in the female half of each joint (see drawing) allows for inconsistent lumber dimensions. The processing machine

keeps a set dimension between the base of the female cut and the outside edge of the framing member; only the depth of the compensating cut varies. In window and door openings, a female cut is made lengthwise along the bottom surface of the top framing member and the top surface of the bottom framing member. This forms horizontal tracks for side members so they can be adjusted for different opening widths even after the framing has been erected.

Originators Inc. has patented the system. The first licensee, Key-Kut Inc. of Fort Worth, uses 11 machines (built by Clary Corp.) to form joints and assemble panels at the direction of a punched tape. Tapes are stored for re-use whenever a builder wants to repeat a design. So far FHA has given the joint partial approval, still requires a single 8d common nail at the top and bottom of each stud. But, says Key-Kut, "We feel this is a temporary requirement."



No tile setter is needed for this masonry veneer—it's premounted at the shop

The tiles are mounted face down on a pressure-sensitive plastic sheet, and evenly spaced by a metal grid also laid over the sheet. The grid is removed and the sheet of tiles—the same size as the framing panel to which it will be applied—is placed face down in a close-fitting form. A time-setting plastic (one

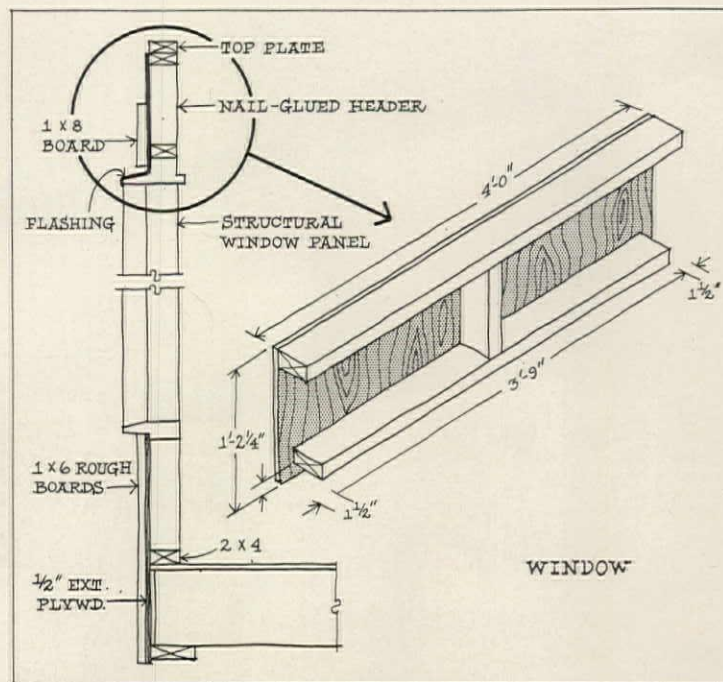
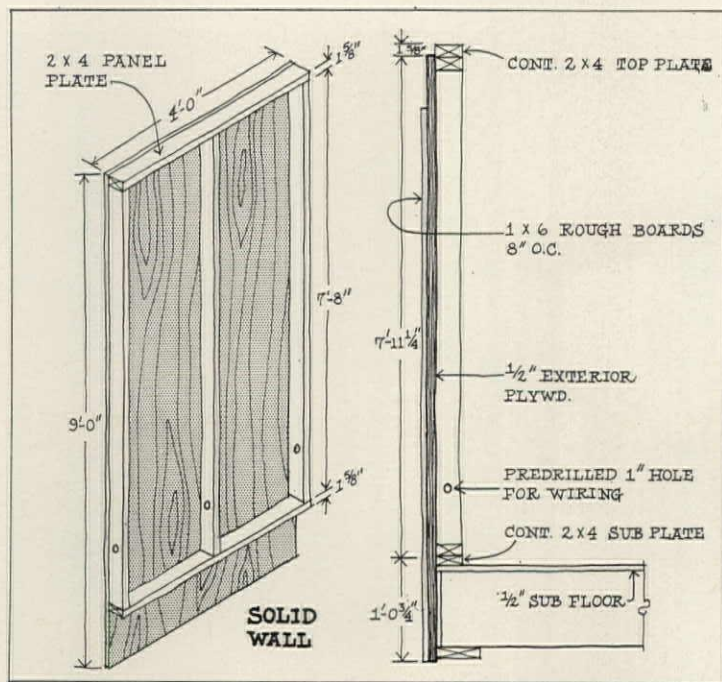
of the epoxies) containing low-cost inorganic filler (dry sand) is spread over the tiles, and the framing panel, with wire mesh attached, is pressed into it. The plastic hardens, the pressure-sensitive sheet is removed, and the unit—frame and tile facing—is ready for delivery and erection.

Gail International Corp. of San Francisco developed the system as a faster, less expensive way to use its Brickplate exterior clay tile. In finishing the joints between panels, the builder is on his own. Wood battens would be simplest, but some of the metal types could also be adapted.

continued on p. 94

TECHNOLOGY

starts on p. 93



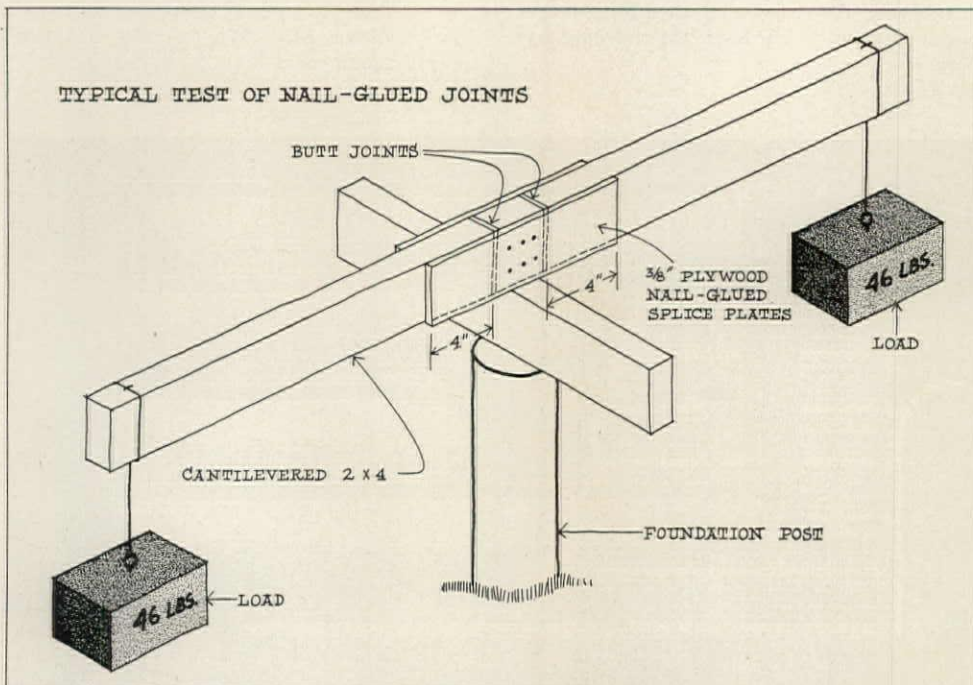
Single-skin economy wall permits wider stud spacing and eliminates corner bracing

One layer of 1/2" exterior plywood serves as sheathing and siding in the contemporary wall system developed by the University of Illinois Small Homes Council. The heavy skin lets studs be spaced 24" o.c. (unless your local code people insist on 16" o.c.). Rough-sawn 1x6 boards, applied outside on 8" centers,

cover seams and produce a board-on-board effect. The resulting rough-textured exterior is finished with a heavily pigmented stain.

The wall can be panelized in a shop (above) or built flat at the site and tilted up. Nail-glued semi-box beams are used for headers over doors and windows.

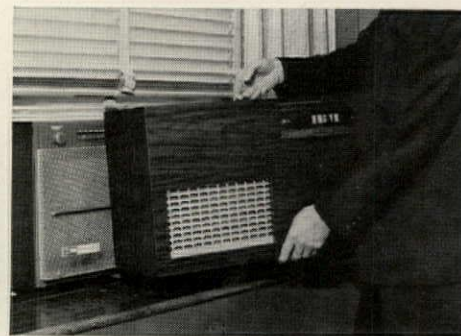
Two precautions: 1) if 1/2" gypsum board is applied horizontally, the horizontal joints must be supported by blocking (but you could use the sheets vertically or go to 5/8" gypsum); 2) in panel erection, corner studs have to be set in separately since the plywood must overlap the studs on each side.



Nail-glued joints in treated wood—how strong are they?

They stand up as well as nail-glued joints in untreated wood, and resist moisture even better, judging from research like the cantilever test above at Purdue University. But observe two conditions: 1) use casein glue meeting federal specification MMM-A-125 Type II; 2) for the preservative, use a 5% solution of pentachlorophenol in No. 2 fuel oil.

Purdue testers made dozens of the joints in treated (by cold-soak method) and untreated wood, allowed several days for curing and matched them under varying conditions. Submerged in water for two days and then stressed, the treated specimens proved superior. Exposed to the weather and loaded, they proved virtually equal in strength.



From a sound lab—new ways to muffle noisy appliances

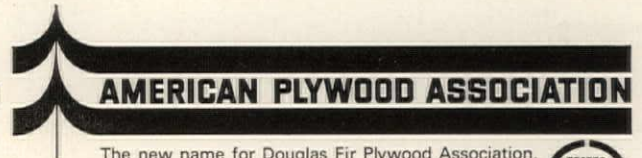
A sleeve for a room air conditioner (above) can make the machine 50% to 65% quieter. A dishwasher becomes 60% quieter when the tub is wrapped with a sound-absorbing blanket, the vents are baffled and the unit isolated from the floor.

Owens-Corning Fiberglas technicians came up with those suggestions after the first year of their current appliance-noise study. Now they are working on refrigerators and have developed a 7.2 cu. ft. undercounter prototype of reinforced plastic.

The project is aimed at producing practical sound controls that could be built into appliances on the assembly line. These controls would supplement soundproofing already used by some builders. Items: coil-spring and rubber mountings, baffles, blankets and structural materials and methods that cut noise transmission through floors and walls.

New products begin on p. 106

Another nine-page report to builders from



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



New ways to make money with plywood

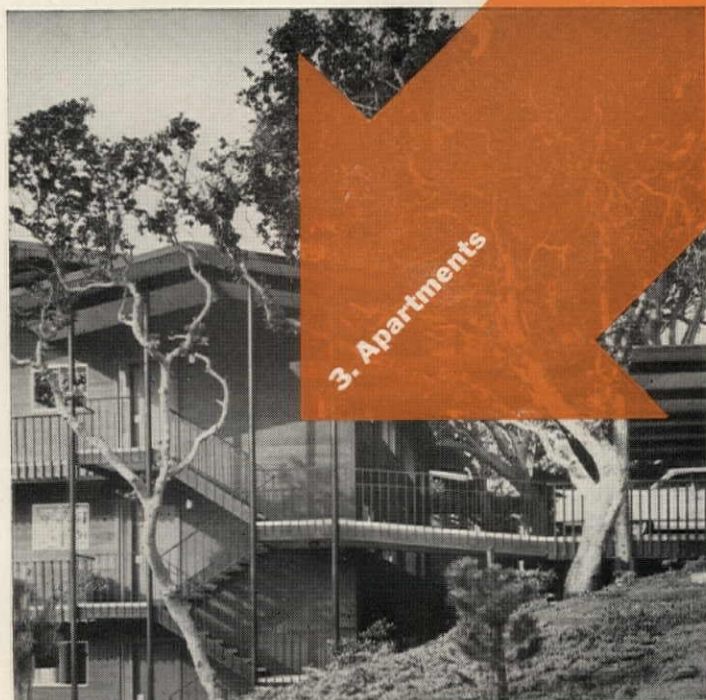
In specialized housing markets, plywood helps with valuable market data plus cost-saving ideas



1. Second Homes



2. Remodeling



3. Apartments



4. Urban Renewal



new ways to make money with plywood | second homes

Today's second-home buyers

Plywood helps you give them



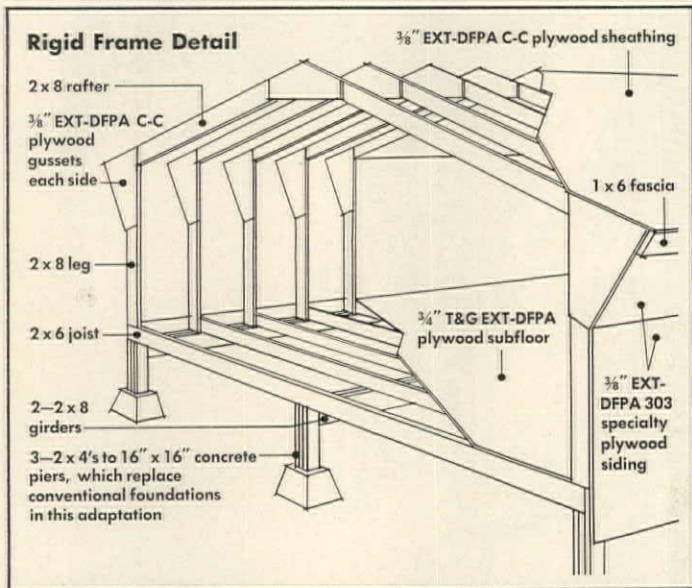
F. M. Donelson's Hide-A-Way Hills is a national success story.

That's largely due to good financing, well-aimed promotion—and versatile plywood home designs. In two years he's built and sold 90 homes at the 1,200-acre vacation-retirement community near Columbus, Ohio.

With plywood construction and simplest possible building techniques, he can adapt designs to just what the buyer wants. The modified plywood A-frame above started from one of 18 basic designs in American Plywood Association's free leisure-home catalogue. (See description at right.)

want more than a cabin

a real house for the money



George Osborne, of Northwest Homes, Chehalis, Wash., saves 15 percent by building second homes right in the plant—plumbing, wiring, cabinets and all. Then he trucks them to the site, saving a lot of costly field labor. Some larger homes are built and trucked in sections (see above).

Ralph Grinnell built this unusual vacation home in Wollochet Bay, Wash., at a cost of less than \$1,000 for materials. It took just six days, from footings to painting. He used the rigid frame system. It's based on one simple component that combines functions of studs and trusses (see diagram above). Rough-sawn plywood side-walls lock frames into a rigid, non-racking structure.

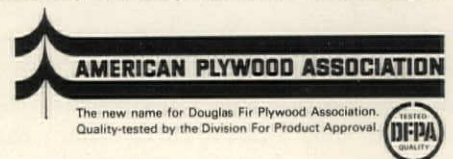
The rigid frame system, first developed for farm and commercial construction, can give basic shelter for as low as \$1 per sq. ft. To find out more about it, write for a free rigid frame booklet from American Plywood Association, Tacoma, Washington 98401.



Osborne says only plywood will stand this rugged treatment without racking. His floors are 5/8" plywood, glue-nailed to 2 x 4's. Walls are one layer of rough-sawn plywood with battens. Roofs are stressed skin panels. By using plywood to keep costs down, Osborne can give second-home buyers more house for the money.



For more information send for free catalog of 18 second homes with color pictures, floor plans. Construction plans available. Also, send 50 cents for complete new *Builder's Guide to the Second Home Market*, by American Plywood Assn. and Natl. Assn. of Home Builders. Write us at Tacoma, Washington 98401 (USA only).





new ways to make money with plywood | remodeling

Remodeling jobs go faster ...and American Plywood Association



Custom Design Contractors used proven, time-saving plywood building techniques on this room addition in Sumner, Washington. They finished the 16 x 20-ft. family room, plus a patio, in less than three weeks. Floors are tongue-and-groove 2·4·1 plywood (combination

subfloor-underlayment). Walls were pre-assembled, with plywood nailed to studs, then tilted up. Plywood roof sheathing went on in just four hours. For information on how you can tie in with a successful new Add-a-room promotion program, send for free booklet at right.

when you use DFPA plywood can help you get more modernizing business

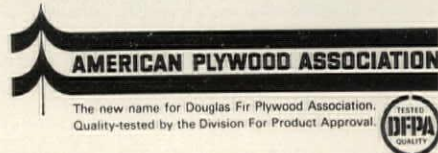


In Little Rock, Ark., this 56-unit housing project needed a face-lifting. Plywood did the job fastest, at lowest cost. Housing Administrator Robert Coxon specified grooved plywood siding to replace stained, broken asbestos shingles.

"Plywood cuts costs immensely," says Coxon. "We just remove the old shingles, nail plywood panels to the original sheathing, and that's it."

The plywood panels are prefinished in a range of colors to give variety, and they're practically maintenance-free. For more information on plywood sidings write: American Plywood Association, Tacoma, Washington.

For more information send for free Modernizer's Manual, useful book on estimating, designing, financing, selling room additions. You'll also get facts on the Add-a-room program, which gives you sales aids plus names of remodeling prospects in your area. Write American Plywood Assn., Tacoma, Wash. 98401 (USA only).





new ways to make money with plywood | apartments

Here are three good reasons

1. It's economical. 2. You're sure of



Ronald Antonioli turned a 35 percent grade into an asset in these award-winning apartments in Tiburon, California. With a plywood-and-pole building system, he gave every apartment a view. And he did it for \$10.50 per sq. ft. Shear walls are $\frac{3}{4}$ " plywood and floors are

2·4·1. These vertical and horizontal plywood diaphragms give the buildings strength and rigidity. They get their style and view from wide balconies, supported by poles, decked with plywood and surfaced with concrete. Architect: Roger Hooper, San Francisco.

to use plywood in apartments

quality. 3. You get superior sound control.



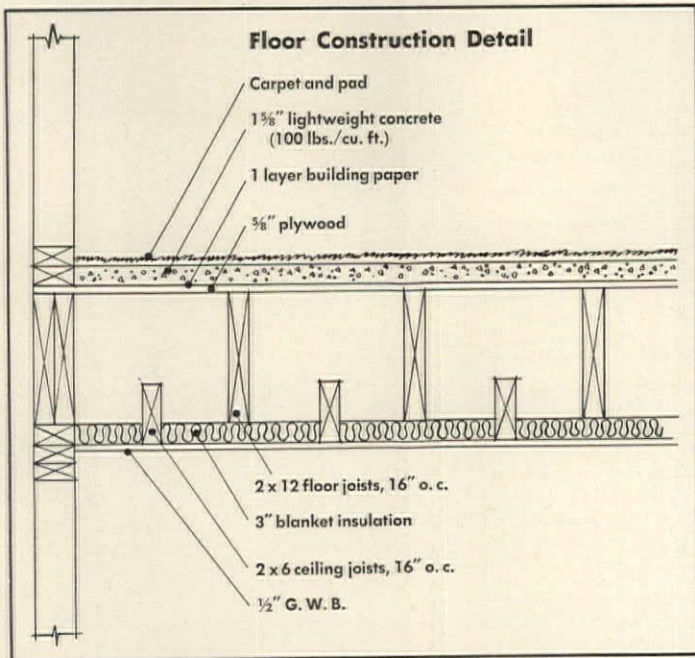
Bill Kay, White Plains, N. Y., developer, can build apartments for \$8.40 per sq. ft. because he uses low-cost, simple plywood building systems like Sturd-i-wall.

At left, Texture 1-11 plywood serves as both sheathing and siding. Kay says construction time is cut 25-30 percent with plywood. Floor underlayment is $\frac{3}{4}$ " tongue-and-groove plywood, which permits joists on 24" centers without blocking.



H. A. Briggs Company used a plywood and concrete system for soundproof floors in their Four Fountains apartments, Tacoma, Wash. (above and left).

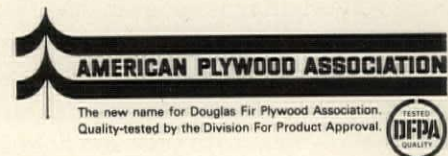
This system was analyzed for sound insulation and rated STC 55—which is considered premium construction. American Plywood Association has data on 30 other noise-control systems utilizing plywood. For more information send for free booklets described below.



For more information send for these two free booklets: *Plywood in Apartments* gives pointers on how to operate at a profit in apartment construction, includes detailed drawings of sound-rated plywood building systems, siding ideas, grade-use guide.

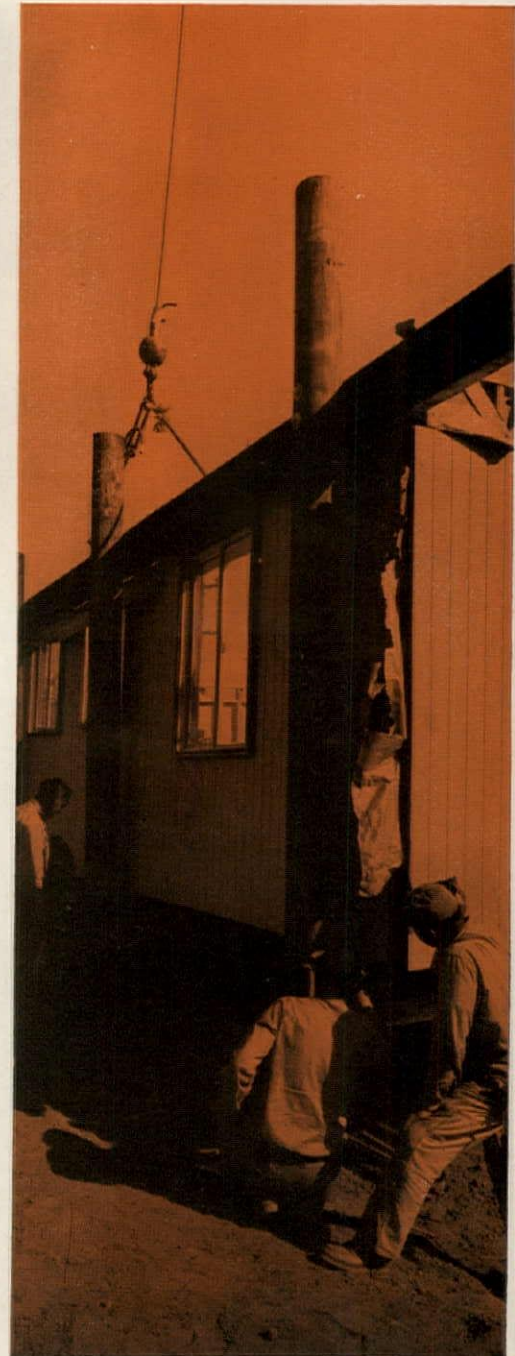
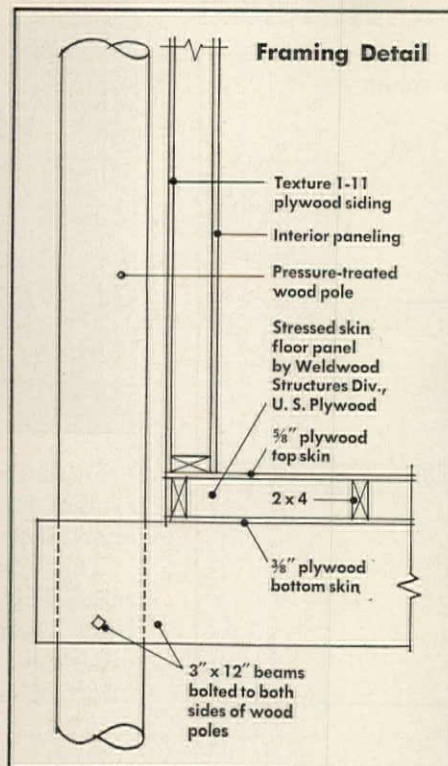
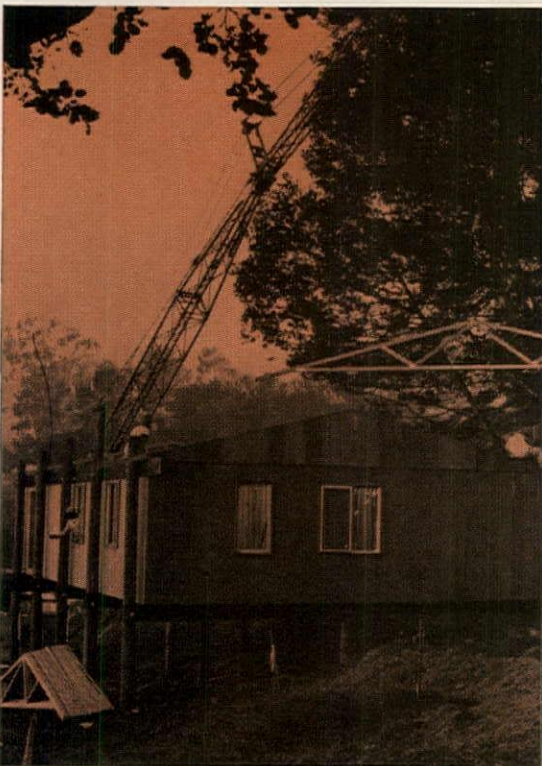
Acoustics and Plywood is a helpful new booklet with up-to-date, complete information on soundproofing systems. Includes acoustical ratings of 30 wall, floor and

ceiling construction methods. Write: American Plywood Assn., Tacoma, Wash. 98401 (USA only).





Plywood construction is key to This California builder uses plywood and



Barrett Construction Co. has proved that you can make money in urban renewal even when land slopes 40° and you're determined to build something with a little style. Barrett builds both one-family homes and low-rise apartments in these Marin County, California, projects.

A pole-frame system with plywood floor and wall components saves at least \$1/sq. ft. on the houses. Cost of

pole-framing here is no more than conventional footings on level sites. Pre-assembled, non-loadbearing wall panels are Texture 1-11 cedar plywood nailed to studs. Barrett can close in a house in a day by using plywood components.

Plywood cuts costs in conventionally framed apartments, too (right). Floors are T&G 5/8" plywood which

profit in urban renewal housing

components to keep big jobs moving fast



serves as both subfloor and underlayment for tile. Walls are plywood sheathing under stucco or shakes. Roof sheathing is plywood. Foreman Irwin Smith sums it up: "Plywood gives stronger structures with less waste and hardly any lost motions. It's easy to handle and makes neater jobs. I'm in favor of using plywood on all frame construction projects."

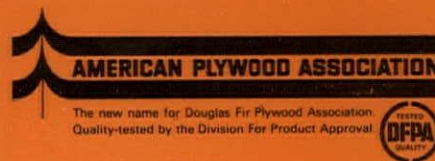
Notice to plywood specifiers

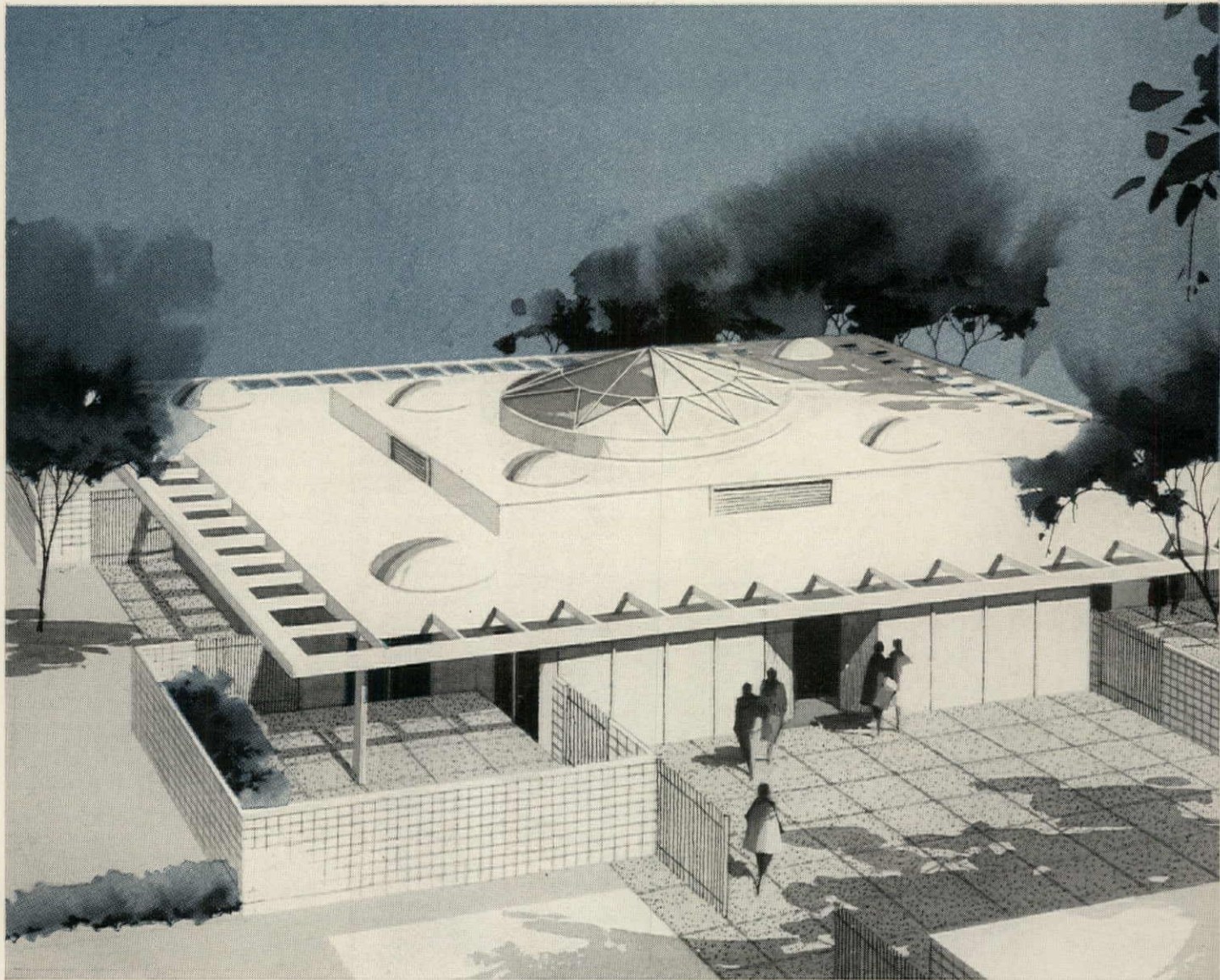
American Plywood Association is the new name for Douglas Fir Plywood Association

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

Although the name is new, you can still specify DFPA plywood. These familiar letters in our grade trademarks still mean quality in plywood certified by the association. But instead of Douglas Fir Plywood Association, they now stand for Division For Product Approval.

For more information or technical data on plywood, write: American Plywood Association, Tacoma, Washington 98401 (USA only).





"MODERN HOUSE" at the World's Fair

Millions of visitors will be returning from the Fair and their tour of "Modern House" in a home-buying mood. Show them exciting new ideas like these in your model homes—and you'll sell more homes. ■ "Modern House" at the House of Good Taste Exhibit dramatizes a whole range of fresh home-building ideas. Designed for privacy even on a crowded city lot, this unique home achieves both modern and friendly living through its many uses of concrete. ■ Everywhere you see concrete in



© 1963 NEW YORK WORLD'S FAIR 1964-1965 CORPORATION



Designed around an atrium family room, with a 22-foot glass dome above a reflecting pool, "Modern House" looks inward for secluded living. Surrounding rooms face cloistered gardens.

Private courtyards at each corner feature concrete pools or planters and a pebble-surfaced deck of concrete treated to expose the interesting color and texture of the aggregate.

shows your prospects how glamorous concrete can be!

exciting forms, colors and textures—from the concrete brick walls of the family room and the exotic reflecting pool beneath the central skylight to the boldly patterned, screening corner walls of concrete masonry. Even the gleaming exterior is asbestos-cement. ■ Concrete's new beauty and versatility, today, provide builders with real opportunity to attract and sell discriminating home buyers.

PORTLAND CEMENT ASSOCIATION *An organization to improve and extend the uses of concrete*

NEW PRODUCTS

Office equipment



Dry copy machine reproduces blueprints, as shown above, or typed multiple-data sheets. Machine uses special pink paper for master copy, white bond-weight paper for copy prints. Errors can be erased. 3-M Co. Minneapolis. (For details check No. 1 on p. 130.)



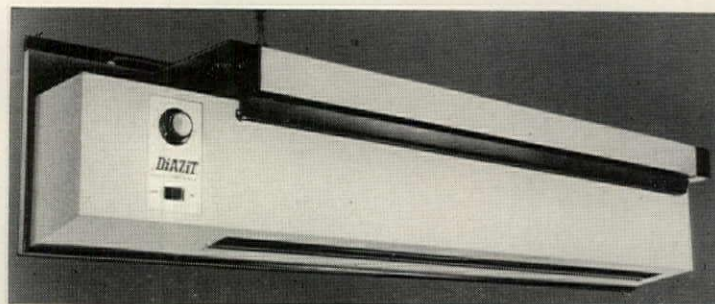
FM two-way radio provides direct contact between base and vehicles and between vehicle units. Each unit pays for itself if it saves 15 minutes of a driver's time a day. Licensing does not require a test. Hallicrafters, Chicago.

For details check No. 5 on p. 130

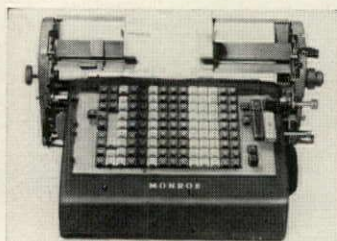


Printing calculator has memory that can be used in a series of consecutive operations for individual results, and to total the entire series. Results are clearly identified on the printed tape. Underwood-Olivetti, New York City.

For details check No. 6 on p. 130



White printer produces finished dry copies with blue or black lines from any translucent or semi-opaque original up to 42" wide. Prints cost about 1½¢ per sq. ft. Unit lists for \$469.50. Diazit Co., Monmouth Junction, N.J. (For details check No. 2 on p. 130.)



Accounting machine is designed to handle accounts receivable for lumber dealers. The system lets one clerk handle customer statements, ledgers and daily charge sales journal in a single operation. Monroe, Orange, N.J.

For details check No. 3 on p. 130



Copy machine produces dry copies on one or both sides of ordinary paper without chemicals at a cost of about 2¢ a copy. Offset masters cost about 15¢, spirit masters about 9¢. Unit lists for \$225.00. ABM Dryfax Corp., New York City.

For details check No. 4 on p. 130



Telephone answering machine records up to 60 messages automatically without resetting. Portable tape recorders can also serve as dictating machines. Ansey Robot lists for \$195.00. Gasolair Equipment Co., New Haven, Conn. (For details check No. 7 on p. 130.)



Two-way radio triples as 1) plug-in mobile car unit, 2) office base station and 3) expanded-range portable. Porta-Mobil weighs 13 lbs., has up to 18 watts of power, uses-solid state circuits. General Electric, Lynchburg, Va. (For details check No. 8 on p. 130.)



Accounting machine combines standard numerical keyboard and electric typewriter with visible program index, interchangeable program bars. It can also read or clear all totals automatically. National Cash Register, Dayton, Ohio.

For details check No. 9 on p. 130

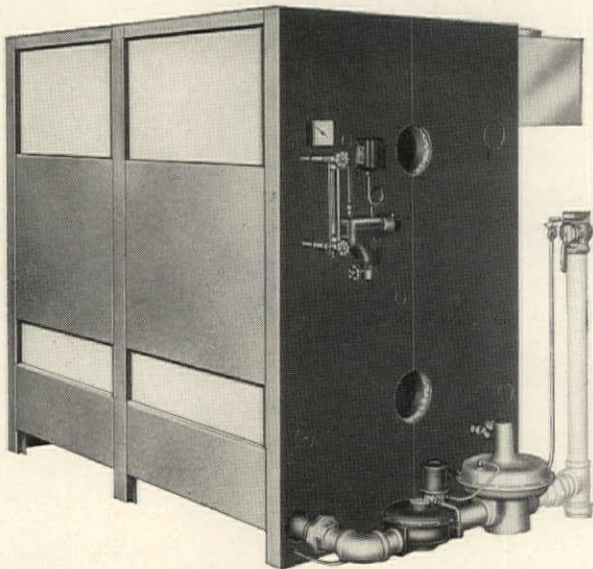


Pocket page system uses 5½ oz. receivers smaller than a pack of cigarettes. Receivers are carried by roving personnel. A sound signal alerts the carrier to the nearest intercom or telephone. Executone, Long Island City, N.Y.

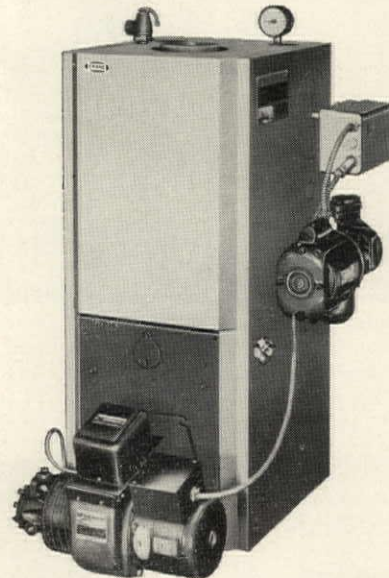
For details check No. 10 on p. 130

New products continued on p. 108

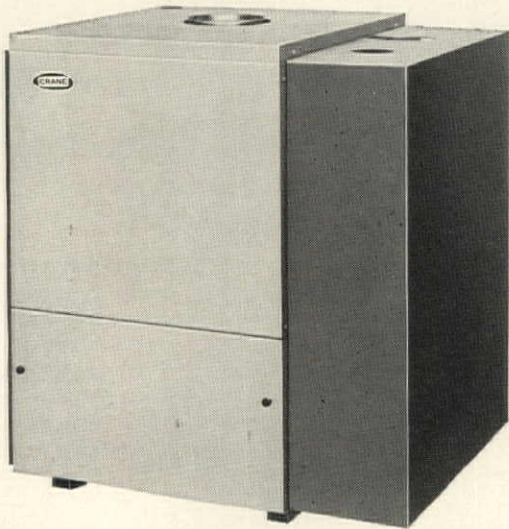
It's a great year to be selling Crane... and it's easy to see why with all these brand new high performance boilers.



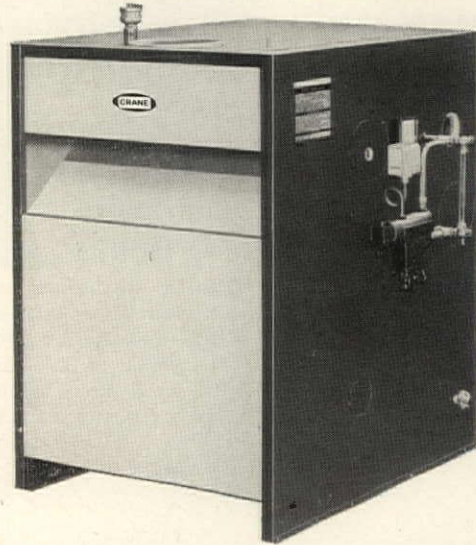
Crane 66A The perfect unit for commercial, institutional and industrial heating systems. Trouble-free, life-long construction, large capacity. This gas boiler comes in 22 sizes. All are easy to install and maintain.



Crane Sunnyday 11 New Oil-Fired Packet for new homes and replacement jobs. Durable cast iron boiler sections, reliable Crane oil burner, tailor-made combustion chamber, convenient cleaning and servicing. 4 popular sizes.



Crane Sunnyday 102 New gas packet designed specifically for the competitive home building market. A space-saver, it fits in kitchen, garage, closet, etc. Installs with simple piping. Sturdy, one-piece iron burner. Offered in 8 sizes.



Crane Sunnyday 302 New gas boiler for steam, vapor or hot water heating systems in large homes or small commercial jobs. New section cast iron boiler, positive air elimination. Easy to install, easy to service. Comes in 10 sizes.

Remember — Crane has dependable baseboard heating panels to go with any of these new Crane Boilers. Non-ferrous or cast-iron construction, they deliver uniform, comfortable heat. Write for full information today. Crane Co., Box 780, Johnstown, Pennsylvania 15907

CRANE

PLUMBING • HEATING • AIR CONDITIONING • VALVES • PUMPS • FITTINGS • WATER TREATMENT • PIPING • ELECTRONIC CONTROLS

Kitchens



Swing-down cabinets have counterbalancing hardware for easy operation. Ease-Down lets shelves run to the ceiling and converts hard-to-reach space into usable storage. Winco Inc., Houston, Tex. (For details check No. 11 on p. 130.)



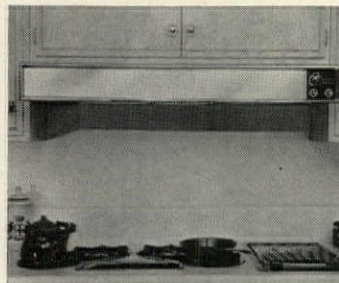
Double-decker range has a 25"-wide by 20"-deep oven, a broiler with pan that is 80% larger than previous models. Model 75 broils 25 hamburgers at a time in the infra-red Ultra-Ray broiler, which cuts broil time 30%. Caloric, Topton, Pa. For details check No. 13 on p. 130



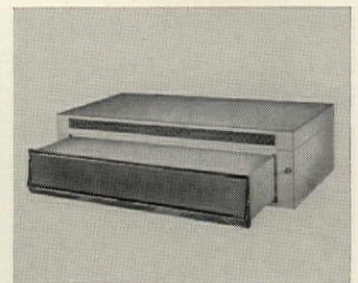
Drop-in barbecue comes in gas, electric or charcoal-fired models. Char-Grills have 15" x 22" cooking areas, removable grease pans. Units are insulated for zero clearance in wood cabinets, fit 28½"-wide cutout. Majestic, Huntington, Ind. For details check No. 14 on p. 130



Convertible cabinets let builders or homeowners change cabinet door-front design simply by reversing the recessed front panels. Cabinets shown have woven grass cloth below, wood grain above. Kemper Bros., Richmond, Ind. (For details check No. 12, p. 130.)



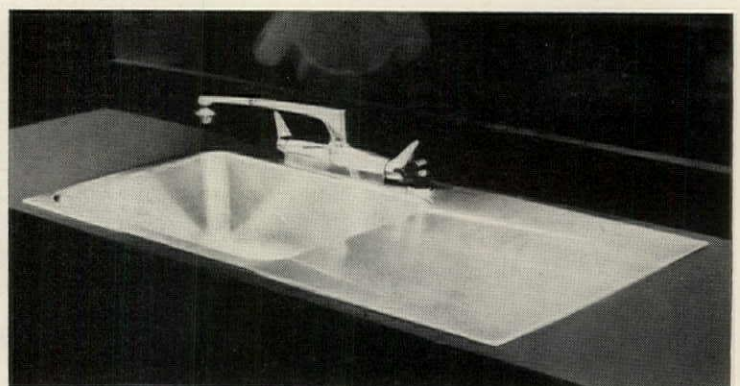
Custom-design hood has plate-glass-protected facing that can be backed with owner's choice of wall paper or other material. Continental model has glare-free lighting, two-speed fan, rinse-off filter. Modern Aire, North Hollywood, Calif. For details check No. 15 on p. 130



Slide-out hood fits above oven-over-range units and pulls out when oven is in use. No-Vent model needs no ducts, has two-speed squirrel-cage blower, washable grease filter and charcoal smoke and odor filter. Rangaire, Cleburne, Tex. For details check No. 16 on p. 130



Self-rimming sinks permit watertight fit to counter without separate rims. Sunnyday sinks are competitively priced, come in a range of sizes from 15" x 17" to 43" x 22". Non-self-rim models are also available. Crane, New York City. (For details check No. 17 on p. 130.)

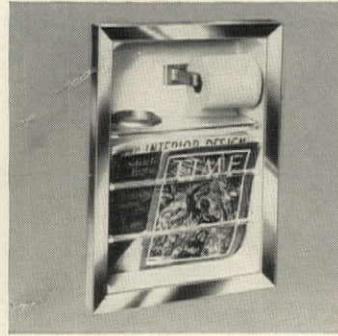


Drainboard sink is one of 19 models available with drainboards on left, right or both sides, and with either single or double compartments. Drainboard protects counters from hot, heavy or sharp utensils. Elkay, Broadview, Ill. (For details check No. 18 on p. 130.)

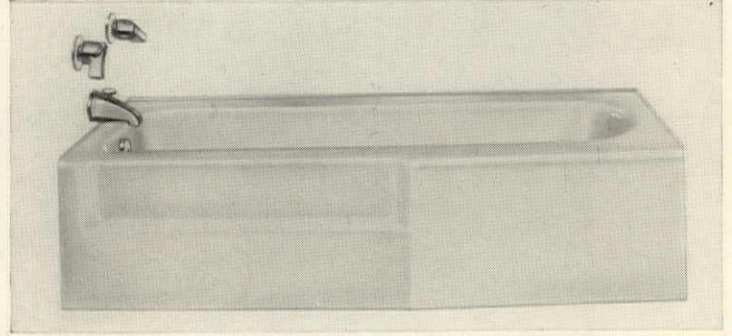
Bathrooms



Shower receptor weighs only 15 lbs. in 34" x 36" size. It has a 1/4" shell of rigid ABS plastic laminated to a lightweight base of expanded polystyrene. Also available in 36" x 48" and corner bases. Cal Formed Plastics Co., Los Angeles.
For details check No. 19 on p. 130



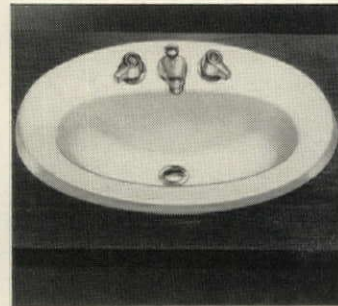
Relaxation unit has magazine rack, shelf, tissue holder and ash tray. Recessed unit fits 13 1/2" x 19" opening, lists for \$19.88. Also available: a 14" x 20" surface-mounted unit for \$24.56. General Bathroom Prods., Elk Grove Village, Ill.
For details check No. 20 on p. 130



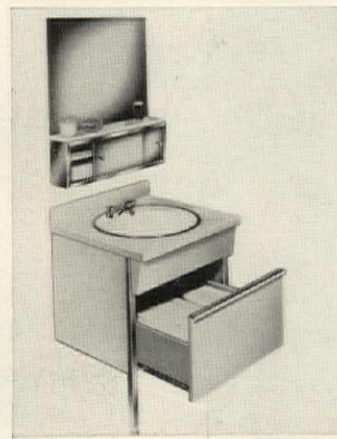
Cast-iron tub comes in 16" and 14" sizes, acid-resisting white and colors. It has a high tiling-in flange, contoured back rest, wide seat, easy-grip recess for hand-hold security and open V-front design. Borg Warner Corp., Mansfield, Ohio. (For details check No. 21 on p. 130.)



Tub-shower valve has only one moving part. Del-Dial Model 602 uses Delta Ball principle for regulating the water flow. The single handle regulates temperature by turning, flow by pulling out. Delta Faucet Co., Greensburgh, Ind.
For details check No. 22 on p. 130



Surface-mount lavatory cuts costs three ways: 20" x 16" size requires less counter space, unirim construction needs only rough counter opening and factory-mounted brass cuts installation time. White and colors. Eljer, Pittsburgh.
For details check No. 23 on p. 130



Plastic-covered vanity has full-width roll-out storage drawer for linens. Vani-Drawer comes with 24" flush top, 30" and 36" overhanging tops and 48" double-vanity models. Off-floor style makes baths look larger. Triangle Prods., Chicago.
For details check No. 24 on p. 130



Plug-in sauna is portable, weighs only 225 lbs. It measures 28" x 42" x 75" high. Saunette lists for \$695, has one-piece glass fiber interior, hardwood bench and shielded stainless steel electric heater. Normandy Prods., Pittsburgh.
For details check No. 25 on p. 130

Plumbing



Hydro-pneumatic tank has nontoxic disk to prevent absorption of air by water, eliminate waterlogging and lengthen pump life by increasing time between cycles. Permacharge glass-lined tank has anode rod. American Granby Co., Milford, Conn.
For details check No. 26 on p. 130



Plastic pipe products and fittings from this manufacturer include Diamond Hy-Flo and Extra-Flo polyethylene pipe, Diamond Wice polyvinyl chloride pipe and Diamond "W" styrene sewer and drain pipe. Woodward Iron Co., Woodward, Ala.
For details check No. 27 on p. 130



Wrought closet flange of copper is stronger than cast bronze, but weighs less than half as much. It is die-formed to assure accurate fit with copper tube, proper solder penetration and tight joints. Anaconda, Waterbury, Conn.
For details check No. 28 on p. 130



Water heater line has wide range of residential and commercial units, 20-100 gallon sizes. Booster models have capacity to 350 gal. per hr. All feature glass lining, anode rods, extra-quiet gas burners. Pioneer Mfg., Los Angeles.
For details check No. 29 on p. 130

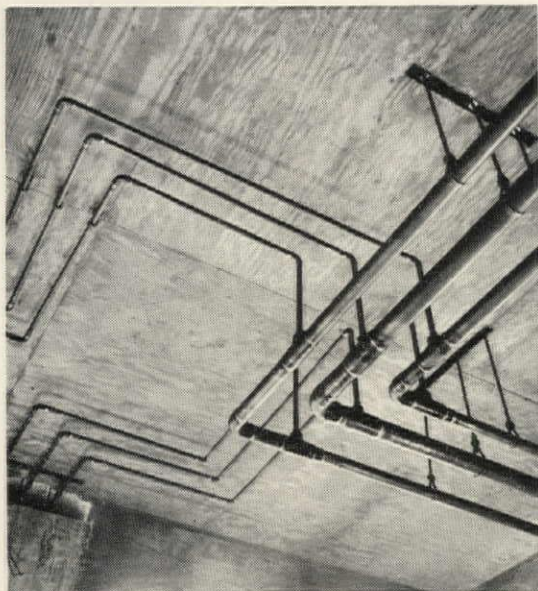


Over 17,000 feet of Streamline tube and 6,000 Streamline fittings were installed to handle the plumbing supply and drainage system as well as the complete hydronic heating-air-conditioning system in the Kingsley Hotel.

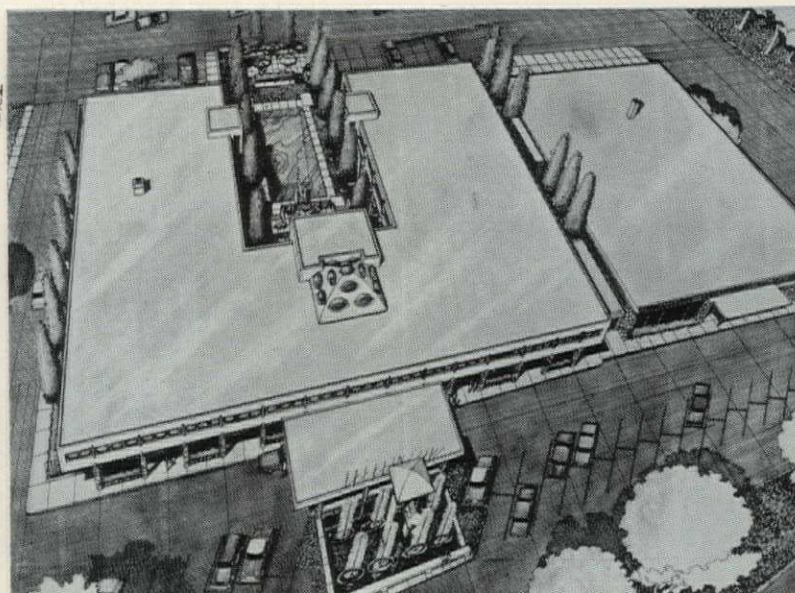
Behind the scenes at the fabulous new Kingsley Hotel... all *Streamline*[®] copper tube and fittings for supply and drainage plumbing, heating and air-conditioning systems

When architects, engineers, builders and plumbers compare materials, they find Streamline copper best for modern plumbing, heating and cooling systems. That's why Streamline copper tube and fittings were unanimously chosen for the luxurious Kingsley Hotel in Bloomfield Hills, Michigan.

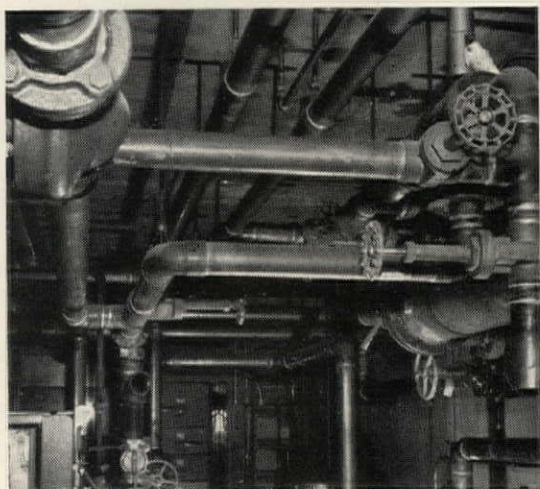
Only copper plumbing could provide such dependability and long service life free of rust, leaks and clogging. Yet copper costs no more (and often less) than a rustable system. With modern architecture, building materials and building methods, be sure to specify and install the modern plumbing material as well—Streamline copper tube and fittings for supply and drainage plumbing, heating and air-conditioning systems.



Only copper is so easy to handle on the job, or installs so quickly; only copper makes such a compact installation.



Kingsley Hotel in Bloomfield Hills, Michigan. **Owner:** F. N. Takis. **Architect:** Begrow & Brown, Bloomfield Hills. **Mechanical Engineer:** Jos. B. Olivieri, Associates, Detroit. **General Contractor:** Palmer-Smith, Detroit. **Mechanical Contractor:** Steve Kruchko Plumbing & Heating, Drayton Plains, Michigan.



Three-pipe hydronic heating and air-conditioning was chosen for the luxurious Kingsley Hotel because it provides complete environmental control and economical maintenance. Streamline tube, fittings and accessories were utilized for this installation.



The Kingsley Hotel has 100 units, a beautiful central swimming pool, as well as spacious banquet and meeting rooms. This plumbing wall is in the lower level overlooking the pool.

419

Write for your copy of the new 80-page Mueller Brass Co. Streamline Plumbing and Heating Products Catalog No. S-364.

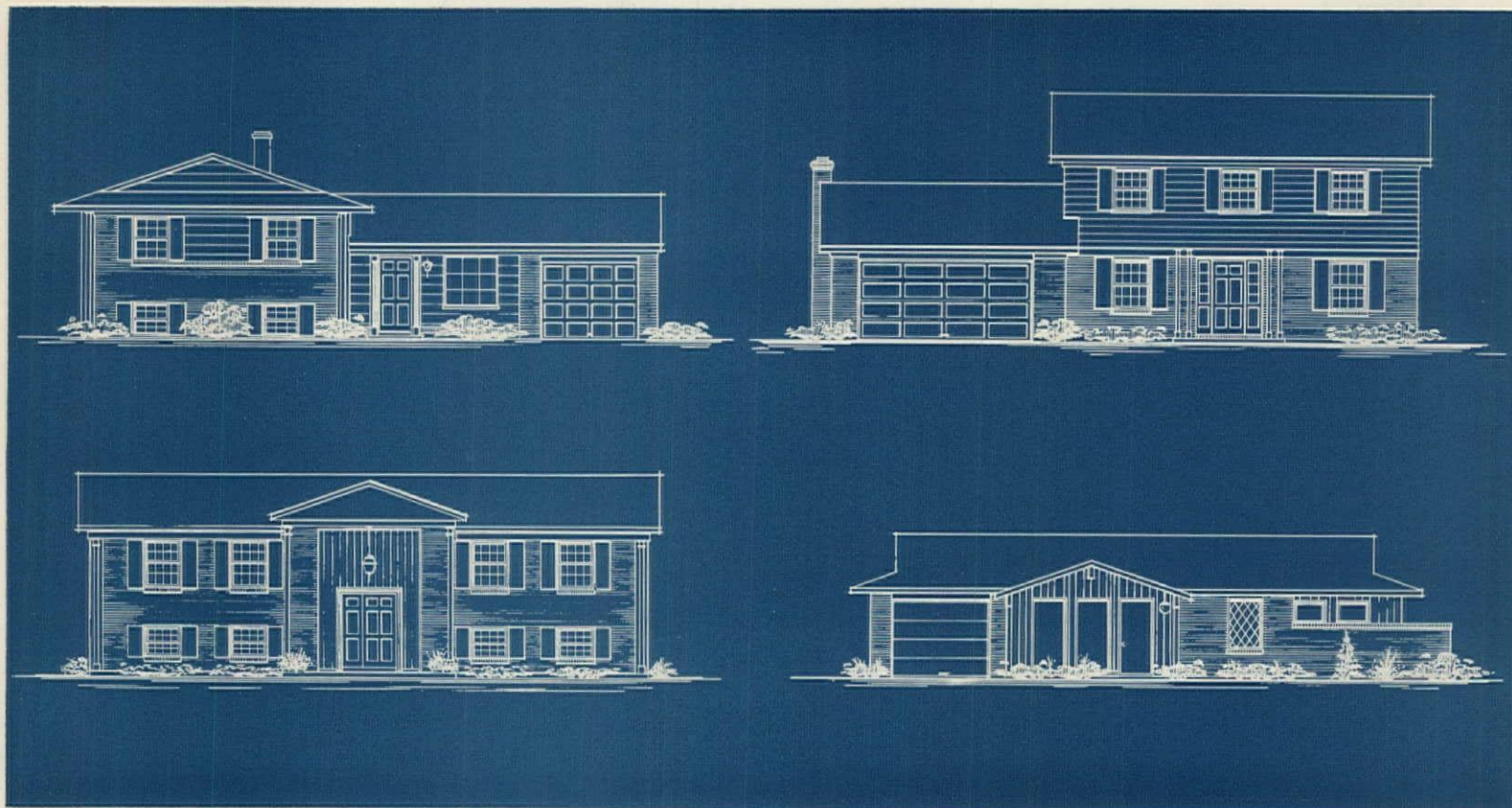


MUELLER BRASS CO. 1995 LAPEER AVE.
PORT HURON, MICHIGAN 48061

House hunting?

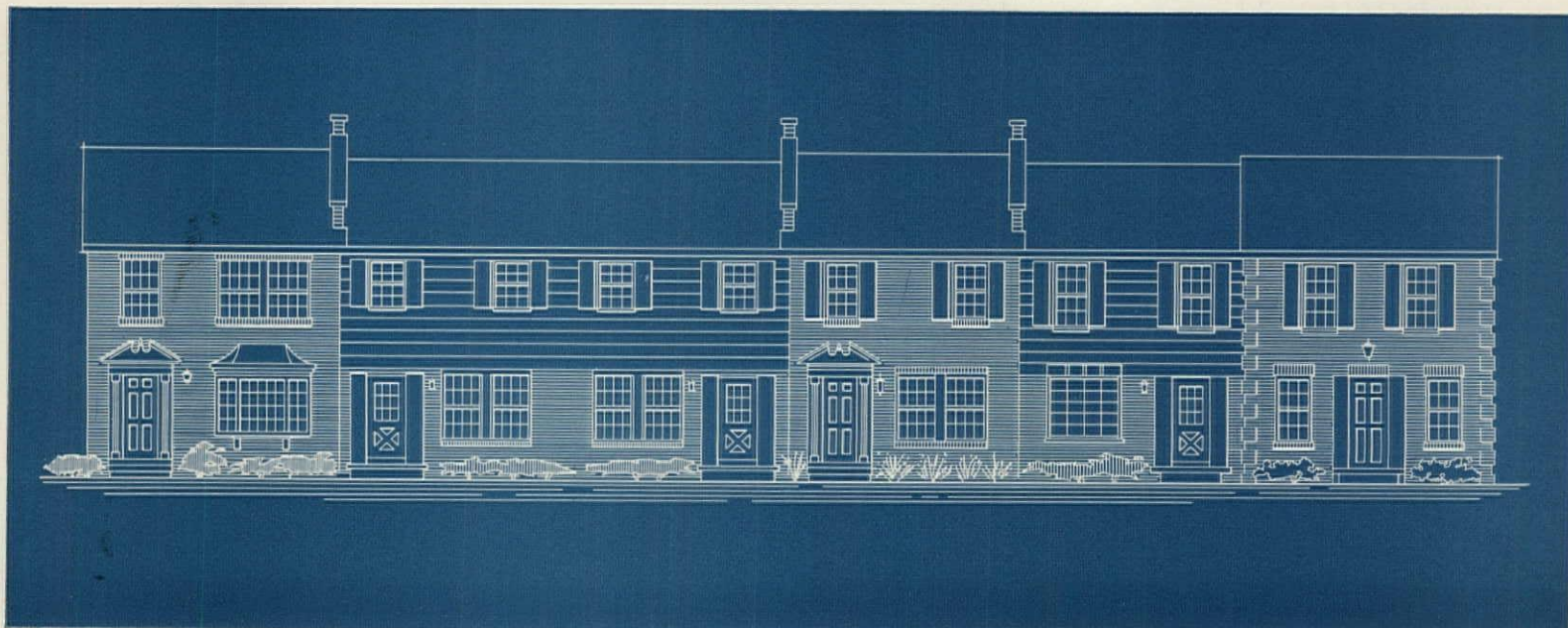
See the expanded U. S. Steel Homes 1965 line first. There are over 50 basic plans, each with many optional elevations, in every price range to give you a choice to fit any market. *Every* model is framed with steel (a USS Homes exclusive,) for fast erection, greater dimensional stability, added sales appeal.

See ranches, bi-levels, split-foyers, story-and-a-half and two-story models—all built of top-quality, rigidly inspected components.



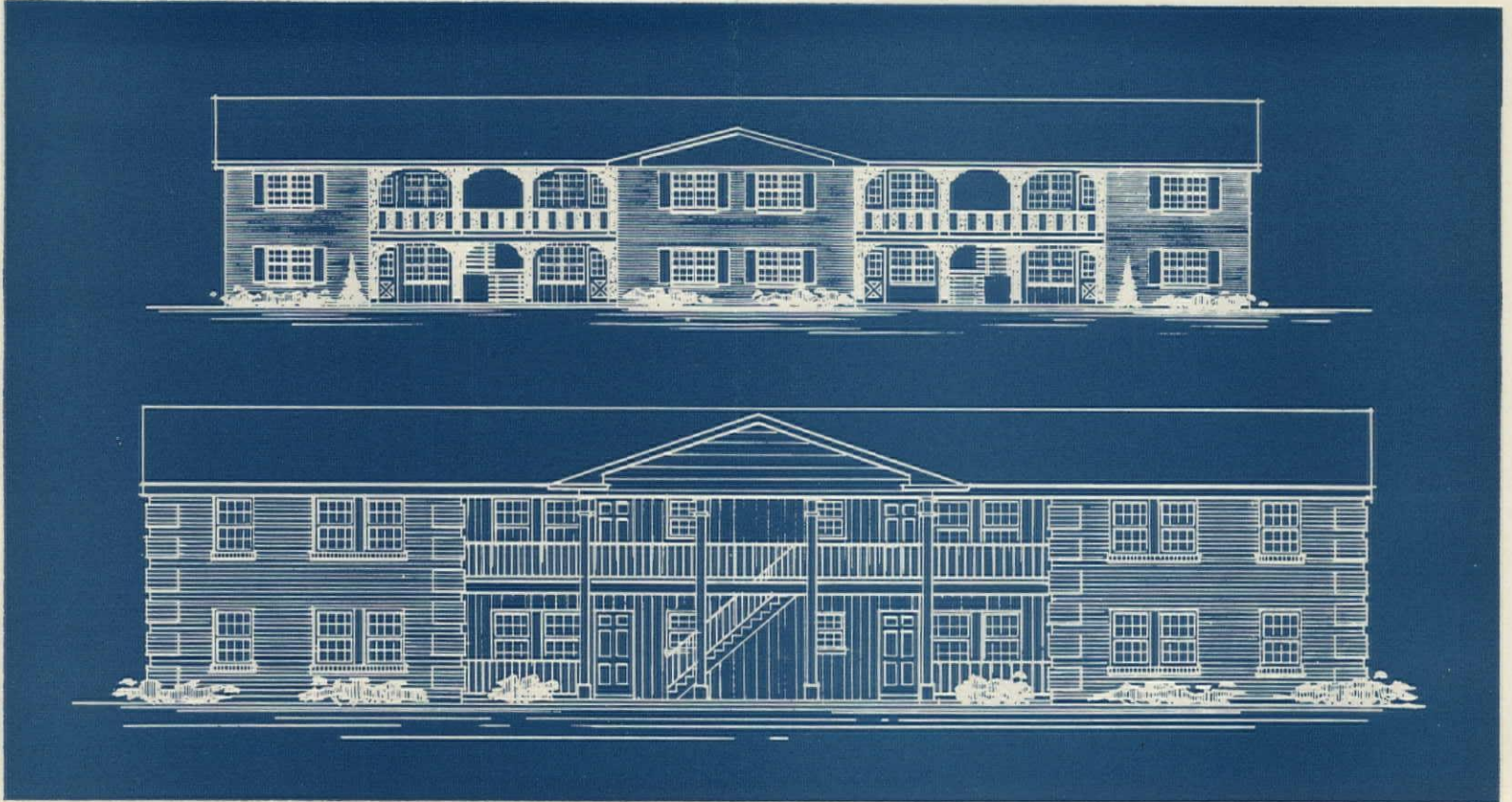
Town House hunting?

The town house market is booming, because town houses make the best use of high-cost, in-town land. You can meet any market situation, from low-cost to luxury, with the 1965 U. S. Steel Homes line—in sizes that include 2, 3, or 4 bedroom units with one or 1½ baths. For rental investment, urban redevelopment, or direct sale, USS Homes Town Houses offer distinct advantages: design flexibility, fast construction and occupancy, low-maintenance.



Apartment hunting?

Now there are eight basic garden apartment plans, with 1, 2, or 3 bedrooms in 8 to 24 units, ranging from low cost to luxury lines. All are steel-framed for quick erection and occupancy, greater dimensional stability and reduced maintenance. The USS Homes apartment package can be as complete as you want, from foundation to rooftop, and their many tenant-pleasing features make them easy to sell or rent.



New market hunting?

U. S. Steel Homes also offers custom plans for nursing homes, cottages, 2-family side-by-side, and light commercial buildings. All are steel-framed, made of top-quality components, go up quickly for early occupancy.

Profit hunting?

Become a USS Homes Dealer. USS Homes helps you sell, with a long list of services that ranges from market surveys to financing, model home selection, personal engineering service, merchandising, engineering and erection. They're all handled in an efficient, business-like manner. Here's your chance to profit by selling one of the broadest lines in the industry, a flexible selection that lets you build in almost any market, from scattered lot homes to light commercial buildings, while dealing with only one source of supply. To find out how you can profit as a U. S. Steel Homes Dealer, write or call U. S. Steel Homes, 2549 Charlestown Road, New Albany, Indiana.

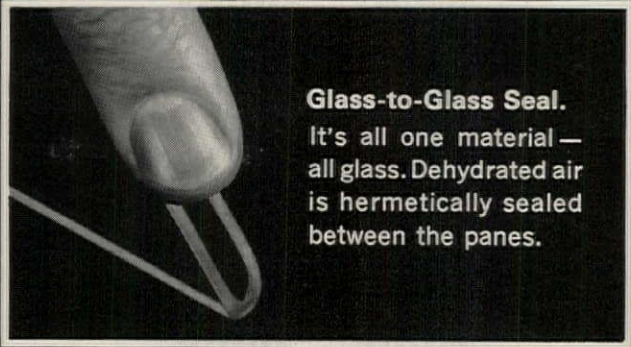


TRADEMARK

United States Steel Homes
Division of
United States Steel



S. H. K. H.



Glass-to-Glass Seal.
It's all one material —
all glass. Dehydrated air
is hermetically sealed
between the panes.

WHY THE BONDERMETIC SEAL[®] IS SO VAPORTIGHT

Metal-to-Glass Seal.

The dehydrated air space between the two panes in *Thermopane* is protected by metal bonded to glass. No organic seal can stay so vaportight.

Only *Thermopane*[®]
INSULATING GLASS

has the dependable,
bonded metal-to-glass seal

The *Bondermetic Seal* is important to you. It's more vaportight because every component of the metal-to-glass seal is inorganic and has zero permeance for air and water vapor. Other insulating glasses use an organic mastic material, and are not sealed by a direct bonding of metal to glass.

This *Thermopane* difference is important to you. Today's home buyers are educated buyers. They're looking for extra value. They want the comfort and fuel savings of insulating glass, plus the quality standards of *Thermopane*. Such quality is your assurance of greater customer satisfaction, fewer call-backs.

Builders prefer Thermopane. In a recent survey of 500 builders at the NAHB convention, a clear-cut preference was expressed for *Thermopane* over other brands of insulating glass: (1) in helping to sell homes, (2) in gaining more referral sales. Builders surveyed also picked *Thermopane*—by a wide margin—as the insulating glass best known to their prospective customers.

MADE IN U. S. A.



Whether you choose the bonded *Thermopane* metal-to-glass seal or the fused glass-to-glass seal—or both—you're assured of backing by a great name in glass—Libbey-Owens-Ford.

Libbey-Owens-Ford

TOLEDO, OHIO



Remember Styrofoam for masonry walls.



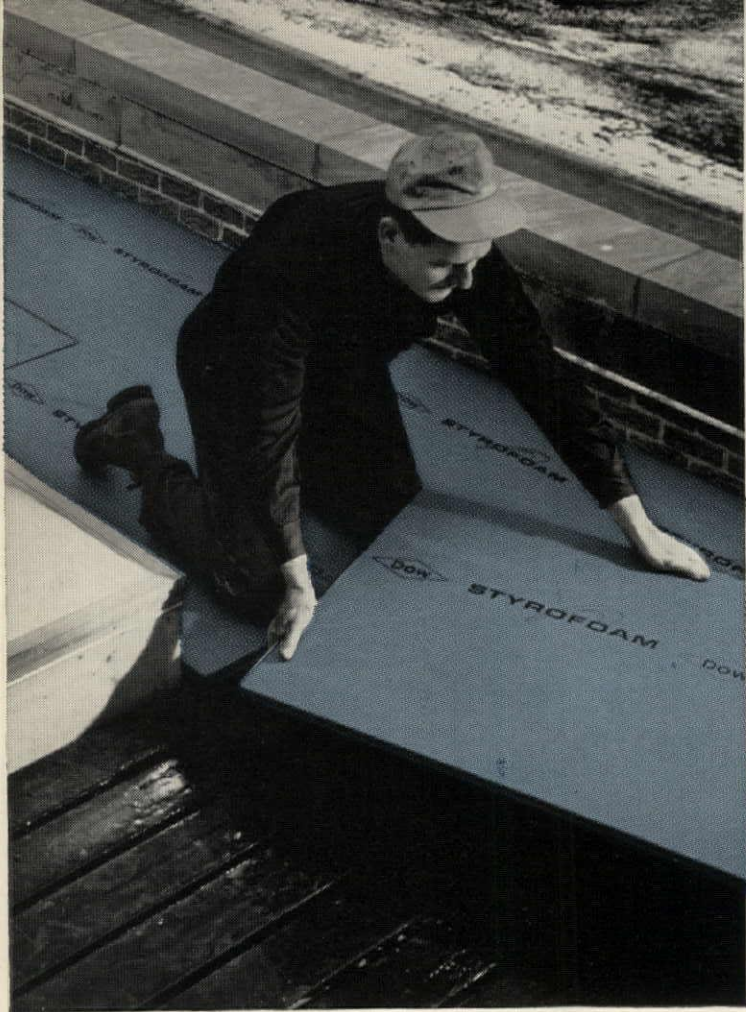
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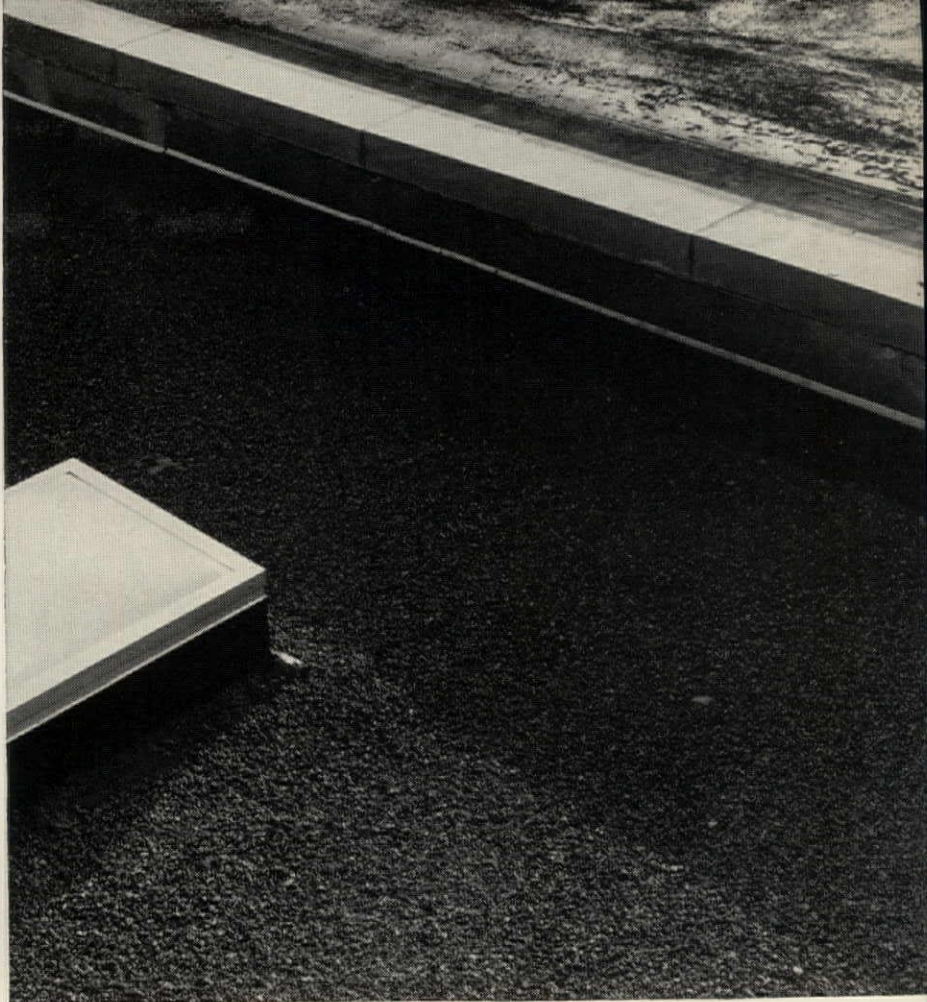
Remember Styrofoam for slabs and foundations.



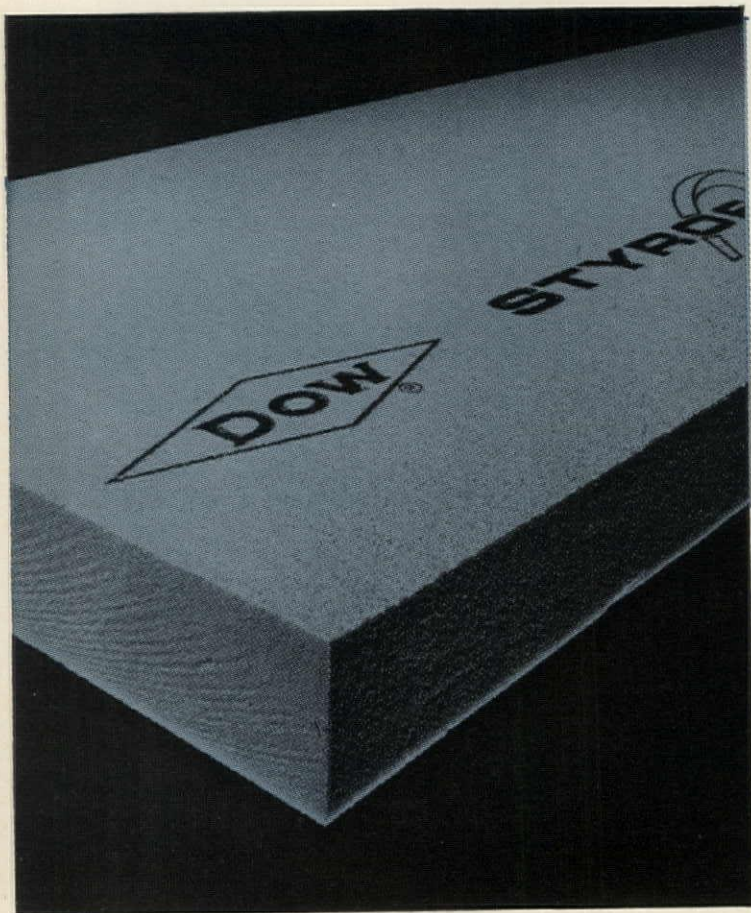
Then forget it.



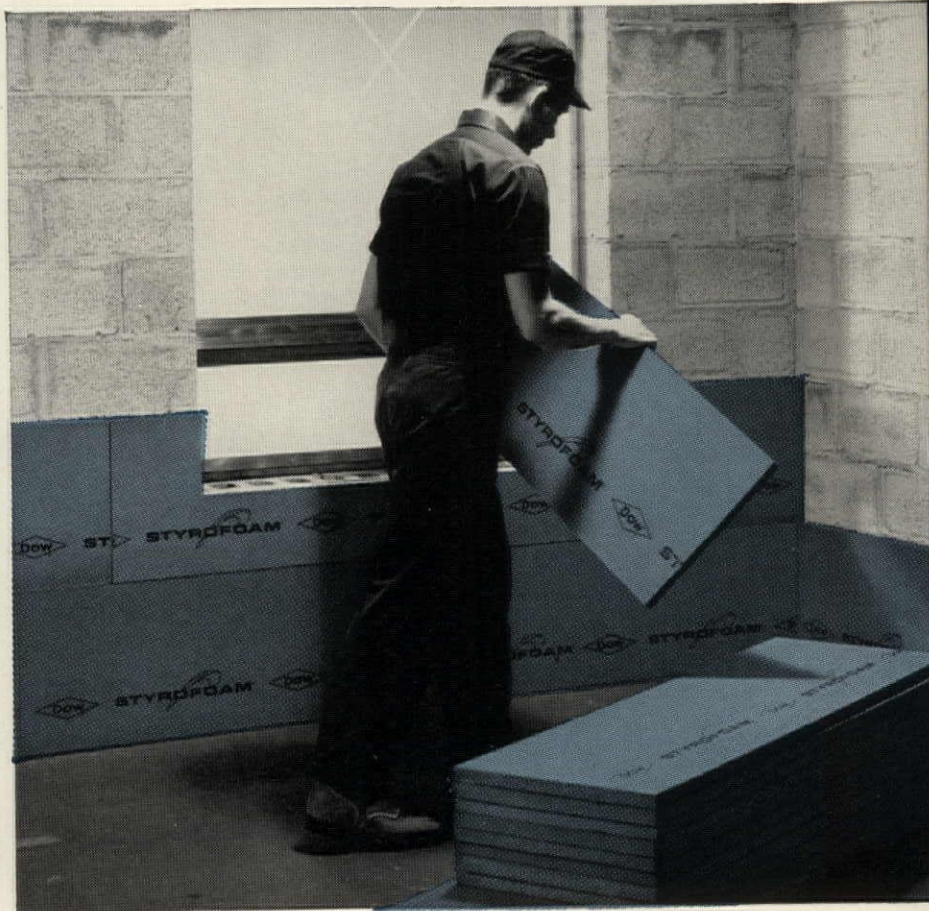
Remember Styrofoam for built-up roofs.



Then forget it.



Remember Styrofoam® brand insulation board when you want an insulation with a permanent low "k" factor, that serves as its own vapor barrier, that can't absorb water, that you can install and forget—forever.



Then remember it (on your next job). See Sweet's Light Construction File 4a/Do. The Dow Chemical Company, Midland, Michigan.



Step into a new world of style and economy with

Leigh FULL-VU STEEL BI-FOLD DOORS



Leigh Full-Vu Metal Doors Lower Building Costs

Installed, Leigh steel bi-fold doors cost less than wood doors. No sanding—no priming—no finishing—no time-consuming fitting and refitting. You can install Leigh Full-Vu doors in about 20 minutes per opening.

Widest selection of door styles in the industry...

Choose door styles to enhance the architecture of the home—colonial, provincial, contemporary. Leigh offers you the widest selection of door styles in the industry.

Stocked in 6'8" and 8' heights. Special sizes available. Use Leigh doors on closets as narrow as two feet, or, by combining doors, create closets as wide as the room. Leigh's popular desert white finish blends with any decor. Wood grain finishes also available.

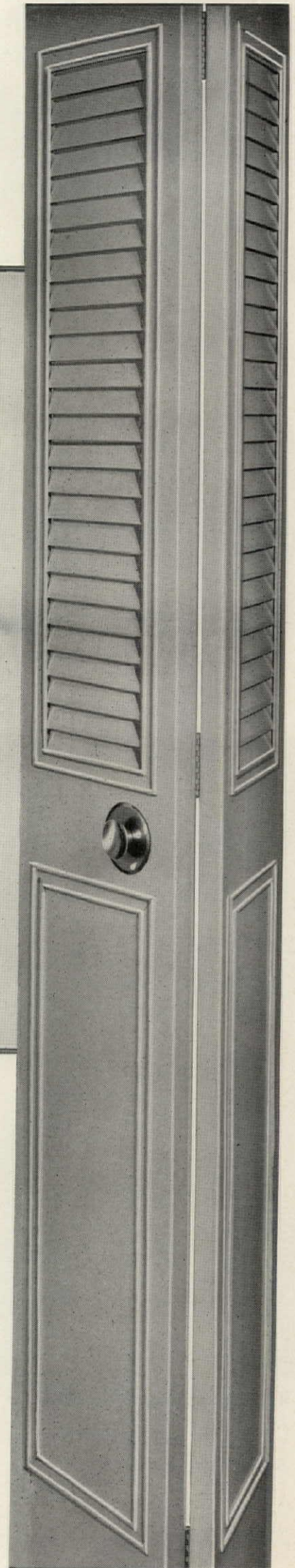
Start giving your customers greater value at a real savings—install Leigh metal bi-fold doors. Get full information on Leigh doors. Write for our big free catalog—or see Sweet's Light Construction file 5c/Le.

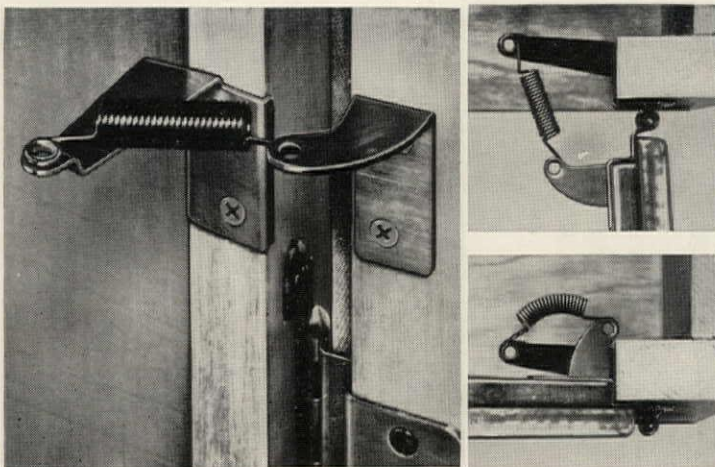


LEIGH MAKES MORE THAN 150 PRODUCTS FOR THE BUILDING INDUSTRY

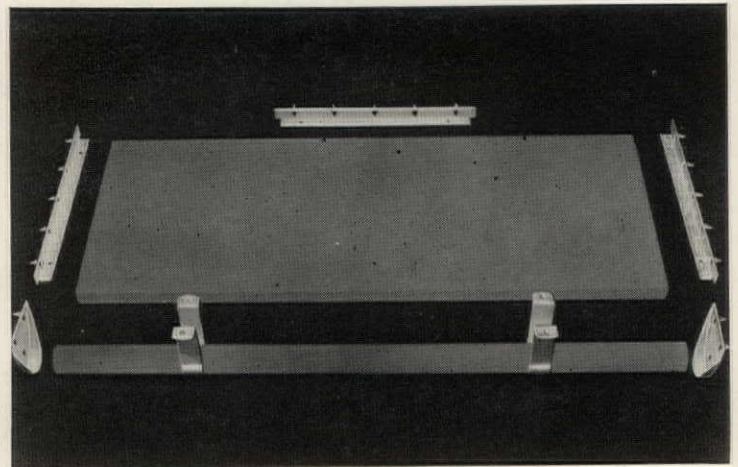
LEIGH PRODUCTS, INC. 2564 Lee St., Coopersville, Michigan 49404

East Coast Warehouse: Leigh Corp., 255 East First Ave., Roselle, New Jersey. West Coast Warehouse: Leigh Industries, Inc., 2645 Yates Ave., City of Commerce (Los Angeles), California. Made in Canada by: Leigh Metal Products Ltd., 101 Brookside, London, Ontario. Western Canada Sales Agency: E.H. Price Ltd., Winnipeg, Regina, Edmonton, New Westminster.





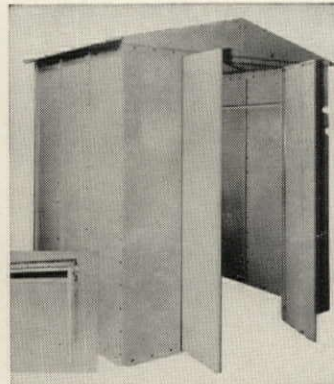
Cabinet door closer has a flip-flop spring action, which closes door from about 45° open (*bottom right*), or holds door fully open (*top right*). Sure-close is made for inset, overlapping or beveled doors. Dolo Mfg., Grand Rapids, Mich. (For details check No. 30 on p. 130.)



Drywall brackets permit installation of closet shelf and pole without cleats. Perma-Fix brackets are simply hammered into the wall board. Teeth in the brackets distribute weight across the wall surface. Perma-Fix Co., Fairlawn, N.J. (For details check No. 31 on p. 130.)



Electric can opener has face plate that mounts flush on wall or cabinet. Operating lever pierces can and starts cutting operation. Unit shuts off automatically. In antique copper or stainless steel. Trade-Wind Div., Pico River, Calif. (For details check No. 32 on p. 130)



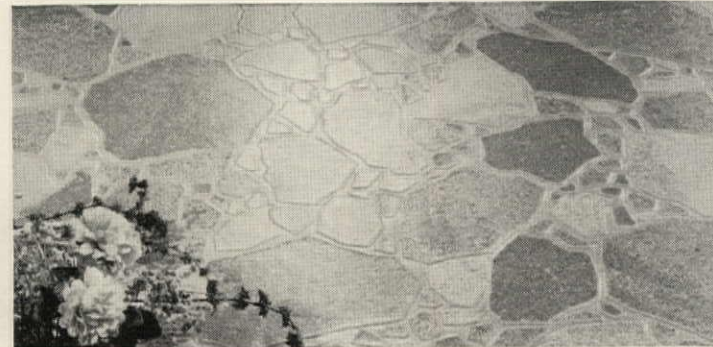
Utility building is prefabricated from 22-gauge steel panels and steel beams. Six models range in size from 4½' x 6' to 6' x 9'. All are 7' high. List prices start at \$112.50. Shipped knocked down with all hardware. M&E Mfg., Indianapolis. (For details check No. 33 on p. 130)



Replacement window is designed for remodeling, comes in sizes to fit double-hung window openings. In some cases existing trim can be reused. Crank-operated casements are factory assembled. Andersen Corp., Bayport, Minn. (For details check No. 34 on p. 130)



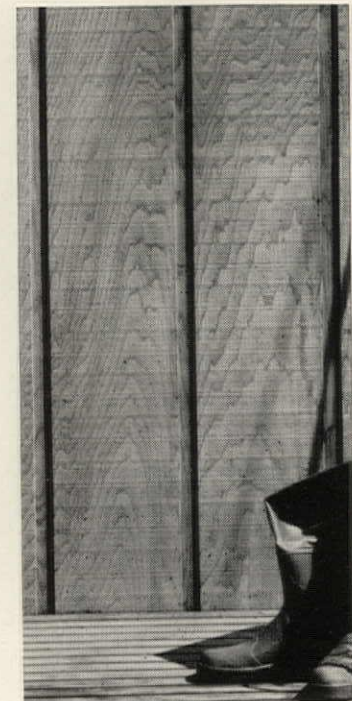
Exterior deck stain for new or old wood surfaces resists alcohol and detergents, won't crack, peel, blister, rub off or track off. Stain is available in red, green, three grays and three browns. Samuel Cabot, Inc., Boston. (For details check No. 35 on p. 130)



Embossed linoleum has random flagstone pattern and comes in two natural colorings: earth beige and natural slate. Embossing follows pattern and helps conceal subfloor irregularities. In 6' sheets. Armstrong Cork, Lancaster, Pa. (For details check No. 36 on p. 130.)

Concrete forms of cast aluminum produce brick-patterned surface. Pax-Forms come in standard widths: 24", 12" and 4". Two-inch corners permit building foundations in 2" increments. Pax Products Inc., Des Moines, Iowa. (For details check No. 37 on p. 130)

Plywood siding has red cedar face. Panels are 4' wide, 8', 9' and 10' high and ¾" or ⅝" thick. Cedar-Sawn panels come in reverse board-and-batten, Channel Groove, Texture 1-11 and ungrooved sheets. Evans Products, Portland, Ore. (For details check No. 38 on p. 130)



New literature begins on p. 124

The Lumber

West's Two Great Lumber Associations Combine

Western Pine and West Coast Lumbermen's Association Join Advertising Promotion and Research Programs



Announced were Nils

the consolidation of the West's leading lumber associations, left, president of the Western Pine Association and right, president of the West Coast Lumbermen's Association.

Two historic marketing names in the western lumber industry will disappear, and a third greater association will be created as a result of action jointly announced today by Nils Hult, president of West Coast Lumbermen's Association, and John R. [unclear], president of Western

New Booklets Explain Grades

Two new booklets just released by Western Wood Products Association attractively present the story of WWPA official grade stamps and the uses and merits of UTILITY grade lumber. "Where to use UTILITY grade West Coast Lumber," a page of factual information with full-color illustrations, features complete span tables from Fir Douglas fir, West Coast hemlock and White fir. Required lengths in relation to size and floor, ceiling and rafters are shown for roof joists.

In keeping with WCLA promotion and advertising campaign for UTILITY grade West Coast Lumber, the 8 1/2 x 11" booklet is designed as a sales tool for lumbermen. More builders are making use of the economy, durability and strength of UTILITY grade lumber, the grade will become a bigger profit for the retailer.

As a result of the stamping ruling, it is extremely important for lumbermen to know and use the official grade stamp inspection bureaus for West Coast Lumber. The stamping consists of facsimile reproduction of Bureau grade stamp belts, paragraph and paragraph.

The handy 4" x 9" booklet, available from lumbermen, plus facsimile reproduction of building code books, Additional Booklet, Stamp Booklet, without charge from Lumbermen's Association, S. W. Moore, 5, Oregon Street, Portland, Ore. Actual move has been made by wives who are complaining and legging all over the place. They are worried about the transition from the old to the new.

The basement is a huge store-room, where all sorts of trunks, boxes, lawn furniture and such is stored. It is also the only place around a house where the father can install his workshop. This goes also for the junior handyman around the house. The fact is that basements cost a fraction of what other rooms cost.

Wood Products Use For College Construction Plan

Priaux pointed out that the oldest building used for college education in the year-old Old College campus of Pacific Forest Grove. Colleges will be pointed out, some worth of buildings and 1970, which lumbermen's interest potential lumber.

Efforts will be made to promote wider use of wood products in increasing such as the relation of wood to interior design. Small nearly finished are being built because wood shingles are much less expensive than other attractive materials.

Efforts will be made to promote wider use of wood products in increasing such as the relation of wood to interior design. Small nearly finished are being built because wood shingles are much less expensive than other attractive materials.

The technical will last indefinitely because the obsolescence has been removed the usefulness of the material.

Get Interest In Floor

Do you have a back yard that is as flat as a deck of an air-raid shelter. Then, my friend, you have a chance to do something about it.

The deck can be built on the back yard and it will be a great place to do is break up the flat areas and install some structures that give a change in elevation.

There are several ways to do this. One of the most simple is to install some baffle screens, about eight feet long, which should be treated as sectional. They are easy to build with light weight lumber.

It was also agreed that G. Edget shall serve as assistant President of the new association in addition to continuing to act as Executive Vice President of the West Coast Lumbermen's Association.

The officers and directors of the new association will be elected at a special meeting on May 7, 1964.

Basementless homes are on the rise. There never has been a substitute for basements for an active family.

Basementless homes are on the rise. There never has been a substitute for basements for an active family.

The basement is a huge store-room, where all sorts of trunks, boxes, lawn furniture and such is stored. It is also the only place around a house where the father can install his workshop. This goes also for the junior handyman around the house. The fact is that basements cost a fraction of what other rooms cost.

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Want Decks Perfect

The jet set time at home discovered the living, U.S.A. The secret of living easy and easy to guests to grass. This much nicer have been outdoor.

Probably the discovery wasn't long ago that western architects, who are trying to get at less money to build a fine deck for just the season is that or should be a summer deck. Most decks are built of wood and are difficult to maintain. Wood is so livable and does not absorb the sun and fit into a variety of shapes and patterns. Some decks are designed as diamonds, some in odd squares. Deck boards can be placed to make good looking patterns on the deck. You can place them in squares, diagonals, circles, or any shape you want.

Home builders who have been getting by with concrete floors may have to shift their minds if they want to get better results from their homes.

The basement in late years has become a living area and any basement has been modeled into a living room. But this doesn't take all the room in a basement, by any means. Because generally it is the same floor size as the home. There is a room for storage, for work shops and garden tool storage.

Home builders who have been getting by with concrete floors may have to shift their minds if they want to get better results from their homes.

Home builders who have been getting by with concrete floors may have to shift their minds if they want to get better results from their homes.

Home builders who have been getting by with concrete floors may have to shift their minds if they want to get better results from their homes.

Wrap More F

The secret is living easy, comfortable and easy to relax. First of all, be sure your guests to love grass. This is much nicer than have been outdoors.

Probably the discovery wasn't long ago that western architects, who are trying to get at less money to build a fine deck for just the season is that or should be a summer deck. Most decks are built of wood and are difficult to maintain.

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Home builders who have been getting by with concrete floors may have to shift their minds if they want to get better results from their homes.

Already the biggest lumber story of 1964

Here's what it means to you:

1. Improved field service to all who specify, sell and use Western Lumber. This is a case where 1 and 1 add up to more than 2, for the combined service of the new Association is greater than the sum of its predecessors.

2. A single quality control and grading agency. The high ethical standards and integrity of both organizations will be combined and continued. One unified grade mark will tell the quality story.

3. Outstanding technical service will be available as the two associations interrelate their years of practical experience and know-how.

4. Product research and improvement will be accelerated by joining facilities for study and experimentation to

cover the entire list of species.

5. More forceful advertising and promotion for all species will result from the new Association's ability to stress the specific properties and advantages of each kind of wood.

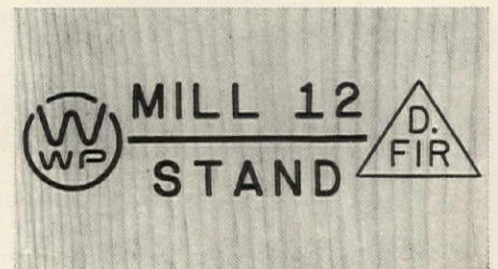
6. Expanded product publicity will result from the sheer volume of products being serviced by Western Wood Products.

7. A wider range of Western species will enable the new Association to give non-competitive emphasis to the particular benefits in use of each species.

8. More sales and technical literature, covering a wider range of product, will make it easy for you to carry the message to the consumer and will increase your ability to please your customers.

9. One source of supply will now give you all the product reference and information you need to make most effective use of quality Western Woods.

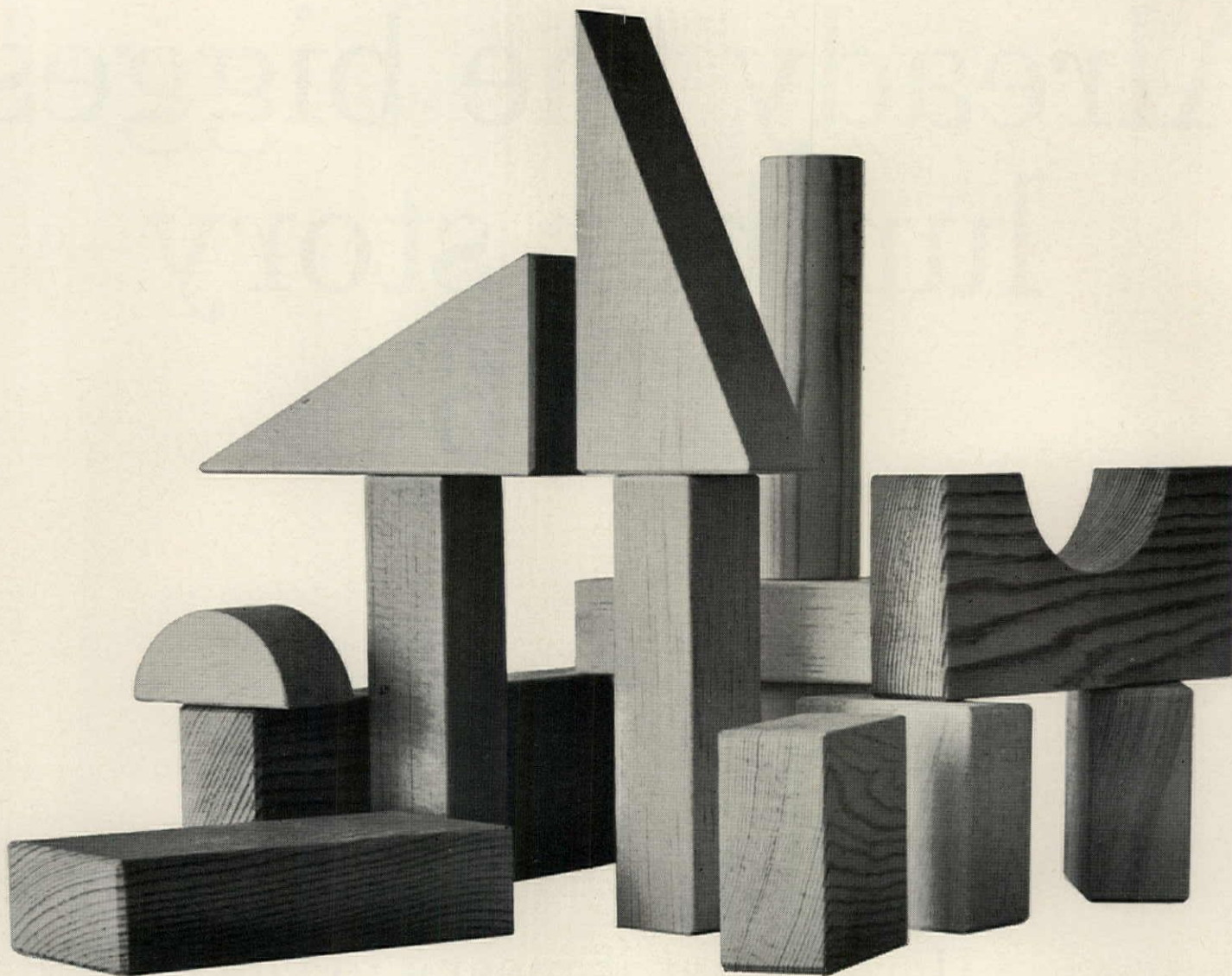
10. One Association, dedicated to serving all lumber users better, has now become your powerful assistant in every phase of lumber use, with consequent saving in time and costs.



Western Wood Products

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From the Members of the West Coast Lumbermen's Association



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We mean business.

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HARDWOOD PARQUET

Prefinished Cromosaic installs and costs like tile, helps sell your new homes with the warmth and beauty of wood

The glory of wood and techniques of tile . . . this is the advantage of new, practical Cromosaic parquet flooring. It goes over cement floors, plywood or radiant-heated floors to make your new homes more welcome to buyers.

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Build sales from the floor up . . . with Cromosaic throughout your new homes . . . or even in a room or two. For further information on new Cromosaic parquet and the name of your nearest Cromosaic dealer, fill out and mail in the coupon.

Since 1919

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Williamsport, Pa.

Originators of Prefinished Hardwood Flooring

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Two of Cromosaic's many choices to profit by:

Walnut in *Monticello* pattern



Exotic Teak



THE CROMAR COMPANY
Williamsport 16, Pa.

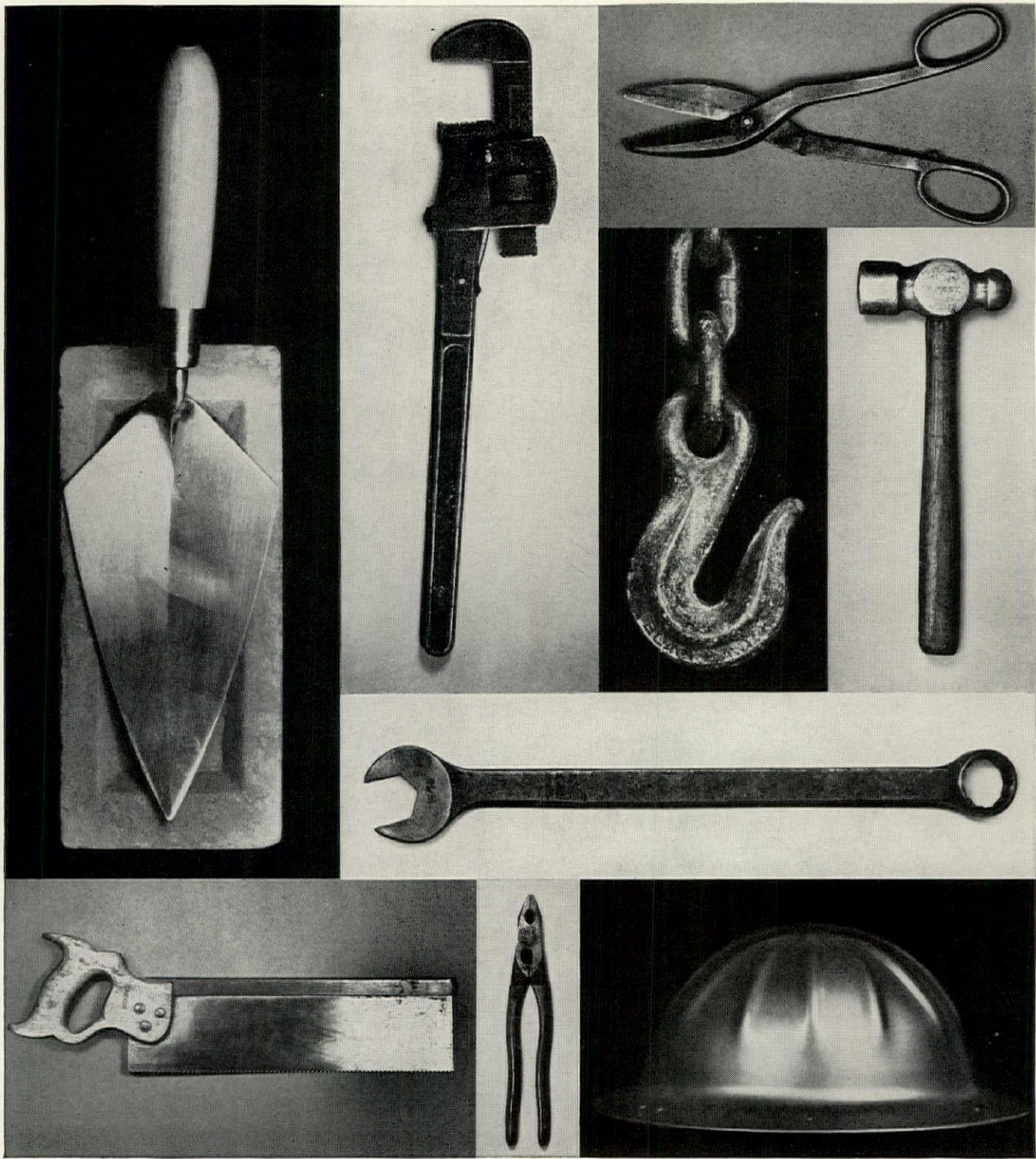
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You may qualify for the Peace Corps if you are skilled as a mason, concrete finisher, electrician, heavy equipment operator, roofer, sheet-metal worker or construction foreman . . . or if you are skilled in diesel repair, carpentry, mechanics, plumbing or any one of a dozen other trades and crafts.

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For complete information on new Marlite Murals or other Marlite paneling, see your building materials dealer, consult Sweet's Files or write Marlite Division of Masonite Corporation, Dover, O.

Marlite[®]
plastic-finished paneling

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While you're visiting the New York World's Fair this summer, be sure to see Marlite's exciting exhibit in the Better Living Center.

United States Steel



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NEW LITERATURE

For copies of the free literature, check the indicated number on the coupon, page 130.

Catalogs

FACTORY BUILT FIREPLACES. 12 pages. Dimensioned drawings, installation instructions, specifications, accessories and special features. Standard, circular, wall-hung and free-standing models. Vega Industries Inc., Syracuse, N.Y. (Check No. P1)

ELECTRIC HEAT. 20 pages. Specifications and dimensions of baseboard, wall, radiant and bathroom heaters, plus controls and accessories. Emerson Electric Co., St. Louis. (Check No. P2)

DOOR CHIMES. 4 pages. 20 models of two-, four- and eight-note chimes. Emerson Electric Co., St. Louis. (Check No. P3)

KITCHEN HOODS. 8 pages. Ten hoods shown in decorative settings. 4-page dimensional data insert. Emerson Electric Co., St. Louis. (Check No. P4)

CONCRETE PLACEMENT EQUIPMENT. 66 pages. Specifications, prices and parts lists for hoppers, buckets, bins, chutes, tampers, floats, saws, power buggies, power screeds, road pavers and carts. Creative Metals Corp., Emeryville, Calif. (Check No. P5)

DOOR HARDWARE. 8 pages. Locks, trim and accessories for residential, institutional and commercial buildings. Dexter Industries Inc., Grand Rapids, Mich. (Check No. P6)

LIGHTING FIXTURES. 16 pages. Chandeliers with colored cut-crystal faceted teardrops. Traditional and contemporary designs. Thomas Industries Inc., Louisville, Ky. (Check No. P7)

RESILIENT FLOOR TILES. 12 pages. Vinyl asbestos and asphalt tile in residential and commercial weights. Color charts, coves and feature strips. Specifications and installation information. Azrock Floor Prods., San Antonio. (Check No. P8)

ELECTRICAL PRODUCTS. 40 pages. Wire connectors, straps, conduit and fittings, tools and lubricants, fuse specialties and testers. Holub Industries Inc., Sycamore, Ill. (Check No. P9)

PNEUMATIC FASTENING TOOLS. 16 pages. Heavy and light duty nailers, staplers and wire clippers. Paslode Co., Skokie, Ill. (Check No. P10)

VINYL PLASTIC SIDING. 8 pages. Features and color photos. Mastic Corp., South Bend, Ind. (Check No. P11)

CONSTRUCTION EQUIPMENT. 24 pages. Tractors, loaders, rippers, bulldozers, cranes, pay haulers, pay-scrappers. Brief specifications. International Harvester, Chicago. (Check No. P12)

HEATING AND COOLING. 8 pages. Condensed catalog of complete Climatrol line. Heating equipment from 25,000 btuh to 5,760,000 btuh. Cooling units up to 15 tons. Worthington Air Conditioning Co., Milwaukee. (Check No. P13)

HARDWARE. 16 pages. For cabinets, doors, screen doors, mobile homes and sliding doors. Weslock, Huntington Park, Calif. (Check No. P14)

LIGHTING. 24 pages. Imported Finnish fixtures with hand-blown glass shades. Five specialty-shaped bulbs. Tradco, Detroit. (Check No. P15)

Product bulletins

WATER HEATERS. 2 pages. Six- to eighty-gallon electric units. Ten year full replacement guarantee. Thermador, Los Angeles. (Check No. P16)

COUNTER TOPS. Folder. Design chart reproduces 72 patterns and colors for plastic laminate. Consoweld, Wisconsin Rapids, Wis. (Check No. P17)

PLUMBING FIXTURES. 8 pages. Color illustrations and descriptions of new sculptured shapes in plumbing fixtures. Graning Co., El Monte, Calif. (Check No. P 18)

LIGHTING EQUIPMENT. 8 pages. Selection guide on fluorescent and lumiline small-cross-section strip lighting fixtures. Wiremold Co., Hartford, Conn. (Check No. P 19)

ADHESIVES, SEALANTS AND COATINGS. 4 pages. Tabular chart lists properties and uses of 20 products. Magichemical Co., Brockton, Mass. (Check No. P 20)

TROWELED MARBLE AGGREGATE. 8 pages. Photographs, drawings and descriptions of pre-mixed, ready-to-use exterior or interior surfacing material made of natural marble. Cement Enamel Development Inc., Detroit. (Check No. P 21)

EARLY AMERICAN COLORS. Folder. Color chart shows 12 new historical colors of exterior house and trim paint. Pittsburgh Paint, Pittsburgh Plate Glass Co., Pittsburgh. (Check No. P 22)

JOIST HANGERS. 4 pages. Types and specifications of hangers for joists ranging from 2x4's to double 2x14's. Information on safe loading values. For free copies, write: Timber Engineering Co., 1619 Mass. Ave., N. W., Washington, D. C.

COLD-POUR JOINT SEALER. 4 pages. A two-part elastomeric compound for sealing joists in concrete structures, including heavy-duty slab floors, roads, and commercial and industrial parking areas. Instructions for surface preparation, mixing and application. Presstite Div., Interchemical Corp., St. Louis. (Check No. P 23).

PLASTIC-DUCTED CABLE. 6 pages. Primary and secondary cables pre-assembled in coilable polyethylene duct for underground installation. Typical single phase and delta primary and secondary or service systems are discussed. Use, installation and packaging, plus tables on dimensions and selection data and specifications for primary URD and multiple street lighting systems. Alcoa/Rome, Pittsburgh. (Check No. P 24).

PREFINISHED HARDWOOD PANELING. 4 pages. Illustrations in full color including matching color stains, moulding and nails. Installation instructions. Evans Products Co., Portland, Ore. (Check No. P 25)

PARTS AND ACCESSORIES FOR CONSTRUCTION EQUIPMENT. 68 pages. Buyers guide includes 2,925 parts for the manufacturer's crawler tractors, loaders, haulers and scrapers. Maintenance data, and service tips for summer and winter operation. International Harvester, Chicago. (Check No. P 26)

Sales aids

ALUMINUM SIDING DISPLAY. 9"x12" box. Includes two samples of Super 32 siding (.032 thick) and color brochure. Hastings Aluminum Prods. Inc., Hastings, Mich. (Check No. P 27)

TEMPERED GLASS. Folder. Describes qualities and shows labels. Libbey-Owens-Ford, Toledo, Ohio. (Check No. P 28)

CENTRAL AIR CONDITIONING. Folder. How new-home salesmen can sell benefits to prospects. Includes amortization charts and space for recording closing costs, taxes, insurance etc. Freon Prods. Div., Du Pont Co., Wilmington, Del. (Check No. P 29)

ELECTRIC HEATING. 12 pages. Spells out for consumers the comfort, convenience and investment aspects of electric heating. For information write: Sales Division, Edison Electric Institute, 750 Third Ave., New York City 10017.

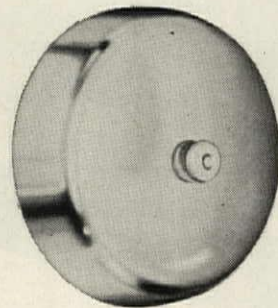
CLIMATE CONTROL PRODUCTS. 8 pages. Describes heating, cooling, cleaning and humidifying equipment in buyers' terms. Worthington/Climatrol, Milwaukee, Wis. (Check No. P 30)

New Literature continued on p. 130

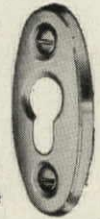
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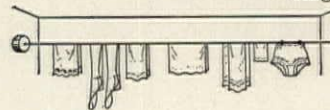
To use—grasp knob and pull out cord—then hook knob in retainer plate on opposite wall.



Wall Retainer Plate

UP TO 10-FT. WHITE NYLON CORD GIVES EXTRA DRYING SPACE

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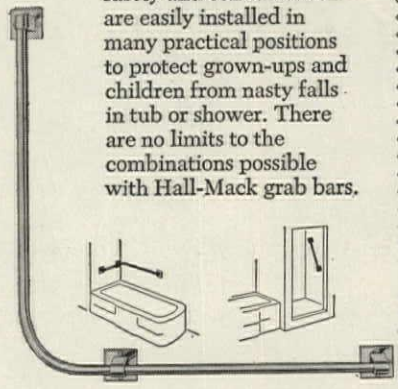
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new features by **HALL-MACK**

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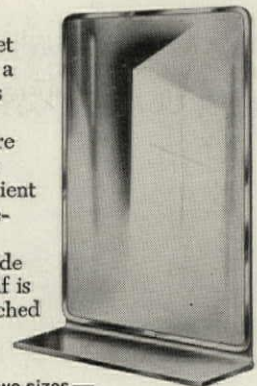
Hall-Mack grab bars add safety and convenience—are easily installed in many practical positions to protect grown-ups and children from nasty falls in tub or shower. There are no limits to the combinations possible with Hall-Mack grab bars.



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Paint, properly applied, sticks to the specially prepared surface of USS Paintbond more tightly than to untreated galvanized.

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3 Impact resistant.
USS Paintbond has the strength of steel to resist sudden impact.

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6 Formable. Matches any architectural style.

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TRADEMARK

Galvanized Steel for gutters and paint adherence.

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No matter
what the color.

8 **Economical.** USS Paintbond
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long, economical service.

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SELECTION CHART

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G70E	6"	72	5400	180
G120A	6"	110	3500	105
G160	6"	150	2750	82
I250	8"	230	1860	47
I300	8"	280	1520	61
J400	8"	480	780	60
M520	10"	540*	840	93
M675	10"	680*	580	115
KG725	10"	800	490	69
N525	10"	525*	1200	240
N750	11"	660*	1000	210
P1000	12"	1200*	900	120
R1500	14"	1900*	740	80
T2000	16"	2150*	630	52

*Cut impellers available to meet required head and capacity.



For more information, write for Bulletins R-218 and R-432

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Manufacturer of Submersible Electric Motors and Pumps for Over 40 Years.
Pumps for Oil, Brine, Water, Gasoline, Jet Fuel, Chemicals, LPG.

NEW LITERATURE

start on p. 124

PLUMBING FIXTURES. 8 pages. Consumer's buyer guide to fixtures and fittings for baths and kitchens. Kohler Co., Kohler, Wis. (Check No. P31)

CENTRAL AIR CONDITIONING. 16 pages. What to consider in the selection and purchase of air-conditioning systems. 10¢ a copy from: National Better Business Bureau Dept. C, 230 Park Ave., New York City 10017.

SPLIT-RING TRUSSES. 4 pages. Design, fabrication, shipping and assembly of 20' to 50' trusses. Timber Engineering Co., Washington, D.C. (Check No. P32)

BOOM UNLOADING UNIT. 6 pages. Boom elevates, rotates, telescopes, trolleys. Entire unit travels on recessed track on truck body. For handling brick, block, sewer pipe. Waterloo Unloader, Milwaukee. (Check No. P33)

FIRE DOORS AND FRAMES. 4 pages. Selection charts on door styles and frame sections. Amweld Building Products, Niles, Ohio. (Check No. P34)

Management aids

COMPUTER TRUSS-DESIGN SERVICE. 4 pages. New service uses computer to produce correct truss designs depending on variables like spacing, stresses, loads, slopes and spans. For architects, engineers and builders using Teco truss systems. Timber Engineering Service, Washington, D. C. (Check No. P35)

INFORMATION SERVICES FOR BUSINESSMEN. 12 pages. Daily and weekly reports of government affairs relating to law, labor, taxes, federal contracts, copyrights and design laws of the world. Bureau of National Affairs, Washington, D. C. (Check No. P36)

For more information circle the numbers below (they are keyed to the items described on the New Products and New Literature pages) and send the coupon to: HOUSE & HOME, 330 West 42nd Street, New York, New York 10036.

Note: House & Home's servicing of this coupon expires October 31, 1964. If you contact manufacturers directly, it is important that you mention the issue of HOUSE & HOME in which you saw the item.

New Products

1. 3-M blueprint copier
2. Diazit white printer
3. Monroe accounting machine
4. ABM Dryfax copy machine
5. Hallicrafters two-way radio
6. Underwood-Olivetti printing calculator
7. Gasolair telephone answering machine
8. General Electric two-way radio
9. National Cash Register accounting machine
10. Executone pocket pager
11. Winco swing-down cabinets
12. Kemper convertible cabinets
13. Caloric double-decker range
14. Majestic drop-in barbecue
15. Modern Aire kitchen hood
16. Rangaire slide-out hood
17. Crane self-rimming sink
18. Elkay drain board sink
19. Cal Formed Plastics shower receptor
20. General Bathroom relaxation unit
21. Borg-Warner cast iron tub
22. Delta tub-shower valve
23. Eljer surface-mount lavatory
24. Triangle plastic-covered vanity
25. Normandy plug-in sauna
26. Granby hydro-pneumatic tank
27. Woodward Iron plastic pipe
28. Anaconda closet flange
29. Pioneer water heaters
30. Dolo cabinet-door closer
31. Perma-Fix drywall brackets
32. Trade-Wind electric can opener
33. M&E prefab utility building
34. Andersen replacement window
35. Cabot deck stain
36. Armstrong embossed linoleum
37. Pax Products concrete forms
38. Evans plywood siding

New Literature

- P1. Vega factory-built fireplaces
- P2. Emerson electric heaters
- P3. Emerson door chimes
- P4. Emerson kitchen hoods
- P5. Creative Metals concrete equipment
- P6. Dexter lock hardware
- P7. Thomas Industries lighting fixtures
- P8. Azrock floor tiles
- P9. Holub Industries electrical equipment
- P10. Paslode pneumatic fasteners
- P11. Mastic Corp. vinyl siding
- P12. Internatl. Harvester construction equipment
- P13. Worthington heating and cooling equipment
- P14. Weslock door hardware
- P15. Tradco lighting fixtures
- P16. Thermador water heaters
- P17. Consoweld plastic counter tops
- P18. Graning plumbing fixtures
- P19. Wiremold strip-lighting fixtures
- P20. Magichemical adhesives and sealants
- P21. Cement Enamel marble aggregate
- P22. Pittsburgh historic paint
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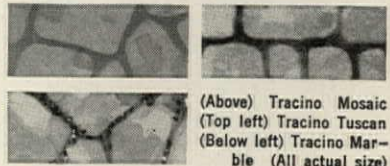
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