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NEW DIMENSIONS IN BETTER LIVING
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Editorial: Circle 3 on Reader Service Card
A new housing market

Builders move in on mobile-home boom—as land developers

Builder-developers are setting up half of the country's new mobile-home subdivisions.

And more builders are getting into the act every day.

The consultants who helped plan 75% of last year's 100,000 mobile-home lots report that they are working with twice as many builders as they did two years ago.

The parks represent a broad new field for the builder, but there is one catch. A park requires a lot of cash—upwards of $80,000.

But the builders have moved in at the opportune moment. While struggling to increase conventional house sales for the last three years, the builders watched the mobile boom in horror and fascination. Many began exploring ways to get in on the bonanza, and the chance came last year when a shortage of mobile-home lots reached crisis proportions.

Mobile-home makers produced three units for every new lot last year (320,000 to 100,000). Dealers from the Carolinas to California are storing outside their salesrooms some units they have already sold.

Builders' big move. Here's how builders have plunged into the housing gap of the generation:

- California homebuilder Ray Watt of the Boise Cascade Corp. will develop 20 mobile-home subdivisions in four states this year. Watt developed four parks last year.
- Active members of NAHB, such as Hugh Thorson of Minneapolis, have forsaken single-family homebuilding to become mobile-home dealers and developers.
- A Tennessee realty broker, Samuel Chambers, is building a chain of mobile-home parks throughout the South. His potential franchisees: a pool of homebuilders recruited during January's NAHB convention in Hawaii.
- Builders are seeking advice about mobile-home parks from at least 50 consultant firms around the country, including Walter & Son of Newport Beach, Calif., which has 26 parks on its drawing boards.
- And every day five new builders seek technical advice from a special planning staff at the Mobile Homes Manufacturers Assn. in Chicago. Dick Beitler of MHMA says, "Even experienced subdividers need help when they switch to mobile-home parks."

The big companies. Major developers and investors are also diversifying into mobile-home parks:

- Florida's Deltana Corp. has announced bold plans for park development. And other Florida land developers, including Gulf American and General Development, are making like plans.
- Another Florida giant, publicly held United Utilities, has broken ground for the nation's largest mobile-home subdivision on 968 acres once earmarked for single-family homes. Sales forecast: 1,000 lots a year.
- Abner Wolf Mobile Home Industries of Florida, just organized by millionaire investor Abner Wolf, will offer its shares to the public this spring to raise $25 million for a chain of parks.
- Rex-Noreco Inc. of New Jersey, a publicly held company that helps finance mobile homes, has started a 400-lot park near Liberty in New York state's Catskill Mountains.
- Two Wall Street conglomerates outside the housing industry are exploring mass production of parks. Beitler of MHMA says one company "has $100 million to spend."
- Trailerrancho Corp., a California affiliate of the TraveLodge Corp. motel firm, is adding to its string of 19 mobile-home parks by acquiring existing parks in Nevada and Arizona. Trailerrancho is publicly held.
- Even mobile-home manufacturers have begun to shed their traditional reluctance toward developing parks. Two new park developers: Richardson Homes of Elkhart and DMH Corp. of Detroit.

New amenities. Despite the burst of builder interest, the great majority of homebuilders still look down at mobile-home subdivisions and the men who develop them. Says one: "Those mobile-home guys are like shoe salesmen who sell empty shoe boxes instead of shoes."

Most builders envision mobile-home parks as treeless trailer camps, and they think the developers are all dealers who own profitless parks only to boost their mobile-home sales.

There is truth to the stereotype. A full 13,000 of the nation's 20,000 mobile-home parks can hold more than 10 units each and are therefore considered obsolete. And many profitless parks are owned by dealers.

But there is change in the wind. New parks in California and Florida, with lots renting for $65 and up, are packed with amenities such as clubhouses, swimming pools, golf courses, canal systems, riding trails and even landing strips for private planes.

The clubhouse in one California subdivision has a stock-quotation board and direct telephones to the stock exchange.

Former homebuilder Richard Martens, a vice president of the Ray Watt Co., says flatly:
“Our mobile-home parks have more amenities than our new-house subdivisions.”

And Minneapolis builder Thorson says: “The builders getting into the market now will further upgrade land planning, mobile-home siting—and merchandising.

Today's mobile-home owner seems to like the new parks well enough to stay. Although the public still imagines them as modern-day nomads, mobile-home owners live in one subdivision for about as long as conventional homeowners do—4½ years. One stable mobile-home owner: Al Hoyt, a vice president of Bank of America.

Besides the amenities, today's park builders are introducing a bagful of imaginative development techniques. Here are four, all offering a 12% to 18% return on investment:

Developing parks. California's Ray Watt does the entire job—from land assembly to installation of water and sewer lines—and then sells the park to investor-managers (most usually Whitesides, Williams & Coutt of Orange, Calif.).

The price for a 25-acre park with 150 lots (48 ft. x 70 ft.) and amenities can be $750,000 or $5,000 a lot.

To keep the parks coming, Watt launched a nationwide land hunt six months ago. Now a company land expert is touring the countryside in a specially equipped bus while personally inspecting 200 potential sites. If he likes a site, he buys it.

Joint venturing. United Utilities will open its Sandalfoot Cove subdivision near Fort Lauderdale, Fla.—the nation's largest mobile-home park—to select dealers. In return for the ready market, the dealer will pay a minor percentage of its unit-sale profits to United.

United plans another departure. Rather than rent lots, it will sell its 6,000 sq. ft. to mobile-home owners for about $4,800 each. United reasons that all homeowners want the security of owning their own land.

Starting dealerships. Builder Thorson thinks he can squeeze extra profit from his 100-acre park in Lebanon Township, near Minneapolis, by selling mobile homes himself.

He conceives that today selling mobile units is closer to selling cars than houses. But he plans to bring merchant-builder marketing to the business by selling units from a landscaped model area in the park—a practice that is gaining popularity.

“Some of my fellow builders think I am committing a crime,” says the NAHB member. "But a builder's first job is to house people, and I think mobile homes offer a good way to do it."

Thorson has not built a single-family house in three years, though he still builds apartment and hotel projects.

Creating franchise chains. This approach excites the big Wall Street companies. But so far a former Chattanooga realty broker has perhaps the only firm franchise plan.

Sam Chambers decided to start a mobile-park chain three years ago after touring some dismal parks in his family camper. He notes that a similar experience inspired Memphis builders Kemmons Wilson and Wallace Watt to combine the industries quickly. There are only 220 mobile-home makers, and the 15 biggest dominate the industry.

There are other small but significant signs of industry melding. Builders are beginning to construct houses and develop mobile-home parks at the same time. A mobile-home park franchiser—who did not attend the mobile-home convention—drew 400 interested builders to his booth at NAHB's convention last month. And at the same convention, for the first time, a panel of mobile-home experts addressed the homebuilders.

Says mobile-home dealer and apartment builder Hugh Thorson of Minneapolis:

“The NAHB members will accept mobile homes, just as they now accept apartments.”

Thorson, an NAHB member, got interested in mobile homes two years ago as a member of NAHB's own market-development task force.

Story continued on p. 8

Mobile giant predicts ‘one housing industry’

“The manufactured house will bring us together.”

It is Arthur Decio speaking. At 37 he is the president of Skyline Corp., one of the mobile-home industry's biggest and most prosperous producers. (First half sales for fiscal '69: up 79% to $85 million.)

Decio's view of the future of American homebuilding goes like this: “In five years or so total housing companies will emerge to produce factory-built houses.” These will combine the style of conventional units and the price of mobile homes. They will be sophisticated versions of today's box-like sectional houses that are shipped in halves from factories.

“And when we and the homebuilders will need each other,” says Decio. “We manufacturers know how to produce houses on assembly lines, and the builders know how to subdivide land.”

The underlying assumption is that the evolution of both conventional houses and mobile homes has reached a permanent plateau.

Says Decio: “There isn't much more we can do with the standard mobile home.”

And Ben Deane, the innovative homebuilder who created the indoor-outdoor kitchen, echoes:

"There isn't much more we can do with the conventional house."

Merging into one. Already mergers by leading companies have blurred the line between the two housing factions. The mobile-group's Redman Industries just purchased Kansas Quality Construction, a large apartment builder (NEW, Feb.). Boise Cascade has added mobile-home giant Divco-Wayne to its shelter-group companies, which include homebuilder Ray Watt.

Other big companies are trying to stitch together corporate Trousdale for tomorrow's shotgun wedding. Art Decio says bluntly:

“I want to buy some homebuilders in about a year. And when we move, we are going to move faster than our competitors."

Homebuilder Eli Broad of Kaufman & Broad is shopping for a mobile-home maker, though he complains that the companies seem prohibitively expensive.

Joint activities. Mergers could combine the industries quickly. There are only 220 mobile-home makers, and the 15 biggest dominate the industry.

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Johnson to enter the motel business—with their Holiday Inns.

Chambers studied the park business first hand by building and managing three Tennessee parks. Now he and his five-man staff are offering to put any builder-investor in business by 1) finding a site that the builder should buy, 2) helping to win zoning, 3) arranging a development loan, 4) hiring and training a park manager and 5) monitoring the operator's management policies.

In return, Chambers's Green Acres of America Inc. takes a fee ($20,000 and up) and 5% of a park's gross rent.

A financial model. Green Acres claims a typical 25-acre mobile park will yield annual net income of 16.7% after depreciation and an overall return on investment of 29.3%.

Green Acres assumes the builder will spend $37,500 (or $2,500 an acre) for a 15-acre site, and invest another $220,000 (or $2,200 a lot) in land development. He should have another $10,000 available for working capital. Green Acres will secure a $180,250 mortgage, for 20 years at 8%, covering 70% of the land and improvement costs. So the builder's net exposure (investment minus mortgage) will be $87,250.

By assuming a $45 monthly lot rent and a low 5% vacancy rate, Green Acres says the park's annual income will be $51,300. The operator will realize another $4,000 from vending machines, such as clothes washers, for gross income of $55,300 a year.

Annual expenses will be $29,765—$18,000 for salaries and maintenance, $2,565 for franchise fees and $9,200 for mortgage interest.

That leaves the builder-investor with a net income of $14,535 after deducting 20-year straight-line depreciation on the park of $11,000.

Risks of the game. Those rosé profit figures—and indeed, all current optimism about mobile-home parks—must be weighed against the rocky histories of some early mobile-park developers.

Holiday Mobile Home Resorts of Phoenix has been in and out of bankruptcy twice.
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Mobile-home park boom...continued

and now local Western s&l has filed $2.5-
million foreclosure proceedings against two
of the company's three parks. TrailierRanco,
which has had troubles of its own, is now
negotiating to purchase all three parks.

Mobilef Corp. of Florida sold its shares to
the public in 1960 to raise development
funds for a national park chain. But it was
caught with a 1,700-acre land inventory in

In 1965, Detroit's DMH, a mobile-home
manufacturer, purchased the Mobilef Corp.
and its three existing parks for less than
$100,000, according to DMH Secretary
George Lucas. In 1967 and 1968 Mobilef
division lost $757,000. Lucas says it may

million foreclosure proceedings against two
Park's division lost $757,000. Lucas says it ma y

for development loans. As the Ray Watt Co.
For example, the financially solvd Watt
Co. is in still negotiating 20-year loans for its
park buyers at about 9%, which cover 60%
of the sale price. Watt demands a 20%
downpayment, and holds a second mortgage for
the remaining 20%.

Franchiser Chambers hopes to crack the
financial barrier by offering institutional in-
vestors the opportunity to lend $4 million on
a package of 20 mobile-home parks. "Big
investors," he says, "are only interested in big
loans."

For the little guy. Some help is on the way
for small developers.

Giant Commercial Credit of Baltimore,
which finances mobile-home sales, has ear-
marked $5 million for development-loan
 guarantees. Such guarantees should help 20
builder-developers negotiate favorable terms
from local lenders this year.

The MGIC Investment Corp., the private
enterprise version of the FHA, is preparing
like loan guarantees.

And the FHA may be moving into the field
with government guarantees that effectively
cover 75% of a park's development cost.
Under the inflexible regulations of a 1960 pro-
gram, FHA loan guarantees cover only about
35% of a公园's actual development cost to-
day. So park developers are forced to pro-
ceed without FHA help.

After House & HOME reported this to
the FHA's Charlie Dieman, he reviewed the 1960 program and immediately began rewrit ing
the regulations. Says Dieman:

"The regulations have to be grossly sim-
plified, and there have to be allowances for
amenities."

—FRANK LALLI
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MARCH 1969
HUD's Romney off to a fast start—and on solid ground

No more unrealistic goals. No more wild promises. No more grandiose programs that can't work and that serve only to frustrate people and dim their hopes.

It's going to be an eyeball-to-eyeball department, HUD is. And if Secretary George Romney has anything to say, the nation's housing problems will be solved one by one—'but only to the extent we have the resources to do so.'

The sharp shift in emphasis that has marked the early days of the new HUD may be giving long-time bureaucrats gray hair, but the Michigan dragon-killer is determined not to overplay.

He's aware of the difficulties that confronted Secretary Weaver when he promised too much and delivered too little.

Action. If Romney has spoken softly in promises, he has come on like gang-busters in other areas.

Within days after taking office he took several decisive steps on solid ground.

- He raised the FHA rate from 6¼% to 7½%, an action long overdue, he said and one that was immediately applauded by virtually all segments of the mortgage market. (For reaction, see p. 28).
- He took a stand that reportedly angered AFL-CIO chief George Meany, letting Meany know "without beating about the bush" that he wasn't happy with all the labor problems facing the housing industry.
- He sharply criticized the goals established for housing in the 1968 act, flatly asserting that they are "beyond the government's resources."
- He suspended all of HUD's urban give-away programs for 30 days to allow a complete review.
- He named a team of both generalists and housing experts that will, he says, balance each other. At the same time he leaned heavily to Negroes in picking his chief assistants—and by so doing made a gesture of peace to those who criticized President Nixon for omitting Negroes from the cabinet.

Labor confrontation. Romney set a forthright tone for his administration during his confrontation with big labor's Meany.

"He expressed himself frankly, and so did I," Romney said later. "He thought I was placing too much stress on labor cost as an obstacle to more housing, and he pointed out some other costs which he believed more troublesome than increasing labor prices (such as materials prices and mortgage interest rates).

"For my part, I discussed with him the labor problems existing in the housing industry—and in fact, that was the reason I called on him in the first place. He plays a vital part in our immediate area of responsibility."

Romney insisted the meeting was not a "disaster," as one national broadcast had said. But the broadcast, and other news accounts, reported that Romney angered Meany by vowing to break down restrictive building-trade practices and by praising rival labor leader Walter Reuther of the widely powerful United Auto Workers.

"It is ironic," wrote columnist Saul Friedman in the Detroit Free Press, "that Romney's well-known lack of finesse put him at odds with Meany so quickly. Just a little while before, Romney had been telling Senators that negotiations with the AFL-CIO and the building trades were going to be as delicate as the peace talks in Paris."

Program suspension. Romney's order on urban projects withdrew from sub-agency heads and regional officials around the country all authority to approve grants, loans or subsidies for housing and city improvement programs.

The secretary decreed that all information on the programs "contemplated or in process of being approved" must be submitted "for review and consideration."

The order covers all phases of urban renewal, slum clearance, neighborhood facilities, open space and beautification, low-rent public housing (including turn-key programs), urban planning assistance, water and sewer facilities and surveys relating to state and local public works and historic preservation.

-Andy Mandalay
Washington

NEWS continued on p. 20
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For over 60 years, Andersen, along with leading architects and builders, has campaigned for more beautiful buildings. A quiet, but solid campaign for more window variety, warmth and weathertightness.

Our campaign materials? Andersen offers 6 different window styles and hundreds of sizes to help you fight cold conformity and beautify the landscape. (There are great Andersen Gliding Doors, too!) And, you can get the clean, profile lines, the solid, natural beauty and warmth of wood; or, all the beautiful maintenance-free features of Perma-Shield® right from local warehouse stock.

Do your part to help keep America beautiful. Specify... use Andersen Windows and Gliding Doors. They're beautifully at home almost anywhere.
Andersen Perma-Shield eliminated window maintenance.

There's a beautiful ocean view from the balconies of this seaside inn. There's plenty of corrosive salt air, too. That's why the architect specified 8-foot Perma-Shield Gliding Doors, with welded insulating glass. Inside both sash and frame, there's a heart of warm, stable wood. Outside, there's a sheath of rigid, weatherproof vinyl that doesn't need painting, resists denting and warping, can't rust or corrode.
Windows have practically
That’s the real beauty of them.

Because of a difficult elevation, window maintenance might have been a nightmare at this St. Paul, Minnesota girls residence. Perma-Shield Windows avoided the problem beautifully. There’s no need for storm windows with welded insulating glass, and the rigid vinyl sheath doesn’t need painting. You can choose Perma-Shield double-hung, casements, awning style, fixed types, single or multiples right from stock. There are six sizes of gliding doors, dozens of window sizes and combinations.
More new schools with
to match the settings.

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and hundreds of sizes available. Close Andersen
tolerances may mean up to 15% fuel savings. It
didn’t take a crew of window specialists to install
them, either.

beautiful, weathertight windows

The natural look and warmth of Andersen wood windows match the warmth and charm of this beautiful school setting. There are plenty of Andersen sizes and styles to permit design freedom. And the architect knew in advance that every window for Simon's Rock School would be available fast from local warehouse stock... a comforting thought on any job.
Proof that stock beautifully custom.

Here again, window design details make the difference. These might have been look-alike townhouses. They’re all part of the same development. Yet each unit has its own charm and sales appeal. Each townhouse has its own style with stock Andersen windows. Maintenance is the builder’s obligation here, so he appreciates the solid service backup he gets from his nearby Andersen Distributor.
Andersen Windows can be

This condominium has *character*, thanks partly to the creative use of windows. It has another kind of appeal, too: the sales appeal of low maintenance. That's the sales key for many condominium prospects. They're quality conscious, and they know what they *don't* want. They're out to avoid all the usual upkeep of home ownership, and trouble-free Andersen Windows fit into the picture beautifully.
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<th>Equipment</th>
<th>Cost</th>
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<tr>
<td>1 Power Vertical Mower</td>
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<tr>
<td>2 Triplex Mowers</td>
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<tr>
<td>1 Power Sprayer—150 gal.</td>
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<tr>
<td>2 Power Aerators</td>
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<td>1 Rotovator</td>
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<td>1 Power Top Dresser</td>
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<td>1 Power Drag Mat</td>
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<tr>
<td>2 Fertilizer Spreaders</td>
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<td>2 Hole Cutters</td>
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</tr>
<tr>
<td>Total</td>
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</tr>
</tbody>
</table>

Establishment and maintenance of tees and greens used to be the expensive part of operating a golf course. Our list gives you some idea. AstroTurf tees and greens eliminate the need for a lot of costly equipment and supplies. They free your maintenance crew for other work. How?

AstroTurf is a grass-like, grass-green, nylon surface for tees and greens. It replaces grass in these critical areas. No seeding, feeding, weeding, watering, or de-bugging. And AstroTurf is instant. Install it and play on it right away.

For tees, AstroTurf is incredibly long-wearing. Tee installations still look brand new in their second year at clubs across the nation. Club head slashes that ruined a turf tee never hurt AstroTurf tees. (One AstroTurf tee, 15 ft. x 20 ft., costs $750 plus installation.)

For greens, AstroTurf matches the playability of the nation’s finest grass greens. Even the “bite,” bounce and roll are the same. We tested 120 fine grass greens around the nation. Then we carefully engineered AstroTurf to play as well or better. Its allover uniformity eliminates putting hazards like mold spots, spike holes and worn areas. (One AstroTurf green, 4,000 sq. ft., costs $8,450 plus installation.)

AstroTurf tees and greens are an investment in rapid readiness, minimum maintenance, and good play for a longer season. For complete information and a list of installations near you, write: Monsanto Company, Dept. 157, 800 N. Lindbergh Blvd., St. Louis, Mo. 63166.

AstroTurf tee at Bermuda Dunes Country Club, Palm Springs, California
In Italy: How do you keep 'em in slums after they've seen new housing?

In Italy: How do you keep 'em in slums after they've seen new housing?

The question has stumped Italian authorities since sobbing women with bambini and husbands in tow invaded new, unoccupied apartments in Naples.

City officials who were about to assign other families to the state-financed units asked police to evict the squatters. But women marched onto balconies, struck poses reminiscent of Italian opera, and threatened to jump to their deaths rather than move back to Naples' wretched slums.

The perplexed police retreated. After huddling with city officials, the police proposed a time-consuming squatter census.

As soon as the police get an exact count they will try to evict the thousands of families. But the police may lose count, for each day new families, dragging possessions, trundle into the 600-unit complex.

The $16-a-month units are far from paradise—especially now that authorities have turned off water, heat and electricity. Yet, the two-bedroom units are palatial compared to Naples' notorious basi, basements divided into rooms by blankets.

One woman who proudly displayed the bruises she acquired breaking into her new home said:

"We have waited four years to be assigned to this public housing. We got fed up."

A Naples official replied with the essence of bureaucratic thinking:

"They only have to wait patiently. The government will provide the necessary housing." —Ron Taggiasco

Will the Nixon men pin-prick Johnson's trial-balloon budget?

President Johnson sent up a $2.8 billion budget for housing in fiscal 1970, raising outlays half a billion beyond 1969.

The budget seeks to fund a start for the 1968 Housing Act, calling for construction or rehabilitation of 26 million housing units in the next 10 years. The initial goal is to build or repair 700,000 homes and apartments for moderate and low-income families in the next two years.

But Secretary Romney has already accused the Johnson administration of promising housing far beyond the available resources. The HUD secretary has repeatedly indicated that he will try to persuade private industry to shoulder much of the financial burden for new programs.

"The promises have been big, big, big and far beyond the resources," Romney said.

The housing department's housing "goal" for 1970 has risen to 503,000 from 400,000 to catch up with lags in 1969. Romney concedes a need for 503,000 units but says the goal is completely unrealistic.

The first official action taken by President Nixon's new budget director, Robert P. Mayo, was to order all government departments to try to trim the overall Johnson budget of $195 billion.

"Examine closely all program expansions and 'new starts' proposed by the preceding administration, and eliminate those of lower priority," he said.

He added that there might be federal programs or parts of programs that private industry could do just as well or better. Romney himself has carefully avoided saying how—and even if—he will cut back the Johnson requests, and he has appeared to endorse wider spending under one of the previous administration's most controversial programs, model cities. He said at his first press conference that he thought the program had not been adequately funded:

"There's not even enough money for a neighborhood program." —A.M.
Specify General Electric appliances and get one Bolmarcich free

It's a great deal. Just ask Morris Sosnow, President of the Birchwood Park Organization of Mineola, N.Y. His company enjoys a reputation for quality. So they knew exactly what they were getting in GE appliances when they specified them for their new 53-acre community, Birchwood Park at Water's Edge.

But the free Bolmarcich (we pay his salary) — that's another story. He's Gene Bolmarcich, the GE Contract Sales Representative assigned to the project. And here are just a few of the ways he was of special service to the builders and architects:

- Met with Public Utility on feasibility study of power distribution.
- Brought in District GE Application Engineers to assist the Mechanical Consultant Engineer in planning air conditioning and heating systems.
- Enlisted the help of the General Electric Kitchen-Laundry Planning & Design Service for layout and design ideas.
- Called in GE experts to work with plumbing and electrical contractors on appliance installations in the kitchens ... with the sheet metal contractor on heating and air conditioning.

- Organized and coordinated equipment deliveries, so units arrived when needed — not before or after.
- And finally, Gene and other GE District personnel were at the Grand Opening to answer questions.

Isn't that the kind of service you'd like? Then call your GE Contract Sales Representative. We may not be able to give you Gene Bolmarcich, but you'll get the same capable assistance.

Gene Bolmarcich at Birchwood Park at Water's Edge, Bayside, Long Island, New York
Full-color Spring advertising for The Room-Stretcher! New home prospects are now learning all about new Kentile® Ribandel™ Vinyl Asbestos Tile in Life, Reader's Digest, House Beautiful, and other leading magazines. Seven colors, ranging from brashly bold to subtly muted.

The room-stretcher tile!

Got a “problem” small room in your model homes? Solve it beautifully with new Kentile Ribandel. It’s the vinyl tile with the unique, ribbon-flo styling designed to make any small room look magically bigger. (Compare before and after pictures above.)

Of course, with Ribandel, your design possibilities are endless, because each 12” x 12” tile is laid individually. Interested? Ask your flooring man to show you samples.
Mud-flooded California blames nature, not builders

One of the first questions asked was: Why do they keep building 'em in the paths of muck and wild water?

But it is not that simple.

It is not simple at all. And the deeper the investigators dig into reasons for the California disaster that took 96 lives and wrought $35 million in damages, the more reasons turn up. Few of them trace to builder laxity or cupidity.

The nine days of rain were not normal. January was the wettest month in 80 years. And, even so, mud-slide damage was generally localized in the Los Angeles area. Losses had almost nothing to do with how homes were built structurally. The houses, mainly in foothill and canyon areas, did not slide downhill; they were crushed by tons of hillside mud and hit by water running down through natural gullies. Thirteen deaths were caused by mud and there were 20 drownings.

No easy answer. A wide variety of factors caused the losses in the six southern counties that were hardest hit. In Santa Barbara County, for instance, the main loss traced to stream flooding. Houses were not built in the path of the streams, the streams changed channels. The county, as most in California, has a flood control program, but it may not have been designed for freak storms.

The problem was different in Los Angeles City and County. The county has a vast flood control system—dams, reservoirs, debris basins, storm drains, channels. The Flood Control District and Corps of Engineers have spent at least $1 billion on it, and it is almost complete. So the trouble was not from major flood waters but mud slides. There was some local flooding, which the FCD says can’t be prevented.

The area hardest hit, Glendora-Azusa, 20 miles east of Los Angeles, had 15 homes destroyed and 90 damaged by mud slides. The homes were built at the foot of the San Gabriel Mountains, but they did not slide down a hill. Mud and debris and water rolled down canyons into them.

The cause: denuding of the area of water-shed by a big fire last August. Officials and homeowners knew what could happen if an extreme storm hit. But watershed couldn’t be replaced in time for the rainy season.

In the city of Los Angeles, too, the major losses were from mud slides hitting canyon homes near the Santa Monica Mountains.

A price for beauty. Anyone living in, or below the Santa Monica mountains has problems. Hot weather brings fire. A few inches of rain—or too much lawn watering—can start houses moving from earth slippage. An unusual storm and it’s flood water and cascading mud. Still, it’s beautiful—and residents seem to like it enough to risk havoc without insurance coverage.

Land slippage under homes occurs because of unstable soil, and it is prevalent throughout the state. Los Angeles is vulnerable.

Some reports list the number of slides in the city between 1938 and 1966 at about 80, with an average loss of one house each.

It was in 1958 that the Portuguese Bend slide occurred on the oceanfront, destroying 145 homes. (Roadwork triggered it.) Pacific Palisades is another area that has problems from unstable soil.

Progress and reform. Officials have moved in many directions to overcome the slide problem. A new grading code went into effect in Los Angeles in 1963. Three key laws cover hillside development:

• The department of building and safety can withhold a building permit if the site is vulnerable to slides or unstable soil.

• No building shall be constructed on a slope steeper than 2 horizontal to one vertical except when a soils engineer and engineering geologist recommend construction. The old code permitted building on a 1-to-1, or 45% , slope.

• No building or grading permits shall be issued for construction in active or historic landslide areas until and unless stabilization on the entire slide of soil mass on which the property lies is achieved.

One problem: people. There are still lots of questions.

The vast majority of hillside homes were built prior to April 1963, when the new grading code went into effect. What can be done?

And hillside homeowners often create their own drainage problems by disturbing the lot. They remove supporting earth and often change the pitch of the lot and standing water results. Indiscriminate planting and watering are major causes of slope failures.

Furthermore, some experts, including consulting geologists, fear that the grading code may bear little relationship to the question of landslides. Geology, they say, is not an exact science and its application to the building industry is based on a wealth of scientific ignorance.

Then there are the questions of variances—how much of the code is breached by variances that allow modification of the 2:1 slope regulation for a steeper cut and fill. This, of course, permits builders to increase the number of lots on the tract. And—how about the practice of a private geologist, in effect an employee of the builder, determining site stability? There’s also the system of split jurisdiction between agencies. Should all geology, for public and private property, be under one department?

Just about everybody is trying, builders included. Virtually nobody can be singled out for blame—except nature herself.

—BARBARA LAMB

Oil and financial companies buying two Western builders

Christiana Oil is swapping stock for the Byron Lasky Co., which builds houses in Los Angeles and in Orange and San Diego Counties.

Lasky’s sales topped $5 million for the six months ending Dec. 31. The company developed Huntington Harbour, a 900-acre project of waterfront homes. Christiana’s headquarters are in Huntington Beach.

Phoenix combine sold. In Cincinnati, the American Financial Corp., a diversified financial holding company, disclosed that it had traded stock to acquire the Rubenstein Construction Co. of Phoenix, Ariz., and its two subsidiaries, RPR Construction and RPR Enterprises. Harry M. Rubenstein heads the combine, which builds under the trade name of Continental Homes. It has built $50 million in government housing and $100 million in housing for private ownership in addition to apartments.

Rubenstein, who continues as chief executive, says his company has an inventory of 5,000 acres and an annual construction volume of $12 million.

Prefab deal. Canaveral International Corp. of Miami, the land developer, is negotiating with Albee Homes of Youngstown, Ohio, to trade 200,000 shares of Canaveral for 500,000 Albee shares.

That would give the big Florida land developer a 22% interest in Albee, and the prefabber would get a 10% share of Canaveral. Each company is owned by its officers and their families.

Canaveral closed on the American Stock Exchange at $12.75 the day of the announcement. Albee was quoted at $5.625 bid over the counter.
From Lightcraft of California comes an exciting new selection of fixtures... priced-less... to meet the needs of the budget-minded. All manufactured in the Lightcraft tradition of quality, design, originality and attention to detail. This glamorous 5 light chandelier (60-CH5), with gracefully curved black arms, richly finished maple spindle and cups add a quality normally found in fixtures costing much more. Get the full story on the complete line of "priced-less" Lightcraft fixtures. Contact our representative today or write: Lightcraft of California, Dept. HH-3, Madison and Red Bank Roads, Cincinnati, Ohio 45227.
The lady is looking

And we don't have to tell you that by the time the lady of the house sees your homes or apartments, she's seen a lot of gorgeous kitchens. In model homes, in magazines, in stores. And she'd like the same kind. Not only would she like it, she expects it. And in her price bracket. You can't fight her—so join her. But join up with Frigidaire first. And you can offer her that gleaming, magnificent marvel of a kitchen in your price bracket. Here, a mere three possibilities. More, many more are available.

Small price
Big convenience

Note the exclusive NEW Frigidaire Laundry Center that will be available later this year. It's a stacked washer-dryer just 24” wide! Also a Compact 30” Built-In Range with a Glass Door! More small price choices: The DeLuxe Built-In Dishwasher (like all Built-In Frigidaire Dishwashers, it INSTALLED FLUSH-FRONT) and a sizeable single door Refrigerator.
the appliances
kitchen
sale ... at every price level

Middle-of-the-road prices
Extra convenience.
Select a 30" Wall Oven with Electri-clean, a Cooking Top and an Undercounter Custom DeLuxe Dishwasher. Other Middle-of-the-road selections might well include a 16.6 cu. ft. Refrigerator, FROST-PROOF and ON ROLLERS, plus a 2-speed Washer with Durable Press Care plus Matching Dryer.

Just a little more
for luxury living
Here's the kind of lavish convenience she's really looking for in kitchen appliances. They offer so much more. This Refrigerator has just about everything going for it. Side-by-Side styling, Automatic Ice Maker, and it's 21.9 cu. ft. Twin 30 TWO-OVEN Range with Electri-clean lower oven, too, plus a Custom Imperial Built-In Dishwasher. All with Designer Doors or optional door kits (she can decorate them with just about anything she dreams up).

Frigidaire bothers to build in more help

MARCH 1969
Circle 54 on Reader Service card

The Frigidaire Quantity Sales Representative in your area has the facts, figures and ideas for kitchens that SELL! Call him today.
The surge in general interest rates has already eroded some of the benefit. The FHA ceiling went to 7 1/2% on January 24 and new-house loans began trading at an average of 97 in the private secondary market. That was six points above their 91-92 level under the old 6 1/2% limit, and discounts charged to builders dropped from 8 1/2 to 6 3/8 points.

But discounts have already increased to about 3 1/2 points on a new mortgage price drop that came after the ceiling was lifted, and rate pressure is still upward.

Builders got par or better when the 7 1/2% loan opened in some areas. The Bank of America's 925 branches began paying 100 cents on the dollar throughout California, just as they had done briefly two years ago (News, May '67), although the California market generally opened at 97-97 1/2. Boston's big 5¢ Savings Bank and two or three rivals set their own rate of 7 1/4% on FHA loans, which meant that builders were paying interest 1 1/2% below the official ceiling. The bank's step was the equivalent of paying a premium of about 1 point above par, a step lenders preferred to avoid in order to protect against loss on early payoffs or foreclosures.

Cleveland's banks took the new loan at par, and there were some investors at par by February 10. Builders got par or better when the 9 1/2% ceiling was lifted.

**Return of big banks.** The new ceiling brought other favorable developments for builders and the mortgage business. The nation's largest savings banks, the Bowery of New York, returned to the FHA market after a full year's absence and other big-city savings banks took a new interest. Senior Vice President August M. Strung disclosed that the Bowery was buying at 97 from a few selected serviceds for a yield of 7.53% after 3% servicing.

President Douglas Welton of New York's Dry Dock Savings, which bought FHA steadily all through the market's darker days, said of the city's savings banks: "We expect to get back into the business now. There is some real disenchantment with bonds because of their rapid price declines, and investors are finding that they can make excellent use of the points and amortization mortgages give."

His optimism was not universally shared. Vice President Jack Westney of the New York Bank for Savings declared: "Our shift has been to conventional lending, where yields are still higher, and we will probably stay there because the pressure on rates is still upward. This bank won't have much interest unless the price gets down closer to 95 1/2."

**The price drop.** The half-point decline in mortgage prices that came after the FHA ceiling was adjusted was dramatically underlined in the Fanny May auction market. Prices fell 56 basis points on the agency's 90-day commitment, to 96.60, and 36 points on the 180-day commitment, to 96.74, on Feb. 3. That left the private market riding nearly a half point above FMMAs.

"We're at a soft 97," said Vice President Chris Gebhardt of the Colwell Co., the Los Angeles mortgage banking house, after the Fanny May debacle. "We probably ought to be at 96 1/2. Prices will go down again next week." (Fanny May's prices did.)

**Inflation.** The reasons for the pressure were not far to seek. By mid-February the Federal Reserve's mildly restrictive monetary policy had still produced almost no slowdown in inflation.

Data from Washington reported the worst inflation in 17 years, the lowest export surplus since 1937 and the highest interest rate on a government security issue since World War II. Triple-A utility bonds worked back up above 7% yields and double-As to 7.10, both records for issues with five years of call protection. "Many financial and economic participants still feel that the Federal Reserve will not persist to force a slowdown with inflation," said economist Sidney Homer of the New York bond house of Salomon Brothers & Hutzler.

**Laughing at the Fed.** So ineffective were the Fed's efforts that the agency began to undergo criticism verging uncomfortably on ridicule. It was being asked if it knew what it was doing.


"The Fed tells one and all that it will be the terror of the earth. What happens. Everybody keeps on borrowing just as before. Banks and other lenders keep on lending pretty much as before. The Fed's own internal predictions turn out to be frequently mistaken, just as before. The criticism was precise and pointed and pitiless—but there was no real indication that the agency was reading it.

**Homebuilders' Mortgage Quotations**

Reported to HOUSE & HOME in week ending Feb. 14.

<table>
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<tr>
<th>FHA</th>
<th>Private mkt.</th>
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<td>97%</td>
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<td>95%</td>
<td>7 1/2%</td>
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**FHA Rates and Yields**

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<td>7%</td>
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<td>7-1/2%</td>
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**MARKET YIELDS**

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<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>7-1/2%</td>
<td>7-1/2%</td>
</tr>
</tbody>
</table>

**FHA Ceiling** was raised to 7 1/2% on Jan. 24. Market yields are net to investor after servicing, based on the $1 million-a-day volume in the New York City mortgage brokerage of Hooton, Paige & Co.
Now! The consumer appeal of redwood with the building benefits of plywood:

REDWOOD PLYWOOD

For everything from schools to supermarkets, churches to condominiums, more of today’s knowledgeable builders and architects are turning to redwood plywood. Thanks to years of advertising and editorial support, buildings featuring redwood have an appeal few buyers (or tenants) can resist. Add the construction efficiencies of plywood to the virtues of redwood—natural beauty, resistance to weathering and insects, superior finish retention and scuff-resistance—and you have a combination no other panel material can touch. If you’re not familiar with the many patterns (and applications) of redwood plywood, drop us a note and we’ll send the information you need. **That’s the beauty of redwood!**
A DRY, WATERPROOF BASEMENT
A. Defective areas in walls should be cut out and all loose mortar removed. B. Dampen first, then force WATERPLUG into defective areas holding in place for 3 minutes. Prime coat patched areas immediately with THOROSEAL. C. Apply THOROSEAL to lower part of walls. D. Then brush-on a base and a finish coat of THOROSEAL to entire wall surfaces and the basement is attractively finished, completely waterproofed and protected for the lifetime of the building.

“BUILD A BETTER MOUSE TRAP...”
with STANDARD DRY WALL PRODUCTS and customers will beat a path to your sales office door

A RICHLY TEXTURED, FIRM, FINISHED CEILING
Now, a cement-base, aggregate-type, spray coating to highlight and decorate masonry and concrete ceilings. THORO-TEX is lightweight, contains a built-in bonding agent, anti-bounce ingredient and eliminates stain-throughs, quick dry outs; produces a hard, wear and water resistant finish that can be readily painted.

WATERPROOF, EVENLY TEXTURED MASONRY
Here, THOROSEAL PLASTER MIX, applied by trowel and float method, provides a desirable wall finish that’s waterproof, easy to maintain, water-resistant, economical to apply—no rubbing needed! Can be used on interior or exterior, above or below grade. Use Acryl 60 (1 part to 3 parts mixing water) for a super strong bond.

* Write for full specifications guide Cat. #17.

STANDARD DRY WALL PRODUCTS, INC.
DEPT. 69-HH-1, NEW EAGLE, PA.
Don't let your hidden assets just lie there.

Copper's got it—the confidence of your prospects. People know they can count on rust-free, clog-free plumbing, drainage and hydronic heating systems when they're made of copper.

That's why copper is a selling ace up your sleeve. But hidden sales assets never closed a deal. So talk up the fact that your houses—like the majority of new homes—feature copper, the sure sign of quality.

And tell it the way it is: Copper plumbing doesn't rust (water runs pure and clear), it doesn't clog (inside, tubing is nearly as smooth as glass), it doesn't leak (soldered joints are virtually as strong as the tubing), it fights corrosion (copper piping has been known to last thousands of years), and it's economical (faster installation plus longer life mean savings for you and your home buyer).

Remember: substitutes never match up to first-stringers. So don't disappoint home-buyers by hiding your best assets—copper plumbing, drainage and hydronic systems. A substitute for copper is exactly that—a substitute.

Copper Development Association Inc.
405 Lexington Avenue, New York, N.Y. 10017
How to sell Negro homebuyers: The same as anyone else

Negro buyers—and potential buyers—aren't a special housing market, and new sales approaches are not needed to sell them. They want the same things in new housing that their white counterparts demand, and have much the same objections that must be overcome.

This conclusion is drawn from a survey of 327 non-white Chicago-area families, made by the research firm of Market Facts Inc. under sponsorship of Owens-Corning Fiberglas Corp. and HOUSE & HOME. The three-month effort sent Negro professional interviewers (armed with up to 46 specific questions about housing attitudes) into the inner city and into the inner and outer suburbs (map, right).

The sample. The families interviewed were not hard-core poverty cases with marginal incomes; they tended to be examples of the rapidly emerging Negro middle class, with decent jobs and aspirations for a higher standard of living. Three of four were homeowners, which means that as housing prospects, they have both equity and experience in owner-occupied homes. Median income for household heads was $6,903 for inner-city families, $7,782 for close-in suburbs, and a whopping $11,364 for families who had moved to out-of-city housing. And each of these medians went up $2,500 per year when incomes of additional wage earners in the family were added.

Home, sweet home. Surprisingly, most of those queried, even those in center city, liked or loved their present neighborhoods, indicating that the strongest sales effort would have to be directed toward convincing them to uproot and move to "better" housing. This is exactly the same resistance that keeps white families from moving out of housing that they have outgrown economically. Actual percentages of those liking where they lived: in-city, 84.9%; close-in suburbs, 88.8%; and far-out suburbs, 91.3%.

Even with the small number that said they disliked their neighborhood, no single factor rated as high as 10% with either the city families or the close-in owners, reinforcing the conclusion that dissatisfaction is not a strong factor in the decision to look for a new home. Rather it is the anticipation and expectation of getting something even better.

It was the group in the outer suburbs that had the one large focused complaint: too far from work and/or shopping (26%). Since more than half the families in the city and close-in suburbs had two or more full-time wage earners, closeness and convenience to transportation and employment would rank as a critical requirement for a family hoping to move to a bigger and better house farther from the center of the city.

Good neighbors. The new subdivision has one unexpected attraction for non-white buyers: friendly neighbors. Almost twice the percentage of those suburban buyers (78.7%) cited "like neighbors" as did those in the inner city (39.9%) or the close-in suburbs (37.7%). Since most of the first group are in heavily white neighborhoods, the oft-quoted argument that "they only prefer living with their own kind" proved weak. In fact, one of the strongest preferences of all three groups (73%, 60% and 87%) was the desire to live in an integrated neighborhood, not one that was all white, or all black.

Buy or rent? One encouraging statistic reflected an overwhelming preference for owning one's own home. The present 64% of inner-city families who own would jump to 72% next time; the 79% of close-in owners would go to 82%; and the 78% presently owning true suburban homes would become a unanimous 100%. This preference persists even though most expect their monthly housing costs to remain the same or to rise drastically with their next home. Some 20% of the inner-city group expected that this rise in costs would be $35 per month or more.

The next home statistically will be a new home, say 56% of city dwellers, 66% of close-in families and 70% of the outer group, mainly because it will be new. Evidently the soap people, who put the word "new" on every box of detergent, really know what motivates people to buy, since 25% to 40% of the families interviewed in this survey said they "liked new things" as a reason for buying. Other strong attractions: "Can have just as I like it," "No repairs," "Better quality" and "Extras included."

Whether they preferred a new house or a resale, the families had some specific ideas about features they would like in their next houses, a list that was much like any tabulation of buyer preferences. Head and shoulders over all was square footage, expressed as "larger rooms," "more closets," "basement," "more space," and "larger kitchen." More bathrooms ranked high with outer and inner suburb families (26% and 20%), but not with inner-city households, probably because a second bath is rare except in larger, newer houses that few city dwellers have occupied.

Potential buyers. While the survey proved that Negro buyers do not differ in their needs and wants it did delineate the kind of non-white families that are the most obvious prospects: Young (average age of husband in outer area—33.2 years), medium-high income, small family size (average number in household—4.26) and college graduates (an overwhelming 69.6%).

Cool reception. Although such families seem to be a receptive market and are familiar with the advantages of home ownership, a series of questions about their treatment while househunting showed that the industry's attitude toward non-white prospects is still a major barrier.

The farther these families went from the center of the city, the poorer their treatment by the builders and realtors they visited. Almost a full third of the suburban buyers reported their reception as "poor," compared with only 8% in the inner city. None complained of actual insult or abuse, but rather that sales people were "not helpful," "discourteous," or "didn't try to sell." There were sins of omission, not deliberate acts of refusal to show houses.

But the indictment was not unanimous and there were indications that attitudes are changing. Excellent treatment was reported by 24% of inner-city families, 26.7% of close-in suburbs, and even 36.8% in the outer suburbs. Treatment rated at least "good" was admitted by over 70% of those interviewed, demonstrating that the reluctant housing seller is a dying phenomenon.

-JAMES P. GALLAGHER

High Court bars referendum for local open housing laws

The Supreme Court, in a 8-1 decision, has overturned an Akron, O., restriction on fair housing legislation.

The city had amended its charter in 1964 to nullify an open-housing ordinance adopted by the city council. The same amendment required that all new open housing legislation be ratified by a majority of the city's voters.

Justice Byron White noted in the court's majority opinion that the automatic referendum did not apply to other housing matters regularly acted upon by the council, such as urban renewal or rent control, so it placed a "special burden on racial minorities within the government process."

"This is no more permissible than denying them the vote on an equal basis with others," he wrote.

The lone dissenter, Justice Hugo L. Black, protested that there was no foundation in the Constitution for the ruling. He said the court's action was an infringement on a state's power to repeal old laws when it decided to do so.

The situation has not been fully resolved. Mayor John S. Ballard would not say when the city would begin to enforce the court's ruling.
"Now, with Kingsberry, I maintain tight cost control and my profits show it!"

And tight cost control isn't the only plus factor M. C. Construction Company experiences when they build Kingsberry Homes. "There's the added advantage of working with a top quality name," Mr. Muldowney stated, "which helps tremendously in pre-sales." Build a house within your cost projections, sell it faster, and watch the upturn in profits.

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...the men at Reynolds made the folks right at home with aluminum building products.

Reynolds did the right thing by both builder and customer at semi-tropical Port Charlotte, one of General Development Corporation's Florida communities.

Advance planning paid off in pre-finished packages, installed with less labor. Components included siding, roofing, windows and sliding doors, soffit and fascia, shutters and hardware, even heating and cooling ducts of rust, rot and warp-free Reynolds Aluminum.

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□ Have salesman call

Circle 59 on Reader Service card
An angry lady scourges the moneylenders of the ghetto

The savings and loan business, barely out of the fire that seared it during the Bobby Baker scandal (News, Feb. '66 et seq.), may be back in the frying pan. This time the cook is a Congressional tigress whose reputation for correcting credit abuses is fast becoming legend.

Leonor K. Sullivan (D., Mo.), who championed the truth-in-lending legislation in the House, is about to zero in on realty speculators whose activities milked assets from S&Ls and national banks only a stone's throw from the halls of Congress. Mrs. Sullivan has been named chairman of the House Banking and Currency Committee's sub-committee investigating insider loans. The loans were made at inflated values to Washington speculators whose interest in inner-city development was limited to the amount they could take out.

The hearings grew out of an exposé series in The Washington Post. The articles detailed the manner in which S&Ls lent speculators funds in excess of what they paid for properties. "Such mortgages," the articles held, "would put the speculators in a position to pocket the excess."

"Such loans," the Post reported, "enabled speculators to buy thousands of houses and apartment buildings in Negro neighborhoods with little or no cash investment. "Floating along on a stream of borrowed dollars, the speculators could move with the migration of low-income white and Negro families."

The debacle. The bubble burst when money tightened, and among the first to feel the pinch was Republic Federal S&L of Washington. It was eventually merged into a larger institution by the HLBB.

Republic's downfall traced to its concentration of large loans among a few borrowers, including but not limited to:

George Basiliko, a slum property owner, who owed $1.5 million on 100 mortgage loans from Republic. He had borrowed nearly $1 million in more than 60 loans from another association, Guardian Federal.

Burton Dorfman, an apartment owner, who defaulted on four mortgages to Republic with a total of $1 million.

Peter Laganas, an apartment builder, who owed $1.4 million to Republic.

The Post reported that houses in the inner city were purchased for, say, $12,000 on one day, and sold days later for $16,500. One speculator purchased a house in a Negro section for $5,500 and sold it for $14,500.

"The prospective black home buyer is a plum ripe for the picking," the Post said. But plums are out of season with Mrs. Sullivan, and she rarely loses a battle.

Help protect America's Grown-Ups

Kids aren't the only ones who need protection around the house.

So why not make your homes extra safe for everyone. Install ASG safety glass in your homes and let safety help you sell.

ASG makes all three kinds of safety glass—wired, laminated, and tempered. They're available in a variety of decorative surface patterns. And all have FHA approval.

Use ASG safety glass in sliding doors, window walls, partitions, and tub and shower enclosures. It's just the kind of thoughtful extra that home-buying families are looking for.

ASG has just prepared a special manual of governmental and trade association standards for safety glass. For a free copy, write: Dept. HH-39, American Saint Gobain Corporation, Kingsport, Tennessee 37662.
ALWAYS IN GOOD TASTE

Mellowood

BY KITCHEN KOMPACT

You are always right with Kitchen Kompact’s Mellowood cabinets. It’s now one of America’s favorites.

The simple, elegant lines of Mellowood are always in good taste. Homeowners never tire of the warm, friendly wood tones. You can be sure Mellowood is always right for any kitchen — of any size, in any decor.

Don’t let the beauty of Mellowood fool you! It’s designed to last a lifetime. A new, improved Durium drawer — a one-piece high-impact resistance material — is virtually indestructible. The unique, rounded drawer bottom makes for easier cleaning, too. And, all KK cabinets wear an exclusive “Family Proof” finish developed for Kitchen Kompact by Mobil Chemical. It is highly resistant to most household chemicals, alcohol, mild acids, even nail polish.

Give your customers more kitchen cabinets for their dollar. Make it Kitchen Kompact’s distinguished Mellowood. You really couldn’t recommend a cabinet with more value!

Kitchen Kompact is available from fully stocked distributors in most major markets. Look in the Yellow Pages for your nearest KK distributor.

Kitchen Kompact cabinets have been “Quality Certified” by the National Kitchen Cabinet Association. It’s your assurance of proven performance and satisfaction.

KITCHEN KOMPACT, INC., 911 E 11TH ST., JEFFERSONVILLE, INDIANA 47130
Play Leap Frog
with our brand new
Primed Insulite Siding

Send today for your very own Leap Frog game. It cleverly combines a challenge or two, and a little fun, with some serious business. And, it’s free.

Although Leap Frog is a simple game, it’s likely to try your patience. The rules state that you may only take a nail from the board after having “jumped” it with another. The object is to remove all but one lonely nail.

Naturally, the Leap Frog board itself is a rectangle of new Boise Cascade Primed Insulite Siding. Since you’ll be staring at it for a while, there are a few things you should remember. For instance, new Primed Insulite Siding is “curtain coated” for a smooth and uniform surface. This special prime-coated surface makes painting a snap, which is a pretty big deal when you’re talking about painting a whole house. Furthermore, Primed Insulite Siding has great dimensional stability. Once you’ve put it up, it won’t “move” on the wall. It’s also easy to nail, without the necessity to pre-drill, and has printed Guide Lines — top and bottom — for fast and accurate installation.

It’s easy to be the first builder on your block to have a Leap Frog Game made out of our new Primed Insulite Siding. Just mail us the coupon. Or, if you can’t stand games of any kind, simply call your local Boise Cascade dealer and order long, 16’ rectangles of new Primed Insulite Siding. You can choose from three types: Horizontal Lap, Vertical Grooved Panels, and Plain Panels. Unlike Leap Frog, you just can’t lose.
Experts tell Canada: Build a million homes—and hurry

It wasn't a royal commission, of which Canadians are fond. It wasn't even a senate investigation. It was only a federal task force commissioned to investigate housing and urban development.

Yet this seven-man fire brigade headed by Canada's minister in charge of housing, Paul Theodore Hellyer, 46, dashed across Canada hearing 500 briefs in 80 days from such disparate groups and individuals as the citizens of Fortune and Medicine Hat, architect Buckminster Fuller, the Five Citizens of Calgary and Giant Yellowknife Mines. It then put together a 40,000-word report that contained 47 proposals, and it turned in the finished paper only a month later.

What prompted the task force to act so quickly was Canada's increasing housing dilemma. Although 49% of the housing stock has come into existence since 1945, the country needs 500,000 units to replace obsolete homes and relieve overcrowding. Land prices have risen 200% in 15 years, mortgage rates are at a new high with maximum interest on National Housing Act's new-house mortgages at 9Y% and the country's baby boom has grown into a boom of young marrieds.

Starts at peak. The primary recommendation of the task force is to build one million additional units over the next five years. This, the team says, will keep pace with new demand plus making at least some inroad into the current backlog of overcrowding, obsolescence and general shortage of supply. Housing starts totaled 196,878 in 1968, an all-time record, but the panel insists Canada is still not building fast enough.

Says Hellyer, a former builder: "Urgency. That is certainly among the strongest of the task force's impressions. The home ownership dream of many Canadians is just that—a dream."

There was little of a revolutionary nature in the report, but for the first time all of the theories on how to solve Canada's housing problem were put into a master plan. Hellyer has told Canada's parliament that the cost of a new house could be cut by 20% if only a minimum number of the 47 proposals were adopted.

Free mortgage rate. The report suggests that the NHA interest rate, equivalent of the FHA rate in the states, be freed to find its own level. It is now pegged each quarter at 2 1/2% above long-term government bonds.

The task force would also like to see the mortgage ceiling raised from its present $18,000 level to $30,000 and the amortization period extended anywhere up to 40 years. The experts even suggest a study of a lease-purchase scheme for residents earning less than $5,000 a year.

Land and renewal. The task force feels that all profits on land deals should be taxable. (There is no capital gains tax in Canada). Land sold without improvements should be specially taxed, the panel said, and the federal government should make loans available to municipalities for acquiring, servicing and selling land.

The task force urged that all urban renewal be stopped until the government can initiate and complete a thorough research program into the economic, social and psychological issues of public housing. In the interim, the group suggested that the federal government lend municipalities the money to purchase dispersed existing housing for low-income groups and consider a program of income supplements to enable low-income families to rent or buy.

Because the task force felt that urban planning could be done effectively only on a regional basis, it recommended that the 10 provinces establish regional governments.

Hellyer said he would introduce specific legislation by early spring. Certain to be one of the new bills is the recommendation that a federal department of housing and urban affairs be established to carry out the task force's proposals. —Gene O'Keeffe

Toronto

NEWS continued on p. 44
Why build just houses?

Keep pace with consumer preference—build Total Electric Homes

"Twice as many homebuyers want electric heat as builders are now providing," reports a recent Department of Commerce study. Electric heat has arrived. Millions of families already enjoy it. And millions more say they want it.

A Total Electric Home is full of features that turn browsers into buyers. Fast.

Features like flameless electric heat. Electric water heaters. Self-cleaning ovens. Electric clothes dryers. Electric air conditioning. Features that'll help you sell faster and more profitably. A big reason for the big trend to Total Electric Homes: nationwide ads like the one pictured are selling the benefits of carefree electric living in Life, Look, Better Homes & Gardens, and American Home.

Why not take advantage of the growing preference for Total Electric Living? Your electric light and power company will welcome the opportunity to work with you.
You get the finest builder planning services in the country from Hotpoint. We'll help you with everything, start to finish.

For instance, our kitchen planning staff will evaluate your kitchen plans for design function and appeal. For layout practicality and convenience. For color harmony and beauty. For all the many things that make an ideal kitchen.

And, as with our many other services, your Hotpoint counselor works closely with you every step of the way. He's always there to keep things going smoothly and to follow through on the details. (Such as scheduling delivery of our products.)

Our other services range into most every area. Interior and exterior lighting, heating and air conditioning calculation and layout (and assistance in preparing operational cost estimates), merchandising.

We'll help you build kitchens that sell houses.

With appliances that sell kitchens.

and promotional planning, professional sales counseling. Together with our planning services, we offer you the finest line of builder appliances. All with the features women look for. And all backed by our fine service, nation-wide.

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Hotpoint's big line offers you many refrigerators, oven-ranges (with self-cleaning models in every style), countertop ranges, exhaust hoods, dishwashers, disposers, water heaters, washers, dryers—plus a full line of cooling and heating products.
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THE ONLY TIMER WITH DIAL FACE PLATE
THAT MOUNTS FLUSH TO THE WALL!

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From 3 Minutes
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NEWS
continued from p. 40

Homebuilders suing suppliers in plumbing price-fix case

About 30 civil suits have been filed by builders and developers across the country charging major plumbing-fixture suppliers with price fixing.

The civil suits follow a criminal action filed by the federal government against some of the same suppliers. In the government case, part of which is still pending in U.S. District Court in Pittsburgh, five suppliers and the Plumbing Fixture Manufacturers Assn. have been fined so far.

A typical civil suit has just been filed against 14 of the largest suppliers and the manufacturers’ association by 93 eastern builders.

“Our clients read the publicity about the government case,” says attorney Earl Kintner of Washington, D.C. “They asked us what they could do. We studied the situation for months. Then we filed a class suit [on behalf of all builders] in U.S. District Court in Washington, D.C.”

The plaintiffs include groups of builders from Philadelphia, Pittsburgh, New York City and Washington, D.C. (led by big builders Carl Freeman and James Cafritz Inc.).

The builders charge that representatives of 14 suppliers and the Plumbing Fixture Manufacturers Assn. met several times between 1960 and 1966 to set prices of plumbing fixtures and to establish sales territories.

The builders also charge that suppliers conspired to halt manufacture of enameled cast-iron fixtures, thus boosting sales of higher-priced fixtures.

The plaintiffs seek triple damages. The exact amount, they say, cannot be determined until records of the 14 companies are examined.


—THOMAS LIPPMAN
Washington

Seattle bank company buying
Coast Mortgage & Investment

The Pacific Northwest’s largest mortgage company is selling out to Seattle’s Marine Bancorporation, parent of the city’s National Bank of Commerce, for an estimated $6-$7 million.

“The mortgage company will operate independently and with no changes in personnel,” a banking spokesman said.

Coast Mortgage and its subsidiary, Ward Smith Inc., rank 21st among mortgage banking companies on $462 million in servicing. The combine is Metropolitan Life’s principal correspondent in the Northwest and has financed much of the Seattle housing boom. The company bought $70 million in mortgages in Washington state alone in 1968.

NEWS continued on p. 46
Air King makes 182 different range hoods, all beautiful!

Whatever style, price, size or finish range hood your kitchens call for, you can be confident Air King Hoods will bring you beauty that helps sell homes. See them all in our new Building Products Catalog...as well as Air King Radio/Intercom Systems, Door Chimes, Bath & Kitchen Fans, Attic Fans, Bathroom Heaters and Furnace Humidifiers. Write Berns Air King Corporation, 3050 North Rockwell St., Chicago, Ill., 60618.

Deluxe 3-speed Cabinet-Sav'R

above: Moderate-priced 2-speed Cabinet-Sav'R
left: Hi-Flow ductless model with rechargeable filter system
below: Low cost vertical discharge model
This "Extra Something" gives YOUR KITCHENS that "Something Extra"

Today's Purchasers or Renters of homes or apartments will pay more than your extra cost

Majestic Char-Grill® built-in barbecue grills

Modern homemakers want that "extra something" to make their ordinary kitchens "extraordinary" kitchens. And Char-Grill offers just the thing! That's why more and more builders and remodelers are installing Majestic Char-Grills in today's homes. It's a "stand out" item that quickly catches the eye of both husband and wife, providing the way they can now enjoy indoor cookouts the year around. When you feature the Char-Grill line you have a model for every customer preference - gas, electric or charcoal fired - and in a choice of sizes and models for installation in standard wood or metal cabinets, or in masonry - in either "Stack-on" style for modern up-front convenience, or "Drop-In" models for continuous cabinet front styling.

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Now 10 different grills—6 different hoods

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413 Erie St., Huntington, Indiana 46750

Circle 66 on Reader Service Card

NEWS continued from p. 44

Fanny May to stop checking mortgage property and credit

Free of virtually all governmental controls, the Federal National Mortgage Association has begun to streamline operations. The first such action is estimated to be a $300,000 annual cost savings device.

Fanny May is discontinuing examination of property and credit of each FHA and VA home mortgage prior to purchase by either FNMA or GNMA. Fanny May will rely on the judgment of seller-servicers to make sure property and credit checks are made that meet FNMA standards.

The change is not intended to reduce Fanny May standards, and a letter to sellers stressed that "we are depending more upon your expertise in originating mortgages." If FNMA discovers a deterioration in mortgage quality, new delinquency problems or other servicing difficulties under the new arrangement, the seller's contract with FNMA can be jeopardized.

Congress eyes tax loophole enjoyed by savings banks

A 1962 law that allows the mutual savings banks to set aside tax-free reserves equaling 3% of outstanding loans is depriving the federal government of $40 million in tax revenue annually, critics contend.

Most of the thrift and mortgage lending institutions that have set up 3% reserves pay no federal income tax.

Spurred by Treasury Dept. complaints, Chairman Wilbur Mills (D., Ark.) of the House Ways and Means Committee has asked his tax-writing panel to determine whether the loophole should be closed.

Mills' panel will also determine whether "other changes should be made to more closely equate the tax treatment of mutual savings banks with that of savings and loan associations."

Only a few S&Ls are using the 3% reserve loophole.

New York State lifts limit on home mortgages to 7 1/2%

The old ceiling was at 7 1/2%. The state banking board made the change three weeks after the federal government lifted the permissible FHA-VA interest rate from 6 3/4% to 7 1/2%.

Frank Wille, superintendent of banking, said the action was taken after "consideration of current trends in the nation's money and mortgage markets and in order to assure the continued availability of conventional mortgage money."

The New York State legislature voted last May to let the banking board set a rate from 5% to 7 1/2%, depending upon economic conditions. The board retains that power until Sept. 1, when new legislation will be required.

Maryland raised its mortgage ceiling to 8% in July, but the legislature is already considering a bill to revise that limit upward.

NEWS continued on p. 50
If she doesn’t swoon over Gerber Golden Yellow, you can offer her the same luxury in 5 other delicious colors.

Golden Yellow is one of the newest Gerber colors. Warm. Contemporary. Really appealing. For many luxury-loving women, this is their color, in smartly designed fixtures that have all the other luxury features they want. (Like sculptured styling in beautifully matched fixtures; tubs with a wide, flat safety bottom, and quiet-flushing closets.)

And, if for any reason your customer is cool toward Golden Yellow, show her our rich Caribe Avocado, or Driftwood Tan, Petal Pink, Wedgewood Blue, Forest Green, or versatile Stainless White. One of them is sure to set her aglow.

Practical luxury, in a complete line of Gerber plumbing fixtures and brass, means many other things to benefit you and your customer. Why not find out about all of them. Simply call or write.

Sweep a woman off her feet with Gerber luxury and still keep yours on profitable ground.

Gerber No. 21-217 Mount Vernon siphon-jet elongated unit, No. 27-510 Hampton bidet with rim-mounted 3-valve diverter fitting and pop-up drain, No. 12-848 Luxova self-rimming lavatories, No. 56-610 LaSalle recessed bathtub.

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The people at Day & Night refuse to believe in planned obsolescence. Furnaces are constructed and inspected by professional "nit-pickers." And most models can be converted to air conditioning at a later date.

Select the precise furnace you need from one of 100 basic models — indoor, outdoor, upflow, downflow, horizontal.

Call a Day & Night contractor for the comforting facts.

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THE QUALITY NAME IN HEATING AND AIR CONDITIONING
The Shagaroo is just too much carpet for some people. Too thick. Too wild. Too too.
But we made it that way so it would be just right for other people. The kind of people who flip over something different or something new.

We gave the Shagaroo an extra long pile, for example. It's 2 1/4 inches fat. And we dyed it 22 different ways, including 13 fairly kooky tweeds.
What's more, the Shagaroo is made with Kodel polyester, a durable, easy-to-clean fabric that has "family" written all over it.

In short, we went all out to make a carpet that young people would dig. And dig in their pockets to buy. As for the little old ladies, you'd still need an awfully good line to sell them on the Shagaroo.

But then, that's why we have 37 other carpets in our line.

"The right carpets for the right people."
Nixon men teach Washington brokers a lesson: The richer they are—the fewer houses they buy

The President's Cabinet of businessmen is taking the new administration's go-slow tone to heart—even when house hunting.

A survey of the District's top realty brokers last month failed to turn up even one house sale to a Nixon newcomer, though several Cabinet wives are shopping and reshoping the market.

Those wives are being held back by two powerful forces—a tight housing market and tight-fisted husbands.

The dug-in Democrats. Not surprisingly, the opposition party has sabotaged the new administration's go-slow tone by declining to sell their homes even while departing Washington. Instead, many of the Kennedy-Johnson team is still in town.

"I wish they would move," one broker says. "I could sell all their houses tomorrow."

Some Democrats—the Treasury's Henry Fowler, for example—are holding onto their homes while departing Washington. There is good reason: a house in the Capital is much like a money-making machine.

Since 1961, when John Kennedy's first aides arrived, the asking prices of choice houses have climbed 30% and more. One broker reported that the State Department's Nicholas Katzenbach wants $155,000 for a house in Cleveland Park that cost him $75,000 in 1962. This market is as tight as it has ever been. (The Veep has one thing to weep about—his apartment is too small for the family ping-pong table.)

Big chance for builders. Says veteran broker Ruth Robbins of northern Virginia: "This market is as tight as it has ever been."

And it will probably get tighter. Throughout the summer, the Nixon administration will bring in waves of new people to fill about 2,000 executive jobs.

Mrs. Robbins adds: "This is a great opportunity for homebuilders. We are urging the 19 builders we work with to put up extra houses—with four bedrooms for about $45,000—even if they can't deliver until the fall. The market is boundless."

The reluctant Republicans. Finding a house is only the first step for the new Nixon people. The wife must then sell it to her husband, who—more than likely—is a good Republican who believes that fiscal responsibility begins at home.

Broker Fred Marsteller, president of the Washington Board of Realtors, echoes his colleagues' views by describing the new Republicans as "serious people who don't make snap decisions."

Furthermore, the businessmen Nixon has recruited are not at all eager to settle down in Washington for many years. Men like Attorney General John Mitchell and David Packard of the Defense Department, to name just two, have left their hearts and livelihoods at home. Nearly all of those who took severe pay cuts to join Nixon are looking forward to an eventual return to private life—and private enterprise.

In the meantime, they are not selling their houses at home, and they are not buying houses in Washington. Instead, many are renting. For example, Chief of Protocol Emil "Buzz" Mosbacher, Jr. is living in an opulent hotel (photo); Housing Secretary George Romney is renting a one-bedroom unit for $500 a month; and Vice President Spiro T. Agnew, another renter, is quoted by one wag as saying: "If you've seen one suburban house, you've seen them all."

No complaints. Washington's realty fraternity is not disheartened. A few have pursued the renters by creating apartment divisions. And in general the brokers say business is very good.

Yet the market is not booming as it did eight years ago when Eisenhowers' ghostly renters were replaced by Kennedy's spirited buyers.

Says Marsteller: "Those Kennedy people believed in spending. They bid up house prices all over town. Before they arrived some of us said Democrats don't have money. But those kids had rich Republican daddies."

F.L. NEWS continued on p. 54
Suddenly...
a significant new major appliance opportunity

Jenn-Air's versatile new Savory Centre

For the first time in two decades, there's a completely new appliance for the home, the only major appliance introduction since the automatic dishwasher. Jenn-Air's Savory Centre is a totally new way of cooking. It grills steaks, hot dogs or hamburgers with the popular charbroiled taste of an outdoor grill, a flavor no oven broiling can match. It roasts... without the messy clean-up afterwards. It shish kebabs exotic charbroiling specialties. It griddles enough ham and eggs for the whole family at once. And it french fries, with its own deep frying attachment.

But here's the best part... it's all done in the open without a bulky overhead hood. Instead Jenn-Air has built in an exclusive surface vent right next to the grill. It traps smoke and odors at the cooking surface and whisk's them outdoors.

Jenn-Air's Savory Centre flavors every meal with new excitement and fun. Cooking on it can't help but be a family affair.

Suddenly... there's a great new major appliance opportunity for you. Send today for additional information and your free copy of Jenn-Air's full color Savory Centre Brochure.
"That's because I just don't think there is any equal to KitchenAid dishwashers," says Portland, Maine builder Robert Walker, who has installed KitchenAid dishwashers in all the homes he's built in the past 17 years. Walker started using KitchenAid dishwashers because "they're made by The Hobart Manufacturing Company", who have made dependable commercial dishwashers for years. And he's continued to use KitchenAid because they've given him "very, very few callbacks". In fact, Robert Walker's customers expect—and get—the best. And if you specify KitchenAid dishwashers for your homes, your customers will get the best, too. Take it from Walker, they appreciate it.

Like more information? Call your distributor. Or write KitchenAid Dishwashers, The Hobart Manufacturing Company, Dept. 9DS-3, Troy, Ohio 45373.

KitchenAid Dishwashers and Disposers

KitchenAid dishwashers—20 years of good old-fashioned quality.
Remember two words MOLDED-STONE and build better for less at all levels!

MARVELOUS MOLDED-STONE adds appeal... upgrades laundry room. Choice of colors. Virtually stainproof and so easy to keep clean. Wall-hung to economize on floor space, match up with modern appliances. Single and double models with many handy accessories.

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Installs easily and attractively in mud room, utility room, anywhere. Use this potent low cost extra for a drip-dry closet. Ideal for storing drenched shoes, galoshes, umbrellas, parka, etc. Great for cleaning mops, buckets, barbecue grills and... washing pets, maybe moppets.

THE TRINTESSA SHOWER
Install this luxurious and flexible shower unit that will "mail the sale". Walls of Formica® brand laminate in nine colorful patterns—beautiful for a lifetime—end grout-joint grabbing forever. Coordinated color MOLDED-STONE floors are one-piece... stainproof and leak-proof. Truly the ultimate for shower bathing, this exclusive ensemble installs fast, economically in new homes or remodeling.

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Circle 73 on Reader Service card
Hippie designer joins establishment as his output becomes big business

The model house designer-decorator from California raised eyebrows by stalking around the NAHB convention in an Australian bush jacket and chino pants. Builders asked: "Who's the hippee?"

He is Darrell Howe, one of the hottest new-house merchandisers in the country (Nat, May, '68). A partial roll-call of his clients has the ring of a Who's Who in Homebuilding: Robert H. Grant Homes; American Housing Guild; the Larson Group; Maceo Corp.; Burnham Builders; Calwood Homes; William Lyon's Homes and Alfred H. Mayer Co.

Says Maceo's Harold Lasky: "We think he is the best merchandiser around."

After only three years, Howe has made model-house decoration and design big business. His Hamilton-Howe Inc. is on its way to gross billings of $3 million this year, up from $1.3 million last year. Howe's service costs an average of $13,000 a house.

Inevitably, such acceleration has whet the appetite of public companies, which have developed a taste for growth and housing. Howe criticizes competitors for having "to be watered down for the Midwest", says Howe. "People are the same all over. We all go to the same movies, watch the same TV."

At 35, Howe plans frenetic company expansion. In housing, he plans to sell furniture, which he designs and builds, to the furniture outlets of the giant builders.

And he plans to branch into the auto industry and big business itself. He wants to redesign automobile showrooms and make used-car lots more like parks.

He also would help corporations project solid, study images by decorating their offices and their executives. "It's a no-comment when asked anybody knew about that." He dresses himself in the "funky elegance" of bush jackets is not above sartorial tips to businessmen: "I'll make them all look like John Wayne, even if I have to buy their clothes for them."

Another Ahmanson in Home S&L post

He is William H. Ahmanson, 43, nephew of the legendary financier Howard Fieldstead Ahmanson, who died while motoring in Europe last year. The Home board has just elected William to succeed his uncle as chairman.

The directors re-elected Richard H. Deihl as president, and he reported that Home had just posted its best annual figures for a year considered lackluster by most of the other savings and loans.

Deihl said Home lent $602 million on California real estate in 1968, up 35%, and that assets reached $2.9 billion, up $400 million. Home is the world's largest S&L.

DIED: Edward Flickinger, head of the District of Columbia's office of urban renewal from 1955 to 1958 who, during his earlier tenure as a member of Pennsylvania's state planning board, originated the concept of the Pennsylvania Turnpike, of a heart attack at 68.

NEWS continued on p. 58
Only from Kemper.
More styles, More finishes, More features.

That's why Kemper is preferred by more architects and builders than ever before. They know there isn't a better cabinet value... anywhere.

design. Your choice of elegant English Oak (pictured above), the exciting new Tiara in hand shaded maple, Traditional Fruitwood or Colony Line V-grooved Cherry. And, of course, a line of matching decorator styled bathroom vanities in white and gold and in natural wood grain finishes.

features. The kind of convenience features that help sell houses. Self-closing hinges, roomy broom closets, built-in cutlery drawers, self-centering lazy susans, do-it-yourself door front decorating options, the latest hardware ideas and the exclusive Kemper "mini-pantry."

construction. Here's a cabinet that installs fast and clean. It's engineered that way to help you make more profit on every job. Cabinets are square and true. Toe boards and end panels are pre-finished. And Kemper cabinets require the least number of space consuming filler panels.

See your Kemper Distributor for all the facts on why both you and your customer get more when you install competitively priced Kemper kitchen cabinets and bathroom vanities. Kemper: America's best kitchen cabinet value. Kemper Brothers, Inc., Richmond, Indiana 47374.
Builder and architect toss hats in ring against New York mayor

Both candidates—builder-developer James Scheuer and architect Vito Battista—will hit hard at Mayor John V. Lindsay’s vulnerable housing record.

As a candidate three years ago, Lindsay vowed to build 27,000 low and moderate-income units a year. After a slow transition to power in 1966, the Lindsay administration completed only 13,000 publicly aided units in 1967 and 1968, which is 2,000 units a year fewer than the pace set by former Mayor Robert Wagner from 1962 to 1965.

Also, rents of new privately built housing have soared to a high of $150 a room in Manhattan, as citywide production has dropped to 12,000 private units in 1968. In Manhattan last year only 1,500 new units were completed.

Yet Dr. Frank Kristof, formerly a housing economist for both Wagner and Lindsay, says that criticism of Lindsay’s housing performance is a “bum rap.” He says overbuilding during Wagner’s administration and a restrictive zoning law depressed production under Lindsay. (Dr. Kristof, is now employed by the state’s Urban Development Corp., headed by planner Edward Logue.)

Whatever the causes of the decline, critics are sure to continue their housing attacks throughout this election year. So it is not surprising that the first announced candidates for mayor have building backgrounds.

Rep. Scheuer (D., N.Y.), an independently wealthy builder-developer has assigned a staff of 25 to research the Republican mayor’s record in housing, crime and education. The 48-year-old Scheuer (pronounced SHAW-yer), a reform Democrat, has built federally aided housing with mixed success in Washington, D.C., San Juan, Sacramento and St. Louis.

Gaddly-politician Battista will campaign for an end of realty taxes, a drastic reduction of welfare payments and the sale of city-owned housing to private companies. Battista, 58, a Republican state assemblyman, heads the Institute of Design and Construction in Brooklyn.

With solid support from the GOP’s conservative wing, Battista could run strongly against Lindsay in the Republican primary election. The city’s Republicans, like the state’s Democrats, are severely split.

Scheuer has the wealth to mount a vigorous campaign. But he will first have to fight off a horde of fellow Democrats who want to run against Lindsay themselves.

GE (sob)—still wants a new town

That assurance comes from George Bogard, the man General Electric hired to start its new town three long years ago.

At first, Bogard toured the nation speaking of GE’s plans for a self-supporting city of 30,000 housing units and 100,000 persons. The construction, he said, would take 15 to 20 years (News, Sept. ’66).

Bogard skirted the issue at the time, but it became common knowledge that the search for a suitable site would take GE close to five years. So far Bogard has explored 30 possibilities, but sites in only five areas have proved feasible—the San Francisco Bay area, Los Angeles, Chicago, New York and Washington, D.C.

Now GE has narrowed its search to two of those, Bogard discloses. But he declines to elaborate, except to add this comment on three years of looking: “I am goddamned discouraged.”
Carpet of HERCULON® keeps a reception room beautiful even though it leads a dog's life.

When other carpets look dog-tired, HERCULON still looks beautiful. Because carpet of HERCULON® olefin fiber can take the tough professional life of a veterinarian's reception room, or an office, at home, or anywhere you want long-lasting beauty and practicality. A carpet of HERCULON is an excellent value to start with. It gets even more so the longer you have it.

For more good information contact Fibers Merchandising, Hercules Incorporated, Wilmington, Delaware 19899.

*Hercules registered trademark.
If vinyl is so expensive, why are so many low-cost projects using it to save money?

Here's what dollar-conscious builders are doing in several major developments:

Michigan's largest residential rehabilitation program chooses siding made of Geon vinyl to reduce maintenance expense.

Maryland housing-for-the-elderly project chooses vinyl clad windows for long-time maintenance savings.

Ohio project chooses PVC pipe made of Geon vinyl because it saves from 35 to 50 per cent in materials plumbing costs.

The truth about PVC is this: building components made of Geon vinyl do not peel, dent, corrode or need paint, and the long-term dollar savings are substantial. Ask us for facts. Also for free brochure. B.F.Goodrich Chemical Company, Dept. H-17, 3135 Euclid Avenue, Cleveland, Ohio 44115.
Moen proudly presents its toughest competition.

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More home builders install Lennox central air conditioning & heating than any other brand*

Reasons? Trouble-free, top-performance equipment, backed by dependable, installing dealers everywhere. Lots of direct-factory planning, promotion aids and consistent national advertising. And most important of all, Lennox is the first-choice brand with new home prospects. Write for the name of your nearby Lennox factory representative. Lennox Industries Inc., 443 S. 12th Avenue, Marshalltown, Iowa 50158.

*Source: Research by a leading builder publication.

Nature's Freshness Indoors
Windows for showplaces

Windows with a “showplace” look come from Marvin. Marvin is different. We do things that other manufacturers won’t do to make beautiful wood windows easier to get, easier to install, and easier to use in beautiful, out-of-the-ordinary ways. For instance, we offer the most styles, sizes, and options of any manufacturer, and deliver them set up to local jobbers within 10 days of order. Call or write us and we’ll tell you some other things you need to know about windows for showplaces.

FREE! Send for our colorful new literature and learn the Marvin secrets that help you use wood windows in beautiful ways — that sell showplaces.
Informal. Yet impressively sophisticated. Red cedar handsplit shakes match the mood of a high school campus.

Education has come a long way since the days of the little red schoolhouse. In fact . . . so has the little red schoolhouse.

Today, school architecture reflects a whole different range of social attitudes and interests. The word is versatility. And the perfect material to reflect the mood is red cedar shingles and handsplit shakes.

Shakes and shingles are relaxed, casual. Yet capable of expressing a remarkable degree of quality—of rich diversification. And few materials are so practical. Tough. Extremely low in maintenance. Durable. Completely resistant to weather damage. Naturally insulative.

For your next school or other commercial project, insist on the real thing: red cedar Certigrade shingles or Certi-Split shakes. They’re worth it.

For details plus money-saving application tips, write: 6510 White Building, Seattle, Washington 98101. (In Canada: 1477 West Pender Street, Vancouver 5, B.C.)

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One of a series presented by members of the American Wood Council.
Lightweight, light transmitting — a garage door of Alsynite®/Structoglas® is eye-catching, no question about it. Lends an air of distinction to any house. Looks better, lasts longer — and when a buyer realizes it requires little maintenance, won’t shatter, dent, or warp—why, then, an Alsynite®/Structoglas® garage door sells for you! Tougher than ordinary building materials, yet resistant to fading and weathering. Alsynite®/Structoglas® is the finest fiberglass reinforced garage door panel available. Gives you more usable living and play areas, with light transmitted evenly throughout the garage. Beauty, quality, utility and sales... all are yours with Alsynite®/Structoglas®!

For the name of the garage door manufacturer nearest you write Alsynite®/Structoglas®!
Better ways to cut costs?

H&H: The housing industry's basic problem is to provide livable units at a price that people can afford to pay. Perhaps some of the answers do not lie in the construction field.

One reason that the mobile-home makers have been so effective is that they have made better use of the cube. They waste practically no interior space on halls and connecting areas. Their interior walls take up only insignificant space. While this form of wall construction would be objectionable in a house or apartment, because of noise and other factors, I keep going back in my mind to the sandwich panel, which was not recognized in conventional construction. Perhaps a fresh look should be taken at the sandwich panel with a view to using it to make the rooms larger.

Borrowing ideas from another source—ship designers—space could be used better by 1) a captain's bed type of arrangement in which a chest of drawers would be placed under the bed, 2) hanging chests and other items on walls above furniture in largely wasted space and 3) putting vanities beneath or above fixtures in small bathrooms.

Getting back to mobile-home makers, another reason they offer cheaper housing is that they do not use 8' ceilings. I believe their less cube to the square foot—i.e., their ventilation systems, perhaps some compromise in the form of a 7'6" ceiling would be effective in conventional housing.

In brief: 1) Can't we get rid of wasted interior space? 2) Can't we use the interior space better through better design? 3) Can't we use thinner interior walls and compromise on ceiling heights?

FRED G. BARNETT, vice president
Float-Away Door Co.
Atlanta

How to make it on Wall Street

H&H: Reporter Frank Lalli's coverage of the Wall Street-big builder alliances [Jan.] should provide many large regional builders with succulent food for thought. Unfortunately, as Lalli indicated, builders are not accustomed to Wall Street talk and quite a few unfortunate decisions may result.

Two suggestions we offer to clear the air are:

1. To make a serious and sophisticated study of forecasted sales.

2. To retain an investment advisor if the builder is willing to relinquish control for cash.

A builder who merges with a public company or tries to go public on his own should understand how future sales and profits affect his value as a commodity. Next year's earnings are more important to Wall Street than last year's. A big builder cannot simply offer an extrapolation of a profit-loss statement for 1968.

To do justice to himself, he should retain an outside marketing firm to explore exactly where he stands in his market, where the market is moving and what his realistic sales forecast is for the next five years.

With a good projection of sales and earnings, a builder then has the information on which to base an effective decision of whether to stand pat, sell out or go public. If the latter two courses seem attractive, he should investigate how an investment banker, merger expert or acquisition department of a big brokerage house can help him plan his most favorable course.

Marketing a company requires basic information in the same way that marketing information is used to make profitable decisions in selling houses. H&H is doing its readers a real service by bringing to light how builders can best serve their own future interest.

GABRIEL M. GELB
Gelb/Marketing Research
Houston

Houston guide

H&H: Congratulations on the wonderful job you did with the "Guide to Houston". Like so many of the people making the trip to the NAHB convention this year, this was a new city to us, and we found your publication invaluable in directing our group around town.

In typical H&H fashion, it was another job well done.

WILLIAM T. NOLAN, manager
Builder Market Development
U.S. Plywood
New York

H&H: Your Houston supplement for the 1969 NAHB convention is outstanding, and your photos and copy, particularly on Astrodome, are tremendous.

You've provided the NAHB with an accurate report on Houston, and it's obvious that a lot of talent, time and effort went into it.

WAYNE CHANDLER, director of publicity
Astroworld
Houston

'Timely, gutsy articles'

H&H: As long-time subscribers to House & Home, we wish to extend our congratulations to you and your staff for the timely, gutsy, no-punches-pulled approach displayed in most of your articles. It's a case of telling it like it is, and in the building business today that's exactly the way we want to hear it.

Several years ago you did an article on a New Englander by the name of Emil Hanslin. I recall having read the article with much interest, looking forward to the time when we might in our organization bring the talent of real estate broker and builder to bear on the problems of the five- and ten-house-a-year builder, and make it pay for everyone concerned. It seemed to me as I read that article that Hanslin and his associates had done just that, and by spreading the cost of research, marketing, advertising, land acquisition, etc., over a large number of small builders, they were able to provide for the standard brokerage fee a kind of service that the average small builder could not even dream of.

We are interested in moving in this direction. We have the talent. We need case histories in order to set up guide lines. We would, therefore, appreciate your sending us copies of any articles on Emil Hanslin and his operation that you might have.

WILLIAM R. CALHOUN, builder
Doylestown, Pa.

Missing photo credits

In the story on 221d3 housing in the January issue of House & Home, photographer's credits were inadvertently omitted. The apartment project on page 83 was photographed by Ben Schnall and the projects on pages 87 and 89 were photographed by Julius Shulman.—Ed
There's a better way to build...with Westinghouse

Fact: Westinghouse makes more products and systems for construction, offers more services, than any other company in the world. Everything electrical, of course. Also everything to heat, cool, clean and move air. All major appliances. Cabinets, Micarta counter tops and wall surfaces for work-free interiors. Plus vertical and horizontal transportation. And electrical distribution equipment and lighting. Westinghouse also provides computerized electrical and mechanical systems studies.

If you want this kind of help, call your local Westinghouse construction representative. His phone number's on the opposite page.

You can be sure... if it's Westinghouse
A project that offers fresh ideas in floor plans

Builders and architects are fond of pointing out that there aren't really more than a dozen or so basic floor plans in the world, and all the so-called "new" layouts are nothing more than variations on the original dozen. But what doesn't get pointed out enough is that the skill with which these variations are made can be the difference between an ordinary house and one whose plan is a real sales feature.

Case in point is Greenbrook, a 261-acre project in Danville, Calif., that will eventually hold 664 houses. Kay Homes is currently offering seven models in the $34,950 to $43,950 range and much of the credit for Greenbrook's nine-a-month sales rate goes to the floor plans worked out by the architect, Burger & Coplans. The fundamentals—traffic, zoning, etc.—are expertly handled. Each model has at least one attention-getting plan feature. And taken as a group, the models offer living for just about any age, size and personality of buyers, from the small family that wants room to expand to the big family that needs five bedrooms.

The two best-selling models are shown below; as is often the case today, they represent the top of the price list. On page 70 are two of the smaller models, plus an expandable house that can be bought with an unfinished or finished second floor. And on page 72 are shown some of the interior features of the models, along with pictures and plans of the Greenbrook Racquet Club, the project's $431,000 recreation center.

$41,950 MODEL has an unusually deep plan (more than 30') which allows an extra bedroom or study on the first floor, and four bedrooms, two baths and the upper part of the two-story entry and living room on the second floor (see photo on p. 72). Note the wet-bar alcove in the family room.

$39,500 MODEL has all of its living areas plus the master bedroom in the rear, where they can share in private outdoor living. The projecting kitchen adds to the working space, helps divide the rear terrace into formal and informal parts, and makes an unusually glamorous sales extra (photo, p. 72).
How do the Westinghouse Heavy Duty washer and dryer stack up? Neat.

But don't take our word for it: Compare.

Talk about saving floor space, the Westinghouse Heavy Duty tumbler washer and electric dryer together need only 27 inches of it!

As you can see above, the dryer fits right on top of the washer which means they can easily be put in a laundry room upstairs. A great selling extra.

The electric dryer (model DEICSLX 240 volt, model DEICSLV 208 volt) requires no venting. Also has "Auto Dry", ideal for permanent press fabrics, and a condenser system to trap moisture removed from clothes. (Available after April 1, 1969.)

The washer (model LTH100) offers famous tumble-action, multi-speed washing, one spray rinse and two deep rinses, self-cleaning porcelain enamel wash basket, and automatic self-cleaning lint ejector.

And to make things even better, these Westinghouse Laundry Twins are beautifully styled in coppertone, avocado, goldtone or white.

You can be sure...if it's Westinghouse.

To help you build it better...sales-clinching appliances
WHAT
THE
LEADERS
ARE
BUILDING

continued

$38,950 MODEL is zoned for the family that wants entertaining areas set off by themselves. Informal family room is at the opposite end of the house from the formal living room, and the parents' suite is well insulated from both. Third garage stall can hold a trailered boat as well as a car.

$34,950 MODEL is the lowest priced in the Greenbrook line, but it retains the key features of the higher-priced models: step-down family room, mud room with lavatory, formal dining room, dead-end living room, master-bedroom suite with dressing room, and lots of closets throughout the house.

$40,950 MODEL starts as the smallest house, but has a second-floor area big enough to permit adding three big bedrooms, or two bedrooms and a family room, and one or two baths. For the buyer who wants up to six bedrooms and four baths, the house is sold with second floor finished for $43,950.

continued
What do you call an oven that cleans itself faster, better, more economically? Westinghouse.

But don't take our word for it: Compare.

The self-cleaning feature of this new Westinghouse 25-inch built-in electric oven is reason enough to install it in your kitchens. But we didn't stop there. Far from it. We also included an automatic timing center, an automatic Roast Guard, a look-in oven window and reversible oven racks for any-rack baking. And you can make things even more exciting with these appealing options: No Turn Speed-Broil® unit, flavor-seal broiling that broils both sides at once to seal in juices and flavor; and an automatic rotisserie for more versatile cooking.

Exceptionally good-looking, too, in avocado, coppertone, goldtone or white. Ask for models OK25DH and OK25GH...available April 1969.

If you're offering a quality house or apartment, feature a quality oven. You can be sure...if it's Westinghouse.

To help you build it better...sales-clinching appliances...
Here are highlights of Greenbrook's $431,000 recreation center

**RECREATION FACILITIES** include swimming pool (above, left), clubhouse (above, right and below) with two spacious lounges, and four tennis courts (land plan, left). Entire complex takes up three and a half acres.

**INDOOR-OUTDOOR KITCHEN**, with family room separated by step and an iron rail, is in medium-priced model shown at top of page 70.

**PROJECTING KITCHEN** of model shown at the bottom of page 68 gives mothers a control tower from which to supervise kids in the backyard.

**TWO-STORY AREA** of best-selling model shown on page 68 includes a dramatic entry, in foreground, and the front of the living room.

Photos: Ernest Braun
A project cabinet that doesn't look like a project cabinet.

With the introduction of Town House by I-XL, you no longer have to be satisfied with slap-dash project cabinets. Town House adds the quality touch to kitchens that says only the nicest things about your construction. Women love the luxurious appearance of the rich, walnut wood grain in durable, easy-to-care-for Micarta. And, they appreciate the outstanding I-XL features that are so unusual in low-cost cabinets—designed especially for project homes and apartments.

Only Town House offers you these custom advantages in project cabinets: Cabinet doors and drawer faces are high pressure laminate—finished on both sides • Self-closing door hinges that allow for simple door alignment adjustment. (A quarter-turn of two screws does it.) • Nylon glides for easy drawer operation • 24" deep base cabinets • Wide selection of sizes • Wall cabinets, up to 42" wide, with adjustable shelves • A complete selection of vanity cabinets for bathroom or dressing room.

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Good ideas usually generate more good ideas, which is one reason why Koppers family of super woods has been growing larger every year. These outstanding building materials are the result of pressure-treating wood with chemicals, or laminating—two great ideas that make wood today's most exciting and functional building material. Pressure-treated wood performs outstandingly where resistance to decay and insect attack is essential. It's ideal for such applications as patio decks, outdoor stairs, docks, subflooring and even lighting standards. Koppers laminated wood has bred a new world of design possibilities for structural framing in residential and light commercial construction. In addition, Koppers fire-protected super woods keep their structural integrity under severe fire conditions. We hope the ideas shown here turn on some great ideas for you, too. Write for our portfolio of Catalogs on materials for building construction. Forest Products Division, Koppers Company, Inc., 795 Koppers Building, Pittsburgh, Pa. 15219.

Beautiful, distinctive red cedar Shakes and Shingles give this Dental-Medical Clinic, located in the Grosse Pointe Woods section of Detroit, desired compatibility with the neighborhood's contemporary and Colonial exterior architecture. They carry a Class “C” U. L. rating. For added fire protection, interior structural components (plywood roof decking, studs, wall plates) are Non-Com® fire-protected wood.

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It holds almost everything you need for homes and apartments. U.S. Plywood dealers have access to every product we make, and the product line is extensive.

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"Artistic Brass has worked into our picture very successfully"

ALFRED H. MAYER

March 15, 1968

Mr. Tom Simon
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On the outset of this venture, we used the 8001 in Polished Brass and Polished Chrome, and then to the 80 and 811, both in Polished Brass and Polished Chrome.

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1. It's design is very elegant for the money spent.
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Sincerely,

ALFRED H. MAYER COMPANY

ARTISTIC BRASS, INC.
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In South Laguna, California, Bob Houston built Pacific Island Village. A complex of $30,000 to $44,000 attached condominiums.

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For additional information, contact Dept. 100, Corning Glass Works, Corning, New York 14830.

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PACKAGED BI-FOLD UNITS
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with hardware factory
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glazed, standard. Same outstanding fea-
tures of design and construction as
Jessup bi-folds, doors, and blinds. Send
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sure you're buying service-free quality and performance,
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Add the right drive-line components from Chevy’s big selection and you’re in business. Let your Chevrolet dealer make it a more profitable business. . . . Chevrolet Division of General Motors, Detroit, Michigan.
Here's all you need to nail anything from a roof truss to a complete house

THE POWERFUL CN-137 drives coated round-head nails from 6d commons to 16d sinkers—regular, screw and ring shanks...23 different nails. A time and money saver for in-plant and on-site home construction, including truss work, framing, wall components, sub-flooring, roof-decks, millwork—any other construction where such nails are used.

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BOTH NAILERS drive nails more than 5 times faster than a hammer. Both are very portable, easy to take to the job. Both drive nails with a single impact. The driving blade strikes each nail dead center to assure straight, precise driving. Both tools are built for hard, professional use; they are exceptionally rugged. Both load quickly and easily, and protect users with a built-in safety mechanism that prevents accidental firing.

IN BRIEF: If you assemble trusses, wall components, sash and millwork, or build the complete house, you will find costcutting benefits accruing from the use of Duo-Fast Automatic Nailers. Why not investigate today?

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EDITORIAL

Who's being subsidized?

To house the poor, we throw a banquet for the middle class and hope some crumbs fall to low-income families

Sounds crass, doesn't it? Well, it's darn near the truth. There are some very interesting statistics to show you what we mean. So let's back up and start from the beginning.

You know, we in the private sector take pardonable pride in how much housing we have produced for the larger society. For instance, in the last third of a century we have produced more than 37 million dwelling units, while the public sector has sponsored only 2% of that amount in subsidized housing for low-income families. Yes, that's right—a grand total of less than 750,000 units of public housing, 221d3 housing, rent-supplemented and 202 elderly housing completed since New York City started the first public housing in the nation in 1935.

And if you want to take a hard look at the public-housing part of that total, read Chapter I, Part 2 of the Douglas Commission report on urban problems. It compares public-housing units built with units "demolished through equivalent elimination provisions connected with public housing or as a result of urban renewal" in 74 cities. Results through 1967: 357,291 units built and 397,287 demolished, or a net deficit of 40,004 units for low-income families.

That makes public-housing programs look pretty bad. Right? Right. And by comparison, the Douglas Commission has come up with some figures that could make the private sector look almost too good to be true. A study made for the Commission shows that 44% of the nation's housing inventory in 1950 was substandard (20,530,000 dwelling units out of 46,137,000) and that by 1970 only 16% will be substandard (10.8 million units out of an inventory of 69.5 million).

In 1950 the U.S. had 25,607,000 standard dwelling units. By 1970 that total will have jumped to 58,681,000—an increase of 33,074,000. New housing built by private industry will have accounted for 30 million of those units (the rest represent housing that has been upgraded through remodeling).

That's pretty good, isn't it? Well, maybe. You could simply say that the reason for this amazing performance is the sustained level of affluence of Americans over most of the last 20 years.

But if you think that's the whole truth, you are kidding yourself. Another big reason for that performance is that private "non-subsidized" housing is actually the beneficiary of tax savings that cost the government three-and-a-half times as much as the Feds' subsidies for housing low-income families.

Sounds crazy, doesn't it? Well, just consider this. Last year the federal government spent a bit over $1 billion subsidizing housing for low-income families. That figure derives from contract payments to public housing authorities, welfare payments (the biggest source of rent supplements), and taxes lost to the government through income tax deductions by low-income families in subsidized housing.

On the other hand, a study by the departing Johnson administration shows that last year housing "subsidies" for the middle class cost the government $3.7 billion.

How do you figure that? Well, housing in the larger society is subsidized through tax deduction for interest paid on mortgages, through deducted property taxes and through accelerated depreciation. All of those deductions cost the federal government last year $3.7 billion in reduced income taxes.

Now at this point, gentle reader, don't get us wrong. We are not contesting depreciation schedules, allowable deductions, nor property taxes which keep our communities viable. Nor are we contesting the preemption of most income taxes by the Federal government.

What we are saying is that it's time we stopped kidding ourselves about who is subsidized and who isn't, whether one group of people cost the government more than another. We think the deductions the larger society can take are reasonable and eminently justifiable. But we also think that our level of subsidy for low-income families, in light of those deductions and in a nation with a Gross National Product over $900 billion a year, is downright miserly.

—RICHARD W. O'NEILL
SHOWDOWN
AT THE AUSTIN OAKS CORRAL

- Modified Mobile Home
- Stressed-Skin Modules
- Expanded Mobile Home
- Aluminum-Skin Panels
- Wood-Framed Panels
- Precast Concrete Frame
THESE TEN HOUSES, set up side by side in Austin, Tex., offer ten different answers to the nation's crying need for low-income shelter. Are they all good answers? Are some better than others? Or are none of them any good? We'll find out sometime next year, when a team of engineers, architects and social scientists from the University of Texas finishes nit-picking them. They'll be sized up not only for structure, materials, design, mechanicals, acoustics, comfort, construction man-hours and cost, but also for their psychological and sociological impact on families who are living in them. The study is financed by a $360,000 grant from HUD, which picked the contestants from a field of 88. The showdown center, called Austin Oaks, is the first of its type. And while the judges say their findings won't pinpoint a winner, there should be little question about how the houses stack up when all the results are in. For a closer look at the contenders, turn the page.
MODIFIED MOBILE HOME ON CONCRETE PIERS was built in a factory and set by crane at the site. The price is $7,000 for 672 sq. ft. of living space, plus a storage shed and kitchen appliances.

While the dimensions and floor plan resemble those of a standard mobile home, the construction is somewhat heavier. Exterior walls, for example, are framed with 2x4s clad with ½" firecode sheathing under prefinished aluminum siding. But interior partitions are made of 2x2s clad with ¼" Lauan plywood. The floor is framed with 2x6s on 16" centers, sheathed with ½" plywood and finished with sheet vinyl.

Exterior design is a hybrid combining a mobile-home elevation with conventional-looking double-hung windows and a strip of molded-metal shingles to give the suggestion of a mansard roof line. Windows and exterior doors are aluminum. The plumbing system combines polyvinylchloride, for drain-waste-vent piping, with copper for hot and cold water. Fiber glass thermal insulation is 4" thick in walls, 2" in the floor, 6" in the ceiling.

The manufacturer—National Homes Corp. of Lafayette, Ind.—introduced the house in 1967 through its Georgia mobile-home subsidiary, now markets a varied line of prebuilt low-income housing that includes stackup townhouses.

PRECAST CONCRETE FRAME WITH CURTAIN WALLS encloses this 654 sq. ft. house, which costs $7,000 and takes about four weeks to build.

Framing components—posts, lintels and beams (photo, right)—can be cast at the site or in a factory. They are made with lightweight concrete designed especially for the system by the engineer—Neal Mitchell Associates of Cambridge, Mass. But they are heavy enough to permit future expansion of the house upward as well as sideways. The foundation is grade beams on drilled piers.

Floors and ceilings are precast sandwich panels: a 2" layer of insulation between 2" slabs of concrete, plus an elastomeric membrane for the roof panels. Wood studs are set between the precast columns and covered with plywood outside, gypsumboard inside. Interior partitions are made of molded gypsumboard sandwich panels (Structicore, made by U.S. Gypsum). All the ceilings are painted concrete.

One object of this small-component system, which Mitchell pioneered in South America, is to permit the placement of precast-concrete components either by hand or with light hoists.

While the framing's high strength can carry additional living levels, it may prove over-engineered when used for only a single level as at Austin Oaks.
WOOD-FRAMED PANELS WITH ALUMINUM FACING form the loadbearing walls of this 768-sq.-ft. house priced at $7,000 by the manufacturer, Industrial Laminates Corp., Austin, Tex.

Wall panels consist of 2x4 framing with laminated faces—1/4" prefinished plywood inside, 3/8" aluminum-clad plywood outside—and 1 1/2" expanded polystyrene as thermal insulation. The floor deck, on piers and spot footings, is 1 1/2" 2x6 plywood on 24" o.c.

Bathroom and kitchen walls are covered with laminated plastic, and ceilings (photo, left) are acoustical tiles set in metal grids. The three-ply built-up roofing has a pea-gravel surface.

PREFINISHED STRESSED-SKIN MODULES, each 12'x45', were transportable like mobile homes and bolted together at the site to produce this 1,080-sq.-ft. house. With five bedrooms and 1 1/2 baths, it is the largest of Austin Oaks' ten models. Yet the manufacturer—SAM Industries Inc. of St. Petersburg, Fla.—prices it at only $7,000.

SAM uses its own patented finishes inside and out: plastic exterior paint, which is stenciled to simulate brick, and textured interior paint, which simulates fine plaster. Roof finish is a silicone product (see Silicone 400), bathroom walls are covered with laminated plastic, and flooring is troweled-on plastic.

ALUMINUM-SKIN PANELS WITH HONEYCOMB CORES were used for both walls and roof in this $7,000, 784-sq.-ft. house. All the exterior panels are 3" thick, and their exposed aluminum skins—laminated to resin-impregnated kraft paper—are coated with baked-on synthetic enamel. Interior panels are 2" thick.

Kitchen and bath plumbing is prefabricated, and incorporates polyvinylchloride piping for drain-waste-vent. Both kitchen cabinets and countertops are enamelled steel.

FHA okayed the system recently but the manufacturer—Bellaire Products of Tallaves, Fla.—has been marketing it for 14 years to vacation-house builders.

EXPANDED MOBILE HOME WITH PITCHED ROOF was trucked to the site in two parts to produce a four-bedroom house with 717 sq. ft. and a $6,100 price tag. Unlike the National Homes unit (top of facing page), this modified mobile home has plywood siding—both vertical and horizontal—and a sloping roof finished with asphalt shingles. Exterior wall framing is 2x4s, but partition framing is 2x2s. Interior walls are finished with 3/8" gyspumboard except for lacquered hardboard bathtub wainscoting. Ceilings are covered with 3/8" prefinished plywood. Manufacturer: Magnolia Homes of Vicksburg, Miss.
CONCRETE SACKS PINNED TOGETHER BY RODS form the exterior walls of this 676-sq.-ft. house with two bedrooms and one bath. The designer-builder, Dicker Stack Sack International of Dallas, Tex., claims the house can sell for only $4,975.

Dicker's construction system is the least conventional one at Austin Oaks. Exterior walls and one interior bearing wall are built out of 50-lb. sacks of concrete. The sacks are stacked dry, linked by 1/4" vertical reinforcing rods (above, center), and allowed to cure. Gunite is sprayed on (above, right) and painted as the finished surface inside and out. The sack walls look like adobe (left) and provide excellent insulation.

But only solid wall sections are built with sacks. Windows and doors are set in wood-framed panels (right) that extend from foundation to roof. And all interior partitions except the one that carries roof beams are built conventionally out of 2x4s and gypsunboard.

The flat roof is made of 4x6 beams covered with 5/8" plywood, 1" insulation and a built-up weathering surface. Continuous concrete beams are used for the foundation, and the floor is a concrete slab poured after the first two courses of sacks are laid. The house is built entirely at the site, but takes only an estimated 14 working days.

PRECAST CONCRETE PANELS IN ALUMINUM FRAMES are the exterior walls of this four-bedroom, one-bath house. The system's designer and patent-holder, Lockheed Aircraft Service Co., Ontario, Calif.—says the 718-sq. ft. house can sell for $5,975.

All the panels, each 4'x8'x2", are cast at the site. They are poured in extruded aluminum channels that double as fastening devices when the 800-lb. panels are set in place on their poured foundation. Adjoining channels are locked together when wallheight anchor bolts are inserted through them from top to bottom.

The panel-locking bolts are also linked to the foundation and the roof. Recessed anchoring points are built into the foundation by casting in 1' steel bars every four feet and protecting their centers during the pour by polystyrene blocks. After the pour the polystyrene is chipped away and the anchor bolts hooked to the bars. At the roof, which is framed conventionally of wood, the wall bolts' threaded ends are passed through eye bolts in 2x12 joists and capped with nuts.

Lockheed's builder upgraded the wall panels esthetically by casting in decorative panels of exposed aggregate (upper right) above and below windows. He saved time by using a 10'x10' prefabricated kitchen-bath-closet unit (right) shipped from a factory.
ASBESTOS-CEMENT EXTRUSIONS FOR WALLS set this 591-sq.-ft. house apart from the other nine at Austin Oaks. It is also the smallest house in the group, although the manufacturer has helped compensate for that by including a semi-enclosed paved patio and an outdoor storage unit (left). Estimated price is $6,000. The manufacturer is Certain-Teed Products Corp. of Ambler, Pa.

Certain-Teed’s wall system consists of posts and panels made of asbestos. The posts are extruded channels that are spaced out along chalk lines on the house’s concrete slab. Every second post is anchored to the slab by a steel angle, and all posts are held together at the top by a steel tie rod. Two panels—one for each side of the wall—are inserted between each set of posts, and the space between them is filled with 2”-thick fiberglass batts (right).

Window and door openings, all of standard dimensions, are framed by setting spandrel panels between the posts (lower right). No hoisting equipment is required because the heaviest component weighs only 45 lbs.

The roof is built conventionally with wood trusses after a double 2x4 plate is attached to the top of the walls by 3 bolts connected to the steel tie rod.

All plumbing—hot and cold water piping as well as drain-waste-vent—is plastic.

CONVENTIONAL CONCRETE-BLOCK WALLS on a conventional slab foundation make this 720-sq.-ft. house the most traditional of the ten at Austin Oaks. The builder—Chanen Construction Co., Phoenix—prices the two-bedroom, one-bath house at $6,350. Construction time was 21 working days.

Chanen finished the block walls with one coat of filler and one coat of vinyl paint. Interior walls are standard: 2x4 framing and 1/2” gypsumboard. But the ceilings are acoustical metal attached to wood roof trusses.

A few small touches at the entryway—a molded wood door, a small carriage lamp and plant boxes—add some buyer appeal.

HOW THE HOUSES MEASURE UP at Austin Oaks will depend on a series of scientific tests and analyses conducted by University of Texas professors. Two examples:

Operations and cost analyses will be partly based on time-lapse photos filmed during construction. And the findings will be presented in a form that permits 1) comparing the systems in terms of man-hours and material quantities and 2) translating these two cost factors into local wage rates and prices for any part of the country.

Environmental tests will rate the performance of heating and ventilating systems, sound-deadening, lighting, plumbing and wiring. Some of the testing will involve sophisticated measuring equipment like thermocouples—ten per house—and demand meters for checking fuel and power consumption. The houses’ acoustical characteristics will be rated by means of sound-generating and sound-measuring equipment. (Many of the houses—especially one that uses perforated hardboard over door openings instead of solid wall construction—will get some of their lowest ratings in the sound-deadening category.) Lighting tests will rate both natural lighting and lighting fixtures. Plumbing and wiring systems will be judged not only for performance but also for workmanship and design.
The never-ending climb of close-in land costs is forcing apartment builders into higher and higher densities, and in turn putting increased emphasis on the design of...

**Apartments for tight sites**

It would be hard to find five more dissimilar garden-apartment projects than the ones shown here and on the next eight pages: they vary in size, acreage and style. But they have two all-important things in common: high density—from 36 to almost 60 units per acre—and a quality of design and land planning that makes them both livable and exciting despite their high density. Furthermore, they show that good design offers apartment builders a way out of a double bind: the less open land a project has, the more its prospective tenants will demand good outdoor areas.

**For a quarter-acre site, a project that combines apartments and townhouses in one building**

There are three apartments on the first floor (plan, right) and six back-to-back townhouses on the second and third floors (plan, facing page). Their compact grouping allows 8,200 sq. ft. of living space to be put on an 82'x120' lot and still leave enough parking to comply with zoning. Only the ground-floor apartments have separate outdoor living areas; there are balconies in front of the upper townhouse units but they are actually walkways to the front doors. Stairs are placed so each apartment can be reached without crossing in front of another. Architect: Claus & Claus. Builder: Bodo Claus. Location: Baton Rouge.
APARTMENT PATIO is screened on ground level by a wood fence. Photo was taken on the side of the building away from the parking lot.

THREE-STORY BUILDING, seen here from the side, is kept from looking disproportionately high by the dark line of the brick-sided first floor and the heavy horizontal line of the wood fence.

FACADE, viewed from parking lot, is broken up by sun screens whose slats match the texture of the entrance stair and balcony railings.
APARTMENTS FOR TIGHT SITES continued

For a half-acre site, a project that offers the feeling of outdoors on two levels

There are 26 units in the project, and the resulting density of 52 per acre is more in the realm of high rises than garden apartments. There is 23,700 sq. ft. of living area, and once space for setbacks and the swimming pool is deducted, there isn't much open land left—even though parking (for 43 cars) is provided in an underground garage.

The solution to the density problem is the center corridor. It is unusually wide, and open to the sky so that light reaches down to all floors, and planting on the ground level reaches the upper floors.

FRONT ELEVATION (see also cover) shows the start of the wide center corridor that acts as a sort of front yard for all the apartments. The broken roof line keeps this side of the building from appearing overly massive.

LIVING ROOM of a two-bedroom, one-floor apartment has compact kitchen with an eating bar. Entrance is at far right.

UPPER LEVEL of the center corridor has bridges leading to units on one side. Open areas bring planting to the upper level, while unroofed rafters and trellises bring in light from above.

continued
For a 1½-acre site, a project that brings in higher rents than its neighbors

In theory, the project's 69 units create a density of about 40 units per acre; in fact, the parking requirement of 1½ cars per unit eats up almost half of the site (land plan, above), which makes the spaciousness of the project astonishing.

The apartments are grouped in an L-shaped building, sited to put the mature trees in the pool area. An extra 50¢ per sq. ft. was added to the costs, making possible such amenities as an octagonal, three-story lobby. Result: rents are running 20-25% higher than in neighboring projects.

POOL COURT sits between the two arms of the L-shaped building. Saving of trees was a prime consideration in siting the apartment.

LIVING AREA includes a dining nook, foreground, and a living room with sliding glass doors opening to a balcony. Living areas of one- and two-bedroom units are virtually identical.

OCTAGONAL LOBBY is entered from the pool area or the main entrance (land plan, facing page). Balconies on upper two levels look into it, and it is topped by a colorful skylight.
For a 3½-acre site, a project with three living levels to take advantage of an unusual view

The hilltop on which these 117 apartments are built commands a 360° panorama that includes the city of San Francisco and the Golden Gate Bridge. This accounts for 1) the site plan (above) which gives almost all the units a view, 2) the raised design (section, facing page) in which the first floor sits on an only partially submerged parking deck and 3) the unusually heavy expanse of glass walls. The latter are actually curtain walls, since the buildings are of lift-slab construction. Solid walls are stucco over steel.

VARIED LEVELS, shown in this view of an inner court, are the result of accommodating to a heavily-contoured site. At right is the main entrance to one of the buildings.

LUXURY FEATURES of a typical unit include a wet bar (left) and a kitchen pass-through (right), both finished with veneer plywood.

COMMUNITY CENTER includes an outdoor pool and a clubhouse that has sauna baths, exercise room and a recreation room.
For a 5½-acre site, a project that offers both privacy and a social atmosphere

Apartments vary from efficiencies to two-bedroom units, rentals from $135 to $310, and tenants from young singles to professional couples. The problem: To provide both reasonable privacy and a social atmosphere for the extroverted, and do it in a density of 52 per acre.

The solution: Buildings were sited to create a series of small open areas (land plan, above), with landscaping that fosters a feeling of both intimacy and interest. Social activities are centered around a recreation area in the center of the site.

Answer to the vacation-land sewage problem:

The developer's problem: If land for a potential vacation community won't accommodate septic tanks, only a central sewerage system can make the project feasible—but for most vacation communities, a conventional sewerage system costs too much and isn't flexible enough.

When United States Land Inc. faced this dilemma on 2,500 hilly acres in Orange County, Va., an engineer came up with a solution that could open up a lot of fallow vacation land for frustrated developers.

U.S. Land, a subsidiary of Boise Cascade Corp., is installing a vacuum-operated sewerage system that overcomes the drawbacks of conventional gravity systems. Specifically:

1. Lines can be laid with little regard to terrain because the only requirement is that they be buried below the frost line.
2. Fluctuating loads, caused by intermittent use of vacation houses, have no effect on the system's operation.
3. Widely spaced houses can be handled efficiently from the very outset of development.

Only some of U.S. Land's 4,000 lots—90% of which have already been sold for an average of $7,000 apiece—failed percolation tests for septic tanks. But county and state health officials warned that even the approved soil might one day be unable to absorb all the community's sewage.

The job of designing a central system went to engineer Calvin Burns, owner of Prince William Engineering Co., Woodbridge, Va.

"A gravity system was out of the question," says Burns. "It would have meant installing the mains along the lake front and tearing up the project's most expensive lots. And we would have had to bury lines as much as 20' below street level because the roads are laid out to follow the topography. Besides that, the houses wouldn't be used frequently enough to keep a gravity system working properly."

Burns's alternative—vacuum-powered sewers—has four elements: 1) sewage collecting tanks for groups of up to four houses, 2) vacuum receiver tanks, 3)
a central sewer system that works by vacuum

pneumatic ejectors and 4) a central treatment plant. It works like this:

Sewage moves from a house to the neighborhood collecting tank through a gravity conduit. The V-shaped tank can hold 1,400 gallons, but when the sewage reaches the 100-gallon level, an automatic switch opens a valve to a vacuum feeder line. The sewage is drawn to one of 13 vacuum receiver tanks, and the valve at the collecting tank closes automatically when the sewage recedes to a predetermined level. A pneumatic ejector at the receiver tank propels the sewage through a main line to the central treatment plant. Extra receiver-ejector stations may be added to main lines as boosters wherever steep terrain or long distances make it difficult to maintain pressure.

One main object of Burns's design is to empty the collecting tanks and vacuum lines before the sewage becomes septic. So the vacuum valves in the collecting tanks can also be opened manually or through monitoring equipment at the receiver-ejector stations.

Alarm bells will warn of malfunctions at collector tanks and receiver stations. And the receiver stations are equipped with emergency storage tanks to handle sewage overloads in case of failure. Burns's company will maintain the system, which will require one part-time operator.

Burns says a conventional system would have cost twice as much, and attributes much of his saving to lower-cost piping. Lines to vacuum receivers and to the treatment plant are 4" to 6" polyvinylchloride pipe, laid in 20' lengths just below the frost line and protected by 2 x 6 treated pine boards buried 4" to 5" above.

The receiver-ejector stations are being installed at the outset, along with about 40 miles of piping and the first stage of an expandable sewage-treatment plant. Initial plant capacity, 250,000 gallons, will ultimately be tripled.

Burns, who is in the process of patenting his system, is close-mouthed about design details. But most of the equipment he uses is of standard manufacture.
Once a cold, functional room of minimum size, the bath has become one of the showcase areas of today's more exciting houses. Six pages of pictures and plans show you why.

Textured surfaces give an unusual feeling of warmth to this master bath: wood facings on the vanity cabinets, wood paneling above the counter, a carpeted floor, and louvered shutters across the sliding glass door at the rear. The tile wall behind the sunken tub is repeated in the raised box sections at either end, and on a backsplash around the vanity counter. The glass door at left leads into a stall shower.

Bathroom porch can be reached via sliding glass doors beyond the sunken tub of this bathroom. Reason for the unusual arrangement: The house is stilted out over a very steep hillside, and a deck runs across the front of all the rooms on this level—including the bath. Architect: Donald H. Harms.

Corner tub is used here to fill in an odd angle at the back of this bathroom. The apparently solid walls behind the vanities actually are pierced by windows; shutters, visible as black lines in the photo at left, are covered with wallpaper so they blend in with the walls. Architect: Waller S. Poage.
Large master bath, seen above from the shower stall, has a full wall of vanity cabinets with mirrors and mirrored medicine cabinets above. The two hanging light fixtures are set close enough to the mirrors to provide facial illumination for shaving, make up, etc. Architect: Donald P. Polsky.

Compartmented master bath has three small rooms and a large clothes closet. The two washing compartments are shown in the picture above. Architect: Leo R. Pedersen.

Small master bath gets a lift from sunken tub and striped venetian blinds. Architect: Clovis Heimsath.
Louvered master bath is entered via a dressing alcove (below) with a lavatory and a glass dressing table. Clothes closets with louvered doors line the perimeter of the bath. Slab-on-beam lavatory design is repeated in home's powder room (right). Architect: Kirk, Wallace, McKinley & Assoc.

Photos: Hugh N. Stratford
Dramatic dressing alcove has a cantilevered vanity counter edged in natural-finished wood, a row of make-up lights above a high mirror, and a textured ceiling made of spaced wood strips. Curtains at right cover a floor-to-ceiling window.


Dramatic shower room, part of a four-bedroom bath complex, has floors and walls of dark mosaic tile with highlights of large decorative tiles at strategic spots.

Architect: Parks, Morin, Hall, Brennan & Sattelberg.

Lawrence E. Ecklund
Dramatic vanity area has a glass-walled end that opens out into a walled garden. A ceramic-tile counter top turns across the window, and the area below it remains glassed rather than solid for additional light and openness. Architect: Calvin C. Straub & Denis P. Kutch.
In a series of new prototype houses...

### Levitt & Sons sizes up some new products

None of the products is brand-new. Levitt's production-line approach to housing is too conservative to permit pioneering. But most of the products are still far from general acceptance, and Levitt's approval would be an important boost in that direction.

Levitt tries out new products and new designs in an unending series of prototype houses tailored to its regional markets. The prototypes are usually seen only by a staff team that decides whether to accept or reject all or some of their new features.

But a new group of five prototypes at Levitt's 900-acre Stony Brook project on Long Island are being shown to a few prospective homebuyers. Reason: Three of the five feature California design with appropriate products and materials that aren't widely familiar to homebuyers in the Northeast—so the prototype staff feels the need for public opinion. HOUSE & HOME made the tour, and presents the following sampling as an insight into the Levitt research-and-development process.

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**Flooring: Levitt tries slate and Italian tile for impact, wood-veneered vinyl for speed**

Wood-veneered vinyl should install faster than real wood because it's laid like vinyl tile. Yet it looks like wood because the product is actually real wood veneer laminated to a vinyl base with a thin sheet of metal in between for stiffness and a film of clear vinyl covering the wood as a wearing surface. Levitt is trying two styles: parquet, and pegged planks.

The Vermont slate, laid in a random zig-zag pattern in a foyer and family room, is used as a design complement: It goes well with the California house. The quarry tile—imported from Padua, Italy—is just for effect; cost will probably keep it out of the Levitt line. Brick-patterned sheet vinyl (bottom photo) has been installed in one kitchen not to test the style but to compare sheet flooring with Levitt's standard tile flooring.

**Quarry tile from Italy**

**Random slate from Vermont**

**Wood-veneered vinyl in squares and planks**

**Sheet vinyl simulating brick**

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**STANDARD LEVITT HOUSE** for Long Island follows traditional lines.
Roofing: If handsplit cedar exceeds the budget, is wood-simulating asphalt a good substitute?

Handsplit cedar shingles most certainly will exceed the Levitt cost standards. They’ve been used on one prototype just for effect and for the sake of comparison.

So serious consideration is being given to a heavy—340 lbs. per square—seal-tab asphalt shingle with embossed graining and a staggered butt line designed to simulate wood. A direct comparison with handsplit cedar is hardly fair. The real question the Levitt people will decide is how much the wood-simulating shingle upgrades roof design compared with conventional asphalt shingles.

Another shingle being tried out is a thick, striated mineral-fiber product that also simulates wood. It’s being tested to find an acceptable fireproof shingle for possible future need. One purpose of the prototypes is to create a reserve of tested materials for solving future problems.

Doors: Molded wood, steel and hardboard add traditional effects for slight price increases

Says Prototype Manager Dan Talbot: “Raised-panel double doors give us a lot more impact at the entryway without going to the expense of carved doors. These cost $20 to $45 more than our standard doors, but carved doors can run up to $500 more.”

Even the steel bifold doors on closets have raised panels stamped into them. And, for coordinated design, the main doors in bedrooms are hardboard decorated with set-in polyurethane panels molded to match the bifolds’ raised panels (center, above).

The effect of bronze-anodized aluminum is being tried out on sliding doors in one family room. This color, developed for commercial buildings, is being widely adopted by apartment builders in windows as well as doors.

Levitt is also testing a folding wood partition to upgrade an expandable children’s room.
Siding: Rough-sawn planks over plywood give the right effect, but cost may rule them out

The effect of 1x12 rough planks on rough-sawn cedar plywood was what the architect wanted. “But,” says Talbot, “it may be too expensive to add to the line.” Instead, the prototype committee is considering 12” plywood planks applied as horizontal siding (not shown)—“a real possibility,” says Talbot, “because it gives a rough-textured appearance at more reasonable cost.”

Another possibility, pending cost study, is vertical rough-sawn plywood with 2x3 battens. Levitt is trying both redwood and cedar.

Countertops: A tile top matches a tile floor, but will it perform like laminated plastic?

Levitt’s prototype committee will answer that question with a test installation combining Italian-tile countertops and laminated-plastic tops in the same kitchen (top of page, right). The tile has two strikes against it from an upkeep standpoint: grout lines and stained wood edging.

A new bathroom countertop, synthetic marble slab with integral sink bowl, may offer the best of two worlds—masonry appearance plus low maintenance.

Cabinets: Low-maintenance finish is taken for granted—now the appeal depends on style

Levitt has already standardized on a long-life finish. His cabinets are made of particleboard impregnated with semi-rigid polyvinyl-chloride. The manufacturer reverse-prints a wood grain on the underside of the PVC laminate, then softens it with heat and forces it into the particleboard by vacuum pressure. A new grain, Spanish oak (above), is being tried out on prototype-house visitors.

Compared with a typical drywall installation, plywood ceilings eliminate two work steps, taping and spackling. They also simplify finishing if the plywood is pre-stained. For Levitt, plywood ceilings produced their greatest labor saving on a 24’-high cathedral ceiling in one of the California-style prototypes. So even though plywood costs more than gypsumboard, easier installation compensates for the price difference.

Another time-saver, already added to the Levitt line, is simulated wood beams made of polyurethane that are glued to ceilings instead of nailed. Here again, labor saving makes up for higher price.
When you build a home you build it to last... right down to the fixtures.

Today's buyer looks for quality and value. You know it, we know it and they demand it.
That's why everything that is designed and built must carry through the feeling of beauty, quality and value.
We, at Artolier, take great pride in our Cast Aluminum line.
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Pride in knowing our fixtures will last as long as the house will stand, or even longer.
And, the pride in seeing more and more architects and builders using Artolier than ever before.
If you are interested in seeing our Cast Aluminum series as well as the complete line of Artolier Lighting, send one dollar to: Artolier Lighting, a division of Emerson Electric, Garfield, New Jersey 07026.

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Use Oak Floors and let the buyer decide on floor coverings

You run an unnecessary risk when you build homes with carpeting laid directly over concrete or plywood. If the carpet color isn't right, your homes can stay unsold while interest piles up. If prospective buyers want to use accent or area rugs in all or some rooms, there go more sales.

Doesn't it make good sense to give the owner some choice in her floor coverings by providing a permanent Oak floor? Then she can go the rug or carpet route... in colors to match her room furnishings and personal taste.

If she decides to use wall-to-wall, she'll still have a beautiful lifetime floor of Oak that will look like new when the carpeting is damaged or wears out in a few years. Think it over.

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Circle 101 on Reader Service card
Rough-sawn cedar, painted stucco and shingled exterior walls—with Metalbestos Model SS Chimney, the designer can blend the chimney with any exterior material he chooses. Special Low-K insulation in 1" walls provides 17 times the insulation value of brick at a fraction of the weight, assuring maximum venting efficiency, minimum space (2" clearance to combustibles).

Fireplaces on several levels present no weight problem. The Model SS all stainless steel chimney system includes components to meet every installation requirement. Six diameter sizes are available, from 6" to 14", standard lengths in 18" and 30". Easily installed by one man, the lightweight, compact rugged pipe twist-locks securely together. Available in natural stainless or matte black finish. Write for the new Model SS Catalog MC-6 for details.
4 times the number of buildings

The builders who prefer House & Home put up more buildings—and buy more products too:

From 36 studies, the percent of housing units built by builders according to their publication preference

From 20 studies, the percent of apartments built by builders according to their publication preference

From a 1968 study, the percent of commercial construction built by builders according to their publication preference.

In addition to builders, House & Home also reaches more of the other industry specifiers including architects, realtors, lenders and engineers who often have a deciding voice in the selection of building products.

For example, here are buildings these men bought products for, during a 12-month period:

From an August, 1968 study of a cross-section of House & Home architect, realtor, lender and engineer subscribers, the number of houses, apartments and light commercial buildings for which they made specific building product decisions in the past twelve months:

<table>
<thead>
<tr>
<th></th>
<th>HOUSES NUMBER</th>
<th>$VALUE</th>
<th>APARTMENTS NUMBER</th>
<th>$VALUE</th>
<th>COMMERCIAL BUILDINGS NUMBER</th>
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<tbody>
<tr>
<td>ARCHITECTS</td>
<td>*</td>
<td>*</td>
<td>72,685</td>
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<td>6,756</td>
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<td>45,356</td>
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<td>LENDERS</td>
<td>79,416</td>
<td>1,632,034,198</td>
<td>44,128</td>
<td>1,235,404,312</td>
<td>4,865</td>
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<tr>
<td>ENGINEERS</td>
<td>14,791</td>
<td>292,358,000</td>
<td>25,722</td>
<td>319,193,000</td>
<td>1,912</td>
<td>1,313,719,800</td>
</tr>
</tbody>
</table>

*There is no accurate way of determining the exact number of houses built from a single house plan drawn up by an architect.

**Rather than request dollar volume from architects, "number of buildings" and "number of units" was asked for.

It is a fact that builders and other specifiers prefer House & Home—and that these buyers build more houses, more apartments, more light construction of all types—and buy more building products.
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MARCH 1969 Circle 163 on Reader Service card 122E
This Chromalox® heating system has a cool partner.

The Chromalox® electric comfort conditioning system — designed to install quickly, operate quietly and efficiently and provide pleasing comfort all year round.

The versatile Chromalox WAF furnace features compact cabinet; 10, 20 or 30 kw capacity, centrifugal blower; precise thermostatic control. It installs in horizontal, upflow or downflow position.

A range of dependable Chromalox Compressor-Condensers and Evaporators delivers from 1½ to 4 tons of summer cooling comfort.

The Chromalox Electronic Air Cleaner slips into any furnace return air duct and traps 95% of airborne dust and pollen.

These Chromalox units can be used equally well in new installations or as additions and/or replacements in existing systems.

Learn about the complete line of Chromalox comfort heating/cooling products from your local Chromalox distributor. Or write directly for Catalog R00103-6.
These Quality all-steel FOLDING CLOSET DOORS COST SUBSTANTIALLY LESS INSTALLED

Fenestra Folding Closet Doors are the finest quality in the industry. Savings result from quick, fool-proof installation. Sizes and designs to meet any decor. Check your local Fenestra distributor...he's listed in the Yellow Pages under "Doors-Metal." Or write for full color brochure.

Circle 109 on Reader Service card

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Now for the first time anywhere, spiral stairs are available in standard, ready-to-deliver packages. Logan Co. now offers a stock-size 4'0" diameter spiral stair, with treads that adjust to fit any floor to floor height up to 10 ft. These packaged components permit fast, easy installation with big savings.

- Steps adjust from 8½" to 10" to fit ceiling height.
- Treads are reversible—use on either left or right hand stairway.
- Standard 4'0" diameter.
- Two types of treads: smooth-surfaced for carpeting or hardwood floors; safety diamond pattern for exterior installation.
- Heavy-duty reinforced plastic railing—flexible for ease of installation—provides rigid strength when installed.
- Fast delivery through distributors across the country.

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Dept. HH-3, P.O. Box 6107, Louisville, Ky. 40206

Circle 110 on Reader Service card
These new concrete forms eliminate two jobs—form stripping and insulation placement—because 1) you leave them in place after the concrete cures and 2) they double as thermal insulation.

The forms resemble hollow-core concrete building blocks, but are made of molded polystyrene. And unlike concrete blocks, they contain horizontal as well as vertical cores so that concrete poured into them is molded into a continuous grid. The polystyrene has a "k" factor of 0.24, so it provides sufficient thermal insulation to meet even the electric-heating industry's high standards. And it can be clad with several conventional finishing materials—e.g., brick veneer, asbestos board or stucco on exterior walls; plaster, drywall, paneling or ceramic tile on interior walls.

The system, called Foam Form, was developed in Canada by former builder Werner Gregory who markets it through Foam Form of Canada Ltd. Gregory designed the forms for heavy construction, but the first two applications were residential: a townhouse project and a single-family house.

In-place cost for these first jobs was 88 cents per square foot for a 9"-thick wall, and the breakdown was as follows:

- Foam Form units: $0.50
- Placing of units: $0.03
- Steel reinforcing: $0.07

**Plastic formwork for poured-concrete walls**—
**POURED CONCRETE** direct from mixer-truck chute fills lower courses of polystyrene forms.

**PUMPED CONCRETE**, delivered through hose on truck boom, fills upper courses of plastic forms.

**a fast way to skip two major work steps**

Placing of reinforcing .................................. 01
Concrete @ $16 per cu. yd. ............................. 22
Placing of concrete .................................... 05

Polystyrene forms are easy to handle because they weigh so little—only 2 1/2 lbs. per section, which is 48% long, 16% high. Width may be 9”, 11” or 13”, to produce concrete grids of 6”, 8” or 10” thickness, depending on required wall strength. Each form section contains four vertical cores on 12” centers and half of a horizontal core at top and bottom.

Unskilled labor can readily master Foam Form installation techniques. The form sections are joined by gluing together tongue-and-groove edges on four sides. Horizontal reinforcing rods are simply laid in channels already molded into the cores.

To start pouring a wall, only the first course of form sections is laid and filled with concrete to the level of the reinforcing-rod channels. The horizontal rods are then placed in the channels and 58”-long vertical rods are pushed down into the concrete at each vertical core. Then three additional courses of form sections are laid by slipping their cores over the vertical rods. Cores are tapered at the bottom so that the weight of the concrete keeps the form sections from floating upward during pouring. Concrete-curing conditions are ideal because of the insulating polystyrene.

**CONCRETE CORES** in a Foam Form wall provide reinforced beams on 16” centers, reinforced columns on 12” centers. Concrete and wood floors are keyed into the cores, metal ties are cast in for veneer.

**FOAM-CLAD WALLS** on townhouses produced with polystyrene forms contain two built-in plusses: thermal insulation on exterior walls, sound-deadening on party walls. Partitions are built conventionally.

**CONCRETE GRID** of integral beams and columns is exposed in testing sample of Foam Form wall.
If you've never had the foggiest idea about the big difference between Thermopane® insulating glass and substitutes, you do now.

Thermopane with the GlasSeal® edge is glass fused to glass at the edges so dirt and moisture can't get in. Substitutes are something else.

Thermopane comes glazed into many kinds of good windows of numerous sizes and shapes.

Thermopane insulating glass is made only by Libbey-Owens-Ford Company, 811 Madison Ave., Toledo, Ohio 43624.

Thermopane® INSULATING GLASS
NEW PRODUCTS
For more information, circle indicated number on Readers Service card p. 147

A home builder gets sales mileage out of clean air and water...

People are starting to worry about air and water pollution, so New Jersey Builder Jirar Hovnanian has come up with a merchandising theme that offers answers to their concern. Houses in his latest 150-lot tract in suburban Philadelphia promise the occupants clean air and water because they include as standard equipment: 1) electronic air filters and humidifiers as part of their heating/cooling systems, 2) water conditioners and 3) odor-venting toilets.

In effect, Hovnanian has expanded on the so-called "total comfort" system—heating, cooling, humidifying, dehumidifying and air filtering—by adding equipment to expel bathroom odors and to remove impurities from domestic water.

Clean air and water aren't free. Buyers pay about $2,500 more for Hovnanian's houses than for competitors' houses of similar square footage. But Hovnanian estimates that his three standard models, priced in the low $30's, contain more than $5,000 worth of products and materials that his competitors offer only as extras. For example, in addition to the clean air and water equipment, his stock models include masonry fireplaces with raised hearths, wall-to-wall carpeting, hide-away wet bars in family rooms and 40- to 50-gallon hot-water heaters.

Buyers haven't been deterred by Hovnanian's higher price tags. Since opening a year ago, his houses have been selling either in the construction stage or as soon as they go on the market. Sales to date: 70.

Buyers can reject any of the clean air and water accessories and get refunds based on the builder's wholesale cost. But most don't, because Hovnanian's salesmen use three convincing arguments:

1. Why not buy these conveniences now, when they can be financed at mortgage rates, instead of buying them later and paying much higher installment plan rates?

2. Why not buy them now for the builder's wholesale cost, instead of later at list price?

3. Why not buy them now when they can be installed during construction, instead of later when installation will be more complicated and costlier?

Four of Hovnanian's clean air and water accessories are from American-Standard, New York: solid-state heating system (Circle 240 on Reader Service card), central air-conditioning (Circle 241), central humidifier (Circle 242) and Vent-Away toilet (Circle 243). His electronic air cleaner is manufactured by Honeywell of Minneapolis (Circle 244 on Reader Service card), and his water conditioner is from the Bruner division of Calgon in Milwaukee (Circle 245).

... and apartment owners get an answer to their garbage problem

The problem is the rising cost of garbage collection. The answer is a low-pressure pneumatic compactor that sells for $2,500 (F.O.B. Seattle) and compacts garbage to one-fifth of its bulk. Since garbage-collection rates are based on volume rather than weight, the compactor can help reduce costs more than 60% by permitting monthly instead of weekly garbage pickups.

Two sources of power are needed to operate the machine: a 110-volt outlet and an air compressor. The air operates a nylon-fabric ram which, exerting only eight pounds per sq. in. of pressure, compacts refuse at the rate of 45 cu. yds. per hour in 40-second cycles.

No special training is required to run the machine. And repairs are much less expensive than for hydraulically operated compactors, heretofore the only type available, Seattle Tent & Fabric Products, Seattle. Circle 246 on Reader Service card.

New products continued on p. 134
Easy-ply Roof Decking is weatherproof insulation, a beautiful finished ceiling, a tough structural roof deck, and one more thing...

It’s fast!

Made in 2’ wide panels. Long edges T&G for quick, snug installation. A variety of thicknesses up to 23/8”. Applies to wood or metal rafter spans to 60”. Rigid, light-weight. Easy-ply can be cut effortlessly with conventional tools. Stocked at local dealers with a variety of decorative, maintenance-free vapor barrier interior finishes. Literature and samples, too. Or write Homasote, Dept. H&H-39.
**NEW PRODUCTS**

*start on p. 132*

**Lighting**

**Wall lantern,** for use indoors or out, comes in an antique brass finish or black and brass, both with amber glass side panels. Front panel lifts out for changing bulbs. Size: 3½" wide, 3½" high, extends 6½". Progress, Philadelphia. Circle 201 on Reader Service card

**Hexagonal gas light** is of 18-gauge uncoated copper with removable glass panes. Light is 23"x36". Three burner assemblies are available: triple upright or open flame, or with inverted burner (shown). Arkla Air Conditioning, Little Rock, Ark. Circle 203 on Reader Service card

**Contemporary chandelier,** 16" high, 34" in diameter, with six arms, is part of new line of fixtures that come in bronze, chrome or black finish with clear, opal, white (shown) or amber thumbprinted glass. EJS Lighting, Los Angeles. Circle 202 on Reader Service card

**Spanish lantern** of cast aluminum comes in ebony (shown), white, hand-rubbed gold or verde, verde green and patina gold. Fixtures in series are available as post, pier base, bracket, ceiling and hanging models. Hadco, Littlestown, Pa. Circle 204 on Reader Service card

**Hexagonal gas light**

**Contemporary chandelier**

**Spanish lantern**

**Scrolled lantern** combines amber, blue and wine cobblestone patterned glass panels with a wrought iron frame. Chain-hung fixture has a diameter of 11", is 23" high and suspends 44", takes one 100-watt bulb. Del-Val, Willow Grove, Pa. Circle 207 on Reader Service card

**Fluorescent luminaire,** normally surface mounted, can also be pendant mounted. The low-brightness steel unit comes 4' or 8' long and 12" or 18" wide to take two or four 40-watt lamps. Westinghouse, Pittsburgh, Pa. Circle 205 on Reader Service card

**Chain-hung lanterns** are available in dark aged brass or verde green finish, have amber seeded glass panels set in a wire cage. Units measure 5¼" square, 16½" high, can be hung up to 30½" from ceiling. Thomas Industries, Louisville, Ky. Circle 206 on Reader Service card

New products continued on p. 136
5,000 dots represent the 5,000 16d nails that one man can drive per hour with a Paslode *Stallion®* pneumatic nailing tool. This speed includes time to reload the tool with cartridges of nails. You can drive 16d common, box, or sinker nails, and coated screw-type nails.

This speed reduces the cost of nailing and shortens production time. The *Stallion's* power to drive nails straight and tight improves the quality of nailing work. Its dependability has been proved on the job indoors, outdoors, winter and summer.

Its dependability is as great as that of the companion nailer, the Paslode Gun-Nailer® that drives 8d and 6d nails.

The facts are available from Paslode. Write for data and where-to-buy information.
**NEW PRODUCTS**

*start on p. 132*

## Coatings

**Seamless flooring**, of colorful flakes sprinkled between rolled-on layers of clear laminating plastic, won't yellow or fade, needs no waxing. It can be renewed by rolling on a new top coat. Flecto, Oakland, Calif. *Circle 208 on Reader Service card*

**Rust arrester**, applied by brush, spray or dipping, reacts with rust to form a protective coating on metal surfaces. Will protect hand tools, free frozen screws or nuts, remove stains from marble and porcelain. Oil Center Research, Lafayette, La. *Circle 210 on Reader Service card*

**Non-aggregate surfacing** is applied by gun, has matte or glossy finish. Texture varies from fine to coarse, and patterns—like the splatter coat and raked design shown—are contoured on and flattened with trowel. Finestone, Detroit. *Circle 209 on Reader Service card*

**Weatherized cement** can be applied in temperatures from 0° to 110° F, forms waterproof seal, is elastic, won't erode or blister. Cement is recommended for setting and repairing flashing, gutters, sills, lintels, skylights, etc. Celotex, Tampa, Fla. *Circle 211 on Reader Service card*

**Flocking process** includes coating of a colored epoxy adhesive (left), then electrostatically applied fibers embedded on end to produce a seamless suede-finished wall that helps reduce noise. Co-Polymer Chemicals, Livonia, Mich. *Circle 212 on Reader Service card*

**Roof coating** for white tile roofs resists mildew, fungus, salt and sun, keeps roofs looking new after three years (as shown), reduces costs of cleaning and painting. Paint base is chlorinated rubber. Hercules, Wilmington, Del. *Circle 213 on Reader Service card*

New products continued on p. 140
The Standard of Quality

If specifications read, "GSR fittings or equal"—you'll get GSR fittings. There simply is no equal. Every step in the manufacture of GSR fittings—from initial research to final quality control testing—is carried out with one inflexible aim: to produce the best plastic pipe fittings in the world. They must meet all government and industry standards covering their specific applications. They must be able to withstand the highest pressures and temperatures they will ever face. They must fit precisely and, when properly joined, produce strong, leakproof joints.

Make GSR fittings your standard of quality. GSR fittings distributors carry the most complete line of the finest plastic fittings in the world.

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Why are more & more builders siding with Celotex?

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One good reason is our 40-year history of supplying builders with top-quality hardboard products. Take famous Celotex Shadowcast® Primed Siding. Nothing tops it. The key difference in hardboard sidings is density — and that's where Shadowcast has proved superiority. Precise quality control gives it the toughness and dent resistance of a high density board, yet it saws and nails easily. This balanced density provides the ultimate in easy, time-saving application, moisture resistance, and durability. Shadowcast Siding is thoroughly factory-primed on edges and face, allowing you to wait up to 60 days before finish painting. Back-sealed against moisture penetration. Comes in both lap and panel styles.

Prompt availability is another reason. Shadowcast Siding is stocked by dealers across the country. Back-up stocks, in our warehouses and in the huge new centrally located Celotex Hardboard plant, enable dealers to meet emergency requirements for any size project.

Ask your dealer to deliver genuine Celotex Shadowcast Hardboard for your next job. From then on you'll be on our side, too.

Bringing You Better Building Products Through Research and Innovation

Circle 115 on Reader Service card
NEW PRODUCTS

Tools and equipment

Concrete grinder has an 8' or 12' flexible shaft designed to reduce the weight held by the operator, is powered by a ¾ hp electric motor or a 3 hp gas engine, can be used for dry grinding or wet rubbing. Stow, Binghamton, N.Y. Circle 214 on Reader Service card

Hammer-actuated fastener, 9" long and only 4½ lbs., uses non-cartridged pellets to drive fasteners up to 3" long into steel or concrete with little noise. Will not dropfire. Three powers of pistons included. Olin, New York City. Circle 215 on Reader Service card

Air hammer weighs less than 2 lbs., can be held in one hand for getting into tight spots, will drive nails up to 4½" long. Any ¾ hp compressor will power the tool. Aerosmith Tools, Visalia, Calif. Circle 216 on Reader Service card

Four-wheel-drive trencher has single lever control, will dig from 18" wide and 24" deep to 4' wide and 60" deep at up to 1500' per hour. Also available: a backhoe that digs up to 8'4" deep with separate controls. Davis, Wichita, Kan. Circle 217 on Reader Service card

Concrete saw is compact but maneuverable, powerful (18 hp) but low priced. Four-wheel suspension aids in straight-line cutting, maximum weight over blade resists riding up, dashboard controls are convenient. Champion, St. Louis, Mo. Circle 218 on Reader Service card

Earth compactor with 23" wide steel plate packs 4,200 lbs. of force at up to 4,400 vpm, operates at 370 lbs., travels at up to 90' per min. over soft or rough ground. Choice of three manufacturers' 6 hp engines. Kelly Industrial, Beresford, S. Dak. Circle 219 on Reader Service card

Fastening gun, using heavy-duty powder-piston, fires self-ejecting color-coded 25 cal. cartridges at under 270 fps velocity to drive pins and studs up to 3" long with metal or plastic guide washers. Impex Tool, Cedar Grove, N.J. Circle 220 on Reader Service card

New products continued on p. 142
Accent your homes with Harris BondWood®

HADDON HALL, AS SHOWN, IS THE NEWEST OF MANY BEAUTIFUL BONDWOOD® PATTERNS. APPROX. 80 SQ. FT. INSTALLED; OTHER PATTERNS FROM $50 UP.

This 5' x 10' foyer cost $40—installed!

Here's a different way to make your homes more valuable without adding any cost. Pick just one area—foyer, hall, den, playroom or kitchen—and install BondWood® parquet. The resulting splendor will catch the fancy of even the "hardest-to-close" customers! Choose from rich domestic hardwoods or from rare imported woods such as Guiana Teak, Panga-Panga or Brown Rhodesian Teak, all 1/8" thick and ingrained with lasting elegance. For the best laid floors in the U.S.A. specify BondWood®. There's a pattern for every budget.

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MARCH 1969

Circle 116 on Reader Service card
First really new electrical convenience in years!

Electrac* by Kirsch

Operates draperies electromagnetically. No cords, wheels, gears or separate motors.

Electrac is the best thing that's happened for builders since built-in kitchen appliances. When she holds the switch and watches the draperies silently glide open, it's the finishing touch that can help you close more new home sales.

You can have Electrac wiring built-in, or sets can be plugged into existing outlets, for any expanse of window. And for a cost that's much less than you might guess. For full information, write Kirsch Electrac, Dept. BF-369, Sturgis, Michigan 49091.

*Hidden from view, this power capsule glides along the inside rear of an Electrac rod, operating draperies as it goes.

Office equipment

Visual control chart has ribbed clear acrylic face over printed background with colored strips and signals. Chart will control up to 120 projects. Two sizes: 50"x40" and 40"x25". Visual Control, Wheaton, Ill. Circle 228 on Reader Service card

Proportional V scale provides one-step scaling up to 15" without intermediate measuring. All-vinyl instrument can scale drawings and photos directly in percentage or fractions. Graphicraft, Westport, Conn. Circle 229 on Reader Service card

Table-top copier, only 20" wide, 26" deep and 18" high, requires no warm-up period to produce copies at the rate of 11 per min., will handle material up to 9½"x14" in automatic runs of up to 15 copies each. Xerox, Rochester, N.Y. Circle 230 on Reader Service card
money talks

More Hilite windows are used by Western builders, large and small, than the next two major producers combined (or the next three, far as we can determine!).

That tells its own story, doesn't it? It's hard to argue with that kind of success.

The builders market throughout the West, homes and apartments, is thoroughly, overwhelmingly sold on Hilite windows.

It's obvious that you don't enjoy such emphatic approval from hard-headed builders without good reasons.

For example, Hilite offers these (and more), others have only one or two of these important features: both convertible and reversible; AAMA hurricane-approved; fin-seal weatherstripping; triple plated steel parts; deeper interlock; longest nailing fin; always anodized; four adjustable rollers; triple latch lock; adjustable handle; reinforced vent corners; and we could name a dozen more. So much more quality, so much simpler, faster installation.

So talk money with your Hilite dealer. It seems to be a profitable conversation for builders.
OLIVER ROUSSEAU HOMES, with over three quarters of a century of quality home building experience, proudly presents its newest planned residential community, PLEASANTON MEADOWS. Situated in the beautiful Amador Valley, just freeway minutes from major centers of every nature and importance.

Home owners in Pleasanton Meadows live on secluded streets and cul-de-sacs amidst the beauty of a 10-acre community park. Three, four and five bedroom homes featuring the latest in interior and exterior designs and quality features provide real family living.

Each home is totally equipped with the newest Westinghouse appliances. You can be sure ... if it's Westinghouse!

See 8 Furnished Model Homes from $27,400.
Your choice of many floor plans and exteriors.

These outstanding features are included in the price of your Pleasanton Meadows home.

- Air Conditioning
- Wall-to-Wall Carpeting
- Membership in Cabana
- Shake Roof
- Swim Club
- Electric Dishwasher
- Range & Oven
- Family Room Fireplace

DIRECTIONS:
Go east on U. S. 50 3.2 miles past Interstate 680 intersection to Santa Rita Road-Tassajara Road turnout in Pleasanton. Go south 1 mile on Santa Rita Road to Pleasanton Meadows model homes.

OLIVER ROUSSEAU HOMES

AREA CODE 415 / 846-3264
Save up to 50% with electric air conditioning.

In Southern California, the demand for air-conditioned homes is up. Way up. One reason: People are more aware of air-conditioned living. Many enjoy it where they work. Others live in air-conditioned apartments. Besides, people are more concerned about the air they breathe. They want a system that removes dust, dirt and pollen.

If people want air conditioning, why not give it to them? And in Southern California, 9 out of 10 whole-house air conditioning buyers choose an electric system.

Low cost units make it possible for you to include electric air conditioning in homes in all price ranges. Plus an electric system costs up to 50% less to install than other types.

Edison will help you with the planning. We're also helping you with big, full-color ads in Life, Look, Sunset and newspapers promoting electric whole-house air conditioning.

Anything else we can do? Just call.

Southern California Edison
Hammering Home Points...

We'd like to point out the fact that CF&I makes the best nails money can buy. Not only that but we make it a point to give you a wide variety of different types of points, each designed for a particular purpose. A pointer to remember on point picking is that a sharp point is more likely to cause splitting but its holding power is greater because there's less distortion of the wood fibers. CF&I gives you diamond, blunt, chisel, needle, side, semi-side, duck bill, and pointless points to solve specific nailing problems.

Of course, there are other important points such as the head, shank, finish and size to consider in choosing the right nail for an application. Here's the choice CF&I offers. Heads: flat, oval, cupped, countersunk, flat countersunk, oval countersunk, brad, flooring brad, checkered, diamond, hook, scaffold, umbrella, dished, numbered, lettered, and headless. Shanks: plain, barbed, screw, ring, crenelated, and fluted. Finishes: bright, annealed, blued, cement coated, acid etched, hot tumbled galvanized, hot d̂ip galvanized, and electro galvanized.

Buy chemically-cleaned CF&I nails in 5, 25*, and 50* pound cartons. Get the point?
Sales offices nationwide. CF&I Steel Corporation, Denver, Colorado.

*parallel packed
WHY NOT! Gaffers & Sattler builds 'em like fine furniture. Eloquence would grace any Living Room, complement any cabinetry... The most glamorous appliance yet from the Gaffers & Sattler showcase of fine products. Elegant design and advanced engineering concepts make the Eloquence the masterpiece of built-in beauty, combining every modern convenience with the added assurance of the renowned Gaffers & Sattler seal of superior quality. Even if you wouldn't put an Eloquence in the Living Room, its beauty will feel right at home with any kitchen cabinet line! Other great G & S sophisticates—dishwashers, refrigerators, disposers, hoods, drop-in ranges, water heaters, plus heating and air conditioning.

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...AND IN MOST MAJOR WESTERN CITIES.

Your life-long partner in Exciting Living.
A message to those Americans who don’t happen to think the land of milk and honey is going all sour.

Our country is in a strange mood these days.
Uncertainty surrounds us.
So what can you do about it?
Well, first of all, maybe you should take a long, hard look at this country of ours. Maybe we should look at our healthy side as well as our ills.
And maybe, just maybe, you’ll find we’re not all that bad.
Sure we have our problems. And they’re not going to go away if you just stand along the sidelines as a spectator.
But they might start to go away if you seriously want to do something for your country.
A U.S. Savings Bond is one way. Let’s say you fork over $18.75 of your hard-earned cash. Through a Payroll Savings Plan where you work, or at your bank. That will give you a Bond that’s worth $25.00 in just 7 years. If you did that every month you’d stash away quite a nest egg for yourself.
And so would your country.
Your country would be economically stronger to find remedies for some of the headaches we have. While it’s preserving something called freedom.
Something that’s hard to appreciate. Until you lose it.
Savings Bonds now have a new high interest rate of 4 1/2%. And buying them gives you the privilege of also buying the even higher interest 5% Freedom Shares in combination.
However you look at it, it simply makes a lot of sense to invest in your country.
After all, it’s the only country you’ve got.

Take stock in America
Buy U.S. Savings Bonds & Freedom Shares
Wall-hung fireplace requires no chimney or vent, plugs in to operate firelogs with or without forced-air heater with thermostatic control. Available in white, red or black with optional decoration. Pasco Industries, Rochester, N.Y. Circle 231 on Reader Service card.

Conical firehood is now available with a 45” hearth opening, plus the 30” and 38” models. Freestanding unit vents through roof or chimney, may be wood or gas-fired. Nine porcelain colors plus matte black and copper. Condon-King, Lynwood, Wash. Circle 232 on Reader Service card.

Freestanding unit now can be ordered with a solid base or three legs. Base incorporates an ash drawer. All models are red, white, gold or matte black. Natural and LP gas models also come in avocado and copper. Majestic, Huntington, Ind. Circle 233 on Reader Service card.

Quick Henry, the prints!

If you need quick copies, stop waiting and start saving with the Blu-Ray 146 whiteprinter.

With the Blu-Ray 146 semi-automatic, diazo printer-developer, you make check prints on-the-spot—fast and cheap—much cheaper than sending out for blueprints.

The table-top 146 is inexpensive to buy, yet a rugged performer that will work for you all day long. It’s the sturdy, quality machine in the compact whiteprinter field and backed by Blu-Ray’s exclusive 1-year warranty.

Anyone (even Henry) can operate the table-top 146, just set it up where it’s handiest and its 47” throat will take up to 46-inch wide prints and expose and develop them sharply for 1c per sq. ft.

Send today for Free brochure and/or a demonstration by one of our 600 dealers coast to coast.

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Essex, Conn. 06426
Phone (203) 767-0141

Circle 120 on Reader Service card

NEW... for Cement, Masonry, Flagstones

Cabot's CEMENT FLOOR STAINS

Not a dye; not a paint

• For concrete, cement, all masonry surfaces - inside or out... basement floors, walks, steps, patios, sun decks.

• Resists moisture and abrasion, will not crack, peel, or scale. Detergents and beverages will not mar the finish. It is alcohol-proof.

• Easy to apply with brush, roller, or spray... great covering power. Provides a uniform flat finish.

• Eight colors: Mint Green, Brownstone, Brick Red, Oxford Gray, Evergreen, Cabochon Gray, Sandstone, Pippstone Red... plus White and Black.

SAMUEL CABOT INC.
330 S. Terminal Trust Bldg., Boston, Mass. 02210
Please send color card and information on Cabot's Cement Floor Stains.
**Built-in roman bath by Jacuzzi**

Jacuzzi builds its famous Whirlpool Bath right into a 5 or 6 foot colored, contoured tub. And it installs like any other tub. Your next project is sure to be a faster seller when you include Roman luxury by Jacuzzi. Write us for details.

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Circle 122 on Reader Service card

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**2 MEN CAN LIFT WALLS INTO PLACE IN 5 MINUTES WITH PROCTOR WALL JACKS**

Walls up to 75' long or more, including glazed sash and siding, can be raised and positioned quickly and safely, without risk to workmen, in just a few minutes. There's no other method so simple, so safe, so fast, so inexpensive. Thousands in use throughout the U.S. Order today.

Only $160 per pair, plus freight

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Circle 123 on Reader Service card

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**NEW PRODUCTS**

*start on p. 132*

**Electrical equipment**

**Security control panel** for home or apartment intrusion system includes an on-off switch, an alarm re-set and a pilot light that tells if the system is operating. Emerson, St. Louis. Circle 221 on Reader Service card

**Combination device**, including an outlet, has a quiet switch and a neon pilot light that tells when switch is on. One of a line of nine heavy-duty combination devices available in brown or ivory. Eagle Electric, Long Island City, N.Y. Circle 222 on Reader Service card

**Mobile power unit** supplies electric power for tools or floodlights and provides heat from a flameless 45,000 BTU hot water furnace. The 6500-watt generator operates on gas or propane. All steel body is 6' x 4' x 30" deep. Holtkamp, Centralia, Ill. Circle 223 on Reader Service card

New products continued on p. 156
Be a winner... not a loser

If you're building apartments, we're both losers if you don't check the advantages of using Float-Away metal bi-fold closet doors.

We know you expect us to have the best and most beautifully styled metal bi-fold steel door line on the market. We're not immodest, but we do. Where you really gain is in our apartment house system. Check with us if you have ever been bothered by

- Irregular openings (in height or width)
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- High installation costs

Since we at Float-Away are the apartment specialists, there are many other advantages to offer.
Talk to us or we're both losers.

Write us on your letterhead:

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ROTOLITE'S MARK II . . . 100% FASTER

Whiteprints (Blueprints) for 1½c per sq. ft. with always dependable Rotolite. More speed is only one benefit. Look at the others.

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Incomparable American Heritage Designs

Becker Manufacturing, a leader in decorous theme accents in lighting... nautical, frontier, early American, Gay '90's, New Orleans and Spanish styles.
It's at Becker where quality and design meet.

Write for our full color catalog
Becker Manufacturing Co., Inc.
P.O. Box 2277,
City of Industry, California 91746

Circle 126 on Reader Service card

NEW PRODUCTS
start on p. 132

Electrical equipment

Decorative moulding is designed to carry coaxial cable TV lines, security and intercom circuits along apartment hallways so lines can be serviced without entering units. Wood grains included in 64 colors. TelePrompTer, New York City. Circle 227 on Reader Service card

Circuit interrupter protects against damage or injury from unintentional grounding by undetected line-to-ground faults. Small portable model shown can be used for power tools in temporary locations. Pass & Seymour, Syracuse, N.Y. Circle 224 on Reader Service card

Compact connector can be quickly installed without complicated splicing or special tools, fits several cable and conductor sizes and is water tight. Moulded neoprene material is not affected by sunlight or direct burial. Joy, New Philadelphia, Ohio. Circle 225 on Reader Service card

Decorator plates, in many sizes and combinations of switches and outlets, are clear plastic that snap over a gold insert. Inner plate can be painted or covered with paper or material to match wall. Tap-Lite, Chelsea, Mass. Circle 226 on Reader Service card

New literature starts on p. 158

HOUSE & HOME
At Ruskin Place, 7 Maytags average 300 loads a week with not one repair in 15 months.

Ruskin Place is a new garden apartment complex of 104 units in Kansas City, Missouri. Luxury facilities include a clubhouse, heated indoor-outdoor pool, sauna bath, party room, and two brands of washing machines. Seven of these are Maytags.

Writes the Manager, Mrs. Bonnie Eicholz: “There is no comparison with Maytags and the other machines on repair costs. Not one cent has been spent for parts, even though the Maytags have had heavier use. We haven’t had a single repair since the Maytags were installed 15 months ago. The other brands of washers all have cost as much for repairs as the money they take in. The Maytags are ticket-operated, which means no problem with making change, pilferage, and vandalism. If we had it to do over, we’d have only Maytags.”

The tenants also seem to prefer the Maytags. According to Mrs. Eicholz, “4 out of 5 families use the Maytags. In some cases, people walk a block to get to them. They like the big tubs. And Maytag gets the sand out of children’s clothes, doesn’t leave it in like the other machines.”

We don’t say that all Maytags will equal the record that Mrs. Eicholz has enjoyed. But dependability is what we try to build into every Maytag Commercial Washer and Dryer.

If you are interested in finding out more about Maytag dependability, contact the local Maytag route operator or just fill in and mail the coupon.
An armchair tour of today's market-proven ideas

Most builders constantly borrow ideas from other builders' successful houses and apartments. For the busy builder who can't take the kind of coast-to-coast housing tour he'd like, here is a new book that is like an instant look at dozens of outstanding projects around the country.

This pictorial tour takes the reader from the West, where many of the newest ideas in housing originate, to the Northwest, the Southwest, the Midwest, the Mid-Atlantic area, New England and the South. Each area is well organized and illustrated with handsome full color photography.

Some of the ideas covered are well established trends shown in a variety of fresh new ways. More recent innovations include patio kitchens and garden baths. But even though familiar, the examples are valid because, unlike other books that concentrate on expensive and difficult to duplicate custom designs, the majority of these houses are in successful built-for-sale or rent projects with an average price of $35,000.

The focus of the book is on the expansion of living—toward the outdoors and inside. Since this involves the use of windows and glass, most of the 66 drawings and 83 color photographs show interesting uses and treatments of windows and mirrors, and a short guide to various types of glass now on the market is included.

So if your air travel card is delinquent, or you are busy building your spring models, this book will give you a more inclusive tour than you could ever plan yourself. Pittsburgh Plate Glass, Pittsburgh. Circle 300 on Reader Service card

Why do builders choose ShoweRFoLD® enclosures?

Homes and Apartments move faster when women approve your bathrooms. And women love patented ShoweRFoLD tub and shower enclosures because they're beautiful, safe, and real work savers.

They fold to less than 10 inches, allowing complete access for easy entry, bathing children or cleaning tub. Closed, they keep water inside where it belongs. The flexible panels wipe clean with a damp cloth. They will not mold or mildew. Safe! Can't crack, chip, shatter or break. Lifetime replacement guarantee on panels, too.

ShoweRFoLD gives bathrooms a beautiful, spacious appearance. Choose from decorator panel colors. Trimmed in gold or silver anodized aluminum with bright or satin finish. Budget-matched. A complete range of sizes and styles provides product in every price range. 82 models in all. Write for free literature.

For copies of free literature, circle the indicated number on the Reader Service card, p. 147

COMPACT KITCHENS. To mark manufacturer's 40th anniversary, over 40 models are featured in a 20-page full color catalog that details progress made in engineering full kitchen facilities into single units for apartments and retirement housing. Included is information on one-piece seamless porcelain countertops, rollout shelves for refrigerators and ease of mechanical servicing. Dwyer Products, Michigan City, Ind. Circle 302 on Reader Service card

DECORATOR PANELS. A four-page full color folder illustrates new line of translucent plastic panels in four patterns, one with a leaded look, embossed on both sides. A selection chart includes various colors available in the three sizes offered. Also included is information on film glaze screens and their various applications, as well as instructions for assembly. Masonite, Chicago. Circle 303 on Reader Service card

ADJUSTABLE SHELVING. A system of storage shelving, originally from Sweden, is explained in a 28-page two-color catalog that gives guidelines for efficient storage planning and includes tables of required shelf distances and weight capacities of the wood shelves. Drawings illustrate the interlocking principle, material specifications are given, and a complete catalog of standard parts and accessories is included. Lundia, Myers Industries, Decatur, Ill. Circle 304 on Reader Service card

WHEEL LOADER. A 20-page booklet describes the features of a new 130 hp 23,000-lb. machine, its many uses and wide range of attachments. Caterpillar, Peoria, Ill. 61602

New literature continued on p. 160

SHOWERFOLD DIVISION
KIN KEAD
INDUSTRIES INCORPORATED
5860 N. Pulaski Road, Chicago, Illinois 60646
17601 Western Ave., Garden Grove, Cal. 92641

A. Patrician tub/shower enclosure — moderately priced value leader.
B. Empress tub/shower enclosure — finest quality for deluxe installations.
C. Tiara center-opening double door tub/shower enclosure with wood grain accent — for luxurious homes.
D. Corinthian corner enclosure — wall covering, floor and door for second bathrooms.

Circle 128 on Reader Service card
Deluxe Homes, Inc.
Berwick, Pennsylvania 18603

Gentlemen:
Please send full information concerning your Deluxe Homes "Profit Plan."

Title -------------------
Name of Company -------
Street ------------------
Town ___________ State ____ Zip ___

Circle 129 on Reader Service card 159

Six outsides and seven insides. That makes at least 72 different DeLuxe Homes.

72?
Who says factory built houses all look alike? Every DeLuxe Homes outside adapts to every DeLuxe Homes inside. For a starter, that's 42 different homes. Then add a back porch, a front porch, garage or carport. Any or all. That's at least 72 custom built possibilities we can offer. Now you add a few. Like stone or brick exterior. Like fireplaces. The possibilities are endless.

About 32% of all new home construction this year will be factory built. Homes you could be selling with very little effort for a very nice profit. Now you can offer the variety the buyer wants. DeLuxe Homes variety. Find out how you can profit by selling DeLuxe Homes. Call collect for an appointment, or mail coupon.

DeLuxe Homes, Inc.
P. O. Box 323 Berwick, Pa. 18603
Phone: 717-752-5914

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Berwick, Pennsylvania 18603

Gentlemen:
Please send full information concerning your DeLuxe Homes “Profit Plan.”

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Title ________________________________

Name of Company _______________________
Street ________________________________
Town __________________ State _______ Zip _______

Circle 129 on Reader Service card 159
There are Five Salesmen in this room

and each one can cost you next to nothing

That's right. Those beautiful beams are not wood, but revolutionary new Lite-Beams, authentic polyurethane reproductions that cost only ½ as much to install, and defy comparison with wood — even from only inches away!

What does this mean to you?

PLENTY!

It means you can add buyer-creating exposed beams to any house at a cost to fit in any price.

And now you can take advantage of our SPECIAL OFFER: A competitive low price if you act NOW. Simply fill out the request for quotation and send it in immediately to discover just how much LITE-BEAMS can mean to your sales and profit picture.

REQUEST FOR QUOTATION

LITE BEAMS /division of Am-Finn Sauna, Inc.
Haddon Avenue & Line Street, Camden, N.J. 08103

Name ____________________________________________
Address ___________________________________________
Project Name _______________________________________
Project Address _____________________________________
Number of units per year ___________________________
Length(s) of beams required _________________________ Number of each required _________
Total footage per unit _______________________________

(Note: Lite-Beams available in 8-10-12-14-16-18-20' lengths)

A management newsletter

For the independent businessman, the professional, the owner or partner in a small company, there is a new McGraw-Hill newsletter. It is being published by the editors of BUSINESS WEEK, which long has had a policy of limiting subscriptions to men of proven executive responsibility in larger corporations. Material is provided by the worldwide staff of BUSINESS WEEK, some 200 experts in statistics, economics, politics, investments, labor, management and technology. Put out fortnightly, each eight-page issue gives up-to-the-minute news, information and advice on such topics as the stock market, taxes, legal matters, health, retirement, real estate and contributions. A year's subscription is a tax deductible $36. For a free sample, circle 301 on Reader Service card.

STEEL PIPE. The versatility of steel pipe is discussed in detail in a two-page publication. A drawing showing typical roughing-in for a bathroom installation. Various uses—plumbing networks, sprinkler systems, snow-melting operations, stairway supports and handrails—are described. American Iron and Steel Institute, New York City. Circle 306 on Reader Service card

COPPER ROOFS. Three four-page bulletins describe attractive uses of copper, brass and bronze in contemporary roofing. One bulletin covers fascias, another, standing seam roofing and the third, batten seam roofs. All are illustrated with photographs and drawings. Copper Development Assn., New York City. Circle 307 on Reader Service card

MASONRY TIES. The properties, uses and applications of continuous rectangular ties for cavity walls, composite walls and masonry veneers are discussed in a technical data sheet. Sample installations are shown in charts. Included is a comparison of metal-tied vs. header-tied walls. Dur-O-Wal National, Cedar Rapids, Iowa. Circle 308 on Reader Service card

AUTOMATIC MARKER. A specification sheet illustrates a marking wheel and its use in setting studs, rafters, joists, roof trusses and other components without time-consuming measuring and squaring. Timber Engineering, Washington, D.C. Circle 309 on Reader Service card

PRECAST FRAMING AND DECKS. The use of precast units in a small dormitory to save construction time over pour-in-place concrete is detailed in a bulletin that includes complete cross-sectional drawings and plans. Exterior and interior photographs show exposed structural frames used decoratively or with facings applied. Flexicore, Dayton, Ohio. Circle 310 on Reader Service card

New literature continued on p. 162
secret to superior sewage treatment

These are strong words, alright. But they are being said about the strongest people in the water pollution control business... LYCO SYSTEMS.

LYCO is a dynamic company with fresh, imaginative ideas about sewage treatment. For example, LYCO extended aeration sewage systems provide "precise air rate selection within 2 cfm". This unique feature offers a more accurate match of air supply to organic loading.

LYCO systems have many more money-saving ideas. Like custom-building field-erected units to accommodate operations ranging from 2,500 gallons/day to 1,000,000 gallons/day. This means LYCO has a sewage treatment system for a wide variety of applications and can design a unit specifically for your use. In fact, call on LYCO to solve your total sewage problem... from concept to completion.

The handwriting is on the wall. For efficient, economical water pollution control, get the better sewage treatment or pumping equipment. Go with LYCO, the "Underground Agent for Water Pollution Control".

Performance data certified by the National Sanitation Foundation is available on request.

For further information on advanced-engineered LYCO Sewage Treatment Plants, write Dept. HH033...

Name
Address
City  State  Zip
Application
Keep the lid on building costs
—with the instrument of “101” uses

Which Berger is best for your needs?
(Not shown: Model 500 Optical Plummet Transit-Level. Some specifications as #320 but with optical plummet. $310.00)

18" PROJECT LEVEL. Model 480. 33-power coated optics. With horizontal circle and 5 min. vernier. $310.00*

HEAVY DUTY 12" DUMPY LEVEL. Model 150. 25-power coated optics. $170.00*

SPEED-A-LINER BUILDER’S TRANSIT-LEVEL. Model 200A. 20-power optical system. $129.00*

SPEED-A-LINER DUMPY LEVEL. Model 190A. 20-power internal focusing telescope. $85.00*

The more building jobs you can do with a single instrument, the easier it is to keep costs down. That’s why Berger’s Convertible Transit-Level (Model 320) is really custom made for these days when construction costs keep soaring and nibble away at your profits.

The Berger Convertible meets building challenges from measuring angles, extending lines and setting forms to aligning structural steel and establishing grades for streets. It does these and scores of other jobs fast and accurately—the insurance you need to protect against costly “do-overs.” And like every Berger instrument, it’s manufactured right here in our Boston factory.

For its moderate price you get big instrument features like a 22-power telescope with coated lenses that focus 3 ft. to infinity, horizontal circle and vertical arc with double vernier reading directly to 5 min., plus all the other features and superb craftsmanship for which Berger has been known since 1871. See the Berger Convertible...get the feel of it, at your dealer. Or mail coupon for full information. BERGER INSTRUMENTS, A Div. of KMS Industries, Inc., 53 Williams St., Boston, Mass. 02119

MAIL COUPON FOR DETAILS

BERGER INSTRUMENTS
53 Williams St., Boston, Mass. 02119
Send complete details on:
☐ Master Builder Convertible Transit-Level $20.00*
☐ Optical Plummet Transit-Level $10.00*
☐ 18" Project Level $10.00*
☐ SPEED-A-LINER DUMPY LEVEL $85.00*
☐ Heavy Duty 12" Dumpy Level $170.00*
☐ SPEED-A-LINER Transit-Level $125.00*
☐ SPEED-A-LINER DUMPY LEVEL $85.00*

*All prices F.O.B. Boston, include carrying case and plumb bob. Tripod extra.

NAME ____________________________
ADDRESS ____________________________
CITY ____________________________ STATE ______ ZIP ______

New literature continued on p. 158

PLASTIC LAMINATES. General information on the use of laminated plastics, their assembly, types of adhesives and core materials, and waterproofing. Specifications include grade, thickness, thickness tolerance, available widths and lengths, finishes and recommended applications. Westinghouse Micarta, Hampton, S. C. Circle 320 on Reader Service card

WALLCOVERINGS. Fifteen foil and flock wallpaper floral and traditional designs are shown in a four-page booklet. Also illustrated are two mural patterns. James Seeman Studios, Garden City Park, N.Y. Circle 321 on Reader Service card

SUBMERSEIBLE PUMPS. A catalog describes 37 submersible pumps with capacities from 600 to 24,900 gal. per hour, plus self-priming, self-powered pumps. Included is a guide of typical pump applications and information on how to select the correct size and type of pump. Also included are detailed specifications and a description of manufacturer’s other catalogs. Kenco Pump, Lorain, Ohio. Circle 322 on Reader Service card

TILE ADHESIVES. Recommended specifications for asphalt and vinyl asbestos tile adhesives. Three types of adhesives are covered: water emulsion asphalt, cut-back asphalt and water-based latex. Included are requirements for uniformity, storage stability, spreadability, odor, consistency, drying time, bonding strength, alkali resistance and retention of volatile solvents. Asphalt and Vinyl Asbestos Tile Institute, New York City. Circle 323 on Reader Service card

CARPET CALCULATOR. A circular computer has a revolving wheel that gives exact carpet specifications for a particular use, including the proper weight and density for wool, nylon or acrylic fibers. Information is used to choose the proper pile height and number of tufts per sq. in. for the use specified. Dow Badische, New York City.

FIRE-TESTED INSULATION. A single sheet describes a fire test conducted on an 8" concrete masonry wall filled with vermiculite, gives a chart of temperatures during the test, and includes requirements for a two-hour block rating. Also listed are institute members’ addresses. Vermiculite Institute, Chicago. Circle 324 on Reader Service card

PANELING AND SIDING. Two full color catalogs cover manufacturer’s line of paneling and siding. Included are close-up wood-grain samples, wide choices of colors, complete descriptions and application information, as well as sizes available. Photographs show room settings, exterior designs, accessories and matching trim and mouldings. Evans Products, Corona, Calif. Circle 325 on Reader Service card

Annual H&H indexes

Copies of House & Home’s editorial index for 1965, 1966 and 1967 are still available. Each is an eight-page, cross-referenced listing of subjects covered that year by this magazine. To get copies (there’s no charge) write to: Reader Service Dept., House & Home, 330 West 42nd St., New York, N.Y. 10036.

New literature continued on p. 166
#1 Bird roofing shortcut to bigger profits

Cut material cost with Bird Wind Seal JET® Shingles and pocket the savings

8% less material used on an average job. That's real cost cutting. And that's just what you get when you install new Bird Wind Seal JET Shingles. There's virtually no waste! Not to mention the time saved. JET Shingles lay faster. They're self-aligning. No cutouts. This means time for more jobs...bigger profits on every job for you. For more information, mail the coupon. Once you've installed JETS, you'll see the difference...in your pocket. Ask about the exciting new Terra-colors™ in the Bird Shingle line.

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MARCH 1969
Circle 133 on Reader Service card
Heart of Bostitch Clinch-Nail Truss System is the special two-ply truss plate and companion clinch point nail. Each nail is power driven completely through joint and automatically clinched on opposite side. Two-ply construction of Bostitch clinch pad truss plate insures precisely controlled clinching action.

The new Bostitch Clinch-Nail Truss System makes it all possible. With Bostitch you combine the proven strength and durability of nail-on truss plates with the speed and low cost of a simple compact air gun system.

That means simplified scheduling—up to 120 trusses a day, when and as you need them.

Low-cost trusses—requires only three men to do the entire job, including the cutting of webs and assembly.

Highest quality trusses—each nail goes completely through both sides of joint and locks wood between two steel plates.

Versatility—makes almost any size and style truss. Just add tables to expand pitch and span to any lengths.

Space savings—uses only half the floor space since we’ve eliminated flipping the truss. You nail from only one side.
Everything you need except lumber and saws!

Two Bostitch N2 Truss Nailers
—tremendous driving power at low air pressure. And these nailers can do other nailing jobs when not in use for trusses.

Fixed or Portable Air Compressor
—your choice from a wide selection of compressors to cover any air requirement.

Coil-fed Truss Nails
—especially designed for fastening Bostitch Truss Plates. Full-head nail with special clinch point, 250 nails per coil.

Bostitch Steel Truss Plates
—flat, galvanized plates stamped with convenient nailing guides.

Complete Kit of Accessories
—includes all hoses and fittings for air compressor and nailers, spare parts, air filter, lubricants and regulator.

30-page Illustrated Manual
—easy-to-understand, easy-to-follow instructions on how to build professionally designed trusses.

Help from Bostitch Truss Experts—four-minute movie films available on both assembly and installation—through your local Bostitch representative.

Compact, Walk-through Truss Jig—you get all truss jig hardware including saw guides, hardened steel tabletop clincher anvils and detailed construction plans for six track-mounted movable nailing tables (two each heel and web, one peak and one splice).

Whether you now build or buy trusses, you owe it to yourself to check out the Bostitch Clinch-Nail Truss System. You can't build or buy a better truss. Mail this coupon today!

Bostitch can do something for you.

Fasten it better and faster with Bostitch Division of Textron Inc.

Please send me the full story on the new Bostitch Clinch-Nail Truss Package.

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MARCH 1969
NEW LITERATURE
starts on p. 158

REDWOOD PANELING KIT. Included in kit: five four-color booklets, from four to 20 pages in length, covering redwood homes, interiors and exterior finishes, remodeling ideas and information on re-siding; three two-color four-page guides on lumber, plywood and interiors; a technical folder on the advantages of certified kiln-dried redwood; and a data sheet on nails and nailing. California Redwood Assn., San Francisco. Circle 311 on Reader Service card

LIGHTING. Two catalogs—one on practical lighting, the other on elegant lighting—cover manufacturer's complete line of antique, provincial, Mediterranean, Spanish and contemporary chandeliers, hanging lights, ceiling and wall fixtures, post and entrance lanterns and spots. Included is information on luminous ceilings, and complete specifications for all models, with choices of materials and finishes. Virden, Cleveland, Ohio. Circle 312 on Reader Service card

STRUCTURAL WOOD PRODUCTS. A full-color brochure describes post-and-beam construction with laminated wood products. Included is technical data on patented beams and decking system. Photographs and drawings illustrate installation methods and finished buildings and the variety of finishes available. Potlatch Forests, San Francisco. Circle 313 on Reader Service card


PREFab FIREPLACES. Described in a four-page full color brochure are manufacturer's three types of freestanding fireplaces—conical firehood, rectangular firebox and ceramic firepot. Included are a color wheel and photographs of various installations and room settings. Condon-King, Lynnwood, Wash. Circle 315 on Reader Service card

PLASTIC PIPE FITTINGS. A quick-selector catalog covers a complete line of insert fittings for plastic pipe, including all standard types and sizes, as well as many special purpose items. Color coded to show materials, i.e., brass, steel, nylon, PVC and polyethylene. American Granby, Milwaukee, Wisconsin. Circle 316 on Reader Service card

EPOXY FLOORING. A four-page brochure discusses four epoxy floor systems: a terrazzo floor matrix, a conductive terrazzo floor matrix, a granulated asphalt and ceramic floor. Included are also specifications and properties are given, as are suggested applications and test results. H. B. Fuller, St. Paul, Minn. Circle 317 on Reader Service card

SEAMLESS STEEL PIPE. A 12-page catalog describes the manufacturing of and uses for seamless standard and line pipe. Charts and tables provide sizes and grades, list most common specifications and include government requirements. CF&I Steel, Denver. Circle 318 on Reader Service card

WESTERN RED CEDAR. A four-page full color guide to the various grades and patterns in siding, paneling, finish and trim. Includes tables of nominal and actual dimensions and nailing drawings. Western Red Cedar Lumber Assn., Portland, Ore. Circle 319 on Reader Service card

CEDARLINE—A dramatically different and easier way to install cedar closet lining made from Alabama Aromatic Red Cedar processed into large flakes and compressed into an attractively textured pattern. Has the same strong, lasting cedar aroma, so highly valued for generations, that was found in fitted cedar boards. It's all cedar—no fillers or other woods added.

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Only you can prevent forest fires

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together they complete the look that completes the sale.

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