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How to clear the roadblocks that stymie trade-in programs

Few builders can go it alone, but a team effort by the whole housing industry could make it easy to transfer equities from old houses to new ones.

MARKETING

Condominium comes of age—but fast

Here's why both builders and buyers have accepted the idea. Here, too, are the major pitfalls to avoid if you are considering a condominium project.

DESIGN

Four projects designed for condominium ownership

Some are resort projects, some for year-round occupancy. And they include both apartments and townhouses priced from $20,000 to more than $100,000.

Architect's home is a showcase for his builder-clients

"My product is salable ideas," says Henry D. Norris. That's what builders see as they go through his home—and what you'll see in this picture story.

CONSTRUCTION

Are sectional homes finally on the road to bigger sales?

It looks that way. Here's evidence from builders who have boosted their profits by selling factory-finished houses that are trucked to the site in halves.

MANAGEMENT

This computer program can steer you toward better management

Consultron is a management consulting service in miniature. Here's a detailed look at how it works—and how it boosted profits for three builders.

NEWS

At long last, Treasury calls for flexible FHA-VA interest rate

Also: How the pros pick bargains in foreclosed apartments... Claimant of a world's record sells 1,000 houses in five hours—in Tunis... Builders climb aboard the mortgage-money train... Five Wall Street scents housing turnaround.

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NEXT MONTH

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At long last—Treasury urges Congress to allow floating interest rates for FHA and VA loans

FHA's and VA's mortgage interest ceilings should fluctuate more directly with competing market rates, says the Treasury Department.

Its recommendation, buried in a report to Congress on federal credit programs, is one of the most significant ideas for housing finance now under discussion among housing experts within the federal government.

Last month he sent Congress a separate report urging retention of the present 6% ceiling on FHA house mortgages and the present method of setting FHA interest rates for mortgages on some FHA apartment loans, notably Sec. 207 and Sec. 213 coops, from a present 5 1/2% to 6%. The pegged ceiling has caused Sec. 207 loans to virtually vanish, and discounts of 10% and 12% were quoted in mid-January.

Treasury would let the Federal Reserve Board buy obligations of other government agencies such as FNMA and HEBR, a way of giving these agencies more funds in tight-money periods.

And Nathaniel Rogg, NAHB top staffer, countered Heimann's proposal by suggesting instead that FHA merely recognize mortgage discounts as a business expense and include them in the final mortgage.

Earlier NAHB suggestions in this direction have come to naught, however.

Vanishing guideposts

The Johnson Administration has dropped its 3.2% wage-increase guides and is resorting to persuasion to win labor and industry to a policy of wage restraint. The first major contract settlement of 1967 in housing may set a national pattern: 6% annual increases over three years for 34,000 Chicago carpenters.

More slum aid

Sen. Abraham Ribicoff (D., Conn.) ended two rounds of hearings on urban problems by demanding a $50-billion drive against "the ghetto cancer." Despite creation of the Department of Housing & Urban Development last year, Ribicoff said city problems cannot be solved "with the outmoded, inefficient, directionless, and red-tape snarled programs of today."

Long-range reform

Thus the Administration is again backing legislation that would give sweeping new powers to the Federal Reserve Board for federal registration for all interstate mortgage banks. And it appears to be considering an amendment to tax pending measures more drastic than the problem warrants.

WASHINGTON WIRE

Starts up 47%

Housing's sharp rebound is continuing. January marked the third consecutive month of resurgency in the industry's most volatile indicator, the seasonally adjusted annual rate of starts (graph). The January reading of 1,243,000 units carried the starts' rate up 47% from its postwar low of 848,000 units touched in October. January activity jumped sharply in the Northeast, rose moderately in the South and North Central, and declined slightly in the West (p. 18).
The two photos above illustrate the tough choices facing the small fraternity of housing professionals who specialize in picking up the pieces left behind by some of housing's unfortunate Humpty-Dumpties.

Broadway Terrace, the 12-story high-rise at right, is located on the major cross-town thoroughfare in Columbus, Ohio, has frequent buses to downtown only minutes away, and is within blocks of several successful high-rise apartments. Yet when FHA called for bids on the foreclosed building last July, not a single person spoke up.

In contrast, Berkley Town House in the New York City borough of Queens (left) was sought by 24 bidders and the winner paid $100,000 above FHA's minimum price of $741,000 for the privilege of taking over an apartment which, like Broadway Terrace, had been foreclosed.

The two offerings are typical of merchandise in a quickening market in foreclosed units, offered by government agencies such as FHA and the Federal Savings & Loan Insurance Corp., by trustees for bankrupt owners, and by conventional lenders. The market is growing more active daily: FHA sold projects with 6,886 units last fiscal year and hopes to step this up to 11,000 units yearly in the next two years. In the past few months, potential buyers could choose from among 22 apartment projects offered by the trustee for a bankrupt southern California syndicator, 80 apartments, 23 one-family houses and a country club offered by the FSLIC near Chicago, or four apartment developments with 486 units in Hampton, Va.

A dozen or more individuals or investing groups can be counted upon to comb the lists of distressed apartments for bargains. But as in buying a used car, they are very cautious because nobody wants to pay good money to take over somebody else's problem child.

**Why did he fail?** Almost to a man, bargain-hunting pros interviewed by HOUSE & HOME want to know the prime reason the original owner and/or builder failed. Often the seller of distressed property does not provide the answer, and it is up to the potential buyer to dig up the facts of the non-success story.

In the case of Broadway Terrace, the project carried the reputation of "a real sick one"—with dim recovery prospects—among Columbus realty men. Built in 1961, it was Columbus' first high-rise cooperative. But sales of the units faltered (a fate which befalls many trailblazing cops) and the owner-developers tried renting. This too failed and FHA foreclosed on its $3 million mortgage. Even under FHA management, occupancy never reached 40%. Then, when FHA offered the building, it set no minimum price but wanted all cash, and this deterred bidders.

In contrast, Berkley Town House was located in the nation's largest metropolitan area, an almost certain guarantee of wide interest. Built in 1960, it was never filled sufficiently to pay the $991,000 mortgage. When FHA took over, it dropped rents to an average $50.66 a room, enough to support a smaller $700,000 mortgage. And the strong NYC rental market almost assures future success.

Each failure has a separate story; the bargain hunter must find it.

**Management know-how.** Second, the pros want to know the quality of management the apartments have had. If they can figure out what the old management was doing wrong, they figure they can use their ingenuity to correct it. Often a new manager is tempted to cut rents to fill his units, but the pros scoff at this approach.

"We're very happy to go into a neighborhood where there's competition—good comprehensive competition or careless owners that panic at anything," says Ray Salinas, of Property Management Co. in Santa Ana, Calif., and author of the book, Managing Apartments. "We go into these neighborhoods and raise our rents, getting the tenants by watching all the mistakes the other people are making. For example, in one neighborhood in Orange County, we found 18 different owners with 270 apartments in one block. That meant there were 18 different management policies and programs—one owner would accept children, another would not, another would take a little of each. We went in, put up a sign saying "Adults only", and raised rents $5 higher than anyone else. The better people moved out of the other buildings into ours, and we've operated at 95% occupancy for three years now in a neighborhood that always had a 30% vacancy."

Similar examples of enterprising management turn up elsewhere. In San Diego, Ben Snyder and Alex Matosian bought Belle View Apartments in April 1965 when 47% of its 300 units were vacant. Since then they have built occupancy to 100% (with a waiting list) by: 1) furnishing more than one-third of their two-bedroom units so rents could be raised to the FHA maximum; 2) grouping tenants within the project, so that one cluster of buildings contained senior adults, one married couples with children, and a third only students and childless couples; and 3) giving 24-hour maintenance service.

Hardly any of the bargain hunters interviewed considered turning their acquisitions over to professional management companies. "Smart speculators living on the property have a better chance of making it go," says Senior Vice President Arthur E. Neelley of California Federal S&L in Los Angeles, where S&Ls have acquired a number of ailing projects. "It takes a personal, long-range interest."

One variation on this is the experience of an eastern real estate man—he will not permit use of his name—who manages 18 projects spread from Arizona to Florida to Michigan from his home office. "We put our own resident manager in every project, almost always someone we have trained here and know is reliable," he says, "and then we give him lots of autonomy."

Once a month the investor boards a plane and visits four projects in two-day swings. With jets, he says, "anyone can manage a string of apartments across the country."

continued on p. 8
NOTHING BUT THE BEST went into this award-winning, custom-built house in Southern California. Costly materials, modern accessories, and new building techniques were combined to fulfill its dramatic, contemporary design. In specifying plastic pipe with GSR fittings, the builders chose the most modern drain, waste, and vent system—and the most economical! Plastic DWV systems are best because they are impervious to practically all metal-pipe troubles. They are most economical because material cost is less than conventional materials and installation takes only one-half the time.

In custom homes or multiple housing, plastic pipe with GSR fittings forms the newest, most practical, most economical DWV ever developed. It complies with the specifications or standards of the FHA, BOCA, National Sanitation Foundation, International Association of Plumbing and Mechanical Officials, Southern Building Code Congress, and numerous state, county, and municipal agencies. Ask your plumbing contractor about plastic DWV—and GSR, the world's most complete line of plastic pipe fittings. R. & G. Sloane Mfg. Div., Atlantic Research Corp., 7606 N. Clybourn Ave., Sun Valley, Calif. 91352.
Location, location. The bargain hunters want their apartments in good apartment areas—which does not necessarily mean they have to be in downtown locations. "For example, apartments in far-out West San Fernando Valley [near Los Angeles] could be all right because there are people working there who find them convenient," says Cal Fed's Neelley.

In San Diego, Ben Snyder won't bid on apartments that aren't in a good residential neighborhood with good schools, shopping areas, and easy transportation access. Other bargain hunters agree these are important, although some, in cities with well-developed freeway systems, say public transportation may not be important.

How they pay. Nearly every bargain hunter takes a long hard look at the tenants in a project. "See what kind of compatibility there is among tenants," advises Ray Salinas. "You may find a spinster next to a young swinger next to a middle-age tenant with four children. They will eventually get on each other's nerves."

"And check on paying habits. It's important whether tenants pay by the month, every two weeks, or irregularly."

They advise checking whether units are full only because rents have been cut. For instance, one project being offered has full occupancy but monthly income of only $3,038—compared to a scheduled $4,150 income when built. Experts know that rents generally can be raised only when a new tenant moves in—and then only if the market will support it. F&I tells both current and original rents in its prospectuses; some private sellers provide monthly income and expense statements too.

Spend some money. A bargain hunter will always find extra maintenance that must be done immediately and to a man the pros advise having the cash to make needed repairs—fast. "The situation may have been ignored for years—paint, carpets, draperies are no longer attractive," says Salinas. "But people are looking for a good clean apartment—and it's going to cost an investor dollars to meet that demand. More than anything else, the investor should check the condition of each apartment—he must insist on looking at every unit, not just a few."

So the investor who equates "bargain" with low cash down payment may be in for a rude jolt. If the seller wants $100,000 as a down payment, another $25,000 must be budgeted for miscellaneous closing costs and that much or more for deferred maintenance. The buyer with thin equity will invariably wind up in trouble, they say.

In line with this, the pros warn against committing more than 50% of true rental income to pay debt. "Out of every dollar that comes in, about 45% is needed for fixed operating expenses, but with good careful management this can be reduced as low as 35%," says Salinas.

"If a person's debt is high and his equity thin, then he's lucky to even own it. Under those conditions, the smartest manager in the world isn't going to be able to work miracles."

How a pro sized up these apartments in one day

When FHA called for bids on Imperial Strand Apartments in San Diego in January, it asked a minimum $1,260,000 and offered to take back a $1,175,000 purchase money mortgage.

The ad started the bargain-hunting pros scrambling and one flew into San Diego and in one day—his first in the city—decided to risk the minimum $85,000 to buy the 160 units.

First he visited the project and found over 50% of tenants were wives of Navy carrier crewmen based in San Diego. "Would the carrier base ever be switched to San Francisco?" he wondered. But the management office would tell no more, since FHA personnel are told not to disclose any information not contained in its prospectus.

Next, the pro went to the project maintenance office and, from the chief maintenance man, learned:

- The payroll was $695 weekly, or $35,000 a year—far higher than the $15,000 yearly he would have budgeted for a similar project.

- The project paid $3,000 yearly for garbage pickup, which was not provided by the city.

- No lifeguards were hired to guard the project's two swimming pools. "Who's liable if someone drowns?" the bargain hunter wondered. Pool maintenance cost $95 monthly on a contract basis, he found.

- Janitorial supplies ran $300 monthly.

- The original mortgage was $1,681,000, so the pro calculated that the $500,000 reduction in mortgage amount, at 8% constant payments yearly, would give him a $40,000 advantage over the original owner.

By evening the bargain-hunter boarded a plane and flew home. His judgement: With some pruning of operating costs and tight management, the project was attractive enough to bid upon.

Public housers pick over foreclosures, too

Why aren't more foreclosed apartments sold to public housing agencies? The questioners generally don't realize that public housers are avid lookers but infrequent buyers because they are just as choosy as private investors. FHA notifies local agencies of all foreclosures but has sold relatively few units this way. Broadway Terrace in Columbus (p. 6) was sold for low-rent elderly use.

Too, public housers' proposals sometime meet resistance, as in Toledo. In January the public housing agency announced plans to buy Windsor House, a luxury high-rise with 31 of 152 units still unfinished. Facing eviction, residents protested. The agency then delayed closing to see if private buyers were interested.
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LOS ANGELES AREA: Woodall Industries, Inc. 10423 Valley Blvd., El Monte, Calif. 91733, Tel. (213) 444-2566. San Francisco area: 2305 Lafayette St., Santa Clara, Calif., Tel. (408) 243-8008
In Tunis, an American sells 1,000 houses in five hours

Builder Alan Carnoy, an indefatigable exporter of American-style home ownership, found his warmest reception yet when he opened models in Tunis in mid-January.

In just five hours and 20 minutes, he sold out a 1,000-house tract. That, the exuberant Carnoy claims, is a world record, and even those who recall the pell-mell sales pace of the post-war housing boom on Long Island say it has never happened.

Carnoy's Tunisian buyers, mainly white-collar workers, formally signed purchase orders and agreed to pay 10% down of prices ranging from $7,850 to $9,350 at contract closing. (In countries of French culture, American-style cash deposits cannot be used because returning money is an insult.) Six buyers will pay all-cash and many others will exceed the 10% down-payment. Three-fourths of the buyers bought Carnoy's largest model, a three-bedroom, 1,070-sq.-ft. house. Only 4% bought the smallest.

But to reach that model opening, Carnoy had to spend two years working out financing and construction arrangements with the U.S. Agency for International Development (AID).

Why Tunis? Carnoy's choice of Tunis as a building site springs from a basic belief: "The creation of capital by people whose income is barely sufficient to pay for the necessities of life is an exclusive economic advantage of democracy."

A native of Poland who fled his home when the Russians occupied it in 1939, Carnoy deems the Communist economic system. "There can be no home ownership in true Communist systems," he says. "The number of Communists is insignificant in all nations with popular home ownership."

To put his beliefs into action, Carnoy moved his homebuilding operations from suburban Westchester County outside New York City to Mexico City in 1956. There he built several home-ownership projects and wrote a book, Democracia Si! A Way to Win the Cold War*, expounding his concept of home ownership as a distinctly American weapon against Communism.

In 1964 he decided to test his principles in Africa and began exploring a project with AID, which led him to Tunisia's state secretary of public works and housing.

Unique agreement. Carnoy found Tunisians were interested in obtaining credits for housing. And the officials of this emerging nation, founded in 1956 after a long history as a French protectorate, wanted to attract foreign investors.

The talks quickly resulted in Carnoy setting up a new company—Maisons Tunisiennes Carnoy, capitalized with $25,000 continued on p. 12

*Vantage Press, 120 W. 31st St., New York City, 269 pp., $3.50.

MOST POPULAR MODEL was Carnoy 100, so named because it contained 100 sq. meters of space. Three-fourths of buyers picked this house at $9,350, carrying a monthly payment of $63 after deducting a 15% premium for construction (required under Tunisian law.) House features include rear terrace and separation of toilet from other bathroom facilities.
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— and signing an agreement that he believes is unique. Specifically:
- He accepts a 5% profit on the $5-million project and re-invests all but $50,-000 of his profit in Tunisia, a provision that aids Tunisia's balance of payments.
- He accepts complete technical and accounting control by the state secretary but reserves the exclusive right to make final decisions concerning the project.
- The government develops the lots and sells them to Carnoy at about 39¢ a sq. ft. Lots average 63½ x 82 ft.

Be a sport. With this agreement in hand, Carnoy arranged permanent mortgages through three U.S. insurance companies—Fidelity Mutual Life Insurance of Philadelphia, Bankers' Life of Des Moines, and Union Mutual of Portland, Me. All loans are guaranteed by A.I.D. and plans must be approved by F.H.A.

After succeeding in getting A.I.D. to grant him a construction loan, Carnoy went ahead with his models last fall. On opening he took full-page ads in Tunis newspapers and magazines. The subsequent sellout startled even Carnoy, who now attributes his success to his prices, well below the $12,000-plus range for private Tunisian housing, and to the attraction of home ownership. Another attraction was the offer of ownership of about 5,000 sq. ft. of land.

"We Americans are accused of being exploiters of big profits and being neocolonialists for withdrawing profits," says Carnoy of his profit agreement. "But it's time we showed we are happy to reinvest our profits. You have to be a very good sport about it."

TAP-Tunis

HEAVY CONSTRUCTION uses brick cavity walls and tile roof, supported by 13 reinforced-concrete columns, to insulate against summer heat.

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— and signing an agreement that he believes is unique. Specifically:
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- He accepts complete technical and accounting control by the state secretary but reserves the exclusive right to make final decisions concerning the project.
- The government develops the lots and sells them to Carnoy at about 39¢ a sq. ft. Lots average 63½ x 82 ft.

Be a sport. With this agreement in hand, Carnoy arranged permanent mortgages through three U.S. insurance companies—Fidelity Mutual Life Insurance of Philadelphia, Bankers' Life of Des Moines, and Union Mutual of Portland, Me. All loans are guaranteed by A.I.D. and plans must be approved by FHA.

After succeeding in getting A.I.D. to grant him a construction loan, Carnoy went ahead with his models last fall. On opening he took full-page ads in Tunis newspapers and magazines. The subsequent sellout startled even Carnoy, who now attributes his success to his prices, well below the $12,000-plus range for private Tunisian housing, and to the attraction of home ownership. Another attraction was the offer of ownership of about 5,000 sq. ft. of land.

"We Americans are accused of being exploiters of big profits and being neocolonialists for withdrawing profits," says Carnoy of his profit agreement. "But it's time we showed we are happy to reinvest our profits. You have to be a very good sport about it."

TAP-Tunis

HEAVY CONSTRUCTION uses brick cavity walls and tile roof, supported by 13 reinforced-concrete columns, to insulate against summer heat.
Quality FROM START TO FINISH

Building materials determine true home value. Weiser Locks add to the value through decorative beauty and dependable year-after-year performance.

WEISER LOCKS
WEISER COMPANY · SOUTH GATE, CALIFORNIA
**Mortgages: Money train rolls and builders climb aboard**

“We've had money a go-go,” reports mortgage banker Chris Gebhardt from housing's sensitive barometer city of Los Angeles. “For the first time in months a substantial group of lenders are advertising money for investment in mortgages.”

His colorful thumbnail summary describes most of the nation. With money moving again, the housing industry's only question is how fast builders can put it to work.

The consensus of 15 top housing economists at a Bankers Trust Co. seminar in New York was that it might be six months before starts would reflect the new money.

**Upward-bound building.** Economist George Christie of the F. W. Dodge Co. is far more optimistic. With private starts having advanced three months in a row, to an annual rate of 1.24 million in January, Christie predicts a first-quarter rate of 1.05 million in 1967. He sees that moving to 1.25 to 1.5 million in the second, and a strong 1.45 million in the fourth. And economist Saul Klamann of the National Association of Mutual Savings Banks is even more exuberant. His fourth-quarter bet: 1.6 million, or double last October's 20-year low of 846,000.

Says mortgage banker Bob Tharpe in Atlanta: “The money will turn into starts faster than you expect. It should show up later this year, at least 20% above January’s level.”

**Spreading optimism.** A survey of builders and of House & Home's mortgage advisers in 20 cities also indicates an accelerated upturn. In a five-week swing through the South and Southwest, editor Richard O'Neill found housing men more active than at any time in the last six months. The major builders who produce 80% of the nation's starts were particularly optimistic.

“Things are taking off,” says Ben Deane of Occidental Petroleum in Los Angeles, and Vice President Michael Tenzer of the Larwin Group of privately owned companies in Beverly Hills reports his January sales are 50% above those for January 1966. Milt Ketter says his Kettler Bros. operation in Washington had its best January ever. Andboth David Carland of Haft-Gaines in Fort Lauderdale, Fla., and Walter Carrington of Austin, Tex., say their markets are already moving up.

**Better buyer psychology.** Banker Gebhardt says his builders have detected a subtle change in psychology among buyers in Orange County, Calif., always a lush housing market when money moves. “They are now responding to the favorable publicity given to ‘easier money’ and are less prone to postpone purchases,” he adds.

---

**NEW DISCOUNTS were set Feb. 3 on 6% FHA-VA loans sold to FNMA. Rates include 15% fee and 1 5% loss on purchase of 1% in stock.**

Says Gebhardt: “More important, buyers are finding that they can sell their present homes at greatly reduced costs because of lower discounts (or points) needed for refinancing, with a final result that their equities may now even provide for down payments necessary in completing new purchases.”

Gebhardt found that seven builders he finances had 710 houses under construction January 1 and then made 81 sales—11% of their inventory—in the first two weeks of the month. That was twice the same builders' sales for all of December.

**Mortgage discounts.** The mortgage rates Gebhardt cited are continuing downward. The Federal National Mortgage Assn. raised prices (or cut discounts) by a full point on new and used-house mortgage purchases on Feb. 3 (see map). Gebhardt's requirement that loans b 5% points and give four years of FHA insurance or VA guaranty, and it abolishes ceilings on mortgage amounts. The private secondary market traded up to prices of 96-9-97, which means discounts of 3 to 3 1/2 points and a yield of 6.02% to 6.06% on investors of the basis of a 5% service fee. Those figures compare with 8 to 10 points only four months ago.

Gebhardt predicts a further reduction in discounts, with yields falling to 5.75% and then stabilizing at 5.75-5.87%.

General rates put downward pressure on mortgage discounts. Commercial banks cut the prime rate to 5% in several money centers, and rates paid on certificates of deposit were sinking below 5% in New York in mid-February.

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**HOMEBUILDERS' MORTGAGE MARKET QUOTATIONS**

**Lansing, Mich.** Lane & Van Keuren, Inc.; Kansas City, Missouri, F. M. Walls, pre s.; Minneapolis, Third National Bank; Chicago, Louis W. Kolling, pre s.; Cleveland, Ohio, First Federal Savings Bank; Denver, Colorado, Scott & Dennis, Inc.; Atlanta, Georgia, First National Bank; St. Louis, Missouri, First National Bank; New York, Bankers Trust Co.; San Francisco, California, Bank of America; Los Angeles, California, Bank of America.

* Immediate covers loans for delivery up to three months, future sales for delivery up to three months

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write to CERTAINTEED, Building Materials Division, Dept. 32A, Ardmore, Pa. 19003

BUILDING MATERIALS DIVISION
Wall Street bets on an early boom in homebuilding

That's why housing stocks are soaring. Investors are putting big money into a wide range of building-materials, financing, and construction-company issues. For those investors now have this evidence that a dramatic upturn in starts and sales may be near:

- Money is easier, and mortgage rates are declining (see p. 14). Says California's colorful savings and loan leader, Bart Lytton: "The liquidity crisis is over."
- President Johnson is pushing on a broad front to revive housing markets. Said the President to Congress: "We are moving into a period of renewed home building. I look for construction to rise briskly in 1967."
- The Federal Reserve Board is backing LBJ's plan to drive interest rates so low that thrift institutions will attract funds. (The thrift industry puts most of its savings into housing.)

- The Home Loan Bank System has reversed a policy of restraint and is making large sums available to S&Ls as "expansion advances." HLBB member Bob Rand told the U.S. S&L League's secondary mortgage conference: "Forget the old stigma of "speculative builder" in your lending.

Stocks on escalator. Building issues figure in many big-block deals on the major exchanges, a signal that large commercial banks and major mutual funds are buying into housing. Boise Cascade, the materials producer, traded in one block of 130,000 shares on the New York Stock Exchange on Feb. 2.

Price advances are spectacular, and they extend into virtually every category of housing stocks. House & Home's value index of 72 of the industry's issues has risen 30% in a month, and the list includes a run-up of 12%, to 58%, by City Investing, the New York City diversified realty company, and a gain of 10%, to 34%, by Mortgage Guaranty Insurance Corp., the Milwaukee insurer of conventional loans (see chart). Here is how the various segments of the housing industry are performing:

Dec. 5 Jan. 9 Feb. 8

<table>
<thead>
<tr>
<th>Company</th>
<th>Feb. 8</th>
<th>Chg. of Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>House &amp; Home</td>
<td>6.69</td>
<td>+2.83</td>
</tr>
</tbody>
</table>

- Allied-Built Inc. | 1.6 | +1/8 |
- Capital Bank, Inc. | 1.6 | +1/8 |
- CBID (CBI) | 1.6 | +1/8 |
- Dev. Corp. Amer. | 1.6 | +1/8 |
- Edgeworth | 1.6 | +1/8 |
- Eichler Homes | 1.6 | +1/8 |
- First Hartford Rly. | 1.6 | +1/8 |
- First Nat. Rly. | 1.6 | +1/8 |
- General Mills | 1.6 | +1/8 |
- Kaufman Rly. | 1.6 | +1/8 |
- Leviathan | 1.6 | +1/8 |
- Loewy Loewy | 1.6 | +1/8 |
- Nationwide Homes | 1.6 | +1/8 |
- Pres. Real. A's | 1.6 | +1/8 |
- Sprague Homes | 1.6 | +1/8 |
- U.S. Home & Dev. | 1.6 | +1/8 |
- Jim Walter | 1.6 | +1/8 |
- Del. E. Webb | 1.6 | +1/8 |

16% in January alone. Among the leaders, Johnsmansville gained 8% points, to 56%; U.S. Gypsum 18%, to 56%.

Stocks were up 26.8% that month, and Penn Dixie added 14%, to 16%, a 43% gain.

The red hot S&Ls. One of the more puzzling aspects of the housing advance, in stock experts' minds, was Wall Street's rush into S&L issues. The Home & Home index of 22 S&L stocks was 115% above its October level after four months of steady advances. Most shares are selling at twice their 1966 lows in the wake of President Johnson's announcement of an additional $1 billion in HLBB funds for the industry (News, Feb.). First Charter Financial of Los Angeles, the largest publicly held holding company, rose 6 points, to 25 1/2, in January. Twelve S&Ls. stocks accounted for 95% of the 12 million shares traded on the New York Stock Exchange on Friday, Feb. 3.

Analysts argue that the S&Ls still have their troubles, not the least of which are poor earnings reports for 1966 (see box). One other major California company still to report—Financial Federation—is expected to cite a deficit.

But Wall Street seemed to be looking ahead, not backward. The big Dreyfus Fund, one of the nation's leading mutuals, came into the new year buying virtually every S&L share it could find, and the frenzy was communicative to other investors. Robert R. Gordon of the brokerage house of Schweickart & Co. explained it all this way in an analysis of the S&L industry outlook:

"The California industry, having come close to destruction, appears to be emerging from the darkness of its recent past. The factors that wrought havoc—a saving war and a housing glut—are reversing themselves. Fortified with a newly found and dearly paid-for responsibility, the industry may now be approached with a more constructive attitude."

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Dec. 5 Jan. 9 Feb. 8

| Building | 4.95 | 5.59 | 6.63 |
| Prefabrication | 1.62 | 1.80 | 2.45 |
| S&Ls | 7.44 | 8.46 | 12.05 |
| Mortgage banking | 9.35 | 10.07 | 13.31 |
| Land development | 5.28 | 5.40 | 6.40 |
| Average | 6.02 | 6.64 | 8.64 |

Big builders are setting the pace. Levitt & Sons of Lake Success, N. Y., the nation's largest homebuilder, reached an all-time high of 171 1/2 on the American Exchange after moving into metropolitan Baltimore to open its tenth branch operation. Kaufman & Broad got up to 18 1/2, almost double its 1966-67 low of 9 3/4, and Jim Walter of Tampa, Fla., the shell house giant, touched 26 1/8. It was selling as low as 13 1/8 last year.

Auxiliary issues were also strong. The stocks of building-product companies rose...
For the better homes in any neighborhood it's wood windows.

Why wood windows?

First, let's take condensation. When warm interior humidity hits a cold metal frame in winter, condensation takes place. Water drops form, drip over sills and down walls or wallpaper. Homeowners can't do anything about this problem. It's just the nature of metal—what heating engineers call excessive Thermal Conductivity. With quality wood windows, troublesome condensation cannot happen—the chart at right tells you why.

Then, take total home comfort. Cold metal surfaces conduct heat or cold from rooms faster than wood surfaces. Again, too much Thermal Conductivity. Wood simply is a better insulator against heat and cold. That's why wood windows help keep homes more comfortable in winter, cooler in summer.

From every standpoint, it's wood windows! Wood windows blend with any architectural style—they're available in every type, style and size imaginable. And they give homes a warmth and beauty unmatched by any other type of window.

Free Window Condensation Calculator. Based on ASHRAE data, our exclusive Condensation Calculator helps you determine condensation problems so you can select the correct windows for the homes you design and build. It's free. Send requests on your business letterhead.
Has West’s golden tide of newcomers slowed?
Washington, California can’t see nose-to-nose

One of housing’s most tantalizing mysteries has been the amazing drop in starts in the 13 western states*, especially California. In three years, the West’s annual total fell more than 50%—from 345,900 in 1963 to about 215,000 last year. California builders cut back by 71%—from 292,100 in 1963 to 83,400 last year. As a result, California’s share of all U.S. starts dropped from 20% to 7%, and some economists now pin their hopes for a national housing recovery this year on a turnaround in the Golden State.

Most housing men agree that a flood of easy mortgage credit helped bring on overbuilding in 1963. But they also believe that the subsequent slump resulted more from a drop in migration to the West. At issue, though, is just how steep that drop has been.

Last month the Census Bureau in Washington reported that net migration to the West fell by 68% in the two years ending in March 1966 (graph). Census estimates that net migration plummeted from an average of 489,000 persons annually from 1960 through 1964 to 175,000 in 1965 and 140,000 in 1966.

‘Incredibly low,’ But most Californians say “something’s wrong” with the Census figures. And since California has been the destination of three of every four western immigrants, the state’s housing industry has the most to gain or lose from any sharp change in the volume of newcomers.

“I would never guess the figure as being that low,” said economist and Vice President Conrad Jamison of Security First National Bank in Los Angeles. “We were thinking in terms of current in-migration in the neighborhood of 180,000 per year for the 14 southern California counties alone. The Census report just seems incredibly low—I can hardly believe it.”

Jamison, however, says a moderation of over-all population growth (which includes the excess of births over deaths) has been evident in recent years, but he senses the downward dip may already have stopped because of a strong upward trend in employment.

“The aerospace industries have been going like gangbusters,” he says. “They’ve been adding 3,000 jobs a month net for the last year and a half in Los Angeles County alone.”

‘We’re watching.’ In Sacramento, California’s chief population expert, Walter P. Hollmann, says, “We know about the Census report and are watching it.”

Hollmann’s Population Research Section also finds that California’s inflow of newcomers has dropped sharply since 1963 but not nearly as precipitously as indicated by Washington (graph).

For the last two years, immigration totals estimated by Hollmann’s researchers for


California alone have topped Census estimates for all 13 western states by more than 100,000 persons yearly. Part of this discrepancy could be caused by migration to California from the other 12 western states, a flow which does not show on Census’ regional counts. But California historically has drawn only about 15% of its newcomers from these 12 states (the bulk of them come from Illinois, New York, Texas, Ohio, and Michigan).

And in the view of Californians, Washington has almost always lagged behind the higher nosecounts emanating from Sacramento simply because Census men are farther from the scene of the action. Time and again Hollmann’s counters have proved to be more accurate than the Census men, and the State Chamber of Commerce, for one, is not about to desert a winner.

“We’ve found the Hollmann figures to be pretty reliable in the past,” says a Chamber spokesman. Governor Ronald Reagan’s administration seems to agree; the state predicts that homebuilding “quite probably will turn up in 1967” and anticipates “a strong upswing” in 1968.

Vacancy confusion. Vacancy figures add still another dimension to the western housing puzzle. In the 13 western states, apartment vacancies have been rising steadily for the past six months after falling to a four-year low of 9.9% last June. The Census Bureau last month reported this has now crept up to 10.9% in the December quarter. And in analyzing offerings of foreclosed or bankrupt apartments in southern California (p. 6), House & Home found many projects had high occupancy because rents had been cut well below their original schedules. No estimates are available on how widespread this rent cutting has been.

At the same time homeowner vacancy rates in the West are dropping along with the national trend (see adjoining column).

Apartment vacancies climb but house market tightens

Rental housing isn’t filling as rapidly as housing economists have been expecting but the for-sale house market is the tightest since 1960.

Vacancies in all apartments inched upward to 7.0% in the Census Bureau’s final quarterly count for 1966. Vacancies have slipped below 7% to 6.8% last June, the first time since 1959 they were below 7% and held at that level through the autumn.

The new figures puzzle economists, who had expected the 22% slowdown in apartment building to 424,000 units last year to spur rentals. One clue: Economists note that apartments inside metropolitan areas are steady at a low 6.3% while vacancies outside the big cities are rising rapidly to stand at 8.8% now.

In contrast, only 1.2% of all home owner units were for sale in December, the lowest level since 1960. Census said the rate is “significantly lower” than the 1.4% of a year ago. Economists say this reflects the slowdown of used-home sales caused by extreme scarcity of mortgage money and high discounts on FHA loans for used houses during 1966. About 40% of the vacant sale units have been built since 1960, Census reported, and owners are asking a median $14,500 price, up from $13,000 a year earlier.

Housing’s top growth market: low- and mid-income units

The budget sent to Congress last month by the Housing & Urban Development Dept reveals that four major programs receiving direct federal financial aid will account for 127,660 units in the year beginning in June. That’s more than double the 57,666 units of last year.

In addition, federal contributions will help rehabilitate 34,400 units next year, up sharply from 9,337 last year.

The big increase is due largely to gearing up of the rent supplement program expected to add, no applications last fiscal year to 42,000 units next year.

Public housing will rise modestly from 29,772 starts last year to 40,000 next year HUD expects that the turnkey program which lets private builders sell new units to public housing agencies, will account for 5,000 starts next year, compared to only 343 starts last year. Last month, the first turnkey project, ten-story Claridge Tower in Washington, was completed by Whiting Turner Inc. of Baltimore at $15,551 a unit, about 15% cheaper and three years faster than normal public-housing building.

A third big booster of mid-income housing is the Sec. 221d3 sub-market loan program, popular because it lets builders get mortgage loans at 3% interest. Next year the sub-market loans will account for 39,000 units, or about 38% of all new residential applications.

A fourth program, Sec. 202 loans at 3% interest to house elderly persons, will rise from 4,100 to 10,660 starts.

NEWS continued on p. 2

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Red" anchor . . . plus a collar that
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NEWS continued from p. 18

FIRST LEVITT SHOWROOM works with six
nearby model homes in Willingboro, N.J., to
offer 60 room groupings of furniture.

Levitt starts furniture chain
to harvest homebuyers' dollars

Levitt & Sons has built more than 70,000
houses since 1929, thus providing the
same number of customers for uncounted retail-
ers selling furniture, carpeting, drapes, and
hundreds of other household items. Now
the nation's biggest builder is determined
to lick the icing off its own cakes with a
chain of retail outlets alongside the eight
Levitt developments in the U.S. and the
two in Puerto Rico and France.

The first store opened in February at
Willingboro, N.J., with the claim that prices
would run 10% below local competition.
It offered 61 lines of furniture, bedspreads,
mattresses, and appliances, and 340 choices
of carpeting. Eventually, Levitt says, it will
add small boats, pool tables and hi-fi gear.

First year volume in the initial store
(above) is projected at $1 million. Annual
sales of $20 million are expected when all
ten units are open. President William J.
Levitt says centers in Virginia, northern
New Jersey, and Chicago will open by 1968.

Levitt predicted a year ago (News,
March '66) that it would sell such optional
items as storm windows and furniture to
its new homebuyers. But a survey in one
of its $21,000-$28,000 house markets
showed that new buyers were spending
$1,800 on furnishings within a year of pur-
chase, and Levitt decided instead on the
full retail operation. A wholly-owned sub-
sidiary, Levittmark Inc., will run outlets.

Three Philadelphia builders
sue producers for overcharges

The trio—Lindy Bros. Builders, Denny
Development Corp. and Camelot Inc. are
asking a federal court to order 15 plumb-
ing fixture makers and their trade associa-
tion to pay treble damages for alleged
overcharges from 1960 to 1966.

A victory for the trio could open the way
for all operating homebuilders to collect
similar damages, since the builders say they
are suing under anti-trust law in behalf of
all builders.

They sued the 15 plumbing suppliers
and the Plumbing Fixture Manufacturers
Assn. after the same group was indicted
by a federal grand jury in Pittsburgh last
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City & State __________________________ Zip _____________

BETHLEHEM STEEL
S&Ls paid Bobby Baker $100,000—but saved over $10 million a year

When the Bobby Baker scandal developed, House & Home was among the first publications to ask what three California S&L associations got for the $100,000 they gave the former Senate page (News, Feb. '66).

Now that a Washington federal court has convicted Baker of tax evasion, theft, and conspiracy to defraud his government, the answer seems clear: The S&L associations won elimination of a tax amendment that would have cost capital-stock associations $10 million a year.

Here is the quid-pro-quo scenario:

President Kennedy's bill to increase S&L taxes cleared the House in mid-1962. It accorded equal treatment to S&Ls owned by stockholders, which operate principally in California, and to the more widespread mutual associations owned by depositors.

But Sen. Robert Kerr of Oklahoma added an amendment letting mutuals put 60% of taxable income into tax-free reserves to only 50% for stock associations. Cost to the latter: $10 million a year. The bill sailed through the Senate Aug. 7, and, said Baker's attorney, Edward Bennett Williams, stock S&L officials descended on Washington "like locusts on a lettuce patch."

On Sept. 24, Baker himself testified, lobbyist Glen S. Troop of the U.S. S&L League called to say that Kenneth D. Childs, then president of Home S&L of Los Angeles, the largest stock association, wanted to meet Baker's friend, Sen. Kerr.

Baker said he actually called Sen. Kerr from the Senate floor to see Childs. Later Baker met Childs, and it was about this time, according to Prosecutor William D. Bittman, that Baker told the Californian: "The S&L business isn't making contributions the way it should. Why don't you get on the bandwagon?" Baker himself said Childs told him that, as a result of his chat with Sen. Kerr, he was returning to California to raise money.

One day later, on Sept. 25, the Senate-House conference killed the Kerr amendment.

On Sept. 27, Childs testified, there was a meeting at the Los Angeles home of Howard Ahmanson, the almost legendary personality who owns the $2-billion Home S&L. In attendance: Chairman Mark Sidney Taper of First Charter Financial Corp. of Los Angeles, the largest public S&L holding company; Charles Wellman, then president of First Charter; and John F. Marten, then president of Great Western Financial Corp. of San Francisc. The topic, said Childs, was Mr. Baker's suggestion.

Stuart Davis, now bank chairman of Great Western, told the story from there. He raised $5,000, then got $12,100 from Marten and $33,000 from Ahmanson's nephew, William O. Ahmanson. On Oct. 21, five days after President Kennedy signed the bill, Davis delivered the $50,100 to Baker in Washington.

Marten said he took $16,200 more to Baker Oct. 31. Tap'd telemarketers did not make the arduous trip to Washington but, he said, did receive Baker in Los Angeles Nov. 9 and presented another $33,300. It made, in all, $99,600.

The prosecution and the Senate men suggested the money was for senatorial campaign funding. That, said attorney Williams, was nonsense. Baker was an errand boy collecting for Sen. Kerr.

He asked for money in exchange for the Senator's dropping the amendment, Williams said. He stopped short of using the word bribe, but he implied repeated attempts at one of the trial's most dramatic moments he asked the jury if it thought the senators were "guilible farmers" rather than a crowd of "squint-eyed bankers" who knew what they were after.

Press commentators saw the Baker verdict as a sharp comment on the standards of the savings-and-loan business.

"What observers see as important, so far as public confidence in elective government is concerned, is that the executive branch contributed the money in the hopes of, and for the purpose of, influencing the votes of Senators," said the New York Times.

Why weren't the S&L men indicted? Said the Wall Street Journal:

"Even now the S&L men can be sure that the Justice Department won't turn on them. No deals have been struck. Prosecutors haven't promised immunity... But as a practical matter the department rarely turns against even operative witnesses. To do so would hamper future prosecution."

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Materials producer purchases 50% of a second big California builder

Boise Cascade Corp. of Boise, Idaho, has bought a half-interest in Daniel Schwartz' Perma-Bilt Enterprises of San Leandro, Calif. Last year the materials producer acquired a similar interest in Ray Watt's homebuilding operations in Los Angeles. Perma-Bilt operates in six San Francisco Bay Area subdivisions and reported nearly $19 million in sales in 1966.

Since its founding in 1952, Perma-Bilt has built 10,000 houses in the Bay Area, and in 1964 began building high-rise apartments as well (H&H, Nov. '66). Perma-Bilt started its new partnership with Mr. by buying 4,800 acres in Calaveras County (near San Andreas) in the foothills of the Sierra Mountains.

BUILDERS: J. Curtis Tyler Jr. has been named vice president for all Caribbean housing operations for International Basic Economy Corp.'s housing subsidiary, IBEC Housing Co. IBEC

Housing headquarters have shifted to San Juan, Puerto Rico, where IBEC has built 12,000 units.

Mrs. Helen G. Haight of San Leandro, Calif., a former vice president for real estate for Sunset International Petroleum Corp. of Los Angeles. She succeeds Richard Weiss, now with Levitt & Sons.

John W. Galbreath, Columbus, Ohio, developer, and Peter W. Ruffin of New York City will handle planning and sales for 12,000 apartments that a subsidiary of Mobil Corp. will build in Hong Kong.

Warren G. Haight, 37, succeeds Frederick Simpick Jr. as president of Oceanic Properties, land development arm of Castle & Cooke Inc. Oceanic is active near San Jose, Calif., and in Hawaii.

U. S. Plywood steps up its activities in homebuilding by naming Harry G. Leggett its director of real estate ventures. He formerly headed RAL Development in Columbus, Ohio, a company organized by Union Carbide.

Mortgage man Ewart Goodwin dies

The lending leader who guided the Mortgage Bankers Assn. through the initial period of tight money has just lost a lonely six-month battle with cancer in San Diego. He was 59.

Ewart Wade Goodwin became California's first president of the MBA in November 1965, when money began to tighten. He was a highly articulate and widely popular spokesman for the lending profession until last July, when illness hospitalized him and he gave up the presidency of the Percy H. Goodwin Co. to become its chairman. The San Diego realty and mortgage-banking concern had been founded by his father.

As a founder and president of San Diegans Inc., Goodwin became a key figure in the city's greatest building boom by encouraging construction of its Centre City complex. He was known as an optimist of impeccable dress and courtly manner. He argued tirelessly against government manipulation of the mortgage market—and against all comers who even hinted San Diego was a "bust town."

Stephen Currier, urban leader, lost on flight

Stephen R. Currier, the 36-year-old philanthropist who was the driving force behind Urban America Inc., apparently perished when his chartered airplane vanished on a flight from San Juan, Puerto Rico, to the Virgin Islands Jan. 17. Missing also was his wife, Mrs. Audrey Currier, granddaughter of Andrew Mellon and said to be one of the world's wealthiest women.

The Curriers were among the nation's most generous but least publicized philanthropists. Stephen Currier's encouragement led to a union of business men and designers—the formation of Urban America Inc. through the merger, in December 1965, of the American Planning and Civic Assn. and Action Inc. He became president of the new group, which recently had expanded its efforts to stimulate non-profit housing with a $100,000 annual grant from four Protestant denominations.

DIED: Sigurd G. Pearson, 71, a former vice president of NAHMA and a founder of the Minneapolis HBA, Jan. 31 in Minneapolis.

Leaders start on p. 4
What a builder should know about Kwikset finishes.

Three critical factors determine the worth of any lockset: Performance, styling, finish. Kwikset insists on perfection in each. With us, finish doesn’t come last.

Here are some ways perfection applies to Kwikset finishes:

**Kwikset gives you more than 17 choices.** From a wide selection of old favorites like polished brass and satin bronze to the rich new etched and antique, Kwikset has finishes to please every taste and enhance every architectural style and color scheme.

**Kwikset finishes are strictly homemade.** Kwikset doesn’t job-out its finish work to suppliers. Everything is done right in the Kwikset plant to the highest standards of excellence. Quality control is relentless and rigid.

The result is finishes of superior quality and lasting beauty.

**Kwikset brass and bronze finishes are not plated.** Brass and bronze knobs and rosettes are meticulously fabricated from high-grade metal, then the flat, dull stock is buffed and polished to a jewel-like finish.

**Kwikset assures lasting beauty.** Except for satin and polished chrome, all Kwikset finishes are permanently protected by an exclusive alkyd-plastic coating to prevent peeling, cracking, chipping, and crazing.

This tough but invisible film is electrostatically baked on to provide lasting protection for the finish. Then the products are again inspected to insure that their finish is flawless.

**Kwikset’s new antique finishes complement every decorative theme.** Blending the old with the new is the fashion these days and Kwikset’s antique finishes were made to order for the trend.

Antique finishes are created by first black-oxidizing the raw metal, then hand-sanding and buffing until a rich charcoal patina is achieved.

**Kwikset etched finishes give three-dimensional beauty.** The dramatic new etched finishes were created to answer a demand for a handsome finish that would effectively withstand uncommon punishment from the elements, particularly salt air. A delicate pattern is permanently etched deep into the oxidized metal knobs and rosettes, resulting in a distinctive look of tasteful luxury.

Kwikset gives you finishes to enhance the beautiful design and superior quality of its locksets. This is one case where you can tell a lot about the book by looking at its cover.

**Kwikset’s sleek new Facet knob design is shown here in lustrous antique brass. Equally handsome is the Copa design in etched nickel.**
How Geon vinyl helps Andersen Perma-Shield Windows promote “lifetime maintenance savings”

They call this the window “that does not need painting. Nor scraping. Nor rubbing down. With a finish that won’t pit. Won’t corrode. Won’t dent. Won’t warp. Can’t rust. And stubbornly resists scratching.” Geon vinyl makes it true. Thick rigid vinyl is extruded directly over a wood core, giving the finished window an all-vinyl exterior. Maintenance problems are almost totally eliminated. As manufacturers of building products discover the advantages of Geon vinyl, they find them using it more and more—in siding, electrical coping, baseboard raceways, built-in vacuum tubing, shutters, and many others. For additional information on the use of Geon vinyl in building products, write B.F. Goodrich Chemical Company, Dept. H-9, 3135 Euclid Ave., Cleveland, Ohio 44115.

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B.F. Goodrich Chemical Company

Circle 49 on Reader Service card
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Your prospects will see Kentile Berkshire Vinyl Asbestos Tile advertised in Better Homes and Gardens, Ladies’ Home Journal, other top national magazines. Tile is 12” x 12” x $\frac{3}{16}$”. Quiet and comfortable. Colors: 5. Shown with feature strips.

Berkshire Vinyl Asbestos Tile lets you cut costs, keep value!

Kentile Berkshire adds that extra touch of quality to home-improvement projects and to your new homes. Yet it’s priced right. It’s textured, tough, and long wearing. Greaseproof, easy to clean. And individual tiles permit quick, low-cost installations. Samples? Call your Kentile® Representative.
Now... a surface-mounted radio/intercom that's a fire and burglar alarm, too.


25 transistor, solid-state AM/FM features. "Instant-on" performance with automatic frequency control that gives drift-free reception. Low power source system is hazard free—no city or state code restrictions.

Choose from two systems. System can include up to 16 stations (in walnut and silver oak finishes). Ideal for garage, basement, bedroom, and workshop installation.

Burglar and fire accessories signal trouble. Easy-to-install fire and entry alarm sensors. When triggered, sensors send a howling signal throughout entire system.

Give your prospects something special to remember in your model homes: a Thomas radio/intercom sound system.

You can bet they'll remember the fire and burglar alarm feature... and the portable station you took out on the patio. They'll remember the low cost, the handsome cabinets, and the resonant sounds, too.

They'll remember your model home.

If you'd like to learn more, write us: Thomas Industries, 207 East Broadway, Louisville, Kentucky 40202

THOMAS INDUSTRIES

See Section 12 of your 1967 Sweet's Light Construction Catalog File.
This new, 32-page Guide will help you plan kitchens that sell houses. Nine major subjects are covered in useful detail:
- Basic planning—of U-shape, L-shape, Corridor and Island kitchens.
- Available equipment, cabinets, and appliances.
- Countertops—by design, use, and materials.
- Flooring—by design, use, and materials.
- Lighting systems—types, locations and intensity requirements.
- Ventilation systems and locations.
- Period stylings—Early American, Modern, Mediterranean, and French Provincial.

Accessories—to complement the basic components of your model kitchens.

This valuable addition to your Sweet’s File was developed by George Tsuruoka, AIA, well-known leader in the house design field and a First Award winner in the recent Construction Industry Advertising and Product Literature Competition.

The Guide is intended to speed and simplify your design work, and make this part of your job more profitable. Why not check your Sweet's File now? And tell us if the Guide is as useful to you as we think it is. Sweet's Construction Catalog Services, F.W. Dodge Co., McGraw-Hill, Inc., 330 West 42nd Street, New York, N.Y. 10036

Sweet's Pays.
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It's true! You can have all the merchandising advantages of America's top quality brand at no extra cost. Certainly, this doesn't mean our quality standards have been lowered! It simply means that you can select a Chambers kitchen package with various optional features to fit practically any building budget... and still be positive of built-in Chambers quality, beauty and prestige. Write us for information on our complete line of built-ins: ovens and surface ranges, dishwashers, disposers and refrigerators. Remember nothing speaks quality as quickly as Chambers.
American Olean's
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Designed for you...Presold to millions of your best prospects

Forty million potential home buyers will be sold on American Olean's Signature Bath this Spring.

They'll be sold by full-color ads in the February, March and April issues of McCall's, Better Homes and Gardens, House & Garden, House Beautiful, American Home and other leading magazines.

They'll be sold on its quality, beauty, and practicality.

They'll be sold on the range of ceramic tile colors, textures and designs that lets you make this bath as distinctive as a home buyer's signature.

They'll be looking for the Signature Bath in the model homes they see.

Now is the time to install the Signature Bath in your model home—in time for the big Spring buying season. Find out how. Send today for American Olean's Signature Bath Builder Kit. It includes floor plans and working sketches, consumer ad reprints and point-of-sale materials. Just fill in the coupon!
NEW IDEA HELPS YOU SELL MORE HOMES!

NO DOOR HAS EVER BEEN BUILT LIKE THIS!

X-quisite.
FOUR SEASON BI-FOLD DOORS
made of CYCOLAC® POLYMER
CAN'T WARP, WON'T SWELL, NEVER STICK. UNCONDITIONALLY GUARANTEED FOR FIVE YEARS.

Home buyers will love these beautiful, durable doors that won't scratch, scuff, stain, dent or scar. That's because they're made of CYCOLAC®, the same rugged polymer that makes golf club heads, football helmets, telephones, typewriters, luggage and other performance-demanding products stand up to extra years of punishment.

The doors are manufactured by H. C. Products Co., Princeville, Illinois. Guaranteed to provide smooth, quiet, effortless operation in every season—winter, spring, summer or fall. They'll add selling magic to your homes.

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Are they? People who prefer gas. Gas ranges. Gas dryers. Gas heater. Gas furnaces. And, nowadays, gas air conditioning. That's why it's going to be worth your while to use gas air conditioning in your next project. It'll help sell the homes. And your gas company will, too, with active support. And, because the gas companies are doing more ever to promote gas this year, and especially air conditioning, the gas house gang will be bigger ever. And with Bryant equipment, they'll get dependable air conditioning.

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Call your local gas company for more information. Or write Bryant Manufacturing Company, 2020 Montcalm Street, Indianapolis, Indiana 46207.
Both of these builders' sales models reflect a strong regional flavor

This house, built in Tustin, Calif., has a Spanish character: tiled roof, heavy carved double entrance doors (below), and an arched facade on its shady entrance courtyard. It and four similar models were built by Leo Shanahan in a 124-house project, and all but 12 have been sold in just over a year. Price of this model was $56,000 to $59,000 (on $20,000 to $22,000, half-acre view lots), depending on optional items like central air conditioning. Other features: a raised dining deck with wine storage below, a built-in bar between the living room and den, and a private master suite.

This two-story colonial house in the Philadelphia area serves as the showcase for a custom builder. Situated on a major highway, it is designed to show buyers the type of house they can have built on their own lots anywhere within a 50-mile radius. It was opened about a year ago by Scarborough Custom Homes, which is a subsidiary of Scarborough Construction, a large project builder in Haddonfield, N.J. The 2,500-sq.-ft. house has four bedrooms and two baths on the upper level. Large formal and informal living areas on the lower level are separated by a rear kitchen. Five similar houses have been built from architect Lester Weckesser's plan. Price of the model (on the owner's land): $34,000.
DEVELOPER OF RELOCATABLE BUILDINGS SHOWS SCHOOL BOARDS HOW TO SAVE UP TO ONE-THIRD ON SCHOOL CONSTRUCTION COSTS

One of the big problems school planners face stems from the population explosion itself and is measured by numbers of kids. But size of enrollment is often a simple problem compared to the one of population movement. One family in five moves each year and the resulting enrollment shifts, complicated by consolidation and shifting of school districts for other reasons, have school planners looking more and more seriously at relocatable structures as the most practical answer to the problem.

One leading builder of conventional type schools, the Vinnell Steel Co., of Oakland, Calif. 94623, has developed a modular school concept which successfully combines the mobility of a relocatable unit with the aesthetics, economics and permanence features of a conventional structure built on site.

The modular classroom unit has plan dimensions of 10' x 32' with an 8' overhang at one end and 4' at the other. Each unit is completely pre-fabricated down to the last finished detail, including tile or carpeting on the floor. Units are interchangeable and are designed to form a complete structure when two or more are joined together.

All adjoining units are self-aligning and, when connected, insure positive alignment of floors, walls and roofs. The modules may be easily separated, hoisted, and transported on state and national highways by stock equipment, or by attachment of a trailer hitch and wheels to the frame, with no unusual permit required.

The main structural support for the units is provided by an all-welded, self-supporting steel frame capable of withstanding all applicable design loads for permanent buildings.

Wall panels are of conventional sandwich-type construction, 2" thick. The exterior surface is 24-gauge galvanized steel, factory finished with 2 coats of baked-on alkyd melamine paint. The interior surface is 20-oz. vinyl sheet with ½" fiber or gypsum board backing.

The core and insulation material is self-bonding, self-extinguishing rigid urethane foam, poured in place, with a minimum density of 1.8 pcf, using a foam system supplied by Reichhold Chemicals, Inc., White Plains, N. Y. 10602. Although the sandwich panels are non-load-bearing, the urethane foam imparts a degree of self-supporting rigidity which makes them true structural components since they form the entire wall enclosure.

From 9 to 12 panels are foamed at one time by means of a special stacking press utilized by the fabricator. Once installed, the panels rest vertically on the floor of the structure, attached at bottom and top to the steel members, and are connected and sealed vertically by extruded aluminum and neoprene mouldings.

Presently, the finished buildings sell for $12 to $14 a sq. ft. installed at the site and are completely ready to use with connection to electricity and water supply. They include heating and air conditioning facilities, all lighting and wiring, plumbing, and finished walls, ceilings and floors. A wide choice of fitted window arrangements is offered.

The relocatable buildings are also being marketed for a variety of other uses besides schools, such as stores, restaurants, medical offices and dorms.

For further information on this project, please contact:
Builder: Vinnell Steel Co.
Oakland, Calif. 94623
Foam System: Reichhold Chemicals, Inc.
Supplier: White Plains, N. Y. 10602

For additional information on the use of urethane foam in other insulation and construction jobs, write on your letterhead to:
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Residential steel doors provide a unique combination of advantages that attracts the buyer — trouble-free, long-lasting service plus pleasing appearance.

Steel doors and frames won't swell, twist, warp, or shrink despite the ravages of weather and age. Made of Armco ZINCGRIP PAINTGRIP® Steel, they not only have strength and rigidity, but are impervious to moisture, have the added protection of a durable zinc coating that assures years of maintenance-free service.

Steel doors are available in various designs and styles, both exterior and interior. Plants, lights, and mouldings in numerous designs and styles enable you to tailor steel doors to any type of over-all design or architectural theme. Available in either single or double installations, they can be hung with or without louver screens.

Also, the steel door eliminates the need of a storm door. You get the same protection and insulation with one door that formerly required two.

Why not evaluate the advantages of steel doors for your homes? For more information and the name of steel door manufacturers. Write Armco Steel Corporation, Dept. E-917, P. O. Box 600, Middletown, Ohio 45042.
Housing the poor

H&H: My firm has specialized for years in low-income housing. Having built several apartments, I find the biggest drawback in getting a program to house the poor is on the local level.

No one wants to do anything but draw maps and plans and talk of buildings, luxury apartments, offices, and shopping centers. When you ask where the displaced people will live after all the condemnations, the town fathers seem to believe these people will move to the next town. Builders are willing and able to build for the poor, but they must be given half a chance. I am sure that an excellent job could be done if only the local authorities could be motivated.

JOSEPH FABIANO, president
Blake Construction Ltd.
New Shrewsbury, N.J.

FHA carpeting rules

FHA: I cannot say I was very happy over the table in your January news article on the FHA carpeting order or over some of the text of the article itself.

To the average reader, the table indicates that you surveyed 165 builders who built 2,511 houses and used wall-to-wall carpeting in the living rooms of 98% of them. It was not pointed out that the 165 builders were a group that used carpeting to some extent in residential construction and that the percentage figures were applicable only to those units in which carpeting had been used. Your readers were thus given an entirely erroneous impression.

In the third paragraph of the article the following statement is made: “Carpeting is not mandatory but once a builder installs carpeting meeting the new specifications, FHA district officers cannot reject it but must fix a value for it instead.”

FHA Use of Materials Bulletin No. 44 actually says: “However, carpeting use is not mandatory. It is permissible where the local insuring office finds that carpeting is acceptable in the area.”

HENRY H. WILLINS, executive vice president
Western Wood Products Assn.
Portland, Ore.

H&H editorial index

House & Home’s 1966 editorial index, an eight-page reference guide, is now available.

It includes a cross-reference listing of all subjects covered last year by H&H—115 in all, from acoustics to zoning—plus a combined, chronological table of contents of major articles.

If you’d like a copy of the new index (there’s no charge), write to Reader Service, House & Home, 530 West 42 Street, New York, N.Y., 10036.

LETTERS

Free booklet tells you how to use central air conditioning to close more sales

Selling more homes more quickly is important to you... air conditioning can help you do it. Central electric air conditioning is a reality of modern living. Almost one out of every four new residences constructed in 1965 was centrally air conditioned. Make sure you are armed with the facts you need to close more sales. Send for the booklet “Plain Talk From Du Pont.” For your free copy, mail the coupon.

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Thermasol brings the Steam Bath back home!

A 4,000-year-old idea is 1967's most exciting new home feature! 2033 BC: The steam bath was the rave of the best Korean caves.

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Thermasol . . . the amazing breadbox-sized electronic generator . . . lets any shower stall or tub area double as a personal steam bath. Thermasol steam bathing is in, it's fun, it's marvelously relaxing. Progressive builders everywhere are featuring Thermasol as the ultimate bathroom luxury in ads, model homes and apartments. Nationally advertised, Thermasol has proved its tremendous appeal to both men and women. It creates traffic and excitement in model homes . . . repeatedly makes the difference in closing sales fast. Let us put this really unusual feature in your next model, and watch the action!

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Nearly everybody knows K.V.

Remember when you first read an ad about K-V drawer slides? If you’re an old timer, it may be hard to recall. Some people can’t even remember when they first used K-V drawer slides — in their cabinetwork or in the houses they built. They’ve been associated with good cabinet and drawer structure a long time.

Most people who must know about drawer slides — pros like you — know K-V means something special. Like best value for the money. At any price.

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Grand Rapids, Michigan
For extra curb appeal, tone up both wood and concrete with Rez Color-Tones.

Rez Color-Tones are pigmented stains that sink deep into wood and concrete, adding color warmth without masking natural textures. They hold their color against the effects of sun and weathering. And they resist peeling or blistering.

Boost the curb appeal of your next home. Use Rez Color-Tones to tone up both wood and concrete.

For more information, write The Rez Company, Department HH-37, Springdale, Pennsylvania or Torrance, California.

assess at fractional assessments as they currently do, the Sacramento schools would be automatically disqualified from the many types of state and federal aid programs now available.

Consider the repercussions of Mrs. Hickman's proposed methods in other vital areas of our economy: a) Veteran's-exemptio benefits will be eliminated in Sacramento; b) inventory taxes in Sacramento will be adversely affected; c) 123 special districts in the county must request a change in the law governing their rates and procedures.

The key issue is not whether the rate is 5% 20% or 100%, but that, whatever the rate, must be uniform throughout the state. All laws revolving around the many aid programs are predicated on fractional assessment. A.B. 80 has made fractional assessment law, thus providing the uniformity necessary for its implementation.

If Mrs. Hickman is successful in having the courts require uniform 100% assessment throughout the state rather than 25%, the only result will be the waste of time, expenses and energy—all at the cost of the taxpayer's money—required to change the multitude of related and affected laws and procedures in the state, in each county, and in the man districts within each county. The taxpayer will thus suffer twice, for they will be actually paying for the cost of the red tape involved in raising their taxes!

FRANK N. SCOTT JR., executive vice president, El Dorado Hills West Sacramento, Calif.

The constitutions of 33 states require full assessments at full market value. Thirteen states specify percentages of full value, and the remaining four have local options.

The 1957 Census of Governments, in a assessment-sales ratio study, found "deep underassessment on a nationwide basis," and numerous authorities have found that underassessment generally leads to inequitable assessment.

California is among the 33 states whose constitutions call for market-value assessment and House & Home correctly reported that Mrs. Hickman was challenging the right of the California legislature to set any lower percentage. The conflict between state constitutional mandate and practice is being debated in many other states; Kentucky, for one, has already ordered conversion to 100% assessment.—Ed.

Elusive products

H&H: Your "Market Memo" complaint [Nov. that not enough new products are being used by builders reminds us of an interesting side light. A small builder often can't buy a new product! Unbelievable?

Recently we tried to buy paper- and/or vinyl-covered gypsumboard, an apparently new product advertised in House & Home. In a city of over a million people, not one retailer seemed to carry it. No demand. The advertiser's branch office says he can't carry it—makes his lumberyard customers mad. Well, name one where we can buy it; he can't—but if we'd care to buy a car load, etc. etc.

After months and many attempts, we secured enough to line three garages, but they forgot to send the matching nails. Some day it doesn't pay to read about new items or try to utilize them.

JOE WILSON, Happiness Homes, Clute, Tex.
"No machine is ever going to design a building!"

"The bewildering choice of electrical/mechanical systems for a large building makes a computer a very useful design tool," states Robert G. Burkhardt, PE, head of a Chicago consulting firm. "However, mathematical models can't match a seasoned engineer's judgement in designing a system tailored to each building's peculiar requirements. Early investigation of environmental requirements by a consultant can be a most prudent investment. We've often found it possible to suggest to architect and owner a compatible system that conserves space, improves performance and reduces total building cost.

Bell & Gossett pioneered new efficiency in building heating/cooling systems through new products and design innovations such as single-pipe circuits, high-temperature-drop radiation and primary/secondary pumping. Ask the Consulting Engineer to investigate B & G on your next project.

BELL & GOSSETT ITT
Fluid Handling Division, International Telephone and Telegraph Corporation
When you buy Weyerhaeuser Primewood® products, you're buying time.

Time saved on the job.

We're now priming a wide variety of our most popular wood products. A perfectly smooth, perfectly uniform base coat saves you all kinds of time and trouble. Saves you paint, too. The finish coat flows smoothly and evenly — making an expert painter of the greenest apprentice. The prime is scientifically formulated to be compatible with all present-day house paints. It's applied under controlled factory conditions — to all surfaces and ends of every Primewood product. And, because the wood is protected during construction, it makes a four-season builder of you!

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Nothing else does so many heating jobs so well and so economically in homes, apartments, offices, classrooms and multi-dwelling buildings. What's more, Classic-Aire's richly-handsome wood grain styled cabinet and baseboards add a tasteful decorator's touch to living areas. There's never been anything like it—until now!

TO: Mr. Lee A. Brand
Empire Stove Co.
Belleville, Ill. 62222

Dear Lee:
You've got me interested. Now send me the full story on Classic-Aire including dimensions, specifications and performance data.

NAME

COMPANY

ADDRESS

CITY STATE ZIP
EDITORIAL

Growing problem: equity transfer

It takes bold ideas to move people from old to new

To an auto dealer, the very fact that you own a car automatically makes you a good prospect for a new one. Not so in houses. Chattels move freely in the marketplace, but real property doesn't—not because it's impossible, but simply because the housing industry lacks the legal and financial tools to transfer equities easily from old to new houses.

So most housing men regard trade-ins as tougher than selling the Brooklyn Bridge to a Wall Street banker. And even though frozen equities in old houses represent at least 80% of potential new-house sales, builders have been consistently unwilling or unable to work out trade-in problems.

That view makes sense if the builder must go it alone. But if builders, lenders, real estate brokers, lawyers, and title companies work together to solve the problem, they could make trade-ins more like selling meals to hungry men. If they could make it easy to unlock the equities in old houses, they could open up a vast new housing market—owners who can afford new houses but stay put because they can't get their money out of their old ones.

This year U.S. consumers will have incomes totaling about $500 billion. And a $150-billion piece of that pie will be purely discretionary income—to be spent as the consumer chooses. But housing will get only the crumbs because it is held back by three big roadblocks to equity transfer:

Roadblock No. 1: the lack of workable trade-in programs

By and large, trade-in plans that work (and several do) are confined to a few metropolitan areas where an occasional builder, an alert real estate broker, or a combination of both has developed local answers to individual transactions. But these isolated solutions are a far cry from what the whole industry needs.

• We need to establish a nationwide list of brokers who will cooperate with a similar list of builders in guaranteeing, financing, and freeing the equities in old houses for new-house buyers. Such listings could lead to the ultimate—the transfer of equities from one part of the country to another.

• We need to set up ground rules, transfer procedures, fee arrangements, and similar criteria that participating builders and brokers would follow.

• We need to eliminate duplicate title fees, prepayment penalties during holding periods, and assumption fees when a dealer is really acting as a transfer agency.

• We need to develop management programs to prevent deterioration of existing properties, and therefore equity, during transition phases.

• We need to create re-insurance funds to which builders, brokers, and others can assign part of the risk in executing guaranteed trades.

• Finally, and most important, we need to find new ways to conserve the homeowner's present investment so that it can move intact to his new house. For instance, we must set up funds to provide temporary equity financing above existing first loans. Also, builders should be willing to forego their profit on a new house until the buyer's old-house equity is free. What's more, builders could guarantee rental of a buyer's old home for a year or two until it can be sold in a better market. Rental vacancies in single-family houses today are almost at the zero level, and the owner of a rented house can get a sizeable tax deduction by depreciating the house on the sum-of-the-years-digits basis.
to new houses—why be afraid of bold ideas?

Roadblock No. 2: outdated lending practices

No one doubts that mortgage interest rates should be free to seek their own level in the open market. FHA and VA should eventually have flexible interest rates to eliminate discounts which, in fact, place a far heavier burden on homeowners trying to move than on builders who have to absorb them.

We also need:
- Uniform mortgage-lending laws. Today’s state mortgage laws inhibit institutional investors because pertinent documents—including performance bonds, mortgage servicing agreements, title policies, and the like—vary widely from state to state.
- Uniform usury laws. Ten states now have maximum interest rates of 6%; one state has a 21% maximum; and four states, all in New England, impose no limit—and yet this area has always maintained the lowest interest rates in the country. Great Britain has not had a national usury law since 1854, but if we must have one, a national limit of 8% would let the law of supply and demand operate effectively on a nationwide basis and under a higher ceiling than most states now have.
- Uniform foreclosure procedures and redemption periods. At least half the states have no statutory redemption period for foreclosure, and other states vary greatly in redemption time, foreclosure costs, and the procedures for completing foreclosures.

Finally, mortgage paper, which has reached national stature and is now considered to be as negotiable as promissory notes, should be standardized under national rules. With nationwide piggy-back financing not far off, 90% conventional loans for both new and old housing may soon be available in most states. Piggy-back financing (usually a 75% first mortgage combined with a 15% second mortgage at a slightly higher rate) would go a long way towards releasing the frozen equities in existing houses. It could move like greased lightning if we had nationwide lending standards.

Roadblock No. 3: the assumption that old houses always sell at a profit

That’s a false assumption, but it is slow to die.

Many a homeowner is still convinced that his house has appreciated in value and that he’s bound to make a profit when he sells. What’s more, he expects to get back the price of every gallon of paint he has splashed on his walls and every bag of fertilizer he has lavished on his crab grass.

But the coming generation of homebuyers may not be so sure that a house is a high-appreciation investment. These young people have grown up in an age of affluence. They make a lot of money, and they’re willing to pay the cost of living well. Hopefully then, the time is coming when it will be much easier to convince a homeowner of the real market value of his house—even if that value is no higher than when he bought it.

Can we clear these roadblocks to equity transfer? Yes—but only through long-range cooperation by many segments of the housing industry. Already, NAHB and the National Association of Real Estate Boards have gotten off to a good start with the first of a series of taskforce meetings. The results of such a team effort can be far beyond the expectations of any participant.

—Richard W. O’Neill
Luxury resort project in Palm Beach, Fla.

Small semi-resort project in Marin County, Calif.

Large year-round project in Oakland, Calif.
CONDOMINIUM
comes of age

And its growth has been phenomenal. Just over five years ago condominium was such an unknown quantity that House & Home deemed it necessary to define the term at length before beginning an article on it. Most states didn't have condominium statutes, and only a handful of projects had been built in the entire country.

Today condominium is an accepted form of ownership for a wide range of housing types (photos, left) in most marketing areas. Builders offering it for the first time in other areas find that buyers understand it well. Only one state (Vermont) does not have condominium legislation on its books.

FHA statistics alone offer dramatic proof of condominium's growth. Up to November 1966, only 728 units had been insured under FHA section 234; today more than 3,000 units, valued at $54 million, are either in or awaiting FHA processing.

Nevertheless, condominium still has growing pains. New projects sometimes fail on their faces, and when they do, other builders nod sagely and allow that while condominium may be fine in some places, it won't work here.

But a little digging usually shows that the failures are due to other factors. For one thing, there is still a tendency to think of condominium as a cure-all that will turn a bad project into a success. For another, condominium is still so new that relatively few builders have a solid background of experience with it; hence mistakes are made.

Most of these mistakes can be avoided. And when they are, condominium turns out to be immensely valuable for both builder and buyer. To see why, turn the page.
For the buyer, condominium offers the economics of home ownership plus maintenance-free living

And it brings these advantages to two growing types of housing: apartments and planned unit developments. Without condominium, families who wanted to own their apartments would have to turn to co-ops, which don't offer condominium's clear-cut ownership. And families that wanted the environment offered by P.U.D.s would be forced into homeowners' associations, which can also prove unsatisfactory.

The fact that condominium is unfamiliar to many buyers can be a help to the builder. Says Martin Berger, partner of Robert Martin Assoc. of White Plains, N. Y.: "The best thing our salesmen can be asked is 'What is condominium?' It gives them an opening to talk about the advantages." Here are the advantages Berger and other condominium builders have found to be most appealing:

Condominium allows the builder to combine income and depreciation in the same building or project. If he were to build, say, a 100-unit condominium garden-apartment project, he might hold some of the units himself as rental property and take their depreciation. Also, if the sales market proved slow he could rent out still more units to help carry his debt service load.

For the builder, condominium offers flexibility plus a way to sell a wider market

As any builder knows, the criterion of success is not how much money you make but how much you keep. Beyond a certain amount, most ordinary income is eaten up by taxes. But much of it can be retained if a builder invests in rental property; the property's depreciation can offset much or all of the income.

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Builder Alex Paulsen figures he can afford to hold 15% of the units in each of his buildings (to date he has built three of 150 units each). "This gives me a balance between income and investment properties," he says, "and I'm also building up my own estate."

Condominium gives the builder the chance to share in the appreciation of his project. If economics follows its normal course, the apartments that Paulsen is holding today will be worth more ten years from now. When he sells (having had the advantage of ten years' depreciation write-off), he will realize the appreciation, and his tax on the difference will be capital gains, not straight income.

William Aubin of Amherst, Mass., has devised another way of using condominium to realize appreciation. In his new P.U.D. (The Architectural Review, July, '66) he has designed rental townhouses that can later be converted to condominium.

"I expect my project to become one of the most desirable residential areas in town," says Aubin. "If I sell it now, someone else will benefit from my good planning. But by renting now and converting to condominium later, I get both depreciation now and appreciation later."

Condominium lets the builder meet a wide range of buyer needs. Says Paulsen: "In a co-op, every buyer must put down the same amount of cash and pay the same monthly charges. But with condominium an older buyer with a limited income can pay all cash and keep his monthly charges to $35, while a younger family with little equity but high earning power can get up to a 90% mortgage."

Most important, condominium is the best way for builders to take advantage of the growing demand for better environment. The best hope for better environment is the P.U.D., with its cluster siting, open areas, and recreation facilities; and P.U.D. in turn means common ownership of some land and facilities.

The problems of co-ops and homeowners' associations have been discussed above; and deeding common areas to municipalities raises problems of politics and future changes in the greenbelt areas. Condominium remains the best answer.

But in areas where condominium is brand new, builders need guidelines and buyers need educating

The most important guideline, according to builders who have built condominium projects, is this: Condominium won't bail out an otherwise unsalable or unrentable project. A condominium must be just as carefully laid out, designed, built, priced, and sold as any other type of development. By the same token, condominiums are just as subject to market problems (like tight money) as any other type of housing.

When condominium ownership is blamed for the troubles of many projects, it usually turns out that the fault lies elsewhere. For example:

In Frederick, Md., Brosius Homes Corp. built a 38-unit condominium townhouse project, sold only five units in a year (a dozen more are now rented). But, says President William Brosius, the causes of slow sales actually were that 1) Frederick hadn't seen new townhouses in years, and buyers were wary of "row houses," 2) the design is contemporary while Frederick is used to colonial, and 3) a similar rental project built by the company in nearby Hagerstown was, in terms of monthly payments, a better value.

In Providence, R. I., Anthony Viola built a nine-unit, medium-rise condominium, still has three units unsold after two years. "The design got out of hand," says Viola, "and the apartments are overpriced."

In Lakewood, N. J., builder Robert Schmertz sweated out two years of slow sales in the first section of his 5,000-unit Leisure Village condominium. "The problem," says Schmertz, "wasn't condominium, it was loneliness. Retired people don't want to move into a new project when few other people are living there." Now, with almost 20% of the project sold, Schmertz is selling briskly.

The first section of a large condominium project shouldn't be too big. Says Bob Schmertz: "Our first condominium was 300 units, and once we started it we were locked in. Some of the models sold poorly, and we couldn't change them. We should have held the section to 50 or 60 units."

But a condominium shouldn't be too small either. Says Anthony Viola: "Buyers of luxury units want luxury features like a doorman, and nine units is too small to support such things without exorbitant monthly payments. I think 50 units is a minimum."

Buyers are receptive to condominium—providing they understand it. And in most markets today, they do understand it. Says Martin Berger: "In our area, people know about condominium and they like it. It has a good image."

But the builder who is pioneering condominium in his local market will almost certainly have to undertake some sort of education program, both for buyers and for others involved in selling and financing homes. For example:

William Brosius found that his biggest education problem concerned bankers and town officials. "They were unfamiliar with condominium," says Brosius, "so naturally they didn't talk about about our project with great enthusiasm. Finally we asked them to a dinner meeting at which we explained what condominium was and how it worked. It helped the atmosphere tremendously."

Dunbar Builders Corp. of Chicago, one of the country's biggest condominium builders (The Architectural Review, Nov., '66), introduced a garden-apartment condominium to Chicago in 1963 when not just the city but most of the country was unfamiliar with the concept. "Our biggest problem at first," says President Herbert M. Rosenthal, "was just to get people to pronounce the word correctly." Dunbar executives embarked on an educational program that included 1) personal contact with financial institutions, both to arrange for financing and to create a favorable atmosphere; 2) a brochure that explained the condominium principle, traced it back as far as ancient Rome, and pointed out its advantages; and 3) a large press luncheon with bankers, architects, and the city's assistant mayor and commissioner of urban renewal on hand to answer questions.

The combination of publicity and official prestige worked so well that the 30-unit project was closed out in less than three weeks.

To see the variety of condominium projects builders are offering, turn the page
Condominium continued

Compact Plan places units along the perimeter of the pie-shaped, 1.2-acre site. All the private patios face outward; parking is in the center.

One-level living in a small condominium helps sell older buyers

Though the 14 units were not advertised as a retirement project, most of the buyers are retirees. Their preference for one-level plans is shown by the fact that this project has sold just as well as a neighboring condominium—specifically billed as an adult community—that has two-story units.

This project is located in San Rafael, Calif.; its slow sales record could make other builders think twice about condominium— if the real facts were not known. It opened near the beginning of California's market slump, and four units were sold. But as the market tightened, Peacock Lagoon Construction Co. closed the project for relandscaping, later added a pool. Since then there have been three more sales despite 1) a disastrous market, especially in Marin County where hundreds of realtors have gone out of business, and 2) an area that has so far resisted all but the lowest-cost condominium projects.

Price range: $29,000 to $33,500. Architect: Karl Treffinger.
UPHILL UNITS have both balconies and on-grade patios. Living areas are above private garages.

ON-GRADE UNITS have rear patios facing golf course, plus private courtyards behind garages.

LARGE LIVING ROOM (plan, left) has full glass wall, doors to patio.
Condominium allowed this pioneering use of urban hillside land

The alternative would have been expensive and ordinary: single-family houses on terraced pads. Instead, the project's 569 units will occupy only about 12% of the 67-acre hillside, and the land will retain most of its natural topography.

Condominium ownership made it possible to pull apartment and townhouse units into tight groups. A typical condominium is a small neighborhood of about 34 units along its own private drive. In the first such neighborhood, designed by Callister and Payne, eight plans were offered. They ranged from a one-bedroom apartment at $25,000 to a three-bedroom, two-story house at $60,000. Despite the desperate lack of mortgage money in California, ten units have been sold since the opening in June, and other sales are pending now that the market has begun to ease. The project, in Oakland, is a joint venture of the Weldwood Division of U. S. Plywood, Moana Development Co., and Bothin Real Estate.
Condominium put most of these townhouses right on the water

Twenty-six of the project's 30 units are rung out along an 800' strip of waterfront and connected by a continuous 8'-wide boardwalk only 1' above the water. Under more conventional planning, many units would have been farther inland on the tree-acre site, with only a view of the water and beach privileges.

The close grouping of the units along the community boardwalk was designed to attract retirement buyers who like to get together to talk and fish. Result: a one-year sellout for this Hot Springs, Ark., project (while a nearby high-rise condominium set well back from the water remains only 20% sold after three years). Architect Granger McDaniel's designs also held construction costs to about $11 per sq. ft. Prices ranged from $20,700 to $31,860 for the 24' and 28'-wide units. Builder A. D. Babcock attributes part of his success to the expert help on condominium financing and marketing he received during ARB conventions.

CLUBHOUSE and caretaker's house are remodeled older buildings.

LAKEFRONT BOARDWALK, just above water, is only a step down from each patio. It is the community sidewalk as well as a fishing-boating pier.

Photos: Walter E. McGoailll

MASTER BEDROOM at rear of typical townhouse unit overlooks lake.
Outstanding design and excellent services sold this luxury condominium

The idea: to offer a beautiful building on the beach in a wealthy resort town, and to include round-the-clock services for the owners. The developers chose an architect of international repute: Edward Durrell Stone. And Stone designed this 64-unit, six-story luxury building, which is now a landmark in Palm Beach, Fla.

Opened four years ago, when condominium was new everywhere and unknown in Palm Beach, the apartments and duplexes sold slowly at first. Twenty of the units were first offered as rentals, however, and as tenants began to enjoy the unusually luxurious services, most of them exercised their options to buy. In a little more than three years, all the units were sold. Prices ranged all the way from $36,000 for a second- and third-floor duplex on the inland side to about $100,000 for the rooftop apartments.
ROOFTOP POOL with southern exposure is screened from ocean breezes.

WATER COURT provides cool atmosphere for all entrances.

OCEANFRONT PROJECT contains ten units on ground floor; 48 two-story units on second, third, fourth, and fifth floors; and six rooftop apartments.

Photos: M. Burns
Are sectional houses finally on the road to a

They've been around since the '50s—factory-finished houses that are rolled to the construction site in halves. Their manufacturers—mostly from the mobile-home industry—have tried many technical gimmicks and marketing schemes to make them part of homebuilding.

But sectional houses are still not produced in large numbers—perhaps 20,000 will be turned out this year.

Yes, say small-volume homebuilders like these

The builders above have two things in common:
1) They all sell the sectional house shown at the top of the page, and 2) they have no illusions about their product's role in homebuilding.

The manufacturer—Capital Industries of Avis, Pa.—is building a ten-state dealer network that seeks housing experience and discourages the fast-buck novice. And the credentials of the cross section of builder-dealers shown above are typical:

Kemp Begley is a former commercial contractor who started selling sectional houses and mobile homes three years ago.

Steve Krawiec and his wife, Earline, have built sections and sold mobile homes since 1960.

Clifford Kearney has built conventional and prefabricated houses for 20 years—and, for the past...
biggest share of the housing market?

year. And to a lot of people they're still not houses, but just glorified mobile homes. They offend zoning boards, alarm building inspectors, and make lenders suspicious.

Partners Lydon and Taylor

So why hold out hope for sectional houses? Because there's a new kind of sectional evolving—and it's attracting a new breed of dealer. What makes it new? It looks like a house.

—and their rising profits show why

six, has run his own custom-prefab shop, producing 50 houses a year for other builders.

Jim Lydon and George Taylor are developing a 40-lot tract of sectional houses after years of dealing in earthmoving and materials-handling equipment.

Dan O'Malley, a general contractor for 15 years, has built prefab houses and also developed four mobile-home parks.

Art Wright started building houses and small commercial buildings in 1952, then switched to sectional houses three years ago.

These builders are sold on sectional houses for a variety of reasons, all of which boil down to this: For their low-overhead operations, sectionals guarantee higher profits than either stick-built or panelized houses. To see why, turn the page.
Sectional houses have always looked like mobile-home manufacturers invented them. The early ones, introduced in the '50s, were little more than double-wide trailers. They had uncommonly low roof pitches, aluminum windows with no sills, panel ceilings with batten strips, 2x2 framing, and an unsightly seam down the middle of each gable end. In short, the sectional house didn't look like a house.

But sectionals made great sense to manufacturers because they could be run off mobile-home assembly lines just as efficiently as mobile homes. They made sense, that is, until three big problems cropped up:

1. Mobile-home dealers turned out to be poor homebuilders. Their merchandising was sharp, but they fell short in site work, construction, and call-backs.
2. Code officials could see little relationship between sectional-house construction and local requirements. Their objections ranged from framing that was too thin to factory-sealed wiring and plumbing they couldn't see.
3. Lenders couldn't decide whether sectionals were trailers or houses. So, to be safe, they continued financing them just like trailers—with high-interest, short-term loans.

Established homebuilders, needless to say, stayed away from sectional houses in droves. They were built primarily in non-code areas for use as vacation and rural housing.

Most of today's sectional houses are still just a cut above double-wide mobile homes. Like mobile homes, they have grown from 20' wide to 24' wide, permitting better floor plans—but in finishing and design they still have all the earmarks of a trailer. A handful of manufacturers, however, have begun breaking away in the past two years. These companies have been trying to make a sectional that will be acceptable not only by building codes, mortgage lenders, and homebuyers, but also by established homebuilders.

One of the most promising new approaches is the Capital Industries sectional. Capital started making sectional houses and high-priced mobile homes in 1960. Its sectionals had the mobile-home look for five years; then came three big changes:

1) From p. 92, Capital found a way to raise its roof pitch to 4-in-12.
2) Capital adapted conventional finishing materials throughout, and
3) Capital won acceptance by a state code and a state board of architects.

Now some 70 dealers are selling Capital sectional houses in 10 states, and many are entering the fold. They have high hopes for their newly upgraded product, particularly when they come up against building-code officials.

**Code men are finding that sectionals beat conventional construction**

Sectional houses have to be more rigid than conventional houses. They are towed over all kinds of roads at maximum speed limits, and then jacked or craned onto foundations.

And this rigidity is essential when the interiors contain finished drywall and ceramic tile. So all skins in the Capital houses are plywood, and they are glue-nailed to the framing. Half-inch drywall ceilings are screwed and glued over plywood. All openings are double-framed. And the house is fastened to a base of 10" or 12" I-beams.

**This is how any builder can move a sectional house onto a foundation**

1. **FIRST SECTION** is towed up to foundation after a dozer operator has backfilled so that grade level is at maximum height. Careful site preparation is essential to handling sections.

2. **STEEL BEAMS** are laid across foundation walls in prepared slots; supports are set up beneath them.

3. **JACKS** and cribs are set under house section's steel perimeter beams, and lifting starts. Under ideal site conditions, total lift is only 4½".

4. **RUNNING GEAR** is unbolted as section is jacked clear. Manufacturer retrieves gear later.
structural codes on the eastern seaboard.

t carries the factory-applied seal of the
Middle Department Association of Fire
Underwriters of Philadelphia, and has
been accepted by the New York State
building code, New York Board of Fire
Underwriters and FHA.

But acceptance at the local level is far
from automatic. Local inspectors insist on
seeing wiring and plumbing despite state
standards. And some local building depart­
mants in New York State are demanding
a blanket letter of approval from the state
code office, which the state is refusing
to provide.

Capital satisfies most inspectors by leav­
ing key wall areas exposed. Its main
plumbing tree can be seen from the base­
ment, and all pipe joints can be inspected
by removing a wall panel in a utility area.
Electrical boxes are often pulled out of
walls so an inspector can check wire size,
even though much of the wire is exposed
in attic space.

Some dealers have solved inspection
problems by having inspectors look at the
house twice: before and after it is placed
on the foundation. And before dealers in­
troduce sectionals in unfamiliar code areas,
they first submit a plumbing layout so
Capital will know what size drain lines to
install.

"We meet code problems one at a time," says Kemp Begley of Victor, N.Y. "I say
to code men, why not go along with us on
one house so you can see what we've got?
And we eventually persuade them."

So the dealer's code problem has nothing
to do with construction deficiencies. The
problem is how best to inform and edu­
cate building officials.

"Even after we've licked a code," says
Art Wright of Rhinebeck, N.Y., "we keep
running into new inspectors and have to
start all over again with each one."

But almost all of Capital's dealers are
making headway. The only serious obsta­
cles are in large metropolitan areas. And
the dealers are having the same gradual
success against a second source of re­
sistance—mortgage lenders.

Capital Industries is concentrating
on finding established builders to sell its
houses. And it is encouraging its few com­
bination dealers to keep their sectional­
house and mobile-home operations well
separated.

"One thing we never mention to the man
at the bank," says combination dealer
Kemp Begley, "is the sectional's original
advantage—that the buyer can relocate it
to another site."

Capital's efforts are paying off so well
that many of its dealers are already get­
ting top mortgage terms. Combination
dealer Stephen Krawiec of Randall, N.Y.,
gets up to 35-year mortgages from Mont­
gomery County Trust Co. in Amsterdam,
N.Y. The bank approached Krawiec after
seeing his first few houses; now it is the
backbone of his business over a 75-mile
radius. Krawiec gets bank commitments on
continued
his houses before he buys them from Capital.

Clifford Kearney is getting 25-year mortgages on $10,000 sectional houses—$900 down and $80 to $85 per month—from a commercial bank with 51 branches. A main attraction for the bank is Kearney's written guarantee that he will erect and service every house he sells—even if it is sold through another builder.

Banks also like two other features of sectional houses:

1. The over-engineered construction is as reassuring to bank inspectors as it is to code inspectors. The steel perimeter beam, for example, is considered termite protection as well as proof that the house is durable.

2. Low-price sectional houses give banks an opportunity to increase their volume of small mortgages—especially important in the wake of tight money.

Most important to the bank, however, is the new breed of builder-dealer.

Homebuilders switch to sectionals because they are simpler and safer

They are simpler because the manufacturer does at least 85% of the work. And they are safer because they permit precise cost control by even the most unsophisticated builder. More specifically, the sectional builder's major advantages lie in the following five areas:

1. Labor saving. A 52'x24' Capital house requires 136 man-hours of field work for the average builder, not counting foundation and site work. The work breaks down this way: 36 hours to jack and join the sections on a foundation, 42 hours to finish the exterior, and 58 hours to finish the interior. Perfect site conditions may reduce this total to 110 man-hours, and the use of a crane—where transportation distance is feasible—can save still more field work.

2. Time saving. Once the builder's crew has completed the structural and finishing work, there is no long wait for tradesmen to complete the mechanicals. Wiring and plumbing are already in place—they need only to be hooked to outside service lines and sewers. And in less restrictive house markets, the builder's crew can also do the hooking up. Result: In Caledonia, N.Y., Lydon & Taylor, using a four-man crew, can let a buyer move into a 52'x24' house six days after the sections arrive at the site. Average time for other dealers is ten days to two weeks.

3. Cost saving. For most small builders, Capital's sectional house costs less than any comparable house they could build conventionally. And it can beat the cost of panel-and-truss houses. For example: Clifford Kearney is buying a 36'x24' sectional that is an exact copy of a house he pre-fabbed in his own shop for six years, and it is costing him $1,000 less. Most of Kearney's saving comes from eliminating skilled labor—e.g., drywall mechanics, tile setters, electrician, and plumber.

4. Low overhead. Switching to sectionals lets a conventional builder handle up to two or three times more houses without adding more men. He can buy his own house-rolling equipment (photos, pp 90, 91) and a trailer to carry it for $3,000, and chances are he already owns a truck or tractor for moving house sections at the site. One builder, Art Wright, has combined his tools in a one-ton truck tailored to sectional-house work—it carries his rolling equipment on an overhead rack and has double rear wheels so it can tow his houses.

5. Low working capital. A sectional-house builder's money is rarely tied up more than six weeks. Capital needs about three weeks to supply a house, and the builder needs two to finish it. So a small-volume builder can manage without a construction loan, providing he gets a mortgage commitment before ordering the components.
house and a mortgage assignment requiring the bank to pay him directly at the losing.

Sectionals also offer builders these other advantages over conventional houses:

Sectional houses can be built year-round. The sections are closed in for shipping, so they can be stored at the site in snow or rain and erected when the weather clears.

Call-backs are fewer. Capital dealers say they have virtually no service calls for common faults like drywall cracks and sticking doors. Reasons: glue-nailed construction, room-length drywall panels that eliminate vertical joints, and minimum-distortion framing lumber.

Market range can be expanded. Sectional-house dealers can build at least 50 miles away from headquarters, and some build in a 100-mile radius. After a foundation is completed, the builder has just one delivery to schedule—and no danger of work-stopping shortages.

Model homes can be replaced more often. And they can be displayed in more lavish settings. Why? Because a builder can pull a model out of its setting and move in a new one—without making a new investment in land and site work. Kemp Blegley, for instance, sells off a model whenever a buyer needs a house in a hurry.

"They think the model is somehow better," he says, "so we split it apart and let them have it." He displays several models amid several thousand dollars worth of permanent landscaping.

Most of Capital's dealers build fewer than 20 houses a year. But not all—one is a big-volume lumber company.

**A lumberyard-prefabber prefers sectionals to its own component houses**

Jo Chapman Lumber Co. of Syracuse, N.Y., has phased out panel houses and switched to 1) sectional houses for lower-price markets and 2) stick-built houses for higher-price work.

Chapman runs its own construction crews through a division called Hiawatha Homes, and has prefabbled and erected hundreds of panel houses in the past 15 years. Last year its lumber and truss business grossed about $10 million.

But building 80 to 175 houses a year on tracts and scattered lots throughout central New York gave Chapman costly supervision problems.

Also, Chapman began seeing a growing market around Syracuse for $15,000 houses which its own building division couldn't supply profitably.

Now Chapman is buying houses from Capital for three different markets: vacation, subdivision, and scattered-lot. The vacation house is a 20'-wide rental unit for a ski resort Chapman is developing. It has a take-out wall for conversion from two singles to a double. Chapman's subdivision sectionals are versatile: They are mixed with conventional houses in some areas and separated in others. Says manager Ernest Kuhn: "We had gone into apartments to supply the $110-to-$125-a-month buyer, but we can do better with sectionals."

**Mobile-home dealers use trailers to complement sectional-house sales**

The few dealers who make a success of both types of housing have three advantages over a homebuilder:

1. By running a trailer trade-in business, they can convert mobile-home equity into sectional-house sales. Some dealers, like Dan O'Malley of Clifton Park, N.Y., have abandoned new-trailer sales but retained a trade-in lot.

**Extra finishing work covers up sectional-house earmarks**

**HINGED OVERHANG** is lowered for exterior finishing after house sections have been drawn together at their perimeter beams (by hook and ratchet) and bolted.

**SIDING** is applied conventionally to end walls on Capital houses to avoid batten strip or patchwork common to most prefabricated sectionals.

**SHINGLES**, plus felt and flashing, are added to cover up eave hinge and ridge. Capital also includes prefinished soffit system.
2. A combination dealer doesn’t have to depend solely on homebuilding to keep his men busy. Good mechanics can be used to work on both sectional houses and mobile homes.

3. Developing a mobile-home park lets a combination dealer balance his homebuilding work and take up the slack during construction slumps.

But a mobile-home dealer also faces disadvantages when he moves into homebuilding.

First, financing is much more complicated—unlike mobile-home loans, which can be approved in 24 hours with no title search, no fire insurance, and none of the other red tape that slows a house sale.

Second, the dealer gets involved in construction details entirely foreign to the mobile-home business—and they can’t all be solved by subcontracting. For example, even though a dealer may subcontract foundation and grading work, he must still supervise both jobs closely: His house erection could come to a halt if the foundation is not accurate to within 1” or the site not properly graded and filled.

So the successful combination dealers are those who have added experienced construction workers to their mobile-home crews. Dan O’Malley, for example, carried over two men from his mobile-home business but added a carpenter. Steve Krawiec, who sold 22 sectionals last year and runs a prospering mobile-home sales and parts business, once subcontracted even the rolling-on of sectional houses. But now he carries a four-man crew—including a carpenter, plumber, and electrician—and subcontracts only grading and foundation work. At least 50% of Krawiec’s houses are sold to buyers trading in mobile homes.

Despite a few successes with combination dealers, Capital prefers to keep mobile-home people out of sectional-house building. Capital has more than once had to call on its own factory crew to finish a sectional-house job started by an ill-equipped mobile-home dealer. Capital’s ultimate concern, of course, is not with the dealer but with the buyer.

Homebuyers like sectional houses because they eliminate headaches

The first headache a sectional eliminates is unexpected costs. Buying a Capital house is almost as foolproof as buying a mobile home. The package includes all kitchen appliances, carpeting, draperies and curtains—everything but loose furniture. All the pricing information for five models can be printed on a single sheet of paper, because each model has only three possible prices: with crawl space, with basement, or exclusive of foundation.

Other than land, there is nothing more to buy unless the customer wants to substitute from a half-dozen options: double-glazed bow window, electric heat, electric range, stainless-steel sink, parquet floors, and inlaid linoleum.

The second headache a sectional eliminates is discrepancies between the model selected and the house received. Capital’s production process is so rigidly standardized that the buyer’s house is, for all practical purposes, an exact copy of the dealer’s model.

“The buyer,” says Art Wright, “can be absolutely certain of the kind of job he’s going to get.”

The third headache a sectional eliminates is construction delays. Buyers can count on moving in within six weeks after they sign the contract.

Capital’s dealers have a lot to show homebuyers. Their house, unlike other sections, has conventional wood windows with sills. Foyer floors are finished with quarry tile. Kitchen-cabinet doors are raised-panel oak with self-closing hinges. The standard heating system is hot water, and if the buyer chooses electric heat, his

Exteriors are becoming a strong point with Capital Industries sectionals

OLD MODEL, built in 1965, shows Capital’s transition from double-wide trailer toward conventional-looking house.

NEW MODEL—with higher roof pitch and conventional windows and siding—abandons all ties with mobile home, though Capital manufactures both on adjacent production lines.

CUSTOM EXTERIOR shows three options—brick facade, fireplace, carport—a sectional builder can offer.

CONVENTIONAL INTERIORS set Capital houses apart from most sectionals. Kitchen above and ceramic-tiled bathroom at right are standard in a 36’x24’ house selling for less than $10,000.
house will be insulated to electric-heating-industry standards. The drywall interiors are accentuated by vinyl wallpaper in the lining room and cherry paneling (applied over drywall) on one living-room wall.

Some dealers also get merchandising mileage out of Capital's construction. Steve Kwaciec, for example, always builds his models on basements so that prospects can see the steel I-beam perimeter frame and double I-beam center girder.

For buyers who object to buying a house off the dealer's shelf, Capital makes a few free changes. Besides a choice of three siding materials and four standard elevations, it will move some windows, doors, and partitions. Floor plans are expanded in 2'- and 4'-increments from 24' x 42' to 24' x 56'. A line of under-1,000-sq.-ft. houses starts at 24' x 36'.

And for buyers who object to buying a house that's built in two halves, Capital builders can honestly reassure them: "Once it's up, you won't know the difference."

Below that range is the mobile home, and above is the custom-house builder. Sectionals can't compete with either. They aren't produced and sold efficiently enough to eat mobile homes, and they aren't glamorous enough to beat higher-priced conventional houses.

They can be customized to some extent. Dan O'Malley, for example, added a fireplace and two-car garage to a model which he sold for $19,500 minus land. "But," he says, "that's my limit."

And there is a way to enlarge a sectional house without adding much to square-footage costs. Several dealers set them on exposed basements and turn them into raised ranches.

But sectional houses are too expensive to be used as cores for customized houses. Capital's dealers are selling 1,000-to-1,300-sq-ft. standard models for $14 to $15 a sq ft. without land, and making a profit of $1,000 to $2,000. Additional fieldwork—unless it adds to square footage—only makes prices less competitive and doesn't add significantly to profit margins.

So more than one dealer would like to sell Capital houses without any options at all. And many want even less field work than the average 136 man-hours.

But sectional houses are limited to a $10,000-to-$20,000 price range

The limitations all stem from highway rules, which restrict the width, length, and height of truckloads. Capital has overcome the height problem, but only by adding factory and field work—and thus costs—to its roof. Another manufacturer solves the height problem with an even greater compromise: a knocked-down roof that requires 200 man-hours of field work.

Sectionals can be glamorized with bow windows and dressed-up basements, but the basic package can't be enlarged much more—even if state highways are opened to 13'-wide loads. One near-future approach: a split-entry house—half factory package and half basement—that could offer 2,000 sq. ft. for $24,000.

So the sectional house will continue to find its best sales among five lower-price markets: retirees, newlyweds, ex-mobile-home owners, vacation-home buyers, and rural families with lots so remote that conventional building is unfeasible. One other possibility: minority housing in metropolitan areas on lots that have been taken off the tax rolls. This market may soon be tapped in both Syracuse and Schenectady.

...but floor plans still have a way to go—especially around entryways
This architect's home is a showcase of ideas for builder-clients

Architect Henry D. Norris of Atlanta is using his new home in much the same way an auto salesman uses a showroom.

"My product is salable ideas," says Norris, "and my objective is to convince builders to include these ideas in their houses. In the past this was often difficult, partly because I could only describe or draw a new idea and estimate its cost. But now I can take builders through my home and show them how the ideas will actually look and work in their houses."

And because he has actually built them, Norris can also quote actual installed costs for his ideas.

Since the nine-room house was completed in August, builders who have toured it have been enthusiastic, and Norris is thinking of expanding his twoman staff to handle the resulting new business.

Some of Norris' best ideas have been installed in the house's most salable areas—the bedroom, bath, and kitchen. Moreover, Norris can show interested builders both big ideas, such as a master bedroom that is really three rooms (p. 98), and small ideas, such as a $10 kitchen cabinet that is tailor-made for pots and pans (p. 100).

For a room-by-room tour of architect Norris' idea showcase begin at the top of the next page.
**FRONT ENTRY** (in plan, below) has oversized panel door that cost $70. Matching wooden trim (stock fireplace surround at 70¢ a foot) was used as crown and door molding. In all, $90 worth of extra trim was added throughout the house.

**FORMAL END** of living room (2) has wall of rough-laid bricks. Gas-fired fireplace cost $700, the two built-in hutches for hi-fi equipment cost $100 each. Overhead lights (there are nine in all) cost $15 apiece.

**INFORMAL END** of living room (3) has sliding door opening to patio. Ceiling is simulated plank-and-beam.

**DINING ROOM** (4) also has plank-and-beam ceiling and wood floor “to soften the formality,” says Norris. Ceiling cost $1 a sq. ft. Window and $225 shutters have matching trim.
BEDROOM-SUITE ENTRANCE (1 in plan, right) has two sets of paneled double doors. Far doors close to keep bedroom private, while foyer doors open to offer guests access to master bathroom (see plan). Foyer closet is at right.

WOOD-PANELED ALCOVE in bedroom (4) has two walls of bookshelves. Architect Norris uses alcove as his private work room.

LEISURE CORNER of bedroom (3) is like a room by itself, says architect Norris. It has stone-front fireplace that cost $700, and built-in hutch for books and small television. Cost of hutch: $100.
WALL-TO-WALL VANITY (6) has his-and-her sinks and mirrors. Luminous ceiling and window provide light. Pocket door at right saves space.

COMBINATION SHOWER ROOM and tub (5) fits into corner of master bath. Says Norris: "It's more practical than a sunken bath and cost not one cent more." Bedroom entrance is a short walk down the hall.

UPSTAIRS ROOMS (7, 8) are big enough—256 sq. ft. each—to be used as bedrooms, family rooms, or children's play rooms. Painted ceiling beams add informality.
SPACIOUS KITCHEN (l in plan, right) cost $7,500 to equip. It includes (l. to r.) food-preparation area, cooking island, service counter.

WINE CLOSET cost $15, is built into near end of cooking island (photo above).

POTS-AND-PANS CABINET is over oven in food-preparation area. Cost: $10.

SERVICE COUNTER (2) has built-in bar-refrigerator and ice-maker. There are 12 separate fluorescent lights over the counter top.
COOKING ISLAND (3) includes food warmer and barbecue. Hood has light outlets for appliances, plus an antenna outlet for portable television. Total added electrical cost: $20. Maple top costs $40 more than plastic.

COUNTER is low to ease work. Cabinets have roll-out and adjustable shelves.

STUDIO (4) is attic space over carport. Cost: $4 per sq. ft. A kitchen, installed opposite bath, could turn the area into an efficiency apartment for in-laws or house guests.

UPSTAIRS WINDOW for bedroom (5) was created by cutting out section of adjoining roof line. Cost was negligible.

CLEAR-SPAN CARPORT (6) is supported by two steel I-beams, which carpenters installed. Installed cost: $160.
William R. Smolkin developed the Consultron program in collaboration with Fabricated Products Division of Allied Chemical Corp.
This computer program can put you on the path to better management and higher profits

To date, some 5,000 builders have used the program. And reports from these builders indicate that it not only works but also often revolutionizes their management.

The program, called Consultron, is, in effect, a management consulting service in miniature. Working from a few basic facts, it produces a report that tells the single-family homebuilder how he should price his product and how he should budget his entire operation. And it tells garden-apartment builders if—and how—their projects will succeed in their local markets.

What's more, Consultron is available to any builder in the country at no cost whatsoever.

Consultron is the joint work of William R. Smolkin (photo, left) of New Orleans, a marketing and management consultant who set up and now operates the program, and the Fabricated Products Division of Allied Chemical Corp., a building-product manufacturer which sponsored the program and now makes it available to builders.

Consultron's heart is the computer; its speed and versatility allowed Smolkin to analyze the operations of hundreds of successful builders of all sizes, then use these operations as the basis for guiding other builders. Now that Consultron is fully programmed (on the basis of some 750 mathematical equations), it can issue a report in a matter of seconds.

Consultron tells the single-family builder where his money should be spent. To provide the raw data for his budget, the builder must answer about two dozen questions on a card (see page 104). In most cases, he can provide these answers without leaving his office. (Apartment builders, however, must do a modest amount of market research.)

Consultron's computer digests this information, then issues a report (a sample is shown on the following page) that tells the builder 1) what house prices will be best for his project; 2) what proportion of his total budget should be earmarked for financing costs, general overhead, sales expenses, and promotion; and 3) what media his advertising should go into and how this advertising should be scheduled. The report also recommends types of houses and includes typical elevations. Finally, the budget anticipates a profit of 8% to 10% before taxes.

For the garden-apartment builder, Consultron offers feasibility analyses based on the economics of his local market. Details of this program were explained in a previous HOUSE & HOME article (Sept. '65); briefly, it tells the apartment builder 1) whether his project is feasible in view of his financing and market, 2) how many units he should build, 3) what mix of apartment sizes he should build, 4) what his rent range should be, and 5) what his probable return will be. Consultron's program for apartments includes basic market statistics which Smolkin has gathered for every major metropolitan area in the country.

But Consultron cannot substitute for a builder's own ability and good judgment. Like any computer system, Consultron is only as good as the data it feeds on. If a builder overestimates his market or submits inaccurate construction costs, for example, there is no way the computer can correct him.

Nor is Consultron a rigidly precise program. For one thing, it is based on averages from all over the country, and local market conditions vary from these averages. For another, all builders run their companies differently; each Consultron report includes with its recommended budget this notation: “The figures below cannot be considered ironclad. There will be exceptions in every case.”

But within these limitations, Consultron can provide very sound management guidelines for almost any builder. To see how it works, and how it has benefited three builders, turn to the next page.
The builder must supply Consultron with 25 items of information on each project he wants analyzed. Data like that at left (which actually was submitted by a midwestern builder) is put on a card and sent to Smolkin: the Consultron computer digests it and produces a report.

It seems incredible that a detailed program can be produced from such a small amount of information, but it can. Smolkin has set up an abstract mathematical model of a building operation, complete with established averages and ratios of cash allocations; once a builder's gross income goal and various construction costs and limitations are plugged into this model, the computer comes up with an optimal operating budget.

The builder himself must supply an accurate sales goal and such factors as cost per sq. ft., etc. Here, for example, the computer was accidentally fed the information that radio spots cost 15¢ each, instead of $1.50. So the merchandising budget (not shown) recommended 1,245 radio spots rather than 12.

Recommended price range

You have advised us that your lot cost averages $1,700 compared with an appraised value of $2,700 and that the upper range of home values in the neighborhood is about $18,000.

Under such circumstances, the best-selling price range in this situation would probably be $14,000 to $18,900.

These prices include the house and lot. They are not the only prices at which houses can be sold, but ones that have produced good results around the country in similar situations.

One-year operating budget

<table>
<thead>
<tr>
<th>Costs</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$498,000</td>
</tr>
<tr>
<td>Cost of sales</td>
<td></td>
</tr>
<tr>
<td>Lots, developed</td>
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<tr>
<td>Houses, average cost of $10,126</td>
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<tr>
<td>Subtotal</td>
<td>$354,805</td>
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<tr>
<td>Financing expenses</td>
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<tr>
<td>Construction loan interest and fees</td>
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<tr>
<td>Mortgage loan fees and discounts</td>
<td>$24,900</td>
</tr>
<tr>
<td>Closing costs paid by builder</td>
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<tr>
<td>Interest costs on inventory houses</td>
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<tr>
<td>Subtotal</td>
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<tr>
<td>General overhead</td>
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<tr>
<td>Management salaries</td>
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<tr>
<td>Office operations</td>
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<td>Other general overhead expenses</td>
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<tr>
<td>Sales commissions</td>
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<td>Sales management</td>
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<tr>
<td>Sales overhead, office, sales aids, etc.</td>
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<td>Subtotal</td>
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<td>Cost of promotion</td>
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<td>Paid advertising</td>
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<td>On-site merchandising</td>
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<td>Less advertising paid by broker</td>
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<tr>
<td>Projected net profit before taxes and after management salaries</td>
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</table>

Note: In small operations, salaries of individuals should be allocated to the above accounts in proportion to the time spent on each. All figures subject to rounding, and therefore may not add exactly.

Consultron supplies both a range of house prices for a subdivision and an operating budget (they are shown at left) which, if followed, will give the builder a profit close to 10%. For smaller builders, the value of the operating budget is that it breaks down all the costs of an operation and sets them up in proper proportion to each other. Thus it gives the builder a plan to follow—an outline against which to measure his own progress.

The house price itself may appear to be based on slim information, but most builders have found the recommended price not only fills a gap in their market but is also the lowest possible price they can set without sacrificing profit.

The case of one homebuilder who didn't follow Consultron's recommendation illustrates this point. The computer program suggested prices in the upper middle-income range, but the builder thought he saw an opportunity in a lower bracket. So, chucking the Consultron recommendations, he started building and selling a tremendous number of lower-priced houses. There was only one problem—he found he was making no profit at all.
...and these case studies show how well it can work

"Consultron boosted my profits from zero to more than $40,000 the first year I used it"

So says John V. Wheeler of East Greenbush, N.Y. In 1965, Wheeler built 28 houses—all of them on scattered lots—and ended up with only a $15,000 salary in his pocket. In 1966, having reorganized his firm on the basis of Consultron's recommendations, he sold 40 houses—nearly half of them in a subdivision—and ended the year with the same salary, plus a $40,000 profit.

The reason for Wheeler's drastic improvement: The Consultron report persuaded him to become a manager rather than a carpenter. Wheeler came across Consultron at the 1965 NAHB convention in Chicago, and he also talked to Smolkin himself. "I told him," said Wheeler, "that I spent a lot of my own time out on the site pounding nails and unloading trucks. He told me that I knew too much about the trade, that I was in the field saving dollars when I should be in the office saving thousands."

So early in 1966, Wheeler restructured his entire operation to match the guidelines suggested by Consultron. "I stuck to the report like a bible," he says. The result was a chain reaction:

1. Wheeler hired a construction superintendent at a salary Consultron indicated he could afford—$14,000. "He more than earns his salary," says Wheeler. "He's taken over most of my production headaches and given me time to run my business. I have time to dicker with several subs instead of grabbing the first one I can get; I can negotiate prices of materials; and I can deal with my bankers."

2. The superintendent persuaded Wheeler to drop his own crews and subcontract everything. "Now, for the first time," says Wheeler, "my costs are really predictable. With my own crews, carpentry labor—which should have been, say, $1,600 on a $20,000 house—would sometimes go as high as $2,200. The sub may charge me more than my lowest cost used to be, but in the long run I'm saving money."

Wheeler actually started 1966 with his own crews. But he didn't have the manpower to handle his new subdivision, so he subbed out some of his odd-lot houses.

"We found that these houses were coming in much cheaper than the others," says Wheeler, "so we changed over the whole operation."

3. Subcontracting slashed overhead. And this, says Wheeler, was the biggest saving of all.

"I used to have 34 men on the payroll, divided up into five- and six-man crews. And each crew had to have a pickup truck that required fuel, maintenance, and insurance. When I sat down and figured it out, I found that it costs me more than $6,000 a year to support a crew. So just in this respect, subbing saves me close to $30,000 a year."

4. Eliminating the paperwork required by his own payroll let Wheeler make much better use of his office personnel. "I have a man who estimates and does drafting," he says, "but we were so swamped with paperwork that he was becoming little more than a bookkeeper. Now he's doing his proper job, and he has time to catch costly planning mistakes before they get built into my houses."

Consultron's overall effect has been to cut Wheeler's total costs by $600 to $700 per house. "Even if costs go up 5% to 6% next year, as everyone expects, I should be able to hold my present prices," says Wheeler. He is beginning a second subdivision of houses in the $30,000 range. And with Consultron's backing, he is shooting for a total of 70 houses in 1967.

"Consultron showed me that I needed to spend a lot more money on my merchandising"

So says builder Arthur Spielmaker of Grand Rapids, Mich. Two years ago Spielmaker built 20 houses; last year, having restructured his operation to conform to Consultron's recommendations, he boosted his sales to 25 houses—despite tight money; and this year he is confidently shooting for 40.

The key to these rising sales is a vastly increased sales and advertising budget, which the Consultron report advised and which Spielmaker followed despite initial misgivings.

"The report told me it would make sense to spend more money," says Spielmaker. "I didn't believe this at first." But having decided to follow Consultron to the letter, here are the changes he made in his merchandising program:

Spielmaker is spending almost 1,000% more on his advertising. "I used to think I was on the right track saving money on advertising," he says. "Two years ago my total budget was about $60 a month. But last year I spent $300 a month, and for 1967 I plan to raise it to $500."

The Consultron advertising schedule, which suggests when lineage and radio spots should be heavy and when they should be cut back, also helped. "Before," says Spielmaker, "I had no systematic plan for advertising. I don't know whether I'll follow the
schedule exactly, but I've got a solid basis to start from."

Spielmaker set up two model houses last year in response to Consultron's recommendations. One was fully, and the other partly, furnished. The cost, established by the Consultron report, was about $2,500. Now Spielmaker feels models are so important that he's made them a permanent feature of his merchandising.

Spielmaker hired a full-time salesman. "I was surprised," he says, "when the report told me that a 20-house builder could afford a full-time man. But I brought one in anyway, and it's paying off."

Leaving his models unmanned and working through a broker, Spielmaker sold about six houses in the first part of 1966; when he temporarily took over the sales program himself and began manning the model house—albeit on a part-time basis—he still managed to make 19 sales in the remaining seven months of the year. Now, with a salesman in the models on a full-time basis for the first time, he expects sales to improve even more. The salesman gets, in effect, a 2 1/2% commission on each house he sells. Despite the added cost of his new merchandising program, Spielmaker's profits climbed from 7 1/2% in 1965 to almost 9% in 1966. ("And," he adds, "it would have been up to 10% if I hadn't had to pay up to four and five points on my financing.") This was partly due to the increased sales and partly to a boost in house prices. But, says Spielmaker, much of the credit goes to Consultron for recommending that he hire a construction foreman. "I didn't believe I could afford one, but Smolkin said I could and he was right." The result has been a faster building schedule—an average of 60 to 75 days versus about 90 days in Spielmaker's pre-Consultron operation—hence faster turnover of working capital and a lower per-house overhead.

Consultron's long range contribution has been to give Spielmaker the basis for a well-managed company.

"Before," he says, "I was floundering around, was working without a plan; my cost accounting was sloppy; I had never asked myself questions like how many houses I should build next year and whether I could actually produce them. Everything was hit or miss. Now I have a plan, and I know how I'm going to implement it."

Because he hired a salesman and a construction foreman, Spielmaker now has time to look at the future.

"I'm three years ahead on land. When I finish my present subdivision, I'll be able to move right into the next. This has helped my financing situation too. I used to spend a third of my time at the bank trying to get money. Now the bank says, 'You know what you're doing, so we'll back you.'"

'Sconsultron helped me to step successfully from homebuilding to apartment construction'

So says Francis Fine, president of Fine-Bilt Homes, for years one of the biggest homebuilders in Lansing, Mich. Last year, in addition to selling 130 houses, he built his first 58 apartment units. And this year, for the first time, he plans more rental units than single-family homes: 137 apartment units versus about 100 homes.

"Apartments look like they should be easy if you've had a lot of experience building houses," says Fine. "But actually they pose a lot of brand new problems. The Consultron report gave me the confidence to take the step."

It also gave Fine a complete financial and physical picture of the project he had in mind: the number of units and mix of sizes, what rentals to charge, the probable loan and debt service, and an analysis of probable returns.

But Fine's case also illustrates Consultron's two basic limitations: It requires accurate data from the builder, and it cannot substitute for the builder's own judgement and knowledge of his market. Here's what happened:

1. Fine underestimated his construction costs. "It was inexperience," he says. "I didn't plan enough for things like carports, privacy walls, landscaping, and a community building. I allocated $200 a unit for items like this, and it should have been nearer $900 a unit."

2. Consultron underestimated the Lansing apartment market. "The report said that an average of 490 units would be needed in Lansing over a five year period," says Fine. "This may be correct, but last year some 1,100 units were built, not counting student apartments."

3. Consultron underestimated the best rent range. "According to the report, $150 to $190 over the most popular rents," says Fine. "But I saw one building in the higher brackets, and this looked like an opportunity." So Fine built 21 units in the range recommended by Consultron, 20 more at around $220, and the rest as high as $395.

The result: The $220 units turned out to be the strongest market. The lower priced units did not sell as well, as Consultron predicted, but they produced high turnover. The higher-rent apartments moved slowly, but Fine thinks this is because Lansing isn't used to luxury units yet.

"This market will grow," he says. "Right now, two other builders have decided to build for the over $300 tenant. But for 1967, Fine himself will concentrate on the $220 range."

"I still consider Consultron immensely valuable," says Fine. "But I know I have to improve my own information-gathering methods, and I know that in the last analysis, I have to depend on my own judgement."
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Here's why more builders are trying and then buying Kemper cabinets

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NEW PRODUCTS

For more information, circle indicated number on Reader Service card p. 131

An oven-industry first—self-cleaning with gas

The appliance manufacturer that developed the gas industry’s first self-cleaning oven (in model shown at left), hopes to begin producing it in April. The unit is now undergoing final testing by American Gas Assn. technicians.

The complete self-cleaning process takes two hours. The oven is first heated to between 875° and 1,000°F. At that temperature, grease and food particles turn to a loose, dry ash that can be wiped clean when the oven has cooled (right). The amount of gas used, says the manufacturer, costs less than 5¢ per cleaning.

Gas-oven manufacturers have been slow to follow their electric-oven competitors in producing a self-cleaning model because of a major engineering problem. Gas generates an excessive amount of waste heat when raised to the high temperature required for self-cleaning. The solution: a brand-new insulating method and venting system that keep the exterior temperature of the oven at that of conventional models and throw off less heat than that generated by normal baking. Modern Maid, Chattanooga, Tenn. Circle 291 on Reader Service card

A buried-conduit tracer speeds up excavating and grading

This new battery-powered tool makes an excavating crew up to 500% faster, yet it can be run by a laborer. The two-part instrument pinpoints both the course and depth of metallic or non-metallic conduit: telephone and electric cables, gas and water pipe, plastic or tile drains, cast-iron or clay sewer pipe, and wiring in floors or walls. The two parts: 1) a 20-lb. transmitter that sends an electronic signal through the underground line, and 2) a hand-held probe that detects the signal through earth, asphalt, or concrete (photo, above). The transmitter’s leads are connected to the buried conduit’s most convenient point of access (photo, right). Delcon, Mountain View, Calif. Circle 290 on Reader Service card

Teflon-coating produces a smoother-cutting hand saw

Teflon makes sawing easier because it reduces friction. It also offers two other advantages: 1) A Teflon-coated saw blade doesn’t need cleaning because resins don’t stick to it, and 2) the blade is protected indefinitely against rust and corrosion.

The Teflon is not affected when the saw teeth are sharpened, because the coating is applied only to the sides of the blade.

And laboratory tests show that the Teflon stays effective through considerable use. After one wood-cutting test equal to a full-time carpenter building 20 houses, the Teflon coating showed wear on less than 5% of the cutting surface. A second test subjected the new saw to more than a million strokes in abrasive lumber and resulted in no visible wear.

Saw-blade Teflon is not the same as cookware Teflon. It is much harder, and referred to as “Teflon S.” The new hand saw—a first application for Teflon S—comes in rip and crosscut models. H. K. Porter, Pittsburgh. Circle 292 on Reader Service card

New products continued on p. 116
THE BOLD LOOK

DASHING NEW COLORS, SPIRITED NEW STYLES HIGHLIGHT KOHLER'S BOLD LOOK FOR '67. LEADING OFF IS KOHLER'S "GO-WITH" COLOR OF THE YEAR...AVOCADO!

Readers all over America are meeting the Kohler Bold Look in lighthearted ads—in Better Homes & Gardens, American Home, House and Garden, Sunset. They're oh-ing and ah-ing over that Bold Look bath, with the new Avocado fixtures. They're reading about new Accent Color designs...about Kohler's elegant Flair fittings, available this year in amber, white, charcoal and clear.

Kohler Accent Color lavatories give your imagination free rein. With a pastel shade on the tub, closet and bidet, let the lavatory sound a bold, bright note of contrast. Use a vivid red against blue...accent a soft green with a deep jade...contrast a neutral tan with a rich expresso brown.

For the Bold Look, a touch of Flair! Handsome Flair fittings are diamond-bright acrylic. Choose white, charcoal or clear with chrome...amber with polished brass.

Not bold...but a bright idea! Below you see the Kohler tub with the slip-resistant Safeguard® bottom. Unique textured surface helps guard against slips and falls. Available on any Kohler tub.

Avocado comes to the kitchen in a brand new design, the Lakefield self-rimming sink. Note the novel proportions: a conveniently sized basin for scrapings (into strainer or disposer)...a king size basin for dishwashing.

The Scintillating Six! Kohler Accent Color sinks in Antique Red, Expresso, Jade, Coppertone, Blueberry, Citron. Self-rimming for low cost installation.

Kohler Accent Color lavatories give your imagination free rein. With a pastel shade on the tub, closet and bidet, let the lavatory sound a bold, bright note of contrast. Use a vivid red against blue...accent a soft green with a deep jade...contrast a neutral tan with a rich expresso brown.

Something missing? Why, yes, the old metal rim. Not only does the lavatory look prettier without it, but there's a pretty penny saved on installation. Leave it to Kohler to make the bold moves!

KOHLER OF KOHLER

the Bold Look for '67/Kohler Co., Kohler, Wisconsin
Three kitchen cabinets from one basic model offer the home­buyer these design possibilities: Mediterranean (left), contemporary (right), and Oriental (not shown). Face panels in the cabinets come in four patterns that are readily reversed by removing a retaining strip.

Stainless-steel laundry sink with a 10”-deep single compartment is intended for use in areas where space is limited. The line includes double-compartment models up to 42” wide for larger laundry areas. Elkay, Broadview, Ill. Circle 261 on Reader Service card

Built-in coffee maker brews from two to ten cups. It consists of a compact—4”x8”x12”—body, polycarbonate cone, and a glass decanter. The 115-volt unit is connected to the cold-water line with ¼” flexible copper tubing. Brewmatic, Los Angeles. Circle 264 on Reader Service card

Eye-level gas range has all-glass oven doors that reflect like a black mirror when light is off. Free-standing model shown is 30” wide, 66” high, and comes in avocado, coppertone, yellow, and white. Gaffers & Sattler, Los Angeles. Circle 265 on Reader Service card

Duct-free and top-ducted range hoods are part of a lower-price line that includes three models in four sizes. All are offered in copper tone, shaded coppertone, and white. Leigh, Coopersville, Mich. Circle 263 on Reader Service card

Easy-to-move refrigerator floats from its place on thin film of air to simplify cleaning. The air-lifting device, which connects to blower of vacuum cleaner, is an optional accessory on ten models. Frigidaire, Dayton, Ohio. Circle 266 on Reader Service card

New products continued on p. 126
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Air conditioner for horizontally sliding windows is 14¼" wide, 24½" deep, and 19" high. Thermostatically controlled fan speed increases automatically when temperature rises. Frigidaire, Dayton, Ohio. Circle 205 on Reader Service card

Central exhaust system controls humidity in an electrically heated house with minimum heat and cooling loss. It includes a remote-mounted power plenum, range hood, inlet grilles for bath and laundry. Swanson, Owosso, Mich. Circle 208 on Reader Service card

Oil-fired boiler — 39½" high, 19" wide—will pass through an average doorway. Five pre-wired models, with a net I-B-R graduated range of 81,000 to 162,000 Btuh, are made with enclosed controls. A thermostat is standard equipment. Rheem, Chicago. Circle 210 on Reader Service card

Color thermostat incorporates front-panel inserts that blend with a broad range of individual room decor. Inserts are offered in six shades: yellow, green, blue, walnut, copper, and silver. International Telephone & Telegraph, Van Nuys, Calif. Circle 206 on Reader Service card

Power humidifier can be used in any forced-air heating system. Evaporator discs lift enough water into the air stream to humidify a 2,000-sq.-ft. house. Unit is installed in plenum or duct. It needs no plenum or duct. Leigh Coopersville, Mich. Circle 207 on Reader Service card

Electric-resistance furnace delivers from 12,000 to 119,000 Btuh. Up-flo model shown rests on an electro-static air filter. The normal operating temperature of resistance units is 500°, but they are tested to withstand 1700°. Lennox, Marshalltown, Iowa. Circle 211 on Reader Service card

Two-speed bathroom fan, suggested for large bathrooms, is designed to deliver 100 cfm. Discharge fits standard 4" duct. Features: nail-up mounting bracket with adjustable header bar and a spring-mounted snap-out grill. Air King, Chicago. Circle 212 on Reader Service card

Ceiling-mounted heating panel heats through resistance in a conductive sheet. Panels—in three lengths from 4' to 8'—require 500, 750, or 1000 watts. They come in a flat, off-white finish but may be painted 3M, St. Paul, Minn. Circle 209 on Reader Service card

Baseboard heating section comes in lengths from 2½' to 6' at wattages from 450 to 1200. And tandem sections from 8' to 12' range from 1600 to 2400 watts. Additional equipment includes wall-mounted thermostat. Hotpoint, Chicago. Circle 213 on Reader Service card

New products continued on p. 12
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Telescoping hardware allows bifold door to swing 180° for full access to closet. Hardware can be used in either the header or jambs of doors from 1" to 1½" thick, up to 8' high, and as heavy as 50 lbs. Stanley, New Britain, Conn. Circle 200 on Reader Service card

Touchbar latch enables homebuyer to push open a screen or storm door while both hands are full. The bar fits across the inside of all 36" doors at waist height and can be cut to fit narrower doors. Idea Brass, Red Bank, N.J. Circle 201 on Reader Service card

Hide-a-shelf hardware can be installed in any cabinet with an inside height of 22½" or more. (Shelves may be any width.) Hardware's adjustable spring tension counterbalance from six to 30 lbs, and its locking mechanism locks firmly at countertop or desk height. Americanock, Rockford, Ill. Circle 202 on Reader Service card

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New products continued on p. 125

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Frigidaire, Dayton, Ohio. Circle 280 on Reader Service card

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Culligan, Northbrook, Ill. Circle 281 on Reader Service card

Plastic laundry tub is molded of Avisun white polypropylene which, the manufacturer states, can better withstand impact and chemicals than other materials. Lightweight tub is 22" wide and 25" deep. Chicago Granite, Chicago. Circle 282 on Reader Service card

Small commercial dryer for apartments is 48" high, 28 3/4" wide and 30" deep. Dryer is available for operation on gas or electricity. Gas model comes with standing pilot, but electric igniter is offered at no extra cost. Cissell, Louisville. Circle 283 on Reader Service card

New products continued on p. 113
Let Rangaire clear the air—

—as to what women want in a range hood. When you install a hood, you want it to work, be quiet, and look good — to harmonize with kitchen decor. A hood that causes callbacks and customer dissatisfaction can be the most expensive hood you ever installed. Rangaire builds range hoods that work — you can rely on it. And, they're beautifully styled, besides being made to last. We try to be as careful of your reputation as we are of our own, and never let a builder down. And that's saying a lot, because we build a lot of range hoods. So, to be sure of hood quality, and of your customer's satisfaction, be sure to specify Rangaire.

RANGAIRE CORPORATION
Roberts Manufacturing Division • Cleburne, Texas 76031
You can save hundreds of dollars with this new line of beautiful and functional Fas-Glo electric fireplaces. Full-size fireplaces, at a fraction of the cost of conventional fireplaces. And there are no expensive installation or labor costs, no flue, no chimney to construct, no wasted heat. Your customers enjoy lasting, thermostatically controlled warmth year 'round.

Fas-Glo fireplaces may be permanently wired, or plugged into a wall socket. They are easily adaptable to any temporary or permanent room location. Living room, Den, Bedroom, Family room, Any room.

There are no dirty logs, dust or soot to clean up. Fas-Glo will heat any size room—with an installation that takes only minutes. The logs are of genuine oak and provide a simulated flickering flame when the unit is turned on. And the best part is the whisper of wood aroma and the crackling sound of burning logs.

Every Fas-Glo unit is available with or without heating elements in the base. And you can choose 1650 watt models, or 4000 watt models.

Every unit includes logs, fire screen, sound maker and scenter. But get all the facts. All the specifications. Send for our new brochure on Fas-Glo fireplaces.
New Du Pont Nylon Shutters meet demand for low maintenance, pre-finished, high-quality materials...give you fast, easy installation

Made of tough Du Pont Nylon, these pre-finished shutters won’t rot, crack, dent. Slats can’t fall out. They’re easy to install. One man can put up a pair in 5 to 6 minutes on any siding or masonry. No special tools needed. All painting and puttying eliminated. And they have the look of fine woodwork. The durable factory finish—in black, white, dark green—won’t blister, chip, peel. Once they’re installed, there’s almost no upkeep. If homeowner ever wants to change colors, they can be easily repainted.

On your next job include the most practical shutters ever made—Du Pont Nylon Shutters. They’ll save you money. For full details, contact Du Pont Building Products, Room N-2521, Wilmington, Del. 19898.

“As apartment builders and owners, we’re conscious of maintenance problems,” says Leon N. Weiner, builder and President of the N.A.H.B. “We use Du Pont Nylon Shutters because of their durability and value.”
Consultron 1967 has more answers than ever.

And that might surprise the 2,000 builders who’ve received more than 3,000 reports in the past three years.

But now, we’ve added a one-year self-correcting market forecast for more than 150 key metropolitan areas.

Plus 600 new house plans providing a total of almost 2,000 sales-proven home designs.

Plus even faster service to help get your project off the ground in plenty of time.

Naturally Consultron also offers the same valuable building guides as always. It will advise you on the best price range and appropriate house styles, and provide a complete operating budget and advertising and promotion schedules. It will, in addition, tell you population changes, home construction figures, and other vital data for your area.

If you’re building apartments, the report will rate the building site, and the market for apartments. It will also project your returns, and provide a guide for architectural design and a promotion plan.

In these tight money times, it’s especially important to get sound advice for your building projects. Consultron will provide it. All you have to do is answer a few simple questions on a Consultron data card available from your Barrett Representative. Our IBM 1401 computer will take it from there.
RANGAIRE HEATING/AIR CONDITIONING DEALERS
DO YOUR JOB RIGHT...THE FIRST TIME

You won't find a Rangaire heating and air conditioning dealer rushing off to his next job—not until he's sure your installation job is complete, and everything is working perfectly. Even though Rangaire systems are among the finest available, we don't have the biggest name in the business—yet. So Rangaire dealers work harder and longer to make sure each installation is perfect. And, builders appreciate this extra care and service...they get a great peace of mind when our quality product is backed by our dealers' quality installations. Why not call your Rangaire dealer for heating and air conditioning systems...from 15,000 to 220,000 BTU capacities. Ask him about good-looking Rangaire COLOR/blend condensers, too, that harmonize with your homes' exteriors to beautify rather than detract. You'll find his price competitive, his products equal or better. And his eagerness to do your job right a refreshing change.

RANGAIRE CORPORATION
Cobell Industries Division • Cleburne, Texas 76031
Write for complete information and the dealer in your area.
Tools and equipment

Elevating scraper can travel at speeds up to 23.8 m.p.h. and make U-turn in 26’1”. It permits a change of speed and speed range without declutching. Heaped-bowl capacity: 9 cu. yds. (10.8 tons). International Harvester, Chicago. Circle 220 on Reader Service card

Number buggy is a one-man push cart for hauling up to 2,000 lbs. Four 16” stakes lock sideways against the load or turn into the frame to make a flat top for hauling plywood. Height—22”—matches most saw tables. Lawkeye, Longmont, Colo. Circle 223 on Reader Service card

Fiberglas hammer handle, permanently bonded to forged-steel head, has the flex strength to deliver all its power at the point of impact. Line includes three nail, two ripper, and five ball-pein hammers. Owens-Corning, New York City. Circle 224 on Reader Service card

Fish-tape reel for pulling wire through conduit has molded-plastic housing and winder. Result: It is shockproof and half the weight of a steel reel. Tape sizes include 1/4” x 100’, 1/4” x 200’, and 1/2” x 100’. Holub Industries, Vacaville, Ill. Circle 230 on Reader Service card

Portable spray rig combines a heavy-duty 1.5 gpm airless spray pump and a 3 h.p. electric compressor. Pump can handle heavy-viscosity latex. An 8 h.p. gasoline model is offered for areas where electricity is not available. Spec-Flo, Houston. Circle 231 on Reader Service card

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Designing a pool into your next project?

It makes sense to specify Paragon quality pool products

here’s why: The built-in, no-compromise quality of Paragon pool products and equipment has a far-reaching effect upon the design of any commercial, institutional or residential pool. That’s because excellence—in durability, performance and appearance—is the only standard we accept. As a result, Paragon equipment has become the largest single grouping specified and selected by architects.

If you need technical information, specification sheets and data, we will be glad to answer your request. In addition, our skilled staff is ready to aid you with special custom fabrication requirements—please submit details. See our Sweet’s Architectural Catalog File 36c/PA or write for your copy.

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Please send me a copy of Sweet’s Arch. Catalog File 36c/PA.

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Circle 89 on Reader Service card

Circle 220 on Reader Service card

Circle 224 on Reader Service card

Circle 230 on Reader Service card

Circle 231 on Reader Service card

New products continued on p. 138
Luxury living... with luxurious kitchens by

The Sandpiper at Palm Desert, California is a smart address next to several outstanding country clubs. It is condominium living in a lush setting... $35,000 to $45,000 homes circled around a Ramada with blue pool and putting greens, as pictured above. The Sandpiper is quality... and that includes all-WHIRLPOOL appliances in the convenient kitchens of the new units. Not only have the builders of the Sandpiper chosen an appliance line that is highly-styled and highly-featured, but they have also invested in deluxe models from that WHIRLPOOL line. As in every other architectural detail of this attractive community, the objective has been to please the type of prospects who are used to the best.

Only 26" wide, this 11.0 cu. ft. refrigerator (model ERL11C) is a popular apartment model.

A modest-priced two-door model, the ERT12D offers 12.3 cu. ft. of refrigerator and freezer space.

The IceMagic® automatic ice maker is the proved one. Over 1,000,000 WHIRLPOOL manufactured ice makers in use! The IceMagic fills, freezes, then empties ice into a handy bin that holds up to 480 crescents.
Hundreds of appliance models to choose from...all from one handy source

Whatever you’re looking for in home appliances, chances are that WHIRLPOOL can fill your needs...exactly! For example, you can take your pick of 24 different refrigerator-freezer models in the WHIRLPOOL line. Those pictured at left illustrate how they range from compact, low-cost units to luxury featured models for the largest homes.

You get this same kind of wide choice in other WHIRLPOOL appliances, too. They include ranges, ovens, dishwashers, disposers, air conditioners, range hoods. There’s a choice of gas or electric fuel in cooking equipment. And, of course, you get color and styling coordination when you use all-WHIRLPOOL appliances.

Just place one order. Deal with one man, instead of three or four. Get undivided responsibility and service. Ask your WHIRLPOOL distributor about this time-saving, trouble-saving idea...

No-Frost refrigerator-freezer

in kitchen has many top features, including IceMagic® automatic ice maker.

It’s a 16.4 cu. ft. model...stores 182 pounds in the big bottom freezer.
Vinyl-asbestos tile features black, brown, and white stripes in a basketweave design. Large chips of translucent vinyl with fine marble particles are deeply inlaid on vinyl-asbestos backing. Azrock, San Antonio. Circle 270 on Reader Service card.


Hardwood flooring is composed of 3/8" x 15.2" x 19" panels. Its basketweave pattern is formed from four alternating runs of three and five slats. In red oak, maple, beech, walnut, cherry, and teak. Harris, Johnson City, Tenn. Circle 274 on Reader Service card.

Can a Garage Door Compete with Other Appliances in Buy Appeal?
Vinyl sheeting is shown in two patterns: 1) polished rock with a thicker wear surface for light-commercial applications (top); and 2) a Spanish-tile design in nine colors for residential use (bottom). Ruberoid, New York City. Circle 276 on Reader Service card

Sculptured sheet vinyl has the look of quarried marble. The flooring is offered in the following six colors: sandstone, maple, gold, bronze, sandpiper, and white. It comes in 72" sheets. Goodyear, Akron, Ohio. Circle 275 on Reader Service card

Sculptured sheet vinyl

Cushioned-vinyl flooring simulates an old ceramic-tile floor with uneven grout lines on a textured surface. Subtle variations enhance colors: brick red, gray green, or antique beige. Mannington Mills, Salem, N.J. Circle 277 on Reader Service card

Here's how Crawford STYLIST Does it!

1. with OUTSTANDING APPEARANCE: Stylist is the easiest of all doors to Customize—with color for beauty and personality at no extra cost; with color, moldings, cut-outs for rich, sculptured breathtaking effects at nominal extra cost.

2. with HIGH VISIBILITY: the garage door is the largest, most visible single area in any home frontage; Stylist lets you merchandise it with magnetic beauty and design—which can be repeated on the front door and shutters for total buy-appeal.

3. with UNLIMITED VARIETY: with Stylist, every home on the project can look different from the curb even if floor plans are basically alike.

4. with QUALITY FEATURES:—LIFETIME WARRANTY on Marvel-Life hardboard skins; LIFETIME WARRANTY on sturdy, welded wood UNITIZED CONSTRUCTION; HONEYCOMB CORE which supports skins every inch in every direction; 120 DEAD AIR CELLS per sq. ft. add an insulation bonus.

5. and NO CALL-BACKS: Stylist is installed and guaranteed for one year by your Crawford distributor. He makes the call-backs, if any. You're clear.

6. with EASY CONVERTIBILITY to ELECTRIC PUSH-BUTTON OPERATION by having the Crawford Distributor add a Door-Master Operator.

Make no mistake, the garage door is an appliance—the largest moving appliance in any home, and, the most visible. Many builders make it a high-ranking sales feature. You can, too.
Adhesives and sealers

Dry latex concrete patch requires only water—no catalyst or additive—for mixing. It is recommended for patching, resurfacing, leveling, and tuckpointing. In 5- and 10-lb. cartons, and 40-lb. drums. Tamms, Lyons, Ill. Circle 240 on Reader Service card

One-part acrylic caulk for difficult exterior applications requires no measuring or mixing. It can be gunned at temperatures as low as 30°F. West Chester Chemical, West Chester, Pa. Circle 241 on Reader Service card

Vinyl block filler for porous concrete fills voids and provides a smooth surface for finish coatings. One gallon covers from 75 to 150 sq. ft. Dries in about two hours. Fabco, San Francisco. Circle 242 on Reader Service card

Heatless weld kit combines two epoxy adhesives to bond 1) PVDC (polyvinyl dichloride) hot and cold water pipe to copper fittings; 2) copper to copper; and 3) plastic to plastic. Genova, Flint, Mich. Circle 244 on Reader Service card

New literature starts on p. 142

Choose Swanson Built-Ins for Kitchen Glamour

FREE...SEND TODAY! Complete catalog of “glamour” products to help create better, more beautiful kitchens and baths. Includes “where to buy” list for your locality.

SWANSON MANUFACTURING CO.
607 S. Washington St.
Owosso, Mich. 48867

Circle 92 on Reader Service card

DELTA FAUCET COMPANY
GREENSBURG, INDIANA
DIVISION OF MASCO CORPORATION

IN CANADA: Delta Faucet of Canada Ltd., Rexdale, Ont.

Circle 93 on Reader Service card
People don't fall in love with the house. They fall in love with something about it. That something can be anything from a fine old tree in the yard to gold-plated knobs in the shower stall. Often it's the line of the house that gets prospects—the way it looks to them. And at them.

Red cedar shingles and handsplit shakes have a lot to do with line. Initially, their flexibility frees the hands of the architect to design, and the builder to build.

And once in place, these shingles and shakes speak a language of beauty and texture that homebuying prospects find easy to understand and difficult to resist. Solidly beneath the beauty lies the real sales clincher—red cedar's incredible wind-resistant strength, insulative power and lifetime durability.

If you now build in an area where homes with red cedar shingles and handsplit shakes are being sold, you know what we're talking about, and if you don't, why not be the first in your area to find out?

Full Certi-Split, Certigrade and Certigroove specifications and application information appears in our Sweet's Light Construction Catalog listing, 3d/Re. Or write or call us:

RED CEDAR SHINGLE & HANDSPLIT SHAKE BUREAU
5510 White Building, Seattle, Washington 98101
(In Canada: 1477 West Pender Street, Vancouver 5, B.C.)

One of these labels under the bandsticks of the product you buy is your assurance it was made, inspected and graded under regulations of the Red Cedar Shingle & Handsplit Shake Bureau. Insist on these labels.
Molding patterns: Three producers write one standard

The three—Western Wood Molding Producers, Western Wood Products Assn., and Southern Pine Assn.—have combined forces to establish the first standard for the softwood molding industry.

The 24-page catalog includes all patterns from astragals to wainscot caps—currently being manufactured and distributed (see samples above).

For a copy, send 50¢ to Western Wood Molding Producers, Box 25278, Portland, Ore. 97225.

For copies of free literature, circle the indicated number on the Reader Service card, page 131.

SOUND-DEADENING BOARD. A noise-control system that uses 1/4" gypsymboard partitions is examined in a brochure with test results for several wall assemblies. Georgia-Pacific, Paoli, Pa.

PLASTIC WALL COVERINGS. Three-dimensional coverings come in three patterns and four colors. A four-color product sheet includes installation photographs and artist's renderings of potential applications: wainscottings, doortops, soffits, and accent panels. K-Lux, St. Louis. Circle 350 on Reader Service card

STAINLESS STEEL. Soft (i.e. easy-to-fabricate) stainless steel is the subject of a brochure. Applications include flashings, copings, downspouts, expansion joints, gravel stops, gutters, and louvers. Specifications and illustrations include suggested minimum gauges for stainless-steel roofing and flashing. Jones & Laughlin Steel, Detroit. Circle 319 on Reader Service card

WASH-WATER PROOFING. The characteristics of protective coatings in 27 colors are discussed in a brochure. For commercial use Sonneborn Building Prod., Des Plaines, III. Circle 312 on Reader Service card

CONCRETE-FORM PLYWOOD. Four-page booklet details the specifications for plywood that meets commercial construction standards TECO, Washington, D.C. Circle 313 on Reader Service card

SEAMLESS METAL DOORS. Complete line of seamless metal doors insulated with aamed-in-place urethane is examined in a 12-page catalog. It includes detailed illustrations and specifications. Mesker Bros., Hazelwood, Mo. Circle 314 on Reader Service card

CONCRETE ADMIXTURE. Charts and graphs in a 16-page booklet examine several admixtures. Discussed: their effect on strength, durability, volume change, watertightness, uniformity, and appearance. Master Builders, Cleveland, Ohio. Circle 315 on Reader Service card

CONCRETE FORM. A high-strength ribbed form for concrete roof and floor construction over steel supports is the subject of an information sheet. Includes specifications. Republic Steel, Youngstown, Ohio. Circle 316 on Reader Service card

HYDRAULIC EXCAVATOR. The machine can be equipped with a backhoe, angling backhoe, loader, clamshell, crane hook, jib, or fork. A brochure contains description, specifications, and working range diagrams. American Poclain, Rahway, N.J. Circle 305 on Reader Service card

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BATHROOM ACCESSORIES. Recessed, concealed, or surface accessories—including towel bars and rings, soap and paper holders—are fashioned in solid brass with a satin finish. Product sheet also displays a vanity shelf and medicine cabinet in the same finish. Hall-Mack, Los Angeles. Circle 306 on Reader Service card

INSULATION BOARD. A line of insulation board for commercial use combines a core of rigid urethane foam with a variety of facings for specific applications. Items: roofing, plastic-coated wall board, plaster and drywall base, foundation insulation. Atlas, Wilmington, Del. Circle 307 on Reader Service card

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DRAFTING TEMPLATES. Catalog shows a wide selection of templates for such details as plumbing fixtures and windows. Timely, Baltimore, Ohio. Circle 308 on Reader Service card

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POWDER NAILING GUNS. Complete line—ranging from a lightweight tacker for stapling insulation to models that drive 2½" long nails—is displayed in a four-page catalog. Includes FHA specifications for construction applications. Spotnails, Rolling Meadows, Ill. Circle 311 on Reader Service card

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CONCRETE-COMPONENT. A 12-page summary of building materials describes more than 10,000 items in 176 pages. Shipping policy: five days on all orders except customized items. Morgan-Wightman, St. Louis. Circle 327 on Reader Service card

CONTRACTOR PUMPS. Twenty-five self-priming pumps with capacities from 5,000 to 90,000 gph are presented in a full-line catalog. The pumps move solids, sand, or mud; they may be used for heavy-duty ditch drainage, seepage control, process pumping, and continuous pumping of sludge, slurries, and debris. Kenco, Lorain, Ohio. Circle 326 on Reader Service card

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FREEZER-REFRIGERATOR. A no-defrosting freezer and refrigerator combination is the subject of a four-color information sheet. Specifications are included, Admiral, Chicago. Circle 330 on Reader Service card

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RED CEDAR SIDING AND PANELING. Residential applications get the spotlight in a brochure that differentiates between types and grades.

Tables estimate the amount of siding needed to cover a 1,000-sq.-ft. wall area. Fastening and nailing methods are included. Western Red Cedar Lumber Assn., Portland, Ore. Circle 322 on Reader Service card

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Homasote Roof Decking with TEDLAR® Pvf Film...
American Originators homes

American Originators, Inc. specializes in distinctively styled, solidly built homes. Homasote specializes in products that simplify achievement of that standard—with meaningful savings in construction time. The combination, therefore, is a natural winner.

American Originators’ selection of Homasote Roof Decking with TEDLAR® for their homes in “Le Villiage Rustique” (Worthington, Ohio), for example, provides proof. Here, Homasote composition and design characteristics contribute weatherproof insulation, superior structural strength, fast application, and finished interior. Interior-side surface of TEDLAR results in a factory-finished ceiling of rich true wood-grain appearance that has exceptional resistance to abrasion and stain and which never needs painting.

For full details about the advantages Homasote Products offer home builder and home owner, write Dept. BR-3 for the Homasote Building Product Selector Book.

*DuPont registered trademark

Don Morrow, imaginative and practical designer, and President of American Originators, Inc., points to his use of white Kraft finish Homasote as another example of the unusually dramatic and tasteful interiors available with Homasote Roof Decking.

homasote Company
TRENTON, N.J. 08603
8'' BRICK BEARING WALLS IN APARTMENTS

Oakcrest Towers III, Prince Georges County, Maryland

8'' brick bearing walls are used through the entire eight floors of Oakcrest Towers III, located in Prince Georges County, Maryland, just outside Washington, D.C. Completed at a rate of one story per week, this apartment building contains 161,334 square feet of floor space. The contractor saved more than $1 per square foot of floor area by using brick bearing walls rather than structural frame. (Speed of erection also offers a savings in interim financing.) Construction was simple because all brick wall thicknesses are identical from the foundations to the roof. In essence, Oak Crest Towers III is a series of eight one-story buildings, one atop another.

Maintenance of corridor and shear walls is eliminated because exposed brick serve as the interior finish and as the structural walls. The 4-hour fire resistance of the 8'' brick wall provides safety and low insurance rates. Privacy, extremely important to tenants, comes from brick bearing walls with 58 decibels sound resistance. Oak Crest Towers III is another significant example of the modern brick bearing wall concept, providing structure, finish, fireproofing, and sound control.

For more information about this excitingly economical system of building with brick, call or write

Structural Clay Products Institute, 1520 18th Street NW, Washington, DC 20036 Area Code 202-483-4200
WHAT COLOR IS A WHITE FIR CEILING?

15 Prefinished Colors!

Select from 6 penetrating stains (top six colors), 8 pastel sealer tones or natural. Eliminate finishing time, materials cost, messy clean-up problems.

Potlatch factory coatings enhance natural grain appearance, provide matched color continuity from wall to wall and last far longer than jobsite applications.

3 Surface Textures!

Surf-sculptured “color brushed” surface is achieved by wire brushing the decking before application of pigmented pastel color tones. The natural beauty of grain configurations are emphasized by the resulting contrast in color tones and shadowed effect.

Saw-textured surface is created by rough sawing the exposed faces prior to application of the penetrating stains. The installed ceiling is one of rustic warmth that complements the architectural trend of designing with tactile building materials.

Smooth-planed surface of standard T & G decking can be specified prefinished in one of 8 pastel color tones or natural. All three types of solid decking have distinctive vee-line linear appearance.

Economy Plus!

Initial cost of solid T & G decking is nominal because it combines ceiling beauty and inherent insulation with structural strength and easy application. This product can also be used as floor decking and in solid sidewall construction.

Potlatch T & G decking is endmatched with bevel ends to speed installation and eliminate waste. Joints need not connect over bearings and only trim cutting is required. All members are comprised of sound, straight, selected kiln-dried lumber.

Contact your Potlatch Distributor for more information about T & G decking, solid wall paneling and other trendsetting products from the Potlatch Timberline.

RANCH RED
SAGE BLUE
ANTIQUE GRAY
ADOBE TAN
CACTUS GREEN
RUSTIC BROWN
JADE
SNOW
SMOKE
SAND
SUN
SKY
SILVER
MOCCASIN
OR NATURAL

All prefinished members are backsprayed with a water repellent preservative, slip sheeted and shipped in protective bundles. No sticker marks. Touchup colors are included with each order.

All Potlatch paneling, lumber and decking is kiln-dried. Potlatch 2-inch solid T & G decking is available endmatched with bevel ends to form an attractive end-vee when butted together.

Contact your Potlatch Distributor for more information about T & G decking, solid wall paneling and other trendsetting products from the Potlatch Timberline.

Potlatch forests, inc.
WOOD PRODUCTS DIVISION
320 Market Street
San Francisco, Calif. 94111

MARCH 1973
Wood, Stone, Earth, Concrete
International® fork lifts defy dirty weather and raw,

MUCKAROO. Big pneumatic tires move lightly over mud, snow, rough ground and debris. Axle and power train have plenty of reserve strength to shrug off shocks. Hydrostatic power steering makes handling a breeze.
cluttered job sites

MAGICIAN. Pallets, tubs, castings, concrete blocks, bales, rolls — you name the shape and International will handle it. 48" pallet forks are standard.

GENTLE TOUCH. Hydraulic side-shift attachment (optional) moves the mast 3" right or left. The driver gets under a load fast, spots it precisely and backs away safely. Twin hydraulic circuits let him use both tilt and hoist controls at the same time without lag or fluid starvation.

SKY HIGH. Longest reach is by Model 5528—a 26-foot stretch at full lift height. Other models reach 10½, 12, 14 and 21 feet. Lift capacities range from 4,000 to 6,000 lbs. Choice of power sizes, 47 or 56 hp.

Twelve different International fork lift tractors are built especially for all-weather, rough-site transport, hoisting and stacking. And besides their obvious advantage over fork lift trucks, they're even more maneuverable than other fork lift tractors. Reverse speed is greater than forward. A driver can inch under his loads, back out fast. Independent rear wheel brakes permit tight turns.

And your IH dealer has an attractive offer on financing, too. One, two or three-year pay plans. Up to three deferred payments in slack seasons without penalty. Leasing. Leasing with purchase option. Or you suggest something. He wants to make a deal! International Harvester Company, Chicago 60611.

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The people who bring you the machines that work
Successful
add the deck
Decks of Western Wood are real sales clinchers . . . from the Atlantic Seaboard to Southern California. They’re right in step with the trend to gracious living, indoors and out. Western Wood decks can be designed right into the floor plan for outdoor living space that looks like it belongs. And decks are profitable options that sew up sales fast.

Here’s what successful builders have to say about Western Wood decks.

From Chicago, Howard Clark, vice president, Kepler and Clark, Ltd., Westgate of the Meadows, Downer’s Grove, Illinois:

“We know wood decks have strong customer appeal. So we design them into many models and offer them as options on the others. We use Western Wood for the decks, or balconies, because we know it’ll take everything our polar winters can dish out for years and years.”

In Greenwich, Connecticut, Seymour Schwartz, president, North American Development Company, builder and developer of Dunwoodie Estates, Putnam Green:

“We used to think New England’s traditional design pretty much ruled out decks. Not anymore. We’ve found that indoor-outdoor living is becoming a more important feature of family life all the time. So much so that we include a big deck of Western Wood as an integral part of many of our luxury models. Wood decks will probably be “traditional” themselves around here, before long.”

And from Southern California, Arthur Ehrlich, vice president and marketing director, Kendall Construction Company, builders of Kevington in Thousand Oaks and Monte Vienda, in Camarillo:

“Out here, we’ve known for a long time that decks sell homes. Since outdoor living is a year-round activity, we design patios, decks and spacious balconies as an integral part of our architecture. Models that don’t have decks as standard features are laid out so they can be added as an option. Much of our building is hillside so cantilevered decks add a lot of excitement to our homes. We’re firm believers in the idea ‘add the deck and sell the house.’”

Put proven sales ideas to work. Send for our special builder’s deck package and take a look at the design variety and versatility you get with Western Wood. Just send the coupon.

Patios

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