

December 1954

# house + home

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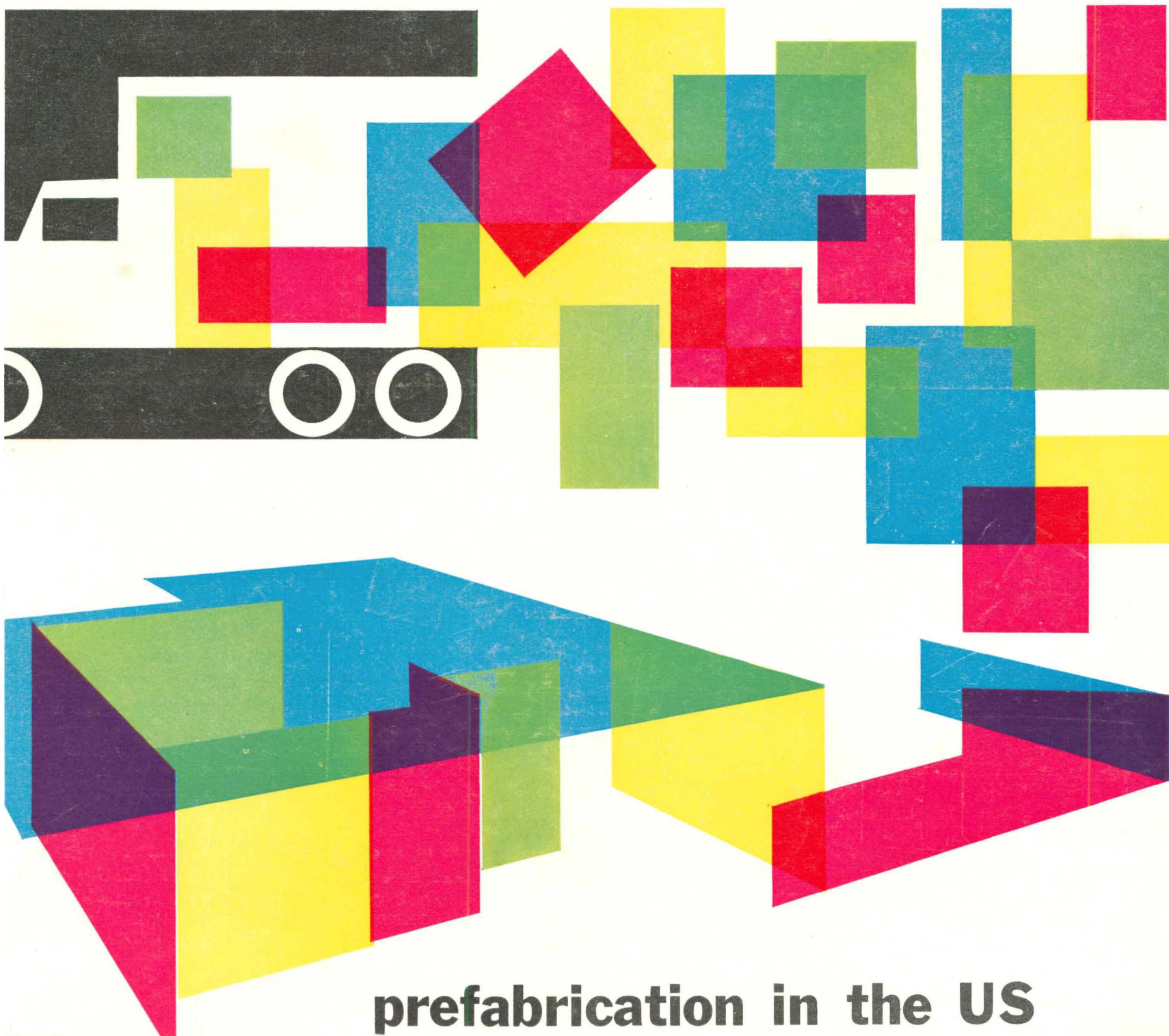
## What does prefabrication mean to everybody in the building industry?

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## prefabrication in the US

*For a practical kitchen  
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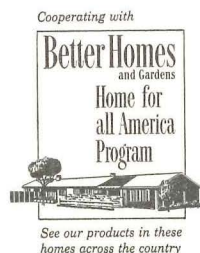
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# 1.3 million starts in '55

**Commerce and Labor Depts. forecast big gains for private housing, expect dollar outlays to top this year by 13%.**

**Total construction volume will rise 7%, government thinks**

The government expects new homebuilding to jump 13% next year (in dollar outlays) and reach 1.3 million starts.

In their annual prediction of next year's outlays for new construction, the Commerce and Labor Depts. forecast last month that new nonfarm homes will account for a whopping \$15 billion in 1955—55% of the expected \$27.4 billion worth of private construction.

The big jump in housing, the government prophesied, will provide most of the impetus it expects will send total outlays for new construction up another 7% above this year's record levels. The '55 expectation: \$39.5 billion—up from a currently estimated '54 total of \$37 billion (which is \$3 billion higher than the prediction issued last November by the two departments). A notable sidelight on the growth is that it will stem from increased suburban building.

The boosted figure is interesting on two counts: 1) Its size suggests that building will provide a balancing quality in the key "private investment" sector of the gross national product to offset expected '55 declines in new equipment buying and inventory and 2) it still does not mean the nation is in danger of overbuilding.

**Theory of relativity.** Domestic investment under the GNP (the other categories are personal consumption expenditures, which are up, and government spending, which is down) depends 50% on construction of all sorts. Business inventories and business buying of

equipment, both of which are declining, make up the other 50%.

The fact that even with record-breaking dollar volumes of construction there is still room for expansion in building was neatly put last month by Dr. George Cline Smith of the F. W. Dodge Corp. in a comparison of the present boom and the last great boom in 1927. Dispensing with what he calls the "rubber yardstick" of dollar-measurement of construction and translating today's rate of construction (\$36-37 billion) into 1927 dollars, he comes up with a figure of \$14 billion, only \$2 billion more than the high in the 1920s of \$12 billion. Moreover, new construction per capita in 1927 was just about twice what it is in 1954, taking cost into account.

**Rent or buy?** Less promising were signs that slowly but surely a crack is opening in the rental market. While new construction of rental units has been crippled by recent legislation, vacancies appearing in existing apartments in Los Angeles, Houston, certain cities in Florida and elsewhere suggested there may be enough apartments (except luxury) anyway. Louisville, as typical a housing market as any and enjoying a building boom, showed a 65% increase in rental property newspaper ads the first nine months of this year over last. Easy or no down payments were pulling buyers into the suburbs. Whether or not the vacancies—not yet really severe—were in more dilapidated buildings had not yet been clearly determined, but the trend had started.

## Democratic win will shift committee lineups, but housing policy should stay about as is

Last month's national election results should not produce great change in Congressional attitudes toward housing. The Democrats—barring upsets in vote recounting—will control both houses and will head up all committees. But because so many of the new men in power have conservative leanings, the balance of power—except in certain specific areas—will shift only slightly.

Most significant change will involve the banking committees of both houses, where basic housing legislation is shaped. The House banking committee lost four GOP members—through defeat or decision not to run—and one Democrat. When the committee is reorganized in January, it will probably be cut from 30 to 29 members—16 of whom will be Democrats and 13 Republicans. In line for chairmanship: Brent Spence of Kentucky (see

cut), an amiable, elderly (80 this month) party wheelhorse who ran the committee during part of the Roosevelt administration and under Truman.

The Senate banking committee was not changed by the election, but the vacancy caused by the death of Sen. Burnet Maybank (D, S.C.) will have to be filled. Another Democrat will be added to give the party an 8-7 majority; one Republican will have to be bumped—probably Barry Goldwater of Arizona because he is low man on seniority.

**New directions.** The biggest difference will be in the chairmanship. When Homer Capehart (R, Ind.) steps down in the new congress, the man to step up will be Sen. J. W. Fulbright (D, Ark.). Fulbright, a Rhodes scholar and ex-president of Univ. of

Arkansas, has occupied himself largely in the field of foreign relations. He has a consistent voting record as a supporter of public housing but also has voted for FHA bills and amendments with equal consistency.

He has gone more deeply into housing on a couple of occasions. In 1950 he expressed some concern over the 608 program, his view being that a program of such liberal financing should not be kept on the books very long after the post-war housing shortage had been relieved. More significant was his stand on the much-advertised "middle income" housing bill that Sen. John Sparkman (D, Ala.) and a number of other Fair and New Dealers (and some liberal Republicans) were pushing the same year. Fulbright took the position that such a bill—its essential feature was government underwriting of a several-billion-dollar bond issue to finance cooperative housing—was ill-timed because of its invitation to inflation. At his insistence,

TIME: John Zimmerman

United Press



SPENCE



FULBRIGHT

the Federal Reserve Board—whose opinion had been carefully not solicited by the legislators for fear it would be hostile—was asked to testify. Fulbright's hunch proved correct. Fed testimony upset the applegart and the bill was buried in the debris.

**Armistice in sight.** Under Democratic leadership the Senate banking committee is expected to let the six-month-old investigation of FHA (p. 46) die when the resolution authorizing it runs out in February. There has been some talk of "investigating the investigators"—to find out how the mess started—but nothing is expected to come of it.

In other directions, new investigations seemed likely. The Democrats have made it clear that they will dig into the administration's history of "security" firings, try to find patronage abuses. And Sen. Sparkman has said he will ask for an investigation of the administration's so-called hard money policy, charging that this may have netted banking interests some "pretty powerful windfall profits." Among other matters, he wants to ask administration officials whether it was really necessary to raise FHA and VA interest rates to 4½%—an old Democratic argument being that government-backed mortgages should pay stingy interest because of their safety.

**What chance public housing?** Public housers themselves were not optimistic about getting their program revived. A more lenient attitude toward it will result from the ex-

change of chairmen on the two banking committees—Fulbright and Spence for Capehart and Jesse Wolcott (R, Mich.). But influence on two other committees, which hold life and death power over public housing, swung the way of the conservative Southern Democrats, who were even less likely than ever to back public housing now that the Supreme Court school integration decision hinted that public housing in the South would soon be of mixed racial occupancy, too.

The House rules committee—through which all bills must go to get legislative right of way—will be headed by Rep. Howard Smith, a conservative Democrat from Virginia who detests public housing. And the money group—the independent offices subcommittee in the House—will be under Rep. Albert Thomas (D, Tex.), who is dead set against public housing.

**More steam ahead.** Democrats—northern or southern—have always been less inhibited than Republicans on orthodox federal spending. So increased military construction, highways and school aid are good bets. On housing legislation, prospects are less definite. Action to loosen up rental housing is doubtful. Extension of the FHA Title I repair loan program, which runs out in July, promises argument. Sen. Capehart has said he will oppose continuation if abuses are still going on. The Democrats are expected to be a little more in favor, on the supposed premise that if the banks take over such insurance they would limit credit to their own customers and would charge close to 15% rather than the approximate 9.4% true interest now charged under FHA. Other election news of building:

▶ Sen. Homer Ferguson (R, Mich.) was defeated by Democrat Patrick McNamara, who for 18 of the last 21 years has been president of Local 636 of the AFL pipefitters in Detroit. He is also vice president of the Stanley Carter Co., contractors, has stated that “the construction industry is my vocation and construction labor is my avocation.” Other Congressmen close to building: Paul Schenck (R, Ohio), realtor, reelected to the House; Joel T. Broyhill (R, Va.) homebuilder, reelected to the House; Mrs. Gracie Pfof (D, Idaho), realtor, reelected to the House.

▶ Voters approved some \$1.3 billion of building bond issues, mostly for schools and hospitals. Referenda in New York and California led the race with \$350 for mental hospital construction in New York and \$200 million for public housing and slum clearance and a \$100-million school program in California, plus \$175 million for veterans’ farm and home loans. A number of communities in California pitched in individually on bond issues, including San Francisco, with \$5 million for a major league ballpark, among other items, and Long Beach, with a \$32.5 million school issue. In Sacramento, a \$1.5 million issue to pay the city’s share in redeveloping 15 blighted blocks did not receive the two-thirds majority neces-

sary for general obligation bonds. Civic leaders and officials of the local redevelopment agency, however, felt that the city council had received enough of a mandate (the vote was 31,200 in favor and 24,478 against at last check, with absentee ballots still uncounted) to proceed. The council can approve issuance of revenue bonds for the purpose without an election and probably will.

▶ Frank Lloyd Wright won an election in Wisconsin. Madison voters approved him as architect of a long-proposed civic center and

auditorium, also approved a bond issue for the auditorium and voted for a site on Lake Monona advocated by Wright. The latter had drawn up plans for the spectacular center, to be cantilevered over the lake, 15 years ago. “I am immensely encouraged . . .” he said after the voting. Ironically enough, the people’s support came only a few days before the great architect announced that he would move his Taliesin East out of Wisconsin altogether (p. 53) because of a court ruling that it was not an educational institution and was therefore subject to local taxation.

## SIDELIGHTS

### New York’s slum fight

Spurred on by deaths from escaping gas in substandard apartments, New York moved to tighten its multiple dwelling law into one of the nation’s stiffest local weapons against spreading blight. A new law, personally supported by Mayor Wagner, was up for city council action, containing prohibitions against alterations to the city’s 421,000 old law (pre-1901) apartments unless such change would upgrade them, rules against overcrowding (no more than two adults per sleeping room) and provisions making it a criminal offense to overcrowd tenements. Meantime, it seemed likely that City Magistrate John Murtagh would abandon the mass hearings on housing violations he has been holding. (Some 9,432 landlords appeared in court one day a few weeks ago to hear a 10-min. warning on getting their properties in shape; the Bar Assn. protested such mass hearings were not justice. Deputy Housing Commissioner Bernice Rogers, struggling with the problem of unhealthy living conditions for so many of the city’s 450,000 Puerto Ricans, told a mass meeting of same that they should try to buy low-cost houses in New Jersey and Long Island. Her suggestion, the *New York Times* reported, was greeted with sarcastic laughter.

### Air-conditioning costs

With adequate insulation, a central air-conditioning and heating unit can be operated in a small house in any typical US climate for less than \$150 a year. So says Engineer Frank E. Parsons of the National Mineral Wool Assn. Parsons last month gave students at the University of Illinois’ advanced school for home builders these figures on costs of year-round heating and cooling for an 1,040 sq. ft. one-story, frame home consisting of living room, kitchen and dinette, two bedrooms, bath and hall:

	WITHOUT INSULATION	WITH INSULATION
Atlanta . . . . .	\$282.00	\$102.80
Dallas . . . . .	344.50	136.40
Jacksonville . . . . .	404.80	133.00
New York . . . . .	246.00	87.20
Oklahoma City . . . . .	300.48	116.80
St. Louis . . . . .	331.80	121.00
Pierre, S. D. . . . .	314.60	115.50

The statistics came from a study by two research associates at Illinois’ college of engineering—Herbert T. Gilkey and Donald R. Bahnfleth. The insulated house had 4” of mineral wool in the ceiling and 3” in the side

walls. With insulation, Gilkey and Bahnfleth found a 2-ton conditioning unit would serve in all seven areas studied. Without it, five of the cities would require a 5-ton unit and New York and Jacksonville would need a 7-ton unit. Equally vital: shading of windows to cut direct sun heat.

Some other experts are willing to shave Parsons’ \$150-a-year cost estimate still further. Builder Ned Cole, for instance, figures the typical \$12,000 to \$15,000 house in NAHB’s air conditioned village (H&H, Aug. ’54) can be heated and cooled all year for an average of only \$100.

### Lumberman bites sawmill

“The trouble is we are not looking at lumber correctly. Lumber is lumber, but it is not lumber. It is cell structure.” Julius Stulman, wholesale lumber distributor and lumber depot chief in Brooklyn, N.Y., was one of at least two authorities who took exception to the Weyerhaeuser Timber Co.’s 20-year lumber preview, as prepared by the Stanford Research Institute (H&H, Nov. ’54, News). “Extremely misleading,” said Stulman of the report’s conservative estimate of lumber use in 1975, added that if the industry could get away from “fixed thinking” and get going on chemical development “the use of sawmills will become obsolete.” (H. Dale Turner of Olin Industries, Inc. gave a report to the Forest Products Research Society last spring concerning the work being done to convert wood particles to resin bonded panels.) “I say that the lumber industry is wasteful and antiquated because it looks at lumber as its forefathers did,” said Stulman, “instead of understanding that it is a uniform product of cells. . . . We will pour the cells into molds which can be shaped like chairs or anything else we want to make.”

Meantime, Elizabeth Gordon, editor of *House Beautiful*, decried the report’s report that the average dwelling unit will stay at about 1,000 sq. ft. from now till ’75. “I am willing to go on record with you, officially, that this prediction will prove to be very wrong in ten years,” she told directors of the National Lumber Manufacturers Assn. in Washington. “The people, whose daily life is blossoming, are not going to want to live in tiny, boxy houses.” (*Other NLMA news on p. 53.*)

# Subdivision pinch grows

**Jersey builders joust with communities over 'arbitrary' zoning rules. Denver developers fear loss of expected water. Solutions look hard to achieve quickly**

The pinch of rising land costs and growing subdivision restrictions was really beginning to hurt. When President Richard D. Hudson of the New Jersey Home Builders Assn. sounded off last month at his state convention, his cry typified the increasing frustration many a builder felt over zoning, sites, school shortages—even water shortages.

Said Hudson: "Arbitrary action exercised by local municipalities . . . has practically stopped the building of houses under \$14,000. . . . We cannot stand by and allow snob zoning to deprive citizens of the privilege of owning homes, regardless of size. It is not uncommon for municipal officials to zone against the very type of home they themselves now occupy. . . . We must find some means to stop municipalities from establishing unreasonable subdivision regulations. There is absolutely no sense in requiring the thickness of pavement in the average subdivision, that only contains residential side streets, to be half again as thick as our main state highways, as there isn't any good reason for requiring a lot to have a frontage of 120' when the area is completely surrounded by lots 60' wide, or that all streets shall be completely finished before a building permit is issued, only to receive heavy trucking during construction. . . ."

**Problem of brainpower.** Builders' current problems in New Jersey date from January, when a new Planning Act which homebuilders helped to draft went into effect. Its aim was laudable: prevent hodgepodge land development, bad street layouts, bad site improvements which were threatening much of the Jersey countryside with future blight. The law empowered municipalities to create planning boards to control subdivisions (or exercise the powers through the local governing body). The difficulty, as Builder Counsel Alexander Feinberg explained, is that "because many towns feel they are defending themselves from future economic disaster from the school and community facility costs that home development might necessitate, they've imposed zoning legislation that blocks the developer."

Where they might have least expected it, the Jersey builders got encouragement. The chief drafter of the law urged them to take municipalities into court if their planning requirements seem unreasonable. Attorney Fred Stickel pointed out that because a Jersey court has upheld a 768 sq. ft. minimum house size in the village of Lionshead Lake, it did not mean that another city could make a 2,000 sq. ft. minimum stand up in court. Said he: "The sq. ft. area has got to be reasonable and in keeping with the community. . . . The difficulty is we've got a job of educating these planning boards . . . to the point where they know what they're doing."

One key case is already on file in Burlington County court. Firth & Goodley Homes contend the Cinnaminson Township zoning board and town committee are "unreasonable" in requiring one-acre plots. The area, mostly farms, has no great market for the \$25,000 homes builders say one-acre plots would involve. Jersey builders also are urging the state itself to set down some standards of reasonable planning requirements to guide local zoning boards.

Another problem, noted by ex-NAHB President Manny Spiegel of New Brunswick, N.J.: "In most cases we're obligated [for site planning] to use a township engineer—or we encounter delaying tactics. In many cases, he's incompetent."

Difficult a hurdle as they are, zoning requirements shrink to pint-size beside the school problem confronting more and more US builders. The suburbs—where nearly all new homes go up—are already short of schools. Each home is likely to add a couple of kids to the classroom load, but pays less municipal taxes than it costs the average city for supporting facilities and education. The University of Connecticut recently surveyed the net loss per house per year in three Connecticut suburban cities: \$54.19 in Hamden, \$62 in Manchester and \$46.13 in Winsor.

As Asst. State Education Commissioner

Kenneth Woodbury told New Jersey builders last month, two-fifths of Jersey's 560 school districts already have reached the limit of legal bonded indebtedness to finance more building. His solutions: 1) put the state's credit behind local school bonds to cut the high cost of school financing in some districts (range: 1.7 to 3.6%); 2) emergency state aid for some impoverished school districts. (California meets this problem by 30 year state loans to school districts which have reached 95% of their bonded debt limit, to permit building up to 55 sq. ft. of classroom per child. If a 3 mill realty tax does not repay the loan in 30 years, the balance becomes a grant.)

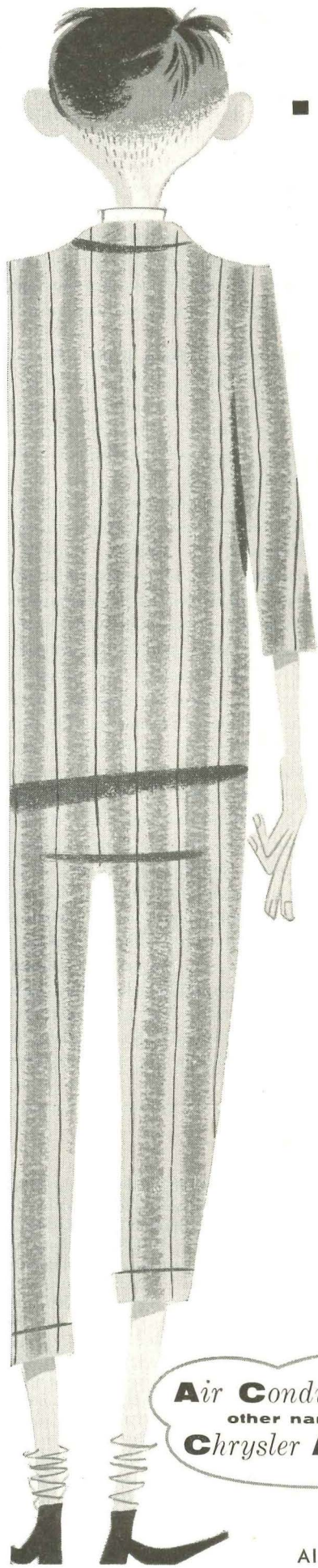
**Are school fees just?** The high cost of schools (one pertinent question is whether educators are demanding palaces beyond the means of their communities) has led not a few towns to suggest homebuilders collect a school fee from their buyers, turn it over to the town for schoolbuilding. "Absolutely illegal in New Jersey," cautions Lawyer Stickel. Moreover, as Builder Rodney Lockwood pointed out to a recent builder-school official huddle in Detroit, such a setup would mean the home buyer is being taxed twice, once when he buys and again in his general realty tax.

NAHB Economist Nat Rogg argues that paying a school fee amounts to surrendering the benefits of the new market tapped by the '54 Housing Act. Rogg figures the new market consists of the 3.3 million US people who have between \$1,000 and \$1,500 in cash, plus the \$2.8 million who have from \$1,500 to \$2,000 cash (according to Federal Reserve statisticians). Considering all this, NAHB leaders have decided to campaign "to resist special levies and adhere to the principle that responsibility for public education and facilities belongs to the entire community." Making this stand stick, however, could touch off major battles over municipal tax practices. Consolidation of school districts would help. Around Detroit, for instance, there are 150

## DEVELOPMENT TROUBLE IN TWO CITIES

*Fresh trouble besetting housing developers was easy to find last month across the nation. Two of the worst cases also typified the problems: In Denver, the Colorado State Supreme Court stunned developers by ruling, 5-4, that the city has no claim on water from the Blue River. The river, west of the jagged continental divide, is considered the only feasible source of water to keep Denver expanding after the mid-sixties (currently its population is surging 5% a year and the city is amidst a housing boom). Builders immediately began cutting back. Contractor Del Webb, who was planning a \$100 million development of 6,000 homes and expecting to tie into Blue water, said he might have to pull out. Feeling against the decision ran so high that Chief Justice Mortimer Stone, who wrote the majority decision, was overwhelmingly defeated for re-election a month later. This might lead the court to reverse itself on a rehearing sought by the city water board. Gov.-elect Ed Johnson, popular on both the water-shy east slope of the*

Rockies (where 80% of Colorado lives) and on the well-watered west slope, said he could work something out. Builders crossed their fingers. **St. Clair Shores**, a Detroit suburb where the volume of building nearly doubled this year, banned residential building entirely for some three weeks. Mayor Thomas Welsh, a real estate man himself, blamed the move on "the critical lack of public facilities, especially schools." Under pressure from the building industry, the city lifted the ban in mid-October but almost doubled the cost of building permits. It adopted a unique ordinance giving the council the power to suspend issuance of permits again if it finds public services are inadequate for new building. Under the doubled fees, the cost of a permit for a \$10,000 home jumped from \$78 to \$141. The council ruled some 500 applications made while the ban was on would have to be refiled under the higher fee (meaning about \$35,000 more for the city). Homebuilders were studying whether to fight this in court.



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school districts, but only 105 building permit issuing offices. One result: little advance planning by schools on what suburban development will do to them.

**Road to regional government.** School district consolidation points along the road to a broader solution which such experts as Architect Harry Weese call the "logical answer." It is metropolitan government—a step which so far has been tried only by Toronto, Canada Toronto-brand metropolitan government, a semimerger in which suburbs retain their identity, government and civic jobholders, is a more politically palatable answer to the need for regional planning than outright annexation. The situation in Massachusetts points up the impossibility of solutions through annexation. Reported HOUSE & HOME's Boston correspondent:

"Annexation could help to pull the communities together into a cooperative working unit, but the suburbs want nothing to do with the high taxes and rackets long associated with Boston's government. It will take 50 years of good government in Boston to bring outlying communities to vote in favor of cooperation."

**Will land pooling work?** Increasing community acceptance of the idea of balancing new housing with new industry is helping smooth the way to housing development in some cities. So is wholesaling of land by big developers (and more and more housing is going into BIG developments as the nation exhausts its supply of developed sites). Cooperative land buying has cut construction costs for builders who tried it in Milwaukee under guidance of Rite Realty Co. But many experts are skeptical that this will work generally. Says Vice President Skee Taubin of Long Island's Trylon Realty Co.: "In these land transactions, nine times out of ten a purchase money mortgage is taken back. The farmer doesn't want to accept a mortgage with three names on it."

Land cheap enough for a \$10,000 house is receding from the edges of cities faster than highways cut commuting time. Around Hicksville, not far from Long Island's Levittown, raw land sold for about \$1,100 an acre in 1948. Today, says Builder Leonard Frank, the price is about \$10,000 an acre. So the \$10,000 house goes up in Centereach, 60 mi. from Manhattan. Centereach has such a classroom shortage that it leased ten new homes from K. K. W. Construction Corp. for temporary schools use this year.

Despite the increasing difficulty of doing so, builders were being urged by top federal housing men to build more low-price homes. This puts the homebuilding industry in the position of being tugged in opposite directions—toward low-cost housing by the federal government, toward high-price housing by local governments which cannot afford low-cost housing now that the federal government grabs so much of the nation's tax dollar. If private industry cannot put up low-cost homes, builders fear the government will step in with public housing.

## Savings and loan groups, spurred by easier FHA terms, seek approval for 90% loans

A group of savings and loan men are urging the federal Home Loan Bank Board to start insuring 90% mortgages for savings and loan associations.

The idea springs from S&L efforts to get themselves—and perhaps other conventional lenders—into the high percentage mortgage loan field now that the new Housing Act has so greatly liberalized FHA terms. Unless some sort of scheme to make S&L conventional loans more competitive can be worked out, many a savings and loan executive faces the distasteful prospect of expanding his FHA portfolio (H&H, Oct. '54, News).

The plan—still in the preliminary discussion stage—would have important differences from FHA mortgage insurance. The HLBB is being asked to insure only the riskiest 10% part of each loan. Federal S&Ls—there are some 1,600 of them—already have power to lend up to 80% of appraised value on a house for 20 years. The new scheme would empower them to lend up to 90%. It also calls for pooling the 90% mortgages (à la FHA Title I repair loans) so the bank board need not create FHA-style red tape and a staff of appraisers and underwriters. Many details, like how much the insurance premium should be and what safeguards against mortgaging out, are still unsettled in the minds both of bank board officials and sponsors of the new plan. Any such set up would require a law from Congress, so the outlook is for no immediate action.

Another way to keep savings and loans in the running for loans—this one already discussed by the Home Loan Bank Board—might be to permit federal S&Ls to lend up to 90% conventionally, and also extend the maximum amortization from 20 to 25 years. Sources close to the board said last month that indications were the board leaned toward approving this set up, but how soon was hard to tell. Some board members feel permission to make 90% conventional loans would require new safeguards. Samples: a limit—perhaps 15%—on how much of an institution's portfolio could be in 90% loans, an affidavit from the borrower certifying he really has a 10% investment in the house involved.

### Merger of savings & loan leagues strikes new snag

More than a year's joint effort toward merger by committees of the US Savings & Loan League and the National Savings & Loan League was stalemated once again last month when US executives gagged over a veto power suggested by the National committee.

Directors of the big US League (close to four times the size of the National) voted in Los Angeles to reject last minute amendments to the joint merger agreement offered by the National League. At its own meeting last

month, National asked that any four of the seven members it had been promised on a unified, 22 man executive committee be given the power to veto actions of the entire committee on such matters as hiring a director and firing any National employees taken into the joint management group.

"A slap in the face," commented Henry Bubb of Topeka, chairman of the US League's unification committee. "Four persons shouldn't be permitted to override our 15 executive committeemen chosen through our state leagues. . . . I'm allergic to a veto power. . . ."

Bubb, in his report to the directors, maintained that his men and representatives of the National League had worked for unification and were sincere in wanting it. His committee's argument against the suggested new provisions for the all-but-adopted agreement was that they would give a minority group in the merged organization too much power. There was still a chance the merger might go through. Under the unification agreement, worked out by committees for the two leagues, the merger can be approved through Dec. 31. The leagues had a few weeks of grace.

### New FHA Sec. 222 attracts soon-to-retire servicemen

Several times amidst this season's flood of FHA applications, Commissioner Norman Mason has philosophized that Americans are quick to sniff out a bargain. Last month, by the time FHA and the Pentagon had labored out the rules for FHA's new Sec. 222 for military housing, bargain-hunters were on the scent. Mason said his office was "flooded" with inquiries from servicemen who will retire in three or four years.

Their interest was easy to explain: Sec. 222, a creation of the last Congress, offers the most attractive terms in the 1954 Housing Act. It lets men in the armed forces buy an \$18,000 house (new or old) with a 95% mortgage (above \$18,000, the price must be added to the down payment). Still better, the armed forces (and the taxpayers) will pay the ½% FHA insurance premium.

FHA intends to confine Sec. 222 to areas of long term marketability. This will rule out isolated military bases and static areas. To get a Sec. 222 house, a serviceman must have been on duty at least two years and must get his commanding officer to send FHA a certificate that he needs housing. The Pentagon will require him to live in it when built, unless he is transferred.

One big advantage to builders eyeing this new market is FHA's intention of imposing no arbitrary rule that Sec. 222 homes be cheek by jowl with a military base. FHA officials are inclined to see the entire Washington, D.C. area, for instance, as a reasonable place to live for a man stationed there.



H&H Staff photos

**PRESIDENT EISENHOWER**, endorsing ACTION at its kickoff lunch, got off one of his better wisecracks. Turning to Maj. Gen. Frederick A. Irving (ret.), who is ACTION president, the Chief Executive said: "Old soldiers are, after all, supposed to fade away. We just seem to reappear."

**SHARING THE LAUGH** with the President were (right of rostrum) Gen. Irving, HHFA Administrator Albert Cole and Health-Welfare-Education Secretary Hobby. Eisenhower also remarked he thought ACTION "worked up the initials and then worked out a title to go with the initials."

## President gives slum-fighting council warm sendoff

**ACTION attack on neighborhood deterioration is 'a job that must be done,' says Eisenhower. HHFA's Cole warns replanning of cities, relocating minorities is vital**

The American Council to Improve Our Neighborhoods had its inaugural sendoff last month with the warmest endorsement President Eisenhower has yet given to any group in housing.

At the council's kickoff lunch in Washington's Mayflower Hotel, the President said: "This group seems to represent, to me, much more definitively and much more emphatically than do most, almost the philosophy of government by which I try to live: that federal government has certain functions, but that federal government, or any other government of the kind that we have, can succeed only as the locality and as the individual citizen does his full part and seeks ways of organizing and combining together to do his part collectively and locally . . ."

"So, with the million houses, I am told, becoming slums each year, to find the local people undertaking to do something about this to stop this kind of economic deterioration, is very wonderful."

**'Job that must be done.'** The council—it expects to be known by its initials, ACTION—is a national nonprofit, nonpolitical citizens' group aimed at improving US living conditions by removing slum conditions and by rehabilitating and conserving neighborhoods facing or threatened with blight (H&H, Nov. '54, News). Eisenhower called this "a job that must be done," because, among other reasons, slums cause "the erosion of the decency and the dignity" of people who live in them. "For the work you are going to do," said the President, "my profound gratitude."

Some 200 of the nation's top people in housing (everybody from Washington Banker Frank Addison to Realtor Bill Zeckendorf) heard Eisenhower's 2-min., off-the-cuff talk, then downed hearts of lettuce salad, chicken and a parfait and listened to Presidential Aide Gabriel Hauge and HHFA Administrator Albert Cole give thoughtful analyses of how they hope ACTION will help to stem the sweep of blight over US cities.

Said Hauge: "There is a paradoxical

quality in the position of the American city of today. . . . Our cities are preeminently the product of technological progress. . . . Yet we have been embarrassingly backward in applying to the improvement of our cities themselves the technological and organizational efficiency that has brought such rich rewards in industrial and agricultural production. In this paradox lies the challenge that makes the formation of ACTION the exciting event that it is. . . . Only in applying to the task of improving our cities the same technical and organizing skills that have brought progress in all other aspects of our economy can we make real headway in the right against urban blight and neighborhood decay. . . . We cannot hope to make satisfactory progress in the solution of



HAUGE

our perennial housing problem unless we can somehow master the problem of the aging structure and the declining neighborhood. In these pockets of decay we can easily lose all or more than what we gain by new construction. . . ."

**'New ally' against blight.** Cole called ACTION a "significant new resource and a new ally" in the urban renewal objectives of the new Housing Act. He warned that results hinge on joint efforts of industry, government and public and national leadership make the public understand how slums can be prevented and cured. He stressed that neither public housing, nor "paint-up, fix-up campaigns" alone have done the job.

Attacking blight at its roots, warned the housing administrator, will require replanning many a US city to give it "more elbow room for industrial and business expansion, for public and community facilities, for traffic, public services, and recreational and cultural requirements." He also warned: "If we get rid of the blighted areas where the larger part of our minority families live, we are going to have to take down some of those no-trespassing signs in wholesome areas and enable those families to live in good homes and healthful neighborhoods. . . ."

## FHA probe halts after six months, 533 hearings; 35 'windfallers' get off blacklist

The probe was over.

Six months and 533 hearings after Guy Hollyday was booted out last May, Chairman Homer Capehart (R, Ind.) of the Senate banking committee announced that he was going to Rio and there would be no more investigation until January.

No question but that more investigation needed to be done, according to the senator ("We only scratched the surface"), but for the time being—and in light of the fact that the Democrats last month gained control of both houses (p. 41)—there would be a short pause for an interim report.

Tales from the investigatory woods were waltzed all over the nation during the campaign. Postmaster General Summerfield announced in Knoxville, Tenn. that the housing

loan program was "the biggest scandal this country has ever known." In California, Vice President Nixon said it was "the biggest scandal in America's history," added that "We are just now beginning to learn the shocking truth of who the rascals were and how bad they were."

No doubt these shocking truths were still hazy to some. Capehart reported his committee had seen 1,200 witnesses and taken 25,000 pages of testimony. (And expenses had been only \$143,689.76.) But until some sort of order was made out of the questions and answers, the results were unclear. Capehart said he would sit down with Sen. Fulbright, his successor, and discuss how the interim report would be compiled. It was expected the middle of this month (the full report would



not be ready until next year) and an intriguing question was whether one report would be prepared or whether the Democrats, in their new graduation from minority to majority, would force Capehart to relegate his findings to a minority position.

**No list at all.** FHA continued to insist last month that its so-called black list that had been noised around as prohibiting several score alleged 608 windfallers from doing any more FHA-insured business was really no list at all, simply a practice that might be called "temporary suspension of processing," which applied to all builders being investigated. Local offices were to call headquarters to check before processing a loan. But since no one was sure who was being investigated, the field was wide open. The Justice Dept. and HHFA were mixed up in the process of casting blame here and there. Latest news was that 35 companies and/or mortgagees (officials would not say which) had been freed from "suspension of processing." The total on the "list" had been 308 companies and less than 100 mortgagors. Other developments:

▶ HHFA Administrator Albert Cole announced that action had been taken to recover windfalls totaling nearly \$7 million on five 608 projects in six states. Presidents of the corporations had been directed to call meetings of preferred stockholders (of which FHA is one in all cases) to elect new directors and get possible charter defaults (allegedly operating to the harm of the tenant) corrected. The projects: Farragut Gardens, Brooklyn, N. Y.; Beverly Manor, Columbus, O.; Clifton Park Manor, Wilmington; Baldwin Gardens Co., Los Angeles, and Billy Mitchell Village, San Antonio.

▶ Sen. John Sparkman (D, Ala.) who apparently will take over the housing subcommittee of the Senate banking committee, said the investigation has "not been very realistic to date" and has been conducted "with one eye cocked on the political situation."

### FHA gains a trifle on its big backlog of applications

FHA began to gain on its unprecedented backlog of applications last month. It was a slow advance, however.

The agency began September with 53,000 backed-up mortgage insurance applications, ended the month with some 65,000. By the end of October, officials figured, the pile-up was cut only about 5,000; another 59,000 applications poured in on FHA during the month—an October record. Predictions that the squeeze would be ended by Christmas were being heard no more.

Most helpful of the four emergency moves FHA made in October to ease the logjam (H&H, Nov. '54, News) was its order to 75 field officers to work overtime and Saturdays. Some offices said staffers were doing three normal days' work on Saturdays with office doors locked and no phone calls.

Fee appraisers were being used sparingly.

Builders and realtors shied away from paying both the private appraiser's fee and the regular FHA \$20 appraisal fee, too. Most builders seemed afraid of the "conditional-commitment" under which FHA architects would check builders' plans against minimum property requirements and then issue a commitment with valuation left blank until underwriters got round to it later.

Despite revisions, FHA's appraisal delivery clause still was causing trouble. Now that FHA had responded to industry pleas by permitting sellers to insert their own guess at FHA appraisals (H&H, Nov. '54, News) and to let a sales contract be binding if the actual appraisal turns out no higher, a few realty men were "estimating" the FHA appraisal on a house at only \$1.

Warned one NAHB local last month: "Such a practice constitutes a clear evasion of both the spirit and the letter of the law and will be so treated by FHA." Commissioner Mason warned that if estimated appraisals are not within the bounds of plausibility, FHA will tighten up its regulations again.

## Public housers try to cut costs, gain favor in small towns with single-family prefabs

With their program crippled by the will of Congress, public housers are taking steps much like any manufacturer whose buyers are starting to desert him: they are trying to improve the product.

A midwestern experiment with single-family prefabs, public housers hope, may hold some of the answers to criticism of typical projects as "too institutional." They are even more hopeful that prefabbing will enable them to build cheaper; some local housing authorities have run into prohibitively high costs in recent months.

Says William E. Bergeron, director of PHA's Chicago office: "Use of prefab houses is radical. A whole project of single-family houses in the low-rent program is revolutionary."

**\$5,000 a unit cheaper.** The "revolutionary" experiment was undertaken by the Calhoun County Housing Authority in southwestern Illinois. Confronted by bids on conventional row houses of some \$10,875 a unit (36% above estimates), the authority bought 34 "Cadet" models from National Homes—22 for Hardin (pop. 929) and 12 for Kampsville (pop. 437). Cost: an average of about \$6,000 including \$800 of extras to meet PHA requirements\* (sample: added storage room on four-bedroom models). By comparison,

\* Washington PHA officials put the total development cost at \$9,896 per unit in Hardin, \$10,863 in Kampsville, including site acquisition and development, some \$210 worth of equipment per house, and contingencies. Negotiated price: \$5,958 at Hardin, \$6,024 at Kampsville where room average was bigger. Bergeron figured total development cost would have reached \$15,000 a unit with the conventional bids on hand.

## Gas, electric power fight for air conditioning market

The air-conditioning industry is the next battleground for the fierce war of the fuels: electric power v. gas.

Traditionally, the fuels (gas, oil and coal) have monopolized space heating while electric power has dominated refrigeration. But, said Gas Appliance Maker Sheldon Coleman in a speech at the American Gas Association convention in Milwaukee: "The electrical industry is mobilizing all the power at its command to take on, not just the summer cooling load, but the winter heating load as well. . . . We are moving into one of the most epic struggles in which any two major industries have ever engaged."

Major weapon of the electrical industry in its fight to corner the heating-cooling market is the electric heat pump. Electric appliance men hope to boost heat pump sales to a million units annually. Coleman's advice to gas men: spend \$1 million in four years to develop a competitive heat pump.

Bergeron told the Natl. Assn. of Housing and Redevelopment Officials, the average cost of all units in 24 other small projects in Illinois and Indiana was about \$8,000, and produced units with a third less floorspace.

The demonstration was carried out (first families moved in Oct. 1) under a little known provision of the 1949 Housing Act requiring 10% of federal public housing to be located in rural nonfarm communities.

**Maintenance costs.** One project, Bergeron warned, is not enough evidence to draw a broad conclusion that prefab public housing will save money. But he insisted that studies "indicate that operational costs of these units will compare favorably with conventionally built projects." He said the Chicago PHA office has come to these conclusions:

- ▶ Single-family prefabs compare favorably with conventional row houses on costs and could be used more often outside metropolitan fire zones where land costs are not high.
- ▶ Such houses are more compatible to small community housing than multifamily buildings.
- ▶ Being more conducive to family living, they are more acceptable and tenants will take more pride in maintaining them.
- ▶ Being adaptable to use on scattered vacant lots, they can be absorbed in the community unobtrusively, reduce the expense for new utilities and site improvements usually required for projects.
- ▶ Construction time can be reduced from eight or ten months to three or four months.
- ▶ Single-family houses would lend themselves to sale better than multifamily units.

## Prefabbers seek more dealers; industry shoots for 1955 output of 125,000 units

The nation's biggest prefabber summed up his current problems in these words last month: "The biggest job is not to create a market, but to get enough builder-distributors to take care of the markets we've already created."

Jim Price was talking above the glass-clinking at one of the parties his National Homes, as host company, gave for convening members of the Prefabricated Home Manufacturers Institute in Elmira, N. Y. Said he: "The trend is a single signing sale. It starts out with land acquisition and land planning."

Comment from his brother, George Price: "The biggest bottleneck of all is usable land. That and distribution points."

**What kind of builder?** The question of who to get to erect and promote their houses across the nation was in other minds, too. Prefabrication was on the march, but it would not stay marching without enterprising dealers to spread it on the map. "We're not looking for a glorified carpenter," said one Midwest manufacturer. "We're looking for a builder."

The definition of "builder" varied.

"You'll never get your job done with people who are strictly real estate men," said Paul S. Flack, sales manager for Weakley Lumber Mfg. Co. of Newark, Ohio. "Multiple selling people are the answer. Men who have been successful in other lines of business—anything in multiple selling."

"The conventional builder has never known what his costs are," asserted another prefabber, "and he never will."

"To lick this business you have to know your costs before you start developing the land," said Flack.

"It takes business management," commented Bob Weakley. "A lot of conventional builders don't have it."

Said Jim Price: "We want any description of an administrator, planner, businessman—the brain that makes the heart beat."

**Points of the compass.** Most prefabbers ship their product within a radius of 250 miles. National Homes ship theirs east and west to the coasts, already have 600 dealer outlets. With a predicted 50% increase in production in 1955 ("Those Price boys, they really got ahead of us," said another PHMI member at the convention), the company wants another 200 dealers, recently placed a full-page newspaper ad asking for volunteers. "The response dumbfounded us," said Sumner Robinson, new vice president in charge of sales for National. "I got 40 long distance calls, alone, from top people, including one of the richest men in Texas."

Hand in hand with campaigns to increase their sales outlets is a growing effort among prefabbers to supply the dealer with more services. "Five years ago it was good workmanship and materials," said Harry Leggett of Thyer Mfg. Corp. in Toledo. "Now it's more servicing in the field that's challenging the prefabbers. Site planning, color scheme, fi-

nancial aid, processing of paper, advertising and promotion. The question is, "What do you give them in addition to the product?"

**Prefab v. conventional.** Gen. John O'Brien, president of PHMI, opened the convention with a few remarks about whether the prefabbers should shoot for "mass or class building," decided that they were "more than previously shooting for both." More arresting was his prediction of the future state of homebuilding. "In five years," said O'Brien, "the conventionally-built house as we know it today in the \$15,000 price range will be a thing of the past. The public will not be able to afford a conventionally-built home." The implication, of course, was that what the public would be able to afford was a prefab.

How many homes will prefabbers turn out this year and next? The figure is not precise, but this year's output is generally rated at 75,000. In '55, a survey by HOUSE & HOME indicates, the industry may well reach 125,000.

## Public housing officials pledge their support to urban renewal, urge cabinet housing job

Although some advocates of the urban renewal program established under the new Housing Act hope it will cut the demand for more public housing, the National Association of Housing and Redevelopment Officials resolved to support urban renewal at its convention in Philadelphia.

In its resolutions, NAHRO also declared: "We will not stem blight by talk and publicity, nor renew cities by seeking to achieve broad objectives without adequate means"—one of which, it declared, should be re-expansion of federal public housing to 135,000 units a year.

NAHRO also recommended creation of a "cabinet-rank Department of Housing and Urban Affairs" to deal more effectively with "the problem of inadequate housing and the spread of slums . . . the most serious domestic problem we face."

Both retiring President Oliver C. Winston of Baltimore and new President Walter B. Mills Jr., 46, executive director of the Greater Gadsden (Ala.) Housing Authority, felt urban renewal could be very effective in checking urban decay. Mills said its success would be limited only by how much cooperation it wins from all interests in each community. He promised to follow Winston's recommendation to do everything possible to demonstrate to federal officials that "if urban renewal works it will be because NAHRO members made it work, that NAHRO wants to make it work, and

HHF Administrator Albert Cole's message for the convention was that "the largest new market for the expansion of private housing lies downward in the price scale and in the field of minority housing." (Southwest American Homes, Inc. in Houston, has been going in heavily for minority housing (see p. 55), first with FHA 608 and 207 rental units a few years ago (for rents of \$10 a week), more recently with privately-financed rentals and some more 207s at \$14.50 and \$16 a week. Vice President George Finch said the company had put up 150 VA houses (\$8,500-9,750) for non-whites in San Antonio in the past year). The subject of research, standardization and mechanical cost-cutting came up the last morning in an industry discussion under chairmanship of Richard Pollman of Detroit. Pollman has drawn plans for a complete plumbing-heating-wiring wall that he admits is in the "Model T stage" but which he would still like to see worked on by a manufacturer. Pollman's package is 7½' square and 16" thick and contains, among other items, an 80-gal. water tank. "The greatest thing that you can say about a thing like this," he said before the meeting, "is that it creates an excitement and if produced would give the contractor a greater element of cost control." Plumbing and electric men at the round table thought that Pollman's invention as now drawn would be expensive to produce.

Doris Granfield



Outgoing Pres. Winston (l), and Pres. Mills

it will work if we all go at it as partners and co-workers—not as competitors."

Born in Birmingham and educated as a civil engineer at Birmingham Southern College and the Citadel, Mills was a wholesale oil distributor when appointed chairman of the Gadsden authority in 1938. He resigned as an unpaid commissioner to become the authority's executive director in 1941. Known for his pleasantries and throaty Southern accent, he holds a reserve commission as a lieutenant colonel in the Marine Corps, in which he served during World War II. At college he played football. Now he golfs (75 to 80).

HOUSING STATISTICS:

## Revamped Fanny May will do little volume, say experts

Last month found the Federal National Mortgage Assn., her face lifted by the Housing Act of '54, ready to do business with anyone desperate enough to pay her price.

Most mortgage men doubted that Fanny May would do much business. Even in exercising her special-purpose function (currently loans for families de-sheltered by Hurricanes Carol, Edna and Hazel), Fanny May made it clear she was not in business for the fun of it. Discounts on disaster loans were posted at 1/2 to 1 1/2 points; in addition there will be a 1/2% charge on the face amount of the mortgage as a purchase and marketing fee and a total of 1 1/2% where buyers want an advance commitment.

In the regular secondary market operation, where Congress tried to break Fanny May's reliance on the Treasury for money so as to pave the way for eventual private ownership, it will be even more costly to do business with the US mortgage company. Discounts, determined for various types of loans on a statewide basis at Fanny May's estimate of market price, vary from 1/2 point to 4 points. The purchase and marketing fee is 1/2 to 1%, depending on how hard Fanny May thinks it will prove to sell the loan involved (the new Fanny May will not buy only to hold, but also to resell).

Additionally, Congress requires that anybody selling a mortgage to FNMA buy capital FNMA stock equal to 3% of the outstanding amount of mortgages sold. If buyers view the 3% investment purely as a disguised discount, the cost will be forbiddingly high; not only is 3% a lot of discount, but being technically a capital investment it cannot be written off taxwise as a business expense. FHA will let approved mortgagees count FNMA stock as part of their required net worth (as can federally chartered S&Ls). The low dividend rate—currently set at 2% by the Treasury and perhaps to go to 2 1/8% after the first of the year—will discourage both mortgage companies and builders from holding the stock. They will probably sell, even at a big loss. Taxwise, even a 50% loss might be no worse than if the seller had to pay an outright 1 1/2% extra charge to Fanny May (in addition to the other fees and discount). S&Ls may be in the market for the stock—at a price.

### MORTGAGE MARKET QUOTATIONS

(Originations quoted at net cost, secondary market sales quoted with servicing by seller)  
As reported to HOUSE & HOME the week ending Nov. 13

City	FHA 4 1/2's		5% equity or more VA 4 1/2's		No down payment VA 4 1/2's	
	Origina-tions	Secon-dary	Origina-tions	Secon-dary	Origina-tions	Secon-dary
Boston local	par-101	a	par-101	a	par-101	a
Out-of-state	a	99-par	a	99 1/2-par	a	97-99
Chicago	97-99	99-par	97-99	99-par	96-97	98-99
Denver	99-par	99-par	99-par	99-par	99-par	99-par
Detroit	97 1/2-99	a	97 1/2-99	a	96 1/2	a
Houston	par	par	99 1/2-par	99 1/2-par	98-99	98-99
Jacksonville†	par	par	par	par	98 1/2-99	98 1/2-99
Kansas City	99-par	par	99-par	par	96 1/2-97	98
Los Angeles	99-99 1/2	99-99 1/2	98-98 1/2	98-98 1/2	97-97 1/2	97-97 1/2
New York	par	par	par	par	par	par
Philadelphia	par	par	par	par	99-par	99-par
Portland, Ore.*	par	par	par	par	98 1/2-99	98 1/2-99
San Francisco	par	par	par	par	96 1/2-98	96 1/2-98
Washington, D.C.	par	par	par	99 1/2-par	99-par	98-par

a No market.

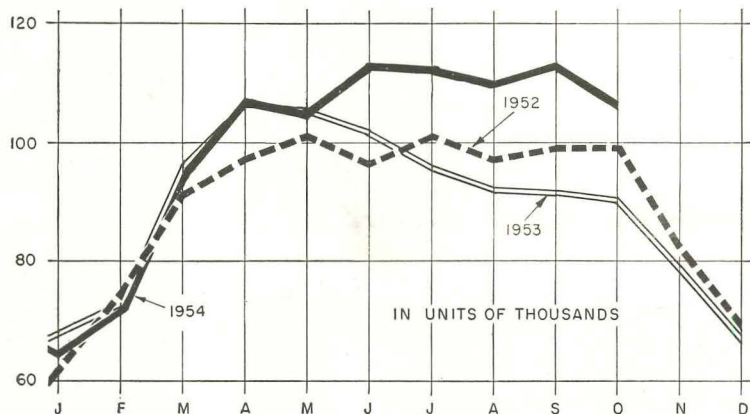
\* Probable prices throughout Pacific Northwest.

† Probable prices throughout Florida.

SOURCES: Boston, Robert Lawrence, asst. treas., Boston Five Cents Savings Bank; Chicago, Maurice A. Pollak, vice pres. & secy., Draper & Kramer Inc.; Denver, C. A. Bacon, vice pres., Mortgage Investments Co.; Detroit, Robert H. Pease, pres., Detroit Mortgage & Realty Co.; Houston, John F. Austin, Jr., T. J. Bettes Co.; Jacksonville, John D. Yates, vice pres., Stockton, Whatley, Davin & Co.; Kansas City, Byron T. Shutz, pres.,

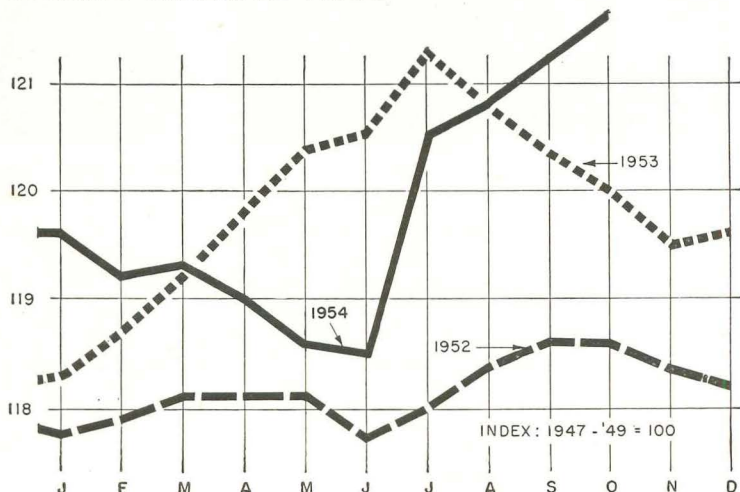
Herbert V. Jones & Co.; Los Angeles, John D. Engle, pres., Insurance Funds Mortgage Co.; New York, John Halperin, pres., J. Halperin & Co.; Philadelphia, Laurence J. Stabler, exec. vice pres., W. A. Clarke Mortgage Co.; Portland, Franklin W. White, pres., Securities, Inc.; San Francisco, William A. Marcus, senior vice pres., American Trust Co.; Washington, D. C., George W. De Franceaux, pres., Frederick W. Berens, Inc.

### PRIVATE HOUSING STARTS



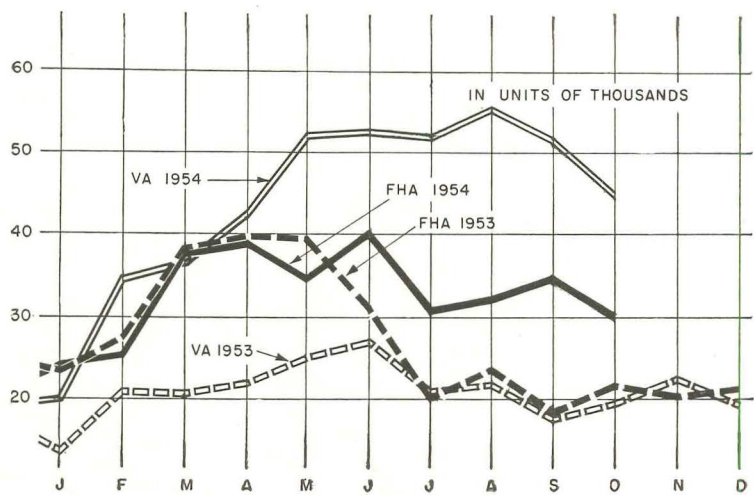
Private housing starts for October reached 105,800, boosting the 1954 total for all new housing over the million mark (1,016,500). Year-end total for private and public residential starts will probably be near 1,180,000 units. Most prophecies for 1955 fall between 1.2 and 1.3 million units. BLS last month predicted 1.3 million.

### BUILDING MATERIALS PRICES



BLS' index of wholesale building materials inched up 0.4 points to 121.7 from a revised September figure of 121.3. Small increases in lumber and plywood prices caused the rise. Until the spring trend becomes visible, no substantial changes in the building materials price level are expected.

### FHA AND VA APPLICATIONS



New FHA applications dipped seasonally to 30,075 in October, compared with a revised September total of 34,895. VA appraisal requests for proposed homes also followed the normal pattern, dropping from 51,265 in September to 45,572 in October. October FHA project mortgage applications declined to one-sixth of last October's total. Principal reason: the Sec. 207 rental program, hobbled by antimortgaging out rules and drastically tightened charter terms, shrank from a January high of 8,650 units to a September low of 64 and an October trickle of 750. There were no applications for Sec. 220 or 221 to carry out the new urban renewal program.

**HANDSOME** and imposing, with the lines of his influential smile showing even when he was serious, this picture of Nelson was made when he was in his prime.



Photos: Miller-Ertler Studios (except above; Hessler Studio)



**PROUDEST MOMENT** for Nelson at Cleveland convention came when he presented a plaque to his former protégé, Frank W. Cortright, who won NAREB's contest for writing a realtor's pledge. Nelson brought Cortright to Washington in 1942 to head a NAREB homebuilders' unit that soon blossomed into the independent NAHB with Cortright as executive vice president until last year.



**FRAIL AND WORN**, Nelson applauds one of the principal Cleveland speakers. Making his own annual report a little later, his voice lacked its former vigor and clarity. He skipped most of his prepared text (even a swipe at public housing). After speaking only a few minutes, he appeared relieved to be through and sit down again.

## NAREB CONVENTION

# Herb Nelson to retire after 32 years as top realty spokesman

Herbert U. Nelson, for 32 years executive vice president of NAREB and one of the building industry's—and nation's—most influential lobbyists, will retire next July 1.

For years, internal and external foes had tried to unseat Nelson, whose articulate conservatism sometimes carried him into political storms. He weathered all tempests, gave real estate the benefit of a seemingly boundless work-or-read-all-night energy and a disarming personal charm which soothed ruffled feelings.

Last summer, the burden Nelson had placed on his physique for 32 years took its toll. At 68, his health broke. Last month at NAREB's annual convention in Cleveland, he did himself what his opponents could never accomplish: he asked to retire. After July 1, he will become a "consultant" to NAREB.

**Miner, journalist, realtor.** Born in Ellsworth, Wis., in 1886, Herbert Undeen Nelson graduated from the University of Minnesota, worked briefly as a silver miner, a seaman, and for a few months, at the Seattle *Post-*

*Intelligencer*. He quit journalism because "there wasn't enough money in it." From 1917 to 1921, he was secretary of the Minneapolis Real Estate Board; in 1919-20 was also secretary of the city's planning commission. He was named executive vice president of the then 15-year-old NAREB in 1922.

Herb Nelson rendered real estate many invaluable services. By working for brokers' licensing laws, by organizing NAREB's several institutes to lift the standards and refine the techniques of appraising and management, to study farm, industrial real estate and urban land use problems, he did more than any other single person to raise the responsible real estate man to the professional stature he now holds.

In the early 30's, President Hoover called on Nelson to help launch the Home Loan Bank system. A few years later he worked with Cordell Hull, Marriner Eccles and other Democratic leaders drafting legislation to create the Home Owners Loan Corporation, and later the FHA.

**Rent control, public housing.** After World War II, Nelson's campaigns against rent control and public housing caused President Truman to speak contemptuously of the "real estate lobby." *The New Republic*, no lover of realty interests, tagged him as one of Washington's "three invisible Senators" (the others: the US Savings and Loan League's Morton Bodfish, who stepped down from control of the league in 1952, and NAHB's Frank Cortright, who quit the Capitol in 1953). Although some of NAREB's more liberal realtors felt the association might fare better with a less controversial executive officer, at board meetings any plans for ousting or retiring the durable pioneer (and efficient association administrator) were always laid over.

Nelson even survived a 1950 House lobbying investigation that seized and released a private letter in which he had written: "I do not believe in democracy. I think it stinks. I believe in a republic operated by elected representatives who are permitted to do the job, as the board of directors should. I don't think anybody but direct taxpayers should be allowed to vote . . . I don't believe women should be allowed to vote at all. Ever since they started they have been in a worse mess than ever."

**Nelson v. Taft.** On another occasion, Nelson ("Mr. Real Estate" if there ever was one) accused Senator Robert A. Taft ("Mr. Republican") of having "lined up with Communism" by sponsoring public housing legislation. That time Nelson hastily apologized. A few years later, he had Taft as the principal speaker at a NAREB convention.

Who will succeed to Nelson's \$25,000 year post? Names mentioned most frequently included Administrative Secretary Lowell Baker, California association Secretary Eugene P. Conser, Executive Vice President Ray Hofford of the Boston board, Secretary Phil E. Berg of the Denver board, former RWC Secretary Calvin Snyder, now secretary of the Denver Chamber of Commerce, and Ormonde A. (Tony) Kieb, former New Jersey association president who is now assistant postmaster general in charge of real estate operations. But the directors were not in a rush. It seemed likely they would wait until their January meeting or later, and might even go outside of the real estate field for exactly the administrator-lobbyist they want.

## Henry Waltemade, Bronx realtor, named '55 leader

"State after state came in to recommend him. No other name was considered—or submitted."

In those words Nominations Chairman Charles B. Shattuck reported the nomination of Henry George Waltemade of the Bronx, now NAREB's 1955 president-elect. Stocky, vigorous Waltemade, 49, was chairman of the Realtors' Washington Committee this year, and national convention chairman in 1948 and 1950. He also has headed the Bronx Real Estate Board and the New York state realtor organization.

Waltemade's father was a German immi-



**ELECTION PORTRAIT** of new and old presidents and their wives caught President-Elect Waltemade (l) in contemplative mood, but retiring President Chinnock wreathed in smiles.

grant who came to the US alone at the age of six. Although he received no formal schooling he worked his way up and finally established Henry Waltemade, Inc., Bronx realty firm. His Bronx-born son, Henry, attended public high school and Columbia University, joined his father's office in 1923 and has headed the firm since his father died in 1938. The company does an "all around real estate business," particularly mortgages, says Walte-

### Realtors report business good, attack public housing, delay plan to hike rehabilitation budget tenfold

Mortgage money was fairly easy. Business looked good for the coming year. Public housing was badly crippled, though not killed. Realtor-delegates to the NAREB convention seemed to have few worries.

With few exceptions, delegates reported brisk house sales, with prices stabilized or edging up. W. Max Moore of Denver, president of NAREB's Brokers' Institute noted a sharp increase in demand for houses at \$20,000 and up, attributed the spurt to "increased earnings." One of the biggest causes of higher prices for new houses: soaring land costs, which have far outpaced increases in building costs.

Outgoing President Ronald Chinnock said 1954 was turning out far better than he expected when he took office last February. Now he feels this year will end "as good or better" than 1953, and 1955 will "equal if not exceed" 1954. Although owners of older houses are becoming "more realistic" on their asking

made (MAI). One offbeat current assignment is a condemnation appraisal for a portion of the Yonkers Raceway trotting track property required for the New York-Buffalo Thruway. He sits on the boards of the Manhattan Life Insurance Co. and several New York savings and commercial banks. He is an active Lutheran, former president of the Lutheran Society of New York and of St. Paul's Evangelical Church in Park Chester, the Bronx.

prices, said Chinnock, there has been no "softening" in this market, and next year's used house sales will set a record. Reasons: ample mortgage money, increased employment, higher personal incomes, easier FHA terms. During the business downturn last winter, said Chinnock, he advised some buyers to wait for lower prices. "But I was wrong," he added. What happened?—"Demand held up."

**Build America Better.** Plans for a tenfold expansion of NAREB's slum clean-up and rehabilitation program were drawn, but temporarily held in abeyance. Explained new Treasurer C. Armel Nutter: Fritz Burns of Los Angeles requested \$100,000 for this program for 1955, compared with \$10,000-\$12,000 this year, but approval was delayed until the January directors' meeting acts on a proposed \$5 a year membership dues increase. (In addition to his NAREB budget, President Chinnock told the convention Chairman Burns has

spent more than \$50,000 of his personal time and money pushing the Build America council's work.)

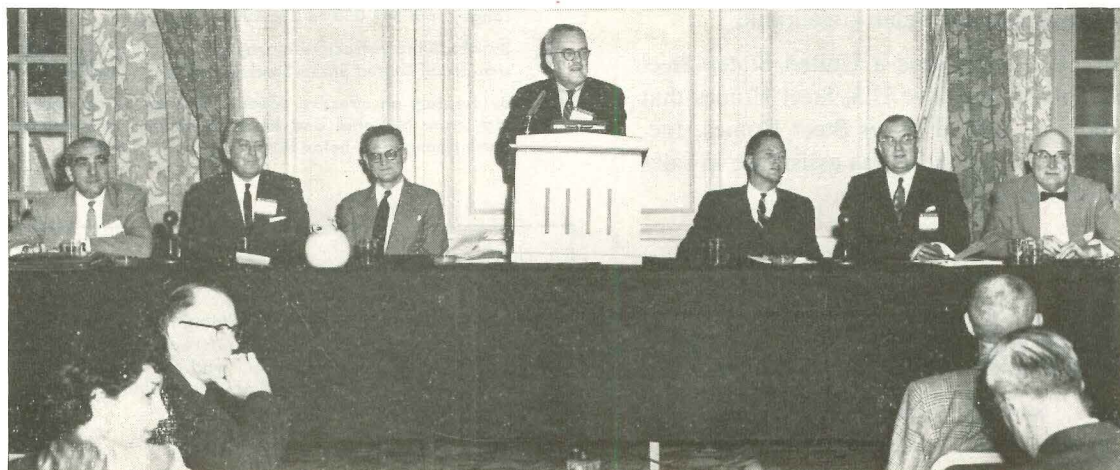
Burns told the convention the new Housing Act would cause "revolutions" in the used-house and home improvement markets. He underlined these points by reading several sections of the editorial analyzing the new act in October HOUSE & HOME.

Convention resolutions supported the Build America campaign and the federal urban renewal program with a series of recommendations favoring: 1) optional one-to-five-year tax write-off privileges covering demolished buildings in conservation areas; 2) five-year write-offs for the total cost of new capital improvements in such areas; 3) the same depreciation rates for existing buildings as applied to new construction under the 1954 tax laws; 4) enactment of state minimum housing standards for either "state-wide or local" enforcement.

**Public housing.** This year's resolution attacked public housing as "un-American," repeated last year's proposal for "rent allowances" as a substitute—"such allowances to be applied only to housing which conforms to local health and safety standards."

The Realtors' Washington Committee saw public housing virtually dead: "In the opinion of RWC—an opinion shared by the most pro-public housing advocates—this very restricted program [in the 1954 Housing Act] sounds the death-knell of our country's political housing experiment unless it is revived by a subsequent Congress." President Chinnock was not so completely convinced. He said: "35,000 units are as bad as 135,000. . . . If we have it at all it is unhealthy. . . . Morally and financially anything is cheaper than public housing."

**FHA operations.** For greater federal help to private enterprise housing, the convention proposed that FHA "establish a permanent policy of employing independent, well-qualified, fee appraisers." NAREB also lined up with other building associations in urging Congress to give FHA more freedom to use its income to cover its expenses.

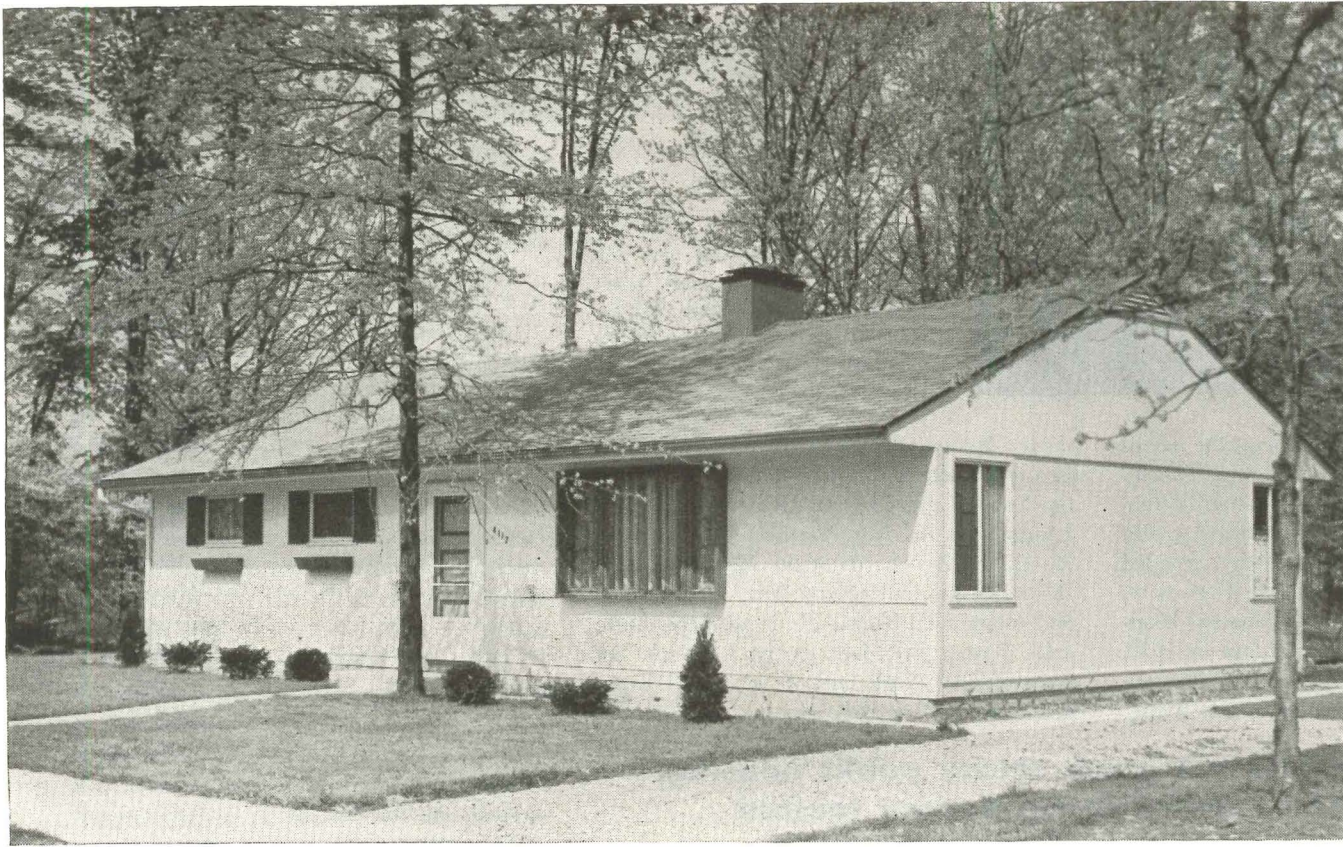


**MORTGAGE OFFICERS** at panel led by Mortgage Council Chairman Oliver Walker (at rostrum), predicted lenders would finance rehabilitated houses in urban renewal areas. Quipped MBA President Moir (2d from left), on constant pressure to make 100% loans: "We're damned if we do, and damned if we don't."

Photos: Miller-Ertler Studios



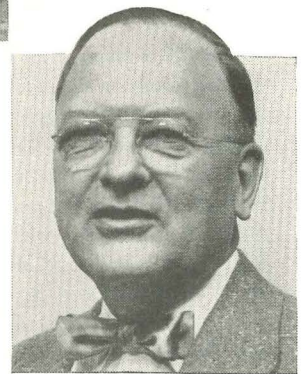
**LEGION CHIEF** Seaborn Collins said GI loans built prosperity, made "selling apples on street corners" needless.



**NATURAL BEAUTY** is retained wherever possible in Hunter-built developments. This 3-bedroom Coronado sold for \$11,815.

# “Satisfied owners help us to sell U.S. Steel Homes”

says Hamilton Hunter, United States Steel Homes Dealer, Fort Wayne, Indiana



## HOW HE DID IT

● Mr. Hunter told us: “Word of mouth advertising has always been the best selling tool we have for U.S. Steel Homes. Enthusiastic comments from present owners are making Fort Wayne more and more U.S. Steel Home-conscious. That makes it easier to get people out to see our homes; and once they see the U.S. Steel Coronado, and other fine models, customers are always impressed with the reasonable prices, easy financing, and the short wait they have before moving in.

“As a result, sales have steadily increased since we began building U.S. Steel Homes in 1947, and we expect this upward trend to continue.”

Your building can expand, too, if you become a United States Steel Homes Dealer. You get a wide selection of attractive U.S. Steel Homes that have *proved their popularity*. In addition, United States Steel Homes, Inc. offers you construction and mortgage financing, as well as assistance in sales and advertising. Send the coupon for complete information.

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“Coronado”—trade-mark of United States Steel Homes, Inc.

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## PEOPLE: Frank Lloyd Wright says he'll quit Wisconsin;

### George Bain Cummings nominated for AIA president

A few days after voters in Madison, Wis. had expressed their preference for him as architect of the city's proposed civic center (see p. 42) **Frank Lloyd Wright** heard news from another quarter that he said would impel him to move his Taliesin out of Wisconsin forever. The Wisconsin Supreme Court handed down a decision that Wright's home and school near Spring Green (the school is situated on 80 acres of 3,000 that he owns there) was not an educational institution and was therefore subject to local taxation. "The tax situation amounts to \$13,000—there's no hurt there," Wright said, "but the interpretation out of which it springs, that does hurt. Instead of getting help from our county and state, where I have invested so much of myself, we've been looked upon askance. Under the circumstances, I don't care to continue." Wright has been educating about 60 students a year on the site (he was born nearby) since the school was established in 1932. In winter the students move to Taliesin West in Arizona. Wright said he would sell the acreage not occupied by the school (upon which he has been paying taxes), but keep the stonework on the other 80 acres in memoriam to his forebears. "Our work has been drifting eastward and this court decision is so equivocal that we don't want to stay in Wisconsin," he told HOUSE & HOME. "The county won't exempt us from taxes because they say we make so much money we cannot possibly be a cultural organization, and yet we lose money each year. It is unfortunate that I have to give up something which I have put so much love and work into." He said he would transfer his base to the Berkshires or the Adirondacks. Gov. **William Stratton** of Illinois invited him to move there; Wright said he would consider the offer, added that it was "interesting and refreshing" to find a governor with "an eye for architecture as an art instead of architecture as a business."

In other action, Wright received a degree of doctor of humane letters from Temple University in Philadelphia last month (the day following ground breaking for his synagogue there). "We in America have borrowed everything we possess from a building standpoint," he told the crowd. "Until we can say our souls are our own and build to it we will find difficulty in facing the future."

**George Bain Cummings**, FAIA, of Binghamton, NY, now serving his second term as AIA secretary, was nominated to succeed **Claire Ditchy** of Detroit as AIA president next June. New Hampshire-born Cummings, 64, has been vice chairman of the New York State Building Code Commission since it was organized in 1949 and served as acting chairman for a year and a half. He is also a former chairman of the Binghamton city planning commission and a former member of the state board of examiners of architects.

**NAMED: Atholl McBean**, San Francisco civic and industrial leader for half a century and president of Gladding, McBean & Co., tile manufacturers, winner of the city's Building Industry Conference Board's achievement award for 1954; Architect **Richard Neutra**, recipient of an honorary degree of doctor of technical sciences from the Berlin (Germany) Senate, through the Technical University of Berlin; **G. Donald Kennedy**, executive vice president of the Portland Cement Assn., elected president, and **Emory Ford** of Detroit, elected chairman of the board; **Harold D. Hauf** of Rensselaer Polytechnic Institute's architecture department, Architect **C. E. Silling** of Charleston, West Va., and **C. W. Kraft** of Niles, Calif., honored by the American Standards Assn. for their encouragement of the use of modular measure;

**Frank J. McCabe Jr.** of Chicago, to the new post of assistant secretary and treasurer of the Mortgage Bankers Assn.; **John T. Hennessy** of Oakland, Calif., elected president of NAHB's executive officers council.

**David B. Mansur**, 49, resigned his \$18,000-a-year job as president of the Canadian government's Central Mortgage & Housing Corp. (equivalent of HHFA and FNMA rolled into one) to become president of Consolidated Toronto Development Corp., wholly owned affiliate of Lambart & Co. of New York. The development firm, which holds some 1,000 acres of undeveloped land near Toronto, said it had plans for doing a broader job in expanding the Canadian economy. Quebec-born Mansur, one-time housing expert with Sun Life Assurance Co. in Montreal, came to Ottawa to help the government on bond sales during World War II. Although it was officially none of his business, he kept worrying about the housing shortage he foresaw when the war would end, peppered Ottawa officials with impatient memos urging the government to centralize its ineffectual housing agencies in one corporation. As a result, Mansur was called in to draft the bill which set up CMHC in January 1946, had headed the agency ever since.

One of Mansur's most important moves was to



MANSUR



### Lumber manufacturers urged to improve six points

Directors of the Natl. Lumber Manufacturers Assn. last month elected **Judd Greenman** (second from left) as president for 1955. Greenman, general manager of the Vernonia (Ore.) division of Long-Bell Lumber Co., has 50 years' experience in the industry, was first vice president of NLMA this year. He succeeds **James R. Bemis** (right), president of Ozan Lumber Co., Prescott, Ark., who moved up to board chairman. **L. D. Kellogg** (third from left), president of the lumber company of the same name in Alexandria, La., was elected first vice president. **Leo V. Bodine** (left) continues as full-time NLMA executive vice president.

The principal speaker at the three-day Washington meeting, Editor **Elizabeth Gordon** of "House Beautiful," urged the lumber makers to work on six points "where you are weak": 1) restyling of moldings, joint systems and window and door frames; 2) achieving big window open-

switch government participation in financing private housing from a joint loan setup to a modified FHA system (with loan insurance 50% cheaper) last spring (H&H, March '54, News). Result: a big jump in commitments. During Canada's April-October building season in 1953, some 21,000 units were approved for loans under the old plan. In the same period this year, CMHC approved 32,145. Over-all housing starts in Canada were booming at about the same per capita rate as in the US. Canada expects to put up some 111,000 houses this year (which is 7½ units per 1,000 pop.). A lot of the credit belongs to **Dave Mansur**.

FHA filled one of its new supervisory posts with **Charles S. Mattoon**, 55, director of industrial relations for the airplane division of Curtiss-Wright Corp., as general supervisor of the examination and audit division. He will maintain conformance with FHA policies in the field in a post designed, according to Commissioner **Mason**, "to insure efficiency, integrity and soundness to FHA operations." Mattoon was director of training and education for the Civil Defense Administration in Washington in 1951.

**DIED: Edward H. Bennett**, 80, architect and city planner who worked with **Daniel Burnham** in Chicago to develop the Chicago Plan of city planning, Oct. 14 in Tryon, N. C.; **Lewis P. Hobart**, FAIA, 81, San Francisco architect who designed Grace Cathedral, the Bohemian Club, and many a noted suburban mansion, Oct. 19 in San Francisco; **Will Greenfield Corlett**, 67, prominent Oakland (Calif.) architect, for a number of years consulting architect and engineer for the public schools there, Oct. 27 in Oakland; **Claude G. Johnson**, 65, Washington builder who was one of the first to develop the Barnaby Woods area, Nov. 7 in Washington.

ings without heavy wood mullions and muntins or steel supports; 3) developing better details for interior storage walls; 4) showing people how to use wood for secondary building like sun shades, windbreaks, fences and garden houses; 5) developing structural lumber of good enough finish to look well when exposed; 6) encouraging fresh uses of wood rather than remaining tradition-bound.

Former AIA President **Ralph Walker** urged the lumbermen to "shake out the moths" from lumber standards about every five years and develop a manual for architects on the beauty and inherent qualities of wood. Said he: "Only wood can be so beautiful in its natural quality that you want to touch it." **R. E. Saberson**, director of the Merchandising Mart in St. Paul, warned that lumber manufacturers are not giving retail dealers as much selling help as producers of competitive materials.



THREE-BEDROOM HOME BY ARCHITECT EDWARD FICKETT FOR UNDER \$7,500

## BUILDERS AT WORK:

### Low-priced seller on the Coast

A three-bedroom house by Los Angeles Architect **Edward Fickett**, priced at a low-even-for-LA \$7,495, sold out fast in the last segment of **Volk-McLain's** Chapman Gardens project in Covina (see cut). Fickett brought the cost down in a number of ways. He did not seek FHA or VA approval, thereby saving the builder a two-month processing wait on start of construction and also enabling him to use a big economy measure not approved by the agencies: a 3½" slab with mastic and integral waterproofing to lie under asphalt tile. (Fickett had used this before, on a \$30,000 house in Belair.)

Other economies: use of standard lumber lengths; two standard types of sash delivered from mill to job site; dry wall on inside walls and ceilings; and post-and-beam construction that Fickett estimates saves \$50 to \$75 on concrete. The home has a butterfly roof—"A simple, economical frame to put up," says Fickett, "that has a flavor the public accepts." His next plan: 500 three-bedroom homes for Volk-McLain with roughed-in extra bedroom and second bath for the do-it-yourself home owner to complete. Price will be just under \$8,000. Construction was scheduled for this month.

### Precut panels in California

Builders **Richard Price** and **Alfred Stern** of the San Francisco Bay area have joined the ranks of house packagers, supply precut panels and paperwork for their own operations in seven communities and for other builders in two. (Their main development in Cupertino includes 1,200 homes.) Builders who take the Stern & Price package: **Goheen-Travis Corp.** in Salinas and **Progressive Builders** in Novato. Price figures that the system brings the end product well below what a builder could do independently—about a \$500 saving if Stern & Price itself does the subcontracting, close to \$1,000 a house if it is farmed out. "We give them the whole package," he said. "Precut panels, subcontracting, all the paperwork, including FHA and VA processing, the negotiations for construction financing and processing of the loans at the time of the house sale."

The **Bank of America** is doing the construction financing and is writing the final FHA and con-

ventional loans. Other lenders—**Guardian Life** is one—are picking up VA loans. The houses range in size from 1,012 to 1,190 sq. ft. and in price from \$8,500 to \$14,250, and include an impressive array of equipment. (Half of them are fully landscaped.) The plots vary from 55' x 110' to 66' x 115'. Architects: **Alexander Prentice**, formerly of Stern & Price's architectural department, and **Lew Gearhart** (registered as an architect in the Midwest, but not yet in California).

### New light on old battle

Woman's place is not *in* the home, according to **Lucile R. Yates** of Los Angeles—it is out on the site blueprinting the home, refurbishing it, fitting it to its community and selling it. Herself a home-builder, Mrs. Yates was galvanized at last year's



MRS. YATES

NAHB convention listening to the girls talk and decided to start a campaign to give them the credit due them. She started checking NAHB offices to get up a roster of women home-builders, received a flock of answers ("There are no women builders in Peoria, in fact there are very few gentlemen builders" was one of them) and at last count had a total of 150 women homebuilders. Now she has gone to bat for an all-woman discussion panel at the next NAHB convention, wants an award to be set up for the Woman Builder of the Year or some similar title and is working (strictly on her own, without pay) for more published information on active women builders. "There's a strike against you as a woman in all business," she said recently. "What people forget is that a woman has to have *more* ability or she never gets to the door."

### Free house-in-a-day for widow

Abilene, Tex. watched a house go up in ten hours on Oct. 21, a near-record job done for Mrs. Jimmy Spann, widow of a local policeman killed in a gun battle last June. The project was sparked by the Abilene Home Builders Assn. The lot

was purchased at cost (\$1,000). Materials were either donated or bought at cost and paid for out of the Jimmy Spann Appreciation Fund, \$10,382.63 collected from the public by the *Abilene Reporter-News*. Foundations for the house were laid three days before the marathon began. Work started at 6:55 A.M. and the four-and-one-half bedroom house was up by 5 P.M. Exterior paint, light and plumbing fixtures were added later.

### Florida duplexes for vacations

Some 110 acres of sea-front property—with 26 acres to be devoted to "recreation and relaxing"—will be laid out in double-apartment villas by Memphis Builders **Wallace E. Johnson** and **Kemmons Wilson** 7 mi. south of St. Augustine, Fla. The 700 air-conditioned apartments (see cut) will be rented to corporations on a year-round basis on the supposition the corporations will offer the space to their employees, either free as vacation prizes in company competitions or for \$19 a week,



SEA-FRONT VACATION HOUSES

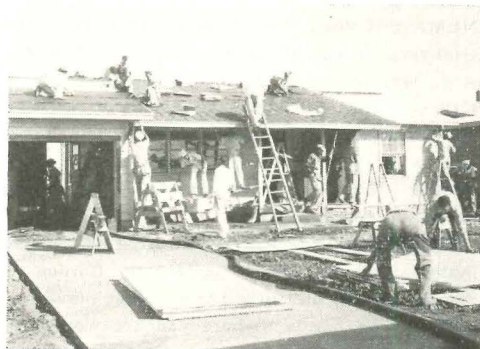
a rent fixed by the builders. Lease arrangement for the corporation: \$1,300 a year for a five-year term. The low-roofed structures will be of cement block with redwood interior paneling. Architect **W. W. Bond** of Memphis has provided two bedrooms and bath in each and a house-wide living room which will accommodate four sofa beds and kitchen and dining bar, the latter dividing the cooking space from the rest of the room. Named after the builders' Holiday Inns of America, Inc., the project will also include a 200-room Holiday Inn, tennis courts, oceanside dance pavilion and a shopping center. The builders had verbal commitments for apartments from 20 Memphis firms while still working up the lease forms. Construction is scheduled to start this month.

### Kentucky-style design

Architect **John Dumas** of Louisville has learned a lot about problems of builders by contracting and helping build his own house. The educational project, inspired to some extent by the contention of Architect **Walter Gropius** that every designer should be a master builder, began in 1952 when he bought a lot whose steepness (45' drop over 190' length) had kept it long vacant. His 1,680 sq. ft. house has three levels to fit the land without need for blasting. It cost only \$15,650 (\$1,900 lot, \$13,750 contract cost). If you add a 10% builder's profit and 7% architect fees, for comparison with speculative homes, the price would go up to \$18,310.



WORKMEN BEGAN HOUSE-IN-DAY AT DAWN



NEARLY 100 MEN PAINTED, HAMMERED, ROOFED



AT SUNSET: HOME FOR WIDOW AND TOTS





Courier-Journal and Louisville Times

#### ON-THE-JOB ARCHITECT HOME

Figuring in his family's sweat equity, Dumas calls it a \$19,500 house. He and his family painted inside and out, laid oak flooring and built stone retaining walls; lowest painting bid, for instance, was \$1,100. By doing the painting themselves, they cut the cost to \$130.

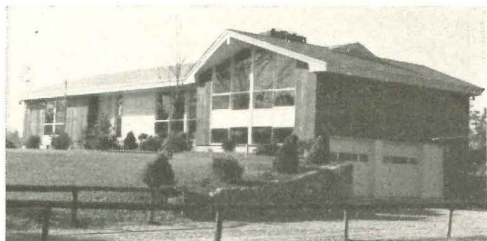
Builder **Al Richards**, who was carpentry sub-contractor, gave Dumas much advice on how to put up the house ("my own right arm," says Dumas) and in return Dumas has given Richards architectural advice on other projects. Dumas was encouraged to undertake the job by his employer, Architect **Ed Augustus**, whose father was a contractor in Paducah, Ky. FHA first rejected, then accepted, Dumas' plans. Meanwhile, he had obtained a conventional \$12,000 mortgage.

Out of the project, Dumas thinks he gained more than craftsman know-how. Says he: "I have an idea there's a method of building a house that's right for Kentucky and the Ohio Valley—I don't say indigenous, because I'm not sure I know what that means any more. It's not the international style via Harvard or MIT. It's not Mr. Wright's style or Mr. Wurster's style. We have our own building history, climate, topography and materials and ought to be able to evolve a way . . . that's right for us. . . ."

#### Public demand for modern

New Canaan, Conn., a commuters' haven north of New York, has become so noted for good modern house architecture (H&H, Jan. '53) that consumers have heard about it and have begun to ask whether the houses are for sale. The answer has been contemporary builder houses. Among the latest projects are six builder houses by Architect **Philip Johnson**, designed to give a family maximum indoor-outdoor living for \$40,000. **Robert Wiley** of New Canaan, a management consultant who works with a number of architects, conceived the idea of "getting the great Johnson to do some relatively inexpensive modern houses" when he saw his prize-winner in last spring's Sao Paulo contest in Brazil. Johnson's entry (H&H, May '54, News) was described by the judges as "a handsome house with simple elements [which] lends itself to repetition. . . ." The new model in New Canaan (the first one has just been finished) has four bedrooms and two baths U-shaped around a patio, with sliding glass panels facing out. Other amenities: a two-car garage, 6' fireplace. The six homes will be ranged on two-acre plots on either side of a dead-end road, at the foot of which Wiley lives, in a Johnson-designed home of somewhat more lavish proportions than the new models. "So you see," he commented, "I shall have my own ambience of contemporary architecture."

Same time, same place: Architect **Bertram Lee Whinston** of Stamford (Conn.) and New York has done two conservative-modern models for Builders



CONNECTICUT MODERN BY B. L. WHINSTON

**Leeds & Goebel** of New Canaan, who will put up 28 homes in the \$50,000 bracket. His Model B (see cut) is a long-roofed four-bedroomer (three baths) with a split-level effect created by a dug-in garage under a 17' x 22' playroom. About 80% of the exterior wood used is redwood; air conditioning and a Hi-Fi sound system are included. The house has 2,226 sq. ft. of space on the main ground-level floor and a 225 sq. ft. porch. The company owns 50 acres of land and each house will be placed on an acre and a half.

#### Cost picture: Levitt v. Forman

**Harry N. Forman** of Milwaukee wanted to try two-bedroomers ("Many of the people who visited our models told us they didn't need three bedrooms now. . . .") and sent his architect, **Henry Ott**, back east to study likely plans. Ott came back with the facts on a two-bedroom home being erected by the thousands by **Levitt & Sons**. Price in Levittown: \$8,900. Forman's price, after meeting Milwaukee building code requirements, putting in more closet space and rearranging rooms: \$11,990. "We respect Levitt's operation," said Forman. "He's doing a helluva wonderful job. We're just not in the same league." He said that a higher market standard in his area (the homes are actually going up in Greenfield, outside the city) called for a revamp of the Levitt design. Most of Forman's customers, for example, have previously lived in houses or duplexes (not in apartments) and have definite ideas on what they do not want. There is resistance to the basementless house, according to Forman, and to new-fangled things like plastic paint—which Forman has trouble selling, although he himself thinks it is wonderful.

Forman told HOUSE & HOME he cannot break down the difference in cost on his house by item, but he knows that the departments in which Levitt has the jump on him are labor and direct purchasing. Land is another item. On a \$12,000 house, Forman's land costs used to be 5 to 10%, are now 15 to 18%. The Forman house has more cupboards in the kitchen; a double sink instead of a single (by preference of the Milwaukee housewife); plumbing on two walls instead of on Levitt's one; a bigger boiler and deeper foundations because of Milwaukee's cold. Levitt allows room in the kitchen for a 24" range, considered too small by the Milwaukee housewife; Levitt can trench and pour foundations while the building code forces Forman to have footings (involving extra cost of \$200, he figures). Forman believes that in Milwaukee proper, with its less strict code, he could build the same house \$400 cheaper. Added to all this, the Milwaukee FHA office would not let him put a washer and drier in the bathroom (Forman, incidentally, does not think this a hot idea); would not approve the bathroom layout (involving a walk past a corner of the living room between bedroom and bath) and would not approve the Levitt kitchen arrangement. "Why the difference in FHA offices?" asked Forman (insisting, tactfully, that he had no beef with his own). "That we'd like to know."

#### Rocky Mountain rodeo

**Cliff May** and **Chris Choate** announced appointment of **Franklin Burns** of Denver as distributor of their contemporary-packaged homes (H&H, July '53) for Colorado, Wyoming and New Mexico; **Teis, Lawton & Johnson** for Louisiana and Arkansas; **Anderson Lumber Co.** for Utah, southern Idaho and northern Nevada. May also announced formation of **Cliff May Associates**, to be devoted entirely to custom homes after his three years in low-cost home production. Architect **Jack Lester** will head up Associates. Initial project: construction of a house in Sullivan Canyon, Calif. for the May family which May says will be 7,000 sq. ft.

#### Built-in appliances

A subdivision of 500 homes in Memphis by the **Joel A. Montgomery Co.** is offering a package mortgage on range, refrigerator and washing machine—first time FHA has approved such a deal in Tennessee. The extra equipment is optional, costs \$3.15 a month. Of the first 41 homes sold (at \$11,200), 38 took advantage of the package. The deal was effected—as it has been in other areas—by efforts of **General Electric** regional men, who worked months to get FHA approval. The homes are three-bedroomers of brick veneer, with carpet. To date, 272 have been sold, 40 finished.

#### Prize-winning modern

An all-contemporary tract (each house must be designed by an architect) got under way recently on sloping, one-acre-minimum sites in Gladwyne, Pa., just off Philadelphia's Main Line, when Builder **I. A. Ingebrigtsen, Inc.**, began construction of the first house, a 3,600-sq. ft. stone and cypress job. The post-and-beam building, designed by 30-year-



ARCHITECT'S WINNING HOME

old Architect **Kjell Ingebrigtsen**, won the award for proposed buildings in the Philadelphia AIA chapter's annual competition last spring. Living quarters and its owners' bedroom are on the main floor. The ground floor is a suite for four sons: four bedrooms, recreation room and a joint bathroom which contains a big (11' x 6'), communal shower stall.

#### Nonwhite prefabs

**Southwest American Builders, Inc.**, of Houston, who have done a number of prefabricated projects for minorities in the past four years, have purchased 300 lots for low-cost housing (average \$6,500) under FHA Sec. 203. The first 58 starts were expected this month.

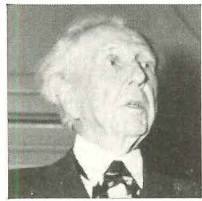
Art Hupy



**WINNER** of an award for architectural excellence given by the Washington State AIA chapter, as well as a merit award from the national AIA was this house with a problem site, designed by Seattle Architects Bassetti & Morse. Built on level lot, the house of Gerald R. Martin, Seattle, has its main living area on second floor to look out over roofs of nearby one-story dwellings which otherwise would have blocked the view of Lake Washington and the Cascade Range. Lower level has entrance and recreation room, from which a sliding glass wall opens onto a covered terrace. General contractor: A. F. Easter.

## OPINIONS

These intellects shed the following light on matters of moment to housing:



Architect **Frank Lloyd Wright**, in talk to Wisconsin Society of Chicago, which gave him a medal as the "father of modern architecture":

"The city has been doomed by progress and science. And the development of the auto has just begun. You can see factories and the best families moving into the country. Nobody lives in the city if he can help himself unless it's in a penthouse. [When you build a home] go out in the country ten miles—so far that it seems too far—and then go out farther."

Richard Meek

Realtor **William Zeckendorf**, president of Webb & Knapp, New York City, in talk to Savings Bank Mortgage and Real Estate Forum:



"Dependence on government guarantees and loan insurance is socializing lending. Bankers are becoming clerks without courage or imagination. It doesn't take much drive or intelligence to approve one of these government loans. You've got a sure thing. But if we are to make progress, we need more resourcefulness and daring. . . I can assure you we'll have no vacancy signs in New York for some time to come. Perhaps we've lost a few manufacturers paying 50¢ sq. ft. But as soon as that happens we get their executive offices and they pay \$5 sq. ft. for this reoccupied space."

"I am absolutely in favor of low-cost housing, subsidized, because our system is not strong enough to produce a profit at that lowest level, but I am absolutely against able-bodied [lending] institutions lending 65 to 70% of their loans based upon a federal guaranty. I think it is one of the most reactionary and inflationary factors on the American continent."

Walter Bennett



**Lee F. Johnson**, executive vice president, National Housing Conference, at Philadelphia anniversary celebration:

"I hate going into one community after another and being able to spot a public housing project because it looks precisely like the institution that I saw in the last town. That blemish will never be corrected until our American cities come of age and tell the Public Housing Administration to go fry, except as to basic space and land use patterns."

"It is not the city which is obsolete, but the narrow lot of horse and buggy days. . . . Average lots in Philadelphia and Baltimore: 16'. Average lot in New York is 20'. . . .

Narrow lots are not the result of exploitation of the poor but a pattern of habitation for all—rich and poor."—**Frederick J. Bashaw**, Palm Beach, Fla. realty consultant.

## Joint effort by public, private housers nets Portland top rate market survey at \$5 copy

One of the nation's best and cheapest studies of an urban housing market has appeared in Portland, Ore.

It is 66 pp. long, including charts and photographs of 67 Portland homes. Price: only \$5 for a single copy, \$3.50 for each additional copy. The realtors, builders, bankers and officials whose cooperative work kept the cost so low were banded together under the jaw-breaking title of the Metropolitan Portland Real Estate Research Committee (321 SW 4th Ave.). Their report is easy to read, sticks largely to facts and figures on the theory that learned opinions are a dime a dozen and often disagree with each other, anyway.

FHA Commissioner Norman Mason described the report as one of the best he had seen. Raymond Reeves, research director of the Bay Area Council in San Francisco, which issues a quarterly local market survey itself, called the Portland report "far superior" to his own and "to those issued elsewhere regardless of cost." He wrote Portland: "It will have a great effect in helping us improve our own report."

**Pitch in together.** The Portland survey, which will be published in April and October, was conceived a year ago at a meeting of the Portland Housing Authority, local builders, mortgage men and FHA officials. These men were trying to guess how many homes Portland would need this year. They found their guesses wide apart. One suggestion: do a survey.

A committee was organized headed by the chairman of the housing authority, Anthony DuBay, who is also an officer of Securities, Inc., one of the city's largest builder-realtor-mortgage companies. (No relation to Housing Securities, Inc. of New York whose president, Thomas Coogan, recently arranged for publication of local market facts for 75 cities.) Subcommittees were named for real estate activities, price trends, vacancies, unsold inventory, construction costs, business and employment conditions. The committees were voluntary, not paid. Several companies assumed parts of the job and assigned key men (at no cost) to do the work.

**New ground broken.** In addition to such customary sections as business conditions, number of starts, deed and mortgage recordings, the Portland report answers some harder questions. Three examples:

► Vacancy rates for single-family dwellings, compiled after inspections in 36 sample

areas containing 3,787 units. Results showed the city-wide vacancy rate is "very small," that the smallest rate (.36%) is in the middle-price (\$10,000 to \$14,999) class and the highest (1.86%) in the lowest price category (under \$7,500). The vacancy rate in "older" multiple dwellings (where majority of rents was under \$80) was 1.8% last March 31 and apparently did not change when the latest survey was made in September. But among "newer" apartments (where most rents are above \$75 a month) vacancies rose "substantially" from March '52 to March '53 and reached an estimated 6.4% in spring of 1954. By September, the rate was down to 4% again.

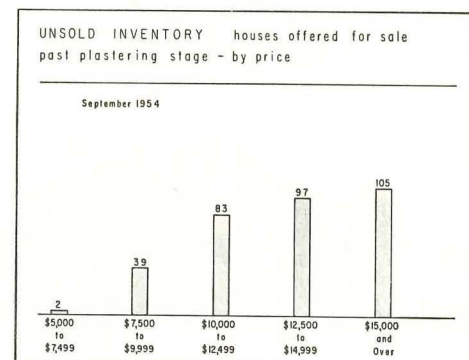
► Unsold inventory of new homes, obtained from savings and loan associations, banks, insurance companies and investment houses which deal with houses for sale in the Portland metropolitan area. As of September, number of unsold dwellings past the plastering stage:

Two-bedroom dwellings	.....	30
Three-bedroom "	.....	289
Four-bedroom "	.....	5
Five-bedroom "	.....	1
Total		325

Dwellings below \$10,000 represented 13% of total unsold inventory and dwellings over \$12,500 over 62%.

► Cost breakdown for a typical median-priced dwelling in the area, based on examination of house plans and bids received on all portions of construction normally undertaken by subcontractors. The analysis does not include sales costs or commissions. The answers, for a home of 1,092 sq. ft., added up to \$13,612. (Labor was estimated at close to one-fourth of this amount.) The cost per sq. ft. was therefore \$12.47.

As successive semiannual reports build up a longer picture of Portland realty, the surveys should become of more and more value.



SURVEY CHARTS UNSOLD NEW HOMES

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Cover design by Adrian Taylor

# Prefabrication

Prefabrication is exerting an influence on housing out of all proportion to its size.

Only one house in 15 this year was built in a factory. Yet not one house in the other 14 escaped the influence of what is called prefabrication.

The distinction between "prefabrication" and efficient "conventional" building utilizing preassembly techniques is gradually disappearing and may not be apparent at all within a decade. Already big builders operate so efficiently they achieve factory-engendered economies without having to set up a factory. Many, in fact, have taken prefabrication methods further than almost three-fourths of the factory prefabricators. The big question prefabrication raises:

## Who will do it?

Will it be the builder on his slab? The builder in a shed near his site? The local lumber dealer? A distant factory? Or will prefabrication take the shape of components made of standard sizes? The answer: anyone who is smart enough to use its methods.

## Wanted: a new name

Prefabrication, as an industry within an industry, needs a new name. This is so not only because most large builders have embraced assembly-line techniques but also because factory prefabricators themselves have tended to integrate vertically all the agencies of production and distribution. While the



**Builder**

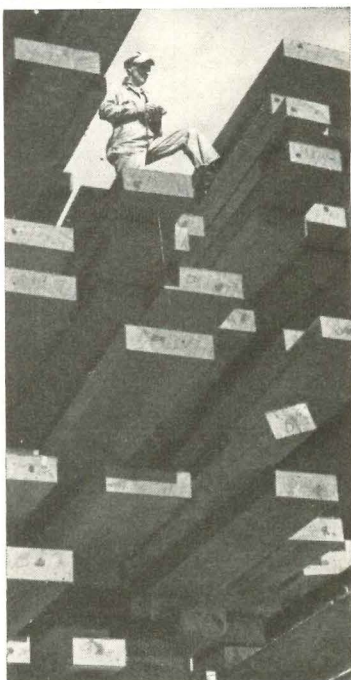


**Architect**



**Mortgage banker**

*Photos: LIFE—Eyerman; W. Miller & L. McConibe; FORTUNE—Schlivek*



**Lumber dealer**



**Realtor**

This issue of **HOUSE & HOME** is planned to help you understand  
the progress which prefabrication has made and to figure out for yourself

how you can best take advantage  
of what prefabrication methods have to offer.

Prefabrication has grown up to mean far more than the building of panels in a factory.

It is a whole new approach to homebuilding.

In fact, prefabrication has something  
to help everyone build, sell or buy a better house.

# has something for everyone

big builders have been prefabbing, the prefabricators have been doing many other things.

Prefabbers are becoming more “packagers” of goods and services than “manufacturers.” The term applied to their activities might better be “packaging” or “prepackaging” than “prefabrication.” But whatever its name . . .

## the industry is succeeding today as never before

The important factors contributing to its growth:

- ▶ Discovery by builders that prefabrication's real importance is its method of doing business. From it builders can get better design, faster turnover of capital, steady profit with less supervision.
- ▶ Quality of design never before provided in such volume. Several prefabricators, believing that houses—like automobiles and appliances—are becoming style goods, offer 1955 models. One, National, made a complete model change-over. Others are adding new models or improving this year's.
- ▶ Assembly of services that few but the biggest builders can afford to do for themselves: site planning, color coordination, financing, merchandising, etc. It is a rare builder who can pull out all the stops on all these things. The prefabricator can.
- ▶ New breed of prefabricator is emerging—men with years of building experience who are bringing to the industry the same business acumen, construction and merchandising savvy that have marked their own

successful building operations. Evolution of some lumbermen, too, into prefabricators may be an important talisman of the industry's maturity.

- ▶ Advertising in national media is adding prestige to a product that often lacked it in the past.
- ▶ Broadening of some companies' model lines to include high-priced (up to \$40,000) houses is evidence of growing acceptance and prestige.
- ▶ Mortgage bankers believe prefabrication's hangover from past failures is cured. FHA and VA are more inclined to give favorable valuations. And today public acceptance of prefabrication is snowballing.

## Home buyers

Artega photo



# Prefabrication is living down its early errors



Prefabricated houses used to have a "prefab" look

For over 25 years a prefabrication boom has been predicted. But the factory-built house has failed to live up to its enthusiastic publicity largely because of three basic errors . . .

**Error No. 1:** an almost delirious obsession with panels. Architects and engineers were fascinated particularly with wall panels and the ingenious methods of fastening them together. Their will-o'-the-wisp was a belief that the answer to industrialized houses lay solely in turning out cheap panels.

But an ingenious panel was not enough. Example: value created through processing materials for house manufacture is about 18%, far less than the manufacturing value created in other industries. Automobile manufacturers, for example, add 32% to the value of the materials they process. Even if a panel manufacturer cut his costs in half he would be saving the builder only 10% of the cost of the finished house (excluding lot).

**The remedy:** a recognition that the panel is only one of many elements. While the panel itself has been improved (see below), prefabbers recognize that the by-products of prefabrication may be even more important: quicker erection, which leaves builders less at the mercy of the weather; faster product turnover with better profits; less overhead; one bill of materials.

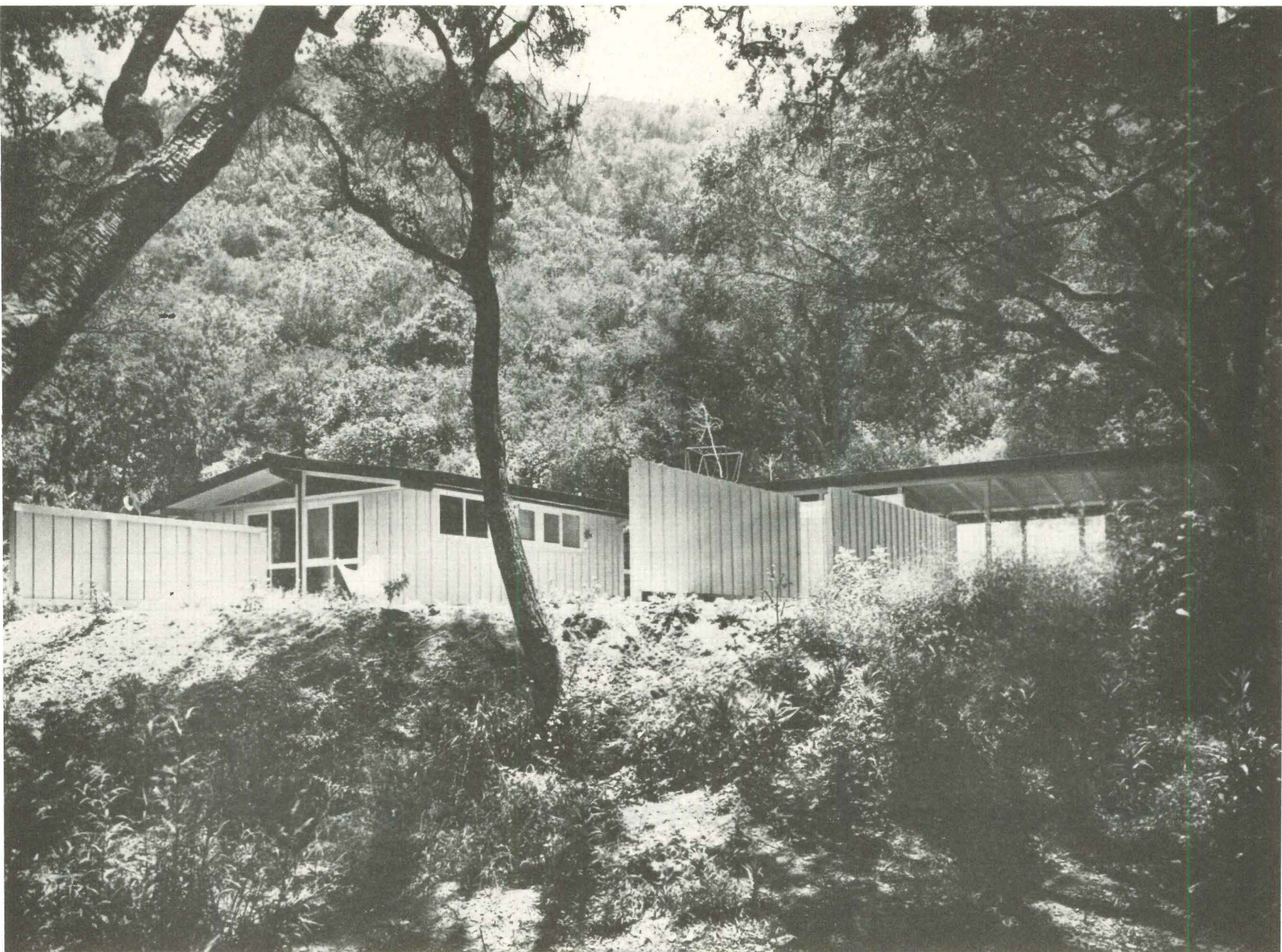
**Error No. 2:** a disregard for what happens at the site. Many prefabricators made panels far too large for easy handling on the job. As a result, builders discovered the cost of truck-mounted hoists, cranes and gin poles far outbalanced savings at the factory. Early panels were not only heavy, they required precision building which most field crews could not attain.

**The remedy:** today most panels are light enough to be handled by four men who use simple tools like pry bars and dollies, hammers, sledges. The ingenious connecting device of the early days has now become the common nail. House parts are designed for the type of labor available to most builders. Factories send engineers to train crews, help erect the first house, use isometric drawings instead of blueprints. There is more competition between firms, and sales managers know their houses must go up easily if they are to be popular with builders.

**Error No. 3:** a woeful ignorance of the builders' problems. Some prefabbers were manufacturers looking for a way to sell their products. Their designers and salesmen had little idea of what builders were doing, how efficient big builders were becoming, how important FHA and VA were in financing, problems of codes, labor unions, marketing practices, customer preferences and sound business practices for a builder. In short, the prefabricators designed houses for an ideal public, were almost unaware that the builder, about whom they knew so little, had to provide the wherewithal to get houses built and sold.

**The remedy:** concentration on the local builder and his problems. Many prefabbers today started as builders, still carry on a building operation, and are far closer to other builders than were early prefabbers. National's Jim Price, for example, was a local builder before he became a prefabricator. He and his brother still have the National franchise in Lafayette. Half a dozen other prefabbers with building backgrounds are described on p. 127. But even prefabbers, who did not start as builders, now know that what they put in their package is only one of their advantages. Their services to builders range from acceptance corporation financing through site planning.

Today the factory is not only providing a better house package but is also giving a combination of services which prefabbers would never have thought of a few years ago. This combination of product and service characterizes the prefabber of today and is laying the foundation for his growth.



**Design** is the sales magic in Cliff May's package

## Prefabrication: packaged houses, packaged services

Prefabrication's greatest appeal to builders is what they get in addition to the package. There is no particular magic in any prefabricator's panels. But their designs are sales magic in dozens of cities. When any of them sells a truckload of parts, a buyer gets panels or precut lumber he could duplicate for himself, but the hidden assets are their experimentation, engineering, sales popularity record. On the truck that brings a topnotch prefab package in an invisible cargo of building experience.

### **The trend is toward vertical integration**

Prefabbers today tend to integrate all the services they can for builders. When the giant of the industry, National Homes, began to help its dealers with financing, others followed suit. If some prefabbers offer advice on land planning, help with local FHA and VA offices, color coordination, others tend to do the same. By-products such as these are what help dealers most. Says PHMI's President John O'Brien: "Today the prefabricator must give service, service, service."

Prefabricators have at last discovered the principle exploited successfully by most mass-producing industries: more complete packaging. This includes design as well as panels, financing as well as prior FHA approval, faster turnover of invested capital as well as quicker erection.

The method of doing business which prefabrication permits is more important than the physical product.



## Prefabrication is becoming big business

US home buyers spent close to \$1 billion on prefabricated houses this year. There are now over half a million prefabricated houses in the nation's housing inventory.

After selling 55,000 houses in 1950, homebuilding's boom year, the prefabricated house industry sagged to 50,000 in 1951, rose to 55,000 last year. This year unit sales will take a major jump to 75,000 (see chart). The industry now thinks it is on its way, optimistically expects to produce 125,000 units next year. Former FHA Commissioner Guy Hollyday predicted last January that "within the next five to ten years, probably 40% to 50% of new housing will be prefabricated in factories." To many, that then sounded farfetched but now seems more realistic.

**The industry is reaching maturity.** There are now 86 firms packaging houses in the US and Canada for sale to builders, another 20 which sell shell houses directly to the home buyer. The 86 companies operate 115 plants. Their total capital investment in plant and equipment: a whopping \$50 million. Twelve companies have more than one plant: two of them have four, three have three, seven have two. Almost a third of the companies (some with more than one plant) intend to build another within the next few months. Significantly, many are planned outside the Midwest, heart of the prefab belt (see opposite page).

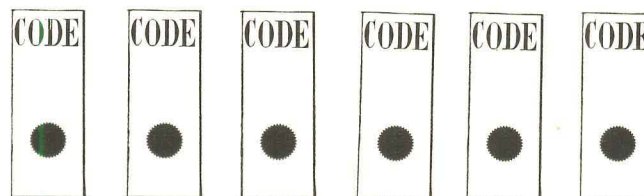
"Those coming into the business now," says Harry Steidle, manager of the Prefabricated Home Manufacturers' Institute, "do so with their eyes open and on a sound business basis rather than in a speculative way."

**Prefabrication already has its Henry Ford.** Jim Price of National Homes is the Henry Ford of the business. He could hardly be called the General Motors, but only because

the industry as a whole has not yet reached the degree of integration and maturity of auto building. There are only six auto makers today compared to 86 prefabricated house manufacturers. But merger talk is rife in the industry. The three biggest companies account for almost 37% of production; the biggest five for about 44%; the top ten for over half of all production. National Homes alone with 20,500 houses this year accounts for over one fourth of production, expects to produce 30,000 next year.

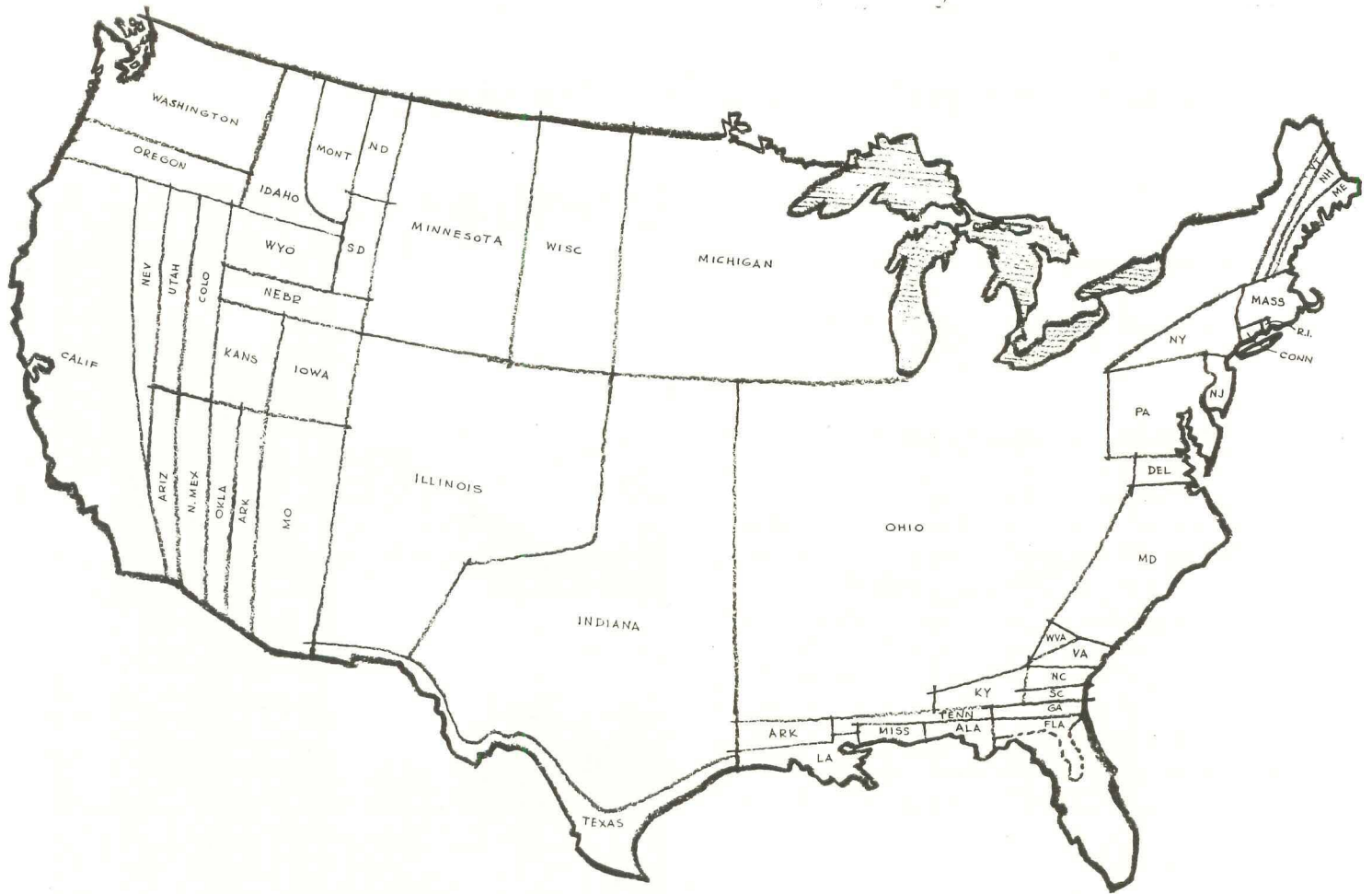
### BUT—

Few companies have enough dealers to sell what they can produce. Though the industry as a whole has over 5,000 dealers, that is much too few to handle the industry's capacity. Ford Motor Co., by comparison, has 6,500 dealers. Too few of the prefab dealers in business today are equal to the merchandising task they face. The industry's No. 1 problem is still good dealers.



Another major problem is the lack of uniform codes. By its very nature, prefabrication implies standardization, yet there are hundreds of codes specifying different kinds and dimensions of materials. What the industry needs is a uniform performance code under which it can operate reasonably. Specification codes continue to be the bane of all building today.





## Prefabrication looks queer on the map

A map distorted to give a prefabricator's view of the US looks like the one above.

Based on plant location and sales of leading firms, the Midwest looks enormous, particularly Indiana, Ohio and Illinois, where prefabricated houses account for as much as 40% of new houses.

Regional areas which traditionally have been open shop encourage prefabrication. There, and especially in smaller towns (particularly those close to urban areas), the biggest inroads into conventional building have been made.

Success of prefabricated house manufacturers has been related to the wage differential between factory and field. from 87½¢ an hour to \$1.30 in the Midwest. To make economic sense, some believe the prefabber must be able to pay lower shop wages than builders pay in the field. This is why some firms are planning new plants in the South. Others who do not think prefabrication's future depends on a substantial wage spread (and plan plants on the East Coast and Southwest) believe prefabbers must concentrate on lowering costs through production and transportation efficiencies. Says one: "Eventually we may all pay top rates."

### Prefabrication is tackling plumbing, wiring

The industry, which has concentrated its major manufacturing efforts on the parts of the house most economical to build—the outside walls—is at last doing something about expensive plumbing, and wiring. Packaged plumbing can help lower final house cost more than almost anything else (see p. 132). General Industries, Fort Wayne, is one prefabricator which completely wires a house with a three-wire electrical system (H&H, Nov. '53).

### Transportation is a vital problem

Most prefabricators ship their houses a radius of 250 miles. The great bulk of their production is shipped by truck, and overnight trucking distance has usually determined plant location. Although firms distributing over a short radius do not think transportation is a vital problem, many companies would be helped by cheaper rail transportation. Reason: fewer plants; a prefabricator would be able to reach a wider market for the capital investment in only one plant. This year the industry was helped when rail rates were lowered by one third east of the Continental Divide. Next possible step: still cheaper transportation by piggy-backing truckloads of prefabricated houses from one rail line to another. Next January an ICC hearing will deal with the question. ICC approval of piggy-backing (impractical now only because trucks cannot be switched from one rail line to another) would mean a change in the basic concept of where to locate distribution points.

### What of the future?

Biggest opportunity for the industry is an alliance with big builders. Many are businessmen who know less about building than they do about financing and selling. Many have sold financing terms rather than houses in the past. They are now seeking design that sells. In the market-tested prefabs, some have found an answer. Both the big builder and the prefabricator have much to offer each other. When more get together, it may well mark the biggest step toward industrialized homebuilding yet taken.

# Prefabrication promises better design

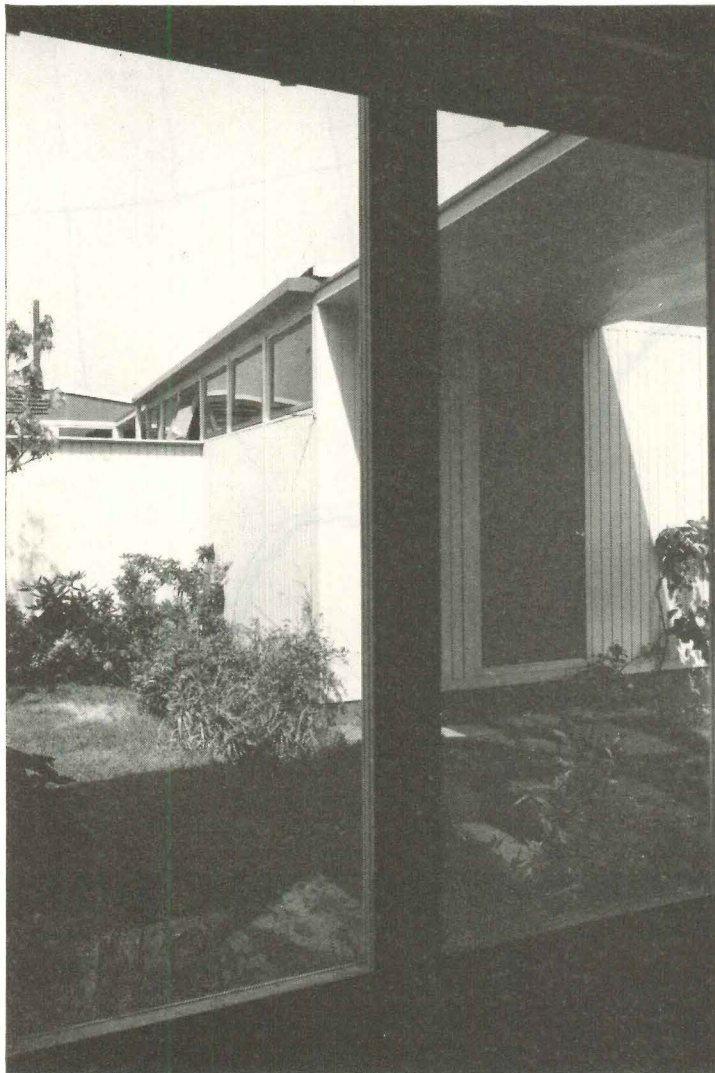
**No single factor in American homebuilding offers greater promise of better design than the growth of the prefab industry**

**There are two good reasons for this:**

1. no one but a prefabber (or a big builder) can so well afford to buy the best architect services available in the US—because, obviously, the cost of such services, when spread thin over several thousand houses, becomes almost negligible. And

2. the high design standard set by *some* prefabbers (past and present) will soon force *every* builder in the US—be he big, medium-sized or small—to adopt higher design standards in his own houses. For if a home buyer can get the benefit of topflight architectural design thrown in almost free with his prefab house, he is going to demand similarly high design standards from the competition. The site builder, in other words, will have to match or beat the prefab—*designwise as well as in price*—or be forced out of business.

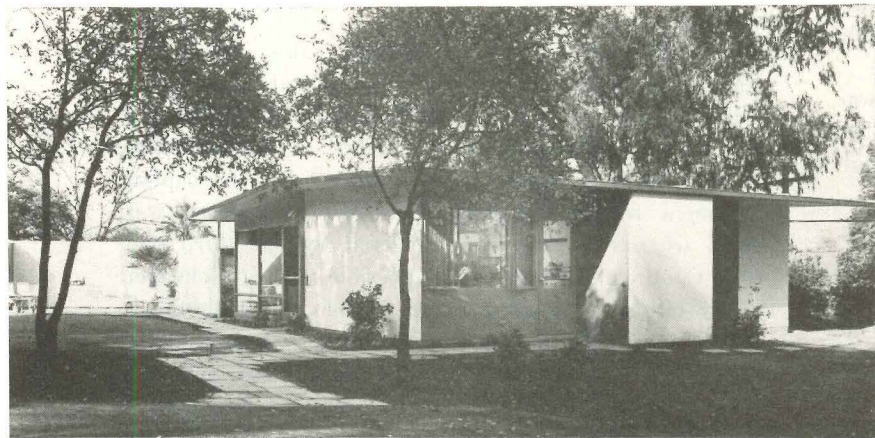
**There are two good reasons for this: of the past ten years raised design standards throughout homebuilding**



**1946:** General Panel prefab, by Konrad Wachsmann & Walter Gropius. Modular panels, 3'-4" wide, formed walls, partitions, floors and roof.



**1948:** Acorn House, designed by Carl Koch. Entire house folds around utility core for compact shipping on trailer truck, unfolds again on site.



**1947:** Consolidated Vultee prefab, designed by Henry Dreyfuss and Edward L. Barnes. Wall panels, 2" thick, were of paper honeycomb core faced with aluminum.



**1944:** Green prefab, designed by George Fred Keck and William Keck. Modular panels were 3'-3" wide, included louvered ventilating units.

Here are some of the most important prefabs designed by architects since the end of World War II. Because they were so well designed and because their good design was so widely publicized, these prefab houses left an indelible mark upon American homebuilding as a whole—and the homebuilding industry today is a better industry because of them.

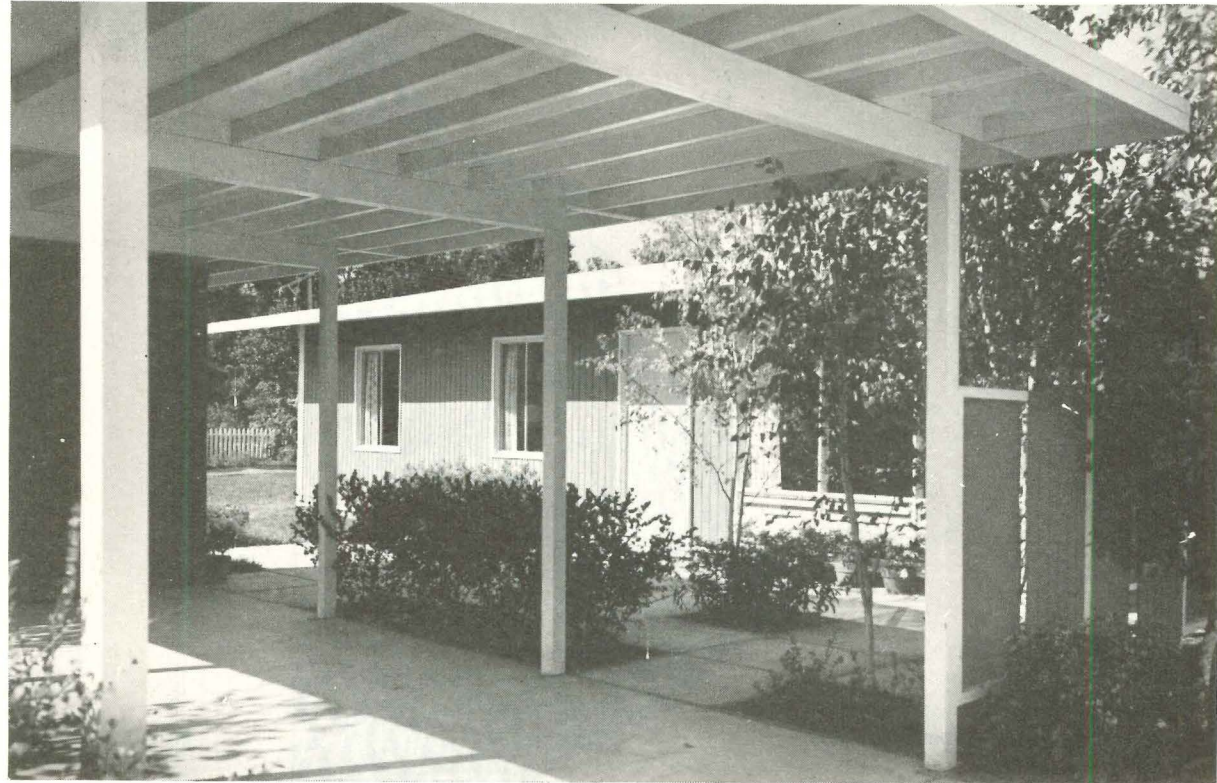
# Prefabrication needs the best architects



National's President Jim Price



National's Architect Charles Goodman



**But selling more houses faster is not the only contribution**

**(or, for that matter, the most important contribution)**

**a good architect can make to his prefabber client**

Whether the prefabber knows it or not, the modern architect is his best friend on earth. Architects have been talking prefabrication, modular design, standardization and components for half a century. Moreover, they have done more than talk about it: in countless experiments, in custom houses, in designs that never left their drafting rooms, architects have amassed a huge reservoir of prefabrication research—available to the prefab industry for the asking.

It would take a book to present the experimental prefabs developed by modern architects over the past 50 years, for not a single important architect has failed to experiment with prefabs. These experiments have generally taken three forms:

1. Experiments with new materials.
2. Experiments with modular wall panels.
3. Experiments with big components.

On the next two pages is a quick review of some of these experimental designs. Many of them parallel or advance present thinking in the prefab industry.

*Photos: (opp. p.)  
© Ezra Stoller; Julius  
Shulman; Hedrich-  
Blessing; (above) J. Miller; R. C. Lautman*

# Architect experiments are helping the prefabber

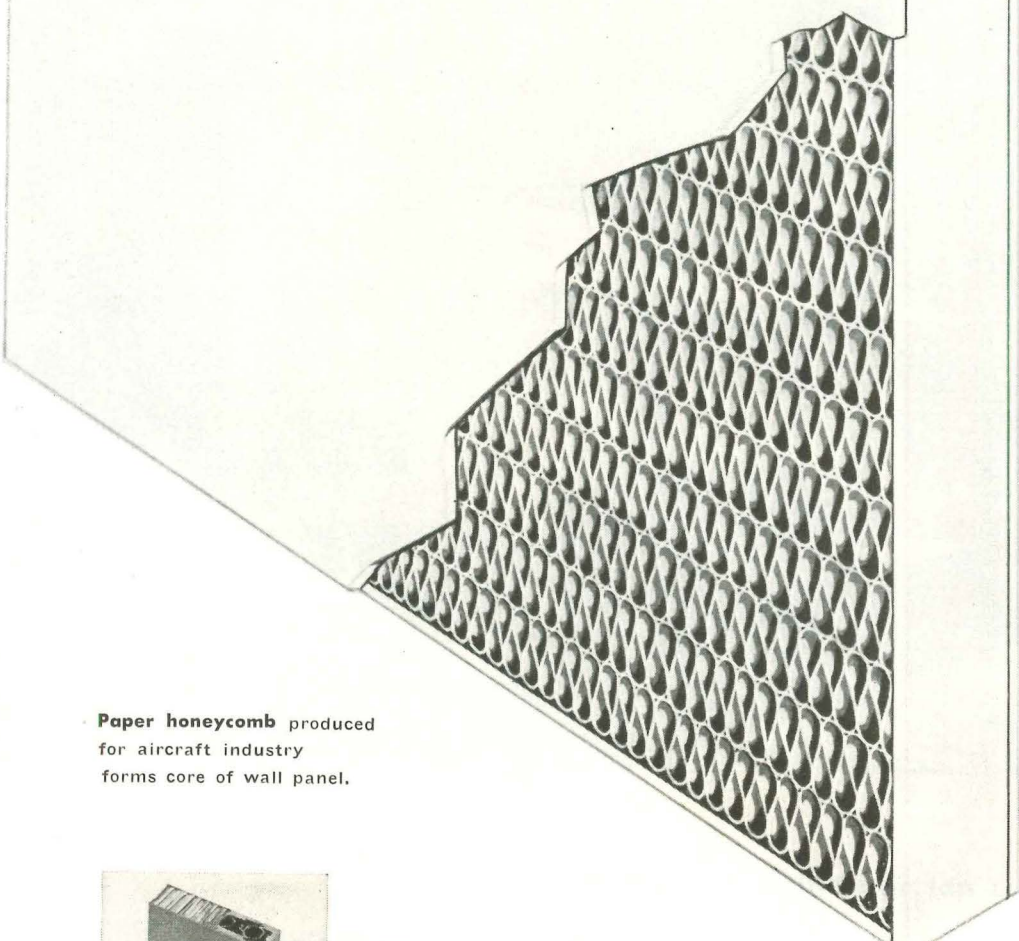
Because architects have long cared about modular planning, about standardization and about simplification, many of their *custom* houses are, in effect, laboratory experiments which help improve prefab techniques. For example:

Architects have experimented with new materials like paper honeycomb for the cores of wall panels. Result: much lighter, stiffer and thinner prefab walls, a great improvement over the traditional stud frame.

Architects have experimented with modular panels which permit a maximum of flexibility in design. Modules in addition to the standard 4' x 8', and panels that contain all wiring, etc. have been tested.

And architects have experimented with large components—utility cores, roof trusses, whole sections of buildings. These experiments will bear fruit when code problems and other obstacles have been removed.

Here are some outstanding examples of architect experimentation.



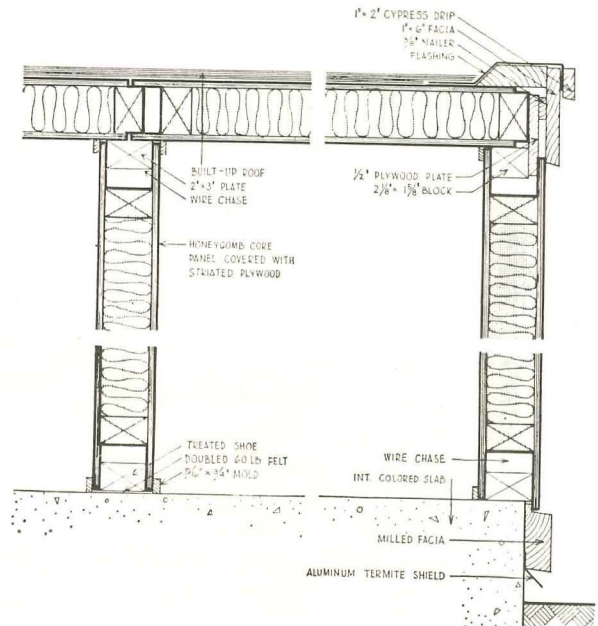
Paper honeycomb produced for aircraft industry forms core of wall panel.

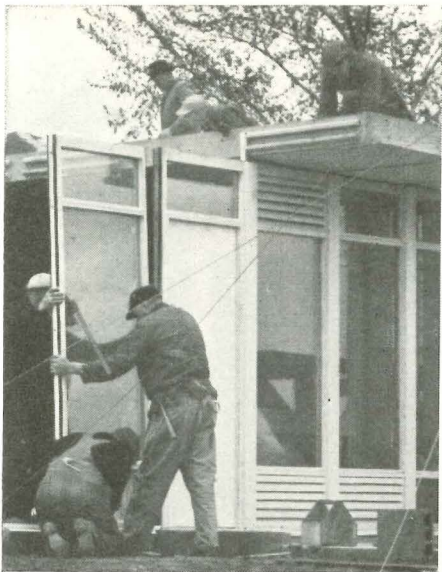
## Experiments with NEW MATERIALS

Architect Paul Rudolph built custom prefab in Sarasota, Fla. using striated plywood panels with paper cores for walls, partitions, roof (see below). Cost in first experiment: only \$8.25 per sq. ft. for entire house.

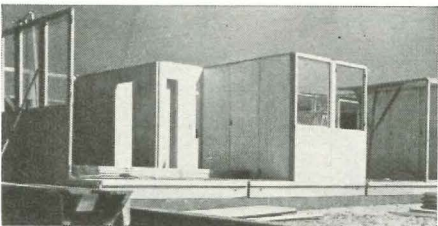


Institute of Design students in Chicago, under direction of Konrad Wachsmann, produced this system of metal-faced wall panels with paper cores. Panels form walls, partitions, floors and roof, contain all services.



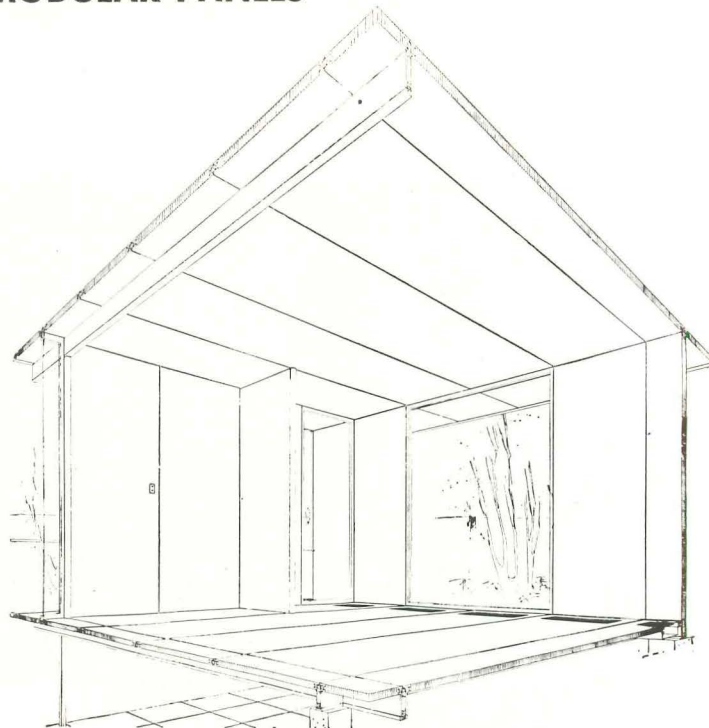


Hedrich-Blessing



## Experiments with MODULAR PANELS

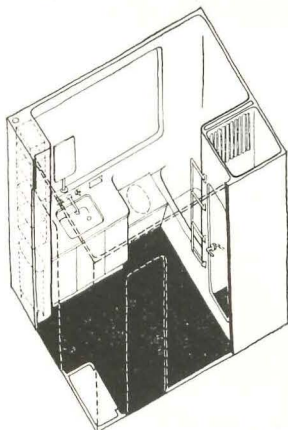
Instead of combining ventilation and vision in single, traditional window-wall panel, Architects Keck & Keck designed fixed glass panels for views, louvered ventilation panels for fresh air. Module was 3'-3" to take typical exterior door width and jambs. Edward W. Green was prefabber.



Somewhat similar prefabs by Wachsmann & Gropius for General Panel used 3'-4" module, low-pitched roof (with prefab trusses reinforced with plywood—see below) and special panel connectors.

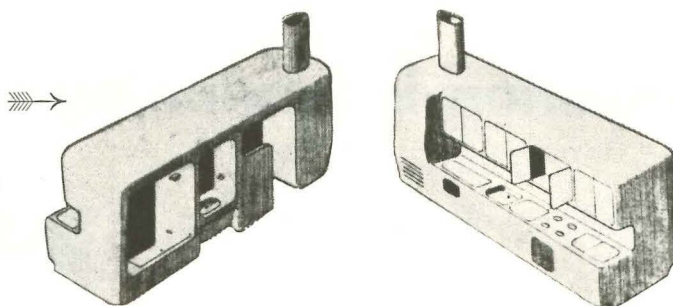
Institute of Design project (see opposite page) envisaged use of metal-faced panels for walls, partitions, floors and roof. Panel core is paper honeycomb.

## Experiments with BIG COMPONENTS



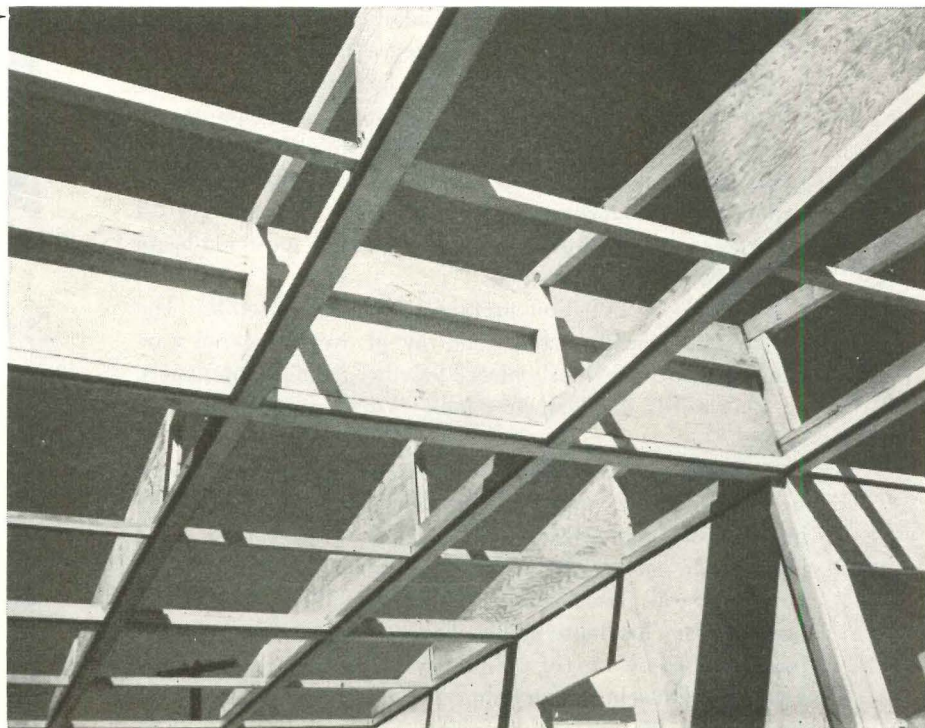
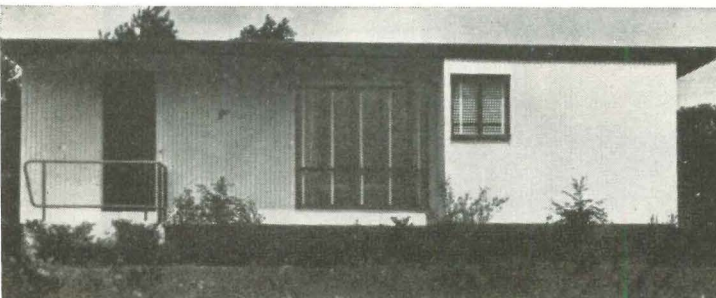
Prefab bathroom design prepared during forties by Architect William Wilson Wurster. Prefabrication of such expensive parts of houses is becoming more and more urgent.

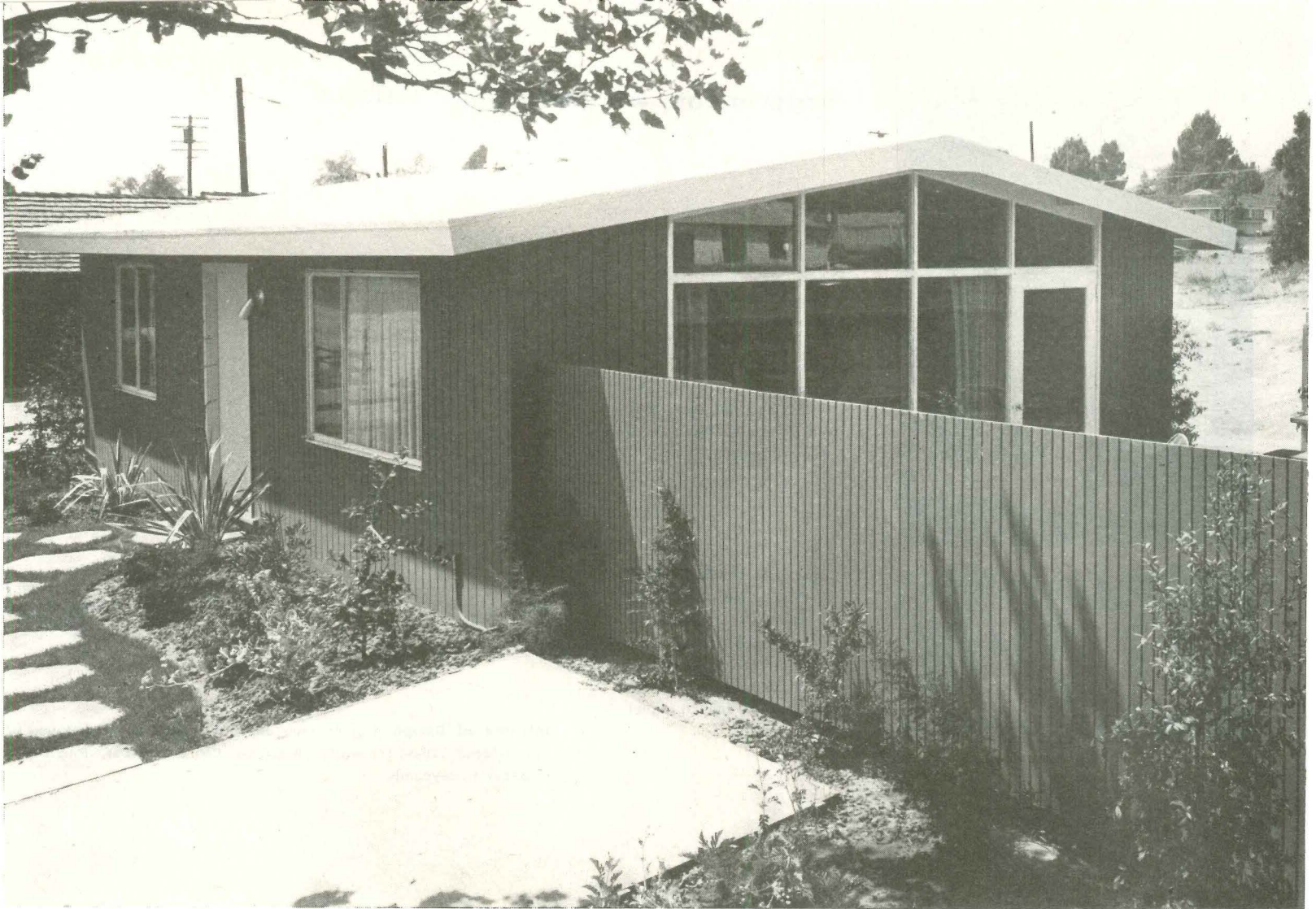
Prefabricated kitchen-bathroom-utility unit designed by Architects Ralph Rapson and David Runnells. Standardized utility cores still permit flexibility in planning of rest of house.



Prefab roof trusses by Wachsmann and Gropius used plywood gusset plates, glued connections.

Steel prefab by Architect William Lescaze (below) was made in a few large sections bolted together on the job. Lescaze's system assumes that prefab industry will follow lead of auto makers, produce some basically different models rather than different modular panels.





Packaged Homes' "Westway," designed by Herman Muller. Two bedrooms, 720 sq. ft., \$5,700

## Prefabrication is beginning to meet the market

The prefabs shown on the next eight pages are among the best introduced recently.

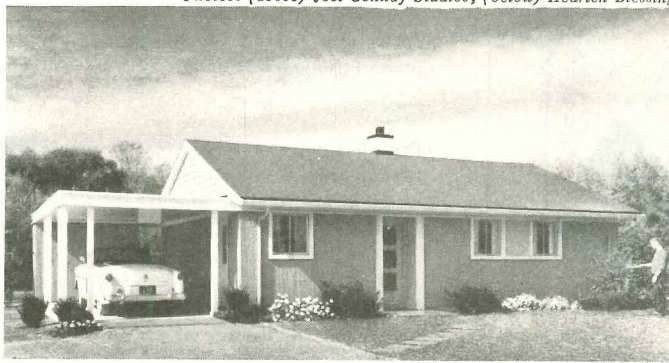
Some were designed by architects; others were strongly influenced by architect designs (and might have been much better if good architects had been allowed to gather up some of the loose ends). These prefabs suggest three design trends:

1. Prefabs are definitely going modern. More than half of all prefabs sold in the US last year were contemporary in design. Hand in hand with this design trend go more open plans, better provisions for outdoor living, slabs on grade rather than basements, lower roof pitches (and some good flat roofs), "cathedral ceilings," articulated post-and-beam structures, bigger glass areas.

2. People do not want prefabs to look like prefabs. The public still remembers row upon row of dreary-looking wartime structures, obviously pieced together from prefab panels. In other words, the "panelized look" is out—except in window walls.

3. Modular wall panels, once considered the *sine qua non* of prefabrication, have been abandoned by many prefabbers in favor of "room-sized" wall sections which can be handled on site without heavy machinery. These reduce number of wall joints, cut down site labor. When a prefabber wants to vary his house models he just makes an entirely different wall panel. As for complex panel connectors (for years a source of fascination to some designers), these have been replaced by the simplest connector of them all: the nail.

Photos: (above) Joel Conway Studios; (below) Hedrich Blessing



Harnischfeger's experimental three-bedroom prefab designed by John Normile. Not in production at present.

National's "Fleetwood," designed by Charles Goodman. Three bedrooms, 900 sq. ft., \$8,750.



## Design trend No. 1:

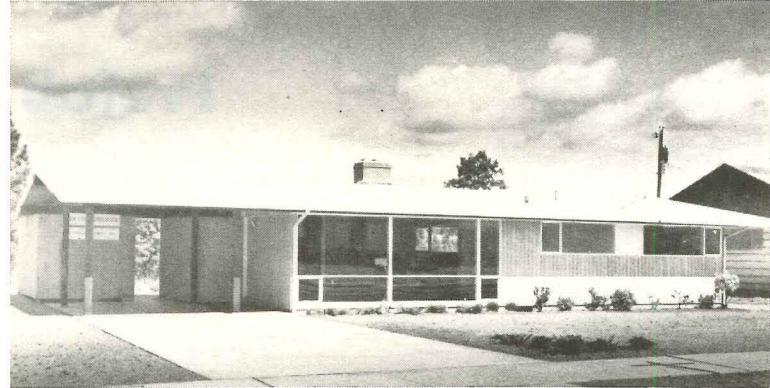
Vertical wall patterns are replacing horizontal siding. Reason: when you assemble room-sized wall sections on the job, covering up vertical joints between wall sections becomes a major problem—IF you have a horizontal wall finish. It is no problem at all with a vertical stripe pattern.

*Ben Schnall*



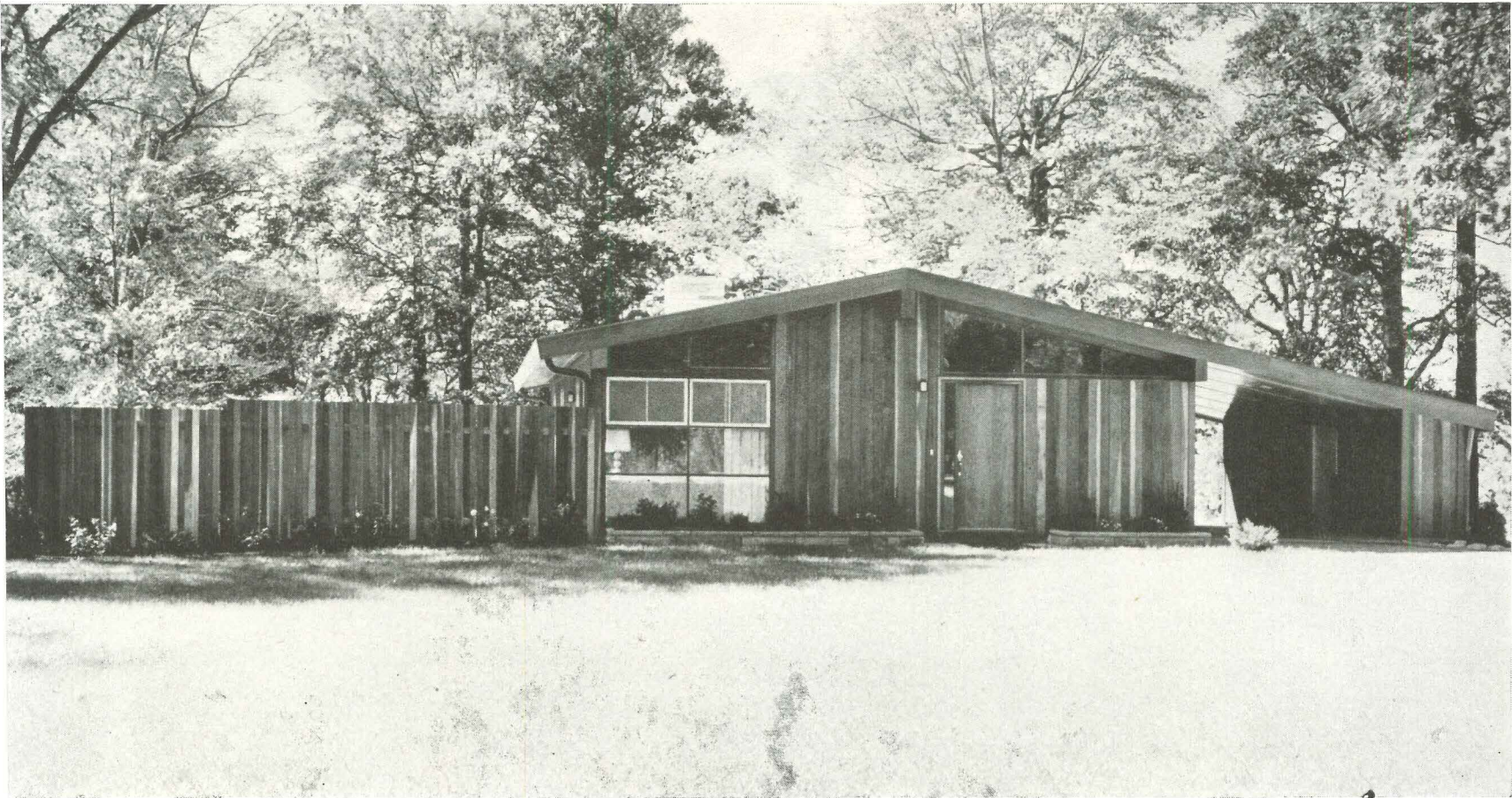
**American's "Freedom,"** designed by George Nelson & Gordon Chadwick. Three bedrooms, 1,117 sq. ft., \$15,500.

*Clay & Green Photo Service*



**Westwood's "Daybreak,"** designed by Mithum & Nesland. Three bedrooms, 1,056 sq. ft., \$13,800.

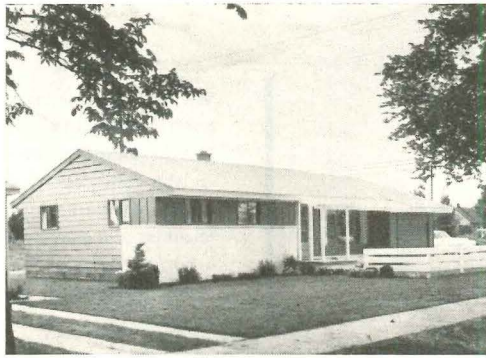
**Richmond's "New Horizon,"** designed by Small & Wirth. Three bedrooms, 1,280 sq. ft., \$16,500





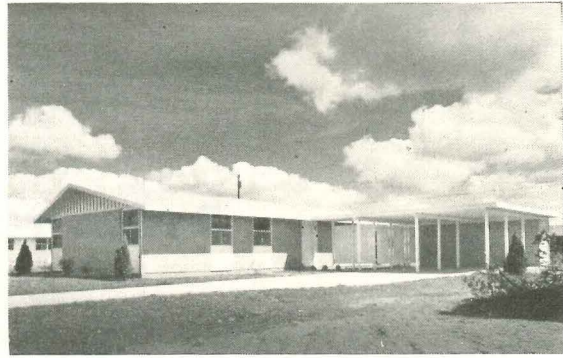
**Colpaert** prefab, designed by Joseph Kruyer: 2 bedrooms, 768 sq. ft., \$11,500.

*Lens-Art photo*



**Modern's "Windsor,"** designed by George D. Lytle: 3 bedrooms, 1,040 sq. ft., \$14,000.

*Dewey G. Mears*



**Fabricon's "Forecaster,"** designed by Ned Cole & Madison Mills: 3 bedrooms, 1,300 sq. ft., \$12,000.

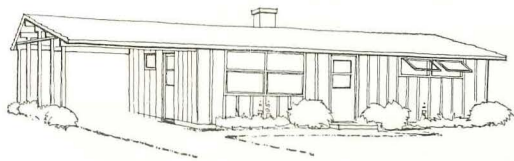
## Prefab design is better than average

**Cliff May's "No. 3211-A,"** designed by Chris Choate: 3 bedrooms 1,100 sq. ft., \$10,500

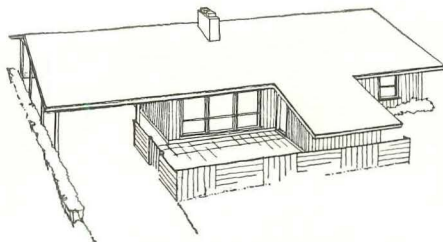
*Maynard Parker*



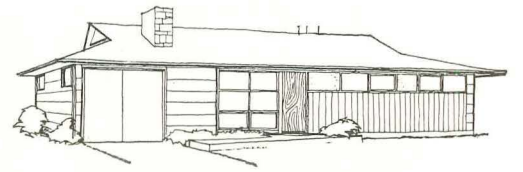




**Yetter's "Open House B,"** designed by H. Reid Hearn: 3-bedrooms, 816 sq. ft., \$6,400.



**Midwest's 3-bedrooms** prefab, designed by John Highland: 1,182 sq. ft., \$15,000.



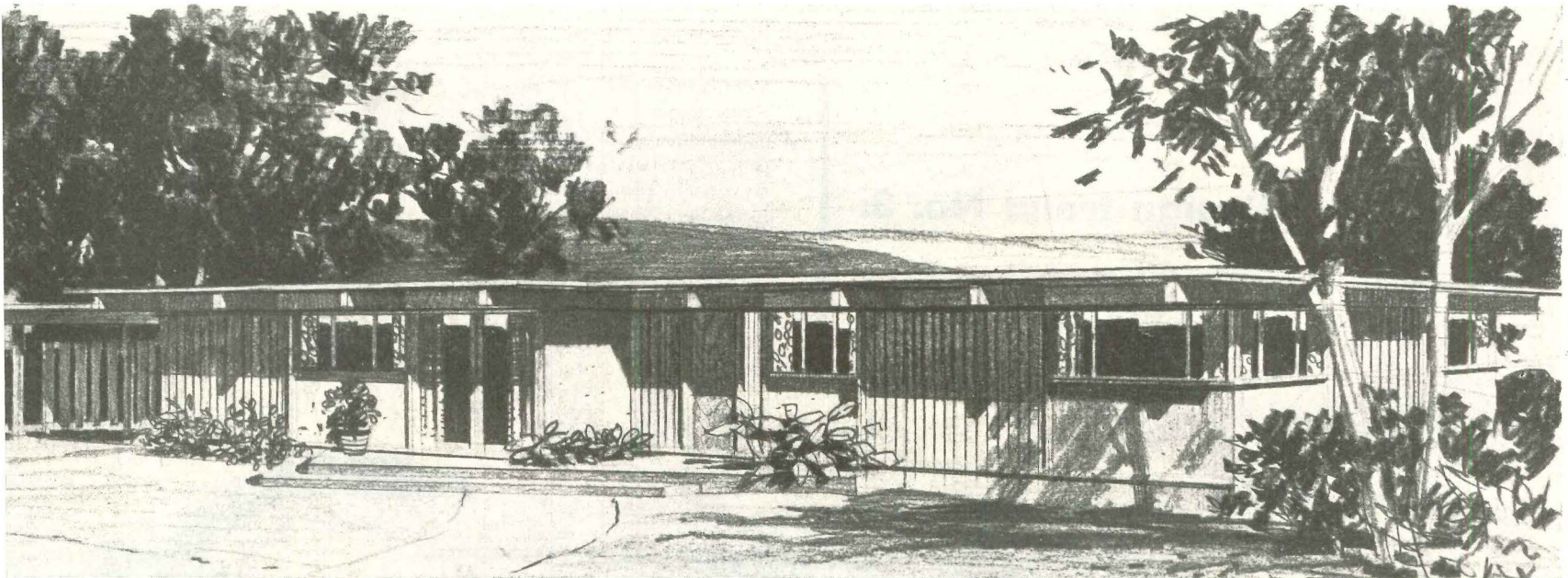
**West Coast 3-bedroom** prefab, designed by W. A. Wollander: 912 sq. ft., garage, \$9,600.

In most parts of the US any one of these inexpensive little prefabs would compare very favorably with its site-built competitor. One sure result before long: the competitors will have to raise their own design standards or be forced out of business.

**BUT**—too many prefabs are still too badly designed, considering that modern architecture has been around now for 60 years, and that thousands of good modern architects are available to any prefabber seriously interested in improving his product. For example, one prefabber has just come out with a "new" model that would have been out of date in 1920, and another has just decided to discontinue his better-designed models!

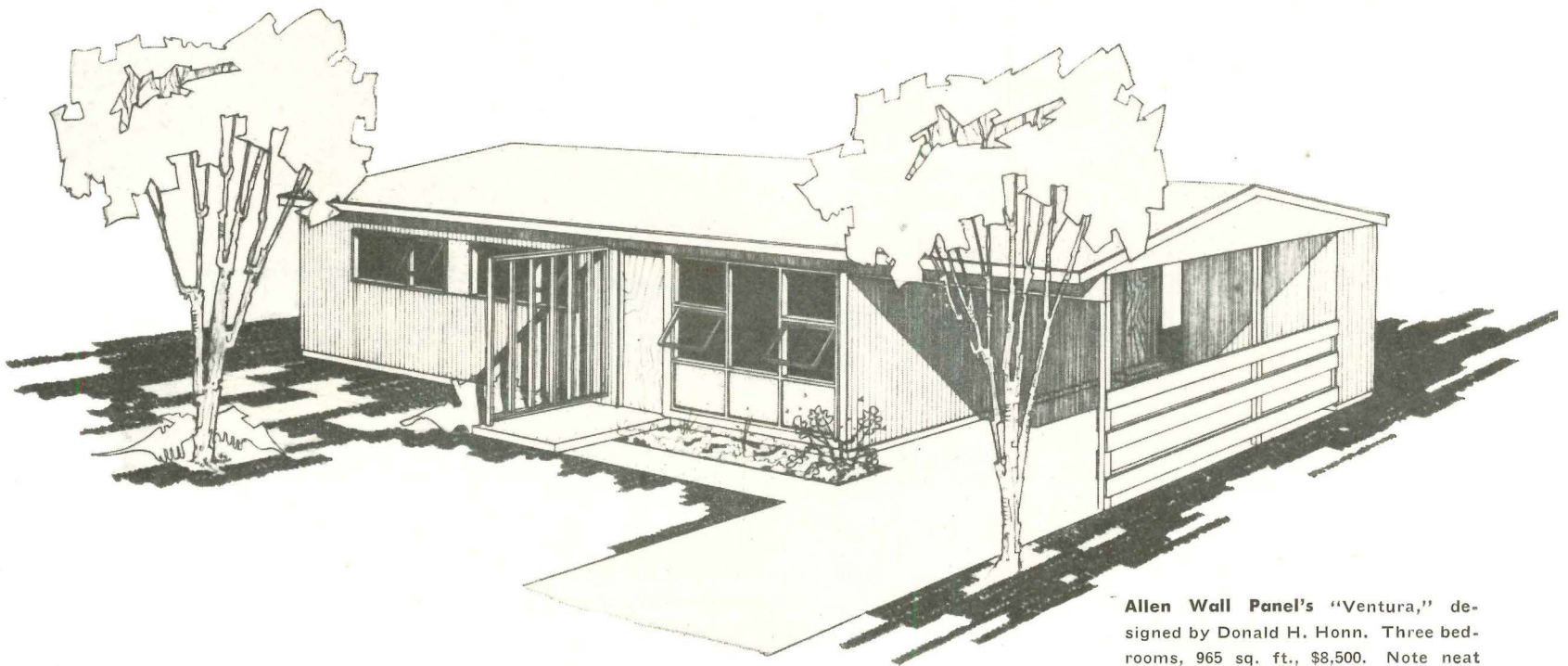
**Question:** Do these prefabbers not know what is going on in the automobile industry? Or how the sales of certain companies have nosedived because of backward design?

**Mobilhomes' latest "Bafair"** flat-top prefab, designed by William Lumpkins and Ned Abrams: three bedrooms, 1,364 sq. ft., \$10,950



## Design trend No. 2:

Simpler roof lines, lower pitches. Even though some prefabbers continue to build complicated walls and complicated plans almost all of them have started to simplify the roof, to pitch it lower and to give it a longer sweep.



Allen Wall Panel's "Ventura," designed by Donald H. Honn. Three bedrooms, 965 sq. ft., \$8,500. Note neat window and wall treatment.

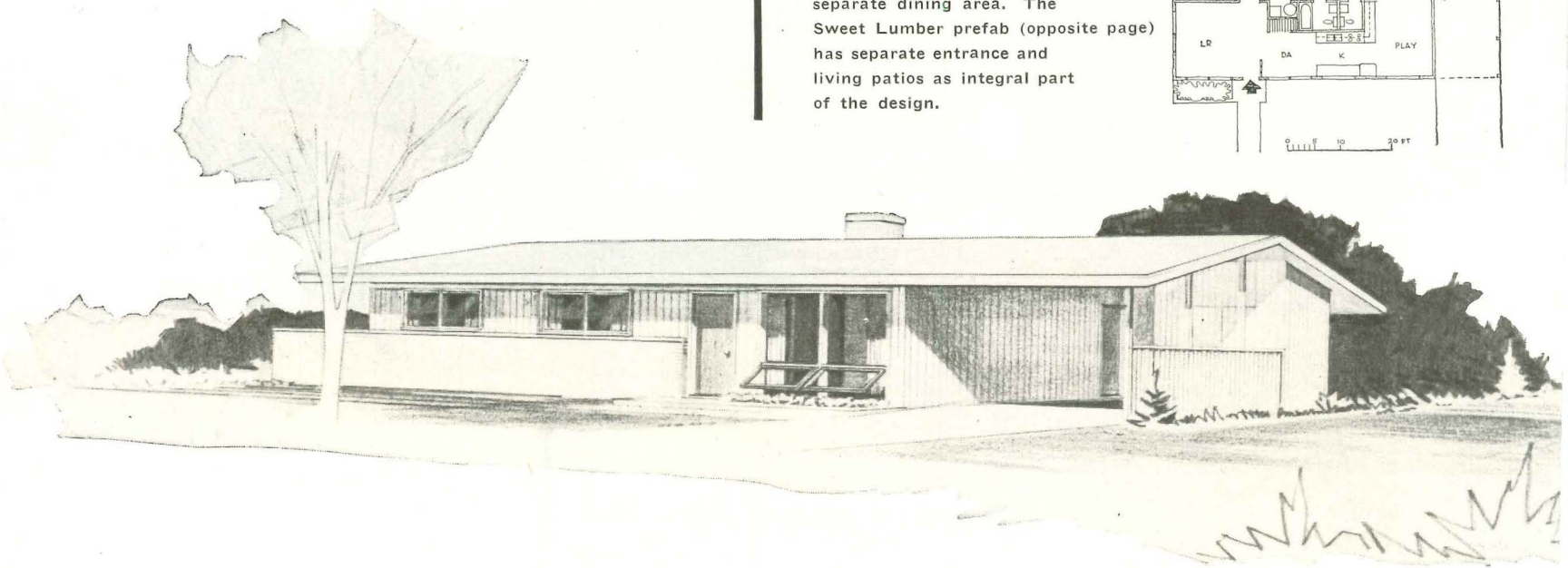
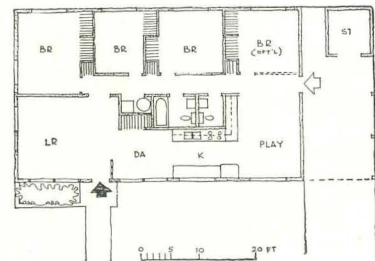
## Prefabbers are improving their plans

While most prefabbers still stick to the simple-rectangle plan (and manage to make it look quite handsome—see above), some adventurous manufacturers are experimenting with utility-core plans, patio-plans and L-plans. In a field where monotony is an ever present danger, the trend toward more imaginative plans suggests a major design advance.

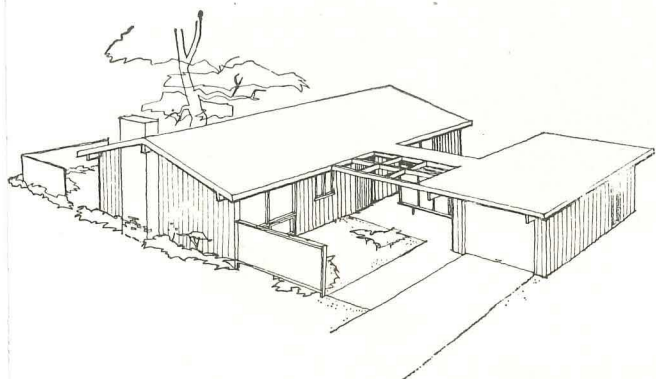
### Design trend No. 3:

More outdoor and indoor rooms

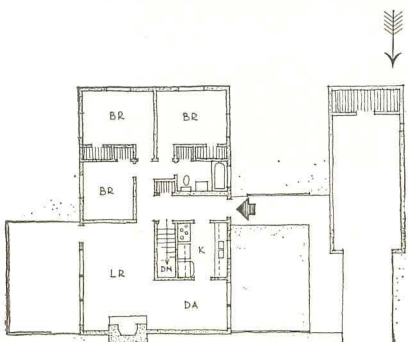
Metropolitan's utility-core plan (right) also contains a large family room in addition to the living room proper. Note the return to an almost separate dining area. The Sweet Lumber prefab (opposite page) has separate entrance and living patios as integral part of the design.



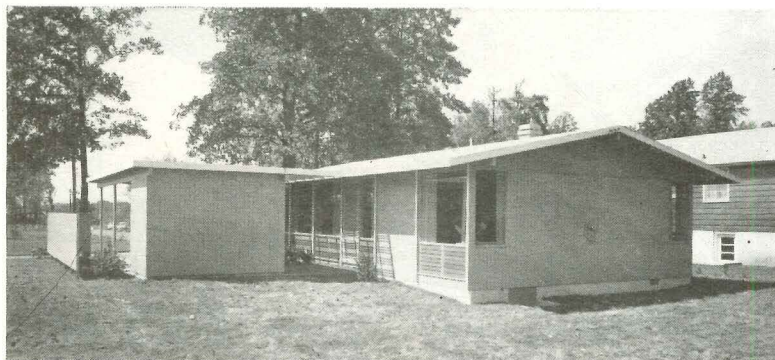
Metropolitan's new three-bedroom prefab, \$12,000 to \$14,000. Above, right: typical Metropolitan plan, showing family room, utility core



**Sweet Lumber's** "Sweet Dream House," designed by Linscott, Kiene & Haylett. Three bedrooms, two patios (see plan). Cost: under \$15,000.



*Guild Photo*

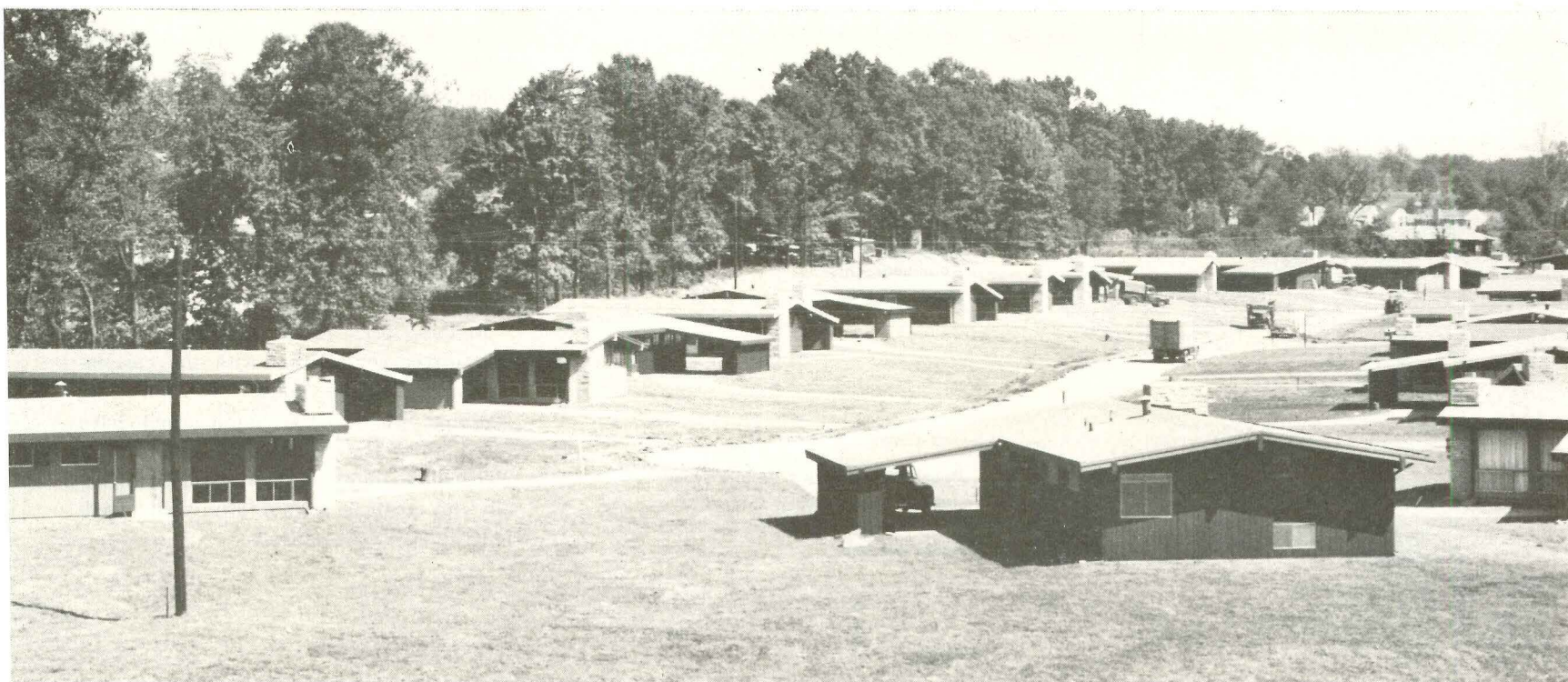


**Precision Built's** "Westernaire," designed by Richard Ian Fletcher. Three bedrooms, 992 sq. ft., \$10,000.

© Ezra Stoller



**Crawford's** three-bedroom prefab, designed by James W. Leake. 1,466 sq. ft., about \$16,000.

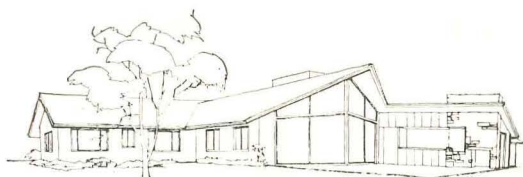


**Modular Homes'** three- and four-bedroom prefabs, shown in Ridgewood subdivision, 1,186 to 1,494 sq. ft., \$14,200 to \$16,500



**Scholz Homes' "Young Modern—B,"** designed by Don Scholz. Basic house has three bedrooms, two baths, 1,268 sq. ft. (plus heated garage-playroom), sells for \$20,000 to \$21,000 in Toledo area.

## Prefabrication is starting to tackle the high-priced house



**New Century's** new four-bedroom prefab, designed by Warren D. Marshall. 3,600 sq. ft., \$40,000 to \$43,000.



**US Steel's** new "Visionnaire," designed by W. K. Messingschiager. Four bedrooms, about \$22,500.



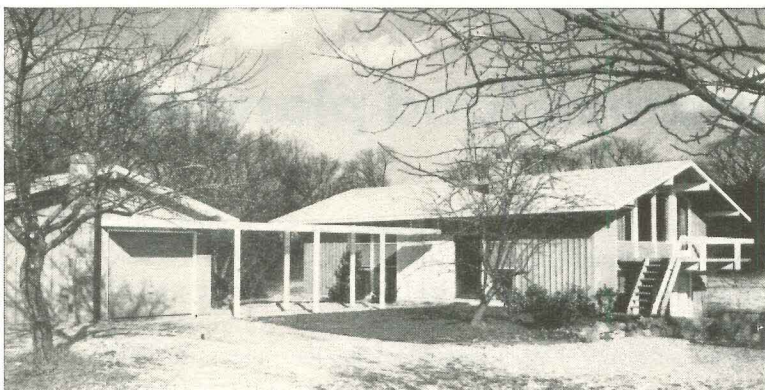
**Pease Woodwork's** "Shorewood," designed by Leon H. Purcell. Four bedrooms, 1,464 sq. ft., about \$15,500.



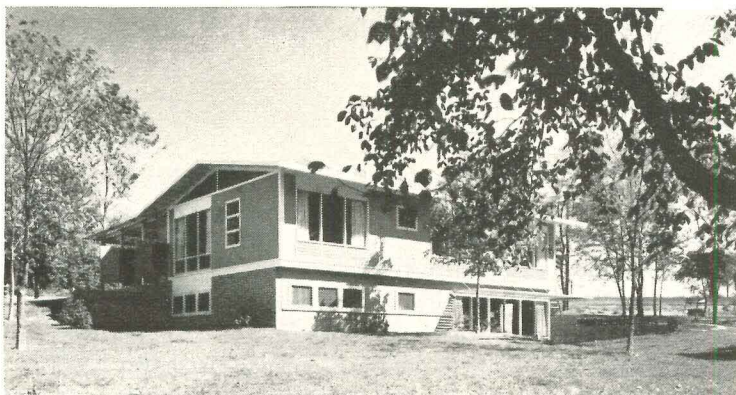
**W. G. Best's** "Skylark," designed by Leonard Wegenek. Three bedrooms, \$14,000.

Most expensive-house builders carry on a rather inefficient operation (largely because they are forced to build houses one at a time). For this reason, several major prefabbers have entered the expensive-house field: Don Scholz's houses sell from about \$15,000 on up (with land), and he expects to produce and sell 1,000 of them this year. Average price: \$25,000. US Steel's new house is definitely in the expensive class. And National's "Custom Line" includes a two-story house which sells for about \$25,000.

In these price ranges, prefabbers come into direct competition with the custom-designed architect house. To date only National, Scholz and Techbuilt seem to have faced up to the design challenge. Others will have to improve their designs drastically to compete successfully with good, individual, local architects.

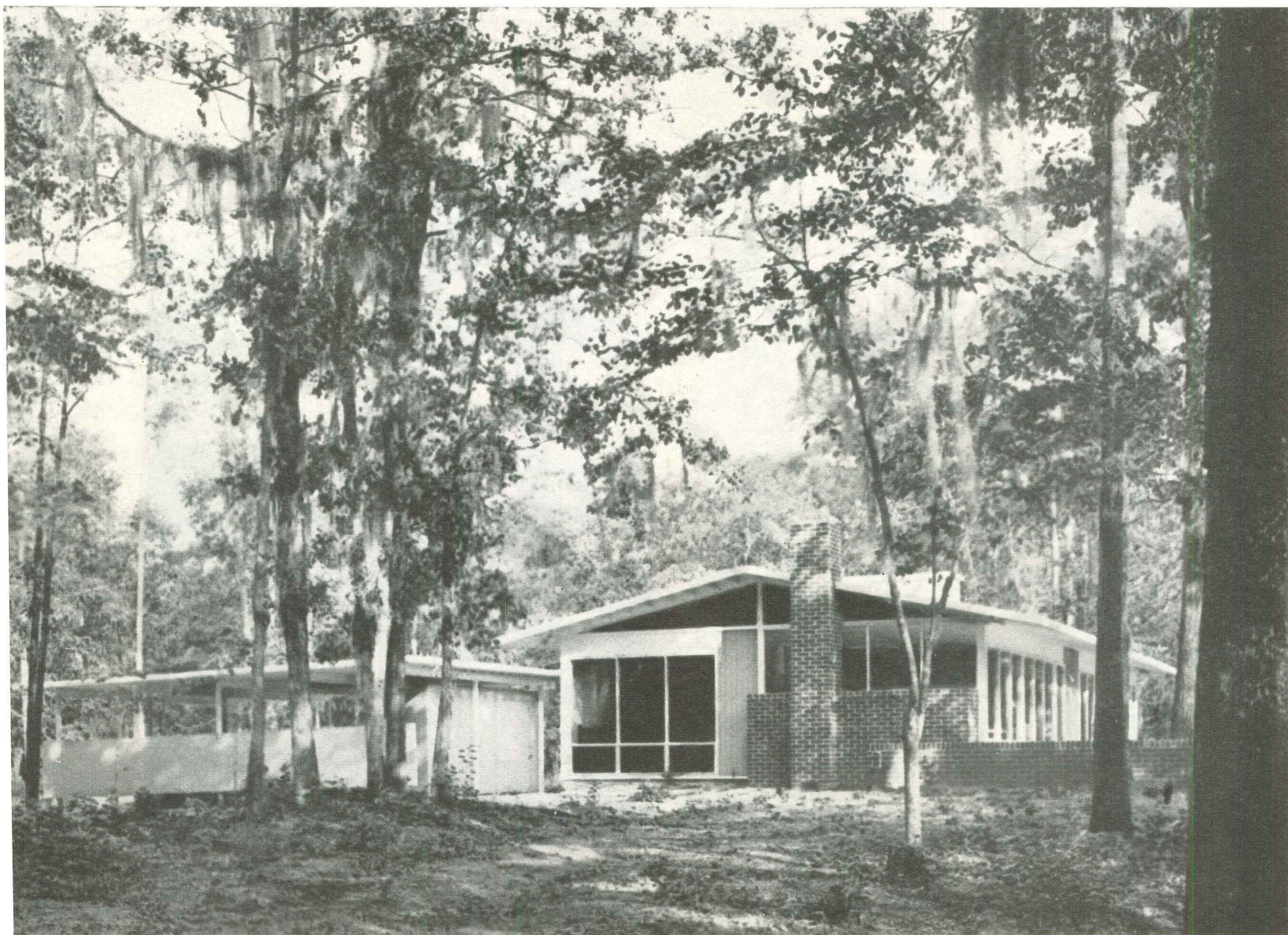


**Techbuilt's** two-story prefab, designed by Carl Koch. About 2,000 sq. ft., price ranges from \$18,000 up, depending on number of bedrooms, etc.



**National's** two level "Customline," designed by Charles Goodman. Five bedrooms, 2,160 sq. ft., \$25,000 (including land).

**National's** "Broadmore," designed by Charles Goodman. Three bedrooms, 1,536 sq. ft., \$28,000



# Prefabbers can improve land planning

Just as makers of kitchen equipment help their customers with the planning of entire kitchens, so prefabbers are beginning to offer land-planning advice as part of their service.

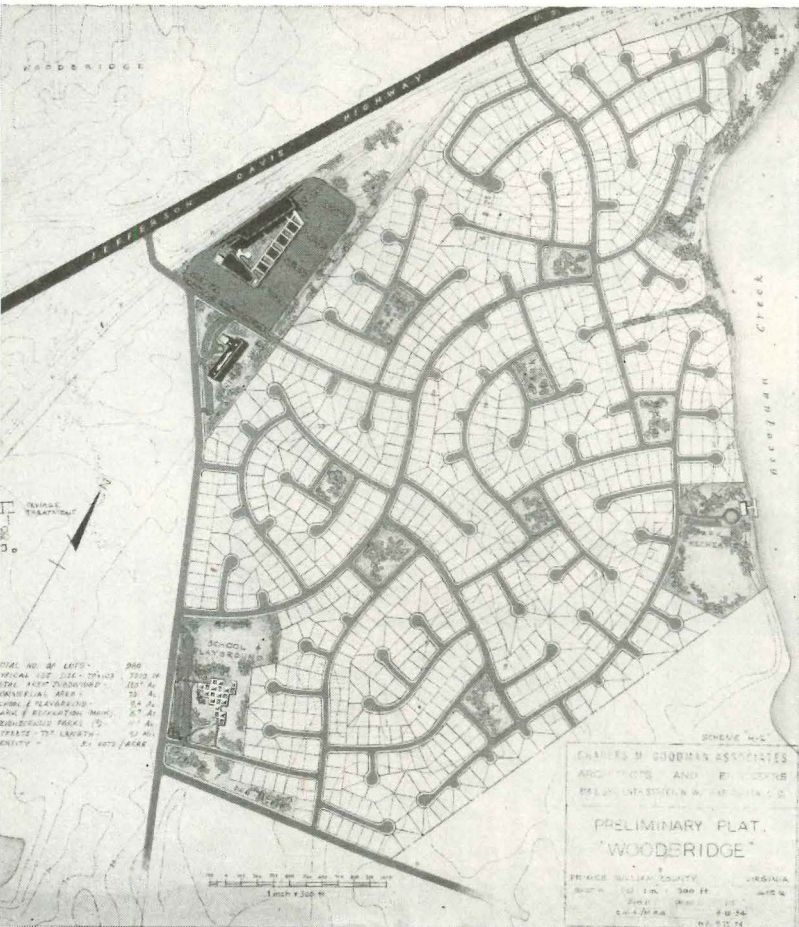
National Homes (whose site plan for the "Woodbridge" community, by Architect Charles Goodman, is shown here) have pioneered in this field as they have in others.

Good land planning is badly needed to add variety to otherwise similar houses. And with lot sizes shrinking and house sizes growing, the spaces between buildings—i.e., the outdoor rooms that we call streets, gardens or parks—become an increasingly important field for skilled design.

Take Architect Goodman's plan for "Woodbridge": this is more than a community of curving roads, more than a community without crossed streets, more than a community of seemingly private cul-de-sacs. It is, above all, a community made up of a series of smaller communities, of intimate neighborhoods each centered upon a village green or park (see below). Planner Goodman realized that the

typical lot has become too congested to serve as a satisfactory playground, and its property lines have become sharp divisions often emphasized by fences. There was an obvious need to find open community areas within walking distance of every house, and his ingenious plan provided these—as well as shopping areas, school and recreational centers for the community as a whole.

It will pay prefabbers to provide a land-planning service of this sort, if only to make sure that there will be no reappearance of the dreary prefab communities of wartime years (which gave prefabrication such a bad name). There is no reason why prefab communities should not look as well as the one shown here, and there is no reason why prefabbers should not contribute as much to raising site-planning standards as kitchen equipment manufacturers have contributed to the better layout of kitchens. In producing one of the neatest community plans in years, this prefabber has set a fine example.



**Detail** (opp.) of site plan for "Woodbridge," a National Homes community designed by Architect Charles Goodman. Note the scattering of "village greens" within walking distance of every house. Such communal parks give individuality and cohesion to neighborhoods.





**Emmet Ade**, long-time residential builder in Lafayette, Ind., is going into prefab housing permanently, planning to build 80 Inlands. He is tired of having to make changes for buyers of conventionally built homes.

**Prefab dealers are enthusiastic.**

**They're proud of their product.**

**They're in this business for keeps.**

**They wouldn't think of going back to whatever else they once worked at.**

## Dealers love prefabrication



### Why do they like prefabbing?

Dealers are glib on the subject. Ask one what is good about prefabrication or why he is in the business and he will rattle off a dozen or so reasons. H&H asked a score of these builders for their reasons and got about 40 expressions of enthusiasm and approval. Here are their main reasons:

**1. Money and finance:** "I can make more money because I can build more houses"; bank loans are easier to get; erection speed cuts interest charges, taxes, insurance; resale values are good; there is less gamble, a better chance to compete with larger builders; "the margin is less but I end up with more net profit."

**2. Costs are lower:** less bookwork and officework; "lower direct costs"; costs are easy to determine; "prefab houses are cheaper"; more unskilled labor can be used; waste and theft are eliminated; "less legwork"—purchasing is no problem; no need for storage space.

**3. Better quality:** materials are top grade; workmanship is better at factory and on site; home owners make fewer complaints; houses can be varied to meet customers' tastes; engineered construction makes good use of floor space; design is better.

**4. Fewer delays:** "bad weather is not a problem"; construction time is shorter; scheduling is easier; can build all year and hold on to work crew; FHA, VA and bank loan approval can be obtained faster.

**5. Additional help:** local merchandising and advertising materials are supplied; national advertising; designs supplied; blueprints and specifications supplied; land planning assistance; advice obtained at sales meetings on accounting, new building methods, etc.; advice obtained on financing; financial assistance given; up-to-date information on FHA, VA procedures.



## Who are these builder-dealers?

The average dealer builds 15 houses a year. (About 5,000 will build 75,000 prefabs in 1954.) Most of the dealers are in smaller cities. Less than half were previously conventional builders.

But any single manufacturer would have a hard time defining its own typical builder. One company sells a thousand units to one dealer but only one to others. Even among the biggest prefab manufacturers, almost half sell only one or two or three a year to some dealers. One company sells a thousand houses through 200 dealers; another sells that many through only 27 dealers.

Whoever the typical dealer is, he is a largely satisfied and optimistic man. This is particularly true if he first of all knows merchandising and second how to arrange his financing.

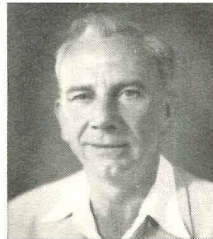
### Big dealers are a happy lot

Glander Art Studio



← **Robert MacDonald** of Manitowoc, Wis. was a meat salesman before he went into prefabricated housing five years ago. The first year he sold only two houses. Last year he built 45, one third of all the houses built in Manitowoc (where 11 prefab dealers now sell perhaps 85% of the new homes). This year MacDonald expects to sell 75. He started with Semico houses, switched to another type one year, then went back to Semico. He likes the “wonderful cost control” of prefabrication, the fact that he gets lower bids from plumbers than conventional builders do, and “not any of the houses are lemons because they are all the same.” He spends about 60% of his time on mortgage financing.

H. Reimer



← **Robert L. Pine** of Dayton was a land developer in the twenties, got into prefabrication early. He has been building Pease prefabs since 1941, has built about 1,000 prefabs, now averages about 100 a year. (He does not build more because “I don’t want to *be* a millionaire, I want to *live* like one.”) Pine is completing a 174-unit project for Negroes, using Pease and Weakley houses. He expects to build another. From time to time he tries out other makes of prefabs for price and appeal. Pine says most salesmen for prefabricated house manufacturers know little about building and less about costs. He likes prefabs because overhead is low, delays are rare and his money turns over fast.

Ollie Strong



← **John Worthman**, principal custom-home builder in Ft. Wayne, Ind. has formed Leisure Living Inc. to sell “ready-planned” houses in a slightly lower price range. He has begun with Scholz houses, expects to build nearly 100 next year. Reason: “When you’re geared up for top custom houses you’re not in the best shape for a production-type house. We didn’t want to use our own plan. If we did, the customers would say we could change it, and if we had to change it we’d be right back in custom building.” Eventually Worthman plans to expand his operation to as low as \$12,000 “ready-planned” houses—the latter either purchased or built by his organization.

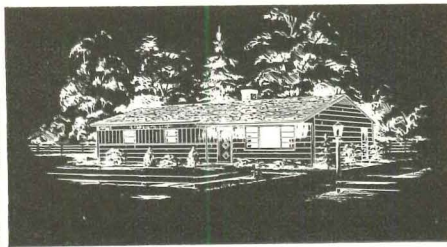


← **Herbert S. Boren Jr.** of Middletown, Ohio was a cabinet salesman in 1947 when he saw some Gunnison sales promotion material and decided to risk his capital as a dealer. He built a Gunnison and held an open house—and his breath. The house sold at once, but he did not sell another for months. Now he sells 35 or 40 a year. He has added New Century homes to the US Steel line “because some people just don’t like natural-finish wood interiors,” and he built two Scholz houses this fall, “but they are a little high in price for our town.” Boren has no trouble getting his financing—he has, in fact, just set up his own Valley Mortgage Co., helps finance competitors.



← **Bert S. Schaf** of Bradenton, Fla. shifted from conventional building to prefabricated houses six years ago. He will complete 50 Florida Builders houses this year and expects to build 100 next year. “About 15 or 20 a year was our usual construction when building conventionally,” he says. “Using prefabs, we can build three to four times as many with the same number of employees, and though our margin per house is less we will wind up with a better net.”

Scholz

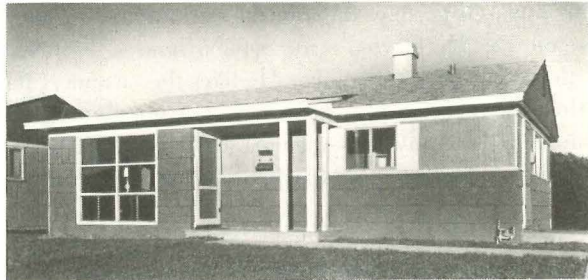


Inland

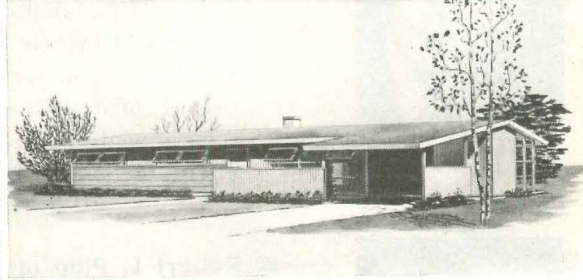


New Century

## In Lafayette, prefabrication dominates the market



P &amp; H Homes



Thyer



US Steel

*Photos: James T. Strong; Kranz-  
ten Studios, Inc., H. H. Harmon*

### How far can prefabricators run with the ball?

**Lafayette, Ind. supplies as good an answer as any city.** At least 18 types of prefab houses have been built there at one time or another (the earliest, probably, was a steel house in 1936).

Lafayette is the home of two prefabricated house manufacturers, National Homes and New Century. Despite the presence of these two major companies, a dozen other brands of prefabs have been built in Lafayette this year and there are nine dealers in the market. Perhaps 75% of all new homes there are prefabs. Lafayette and its sister city across the Wabash, West Lafayette, have a population of nearly 60,000—and probably most prefab dealers build in this size market. Furthermore, like many much larger cities, Lafayette has formidable land development problems.

Surprisingly, perhaps, conventional builders seem just as happy as prefab builders in Lafayette. And why should they not be?

▶ Although this is the home city of the biggest prefabrication plant in the US—and the National Homes dealership is the major homebuilder in town—other prefab and conventional builders enjoy healthy sales.

▶ Three or four of the dozen conventional builders have gross volumes of over \$300,000 a year—and as much business as they say they can or want to handle.

▶ Conventional builders still dominate the higher-price field.

▶ Most of the postwar construction has been in the lower-price field. A backlog is accumulating for quality housing which both conventional and prefab builders hope to get eventually.

**This is what  
Lafayette's dealers say:**



← **John J. Mahan** is 31, has been in the building business 15 years. For the past five he has built Pease prefabricated houses, building about ten a year with a four-man crew. He makes a maximum of 10% per house, ranges from about \$12,000 to \$15,000 in price. He once built conventionally, then quit because lumberyards refused to give him more than 5% off retail prices. His building costs average less than \$11 a sq. ft. He prefers a prefab house which he can adapt somewhat inside and out to meet buyer taste.



← **Floyd Lux** is a land developer, realtor and builder. He once built conventionally but "all I did was make three lumberyards rich." (In Lafayette, builders get only 5% off the retail price.) Lux has built about 500 houses over the years, now builds as many as 50 or 60 prefabs a year. He built Gunnison, Place, Pollman, General Industries, Sholtz and Lumber Fabricators houses this year, mostly testing prices and public acceptance. He expects to cut down to two or three next year, sticking to the \$12,000 to \$14,000 range, "where the buyers here qualify." Lux says there is very little difference in price among prefab house packages. The difference, he says, is accounted for chiefly by the distance units are shipped—and the most he pays is \$250 on Lumber Fabricators, Inc. from Alabama.



← **J. C. Woolery** has not been in the building field long, but he manages the biggest building company in Lafayette—Price & Price, the National Homes dealership. Woolery was an accountant with a pharmaceuticals firm before joining NH about five years ago. He joined the dealer company shortly after. Woolery crisply lists advantage after advantage of prefabrication, but stresses that it permits rapid shifts in volume. He has a staff of six. In the 12 months ending last June 30, they handled a volume of 133 houses. Then the Housing Act was liberalized and mortgage money loosened. From July through October they handled 119 sales and will probably reach 350 next June 30, Woolery believes. In almost any other field, he says, his sales costs would have soared. Woolery also stresses cost savings from volume building. By being able to build many houses on a strict schedule, savings can be made on water-meter installations, sewer connections, etc. His cost studies show that a roofer requires 45 minutes to move from house to house if the two are more than two blocks apart; the time is only eight minutes if the houses are next to each other.

*Photos: H&H Staff*

#### **Other Lafayette prefab builders include:**

- ▶ **Bethel Ryan**, a conventional builder for many years, who now builds six Modern homes yearly with the help of two men (he works slowly, and is proud of his craftsmanship).
- ▶ **Don Lowman**, one-time vice president of Gunnison Homes and president of National Homes, who sells about 50 New Century homes a year (he tried conventional building once, but became exasperated at "all the complications").
- ▶ **Fred Ket**, a conventional builder who overcame his conviction that prefabbing meant inferior quality (of his own Permabilt home he says: "I never built a conventional house as good as this one").
- ▶ **John Weigle**, former accountant and now a realtor, who will build Richmonds and Harnischfegers (P&H Homes) to round out his business (he counts on his knowledge of trading to beat the competition).
- ▶ **Stanley Franzen**, ex-salesman; who is just getting into prefab housing and has taken orders on some Weakley homes.

**Though Lafayette's  
nine prefab dealers are optimistic  
they are getting  
strong competition . . .**

**Edgar Schroyer and his son, Bud,** build about a dozen \$15,000 to \$40,000 houses a year and do a \$300,000 volume. Edgar long ago turned down an NH dealership offer. "Prefabs looked a little too cracker-boxy to me," he said. "I didn't want to shift so radically to low prices. Besides, I enjoy finding nice solutions to buyers' problems." As for the competition, he believes "we can compete with site fabrication by using power tools in the \$12,000-and-up price range. And I have yet to see a prefab owner who isn't a prospect for me."



← **Charles Mickle,** conventional builder who uses prefab methods, turns out 25 to 30 houses a year, mostly for Purdue University faculty members. He decided several years ago that "mud makes a damned poor place in which to build a house." First, it is unpleasant, and second, it dampens the kiln-dried lumber. Now he keeps his feet dry by building three standard houses in the \$15,000 to \$25,000 class in a small plant, largely prefabricating them. The houses are put up under key on slabs in one day. Mickle has even built \$65,000 houses this way. He uses radiant panel heating, stresses open floor plans. (See two photos below)

## Lafayette's conventional builders are doing well, too



At 7 a.m. workman readied slab for prefabricated parts. Truck arrived shortly after; first framing panel was up at 7:15.



Photos: (above) Marco Studios

At 3 p.m. house was this far along, and by 5 p.m. was closed, windows and doors hung, siding and roof papered.



H&H Staff



Steel houses below were built in 1936 by **George Boes,** now a conventional builder in Lafayette. Some owners have lived in them 18 years which convinces him that steel houses could be prefabricated successfully.

**Some of the most successful prefabricated house manufacturing companies**

**today are headed by men who cut their teeth on conventional building.**

**Reasons for their shifts vary:**



*urtney Studios*

← **John Bauer**, Indianapolis builder and lumberyard owner, "saw the trend, especially as it affects lumber companies."



← **Don Scholz** of Toledo was a conventional builder of contemporary houses "practically forced into prefabrication" by other builders who wanted to buy the Scholz plans and precut parts.



*y Stevens*

← **Andy Place** is a conventional builder in South Bend, always experimenting and designing houses "with the customer in mind." This experimenting brought sales success, considerable publicity and gradually led to precutting houses for others.



*Forde Photographers*

← **Cliff May**, a successful California designer-builder, designed a \$25,000 house that looked as expensive as his more elaborate houses. This interested him in simplifying construction with the idea of eventually prefabbing \$7,500-and-up houses. He and Architect Chris Choate developed panels, now distributed from five cities.



*y Stevens*

← **Ned Cole** is an architect, builder and manufacturer of storage walls in Austin, Tex. Last year he expanded to offer trusses, gables and other parts, now sells a complete package to other builders.



← **Burt Duenke's** great success with contemporary design in St. Louis (H&H, Feb. '53) ultimately led to prefabrication when many builders in other parts of the country wanted to use his plans.



← **A. C. Colpaert** has been building hundreds of homes yearly in South Bend and, he says, "when you build that many you're bound to develop this way." As soon as he had arranged financing help for dealers, he started shipping prefab houses to them.

**Some conventional builders have turned prefabbers**



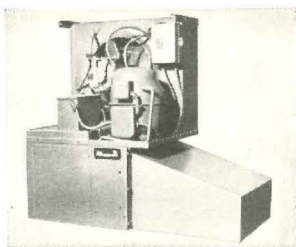
*1 Staff*

← **Richard Price** of Stern & Price, big California builders, learned the value of the panel system on a big tract of homes in Cupertino, then expanded "naturally" to prefabricating for other builders.

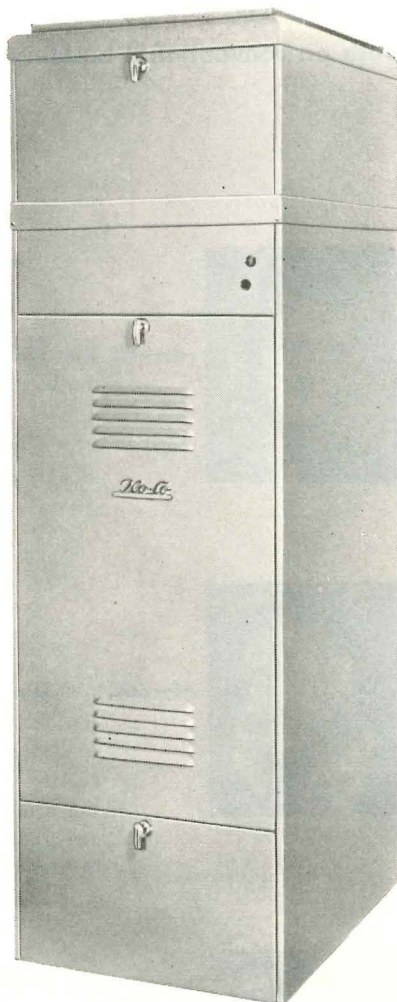
*Photos: (left & below) Steiner Studio*



← **Charles and Nelson Freeburg** in Memphis have put many Small Homes Council principles into practice in building 2,500 houses. They are going into prefabs because "packaged homes are inevitable."

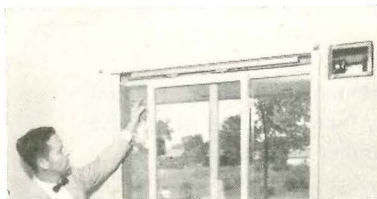


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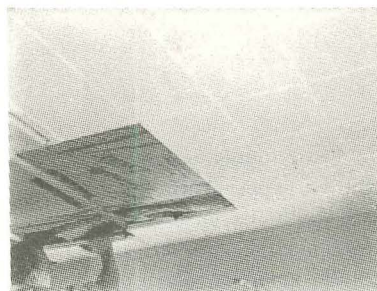
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*Lens-Art Photo*

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*R. E. Stotter*

## Prefabricators

### encourage new products

1. National's 1½- or 2-hp air conditioner made by Marvair now runs more quietly, efficiently, costs \$500 for 900 sq. ft. house, \$600 for 1,200 sq. ft.

2. Don Scholz encouraged Flo-Co to make this 2- or 3-ton down-flow unit which has drawer-type air conditioner in base, needs only under-floor ducts.

3. Power-operated windows of Modern Homes have electric motor at upper right which moves one double-glazed sash and a roller screen. Each costs \$35 extra, about \$300 per house.

4. Steel floor beams, 26' and 28' long, were specially made for Modern Homes. They save about 20% because beams speed construction on the job.

5. Acoustical ceilings are variation of commercial panels which Modern worked out with producer. Cost for living, dining, kitchen area is about \$325 more than cost of painted dry wall.

The prefabrication industry is now large enough to encourage new products which help all builders as well as prefabbers.

Today when a prefabricator's purchasing agent asks for prices on a thousand units or more he gets attention from a manufacturer. If he asks for something brand new he gets consideration—although he may not immediately get the product.

A few of the many products encouraged by prefabbers are shown here. Representative is the air-conditioning unit which National installed in about 5% of its houses this year. Several other prefabbers are also using air conditioning and their combined influence is encouraging manufacturers to improve their products and reduce their prices.

Jim Price of National has also been working with most of his producers in an effort to get things he needs. From Monsanto he is now getting a new cold-process adhesive which sets fast for fastening his wall sections together. He also has one furnace adaptable to three different requirements; formerly he used three furnaces. He now has a new kitchen sink designed by Architect Charles Goodman, an improved nailing machine for fastening gypsum board to panels, and an improved aluminum window. Other prefabbers have similarly worked with their suppliers to get better products.

Modern Homes is typical of a progressive prefabricator which encourages new products. It has pioneered in getting a manufacturer to produce steel floor joists, has stimulated the development of an acoustical panel with a new type of clip, and also is using electrically operated windows which it helped to develop.

The use of assembled components is emerging as a major new trend in homebuilding.

Manufacturers and even local lumber dealers are mass-producing flexible components to replace a multitude of little parts formerly put together on site. Assembled components like panel systems, storage walls and roof trusses are already paying off for conventional builders everywhere.

On the next six pages is a roundup of the latest ideas in components, including advances in prefabricated plumbing and a whole kitchen package as well as structural sections like a complete window and wall assembly, and roof truss. Gradually, the builder is becoming an assembler of these prefabricated parts. Made with production-line efficiency, capable of being used in *any* house, they speed up erection and make building easier.

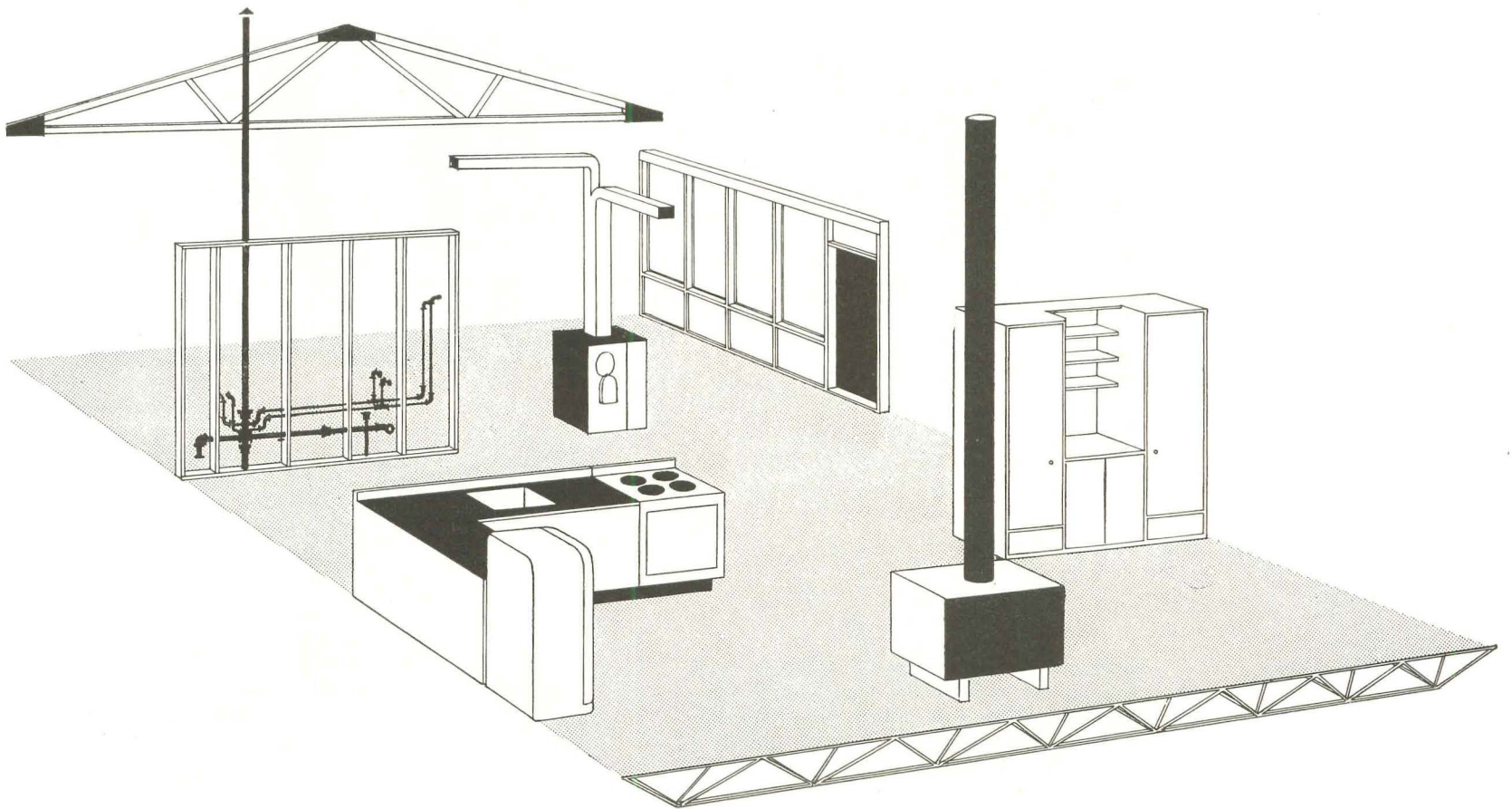
*But the key to big savings is dimensional standardization*

Before any manufacturer or any local lumber dealer can tool up and really mass-produce, builders must settle on a few basic dimensions, e.g., the 8'-3/8" ceiling height and AIA-NAHB's recommended 2'-0" and 2'-4" spacing for bath fixtures. Similar yardsticks should be the common denominator for all important components.

As things stand now some 2,250 different types and sizes of metal windows alone are made just for houses. Appliances are made in hundreds of different sizes. Domestic hot-water heaters are almost always round but closets are always square. Dimensional standardization is clearly needed for virtually all parts of a house.

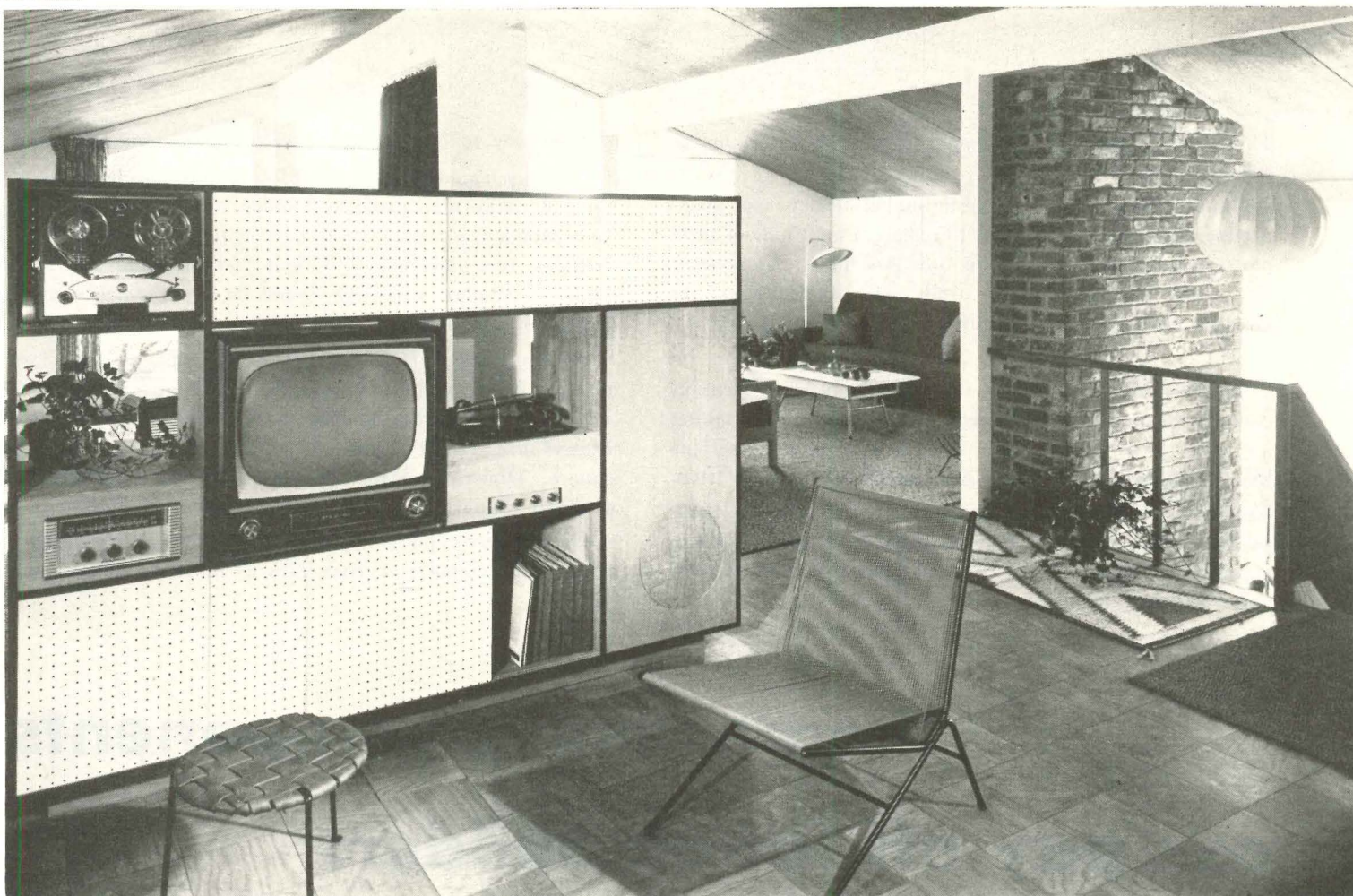
On the other hand no builder need freeze his house design; the flexible component gives him as much freedom as he wishes.

## Preassembled components can pay off for all builders



# Flexible components speed up construction all through the house

Ben Schnall



**Storage unit** in Techbuilt house by Carl Koch & Associates, a neat space divider between living areas, shows flexibility possible with storage units.

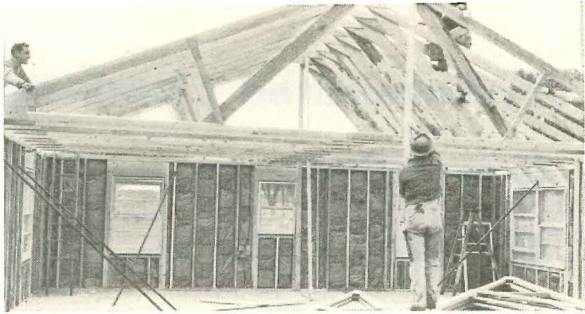
**Panel wall sections** (right) based on 4' module, line up fast like soldiers. Windows and doors are fitted, hung, weatherstripped before shipment. These panels (and wall section below) by Wadsworth Inc. are also prime-painted, insulated and numbered beforehand.



**Whole wall section** (right), like panels in center photo, can be shipped. One firm, General Industries, even makes wall sections with three-wire electrical system installed, following HOUSE & HOME's recommendation (Nov. '53). Three-foot wire pigtail extends for final connections.







**Wood trusses** are W type with 5/12 pitch spaced 24" o.c., by Wadsworth Inc. Triangular wood gussets cover joints.

*Dewey G. Mears*

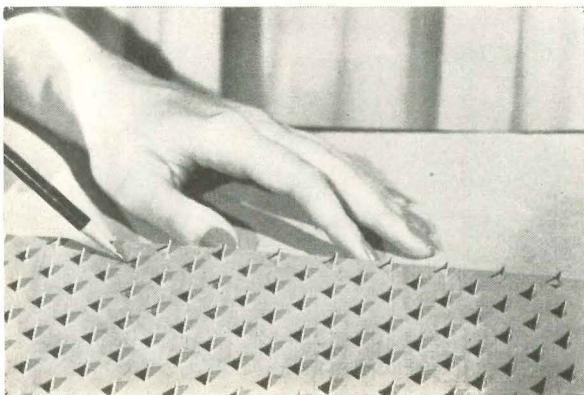


**Steel trusses** by Ned Cole span 24', weigh 110 lbs. each; can be fully dismantled for fast, inexpensive shipping.



**Steel floor joists** by Modern Homes are 180 lb. each, 24' or 28' long, 24" o.c., can be set in place by two men.

**Steel grip plate** (below) clinches joints in Sanford low-pitch wood truss, right. Trusses cost \$13 to \$14 each.



## What do prefab manufacturers say about components?

How do factory-made components influence homebuilding? What about their future? Prefabricators—who have had much experience with them—say:

**Fabricon.** "The component system makes possible a greater number of end products at costs equal to or less than conventional prefabbing."

**American Houses, Inc.** "Components encourage less field work and more pre-engineering."

**Pan-Abode, Ltd.** "Fabricated bathroom, kitchen and heating units will become more popular. In Canada we are behind the US in making them."

**Colpaert Homes, Inc.** "In most cases the firm that specializes in particular equipment can do a better job of producing material than the prefabricated house manufacturer."

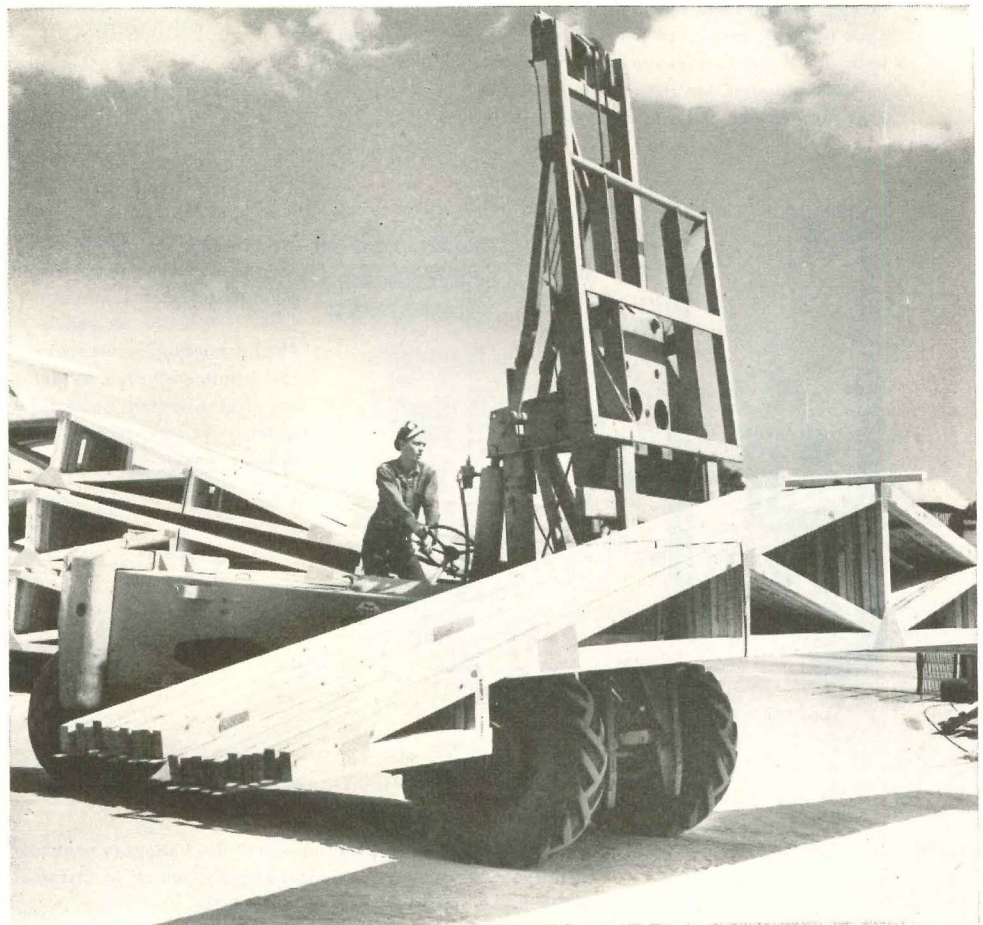
**New Century Homes, Inc.** "... but components must be flexible in design, plan and materials to make them palatable to builders and public."

**Scholz Homes, Inc.** "Each time we announce a more complete fabrication of some part of our house it is received with greater enthusiasm by our builders."

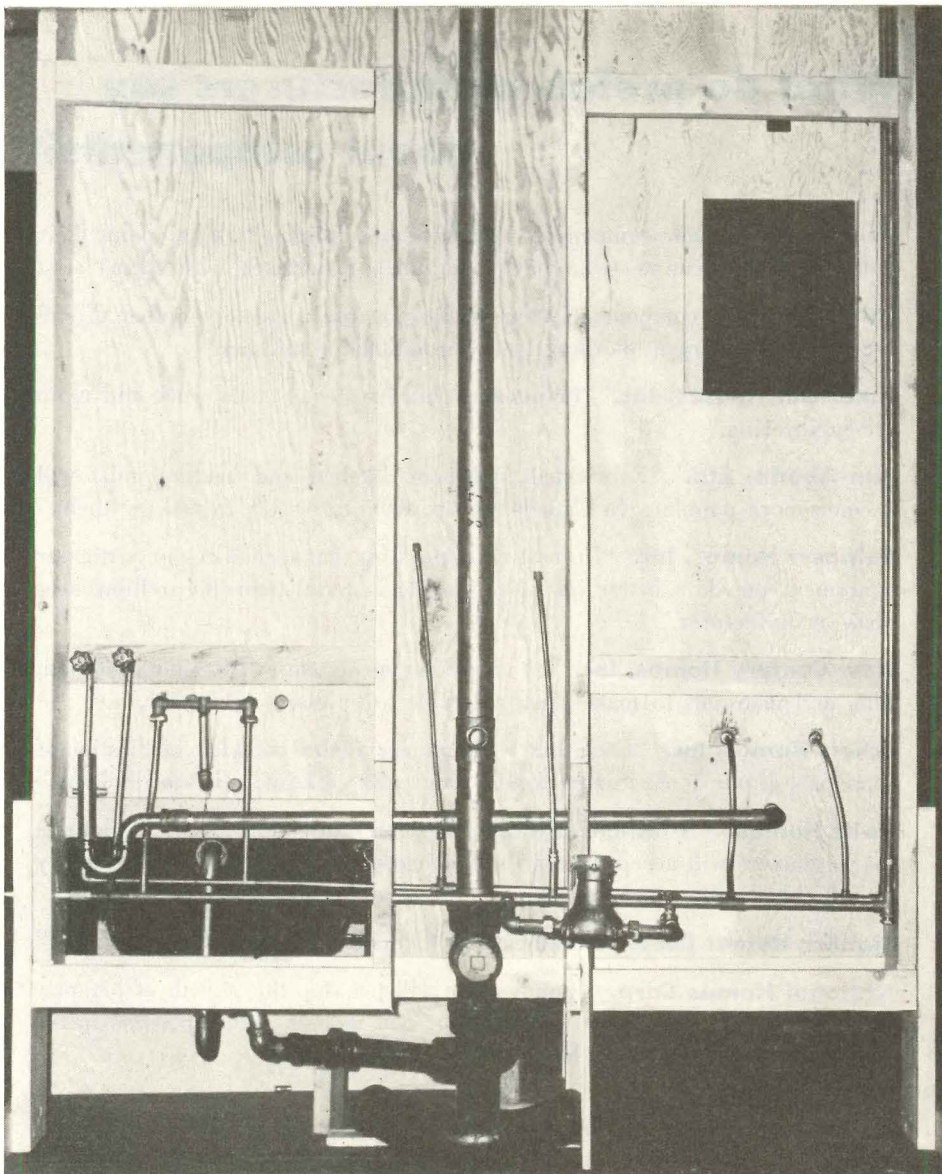
**Swift Homes.** "A definite threat to 100% prefabrication. In the high-price market buyers will accept factory-built components but because of the variety of individual tastes, never a complete factory-built house."

**Modern Homes Corp.** "Prefabricators themselves may turn to components."

**National Homes Corp.** "Components will not stop the growth of big prefabricators. We believe the prefabricator can include all components in his package and provide a better house at lower cost."



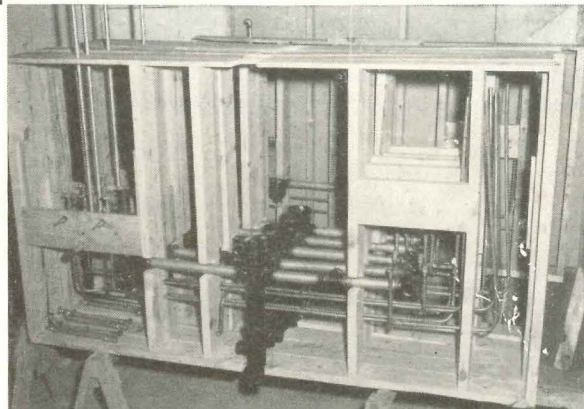
## Prefabricated plumbing is reducing costs for more builders



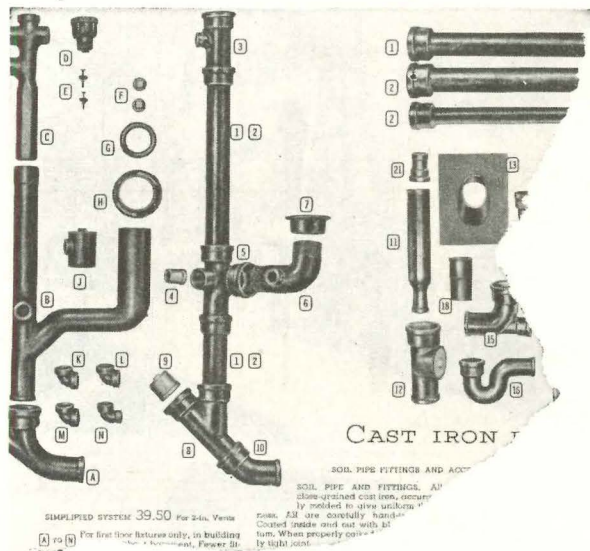
Duane Bobeck

Prefabricated plumbing promises big savings because plumbing has traditionally been one of the fattest cost items in houses—11% of total cost, says NAHB. As shown on this page, builders are sharply reducing plumbing costs by using back-to-back plumbing walls and factory-made packages that slip into place fast. Savings are as much as \$300 a house. Equally important: costly framing delays are eliminated and construction is speeded up.

In Fort Wayne, H. B. Shank has turned out 2,000 packages like the above for prefabbers in three states. Made with union labor, package varies to suit codes, is shipped to local plumber for installation. Builders report \$150 to \$300 savings per house compared with former costs.

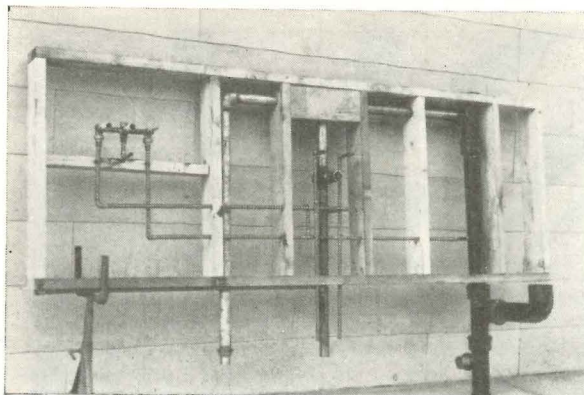


In Nashville, Builder Stuart Fonde makes and sells this 9'-wide, 10'-deep plumbing wall. With kitchen and bath back to back, savings are \$115 in \$8,000 houses.

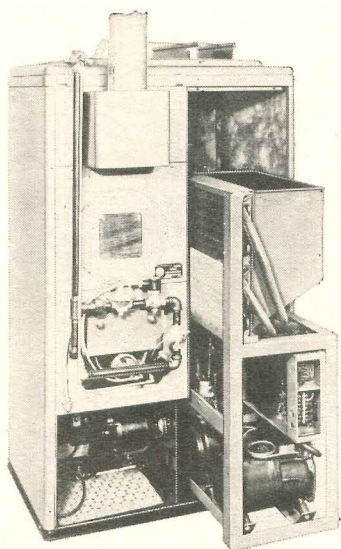


Throughout US, Sears and Montgomery Ward have sold plumbing systems at mail-order prices for 50 years. Farmers get big service; even small builders order. Systems are prefabricated for local codes. (At left, from p. 876, Ward catalogue).

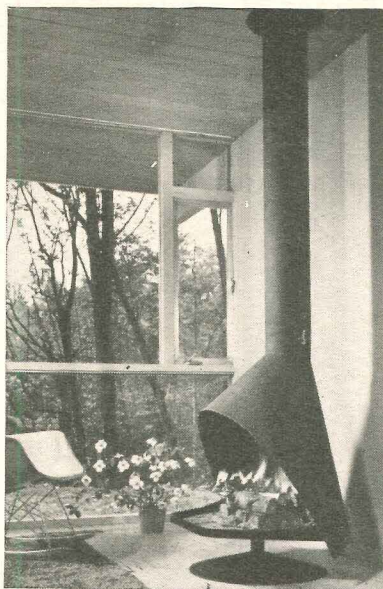
In Pittsburgh, Builders Sampson-Miller "simplify scheduling, save site labor" with wall (right), which is installed when house is framed, is plumbed later.



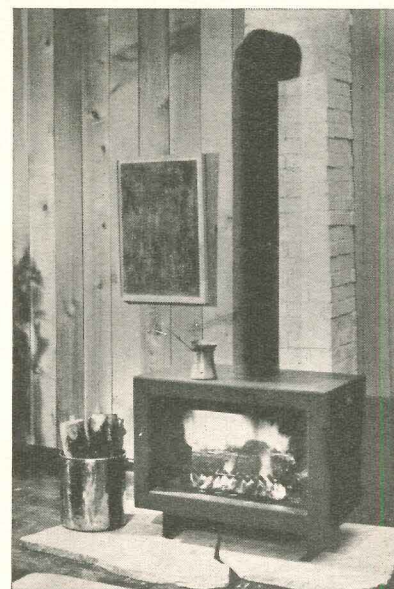
**Most utility components  
are packaged  
for easy use**



**Heating and cooling** are tied together for year-round use. One example is this 2-ton York unit: 36½" x 26" x 63". Heating is by means of oil or gas. Slide-in cooling section on right can be added later. Similar units are made by a number of firms.

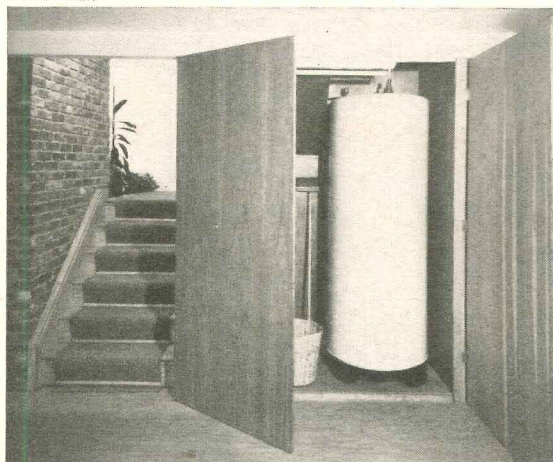


*Dearborn-Massar*



**Prefabricated fireplaces**, ideal for small-house builders, fit well in limited area and can be used anywhere in house. Fireplace at left was designed by Wendell Lovett; at right is Manchester-Pierce unit with 3" hollow insulating core between inside and outside walls.

*Ben Schnall*



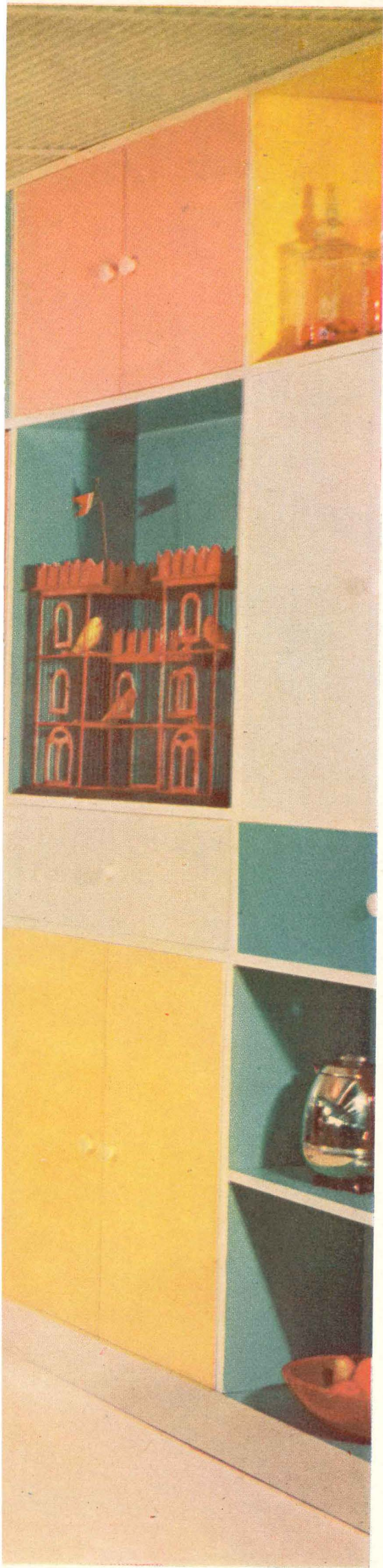
**Round hot-water heater** defies compact installation, so builders ask for new designs. Next question: can water heater be installed in warm-air furnace?

**Versatile "Kitchen of Tomorrow"** uses a 5' module so that individual parts can be arranged in many ways and fit any space; equipment can also be added piecemeal. Designed by the late Alexander Kostellow with Frigidaire engineers, kitchen (not in production) is preview of what builders can expect in a flexible package.

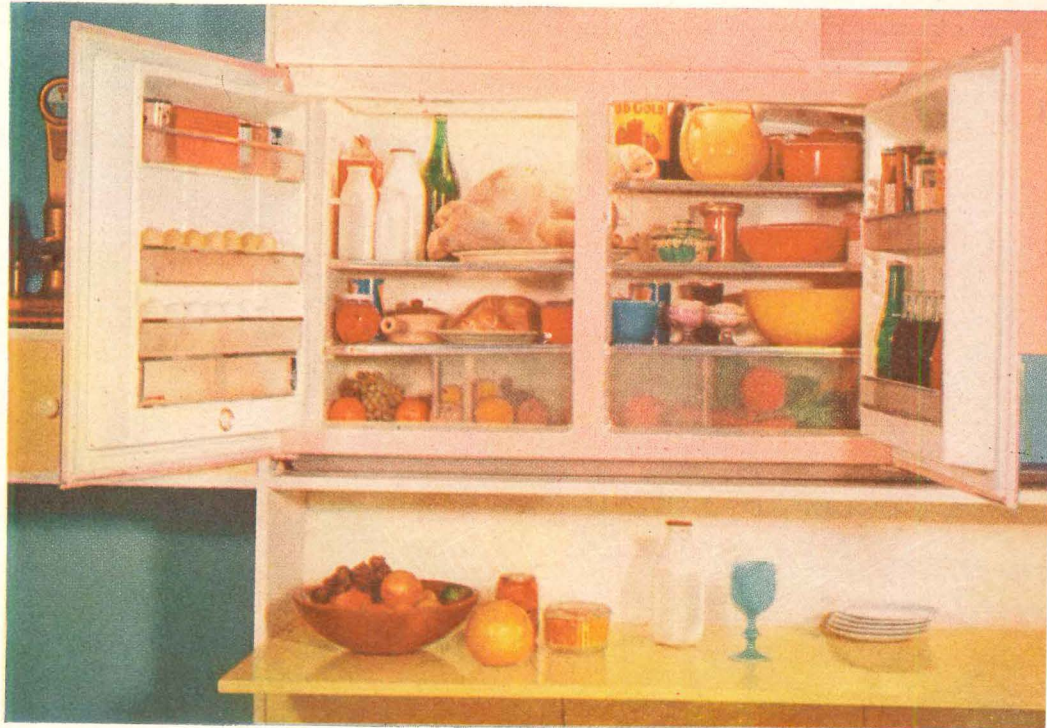
... For another packaged kitchen, turn the page







**New kitchen component  
groups six appliances  
under one counter top**



**New wall-mounted refrigerator-freezer** (shown closed, under clock opposite, open above) has machinery at top, requires no floor space.

One of the most exciting features at the Chicago Builders' show next month will be this brand-new GE kitchen.

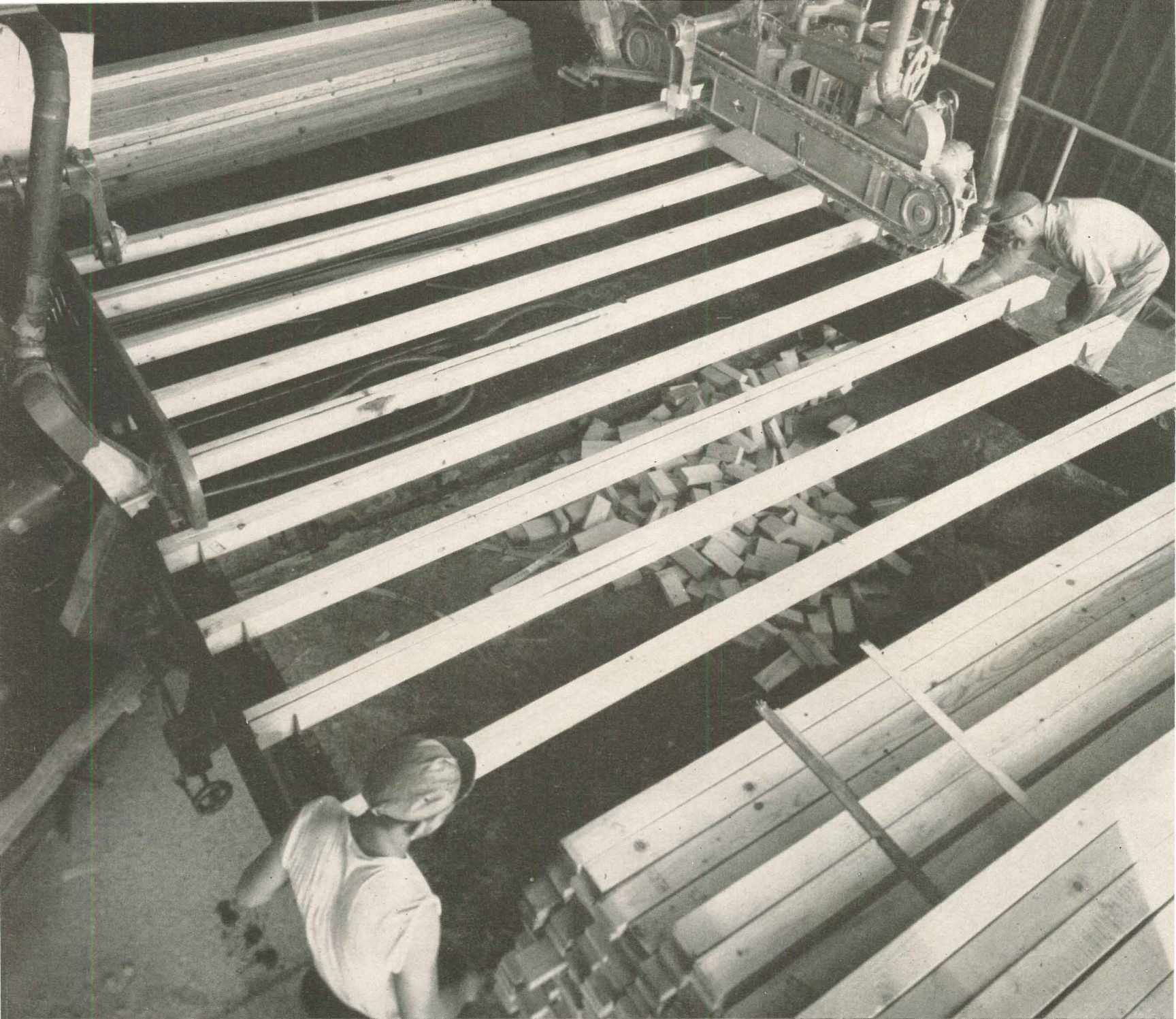
It gives builders what they have been asking for: a package including everything but the refrigerator under one stainless-steel counter top 8'-6" long. In this "kitchen center" are (left to right in the photo opposite) GE's new washer-drier combination, sink with garbage disposer, dishwasher, oven and counter-top burners.

A companion piece is the new wall-hung refrigerator and freezer, here mounted flush in the storage wall. It can also be hung like a kitchen cabinet or used to form a room divider between kitchen and dining area. The left and center compartments house an 8 cu. ft. refrigerator, the right-hand compartment a 2 cu. ft. freezer. Depth is 17½", width 64", height 38". Doors close magnetically, have no projecting handles. The unit hangs from angle-iron strips fastened to the studs. It will sell to builders for a price somewhat higher than an equivalent size combination refrigerator-freezer.

After the work-center unit is in place, one electrical connection to a 220-v. circuit is all that is necessary, as the unit is prewired. Dishwasher, sink and laundry are preplumbed so that only one connection each for waste, hot and cold water is enough. Laundry may be put elsewhere, replaced with standard storage cabinet.

These units herald the first complete line of kitchen appliances in color: next month GE will offer a full line of sinks, stoves, wall ovens, washer-driers and cabinets in yellow, turquoise, pink, blue and brown.

*Photos by Nina Leen, courtesy of LIFE. Kitchen designed by George Nelson*



## Save time on the job by precutting lumber

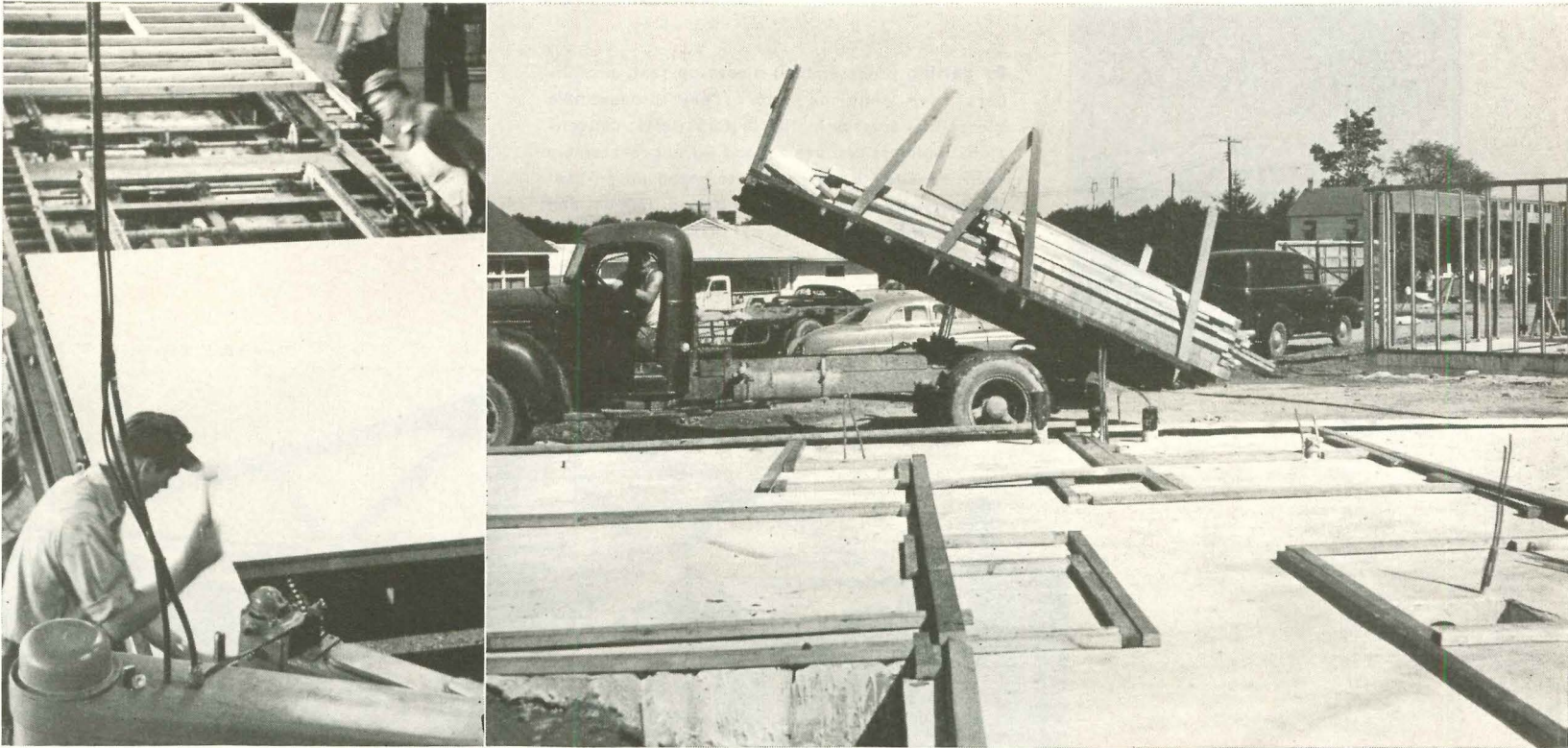
**Prefabbers** machine-cut lumber. Combination tool in National Homes' Lafayette plant (above) makes 23 cuts, dadoes and drills all holes needed in studs at one pass, can handle a carload of lumber in two hours.

**Conventional builders** speed up on-site work by ordering lumber cut to size, or by setting up cutting yard (right). Mechanized cutting yard can turn out ready-to-use studs and rafters faster than workmen on site.



# All builders can learn from the prefabbers

Speed is the prefabricator's biggest competitive weapon. He spends fewer man-hours on the job than the conventional builder, gives faster delivery and takes less chance on the weather. The smart builder finds that the best way to compete with him—and with other conventional builders—is to do what he does: 1) do as much work as he can on material before it gets to the site, and 2) use faster handling and building methods after the material arrives on the site.



Photos: (above & top opp. p.) Robt. C. Lautman; (others) Lubitsh & Bungarz

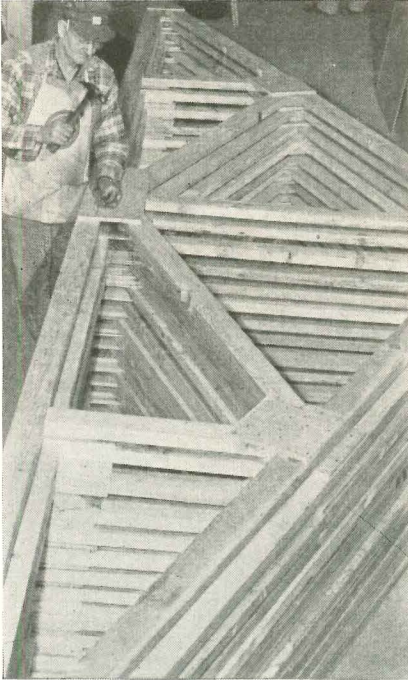
## Save time on the job by preassembling big pieces

**Prefabbers** build homes in multiples of feet and yards instead of inch by inch and board by board. They make complete panels in the factory (above left), then ship them to the site. Result: six men can get a house under roof in one workday.

**Conventional builders** can save man-hours by using same principle, and preassembling framing panels. Framing is assembled faster on platform (upper right), goes up faster than by board-by-board system used in old-fashioned operation.

# Save time on the job by using prefab speed-up methods

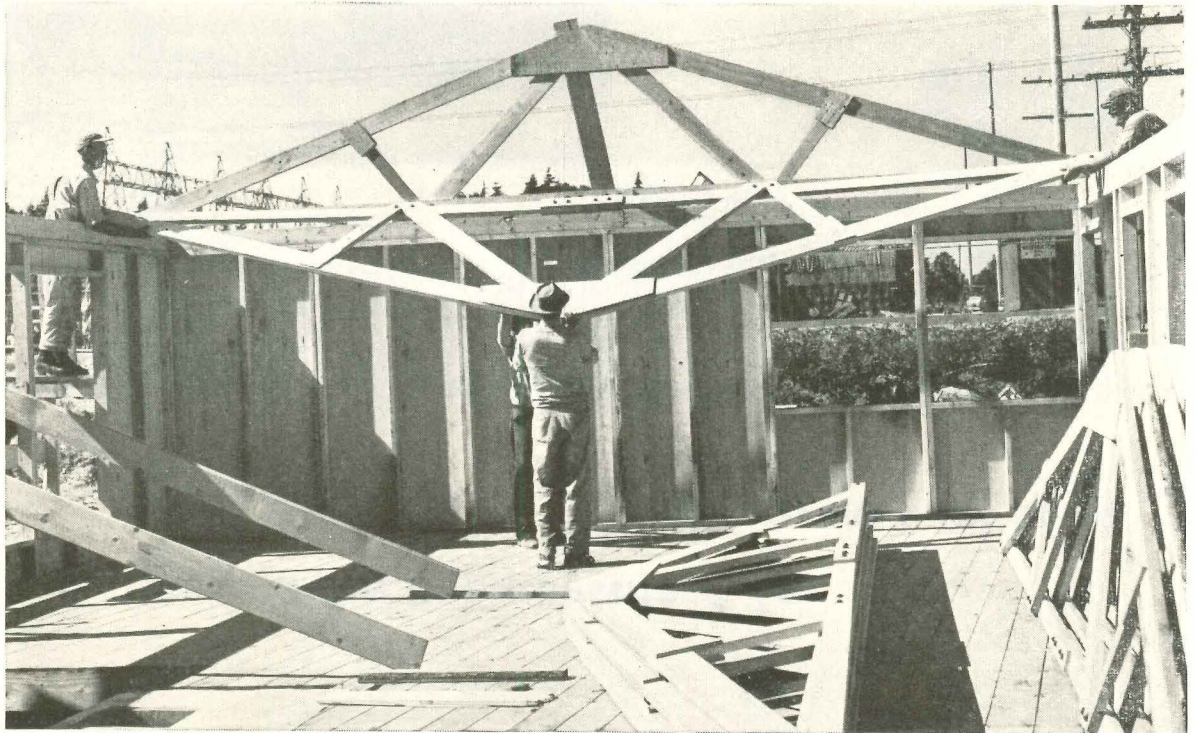
H&H Staff



By getting preassembled pieces up fast, prefabers save time on site. They preassemble pieces like trusses in the factory (left); conventional builders can use a wood jig to preassemble them on site. Each is able to speed up on-the-job operations by tilting framing panels and trusses into place (below) instead of putting them together inch by inch (lower right).

Wadsworth, Inc.

Photos: B. H. Donahue; W. W. Thomas; F. Bright



Big pieces go up faster like this . . .

. . . than by old-fashioned, time-consuming methods

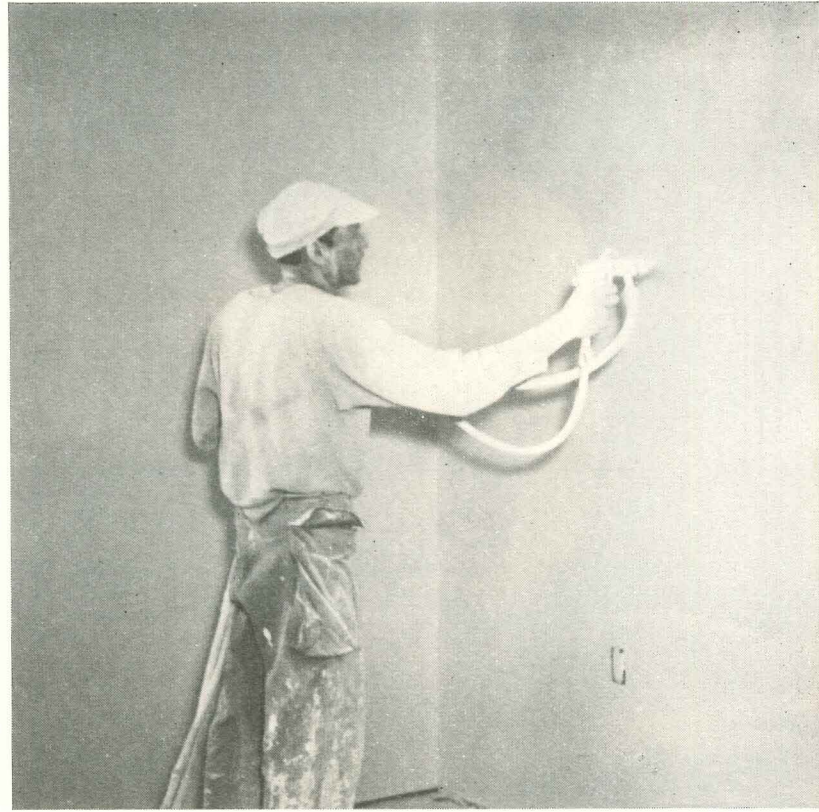
. . . like this ➤







**Prefabbers** spray paint and dip parts even before they reach site, gain substantial savings in man-hours over old hand-and-brush methods. In many factories, pieces dry on overhead conveyors which carry them back through spraying booths for extra coats.

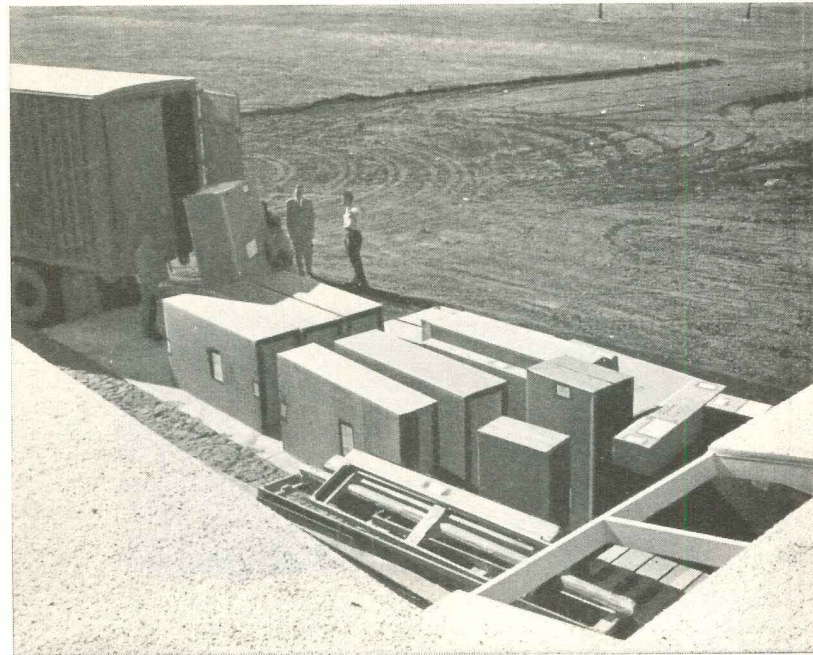


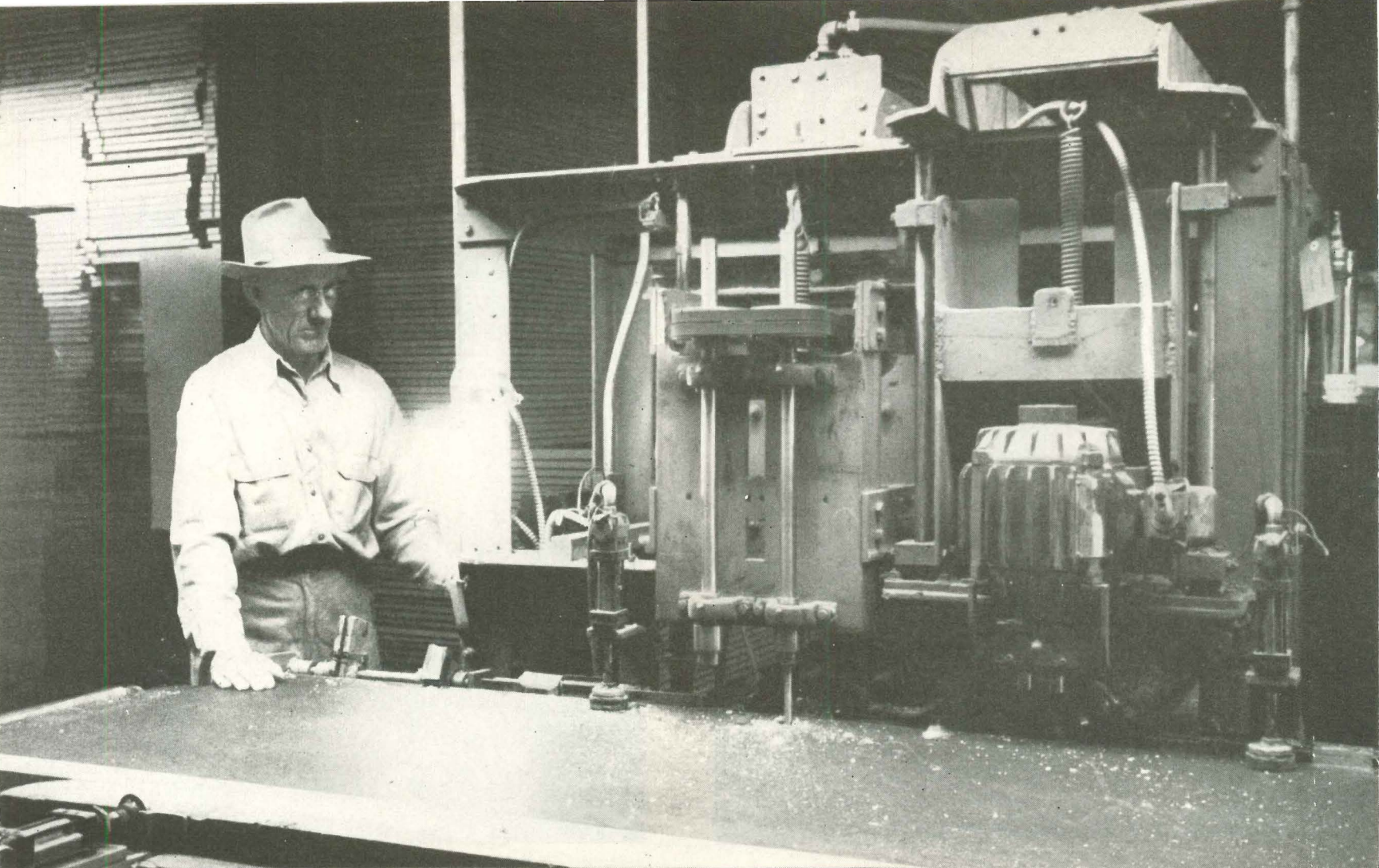
By **spray painting** right on site, conventional builders can get same savings. Compressed air sprayer can be run from compressor mounted in car trunk. New fast-drying paints make on-site painting nearly as efficient as factory job.

## Save time on the job by using factory methods

### Save time on the job by buying components

**Prefab house** comes to site with many components (see p. 129) prepackaged, ready to be installed (right). This use of big pieces not only saves time, it cuts down on overhead by minimizing the number of separate material purchases that have to be made. Moreover, tidily packaged ready-to-use components keep the site clear for other construction operations, keep it easily accessible to trucks and equipment, greatly reduce clean-up work. Conventional builders can gain many of the same advantages by buying components, scheduling closely their shipment to the job. Plumbing, cabinets, chimneys and fireplaces are only a few of the components that can be bought completely ready for fast on-the-job installation.



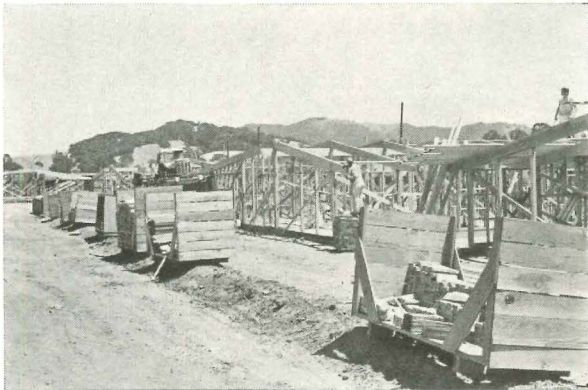


**Machines** like this one in National's Lafayette (Ind.) plant result from prefabber's ingenuity. In 15 seconds, it mortises and drills all holes needed in a door—formerly a 12-minute operation. Conventional builders can gain greater efficiency for same operation by using electric combination router-planer (right) to trim doors, mortise and make butt joints.



## Prefabbers use machines . . .

Photos: (top) Robt C. Lautman; (below) R. Sturtevant



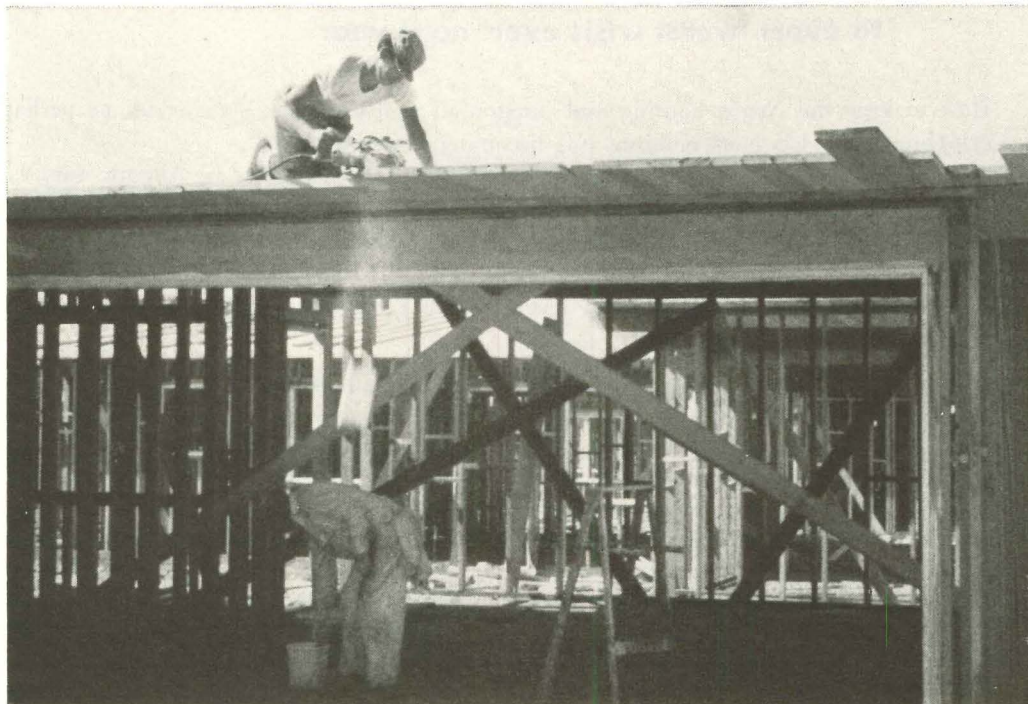
Prefabbers owe much of their speed and efficiency to gee-whiz machines (above) too big and too costly for conventional builders to use.

But conventional builders can gain similar efficiencies—and without loss of flexibility—by using power tools, *providing* they follow the example prefabbers have set by: 1) using their ingenuity to devise new ways of using tools, just as the prefabbers have devised new machines for their special jobs, and 2) scheduling work tightly the way the prefabbers do in the factory. An idle power tool defeats its own purpose.

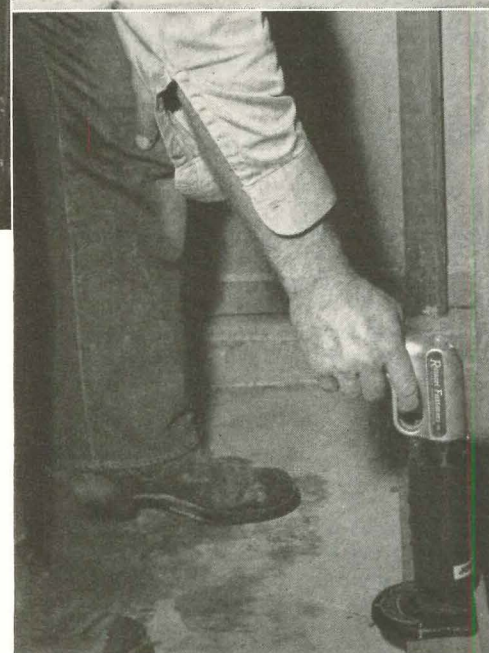


**Example of inventiveness** used by one conventional builder is movable bins he devised to solve material handling problem. Bins can easily be moved on dollies to where material is needed, eliminating cost of extra handling.

Basic to every builder's power tool kit are drill and handsaw. Electric drill turns at 1,000 rpm; hand augur and brace 120 rpm. Power drill can be converted into sander or screwdriver, can get into places hand drills cannot. Portable 1,000-w. generator supplies enough power for most operations.

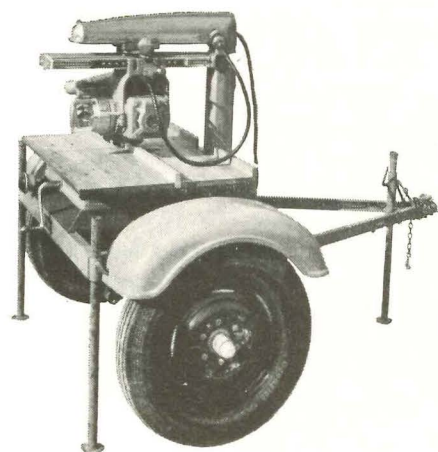


**Electric handsaw** can do nearly every cutting job. Especially useful in high places, off ladders and scaffolds (e.g. trimming sheathing), it shortens prolonged cutting operations to one tenth or less the time it takes a handsaw. Inside, it can be used for making pocket cuts in floor for chimney, heating, ventilating, plumbing ducts.

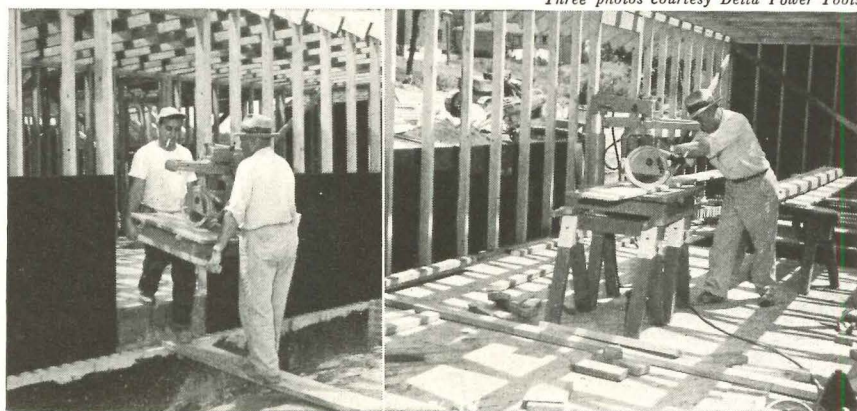


**Stud gun**, actuated by powder charge, drives threaded studs into steel or concrete, cuts time needed to seat the stud from 15 minutes to slightly more than one minute. Stud goes in so fast it displaces molecules around it, hence sits tighter than ordinary anchoring.

## ... you can use power tools



**Versatility** plus easy mobility make this radial-arm saw a big help to greater on-site efficiency. Outdoors, it can cut studs and rafters fast enough to keep several skilled carpenters busy nailing. Once house is under roof saw can easily move indoors (right) and from room to room for all remaining cutting operations.



Three photos courtesy Delta Power Tools

# Cry rises for government to blacklist lenders, builders refusing Negro sales under FHA, VA

**NAHB urges redoubled construction of nonwhite housing to avert 'worst crisis ever' next year**

How to keep the Negro housing and integration problem from slowing up or perhaps crippling much US housebuilding was becoming a problem itself.

NAHB President R. G. Hughes warned New Jersey builders in Atlantic City last month: "Already pressure is being put on the White House to ban FHA and VA aid to builders who refuse to sell to Negroes." Such a blacklist, Hughes asserted, would be a "catastrophe." Yet it is being considered "very seriously," he said. So is a plan to "make it a penitentiary offense" to refuse to sell government-aided homes to minority buyers.

During the coming year, Hughes announced, NAHB will urge the building industry to set aside at least 10% of its time to put up minority homes. It will ask lenders to allocate at least 10% of their funds to finance minority housing.\* It will put heat on communities to set aside more of their lots for minority occupancy. This, said NAHB's head man, "is the only way to avert the worst crisis we've ever had in homebuilding in 1955. We haven't done a good job (for the 16 million US minority people). It's time we got busy."

**Origin of species.** Some sources of the "pressure" Hughes mentioned were readily visible. Early this fall, the National Urban League had heard HHFA Administrator Albert M. Cole warn that stringent federal regulations to compel open occupancy in FHA and VA housing "would just make everything much tougher and increase the abrasive factors that slow down the real—the permanent—progress to integration." Now, the league's trustees fired off a resolution to President Eisenhower and other federal officials demanding that the government do what Cole decried. The league urged that "no FHA insurance be granted where occupancy is denied to persons because of race, creed or national origin." It asserted that FHA was "violating the broad principle of nondiscrimination" which the Eisenhower administration has been pushing. Said League President Robert W. Dowling of New York, a big-scale city and suburban developer and investor himself: "The continuation of the racially restricted ghetto by FHA mortgage insurance practices is the most serious situation facing us in the housing field today."

\* In New York State, where lies the great concentration of mortgage funds, nondiscrimination laws make it imprudent, and probably illegal, for lenders to do any such thing.

Unable, if not from law from the constant pressure of Negro advancement groups, to keep records on mortgage experience with minority home buyers, some lenders now say privately they cannot compile the facts they need to do more than token minority lending.

This followed by a few months a somewhat stronger demand by the CIO, which urged a ban on federal funds for all private or public housing projects that do not completely prohibit race segregation.

The Natl. Assn. for the Advancement of Colored People, meanwhile, was pressing its demand for open occupancy in court. What is considered the principal test case will go to trial in Sacramento, Calif. Dec. 15. Most of the California capital's big realty firms are charged with secretly agreeing not to sell Negroes new suburban homes.

**Twist of the screw.** Perhaps joggled a little by such maneuvers, HHFA's Cole issued this warning: "Federal funds will not be paid out to localities that default on their obligations to minority citizens." In the same speech (at dedication of a new dormitory financed with HHFA credit at Hampton Institute, a Virginia Negro school), Cole demanded action by Chicago to end what he called "unabated continuance of a riotous condition" at the Trumbull Park public housing project (H&H, June '54, News. *et seq.*). He called on Mayor Martin Kennelly, Roman Catholic Bishop Bernard J. Sheil and CIO President Walter Reuther to use their combined influence "to restore order, respect for the law and simple human decency." Conditions at Trumbull Park (where rioting broke out 15 months ago after Negro families were admitted—by mistake, as it turned out) are "a nauseating, running sore in our civic life," said Cole.

While apparently threatening such drastic action as cutting Chicago off from redevelopment and public housing funds (and perhaps FHA aid, too) if it did not end its "defiant bigotry," Cole in the same talk reiterated his belief that moving too far too fast might do Negro chances for housing more harm than good. He put it metaphorically: "It is our responsibility . . . that we do not allow the tree of racial freedom to be chopped down out of zeal and impatience to harvest its fruit. . . . The federal government has responsibility for leadership; it cannot sit by

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and merely wait for things to be different. . . . But the government cannot act for the states or communities nor force them into action they are not persuaded they should take."

**Four-point plan.** Cole also announced a four-point plan to break down race barriers and speed an "unprecedented" increase in housing open to Negroes:

1. To get federal grants or loans for slum clearance and urban renewal under the new Housing Act, community workable programs will have to provide for "progressive improvement and expansion of minority housing opportunities." No federal money will go to localities that fail to do this.

2. A national advisory conference on minority housing will be called this month to develop "practical, positive lines of continuing action" to get more housing for Negroes.

3. HHFA will back elimination of racial lines in existing public housing projects, including those in the South.

4. Action will be taken by private builders and lenders to "make next year the first in a series of years of unprecedented production of new homes available to minority buyers." Cole noted formation of the 16 regional voluntary mortgage credit committees (completed last month) aimed at channeling mortgage credit to qualified minority borrowers who cannot find it through normal sources. If this fails, he indicated elsewhere, Fanny May will pump Treasury money into nonwhite mortgages. He said builders recognize minority housing "as their No. 1 challenge."

**Withering race riot.** In Chicago, the HHFA administrator's blast about Trumbull Park seemed to be regarded as a prime challenge. Replying for Mayor Kennelly, Housing Coordinator James C. Downs Jr. called Cole "completely misinformed." He said "there have been almost no incidents of violence over the most recent three months' period." On the last item, Downs was right. Even the Chicago chapter of NAACP conceded that the situation at Trumbull Park Homes last month did not approach that of a riot. There had been no large crowds or wide-scale disturbances. The police detail had been cut steadily from 1,200 to 311.

But that did not mean all was harmony. On Election Day, a group of six Negro women was frightened, but unhurt, when a 6" firecracker was tossed at them as they returned from the polls. Some of the 24 Negro families now living in the project still ask, and get, police escort from the project to the bus stop three blocks away, to church, and to shops. The practice is for them to notify the special police headquarters established in the project and a squad car, like a taxi, drives up to their door. There are more and more Negro tenants, however, who are beginning to walk to the bus stop unescorted.

Negro tenants who own their own cars drive in and out of the project freely. A dozen children of Negro tenants have been attending the nearest school (grades one to three) without incident.

Most Chicago Negro groups—and some local federal housing men—thought Cole's blast was timed about six months too late. One interpretation: recommendations last March from local race relations officials that he speak out took six months to reach him.

As Downs wired Cole: "The right of every American citizen to live in freedom from a state of siege or in a condition which does not require constant police protection is dependent upon the successful evolution of citizen attitudes. . . ."

Across the US, citizen attitudes were as much a part of the problem as builder reaction and government intervention. Yet logic suggested that integration was the price of government aid for housing, perhaps sooner than the industry expects.

## NEW FORM OF SEGREGATION

Is a new kind of segregation—in which whites segregate themselves to escape Negro integration—developing in some cities as a result of the Supreme Court decision ending segregation in public schools?

Some men who study real estate trends thought they saw the first hints of it last month. It was something to keep an eye on.

The question arose in Washington, D. C. which President Eisenhower hopes will set an example to the nation of rapid, peaceful school integration. Mrs. Frank S. Phillips, vice president of the district school board, put out figures which she believes show white children are fleeing in an "orderly" protest from former all-white schools already de-segregated or threatened with de-segregation. Moving of large numbers of Negro children into Eastern Junior-Senior High School, the former Labor Dept. statistician noted, was accompanied by 29 and 22% drops, respectively, in white enrollments. These were more than double the decreases in previous years blamed on the shifts of white population to the suburbs.



Reini

## Push for more existing housing, FHA experts advised

FHA race relations officers (named below) met for a late October conference in Washington, were given this program by Dr. George W. Snowden, FHA's top race relations expert:

1. Concentrate on getting Negro families admitted into existing areas before trying to promote construction of new open occupancy homes. (Reason: this approach will produce far more housing for Negroes, because the existing store of housing outnumbers new housing built in any one year 43 to 1.)
2. Strive for the maximum amount of building of equal facilities needed by Negroes.
3. Work with builders in groups and individually and with other construction industry leaders to push new developments free from restrictions.

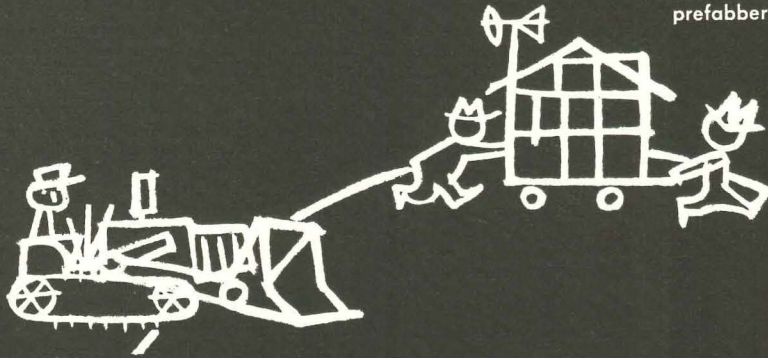
Even such an ardent advocate of open occupancy as Dr. Robert C. Weaver, head of the Natl. Committee Against Discrimination in Housing, told the FHA experts their approach had practical sense. Said he: "The cards are heavily stacked against you as far as new open occupancy housing is concerned, because the

main thing the builder is selling is exclusiveness. This means keeping the Negro out. But in the case of existing neighborhoods it is an easier matter because you are not dealing with just one seller but a large number of them." But Weaver contended FHA cannot keep ducking the open occupancy issue much longer, even if it wants to. While there is plenty of land for minority (i.e. segregated) housing in the South, "in northern cities, a different land problem exists," he noted. Because there would be objections to frankly Negro projects since they would impinge on all-white neighborhoods, Weaver thinks open occupancy soon will be the only way to get housing built for Negro occupancy at all in the North.

Pictured (sitting, l to r): Robert B. Pitts, San Francisco; W. T. Stansbury, Philadelphia; Snowden; DeHart Hubbard, Cleveland; (standing): W. F. McKinney, St. Louis; Reuben A. Clay, Richmond, Va.; Maceo Smith, Dallas; N. P. Dotson, Chicago; Albert L. Thompson, Atlanta.

# The Competitive Circle:

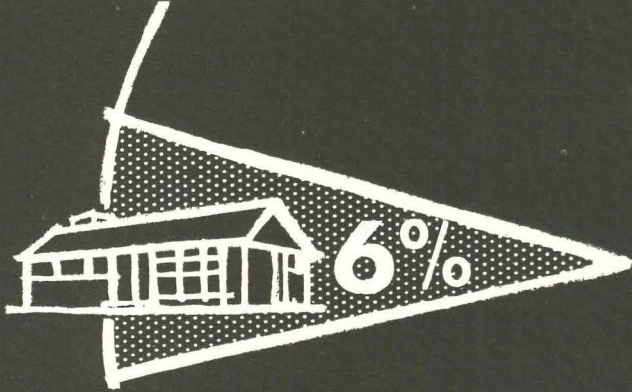
The mobile builder is a new phenomenon, can beat prefabbers because he has a better organization.



The big builder has far more volume than the typical prefab dealer, can build faster, cheaper.

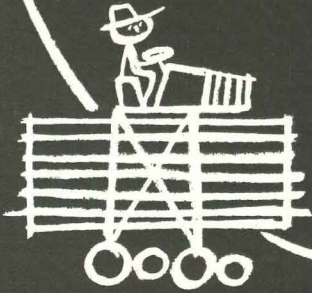
Builders in highly competitive areas keep prices low, have to be efficient to stay in business.

# 94%



Small-volume builder is getting smarter each year, is learning to use big builders' methods.

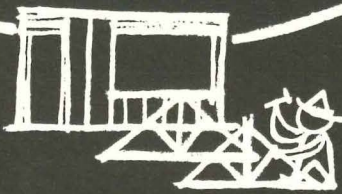
## How much can the prefabber take over?



Lumber dealers are rallying around their conventional builders, giving many new services.



Special local conditions (examples: Phoenix, Miami or Pittsburgh) tend to keep out prefab houses.



Component manufacturers build subassemblies, pass on mass-production methods to all builders.

# Prefabrication is up against

## Who makes competition tough for the prefabber?

With only 6% of the total housing market, the prefabbers will have to fight hard to get a bigger chunk of the business. The competitive circle surrounding the prefabber is a strong one because it includes thousands of local builders who are becoming more efficient each year. As the prefabbers grow more numerous and more efficient, local conventional builders are learning to become better builders, better businessmen, better merchandisers.

### "What has a prefabber got that I have not got?"

*A smart, conventional builder appraising a competitive prefabber may well ask that question. The answer might be: 1) a factory package which adds up to about 40% of the selling price of the house, 2) speed of erection, and 3) additional services like design, land planning, financing, merchandising and general advice. But the smart, conventional builder is learning to compete with the prefabber on the first two points. If he is a good businessman he does not need factory help on the third point.*

*Said one builder last month: "An efficient builder, even a small one, can give the prefabber a run for his money any day."*

**1. The big builder.** He can produce the shell of the house for as little or even less money than the factory can. On about 60% of the items *not* in the factory package (sitework, foundations, plumbing, heating, wiring, etc.) he is almost sure to be more efficient than the typical prefab dealer because he has more volume. He can do for himself everything the factory does for its dealers—and he has no transportation costs.

**2. The mobile builder.** A recent phenomenon on the housebuilding scene, the mobile builder works wherever opportunity seems to knock. With plans, buying power and skilled field superintendents always ready, he can move in and out of a town with speed and economy. Earl Smith builds regularly in over 20 California towns, is one of the few mobile builders who can make a profit on as few as 35 houses. Working for himself and his associated builders, he brings big business methods to small communities. Dick Hughes builds in five or six Texas towns. Fritz Burns has built in several California areas. Sam Hoffman, operating in a number of Western states, does not worry much about prefab competition. Numerous other mobile builders, especially in the West, surprise no one when they turn up 1,000 mi. from home.

**3. Highly competitive builders.** When local competition gets really rugged, builders have to get efficient to stay in business. There must be a reason why there are no prefabbers on Long Island. In Los Angeles and San Francisco prefabbers make up considerably less than 1% of the market. There is no price advantage in prefabs in these areas, especially in California where there is no preferential wage rate for unionized shop men.

**4. The efficient, small-volume builder.** If he is smart, a small-volume builder can do nearly everything for himself that a big prefabber could do. His production methods are smart because they include preplanning, pre-cutting, tilt-up framing and other time savers. He is shrewd in purchasing in his relations with subcontractors and in sales methods. His overhead is low. His flexibility in changing plans quickly to meet his local market is a great advantage. He may have to work harder than a prefab dealer, but he often gets greater satisfaction from the houses he creates.

**5. Builders in towns with special local conditions.** There are almost no prefabs in towns like Phoenix and Miami where local conditions are unique. Phoenix is an example of a city with three strikes against prefabrication: block houses (also preferred in Miami), intense competition where buyers get a lot of house for the money, and a location at present too far to make shipping feasible. On Long Island, about 80% of houses sold are split-levels, a type not so readily adaptable to prefabrication as a ranch house.

**6. Component manufacturers.** The story of the coming boom in components is told on p. 129. Still in its infancy, this is a trend so logical it is sure to grow rapidly. It will permit conventional builders to buy subassemblies for their houses the same way a prefab dealer buys parts from a house factory. This trend, growing out of the industrialization of housebuilding, gives conventional builders a competitive weapon against prefabrication.

**7. The lumber dealer.** Throughout the country he is giving more services to builders than ever before, as recent articles in this magazine have described. By offering pre-cutting and Lu-Re-Co panels plus other help including finding land, advice on design, purchasing and merchandising, lumber dealers are helping conventional builders to meet the competition of prefabrication.

**tough competition . . . in fact, prefabrication is stimulating  
its own kind of competition**



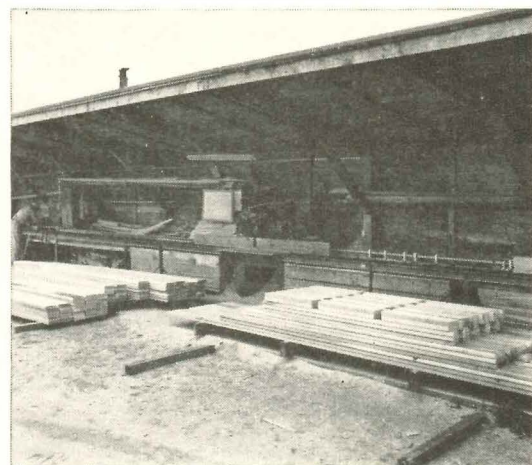
Precut lumber is unloaded near slab with pieces to be used first on top

## This lumber dealer turned to precutting

Unless a lumber dealer can give a builder service—  
do something for the builder better than he can do it himself—  
Lumberman Wight believes he has no place on the building team.  
But Wight is on the team . . .



Two loading lines (center) and cutting shed (lower right) in one corner of Wight's San Carlos, Calif. yard are laid out in a U-shaped plan to minimize movement of cut stock, conserve space for inventory.



Efficient line of three saws, with rollers between, cuts pieces like notched rafters with minimum handling, no change of saw setups. Movable stops allow lengths of lumber up to 24' to be cut on same saw.



Sharkey's Camera Shop



**D. D. (Dave) Wight**, president of O'Neill Lumber Co., decided two years ago that big builders were gaining a cost differential over small builders mostly by production-line methods. He reduced final cost of lumber in a house for small builders by quantity cutting and loading methods, soon found he was serving big builders as well. Says he: "Precutting is not only practical for small builders, it is essential."

Dave Wight is a prime example of why prefabrication has not yet taken a major foothold in California. Reason: his production-line precutting and loading operation (see below) starts a chain reaction of efficiency for the builder.

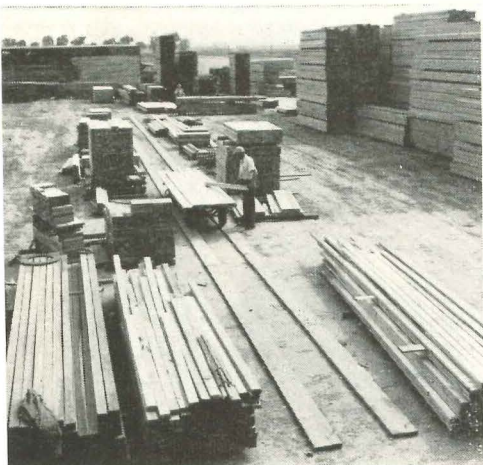
In California where lumber is cheap and framing crews are fast and efficient, many builders (like Earl Smith) prefer to have their lumber precut by the lumberyard so they can get shipments of solid packages of lumber with no "air." Convinced that the big builders' biggest advantages were their cutting down handling costs and their economical volume purchasing, Wight decided to take on the job of framing lumber for the builder, "the end of the business that was not handled efficiently except by the prefabricator."

How well he succeeded is demonstrated by the fact that he now sells to big builders although his initial object was to bring big-builder economies to the little fellow.

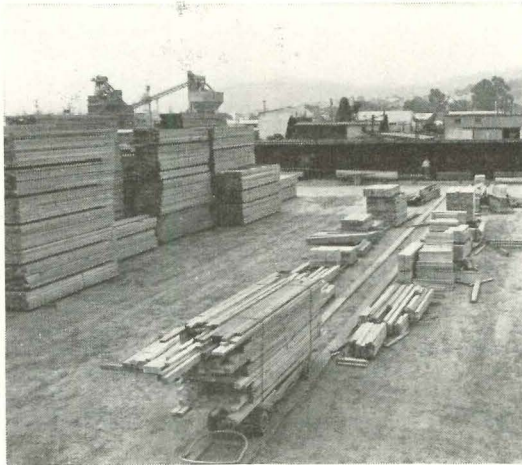
#### Where are lumber costs charged?

Wight speaks for thousands of lumber dealers when he says: "Many builders are notoriously poor accountants. They charge off costs to the wrong operations." Instance: when a builder sets up his own precutting operation, he frequently does not know how much labor he has in his yard, how much his investment in handling equipment is, whether he needs an extra man to control inventory, what his trucking costs are, what he pays for insurance, and, finally, how much time his field superintendent allots for cutting-yard liaison. Comments Wight: "Do builders add these costs to their lumber? No. They add these expenses to administration and overhead. All these costs originate with lumber and are hidden in overhead. We are geared up to accounting as well as cutting."

Builders who use Wight services agree that specialists can save them money. But lower over-all costs are not the only advantage. Like Lumber Dealer-BUILDER Balch (see p. 149), they find by-product savings even more important. Since they are billed at a contract price per house instead of for individual pieces, they have less accounting in their offices; since lumber arrives precisely as it is to be used, they can use a greater ratio of unskilled to skilled labor, thus lowering their average wage scale. Perhaps most important of all, Wight eliminates that hard-to-account-for element: duplication of handling and transportation.



**Precut package** is built up by clerk who starts cart (made from war-surplus bomb dolly) down loading line. Precut lumber is added from stacks in aisles.



**Completed package** at end of second loading line is strapped and ready to be moved by fork-lift truck to storage area or directly onto delivery truck. Cart will hold 5,000' board measure.



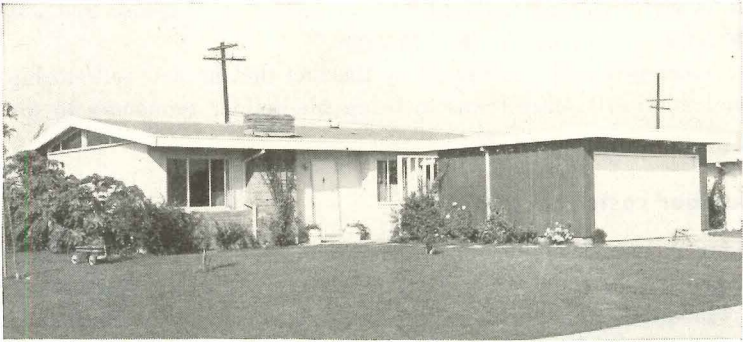
**Steel-strapped packages** are loaded two to a truck ready for delivery to site. "Handling and loading," says Wight, "are as important as production-line cutting operation in achieving lumber economies."



McKellar & Associates, builders, Menlo Park. Designed by Rombough, Inc.



Triad Construction Co., builders. Location: Antioch, Calif.



Del Rio Construction Co., builders. Location: Stockton, Calif.



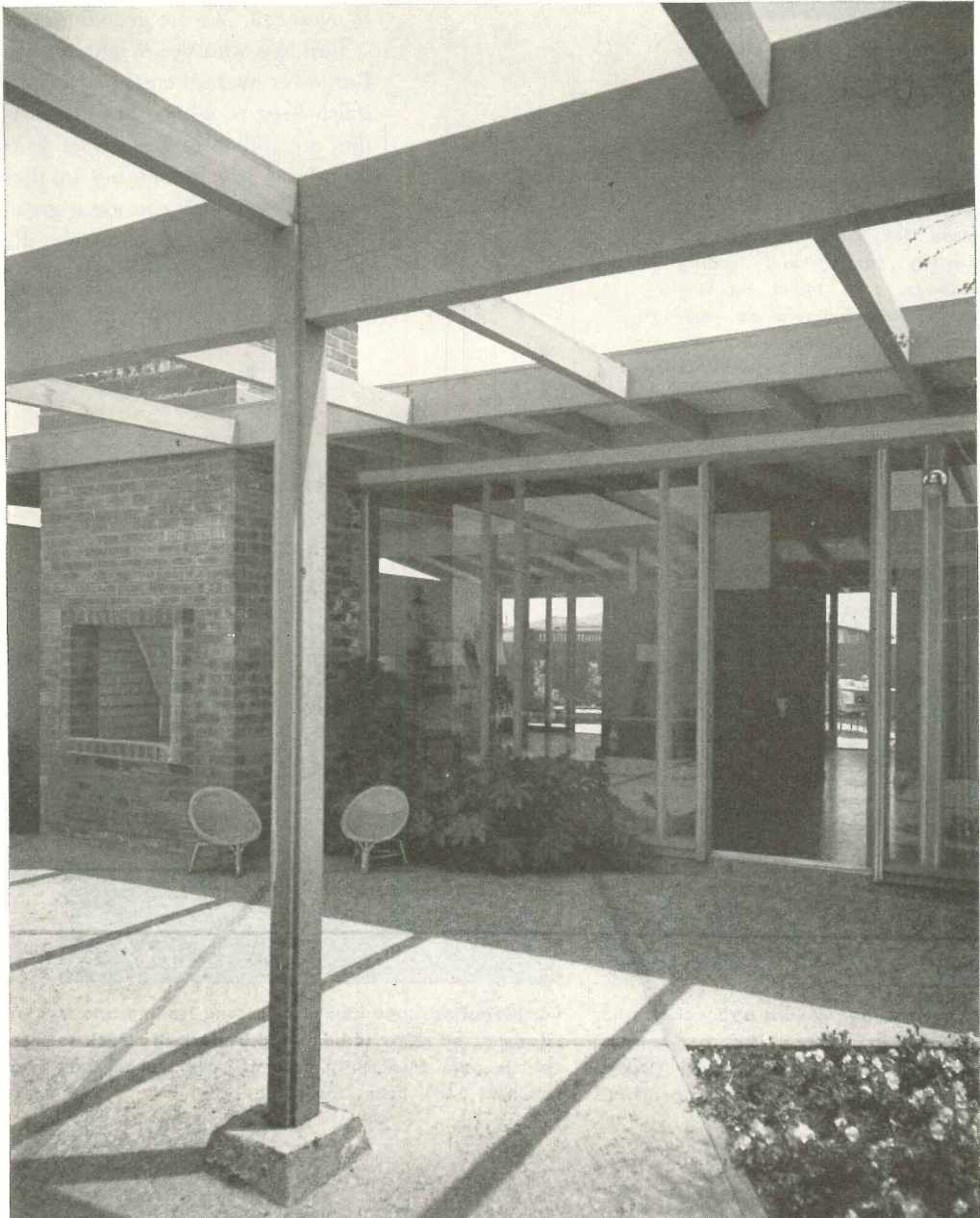
Pittsburgh Construction Co., builders. Location: Pittsburgh, Calif.

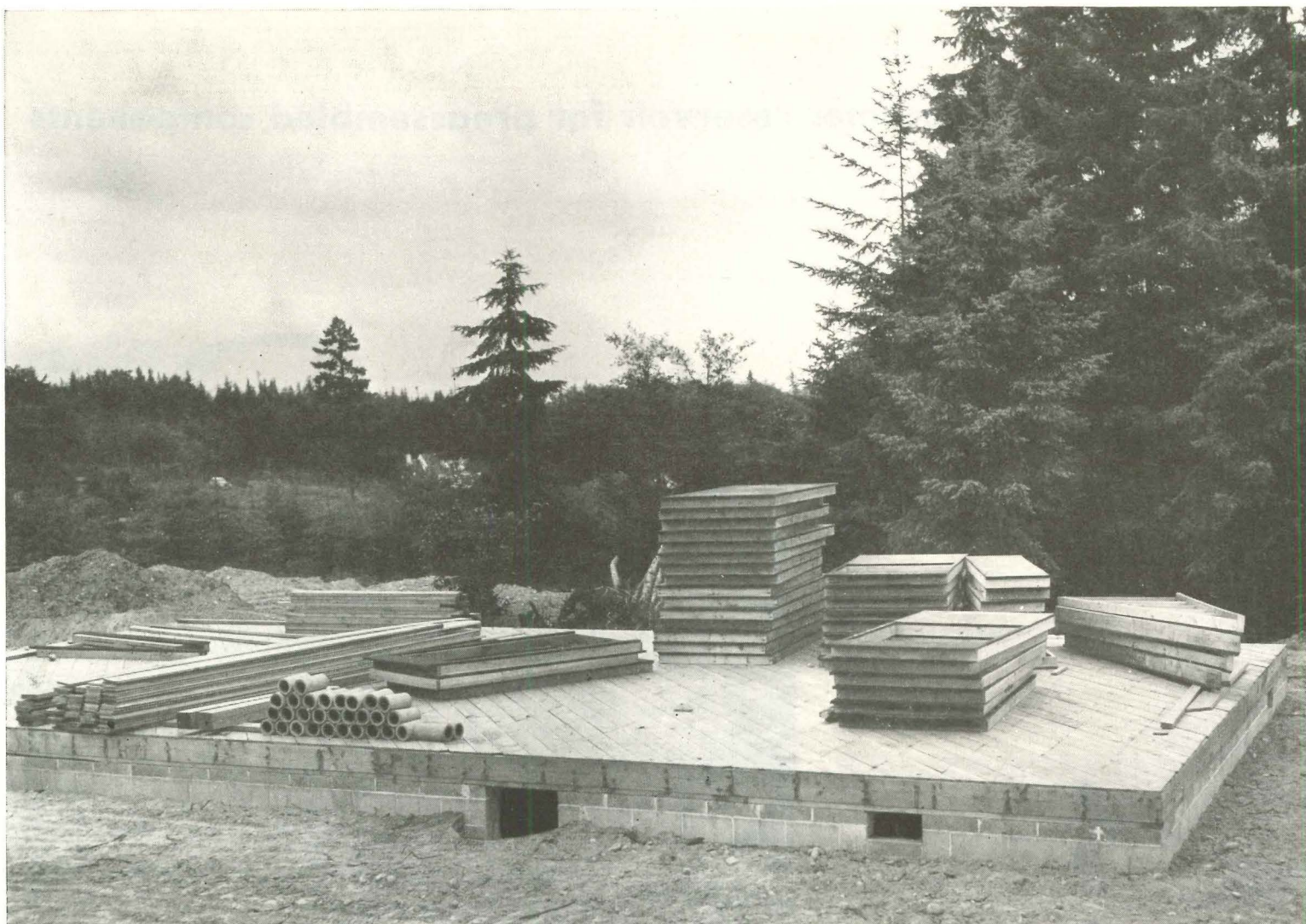
## These are the houses Wight's customers build

Photos: (above) Sharkey's Camera Shop; (below) Mason Weymouth

**Anshen & Allen**—designed house for Mackay Homes built in Palo Alto. Says Builder John Mackay: "We use precut lumber because the lumber dealer is geared up to that operation; we're geared up to building. Lumber is another subcontract in our operation. We find we can predetermine our costs, lower costs, far in advance of our building needs, use fewer men, build faster, lay out less capital for inventory and equipment." Says Architect Bob Anshen: "Precutting is a necessary step toward factory fabrication. At present in this area the most effective cost cutting on framing can be gotten through Wight's precutting method."

Other builders who use O'Neill Lumber Co. for precutting: Mariposa Construction, Stockton; James W. Sutherland, Concord; Culligan Development Co., San Mateo.





B. H. Donahue

**Preassembled panels, gable ends, precut lumber** are delivered directly to platform from trucks. Contrast this with delivery of precut lumber (p. 146)

## This lumber dealer turned to Lu-Re-Co panels



**Albert Balch**, little known as a lumber dealer but nationally prominent as a community builder and realtor, believes in trying anything once: "How else can you learn unless you do?" Balch was the first lumberman in the US to use Lu-Re-Co system. For what he learned about this system, see right.

Arguments over the advantages of precutting vs. panelization vs. prefabrication are largely academic since few people try them all. Here is one lumber dealer-builder who did:

Al Balch has experimented with semiprefabrication and prefabrication for over 20 years, "knows the advantages and disadvantages by heart." He built 50 Lu-Re-Co (for LUMber REsearch COuncil) houses on scattered locations through his lumberyard, Modern Materials Co. Here is how Balch sums up:

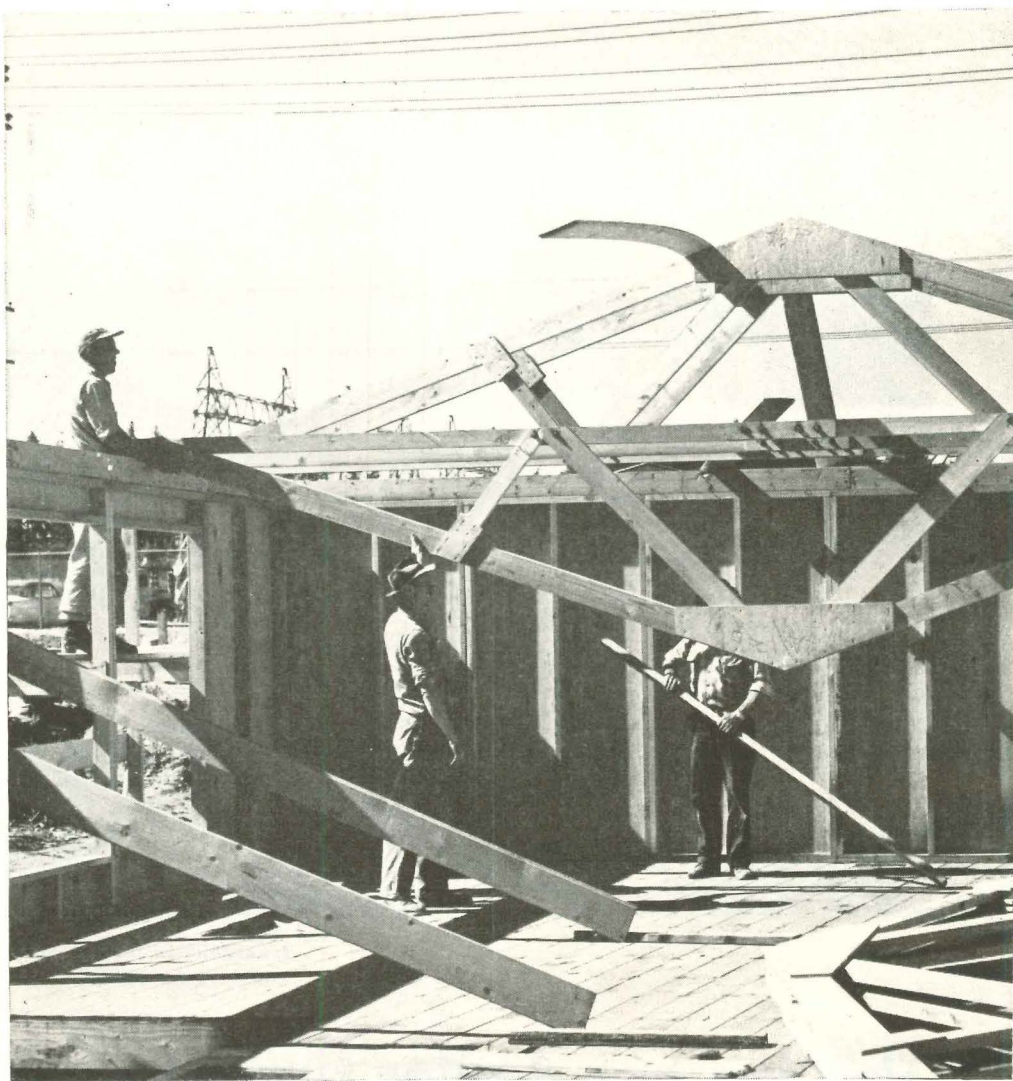
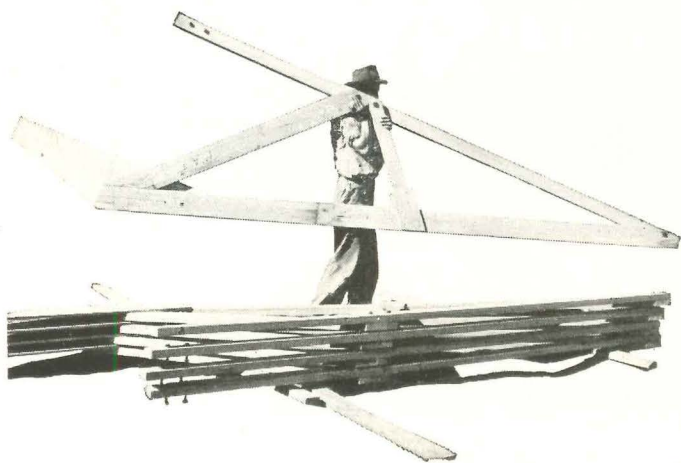
### **Economy and variety for the builder**

"Building panels in a yard and shipping them to site saves no more than building walls on a platform or slab and lifting them into place. But wall framing is only a small part of house cost. By-product savings of panelization are where the big economies lie: Lu-Re-Co, which packages larger components and simplifies construction in the field, insures a definite cost of labor. It becomes apparent immediately if production does not conform to an established pattern, particularly on scattered lots where supervision of labor on a single house is difficult. Lu-Re-Co achieves speedier erection after construction starts (house under roof by six men in a day). This means savings in interest on construction financing, faster turnover of product and money invested."

### **Flexibility and full labor utilization for the lumberman**

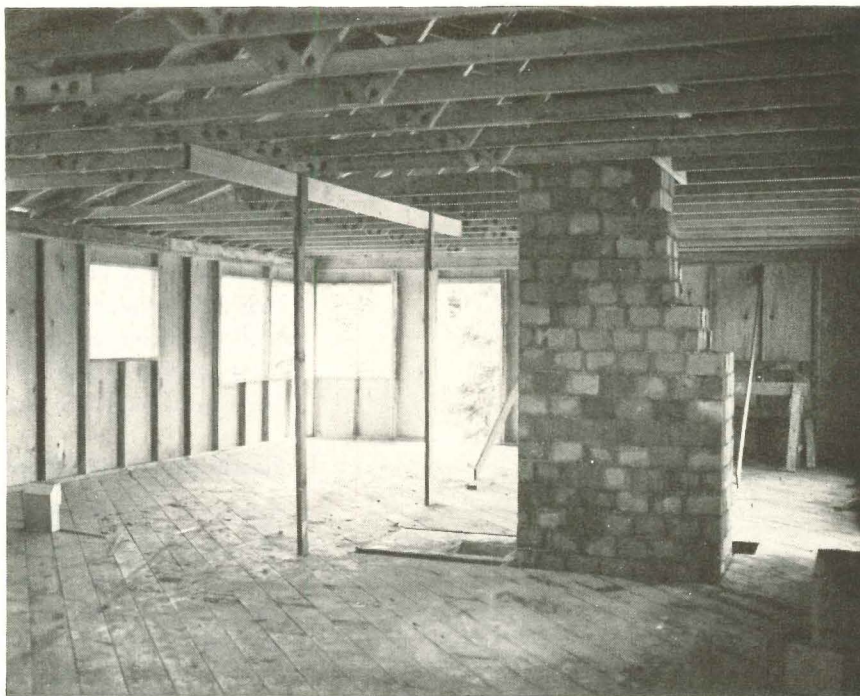
"Lu-Re-Co panels can be sold to the do-it-yourself trade, as shell houses (with roof trusses), as complete houses except for painting, as turn-key jobs complete down to lawns and shrubs. Lumberyard employees can build panels in slack times so a lumberman can schedule continuous work for his men. Lu-Re-Co is no cure-all. It is not the millennium. It is another item on our shelf of houses." (For construction advantages, turn the page.)

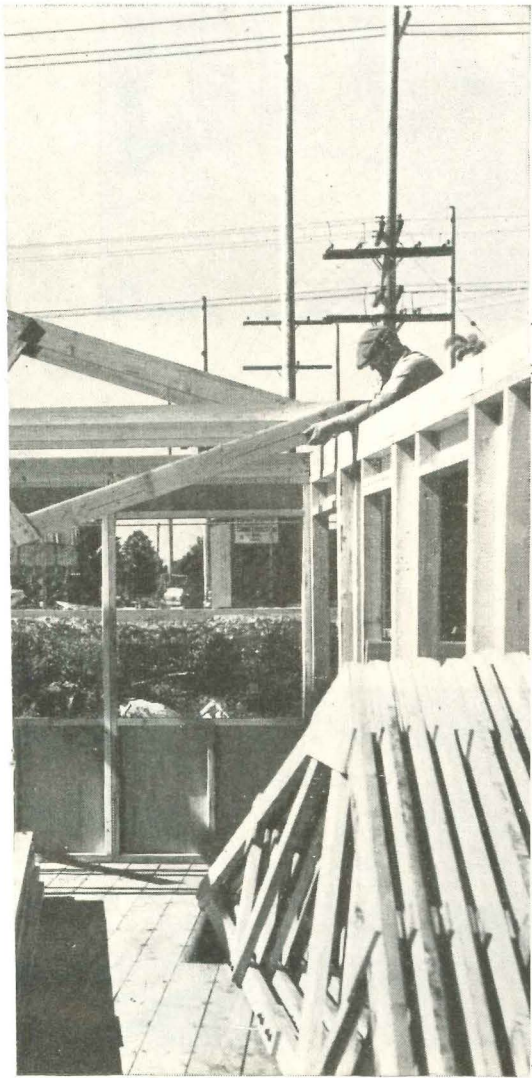
## Platform (or slab) becomes reservoir for preassembled components



**Panel system** is converted into post-and-beam construction by doubling 2" x 4" studs every 4' (right), ties in neatly with trusses spaced 2' o.c. Note how double 2" x 6" continuous lintel, with  $\frac{3}{8}$ " plywood spacer between, ties all panels together and eliminates varying header depths and extra cripples around apertures.

**By-product** of panel-and-truss system is one big open room in which carpenters, painters, electricians can work without carrying materials through a maze of studs. Quickly roofed-over shell provides excellent storage area as well.



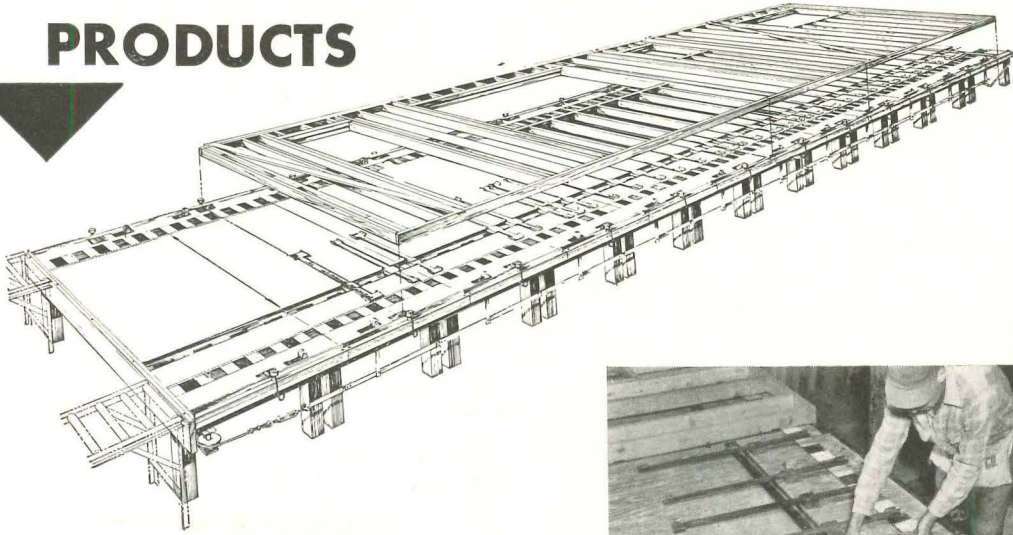


*Photos: B. H. Donahue*



**Flexibility** is keynote of the Lu-Re-Co system. Rearrangement of additional panels produces variety of elevations, bigger or smaller houses. Here, three view-window panels next to a door panel are tied together to provide a structural window and door wall. Manufacturers are already providing windows to fit panels.

# NEW PRODUCTS



## MECHANICAL JIG turns out any wall section with a simple realignment of stud locators

Even the small builder or lumber dealer can turn prefabricated and frame wall sections on a new mechanical jig, the *Module Erector*, that can be changed for any arrangement of studs, windows and doors. Its flexibility results from movable stud locators that can be rearranged in the jig.

The jig was invented by a Dayton lumber dealer, who set up a panelizing service for builders and has turned out over 100 houses during the past year. The fixture is 8' wide and 50' long, with a working surface 26" high. Mounted in the working table is a steel track on which are movable clamps. These are arranged for the section to be built, then are tightened into place. Workmen place pre-cut 2" x 4"s in the jig, nail them together, then cover the section with siding. The size of sections is limited only by weight.

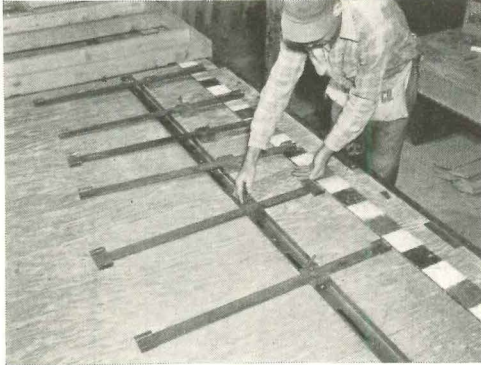
When a section is finished, an eccentrically mounted lever lifts the panel onto rollers which carry it along the assembly line. Siding is staggered at joints, so that there is no obvious seam where panels are joined.

Presently, Dealer Alex P. Le-Vay claims that all panels for a 24' x 36' house can be formed with 30 hours of carpenter labor, and 30 hours of helper time. In his shop, he is turning out panels for 3 3/4 houses per week, with a labor cost of \$880.

**Price:** \$4,950, F.O.B. Dayton.

**Manufacturer:** Module Erector Co.  
1522 N. Dixie Dr.  
Dayton, Ohio

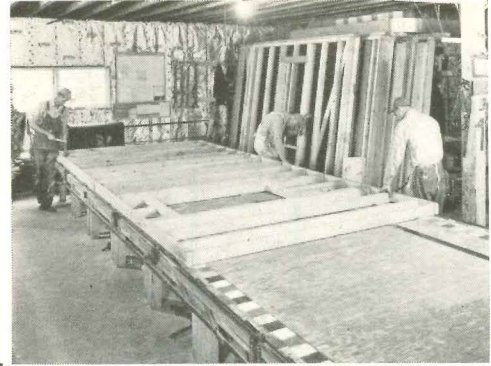
*continued on p. 184*



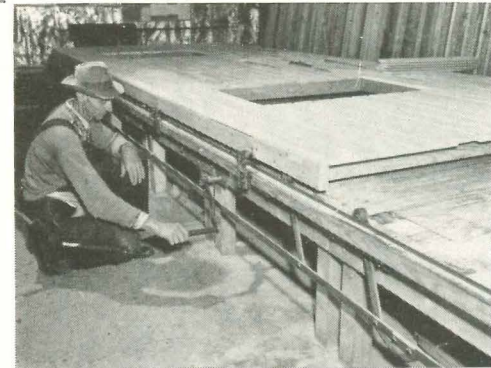
1. Stud locators slide on track to exact position of each vertical member, then are locked into place. Bottom and top plates are put in place on jig.



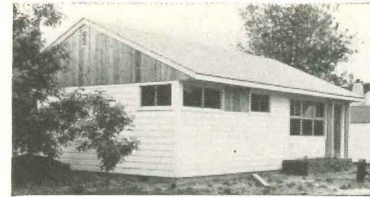
2. All studs drop into place in locators. No measuring o.c. distances is needed.



3. Sheathing is applied over panel framework by men working from both sides of table. Insulation and windows may also be installed at this point.



4. Eccentric lever raises entire panel off table onto rollers for moving the unit off jig. Representative house (below) was fabricated on "Module Erector."



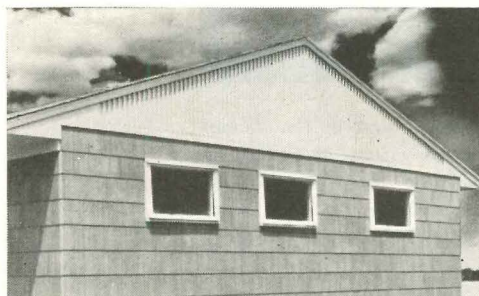
## Other NEW PRODUCTS in this issue



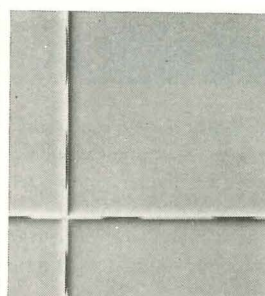
Colorful sliding cabinet doors . . . p. 184



Buffet kitchen . . . p. 208



Packaged vented steel gable ends . . . p. 186



Self-spacing tile . . . p. 198

# Directory

## prefabricated and packaged house manufacturers

*This directory includes only those manufacturers who sell through builders or dealers. At least two dozen other house manufacturers or packagers who sell directly to the home buyer are not included. Prices quoted exclude land, utilities and improvements.*

### Alabama

#### LUMBER FABRICATORS, INC.

Fort Payne, Ala.

**Sales manager:** Robert Nancarrow

**Established:** 1947

**Plants:** Fort Payne (Ala.), Clarksville (Ohio), Elkton, Capac (Mich.)

**Distribution area:** Middle West, South, Michigan

**Price range:** \$5,500-\$25,000

**Package:** room-size and smaller sided panels, windows installed and hung; interior partitions; roof framing; trusses; precut rafters; ceiling joists.

**Optional extras:** storage walls; floor panels; roof panels; air conditioning.

*Company has already produced over 15,000 houses since it began prefabricating, is one of the steadiest in the industry.*

#### CLIFF MAY HOMES

13151 Sunset Blvd.  
Los Angeles 49, Calif.

**Vice president:** Christian E. Choate

**Established:** 1953

**Plants:** Los Angeles, Magnolia (Ark.), Denver, Salt Lake City, Dallas, Tacoma

**Distribution area:** Far West, Southwest, Arkansas, Louisiana

**Price range:** \$8,000-\$15,000

**Package:** smaller-than-room-size exterior panels; interior partitions; storage walls; heating plants and ductwork; precut roof framing and sheathing; exterior and interior trim; sash; doors.

**Optional extras:** air conditioning; carport and/or garage.

*Licensed manufacturers-distributors of Cliff May houses now include Big Builders Leslie Hill of Dallas, Franklin Burns of Denver, plus three lumber dealers or building companies: Anderson Lumber Co. in Salt Lake City, Briggs Manufacturing Co. in Tacoma, and Teis, Lawton & Johnson in Magnolia, Ark.*

#### MOBILHOME CORP. OF AMERICA

7909 Herschel Ave., La Jolla, Calif.

**Established:** 1947

**Plants:** Bakersfield, Modesto, Los Angeles, Oxnard, San Diego, San Jose (Calif.), Phoenix, Spokane, Milwaukee, Gary, Minneapolis

**Distribution area:** West Coast, Indiana, Minnesota, Wisconsin

**Price range:** \$10,950-\$32,500

**Package:** houses are completely finished and trucked to site.

*Mobilhome-Customcraft system of building consists of building complete room units on a moving assembly line. Although sales are to consumers, they are made through factory sales representatives in each area. William Lumpkins is architect.*

### California

### California continued

#### PACKAGED HOMES CORP.

3430 State St., Santa Barbara, Calif.

**General manager:** L. B. Nelson

**Established:** 1953

**Plant:** Goleta, Calif.

**Distribution area:** southern California

**Price range:** \$5,700-\$10,500

**Package:** room-size and smaller exterior panels, sided, steel sash windows installed; interior partitions; trusses; storage walls; floor panels.

#### SCHUTT CONSTRUCTION CO.

3808 22nd St. East, Del Paso Heights Sacramento, Calif.

**General manager:** Jerry W. Schutt

**Established:** 1953

**Distribution area:** northern California

**Price range:** \$7,200-\$15,500

**Package:** room-size and smaller-than-room-size panels with sash, sheathed only; precut roof materials.

*This firm prefers to use the term "pre-engineered" rather than prefabricated, as its homes represent the engineering of component parts.*

#### FLORIDA BUILDERS, INC.

700 43rd St. S., St. Petersburg, Fla.

**Sales manager:** Lester I. Dingee

**Established:** 1948

**Distribution area:** Florida

**Price range:** \$5,800-\$10,800

**Package:** room-size or larger interior partition frames; trusses; storage walls; cabinets; water heater; roof panels for carport, porches or entrances; precut soffits, cornices, trim, framing.

**Optional extra:** space heaters.

*Specialists in designs for warm climates.*

### Florida

#### KNOX CORP.

Thomson, Ga.

**Exec. vice pres.:** Robert H. Harper

**Established:** 1947

**Distribution area:** Southeast

**Price range:** \$6,300-\$14,500

**Package:** sheathed room-size panels; interior partitions; storage walls; floor panels; trusses; precut floor beams and joists; roof sheathing.

**Optional extras:** heating plants and ductwork; air conditioning; electrical wiring.

*Knox operates its own building and retail sales organization in addition to dealer franchise distribution system.*

### Georgia

#### YETTER HOMES, INC.

Southeastern Shipyards, P. O. Box 505 Savannah, Ga.

**Sales manager:** Ora Yetter

**Established:** 1949

**Distribution area:** Florida, Georgia, Alabama, Louisiana, Mississippi, North Carolina, South Carolina

**Price range:** \$4,950-\$8,250

**Package:** room-size panels, exterior and interior sheathing only, windows and doors installed; roof trusses; partition panels; storage walls.

*In 1955 a new line of more expensive houses will be introduced.*

Illinois

**W. G. BEST HOMES CO.**

P.O. Box 509, Effingham, Ill.

**General manager:** Leland Lewis

**Established:** 1946

**Plants:** Effingham (Ill.),  
Tulsa (Okla.), Minneapolis

**Distribution area:**  
Middle West, Southwest

**Price range:** \$10,000-\$15,000

**Package:** exterior panels with insulation and plasterboard, windows installed and trimmed; interior partitions; panelized roof; ceiling panels with insulation and plasterboard; conduit installed; cabinets.

**Optional extras:** plumbing assemblies; ducts, furnace and chimney; air conditioning.

*Almost half of Best's production is to builders' specifications. Convinced prefabrication of houses over \$18,000 results in a larger saving than in smaller houses, Best believes prefabricators will get an equal share of houses in this bracket in next five years.*

**GBH-WAY HOMES, INC.**

Walnut, Ill.

**Contact:** Robert L. Myers

**Distribution area:** Illinois,  
Iowa, Indiana, Wisconsin, Michigan

**Price range:** \$7,000 to \$18,000

**Package:** complete house less heating, wiring, plumbing. Kitchen cabinets optional.

**ILLINOIS LUMBER MFG. CO.**

P.O. Box 233, Cairo, Ill.

**Manager:** Joseph J. Klein

**Established:** 1913

**Distribution area:**  
400-mi. radius of Cairo

**Price range:** \$7,000-\$21,000

**Package:** smaller-than-room-size panels; interior partitions; gable panels; trusses; precut sill plates, joists, flooring, rafters, kitchen cabinets; range; refrigerator; laundry equipment; exhaust fans; tiles, disposers.

**Optional extras:** roof panels; plumbing assemblies and fixtures; heating plants and ductwork; air conditioning.

**ABC CONSTRUCTION CORP.**

5235 Winthrop Ave.  
Indianapolis 20, Ind.

**Established:** 1953

**Distribution area:** Indianapolis

**Price range:** \$11,000

**Package:** room-size panels and larger, windows installed; interior sections framed; doors hung; gable ends sided; hip trusses; precut shelving; roof sheathing.

*A big builder and lumber dealer, John Bauer, found two reasons for turning prefabricator: 1) his building operation was expanding fast; 2) he "read the handwriting on the wall" as far as his lumber business was concerned.*

Indiana

**ALLEN WALL PANEL CORP.**

P.O. Box 2497, Station C  
Fort Wayne, Ind.

**General manager:** Robert J. Allen

**Established:** 1954

**Distribution area:** Middle West

**Price range:** \$9,600-\$15,900

**Package:** smaller-than-room-size panels, sheathing applied; interior partitions; trusses; gable end panels with insulation sheathing; cabinets.

*Builder Bob Allen adapted the 4' panel, continuous header and other Small Homes Council techniques of prefabrication, retained Architect Don Honn.*

**COLPAERT HOMES, INC.**

445 S. Sheridan Ave.  
South Bend, Ind.

**Established:** 1953

**Distribution area:** Middle West

**Price range:** \$6,100-\$13,500

**Package:** smaller-than-room-size panels with plywood sheathing; separate door and window panels; interior partitions; gable panels; precut floor joists, ceiling joists, rafters; preassembled casing, stairs, doors.

**Optional extras:** kitchen cabinets; washer; combination doors and hardware.

*Colpaert runs a test project, "Belleville," where all houses are field-tested before being offered to dealers. Says Colpaert: "When you get to build as many as 500 houses, you're bound to turn prefabricator."*

**GENERAL INDUSTRIES HOMES**

3033 Wayne Terrace, Fort Wayne, Ind.

**Sales manager:** George S. Brown

**Established:** 1946

**Distribution:** all states east of Rockies

**Price range:** \$8,000 and up

**Package:** room-size and some larger panels, interior and exterior walls with siding, doors and windows prehung, wiring and plumbing installed; roof trusses; partition panels; storage walls; floor panels for attic; roof panels; all trim precut.

*President Wm. B. F. Hall believes his package should include everything above the foundation line, so he is one of the few prefabbers who ships everything.*

**NATIONAL HOMES CORP.**

By-Pass 52, Lafayette, Ind.

**Vice pres. for sales:** S. J. Robinson

**Established:** 1940

**Plants:** Horseheads (N.Y.),  
Lafayette (Ind.)

**Distribution area:** national

**Price range:** \$5,000-\$30,000

**Package:** completely panelized houses, including insulation between studs; all panels have sheathing, some come with exterior siding; all windows and doors are factory applied; ceiling panels; roof braces; floor panels are optional; roof panels; precut assembly parts include ceiling and roof purlins, corner posts, exterior and interior trim.

*Far and away the biggest house packager in the business. A completely new line of 1955 models is being introduced; will use gypsum dry wall for first time. National will have a low-priced range and a high-priced range, eliminate medium-priced houses.*

**NEW CENTURY HOMES, INC.**

Lafayette, Ind.

**President:** John T. King

**Established:** 1946

**Distribution area:** Indiana, Ohio,  
Michigan, Illinois, Kentucky

**Price range:** \$5,200-\$30,000

**Package:** room-size exterior panels with framing and plywood, windows and doors installed and trimmed, insulation and vapor barrier installed; ceiling panels; roof panels; gable panels prime painted and trimmed; floor beams; fish wire for electrical wiring in panels, cutouts for receptacles.

**Optional extras:** hip roof panels instead of gable panels.

*"The custom prefabricator of the panel companies," New Century produces houses only against firm orders from dealers; has used 2" x 2" stud in true stressed-skin panel since 1946.*

**PLACE HOMES, INC.**

1212 S. Walnut, South Bend, Ind.

**Sales manager:** M. L. McCracken

**Established:** 1943

**Distribution area:** Indiana, Michigan,  
Ohio, Illinois, Wisconsin

**Price range:** \$6,000-\$15,000

**Package:** houses are precut with some preassembly of gable ends, framing members and windows; trusses; heating plants, ductwork and air conditioning are supplied.

**Optional extras:** plumbing assemblies and fixtures.

*Place & Co., progressive Midwestern builders, advanced to precutting houses for others and to prefabrication when they found other builders were interested.*

**RICHMOND HOMES, INC.**

Northwest L and Sheridan Sts.  
Richmond, Ind.

**Sales manager:** Elias B. Osterhout

**Established:** 1946

**Distribution area:** east of Mississippi,  
Oklahoma, Arkansas, Louisiana,  
Missouri, Minnesota, Iowa

**Price range:** \$9,500-\$16,500

**Package:** room-size panels with siding applied, windows and doors set in panels; roof trusses; partitions, panels, storage walls; precut chimneys; precut sheeting.

*A progressive firm that is putting great emphasis on new design. Trend is to put more into panel and package.*

**US STEEL HOMES, INC.**

Charlestown Rd., New Albany, Ind.

**Sales manager:** David F. Rycks Jr.

**Established:** 1936

**Plants:** New Albany (Ind.)  
Harrisburg (Pa.)

**Distribution area:** national

**Price range:** \$8,000-\$22,500

**Package:** smaller-than-room-size panels; interior walls finished; exterior walls with siding; roof trusses; partition panels; optional storage walls; floor panels; precut garages, breezeways, carports, porches.

*Formerly called Gunnison Homes, this is one of the oldest and largest firms. Next year it will bring out new and higher-priced models and in future will announce its steel house.*

Indiana

Indiana



## Iowa

**KOZY MANUFACTURING CO.***Exira, Iowa***General manager:** Tom J. Godwin**Established:** 1927**Distribution area:** Iowa, Wisconsin, Illinois, Nebraska**Price range:** \$7,000-\$11,630**Package:** room-size panels, sheathing applied, partial siding, windows set; interior partitions, doors hung, hardware applied; trusses; gables.

## Kansas

**SWEET LUMBER FABRICATORS, INC.***4400 Roe Blvd., Kansas City, Kan.***Sales manager:** F. H. Woodbury**Established:** 1953**Distribution area:** Kansas City area**Price range:** \$9,500-\$14,500**Package:** room-size panels; exterior panels sided and insulation installed; window units and door frames installed; roof trusses, partition panels; precut roofing materials in some models.*A lumber dealer turned prefabricator. See H&H, Aug. '54 for story and photos.*

## Kentucky

**EMPIRE HOMES, INC.***P. O. Box 35  
Louisville 11, Ky.***Vice president, sales:**  
William K. Markwell**Established:** 1954**Distribution area:** national**Price range:** \$8,000-\$12,000 and up**Package:** 4' modular panels, sheathing on exterior, hardwood prefinished interior (or room-size panels with sheathing and dry wall); windows, doors installed in panels; trusses; plywood panels for roof, gypsum for ceiling; precut lumber for corner posts, etc. Will offer appliances and equipment at builder's option.*Latest entry to field; principals have wide background in prefabrication and woodworking. Expandable plans for second bath, fourth bedroom, separate dining room and family room.*

## Louisiana

**CRAWFORD CORP.***P. O. Box 989  
Baton Rouge, La.***Established:** 1939**Plants:** Baton Rouge (La.)  
Gloster (Miss.)**Distribution area:** principally South**Price range:** \$5,900-\$22,250**Package:** room-size sided panels, windows installed; room-size interior partitions, doors hung; roof panelized; precut trim.**Optional extras:** interior wallboard plant-applied; doors and windows trimmed out; heating plants and ductwork; air conditioning.*Famed builder of Gentilly Woods in New Orleans, Hamilton Crawford builds large projects with his own prefabs, also sells to his builder-dealers. Chairman of NAHB's Merchandising Committee, Crawford accents merchandising, land planning, contemporary design in his house package.*

## Maine

**MORGAN C. ELMER, INC.***Rockland, Me.***General manager:** George Dodge**Established:** 1947**Distribution area:** New England,  
New York, New Jersey**Package:** room-size and smaller exterior panels, windows and doors hung; trimmed gables; assembled trusses; pre-cut exterior trim; interior studding.

## Maryland

**DIXIE HOMES***4501 Baltimore Ave.  
Bladensburg, Md.***Contact:** B. M. Halfpap**Established:** 1947**Plants:** Bladensburg,  
Upper Marlboro (Md.)**Distribution area:** Maryland, Virginia**Price range:** \$7,000-\$14,000**Package:** smaller than room-size panels; interior partitions; trusses; storage walls; floor panels; roof panels; pre-cut interior trim; finished hardware; cabinets; sill plates, wood beams.**MARYLAND MODERN HOUSING CORP.***5715 Southwestern Blvd.  
Baltimore 27, Md.***Sales manager:** Robert E. Kanode**Established:** 1941**Distribution area:** Maryland**Price range:** \$10,000-\$25,000**Package:** room-size and smaller exterior panels; interior partitions; trusses; storage walls; precut floor framing; roof sheathing.**PRECISION BUILT HOMES, INC.***Milford Mill Rd. & W. Maryland R.R.  
Pikesville 8, Md.***General manager:** John C. Theobald**Established:** 1951**Distribution area:** Maryland  
and neighboring states**Price range:** \$6,000-\$14,500**Package:** full wall-size panels, some completely finished inside and out; interior partitions; trusses; precut lumber for trim, roof, floor.**Optional extras:** plumbing assemblies; heating plants; air conditioning; electrical wiring; chimneys.

## Massachusetts

**E. F. HODGSON COMPANY, INC.***Hodgson Houses, Dover, Mass.***General manager:** Wm. J. Dwyer**Established:** 1892**Distribution area:**  
Connecticut, Massachusetts**Price range:** \$10,500-\$23,000**Package:** larger-than-room-size panels, sided and prime painted, windows installed; doors hung; interior bearing partitions; subfloor panels; precut ceiling joists, roof rafters, framing.*Oldest precutter and prefabricator in the business. Company has precut materials for more houses than any other prefabricator.*

## Massachusetts continued

**PRE-BILT CONSTRUCTION, INC.***P.O. Box 344, N. Dartmouth, Mass.***General manager:** David Schwartz**Established:** 1946**Distribution area:** Massachusetts,  
Rhode Island**Price range:** \$5,000-\$7,000**Package:** room-size and smaller exterior panels, sided, windows installed; interior partitions studded in panel form; trusses; floor panels; roof panels; electrical wiring; air conditioning; precut joists and rafters.*Business divided evenly between sales directly to consumer and sales to builder-dealers.***TECHBUILT INC.***55 Brattle St., Cambridge 38, Mass.***President:** Carl Koch**Established:** 1952-1953**Distribution area:**New York,  
Connecticut, Massachusetts,  
Ohio, Illinois, Michigan,  
Missouri, Minnesota**Price range:** \$11,000-\$16,000**Package:** smaller-than-room-size modular panels for framing, floors, roof, with doors, stairs, balconies.*Two plants in Concord, Mass. and Huntington, N.Y. are not owned or operated by Techbuilt but by licensed subcontractors. Architect Koch has been building in Massachusetts for several years, turned to prefabricating in 1954.***MANUFACTURED HOMES, INC.***330 S. Kalamazoo, Marshall, Mich.***Sales manager:** Vern McMahan**Established:** 1942**Distribution area:** North Central states**Price range:** \$8,200-\$15,500**Package:** exterior panels; roof trusses and decking.*Is beginning to promote on national basis, uses copyrighted "Permabilt" trade name.***MODERN HOMES CORP.***14507 W. Warren Ave.  
Dearborn, Mich.***Vice pres. of sales:** W. L. Mainland**Established:** 1946**Plants:** Dearborn (Mich.),  
Port Jervis (N.Y.)**Distribution area:** North Central  
and Northeastern states**Price range:** \$7,600-\$15,800**Package:** room-size exterior panels sided and prime coated, insulation and glazed windows installed; assembled trusses; assembled floor panels; precut interior partitions with plasterboard or gypsum lath; prehung doors; kitchen cabinets; sink and lavatories; furnace; electrical fixtures; vent fans.*Close to Detroit and influenced by the auto market, Modern Homes is merchandising and design minded. Example: they have 4' modular power windows. Brothers Bob and George Lytle have also developed a soundproofing system, and their own steel floor joists.*

Michigan

**SEMICO, INC.**

*Seney, Mich.*

**General manager:** Milo F. Gonser

**Established:** 1950

**Distribution area:** Wisconsin, Michigan, Indiana

**Price range:** \$9,500-\$12,000

**Package:** smaller-than-room-size panels sheathed only; roof trusses; partition panels; storage walls; floor panels; roof panels.

*Panels are made of 1" low-grade and short lumber which is cross laminated into three plies which are clinch nailed. Exterior panels have asphalt-impregnated building paper between plies. Firm claims its panels have greater strength than usual prefabricated units.*

**UNIVERSAL HOMES, INC.**

*3506 Guardian Bldg., Detroit, Mich.*

**General manager:** Walter M. Dailey

**Plant:** Milan, Mich.

**Distribution area:** 500-mi. radius of Detroit

**Price range:** \$10,000-\$11,500

**Package:** exterior sections with siding, doors and windows installed; insulated sheathing; roof trusses; interior partitions; interior doors in jambs; plaster-board dry wall; floor panels.

**MIDWEST HOMES**

*5720 Wayzata Blvd., Minneapolis, Minn.*

**Asst. sales manager:** Dick Nelson

**Distribution area:** Middle West, Minnesota, Wisconsin, Michigan

**Price range:** \$10,000-\$20,000

**Package:** exterior panels completely finished; interior partitions; all hardware material.

**PAGE & HILL HOMES, INC.**

*Shakopee, Minn.*

**Vice pres. of sales:** Hart Anderson

**Established:** 1932

**Plants:** Shakopee, Albert Lea, Waterville (Minn.)

**Distribution area:** Middle West

**Price range:** varies

**Package:** room-size exterior panels completely finished; interior partitions finished; windows weatherstripped and trimmed; doors hung; hardware applied; gable or hip roof panels; bath-room accessories.

*Believing the swing to prefabrication is becoming greater every year, Page & Hill built its third plant in Albert Lea, which is "one of the newest and most completely mechanized in the industry."*

Minnesota

Missouri

**CONNETT ENGINEERED HOMES**

*19th & Garfield, St. Joseph, Mo.*

**Contact:** Herbert C. Hazelwood

**Distribution area:** Missouri, Kansas, Iowa, Nebraska, Illinois

**Price range:** \$7,000-\$12,000

**Package:** exterior panels, doors and windows completely installed; sheathing applied; interior partitions, doors in jambs and hardware applied; trusses.

**Optional extras:** floor deck; finished flooring; siding; roofing; plasterboard.

**HOME BUILDING CORP.**

*303 N. Park, Sedalia, Mo.*

**General manager:** John Ellison

**Established:** 1947

**Distribution area:** Missouri, Iowa, Kansas, Illinois, Nebraska

**Price range:** \$6,000-\$15,000

**Package:** room-size panels completely finished; windows and doors painted and hung; interior partitions completely finished; floor panels with linoleum or plastic installed; gable panels completely finished; water heater; flue for furnace; plumbing assemblies; electrical wiring; ceiling panels.

**MODULAR HOMES, INC.**

*Barrett Sta. & Dougherty Ferry Rd. Kirkwood 22, Mo.*

**General manager:** J. E. Seofield

**Established:** 1952

**Distribution area:** Missouri, Indiana, Illinois

**Price range:** \$13,500-\$24,000

**Package:** smaller-than-room-size exterior panels sided with windows and doors; interior partitions; storage walls; cabinets; closets; precut posts, beams, rafters, trim.

**Optional extras:** plumbing assemblies and fixtures; heating plants and ductwork.

*Burton W. Duenke grew so big and so successful with contemporary houses that he expanded his building into prefabrication, organized Modular Homes.*

Montana

**NATIONAL LOG CONSTRUCTION CO.**

*P.O. Box 765, Thompson Falls, Mont.*

**General manager:** Stephen D. Babcock

**Established:** 1947

**Distribution area:** Pacific Northwest

**Price range:** \$3,600-\$20,800

**Package:** precut logs; precut window jambs and sills; door jambs and sills; gables; trusses.

*Company precuts only but offers design with its package.*

Nebraska

**PERMCO MFG. CO.**

*Peru, Neb.*

**General manager:** Peter Holdorf

**Established:** 1949

**Distribution area:** Nebraska

**Package:** smaller-than-room-size exterior panels; interior partitions; trusses; storage walls; precut joists, subfloor, roof sheathing, cornices.

**Optional extra:** kitchen cabinets.

*Permco has been selling packages for houses up to \$25,000 and believes this bracket will develop fast with superior designing.*

New Jersey

**PLYMOUTH LUMBER & MANUFACTURING CORP.**

*395 Long Ave., Hillside, N.J.*

**General manager:** Alvin Ross

**Established:** 1947

**Plant:** Belle Meade, N.J.

**Distribution area:** New Jersey, Pennsylvania, Connecticut

**Package:** sided exterior panels; interior partitions; trusses; storage walls; floor panels; roof panels; precut doors, windows, trim.

**Optional extras:** plumbing assemblies; heating plants; air conditioning; electrical wiring.

**WELL BUILT MFG. CO., INC.**

*US Route No. 22, Somerville, N.J.*

**Sales manager:** Norman Burscher

**Established:** 1937

**Distribution area:** New Jersey, New York, Pennsylvania

**Package:** exterior walls, gables and roof trusses are built in factory; this firm delivers and erects the shell only, with dealers or consumer finishing the house conventionally.

**YOUNG LUMBER CO.**

*Pemberton, N.J.*

**President:** Richard L. Duffield

**Distribution area:** New York, Connecticut, New Jersey

**Price range:** \$9,000-\$14,000

**Package:** Smaller than room-size panels, exterior sheathing only, doors hung in builder models; one new line with exterior walls completely sided; roof trusses; partition panels; precut joists.

*This firm was formerly the Johnson Quality Homes Div. of the Pemberton Lumber & Millwork Industries, Inc.*

**ALLEGHANY HOMES CORP.**  
26 Copeland Ave., Homer, N.Y.

**Contact:** Alice Ingersoll

**Distribution area:** New York, New England, eastern Pennsylvania

**Price range:** \$7,200 and up

**Package:** panels and precut lumber for complete house except for plumbing, heating, electrical work.

**AMERICAN HOUSES, INC.**

165 W. 46th St., New York 36, N.Y.

**Vice pres. c/o sales:** Thomas G. Barber

**Established:** 1932

**Plants:** Allentown (Pa.), Lumberton (N.C.), Cookeville (Tenn.);

**Distribution area:** Middle Atlantic Coast

**Price range:** \$7,700-\$30,000

**Package:** sheathed smaller than room-size panels, doors and windows hung; interior partitions; trusses; floor panels; cabinets; storage walls; precut trim.

*Project work, a specialty, accounted for major part of total sales. Has done schools, rental dwellings. This year for first time American will have a standard line of packaged houses. One of the oldest companies in the business.*

**BUSH PREFABRICATED STRUCTURES, INC.**

2nd St. and Lenox Rd.  
Huntington Station, L.I., N.Y.

**Vice president:** Bruce Williams

**Established:** 1930

**Distribution area:** Northeastern states, export

**Price range:** \$5,000-\$11,000

**Package:** room-size and smaller panels, completely sided, sash, doors and trim; interior partitions framed up; assembled trusses; storage walls; floor panels.

*Precision precut houses for export. Domestic business is to project builders; export business is a specialty.*

**IVON R. FORD, INC.**

McDonough, N.Y.

**Sales and advertising manager:** Lewis H. Ford

**Established:** 1935

**Distribution area:** New England, New York, Virginia, Maryland, New Jersey

**Price range:** \$7,000-\$35,000

**Package:** exterior walls complete with windows, doors, trim, insulation, wiring and interior wallboard; ceiling, roof and gable panels; trusses are shop fabricated.

*Ford's growth has been steady in sales, design and toward a more complete package.*

**NORGE COTTAGES, INC.**

21 West St., New York 6, N.Y.

**Contact:** Chris D. Geisler

**Plant:** Canaan, Conn.

**Price range:** \$775-\$4,475

**Distribution area:** eastern US

**Package:** everything but foundations, cabinets, utilities; precut notched planks.

**NORTHERN HOMES, INC.**

20 Ridge St., Glens Falls, N.Y.

**General manager:** Thomas I. Eastwood

**Established:** 1946

**Plant:** Hudson Falls, N.Y. Chambersburg, Pa.

**Distribution area:** New England states, New York, Pennsylvania

**Price range:** \$9,400-\$17,000

**Package:** smaller-than-room-size sheathed exterior panels; interior partitions; floor panels; precut rafters, ceiling joists, studs.

*Product line includes two-story and high-priced houses.*

**ACACIA LUMBER CO.**

1522 N. Dixie Dr., Dayton 4, Ohio

**Established:** 1946

**Distribution area:** Dayton

**Price range:** \$10,750-\$15,750

**Package:** room-size panels and smaller, completely sided, sash installed; interior partitions, open studs; trusses; floor panels; some roof panels.

*Uses Modular Erector, a universal framing jig for all walls.*

**CONTINENTAL HOMES, INC.**

Jacksman and State Line Rd.  
Toledo, Ohio

**Sales manager:** Arthur W. Amsler

**Established:** 1952

**Distribution area:** Indiana, Ohio

**Price range:** \$9,950-\$14,700

**Package:** room-size panels completely shingled; windows and doors installed and primed; interior partitions; trusses; precut door assemblies; trim package; precut flooring.

**EXPAN HOMES, INC.**

14511 Chatfield Ave.  
Cleveland 11, Ohio

**Contact:** Alex Bruscolo

**Established:** 1949

**Plant:** Lakewood, Ohio

**Distribution area:** northern Ohio, western Pennsylvania, western New York

**Price range:** \$6,500 and up

**Package:** Trusses, exterior panels sheathed; precut studs; framed door openings.

**INLAND HOMES CORP.**

501 S. College St., Piqua, Ohio

**Exec. vice pres.:** Roger Thyer

**Established:** 1952

**Distribution area:** Ohio

**Price range:** \$7,300-\$13,500

**Package:** room-size panels completely sided; interior partitions built up; trusses; storage walls; floor panels; roof panels; kitchen cabinets; heating plant and ductwork; precut trim; soffits; gables; door assemblies.

*Company has 50-day interim financing plan at no extra charge; gives free engineering service; is offering four-bedroom model with flexible variations.*

**INTERNATIONAL HOMES, INC.**

3896 Mahoning Ave.  
Youngstown, Ohio

**General manager:** Howard Solomon

**Established:** 1951

**Plants:** Mineral Ridge, Ohio

**Distribution area:** Ohio

**Price range:** \$9,000-\$20,000

**Package:** room-size panels, sheathed, sided and prime coated; interior partitions; chimneys; storage walls; roof panels; assembled and sided gable ends; precut ceiling joists; interior trim; stairway; roof overhang.

**Optional extras:** heating plant and ductwork.

**METROPOLITAN HOMES INC.**

721 W. Columbia St.  
Springfield, Ohio

**President:** Chas. E. Fry

**Established:** 1954

**Distribution area:** Ohio, Indiana, Kentucky, West Virginia, Pennsylvania, New York, District of Columbia, Maryland, Virginia

**Price range:** \$8,000-\$18,000

**Package:** exterior panels sheathed and prime coated; interior partitions; trusses; floor panels; storage walls.

*After successful first year of operation, Metropolitan is adding three- and four-bedroom units to its basic \$7,900 house.*

**MIDWEST HOUSES, INC.**

P.O. Box 334, Mansfield, Ohio

**Sales manager:** Charles A. Swain

**Established:** 1945

**Distribution area:** Ohio, Indiana, Kentucky, West Virginia, Pennsylvania

**Price range:** \$7,600-\$15,500

**Package:** room-size and smaller exterior panels with plywood sheathing, windows and doors installed; interior bearing partitions; trusses; floor panels; storage walls; precut joists, rafters, interior trim.

*Architect John N. Highland, small-house design specialist, is company's designer.*

**PANA HOUSE, INC.**

18320 Lanken Ave., Cleveland, Ohio

**President:** Benton Lefton

**Plants:** in franchised lumberyards

**Distribution:** national

**Price range:** \$11,600-\$28,500

**Package:** room-size panels; exterior panels sheathed only; roof trusses; partition panels; storage walls; precut roof materials.

*Pana is a new service for planning, engineering, financing and sales of pre-fabricated houses through lumberyards. The lumber dealer becomes the prefabricator.*

New York

New York continued

Ohio

Ohio continued

**PEASE WOODWORK COMPANY, INC.**  
 900 Forest Ave., Hamilton, Ohio  
**General manager:** John W. Pease  
**Established:** 1940  
**Distribution area:** Middle West  
**Price range:** \$8,000-\$25,000

**Package:** various size exterior panels framed, sheathed; doors and windows assembled in units; room-size interior partitions framed; assembled trusses; assembled windows and doors; precut floor and roof panels.

*One of the oldest woodwork companies, which early saw the advantages and possibilities of precutting and prefabrication.*

**RAY-MEL HOMES, INC.**  
 745 Morse Rd., Columbus, Ohio  
**Sales manager:** Elvin C. Vliet  
**Established:** 1954  
**Distribution area:** Indiana, Ohio

**Package:** larger-than-room-size panels sheathed only; roof trusses; partition panels; roof and deck sheathed only; precut flooring; interior finish.

*A new firm this year which refers to itself as "custom fabricators" and which fabricates an individual design for each of its dealers.*

**SCHOLZ HOMES, INC.**  
 2001 N. Westwood Ave., Toledo, Ohio  
**Sales manager:** Harry C. Smith  
**Established:** 1953  
**Distribution area:** Iowa to Maine  
**Price range:** \$9,500-\$32,500

**Package:** interior room-size panels sheathed only; exterior walls with siding; partition panels; storage walls; roof panels.

*Scholz is an example of a new trend in which successful local builders first expand to build in more than one town, then discover their designs are so attractive that other builders want to use them. Then builder turns prefabricator, distributes widely.*

**THYER MFG. CORP.**  
 2857 Wayne St., Toledo, Ohio  
**Sales managers:**  
 Harry Leggett (northern plant)  
 M. O. Gustafson (southern plant)  
**Established:** 1947  
**Plants:** Toledo (Ohio), Collins (Miss.)

**Distribution area:**  
 All states east of Mississippi except New England  
**Price range:** \$9,600-\$15,550

**Package:** exterior walls with siding; interior walls unfinished; interior doors hung in jambs; exterior doors installed in wall panels; roof trusses; partition panels; storage walls; roof panels; precut floor materials; stairs; rafters.

*With a new "mail order" financing plan for its dealers, Thyer plans for a rapid expansion. It is no longer using the term "Pollman Homes," which has identified its houses in the past.*

**WEAKLEY LUMBER MFG. CO.**  
 P.O. Box 28, Newark, Ohio  
**Sales manager:** Paul S. Flack  
**Established:** 1951  
**Distribution area:** Indiana, Ohio  
**Price range:** \$5,500-\$22,500

**Package:** room-size and some smaller than room-size panels; exterior walls completely sided; interior wallboard applied; pull wires installed for electric wiring; roof trusses; interior partitions; storage walls; floor panels; roof panels.

*A successful lumber dealer who has become a prefabricator.*

**TRU-EN CO., INC.**  
 624 S. W. Harrison St., Portland, Ore.  
**Sales manager:** Henry H. Broscius  
**Established:** 1953  
**Distribution area:** national

**Package:** Tru-En precuts and packages a wide variety of framing members for dealers' stock; in turn, its dealers sell a more complete package, nailed-up sections or panels.

**WESTWOOD HOMES, INC.**  
 P.O. Box 126, Beaverton, Ore.  
**Sales manager:** John F. Martin  
**Established:** 1953  
**Distribution area:**  
 Washington, Oregon, Idaho, Utah, California (northern)

**Price range:** \$6,800-\$23,000

**Package:** exterior walls with siding, windows installed; doors in frame; no interior wallboard; roof trusses; storage walls; roof panels.

*This is a new firm organized by Builder-Mortgageman Ralph M. Holmes. Four new models will be brought out in 1955.*

**ADMIRAL HOMES, INC.**  
 178 Provost Rd., Pittsburgh 27, Pa.  
**Sales:** James J. Gallagher  
**Established:** 1946  
**Plant:** West Newton, Pa.

**Distribution area:**  
 western Pennsylvania, Ohio  
**Price range:** \$8,000-\$15,200

**Package:** room-size panels completely sided; windows glazed and installed; interior partitions; trusses; precut floor and roof system.

**Optional extras:** plumbing assemblies and fixtures.

*Precuts and panelizes traditional houses including two-stories, split-levels.*

**HILCO HOMES**  
 Division of Hog Island Lumber Co.  
 72rd & Eastwick Ave.  
 Philadelphia 42, Pa.

**Sales manager:** Daniel Gurst

**Established:** 1936

**Distribution area:** Northeast Coast

**Price range:** \$6,000-\$27,000

**Package:** exterior panels framed and sheathed; interior partitions; precut studding; joists; rafters.

*A lumber company turned prefabricator, Hog Island is planning expansion.*

**LINCOLN HOMES CO.**  
 500 Clairton Blvd., Pittsburgh 36, Pa.

**General manager:** Robert Sieling

**Established:** 1948

**Plant:** Belle Vernon, Pa.

**Distribution area:** Ohio, Pennsylvania

**Price range:** \$9,500-\$12,000

**Package:** exterior walls completely finished; sheathing; siding; windows; brickmold; prime coat; trusses; plumbing assemblies; heating plants and ductwork; electrical wiring; precut interior partitions; storage walls; floor panels.

*After selling most of its production directly to home buyers, Lincoln has expanded to include sales to builder-dealers.*

**SWIFT HOMES, INC.**  
 1 Chicago Ave., Elizabeth, Pa.

**Sales manager:** Jack Levin

**Established:** 1949

**Distribution area:** east of Rockies

**Package:** precut parts only, no panels; includes framing materials, windows, doors, siding, interior finishing, wall board, trim.

**FAIRHILL INC.**  
 2165 Latham, Memphis, Tenn.  
**Sales manager:** Jim O. Brakefield  
**Established:** 1953  
**Distribution area:**  
 500-mi. radius of Memphis

**Price range:** \$5,500-\$8,500

**Package:** room-size panels, sheathed or sided; interior partitions; trusses; floor panels; prepainted cornice; precut materials; special packages.

*The Freeburg brothers, Charles and Nelson, of Memphis, Tenn., after building 2,500 of their own houses in and around Memphis, are stretching out to cover a wider area and are dropping local building entirely to concentrate on a packaged house. "'Package' is the magic word in the American economy," say the Freeburgs, who call their house a builder's package.*

Ohio continued

Oregon

Pennsylvania continued

Tennessee

Ohio continued

Pennsylvania

**FABRICON**

4601 E. 5th St., Austin, Tex.

**Sales director:** H. T. Fenderbosch**Established:** 1946**Distribution area:** Texas**Price range:** \$10,200-\$12,000

**Package:** exterior structural parts; interior partitions; storage walls; cabinets; doors hung and weatherstripped; window sash glazed; steel trusses and gables; sinks and lavatories.

*Started out as a component manufacturer (first with storage walls, then steel roof trusses) now includes "window wall" panels, contemporary designs, merchandising, etc. and has become a full-fledged, up-and-coming prefabricator. His design and engineering emphasis is on what public will accept and on field or "application" engineering.*

**HOUSTON READY-CUT HOUSE CO.**

P.O. Box 124, Houston 1, Tex.

**Vice president:** J. Harvey Suttles**Established:** 1917**Distribution area:** Gulf Coast, export**Price range:** \$3,600-\$10,000

**Package:** smaller-than-room-size panels, windows, doors installed and trimmed; interior partitions; storage walls; floor panels; roof panels; rough panel wiring.

*Sales to oil companies and for export are a specialty.*

**SOUTHWEST AMERICAN HOUSES, INC.**

P.O. Box 16, 1200 Givens St. Houston, Tex.

**Sales manager:** George E. Finch**Established:** 1942**Distribution area:** Texas**Price range:** \$5,200-\$11,000

**Package:** room-size panels, interior finished, exterior siding, doors hung in panels; roof trusses; partition panels; windows installed in frames; precut flooring.

**TEXAS HOUSING CO.**

9003 Denton Dr., Dallas 9, Tex.

**Sales manager:** John E. King**Established:** 1942**Distribution area:** national**Price range:** \$6,000-\$8,000

**Package:** smaller-than-room-size panels when needed; wall panels sheathed only; interior wall covering applied during erection; some floor panels finished; roof trusses; partition panels; storage walls; roof panels; prefitted doors and windows.

**LESTER BROTHERS, INC.**

P.O. Box 751, Martinsville, Va.

**General manager:** Lawson L. Lester, Jr.**Established:** 1946**Distribution area:** South**Price range:** \$7,100-\$20,000

**Package:** room-size panels, sheathing applied; interior partitions ready for wall material; trusses; door units; window units; porch columns; cabinets; basement stairways; gable ends; plumbing assemblies; heating plant and ductwork; electrical wiring; precut floor joists.

*Product line marketed under name "Lesco Homes."*

**LOCTWALL CORP.**

6910 E. Greenlake Way Seattle 5, Wash.

**Contact:** J. H. Bluechel**Distribution area:**

Pacific Northwest, Alaska

**Price range:** \$9,500-\$20,000

**Package:** finished wall panels with doors and windows installed with hardware; storage walls, sliding wardrobe doors; kitchen cabinets; trusses; gable ends; roof decking; shingles.

**Optional:** furnaces with two-bedroom models.

**LOXIDE STRUCTURES**

9904 S. 19th St., Tacoma, Wash.

**General manager:** Albert J. Kemp**Established:** 1945**Distribution area:** Washington, Wisconsin, South Dakota, Montana, California, Nevada**Price range:** \$11,100-\$12,500 with basement

**Package:** cabinets; corners; frames; houses are mainly precut.

**VIRGINIA LEE HOMES, INC.**

432 Dexter Horton Bldg. Seattle, Wash.

**Plant:** Kirkland, Wash.**Distribution area:**

national, includes export and Alaska

**Price range:** \$6,500-\$70,000

**Package:** modular panels up to 64" wide which have sheathing and siding with doors and windows installed; gable ends; precut roof framing; roof sheathing; interior partitions, closets, insulation, etc. (custom package includes more).

**WEST COAST MILLS FARWEST HOMES**

555 State St., Chehalis, Wash.

**Sales manager:** Eldon Reiley**Established:** 1948**Distribution area:** West Coast and as far east as the Mississippi, Michigan, Illinois, Ohio, Indiana**Price range:** \$8,800-\$9,800

**Package:** exterior wall panels, room size or larger, completely sided; trusses partially assembled; interior partition material precut; storage walls; door and window trim precut.

*One of the few prefabricators in the Northwest who has been able to compete with conventional builders.*

**SCOTT HOMES****DIVISION OF THE SCOTT LUMBER CO.**

2315 National Rd. Wheeling, W. Va.

**General manager:** B. R. Diez**Distribution area:**

200-mi. radius of Wheeling, W. Va.

**Package:** precut materials; roofing; conductors; glazing; insulation; interior wall linings; trim.

**HARNISCHFEGER CORP.**

Houses Division 100 Spring St. Port Washington, Wis.

**General manager:** Edward Hwass**Established:** 1936**Distribution area:**

Central, states, Midwest, New York, South

**Price range:** \$6,000-\$13,000

**Package:** room-size panels completely finished, windows installed; insulation and vapor barrier applied; finished interior partitions; trusses; storage walls; roof panels; precut interior and exterior trim; stairways; doors; windows.

**Optional extras:** wall furnace; kitchen sink and cabinets.

*Harnischfeger will help its dealers "prefabricate" everything from streets and sewers to final mortgages in a major 1955 expansion program. Company will put facilities of its Shovel & Crane Division behind larger P&H project builders and has set up Builders Acceptance Co.*

**UNIT STRUCTURES, INC.**

Peshtigo, Wis.

**Sales manager:** Lloyd Price**Distribution area:**

Middle West, East Coast

**Price range:** \$8,000-\$12,000

**Package:** wall sections sheathed with insulation optional; exterior doors, bevel siding; interior partitions assembled and framed for door openings; precut roof trusses; precut floor materials with finished floor optional.

**COLONIAL HOMES, LTD.**

P.O. Box 40, Toronto 13, Ont., Canada

**Established:** 1945**Plants:** Toronto, Hawkesbury, Ont.**Price range:** \$8,000-\$10,500

**Package:** room-size panels, siding only; interior partitions; storage walls; pre-cut rafters and joists.

*Business evenly divided between sales to builder-dealers and directly to consumers.*

**ENGINEERED BUILDINGS, (CANADA) LTD.**

504 Fourth St. East Calgary, Alberta, Canada

**Plants:** Edmonton, Calgary, Regina, Saskatoon**Distribution area:** western Canada**Price range:** \$10,000-\$15,000

**Package:** exterior panels; interior partitions; trusses; storage walls; forced air perimeter heating.

**GREENALL BROS. LTD.**

2690 Beresford St. S. Burnaby Vancouver, B.C., Canada

**General manager:** L. Greenall**Established:** 1951**Distribution area:** British Columbia**Price range:** \$3,000-\$9,700

**Package:** exterior panels completely finished; windows and doors installed; interior partitions; trusses; storage walls; floor panels; roof panels.

Like prefabrication, a house component might be defined as a state of mind. The state of mind this directory assumes is that of the architect or builder who constantly demands parts instead of pieces, bigger parts rather than smaller parts, complete rather than incomplete building "packages." Thus a component part, as listed in this directory, is defined as a major section or assembly of the house that forms a structural part or major division of it, or forms an integral system within it. To a degree, this directory characterizes the inventory of component parts available in the US today.

### Roof trusses and gable ends

- JAMES H. CARR, INC.**  
2138 P St., N.W., Washington 7, D. C.
- CLIMATE CONTROL, INC.**  
Sarasota-Bradenton Airport  
Sarasota, Fla.
- FABRICON**  
4601 E. Fifth St., Austin, Tex.  
(steel)
- C. D. JOHNSON LUMBER CORP.**  
Div. Georgia-Pacific Plywood Co.  
American Bank Bldg., Portland 5, Ore.
- MACKINTOSH & TRUMAN, INC.**  
515 Vance Bldg., Seattle 1, Wash.
- THE MACO CORP.**  
Huntington, Ind.  
(all-gable metal louvers)
- MILLER-GARDNER FABRICATION CO.**  
Monroe, Ore.
- RILCO LAMINATED PRODUCTS, INC.**  
W-2591 First National Bank Bldg.  
St. Paul 1, Minn.
- TIMBER FABRICATIONS, INC.**  
3701 N.W. 31st St., Miami, Fla.
- TIMBER STRUCTURES, INC.**  
N.W. 29th & Yeon Ave.  
Portland 8, Ore.
- TRUSS-MART, INC.**  
15540 N.W. 27th Ave., Miami, Fla.
- WADSWORTH, INC.**  
2949 Chrysler Rd., Kansas City, Kans.

### and wall assemblies

### Complete window

- FABRICON**  
4601 E. Fifth St., Austin, Tex.  
(door and wall assemblies, too)
- SOLAR AIR-FLO, INC.**  
600 East Purl St., Goshen, Ind.
- ... And local lumber dealers who use stock windows in Lu-Re-Co panels to provide a complete window and wall assembly.
- Note:** many wood, steel and aluminum window companies manufacture "window walls" that form a major section of the house but which are not structural. For the purpose of this directory (see definition above), only those window manufacturers were included whose windows also form a structural part of the house.

## Exterior panels

- CLIMATE CONTROL, INC.**  
Sarasota-Bradenton Airport  
Sarasota, Fla.
- EMPIRE HOMES, INC.**  
P. O. Box 35, Louisville 11, Ky.
- TRU-EN CO., INC.**  
624 S.W. Harrison St., Portland 1, Ore.
- VAUGHN MILLWORK CO.**  
P.O. Box 679, Reno, Nev.
- WADSWORTH, INC.**  
2949 Chrysler Rd., Kansas City, Kan.
- ... And all the local lumber dealers who manufacture Lu-Re-Co panels.

## heating packages

### Complete

- BRANDES CO.**  
2046 Winnebago St., Madison 4, Wis.
- Automatic gas or oil-fired furnaces complete with prefabricated ductwork and warm-air baseboard heating. Present distribution only in Midwest; within six months on a national basis.
- THE COLEMAN CO., INC.**  
Wichita 1, Kan.
- Gas and oil-fired warm-air furnaces with prefabricated supply and return ducts for use with central heating and air-conditioning units. National distribution.
- THE LENNOX FURNACE CO.**  
Marshalltown, Iowa
- Heating and air-conditioning units shipped with cooling units hermetically sealed at factory, air ducts preshaped at factory so seams lock when pushed together.
- THE MEYER FURNACE CO.**  
Box 989, Peoria, Ill.
- Warm-air heating systems for coal, gas and oil, and air-cooling system with line of packaged pipe and fittings.
- THE WILLIAMSON HEATER CO.**  
3500 Madison Rd., Cincinnati 9, Ohio
- Preassembled and prewired oil and gas furnaces with ducts, pipe and fittings.
- Note:** many furnace or heating companies do not supply ductwork because they firmly believe duct piping can be supplied more economically locally.

## plumbing

### Preassembled

- APSCO OF INDIANA**  
Baer Field, Ft. Wayne, Ind.
- F & G CONSTRUCTION CO., INC**  
5204 Kingston Pike, Knoxville, Tenn.

## Interior partitions

- EMPIRE HOMES, INC.**  
P. O. Box 35, Louisville 11, Ky.
- FABRICON**  
4601 E. Fifth St., Austin, Tex.
- UNITED STATES GYPSUM CO.**  
300 W. Adams St., Chicago 6, Ill.
- WADSWORTH, INC.**  
2949 Chrysler Rd., Kansas City, Kan.
- ... And all the local lumber dealers who manufacture Lu-Re-Co panels.

## Storage walls

- BEL-WOOD MANUFACTURING CO.**  
Ackerman, Miss.
- BREECE PLYWOOD, INC.**  
13th & McBeth Sts., New Albany, Ind.
- CARR, ADAMS & COLLIER CO.**  
Dubuque, Ia.
- DU-ALL MANUFACTURING CO.**  
San Antonio, Tex.
- FABRICON**  
4601 E. Fifth St., Austin, Tex.
- THE MENGEL CO.**  
Louisville 1, Ky.
- THE MORGAN CO.**  
Oshkosh, Wis.
- WINNER ENGINEERING CO.**  
Trenton, N. J.

## folding stairways

### Disappearing or

- ALLEN STEEL PRODUCTS, INC.**  
2941 E. Ten Mile Rd., Hazel Park, Mich.
- AMERICAN LADDER CO.**  
5509 N.W. Seventh Ave., Miami 38, Ill.
- ASSOCIATED DOOR & PLYWOOD CO.**  
2141 S. Throop, Chicago, Ill.
- BESSLER DISAPPEARING STAIRWAY CO.**  
1900 E. Market, Akron, Ohio
- CARR, ADAMS & COLLIER**  
Dubuque, Ia.
- CRAIG WOOD PRODUCTS CO.**  
Brennan Rd., Columbus, Ga.
- EZ-WAY SALES, INC.**  
St. Paul Park, Minn.
- FARLEY & LOETSCHER MFG. CO.**  
Dubuque, Iowa
- FOLDAWAY STAIRWAY CO., INC.**  
813 Seaboard, Portsmouth, Va.
- GOSHEN SASH & DOOR CO.**  
E. Purl, Goshen, Ind.
- GREGG & SON**  
21 Blandin, Framingham, Mass.
- HAWKINS IRON CO.**  
Box 670, Birmingham, Ala.
- HOLLYWOOD DISAPPEARING ATTIC STAIR CO.**  
5629 Yale, Dallas 6, Tex.
- HUNTINGTON INDUSTRIES, INC.**  
2368 Prospect, Memphis, Tenn.
- KAPTUR & CO.**  
121st St. & 90th, Palos Park, Ill.
- MARCO STAIRWAYS**  
1695 N. Cleveland Ave., St. Paul 8, Minn.
- MOTT BROS. CO.**  
907 S. Main, Rockford, Ill.
- NEWARK LADDER & BRACKET CO.**  
17 Walnut Ave., Clark, N. J.
- PRECISION PARTS CORP.**  
400 N. First, Nashville 7, Tenn.
- RICHBILT MFG. CO.**  
3277 Spring Grove Ave., Cincinnati 25, Ohio
- ROACH & MUSSER CO.**  
Muscatine, Iowa
- WEL-BILT PRODUCTS CO.**  
Box 95, Memphis 1, Tenn.