

October 1952

house+home

CHAS. W. CONNELLY
ARCHITECT & ENGINEER
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C.W.C.

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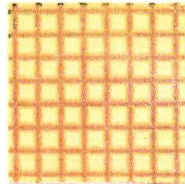
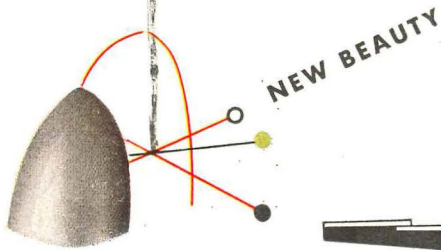
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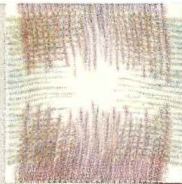


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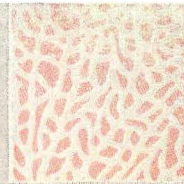
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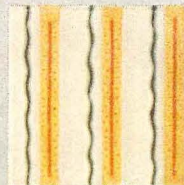
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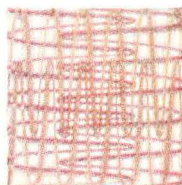
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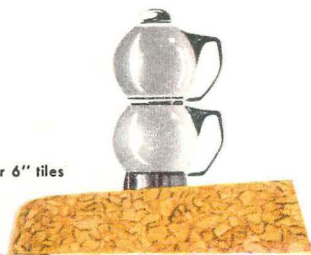
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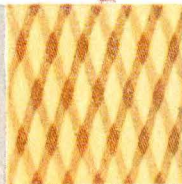
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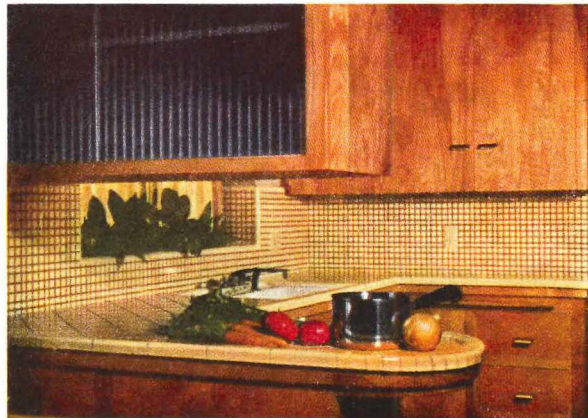
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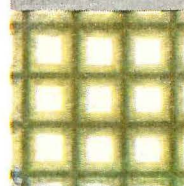
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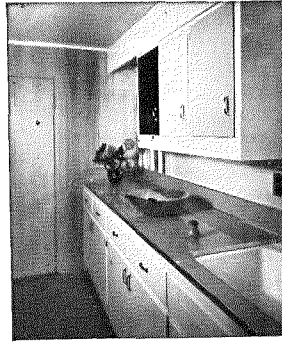
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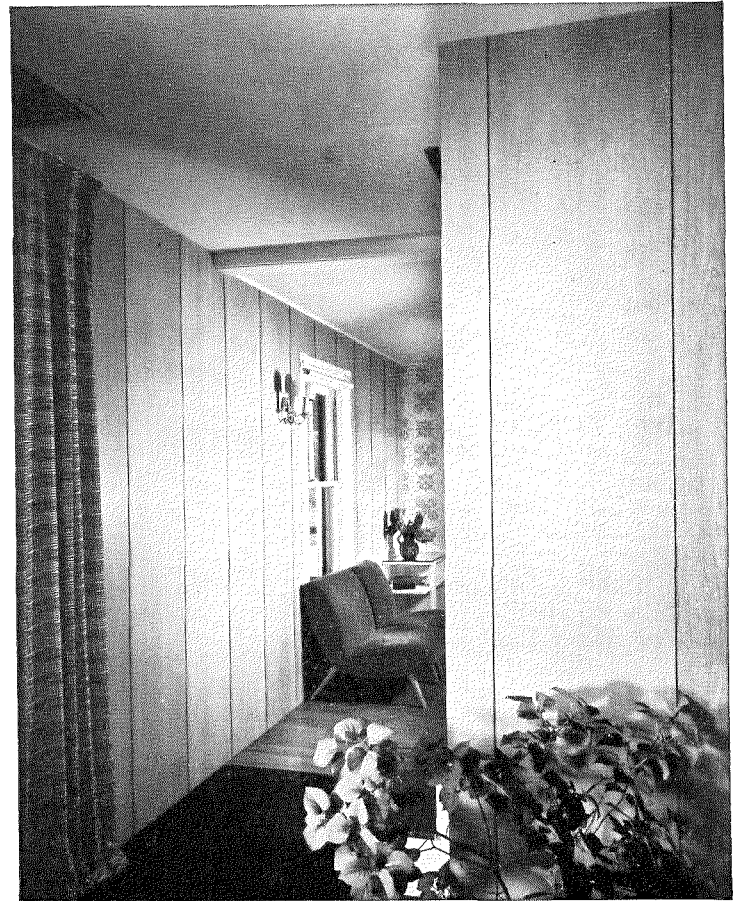
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Kitchen of Mr. Schladermundt's home. Oak Plankweld is used for one wall. Weldwood Plywood, painted, is used for other walls. Cabinets are also of Weldwood Plywood.

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Reg. X suspended, but FHA and VA keep partial brakes on credit

Federal Reserve's action was clean cut. When the Bureau of Labor Statistics announced that August housing starts for the third month in a row had fallen below a seasonally adjusted rate of 1.2 million a year, the Fed on Sept. 16 suspended Regulation X entirely for new commercial building and conventional loans (including second mortgages) on residential construction.

Characteristically, HHFA's action to comply with the credit relaxation required by law was complicated in detail and colored with political overtones which suggested that administrator Foley had moved as far as he dared to fulfill the will of Congress. The housing agency laid down these new rules for FHA and VA loans (which were technically never under Reg. X, but operated under Reg. X's 23-month life under parallel restrictions of their own):

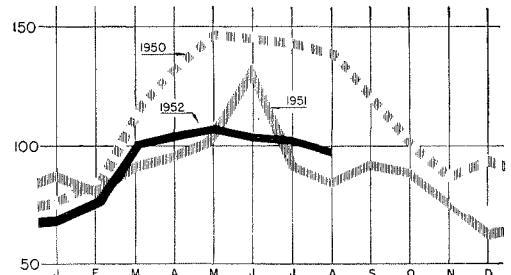
The maximum limit on FHA single-family mortgages was cut from \$16,000 to \$10,000, thus tending to restrict FHA activity in the lower part of today's market (see table).
 FHA commissioner Greene: "This limitation is designed to increase incentive for builders to work in lower priced housing."
 Amortization periods on FHA and VA loans were restricted to 20 years where the price is more than \$12,000 and to 25 years where the price is \$12,000 or less. VA, however, may increase the maturity to 30 years in hardship cases. Down payments on FHA loans will be limited

only by the National Housing Act. But on VA loans, a down payment of 5% was kept on houses priced at more than \$8,400 (where 100% financing would be unlikely anyway); a 4% down payment was retained where the price is between \$7,000 and \$8,400; on homes costing \$7,000 or less all closing costs up to 4% of the price must be paid in cash (so the veteran may think he is allowed a 100% loan, while actually he is not).

For multifamily rental units, maximum FHA-insured loans were set at 90% of the first \$7,000 of value and 60% of the excess.

HOUSING STARTS

IN THOUSANDS OF UNITS



Source: Bureau of Labor Statistics

HOUSING STARTS DROPPED to 99,000 in August, 5,000 below the July level. However, the total for the first eight months of the year was slightly (0.3%) above 1951. While private starts for the year to date were 3% ahead of a year ago, public housing lagged 28% behind.

On Sec. 213 cooperatives, statutory limits were restored—loans of 90 or 95% of replacement costs, depending on the proportion of veterans in the co-op.

Effect: small. Best guess was that HHFA's moves would have little impact on the housing market. To the extent that FNMA funds are available, the new terms might stimulate VA loans. But they offered no special inducement to lenders in a tight money market. The reduction of FHA's

CREDIT RELAXATION ON VA, FHA LOANS CUTS DOWN PAYMENTS, BOOSTS MONTHLY COSTS

FHA-INSURED LOANS

Value	Cash down payment (for owner-occupant, two br, single-family homes under Secs. 8 and 203)			Monthly payments		
	New	Old	Decrease	New	Old	Decrease
\$ 5,000	\$ 250	\$ 250	—	\$27.09	\$27.09	—
6,000	300	300	—	32.50	32.50	—
7,000	350	350	—	37.92	37.92	—
8,000	650	950	\$300	41.91	40.20	+\$1.71
9,000	950	1,200	250	45.90	44.47	+ 1.43
10,000	1,250	1,450	200	49.89	48.75	+ 1.14
11,000	1,550	1,900	350	53.88	51.89	+ 1.99
12,000	2,400	2,350	+ 50	54.74	55.02	.28
13,000	2,600	2,800	200	67.23	65.93	+ 1.30
14,000	2,800	3,250	450	72.39	69.48	+ 2.91
15,000	3,000	3,700	700	77.55	73.03	+ 4.52
16,000	3,200	4,250	1,050	82.72	75.94	+ 6.78
17,000	3,400	4,800	1,400	87.89	78.85	+ 9.04
18,000	4,000	5,350	1,350	90.48	81.76	+ 8.72
19,000	5,000	5,900	900	90.48	84.66	+ 5.82
20,000	6,000	6,450	450	90.48	87.58	+ 2.90
21,000	7,000	7,000	—	90.48	90.48	—
22,000	8,000	7,750	+ 250	90.48	92.10	1.62
23,000	9,000	8,500	+ 500	90.48	93.71	3.23
24,000	10,000	9,250	+ 750	90.48	95.33	4.85
25,000	11,000	10,000	+1,000	90.48	96.94	6.46

VA-GUARANTEED MORTGAGES

Value	Cash down payment (one- to four-family residences)			Monthly payments		
	New	Old	Decrease	New	Old	Decrease
\$ 5,000	*	*	—	\$26.40	\$26.40	—
6,000	*	*	—	31.68	31.68	—
7,000	*	*	—	36.95	36.95	—
8,000	\$ 320	\$ 380	\$ 60	40.54	40.23	+\$.31
9,000	450	480	30	45.14	44.98	+ .16
10,000	500	580	80	50.15	49.73	+ .42
11,000	550	740	190	55.17	54.16	+ 1.01
12,000	600	900	300	60.19	58.60	+ 1.59
13,000	650	1,450	800	74.85	70.00	+ 4.85
14,000	700	2,000	1,300	80.60	72.72	+ 7.88
15,000	750	2,550	1,800	86.36	75.45	+10.91
16,000	800	3,100	2,300	92.12	78.18	+13.94
17,000	850	3,670	2,820	97.87	80.78	+17.09
18,000	900	4,240	3,340	103.63	83.39	+20.24
19,000	950	4,810	3,860	109.39	86.00	+23.39
20,000	1,000	5,380	4,380	115.14	88.60	+26.54
21,000	1,050	5,950	4,900	120.90	91.21	+29.69
22,000	1,100	6,650	5,550	126.66	93.03	+33.63
23,000	1,150	7,350	6,200	132.42	94.84	+37.58
24,000	1,200	8,050	6,850	138.17	96.65	+41.52
25,000	1,250	8,750	7,500	143.93	98.48	+45.45

TERMS: 1. The maximum ratio of loan to value cannot exceed 80% except that for single-family owner-occupied dwellings approved for mortgage insurance prior to the start of construction the ratio can be:

Section 203 (b) (2) (C)—95% of the first \$7,000 of value plus 70% in excess of \$7,000 to a maximum loan of \$9,450.

Section 203 (b) (2) (D)—95% of value to a maximum loan of \$6,650 for a one- or two-bedroom dwelling, \$7,600 for a three-bedroom dwelling, \$8,550 for a dwelling with four or more bedrooms.

Dollar limits—\$14,000—Single-family dwelling \$20,500—Three-family dwelling
 16,000—Two-family dwelling 25,000—Four or more family dwelling

Minimum cash investment requirements: Section 203 (b) (2) (A)—10% of total cost of acquisition; Section 203 (b) (2) (C)—5% of the first \$7,000 of acquisition cost plus 5% of the balance of such cost; Section 203 (b) (2) (D)—5% of the FHA value; Title Section 8—5% of the FHA value.

4. Term of mortgage—Not to exceed 20 years except where the acquisition cost per family unit is \$12,000 or less, and the property is approved for mortgage insurance prior to beginning of construction, the term may be 25 years.

5. Single-family homes not approved for mortgage insurance prior to construction start have slightly higher down payments for values of \$12,000 or less.

*VA TERMS: If the sales price (which excludes closing costs) is \$7,000 or less the closing costs must be paid in cash, but not in excess of 4% of the sales price. If the sales price is more than \$7,000 the minimum down payment is also computed on the basis of sales prices; however, the minimum down payment may be applied to closing costs. To determine the maximum permissible loan, subtract the required down payment from the sum of the sales price and closing costs. Example: sales price is \$10,000. Closing costs are \$200. Required minimum cash payment from veteran is \$500 (5% of sales price). Maximum loan is \$9,700 (\$10,200 minus \$500).

mortgage ceiling should keep FHA from recovering its former position in the market—a position that was steadily losing ground to savings and loan associations:

SHARE OF NATION'S MORTGAGE BUSINESS

	1st half '50	1st half '52
FHA	16%	10%
VA	17%	17%
Savings & loan	32%	35%

Sources: HHFA, Home Loan Bank Board. Savings and loan figures include insured mortgages.

Only 2% of FHA's business involved houses valued at more than \$18,000, where the reduced ceiling would begin to force higher down payments. Penalizing 2% of its customers would do little to combat the "inflationary danger zone" Foley declared the nation had not yet left behind. Some stimulus of FHA lending in the used house market could result. The old restraints covered FHA loans on used as well as new homes. But since builders had been anticipating scrapping of credit controls by increasing starts for the last three months,

little new impact on the total volume of housebuilding seemed likely. The expectancy that controls would be relaxed had slowed down housing sales across the nation. Now that the uncertainty was gone, most builders and realtors expected sales to pick up again.

Boost for conventionals. Sales of higher priced homes financed with conventional loans should speed up most of all because the death of Reg. X again made possible the 95% (or greater) loan through second mortgages.

Builders hoped that hastily written newspaper accounts of the credit-curb removal had not given the buying public the notion all houses could now be bought for 5% down. As the Federal Reserve meticulously noted, conventional loans remained bound by many a federal and state rule. Federal regulations forbid national banks to lend more than 60% of the appraised value of a house. Savings and loans under federal

charter cannot lend more than 80%. State-chartered savings and loans usually follow suit. Most states limit insurance companies to 66% loans.

Shackles off commercial. Most important effect of the end of Reg. X will be on commercial building. Figures compiled by BLS indicated how seriously it has been hampered by the 50% loan to value ratio requirement:

	1ST HALF '50 (no restrictions)		1ST HALF '52 (under Reg. X)	
	Starts	Value	Starts	Value
Stores	16,374	\$286 million	11,375	\$179 million
Gas stations	2,563	\$ 26 million	1,670	\$ 20 million

Now, commercial loans will be subject only to state laws. Insurance companies which find FHA and VA mortgages unattractive because of politically frozen interest rates, seemed likely to shift funds into commercial mortgages. The impact of such a move, however, would come next year because of the time it takes to plan and negotiate such deals.

Builders say Ike 'wants none' of public housing; general's aides say it isn't so

Where does candidate Dwight Eisenhower stand on US housing issues, particularly public housing? Because the Republican platform was terse to the point of being cryptic (H&H, Aug. '52, p. 51), the building industry had tried this summer to smoke the general out in lucid detail.

Last month, the nearest thing yet to a first-hand report came from NAHB president Alan Brockbank, who talked to the GOP nominee for an hour Aug. 7 with four other NAHB leaders. Reported Brockbank: "General Eisenhower said 'I'd like you folks to tell me how I can produce a program in housing that will show the people what a great nation America can be with proper leadership.' Public housing?

He simply said he wanted none of it."

Maybe yes, maybe no. Did that really represent the General's views? After talking to sources "as authoritative as there are on Eisenhower's campaign train," HOUSE & HOME correspondent James Shepley wired: "The fact is that he has no clear, well-defined position on housing at the moment. Philosophically, he rejects paternalism on all counts including housing and possibly he might have said of public housing 'I want none of it,' though no one here recalls that he ever did. It would be a serious mistake to draw specific conclusions from that broadbrush statement. . . ."

"Of one thing only is he certain: federal control must not go with federal help

[in housing]. Federal help must be made available to local communities [those unable to meet their needs alone] which must then be expected to work out their own problem according to their own circumstances. His objection goes to the idea that some federal bureau should, in exchange for help, dictate terms of price, rent, quotas, occupancy, design, construction."

At the moment, said Eisenhower aide, the General had no definite plans for stating his views on housing. Tentatively planned to do so in the East near the close of the campaign.

Who's for who. Because he felt laudatory "will only be able to get off the Tom Hartley hook under a Republican administration," president Richard J. Good of AFL's building trades department announced in August he would vote for

LIFE: Burt G.



WHEN WILSON WYATT was housing expediter (1946), his efforts to spur housing production to 2.7 million units in two years through rigid controls and prefabrication earned him the cordial enmity of much of the industry. Now that Louisville's ex-mayor is campaign manager for Gov. Adlai Stevenson, and thus can be expected to have a potent voice in policy-making councils if the Democrats win in November,



the industry's attitude has changed. When Stevenson passed through Seattle during the NAHB fall directors' meeting there, the homebuilders' top brass came to his reception, spent most of their time in amiable talk with Wyatt. In photo at left, Wyatt (l) chats with FHA commissioner Walter Greene, builder V. O. Stringfellow of Seattle, NAHB chief Alan Brockbank and builder E. J. Burke of San Antonio. As



the group waxes friendlier (center and right) builder Tom Coogan (2d from right) joins circle and builder Wallace Johnson of Memphis leans in to catch Wyatt's words. Wyatt's remark of what transpired: "They asked me when I was going to take over Ray Foley's job. I told them I wasn't interested. They asked: 'You could even be drafted for it?' I said: 'Now, cut that twist my arm too hard.'"

ver. Secretary Joe Keenan said he named a Stevenson supporter. NAHB executive vice president Frank Cortright took a longer view. Said he: "Because we have a strong coalition in Congress,

I don't worry too much about the election outcome." The coalition, Cortright thought, would remain "largely successful" at blocking "new bureaucratic regulations which will undoubtedly be thrown in the hopper."

Savannah segregation suit by Negro group threatens entire public housing program

At the start of the program, Negroes had not seriously challenged public housing's conformance with local patterns. There had been a few skirmishes in northern cities like Chicago in protest that housing needs of Negro families were not being adequately met. But no concerted attempt had been made to force mixed occupancy communities that insist on drawing the line.

Last month, two suits indicated the long fight might end. For the first time the segregation issue was raised in the deep south for a project in Savannah, Ga. What threatened public housing brass even more was that the test suit was filed in federal court in Washington. This would involve PHA Administrator Foley and PHA Administrator Egan as defendants. Previous test suits had been confined to courts of localities involved. They have ruled that the Washington hierarchy cannot be drawn into such cases.

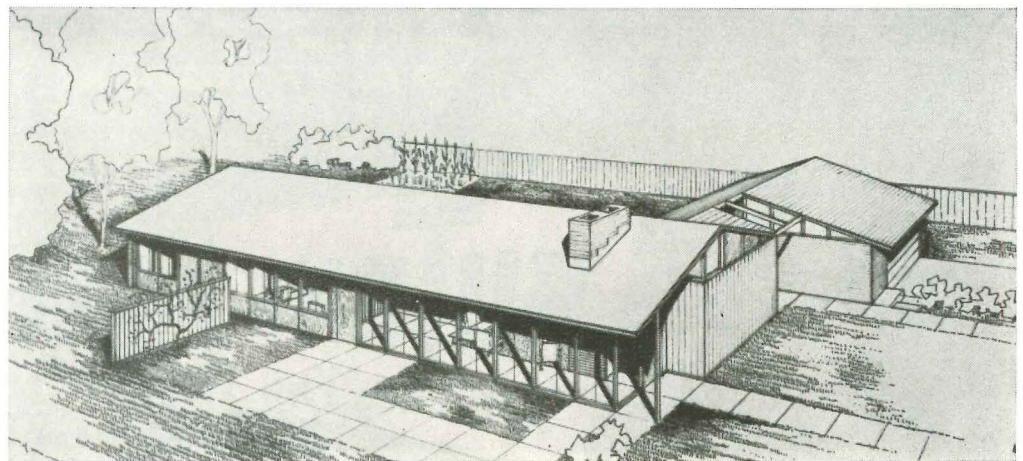
Issues challenged. Masterminded by the National Association for the Advancement of Colored People, the Savannah suit was filed in behalf of 13 Negroes threatened with eviction from their present homes to make room for an all-white public housing project. It sought to enjoin use of federal funds in constructing new development unless Negroes were given the same tenant eligibility as others. In San Francisco, the NAACP sued in a court to break the San Francisco Housing Authority's ten-year-old policy of maintaining the racial complexion in public housing projects which already existed in the neighborhood where they were. The occasion: three Negroes were denied admission to architect Ernest Parson's handsome new North Beach public housing development, which lies in a predominantly white neighborhood close by Fisherman's Wharf.

Whistle knell? Even in tolerant San Francisco the suit touched off fireworks. Said an *San Francisco Examiner*: "The row may foreshadow the end of public housing in San Francisco. . . . The Housing Authority believes that to abandon the neighborhood pattern policy for the ten-

permanent projects to which it applies would be tantamount to operating public housing for a single race." The paper quoted an unnamed official of the authority: "Abolish the pattern and within two years virtually all public housing would be Negro occupied. . . . I do not believe it could be [then] justified as a public expenditure."

Why had NAACP suddenly reversed its policy? Government race-relations counselors offered one plausible theory: Negro leaders are mobilizing all their resources for a final drive against segregation in public-school systems when the US Supreme Court takes up its calendar this fall; waging an all-out campaign against discrimination in schools while condoning it in housing would be too inconsistent.

Once they were happy. Before it was so heavily committed in its onslaught against racial separation in the schools, NAACP had big incentive to avoid endangering public housing by segregation suits. Negroes were deriving the greatest benefit from the program since they were the worst housed of all groups. Recent PHA figures show Negroes occupy 37% of the nation's public housing units, although they are only 10% of the population.



Detroit homebuilders pick "Ideal 1953 Home"

This contemporary two-bedroom and study-guest room house with 1,576 sq. ft. of living area won an \$800 first prize last month in a contest sponsored by the Builders Association of Metropolitan Detroit for a model to be featured in conjunction with its Home Show next year. Henry

Furthermore, Negro leaders realized in the early days of the program that they would be playing into the hands of the public housing opponents if they raised the segregation issue. In 1949 when the act squeaked through Congress, antisegregation amendments were offered in both houses by forces that had fought the bill at every turn. In beating them down, northern liberals of both parties teamed up with southern Democrats.

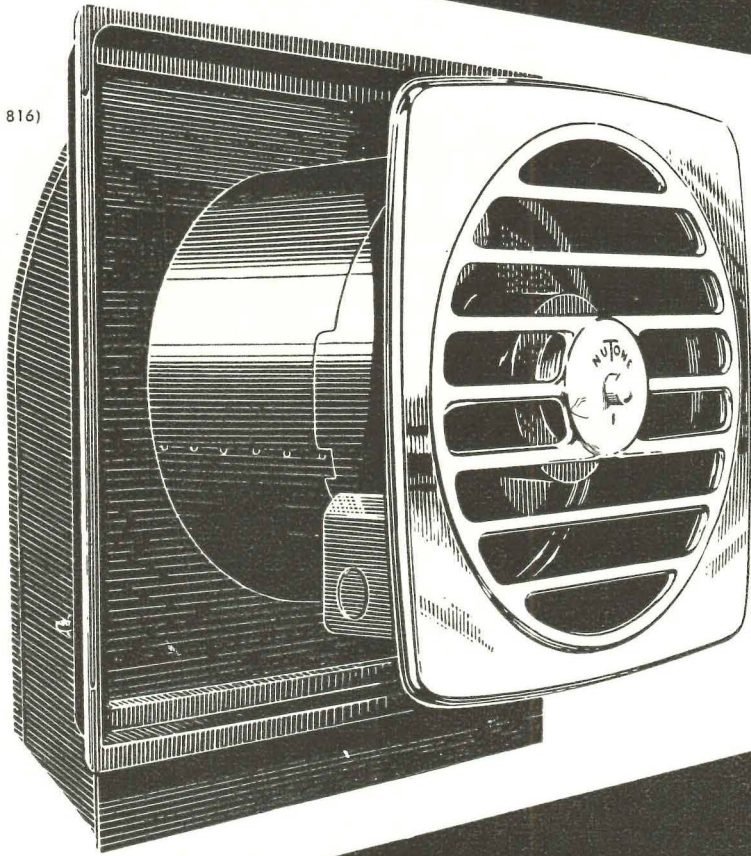
Compromise terms. Some public housers hopefully predicted that the Savannah suit would be settled without wrecking the whole program. A possible compromise, they hint, may involve steps by the local housing authority to find satisfactory quarters for the protesting Negroes without throwing the whole project open for mixed occupancy—something Savannah would not accept. One suggestion was that a segment might be carved off one corner of the development and earmarked for colored families.

Legally, public housers conceded, their program was vulnerable because PHA allows states or cities to shape racial policies for projects even though the federal government puts up practically all of the funds. Some 50 cities in 15 states have nonsegregation policies for public housing. Four states—Massachusetts, New Jersey, Connecticut and New York—compel nonsegregation.

If NAACP and its fellow groups push for a clear-cut decision this time, other programs that involve federal aid like FHA and VA could expect to be drawn into the tussle. A new court ruling could well becloud FHA and VA deals in tracts covered by segregation ordinances.

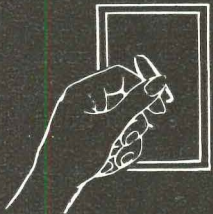
F. Fett, NAHB regional vice president and former head of the Detroit organization, will build the model on a 110' x 120' corner lot in Southfield Township. The contest was limited to Michigan architectural and engineering students. Winner was Richard C. Donkervoet.

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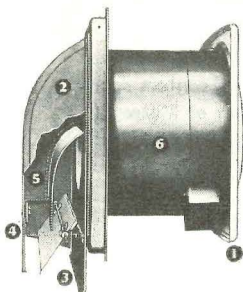
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Los Angeles mayor punches public housing critic; housing authority official called "Red"

rhubarb over public housing in Los Angeles reached such a crescendo last month it drove the Korean war and election campaign out of the local headlines.

Tempers had been a long time mounting. In 1949, the city council entered into an agreement with the US to accept, through the City Housing Authority, \$110 million for building 10,000 public housing units. Last December, an 8-7 majority of the council voted to cancel the deal. But the State Supreme Court ruled the contract was binding. Private enterprisers got the question before the voters at the June 3 election. Public housing was overwhelmingly defeated. Mayor Fletcher Bowron proceeded with the plan, noting that the ballot was only advisory. He also flew secretly to Washington, where he said he renegotiated the program down to 7,000 units costing \$83 million.

Unfaced authority. That set the stage for words and fisticuffs matching the 96° heat. At a court hearing on land condemnation for one of the projects, City Housing Authority information director Frank Wilkinson refused to tell what organization he belonged to on the ground it might incriminate him. Attorney Felix Dennis then charged that Wilkinson

was a Communist of long-standing, that "he has stated in the past that his duties for the party included working for the Housing Authority for the benefit of the party." The accusation went unanswered. Embarrassed, the Housing Authority suspended Wilkinson, withdrew him as an "expert witness."

A week later, Mayor Bowron was posing for photographers while waiting to testify at the condemnation proceedings when he was heckled by landlord John Hogya. Hogya wanted to know if the mayor remembered his warning him about Wilkinson several months before. The mayor didn't.

HOGYA: "If you're going to give us low-cost housing, I'd like also to have the low-cost martinis you get at the Jonathan Club."

BOWRON: "Who are you, coming around here trying to insult me? Who do you represent?"

HOGYA: "Well, I don't represent Communists."

BOWRON: "Do you represent Joe Stalin?"

HOGYA: "No, you represent Joe Stalin."

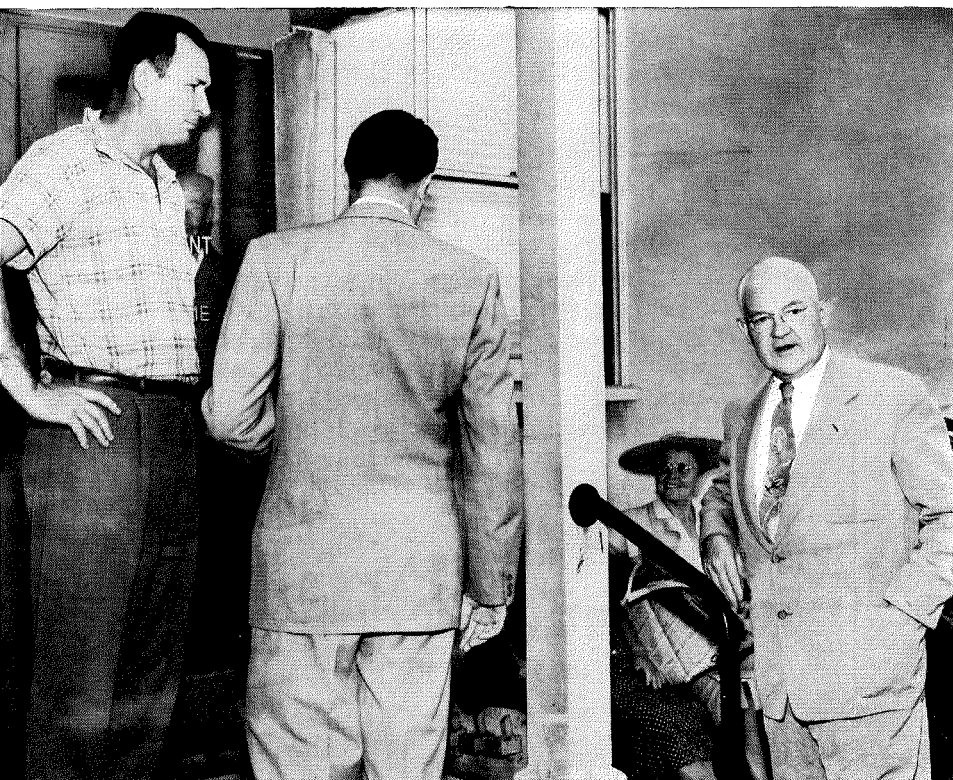
One punch battle. Hizzoner swung. The

Times—Paul Calvert



WILKINSON

LA Times



MAYOR PUNCHES CRITIC: Lloyd Taber, executive assistant to Mayor Fletcher Bowron of Los Angeles, stands between the mayor (right) and John Hogya to prevent further fisticuffs after the mayor punched Hogya in a row over public housing. Hogya called it a "powder-puff blow." Scene is inside Superior Judge Otto Emme's bungalow courtroom.

blow landed lightly on Hogya's right shoulder. Bystanders separated them. Explained the mayor, later: "It was just too much to take." Other public housing alarms:

▶ In nearby Riverside, Calif., a taxpayer's suit produced a temporary court injunction against plans for a public housing project. The charge: the project was illegal under the city charter because voters had not approved it.

▶ The Houston (Tex.) Housing Authority fired its \$12,000-a-year director, Erwin W. Blum, after an investigation into charges he tried to shake down a subcontractor for \$2,300. Blum, a former (1947) president of the National Association of Housing Officials, denied it. Blum was also under investigation on charges he staged a wild party in his office.

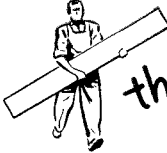
Legion state units urge higher GI interest rate

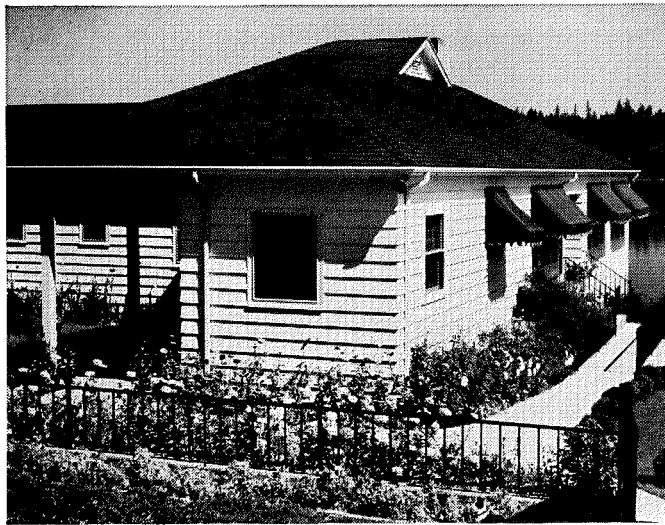
One of the political bulwarks of the 4% GI mortgage has been the nation's organized veterans. At the height of last year's mortgage drought, a proposal before the American Legion's annual convention that the Legion support a hike in interest rates from 4% to 4½% did not even get out of committee.

When the Legion convened again last August in Manhattan, there were clear signs that a growing segment of the nation's biggest veterans' group felt it should change this penny-wise stand. GI 4% money was as scarce as ever. And many a Legionnaire was beginning to question the wisdom of direct government 4% loans in rural areas. State Legion departments in Colorado, Michigan, Oklahoma and Georgia had gone on record demanding "an immediate rise in the rate on GI loans to stimulate the flow of home credit." In a compromise that hinted at more changes of heart to come, conventioning Legionnaires adopted two resolutions on housing:

▶ Said one: "The ideology of [the direct loan program] . . . is open to serious question in the minds of many members. . . ." Anticipating still less 4% money in the coming months, it asked for creation of a three-man advisory committee "with the sole function to counsel with the VA loan guaranty officer" or other officials, and to recommend to the Legion's national executive committee means of "insuring that a continuing supply of home mortgage funds under private auspices is available."

▶ The second asked the national commander to call a conference of leading mortgage men before the national executive committee fall meeting to discuss how to provide more GI mortgage funds "principally in less-populated regions." Such a conference appeared improbable before the committee's meeting Oct. 10-12, but may be held later.

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Photos: Forde



WOMEN AND BUILDERS discussed how the lumber industry could be more helpful to home-
ing (and thus increase its own sales) at a luncheon given by LIFE and HOUSE & HOME during
Seattle conference. Asserted builder Tom Coogan: although builders prefer lumber, there
en "so much upgrading and mishandling in lumber that the builder has lost confidence. . . ."

NAHB demands discount on VA loans legalized; air threat to quit program

to face with VA loan guaranty chief
ing, homebuilders at NAHB's Seattle
ence displayed a smouldering anger
s rarely disturbs the endless round of
e conferences between the building
ty and government officialdom.
complaint: since VA had stopped
on the legality of repurchase deals
ng GI mortgages, hundreds of build-
ross the nation cannot tell whether
rrangements to dispose of VA mort-
at big discounts may land them
Candid Bert King gave them little
Said he: "In the Housing Act of
Congress . . . required FHA and VA
t the amounts of fees that can be
. . . As in any law, there are loop-
It is difficult to determine what is
nd what is not. We invite you to
your own attorney."

building? Retorted NAHB presi-

dent Alan Brockbank: "It comes to this:
an increased interest rate, or accept dis-
counts, or we'll stop building your houses.
Which do you want us to do?" Said King:
"Congress must have intended in passing
Sec. 504 that some builders who had to
pay too much for their money wouldn't be
able to build. . . . I can assure you posi-
tively, VA will not change the interest rate
in the face of the present situation. . . .
VA allows 3½%. This affords a yield fac-
tor of 4½%. Part of the trouble is that
the builder is too ready to pay heavily for
his money."

An irate murmur filled the crowded ball-
room. Armed forces housing chief Tom
Coogan made a telling point: "The veter-
an's going to pay [for the discount on
his VA mortgage] anyway But now
we're doing it by subterfuges—some legal
and some illegal The builders of the
country are in a very dangerous position."

Up rose lean, balding John Bonforte.
"I stopped building VA homes until the
market got so bad in Pueblo I had to go
back to them," he said. "I knew I might
be selling homes illegally, but I did it to
keep my organization together." Proposed
Bonforte: builders should adopt a resolu-
tion to stop building VA homes until the
interest rate is raised or discounts legalized.
As the applause died, Brockbank asked
those who agreed in the audience of some
300 builders to stand up. Some 75% did.

Said NAHB treasurer Dick Hughes:
"Many of our builders think you [King]
are deliberately refusing to make changes
in the discount rate so as to bring about
more direct lending." Retorted King: "A
regrettable tendency to personalize issues.
I am neither God nor Devil. I don't have
that much power. I have tried to keep
away from direct lending."

Other conference highlights:

▶ HHFA administrator Foley cast himself in
the camp that thinks many US builders
are building a too small house. Said he:
"We can improve the contents of the struc-
ture, the equipment, and still—in an effort
to keep it from costing too much—be pro-
viding too little house."

▶ FHA commissioner Walter Greene pre-
dicted a 1 million to 1.1 million house year
for both 1952 and 1953. He forecast FHA
would account for 275,000 starts this year,
or 25% of the nation's total. Next year, he
expected 337,000 FHA starts because of
more military and defense housing.

▶ Contemporary design, Greene hinted, is
on the threshold of striking advances into
merchant building. He congratulated "lead-
ing builders" for their "marked progress
in pulling away from the unattractive,
stereotyped designs which too frequently
go hand in hand with moderate-priced
construction."

▶ President Brockbank urged more reha-
bilitation of old houses as a hedge against
declining new house starts and launched a
program of NAHB research (see p. 88).



Franklin Burns of Denver (left) watches
expert Sylvanus Felix, Oklahoma City,
NAHB president Tom Coogan jovially
notes on their respective weights.

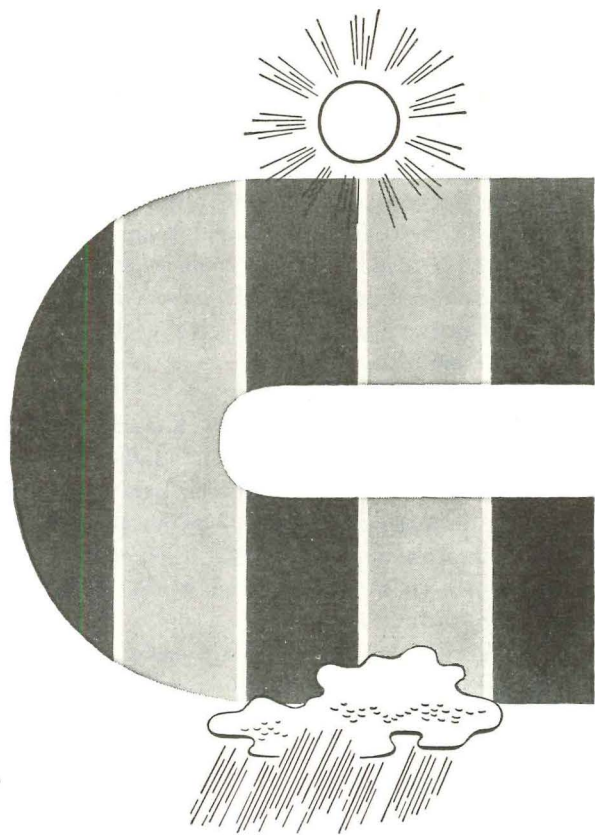


VA loan-guaranty chief Bert King chats with
builder M. M. Robinson, Detroit; and NAHB
president Alan Brockbank. Robinson told con-
ference of Detroit redevelopment snarls.



Builder Mark Taper of Los Angeles talks
lumber problems with J. W. Sherar of Western
Pine Assn. and Winston H. McCallum of
Douglas Fir Plywood Assn.

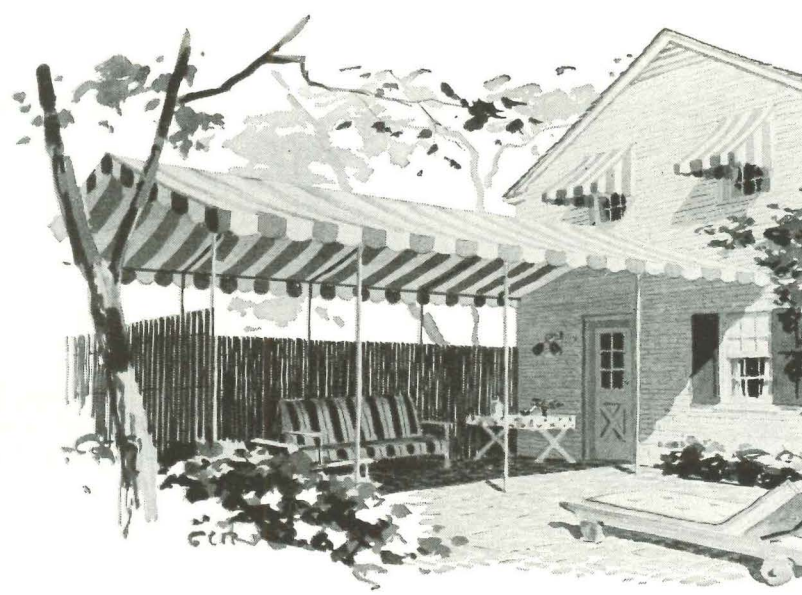
Modern design
and



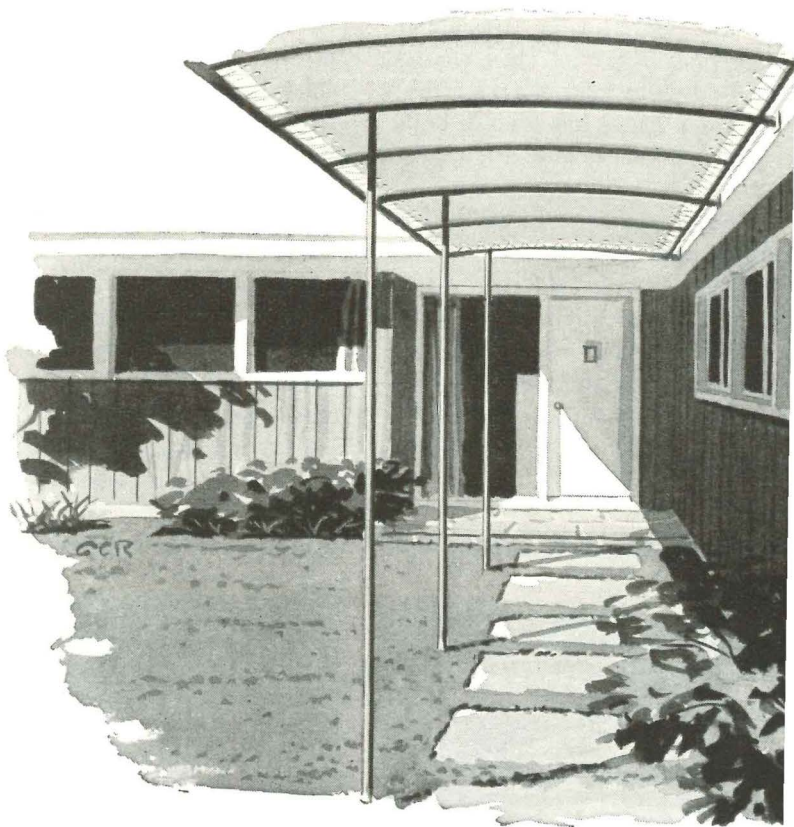
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and National Cotton Council

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Milwaukee argues over critical area rating; FHA promises to alter debt service rules

As the Administration playing politics with the designation of critical defense-housing areas? When HHFA announced last month that Milwaukee (pop. 637,392) had been programmed for 1,000 units of rental defense housing, realtors and builders set up a outraged cry that it was only a subterfuge to reimpose rent control.

The background put Milwaukee's designation as a housing-shy region in an odd light. Normally (as HHFA experts stressed last year when the defense housing program was set up) any large city has a high homebuilding industry to take care of any likely immigration of defense workers. Milwaukee was far and away the big city yet declared a critical area. Last month Milwaukee's Socialist mayor Frank P. Sauer joined the CIO and AFL in a plea in Washington to restore rent controls. In February, the request was rejected on the grounds the area did not qualify under the Defense Production Act.

Good look. But on Aug. 30, word reached Milwaukee that the Bureau of Labor Statistics resurveyed the city this summer and found an influx of 4,800 defense workers who needed housing. Curiously, the news came from rent officials. A few days later, Andrew Biemiller, Democratic congressional candidate, announced that Milwaukee County had been tagged a defense-housing area. His information came from the late Joseph Short, President Sauer's press secretary. Federal officials said they had reports from 30 defense areas in Milwaukee showing need for rentals from \$75 to \$85 a month.

Ported realtors: "A stranger could get a train and find immediate housing for two or so a month, although it might not be just what he wanted." Rent stabilizers prepared to go through the motions of a public hearing before reimposing controls. Final irony: many a Milwaukee builder doubted whether, in a city of stiff building-code requirements and high construction costs, he could produce rental housing at the prices HHFA set: \$75 a month for two-bedroom units and \$85 a month for three-bedroom units. At mid-month, FHA had only two applications.

Builders' dilemma. Many a builder might think the Milwaukee tempest was symptomatic of a nationwide storm that seemed to be brewing. Said chairman R. G. Hughes of NAHB's defense housing committee: "Labor has stated privately and publicly that housing must be built in de-

fense areas because private builders have failed. We are getting all kinds of hell. Yet five builders in various defense areas report they have houses completed but vacant." Samples:

▶ In Wichita, builder Willard Garvey said he had paid \$4,500 a month on a mortgage for the last four months for 100 vacant Title 2 rental units.

▶ In Pine Bluff and Camden, Ark., builder Wallace Johnson decided to slow down from ten to five starts a day on 300 defense rental homes lest he, too, be stuck with mortgage payments on vacancies.

To Dick Hughes, vacancies in completed defense housing were only defense-housing problem No. 3. The No. 1 problem—despite FHA promises to correct it as long ago as last fall—was valuation of rental housing. Reported NAHB directors: "FHA has included debt service in the processing formula (for valuations of Title IX rentals) in spite of the fact that HHFA reduced the required rental period from five years to two years by agreement last December to allow FHA to use the amenity approach to value. And on Dec. 17, 1951, officials of FHA told builders that Title IX commitments would be 90% of the amenity approach to value."

New promise. Cornering FHA's new chief, Walter Greene, while he was in Seattle for their sessions, NAHB leaders again demanded that FHA approve minor changes in its debt service formula to make defense rental housing buildable within the government's rent ceilings. Greene agreed to do so, although not by any formula NAHB suggested. Said Greene: "If it comes out that the rents are inadequate to support the mortgage (on a capitalization basis), we'll permit it to be supported by something else—such as money put up in escrow by the builder, or a builder's personal guarantee of the payments. It will be up to local underwriters."

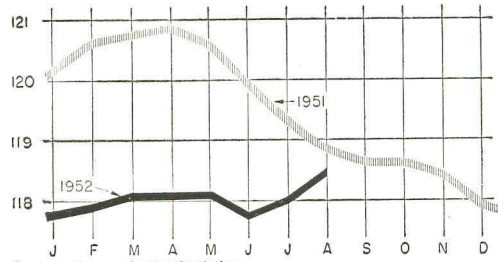
FNMA bail-out. One bogey of the defense-housing program was gone—at least for the time being. With Fanny May back in the market for defense housing mortgages, there was no lack of financing. Result: 7,015 more defense housing units were started between July 30 and Aug. 20. The box score:

Units programmed	88,456
Units applied for	324,075
FHA commitments issued	30,740
Units started	27,067
Units completed	10,735

Thus a scandalous year and a half after it was begun, the defense housing program at least started to pick up real headway.

STEEL PUSHES PRICES UP

INDEX: 1947-'49 = 100



Source: Bureau of Labor Statistics

BLS' INDEX of building-materials prices rose from July's 118.0 to 118.5 in August. The expected spurt in steel prices was the only important increase, not big enough to rouse the static index from its two-year calm. Since fall of '50, the index has fluctuated within a narrow, three-point range.

NPA to hike steel quotas for residential building

ODM's new boss, Henry Fowler, had good news for the construction industry. Steel, he said, should be back "in balance" early next year. Accordingly, DPA announced that beginning April 1, and perhaps sooner, it plans to permit use of 1,500 lbs. of structural steel per unit in one- to four-family houses in addition to present carbon steel, aluminum and copper self-certification limits.

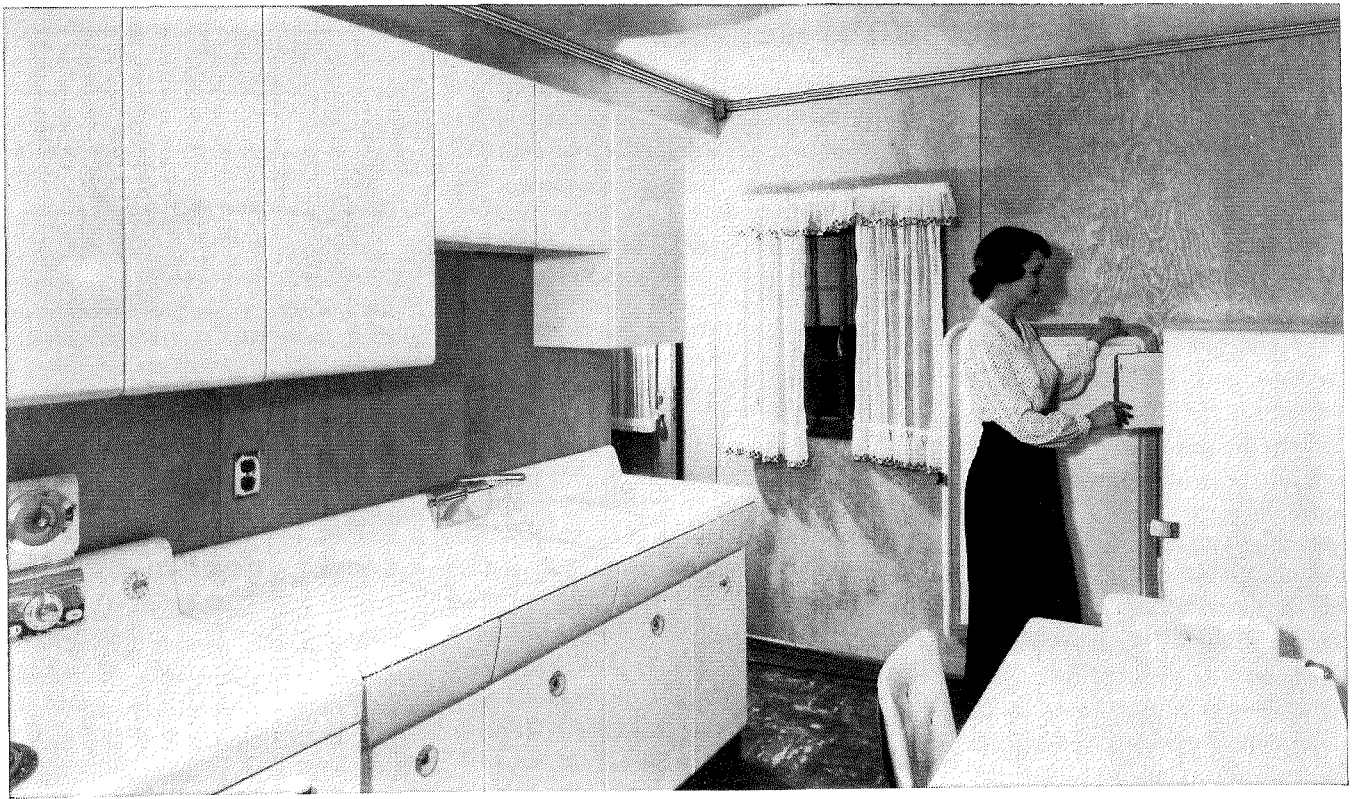
For apartment construction, which has had no self-certification system, builders will be authorized to self-certify at the following rates: *Walk-up buildings*, per dwelling unit, two tons of carbon steel (not to include more than 600 lbs. of structural), 225 lbs. of copper and 275 lbs. of aluminum; *elevator buildings*, per dwelling unit, three tons of carbon steel (not to include more than 600 lbs. of structural), 225 lbs. of copper and 275 lbs. of aluminum.

The possibility of making the relaxations effective earlier (perhaps Jan. 1) will be considered by NPA's construction industry advisory committee Oct. 29 at a Washington meeting.

675 cities vote to keep rent curbs, says ORS

The noisy joust between those who wanted to keep rent controls and those who wanted to let them die moved right down to the Sept. 30 finish line. As provided by Congress, rent curbs would end on that date, except in the 168 critical areas, unless the towns or cities affected pass a resolution asking their continuance.

At least six cities had voted to let controls die (Denver, Seattle, Portland, Me.; Pueblo, Colo.; Toledo and Lorain, Ohio). But a mid-month count by Washington rent controllers showed the trend was toward keeping them. ORS said 675 villages,



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ance fit perfectly with modern kitchen appliances. Double-action spring hinges on cabinet doors, quiet, gliding drawers, and a "giant-size" double-bowl sink are all there to save time and work.

Outstanding kitchen equipment is but one of the many desirable features of Gunnison Homes. Notice the others listed below. Only Gunnison offers so many wanted features in a home at such a moderate price.

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- Flush panel doors
- Fenestra steel windows
- Thermo-Pane window walls
- Permaglas hot water heaters
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Gunnison Homes

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"Gunnison"—trade-mark of Gunnison Homes, Inc.

and towns had plumped for control controls. Their total population: 7 million. (No count was kept of communities which let rent control die.) High-pressure tactics were mounting on the sides. In Toledo, after the city council voted to end curbs, Tighe Woods, then controller, showed up and stated the city would be declared a critical area. Arlington County, Va., across the Potomac

from Washington, became the nation's first to seek re-entry into the rent-control program after bowing itself out. Ten landlords promptly went to court, forced removal of three county board members who voted for reimposition of rent curbs under a 100-year-old Virginia law that makes federal employees ineligible for state or local office. It appeared Arlington's return to rent ceilings would be short lived.

Pacific Coast Building Officials Conference Fire underwriters board in code feud

15, the Pacific Coast Building Officials Conference fell out with the National Board of Fire Underwriters in an argument over the value of fire alarms. Insisted building officials: "With a universal alarm system, alarms are needless." NBFU agreed, kept on assessing "deficiency ratings" against cities it thought had inadequate alarm circuits.

Last month, at its 30th annual convention in Spokane, PCBOC finally reached a boiling point, dragged the long-simmering feud between two of the nation's building-code groups into the open where it could add fresh difficulties to the efforts of homebuilders and materials men to encourage uniformity in US

explained delegates: the fire underwriters have used the threat of higher insurance rates to pressure cities to adopt the NFPA's building code instead of PCBOC's Uniform Building Code." In a resolution, the convention demanded such "coercion." It specifically accused the fire underwriters of trying to delay adoption of the NFPA's 1952 code in Tucson, Ariz., and the earthquake-racked Tehachapi, Calif. As Tehachapi rebuilds, said PCBOC spokesmen, fire underwriters are attempting to force contractors to install four-hour fire walls along the entire main street. To PCBOC, one-hour fire walls would be plenty.

Spreading. Despite the embattled situation, many of the 320 delegates expressed concern over winning their tug-of-war with the fire underwriters. Said one: "Frankly, we're not too cocky on our own merits."

its chief and continuing fight—to pressure cities to adopt its code—PCBOC counted more encouraging results. In July 1951, the Uniform Building Code had been adopted by 25 more cities, including Spokane (pop. 161,721). The same adoption, approved only the week before the convention by the city council, was a personal victory for Arthur G.



ARTHUR G. HOEFER

Hoefer (rhymes with gopher), 56, Spokane building inspector who was re-elected PCBOC president for a second year. For ten years, Hoefer had been urging his city to update its code, which he had written in a year and a half after his appointment as chief building inspector in 1935.

School on codes. The building officials left no doubt where they stood on the question of how to cut the waste out of US building codes. To courtly James W. Morgan, public works director of Birmingham, Ala., they gave an ovation as he roared: "There has been a lot of sniping at building codes. The answer is not a federal code. Not a state code. The solution is to accelerate, perfect and improve the work currently being done by building officials."

Matching words with action, the convention for the first time included a school for building officials. The text: *Modern Building Inspection* (600 pp.) written by 18 building experts at the behest of Hal C. Colling, PCBOC managing secretary, and his wife, Ruth, editor of the conference's *Building Standards Monthly*, which the Collings own.

AFL convention seeks money for housing lobby

No less than NAHB or NAREB, the AFL's building trades department is hip deep in winning legislators and influencing government housing programs. Construction labor's current lobbying goals were spelled out in detail last month as the building department held its 45th annual convention in Manhattan.

Most oratory focused on public housing, which the AFL has long supported. Appearing on the Commodore Hotel platform just after venerable AFL president William Green, PHA's labor relations director, Thomas E. Ryan, thundered: "The very people who are fighting against public housing are the people who are fighting organized labor. . . ." Although PHA had announced a different formula for allocating the 1952-3 fiscal year's 35,000 units (AF, Aug. '52, p. 56), Ryan declared: "We are going to put them in places, start those contracts first where there is some unemployment in the building trades."

Dollars for pressure. At the urging of Harry C. Bates, president of the bricklayers international who is also chairman of the AFL housing committee, the building trades department voted to maintain its financial support of the public housing lobbying of the National Housing Conference. Building trades unions gave NHC \$5,150 last year, plus another \$2,000 this March. Lobbying expenditures reported to Congress by NHC for the first six months of this year were \$34,833.* This year, Bates offered NHC \$500 from his own union. Other building trades units indicated they would match the 1951 kitty.

Declared Bates: "We must examine whether or not a system that we helped to develop, the FHA which has created a new crop of millionaires who spend their federally guaranteed funds to destroy much for which we have fought, is a system that should be perpetuated in its present form. We need a better housing program in this country. To achieve it, we can work best through the facilities of the NHC, where our voice is strong. . . ."

In his housing report to the parent AFL convention, Bates showed an equal talent for angry, if questionably accurate, words. He declared the nation "is still faced with a serious housing shortage. . . . Real estate speculation and an artificial shortage of mortgage funds [sic] has forced already high rents and sales prices still higher

*Compared to \$60,600 for NAREB, \$51,845 for the AFL and \$25,861 for the National Lumber Manufacturers Assn.

while the quality of new homes has continued to deteriorate.”

Highest wage scale. The building trades committee on the president's report noted comfortably that “wages of building and construction tradesmen are higher than any other segment of our society. As a

matter of fact, the hourly wages now enjoyed by building tradesmen are *higher than those to be found anywhere in the world for comparable work.*” Just before adjournment the department ratified an increase in president Gray's annual salary from \$20,000 to \$25,000.

Teague report asks VA supervision of contracts to reduce GI homes sale abuse

Homebuilders and the VA staff shared a denunciation of GI home construction and sales abuses in the final report of the House committee headed by Olin E. Teague (D., Tex.), released Aug. 31. However, as NAHB was quick to point out, the report made “no distinction between the homes erected by builders who will stand behind their products and those who don't.”

The committee's chief recommendation (and most likely to be enacted): Congress should authorize VA to require builders to make binding sales-contract pledges. This would, the committee said, be a far better way to assure veteran buyers of a square deal than to compel builders to give a blanket warranty on each new house. Specifically, the committee suggested that VA be granted power to order that sales contracts:

- ▶ Incorporate (by reference) the exact plans and specifications the builder files with VA.
- ▶ Provide that no major substitutions, deviations or changes be made without the written approval of the purchaser, builder and VA.
- ▶ State specific closing costs.
- ▶ Set a specific date for delivery of the completed house.
- ▶ Give a commitment that all minimum VA construction standards will be observed.
- ▶ Give explicit one-year guarantees for heating, plumbing and electrical fixtures, a dry basement, a sound roof and a satisfactory septic tank.

Lopsided agreements. The committee declared “A *majority* of sales contracts . . . affords little or no protection to the veteran purchaser,” only serves the seller. Under the present system, if specifications filed with the VA to obtain a commitment are not followed, the buyer has no recourse unless they were also included in his contract. If revising contracts is not enough, added a committee source, builders can expect a demand for laws requiring them to post performance bonds on GI home construction. “And if this makes it harder for the shoestringer operator, so much the better.”

With Rep. John Rankin's defeat in the Mississippi primary, Teague will advance to either chairman or ranking minority member of the House veterans affairs committee in January. Thus he will occupy a

strong position for moving such legislation to adoption. Further support looks likely from a second House subcommittee investigating home construction under the chairmanship of Rep. Albert Rains (D., Ala.), which also is preparing to recommend performance bonds for builders.

Appraisal shakeup. Second major recommendation of the Teague committee was that Civil Service raise the pay of VA staffers so the agency can attract and hold a better supervisory staff of *professional* appraisers and highly qualified compliance inspectors.

Although NAHB urges abolition of the present fee-appraisal and fee-inspection system in favor of a well-paid loan guaranty division “career” staff for such work, both VA and the Teague committee would prefer to retain the fee system, bolster it with stronger “expert” supervision by specialists.

Teague's report spoke sharply of gratuities showered on appraisers and loan guaranty officials, bribery and favoritism in processing guarantee applications and making appraisals. Of San Diego, Calif. where 24 persons have been indicted, including four VA officials, it said a “criminal conspiracy . . . scandalized the operations of the loan guaranty division.” A scathing, 30-page section that referred in detail to more than a score of separate projects charged that builder and appraiser favoritism in the local Washington VA office had inflated new house prices around the District of Columbia 10 to 15%.

Violent reaction. Repercussions were plentiful and prompt. In Washington, the report led VA to halt all semifinal and final inspection approvals. Builders screamed that 300 to 800 closings would be delayed, called it an “unjust and unfair” action against both sellers and veteran purchasers. The completely reorganized local office said it was simply rechecking each building extra thoroughly because of numerous noncompliance complaints, that it would release each dwelling as speedily as inspection showed it had met all minimum requirements.

In Detroit, a “full-scale” investigation of GI housing was reported being conducted by the US Attorney's office, after several VA inspectors were dismissed and licenses of four homebuilders suspended on allegations of bribery.

In Indianapolis, a federal grand jury indicted four real estate men for allegedly taking “under the table” payments of \$400 to \$1,000 exceeding approved valuations in GI home sales. Three of them they would plead “not guilty.” The fourth was in the Marines. No one knew whether he might be arraigned.

In San Diego, Francis Paige, former assistant VA loan guaranty officer considered the key defendant in the GI homes scandal, pleaded guilty to two of the nine counts against him. Paige admitted he was financially interested in three firms that did business in the VA housing program and he had falsely denied this to his boss.

VA reacted officially by issuing a statement which said all the expected “corrective steps were already under way” while the committee was probing into local programs at San Diego and other “places” and “while attention has been focused on irregularities in a handful of cases it should be remembered that on the bulk of the [3 million homes sold to World War II veterans] a good job had been done.”

NAHB, while agreeing that “some of the Teague recommendations should be adopted immediately to eliminate abuses” called for an “extensive reorganization of the VA loan guaranty division” to separate it from administrative control by VA and with no expert knowledge of housing.

MBA starts study of central mortgage bank

For years, mortgage bankers have talked of creating a central mortgage bank to help make mortgages as easy to sell as other securities and to smooth off the ups and downs in the mortgage market. This month, the Mortgage Bankers' Association drew closer to positive action. MBA's executive committee and board of governors have named a special committee to conduct a thorough, long-range study of the problem. The association's Chicago convention was to be asked to vote an appropriation for a research staff to assemble exhaustive information.

Retiring president Aubrey Costa said the committee was formed because of “disturbing developments” in recent years, particularly cited the erratic “on-and-off” role of *large private investment institutions*, as well as Fanny May, in the secondary mortgage market.

PEOPLE: Miami builders form new association; Lockwood, Rouse quit FHA for private business; Ihlder leaves NCHA post

Happy Miami members of the Builders Association of South Florida who felt there were too many general contractors, subcontractors, material dealers and other "builders" in the organization obtained a charter as the Home Builders of Greater Miami. Operative homebuilders were outnumbered in the first organization about 10 to 40 (H&H, Aug. '52). Temporary president of the new "exclusively builder" group: **Scott Braznell, Jr.** Other leaders: **James M. Albert**, NAHB regional vice president, **Charles I. Babcock**, **W. M. Rector**, **Emil Gould** and **E. J. Pollock**. Apparently the new group could not join NAHB because its local charter was already held by the original unit headed by **Thompson** and executive secretary **George S. (Cap) Miller**. Thompson suggested that dissenters belong to both organizations.

Attorney **James McInnes Henderson**, 41, Daingerfield, Tex., succeeded **Tighe E. Woods** as rent stabilization director. **Woods**, homebuilder, stepped up to become head of OPS. Henderson, general counsel for the Economic Stabilization Agency since July, 1951 was a special assistant to the Attorney General from 1938-46, then an economic and legal adviser to Gen. MacArthur for the occupation of Japan.

John Ihlder, 76, executive director of Washington's National Capital Housing Authority since 1934 and a figure in slum clearing and slum clearance for 42 years, announced he will retire on Dec. 31. For ten years as field secretary of the National Housing Association and managing director of the Philadelphia Housing Association, Ihlder served from 1920-28 as manager of the civic development department of the US Chamber of Commerce. For he was director of the Pittsburgh and Boston Housing Associations.

Also retiring: **A. H. (Lock) Lockrae**, 30-year veteran of Minneapolis-Honeywell radiator and vice president of its heating controls division for ten years; **Lawrence Lindelof**, 77, president of the Brotherhood of Painters, Decorators & Paperhangers of America and vice president of Building and Construction Trades Union, of the AFL.



LOCKWOOD

After 18 years each with FHA, assistant commissioner **Warren J. Lockwood** and eastern zone commissioner **John G. Rouse** resigned to establish a house-project and mortgage-consulting service in Washington.

NAMED: John M. Coates, counsel and vice president, as president of Masonite Corp. succeeding **Eugene Holland**, retired,



COATES

who will continue as a consultant; **R. H. Morris**, recently resigned publisher of *American Builder* magazine, as general manager of Ponderosa Pine Woodwork; **John B. Veach**, president of the National Lumber Manufacturers Association, chairman of a newly revamped lumber survey committee that reports quarterly to

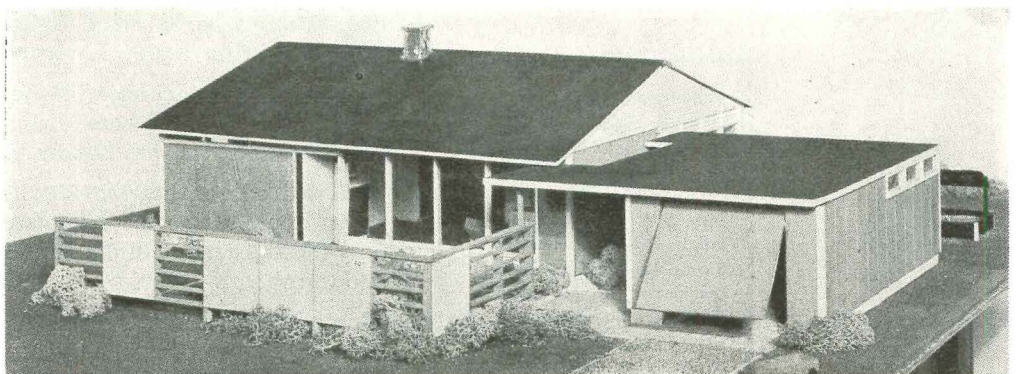


ROUSE

the Secretary of Commerce on nationwide lumber supply and demand; retired banker **Carl F. Wente**, 63, as president of the Bank of America (which he first joined in 1918) succeeding the late **L. M. Gianini**; **Arthur J. Rector**, as Region V representative of the HF Administrator at Kansas City, succeeding **Jonas W. Graber**, resigned because of ill health.

DIED: William R. Ray, 73, oil-burner inventor whose original model is exhibited at the Smithsonian Institute, chairman of the board of General Controls Co., of Glendale, Calif., and former head of the Ray Oil Burner Co., Aug. 14 in Los Angeles; **Ellis Stoneson**, 59, millionaire builder of Stonestown and other developments in San Francisco in association with his brother Henry, of a heart attack Aug. 23 at San Francisco. An NAHB director, he was president of the Associated Home Builders of San Francisco from 1942-44; builder-contractor **Benjamin Zoss**, 62, president of Zoss Construction Co., Sept. 14 in Malibu Beach, Calif.

John Goddard Belcher, 48, publisher of *Progressive Architecture* and vice president and director of Reinhold Publishing Corp., was killed Aug. 30 at Boothbay Harbor, Me. when his rented seaplane failed to clear some trees on a take-off and crashed. Formerly a resident of Winnetka, Ill., Belcher served as chairman of the building committee for the Darien, Conn. elementary and junior high schools. He also was chairman of the promotion committee of Associated Press publications.



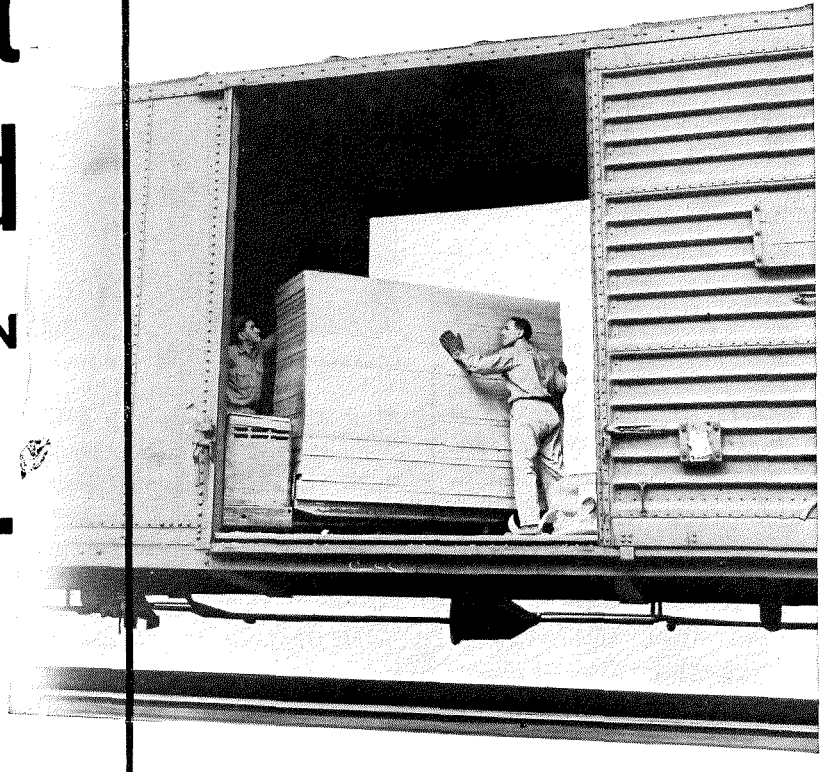
House to show builders better techniques, savings

A 1,000 sq. ft. open-plan, modular house like this model was being erected by the University of Illinois Small Homes Council last month in a study aimed at showing builders and craftsmen how to take full advantage of already known and accepted time- and material-saving techniques. The exhibit house at Urbana-Champaign was privately financed. But HHFA had provided a \$55,000 research grant for design and record keeping that will be as accurate as stop watch and camera can make it. To make the house quicker for workmen to build, con-

ventional working drawings were replaced by a series of plans, elevations and details arranged in chronological order of construction and supplemented by perspective drawings where needed for clarity. The house has a truss roof. Nonbearing partitions will be tipped into place after walls are finished. Another space and money saver: combination laundry-bathroom. A second house to be built later will serve as a check on the first and indicate extent of additional savings that might be obtained by quantity construction.

Comfort BY THE Carload FOR 10,000 HOMES IN Levittown, Pa.

Here goes another cargo of Weldwood® Stay-Strate, Mineral Core Doors. They'll help keep Levitt & Sons' home buyers snug and comfortable.



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When Levitt & Sons drew up their requirements for front-entrance doors for their Levittown, Pa. houses, they insisted on such "specifications" as these:

1. *Handsome good looks.* Make the buyer proud of the entrance to his home.
2. *Insulation.* Shut heat and cold away from the cozy living rooms in Levittown.
3. *Permanent snug fit.* Make sure the doors will never rattle, stick, warp or shrink.

Weldwood Mineral Core Doors met these requirements in every respect and were specified, exclusively, for every front-entrance door in the first 10,000 Levittown houses.

Satisfied on these counts, the Levitts were ready to talk about costs, deliveries and ease of installation. Here, too, Weldwood Stay-Strate doors won honors. And won the contract.

Won with a door that provides insulation equal to that of an extra storm door. Won with a lightweight door. Its mineral core weighs only 20# per cu. ft. and, in addition, resists fungus, decay and termites.

Won with permanently good-looking doors, made with hardwood faces bonded to the mineral core with phenolic glue by the hot plate process.

For complete specifications and prices for Weldwood Stay-Strate Doors, write to:

United States Plywood Corporation carries the most complete line of flush doors on the market, including the famous Weldwood Fire Doors, Weldwood Stay-Strate Doors, Weldwood Staved Lumber Core Flush Doors and Mengel Solid Core and Hollow Core Flush Doors, 1 $\frac{3}{4}$ " and 1 $\frac{1}{2}$ " with a variety of both foreign and domestic face veneers.



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Letter to young architects

Architecture is on the way to becoming master building once again, as it was in the Middle Ages. Let's see where that puts the young architect.

Today architecture has the basic problem of absorbing a more advanced stage of the Industrial Revolution. The profession as a whole is very, very far from having caught up with the facts of the situation. The profession has been accustomed to serving gentlemen: first the princes of the church, then the princes of the state, then merchant princes. Today all at once somebody has to serve the common people. The other way of saying this is that somebody has to serve the Market: and today's industrial techniques of serving the Market mean producing goods ahead of orders.

It's a tough situation, and there are many, many reasons for bewailing it. Yet there stands the fact. Since architects have not been set up to serve the Market ahead of orders, others have served it. They have been called the "merchant builders." World War II gave an enormous boost to these merchant builders.

One firm, the Levitts, built 5,300 houses in the peak year of 1950, expect to build 4,000 in 1952—a town a year. Gunnison Homes sold 7,000 prefab houses last year through local distributors. Since the war, the homebuilders have produced a new home for one of every seven Americans. Architects have designed distressingly few.

Under this frightening acceleration, the older members of the profession tend to pull back into their shells, to shudder at what they call "commercialism." Yet there we are. If architects were to persist in withdrawing, they would soon be like Haitian exiles—generals without an army. To fight the battle of architecture, the first requisite is to know where the army is.

It will be small honor to architecture if *all* it can produce is Epicurean gardens in the mass-produced wilderness. Beware lest the wilderness destroy the garden!

Let's hope the young man in architecture is tough enough to take on the new assignment of working with builders in quantity. It will be a task fit for unsung heroes.

There are three possibilities at least for the young architect who is serious about helping to house the US:

▶ One is to attach himself to the efforts of the men who stand today in the forefront of homebuilding—the big-volume homebuilders. Let the young architect realize that even where today's product looks to him vicious—miles of new slums raping the virgin landscape—the men producing it are human beings; when they fail they are more often ignorant or puzzled than wrong-seeking. And their skill is sometimes startling and extremely worth learning.

▶ There is a second way to serve master building, a more conventional way: to design houses for individual clients on order, but in a manner that creates prototypes for a humanity broader than the initial client. And I hope ardently that this can be done with a minimum of apple-polishing to today's acknowledged masters.

▶ Then there is the third way pioneered by Buckminster Fuller. With devotion worthy of medieval monks, he and his followers have held to the research ideal. Setting goals well ahead of today, they have had major influence without ever yet having actually built in quantity themselves. Tomorrow they will be actively important.

Architecture has been redefined. Architecture is the art of producing or qualifying human surroundings to create a human setting—fit, worthy and beautiful. Any surroundings, and for all humanity. Since industrial civilization, ignorant and unguarded, can despoil the entire scene, architecture can no longer content itself with isolated and selected building situations. It has to deal with the mass-produced

Fresh design = fast sales

15 planning ideas become major sales features,

make this 1,450 sq. ft., \$13,000 house a best-selling bargain

—bigger looking, better looking and easier to live in

Robert Anshen and Stephen Allen, dynamic West Coast architects with some 1,000 postwar builders' houses to their credit, have done it again. Most recent converts to the proved salability of their designs are builders Gavello & Perego, currently at work on a subdivision of 150 Anshen & Allen homes south of San Francisco.

Sales, as in previous Anshen & Allen-designed tracts, have been excellent. Three small newspaper ads timed with the model home's week-end opening attracted such a steady stream of visitors and word-of-mouth publicity that no further advertising or sales promotion has been necessary. With the model and only one other house completed, buyers signed up for 14 houses in the first 14 days, and sales have continued at a healthy clip since.

"People couldn't believe they could buy such an attractive and spacious home for only \$13,000," says builder Elmer Gavello. Partner Grace Perego is equally enthusiastic, although she had been slow to warm up at first. When Bob Anshen insisted on an agreement that she would not make any design changes without his written consent, she "didn't know whether she was going to like that or not." But after working with the architects she was delighted. "Anybody who is a better driver than I am can have the wheel," she says. "FHA has appraised the houses at our full sales price. After 35 years in this business, I've learned a lesson."

The houses were successful, obviously, because people liked them. But *what* exactly did they like—what individual elements went into creating this over-all emotional effect of space, convenience and pleasant living?

A critical buyer could easily pin down this general appeal to the 15 (at least) good design features analyzed step by step in the accompanying pictures and captions. He could easily identify the ingredients that made this "such an *attractive* and *spacious* home":

attractive: low-slung lines; big, gently pitched roof that lends a sense of shelter; sun-filled interiors; warm color and textures of natural materials; a stage setting of lush landscaping, fences, terracing, pools.

And **spacious** (design tricks that create *apparent* space): high, sloping ceilings unbroken by interior walls; few interior doors or partitions; no narrow space-wasting corridors; big glass walls that make small rooms look bigger.

GAVELLO GLEN, Santa Clara, Calif.

ANSHEN & ALLEN, architects, site planning, landscaping

GAVELLO & PEREGO, builders

CHARLES ACKERMAN CO., interiors



1 SEPARATE ENTRY HALL with coat closet at center of plan prevents stepping immediately into living room but allows quick access to rooms. Obscure glass gives light without view to entry hall.

2 OPEN CEILING of beams and lapped planks is cheaper than furring down, simplifies roof labor, gives feeling of more vertical space inside. This big-scale ceiling texture is repeated in fencing around lot (see background) to help unify the design.



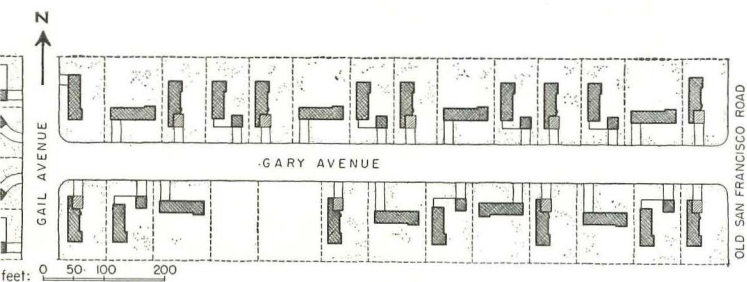
Roger Sturtevant

4. LANDSCAPED ENTRANCE and walk are an inviting sales feature; fence on lot line (left) gives privacy from neighbors. Note how fence and plant box echo pattern of interior ceiling.

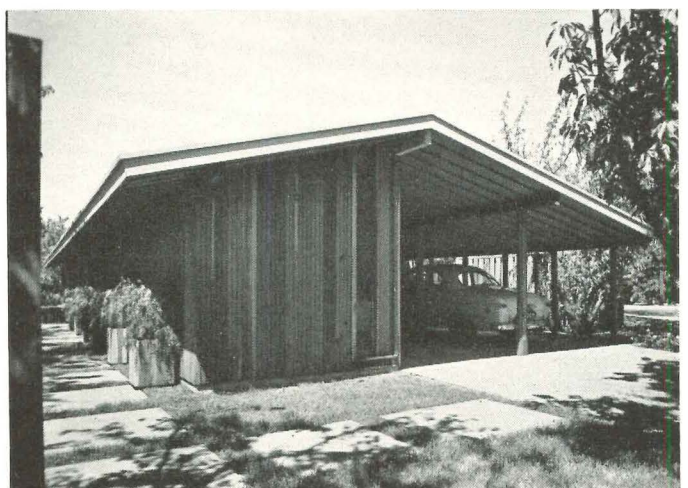
5. COLORS—warm, bright but controlled—were specified by the architects. Six schemes were used, all keyed to and accenting the natural beauty of redwood, the predominant finish in all houses in the subdivision. Panels under windows are plaster.

6. CARPORT UP FRONT, (below) with blank walls of house facing street, results in a) street privacy, b) minimum of driveway paving.

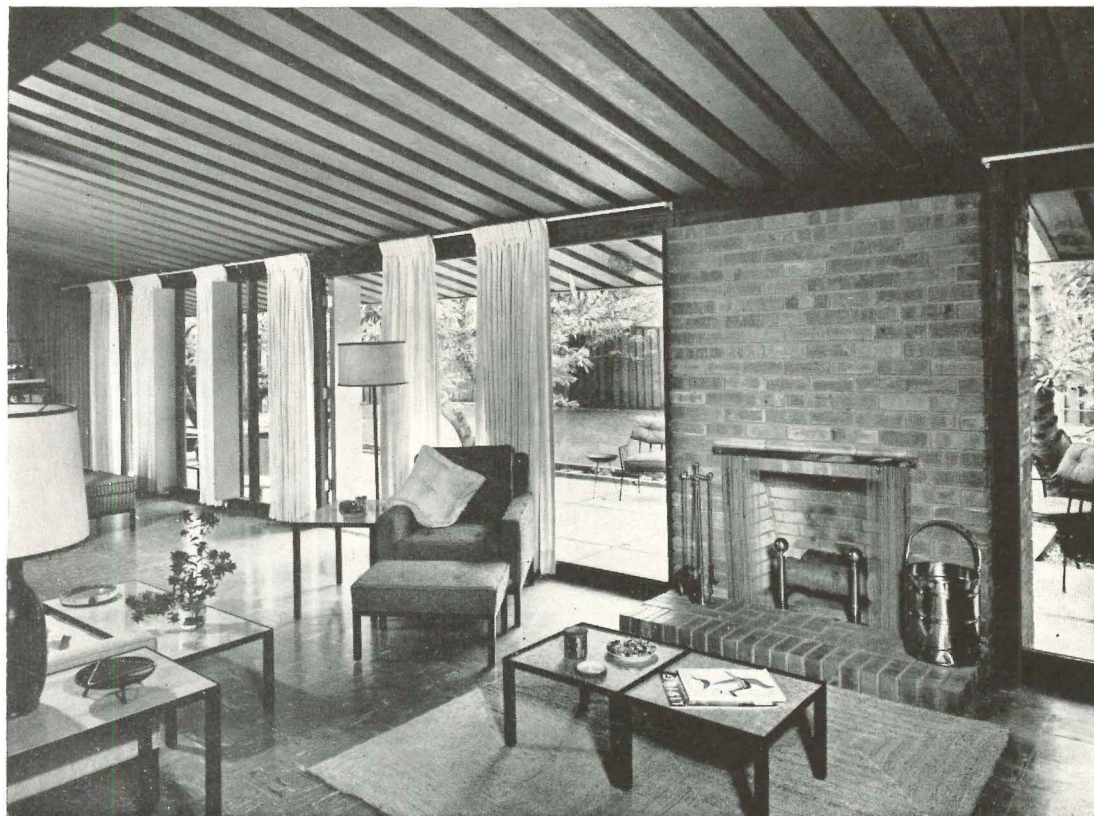
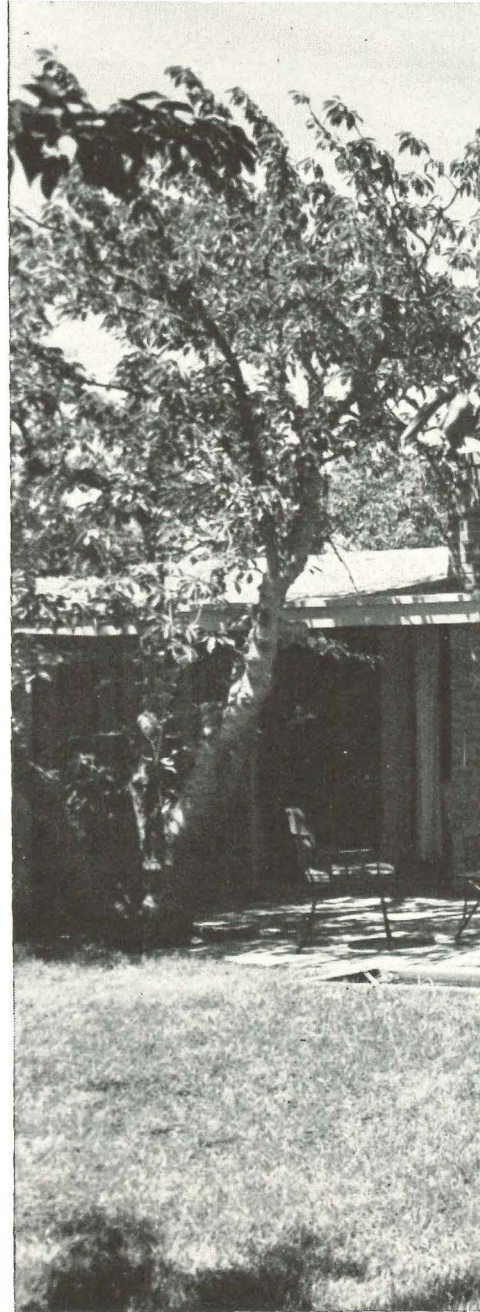
7. GENEROUS STORAGE ROOM on the left groups heater, laundry and bulk storage with access to kitchen, carport, service yard.



GOOD LOT SIZE, ORIENTATION, VARIETY. Lots are adequate (139' to 105' x 129') and houses will be placed so that living areas usually open to south or east. In few cases they open to the north a roof variation will provide a south-facing clerestory for sun. None open west to the hot afternoon and strong prevailing winds of the region. Note how lot widths varied to place some houses broadside, others lengthwise, on lots. All houses will have one basic plan, an important design unity, but they will be made to look different by varied placement of houses, position of garages and combinations of colors. Architects avoided all-too-common mistake of placing bedroom windows of neighboring houses opposite each other across a narrow yard. Most trees of this former cherry and apricot orchard were fully saved and incorporated as landscaping features for the and otherwise uninteresting land.



The architect-builder relationship in this project was efficient and profitable to both parties. Anshen & Allen worked on their usual formula: a flat fee, \$2,000 in this case, to develop the plan, elevations, details, plus a royalty on each house built (\$160 for houses Nos. 1-30; \$150 for Nos. 30-100; \$125 up to No. 200). This service included complete drawings and specifications, site planning (but not engineering) and limited supervision. They assisted the builder in interpreting the drawings to insure that the houses were correctly built, cleared up questions which arose during construction, worked out revisions of details which made the builders' production operation more efficient, provided six different color schemes, directed the furnishing, decorating and landscaping of the model home. Say the architects: "We feel that unless the architect gets into the *whole project* at the site-planning stage and carries through all the supervision phases, as we do, his services will be of a very limited quality." Adds builder Cavello: "Without the architects' complete plans and close supervision I would not consider going into another housebuilding venture."

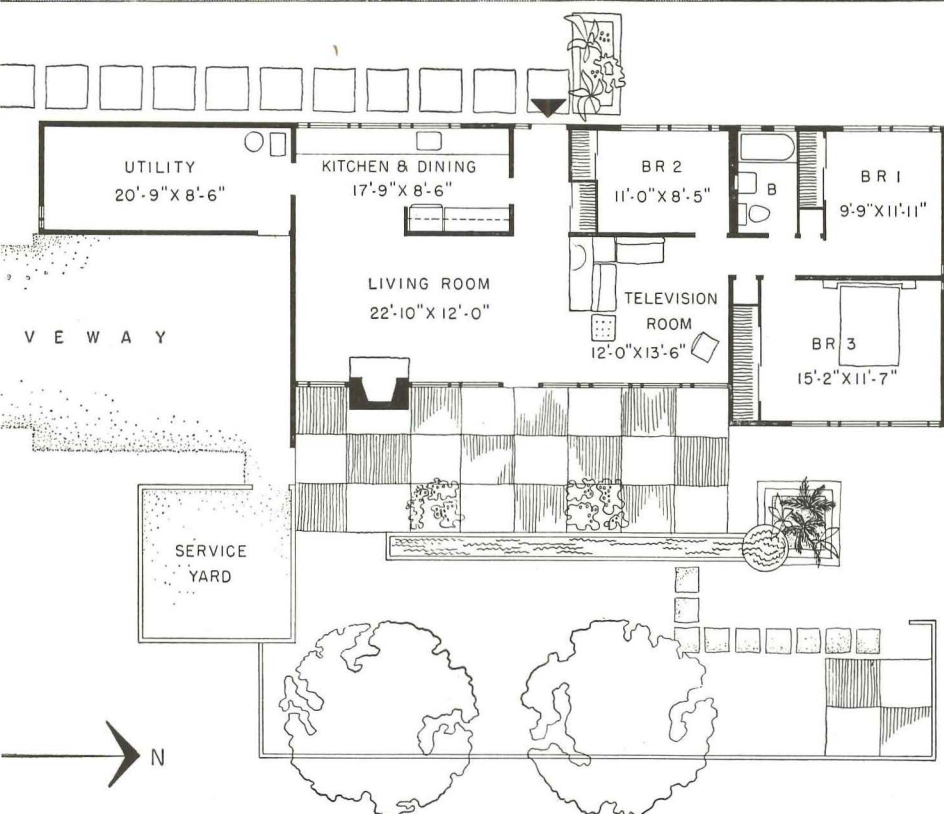
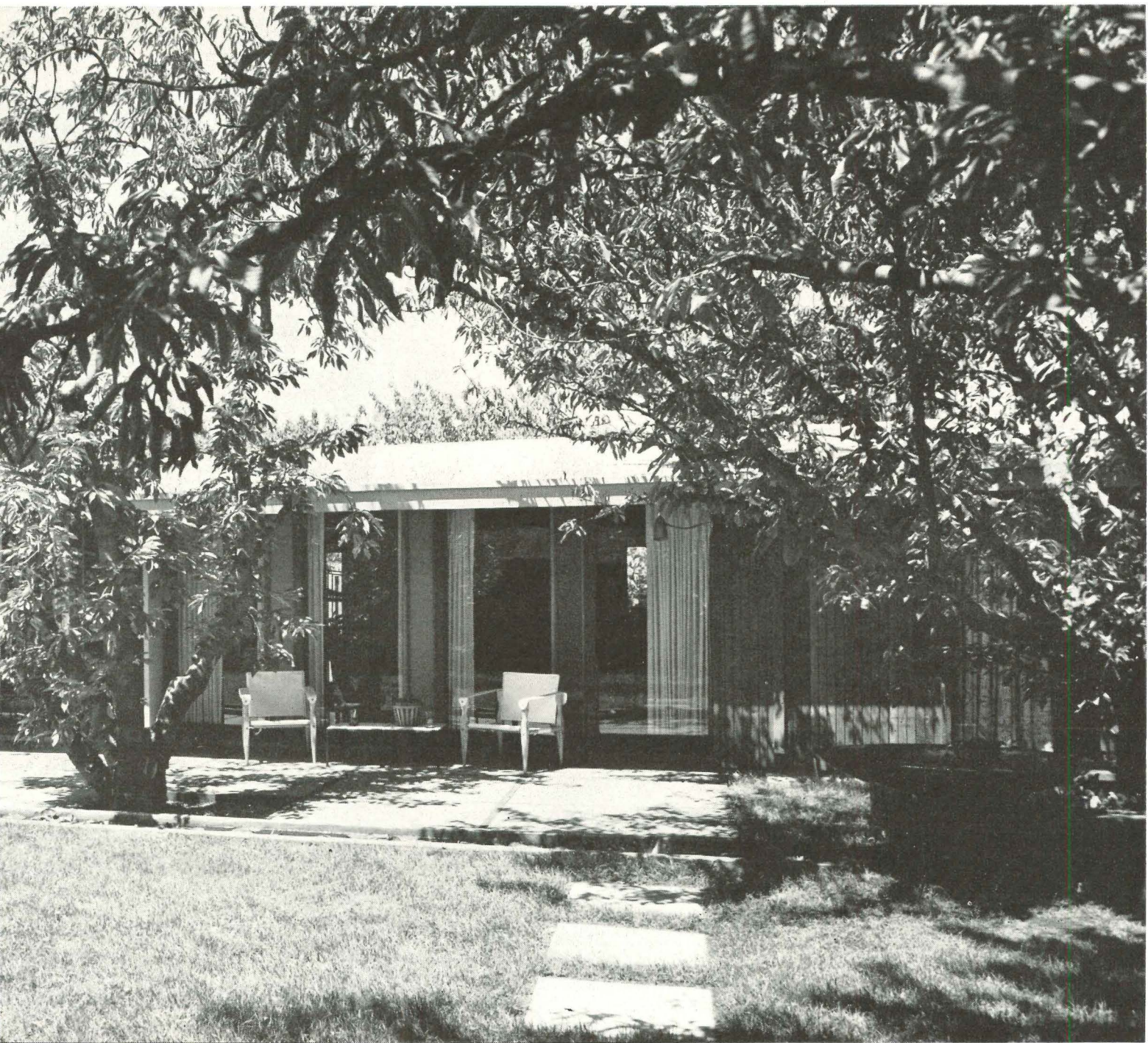


8. LANDSCAPING AND OUTDOOR

even if carried out only in the model home, it provides strong sales points. Concrete squares or alternate squares of gravel and wood decking make an attractive terrace, set off by raised plant boxes and a fountain basin which spills into a long pool. Careful siting and building saved trees as a landscaping asset.

9. FULL WALL OF GLASS across patio living room dramatizes "indoor-outdoor" of house, makes narrow room seem wider, welcome south sunshine in winter. Wide overhang stops high, hot summer rays. Glass walls successful because they face away from street neighbors, toward fenced garden areas.

10. PRIVACY FENCE (on far side of lot, above ground) encloses garden terrace.



Cost breakdown:

Land and improvements	\$ 1,700
Foundation, concretework	950
Brickwork	275
Carpenter labor	1,285
Lumber	1,125
Millwork, cabinets	875
Plasterboard	485
Siding and roofing	655
Sheet metal	150
Floor and wall tile	226
Plastic counters	130
Glass and glazing	359
Hardware	160
Wiring and fixtures	450
Radiant heating	595
Plumbing	750
Painting	625
Driveway, grading, cleanup	165
Insulation	200
Septic tank	220
Architect's fee, overhead, closing cost and miscellaneous	820
Builders' profit	800

TOTAL: sales price \$13,000

Interiors of the Anshen & Allen house, like the exteriors, are warm and inviting with their textured redwood surfaces and color accents. "People don't think of it as either a 'modern' or a 'builder's' house," say the architects. "The design is not so extreme that it scares them away."

Within the 1,450 sq. ft. of enclosed space, excluding carport (an unusual bargain at \$13,000), the architects have provided ample bedrooms, bath and kitchen, plus generous storage space and an extra-long living room which may be divided into two areas. The pictures on these pages indicate several ways this space has been made to seem larger than it is.

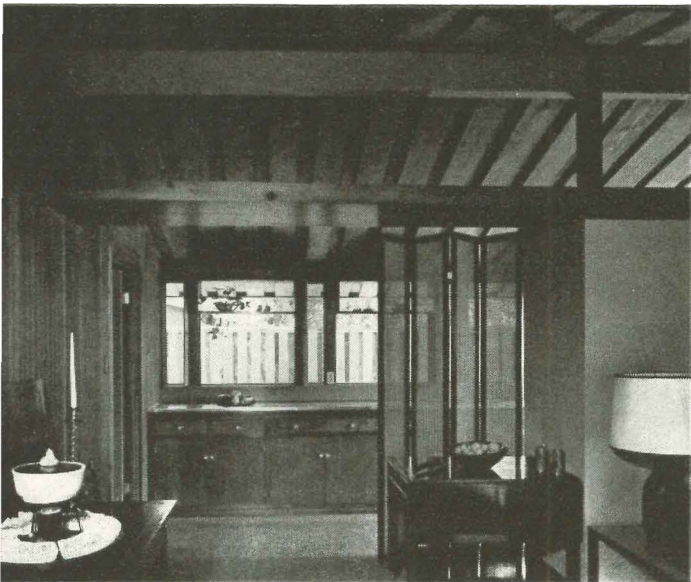
Building data: slab floor and footings poured monolithically on gravel bed; asphalt tile flooring. Walls: standard dry wall construction of 2 x 4's 16" o.c. with vertical redwood siding, plaster-board interiors (a luxurious effect on the exterior was achieved by using wide No. 3 boards with three grooves milled into each). Roof: 3" x 8" and 1" x 6" planks (see drawing, p. 82) with 1/2" fiber insulation board, 3-ply tar-and-gravel roofing. Heating: radiant hot-water pipes imbedded in the slab.



11. OPEN PLANNING: a kitchen can be open to dining and living areas (at right) if its enameled appliances are placed so they do not show and cabinets are made of natural-stained wood to blend with paneling of living area.

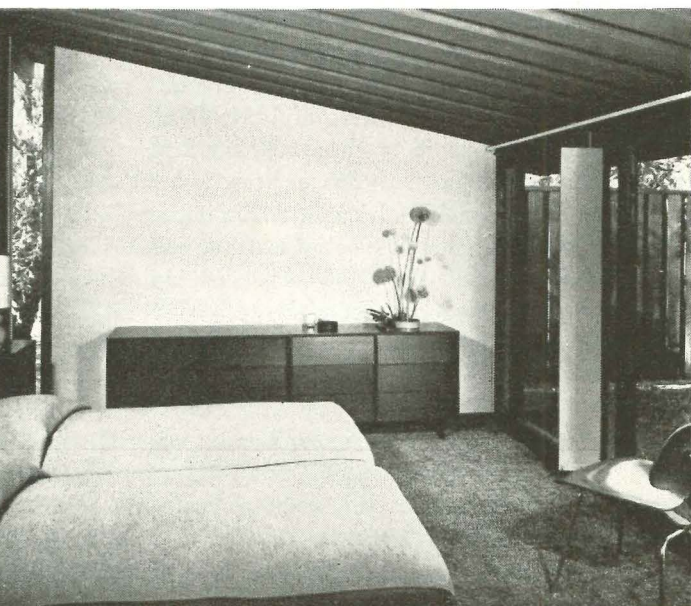
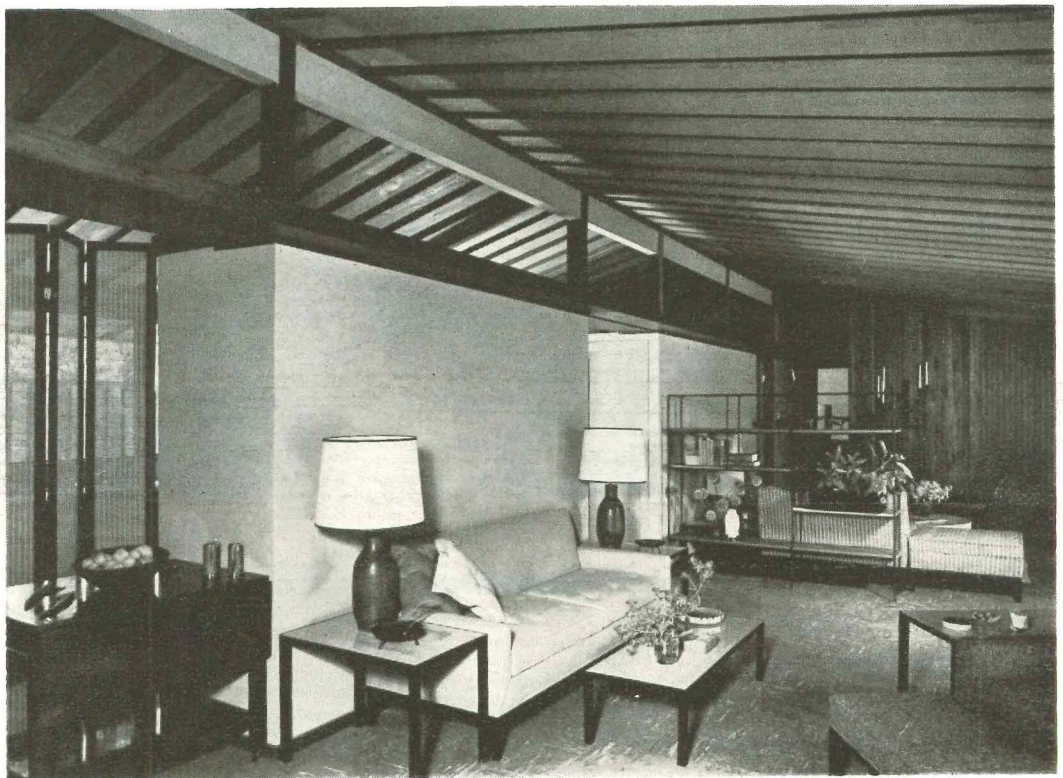
Living room (below) features natural textures of used brick, wide planks, narrow





12. CONTINUOUS CEILINGS above 6' 8" high partitions (photo at left and below) allow eye to travel full width of underside of roof and borrow space from adjoining rooms. Kitchen can be partially closed off from dining area by folding screen under indirect-lighting shelf.

OPEN INTERIORS: kitchen and dining (left foreground) and living and "TV" (background) are one uninterrupted space giving the feeling of a bigger house. Optical illusions that reduce "boxy" long line of exposed ridge pole, two-tone and handsome texture of overlapping panels in the ceiling.



14. VERTICAL 9" "SLIT" WINDOWS of 1 3/4" redwood with fixed screen outside are the only movable sashes in the house. One in master bedroom (left) provides floor-to-ceiling cross-ventilation, heightens illusion of vertical space in room, solves problem of fenestrating a gable-end wall with sloping ceiling. Another provides ventilation between panes of fixed glass.

15. GARDEN VIEW FROM BEDROOM is an added sales feature gained through proper attention to the floor plan and lot layout.

NAHB makes plans for 1951

Directors' meeting at Seattle proposes more remodeling to offset drop in house building (below)
research co-ordination to improve new houses (right)
talks of quitting GI program unless discounts are legalized (see News)

Photos: Forde Photogr



Brockbank urges private slum rehabilitation to prevent homebuilding slump and public housing

Is homebuilding, having enjoyed a Biblical seven fat years because of the postwar housing shortage, now facing seven lean years?

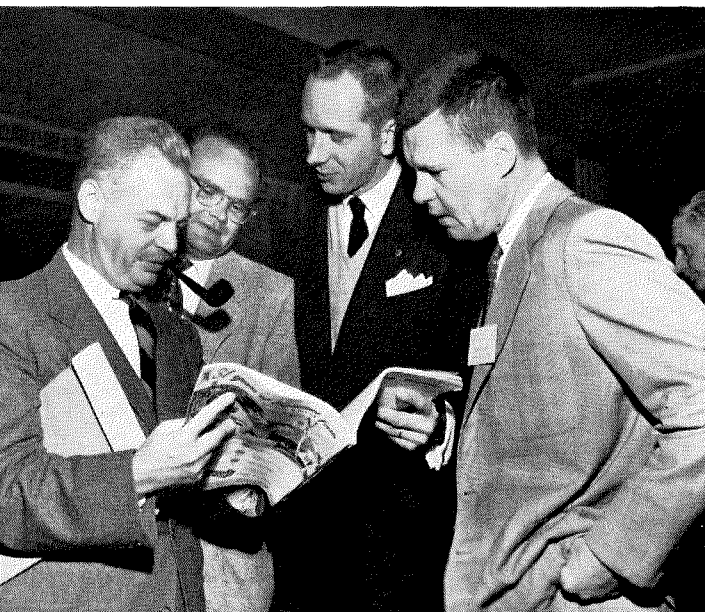
On that question, and what to do about it, turned much serious talk at NAHB's fall directors' meeting in Seattle.

Danger signals. President Alan Brockbank struck the keynote. Said he: "We believe we are in a [long-range] down-swing in our business unless we watch the danger signals and change some of our course." Between 1952 and 1958 or '60, he told the meeting's 610 delegates, the low birth rate of the mid-thirties depression will sharply reduce new family formation in the US—the No. 1 source of housing demand. Brockbank expects homebuilders can build only 500 to 600,000 homes a year for new families during that seven- or eight-year span. Another 100,000 should replace housing lost in fires, floods and tornadoes. So to keep builders building at the million-homes-a-year clip that spells prosperity for the industry, NAHB would have to persuade the nation to demolish 300,000 slum units a year—a program which would be fantastically hard to accomplish even if it could be "sold." Brockbank's solution: Builders should branch into remodeling and rehabilitation of old

homes. Even during the last 13 years, he noted, US consumers spent \$68 billion for remodeling while investing \$72 billion in new housing.

Fewer but bigger. Though builders may build fewer homes in the next seven years, they will at least build bigger ones. Despite the coming drop in new family formation, the US birthrate is increasing. So far this year, Brockbank said, it is 12% ahead of 1951. To the NAHB president that means more three-bedroom homes. "Already," he reported, "a two-bedroom house is hard to sell."

Brockbank's advice on rehabilitating old homes sprang as much from ideological as from business reasons. "During the 1952-60 dip should come an unprecedented rise in the US family formation as the crop of World War II babies reaches marrying age. "During the impending 'breath' warned Brockbank, "the housing inventory of this nation has to be put in good condition. Otherwise, in the slump when there is no money, men or materials for rehabilitating run-down housing, there will arise a cry for public housing such as this country has never heard before. . . . You can socialize America faster through home ownership than any other way. If you want private enterprise to live, you must . . . do this [rehabilitation] job right."



NAHB technical director Leonard Haeger (left), who will head the association's new research institute, discusses his plans with J. J. Carey, Denver; Martin Bartling, Knoxville; and Andy Place, South Bend

NAHB research institute will bridge gap between manufacturers and homebuilders

Homebuilders began guaranteeing the houses they thus meeting their No. 1 public-relations problem on, they bumped into a fresh trouble. At a press conference during NAHB's fall directors' meeting in the last month, NAHB president Alan Brockbank related with an experience of his own:

"I bought 50 hot-water heaters from a national manufacturer of gas water heaters. One went into the home of a widow. It quit operating after five weeks. I sent a plumber out to her home. He reported the burner was defective. So I phoned the manufacturer's representative. He said to take the defective part to the factory. They would send me a new part if they thought it was defective. I explained that the widow needed a new water heater now, not five weeks from now. Who was responsible for the new heater? 'You do,' the manufacturer's representative said. I said: 'I get a lot for a five-year warranty.'"

As the leader of the nation's 25,000 organized homebuilders saw it, "There are very few materials made for homes that have a warranty on them that means anything."

Red medicine. Nobody in NAHB was insinuating that the overwhelming majority of parts and pieces that go into US homes were not well made. But last month at the NAHB convention, NAHB set out to check up on the tiny fraction of the materials industry's output that might be defective. Objective: since homebuilders were going to guarantee their product, they would insist that manufacturers do the same. Explained Brockbank: "We want manufacturers to report to us on materials that are not holding up. We've got to catch some of these things before they get out across the country. Little builders can't afford to have ten heaters go bad at once. That's the profit out of a year's work . . . and then they're out."

The mechanism for NAHB's new mission will be a Builders Research Institute, whose creation was approved by NAHB directors during their five-day session in Seattle's massive Olympic Hotel. For the Institute, the outgrowth of NAHB's technical services department

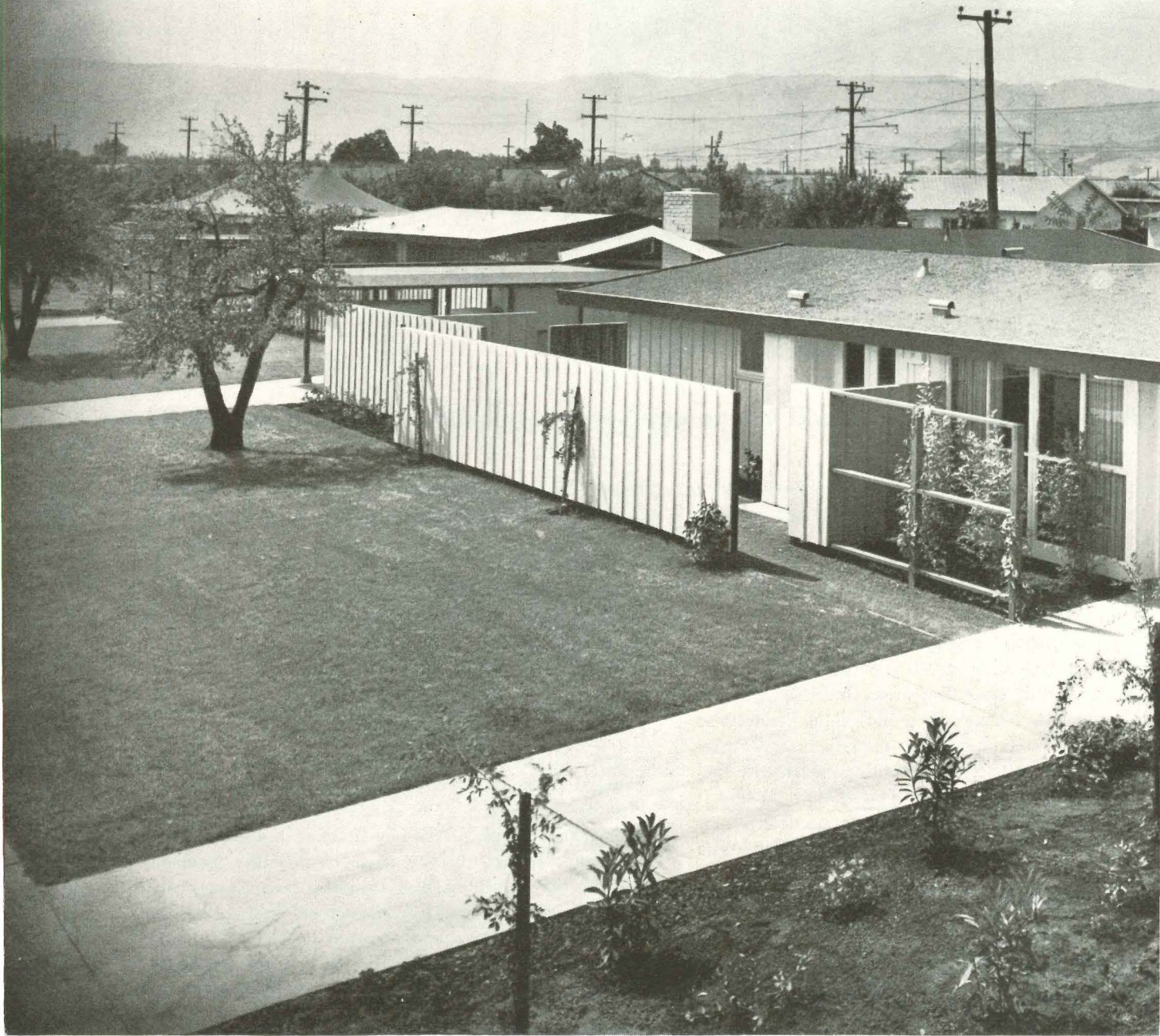
headed by Leonard G. Haeger, creation of a confidential gripe system on products that go into homes will be only a fraction of an ambitious program. Haeger, who will head the institute, thinks it can contribute most to the development of homebuilding technology by acting as a catalyst between the industry's many scientific laboratories and the men in the field who must carry out their discoveries. Said he: "This is a missing link in housing."

Trials and conferences. Haeger expects the institute to bring about field trials of new products and methods—items already tested in laboratories but not ready for national marketing. For instance, varnish manufacturers, long at work on a natural finish for redwood, might take advantage of NAHB's institute to test their results on homes being built by some of NAHB's members. One of the institute's first projects, said Haeger, will be publication of a reference manual listing the best recent books, papers and research on the 12 steps in homebuilding—from analyzing local markets to maintenance and repairs. As far as Haeger knows, no such compendium of housing know-how has been assembled.

One of the institute's biggest jobs will be getting builders and manufacturers to sit down together to talk about how materials can be designed better to fit new homes. The first such session was already scheduled. On Oct. 3 in Chicago, a dozen leading builders are to meet with a score of air-conditioning engineering and sales executives to discuss how air-conditioning units can be designed to fit new homes better and cheaper. The meeting, said Haeger, is a direct outgrowth of HOUSE & HOME's air-conditioning round table (H&H, June '52, p. 102) which first pointed out the mounting demand for residential air cooling.

The institute will do no research of its own, will stick to spreading the word about what others are doing, said Haeger. Thus its cost to NAHB will be small. Yet homebuilders felt it would make an important contribution to better housing. Said chairman Martin F. Bartling of the committee which recommended the institute's creation: "No single objective of NAHB . . . will do more to change for the better our present building pattern."

Fast selling California ranch house



All photographs by Maynard Parker

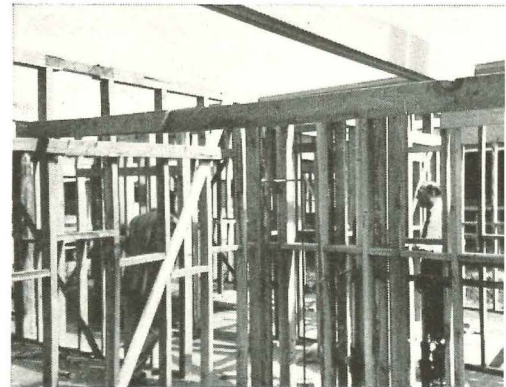
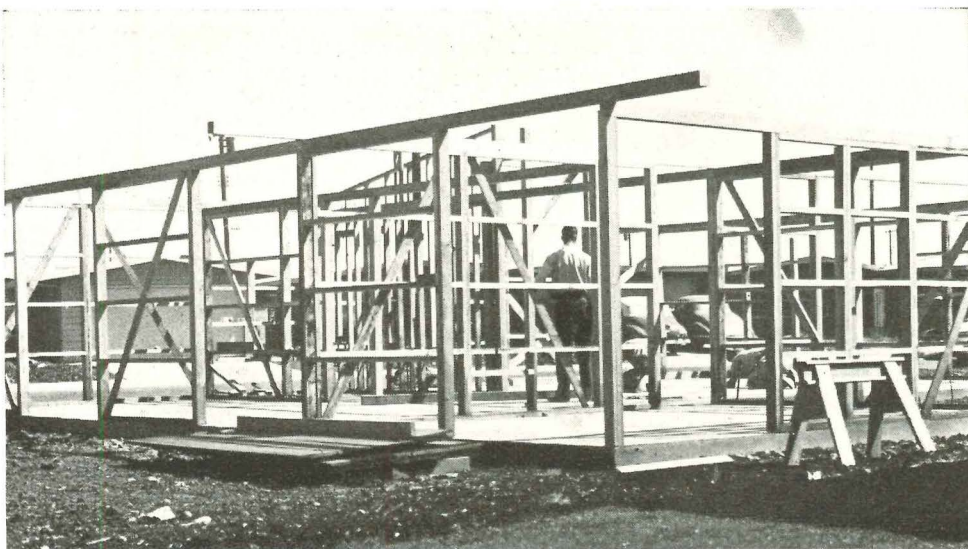
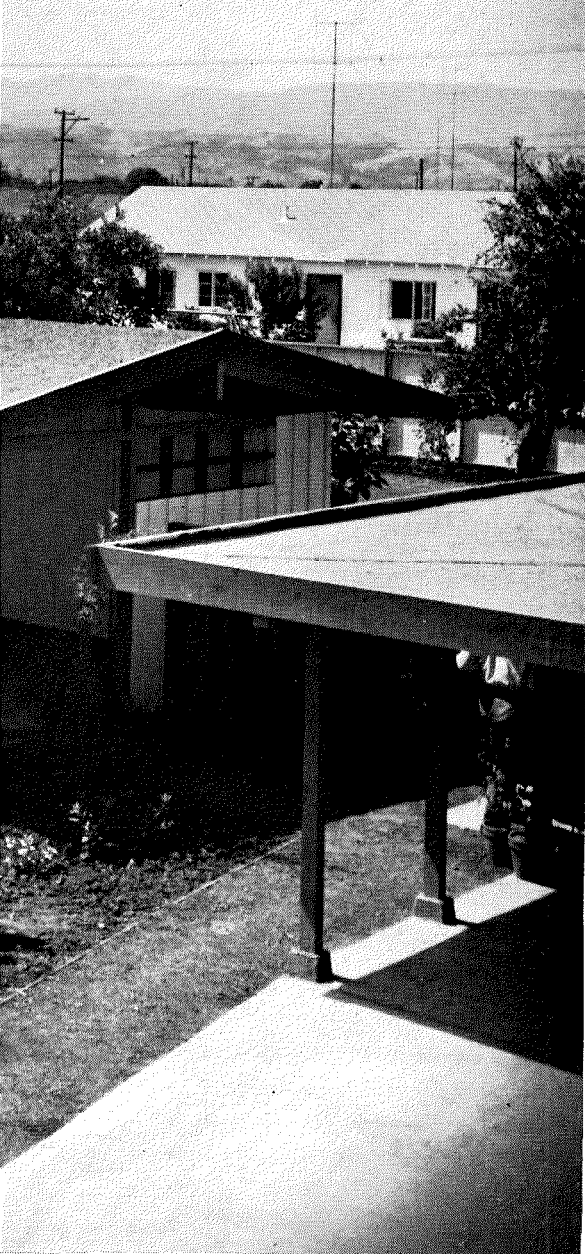


Photo above shows the forest of studs and extra window members in a conventionally built \$7,000 house. At left is the simplified frame for a Stern & Prioleau house, showing post-and-beam construction. The 57 panels are made nearby. No sidewall sheathing is used.

Modes of construction are protected by patents pending

Cliff May



a good lesson in how to make an 815 sq. ft. house much larger than it is. The size is increased by the overhang, the carport, the low-pitched roof, wide fascia, and the trellis that carries the eye to the house at the left. The vine-covered trellis lets light into the front kitchen.

LOCATION: Cupertino (near San Jose), Calif.
BUILDER: STERN & PRICE, builders
ARCHITECTS: CLIFF MAY & CHRIS CHOATE, architects
LANDSCAPING: JAMES BAYLIS, landscaping

Costs
815 sq. ft. (plus carport) 2-bedroom for \$7,500
1,078 sq. ft. " " 3-bedroom for \$8,950
1,500 sq. ft. " " 3-bedroom, 2 bath for \$10,000

Here are houses full of lessons for builders everywhere

In a market that other builders were finding decidedly thin, Stern & Price of San Jose, Calif. sold a first group of 300 houses in two weeks. Their fresh, new designs are the talk of the West Coast.

Their success clearly proves how experienced architects can help builders increase sales when the going gets rough. The 815 sq. ft. house (plus carport) at \$7,500 and the 1,078 sq. ft. 3-bedroom, 2-bath house at \$10,000 are among the most attractive being built today. Stern & Price plan to put up 1,500 of them.

Much of the credit goes to designer Cliff May of Los Angeles and his partner, architect Chris Choate. Famous for his expensive ranch houses, May has spent several years figuring cost-cutting schemes for inexpensive designs. Teamed up with Stern & Price for nine months this year, the designers helped build some 25 experimental houses to test ideas and smooth production.

This experimentation is now paying off. These handsome houses are priced low enough so that at least one competitor stopped construction to study how he could be undersold by such a wide margin.

E. A. Mattison, exec. vice president of the Bank of America which bought the mortgages, said recently, "This is the largest commitment for this type of house we have made. They look to us like the most attractive houses we've seen to date."

Minimum construction but maximum livability

Every builder knows that in a \$7,500 house he cuts and cuts until he often ends up with nothing but a little empty box. Stern & Price's new \$7,500 house is not like that. Here is maximum livability and more space with minimum construction at a minimum price. True they left out many things, but what they include is a livable floor plan, redwood siding, 30" overhangs, floor to ceiling windows, slab doors, double doors to rear or side patio, kitchen ventilating fan, better than average lighting fixtures, good hardware, steel in footings and steel mesh in slab, cast-iron tub and lavatory, gutters and downspouts, excellent color schemes, glass-end gables, \$75 worth of front fences and a \$1,700 lot, 51' to 55' x 105'.



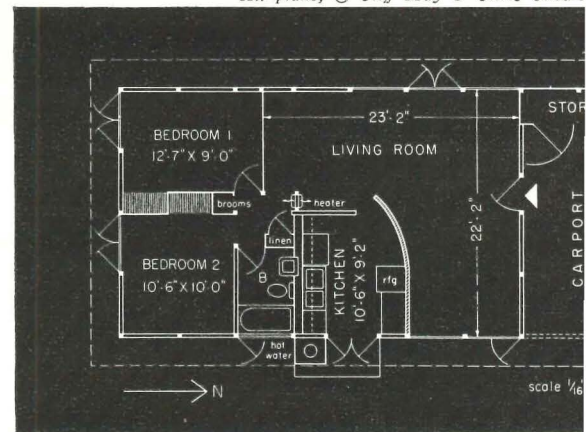


Living room of the most popular model was decorated by Paul Frankl of Los Angeles. The three large glass panels can be handled as all windows, or a door can be put in any panel. This floor-to-ceiling use of windows is an important factor in making a small room appear much larger.



Another view of the same living room. The wide overhang not only keeps out sun and glare, but makes room seem larger by carrying the eye beyond the window. The rough-textured ceiling beams help to give interior a California ranch-house look and add contrast to the smooth ceiling.

All plans, © Cliff May & Chris Choate



they got the price down

savings grew out of the elementary fact that only one floor plan was used: a 36'-6" x 22'-4" rectangle which is the same for all houses. The third bedroom for the larger house is added, as the plan shows. Nothing disturbs the basic rectangle, although design variations are handled so cleverly that few visitors discover there is only one plan.

Other savings come from a simplified post-and-beam construction, an economical wall frame that uses relatively little lumber, and the use of wall sheathing. Redwood boards and battens are nailed to a layer of building paper on the exterior of the 4" x 4" frame. 1" wood fiber panels on the ceiling beams become both insulation and sheathing and are a base for the built-up roof. Roof beams are 2" x 4", 31" o.c. and the ridge beams are two 2" x 14"s. All together costs only \$770 of which roof planking cost \$370.

It is strictly West Coast or deep south construction visiting builders criticized as being too light. But FHA and a prominent structural engineer who checked every detail have ruled it satisfactory for the area. Builders and FHA deserve praise for approval of a structural system which cuts cost and which gives maximum room size, large windows and better living to house buyers in the \$7,500 price class. Builders and engineers agree that every one-story house in the area is overdesigned structurally, and that FHA should "do something about it." Here is an example of an enlightened FHA office (in San Francisco) which has done something about it. The fact that this design would not be satisfactory in cold-weather areas is no justification against it. For such climates May and Choate have designed a winterized house with insulation, more heat, a stronger roof and more window space which they will license to builders.

Cliff May: "Most builders try to get their house prices down by taking out all they can. We went at it the other way: we tried to find out how much we could put in. To do that we took a fresh look at every part of the house and designed it for economic operation." May and Choate's basic rectangle permitted the builders to make a lot of savings: buy many items in lots of 1,500 or more, make all posts the same height, make all siding, roof beams, roof boards, windows, glass sizes, storage walls and many other items the same. Processed roof boards and plasterboard are bought in such volume that they are cut in the factory to usable lengths. No sawing of any kind is done on the job, although panels are made of lumber cut in the 7-acre yard on the site.

To get the price down the builders left out: side-wall sheathing, wall insulation, door and window frames and sills, headers, miter joints, saved \$50 on their electrical bill by grouping fixtures near the center of the house and by strategic location of electric outlets, and put the water heater in an outside closet. They did not skimp on lumber. All exposed is No. 1, the rest No. 2. Stern & Price paid a premium to get the rough beams that Normans like in their ranch houses.

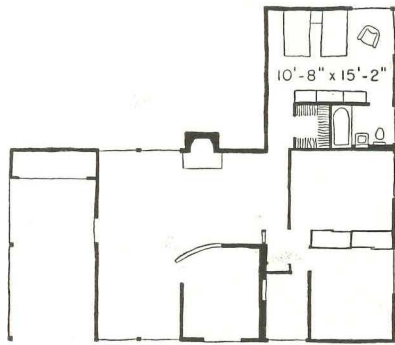
The plumbing wall is made of two partitions set 9" apart to allow for slight variation in pine location and to save labor in building a wall around and between the plumbing. Due to an obsolete Santa Clara County code, plumbing costs are \$621 for the small house, \$1,021 for the two-bath house, which is considerably more than builders pay in the Berkeley-Oakland area. Stern & Price hope the new liberal code will eventually permit an efficient plumbing tree. The highly demanding county code forced the builders to make streets 38' wide (with curbs, gutters and sidewalks), which Price says is the principal cause of a \$500 increase in each house over the original price. The builders also put in 7½ miles of sewers (for which they got 35-year bonds) and 3½ miles of storm sewers. The 331 acres were a prune orchard and cost enough so that with utilities added, the lots cost them an average of \$1,700 each.



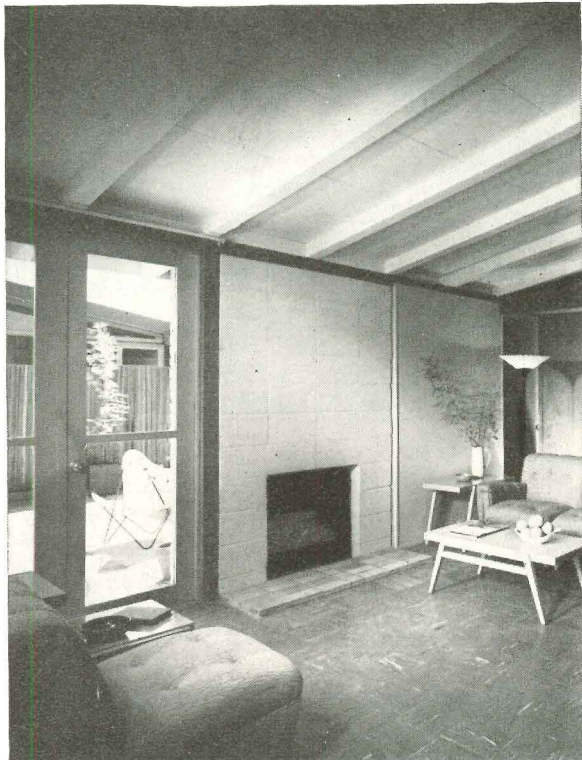
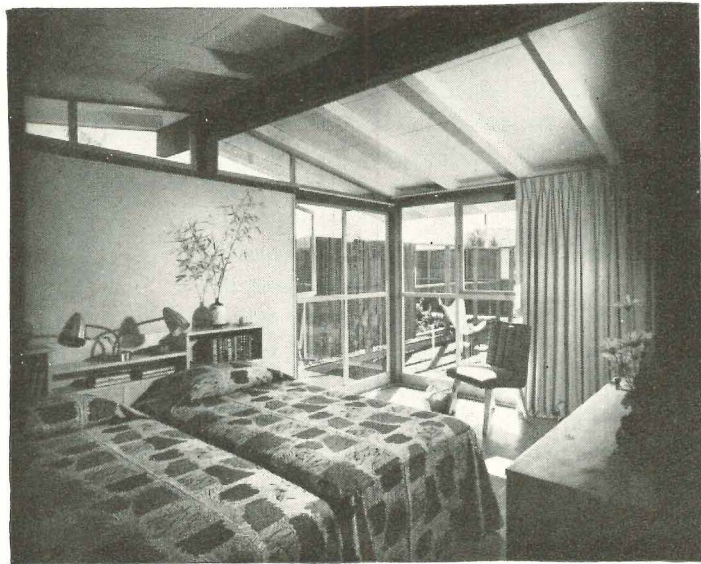
In the Frankl house this bedroom was furnished as a boy's room. All bedrooms are light because of the tall windows and the glass gables. For houses in a colder climate Cliff May has designed windows for this same panel system which are double glazed and do not go all the way to floor.



The curving wall setting off the kitchen is one of the most popular features in the house. Made of lightweight blocks, it is painted in contrasting colors to the living-room wall. The fact that it does not go to ceiling makes both the kitchen and dining space seem quite a lot larger.



Plan above shows how third bedroom is added to small-house rectangle. At right is typical bedroom with floor to ceiling windows, glass gable and strong line of ridge beam. Below is the fireplace put in all the three-bedroom houses.



How to orient a house

Every builder can add to the value of his own project by studying how these houses are placed on the lots. May and Choate overcame the most common criticism of large tracts: that houses are in identical rows like dominoes. Every street was drawn to large setbacks and Chris Choate personally studied the relationship of each house to its lot, to its neighbors and to the entire neighborhood. He tried to keep bedrooms on the north and east, living rooms and patios on the south and west. Setbacks vary widely. Houses are turned in three different ways on the lot and carports are in six different positions. "No house fights with its neighbors," says Choate.

"Fences make the whole tract better," he pointed out. "They tie the houses together, yet they help to spread out the houses and make them seem larger. Fences hide the front rooms from the street, they create service yards." The solid fences add great value to the property and give privacy for both indoor and outdoor living that would be a sales asset in any part of the country. Living rooms seem larger because the view is carried out through the large windows and through a patio to a fence at the property line.

COST BREAKDOWN excluding land, improvements and profit

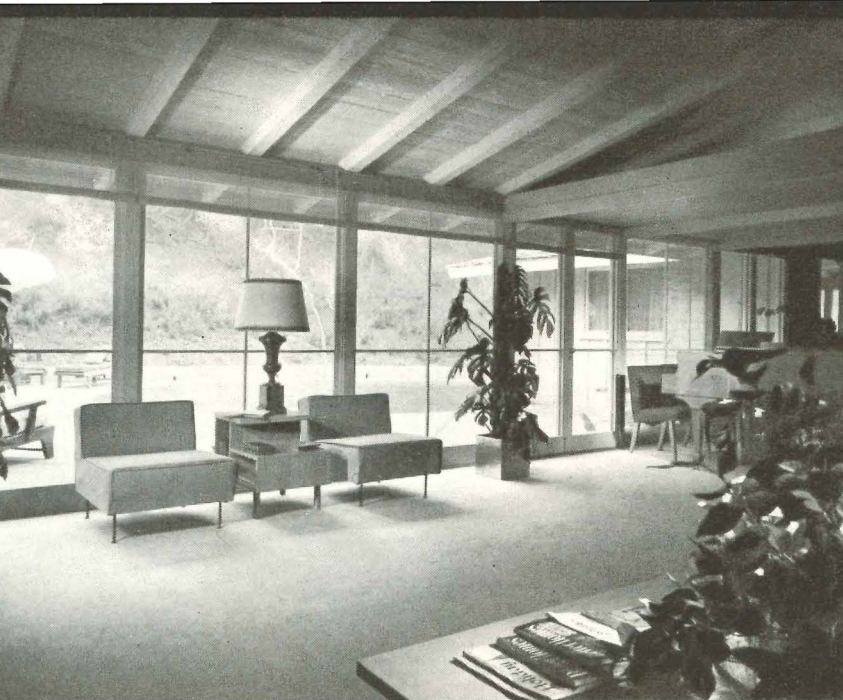
	\$7,500 house	\$10,000 house
Lot grading	39	43
Trenching	15	21
Rock pad	28	38
Membrane	13	18
Wire mesh	23	31
Reinforcing steel	21	28
Concrete form material	341	467
Concrete walks, drives	149	162
Lumber, roof plank	770	1,152
Millwork, cabinets	649	774
Hardware	86	126
Dry wall	141	196
Painting	440	525
Plumbing	621	1,021
Electrical	163	203
Heating, sheetmetal	121	131
Aluminum wall tile	35	70
Masonry wall	75	325
Roofing	146	189
Fencing	75	85
Miscellaneous	105	138
Clean up	32	45
Labor	703	1,034
Taxes, insurance	102	140
Overhead	286	392
Sales expense	118	138
Architect, permits, fees, etc.	211	138
Total	5,508	7,630

Construction details

Dick Price, who has been building houses for 20 years, laid out his production methods. He subcontracts everything except the work in his big cutting yard, his rough labor and his carpentry labor. May he said, "By mass buying and mass production we can knock off 20% of the cost of any house you design."

Slabs are conventional, footings are 16" (instead of the 12" which FHA permits) to assure protection from the unstable soil. Posts are 4" x 4"s if exposed, otherwise are two 2" x 4"s spaced together. Posts are on a 5'-2" module which is based on the width of a pair of doors. Patio and kitchen doors come in pairs. Each door is either single or double width. "A 4' module is no good," says May. "If you do 1,500 houses you create your own module."

The small house has 57 framing and partition panels, some of which are diagonally braced. Roof boards are 2" x 2' x 8'. The load is 40 lbs. per sq. ft. The two 2" x 14" beams that form the ridge were looked on with some suspicion by visiting builders who have passed FHA and been ok'd by a conservative structural engineer.



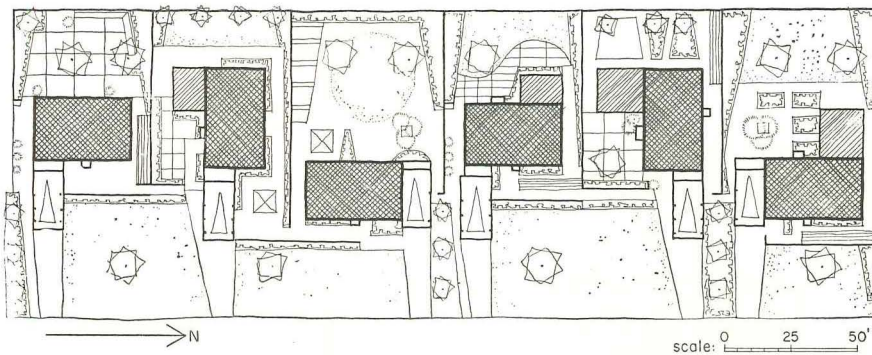
by Maynard Parker, courtesy of Better Homes & Gardens



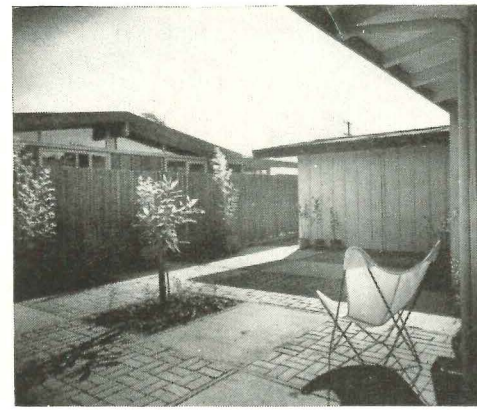
These two photographs show a \$24,500 house Cliff May designed and built two years ago. In houses like this he did his first experimenting with a simplified post and beam construction and a window system which saved materials and labor. Into his smaller houses for builders he tries to carry over all the ideas he can from his luxury designs.

Below is the spacious living room of a two-bedroom model with curved masonry wall at left which screens the kitchen. Few other \$7,500 houses have such a sense of spaciousness in their living rooms. Ridge and tie beams are painted a different color from ceiling and walls to emphasize the structure. Decoration by Archibald Taylor.

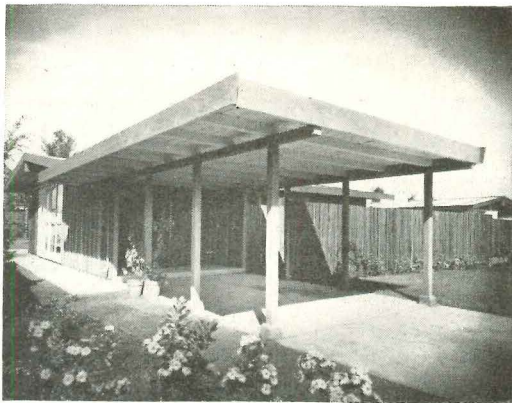




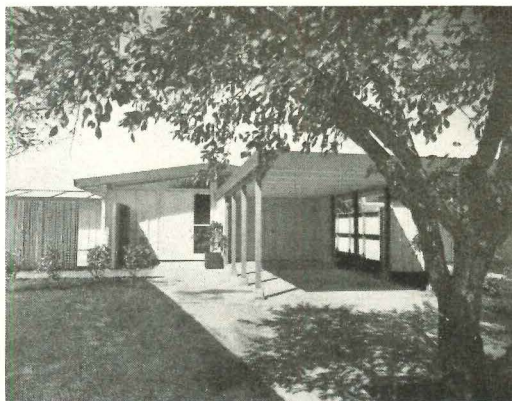
When builder Al Stern said, "We've surrounded ourselves with talent," he included landscape architect Douglas Baylis who has added at least \$1,000 in appearance to each of the model houses by his excellent designs. Stern & Price believe in showing prospective buyers how well a house can look, outside and inside. Builders in all parts of the US can profit from this lesson in landscaping, as the photos on these two pages demonstrate. Street fences are included in sales price, others can be bought at wholesale. Buyers get a Baylis landscape plan and are encouraged to use it.



Each patio was carefully oriented



Appearance of carport is improved by wide fascia



Valuable fruit trees were saved wherever possible

How the houses were designed

The simplified construction of Cliff May's low-cost houses grew out of experiments in cutting costs in his larger houses. The photos on page 95 of a \$24,500 house show the evolution.

But adapting his simplified construction to the Stern & Price production line, where 1,500 houses were to be built, was a difficult and discouraging job. More than 100 changes were made in the first house. Then four more were built, then 20 more, with designers working closely with the builders for nine months. Stern & Price had such confidence in the new system that they stopped all their old production, built a new cutting yard, made new plans, and trained their key personnel on the new methods.

On opening day, Sept. 7, when 128 sales were made, Stern & Price knew they had a winner. "We paid a top fee per house for architectural service," said Al Stern, "but look what it does for us. It generates value. Better design assures us rapid sales—and substantially reduces our sales cost."

"We went to Cliff May," said Dick Price, "because he had a feeling for contemporary design, but he softens it. We felt we could sell his ranch houses to people who liked conventional and also to those who like contemporary."

Said Stern: "We've always believed in using architects, not builders, not designers, so we wanted to surround ourselves with specialized talent. We paid more for May and Choate than we would have paid builders pay, but we got a lot more, too."

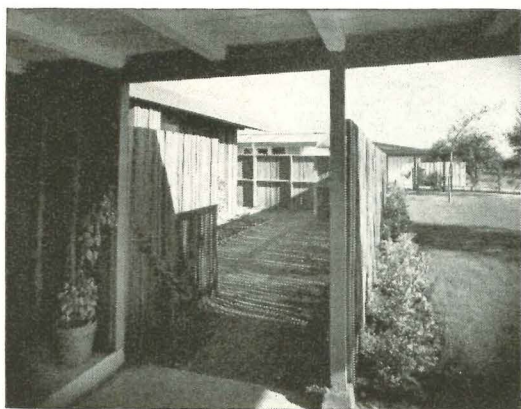
What they got included those plus values which architects have been saying a house should have: an open plan, indoor-outdoor living, lots of light, glass under the eaves, wide overhangs and fully planned color schemes.

Of the buyers, 55% chose the \$7,500 house; 40% took the 2-bedroom 2-bath model; only 5% wanted the 3-bedroom, 1-bath model. Thus nearly everyone who wanted three bedrooms was willing to pay \$1,050 extra for a second bath and a larger, walk-in closet. Both the larger houses have a fireplace, which the small houses do not have.

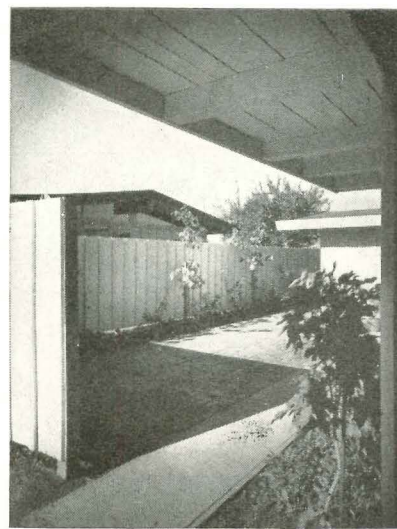
In the first week numerous people bought more than one house. One man bought seven, another four, several bought three and a dozen bought two. Some bought for themselves and their children, but others saw a way to get attractive rental property.



make lots seem larger



Each house got a \$75 fence



Most patios were paved

This beautiful garden helped to make model house a best seller and clearly demonstrates that sales appeal lies outside the house as well as inside. Families in all parts of the country are increasing their outdoor living and a patio or garden in a model house that shows how a side or back yard can be landscaped becomes a big sales feature.



country club
2 min.

office
3 min.



downtown
7 min.

Mr. Welch build

KENNETH C. WELCH, architect and
FRED GIETZEN, general contractor

Welch house from the south, the deep garden



iving center

Three years ago, in the special issue of *ARCHITECTURAL FORUM, Measure*, (Nov., 1948) architect Ken Welch described the house he was going to build for himself and his wife in Grand Rapids. In it he proposed to use the same approach he has used as an outstanding specialist in shopping-center design, the research approach. This is the house, after two years' test in use, and he is justly exuberant over it.

It is not the first house Welch has built. He did others in the gay Timber Gothic days before World War I, but soon abandoned them to become an expert in the scientific approach to design for merchandising.

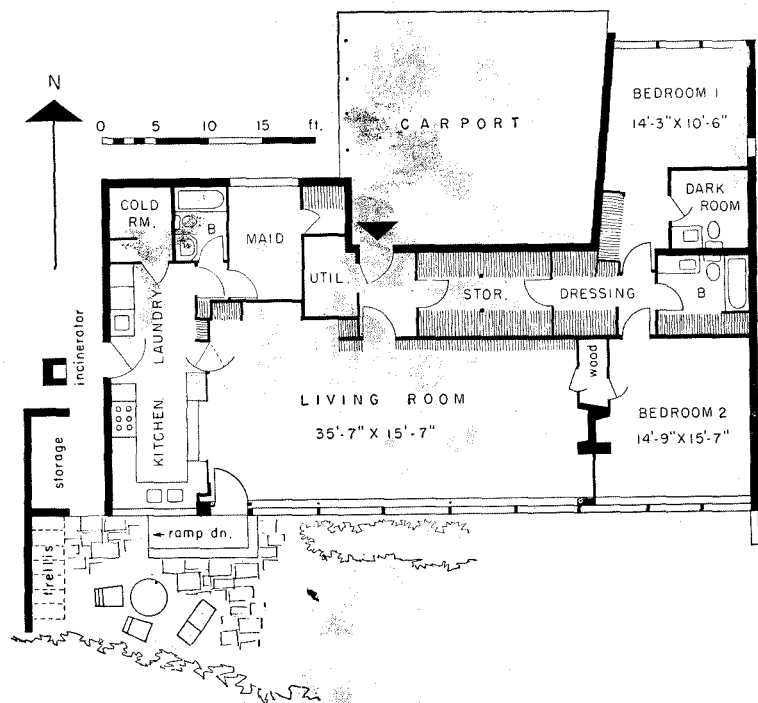
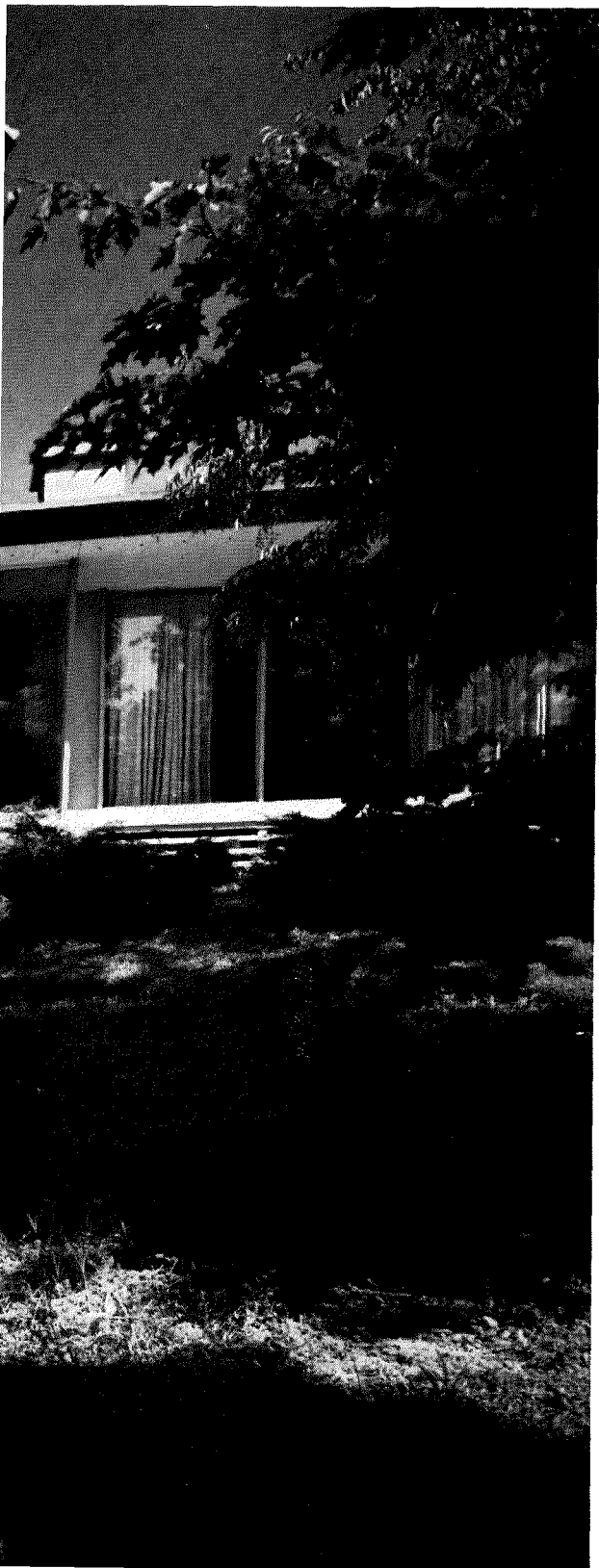
Welch went at this house design as if it had been a shopping center. First he got in an airplane to look for a site. He wanted one that was wooded, was close to his office, country club and downtown Grand Rapids, and was a good investment *for use*—and he did not want to be too influenced by neighborhood. Looking down on the city from the perspective of aviation he found what he wanted (*see air photo*) on the edge of a crowded subdivision—1.6 acres of sloping, woody land, an almost wild but beautiful ravine that nobody had ever noticed before, almost in the heart of the city. Because of the neighborhood and the roughness of the land, he was able to pick up the tax-delinquent parcel for \$2,000. (Today he says it is worth \$10,000.)

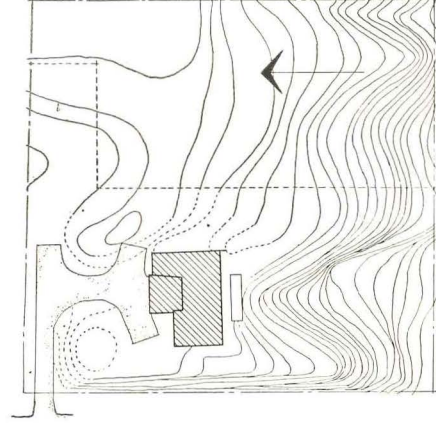
The house itself was designed from the inside. Welch says, "This makes many economies possible. These savings will help pay for much of the extra mechanical equipment, for many an item of interior comfort and appearance, and for the extra landscaping that this interior needs.

"Some of the cost reducers are the use of easily maintained block construction, the flat gravel roof, a minimum of flashing, the elimination of gutters, of many conventional window openings, of an inconvenient basement, large utility areas, large attic space, useless garage doors (the carport is designed like a milk bottle so the snow will not blow in) and a great deal of useless and seldom seen ornament."

As much as any shopping center, this is an automobile-designed house. The carport is the entrance.

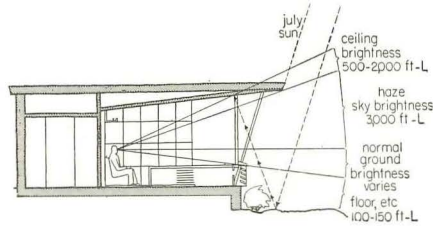
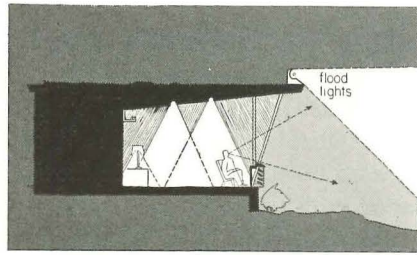
Photo: (below) Ezra Stoller—Pictor





House is sited, and driveway is planned so one or two more houses could be built on this land using same access road.

Sectional diagrams through house show schemes for night and day lighting. Effort is to eliminate glass reflection at night, and to lower brightness contrasts in day.



Wooded site is treated as outdoor stage. With a designer's eye, Welch noted two things that the ordinary holder or builder might easily miss, and he used his full intelligence to capitalize on both. The first was that his site head of a wild, wooded ravine made it possible to treat the itself as a spectacular outdoor stage, by the store designer devices of making his windows a showcase for this out-of display and then lighting it. His second discovery was that is the only time most of us (particularly males) are ho enjoy this indoor-outdoor relationship," a fact doubly just careful night lighting indoors and out.

First step, his science told him, was to level out bright between indoors and out. To do this in daytime he faced a window wall to the view, then slanted the glass *outward* unwanted sky reflections in the daytime—and lamp reflecti night—and slanted the ceiling *downward* to brighten its reaches, kill the cavern effect and bring it all closer in brig to the competing sky.

Electric light. Welch's electric-lighting scheme is as c as any department store's. A battery of 12 floodlights and mounted on the roof (*see sketch*) illuminates the outdoor

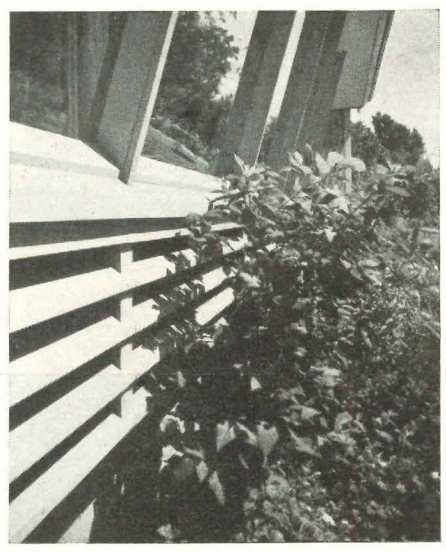
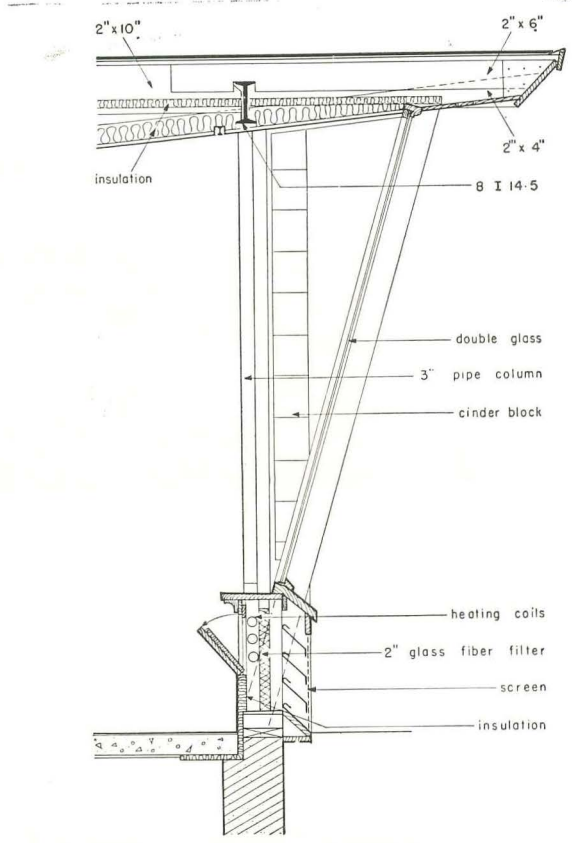




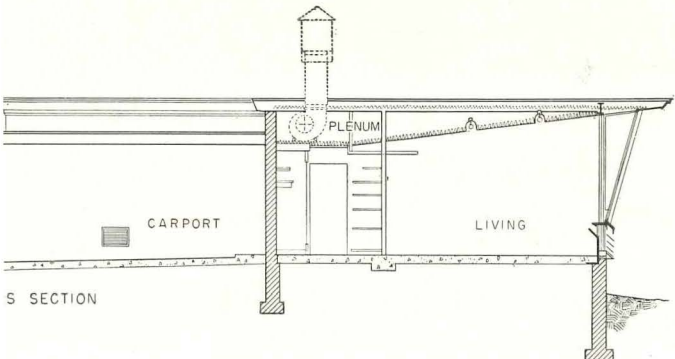
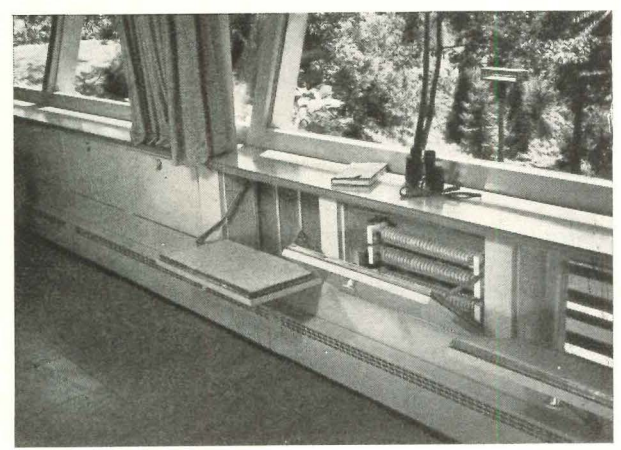
ary to usual domestic practice which creates indoor pools of light, Welch has patterned his entire ceiling with downlight and reflectors with 15 w. lamps and 45° cutoffs, providing at 5 foot-candles of background lighting to be supplemented by table and floor lamps. At sitting level the only night reflections might have appeared in the glass are the downlights in the ceiling—and these (see photo above) have been massed. Works very well.

Ventilation. Welch likes his air clear and cool. To make sure he could get it that way, he set a large fan in a penthouse near the center of his house, and set louvers under the windows. The fan sucks in air (through cleansing glass-fiber filters in winter, ordinary screens in summer), pulls it across the room, and discharges it through the roof. In hot weather, this system can be speeded up to cool effectively by a mild blast action. This scheme has several advantages: it saves money by permitting fixed glass throughout the house; it is a very cheap cooling system; and it permits unusually good comfort control on crowded occasions, when the air changes can be stepped up to remove head and body heat.

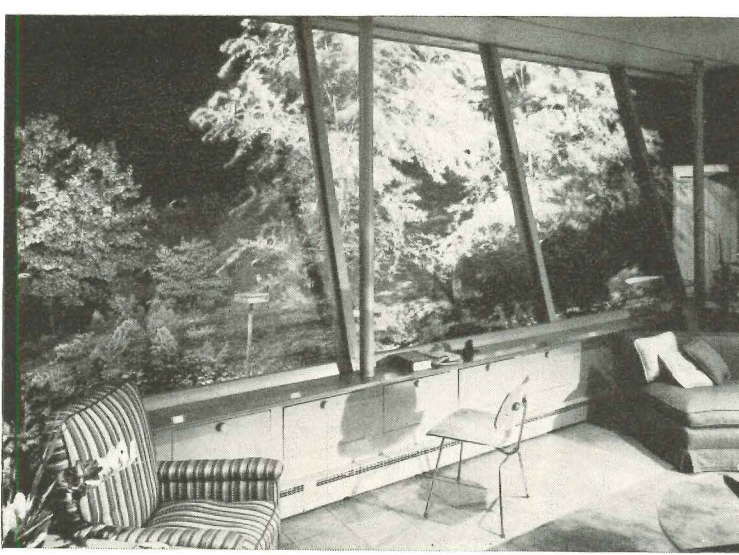
Heating. Originally Welch planned to do all his heating with unit electric panels, but he soon met a common obstacle. The utilities would not recognize this kind of power consumption requiring him a special quantity rate that would make it economically feasible. His rate averaged 3¢ per kw, and he says it might have been cheaper to go to Miami the first winter. So he has since installed a supplementary hot-water system, with coils running through his louver recesses (see photo, right, and detail).



Ventilating system (exterior, above; interior, below). Note heating coils in center section.



Roof is drained inward to 4" pipe adjacent to fireplace, which eliminates hanging icicles at roof edges in winter.



Of a summer evening, a well-lighted outdoors and no glass reflection



In spring, a view of coming things

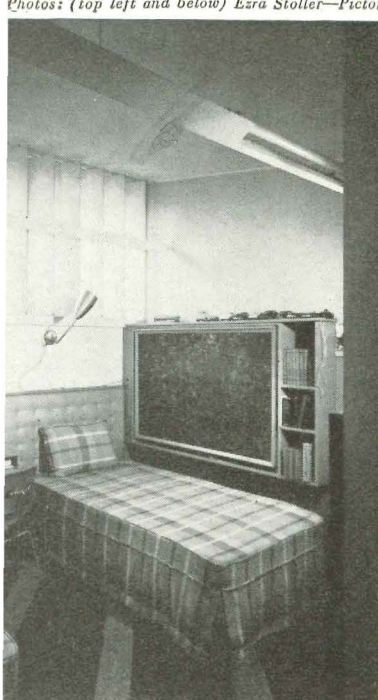
In winter, quiet cold outside



ARCHITECT WELCH MEASURES OWNER WELCH. This house is replete with little specialties to make the client happy, all carefully planned by the client-architect himself. For a small example, there are 85 lin. ft. of wall storage space (aside from the kitchen, darkroom, cold room, maid's room and tool house) in this house—which almost lifts it up into the specialty-store category. And each shelf is carefully measured to accommodate everything which the Welches planned to put there (they vary from 9" deep shelves for books to 36" deep shelves for firewood). Another, more important example: the tilted window, and careful attention to witnessing the outdoors. The Welches are enthusiastic amateur ornithologists, and they can look out their glass window wall late into the afternoon, or even in the evening this way, watch the birds in the wooded plot below. The *photos above* show how efficiently the reflectionless window works and emphasize the pleasantness of such a vista all year round. *Top photo* was taken at night in the summer, when trees were in leaf. *Middle photo* is in spring, and *bottom photo* shows the moody haze of winter. It is obviously a nice window to have all year, especially in conjunction with the Welch's combination of convective and radiant heating.

Another of Welch's hobbies is photography, so he built a darkroom into his bedroom (see plan page 99). This bedroom was planned with office efficiency: a desk panel hinges from the wall into Welch's lap in bed, and the lighting is carefully controlled for working. Louvers on the window above the bed head control glare of early morning sun. Welch prefers to work in artificial light, so he built in a combination of indirect lighting (430 milliwatt fluorescent) plus directional spots.

A few little things about Welch's scientific plan for his house did not work out, but they were easily rectified, and Welch pronounces the experiment a success. The experimental look has already begun to wear off. It has become his home, and—frankly say—an extraordinarily good exposition of the man.



hinges down over Welch's bed for after hours. Vertical louvers conorning sun.

Efficient kitchen is a little too efficient, Welch now thinks. Designing it again, he would make it larger, more of a gathering place, even in a small house.



ce is shielded from low western and highway traffic by a covered block wall. Adjustable vertical s toward prevailing southwesterly can be closed to form a solar or sunbathing in the morning, and tered area for outdoor cooking and g in the early evening. Small door e louvers in wall of house opens to e a pass-through from kitchen.





All photos: Roy Ste

The Round Table *many of whose 31 members were nominated by the associations they represent*

FOR THE NATIONAL ASSOCIATION OF HOMEBUILDERS

Alan Brockbank
president, NAHB

Emmanuel Spiegel
first vice president, NAHB

Richard G. Hughes
treasurer, NAHB

Thomas P. Coogan
past president, NAHB

Leonard Haeger
director of technical services, NAHB

Martin Bartling Jr.
chairman NAHB trade secrets committee

Andrew Place
president, Place & Co., South Bend, Ind.

David Slipher
technical director, Kaiser Community Homes, Inc.

FOR THE AMERICAN INSTITUTE OF ARCHITECTS

Ralph Walker
past president, AIA

Ned Cole
joint AIA-NAHB committee

Alfred Parker
joint AIA-NAHB committee

FOR THE NATIONAL ASSOCIATION OF REAL ESTATE BOARDS

Joseph W. Lund
president, NAREB

FOR THE AMERICAN BANKERS ASSOCIATION

Wendell Burns
*chairman of the mortgage committee, ABA
senior vice president, Northwestern National Bank, Minneapolis*

John Scully
*vice president in charge of mortgages and real estate, Chase National Bank,
New York, N. Y.*

FOR THE MORTGAGE BANKERS ASSOCIATION

William A. Clarke
*vice president, MBA
adviser to Federal Reserve Bank Board*

John Austin
*board of governors, MBA
president, T. J. Bettes Co., Houston, Tex.*

James Rouse
president, Moss-Rouse Co., Baltimore, Md.

Irving Wharton
vice president, J. Halperin & Co., Jamaica, N. Y.

FOR THE NATIONAL ASSOCIATION OF MUTUAL SAVINGS BANKS

Harry Held
*chairman, mortgage committee, NAMSAB
vice president, Bowery Savings Bank, New York*

Robert Morgan
vice president-treasurer, Boston Five Cents Savings Bank

FOR THE NATIONAL SAVINGS & LOAN LEAGUE

James E. Bent
president, Hartford Federal Savings & Loan Assn.

FOR THE US SAVINGS & LOAN ASSOCIATION

F. T. Backstrom
executive vice president, First Federal Savings & Loan Assn., New Haven, Conn.

FOR THE INSURANCE COMPANIES

John Jewett
vice president in charge of mortgages, Prudential Insurance Co.

FOR THE NATIONAL INSTITUTE OF REAL ESTATE APPRAISERS

George Goldstein
past president, NIREA

FOR THE NATIONAL RETAIL LUMBER DEALERS ASSOCIATION

Norman Mason
past president, NRLDA

C. A. Thompson
chairman, Lumber Dealers' Research Council

FOR THE PREFABRICATED HOME MANUFACTURERS INSTITUTE

John Taylor
*president, PHMI
president, American Homes, Inc., New York, N. Y.*

James Price
*past president PHMI
president, National Homes Corp., Lafayette, Ind.*

FOR THE PRODUCERS' COUNCIL

William Gillett
*vice president, Producers Council
vice president, Detroit Steel Products Co.*

Howard Spindler
*board of directors, Producers Council
vice president, American Radiator & Standard Sanitary Corp.*

FOR HOUSING RESEARCH

Rudard Jones
asst. director, Small Homes Council, University of Illinois

PRESIDING: P. I. Prentice, editor and publisher, HOUSE & HOME

the low income family *and* the too cheap house

For the first time ever, spokesmen and leaders of all the key groups and associations which make up the homebuilding industry have come together to propose a coherent, comprehensive, free enterprise plan to meet the need for better low cost housing

The plan can be realized partly through wiser direction of new home construction with more emphasis on quality, design, and adequate space; partly through better use of existing housing.

Sponsors of this plan represented the homebuilders, the architects, the prefabricators, the realtors, the bankers, the mortgage bankers, the two savings and loan groups, the mutual savings bankers, the building material producers, the lumber dealers, and the appraisers. (*See opposite page.*) The plan was developed and formulated at a Round Table Conference called by HOUSE & HOME.

The program touches on every aspect of the low-cost housing problem, from the need of integrated research to the difficulties of good architectural design, from dimensional standardization to who should pay for slum rehabilitation, from the way rent control is spreading blight to the conflicting codes which present the worst obstacle to good low-cost houses.

Specific new ways and policies are suggested by which architects, manufacturers, homebuilders, prefabricators, mortgage lenders, and especially FHA could help to meet the problem.

The program is too closely integrated to summarize, but its most important sentences are these:

- ▶ *“This country’s need for better housing is far too great to meet through new construction alone . . .*
- ▶ *“We can provide good low-cost housing in most communities a lot more quickly and a lot more economically by modernizing old dwelling units . . .*
- ▶ *“If the government would accept the basic fact that most Americans, rich and poor alike, must continue to live in houses now extant . . . then the homebuilding industry could be free to concentrate on the job it can do best—the creation of **better** new houses and **better** values instead of smaller houses and cheaper prices.”*

The program unanimously approved by all the industry spokesmen and association representatives at the Round Table follows in full:

Round Table report:

Need of a new program

The purpose of all housing policy should be to raise the American standard of housing to keep pace with the continuing rise in the American standard of living.

*This purpose can be achieved only if the new housing we build is better than the old. It can be achieved only if old housing is simultaneously brought up to higher standards. What we do to improve old housing can be at least as important as what we do to improve new housing for this simple reason: there is so much **more** old housing.*

Homebuilding is our business, and we recognize that that makes it our business to help every American family have a sound home with adequate rooms, adequate light and air, adequate sanitation. Every element in the homebuilding industry must share this responsibility in greater or less degree—architect, builder, manufacturer, supplier, realtor and mortgage banker. But—

We do not believe the construction of cheap new houses is the best (or even always a good) answer to the need of better housing for low-income families

We can provide good low-cost housing in most communities a lot more quickly and a lot more economically by repairing and modernizing old dwelling units than by building new ones.

Before the problem of the low-income family and the too small house is solved we believe our present housing policies and programs will have to be reviewed, reconsidered, and co-ordinated. Where are they failing to meet the most pressing needs for better homes? Where are they failing to encourage the right kind of new construction? Are they sometimes encouraging the wrong kind of new construction?

We believe such a study would quickly reveal three basic and interrelated weaknesses:

1. Our present programs are blind to the potential and blind to the problems of our 48 million existing dwellings.
2. Because of that blindness many present programs seek to meet, through new construction, needs which could better be met by better use of old construction. As a result, our industry faces constant pressure to build cheap houses—houses so cheap there are few places where they can be built under the present wasteful codes without compromising quality or making them too small—houses nearly a third cheaper than the government itself is willing to build for public housing.
3. Conversely, our industry gets too little encouragement to meet more than minimum property requirements, too little encouragement to raise its standards of design, quality and space. It would be wiser if government and every element of our industry would work together to put more emphasis on long-range value, design and livability and less on price alone.

Use of existing housing

This country's need of better housing is too great to meet through new construction alone

In any given year less than 3% of the people can get new homes. At the present rate of homebuilding it will take nearly 50 years for the cumulative total of new houses to equal today's total of existing homes. More than half of all Americans now living are likely to live out their lives in houses already built. And even if we were to demolish and replace old houses at the rate of 500,000 a year (ten times as fast as the record rate), it would take three generations to complete the cycle.

Perhaps 6 million of today's homes are substandard, perhaps 2,500,000 unfit for decent habitation. There is still no adequate plan to meet so great a need through co-operation with private industry. There is still no adequate plan to meet it through subsidies for public housing. Even the 810,000 units contemplated when Congress voted the Taft-Ellender-Wagner Act and its \$13 billion federal subsidy would replace only 13% of today's substandard dwellings and so would barely touch the need. Today's 35,000-unit-a-year program would replace less than 4%.

The reason all present plans are inadequate is their failure to recognize the importance of maintaining, improving or rehabilitating the 48 million existing dwellings

The public housing act of 1949 allocates \$1 billion of federal funds to tear down old buildings, but not one penny to improve them. FHA Title I insures small amounts to improve small dwellings, but this is short-term credit at twice the interest rate allowed by FHA on new homes. FHA makes no attractive provision for insuring more than \$10,000 for the modernization of multifamily buildings.* With these not-too-helpful exceptions all present federal programs are concerned only with new construction, which in various ways they seek to subsidize, encourage or control.**

Of course there are many old buildings that are past repair and the sooner they are torn down the better. There are also slums that were never anything but shacks and shanties, and the sooner they are wiped out the better. But in many cities thousands of old dwellings are just as well built as the units erected to replace them are likely to be and far less cramped for space.

No nation is rich enough to neglect well-built housing and then tear it down to make way for new dwellings of perhaps inferior size and construction. The best time to fight blight and decay is before a neighborhood is allowed to become a slum.

To arrest the decay and speed the improvement of existing housing we offer three recommendations:

1. In a free economy the cost of maintaining or rehabilitating existing dwellings should be borne by the owners

We are not likely to eliminate slums until we take the profit out of slum ownership. The cities which are cleaning up their slums fastest are cities like Pasadena, Charlotte, N. C. and Baltimore where landlords are being compelled to put their property in livable condition at their own expense rather than at the tenants' or taxpayers' expense.

In a democratic country there is no excuse for anyone being allowed to make a profit from human misery. There is no reason why a landlord should be allowed to make a profit renting substandard homes that are not fit to live in. There is no reason why the taxpayers should be saddled with the cost of slum rehabilitation to protect the slum landlords' profits.

2. Rent control should be stopped at once, except perhaps in the most critical new defense areas

Rent control creates blight faster than any subsidy can cure. The hard fact is that when the government puts the squeeze on rents the first thing the landlord cuts is not his profit, but his maintenance. Because of rent control, rental housing has deteriorating badly for the past ten years.

3. FHA should give property owners more help in financing improvement and rehabilitation costs

Today FHA does not encourage liberal financing for the repair of improved old houses or the modernization of old apartments as it does for new dwellings. FHA will not even permit its lenders to finance improvements through additional advances under the package mortgage!

* Exception that proves the rule: The Quakers in Philadelphia did get an FHA loan for about \$800,000 to help merchandise a whole city block, but it took 30 months to complete and still left them \$150,000 short of what they needed—even when they got a volume of business more than twice as large as the sum they paid for the block under Title I!

** Most of today's housing policies were conceived during the depression when it seemed more important to make work by stimulating new construction than to improve conditions in existing homes.

Rehabilitating simple family homes

Buy a used \$5,000 house under present FHA financing requires a down payment nearly three times as big as a new \$7,000 house. We believe that if the same favorable FHA financing were made available on old houses selling for less than \$7,000, many homebuilders would be willing to accept old houses in place of better new homes and would recondition them for resale just as automobile distributors recondition old cars. In this way the sale of every good new house could result directly in the modernization of an old house for a lower-income family.

FHA should allow a higher interest rate on such small mortgages. Otherwise it will be hard to find lenders, for the cost of financing two \$5,000 mortgages is apt to be more than double the cost of servicing a single \$10,000 loan. The needed differential would be between $\frac{1}{8}$ and $\frac{1}{4}$ %, or between 12¢ and 25¢ more a year to get a \$5,000 loan.

Rehabilitating multifamily homes

To modernize or rehabilitate existing apartments, FHA now offers nothing better than short-term credit at 9.6% interest to a landlord who seeks a high-percentage loan. We believe the results would be kaleidoscopic if FHA could work out a sound program for extending to old apartments, modernized to meet today's standards, the same kind of liberal financing it would offer for new apartments if it wished to stimulate new apartment construction.

We realize that this proposal sounds much easier than it really is and many safeguards would be needed. We realize it is unwise to modernize individual buildings in a blighted neighborhood



Leonard Haeger and David Slipper

except as part of an orderly program to rehabilitate the neighborhood too. We realize it is harder to appraise the value of improvements than the worth of new construction. We realize there are many cases where blight can be cured only by whole-block demolition, many cases where modernization would be sending good money after bad. We realize that many decaying residential neighborhoods should be redeveloped for business rather than home use. We realize that rehabilitation can seldom be financed on the same strictly business basis as new construction, and more government help (rather than the present less help) may be needed.

Nevertheless, we believe everyone should recognize the hardship that under present policy the difficulty of obtaining adequate financing will be one of the two or three principal reasons why landlords do not take the necessary steps to rehabilitate blighted properties.

Pressure for cheap housing

Homebuilding is now entering a stage when competition will be far keener, for the pent-up demand of the war years has been largely met; net new family formation is falling off to around 550,000 a year, and the only way the home building industry can keep on selling 1 million or more new homes a year is to tap a new replacement market and a new lower-income market. Self-interest will force homebuilders to offer better and better values, and free market forces can be relied on to squeeze the water out of homebuilding costs, profits and prices.

This means there will be all the less reason for government to exert such strong pressures to drive homebuilding prices down and make homebuilders provide new housing for less than the arbitrarily selected price of \$7,000.

These pressures have taken many forms, ranging all the way from the favor shown minimum houses in the allocation of materials to the threat of public housing competition and the constant criticism in Congress and out because homebuilding cannot offer good new housing to low-income families. (The automotive industry has met no such attack, though it stopped making cheap cars in 1926 when the price of a new Ford was \$290.)

But the principal instrument of pressure has been FHA and the mortgage pattern for federally insured loans.

Even after Reg. X came off, the down payment for each added thousand dollars between \$7,000 and \$11,000 is six times as big as the down payment for every thousand under \$7,000. That means the down payment on an \$8,000 house is almost twice the down payment on a \$7,000 house! The down payment on a \$10,000 house will be nearly four times as big; on an \$11,000 house, five times as big. (Under Reg. X this past summer the discrimination in favor of the under \$7,000 house has been even more marked.)

For at least five reasons we believe this pressure to force new house prices down under \$7,000 is a mistake

1. The value of the dollar has changed substantially since \$7,000 was picked as the price below which FHA was to give special encouragement to homebuilding. At the end of World War II it was still possible to offer a good house for \$6,000, which FHA would insure with \$600 down. Today that same house costs nearer \$10,000, and even after Reg. X came off the down payment is \$1,250.

2. Too many two-bedroom houses have been built since the war, and too few three-bedroom houses. To redress this imbalance we now need a larger than normal percentage of new three-bedroom houses. Pressure to get the price down under \$7,000 is pressure to build more two-bedroom houses.

3. There comes a point—usually somewhere above \$7,000—where any builder finds he has to take value out of his house faster than he can take dollars out of his price. This is partly because street improvements for a \$7,000 small house on a 60' lot are likely to run two thirds as high as for a \$30,000 house on a 100' lot. It is partly because a minimum house requires the same water, sewer and wiring connections as a big house. It is partly because kitchen and bath—the two most expensive rooms in the house—take a larger and larger share of the construction dollar as the house gets smaller. It is partly because small rooms just plain cost more per square foot than moderate-size rooms.

4. The point at which builders must start taking value out of a house faster than they can take dollars out of the price varies from city to city and state to state. Phoenix is one of the few places where \$7,000 will still buy a good three-bedroom house with either a garage or an extra half bath. But even in Phoenix a much better value could be offered for a few dollars more.

These geographic cost differences raise one more serious question as to the wisdom of the present pressure on builders all over the country to meet the same low-price goals.

5. We view with alarm the increasing use of FHA to exert pressure on behalf of some favored group or class.

Over the past 15 years most of us believe FHA has proved itself the best thing that ever happened to the home-buying public and the homebuilding industry. In fact, it might almost be said that the homebuilding industry as we know it today—the homebuilding industry which has erected 7 million homes since the war and has contributed so much to national prosperity—was made possible only by the volume financing which FHA developed. We consider FHA an outstanding example—perhaps the outstanding example—of sound collaboration between government and business, creating great benefits for the public at little cost.

Because we recognize this paramount importance of FHA as the foundation of our industry we deplore any attempt to change the concept of FHA from an economically sound insurance agency to a pressure instrument for the welfare state.

For all these reasons we urge and recommend that government policy should rely more heavily on reconditioned old dwellings to meet the housing needs of low-income groups and should ease the FHA pressure for more new construction under \$7,000

Some of us feel there should be no discrimination whatsoever in the FHA pattern, that if 95% loans are proper on the cheapest homes they should not be forbidden on expensive homes. All of us are agreed that the ceiling for 95% loans should be raised to at least \$8,000, preferably higher. All of us are agreed that above this breaking point the increase in required down payments should be more gradual, and that 90% loans should be permitted on \$12,000 homes.

But some of us feel that where the down payment is small, amortization should be speeded up during the early years. Otherwise there might be many times when, without inflation, the house would not be worth the mortgage for amortization at the start would have been too small to keep up with depreciation.

If the pressure for cheaper prices is relaxed, the first and most important way to make the small house better would be to make it bigger

It would also be the cheapest way to add value, for most builders could add another 100 sq. ft. to an 800 sq. ft. \$8,000 house for less than \$400.

Houses today are very much smaller than 20 years ago (but not quite so small as they were right after the war).

There are several reasons for this shrinking size. The trend was started by the depression. It has been pushed further by every cost increase for materials and labor, for builders have tried to offset bigger costs through smaller areas. It has been hastened by popular demand for many advantages not found in the 1929 house, like insulation and labor-saving equipment in kitchen and laundry. Every time such a new feature has been

added the builder has been tempted to find the money for it by reducing the area of his house.

Some of this loss in size has been offset by better planning and more open planning. Some has suited the requirements of the working wife and the servantless age, in which women often frankly they "do not want to be bothered keeping up a large house." But after all allowances we feel that the process of squeezing the house smaller and smaller has gone too far. Housework in a too small house is at least as heavy as in a house with more adequate rooms—especially if the too small house has inadequate storage space or bunk beds to make. Especially since the coming of television, a house lived in by two generations needs at least two separate areas large enough to sit in or play in. Studies in Sweden show that the more crowded together a family has to live, the greater the chance of divorce.

Goal of better houses

Every time a good new house is sold, as many as 13 families down the economic scale play musical chairs and move to a nicer home. Every new house built and sold, regardless of price helps ease the housing market, makes old houses just that much easier and cheaper to buy. And so in most communities every good new \$12,000 house means a low-income family can move to a better home too.

If the government would accept the basic fact that most Americans, rich and poor alike, must continue to live in houses that are extant, and if the government would accept the further fact that the need of better housing for 10 million low-income families could be met cheaper and faster by modernizing existing dwellings, then the homebuilding industry would be free to concentrate on the job it can do best—the creation of better new houses and better values instead of smaller houses and cheaper prices.

Increasing competition will make these better houses cheaper, too. But these better values can be achieved by increased attention to:

- A. Better design for visual appeal, construction economy and more convenient use of space;
- B. More research to develop better materials and methods;
- C. Dimensional standardization and co-ordination.

But to give home buyers full measure of the better values that modern technologies make possible, the builders need co-operation from every element in the industry. They need and should receive more help from the architectural profession, more help from building-material suppliers, more help from the prefabrication industry, more help from FHA, and less opposition from local governments.

With this collaboration we believe we can develop ways not only to build very much better, but very much cheaper, too.

Local governments should help by adopting uniform codes

The biggest single obstacle to getting the price of a good house down is the multiplicity and diversity of local building codes under which they have to be erected.

The many variances between these codes are completely needless. They contribute nothing to the safety of the house or

and happiness of the family beyond what could be achieved by one of the standard codes, for all the standard codes have provisions for meeting local climatic conditions.

The cost of codes is far more than the sum of all the little costs they force upon the homebuilder. The real cost of codes is not their myriad variations always discourage and often forbid the progress of standardization and the development of mass-produced standard parts that could knock the bottom out of any homebuilding costs.

What would a small car cost today if the automakers were allowed to mass-produce one single nationwide model but were forced instead to turn out one model for New York, one model for Yonkers and a third for Skaneateles?

As long as every city, village and town goes on dreaming up and administering its own special requirements forbidding the progress of construction that is perfectly legal in the next community, what hope is there that homebuilding can achieve all the economies mass production has brought to every other product in the American family uses?

During the war great progress has been made in developing uniform standards which most communities can adopt and keep

offices offers too little encouragement to better design, too little encouragement to standards higher than minimum property requirements, too little encouragement to the use of better quality materials.

This is partly because Congress has been penny-wise, pound-foolish in cutting FHA's operating budget to a point where FHA finds it difficult to offer salaries adequate to attract first class men to serve as chief architects and appraisers and adequate to hold the first class men now on the staff. Most of us believe FHA needs more funds to meet its responsibilities, and that Congress should restore the cuts in FHA's authorization and let FHA spend more of its income. Only a good architect can recognize better design, especially if it is new. Only a good appraiser can give credit for better standards and quality.

But the deadening influence of FHA on design and standards is also partly the result of bureaucratic conservatism. It is partly a symptom of the same pressure for lower prices, instead of better values, that is manifest in other aspects of the FHA.

It is inexcusable that many FHA and VA offices will not allow more than \$25 or at most \$50 in their appraisal to pay an architect for better design.



Brockbank and Emmanuel Spiegel



Richard G. Hughes and Thomas P. Coogan



William A. Clarke and John Austin

up with by reference. The need today is to overcome local protectionism and get these standards adopted at the local level. This is a battle in which the American Legion, the Veterans Foreign Wars and the Veterans' Administration should be getting a full share, for most of today's new houses are being built for veterans, and so veterans end up paying most of the cost. This is a battle in which the women's clubs and the women's magazines should be deeply interested, for the more waste a house wastes the less quality it can have, the less labor-saving equipment it can include, the less adequate its space must be—and all this means more work for women and less enjoyment of home life for all the family.

At the end of all, this is a battle in which every right-minded individual in the building industry and, most particularly, every right-minded trade association in the building industry, should be making a most active part.

FHA should help by making its appraisers give more credit for better quality

Recognize that FHA has already done much to raise housing standards and still seeks to do more. Nevertheless, present actual practice on approvals and appraisals in many FHA and VA

FHA should also help by encouraging the sale of houses fully equipped under the package mortgage

It is unfortunate that under present FHA thinking the moderate income family buying a home for \$10,000 or less must often choose between adequate space and adequate equipment.

Actually, a family which buys its dishwasher, home laundry, garbage disposer, range and refrigerator under a package mortgage of 4 $\frac{3}{4}$ % with 20 years to pay, can meet the monthly payment on a bigger house than if it is saddled with the short-term financing cost of the same equipment at 9% interest with three years to pay. Adding a thousand dollars' worth of equipment to a \$9,000 house under the package mortgage increases the monthly payment only \$6.47; adding the same thousand dollars' worth of equipment on short-term credit costs \$31.19 a month. The over extension of short-term credit has been one of the principal causes of mortgage default.

We recommend that FHA should set up a clear distinction between package and nonpackage mortgages and should modify its minimum income requirements to let buyers of fully-equipped houses assume larger mortgages than those same families could assume if they had to buy their equipment as an extra on short-term credit.

Mortgage lenders could help develop better values by insisting on higher standards and accepting more functional and progressive design

And we believe the time has come when all lenders should accept such equipment as the range, refrigerator, clothes washer, dishwasher, garbage disposer, and perhaps even wall-to-wall carpeting as a basic part of the house, just as they now accept such former extras as the furnace and the bath provided, of course. Such inclusions are permitted by local law.

Manufacturers of building materials and equipment could make a great contribution to better housing if they would do more thinking in terms of the builders' problems

It would be particularly helpful if the equipment makers would decide that a million new houses a year offer a big enough market to justify models designed to meet its needs, instead of asking homebuilders to make the best of equipment designed for consumer sales in the old house market. For example, it would be very helpful if the room-cooler makers would bring

provision for exhausting the heat and moisture outside (house). Another need is a refrigerator whose door could be set against the corner wall without leaving a 4" dirt trap between refrigerator and wall (as in all present models).

Now that AIA and NAHB have agreed to recommend certain standard dimensions for all volume-built houses (like the 8' ceiling height and the standard spacing of toilet fixtures for a standard 5' x 7' or 5' x 8' bath) great economies should be possible through the development of prefabricated stairs, prefabricated storage walls, prefabricated bathroom wall panels (the wall for a 5' x 7' tiled bath now cost something like \$300), and many other prefabricated parts.

If the prefabricated house manufacturers would interest themselves in these needs of the local volume builders who would be likely to buy complete prefabricated houses they could open a second market.

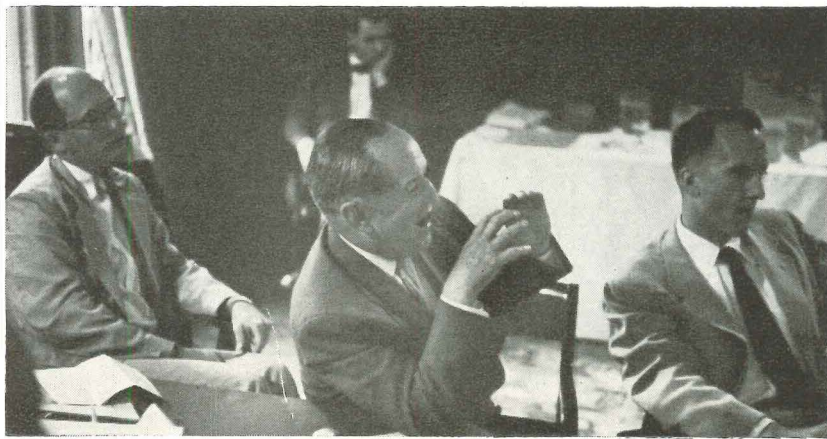
Architects could make a far bigger contribution to better housing if they have so far made to lower costs and better values

Too many builders have been penny-wise, pound-foolish in not paying for architectural service. The right architects can do more than earn fair fees by helping them get not only more attractive and salable houses, but also more economical construction, efficient use of space and better site planning. Even the most efficient methods for building an inefficient plan are still wasteful. Good design is not an added cost. On the contrary, it is at the first essential, and better design ranks with research and dimensional co-ordination as one of the three great hopes for lowering costs.

But too few architects seem willing or able to make this essential contribution to better housing. In this judgment the architects among us concur in the unanimous verdict of the builders and lenders. Not enough architects understand the builders' problems. Not enough architects understand the hard economic conditions of small houses and volume building. Not enough architects carry on the old tradition of their profession as master builders.

Some builders have been fortunate in finding architects who could more than earn their fee, helping the builder to build a better house at a lower cost. (And in some rare instances architects have even taken the initiative in starting—and training—new builders.) But too many builders have had unfortunate experiences with architects who were no help at all.

The time is past when architects could serve only the state, the church and the wealthy. The challenge is to help builders meet the housing needs of all the people and all the community is one which the architectural profession can no longer evade. When this challenge is met the architect's reward should be commensurate with the value of his service



Rudard Jones, Norman Mason and C. A. Thompson

out a unit which could be concealed between the studs under the window while a new house is being built (instead of sticking out into the room in a house already built). It would be a great help if the kitchen-equipment makers would bring out a combination range, refrigerator and dishwasher big enough to meet the needs of the builder's house and fit the 8' wall which is almost standard for builders' house kitchens. (Such units are now available, but only in kitchenette sizes for very small apartments.) Such a combination unit would reduce housework by eliminating the hard-to-clean spaces between present units.

Another need is a combination clothes washer and dryer to save space in a small kitchen or bath (preferably with some

Some of the things they said

on questions concerning the low-income family and the too cheap house—
excerpts from the transcript of the round-table proceedings

How has FHA forced builders to produce smaller, lower quality houses?

How should government policy be amended?

ce: I invite you to consider the problem of low-cost housing and the too small house. It is a complicated problem which cannot be discussed just in terms of a house. It must be discussed against the social background. We will not get substantially cheaper houses just by saying we will build \$6,000 houses. It will involve a good deal of work on design front and a good deal of research and dimensional co-ordination throughout the house. It will require that manufacturers think more in terms of the builders' needs and realize that builders' houses are an important market—not just a place to store more products designed primarily for use in existing houses.

We do not build low-cost houses now, and you may invite criticism for not doing anything about the needs of the great mass of people.

That explains why I ask you not only to consider the questions "How can you make houses better?" and "are we building houses that are small and too cheaply?" but also to give a little thought to the basic social problem of low-cost housing.

an: I think that government through its policy has steadily pushed for what they call a cheaper house. They also pushed for poorer quality simultaneously, by talking about area and by talking area. Clearly the government ought not to be talking entirely in terms of minimum quality and minimum size.

el: I don't agree. I don't know of any building jobs through this country where any other is going down to those FHA minimum requirements.

an: In my shop every day I am offered all kinds of loans: conventional, FHA and VA. There isn't any question in my mind that the FHA loans offered us today are poorer, for dollar, than the GI loans, primarily because there is no limit on the GI. Is there any question among the builders as to the point?

an: I think that is disputable.

an: The builders are giving us a well-built quality house but because of pressures it may not be the most desirable house. There is a distinction.

Morgan: I am not saying the building industry is not trying to give quality. I am 100% for the building industry. Builders try to give as much as they can. What I am saying is that the government itself is forcing this issue. Our criticism is not against the builders, it is against the regulations under which they have to operate.

Bartling: It is generally true everywhere I go that the FHA and the VA, through the adoption of the minimum property requirements and minimum construction standards, are doing nothing but perpetuating and encouraging mediocrity in construction and design and every time you attempt to get past that strait jacket, you run into trouble due to these limitations or the way they interpret them.

I think the building industry is making a very conscientious effort to up the quality, to up the square footage, and to offer a better product.

Parker: We all want to see houses with greater living space, and we should be talking about ways to achieve that without substantially increasing the cost. Also, adequate evaluation of design and construction by the lending agency is extremely important.

Cole: We have worked now with several FHA and VA districts, and we always get our local approval. We approached them reasonably and we bargained reasonably. I feel that those people are an underpaid group. In general, the ones I have run into have fairly good judgment if you will give them a chance to exercise it.

I would like to put in a word of defense of the chief architects and evaluators of FHA and VA who have treated me pretty well.

Spiegel: I think they are always trying to raise standards and quality.

Prentice: But, it is inexcusable that FHA will not allow more than \$25 or at the most \$50 to pay an architect for better design.

Parker: Quite right.

Place: There are some architects who do not earn a \$35 fee. I will not stick up for them.

Prentice: However, a ceiling of \$50 for design is on the rigorous side.

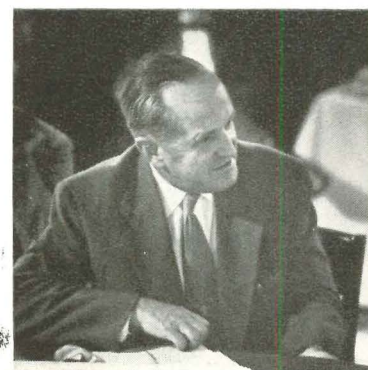


Morgan: Houses under 720 sq. ft. in our territory are treated by owners as though they were tenants. We have had a large turnover.



Coogan: Because we overbuilt two-bedroom houses we have to catch up on three-bedroom houses.

Haeger: The average Title II house in 1951 was 380 sq. ft.



Mason: Builders are offering a quality house but not necessarily a desirable house. There is a distinction.

What new financing tools are needed to help rehabilitate old houses?

And, how can they be used to help clear the nation's slums?



Hughes: House sales are not dependent upon the price but on the down payment.



Bartling: FHA and VA, through their minimum property requirements and minimum construction standards, are doing nothing but perpetuate and encourage mediocrity in construction and design.



Cole: I would like to put in a word of defense of the chief architects and evaluators of FHA and VA. They have treated me pretty well.

Prentice: Are we agreed that what we do to improve old housing is at least as important as what we do to improve new housing and the government should accept the basic fact that most Americans, rich and poor alike, must continue to live in houses now extant? I believe the need of 10 million low-income families can be met cheaper and faster by modernizing existing buildings.

Morgan: That is a No. 1 item.

Hughes: Today we may have to agree that we cannot house every American in a new house.

Rouse: You ought to say modernizing buildings and neighborhoods. A major part of the slum problem is lack of playgrounds, too many houses and shacks. It is a neighborhood problem.

Coogan: One of the problems we have to face is that communities are deteriorating faster than the houses.

Prentice: Can we agree that today the government is doing little or nothing to encourage the improvement of old houses and can we agree that if the same favorable FHA financing were made available on old houses selling for less than \$7,000, many home-builders would be willing to accept old houses in trade on better new homes and would recondition them for resale just as automobile distributors recondition old cars? In this way the sale of every good new house in the \$10,000 class would result directly in the modernization of an old house for a low-income family.

Similarly, can we agree that if FHA would offer to old apartments, modernized to meet today's FHA standards, the same strong financing it offers new apartments, the result would be kaleidoscopic?

Morgan: The only state where they did that was in North Carolina where there was a big improvement in the housing. Over 50 mill villages in North Carolina were modernized under FHA on that program.

Coogan: You can always get a loan on existing property. But nobody will tell you they will give you a loan for modernization, because it is one of the most uncertain things to predetermine the cost of putting a house in condition.

Brockbank: One of the chief reasons why the government thinks only in terms of housing people in the low-income groups in brand new housing is that there is no plan for used housing for which the people can afford the down payment and the monthly payment.

One of the chief reasons why the government does not want to insure the mortgage on a used house is because the used house does not meet the regulations and standards of the FHA. As pointed out in an editorial in the July issue of *HOUSE & HOME*, poor people buy used cars, not new. They buy the used car with the same payment and amortization schedule as they buy a new car.

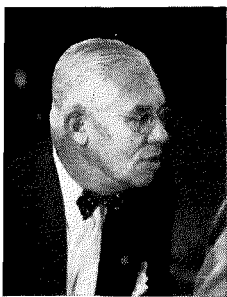
The problem here is how we are to counteract the government's idea of a new house wanting to put poor people into a new house.

Morgan: I will go one step further. Should it not be new housing for the mechanic, the boy who has made good more than for the fellow who has not been able to make good so far? If that is the proper theory, then we would not be acting on the minimum house level. The old house ought to be fixed over for the folks who cannot afford a new house.

Rouse: I agree with everything Mr. Morgan's bank has said. But I have been on the rehabilitation problem for the past five years now and I have seen what the problems really are. One thing scares me tremendously and that is any idea that tends to overplify the difficulties of rehabilitating neighborhoods. It is the toughest kind of thing. No simple financing plan by the government will have a significant effect on it. I do not see too much optimism on such a problem because the problem goes so deep into the problem of the neighborhood and clearing up the neighborhood that modernization of individual units is not enough. It involves the necessity for vigorous law enforcement through the whole area, and then you are only getting started. It involves bringing in better parks and playgrounds. We believe that we may have to find a way to use the force of condemnation to clear out the bad housing.

The greatest gap in peoples' thinking on housing is that they want to solve the problem through new housing. It is an utterly false notion.

Goldstein: You are at odds with economic reality. People refuse to realize that old houses are lost value. If the government started to finance that type of work, trying to reverse obsolescence, it would find itself out on a limb. There is not a question in the mind that it would take a top architect, or a body with more than speculative ability to go in and create value in an old house. An attempt to finance that type of work with an 80 or 90% figure would be one thing, but when you start to tear down walls, it would leave you so far out on a limb that the old house in America would be government or insurance-company owned. You just



Prentice: It is poor economics to take a Model T chassis and try to rebuild it.



Brockbank: The problem is we are going to counter the government's idea of wanting to put poor people into new houses.



Walker: The greatest gap in our thinking on housing is that they want to solve the problem through new housing.

not get the same type of financing on an old house and lose sight of the obsolescence in that particular house. I refer to the size of the rooms, location, etc.

Prentice: But the presumption here is that with the old house you are starting off with a depreciated value.

Can we agree that we can provide low-cost housing a lot more economically by modernizing old dwelling units than by building new ones?

There are many old buildings that are past repair, and the sooner they are torn down the better. But in many cities, thousands of slum houses are just as well built as the new public housing units that are to replace them.

Goldstein: Except that I think it is poor economics to take a Model-T chassis and try to rebuild inside of it. I think there are certain houses on which you can spend some \$5,000 to \$7,000 and not even enhance the value by that much. To expect somebody to come along and finance the present value plus \$5,000 to \$7,000 on an 80 or 90% basis is just bad economics. The value is not there.

Morgan: When we talk about new houses, we talk about something everyone understands. But an old house may be anything from one year to 300 years old.

Coogan: Is it not a problem to catch houses at the stage of deterioration before they become a slum? I think once you have created a slum, you have created so many extra factors that go along with slum conditions that it makes the problem almost impossible. I have gone through many cities and seen substantial, well-built houses just beginning to go over the hump. You know that in another ten years that is going to be a slum area.

Rouse: It will be difficult, but I do not mean it is impossible. It is not impossible. I think it is absolutely mandatory if we are going to have anything other than public housing dominating every city in America. Because I think you can go into rock-bottom slums and, by spending \$4,000 to \$5,000 a unit, come up with housing that rents for \$40 to \$50 a month. I disagree absolutely that you do not create \$4,000 to \$5,000 in value. I think you create value in the dollars you spend to at least as great a degree as in new housing. I think the Quakers in Philadelphia did something in that connection.

I went to Philadelphia to see what the Quakers were doing because that is the only city in the country which has stepped in and is really doing what ought to be done. The city is acquiring slum houses through

condemnation, through redevelopment, and then conveying those slum shells for land value for the purpose of being rehabilitated. This makes it possible to go in and rehabilitate; to really tear the guts out and remodel. You cannot do that in many Southern cities where you have a frame structure. But in other cities you can go in and do a real job with \$4,000 to \$5,000 a unit under any kind of a well-developed plan that also involves the redevelopment of the neighborhoods.

Coogan: I think this is being oversimplified, and I disagree with you. A great many city areas where you could reuse the slums are no longer suitable places to live. The land should be converted to another use. We are making a mistake in trying to rebuild houses in some of the areas where the land should go into commercial, industrial or some other use. This idea that housing should continually be replaced with housing is a mistake.

Walker: But that must be considered in relation to other things. There may be industries in the area and there is no reason why housing could not possibly be related to them in a good way. I do not think necessarily that everything has to be decentralized out of a city. We have got to think of the fact that some things have to remain in the city. I am for decentralizing work out of the city. But I do not think you can keep doing that without serious consequences. In other words, the federal government would then be forced to step in because the economics of your cities will be so bad.

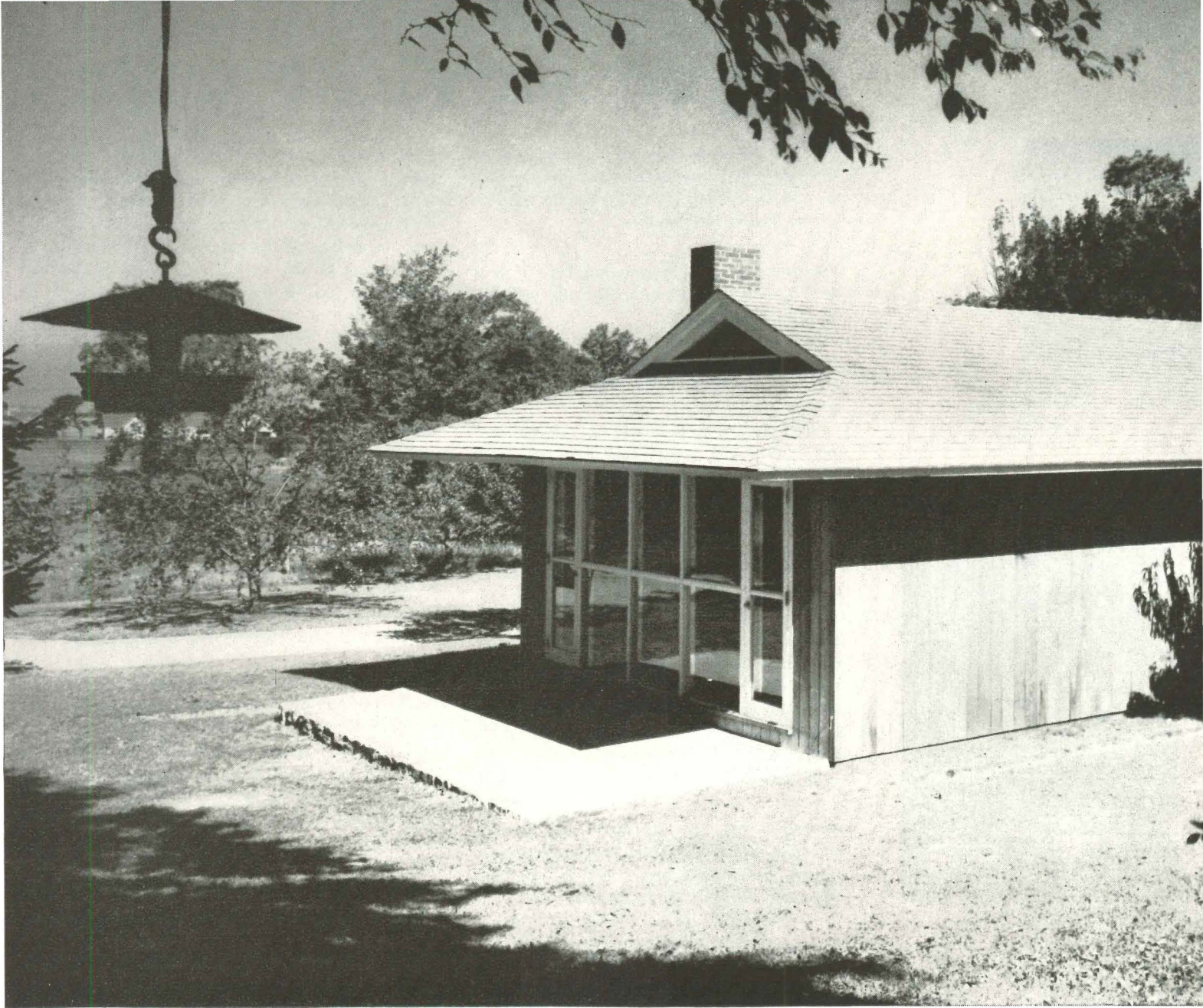
Prentice: Our magazine has gone on record many times that the FHA type of insured financing is the best thing that ever happened to the homebuilding industry, and to the home-buying public. But so far, the benefits of that new financing have been limited entirely to new construction. The government has given no encouragement to slum rehabilitation by private enterprise, except under Title I, which aids in buying land and reselling it for development. Beyond Title I, the government's only answer to rehabilitation has been public housing rather than an attempt to encourage private enterprise.

Mason: I think you are right. Up in New England we have been converting some old houses into a group of apartments, providing good new facilities at a reasonable price for a lot of people. I think it can be done in a lot of places.

Brockbank: Here is something I got from Herbert Hoover:

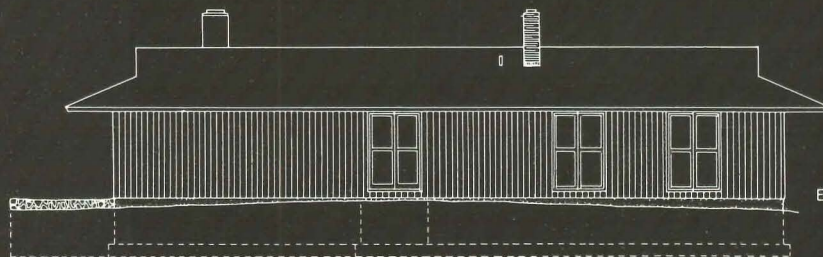
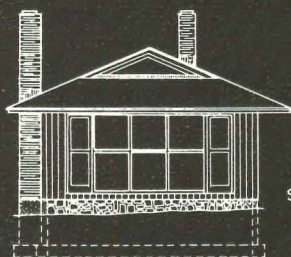
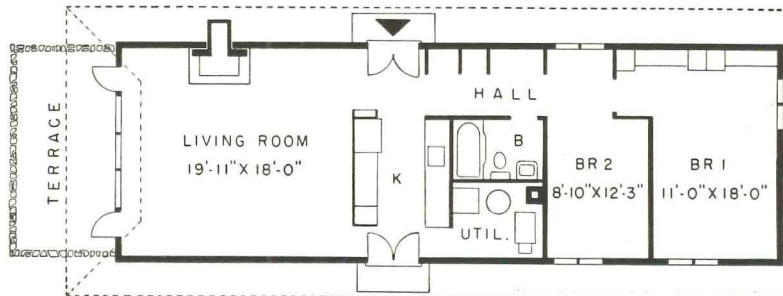
"I may add an observation on slum clearance. There is scarcely a city where, if the

(Continued on page 142)



Photos: Fred Stone

LOCATION: Hingham, Mass.
 ROBERT WOODS KENNEDY, architect
 RICHARD S. BROWN, contractor



1,000 sq. ft. house

six suggestions for giving space and stature to the small house

This small New England house has three virtues dear to the Yankee heart: restraint, thrift and ingenuity—qualities by which any small house can profit. They show most clearly in the calm, forthright appearance of the house, and in useful innovations such as a roof that exploits its sheathing structurally to gain a broad, unbroken ceiling.

A matter of stature. Dignity is the last quality that can be claimed for today's average small house; yet this house proves that it is entirely attainable and at today's average sq. ft. cost for custom-built houses (around \$15). The plan and elevations below show how architect Robert Kennedy organized the usual elements into a quiet, orderly pattern. In its effect, the house is similar to certain small people whose personal identity is so strong you never notice their small size. This is a far cry from the crazy-quilt assembly method which is the indignity of most American suburbs. (See *The Banana Split*, H&H, April and July, '52.) Here is how Kennedy has used the broadening effect of the horizontal line to gain stature for this small house:

- ▶ the plan is long in relation to its width and has no jogs,
- ▶ the wide-eaved roof swoops as one line from end to end,
- ▶ the crisp shadow line of the siding elongates the walls,
- ▶ the doors and windows line up, top, bottom and through the middle,
- ▶ finishing materials do not shift gears midway through a facade.

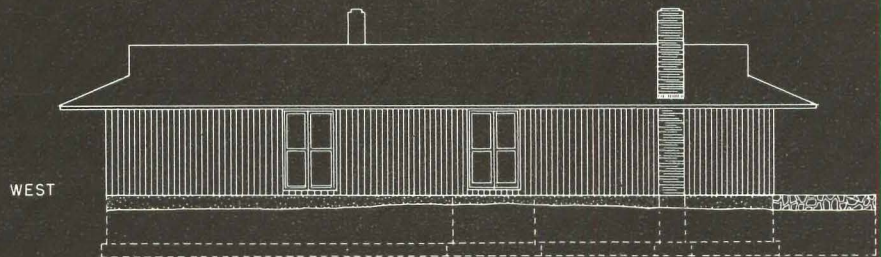
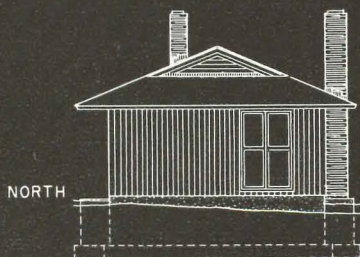
A lesson in space. One trouble with a lot of small houses is that they use space as though it had only two flat dimensions. Architect Kennedy makes a strong case for vertical, diagonal and imaginary dimensions as well. Some of the space stretchers in this house:

▶ *The long vista.* From the moment you enter, the house seems spacious because your eyes are busy with long views. As you turn toward the living room you are at one end of a 31' diagonal, which extends from the front door to the far corner of the living room and on out into the landscape. If you walk over to the fireplace and look back,



Photos: Fred Stone

...e-size doors and windows, used in pairs, give the
...e an unusually orderly, unified appearance. Windows
...all, double-hung stock sash; doors were made to match.
...IA approval had been sought, the interior bathroom,
...h makes this arrangement possible, would need a vent
...gh the roof.



you can see 55' of space going down the length of the house. Each of the bedrooms also has its vista utilizing the 18' width of the house and ending in a window.

▶ *The space overhead.* In the living end of the house, space rises up to the roof ridge 11'-2" off the floor. Since this airy overhead volume continues above the kitchen, 8' more are added to the apparent length of the living-dining area and the kitchen itself seems larger than its 8' x 9'. For emphatic contrast—rare in a house so small—the ceiling over the bedrooms drops to an intimate 7'-8" level.

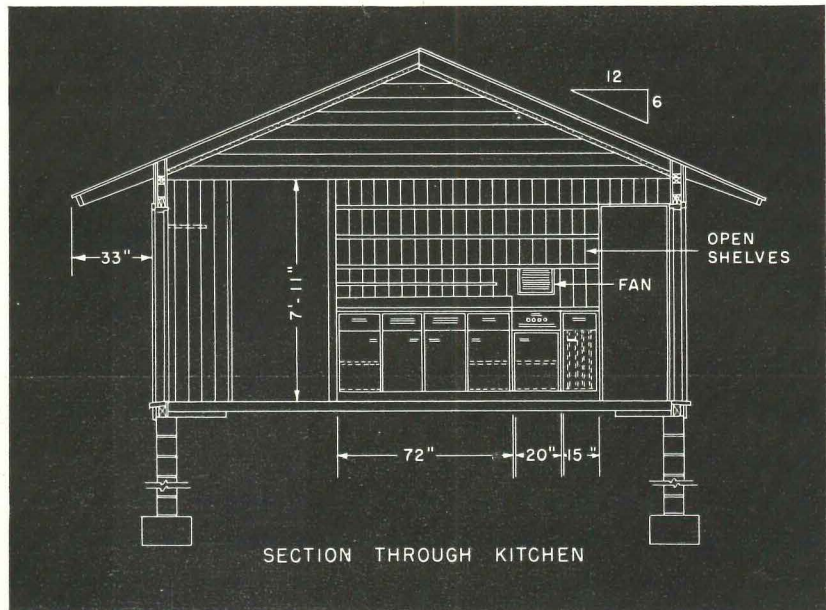
▶ *The full volume of space.* Kennedy keeps a stretch of wall—whether opaque or glass—running along smoothly until it hits a significant change of function. Thus the east and west walls of the living room are solid for 21' until they reach the island kitchen which works in the transverse direction. (Here he has inserted the front and rear doors, using them simultaneously as windows for the kitchen.) Along the way, not even the fireplace is allowed to interrupt; it is scarcely more than a hood suspended from the wall. And from the living-area side, the kitchen is just a piece of furniture at the end of the room.

Promising roof construction. Since the high-rising living-room ceiling was primarily intended as a palliative for space cramp, Kennedy wanted to keep it clear of obstructions. As constructed, it runs 28' along the ridge, spans 18' in the direction of the rafters and has no tie beams or rods except at the two ends. Kennedy pulled off this extraordinary feat simply by putting to work the structural potential of the diagonal sheathing on this part of the roof. The sheathing was applied diagonally in four panels with joints along the ridge and at midspan. To check his hunch that this would carry the thrust to the four corners (where there are tie beams), Kennedy borrowed gauges from MIT and 100-odd concrete blocks from a local mason. When he loaded up the roof to its maximum snow and wind stress—checking the gauges for deflection and distortion all the while—the roof proved to be more than amply stiff. Time and a couple of Massachusetts winters will tell the final tale, but this rudimentary type of stressed-skin construction promises to be an extremely pleasant and economical way to boost the size of a small house.



Suspended metal hood minimizes the mass of the fireplace and keeps it from overpowering the room. The island kitchen is a similar device, more like a piece of furniture than the wall of a room. Space flowing above and around it actually adds to the visual dimensions of the living area.

Far-reaching roof (below) expands the living-room volume with airy overhead space. It has no ceiling joists but uses diagonal boarding to transfer thrust to the corners, where there are tie beams. Ceiling is dropped over the bedrooms, with louvers in eaves and roof peak to provide ventilation.

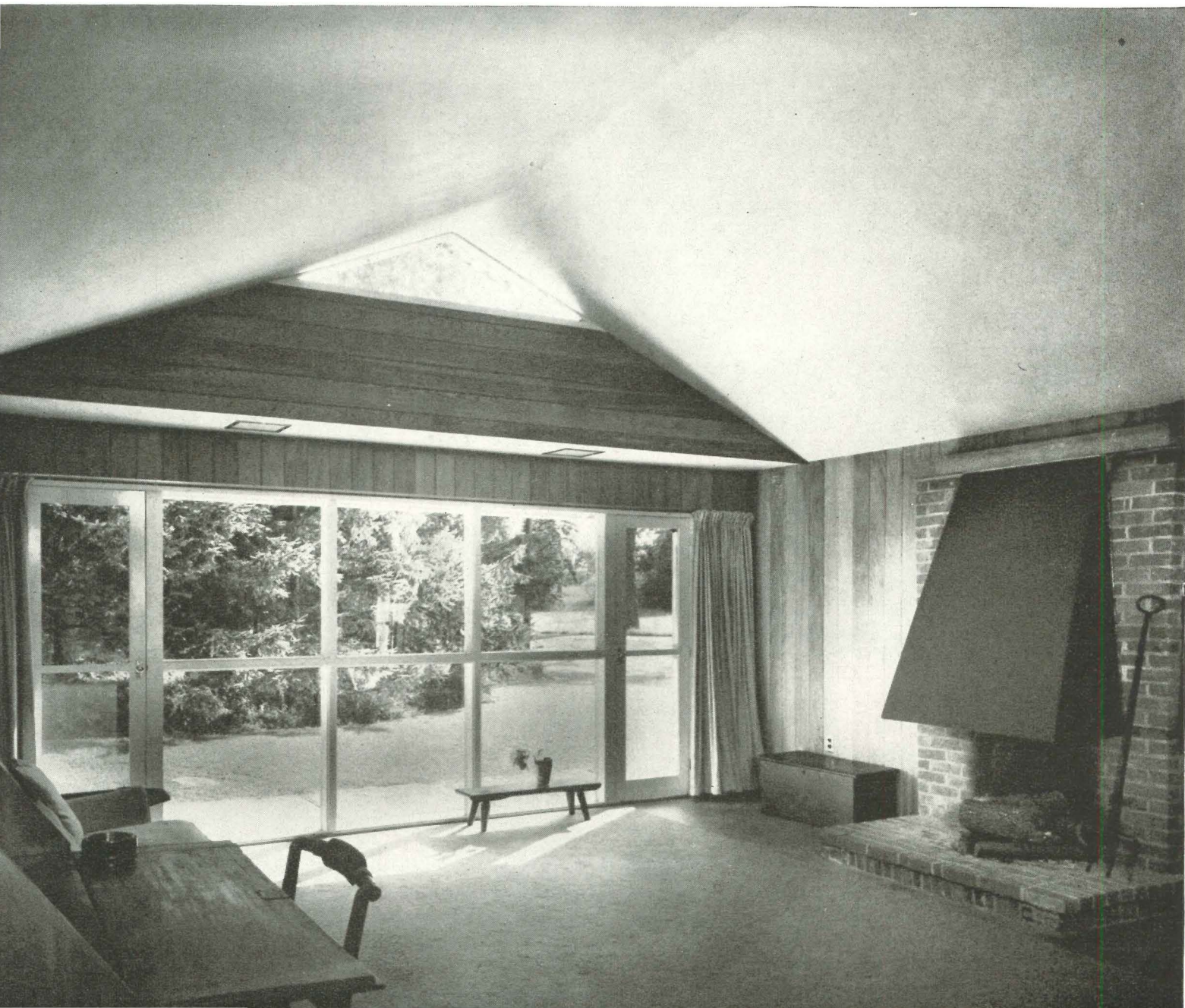


Island kitchen, at top and left is the nerve center of the house. It supervises both entrances, is half in the living room, is next to the bedroom hall and leads to the heater room. Its north wall (where the sink is) together with bath and heater rooms forms a remarkably compact utility core.

en hall near kitchen is
when living room is
by gate. This space ex-
into small bedroom, far
when sliding wall is out
The room gains through
ion from hall window
will be link to new
when it is added). Ken-
ets double use of non-
areas and merges
herever he can.



A window accent on the long axis of each room increases its apparent length. In the living area, below, a glass gable admits a shaft of sunlight to emphasize the high ceiling ridge. Yet this is an "inside house" with a definite sense of containment; it overlooks its one acre with some detachment.



Platform house is lifted on stilts

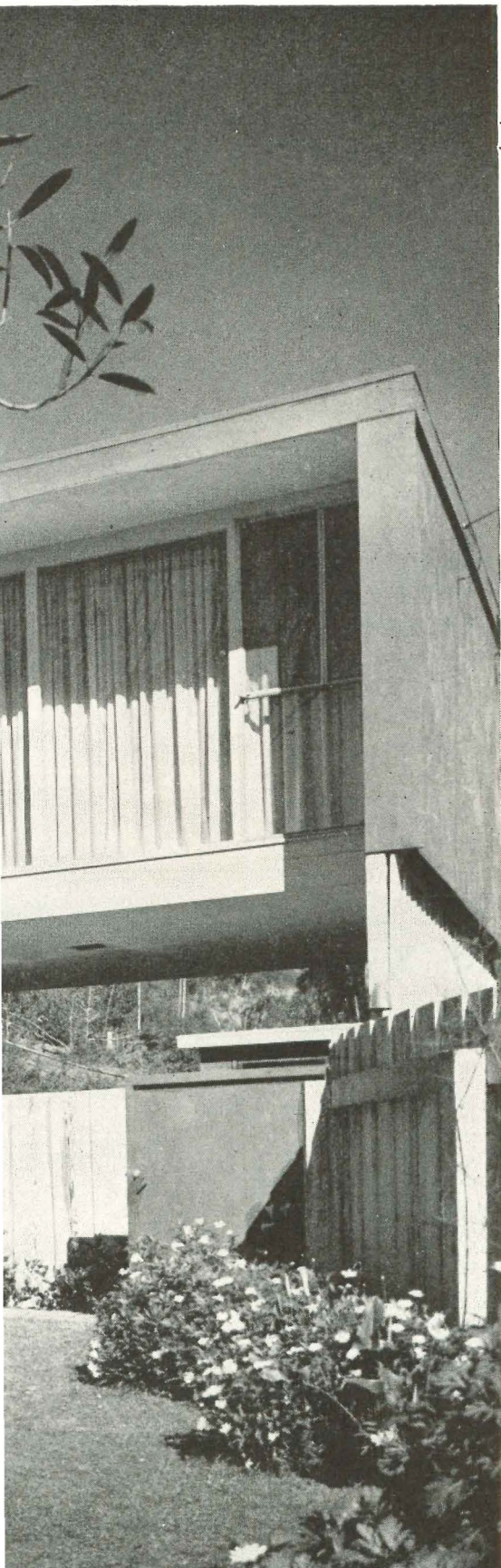
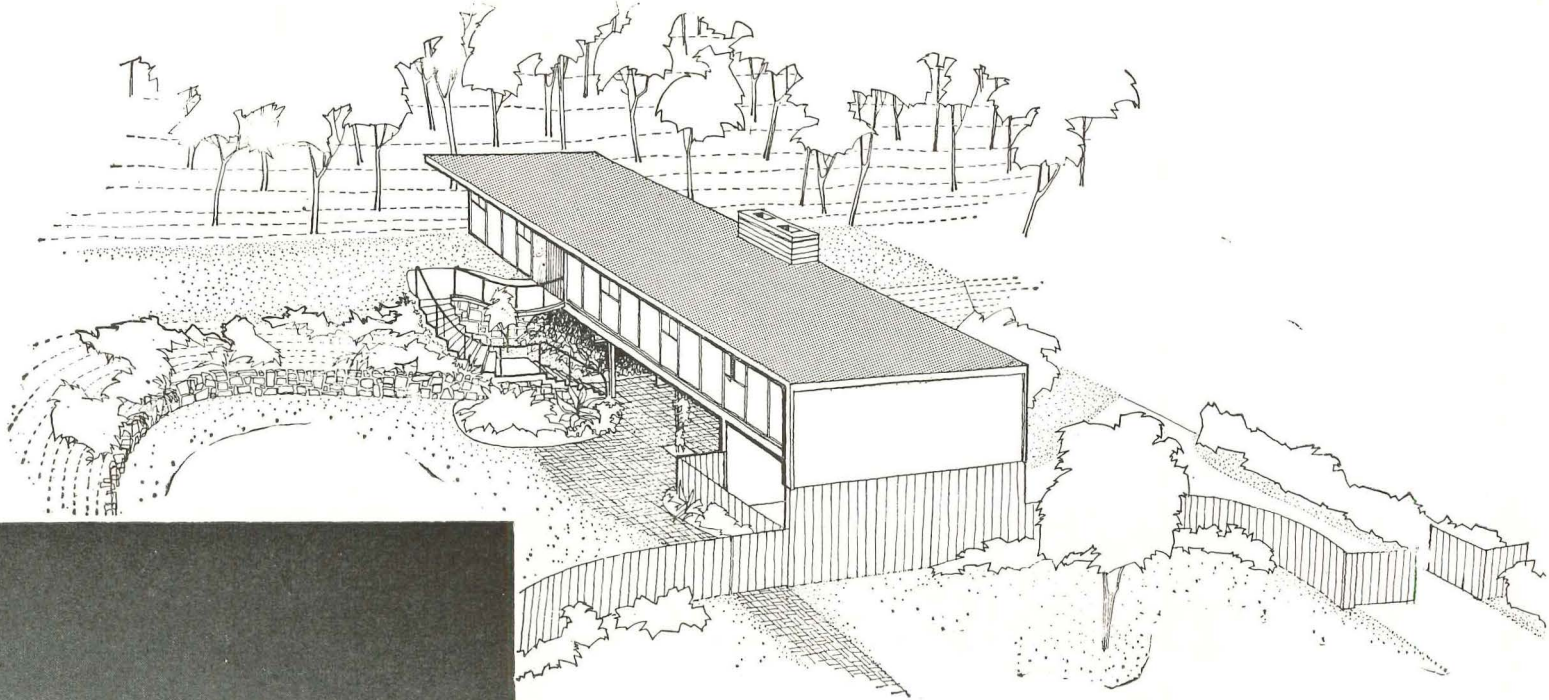
is lifted on stilts

to command an otherwise invisible view

LOCATION: Pacific Palisades, Calif.
KENNETH N. LIND, architect

Photo: Marvin Rand





From the ground up, this house lives on contradictions. On a lot both flat and sloping, architect Lind used an ingenious straddling operation to resolve the conflict of contours. In the process he brought together some of the best features of stilt and slab houses:

Like a stilt house: it has a balcony view, an extra share of breeze, and cheap covered space underneath.

Like a slab house: it has its entrance at ground level and a kitchen yard opening directly from the back door.

Like itself alone: it has a layout of splayed partitions that counters the boxcar feeling of an in-line plan.

The lot under this house is typical of many properties that almost have a view: it isn't far from the ocean, but for all you can see of the water it could be miles away. Neither Lind nor his clients was willing to put up with the frustration, so they put the house up on stilts. From its second-story vantage point you can look down the Santa Monica Canyon and out to the Pacific. Except when fog interferes with the show, every room has a balcony seat for the view. Trouble with most balconies is that they have about as much privacy as a stage; however, this one plays to an empty house. From the east it is screened by a wooded hill; to the west, the land continues its descent. The north wall is almost blank; and on the south the house is but one lot away from the dead end of the road (and since the next-door neighbors don't want to be looked at either, they have faced their house the other way). Other defenses: a street-side fence, a 45' side yard, and (most ingenious of all) furniture groupings set back from the glass and the fact that glass above eye level is more reflective than transparent when seen from outdoors.

House takes off boldly from its hillside perch, shelters a carport and terrace under its flying wing, is high enough to see an ocean panorama which is invisible at ground level. Among the by-products are more breeze and a better view of the surrounding gardens.

Photos: (below & opp.) Marvin Rand; (color) Jack Birns



Front gate is, in effect, the front door to this house. The outdoor foyer, alongside the carport, leads to the covered terrace which is the larger of the two living areas. Stairs to the upper floor wind up the flowering bank to which the house is anchored.

Walk in through the garden

The door to this house is just off the street, but you have to go a good 60' farther before you are indoors. That romantic distance is one of the most beguiling by-products of mooring this ranch house to its hill. From the street, about all you can see is a 6' fence and the blank end wall of the house. But once inside the gate, you have a full vista of the lawn, the terrace and the narrow ledge to which the house is anchored. First you walk along the edge of the lawn with the house at your right, next onto the terrace with the house overhead, then out you go to climb the banister stairs that pause for a landing when you are level with the terrace view, and finally you turn around to face the house and the door. Along the way you have near views, far views, and different aspects of the house.

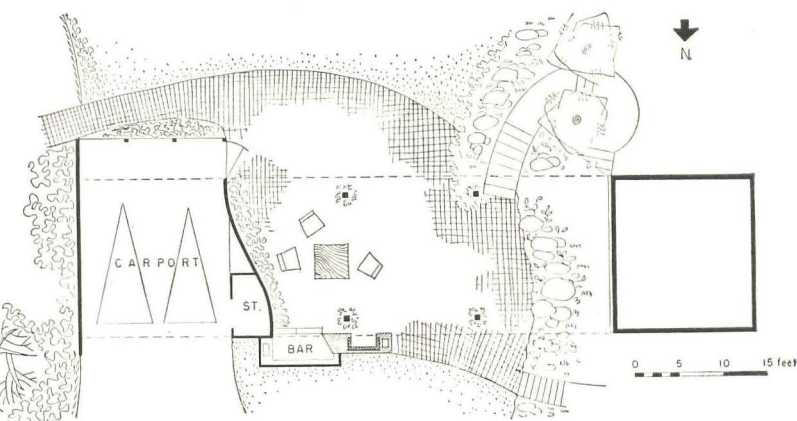
Underslung terrace

By building on stilts, the owners have avoided placing their house on the nicest part of the lot only to find that it has taken up the best area for outdoor living. Instead they have their cake and eat it too, in two tasteful layers—both at low cost. Both the terrace and carport went under roof at the cost of only the structural steel used to separate the house platform from its earth-bound footings. The carport walls were necessary anyway and would have cost more in an independent structure.

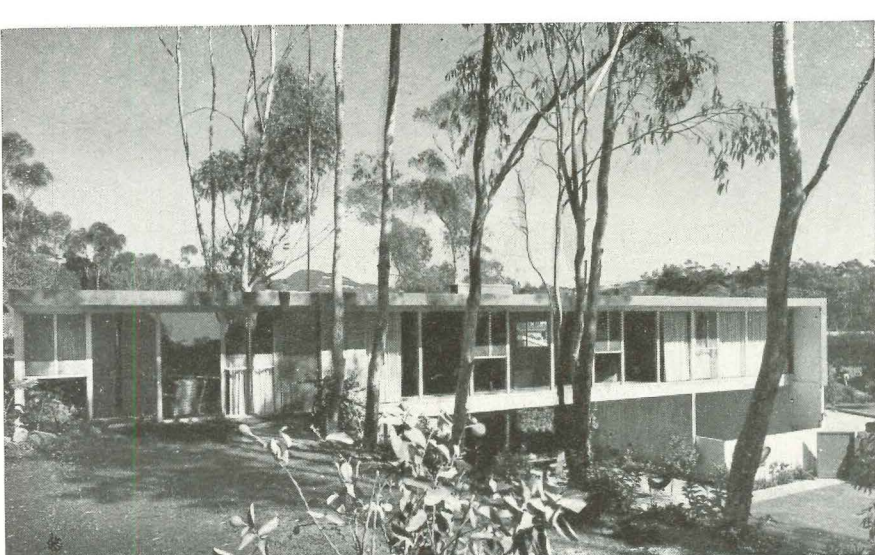




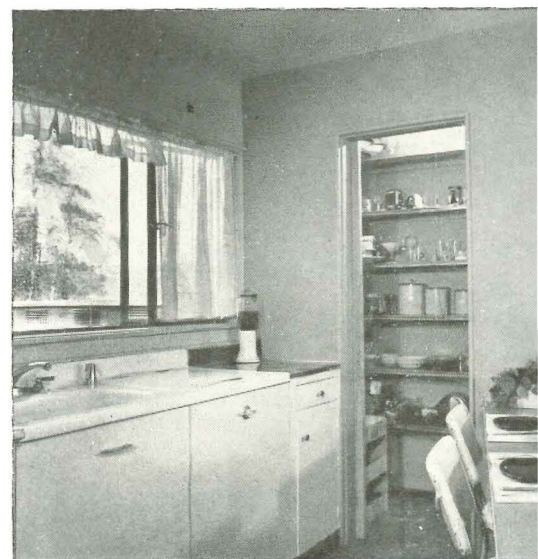
Terrace is the outdoor, lower-level counterpart of the living room, and actually shares one wall and the chimney of the room above. Carport, adjoining this terrace, is under the master bedroom.



Setting for the austere geometry of the house is a garden of flowers and eucalyptus trees. Little grading was necessary except for a smoothing-down operation with the earth shoved back to the lot line to make an earth bank which curves from the natural bank toward the street.



Rafflike house is securely beached on a natural bank toward the rear of the property. This gives this second-story house three entrances at ground level: to the living room, kitchen and guest bathroom (handy for swimmers when a pool is built). Study-guest room windows are at the left.



Angled kitchen uses its narrowest dimension for a counter, leaving its widest area for exits and entrances. In between is a narrow work space, all within arm's reach. Plates slide through a serving window directly onto the dining table on the other side of the wall.

Angled partition leads you into the sitting area opening up the space as you walk in. Space is narrow at the entrance, wider for dining and finally steps back to the full 18' width of the house. An exposed dining area is not objectionable in a house where the street entrance is yards away.

Bias-cut plan

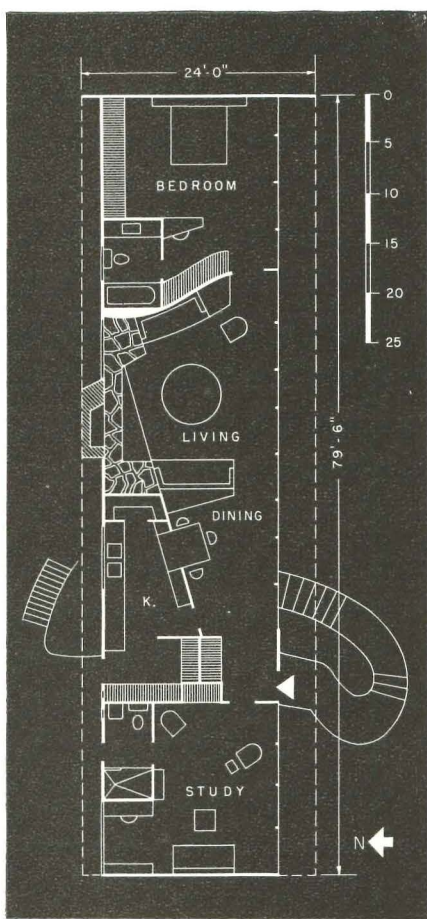
Many elements in the plan are worth close inspection. Here are splayed partitions that are not mere diagonal diversions. In two strokes the angled divisions create several desirable conditions:

- ▶ In the living-dining room the diagonals close in toward the fireplace, forming an intimate sitting area;
- ▶ Looking out, the wide angle emphasizes the broad panorama;
- ▶ On the other side, the partitions create truncated, wedge-shaped areas large enough for the kitchen and master bath-dressing room;
- ▶ In every room the diagonals husband space by narrowing down where it is least essential and opening up where it does most good;
- ▶ The arrangement concentrates circulation next to the glass where you wouldn't want to sit anyway;
- ▶ Both partitions work overtime as handy storage walls.

Unfortunately, the diagonal idea has been run into the ground. One of the partitions curves as well as splays to add a pointless (and expensive) flourish to the spaces it separates. And extending it downward increases the confusion: upstairs it's a screen, downstairs it looks like a bearing partition (and this in turn contradicts the support system of the stilts). Moreover, on the carport side the curve has been obliterated to hold a closet. The other diagonal also has a follow-through in the form of a fireplace ledge which picks up where the wall stops; and in that ledge there is a bench—triangular, of course.

A matter of money

Lind has shown a fine regard for the owners' purse in ways other than the space under the house. (Total construction costs ran in the vicinity of \$15,000, circa 1948.) The very shape of the building, a 24' x 79' x 10' boxcar, makes framing economical: roof joists span clear across the short dimension including overhangs; three walls are conventional 16" o.c. stud frame, thoroughly braced to offset the clean sweep of glass along the fourth side. Opening sash is stock size.



Photos: Marvin Rand



Interiors do not live up to the good basic idea and outward promise of this house. Above, the dark wall of Directoire green and wood wall of limed redwood set the stage for the overscaled furniture and curious mannerisms (such as the triangular upholstered hearth seat).



Rent Control —what has it done to the industry, the economy and the people

Answers to these hot questions have been coolly documented for the first time by Leo Grebler in his brief but important book on rent control. Grebler is no partisan ax grinder, he is research professor in Urban Land Use and Housing at Columbia University, and his study into the effects of rent control is not propaganda although it is likely to be used as such; it was made under the auspices of an institution whose high purpose is "to promote social justice in all the countries of the world," the International Labor Office. (Since organized labor has been perhaps the No. 1 sponsor of rent control, it is significant that Grebler's study for ILO has little good to say for rent control.)*

Effect on the people

The "most serious effect of rent control and one that is economically and socially indefensible" is the way it divides the population into two groups bearing disproportionate shares of the burden of inflation: a) the "haves" who own prewar homes or rent prewar apartments and are thus protected by rent control, and b) the "have nots" (mainly new families with a veteran at the head) who must pay the high postwar cost of buying a house or renting a new (uncontrolled) apartment or must double up with another family.

Effect on their spending habits

Housing expenditures of those protected by rent control have declined substantially in relation to their incomes. The weight of rent in the consumer-price index fell from 18.1 in 1935-39 to 12.5 in 1947—the last year when rent control was still fully effective. Meanwhile, food increased from 33.9 to 42.0 and clothing from 10.5 to 12.0. *Such a change in the pattern of consumer expenditures for a large number of families once established and firmly embedded in family spending habits is hard to change.*

There is at least a presumption that the 1940-47 increase in food and clothing demand was based partly on income set free by rent control to buy other things. To the extent that this was so, repression of rent inflation led to more price inflation in other fields.

Effect on homebuilding

There is no evidence that rent control held postwar homebuilding below the top limit set by available resources. More homes could have been built only through additional cost and price increases—i.e., inflation—so if rent control did tend to dampen homebuilding activities it had an anti-inflationary influence in this respect.

Effect on building for rent

Rental housing construction has been unusually low despite its exemption from rent control. It dropped from 36% of total dwelling unit production in 1920-24 to 17% in 1945-50. This substantial decline can at least partially be ascribed to rent control, which established an atmosphere unfavorable to investment in rental housing. (There is always the chance that rent control might some time be extended to new units. That this fear was not groundless is shown by what happened in several communities where rents were re-recontrolled after Korea.)

Effect on prewar rental housing

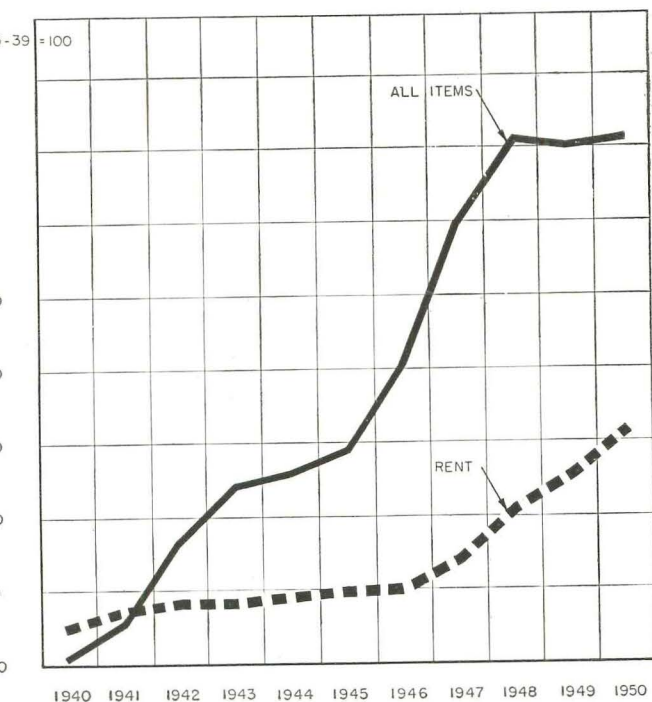
The supply of existing rental housing has been reduced under rent control. Many owners, faced with the alternative of receiving a controlled rent, or selling at an un-

* *Implications of Rent Control—Experience in the United States.* By Leo Grebler. Reprint from *International Labor Review*, Vol. LXV, No. 4; Jefferson Place, Washington 6, D. C. 24 pp. 6" x 9". Paper bound. 15¢

RENT CONTROL: Its most serious effect

is unequal loading

of the inflation burden*



led price, naturally preferred to sell. From 1940 to 1950 the number of single-family dwellings rented actually declined more than 1 million. Counting apartments, too, the number of rented units increased only 4.6% while the numbers of owner-occupied units rose by 71%.

It is indeed astonishing that the supply of rental housing was not reduced more sharply. In 1950 there were still more than 5 million detached single-family houses in the rental supply.

Effect on waste of space

The percentage of changes indicating less intensive use of space are not so great or so uniform as one might expect. Comparative figures for 1940-50 showed that tenant-occupied units with 0.75 or less persons per room (i.e., low-density use) increased from 48.4% to 51.5%.

Effect of decontrol

Experience with complete rent decontrol in several cities indicates that average rent increases of only 1.5-2.0% per month may be expected during the first two years after decontrol. In these cities, the rent indices now are roughly 55% higher than in 1942. The upward movement of rents is, of course, continuing, but it appears that, after the initial impact of decontrol during the first six to 12 months, the rise in rents tends to slow down. And there is no present indication that rents will double either in comparison with rents at date of decontrol or with prewar level of rents.

There has been an unfortunate preoccupation in the rent-control controversy with the relative gains and losses of tenants and landlords. But for economic and social analysis it is more important to study the effects of rent control on two groups of housing consumers—those protected and those not protected by rent control—"haves" and "have nots." (In the case of the US, the large number of prewar homeowners constitute a third group not affected directly by rent control.)

Rent control may be considered a means of redistributing the burden of inflation, not only between landlords and tenants, but also between the protected tenants and other housing consumers. This view of rent control becomes increasingly important when restrictions extend over long periods during which population grows and the proportion of those enjoying the benefits of rent control declines.

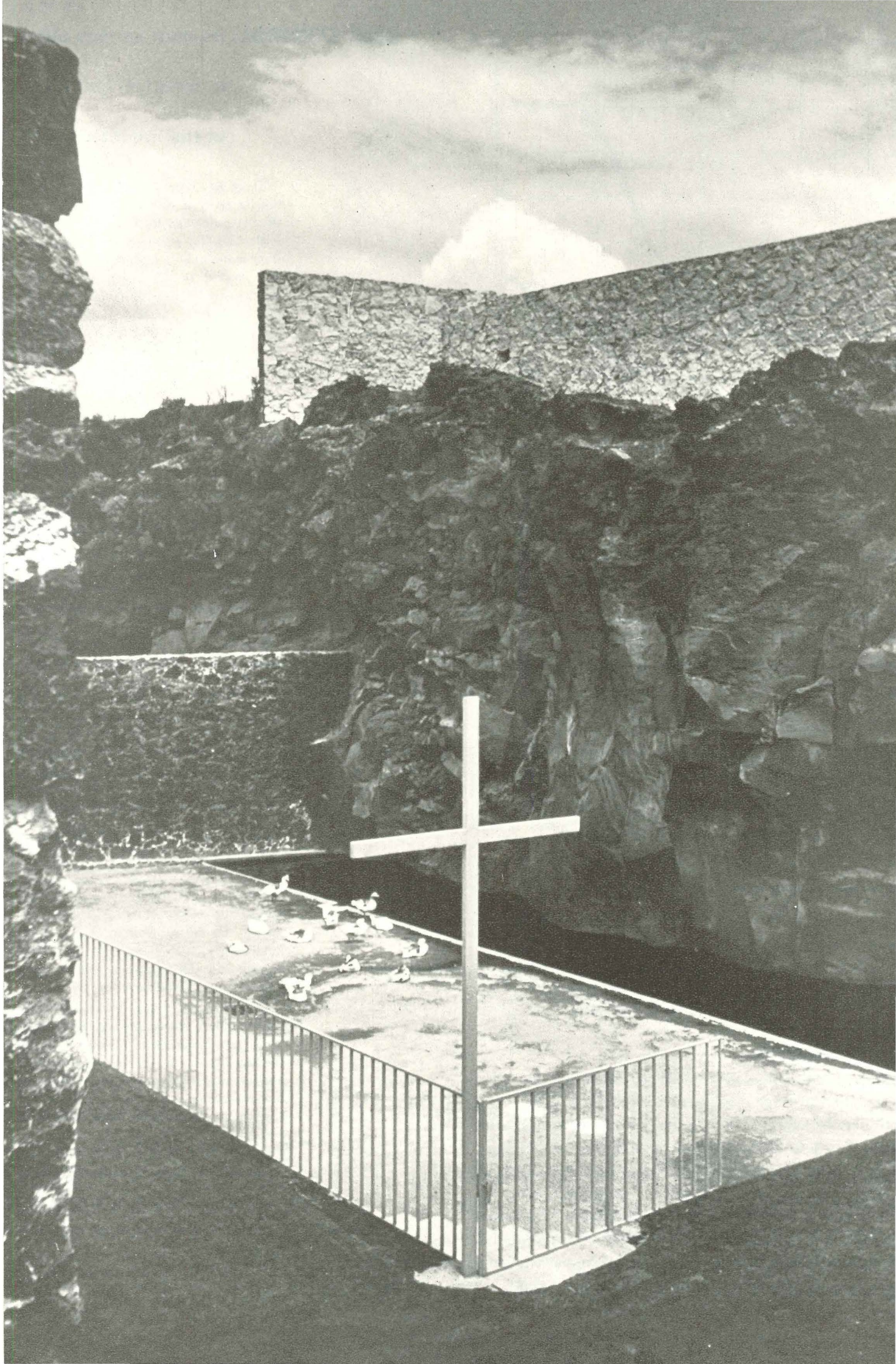
The question is whether, through rent control, the "have nots" are made to bear a disproportionate share of the burden of housing inflation and whether this distribution is warranted.

It is clear that the "have nots" are prevented from bidding for rent-controlled space on equal terms with the "haves." Only those rent-controlled units released by the "haves" are available to the "have nots." Because, however rent regulation weakens the incentive of "haves" to give up rent-controlled dwelling units, the chances for the "have nots" of obtaining such units are greatly reduced, and these chances are determined in large measure by luck, favoritism, and "side-payments." For the majority of "have nots," the means of obtaining housing are purchased at uncontrolled prices, high-rental tenancy in new, high-cost projects or prolonged "doubling-up" and makeshift arrangements. To the extent that they are able to obtain separate dwelling units they are made to pay the full economic cost of housing, whereas the "haves" pay less.

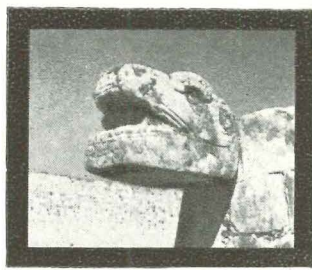
In the US where home ownership and renting are about evenly divided, the inflationary forces are permitted to operate fully in half the housing supply—in the uncontrolled market for owner-occupied houses. These forces are practically shut off from the other half—the rent-controlled units. Obviously, the price pressures on half the supply are much greater than if they had been distributed over the entire supply. Yet it is this uncontrolled half (together with new and converted dwelling units) that has been available to meet the de-

(Continued on page 154)

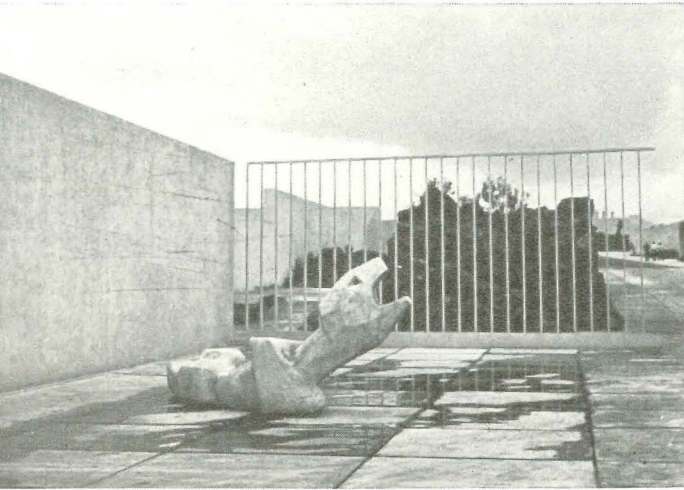
* A condensation of the most important chapter in Grebler's book.



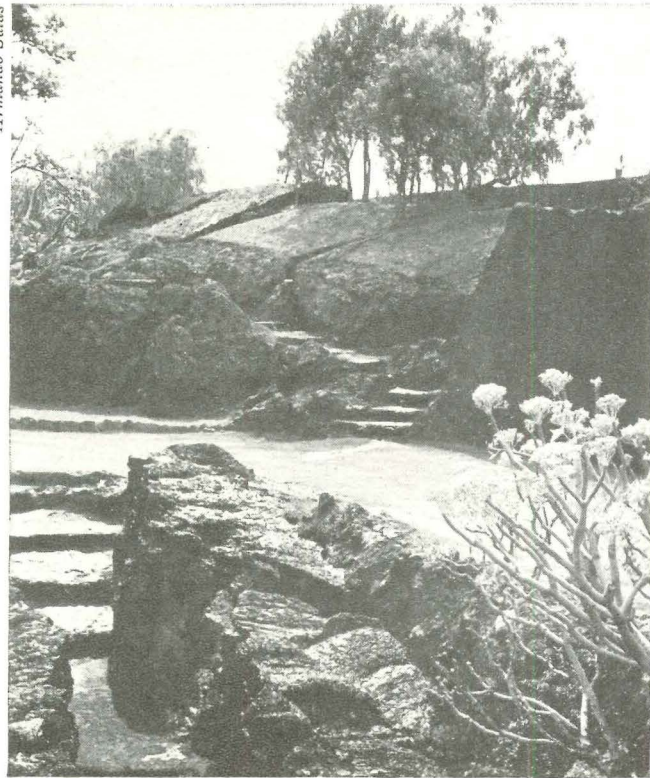
of Pedregal, the backdrop of lava
 opposite, a wall painted Mexican pink,
 a fence painted fluorescent cerise. Be-
 the entrance: a gray concrete wall and
 of lava rock seen through a cerise
 Right: the feathered serpent god.



Wasson Tucker



Armando Salas



Genius: the way paths can be
 cut in rock itself; the way natural
 vegetation can be left without
 "pretty" incidents.

Mexico's Pedregal Gardens

total release from daily care, a busman's holiday in Shangri-
 Xanadu, any North American concerned with houses could
 find a retreat better than Mexico City—and specifically
 quite incredible new "Pedregal Gardens."

the Paracutin, Mexico's new volcano, three years ago the gar-
 den just weren't there. *El Pedregal* means "the rocky place"—20
 miles of ancient lava waste. Its convolutions and crevasses
 a home for snakes and robbers. Its nicely workable purplish
 lava rock—the city's favorite building stone—was freely
 used around the fringes of the waste for thousands of years.
 The fine imaginative idea of the gardens began very modestly
 in the man's mind. In 1945 Luis Barragán, a strapping, tall archi-
 tect with a green thumb and an artist's eye, who had been carry-
 ing some fantastic lava fragments to decorate his garden, decided
 to build a house right on the lava bed itself. He would live sur-
 rounded by its strange vegetation—its soft pepper trees, its unique
 "bobo" or "crazy trees" that grow only there, its rock flowers
 cacti, succulents and lichens feeding on soil deposits drifted
 from the rock. And when he found that hundreds of acres were
 more easily acquired than ten—so "useless" was the area—a
 class began whose results can now be seen. Many friends
 decided to live close by, and Barragán ultimately enlisted a realty-
 experienced associate, got Mexico City's jolly veteran planner
 Carlos Contreras to lay out a pattern of curving streets, and set up
 a set of unprecedented conditions attached to every deed.

The minimum lot size was to be one acre, the house to occupy
 no more than 10% of the lot, leaving the rest free space; the lava
 rock to be protected, only a minimum removed, the native vegeta-
 tion to be preserved and new planting required to follow natural
 patterns. And the houses were to be all contemporary in design—
 absolutely no colonials.

The result is a development as an artist would do it.

Not the least factor in the Pedregal Gardens' quite astounding
 success lies in the vigorous visual discipline maintained over streets
 and open views by the management. A mediterranean culture gave
 them their leverage. The Mexican lives traditionally not directly
 on the street but behind a wall bestowing privacy. In the Pedregal
 these street walls are a wonderful thing: all built of the lava rock,
 with the Mexican artisan's unending craft. The shades of stone
 vary subtly and in parts the walls are gently stained with oxide
 paints: rust or ocher, pale green and the remarkable "Mexican"
 pale blue. And sometimes they are painted a brilliant solid pink.
 In places water is run along the top, allowed to seep into the pores
 and produce a quick growth of moss that looks ageless.

Each man's lot as he finds it is an open sky-topped room embrac-
 ing perhaps one acre, perhaps ten, his surrounding walls rising or
 dropping with the roll of the ground.

The effect of the whole on the uneven landscape is like that of
 a kind of open-air catacombs.

And Barragán as artist has been skillful with the wall openings.
 Any gap in the wall for gate or door is filled invariably with
 pickets. At the entrance to the Gardens as a whole they are painted
 an intense cerise red with fluorescent paint (alternating with a few
 stretches in brilliant green) in startling happy contrast with the
 sober rich gray of the surrounding rock. *This basic theme never
 varies.* Against the boundlessly varied natural formations it is con-
 sequently pure music.

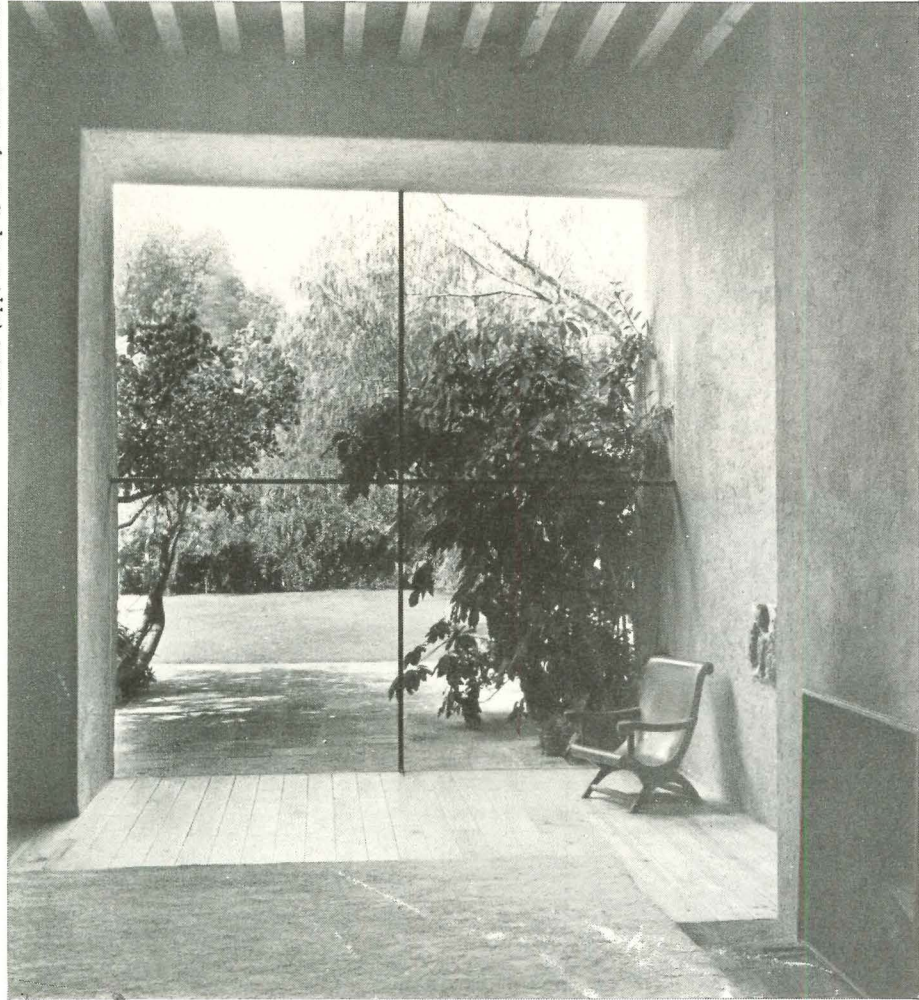
A great deal more could be said of the Pedregal; perhaps the
 best is that behind the site-artist's wondrous screen the individual
 house is hidden. Among the 50 built so far, Barragán says there
 are barely six he really likes; some of the rest, modern or not, are
 clumsy or *nouveau riche* and blatant, as people can so easily be.
 It is a kindness to shield them with art, which is rare, and spots of
 blazing bougainvillea, which is glorious.





Any architect might envy Barragán's drafting room. Note that he has made no effort to eliminate muntins, make the wall one sheet of plate glass. There is an easy, reassuring quality about the big squares.

Photos: (opp. & top l. & r.) Armando Salas



The architect's living room reflects the tone of his workroom. The divided window is more effective than plain plate glass, partly because it gives "perspective grid" to the landscape beyond. Carrying the glass down to the floor links floor and ground uninterrupted. The carpet and the floor looks like part of the ground and the grass looks like another carpet.



of Barragán's serene, effortless structure is acknowledgedly the in convent. The simplicity of great, unpretentious surfaces is a joyful backdrop for the blazing of the region.

For Eduardo Prieto, who wanted "a house just like Barragán's," another manorial but quiet residence was built on the Pedregal (right), Pink walled, its exterior is almost aggressively casual—as shown in the placement of the upper windows. Its interiors restate Barragán's great serenity with forms, plus impeccably wonderful materials, such as the pine floor, below.

Photos: (below) LIFE—Eliot Elisofon



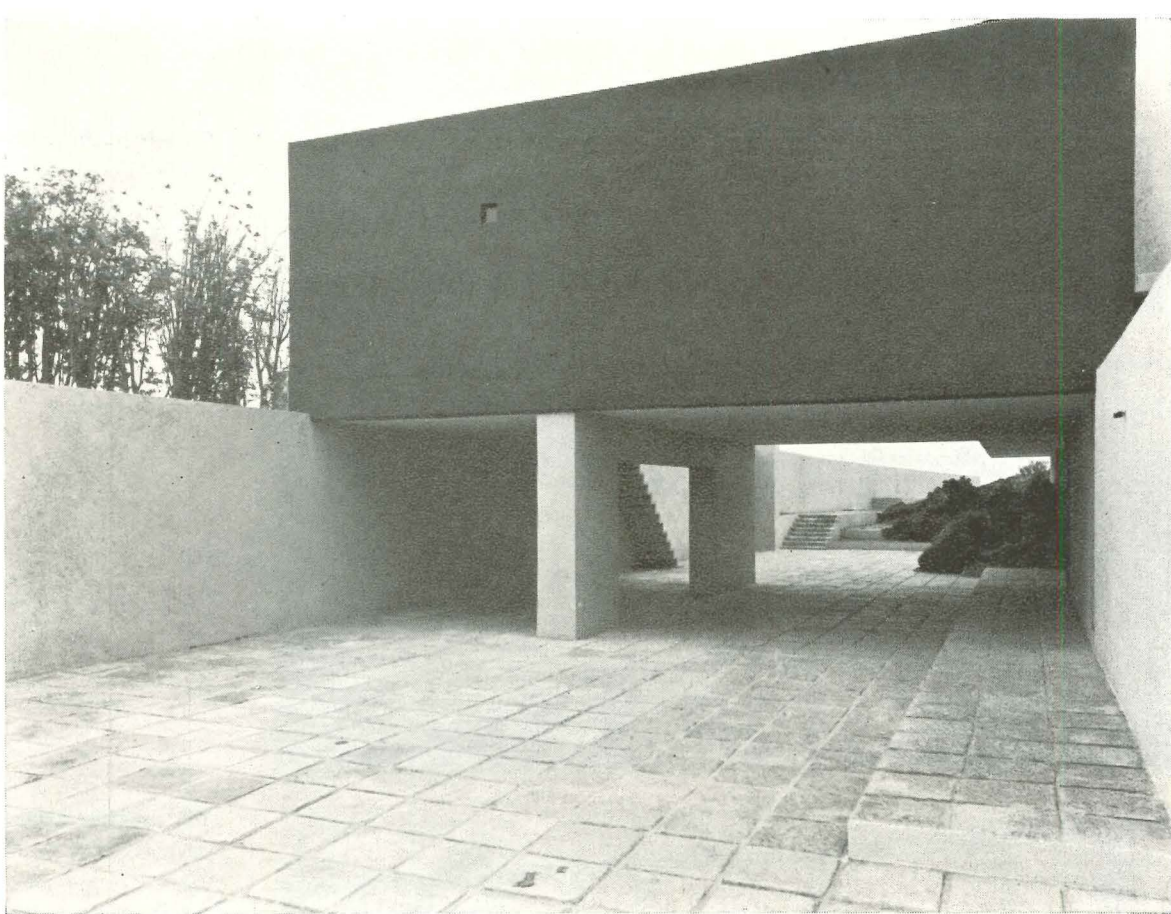
Barragán's office. On the wall is a photo-mosaic of the site plan of the city and (upper right of the same) the new University City in Mexico. The heavily beamed, 20' ceiling, oversized stove-fire and the big furniture all fit an owner who is himself 6'-6" tall. Likewise they are scaled so that they fit quite anybody.

Max Cetto, Barragán's friend and frequent associate, is a German-Mexican who worked in his early days at Frankfurt with the great architect-planner, Ernst May. At the right is the house Cetto designed for painter Roberto Berdecio in the Pedregal, stressing large, simple forms.



Originally Cetto planned to allow the lava to continue right through the glass wall (below). He says the "speculative builders" stopped him. Like Cetto's own house, shown in the two lower photos opposite, this house makes strong use of the lava rock. Gallery is continuation of high lava walk in upper view.





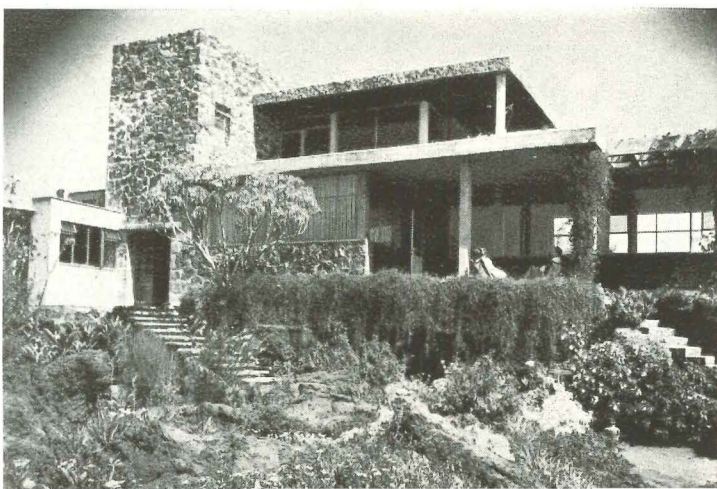
A beautiful series of strong, abstract shapes is varied in Cetto's Berdecio house by contrasts of colors and fine textures and the clarity of the whole is uninterrupted by planting or extraneous forms.

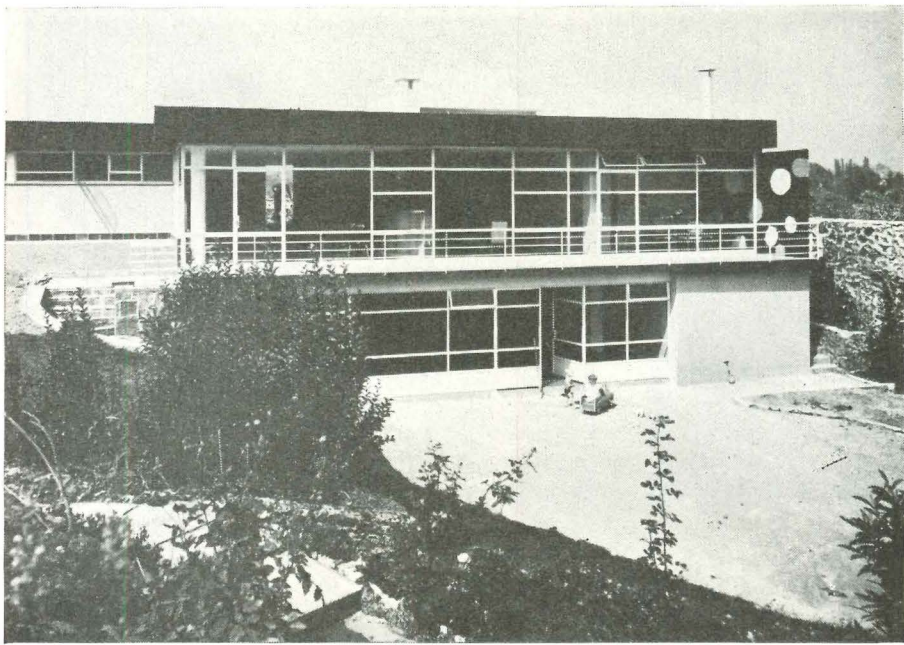
In Cetto's mosaic mural on the ceiling of his drafting room, right, stones were laid on the form and a first course of very stiff mortar laid down so it would not fill the cracks. This left the rich stone mosaic texture unimpaired.

Photos: (below) LIFE—Eliot Elisofon



The house Cetto designed for himself, right, is more romantic than Barragán's houses. He makes strong use of the lava rock itself in a big, tough scale, rare in America since Richardson. The flower garden strikes the American eye as a shade too pretty for the region.



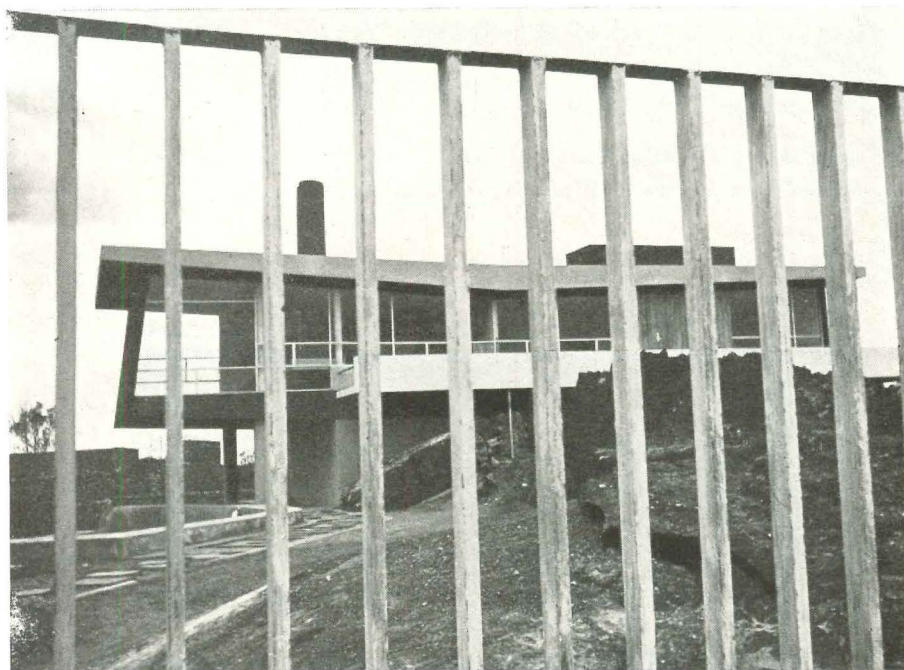


Photos: (below & opp. center) Lutz—Eliot Elisofon; (others) A. Salas

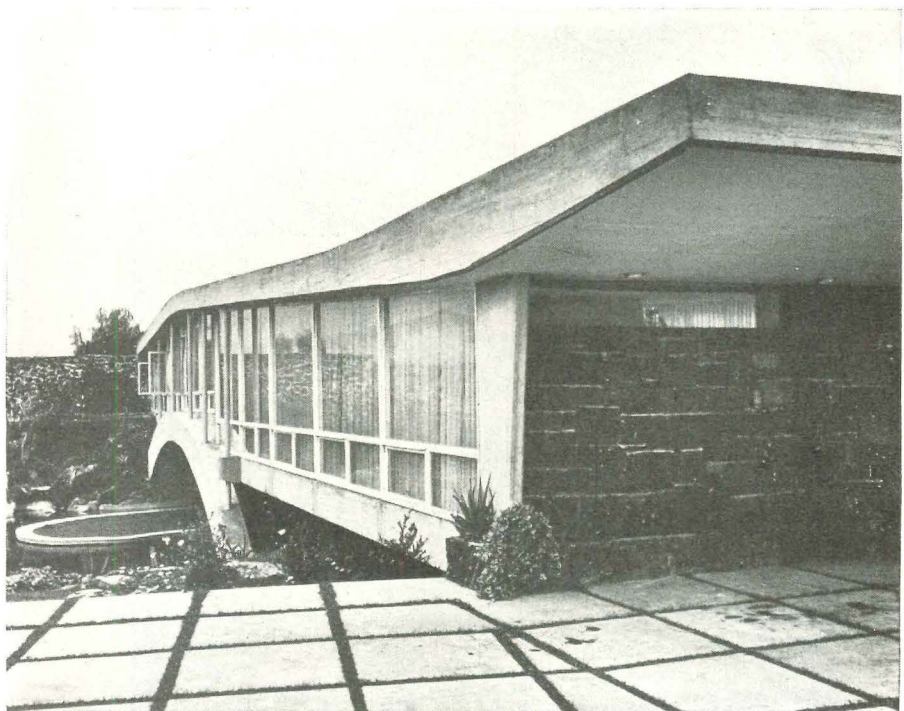
On this page, houses by the younger generation of Mexican architects. The quiet, direct house, left, by architect Carlos Contreras Pagés is of a kind that lives still better than it photographs. Its mural wall of free shapes at the end of the living room counts indoors as a part of the house and outdoors as a part of the scene.



This entrance fence echoes Barragán's picket theme (see page 126) but is of concrete (Barragán's are iron). The architects are Guillermo Rossell and Lorenzo Carrasco, who edit Mexico's lively architectural magazine, *Espacios*.

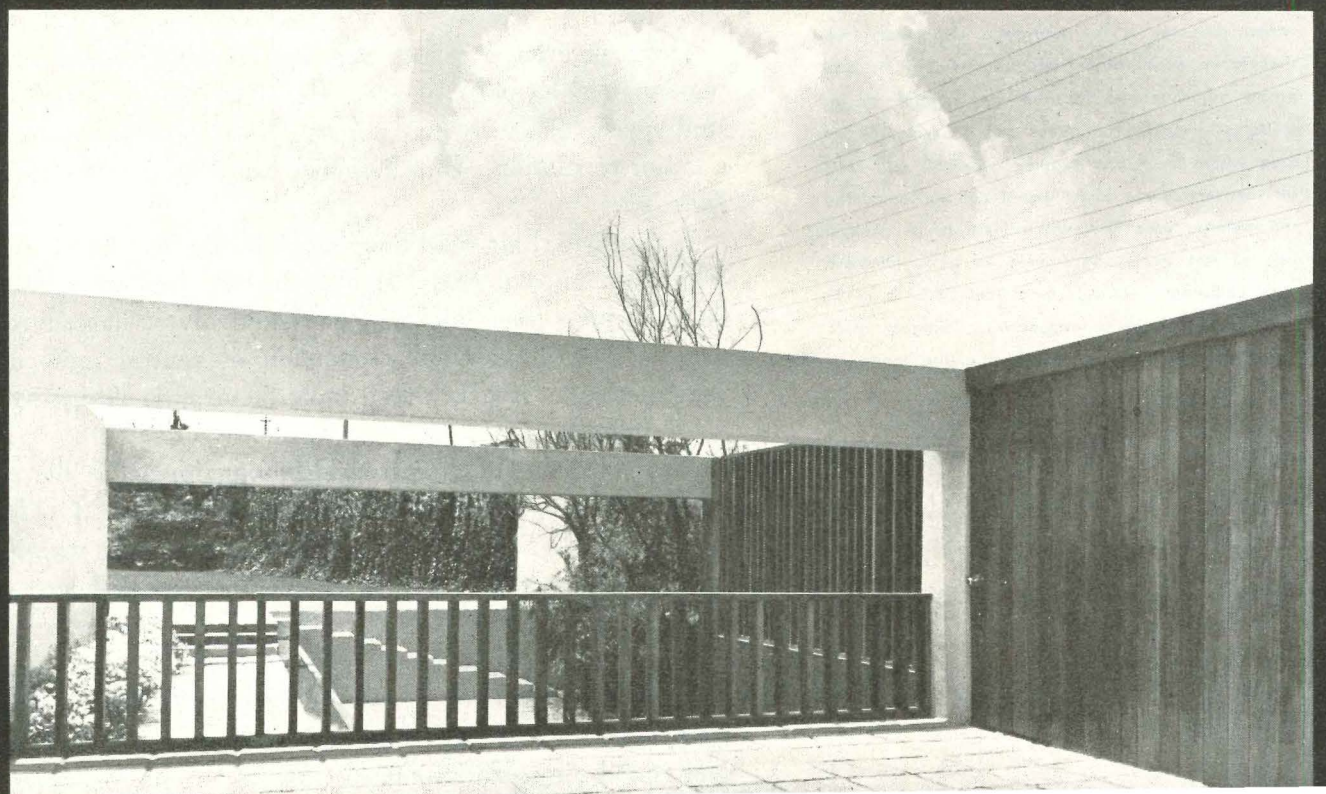
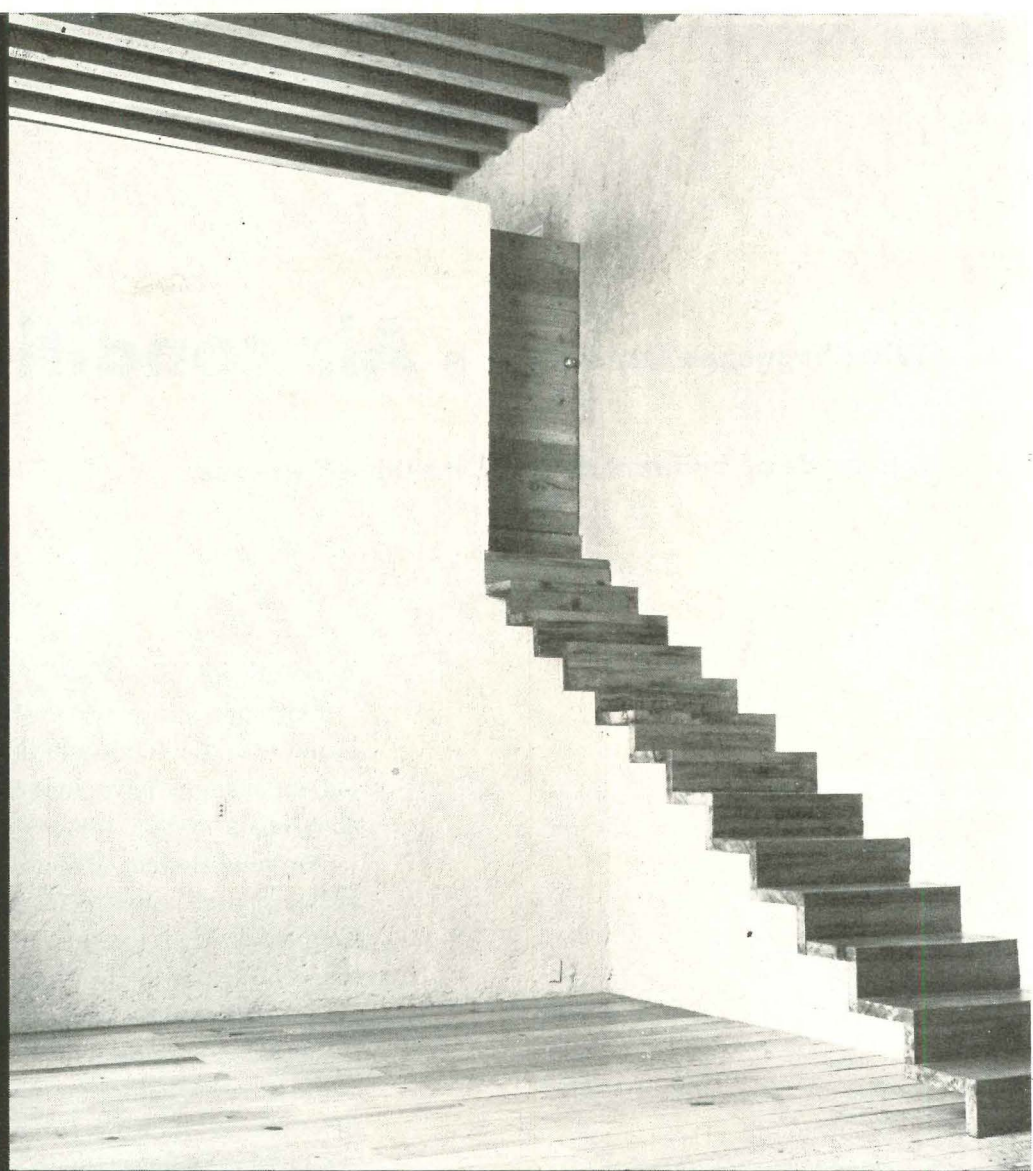
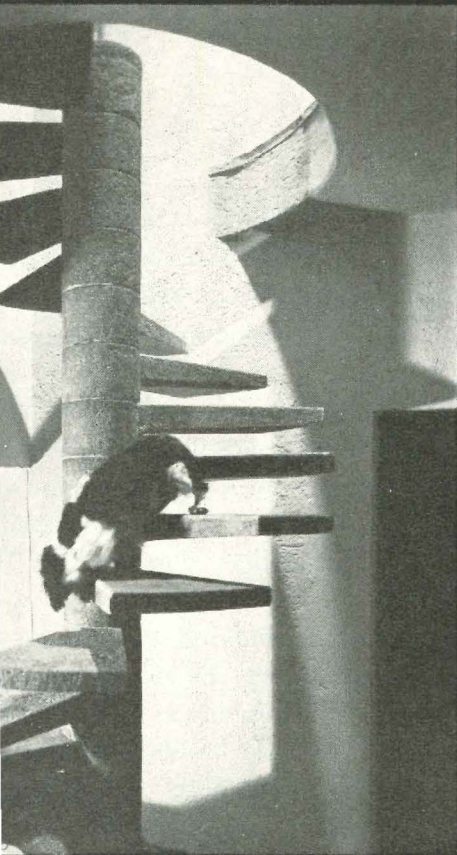


After architect Santiago Greenham had built bridges and overpasses for University City, with Francisco Artigas he designed this bridge house across a pool. Corridors are ramped, floors level, creating a fascinating space effect. But compared to the serene work of the earlier architects, his work is restless, built to an idea instead of arising from an idea suggested by the land.



Stairs by Barragán, upper right, are breathtakingly exciting, composed simply of concrete and treads let into a masonry wall; no stone, no rail, no nosing. At the top the simple concrete and ceiling beams echo the wooden stair.

Cetto's circular stair, left of it, is made of shaped slices of reinforced concrete finished with ground lava rock. Below, Cetto's house is entered through a courtyard with a wall on one side.



What happened last summer in **Air conditioning**—

hundreds of builders decided it will sell houses

How does FHA view home air conditioning?

Curt C. Mack, FHA assistant commissioner for underwriting says: "FHA will accept built-in air-cooling devices where the price level of the house and the climate justifies it. Moderate-priced houses in most areas are eligible. This means that FHA will reflect the cost in the mortgage. However, FHA acceptance presupposes adequate insulation and proper adjustment to the area—for example an installation making continuous use of water in an area where the water supply is limited, and costs for the service are high, would not be considered satisfactory. Also FHA will adhere to its general rule of not permitting houses to be overloaded with equipment. In all cases final decision as to acceptance of built-in summer air cooling is up to the local FHA insuring offices and the lenders."

Air conditioning is clearly the newest sales attraction for merchant builders.

Few ideas have ever taken hold so fast. Last year only a handful of builders in the under-\$25,000 class took it seriously. Now hundreds throughout the country have either installed air conditioning in their houses or are choosing a system for next year's models.

Air-conditioning dealers report enormous builder interest. "All hell has been broken loose," says one company's distributor, Ted Skogland of Westchester County, N. Y., "I've just talked with builders who want cooling for no less than 650 houses." In Miami, where not a single merchant builder had air conditioning, five big air-conditioning dealers now report, "We're swamped with requests!"

Most remarkable is the enthusiasm which builders of houses below the \$15,000 are showing for year round conditioning. Dozens of builders are offering even \$12,000-and-less houses will offer air conditioning as an optional extra next year. Record at the moment goes to Florida builder Frank Veitch with a 1½-ton cooling unit in houses selling for \$6,500.

Where a builder starts advertising air conditioning, other builders follow fast. For most builders see air conditioning as a way to build sales in a market that is steadily getting tougher. Sales appeals include: summer comfort, dry air, cleanliness, less hay fever, fewer allergies. Aug Berin of Houston has the latest wrinkle: he finds families want air conditioning to get a maid to "live in."

There is even a report that Levitt's chief engineer Irwin Jalona is rearranging the parts of a standard window cooler to fit vertically in a window stud space. If Levitt ever comes out for summer cooling he would be making a major revolution. (For Jalona's attitude on air conditioning see *H&H* June '52.)

If residential air conditioning has hit the builders hard the boom has had even more impact on the manufacturers. Last year the residential equipment market for their business was chicken feed; suddenly it has skyrocketed. One manufacturer is scheduling 1953 production of central units at 250% over last year's output. Nearly every manufacturer is designing 1953 models for the builder market.

Final evidence of the air-conditioning impact is the announcement of a NAHB meeting—to be held in Chicago on Oct. 3 with NAHB treasurer Dick Hughes as chairman—with air-conditioning manufacturers to talk out builder problems. It will be reported in *H&H* next month.

Here is an up-to-the-minute report of builders who are using air conditioning. A spot check of special areas shows that amazing activity is under way. And on pages 138 to 140 builders and architects alike will see how the latest houses are designed around cooling to cut costs and provide efficient year round air conditioning.

Best surprise! Air conditioning tops New York area; Westchester may even give Texas competition

Blistering summer heat that struck the New York area last summer triggered off a boom in air-conditioned houses. Over 100 merchant builders announced plans to install air conditioning in over 5,000 houses. More are yet to come. Air-conditioning dealers report that twice that number of builders have requested bids. In New York, despite its much milder summers, threatens to eclipse even Texas as the No. 1 area for merchant builders' air-conditioned houses.

Started north of Manhattan

Westchester County builder CHARLES NEWELL is so completely convinced that air conditioning helped him sell his \$50,000 houses (*H&H, June '52*) that he plans an immediate follow-up with another development. He will include a 3-ton year-round conditioner in 50 houses planned to sell for \$30,000-\$40,000.

Newburgh's pioneering has sparked a wave of activity among other Westchester builders. Across the road from his Heath Heights development, cooling will be included in ten \$26,000-\$32,000 houses for \$1,450 extra by builders LEONE & SHERMAN. And just announced in nearby New Rochelle is air conditioning in the 140-unit Bonnie Crest Estates by builder WILSON MORRISON. His houses will sell for \$20,000 with cooling for \$1,000 extra.

In early September more Westchester builders were following suit. Striking examples of how air conditioning spreads in the suburban area:

FRANCESCO CALCAGNI & SON will air condition all 100 \$15,000 houses in a new 25-unit Mamaroneck project. Also they will include a 1 hp unit as a \$400 extra in another White Plains project.

WATKINS ESTATES, one of Westchester's oldest builder firms with houses in the \$20,000-\$20,000 class, will put cooling in 100 houses of a new Tarrytown tract, make it optional in another development.

In early Briarcliff, RICHARD and ALAN BROWN will use 3-ton air conditioning in \$23,500-\$40,000 houses.

WALTER SKOLKIN of White Plains, who has included air conditioning in two houses, "From now on we'll design for air conditioning whether or not people want it when they move in."

WESTMONT HOMES, INC., which builds 150 houses a year at \$35,000 and up, included 3-ton units in its last houses. Next Westmont will build \$25,000 houses

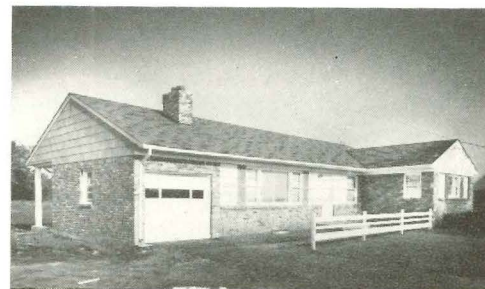
and figures that the cost for these year-round systems will be only \$1,400 more than the cost of heating.

Long Island swings to air conditioning

By summer's end a dozen Long Island builders had announced air-conditioned projects that may eventually add up to 2,000 houses. (The situation has been likened to 1950 when Bill Levitt tossed in television with his houses; soon builders all over Long Island followed suit.) Extraordinary results have already occurred on Long Island. For example:

"When we advertised air conditioning, sales of all our houses picked up about 50%," says Long Island's J. H. GREENMAN. This summer he and partner ROBERT GRUNDT introduced their Mayfair Park houses for \$10,990; a 2-ton air conditioner is optional for \$1,000.

Approximately 5,000 people flocked to the air-conditioned model, although this project is off the beaten track on a secondary highway. Greenman says Long Island builders have also swarmed out. He reports that 115 houses were sold in less than a month although only 10% included air conditioning.



By builder Sadkin, with air conditioning

Biggest East Coast project with cooling is by builder SY SADKIN and his brother who introduced cooling in all 450 houses of their Birchwood-at-Westbury project. Houses are priced from \$19,000-\$23,000. On the first week end 58 were sold. To compensate for air conditioning the builders made two design changes: 1) roofs will be light colored, 2) houses will be fully insulated with mineral wool.

Fountains save water

A new wrinkle with cooling is by architects SIEGEL & RAPP who are designing contemporary houses for a 115 unit project in the \$30,000 class. Together with a 3-ton year-round unit, the houses will come with spray-type fountains to save water à la Texas (*H&H, June '52, p. 110*). Air-conditioning water will be pumped through the fountain to be cooled and returned to the unit. The spray fountain is an esthetic answer to the water problem.



Cooling gets the inside bath accepted

More outside space. . .

"The inside bath is more acceptable as a result of adding air conditioning," say Long Island builders NEWELL & DANIELL. They offer optional air conditioning in their \$33,900 *House of the Year*, which has been widely copied on Long Island. While that price house moved slowly last summer, Newell & Daniell thank air conditioning for a big assist in getting the inside bath accepted, thus freeing exterior space for more important rooms.

Cooling impact on New Jersey

Across the Hudson River from New York, more than a dozen New Jersey merchant builders have climbed on the air-conditioning band wagon.

First was builder JAMES D'AGOSTINO, whose Haworth Manor project opened in May (*H&H, June '52*). Sales agent for the project, B. J. Bergton, reports that of 24 houses sold (at \$22,000-\$29,000) by Labor Day, 19 included cooling via a 2-ton unit. Interesting note: when news of this project spread around last spring, builders all over the country wrote Bergton to ask about air-conditioning details.

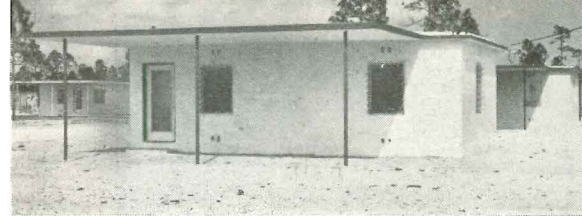
Also in New Jersey builders KRELL & COHEN sold 12 of their air-conditioned, split-level houses within ten days after their model was opened. In their 70-unit Westfield, N. J. project, 1,050 sq. ft. houses sell for \$16,500 including a 1-ton zoned system. The homeowner flips a damper to switch the cooling from the living area to the bedrooms at night.

Early in September, New Jersey builder FRANK M. MULCAHY announced a 44-unit project with all houses including a 3-ton year-round conditioner. His 1,500 sq. ft. houses will contain three bedrooms, two baths and sell for \$28,000 and up.

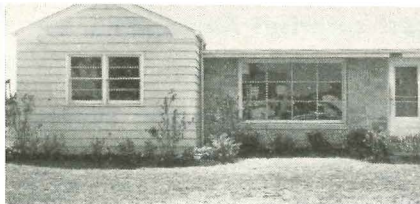
Roughly ten other builders in New Jersey are experimenting with air conditioning in houses selling for \$15,000 and up.

Florida dealers swamped with requests

Air conditioning among merchant builders in south Florida has skyrocketed. Last year not a merchant builder used it.



Lowest priced house in the US with air conditioning is this one by Florida builder Frank Vellanti.



First air-conditioned project in Chicago area has small pipe heating and cooling. Mackle house, left, an unusual sales pro

Now one dealer says, "I'm figuring installations for 12 different builders and have a waiting list of around 40 more. I've had to call for more engineering help." Most builders are still in the talking stage but a few are going ahead with installations.

Cooling in \$6,550 Florida houses

FRANK VELLANTI of Leisure City has set a new record for a low-cost house with air conditioning. He offers a 692 sq. ft. one-bedroom house with a 1½-ton unit for \$6,550 (see above). Without air conditioning the house is \$5,550. His 842 sq. ft. two-bedroom house with 2 tons of air conditioning is \$7,990 or \$1,291 less without cooling. These are FHA Title I houses.

Before offering air conditioning, Vellanti had sold 322 of his poured concrete houses; he plans a total of 6,000. It is too early for Vellanti to estimate how many people will pay extra for cooling.

MACKLE Co. sold 19 air-conditioned houses at \$16,000 the first week they showed their new model in Miami, plan to build a total of 67. Air conditioning costs \$2,000 extra for a 2¼-ton unit, including ducts and a cooling tower. Biggest problem was how to demonstrate the model house on opening day when 1,300 people streamed through. No cooling system works well under such circumstances and the builders found they could do a better sales job on weekdays.

HERBERT STEVENS of Coral Gables is building ten houses of 1,780 sq. ft. in the \$26,500-\$30,000 class with a 3-ton heat pump. Installed price with a complete lawn sprinkler system and a well is \$3,427. Electric bills are expected to average \$14 a month plus \$5 for water.

Stevens has found that most homeowners in that price class do a lot of summer lawn watering; many pay at least \$1,200 for an underground sprinkler system. He figures his sprinklers cost only \$500 and that includes a well he digs to 15' under the garage.

First Chicago builders use cooling

Spreading across the country like a ground swell, residential air conditioning came to the Chicago area last summer when optional air conditioning was offered by builders

HERZOG & KNUTZE in their 180 unit Des Plaines, Ill. project.

Their houses sell for \$17,500 to \$20,500. A 2-ton cooling unit is added for a \$1,000 when the buyer wants air conditioning.

After cooling was offered, the builders report that six of the first month's 20 sales included the 2-ton unit. Now they plan a similar project of 160 houses. If Chicago is like Houston, Dallas and New York, other builders may soon follow.

St. Louis starts

The Homebuilders' Association of Greater St. Louis recently reported no air conditioning in speculative houses priced less than \$25,000. A few days later air-conditioning representatives emerged from a huddle with merchant builder MELVIN GLICK to announce St. Louis' first development with cooling.

Builder Glick is already installing 3-ton units in the first ten houses of his 65-unit McKnight Heights development. His 1,290 sq. ft. houses will sell for \$17,000-\$19,000 with cooling and include a full basement.

Besides Glick another St. Louis builder is negotiating for air conditioning in 200 houses. They will sell for under \$15,000 with a 2-ton cooling system.

"... up to date in Kansas City"

In August when Kansas City's WADSWORTH BROTHERS unveiled their new air-conditioned model 8,000 people streamed through. Wadsworth, maker of packaged houses, sells one for \$16,300 and up plus land. They will offer air-conditioned houses to a chain of 245 Midwest dealers who build on any buyer's lot. They expect to sell 500 of the air-conditioned houses within a year.

Elsewhere in Kansas City, merchant builders are interested in air conditioning. Some are investigating its possibilities in the better rental units and according to one air-conditioning distributor. "Several speculative builders have asked for estimates—a new experience for us."

New Orleans cuts cooling costs

Ways to reduce cooling costs are demonstrated by New Orleans developer ROBERT T. MORROW in air-conditioned houses he builds on buyers' lots for \$16,000-\$19,300.

(New Orleans' scarce, high-priced lot \$2,500-\$5,000.)

By designing around air conditioning architect RENE GELPI achieved construction savings which pay for nearly thirds the extra \$1,300 cost for air conditioning summer cooling. Principal savings from:

1. Eliminating windows from the west side better to rebuff the hot afternoon sun. (Consequently less cooling capacity needed and operating cost dips.)
2. Eliminating other windows, surplus doors normally needed for cross ventilation.
3. Omitting an attic fan usually required in New Orleans.

Morrow has already bought materials for his first 100 slab-type houses. He says, "I expect to sell 500 of these houses, the first 100 within 60 days." Morrow bought 15 mins. of television time to show his house. Two hours later the model was mobbed.

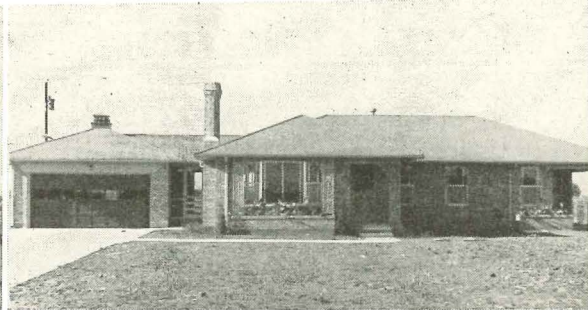
HENRY ACULAR of A & O BUILDERS says, "In our climate the high-priced buyer demands air conditioning without exception." This year he has built 20 air-conditioned houses priced \$30,000-\$80,000.

Latest developments in Texas

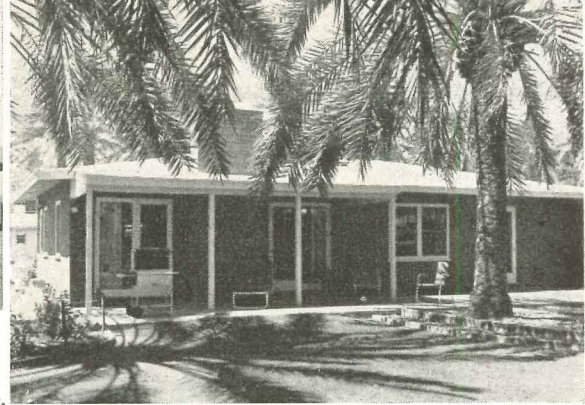
In Texas last summer, temperatures hit 100° for 37 straight days making builders even more sales conscious of air conditioning than they were last year. In Texas builders already find that air conditioning is mandatory in houses priced \$20,000. They echo words by a spokesman for the EUBANK CONSTRUCTION Co. in Dallas: "It is absolutely essential that houses be air conditioned in order to sell."

Big news in Texas is the spread of air conditioned houses to the smaller towns. Pampa, DICK HUGHES sold 25 air-conditioned houses for \$12,500 within ten days. In Corpus Christi a reported 330 houses priced under \$20,000 will include cooling.

The boom was touched off last summer when air-conditioned houses for \$12,500 were offered in Dallas (April H&H). By summer's end it was impossible to keep track of air-conditioned projects in Texas. Here is a sampling of developments
▶ Within ten days Dallas buyers had



Dallas builder J. W. Jacobie put a 3-ton conditioner in this \$25,500 house.



Right, in southern California by Johnson, Inc.

Kansas City by Wadsworth

CROWE & BENDA's air-conditioned houses are selling in the \$12,000 class. The builders have 30 more lots and say: "We've received more orders for the rest if we can get them cleared up to get VA loans." Crowe & Benda use a 2-ton unit which kept their 1,200 sq. ft. model at 78° when it was a 103° outside. The Dallas Power Plant Co. figures operating cost at \$93 per summer and only \$1 a month for water if a cooling tower is used.

Grand Prairie builders HODGES AND HENDERSON are "so gratified" with public reaction to their 25-unit Marler Hills project with air conditioning, they plan a new 132-unit development. Their present houses sell for \$6,000-\$18,000 with 2- or 3-ton cooling systems. Seven were sold in less than three weeks.

The proposed houses will sell for \$10,000-\$15,000 with year-round units. Crowe & Benda are selling five \$14,700 houses with air conditioning, Dallas builder L. H. HENDERSON started building ten more. Ralph Curry, agent for the project, says: "Although we started a bit late in the season, we had no trouble selling these houses."

Fort Worth builder P. S. LUTTRELL will announce 27 new air-conditioned houses in the near future. The houses will sell for \$12,000-\$15,000 with a 3-ton cooling unit. There are rumors that the \$12,500

LEWIS & LAMBERTH, LAUGHLIN & SILVER are building houses with air conditioning, reported by H&H in April, have not been successful. In rebuttal last month Harry Silver said, "Forty homes have been completed and sold, and we are building several more. But we have switched to brick construction because Dallas is a brick town, and the project will be resumed next spring." However, Silver adds that about 70 of 210 lots have been sold to other builders.

Concerning financing, Silver said they had no extra trouble with FHA and VA regarding disqualification of applicants, "at least no more than other air-conditioned projects have met with." Silver adds VA is more strict on salary requirements than normally on this size house without cooling.

In summing up Silver says confidently, "One thing we have learned: there definitely is room for low-cost air-conditioned houses in Dallas, especially in the \$12,000-\$15,000 field."

Reaching across the Rockies

Up to now home air conditioning has made scarcely a dent west of the Continental Divide. Cities such as Los Angeles and San Francisco enjoy low humidity and cool nights. However, cooling has arrived inland where people often swelter in 100° heat.

One of California's first with air condi-

tioning is the JOHNSON, INC. Sungold project in Riverside, 50 miles east of Los Angeles. Johnson, Inc. has sold 40 air-conditioned houses for \$12,000-\$15,000 (see photo), is building another 58 houses and expects to put cooling in 50% of them.

Come October in Sacramento, Calif., builders E. A. CORUM & SONS will offer 3-ton cooling systems for only \$800 extra in 1,257 sq. ft. houses of a 40-unit project. Without cooling the houses will sell for \$12,950 including a two-car detached garage. Designed by local architect ALBERT M. DREYFUSS, JR., the houses will use a year-round gas unit for air conditioning.

Roundup

As this issue goes to press it is clear that air-conditioned projects are sprouting up all over the US. In Wilmington, Del. the 174-unit LYNNFIELD HOMES development will include cooling in all of its \$14,990 houses. A Philadelphia builder has ordered 40 air-conditioning units for a new project. In Cincinnati a builder has ordered 50 units for his new houses. And in Columbus, Ohio, builders S. L. MARCUM & V. I. KERN have already sold seven of their first ten air-conditioned houses which are in the \$20,000 bracket. Air conditioning has become the newest and most dramatic sales attraction for builders' houses.

Conditioning without water. . .

Hughes of Pampa, Tex., is the country's No. 1 booster of waterless air conditioning.

This summer Hughes put a 4-ton air-cooled system in a \$12,500 house. Within ten days eager buyers snapped up 25 of them. Builders and manufacturers are anxiously watching Hughes' success because he is the leading exponent of the waterless, air-cooled condenser, which he hopes will cut operating cost.

Does the air-cooled system really work? Hughes says yes, in his model house which was kept at 76° this summer when it was a blistering 102° outside.

The main unit is in a central closet. The refrigerant is piped directly to the attic where it passes through metal condenser coils which are cooled by air drawn in by two fans operated by 1/2 hp motors. The cooled refrigerant is then pumped back to the main unit.

Although 3 tons of cooling might be enough for his 1,000 sq. ft. house, Hughes installs 4 tons. "People really want cooling,"

he says, "especially the first year, and 4 tons brings the temperature down an extra 50°." (Because an air-cooled unit is less efficient than a water-cooled type, a 5 hp compressor is needed to produce 4 tons.) Hughes' total cost for heating and cooling is a minimum of \$1,500 per house based on a volume purchase. His cost is kept low by designing the house for a centrally located conditioner which requires little ductwork.

Because no water is needed, total operating cost will be only 5.2¢ an hr. for electricity at 1.93¢ per kw-hr. Based on 2,000 hrs. of operation for an average Texas summer, the homeowner's bill will be approximately \$100 for five to six months of cooling. (In northern states such as Illinois and New York units operate about 1,000 hrs. in an average summer.)

Since Hughes is still experimenting with air-cooled units he stopped offering his air-conditioned house after the first 25 were sold. Now he will carefully watch how well his waterless air conditioning works.

Cooling impact brings air conditioning to Washington, D. C. area

in pleasantly contemporary houses

Opening day was a big success. Although it was a wet, overcast Sunday, 7,500 viewers jammed the first of 80 houses selling for \$26,750 in Valley Brook, Va. By nightfall eight purchasers made a 5% down payment, four others signed binders to buy. Main reason for this notable success: these are Washington's first houses under \$35,000 to be air conditioned. More than that, they incorporate excellent cooling design, plus other features even builders of \$10,000 houses can profit from.

Air conditioning was a major design factor in these houses built by Oman-Neal, Inc. While the rolling terrain dictated the basic three-level plan, designer David S. Oman evolved a house that vastly simplifies the usual cooling layout. And because of air conditioning Oman was not hamstrung by the requirements of cross ventilation and problems of orientation. Consequently he used a minimum of end-wall windows and thus assured privacy for adjacent homes.

Squeeze play. By tight design Oman achieved an 1,800 sq. ft. house that only requires a 3.3-ton air conditioner despite Virginia's sultry summers. They are as hot as Houston's, and even more humid if not so long.*

Maximum air-conditioning efficiency was packed into the house by three principal devices:

1. Within the 10" cavity brick walls are a 3/4" dead air space and 1 1/2" of glass-fiber insulation. The insulated walls alone are credited with cutting heat loss by 20%.

2. Windows are protected from broiling summer sun by 3'-6" overhangs (which do double duty as balconies). All windows are weather stripped and floor-to-ceiling glass is double glazed.

3. The roof is not only insulated, it is covered by light-colored asbestos shingles to reflect sun heat.

By thus minimizing heat loss Oman saved

* Well-insulated conventional houses in the North usually do well with one ton per 500 sq. ft. of floor area compared to 600 sq. ft. in the South.

\$1,000 per house—the cost of the next larger air conditioner that would otherwise be needed. And, with this smaller unit, operating cost will be no more than for an average 1,300 sq. ft. house.

Silent power. The designer put the air conditioner in a storage room whose central location quashes the need for long, winding and costly ductwork.

To suppress air noise, duct connections to the unit are insulated with sound-absorbing material. There is no motor-noise problem; the compressorless unit uses gas for cooling as well as heating (96,000 Btu capacity).

Where many builders become victims of penny-pinched ductwork, Oman's air distribution is a model of good design. Warm or cool air is discharged from ceiling-high registers on inside walls across the ceiling toward outside walls and windows. Return air is pulled back to the air conditioner from grilles strategically placed under windows. Here cold down-drafts in winter are scooped up under windows before they can chill the house.

When air is supplied from inside walls, it is false economy to eliminate return duct runs from outside walls. Yet here is where many builders go wrong, especially in slab houses. In one such case FHA withheld \$50,000 from a Philadelphia builder because the homeowners complained about the poor heating.

Other features. Although air conditioning is the major feature of the home, its three levels are packed with other sales-sealing details:

► First level embodies a dining-play area closed off for formal dining by a 10' folding door. Opening the door affords the working housewife a supervisory view of children in the play area. Also concentrated on the first level are \$3,000 worth of appliances, including a dishwasher, refrigerator, garbage-disposal unit and automatic washer.

► Second level contains living and study areas separated by a double accordion-type

door. Opening the door liberates a 40' x 14' area for entertainment. Here are a 12' fireplace and 70' of fluorescent strip lighting.

► Third level has three bedrooms each with an extra door to the central balcony. The house has three bathrooms on the third level, one on the first.

Absent from the house are many conventional items which Oman considered unnecessary and eliminated to speed construction and cut costs. He did avoid such items as mantels, surplus trim, framing members, and steel lintels. (Most of the floor-to-ceiling windows are structural members of the walls.) Also, wall construction replaces lath and plaster.

Additional savings were achieved through a minimum of costly excavation and foundation. The versatile house can be turned on hilly land sloping up or down from street; either facade can be the front.

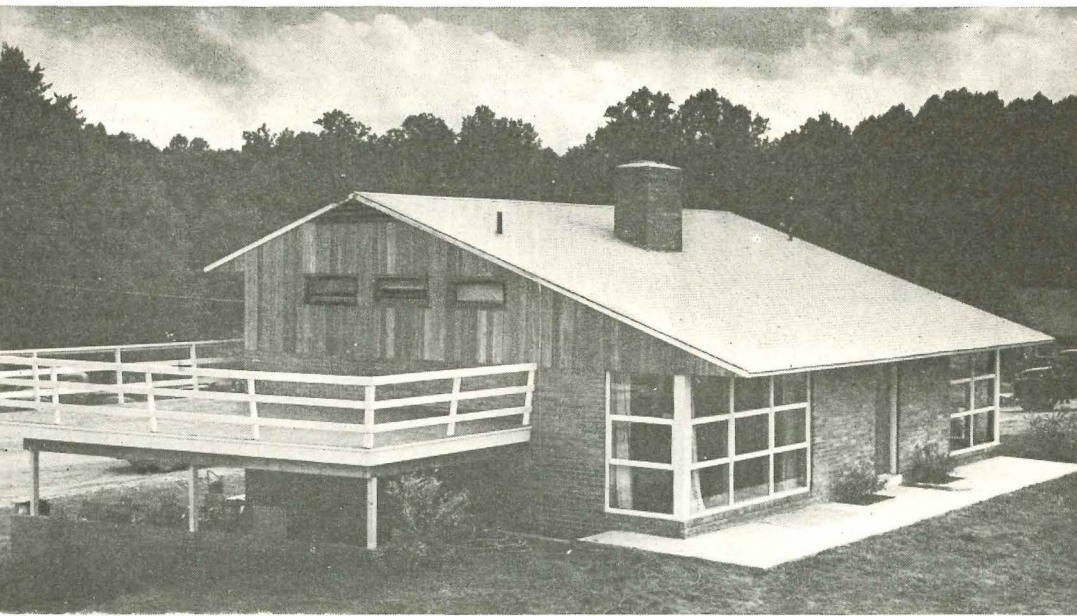
Cost data. Based on a quantity price schedule, Oman pays \$1,378 more for air conditioning equipment than for heating alone. Total cost for heating and cooling is \$2,550 per house, including the ductwork.

Washington Gas Light Co., which installs the equipment, estimates that total operating cost is an average \$300 a year for five months of seven months heating.

The breakdown is:

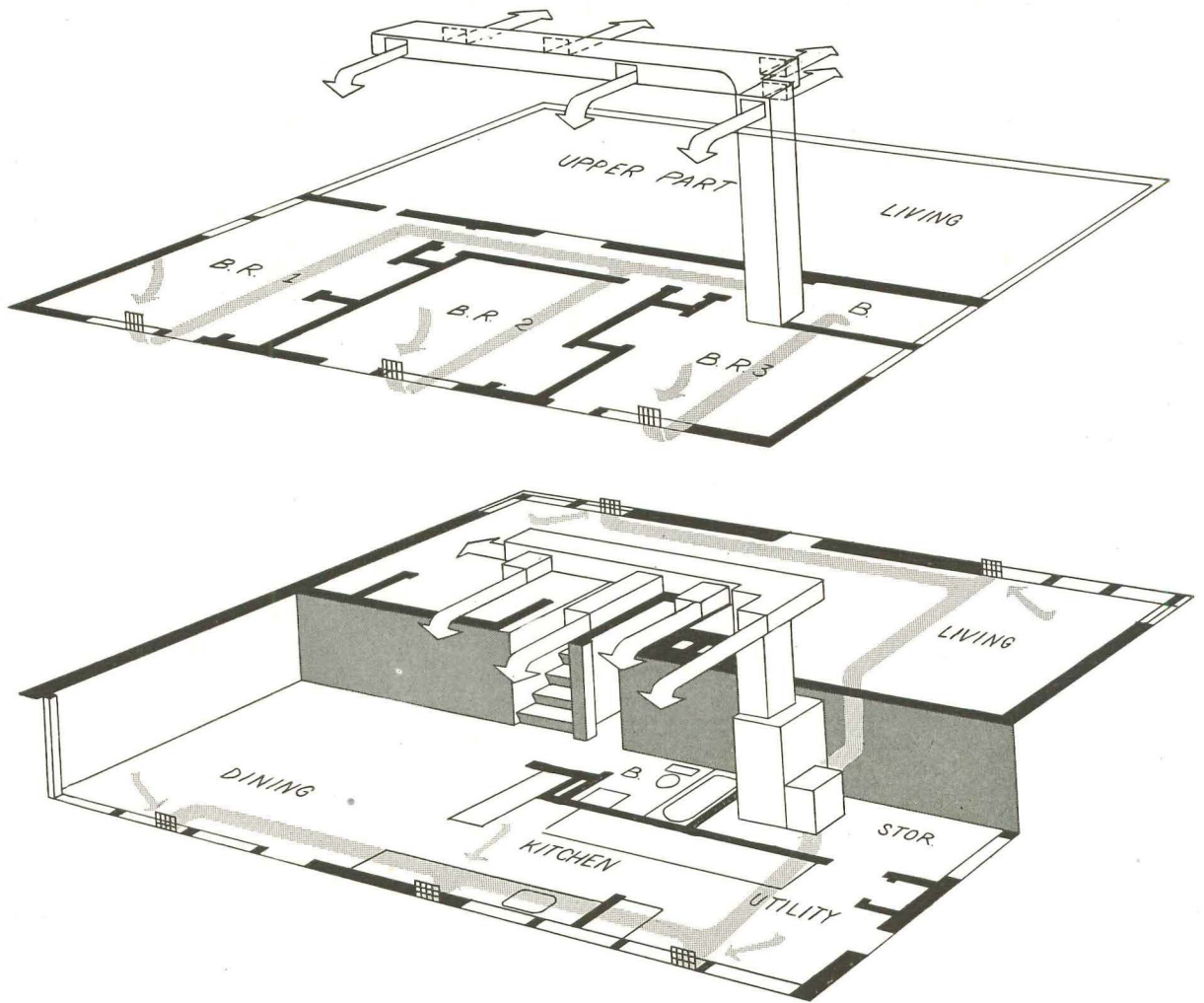
Heating gas	
Cooling gas	
Electricity (for the 1/3 hp fan motor)	
City water for cooling (no cooling tower is included)	
Total	

Fuel cost is based on a Washington gas rate of 11.7¢ per therm or about \$1.28 per 1,000 cu ft. of gas. This is higher than the national average. Since the gas company provides free service, homeowners should have no additional heating or cooling.

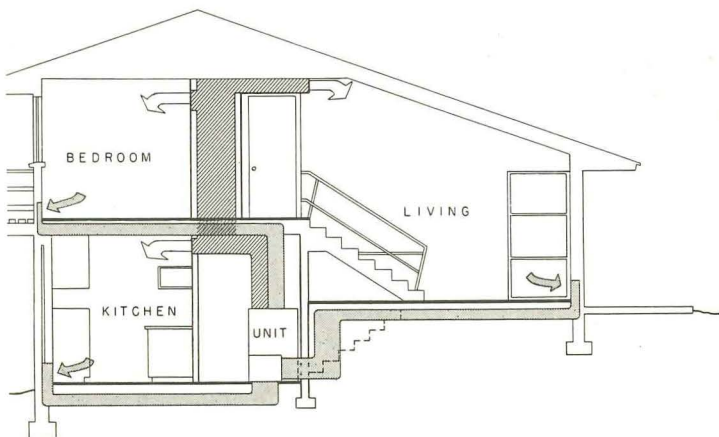


Three-level 1,800 sq. ft. house is the first of 80 air-conditioned houses for \$26,750 in Valley Brook, Va. Cooling eliminates need for cross ventilation; privacy from adjacent houses is due to a minimum of end wall windows.

Dimitri Wolkonsky (Courtesy Serval, Inc.)



Efficient duct design supplies warm or cool air from high inside wall registers. Cold down-drafts in winter are scooped up under windows before they can chill the house. A 3-ton air conditioner uses gas the year around for heating and cooling. Without generous overhangs and insulated walls, house would need a 5-ton unit at \$1,000 additional.



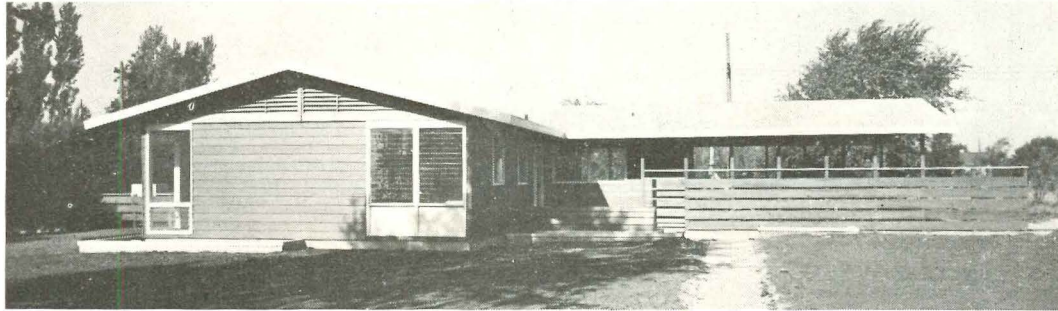
Rolling terrain dictated the basic elevation, left. Where land slopes down from the street the second level becomes the house front. The first level faces street when the site slopes upward. Thus the designer achieves major excavation savings per site; each house can be easily oriented to conform to hilly land.

Air conditioning demonstrated

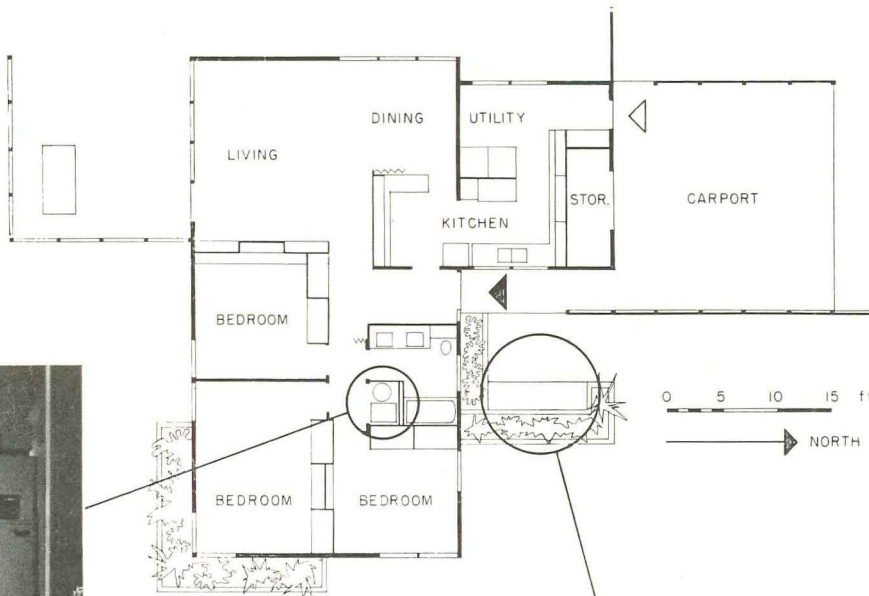
when architect joins with manufacturer

to present \$15,000 builder's house

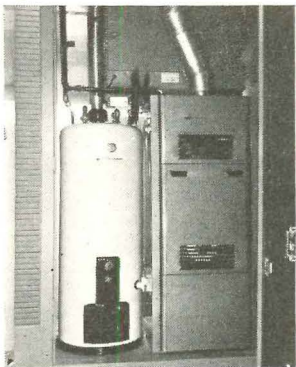
Photo: Hal Pottorf



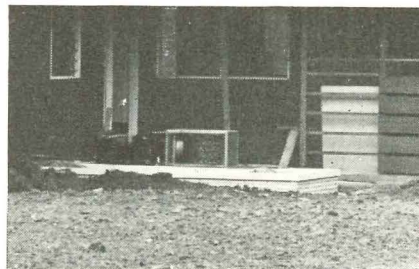
To protect walls and windows from hot sun rays, generous overhangs cover the house like an umbrella. Insulated roof is light colored to reflect sun heat; narrow west wall offers minimum exposure to afternoon sun.



Plan calls for no load-bearing interior walls because roof trusses are used. Small ducts fan out overhead from closet to all rooms.

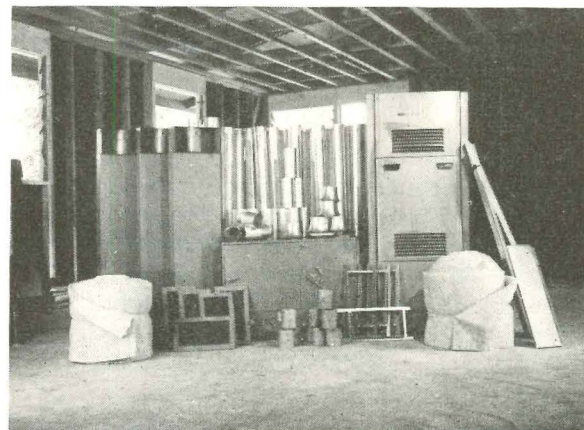


Compact closet houses equipment since cooling unit is on top of heater. Hot-water boiler is installed at the left.



Uncovered compressor and evaporative condenser (for saving water) are connected by pipes to main equipment inside house.

Photos: Courtesy of The Coliman Co.



Major savings result from presizing all parts (left) for the air-conditioning system. Insulation is used for ducts in the attic.

The fast-moving trend to all-year air conditioning sparked construction of this demonstration house by Coleman Co. in Wichita, Kan. for the benefit of its dealers and contributors. Containing 1,266 sq. ft. of living area plus carport and storeroom, it was designed around air conditioning by consulting architect Ned Cole of Austin, Tex.

In most places the house could be expected to sell for \$14,000-\$15,500 including the \$1,900 air-conditioning system but excluding the land.

Remote cooling. This air-conditioning system is different from most, for it uses small 3 1/2" round ducts and a knobless compressor located outdoors. Bulk of the equipment is packed in a 44" x 32" cabinet.

With an evaporative condenser for cooling water, the 3-hp compressor is piped and connected to the main cooling unit in the closet. This system is a miniature replica of the one used in big buildings where a remote compressor feeds cold refrigerant to cooling coils throughout the building. In other installations the compressor could be located in the garage, basement or practically anywhere.

Warm or cool air is blown to all rooms through ten small ducts fanning out overhead from the closet to outlets near the walls. Thus the warm or cool air is discharged in a wide curtain from ceiling to floor to blanket outside wall and window surfaces. In winter each pipe handles 10,000 Btu's of heated air.

Costs. The year round system costs \$1,900 fully installed—less for materials for builders who make volume purchases.

Total operating cost in Wichita for heating and cooling will be about \$132 a year or \$11 per month. Of this figure, the owner will average \$52 a season based on a gas rate of 40¢ per 1,000 cu. ft.

Other features. Besides demonstrating good air-conditioning design, this house features the economies of truss-rafter construction, a staggered exterior wall construction. With interior partitions relieved of their usual load-bearing function, the house interior is finished in one big room with full-size sheets of plywood. Window frames which do not project part of the exterior wall structure are dadoed to receive the inside wall finish to eliminate trim. (Builder Ken Stowell claims this alone saved \$250.) Once the house shell is complete, prefab storage partitions are moved in—15 units of equipment.

No mean tribute to architect Ned Cole for his carefully detailed designs and his combination of shop and on-site fabrication. This observation by builder Stowell is a good co-operation from subs, a workman, two carpenters and two laborers to finish the house in 20 working days.

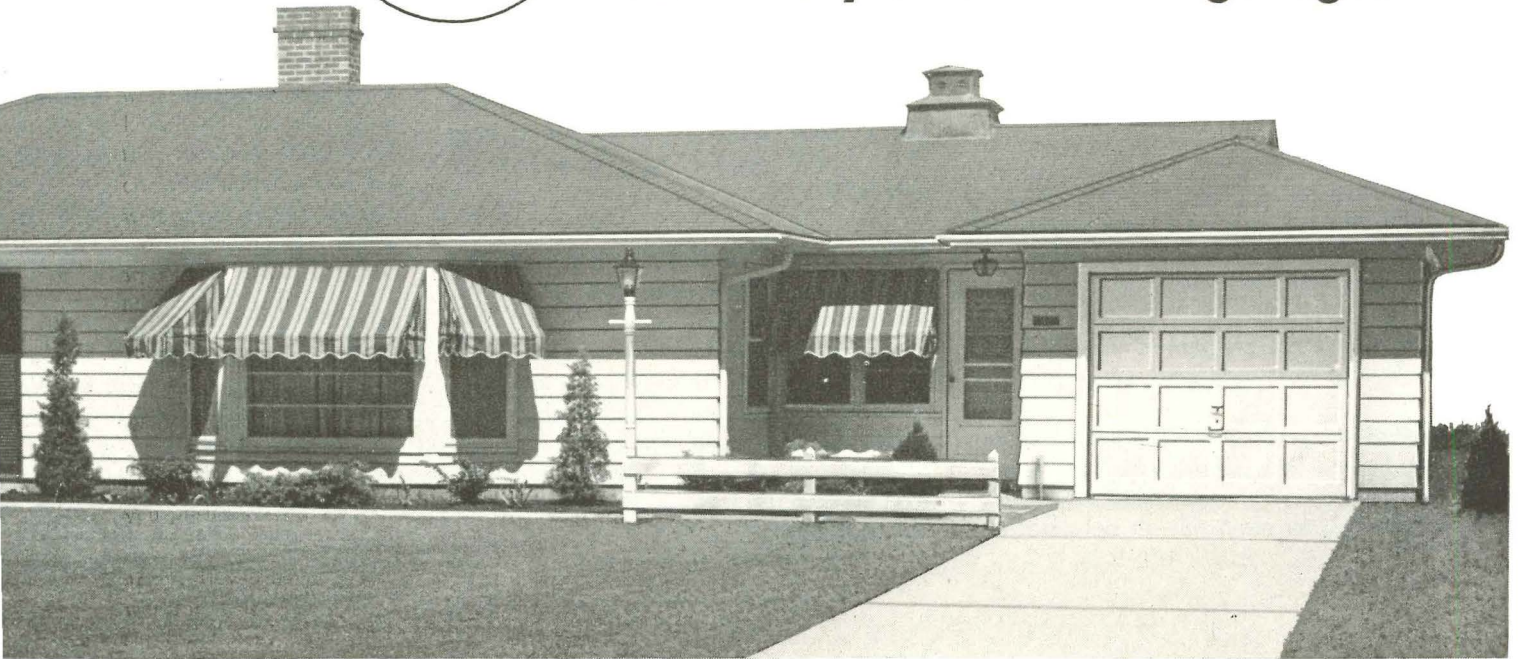
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health and building laws were adequately enforced, a large part of the slums would not be empty of tenants. There is no provision in morals or freedom or the Constitution that building owners be allowed to collect income from the pollution of public health and morals in the name of private property."

Clarke: Well expressed, too.

Coogan: Let me put a modern note on that. We have authority to see that a property is being maintained. How well is that being enforced and what is being done to make sure that the purchasers are keeping their houses up?

Rouse: Almost every institutional mortgage lender requires inspection of the properties once a year.

Spiegel: It is not being done.

Coogan: I am just bringing it up as a casual point. It should be done. It is the one preventive measure we already have legal right to enforce. A great many people and a great many institutions are being delinquent.

Burns: We have a program of scheduling inspections at least once every two years.

Brockbank: I retained a deed restriction on 1,700 houses. To try to insist that the people live up to the deed restrictions is almost a full-time job for me. I ride up and down the

streets and I see some of the darndest things happening even though people know they are not supposed to do such things as changing the house and changing the whole lot, bringing in trailers and so on. And yet, I think I have a reasonably high standard of personnel in that particular subdivision. But unless you are very vigilant, this thing gets out from under you awfully fast.

Walker: Part of our whole new concept of community development should be to ensure that an opportunity for belonging is part of the whole general movement; unless you do that, you will get the slum.

Unless we can build communities where there is citizen participation at the highest level, you are not going to eliminate slums.

Coogan: You are closing your eyes if you say people do not make slums. I have seen places where new modern houses were built and the people taken out of the slums and put in them. Yet it is very difficult to keep those people from dumping garbage onto the sidewalks.

Walker: It takes two or three years to readjust those people after they have left their former environment.

Rouse: I have seen the reverse of that, too. Once the city goes into a slum neighborhood, cleans the streets and makes the landlords do their job, they have started this cycle working in reverse and created a satisfactory neighborhood.

Why do not more architects and builders consider the small house a logical subject for good product design?

Prentice: Architects can make a major contribution to lower costs and better values through better and more economical design.

Rouse: There is a lot of talk about the builders failing to use good architectural service. I am a mortgage lender and I have tried to get builders to use good architectural service. I have found most builders willing to try. The extent to which good architectural service has not been available has been a very, very unfortunate thing.

But the great preponderance of architects do not know enough about building small houses. They cannot contribute enough in the way of imagination and design and resourcefulness to earn a fee. In any community today the number of architects who can think imaginatively and work co-operatively with the builder is very, very small.

Morgan: I would like to back that up. We haven't had too happy an experience with architects working with builders. It is unfortunate. I think it is due largely to the fact that the architects take too much of a professional slant.

Prentice: A great many architects do not have the experience to design a builder's house, and many do not have the inclination to make all the cost studies needed for a builder's house. And some architects working with builders unfortunately concern themselves exclusively with thinking up little sales gimmicks that they can put into the house. Some architects are doing a terrific job for the builders, but others are just no help at all.

How you are going to find the right architect I don't know, but you are not going to find the right architect by having it common-

ly accepted among architects that they not make any money from a builder.

I hear both sides of it. Among the I hear is considerable resentment among architects. They say the architect drives in his Ford and the builder drives up in a Cadillac and the builder says, "I am a sorry, I haven't any money, I can only give you \$25 a house." I think the builder has been penny-wise and pound-foolish to say such a poor mouth to the architects. I would say that they can't afford to pay the architect money to make it worth their while to do anything but a second-rate job.

Brockbank: One architect who has been prominent in small housing told me, "We failed to do our share of the job. I am in most of the opinion that we have got to change our product design in low-cost housing, rather than expect the AIA to contribute to it because they are not interested in it." But we would like to improve their product, especially its design. They do not all agree, but they would certainly make a much better looking house than they build now. The builders don't find the co-operation that is expected from the architects.

Parker: I think the architectural profession has been very negligent in its duties. The contractor, the homebuilder and the public in ignoring that vast field that is so important. It is a duty of AIA to educate its members that this is product design.

It is ridiculous to think that an architect would collect what is recommended as a minimum fee of 6% for designing a house for mass production.

At the same time, the builder should fully investigate the kind of service he is getting, the extent of the service and the amount of work the architect is going to do. If it includes not only layouts, but siting, landscaping and colors, that should be considered in the fee. I believe the question of education on both sides.

Designing for builders could be a profitable service, from which architects could reap rewards commensurate with the value they give.

Taylor: Our company has probably spent more money on architecture of small houses than any outfit sitting around this town. It was a headache. We got nowhere until we made a team out of an architect and a structural engineer.

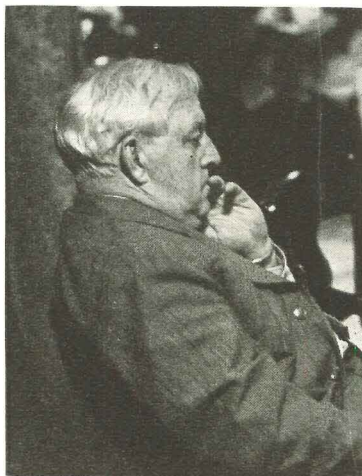
Parker: The problem of finding an architect is one of seeking out people who are interested in this type of work. Not enough architects work with builders, and yet that is what they should do. The architect in the old days was a builder. Today he should still retain some knowledge of building to know you are talking to him so he can act with you as a builder. When he gets into new fields he should have enough sense to call in specialists in air conditioning, structural work and



There are some architects who do not earn a \$35 will not stick up for them.



Adequate evaluation of design and construction by lending agency is extremely important.



There are some called modern which I would not have in my house.



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How can the high cost of completely equipping the kitchen be met without sacrificing space and quality elsewhere in the small house?

Prentice: Let us consider the problem of competition between the equipped kitchen on the one hand and the rest of the house on the other. I think it is unnecessary and unhealthy that the builders should be confronted with the choice between providing an adequate kitchen or an adequate house.

I had a long talk with one of the top FHA men and asked him what he thought the builder would have to do to get the price down under \$7,000. He said right off, "Strip the house." I said to him: that means you cannot sell an equipped kitchen, and he said that was right. He agreed that from the point of view of the home buyer it is very much better to be able to get his house completely equipped as part of the original installation, and have 20 or 25 years at 4¾% to pay for his equipment, than to have three years to pay for his equipment at 9.6%.

Mason: Might it not be better to offer them such extras as garbage-disposal units and things of that kind which have to be built into the house? Take the money that goes into the stove and the refrigerator and put it into this third bedroom and the extra 2' of living room.

Hughes: If you are talking about air conditioning, then I am in agreement thoroughly with your proposal. On the other hand, I think the equipment should be a matter of option because I find most of my buyers already have a stove and a refrigerator.

Prentice: If you are going to stay within FHA requirements on how big a mortgage you can saddle yourself with, then the builder faces the choice between putting in \$600 worth of equipment or putting in \$600 more house, but he cannot do both.

If somebody buys a house with \$1,000 worth of equipment in the kitchen, and if he takes 20 years to pay for it, what does that add to his monthly payment?

Goldstein: On an FHA it would be 4¾%—about \$5.45 a month.

Prentice: But once you have got your mortgage, there is then nothing to stop you from going out and sticking yourself with a lot of short-term paper. If a man buys \$1,000 worth of equipment anyway except with a package mortgage he will then be stuck \$31 a month.

Held: From a mortgage standpoint the average purchaser of an \$8,000 or \$9,000 house spends something between \$1,200 and \$1,400 above the cost in additional requirements such as screens, storm sashes, drapes, carpets and so forth—mostly with short-term credit.

Prentice: If more of that \$1,400 were long-term credit included in the mortgage he would be a better risk for you and the pressure on him would be reduced. Just about the biggest single cause of defaulted mortgages is that the family has loaded itself up with more short-term credit than it can carry at the same time it is carrying the mortgage.

Morgan: I think the trouble comes because lenders usually do not get clearly presented to them whether or not a buyer has a package mortgage. Most frequently we get an application and we assume it is an ordinary job with a stove in the house. But we can see clearly that the fellow is not going to have an extra \$12 to \$20 a month to carry his washer, refrigerator and other equipment. I think we could go along on a larger portion of carrying charges than we would otherwise. But frankly, the package is not sold in the mortgage picture as being different from the ordinary mortgage.

Brockbank: I would like to ask a question of two groups, the mortgage people and the manufacturers. As I have gone around the country this year, people have said they would like to build their houses with the ranges and refrigerators and they are principally concerned with automatic washers. But here are some of their problems. The mortgage people think that the range should become a part of the real security, not just something that sits there. The refrigerator is another example. I have pleaded with the manufacturers for years to design the refrigerator so the door can be opened without requiring so much space at the side for the door to swing out—a feature which makes it obvious that the refrigerator is not a part of the kitchen.

I have gone into one builder's house (and there are thousands like him) where in order to put in the automatic washer and drier the builder has had to build a steel column in the wall to hold the drier above the automatic washer. There is no reason why an automatic washer and a drier could not be made to fill the same floor space.

Does the public really know what size and kind of house it wants?

Jones: I think most of you know that we are making an effort, through an HHFA grant to the University of Illinois, to study space standards in dwellings. I have wanted to ask a very mean question: how big is this "too-small house" we are talking about? I am not able to define the size yet. I feel that the housebuilders and the architectural profession have to lead the people, because it has been our experience that people, although they say that they know what they want, are not really sure.

Our experimental house is completely flexible and we change the plan every month and then question the occupants thoroughly on their reaction to the plan. We have found that although they say they want one thing, when they actually experience it, it may not be what they want at all. I do not believe that the average person has enough experience to make a valid choice of what he wants.

After we get through with this experiment, we hope we will be able to offer some good advice. It is a two-family study over a year's time. It should be done with a lot more people. But it does justify our opinion that a magazine survey asking people what they want will not produce a valid answer.

Prentice: What is the size of your house if you push the walls out as far as they will go?

Jones: It will go to 32' x 48'. We have been working with one basic size, 24' x 36'—864 sq. ft.—this past year, and just changing it within the exterior.

That house can be used both with and without basement. We have a basement under part of it, and we do use it for one month in the experiment. We are building a garage which we consider necessary for that size

house—to accommodate bulk storage where there is no basement.

Prentice: The question is asked, how big is a too small house. I don't think anybody knows, but it seems to me that we can all agree that there is such a thing as a too small house. Frankly, I don't know what the dividing line is. Where do you think the dividing line is? Am I on firm ground that it used to be a sort of rule-of-thumb that 1,000 sq. ft. was a minimum house?

Walker: There is quicksand there.

Jones: You cannot make such a positive statement. The reason we chose 24' x 36' size is that we wanted to correlate that information of other houses of this size. One of the things we have been comparing is the two-bedroom house with a couple of fairly large bedrooms and a three-bedroom house. The typical family which we have used to set up that program has one child of school age. They would want to sacrifice the bedroom.

Morgan: Can't we be more general than that? A house for one person can be terribly small. But there are average families in this country of two kids at least. Can't we then say that 720 or 700 sq. ft. might be the figure? I don't care which figure it is, but let us find the figure. Can't we even say that 650 sq. ft. or 700 sq. ft. is the minimum? Could we say that is the experience of this group? I think we can.

Coogan: Maybe for the average American family, but that is not the minimum house. You have got young couples who don't want a big house, and you have couples where the children have grown up and left home.

What can be done about the high cost of servicing mortgages on small houses to make them more attractive to lending institutions?

Coogan: Nobody has mentioned the pressures against the low-cost house. The builders who have been striving to build the low-cost houses have been unable to get land zoned for them in the average city. When they do get the zoning, they cannot get the mortgages. The mortgagees don't want to service them. It is just as much trouble to service a \$6,000 mortgage as a \$10,000 mortgage, so they would rather put their effort into a \$10,000 mortgage. The same thing happens to the investment institutions. Something else has to be done to make the small mortgages attractive to the investment institutions before we get a real development and real expansion in low-cost housebuilding.

Prentice: Although I think low down payments are necessary, I am reasonably sure that with the 25-year mortgage there is a period of several years before that mortgage is sufficiently seasoned to have much of an attraction to lenders without government help. I do not think a completely free economy, without some government collaboration, if you want to use a mild word, would support it. In other words, without FHA backing it, I don't think that low payments could be realized.

Coogan: Everybody around this table has prospered and done well because of FHA.

Clarke: You have to have the government in

the insurance business. I am strong for it. But I think that the government should stop everlastingly attempting to legislate for the benefit of certain classes of people. They seem to attempt to legislate \$7,000 houses by very small down payments. They hurt housing by continuing rent control and by continuing unrealistic interest rates on government-insured mortgages. If we decide upon a down payment that is logical and reasonably safe, that down payment should apply to almost every type of housing. Lenders would not make very high percentage loans on high priced housing. The lenders themselves would take care of that.

Coogan: People who do not like the regulations are perfectly free to operate in the conventional loan field. It is only when they accept the FHA and VA benefits that they accept the regulations.

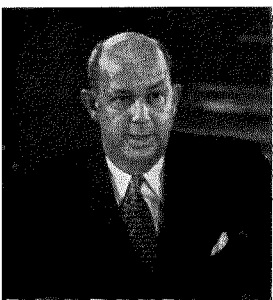
Clarke: The benefits should be purely on an economic, not social basis.



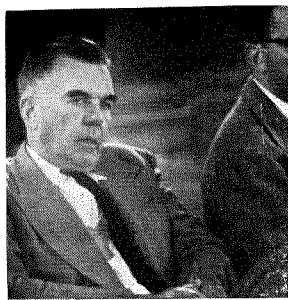
Held: From a mortgage study point the average purchaser of an \$8,000 or \$9,000 house spends something between \$1,200 and \$1,400 above the cost for additional requirements such as screens, sashes, drapes and carpets, mostly with short-term credit.

Held: Based on a study in FHA's Mortgage Portfolio, conventional mortgages were responsible for financing more than 70% of new homes costing \$15,000 or more, and 70% of new homes less than \$6,000. So what we are talking about is that a significant majority of the homes in the \$6,000 to \$10,000 price brackets were being financed with government-aided high-percentage loans without the impact of the regulations and other factors was greatest in the FHA and VA programs.

On this question of down payment, I think that the average mortgage lender is looking for a stable loan that is going to live with him for its normal life. In our experience with low-price houses of good quality, we have found that where they have been grouped together we get a very, very good neighborhood. This is nothing against the people who purchase the house, but you will find that approximately 20% of such peo-



Price: Prefabricated houses are actually being built at costs about 20% under conventionally built homes.



Taylor: One way to bring costs down is through research and co-ordination and standardization of materials.



Thompson: There can be a closer working relationship between those doing research and those getting it.

How does the prefabricator help the homebuilder?

What new developments promise lower costs in the future?

Price: Can we agree that prefabricators can make an outstanding contribution to better housing for everyone by supplying prefabricated parts for use in builders' homes?

Taylor: The prefabrication industry is the ideal meeting ground for all this co-ordination you are talking about. The future of the prefabrication industry, and our contribution to the building, is in making a complete package. I don't think anybody in the industry today is thinking seriously of parts.

Rockbank: Well, maybe not in the prefabricated industry as such. But up at Madison, Wis., we saw the tremendous amount of work being done by the people who made sandwich panel, and the day is not too far away when there will be a manufacturer of these sandwich panels who will sell them to builders all over the country. We will buy preassembled parts, put them together, and they will be on-the-site structures but they will be made of prefabricated parts.

Taylor: Why not make the whole front of the house you are talking about? Let us say it is 32' long house 8' high. I agree with you on the sandwich panel 100%. Don't you think that that whole front of the house will come to you in one piece?

Price: That depends whether you can do it cheaper.

Taylor: But if you could get your weight down and the sandwich panels offer an opportunity for the walls, you would have something. On doors and roofs I think you are going to have to go to the reinforced plastic field for a sandwich panel of a different type. But I think before very long, you will get all of those materials from the prefabrication in-

dustry in full-sized pieces, with windows, doors, the works in them. They will come with the interior and exterior finished. The weight will be between 3 and 4 lbs. per sq. ft. for the floor, partition, exterior walls, ceiling and roof. And you will get full-sized pieces.

Coogan: I would suggest 4' panels. We are talking about design, and I think if we are going to get panels for the whole front of the house, we are going to freeze design in a mold. You have to allow for flexibility.

Barling: A lot of us advocate use of the storage wall. Our conception of the ideal house is one of complete flexibility. We concentrate on the inside of the house and its various components and let the outside fit the local pattern—it might be cinder block, frame or these panels. I have in mind the combination of storage walls, making up the interior of the house and taking full advantage of their economies plus the trussed roof. I don't care what the outside wall is. It may be 32' in a panel form in one locality and something else in another. But I think you will find many builders in the country embracing that concept wholeheartedly.

Price: We haven't attempted, and I don't think Mr. Taylor has, to install plumbing or wiring because of code variations. It would be impractical. The houses are designed so that with a minimum of expense you can put in whatever the local requirements might be. We are just having a survey completed showing the comparison between the cost of our homes and conventional homes in about a dozen spots throughout the US. This survey indicates that our houses are actually being completed for about 20% less than those conventionally built.

Jones: These men here represent the prefabricators and the big builders, but there are still a lot of houses by the guy who builds four, five and so on. I think that the day has to come when that man, to keep his price competitive in the small town, would like to get the benefit of some of this prefabrication and precutting.

I think this panel idea, or piece of house, or a whole bathroom, if you like, has a lot of merit. It has code problems, and problems of builder education, too. We have builders in our town who still build the whole stud wall and then cut the holes out for the windows—they are that far behind. The Small Homes Council has been trying to tell the small builders that they can make money by tipping up walls and using trusses and so on, but even in our town we cannot convince all of them.

Price: On the other hand, we have dealers in your home town and the survey made there shows that they are more than 20% under your conventional builders.

Thompson: I will take issue with that. They are under some of them, but not all of them.

Coogan: I think the prefabricators and conventional builders, as labor goes up, will find more in common. Labor is the big element in housing today, and it is pushing the cost of all components up. We are still assembling our exterior walls. People talk about the frame of a house. Frame does not mean anything. You have got from seven to nine layers in the average house wall. Some day somebody is going to find a method of putting those layers together in a plant. They will roll them out, sell them in sections, and we are going to reduce the cost of housing when they do that. We are paying \$2.50 to \$4 an hr. for men to put on plaster or nail on boards. These methods are not the right ones.

Price: I don't think that builders realize that our company alone is shipping over \$4 million worth of houses to builders a month. We are providing them with material to make a completed house.

Taylor: The percentage of the houses that are prefabricated is growing every year and that speaks something for the industry. But I think one place to bring this cost down is through research and co-ordination and standardization of materials. I think the prefabricators have an opportunity to do that as no other segment of the industry has. No one builder can do it. I don't think the windowmakers can do it. I don't think the architects can do it.

Price: The mass purchasing power of prefabricating companies enables them to buy the highest quality component parts at less cost than conventional builders can buy low quality substitutes. For example, our aluminum windows and trim are delivered to us at a lower cost than the cheapest wood windows.

have no pride of ownership. They just let them go. Another 30% will start on adding as their income is sufficient to permit them to do it. They will go out and build a pantry on the back. They will get old boxboards and things like that and put them on. The top 20% of the people may spend as much again on their houses in the form of improvements as they originally paid for the houses, so in a single neighborhood some owners are pulling values down and some are pulling values up. But in the main the values are being pulled down in the lower-priced houses.

When you get up to your \$8,000 to \$12,000 and \$15,000 class, the situation is different, because the owner is provided with a livable house, something that he is going to stay with for the life of the mortgage. In that case, whether a fellow puts down 5 or 10% is relatively immaterial as far as the stability of the mortgage, the stability of value and the stability of the neighborhood are concerned. In 1940 you put up \$4,900 homes which today are selling at \$11,000 and \$13,000 as against new houses selling at \$11,000. It just does not make sense. But there it is. Your neighborhood is stabilized; you have value in there. That, I think, is what the mortgage lenders seek in looking for the stability of the funds of the public which they are investing in housing.

Jewett: The smaller the house the lower the price and the smaller the mortgage. It costs a lot of money to service a mortgage. We have more than 3,000 people on our payroll who do nothing but produce and service mortgages, and they have to be paid out of the interest on those mortgages. If we could make our average mortgage somewhere around \$100,000, we would cut that payroll down considerably. If we have to bring that average mortgage down to \$4,000, we would have to go out of business. Mortgages on smaller houses selling to veterans cost more to service than FHA and conventional mortgages. Most of those VA purchasers know nothing about real estate taxes or insurance. We do all the work for them. We are collecting only 4% and everybody in the lending business would like to see that rate higher.

For a man who has purchased a house for \$7,500 or \$8,000, it is the only big transaction he has ever made in his life. It is agreed upon at the time of closing that the monthly payments, the taxes, the interest, the insurance, amortization and so on are \$55. At the end of the first year the house is reassessed, and his monthly payments go up \$2. So you write that you want \$2 more a month from him, and that starts a chain of correspondence that sometimes gets to be an inch thick, all for your 4% on your \$7,000 to \$9,000.

Spiegel: Mr. Jewett, why is that different from an FHA loan?

Jewett: You will find the same thing in FHA, but I think the average VA purchaser is usually purchasing his first house. The average FHA purchaser is not. We have more

correspondence with VA borrowers than we do with FHA borrowers and more with them than we do with extension borrowers.

Brockbank: In order to make a small mortgage attractive to the lending fraternity, how much increase in rate would be necessary? I assume from what you said that if you could make a \$12,000 loan you would rather have that than two \$6,000 loans.

Jewett: Not quite, because there is the other factor of distribution of risk, which enters the picture to some extent.

Spiegel: Is there a breaking point somewhere?

Jewett: You cannot figure it out, and I don't believe we will ever know the actual cost of service for the different types of loans.

Prentice: I would like to repeat Brockbank's question. I know one of the problems of financing low-cost housing is that it costs so much more.

Burns: The 4% rate is too low in this market.

Brockbank: Let us not talk about rates as such. Let us talk about how much more it is worth to service a small loan than a large loan. I am not trying to pin you down to say it should be a 4 or 4 $\frac{1}{4}$ or 4 $\frac{3}{4}$ % or what. I am just trying to find out how much more it costs to service two small loans than one large loan.

Morgan: Would it be fair to ask this question? If in the industry generally it is accepted that it costs \$1 a month a loan regardless of size—generally speaking—then if we are talking about \$4,000 loans rather than \$10,000, how much more than \$1 a month does it cost to service it, regardless of the cost of money you are talking about?

Prentice: Would another $\frac{1}{8}$ of a point be something?

Jewett: On a \$10,000 loan?

Prentice: On a \$5,000 versus a \$10,000. If you could get 4 $\frac{3}{8}$ on a small loan (a \$5,000 loan), or 4 $\frac{1}{4}$ on a \$10,000 loan, would that $\frac{1}{8}$ of a point make a difference?

Jewett: I think the $\frac{1}{8}$ of a point would be a very valuable contribution if you were sure that every loan went through from beginning to end with no correspondence, with no change in ownership, changes in insurance costs, fire insurance, risk insurance, etc.

In the prosperous period we made a study of our Boston office loans. Servicing cost us approximately \$2.50 per month per case.

Morgan: What you are saying, in effect, is that about 50% increase would take care of the cost of handling a loan per month. In other words, if the cost were about \$12 a

year to handle the loan, for about \$18 you could handle a small loan. Is that what you are saying? That is $\frac{1}{8}$ on a \$5,000 loan.

The market right now for small FHA loans and for small GI loans is considerably poorer than for those of larger size. I think we are going to find in the next month or two that a lot of small GI loans are slow moving in the private market. In other words, both the FHA and the VA ought to make some differential in rate on size of loans.

Prentice: If there was a differential of even $\frac{1}{4}$ of a point, which I take it is closer to what you think would make sense, that would still be cheaper than the 9% that you have to pay now for the short-term modernization loans. So I would think that there would not be any particular sociological objection

Coogan: I think you are reaching a quick decision. There are a lot of other things involved. I do not think we should jump at the suggested rate.

Scully: Bring the rate up to the legal limit and let competition among the lenders determine the rate. It has always worked.

Hughes: What would 100% guarantee on VA loans do to the loans?

Scully: I think it would greatly improve them.

Morgan: We ought to be out of business; we cannot do it on what we now have.

Burns: I think that is right. It is a matter of getting a return to compensate for the work and the use of the money.

Scully: I think 100% guarantee would open the market up. In the first place you are paid in cash. You do not have to have foreclosure troubles and delay in certain jurisdictions. You got a 100% guarantee from the government. You cannot buy that in any security market that I know of.

Morgan: I personally think there is a good market for GI loans at 4% relative to the 4 $\frac{1}{4}$ FHA so long as there is a 50% guarantee.



Clarke: The government should stop everlastingly trying to legislate for the benefit of certain classes of people.