December 1953

## house home

## Hillside houses

## Custom design

## Design standards

Clever design and new earth-packing equipment help merchant builders strike pay dirt on neglected sites overlooking crowded areas (p, 90 and to frame a valley view (p. 100)

Designer Thornton Ladd blends geometry and romanticism
 in a mountain-top Shangri-La below and p. 118

How to figure correct dimensions for horizontal and vertical shading devices
in any US latitude and longitude (p. 144
New products
Light steel roof truss eliminates ceiling deflection,
is priced to compete with wood (p. 130
6 METHL E REPLACES - 150

Best sellers

Volume builder brings open-plan contemporary houses to Lincoln, Neb. (p. 136)


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Modern mortgages-Massachusetts case history points up lessons for builders.

Events
etters

HOW TO HIT PAY DIRT ON A HILLSIDE

1. Architect George Hay sites 27 houses on a steep slope just outside Philadelphia.
2. Builders Louis and August Rahives face their Castro, Calif, houses toward a hillside instead of the view.
3. Architect Richard Neutra uses the steep slope of a Beverly Hills lot as backdrop for an outdoor living room.
4. Modern earth-moving equipment cuts wide terraces into steep suburban Los Angeles hills. Architects Burge \& Roach design "flatland" houses for them.
5. St. Louis Builder Burt Duenke develops one-story, two-story and split-level houses for a tract of densely wooded, rolling land.

## 116 NEWS

118 GEOMETRIC HOUSE IN THE ROMANTIC TRADITION
Designer Thornton Ladd designs a memorable house, builds it irf a dramatic, mountainous setting at Pasadena, Calif.

130 LIGHT STEEL TRUSS
Ned Cole designs a new roof truss for builders and a model house at Austin, Tex., to show its advantages.

## 134 WHAT'S NEW IN AIR CONDITIONING

The industry arrives at a standard form for computing heat loss in houses and offers a wide range of central cooling units at its Cleveland show.

136 FAST SELLING HOUSES
Another in a cross-country series of best sellers-
this month, mass building and modern design come to Lincoln, Neb.

## 140 PREFABRICATION

Architect John Normile redesigns their three-bedroom house for Harnischfeger (P\&H Homes), introduces a flexible, open plan centered on a three-way dining area.

## 142 NO SPACE WASTED FOR PUBLIC HALLS AND STAIRS

Architects Keyes, Smith \& Satterlee design an apartment house for Washington, D. C. including four different apartments, ten of them duplexes.

## 144 DESIGN STANDARDS

Design details by Harold Sleeper for builder houses-
how to figure correct dimensions for shading devices in any US latitude and longitude.

150 NEW PRODUCTS
A roundup of prefabricated fireplaces.

160 Reviews

164 Technical publications


## "EUERYTHING HINEES ON HAGER!"

FREE! If you enjoyed laughing at Herb Brammeier's mirth-making cartoon this month, send for Hager's new book containing 28 full-size popular "Everything Hinges on Hager" cartoons! It's FREE! Just address


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$80,000,100,000$ and 112,000 Btu per hour at bonnet. Factory assembled and shipped with wiring harness for easy installation.


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See the West Coast Lumber exhibit at the NAHB Convention in Chicago, January 17-21. Booths No. 366 and 367 , Sherman Hote ${ }^{\text {i }}$

## Mays to five youn yet lkeelo costs

COMCHEDr
 used for exterior walls, and slump block on chim. ney and planter, harmonize equally well with col. onial, ranch-type and modern-style home designs.


A split-block planter
box, fireplace, or other decorative detail adds beauty and individuality at little added cost.



Split block in "natural
color gives this bedroom a real distinction. No extra finishing is required - although units may be


Exposed and painted
half-height units make an attractive bedroom walland save finishing costs for the builder.

three .... with looled horizontal joints and rubbed vertica make an attractive wall that absorbs sound, save on finishing.


Half-height units complemen
the long, low lines of ranch-type and contemporar homes.


## New concrete block wall patterns and textures add individuality and salability

Now sales-minded builders are adapting concrete masonry features from custom homes to help sell their project houses. The wide variety of sizes and styles, colors and textures now available in concrete block makes it easy and inexpensive to give individuality to every house-avoiding that "peas in a pod" look that turns buyers away.

As your competition increases, you'll be searching for new ways of providing the features buyers want most-while keeping costs down. Your local NCMA member will be happy to tell you how concrete masonry can help.

NOTE: Now you can give your homes extra sales appeal at lit cost if you add any of these: a concrete block garage or carpo a dry, comfortable C/M basement; a block barbecue, patio, or go den wall; a creak-proof, sag-proof concrete masonry floor or su floor. Even fire-safe, insulative concrete block back-up walls a partitions are potent sales features.

## Why buyers and builders like concrete masonry homes:

- Smart new colors, patterns, and textures in con crete masonry save on finishing and decorating costs.
Insulation values: walls built with light-weight, ho low-core $C / M$ units reduce insulating costs, store coole air and warmed air longer-cutting operating cost air conditioning and heating systems.
- Acoustic values - Try demonstrating to your pro pective buyers how much quieter a room can be wi exposed concrete masonry walls.
- Sound investment value - Low depreciation, lo insurance rates, low upkeep costs, and high resa value add up to real economy for the buyer over th years. Fire-safe, termite-proof $C / M$ walls stay nev looking longer.


## project honnes a "custonillook downin with ...

 NLPSOMRYSGVGD
especially adaptable to these building trends: the use of exterior materials inside, and open planning for more spacious appear-ance-as shown in this fireplace, which is the only separation between living room and dining and entry hall areas. This basic idea-here shown in a custom-designed home-is equally applicable to project houses.

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## Another multi-duty bathroom plan



## New $10^{\prime} \times 10^{\prime}$ room serves as master bath, guest bath, and powder rooms

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Basically, the room consists of two sections, each with its own Crane lavatory and water closet, and a bathing compartment with Crane tub and shower. The bathing compartment is so designed that by sliding a door, it becomes an exclusive part of either section.

This is just one of many original room ideas that have been developed as part of Crane's service to builders. 46 such ideas are now available in the Crane Sketchbook of Ideas-all colorfully illustrated to help you show prospects your new room suggestions. Ask your Crane Branch or Crane Wholesaler for your free copy of this big, helpful book today.

This plan provides an even wider range of usefulness than two full baths, yet requires no more space or cost. Architect: Howard E. De Wolf, Lansing 8, Michigan.

general offices: 836 SOUTh michigan ave., chicago 5 VALVES•FITTINGS•PIPE PLUMBING AND HEATING


The glass panes lift out to simplify painting or washing.
"Glass" window. It has no sash sections around or between the glass-thus eliminates balances, putty, sash-painting-and all hardware except the lock. The glass is $3 / 16^{\prime \prime}$ crystal and slides in a 2 -inch thick redwood frame, so designed that inside and outside trim is complete whether you use dry wall, plaster, or siding. These sections may be assembled as part of the wall framing and raised with it. The Pierson Sashless Window was designed and is manufactured by a home builder in the Redwood coastal area of Northern California, where winter rains are heavy, and over 6 years of use have proven its dependability. It is one of the lowest cost units on the market because "the buyer is paying for material rather than labor". The window comes in 23 standard sizes, up to 8 feet long. Manufacturing rights are available for well-established firms east of the Rocky Mountains. Inquiries from architects, builders and dealers, regarding the Pierson Sashless Window, may be addressed to Ernest Pierson Co., 4100 Broadway, Eureka, California.

Installation showing a typical arrangement of Pierson Sasbless Windows.

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Vertical Slide Prime Windows installed on unit Architect: Paul Cripe - Builder: A \& W Construction Co.



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[^3]

# Officials predict million '54 starts 

# - Commerce and Labor Departments join general forecast of a good year ahead for private construction 

## -Suburban market, birth rate and administration's antirecession program are some of the reasons for optimism

No matter how they sliced it, experts prog. nosticating the outlook for building in 1954 could not come up with anything but a rosy "nearly as good as this year." Practically everyone from HHFAdministrator Cole on down tabbed total housing starts at one mil lion. Last month, the authoritative annual Commerce-Labor forecast (table above) joined the million house chorus. It predicted 975,000 private units (an 8\% drop from this year's anticipated $1,050,000$ ) and 25,000 public housing starts (down from an expected 40,000 this calendar year). For the nation's entire construction, the forecast placed ' 54 dollar outlays at a probable $\$ 34$ billion-a scant $2 \%$ below the anticipated record total for this year.

The Federal experts' million starts agrees precisely with House \& Home's estimate by Economist Miles L. Colean (H\&H, Sept. '53) Two organizations have prophesied a total of less than a million. The McGraw-Hill economics department says 925,000 ; the United

States Savings \& Loan League expects between 900,000 and 950,000 , but adds that such statistics are not a "fully satisfactory" measure of building activity.

Commerce-Labor forecasters (who have a good record for accuracy) say they based their optimistic outlook on the assumption that there will be no significant change in the international situation or in the present high level of personal income. They have allowed, they say, for a "slight easing in the general economy and some rise in unemployment." They predicted "mortgage funds will be adequate and . . . building costs will vary little." Among the other factors that influenced their thinking, House \& Home learned, were the rising birth rate, creating many families of four, five and six persons; the fact that federal social security and private pensions are making it possible for aged persons to occupy single dwellings. leaving fewer existing dwellings for new families; large-scale builders making house buying so much simpler it stimulates
sales. Last, but not least: a growing feeling among families that a suburban home is not just a place to enjoy creature comforts-it is more and more a social goal.

While the $8 \%$ dip in starts should drive private spending for new housing down about $7 \%$, the federal forecasters said outlays for home improvements and remodeling should gain surprisingly- $18 \%$. Reasons: growing families will need more bedrooms; the drive to rehabilitate blighted neighborhoods being led by homebuilders and realtors.

Suburbs: the big market. The government forecast looked for a "mild contraction" in total private construction. But officials said declines in housing, industrial, farm and defense construction would be offset by a "mobile and fast-growing population" moving to the suburbs and demanding more churches, schools, highways and utilities. (All-time records can be expected in the latter categories.)

HHFA came up with a fresh statistic on the lately recognized importance of population migration as a big reason for housing demand. The agency said 78 million Americans-almost half the population-changed their home addresses during the four years ending in Apr. '51. More recent statistics from the Census Bureau (H\&H, Oct. '53) show that $20.3 \%$ of the nation's nonfarm population moved to a different house during the year ending in Apr. '52.

Sales drive. The question of how to push house sales could perhaps be answered in the light of that more general business theory: a high level is not so much based on a consumer's purchasing power as on efforts to make him purchase. Some thought builders could hold their own by sweat of the brow. Said Ralph Bruneau, vice president of the Valley National Bank of Arizona in Phoenix: "Homebuilders are not making as much money as they did last year, but the market is highly competitive and those who are really on the ball are in good healthy shape."

The experience of an East Hartford, Conn. builder pointed up one of NAHB's big arguments: houses are still relatively easy to sell if the down payment is low enough-so President Eisenhower should reduce FHA down payments. Neil Ellis, youthful president of Green Manor Estates, Inc., sold 100 houses in a month ( 54 the last sunny Sunday) and chalked up a waiting list of 25 additional customers. His terms: $\$ 1,900$ down with a 25 year FHA mortgage; for veterans, some at $5 \%$ down and 25 -year mortgages, others no money down and 30-year mortgages. His house: about $1,000 \mathrm{sq} . \mathrm{ft}$. (three bedrooms) on a man-sized lot of $75^{\prime} \times 170^{\prime}$ for $\$ 12,199$ and $\$ 12,499$.

Another signpost of housing demand came in a report from Kentile, Inc., makers of resilient floor tiling, who surveyed 2,000 middleincome families in Chicago, Philadelphia and New York to discover how many were planning to buy new bomes outside the city. Answer: $27 \%$. The families questioned-their

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incomes ranged from $\$ 4,000$ to $\$ 6,500$ a year -said some of their reasons for wanting to move were decreasing maintenance by landlords, congested living quarters, traffic, the high cost of storing a car and growth of family. Kentile also interviewed 1,900 similar families, in seven states, who had purchased homes since the Korean war. It found that $19 \%$ wanted to buy larger homes as soon as they could find them.
The protected economy. The over-all con. sensus that building is going to be in no pain in ${ }^{5} 54$ depends a lot on which way the economic cat jumps. Industrialists and government money men say-and certainly hopethat it isn't going to jump at all. Stability is their watchword. A lot of experts call business already down $5 \%$ and others say it is going to sink $10 \%$. But men like Arthur A. Smith, vice president and economist of the First National Bank in Dallas, support the other side. In a talk before the National Savings \& Loan League (p. 41), Smith said: "It will be political suicide for the Republicans to have a severe recession while they are in office. . . . I cannot see even as much as a $5 \%$ over-all decline next year from 1953."
The economy is pretty well outfitted with built-in props: farm price supports, old age and unemployment insurance programs and the like. The Federa! Reserve and the Treasury started loosening credit and easing money rates back last spring. Just recently provision was made for considerably increased federal loans for small business. The administration, however, would not rest on fiscal measures alone to fight a recession. President Eisenhower felt cailed upon last month to remind the population of his campaign promise that "the full power of government and every natural resource will be devoted to seeing that it [a major depression] shall never happen again in America." The three main channels through which this power will be brought to bear on the economy are easier money, tax relief and public works.
Housing vs. slump? How would such measures affect building? The fact that antirecession machinery included moves to ease money and credit indicated strongly that homebuilders could not expect the President to ease FHA down payments now. Such action was too good an ace in the hole for the White House to trot out to combat a slump. Second, in an economic pinch public housing might well be seized as a convenient means for easing unemployment.

Public housers do not take kindly to this projected scheme, having labored for years to erase the original concept held during the depression that their efforts were make-work projects. Their argument (and the argument of the public works men) is that their projects are needed now-irrespective of the state of business. Private builders are equally leery of such a scheme, disliking the idea of a huge backlog of public housing being held in check until a likely time to dump it on the market. Economic braintrusters were also considering the possibility of FHA expanding its in-
surance functions to include commercial, and perhaps industrial, construction-like shopping centers, small plants, farmers' markets. FHA has never been very ambitious about expanding. It managed to maneuver itself out of handling the veterans' housing program after the war. An alternative possibility: give the task of insuring loans on commercial buildings to the Small Business Administration.

There was no doubt that the Eisenhower administration realized the give and take of all these conflicting ideas and will be examining and reconsidering its fat, forthcoming economic report to Congress until the last minute. From what leaked out to date about the report, the implication was the antirecession program would not get a full-steam-ahead signal unless things go bad fast.

## 7\% vacancy in defense housing is higher than US average; some projects half empty

In building some $\$ 500$ million of defense housing to overcome threatened shortages, the experts had produced so much that $\$ 37 \mathrm{mil}$ lion of it was vacant-mostly at the taxpayer's risk. The ironic picture emerged last month in figures from HHFA, the agency in charge. On Sept. 30, the government found $71 / 2 \%$ of the nation's 50,517 defense houses vacant. That was 3.768 empty units among 211 areas. This contrasted with a national vacancy rate in cities which NAREB President Charles B. Shattuck said last month was about $3 \%$ at most-a vacancy rate which had been sufficient to persuade Congress to drop rent control and find (to the surprise of some) that there were only a few scattered squawks. On the basis of an average $\$ 10,000$ house, the 3,768 vacant units became, for the moment, $\$ 37$ million too much housing.
Homebuilders held a small part of the bag. The US taxpayer was holding about $90 \%$ of it. Defense housing-vacant and occupiedwas almost all privately built. (Homebuilders had responded magnificently to the challenge to make public defense housing construction as unnecessary as World War II showed it to be undesirable.) Less than a fifth of it found private mortgage financing. The rest - and virtually all of the trouble areas-wound up in Fanny May's portfolio because private money shied away. And privately or FNMAfinanced, defense housing bore government mortgage insurance. While the push was on to speed construction, private lenders were belabored for their reluctance to invest in out-of-the-way communities where the defense effort was supposed shortly to send hordes of in-migrant military people or factory hands.

In 29 areas, $38 \%$ vacancies. Last month's vacancy picture showed some of their foot-dragging was sound judgment. In 114 defense areas, HHFA could find no vacancies. But 68 -all with less than $20 \%$ vacant unitshad an average vacancy of $7.2 \%$. The other 29 averaged $38 \%$ empty! Vacancies above $50 \%$ involved projects totaling $11 / 2 \%$ of the reporting units.
The sad spectacle of units empty that were erected to prevent shortages did not mean big vacancies would persist in all stricken areas. Nor did it mean anything so simple as that HHFA had bungled the job of deciding how many should be built where and when. Most of HHFA's data came from the Pentagon, the Labor Department, or ODM. Considering the facts it had to work with, HHFA had done a remarkably good job.

As the agency explained: the leading cause of vacancies was that builders erected housing before the Pentagon shipped the people they promised into an area, or before a defense plant had hired the people it said it was going to. In many spots, the eventual arrival of troops or workers would ease vacancies in time. But for seriously vacant housing, the cause was often more than inevitable errors of timing. Frequently the military had changed its mind, closed a camp. The Air Force, said men who knew, had been remarkably slow to warn HHFA when such changes were in prospect.
The experience of Builder Joe Maberry of Dallas illustrated both problems. Last December, Maberry and Avery Mays finished 40 units under Sec. 903 near Ft. Hood, Tex. About that time the Army sent the Second Armored


VACANT DEFENSE HOUSING built by Joe Maberry and Avery Mays at Lone Star, Tex, offered steel workers $\$ 8,500$ to $\$ 9,500$ homes on $70^{\prime} \times 140^{\prime}$ lots, or rentals from $\$ 65$ to $\$ 75$ a month. The attractive community was planned by Architect Charles Armstrong.

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COMPLETE LINE-Every year 'round air conditioning requirement can be met by Chrysler Airtemp, with its complete line of furnaces for winter heating and equipment for summer cooling.
NO WATER NEEDED - Chrysler Airtemp introduced the first air-cooled system for homes, a system which uses no watermakes cooling practical in any location.
LOWER INSTALLATION COST-The Air-Cooled System provided by Chrysler Airtemp requires no plumbing-costs less to install-uses no living area floor space.
WATER-COOLED UNITS AVAILABLE - For locations where water is plentiful, you have a choice of Chrysler Airtemp Water-Cooled Units in capacities to meet the needs of any home.
NATION-WIDE SERVICE-A nation-wide network of authorized Chrysler Airtemp Dealers provides prompt, efficient service whenever and wherever it is required, eliminating troublesome service "callbacks" for you.

Airtemp Division, Chrysler Corporation
H\&H-12-53 P.O. Box 1037, Dayton 1, Ohio

Send full details about Chrysler Airtemp Year 'Round Air Conditioning.
Name
Address $\qquad$
City $\qquad$ Zone State

## Chrysler Airtemp

HEATING • AIR CONDITIONING for HOMES, BUSINESS, INDUSTRY
Airtemp Division, Chrysler Corporation, Dayton 1, Ohio

Division from Ft. Hood to Tokyo. By April. there were 612 vacancies ( $461 / 2 \%$ ) among the 1.315 completed Title IX homes there. Among Maberrys. only one was ever rented. As it has in such cases, Fanny May agreed to postpone principal payments, take only $21 / 2 \%$ in. terest on its mortgage. Eventually, the Ft. Hood units (now open to all comers) began to fill up. By October, HHFA reported the vacancy rate was down to $191 / 2 \%$. But Maberry and Mays discovered, when Fanns May's six months forebearance agreement ended, that they must pay the difference between the $2 \frac{1}{2} \%$ interest and accumulated mortgage interest and principal. It came to some $\$ 7.000$. Said Maberry: "It would have taken a long time at $100 \%$ occupancy to recover. We sold our 40 units to a rancher for $\$ 500$ after taking a $\$ 20.000$ loss."
Steel workers prefer shacks. At Lone Star, Tex. site of the Lone Star Steel Co.'s new plant, Maberry was the victim of the other typical situation-promised in-migrant defense workers had not arrived. Of his 260 Title IX homes only 42 were rented and 18 sold. Builders of another 140 defense homes were in a similar plight. Maberry explained that the company changed its policy soon after construction began and "instead of hiring some 1.100 experienced steel workers who would have immigrated from steel centers in the nation they hired only a fraction of that amount" and trained the balance of their 3.000 employees from a local labor pool. Many "live on small, run-down farms in substandard homes. . as bad as some of the slums in cities." Though their pay was now big enough to buy Maberry's well-planned homes, they clung to their cheaper quarters. Other trouble spots: -Ft. Knox. Ky. where the $\$ 25$ million God-
man Air Force base was being inactivatedbecause, said the Air Force, of its $\$ 5$ billion budget cut. Although HHFA had sliced the defense housing program from 500 to 206 units, 53 of the 133 houses completed on Sept. 30 stood vacant.

- Camp McCoy, Wis., which had 143 vacancies among 180 completed defense homes. with another 18 still abuilding. Although the Army told HHFA it would have to do so about a year ago, it was too late to stop construction. Fanny May was foreclosing 144. - Camp Roberts and Camp Cooke, Calif.. where $217(25 \%)$ of 866 completed defense homes were vacant. with another 143 abuilding. HHFA throttled back the program in Sept. '52, when inactivation of the big training camps loomed, waived the normal restriction that the housing be held for defense people. But last month it admitted the surplus was likely to be absorbed only "after a period of readjustment." Already, FNMA had taken deeds to 104 houses in lieu of foreclosure.
One lesson of the military housing glut was painfully clear. Tom Coogan, former chief of armed forces family housing told House: \& Home: "You can't rely on the services to evaluate the need." Local commanders, understandably, want all the housing they can get. While he was in the Pentagon. Coogan tried to set up a market evaluation organization. Top brass squelched the idea. It looked last month as if this decision might cost the nation part of the $\$ 37$ million.
Since May 20, defense housing had been like a dormant volcano-none had been programmed. Last month, the crater erupted again. HHFA announced 30 more rental units for Edenton, N.C. site of an auxiliary landing field for Cherry Point Marines.


## SIDELIGHTS

## Prediction of the month

In October, FHA Commissioner Guy Hollyday predicted prefabricated homes would experience a "remarkable growth in the next few years." Last month, he pinned himself down. Within the next five to ten years, said he, probably 40 to $50 \%$ of new housing in the US will be prefabbed in factories.

## Donnybrook in Detroit

Michigan's Corporation and Securities Commission started proceedings last month to put an estimated 300 free-wheeling Detroit building contractors out of business. The 300 have had free rein since March, when the state builder's licensing law was found unconstitutional on a technicality. In seven months of unlicensed activity, complaints have piled up in the commission's office about anything from sub-standard lumber to being talked into signing a completion slip before the job was finished. The commission's procedure now is to hold up a suspect's license (a new law went into effect in October) and tell him so. If the suspect wants to take his chances, he can request a hearing before the commission to answer the charges.

## How to run conventions on time

Movies, the Mortgage Bankers Association decided, are a surefire way to get convention sessions to start on time. The association tried the scheme at its 40 th anniversary gathering in Miami (p. 116) with success. By shooting sound movies of delegates at work and play during the day and showing the films next morning at $9: 30$ sharp, they got almost all delegates in their seats at that time. The bankers reported it was $a^{-}$tough job trucking the equipment in and out of committee rooms and out to the golf course, but they seemed to feel it was worth it.

## Rent control's remnants

As ODM ended rent controls in $W$ aynes. ville, Mo., only four spots in the nation re. mained under rent ceilings last month: Oak Ridge, Tenn.; Del Rio, Tex. (site of an Air Force base); Quantico, Va. (site of the big Marine base); and portions of the Portsmouth, Ohio area (site of the new AEC plant). Under present law, military and atomic areas where housing is short and rents high can be kept under
federal rent lids until April 30. With the once great rent control field staff disbanded, ODM last month named Lenord A. Skubal as mere area rent director to handle the dwindling operation.

## The hot public housing issue

Is public housing a hot potato the GOP is afraid to drop? Some Washington dopesters thought so when President Eisenhower disclosed public housing and slum clearance are two problems he will discuss with Congressional leaders at midmonth. It was an open secret that PHA, with administration blessing, had asked the Budget Bureau to approve 25.000 to 35.000 starts next year.

## National S\&L League cool to merger talk

As expected, the 750 member National Savings \& Loan League gave the 4,100 member US Savings \& Loan League a cool though courteous reply last month to the US League's suggestion for talk about merging $(\mathrm{H} \& H$, Nov. '53, News).

President Clifford P. Allen III of the National League wrote Chairman Henry A. Bubb of the US League's unification committee:

We welcome any opportunity to promote the best interests of our business. We are always pleased to join in any united effort to solve any problem . . . as evidenced by our complete support of the industry coordinating committee on federal legislation." Allen added that National would appoint a committee to "consider matters deemed to require unified action." He did not, as the US League's Bubb had in bringing the touchy subject up, refer to "unification of the savings and loan business." In announcing his reply, the National League pointedly noted that it had just signed a new five-year lease-"a customary renewal period"-on its Washing. ton headquarters.

At the National League's fall conference, held in Miami Beach last month at the same time as the bigger meeting of the Mortgage Bankers' Assn., a record 508 registrants heard that the savings and loan outlook was aglow with promise. Chairman Walter W. McAllister of the Federal Home Loan Bank Board noted that S\&L assets have zoomed from $\$ 10$ billion in 1946 to $\$ 25$ billion today, thus expanding faster than any other segment of finance. He predicted: "An even slower rate of growth will produce $\$ 50$ billion in assets by 1960."

McAllister cautioned the league against "undue emphasis" on advertising dividend rates. He said the board was considering prohibiting 1) advertising of dividend rates, and 2) payment of commissions to brokers who bring in deposits "to the association's lending area."

In the fight for business, one of savings and loan groups' biggest competitive advantages, said two speakers, is the open-end mortgage. Economist H. E. Hoagland called its adoption a "badly needed" addition to S\&L services.

terraceview

## Sales Representatives-

Scholz Homes is the fastest growing manufacturer in
a rapidly expanding industry offering
unparalleled opportunity to men who can fit into

Now, the famed Scholz Callfornia contemporary in a completely new designed line with the characteristics which have made Scholz Homes soles record setters everywhere they have been built . . . featured in nearly every major home magazine from coast to coast in the past year.
If you build homes anywhere from $\$ 10,000$ to $\$ 30,000$, Scholz 1954 homes will give you the advantage of this tremendous prestige and "built in" sales appeal . . . will save you money and furn over more houses per year!

Scholz is first to bring a three bed room-2 bath, separate recreation room, attached garage ranch home
(conventional or open beam ceiling) down in the \$15,000 range.

Not a pre-cut-but a fully panelized home designed by successful builders with years of know-how to be the simplest, most easily assembled house ever erected using a maximum of four men. Codes classify Scholz homes as conventional construction.

Project builders can build as many as 40 homes without duplicating an exterior. Scholz homes are now
manufactured in the widest range of sizes and types in one of the most modern plants in the industry. WRITE, call or wire today for complete information. Models can be seen in Toledo or Cleveland. Financing available.


NEW ORLEANS roused city-wide interest in rehabilitation by renovating Just five decrepit homes in a Negro neighborhood on Conti St., which looked like this before homebuilders and realtors went to work.


AFTER REPAIRS-paint, cement steps and walks, refurbished toilets and kitchens, and strengthened foundations-Conti St. presented this improvement, and one woman in the neighborhood was organizing a garden club.


REAR VIEW of pilot project (before rehabilitation) shows litter of trash, outside toilets and tumbledown fences rotting in the damp loam, where dwelt cockroaches as big as a finger.


TIDY BACK YARDS replaced the shambles. Mrs. Eldridge Valteaux, whose rent rose from $\$ 16$ to $\$ 35$ a month, said she was glad to pay it "just to get the place fixed up."

# Church council backs rehabilitation; Chicago civil suit seeks to halt illegal conversions 

Most US church groups have long ridden public housing's bandwagon. Last month, the National Council of the Churches of Christ (which includes most Protestant groups) threw its support to urban rehabilitation via enforcing building codes and health laws. The council also reiterated its backing of government aid to people who can't afford decent housing, but shied away from endorsing public housing by name.

In urging a "nonsegregated" program to clean up slums, the church leaders called on their own churches and members to scan their own holdings "carefully" to see if any are "substandard." Added a resolution: "Uninhabitable dwellings which are structurally unsound should be torn down. .

The aid of churchmen representing 35 mil lion Americans was a welcome boost for the growing drive to help get rid of slums by taking the profit out of them through law enforcement. If builders and realtors who sparkplugged the idea were smart, they would follow up quickly in local communities. Other rehabilitation developments:
The US Savings \& Loan League, convening in Chicago, announced it would ask Congress to let federally chartered associations buy cleared slum land to build single-family homes and small apartments. Endorsing fight blight programs, retiring President Charles L. Clements noted that two-thirds of S\&L loans are on existing homes, which meant "several
billion dollars of savings and loan investments are in neighborhoods which would eventually become blighted if steps are not taken to prevent the blight. . ." The League also called for a boycott of borrowers who have not kept buildings properly maintained and in conformity with health and safety laws.

- New Orleans, which NAHB singled out for a test demonstration of how to sell a city on rehabilitation, completed a pilot fix-up project in a dilapidated Negro neighborhood (see cuts). That done, inspectors for the city's new department of housing improvement and slum rehabilitation fanned out through four adjacent blocks. Reported Housing Boss Shelton P. Hubbard, a retired Army colonel who was once the city's street sanitation chief: "Owner response indicates most are willing to comply with the city's new minimum standards ordinance."
- In Chicago, 13 property owners filed a civil suit aimed squarely at one of the biggest causes of slums: illegal conversions that lead to overcrowding. They asked the court to appoint a receiver to clean up a three-story brick and stone apartment on the grounds that Landlord Arnold Schlachter had run down the neighborhood by illegally converting 12 apartments into 28 . Taking note of this pacesetting case in a New York talk, HHFA Redevelopment Boss James Follin observed: "A little action like that might clean up a lot of situations everywhere."


## Air-conditioning makers battle water shortages

"It just doesn't make sense to crowd the greater share of a billion dollar business into a few relatively hot-weather months."
G. K. Iwashita of General Electric's airconditioning division offered the comment at last month's big all-industry exposition in Cleve' and (p. 134). He believes "an aggressive, long-term campaign" should be undertaken to persuade buyers that if winter comes, air conditioning cannot be far behind.
Popular gravy train. The industry seemed all for it. Facing real intramural competition in ${ }^{\prime} 54$ (volume will be up, but so will the num. ber of firms trying to board the gravy train), manufacturers had streamlined products and selling methods. New models were quieter, glossier (some of glass fiber) and took up less room. There were more attic models and cheaper heat pumps. Among selling gimmicks: manufacturer absorption of dealer inventoryfinancing costs; a rebate sharing plan for dealers with merchandise left on their shelves at season's end; free trips to Paris for quotabreaking dealers and their wives.

Total retail value of units made next year may run as high as $\$ 1.7$ billion, a rise of $40 \%$ over 1953's figure. Production of central units for homes, expected to reach the 50,000 mark this year, will be up to 120,000 in 1954, said experts.
Watermark. An emphasis on air-cooled conditioners was evident as manufacturers took note of painful water shortages and/or high water and sewer taxes in some areas. Chrysler's Airtemp Division announced that $80 \%$ of its residential models in ' 54 will b: air-cooled. Others were moving the same way. Water models are fine for such relatively soggy areas as Long Island or the Carolinas, but are becoming increasingly less popular elsewhere. Other communities seem likely to follow the lead of New York, Miami Beach, Jacksonville, Wichita in restricting use of water for air conditioning. And there seemed to be no way of getting around the tax problem at all. Commented one official, summing up his company's efforts to market the water-cooled type: "High water and sewer taxes in such places as Norfolk, Va. and Chattanooga, Tenn. ruin our sales efforts."


Don Scholz's choice of TRACY Stainless Steel Sinks and TRACY de luxe Cabinets for the "California Contemporary" is added evidence of the superb standards established for these 1954 designs. It also confirms the judgment of the other distinguished designers and builders of modern, super-value houses who have specified Tracy equipment exclusively year after year.

Stainless Steel, as fabricated by TRACY, is the glamourous, lifetime sink and work top materialwarm, lustrous, decorative. It resists stains, mars, blemishes, food acids, alcohol, burns-it cannot rust, chip, crack or craze. It cleans SO-O-O-O easily!

TRACY Cabinets are extra heavy, extra rigid-they cannot warp, weave, sag or bind. They are finished in gleaming white Dulux, the enduring baked-on finish over rust-resistant steel. Double-wall doors and drawer fronts are sound deadened-they open and close quietly-fit neatly, snugly. Adjustable shelves provide added convenience and efficient storage. All edges and corners are smoothed, rounded. Handsome die-cast handles and pulls in brilliant chrome-gay and modern.

Owners of Scholz "California Contemporary" houses will ever appreciate the daily contribution to better living made by their TRACY Kitchens.
edgewater steel company • pittsburgh 30, PA.

## HOUSING STATISTICS:

building wages rising slower than in '52; no public housing starts in October
Average union wages for construction workers continued to rise in the third quarter, the Bureau of Labor Statistics reported after its quarterly survey of seven major trades in 85 cities. But increases occurred only in scattered areas. And thus far this year wages had climbed slower than in the corresponding ' 52 period. BLS said the average of all seven trades on Oct. 1 was $\$ 2.71$ an hour, or $10 ¢$ higher than on Jan. 2. This was an increase of $4 \%$ so far this year, compared with a $6 \%$ increase in the first nine months of 1952 . It estimated the national average hourly wage in each trade on Oct. 1 as follows: bricklayers, $\$ 3.30$; carpenters, $\$ 2.83$; electricians, $\$ 3.03$; painters, $\$ 2.70$; plasterers, $\$ 3.23$; plumbers, $\$ 3.01$; building laborers, $\$ 1.88$.

Plumbers won the largest increase during the July 1-Sept. 30 quarter, their average pay rising $3.5 ¢$ an hour, or $1.2 \%$. Carpenters and electricians advanced averages of $2.1_{\epsilon}$ and $2.2 \xi$ an hour respectively. The smallest boosts went to building laborers, whose average wages rose 1.3 e an hour, or $0.7 \%$.

MORTGAGE LENDING ACTIVITY
(imestmenes in millions of dullars in nonfarm morkages of $\$ 20,000$ or less by various types
of lenders)

|  | S\&L assns. | Ins. cos. | Comm. banks | Mutual saving banks | All others | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1952 |  |  |  |  |  |  |
| 1st 6 months | 2,988 | 694 | 1,707 | 487 | 2,593 | 8,469 |
| July | 585 | 113 | 317 | 104 | 468 | 1,590 |
| August | 592 | 118 | 313 | 108 | 465 | 1.597 |
| September | 592 | 118 | 316 | 103 | 456 | 1.587 |
| 1st 9 months | 4,758 | 1,044 | 2,653 | 803 | 3,983 | 13,244 |
| 1953 |  |  |  |  |  |  |
| 1st 6 months | 3,550 | 738 | 1,831 | 602 | 2,874 | 9,595 |
| June | 682 | 131 | 325 | 120 | 511 | 1,769 |
| July | 699** | 131 | 323 | 127 ${ }^{\prime \prime}$ | 516 | 1,797* |
| August | 670 | 122 | 310 | 110 | 495 | 1,709 |
| September | 654 | 124 | 314 | 123 | 495 | 1,728 |
| 1st 9 months | 5,573* | 1,116 | 2,779* | $963{ }^{\text {a }}$ | $4,398{ }^{2}$ | 14,820 ${ }^{\text {\% }}$ |
| Change: 1st |  |  |  |  |  |  |
| 9 months of year | $+17 \%$ | $+\mathbf{\%}$ | $+5 \%$ | +20\% | $+10 \%$ | +12\% |
| * All-time high. |  |  |  | Source: $H$ | ome Loan | Bank Board |

## MORTGAGE MARKET QUOTATIONS

| City | Origi- <br> nations | Secondary | Origi- <br> nations |  | $\begin{array}{r} 41 / 4 ' s \\ \text { Se } \end{array}$ | $\begin{gathered} \text { 4's } \\ \text { ndary } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Boston: local | par-101 | a | par-101 | a | a | a |
| Out-of-state | a | 95-97 | a | 95-97 | 93-94 | 91.92 |
| Chicago | $95-96{ }^{\text {b }}$ | 97.98 | $95-96{ }^{\text {b }}$ | 97-98 | 94 | 93 |
| Denver | $971 / 2-98$ | 971/2-98 | 971/2-98 | 971/2-98 | a | a |
| Detroit | 96-971/2 | a | 96-971/2 | a | a | a |
| Houston | 94-96 ${ }^{\text {c }}$ | 941/2-98 | 94.96 ${ }^{\text {c }}$ | 941/2-98 | 94 | 92 |
| Kansas City | $961 / 2-97$ | 961/2-97 | 961/2-97 | 961/2-97 | a | a |
| New York-New Jersey | 99.100 | 97-98 | 99-100 | 97-98 | $971 / 2^{\text {d }}$ | $92.93{ }^{\text {d }}$ |
| Philadelphia | 97.98 | 99 | 961/2-98 | 98-99 | a | a |
| Portland, Ore.* | 98-par | 98-par | 98-par | 98-par | a | a |
| San Francisco | par | 98.99 | par | 95-96 | 96-97 | 94 |

a No market. b After deducting 2 pt. construction fee.

* Also indicative of rest
${ }^{2}$ Include- $1 \%$ originators fee. of Pacific Northwest.
${ }^{4}$ Servicing released by originator to purchasing bank.

SOURCES: Boston, Robert M. Morgan, vice pres., Boston Five Cento Savings Bank; Chicago, Maurice Pollal, vice pres.. Draper $\$$ Kramer, Inc.; Denver, C. A. Bacon, vioe pres., The Title Guaranty Co.; Detroit, Robert H. Pease, pres., Detroit Mortgage \& Realty Co.; Houston, John F. Austin Jt., pres., T. J. Bettes Co.; Kansas City, Byron
T. Shutz, pres., Herbert V. Joner \& Co.; New York. John Halperin, pres., J. Halperin \& Co.; Philadephia, Robert Irving, exec. vice pres., W. A. Clarke Mortgage Co.; Portland, Franklin W. White, pres., Securities. Inc.; San Francisco, William Marcus, senior vice pres, American Trust Co.


HOUSING STARTS in October as estimated by the Bureau of Labor Statistics totaled 88,000 , and for the first time in more than six years included no public housing starts. The private starts were only 1,000 below September, a less-than-seasonal drop. Seasonally adjusted to an annual rate, said BLS, starts rose to $1,006,000$, from 989,000 in September.


FHA AND VA APPLICATIONS for insurance and appraisals on new housing units turned up again in October. FHA applications rose to 21,950, from 18,041 in September. FHA applications for 10 months totaled 285,552, or $10.5 \%$ ahead of Jan.. Oct., '52. VA October requests totaled 19,270, compared with 17,768 in September. For 10 months they were $11 \%$ over ' 52.


BUILDING COSTS for residences, as measured by E. H. Boeckh \& Associates, continued to fall in October. The August peak was an index 257.4. In September, it sank to 256.4, in October to 255.3. Main reason for the $0.8 \%$ decline: a $1 \%$ drop in wholesale materials prices in the same period.


## EXTRA VALUE in Scholz Homes ...Thermopane* insulating glass

Home buyers have a sharp eye for extra values these days-features that promise a more comfortable home, a home that is more economical and easier to operate, a home with higher resale value.

Thermopane insulating glass adds these values to a home. It helps keep rooms warmer in winter and cooler in summer. It cuts heating bills, and if a house is air conditioned it lowers that cost, too. Its insulation reduces drafts close to windows in cold weather. It makes homes
quieter by deadening outside noises. It gives home buyers all these enjoyable benefits without the bother of storm sash.

These are powerful sales arguments you can use. And remember that Thermopane is the most advertised, mostwanted double glazing. It has been advertised nationally for ten years. You can use it and sell it with confidence. For more information on Thermopane, write to Libbey* Owens-Ford Glass Company, 9123 Nicholas Bldg., Toledo 3, Ohio.

## BUILDERS AT WORK:

## An Omaha hit house

Last spring, the best-selling house in Omaha was Builder Don Decker's 1,000 sq. ft., threebedroom and carport concrete-block model at $\$ 10,195$ to $\$ 10,495$ including a $\$ 1,500$ lot (H\&H, Apr. '53). Decker originally took orders for 90 units, later expanded production to reach a total of 154 this year. More phenomenal: in October Decker opened a new model in Omaha and already has presold 174 for delivery in 1954, more than his entire 1953 production. Forty-three contrac:s are for erection in Atlantic, Iowa, from where purchasers had to drive 55 miles each way to see the model. Prices for ' 54 are slightly higher: $\$ 10,450$ to $\$ 10,850$.

## No FHA—no FHA rules

Lack of FHA financing can be a good thing in some ways. At least, Homebuilder Harold D. Sarshik of the 20ih Century Construction Co. in Haddonfield, N.J. felt that way about his development of 85 air-conditioned, brick, threebedroom ranch houses $(\$ 14,990-\$ 16,990)$ that sold out this summer. Said Sarshik: "One feature we used was plaster on the underside of the overhang. This is more attractive than the older method of using plywood with the joints and nailheads always conspicuous. Of course, the FHA would never approve this, but we used conventional financing and so were able to do things a little out of the ordinary." To eliminate air-conditioning noise from the house, Sarshik put the compressor and condenser in a storage shed under the carport. The location let him use a lower-operating-expense air-cooled condenser.

## \$19 million Florida land deal

Forty years ago, Chicago attorney Arthur T. Galt bought 2,466 acres of land with a mile of ocean frontage just north of Fort Lauderdale, Fla. Over the years he rejected scores of offers while he waited, he said last year, "for the right developers." Last month, 78 -year-old Galt sold the tract for $\$ 19.4$ million, nearly $\$ 8,000$ an acre, to Fort Lauderdale Dcvelopers James S. Hunt and Stephen A. Calder. They planned to subdivide it for luxury hotels, apartments and homes in a development similar to their $\$ 50$ million Coral Ridge project nearing completion in Ft . Lauderdale.

## Fresh sales techniques

South Bend, Ind. Homebuilder Andy Place believes in paying attention to the prospec ive man of the house, as well as the woman. In the bathrooms of his model homes he puts a sponge-rubber seat cover over the toilet, an over-the-shoulder light behind it, and beside it a masculine-looking fishing creel filled with popular magazines. . . . A successful merchandising idea used by Denver Homebuilder Lou Carey is to offer the prospective buyer a free dinner the day he moves in.

## What the customers want

Homebuilder Jack Sargent of Topeka, who takes advantage of the captive audience inspecting his contemporary houses by asking each visitor to check off a card telling how he likes its features, was finding overwhelming acceptance of such modern design trends as rear living rooms, beamed ceilings and patios. Results, as tabulated below for one week at a model on $70^{\prime}$ and $80^{\prime}$ lots, help Sargent plan changes in later models:

| Do you like the: | Yes | No |  |
| :---: | :---: | :---: | :---: |
| Cypress | 65\% | $27 \%$ |  |
| Gravel roof | 77\% | $16 \%$ |  |
| Carport | 67\% | $27 \%$ |  |
| High windows | 76\% | $21 \%$ |  |
| Living room in rear | 87\% | 9\% |  |
| Entry hall | 91\% | $4 \%$ |  |
| Bath-laundry | 69\% | $29 \%$ |  |
| Is there sufficiont: |  |  |  |
| Inside stor: ge | 82\% | 10\% |  |
| Outside storage | $77 \%$ | 12\% |  |
| Lot area | 75\% | 8\% |  |
| Would you prefer: |  |  |  |
| Garage | $54 \%$, or carport $36 \%$ |  |  |
| Porch | $34 \%$..or patio $55 \%$ |  |  |
| Beam ceilings | 52\% . or conventional 35\% |  |  |
| Floors carpeted | $54 \%$ |  | 27\% |
|  |  |  | 28\% |
| Contemporary design | 57\% . . or conventional 17\% |  |  |
| Yard sodded | $61 \%$. or graded $22 \%$ |  |  |
| More glass | 17\% |  |  |

## Exceptional markets

Private housing starts through October this year totaled 915,500, which BLS described as "slightly more than in January-October, 1952, and above the total for any comparable period except in the boom year 1950." Added BLS: "Private activity exceeded 1952 volume in all regions except the southern and the west north central." But while private starts nationwide were only a slim 900 (or $0.1 \%$ ) ahead of a year ago, Chicago metropolitan area starts were up a fat $19 \%$. Principal reasons: rent decontrol led many people to buy
to escape higher rents; increasing population included a nonwhite in-migration averaging about 2,000 a month, prompting residents of changing neighborhoods to look elsewhere for houses; much of the local market traditionally uses conventional financing, and was not seriously affected by scarcity of FHA and VA financing; under its new director, James C. Moreland, the area FHA office was liberalizing underwriting standards and encouraging an increase in FHA activity (H\&H, Nov. '53, News) ; the market was sustained by a high level of employment in the area.

In San Diego, homebuilding set an all-time record but faced sharp contraction as the city's defense housing program passed its peak. In the first three quarters of this year, a record 7,856 new units were completed. On Oct. 1, 5,000 more were under construction. Permi's for the July-September quarter were a record 2,982 , but this was the big turning point. Only 388 permits were issued in September, the smallest monthly total since Dec., '51. The San Diego Building Contractors Assn. said defense housing tract builders were bearing the brunt of the drop. Custom builders on the other hand may even experience a business pickup-"there has been some evidence of an increase in demand from buyers who want the custom-built house and remodelling and expansion jobs."

## Experienced help wanted

Great Lakes Carbon Corp. announced plans last month for a new city of 11,000 homes on the Palos Verdes Peninsula in Los Angeles County. It will purchase a 1.5 -acre diatomaceous earth quarry and 6,800 acres of adjacent peninsula property that it will develop over five to ten years as a planned community with $\$ 12,000$ to $\$ 25,000$ houses, shopping centers, schools and parks. Architect Victor Gruen made preliminary master plans for Great Lakes Carbon, but a company spokesman said the firm would steer clear of homebuilding itself, instead would make deals with builders who would have to conform with the master plan.


## House apes office building, gets all-aluminum exterior

Possibilities of an aluminum house were demonstrated in this home with an all-aluminum exterior erected for R. A. Childers, Houston, Tex., aluminum awning manufacturer. The second-story section (rear) was sheathed with baked enamel aluminum siding over insulation
board, while the first floor and story- and onehalf sections were covered with batten-type siding formed and finished in Childers' own plant. The sloped roof consisted of standing seam aluminum strips. Construction was conventional frame. Architect was Bailey Swenson.


When two nationally famous names in home building, SCHOLZ and GLIDDEN join hands, they bring you the ulfimate in contemporary design . . . the most advanced color styling paced to today's new concept of community color harmony!

For three quarters of a century home owners have relied on GLIDDEN PAINTS for maximum durability and protection. Now research provides years of extra protection for America's modern homes through new, improved, precision-balanced paint formulations.

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Photos: Bob Forester; Dean Vannice


BUILD AMERICA BETTER SESSION HEARD PLANS FOR INTENSIFIED REHABILITATION DRIVE

## Realtors' convention

## - Plan to provide US funds for neighborhood conservation and rehabilitation is hinted at Los Angeles meeting

## - Rent assistance endorsement and HHFAdministrator's dodging suggest public housing policy switch

Members of the National Association of Real Estate Boards at their 46th annual convention in Los Angeles last month were given a guarded, purposely obscure outline of two major new policies being considered seriously by the Eisenhower administration. These would: 1. provide federal funds for local slum prevention and neighborhood rehabilitation programs, and 2. recast the present federal public housing program into a form more acceptable to its realtor and homebuilder opponents.

In deference to the President's advisory committee on housing, which would not write its report until later this month, no one felt free to describe the proposals in plain language for the record 5,531 realtors at the meeting. Instead, speakers made only piecemeal reference to them. Fitted together, the story went like this:

- The Title I urban redevelopment and slum clearance program would be substantially revamped and expanded to include rehabilitation and slum prevention. Ikemen apparently will ask Congress to authorize use of Title I funds to help cities finance neighborhood conservation and rehabilitation projects. Their idea: allot every city some money to help it save itself, but let the city make its own decision whether it wants to spend the money for public housing, for parking garages or other types of city improvements, or for conservation and rehabilitation projects in residential areas that could still be saved from blight.
The goal in public housing apparently will be a partial switch to locally administered but federally subsidized rent payments for low-income families who need housing assistance. Objective: to curtail funds for projects, disperse tenants into single-family public housing that they could ultimately buy. A small construction program will probably be retained, so it could be expanded to make jobs in a recession.
- The housing advisers were also likely to urge 1) liberalized FHA financing to facilitate major repairs and sales of existing homes in approved conservation areas in cities pushing vigorous rehabilitation programs, and 2) fast depreciation tax incentives to encourage private reconstruction in conservation areas.

Title I aid foreseen. At the convention's big Build America Better session on rehabilitation problems, James W. Follin, director of HHFA's slum clearance and urban redevelopment, made these revealing remarks (though he twice declared they were only "personal opinions," because the advisory committee's studies were still under way) :
"Fortunately not all blight and obsolescence needs surgery. Much will respond to medical treatment. Rehabilitation and conservation . . . must include improvements of the neighborhood to supply missing amenities.

If Title I is to be continued, and that is a $\$ 64$ question, your speaker personally favors


CERTIFICATE of appreciation from the Build America Better Council was presented to Gilbert E. Morris (1), superintendent of building, for leadership in Los Angeles' attack on slums. Making the presentation, Council Chairman Fritz Burns, a Los Angeleno, urged a new slogan for the city: "No slums by ' 60. "


TROPHY for public service awarded by NAREB's States' Council was presented by Singer Ginny Simms to Jules F. Fisher and President Hugh C. Michels (r) for Chicago Real Estate Board's sponsorship of new Illinois rehabilitation laws.


DEMONSTRATION of rehabilitation was provided for realtors by Fritz Burns, who put on display, about a mile from convention a 65 -year-old house (before and nearly finished pictures) he started to rehabilitate less than two weeks earlier. Next to this he exhibited a similar house (not pictured) still loaded with flimsy partitions, hazardous wiring and other code violations.



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extending financial assistance to well-planned rehabilitation projects that conform to the general city plan and provide renovation both of the structures and the neighborhood."

Did HHFAdministrator Albert M. Cole agree? His statement on rehabilitation to the convention hinted that he did. Said Cole: "I believe there is also an assisting role the federal government can properly play. One of the questions we are studying is how the instruments of government can be adapted, and new ones forged, if need be, to help explore and develop more effective measures for conserving and rehabilitating the homes we have that are worth saving."

Homebuilder Fritz Burns, chairman of the Build America Betier council, also favored tapping HHFA's $\$ 500$ million authorization for Title I redevelopment grants. He urged making it available for "all-size operations" so a city could undertake a lot of little projects on many blocks instead of a few big ones in limited areas. He specifically recommended use of this federal money to help cities finance condemnation and demolition of small, cancerous "slum pockets"-perhaps two or three houses on one block, a few more on anotherwhich would be replaced by small parks or amenities that would upgrade the area again.

Public rents. One tip-off on the new public housing policy contemplated by Ikemen was NAREB's approval of rent assistance for families needing housing aid-a plan already backed by homebuilders. The policy turned up without the customary advance discussion in the annual NAREB policy statement. Said the realtors: "We will encourage public policies which will help to provide safe and sanitary housing for families whose income is inadequate through support of programs of direct local welfare rental assistance.
(NAREB adopted a similar statement in 1943, but since then has fought to kill public housing without proposing a substitute.)

A still better tip-off: HHFAdministrator Cole admitted candidly that he was "dodging and ducking" when he refused to tell newsmen if he meant public housing when he told public housers in Milwaukee (AF, Oct. '53, News) and the realtors in Los Angeles that he favored "federal" assistance in the "lowincome housing field." This served to strengthen the belief that Cole still opposed the present type of public housing, perhaps leaned toward rent assistance.

Cole twice refused to tell newsmen whether he approved this year's NAREB proposal for the sale of all existing public housing to private owners. Twice he replied: "I don't believe that is going to happen." He did say it would be inconsistent for the government to adopt another NAREB proposal, to abolish income-tax exemption on public housing bonds, but at the same time grant fast tax write-off privileges to neighborhood conservation projects. He disclosed that HHFA is studying whether removing the tax exemption on public housing bonds might actually increase the burden on the Treasury. The problem: would the government have to pay higher
subsidies because of the higher interest rates that taxable bonds would require?

Boost for co-ops. An important housing program for central cities bewan to take shape at the convention. New York Realtor Robert W. Dowling outlined a plan to encourage construction of more multistory cooperative apartments. His objective: to protect individuals in a cooperative against losses when other cooperators defaulted. His soluion: sell individual apartments on separate deeds and mortgages, the same as row houses. Only maintenance and public area expenses would be shared cooperatively, so the individual owner could not be foreclosed except for defaulting on his own mortgage.

Dowling said he cleared one of the biggest hurdles by getting the Home Title Insurance Co. of New York to agree to insure titles on deeds for individual apartments. Clyde Powell, assistant FHA commissioner in charge of cooperatives, who attended the committee meeting where Dowling explained his plan, commented that approval by mortgage lenders might still be the biggest obstacle to the plan. Next move: the committee, of which Dowling is chairman, will invite representatives of mortgage and title organizations to meet in Washington next month. There, he hopes to enlist their support and begin drafting whatever legislation might be needed for the plan.

Rosy outlook. The realtors were optimistic about new housing prospects for 1954. At a press conference President Charles B. Shattuck estimated there is now about a $3 \%$ hous ing vacancy rate, contrasted with a "normal" vacancy of $5 \%$. On that basis, he said, he "heartily disagrees with anyone who says we have too much housing." He said he was undisturbed by a recent Atlanta Federal Reserve Bank suggestion that new housing was reaching the saturation point.

One recent suggestion by NAREB Executive Vice President Herbert U. Nelson died a quiet death. Nelson had proposed (H\&H, Oct. '53, News) that the government allow home owners to deduct $\$ 6,000$ of the equity payments on their houses from their taxable income over a period of from 1 to 12 years. President Shattuck said there was "no question but that it would be a special concession for housing, . . . could only be justified if the government accepted the idea" home ownership deserved encouragement by special privilege.


NEW PRESIDENT Ronald J. Chinnock (1) was congratulated by outgoing President Charies B. Shattuck. Chinnock, 50 , is a partner in the big Chicago realty firm of Farr, Chinnock \& Sampson, a past pres'dent of the lllinois Association of Real Estate Boards and the Chicago Real Estate Board. His specialty is commercial and industrial brokerage. He is currently hatping launch the ten-story, $250,000 \mathrm{sq} . \mathrm{ft}$. Sinclair building in Chicago being built by John W. Gatbreath, NAREB's 1944 president.

Son of a Grand Rapids boilermaker, Chinnock graduated from Northwestern University in 1927, joined Farr \& Co. (forerunner of his pressent firm) the next year. He served as an apprentice seaman in World War I (by fudging about his age- 15 at the time), rejoined in 1942 and emerged as the Navy's youngest non-Annapolis captain. As an administrative officer under Secretary Forrestal, he was Navy's top real estate man, established floor-area space s andards, established night shifts to avoid building more office space.
A poised, forceful speaker, Chinnock stands erect and impressive. His dark, bushy hair has begun to recede; his face is beginning to be creased by lines of his warm smile. He describes his home as "one of the oldest and largest" in suburban Evanston. He bought it a year ago at auction, overhauled it completely. Cracks Chinnock: "Rehabilitation begins at home." His hobby: raising children, with the aid of his wife, Mary, who is so beauteous she is likely to be taken for someone's daughter instead of the mother of three boys and two girls.

COOPERATIVE FINANCING plan outlined to a NAREB committee by Robert W. Dowling would keep defaulting neighbors from engulfing other tenants. Herb Nelson, NAREB's veteran executive vice president (right of Dowling), called the proposal a brilliant idea.



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## PEOPLE: o'Harrow succeeds Blucher as planning society

## director; Gropius to receive coveted Sao Paulo prize

A new skipper will take the helm of the American Society of Planning Officials January 1. He is Dennis O'Harrow, 45-year old Hoosier who has been understudying ASPO's Executive Director Walter Blucher

for the past year. Blucher, 52, was curtailng his activity at his own suggestion, but will remain as a special consultant to ASPO. He expects to spend nearly half his time on its planning advisory service and editing Zoning Digest, a monthly report of legal decisions affecting zoning. Blucher, for 15 years a Detroit city planner, helped to organize ASPO in 1934 and has headed it since. His red-haired successor came to ASPO in 1948 from Indianapolis where he was, successively, a highway engineer, director of research for the Indiana State Planning Board and a planning consultant.

Architect Walter Gropius, 70, founder of the famed Bauhaus who retired last year as chairman of Harvard's school of architecture, became the second man to win the biennial Sao Paulo prize, regarded as the Nobel prize of architecture. The award, worth about $\$ 7,800$ (compared to $\$ 33,840$ for a Nobel prize), will be made by the Andrea and Virginia Mararazzo Foundation in January when Sao Paulo holds its second international exhibition of architecture. It is presented to the architect whose activity is deemed the most important at present. The first award, in 1951, went to Le Corbusier.

In a Cedar Rapids talk, T. H. RobsjohnGibbings, designer, author (Goodbye, Mr. Chippendale, Mona Lisa's Mustache) and interior decorator, let off some steam on a perennial topic, "Traditional or Contemporary." Sample jets:

- The counter between kitchen and dining room is a "diabolical thing." "The children sit on stools and the parents appear to them, behind the counter, as soda jerks."
"While we are out to get rid of things, we ought to start with the open plan. . . . You produce a confusion of noises-the children in one part of the house, with the racket of the vacuum cleaner in another part of the house at the same time."
"There are things that can be done to a house to make it bad, but to make it worse,
have a picture window. It is a magnificent way to make it impossible for the people inside to have one moment of privacy or comfort. . . . And at night you have the reflected phantoms on the pane."


## CONGRATULATIONS: To James R.Bemis,

 president of the Southern Pine Assn. and the Ozan Lumber Co., Prescott, Ark., who has been elected 1954 president of the Na tional Lumber Manufacturers Assn., succeeding Ralph R. Macartney; to Lindell Peterson, president of the Chicago Mortgage Investment Co., who received the 1953 distinguished service award of the Mortgage Bankers Assn. at its Miami Beach con- vention (p. 116) for his bemis work as head of MBA's educational program; to Philadelphia Realtor Roland R. Randall, former president of the Philadelphia Housing Authority and the Society of Industrial Realtors, who was elected the first president of NAREB's new Society of Real Estate Counselors - realtors offering realty advice and consultation service independent
of brokerage, appraisal or management services; to Grover A. Godfrey, whose National Home Shows, Inc. had grown so big (it stages more than 40 shows a year) that he resigned as executive vice president of the Dallas Home Builders' Assn, to devote full time to show business; to W. Howes Meade, former Congressman from Kentucky (1947-49), who was appointed state FHHA director for Kentucky, succeeding Patterson B. Walker, who resigned to enter the mortgage business.

DIED: Mark Lansburgh, 64, Washington, D. C. department store executive and graduate though, nonpracticing architect, chairman of the District of Columbia Redevelopment Land Agency since 1947, Oct. 29 in Washington; Charles A. Mullenix, 66, president of the Mortgage Bankers Assn. of America in 1943, the National Association of Apartment House Owners in 1933-34, Cleveland realtor and appraiser, Nov. 8 in Rocky River, Ohio; Wright L. Felt, 60, HHFA area representative in Los Angeles, Nov. 16 in Los Angeles when struck by a streetcar; Raymond D. Evans, 58, Washington, D. C. housing development corporation president, second vice president of the Washington Real Estate Board, Nov. 16 in Los Angeles while attending the NAREB convention; Arthur W. Gelston, 69, executive secretary of the Brooklyn Real Estate Board, member of the advisory committee of New York state's real estate license division, Nov. 19 in Brooklyn.
© Esra Stoller, Courtesy of House Beautiful


## A trend-making Florida house that FHA rejected

About 150 mortgage bankers took time out from their Miami Beach convention last month (p. 116) to look at this three-tiered concrete and masonry home that Architect Alfred Browning Parker built for himself at nearby Coral Gables. So graciously did Parker's house fit into its sloping site overlooking Biscayne Bay, so distinctive was its design that "House Beautiful" had chosen it as Pacesetter of the year. Yet Parker told his visitors that FHA rejected it "after a brief inspection of the preliminary plans." Moreover, "after many attempts to secure mortgage money . . . I was finally granted a loan of $\$ 10,000$ after I had completed construction and with the condition that I put into the mortgage all seven
lots down to the bay $\left(715^{\prime}\right)$ and take out an insurance policy on my life to the full extent of the loan." The house cost some $\$ 30,000$-plus thousands of hours of Parker's own labor.

More sad than angry, Parker hoped his house would become an object lesson for lenders who cling to old-fashioned notions of design. He handed the visitors a printed note which said (in part): "If a building is planned with intelligent reasons for the manifold problems involved, if the arrangement, the materials, the construction make sense; and in addition, if good taste is apparent in the proportions, textures, colors, etc., certainly we must have financing agencies with discernment to make those plans a reality."

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Haskel Gordon Long Island
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Herbert J. Kendall New Jersey
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# Open end in Massachusetts: lessons for lenders 

While some lawyers doubt its legality, many lenders are making it work


#### Abstract

"The Home Loan Bank of Boston," says its president, Herbert N. Faulkner, "will accept open-end mortgages as good collateral wherever attorneys for individual federal savings and loan associations approve them."

Despite such high-placed faith in the legality of the open end, many Massachusetts lenders will not use it because, as one lending official puts it, "Many hard-headed New England lawyers doubt its legality."

Many mortgage lenders tacitly agree with W. E. Greene, treasurer of the Williamstown Savings Bank: "We would like to use it very much and would if our lawyers would assure us we could."


Case study. Massachusetts makes an excellent case study of open-end progress and acceptance because all the points brought into focus by doubting lawyers are the ones emphasized whenever and wherever the open end is disputed.
On the Massachusetts books is a statute that limits additional advances to repairs, replacements, taxes and other municipal liens. This "flexible or adjustable mortgage" law is really a restatement of the common law except that it ties lenders' hands tighter instead of freeing them. Many Massachusetts lawyers doubt the constitutionality of the statute.* As a result, Bay State lenders, who rarely use title insurance and rely on legal opinion on real estate matters, have geared their approach to the open end roughly in proportion to the bulk of conservative legal opinion.
Low gear. L. S. Finger, vice president of the Andover Savings Bank, Andover, says: "Since under the law optional readvances can only be made for repairs, replacements and taxes, there is liability in determining that the funds are used for these-and no other-purposes. So, most of us are not inclined to make such advances."

Other lenders cite legal objections to the first-lien status of optional additional advances, think they would not take priority. Yet even under common law, points out Horace Russell, legal authority on the open end: "It is clear that first mortgages properly drafted will secure readvances and remain as first liens until the mortgages are canceled."

Some lenders object to open ending because they are advised that a title search is necessary. Yet the scholarly and exhaustive study published by the US Savings \& Loan Leaguet points out that the great weight of judicial authority in the common law is that once an open-end mortgage is recorded, it is notice to the world of a contractual obligation and if a subsequent purchaser fails to take notice, he is not entitled to protection.

Second gear. Several lending institutions use an "amendment of mortgage" certificate (modification agreement), suggested by the Savings Banks Association of Massachusetts, to circumvent legal distaste for the statute. Lenders who use this form find the cost of modifying mortgages to grant additional advances is about as economical as by advancing through standard open-end clauses.

What's in a name? Maynard L. Norris, treasurer of the Franklin Savings Bank, Boston, which uses this amendment, says: "Our conveyances advise us that the amended mortgage certificate is perfectly valid and requires no enabling legislation [like that on the books]. Our mortgage form is unchanged, contains no open-end clause. A more fitting and specific name for this type of thing would be 'additional advance' or 'increased' mortgage rather than 'open end.'"

[^5]Such amendments are recorded scotching the idea that only original recorded amounts are protected against intervening liens. The Boston Five Cents Savings Bank has still another approach, recasts an entire mortgage "for a flat rate of $\$ 21$, regardless of the size of additional amounts," says Vice President R. M. Morgan.

High gear. Several savings banks, many savings and loan associations follow respectable legal opinion that the mortgagee is protected when using an open-end mortgage. This group views the open end almost solely as a business risk, relies on the common and statutory law for legal protection more in keeping with the statutory requirements on lending than as a protection against loss.

Boston's Home Owners Federal S\&L has been using the open end for years; hardly a week goes by that it does not make several such advances.

Cambridge's Cooperative Bank, Cambridge, has had very satisfactory home improvement loan experience. Says Samuel Barron Jr., executive vice president: "We find it helpful to many of our mortgagors."

Marblehead Savings Bank, Marblehead, makes optional readvances on conventional and G.I. mortgages.

Inherent in the successful use of the open end is quick service with low cost to the borrower. Charges by institutions using the open end range from nothing at all on small loans up to $\$ 35$ on sums of several thousand dollars. Most institutions do not bother with title searches at all, thus dispensing with this cost entirely.
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EVENTS

University of Houston lectures-Mies van der Rohe, Jan. 7; Buckminster Fuller, Feb. 11; Alfred Roth, Apr. 1; Eero Saarinen, May 6.

National Constructors Assn., annual convention, Jan. 12-14 at the Hotel Commodore, New York City.

The "Architects' Trek 'Round South America," latest of several tours open to architects and their families, will start on Jan. 19 and in a month visit Peru, Chile, Argentina, Uruguay and Brazil. Trek leader is Harold R. Sleeper, AIA, of New York; those interested in joining the trip should address the US Travel Agency, 807 15th St. N.W., Washington 5, D.C.

National Assn. of Home Builders, tenth anniversary convention and building products exposition, Jan. 17-21 at the Conrad Hilton and Sherman Hotels, Chicago.

Mason Contractors Assn. of America, annual convention and exposition, Jan. 24-27 at the Sherman Hotel, Chicago.

Prestressed concrete conference, Jan. 28-29, at the University of Toronto. For details address Prof. C. F. Morrison, Civil Engineering Dept.

Mortgage Bankers Assn., Midwestern mortgage conference, Feb. 25-26 at the Conrad Hilton Hotel, Chicago. Eastern mortgage conference, Apr. 12-13, at the Commodore Hotel, New York. Forty-first annual convention, Sept. 2730 at the Conrad Hilton Hotel, Chicago.

Associated General Contractors, annual convention, Mar. 1-4 at the Statler Hotel, Los Angeles.

Southern Homes Show, homebuilding and house furnishings exposition, Mar. 22-26 in Greenville, S.C. For details address Bertha M. Green, Textile Hall Corp., P.O. Box 1323, Greenville, S.C.

Air Pollution Control Assn., annual meeting, May 3-5 in Chattanooga, Tenn.

National Savings \& Loan League, annual convention, May 9-14, at the Jung Hotel, New Orleans.

Architectural League-a series of evening conferences on "The Impact of Science and Materialism on Art Today," being held at monthly intervals on second Thursdays through A pril. For program address Architectural League of N.Y., 115 E. 40th St., New York City.

Competition to encourage design and manufacture of new kinds of children's playground equipment of a sculptural nature. Prizes total $\$ 2,000$ plus royalties. Entries, consisting of models and drawings, must be postmarked not later than Jan. 15, 1954. For entry blanks and program address Miss Daniel, Museum of Modern Art, 11 W. 53rd St., New York.

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are available in two floor plans, one expandable ... many variations in design

These 2-bedroom "Rangers" have the same air of spacious, abundant living as the 3 -bedroom models. Through the use of the glass wall in the living room and wood screens enclosing the garden court, the "Ranger" living room is literally extended to the lot line. "Ranger" designs are suitable for building in any region.


Design R-1



All "RANGER" Designs Copyrighted 1953 by James R. Price and Charies M. Goodman

ALL RANGERS ARE AVAILABLE IN RIGHT- OR LEFT-HAND PLAN

NATIONAL HOMES SECTION


Exterior view of the beautiful,
new National Homes' "Ranger". new National Homes' "Ranger".

UPSON STRONG-BILT PANELS


## Specify and enjoy the assurance of a longer service life



No. 90
Screen Door Sets


No. 121
Screen Door Hinge

Here are a few members of the extensive line of builders' hardware designed to give the ultimate in service conveniences. Custom-built of the finest basic materials, they incorporate modern designs that blend harmoniously with today's architectural theme. Beautiful finishes on the hardware give all-weather protection and seal the friction-free action of the hinges and door butts.

## Installation simplified

 to save time and laborToday production is accelerated to keep pace with the popular demands for new homes. National Builders' Hardware has long been recognized for the modern simplicity of both its functional performance and ease of installation. Precision construction also tends to assure smooth-working coordination year round regardless of climatic conditions.


No. 500 Ball-Tip Butt


No. 450
Ornamental Butt

## A laverite with the building thade far over 50 Yeats




## ANDERSON WOOD WORK

Selected by



The same Anderson craftsmanship that has produced the architectural wood work for many of the nation's largest buildings is found in the new 1954 National "PACEMAKER" Homes. This is made possible by volume-production facilities which produce quality with economy. We are proud of our part in helping to make the new "Pacemakers" the lowest-cost fine homes in National's history.


The new 1954 National "Pacemaker" Home

## NATIONAL HOMES SECTION



NATIONAL "CONCORD" built by Nixon Homes, Inc. in Hinsdale, Illinois $24^{\prime \prime} \times 48^{\prime \prime}$ Brick Panel Housing Housing can accommodate air condirioning


NATIONAL "RANGER" shown below equipped with a Can ney with the new Custom-line "AC" Brick-Panel Housing. The dramatic beauty of the "Ranger" is enhanced by the massive brick appearance of the Van-Packe all-masonry Van-Precker is the ideal chimney for the entire 1954 National Line.

1800 HOME MARYCREST PROJECT in Joliet, with the Customy Hammes Homes uses Van-Packer

## New Van-Packer

## Brick-Punel chimney housing

## sells homes faster



## Dealer-Builders

Conventional Brick Appearance-The new Van-Packer Chimney Housing gives National Homes Builders "buyer acceptance" not possible with any other pre-fabricated chimney. This housing ends home buyer resistance to non-conventional appearance of ordinary pre-fabricated chimney housings. Rustproof cement asbestos housing panels deep-embossed in handsome brick texture. Brick red with natural color mortar lines, can be painted to match any other color, if desired.

Two Sizes-Custom-line housing: $161 / 2^{\prime \prime}$ wide $\times 24^{\prime \prime}$ deep. Custom-line "AC" housing: 24 " wide x 48 " deep, will accommodate air conditioning.

Low-Cost-Van-Packer Packaged Masonry Chimney is all-
masonry sectional construction, nothing to rust or corrode. Ceiling or floor suspended.

Officiclly Specified-Approved by National Homes Corporation. Listed by U.L., F.H.A., and all major building codes for coal, oil, and gas for all home heating plants and incinerators.

Immediate Delivery-Nationally distributed. Contact your local heating supply or building material dealer or jobber who has complete Van-Packer chimney parts in stock. If unable to locate a distributor in your classified telephone directory write Van-Packer Corp.

Write Van-Packer Corp. for free Bulletin No. AF-23-12 for complete specification and installation data.

Van Packer Corporation-209 S. LaSalle Street-Chicago 4, Illinois

Also manufactured and distributed in Canada by C. A. McRobert and Son, Ltd., St. Laurent, Quebec
"the most trouble-free folding door in today's market" ${ }^{\prime \prime}$


National Homes puts "Modernfold" rolling post doors on their big floor-to-ceiling double closets, to get full accessibility. No need to "build out" or "build down" to door.

Cufaway drawing shows sturdy frame construction of "Modernfold" doors. Note balanced pantograph hinge construction which keeps door perfectly aligned without need for floor track.



National Homes uses "Modernfold" doors to provide the same easy accessibility on single closets. Furniture can be placed right next to the door.


National Homes uses "Modernfold" as a movable wall to open an "all purpose" area into the living room.

## "Modernfold... will help us sell our homes"

## ...says National Homes Corporation President James P. Price

"We have selected 'Modernfold' doors to be included in the 'Ranger' and the 1954 'Custom-Line' because they give complete accessibility from floor to ceiling in closet areas, offer enhancing decorative value, and are the most trouble-free folding or sliding. type door in today's market.
"Modernfold" will help us sell our homes because they contribute to the happiness of a National Home owner-and happiness is what we are selling."

For more sales appeal and greater customer satisfaction, leaders in the building industry are specifying "Modernfold," the original folding door. They appreciate the many advantages of the extra steel in "Modernfold's" sturdy frame, the balanced pantograph hinge construction, both top

## Sold and Serviced Nationally

 NEW CASTLE PRODUCTS, NEW CASTLE, INDIANAIn Canada:
Modernfold Doors, 1315 Greene Avenve, Montreal


COPYRIGHTED EY NEW CASTLE PRODUCTS, INC., 1953
and bottom that keeps "Modernfold" perfectly centered between jambs, gives it an even number of folds on either side, insures its long life and trouble-free operation. They appreciate the ease with which "Modernfold" can be installed, too. No special cornice, no extra hardware needed.
"Modernfold" comes complete, ready to be installed in 30 minutes or less. There's no sanding, fitting, or painting needed with "Modernfold." Tough vinyl fabric washes clean with plain soap and water. That's a feature buyers really appreciate about "Modernfold," the original folding door.

Contact your nearest distributor, listed under "doors" in your city classified directory. Or send coupon for more "Modernfold" information.

## New Castle Products

P. O. Box 557

New Castle, Indiana
Please send me full details on "Modernfold" doors.
$\qquad$
$\qquad$

City .----------- County


Originally conceived as a warm climate house, "The Ranger", designed by Architect Charles M. Goodman, will soon be seen in all parts of the country. Good design and proper insulation make it suitable for all sections, save buyers important money on both heating and air conditioning bills.

- Behind their attractive, well-designed exteriors, all homes in the ever-expanding National line have two things in common: quality construction, quality materials.

Small wonder then that this leading prefab manufacturer standardizes upon Fiberglas Insulations.
For Fiberglas is permanent, odorless, light in weight, moisture resistant. Won't nourish vermin. Won't settle and leave bare, unin-

sulated areas. It reduces fire hazards for fibers of glass can't burn. It "shushes" outside noise . . . provides restful quiet.

With air conditioning going into more homes, this quality insulation is needed more than ever before . . . for it can save up to $25 \%$ on operating costs . . . in addition to saving up to $40 \%$ on heating bills.

Most important of all, prospective buyers are well acquainted with the advantages of Fiberglas. Consistent advertising and Arthur Godfrey have seen to that! So National Homes-and other users of Fiberglas Insu-lation-get not only the finest insulation money can buy, but also an extra selling feature. A very important plus in today's competitive market!

How about YOUR 1954 models? If you'd like to take advantage of the many "extras" builders get with Fiberglas Insulations, talk it over with the dealers of these industry leaders:

Armstrong Cork Company, Lancaster, Penna.
Certain-teed Products Corporation, Ardmore, Penna.
the Flintiote Company, New York, N. Y.
Insulite Division, Minnesota and Ontario Paper Co.,
Minneapolis, Minnesota
Kelley Island lime and Transport Co., Cleveland, O.
The Ruberoid Co., New York, N. Y.
Investigate Fiberglas and you'll specify Fiberglas! Owens-Corning Fiberglas Corporation, Dept. 67-L, Toledo 1, Ohio.

# The Ideal Combination .... allmetal weatherstrip 

for doors and windows gives all-weather PROTECTION - year 'round COMFORT


Many materials and techniques have been developed to prevent heat loss and to give buildings better protection against weather, but: NONE SAVE MORE FUEL PER DOLLAR OF COST than good weatherstripping.
For instance: University of Minnesota Institute of Technology Bulletin No. 35 states: "Air infiltration may account for approximately $37 \%$ of the total heat loss from a typical five room well insulated bungalow. The use of weatherstripping on windows may reduce the infiltration losses to $17 \%$ of the total heat loss from a house, with a corresponding saving of approximately $24 \%$ in the total fuel cost."


Actual tests of ALLMETAL weatherstrip for windows at the University of Minnesota Engineering Experimental Station show even greater efficiency in the control of air infiltration than that attained by the test windows studied in Bulletin No. 35.
The ideal set-up is ALLMETAL weatherstrip for both doors and windows. It does the job as it should be done and gives complete weather-tight protection. When you specify ALLMETAL weatherstrip you are specifying sure protection against water leakage on floor and window stools, sure protection against wind blown dust and dirt which settles on walls, drapes and furnishings, and protection from drafts which are uncomfortable, unhealthy as well as extremely costly.

## Two Priturnes Tluit

## IVill Ilep You Sell Ilore Naitiontill llomes

- EXTERIOR WELDTEX for stunning eye appeal


## 2 WELDWOOD DOORS for beauty and serviceability

Buyer acceptance of National Homes leaves no doubt that good design, attractive styling, quality construction and fair prices move plenty of houses. Two Weldwood products which certainly meet all these qualifications and help sell more National Homes are Weldtex ${ }^{\circledR}$ (striated fir plywood) and Weldwood ${ }^{\circledR}$ lumber-core doors.

Weldtex is one of the most widely used of the many popular Weldwood Products. You'll find it used extensively on current National Home exteriors. Its textured effect has a charm and distinction that is hard to match. Weldtex has important practical features too! It stands up under even the worst weather conditions. It takes
paint or stain beautifully and never "checks." Its striated design conceals nail heads.

Weldwood lumber-core birch doors are used at the front entrance of National Homes. They were chosen for their outstanding beauty and proved dependability. Weldwood lumber-core doors have an enviable performance record-they don't stick, warp, swell or rattle. Their quality construction assures lasting satisfaction for both builder and home buyer alike.

Both features, like all Weldwood Products, are backed by the United States Plywood Corporation - the World's Largest Plywood Organization.
to the New "RANGER" and Other
Fast-Moving 1954 Models . . . with the


## MARVAIR air conditioner

## -the LOW-COST Unit for YOUR MASS MARKET!

Complete air-conditioning for the worker as well as the boss! That's your answer to more sales in the profitable mass-housing market. You can now offer it with the Air-Cooled Marvarr Air Conditioner, only unit of its type on the market.

National Homes builders know the sales-winning power of the marvelous Marvair. Featured for all 1954 Nationals: "Pacemaker". . . "Ranger" . . . "Custom-Line" . . . this sensational new unit is helping them smash all records.
It can do the same for you.
Quickly and easily installed in the attic, the Air-Cooled Marvarr takes up no floor space, requires no water, no plumbing. Serves houses up to 1700 square feet, covering the entire low-cost housing field. Thousands already in use.

CONVENTIONAL BUILDERS! Investigate MARVAIR immediately. You must include air conditioning with your new homes to meet competition. Be ready with Marvair, foremost in the field. Write or wire today.

Producers of the Infernationally Known and Used MARVAIR HEAT PUMP

MUNCIE GEAR WORKS, INC. MUNCIE, INDIANA

## ALSO... a Complete Line of Base Units

for furnace manufacturers. These are 2,3 and 5 -ton sizes, watercooled for upright, duct, or counterflow installations. May be installed in specially designed cabinet as a companion unit, or as a part of the furnace itself. Complete details and engineering service available. All units are hermetically sealed and warranted.


Cutaway view of MARVAIR installation for National Homes. Outside air enters through roof intake at right, passes over cooling coils to dispersal chamber formed by dropped ceiling in center hall, then through grilles to each room. No ducts are required. This type of installation is ideal for conventional builders of lowe-cost homes.


keeping pace with their policy of highest quality Selects America's first and still America's finest

## JALOUSIE WINDOW


for their 1954 Ranger Home
CHECK these PRO-TECT-U features and COMPARE

Available with wood or glass (clear, obscure, or heat resistant) louvers.

HARDWARE may be purchased separately for use by others in the manufacture of wood frame jalousie windows and doors.

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CUT TO SIZE ON
                THE JOB...
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A simple sawing operation in minufes makes special cusjob eliminating unnecessary delay.

PRO-TECT-U JALOUSIE CORPORATION
4525 Ponce de Leon Blvd.
Coral Gables 34, Florida
Please send me FREE literature.
NAME
ADDRESS


TESTED BY PITTSBURGH TESTING LABORATORY

SCREEN REPLACEABLE WITH STORM SASH.
Inside aluminum screen is interchangeable with storm sash.

Architects, Builders, Contractors, consult Sweet's file No. ${ }^{16 \mathrm{~d} .}$. for our catalogue or write for descriptive literature.
$\sqrt{ }$


PRO-TECT-U's
original design plus 17 years of development and improvement provide the best operation and performance.

## MATERIAL AND HARDWARE

$\sqrt{ }$
Extruded 63-S-T5 aluminum frame . . . aluminum hardware with... precision operating mechanism.

## HURRICANE TESTED PERFORMANCE

 RESEARCH LABORATORY.

## NATIONAL HOMES SECTION



## of PRAIRIE STATE ASPHALT PRODUCTS

One of the "invisible values" that make the achievement of abundant and relaxed living possible in these outstanding National homes. "Ranger" homes are completely surrounded with a Prairie State Asphalt Barrier against wind and moisture, adding to the snug comfort and health protecting qualities.

EXTRA Asphalt PROTECTION in the roof...

EXTRA Asphalt PROTECTION in the walls...


PRAIRIE STATE ASPHALT PRODUCTS CO. | asphalt | roll | asphalt |
| :--- | :---: | :---: |
| shingles | roofing | products |

P. O. Box 1110 • Joliet, Illinois
talk about trimmings . . .

## NATIONAL HOMES SPECIFIED TYEE TRIM INSIDE and OUT!



A Complete Line
MOULDING 0. S. TRIM AND MOULDING

## TRIM • CUT-STOCK • FRAMES

## Hemlock . Fir . Spruce

The materials that go into a National Home have to be "top drawer" quality. Tyee mouldings are taken from the very choicest timber in the ageless forests of the Pacific Northwest, and manufactured by skilled craftsmen to meet exacting standards. If your building plans call for quality trim, Tyee is the answer. We will cut to your specifications if necessary; and our strategic location in the heart of the lumber industry makes "pool car" combinations possible-you save shipping money. Mail coupon today!


## turn a lataonal "RANGER" inside-out... you'll see ARCO PAINTS

 throughoutAnd you may find answers to your own painting problems
Inside . . . outside . . . on the handsome, budget-wise Ranger home - and in every dwelling National Homes has built throughout its 13 years of manufacturing, you'll find Arco Paints doing an outstanding job of beautifying and protecting surfaces.
If you have any large-seale painting problem-in the shop or in the field-you can benefit from the same principles that have been mainstays of National-Arco teamwork for these 13 years:
$\star$ Economical application . . . easy handling, good coverage, quick dry.
$\star$ Protection . . . shop primers that stand up through long, bad-weather exposure . . . wall and ceiling finishes that endure.

* Service . . . prompt, expert technical assistance from the Arco Research Laboratory.
Inside . . . outside . . . there is a superb Arco finish for your every need. It will be worth your while to find

out more from the company that makes finishes for professional application.
Write today for complete details of Arco's "You Be The Judge" plan which enables you to prove to yourself that it pays to team up with Arco Paints for inside-outside application.


## THE ARCO COMPANY

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A SUESIDIARY OF AMERICAN-MARIETTA OOMPANY

A WINNING
TEAM SINCE 1940

Paints, Lacquers,
Varnishes, Enamels,
Protective Coatings trade mark


It's the New De Luxe Type "E" Prefabricated Chimney

## "I Bought the Leader!"

"Naturally I'm proud and happy to be the owner of my new NATIONAL HOME ranch house with a modern Vitroliner Chimney," says Mr. N. Haynes of P. O. Box 142, Hinsdale, III.
"Our Vitroliner certainly looks smart and trim,-and harmonizes with the architectural lines of the house. All the National Homes in the neighborhood are different in style and color, but each has the same Vitroliner chimney. I like the way each chimney is painted the individual color of the roof. To me, that makes them beautiful as well as practical.
"Another good thing about Vitroliners I like,-they're designed for any fuel. We use gas for heating and know we have a quality chimney we can depend on to do a good job."

Signed H. Haynes

## FEATURES

- TAILOR-MADE TO FIT.
- saves valuable floor space.
- lowest installation time.
- highest quality at low initial cost.
- HIGH HEATING EQUIPMENT EFFICIENCY.
- LISTED BY UNDERWRITER'S LABORATORIES FOR AI! FUELS.
- PROVIDES ATtIC VENTILATION
- eliminates condensation.
- QUALITY BUILT FOR LONG LIFE.
- M'F'D. IN $6^{\prime \prime}, 7^{\prime \prime}, 8^{\prime \prime}$ AND $10^{\prime \prime}$ DIA.
- available in any quantity.

Investigate this fast-selling modern low-cost chimney today. Write for illustrated circular.
"The Pioneer in the field"



WATERPROOFS EVERY CONCRETE FLOOR
in Your $\qquad$ HOMESisalkraft adds "Hidden Quality"


You'll never see the waterproof membrane of tough Sisalkraft between subfill and concrete floor slab, but you'll be glad it's there. Sisalkraft assures Damp-Free floors for your comfort, health, and lifelong protection. Yes ... and savings in concrete and labor make Sisalkraft a profitable investment.

Write Department H-6for FREE Sample and see how tough and waterproof a building paper can be!



## EXTRA VALUE in

 ... Thermopane* insulating glassHome buyers have a sharp eye for extra values these days-features that promise a more comfortable home, a home that is more economical and easier to operate, a home with higher resale value.

Thermopane insulating glass adds these values to a home. It helps keep rooms warmer in winter and cooler in summer. It cuts heating bills, and if a house is air conditioned it lowers that cost, too. Its insulation reduces drafts close to windows in cold weather. It makes homes
quieter by deadening outside noises. It gives home buyers all these enjoyable benefits without the bother of storm sash.

These are powerful sales arguments you can use. And remember that Thermopane is the most advertised, mostwanted double glazing. It has been advertised nationally for ten years. You can use it and sell it with confidence. For more information on Thermopane, write to Libbey ${ }^{-}$ Owens-Ford Glass Company, 9123 Nicholas Bldg., Toledo 3, Ohio.


## wherever quality woodureaves are specifiedyou see Suncraft

National Homes' $\cos ^{2} x_{2} 2$

New Pacemakers By Charles M. Goodman

Are Using Suncraft Woodweave
Draperies and Dividers
For Their Quality and Beauty
All Surcraft custom designed wood fabrics are rich in texture, durability and long lasting beauty. And Suncraft woodweaves come in countless designs. Enjoy the most exciting new treatment of window draperies and shades, room dividers and folding doors for their wonderful versatility and smart economy.

ABSTRACTS - Presenting bamboo draperies in their newest and most advanced form. Varialimitless.

DIMENSIONAL WEAVE-Woven wood in its most elegant form. An opaque material of interesting shadow and depth

ROLLO WEAVE - Here is the tie between the traditional and
modern - delicate in appearance - but rugged in use.

PLASTIC WEAVE - Combining the strength of plastic with pine gives an easily cleaned woodweave that affords privacy.

WALNUT WEAVE - A Swedish weave gives warmth plus dignity to an easily adaptable wood tone.
 1315 West Webster Avenue. Weaves - or send for samples today.

## Tn|ryird STEEL \& WIRE COMPANY

Chosen by National Homes Corporation as a dependable source of high quality steel and wire products . . . A few of the products we make

Steel Posts

Nails - All types and sizes


Flower Bed Borders


Ornamental Fence
MID-STATES STEEL \& WIRECOMPANY CRAWFORDSVILLE, INDIANA• JACKSONVILLE, FLORIDA

## Consider this appraisal value of OAK FLOORING'S new 4th dimension

Oak's 4 th Dimension adds a lasting extra value to Oak Flooring....a value added by no other building material, let alone other floorings.
Do you know? ... $80 \%$ of all architects, $88 \%$ of all contractors, $96 \%$ of all real estate agents and $83 \%$ of all future homeowners prefer Oak Flooring over all other flooring materials. (facts from a recent national survey)

That is what makes the 4th Dimension... Oak's overwhelming preference.
What does it mean to you? It means that, in the case of your operative builder clients, your specification of Oak Flooring will provide their homes with attractiveness, utility and will make it easier for them to sell their homes. Contractors say that nothing helps sell a house faster than a good Oak Floor.

And, for custom-home clients, Oak's 4 th Dimension is your assurance that $83 \%$ of all future homeowners want it... want beautiful, durable Oak. They want Oak's insulating qualities and its resiliency that gives walking comfort, too.
When it comes time to re-sell, their Oak Floors will help them sell faster. $96 \%$ of all real estate agents say they prefer to sell houses having Oak Floors. National Oak Flooring Manufacturers' Assn., Sterick Building, Memphis 3, Tenn.

This mark on Oak Flooring is your assurance that it meets NOFMA standards.


## sain

 floor space on every opening... cut costs on every home!Every square foot of floor space you save means a lower-cost home, an easier-to-sell project. And with Foldoor, you can design a new home with less total floor space and still get as much usable space as a larger house with conventional doors.
Foldoor saves swing space over ordinary doors; saves stack space over other folding doors; saves wall or partition construction costs; saves painting, trimming and hardware expense.
You'll find Foldoor fits in every house, makes it more flexible and more salable, too. You'll find the right size, type and color for every need. Consult your local Foldoor installing distributor. See Sweet's Catalog or write for detailed specifications. Holcomb \& Hoke Mfg. Co., 1545 Van Buren St., Indianapolis 7, Indiana.

## HOLCOMB \& HOKE FOOOOR <br> THE SMARTEST THING IN DOORS



## Easier to sell because...

औ Rugged steel frame, welded rods and rigid hinge plates resist rust, give a lifetime of trouble-free service

* Vinyl plastic coverings, wide color rangeeasy to clean with soap and water, long-lasting and fire resistant
- Attractive cornice conceals track, at no extra cost
$\star$ Exclusive Multi-V design-with centerline sup-port-requires less stack space
* Easy, low-cost installations
* Nationally advertised to your clients and prospects
$\star$ Backed by 56 years of engineering and manuroble easy to clean with soap and waler, long last facturing experience


## LETTERS

## EISENHOWER ON THE TIGHTROPE

Sirs:
I have read and reread your editorial, "President Eisenhower on the tightrope" (H\&H, Oct. '53), and I sincerely feel that this is the best description that I have read concerning the loan market today, and the best commentary that I have seen concerning the end results if existing policies are pursued to their logical conclusions.

If the large investors, the large builders, and the federal government can grasp this picture and follow the recommendations in this article, private enterprise in the building and mortgage industry can be saved, because the large majority in this field-the small builder and the small mortgage lender without large funds to juggle-are helplessly caught in the squeeze and are approaching the end of their part in the former established order of things. If they are forced out of business, the administration will have accomplished the opposite of what they claim to want.

With the failure of the small builder and small lender or loan correspondent doing business each in his own community, the pathway to public housing and direct lending by the federal government will be irrevocably established and the end of another bright era of private enterprise will have been accomplished. It behooves each of us, no matter how large or small our place in the mortgage financing and building industry might be, to think this matter through very carefully and to look a little way into the future. If we today are made of the same stuff as our forefathers, we can and will find a solution which will hold for at least our generation the rights, privileges and principles which this country has given of its life's blood three times in the last 35 years to protect.
D. L. Stokes, president
D. L. Stokes \& Co., Inc.

Atlanta

Mr. D. L. Stokes, one of the most respected real estate men in the South, dictated this letter shortly before his death from a heart attack. H\&H is grateful to Mrs. Stokes for sending it on to us un-signed-Ed.

Sirs:
. Clear and concise facts that are the opinion of every sound-thinking builder in the country.

John E. Bauer
Regional vice president, NAHB Indianapolis

Sirs:
Originators were encouraged to go ahead lending money and then, just when they had large mortgage blocks in warehouse, the interest rates were suddenly raised (H\&H, continued on p. 81

Oct. '53). Many were thus placed in a posstion of forced liquidation.
Could we not provide a method whereby warehoused mortgages could be supported and in the event of an interest change or any other drastic situation brought about by other than natural causes, a liquidation over a period of years provided? The originator could then take advantage of market upswings.
In the meantime, originators would be more likely to go on with new financing and there would be money available for future mortages in the form of building loans, which the market needs continuously.

Frederick C. Smith
Vice president \& mortgage officer The Bowery Savings Bank New York

Sirs:
Your recent "tightrope" editorial was excellent. I have read it through several times.
Your comments regarding the bankers yearning for the good old days of the 60\% mortgage are particularly timely, with the influx of bankers in Washington these days.
From the number of bankers on the President's advisory committee on housing, it looks as though bankers will continue to determine this nation's housing policies.

Obviously they are making the new policy and have created the present policy, such as it is.

With a little planning, this nation can avoid what promises at this time, to be the greatest housing shortage we have yet to see-the early 1960s.
The biggest demand for housing, of course, is and will remain the newly organized famill, which has little financial resource to invest in the housing it needs.
Your fine editorial crystallizes the many different facets of this housing problem. It ertainly should be must reading for everyone connected with home building.

Don Teverbauge, real estate editor Indianapolis Times
Indianapolis

Sirs:
One of the finest and most down-toearth statements concerning the national housing dilemma that I have ever had the pleasure of reading. I concur wholeheartedly in your entire approach but wish to point out one factor so often overlooked:
[Because] we must still provide new lowcost housing for a very large group of buyers earning $\$ 3,000$ or less per year, I strongly urge and solicit your support for no down payment on houses priced at $\$ 8,000$ or less....

Thomas W. More, homebuilder, developer Midwest City, Olla.


## For Perimeter Heating

ABOVE-A radial perimeter
system using SONOAIRDUCT, Atlanta
Ga., housing project. Nordec, Inc., Builders; Edwards-Ruffin, Heating Contractors.

This light weight duct comes in 27 sizes, $2^{\prime \prime}$ to $36^{\prime \prime}$ I.D., up to $24^{\prime}$ long-OR LONGER. SONOAIRDUCT is for the builder interested in saving time, money and labor in loop, radial and lateral slab systems WITHOUT lowering the quality of construction. Widely used and approved-permitted by F.H.A.

SONOAIRDUCT-XP is also available for use in crawl, basement and attic space heating installations. New detail folders now available upon request.

See our display!


BOOTH 247 CONRAD hilton нотеL

## Saves TIME! Saves MONEY!

Write for Complete Information and Prices


Builders from coast to coast are making Sales and Profits with

## PARENTS' MAGAZINE HOMES!



Two-thirds of all new homes are built or bought by families with children!
PARENTS' MAGAZINE homes have been built all over America. As a direct result of the magazine's continuing editorial program on behalf of home building, thousands of sets of working drawings have been purchased from PARENTS' MAGAZINE by individual families and by builders. And these homes, designed to meet the specific needs of families with growing children, have been built in every state of the Union!

PARENTS' MAGAZINE Home \#11. Above, Park Forest, Illinois. Inset, model homes in Pittsburgh, Pa., and Miami, Fla.

## PENTS' MACAZINE'S HOUSE No. $11!$ <br> YOU, TOO, CAN PROFIT FROM PARENTS' MAGAZINE'S HOUSE No. 11!

Already constructed in Park Forest, Ill., Pittsburgh, Pa., Miami, Fla., and scheduled to be erected in Jackson, Miss., and Seattle, Wash., this house is engineered for economical construction by individuals, and is adaptable for large-scale home builders and developers of sub-divisions. Participation in this home program is a great selling opportunity both for home builders and for home equipment manufacturers. Ask for details!


Visit Booth 86 NAHB Convention, Conrad Hilton Hotel

From: Emil J. Gould, Housing Engineers of Florida, Miami, Fla.
The public's reaction to the home has been very good indeed, and I am very satisfied with the results. For the family with children, it is excellent. This is the practically unanimous opinion of the people who have been visiting the house. This has been the finest home promotion we have undertaken. The tie-in with Parents' Magazine was very helpful,"

From: J. S. Rashkin, Park Forest Homes, Inc., Park Forest, III.
Extent to which interest was aroused... before any publicity or advertising, more than 50 applications for the Parents' Magazine House. Giving consideration to building additional houses elsewhere.'

From: P. C. Coechel, Equitable Gas Co., Pittsburgh, Pa.
Parents' Magazine house one of the outstanding events in Pittsburgh area...most effective All-Gas House Promotion ever staged in Pittsburgh. Mr. Al Singer and all those associated well pleased...having continued good crowds."

## SEND TODAY FOR DETAILS ON HOW YOU CAN PROFIT <br> Serves 1,500,000 <br> Families with <br> 3,000,000 WITH PARENTS' MAGAZINE'S HOME BUILDING PROGRAM! <br>  <br> PARENTS' MAGAZINE Family Home Department 52 Vanderbilt Avenue, New York 17

Children ... 5,000,000 Readership !

## LETTERS

Sirs:
An outstanding analysis. . .
The buying public has been educated to a low down-payment, long-term mortgage. If investors attempt to go back to the prewar plan of lending, with larger down payments and shorter terms, there will be resistance and, probably, direct government lending.
Our experience to date would indicate that a monthly payment loan on a long-term basis is a sounder mortgage plan than a shorter term first mortgage with a contract or second mortgage intervening. Any attempt to change the trend would mean trying to stop progress. W. C. Nel.son, president Eberhardt Co. Minneapolis

Sirs:
Your suggestion that we would be illadvised to put pressure on the government for special favors is certainly right. But we can look to the government to see that FHA and VA give proper valuations to the homes we must build to suit the market, which requires better architecture and higher-thanminimum standards of room size, construction, materials, equipment and site planning.

## Joe F. Maberry

Maberry Construction Co. Dallas

## MODERNIZATION

Sirs:
THANK YOU FOR YOUR GENEROUS DEDICATION of the october remodeling issue [h\&H, ост. '53] to me among others. you should KNow that i Claim no accomplishment by my individual action but only by collaboRATION AND TEAMWORK. THEREFORE I ONLY Can accept the compliment on behalf of hundreds of cooperating individuals who UNFORTUNATELY REMAIN ANONYMOUS.

Reginald R. Isaacs Cambridge, Mass.

Sirs:
Your Round Table report is really a wonderful textbook.

Milford A. Vieser, vice president Mutual Benefit Insurance Co.
Newark, N.J.

## Sirs:

Congratulations on the excellent job you did in assembling the Round Table group and reporting on their conclusions.

But more than this, your issue bulges with news, information and ideas which cannot but be useful to retail lumber dealers and everyone else interested in housebuilding.

Retail lumber dealers who are to survive the strenuous competitive days ahead will do well to read House \& Home.

Norman P. Mason, past president
National Retail Lumber Dealers Assn.
continued on p. 83

Sirs:
Only through such informative articles shall we be able to accomplish the desired end. Our job is to channel public thinking and to educate the masses in order to make this program succeed. Impartial enforcement is the first step, but unless we can educate the public to think and talk better housing all the policing we can muster will not do the job.

Thomas M. Brahney Commissioner of Institutions
\& Public Health
City of New Orleans
Sirs:
Stimulating and thought-provoking. Is it possible to obtain several hundred reprints? Garfield S. Langworthy, exec. director
Redevelopment Authority of the City of York York, Pa.

Sirs:
The information is very well presented and should be stimulating to all who read it. Karl Maier Jr.
Manager of residence loans Northwestern Mutual Life Insurance Co. Mllwaukee

Sirs:
Your modernization issue struck sympathetic ears in this office. I find the material covered very complete, expressing an idea we have long felt, that some older buildings, if properly remodeled, can be very rewarding.

John Carden Campbell, architect Campbell \& Wong
San Francisco
Sirs:
Your story on slum rehabilitation should awaken everyone to the disgraceful slum situation in so many of our cities.

William F. Schnitzler
Secretary-treasurer
American Fedaration of Labor Washington, D.C.

Sirs:
. A remarkable job. You deserve a great deal of credit.

Samuel E. Neel, general counsel Mortgage Bankers Assn. Washington, D.C.

Sirs:
Thorough and interesting.
Omaha's pilot-area project is nearly completed and I am pleased to report that we have not had to condemn one single property, thanks to the enthusiastic effort of all owners to bring their properties up to minimum standards. We are interpreting the program to large civic groups for the purpose of obtaining their cooperation and support in presenting a model ordinance to the Omaha City Council in November.
N. P. Dodge Jr. Omaha
continued on p. 88

\section*{DWYER KITCHENS} |  |  |  | $\begin{array}{l}\text { Gas or electric range. } \\ \text { Electric refrigerator. } \\ \text { Counter, range-fop and } \\ \text { sink in one seamless } \\ \text { piece. Cupboard and } \\ \text { undersink storage. All in } \\ \text { units } 39^{\prime \prime} \text { to } 69^{\prime \prime} \text { wide. }\end{array}$ |
| :--- | :--- | :--- | :--- |

VITREOUS PORCELAIN FRONTS AND WORK TOPS



## Modern Ranges

Electric range Under writers approved. Gas range AGA approved; burns natural, mixed or bottled gas. Convenient waist-high broiler Oven heat control. Roller bearing utensil drawer

4 SIZES-39 TO 69 INCHES WIDE


One-piece Sink and Range-top
Range-top, sink, drainboard and work top in one continuous piece . . . rounded corners and not a crack or crevice to harbor dirt or grease. Gleaming white acid-resisting porcelain. Mixing faucet and crumb-cup strainer included. Dwyer Kitchens available in Recess Models (with continuous sink-and-back rail as shown here) or in against-the-wall models as shown in full illustration above.


Electric Refrigerator
Vitreous porcelain interior and front. Sealed unit never requires oiling. 5 -year warranty. Freezer compartment for frozen food and ice cubes. Handy push-button door and interior light.

## MADE BY SPECIALISTS IN COMPACT KITCHENS FOR 27 YEARS

Dwyer Kitchens are designed, engineered and manufactured entirely in our own plant . . . by men who have concentrated on compact kitchens since 1926. Persistent effort has developed kitchens with maximum facilities in minimum space while retaining practical features of rugged durability.

Rugged construction characterizes Dwyer Kitchens. Mechanical and electrical equipment is unsurpassed in quality. Vitreous porcelain surfaces never require painting; soap and water keep them permanently beautiful. Installation is simple and all mechanical parts can be serviced from the front.

MAIL COUPON OR WRITE FOR COMPLETE BULLETINS


DWYER PRODUCTS CORPORATION
Dept. D-123
Michigan City, Indiana

## VINYL TILE

for today's homes, offices, stores,


Specify for commercial use: KenFlex has decorative beauty plus the important economy advantages of rugged wear, extreme grease resistance and easier maintenance.


Specify for residential use: The coordinated beauty of the 15 colors plus the ease and economy of upkeep make KenFlex ideally suited to homes. Recommended installation shown below.


New as it is, KenFlex has been thoroughly proven in actual use! One example of this exhaustive research is the test installation that was placed in a major, heavy-trafficked New York office building. Here, over $13,000,000$ people have walked on a KenFlex Floor in the past 13 years ... yet it shows no signs of wear... is attractive as if it had been installed yesterday.

KenFlex is truly a superior floor... combining the best qualities of vinyl and asbestos. It's rugged for long, hard service...colorfully beautiful but never needs waxing except to make the glowing colors shine a bit more. And, KenFlex sets a new standard in grease resistance...it's impervious to cooking and petroleum oils, alkalis, alcohols, mosi acids and reagents. Still, it cleans without scrubbing and colors never wear off...they go clear through the tough tile.

## Specifications and Technical Data

## INSTALLATION

KenFlex can be installed over any smooth, firm interior surface... wood, plywood, radiant heated concrete slabs, even over concrete in contact with the earth... on or below grade.

## THICKNESSES

Laboratory and on-floor usage tests have proven that vinyl has great durability and wear resistance. Therefore, standard gauge ( $1 / 16^{\prime \prime}$ ) is recommended for normal residential and commercial uses. If exception-
ally heavy traffic is expected, $1 / 8^{\prime \prime}$ gauge is recommended.

## INSTALLED PRICES

Prices range from $40 ¢$ per sq. ft. to $65 ¢$ per sq. ft . depending on which of the thick nesses is chosen-for minimum area of 1000 square feet over cement underfloor.

## size

Standard tile size is $9^{\prime \prime} \times 9^{\prime \prime}$. Also available are $9^{\prime \prime} \times 9^{\prime \prime}$ decorative ThemeTile and $l^{\prime \prime}$ x $24^{\prime \prime}$ Feature Strip.
the kentile, inc. flooring Contractor is a trained and experienced flooring expert...fully qualified to give you whatever assistance you might require. Call on him whenever you must specify flooring for new construction or remodeling of any type or extent. Find his name and address by looking under floors in the classified pages of your Phone Book.

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## modern flooring advantage

 institutionsIn this drug store, the colorful KenFlex Floor is both beautiful and functional. And its grease-resistant properties save time, work and money...especially at the counter section. KenFlex colors shown are Marigold, Egret White and Ivy ThemeTile.

This kitchen-dining area owes much of its charm and efficiency to the modern KenFlex Floor that's so easy to clean with just a damp mop...needs waxing only to give the lustrous surface a brighter gleam. KenFlex colors shown are Desert Sand, Antique Coral, Bird ThemeTile and White Feature Strip.


## Now ready



## The New Lupton Aluminum AWNING WINDOW

Before you make any decision regarding Awning Windows, you will want to see the quality and value in this newest development in the Lupton line - the new Lupton Aluminum Awning Window! . . . It is engineered to Lupton standards - developed out of our more than 40 years experience in the design and construction of metal windows - and is precision built in every detail. From every practical standpoint of installation and service, we believe you will find it the finest window of its type the building industry has ever known . . . It features a centrally operated control bar that delivers equal power
to both jambs. This perfect balancing of power means easier opening, easier closing and a perfect seal around each sash! . . . The new Lupton Aluminum Awning Window is now ready in Modular and Residence sizes for business buildings, hospitals, schools, residences. Let us tell you more about this new Lupton Aluminum Awning Window. Write today for specification, details and sizes.


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# Member of the Steel W indow Institute and Aluminum Window Manufacturers Association <br> LUPTONmETAL WINDOWS 

## USE THE FINISH <br> THAT STARTS THE SALE!

In today's ranch-type homes, natural wood trim is often the "sizzle on the steak" . . . the feature that swings the sale. That's why hundreds of builders and architects specify Rez products for finishing indoor and outdoor woods. No other finish adds the same beauty, protection and sales appeal as Rez, and is so practical from the builder's standpoint.
Color-Toned Rez gives woods a rich, natural, soft-grained beauty in popular "California" colors: Redwood, Mahogany, Driftwood, Sage and Cedar. These are two-coat durable colors for exterior finish. White Rez provides a cost-saving two-step system for interior blonde finishes. Clear Rez is the perfect sealer and primer under other paints.
Rez saves time and labor. It seals wood pores, makes paint go farther . . . keeps out moisture, controls grain raise, checks warping and swelling. Used by leading builders and decorators for siding, shingles, fencing, trellis, flush doors, frames, paneling, woodwork. Next time you build, try Rez . . . the finish that starts many a sale!



## LETTERS

## ARCHITECTS' FEE SCHEDULES

Sirs:
News (H\&H, Sept. '53) contains an item on the Georgia Chapter AIA fee schedule for builder houses. The AIA Committee on the Home Building Industry disagrees with you that "the No. 1 problem is usually fees." Our committee has discussed this thoroughly with many architects over the country who do work for merchant builders. Those who perform a satisfactory service have no worry about fees. Therefore, let us say that the No. 1 problem is the extent and quality of service which the architect delivers.

You quote me as saying the fee schedule of the Georgia chapter is "ridiculous." I made no comment on that fee schedule in particular but did state strongly that it "was ridiculous to set up a schedule of fees when there was no standard of practice in the field."

I feel that the Georgia schedule is designed entirely for the architect who designs individual houses for builders of no more than 10 or 20 houses a year. The Georgia schedule is patently unsuitable for large development work as the Georgia chapter will, I think, readily admit.
L. Morgan Yost, FAIA, chairman

Committee on the Home Building Industry American Institute of Architects
W'ashington, D.C.
Sirs:
. One of the finest jobs that you have done to date. It would seem to be the kind of thing that will become almost a bible for those seriously interested in rehabilitation.

I like particularly your admonition that coordinated action is essential to succesful rehabilitation.

Frank Cortright joins me in congratulating you.

Earl W. Smith
Chairman, NAHB
Research Institute \& Construction Committee Sirs:

I have made this whole program a major objective during my administration.

We are proud of the part Chicago is playing in developing the technique by which our major cities may solve this serious problem. Your organization is performing a great service in bringing to the attention of architects and builders the development of a body of knowledge on the subject.

Martin H. Kennelly, mayor City of Chicago
Sirs:
The article is good. . .
Richard Smykal,
Lieutenant general, retired
Special deputy building commissioner
Sirs:
All I would have added to How US cities are meeting the challenge of rehabilitation would be a little more credit to the mayor. . . . Laird Bell
Bell, Boyd, Marshall \& Lloyd Chicago

## THE BIG LINE IS GROWING BIGGER!

to give you greater window selection! . . .


## Aluminum Awning Windows

- The window advances are coming from Truscon! Last summer Truscon announced the Ranch Window that set new standards in steel windows for popular one-story homes. This spring Truscon introduced its sensational aluminum casement in modular sizes. Now . . Truscon offers you what the trade has been waiting for . . . its customary quality design and sturdy construction in a brilliantly new aluminum awning window.
Truscon Aluminum Windows feature modular sizes to match standard masonry dimensions. Approximately $8 \%$ more light and ventilation per window opening. Heavy extruded aluminum sections with a minimum frame depth of $17 / \mathrm{s}^{\prime \prime}$. Weathertight construction with vinyl plastic weatherstripping. Protected operating mechanism. Many more features you'll want to know about. Write Truscon for latest bulletins. Watch the big line for the big news. When Truscon offers a new product you can bank on its satisfactory performance.

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# How to hit pay dirt on a hillside 

With level land near cities getting scarce and costly, many builders are taking to the hills. Big islands of rolling land left high and dry in the first waves of expansion are getting a second look for development. New earth-moving equipment and techniques are making hill building possible as never before. Good planning ideas worked out by architects for individual homes are being used on a big scale.

Hills, carefully used, offer big sales assets. Often cheaper and closer to town than flat acreage, they can be bought at a bargain and built on to sell at a premium:

- Buyers will pay more for valley views, cooling off-ground breezes, and the trees that bottom lands often lack.
- Hillside houses can appear wider spaced, more varied, and more distinctive as a community than rows of flatland homes.
- Hill houses can look out over their neighbors instead of directly at them, get vertical as well as horizontal privacy. Level outdoor living areas in back or side yards can use the hill as a "fence."
- Sloping land often helps designers tuck such sales features as expansion basements, playrooms and garages under their houses, get extra cubage under one roof at little extra cost.

But hill building poses special problems. Hill builders need the help of competent land planners, architects, landscape architects and engineers. Too many builders (and their buyers) have learned the hard way they should have used a slide rule and drafting pencil instead of a bulldozer. Usually it is better to change the shape of the house to fit the shape of the hill, saving the natural contours, the trees and undergrowth.

Improvement usually costs more. Planning and land preparation can take longer; excavating, moving materials, pouring foundations can be more laborious. A builder cannot always expect as many houses to the acre or as quick a return on his investment. But the smart builder can write off his high development costs against even higher profits.


## To hit pay dirt

## 1. Dig into the slope for expansion-

Here is how a three-man team of builder, architect and realtor dealt with the three-dimensional problem posed by a steep hillside site:

- Builder E. J. (Jack) Turner of Seal \& Turner, Inc. was shopping around for land last year, passed a battered old "Builder's Land for Sale" sign, looked at the steep slope behind it and decided it was an excellent place-if only he could build on it. So he talked to
- Realtor Dave Pomeroy of Fielding \& Pomeroy who was at first doubtful about the site because so many other builders had passed it up. But he knew it enjoyed an excellent location-ten blocks from downtown Media and a railroad station, three blocks from a bus line, within easy reach of two elementary schools and two shopping areas, so he suggested that Seal \& Turner call on
- Architect George Hay, who agreed the land was desirable, was sure he could plan landscaping and houses to make the job economical for a project.

Seal \& Turner bought the land, Hay designed these expandablebasement houses io fit it and Fielding \& Pomeroy sold all the houses in two months.


Before Hay designed for Seal \& Turner, rear elevations on 1949 houses looked like this: tiny windows miss sweep of rolling countryside; poorly lighted basements are no invitation to indoor-outdoor living. Now see right.


Wm. Turner

## basement houses

L. S. Williams


1952 rear of Hay-designed house in 27-unit Edgewold has window walls on entry floor (top) and in ground-level living area facing valley view. Note two-story version of car porch economically using porch floor for roof shelter. Site plan, right, shows how houses fit contours.

LOCATION: Upper Providence Township, Pa. SEAL \& TURNER, builders
GEORGE HAY, architect, landscape architect G. D. HOUTMAN \& SONS, engineering

FIELDING \& POMEROY, sales
TRAVELERS INSURANCE CO., financing
Sales price: $\$ 14,300$ to $\$ 16,650$



Gold in the hills. The ten-acre site cost the builders about $\$ 350$ a lot, $\$ 50$ less than they would ordinarily pay for a $75^{\prime} \times 125^{\prime}$ strip of undeveloped Hlat land. Improvements for the 27 lots brought manufactured costs up to $\$ 1,600$ per lot. "Yet," observe Seal \& Turner, "we paid as much as $\$ 1,900$ for the same size improved flat-land lots that weren't half as attractive."

Hay and Engineer Jack Houtman, who works closely with him on all his site-planned developments (H\&H, June '52, July '53), agree that the land would not have been buildable a generation ago because of lack of versatile earth-moving equipment. Land clearing costs were $\$ 3,200$ ( $8,000 \mathrm{yds}$. at $40 \phi$ per $y d$.).

Siting of each house was completed before arbitrary lot divisions were made. Thus all houses were oriented for view and privacy, sited to give buyers uphill or downhill outdoor living areas, arranged with gradually sloping driveways to carports. Site planning and engineering cost was $\$ 154$ per lot. Hay's house design fee was $\$ 50$ per house.
"Even if you pay as much or a little more to develop hilly land," says Jack Turner, "you end up with a more valuable, salable piece of ground every time."

Pay dirf. Builders as well as buyers profited from the improvements:
Houses sold so fast advertising costs were only $\$ 77$ per house even though all houses were sold conventionally with one-third down.

* No furnished model was needed to enhance buyer appeal of the houses.
- Builder capital was tied up only a little over six months during construction, completion time from start to sales for the entire development.
- Because of design and close-in location, the builders netted a $3 / 4$-point premium on all mortgages made by Travelers Insurance Co.


## Uphill model was most popular ...

Uphill model sold for $\$ 15,300$. Driveway was curved to lessen grade to carport. Utility, storage, bathrooms are on lower, "buried" side. Exit to rear yard is from second story.
L. S. Williams



Downhill model at \$14,300, has carport almost at level of
road, biggest windows facing view. All windows have standard aluminum sliding sash in standard wood bucks.

## downhill houses were best buy

"The houses were such good buys," says Hay, "because, like many hillside houses, they offer more cubage than a one-story house-at a lower cost." Reason: there is more area under one roof. The basic downhill model was the most economical to build (construction materials are cheaper to move downhill than up) and the best buy at $\$ 14,300$ (downstairs incomplete). Even so, half the buyers who bought them added enough-by having the expandable lower level finished-to bring their selling price as high as the most expensive houses with big porches and on choice lots. For $\$ 2,500$ buyers got an additional 765 sq . ft. of living area! This illustrates that buyers will not only pay to get a usable daylight basement but will also pay extra to have it finished off. In all downhill models, rough plumbing was offered in the lower level for $\$ 75$ extra.
Square-foot building costs on the uphill model (1,439 sq. ft. of finished floor area) were $\$ 9.31$ without carport or porch. Costs on the downhill model, which is $4^{\prime}$ longer, were $\$ 12.21$ per sq. ft . for 993 sq . ft . of finished floor area (second level only), an amazingly low $\$ 8.14$ per sq. ft . for $1,766 \mathrm{sq} . \mathrm{ft}$. of usable space on both levels.

Fielding \& Pomeroy report the main attraction of the uphill model was the extra large upstairs bedrooms. Big sales point for the downhill model: the lower floor was cooler in the summer, when all sales were made.


"The more scenic, the more salable"


Three-bedroom and carport houses in the valley bottom sold last. "The most heavily wooded lots were more scenic, therefore more salable," says Realtor Dave Pomeroy. Basic price on these models was $\$ 14,700$. Because they had bigger foundations (more living area all on one floor), more partitions, they were the costliest to build.

Versatile young (33) Architect Hay did his own color coordinating in Edgewold, used strong green, Swedish red, earthy brown accents on predominantly white stucco houses, pastels on predominantly red brick houses.


Kizchen is in front, facing street, in downhill model (left). Living room (above) is in front of house on uphill model.


## Country living with city conveniences

"Builders Seal \& Turner" says Hay, "upgraded the area around Edgewold from $\$ 10,000$ houses to $\$ 15,000$ houses. Most builders do just the opposite." The adjoining area, zoned as was Edgewold for $50^{\prime}$ lots, had been a pleasant suburban street until after the war, when a few builders crowded some unwisely sited houses on narrow lots. Seal \& Turner built on $75^{\prime}$ lots, believing they had much more sales appeal (actually houses look more widely spaced because of vertical as well as horizontal spacing).

Their neighborhood improvement idea was catching: owners of several houses on the main street into Edgewold built garages, put curbing in.
Neighborhood-conscious Hay, who won a regional NAHB Better Neighborhood award last year, noted that part of the site was landlocked, designed a swimming pond for children. In hot summer months advertising called attention to the one-acre park and pond. Total cost for scooping out a shallow depression with a clam shovel and building a concrete abutment to keep the hill from washing into the pond was $\$ 200$. A sluice gate keeps the water at a safe level. Says Hay: "If the site is right, a similar idea could be worked out almost anywhere for no more than $\$ 500$."


Heavily wooded lots sold fastest. Builder Jack Turner, grad. uate in forestry, made special effort to save trees, installed pipes under driveway for water runoff when trees were in hollow (as in photo below). Note also (in same photo) how carport of center house is dropped one floor on very hilly site.



LOCATION: Castro Valley, Calif. LOUIS and AUGUST RAHLVES, builders DAVID H. HORN, architect WALTER D. LUCAS, associate OSMUNDSON \& STALEY,
landscape architects
Sales price: $\$ 14,195$ to $\$ 14,795$
"Do-it-yourself" patio was a big sales fea. ture and $75 \%$ of buyers followed free detailed instructions for making it. Side fences are an extra, or can be built by owners. In rear facade, $8^{\prime}$ jog allows placement of door to one side where it does not interrupt view windows. Jog also creates a sun pocket. At right of patio is a higher terrace for grass or flowers.

## To hit pay dirt

## 2. Face the house toward the slope

Most uphill houses are planned for a downhill view from their front windows. But not these. Their largest windows are at the rear and the entire house is designed for outdoor living in a rear garden. With their backs to the street and the other rooftops, each house has a controlled, intimate view of what pleases its owners.
When Builders Louis and August Rahlves (the latter regional vice president of NAHB) first discovered enough hillside land for 40 houses in Castro Valley, 30 minutes by car from Oakland, they doubted if they could develop it to meet a primary requirement of California buyers: enough level space for outdoor living. Hillside lots above the street were too steep.

With their designers, the Rahlveses worked out a two-level house in which the upper floor is at the same level as the rear yard. They graded space for a small rear patio, then terraced a higher level for grass or a garden. To show how well this could look, they had landscape architects do their model house. The first 40 houses sold well and the Rahlveses are starting 60 more. Some of the downhill houses have the same plan; others have the garage on the top level, the living floor below.


Lower floor, with glassed-in entrance for extra daylight, has carport, storage area, furnace room, an unfinished $14^{\prime} x$ $24^{\prime}$ room, bath with shower. Fences give privacy on $55^{\prime}$ lot.

Builders are proud of floor plan which isolates living room from kitchen-bedroom-bath traffic. Top floor has $1,160 \mathrm{sq} . f t$. Lower level (264 sq. ft. plus carport) could become a private apartment. Free terrace plan is completely detailed, shows which plants to put where.

Short side of living room faces terrace and is in contrast with Neutra plan (p. 100). Here each family can create what it wants to look at. Landscaped model was important sales factor. Terrace door is at the left of the bank of tall windows.


## instead of the view



Free-standing storage cabinet is only separation between kitchen at front end of house and the dining end of living room. Five windows in kitchen, well-lighted hall (right) make the whole house bright.


High celling, open plan, handsome cabinets make an attractive kitchen. Mechanical equip. ment, except fan, disposal unit, are extras.


Outriggers form a trellis over the walk between garage (left) and louvered door to storeroom and utility areas, which are neatly tucked underneath the bulk of the house.
"L" plan fits steep, odd-shaped lot, opens major rooms to both valley view and garden view (photo right). Living room has favorable southeast exposure, continues out at same level to its richly planted terrace.


## To hit pay dirt

## 3. Use the hillside

One approach to hillside planning is to set the house into the side of the hill, face all the rooms out, and bring the view in through great sheets of glass. People who live in this type of house, however, often pull the curtains closed-and leave them closed. They find it difficult to live with a dazzling panorama 24 hours a day.

Two different architects tried this approach on this steep hillside lot and got nowhere. Richard Neutra, the third architect retained by the owners, faced the house into the hill instead, and got away with it nicely.
Neutra's house takes advantage of the all-important valley view without letting it overpower the occupants. And it provides something just as important to hillside houses: a level, private space for outdoor living.
Like the Rahlveses (see preceding pages), Architect Neutra created a private view in back of the house, placing the indoor living areas to the rear and opening them up to a terrace at the same level. The approach was the same, the execution even better:


Photos: Julius Shulman

## as backdrop for an outdoor living room

- The long side of Neutra's living-dining room parallels the hill, bringing the full length of the sitting and dining areas in closer contact with the garden.
- The whole back wall opens up through floor-to-ceiling glass, giving a wide view almost unbroken by window mullions. Two large sliding glass doors admit welcome breezes and allow easy movement between indoors and outdoors.
- The slope in back, steeper than the Rahlveses' site, was developed into a beautifully planted, gradually rising series of steps held by low brick retaining walls. Less abrupt than a fence, these form a visual back wall for the living area, nearly doubling the apparent room size.
Living room and master bedroom have a choice of view: the near garden on one side, the long valley on the other.
- The Neutra house has the added luxury of small balconies on the downhill side, large enough to sit on and enjoy the sunsets or summer breeze.
The kitchen has its own side entrance, as in the Rahlveses' houses, but is located in back where it is convenient for serving outdoor meals.

LOCATION: Beverly Hills, Calif. RICHARD NEUTRA, architect VICTOR E. EMANUELSON, contractor


Fireplace wall of Roman brick separates master bedroom from living area, contains woodbox and bookshelves that lead into wall cabinets, couch and low space divider toward entry hall (foreground). Arranged in a snug semicircle, these built-ins form a wide visual guard rail on the valley side, prevent an uncomfortably abrupt down-view.

Downhill, a panorama;


Shaded deck over the garage commands wide south and west views of the rolling landscape. Trellis and railing, designed for vines, help intertwine house and nature.


Closet unit facing dining area contains bar on one side, hanging space for coats on the other. Mirror in back of bar counter, which gives the appearance of a pass-through opening here, reflects light onto the mixing shelf.

## uphill, a sheltered terrace



Deep roof overhang to the west serves $a$ double function: it shetters steps leading up to main entrance and keeps sky glare and hot afternoon sun out of living room. Stair and landing are illuminated by lights -behind trosted glass strip in the soffit.


Nested high on the slope, the house is completely private from the road below

## Glass walls to the lee; balconies to the view



Here you can see how Neutra "cooperates with the site" while he designs the house. He has sacrificed as few trees as possible. moved as little earth as possible, in an effort to preserve the personality of the piece of ground.

On the front the strip windows are recessed under a deep roof overhang to keep out the hot glare of the western sun. Together with the small sitting balconies, this long ribbon of glass permits a sweeping view of the valley.

A On the back the architect has provided a more intimate, controlled vista: a luxuriant garden scene brought indoors by a whole wall of glass. Here the owners can enjoy both the warm morning sun and the cool afternoon shade, protected from the west winds that sweep up the hill by the house itself.
"Today's house is small," says Neutra, "but if we handle it properly we can extend our living space right to the property lines-and contemporary design aims at just this. If we fuse the house with the site, it seems to grow . . . the site, well treated, is a lasting source of happiness."

Bedroom balcony, seen in foreground, is a sheltered vantage point where the owners can be alone with their panorama of faraway hills and valleys. At left, heavy climbers help merge the house with its setting.


Outdoor living room was created by leaving a level space $12^{\prime}$ wide in back of the house, opening up both living and dining areas through large sliding glass doors. Sense of indoor-outdoor enclosure is heightened by the wide roof overhang and by the planted back slope, which makes a fence unnecessary.


Treeless land was completely reshaped into giant steps before a single foundation was poured.

RANCHO MONTEREY
LOCATION: Monterey Park, Calif.
BURGE \& ROACH, architects
FAIR, WEKALL \& McINTIRE, land planning and engineering KENBO CORP., developers and builders
Price: $\$ 13,500-\$ 17,250$

## To hit pay dirt

## 4. Bulldoze the slope into

For years Los Angeles builders by-passed the Coyote Hills in their search for flat acreage. By 1951 this barren upland, only 12 minutes from downtown LA by car, was an island in a sea of houses.

The Kenbo Corp., whose president, Earl Snyder, had experimented with smaller hillside tracts (H\&H, Feb. '52), decided to take the gamble and bought 182 acres at $\$ 4,500$ per acre, $\$ 2,000$ under the market for flat land. Then, carefully following plans worked out by Architects Burge \& Roach and Surveyor Fair, Kenbo moved in a fleet of 26 earth-moving machines and proceeded to carve the rolling contours into level lots for 625 houses.

Development came high, as expected: sewers, drains and water pumping were costlier, and over 1 million cu. yd. of dirt had to be moved at $36 \%$ per cu. yd., more than doubling normal costs for lot improvement (see cost breakdown, p. 108). Sloping banks between lots ate into the total amount of usable land, allowing 3.4 houses per acre instead of the four common on flat land.

Buyers have willingly absorbed the higher final price, getting in return 1) a top FHA rating, 2) convenience to the city, 3) attractive and varied houses with plenty of level space for outdoor living, and 4) the view, breeze and added privacy of hillside lots.


A million cubic yards of earth were shifted by carryalls (left),
wetted down and then compacted by sheep's-foot roller (right).
 sion, flooding and landslides. Cut banks are not steeper than $45^{\circ}$, fill banks are held to an even gentler slope and seeded with ground-holding cover. All lots have a positive drainage angle toward street.

## wide terraces for "flat land"' houses




Broad terracing shows in sharp contrast to older development (foreground) which left most of hillside unusable

## Well compacted, lots can be deep enough for outdoor living

COST BREAKDOWN, improved lot:

| Raw lot (64' net width) | \$1,500 |
| :---: | :---: |
| Water mains | 350 |
| Pressure stations | 40 |
| Storm drains | 120 |
| Street lights | 20 |
| Sewers | 160 |
| Engineering fee | 150 |
| Engineering supervision | 20 |
| Architect's fee (repeat royality only) | 50 |
| Street work | 350 |
| Excavation | 650 |
| Total value, improved lot | \$3,410 |

Changing the whole face of a hillside can be a dangerous proposition if done carelessly: in Los Angeles' big rains last winter, landslides of uncompacted mud and rock accounted for some $\$ 9$ million damage to hill houses.
Rancho Monterey, on the other hand, follows a safe set of rules that suggest good practices for terrace developments:

1. Streets follow the main contour lines around the hills, not an arbitrary grid pattern, therefore are mostly level and gently curving. The only rising streets are occasional cross-feeders with few houses on them.
2. Building terraces are deep enough (at least $110^{\prime}$ ) to allow room for both house and garden. Most houses and their garages are placed close to the street, leaving plenty of space behind for outdoor living (see photos above and right).
3. Banks are not dangerously sfeep. Cuts are permitted to slope up to $1: 1\left(45^{\circ}\right)$; fills cannot be steeper than $11 / 2: 1$. On major fills (one in Rancho Monterey is a full $50^{\prime}$ deep) the raw slope must first be cut into one or more steps to "key" the fill in place.
4. Soil is well compacted, to at least $90 \%$ of its maximum density-actually denser than it was before excavation. Without a cohesive soil like the adobe-granite mixture found here, the tract might have been unbuildable. During compaction every $6^{\prime \prime}$ layer was sprinkled by water truck and tamped hard by a sheep's-foot roller.
5. Drainage is well planned: each lot grades forward toward the street, at least $6^{\prime \prime}$ in every $100^{\prime}$, closer to $10^{\prime \prime}$ on most lots. At the top of each bank $2^{\prime \prime} \times 6^{\prime \prime}$ redwood headers are laid in the ground to form a guard; at the bottom a "toe-wall" of masonry 30 " high is erected to divert rain water and debris from the lot below.
6. Planting holds the banks against erosion. All fill slopes are reseeded with ice plants or a half-and-half mixture of domestic rye and atlas barley grain. This is sufficient until the banks reseed themselves within a year. Builders can find out from local US or state foresters what makes the best ground cover in their region.


Typical house, shown also in plan and photos (right) is one of six models offered


Rear living rooms open through sliding window walls to private gardens at the same level-


Double-pour slab, little more expensive than single-pour. has proved excellent vapor barrier. Cold emulsified asphalt sprayed between pours eliminates puncture troubles.


House fronts hug street, leaving space for outdoor living behind


To hit pay dirt

## 5. Vary house levels to fit the contours;

LOCATION: Kirkwood (St. Louis Co.), Mo
BURTON W. DUENKE, bnilder
RALPH FOURNIER, B. W. DUENKE, designers
BANK OF ST. LOUIS, financin
SUBURBAN REAL ESTATE CO.: BANK OF ST. LOUIS, sales Price: $\$ 20,000$ to $\$ 35,000$

St. Louis Builder Burt Duenke did not use the scorched-earth method of lot leveling and tree destruction. In his 42 -house Craig Woods project, he varied his house designs to fit the land, saved trees to enhance their value.
Twelve of the houses (split-level, two story and one story) were sold before the September opening without advertising; over half are now sold although conventional financing pushed the down payments as high as $\$ 12,000$. Prices ranged from $\$ 20,000$ to $\$ 35,000$ according to size of house, choiceness of lot.
"The land was a good buy," says Duenke. "Other builders had passed it by for years because it was hilly, rocky and so densely wooded. It took a lot of planning, gave us a few headaches, but was well worth the effort." Raw land cost $\$ 1,500$ an acre. Flatter land with fewer trees brings from $\$ 2,000$ to $\$ 2.500$.

Development costs on the minimum half-acre plots were $\$ 3,000$ because of underlying and outcropping rock. The problem of getting gas, water and sewage lines in was solved partly by putting fill dirt in rocky ravines, letting it settle over the winter and trenching for utilities in the spring. Biggest headache was running lateral lines from mains to houses: Duenke ran into more rock than he figured on. Says he: "I've learned my lesson: on another rocky project we're spending $\$ 3,000$ for test drilling."
Says Duenke's progressive vice president, G. W. Mefferd: "You get a site like Craig Woods only once or twice in a lifetime. It would be a crime not to do the best possible job of developing it."


## save the trees to enhance the value

Pricing formula. Duenke based lot prices on a four-part credit system: size, contour, location and number of trees. Each of these categories was charged for by multiples of from $\$ 100$ to $\$ 200$. Example: location premium was determined by five multiples of $\$ 100$ based on view, privacy, distance from arterial street and from nearby Marine Hospital. Certain adjustments were then made based on how well Duenke's one-, two- or three-level houses, built from his standard $6^{\prime}-4^{\prime \prime}$ redwood and glass panels, could be fitted to the land and how adaptable the remaining land was for outdoor living and play areas.

Save the trees and sell the houses. Proof that Duenke's practice of saving trees pays off is that the most expensive lots with the most trees sold first. He believes it costs no more to save the trees where there is no grading around them than it does to doze them out, cut up the trunks, burn the brush and dispose of the stumps. When trees were where grading fill was necessary and trunks were boxed, costs ran as high as $\$ 40$. But buyers were willing to pay the premium $\$ 600$ for the most heavily wooded sites. He believes tree saving can be applied to medium-priced tracts as well, cites resale prices on similar houses in projects built in 1950 and 1951. Houses in the wooded tract have been reselling for $\$ 1,342$ more than houses on a treeless tract!
Builder of over 600 houses since 1946, Duenke has been a pioneer both in putting sizable projects on rough sites and in bringing low-cost contemporary design to staid St. Louis. He influenced such far-off builders as Cleveland's Maurice Fishman through the success of his fast-selling 258 -house tract in Ridgewood (H\&H, Feb. '52). His pioneering use of post-and-beam framing with prefab panels has influenced builders in Kansas City, Milwaukee and Chicago who have bought his prefab package.


Cul-de-sacs punch their ways through rocky slopes to give houses privacy from traffic, greater chance to gain outdoor living on quiet hillsides. Siting of four houses shows staggering for privacy between houses.


## A different kind of split-level house-

Most split-levels are divided horizontally so there are six steps up, six steps down. But the Duenke-Fournier split (like Architect Dave Runnell's, H\&H, Dec. '52) uses a $2 / 3^{-1 / 3}$ separation-eight steps up, four steps down-and faces narrow end to the street. This type of house, says Designer Fournier, can be built on a steeper slope and has a softer roof line (see photo above). Most merchant-built split-levels save space by tucking the garage under the house. But, uncrowded on half-acre plots, Duenke placed carports in three places: 1) off the intermediate level (as in house above) ; 2) in an adjoiningrectangles arrangement (p. 114) ; and 3) off the lowest level. This allowed him to give uniformly good siting for view and privacy, give all ground leveis maximum daylight and integrate the service-play area with the outdoors.
Duenke's split-level offers the usual multistory benefits of minimum stair climbing and greater living area under one roof. In addition it:
$\rangle$ puts bedrooms one complete story above grade to provide views as well as give a feeling of privacy, quietness and security;
provides a much longer living room, and a gallery along the bedrooms makes the living room seem wider (see plan);
uses the second-story projection intelligently to permit bigger bedrooms, lower foundation costs.



UPPER LEVEL


## for greater indoor-outdoor living



Window wall and transom glass introduce pastoral mural along far side of living room which is above grade. Window wall next to fireplace and fieldstone fireplace itself with raised hearth are at grade level.


## Two-story house: best buy, most popular



On lots sloping up from the street. builder and designer found a two-story house with grade exits at both levels the best answer. On lots sloping down from the street, Duenke found his answer in his standard one-level house: all he did was open the basement from the rear. The two-story house with a square-foot building cost of $\$ 10.50$ without land was the best buy. Cost on splits and one-story houses (where grade was almost level) was about $\$ 12.40$ per sq. ft . All the two-story houses- 1,862 sq. ft .-were grabbed up first, again proving the salability of the expandable-basement house.
Fournier designed one model with a two-story living room. Practicalminded Duenke suggested the upper portion be used as a fourth bedroom. thus got two different plans from the same basic design.

Like Architect George Hay (see pp. 92-96), Designer Fournier thinks expandable-basement houses can be the answer to the expandable house so many architects have tried to design. Says Fournier: "Such houses could make it possible to get square-foot selling costs down as low as $\$ 7.50$."



View 1 shows pass-through, built-in ovens, mahogany cabi-nets-features of kitchen in plush four-bedroom house built on level. Cost of one-floor plan was higher than multistories because of bigger foundations, roofs, more paneling.


Four-bedroom, two-story house built on steep slope has double car porch on downhill side to lessen grade up driveway from street. Roof of car shelter is used (as in Seal \& Turner house, p. 93) as deck but becomes a porch in essence under sheltering trees.


View 2 shows large living-dining area separated from
VIEW 2 kitchen by partitions stopping just short of sloping roof. To facilitate service, the pass-through is handy to the dining table. Note the scored, polished concrete floor.


# How safe are loans on 'standard' homes? 

# - Mortgage Bankers' convention hears a warning that modern design is better risk than conventional 

\author{

- FHA Chief Guy Hollyday, a former MBA president, says he will force his agency to accept contemporary ideas
}


## IN THIS MONTH'S NEWS

(see pp. 37 through 53)

Commerce and Labor Departments predict million starts in '54, with 975,000 of them private

New wrinkle in rehabilitation: Chicago home owners bring civil suit against landlord, charging he spoils neighborhood by sneak conversions

NAREB convention in Los Angeles hears hints of major changes in federal policy on public housing redevelopment

Air-conditioning men foresee zooming business, but worry whether there is enough water

Anti-recession planners consider expanding federal mortgage insurance to cover commercial, perhaps industrial building

A few years ago, the notion would probably have been too heretical to broach before such an audience. Last month, two building men of front rank carried the long fight for modern design to the heart of what has long been considered enemy territory: the lenders.

Economist Miles L. Colean told the 40th annual convention of the Mortgage Bankers Assn. "The lender must, if he values his salvation, cooperate in the great advancement in building technology that is now under way. The old idea that novelty itself adds to risk has to be discarded, and in its place must be established the principle that well-considered novelty-novelty that produces a real advance in comfort, convenience, and eye appeal-can diminish risk. And, incidentally, the lender can do a great deal to get this principle better understood in some of the moss-grown reaches of FHA."
Colean, an architect who helped set up FHA's property standards and for a time was assistant FHA commissioner, made it clear that if lenders drag their feet over builders' efforts to offer more and more contemporary homes in response to public demand, builders may not be able to sell 1 million houses next year. Selling in the ' 54 market, he prophesied, will take "quality, novelty and price. If all we are going to do is to build 1940 houses for sale in 1954, we can't expect much more suc-


## MBA President Will Clarke plans battle for free rates

As Philadelphia Mortgage Broker William A. Clarke (c) took over the presidency of MBA from Brown Whatley of Jacksonville (1), leadership of the nation's mortgage men passed into the hands of a bold and militant crusader. Whatley, an able president, was a behind-thescenes operator, an organizer. Clarke, in his acceptance speech, set right out to fight.
Freedom, said Clarke, is what made America great and MBA is going to fight, not for the
cess than an attempt to offer 1940 automobiles for the 1954 market."

FHA reversal. A far stronger endorsement of up-to-date design came from a man who wields as much power as anybody in the country to get it accepted: FHA Commissioner Guy T. O. Hollyday. Moreover, because he is a former (1946) president of MBA, Hollyday's forthright views commanded respectful attention. Said he: "We've [FHA] been forcing builders to build to a mortgage pattern instead of for the housing market. I believe we can change that system. Many builders have found it a whole lot easier to follow stereotyped plans which have been approved by FHA than to try to get approval of something new. If Joe Smith wants to live in a ranch-type house we want him to have the opportunity to do so without having a hint given him that he could get a Cape Cod house through the FHA faster.
"The attitude of some people in FHA toward architectural design has resulted in penalizing progress and rewarding mediocrity. We have been acting like the school teacher

[^6]

FISCAL EXPERTS: Malcolm Bryan (1), president of the Atlanta Federal Reserve Bank, warned that inflation would mean eventual ruin for private homebuilding because it demands so much long-term investment at a return fixed in dollars, not buying power. Treasury Deputy W. Randolph Burgess (r) said administration aim is to keep money supply adjusted to business growth-through the Fed. Said he: "The usefulness of the system is exactly in doing unpopular things at the right time."


CORRIDOR TALK engaged ex-MBA president R. O. Deming Jr. of Oswego, Kan.; Ferd Kramer of Chicago; FHA's Hollyday and Vice Pres. Hal Mendon of the California Bank, Los Angeles.

CONGRESS will give "careful consideration" to turning FNMA over to private indus. try, said Rep. Jesse Wolcott, (R, Mich.), chairman of the House banking committee which writes housing law. He also vowed there would be no direct loans for housing or "in any field unless and until the American people are ready to accept socialism."


MINORITY HOUSING: President Ben Levinson of Michigan Mortgage Corp. (1) asked HHFAdministrator Cole (with pipe) if he could help get FNMA funds for 5,000 Negro units in Detroit. Levinson said Cole replied: "I know a ray of hope, but I can't talk about it now. Come back early next year." Others: Irv Franzel, Levinson's vice president; HHFA's Neal Hardy (r).

2,000th MEMBER, initiated during convention, was Arthur Grif. fith, head of the Griffith Mortgage Co., Macon, Ga.

who has only two grades-passing and failing. We should have several grades as good teachers have. . . . It will be a terrible reflection upon the administration-and I mean the whole administration, not just the FHA, if we have to continue saying that we can't even look at a house because the architecture doesn't conform."

More big lenders. The convention drew a record 2,542 registrants, including more insurance and other big lenders than beforean indication to smart observers that MBA was drawing closer ideologically to the position of lenders. Some of them came with money to lend-a good indication of a gradually loosening mortgage market. Executive Vice President Douglas Meredith of National Life of Vermont, for instance, announced at his maple syrup breakfast that he was looking for $\$ 15$ million of FHA and VA paper. He got offers of $\$ 40$ million worth, bought $\$ 19$ million "at a substantial discount."

Across the nation, top mortgage brokers generally reported that sizeable discounts on VA and FHA futures were continuing (see Statistics, p. 45), although more and more money was seeping into the market as the general level of interest rates edged down. Cracked Wallace Moir, MBA's presumptive president
for 1955: "The mortgage market looks black and the black market looks good."

MBA's Miami Beach sessions produced these other noteworthy developments:
Prof. Raymond Rodgers of New York University predicted that long-term interest rates "have undoubtedly passed their peak," though rates will continue "somewhat firm" in the months just ahead. One reason: if the bond market grows stronger, the Treasury will take advantage of it to sell more long-term bonds, so rates will come down only a little.

- Publisher Ralph D. Paine Jr. of House \& Home's sister magazine, Fortune, pointed out that more than a third of the US now lives in suburbia (i.e. either actual suburbs or subur-ban-type communities), more than lives in the cities or on the farms. And the broadening and prosperous middle class ( $\$ 4,000-\$ 7,500$ disposable income) now accounts for $42 \%$ of US purchasing power. Said Paine: "The most remarkable fact about this group is that it has increased in numbers by about $45 \%$, just since 1947 [to 18 million families]. In the next group, the family units in the $\$ 7,500$ to $\$ 10,000$ bracket have increased in numbers since 1947 by about $50 \%$." Giving statistical foundation to the well-advertised housing demand from larger families, Paine noted that

620,000 third babies are being born this year, along with 310,000 fourth children. Said he: "You can't raise three children in a two-bedroom postwar suburban development house."
$\rightarrow$ Colean reported that the rate of new household formation was running higher than experts expected "even a short time ago." Said he: "The Census Bureau now estimates that the average number of households added during the years from Apr. ' 51 to Apr. '53 was around 950,000 instead of the earlier estimates of about 900,000 . It can be expected that ' 53 and '54 will come much closer to 950,000 than has generally been contemplated. Such a recalculation, of course, does not in itself make a market. But it does give further explanation of the well-sustained demand since the superyear 1950; and it adds support to the view of a sustained demand in 1954."

- Builder Nate Manilow of Chicago expressed concern over "all this talk about better architecture, bigger houses with bigger rooms, gadgets, etc." He insisted "these things will tend to take housing further away from the people who need it most." Manilow, like many another builder, thinks salvation now lies in putting up more and more really lowpriced new homes for people who are graduating from public housing.



## A GEOMETRIC HOUSE



If this mountain-top retreat is today's most talked-about house in Southern California, these pictures will make the reasons clear.
Visitor Siegfried Giedion called it an "Etruscan monastery"-but it is a very rich monastery indeed, with more than a touch of Shangri-La. Located on a mountain-top above Pasadena and the Rose Bowl, it takes the visitor far from practical problems.

The house was developed with infinite pains by a young designer who graduated only last June from USC's school of architecture. He spent five years composing his planes, balancing his spaces, choosing his vistas.
The result is a house of many rooms-indoor rooms and outdoor rooms. A house of many views-near view and distant views, framed views of the magnificent panorama, and unexpected views around a sudden corner. It is a house of many moods, many patterns, many planes, many levels. It is obviously modern, yet strangely traditional; severely geometric and at the same time warmly romantic.
Thornton Ladd, who designed it for his mother and himself, had the incentive for a great house in the vast spaces and the spectacular views; and he had the skills of architecture to draw upon-as well as the skills of decoration and showmanship.


This open cube gives the tisitor his first clue to the house and its pervasive geometry. It was also the starting point of the design.

## IN THE ROMANTIC TRADITION

All photographs by_Irvin Kershner

Sweeping planes and freestanding screens give form to the spaces; light, shadow and planting give them life.



Sloping contours have been sliced away to produce clean-cut plateaus on many levels

Horizontal and vertical planes, floating slabs and trellises, interlocking levels and terraces, squares and rectangles, walls and screens-these are the elements of Thornton Ladd's geometry. They govern the architecture and the landscape.

Their order is not static, for all the . spaces thus created are meant to be walked through, to be seen from below and above, to be played upon by the changing patterns of sunlight, to be seen close by and in relation to a distant backdrop of mountains.

THORNTON LADD, designer
S. O. BENNETT, general contractor
A. J. STINDT, superintendent

PAUL SPINDT, foreman

Slab steps emphasize horizontal slicing of contours



Entrance to gallery from parking area is small in scale to dramatize contrast with views beyond

In a setting of such insistent drama-views of Catalina Island, 60 miles away, of the San Fernando Valley past Glendale, of tall mountains all around-in such a setting small-scale, intimate views are an essential relief. Designer Ladd has provided them in smaller spaces, in small gardens and courts, in sensitive planting all around the house.


Trellis ties the cube into the geometry of the gardens (see also picture at top of p.119)

Contrast is the essence of dramabut the contrasts must be subtle and understated to keep the drama of great spaces and grand vistas alive throughout the life of the house.

A sweeping horizontal trellis gives special emphasis to a row of thin, tall cypresses; an unadorned stucco wall is a quiet backdrop to an ornate temple piece; and a few sparse screens, placed far apart and at right angles to each other under the gallery roof, dramatize the space and give it form by the merest suggestion of walls.

Indoors and out, space is given form by walls that are only suggested


Changes in mood are essential in largescale architecture. The outdoor gallery is a good case in point: at one end (lower picture on opposite page) there is a serene, classical interplay of planes-reflecting the "purity" of the stainless-steel abstraction on the wall. At the other end (below) the ornate Chinese sculpture creates the mood-a mood reflected in gentle trellis details, informal planting, small-scale paving.
and understatement gives the drama permanence

Chinese sculpture at opposite end of gallery and peristyle beyond



The peristyle: transition from formal "Mondrian" and Chinese gardens, to informal water landscape to the west

Patterned screens and patterned floors establish an intimate scale

Each screen and trellis has a triple purpose: it articulates a space by the mere suggestion of a wall or a roof; it has its own abstract pattern (often seen in silhouette, framing the landscape or the sky) ; and it casts a succession of shadows upon walls and floors. As they move with the sun, these changing shadows give life to the architecture.


A white rectangle of stucco is transformed into an abstraction of light and shade in constant change

Sunshine, filtered through trellises, decorates plain walls of stucco



This house has only four or five indoor rooms. Beyond these, however, it has half a dozen patios, gardens or terraces. Each of these "outdoor rooms" is a visual extension of some indoor space.

Interior and exterior are one in space and in mood


The function of these outdoor rooms goes beyond creating an illusion of greater space-for, after all, there is no such need in this house.
The outdoor rooms also determine the mood and character of the interior spaces adjoining them. And this mood and character is distinct and different in each case. So, for example, a bedroom will enjoy a fabulous distant view in one direction-or the intimacy of the water garden in another; the dining room, in a Chinese mood, is reinforced by the Chinese garden of raked sand beyond its glass wall; and the guest room is bracketed by an informal rock-and-water landscape on one side, and the rigidly formal "Mondrian" garden on the other.


Grandiose spectacles are hard to live with, day in and day out, unless they are relieved by something smaller in scale, more intimate, more close at hand. These charming gardens, with their infinite detail, were designed as foils for the overwhelming mountain panorama all around. They are evidence of Thornton Ladd's ability to draw upon the devices of the theater as much as the devices of architecture in framing a setting both dramatic and human, both spectacular and intimate.

The terrace off the master bedroom with "amphitrite" pool and mountains beyond

Geometry tamed the mountain; romance reduced it to human scale

The master bedroom is separated from the guest room by the rocks and plants of the water garden





Parade of Homes in Austin was testing ground for new house, enabled Cole to catch un popular leatures before freezing his designs. Prototypes are now being built in seven states by 15 builders, who have ordered component parts and plans for 462 Cole houses.

## . . . and a house to show it off

Truss lightness insures erection speed, and sheet metal birdstops automatically space each truss on top plate without measuring or fitting $1^{\prime \prime} \times 4^{\prime \prime} \mathrm{s}$. Nailable 110 lb . units span $25^{\prime}$ with minimum deflection, knock down for shipping economy, will be made with $3^{\prime}$-in-12' and $4^{\prime}$-in-12' pitch.

Economy and erection speed of job-built roof trusses may be offset by an embarrassing tendency to sag when unsupported across wide spans. Sagging is attended by cracking dry-wall joints. Chief causes: unseasoned lumber and careless labor on truss connections. (Factory-built trusses are almost always satisfactory.) Architect Ned Cole, who has developed a complete line of interior partitions and storage units on the "one room" theory, now comes up with a light, 16-ga., $24^{\prime}-25^{\prime}$ span steel truss at a price competitive with wood trusses $(\$ 12.50-\$ 18$ ea. for this span). He claims this guarantees a sagproof ceiling.

Present plans call for the trusses to be built in Wichita, Kan., but full production waits on FHA approval of a steel-box top chord (above), which eliminates the inserted wood nailing strip. Screwtype metal nails would be used to fasten roof decking. Ceilings and fascias would be nailed to wood inserts in bottom chords and overhangs. Cole will alse offer prebuilt metal gable ends (\$60 ea.) and sheet-metal birdstops ( $\$ 1 \mathrm{ea}$.), which will provide the builder with a complete roof structure, ready for covering. Builders using the Cole house plans (overleaf) are receiving 22 hand-formed trusses for one house, will be furnished laminated plywood trusses as a substitute until steel units are in full supply.
continued on p. 132


Trial-run model put laundry and utilities in extra halfbath. which women liked because it was near, but not in, the kitchen. A simple relocation of a wall could provide the conventional kitchen-laundry. Back door opening into living-dining area lacked privacy.


## Customer reaction to model house produces a revamped kitchen



Austin's Parade of Homes provided a perfect testing ground for Cole's 1954 house. Though visitors were enthusiastic about his private patio, air conditioning, washer and drier in the half-bath, and the generous 162 sq . ft . of storage, they found one new feature too startling: a completely open kitchen that overlooked the living room like a box at the opera. Oddly enough, what support there was for this came from two disparate groups: very young couples, and the over- 50 group. Others disapproved almost $100 \%$.

Pretesting gave Cole a chance to redesign the kitchen with a solid wall facing the living room, a relocated rear door, and an additional passage from kitchen to bath and bedrooms. The complete 1954 line of Cole-designed houses will offer 33 versions of two different-sized models ( 1,050 sq. ft . and $1,250 \mathrm{sq}$. ft .) all built from various combinations of the storage and wall components. Prices will depend on area and type of construction.


Planning for air conditioning included a hollow-cavity in-
Photos: Montgomery Studio
sulated brick wall on both east and west exposures, southfacing living-room window, heat-reflecting marble chip roof. and generous overhang. Heating and cooling is supplied through ceiling outlets placed near outside walls.


Structurally bearing window walls are built at Cole's Austin factory, as are hung-in-place doors and jambs. Though protesting against a "prefabber" tag, the company factory now builds entire house interiors, except floors, leaves wall framing, mechanical work to builder.

Outdoor privacy of the walled patio was popular, as was
use of colorful painted cement asbestos panels on carport. Full-height windows in living room face patio, give privacy from street without shutting out light. Bottom panes in these windows are movable, top are fixed.

## 1. Heating and cooling in one shell



Year-round conditioners need a minimum of duct connections, facilitate fast installation. This $42^{\prime \prime} \times 26^{\prime \prime} \times 50^{\prime \prime}$ Curtis unit has gas furnace set on top of 2 hp cooling unit. In old houses cooling section alone can be tied into existing furnace. Other year-round units are made by Carrier, Delco, Frigidaire, G.E. and Servel.

## 2. Air-cooled summer conditioners

No waier is needed for new summer conditioners which have built-in, air-cooled condensers. Ducts, at top left, channel outside air to and from air-cooled condenser in top of this $2 \mathrm{hp}, 31^{\prime \prime} \times 24^{\prime \prime} \times 52^{\prime \prime}$ York unit. Fan at bottom pulls house air through
 cooling coil, then blows air back to house. Similar unit is made by Chrysler.

## 3. Auxiliary cooling units



No floor space is needed for duct-type units that are set into supply duct of separate furnace. This 2 hp Bryant model, 28' $\times 28^{\prime \prime} \times 32^{\prime \prime}$, is hung from ceiling or put in attic. Larger model has 3 hp compressor. These do not have blowers, depend on furnace fan for circulating air. Similar units are made by Coleman and Lennox.

## home air conditioning

## 4. Freestanding summer conditioners



Basic summer conditioners, now made by virtually all cooling firms, hook up to ducts of any furnace or can be duct-in. stalled in old or new houses which have separate hot-water boilers. York-Shipley's new 3-hp unit is $26^{\prime \prime} \times 22^{\prime \prime} \times 58^{\prime \prime}$ high. Other makes range from $11 / 2$ to 10 hp . Where water is a problem, however, separate water savers are needed.

Air-cooled condenser is feature of new Remington units, bigger than window coolers, smaller than most central conditioners. These have $1-11 / 2$, or $2 \cdot h p$ compressors, take 6 sq. ft. of floor space, are 381/4" high, and are designed to cool either living or sleeping spaces of house with a minimum of ductwork and no water pipes.

5. Lower-priced heat pumps


Water-fo-air heat pump takes heat from well water in winter, is cooled by well water in summer. Two-hp Typhoon unit (shown) is only $24^{\prime \prime} \times 24^{\prime \prime} \times 67^{\prime \prime}$ high, can be fully installed for $\$ 1,800$ including shallow well in water-abundant areas such as Florida. Larger 3-hp version runs about $\$ 2,200$ installed. Similar unit is made by American Coils Co.


Air-to-air heat pump is designed for operation without water. However, electric strip heaters are often needed for auxiliary heat in winter. Westinghouse offers 3-hp unit 491/2" $\times 29^{\prime \prime} \times 75^{\prime \prime}$ high; 5-hp model is $71^{\prime \prime}$ long. Installed cost is about $\$ 2,900$ for $3-h p, \$ 3,900$ for $5-h p$ size. Similar air-to-air unit is made by G.E.

$\mathbf{\$ 1 5 , 2 7 5}$ three-bedroom "Tritrend" model in stone is one of four basic houses. Same house sells for $\$ 15,075$ in brick, $\$ 14.475$ in frame. Smaller houses have single carports. two bedrooms and/or study, sell for $\$ 12.475$ to $\$ 13.700$. Fourbedroom models have two baths. sell for $\$ 18,000$ to $\$ 18,800$.

John Strauss and
James Strauss (twins),
Cousin Ivan Ingwerson,
Brother Albert Strauss

## Volume building makes fast selling in Lincolr

THE TECHNIQUES


Double-end cut-off saw, used here to cut and groove boards in one operation, is big, accurate (to $1 / 64$ ") machine. "the kind used in furniture making." says Iohn Strauss. Kitchen cabinets, all millwork are done in company's shop. Other machinery used: automatic rippers, gang-mounted saws.


Specially designed truss jig (top) holds frame securely for last. efficient assembly-line output. All components are precut, $5 / 8^{\prime \prime}$ plywood gussets on both ends and center of truss (see detail), used in place of braces, are glued, nailed to main members. Truss was tested by University of Nebraska.


L-shaped plan, used on all houses, permitted more variation in subdivision layout: houses could be turned $90^{\circ}$ on lot, still present wide expanse to street. Kitchen is centrally located. Buyer has option of having car shelter enclosed. fitted with overhead doors since carports are new in area.


Buyers liked rear living rooms planned in all models even though feature was new to Lincoln in houses in this price class. Room is not a rumway; furniture can be placed against all jour walls. View is from $2^{\prime}-66^{\prime \prime}$-high partition separating basement stairwell from room. Rear door is at the right.

LOCATION: Lincoln, Neb.
STRAUSS BROS., builders
UNTHANK \& UNTHANK, architects
PRUDENTIAL INSURANCE CO.. financing


Dry wall is two laminated sheets of $3 / 8$ " gypsum. Photos like this were used in ads run by subcontractor and builder to stress low initial cost, "crachproof" walls. (For joint-taping method, see next page.)

The fastest-selling houses around Lincoln, Neb. these days (and probably for many days to come) are the two-three- and four-bedroom houses built by Strauss Bros. who are spelling out the benefits of mass production in large L-shaped houses on the level Nebraska plains.

Since they started building their contemporary "Trend" houses - first 75 in northeast Lincoln, then 150 more on a farm outside Lincoln-they have hung up some hard-to-beat sales records: in Eastridge, their big new development, they had 40 houses sold the first week after the City Council approved their plat plan. When the first of three models was opened (in the fourth floor of the local department store) they sold eight the first day, 125 since the first of the year. Present rate: a sale a day. If sales continue their booming best, Eastridge will have 656 houses.

The price is right. Biggest factor in the fast-selling record is price. Strauss Bros. capitalize on the fact that they undersell the market because of their big volume, advertise they are taking a smaller markup.

Erv Peterson, president of the big Peterson Construction Co., admits the low prices on Strauss homes are making competition stiff. Karl Witt of Witt \& Juckette Construction Co. (and president of Lincoln's NAHB chapter) agrees: "The Strauss house is a real bargain, well planned, well built."

Prudential men who saw the "Trend" houses believe they are one of the top values in the country.

What the cusiomers get. At $\$ 9.50$ per sq. ft. customers get a lot of house for the money. In it: garbage disposal, kitchen ceiling fan, full, divided basements with roughed-in plumbing for toilet, modern stock windows with double glazing that climinates the need for storm windows, oak flooring, birch doors, aluminum screens, silent mercury light switches.

Optional extras include summer air conditioning at a low $\$ 799$ for a 2 -ton unit, $\$ 925$ for a 3-ton unit in the bigger houses (in Eastridge 20\% of the buyers have bought it), $\$ 750$ for a basement fireplace, $\$ 1,000$ for fireplace in basement and on first floor (ten buyers).

Most popular house is the three-bedroom model with stone exterior.

Firstest with the mostest. The builders -John and James (twins), brother Albert and cousin Ivan Ingwerson-are responsible for bringing a host of "firsts" to Lincoln building:

- They introduced carports and rear living rooms to the area for the first time in volume-built housing, credit House \& Home for this feature, the Trade Secrets house for the combination carport and porch. They are the first to use a lowpitched, chipped rock roof.
- They are the only builders in the area to use assembly-line building on such a vast scale. They precut or preassemble just about everything that goes into the house but dry wall and brick, and stone.


Eight kitchen arrangements are offered all buyers. Range and refrigerator are optional extras since they are not considered realty in Nebraska, but built-in garbage disposal is included in selling price. View in top photo is from top of jreestanding cabinets with passthrough sliding doors on both sides (photo above). Storage is ample.


THE MERCHANDISING


Department-store display: two-bedroom "Trend" house was built on fourth floor of Gold \& Co. store in Lincoln, increased business "materially" in furniture, carpeting. curtains. After redecorating once, Gold drew big crowds a second time. has nozo decided to decorate house again.


Taping tool seals joints of laminated dry wall (far left); skim coat of plaster is spread oter joints (left). "/eathering" wide stretch to smooth joint completely. Joints between ceiling and side walls are also sealed by tool (not shown) on end of long pole, used by workmen who need no ladder.


THE SITE


Curvilinear look of Strauss' Eastridge subdivision is changing grid-pattern farmland layout. Company has registered engineer on staff, cites savings he can make possible on 656 -house development. L-shaped pattern of foundations shows how street variety is achieved on relatively small lots.

- They use-and are sold on-architectural service for project building.
$\rightarrow$ They developed and perfected a glued and nailed roof truss, approved by the University of Nebraska and FHA (only after a hard fight, more tests).

L-shaped solution. Faced with the problem of getting variety in a large-scale project, the architects, George and John Unthank, suggested at the outset that an L plan was the best way to obtain maximum use of plot and good looks. The builders readily agreed. The houses could be turned $90^{\circ}$ on their lots, still offer indoor-outdoor living advantages; kitchens and living areas were readily accessible without becoming runways. Although lot sizes average $75^{\prime} \times 140^{\prime}$, the L-shape plan permits narrower lots when houses are turned long. end to the street, offers lot-saving economies without ever sacrificing privacy.

Variety adds sales spice. Despite Strauss's assembly-line building techniques, houses were not turned out on a take-it-or-leave-it basis. Knowing that buyers are getting much choosier and demanding individual touches, Sales Manager Bill Lofink and Jim Strauss figured on as much variety as they could offer customers. Samples: choice of ten different laminated melamine patterns for counter tops, choice of over 1,000 colors ("it's easy to paint colors a customer wants once you've got a program setup"), 30 linoleum patterns.

Flexibility of choice extended to the basic plan of houses: the architects prepared 30 interior variations, eight kitchens.

Builders felt basements were a must for all houses (under main section of house only; trenched footing under part of living area and carport leaves it a rectangle). L-shaped arrangement gives house excellent traffic circulation.

Modern merchandising. The builders built their merchandising as big as their operation, sponsored a 15 -minute news program twice a week (Elmer Davis), a homemakers' program twice a week, two television spot announcements (Friday nights). Frequent newspaper ads stressed "Trend" and "Eastridge" daily in the classified section. They use full pages on Sunday, went all-out in one special 12 -page section first announcing the "Trend" house.

Three furnished models were used: one in Eastridge, one in the northeast 75 -unit tract, a third in the department store. Houses are sold through builders' own sales organization, managed by Bill Lofink.

How the builders got big. Before 1940 the Strauss brothers were dairy farmers. Twins Jim and John got into carpentry subcontracting in a small way in 1940 , were joined by brother Albert and cousin Ivan, an electrical subcontractor, after the war. They had built up a small lumberyard business and were ready to take advantage of the building boom by 1949 when they struck out for themselves and began building at a 100 -house-a-year rate. Cost-conscious from the start, the organization was soon precutting and preassembling units in their lumberyard mill shop.

Model change-over. Last January when the four partners decided to switch to contemporary ("Lincoln was getting full of small similar houses, future demand would be for bigger houses"), they realized it meant converting an already smooth running volume operation ( 287 houses in 1951-52) through a maze of design and technicat problems.

They worked out their plans, purchasing, scheduling on paper thoroughly, mentally setting up problems they would have to lick. They talked with foremen of the specialized crews they had set up-one crew for wide walls, another for roof rafters, even one for basement stairsshowed them blueprints and typed-up operational schedules. Next foremen were taken one at a time to "walk through the problem." Each foreman learned what would be required of his crew, how it differed from what they had done before.

Production kinks and wrinkles were first worked out on the smaller, 75 -house tract in northeast Lincoln before the 656 -house Eastridge project was attempted.
"Divide and conquer." The builders extend their "divide and conquer" theory for overcoming problems to their own division of labor. John is general superintendent in the field. Jim is the inside man, handles the offices, financing, land acquisition, works closely with FHA and mortgage lenders. Albert handles utilities, is responsible for vehicle and machinery maintenance. Ivan Ingwerson bosses the electrical heating and foundation operations.

Wave of the future. What sent Strauss Bros. on this big building spree? Jim Strauss answers with one word: "Population." He points to the growing families in America, believes they will need and want better housing. "And if we can give them more house for less money, they'll buy from us."


Flat top on introductory model was chosen as best way to dramatize changes, but pitched and hip roofs will also be offered. Price range for the $1,100 \mathrm{sq}$. ft. four-bedroom house is $\$ 11,000-\$ 14,000$, depending on shipping distance und local cost factors.

## Harnischfeger brings out

## a contemporary four-bedroom house

to spur winter sales,

highlighted by a "now you see it, now you don't"

## Three-way dining room

Multiple use of space becomes more important as prices rise, because square feet saved can be added to what would otherwise be minimum rooms. In the new line of 1954 P\&H Homes, Architect John Normile adds a third idea to the accepted living room/study and kitchen/laundry combinations: a flexible dining area that is part of the living room, or part of the kitchen, or can disappear entirely -when a ceiling-mounted, bamboo curtain wall is drawn closed.
Though two- and three-bedroom models will not be ready until the NAHB convention in January, P\&H rushed the first design into production as a weapon against the winter sales slump.
Like other prefabricators, P\&H is bidding for a larger share of the housing market with two top trumps: 1) a market-smart architect, and 2) contemporary design. During Normile's first year as P\&H design consultant, sales jumped from 1,400 to 1,800 houses annually, and a 2,000 house goal is set for 1953-54.

## All of the 1954 designs will have:

Completely open planning, with the three-way dining areas.

- Lower pitched roofs ( $4^{\prime}$ in $12^{\prime}$ ), optional flat top.
- Wider overhangs ( $24^{\prime \prime}$ on pitched roofs, full $3^{\prime}$ on flat).
- Higher, wider windows ( $3^{\prime} \times 5^{\prime}$ ), plus living-room window wall.


1. When kitchen is hidden, a dining alcove is created off the living room, but closed off from the clutter of meal preparation. Flexible space supplies the demand for nonkitchen dining, conceals mechanics of mealgetting from dinner guests.


Same dining arrangement is used in 1954 two- and three-
bedroom models, but not extra half-bath featured in fourbedroom house. Bedroom closets have built-in shelves and drawers, sized to accommodate most-often-stored items, in addition to normal space for hanging clothing.

2. When three areas are ioined liting-room size gets a big optical boost. Drawing curtain against wall makes one large activity and entertaining area out of rooms that would normally be walled apart. They can then borrow light, as well as space, from each other.
3. When living room is hidden, family can make dining space a part of the kitchen work center or use it for snacks, breakfast, etc. Only one curtain is needed, since the continuous ceiling track permits it to be pulled clear around into any position desired.



Photos: Robert C. Lautman
Ten small apartments on ground floor are entered from this side. Ten duplexes above are entered from other side. Trees will shade these windows.

Hillside building has four different-sized units,
each with a private entrance and
a living room facing landscaped grounds

## No space wasted on public halls or stairs



Apartment buildings need a wide range of apartment sizes to appeal to tenants. These owner-builders got four different layouts in their 20 -unit building, ranging from $\$ 77.50$ per month efficiency apartments to three-bedroom duplexes at $\$ 145$, including utilities.

The architects used an $8^{\prime}$ slope to locate individual entrances on two levels at opposite sides of the building, eliminated public halls and stairs, faced living rooms toward a lawn. Efficiency apartments are on the ground floor; each has a duplex above it. Earth excavated from the subgrade laundry and boiler room was used to build up the rear grade to the entrance level. Partitions of $8^{\prime \prime}$ cinder block insure soundproofing; window muntins are extra strong to accommodate room coolers. The repeat pattern of apartments kept construction time under four months from start to completion and $100 \%$ occupancy.

Slope of ground (plus some excavating. filling) made it possible for architects to tuck small units under duplexes. Utilities, laundry are in basement.


On-grade entrances of duplex units span 5'-deep continuous areaway demanded by city, a hazard that made fences necessary for safety. Vertical-board space dividers were substituted for outdoor storage walls originally planned for these two- and three-bedroom apartments.

Odd-shaped site had been passed over when area was originally developed, was surrounded by Colonial-style buildings. Architects sited their building for maximum number of units under local zoning, tucked parking and playground into leftover corners.


Serving is easier, kitchen is brighter, because of passthrough. Builder felt duplexes would be popular because few had been built during recent boom in garden apartments, though prewar ones are in great demand. Stairway to bedrooms is at right of the entrance foyer.



1. Convert Daylight Savings Time to Standard Time by subtracting 1 hour.
2. Correct Standard Time for site location: Subtract 4 min utes for every degree of longitude that site is west of central longitude or add 4 mins , for every degree of longitude site is east of central longitude. Central longitudes of Time zones are:
Eas.tern Time Zone $75^{\circ}$
Mountain Time Zone $105^{\circ}$
Pacific Time Zone $120^{\circ}$
3. Correct for time variations for day and month: Add or subtract minutes as follows:
Jan. $20-11 \mathrm{~min}$. May $22+3 \mathrm{~min}$. Sept. $23+7 \mathrm{~min}$. Feb. $19+14 \mathrm{~min}$. June $22-2 \mathrm{~min}$. Oct. $23+16 \mathrm{~min}$. Mar. $21-7 \mathrm{~min}$. July $23-6 \mathrm{~min}$. Nov. $23+14 \mathrm{~min}$. Apr, $20+1 \mathrm{~min}$. Aug. $24-2 \mathrm{~min}$. Dec. $22+2 \mathrm{~min}$.

## house home



Step 2. Nearest compass deviation is the $10^{\circ} \mathrm{E}$. line. From dia. 4 below it is seen that True North is $10^{\circ}$ West of the compass North reading.
Step 3. 12:00 Daylight Savings Time is 11:00 Standard Time. Wichita is in Central Time Zone and central longitude of zone is 90 degrees. Wichita is 7 degrees west of central lungi- ${ }_{25^{*}}^{\mathbf{W}}$ tude. Therefore subtract 4 minutes for each degree or $7 \times 4$ minutes or 28 minutes from 11:00 o' clock, changing time to 10:32 o' clock. Correct for day \& month August 24, subtract 2 minutes from 10:32 changing time to 10:30.


Compass
Orientation Bia. \#3
$38^{\circ}$ and nearest longitude is $97^{\circ}$. Step 4. Correction of orientation diagram.

E. sta pereasbugcty

$\square$
$\qquad$
$\qquad$

PROBLEM
Known: Compass North of a site in Wichita, Kansas To Find: 1. Latitude and Longitude of site.
2. True North of site
3. Sun time at site for 12 noon Daylight Saveing Time on August 24 th.

## Compass <br> Deviation

 Dig. \#4
## Orientation Correction

Bia. \#5
To be used for Step 4. factor (F), ", factor (F)" of SunShades

## house home

## SUNSHADES

## EXPLANATION OF TABLES

The following 3 pages of tables give factors for shading of windows and depth that the sun will enter a room.
(a) By use of solid overhang. (b) By use of solid vertical shading device such as a fence, wall, or planting.
(c) Depth of penetration of sun through wall openings not covered by shading device.

EXPLANATION OF FACTORS

Numbers shown on tables are factors (F) in feet and $1 / 10$ ths. of a foot. They are projections required to cast 1 foot of shade on a vertical plane, measured down from bottom of overhanging eave.
projection


Note:

Step 5. Follow down under month \& orientation number until the latitude and time rows previously selected are intersected. Here select sides (indicated as A, B, C, D) which you decided to shade and use factors following the letters.
(a) When a side (letter) does not appear it is because sun does not shine on it at that time.
(b) When selecting factors for several hours and for several months use the largest factor.
Step 6. Find projection of overhang required. (See note under EXPLANATION OF FACTORS).
Step 7. If length " $x$ " is desired as sume plane " $a$ " perpendicular to end of window \& cal culate for its overhang.


Problem " $A$ ":

1. Assume building is at Lat. $40^{\circ} 16^{\prime}$. Use $40^{\circ}$ Lat.
2. Shading wanted 9 A.M. to 3 P.M.
3. This shading wanted April 20th to Sept. 23rd.
4. Center of building is on an axis $61^{\circ}$ East of North. Use Orientation No. 5. Bldg. on site $60^{\circ}$ East of North.
5. On side C shade entire window to $5^{\prime}$ below overhang eave. On side $D$ shade entire window to $4^{\prime}$ below overhang eave. Solution
6. Interchange orientation No. 5 to orientation No. 3. For 3 P.M. of orientation No. 5 substitute 9 A.M. for No. 3 etc.
7. Largest factor for side C orientation No. 3, $40^{\circ} \mathrm{Lat}$. between 9 A.M. \& 3 P.M., April 20 th to Sept 23rd, is factor $1.4^{\prime}$ at 9 A.M. on Sept. 23rd (3 P.M. on table before conversion). Multiply $1.4^{\prime}$ by $5^{\prime}$ height $=7^{\prime}$ projection.
8. Largest factor for side $D$ is $.69^{\prime}$. Multiply $.69^{\prime}$ by $4^{\prime}$ height $=2.76^{\prime}$ projection.

## Problem B

1. To find height of vertical shading device. Known:

D - Distance from plane to be shaded to shading device.
H - Height from fl . to top of window or side to be shaded.
G - Height from floor to grade at shading device.
$H^{\prime}$ - Portion of shading devjce needed to shade $H_{,}\left(H^{\prime}=H\right)$
Unknown: $Y$ height of vertical device vertical device grade.


Solution: Find factor $F$ as in preceding problem.

1. Formula for $Y=D / F+H \pm G$ (in ft . and fractions of ft .)
2. If the height of the device is fixed and the distance $D$ is sought the formula becomes $D=F(Y-H \pm G)$
Note: If grade is below floor use - $G\{$ Differs from
If grade is above floor use $+G\{$ diagram

## Problem C

1. To find depth of penetration of sun through wall opening. (Generally used to calculate penetration of winter sun).
Known: P - Projection of shading device.
Known: H - Height from bottom of eave of shading device to finished floor.
Unknown: $X$ - Depth of sun penetration into room.


Solution: Find factor F from table as in Problem A except select time \& months you wish to know depth of sun penetration.

1. Formula for $X=F H-P$ (in feet and fractions of feet.)

To find projection of horizontal overhang required to cast a specific shade below bottom of eave of overhang, multiply height required (HT. in feet) by factor $F$.
To find projection of sloping overhang required, solve as for a horizontal overhang. Take a section thru wall of your building and lay off calculated horizontal projection. Draw a line aa
through bottom of eave of overhang and bottom of shade. Where roof slope intersects this line, required overhang can be measured.

## USE OF TABLES TO FIND FACTOR F

Step 1. Find latitude of building site on map showing the U.S. Latitudes or call U.S. Weather Bureau.
(a) Select latitude on table nearest to site lat.

Step 2. Directly under latitude select hours, A.M. to P.M. when shade is wanted. Hours \& months when shade is wanted depends on the site, climate, use of building, if air conditioned, etc. Time shown is "Sun Time". Standard Time is based on Sun Time at center of each hourly time zone. Find time zone of site from any map showing time belts in U.S. To find Sun Time from Standard Time subtract 4 minutes for every degree of longitude west of center of time zone or add 4 minutes for east of center.
Step 3. Select month or months when shade is wanted.
Step 4. Select from orientation diagrams below the one most similar to your building.


Angles shown read clockwise from True North $0^{\circ}$ or $360^{\circ}$. East is $90^{\circ}$, South is $180^{\circ}$, West is $270^{\circ}$. Make correction from magnetic North for site deviation. (a) Note that sides of diagram are labeled A, B, C, D. Decide which sides of your bldg. will require shade. (b) Turn to table under month or months selected, find the orientation you selected - $1,2,3$, or 4 . Note: (1) If your orientation is 5 use 3 in the chart. If your orientation is 6 use 2 in the chart.
(2) Also change times as follows: For times, 4 P. M. of orientation 5 or 6 use time 8 A . M. of 3 or 2 3 P. M. of orientation 5 or 6 use time 9 A. M. of 3 or 2
2 P. M. of orientation 5 or 6 use time 10 A. M. of 3 or 2
10 A . M. of orientation 5 or 6 use time 2 P . M. of 3 or 2
9 A. M. of orientation 5 or 6 use time 3 P. M. of 3 or 2
8 A. M. of orientation 5 or 6 use time 4 P. M. of 3 or 2 For noon do not substitute.

## house home



## SUNSHADE FACTORS



## house home

DESIGN STANDARDS AND DATA
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## SUNSHADE FACTORS





Direct and distinctive, the conical Firehood radiates warmth

PREFAB FIREPLACES can be used anywhere in the house; help turn houses into homes
Cosmopolitan offshoots of the old Franklin stove, potbelly and kachelovefen, these fac-tory-bred fireplaces have lost none of their forebears' coziness. Indeed, while reduced to svelte fundamentals of form, they have gained effectiveness through careful engineering of their simple packaging. Besides-and this is a point for the small-house builder-they sit well in a limited living area; perhaps better than more massive masonry counterparts.
The fireplace (top, right) designed by Wendell Lovett, encloses its fire safely with a coneshaped steel hood. Excellent as a smoke gatherer, the $3^{\prime}$-wide curved hood radiates a good portion of the heat to all parts of the room. It also permits a wide-angle view of the fire-on-the-cast-iron-hearth. Price, with stand and ceiling-high smokepipe, is $\$ 147$ retail. Standard finish is black enamel but copper and earthy red porcelain enamel models are available on special order. All accessories -screen ( $\$ 9.75$ ), grate ( $\$ 7.95$ to $\$ 12$ ), even $3^{\prime}$ connections for flat or pitched roofs-may be ordered from the manufacturer.
The nice Manchester-Pierce firebox above sells for $\$ 175$ F.O.B. Seattle. Constructed of 10 -gauge steel, it has a $3^{\prime \prime}$-deep continuous hollow core between inside and outside walls. Air is drawn up from the cold floor through bottom vents, warmed, and discharged from vents at top rear. Brushers-by stand little danger of flash burns; surface temperature on the $M-P$ is just warm enough to take the chill off. Gordon Waldron, its New York distributor, says of the firebox: "It is built like a tank with a gemütlich air." The sculptural Acorn fireplace (above right) hit the field a few continued on p. 170

Air circulated through chamber between inner and outer walls of the Manchester-Pierce helps to heat room and prevent flash skin burns.

Bright porcelain enamel fused on the Acorn's surface helps radiate heat throughout the room-as do the neat fireplace's many facets.


Effective log-burning shells, the five Kosmaks (three are shown above) are suitable for installation in many kinds of rooms. Like the others on this page, they can use stovepipes for flues.

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Look in your classified telephone directory, or write for his name and address. He's an important member of a nationwide network of selected sales and installation engineers.

He has a wide choice of RO-WAY doors to show you, in both standard and special sizes and styles-for practically every residential, commercial and industrial need.



# HOUSE \& GARDEN ANNOUNCES THE FIRST 

## Awards $\operatorname{comp}^{\text {atition }}$



Easy to enter - Nothing to buy - Nation-wide prestige to gain!

Just as color sells home furnishings, color can sell houses. The largest, most integrating influence in the home field, House \& Garden Colors can be a powerful selling force in the building field. Blazing a bright trail, H\&G in cooperation with the National Association of Home Builders launches a cross-country Color Awards Competition based on the use of H\&G Colors in the exterior of houses built by N.A.H.B. builder-members.

## Entry Rules:

- All N.A.H.B. builder-members are eligible. Entry blanks (available through H\&G and N.A.H.B. headquarters*) must be filed prior to March 1, 1954.
- Houses entered in the Competition must have been built for sale during the first eleven months of 1954.
- All colors used must match the House \& Garden Color Palette. H\&G will supply entrants with one complete set of H\&G Color Chips, plus a Color Awards Kit with detailed information.
- Winners will be judged by a board of House \& Garden editors and will be announced in the February 1955 issue of the magazine, available to the public during the N.A.H.B.,January meeting in Chicago.
- 10 Awards. Each winner will receive a handsome framed scroll. It will be signed by the Editor-in-Chief of House \& Garden stating that "John Doe" has been awarded this honor for the most distinguished use of H\&G Colors in the exterior of homes built by N.A.H.B. members in " X " area.


## What are House \& Garden Colors?

In 1946, House \& Garden launched the first Color Palette in the home furnishings field. It consists of Current Colors that reflect consumer demands, determined by a cross-country survey; and Decorator Colors, high fashion colors chosen by H\&G editors after consultation with leading decorators and stylists. Each year, $H \& G$ Colors form the base of store-wide color promotions from coast-to-coast. Each year, more manufacturers match merchandise with H\&G Colors; each year, more retailers promote and sell $H \& G$ Colors in all types of home furnishings. Result:each year, House \& Garden Colors sell million of dollars worth of merchandise!
Clip this coupon now
House \& Garden
420 Lexington Avenue, N. Y. 17 Please rush entry forms for official Color Awards Kit for
H\&G's Color Awards Competition.
Name
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City
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*A supply of entry blanks will be available at:

- National Association of Home Builders, 1028 Connecticut Ave., Washington 6, D. C.
- Home Building Show: House \& Garden Headquarters, Blackstone Hotel, Chicago
- Construction Dept. Headquarters, N.A.H.B. Chicago Convention
- House \& Garden Color Show: Space 1146, Merchandise Mart, Chicago


## Meet Increased Competition with a...


$11 / 2$-story expandable homes


2 and 3 bedroom ranch types

For over 30 years the Colpaert organization has built homes on a large scale. Retaining the accepted and most desirable features of conventional building, Colpaert homes are factory assembled and delivered as a complete package; ranging in price from $\$ 6,000$ to $\$ 15,000 \ldots$ and sold on terms that appeal to $80 \%$ of the prospective home buyers.

An experienced management and skilled personnel . . . utilizing modern factory facilities and volume buying . . . provide a most complete building service. This includes land planning, engineering, approved architectural designs, landscaping, financing, and proven advertising and sales methods.

The accumulated experience and service of this organization is now available to dealers. Builders in the Midwest who are interested in selling approved quality homes at the lowest possible price and terms, may call or write for detailed information.



When the job calls for the finest in nonding....

## Johns-Manville ASBESTOS SHINGLES

The J-M American Colonial Shingle gives you a permanent type of roof, economically priced, that will add character and distinction to any home!

7 hese Johns-Manville Asbestos 1 Shingles have the same rich graining as weathered wood shingles, cast thesame interesting shadow line. You have a choice of beautiful colors and blends.

Made of asbestos and cement they are as permanent as stone. They give lasting protection against fire, and weather.

In most areas the applied cost of an American Colonial roof is lower than any other permanent type roof the homeowner can buy.

For full details and a free brochure showing the full color range of American Colonial Shingles write Johns-Manville, Box 60, New York 16, New York.

Each shingle is designed as a rigid asbestos-cement stripcovers as much area as or dinary strip shingles


The shingles are self-aligning on the roof. This saves timespeeds application. Large size means fewer pieces to handle. Only 4 nails to each unit. Nail holes are pre-punched


The finished roof has the pleasing horizontal shadow lines and deep-grained texture desired by so many homeowners. Matching shingles furnished for hips and ridges


## Figure it

BOTH ways

## 1. cost-in-place of lumber roof sheathing



Here's paper and pencil proof to show your customers how they can get all the extra advantages of PlyScord roof sheathing-and cut costs, too. Remember, it's the applied cost that counts. That's why builders can save up to $\$ 2.50$ -and more-per square with PlyScord. Figure it both ways on the chart below.

* Figure your profits both ways, too. Good reason why it pays to push PlyScord.

Estimating Chart to Cover 1,000 Sq. Ft. of Roof Area Data Developed from Walker's "The Building Estimators' Reference Book"

| PLYSCORD | RATE | TOTAL | LUMBER | RATE | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1,056 sq. ft. $3 / 8^{\text {" }}$ or $5 / 16^{\prime \prime}$ |  |  | 1,200 ft. b.m. $1 \times 8$ shiplap |  |  |
| Nails 6d-12 lbs. |  |  | Nails $8 \mathrm{~d}-20 \mathrm{lbs}$. |  |  |
| Carpenter 6 Hours |  |  | Carpenter <br> 11 Hours |  |  |
| Helper 3 Hours |  |  | Helper 5 Hours |  |  |
| TOTAL COST | LACE. |  | TOTAL COST | PLACE |  |

## purcaed <br> GRADE <br> FIR PLYWOOD

## ALWAYS SPECIFY DFPA-INSPECTED FIR PLYWOOD <br> mitant

This registered trademark identifies PlyScord-the economical construction grade of Interior fir plywood bonded with highly moisture resistant glue. This stamp on panel is your assurance of tested quality.



In test above $3 / 8^{\prime \prime}$ PlyScord on $24^{\prime \prime}$ span easily withstands 500 lb . concentrated load. Plywood's great two-way strength means economy because relatively thin panels can be used- $3 / 8^{\prime \prime}$ PlyScord on rafters $24^{\text {o.c. easily withstands uniform load of }}$ 30 lbs. p.s.f., $5 / 16^{\prime \prime}$ on $16^{\prime \prime}$ span takes uniform load of 40 lbs . p.s.f. Both constructions now FHA accepted.


PlyScord holds nails well. Tests on roofs exposed 2 years show minimum force of 85 lbs . required to pull cedar shingle from $5 / 16^{\prime \prime}$ PlyScord. In case of asphalt shingles, roofing is invariably torn from PlyScord without loosening nails. Other tests and actual experience shows $5 / 16^{\prime \prime}$ PlyScord holds nails as well or better than 1" soft pine boards.


Roofing materials go down faster over solid PlyScord sheathing. Factory seasoning assures dimensional stability. PlyScord won't shrink or swell like boards to damage roofing. Roofing lays flat, stays flat. PlyScord roof sheathing adds strength and rigidity, acts as a structural diaphragm in resisting loads caused by high winds, earthquakes.


# You, too, can achieve greater efficiency and lower costs with factory-assembled INLAND HOMES 

## . . . designed and engineered to meet the high standards of the conventional builder.

Common sense engineering, clean cut design, efficient floor plans, new and unique mass production techniques using tried and tested materials make Inland the outstanding value leader in the low cost home field.

## DON'T GUESS...INVESTIGATE whether you build 5 or 500

## You are Cordially Invited

. . . to visit our factory and see for yourself how top quality materials are combined with skill and efficiency in the production of Inland Homes.

Write, wire or call Mr. Schneider for appointment.

PHONE 3880

## REVIEWS

HOUSE \& GARDEN'S COMPLETE GUIDE TO INTERIOR DECORATION. Fifth edition. By the Editors of House \& Garden. Simon \& Schuster, 630 Fifth Ave., New York 20, N.Y. 319 pp. 91/2" x $13^{\prime \prime}$. Illus. $\$ 10$

This is a whopping $\$ 10$ worth of color photographs (159) and black-and-whites beautifully engraved and reproduced on slick, quality paper. It is at its best when the rooms it presents are frankly sumptuous period pieces in Winterthur, Williamsburg and their descendants. The subtleties of true contemporary design seem to leave the editors a little embarrassed. They choose either examples whose decoration is obscured by sensational color or rooms which have been "sweetened" with traditional accents.

But in other respects the charm of the Complete Guide is undeniable. An effort to introduce some practicality dictated the inclusion of 20 "how to" pages. These need not be taken too seriously as the beauty of the book is that most readers will find it an Arabian Nights adventure into worlds which are largely unobtainable but a real pleasure to contemplate.

ARCHITECTURAL PHOTOGRAPHY OF HOUSES. By Robert C. Cleveland. Architectural Record (F. W. Dodge Corp.), 119 W. 40 St., New York 18, N.Y. 168 pp. $9^{\prime \prime} \times 12^{\prime \prime}$. Illus. $\$ 7.50$

This is the first "how to" book to appear on the specialized art of house portraiture. Robert Cleveland, widely published West Coast architectural photographer, exhibits a portfolio of some 325 of his best pictures. Many of them (largely of interiors) are graphically paired as "right" and "wrong" or "fair" and "better" ways to take pictures of the same subject (vertical vs. horizontal; difference of camera placement, angle and height; natural and artificial lighting; etc.). Good points are made about capturing the purpose and personality of a subject, keeping the camera below eye level, use of foreground interest, use of planting for depth, appeal and "framing" of the picture, lighting for contrast and brilliance.

Although most of the picture lessons are based on use of the "view camera" (ground glass, bellows and lens that can be swung or tilted) there is a section on using the common $4 \times 5$ Speed Graphic to the limit of its capabilities.

Pictures are not accompanied by technical data on speeds, lens openings and film used, and there could be more detailed information on developing, dodging, cropping and other darkroom techniques. But as a primer for architects and builders who want to record their work with something more than snapshots, the book is attractive and informative. And purely as a picture book of houses, it is bound to offer plenty of ideas for design and decoration.

 16"SOLD IN 3 WEEES!

Elmhurst Park-View, a 96-home Surety Builders development, was designed for families with better than average incomes. Buyers have a choice of contemporary style homes, a choice of floor plans with 2,3 and 4 bedrooms. Prices start at $\$ 18,900$.

But, while a nearby non-air conditioned development has been selling at a rate of one house a month, these homes have been selling at a rate of almost one a day!
Credit the Carrier air conditioning? Of course, but credit too the knowledgeable design of Monroe Bowman, A.I.A., which took advantage of many Weathermaker Home ideas.

For instance, Elmhurst Park-View makes good use of windowless walls to provide privacy-and

36 linear feet of wall closets! And you can see the attractive, yet inexpensive, window walls.
The fact is: More new homes are air conditioned by Carrier Weathermakers than by any other air conditioner. Carrier air conditioning sells houses! So, if you want to sell houses, remember that Carrier has the product, the experience, and the promotional push to do a job for you.
Start now! Mail the coupon today. Learn how other builders have used Carrier air conditioning to sell their houses.
"We picked Carrier hecause Carrier is Mr. Air Conditioning!" Jack and Albert Kaufman, left to right, vice-president and president of Surety Builders, know the value of a good name, feature Carrier in their advertising.
first name in air conditioning

CARRIER CORPORATION, 313 S. Geddes Street, Syracuse, New York
I want to sell houses. Tell me how you can help.
Name
Street
City State

$\qquad$


## A baby's touch tells why home air conditioning costs less with Ponderosa Pine windows

Yes, even a baby can tell the difference between wood windows and other types! For wood windows are warm and friendly to the touch-do not readily transmit heat or cold. And that's mighty important in keeping the home owner's air conditioning costs down!
Superior weather-tightness is a major advantage of modern Ponderosa Pine window units. Precision manufacture and pre-fitting reduce wind infiltration and heat leakage to a minimum. Wood windows, too, can be effectively weather-stripped. The result: more cooling and heating dollars saved.

Water-repellent preservative treatment at the factory enhances the long life of Ponderosa Pine windows. And because smooth-grain Ponderosa Pine provides such an excellent bond for paint, there is less flaking or peeling and, of course, no rust or corrosion.

## Ponderosa Pine <br> WOODWORK

You'll Want This Window Idea Book-full of new and interesting ways to use the many beautiful types of Ponderosa Pine windows. Mail the coupon for your copy of "The New Outlook." It's free.


## TECHNICAL PUBLICATIONS



Although fossils are interspersed throughout elegant Cordova shell limestone, the Texas-quarried product is remarkably uniform in strength and in texture.

STONE. A Catalogue of Building Stones. Compiled by the Interna. tional Cut Stone Contractors' and Quarrymen's Assn., 5351 Winthrop Ave., Indianapolis, Ind. $48 \mathrm{pp} .81 / 2^{\prime \prime} \times 11^{\prime \prime}$. Color illus.

In addition to maintaining standards within the stone industry, the association offering this booklet works to promote use of natural stone in construction through education of the professional public-builders, architects and contractors. This kind of publication makes a good case for the association's cause. For the first time it catalogues in a single reference book all the varieties of building stone available in the US and Canada. Checked with the geological and technical committees of the AIA as well as with all members of the association, the data presented is comprehensive and noncommercial. Furthermore this type of roundup is the most sensible kind of antidote to the somewhat conflicting claims and descriptions that have come from individual quarries on their local products. The book first classifies building stone according to 1) dimensional stone, and 2) rubble stones and split face. Trade name, color range, and company producing types of each are listed. Next follow succinct run-


Shot-sawed finish gives rich, weathered look to this Indiana variegated limestone face veneer.
downs on physical characteristics of the various major stone categories: three kinds of limestone, sandstone, quartzite, and rubble. The oölitic variety of limestone is described as a calcite-cemented stone, practically noncrystalline, formed of shells and shell fragments. It possesses a uniformity of composition, texture and structure with a high internal elasticity and is adaptable to extreme temperature changes. Dolomitic is de-


Dense, frostproof and low in absorption, Winona travertine stone (pictured left) is fabricated as split face ashlar.
fined as a limestone rich in magnesium carbonate, somewhat crystalline in character. Found in ledge formations in many different colors and textures, this type is reported to have greater crushing and tensile strength than oölitic. Crystalline limestone, predominately composed of calcium carbonate crystals (though not recrystalized as in marble), has high crushing and tensile


An occasional rain cleans off the extremely hard, multihued face of Tennessee quartzite.
strength and low absorption. It is quite uniformly light gray in color and smooth in texture. Sandstone is a sedimentary rock of quartz cemented with silica, iron oxide or calcium carbonate; strong with a wide color and textural range. Quartzite is compact granular rock of quartz crystals cemented firmly into a homogeneous mass as hard as many granites. Quarried in stratified layers, the stone's surfaces are very smooth. It has high crushing and tensile strength and wide color range. Rubble (ledge stone) or flagging is natural cleft stone particularly suitable for veneer; can be limestone, sandstone, or flagstone.

The publication then classifies these categories according to cut stone, ashlar, facing, and flagstone, and defines breakdowns of each. Referring to color, it points out that an almost unlimited palette-reds, greens, blues, yellows, variegated mixtures, as well as neutrals-is available to the designer and architect. "Some stones," it states "like the limestones, gain effectiveness through the sheer beauty of the material even though the color be monotone. Others, such as strip rubble, offer a wide range of hues . . as they come from the quarry."
Large four-color photos of 27 principal stones available are shown and each close-up is accompanied by one or two views of actual jobs-a home, school, church, industrial plant or office

An unusual color range of grays, blues, browns, olive greens and rusts characterizes the hard and dense Ches-apeake-hue quartzite.

building. (Here in the selection of the buildings is one place where the catalogue falls short of top quality. Only a small fraction of the structures are first-rate architecture, and therefore not the strongest pictorial argument is made that could have been for the use of stone in today's buildings.) Each type of stone is analyzed according to its individual characteristics and applications. The publication points out, for instance, that Bear sandstone, a fine-grained stone which can be obtained in various finishes, has color ranging from light to dark buffs, grays and variegated tones, and is suitable for both interiors and
continued on p. 184


Good contemporary homes must be both beautiful and functional. The primary functions of windows are to let in light and to permit a free choice between ventilation or weather protection. No windows are more beautiful or more functional than R.O.Ws. Only R.O.Ws have the patented R.O.W feature.

## See your local lumber dealer or write

R-O-W SALES COMPANY $1344 \ldots 76$ ACADEMY AVENUE - FERNDALE 20, MICHIGAN

## Build homes that offer more

## The New Pa H Pioneer Home Offers... 3-Way Dining Area, İ Baths,



## Now Sell to the Big Big-Family Market

This new 1,100 sq. ft . P\&H Home is your answer to a big, growing market - the market for a larger home, competitively priced. Now you can build P\&H Homes for wider range of markets and price classes than ever. You'll have more variation in your projects, more proftable operations all down the line.

## Lower Site Costs, with P\&H Homes

Build P\&H Homes, and you'll cut site costs to the bone. Homes arrive complete with hardware, glazing, millwork and trim, ready to go up. You can have a P\&H Home under roof in a day. No delays, no waiting for materials. You can build P\&H Homes all year around

## Financing Help, too

There's extra financing help available, when you build P\&H Homes. You can get construction loans from Builders Acceptance Company, a P\&H subsidiary, when local sources are limited. If you like, P\&H specialists will help
you with construction supervision, land planning, promotion, financing.

## Other P\&H Models

Architect designed 2 and 3 bedroom P\&H Homes are also available, with or without basement. The 3 bedroom homes are $36^{\prime} \times 28^{\prime}$ overall, the 2 bedroom models, $32^{\prime} \times$ $24^{\prime}$. You can order the basic packages for the low price market, or the built-up luxury models for the higher price range. P\&H Homes, offered in a wide range of appealing designs, meet all FHA financing requirements. See how risk-free and profitable home building can be. Write for details on the P\&H Builder Profit Plan now.

## P\&H HOMES

HARNISCHFEGER CORPORATION
512 SPRING ST., PORT WASHINGTON, WISCONSIN
Phone Port Washington 611

## ..youill sell more, profit more

## 72 sq. (tt. Larger Living Room, 27sq.ft. More Closet Space Than Most at Price

Here's a home that's designed up to the maximum in styling, construction and convenience - not down to a minimum, as so many other homes in its price class. It's the new P\&H Pioneer, new inside and out.

Four bedrooms, full bath and shower and powder room, more than $1,100 \mathrm{sq}$. ft . of living space and it has as many new ideas as any home you've seen at the price in years. No selling problem with this new P\&H Home. Just let your prospects see it; let them compare with others at the price. That's all the selling you'll have to do.
Why not make the building business easier and more profitable for yourself now? Build P\&H Homes - and the Pioneer. Learn about the P\&H Builder Profit Plan at the NAHB Show, Jan. 17-21, Space 13, Hilton Hotel, Chicago.

## Sales Are Easier Than Ever With All These "Above - The - Average" Features In The P\&H Pioneer Home

- 72 sq. ft. larger living room than most homes at price
- 27 sq. ft. more closet space than most homes at price
- 30 sq. ft. larger kitchen, 43 ft . more kitchen shelving
- Extra powder room, folding door room for den or 4th bedroom
- 3-way dining area with folding curtain-wall allowing screening off of kitchen, living room, or opening to both
- Latest in contemporary home architecture, including flat roof, hip or gable models
- Thermopane window wall, Rusco combination windows, Upson Strong-Bilt wall panels
- Built-in drawer sections in bedroom, closet-walls



## New Flexibility! 3-Way Dining Area

Here's a real sales closer in the '54 P\&H Homes - a changeable dining area. A matchstick bamboo folding screen on a ceiling track makes dining area part of kitchen, living room, or open to both in seconds!

Closet Space . . . and Then Some!
P\&H Homes really shine when it comes to storage space . . . Full closets in each bedroom, ceiling high sliding doors, shelves, built-ins, plenty of extra closets. The Pioneer model has 27 sq . ft . more storage than average.

The Luxury Touch, at Budget Cost
P\&H Homes offer the popular Thermopane window walls for the modern, luxury look. Flexible P\&H plans permit orientation of homes with picture window living room facing either front or rear of lot.

## Start your own briilding foom with $P_{+} H$ homes now... . write or wire for details



NAHB will celebrate its 10th Annual Convention and Exposition with a vast presentation of the latest developments in home building. Far bigger, far more complete, far better than ever before!
This industry-wide gathering will cover practically every subject you can think of that will help you in your business . . . improved construction methods, design, research, selling, financing and scores of others. There will be special emphasis on "shop talk" sessions, demonstrations and "how-to-do-it-better" features.

## GIGANTIC EXPOSITION

See the greatest array of building products ever shown! Nearly 300 nationally known makers of building materials and equipment will display hundreds of new and improved products. Packed with new, useful ideas. It's the only show of its kind-the showcase of the industry.

## WHO CAN ATTEND

Everyone connected with home building is invited to attend this fabulous 10th Anniversary show, whether or not you are a member of the NAHB. Builders, contractors, architects, engineers, mortgage men, manufacturers, jobbers, building supply dealers-come one, come all!

## HOW TO REGISTER

NAHB members should register through their local NAHB Chapters. All others may register in advance and make hotel reservations through Convention Headquarters. Advance registration ( $\$ 15$ for men, $\$ 10$ for women) must be sent with hotel reservation request. Confirmation and registration certificate sent to you at once. Make checks payable to National Association of Home
 Builders. Please show name, address, business classification and date of arrival for each person included in your request. Write today!
NATIONAL ASSOCIATION OF HOME BUILDERS Convention \& Exposition Headquartars 111 West Jackson Blvd., Chicago 4, Illinois
 sote Panels are also available. The coupon below will bring illustrated details.
interior and exterior use
The most beautiful decorative insulation ever created! Its "combed" surface gives highlights that change with the light. Panels may be painted, stained, cross-wiped. For interesting effects, vary the size and angles of the panels. Wood-textured Homa-

## Striated номasote Panels or

 market Perma nently weatherproof and crackproof, this material is used for both sheathing and finish inside or out. Imparts great structural strength, protects against damp and mildew. A perfect surface for paint, stain or wallpaper. Mail the coupon for specification data.

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    Trenton 3, New Jersey
HOMASOTE COMPANY, Trenton 3, N. J., Dept. 63D
Send detailed, illustrated literature on $\square$ Weatherproof Homasote
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ADDRESS
CITY \& ZONE $\qquad$ STATE
My lumber dealer is


## What's the

## big change



## in houses?

## See it in the January House \& Home . . .

Once again, America is demanding-and getting-a new and improved product! In 1954, home buyers will be looking for a 1954 house. Alert architects and builders have already anticipated a snowballing change in public taste. They're exhibiting 1954 houses that are strikingly new from footings to furnishings. And these are the houses that are winning down payments now where the buyers' market is stiffest!

## What makes these houses so different . . . so salable?

It's not merely the low-pitched roof or the wide overhang. It's not just the closet walls, the multi-purpose rooms or the indoor-outdoor windows. The big change is actually many of these things. And the January House \& Home will show them all to give you a colorful preview of what's ahead in '54.

## House \& Home takes you on a nationwide tour . . .

. . . to show you the big change in Minneapolis, in Philadelphia, in Topeka, Cleveland, California's Bay Region and cities in every section of the land. This January issue rounds up hundreds of new ideas for houses that work in every climate and appeal to every family and pocketbook.

Start your subscription with January's exciting issue. Just mail the subscription form bound in this copy. You'll agree that America is getting another new and improved product in


Nailed right on top of the existing siding, the clean-grooved One-Eleven plywood panels do much to contemporize this old Washington D.C. house. Remodeling was by Architect Charles Goodman.

Cut from $5 / 8^{\prime \prime}$ stock, panels come $8^{\prime}$ and $10^{\prime}$ high. Grooves are $2^{\prime \prime}$ apart on the $16^{\prime \prime}$ wide panel and $4^{\prime \prime}$ o.c. on the $32^{\prime \prime}$. Top veneer, picked for small knots and texture, adds interest to the striated pattern.
years ago as one element in a prefab house by Architect Carl Koch and is now in high-gear production on its own. Made of heavy 16gauge steel covered with vitreous enamel in cherry red or gray, it weighs just 60 lbs.; is delivered complete with andirons and screen. List price is $\$ 86$. The Kosmak fireplaces (p. 150) retail for about $\$ 150$ each. Bottoms and backs are insulated with glass fiber. Models are made to fit standard $6^{\prime \prime}$ or $8^{\prime \prime}$ stovepipe.
Manufacturers: Firehood-Condon-King Co. 613 Eighth Ave. N., Seattle 9, Wash. Man-chester-Pierce - Manchester-Pierce, Contemporary Furniture, Bellevue, Wash. AcornBettinger Enamel Corp., Waltham, Mass. Kosmak-Kosmak Fireplaces, 45 Castle St., San Francisco 11, Calif.

HIGH STYLE PLYWOOD: small home takes to up and down grooving, low price
Rustic yet sophisticate, Texture One-Eleven Douglas fir is in step with current design motifs in home construction The trim, slim vertical siding, heretofore available only with expensive-to-install T\&G boards, will list at around 38 ¢ per sq. ft .-a price in line with other low-cost exterior wall materials when application is taken into account. (Labor costs computed by Architect Charles Goodman for a Washington, D.C. remodeling job, ran $4 \ell$ per sq. ft . for One-Eleven as compared to $20 ¢$ for standard T\&G siding). Deep parallel cuts $1 / 4^{\prime \prime}$ wide, $3 / s^{\prime \prime}$ deep are grooved into continued on p. 172


## A CHANGE IN OUR NAME

The Kaustine Company originally manufactured chemical toilet systems in which caustic soda was used. The name "Kaustine" was coined as being descriptive of these products. Since discontinuing their manufacture we have decided to change our company name so that it will be more descriptive of our general line. After careful consideration we have selected the following signature:

## KAUSTINE FURNACE \& TANK CORP.

Our trademark of many years remains the same and there is no change in management or company policies.


Septic Tanks $\begin{gathered}\text { Oil and Gasoline } \\ \text { Storage Tanks }\end{gathered}$


## Working Walls of MASONITE PEG-BOARD* PANELS and changeable metal hangers <br> and changeable metal hangers OARD* $^{*}$ PANELS that lock on without tools! <br> Now sold by building materials dealers everywhere <br> Here's the exciting new decorative feature that'll sell more

 You've read about the more!
panels. And so have the wonder-working walls of Master in newspapers, over the rarospects. In scores of home-mate Peg-Board a living room can be...how and on TV, they've learned hozine articles, aid of these perforated all-w efficient a working area becom attractive Working walls and partitid hardboard panels. firmly support palls and partitions of this panels. rearrange them at wills, books, plants and objers drainless material will the wall. Wide variety of hily, and with no muss or fuss, Homeowner can instantly without nails, screws, bers lock into holes or fuss, without defacing

GARAGE OR WORKSHOP
Peg-Board panels in $1 / 4^{\prime \prime}$. hold an exceptional number thickness can surprising amount of weight, hundreds a of pounds.

CLOSETS AND CUPBOARDS Space-saving efficiency here. A place
for everything and for everything and everything in its
place. The housewife can rearrang her closet to suit new situations.
 Like all other Presdwood ${ }^{\circ}$ Products any tools.
 easy to paint and ronite Peg-Board panels are or crack. Resist changes of templit, splinter humidity. Readily cut and fit temperature and Don't miss this sales winnert into place. Peg-Board panels to work in your now to put Forcomplete information, see your next house. ing materials dealer, or send the coupal build-
befter hardboards for better coupon now!

KITCHENS, OF COURSE! Put lazy walls to work in
kitchen, bath, child's kitchen, bath, child's room,
recreation recreation room-anywhere!

## MASONITE- <br> CORASORATION CORP. HH-12, Box 777 , Chicago 90 , III.

 Please send me a complete description of Masonite Peg-Board
panels and fixtures and suggestions. for their use.

|  | Name. |  |
| :---: | :---: | :---: |
|  |  |  |


$\qquad$

"Masonite" signifies that Masonite . State. ............................. I

[^7]

For extra customer appeal-Lower installation cost-Easy availability ( 1200 dealers) -use Calder Wedge-Tight Doors.

Stocked in the styles and sizes you want most-special doors made to order-WedgeTight hardware for a wall tight seal against elements-Years of smooth, easy, quiet
operation-as safe and dependable as our 50 year old company.

Beautiful lines and quality construction inspire pride of ownership-Architecturally right-Low upkeep-Local service-Radical design innovations.
Self-aligning tracks, no bolts-Fastest and Easiest door to install with tight fit.

## ELECTRIC OPERATORS RADIO CONTROLLED

For red hot sales appeal, use electrified doors for operation from car. Complete Line available for both residential and commercial installations.



## LARGE WEDGE TIGHT DOORS FOR INDUSTRY AND COMMERCE

Calder Doors are stocked in all popular commercial dimensions and glass arrangements . . . special sizes and designs to order. Commercial and industrial doors also feature "Wedge Tight" construction for wall-tight fit, reducing heat losses. Easy to operate by hand or chain lift, they are designed for use with Calder Electric Operators.

WAREHOUSE STOCKS IN LANCASTER, CHICAGO, MINNEAPOLIS


## NEW PRODUCTS

the $5 / 8^{\prime \prime}$ exterior plywood stock, which is laminated with waterproof glue. Even beneath the grooves, $3 / 8^{\prime \prime}$ of solid wood remains, meeting FHA minimum requirements for panels nailed directly to studs. (At present FHA requires edge sealing for fir plywood. However, extensive accelerated weathering tests are being completed to demonstrate durability of One-Eleven without edge sealing of joints.) Panels $16^{\prime \prime}$ wide have groove spacing $2^{\prime \prime}$ o.c.; the $32^{\prime \prime}$-wide panels are grooved every $4^{\prime \prime}$. Both are sized for easy attachment to $16^{\prime \prime}$ o.c. studs and come in $8^{\prime}$ and $10^{\prime}$ heights. To put it up, each panel is shiplapped along the

rabbeted edges so that the vertical joints form grooves which match the cuts in the panel face, creating a continuous wall pattern. One-Eleven's uses are not limited to siding; it

is also suitable for soffits, carport ceilings, and indoor paneling-where the grooved surface very likely would benefit a small room acoustically as well as visually. The surface veneer for One-Eleven is especially picked for natural textural effects. Unsanded, it is a little rough, and has small knots and restricted knotholes. Deep-tone opaque oil stains are recommended as a finish. Many West Coast manufacturers are already in production on Texture-One-Eleven.
Information: Douglas Fir Plywood Assn., Tacoma 2, Wash.

SLIDING GLASS DOORS gracefully combine metal and wood in one frame
Combining aluminum and hardwood in a sliding door may be no great technical feat, but if done for good reason and with good taste it is to be applauded. So, some posies go to Horizon Door Co. for its Sunset Sliding Patio Doors. Using slim aluminum vertical mem-
continued on p. 178


Yes, both houses are identical in appearance. A year ago both would have sold readily. The story is different today. It's the house with the extra value that tips the sфale. For today people are demanding more quality in the investment of their lifetime.

Best evidence of quality in your homes is a reputable heating system. Your genuine concern for your prospect's continued comfort is one of your most convincing appeals.

Because Janitrol heating has an unmatched reputation for long-life dependability, some people assume Janitrol costs a lot more. It doesn't. But you get credit for installing the finest without extra cost. So use this prestige of Janitrol equipment to close sales that are becoming harder to make.


Every month Janitrol advertisements in leading home magazines, part of the Crusade for Better Heating, emphasize the importance of sound heating installations.

SURFACE COMBUSTION CORPORATION...TOLEDO, OHIO

HERE'S WHAT TO DO ABOUT IT!
Local Janitrol dealers out from them why the are listed under "Furnaces", yellow pages of your phone book. Find finest quality of heating equipment is not more expensive.



## HOW TO HELP A HOUSE SELL ITSELF


#### Abstract

Weldwood wall paneling immediately lights up prospect's eyes, yet keeps costs well within your budget.


Watch a woman when she walks into a sample house which has Weldwood wall paneling. Right away she sees how well her furnishings will look against such a beautiful background, how charming and hospitable this house will be to live in-she's impressed!

Now take the man who signs the contract. Weldwood hardwood paneled walls mean quality - which implies quality construction throughout the house so-he's impressed.

Many builders report that home buyers are becoming more and more selective. They want the extras that add so much to gracious living. Surprisingly enough you can offer these extras without unduly raising your building costs by using Weldwood hardwoods.

A fireplace wall in rich mahogany Plankweld, a playroom in rippling Surfwood, a TV nook in Weldtex pre-cut squares, a dining room walled in rich Korina or any of several other luxurious hardwoods-yes, it's extras like these that help you close sales.
ImPORTANT NOTE: All Weldwood hardwoods are guaranteed for the life of the building! So if you offer your home buyers a "time-guarantee"-which many builders have found productive-this strong Weldwood guarantee stands back of you.


PLANKWELD requires no on-the-job finishing. Comes in $16^{1 / 4 "} \times 8^{\prime}$ factory pre-finished panels, about 108 sq . ft. per package. Can be placed on any dry wall without furring or nailed directly to studs. Grooved edges and special metal clips conceal nails. Available in 6 beautiful hardwoods.

novoply, the flattest panel ever made. Novoply sliding doors are virtually warp-free. Good two sides, it's the perfect material for partitions, walls or built-ins. Comes in handy sizes.


MENGEL DOORS are a hallmark of quality in any home. Engineered for strength, they are guaranteed to give lasting satisfaction. Special sizes and faces to order. They are economical.

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The CAPRI is intelligent, Contemporary. An island fireplace with corner opening serves both living and dining areas. Free-standing closet and shelf units serve as mobile walls. Three big bedrooms all take twin beds. Vanity-lavatories with mirrored double cabinets in bath AND in master bedrooms are tops in style and convenience.
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lots, all retaining the beauty of the unique CAPRI design. Slab, crawl space or basement
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[^8]


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Please send full information on KnoDraft Overhead Air Diffusers, with and without integral lighting fixtures.

## Name

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Company
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City $\qquad$
bers with generous top and bottom rails of blond hardwood ash, the new model is compatible with many styles of house architecture. Built into a standard door frame, the unit is easy to install and provides its own plaster grounds for the interior and, on the outside,

grounds for masonry, stucco, or frame. It is delivered fully assembled in the Southern California area and shipped knocked down to other parts of the country (assembly takes less than 1 hr .). Prices, including glazing mold, lock, and pull hardware, range from $\$ 87$ for the $6^{\prime} \times 6^{\prime}-10^{\prime \prime}$ reverse sliding unit up to $\$ 189$ for the double sliding, four-panel model $16^{\prime} \times 6^{\prime}-10^{\prime \prime}$. There is a wide choice of sizes and sliding arrangements in between. Screens are available at $\$ 20$ for a $3^{\prime}$ wide unit up to $\$ 35$ for a $6^{\prime}$. For sure weather protection, a neoprene cushion seals the interlocking side rails at the closing jamb, and the leading edge of the side rail passes into a cushion. Manufacturer: Horizon Door Co., 1426 Flower St., Glendale 1, Calif.

PANEL ENTRANCE DOORS updated to suit contemporary homes

Largely unaltered in design for the past 30 years, panel doors have been revitalized in this new M \& M series which is making a pitch for the decorative interest in modern homes. Six of the neatly proportioned entrance doors pictured below are painted to

play up the wide flat borders and strong horizontal (or vertical) panel shapes. Five other models are available. Retail prices for the group range from $\$ 21.50$ to $\$ 39.50$ in the Portland area.
Manufacturer: M \& M Wood Working Co., 2310 N. Columbia Blvd., Portland, Ore.
continued on p. 180

It's made to order for today's discriminating home buyers-this powerful "convincer." The Curtis Woodwork certificate, guaranteeing materials and workmanship, is proof positive of window value. Builders and contractors are using it to sell the entire house. They find homeowners respond quickly to this extra assurance that they are getting their money's worth in windows and other woodwork.

Today, a well-known name like Curtis -and a guarantee such as this-count more than ever in creating buyer preference. That's why Curtis Silentite windows are more popular than ever today.


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Frame section 63S-T5 with depth $25 / 8^{\prime \prime}$. This gives Air-Vue tremendous rigidity and strength.

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All vent glass is $11^{\prime \prime}$ in height through all standard sizes. There are three widths that cover all 12 standard sizes.

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Sash operating mechanism rides on selflubricating nylon plastic bearings.

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SUMPTUOUS COLORED GLASS comes in cost-saving kit of factory-cut bathroom panels
Builders can latch on to a good "do-it-yourself" item in Pittsburgh Plate's new Decorator Bath Carrara kit. Packaged complete with mastic and grout, the colored glass panels are factory-cut to individual specifications-even drilled for plumbing outlets. The practical way Pittsburgh has the basic plan figured, 63 sq. ft. would do for an average bathroom. This includes tub enclosure, lavatory backsplash panel and $14^{\prime \prime}$ high base. (Providing protection for the areas in the room that most need to be water. and steam-resistant, the scheme affords a wide latitude in decorating tastes since the bulk of the wall area is free for papering or paint.) Designed primarily for easy application by the amateur home owner, the kit is nonetheless a time and dollar saver for the trade since the same factory service of custom precutting and drilling is available on quantity orders-and runs considerably less than the $\$ 1.75$ retail price per $\mathrm{sq} . \mathrm{ft}$. For instalfation, the tub surround is merely rested on the edge of the bath - it makes little difference whether the tuis edge is perfectly level. The base also follows the floor line without any need for trimming or leveling. Since application takes one man less than 2 hours a room, over-all costs are reported to be far less than for ceramic tile for the same footage. Carrara colors available in the kits are: pale and forest green, ivory, blue, pink, gunmetal. black and white.
Manufacturer: Pittsburgh Plate Class Co., 632 Duquesne Blvd., Pittsburgh 22, Pa.

HONEYCOMB CORE DOOR with plastic face resists warpage and wear

The Chemclad door for interior or exterior use is constructed to resist dimensional change even in warm, damp climates. Between its moistureproof plastic laminate faces is a honeycomb core of resin-impregnated kraft paper. Only the frame for this rigid, stressedskin unit is made of wood. The door's smooth, tough surfaces will show little effect from scratching or scuffing. Prices range from $\$ 30$ to $\$ 60$, depending on style and size. Manufacturer: Bourne Manufacturing Co., Detroit, Mich.

Technical Publications p. 164

## Bullesymwex SODPEATTER when equipped with <br> The Thor builttin @lectuic reangre <br> What do leading builders* think about the new Thor Built-in Electric Range? Read these typical comments and see: <br> "During the 1953 Home Show, we sold out completely due principally to the Thor Built-in Electric Ranges we put into our kitchens." <br> "In all our experience in selling homes, we have never heard <br> more favorable comments than we have had on our new Thor kitchen package.' <br> "We are convinced that once a woman sees the Thor Built-in Electric Range in the kitchenthe home is more than half sold!" <br> How about finding out what the new Thor Built-in Electric Range will do for your new home sales? Mail coupon now! <br> BUILDER-CONTRACTOR DIVISION <br> Leeson Steel Products, Inc., Dept. HH <br> Subsidiary of Thor Corporation, Chicago 50, lllinois <br> Address-. <br>  <br>  <br> $\qquad$ <br> THOR CORPORATION, Chicago 50, ill.



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NO-SHOK SAFETY DUPLEX RECEPTACLES afford added protection to property and lessen fire hazards by keeping out metal objects, dust, water, etc.-prevent shocks and burns-save lives. Specified by leading builders, architects and engineers all over the U. S. for civilian housing projects, industrial and farm installations and Army and Navy housing. R.E.A. approved.

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## Gnamwood decorative panels



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Let Gramwood help you sell
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Structural Corrugated Glass installation at main entrance of L. M. resiStructural Corrugated Glass installation of main entrance of . M. resi-
dence, Seattle, Woshington. Archifect, Gerhard E. Karplus, New York City.


Exterior view at residence of Byron T. Sample, Assoc., Stoinback \& Seribner, Arch., Charlottesville, Va.

## Doorways to



Interior view in Sample residence. General Contractor $\begin{aligned} & \text { Edw. Van Laer, Inc., Charlottesville, Va }\end{aligned}$
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Send today for free Installation Specifications bulletin. Illustrated, detailed explanations for working with this modern material. Also ask for free booklet, "Modernize Your Home With Decorative Glass." Photographs of actual installations. Many ideas on ways to use this exciting new medium. Mail the handy coupon below.

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TECHNICAL PUBLICATIONS
(continued)


Various surface finishes of cut stone above are: smooth planer, rubbed and sand sawed. Finishes below: chat sawed, shot and tooled.

exteriors, on big and little buildings. It is atso useful on bridges and curbing.

At the tail end of this valuable reference are explanations of different surface treatments of cut stones. One is the smooth planer finish, most generally specified by architects, which utilizes the natural graining of the planer with tool marks carefully removed. Rubbed finish, on the other hand, requires treatment with an abrasive after planing; carbide-tipped planer tools, however, are currently making this additional operation unnecessary. A granular rough surface is achieved by sawing stone with coarse chat under the blade. An even rougher surface with neat heavy vertical ribs is produced by using chilled steel shot under the blades. Tooled and hand finishes are also described but the specifier is cautioned to use with care-largely because of the expense involved (a considerate note). All in all the book should succeed in its purpose-to lead to a wider and more intelligent use of some wonderful building materials. Perhaps the keynote to stone's use and to one phase of its abuse can be found in the closing "Stone cannot be manufactured; it cannot be honestly imitated. The permanence, beauty and economy which people expect from stone can be found only in the natural product."
HARDWARE. Sliding Door Framing Details. Grant Pulley and Hardware Corp., 31-85 Whitestone Pkwy., Flushing 54, N.Y. $16 \mathrm{pp} .81 / 2^{\prime \prime} \times$ $11^{\prime \prime}$

Full-size framing details, clear enough for tracing, of the manufacturer's sliding door hardware are presented in this technical brochure. Concise specifications for all materials used in the construction of the frames are also included.

WIRING. Proposed Simplified Practice Recommendations for Steel Outlet Boxes (Zinc or Cadmium Coated). Commodity Standards Div., Office of Industry and Commerce, US Dept. of Commerce, Washington 25 , D.C. $46 \mathrm{pp} .81 / 2^{\prime \prime} \times 11^{\prime \prime}$


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Architect-RALPH S. TWITCHELL Built by-ASSOCIATED BUILDERS, INC. Plumbing Contractor-DAN O'NEILL, all of Sarasota, Fla.

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TECHNICAL PUBLICATIONS
continued-


Laundry plan should assure smooth work flow

## KITCHENS AND LAUNDRIES. Kitchen Laundry

 Design Ideas by Westinghouse, Publication B5866. Better Homes Dept., Westinghouse Electric Corp., Box 868 , Pittsburgh 30 , Pa. $8^{\prime \prime} \times 11^{\prime \prime}$. 50 ¢How to design kitchens and laundries that are both attractive and sensible is the theme of this beautifully prepared reference manual. It uses an appealing format as framework for its hypothesis: "Rooms in which fixed equipment is installed-kitchen, laundry, utility room and bath-should receive as much thought and planning as rooms in which equipment and furnishings can be moved." It offers an intelligent basis for planning modern electrical kitchens and laundries which

take full advantage of space available as well as the equipment. The information is readily adaptable to rooms of varying dimensions where appliances may be installed on one, two or three walls. Many convenience ideas, sure to be appreciated by the prospective buyer, are included, as well as suggestions for proper lighting and adequate wiring.


Convenient to existing plumbing lines as well as to household activities is this off-the-bathroom location for the washer and drier.


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## AfTER 117 years' service

# CAST IRON PIPE HOUSE SEWER LINE <br> <br> IS STILL IN <br> <br> IS STILL IN PERFECT CONDITION 

In the OLDEST house in Chicago, Illinois, the original 4 -inch Cast Iron Soil pipe stack and the original 4 -inch Cast Iron Soil pipe house sewer are still in perfect condition.

The house was built in 1836. While being renovated and restored recently by Chicago Historical Society for dedication as a public memorial, plumbers discovered that its Cast Iron Soil pipe stack and sewer lines were good as new after 117 years of service.

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Cast Iron Pipe gives homeowners rugged strength, dependability, long life, economy, permanently tight but flexible joints, zero moisture absorption. Cast Iron Pipe is a service-proven product, being in use in this country for over 100 years and in Europe for over 300 years. $\star \quad \star$
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dry pig iron from which pipe is made. $\star \quad \star$
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dry pig iron from which pipe is made. $\star \quad \star$
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dry pig iron from which pipe is made.

Right: 117-year-old Cast Iron sewer stack connected to new $2^{\prime \prime}$ Cast Iron stack. Present bathtub on legs replaced old copper tub with wood rim.
Above: Center of photo shows 117-year-old $4^{\prime \prime}$ Cast Iron sewer stack and new $2^{\prime \prime}$ Cast Iron sink stack. Left foreground is new $4^{\prime \prime}$ Cast Iron sewer stack. All connect to original Cast Iron house sewer laid in 1836.



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11 different sizes, from $8^{\prime \prime} \times 8^{\prime \prime}$ to $24^{\prime \prime} \times 36^{\prime \prime}$ - ready to install in plaster or non-plaster walls. With or without expanded metal flanges.


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All brass fittings-faucets, showerheads, flushing mechanisms, as examples-are made in Eljer's own plants to highest precision standards. Eljer design insures long life and smooth operation. Every Eljer fixture must pass a complete inspection for working efficiency and fine finish.

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| including $\$ 800$ lot | including $\$ 800$ lot |

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    Dur-O-waL Div., Dept. 651 Cedar Rapids Block Company Cedar Rapids, lowa

[^5]:    * The Mortgage Committee of the Savings Banks Association of Massachusetts is now processing a test case.
    $\dagger H \& H$, Sept. '52.

[^6]:    flexible interest rates homebuilders espouse"with the flexibility being determined by government controls"-but for "free interest rates in a free market." Clarke noted that the nation, in effect, has had a free market in FHA and VA frozen-interest mortgages since June, when Congress reversed VA's Bert King and authorized discounts. "But," said the spare and bespectacled Quaker, "isn't that a hell of a way to have it?" He called premiums just as bad as discounts, because premiums are pocketed by the builder, do the buyer no good. Said Clarke: "Mortgages should be traded at par."
    At 57, Will Clarke has long been regarded as one of the nation's shrewdest mortgage market analysts. He was Federal Reserve consultant on Regulation X credit controls and in recent years has often been MBA's principal spokesman before Congressional committes. He is president of W. A. Clarke Mortgage Co., a director of Guardian Life Insurance Co. Outside of the mortgage business and the Society of Friends (he is on its Self Help Housing Committee), Clarke is not well known in Philadelphia. His wife, the former Eleanor Stabler, is prominent in Quaker work, and best known for directing collection and distribution of hundreds of tons of clothing for the American Friends Service Committee.
    Next year-if MBA's usual pattern holdsClarke will be succeeded by Vice President Wallace Moir (r), a Beverly Hills mortgage broker.

[^7]:    *"Peg-Board" Reg. T.M. U.S. Pot. Of. B.B. Butler Mfg. Co., Inc.

[^8]:    MODERN HOMES CORPORATION 7754 Greenfield Road - Dearborn, Michigan

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