LIFE
HOUSES

THE ARCHITECTURAL FORUM

NOVEMBER 1938

Here's How to Insulate the Famous "LIFE" HOUSES Effectively-and at Low Cost!

This house, designed by Richard Koch, can be adequately insulated with Celotex Vapor-seal Sheathing and Celotex Vapor-seal Lath at a net cost of about $80.70 or less.*

Adequate insulation with Celotex Vapor-seal Lath and Sheathing for this H. Roy Kelley house would cost only $84.54, built in Los Angeles. For the North, the cost would be about $115.94*.*

To provide adequate insulation for this Royal Barry Wills house, using Celotex Vapor-seal Lath and Celotex Vapor-seal Sheathing, would cost only about $93.83.*

For this large house by Aymar Embury, the net cost of Celotex Vapor-seal Sheathing and Celotex Vapor-seal Lath would be only $167.97. Double-duty Celotex lowers insulation costs!*

CELOTEX BUILDS AS IT INSULATES—SAVES MONEY FOR CLIENTS

Architectural circles from coast to coast are interested in the house-building promotion featured in "*Life*" for September 26th, and in this issue of "*Architectural Forum.*"

One of the comments frequently offered by laymen has been that the plans look too expensive to be built by the income groups indicated. But those making such comments are unaware of *many savings in modern planning*—such as the use of Vapor-sealed Celotex, the modern insulation which "*doubles*" as structural building material.

By specifying Celotex Vapor-seal Sheathing and Vapor-seal Lath, you give clients adequate insulation scientifically safeguarded against vapor condensation. *Both materials do double duty—one as insulation and sheathing, the other as insulation and plaster base.* Both are permanently protected against termites and dry rot by the exclusive, patented Ferox Process. *And both are guaranteed in writing for the life of the building!***

Low cost is assured by the double-duty feature, which reduces to a minimum the actual net cost of effective insulation.

*** When issued, applies only within the boundaries of Continental United States.*

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BRAND—INSULATING CANE BOARD
REG. U. S. PAT. OFF.

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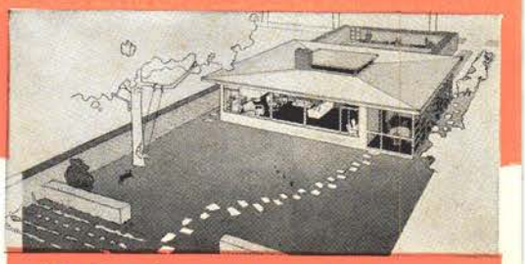
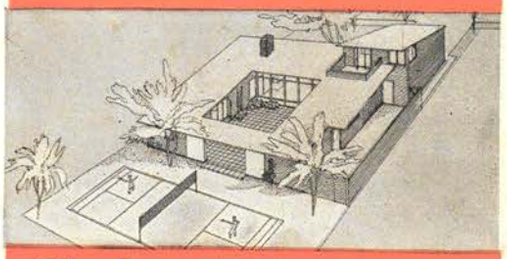
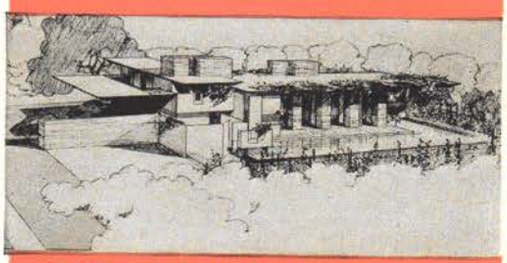
VAPOR-SEAL SHEATHING



$83.49 or less would cover the approximate net cost of insulating this house, designed by Edward D. Stone, using Celotex Vapor-seal Lath and Celotex Vapor-seal Sheathing.*



Celotex Vapor-seal Sheathing and Lath for William Wilson Wurster's Los Angeles house would cost $80.58; farther north, ample protection with Celotex would come to about $121.83*.*



Frank Lloyd Wright planned this house to be comfortable in severest winter weather. This can be accomplished with Celotex Vapor-seal Lath for about $78.11.*

$141.15 covers the cost of complete Celotex insulation for this house by Wallace Harrison and Andre Fouilhoux, using Celotex Vapor-seal Lath and Celotex Vapor-seal Sheathing.*

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*Approximate net cost, in place, based on average material and labor costs.

ARCHITECTURAL FORUM

NOVEMBER 1938

★

THE ARCHITECTURAL FORUM announces the inclusion of

The ARCHITECT'S WORLD

as a regular feature and the appointment of Henry H. Saylor, recently publisher of The Architect's World and formerly editor of Architecture, to THE FORUM'S editorial staff.

★

Editor, Howard Myers; *Managing Editor*, Ruth Goodhue; *Associates*, John Beinert, Anna De Cormis, Paul Grotz, Joseph C. Hazen, Jr., Barbara Hunt, George Nelson, Henry H. Saylor, Madeline Kroll Thatcher, Nadia Williams, Allan Woodle, Henry Wright.

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VOLUME 69—NUMBER FIVE

THE MONTH IN BUILDING

VOLUME

PERMITS (August)	$157,001,664
Residential	86,111,727
Non-residential	43,501,089
Additions, repairs	27,388,848
July, 1938	162,198,188
August, 1937	139,766,949

Source: U. S. Dept. of Labor

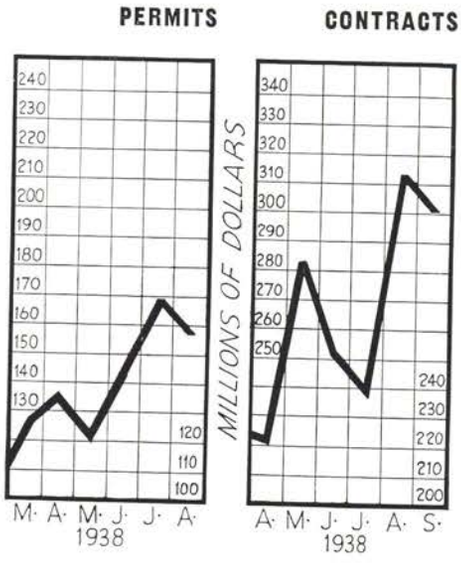
CONTRACTS (Sept.)	$300,873,000
Residential	99,547,000
Non-residential	91,997,000
Heavy engineering	109,329,000
August, 1938	313,141,000
September, 1937	207,072,000

Source: F. W. Dodge Corp.

Having apparently reached the year's peak, building permits and contracts both have begun their seasonal declines, but continue at levels well above those of last year. Thus, the $157 million volume of **Permits** issued in August was 3 per cent below the preceding month but 12 per cent above the total for August, 1937. Residential permits dropped 4 per cent during the month, but were 60 per cent above the August 1937 figure.

Contracts awarded in September totaled $301 million, were 4 per cent under those of August, but 45 per cent above those of September, 1937. Decreased heavy engineering during the month was offset in part by increased construction in the non-residential classification. The number of residential contracts varied less than $200,000 between August and September, stood at $100 million.

Note: Month ago, a Department of Labor adding machine miscarried, reported an extra $36 million in July residential permits (ARCH. FORUM, *Oct. 1938, pp. 2 and 310*).



BLIGHT CURE. A down-at-the-heel neighborhood unfortunately does not stay that way; it soon becomes a slum. Obvious method of stopping such a retrogression would be for all the occupants to cooperate in repairing and reconditioning. Lacking, however, has been a guide and stimulator, also the funds with which to do the work.

Last month the Home Owners Loan Corporation set out to be such a guide and stimulant. Technique was 1) to choose a guinea pig area, 2) to survey that area, determine what was needed to secure residential values, 3) to prove by means of scientific appraisals how the owners would benefit, and 4) to use the acquired data in convincing those owners that they should spend their money.

Area chosen was the Waverly Village district in Baltimore that embraces 50 city blocks and includes about 1,600 homes. Although comparatively old, this section includes block after block of new homes; and all bordering residential areas, save one, are high in property value.

HOLC's survey will be carried out in cooperation with the Works Progress Administration, Baltimore's Housing Authority and local real estate groups. Cost will be about $25,000, and hope is that WPA will foot the $14,152 wage bill.

Benefits of this program will accrue to other than home owners. Not entirely altruistic in motive, HOLC will benefit from the increased value of the property it owns in improved areas. Also, mortgage security will be improved, and mortgage companies will find an outlet for additional funds. Although the success of this program still lies in the future, rumor is that several other cities are considering similar surveys, among them New Orleans and Memphis.

BLANKET INSURANCE. When a building goes up everyone responsible for it has a lot on his mind, and a lot to worry about. Consequently, the monthly reporting type of fire insurance is a nuisance. It is one thing more to remember; and, if reports are not made, the owner runs the risk of inadequate protection.

As a remedy, the American Institute of Architects, and the Associated General Contractors of America now offer a blanket insurance plan covering the completed value of each project during the course of construction. Thus, if fire occurs, the owner will be automatically reimbursed to the extent of loss. Application of the plan will be limited to commercial projects, because residential construction is generally covered by a permanent policy for three to five years, beginning at the time building is started.

According to the report of the sponsors, "The premium, applied to the amount of the policy, will be 55 per cent of the appropriate rate, taken for a period of one year. If the period of construction is more or less, the premium will be adjusted accordingly. If the job is to run for more than one year, the policy can be taken out for the extended period with a reduced rate for each year after the first.

"It is a basic condition of the policy and its adjusted rate that it is to be taken out at the commencement of the work. This means when the first material is delivered at the site. The adjusted rate is the result of careful analysis of a considerable number of reports of progress payments showing the rate at which the insurable value was placed in the structure."

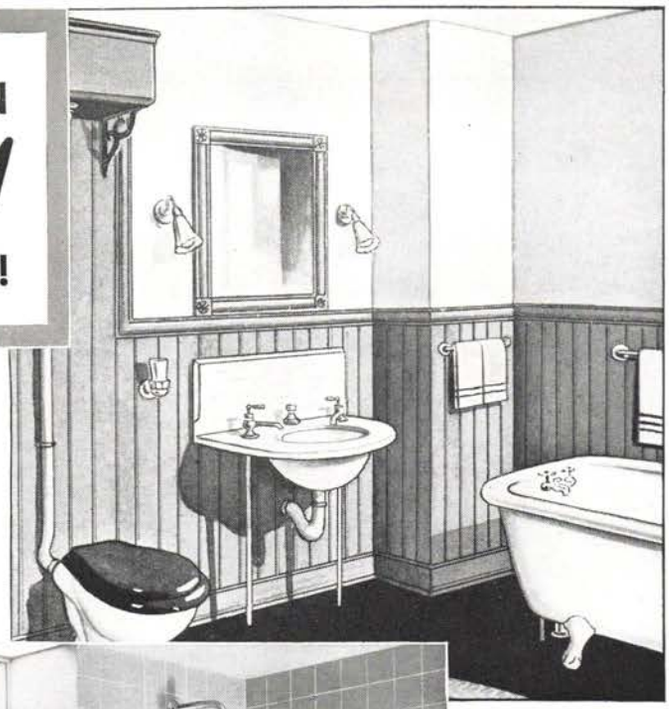
Provision is made to take care of expansion of the project beyond original plans. The owner need only notify the insurance company and pay an extra premium to cover the addition. The policy will exclude insurance of scaffolding, forms and other equipment not a permanent part of the structure; but, if the contractor so desires, a rider can be attached to the policy indicating the estimated value of such equipment and the premium involved.

Such single policy insurance has been approved for use in New Jersey, New Hampshire, and the city of Baltimore.

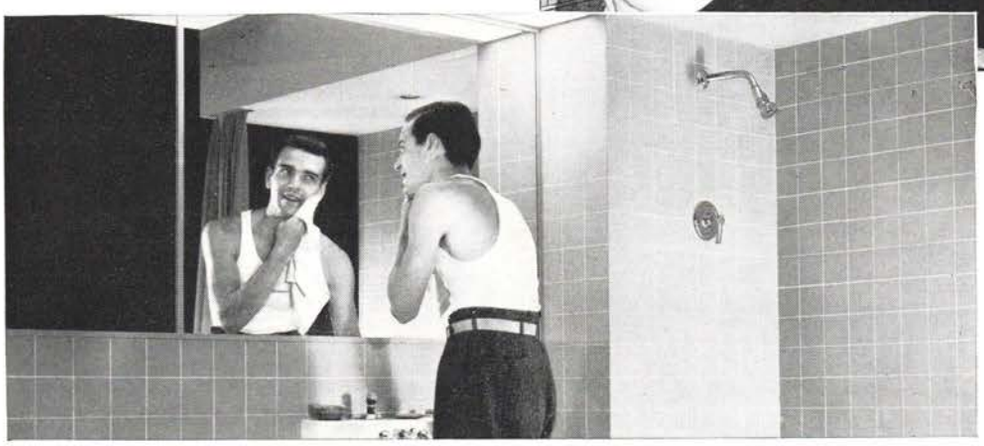
USHA DOLLAR. For budget-conscious builders, the U. S. Housing Authority, which on its first birthday last month announced that about all of its funds had been earmarked, has ground from its calculating machines an estimate of how much of those funds will go where, to whom and for what: has thus followed the lead of PWA (ARCH. FORUM, Aug. 1938, p. 4).

Totaling its authorized loans of $800 million and the additional $89 million that must be anted by participating localities, USHA predicts the eventual rehousing of 600,000 persons in 598,000 rooms in 148,300 dwelling units in about 150 communities. Scope of this slum clearance and low rent housing program is more clearly grasped when it is real-

NO ONE EVER SANG IN *THIS BATHROOM* BEFORE!



And is it any wonder? Of all the dreary, drab bathrooms, Marge and Freddy's was one of the worst ever. Then one day Freddy's architect told him how very inexpensively MASONITE PRESDWOOD TEMPRTILE could provide gleaming, tile-like walls... *right over the old walls.*



NOW IT'S A DIFFERENT STORY

It's Sing Away Your Sorrows for Freddy every morning. What man wouldn't revel in this spotless shaver's haven? Notice the brilliant indirect lighting arrangement made possible by a durable offset wall of MASONITE TEMPERED PRESDWOOD.

THE MOST CHEERFUL ROOM IN THE HOUSE . . .

That's Marge's opinion. And she's thrilled at how easy it is to keep the MASONITE PRESDWOOD TEMPRTILE spick and span. Just an occasional rubdown with a damp cloth. The indirect light over the tub is a joy for tub bather and shower enthusiast alike. The light bulb is protected from moisture by an inner wall of MASONITE TEMPERED PRESDWOOD and frosted glass panes set flush.

• • •

● In new or remodeled homes, you—and your clients—will be delighted with the smart, permanent tile-effects produced by MASONITE PRESDWOOD TEMPRTILE. Your lumber dealer can tell you about them. Or mark and mail the coupon below for full details.

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THE ARCHITECTURAL FORUM

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VOLUME 69
Number 5

ized that, if concentrated in one spot, it would rehabilitate a whole city the size of Milwaukee.

Of more immediate interest to Building, however, is what the program means to Building. Percentage- and dollar-wise, the meaning is this:

Land and demolition (15%)	$13 million
Architectural services (3%)	23 million
Building materials (38%)	338 million
Labor wages at site (29%)	258 million
Contractors' overhead, profit (10%)	94 million
Interest during construction (2%)	18 million
All other costs (3%)	26 million

Further measuring the program's meaning for labor, USHA estimates the use of 269 million man-hours of direct labor, 40 million man-hours of indirect labor, the latter figure being based upon the Bureau of Labor Statistics' one-to-one-and-a-half ratio of direct to indirect man-hours.

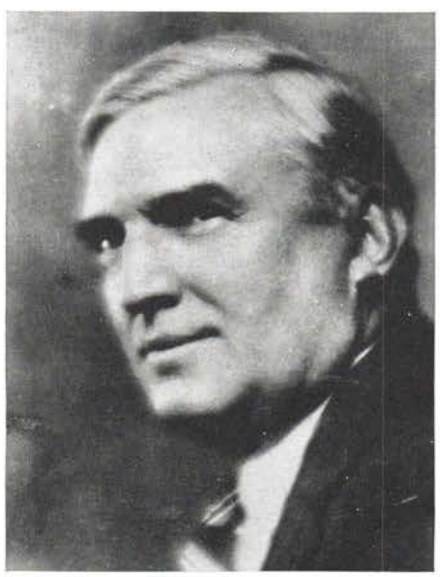
For presentation of a development that may happily require an upward readjustment of some of these USHA prognostications, see page 405.

MORTGAGE TREND. Proponents of the argument that Government has already delved too far into private enterprise can now refer to supporting facts and figures uncovered by the Twentieth Century Fund. Thus, its Committee on Debt Adjustment month ago issued the statement that through extensive refinancing activities the Federal Government now finds itself holder of more than one-third of the Nation's farm mortgages, about one-sixth of its urban home mortgages.

Furthermore, while Government's share of mortgage holdings has been expanding, the total volume, much to the consternation of mortgage men, has been waning. During the past nine years, the wiles of Depression and Recovery have shrunk the total U. S. farm and home mortgage debt more than 18 per cent to about $25 billion. Dividing this debt into its components, the Committee found that farm loans reached a peak of $9.5 billion in 1929, then dropped to $7.7 billion in 1935 and continued their downhill ride through 1936. Urban home mortgage debt, on the other hand, ranged from $13.2 billion in 1925 to $21.2 billion in 1930 to $17.1 billion in 1936.

NOMINATION. With photograph and caption, New York City newspapers announced one day last month that design and finance had taken another step toward each other, that Architect Stephen Francis Voorhees had been nominated as trustee of the Bank of New York. Moreover, because the Bank's quaint 1830 charter requires that the nomination of a new trustee be "made public for three successive weeks in one newspaper of general circulation and the State paper," readers of the legal notice columns in the New York Herald Tribune and the Albany Times-Union became daily more aware of the new nominee.

To 60-year-old Architect Voorhees, member of New York's famed architectural firm, Voorhees, Gmelin and Walker, publicity is an old story; for a man is bound to make the headlines if his career includes such titles as President of the AIA, Chairman of the Board of Design



Architect-Banker Stephen F. Voorhees

for the New York World's Fair, Director of the Merchants Association of New York, Supervising Architect of Princeton University, Chairman of Code Committee of the U. S. Construction League and senior partner of the firm responsible for such outstanding works as 1 Wall Street, the New York Telephone Company Building, etc.

On November 9, 22 trustees who are held liable by law for all loans and mortgages placed by the Bank of New York, will vote on their proposed new colleague. If the election fails to be unanimous, it will be the first such case in the memory of living Bank-of-New-Yorkers.

AUTOHOUSE. Application for a permit to build the thirteenth unit of New York's Rockefeller Center states that six floors will be devoted to automobile storage, thus underlines the opportunity for integration in so large a project, as well as the needs that arise when such a project is built. Since Rockefeller Center houses some 25,000 tenants and accommodates 125,000 daily visitors, transportation and parking space have assumed capital importance. Up to unit No. 13, however, no more of a solution had been found for the center than for any other cluster of skyscrapers.

When the rumor circulated that the only nearby parking lot—that back of the Center theater—was to be built upon, tenants had visions of leaving cars at home. But Architects Reinhard & Hofmeister and Harrison & Fouilhoux had other plans, designed a 15-story building with three stories above the ground and three below given to cars. There will be room for 800 autos—450 more than in the original vacant lot. Answer to the major criticism that ground floor space has a more profitable use than car parking will be found in the periphery of shops that utilize the valuable street frontage, hide the autohouse from sight. The permit application lists the first four floors as covering the entire lot; above them will rise an eleven-story tower.

Since principal tenants, other than automobiles, will be a new institution, the Holland House Corporation, and other firms having Dutch-U. S. ties, title of unit No. 13 will be the Netherlands Building. It is next to the last building planned for the Center.

GARDEN PIONEER. Long before the FHA was even an idea, Architect Andrew J. Thomas was designing large scale rental projects with such revolutionary characteristics as low plot coverage and gardens (ARCH. FORUM, Aug., 1924, p. 61). Location of these projects was Jackson Heights, New York City; sponsor of all of them was the Queensboro Corporation. Thus, it is small wonder that when President Edward A. MacDougall of the Queensboro Corporation planned another garden apartment project and chose Thomas as architect, Jackson Heights as site, the FHA was ready and willing to insure its $1,650,000 mortgage.

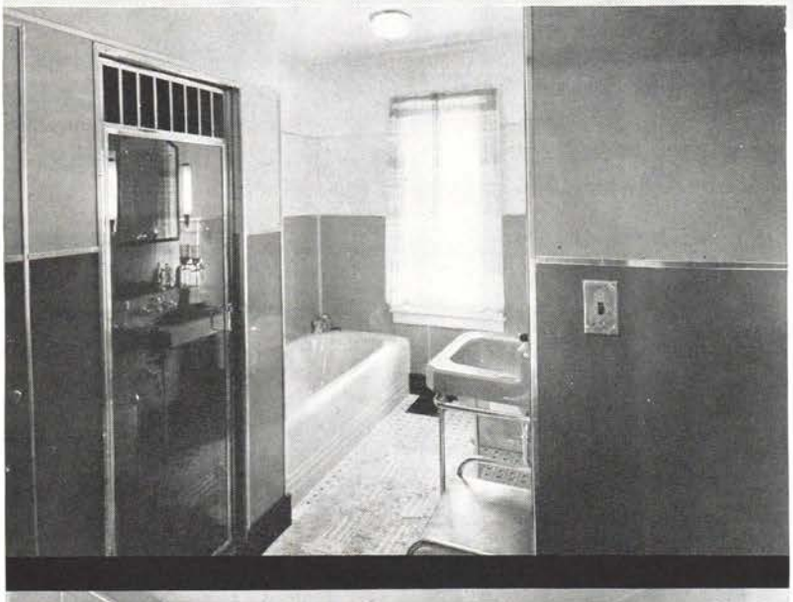
It will house 540 families, will cover only 45 per cent of the land. Plans are for six separate buildings of six stories each. The choice of separate buildings rather than long connected rows is an interesting parallel to "The Towers," "The Chateau," and "Linden Court," also in Jackson Heights and from the Thomas drawing board.

EARNINGS. Last month five of the companies which supply building with its materials reported their earnings and losses:

	1938	1937
Atlas Plywood (Year ending June 30)	$ 208,457	$ 495,188
Celotex Corp. (9 mos. to July 31)	278,851	1,035,798
Crucible Steel (6 mos. to June 30)	1,540,360*	3,099,797
Mueller Brass (Year ending Aug. 31)	65,086	1,061,823
Pittsburgh Steel (Year ending June 30)	242,094*	1,361,664

*Net loss

FORMICA
permanently brightens up KITCHENS and BATHROOMS

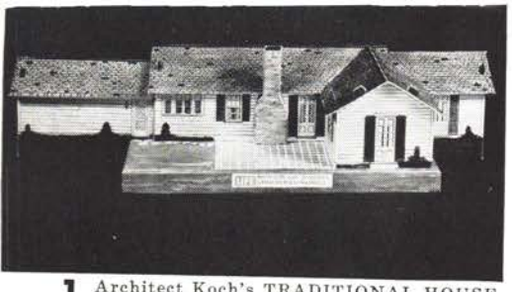


BRIGHT COLORS and smooth surfaces that stay bright and smooth are available for bathrooms and kitchens in Formica. This material will stand up on walls and tops for many years without change in appearance. It is thoroughly modern and easily cleaned. It does not crack or stain.

The greatest variety of effects is possible through combinations of colors and by inlaying one color over another or inlaying metal in color. It is easily cleaned and is not discolored by ordinary cleaning solutions. Ask for Formica literature showing possible designs in color.

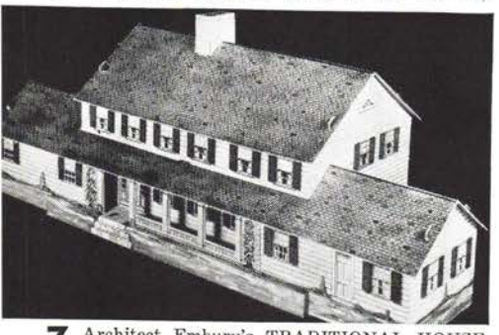
FORMICA

THE FORMICA INSULATION CO., 4620 Spring Grove Ave., Cincinnati, O.



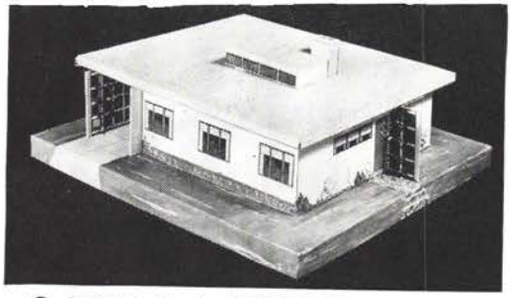
1 Architect Koch's TRADITIONAL HOUSE, $2,000 – $3,000 Income. Price for scale model, full color, 20″ long, 8″ wide, 5″ high, with outline floor plans, printed furniture sheet to cut out—50¢.

4 Architect Wurster's MODERN HOUSE, $3,000 – $4,000 Income. Scale model in full color, 16″ long by 14″ wide by 6″ high, with outline floor plans, printed furniture sheet to cut out—75¢.

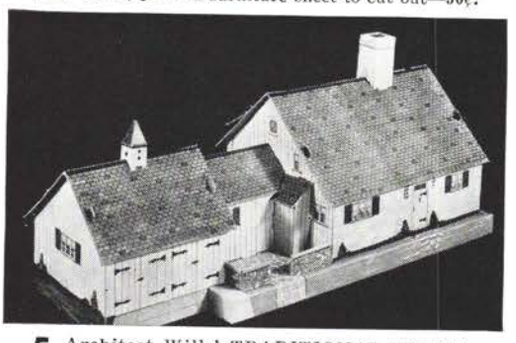


7 Architect Embury's TRADITIONAL HOUSE, $10,000 – $12,000 Income. Price for scale model in full color, 22″ long by 9″ wide by 9″ high, with outline floor plans, printed furniture sheet to cut out—$1.

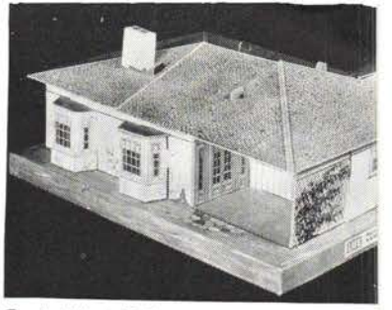
8 Architects Harrison's & Fouilhoux's MODERN HOUSE, $10,000 – $12,000 Income. Price for scale model in full color, 23″ long by 20″ wide by 7″ high, with outline floor plans, printed furniture sheet to cut out—$1.



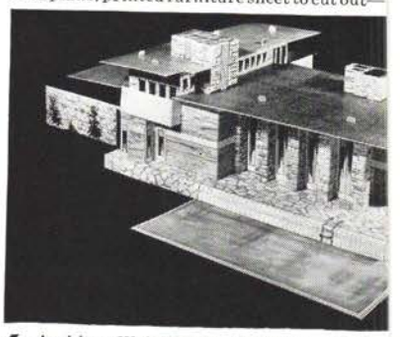
2 Architect Stone's MODERN HOUSE, $2,000 – $3,000 Income. Price for scale model in full color, 12″ long by 10″ wide by 5″ high, with outline floor plans, printed furniture sheet to cut out—50¢.



5 Architect Wills' TRADITIONAL HOUSE, $5,000 – $6,000 Income. Scale model in full color, 18″ long by 8″ wide by 9″ high with outline floor plans, printed furniture sheet to cut out—$1.



3 Architect Kelly's TRADITIONAL HOU $3,000–$4,000 Income. Scale model in full c 14″ long by 13″ wide by 5″ high, with out floor plans, printed furniture sheet to cut out—



6 Architect Wright's MODERN HOUSE, $5,(–$6,000 Income. Scale model in full color, 2 long by 16″ wide by 8″ high, with outline fl plans, printed furniture sheet to cut out—

FULL COLOR SCALE MODELS OF LIFE HOUSES NOW AVAILABLE TO ARCHITECTURAL FORUM READERS....

All over America families-who-plan-to-build are talking about LIFE HOUSES—the houses designed for real families by 8 leading architects—presented in the September 26 issue of LIFE.

Thousands of these families are assembling LIFE HOUSES—in miniature—on the family table. . . . Architects, builders, building manufacturers, real estate men, sensing the *impact* of this building news on their customers and clients, are writing in for quantities. . . .

LIFE MODEL HOUSES can be assembled by anyone in 10 minutes—no pasting, no cutting —by following the simple instructions with each house. Each full color LIFE MODEL HOUSE matches faithfully the original ideas of the famous architect who designed it. Each comes complete with correct scale, outline floor-plans and sheet of printed silhouette furniture to cut out.

You saw LIFE HOUSES first in Life . . . the real families they were planned for . . . the men . . . Embury, Harrison & Fouilhoux, Kelley, Koch, Stone, Wills, Wright, Wurster . . . who designed them at LIFE's request. You've checked all technical details in this issue of the Forum. And now you know why LIFE HOUSES are "the 8 most talked about houses in the U. S." . . .

You'll certainly want to buy or send for your favorites among LIFE's MODEL HOUSES—or *all* of them—today. Really *see* them in their finished form. Check them against your own ideas about utility and beauty in home-building. Talk them over with your clients or customers—*they know about LIFE HOUSES—they'd like to talk them over with you.*

[To Architectural Forum readers who order models in quantities of 80 or more, LIFE offers a special professional rate on LIFE MODEL HOUSES. See coupon.]

USE THIS COUPON . . . OR GET YOUR LIFE MODEL HOUSES AT THESE STORES

LIFE HOUSES
330 East 22nd Street, Chicago, Ill.

I enclose $8.... for.... LIFE model houses, each complete with outline floor plans and sheet of printed silhouette furniture to cut out. I am checking the numbers of the houses you are to send. Shipment **postpaid.** If models are in any way unsatisfactory money will be refunded if I return shipment within 5 days.

☐ #1—50¢ ☐ #3—75¢ ☐ #5—1.00 ☐ #7—1.00
☐ #2—50¢ ☐ #4—75¢ ☐ #6—1.00 ☐ #8—1.00

I am ordering a total of 80 or more LIFE HOUSE models at the special professional rates:

No.——#1 @ 40¢ ea. No.——#5 @ 75¢ ea.
No.——#2 @ 40¢ ea. No.——#6 @ 75¢ ea.
No.——#3 @ 55¢ ea. No.——#7 @ 75¢ ea.
No.——#4 @ 55¢ ea. No.——#8 @ 75¢ ea.

Send cash, check, or money order

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ADDRESS.....

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L. Bamberger & Company, Newark
M. E. Blatt, Atlantic City
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Block & Kuhl Company, Peoria
Boston Store, Milwaukee
(Also co-operating with A. Longauer and Elton A. Schultz Co., Builder, in LIFE house construction at Dellwood Park.)
Burdine's, Miami
H. C. Capwell, Oakland
Carson Pirie Scott & Co., Chicago
(Also co-operating with Wm. Joern & Sons, Builder, in LIFE house construction at Edgewood Park, La Grange, Ill.)
Coyle & Richardson, Charleston
Davison-Paxon, Atlanta
(Also co-operating with Palmer, Inc., Builder, in LIFE house construction at Oak Knoll.)
Denver Dry Goods Co., Denver.
The Emporium, San Francisco
(Also co-operating with Millbrae Highlands Co., Builder, in LIFE house construction at Millbrae Highlands.)
The Fair Store, Escanaba
Forbes & Wallace, Springfield
Frederick & Nelson, Seattle
(Also co-operating with Ralph P. Jones, Builder, in LIFE house construction at Viewridge Addition.)
Gimbel Brothers, Philadelphia
(Also co-operating with John H. McClatchy, Builder, in LIFE house construction at Chatham Village.)
Gold & Company, Lincoln
Hale Brothers, Inc., Sacramento
Hale Brothers, Inc., San Jose
Harris Company, San Bernardino
The Higbee Co., Cleveland
(Also co-operating with Denison & Nutt, Builder, in LIFE house construction at Lyndhurst Park Estates.)
D. H. Holmes Company, New Orleans
Hood McPherson, Birmingham
The J. L. Hudson Co., Detroit
Jones Store Co., Kansas City
Kaufmann's, Pittsburgh
(Also co-operating with Barone & Lind, in building 6 LIFE houses at Baldwin Manor.)
R. E. Kennington & Co., Jackson
Thomas Kilpatrick, Omaha
Lansburgh's, Washington
(Also co-operating with Cafritz Const. Co., Builder in LIFE house construction at Greenwich Forest.)
F. & R. Lazarus & Co., Columbus
R. H. Macy & Co., New York
Harry S. Manchester, Madison
Jordan Marsh Company, Boston
(Also co-operating with Homer T. Brown, Inc., Builder, in LIFE house construction at Chestnut Hill.)
The May Company, Baltimore
(Also co-operating with Property Sales Co., Builder, in LIFE house construction at Greenwood.)
The May Company, Los Angeles
(Also co-operating with Gordon J. Rogers, Builder, in LIFE house construction on land owned by Walter H. Leimert Co. at Leimert Park.)
McCurdy & Co., Rochester
Miller Brothers Co., Chattanooga
M. O'Neil Co., Akron
Pelletier's, Inc., Sioux City
Petersen, Harned, Von Maur, Davenport
Pomeroy's, Inc., Harrisburg
Pomeroy's, Inc., Pottsville
Powers Mercantile Co., Minneapolis
Quackenbush's, Paterson
(Also co-operating with Reliable Home Construction Co., Builder, in LIFE house construction at Teaneck.)
D. M. Read Company, Bridgeport
Rike-Kumler Company, Dayton
John Schoonmaker & Son, Newburgh
J. B. Sperry Co., Port Huron
The Stewart Dry Goods Co., Louisville
Stix, Baer & Fuller, St. Louis
A. B. Wyckoff, Inc., Stroudsburg
Strouss-Hirschberg, Youngstown
Thalhimer Brothers, Richmond
(Also co-operating with Matt P. Will, Builder, in LIFE house construction at Glenburnie.)
Titche Goettinger Co., Dallas
Trask, Prescott, Richardson, Erie
A. E. Troutman Co., Greensburg
Charles Y. Weiss Co., Rockford
(Also co-operating with Martin Hawkinson Co., Builder, in LIFE house construction at Rolling Green.)
Whitney & Co., San Diego
(Also co-operating with H. L. Benbough Co., Furnishers, and B. M. Torgerson, Builder, in LIFE house construction.)
Wolf & Dessauer, Fort Wayne
George Wyman & Co., South Bend
Younker Bros., Des Moines
The Robert Simpson Co., Ltd., Toronto
T. Eaton Company, Ltd., Montreal

John Wanamaker, New York, not selling models, is co-operating with Harmon National Real Estate Corp. in LIFE house construction at Harbour Green, L. I., also with County Homes, Inc. at White Plains, N. Y

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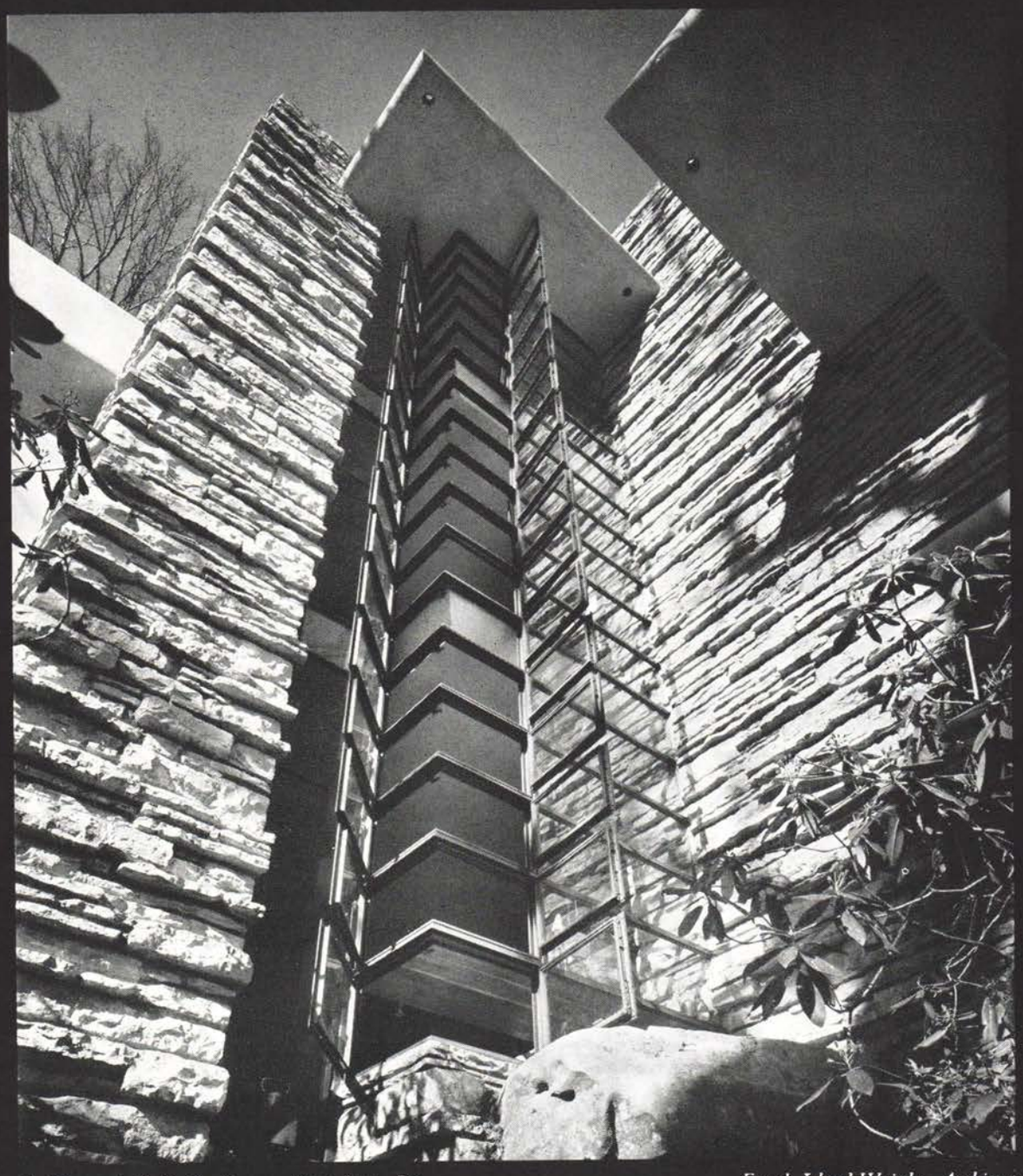

Residence of E. J. Kaufmann, Bear Run, Pa. *Frank Lloyd Wright, Architect*

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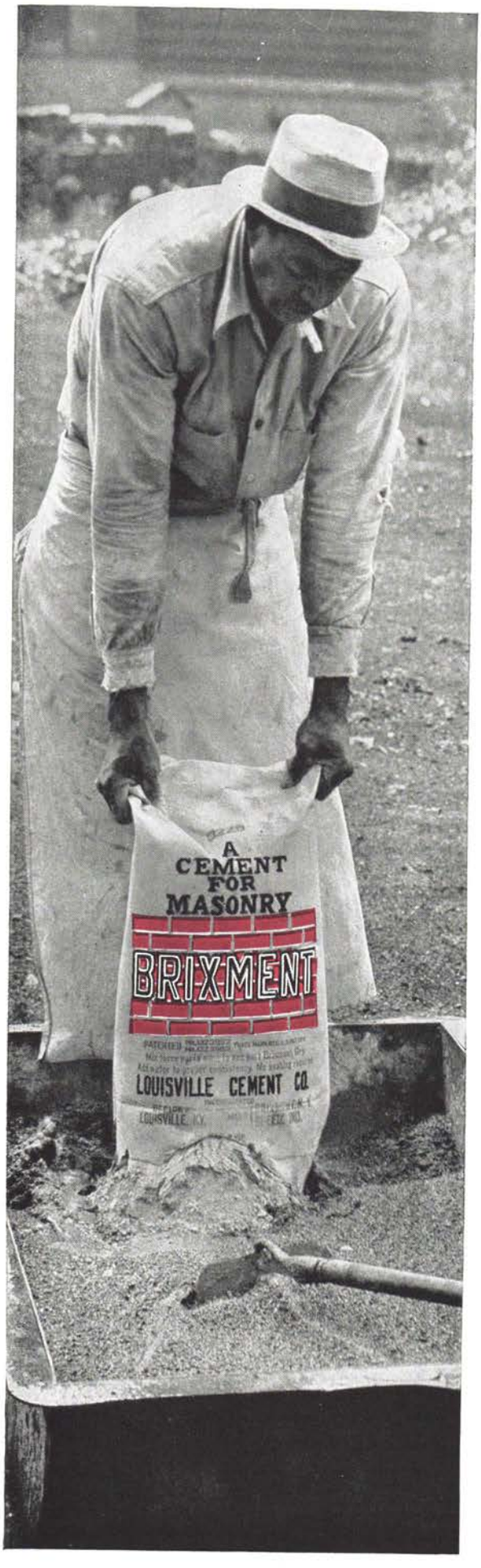

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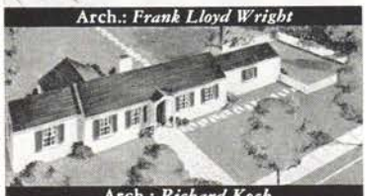
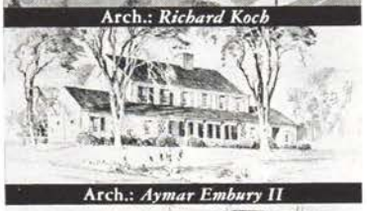
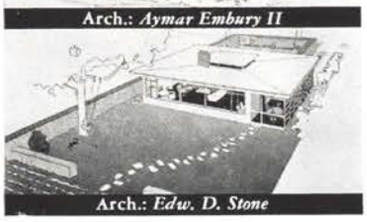


Arch.: *Richard Koch*



Arch.: *Aymar Embury II*



Arch.: *Edw. D. Stone*

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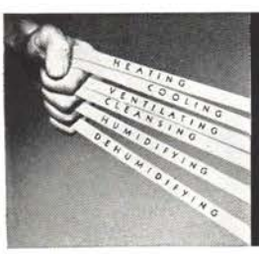
Arch.: *Wm. W. Wurster*

Arch.: *Royal Barry Wills*

Arch.: *H. Roy Kelley*

Arch.: *Harrison & Fouilhoux*



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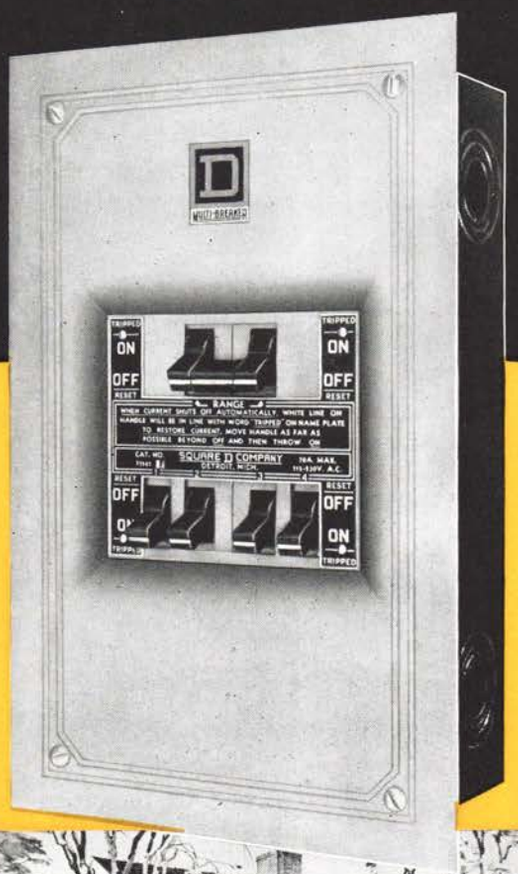

Suggested Multi-breakeR installation for the RAMSEY "Traditional" House ($2,000 - $3,000 income group) designed by Richard Koch: 4 circuits. 3 for lights, 1 for spare. 29 outlets. Cost **$9.50***

For the CALVERT "Traditional" House ($3,000-$4,000 income group) designed by H. Roy Kelley: Electric range. 4 lighting circuits. 44 outlets. Cost . . **$11.50***

For the BLACKBOURN "Traditional" House ($5,000-$6,000 income group) designed by Royal Barry Wills: Laundry circuit. Electric range. Electric water heater. 5 lighting circuits. 54 outlets. Multi-breakeRs in basement and on first floor. Cost . . . **$22.50***

For the SMITH "Traditional" House ($10,000-$12,000 income group) designed by Aymar Embury: Laundry circuit. Electric range. Electric water heater. 7 lighting circuits. 78 outlets. 4 Multi-breakeRs on 2 floors. Cost . . **$34.50***

**No deduction made for equipment which the Multi-breakeR replaces*

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Square D Multi-breakeRs represent a very small fraction of total wiring cost. To show just how little money is involved in Multi-breakeR installations, we have figured the wiring requirements for four of the LIFE houses . . . providing for lighting and probable appliances. We then show the list price of Square D Multi-breakeRs for each installation, making no deduction for the equipment which the Multi-breakeRs replace.

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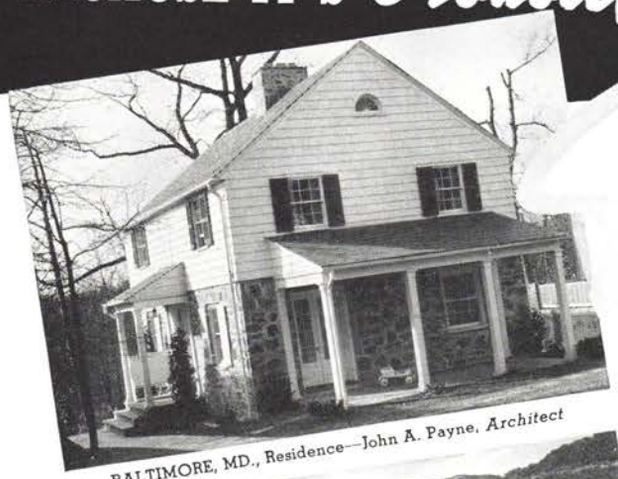
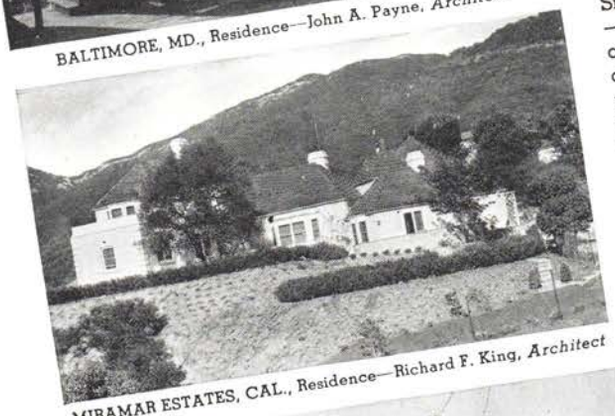


BALTIMORE, MD., Residence—John A. Payne, *Architect*



MIRAMAR ESTATES, CAL., Residence—Richard F. King, *Architect*

KANSAS CITY, MO., Residence—Boillot & Lauck, *Architects*

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...William Wilson Wurster

William Wilson Wurster

Direct, honest solutions—free from affectation—have won national recognition for the work of William Wilson Wurster. Featuring his work in its May, 1936, edition, Architectural Forum said, "His houses not only have a remarkable range of expression but, by virtue of their adaptability to special conditions, possess a strong local character which can today be found in the work of few men."

Mr. Wurster was born in Stockton, California, and studied architecture at the University of California. He has traveled in Hawaii, the Philippines and the Orient, and has lived in Europe and New York. His first work in America was in the San Francisco office of John Reid. In 1926 Mr. Wurster opened his own office in San Francisco. One reason for the wide acceptance of his work is that he never feels he must put over a given expression.

DOUGLAS FIR PLYWOOD is one material that places few limitations on the architect. It is practical for both exterior and interior use. And it combines the unusual strength of cross-grained lamination—light weight—low cost—and the labor saving advantages of large panels.

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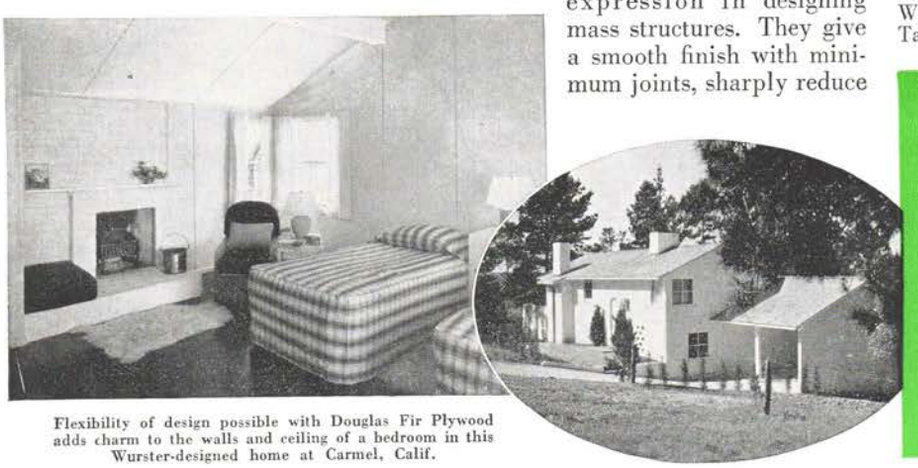
Sweet's Catalog contains complete data on Douglas Fir Plywood. Our well-equipped Technical Division offers cooperation to architects, engineers and others in adapting Douglas Fir Plywood to special problems, and recommending the proper types and grades to produce utmost serviceability and economy. Address DOUGLAS FIR PLYWOOD ASSOCIATION, Tacoma Building, Tacoma, Washington.



Flexibility of design possible with Douglas Fir Plywood adds charm to the walls and ceiling of a bedroom in this Wurster-designed home at Carmel, Calif.

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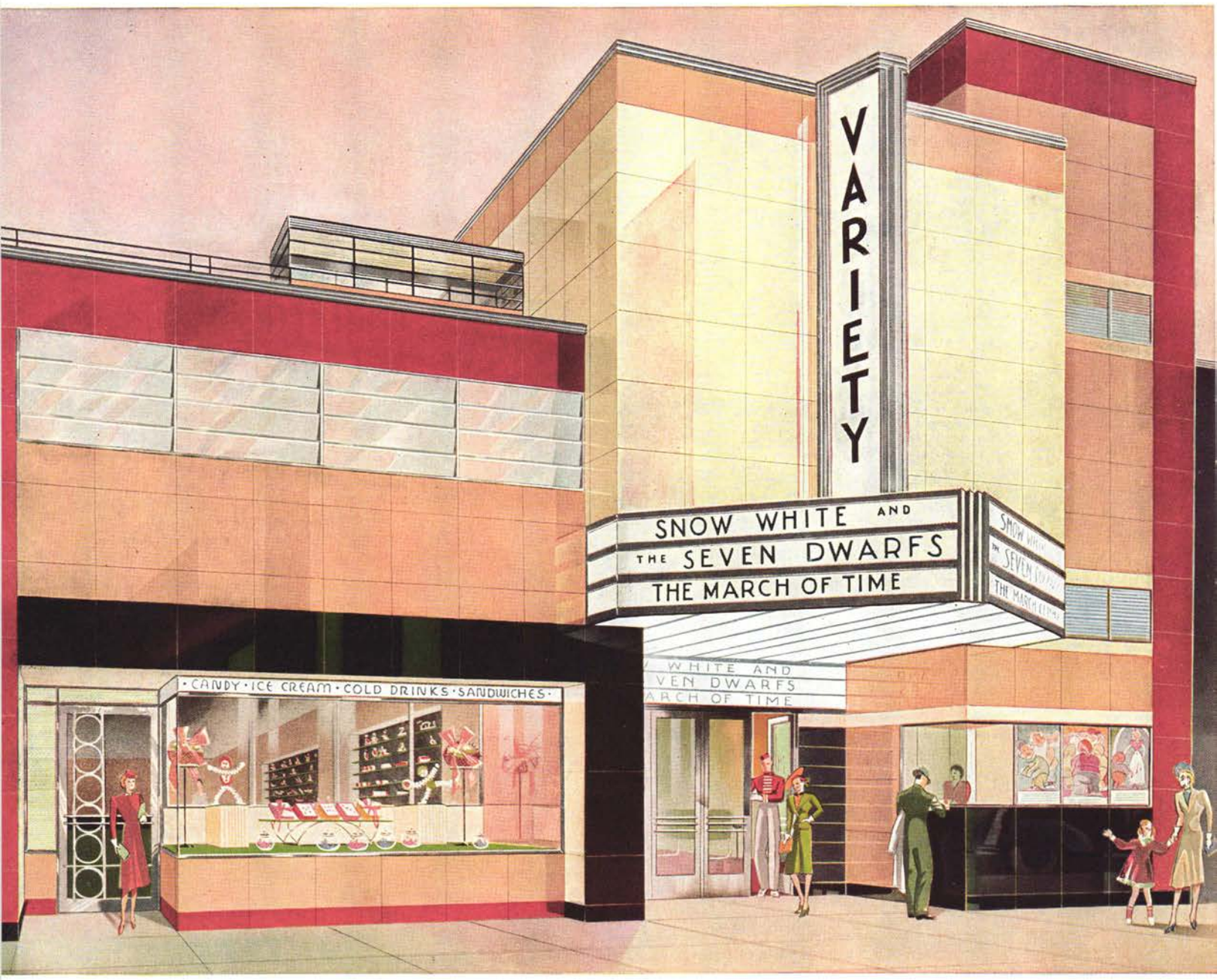

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H. Roy Kelley, Architect

William Wilson Wurster, Architect

Royal Barry Wills, Architect

Frank Lloyd Wright, Architect

Aymar Embury II, Architect

Harrison & Fouilhoux, Architects

Regardless of location, regardless of architectural style or treatment, there are many fine USG materials exactly suited to any one of the eight LIFE houses.

Years of research and development have made the United States Gypsum Company well known for its Red Top Plaster, its Rocklath, its Sheetrock. Yet these products are only part of its line. It has developed, and manufactures, many other fine building materials such as insulation, metal lath, acoustical corrective products, sheathing, and interior paint and decorative materials. In terms of a building, this range is from the basement to the roof.

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ROOF: USG Asbestos-Cement Shingles—USG Asphalt Shingles—USG Built-Up Roofing—USG Roll Roofing—Weatherwood Roof Insulation—USG Expanded Metal Concrete Reinforcement.

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THE ARCHITECT'S WORLD

THE BELLS OF RHEIMS ARE RINGING AGAIN

By Pierre Lamure

Condensed from *Légion d'Honneur* for October, 1938

The world possesses a few monuments that transcend the matter which constitutes them. They cease to be architectural wonders, they become spiritual affirmations. The passion that built them lingers upon them and seems to sublimate them. Rheims Cathedral is an act of faith in stone.

First of all, an act of faith in God. The whole gigantic structure is a prayer, a psalm, a call from an harassed and suffering humanity to the all merciful, all powerful God hidden in His serene heaven.

But also, an act of faith in the destinies of France. These Frenchmen of the thirteenth century, these blue smocked masons, these thousands of anonymous artisans, microscopic on their lofty scaffolds, knew that theirs was the honor of building the most beautiful monument in the land, the shrine of kingship, and the sanctuary of the French nation for centuries to come.

The collaboration of divine inspiration and national consciousness gave us Rheims. When in 1212, the archbishop, Alberic de Humbert, unfolded before the architect his vision of what was to be the new cathedral the artist staggered. It couldn't be done! Two towers 260 feet tall! Three thousand statues! Those ambulatories, those flying buttresses, and that immense nave! . . .Where could the workers be found to build this dream of stone? Where the levers, the cords, and the pulleys? Where the artists, the glass-workers, the stone cutters?

To all these questions, the archbishop answered simply: "God and man will aid us!"

And God and man built Rheims. Thirty years later, thirty short years, the first *Te Deum* was sung within the walls of the new cathedral. Thousands of unknown laborers and artists, now sleeping in the fields of Champagne, had created the masterpiece of Gothic architecture. And they were content with it. In their simple souls they knew it was pure and beautiful enough for God to live in it, and strong enough to defy the centuries and to be forever the living symbol of France.

★

Years passed. Years of incredible courage and alarming nonchalance. Years of glorious fury and shameful capitulations. The people had placed on their collective head the crown torn from their king. They had become *le peuple roi*, the anonymous, capricious inexperienced ruler of their destiny. Bewildered, overwhelmed by the dragon of Liberty that they had unleashed, they used and abused their power. Like a child playing with toys, they amused themselves with forms of government. They tried them all from the military dictatorship of Napoleon to the bolshevik interlude of *la Commune*.

But the cathedral remained, standing in the middle of France, serene, tolerant, rising above political experimentation. More and more with the years, it became identified with that part of France which does not change, which remains anonymous, which works, pays, endures, and prays. What did it matter if Napoleon slept in the Kremlin and made Albania a French *prefecture?* What did it matter if Louis-Philippe carried a cotton umbrella, if the Empress Eugenie imitated Marie Antoinette, if the Third Republic changed cabinets every fortnight. These things were contingencies; those people were passing shadows. The one thing which did not pass was the nation, the millions of Frenchmen, sons of those who had built the cathedral and believed in the destiny of their country. That was France eternal and Rheims was her symbol through those long troubled years.

And now, after twenty-four years of silence, a silence more eloquent than a stifled sob, the bells of Rheims cathedral are ringing again.

Now in the sky of France, angels are singing again. The stars are shining like tears of joy on the face of the night. In the soft nocturnal breezes, the hand of God caresses the sleeping earth and makes the poplars tremble with ecstasy.

France is alive again! France is alive again! Her blood flows under the vineyards, the wheatfields and the olive groves. Her heart, her old foolish and tender heart beats again in that miracle of stone, of prayer and incense, that has come through centuries of struggle and suffering, like a fabulous four-rigger sailing victoriously on the sea of time.

HOUSES FOR ARCHITECTS

By Charles Herbert Reilly, F.R.I.B.A.

Condensed from "Professor Reilly Speaking," *The Architects' Journal*, London, September 22, 1938

I have often wondered if by chance I accumulated a substantial sum of money or had somehow acquired one, whether I should have the energy and courage to build myself a house or whether I should take the safer course of buying an old one, restoring it and furnishing it in the manner of its time. To pose it more thoroughly let us assume there is plenty of money to do either and to do it well.

Two of my architect friends have lately, to judge from all appearances, been in this happy position. They have houses in Sussex, where I now live, and one has chosen one method and one the other, and both have done the thing supremely well.

Serge Chermayeff has built himself a modern house. No one in his senses would today build himself anything else. Yet that needs courage and especially on the scale he has done it and in the lovely

landscape, where he has planted it, looking south over gently sloping land to the South Downs. Away to the right is a wood into which he has scooped great glades filled in spring with daffodils and now with the long lines of mown turf. An occasional silver birch has been left posing its pale elegant stem against the darker background. There, in a perfect setting of the centuries-old-man-made English landscape stretching out beyond his own hundred acres or so, Chermayeff has placed his "machine for living."

It is, as one would imagine from such an artist, an extraordinarily elegant machine, a regular Rolls Royce of a house as far as it goes, and that is further than most new houses today. For his wife, his two boys and himself and for his week-end visitors, all assumed to be sun-worshippers and nature-lovers like himself, and for his hundreds of Saturday and Sunday ones who motor over to talk and play and to gather tips from his building and its furnishing, it seems to me to be perfect. Will it seem so to him in thirty years when he reaches my age? Such a house with its high finish everywhere, its veneered surfaces, its great glass sliding windows, must never be allowed to show its age. It must always look fresh and new, yet one cannot change it every second year as one can one's car. Will Chermayeff want the same machine at sixty that he does at thirty?

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I remember how sad I felt it when I first saw my old master's, John Belcher's, house at Denmark Hill forty years ago. He had built his house I suppose twenty years earlier. It seemed, I remember, very suburban and *demodé* even then. Yet I have no doubt in the Eighties, when it was put up, it was the newest thing, as he was the clever young Chermayeff of his time.

I passed the other night the famous house that the great Norman Shaw built for himself in Ellerdale Road, Hampstead, and from the outside in the evening light it looked too bad even for a boarding-house. No decent person could stomach its sham romanticism for a week.

Now for the real Georgian stuff. Basil Ionides and his wife bought some time ago a fine brick mansion of 1726 with porticoes of 1810 standing in a lovely park. It was about to be pulled down and the materials sold. With the utmost knowledge and taste they have restored it and filled it with exquisite pictures and furniture and china all of the same period as the house, and they have enlarged and vastly improved the gardens. They have done it all, too, in such a way that you feel they are thinking and living in the period, except I suppose when they are using their modern bathrooms. The result is more than a museum because, except for their own clothes, he and his wife live in the house as it was designed to be lived in. His footmen almost do in their clothes as well.

He has vastly improved the gardens. He, too, has made glades, but they end in antique statues or in copies of such, not in Henry Moores or Zadkines. He has made amusing little arbors where ladies in silk paniers should be hiding.

One must admit it is an achievement, that it has saved a fine piece of the real wealth of the country and made it even better. If Chermayeff has created new wealth, as I think he has, Ionides has saved and preserved something which was year by year getting scarcer and has given it a new stretch of life. Both have done well. Both are to be congratulated. Which has done the better?

A GREATER A.I.A.?

By Arthur B. Holmes

PRESIDENT, N. J. CHAPTER A.I.A. AND N. J. SOCIETY OF ARCHITECTS

From a statement made to the A.I.A. Committee on State Organization

The American Institute of Architects has waged a splendid fight for the proper development of our chosen profession both within and without; it has maintained its ideals and has consistently striven for the highest possible standards. With this background, built up over a period of more than 80 years, it has earned its right to remain the outstanding organization in the profession. I would oppose any movement to supplant it or dim its light by the formation of an independent organization which might usurp its position as the acknowledged leader of the architectural profession. But I feel just as strongly that the Institute, in the interests of self-preservation as well as for the good of the profession, must recognize the changing position of architecture in the reorganizing social and economic evolution of the world and adapt itself to meet these evolutionary changes. It must augment culture with greater vigor and responsibility or pass into that famous state of "innocuous desuetude."

Architecture remains a profession, but more and more the architect is called upon to enter the lists of business and legislation. He must be a keen business man, lawyer and entrepreneur. He must be able to cope with such interests and win out. To function effectively over such a broadening vocation the Institute must look at life through wide angled spectacles, practically and without illusions.

How is this to be done? I am but a critic and criticism does not necessarily imply constructive suggestions. However, I submit the following thought for what it may be worth. It seems to me that less radical measures might have but temporary good results and possibly end in the creation of an unwieldly structure which would hamper its own practical functioning.

I have always treasured the honorary character of the Institute. I value my membership in it. I feel that the present honorary recognition should continue to be a basic part of Institute membership. But I also feel that the Institute, to properly represent the profession, should be all-inclusive. To achieve these two ends I propose that there be three classes of active memberships; two, shall we call them Masters and Fellows, shall represent these now in the Institute and others elected to these advanced degrees as their eminence in the profession warrants; the third class, Members, shall be the rank and file of our profession, automatically elected, possibly, when they have passed the examinations required by the States for registration as architects. Let the present set-up of the Institute continue to function practically unchanged for the two honorary degrees, and build a broader structure to include the vitally practical needs and interests of the entire profession.

This comprehensive membership and organization would function under national guidance, with regional districts, State organizations and chapters. Our present Chapters might continue as organizations of Masters and Fellows, toward membership in which the Members would probably strive. This may savor of the structure of Masonry, but why not? The Blue Lodge has ever been the training school for the advanced degrees and their more exclusive organizations within the organization. Some strive for these higher honors, others are content with the Blue Lodge, but in either case they are as completely Masons as the most exalted holder of the prized Thirty-third Degree and their best interests are always paramount. Leadership in Masonry requires a complete understanding of the problems of these humble Third Degree Masons, and they are guided and protected by their organization.

Such a structure would automatically answer the problem of the State architectural organization, the members of which

would mainly form the nucleus of the Members of the Institute. The organization would take some time to perfect if adopted, but out of the unification would rise a powerful leadership of the entire profession which would meet the changing needs of today—and tomorrow. And the transition would be painless. While the new structure is being formed the old would continue to function, nothing we now have need be destroyed. All we need is cooperation, vision, wisdom and hard work. Which, after all, is all we need in achieving the Millennium.

With the development of such an organization the finding and training of a Morris Fishbein, of salaried leaders or directors and the perfecting of the machinery of organization would naturally follow. While of vital importance these details are of subordinate character in the development of the big idea. Regimentation, yes—the day of rugged individualism in architecture is over. We must build control through powerful organization if the profession is to retain its identity.

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We in New Jersey have been fortunate in being able to organize somewhat along the lines I suggest here. The New Jersey Society of Architects, not affiliated with the Institute incidentally, is led by the New Jersey Chapter of the Institute, and opens its membership to all architects registered and resident or practising in the State, provided that they are ethically acceptable. The Society has recently been reorganized and has nine chapters throughout the State. The officers of the N. J. Chapter and the N. J. Society are identical. In fact, that condition was made mandatory by several of the local societies before they would affiliate with the New Jersey Society, a healthy evidence of trust in Institute leadership on the part of groups of architects, most of whose members are not also members of the Institute.

The situation in New Jersey is only possible in localities where the territorial jurisdiction of Chapter and Society are identical, but it is an evidence of the practicality of the idea. The New Jersey Chapter and the parent organization of the New Jersey Society meet together monthly and there has never been any lack of harmony between them to mar the relationship. If it were necessary to segregate the responsibilities of the two organizations I would say that the chapter has jurisdiction in matters of general and national importance, and the Society is the organization which is recognized by the State and by the public. It deals largely with those phases of leadership which have, possibly, been ignored for one reason or other by the Institute.

Dissatisfied as we are in New Jersey with the strength of our joint organization, we have, nevertheless, been able to gain what are possibly the strongest registration and architects' practice laws which exist in the United States.

Our dissatisfaction lies in the limitations created by lack of funds with which to expand our influence and help. The New Jersey State Board of Architects is doing a splendid work handling registration and examination of candidates for registration and practice laws. Registration fees are used to meet this expense, consequently we are freed from this financial responsibility. The attitude of the architects toward the Board and the work which it is doing is such that we are preparing to advocate raising the registration fee to permit the Board greater activity. But with our very limited financial resources in Chapter and Society we are unable to carry on effective group publicity, to publish a journal or house organ, or to do the character of educational work among the architects of the State which should be done. This condition we hope to remedy, in part at least, when our reorganization becomes more substantial and the architects are in better financial condition.

To summarize my thoughts: I believe the Institute should yield to the changing conditions and reorganize with a broader scope than at present, retaining cultural leadership, in the profession, retaining the present honorary classifications and the present scholarly leadership, but to this adding a practical leadership of all the architects, assuming responsibility for their protection and well-being through expansion of its endeavors to include the business end of the profession, which increasingly seems to threaten to wag the dog.

ARCHITECTURAL COPYRIGHT

Excerpts from an Opinion by K. E. Shelley, K. C., in the *Journal of the R.I.B.A.*, September 12, 1938

The architect's inherent rights in the protection of copyright laws differ widely as between England and America. Here in America the burden of registration brings a very limited measure of protection; in England the rights of a creator not only are automatically established but rigidly guarded to a degree which seems to us almost fantastic. Nevertheless, as in other phases of the law, our own safeguards seem slowly but surely to approach the patterns set and tried in English jurisprudence, and we may one day have copyright laws such as are here outlined.—*Editor.*

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Much of the confusion that exists with regard to the law of copyright as applicable to architecture is due to the attempt to extract principles of law from decided cases instead of concentrating on the Copyright Act, 1911, itself.

1. Copyright subsists in, among other things, every original literary and artistic work. "Literary work" is defined so as to include maps, charts, plans, tables and compilations. "Artistic work" is defined so as to include "any building or structure having an artistic character or design, in respect of such character or design, or any model for such building or structure, provided that the protection afforded by this Act shall be confined to the artistic character and design and shall not extend to processes or methods of construction."

2. The owner of the copyright is the author, i.e., in the case of architectural works, the architects, unless he is in the employment of some other person under a contract of service and the work is made in the course of his employment. In that case, unless there is an agreement to the contrary, the employer is the owner of the copyright.

3. Copyright is infringed if the work or any substantial part of it is produced or reproduced in any material form whatsoever, without the consent of the owner of the copyright.

"Original" means merely that the work must be the product of the brain of the author and not a mere copy of some already existing work. In order to secure protection the work need not be novel in actual fact. In this respect the Law of Copyright differs from the Law of Registered Designs, for a Registered Design is rendered invalid if it can be shown that the design was old, even if this fact was entirely unknown to the author.

To take a few concrete cases:

The R.I.B.A. conditions expressly provide that the copyright shall remain in the architect. This is in accordance with the general law which would apply if there was no express agreement about copyright. Accordingly an architect who is employed in the ordinary way for a particular building is the first owner of the copyright, whether the contract mentions copyright or not. It is possible (though unusual) for an employer to insist on a special clause in the agreement, whereby the architect is compelled to assign the copyright to the employer. Apart from

such a special arrangement the copyright remains in the architect. If, however, he is a salaried servant, the position is reversed. In that case the copyright automatically vests wholly in the employer, subject to any special agreement that may have been made about it.

As a matter of law it is irrelevant whether an architect endorses plans prepared by him with the word "copyright," but by doing so he may prevent their being copied by someone who might otherwise do so in ignorance of the law.

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If an architect is told to design, e.g., a garage, and is given particulars of the site, the accommodation required, the workshop facilities necessary and all other details and is further told that the building must be made as simple and as cheap as possible, it is probable that there is very little scope for any originality or display of artistic ability, since practically every detail is fixed by commercial and utilitarian requirements. Nevertheless there would be full copyright in the plans and if these were copied, or if a building was made from them, without the consent of the owner of the copyright, that would constitute an infringement. If a building is constructed substantially in accordance with previously prepared plans, there is no separate copyright in the building itself, for it is not an original work, but a mere embodiment of the plans. Since there is copyright in plans, even if they are wholly devoid of artistic merit, the fact that the building erected from them has no artistic merit is quite irrelevant to the question of copyright. The copying of the building can be restrained because it would be an infringement of the copyright in the plan. Of course no mechanical principle or system of construction can be the subject of copyright, but must be protected by patents.

Anyone seeing a design for a shop front before it is erected in a public place and sketching it without permission would be infringing the copyright in the original design. After the shop front has been erected in a public place it is not an infringement to make or publish sketches or photographs of it unless these are in the nature of architectural drawings or plans. But the making without permission of another shop front copied or derived from the first would be an infringement in either case.

If an owner of land has had erected on part of it a cottage designed by an architect under a contract either in the R.I.B.A. Form, or making no reference to the copyright, he cannot build further cottages on the same plan without the permission of the architect, even if the plans are in his possession and belong to him as documents. If a factory owner builds half his factory with the help of an architect and then employs another architect, whom he instructs to complete the factory by following the plans of his predecessor, both the factory owner and the second architect would infringe the first architect's copyright if this were done without the first architect's consent.

If a consultant architect is employed, e.g., to make suggestions with regard to an awkward site, and prepares rough sketches, these cannot be used as the basis of detailed plans without the consent of the consultant, who could restrain the preparation of plans embodying the substance of his rough sketches and the erection of any building in accordance herewith. Of course if the consultant were informed at the time when his fee was being arranged that it was the desire of the employer to utilize any suggestions that the consultant might be able to make, it would be presumed that the consultant took this into account when agreeing to a fee and that therefore he impliedly gave consent to the use of any sketch he might submit. But if all that the consultant was asked to do was to make suggestions, nothing being said about using them, there would be no such implication of consent.

In practically every case infringement is proved by showing such a similarity between the original work and the alleged infringement as cannot be explained by coincidence. But the alleged infringer may attempt to prove that he has independently produced his work, and, if he is believed, no infringement is established.

It is no infringement of copyright, to make or publish paintings, drawings, engravings, or photographs, of any buildings or structure, unless these are in the nature of architectural drawings or plans.

Damages for infringement are theoretically such as will compensate the copyright owner for the diminution in value of his copyright. In ordinary cases they would be assessed on the footing that the copyright owner had been employed instead of the infringer, upon the usual terms, in respect of the infringing part.

If a journal publishes a set of plans without the author's consent, every copy of these is an infringing copy and is deemed to belong to the copyright owner, and he can recover damages from the publishers.

An action for infringement must be commenced within three years from the date of the infringement. In practice this means three years from the date of the completion of the building that constitutes the infringement.

THE DUOMO

We cannot call the dome at Florence either Gothic or revived classic. The Fact of external dome was Roman, the structure of this example made it resemble a gigantic Gothic vault resting on eight great ribs and sixteen minor ones, the result was beyond style both structurally and pictorially in its originality. . . . The great curves swept upward to a delicate pavilion which bound the whole together and crowned it with a feeling almost of aspiration. The enormity of the simple mass might have been insignificant had it not been for the splendid realization of scale in the details of this pavilion and in an arcade, masterfully conceived, which was to encircle the base of the dome itself. Brunelleschi did not live to see the arcade finished. It progressed slowly and, in another generation, Michelangelo, judging architecture by his own unarchitectural genius, was offended by just the delicacy whose contrast made evident the massive scale. He called the gallery "a cage for grasshoppers," and from that day to this it has remained unfinished.—SEWARD HUMIE RATHBUN in "A Background to Architecture."

THE GOOD OLD DAYS

Perhaps it is the journalist in Mumford which has prompted him (in "The Culture of Cities") to re-whitewash the Middle Ages—a curious and fascinating operation which takes up the first section of the book. He finds the early Gothic town articulate and expressive, unlike its coagulate successor of the Renaissance. He is certainly right—in a sense. But had he discovered that the Gothic town was a distillation of filth and hysteria he would also have been right—in a sense. Every age re-creates Gothic in the image of its own desires.—*The Architect and Building News*, London.

THE MARCH OF TASTE

Does a people's taste regarding fundamentals change, or is there a time lag between the time we see a work of art and our appreciation of it? Hubert Ripley has discovered in a New York newspaper of July 1, 1875, the following comment on Robert Mills' Washington Monument, then unfinished.

"The appeal for a Fourth of July contribution to the Washington Monument will not amount to much. Public judgment on that abortion has been made up. The country has failed in many ways to honor the memory of its first President, but the neglect to finish the monument is not to be reckoned among them. A wretched design, a wretched location. . . . If the public will let the big furnace chimney on the Potomac flat alone and give its energy instead to cleaning out morally and physically the city, likewise named after the Father of his Country, it will better honor his memory."

A REALIST LOOKS AT HOUSING

By Charles P. Taft

Condensed from an address at the Sixth Annual Meeting of National Association of Housing Officials, October 13, 1938

Certain groups who assert that their legitimate interests as builders, landlords, lenders or home owners will be seriously affected by the carrying out of the present housing program, are organizing a new and powerful campaign of opposition. It is not only unsound but unfair to attack them as selfish while ignoring their arguments. It is high time that a real effort be made to conduct a full and fair debate before the public in every community on the real issues involved. You gentlemen know the facts, as your round-tables demonstrate. But you must tell the rest of us.

The first claim of the opponents is that tax exemption is discriminatory, and is unfair to the small home owner who is struggling to pay taxes at the full rate and to meet the payments on his house as well as his ordinary living expense. The argument is not sound, because tax exemption is simply a device for paying a subsidy. The real issue is, "Shall we have a subsidy and if so how much can we afford?" So far as I am concerned I would prefer not to have tax exemption and to appropriate each year for a subsidy, because housing does cost money and people ought to understand that when they vote for it. The alternatives are not housing and slum elimination *with* or *without* tax exemption. The true alternative is between paying what the slums are costing us home owners now, and paying a subsidy to reduce that cost by housing decently the low rent groups.

What do the slums cost us home owners now?

In Cincinnati we took a typical block in our basin area containing three acres. It is not a sample of our bad slums by any means. We are not proud of that block, but we can show you a lot worse.

The present cost to the taxpayer of permitting the condition of this block to continue is very large. It would be conservative to say that this subsidy is over $4,000 a year more than the taxes received, or $7 a room a year. If you take the average apartment as having three rooms, that means $21 an apartment a year. And that is the city's share only, not including schools or county services.

I say again, therefore, that the alternatives which our taxpayers face are: 1) to continue to pay $21 hidden subsidy an apartment a year, or more, for every slum home, out of their city taxes alone; or 2), to pay open subsidy, which will enable a family to have a decent home where the children can grow up an asset to the community, instead of in the midst of delinquency, crime and disease.

How much of a subsidy can we afford? I am one of those reactionaries who even now prefer to follow the biblical injunction to sit down and count the cost before going to war, even on the slums.

I believe the clearest way to count the cost is to figure in terms of the subsidy per family unit. Laurel Homes in Cincinnati is the PWA housing project which has just been opened to occupancy. According to the theoretical financial set-up the subsidy of the U. S. Government is going to be about $250,000 per annum. Actually the subsidy will be the current rate of interest paid by the Government for its money plus one-half of 1 per cent per annum amortization, or close to $210,000 per year. That means about $210 per apartment per year. The local subsidy per apartment is $91 a year.

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Can we afford that much subsidy, the local part of which is more than double what the slums cost us now in cash outlay? Are the improved conditions of family life and character and of health worth that much?

My answer is, Yes, if you consider Laurel Homes as a sample, an exhibit of what will be done. If we in Cincinnati are determined to finish the whole job, then we can afford to pay that much for our demonstration project.

To do the whole job in Cincinnati we must count on building 12,000 family units for slum dwellers in the next twenty years, to rent for $25 a month or less. The city of Leeds, England, almost exactly our size, built 12,000 in seventeen years, contributing one-third of the subsidy to two-thirds from the National Government. We can do it, too, if the National Government continues its grants-in-aid, and if we can reduce the cost. Our people can't and won't pay $91 per apartment per year, and the job can be done for less. We don't need to pay scarcity prices for slums.

We do need a careful reexamination of what are really essentials, but we can't afford to give any extras if we want to finish the whole job.

England in 1919 through 1934 spent from the National treasury $65 per apartment for public and subsidized housing. The municipalities spent about half that. It will cost us more than England, but $210 per apartment per year for the Federal Government, and $91 for the municipalities is too high. American ingenuity and mass production, even with high wages, can bring it down.

The new campaign of the opponents of public housing has seized upon a second element in the present program and it is high time supporters of housing realized the strength of the appeal that is being made to small home owners on this subject. I refer to vacant land projects "in the suburbs," as the opponents call them. Actually they are being placed, in Cincinnati for instance, in close relation to the largest industrial areas of our community, but residential suburbs several miles away are being stirred to excited protest because those suburbs are said to have many vacancies and not to need any more houses. At a recent hearing before our City Council Committee some of the protestants admitted that none of the vacant houses in those suburbs could be rented under $35 a month and most of them were $45 or more, while of course all our slum clearance projects rent for $30 or less. But they reply, "Government policies have changed every six months; how do we know they won't raise the rents and take anybody when they can't fill them from the slums? Look at Green Hills!"

Now Green Hills is our Green Belt project of the old Resettlement Administration, and at the moment it is admitting families of incomes way above the U. S. Housing Authority maximum, and is not even requiring that they come from substandard housing. I have been on their Advisory Committee and tried without success to get that requirement established. The conduct of those projects, to say nothing of the original plans of construction, and the location in our case in the open country six miles from the nearest industries, does great harm to the cause of housing in the United States.

So it is that the U. S. Housing Authority and the local Housing Authorities cannot too often say that the Wagner-Steagall Act forbids them to build on vacant land except for slum dwellers and at low rents, and that even if the law did not require it, they would insist upon those requirements. That means, as a matter of essential public relations, that the present vacant land projects which are under way nearly everywhere must be immediately followed by slum clearance apartment buildings in the slums. Furthermore, when the slum buildings are torn down the same families occupying them ought to be moved into the new vacant land projects as far as possible.

But I have not yet faced the major argument. The opponents of housing say, "Building in the suburbs is not slum clearance; we are for slum clearance, but all you are doing is stifling private enterprise." We answer, "We tore down 1,500

dwelling units to build Laurel Homes, and because it was too congested we only put back 1,000; we have to build elsewhere for the 600 displaced." "Ah, hah!" they reply, "but there are many vacancies in the slums." No, we say, there is a shortage, and besides there is overcrowding and doubling up. They say, "How do you know?"

Well, we are convinced of it. But there has been no complete survey.

Wouldn't it seem sensible, when you are planning a housing program at public expense, to find out how many dwelling units there are at rents within certain limits, and how many families there are that can only pay up to those limits? But so far as I know nobody started that way. Now at long last we in Cincinnati have a WPA project to make a thorough real property survey.

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As we go forward with a complete program of 12,000 units in twenty years, and only put back 60 per cent of that number on the same locations, the shortage will inevitably become critical. We must build on vacant land now.

Will such building compete with private enterprise and stifle what all agree is our best bet for recovery, a building boom? I am not one to sneer at such fears and I consider anyone very foolish who does laugh at them. However, private enterprise cannot build houses to rent under $30 a month. Yet fully 50 per cent of our people can't pay more than that. If we keep our public housing project rents down and permit only those with low incomes to live in them, how do we compete with private enterprise, which can only build for higher incomes?

The British began with vacant land projects, as we should. It took them ten years to get at the slums because their overcrowding was worse than ours. In Leeds they built 11,000 units in sixteen years on vacant land before they touched a slum, and they have 30,000 back-to-back slum dwellings, something far worse than anything Cincinnati can offer. Did that stifle private enterprise there? No, for private builders in the same period put up over 15,000 dwelling units.

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The real fact is that the opponents of vacant land projects believe and have admitted to me in private, many of them, that the slum dwellers should be taken care of in the depreciated outmoded dwellings of the economic level just above them, and that the new building should take place, as it has taken place, almost entirely for the higher economic levels. I do not say that to cast a reflection on the opponents of housing, for they believe that sincerely. But that argument will never go down with the people of this country. It means that the slum dwellers, like the end of a long line of marching men, are always running to catch up. The slums never do catch up, and that policy will keep them with us forever. The argument answers itself.

But the other arguments don't answer themselves. They deserve thorough consideration and careful answers where they are sound, as in the matter of cost. We must see to it that we find ways to meet the criticism. We don't want to stifle private enterprise; let's be sure we don't.

THE WILL ROGERS SHRINE

Condensed from "Our Foreign Correspondent" in the *Journal, Royal Architectural Institute of Canada*, May, 1938

Poor Will Rogers must be pacing the Golden Streets bursting with heavenly restraint over his new memorial in Colorado. It would have been such a perfect butt for his earthly satire that it must have been a particularly hard afternoon for him last Fall in Paradise when "The Will Rogers' Shrine of the Sun" was dedicated.

Spencer Penrose, referred to in the press as a Copper Baron, first approached its architect, C. E. Thomas, of Colorado Springs, with a photograph of the Tower of London; but it was built rather more properly after the style of a Romanesque watch tower on the Rhine. As a piece of architecture it is not bad and it is not the fault of the architect that it now has some added functions including a Chinese art exhibition, a wild flower garden, and an airplane beacon.

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As it stands today it is a small, ecclesiastical-looking tower balanced on a sharp promontory of Cheyenne Mountain and surrounded within an irregular compound by a crenellated wall. It is reached by a fine mountain toll road which is, according to Ripley, the most twisty in the world and gives a magnificent view over the prairies.

There is an arched entrance from the road to the Shrine compound, through which visitors walk on their way up a path to the memorial building. The short walk is enlivened by the presence of five assorted antique Chinese gods and goddesses, a bronze incense burner, an Italian marble sun dial base without the dial, a large Llamasery bell, several rustic log benches, a small bust of Will Rogers and two enormous six-ton stone Chinese dogs.

The objets d'art outside may prepare the visitor for the first glimpse inside Mr. Rogers' memorial, for as the large bronze Romanesque doors swing open there is displayed a three-quarter life-size painting of a horse's rump. On the back of this horse is a bright red Indian, himself well fore-shortened, chasing a buffalo up a wrought-iron staircase, surrounded by Jesuits on mules. The main room in Mr. Rogers' Shrine of the Sun has a marble floor, a pointed concrete ceiling, plaster walls and, except for the floor, is daubed all over in brilliant colors with what the guide construes as the history of Colorado. Its main interest is, curiously enough, Mr. Penrose, who is shown frontwards, backwards and as a young man; his wife, his doctor, several friends, his big hotel, his mountains, his pet elephant, his golf course and other of his innumerable local tourist attractions. The visitor looks in vain for Will Rogers. He came from Oklahoma. So, perhaps, does the sun.

In the tower are three small rooms, locked, with nothing in them, and an observation balcony. An electric beacon for airplanes garnishes the top. In the basement are several rooms housing the World's Greatest Noise, which are also not opened to the public, but we wheedled.

This noise can be of any kind desired and on still days can be heard ten to fifteen miles away. Last summer, writing from Basle about a functionist bell tower, we suggested that bells were unfunctional; little did we think we would have to eat our quips so soon. Besides the amplifying system, whose amplifiers belch through an open area, about 30 x 12 feet, in size, in the basement wall facing the plains, there are three small rooms which house the controls, a vibra harp, Westminster chimes, and a gramophone. The chimes, which are simple little metal tubes, fling the time at the world every quarter of an hour and are quite pleasing. The gramophone and vibra harp play in the winter, which is not the tourist season, only on Sunday afternoons. A vibra harp consists of metal tubes which are struck like the wires of a piano under the direction of a player at an organ manual, or automatically as in a player piano. It sounds like a werewolf. The gramophone records most popular are of the Hawaiian guitar variety. In the summer more extensive use is made of the system, even to the extent of advertising attractions. As the Japanese Emperor sardonically wrote a short time ago, "peaceful is morning in the Shrine Garden. . . ."

THE DIARY

Henry S. Saylor

Thursday, September 15.—Last night Frank Lloyd Wright told a gathering of real estate men some of the things that are wrong with them and with all of us—failure to use the ground, failure to apply intelligence to the handling of our new technologies, failure to correlate our new technical knowledge with human values, failure to keep education in step with all things. In speaking with him afterwards I was impressed by the fact that he professes to realize the futility of speech or indeed of most individual action—the tide carries us on. There is a mellow philosophy now overlaying Mr. Wright's militant individualism.

Friday, September 16.—In a telegram to one of our leading industrial designers congratulating him upon the arrival of a son, Lee Simonson added, "I suppose he has chromium legs."

Saturday, September 17.—An ultimatum from Thomas H. Benton announces that he will paint no more murals until he has found an "architecturally perfect setting. There is no use working your head off adapting yourself to spaces that have no value as frames for an expression in life." An ultimatum that is not surprising when one recalls the cramped setting for one of Benton's best efforts in the attic of the Whitney Museum, New York.

★

Sunday, September 18.—Horace Trumbauer died today in his seventieth year. Like a few other eminently successful men in the profession, he entered it without what are considered the advantages of formal architectural training. Mr. Trumbauer left school at the age of sixteen to become an office boy with the firm of G. W. & W. D. Hewitt. His apprenticeship apparently was not a particularly lengthy one, for when he was 24 he designed "Grey Towers" a mansion for W. W. Harrison which is now used by Beaver College. Then began the long line of great residences which spread not only around Philadelphia, but more widely along the Atlantic seaboard, bearing among others the names of P. A. B. Widener, James B. Duke, George Gould, James Speyer, Cornelius Vanderbilt, Herbert Brokaw, and Henry Phipps. Probably his Harry Elkins Widener Library for Harvard and the sumptuous collegiate Gothic group for Duke University gave him special satisfaction.

Tuesday, September 20.—Long experience has taught me that the easiest way to acquire information is to publish a declaration of specific ignorance. I have no very clear mental picture of the difference between "isometric" and the recently popular "axonometric." Nor, I might add, do the dictionaries help me.

★

Wednesday, September 21.—I have always envied those who live near Cranbrook Academy, in Bloomfield Hills, Mich., for having more than their share of Carl Milles' sculpture to look upon as they go about their work. That envy is to be appeased soon, for Carl Milles is now doing a sculptural mural in polychrome wood for the lobby of our own office building.

Thursday, September 22.—Trustees of the B.A.I.D. are seeking layman support for the Institute's work. Yesterday they elected to the Board Gerard Swope, president of General Electric; Clarence Woolley, chairman of the Board of American Radiator & Standard Sanitary; together with Albert Kahn. During the coming winter one of the architectural judgments will be held in Detroit under Mr. Kahn's supervision—designs for a bus station.

Saturday, September 24.—At least once a year I regard it as a sacred duty to dwell upon the enormous benefits to be gained by the profession if only the brick makers would adopt a standard in which the 8 in. module might banish all of these complex fractions necessitated by coursing tables. Well, there, is an encouraging sign of activity in that the American Society for Testing Materials, through its Committee C-15 on Manufactured Masonry Units, has put to work a subcommittee on Modular Sizes for Masonry Units, and Frederick Heath, Jr., father of the brick module idea, is chairman.

★

Monday, September 26.—Dropped in to Griffith Bailey Coale's studio to see his figures of "East" and "West" for the exterior of the New York World's Fair Transportation Building. Mural painting has certainly been marching through a metamorphosis. The painter in many cases, of which this particular instance is one, does not put brush to the final result. As the sculptor works, so does the painter, developing his creation from small scale sketches to larger scale, and finally to full size pounces which other men place on the wall, marking specific flat areas upon which some one will apply a numbered color. Not that all mural paintings are produced in flats, but in these large scale problems—Coale's figures are 37 ft. tall—all that one could conceivably desire in the round is easily achieved by successive flat planes.

Wednesday, September 28.—Paris is having hard going in modernizing its topography. No sooner is it suggested by the Renovation Commission that a certain street be wiped out in the interests of better planning, sanitation, and more inspiring vistas, than the Fine Arts Commission tags some of the buildings for preservation as being of such historical or architectural importance that their destruction would be a crime against the nation. So what?

★

Friday, September 30.—The architect who has occasion to design any minor outdoor feature coming within the large group of Park and Recreation Structures will be setting himself an unnecessary handicap if he fails to get hold of the National Park Service's three-volume work on that subject (See ARCH. FORUM, Sept. 1938, p. 28). It is a superb collection of examples shown by photographs and detail drawings. We have presumably already paid for these books in taxes, and the additional 75 cents required for their actual possession should not be in the list of economies.

Saturday, October 1.—Richmond H. Shreve, in the *Engineering News-Record*, brings up a rather neat little bit of evidence as to the money value of the architect's services when he is doing his job. When the Board of Design was put to work on the New York World's Fair it was thought that 1,400,000 sq. ft. of gross covered area should produce 450,000 sq. ft. of net salable area at a cost of approximately $7,000,000. As a matter of record, every one of these figures has been bettered. A gross covered area of

1,159,000 sq. ft. has been made to yield 510,000 sq. ft. net salable area at a cost substantially less than the estimate.

Monday, October 3.—Have you a little Adam mantel in your home? If so, I trust you can authenticate its origin. During the last few years nearly a hundred original Adam mantels have been stolen from their original settings in London. There seems to be a well-organized traffic in getting them out of houses in Queen Anne Street, Portland Place, St. James's Street, Curzon Street, and Bedford Square, after which they are supposedly shipped to America.

★

Wednesday, October 5.—These publicity men—public relations counsel to you—strain the limits of our credibility. Here is a release telling of the Glass Center for the New York World's Fair. Among the many wonders it will contain is a furnace for the making of continuous glass fiber. "From this furnace, a hundred filaments of glass, one-twentieth of the diameter of a human hair, will be drawn. Workmen will calmly attach these strands to a wheel revolving at a mile a minute speed." Note that word "calmly." I should say that a man fixing a hot filament of glass to a wheel revolving a mile a minute might be expected at least to be all agog, if not actually with a chronic case of the jitters. Not to be outdone, the Golden Gate International Exposition tells us of a model home it is to display—a five room model in which "there will be no corner in any room, giving the rooms an oval shape with no waste space." That, if you can do it, should be the best trick of the year.

Friday, October 7.—To Baltimore for a dinner with the Chapter upon the occasion of opening an exhibition of "Representative Buildings of the Post War Period." The Baltimore Museum of Fine Arts provided unusually impressive settings both for the dinner and for the exhibition, and Mr. Maginnis, in one of the polished addresses for which he is becoming increasingly famous, asked a few pertinent questions about whither architecture is moving and why.

The show, which is to march around the country, is the most ambitious documentary compilation of American architecture ever attempted. The Committee on Education, A.I.A., has been at it for two years. The American Federation of Arts has collaborated in preparing the exhibition and planning the circuit.

It is to be expected that every architect who sees this show will question why some things have been left out, and why some examples are included. We shall hear reverberations of this kind in plenty. Without being too captious, it does seem to me that two faults in the exhibition as a whole stand out rather clearly. One is the rather low average of the photography—a fault beyond the powers of the Committee to rectify. The second fault, to my mind, is the inclusion of several mounts of miscellaneous subjects. The main scheme of the exhibition is to show a building on a mount—photographs, plans, information. One is surprised, therefore, to come upon a mount showing miscellaneous renderings by Otto Eggers, or miscellaneous libraries by Tilton & Githens, or miscellaneous sketches for post offices by the Supervising Architect's Office. Lost among the miscellaneous libraries by Tilton & Githens, by the way, is the Wilmington Library, which most assuredly deserves a mount to itself.

Incidentally, some of the large scale housing schemes threaten to be a bit oppressive—miles upon miles of uniform height and fenestration wandering through a plan maze, the significance of which can only be grasped from the air. In this connection Litchfield's Yorkship Village, built way back in 1918, looks mighty good today even after twenty years.

Saturday, October 8.—Gilmore D. Clarke and his technicians are trying a new scheme of bringing into night enjoyment the trees that are planted on the New York World's Fair ground. Shooting a beam of mercury-vapor light up from an underground source has the curious effect of making the tiny veins on the underside of tree leaves become luminous.

Monday, October 10.—In that tight little island across the sea, professional membership in the R.I.B.A. now numbers 8,283, which makes our A.I.A., with its 2,946, look rather like a pup.

Tuesday, October 11.—It is said that Holabird & Root are fed up with the typical American hotel bedroom. They are designing a substitute which is to be included in the Decorative Arts Exhibit of San Francisco's Fair.

Speaking of bedrooms, I hear a rumor to the effect that one of our interior decorators has given to the world an entirely new form, the circular bed, six feet in diameter. The full significance of this innovation must be left to the dizzy realm of the imagination.

★

Wednesday, October 12.—To Washington this evening for the latter half of NAHO's four-day annual meeting, and found the Wardman Park Hotel exuding housers at every pore. When I recall the little handfuls of earnest devotees gathered at Pittsburgh, Cleveland, Baltimore, a few years back, this gathering of well over 400 accents the fact that this country most assuredly now has a housing movement.

Thursday, October 13.—An embarrassment of opportunities today—visit Greenbelt, visit the Bureau of Standards, visit Buckingham, Colonial Village, St. Mary's Court and Langston Terrace. Choose two out of the three. I decided upon postponing the Bureau visit until a later opportunity and bus-roamed the District of Columbia, Maryland and Virginia in a feverish inspection of housing accomplishments.

Greenbelt occupied half the day, and we left under the conviction that one should spend at least two or three days there in a less hurried assimilation of what man has been able to do in creating on raw land a residential community of 3,000 souls. On the first of this month it celebrated its first year of history, though creative thought and designers' pencils had been at work for nearer three years. The visiting housers were bristling with questions, particularly as to costs. Greenbelt cost too much—but so does the first sample automobile of an entirely new pattern. The significant fact, however, is that the greenbelt towns were offered as a means of utilizing labor that had to be hired to do something, so why not this rather than rake leaves. Whether or not we shall have the nerve to get this model—with its inevitable improvements—into quantity production looms just ahead as a test of whether we are men or merely mice.

At the annual dinner tonight Charles P. Taft sounded a timely warning (See page 21) to the effect that housing isn't merely a skirmish, it is a continuous battle, and one in which we can ill afford to leave our flanks unprotected.

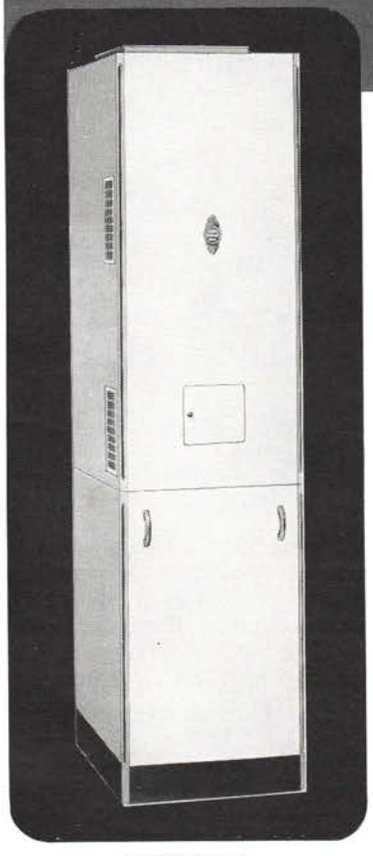
★

Friday, October 14.—After a morning of meaty digests from round-table discussions of former sessions, a luncheon terminated the Sixth Annual Meeting. Among other pertinent speeches, Sir Raymond Unwin cautioned us against regarding too intently the money we are spending for housing, with the suggestion that we consider rather the enduring values, both physical and humanistic, that we are getting in return. Coming from the well loved godfather of modern housing, in England and in the U. S., these words were a fitting benediction to a notable meeting.

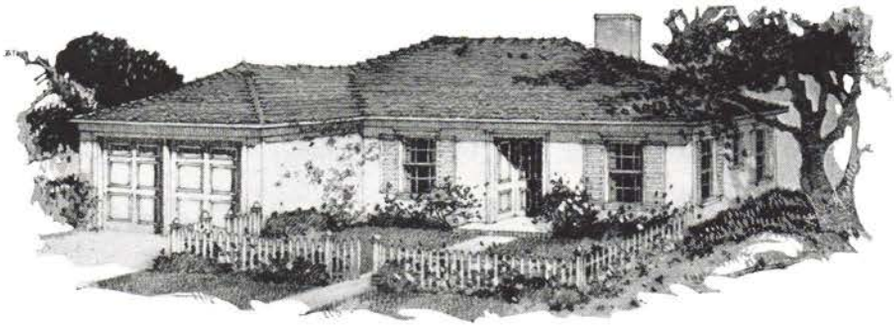
Saturday, October 15.—Lawrence Hall Fowler has hit upon a grand subject for his collecting activities—portraits of architects, in the media of old prints. The Baltimore Museum of Art hung 37 of them in one of its galleries recently. There are no contemporaries, of course, since photography has apparently ended the good old custom of print making. The collection includes many more or less famous creators in past epochs whose likenesses it is a pleasure to see.

PAYNEHEAT

The Choice of Experience!



PAYNE F.A.U.
Occupies only 4 square feet. Heats in winter, ventilates in summer. Requires no basement.



H. ROY KELLEY DESIGNS A LIFE-HOUSE . . . AND HEATS IT WITH PAYNE'S FORCED AIR UNIT

"H. Roy Kelley," says LIFE magazine, "is one of the two most successful residential architects on the Pacific Coast. So monotonously has he won top architectural prizes for home design that he is now regularly put on contest juries to keep him out of competition."

Such an impressive background — such *experience* — should make Mr. Kelley's specifications noteworthy. Payne is pleased, therefore, with the choice of the Payne F.A.U. as the ideal heating plant for this charming 6-room home. Mr. Kelley's preference for Payneheat — the preference of so many prominent architects — is further proof that Payneheat truly is *the choice of experience.*

Check These Outstanding Economies!

- Save basement excavation—$150 to $200 minimum.
- Save space. The F.A.U., amazingly small—only 4 feet square—can be placed on the service porch, in the kitchen or in a convenient closet. Beautifully finished in colorful enamel, it is a fitting companion to moderne ranges and refrigerators.
- Simplest, *new low cost installation* in homes already built or those building.
- Positive, floor-to-ceiling thermo-control assures regulated, economical warmth.

Check This EFFICIENCY!

- Payne-planned circulation system eliminates the discomfort and waste of cold floors—hot ceilings.
- Instant warmth in every room. *Forced air* heat warms right now!
- The Payne F.A.U. works all year 'round—takes no vacation! In hot summer months powerful blowers (operating independently of heating system) provide c-o-o-l-i-n-g ventilation.
- Scientific circulation eliminates all objectionable odors—cooking, stale tobacco smoke, etc.
- The Payne F.A.U. is floated on rubber mountings—it's as quiet as a summer zephyr.

The Payne Engineering Department is at your service.

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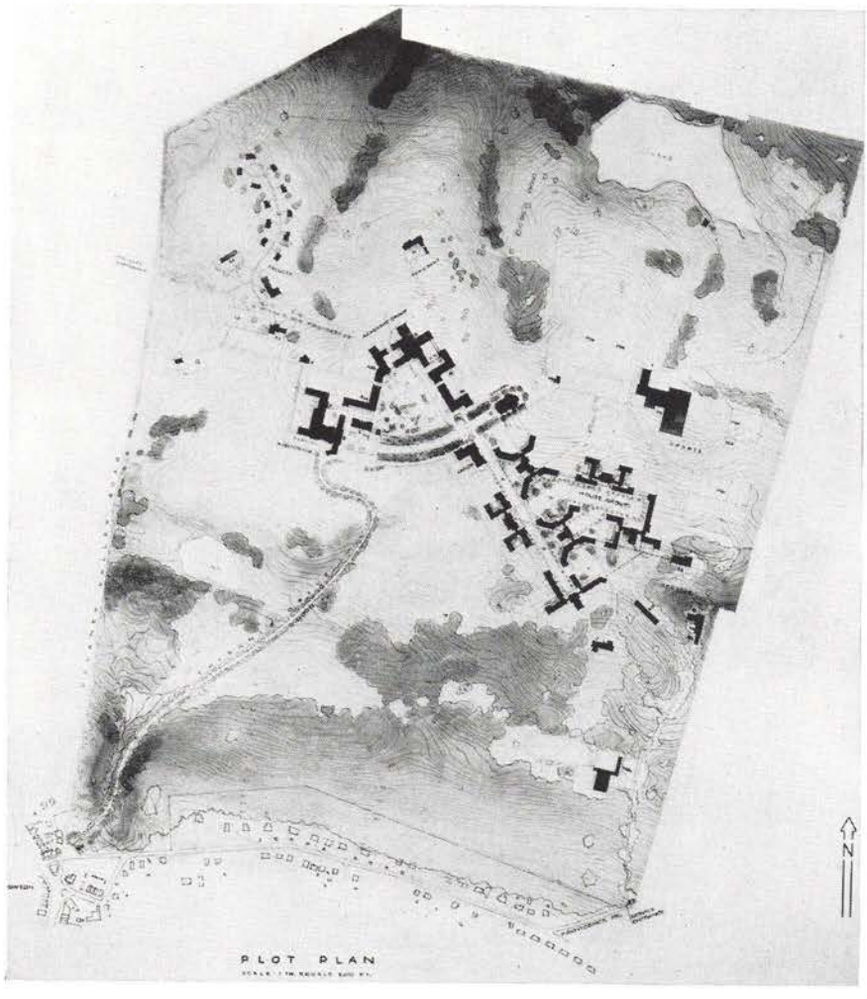
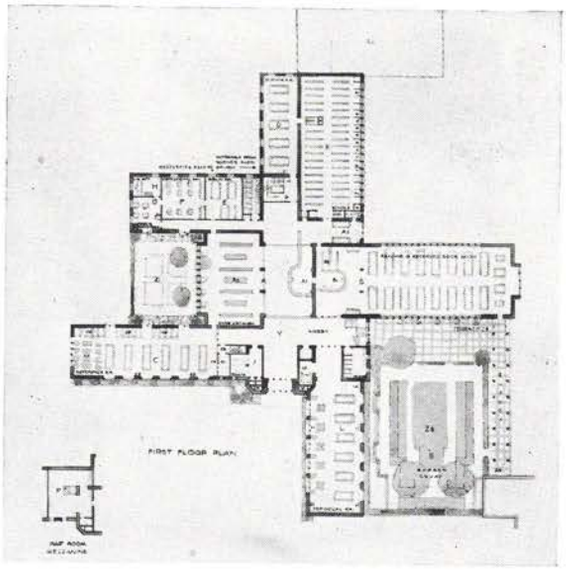
THE IDEAL FUEL GAS



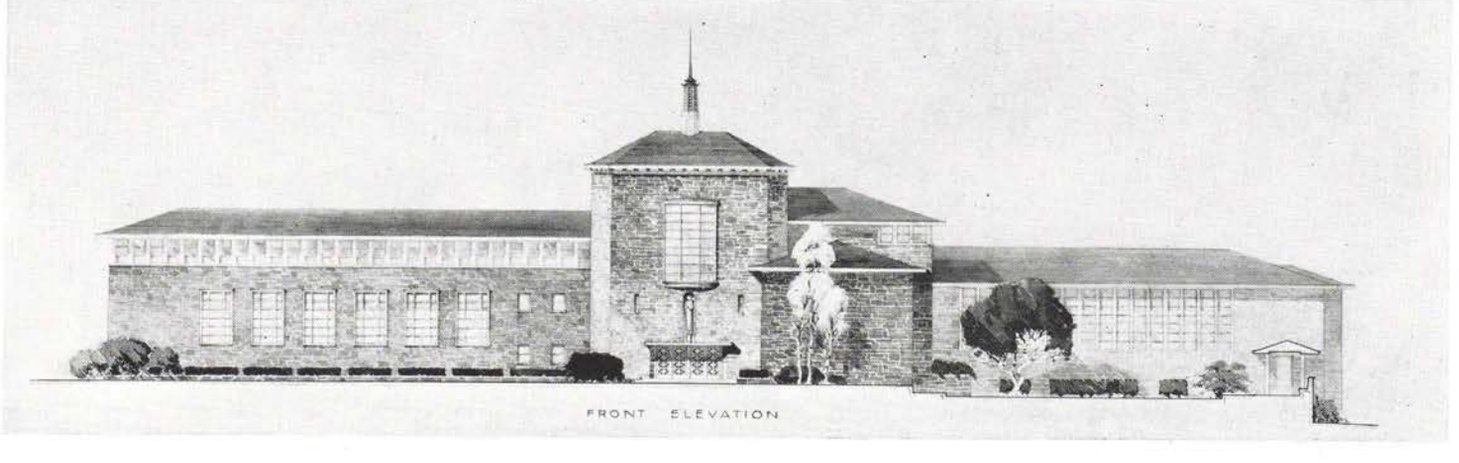


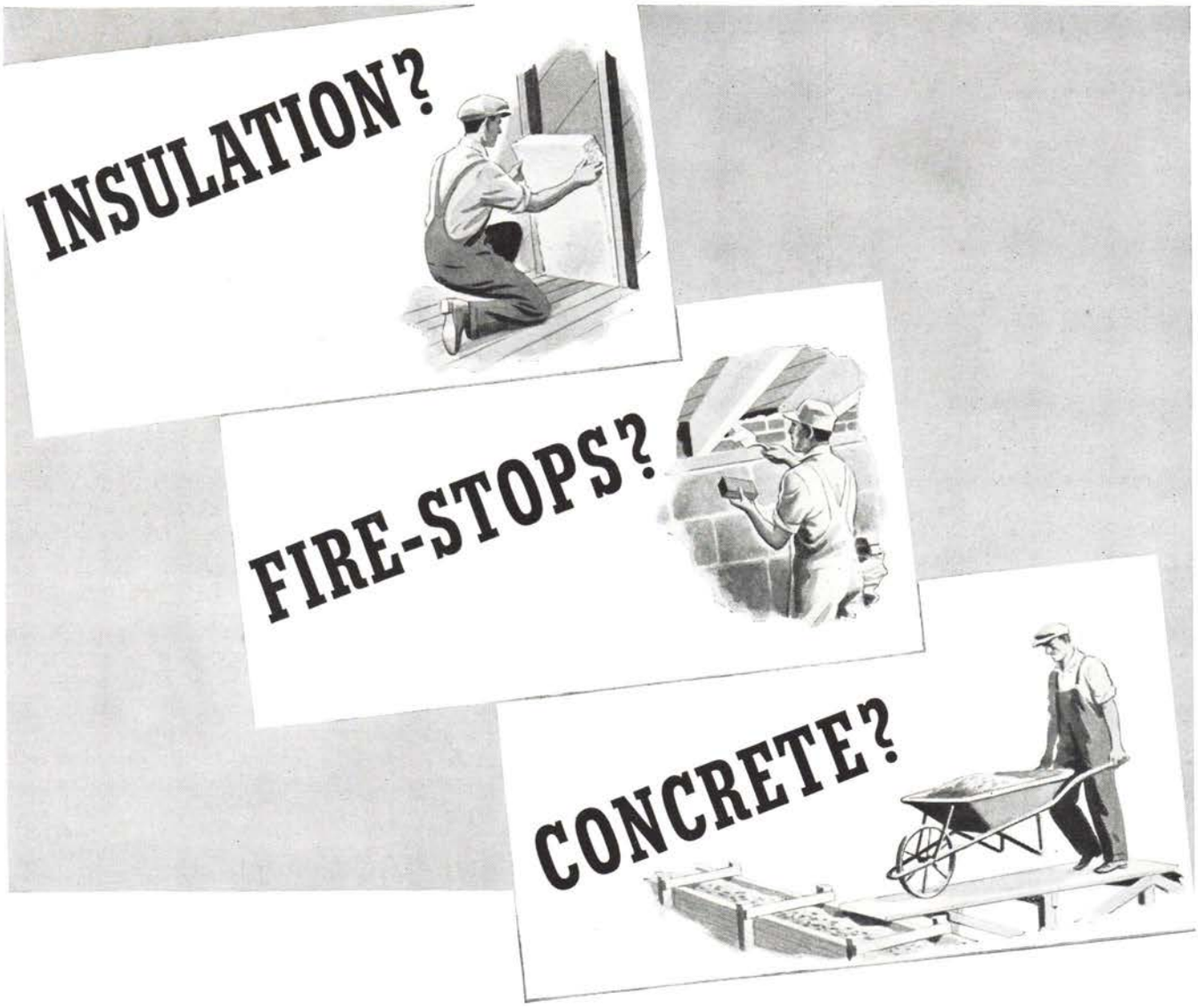
Thirty-five invited architectural offices submitted each from four to seven 3 x 4 ft. sheets of rendered drawings in the "Goucher College Competition to Select an Architect to Prepare a General Development Plan and to Design One Principal Building (Library)." Celebrating its fiftieth birthday, the women's college plans a move from Baltimore to Towson, Md. Jury: Gilmore D. Clarke, John A. Holabird, David A. Robertson (Goucher president), C. I. Winslow, Everett V. Meeks, chairman. Second, third and fourth prizes to Eliel and Eero Saarinen, Bloomfield Hills, Mich.; Frederick G. Frost and Frederick G. Frost, Jr., New York, N. Y.; and Thompson, Holmes & Converse, New York, N. Y.

Rex Hardy

GOUCHER COLLEGE COMPETITION

The winners, Moore & Hutchins, New York, N. Y., with three of their competition drawings. The firm, organized last year: John C. B. Moore, Harvard '18, Ecole des Beaux Arts '27, part-time critic at Columbia since 1937; Hutchins, University of California '28, University of Pennsylvania '29 and '30, one-time critic at Cooper Union. Both partners served their apprenticeships in the office of Delano & Aldrich.



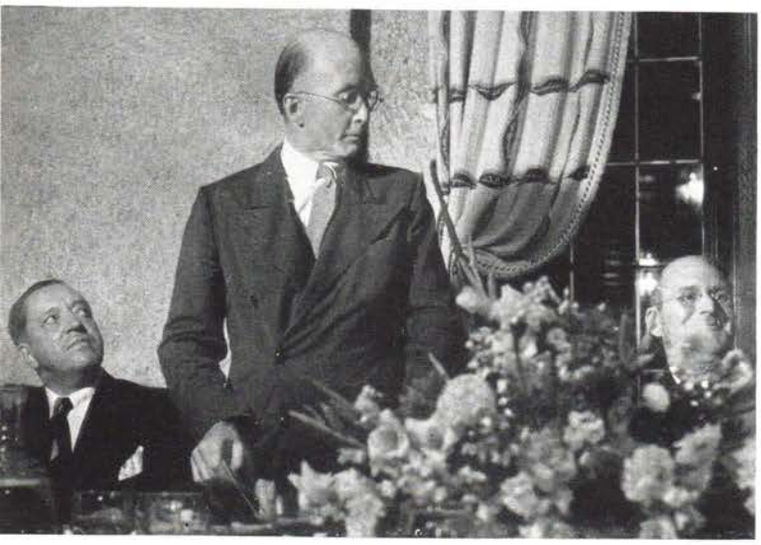


conduit carries telephone wiring through

MANY of today's modern types of construction make it impossible to "fish" telephone wiring through completed walls and floors. Wall insulation, fire-stops and ducts present barriers to concealed wiring, but built-in conduit will carry it through.

Such conduit may be planned for future telephone wiring additions as well as immediate needs. Clients appreciate this forethought, because telephones may then be installed at any time without exposed wiring, without piercing walls and floors.

One or two lengths of small pipe provide adequate telephone conduit for the average small house. Built in during construction, its cost is negligible. Your telephone company's "Architects' Service" will help you plan conduit layouts. There is no charge, of course. Just call them.



John W. Root (flanked by Miës van der Rohe and president Elmer C. Roberts): Competition is surely a better method of selection than catch-as-catch-can with political variations.

Hedrich-Blessing Photos

George Fred Keck emphasized the fluidity of structure today, the distance we have come from complaisant romanticism, the greater present opportunity for the architect to do some thinking.

CHICAGO CHAPTER'S DINNER MEETING

John Holabird, Miës van der Rohe (An October meeting honored him as new head of Armour Institute's architectural department), and John W. Root.

Competitions for public works and trends in architectural design were twin subjects discussed over the dinner table in Chicago's Sky Top Roof, September 13, in the A.I.A. Chapter's first big meeting of the fall season. With president Elmer C. Roberts presiding, the full flowering of Chicago's architectural profession was in evidence, to hear and to argue with spokesmen of its own membership. Addresses introducing for open discussion several phases of the two main subjects were: Government Competitions and Design, by Philip Brooks Maher, member of the National Advisory Committee on Architectural Design for the Procurement Division, Treasury Department, and members of the jury for recent Government post office competitions; The Wheaton Competition and Public Competitions in General, by John Wellborn Root, member of the recent Wheaton competition jury; Competitions Sponsored by Commercial Agencies, by Alfred Shaw, member of the jury for American Gas Associations and Pittsburgh Glass Institute competitions; Structural and Spatial Patterns in Architectural Design, by George Fred Keck, architect in charge of design at the new Bauhaus*; and Materials in Modern Design, by Paul Schweiker.

*As we go to press the future of New Bauhaus is clouded by uncertainty.

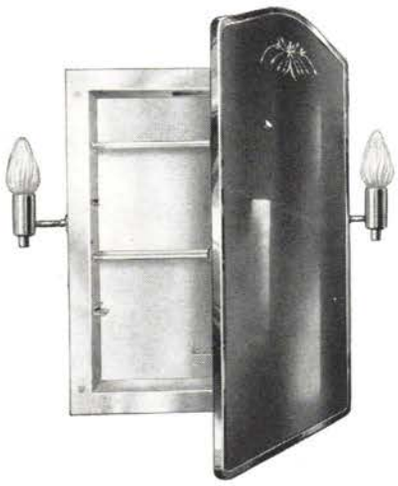
Philip B. Maher reviewed the Government's participation.

Alfred Shaw: Contemporary designs need quality, ideas.

George Senseny, Paul Schweiker who spoke of materials, and Jerrold Loebl.

Loebl—a Chapter vice president—and William Pereira.

Specify MIAMI
LIFETIME CABINETS *for* "LIFE" HOUSES



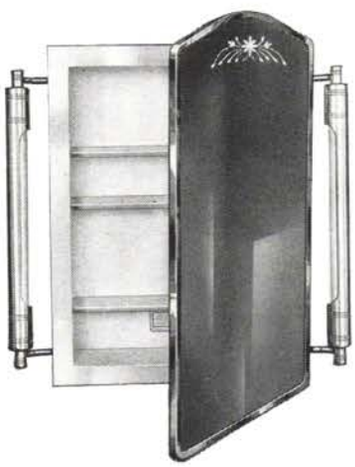
MIAMI has made today's building dollar buy more bathroom cabinet value than ever before in the history of the building industry. Not only are the new "all metal and glass" cabinets far more attractively designed and better made of finer materials, but they are also more easily and quickly installed. The cabinets illustrated are only a few of the wide selection suitable for "Life" Houses. More than 130 standard models. Individual models made to architects' specifications. See our Catalog in Sweet's.

"LIFE" HOUSES FOR $2000—$3000 INCOMES

Colonial Model 403CF — at left — chromium frame around mirror. Fitted with brass, chromium-plated light fixtures; conveniently located switch to control lights, and convenience outlet for electrical appliances. Cabinets are completely wired at factory. Saves cost of 3 electrical outlets. Equipped with two adjustable glass shelves; die stamped razor blade drop; tooth brush racks and door stop.

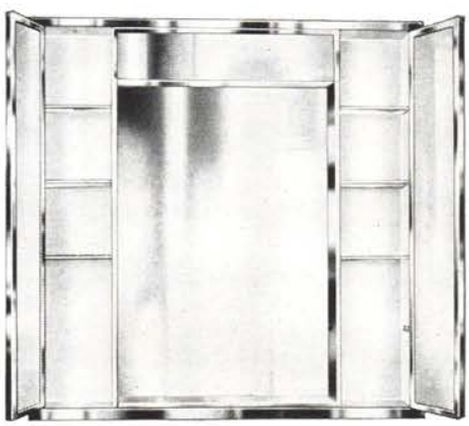
"LIFE" HOUSES FOR $3000—$4000 INCOMES

Model shown at right is a square top cabinet fitted with single overhead tubular Light Bracket No. 4. Overall selected No. 1 plate glass mirror is held securely by stainless steel mirror clips. Light switch and electric convenience outlet. Completely wired at factory. Saves cost of 2 electrical outlets. Regular equipment includes three adjustable glass shelves; used razor blade drop; tooth brush racks.



"LIFE" HOUSES FOR $5000 — $6000 INCOMES

The cabinet at the left is fitted with the exclusive MIAMI Tubular No. 3 Light Brackets, designed to take a T-8 frosted bulb. Equipped with adjustable chromium shields which permit shading of lights; light switch and convenience outlet—completely wired at factory. Saves cost of 3 electrical outlets. Mirror is selected No. 1 plate glass, set in brass chromium-plated frame. Three adjustable glass shelves; chromium razor blade drop; tooth brush holders.



"LIFE" HOUSES FOR $10,000—$12,000 INCOMES

The "IMPERIAL" Ensemble (right)—MIAMI'S finest creation—for those who want the best. Frame around entire cabinet is brass, chromium plated. Spacious side cabinets have chromium framed, mirror doors. Three adjustable glass shelves; stainless steel tooth brush holders. White Vitrolite shelf under center mirror. Two light bulbs concealed behind the opal flash glass panel at top provide indirect lighting. All wiring completed at factory.

MIAMI GLORIFIES THE AMERICAN BATHROOM

MIAMI CABINET DIVISION · · *The* PHILIP CAREY COMPANY, Middletown, Ohio.

FORUM OF EVENTS

W. Eugene Smith

Mr. and Mrs. Alvar Aalto, newly arrived in New York, have long been the main reasons for architectural pilgrimages to Finland. Easily in any man's list of the world's half-dozen outstanding modern architects, Alvar Aalto and his collaborator are now to do the Finnish pavilion at the New York World's Fair, their three competition designs having placed first, second, and third.

Acme

St. Michael's Hit. One week after the Atlantic Coast hurricane a tornado hit Charleston, S. C., with severe damage to St. Michael's Episcopal Church (top middle), an architectural treasure.

Frank Jones

Oregon Moves In. Dignitaries dedicated new capitol at Salem October 1, which was the subject of a nation-wide competition, won by Trowbridge & Livingston and Francis Keally, architects.

© Associated Press

$5,000 Mural Winners. For the two huge murals to embellish Hall of the Judiciary and Hall of Legislation, U. S. Government Building at New York Fair, $5,000 each to James Owen Mahoney, Texan Prix de Rome painter, and George Harding of Wynnewood, Pa. Jury included Eugene Savage, Ernest Peixotto, Reginald Marsh, Leon Kroll, and their decision immediately touched off a controversy among muralists, some of whom say Mahoney's design (left) shows a lack of originality expected in such a prominent setting.

Associated Press

A. P. News. Isamu Noguchi, American-born sculptor, won in a field of 188 competitors the $1,000 prize for design of a bronze panel over Rockefeller Center's new Associated Press Building. After two months' work on one scheme, Noguchi spent the last three days on a new idea; the three-day scheme won. Second prize, John Tatschl; third, Joseph C. Fleri. Jury: John Gregory, Holger Cahill, Lloyd Stratton (A. P.), Wallace K. Harrison and L. Andrew Reinhard.

America in France. Pointe de Grave Memorial, built by the French to commemorate spot at mouth of the Gironde River near Bordeaux where Lafayette embarked for America in 1777 and first units of the A.E.F. landed in 1917. Architect: Andre Ventre.

(*Continued on page 74*)

LIFE BUILDS A HOME FOR MODERN LIVING

Certain-teed KEEPS IT MODERN FOR YEARS TO COME

With Certain-teed Wood-Tex Shingles the sweeping roof lines of *Royal Barry Wills'* Traditional House can have the deep shadows and interesting texture reminiscent of old hand-split shingles *plus* the long-lived protection and fire safety of ceramic-granuled asphalt shingles. His skillfully-proportioned rooms can have straight, true walls if finished with Certain-teed Plastisized Plaster over Beaver Gypsum Lath. Winter's cold and Summer's heat can be inexpensively blanketed-out for all the years to come by Certain-teed Insulation Board.

Whether it's this Traditional House or a home which you now have on your boards, your specifications can guarantee high quality plus faithful interpretation of your design if you recommend Certain-teed Quality Roofing, Board and Gypsum Products to owner and builder.

If your files do not have recent information on the many new Certain-teed Products, check the list below. We'll gladly send you catalogs.

Composite photograph shows how the Royal Barry Wills' house looks with Wood-Tex Shingles. Close-up shows the interesting grained-texture of this exclusive Certain-teed shingle.

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Certain-teed Insulating Plank

WALLBOARD
Beaver Board
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Beaver Peb-Met Board
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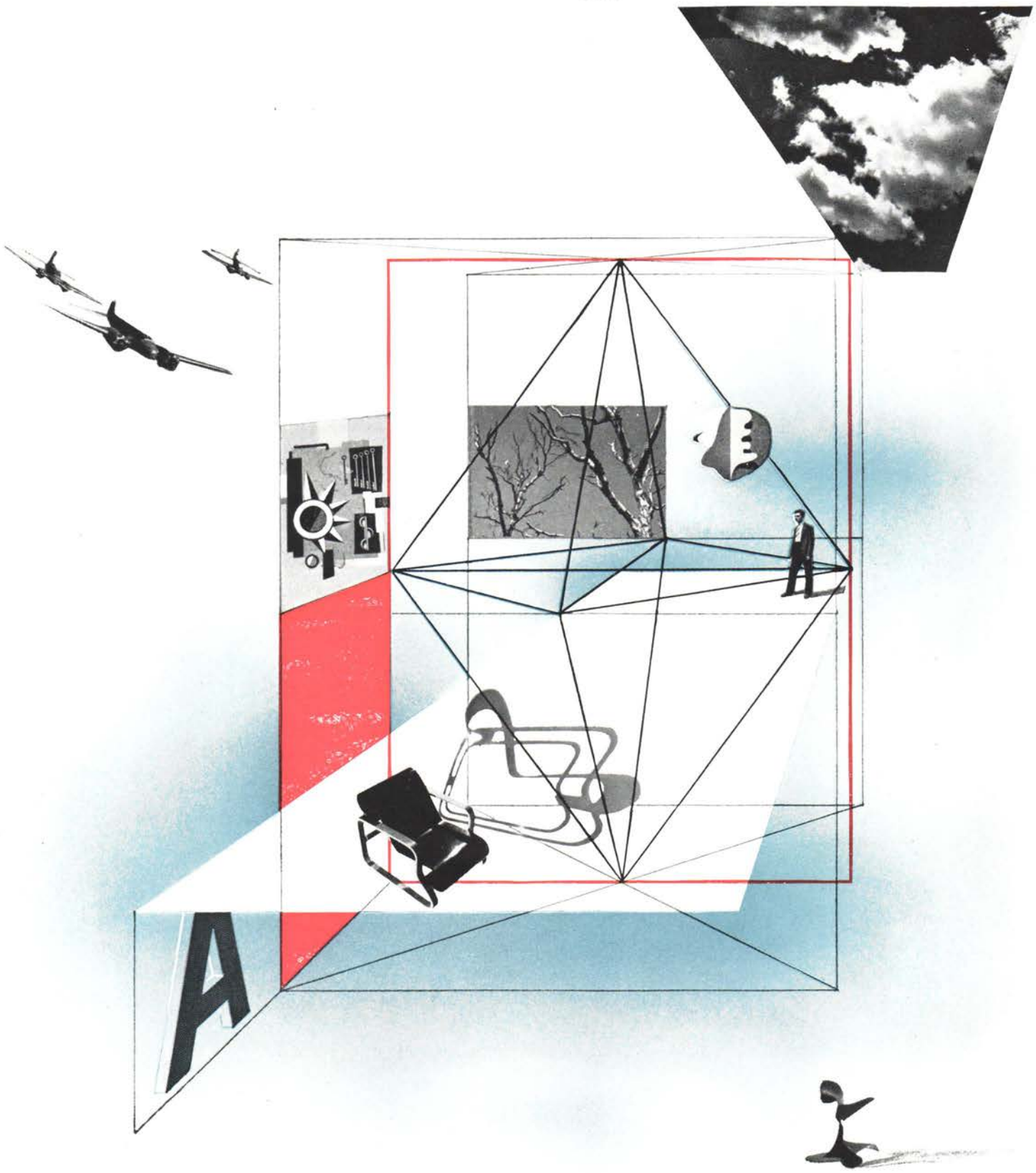
In all the controversy that has revolved around the subject of modern architecture, one small fact has often gone unobserved: Modern, as with all architecture today, has its extremists, its moderates, and its conservatives. Far from being a reflection on the movement, however, this lack of unanimity bears testimony to its strength and long standing ● The chief indication of Modern's vigor is its dynamic, highly controversial quality, and it is not necessary to look far back to see that the revolutionary developments of yesterday are the commonplaces of today. And so, presumably, for tomorrow ● Because extremist minority opinion can so quickly become majority fact, because out of the "wildest" theories often come the most vital ideas, and because THE FORUM in name intends to remain a forum in fact, PLUS now appears to add opinion, exploration and new controversy to reporting ● To PLUS and its editors, THE ARCHITECTURAL FORUM offers its best wishes–and a free hand.

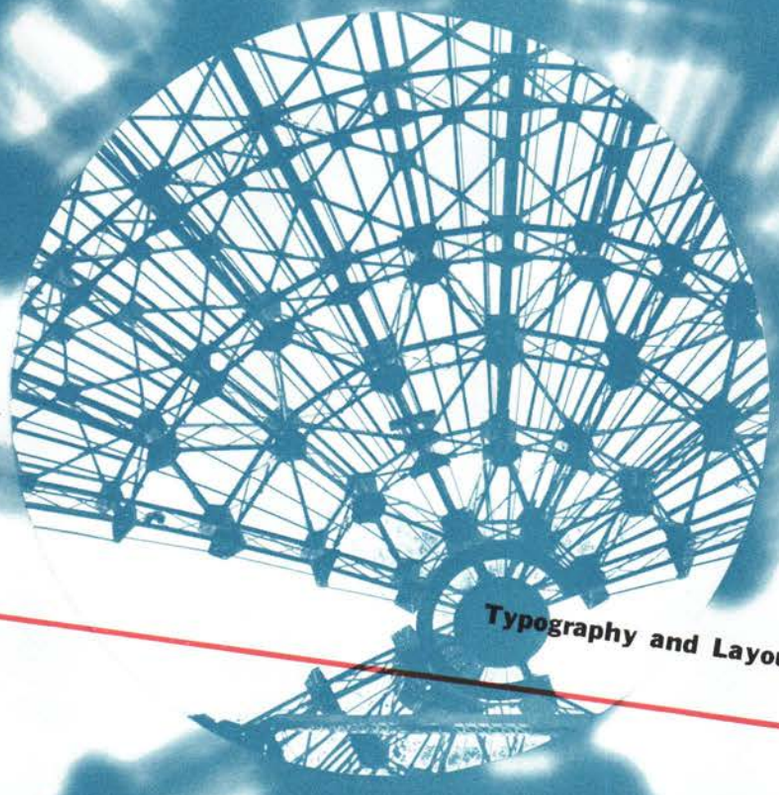
THE EDITORS



plus

orientations of contemporary architecture

Editors: Wallace K. Harrison William Lescaze William Muschenheim Stamo Papadaki James Johnson Sweeney



Typography and Layout by Herbert Matter

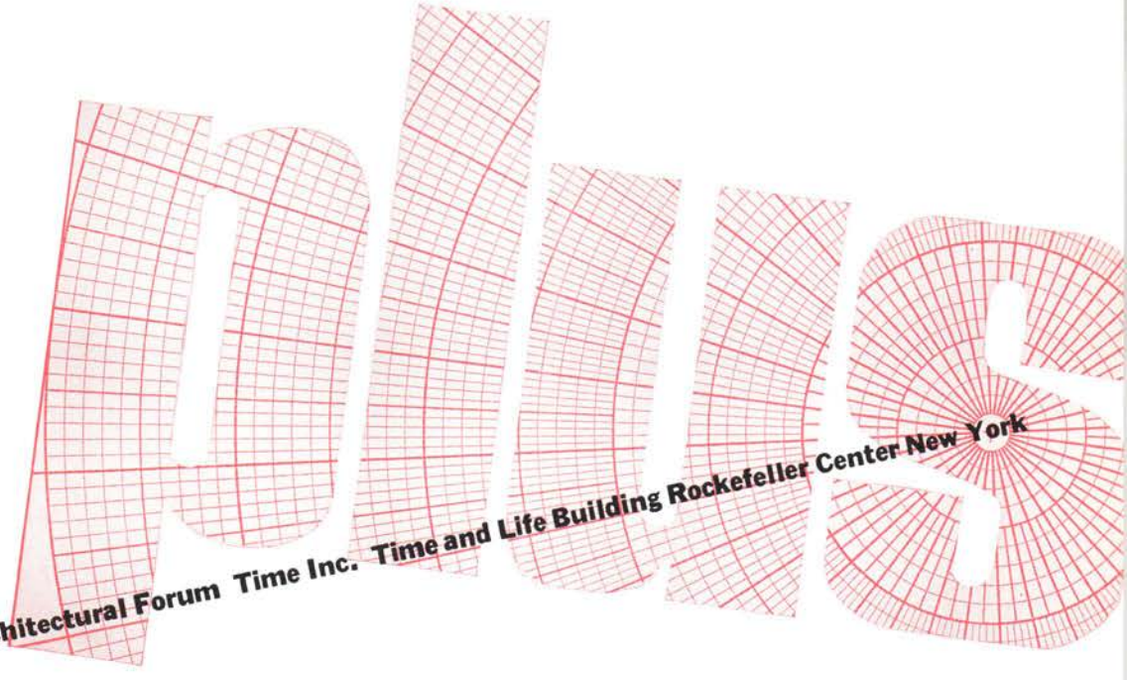
The need for a medium to correlate the artistic and scientific data which influence contemporary space organization has been apparent for some time to those concerned with the development of a true architectural expression. This need was expressed by a small group of architects and artists a year ago and a link was sought which would offer the necessary tie between their own experiments and realizations and the independent artistic and scientific activities of today. PLUS is the answer.

The architecture of today continues to show abuses and confusion. Its primary role should be, however, to give unity to our expressions of life and art by creating harmonious relations between methods, technics and the intellectual attitudes of our society. The polemics of recent years against the various forms of academicism, after overcoming to a certain extent the inertia of the authorities and the indifference of the public, have made us realize how much still remains to be done. They failed to answer pressing questions as to new relations characteristic of the present; they made clear, however, that architecture is not the result of intuitive knowledge alone or isolated individual effort, but that it depends rather upon our scientific experiences, our participation in the arts, our consciousness of an existing, if latent, social culture.

The period of polemics is now over and the time has come in which to establish precisions, close relationships and fresh evaluations in a field crowded with social and economic fictions, verbal entities and sentimental symbolism. PLUS will aim to bring together such work of architects, artists and scientists which will clarify existing problems and, perhaps, point directions.

In making its bow, the Editors of PLUS hope that ARCHITECTURAL FORUM readers will find it a stimulating addition, one which will claim their interest and approval.

Max Abramovitz, Josef Albers, Leopold Arnaud, Harris Armstrong, Beatty and Strang, Walter Curt Behrendt, Walter Blucher, Marcel Breuer, Morrison Brounn, John Porter Clark, Alfred Clauss, Robert L. Davison, Howard T. Fisher, Albert Frey, R. Buckminster Fuller, Philip L. Goodwin, Bertrand Goldberg, Harwell Hamilton Harris, Wallace K. Harrison, Alfred Kastner, George Fred Keck, Albert Kahn, William Lescaze, Lyndon and Smith, Herbert Matter, L. Moholy-Nagy, Marsh, Smith and Powell, William Muschenheim, Richard J. Neutra, Stamo Papadaki, Peter Pfisterer, Antonin Raymond, Walter Sanders, R. M. Schindler, Paul Schweikher, Edward D. Stone, James Johnson Sweeney, Philip N. Youtz. Le Corbusier, Alberto Sartoris, P. Morton Shand.



Published six times a year in The Architectural Forum Time Inc. Time and Life Building Rockefeller Center New York

Homes should be rated by what they can DO

HORSEPOWER of a house? It sounds odd—but homes are modern or not according to the amount of work they can do electrically. And when you use a kilowatt-hour of electricity, it has done just about as much work as a horse could do in an hour — provided a horse could sweep, cook, do the washing and ironing, provide light and refrigeration, tend the furnace, wind the clock, and furnish entertainment that varies from Pagliacci to Charlie McCarthy, according to your mood.

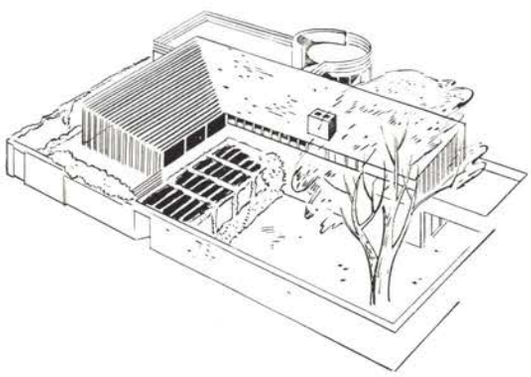
Electricity will do all these things and more. But in building, buying, or renting, it is important to see that the proper groundwork is laid for its use. Wiring should be ample, with plenty of outlets. Circuits should have modern protection. Even if you cannot take complete advantage of electricity today, plan for its wider use in the days to come. Adequate wiring serves and saves.

By giving only the same attention to its electrical system that you give to its room arrangement, heating, and decoration, you can make your entire home a busy servant. A servant that will bring you comfort, leisure, health and pleasant living for only a few cents a day. A servant that will be more efficient using Westinghouse appliances.

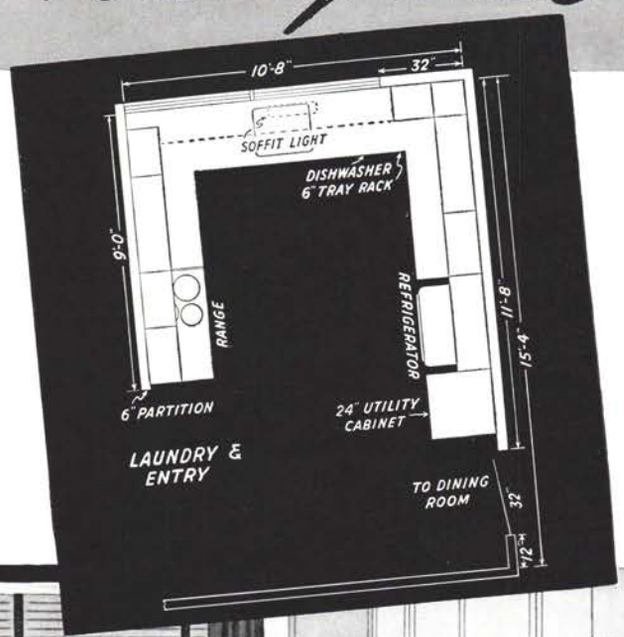
Westinghouse

The name that means everything in electricity

LIFE HOUSE . . . ANY *Needs a Westinghouse*



A LIFE House designed by Harrison & Fouilhoux.



Westinghouse has designed kitchens for *all* of the LIFE Houses. This one is for the *modern* house sketched above. Architect's plan shown at upper right — one of 8 LIFE House Kitchen plans offered *free* with coupon.

EVERY HOUSE NEEDS Westinghouse

HOUSE... EVERY HOUSE

ELEC-TRI Center Kitchen

PLAN THE KITCHEN WOMEN WANT

. . . AS SIMPLE AS 1 2 3

The kitchen is the most talked-about room in *any* house. Each year women make greater demands for *planned* kitchen convenience — which is merely proper organization of the three work centers and their *right relationship* to each other.

Westinghouse ELEC-TRI-Center Kitchens make it easy for you to give women the kitchens they *want*. So flexible, you simply adapt a scale drawing of a Westinghouse ELEC-TRI-Center Kitchen to *your* plan for LIFE House, ANY house or APARTMENT house.

These popular kitchens are easy to sell because women know about them, approve them, *want* them . . . because they're low in cost . . . easy to install. And because they offer the additional advantage of women's preference for Westinghouse *Kitchen-proved* Ranges, Refrigerators, Dishwashers and Water Heaters.

Westinghouse has designed kitchens for *all* the LIFE Houses. Plans are yours for the asking. And write the Westinghouse Kitchen Planning Department, Mansfield, Ohio, for co-operation on special planning problems.

Free!

PLANS FOR YOUR LIFE HOUSE OR ANY HOUSE

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Dept. 8286, Mansfield, Ohio

Gentlemen:

Without obligation please send the following:

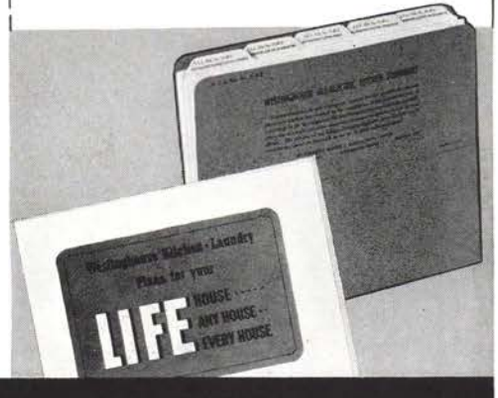
☐ Kitchen-Laundry Plans for LIFE Houses.

☐ Kitchen Planning File Kit for Architects.

Name.....

Address.....

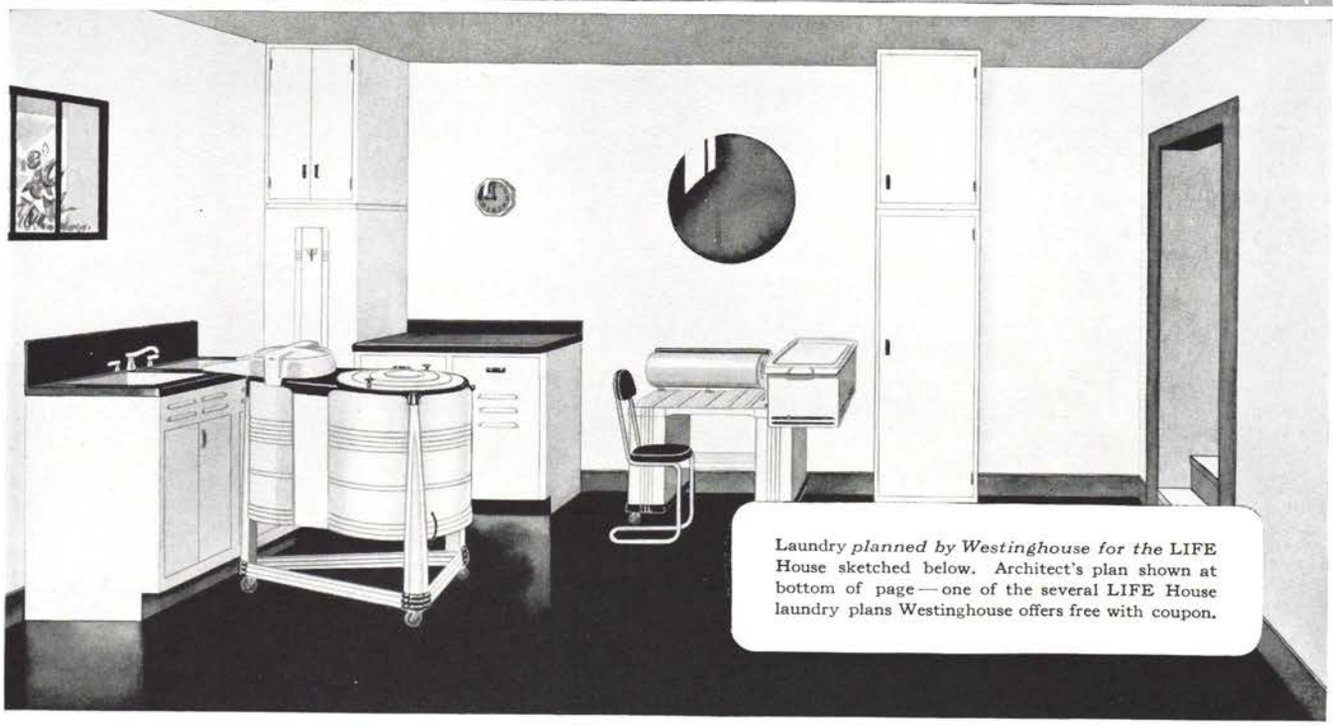
City and State.....



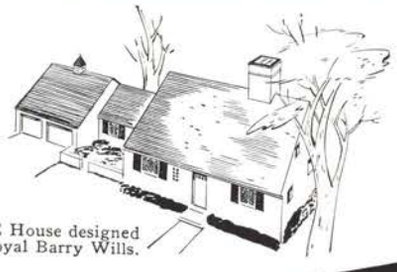
"The Line of Least Resistance"

LIFE HOUSE... ANY HOUSE... EVERY HOUSE

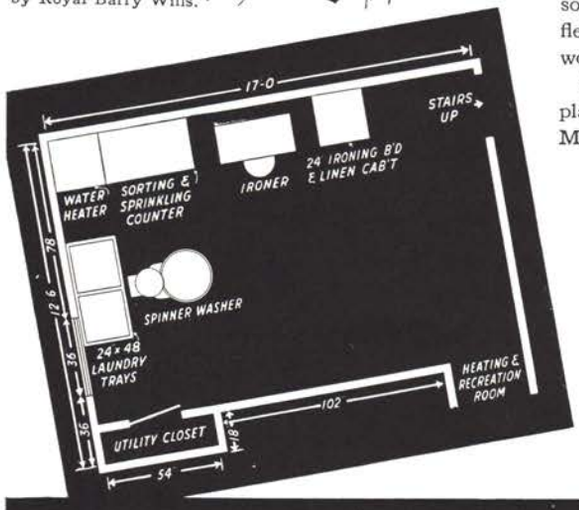
Needs a Westinghouse Planned Electrical Laundry



Laundry *planned by Westinghouse for the* LIFE House sketched below. Architect's plan shown at bottom of page — one of the several LIFE House laundry plans Westinghouse offers free with coupon.



LIFE House designed by Royal Barry Wills.



Planned kitchens made women want *planned laundries*. "Give us a laundry *planned* for shorter hours and easier work," they clamor.

Westinghouse PLANNED ELECTRICAL Laundries meet this demand for timesaving, step-saving, moneysaving convenience — in a LIFE House or any house. Simply adapt a Westinghouse scale drawing to your plan. Save yourself a lot of extra work.

Westinghouse PLANNED ELECTRICAL Laundries are as basically sound in design as Westinghouse ELEC-TRI-Center Kitchens, and as flexible. They're low in cost, easy to install, and have the added appeal of women's preference for Westinghouse *Home-proved* Washers and Ironers.

Send for these free plans, and see how they simplify your laundry planning. And write the Westinghouse Laundry Planning Department, Mansfield, Ohio, for co-operation on special problems.

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New Westinghouse Kitchen-Laundry Plans scale drawings of Westinghouse PLANNED ELECTRICAL Laundries for LIFE houses — easily adaptable to ANY house. Send for yours today.

Westinghouse Elec. & Mfg. Co.,
Dept. 8287, Mansfield, Ohio
Gentlemen:
Without obligation please send Kitchen-Laundry Plans for LIFE Houses.

Name.....

Address.....

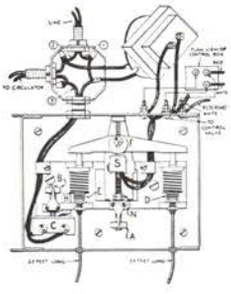
City and State.....

EVERY HOUSE NEEDS **Westinghouse** *"The Line of Least Resistance"*

ALWAYS 70° INDOORS

OR ANY TEMPERATURE YOU DESIRE

No matter how the weather varies



This is the Hoffman Temperature Controller—the ingenious "balancer" which maintains a uniform room temperature under all conditions.

To the many advantages of forced hot water heating, Hoffman Hot Water Controls now add hair-breadth regulation of room temperature. When installed on either new or remodeled hot water heating systems the old troubles of "Cold 70", overheating and uncomfortable variations in room temperature are eliminated for good.

Hoffman Hot Water Controlled Heat combines *continuous circulation* with temperature controlling devices which effect a constant balance between heat loss and heat supply. Heat is supplied to the radiators on a gradually ascending or descending temperature scale—never in bursts of high temperature water.

The Hoffman Controls can be applied to hot water boilers using any form of automatic firing and are adjustable for any BTU emission desired and for design temperatures from −40° to +20°.

Complete operating and design information is included in the new Hoffman Hot Water Controlled Heat Manual. We'll be glad to send a copy on request. Hoffman Specialty Co., Inc., Dept. AF-11, Waterbury, Conn.

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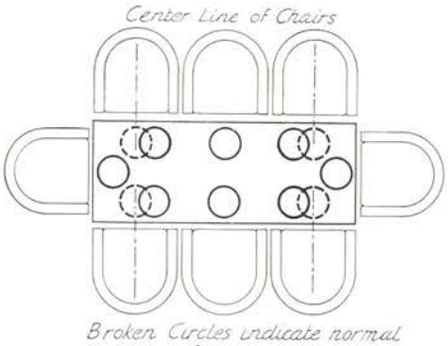
LETTERS

Elbow Bending

Forum:

Have you ever tried to eat from a plate that was not directly in front of you? Do you know of any condition more conducive to a yen for burying your fork in the hide of a neighbor?

New York City's new "Elbow Room" was beautifully photographed and well presented in the September FORUM. The Room is elegant and striking, but I find simple pleasure in picturing the situation that will arise when the men at the four corner places take their seats and find their plates opposite their right or left



shoulders. There is a smile in the thought of what happens to the men in the center seats upon being called to the telephone and trying to push their chairs straight back over the nice thick carpeting.

Incidentally, though not apropos of the question of "Elbow Room," I venture to predict that the voluptuous chairs will soon be exchanged for a type from which one may eat with some comfort.

Yours for real Elbow Room some day,

HUGH E. JONES

Middletown, N. Y.

Competitions Cont'd.

Forum:

. . . These terms [Wheaton College competition program] stated that an answer was wanted that "should express architecturally as well as educationally the progressive ideals of our time" with "some harmony in color and scale" with existing buildings. These terms seemed to me clear enough. They appeared to indicate that education in the arts is of necessity strongly rooted in the past, while at the same time it freshly faces the present, and points toward the future. Such a view, while eliminating the tags of any nameable style, the cornices, columns, pediments, and so forth, would preserve that basic grace and comeliness that gives vitality. In short, a *designed* building, using freely modern materials and methods but timeless in its appeal; not staking its all upon the hazard that the crudeness of today will be the beauty of tomorrow. Such expression is difficult and elusive; it was not aimed at by the favored ones nor apparently wanted by the judges . . .

There is a broader aspect of the matter, too. The public, and many architects also, see no happy mean between a copying of the past, and total abandonment of it; while, as I see it, architectural progress lies in just that happy mean—*designed* buildings, expressive at once of the heritage and the individuality that make human beings.

ALFRED BUSSELLE

New York, N. Y.

Forum:

What a swell plan won the Wheaton College competition: the jury is certainly to be congratulated on its choice of first place, and on its report thereon—but what in the name of heaven led to their dithyrambic comments on the design placed second?

The minds that picked the winner must have been in abeyance, or the wind was wrong, when they lit on those chromium four-leaf clovers, Messieurs Gropius and Breuer. As I see it: 1) M. Gropius' downstairs exhibition and entrance hall, so much admired by the jury, is a most unsatisfactory solution: painting would inevitably flatten in color since the room is both over-lit and confusingly lit from both sides—any painter like myself knows this, or anyone with gallery experience. . .

2) The jury has gently noted that "perhaps" the circulation is not altogether happy, and the remoteness of the library and the small auditorium has not altogether escaped them, but Mr. Saarinen's library, 100 ft. nearer the college than M. Gropius (see plot plans) seems to them "unnecessarily remote," without qualification. . .

So much for a brief summary of functional errors. Esthetically, [the] Gropius plan's relation to the lake is incoherent *if* extant, and the various elements are saved from parthenogenesis only by the attenuated glazed passages, unhandsome in themselves and totally "inadequate" in force to offset the movement of the main masses that betray so complete a misapprehension of the movement of the terrain.

As to the "undoubtedly handsome elevators" I find them dry as a Methodist bishop and twice as doctrinaire, in their stale repetition of the currently classical tricks of the International school. . . I strongly suspect that any recognized American firm of architects submitting such a design might have fared very differently in the *jury's report*. Here's to less luck and more thought on juries.

CHARLES VOORHIES

San Francisco, Calif.

Upstanding House

Forum:

Your October 1935 issue featured on pages 354 and 355 a Week End House on Long Island. Was this house in the path of the recent storm? If so, how does it look now?

GEORGE B. COOMBE

Cleveland, Ohio.

The house to which Architect Coombe refers was directly in the path of the recent hurricane but weathered the fracas entirely unharmed. The force of wind against and over one side of a conventionally designed house causes a destructive vacuum on the opposite side. In the case of the week-end house designed by Architects A. Lawrence Kocher and Albert Frey (above), the wind—which was sufficiently severe to bowl over a 30-foot oak tree 100 yards leeward—rushed over and under the building, left it undisturbed. The steel stilts prevented damage from flood waters.

The U. S. Government considers this house so completely stormproof that for three Government observers in the hurricane-ridden Canal Zone three houses have been completed from practically identical Kocher and Frey designs.—ED.

Promotion

Forum:

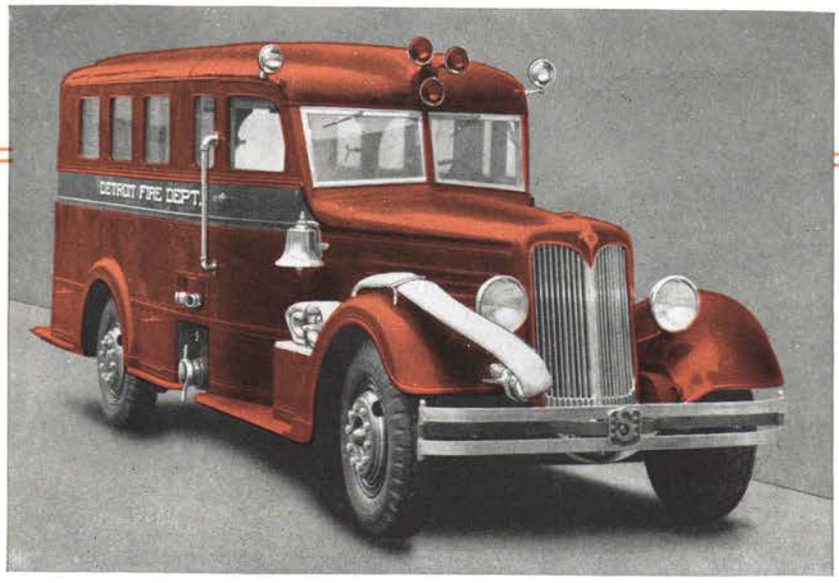
. . . I think the presentation of my house (ARCH FORUM, Sept., '38) was excellent; in fact it was so good that I rented the house a few days after sending some reprints to a broker.

JASPER MORGAN

New York, N. Y.

Erratum

Credit for floors, Longchamps Restaurant (ARCH FORUM, Oct., '38) should have read: floor slabs, Gypsteel, furnished by Structural Gypsum Division, American Cyanamid & Chemical Co.—ED.



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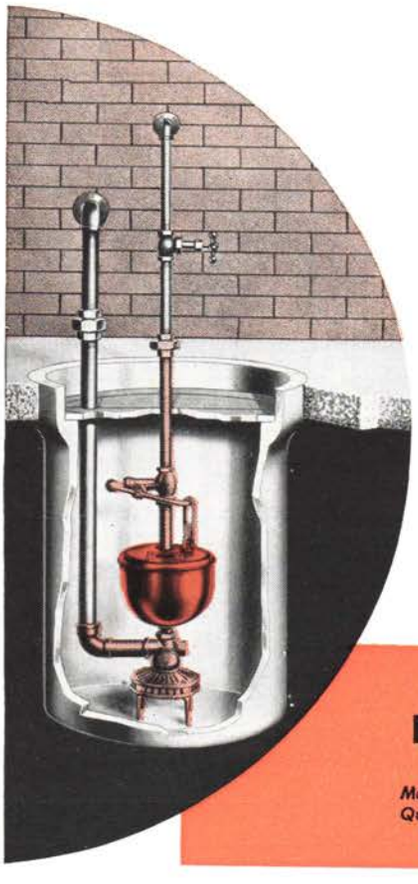
Penberthy Pumps Stand Idleness But Function Instantly When Needed

Fire fighting equipment, idle most of the time, must go into action instantly and must function perfectly for indefinite periods with no excuses accepted for failure. Sump pumps and Cellar Drainers meet much the same conditions. Idleness is often a more severe test than prolonged operation.

Penberthy Automatic Electric Sump Pumps and Water Operated Cellar Drainers stand idleness or peak operation equally well. Made of copper and bronze throughout, they are proof against corrosion. Simple, rugged design and careful workmanship assures complete reliability in operation.

Carried in stock by leading jobbers everywhere —Penberthy Sump Pumps and Cellar Drainers will give your clients complete satisfaction.



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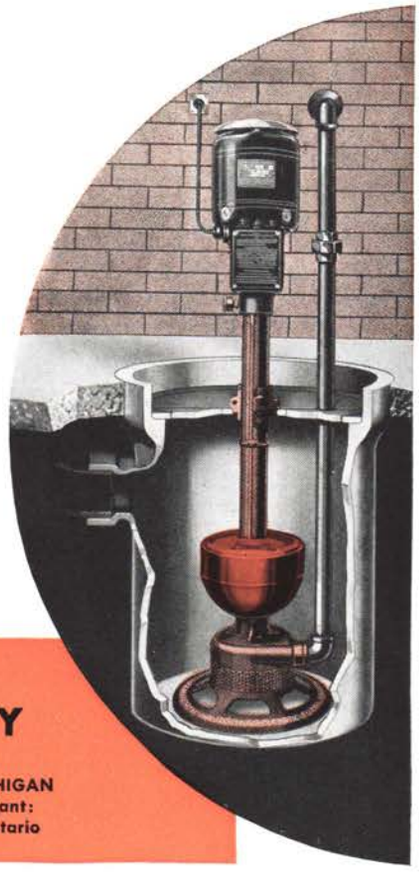
Made in 6 sizes



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A fascinating center of interest in hundreds of modern residences....

The HAMMOND ORGAN

A practical possibility even for small rooms—moderate incomes

Almost overnight the possibility of having lovely organ music at home has become a practical reality for people of moderate income. Thanks to the small size of the Hammond Organ—and its amazingly low cost—this remarkable instrument presents no architectural problems. It is easy to install . . . easy to move . . . easy to fit into any decorative scheme. Yet, to a music-loving client, few suggested purchases could bring such a deep and fascinated pride of possession through the years.

For up-to-date information about this much talked-of organ, see your nearest Hammond dealer. Dealers are located in the principal cities of the United States and Canada and in 38 countries throughout the world. Or write the Hammond Organ, 2983 N. Western Avenue, Chicago. In Canada, address Northern Electric Co., Ltd., Montreal.

* * *

QUICK FACTS ABOUT THE HAMMOND

√ Actual measurements of Model B opened: 48⅜″ x 46″ x 47″. Weight, 341 lbs.—easily moved by two men. Tone cabinets can be placed to meet any acoustical situation.

√ Structural changes seldom necessary—ready to play when connected to an ordinary electric outlet.

√ With no pipes or reeds, the Hammond *cannot* get out of tune. Repairs are practically unknown—guaranteed for *three* years.

√ Low initial cost; low operating cost—the average home installation uses no more current than two 100-watt light bulbs.

√ The graceful console looks well in any decorative scheme.

Building a church?

A saving of thousands of dollars, which can well go into the building itself; a saving of space which frees your plans from many limitations—these are only two of the outstanding advantages of the Hammond. Already the beautiful tones of the Hammond are heard in thousands of churches here and abroad.

THE HAMMOND ORGAN

$1250 and up f.o.b. Chicago, depending upon size of installation

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2983 N. Western Avenue, Chicago

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Please send me informative literature about the Hammond Organ.

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Address.....

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Here's

LIFETIME HEATING *for the* 8 LIFE HOMES

DESIGNED BY THE WORLD'S FOREMOST HEATING ORGANIZATION

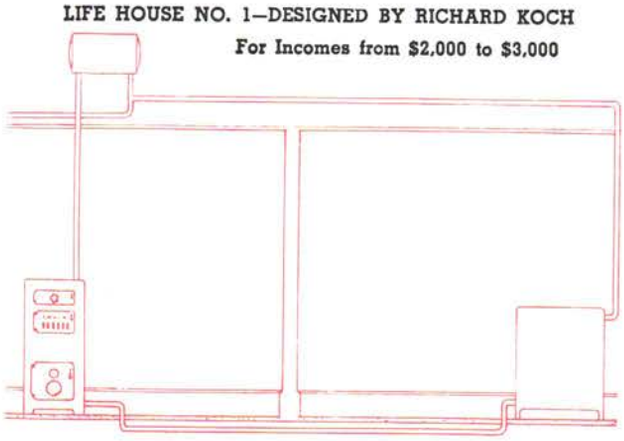
AMERICAN RADIATOR COMPANY

SOMEONE once said, "A home is no better than its heating." True. For on the quality of the heating, hinges the comfort of the home during the seven or eight months of the year when man-made warmth is essential to health and well being.

So, for the eight Life homes American Radiator presents on the following pages eight Heating Systems—each planned to provide today's peak of comfort, efficiency and economy through modern engineering.

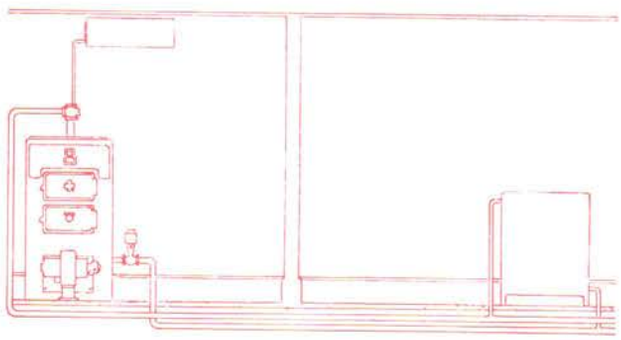
And as long as these homes stand, their trouble-free, soundly designed American Radiator Heating will continue to enhance the happiness of their owners. For these systems are built for a lifetime of service as proved by thousands of installations delivering unfailing comfort year after year.

LIFE HOUSE NO. 1—DESIGNED BY RICHARD KOCH
For Incomes from $2,000 to $3,000



For homes of this kind without a basement the American Radiator Arcola provides luxurious Gravity Warm Water Heating at low cost. Compact and efficient, the system includes modern, slim radiators — an Arcola Expansion Tank — Arco Copper Fittings and Pipe and many other features.

LIFE HOUSE NO. 2—DESIGNED BY EDWARD D. STONE
For Incomes from $2,000 to $3,000



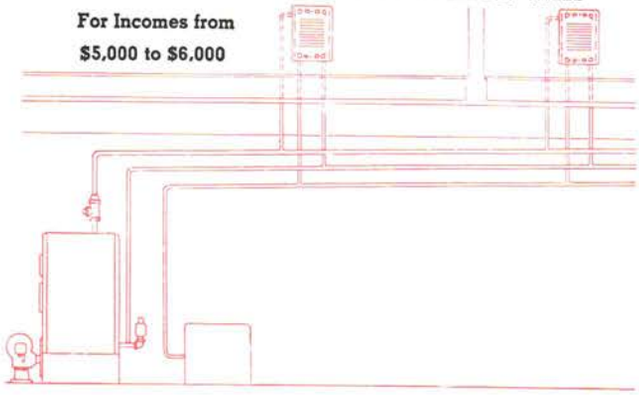
For this home without a basement here's a luxurious Forced Warm Water Heating System designed with integrated Ideal Accessories. Including domestic hot water, it provides low-cost automatic comfort with the Ideal Arcoflame Heating Unit No. 7. To reduce cost, the system can be hand-fired.

FEATURING COMFORT, ECONOMY AND SIMPLICITY

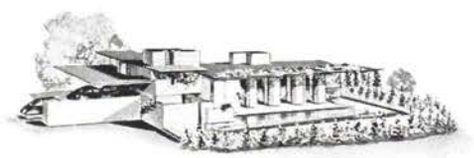
AMERICAN RADIATOR

recommends these 8 modern heating systems for the 8 **LIFE** *homes*

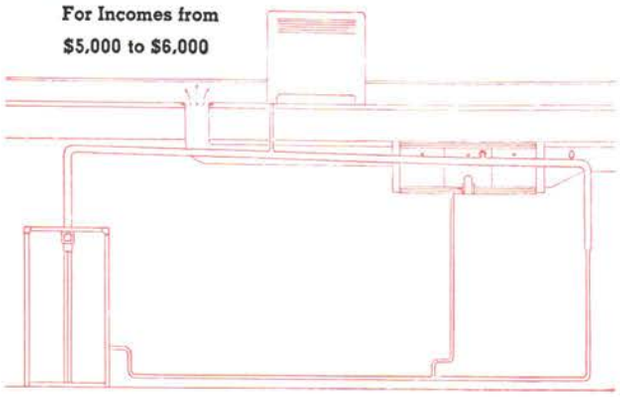
LIFE HOUSE NO. 5—DESIGNED BY ROYAL B. WILLS
For Incomes from $5,000 to $6,000



In homes of this type the unique Arco Thermo System is perfect. It is based on circulating Warm Water Heat but uses a radical new type of concealed room Heat Unit that produces fast, even distribution of warmth in rooms. Includes Ideal Arcoflame Heating Unit No. 7—fully automatic.



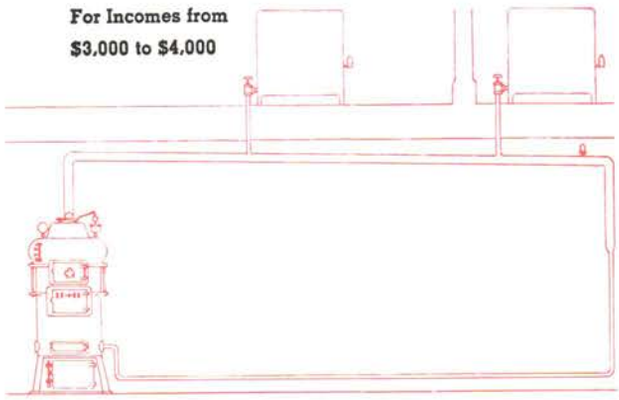
LIFE HOUSE NO. 6—DESIGNED BY FRANK L. WRIGHT
For Incomes from $5,000 to $6,000



A deluxe one-pipe Steam Heating System with supplemental Air Conditioning. It features automatic comfort with the No. 11 Ideal Boiler with new Arcoflame Oil Burner completely concealed and the Arco Air Conditioner. Also automatic domestic hot water with other American Radiator products.

LIFE HOUSE NO. 3—DESIGNED BY H. ROY KELLEY

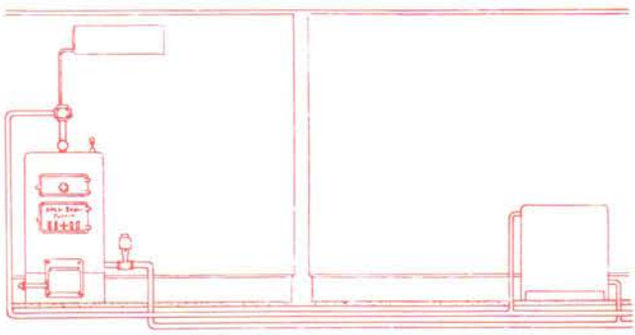
For Incomes from $3,000 to $4,000



Here's an efficient, modest-priced one-pipe steam system using the famous Arco Round Boiler. It's good radiator heating comfort at lowest cost. New type fast venting valves on the slim, modern radiators balance heating. A domestic water heater and Arcoloy storage tank supply hot water.

LIFE HOUSE NO. 4—DESIGNED BY WILLIAM W. WURSTER

For Incomes from $3,000 to $4,000



This American Radiator Gas-Fired Forced Warm Water Heating System provides controlled, steady warmth. Based on the famous Redflash Boiler, this system is completely automatic, it includes small tube Radiators, Packless Radiator Valves, Arco Copper Fittings and Pipe and many other features.

IDEAL

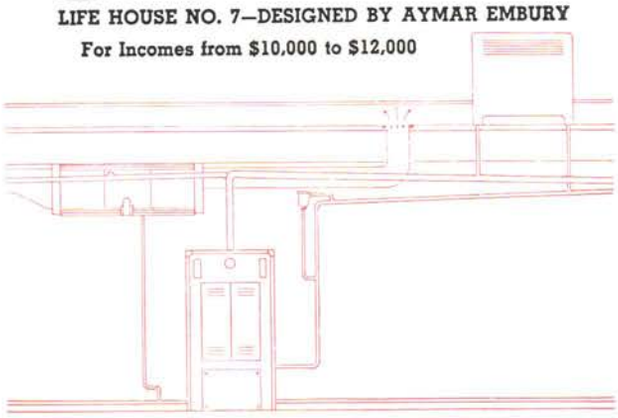
—and for hundreds of others too

FOR ANY HOME you design there's an American Radiator Heating and Air Conditioning System to fit your specific needs. Remember, these systems provide uniform warmth with draft-defying Radiant Heat and Convected Heat —halt cold window drafts—never recirculate bathroom, kitchen or sickroom odors—give you more basement room—supply domestic hot water—and include many other features that homeowners want—that enrich your reputation.

USE THE COUPON ON NEXT PAGE FOR SPECIFICATIONS ON THE EIGHT AMERICAN RADIATOR HEATING SYSTEMS FOR THE LIFE HOMES

LIFE HOUSE NO. 7—DESIGNED BY AYMAR EMBURY

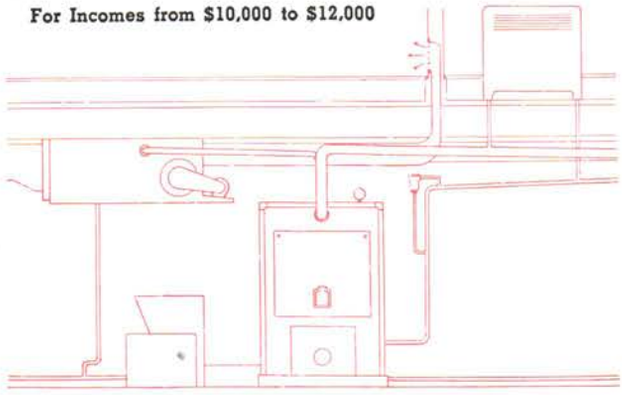
For Incomes from $10,000 to $12,000



The Model K Heating and Air Conditioning System—superbly designed for luxurious automatic comfort in this type of home. Uses the No. 12 Ideal Boiler with Oil Burner and supplies auxiliary air conditioning with the Arco Air Conditioner. Includes built-in indirect domestic water heater.

LIFE HOUSE NO. 8—DESIGNED BY HARRISON & FOUILHOUX

For Incomes from $10,000 to $12,000



In this American Radiator "split system" Heating and Air Conditioning are combined effectively and economically. A truly luxurious automatic system, it includes Ideal Boiler No. 92, Arco Air Conditioner, indirect domestic water heater plus Arcoloy Storage Tank and other features.

SOUND ENGINEERING

is the keynote of every product in the complete line of

AMERICAN IDEAL RADIATORS BOILERS

PERPETUALLY in pace with the times, American Radiator makes heating equipment for every need—and each product is soundly engineered for its specific need. Boilers, Radiant Convectors, Valves, Copper Piping, and every other product is right in appearance and matchless in performance. Only a few of the many American Radiator products are shown here. With Confidence you can specify American Radiator products and *know* your clients have the best equipment experience, research and money can produce.

NO. 201 THRUSH RADIANT HEAT CONTROL

Regulates radiator as well as air temperature. Eliminates "cold 70". Keeps heating even. For warm water heating systems. (No. 2001 Equatrol for steam.)

ARCO WROUGHT COPPER FITTINGS AND PIPE

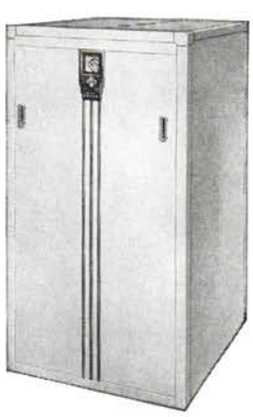
Perfect for heating, plumbing and air conditioning lines. Rustproof, corrosion resistant — assure leak-proof, strain-proof joints with the famous Arco Copper-to-Copper sweated connection.

NO. 7 IDEAL BOILER

A universal boiler for coal, oil, gas or stoker firing. Contains many "expensive" features yet is low in cost. Beautiful baked enamel green jacket is thoroughly insulated.

ARCO AIR CONDITIONER

Used in connection with radiator heating system. Provides main living rooms with fresh, tempered, humidified and filtered air.



NO. 11 IDEAL BOILER

Specially designed for automatic oil firing, the No. 11 Ideal Boiler combines maximum efficiency with utmost economy of operation.

ARCO RADIANT CONVECTOR

Provides both draft-defying radiant heat and convected heat. Slimly streamlined for modern, yet unobtrusive appearance. Highly efficient as well as handsome.

ARCO-DETROIT MULTI-PORT VALVE

Vents radiators three times as fast as the average valve of its type. Adjustable. Helps balance system. Modern black plastic case. For one-pipe steam systems.

AMERICAN RADIATOR COMPANY
DIVISION OF AMERICAN RADIATOR & STANDARD SANITARY CORPORATION
40 West 40th Street, New York, N. Y.

Please send me the American Radiator heating and air conditioning specifications for the eight Life Homes.

NAME.....

ADDRESS.....

CITY..... STATE..... F-11

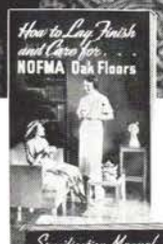
Women vote for Hardwood Floors of OAK *by overwhelming majority!*

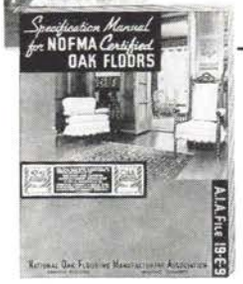
And whoever heard of a home where the woman's vote didn't win every election, no matter what her husband . . . poor fish . . . might nominate?

She may be a bargain hunter at heart, but never for the intimate things which reflect her personality. Her best frocks bear a smart shop label, her hats ditto, her antiques are genuine and her table silver is Sterling. So, she knows all about labels and hallmarks because they banish all doubt as to pedigree, which proves her a judge of good value.

Right there she'll be amazingly responsive to the quality appeal of NOFMA Certified Oak Floors. For NOFMA is the only Oak Flooring *bearing the copyrighted label* of its makers . . . the warranty mark that certifies guaranteed grades according to the Bureau of Standards, U. S. Department of Commerce. Tell her about NOFMA's label on Oak Floors and you speak the language she knows . . . mention "flooring specifications" and she'll be looking out the window.

THIS LABEL *WARRANTS* PEDIGREED OAK FLOORS





We've published this useful book in language she'll understand . . . and for you, this Specification Manual, an invaluable Master Work Sheet for specification writing. Your name on the coupon brings your FREE copies pronto! Sign and mail today.

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1137 Dermon Building, Memphis, Tennessee

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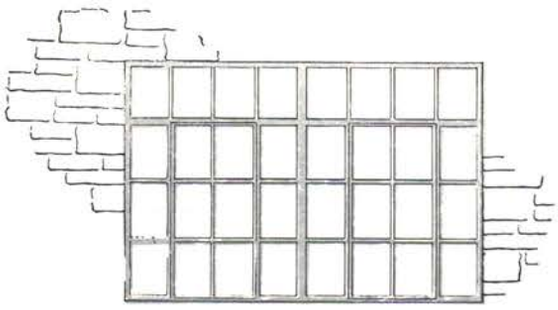
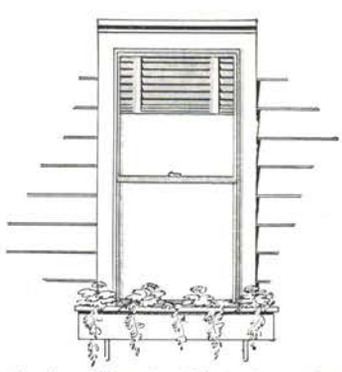
Address.....

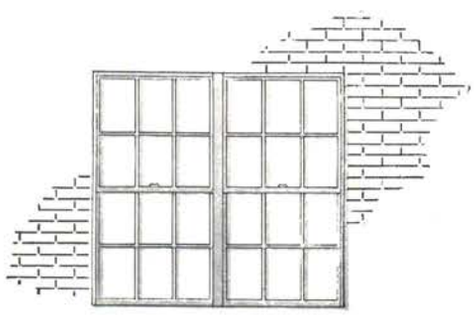
NOFMA OAK FLOORING IS SOLD BY LOCAL DISTRIBUTORS EVERYWHERE



Aluminum Casement Windows are easy operating and weather-tight.



Aluminum Venetian Blinds give added beauty and utility.



Aluminum Double Hung Windows for buildings of all classes.

ALUMINUM WINDOWS

DOUBLE HUNG OR CASEMENT

You're hardly aware of the Aluminum windows in a home; they go about their business of letting in light and sealing off the outside air so unobtrusively. That's because frames and sash are very narrow, giving maximum glass area. Their unpainted finish is a pleasing, neutral tone.

Aluminum windows open and close in a remarkably easy manner, always. They are light in weight, and there's no warping or swelling to cause binding. The closely-fitted extruded Aluminum parts from which these windows are fabricated make them permanently weather-tight; no rusting or rotting to require replacements. They never need painting. Cost little to maintain.

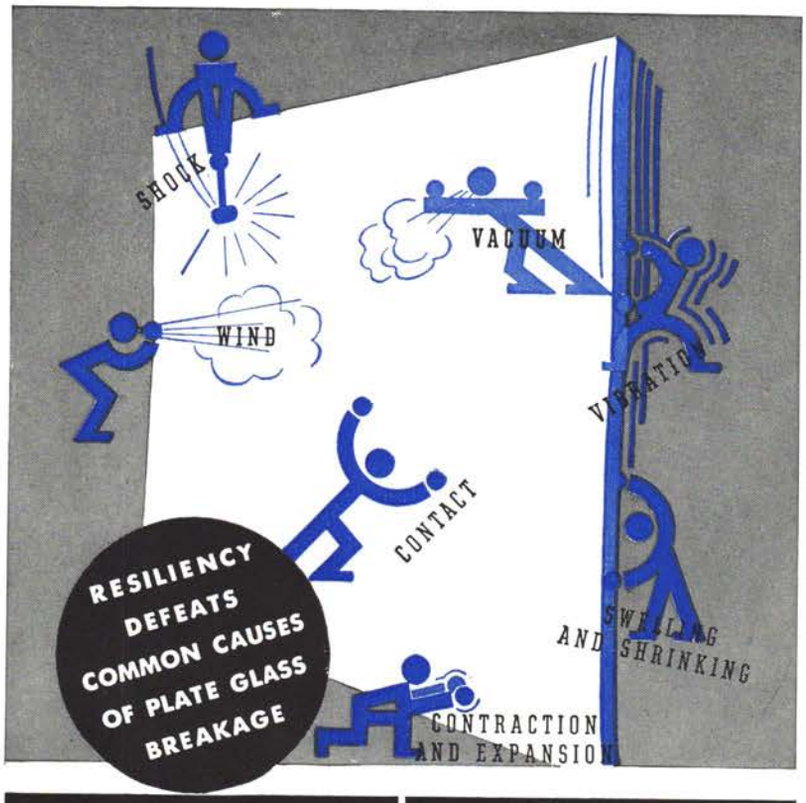
The surprisingly low first cost of Aluminum windows is good news to people who are planning to build. Remember that they're complete, ready to install when received by the builder. No knocked-down parts to assemble, no weather-stripping, fitting or refitting.

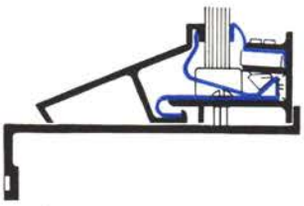
Aluminum windows are made by the leading window manufacturers. We'll gladly send you a booklet listing these manufacturers, illustrating and describing their various types of windows. Aluminum Company of America, 2166 Gulf Building, Pittsburgh, Pennsylvania.

ALCOA · ALUMINUM

THE MOST IMPORTANT STORE FRONT CONSTRUCTION PRINCIPLE

RESILIENCY





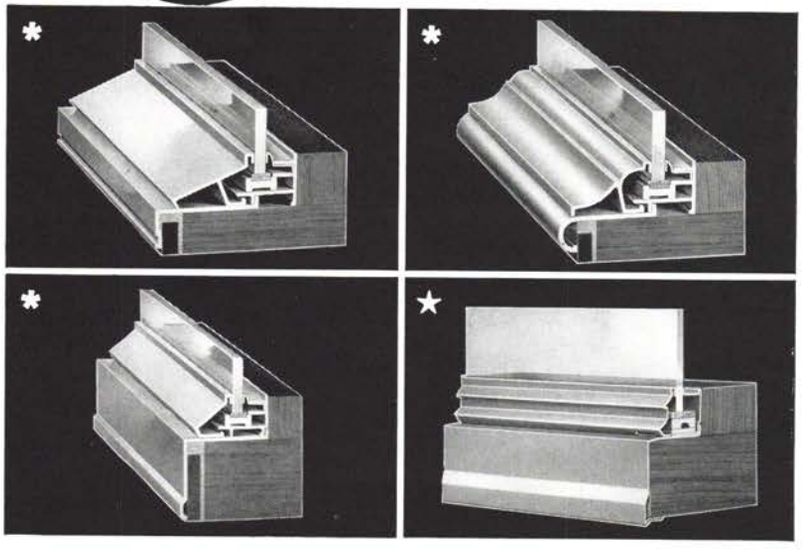
* EXTRUDED SASH

★ ROLLED SASH

KAWNEER Store Front construction is not only up-to-date and attractive—it is also efficiently designed to give lasting, trouble-free service. That is why so many prominent architects and builders specify Kawneer Resilient Store Front Sash.

They know that this superior resilient construction allows for the inevitable movement of plate glass, yet holds it in a secure and powerful grip—regardless of variations in thickness. Pressure is distributed evenly along the glass surface. Looseness and rattling are eliminated and the possibilities of glass breakage reduced to an absolute minimum.

Kawneer Store Front Sash is available in either resilient extruded (with a choice of three attractive face pieces) or rolled construction—in either alumilited aluminum or architectural bronze. In addition, the Kawneer line includes complete metal construction such as transom bars, hood, recessed and concealed awning bars, entrance doors, pilasters, mouldings, sign letters and special metal work. Complete information and details of extruded and rolled products will be sent on request.



FOUNDED IN 1905—
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Rustless Metal Store Fronts • Doors • Sealair Windows • Architectural Metal Work

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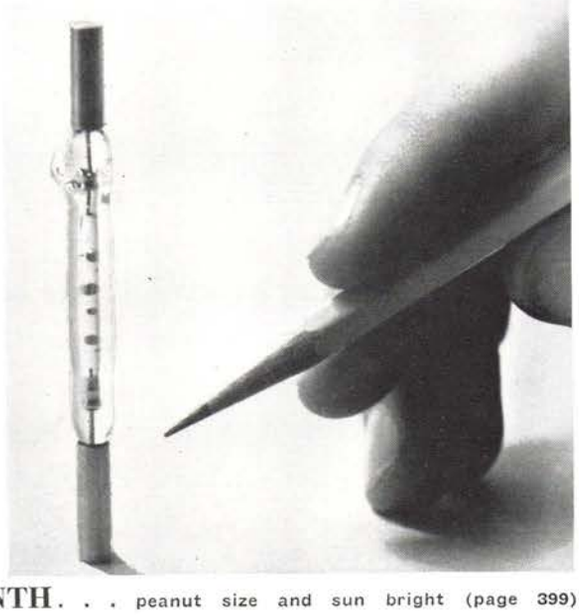
ARCHITECTURAL FORUM NOVEMBER 1938

MAN OF THE MONTH . . . Richard Koch, architect to Mr. & Mrs. America (page 312)

BUILDING OF THE MONTH . . . shelter comes to the sharecropper (page 393)



PRODUCT OF THE MONTH . . . peanut size and sun bright (page 399)

On September 26th **LIFE** presented for the critical examination of its 18 million readers eight houses designed for four typical American families. The families covered an income range from $2,000 to $12,000 a year. For each family one modern and one traditional house were designed.

Said LIFE by way of explanation: "Entirely aside from the 'ill-housed third of the nation' who cannot afford to live in decent houses, there are hundreds of thousands of renters who could afford to build homes of their own, hundreds of thousands of owners who could afford to build better houses than they now have."

To show these hundreds of thousands what they could have if they went out into the market, and to do its bit in touching off the long-awaited American building boom, LIFE enlisted the cooperation of THE ARCHITECTURAL FORUM, turned over twenty-two of its pages to the four families and their eight distinguished architects. The results have been stimulating and instructive. In the first place, LIFE touched off its own boomlet. Only four weeks after the houses were presented, nearly one hundred were spoken for, and twenty-seven were under actual construction. Moreover, of LIFE readers who voted on their preferences, a phenomenal 45 per cent plumped for modern.

To the building industry these figures are significant. People—many people—want to build houses, can afford to build houses, and will build houses if they can be shown a good buy for their money. Which seems to indicate that a good, architect-designed product, vigorously promoted, might create more than a boomlet. And among these potential builders, a number which has increased prodigiously will demand a modern house.

The eight LIFE houses are shown in detail on the following pages. Taken by themselves they are interesting examples of present-day planning for the middle-class dwelling. Taken as a group they are highly illuminating as a guide to design trends. Note Architect Koch's traditional house, voted most popular of the eight: its design has little relation to archaeology, much to modern living. Or Architect Wills' hillside house (also "traditional") whose main rooms have as much window as wall. Or the two modern houses whose roofs are pitched, and whose materials are as old as architecture itself.

In a particularly pointed manner, and on a national scale, these eight houses show that the traditional house is steadily becoming less "traditional," and that the modern house is rapidly emerging from its extremist swaddling clothes. Here is something more than a report on a magazine's attempt to present some small house possibilities to the lay public, more than the mere record of an intelligent effort to stimulate building. Here is evidence, in the work of eight outstanding architects, that the time is not far distant when American domestic architecture will have found its own consistent and logical expression.

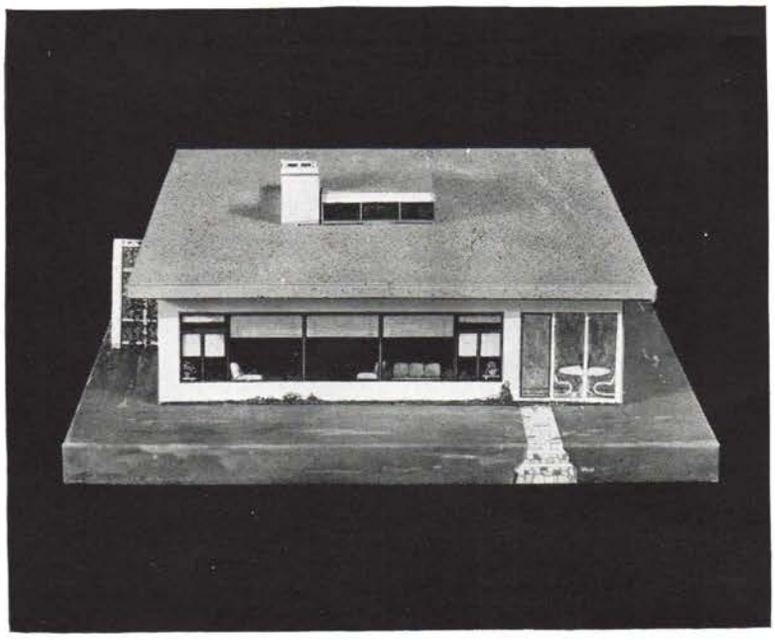
HOUSES FOR $2,000–$3,000 INCOME

For its family in the $2,000–$3,000 income group, LIFE picked the Ramseys of Atlanta. The Ramseys live in an old duplex, shown at the left, with their son and daughter, aged six and three; they have a lot in the suburbs and hope to build shortly. Present accommodations consist of living, dining, and breakfast rooms, two bedrooms, a kitchen, and a bath. Not only is this inadequate for a family of four, but bad planning has done much to reduce the usefulness of such space as there is.

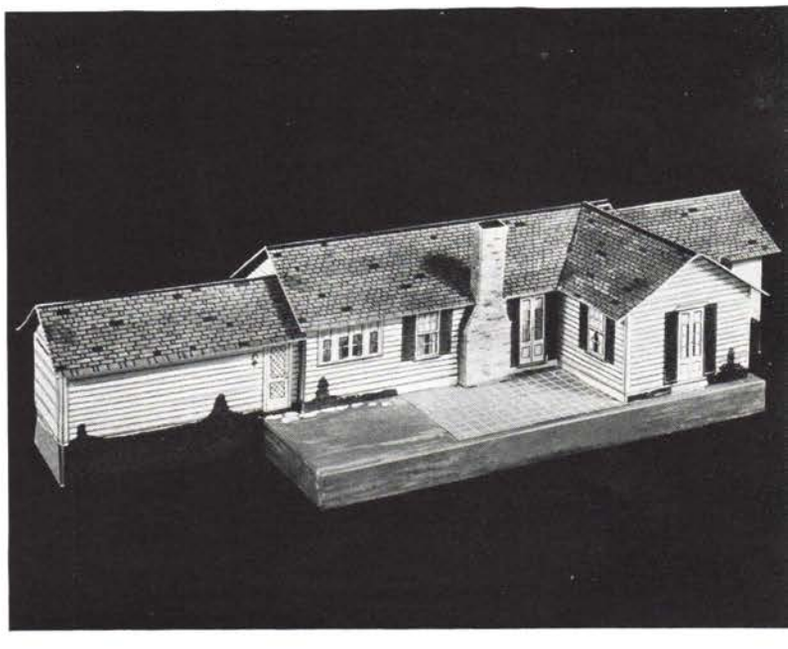
For their new house the Ramseys set up the following requirements:

1. Three bedrooms, or two bedrooms and a nursery.
2. Two baths. If necessary they can manage with one for the time being.
3. A coat closet. At present Mr. Ramsey has to hang his hat on a lamp in the living room.
4. A compact, efficiently designed kitchen.
5. A game room or alcove, if it can be provided within the budget.
6. A daylight basement, if the pitch of their lot will permit.

EDWARD D. STONE, ARCHITECT

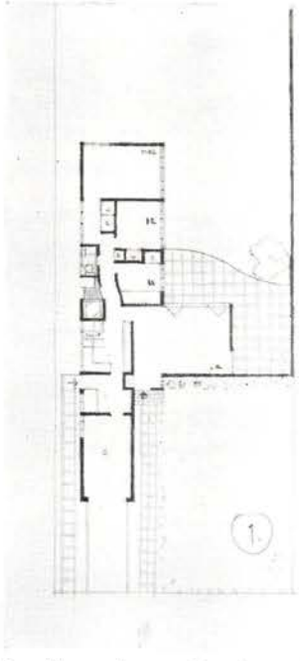


RICHARD KOCH, ARCHITECT

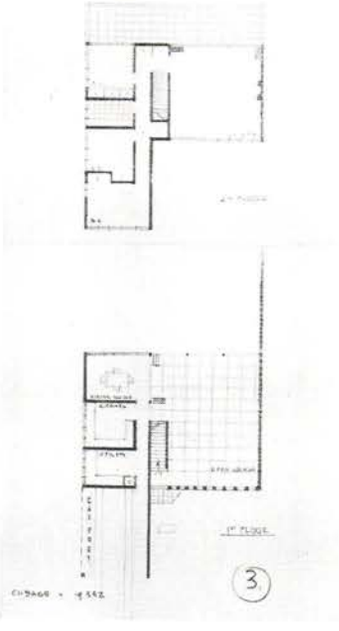


EDWARD D. STONE, ARCHITECT HOUSE FOR $2,000–$3,000 INCOME

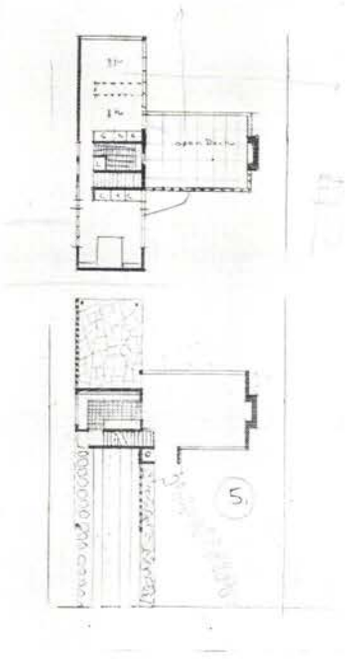
PRELIMINARY SKETCHES



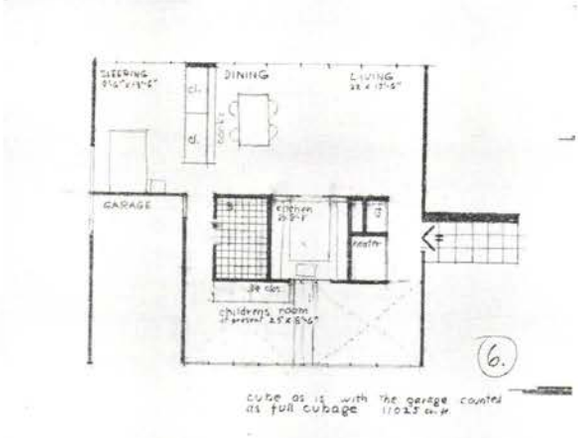
One-floor scheme. Too large for budget.



Two-story scheme. Play loggia and dining on ground floor, living and sleeping above. Too large.

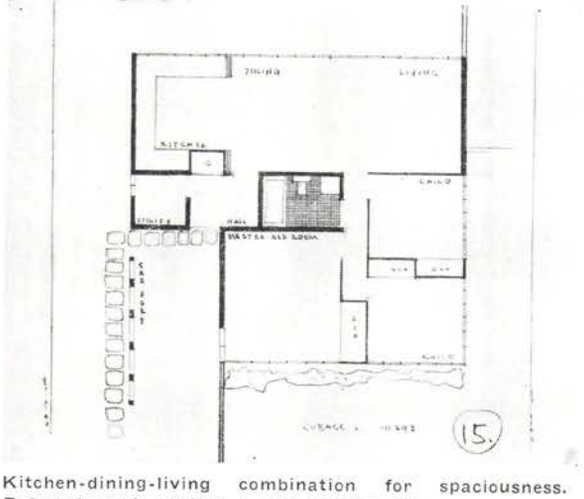


Two-story scheme. Living on first floor, sleeping terrace on second, heater unit in small basement.



Central, top-lighted utility group. Poor circulation from one bedroom to bath.

Bedrooms grouped together about a small hall. Clerestory lighting for kitchen and bath.



Kitchen-dining-living combination for spaciousness. Entry through carport. Lacks service entry.

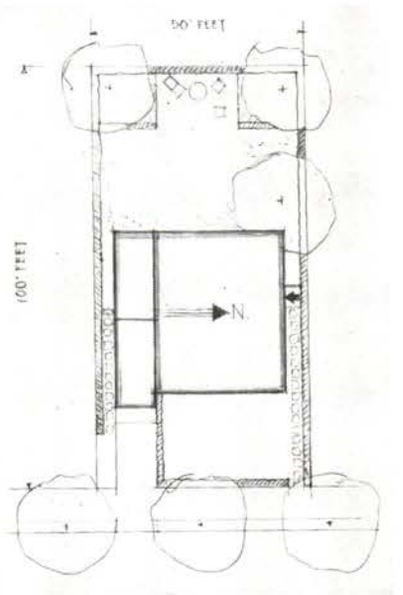
Scheme with living-dining-kitchen arrangement at rear. Separate main and service entrances.

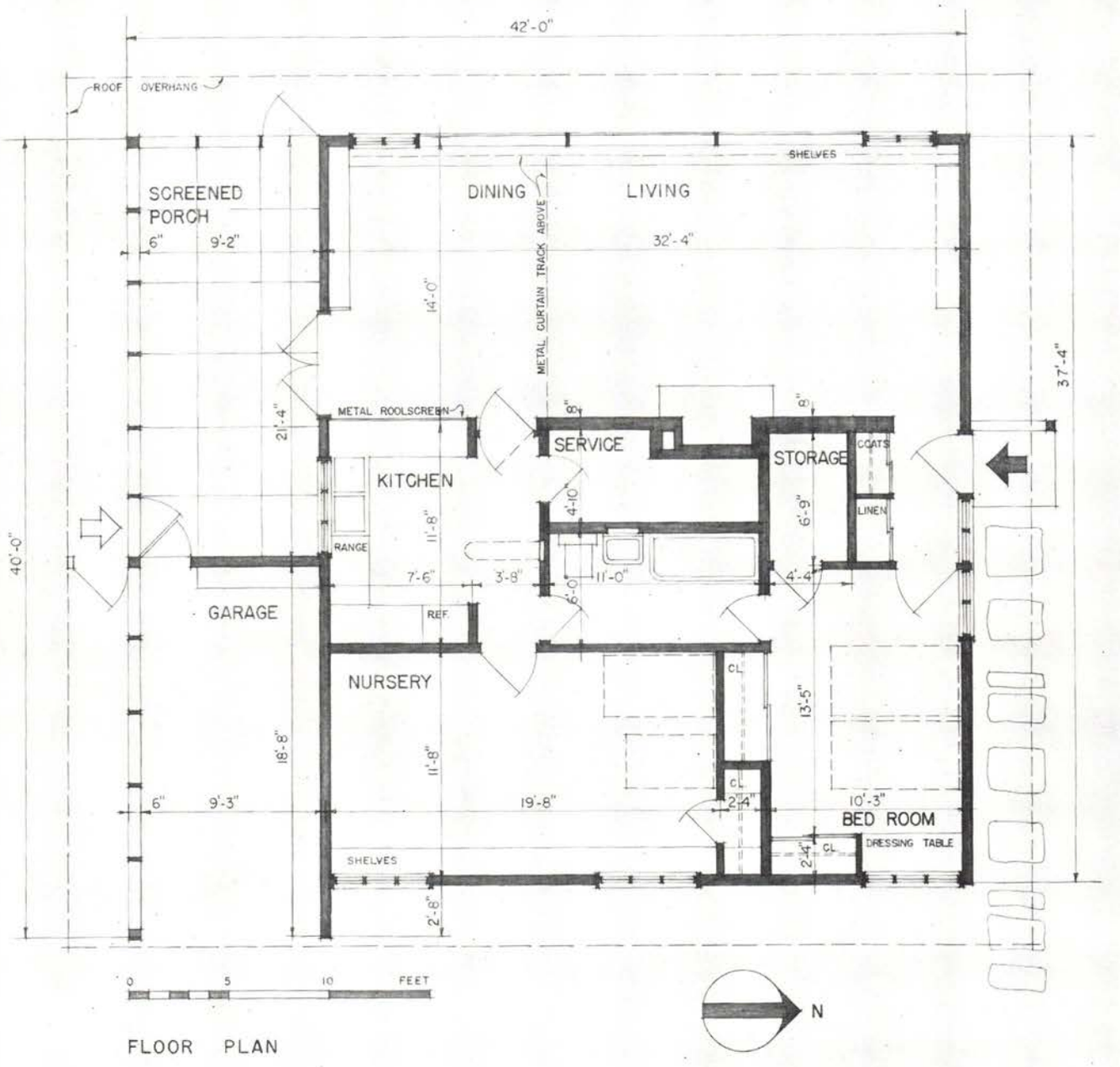
ARCHITECT'S COMMENTS: A flat slab is poured directly on grade; there is no basement. Walls are factory-made panels of wood studs and composition board. The roof pitches to the inside so that one leader will drain it.

All plumbing and heating equipment is concentrated in the central core of the building and ventilated through a monitor. In the summer an exhaust fan in the monitor will provide ventilation for the entire house.

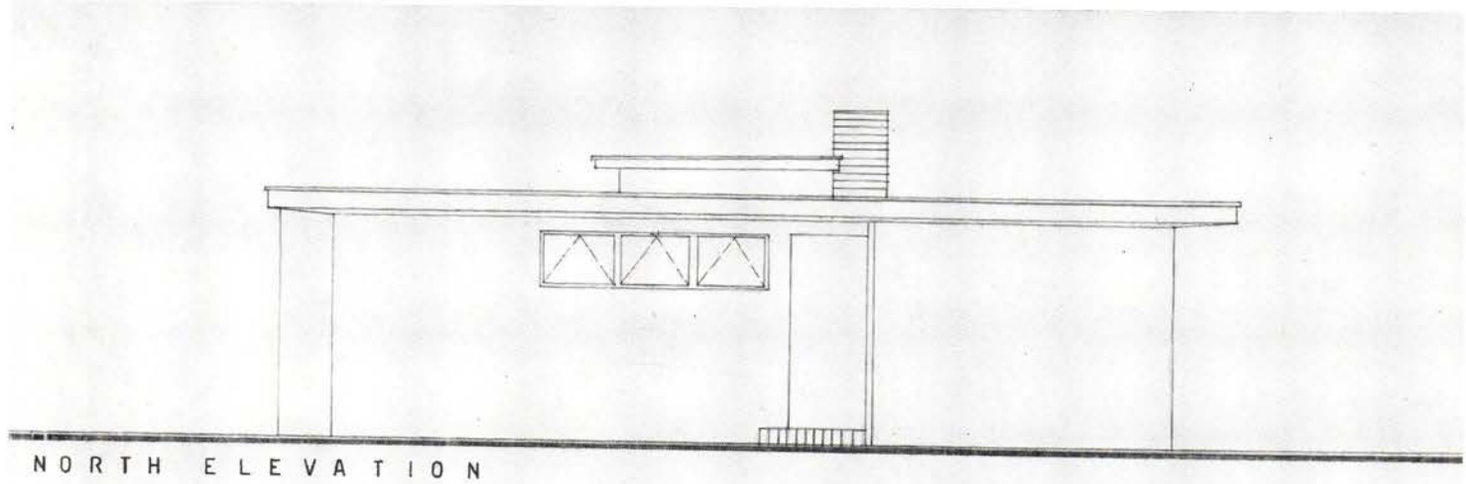
The main entrance contains an ample coat closet. Off the master bedroom is a large storage closet. For young children the nursery-bedroom, easily supervised from the kitchen, seemed to be the answer. Later it can be made into two bedrooms. The screened porch is used as an outdoor nursery, dining and living space. The living-dining room has one wall of glass and one of brick. The fireplace hood will provide ample heat for chilly spring or fall days. The bench in the dining alcove is also a daybed, providing emergency sleeping space. Living and dining areas could be permanently divided into two rooms of average size.

Walls are white; roof is gray; color accents on door and sash, blue.

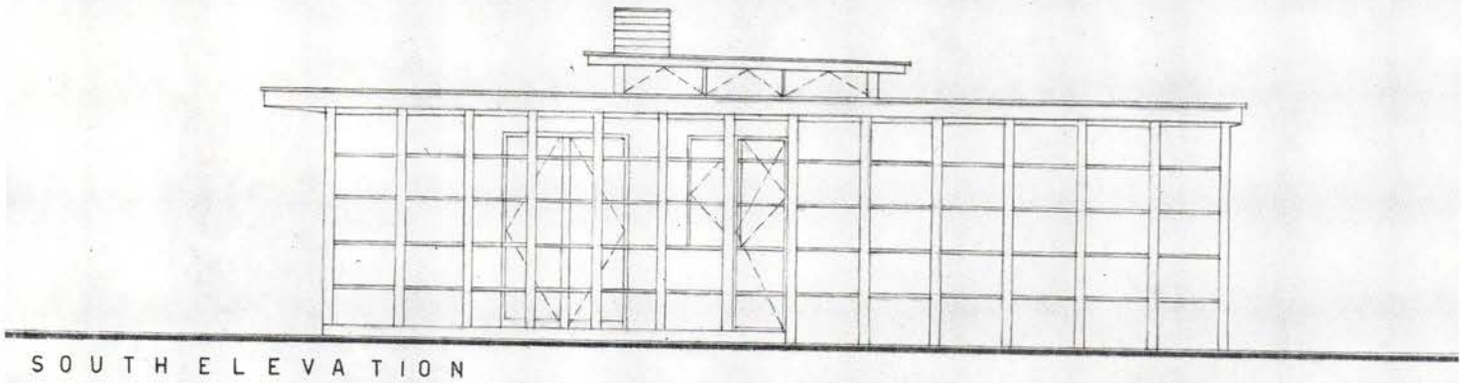




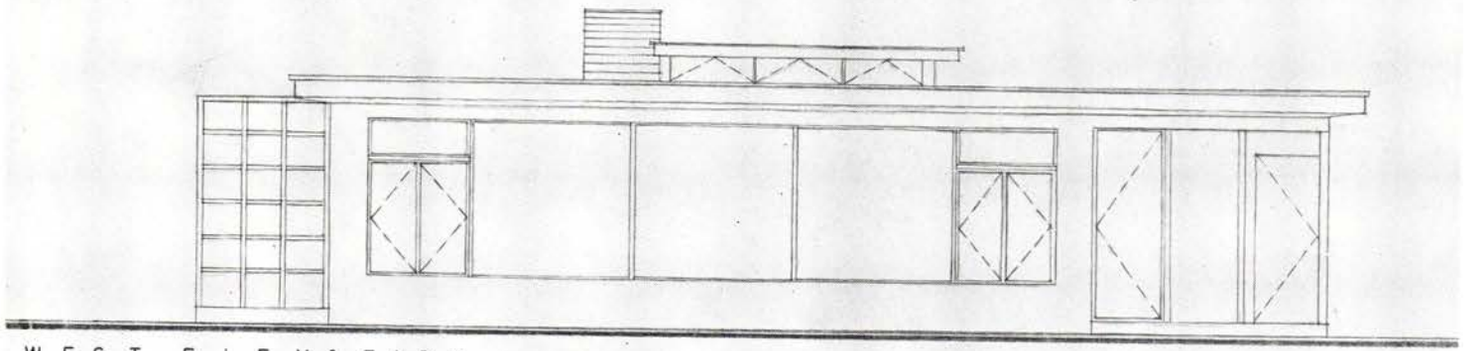
FLOOR PLAN



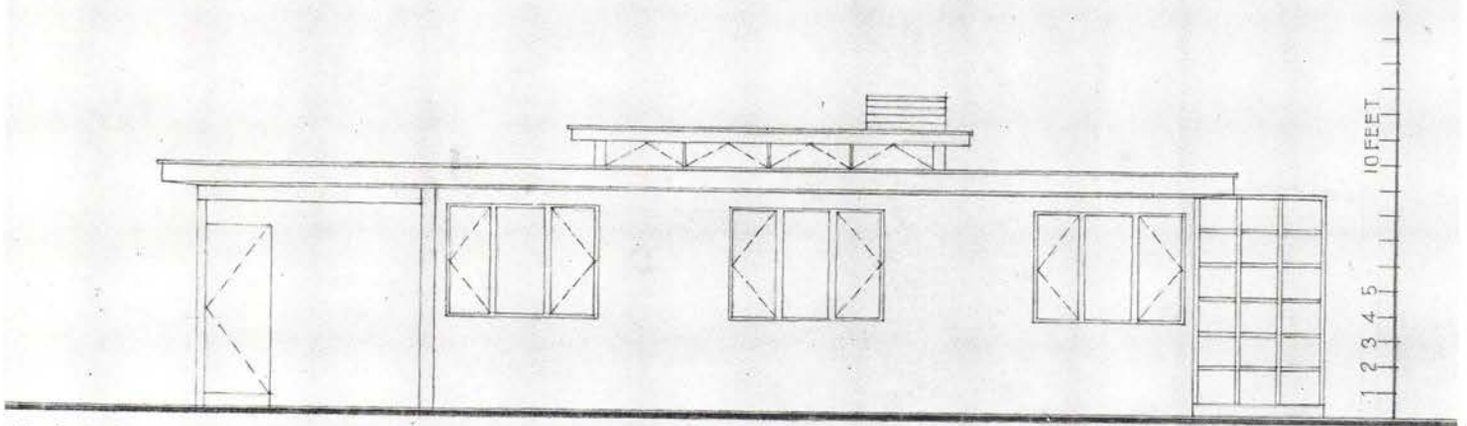
NORTH ELEVATION



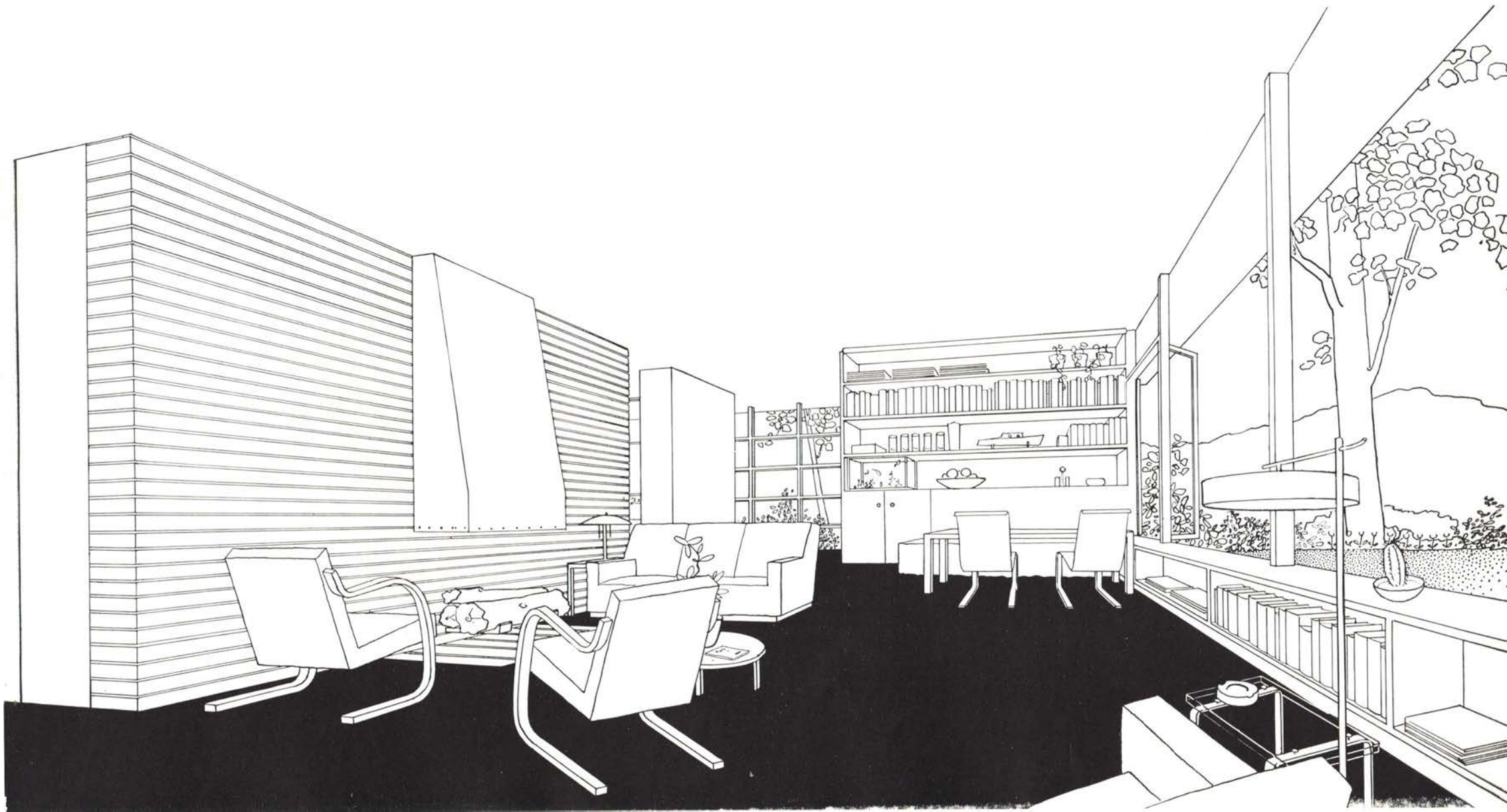
SOUTH ELEVATION



WEST ELEVATION

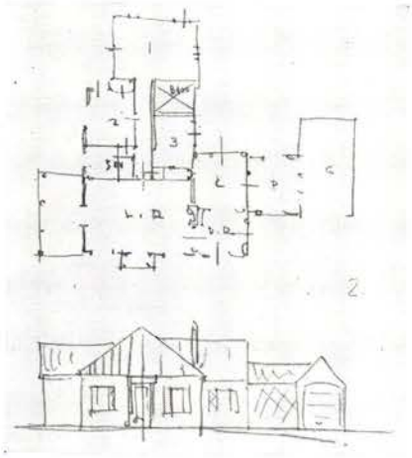


EAST ELEVATION

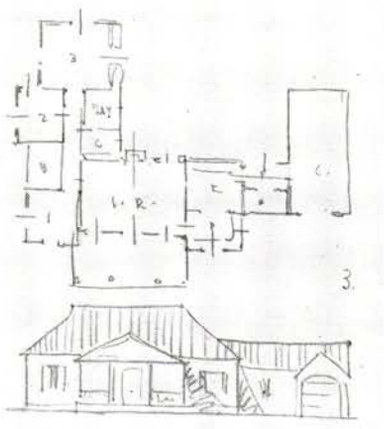


RICHARD KOCH, ARCHITECT HOUSE FOR $2,000–$3,000 INCOME

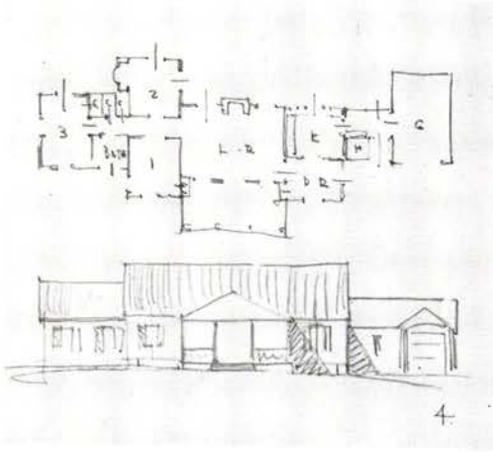
PRELIMINARY SKETCHES



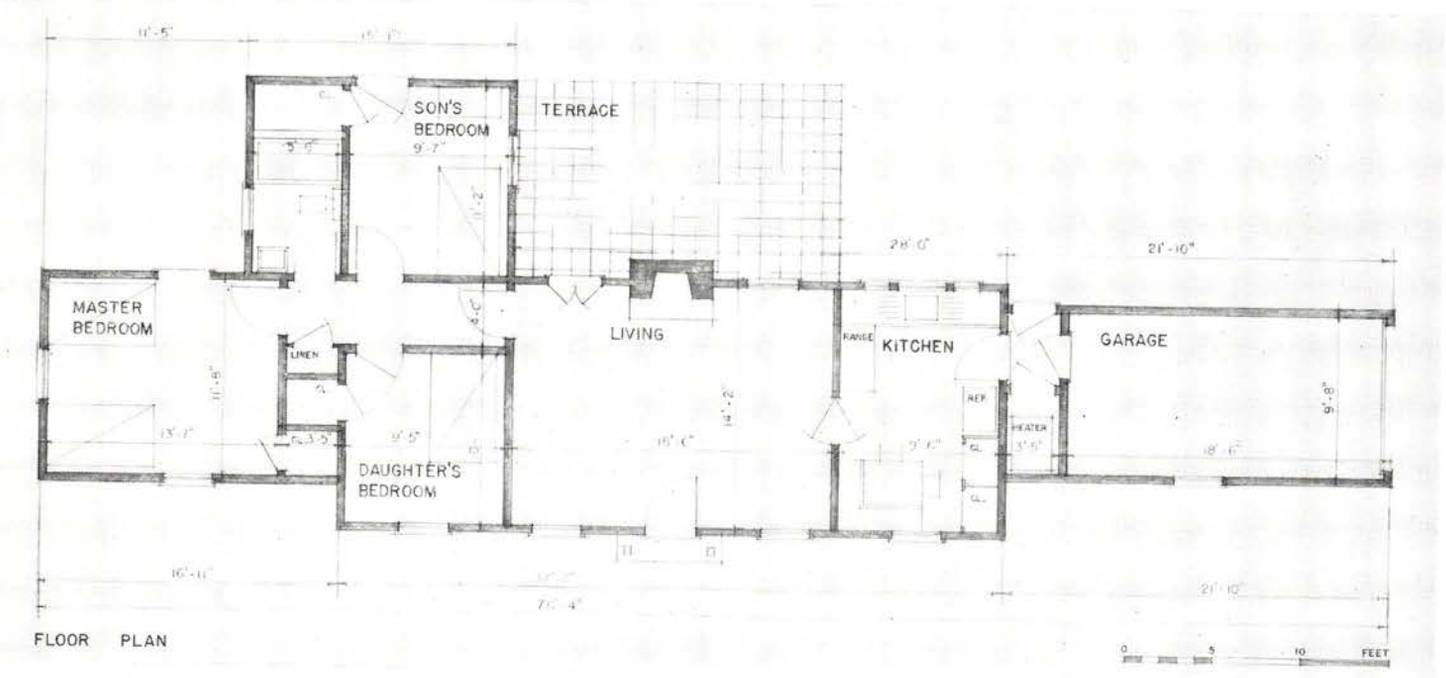
The problem: to design three separate units (living, sleeping, service) for compactness and privacy. An early study.



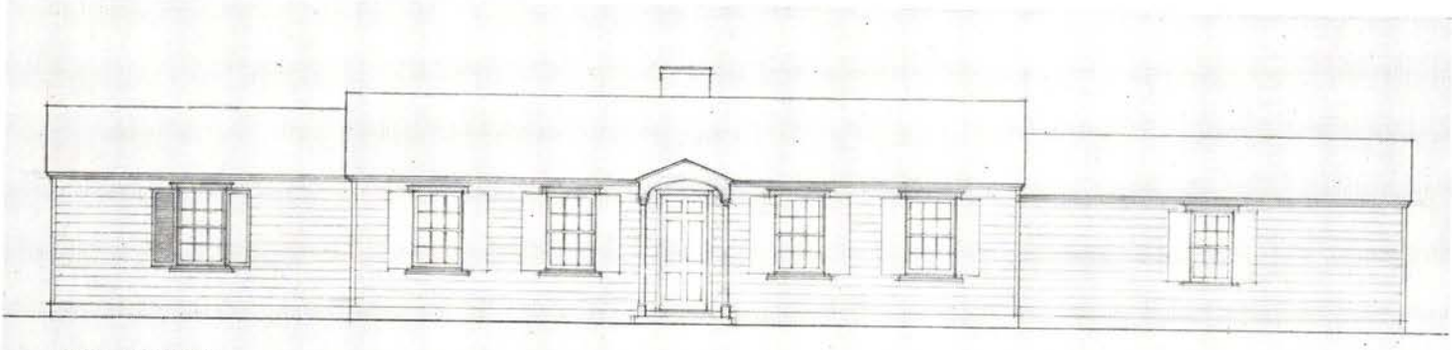
Better arrangement of bedrooms; more usable living room; small dining room. A simpler scheme, but over budget.



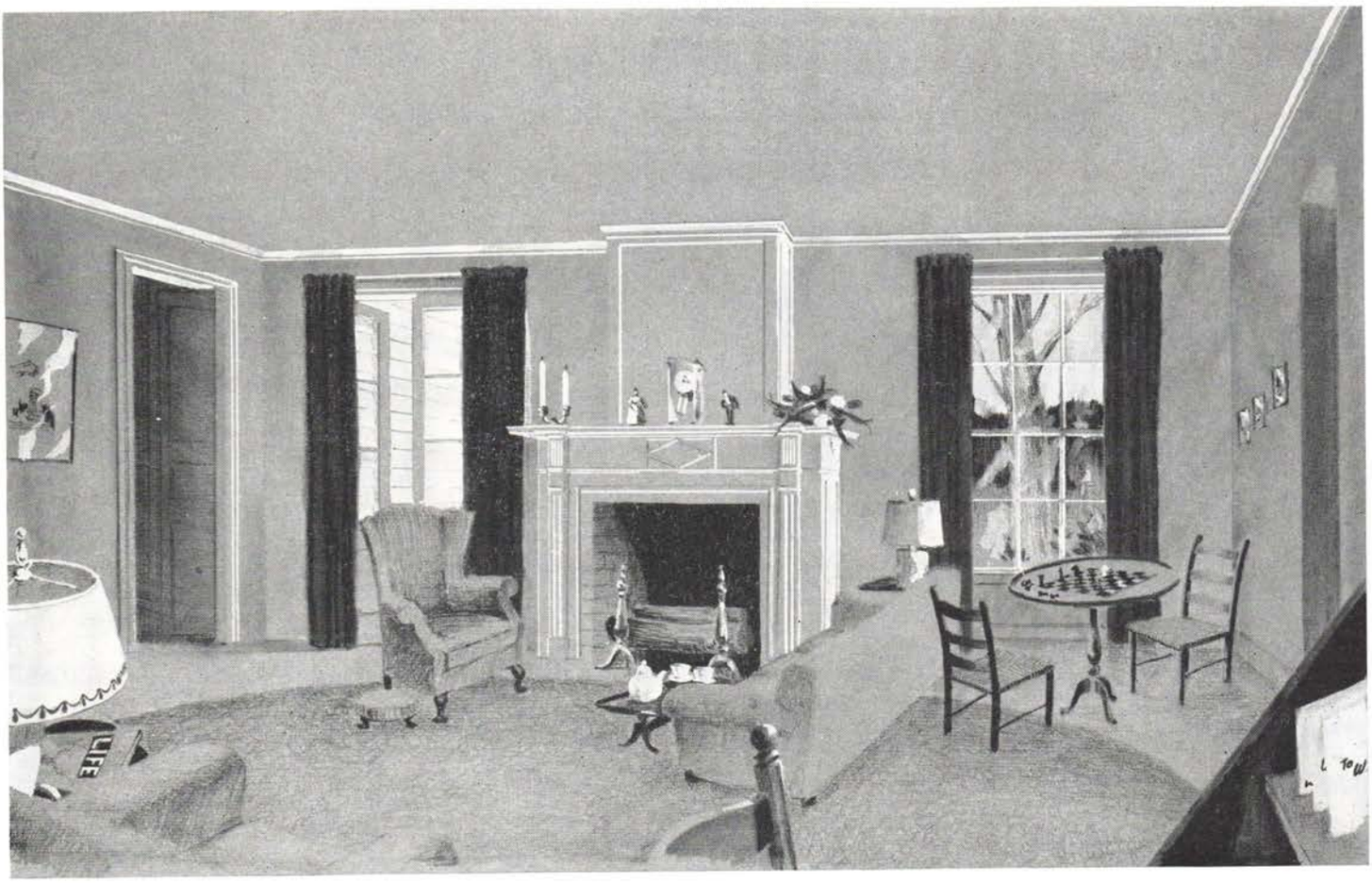
Cross ventilation in all bedrooms; through ventilation in living room. Separate dining room maintained. Still too large.



FLOOR PLAN

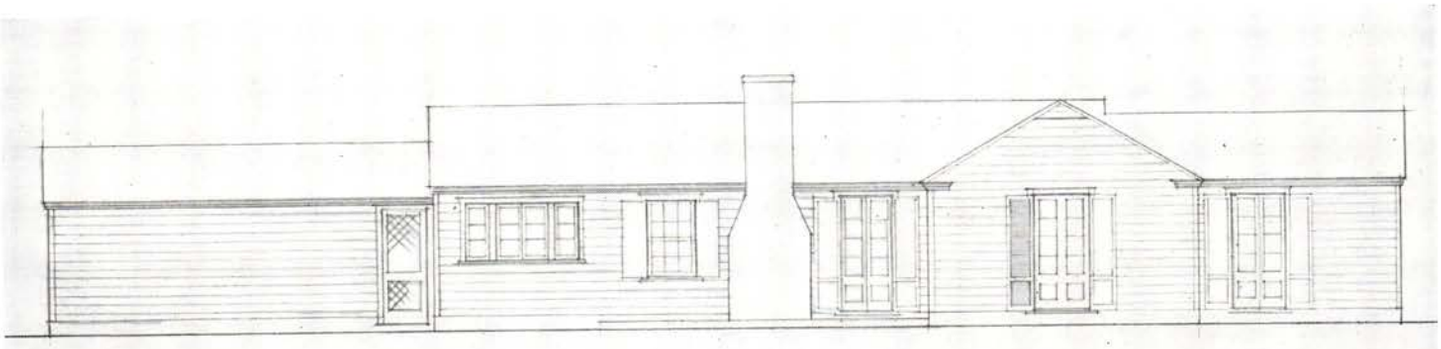


FRONT ELEVATION



LIVING ROOM

ARCHITECT'S COMMENT: Clapboards on a wood frame were chosen as the principal materials in the construction of the house. The waterproofed concrete slab on the ground is not only a preventive against termites, but is cool in summer and warm in winter. In some localities, though the cubage of the house is greater, it may be cheaper to raise the house off the ground and use sill and joist construction with brick piers. Also, in some colder areas a basement would give better heat distribution through the house. Exterior materials are weatherboards painted white, with green blinds. The material for the walks and terraces should be carefully studied; in many localities brick or flagstone would be economical, and would add to the dignity of the house. Variations in the wings could be made to fit a narrower lot.



REAR ELEVATION

The Ramseys' comment:

Both Mr. and Mrs. Ramsey prefer the traditional house and would accept it without alteration if necessary. They expect to start building in the spring.

MODERN HOUSE

The Ramseys have little to say about the modern house. Mrs. Ramsey likes the amount of closet space it offers. Mr. Ramsey says he would as soon live in a chicken house. None of their friends like this house. They like the screened porch better than the open terrace of the traditional house. They would prefer having the kitchen open into a separate dining room, and a garage facing the street.

TRADITIONAL HOUSE

Both Ramseys say that if the architect had worked for six months he could not have produced a more acceptable plan. There are a few changes, however, they want to make.

Mrs. Ramsey considers the children's rooms excellent, but a little cramped. Mr. Ramsey likes the separate outside door to the boy's room. Mrs. Ramsey would like to turn the present kitchen into a dining room, with the kitchen in a wing flanking the terrace, and the garage set back about eight feet to make way for a screened porch off the new dining room. The kitchen wing would balance the boy's room and give them the symmetry they seem to want. They would also change the garage so that it could be entered from the front instead of the side.

They want white shingles, and blue shutters. They are willing to sacrifice the daylight basement originally asked for. They also appear willing to give up the coat closet so urgently asked for.

The proposed changes are far from minor, and if the revised plans put the price of the house above their budget, they will build the original scheme.

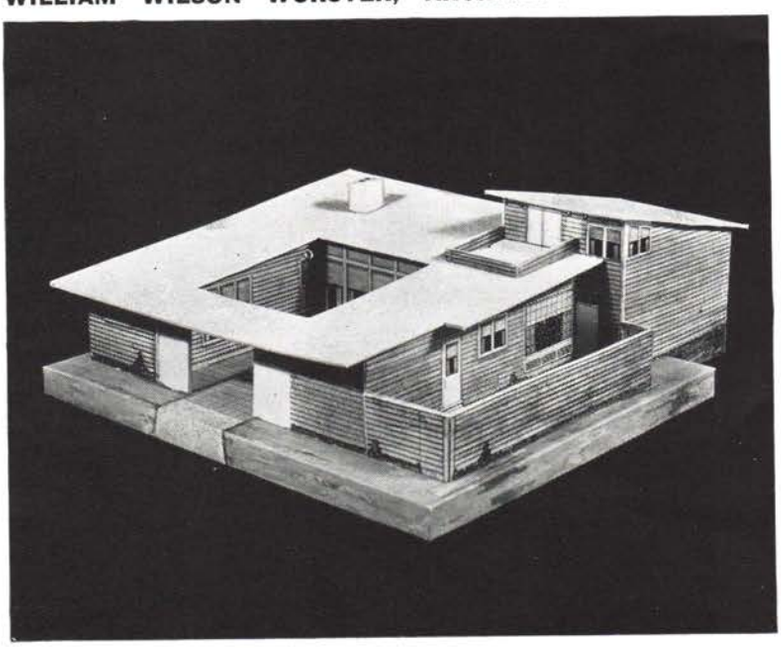
HOUSES FOR $3,000–$4,000 INCOME

For its family in the $3,000 - $4,000 income group, LIFE picked the Calverts of Los Angeles

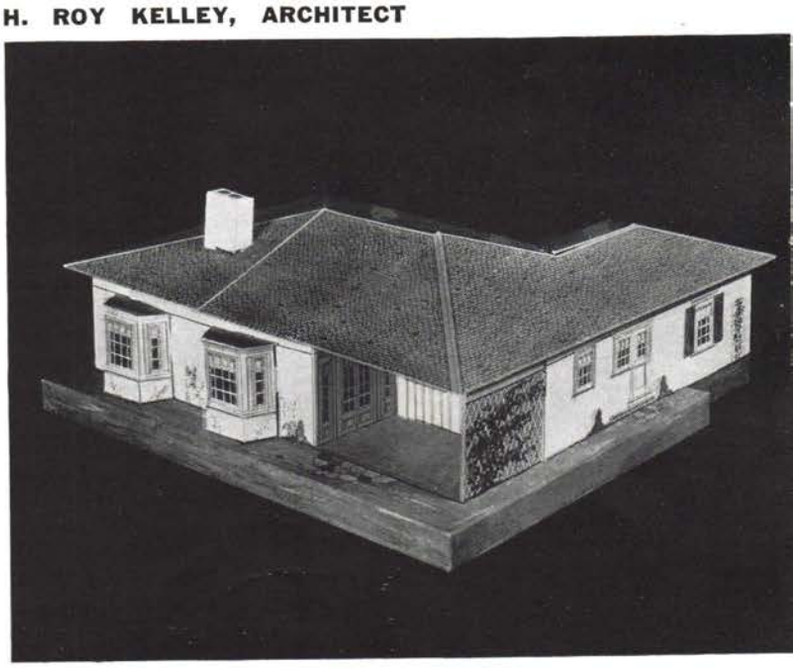
Young Mr. and Mrs. Calvert and their son, age three, live in a modest bungalow in the southern part of the city. They would like a one and a half story house, Cape Cod or modified English in style. Their specific requirements are as follows:

1. Two bedrooms.
2. A den, arranged for use as an occasional guest room.
3. A dinette, or a dining alcove off the living room. No separate dining room desired.
4. Kitchen, with a small breakfast room.
5. Small back porch, with one laundry tub.
6. One bath, located in a hall with linen closet and other storage space.
7. A darkroom, conveniently near the garage. (Mr. Calvert is a newspaper photographer).
8. A small back yard, with space for a badminton court, and an enclosed play yard for their child.
9. Miscellaneous: two-car garage with overhead door; fireplace in living room; built-in book shelves in den; stall shower in bathroom; ample closet space; no French windows; ventilation under house to offset dry rot and termites.

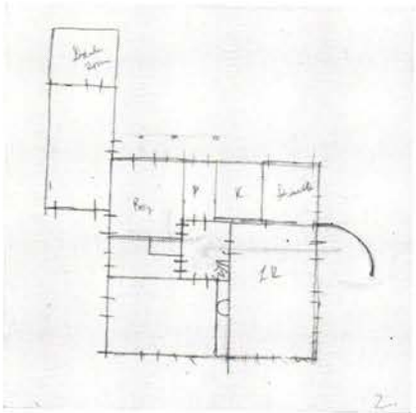
WILLIAM WILSON WURSTER, ARCHITECT



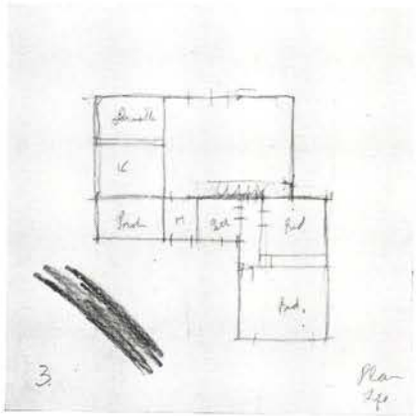
H. ROY KELLEY, ARCHITECT



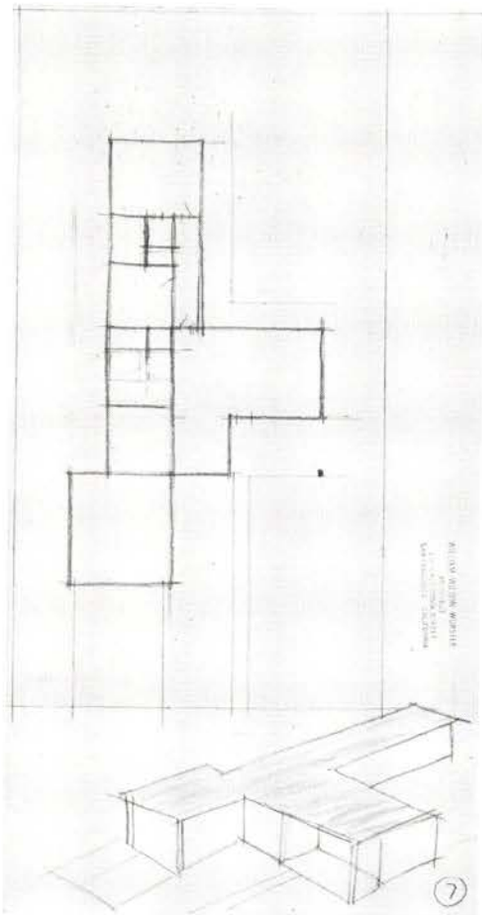
PRELIMINARY SKETCHES



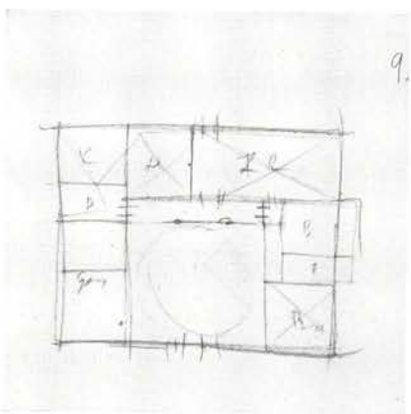
Square house plan. This did not seem to make use of the lot, or give controlled areas.



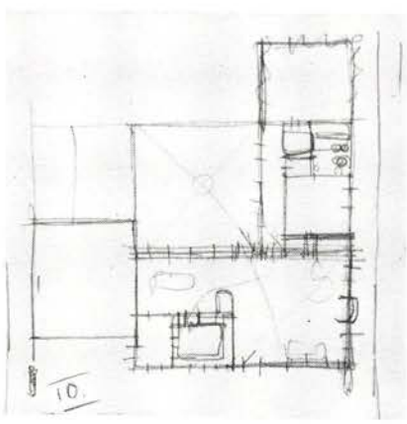
Bedrooms are over the garage. A great favorite with our speculative builders. Elevations are generally unfortunate.



One-story scheme, still without a patio.



Scheme with the patio turned toward the street.

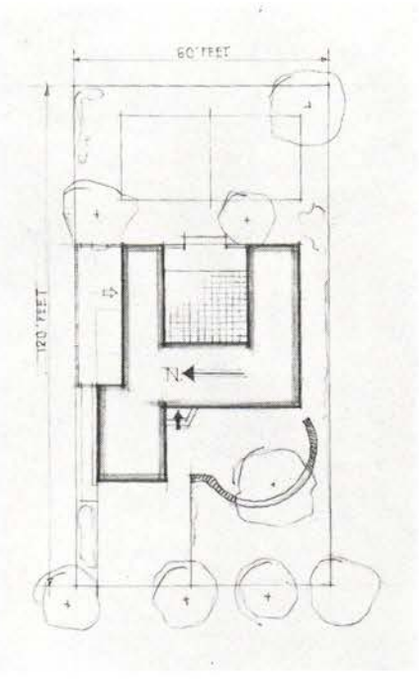


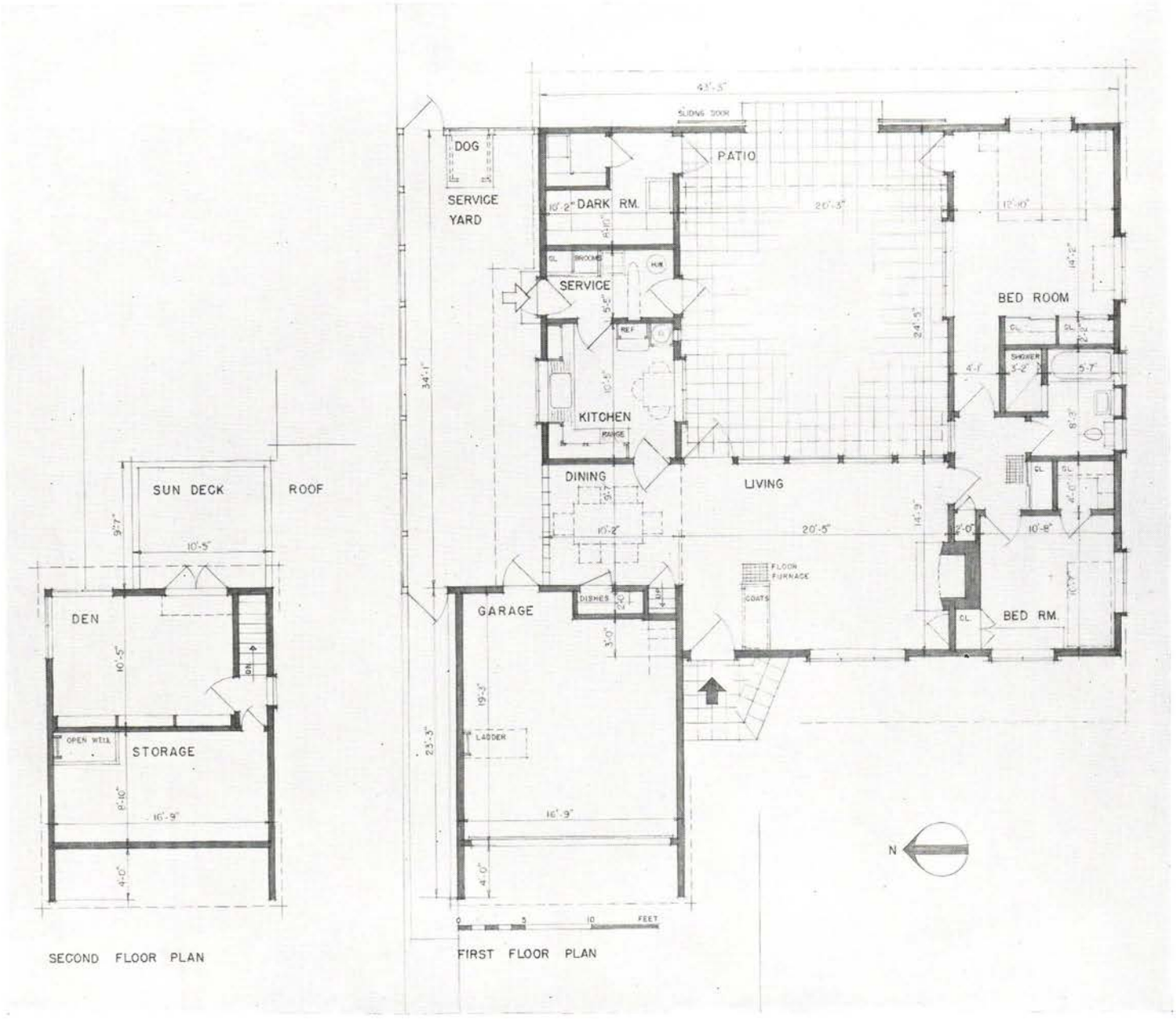
The patio scheme becomes more fixed; the kitchen now faces the street.

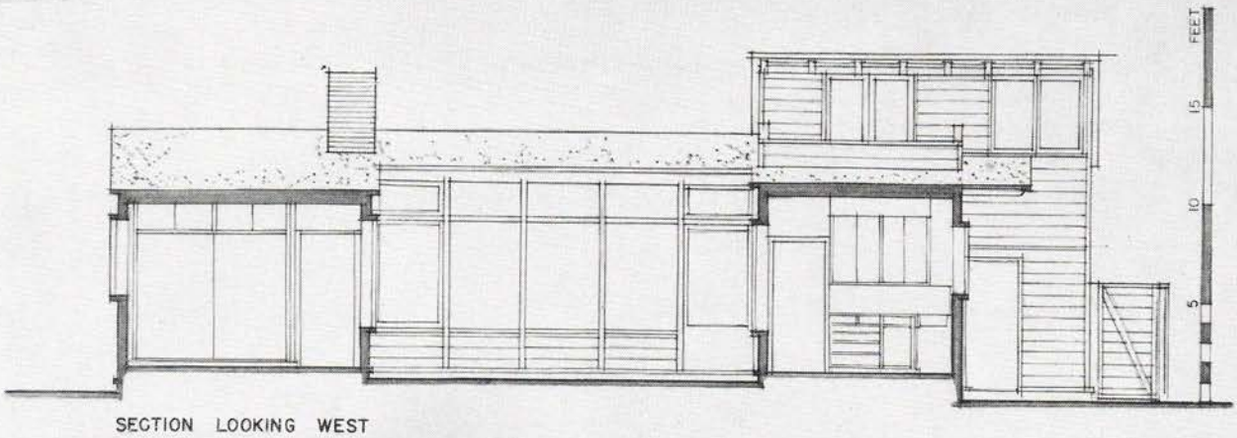
ARCHITECT'S COMMENT: The house is placed to minimize the area to be kept presentable. The lot faces west, which gives the badminton court a north-south direction. The roof is sloped to bring as much sun into the court as possible.

Every room has two or three exposures giving ample sunlight and ventilation. Traffic between kitchen and bedrooms crosses the living room; furniture is arranged so that there is no interference; the court, moreover, may be used in going from the service porch to the bedrooms.

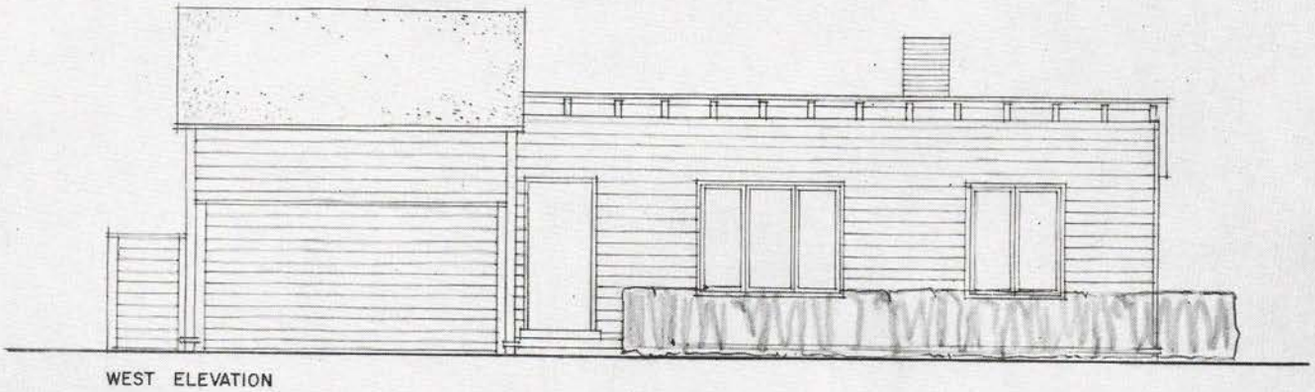
Specific features worth noting are: undercover walkway from garage; storage space over front of garage; intriguing location of den and sun deck—up a few steps; child at play in court can be observed from practically every room; natural redwood exterior walls prevent glare; the white mineral-surfaced roof repels heat; window frames project beyond wall surface, giving space for venetian blinds.



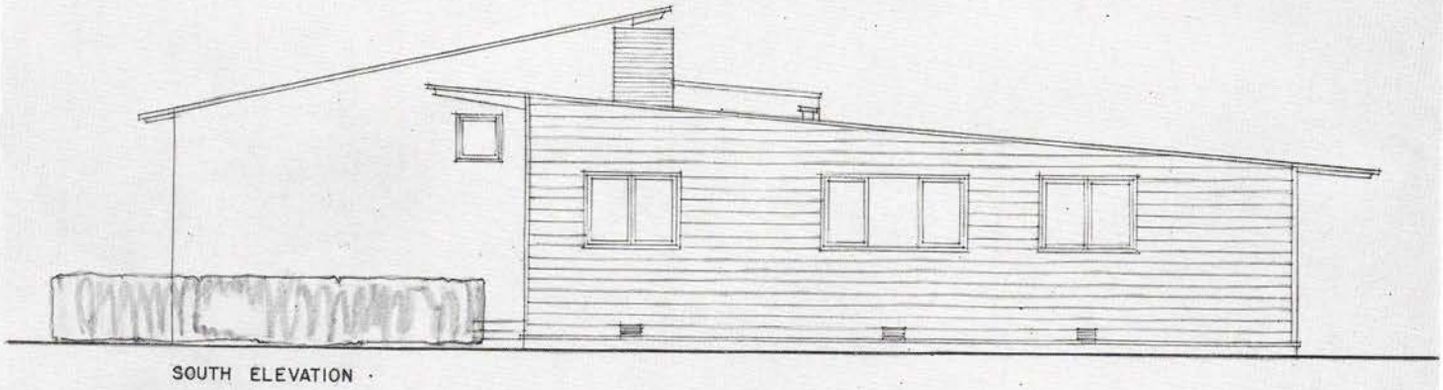




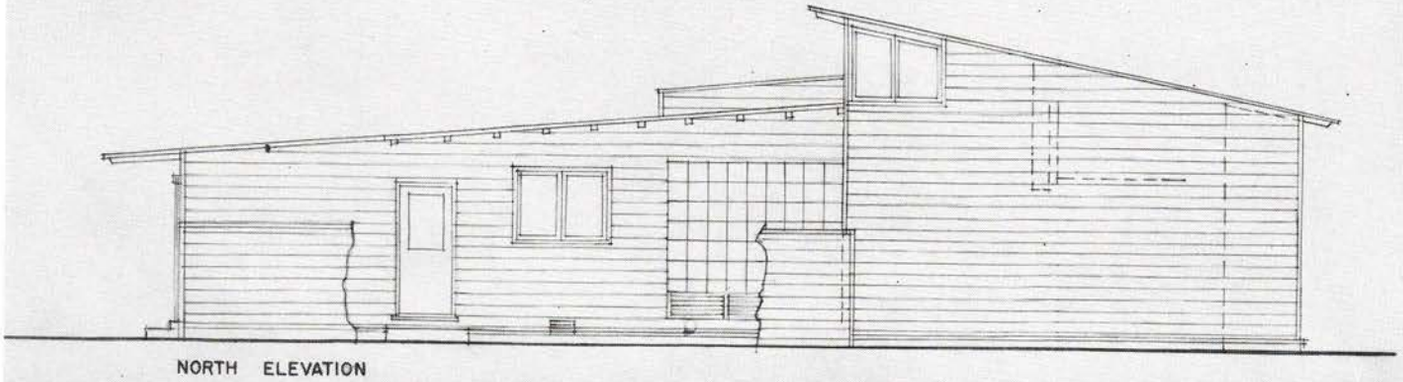
SECTION LOOKING WEST



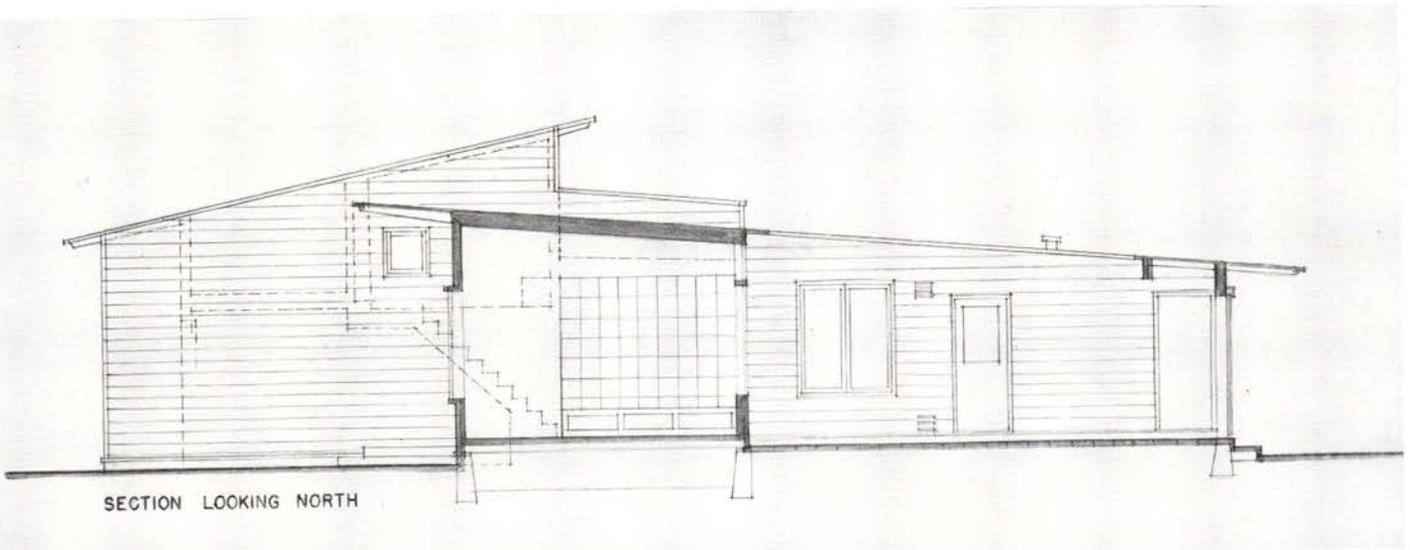
WEST ELEVATION



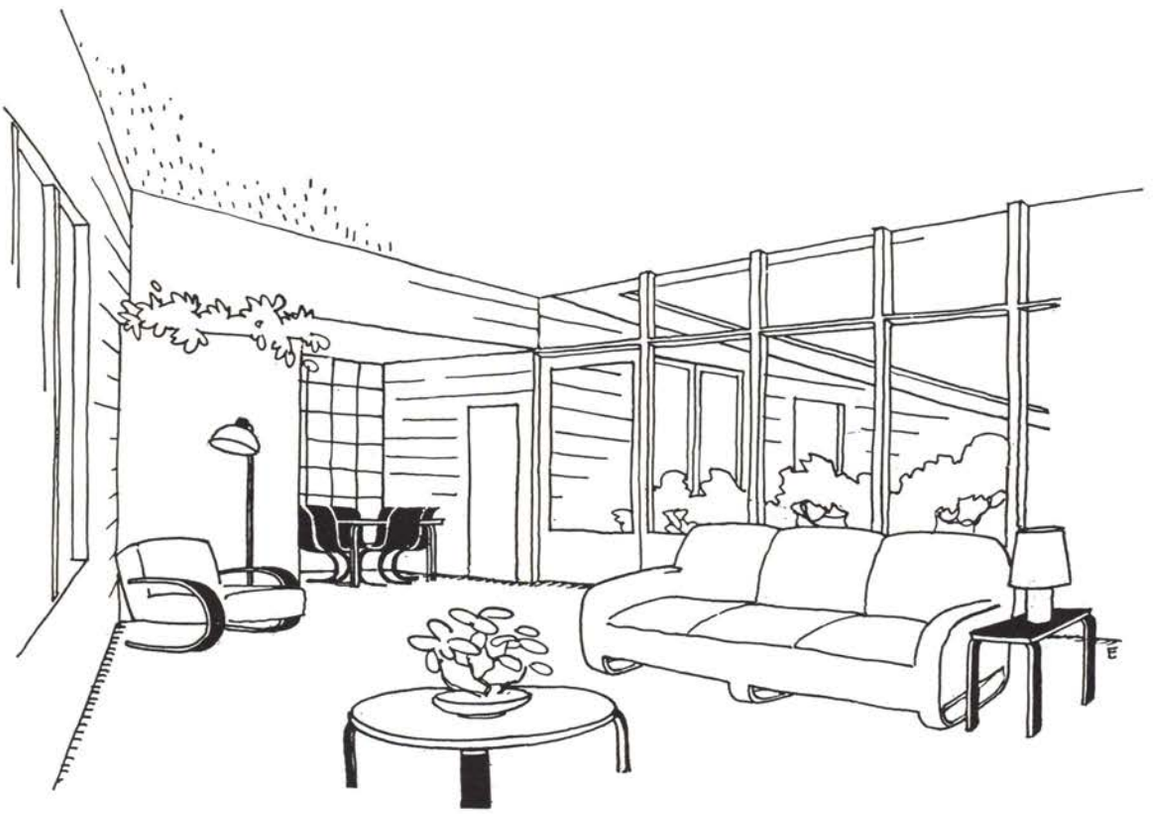
SOUTH ELEVATION



NORTH ELEVATION



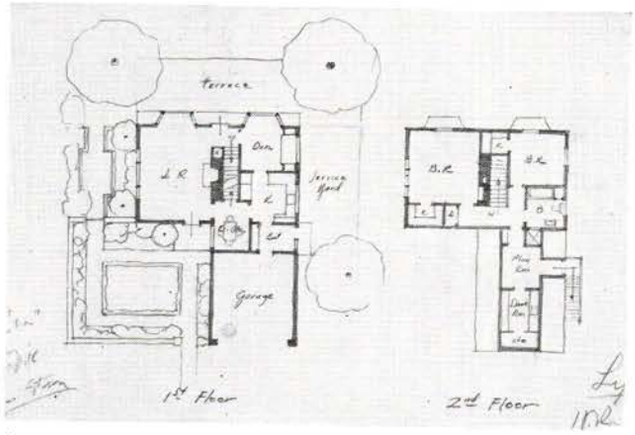
SECTION LOOKING NORTH



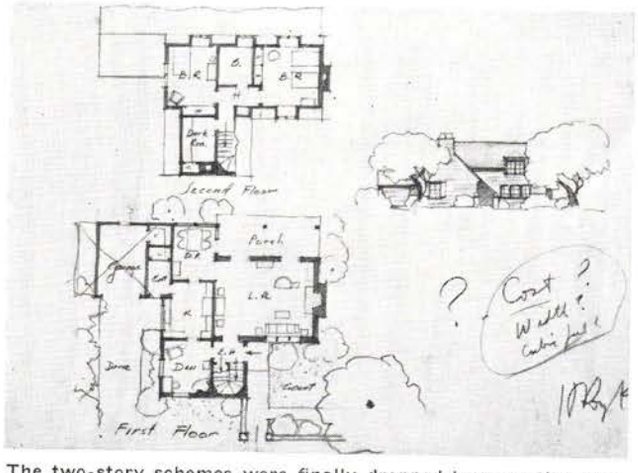
LIVING-DINING

H. ROY KELLEY, ARCHITECT HOUSE FOR $3,000–$4,000 INCOME

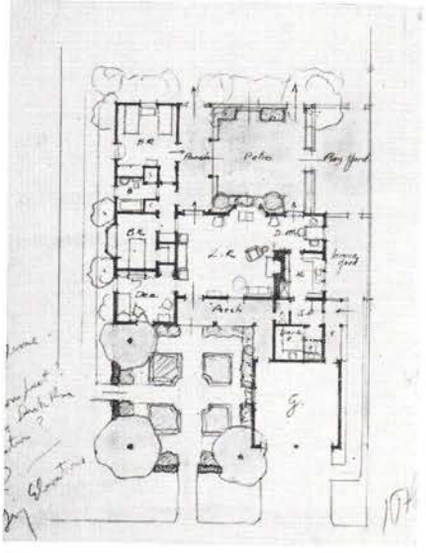
PRELIMINARY SKETCHES



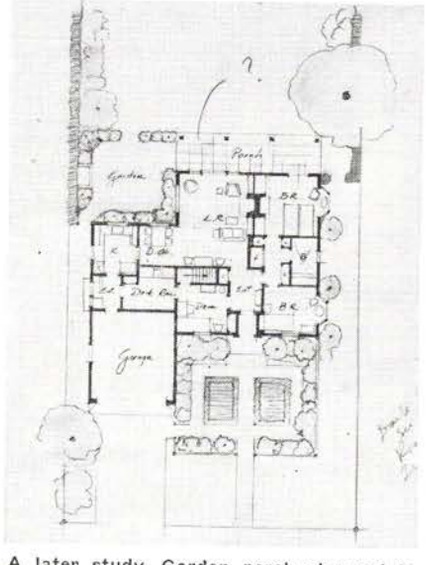
Inasmuch as the client expressed preference for a "story and a half" house we tried a scheme with upstairs bedrooms.



The two-story schemes were finally dropped because the area of the house was too small for a well-proportioned house.



After trying many one-story schemes, we finally hit on this one, subsequently modified to become the final design.



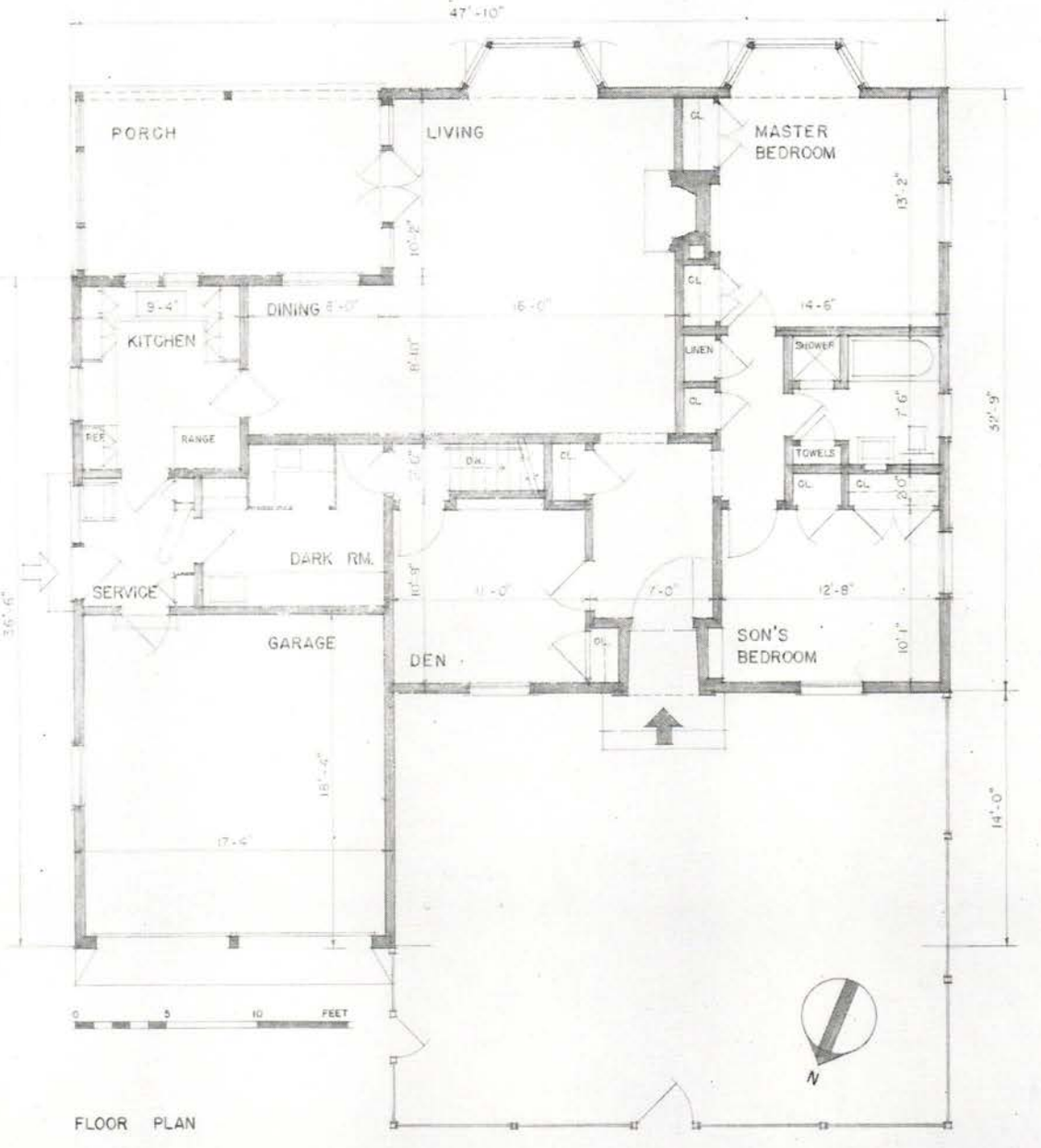
A later study. Garden porch changed to permit more economical roofing. Bays in living room and master bedroom.

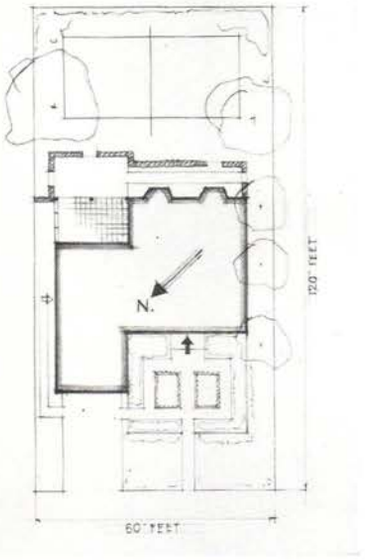
ARCHITECT'S COMMENT: In type of architecture the design follows the traditional character of houses developed by the early settlers in California, who came from New England and other eastern sections. These early houses were a subtle and harmonious blend of Spanish and New England Colonial. The type is not only appropriate for California, but is applicable to other sections of the country.

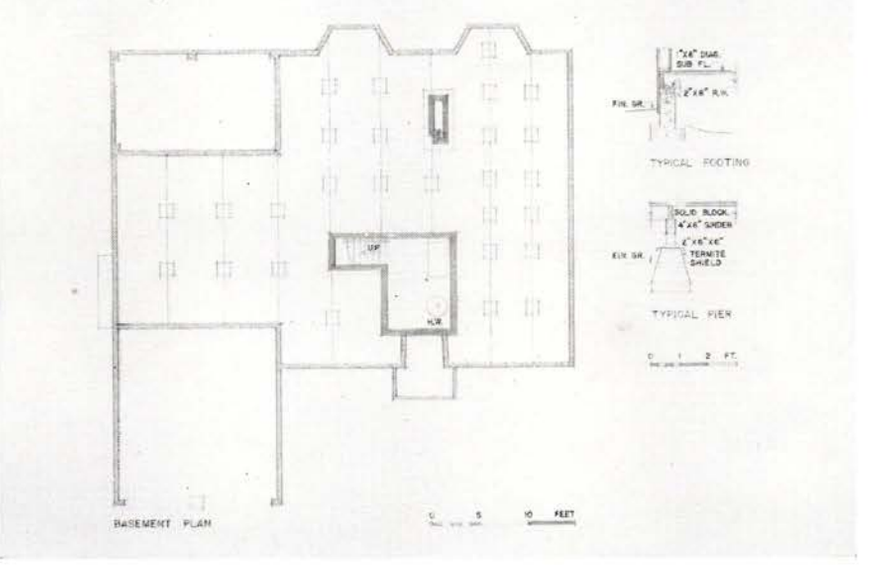
The floor plan is compact; having only 1240 square feet, exclusive of garage and dark room, its rooms are of generous size and are well placed for light and ventilation. All rooms, including the kitchen, have a pleasant outlook. The covered porch overlooking the rear garden may be used for outdoor living and dining.

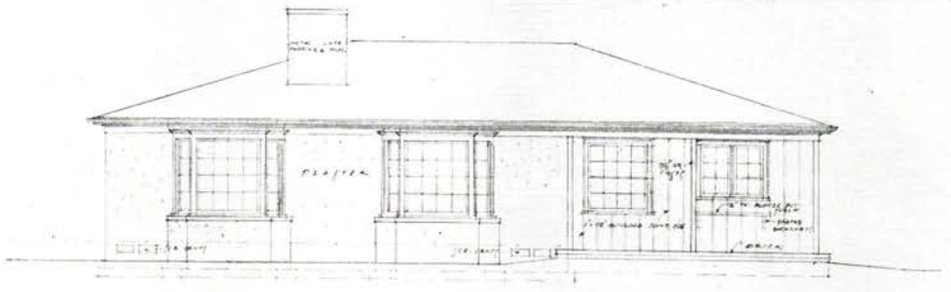
The garage is conveniently located at the front of the property. When driving in with provisions, the housewife has ready access to the service and kitchen, while the owner can take his photographic equipment from his car directly to the dark room or den. While conveniently located, the dark room is completely removed from contact with other portions of the house.

Ample closets have been provided in the entrance hall, bath, bedrooms, and den. There are book shelves in the den and boy's room. The stairway to the basement heater room is located so that photographic chemicals may be stored there if desired. There is space at the rear for a badminton court or play area.

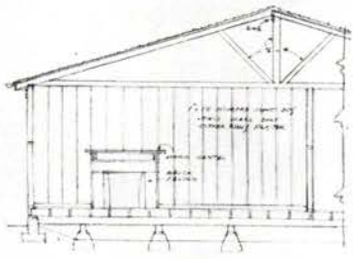

47'-10"
PORCH
LIVING
MASTER BEDROOM
KITCHEN
DINING
SHOWER
LINEN
TOWELS
RANGE
REF.
DARK RM.
SERVICE
GARAGE
DEN
SON'S BEDROOM
CL.
DW.
0 5 10 FEET
N
FLOOR PLAN


N.
120' FEET
60' FEET

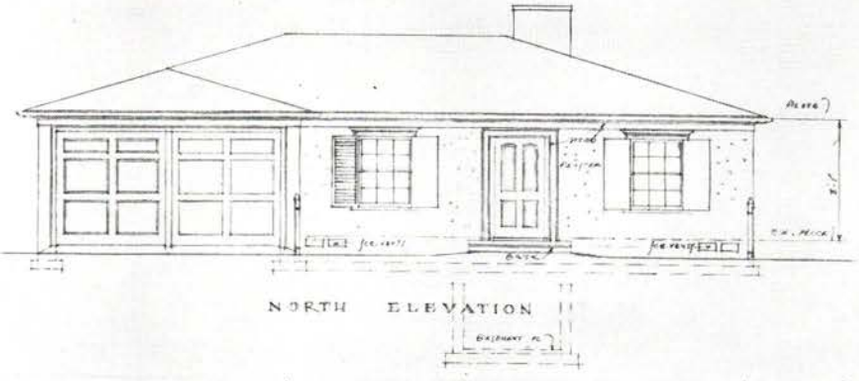

UP
H.W.
BASEMENT PLAN
0 5 10 FEET
TYPICAL FOOTING
TYPICAL PIER
SOLID BLOCK
TERMITE SHIELD
0 1 2 FT.



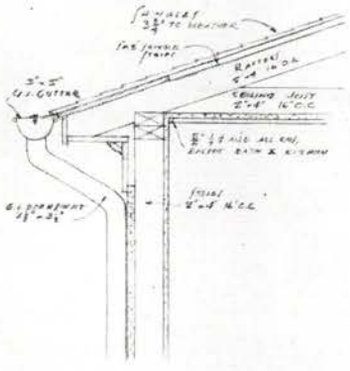
SOUTH ELEVATION



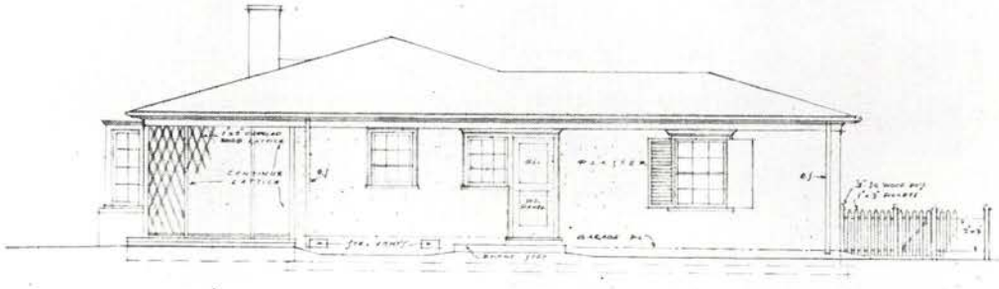
TYPICAL FRAMING SECTION



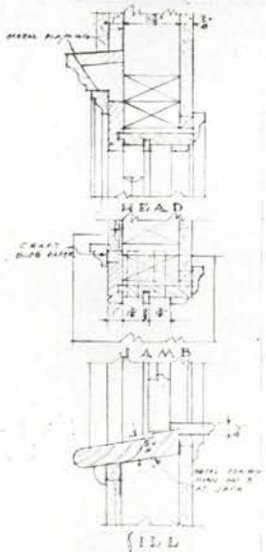
NORTH ELEVATION



EAVE DETAIL
1½" = 1'-0"



NORTH EAST ELEVATION



HEAD

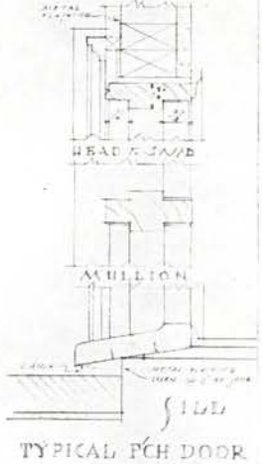
JAMB

SILL

TYPICAL WINDOW

TYPICAL INT. DOOR

SOUTH WEST ELEVATION

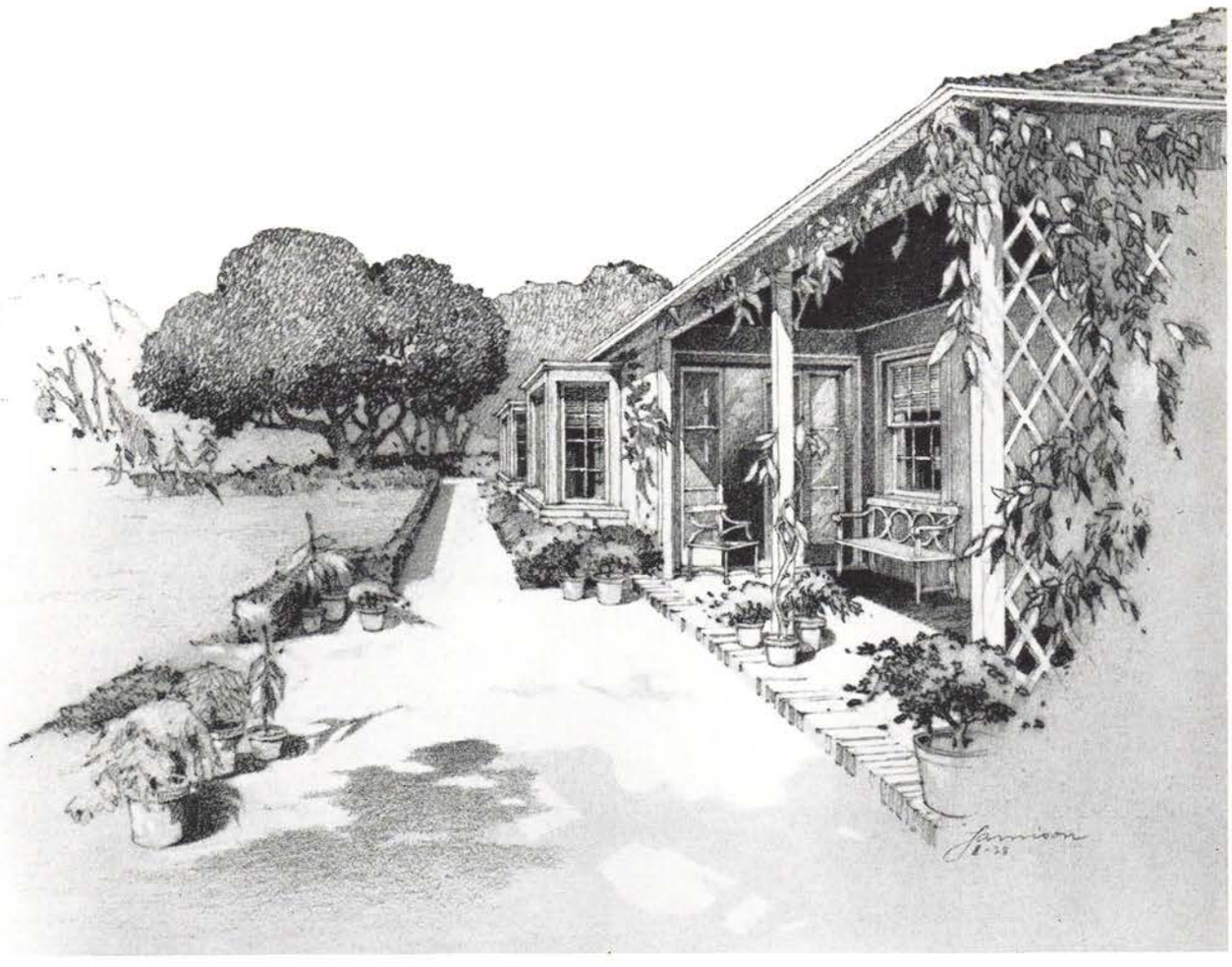


HEAD & JAMB

MULLION

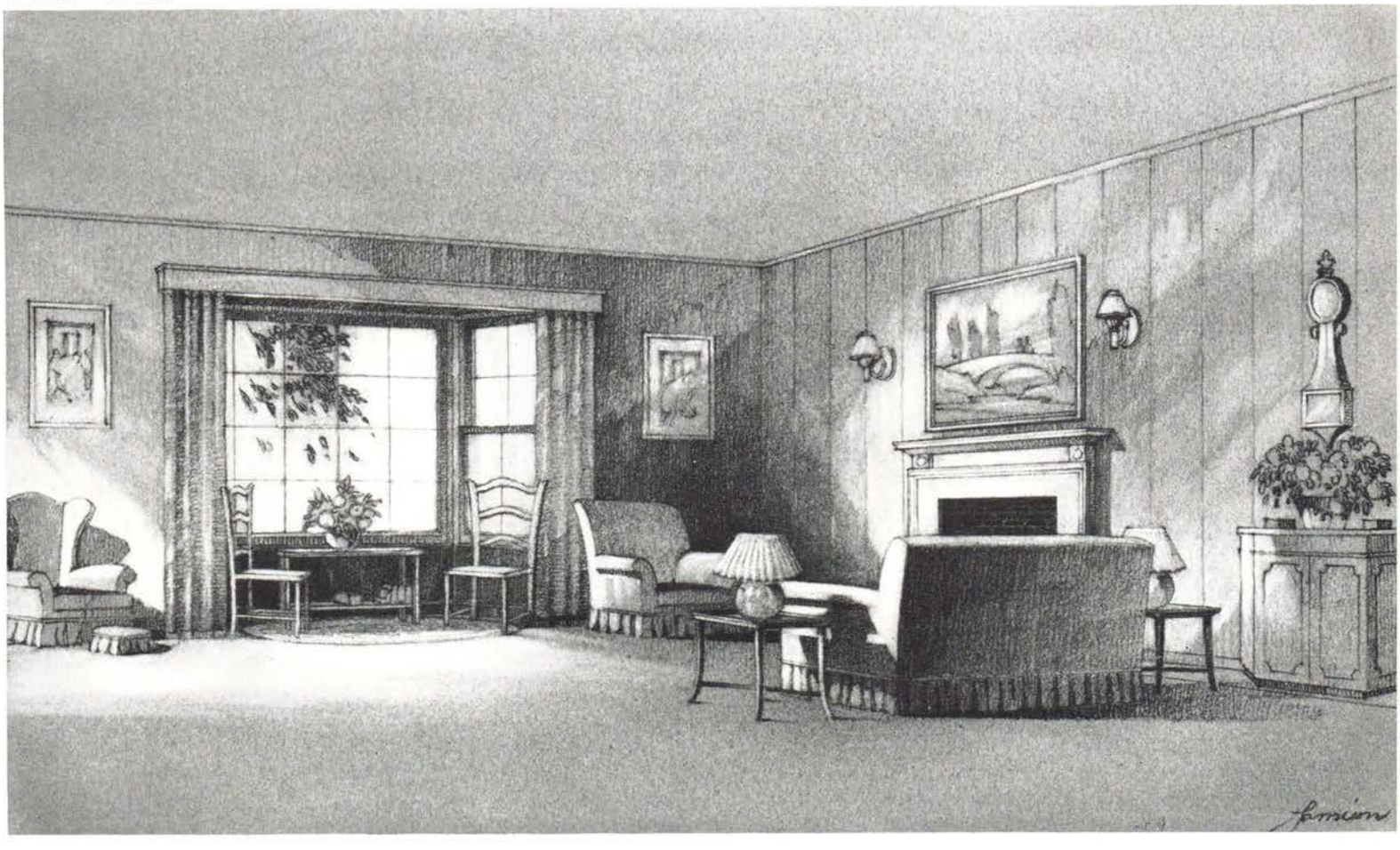
SILL

TYPICAL FCH DOOR



PORCH

LIVING ROOM



The Calverts' comment:

The Calverts definitely prefer the traditional house. As far as they are concerned they would change nothing. Their chief objection to the modern house is that they don't like its looks.

MODERN HOUSE

Mrs. Calvert rejected the modern house at first glance. Not liking its appearance, she finds that enough. She says, "It looks uncomfortable from the outside."

The principal specific objection also comes from Mrs. Calvert, who finds that the patio would make the house difficult to take care of, twice as many steps being required for the same amount of housekeeping to be done in the traditional house.

Both Calverts like the living room very much, emphasizing its good arrangement and its generous light. Neither one speaks strongly for or against the patio, save on the point of the additional housekeeping it requires.

Their reaction boils down to "It's a nice house—but not for us."

TRADITIONAL HOUSE

Mrs. Calvert says it is just exactly the sort of house she has always imagined she would like to build. This identification of dream house and designed house overrides all other considerations. Specifically, they like the living room being in the rear; they like the arrangement of the entrance hall, which permits one to go to the living room, den, bedrooms and bath without going through any other rooms. They find the closet space adequate. They are pleased with the bay windows in the living room and master bedroom.

Mrs. Calvert does her own housework and thinks the traditional house would be easy to keep clean.

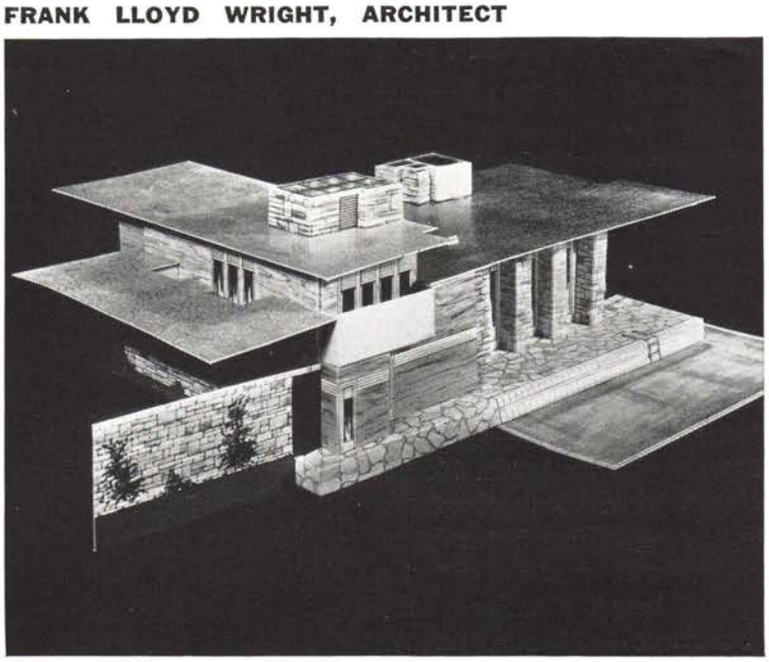
HOUSES FOR $5,000–$6,000 INCOME

For the family in the $5,000–$6,000 income group, LIFE chose the Blackbourns of Minneapolis

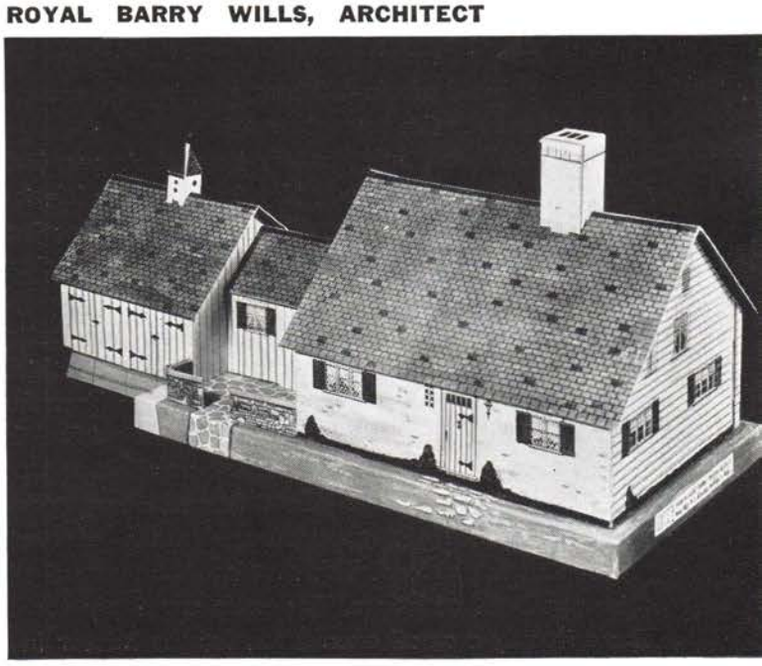
The Blackbourns live in a six-room house in an attractive residential district, have a son, 13, and a daughter, 17, and a dog. Mr. Blackbourn has his own business, with his office in his home. The Blackbourns have been considering building a "Scotch peasant house" on the adjoining lot. This lot is triangular, 141 ft. at the front, 140 ft. deep, and slopes 15 ft. The house would be one story at the front, three at the rear, and finished in brick. Specifically, the Blackbourns require:

1. Four bedrooms.
2. Two baths.
3. An office.
4. Living room with full-length windows in the rear.
5. Dining room and breakfast nook.
6. Recreation room in above-ground basement.
7. Hobby room and laundry in basement.
8. Miscellaneous: wood paneling in den; no ceiling lights in living room; plenty of electric outlets; cedar closet; fireplaces in living and recreation rooms; pine-paneled breakfast room; phone booth.

FRANK LLOYD WRIGHT, ARCHITECT



ROYAL BARRY WILLS, ARCHITECT



TO THE BLACKBOURNS:

Herewith the plans for a good time space for your family in a style to which you are, as yet, unaccustomed but one which you might truly call your own if you wanted to. We call the style Usonian meaning "of these United States". If the house seems a little open for your Northwest, that openness has been taken care of by building the house upon a paved concrete mat itself heated by steam pipes laid under it in the gravel filling beneath. This insures comfort no matter how cold outside and there are no radiators in sight. What looks like them in the drawings are really the folding screens between the several spaces opening into the central or general space—a kind of enclosed patio.

Space is characteristic of this free pattern for a freer life than you could possibly live in in the conventional house—separated into boxes; itself a big box.

One thing to mention at the beginning is the matter of the lot. No ten thousand dollar house should stand on less than 100 ft. so we have taken a thousand dollars off the cost of the house and put it into another lot—two lots 60 x 120 ft. on level land —$2,000 invested in that.

We have studied your little family and arranged for all including the dog. Each has his own privacy when needed and good time space for all together without any basement or an attic.

The swimming pool might not come within our appropriation, in which case a sunken garden or lawn would do very well.

Betty Jane has a telephone box and all the privacy by the fireplace in the sitting room any young girl has a right to expect before she owns her own home—or her own car. The boys meantime have plenty of room for action.

The dining, sitting, and ground floor sleeping spaces can all be thrown into the central space which is, as before said, a kind of enclosed patio on occasion.

Mother has a convenient kitchen next the dining table—everything "on ballbearings" to save labor. It is all but automatic.

Father's office is next so mother can answer the telephone when he is away.

There is plenty of car space—not enclosed because cars—today—are not a horse and buggy anymore.

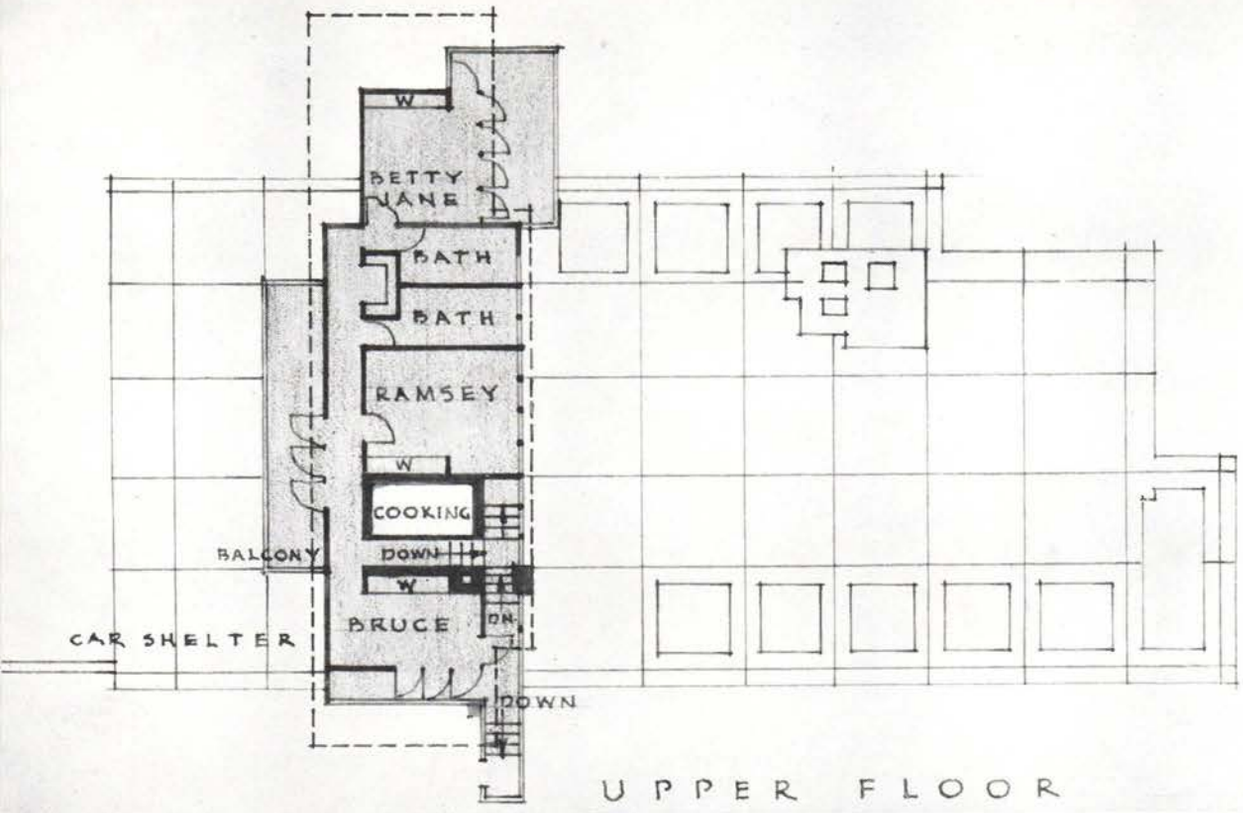
When Father and Mother want to get away from it all their sleeping room on the ground floor may be closed off for quiet and it opens to the garden which may be a zone of quiet with an outdoor fireplace.

There is one extended 9 ft. flat ceiling over everything on the ground floor with a continuous band of glass tubing running all around the house. This ceiling becomes open trellis over the terraces outside.

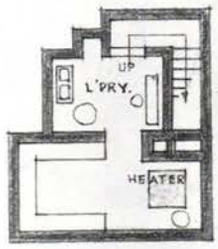
Betty Jane, Bruce, and Ramsey have their own little bailiwicks upstairs front.

American (I prefer to say Usonian) family life is unlike any other in the world and I think this plan recognizes it for pretty much what it is—at this stage of development—a little private club—with special privacies, ultra conveniences, and style all the while.

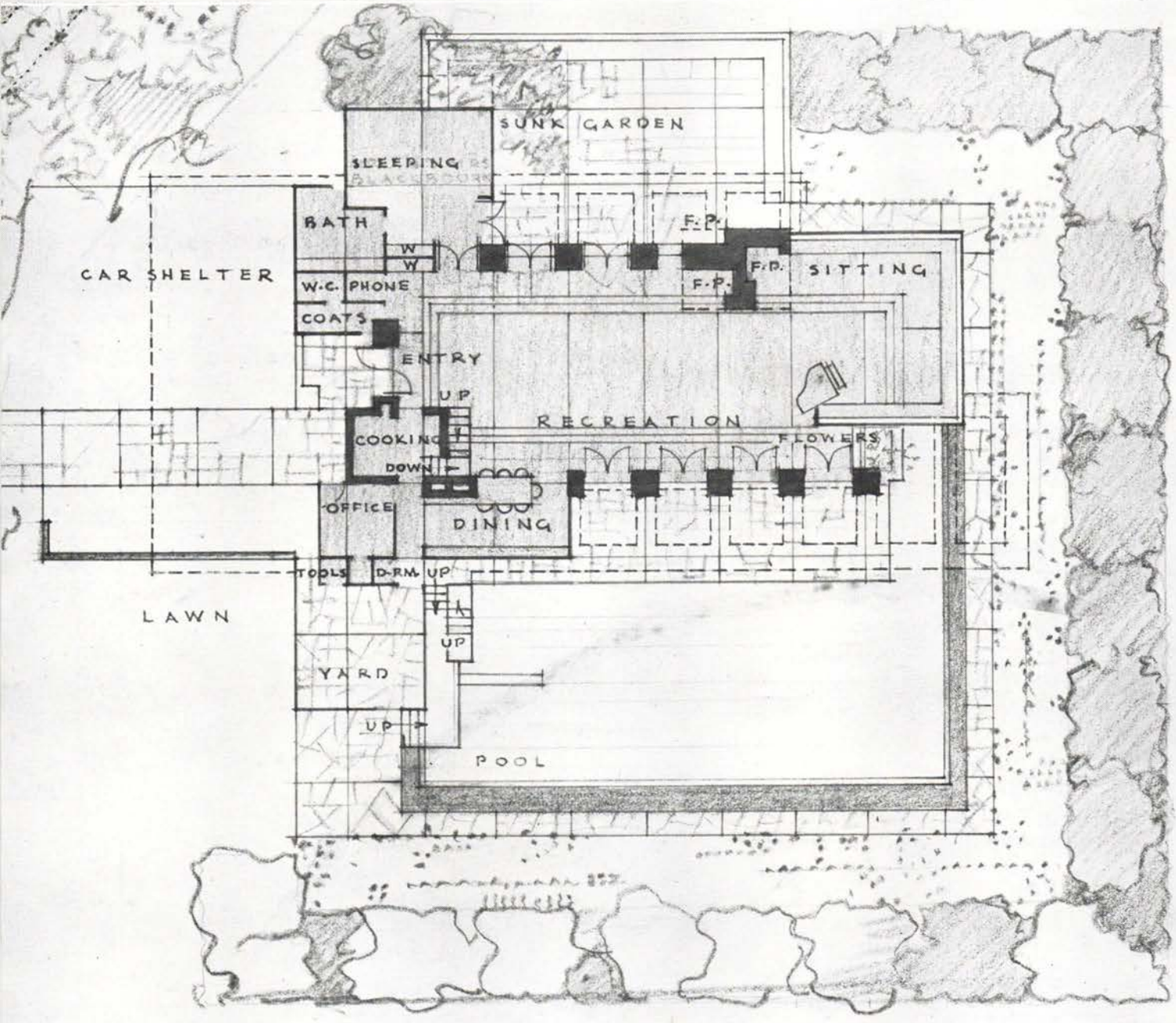
Concerning cost. It is idle to suppose any estimating concern could tell us what the cost of it all would be, never having built anything like it. For instance, the steam heated floor mat, walls of well-insulated plywood set up directly upon it—under a well-padded flat roof composed of laminated 2x4 framing without pitches—ready for a snow load to stay there as long as possible. No painting except wax inside. No interior trim—few interior doors, few windows, glass tubing used in bands about the house instead. Plate glass otherwise. No plastering—plywood ceiling instead and plywood walls exposed. The mat could be paved with either brick or stone and the chimneys built of either. The roofs are 4 ply tar and gravel over the entire house. There is only a small excavation for the heater in the basement (oil burner) and a



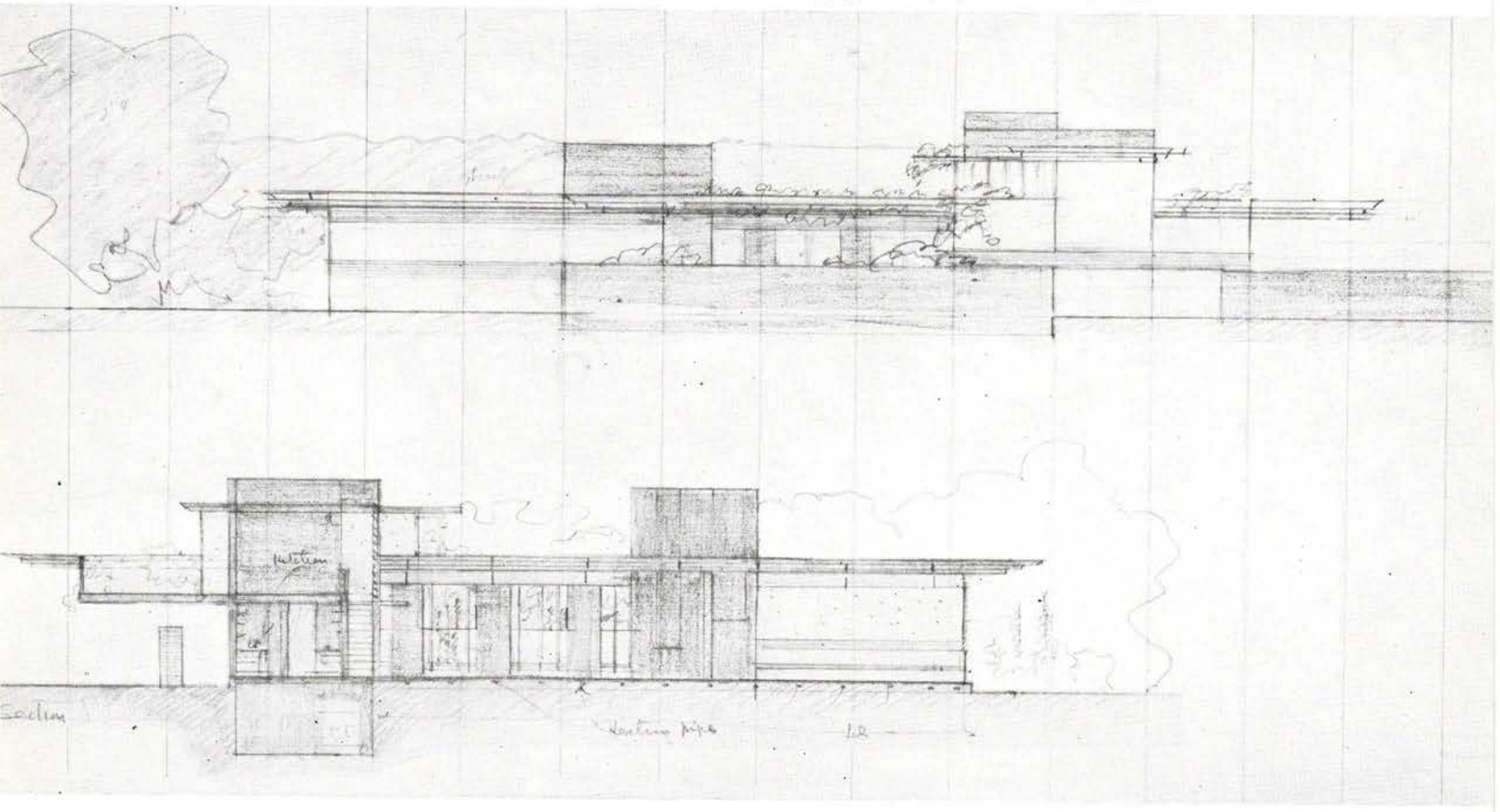
UPPER FLOOR



BASEMENT



GROUND FLOOR



small laundry. The space has a large ventilating shaft in the chimney. The kitchen extends above the roof and forms the kitchen into a large ventilating shaft for the house—a scheme working very well in other houses we have built.

We are sure, estimating from the several similar constructions we have completed, that this house could be built under our own supervision in Minneapolis for eight thousand dollars including an architect's fee of $750.

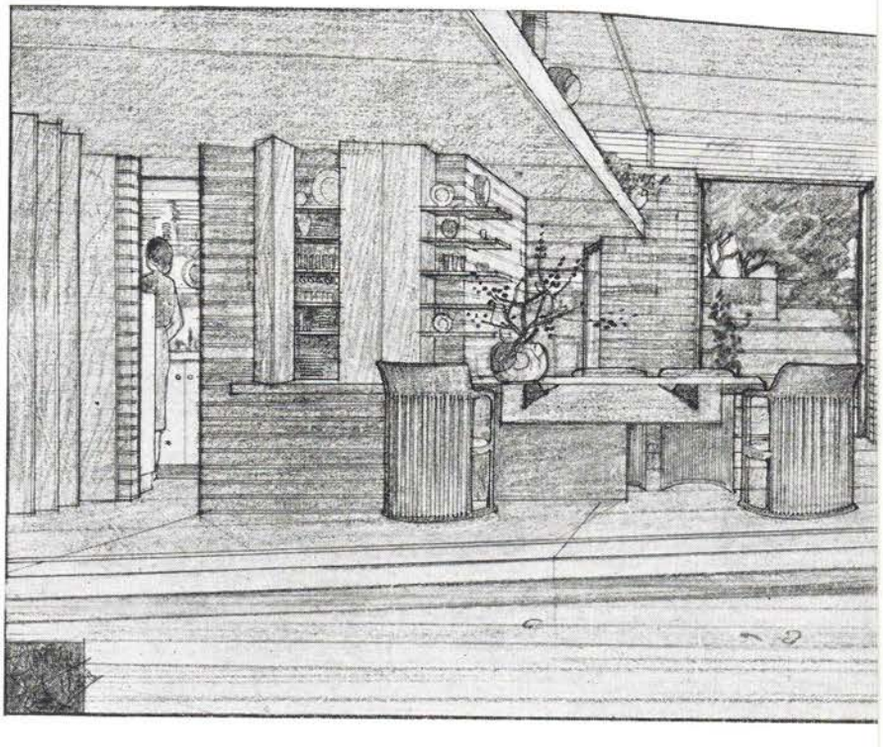
We have found that estimates (inexperienced as they must be and founded upon familiar construction) would run between $12,500 and $15,000. Much of this house should be prefabricated in shops and set up on the site.

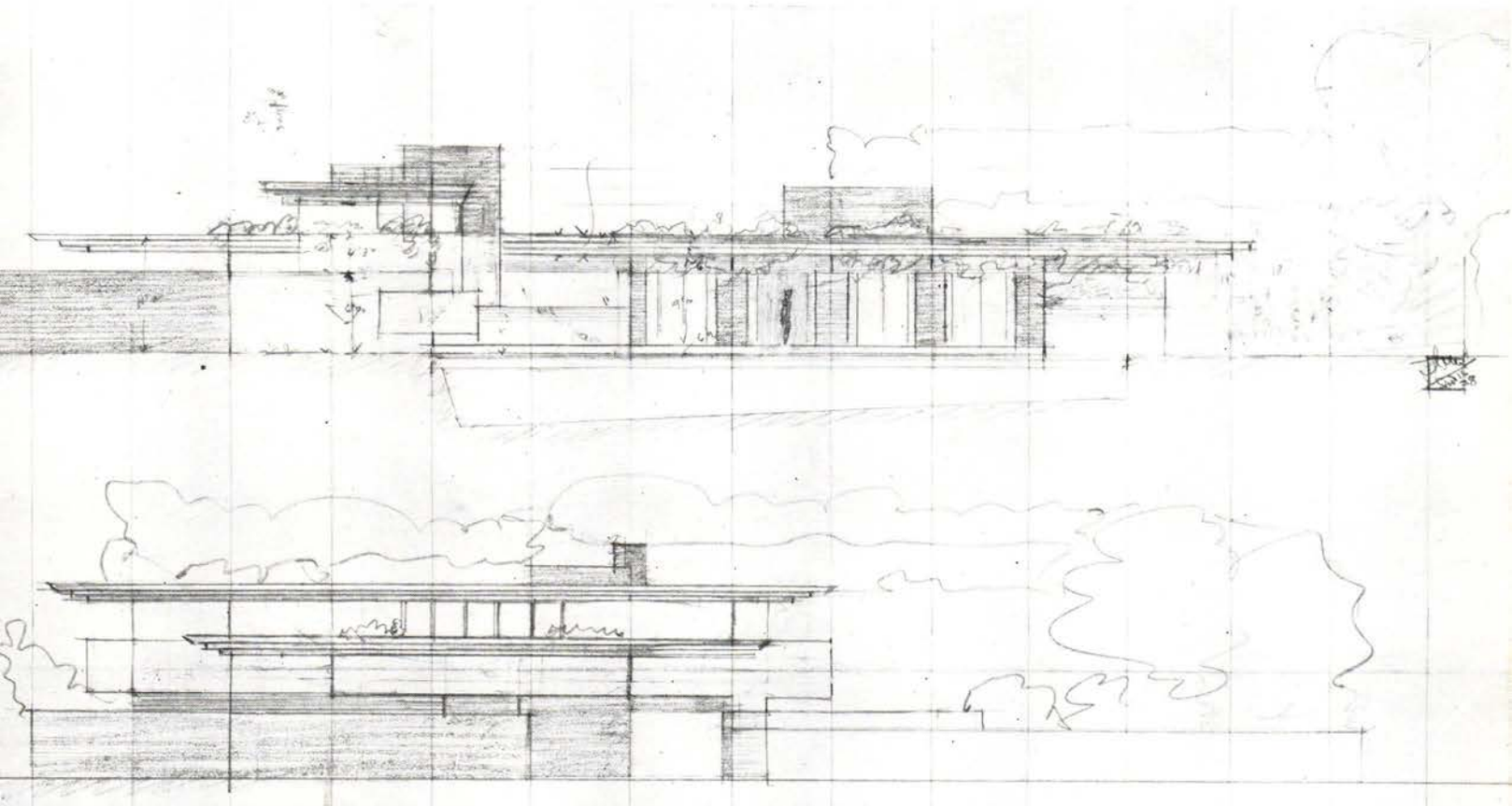
No need to expatiate further at this preliminary stage. The drawings do that.

Of course we hope you will like it.

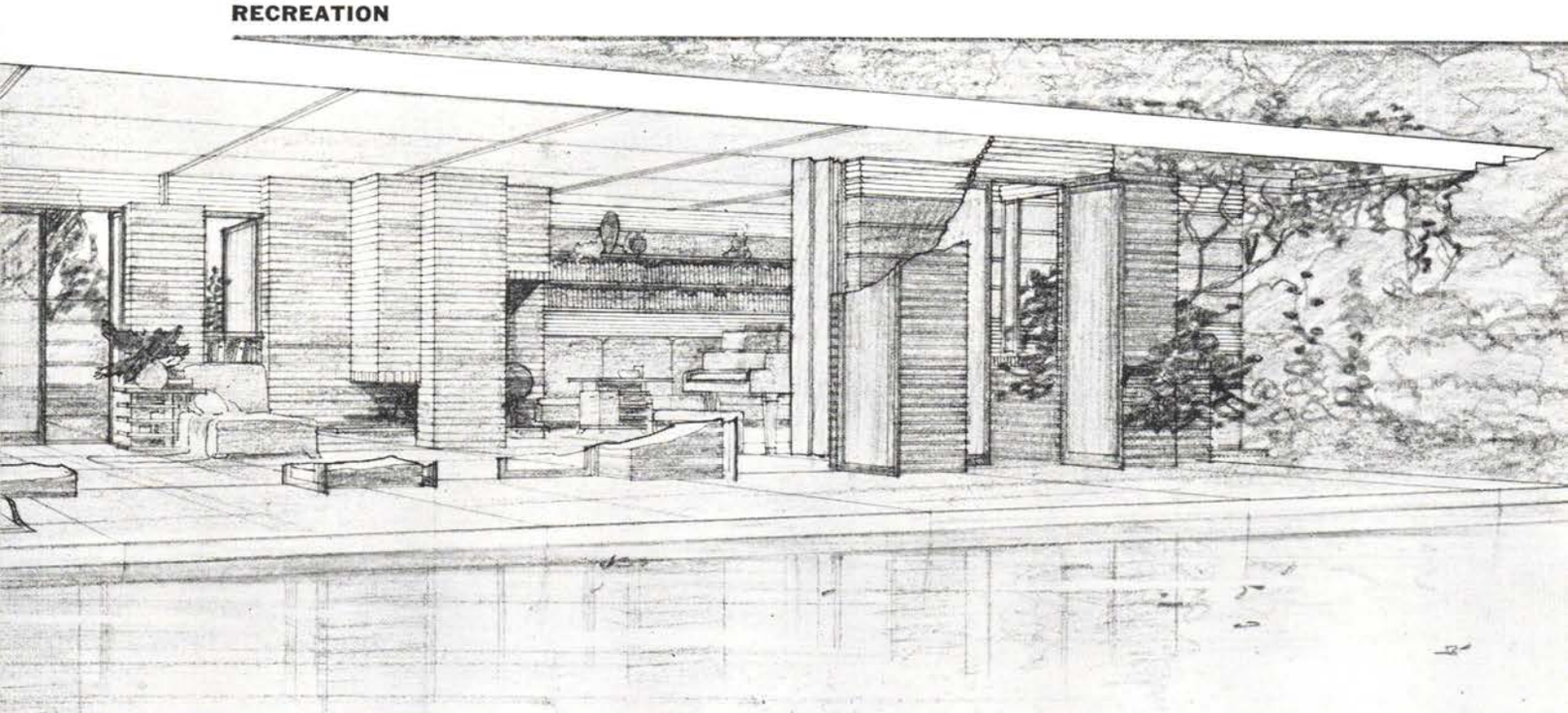
FRANK LLOYD WRIGHT: TALIESIN: AUGUST 22ND, 1938

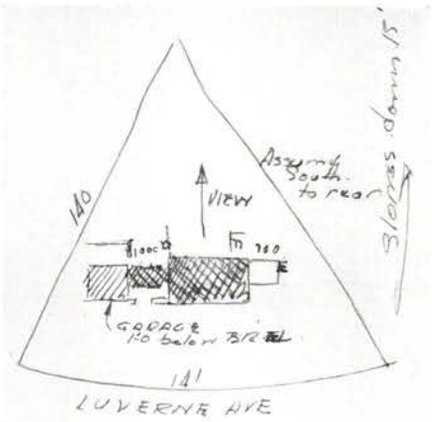
COOKING DINING

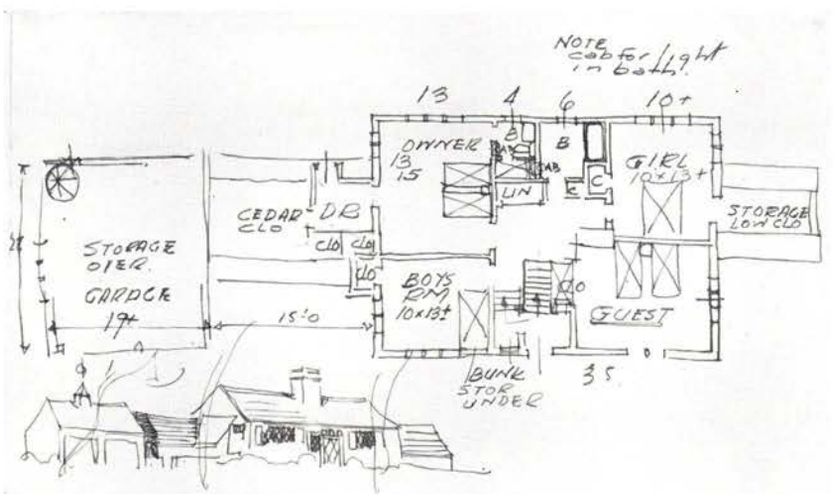


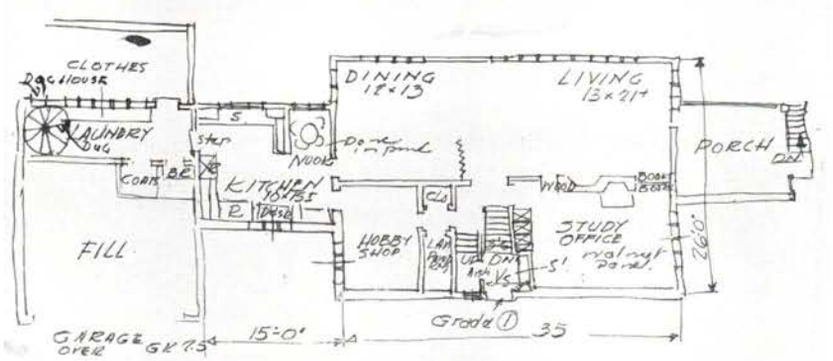


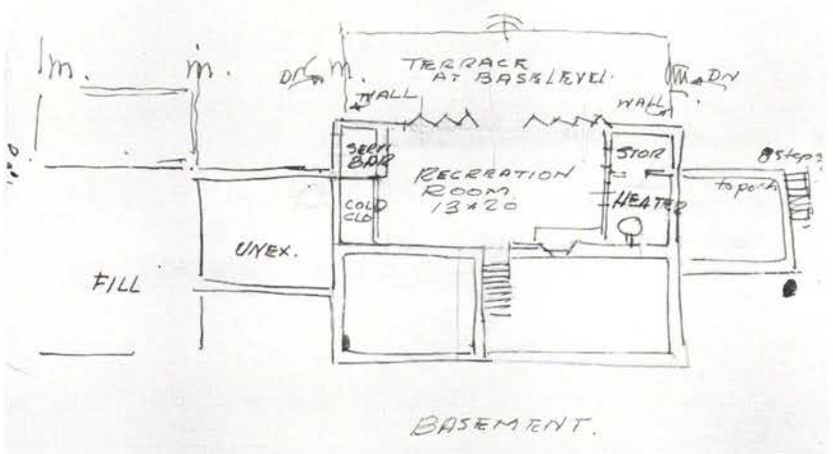
RECREATION



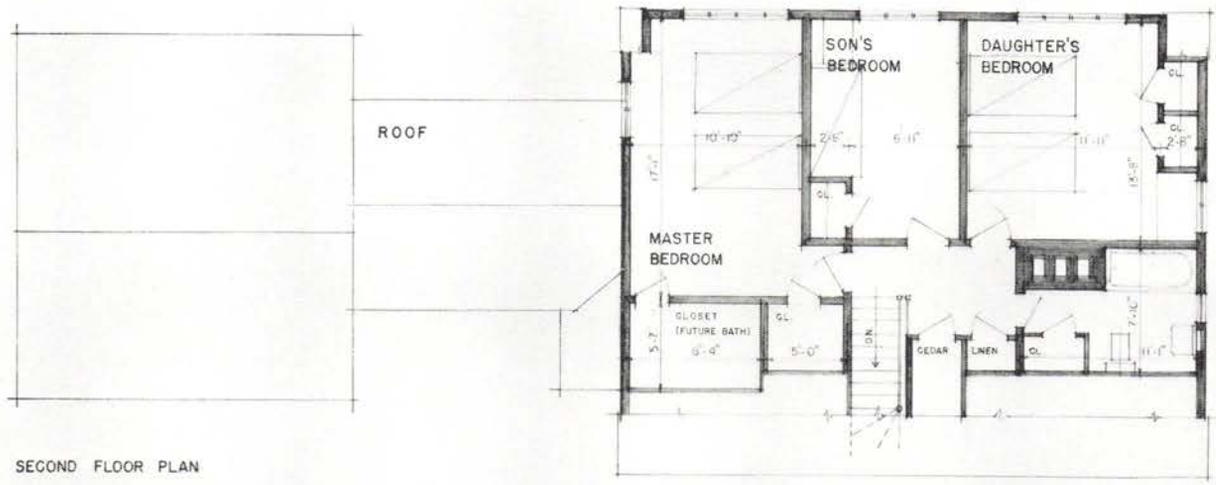


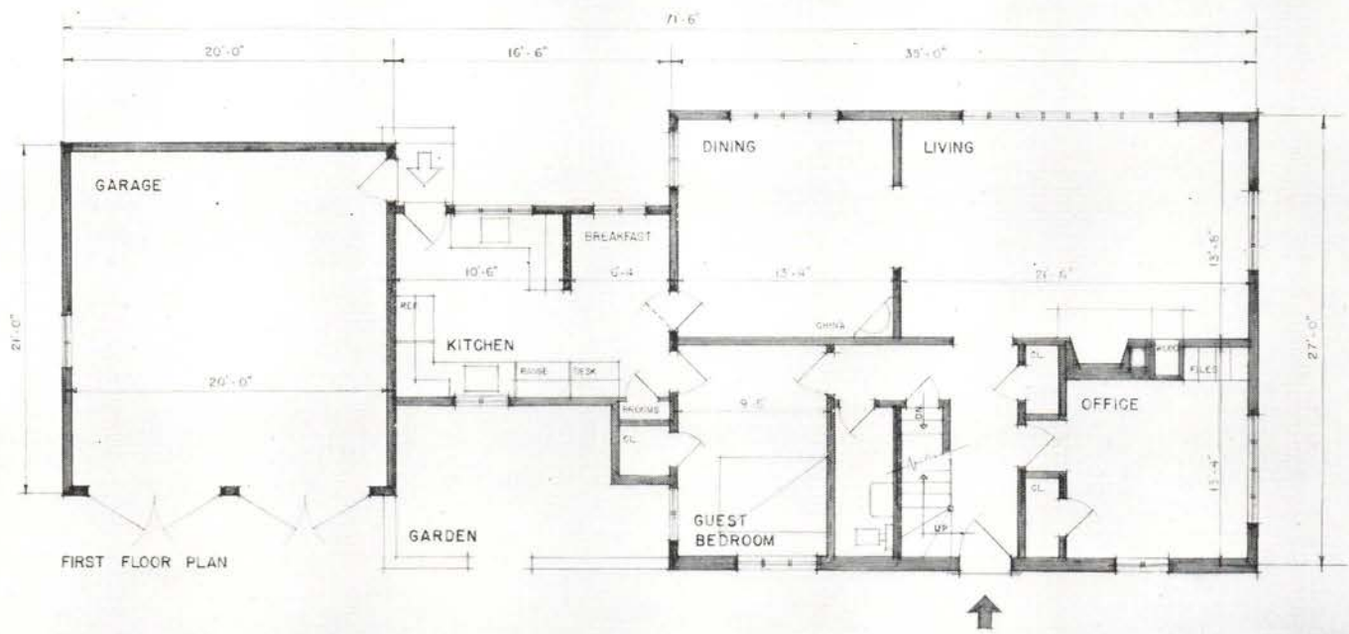


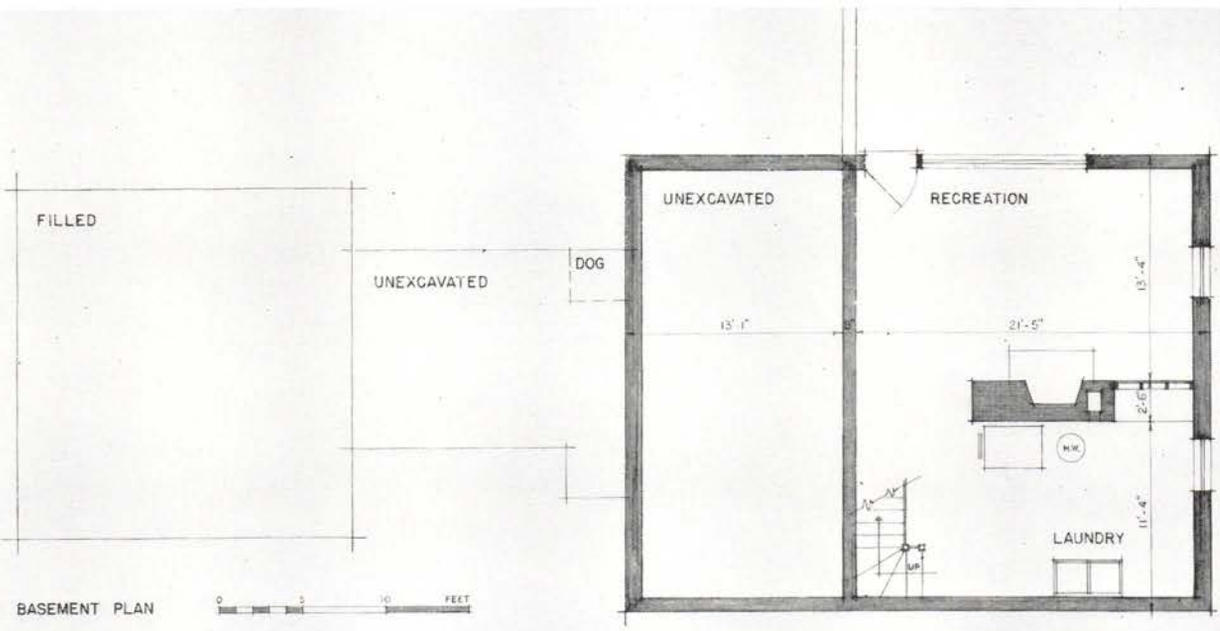


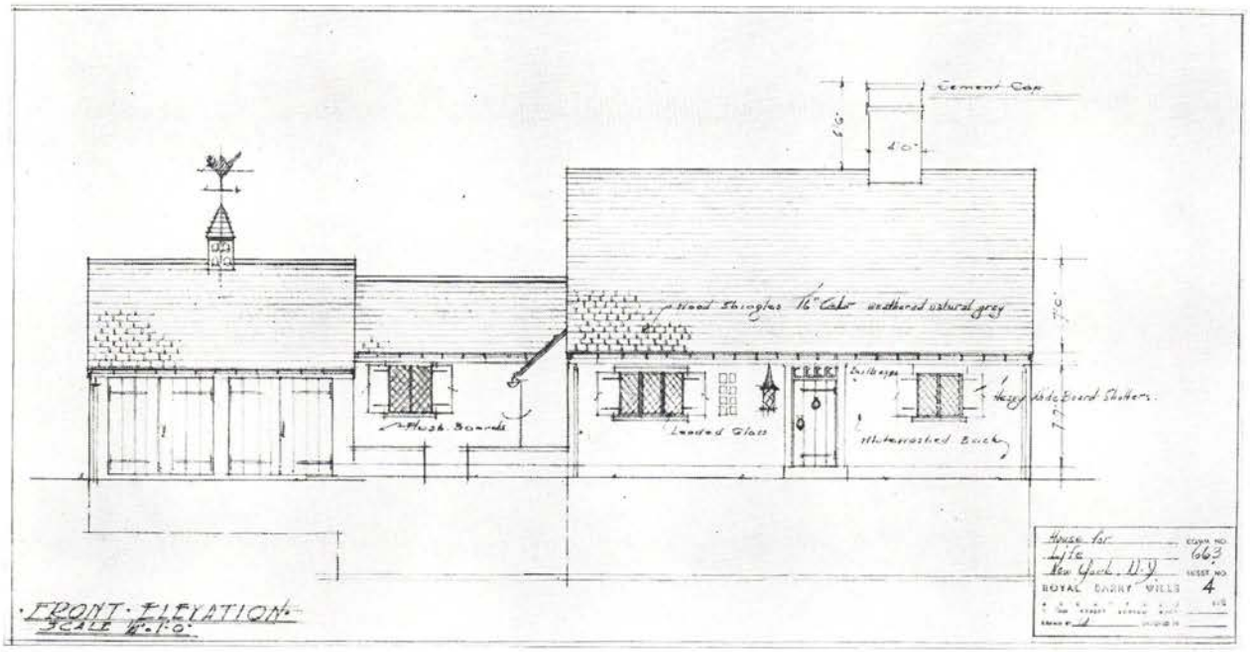


PRELIMINARY SKETCHES

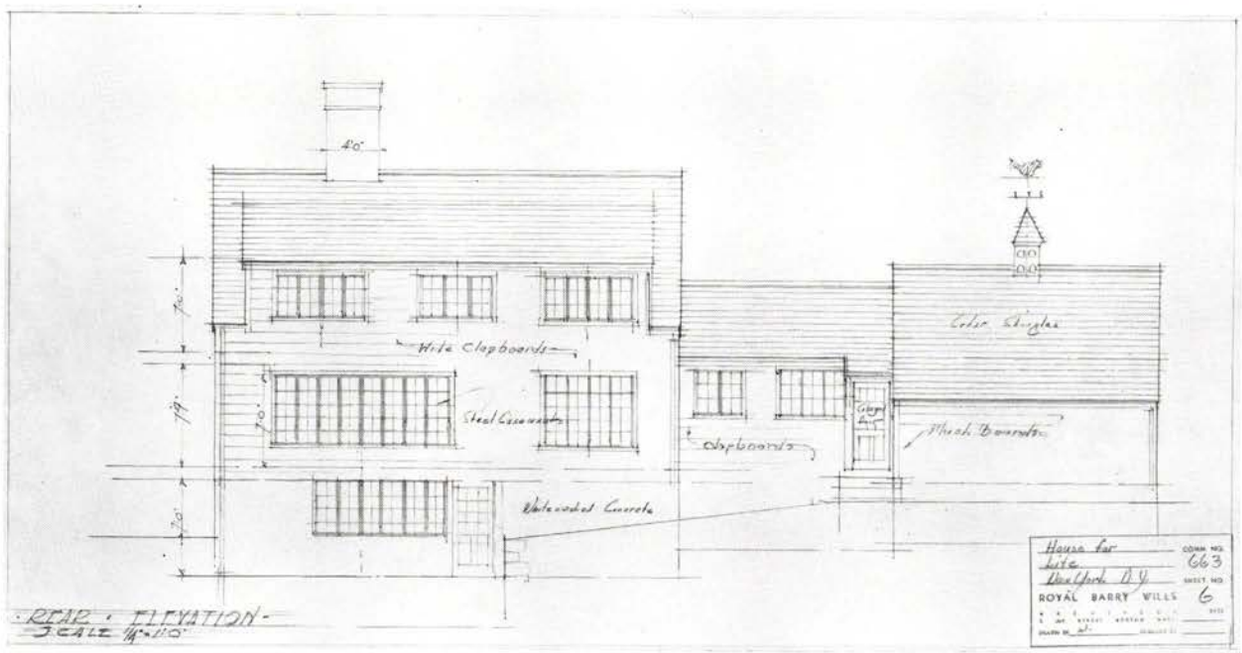

ROOF
SON'S BEDROOM
DAUGHTER'S BEDROOM
MASTER BEDROOM
CLOSET (FUTURE BATH)
CEDAR
LINEN
SECOND FLOOR PLAN


71'-6"
20'-0"
16'-6"
35'-0"
GARAGE
DINING
LIVING
BREAKFAST
KITCHEN
OFFICE
GUEST BEDROOM
GARDEN
FIRST FLOOR PLAN

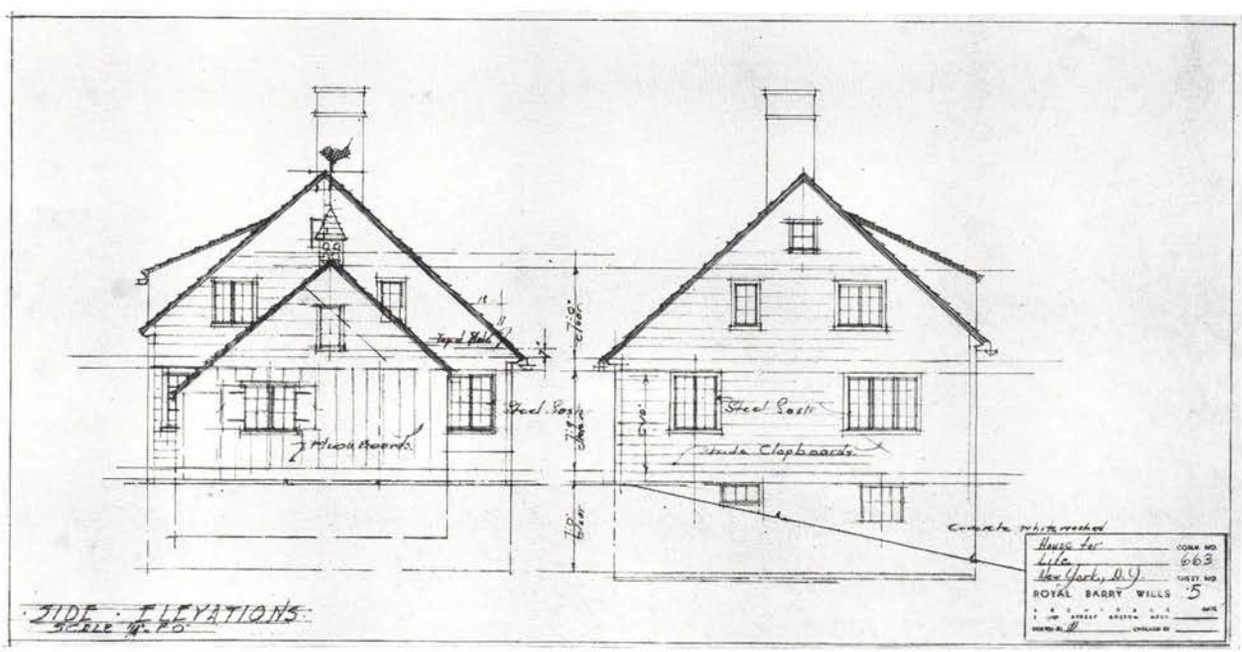

FILLED
UNEXCAVATED
DOG
UNEXCAVATED
RECREATION
LAUNDRY
BASEMENT PLAN
0
5
10
FEET



FRONT ELEVATION
SCALE 1/4"-1'-0"



REAR ELEVATION
SCALE 1/4"-1'-0"



SIDE ELEVATIONS
SCALE 1/4"-1'-0"

ARCHITECT'S COMMENT: The sloping lot which adjoins the Blackbourn's present house practically dictates the plan of the house they hope to build.

In order not to have an awkward four-story structure at the rear, it is planned to have a one-story front. The living room, dining room and kitchen will have a more or less unobstructed view of Diamond Lake. The study is ideally located for use as a temporary office; there is room for files, and the telephone is located here, with an extension on the second floor.

Ready access to the lavatory is possible from all points on the first floor and from the basement.

A guest room or possible maid's room has been provided adjacent to the lavatory.

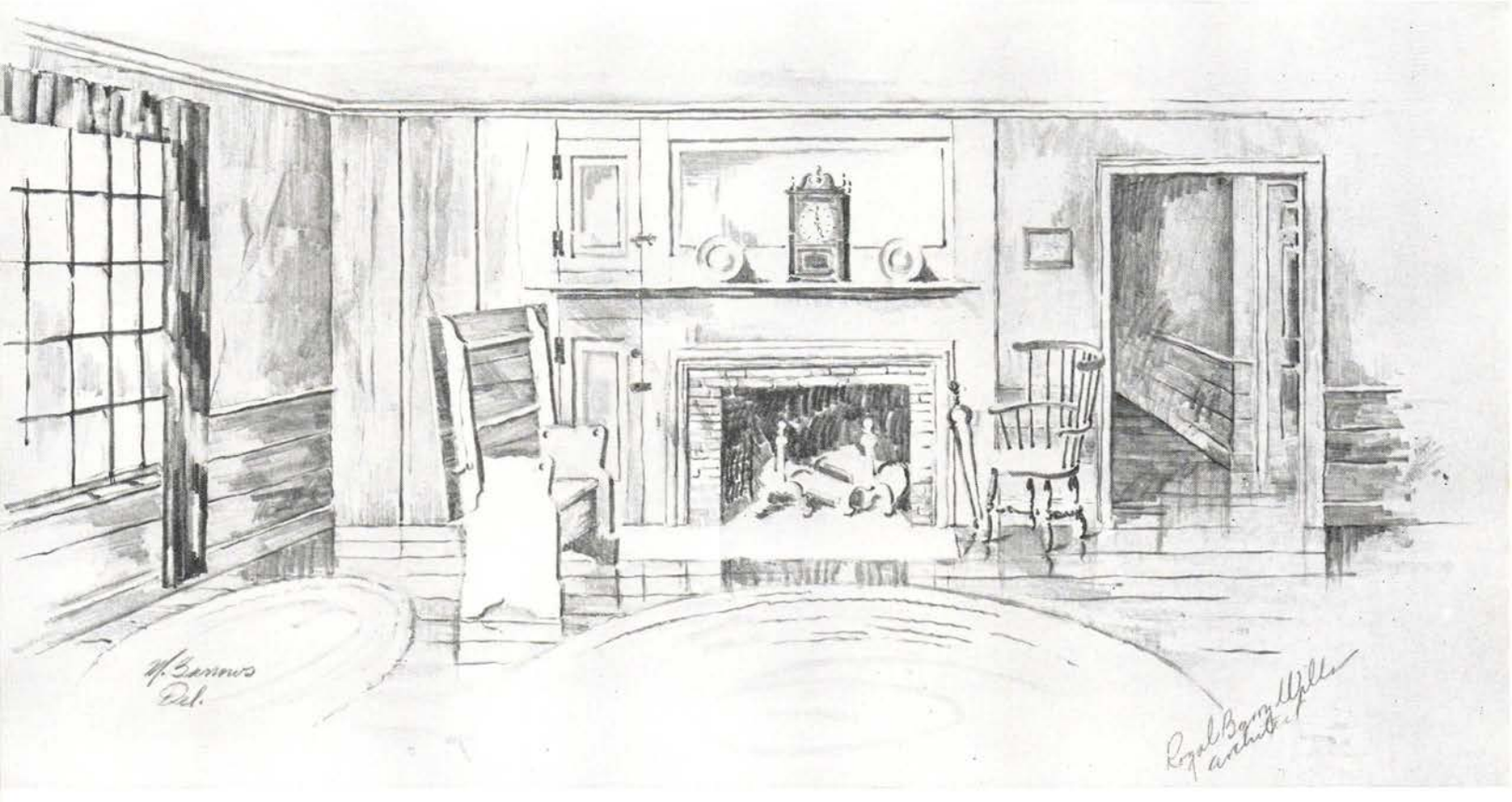
The spacious living and dining rooms are placed for the maximum of light and air, and to take care of the view.

The kitchen is compactly arranged, and the window over the sink makes for pleasant working conditions. The delightful little breakfast nook at the end of the kitchen also offers an interesting view. Beneath the kitchen and opening to the rear yard is a dog house for the family pet, Prince.

On the second floor are the three bedrooms, all with a good exposure to the rear. The tiled bathroom contains a cabinet for holding the sun lamp. Cedar and linen closets are in the hall, and other storage space is ample.

The basement has been left more or less open for the present, to save in the initial cost of the house. The recreation room opens directly to the terrace. Its whitewashed walls and painted floor, with the inexpensive pine wall beside the fireplace form the basis of an extremely attractive room.

LIVING ROOM



The Blackbourns' comment:

The Blackbourns like both houses. The traditional house includes everything they were sure they wanted. They chose the other house. "It is completely different," they say. "It is the only house of its kind in the country. We chose Mr. Wright's house entirely on its own merits." The Blackbourns are now convinced that they want to live not as they have always lived, but in the manner made possible by the modern house.

MODERN HOUSE

Mr. Blackbourn likes the separate entrance to the office, and its proximity to the kitchen; its size, however, and lack of storage space are not satisfactory. The phone booth is particularly appreciated by Betty Jane, who wants privacy when talking with her boy friends.

The downstairs bedroom is one of the most popular features. Its size, pleasant outlook, and privacy make it an undreamed-of luxury. Also ideal as an emergency sick room.

The huge living room, say the Blackbourns, embodies the fun of living—it represents a kind of life they had never imagined before. And it is large enough, they add, for them and the children, with enough privacy for all. "It will be entirely different from what we have had, but it is to be very much preferred. In the fall and spring and all through the summer we can have all nature in our room by merely opening all the doors. We will be part of life with the birds, the flowers, and the trees."

They prefer the Wright dining room, particularly since it is closely related to a dining terrace, but they regret the missing breakfast nook.

The kitchen, says Mrs. Blackbourn, is entirely too small, and she wants it enlarged. She plans to get a larger refrigerator and a larger stove and needs more space. Mrs. Blackbourn says that if it is not enlarged they will have to do with an undersize refrigerator and stove and that it seems strange, with so large a living room, and the prospect of extensive entertaining, that the kitchen should be so tiny.

The Blackbourns consider the carport a complete flop, and view the architect's statement that modern cars can start easily in weather 35 degrees below zero, with skepticism. Mr. Blackbourn wants the garage put under the carport, with storage space for his business. How this will work out the Blackbourns do not know.

The children are happy about having their own bathrooms, but to date no place has been found for the all-important sun lamp.

Bruce likes the balcony off his bedroom, although the room itself is small. Betty Jane feels pretty much the same way about hers.

TRADITIONAL HOUSE

Mr. Blackbourn finds the office in the traditional house better in size, in provisions for file space; he does not like its lack of a private entrance.

The Blackbourns find the downstairs bedroom definitely inferior; it lacks space for use as an emergency sick room, and the bathroom must be entered through the hall.

The living room is not as large as they would like it to be; the view from it, however, would be good, and the windows are generous. The dining room, on the other hand, is adequate, and there is a breakfast nook. It also has a better view than the modern dining room.

They consider the kitchen plan perfect—just the size needed, with good storage facilities. They also approve of the separate service entrance.

The garage is also what they want—they consider the car shelter in the other house entirely unsuitable for the climate.

The Blackbourns like the bedrooms, with cross ventilation, good closets, long windows, and built-in features.

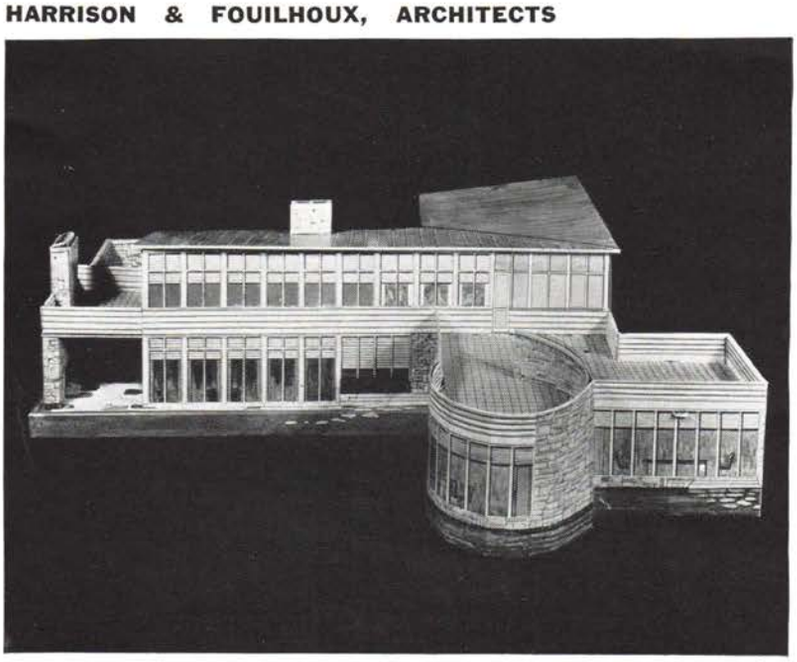
HOUSES FOR $10,000–$12,000 INCOME

For the family in the $10,000–$12,000 income group, LIFE selected the Smiths, of Wyncote, Pa., a prosperous Philadelphia suburb. The family consists of the parents, a daughter and two sons, ages 10, 13, and 15, and they live in a solid brick Georgian house which suits their needs quite well.

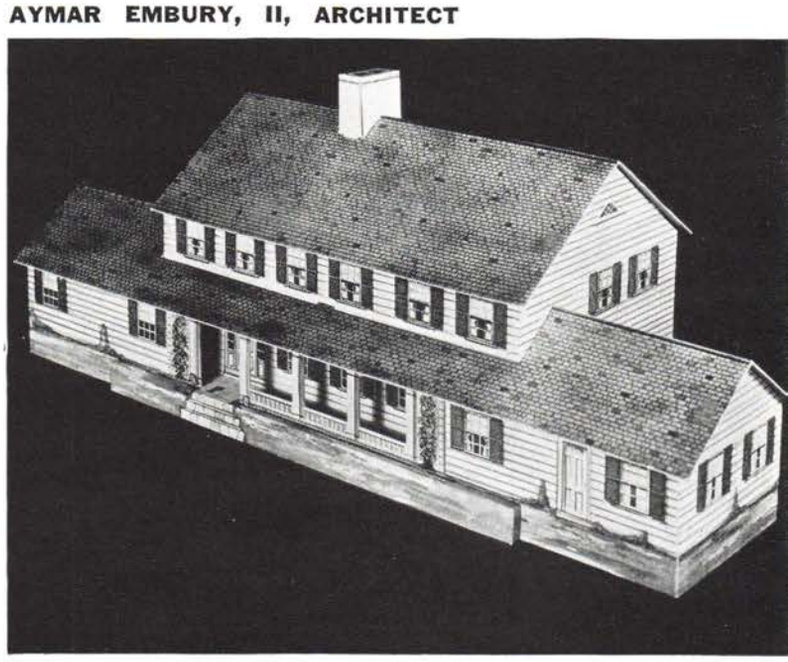
For a new house, perfectly suited to their needs, the Smiths would require:

1. Five bedrooms.
2. One maid's room.
3. A large sleeping porch.
4. Three baths and a lavatory.
5. A basement recreation room.
6. Dining room.
7. Sun porch.
8. Large outdoor recreation space, for ball pitch, etc.

HARRISON & FOUILHOUX, ARCHITECTS



AYMAR EMBURY, II, ARCHITECT



ARCHITECT'S COMMENT: The house is laid out on an extended plan so that the girl of 10, the boys of 13 and 17, and the parents can entertain their own groups without disturbing each other.

Materials are local stone, wood, and native materials. High walls surround the lot for privacy. One enters the house through a private front garden, with access to living room, dining room, service quarters, and stairs.

Regarding the Smiths' desire for a basement game room: recreation room in the basement means expense to excavate for a dark, badly ventilated room with no access to outdoors. Therefore we placed it on the ground floor, away from the living room, accessible to the kitchen and recreation space in the rear.

Regarding the Smiths' desire for an enclosed sun porch: this is a requirement for a house whose rooms are deficient in sunlight; here all rooms are virtually sun porches.

Regarding desire for bay window: this house has glass enough in all directions.

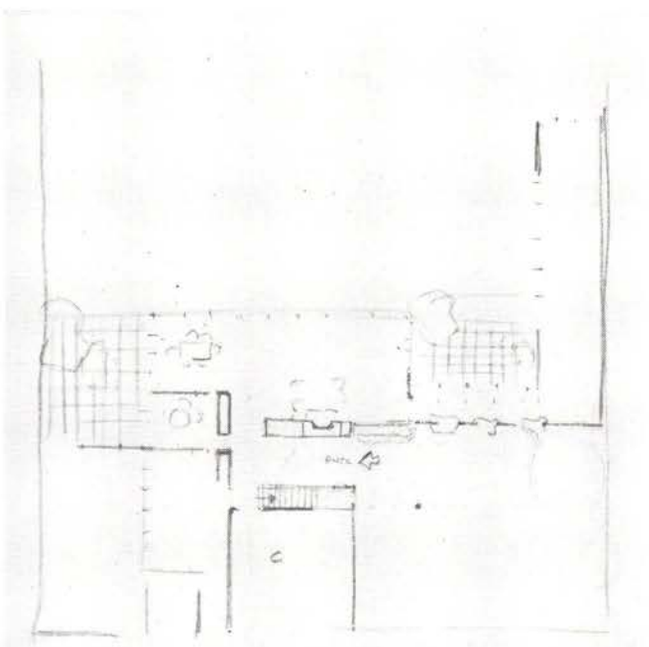
Regarding desire for back stairs: the location of the main stairway obviates the need for back stairs.

All bedrooms are arranged in bedroom-sleeping porch combinations. Each suite has privacy and its own terrace.

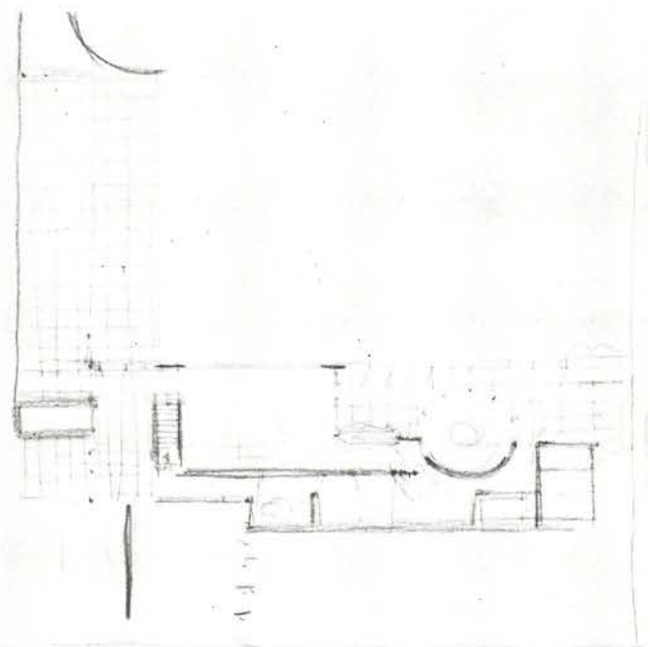
The guest room can be used as an upstairs sitting room.

The high part of the pitched room is oriented south and east to take full advantage of sunlight.

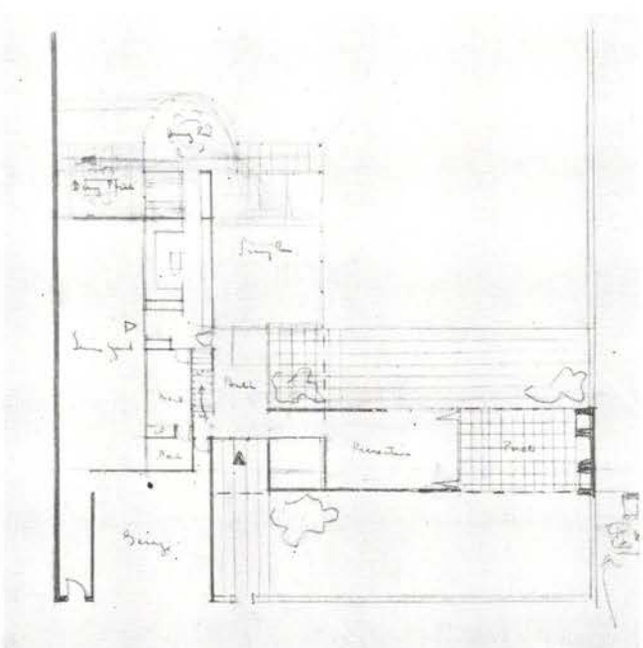
PRELIMINARY SKETCHES



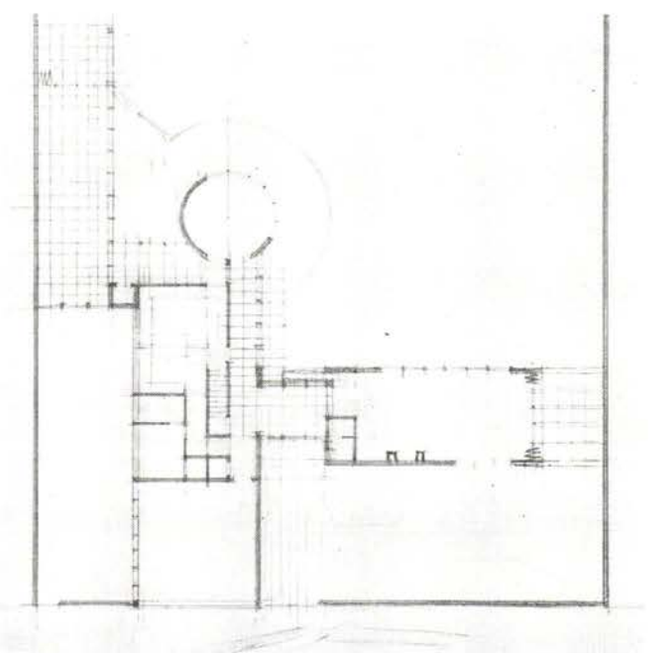
An early study, with combined living-dining room. Garage and service quarters go out to street.



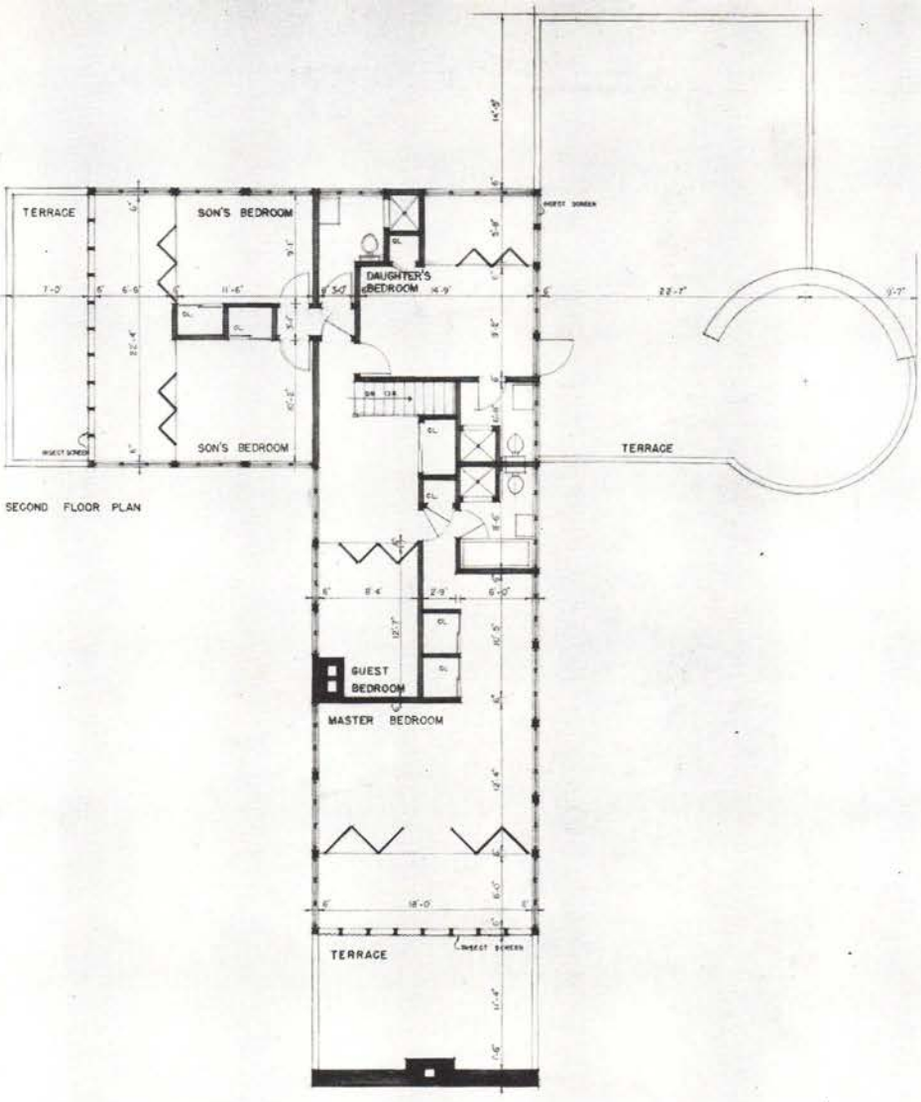
The circular dining room appears. Narrow band of service rooms toward street. Larger recreational space.



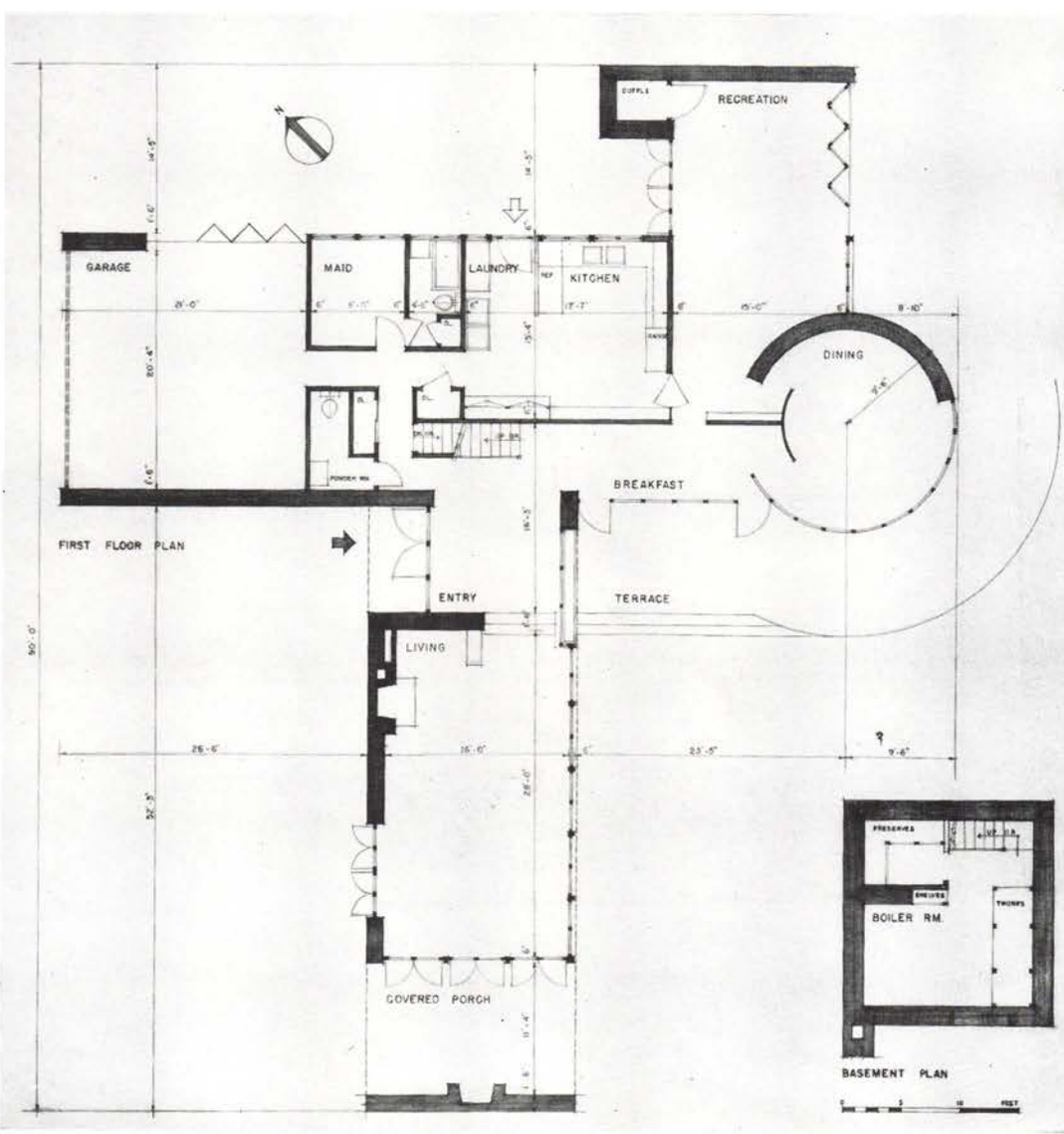
Dining room moved to back. A separate recreation room is added. Ample terraces off both rooms.



Approaching the final scheme. Enclosed front yard. Living room moved to take place of recreation room.

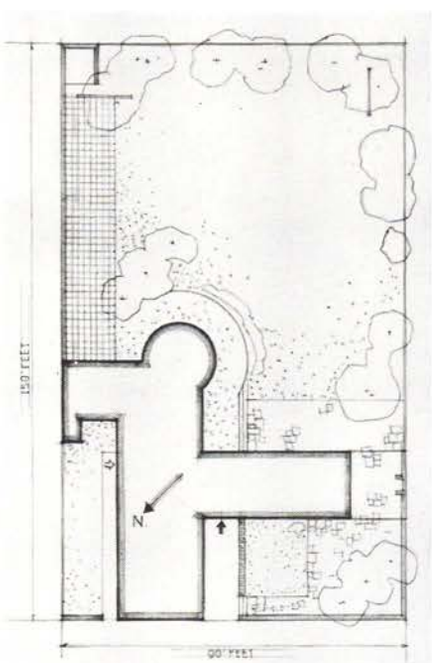


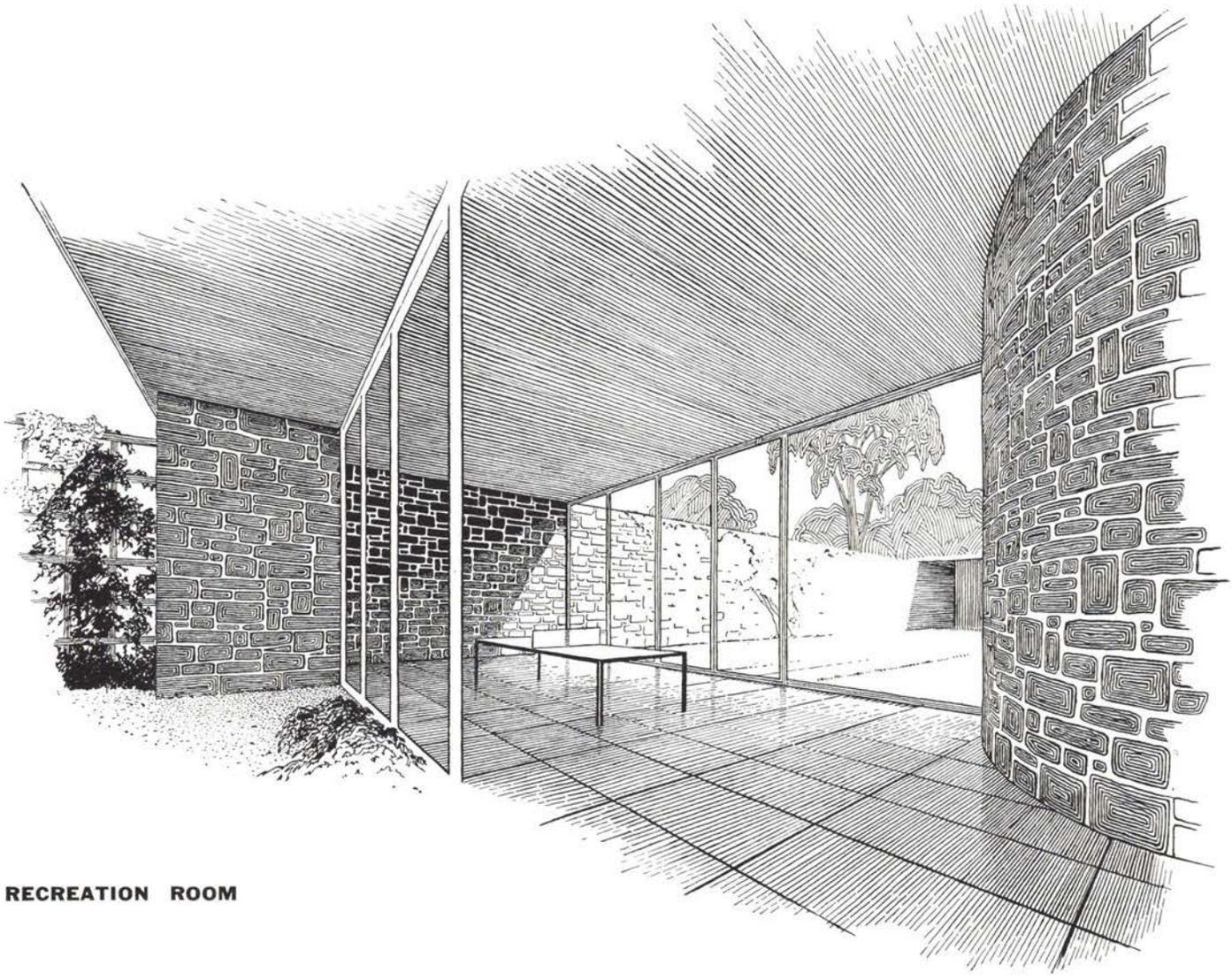
SECOND FLOOR PLAN



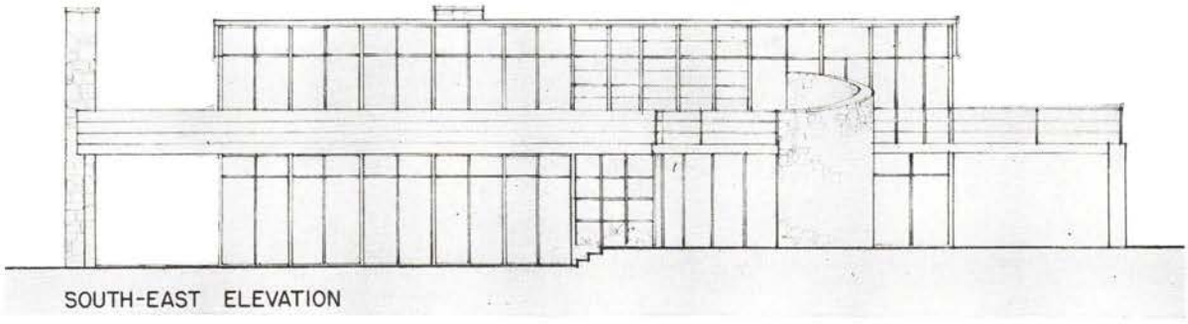
FIRST FLOOR PLAN

BASEMENT PLAN

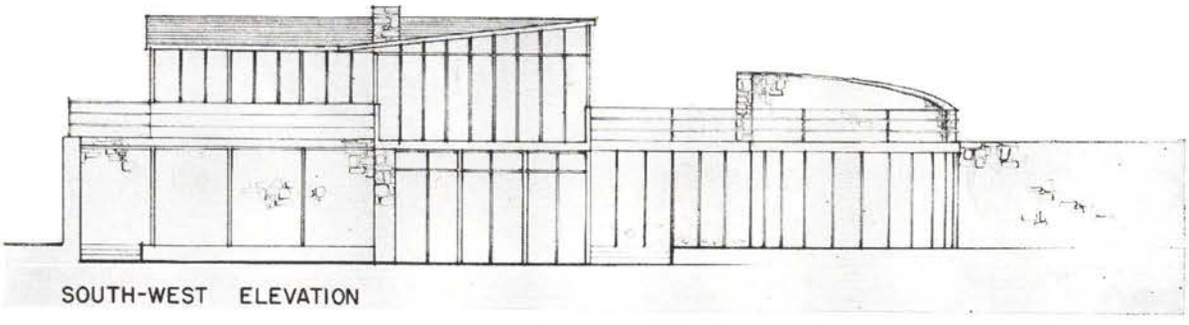




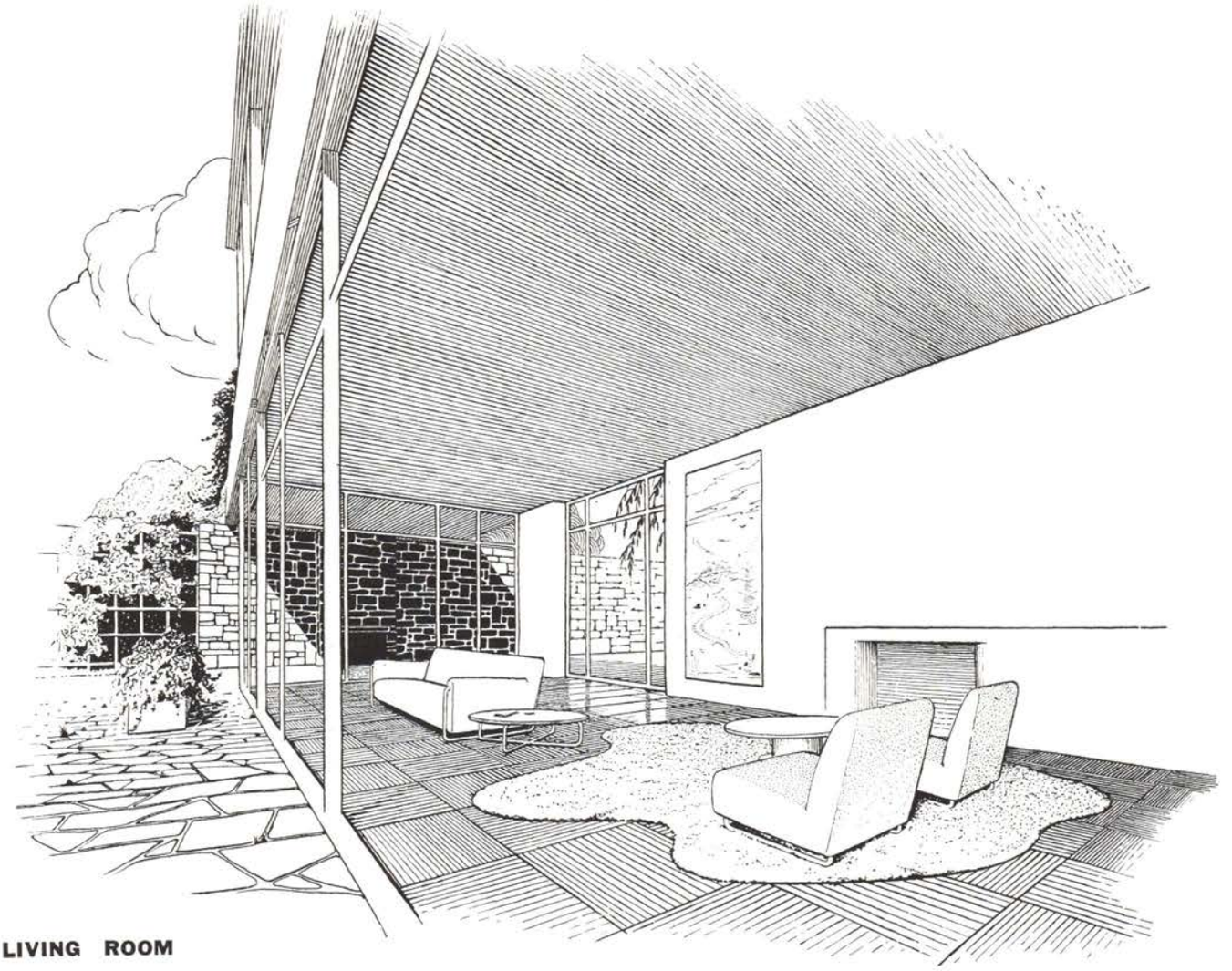
RECREATION ROOM



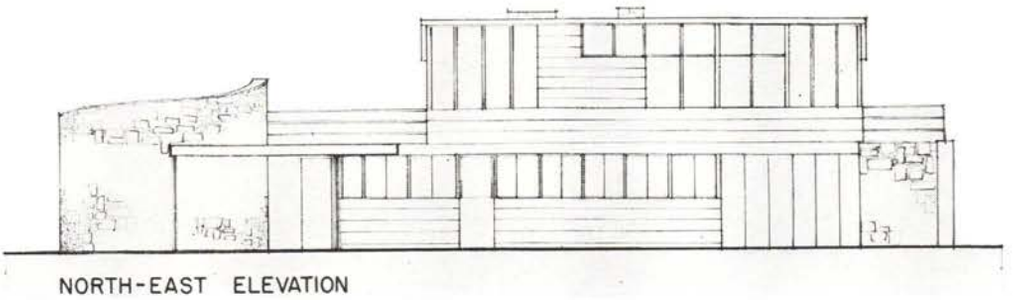
SOUTH-EAST ELEVATION



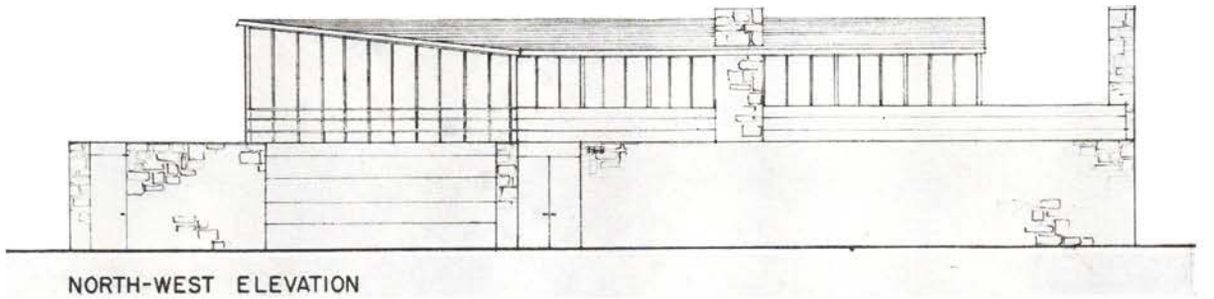
SOUTH-WEST ELEVATION



LIVING ROOM

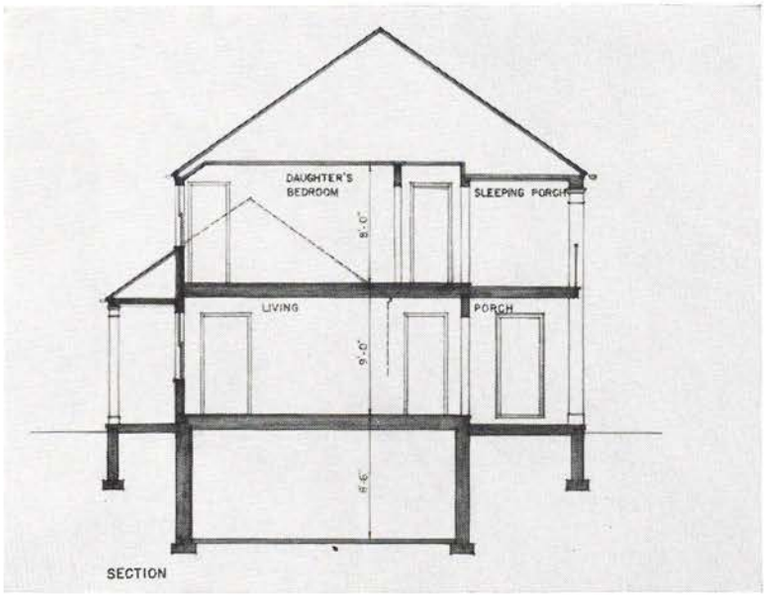


NORTH-EAST ELEVATION



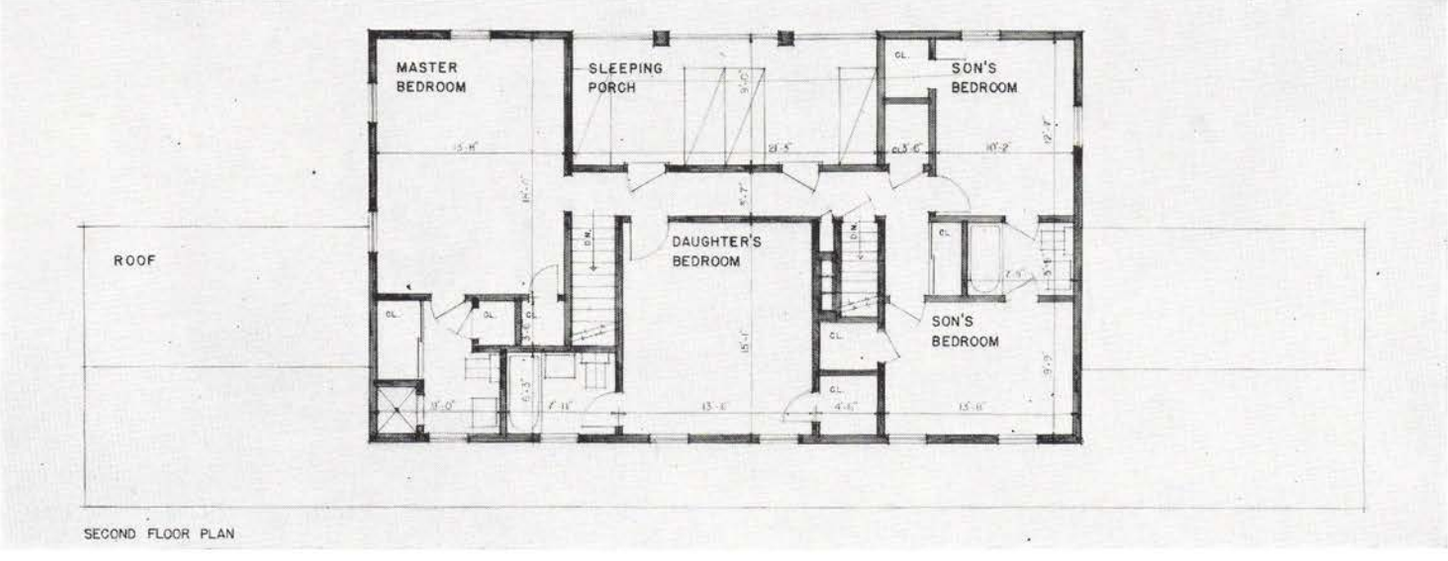
NORTH-WEST ELEVATION

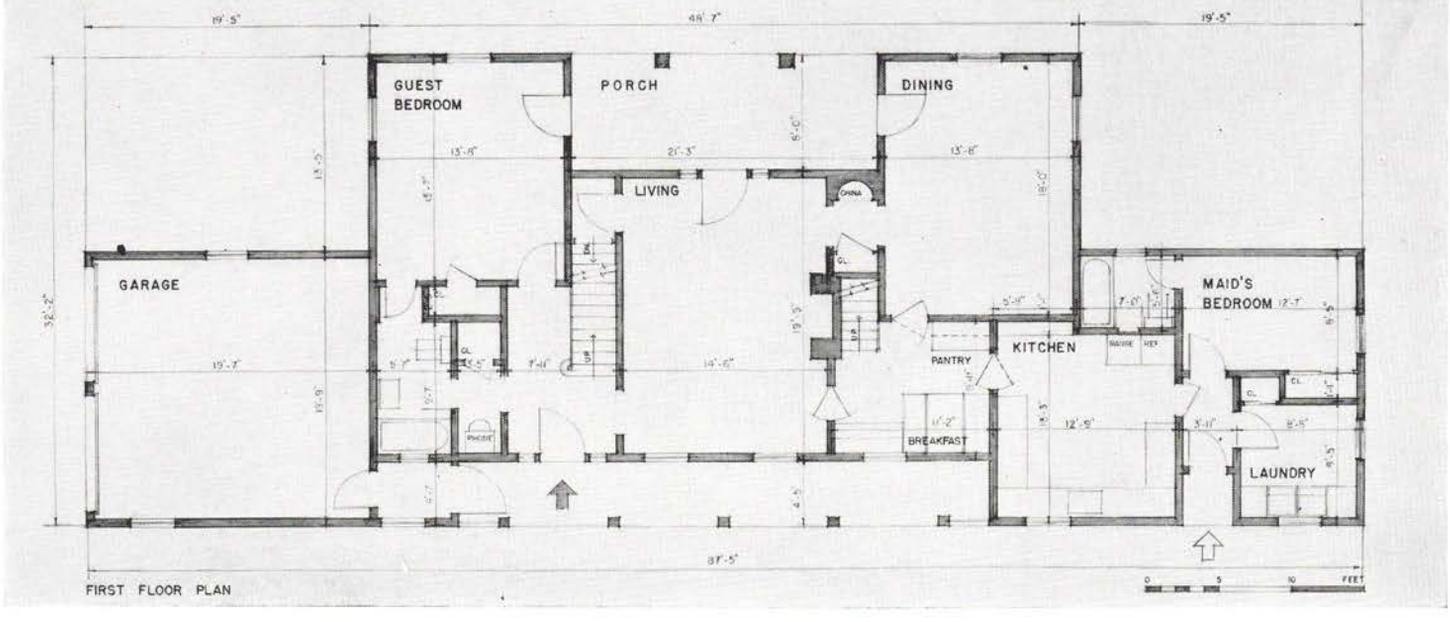
AYMAR EMBURY, II, ARCHITECT HOUSE FOR $10,000–$12,000 INCOME

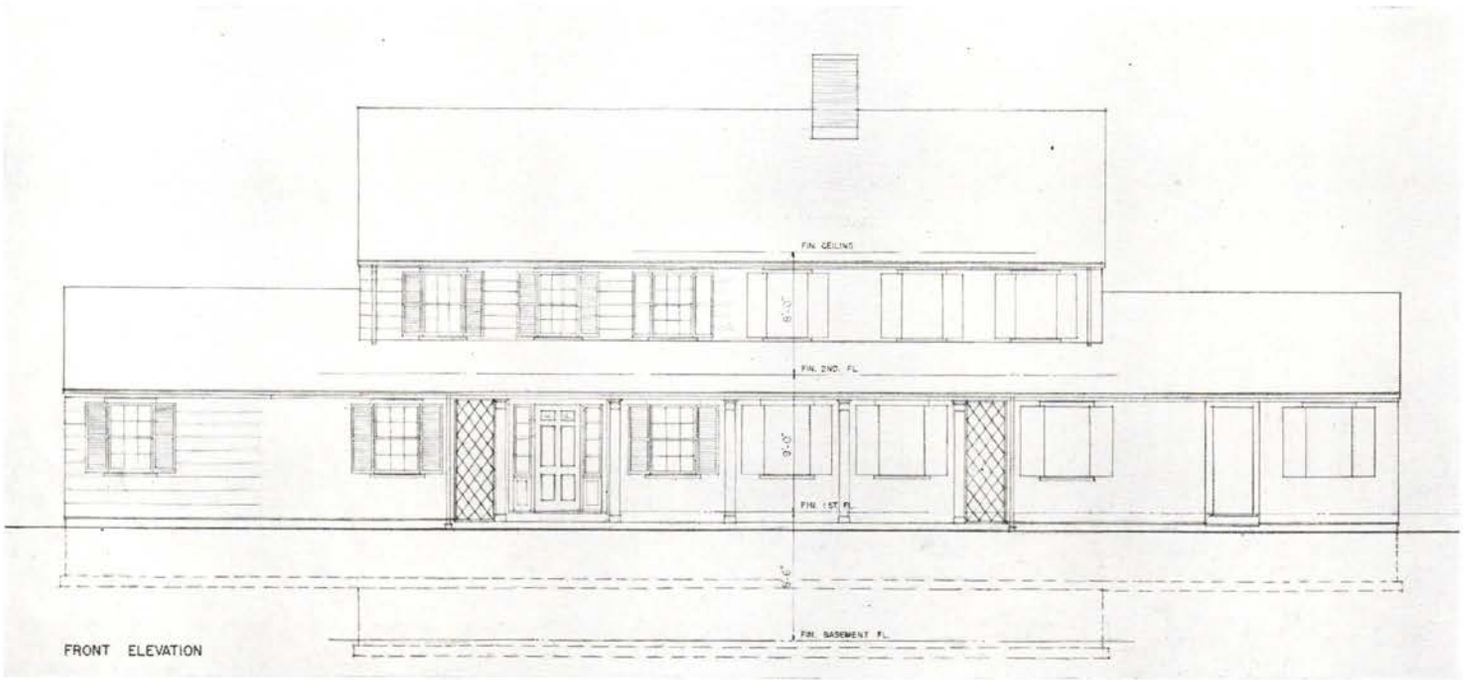


ARCHITECT'S COMMENT: Five bedrooms are desired besides the sleeping porch, which is apparently used a good deal. All bedrooms except the guest room, therefore, may be reduced to comfortable dressing rooms, big enough for sleeping in very cold weather. The guest bedroom is placed on the first floor so that it may be used as a library, sickroom, or coatroom. There are both front and rear stairways. The living room runs through the house; it should be cool in summer and pleasant in winter. The service wing is well isolated.

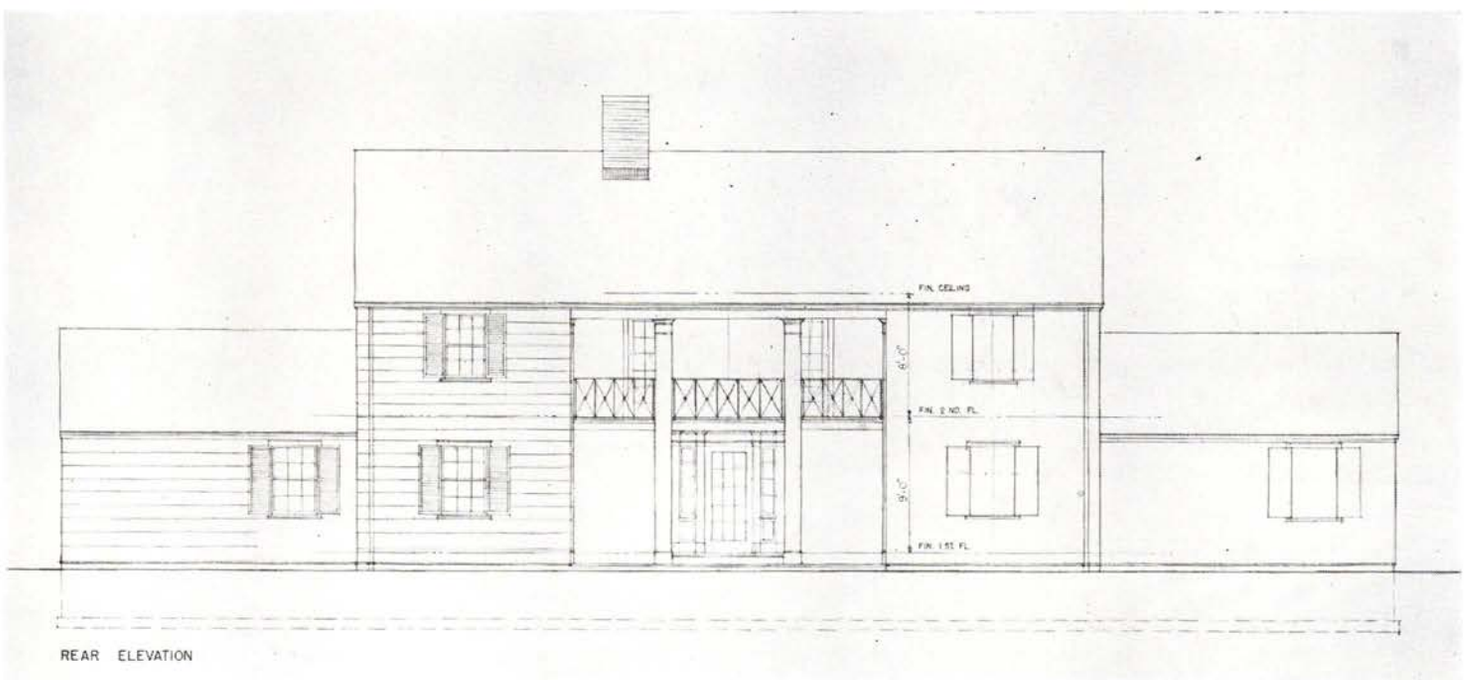
My feeling is that the plan is admirable except in one respect, that the maid has to cross the living room to get to the front door—not very important, but I would have avoided it had it been possible. There is room in the basement for a playroom. The second floor plan distributes the space well between the parents' and children's rooms. The exterior follows roughly Colonial lines without being strictly traditional. Either porch could be screened.



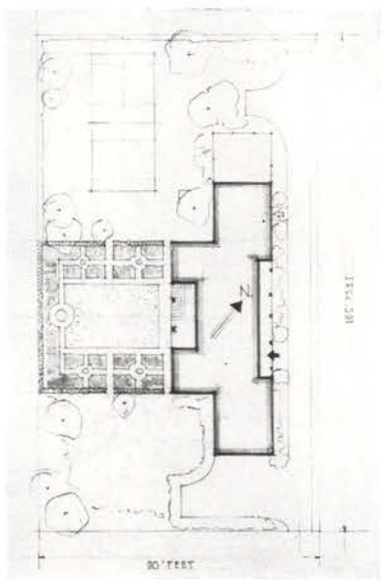




FRONT ELEVATION



REAR ELEVATION



NOTE: The Editors regret that, due to Mr. Embury's absence from New York during the preparation of this issue, it was not possible to include additional material.

The Smiths' comment:

In presenting the modern house designed for the Smiths, LIFE suggested that it would startle them. It did. The Smiths are unanimously for the traditional design. Mrs. Smith: "We feel it is more suitable for the community from an artistic standpoint." Mr. Smith: "The traditional type seems to be more a part of the landscape in the Eastern States." The younger Smiths: "Modern looks funny."

They are of the opinion that both houses would require more area than their present lot (60 x 212), that this is particularly true of the modern design.

MODERN HOUSE

Outdoor folk, they appreciate the light and air provided by this design. While Mrs. Smith would not object to protecting their glass house with a wall, Mr. Smith does. "Too institutional," he explains. Because of this objection they feel it would need large grounds.

Thus isolated, they find the large window space acceptable. Mrs. Smith, a gardener, might even find a corner for one of the indoor winter flower windows fancied by flower enthusiasts.

The children are in favor of the recreation room. At present the family ping pong table is on the sleeping porch, now that the beds have been put away.

They also note that the maid could reach the front door without passing through the living room.

They appreciate the larger living room of the modern house, and the extra terrace room. They find the circular design of the dining room attractive, and concede that in its glass wall they have a remedy for the restricted view from the traditional dining room. The second floor guest room is not as satisfactory as the one in the traditional house. What impressed them most favorably was the provision for three second floor terraces which they immediately visualized as sleeping porches.

TRADITIONAL HOUSE

The Smiths are almost completely satisfied with the second floor plan. They asked for six bedrooms and five baths and got them. They like the location of the parents' room at the head of the stairs. They question the adequacy of the closet space provided.

Mr. Smith regrets the decreased size of the living room (their present room, 14 x 21, is none too large) but does not regard this as a serious objection, declaring that he would not sacrifice the back terrace for greater size. Mrs. Smith agrees.

They like the ground floor bedroom, with its possibilities of multiple use. Since the Smiths would enjoy looking at their garden during meals, they regret the lack of window area in the dining room. They also thought the kitchen very poorly lighted. Mr. Smith, however, objected to giving the kitchen more window space because this would destroy the symmetry of the front facade.

Both Smiths found the front laundry entrance bad. They also thought it extremely unfortunate that the maid would have to go through the living room to go to the front door. If they were building, they would drastically re-plan the entire service quarters.

Speaking generally, they said, "None of the rooms are particularly large, but they give us all we really want. The house is apparently as near perfect as it could be when you consider the demands made on the architect and his price limitation." Mr. Smith also noted that keeping the exterior properly painted would cost about $250 per year.

SCALE MODELS

Knockdown, full color, scale models of the LIFE houses, shown in this issue of THE FORUM may be purchased. Each set includes miniature floor plans and plan furniture cut outs. Order by number and enclose cash, check or money order in full. Shipment postpaid.

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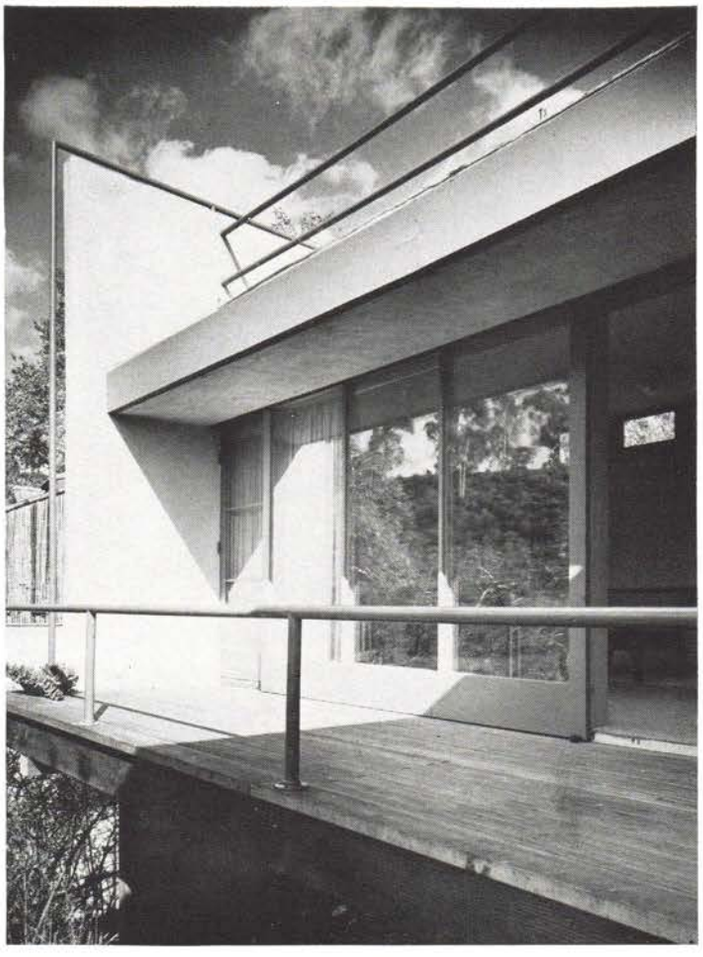
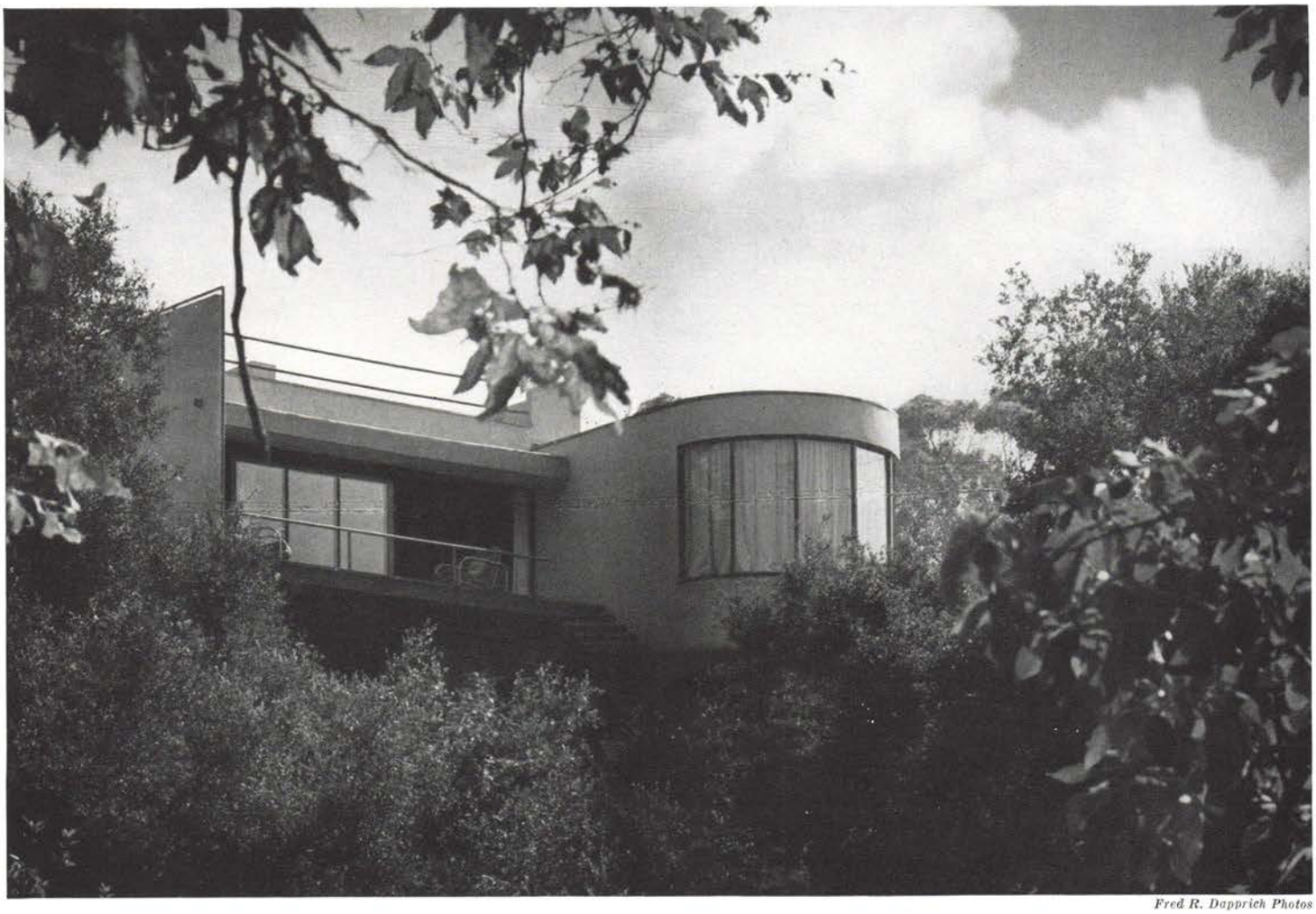
25 HOUSES



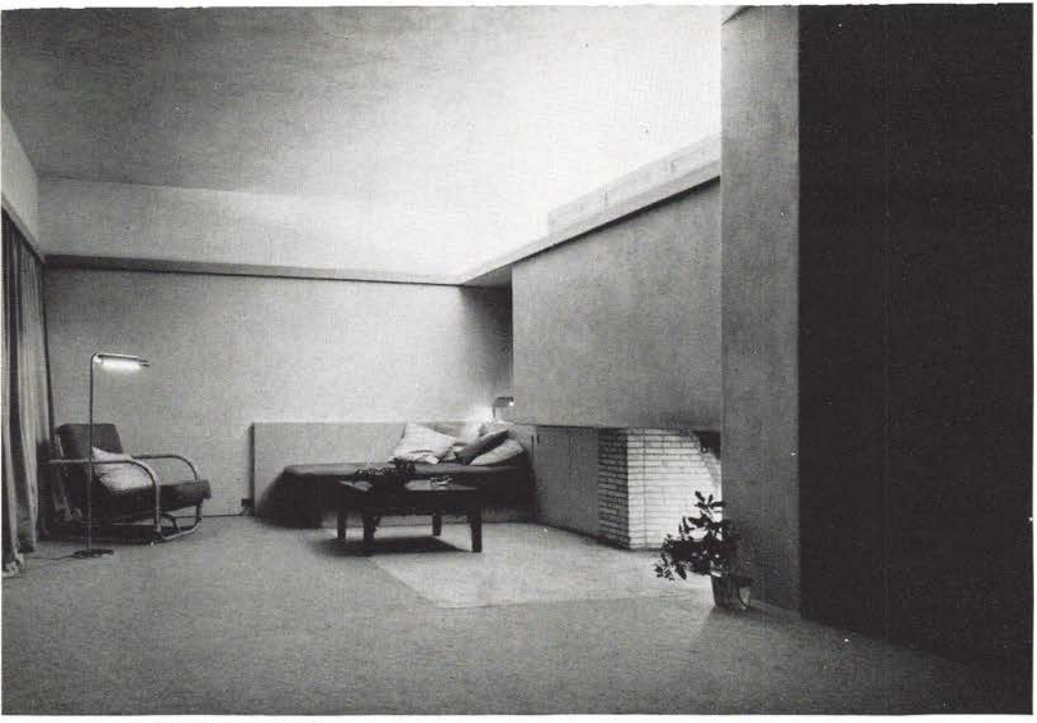
1. HOUSE FOR JOHN ENTENZA, SANTA MONICA, CALIFORNIA

HARWELL HAMILTON HARRIS, DESIGNER

LIVING ROOM
BALCONY

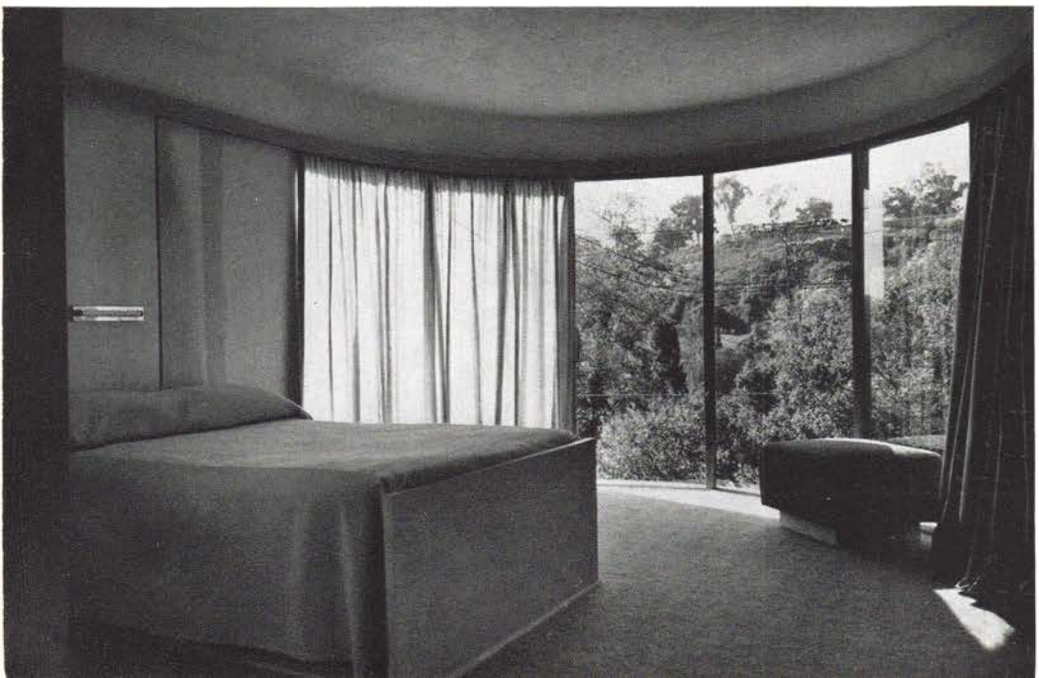


Fred R. Dapprich Photos

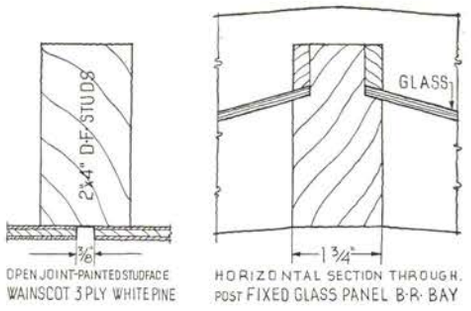


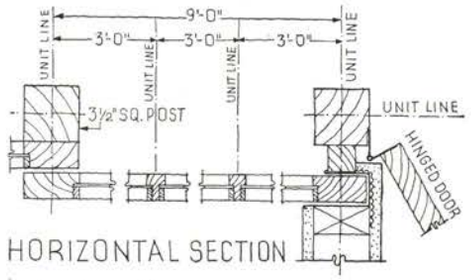
LIVING ROOM

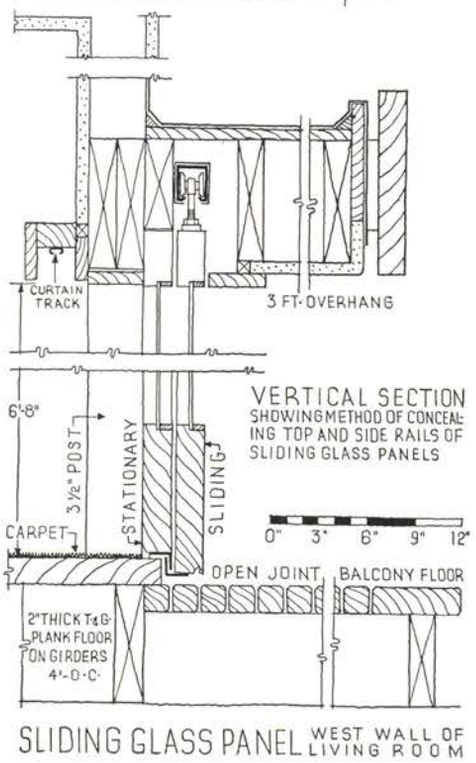
BEDROOM



Designed for a bachelor, and located on a canyon wall, this residence provides luxurious accommodation, and an opportunity to enjoy the view, in a remarkably simple fashion. On the canyon side both the living room and bedroom are given walls of glass from floor to ceiling; in the living room they are arranged to slide so that the indoor space and terrace may be used as one unit. Excellent cross-lighting is furnished in the living room by windows at the top of the fireplace wall. The car shelter is most ingenious, as it forms part of the curved entrance drive, eliminating the necessity of backing in or out. As an extension of the living space a roof deck has been provided, easily reached by an exterior stairway located next to the front door.

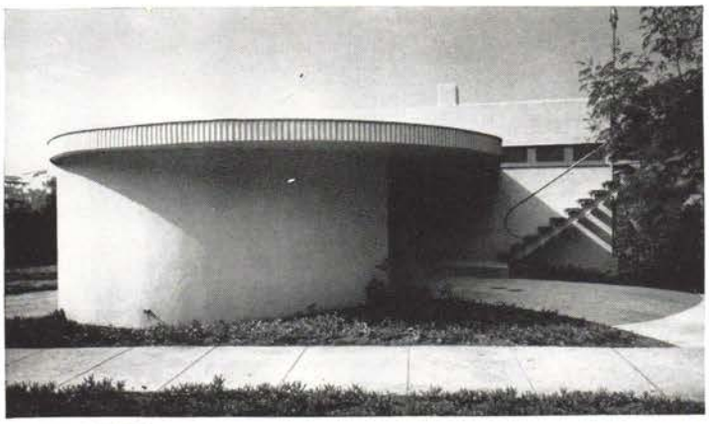




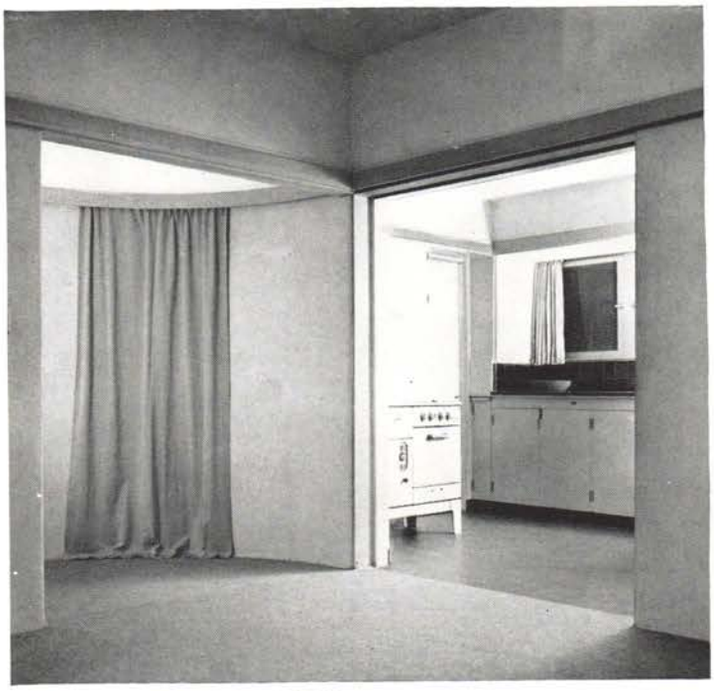


ENTENZA HOUSE, SANTA MONICA, CALIF.

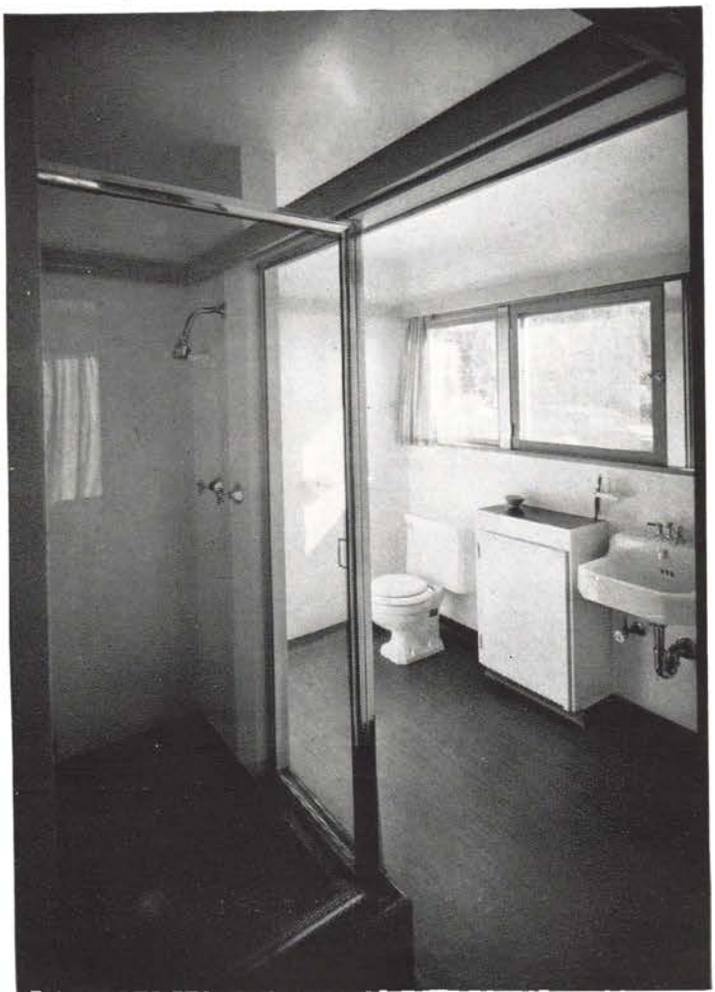
HARWELL HAMILTON HARRIS, DESIGNER

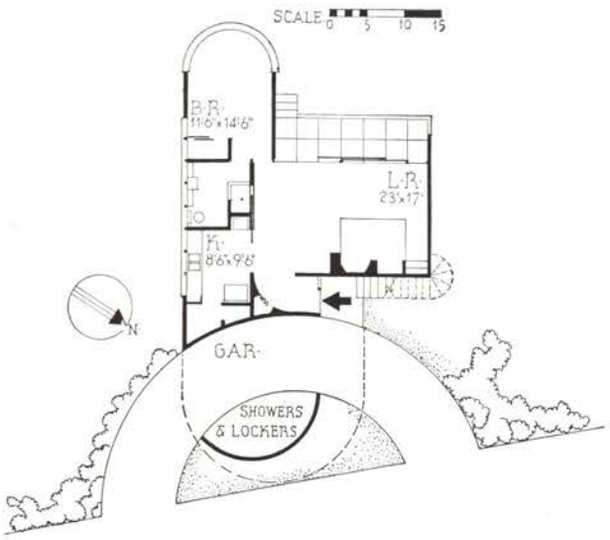


ENTRANCE



KITCHEN, BELOW BATH





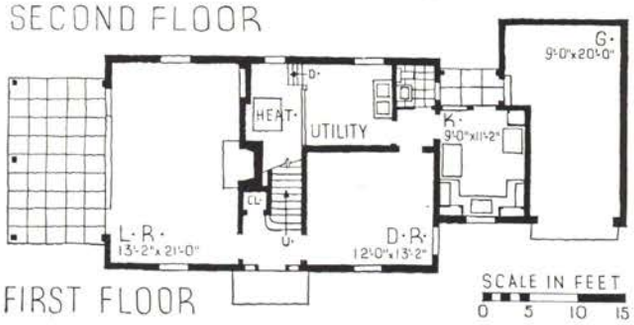
CONSTRUCTION OUTLINE

FOUNDATION: Walls—continuous concrete foundation under exterior walls, concrete piers under interior supports.
STRUCTURE: Walls—colored stucco, over 16 gauge galvanized wire mesh, over 60 lb. Mullen Test waterproof paper, over 16 gauge wire, 6 in. o.c., on 2 x 4 in. studs, 16 in. o.c. Finish—plaster on plaster board lath nailed to studs. Kitchen and bathrooms—smooth putty coat with enamel finish; other rooms—colored stucco, California Stucco Co. Floors—2 x 6 in. vertical grain Douglas fir tongue and groove planks on 4 x 6 in. girders, 4 ft. o.c.
ROOF AND DECKS: Joists, 16 in. o.c., 1 x 6 in. solid sheathing covered with 4-ply built-up felt and asphalt roofing with gravel topping or 60 lb. cap sheet.
CHIMNEY: Reenforced brick fireplace and stack, 12 x 18 in. terra cotta flue lining. Damper—Superior Fireplace Co.
SHEET METAL WORK: Flashing—26 gauge galvanized iron.
WINDOWS: Sash—outswinging wood casements on Whitco hangers, Vincent Whitney Co. Frame—1⅜ in. sugar pine, sliding glass door; 1⅜ x 3½ in. wood frame on Richards-Wilcox Mfg. Co. overhead track and trolleys. Glass—single strength, quality B for small windows; double strength in sliding doors; 3/16 in. crystal in bedroom bay. Screens—inswinging wood casements with 16 gauge galvanized iron fabric.
STAIRS: Treads, 2 x 12 in. with open risers on 7 in. steel channel stringer.
FLOORS: Interior—2 x 6 in. T. & G. Douglas fir planking; exterior—dressed 2 x 2 in. Douglas fir poles with chamferred edges spaced 3/32 in. apart.
FLOOR COVERINGS: Main rooms—natural cattle hair color Broadfelt, The Clinton Carpet Co. Kitchen and bathrooms—⅛ in. linoleum.
WOODWORK: Trim, shelving and cabinets—Douglas fir. Doors—Rezo flush panel, M. & M. Woodworking Co. Paneling—3-ply white pine in 3 ft. panels with open joists.
HARDWARE: Locks and latches—Schlage Lock Co. Butts—Stanley Works. Catches—H. A. Swenson Co. Tracks and hangers for sliding door—Richards-Wilcox Mfg. Co. Casement hangers—Whitco, Vincent Whitney Co.
PAINTING: Bathroom and kitchen walls, ceilings and cabinets—sealer, flat coat and enamel. Trim—filler and wax. Sash—3 coats outside oil paint.
ELECTRICAL INSTALLATION: Wiring system—Steel Tube conduit, Steel and Tubes Co. Switches—tumbler. Fixtures—built-in, indirect and flush panel.
KITCHEN EQUIPMENT: Range--gas, Estate Stove Co. Refrigerator—Norge Corp. Sinks—Standard Sanitary Mfg. Co. Drainboard—Formica, Formica Insulation Co., with glazed tile back, splash and trim.
BATHROOM FIXTURES: All fixtures by Standard Sanitary Mfg. Co. Cabinet—Hall Mack, Hallenscheid & McDonald. Seat—Church Mfg. Co.
PLUMBING: Soil, waste and vent pipes—cast iron. Water supply pipes—galvanized iron.

2. HOUSE FOR JOSEPH H. ADAMS, HARBOUR GREEN, L. I., NEW YORK

Gustav Anderson Photos

SECOND FLOOR



FIRST FLOOR

SCALE IN FEET
0 5 10 15

While the use of boards and battens on the second floor provides a not unpleasing modification of a standard Colonial exterior, the chief interest of this house lies in the plan. The basement, it will be noted, has been eliminated, and the heater and utility room have been located on the first floor. For convenience and economy this arrangement seems excellent. Cost: $8,250. Cubage: 24,100 at about 35 cents per cubic foot.

LIVING ROOM

HALL

CONSTRUCTION OUTLINE

FOUNDATION: Walls—concrete block. Heater room—3 ft. below 1st floor level, concrete slab over entire unexcavated portion.
STRUCTURE: Exterior walls—wood frame and shingle. Interior—plaster on Johns-Manville insulation board. Interior partitions—wood frame, plaster finish. Floor construction—wood frame and flooring.
ROOF: Wood frame, Perfection No. 1 edge grain shingles.
SHEET METAL WORK: Flashing, gutters and leaders—copper. Ducts—galvanized iron.
INSULATION: Outside walls—insulation plaster board base for plaster, Johns-Manville. Attic floor—4 in. rock-wool, Johns-Manville Corp. Weather-stripping—metal.
WINDOWS: Sash—wood, double hung. Glass—1/8 in., quality B. Screens—wood frame, copper mesh.
FLOOR COVERINGS: Main rooms—oak. Kitchen and bathrooms—linoleum covered.
WALL COVERINGS: Main rooms—wallpaper. Kitchen and bathrooms—linoleum wainscot.
HARDWARE: Brass throughout, Schlage Lock Co.
PAINTING: Interior: Ceilings—Rayolite. Floors—stain and wax. Exterior: Walls—2 coats paint, Devoe & Raynolds Co. Roof—stain.
ELECTRICAL INSTALLATION: Wiring system—BX cable. Switches—toggle type.
KITCHEN EQUIPMENT: Range—Magic Chef, American Stove Co. Refrigerator—General Electric Co. Sink—enameled iron, Standard Sanitary Mfg. Co. Cabinets—wood, HyGrade.
BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co.
PLUMBING: Soil pipes—cast iron. Hot and cold water pipes—copper. Septic tank—Kaustine Co.
HEATING AND AIR CONDITIONING: Gas-fired Janitrol, heating, filtering and humidifying, Surface Combustion Co.

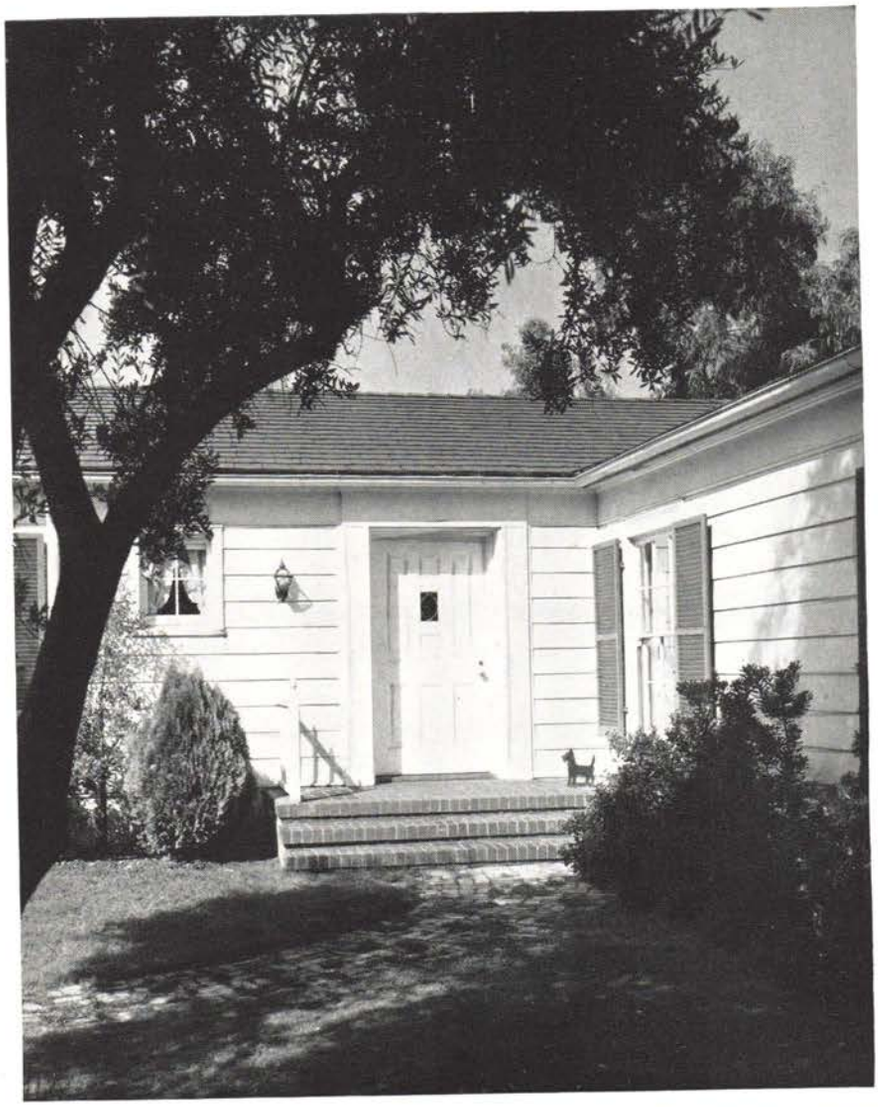
3. HOUSE FOR ARNOLD R. WHITE, ALTADENA, CALIFORNIA

George D. Haight Photos

A major problem in the design of this house, apparently, was to avoid the many fine trees on the property. The long, narrow plan does this very successfully, and it is expressed by an exterior whose simplicity shows the landscaping to best advantage. The plan has many excellent features, such as the privacy given the sleeping quarters, the proximity of services to the front door, and the generous size of the entrance hall. Projecting the living room into a wing has made possible the use of windows on three sides, a scheme used for the dining room in modified form. Cubage: 43,850.

FLOOR PLAN

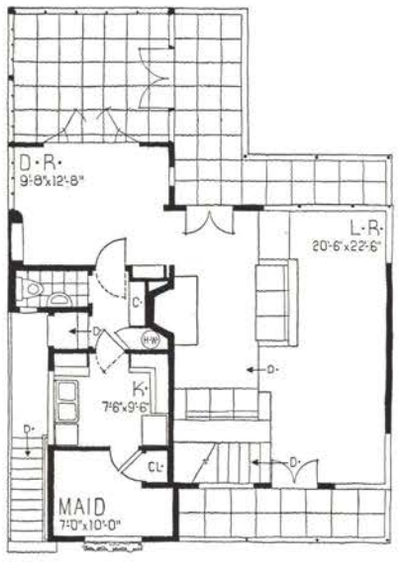
MARSTON & MAYBURY, ARCHITECTS



CONSTRUCTION OUTLINE

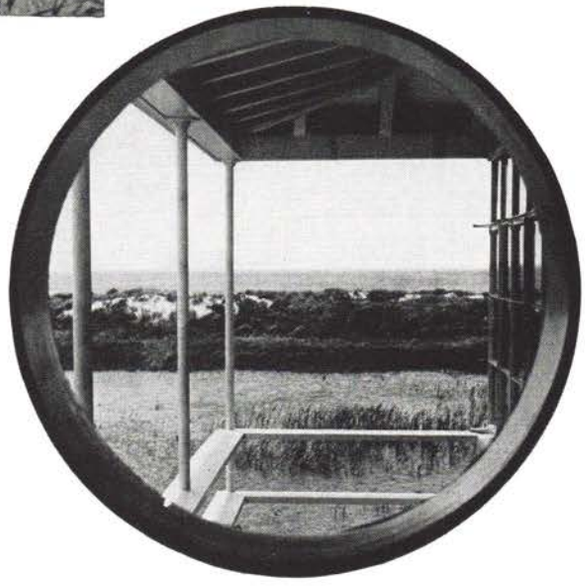
FOUNDATION: Footings—concrete, 10 in. deep and 22 in. wide. Cellar floor—3½ in. concrete with ¾ in. cement topping.
STRUCTURE: Exterior walls—2 x 6 in. studs, single plate at floor and double plate at ceiling line; all Douglas fir. Outside walls 1 x 10 in. shiplap siding, heart common redwood, 1 layer Sisalkraft Co. sheathing paper between studding and siding, wood lath and ¾ in. plaster.
ROOF: Covered with No. 1 Royal Cedar shingles, stained. Decks—covered with three layers of 15 lb. felt and one 90 lb. cap sheet.
SHEET METAL WORK: Flashing, gutters, leaders and ducts—26 gauge galvanized iron.
INSULATION: Roof—Celotex lath on ceilings throughout, Celotex Corp. Weatherstripping at entrance and French doors.
WINDOWS: Sash—double hung, sugar pine, 1¾ in. Glass—Pennvernon, quality AA, Pittsburgh Plate Glass Co. Screens—⅞ in. outside flat; Tropicloth screen cloth.
FLOOR COVERINGS: Living room—Oregon pine, to be carpeted. Bedrooms and hall—oak. Kitchen—linoleum. Bathroom—tile.
WALL COVERINGS: Living room and bedrooms—colored interior stucco. Halls—white pine channel boards, painted. Kitchen and above tile in bathrooms—Sanitas, Standard Coated Products Corp.
WOODWORK: Trim—Ponderosa pine. Cabinets and doors—white pine. Garage doors—overhead type, white pine.
HARDWARE: Solid bright brass finish, Russell & Erwin Mfg. Co.
PAINTING: Interior: Kitchen walls—1 coat enamel over Sanitas. Ceilings—colored stucco. Floors—finished, stained and waxed. Sash—3 coats lead and oil outside, additional coat enamel inside. Exterior: Walls—1 priming coat, 2 coats pure lead and oil. Roof—stain.
ELECTRICAL INSTALLATION: Wiring system—Sheradized conduit throughout. Switches—General Electric Co.
KITCHEN EQUIPMENT: Sink—2-part enamel iron. Ventilating fan—IIg Electric Ventilating Co. Cabinets—white pine, built-in.
BATHROOM EQUIPMENT: All fixtures by Crane Co.
HEATING: Warm air, gas fired, individual room units. Hot water heater—Superbo Mfg. Co.

4. HOUSE FOR OLIVER



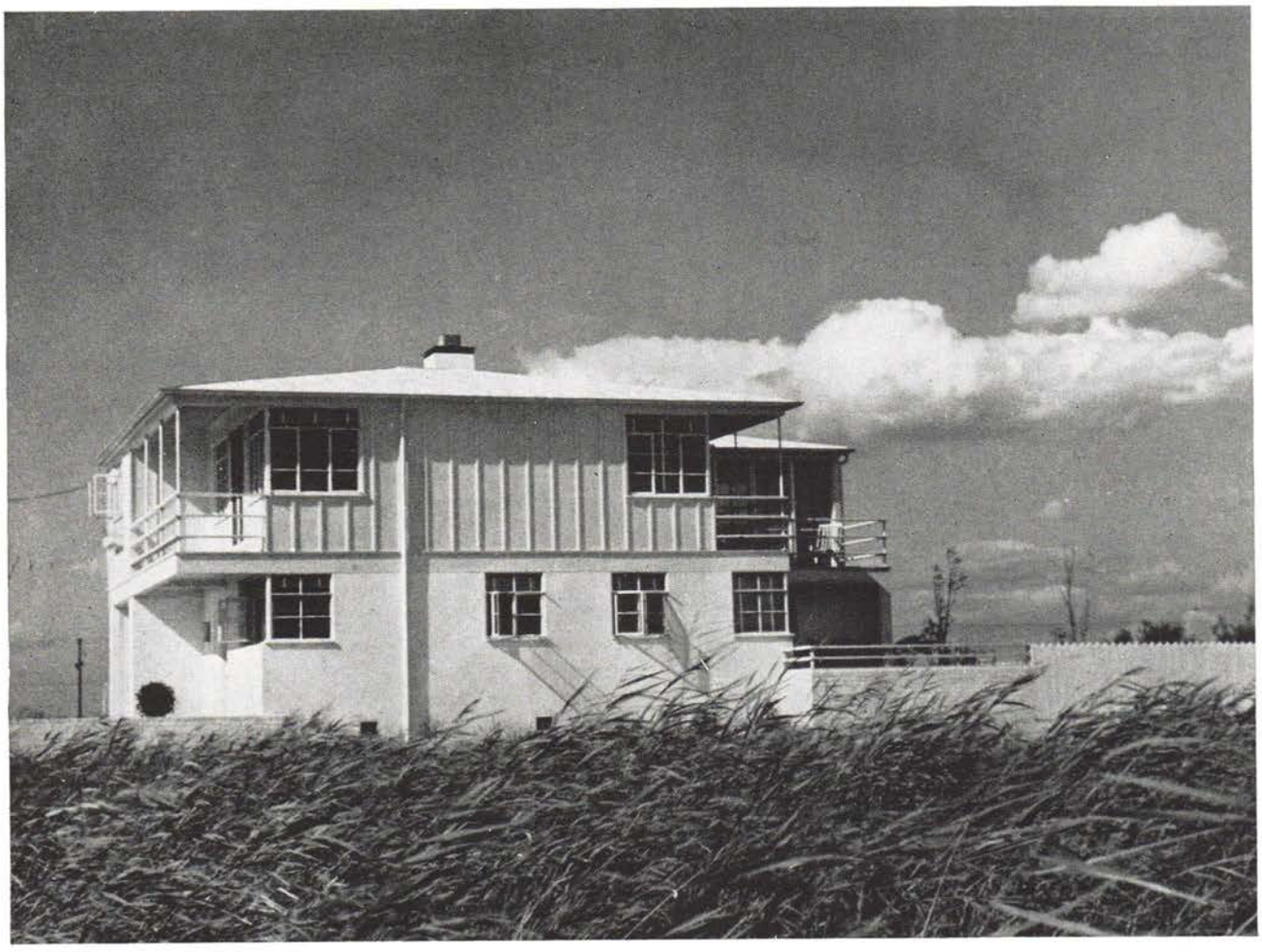
SECOND FLOOR

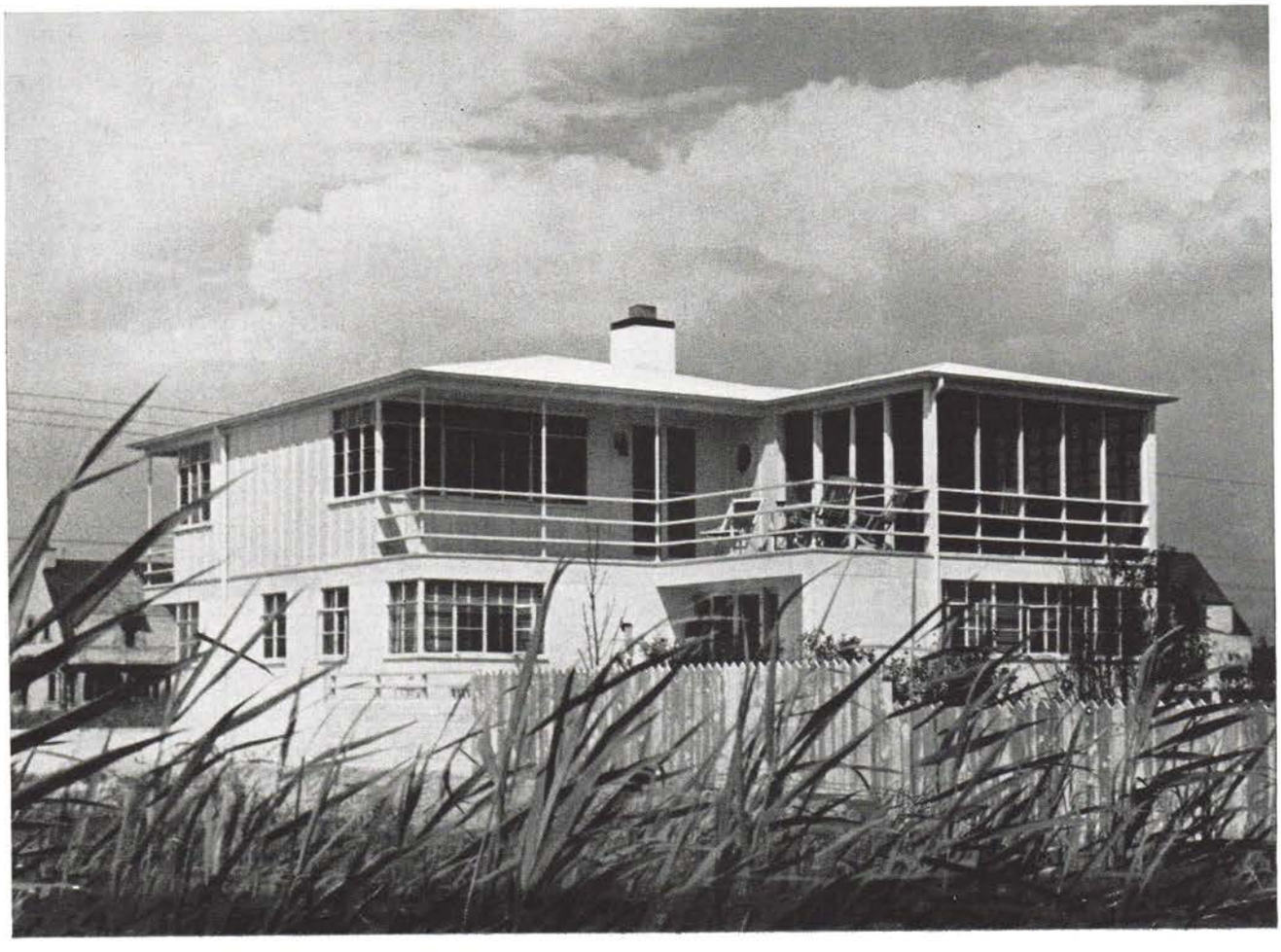
FIRST FLOOR SCALE IN FEET 0 5 10 15



Built in a development where land costs are high, the house had to conform to a rather restricted lot (40 x 132). Another important factor in the design was a view of the ocean over the dunes, which dictated the placing of the living room on the second floor. Both plans and exterior photographs show evidence of careful study. The ground floor bedrooms, for instance, have windows over six feet above the sidewalk level, which assures their privacy. The south wall has been left blank so that a future building next door will not disturb present living arrangements. A well-sheltered terrace has been provided at the rear. Cost: $9,554, not including architect's fee, but including all outside walls and terraces and built-in living room furniture. Cubage: 22,445, at about 43 cents per cubic foot.

B. JENNINGS, LIDO BEACH, L. I., N.Y. EDWARD R. TAUCH, JR., ARCHITECT

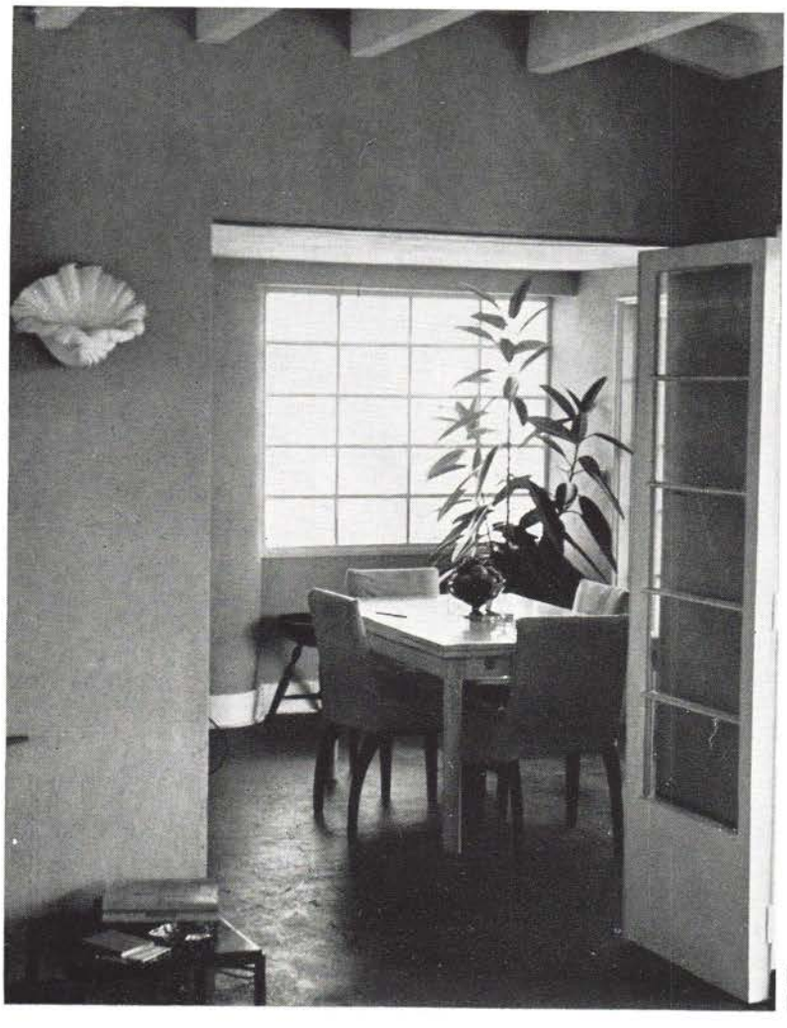




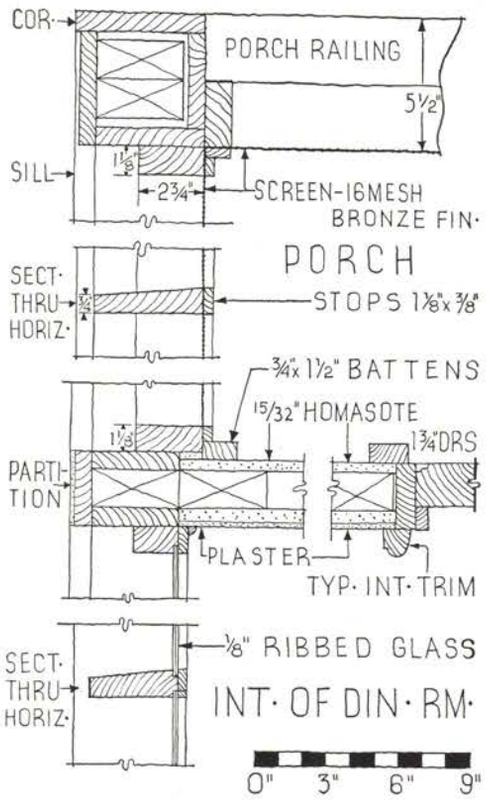
JENNINGS HOUSE, LIDO BEACH, N. Y.

EDWARD R. TAUCH, JR., ARCHITECT

LIVING ROOM



DINING ROOM



WALL DETAILS PORCH—DINING ROOM

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—2 x 4 in. studs, 16 in. o.c., Sisalkraft building paper. First story—brick veneer and plaster on galvanized wire mesh. Interior—Sheetrock, U. S. Gypsum Co. Second story—Homasote building board with vertical wood battens spaced with studs, clapboards 8 in. to weather. Interior—2 coats plaster on Rocklath, U. S. Gypsum Co.

ROOF: Rafters, 3 x 6 in., 16 in. o.c., Thermosote sheathing, Homasote Co. Standing seam, galvanized, Toncan Iron roofing, 26 gauge, Republic Steel Co.

SHEET METAL WORK: Flashing, gutters, leaders and flower boxes—26 gauge galvanized Toncan iron.

WINDOWS: All sash stock Truscon residence casements, vertical muntins omitted, equipped with aluminum screens, Truscon Steel Co. Glass—double strength, quality B.

FLOORS: Vertical grain fir throughout except Armstrong Cork Products Co.'s cork tile laid over ⅛ in. plywood and saturated felt in dining and living room. Bathroom—linoleum over ⅛ in. plywood and felt.

WOODWORK: Interior doors—stock, Curtis Companies, Inc. Garage doors—overhead, Stanley Works.

HARDWARE: All equipment by P. & F. Corbin.

PAINTING: Exterior brick work and cement plaster—2 coats Medusa white paint. Exterior Homasote, woodwork and windows—primed and painted 2 coats white lead and oil. Canvas floor—2 coats porch and deck paint, Sherwin-Williams Co. Interior: Bathroom—lead and oil; all other walls and ceilings—1 coat Muraltone. Floors—Fast-Dri and Satin finish varnish, Sherwin-Williams Co.

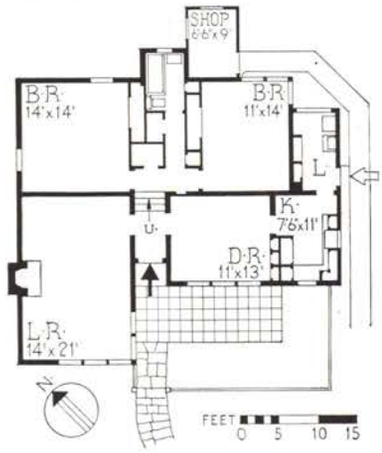
ELECTRICAL INSTALLATION: Wiring—General Electric Co. Switches—tumbler. Fixtures—flush panels, Lightolier Co., Lumiline in cove of bedroom No. 2, General Electric Co.

KITCHEN EQUIPMENT: Range and refrigerator—General Electric Co. Sink—Kohler Co.

BATHROOM EQUIPMENT: All fixtures by Kohler Co.

5. HOUSE FOR MRS. MARY LEA SHANE, BERKELEY, CALIFORNIA

McCullagh



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—Douglas fir studs, Pabcotite waterproof paper, The Paraffine Companies, Inc., hardwall plaster on wood lath. Floor construction—Douglas fir joists and sub-floor, oak over waterproof paper.

ROOF: Douglas fir rafters and sheathing covered with 16 in. 5 butts to 2 in. vertical grain cedar shingles.

SHEET METAL WORK: Flashing and leaders—No. 24 gauge galvanized iron. Gutters—redwood.

WINDOWS: Sash—sugar pine, double hung. Glass—single strength, quality B, Libbey-Owens-Ford Glass Co. Screens—bronze copper wire, redwood frames.

ELECTRICAL INSTALLATION: Wiring system—2-wire knob and tube. Switches—toggle. Fixtures—Roberts Lighting Fixture Co.

KITCHEN EQUIPMENT: Range—gas. Refrigerator—electric. Sink—enameled iron.

BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co.

PLUMBING: Soil pipes—cast iron. Water pipes—galvanized wrought iron. Storage type water heater—Hoyt Mfg. Co.

HEATING: Warm air, Aladdin Heating Corp.

GWYNN OFFICER, ARCHITECT

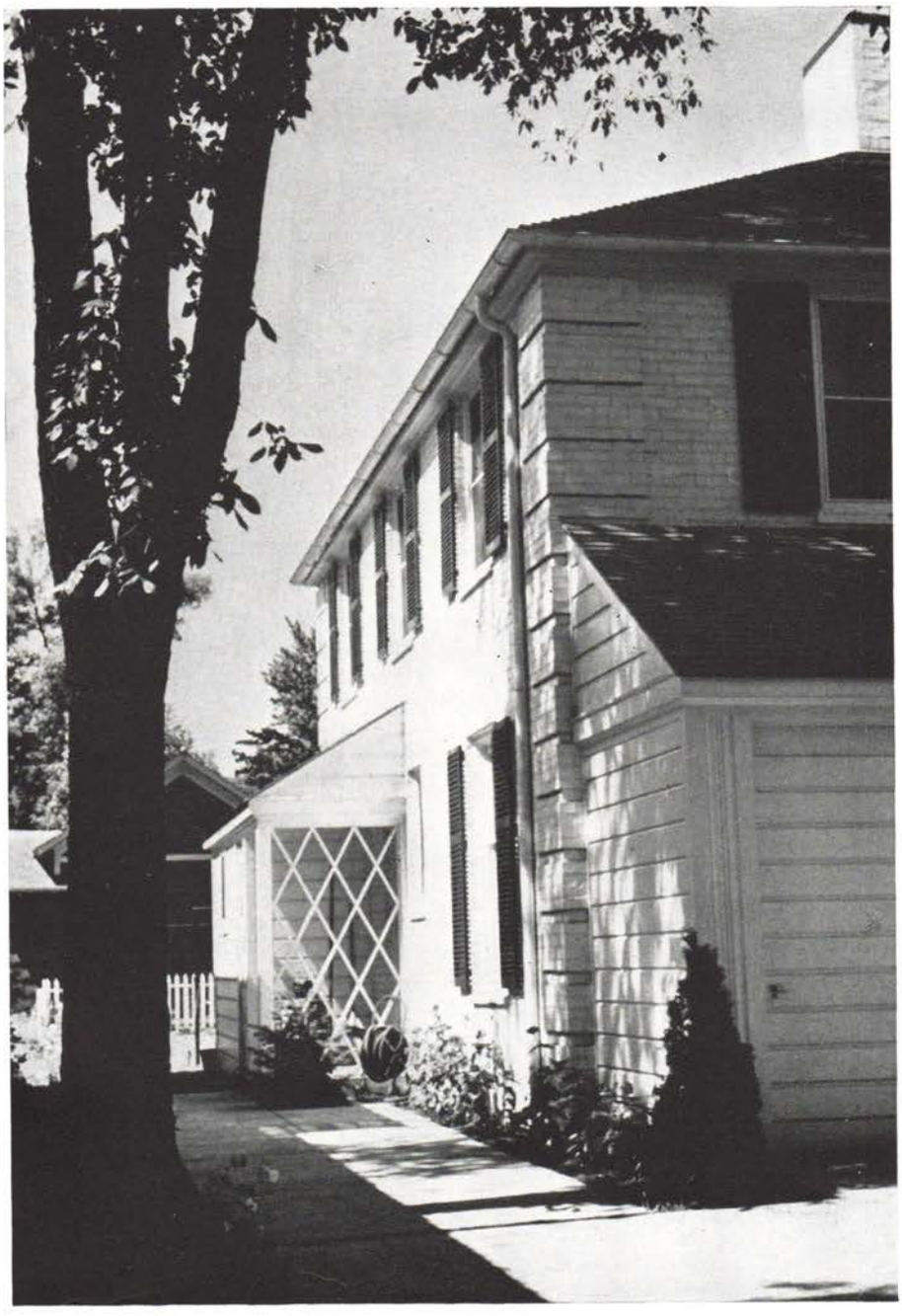
The narrow, sloping site was a controlling element in the design of this house. Only 48 ft. wide, at the front, it precluded the possibility of any but a compact plan, while the slope led to an arrangement on two levels; the latter was considered desirable as well as economical, since it provided a means of separating living and sleeping quarters. The garage is sunk below the ground, and lies directly in front of the living room. Cost: About 26 cents per cubic foot.

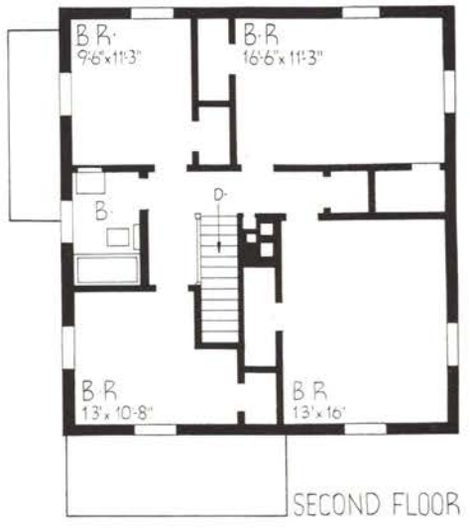
6. HOUSE FOR B. A. HAFNER, STEVENS POINT, WISCONSIN

Altman Photos

The program, as stated by the architects, was "to design a simple and restrained house, economically planned for a narrow lot. Attached garage and cross ventilation asked for, also service entrance and passage accessible to garage, lavatory, kitchen, basement, and living room. The family consists of father, mother, two sons, a daughter, and grandmother." The most interesting feature of an otherwise conventional solution is the combined entrance and garage door, as inconspicuous a treatment of this difficult element as one could hope to find. Cost: $8,700. Cubage: 31,200 at 28 cents per cubic foot.

TAYLOR AND MAAS, ARCHITECTS





CONSTRUCTION OUTLINE

FOUNDATION: Walls—local sandstone, 18 in. Cellar floor—4 in. concrete on 6 in. bed of sand.

STRUCTURE: Exterior walls—hard burned common brick veneer laid up in Dewey Mason's cement, 1 in. air space, ¾ in. Insulite sheathing, Insulite Co., 2 x 4 in. studs, ⅜ in. aluminum foil, lath and plaster, U. S. Gypsum Co. Interior partitions—2 x 4 in. studs, ⅜ in. plaster board and plaster, U. S. Gypsum Co. Floor construction—joists and diagonal sub-flooring.

ROOF: Covered with best grade clear red cedar shingles on shingle strip, laid 5 in. to weather.

CHIMNEY: Hard burned common brick, tile flue linings. Damper—Improved Type, H. W. Covert Co.

SHEET METAL WORK: Flashing, gutters and leaders—24 gauge galvanized iron, shop coat of red lead.

INSULATION: Outside walls—¾ in. Insulite sheathing, Insulite Co., U. S. Gypsum Co.'s aluminum foil lath. Second floor ceilings—U. S. Gypsum Co.'s aluminum foil lath. Roof—Metallation type A between rafters, Reynolds Corp. Weatherstripping—Chamberlin Metal Weather Strip Co.

WINDOWS: Sash—Vetter's Weather-Snug double hung, Unique Window Balance Co.'s sash balance. Storm sash—Vetter's pre-fit. Glass—single strength, quality B, Libbey-Owens-Ford Glass Co. Screens—bronze mesh.

STAIRS: Special detail. Treads—white oak. Risers and stringers—pine. Newels and handrail—clear birch, stained.

FLOORS: Living room and bedrooms—No. 1 red oak. Halls, kitchen and bathrooms—covered with medium gauge linoleum.

WALL COVERINGS: Wallpaper throughout, Imperial Paper & Color Corp.

WOODWORK: Trim and cabinets—Western pine, painted. Garage doors—Over-the-top hardware, Frantz Mfg. Co.

HARDWARE: Interior and exterior—brass, Sargent & Co.

PAINTING: Interior: Walls—paint, Pittsburgh Plate Glass Co. Ceilings—Texolite casein, U. S. Gypsum Co. Floors—wax, Minwax Co. Exterior walls and sash—Dutch Boy white lead, National Lead Co.

ELECTRICAL INSTALLATION: Wiring system—BX cable. Switches—toggle, General Electric Co. Fixtures—Gezelschap & Sons.

KITCHEN EQUIPMENT: Range—gas, Magic Chef, American Stove Co. Refrigerator—Frigidaire Corp. Sink—Kohler Co.

BATHROOM EQUIPMENT: Kohler Co.

PLUMBING: Soil pipes—4 in. cast iron. Water pipes—galvanized iron.

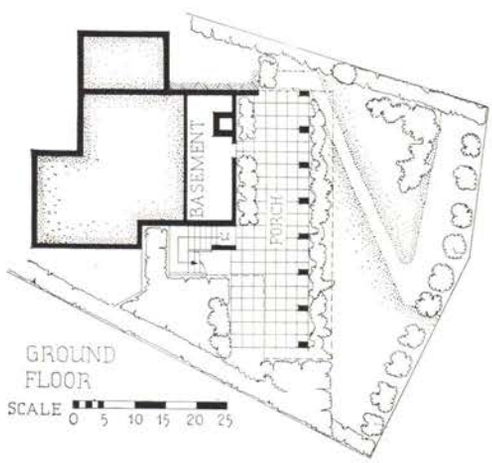
HEATING: Boiler and concealed radiators—U. S. Radiator Corp. Hot water heater—Penfield, automatic gas, John Wood Mfg. Co.

7. HOUSE FOR RALPH

Julius Shulman Photos

SECOND FLOOR

FIRST FLOOR

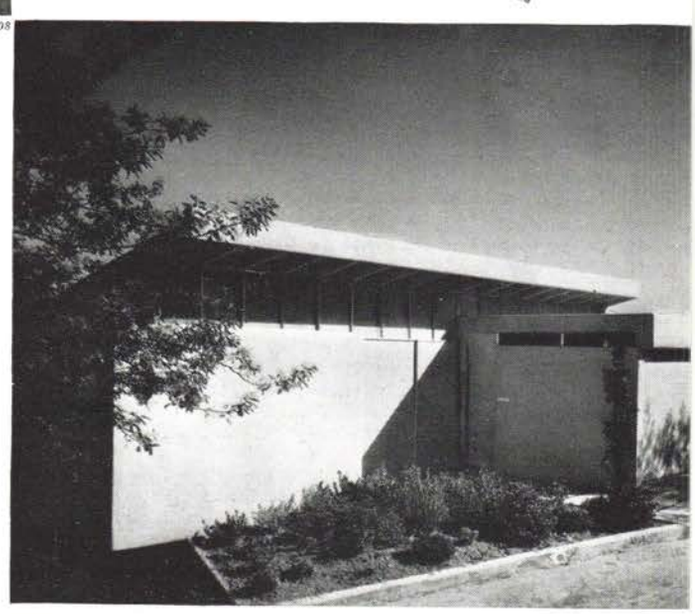


EAST VIEW

The three floor plans show a very carefully organized solution of a difficult site problem. With an entrance at the top story level, the architect has placed his living quarters here, with the maid's room well placed for privacy. Two bedrooms and a large playroom occupy the floor below, and a basement and large terrace are placed on the ground level. The views of the interior indicate the degree of spaciousness attained, and are particularly notable for the use of sloping ceilings. These are not only a most economical way of covering the roof beams, but do much to eliminate a box-like appearance. Cubage: 24,000.

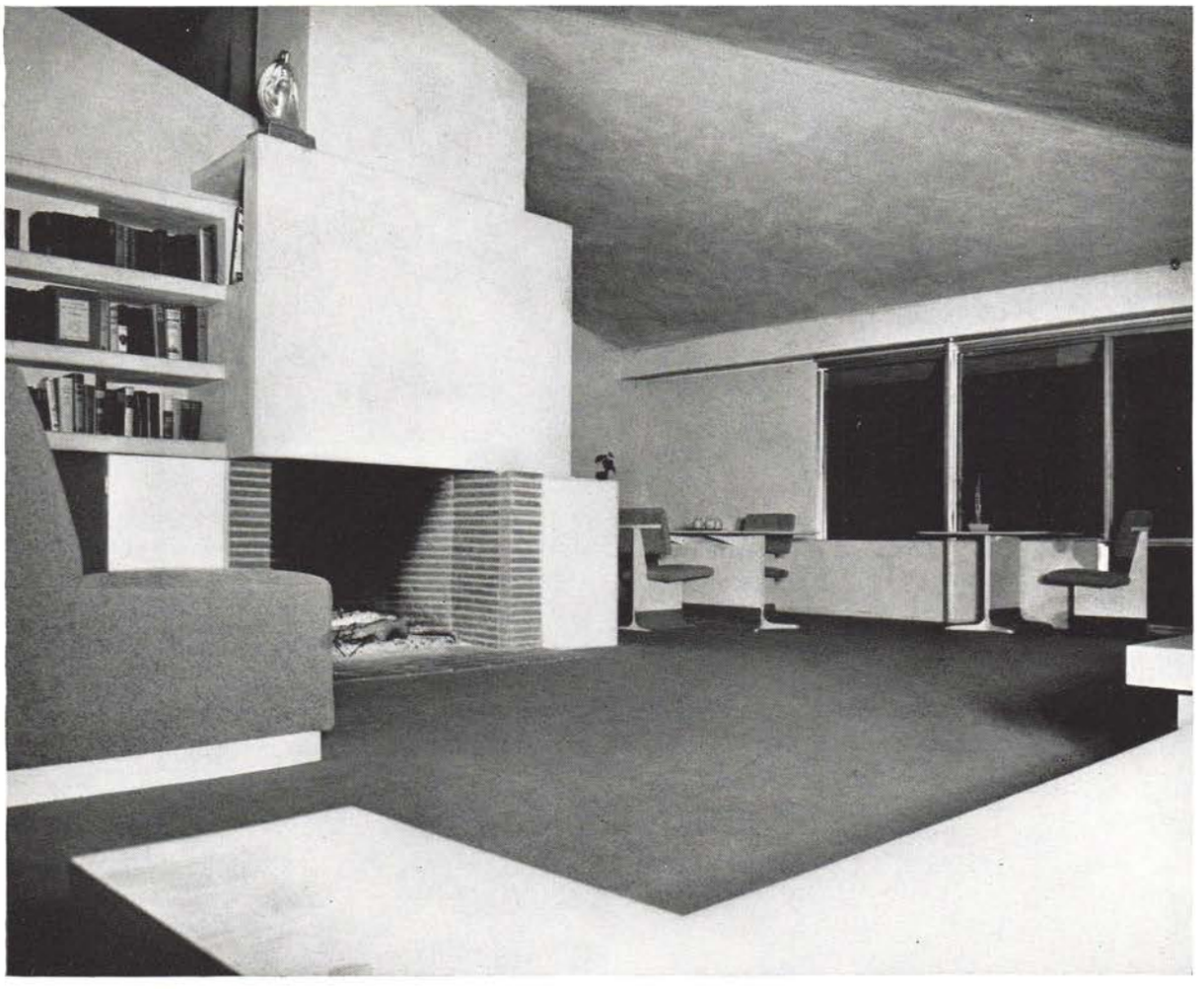
CONSTRUCTION OUTLINE

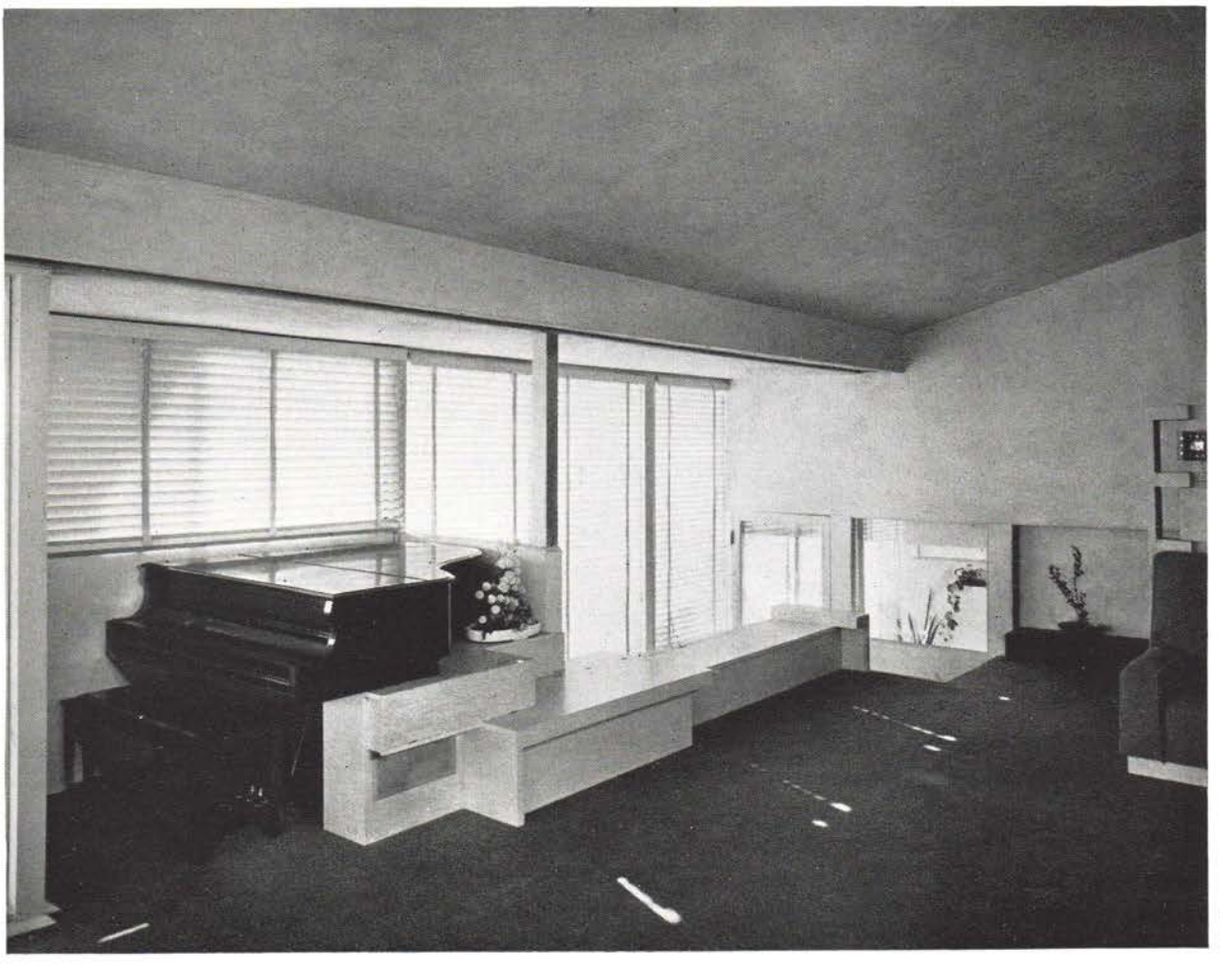
STRUCTURE: Exterior walls—brush coat stucco, wire netting, 15 lb. felt, wood frame, gypsum lath. Interior—stucco. ROOF: Covered with composition roofing. SHEET METAL WORK: Flashing—galvanized iron. Inside leaders—cast iron. WINDOWS: Sash—metal, sliding. FLOOR COVERINGS: Main rooms—carpet. Kitchen, bathrooms and porches—linoleum. WOODWORK: Trim, cabinets and doors—Oregon pine. PLUMBING: Soil pipes—4 in. cast iron. Hot and cold water pipes—galvanized iron. HEATING: Hot air furnace.



ENTRANCE

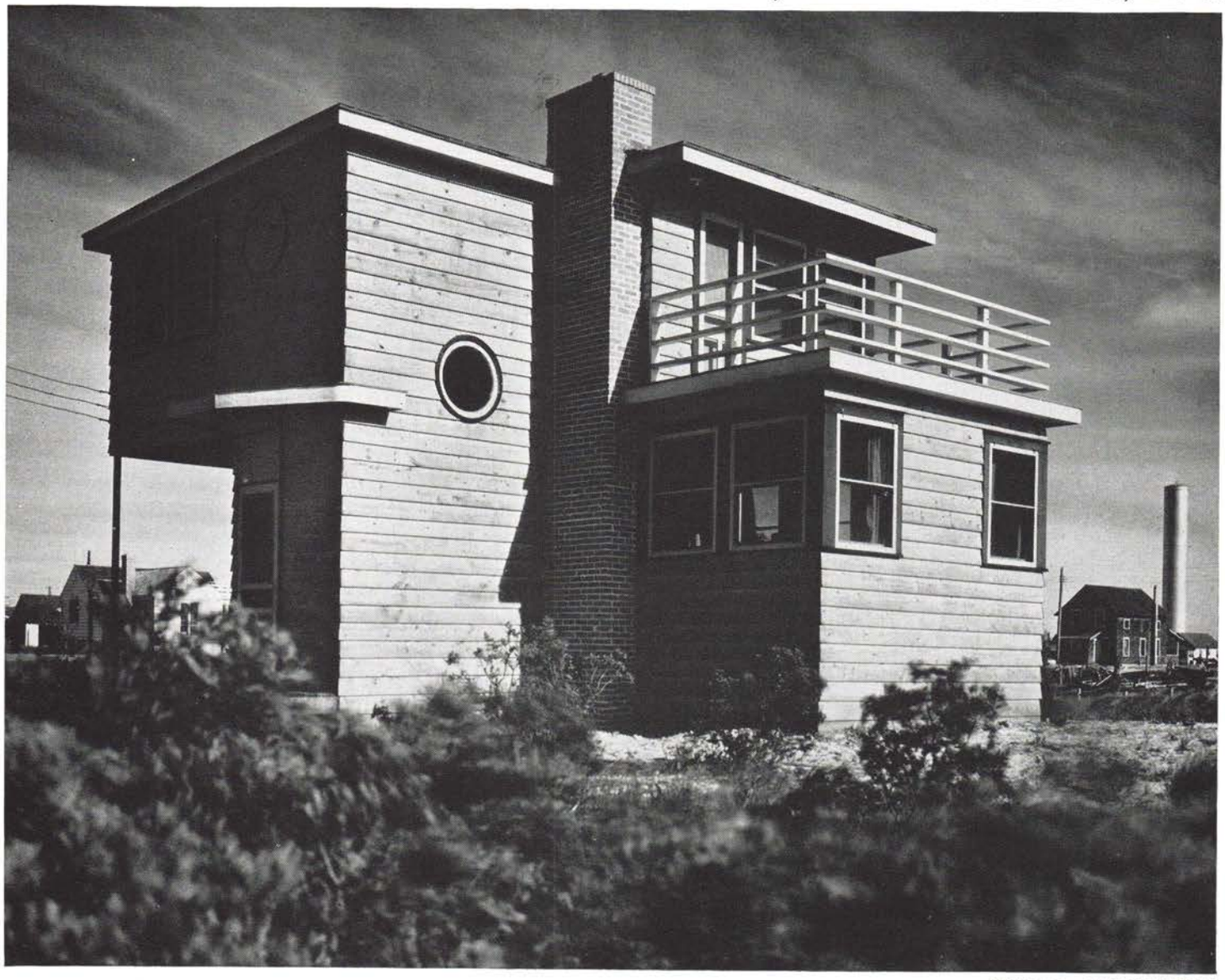
G. WALKER, LOS ANGELES, CALIF. R. M. SCHINDLER, ARCHITECT





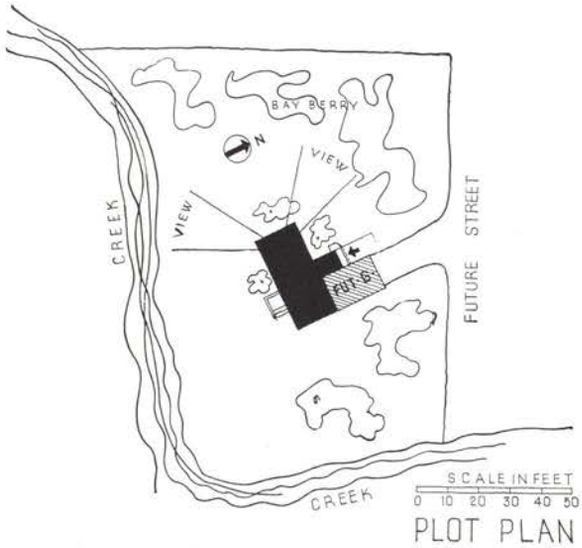
LIVING ROOM

8. HOUSE FOR DR. ISOLDE T. ZECKWER, HARVEY CEDARS, N. J.



NORTH ELEVATION

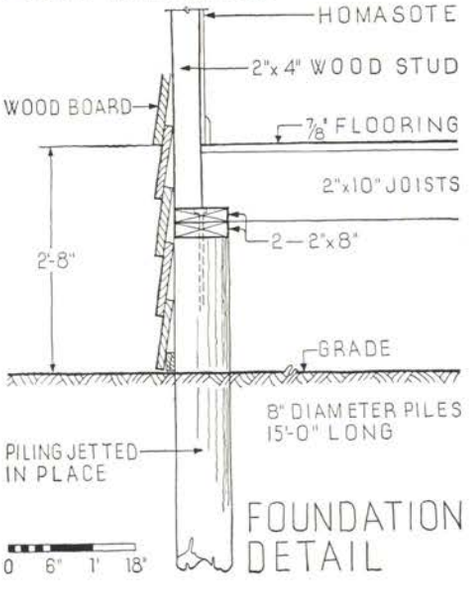
This house and the one which follows are part of a number of beach dwellings designed by Mr. Daub and recently built in Harvey Cedars. Perhaps their most interesting single characteristic is that while both are modern in design, they carry on, with few exceptions, those materials which have long since proved their economy and durability in exposed seaside locations. Here the materials are wood, brick, and composition board. The plan provides three well-arranged bedrooms, large living room with windows on three sides, a compact kitchen, and a conveniently located lavatory. Cost: $3,865. Cubage: 11,560 at about 33 cents per cubic foot.



PLOT PLAN

Robert M. Damara Photos

SOUTH ELEVATION



FIRST FLOOR

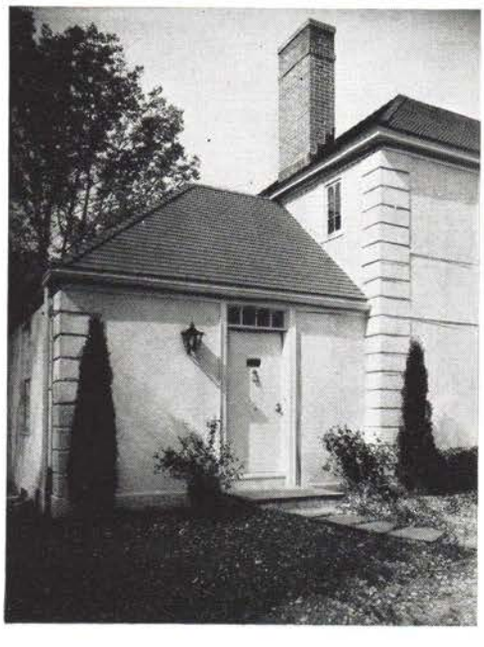
SECOND FLOOR

CONSTRUCTION OUTLINE

FOUNDATION: Built on 8 in. diameter piles, 15 ft. long, jetted into place.
STRUCTURE: Exterior walls—rough sawed N. C. pine scaffold, 2 x 4 in. studs, 16 in. o.c., 1 in. Thermosote, Homasote Co. Interior partitions—2 x 4 in. studs, 16 in. o.c., covered with Homasote, Homasote Co. Floor construction—1 x 6 in. N. C. pine joists and roofers. Ceilings—Homasote on 1st floor, Thermosote under decks and roofs, Homasote Co.
ROOF: Built-up, 10-year, Philip Carey Co. Decks—covered with canvas.
INSULATION: See under Structure.
WINDOWS: Sash—wood, double hung. Glass —1/8 in. quality B, Libbey-Owens-Ford Glass Co.
STAIRS: N. C. pine throughout.
FLOORS: Wood. Kitchen and bathrooms—covered with linoleum.
WALL COVERINGS: Interior finished with Thermosote and Hermasote, Hermasote Co.
WOODWORK: Trim—white pine. Cabinets—Douglas fir. Interior doors—stock, 1-panel. Exterior doors—Rezo flush type, fir, M. & M. Woodworking Co.
HARDWARE: Bright brass, Plymouth design, Schlage Lock Co.
PAINTING: Floors—sized and stained. Trim and sash—lead and oil. Exterior walls—natural wood treated with boiled linseed oil. Decks—canvas painted gray.
ELECTRICAL INSTALLATION: Wiring system—BX. Switches—Pass & Seymour.
KITCHEN EQUIPMENT: Range and refrigerator—Sears Roebuck. Sink—Kohler Co.
BATHROOM EQUIPMENT: Kohler Co.
PLUMBING: Soil pipes—cast iron. Water pipes—galvanized iron. Concrete septic tank.
HEATING: None. Hot water heater—Hot Point, Edison General Electric Appliance Co.

9. HOUSE FOR MISS MARGARET M. CARGILL, NEW CANAAN, CONN.

ENTRANCE DETAIL



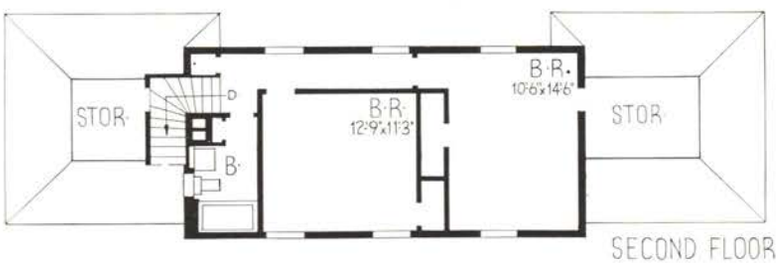
Connecticut, particularly in the section around New Canaan, is overwhelmingly committed to Colonial as the standard residential style, and the appearance of a house whose exterior is based on French precedent is not common. Due to the similarity of scale between this and conventional Colonial or Georgian houses, the only important respect in which the house differs from its neighbors is its formality. This formality, however, ceases with the exterior; the plan is free, admirably simple and direct. Cost: $10,000. Cubage: 18,500 at 54 cents per cubic foot.

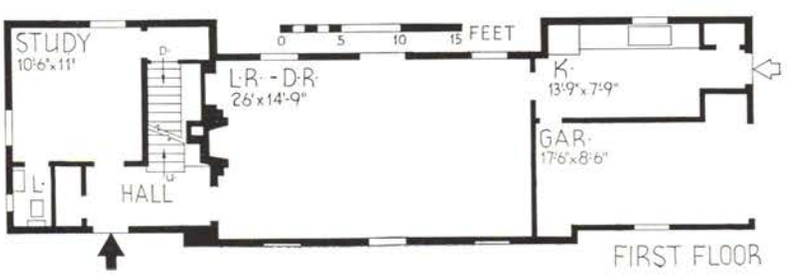
EDWIN M. LOYE, ARCHITECT

John Gass

FRONT ELEVATION

LIVING ROOM





CONSTRUCTION OUTLINE

FOUNDATION: Walls—12 in. concrete block, continuous. Cellar floor—3 in. cement on slab, 6 in. cinder fill. Waterproofing—1 in. Hydrolithic outside.

STRUCTURE: Exterior walls—2 x 4 in. studs, wood sheathing, paper, Tuckahoe Stone Co. stucco, Reynolds Corp. Ecod lath, plaster base. Interior partitions—studs, Ecod lath and plaster; smooth finish for paper and paint. Floors—2 x 10 in. rough and finished wood flooring; plaster ceiling on metal lath.

ROOF: Wood rafters and shingles on shingle lath.

CHIMNEY: Lining—terra cotta. Damper—Old Style, H. W. Covert Co.

SHEET METAL WORK: Flashing—16 oz. copper. Gutters—wood. Leaders—3 in. round copper.

INSULATION: Outside walls—foil on Ecod lath, Reynolds Corp. Weatherstripping—Accurate Metal Weatherstrip Co.

WINDOWS: Sash and frame—stock double hung, Unique balances, Unique Window Balance Co. Glass—single strength, quality B, Libbey-Owens-Ford Glass Co. Screens—wood frame, bronze mesh.

STAIRS: Treads—oak. Risers and stringers—white wood.

FLOORS: Main rooms—oak. Kitchen and bathrooms—pine covered with linoleum. Terrace and entrance platform—bluestone flagging.

WALL COVERINGS: Wallpaper throughout.

WOODWORK: Trim and doors—stock, Curtis Companies, Inc. Shelving and cabinets—wood, special. Garage doors—special, hinged.

HARDWARE: Interior and exterior—The Yale & Towne Mfg. Co.

PAINTING: Interior: Walls—flat wall paint. Floors—stain, shellac and wax. Trim and sash—flat enamel. Exterior: Roof—asphalt paint protection on shingles. Sash—lead and oil; all paints by The Sherwin-Williams Co.

ELECTRICAL INSTALLATION: Wiring system—BX. Fixtures—Cassidy Co. and Lightolier Co. direct.

KITCHEN EQUIPMENT: Range and refrigerator—General Electric Co. Sink—Standard Sanitary Mfg. Co. Cabinet—wood.

BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co. Seat—Church Mfg. Co. Cabinet—Columbia Metal Box Co.

PLUMBING: Soil, waste and vent pipes—cast iron and galvanized. Water pipes—brass.

HEATING AND AIR CONDITIONING: Direct air, filtering and humidifying, heater and oil burner Reynolds Metals Co., Inc. Hot water heater—Westinghouse Electric & Mfg. Co.

10. HOUSE FOR H. T. HENZEL, CHAPPAQUA, NEW YORK

John Gass

FIRST FLOOR

SECOND FLOOR

JAMES W. KIRST, ARCHITECT

A major problem in the one-story house is the proper relationship of living and sleeping quarters; in this example, although there is bedroom space upstairs, the same problem presented itself. The solution here was the use of the main hall for direct access to all rooms, while a subordinate passage gives privacy to the bedrooms. Cost: $7,200. Cubage: 27,800 at about 26 cents per cubic foot.

CONSTRUCTION OUTLINE

STRUCTURE: Royal shingles, 24 in., on wood stud construction.
ROOF: Covered with black Bangor slate.
CHIMNEY: Common brick. Damper—H. W. Covert Co.
SHEET METAL WORK: Flashing, gutters and leaders—copper.
INSULATION: Outside walls and attic floor—rockwool. Weatherstripping—zinc and bronze saddles.
WINDOWS: Sash—wood, double hung. Glass—single strength, quality B. Screens—wood frame, bronze mesh.
FLOORS: Main rooms—clear white oak. Kitchen—linoleum covered.
WOODWORK: Trim, cabinets and doors—stock, Ponderosa pine. Garage doors—overhead, Stanley Works.
PAINTING: Interior: Walls, trim and sash—lead and oil. Ceilings—calcimine. Floors—shellac and wax. Exterior walls—lead and oil.
ELECTRICAL INSTALLATION: Wiring system and switches—General Electric Co.
KITCHEN EQUIPMENT: Refrigerator—General Electric Co. Cabinet—Kitchen Maid Corp.
BATHROOM EQUIPMENT: Fixtures by Standard Sanitary Mfg. Co.
HEATING: Steam system. Boiler—American Radiator Co. Oil burner—A.B.C. Corp. Radiators—concealed. Valves—Hoffman Specialty Co. Regulator—Minneapolis-Honeywell Regulator Co.

11. HOUSE FOR MRS. MOYE W. STEPHENS, LA VERNE, CALIFORNIA

THEODORE CRILEY, JR., ARCHITECT
HAROLD W. GRIEVE, DECORATOR

Fred R. Dapprich Photos

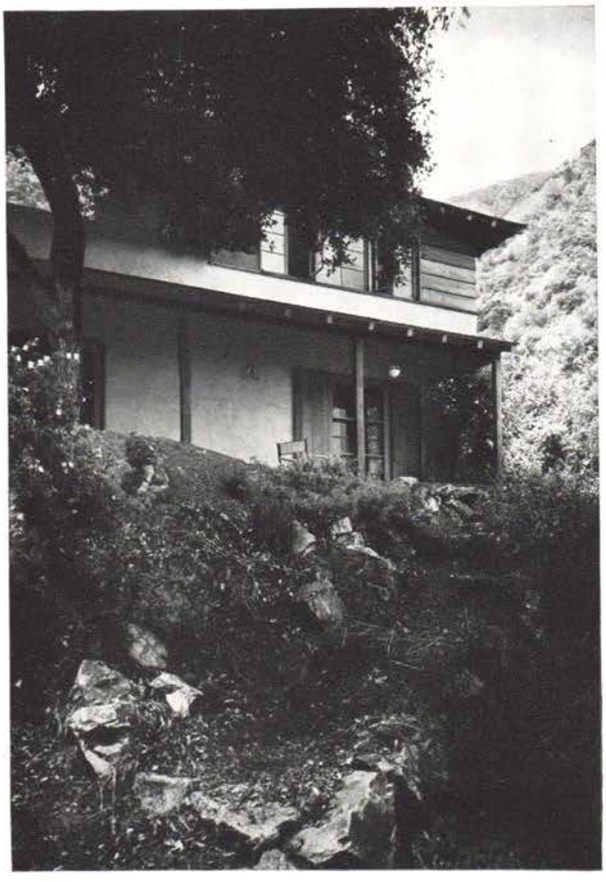
STEPHENS HOUSE, LA VERNE, CAL.

LIVING ROOM

DINING ROOM

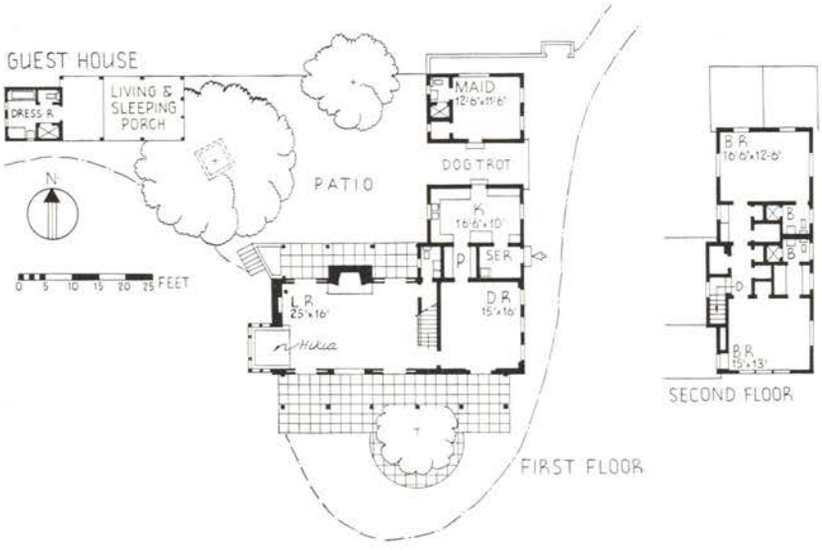
The site of this ranch house is a narrow spur between two heavily wooded canyons in the foothills of the Sierra Madre mountains. It was built largely by ranch labor, with redwood as the chief material. Where plaster is used on the exterior it is terra cotta, with an olive green dado. The interiors are colorful; in the living room, for example, the natural light color of the redwood walls has been preserved by a special finish, and against this background green fabrics have been placed, some with stripes recalling the exterior colors; the ceiling is a deep blue-violet and the fireplace screen is of copper. The "hikia" is a luxurious divan seven feet square; both the name and the platform come from similar features found in traditional Hawiian houses. As the house was built by ranch labor no accurate cost estimates are available; the architect has estimated, however, that if built on contract the house would cost about $10,000. Cubage: 29,300.

THEODORE CRILEY, JR., ARCHITECT HAROLD W. GRIEVE, DECORATOR



SOUTH ELEVATION

LIVING ROOM



CONSTRUCTION OUTLINE

FOUNDATION: Walls and cellar floor—concrete.
STRUCTURE: Exterior walls—cement plaster or Anzac redwood siding, sheathing, 2 x 4 in. Douglas fir studs. Interior—hardwall plaster, Celotex or redwood boarding. Partitions—2 x 4 in. Douglas fir studs. Floor construction—plank oak in living room, remainder strip oak flooring, joists. Ceilings—Celotex, hardwall plaster or re-sawn T & G. All lumber by E. K. Wood Co.
ROOF: Covered with Royal cedar shingles, linseed oil dipped.
CHIMNEY: Common brick, L. A. Brick Co., face brick jambs, copper panel. Damper—Superior Fireplace Co.
SHEET METAL WORK: Flashing—copper.
INSULATION: Outside walls and attic floor—Celotex plaster board, Celotex Corp. Roof—Unifil, Universal Insulation Co. of California.
WINDOWS: Sash—steel casement, Truscon Steel Co. and Druwhit Co. Glass—double strength, quality A. Screens—flat, inside fixed metal screens, Steel Sash Co.
STAIRS: Treads—oak. Risers and stringers—redwood.
FLOORS: Main rooms—select white oak. Kitchen and bathrooms—linoleum covered.
WALL COVERINGS: Living room—redwood, T. & G. Bedrooms and halls—hardwall plaster. Kitchen—Celotex, Celotex Corp. Bathrooms—Keene cement, National Gypsum Co., tile—Gladding, McBean & Co.
WOODWORK: Trim—clear heart redwood in living room; sugar pine elsewhere. Shelving and cabinets—No. 2 knotty pine. Interior doors—4-panel, stock.
PAINTING: Interior walls: Redwood—white glue size and lacquer, Murphy Varnish Co.; plaster—Wallhide, Pittsburgh Plate Glass Co. Trim—enamel, Columbia Paint & Varnish Co. Sash—lead and oil. Exterior walls—Cementico, U. S. Gypsum Co.
ELECTRICAL INSTALLATION: Wiring system—110/-220. Switches—Despard Type, Fixtures—Wilkinson Scott Co.; built-in by J. M. Feldman Co.
KITCHEN EQUIPMENT: Range—Westinghouse Electric and Manufacturing Co. Refrigerator—General Electric Co. Sink—Standard Sanitary Mfg. Co.
BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co. Cabinet—Hall Mack, Hallenscheid-McDonald.
HEATING: Electric wall heaters and hot water heater—Thermador Co.

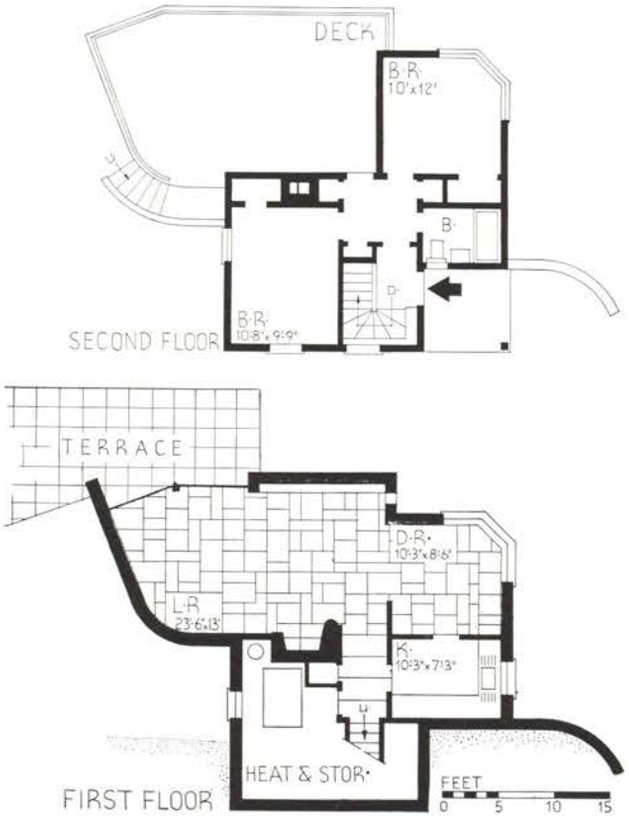
12. HOUSE FOR MISS ROMAINE, NEW HAMPTON, N. J.

Louis H. Dreyer Photos

LIVING-DINING

The variety possible within the limits of modern design is demonstrated in an interesting fashion by this small country house. Executed in the oldest of materials, it has the characteristically free modern plan, well adapted to the hillside location. Particularly successful is the irregularly shaped living-dining space, whose curved wood wall provides a pleasing transition between the interior and the outdoor terrace. Cost: $3,508.50. Cubage: 10,000, at 35 cents per cubic foot.

LIVING ROOM

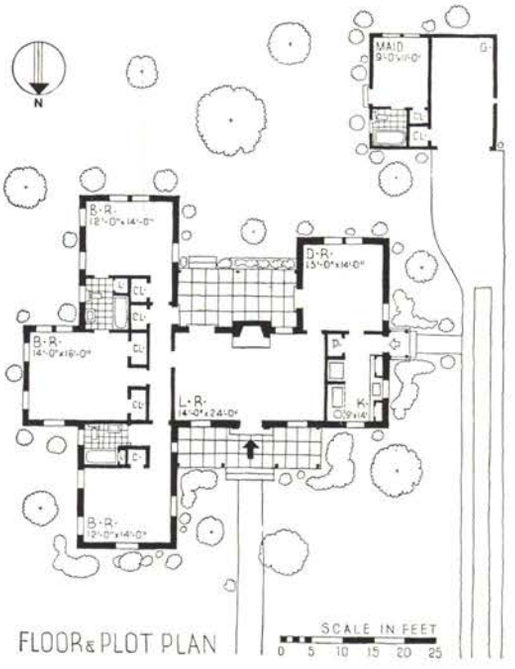


CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls: First floor—9 in. fieldstone, 1 in. wood furring strips, ½ in. Homasote interior finish; 2nd—2 x 4 in. wood studs, ½ in. Homasote sheathing, redwood siding, Homasote Co. Floor construction—(1st) concrete slab with random Pennsylvania slate; (2nd) 2 x 8 in. wood beams, sub-floor and oak finish flooring. Ceilings—plaster. Decks—½ in. Homasote finished with extra heavy canvas; insulated with rock wood, U. S. Gypsum Co.
CHIMNEY: Lining—terra cotta. Damper—H. W. Covert Co.
SHEET METAL WORK: Flashing—16 oz. copper.
WINDOWS: Sash—wood, double hung, Curtis Cos. Service Bureau. Glass—3/16 in., quality A, Libbey-Owens-Ford Glass Co. Glass blocks—Owens-Illinois Glass Co.
WALL COVERINGS: Living room and halls—½ in. Homasote and ¼ in. plywood, Homasote Co.
WOODWORK: Trim—½ x 4 in. white pine. Cabinets—¾ x 4 in. white pine, 5-ply plywood doors. Doors—Rezo, flush, M. & M. Woodworking Co.
HARDWARE: Equipment by Schlage Lock Co.
PAINTING: Walls and ceilings—casein paint, Casein Co. of America, Inc. Floors—spar varnish. Sash—oil paint. Exterior: Walls—oil paint. Roof—aluminum paint. All paint except casein by Sherwin-Williams Co.
ELECTRICAL INSTALLATION: Wiring system—BX cable and toggle switches, General Electric Co. Fixtures—direct and indirect, Richard Kelly.
KITCHEN EQUIPMENT: Range and refrigerator—General Electric Co. Sink—Sears Roebuck & Co. Cabinets—wood, Washington Cabinet Co.
BATHROOM EQUIPMENT: Fixtures by Sears Roebuck & Co. Cabinets—Jenkins Mfg. Co.
PLUMBING: Soil pipes—4 in. cast iron, A. M. Byers Co. Cold and hot water—copper tubing, Chase Brass & Copper Co.
HEATING: Hot water system. Boiler and concealed radiators—American Radiator Co. Oil burner and clock thermostat—Electrol, Inc. Grills—American Foundry & Furnace Co. Hot water heater—Taco Heaters, Inc.

13. HOUSE FOR GEORGE BAILEY PEYTON, SAN ANTONIO, TEXAS

Zintgraff Photos



BARTLETT COCKE, ARCHITECT

A somewhat romantic version of the traditional one-story house in the Southwest, attractively landscaped, and unusual in its use of stone walls. Two porches flank the living room, providing shelter for the entrance in place of a vestibule, and space for outdoor living and dining. All rooms have through ventilation, a desirable feature in this climate. Also of interest is the incorporation of the maid's room and bath with the detached garage. Cubage: 19,350.

CONSTRUCTION OUTLINE

FOUNDATION: Walls—reenforced concrete.
STRUCTURE: Exterior walls—local limestone veneer on building paper, storm sheathing, wood studs; interior—part plaster on metal lath, part shiplap, canvas and paper. Floor construction—2 x 12 in. joists, 16 in. o.c., sub-flooring, building paper and oak finish flooring.
ROOF: Roof rafters, 2 x 4 in., 16 in. o.c., covered with 210 lb. asphalt square tab roofing on top of 15 lb. asphalt paper.
CHIMNEY: Common brick, terra cotta flue lining. Damper—Donley Brothers.
SHEET METAL WORK: Flashing, gutters and leaders—26 gauge galvanized iron.
INSULATION: Attic floor—rock wool, bat form. Weatherstripping—Monarch Metal Weather Strip Co.
WINDOWS: Sash—double hung, white pine. Glass—double strength, quality A. Screens—outside hung, full length, 16 mesh galvanized wire.
FLOOR COVERINGS: Living rooms, bedrooms and halls—oak. Kitchen—pine covered with linoleum. Bathrooms—ceramic tile.
WALL COVERINGS: Bedrooms and halls—wallpaper. Kitchen—wallpaper and composition wainscoting. Bathrooms—tile wainscoting and plaster.
WOODWORK: Trim—yellow pine. Cabinets and doors—white pine. Garage doors—sliding, yellow pine.
HARDWARE: All equipment by Schlage Lock Co.
PAINTING: Interior: Walls and ceilings flat wall paint, Pittsburgh Plate Glass Co. Floor—stained, No. 61 varnish, Pratt & Lambert, Inc.
ELECTRICAL INSTALLATION: Wiring system—conduit. Switches—Arrow, Hart & Hegeman Electric Co.
KITCHEN EQUIPMENT: Range — Chambers Stove Co. Refrigerator—Frigidaire Corp. Sink—Standard Sanitary Mfg. Co.
BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co. Seat—C. F. Church Mfg. Co.
PLUMBING: Soil pipes—cast and galvanized iron. Hot and cold water pipes—galvanized iron.
HEATING: Gas outlets and gas heat circulators. Hot water heater—Trojan, General Heater Corp.

14. HOUSE FOR CLIFFORD H. PHILLIPS, ROSELAND, N. J.

Daniel Reynolds Merrill Photos

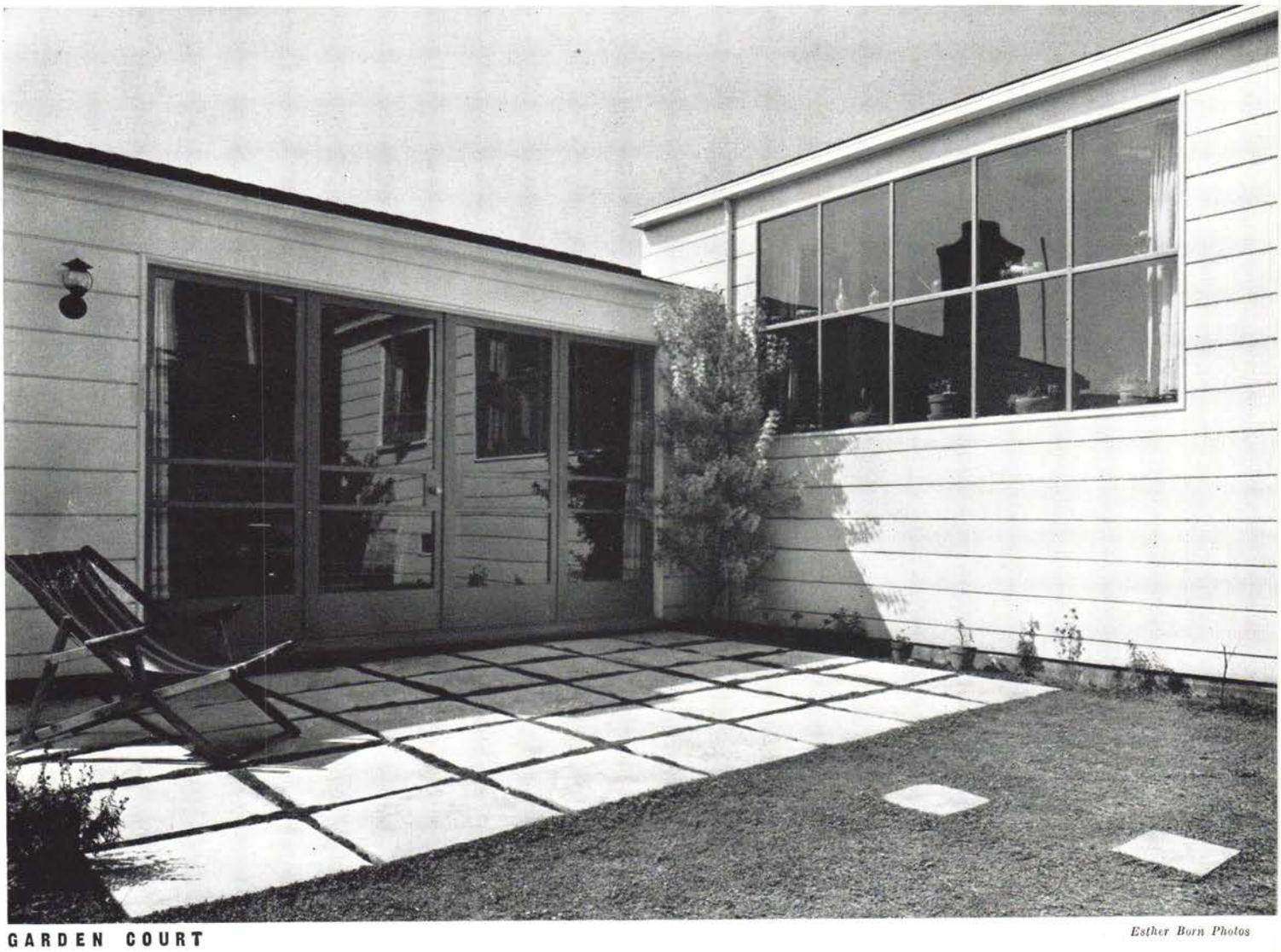
HOOTON & TIMPSON, ARCHITECTS

AN economical house built on the conventional square plan; highly commendable features are the simplicity of the exterior treatment, which relies for its effect on wood shingles and a standard lattice design, and the use of the garage to relieve the severity of the main block of the house. Cost: $4,800. Cubage: 17,000 at about 28 cents per cubic foot.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—red cedar shingles, frame, board lath and plaster, U. S. Gypsum Co.
ROOF: Wood rafters, sheathing and blue black asphalt shingles, Johns-Manville Co.
SHEET METAL WORK: Flashing and leaders—16 oz. copper. Gutters—stock fir.
WINDOWS: Sash—double hung, white pine. Glass—single strength, Lustraglass, American Window Glass Co. Screens—copper mesh, wood frames.
FLOORS: Red oak. Kitchen and bathrooms—linoleum.
WALL COVERINGS: All rooms—wallpaper. Bathrooms—Sealex, Congoleum-Nairn.
PAINTING: Interior: Ceilings—2 coats casein. Floors—2 coats shellac and wax. Exterior walls and sash—3 coats lead and oil.
KITCHEN EQUIPMENT: Sink—flat rim, Standard Sanitary Mfg. Co., linoleum top. Cabinets—wood, Oxford Co.
BATHROOM EQUIPMENT: Standard Sanitary Mfg. Co.
HEATING: One pipe steam. Boiler, radiators and valves—American Radiator Co. Regulator—Minneapolis-Honeywell Regulator Co. Hot water heater—coal pot stove.

15. HOUSE FOR ROY C. CAVE, BERKELEY, CALIFORNIA

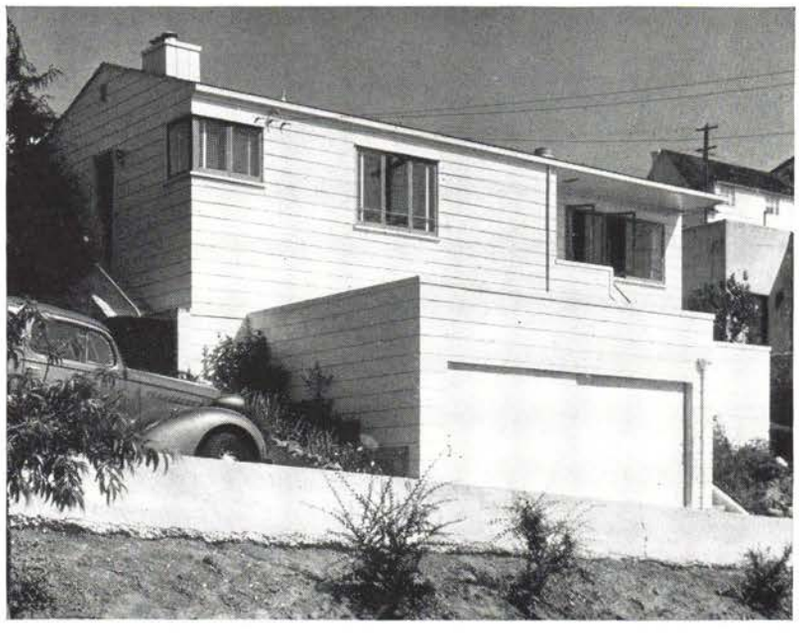


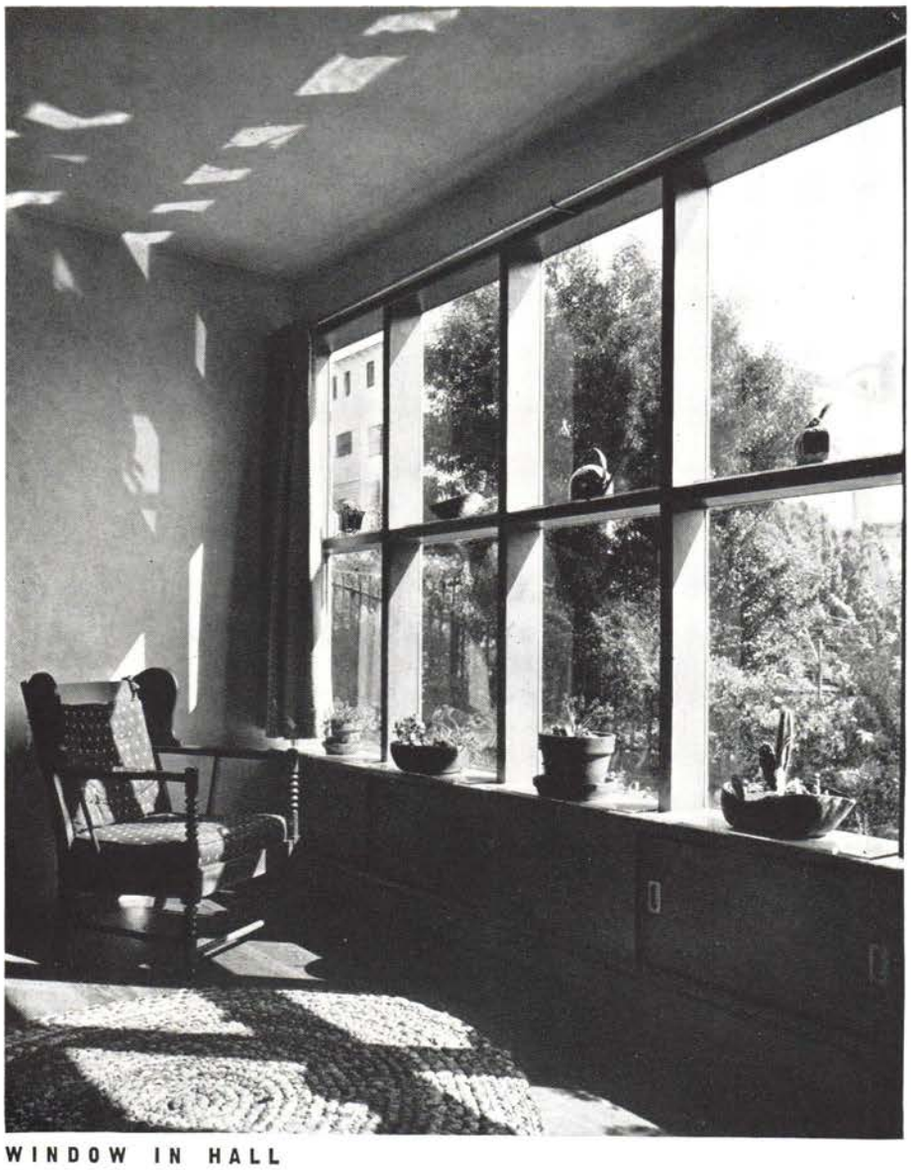
GARDEN COURT

Esther Born Photos

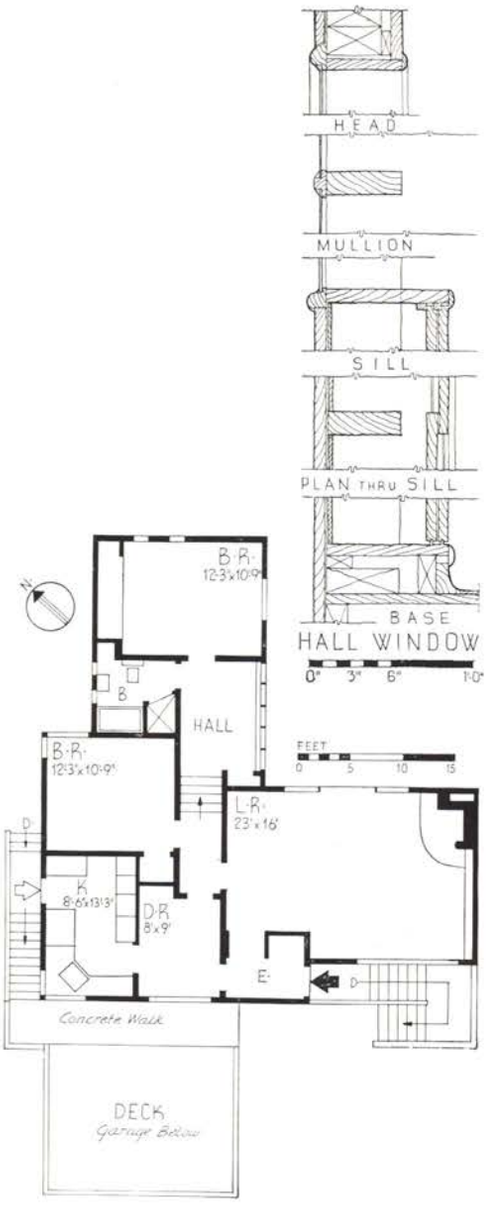
A modern design in wood, with all of the warmth and none of the detail of traditional types. Characteristic of the simplicity of the designer's approach is the hall window, shown on both of these pages; made of unornamented wood members, it provides space for plants and gives life to an otherwise barren element of circulation. Also of interest is the entrance, screened from the living room by a hall closet, directly and inconspicuously accessible from the kitchen. Cost: $4,900. Cubage: 23,322, at about 22 cents per cubic foot.

STREET VIEW

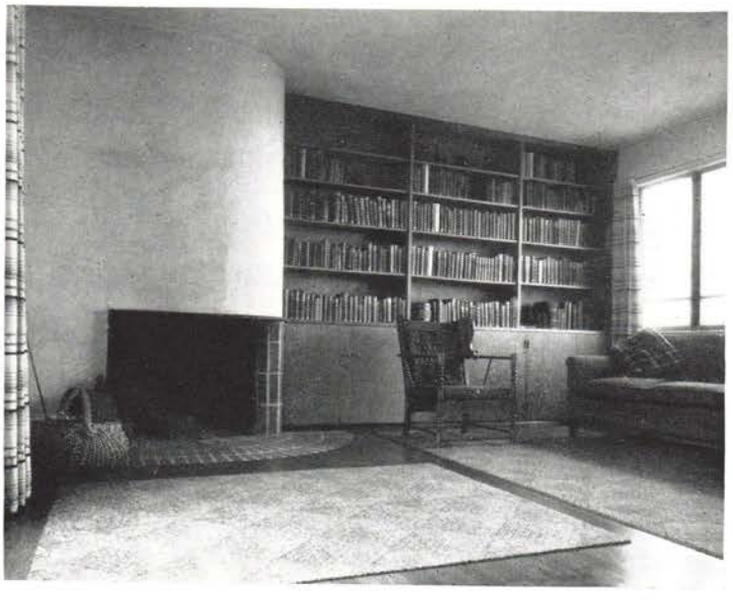




WINDOW IN HALL



LIVING ROOM



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—A grade California redwood, Metallation, No. 2 O.P. studding. Inside—plaster on rocklath.
ROOF: Covered with No. 1 red cedar shingles, Certigrade.
INSULATION: Outside walls—Reynolds' Metallation, Type C, Reynolds Corp. Insulite Lok-Joint insulating lath used as plaster base on all ceilings, Insulite Co.
WINDOWS: Sash—wood casement. Glass—single strength, quality B for sash; double strength, quality B for glazed doors. All Lustraglass, American Window Glass Co. Screens—Simpson frameless with galvanized iron cloth, underscreen operators.
FLOORS: Living room—Colonial quarter sawn oak, random width, E. L. Bruce Co. Bedrooms—plain No. 1 common white oak. Kitchen and bathrooms—standard gauge linoleum on ¼ in. Masonite Quarterboard, Masonite Corp., on 1 x 6 in. sub-flooring.
ELECTRICAL INSTALLATION: Wiring system—knob and tube. Switches—Bryant Electric Co.
KITCHEN EQUIPMENT: Range—gas, The Tappan Stove Co. Refrigerator—General Electric Co. Sink—Kohler Co.
BATHROOM EQUIPMENT: All fixtures by Kohler Co. Cabinet—Peerless Cabinet Co.
PLUMBING: Soil pipes—cast iron, Walworth Co. Water pipes—Mueller Brass Co. Streamline copper tubing and fittings.
HEATING: Warm air system. Boiler—gas fired, automatically controlled. Thermostats—McCorkle; Minneapolis-Honeywell Regulator Co. controls. Hot water heater—Hoyt Heater Co.

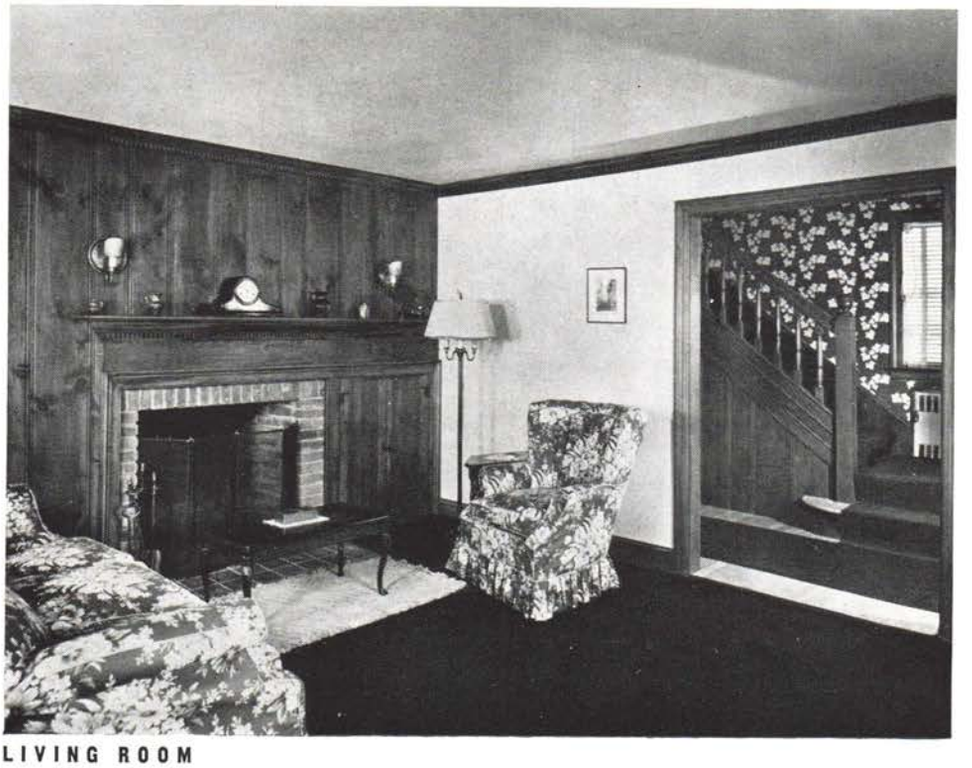
16. HOUSE FOR OTTO W. MANZ, ROCKVILLE CENTRE, N. Y.

Gustav Anderson Photos

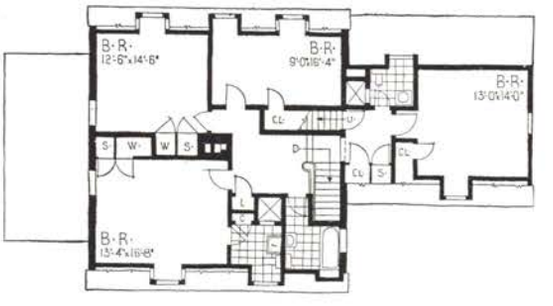
The great variety of color and texture which was formerly part and parcel of all Colonial work has been largely lost by its modern imitators, who have reduced a once-living style to a series of unimaginative treatments. If for no other reason, this house is interesting because it shows a vigorous handling of materials and color. The forms of the house and its component parts are boldly outlined, with pleasing results; something of the same character is apparent in the interiors, as in the contrast between the dark paneling of the living room and the light plaster wall. Cost: $10,000. Cubage: 39,500, at about 26 cents per cubic foot.

REINHARD M. BISCHOFF, ARCHITECT

DINING ROOM



LIVING ROOM



SECOND FLOOR

FIRST FLOOR

SCALE IN FEET
0 5 10 15

BASEMENT

CONSTRUCTION OUTLINE

FOUNDATION: Walls—poured concrete. Cellar floor—poured concrete on gravel fill. Waterproofing—integral paste, Truscon Laboratories.

STRUCTURE: Exterior walls—brick veneer, wood frame, plaster on metal lath. Floor construction—wood beams, rough and finish flooring. Ceilings—plaster on metal lath.

ROOF: Wood rafters, 1 x 6 in. roofers slate over 30 lb. felt.

CHIMNEY: Brick with clay flue lining. Damper—throat, H. W. Covert Co.

SHEET METAL WORK: Flashing, gutters and leaders—copper, Anaconda, American Brass Co.

INSULATION: Outside walls and roof—metallated lath, Reynolds Corp.

WINDOWS: Sash—double hung, wood and storm sash. Glass—double strength, quality A, Libbey-Owens-Ford Glass Co. Screens—copper mesh.

STAIRS: Tread—oak. Risers and stringers—pine.

FLOOR COVERINGS: Kitchen and bathrooms—linoleum.

WALL COVERINGS: Bedrooms, halls, kitchen—wallpaper, Imperial Paper & Color Corp. Bathrooms—Salubra, Frederick Blank & Co.

WOODWORK: Wood, finished in local mill. Garage doors—Roway overhead, Rowe Mfg. Co.

HARDWARE: Equipment by Sargent & Co., P. & F. Corbin and Stanley Works.

PAINTING: All paint material by The Sherwin-Williams Co.

ELECTRICAL INSTALLATION: Wiring system—BX. Switches—Harvey Hubbell. Fixtures—D. Kojan.

KITCHEN EQUIPMENT: Range—Magic Chef, American Stove Co. Refrigerator—General Electric Co. Sink—Monel metal, International Nickel Co. Kitchen fan—Westinghouse Electric & Mfg. Co.

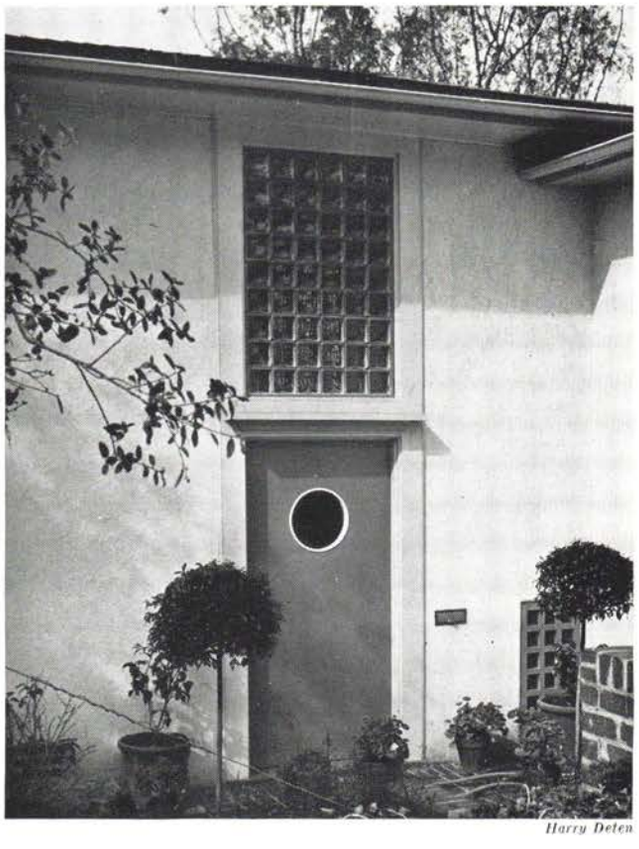
BATHROOM EQUIPMENT: Fixtures by Standard Sanitary Mfg. Co. Seat—C. F. Church Mfg. Co. Cabinets—Ketcham Mfg. Co.

PLUMBING: Soil pipes—cast iron. Hot and cold water pipes—red brass, 85 per cent copper. Hot water tank—Monel Metal, International Nickel Co.

HEATING: Steam system. Oil burner—General Electric Co. Radiators—Richmond Radiator Co. Valves—Hoffman Specialty Co. Thermostat—Minneapolis-Honeywell Regulator Co.

17. HOUSE FOR DR. J. J. GINSBERG, HOLLYWOOD, CALIFORNIA

With a plan as direct as its exteriors, this house fits its difficult site with no apparent effort. All living and sleeping rooms, with the exception of the maid's bedroom, face the view. Windows are generous. The service quarters are worth study: the entrance is combined with the laundry, the kitchen is compact, with an efficient U-plan, and the pantry is large enough for dining. Cost: approximately $10,000.

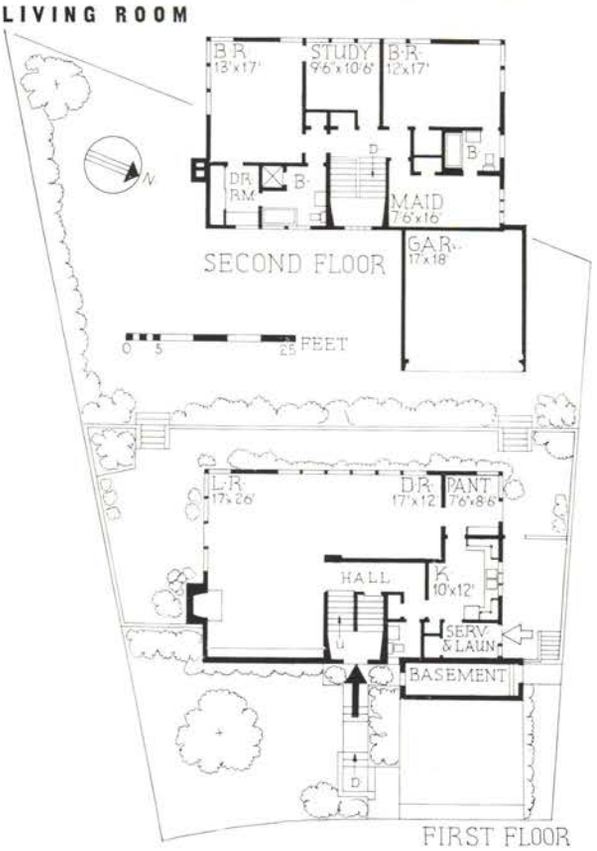


ENTRANCE

Harry Deten

Harry Deten

LIVING ROOM



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—2 x 4 in. studs, 16 in. o.c. with cement plaster on exterior; inside—interior stucco. Interior partitions—2 x 4 in. studs, 16 in. o.c., plaster on grip lath. Ceilings—plaster.

ROOF: Construction—2 x 4 in., 24 in. o.c., trussed to 2 x 4 in., 16 in. o.c., ceiling joists, covered with 5 in. 2 Perfect cedar shingles.

SHEET METAL WORK: Flashing, gutters and leaders—24 in. gauge Armco galvanized iron, American Rolling Mills Co.

WINDOWS: Sash—metal casement, Druwhit Co. Glass—single strength, Libbey-Owens-Ford Glass Co. Screens—roller with 16 gauge special bronze wire cloth, Automatic Tension Screen Co.

STAIRS: Treads—oak. Risers and stringers—Douglas fir.

FLOORS: Main rooms—No. 1 common oak. Kitchen and bathrooms—Douglas fir covered with linoleum.

WALL COVERINGS: Kitchen and bathrooms—tile, Gladding, McBean & Co.

WOODWORK: Trim, cabinets and doors—Douglas fir. Garage doors—white pine, Holmes Disappearing Bed Co.

HARDWARE: Russell & Erwin Mfg. Co.

PAINTING: Interior: Walls, ceilings, trim and sash—Sherwin-Williams Co. paint. Exterior: Walls—2-coats Semolith, Super Concrete Emulsions Ltd. Roof—shingle stain. Sash—lead and oil, W. P. Fuller & Co.

ELECTRICAL INSTALLATION: Wiring system—Sheraduct conduit. Switches—General Electric Co. Fixtures—special, Luminiere Lighting Fixture Co.

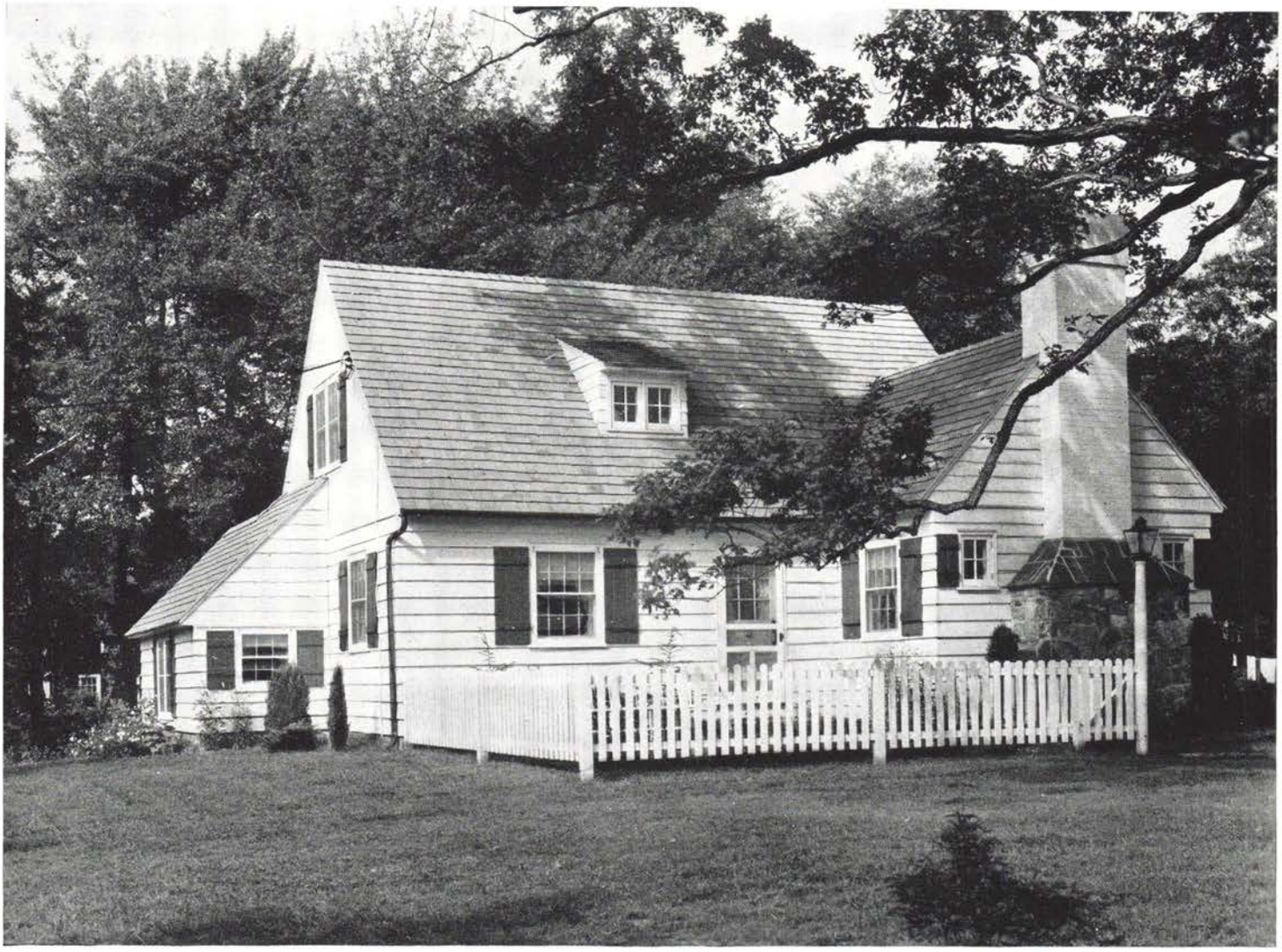
KITCHEN EQUIPMENT: Refrigerator—General Electric Co. Sink—Crane Co.

BATHROOM EQUIPMENT: All fixtures by Crane Co.

PLUMBING: Soil pipes—cast iron. Water pipes—galvanized steel.

HEATING: Warm air, Payne Furnace & Supply Co.

18. HOUSE FOR LEWIS G. WIGGINS, MORRIS PLAINS, N. J.



LIVING-DINING

SETH H. ELY, JR., ARCHITECT

While the popularity of the one and a half story house is due more to its appearance than to any savings effected over the two-story type, it is a practical solution where only two bedrooms are required on the upper floor, since the large windows in the gables provide adequate light and ventilation. The plan in this example is of interest, providing excellent separation of the main and service entrances, a downstairs bedroom, and ample closet space. Cost: $6,000 at about 31 cents per cubic foot.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—red cedar siding, U. S. Gypsum Co. rock wool insulation and rock lath.
ROOF: Covered with 24 in. Royal red cedar shingles.
SHEET METAL WORK: 16 oz. copper, American Brass Co.
INSULATION: Red Top rock wool, 4 in., in walls and roof, U. S. Gypsum Co.
WINDOWS: Sash—double hung Andersen Frame Corp. Glass—Lustra, American Window Glass Co. Screens—copper mesh.
PAINTING: Interior: Floors—Minwax Co. Sash and trim—3 coats Dutch Boy, National Lead Co.
ELECTRICAL WIRING: Rome Wire & Cable Co.
KITCHEN EQUIPMENT: Range—Westinghouse Electric & Mfg. Co. Refrigerator—Frigidaire Sales Corp.
BATHROOM FIXTURES: Standard Sanitary Mfg. Co.
HEATING: Coal, hand fired. Radiators and valves—American Radiator Co. Regulator—Minneapolis-Honeywell Regulator Co. Hot water heater—Taco Heaters, Inc.

19. HOUSE FOR ARTHUR STEDMAN, CARMEL, CALIFORNIA

FLOOR PLAN

STEDMAN & STEDMAN, ARCHITECTS

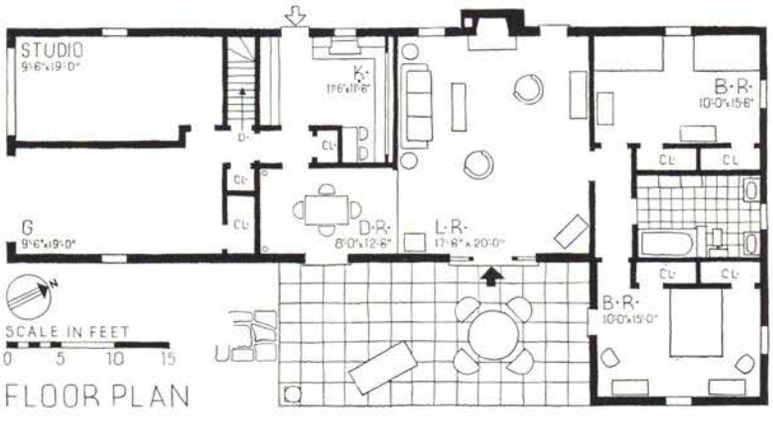
The rather romantic appearance of this house, echoed in the irregular plan, does not seem inappropriate in the setting. Materials are presumably local, consisting chiefly of wood and stone, and fenestration is generous. The plan permits all rooms to take advantage of the views, provides a workshop in the basement and a studio in a separate wing. Cost: $9,140. Cubage: 24,374 at 37½ cents per cubic foot.

CONSTRUCTION OUTLINE

STRUCTURE: Walls—solid native stone, exposed inside and outside; remainder—O. P. frame, building paper, ¾ in. sheathing, finished with rough redwood boards.
ROOF: Marshall Shingle Co. 1 in. split cedar shakes.
WINDOWS: Sash—steel casement, Soule Steel Co. Glass—single strength, quality A, Libbey-Owens-Ford Glass Co. Screens—roller type, copper mesh.
FLOORS: Main rooms—oak planks, V-joint. Kitchen—quality A linoleum. Bathrooms—tile, Solon & Larkin.
WOODWORK: Shelving and cabinets—white pine and cedar. Doors—redwood, rough and combed.
HARDWARE: Interior—Schlage Lock Co. Exterior—wrought iron, G. Silvestre.
KITCHEN EQUIPMENT: Refrigerator—General Electric Co. Sink—Kohler Co.
BATHROOM EQUIPMENT: Lavatory and toilet—Standard Sanitary Mfg. Co. Tub—Kohler Co. Cabinet—Hallencheid & McDonald.
HEATING AND AIR CONDITIONING: Warm air, Payne Furnace & Supply Co., gas furnace. Thermostat and day and night storage type hot water heater.

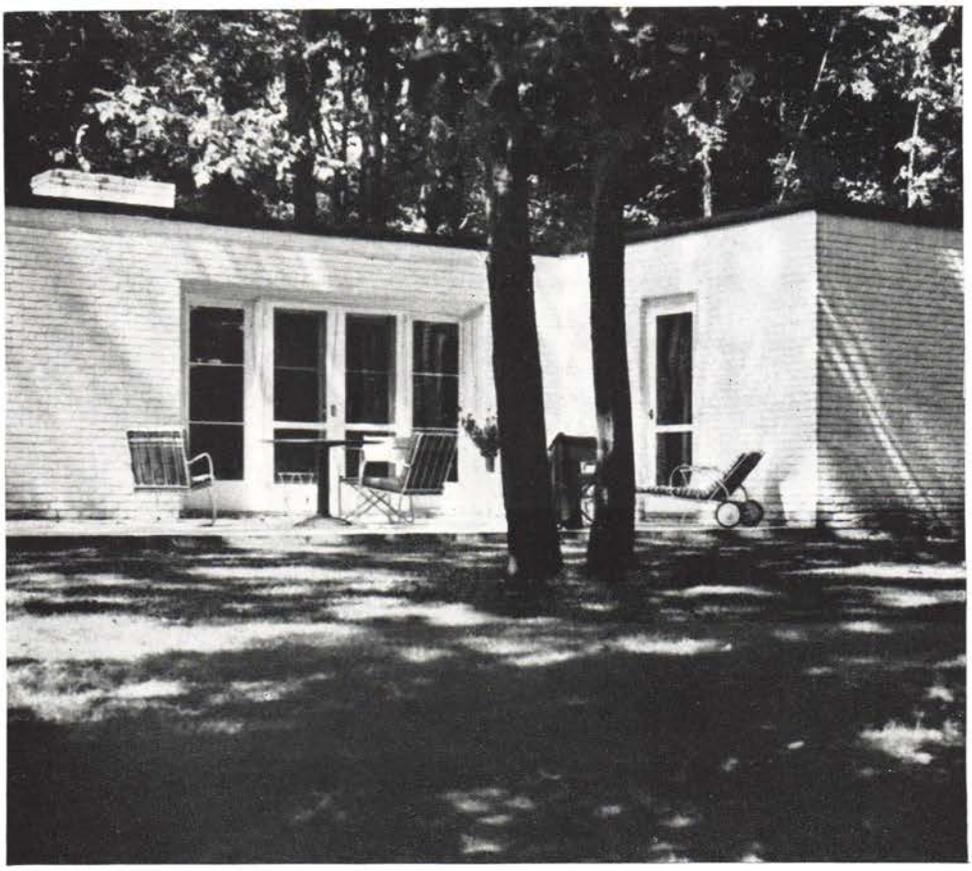
20. HOUSE FOR GEORGES WILMET, ROSLYN, LONG ISLAND, N. Y.

THE rapidity with which the modern house has eliminated its objectionable features is the strongest indication of a wider acceptance in the future. A good case in point is this small house, quite as appropriate in its rural setting as any traditional design. Economical in plan, it has a living-dining room which can be conveniently divided when necessary, two bedrooms of adequate size, a bath suitable for use as a guest lavatory, and a studio for the owner adjoining the garage. It indulges in none of the conventional modernistic clichés, such as superfluous corner windows, and is faced with a modest brick veneer. The brick is also used in an openwork wall which serves to emphasize the horizontality of the house. A large terrace increases the livability of the house and greatly improves its appearance. Cost: about $8,000. Cubage: 30,800, at 26 cents per cubic foot.



FLOOR PLAN

ALLEN TUTTLE AND GEORGE KOSMAK, ARCHITECTS

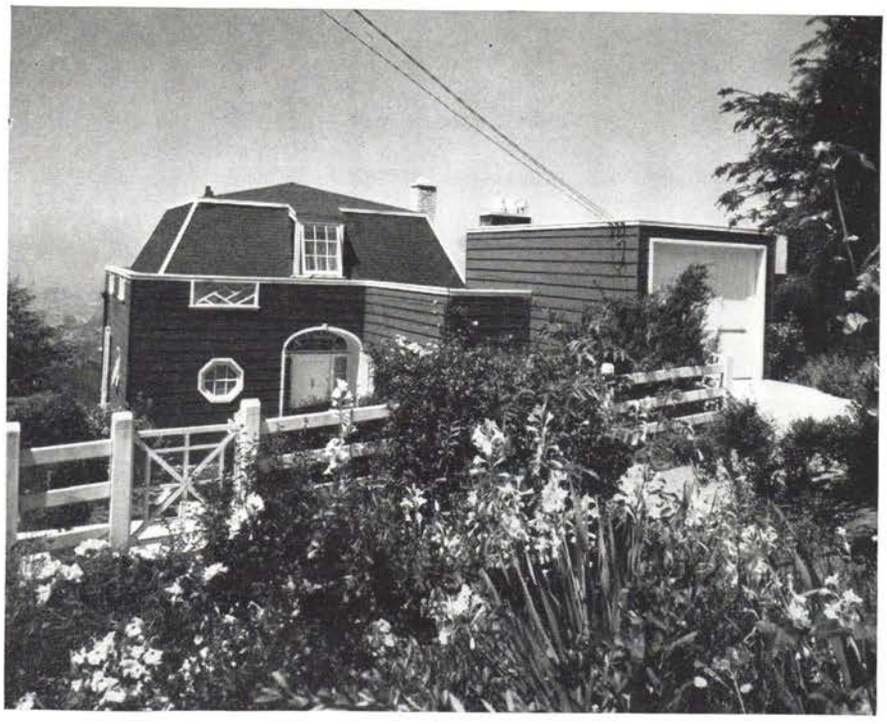


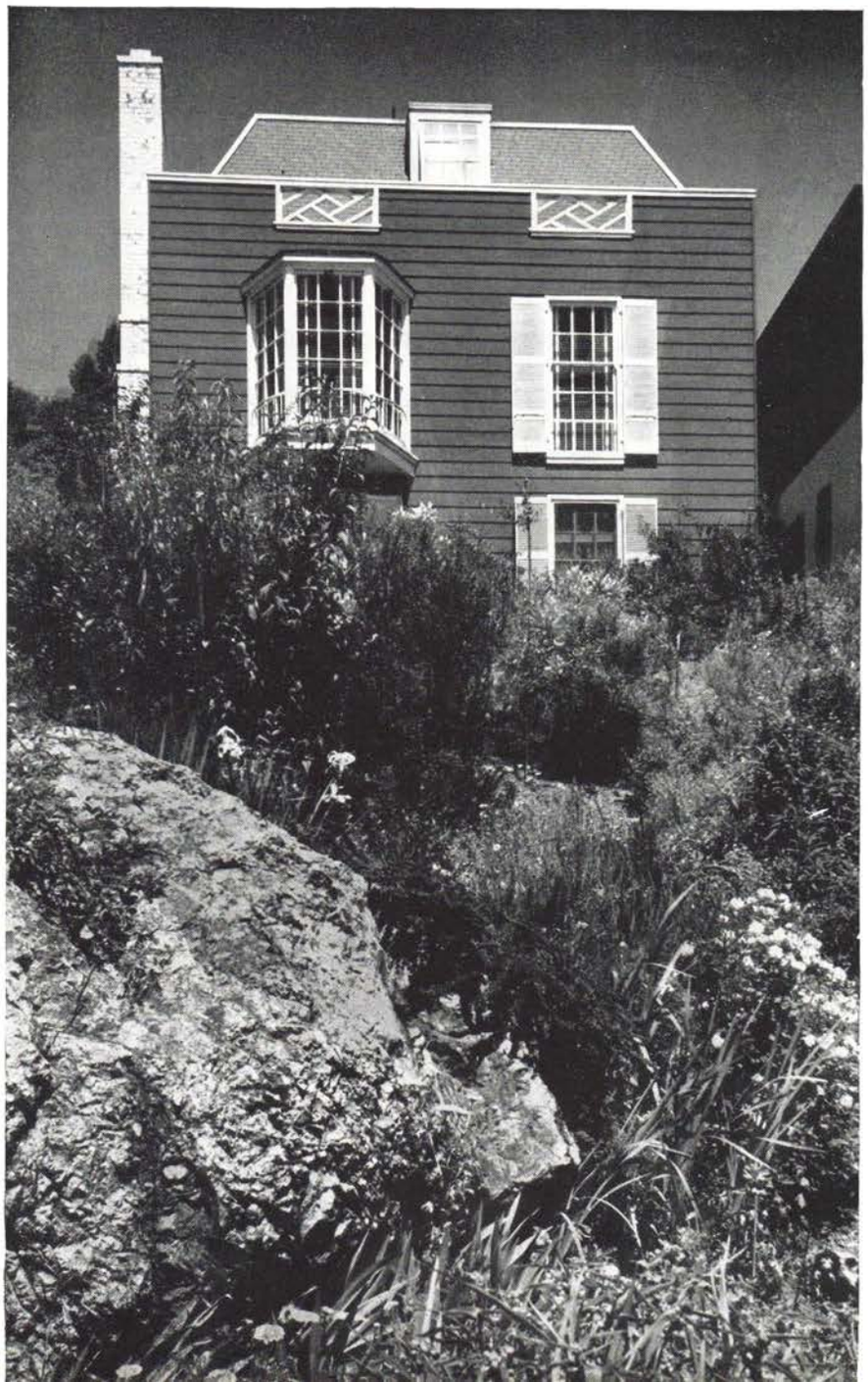
LIVING ROOM

CONSTRUCTION OUTLINE

FOUNDATION: Walls—concrete block on poured footings. Cellar floor—poured concrete on fill. Waterproofing—1 coat waterproof cement stucco, troweled on outside before backfilling.
STRUCTURE: Exterior walls—4 in. brick veneer, galvanized iron clips, 1 in. air space, tar paper, diagonal wood sheathing, 2 x 4 in. studs, 16 in. o.c., wood lath, 3 coats plaster.
ROOF: Covered with 20-year built-up, no pitch, Johns-Manville.
SHEET METAL WORK: Flashing and leaders—16 oz. copper.
INSULATION: Roof—6 to 8 in. rock wool.
WINDOWS: Sash—Silentite double hung, Curtis Companies. Screens—bronze mesh, wood frames.
FLOOR COVERINGS: Main rooms—white oak strip. Kitchen and bathrooms—linoleum.
WOODWORK: Trim, cabinets and doors—Curtis Companies.
PAINTING: Interior: Floor—1 coat shellac. Sash—3 coats lead and oil. Exterior walls—whitewash.
ELECTRICAL INSTALLATION: Wiring system—BX. Switches—toggle type.
KITCHEN EQUIPMENT: Range and refrigerator—Westinghouse Electric & Mfg. Co. Sink—Standard Sanitary Mfg. Co.
BATHROOM EQUIPMENT: All fixtures by Briggs Mfg. Co.
PLUMBING: Soil pipes—cast iron. Hot and cold water pipes—red brass.
HEATING: Hot water system. Boiler and radiators—U. S. Radiator Corp.
Thermostat—Minneapolis-Honeywell Regulator Co.

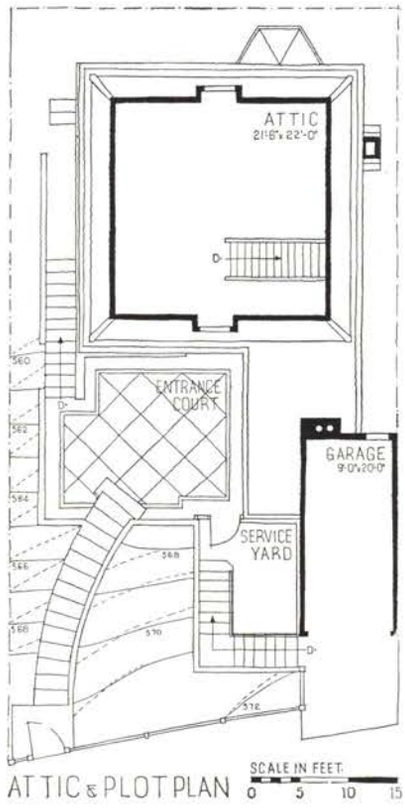
21. HOUSE FOR MRS. GRACE T. FARQUHAR, BERKELEY, CAL.





BASEMENT

FIRST FLOOR



ATTIC & PLOT PLAN

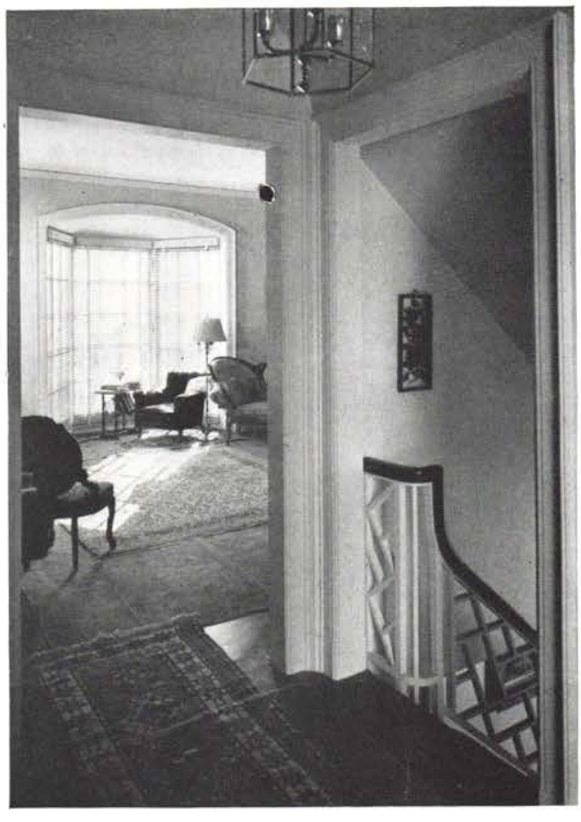
For quite a long time it has been assumed that the mansard roof was as dead as its inventor. Such is not the case, apparently. And if it could always be handled as effectively as in this instance, there is no reason why it should be discarded. Like most California houses built to fit an irregular site, this one has an interesting plan. One enters at an intermediate level where living room, dining room, services, and a bedroom are located. The other bedrooms and the heater room are on the floor below. Under the mansard roof is a commodious attic, providing more than generous storage space. Cost: $9,245. Cubage: 27,150, at about 34 cents per cubic foot.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—Douglas fir studs, redwood rustic siding, wood lath and hardwall plaster, finished with white gypsum. Floor construction—Douglas fir joists and rough flooring. Ceilings—lath and plaster, calcimined.
ROOF: Covered with asphalt shingles and roll roofing, Johns-Manville. Decks—asphalt and gravel covered with wood grid.
SHEET METAL WORK: Flashing, gutters and leaders—16 oz. copper, Anaconda, American Brass Co.
WINDOWS: Sash—principally double hung sugar pine, some Whitco, Vincent Whitney Co., awning type. Glass—single and double strength, quality A, Libbey-Owens-Ford Glass Co. Screens—white pine frame on hangers, copper or bronze.
STAIR: Treads and risers—clear, plain Eastern oak. Stringers—Douglas fir.
FLOORS: Main rooms—Eastern oak. Kitchen—asphalt tile on slab, Thomas Moulding Co. Bathrooms—asphalt tile and Goodyear Tire & Rubber Co. rubber flooring.
WALL COVERINGS: Living room and halls—unbleached sheeting, painted. Bedrooms—wallpaper.
WOODWORK: Trim, shelving and cabinets—clear vertical grained Douglas fir. Doors—2-panel Douglas fir. Garage doors—redwood.
HARDWARE: Sargent & Co.
PAINTING: Interior—4 coat work, enamel, Pratt & Lambert, Inc. Exterior—3 coats lead and oil, dark red, white trim, W. P. Fuller & Co. and General Paint Corp.
ELECTRICAL INSTALLATION: Switches—Arrow, Hart & Hegeman Mfg. Co. Fixtures—A. J. Casella.
KITCHEN EQUIPMENT: Sink—Standard Sanitary Mfg. Co.
BATHROOM EQUIPMENT: All fixtures—Standard Sanitary Mfg. Co. Seat—C. F. Church Mfg. Co. Cabinet—Columbia Metal Box Co.
PLUMBING: Soil pipes—standard cast iron. Cold water pipes—galvanized steel, National Tube Co. Hot water pipes—Mueller Type L copper tubing, Mueller Brass Co.
HEATING: Warm air fired with natural gas.

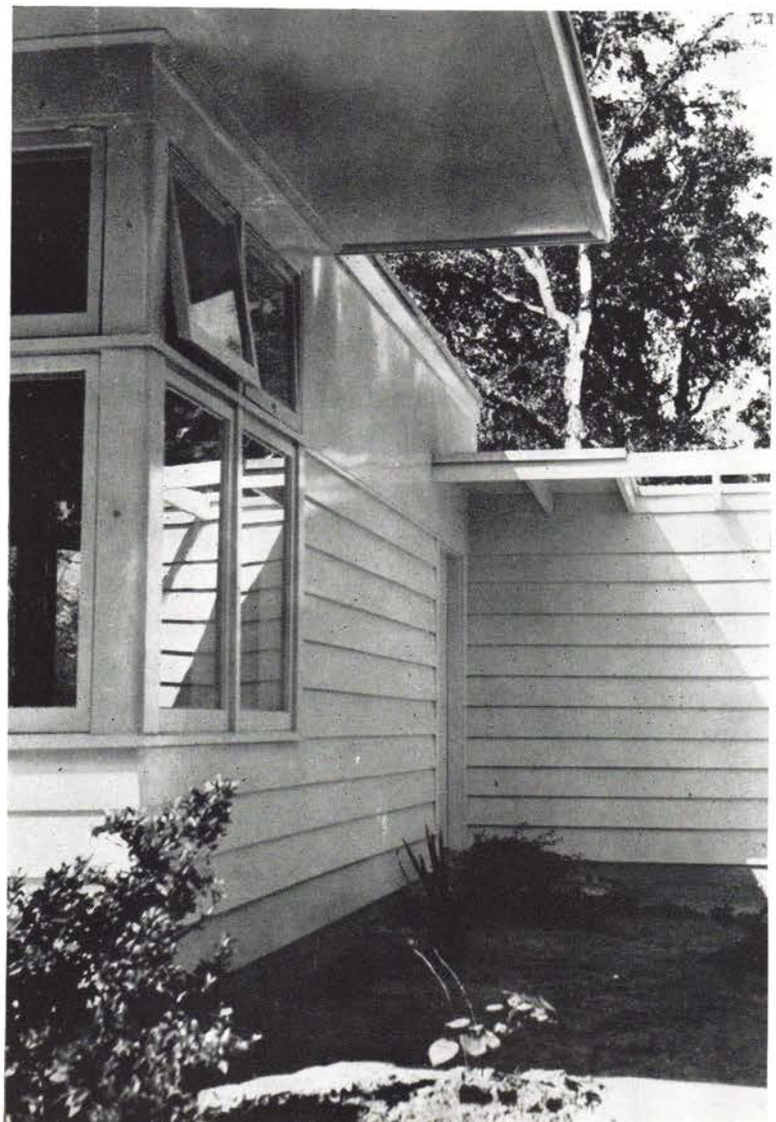
LIVING ROOM

HALL



22. HOUSE FOR PROFESSOR C. J. FINNEY, COLLEGE STATION, TEXAS

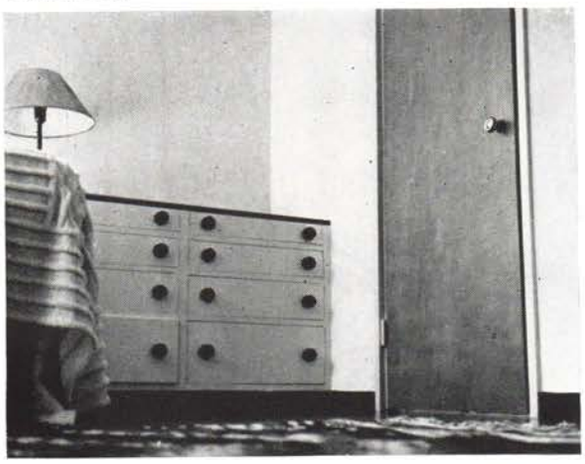
Zismon Photos

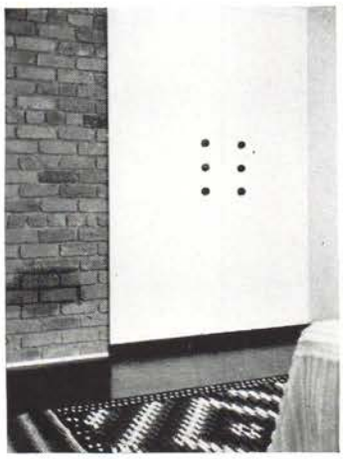


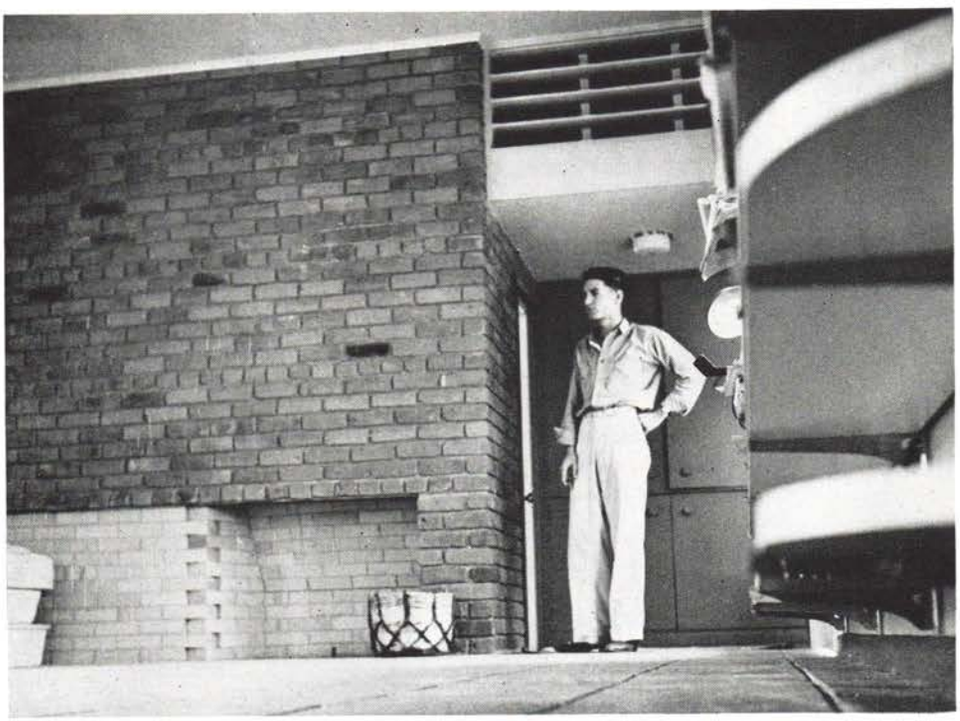
OF conventional wood stud construction, faced with standard lapped siding, this small one-story house furnishes another example of the growing tendency of the modern house to make use of stock methods and materials. The plan recognizes the Texas climate in its careful provision for ventilation; this is particularly apparent in the living room, both of whose main walls can be opened. The added height given this room not only makes for greater comfort, but serves to create a more interesting exterior. The service quarters are admirably compact. Cost: $4,700. Cubage: 11,816, at about 40 cents per cubic foot.

FLOOR PLAN

BEDROOM







LIVING ROOM

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—2 x 4 in. studs, 1 x 10 in. yellow pine lapped siding; inside—½ in. Masonite, Masonite Corp. Floor construction—3 in. concrete slab.

ROOF: Yellow pine joists, 2 x 8 in., 1 x 4 in. tongue and groove flooring, ½ in. Masonite covered with 3-ply Johns-Manville 30 lb. felt pitch and gravel.

SHEET METAL WORK: Flashing and ducts—galvanized iron.

INSULATION: Outside walls and roof—½ in. Masonite, Masonite Corp. Weatherstripping—bronze for exterior doors, Chamberlin Metal Weather Strip Co.

WINDOWS: Redwood casements, bronze wire screens, white pine frames, Prassel Sash & Door Co.

FLOOR COVERINGS: Living room—tile, Frazier Brick Co. Bedrooms, kitchen and bathrooms—standard grade linoleum.

WALL COVERINGS: All walls—Textone and paint, U. S. Gypsum Co.

WOODWORK: Trim and cabinets—white pine. Doors—birch. Garage doors—fir plywood on 1 x 4 in. frame. All by Prassel Sash & Door Co.

HARDWARE: Chrome and black bronze throughout, Sargent & Co.

PAINTING: Interior: Walls and ceilings—3 coats flat wall paint. Exterior walls—3 coats Wall Hide. All paint by Truscon Laboratories.

ELECTRICAL INSTALLATION: Wiring system—knob and tube and loom. Switches—Despard, Pass & Seymour. Fixtures—Westinghouse Electric & Mfg. Co.

KITCHEN EQUIPMENT: Range and refrigerator—General Electric Corp. Sink—Kohler Co.

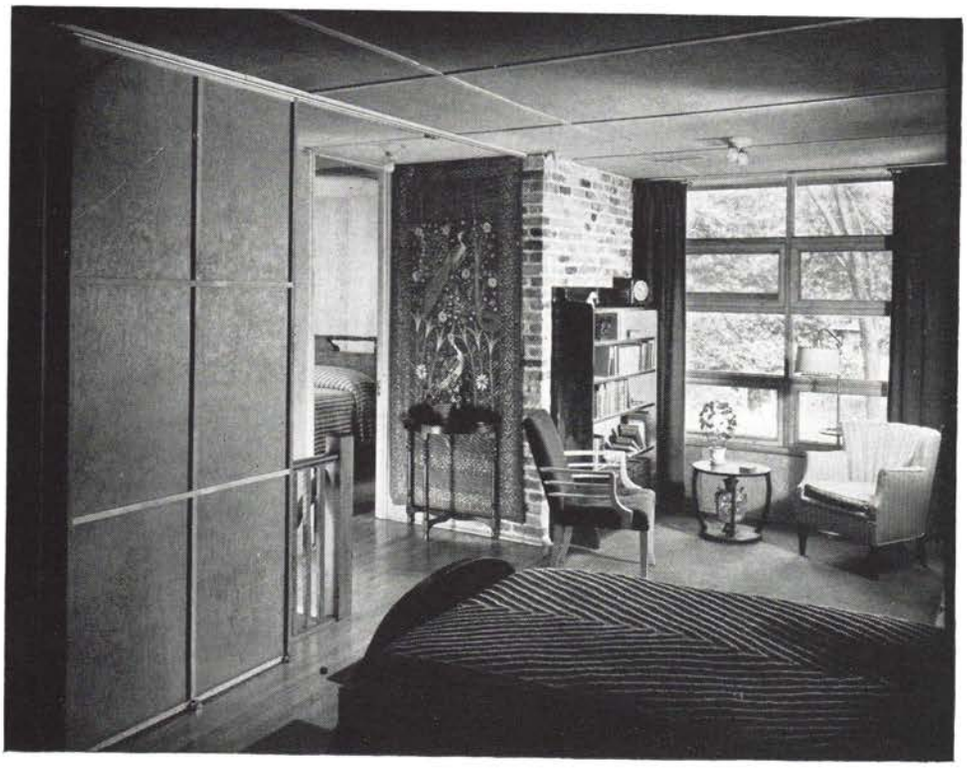
BATHROOM EQUIPMENT: All fixtures by Kohler Co. Shower—tile, Mosaic Tile Co. Cabinets—Columbia Metal Cabinet Co.

PLUMBING: Soil pipes—cast iron. Cold and hot water pipes—copper.

HEATING: Console gas heaters, thermostat control, Payne Furnace & Supply Co.; Lawson unit heater in bath. Hot water heater—Ruud Monel Metal tank, Ruud Mfg. Co.

23. HOUSE FOR

BEDROOM

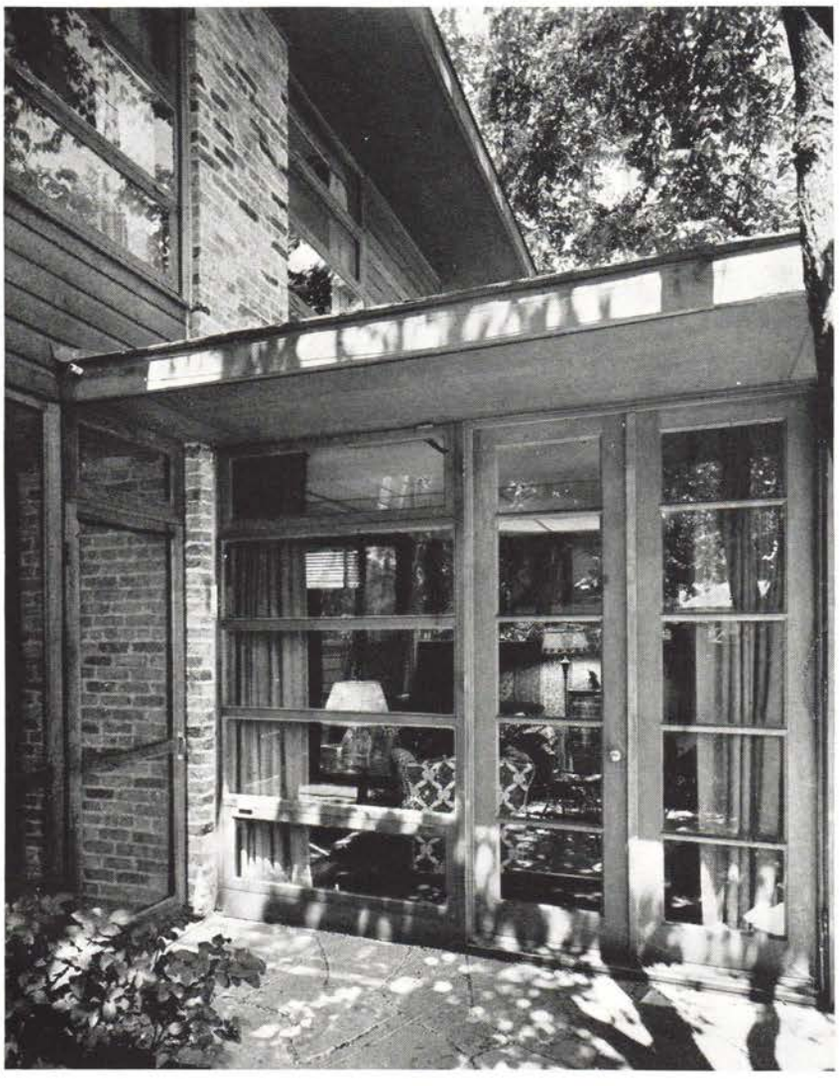


BEDROOM

LIVING ROOM

Hedrich-Blessing Photos

HOMAS H. MULLEN, EVANSTON, ILL., BERTRAND GOLDBERG, ARCHITECT



A SMALL house of unusual interest, this suburban residence is noteworthy for its plan, interior and exterior design, and details. The plan shows an admirably thought out living-dining room, a highly compact service unit, and two bedrooms of generous size. The interiors are consistent and imaginative in their use of materials, and are well related to the all-wood exterior. One of the most pleasant of the many interesting features is the window design, which permits the use of sash up to the ceiling line. Cost: $5.265. Cubage: 13.500, at 39 cents per cubic foot.

SECOND FLOOR

FIRST FLOOR

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—clapboards, stud wall and plaster. Interior—¼ in. plywood, fir. Floor construction—(first) cinder hollow tile, concrete, oak flooring on sleepers; (second) oak flooring on sub-floor, wood joists. Ceilings—Celotex, Celotex Corp.

ROOF: Covered with asphalt shingles.

INSULATION: Outside walls, attic floor and roof—2 layers Silvercote, Silvercote Products Corp. Weather-stripping—spring bronze.

WINDOWS: Sash—wood with top-hinged outswinging sash. Glass—double strength, quality A. Screens—wood, manual top-hinged.

FLOORS: Main rooms—select quality 1 x 3 in. kiln dried oak. Kitchen and bathrooms—⅛ in. black tempered Masonite Corp.

WALL COVERINGS: Main rooms—¼ in. fir plywood. Bathrooms—⅛ in. black tempered Masonite, Masonite Corp.

WOODWORK: Doors—Rezo, M. & M. Woodworking Co.

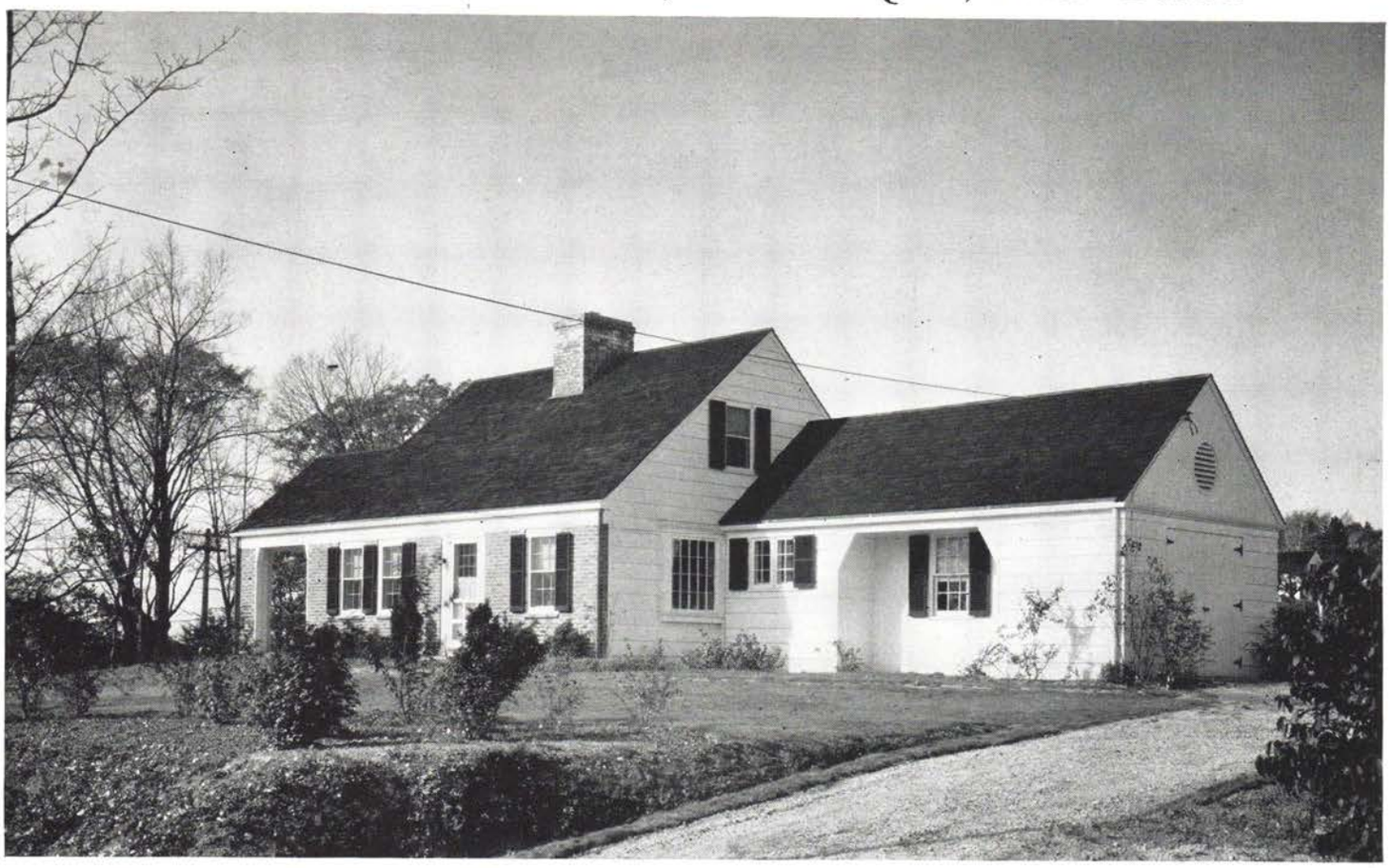
PAINTING: Interior: Walls—Minwax Co. Ceilings—casein. Floors, trim and sash—2 coats varnish over 1 coat sealer. Exterior: Walls and sash—2 coats linseed oil.

BATHROOM EQUIPMENT: Lavatory and toilet—Briggs Mfg. Co. Tub—Crane Co.

PLUMBING: Soil pipes—cast iron, extra heavy. Water pipes—copper bearing galvanized iron.

HEATING AND AIR CONDITIONING: Air conditioned, gas fired L. J. Mueller Furnace Co. furnace with blower, filter and humidifier. Thermostat—Minneapolis-Honeywell Regulator Co. Hot water heater—Weil McLain Co.

24. HOUSE FOR ROSS TURNER, CHAPPAQUA, NEW YORK



Harold Haliday Costain Photos

JAMES RENWICK THOMSON, ARCHITECT

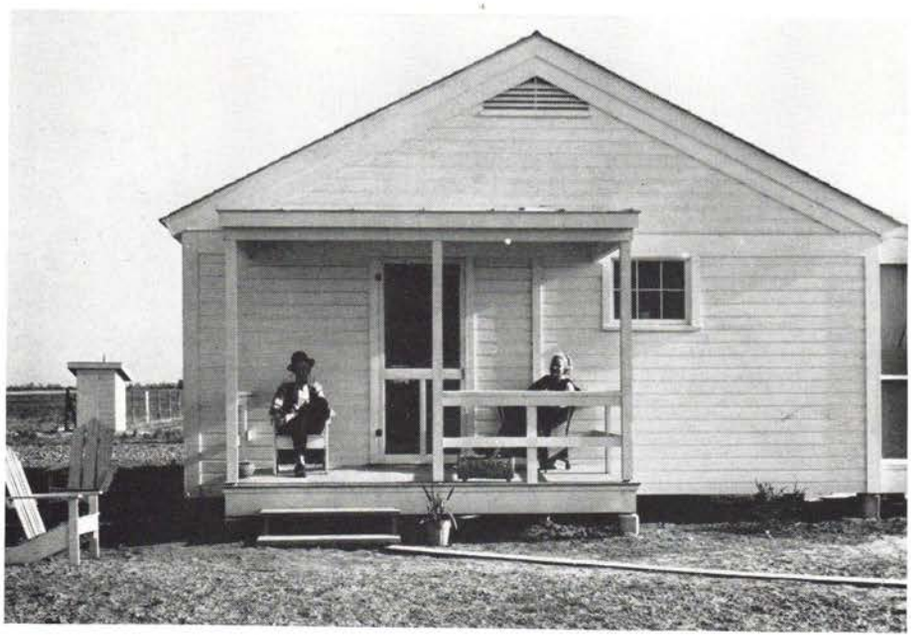
A CONVENTIONAL one and a half story Colonial house with the garage wing used to give it the close-to-the-ground appearance so popular in this type. By placing the kitchen in the wing, the architect has been able to find space for a compact, well located maid's room. The lack of a downstairs lavatory is compensated for by the placing of the bath at the head of the stairs. Dormers in the rear provide the needed cross ventilation for the two bedrooms. Cost: $9,300. Cubage: 23,000, at about 40 cents per cubic foot.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—brick veneer and shingles, 2 x 4 in. studs and plaster.
ROOF: Covered with shingles.
CHIMNEY: Brick with terra cotta lining. Damper—H. W. Covert Co.
SHEET METAL WORK: Flashing and leaders—copper. Gutters—wood.
INSULATION: Outside walls and roof—4 in. rock wool, Johns-Manville.
WINDOWS. Double hung, wood. Glass—double strength.
STAIRS: Wood, stock, Morgan Sash & Door Co.
WALL COVERINGS: All rooms—wallpaper. Bathrooms—tile wainscot, The Pardee Tile Works.
WOODWORK: Molded wood trim and 6-panel doors, Morgan Sash & Door Co.
ELECTRICAL INSTALLATION: Wiring system—BX. Switches—toggle.
KITCHEN EQUIPMENT: Range—gas, Vapyre Stove Co. Cabinets—The Kitchen Maid Corp.
BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co. Cabinets—Columbia Metal Box Co.

FSA PREFABRICATES $930 HOMES FOR MISSOURI SHARECROPPERS

Relatively a small part of the Government's program of public construction, the work of the Department of Agriculture's Farm Security Administration, FSA (formerly Resettlement Administration), has loomed large in importance because of its "yardstick" quality. Anti-administration forces have been quick to publicize the high cost of fiascos like Arthurdale, first of the rural resettlement projects, where the completed cost of ready-cut houses soared because of belated alterations and additions, and the "Socialistic" nature of developments like the clothing worker's Cooperative at Hightstown, N. J. Supporters of the New Deal have emphasized the long term advantages of FSA's program, lauded its "Greenbelt" communities as trail blazers. Town planners and architects have found the work of the division a source of valuable data, have studied with interest its design techniques and cost records, experiments like FSA's low cost furniture for low rent housing. (ARCH. FORUM, May 1938). Last month in Southeast Missouri, FSA again made building news—this time with the construction of 100 four- and five-room prefabricated farm homes for the surprisingly low cost of $929.50 and $1,105.27 each.



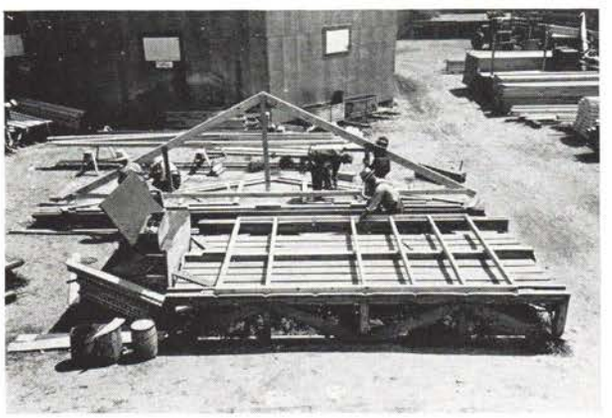
Photos by Lee, Farm Security Administration

Solidly built of standard materials with double floors, insulated walls and ceilings, the FSA homes measure 24 x 24 and 24 x 36 ft., are set on short concrete piers, each contain a kitchen, combined living-dining room, and two or three bedrooms—no bathroom or plumbing. Assembled from lumber pre-cut by power saws in a central shop, the prefabricated panels which form the houses were brought to the site by motor truck, put together by 5-man crews at the rate of a house a day.

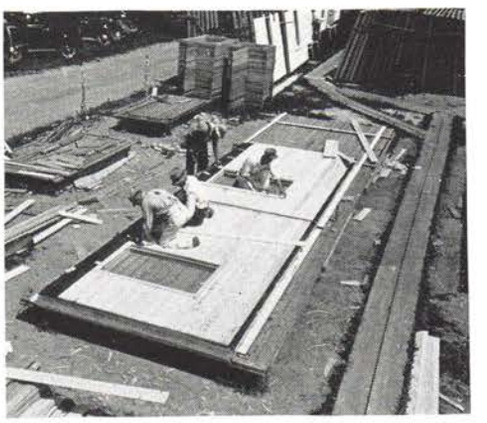
The project as a whole provides new homes for 100 former sharecropper families, including a house, barn, food storage shed, and privy for each, set on a 55 to 65 acre tract. The total cost of these improvements including fencing, road building, individual wells for each family, and remodeling several old houses into stores, a blackmith shop, and a house for the project manager, was $205,079.14—or slightly more than $2,000 per family.

Captain R. B. Lord, in charge of the project, reports that most of the savings resulting from this technique may be traced to the opportunity it afforded to utilize a large proportion of unskilled labor, working under the direction of skilled carpenters, estimates that it may profitably be employed for developments of fifty or more houses built in an area not greater than 60 square miles.

1. Lumber stacked for pre-cutting at rail siding.

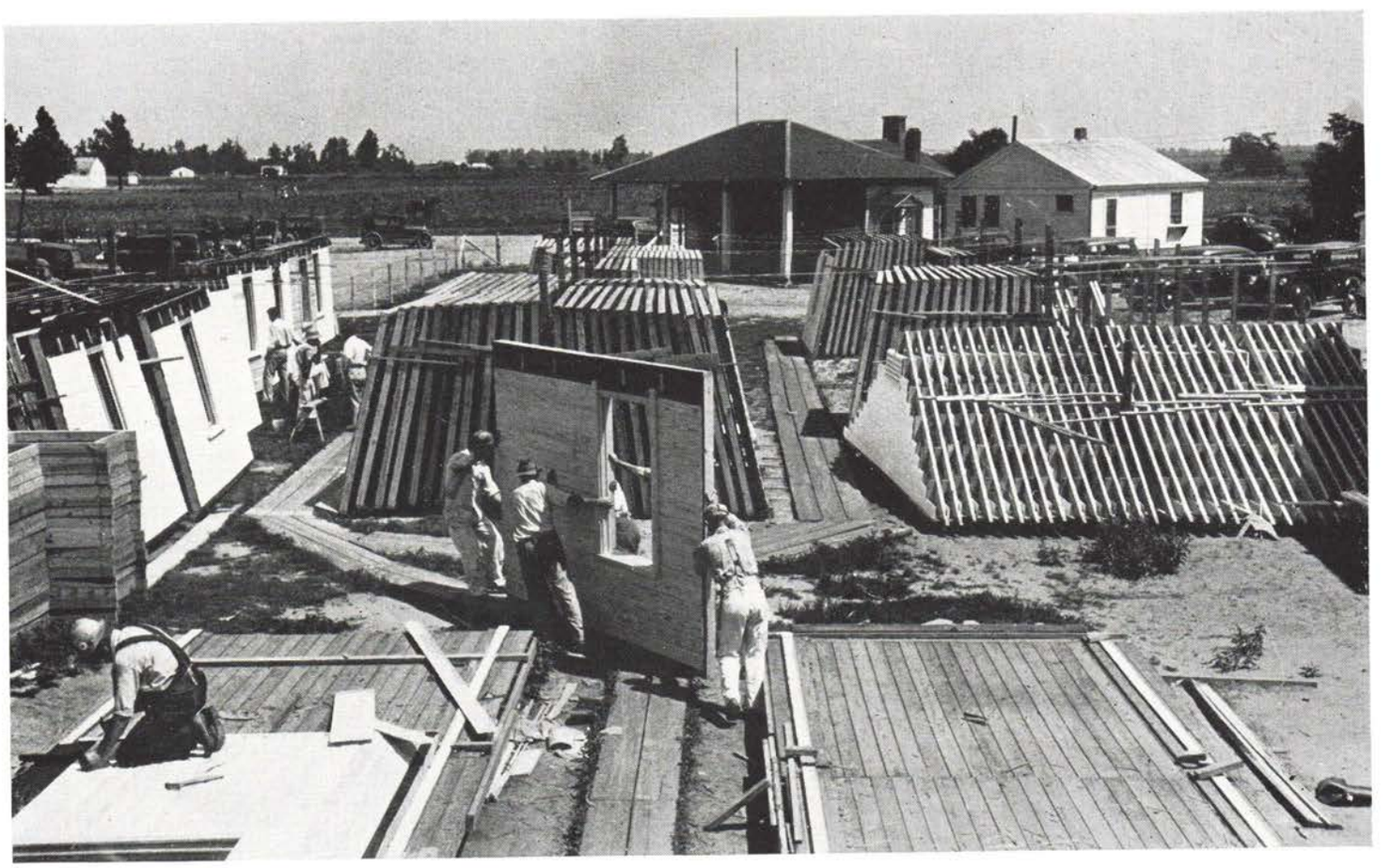


2. Framing table and wallpanel framing.



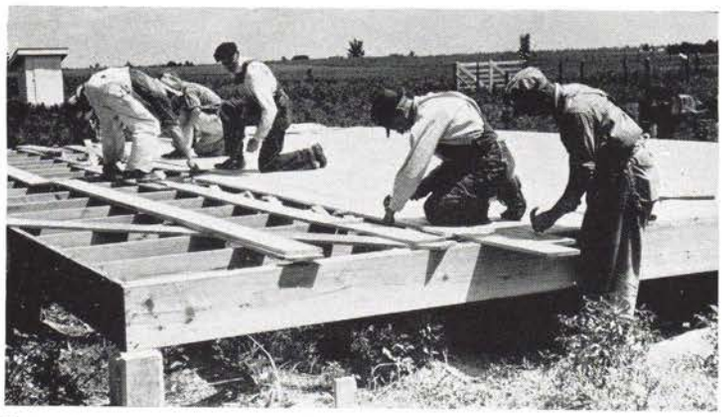
3. Fitting windows and applying sheathing.

4. Painting finished wall panel.

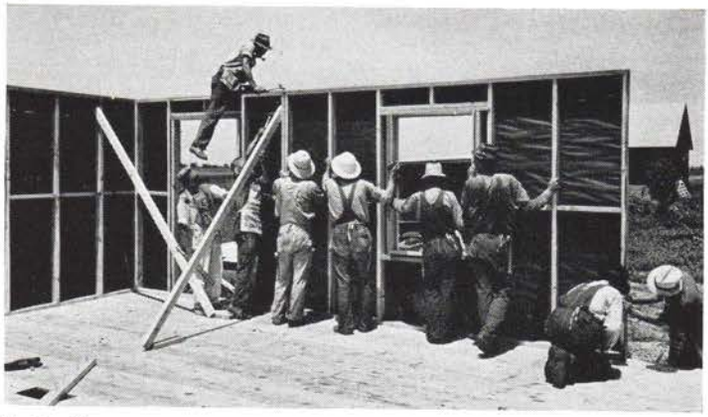


5. Stacking completed panels.

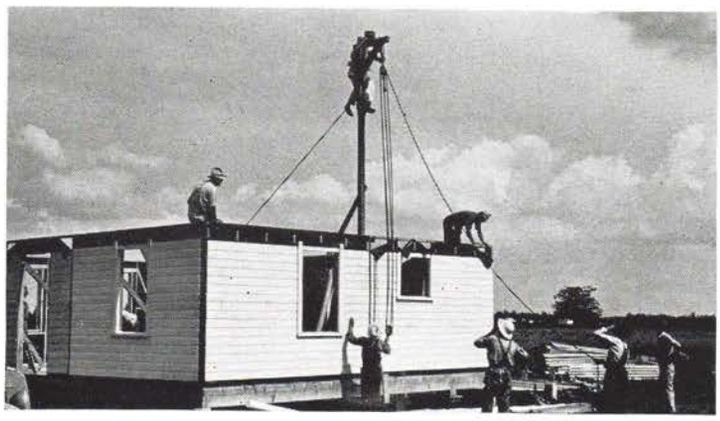
6. Complete house is delivered to site.



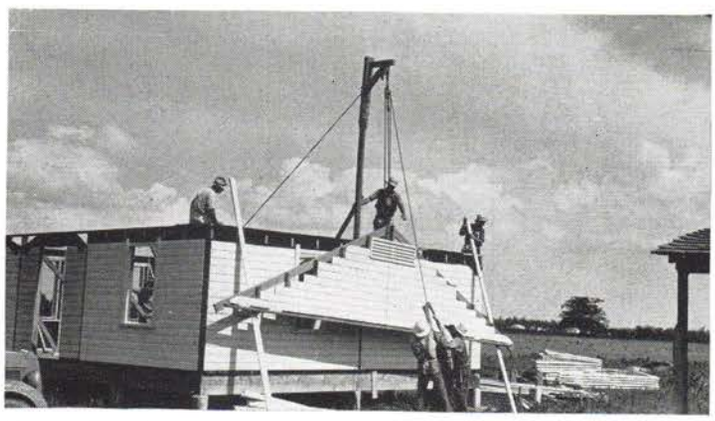
7. Laying sub-floor.



8. Double crew erecting wall panels.

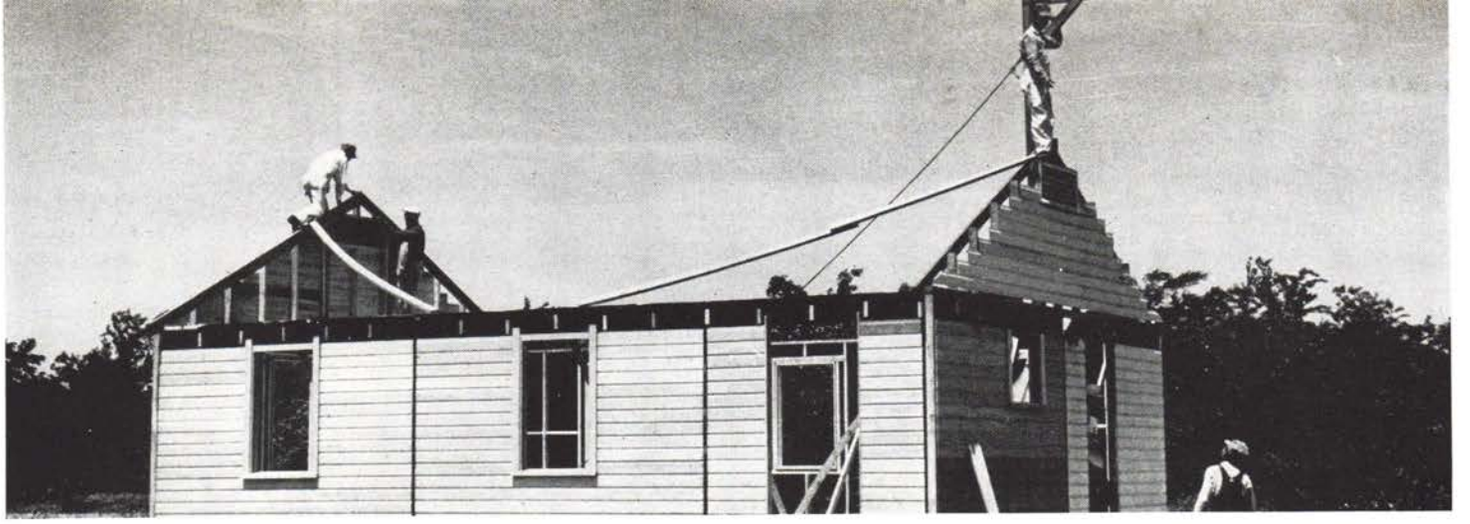


9. Rigging gin pole used to raise gable end.



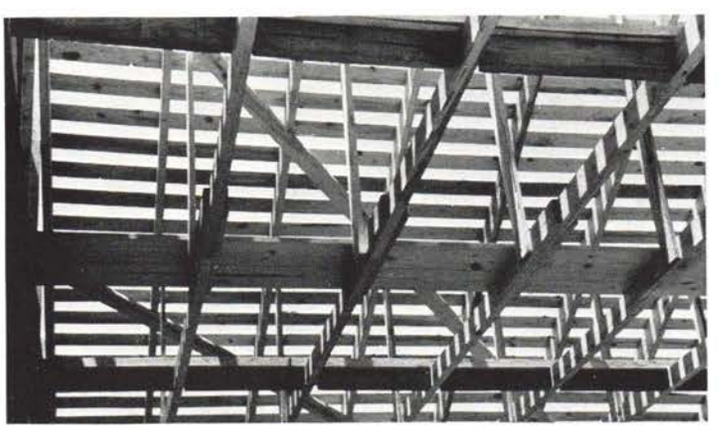
10. Hoisting gable end.

11. Fastening gable end; oversize bottom plate for nailing ceiling.



12. Ready for roof framing.

13. Erection of shop-assembled trusses.



14. Roof and ceiling framing.

15. Chimney construction.

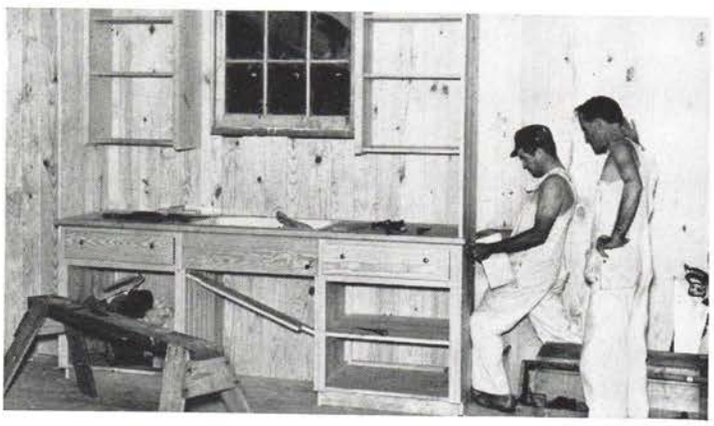
16. Placing ceiling panels of 4 x 8 ft., 1 in. insulation board.

17. Applying roof; wood shingles on shingle-lath.

18. Placing shop-assembled porch floor framing.

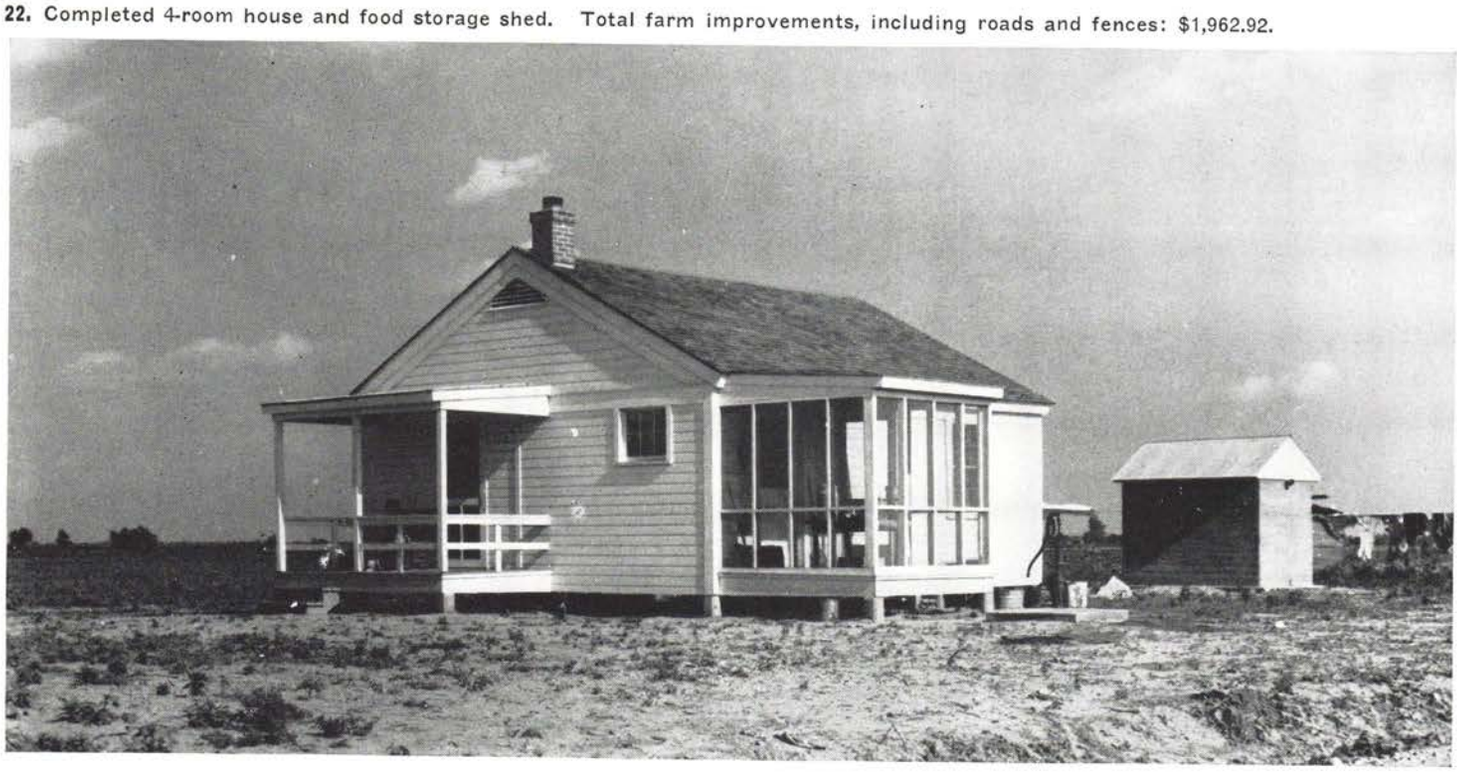
19. Interior finish; vertical boards.

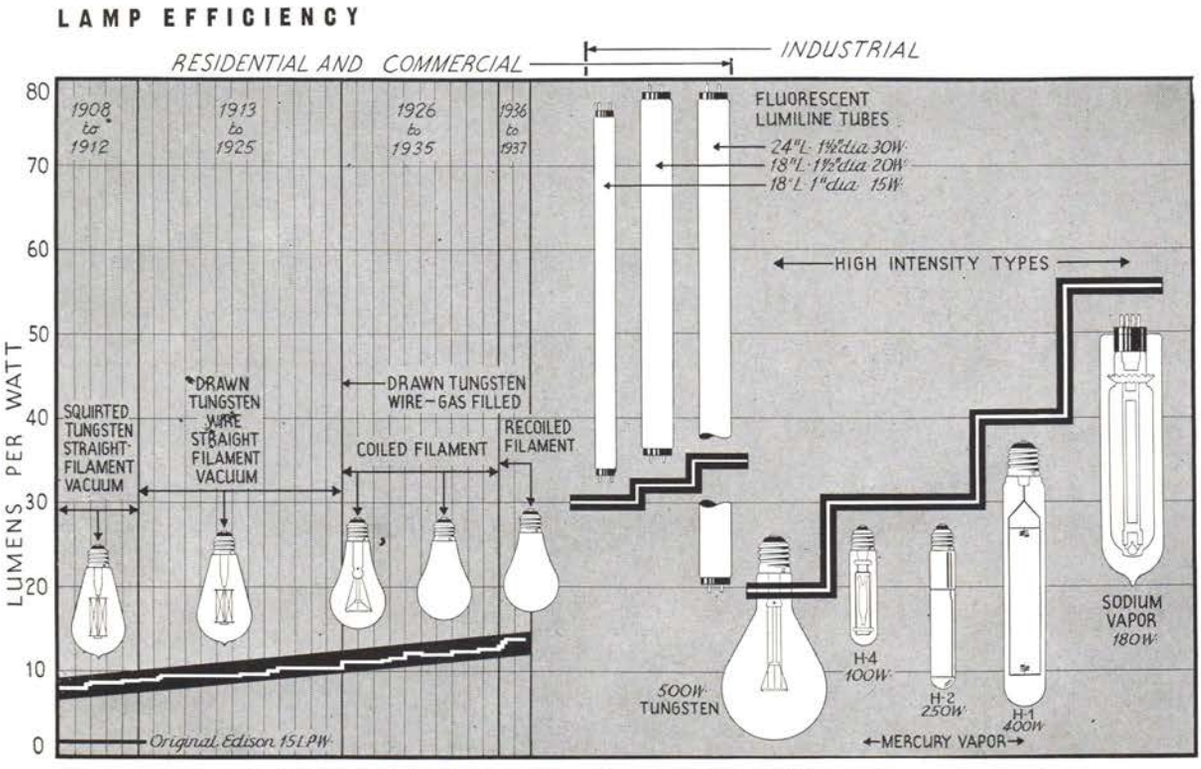
20. Interior partition and diagonal wind-bracing.



21. Fitting kitchen cabinets.

22. Completed 4-room house and food storage shed. Total farm improvements, including roads and fences: $1,962.92.





The black and white lines on the chart above show how the efficiency of the various new vapor lamps compares with the gradual improvement of the familiar tungsten filament lamp over a thirty-year period. In this comparison, Tungsten's considerable improvement—almost 100 per cent—is dwarfed by the jump to the new Fluorescent Lumiline, which has a light output almost three times that of a conventional lamp of comparable wattage. Figures, in terms of Lumens (light output) per Watt (current consumed), range from 1.7 for the original Edison carbon light, to 55.5 for the Sodium Vapor lamp and 60 to 65 for the green Fluorescent Lumiline Lamp.

VAPOR LAMPS

More new and radically different electric lamps have come on the market in the past five years than in the preceding fifty. Despite continuous improvement since Edison first perfected his carbon light in 1879, the construction of the incandescent lamp remained unchanged for half a century—its fundamental form a round or pear-shaped bulb with a wire filament inside and a screw or prong base on one end. Coiled and recoiled filaments, gas filled and inside frosted bulbs vastly increased its efficiency, but did little to alter the physical characteristics which governed its use. Recent developments in lamp design, on the other hand, have had a considerable effect on these properties. The Lumiline lamp, the double-filament lamp with two intensities, and the new spotlight lamps with reflector and control lens built-in each call for specialized application in new and different ways which already have resulted in profound changes in lighting technique.

More important and far-reaching than any of these, however, have been the changes brought about by the commercial development of new *vapor lamps*, the perfection of older types, and the more recent introduction of the *fluorescent* vapor lamps, the latter employing a principle hitherto unknown to lamp construction. Originally used principally by photographers and in industrial lighting, vapor lamps are now available for all kinds of industrial, commercial, office and residential lighting, and—especially since the development of the fluorescent type—offer several important advantages over the wire filament type in appropriate applications.

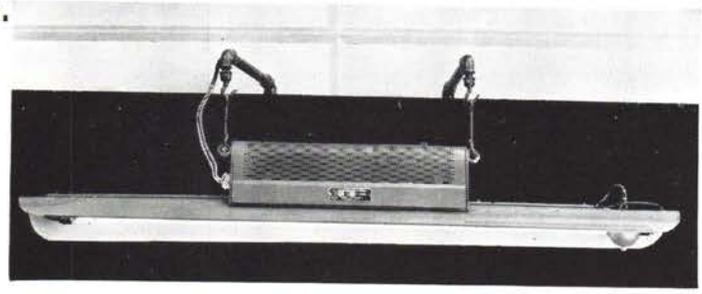
The first advantage of the vapor lamp is lower current consumption—more light for your money; the second, light of better quality—approximate daylight in place of tungsten's characteristic yellow hue. Add to this less heat per lumen, colored lamps infinitely more efficient than are possible with tungsten, and extended, low-intensity sources where needed, and you have the principal reasons for vapor lighting's increasing popularity.

As the table and photographs on the next two pages indicate, vapor lamps are today available in a variety which is almost bewildering when one is accustomed to thinking of an electric lamp as that and no more. Far from a disadvantage, this merely demonstrates the extent to which these new lamps have been tailored to fit specific lighting needs—tasks which each thereby performs more efficiently than has hitherto been thought possible. It does, however, place upon the architect as well as his lighting consultant the responsibility of familiarizing himself with the various kinds of equipment now available and the proper application of each type. The choice of a source of illumination should wherever possible precede the design and placement of fixtures, and these, in turn, should be an integral part of every interior design. A general knowledge of available lighting equipment is therefore an essential part of the designer's background, and it is this general knowledge—rather than more technical information—which the following pages are intended to provide.

(*Continued on next page, text on page* 403)

VAPOR LAMPS—Types

1.



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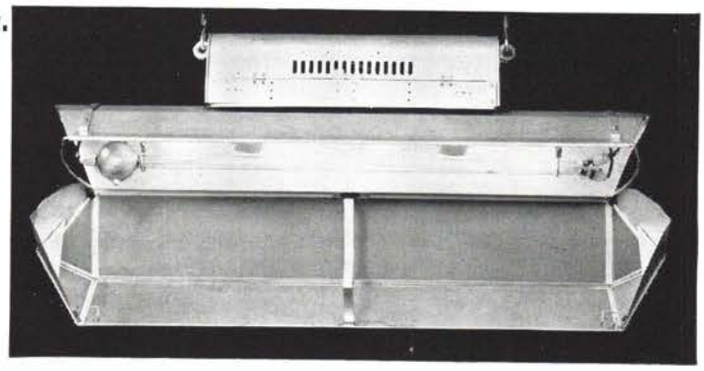

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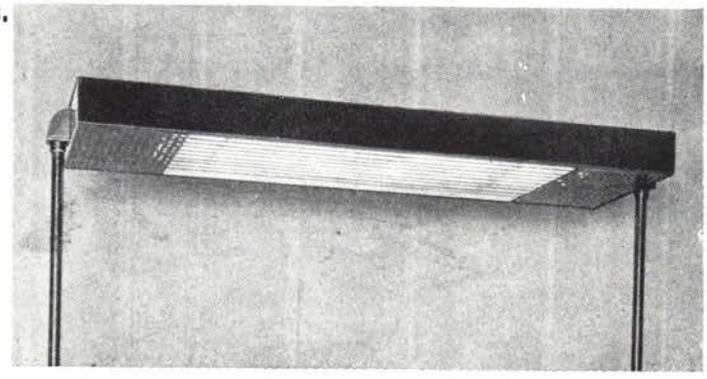
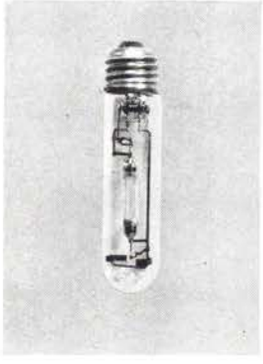
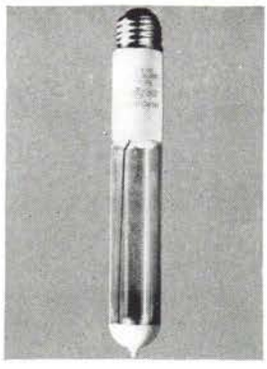
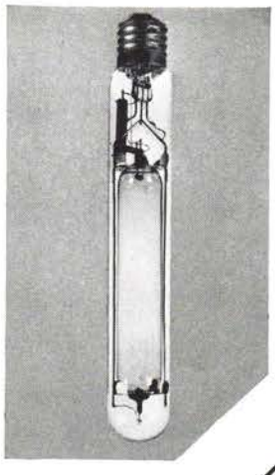


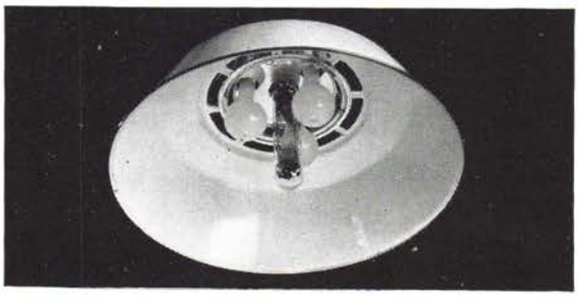
1. 350 Watt Horizontal Cooper Hewitt Lamp, low-pressure mercury, auxiliary mounted on fixture. Industrial lighting. **2.** Combination Cooper Hewitt Mercury Vapor and Incandescent Lamp. Industrial and commercial lighting. Both by General Electric Vapor Lamp Co., Hoboken, N. J. **3.** Barkon Carbon Dioxide Lamp, Industrial Model. Color Matching. Barkon Frink Tube Lighting Corp., Long Island City, N. Y.

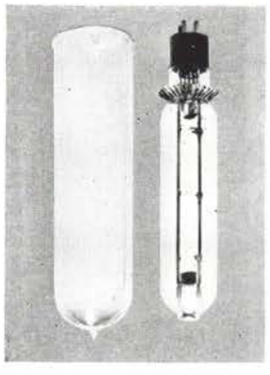




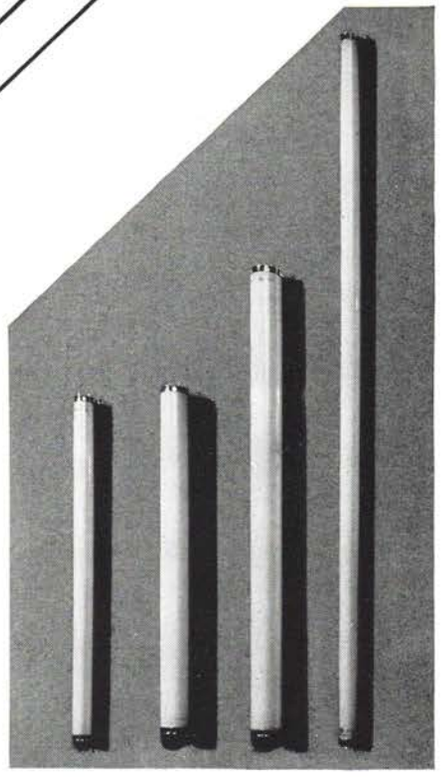


Above, High Intensity Mercury Vapor Lamps, 100, 250, and 400 Watts. Used alone for industrial lighting or together with balancing tungsten filament lamps for industrial, commercial and office work. Below, combination 400 Watt mercury vapor and 3 150 Watt tungsten lamps in porcelain enamel reflector with diffusing globe, auxiliary on fixture, The Miller Co., Meriden, Conn.





180 Watt, 10,000 lumen Sodium Vapor lamp and "Vacuum Flask." Street and floodlighting.

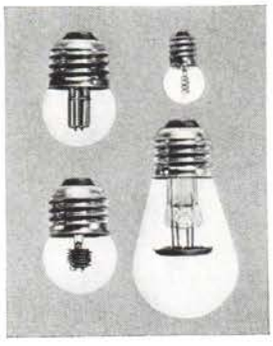


Fluorescent Lumiline Lamps, 18, 24, and 36 in. long, 1 and 1½ in. diameter. 15, 20, and 30 Watts. Available in daylight, white, blue, green, pink, gold and red.

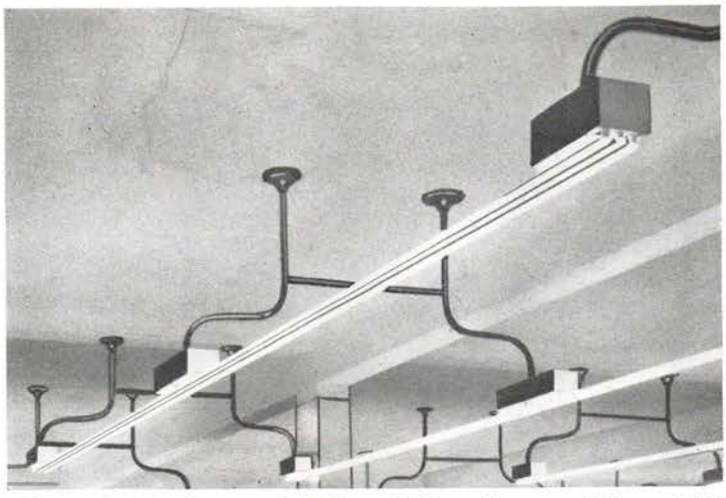
TYPE	SIZE		COLOR	Initial Lumen Output	Lumens Per Watt	APPLICATION
LOW-PRESSURE MERCURY VAPOR TUBE LAMPS	45 in. long	275 Watts	BLUE-WHITE	4,800	17.4	Industrial Lighting, low mounting; Photography; AC-DC operation.
	62 in. long	350 Watts	BLUE-WHITE	6,800	19.4	
COMBINATION LOW-PRESSURE MERCURY VAPOR & TUNGSTEN (Also made to order)	275W Mercury and 300W Tungsten		WHITE	9,090	15.8	Industrial, Commercial and Office lighting; show windows; simulates daylight; AC-DC operation. Special sizes and curved shapes available.
	275W Mercury and 400W Tungsten		WHITE	11,040	16.4	
	275W Mercury and 600W Tungsten		WHITE	15,120	17.3	
CARBON DIOXIDE TUBE LAMPS	15 x 28 in.	250 Watts	DAYLIGHT	750	3.	Over-counter Commercial lighting; Color Matching and inspection closely approximates north skylight. AC operation only.
	15 x 42 in.	350 Watts	DAYLIGHT	1,050	3.	
	15 x 28 in.	425 Watts	DAYLIGHT	1,275	3.	
	15 x 42 in.	625 Watts	DAYLIGHT	1,875	3.	
HIGH INTENSITY MERCURY VAPOR LAMPS	1¼ x 5⅝ in.	100 Watts	BLUE-WHITE	3,000	30.	Industrial Lighting, high mounting; Very economical. AC operation only.
	1⅞ x 8 in.	250 Watts	BLUE-WHITE	7,500	30.	
	2 x 13 in.	400 Watts	BLUE-WHITE	16,000	40.	
COMBINATION HIGH INTENSITY MERCURY VAPOR & TUNGSTEN	Various	280 to 1,400 W	WHITE	6,000 to 35,000	14.3 to 25	Industrial, Commercial and Office lighting, commercial white light. AC operation only.
SODIUM VAPOR LAMP	3 x 13⅜ in.	180 Watts	YELLOW	10,000	55.5	Street & floodlighting; very efficient.
LOW-PRESSURE MERCURY VAPOR—FLUORESCENT LUMILINE LAMPS	1 x 18 in.	15 Watts	WHITE (Warm) and Approx. Daylight	450	30.	Residential, Office, Commercial, and Industrial Lighting. Color Grading and Inspection. Most efficient low-intensity light source so far developed; gives white light at no extra cost.
	1½ x 18 in.	15 Watts	Daylight	450	30.	
	1½ x 24 in.	20 Watts	"	640	32.	
	1 x 36 in.	30 Watts	"	700	35.	
	Range as above	5 W / ft.	BLUE	190—105 / ft.	18 to 21	Decorative colored lights for commercial purposes; vastly more efficient than colored tungsten filament lamps. Combinations for decoration and illumination.
	"	5 W / ft.	GREEN	300—350 / ft.	60 to 70	
	"	5 W / ft.	PINK	100—120 / ft.	20 to 24	
	"	5 W / ft.	GOLD	90—105 / ft.	18 to 21	
	"	5 W / ft.	RED	15 ft.	3	
"BLACK LIGHT"	2 x 5½ in.	100 Watts	Faint Purple			Used for fluorescent decorative effects with special paints and minerals. Other mercury vapor lamps used for this purpose with blue cobalt filters.
NEON GLOW LAMPS	Dia. ⅞ in.	2 Watts	RED			Pilot lights and markers. Current consumption extremely low.
	Dia. ⅝ in.	1 Watt	RED			
	Dia. ⅝ in.	½ Watt	RED			
	Dia. ⅜ in.	.1 Watt	RED			
LOW PRESSURE HIGH VOLTAGE LUMINOUS TUBING: :						
NEON	Dia. 8-35 MM.	½—30 W / ft.	RED	4½—270 / ft.	9 to 11	Signs and Displays; Decoration. Neon also used with various types of mercury vapor lamps to produce white light, and for airport markers.
MERCURY VAPOR	Common Sizes 9 to 15 MM.	½—25 W / ft.	BLUE	2½—125 / ft.	5 to 8	
with colored tube	"	½—25 W / ft.	GREEN	1½— 75 / ft.	3	
HELIUM	"	½—12 W / ft.	GOLD	3— 6 / ft.	½	
MERCURY VAPOR FLUORESCENT TUBING	Dia. 8-35 MM.	½—25 W / ft.	WHITE (Warm)	15—750 / ft.	30 to 35	Commercial and Residential Lighting.
	"	½—25 W / ft.	Approx. Daylight	15—750 / ft.	30 to 35	
	Dia. 8-35 MM.	½—25 W / ft.	BLUE	10—500 / ft.	20 to 25	Signs and Displays; Decoration. Pink and Green tubes and other colors combined to produce white light for lighting.
	"	½—25 W / ft.	GREEN	22—1,125 / ft.	45 to 60	
	"	½—25 W / ft.	ORCHID	10—500 / ft.	20 to 25	
	"	½—25 W / ft.	YELLOW	9—500 / ft.	18 to 20	
	"	½—25 W / ft.	PINK	7½—375 / ft.	15 to 20	
NEON, FLUORESCENT TUBING	Dia. 8-35 MM.	½—10 W / ft.	GOLD	6—160 / ft.	12 to 16	
	"	½—10 W / ft.	SALMON	6—160 / ft.	12 to 16	
	"	½—10 W / ft.	ROSE	6—160 / ft.	12 to 16	

* L. P. W.: Lumens per Watt.

100 Watt "Black Light" Lamp, used to illuminate otherwise invisible fluorescent decorations.



Four Neon Glow Lamps, used where a marker or signal of low current consumption is needed.



Triple, 20 MM Fluorescent Tubing, 9 ft. sections, used for general illumination. This store installation has tubing over each counter, which burns about 17.5 watts per foot and gives 12 foot-candles at the counter-top. Courtesy, Acme Electric and Mfg. Co., Cuba, N. Y.

1.

2.

3.

4.

INDUSTRIAL. left to right: 1. 400 watt high intensity mercury vapor lamps in Miller R. L. M. reflectors 12 ft. from floor, 13 x 15 ft. spacing, 30 foot-candles; 2. Westinghouse combination high intensity mercury vapor and Mazda units, 21 foot-candles; 3. alternate rows 400 watt high intensity mercury vapor and 750 watt Mazda lamps in Benjamin spun aluminum reflectors 41 ft. from floor, 20 foot-candles; 4. alternate rows 400 watt high intensity mercury and 500 watt Mazda lamps in Wheeler reflectors.

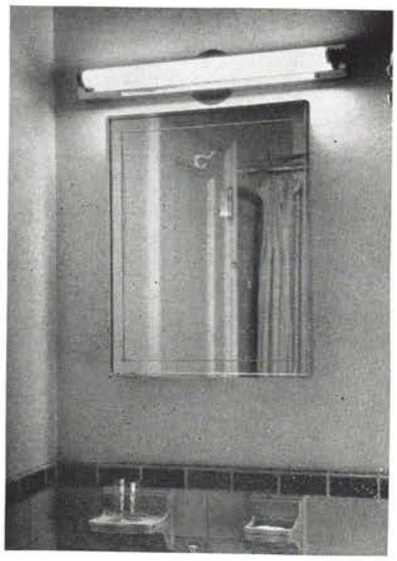
5.

6.

7.

OFFICES AND SCHOOLROOMS. top to bottom: 1. Drafting Room, Artmetal Mercurylites containing one 250 watt high intensity mercury and two 200 watt Mazda lamps, 30 foot-candles; 2. classroom, Miller Cavalier units, one 250 watt high intensity mercury and one 500 watt Mazda lamp; 7. office, double row of 20 watt, 24 x 1½ in. Fluorescent Lumiline Lamps on Curtistrip.

COMMERCIAL. above, left: Special ceiling fixture employing Fluorescent Lumiline Lamps; right, above same lamps used for shelf lighting; below, for counter lighting. Low temperature operation fits these lamps to the latter two jobs.



RESIDENTIAL: The Fluorescent Lumiline Lamp is the first vapor lamp especially adapted to residential use. The installations above suggest only two of the many residential applications of the lamp, which may also be used for general lighting. Photos, courtesy General Electric Company.

VAPOR LAMP TECHNOLOGY

Properly known as "gaseous discharge tubes," vapor lamps employ gases or metallic vapors to produce light. Normally, gases are non-conductors. Under the action of ionizing agents, however, gases will conduct electricity. Such agents have the power of acting on the neutral gas molecules and breaking them into negative and positive charged particles, or ions. When a voltage is impressed across a tube containing a gas sufficiently ionized, the ions will move: the negative ions toward the positive end of the tube, and the positive ions toward the negative end. When this happens, the tube is said to be conducting electrical current.

Light Production

The conduction of an electrical current through a gas results in the production of radiation. The degree to which this radiation is visible and its color depend upon the gas or vapor employed and the pressure of the gas in the tube. In contrast to the continuous spectrum of incandescent tungsten, the spectrum of the radiation from a gaseous discharge is composed of lines or bands. The number of lines and their distribution on the color scale vary with the gas or vapor used, and their relative brightness throughout the spectrum gives rise to the particular color of the discharge. The distribution of energy of the mercury-vapor discharge is such that the discharge appears bluish-white. Similarly, the characteristic color of the neon gas discharge is red; of helium gas, pinkish white; and sodium vapor, yellow. Carbon dioxide and other complex gases or vapors produce many more lines and bands than simple gases, and therefore approach more nearly a continuous spectrum. Mercury and sodium vapor, which produce more light from a given current than does tungsten, are highly efficient light sources.

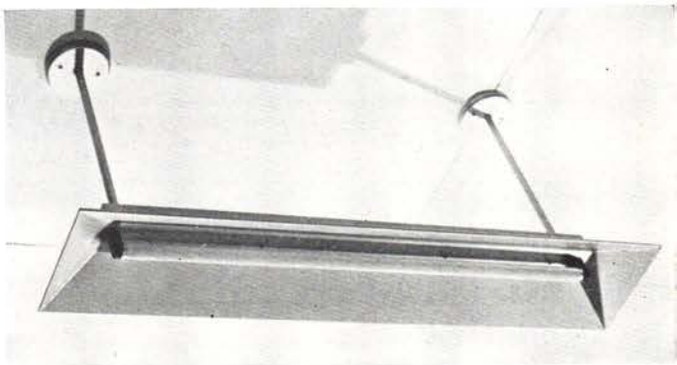
Besides visible radiation, electrical discharges in gases and vapors produce radiation which is invisible. All produce more or less infra-red, or radiant heat, as does incandescent tungsten, but a smaller proportion. Some produce ultra-violet. Mercury vapor, with its visible radiation concentrated at the violet end of the spectrum, radiates a great deal of ultra-violet.

In the new fluorescent mercury vapor lamp this ultra-violet radiation is converted into visible light through the action of a coating of fluorescent powder on the inside of the tube. Such powders, or "phosphors," have the property of converting invisible radiation in the ultra-violet portion of the spectrum into visible light of various wavelengths, and by utilizing energy which would otherwise be wasted, produce a light source of unusually high efficiency.

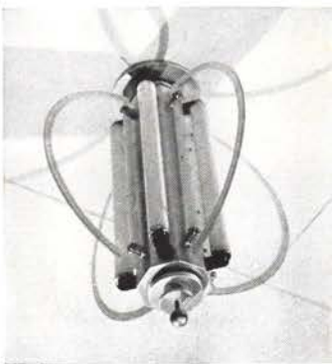
The various phosphors used in fluorescent lamps emit light of differing characteristic colors in the form of broad band spectra. Single phosphors producing their own characteristic spectral colors are employed in the five colored lamps, green being the most efficient. For white and daylight specially selected phosphors are mixed in proper proportions to produce a more nearly continuous spectrum. In order to produce a full scale of colors, additional color coats of non-fluorescent material are used in some of the lamps. The colored fluorescent lamps, notably the green, are vastly more efficient than most sources of colored light formerly employed.

Operation

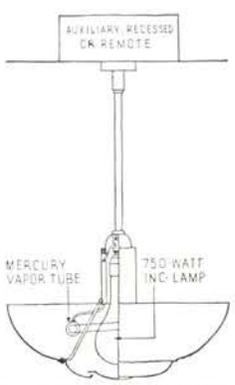
The ionizing agents used in gaseous discharge tubes are commonly either hot surfaces, intense electrical fields in the gas, or intense electrical fields at the cathode (negative end). After the discharge has been initiated, however, another agent comes into play, the collision of the rapidly moving positive and negative ions with the neutral molecules of the gas or vapor results in the production of more ions. Thus it is a characteristic of gaseous discharge tubes to decrease in resistance as the flow of current through the tube increases. If the lamps are operated without ballast, the current will increase and the resistance decrease to a point where the tube, if this is unchecked, will be destroyed. In order to provide one of the above means for initiating the discharge and to prevent an excessive increase in the flow of current after the discharge has begun, it is therefore necessary that vapor lamps be equipped with suitable current-regulating devices, or auxiliaries. In the case of the fluorescent lamps, pre-heating of the electrodes is employed for starting, and the lamp operates at a low voltage. With these lamps auxiliary equipment is therefore quite simple and takes up little space. For Cooper Hewitt and high intensity mercury vapor lamps more bulky equipment is employed. This is also true of neon and mercury vapor tubing, which—because of the high voltage required by small tubing—should have transformers as close to the tube-end as possible. Carbon dioxide, owing to special operating characteristics, requires an even more complicated auxiliary of special design.



Direct ceiling fixture for 36 x 1 in. Fluorescent Lumiline Lamp. Extended surface of low brightness permits use of lamp exposed. Gruber Bros., New York, N. Y.

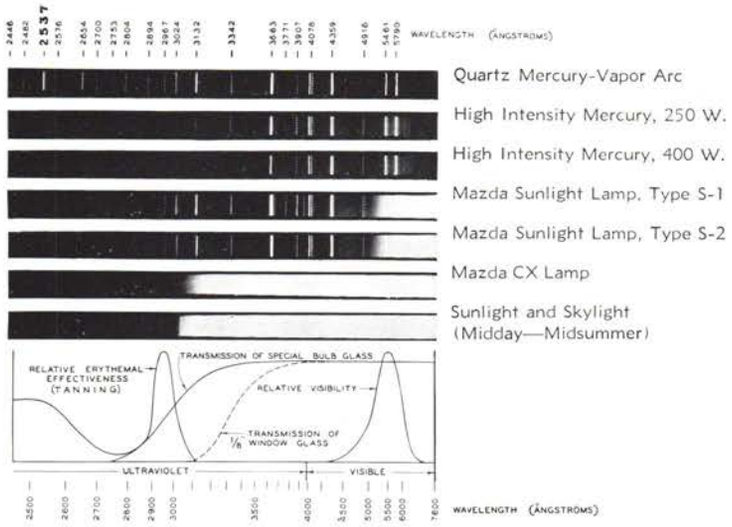


Left, Special large diameter (6 ft.) direct-indirect luminaire for banking room. Combined low-pressure mercury and tungsten: two 500 watt U-shaped tubes and 24 75 watt incandescent lamps. 16 foot-candles at 3 watts per square foot. Barkon Frink Tube Lighting Corp., Long Island City, N. Y. Right, Direct luminaire using 4 15 watt 18 x 1½ in. Fluorescent Lumiline Lamps; Gruber Bros.



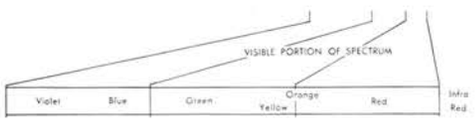
Indirect luminaire for office and schoolroom lighting. Curved low-pressure mercury vapor tube surrounds incandescent lamp. Available in various sizes. Barkon Frink Tube Lighting Corp.

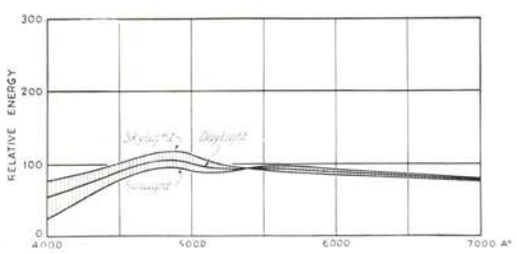
Left, decorative fluorescent mercury vapor tubing at New York World's Fair 1939. Claude Neon Lights, Inc., New York, N. Y. Right, Typical Luminous Tube Transformer, may be recessed in wall; Jefferson Electric Co., Bellwood, Ill.



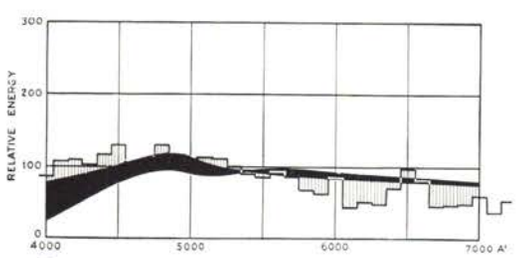
SPECIAL PURPOSE LAMPS

The fact that a good part of the radiation from a mercury vapor discharge lies in the ultra-violet has led to their use for purposes other than illumination—most notably, in medicine. From the several spectragraphs at the left it will be seen that all mercury vapor lamps emit some ultra-violet, but only those composed of special glass—the Sunlamps—reach the region effective in tanning the skin. Besides their use as sunlamps, special tubes with 80 per cent of their radiation in the wavelength band at 2537 A° have recently been introduced for sterilizing purposes and to prevent the growth of mold on stored meat. Eight such lamps, which burn very little current, are shown above in an operating room, used to sterilize the air.

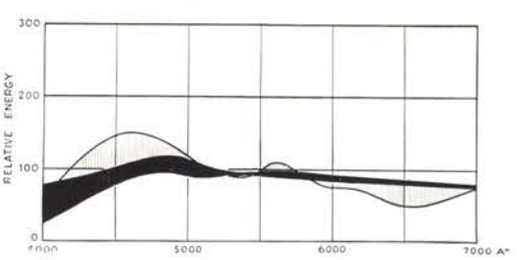




A. Sunlight plus Skylight equals Daylight



1. Carbon Dioxide Lamp

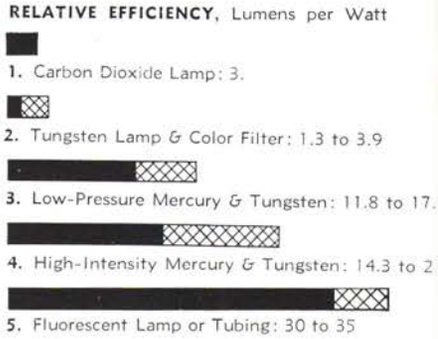


2. Tungsten Lamp and Color Filter

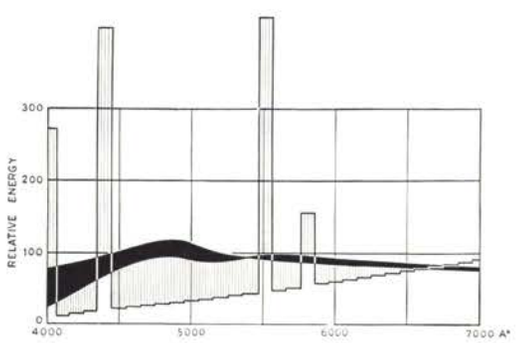
WHITE LIGHT AND APPROXIMATE DAYLIGHT

The characteristic bluish-white color of the mercury vapor discharge, while said to be of some advantage in industry and ideal for photographs made with ordinary blue-sensitive film, is generally considered inadequate for all-purpose lighting. In order to produce a more satisfactory white light the yellow-white light from tungsten lamps is usually employed to compensate for mercury vapor's lack of red. Such combinations give a light somewhat colder than that from ordinary incandescent lamps, and nearer to daylight in color. This light has the advantage of mixing more readily with daylight when one is used to help out the other. Daylight itself varies in color from the yellow-white of afternoon sunlight to the blue-white of north skylight. This difference, in terms of relative energy in various wavelengths, is shown in chart "A" at the left.* The extent to which various near-white sources of artificial light depart from this standard is shown in the several charts below. By comparing the difference between sunlight and skylight (the shaded area on chart "A") with the differences between the various light sources and daylight (shaded on charts 1, 2, etc.), an idea of the relative importance of these differences may be obtained. In the bar chart at the right, below, the relative efficiency of the various light sources is compared.

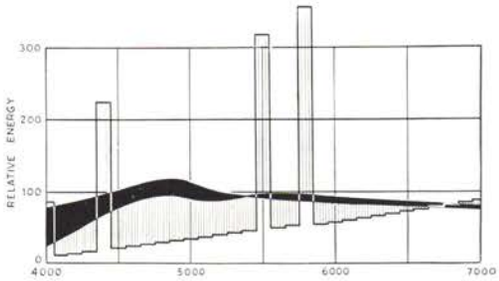
An important precaution which must be observed in comparing the data in the various charts is to remember that pigments represent broad bands on the wavelength scale. For this reason, it is more important that the sum of energy for wavelength bands about 500 Angstrom units or more in width should correspond with the same band in daylight than that the daylight and light source curves should exactly correspond. Similarly, the total energy distribution for the whole scale determines the overall color of the light, and where color matching is not involved, it is sufficient that the totals for each half of the spectrum should match. On this basis curve 3 is considerably better than curve 4, although the latter shows lower peaks, due to the latter's lack of blue and violet and its overemphasis of the highly visible yellow-green. The method of comparison used is throughout extremely critical, and all of the sources shown, except high-intensity mercury, are fairly close to daylight.



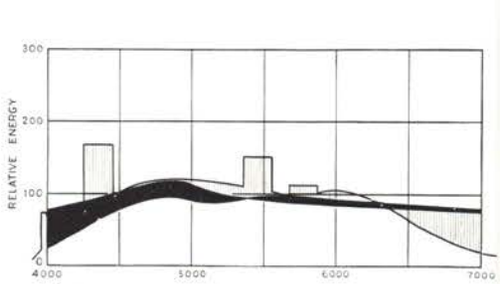
**The skylight curve is for an overcast sky; clear skies are often considerably more blue.*



3. Comb. Low-Pressure Mercury & Tungsten



4. Comb. High-Intensity Mercury & Tungsten



5. Fluorescent Lumiline Lamp

BUILDING MONEY

CONTENTS:

Rex Hardy

Architect Alfred Easton Poor

A LESSON IN COST REDUCTION

is taught by New York's Red Hook Houses. Architect Poor and associates subtract $4 million from $16 million, move toward low cost housing.

METAMORPHOSIS of Government's housing program under Public Works Administration and U. S. Housing Authority has been marked by a shift in emphasis —from low costs to low rents. Significant sign that the field is once again being reversed came last month as USHA announced that its most advanced project, Red Hook Houses in New York City, would cost $4 million less than the $16 million earmarked for it, that cost per room in that project would be $911, excluding land, demolition and other non-dwelling facilities.

Computed on the basis defined by the U. S. Housing Act, that cost scotches the prediction that public housing could not be provided in New York City within the Act's $1,250 per room limit. Also, it is 29 per cent less than the $1,289 cost per room of the pioneering PWA Williamsburg project. (Note of piquant interest is that if 33 PWA projects, housing 14,122 families, had all cost 29 per cent less, 5,800 additional families could have been rehoused for the same cost.)

Significantly, the estimate of Red Hook's cost came just before USHA celebrated its first anniversary on November 1. In its year of existence, the Authority has earmarked over $600 million for low cost housing and slum clearance by local authorities, is only $50 million from the bottom of its pocket.* While Red Hook's cost estimate makes necessary a revaluation of what the public will get for this money, USHA and local authorities have some way to go before making a sizable dent in the demand for low cost housing —a demand measured by the fact that one-third of the Nation averages less than $500 of earnings per year. Thus, if subsidies, both Federal and local, are to be held within the people's capacity to pay, costs are due for a further and substantial downward revision.

* While the U. S. Housing Act of September, 1937, as amended in June 1938, permits the USHA to lend up to $800 million, its $28 million limitation on the total of annual contribution contracts, in effect, reduces the former figure to $650 million.

For the $12 million the New York City Housing Authority plans to spend on Red Hook, it will get 10,656½ rooms costing an average of $1,150 after land, demolition, and non-dwelling costs have been added (see statistics, p. 408). Those rooms will house 2,593 families in 25 buildings.

Land. First move toward low costs was made when the New York City Housing Authority obeyed the houser's apothegm about low cost housing and high cost land. Early in 1938 it acquired through condemnation 40 acres in the "Red Hook" section of southern Brooklyn at a cost surprisingly low for the New York area. Due primarily to its poor subsurface conditions, it was purchased for $1.40 per sq. ft.—ten cents below the maximum authorized by the U. S. Housing Act. Demolition also was inexpensive, as there were only 346 substandard residential buildings and small industrial plants on the tract. They were demolished at $28,590 plus salvage.

Most important money-saving procedures, however, are not evident on the

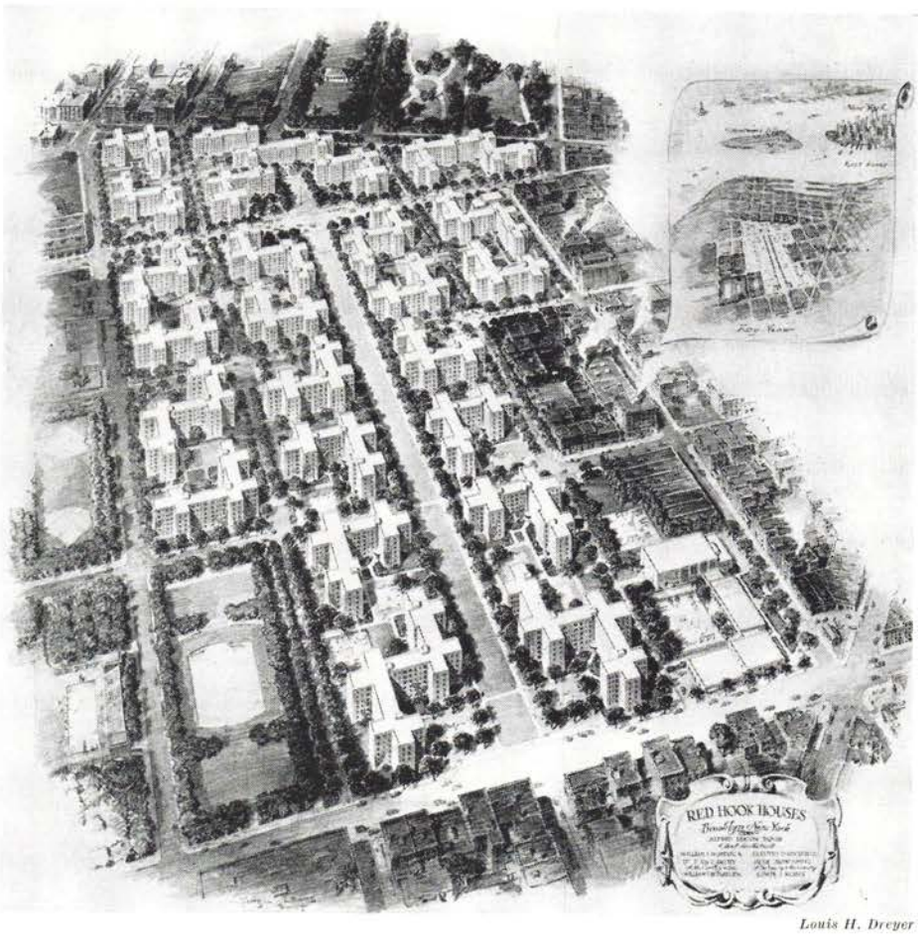
surface, but are reflected in the project's construction bids. Prequalified bidders were requested to figure on the superstructure construction as a whole and also on seven individual (and almost equal in dollar value) phases of the whole. This permitted the housing authority to accept one over-all bid or a combination of bids from the various contractors, whichever was less. The former alternative proved the cheaper when twelve bids, varying not more than 10 per cent, were submitted. Lowest bid, $7,243,000, came from the George A. Fuller Co., which beat out its closest competitor by less than $50,000. On the basis of that bid the cost estimate dropped from the earmarked $16 million to about $12 million.

Architects. Back of this radical reduction was first and foremost the work of Chief Architect Alfred Easton Poor and Associates Dominick, Hohauser, Litchfield, McCarthy, Moscowitz, Robin and See.

Comprising the Red Hook Houses Associated Architects, these men were commissioned as a result of a city-wide competition. Theirs was the task of designing apartment buildings that would toe four different marks at the same time: 1) provisions of the U. S. Housing Act, 2) requirements established by USHA, 3) New York State's Multiple Dwelling Law and 4) the City's building code.

Essential to the work Red Hook architects have done was their organization in a business-like manner. Responsible for the general conception of Red Hook's plan and design was 39-year-old Chief Architect Poor. He dealt with both Federal and local housing authorities and directed and coordinated the activities of his associates who were divided into four committees. The first chairmanned by Architect William F. Dominick, designed the general site plan, its landscaping and the layout of apartment units. The design committee under Electus D. Litchfield was responsible for the design of all elevations. Supervision of specifications and coordination of all phases of planning, designing and engineering was handled by William I. Hohauser. And last, the task of filing plans (386 different blueprints) and the handling of examiners' objections went to W. T. McCarthy. Back of these architects was Head Draftsman Carl A. Vollmer, his 65 assistants and the engineers, all of whose drafting was done in the architects' office.

Economies. First major decision of the architect corps was to build Red Hook to a height of six stories and provide it with elevators. The architects studied the problem, proved that six-story elevator units were the cheapest per room for the particular site, which required pile foundations. To have erected lower buildings would have entailed more expense by virtue of increased land, foundations, basements, corridors and roof, and the increased land coverage would have cut down recreation areas, light and ventilation. To have gone higher would have required that each unit of the project be supplied with a second exit. Thus, the six-story apartment proved to be a happy medium, both functionally and in dollars and cents. It was further decided that these buildings be fireproof, wall-bearing structures with reenforced concrete interior columns and girders and reenforced concrete one-way slabs.



Louis H. Dreyer

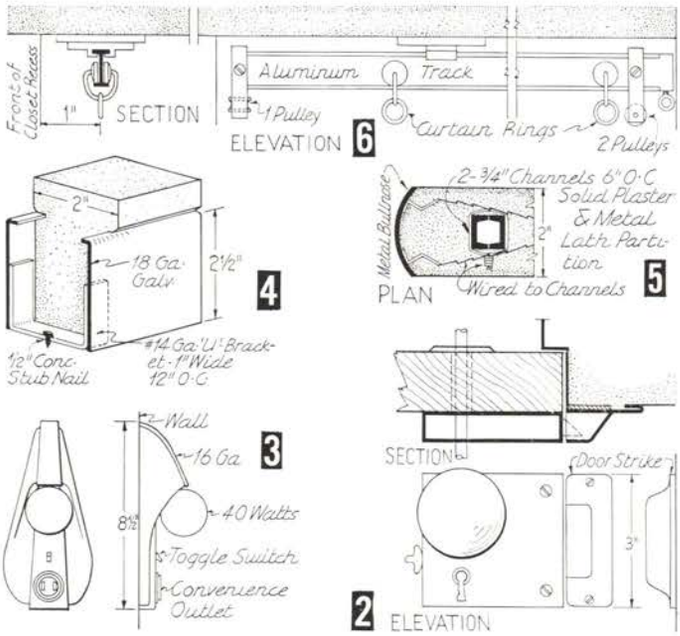
Then came floor plans. That each successive preliminary sketch was an improvement in room size and arrangement is readily seen in the three plans reproduced on these pages. Study of the plans will show that these and other changes were also economical. Minimum ceiling heights and small floor areas made for low cubage per room. And, the average gross area per full and half room was held to 169.89 sq. ft.

More economical, however, were the changes in the project's details and specifications made by Architect Poor and his associates with an assist by the New York City Housing Authority. While it is impossible to calculate the saving produced by each and every item, the few that have been estimated (totaling $522,684) bear examination:

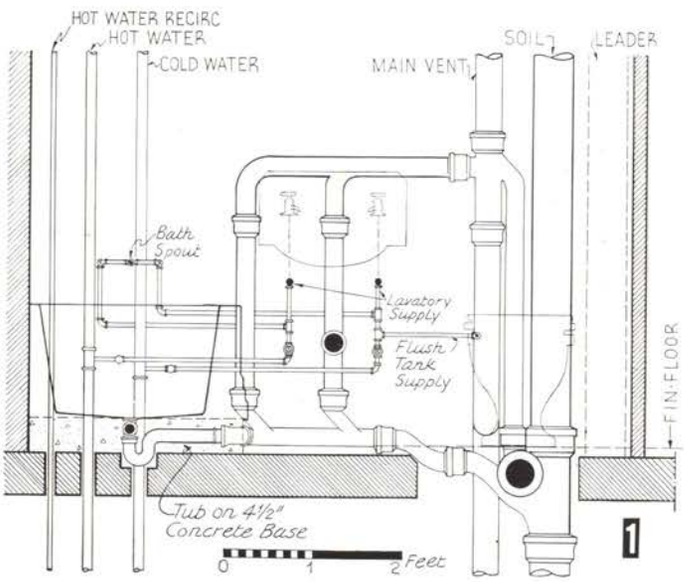
Omission of all but one closet door in each apartment (see detail drawing, page 407) $118,400

(*Continued on page 408*)

Preliminary sketches of a typical apartment section (above) trace improvements made in Red Hook's planning. Note elimination of waste space in final floor plan (right). Gross area per room went from 221 sq. ft. to 178 to 172.



Typical of Red Hook's 25 apartment buildings is the one above. Variation of their shapes (see bird's-eye, opposite) was obtained by different combinations of three basic "cross" plans.



Cost-reducing details (left) include 1. Raised tub in bathroom kept waste pipe above floor slab. Thin plaster partition replaced customary masonry wall as plumbing stack housing. Combined saving: $48,000. 2. Unmortised doors and simple hardware reduced costs by $20,000. 3. Wall brackets, streamlined to discourage coat-hanging and containing switch and convenience outlet, cost $36,000 less than ceiling outlets and wall switches. 4. U-shaped brackets replaced wood ground and base of plaster partitions. Cost reduction: $15,000. 5. A bullnose finished off all kitchen entrances, saving $51,000. 6. Curtains on this hanger replaced closet doors, saved $118,400.

CONSTRUCTION OUTLINE

FOUNDATIONS: 9,236 uncased, cast-in-place, 14 in. diameter cylindrical straight shaft piles of 2,000 lb. concrete.
STRUCTURE: Exterior walls for two lower tiers are solid brick 12 in.; for the 4 upper tiers the wall section is 4 in. face brick with 8 in. back-up tile header courses every 6th course. Parapet walls above roof are solid brick 12 in. thick. Floors—reenforced concrete slab and beam type. Ceilings—smooth concrete finish with casein paint. Interior partitions—generally 2 in. thick solid plaster on steel channels and wire lath.
ROOF: The structural slab is covered with insulating material and 5-ply built-up asphalt felt and gravel roofing, 20-year guarantee.
WINDOWS: Sash—steel casement. Glass—double strength, quality B.
ELEVATORS: Automatic push button elevators, stopping only at 1st, 3rd and 5th floors.
FLOOR COVERINGS: Asphalt tile ⅛ in. thick, 9 x 9 in. square in housing portion.
WALL COVERINGS: Salt-glazed 5 x 12 in., terra cotta tiles in stair and elevator halls.
WOOD AND METAL TRIM: Generally pressed steel 16 gauge combination trim and buck. Interior doors—wood, 2-panel.
PLUMBING: Soil, waste and vent pipes—extra heavy cast iron and galvanized wrought iron. Hot and cold water pipes—85 per cent brass. Steel hot water tank and hot water circulating pumps. Toilet fixtures—vitreous china; iron enamel lavatories and bathtubs. Kitchen equipment—range, iron enamel combination sink and tub.
HEATING: Two pipe vacuum return; oil burner for No. 6 oil. Radiators—cast iron. Hot water heater—steam heated storage type.
INCINERATOR: Every apartment served by incinerator at each floor in the public hall.

(Continued from page 406)

Wall bearing construction, one-way stone concrete slabs, reenforced concrete girders and interior columns instead of steel skeleton frame.....$ 90,000

Omission of elevator stops in cellar, 2nd, 4th and 6th floors.....$ 84,500

Omission of doors and bucks at kitchens (see detail).....$ 51,000

Dead level roofs, omission of fill and reduction of parapet height.....$ 45,500

Substitution of special side brackets for ceiling outlet and wall switch in bedrooms (see detail).....$ 36,000

Metal lath and steel channel partitions around plumbing stacks instead of masonry partitions.....$ 36,000

Rim lock hardware and half-faced butts in lieu of mortised locks and regular butts (see detail).....$ 20,000

Metal base for plaster partitions in lieu of the usual wood ground and base (see detail).....$ 15,000

New method of plumbing installation; tub raised permitting drain pipe to clear slab floor (see detail).....$ 12,000

Use of 38 in. radiators in corners of rooms instead of low radiators under windows.....$ 10,000

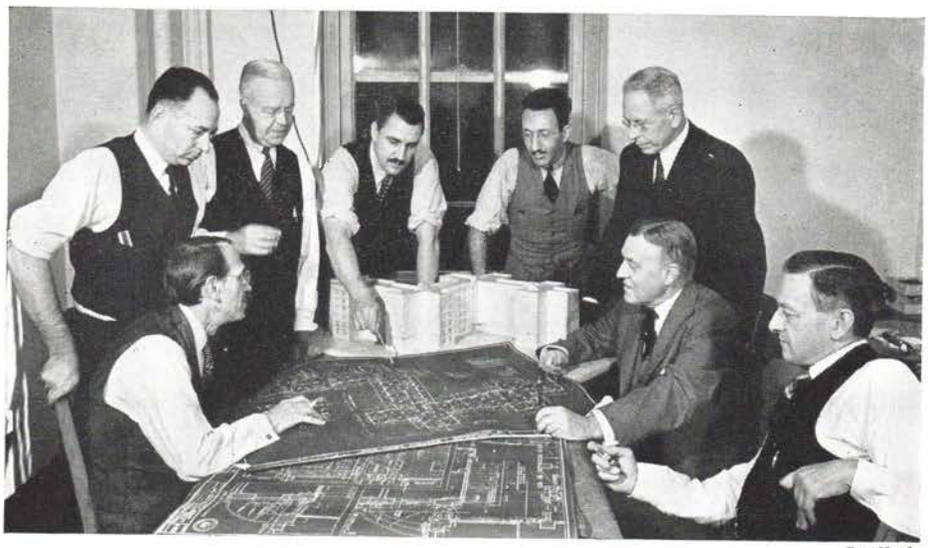
Use of strip windows at stair halls instead of regular windows and brick spandrels.....$ 4,284

Following the evolvement of those items of economy into the $4 million reduction in the expected total cost of Red Hook, Chairman Alfred Rheinstein of the New York City Housing Authority gave his three reasons why costs were reduced, and thus pointed out that money-saving efforts have not stopped with the designers. Reasons: 1) favorable market conditions, 2) unusual cooperation of the building industry and 3) careful planning.

In point No. 1 chance played its part. Competition for business has been keen, and consequently bids have been lowered. Also, building material prices have remained low. When cost of the project was originally estimated, there was a general expectation that increased spring building activity would be followed by a rise in building costs. (It was logical, therefore, for USHA to put a little padding in its estimates.) But the contrary has proved true.

Less a matter of chance, more a matter of forethought, are Chairman Rheinstein's points two and three:

Industrial Cooperation. Significant has been the cooperation given Red Hook's development by several sections of the building industry—cooperation coaxed largely by Rheinstein. Although new as a housing official (he took office in January, 1938), practical-minded Rheinstein is no novice at building. But, to supplement personal experience, he surveyed a number of contractors who had had experience in Federal construction, asked them to list the difficulties they had encountered.



Rex Hardy

Principals in Red Hook's cost reduction are (reading clockwise): Architects Jacob Moskowitz, William I. Hohauser, William F. Dominick, Alfred Easton Poor, Edwin J. Robin, W. T. McCarthy, Electus D. Litchfield and Edmund T. See.

Pet peeve of these builders proved to be Government's many and rigid inspections. They frequently upped their bids to cover the possibility that some element of construction, although not carefully specified, would not please the inspectors; would therefore require reconstruction. To block such occurrences at Red Hook, he worked out a double-barrelled preventive by 1) combining the inspections required by the city and the housing authority and 2) establishing rigid but reasonable tolerances, clearly defining the maximum discrepancies permissible in all construction details.

Additional evidence of cooperation was Labor's agreement neither to stop work nor to demand increased wages during the construction of public housing projects (ARCH. FORUM, Aug. 1938, p. 159). This meant that contractors would not need to include in their bids a safety factor (as high as 15 per cent) covering the possibility of expensive strikes and wage boosts.

Careful Planning. In addition to the work of the architects, a factor that logically falls under planning is construction procedure. And largely responsible for its efficiency are again Chairman Rheinstein and his staff of technicians headed by Allan S. Harrison. Profiting by PWA's local housing experience in building the Williamsburg project, they devised a time schedule for the progressive construction of Red Hook's 25 apartment buildings. Advantages claimed are that, with the exception of one unit, all plastering will be done in plastering weather, thus obviating the necessity of temporary heat; that fewer workmen will be required.

From the management standpoint progressive construction is also helpful. If all units were completed simultaneously, bedlam would result in the mass renting and tenanting operations. According to present schedules, seven structures will be ready for occupancy by June 1939; the remaining eighteen in late summer and early fall.

STATISTICS—RED HOOK HOUSES

NUMBER:

Apartment buildings	25
Store buildings	2
Community building	1
Nursery	1
TOTAL	29
2 room apartments	2
2½ room apartments	184
3½ room apartments	932
4½ room apartments	1,127
5½ room apartments	338
TOTAL	2,583
Total full rooms	9,364
Total full & ½ rooms	10,656½

AREA:

Land (39.75 acres)	1,732,539 sq. ft.
Apartment buildings	305,122 sq. ft.
GROSS COVERAGE	17.5%

VOLUME:

Apartment buildings	18,606,877 cu. ft.
Other buildings	664,555
TOTAL	19,271,432 cu. ft.

COST:#	**Total**	**Per Room**
Land*	$1,813,497	$170.16
Demolition	28,590	2.68
Piling	255,000	23.93
Other site preparation	158,888	14.91
Landscaping	118,681	11.14
Other site improvement	100,912	9.46
Non-dwelling buildings	396,500	37.20
Dwelling facilities†	8,427,809	790.79
Other	965,800	90.63
TOTAL	$12,265,677	$1,150.90

#Preliminary estimates.

*Excludes city land donated to project (263,514 sq. ft. at 53 cents per sq. ft., or $139,662).

†Includes superstructure base bid, foundations, elevators, refrigerators, ranges, hardware, boilers, fixtures, shades, medicine cabinets, and tanks.

BIG STEEL TURNS REALTOR

sells $7 million of surplus properties, tries to sell $43 million more. A glimpse of the reasons and methods.

WHILE lending institutions scratch their corporate heads over the problem of what to do with surplus real estate holdings, U. S. Steel Corp., one of the Nation's ranking landlords, has made up its mind—to sell. What is more, it is selling; month ago, its sales pad showed some $7,000,000 of sales made, about $43,000,000 to go.

Since million dollar real estate transactions are not every-day occurrences, U. S. Steel's experience is notable. What properties it is selling and why and how are subjects worth examination.

What. Last year the Corporation listed $2,531,793,120 of gross fixed property on its balance sheet; and most of it was essential to the company's operation. But a sizable chunk, some $50,000,000, was not. Relocation and changes in procedure left Big Steel with many surplus properties.

To wit: when Scully Steel Products Co., a subsidiary, decided it must have new warehouses in place of its present plant at Newark, N. J., U. S. Steel's list of surplus properties grew by three warehouses, a garage, a power plant, and 72 acres. Again, when advent of the automobile made it unnecessary to provide employes with housing and community facilities, Gary Land Co., another subsidiary, presented its parent with 2,914 acres of useless properties. Similiarly, the Corporation has acquired such odds and ends as shipyards, club houses, oil fields, houses, islands, timberlands, and farms.

Throughout the Depression, the conglomeration grew until three years ago 50 cities in twenty States were represented—from Massachusetts to Oregon, from Minnesota to Louisiana. At that time, U. S. Steel found itself with about 1,000 tracts of land totaling some 900,000 acres and no use for any of them.

Why. U. S. Steel also found itself with the problem of what to do with these useless properties. To hold or to sell was the question. Since chances were slim that any of them would again be called into service, there was only one good reason to hold—anticipation of a better real estate market. But, a look at yearly operating statements showed that carrying charges on these properties (taxes, insurance, maintenance, depreciation, et al.) would in ten years wipe out the average differential between then current prices and prices which might be obtained in the best possible market. Made in the depths of Depression, its decision to sell indicates that U. S. Steel does not anticipate the best of real estate markets during the next five years.

How. In January 1936 the sales campaign got under way. To handle the task, special real estate divisions were created by all land-owning subsidiaries. A coordinating office in Chicago accumulated facts and figures on all the properties, organized them.

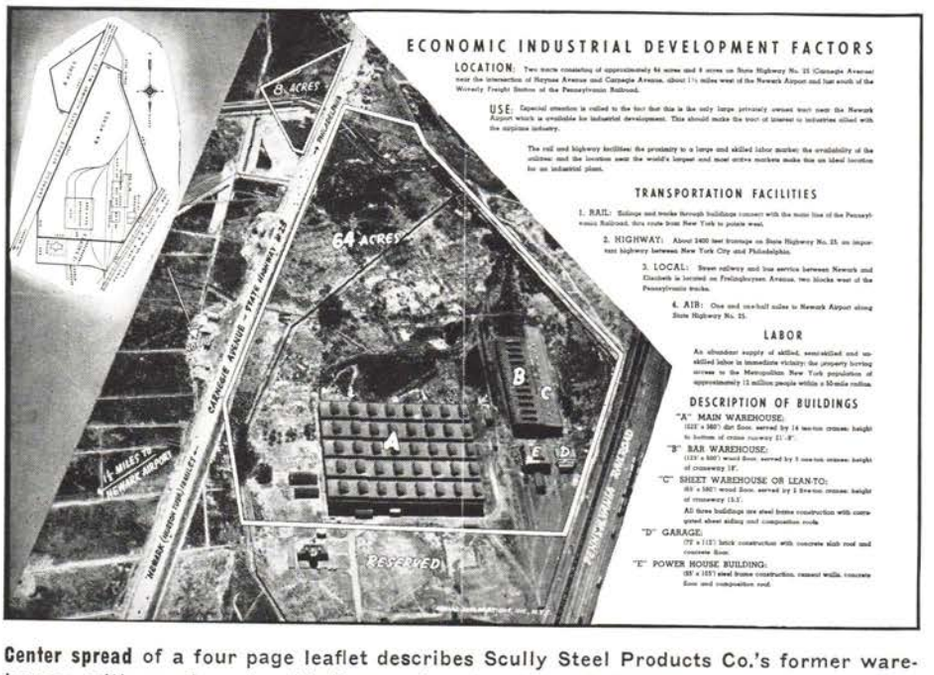
Then came the problem of how to present this material to potential buyers in the most effective, least expensive way. Widely scattered and adaptable only to particular uses, the properties would not appeal to the general public. Possibility of newspaper and magazine advertising was therefore discarded in favor of direct mailing. To this end and with the aid of outside realty experts, Big Steel divided its surplus properties geographically into four sections, herded all the pertinent facts and figures into four descriptive brochures, sent them to a long list of likely purchasers.

But results were not satisfying. To better them, the brochures were subdivided, the larger properties being covered in individual leaflets. It was felt that a prospective buyer in Waukegan, for instance, was distracted by the offering of properties not in his immediate neighborhood. So a list of cities wherein Steel had properties for sale was sent with a form letter to directors of all important railroads, public utilities, manufacturers and to other business bigwigs. Seven per cent of this mailing produced inquiries — a goodly return in view of the fact that the offered properties were of limited appeal and that most such purchases are made only once in a lifetime.

In response to these inquiries went detailed descriptions of properties in the inquirers' localities. Since studies were made of prospects' requirements, data are sent only on those properties which are particularly suited. Example: to those in the metropolitan New York and New Jersey area specifically interested in large industrial properties was sent the folder whose inside pages are reproduced below. Its front cover is a map locating the property amid an abundance of transportation facilities; its rear cover carries six photographs, highlighting the warehouses inside and out.

That the Corporation is willing to subdivide at least some of its tracts, and thus attract smaller purchasers, is indicated by the fact that to date about 1,800 individual sales have been made, while at the beginning of the campaign only 1,000 tracts were listed. Most of these transactions have been consummated by local real estate agents and have been on a cash-on-the-line basis. A few have involved renting; a few, installment buying. Some rental contracts have been made which provide that, if and when the property is purchased, all previous rental payments will be deducted from the purchase price.

Despite the campaign's success, it still has a long way to go. But future success will be one of leaps and bounds if U. S. Steel can negotiate more sales like the two of which it is particularly proud: a whole Canadian subsidiary for $3,000,000 and a long-pending deal with the city of Milwaukee for $2,000,000 more.



Center spread of a four page leaflet describes Scully Steel Products Co.'s former warehouses with words and a bird's-eye view. Land and buildings shown are currently assessed at over $700,000 and, according to U. S. Steel Corp., are "priced to sell."

New President Samuel M. Waters is a conservative, a popular pessimist, a farm mortgage enthusiast.

Bespectacled Frank C. Waples, MBA's sole vice president, has not missed a convention in 20 years.

Fisherman by hobby, congenial George H. Patterson continues as MBA's secretary and treasurer.

MBA'S SILVER JUBILEE

attracts 1,192 delegates. Swing to FHA, return to farm mortgages mark Chicago convention.

Twenty-five years ago, when Government was not in the mortgage business (or any other business) and when loans bore interest as high as 10 per cent, a handful of men organized the Farm Mortgage Bankers Association. Last month this association, renamed the Mortgage Bankers Association when its membership shifted predominantly to urban mortgage business, convened at Chicago's Drake Hotel to celebrate its silver jubilee, spent three days reviewing its past, outlining its future.

Most important event was the address of FHAdministrator Stewart McDonald—not because he spoke, but because he was invited to speak. For two years MBA has been anti-FHA, and McDonald's invitation was indicative of the complete capitulation which has recently taken place. Chief FHA question now remaining in the minds of mortgage bankers is how much they stand to make on Government-insured loans. None of them knows what the average loan's life will be (smart convention money guessed twelve to fifteen years) nor what it will cost to service the average loan.

Not since Government entered the business, has MBA spent so much time in the discussion of farm mortgages. Exemplary were the convention's special Farm Mortgage Conference, election of Farm Mortgagees Samuel M. Waters and Frank C. Waples as president and vice president and the statement of Retiring President A. D. Fraser: "Farm mortgages . . . can profitably employ at least $250 million of new funds. . . . American farming is now completing another economic cycle which began with the fall in land values in 1921. . . . It is coming back."

Equally optimistic was the convention's general tone. Reasons: 1) home building, prime producer of MBA's bread and butter, is leading industrial recovery, will, according to Speaker McDonald, total 350,000 units by year-end, as compared with 50,000 units in 1933 and 1934, 2) insurance company holdings of farm mortgages are again on the up-grade, 3) increased membership (575) is affording MBA a firmer, more influential footing as the Nation's No. 3 banking association, outranked by only the American Bankers Assn. and the Investment Bankers Assn.

Reason three, however, may also carry with it an additional problem. Thus, impending is the usual division of any such group into two factions: those who advocate an association powerful in numbers and those who want a limited membership, powerful in prestige. This and other sentiments will have a year to crystallize before MBA's next convention at Detroit.

Ringleader of the Farm Mortgage Conference sideshow was Frederick P. Champ, a Utah bigwig lender.

Brother of MBA's president, Vice President Murray Waters of Aetna Life dines with Memphis' Stanley H. Trezevant.

Oldest delegate and an MBA founder, Edwin Chamberlain (81) at annual banquet with ex-president Fraser, next president Waters.

Only MBA member not invited to the stag party was Mrs. Minnie W. Miller. Below, L. E. Mahan.

Metro News Service Photos

General sessions at MBA's Silver Jubilee were well attended. FHAdministrator McDonald packed the house. Above, a less-packed house on the closing day holds its head, rests its chin, cups its ear, while listening to Congressman Walter Chandler.

Convention Chairman Walter L. Cohrs bows before the stare of Entertainer Byron V. Kanaley.

Largest number-wise, loudest behavior-wise were Chicago's 634 delegates. Above, seven of them break into song. Songsters: Shortall, Falvey, Cutmore, Hornof, Saxon, Cleven, Nolan. Song: Sweet Adeline. Scene: an improvised barroom in the Hotel Drake.

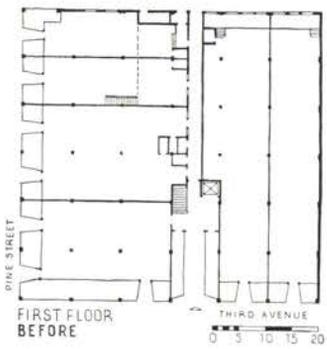
Knowing finger of Delegate Minwegen points to Candidate Loeber as next president of Chicago's realty board. Wheeler looks on.

Additions to the Board of Governors: Cashier Frank J. Mills of Fort Wayne National Bank and Baltimore's Guy T. O. Hollyday.

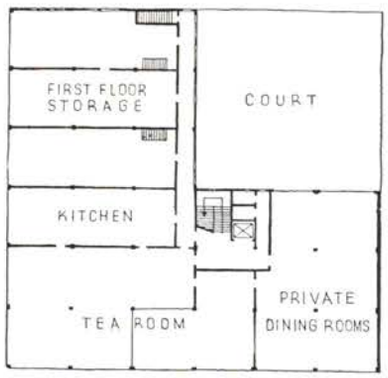
Youngster mortgage bankers Beachy and Murrey, sons of more prominent fathers, flank Calvin Cockrill at tablecloth mathematics.

RESURFACING A COMMERCIAL

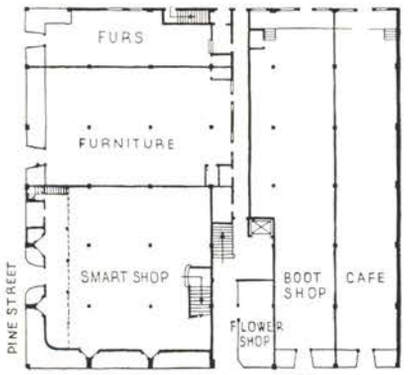
in Seattle improves appearance and finances. Architect Holmes removes distracting details, adds $9,000 to rents.



Hodgepodge of ornament (above) gave way to harmony when Italian marble and horizontal design unified Seattle's Wells Building. First floor planning also benefited by the change. The second floor went untouched.



SECOND FLOOR



FIRST FLOOR
AFTER

Roger Dudley

ALTHOUGH the function of a commercial building is to attract attention, it may not always do so to the advantage of its tenants. Thus, the rococo Wells Building in Seattle was as obvious as a black eye, and just about as sales-helpful. Needed was the removal of eye-disturbing decorative elements, the centering of interest where it would do the most good. Favorably located on Seattle's busiest shopping corner, the building was well occupied, but both the renters and the owner were deprived of best returns from the location because of the building's outmoded appearance. Logical road to higher income was remodeling.

For that purpose, H. F. Ostrander Corporation, the owner, hired Architect J. Lister Holmes, designer of homes in Seattle's prospering View Ridge subdivision (ARCH. FORUM, July 1938, p. 84).

Design. As the Wells Building was only two stories high, Holmes emphasized horizontal lines by banding second-story windows together, replaced pseudo-Italian ornament expressed in brick and tile with plain slabs of Italian travertine marble.

Principal alterations were made in the Smart Shop which commands the first-floor corner of the building. Its interior was enlarged by absorbing an adjoining shop and was redecorated with plywood paneling, although many existing fixtures were retained.

Purchase. A complication in Wells Building financing was its purchase by Seattle drugstore king George H. Bartell in December, 1936, after the contract for remodeling has been let by the Ostrander Corp., but before the stone skin had arrived from Italy. The purchase price of $220,000 hard cash included the building, the remodeling contract, Architect Holmes' services, and handily tacked a market value on the property before the work was completed. Estimate of value since the $19,000 alterations, made by the agents of the Wells Building, is $350,000—indicating a net increase in value of more than $100,000. A before-and-after comparison of the building's finances justifies the expense of modernization:

	1935 (before)	1938 (after)
Assessed value	$101,740	$124,400
Taxes	7,577	6,395
Rents	18,000	27,000
Mortgages	none	none

Reason for the reduction in taxes, despite an increase in assessed valuation, is a reduction in tax rate between the two years. When the remodeling was completed, rents for all the shops were upped; for the enlarged and redecorated Smart Shop it jumped from $400 a month to $800. Owner Bartell's gross return for 1938 on his $220,000 purchase and $19,000 remodeling will be over 11 per cent.

SMALL-TOWN EXPANSION

is the goal of a five-year plan. A standardized factory and easy financing terms lure industry to Danville, Ill.

THERE is satisfaction for all small communities in the theory that industries should deurbanize, but a pragmatic technique of attraction was lacking until Danville, Ill. (pop. 37,000) rolled up its sleeves and set out to get the small industries it wanted. Basis of this siren's art is the provision of standardized modern factory buildings. Purpose is to put Danville's 3,000 reliefers to work and create local business recovery.

Originator of this plan to set Danville on its feet is community pillar George E. Musebeck, president of the Musebeck Shoe Co. Convinced 1) that a small business is best off in a small city and 2) that Danville would be best off with a wide diversification of industry, he called a conclave early this summer of the town's 25 most prominent business men to seek a solution.

Plan. Result of that and similar meetings was creation of a non-profit organization titled the Danville Development Corp., appointment of Musebeck as president, and evolution of a long-range program of community betterment: the Danville Plan.

Frankly practical, the Danville Development Corp. vehemently denies any altruistic, unbusiness-like motives. First operating funds are being acquired through sale of $100,000 of common stock; bond issues will take care of any further capital needs. Optimistic anticipations are for $300,000 to $400,000 of 5 per cent bonds —a reflection of the aim to bring 25 new companies to Danville in five years.

Because the goal of the Danville Plan is first and foremost sound business recovery, a corollary to the attraction of industries is assistance to them in operation. (Logically, Danville wants no defunct businesses; considers no fly-by-nighters.) That assistance is predicated upon the widespread difficulty small industries have in getting credit both for operations and expansion. As a solution, the corporation has made arrangements to warehouse raw materials, to dole them out to the industries as they need them and can pay for them.

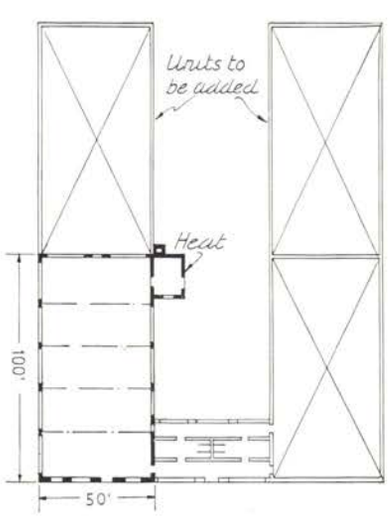
Fundamentally, the plan offers to small firms the solution of two problems: 1) that of finding satisfactory work space, 2) that of purchasing property without dipping heavily into reserves or working capital.

Factory. To provide acceptable work space the Danville Development Corp. hired Architect Harvey F. Skadden to design a four-times expandable standard factory. Location of the basic unit—shown by heavy lines on the floor plan below—on a lot four times too big, allows for the future. Prime reason for this standardization is protection of the mortgage holders in case of business failures. Discarded buildings designed for too highly selective uses are first cousins to white elephants, and Danville wants none of them.

Built of home-town brick, the units come in 40, 50 and 60 ft. widths, cost $1.80 per sq. ft. for the first unit, $1.54 for each additional unit. The first unit includes wash rooms and a boiler room large enough to serve the full-sized factory; thus, its higher square foot cost. Claim is, however, that such costs are still considerably below the levels of larger cities. Actual total cost of the first factory built, a 50-footer, was $10,000.

Finances. To make a move of plant financially attractive, the Corporation promises easy terms to purchasers, requires no down payments. Factories are financed by a 5 per cent first mortgage to 60 per cent of value through a local mortgage lender. The remaining 40 per cent is carried as a 7 per cent second mortgage by the Corporation, leaving a 2 per cent operating margin over the expected cost of money through bond issues. By paying interest on both mortgages at an average rate of 5.625 per cent and amortizing the principal of the first mortgage over a period of eleven years, payments amount to about 1 per cent of total cost a month. The purchaser receives a purchase contract, but does not acquire deed to the property until the second mortgage is paid off. He may, however, repurchase the second mortgage at any time he has the capital. Hope is that in good years surplus earnings will go toward such payment and thus eliminate the obligation of the Danville Development Corp. In that event, deed of property will be transferred to the purchaser.

Results. Five-year plans imply as much the development of a philosophy as of physical goods. No exception, Danville has given active expression to a needed community philosophy that fosters local efforts to solve problems, and does not rely on outside assistance. But tangible results are not lacking at Danville; proudly it points to three factories completed, to six others under consideration. Two firms from nearby Chicago, the Grogan Photo Service Inc. and the National Egg Grading Equipment Co. have already moved in.



Expanding with the needs of its tenant industry, the first unit of the standard Danville factory occupies a lot four times too big. Pioneer unit (above) was sold to the Grogan Photo Service Inc., formerly of Chicago. Price: $10,000. Expansion to date: none. Basic units of factories two and three, because of their larger size, cost respectively $15,000 and $16,000.

A $3,490 HOUSE AND LOT

attracts 68 buyers from row-housed Philadelphia. Subdivider Henrie boasts a big house for the money, big plans for the future.

NOTHING sells houses like one or two important and justifiable superlatives. Sunnybrook, latest subdivision to pop up on the outskirts of Philadelphia, has one potent superlative—with prices as low as $3,490 for six-room, masonry dwellings on fair-sized lots, it rightly boasts the lowest cost houses in the whole Philadelphia area. And, attesting the drawing-power of that superlative are the results of its first six months' operations: 20 houses completed, 48 under construction, all 68 sold.

Supplementing the universal attraction of low prices is another Sunnybrook attraction of peculiarly local appeal. If all the houses in Philadelphia were laid end to end, the resultant appearance of the city's residential districts would not be tremendously altered; for 83 per cent of the houses in this so-called "City of Homes" are row houses—already laid end to end. Thus, Sunnybrook's offering of free-standing, single-family houses with a piece of land for each has figured prominently in its signal success.

Beneficiary of this success is 34-year-old John P. Henrie, one-time student of law (Temple University) and title and trust officer of a depression-closed bank. During his seven years' experience as a realtor, he has held contempt for the local row house tradition and the fact that it has produced almost nothing at a price below $4,500. Equally strong has been his contempt for the continuance of slack activity in his real estate business.

Preliminaries. Convinced that both conditions could be remedied with a low-cost housing project, Realtor Henrie year ago turned subdivider, acquired 23 acres of land in nearby Oreland (pop. circa 1,000). Situated "on the other side of the tracks" from the village's swank estates, this tract was zoned for industrial development and was therefore inexpensive. Its close proximity to a school and a Reading railroad station (61 trains daily to Philadelphia, fourteen miles distant) and its already-constructed streets further suited the property to his purposes.

No such simple matter, however, was Henrie's problem of a suitable house design. Only after several hundred bootless dollars had been spent, Richard C. Martin, friend and architect, produced an answer. It was a two-story modified Colonial house which met Henrie's requisite of three bedrooms and an attached garage in addition to the usual living room, dining room, kitchen and bath. Specifications called for a cinder block shell, conventional frame construction for the balance. Proof that this was the answer came when it was determined that the house could be marketed with lot for about $3,000 and still afford a small but reasonable profit.

Preview. To test Philadelphia's reaction to the house before going ahead with his proposed 20-unit speculative program, a sample house was built on the Oreland tract. At mid-March before foundations had been completed the Philadelphia press got wind of the development, broke the story. Next day Henrie's office swarmed with some 80 prospects. By nightfall, fifteen houses had been sold. Another fifteen were sold on May 1 when 2,385 persons (excluding children) heeded a small newspaper advertisement, attended the sample house's debut.

Several major changes in the standard design as embodied in the sample house were required before the Federal Housing Administration would insure the mortgages. Making the mistake of not first acquainting himself with FHA minimum requirements, Henrie had plastered directly on the cinder blocks for the interior finish of the first floor, had finished all second floor walls and ceilings with composition wallboard instead of plaster, had omitted insulation from garage and second floor ceilings and had specified single, softwood flooring on the first floor.

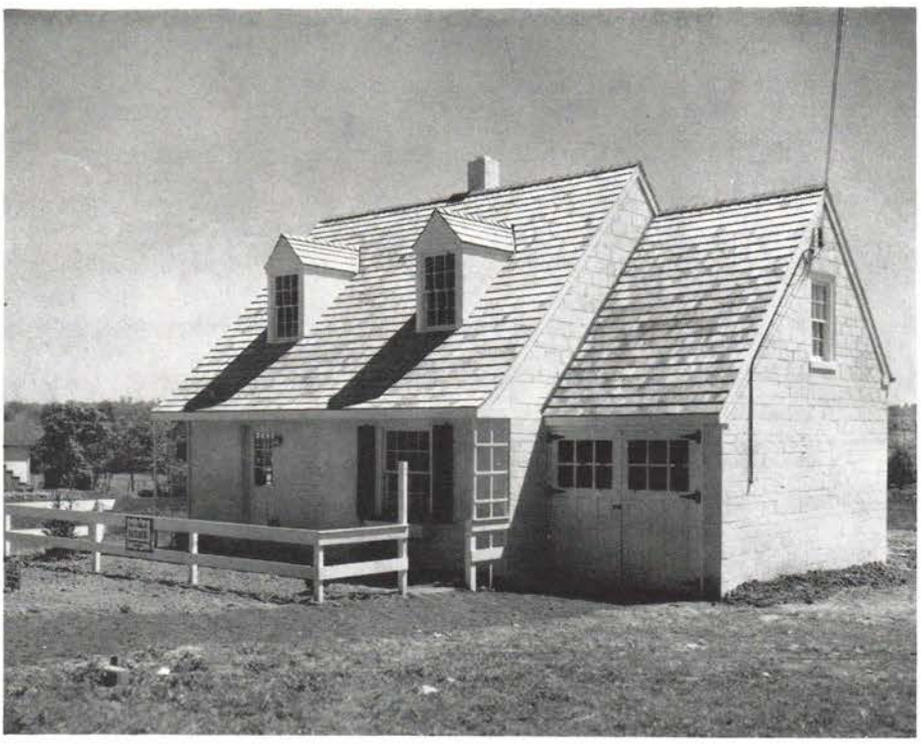
Since Federal mortgage insurance was necessary, these unapproved practices were brought in line with FHA standards. Also, the furnace room which occupied a portion of the first floor in the sample house was transplanted to a quarter basement in its successors. These changes plus others of less importance upped the quoted price of the basic house and lot to $3,490. But it still remained $1,000 below that of Philadelphia's cheapest row house.

Construction. Finding both hands full with sales activity alone, Subdivider Henrie placed construction of the houses in the experienced hands of Boardman-Smith Corp., Philadelphia's second largest speculative builder. But at Sunnybrook, its building was far from speculative; by June 1 another sample house (furnished) was opened to the public, and its visitors during the next three weeks bought out all remaining lots. While this backlog of orders was sufficient to busy the builders for several months, a purchase option on an adjoining 40 acre tract was recently exercised, bringing Henrie's Oreland acreage to 63, his subdivision's total capacity to 180 houses. On this addition, the price of the basic cinder house will be $3,795—the $305 advance being attributable to higher land costs, slightly larger cubage and the recent increase in material and labor costs.

Since Sunnybrook's forte is its low costs, an analysis of how they are obtained is noteworthy. Most important is the profit factor; both subdivider and builder are content to squeeze a small profit from each house, hoping to swell the total through large scale operations. Of second-place significance is the cost of land, an unofficial estimate placing at $300 that part of the basic $3,490 price which covers the average 65 x 135 ft. lot. Mass purchasing and building also play big parts. Houses are built in groups with the construction program so staggered that all workmen are

(*Continued on page 416*)

Whipps Photos



SECOND FLOOR

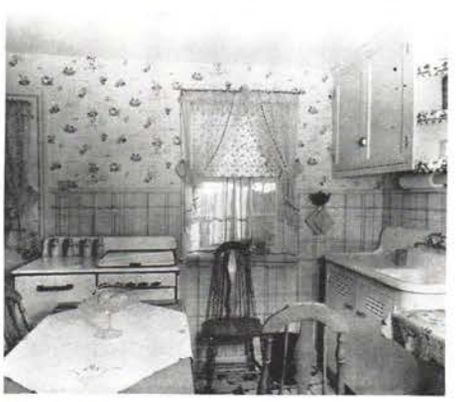
FIRST FLOOR

Drawing card of Henrie's subdivision has been the $3,490 cinder-block house above. Rooms, pictured below, are small but adequately serve families of the lower income groups. Most purchasers have been row-housed Philadelphians who do not object to repetition of the standard house as seen in street view, opposite. Henrie does; therefore will stagger the units of the newer portion of his subdivision, will offer five design variations.

LIVING ROOM

DINING ROOM

BEDROOM



KITCHEN

CONSTRUCTION OUTLINE

FOUNDATION: Walls—8 x 8 x 16 in. solid cinder concrete block, Bethayres Concrete Products Co. Cellar floor—3 in. cinder concrete, 1 in. top coat. Waterproofing—asphalt coating on exterior foundation walls.
STRUCTURE: Exterior walls—8 in. hollow cinder concrete block finished with Medusa Portland cement paint. Interior—1 x 2 in. stripping, rock lath, 3 coats plaster. Bearing partitions—3 x 4 in. hemlock studs; non-bearing—2 x 3 in., rock lath, 3 coats plaster. Floor construction—2 x 8 in. hemlock surfaced joists, 1 x 6 in. roofers, 5/16 x 2 in. oak flooring. Ceilings—plaster, rock lath.
ROOF: Construction—2 x 6 in. rafters covered with No. 1 Washington cedar shingles.
CHIMNEY: Concrete block, 8 x 8 in. terra cotta lining.
SHEET METAL WORK: Flashing—16 oz. copper and 40 lb. tin coated. Gutters—4 in. copper. Leaders—3 in. copper. Ducts—tin covered with asbestos.
INSULATION: Roof—Gold Bond rock lath on one side, National Gypsum Co.
WINDOWS: Sash—White pine. Glass—single strength, American Window Glass Co.
STAIRS: N. C. white pine throughout.
FLOOR COVERINGS: Main rooms—hardwood. Kitchen and bathrooms—yellow pine covered with linoleum.
WALL COVERINGS: All rooms—wall paper. Kitchen and bathrooms—Sanitas, Standard Textile Products Co.
WOODWORK: Trim and cabinets and exterior doors—white pine. Interior doors—fir.
HARDWARE: Interior and exterior—brass.
PAINTING: Interior—3 coats paint. Floors—white 5 lb. cut shellac. Exterior walls—2 coats Medusa Portland cement paint.
ELECTRICAL INSTALLATION: Wiring system—2 circuit wiring. Switches—toggle type.
KITCHEN EQUIPMENT: Range—gas, Wellbuilt Stove Co. Sink—Kohler Co.
BATHROOM EQUIPMENT: All fixtures by Kohler Co. Cabinets—Quaker Metal Co.
PLUMBING: Soil pipes—cast iron. Water pipes—copper.
HEATING: Warm air system. Boiler—warm air 22 in. pot, coal fired, Lennox Furnace Co.

(*Continued from page 414*)

continually engaged. While some of these 60-odd men carry union cards, the project is not unionized.

In addition to small profits and comparatively cheap land and labor, standardization of design helps keep construction costs to a minimum. All houses are identical in exterior appearance, and interior variations from the basic design are discouraged by the extra costs entailed:

Half basement	$110
Chimney on outside	25
Full basement, including chimney on outside	275
Cinder block fireplace and mantel	125
Dormer over garage	37
Window above stair landing	15
Tiling in bath	80
Cement garage floor	20
Hardwood second floor	55

Equipment is minimum but adequate, includes customary bathroom fixtures, a gas range, combination sink and laundry tub and overhead cabinets in the kitchen, a hot air furnace in the basement with a cold air duct for summer cooling. Engineers have estimated that this coal-fired heating system can be fueled for $50 per year. A cesspool to the rear of each house provides inexpensive sewage disposal.

Financing. Sunnybrook's low prices have made financing easy. FHA-insured, 25-year mortgages for $3,100 have been written for each house by the First Mortgage Co. of Philadelphia, agents for several nationally known insurance companies.

Monthly carrying charges are correspondingly low. On the basic house they amount to about $25 including taxes, fire insurance, interest and insurance and amortization of the mortgage.

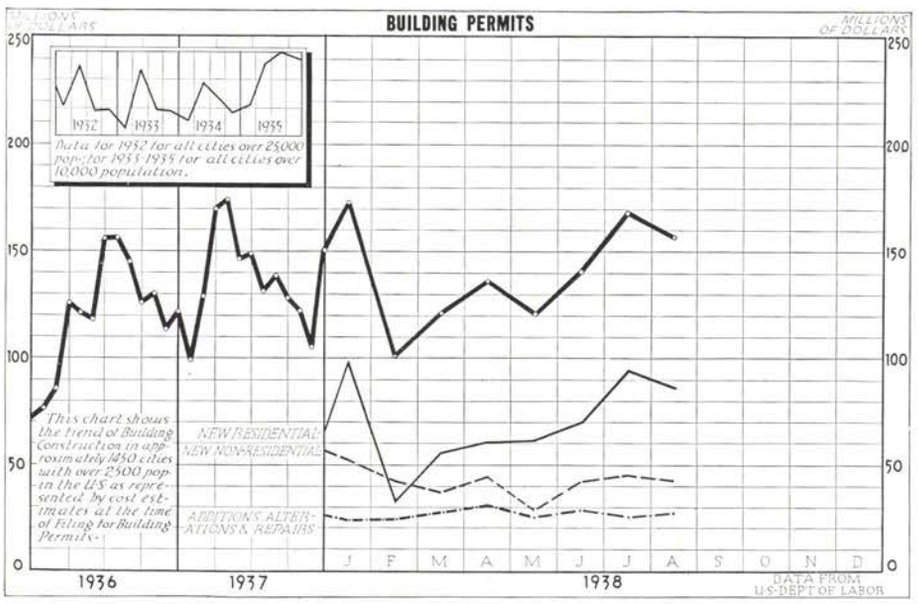
Expansion. Fired with the results of his first experiment in low cost housing, Subdivider Henrie is spreading his activities to encircle Philadelphia's outskirts. In addition to the recent expansion at Oreland, he has begun development of a 487 acre tract near Camden which may ultimately contain 1,300 houses. In mind, but pending the acquisition of suitable land, are similar projects for Trenton, Harrisburg, Chester and Wilmington.

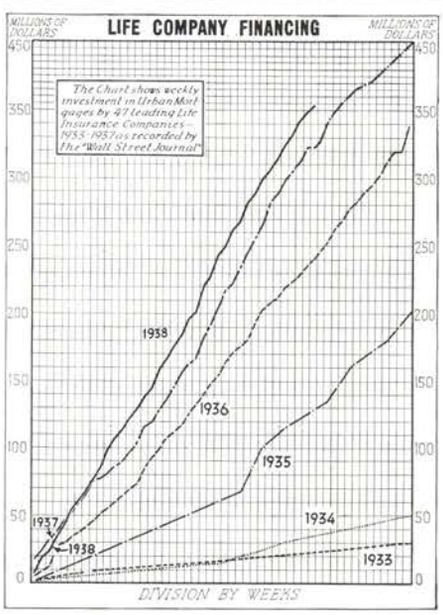
Somewhat disappointed at the row house effect produced by his repetition of identical facades, he is also expanding his repertoire of house designs. Future purchasers will be offered five exterior variations of the basic house. A clapboard frame house will sell at the same price as its painted cinder block sister, but prices of the others will go as high as $4,575 for a brick and stone English design.

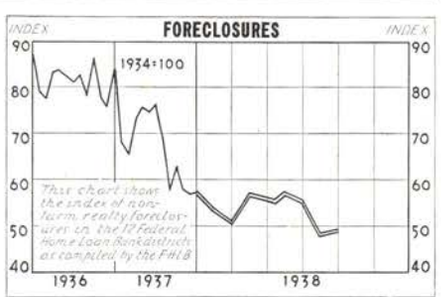
Whatever the results of these newer exploits, Subdivider Henrie will have difficulty in bettering the record of the past six months—$230,000 of new business with an advertising and promotional expenditure of not more than $200.

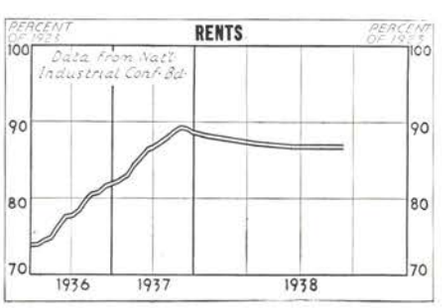
MORTGAGE FINANCING ADVANCES,

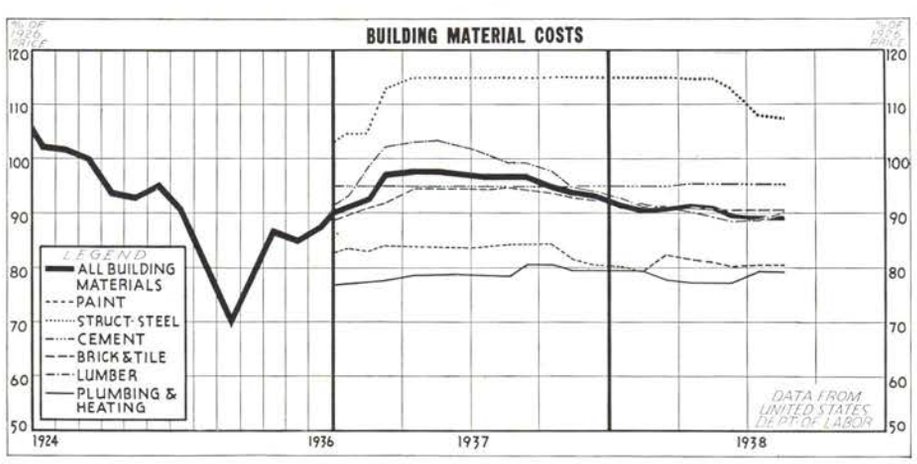
holds lead over past five years. Foreclosures increase; permits drop seasonally; rents and costs continue steady.











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● Give your customers better service on home loans—leave out red tape, delays and disappointment—have money released to you sooner!

Finance home loans *at home* through a *local* institution that fosters savings and lending to encourage home building!

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Check these home financing advantages offered by your *local* Savings or Building and Loan Association. Then you'll be glad to recommend us—where home dollars are invested at home to help local business and make local jobs!

1. Fast service—no red tape
2. Convenient service—easy to understand
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ARCHITECTS! Whether it's for buying, building, modernizing or refinancing, this local home financing service will give you definite proof that—

WHEN YOU SUPPORT YOUR LOCAL SAVINGS AND HOME FINANCING INSTITUTION —YOU HELP LOCAL BUSINESS

For a sound, efficient, friendly source of home financing, we offer our services for your consideration. Recommend us, we are waiting to help you!

This is one of a series of advertisements sponsored by members of the United States Building and Loan League, 333 North Michigan Ave., Chicago.

Your Local SAVINGS OR BUILDING AND LOAN ASSOCIATION

MONCRIEF

WINTER AIR CONDITIONERS

In step with progress . . .

Just as **LIFE HOUSES** represent the great advance during recent years in the design and construction of small homes, so Moncrief Winter Air Conditioners embody all the latest improvements and features that contribute to winter comfort. Moncrief has done notable pioneer work in developing winter air conditioning for the home, and Moncrief Winter Air Conditioners give builders and home owners the utmost in efficiency and economy.

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Wide World

A $500 MILLION STORM

puts the spurs to Building and Financing.

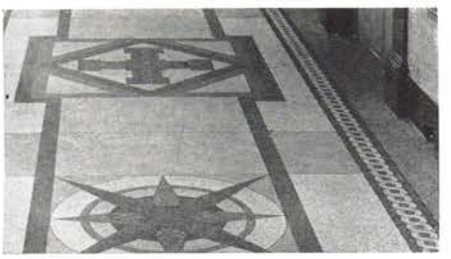
THE problem of replacing physical property destroyed by the Northeast's recent hurricane is first and foremost one for Building and its twin sister, Financing. It will be their job to rebuild as much of the $500 million worth of destroyed property as possible, to find funds to help those whose security and means of livelihood have been swept away.

Financing. Early at the scene of the storm was WPAdministrator Hopkins, pinch-hitting for the President. He immediately mobilized 100,000 relief workers in the stricken area, promised to hire more as specific needs developed. For reconstruction of roads, bridges, sea walls, etc., Massachusetts and Rhode Island alone sought $40 million of WPA aid.

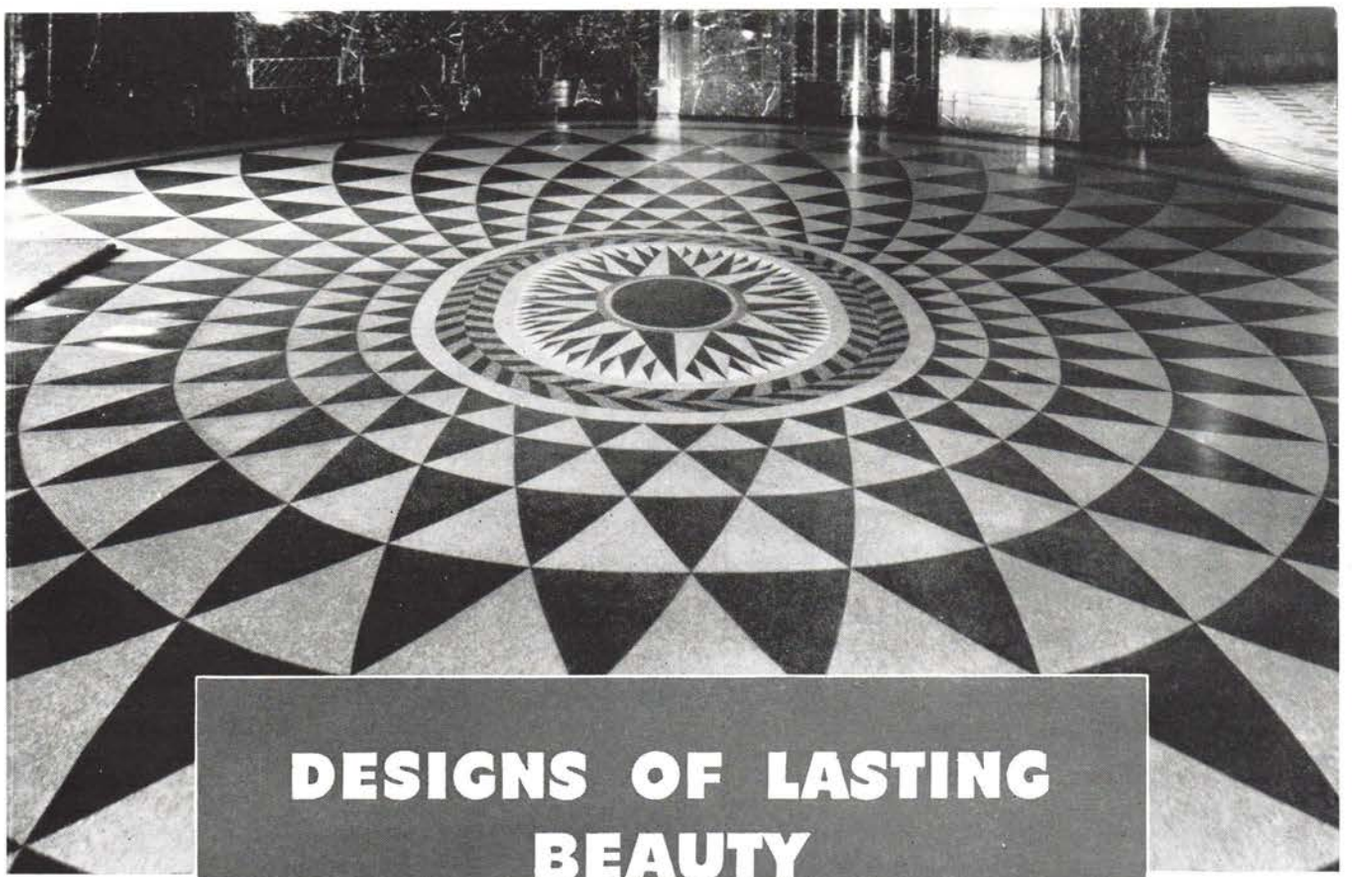
As the Federal Government would not provide outright grants to reconstruct private properties, that responsibility was left to private institutions. Quickly to their assistance came FHA whose insurance in such emergencies will cover losses to 20 per cent of the cumulative amount lent by each approved institution. To aid those whose security was inadequate for private lenders, the Disaster Loan Corporation made loans for anything from new roofs to new fishing boats. The Corporation's lending terms are dictated by each individual situation.

Building. Although Building awaits the conclusion of Financing's maneuvers, immediate effect of the hurricane was felt in sudden demands for roofer's supplies. Thus, the roofing industry went into high gear, planned 24-hour capacity production for three weeks to meet increased demand. Typical is Rhode Island's estimate that $100 million will be required to rebuild homes in the State.

Most unexpected news was that at least 300 million feet of high grade white pine timber was blown down in the States of Maine, Vermont, and New Hampshire.



● Swirling bands of color, squares, triangles—any design or pattern you specify can be followed easily with Terrazzo. The infinite pattern possibilities, plus a color range from white through vivid colors to deepest black, are responsible for the increasing use of Terrazzo in many types of buildings.



DESIGNS OF LASTING BEAUTY

for the busy homes of business

FEET—hurrying in and out of office buildings, rushing on the errands of business! You need a floor of lasting beauty and character to stand up under the steady, day in and day out pounding.

Terrazzo floors grow in favor more and more for modern office and commercial buildings because they refuse to wear out. They offer you the widest latitude in design and use of color—and they stay fresh and colorful for life.

Terrazzo is dense, hard concrete. It is difficult to stain or soil. It needs a minimum of care and it is reasonable in cost. Your clients will appreciate these advantages. And you will be pleased at the ever new and original designs at your command. Terrazzo floors are literally made to your special order.

Let us send you detailed information about this unusual decorative and structural material for lobbies, hallways, stairways and wainscoting. Write the National Terrazzo and Mosaic Association, 1406 G St., NW, Washington, D.C.

THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION

Your clients appreciate the

LIFE,

convenience, and beauty of

STANWIN

— one of the Crittall Casements

Stanwin is the lighter-weight Crittall Casement to use for distinctive small homes, with handsome new hardware, designed for easy application of screens, venetian blinds, and drapes.

Permanence, economy of upkeep, ease of operation and cleaning, fuel economy and better health due to reduced air infiltration — these are advantages which justify considering Stanwin on the most modest projects.

Crittall-Federal offers you a complete line of metal windows from one dependable source. Crittall Casements are made in three weights, of steel, aluminum, or bronze. They embody the designs and patents of the world's largest maker of casement windows. Federal Industrial Sash are fully arc-welded for less costly installation and maintenance.

Call the nearest representative, or write direct for the new Stanwin catalog.

Crittall-Federal, Inc.

Stanwin, Universal and Norman Casements — Federal Industrial Sash

Plant and General Offices— Waukesha, Wisconsin.

Sales Offices in:

Boston, Washington, New York, Miami, Milwaukee, Chicago, Dallas, Detroit

Representatives in all principal cities.

CRITTALL

ELECTRIC-ARC-WELDED FEDERAL WINDOWS

HOME COSTS DROP

in sixteen reporting cities, rise in six.

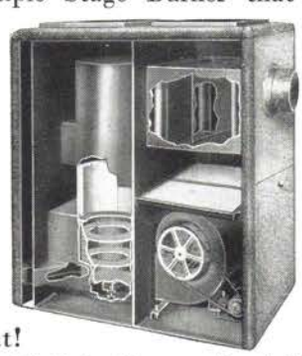
Reports from 27 cities to the Federal Home Loan Bank Board indicate continued declines in the cost of building its standard house. Between June and September, the period covered by these reports, costs decreased in sixteen cities, remained unchanged in five, and rose in six. However, cost declines were not as vigorous as they were earlier in the year—an indication that they may soon level off.

Only drop to exceed one cent per cubic foot was in West Palm Beach, where a 1.5 cent drop carried the cost to 24.2 cents. Largest rise, 0.9 cents, was in Boston, where costs now stand at 26.2 cents per cu. ft. Highest cubic foot cost in the 27 reporting cities is Springfield, Ill. (28.4 cents); lowest is Columbia, S. C. (20.3 cents) which in June dipped to 19.9 cents, but is now at last year's level.

Comparison of September costs with those in September of last year shows how general has been the downward movement. Only one city, Roanoke, reported a rise; and that, of 0.9 cents. Declines, on the other hand, exceeded 2.0 cents in three cities, 1.0 cent in fifteen cities. Below are costs in 21 of the principal cities:

FHLBB DISTRICTS STATES AND CITIES	CUBIC-FOOT COSTS SEPT. 1938	JUNE 1938	SEPT. 1937	SEPT. 1936
BOSTON:				
CONNECTICUT: NEW HAVEN	$0.234	$0.234	$0.246	$0.231
MAINE: PORTLAND	.221	.230	.242	.219
MASSACHUSETTS: BOSTON	.262	.253	.278	.249
NEW HAMPSHIRE: MANCHESTER	.226	.224	.242	.228
RHODE ISLAND: PROVIDENCE	.246	.247	.247	.232
WINSTON-SALEM:				
ALABAMA: BIRMINGHAM	.244	.253	.253	.232
WASHINGTON, D. C.	.243	.249	.251	.210
FLORIDA: TAMPA	.231	.234	.238	.226
WEST PALM BEACH	.242	.257	.269	.249
GEORGIA: ATLANTA	.211	.217	.227	.207
MARYLAND: BALTIMORE	.206	.208	.224	.216
NORTH CAROLINA: RALEIGH	.221	.226	.236	.215
SOUTH CAROLINA: COLUMBIA	.203	.199	.203	.196
VIRGINIA: RICHMOND	.215	.219	.222	.203
ROANOKE	.221	.219	.212	.195
CHICAGO:				
ILLINOIS: CHICAGO	.282	.289	.299	.283
SPRINGFIELD	.284	.290	——	.271
WISCONSIN: MILWAUKEE	.240	.240	.251	.222
TOPEKA:				
COLORADO: DENVER	.274	.269	.282	.254
NEBRASKA: OMAHA	.242	.242	.255	.232
OKLAHOMA CITY	.243	.243	.243	.227

It is good news to know Lochinvar makes an automatic oil burning winter air-conditioning furnace for any size home from $2,000 to $15,000. Thousands of home builders have discovered that the economical and efficient performance of these heating units together with their low prices have made it possible for them to have the luxury of automatic oil heat without paying the penalty of high fuel bills, and expensive service calls. Illustrated above is Lochinvar's Multiple Stage Burner that burns No. 1 or No. 2 fuel oil, contains no moving parts or motors. Just light this burner in the fall and shut it off in the spring — it operates as simply as that!



• *A cross section of the Junior-Aire, our medium sized furnace, that is modern in design, attractively priced and comes completely equipped with automatic controls.*

HOT WATER IS CHEAPER NOW

Just think of it, hot water at ⅓ to ½ the cost of gas or electricity is yours if you specify this automatic oil-burning water heater. Why not find out about this popular priced Lochinvar line before you build?

LOCHINVAR CORPORATION
14247 Tireman Ave.
DEARBORN, MICH.

Determine in Advance

. . . the Quality of the Store Fronts you design

HERE'S *another*
PITTCO
STORE FRONT

THERE'S SATISFACTION in designing a front like this—and a feeling of security in knowing that the finished front will live up to expectations. Architects Scoffield and Deimel used Pittco Products in creating this super market in New London, Connecticut. Contractor J. D. McWilliams Co., installed the Pittco Front.

PITTCO PRODUCTS and outstanding store front jobs just naturally go together. In Pittco Products the architect has at his command a complete line of unified store front materials. Top-quality glass, paint, metal. When properly installed, they contribute in large measure to the success of store front design. Hundreds of architects have found that by specifying Pittco Products they can be sure beforehand that their fronts will look as well when completed as on their boards.

Pittco Products lend themselves to the execution of original and effective designs in business-building fronts. By standardizing on Pittco Store Front Products you can do much to justify your reputation as a designer of successful store fronts and to make possible improved business for your clients.

The Pittsburgh Plate Glass Company maintains crews of skilled workmen throughout the country, trained and equipped to install Pittco Products properly. Mail the coupon now. We will be glad to send you our booklet of complete information about Pittco Products—facts, photographs and figures — that will assist you in your store front work.

Pittsburgh Plate Glass Company
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Please send me, without obligation, your new book entitled "Producing Bigger Profits with Pittco Store Fronts."

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PITTSBURGH PLATE GLASS COMPANY

Wood floors will have a lasting finish *Plus* permanent preservation with *Lignophol*

Wood deteriorates when subjected to the harmful effects of traffic, moisture and bacteria and soon loses its resilient and resistive powers unless properly protected.

LIGNOPHOL fills the cells of the wood with toughening resins to help the wood take abuse; with penetrating oils to keep out moisture and with skillfully selected preservatives to prevent the entrance and growth of bacteria molds and wood destroyers.

The ordinary treatment of paint, shellac or varnish given wood floors and trim, actually hides the beauty of the wood itself, and gives a surface coating which is readily broken or marred—LIGNOPHOL preserves the natural beauty of the wood.

LIGNOPHOL *will give a durable, attractive finish and at the same time protect against:*

WARPING • WET AND DRY ROT CRACKING, SPLINTERING, PITTING WOOD FLOORS • TRACKED-IN MUD AND WATER • MARKING AND BURNING FROM RUBBER SHOES

See the center panel for a few more of the many reasons—why you will want to specify LIGNOPHOL, the natural wood preservative and finish.

Write Dept. F11 today for proof of LIGNOPHOL'S performances "on the job." Full information and complete records included to demonstrate why LIGNOPHOL should head your list for wood floor and trim preservative and finish, in industrial plants, institutions or residences.

L. SONNEBORN SONS, INC. 88 Lexington Ave., New York City

NEWEST TYPE MOVABLE PARTITION PROVIDES ALL THE SOLIDITY AND PRIVACY OF FIXED WALLS

TODAY, an entirely new conception of a movable office partition is attracting the attention of architects all over the country. Developed by Johns-Manville, Transite Walls combine the solidity and privacy that have hitherto been associated only with fixed walls, with advantages that are not found in any other type of office partition—movable or fixed.

For one thing, the ingenious construction method employed makes erection easy and rapid . . . cuts down on installation time and expense. This method permits equally simple relocation, with a minimum of dirt and noise—and with 100% salvage! All material may be used over and over again when changes are necessary.

And the asbestos-cement structure of these unusual partitions is fireproof and practically timeproof. Their surface is highly resistant to shock and abrasion, and will not crack or dent even under severe abuse.

Moreover, architects have full freedom of decorative ideas with Transite Walls. The flat, smooth surfaces provided take any type of decorative treatment—paints, fabrics, lacquers, veneers, etc. The natural finish is often preferred for general office areas, however, providing an economical way of securing attractive, neutral-toned walls.

A thorough investigation of the many advantages of J-M Transite Walls will convince you that this ultra-modern partition is ideal for every office purpose. The new Transite Walls brochure presents all the facts in an interesting way. For your free copy, write Johns-Manville, 22 East 40th Street, New York City.

(Left) This executive's office is a perfect example of the adaptability of J-M Transite Walls to decorative ideas. Here, daowood veneer was applied to the Transite. However, any other treatment—paint, lacquer, fabric, etc.—might have been used. Or the Transite Walls could have been left in their attractive natural finish.

(Below) Here, Transite Walls are shown used as rail and as free-standing partitions with borrowed lights. Easy to install, just as easy to relocate, this all-purpose partition permits office work to be carried on during alterations. And when changes are made, all material is 100% salvable.

Floors for stores and showrooms can be comfortable and durable

NATIONAL CASH REGISTER COMPANY SHOWROOM, *San Francisco. The attractive floor is Armstrong's Linotile (Oil-Bonded). The field is Travertine No.* 115 *with two alternating strips of Travertine and Black No.* 30. *Border is Black No.* 30.

ARMSTRONG'S LINOTILE (OIL-BONDED) IS RESILIENT BUT WEAR-RESISTANT

FLOORS for modern stores ought to be attractive, definitely contributing to the display of merchandise.

They ought to be resilient and comfortable, pleasant for customers, restful for clerks.

At the same time, they *must* be durable . . . highly resistant to abrasion and indentation.

Linotile Solves Problem

In Linotile (Oil-Bonded), Architect A. F. Roller found a happy combination of these three advantages when he planned this San Francisco showroom for National Cash Register Company.

Linotile—available in handsome plain and marble colors—is a linoleum-like composition in tile form. Dense but resilient, it is even more resistant to denting than battleship linoleum. Quiet and comfortable, it is a thoroughly practical flooring for stores, offices, schools, hospitals, hotels, and restaurants.

Maintenance Is Easy

Linotile is easy and economical to install. It can be inset with trade-marks, monograms, or decorative figures. The colors run through the full thickness of the material. Scuffing feet and scraping furniture do not wear them off. Daily dusting and periodic washing and waxing keep Linotile floors attractive and serviceable for years.

See *Sweet's Catalog* for colors, sizes, and specifications—or write today for a filed-sized copy of *Individuality in Handlaid Floors.* Armstrong Cork Products Company, Building Materials Division, 1204 State St., Lancaster, Pennsylvania.

Armstrong manufactures the only complete line of resilient floorings—Linoleum, Reinforced Rubber Tile, Asphalt Tile, Cork Tile, and Linotile (Oil-Bonded). Therefore our Architectural Service Bureau can offer unbiased suggestions on the most suitable material for any purpose or budget.

RUBBER TILE • LINOTILE (OIL-BONDED) • ASPHALT TILE

Armstrong's LINOLEUM *and* RESILIENT, NON-CERAMIC TILES

CORK TILE • LINOWALL • ACOUSTICAL CEILINGS

FEED 'EM AND WEEP

USE 'INCOR'—AND CUT HEAT-PROTECTION COSTS BY 50 TO 60%

IT pays to remember that the quicker concrete hardens the less time and expense are required to provide costly heat-protection. There's no profit in dumping coke into the greedy maw of a salamander.

'Incor' 24-Hour Cement saves real money on cold-weather work because it gains strength faster and the concrete is safe from freezing sooner. Heat mixing water and aggregates, as usual; then, with 'Incor'*, simply provide heat-protection for 24 hours after concrete is placed. That saves, at very least, two days' heat-curing. Typical example:

6-story-and-roof concrete-frame building —100' x 100' in plan

To provide heat: one salamander per 330 sq. ft., 30 salamanders per floor

Operating Costs:

Coke, 5 tons a day, at $10 . . . . . $50 per day
Labor, 4 men tending fires, at $5 . . . $20 per day
Heat cost . . . . . $70 per day

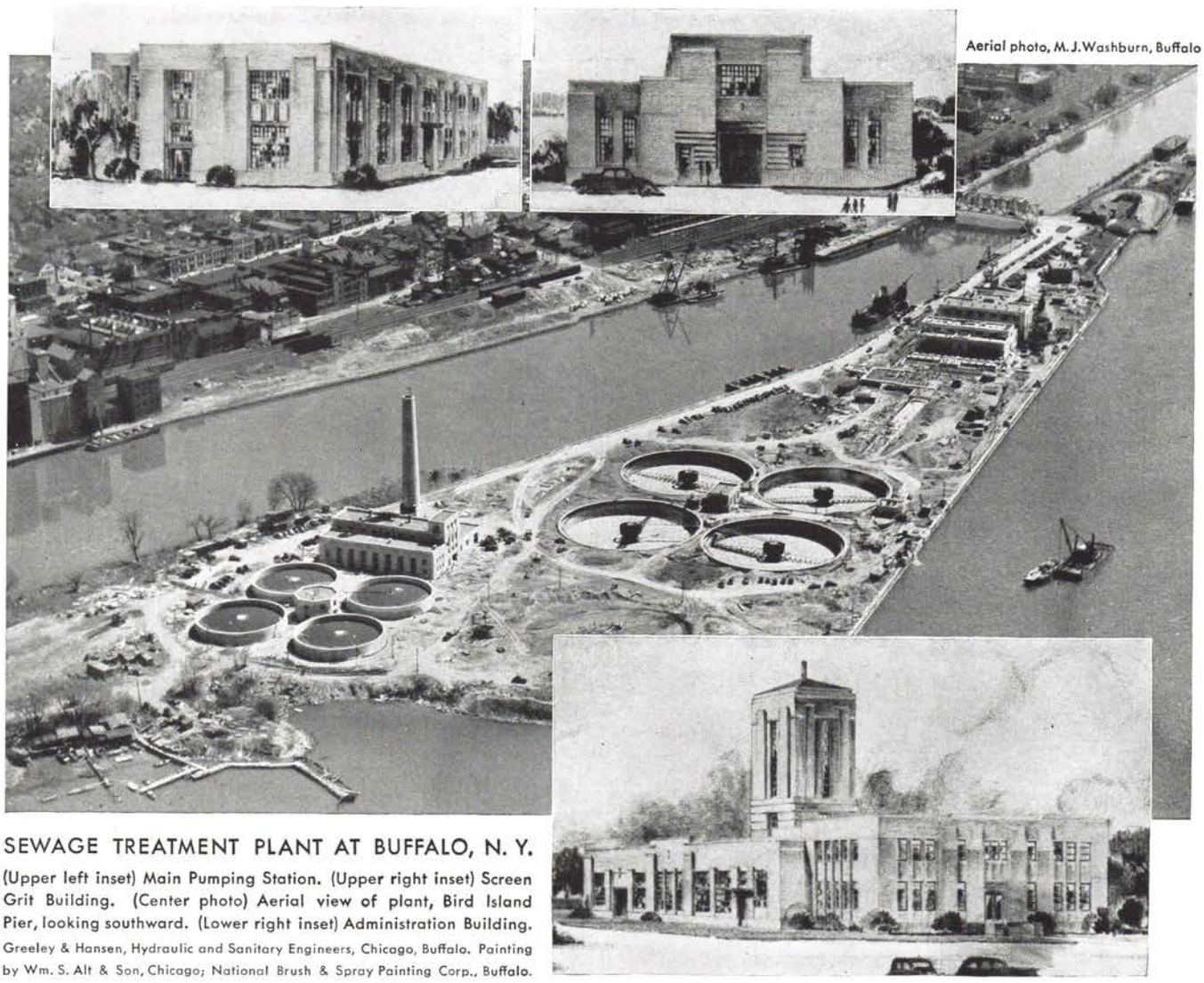
'Incor' Saves Heat-Protection Costs:

2 days' heating expense per floor $140
For 6 stories and roof $980

To these fuel and labor savings, also add reduced form costs and lower job overhead as well. Why not figure these savings on work now in progress? Write for copy of "Cold-Weather Concreting." Lone Star Cement Corporation, Room 2279, 342 Madison Avenue, New York. *Reg. U. S. Pat. Off.

LONE STAR CEMENT CORPORATION

MAKERS OF LONE STAR CEMENT
'INCOR' 24-HOUR CEMENT



Aerial photo, M. J. Washburn, Buffalo

SEWAGE TREATMENT PLANT AT BUFFALO, N. Y.

(Upper left inset) Main Pumping Station. (Upper right inset) Screen Grit Building. (Center photo) Aerial view of plant, Bird Island Pier, looking southward. (Lower right inset) Administration Building.

Greeley & Hansen, Hydraulic and Sanitary Engineers, Chicago, Buffalo. Painting by Wm. S. Alt & Son, Chicago; National Brush & Spray Painting Corp., Buffalo.

FORTY-THREE COLORS, ranging from strong, solid tones to delicate pastel tints, were used in painting and decorating this $4,500,000 project of the Buffalo Sewer Authority. Operating efficiency was combined with economical maintenance and decoration in the finishing of these buildings and equipment with Pratt & Lambert Paint and Varnish.

Thirty-one different types of material were required on this large-scale painting job. Throughout the work, the engineers and technical staff had the close co-operation of the Pratt & Lambert Architectural Service Department. This practical aid is available to architects and engineers at a moment's notice regardless of the size of the project or exacting requirements.

REGISTERED PL TRADE MARK

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Pratt & Lambert Paint and Varnish

G-E FLUORESCENT MAZDA LAMPS PROVIDE NEW INDOOR DAYLIGHT

The new G-E Fluorescent MAZDA lamps offer architects almost unlimited possibilities for obtaining daylight effects or colored light sources in planning commercial and industrial lighting. They give several times more light for the current consumed than filament lamps of the same wattage and color. For the same amount of light, they are 50% cooler.

The daylight Fluorescent lamp offers the closest approach to real daylight ever produced at high efficiency. It will be particularly useful wherever color discrimination is important.

These new lamps (also available in red, gold, pink, blue, green, and white) require special sockets and control equipment which is now available.

Look for this tag when you buy fluorescent lighting equipment →

The new G-E Fluorescent MAZDA lamps come in 18, 24, and 36-inch lengths and in 15, 20, and 30-watt sizes. Prices run from $1.50 to $2.10.

GENERAL ELECTRIC *presents*

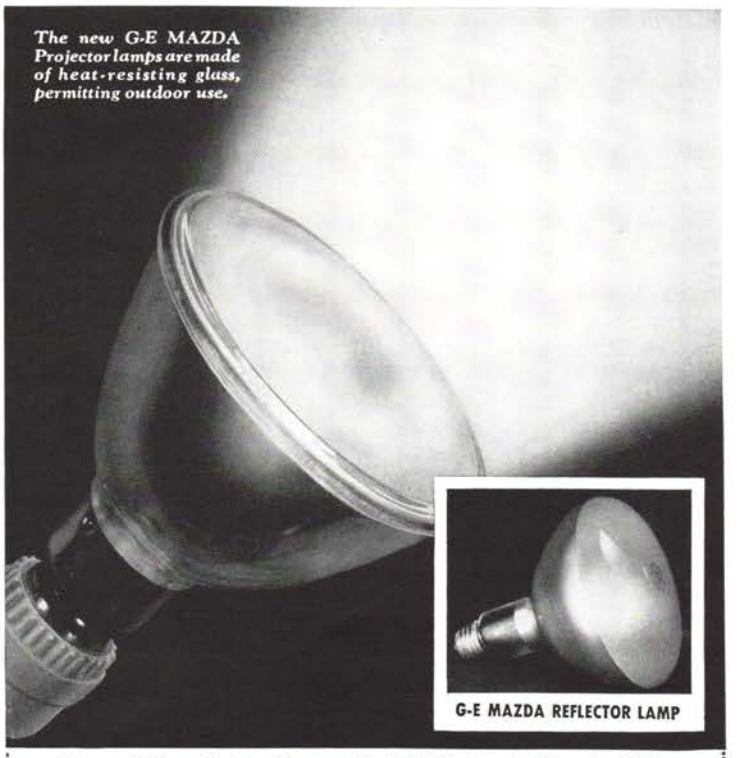
2 REVOLUTIONARY NEW MAZDA LAMPS

G-E MAZDA PROJECTOR LAMPS ARE COMPLETE LIGHTING UNITS

Here is another new type of lamp with a multitude of uses. The G-E MAZDA Projector lamp combines a mirror reflector, a light-directing lens, and a 150-watt lamp filament in one hermetically sealed-in unit, protected from dust, moisture, and deterioration. Available in two types—*Spotlight* type which has a concentrating lens and produces a narrow light beam of high intensity, and the *Floodlight* type with a lens that spreads the beam to illuminate a larger area. Both types list at $1.70.

• • •

General Electric also presents the 150-watt MAZDA Reflector lamp (see inset photo at lower right). With the same type of mirrored surface used on the Projector lamps, the Reflector lamp is made of ordinary glass, and will be of value wherever a smaller, lightweight lamp with a beam of less intensity is needed. Its use is also recommended where lower first cost is important. Price $1.10.



The new G-E MAZDA Projector lamps are made of heat-resisting glass, permitting outdoor use.

MAIL THIS COUPON FOR COMPLETE INFORMATION

General Electric Co., Dept. 166-AF, Nela Park, Cleveland, O.
Please send me complete information on:
A) G-E Fluorescent MAZDA lamps. ☐
B) G-E MAZDA Projector and Reflector lamps. ☐

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Company .....

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One experienced source for everything electrical. No alibis when Westinghouse supplies every electrical product required. Furnishes advice and practical help with planning layouts and the writing of specifications. Supervises installation and inspection. Makes on-the-dot deliveries. Assumes undivided responsibility for every detail of the complete project.

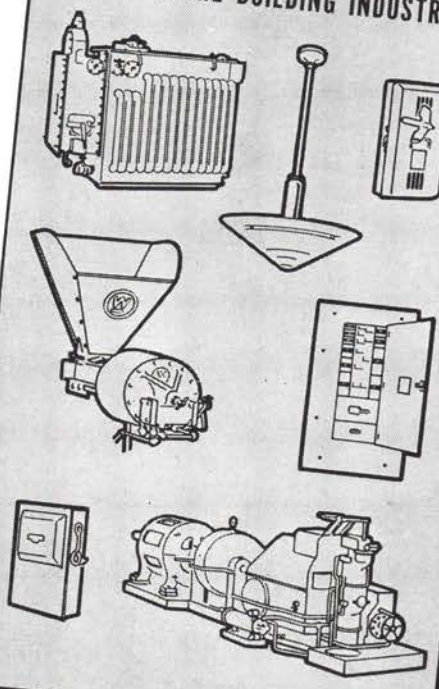
Undivided responsibility means deliveries on schedule, experienced supervision, careful inspection, tests and check-ups in logical order. And Westinghouse service shops provide prompt assistance in emergencies.

With localized offices all over the country you can consult with nearby Westinghouse Engineers; or write Westinghouse Electric & Manufacturing Company, Dept. 7-N, East Pittsburgh, Pa.

Ask for your copy of the Architects' and Engineers' Data Book, containing helpful information on electrical products for buildings. See catalog in Sweet's.

J-93811

A FEW TYPICAL PRODUCTS IN THE COMPLETE WESTINGHOUSE LINE FOR THE BUILDING INDUSTRY



Westinghouse

Electrical Partner of the Building Industry

WESTINGHOUSE ELECTRIC

Steel carries the tang of the sea into Every American Hamlet

Millions of fish travel every year from sea to dining table, in cans made of Tin Plate (steel coated with tin). In fact, your entire menu depends on steel -- without it, your meals would be sadly unappetizing.

Your morning coffee is roasted in steel ovens, ground by steel knives, packed in steel cans, brewed in steel pots on steel stoves. You and your fellow Americans use billions of steel cans every year for tomatoes, corn, peas, etc., and nearly a billion cans for sea foods.

Requirements such as these consumed a large percentage of the 2,500,000 tons of Tin Plate produced in 1937.

Millions of dollars have been spent by Youngstown to be sure that the tin plate from which these cans are made is correctly suited to the use to which it is put. In fact a great laboratory and special staffs of research and field experts are constantly at work to make every product bearing the Youngstown name the finest that modern science can produce.

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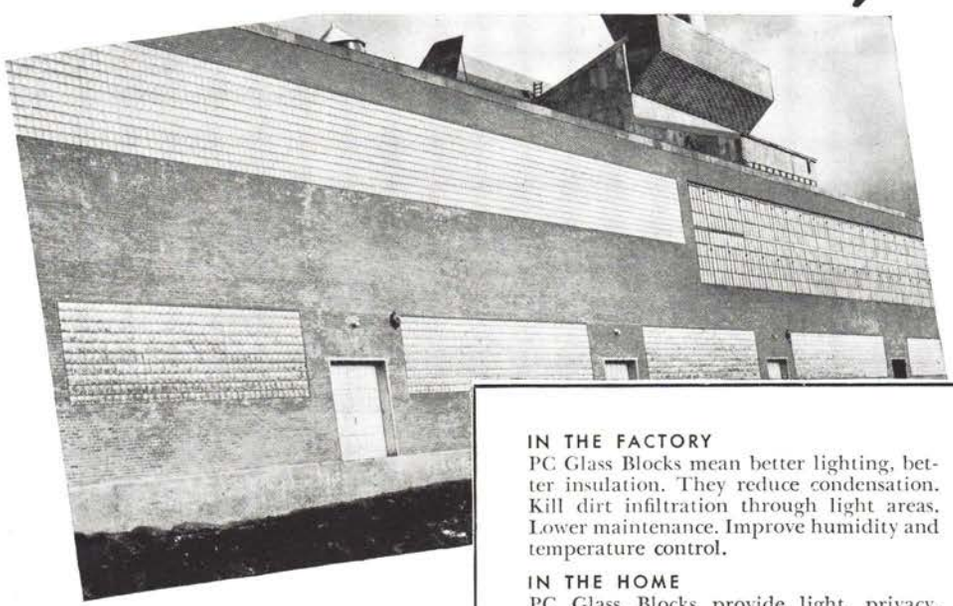

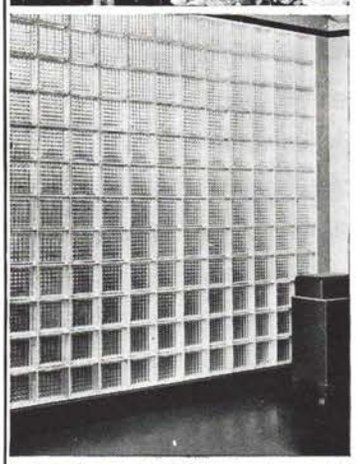

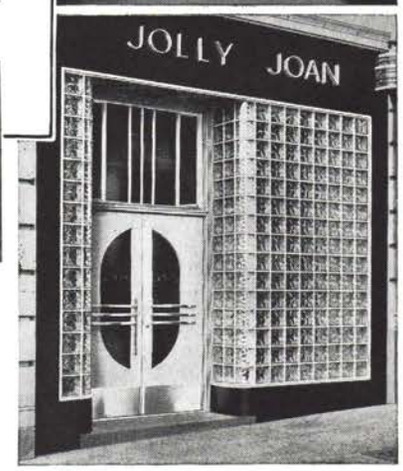

IN THE FACTORY
PC Glass Blocks mean better lighting, better insulation. They reduce condensation. Kill dirt infiltration through light areas. Lower maintenance. Improve humidity and temperature control.

IN THE HOME
PC Glass Blocks provide light, privacy, modern good looks, and a universality of appeal which makes them equally at home in houses of all architectural styles.

IN THE PUBLIC BUILDING
PC Glass Blocks reduce noise, aid appearance, cut heating costs, insure welcome privacy and heighten the working efficiency of building occupants.

IN THE RETAIL STORE
PC Glass Blocks add tremendous eye appeal, admit cheerful, flattering daylight by day, and provide interesting and attractive lighting effects by night.

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A strong statement. But a true one.

Even an abbreviated list of the qualities of PC Glass Blocks makes it obvious immediately why the home or the skyscraper, the factory or the store, the hospital or the theatre is a better-looking, more useful and more successful building when you design it to include PC Glass Block construction.

PC Glass Blocks transmit light generously, but preserve privacy by obscuring the view. They combine the light-transmitting qualities of glass with the insulating properties of masonry. They decrease noise, they add immeasurably to building appearance with their crystalline beauty. They are easy to clean, they lower maintenance costs, they are valuable in temperature, humidity and condensation control. They offer beauty, usefulness and permanence in a material that looks modern and *is* modern.

PC Glass Blocks bring a new versatility to design, open up fascinating new vistas in building construction. Find out about PC Glass Blocks.

Send the coupon below for complete information. And should you desire specific information concerning the application of glass blocks or structural glass to building construction, the Pittsburgh Corning Corporation, makers of PC Glass Blocks and Carrara Structural Glass, will gladly supply it upon request.

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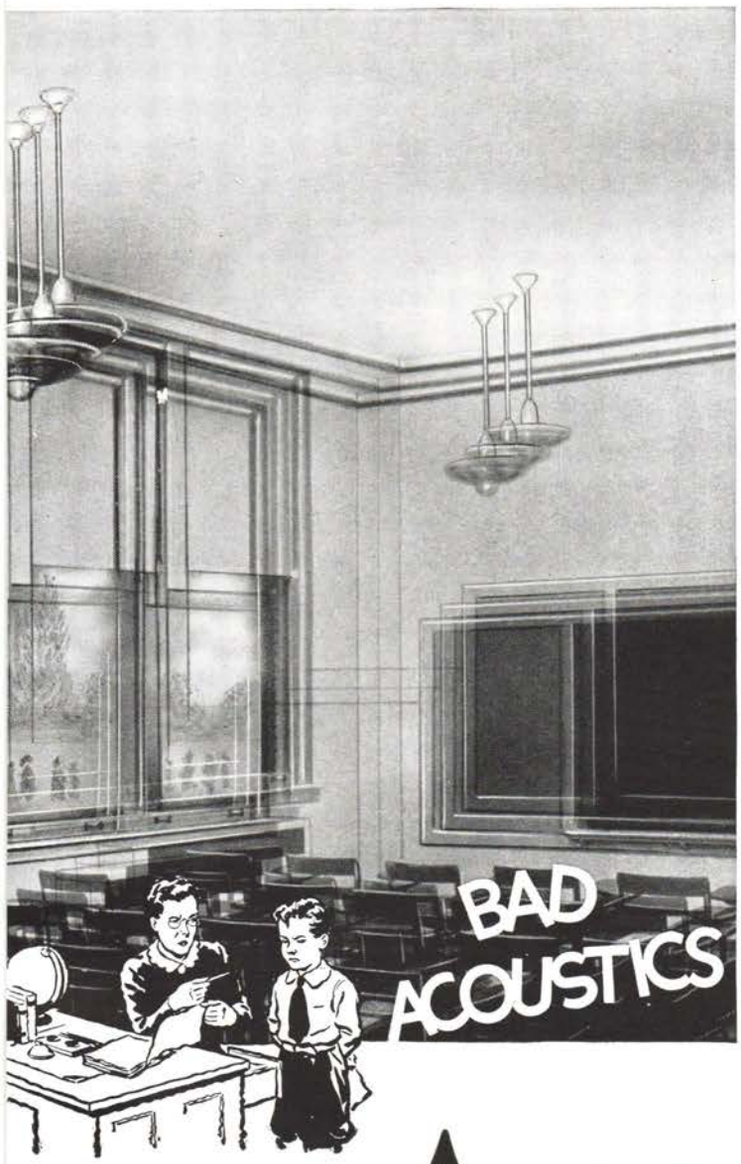

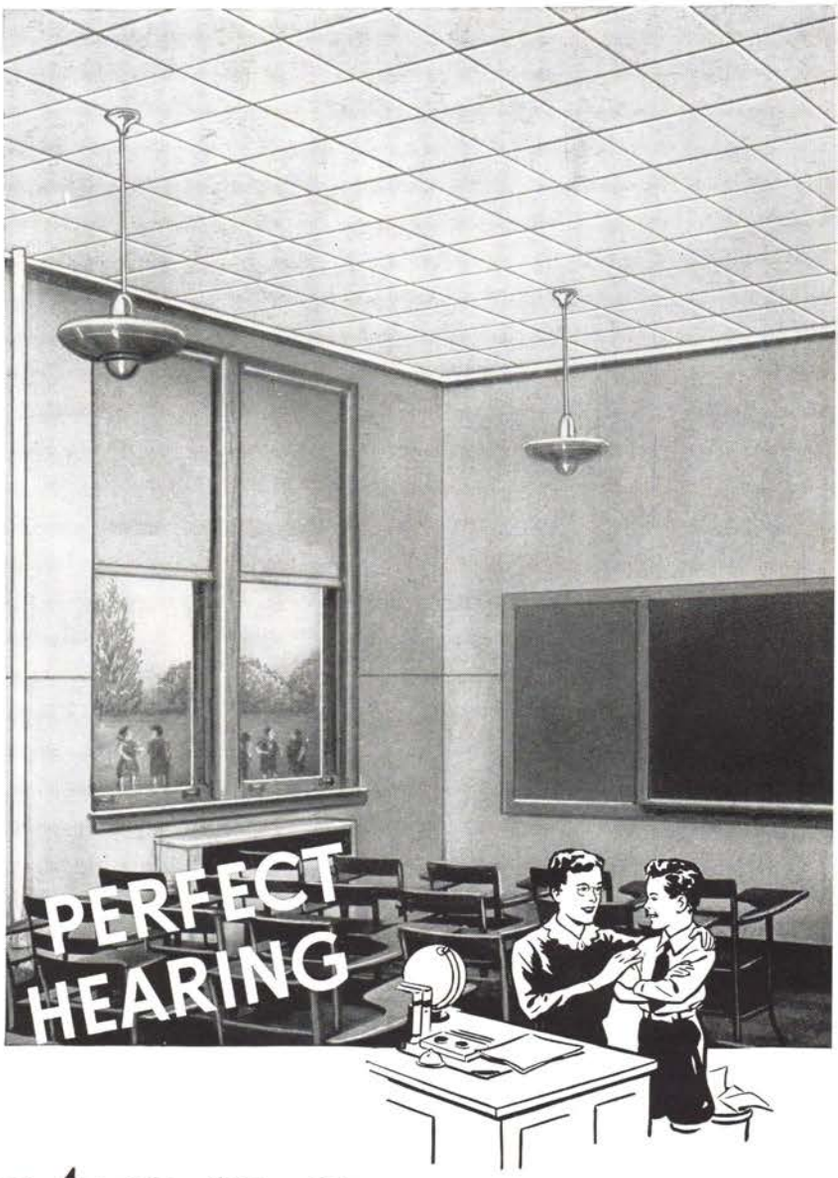

Acoustone

CHANGES NOISE TO QUIET

Two school classrooms—alike in size of space and location within the building. Yet, in one, pupils and teacher are handicapped by distracting, nerve racking noise . . . by faulty acoustics. In the other, work proceeds more smoothly—learning is easier—because the architect specified ACOUSTONE.

Acoustone offers you scientific, lasting sound control—plus decoration that is rare and distinctive. For Acoustone, with all its scientific value, is the most beautiful of acoustical materials. Resembling travertine stone in texture, it is available in many soft shades of color to fit any decorative scheme. Acoustone, of course, is incombustible, and its high light reflection is an extra value for which the owner pays nothing extra. Acoustone is easily maintained by simple vacuum cleaning . . . can be painted without damage to its noise-absorbing ability. Let us give you full information about this distinctive material—show you how it has solved sound problems in widely varying types of structures. Mail the coupon for the facts.

The United States Gypsum Company offers a full range of materials for sound control, including ACOUSTONE, Sabinite Acoustical Plaster, Perfatone, Quietone and the USG System of Sound Insulation. USG acoustical engineers are at your service for special consultation.

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300 West Adams St., Chicago, Ill.
Please send me information on acoustical treatments.
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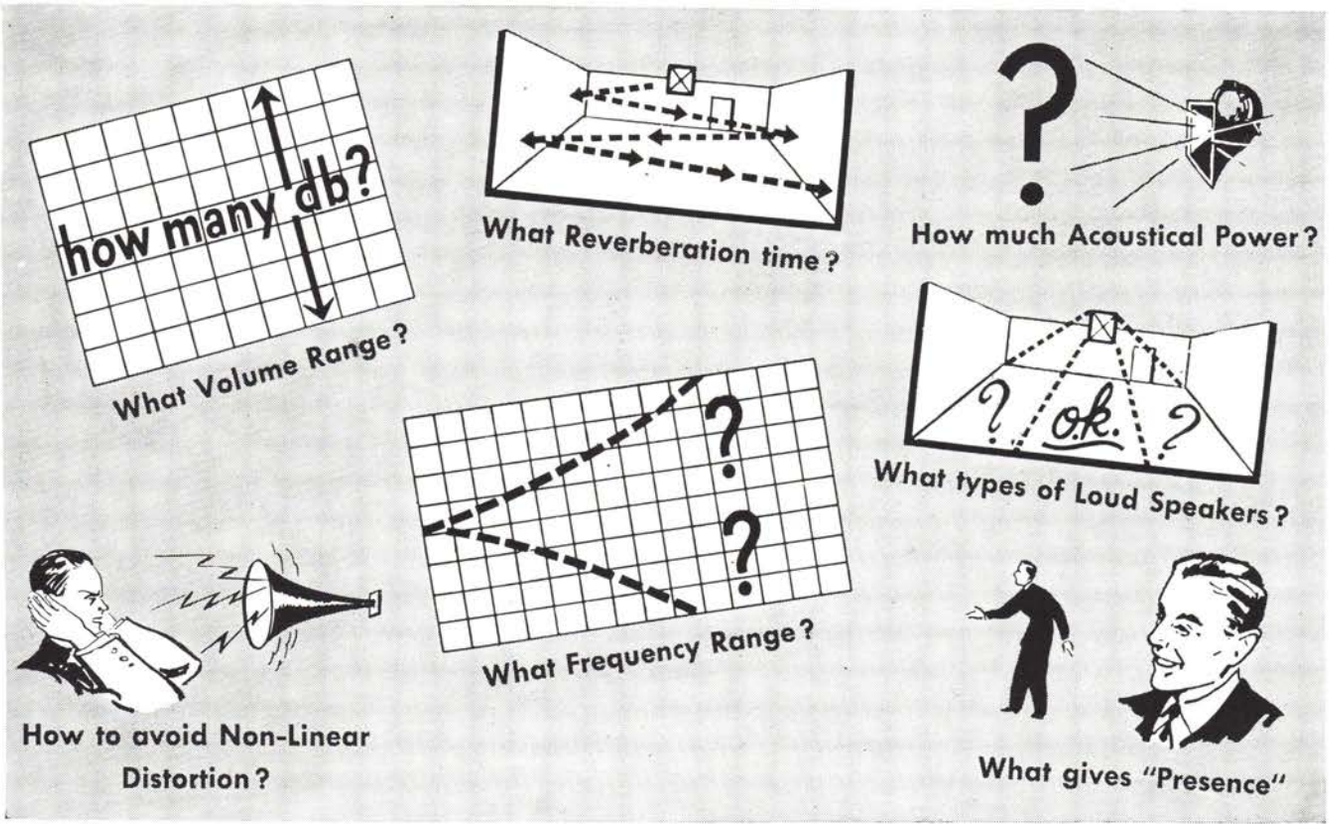
Tough Problems!



..unless you get "Sound" advice

ENGINEERING a sound distribution system calls for highly specialized knowledge. It involves countless technical problems, each one of which must be solved correctly —or results are bound to be bad.

Why tackle these problems alone? You can so easily avoid a lot of headaches by calling in Graybar's trained men for "Sound" advice!

They offer you the combined sound-transmission knowledge of Bell Telephone Laboratories, Western Electric and Graybar. They've had years of experience in planning and installing hundreds of Western Electric sound systems. They'll study *your* project intelligently and plan a system to give you high quality reproduction and trouble-free, low cost operation.

For "Sound" advice, write to Graybar Electric Co., Graybar Building, New York.

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Wedges Tightly
—YET—
Opens Easily

The **"OVERHEAD DOOR"**

Manufactured by

Overhead Door Corporation, Hartford City, Indiana

THE DOOR WITH THE

MIRACLE WEDGE

EVEN A CHILD CAN OPERATE IT

TRACKS AND HARDWARE OF

Salt Spray Steel

Blends with Every Type of Construction

Adaptable!

Home Garages	*Factories*	*Boat Wells*	*Greasing Stations*
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Please send me literature and full information regarding your product. I am interested in doors for the particular purpose as checked.

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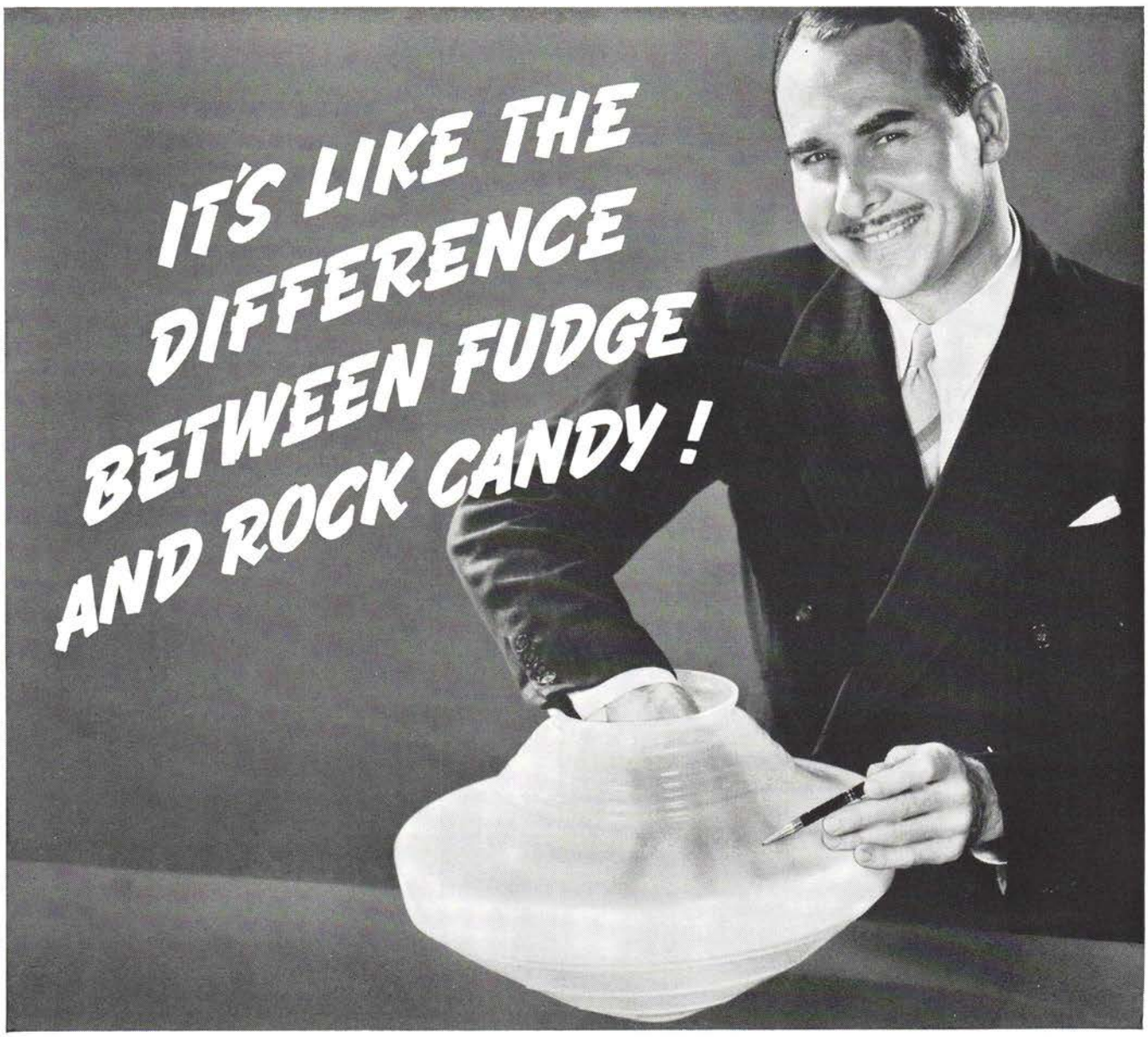
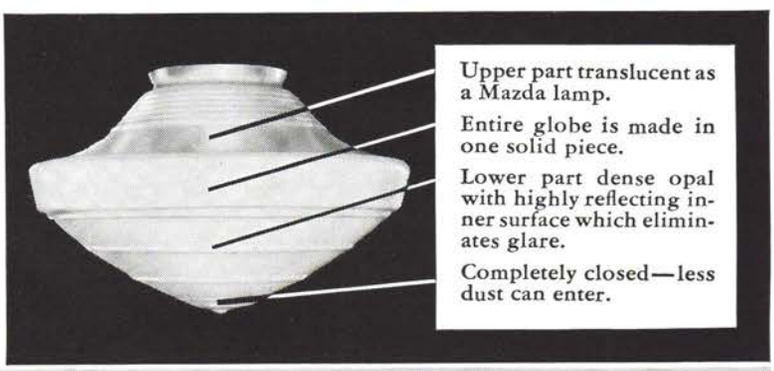


THIS simple comparison explains how Corning lighting engineers solved a baffling problem . . . the problem of combining low brightness and high efficiency in one all-glass enclosing globe.

Like candy, certain glasses can be made either clear or opaque, depending on the method of heat treatment. But where Corning's new Macbeth Galax brand globes differ from ordinary globes is that they combine *both* types of glass in *one* solid piece! The result is a higher efficiency than any other type of semi-indirect unit . . . a surface brightness well within A. I. A. and I. E. S. specifications for school lighting . . . and far less depreciation due to dust than with totally indirect units. Galax globes are sold at representative jobbers everywhere. If you'd like to see for yourself how Galax globes meet your requirements for lighting schools, hospitals, or public buildings, let us send you a free sample cut from an actual Galax globe. Write to Illuminating and Optical Division, Dept. F-11, Corning Glass Works, Corning, New York.



CORNING *means* Research in Glass

SOULÉ
STEEL WINDOWS

Protected By A MODERN FINISH

From the Atlantic Seaboard to the Pacific Coast builders are now able to procure steel windows with the most modern factory finish—with paint holding and rust inhibiting qualities.

To match the advanced styling and rugged construction of their windows, the Soulé Steel Company, of San Francisco, California, has installed a new finishing system that includes the protective qualities of Bonderizing.

With Bonderizing on Soulé Windows "Rust is Blocked Out." It maintains fine appearance and eliminates untimely reconditioning expense. With Bonderizing under the paint, builders can install steel windows with entire confidence that they will give rust-free service for many years.

PARKER RUST-PROOF COMPANY
2180 E. Milwaukee Ave., Detroit, Michigan

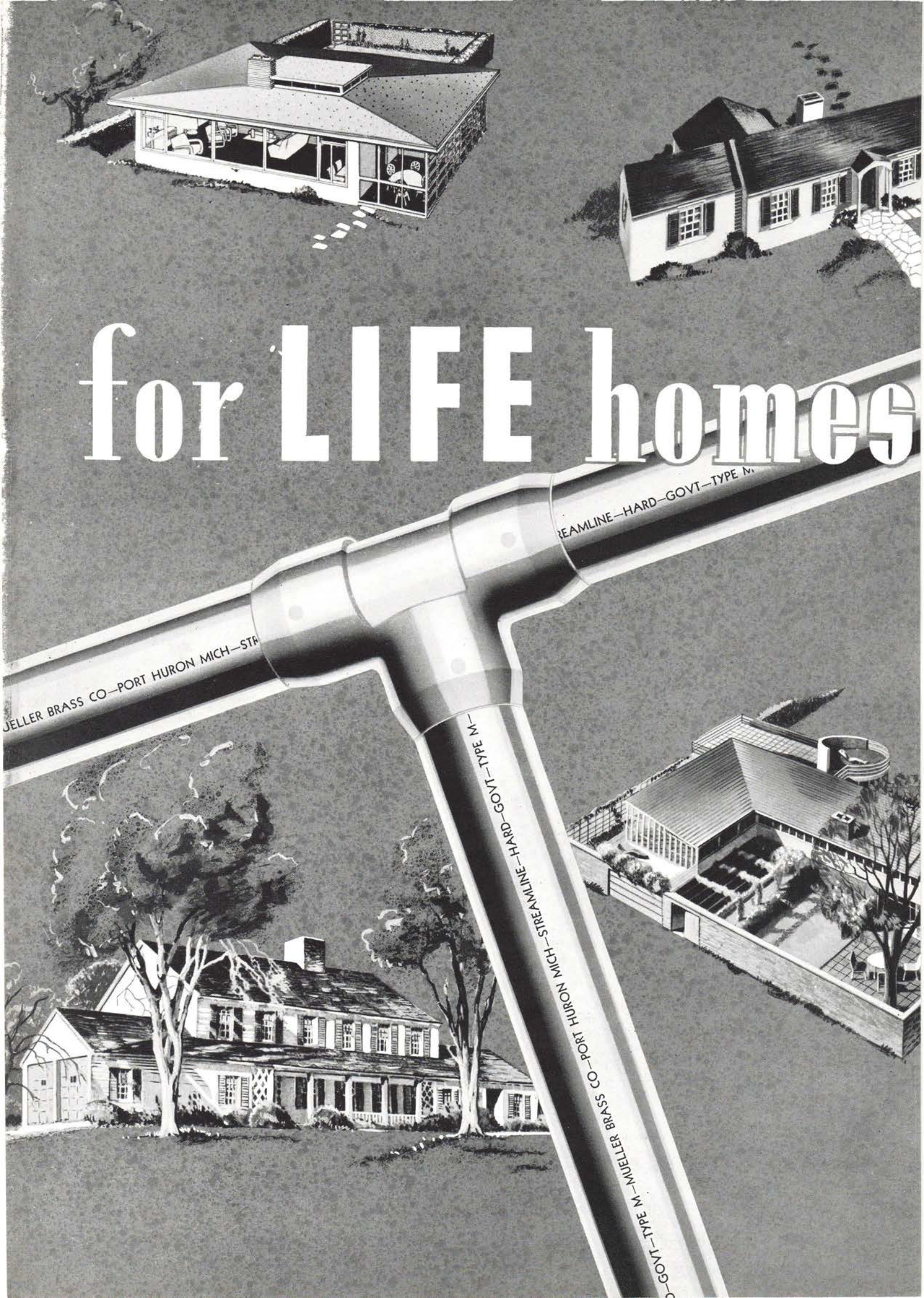
Send for This Book

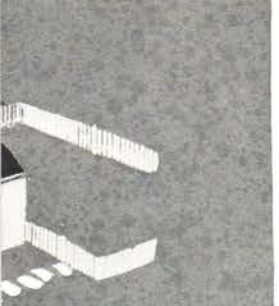
It illustrates and describes the various applications of Bonderizing to architectural materials.

Above—View showing the new Soule' Bonderizing equipment.

Below—Soule' Bulletin featuring Bonderizing.

PARKER
Processes **CONQUER RUST**
BONDERIZING · PARKERIZING


for LIFE homes
JELLER BRASS CO—PORT HURON MICH—STR
EAMLINE—HARD—GOVT—TYPE M
STREAMLINE—HARD—GOVT—TYPE M—
MUELLER BRASS CO—PORT HURON MICH—STREAMLINE—HARD—GOVT—TYPE M—MUELLER BRASS CO—PORT HURON MICH—STREAMLINE—HARD—GOVT—TYPE M



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PER PIPE AND
DER FITTINGS

for LIFE!

★ An efficient—and lastingly efficient plumbing or heating piping system is one of the most vitally important factors in any home, or in any building where a conducting system is required. It is the actual nerve center upon which the very livability of the dwelling depends—and this becomes more and more apparent after some years of service.

Practically any piping material may be satisfactory for a limited time—but the question is—HOW GOOD WILL IT BE AFTER FIVE OR TEN YEARS OF LIVING IN THE HOME?—THEN COMES THE REAL TEST OF A PIPING SYSTEM—AND THEN IS THE TIME WHEN COPPER PIPING PROVES ITS WORTH BEYOND QUESTION—AND GOES ON PROVING IT WITH YEAR AFTER YEAR OF EFFICIENT SERVICE.

With the possible exception of extremely abnormal water conditions, a STREAMLINE copper piping system will outlast the building in which it is installed.

★ Every architect, building manager, realtor or home owner knows that reliable piping for plumbing and heating is the most important thing in the building. To use out-moded, rustable pipe with its old-fashioned threaded fittings to supply modern fixtures and radiators is as impracticable as it is inconsistent.

Modern bathroom, kitchen or laundry fixtures cannot render that peak of efficient service that was intended to go hand in hand with their handsome appearance, nor can heating units obtain top efficiency with a conducting system that restricts flow, cloggs and corrodes.

STREAMLINE Copper Pipe connected with STREAMLINE Fittings assures a piping installation that incorporates tremendous resistance to rust, clogging and vibration. More than that, its cost is little, if any, higher than materials that corrode and leak after a few years of service.

America's foremost architects have specified STREAMLINE in thousands of installations throughout the United States. Realtors and building managers know that this efficient copper system provides a key argument for the sale of property.

Specify genuine STREAMLINE—Insist upon it being used.

STREAMLINE
IPE AND FITTINGS DIVISION
MUELLER BRASS CO.
PORT HURON, MICHIGAN

FORUM OF EVENTS

(*Continued from page 30*)

AWARDS

To Charles D. Maginnis of Boston, president of the A.I.A., an honorary corresponding membership in the Royal Institute of British Architects.

To Paul Lester Wiener of New York, the Grand Prix in Public Building Architecture, awarded by the French Government, for his U. S. Pavilion in the Paris 1937 Exposition, designed in collaboration with Charles H. Higgins and Julian Clarence Levi.

To Raymond F. Loewy of New York, Gold Medal for his contributions to American Transportation Design, awarded by the French Government for his work in the Paris 1937 Exposition.

Also by the Government of France, the following awards to architects whose work was shown in a photographic exhibition of American architecture in the U. S. Pavilion at the Paris 1937 Exposition: to Reinhard & Hofmeister of New York, the Grand Prix for their participation in the design of Rockefeller Center; to Shreve, Lamb & Harmon of New York, the Grand Prix for the Empire State Building; to Voorhees, Gmelin & Walker of New York, Diploma of Honor for the Irving Trust Company Building; to Weyerhaeuser Timber Company, Diploma of Honor for the Everett Pulp Mills, Everett, Wash.; to Albert Kahn of Detroit, Gold Medal for WWJ Radio Station, the Upjohn Block, and several factories; to Gordon B. Kaufmann of Los Angeles, Gold Medal for the Times-Mirror Building, Los Angeles; to Holabird & Root of Chicago, Silver Medal for North Dakota State Capitol, A. C. Smith Building, Milwaukee, and Racine County Court House; to Howe & Lescaze of New York, Silver Medal for the Philadelphia Savings Fund Building; to Fouilhoux, Howells & Hood of New York, Silver Medal for Daily News Building, New York.

Also by the Government of France, the following awards in residential architecture: to Alden B. Dow of Midland, Mich., the Grand Prix for residence and office of the architect and the John Whitman residence in Midland; to Treanor & Fatio of New York, Gold Medal for the J. Makaroff residence, Palm Beach, Fla.; to Harris Armstrong of Webster Groves, Mo., Silver Medal for office of Leo Shanley; to George Howe of New York, Silver Medal for the Wasserman residence in Philadelphia; to Richard Neutra of Los Angeles, Bronze Medal for the William Beard residence in Altadena, Calif., the Gertrude Kun residence in Hollywood, Calif., and a school at Bell, Calif.; to William W. Wurster of San Francisco, Bronze Medal for the Frank McIntosh residence in Santa Clara, Calif., and the Frederick Benner residence in Berkeley.

Also by the Government of France, the following awards in the classification of sports buildings and housing: to Karcher & Smith of Philadelphia, Silver Medal for the field house at Swarthmore College; to Allen & Webster of Chicago, Bronze Medal for the Beloit Stadium, Beloit, Wis.; to Alfred Kastner of Washington, D. C., Bronze Medal for large scale, low cost housing in Philadelphia, Pa. and Hightstown, N. J.

To William J. Glackens of New York, the Grand Prix for painting, awarded by the French Government, for his work in the Paris 1937 Exposition.

To Herbert Newmann and Herbert Struppmann, architects, first prize of $1,500 in the *Ladies' Home Journal* Small Home Design Competition.

(*Continued on page 78*)

With a bow to you Architects who designed

LIFE's "Traditional" Houses . . .

Richard Koch, H. Roy Kelley, Royal Barry Wills, Aymar Embury, II, will please step to the head of the class. Not that we decry the skill of your contemporary modernists, but because, in your interpretation of the spiritual warmth and beauty inherent in the house of wood, you have spoken our language with telling effect. And we'll even risk a bruised neck by predicting that the vote in response to the ballot on page 67 of LIFE for September 26, 1938, will be overwhelmingly for the "Traditional."

To your contribution towards the future living comfort and contentment of the Ramseys, Calverts, Blackbourns, Smiths and their fellow future home-owners, Arkansas Soft Pine replies in *your* language. In that reply, yours and all other specification writers have available an interpretation of framing and finishing lumber, woodwork and flooring in terms suited to simplified practice in drafting an informative specification for all-wood construction. In this practical way, through the medium of Don Graf Data Sheets, we present the merits and all 'round utility of Arkansas Soft Pine Satin-like Interior Trim and lumber . . . one of Nature's remarkable achievements in balanced soft texture . . . for construction of frame dwellings of traditional worth.

Your set of these sheets, together with supplementary technical data, will be mailed free on request. Just address

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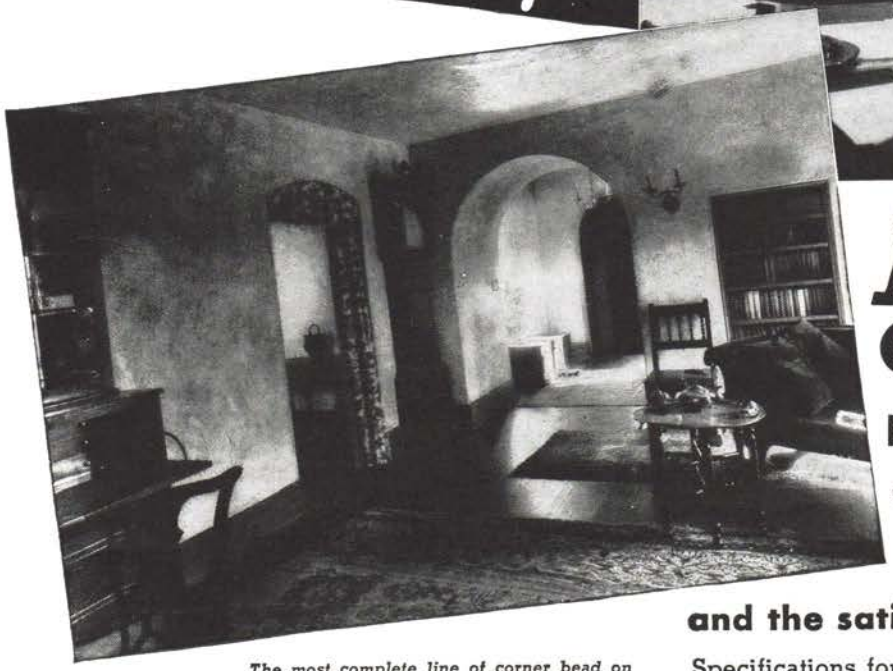
1138 BOYLE BUILDING, LITTLE ROCK, ARKANSAS

"Gentlemen, beauty in plaster is *more* than *skin-deep*"



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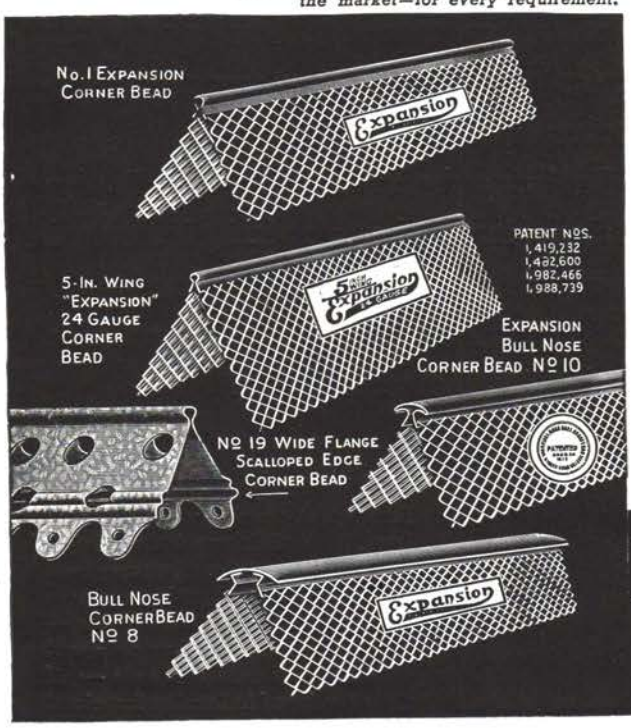
Corner Bead is part of the *steel base system* that insures *permanent* beauty

and the satisfaction of your client . . .

Specifications for plaster *base* — in all of its details — are just as important in the long run as your feeling about surface texture. Perhaps more so, for nothing less than Milcor's interlocking web of expanded metal gives you full confidence that the corners will last . . . Corner bead (including the expanded type originated and patented by Milcor) is an important element in steel plaster base. Milcor makes the most complete line on the market — in this as in other types of steel plaster base materials. No Milcor representative is ever tempted to recommend the wrong product — because he always has the *right* one available. See the extensive Milcor catalog in Sweet's, or write for the Milcor Manual.

F-4

The most complete line of corner bead on the market—for every requirement.



Unit of the MILCOR SYSTEM of fireproof construction

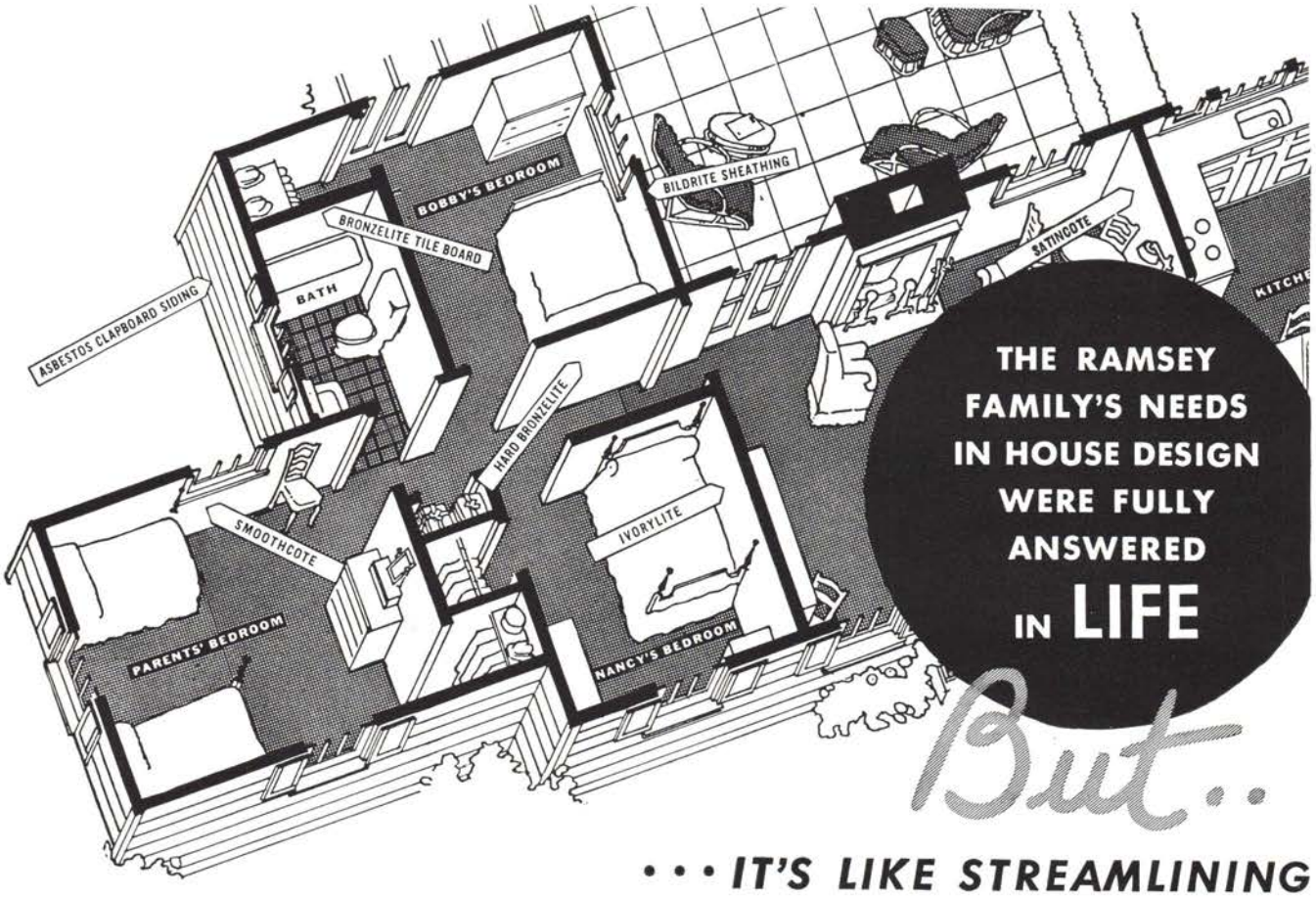
Milcor here uses the word "system" in its true sense — not to signify a limited, inflexible set-up applicable only under certain conditions, but to represent so great a range of individual products, types, weights, metals, etc., that a complete, coordinated metal backbone can be designed to suit any condition of fireproof construction — all with Milcor products engineered to work together.

MILCOR STEEL COMPANY

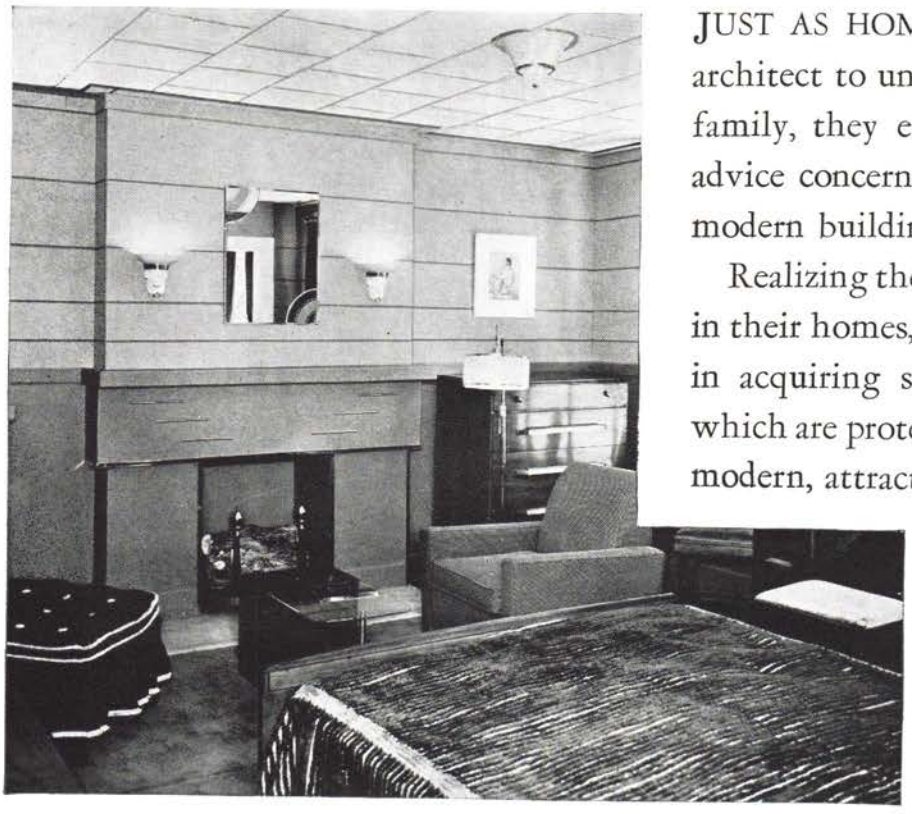
MILWAUKEE, WISCONSIN — CANTON, OHIO

Chicago, Ill. Kansas City, Mo. La Crosse, Wis.

LIFE HOUSE DESIGNED BY ARCHITECT RICHARD KOCH... ARROWS INDICATE MODERN WALL MATERIALS SUGGESTED FOR USE IN SIMILAR HOUSES BY THE INSULITE COMPANY



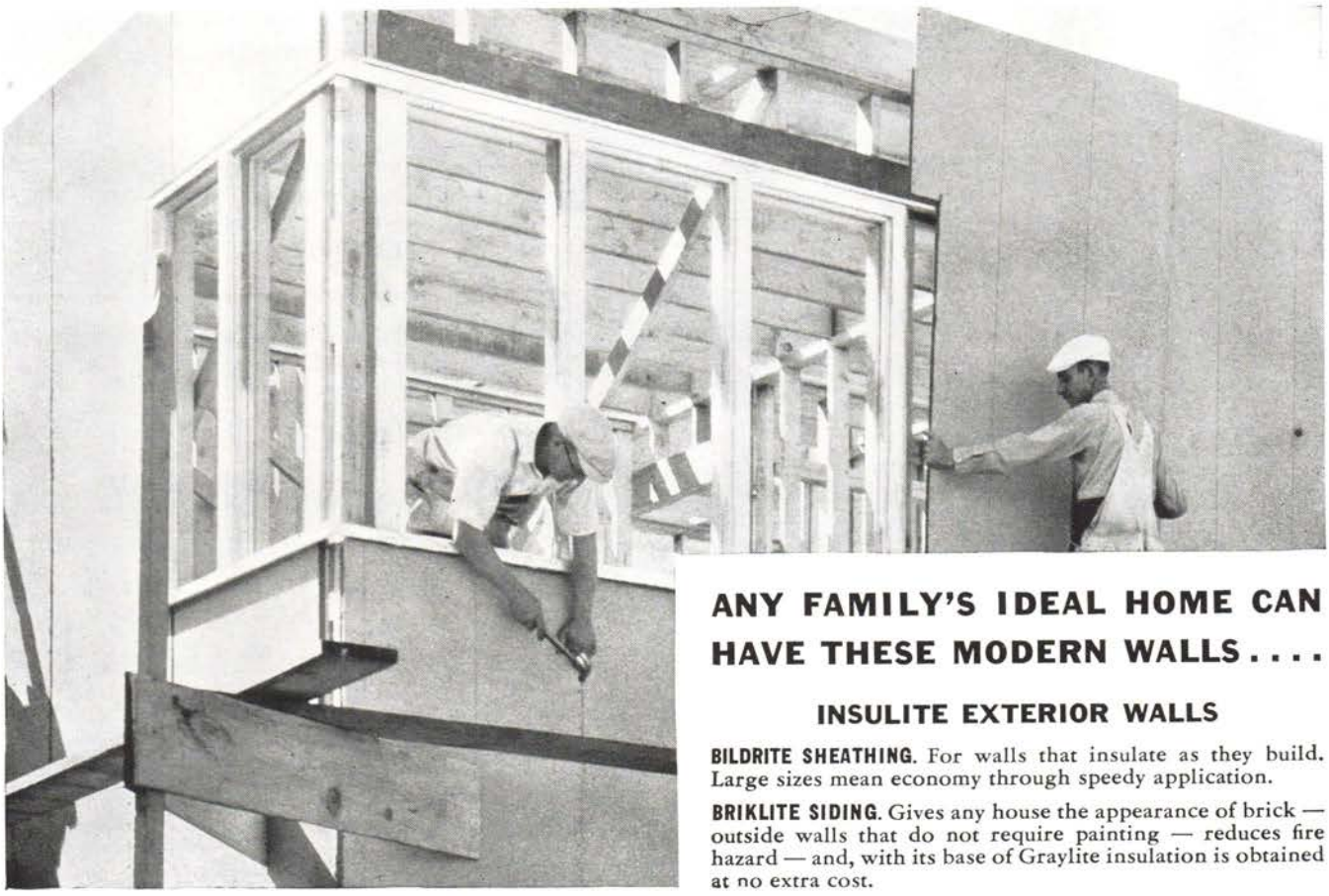
...IT'S LIKE STREAMLINING A HORSE AND BUGGY TO DESIGN A HOUSE OF TODAY AND USE WALL MATERIALS OF THE GAY NINETIES!



JUST AS HOME BUILDERS expect an architect to understand the needs of the family, they expect of him up-to-date advice concerning the materials used in modern building.

Realizing the important part walls play in their homes, they are vitally interested in acquiring substantial, modern walls which are protective outside and provide modern, attractive interiors.

INTERIOR WALLS. Lucky the family that chooses walls and ceilings to meet their own desires. Fresh, individual decorative schemes—quiet rooms — pleasing lighting effects — smooth, companionable surfaces — protection of insulation to guard against outside temperatures — all these are found in Insulite Interiors!



EXTERIOR WALLS. Homes like the Ramsey's will have the attractive, sturdy, protective outside walls that are wanted — and additional insulation, too, with Bildrite Sheathing and Insulite Siding Materials.

Any family can obtain this information from architects who are familiar with the new, modern materials. Labor saving materials that resist weather, deaden sound, insulate at no extra cost, and offer textures and patterns in tune with today. For almost a quarter of a century materials to meet any family's needs have been manufactured by the Insulite Company.

ANY FAMILY'S IDEAL HOME CAN HAVE THESE MODERN WALLS....

INSULITE EXTERIOR WALLS

BILDRITE SHEATHING. For walls that insulate as they build. Large sizes mean economy through speedy application.

BRIKLITE SIDING. Gives any house the appearance of brick — outside walls that do not require painting — reduces fire hazard — and, with its base of Graylite insulation is obtained at no extra cost.

ASBESTOS SIDING SHINGLES. For exterior walls where the friendly appearance of shingled sidewalls is preferred — a fireproofed surface that never needs painting. A modern solution to many needs in modernizing and new construction.

INSULITE INTERIOR WALLS

SATINCOTE. Provides finished walls and ceilings, and at the same time its finished surface is primed and sealed for future decorative treatments or color schemes. Its smooth surface is satisfying, highly light reflective—and Satincote INSULATES!

SMOOTHCOTE. The sunshine that is wanted in every room is reflected in these walls and ceilings. Has a firm, smooth surface. Readily cleanable. Light cream color—AND IT INSULATES!

IVORYLITE. Natural wood finish — light ivory color in linen or burlap textures. Absorbs and retards sounds — AND IT INSULATES!

GRAYLITE. Provides the dignity and warmth of rugged gray brown walls. In linen and burlap textures, adaptable to many decorative and finishing treatments. Absorbs and retards sounds — AND IT INSULATES!

LOK-JOINT LATH. Designed especially to provide a safe base for plaster and minimize plaster cracks. Has a special patented lok to reinforce joints — holds plaster with a bulldog grip! AND IT INSULATES!

BRONZELITE PRODUCTS. For paneling, wainscoting, ornamental decoration and trim, and in rooms where smooth, hard textures or tile effects are desired. Flat or glazed surfaces.

FOR MORE INFORMATION, WRITE DEPT. AF118

The INSULITE COMPANY

MINNEAPOLIS, MINNESOTA

In eastern Canada, King Street West and Sudbury Street, Toronto, Ontario. In western Canada, Kenora, Ontario.

FORUM OF EVENTS

(*Continued from page 74*)

COMPETITIONS

Again this year James Blauvelt & Associates and *Country Life* are holding a competition for students of interior decoration—the design of a dining room in a country house of medium size. The room should be one that can eventually be turned into a living room or used as an extension of a living room. It should be adaptable for small or large parties, hunt breakfasts, buffet suppers. Stanley McCandless of Yale University, an authority on lighting, heads the jury. Closing date, January 1, 1939. Further details from James Blauvelt & Associates, 38 East 57th Street, New York, N. Y.

Thirteen mural competitions and two sculpture competitions for post offices have been announced by the Procurement Division. Each competition is open to American citizens who are residents of that State, and in most cases in neighboring States as well. In six of the mural competitions* runners up will receive specific commissions for other post offices. The following chart lists the competitions, their closing dates, the amounts of the awards, and the States eligible to compete. The commission price will include the cost of materials and installation expenses.

For the names of the chairmen of each State Committee who will forward full competition data, write to Edward B. Rowan, Superintendent, Section of Painting and Sculpture, Procurement Division, Washington, D. C.

State & City	*Type of Work*	*Price*	*Closing Date*	*Other States Eligible*
1. Kan., Salina	2 sculptures	$7,000	Feb. 15	13 states west of Mississippi
2. Ill., Evanston	2 sculptures	8,000	Feb. 1	All states east of Mississippi
3. Cal., Burbank	2 murals	1,900	Feb. 15	Nevada
4. Md., Bethesda	1 mural	1,000	Nov. 30	D. C., Va., W. Va.
*5. Mich., E. Detroit	1 mural	650	Nov. 30	Ind.
Ind., Jasper	1 mural	650		Mich.
*6. Minn., St. Paul	1 mural	675	Feb. 1	Iowa
Iowa, Marion	1 mural	675		Minn.
*7. Mont., Deer Lodge	1 mural	655	Feb. 15	N. Dak., Wyo. S. Dak.
*8. Mo., St. Louis	1 mural	1,220	Feb. 1	Ark., Kan. Mo., Okla.
9. N. Y., New Rochelle	3 mural vignettes	2,300	Dec. 1	
*10. N. C., Burlington	2 murals	1,900	Feb. 1	Ala., Ga., Miss. S. Car., Tenn.
11. Ohio, Medina	1 mural	730	Dec. 1	
12. Ore., Salem	1 mural	2,300	Feb. 15	Idaho
13. Puerto Rico Mayaguez	2 murals	2,000	Feb. 1	Virgin Is.
14. Wash., Wenatchee	1 mural	2,600	Feb. 15	
*15. Wis., Wausau	2 murals	1,600	Nov. 30	Ill.

One Pane Windows Glazed With Clearlite are Easy On The Eyes!

One pane windows permit an unobstructed view and lessen eye strain. With this better vision there is also a greater percentage of light transmitted than through multiple pane windows. With the trend to larger areas of glass in homes and buildings of all types, consider the use of one pane windows and specify Clearlite Quality Glass.

Clearlite SHEET GLASS A QUALITY

EASY ON THE EYES

FOURCO GLASS CO., CLARKSBURG, W. VA.

Branch Sales Offices: NEW YORK • CHICAGO • FORT SMITH, ARK.

One man can easily carry 2 cartons of Kimsul . . . enough to insulate the entire top ceiling of a home 20 ft. by 25 ft.

It's Light

That means efficiency in stopping heat losses

Kimsul* is extremely light because a large proportion of its bulk is made up of air cells... and air cells are a natural barrier to the passage of heat. That's why a one-inch thickness of Kimsul is as effective in stopping heat as a solid masonry wall several feet thick.

KIMSUL
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Expanding Blanket
INSULATION

• The unusual lightness of Kimsul also provides other advantages. . . . It is easy to handle and install . . . it adds practically nothing to the structural load of a building . . . and, properly installed, it is so light it won't pull itself out of place.

NAIL ON AT TOP

PULL DOWN LIKE A SHADE AND FLUFF

See that the Insulation you choose meets all these requirements

1 EFFICIENCY: Kimsul is made of wood fibers, their natural high resistance to heat increased by interweaving, creping and laminating.

2 FLEXIBILITY: Kimsul fits snugly. It can be tucked into odd spaces, around windows, electric wires, pipes, etc.

3 PERMANENCE: Kimsul is highly resistant to fire, vermin and moisture.

4 NON-SETTLING: Kimsul stays put. Leaves no unprotected spots; will not shred, sift or settle.

5 LIGHTNESS: 1,000 sq. ft. of Kimsul weigh only 131.5 lbs. It adds practically nothing to the structural load.

6 PROPER THICKNESS: One-inch Kimsul provides maximum comfort and fuel savings for the investment.

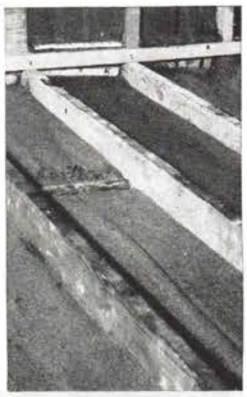
7 NO WASTE: Every square inch is usable.

8 EASE OF HANDLING AND INSTALLING: Practically no cutting or fitting when installing Kimsul.

9 EXPANDABILITY: Kimsul speeds up work and reduces installation costs.

For Homes with Unfinished Attic Floors!

Heat naturally travels UP . . . hence large heat losses occur through attic floors and roofs. If a home has an uninsulated attic floor, one or two layers of Kimsul laid directly on the plaster base between joists will save a lot of the heat that's been wasted and keep the home far warmer. The cost of doing this is very little.



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KIMBERLY-CLARK CORPORATION (Kimsul Division), Neenah, Wisconsin
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NEW YORK, 122 East 42nd Street • CHICAGO, 8 South Michigan Avenue

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Mail me, without obligation, copy of booklet describing Kimsul, also a full sized sample.

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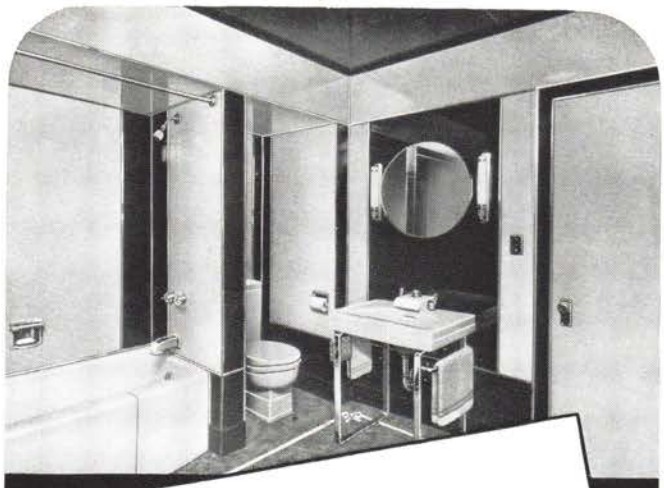


Create HAPPY...LIVABLE...

INTERIORS FOR "*Life Houses*" WITH *Marlite*

With Marlite you can make "Life Houses" more desirable . . . more satisfying, create interior environment . . . bathrooms, kitchens, recreation rooms, dens and cocktail lounges . . . that will enrapture home-lovers, make them want to build or buy a home of their own.

Moreover, Marlite is as appropriate for the interiors of the "traditional" style home as for the "modern"; is reasonable enough in first cost to meet the price limitations of the lower income groups of "Life Houses". . . has the luxurious quality that appeals to the $10,000 - $12,000 group.

Obtainable in more than 60 lustrous colors and patterns . . . beautiful plain-colors, the smartest of tile-patterns, rich marble and luxurious wood effects . . . Marlite also offers a wide scope for originality in decorative design. Marlite is reasonable in first cost . . . entails practically no upkeep expense . . . can be applied to any wall surface . . . new or old . . . curved or flat, by good carpenters. It cuts as easily as wood with ordinary carpentry tools. A damp cloth keeps its lustrous, glass-smooth surface spotlessly clean with a minimum of effort.

Write for colorfully illustrated book of beautiful home interiors created with this most modern of interior decorating materials. Plan to use it in the kitchens, bathrooms, and other interiors of "Life Houses".

MARSH WALL PRODUCTS, INC.
111 MARSH PLACE DOVER, OHIO

Marlite
FOR CREATING BEAUTIFUL INTERIORS
WALL-SIZE PANELS IN LUSTROUS COLORS AND PATTERNS

2 KOHLER SINKS FOR TIME-SAVING KITCHENS

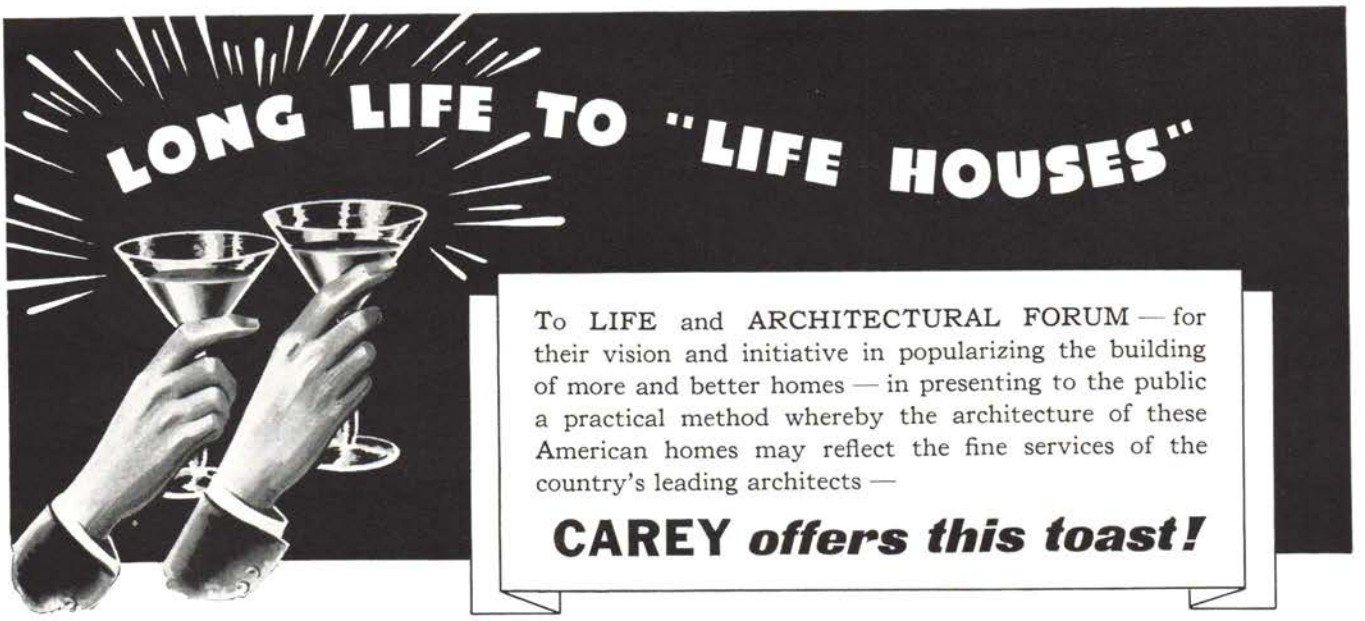
1 ***KOHLER WELLWIN.*** Its practicality and all-round usefulness speed up the whole day. Two 8-inch-deep Kohler Duostrainer-equipped basins. 3-inch ledge. Low 4-inch back. Plenty of cabinet space for pots, pans, dishes. These, and other Kohler features, please clients on sight.

2 ***KOHLER CYMBRIA.*** It turns kitchen hours into minutes. The depressed drainboard and 8-inch-deep basin adjoin Kohler metal cabinets and provide a complete, spacious kitchen workbench. New, *long-reaching* spout; rinse hose; Duostrainer; large cabinet with drawers . . . these — and the Cymbria's other Kohler time-savers — will make your kitchens click.

NEXT TIME, plan on an all-Kohler kitchen. Bathrooms and laundry too! Kohler fixtures and Kohler fittings are designed and built for a lifetime of top plumbing performance. Write for free 4-color booklet. Kohler Co. *Founded 1873.* Kohler, Wis.

KOHLER FITTINGS FOR KOHLER FIXTURES

KOHLER OF KOHLER
PLANNED PLUMBING AND HEATING



To LIFE and ARCHITECTURAL FORUM — for their vision and initiative in popularizing the building of more and better homes — in presenting to the public a practical method whereby the architecture of these American homes may reflect the fine services of the country's leading architects —

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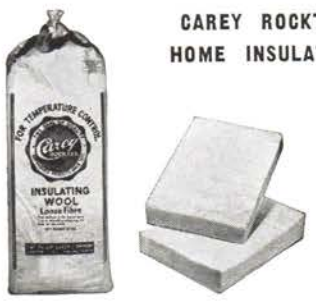
CAREY CORK-INSULATED SHINGLES

THE Shingle with outside mineral surface for weather protection; cork underside for insulation. Provides roof and roof insulation for roof cost. Keeps homes warmer in winter—cooler in summer. Saves fuel.

CAREYSTONE SIDING AND SHINGLES

Made of asbestos and cement. Fireproof, rot-proof, wear-proof. Never needs painting or other upkeep. Available in Thatch Butt and Wave Line Units, in random widths, duplicating the most costly construction.

CAREY ROCKTEX HOME INSULATION



Provides maximum control of room temperature the year 'round. Will not shrink, bulge, rot or burn. Vermin and termite proof. Available in Bat, Wool and Granulated forms, to meet all installation conditions in new or old homes.

Carey BUILDING PRODUCTS INSURE LONG AND BETTER LIFE!

Many leading architects are specifying these modern building materials which so effectively meet today's demands for permanence and low upkeep. Several of these products pay their way in fuel savings; some in fire protection and lower-cost insurance; others in the elimination of painting and repairs.

When you specify these and other CAREY PRODUCTS, you serve the best interests of your clients.

For further details of Carey Products, see our Catalog in Sweet's.

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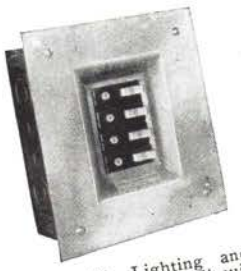
Comfort Convenience and Cheer



New FA Lighting and Appliance Branch Circuit Panelboards equipped with FA Type AC Circuit Panelboards with FA Type AC Circuit Breakers, 120 or 120/208 volts from 10 to 50 amp. capacity.

EASILY ADDED to "LIFE" HOUSES and ALL OTHER HOUSES . . .

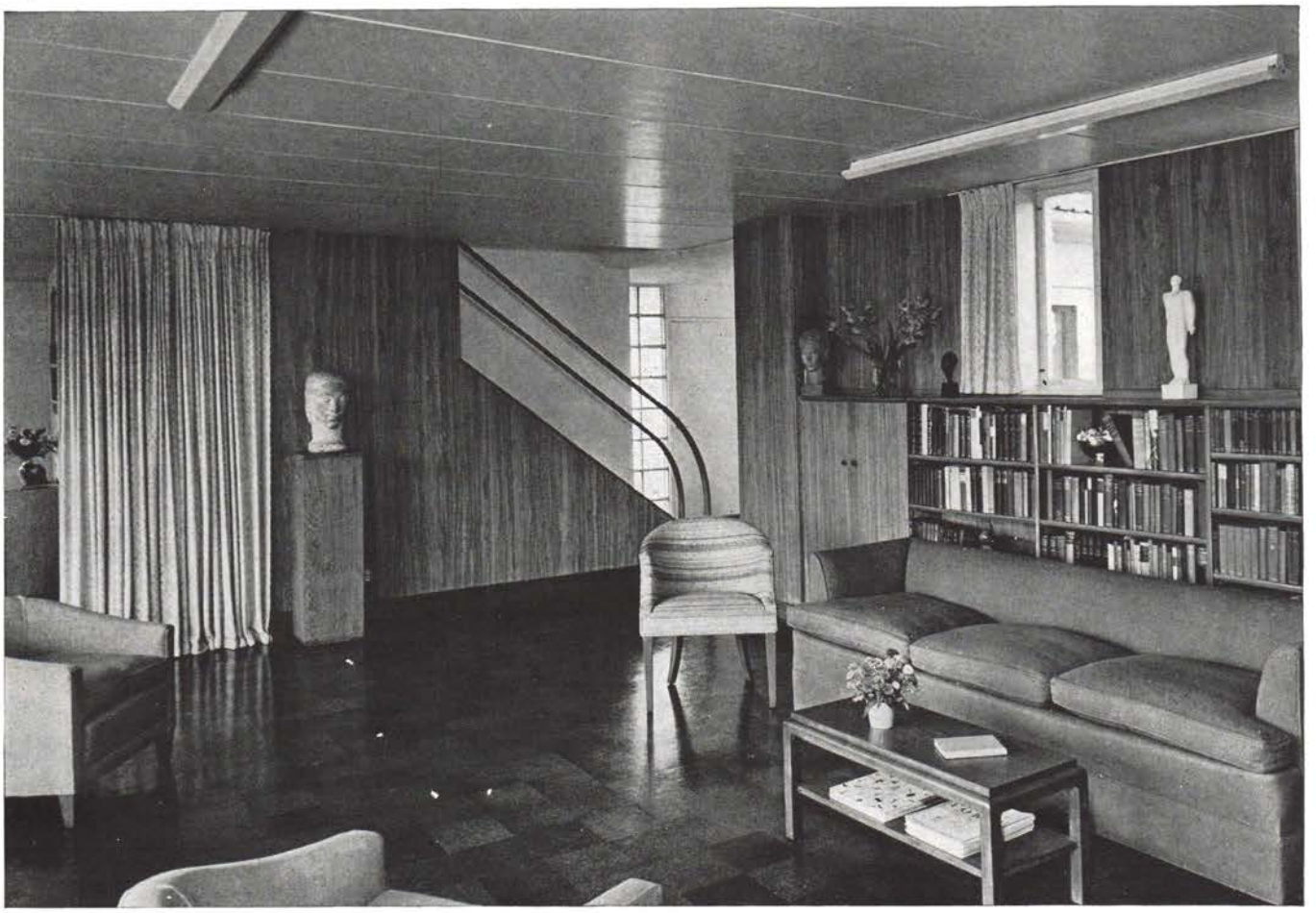
In designing "LIFE" Houses or any other houses featured in LIFE for various income groups, FA products merit the favorable attention of Architects, Designers and Builders because they add proved quality, comfort, convenience and cheer that contribute largely to Owner Satisfaction and therefore increase the salability of the property.

Depend on FA for standardized unit construction that always assures an accurate fit of all component parts . . . Standard Panelboards to meet standard requirements . . . Special design Panelboards that meet any special requirements . . . Assurance of quality materials and workmanship throughout.

The FA Electric Built-in Quikheter quickly removes that chilly feeling in Bathrooms, Dressing Rooms, etc., on days when it doesn't pay to have the regular heating plant in operation.

Frank Adam
ELECTRIC COMPANY
ST. LOUIS

Flexwood . . . THE MODERN WOOD TREATMENT



Figured Red Gum Flexwood treatment, Living room, Kenneth Kassler residence, Princeton, N. J., Kenneth Kassler, Architect. Flat cut Prima Vera Flexwood was used in master bedroom. Photo: Robert M. Damora

. . . For today's design requirements

Using Figured Red Gum Flexwood in a flush treatment, Architect Kenneth Kassler created a living room that has the charm and luxury traditional with fine wood interiors while keeping the clean, sheer lines of modern design. Since Flexwood is applied with equal facility to curved and flat surfaces it is the logical choice for modern rooms, and the rare and exotic woods available offer a selection to suit practically every decorative or color scheme. » Walls become never-ending harmonies of color and warmth when treated with Flexwood, and architects and designers are taking advantage of the opportunities to create interiors of natural woods, knowing that Flexwood places no limitations on their creative skill and that its cost puts no strain on the normal budget. Samples, and data on Flexwood, are yours for the asking.

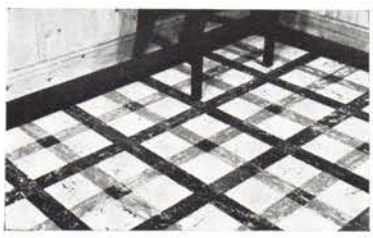
Flexwood is thin wood mounted on cloth and made flexible for direct wall application . . . takes any wood finish . . . is alive . . . colorful . . . elegant.

UNITED STATES PLYWOOD CORPORATION, 103 PARK AVE., NEW YORK

Manufacturers of Flexwood, Plywood, Armorply, and kindred products

Looking for a flooring material that combines attractive appearance with exceptional hard-wearing qualities? You'll do well to check up on the features of J-M Asphalt Tile.

The free book shown above gives all the facts. It explains why J-M Asphalt Tile is quiet, easy to clean, stands hard wear. Beautiful full-color illustrations enable you to picture an unlimited variety of patterns . . . show how you can adapt this material to any decorative scheme. And this interesting brochure offers valuable suggestions for good-looking floors for every type of public building. Send for specification data and your free copy today. Mail the coupon.



ANOTHER of hundreds of smart decorative effects possible with J-M Asphalt Tile Flooring.

J-M Asphalt Tile is sold by approved J-M Flooring Contractors. There is one near you. Consult your Classified Telephone Book under "Flooring" and look for the J-M Insignia.

CLIP COUPON FOR FREE BOOK

JOHNS-MANVILLE, Dept. AF-11, 22 E. 40th Street, New York City
Send me specification data and your full-color brochure describing J-M Asphalt Tile Flooring.

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Address_____

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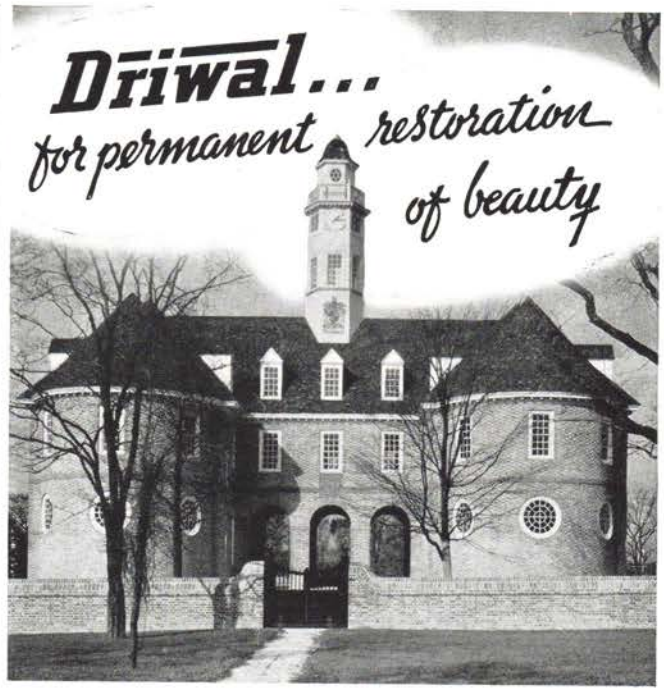
JOHNS-MANVILLE
ASPHALT TILE FLOORING



Clear Driwal was specified on the Williamsburg Restoration because of its long record of proven performance protecting stone, brick, concrete and stucco from dampness, stains and dirt.

Clear Driwal does not form a surface film that darkens or alters the natural beauty of color and texture. Instead, it impregnates the pores with a colorless, insoluble preservative so that moisture, staining agents and dirt cannot gain entrance. Furthermore, Clear Driwal insures uniform and graceful "aging", since it prevents unsightly streaks and color variations.

Why not put *your* buildings on the long list of prominent structures throughout the country protected by Driwal? It is equally effective on newly cleaned structures. See our listing in Sweet's Catalog. Further information will be gladly sent upon request.

THE BILLINGS-CHAPIN CO.
Division of The Glidden Company
Boston • Cleveland • New York

OUR CATALOG IS FILED IN SWEET'S

Driwal

THE 25-YEAR OLD PROVEN METHOD FOR STAINPROOFING AND DAMPPROOFING STONE, BRICK, CONCRETE AND STUCCO

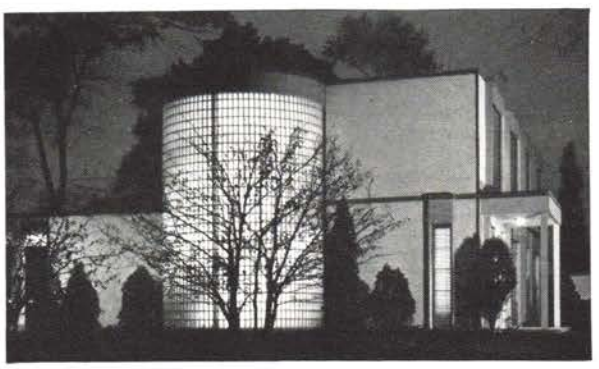
Modern TO THE MINUTE...

Interior, Bruning Residence, Wilmette, Ill. George F. Keck, Architect.

YET INSULUX harmonizes with almost any architectural design!

● Owens-Illinois INSULUX Glass Block is a thoroughly modern building material, and yet, is as readily adaptable to the traditional as well as it is to modern architectural design. INSULUX Glass Block can be used excellently as a focal material—the dominant note in building design. Large expanses of wall area can be given over to INSULUX without any fear of excessive heat loss. Through proper selection of available designs, INSULUX can be made to diffuse light to almost any degree, at the same time insuring complete privacy. INSULUX offers you a many-purpose medium in one building material. The coupon will bring you the interesting story of INSULUX.

Owens-Illinois Glass Company, Toledo, Ohio.



● *INSULUX Glass Block is used for new construction or modernization wherever light, insulation or architectural beauty are desired. It admits light, retards heat flow and sound transmission, requires no painting, resists fire, is impervious to grease and odors and is easily cleaned.*

Insulux GLASS BLOCK

PIONEERED AND PERFECTED BY OWENS-ILLINOIS

"First in Glass"

OWENS-ILLINOIS GLASS COMPANY
Industrial and Structural Products Division
307 Madison Avenue, Toledo, Ohio

Please send, without obligation, complete information about the use of Insulux Glass Block in commercial and industrial planning.

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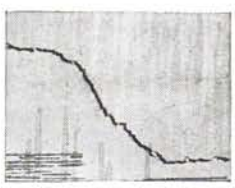
County _____ *State* _____

"No DIRTY WALLS—No PLASTER CRACKS for Us"

HONESTLY WASHABLE

Wall-Tex canvas wall coverings have emancipated home owners from two nuisances they don't want in modern homes—plaster cracks and dirty walls. When you specify Wall-Tex, you can be sure it will be regarded, later on, as one of your most valued recommendations.



NO PLASTER CRACKS

Wall-Tex is a dual purpose covering that protects while it beautifies. Its canvas base is a bond of strength to the plaster, safeguarding walls against cracks. Its beautiful non-absorbent finishes shed dirt and water and are *honestly* washable.

FREE—Special Folder for Architects

Gives complete information about Wall-Tex. Tells why it is basically different—where to use it—how to apply it—how to figure it. Shows rooms in full color, contains actual swatches of Wall-Tex material. Mail coupon for a copy. See Wall-Tex in SWEET'S—11/89.

COLUMBUS COATED FABRICS CORP.
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WALL·TEX
DECORATIVE WALL CANVAS

Columbus Coated Fabrics Corporation
Dept. AF-938, Columbus, Ohio

Send me your Architects' folder giving complete technical information on Wall-Tex, and swatches.

Name .....

Address .....

Are you planning a Recreation Room?

• If so, send for the new 72-page Royalchrome catalog . . . for suggestions on what furniture to select . . . and for layouts.

Royalchrome
distinctive furniture

. . . is ideal equipment for the new LIFE houses. Royal is creating suggested recreation rooms for these LIFE homes. A complete set of sketches showing furniture in these rooms will be sent on request. There are two sets—one in the low-price and the other in the more expensive price bracket.

If the recreation room is to be the rumpus room as well, there's a new Royalchrome bar to match—and what a bar! See this bar and other Royalchrome recreation room furniture at the leading stores.

ROYAL METAL MFG. COMPANY
1106 S. Michigan Ave., CHICAGO
New York • Los Angeles • Toronto

The new Royalchrome bar is the most compact, the best looking, the most complete on the market.

THIS FAMILY ENJOYS COMPLETE HOME COMFORT

...CRANE HEATING as well as CRANE PLUMBING was specified

For faithful and finest expression of convenience, comfort and beauty in plumbing fixtures for a cottage or mansion, architects everywhere choose Crane-Quality. In kitchen, bathroom, or laundry—regardless of plan requirements or budget limitations, the broad Crane plumbing line matches every need. Its sound construction and honest value assure complete client satisfaction.

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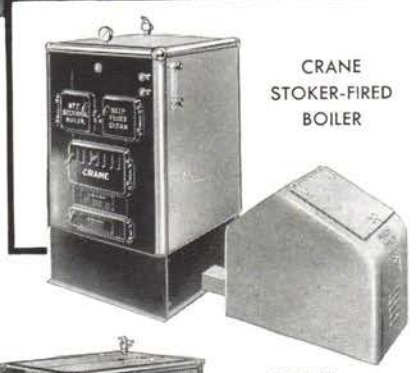
The sure way to provide complete year 'round comfort with added livability in the homes you design is to Crane-Equip throughout. Investigate the benefits you and your client derive from the single responsibility, one high standard of quality, and a single source of supply for both plumbing and heating systems. Consult your Crane Architects Catalog, or visit the local Crane display room.



CRANE STOKER-FIRED BOILER

CRANE SUSTAINED HEAT BOILER-BURNER UNIT

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Greater comfort and convenience are built into every detail of Crane fixture design—with distinctive beauty that lends smartness to any bathroom.

CRANE

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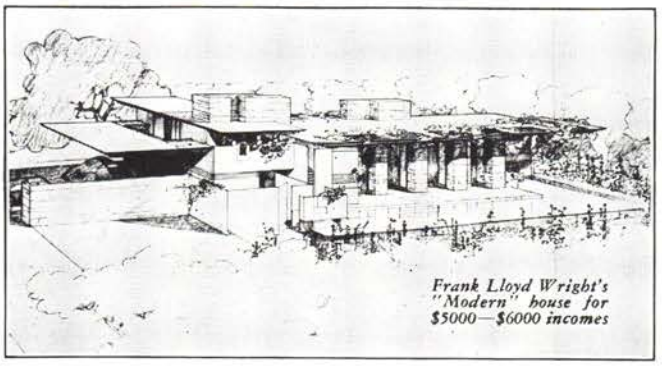
NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

Here's the... Interior Paint for LIFE HOUSES



Frank Lloyd Wright's "Modern" house for $5000—$6000 incomes

Modern Features of MODEX Casein Paint Reduce Decorating Cost.. *Make Living Better*

The "eight houses for modern living" presented by Life Magazine are stirring up a world of interest among all classes of prospective home builders. Modern as living in Life Houses is MODEX, the concentrated casein paint in powder form. Glance over the important advantages of MODEX and you'll see why:

Speed No delay when you paint walls and ceilings with MODEX. No sizing coat is required and MODEX can be applied right onto "green plaster."

Color The 12 modern pastel shades of MODEX are in tune with newest ideas in interior decoration.

Finish MODEX has the warmth, richness and velvety softness of tone demanded by the use of indirect lighting.

Light Light reflection from a MODEX surface is extraordinarily high (89.7% for white.)

Washability A sponge, neutral soap and water are all that are needed to cleanse MODEX-finished walls.

Economy Because it comes in concentrated powder form packed in inexpensive containers, MODEX costs 25% less than any paste casein paint meeting the same Federal Specifications.

FOR WALLS AND CEILINGS OF YOUR LIFE HOUSES *Specify*

Modex

THE CONCENTRATED CASEIN PAINT IN POWDER FORM

155

Made By the BONDEX and BONDEX-PRIMER People

SEND FOR COMPLETE INFORMATION

The Reardon Company, 2200 N. Second St., St. Louis, Missouri.
Please send me illustrated folder on Modex.

NAME_____

ADDRESS_____

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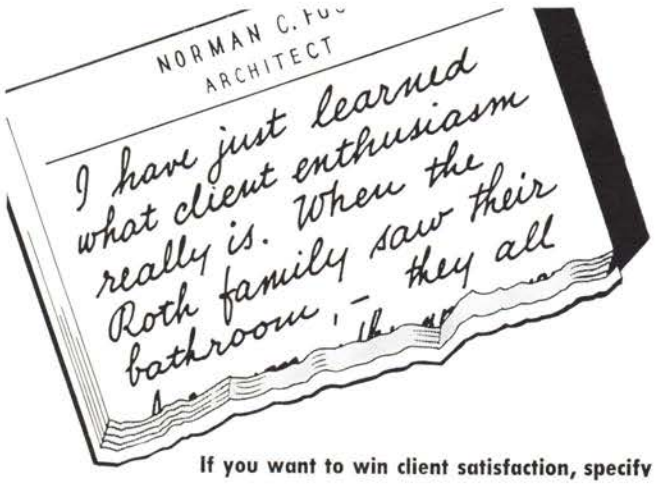


If you want to win client satisfaction, specify the T/N one-piece water closet in your bathroom plans. Its low, trim lines bring extra smartness to the bathroom. And features like non-overflow and quiet flushing are bound to result in enthusiastic clients. Available in an exceptionally wide variety of colors and priced so you can include it in the most modest budget.

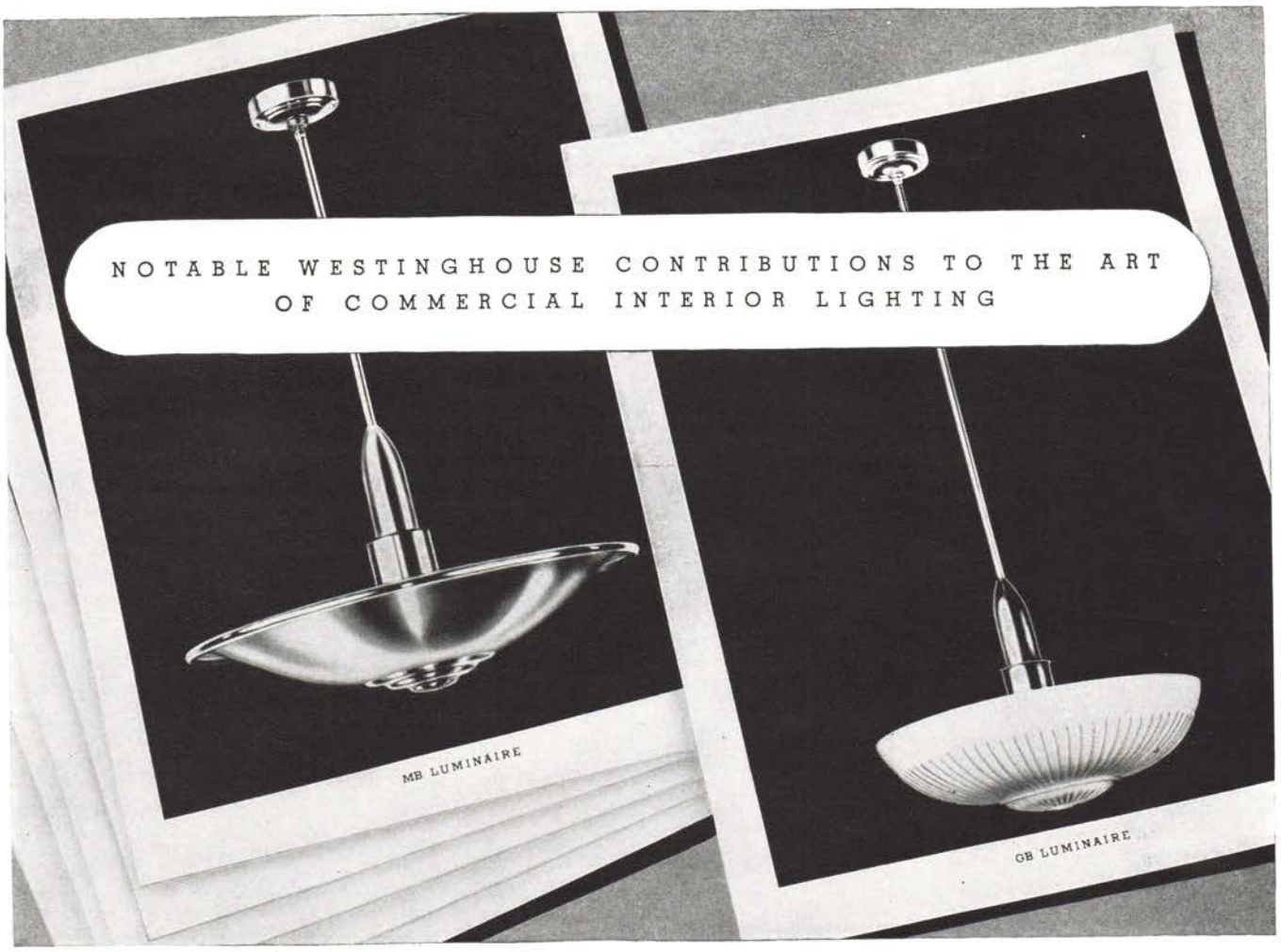
Designed as a companion piece for the T/N, the Winston lavatory is available in a variety of sizes for large and smaller bathrooms. In the matter of utility the Winston offers integral shelf... anti-splash rim...pop-up waste fitting...handy towel bars...depressed soap dish.

DISTRIBUTED THROUGH PLUMBING SUPPLY WHOLESALERS

For complete information on the T/N ONE-PIECE water closet, and other Case equipment, just write to:

W. A. CASE & SON MFG. CO.
33 Main St., Buffalo, N. Y.

Founded 1853
Dept. E-118



Get Acquainted with the New MB and GB Units

Newly added to the Westinghouse Commercial Lighting Line are the Metal Bipost and Glass Bipost Luminaires. These new units were developed specifically for use with Medium Bipost Lamps and definitely extend the range of lighting equipment adapted for Commercial interiors. They are especially recommended for their relatively higher lighting intensity and their higher maintained lumen output.

Whether you specify the all-metal MB or the GB with a basin of patented Denax glass . . . will depend, of course, upon the decorative requirements of the application and whether totally indirect or luminous indirect lighting is preferred. In either case, the characteristic butterfly spread of illumination from Bipost Lamps is utilized to the fullest extent by the basin assembly.

Ask your nearest Westinghouse Distributor for full details on the new GB and MB Luminaires; or write for a set of handsome gravure reproductions of Westinghouse Commercial Lighting Units . . . with construction features and typical specifications, to Westinghouse Electric & Mfg. Co., Lighting Division, Edgewater Park, Cleveland, O.

THE NEW MEDIUM BIPOST LAMP AND SOCKET

NEW SCHOOL LIGHTING DATA

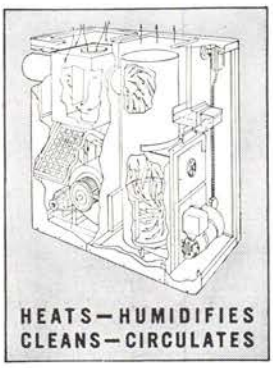
You are invited to send for a set of four new School Lighting Data Sheets, especially prepared for Architects. These sheets carry a handy review of "American Recommended Practice of School Lighting," as sponsored by the IES and the AIA, and provide complete installation data on Westinghouse Lighting Equipment intended for school lighting applications.

WHEN YOU THINK OF *Lighting Equipment* THINK OF

Westinghouse

ROUND OAK X-80*

FOR SMALL HOMES



IF YOU are planning the design or erection of small, low priced homes, you will welcome the new Round Oak X-80 Oil Furnace as a practical solution to your heating problem. It provides the luxury of automatic heat and conditioned air at unusually low cost. Ample capacity for five to seven room houses. Designed as a unit in an attractive blue steel cabinet, it is the newest development of one of the oldest manufacturers of quality heating equipment. See your Round Oak dealer for details, or write direct to the factory.

✱ *In addition to X-80 Round Oak builds larger Oil Fired Air Conditioners — also Coal burning Steel and Cast Iron Furnaces, Oil Burners, Heating Stoves, Coal and Gas Ranges.*

ROUND OAK

STOVES • RANGES • FURNACES
OIL BURNERS • AIR CONDITIONERS

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Please send literature and complete information describing your
☐ X-80 *Air Conditioner* ☐ *Other Heating Equipment* ☐ *Oil Burners*
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Name_____
Street_____
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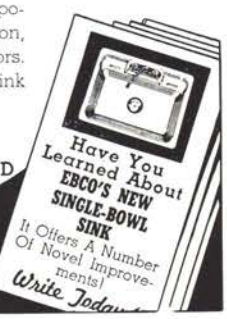
FOR ANY CABINET TOP

. . . in home or apartment

America's most talked-about sink! A beautiful, new, work-saving sink that appeals instantly to every woman. Two compartments make dishwashing amazingly simple—no dishpan or tea kettle needed! Racked and rinsed in rubber-dipped drain basket, the dishes steam dry themselves But also look at these unique features! Concealed spray and swing-spout mixing faucet is mounted on back ledge which also contains integral soap dish. This eliminates in-the-wall piping, and simplifies installation. Flat rim also insures watertight fit with tile, linoleum, metal or composition sink tops. Made of genuine cast iron, porcelain enameled in a choice of colors. Large sediment-filtering duo strainer A sink sensation moderately priced!

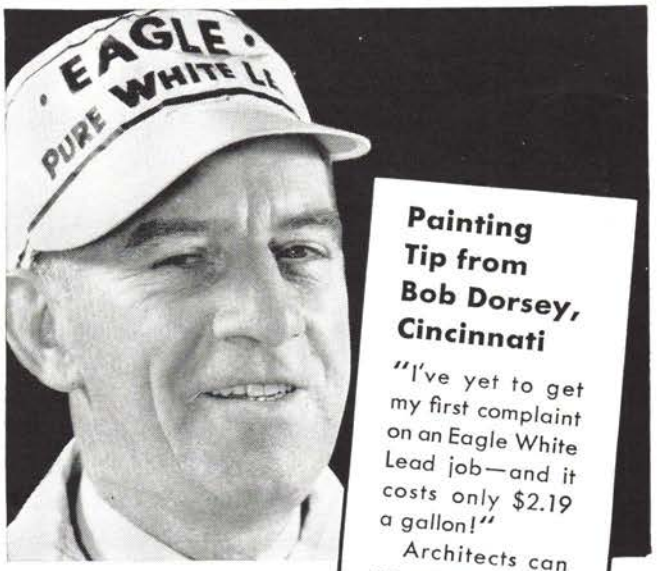
Write for details!

DISTRIBUTORS WILL ALSO FIND THEM INTERESTING



The **EBCO MFG. CO.**

401 W. TOWN ST. COLUMBUS, OHIO



Painting Tip from Bob Dorsey, Cincinnati

"I've yet to get my first complaint on an Eagle White Lead job—and it costs only $2.19 a gallon!"

Architects can count on giving homes lasting beauty and protection when they specify Eagle White Lead. For wood, brick, stucco —and interiors.

EAGLE pure WHITE LEAD

Choice of good painters since 1843

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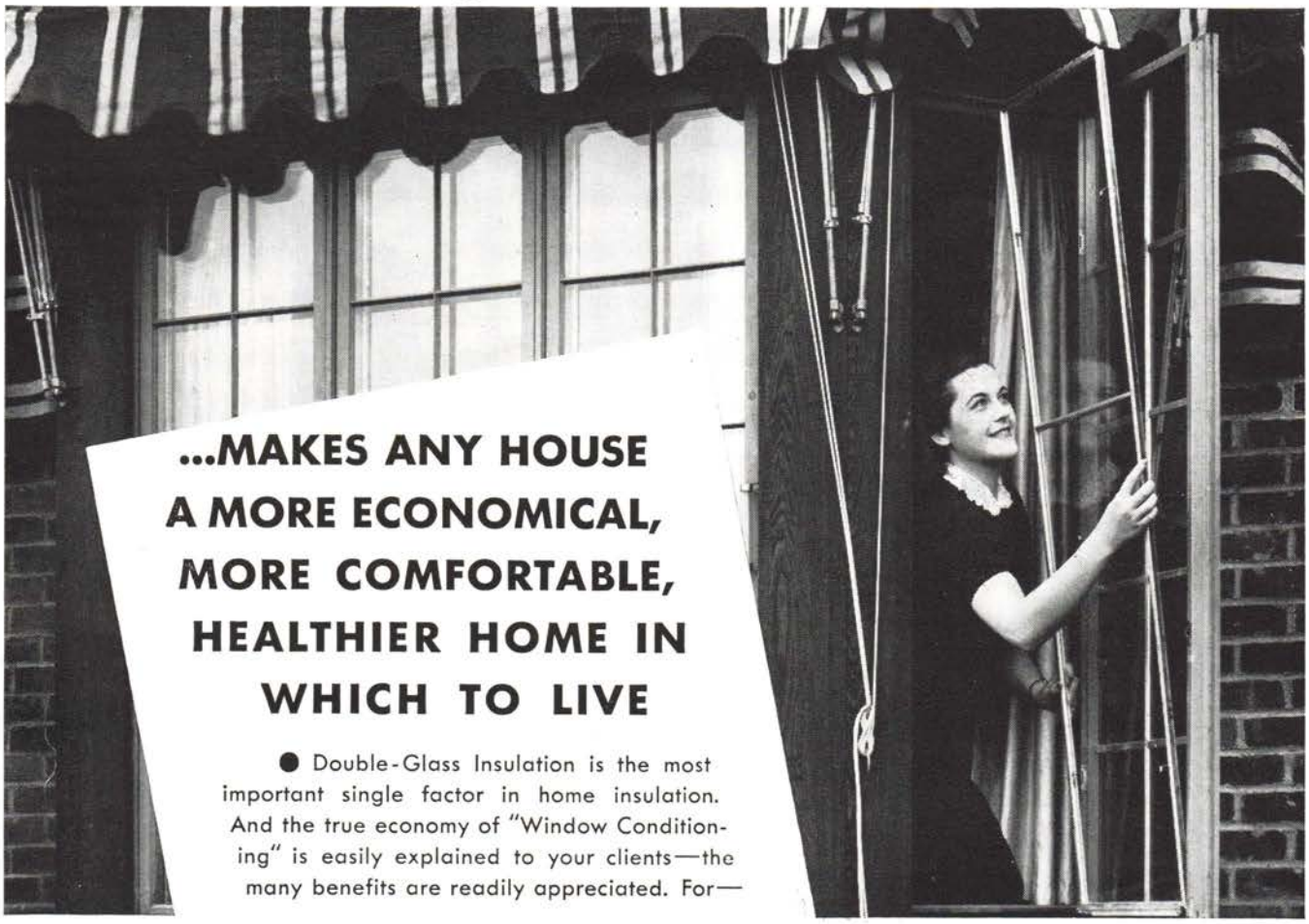
"Window Conditioning"

DOUBLE-GLASS INSULATION



...MAKES ANY HOUSE A MORE ECONOMICAL, MORE COMFORTABLE, HEALTHIER HOME IN WHICH TO LIVE

● Double-Glass Insulation is the most important single factor in home insulation. And the true economy of "Window Conditioning" is easily explained to your clients—the many benefits are readily appreciated. For—

1. "Window Conditioning", like all other forms of building insulation, pays for itself in fuel savings alone—fuel bills may be cut as much as 30%. It costs LESS than other desirable forms of insulation and saves MORE fuel for each dollar invested.

2. Through "Window Conditioning" it is possible to materially reduce the size (and cost) of the heating unit specified. In many basementless type homes, where utility room space is at a premium, this feature of "Window Conditioning" represents considerable savings in both space and original cost.

3. "Window Conditioning" is essential for the complete enjoyment of the benefits and comforts of modern winter air conditioning. With higher, healthier humidity maintained "Window Conditioning" prevents fogged windows, soiled draperies and excessive cleaner's bills.

● The inclusion of "Window Conditioning" in your specifications represents sound planning judgment. It is available in storm sash and a wide variety of prefabricated double-glazed steel or wood sash. And because your clients will be looking through two panes of glass instead of one, the quality of that glass becomes doubly important. L·O·F Quality Glass is noted for its greater freedom from waviness and distortion and is today, as it has been for many years, Clearer, Brighter and Flatter than any window glass that the industry has ever offered.

Libbey·Owens·Ford Glass Company, Toledo.

LIBBEY·OWENS·FORD
QUALITY GLASS

"We were awarded the business at the highest price per gallon!"

The dealer's letter from which that statement is taken is on file with the publishers of this magazine. If you want further details, or proof, just write them . . . or us.

The price quoted on Mural-tone was fifteen cents a gallon higher than the competing casein paints. *But* — before the contract was awarded actual tests were made . . . and Mural-tone was bought because it covered *more square feet* per gallon than the cheaper paints.

The finished job cost *less* because Mural-tone (at the *highest* price per gallon) was used. If *you* are not specifying and using Mural-tone you are passing up opportunities to save money. Why don't you write us today . . . or see your local paint supplier? The Muralo Company, Inc., 574 Richmond Terrace, Staten Island, N. Y. Branches at Chicago, Atlanta, Boston, San Francisco, Los Angeles.

mural-tone

THE MONEY SAVING WALL PAINT IN THE ORANGE CAN

CASEIN WALL PAINT

Residence Elevators

These unique Home Lifts were designed for easy installation in homes already built, and have been further developed to be adapted to shaft enclosures in new construction as well.

The Inclinator Company of America originated the small house-current-operated Passenger Lifts, with their inherent simplicity, and devote their efforts to the production of Residence Elevators exclusively, giving special attention to each individual requirement.

"Elevette"

This type may be placed in stairwell, closet, in corner of room, or within a shaft. Car made to fit available space, and in size to accommodate a wheel-chair. Panels solid or open mesh grille. Operated from the house lighting circuit, without additional wiring.

INCLIN-ATOR

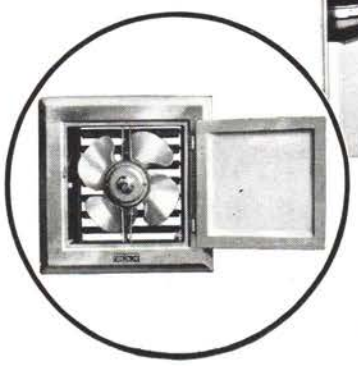
Designed to be placed on the stairway of the private home. Takes about 5 inches of space when folded; does not interfere with customary use of stairs. Car finished in mahogany, oak, or walnut, to harmonize with surroundings. The power unit is entirely concealed.

Full details of the "Elevette" or Inclinator will be furnished architects on request. We also refer you to Sweets Catalogue.

INCLINATOR COMPANY OF AMERICA

291 So. Cameron St. Harrisburg, Penna.

. . . . A KITCHEN *Necessity* *in* EVERY HOME



This Signal Automatic Wall Box Kitchen Vent Fan is easy to install, and adjustable to wall thickness . . . removes cooking odors, steam, smoke, and excess heat . . . operates quickly and quietly . . . available for A. C. or D. C. current; A. C. type is non-radio interfering . . . 10″ quiet-type fan, cast aluminum frame. List price $32.00. We will gladly send you complete information upon request.

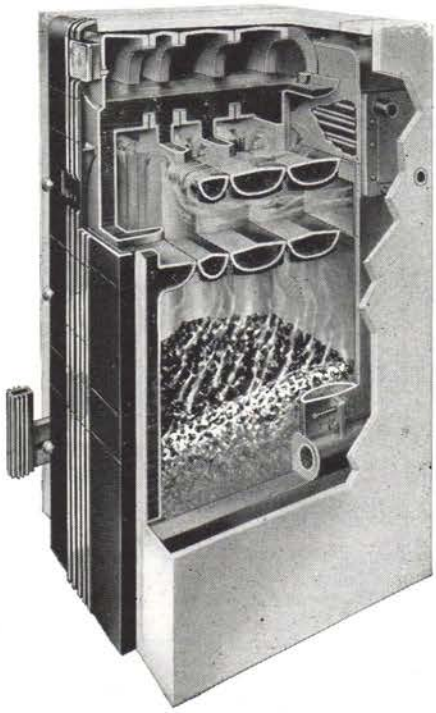
SIGNAL ELECTRIC MFG. CO., Menominee, Michigan

Offices in all principal cities

SIGNAL
MANUFACTURERS OF ELECTRICAL PRODUCTS

BECAUSE—

This Yello-Jacket Boiler Stings The Fuel Bill



The main reason for its stinging the fuel bill, whether it's coal, oil, or gas is just this:

Its *double* combustion chamber.
Its consequent greatly increased surface on which the fire directly shines.
And you know, that it's the direct surfaces that can absorb the radiant heat, which is of greatest value.

As for percentage economy *claims,* we are not making any. You wouldn't believe them if we did. So we are giving you facts, knowing they will carry their own convincement.

Might mention that the jacket is an attractive light dandelion yellow.
Also that when used for oil, there's a sort of front porch, or extension that goes over the burner. It can be easily removed to get at it.

The Yello-Jacket was designed especially for the average size present day home.

Being new, it's not shown in the 1938 Sweet's. So we'll have to suggest your sending for printed matter.

BURNHAM BOILER CORPORATION
Irvington, New York Zanesville, Ohio
Makers of Boilers Since 1873

Burnham Boiler

Individuality in Home Building

Even a little marble makes the home distinctive. Marble trim, perhaps, for outside walls—a marble mantel or two within—a bathroom of Markwa, the new marble tile—effects that cannot be duplicated . . . The marble way is the way of refinement, beauty, permanence and economy . . . Our nearest branch will be glad to serve you.

VERMONT MARBLE COMPANY

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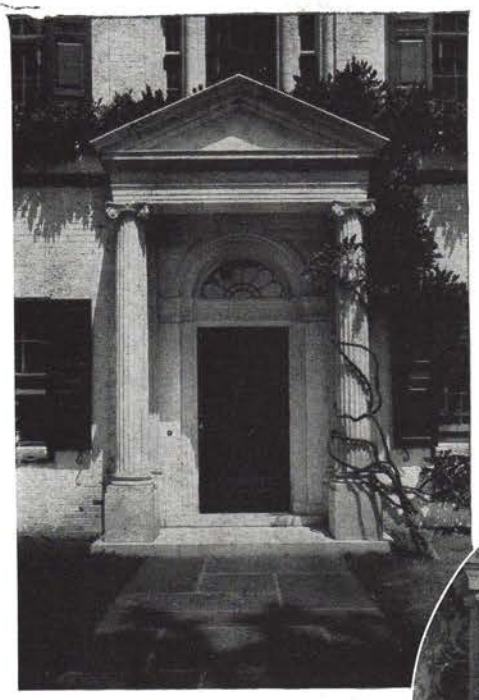
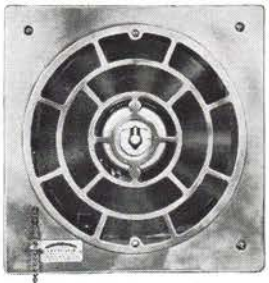
Albany, New York · Cleveland, Tacoma · Los Angeles, Chicago · San Francisco, Houston · Boston, Dallas · Philadelphia, Toronto, Ont.



(Above) Entrance Ryan Residence, St. James, Long Island. Bradley Delehanty, Architect. Vermont Marble and Brick. (In Circle) Fireplace in Stenger Residence, Baltimore, Md. Adapted from old Mantel in Louvre, Paris. Yule Colorado Marble. (Right) Bathroom of Markwa, the Marble Tile, in Starbuck Residence, Raleigh, N. C. William Henly Deitrick, Architect.

Selected for **LIFE** *homes*



RADIA Ventilating Fan

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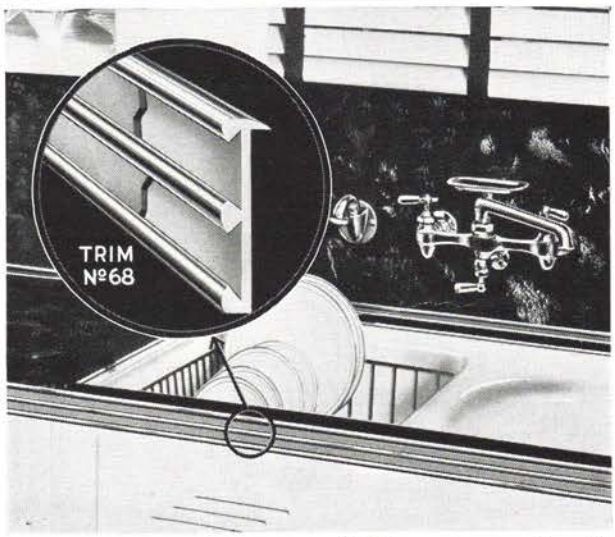

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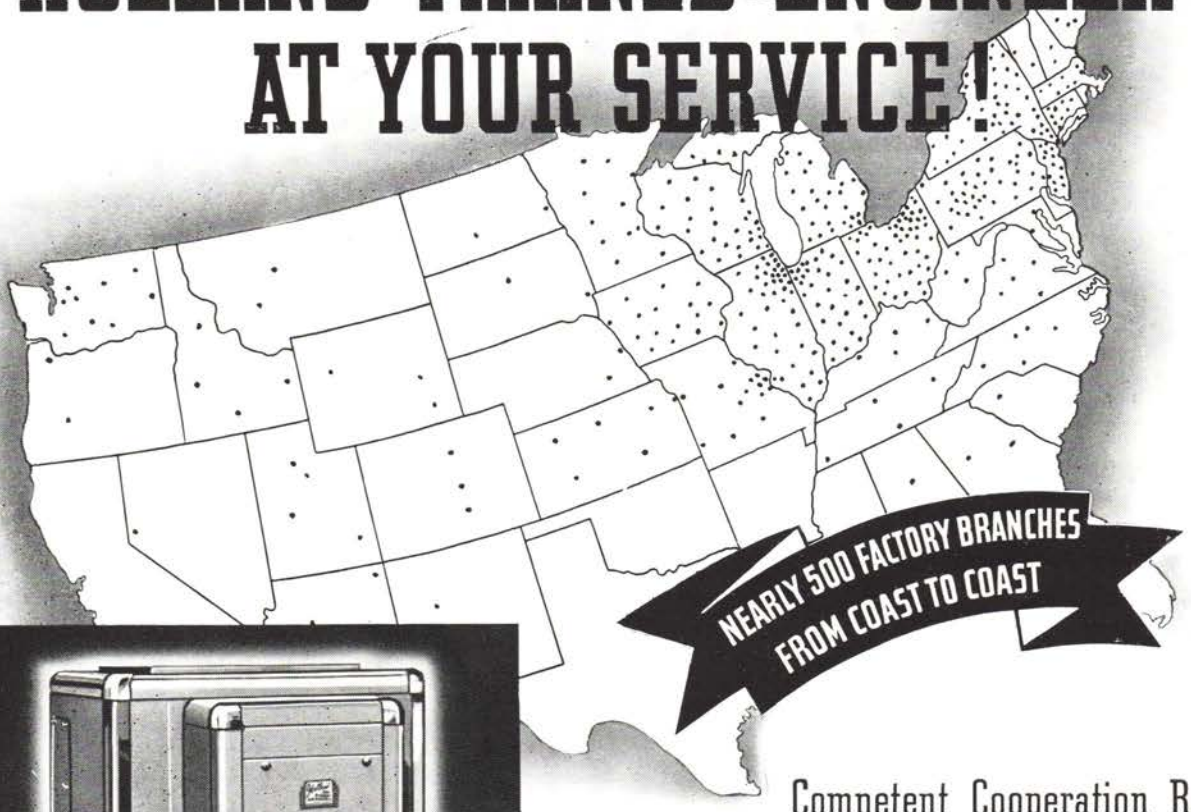

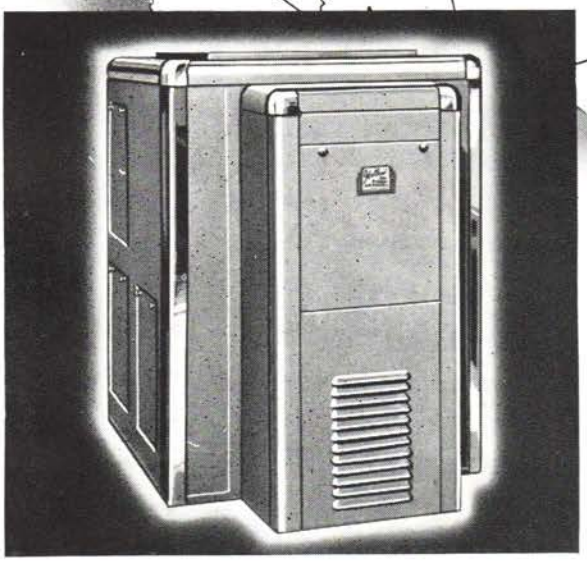

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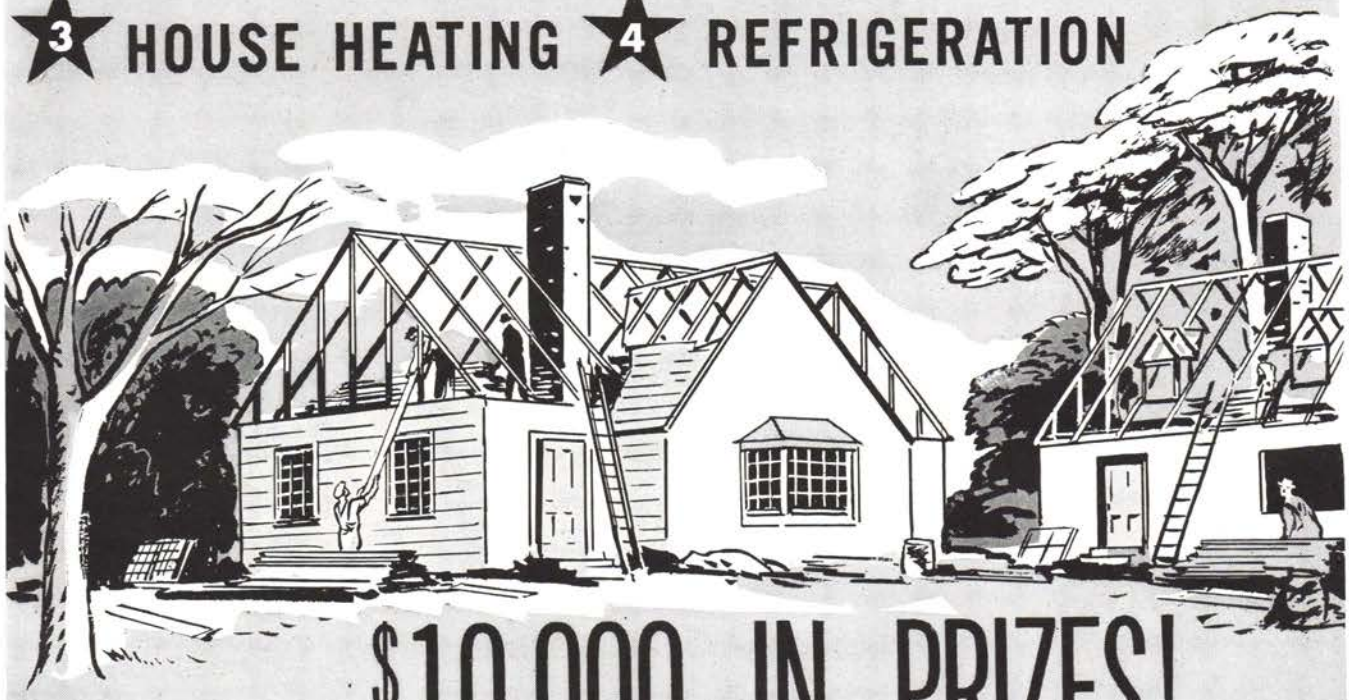

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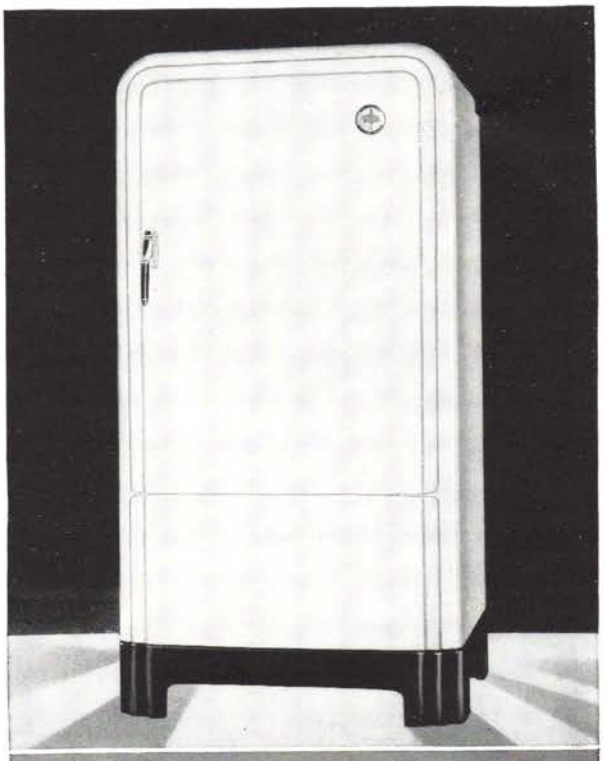

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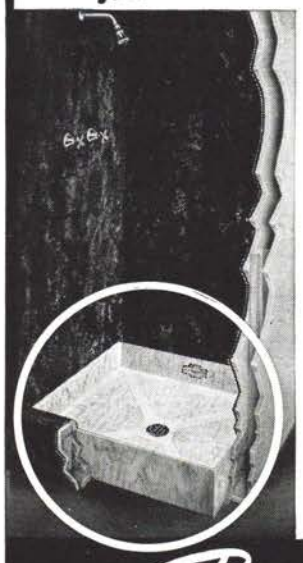

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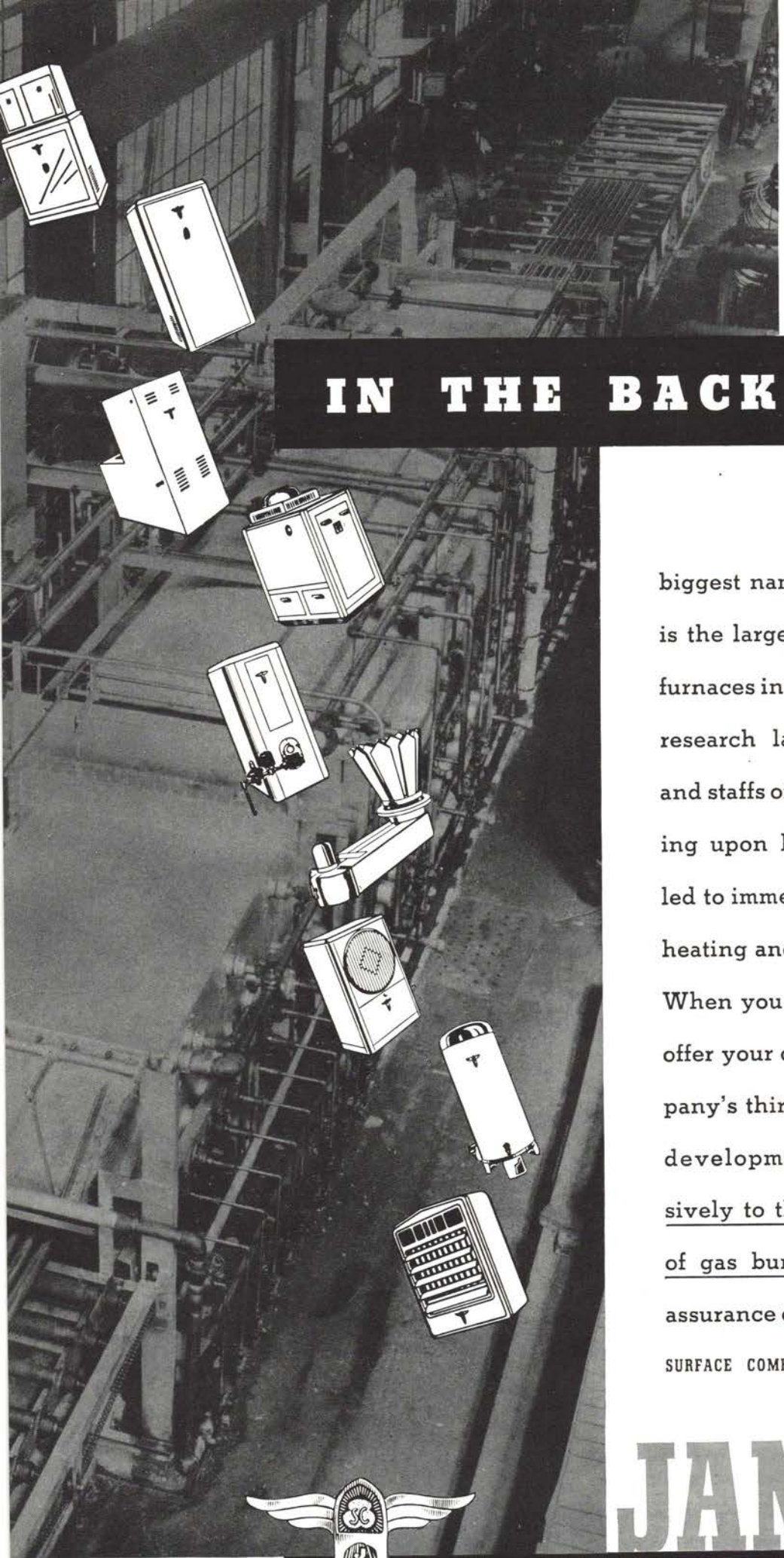

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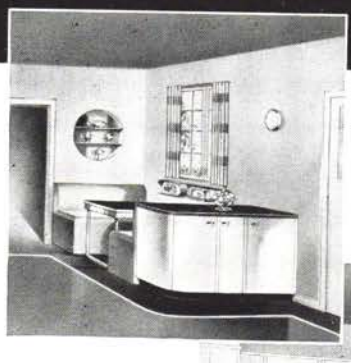

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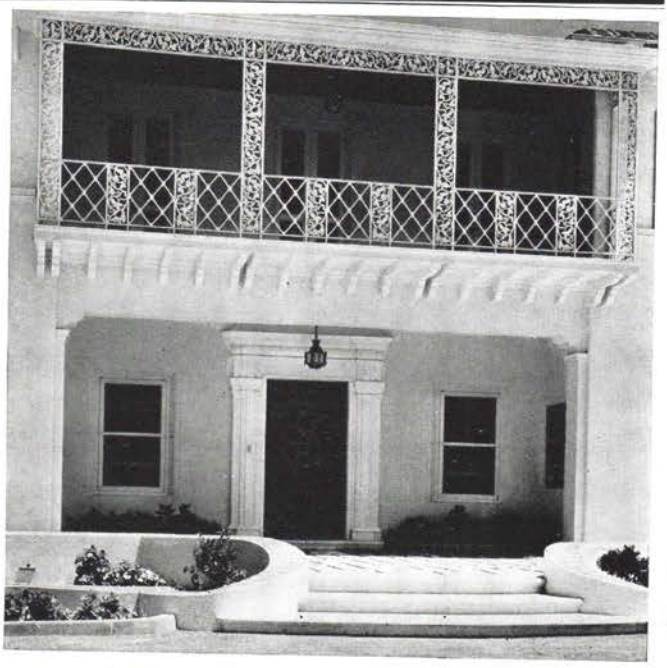

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Saying that this Dutch Boy paint is really washable means two things: (1) Its beauty is not destroyed by hard scrubbings. (2) Those scrubbings actually get you somewhere. The test panel on the left shows how stubborn stains and dirt really do "come out in the wash". It explains why paint made with this Dutch Boy combination saves money formerly wasted in over-frequent repaintings.

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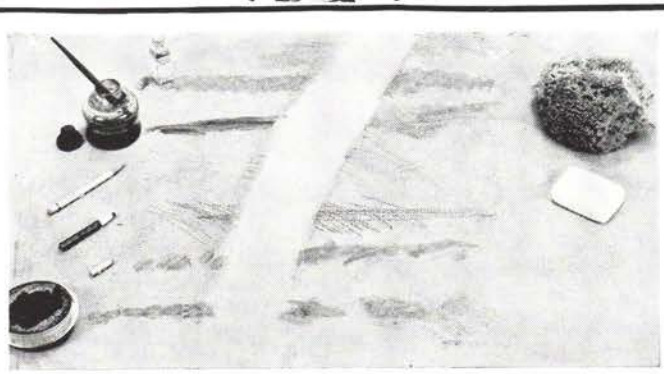

This test panel is a 2′ x 3′ piece of wallboard, painted with Dutch Boy White-Lead and Lead Mixing Oil. For a solid week, this panel lay in a busy corridor. It was walked on by hundreds of people daily. Horizontal streaks show how it was then defaced with grease, ink, pencil, crayon, shoe blacking, lipstick, etc. Swath shows marks completely removed by washing with soap and water.

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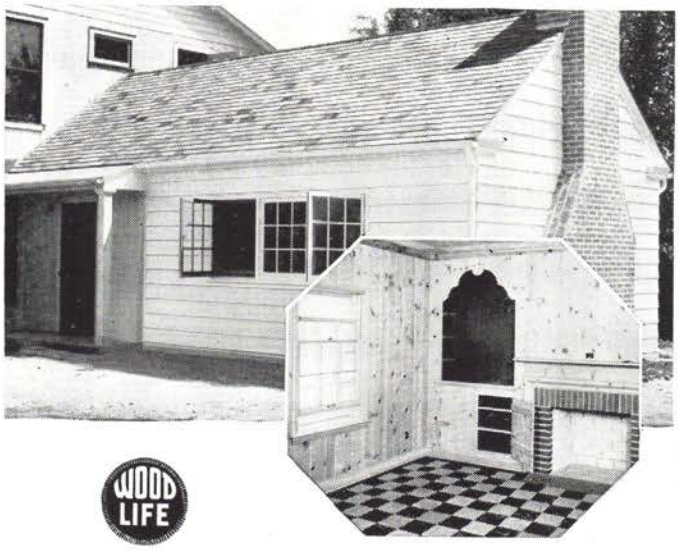

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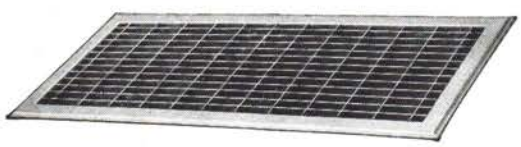

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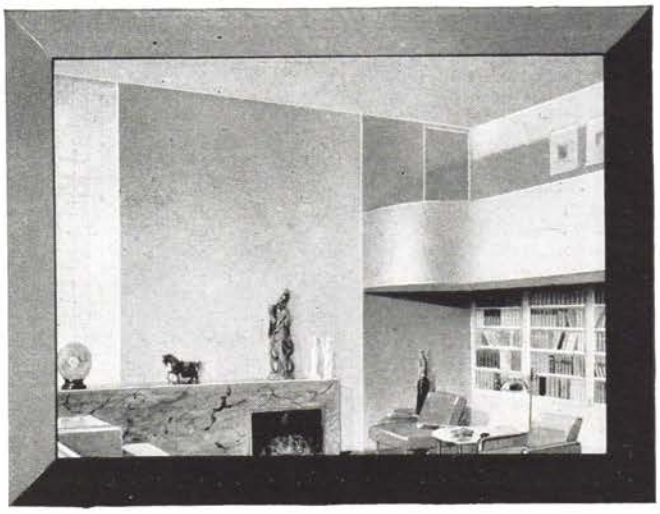

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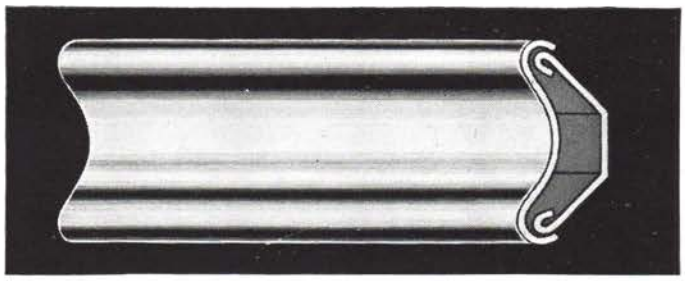

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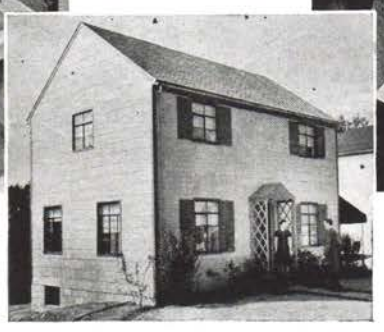
NEW USES FOR STEEL . . .

reduce HOME COSTS GIVE *greater* VALUES

THE COLONIAL STYLE HOME SHOULD HAVE A TERNE ROOF. Today, U·S·S Terne Roofs are still unsurpassed for storm tightness, resistance to fire and lightning, long life and low upkeep.

PORCELAIN ENAMEL BATHTUB, wash basin, walls and toilet tank. These fixtures have the advantage of great strength, light weight, low cost and permanence.

(below)
NEW WEATHER-PROOF PORCELAIN ENAMEL for shutters, cornice, corner boards and entrance hood. Colors are permanent, fade-proof. Maintenance is eliminated.



DOUBLE LIFE FOR DUCT WORK is assured when it's made of rust-resisting U·S·S Galvanized Copper Steel with its higher resistance to atmospheric corrosion.

TODAY, the most successful building operations are groups of homes or complete communities. Savings are being made through better planning, engineering and quantity buying rather than by the use of lower quality materials.

Steel is well adapted to these large-scale operations. New uses take advantage of better production methods, bringing lower costs and higher values. For example, porcelain enamel is now being used for shutters, cornices, corner boards and entrance canopies. Colors stay permanently bright, never need refinishing.

U·S·S Copper Steel, with double the atmospheric corrosion resistance of plain steel, makes longer-lasting roofing, duct work, downspouts, valleys and gutters. Reduces the yearly cost of these units approximately one-half.

Bathtubs, sinks and wash basins made of porcelain enamel on U·S·S VITRENAMEL Sheets are rapidly increasing in popularity. They weigh less, cost less, and have proved entirely satisfactory.

Stainless steel has had rapid acceptance for kitchen sinks, tables, ranges and work surfaces. It never tarnishes, does not mar.

Steel is finding numerous other uses—new, efficient, steel sheet insulation, cellular steel floor and walls, cupboards, closets, stairways and wall paneling. For information about any of these uses, write to one of the companies listed below.

U·S·S STEEL SHEETS

CARNEGIE-ILLINOIS STEEL CORPORATION, *Pittsburgh and Chicago*
COLUMBIA STEEL COMPANY, *San Francisco*
TENNESSEE COAL, IRON & RAILROAD COMPANY, *Birmingham*
United States Steel Products Company, New York, *Export Distributors*

UNITED STATES STEEL

Now you can get all three in a single package

PLASTER BASE • INSULATION REINFORCEMENT

EXCLUSIVE USG REINFORCED JOINT strengthens all horizontal joints on Weatherwood Insulating Lath. It is simplicity itself to adjust. You simply pull it into place over the rigid tongue and groove joint, and it is ready for plastering—no nails required to hold it snug and tight!

PLASTER IS FORCED BEHIND, BETWEEN AND AROUND the USG joint reinforcement. Extra plaster is thus automatically put where it is most needed and where it is further strengthened against unsightly cracks by the metal reinforcement.

Here's a plaster base that DOES A TRIPLE JOB for you. For incorporated in it are:

1 A special patented metal reinforcement that builds extra strength and crack-resistance into all horizontal joints of the lath—actually reinforces the plaster at its weakest point.

2 Tongue and groove construction. Another exclusive feature. Makes a rigid base that grips and holds plaster—makes work easier for the plasterer.

3 The protection of a truly scientific insulation—saving fuel in winter and increasing comfort in summer—a characteristic of the entire Weatherwood* line.

And the best part of it is WEATHERWOOD REINFORCED INSULATING LATH, with its *exclusive* reinforcing feature, costs no more than ordinary insulating lath. With it you can give your clients more value—a finer job—without adding to construction cost.

NOW AVAILABLE
To help you increase remodeling and repair sales
THE USG FINANCING PLAN
One of the most generous finance plans ever devised to help you get your share of the repair and remodeling market RIGHT NOW. Write for complete details.

United States Gypsum Company

300 WEST ADAMS ST. CHICAGO, ILLINOIS

AF-11

PLASTERS . . ROCKLATH* . . METAL LATH . . SHEETROCK* . . FIBER WALLBOARD . . SHEATHING . . INSULATING BOARD . . INSULATING WOOL . . ACOUSTICAL MATERIALS . . PAINT PRODUCTS . . STEEL PRODUCTS . . ROOFING PRODUCTS . . SIDING PRODUCTS . . LIME PRODUCTS.

*Registered trade-marks

ADDING *LIFE*

TO LIFE'S HOUSES!

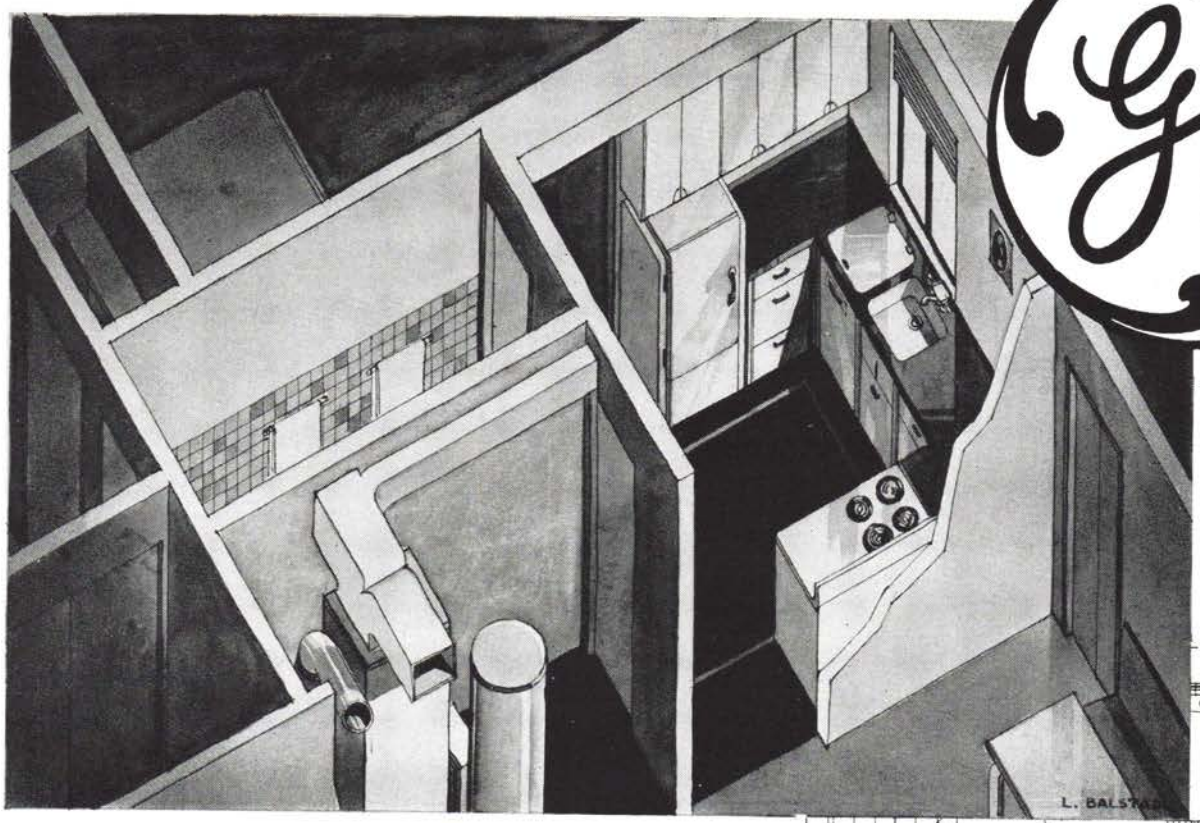
● Steinmetz once said, "The day will come when electricity will be used as freely as water". That day is here!

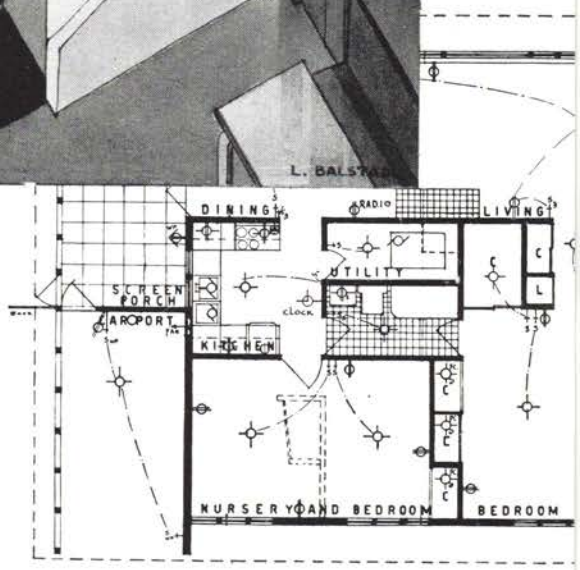
Today, thousands of American families, and in ever increasing thousands, are enjoying the comfort, the charm, the relaxation and the freedom which the Electrical Standard of Living provides. And today, those who design, those who build, and those who sell homes are increasingly aware that modern American families are alert to these comforts and conveniences and want them—yes, *demand* them in the homes they buy. And whether houses are modern or traditional in appearance—whether they are high or low in cost—G-E electrical servants constitute a basis for Better Living. For today, the fun of living electrically has taken the place of drudgery and inconvenience in American homes.

On the following pages, General Electric shows its plan for the electrification—wiring, lighting, heating and kitchens—for two of LIFE'S HOUSES. General Electric offers *you* these services free of charge through the G-E Home Bureau, a department serving hundreds of builders and architects. The G-E Home Bureau does not originate or sell plans, but its staff of experienced architects will review *your* plans from an electrical point of view and will suggest layouts and specifications for electrification of the homes you are designing or building.

GENERAL ELECTRIC

ADDING *LIFE* TO LIFE'S HOUSES





"HEART OF THE HOME"

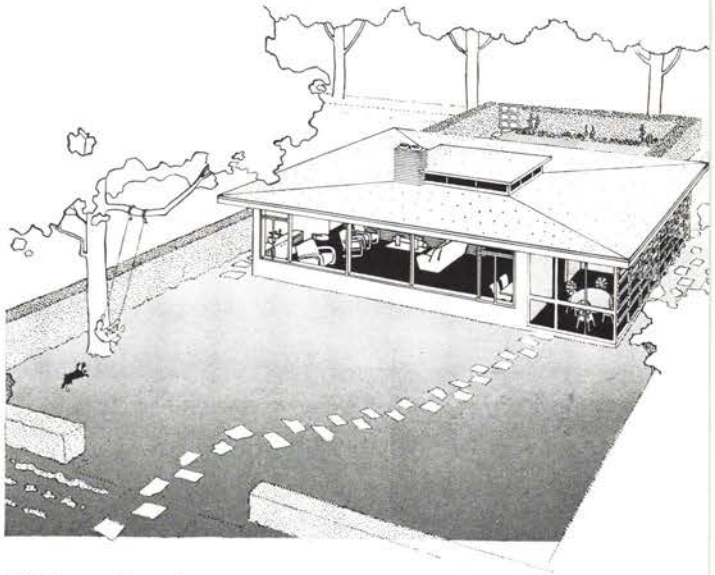
● Economy was realized in this low cost home, designed by Edward D. Stone, by confining all the mechanical equipment to one central location. G. E. has studied the compact assembly of equipment for many years, and has developed kitchen, heating and laundry equipment which meets the exacting demands imposed by the necessity for conserving space.

The assembly of the unit in the isometric drawing shows the "heart of the home" as interpreted by the G-E Home Bureau.

WIRING

● The wiring planned for this home, and for the one designed by Royal Barry Wills on the opposite page, is General Electric Home Wiring adapted to suit the individual requirements of each. It will meet present and future demands. It provides big enough wire and adequate outlets for convenient and satisfactory operation of appliances. And, it permits the proper placement of lamps, recognizing that Better Light means Better Sight.

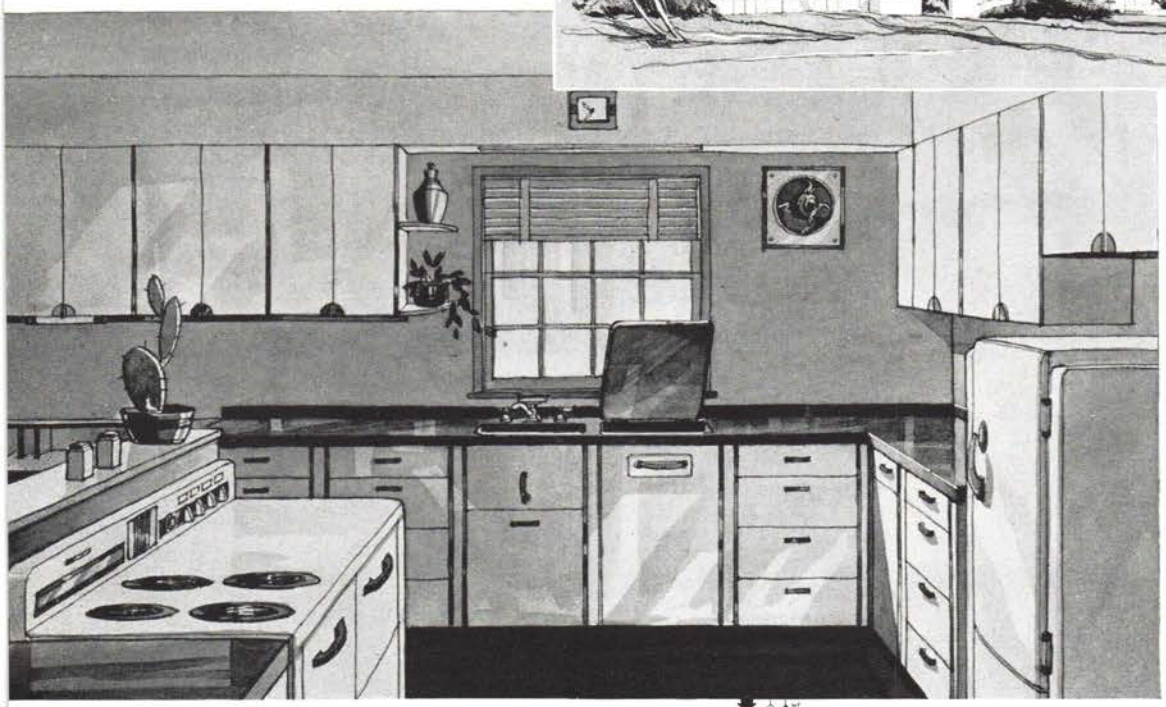
G-E Home Wiring is a basic feature of the Electrical Standard of Living. The G-E Home Bureau will relieve you of details by working out the electrical wiring for the homes you design or build.



Life's modern house designed by Edward D. Stone for families with $2,000—$3,000 income.

)DING *LIFE* TO LIFE'S HOUSES

Life's traditional house designed by Royal Barry Wills for families with $5,000—$6,000 income.

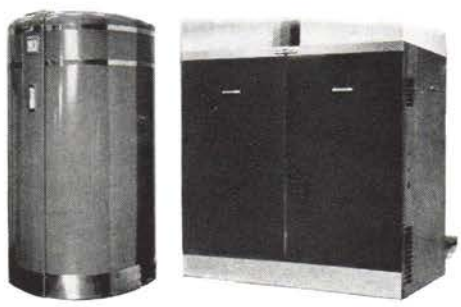


MODERN KITCHEN

he kitchen as visualized by the Home Bureau, for the home de- ed by Royal Barry Wills, includes igerator, dishwasher, disposall, ge, kitchen ventilating fan, clock, steel base and wall cabinets. The nets are available in a variety of ensions to fit any space require- nt. It's a kitchen scientifically ned to save time and labor and to inate drudgery. It is well designed r step saving, for lighting and for quate outlets which assure con- ent operation of the many smaller liances which are such essential fea- s in the Electrical Standard of Living.

HEATING AND AIR CONDITIONING

● Even the most inexpensive homes can enjoy the benefits of automatic oil or gas heating—economical, dependable, safe, clean heat. They can also be air conditioned, assuring healthful, clean, humidified air in winter, with provision for summer cooling. The G-E Home Bureau will assist you in your heating and air conditioning problems.



GENERAL ELECTRIC

A $4,335 Home Sold Every 36 Hours

● Mr. Neal Reyburn, architect and builder, is designing, building, and selling completely G-E equipped homes for $4335. His sales record, a house every thirty-six hours, serves as evidence that the public will buy when it gets what it wants. Mr. Reyburn points out in his letter that: **1.**—G-E equipment has made it possible for him to design and build these homes. **2.**—People will buy when shown a modern home with every convenience and comfort. **3.**—G-E equipment has given the houses "quality in the eyes of the public".

The General Electric Home Bureau, 570 Lexington Avenue, New York City, offers you the same services which aided in Mr. Reyburn's success. Why not drop us a card?

HOME BUILDING CORPORATION
Builder of the All American Home
KANSAS CITY, MO.

September 17, 1938

General Electric Home Bureau
570 Lexington Ave., New York, N.Y.

Dear Sir:—

I wish to express my appreciation to the General Electric Co., for the cooperation they have given me in putting over my All-American Home, and for making possible equipment which has given me the opportunity to conserve every inch of space which naturally is necessary in a $4000.00 home.

If it were not for the General Electric Unit Kitchen with its electric stove, sink and dish-washer which saves so much space because it does so much work, my kitchen would have been impossible. My free work area is only 5 ft. by 8 ft., but the kitchen with its equipment was large enough to prepare and serve a dinner to some twenty prominent people in the recreation room. Ten minutes after the dinner was over I suggested we go up the five steps to the kitchen and see the dishes being washed, and to my surprise the dishes were all clean and put away and the kitchen completely cleared. This to me was quite an accomplishment since I have been used to the dish washing going on for hours.

The entire house from the bedrooms with their wardrobes, the bath with its colored fixtures, the living room with its mahogany paneling, the completely plastered basement with its General Electric Air Conditioning and other mechanical equipment completely tucked away under the steps is designed with the same idea of conserving space, yet using only the best construction and nationally advertised products.

The reaction of the public has been tremendous since we have had over 20,000 people go through the house in less than three weeks and over 500 have registered asking for full information. The houses are selling at the rate of one every day and a half which proves the fact that the little fellow will buy when shown a modern home with every convenience and comfort that he justly deserves at a price he can afford.

We feel that General Electric has given us quality in the eyes of the public which heretofore has always been the scapegoat in low cost housing. I feel that it is to our mutual benefit to continue in this low cost field because here is the greatest part of our population renting at a greater cost than is necessary to buy one of these homes.

Thanking you again for your cooperation, I remain,

Your friend,

Neal O. Reyburn

HOME BUILDING CORPORATION

GENERAL ELECTRIC

SPECIFICATION AND BUYING INDEX

The advertising pages of THE ARCHITECTURAL FORUM have become the recognized market place for architects and all others engaged in building. Each month these pages offer the most complete guide to materials, equipment and services to be found in any magazine. A house or any other building could be built completely of products advertised in THE FORUM. While it is not possible for a magazine to certify building products, it is possible to open its pages only to those manufacturers whose reputation merits confidence. This THE FORUM does.

BEAUTY and CHARM
that win unanimous approval

Photograph courtesy Pittsburgh Plate Glass Co.

WRITE Formed Metal Plumbing Ware into your specifications and you will please even the most discriminating client . . . especially when he sees all he is getting for his money.

The refreshing lines of these modern fixtures and their unusual color possibilities lend new inspiration to the architect's decorative talents.

The mistress of the house will thrill to the personal luxury of these high-glaze porcelain enameled fixtures, kept spotless with little care.

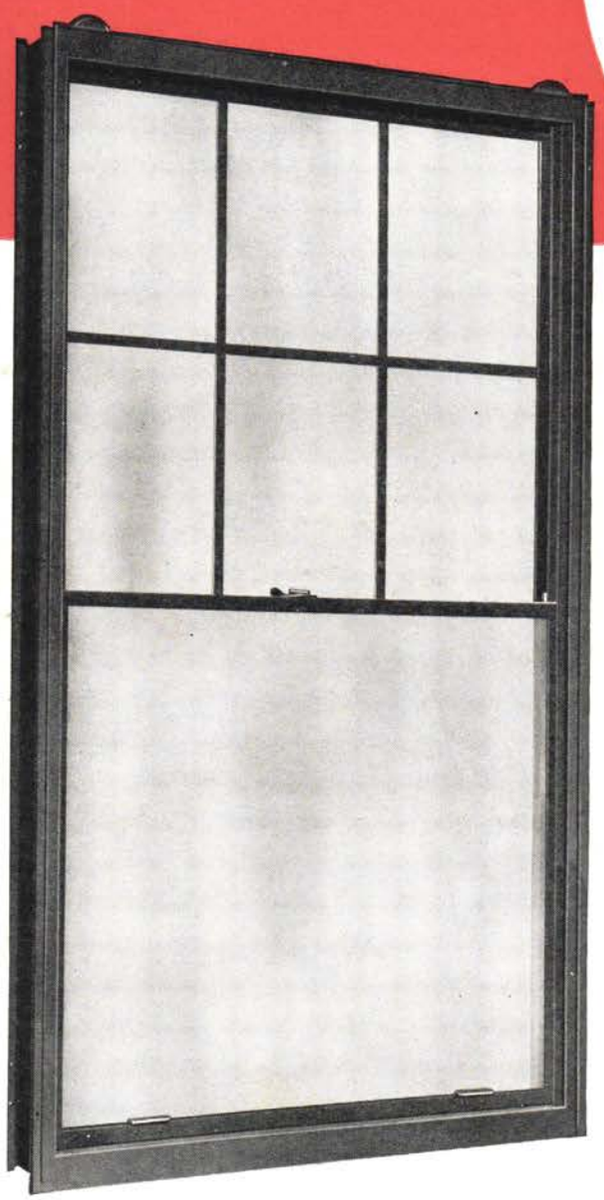
The master plumber will welcome the lower handling and installation costs of these strong lighter-weight fixtures. And when your clients see the well-known Armco label, they will know their investment is a wise one . . . that beneath that gleaming finish is ARMCO Ingot Iron, the special base-metal long used by makers of the finest porcelain enameled appliances.

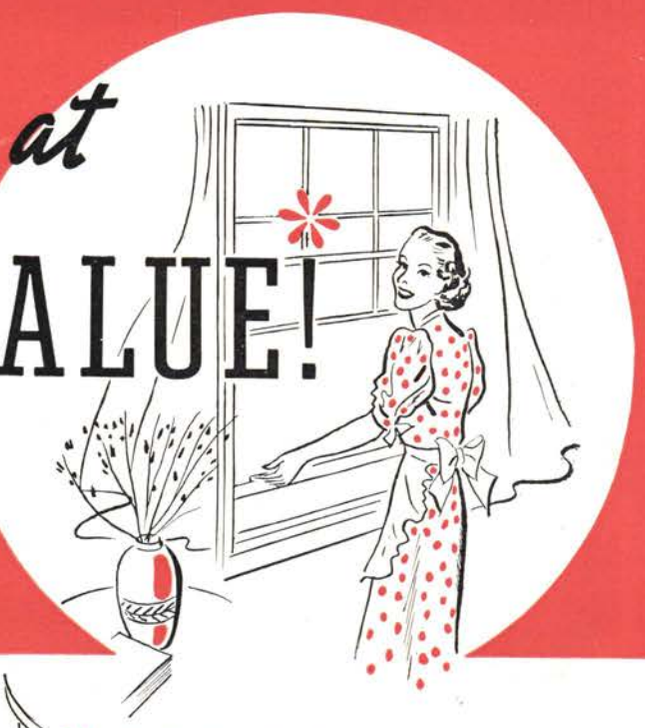
If you do not have complete information in your files about Formed Metal Plumbing Ware for the modern home, just write us for these details. . . . The American Rolling Mill Company, 3171 Curtis Street, Middletown, Ohio.

ARMCO Ingot Iron HELPS TO SELL BETTER SERVICES

PORCELAIN ENAMEL ON ARMCO INGOT IRON

You're looking at WINDOW VALUE!





BONDERIZED STEEL *and baked-on priming coat of paint* gives the new Truscon Steel Residential Double-Hung Window, Series 138, maximum protection and long life.

TUBULAR CONSTRUCTION OF SASH gives improved appearance and adds greatly to the strength and durability of this new window.

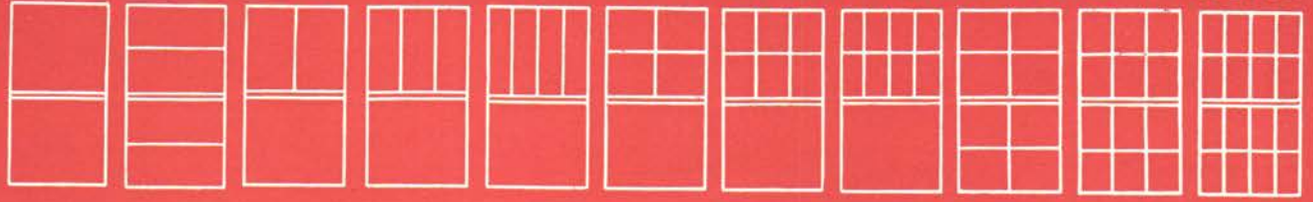
SPRING BRONZE WEATHERSTRIPPING (installed at factory) assures weathertight windows.

SPRING BALANCED CONSTRUCTION. Operation controlled by spring balances equipped with tapes of Enduro Stainless Steel. No sash cords, no weights, no pulleys. Smooth, positive, quiet action and greater durability are assured.

Other important features: Flush installation of Truscon Screens and Tempryte Insulating Windows; attractive hardware; windows are packaged in strong, durable cartons. *Write today for New Catalog containing complete information.*

TRUSCON STEEL COMPANY
Youngstown, Ohio
57 Sales-Engineering Offices. 27 Warehouses
SUBSIDIARY: REPUBLIC STEEL CORPORATION

5 STANDARD TYPES AND 24 SIZES OF SERIES 138 TRUSCON STEEL WINDOWS



PLANNED FOR MODERN COMFORT WITH PRACTICAL ECONOMY...

"LIFE HOUSES" deserve *Automatic* ANTHRACITE *heat*

ANTHRACITE WARM AIR HEATING. Modern, jacketed, heavily insulated warm air heaters provide even-heat with thermostatic controls, and remarkably long firing periods.

MAGAZINE FEED HEATERS. Modern magazine feed heaters are built for both warm air and radiator heating—self-fueling for 24 to 48 hours.

Architects who design individual homes from the announced "Life" plans, will be more interested today than ever before in Anthracite heating equipment. Matching the progress made in building construction, is the progress made in the development of Anthracite heating equipment.

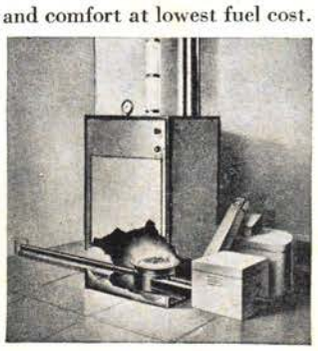
Today Anthracite equipment provides heating comfort and convenience that were far beyond the reach of the average home-owner only a few years ago. Today architects can provide automatic temperature control for home-builders in any income group, with a wide choice of Anthracite equipment.

Even the simplest boiler or furnace is now far advanced over equipment of a decade ago. Boilers and furnaces are now designed to hold more fuel, so that they can provide—with thermostatic control—attention-free heat for periods of twelve hours and longer. Magazine feed heaters, of course, are self-fueling for 24 to 48 hours. Anthracite stokers provide automatic fuel and ash handling all season.

Anthracite Industries, Inc., is prepared to co-operate with architects in providing really economical heat with modern convenience, in houses built around the basic "Life" designs. For detailed help in planning Anthracite equipment for "Life" houses, or any other homes, feel free to consult: Anthracite Industries, Inc., Chrysler Building, New York.

ANTHRACITE BOILERS.. for steam, vapor or hot water heating, provide all the advantages of easily controlled radiator heat with the established economy of Anthracite.

ANTHRACITE STOKERS. In addition to completely automatic convenience, from coal bin to ash pit, Anthracite stokers provide constant heat for health and comfort at lowest fuel cost.



ANTHRACITE AIR CONDITIONING. Units for providing air conditioning, are available for warm air heating, magazine feed heaters, and for stokers. Summer cooling can be added if desired.

ANTHRACITE INDUSTRIES INCORPORATED approved

This Seal of Approval appears on Anthracite equipment only after it has passed the most rigid tests in the heating field.

THE MODERN FUEL FOR SOLID COMFORT