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# THE ARCHITECTURAL FORUM

APRIL 1940



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## APRIL 1940



Walter B. Lane

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VOLUME 72—NUMBER FOUR



# THE MONTH IN BUILDING

**BUILDING TRENDS.** More favorable than the current course of total building permits, which was pulled down in January by sharply decreased residential construction (see tabulation, right), is the steadily diminishing number of non-farm real estate foreclosures. January total for the entire U. S. was 6,483 cases—well under the previous post-Depression low, well under the Federal Home

Loan Bank Board's "average month" of 1927 when 7,583 cases were reported. Wholesale building material prices continued their seven-month advance in January, due primarily to higher prices for paint and paint materials. Retail costs (cost of constructing a house), on the other hand, decreased fractionally in the face of slightly lower labor rates. Trend of residential rents remained steady.

## PERMITS

(Source: U. S. Dept. of Labor)

	Jan. 1940 (millions)	Comparison with Dec. '39	Jan. '39
Residential .....	\$62.3	—51.3%	—14.9%
Non-residential ..	32.4	—10.8	—81.7
Additions, repairs.	20.0	— 5.0	—20.0
TOTAL .....	114.7	—30.8	—34.9

**HOUSING HOPE.** Nothing would cast the public housing movement in better light than lower costs and increased investment by private capital. In late February the U. S. Housing Authority program with one bold step moved in both these desired directions, as four local housing authorities sold a total of \$1,379,000 of bonds in the open market at a substantial saving in interest cost.

Back in November, 21 local housing authorities began saving themselves money by offering at public sale blocks of six months' temporary loan notes, the proceeds of which were used to cover construction costs and thus postpone the date upon which permanent financing must take place. Bearing interest at 0.45 per cent or 0.60 per cent, these notes (\$85 million of which are now in the hands of private investors) cost the participating local authorities much less than the 3 per cent (average) permanent loans being made by USHA.

Carrying this principle further, housing authorities in Allentown, Penna., St. Petersburg, Fla., Syracuse, N. Y., and Utica, N. Y., decided to go to Wall Street instead of to USHA for at least part of their permanent loans. All local authorities must meet at least 10 per cent of their projects' development costs from local sources, but three of these four pioneers bettered the minimum: Allentown and Syracuse floated bonds which will cover 20 per cent of the costs of their projects, and Utica, 25 per cent.

Syracuse, for instance, offered \$993,000 of serial bonds which were purchased by three Wall Street security dealers at a net interest cost of 2.48 per cent to the authority and were then reoffered to the investing public at prices to yield from 0.20 to 2.65 per cent according to maturity. Balance of the cost of the Syracuse project will be financed by a loan from USHA which will bear interest at about 3 per cent.

While Wall Street fortnight ago still had \$500,000 of the Syracuse Housing Authority bonds on its shelves, the initial sale of these permanent loans to private

investors was proclaimed a success. So much so that 1) USH Administrator Straus has openly predicted a "steady reduction of the share of the U. S. Government in the financing of the public housing program. . . . Before long it may be as low as 60 per cent, or even less"; 2) the New York City Housing Authority immediately asked Wall Street to bid on about \$1,350,000 of bonds to finance 100 per cent of the cost of a non-Federal housing project. The winning bid meant an interest cost of 3.142 per cent to the authority.

**FOURTH STEP.** Always a pioneer in the housing movement, New York State month ago took its fourth step forward as the State Legislature authorized life insurance companies to invest in the stock and debentures of limited dividend housing companies organized under State law. Subject to the approval of the State Superintendent of Housing, these companies may condemn property for sites for low cost projects to house families of moderate income, may thus enter the "no man's land" between the realms of public and unassisted private housing.

New York State is already attacking the housing problem on three other fronts: 1) participation in the \$800 million U. S. Housing Authority program, 2) launching of a \$150 million State-wide program patterned after USHA, and 3) authorization of life insurance companies directly

to invest up to 10 per cent of their assets in large scale housing. At mid-month the Legislature was still hesitant about taking a fifth step—to permit savings banks to invest in low cost housing.

## 20TH CENTURY ARCHITECT.

When spring came to Chicago in 1934, spring fever came to young Architect Miles Lanier Colean. He dusted off his barren drafting board in the offices of Cowles & Colean, boarded a train for the A.I.A. convention in Washington. And in Washington he has been ever since—a mainspring in the Federal Housing Administration. Last month word came that FHA, but not Housing, had seen the last of "Mike" Colean as he prepared to assume new duties as a housing researcher for the progressive Twentieth Century Fund.

A virtual unknown in 1934, the name "Colean" was made as rapidly as FHA's itself. Before the May A.I.A. convention had struck tent, Colean bumped into the group of men who were framing the National Housing Act: Frank Walker, Frank Watson, Marriner Eccles, Winfield Riefler, "Matt" Daiger, *et al.* He quickly proved his abundant knowledge of building, was promptly asked to remain in Washington to help iron out some of the wrinkles in FHA's enabling legislation. Next month when the Act was passed, Miles Colean entered the FHA organization literally on the ground floor—he was given a shabby two-by-four office in the basement of Washington's old Walker-Johnson Building.

For a while he was the *only* man in the sparsely populated organization who worked openly to get the main part of the FHA program rolling. Some considered FHA to be first and foremost an advertising agency, others thought of it as a mortgage bank or an insurance company and, for a long time, it actually was a glorified installment credit proposition with Title I property improvement loans in the limelight. No one worked harder than Colean to push above these misap-

(Continued on page 4)



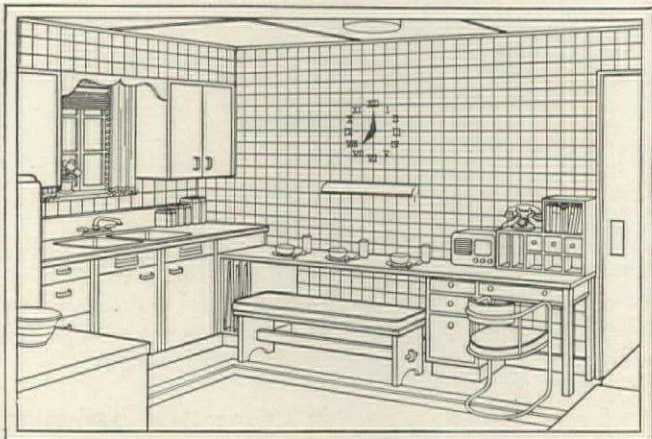
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MILES LANIER COLEAN—see col. 3

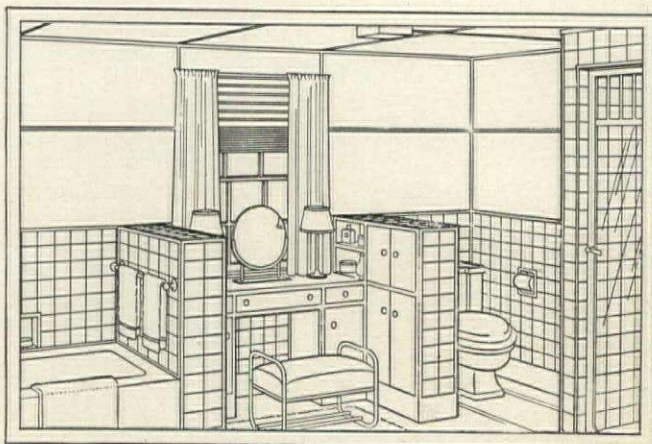


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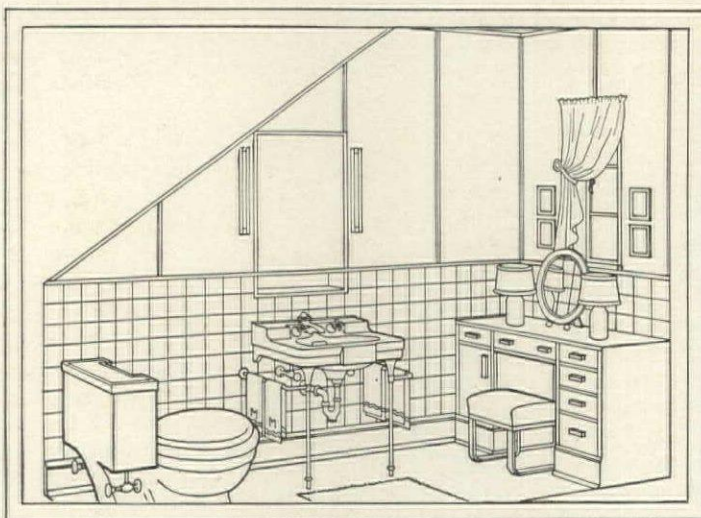
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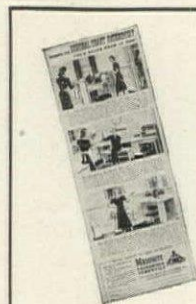
*Housewives dream* of a kitchen like this. Here Masonite Presdwood Temprtle is painted white with red stripes. Wall clock is an ordinary electric clock mounted behind a removable section of Presdwood Temprtle upon which Roman numerals have been painted. Snack bar and planning desk are Masonite Tempered Presdwood, as are the sink top and splash board.



*Spick, span and modern* is this bathroom. Presdwood Temprtle wainscot is painted white with black striping. Above the Temprtle, Tempered Presdwood is used. In remodeling work these boards can be nailed right over old walls. Built-in dressing-table and the convenient cabinets for towels, perfumes and medicines are faced with Tempered Presdwood.



*Waste space under the stairs* can often be used for a smart little powder room. Here the wainscot is Presdwood Temprtle and upper walls are Tempered Presdwood grooved at the joints. These Masonite boards are excellent for oddly shaped areas because they can be cut or sawed to any size or shape with ordinary tools.



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VOLUME 72  
Number 4



# THE MONTH IN BUILDING

(Continued from page 2)

prehensions the fundamental purpose of FHA—to promote the construction of better, cheaper, more soundly financed houses.

By the time FHA moved to its present quarters—the old Department of Justice Building—Colean had moved up to the office of Technical Director. There he installed machinery for two of the most important parts of the budding program, land planning and technical advice, and for another phase of operations which was later to come into its own—large scale rental housing. By efficiently running this machinery, Colean has had more beneficial influence on the site planning, design and construction of houses than any other individual in the U. S. First, he developed the minimum property and construction standards which every FHA-insured dwelling must meet; then through the publication of innumerable booklets he defined FHA to the house building and buying public, convinced the building industry that it was wise to accept his higher standards.

While he is a reformer at heart, Colean has accomplished his reformer's goals via practical techniques. Thus, he has never urged builders to be patriotic and to forget about the sordid business of making a living. Instead, he has emphasized the economic side of his convictions, has pointed the way toward lower costs where markets are larger. Even the titles to some of the pamphlets issued under his direction bear out this practical approach. For example: "Planning Profitable Neighborhoods" and "Low Rental Housing for Private Investment."

Slight of build with thinning hair, 42-year-old Colean is, except for his incessant pipe smoking, quite unlike the average architect in both appearance and manner. Confronted with a building problem, he looks beyond the immediate solution into the economics of the thing, sees how much people can afford to pay for housing, what the new housing means to the neighborhood and what the new neighborhood means to the community.

In addition to this foresightedness, "Mike" Colean has other characteristics which have helped FHA become one of the most universally respected of all New Deal agencies. He is a born cooperator and, fortunately, has always had an able staff with which to cooperate. Furthermore, despite his spectacular achievements, he himself has not tried to be spectacular—unlike some other Government agencies, FHA accomplishes much, boasts little.

Not the least among FHA's accomplishments is the widespread acceptance of the so-called "garden apartment"—the rental housing project which lies low to capi-

talize on light, ventilation, views, privacy and, last but not least, construction economies. Fascinated by the possibilities of this type of residential construction, Colean studied the subject thoroughly. But, not until he had set up the machinery for the main portion of the FHA program (Section 203) and not until he had been made Deputy Administrator in charge of the Rental Housing Division (as well as his Land Planning and Technical Divisions), did his garden apartment dreams begin to materialize. FHA purposely had let its rental housing activities coast along without pushing, while it concentrated on small house promotion. Under Colean, however, privately financed moderately priced rental housing began to hum; by the end of 1939 some 340 projects involving about \$140 million of FHA-insured mortgages had taken shape from coast to coast. Equally significant, by year-end Colean and his lieutenants had also vetoed mortgage insurance applications for some 700 other projects which either fell short of his standards or were considered unnecessary in the light of local market conditions. Financial record of the insured projects speaks for itself and for Colean: to date only five mortgages have been foreclosed (representing about 3 per cent of the total mortgage principal), and three of them have been satisfactorily refinanced. In other words, during the program's five-year life only two projects have come back to FHA to roost.

But, in recent months, work of Colean's Rental Housing Division has steadily tapered off. Congress last summer tacked a crippling amendment on the National Housing Act which has restricted the construction of large scale rental projects by requiring prevailing wages and by limiting mortgages to construction costs. (Only six such developments were approved by FHA during 1940's first two months.) Moreover, FHA itself is becoming more restrictive in this phase of its operations, will henceforth approve only those projects which make tangible contributions—low rents, improved design, etc.

Despite the absence of fanfare, the entire FHA program is today entering a new phase. It has passed the point where it must chart new courses for the building industry to follow; it has reached the operating stage. And Architect Miles Lanier Colean, now assistant to FH Administrator Stewart McDonald, feels that his work has been accomplished. (Both Government and Building will add that it has been very admirably accomplished.)

Timely and prudent, therefore, is the Twentieth Century Fund's invitation to Mr. Colean to serve as research director for a survey of U. S. housing needs and

residential construction stimuli. He has accepted and will soon undertake a task big enough for any man. Through Colean the Fund proposes "to determine how residential construction can be stimulated with a view to contributing substantially to the restoration of a higher level of employment, meeting the recognized need for more adequate housing for the American people, and making more effective use of the country's available resources." In his new capacity, Colean will not concern himself so much with the creation of primary data as with the assembly and organization of existing information which will be greatly augmented by the 1940 census of population, housing and business. While periodic progress reports will probably be issued, at the end of perhaps two years a committee of Twentieth Century Fundsters, on the basis of Colean's findings, will formulate a program of recommended action.

Colean's new appointment has offered a long desired opportunity for thousands of grateful building men to show him the only kind of recognition modest "Mike" Colean would like—a quiet salute for a job well done, a quiet good wish for future accomplishments.

**VACANCIES BY INCHES.** Traditional way to measure the supply of housing is to estimate the number of vacant dwelling units, then to compare the figure with the number of available units. Today this vacancy ratio is roughly estimated at 1½ per cent for single-family dwellings, a little more than 3 per cent for all types of residential properties. In 1931 the figures were about 3½ per cent and 6½ per cent, respectively.

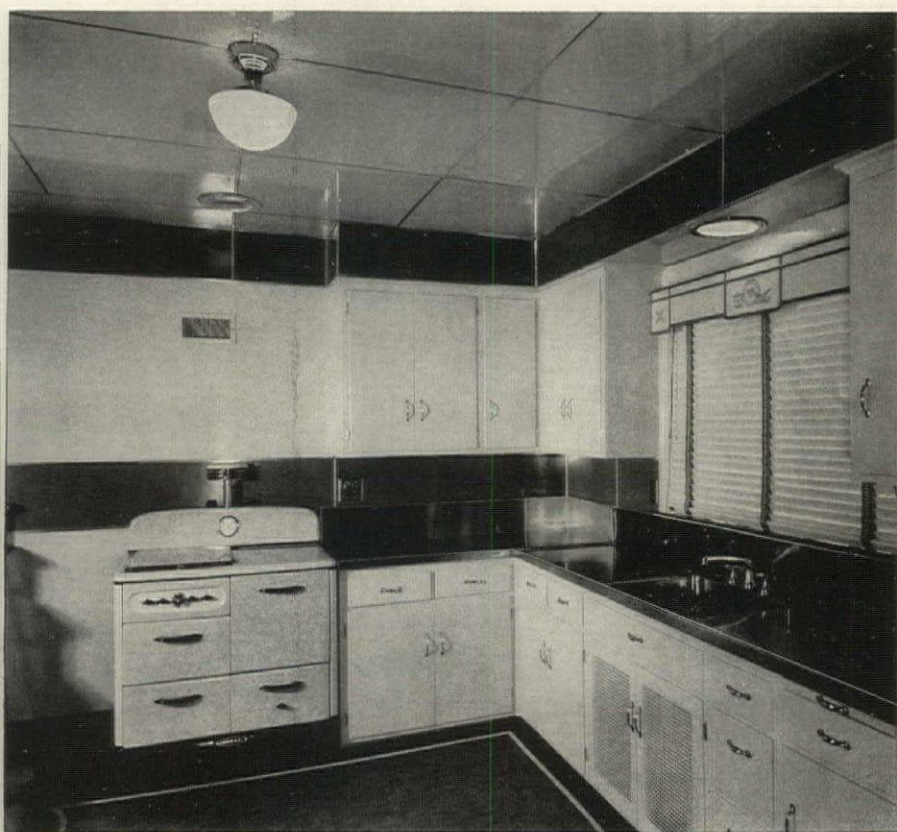
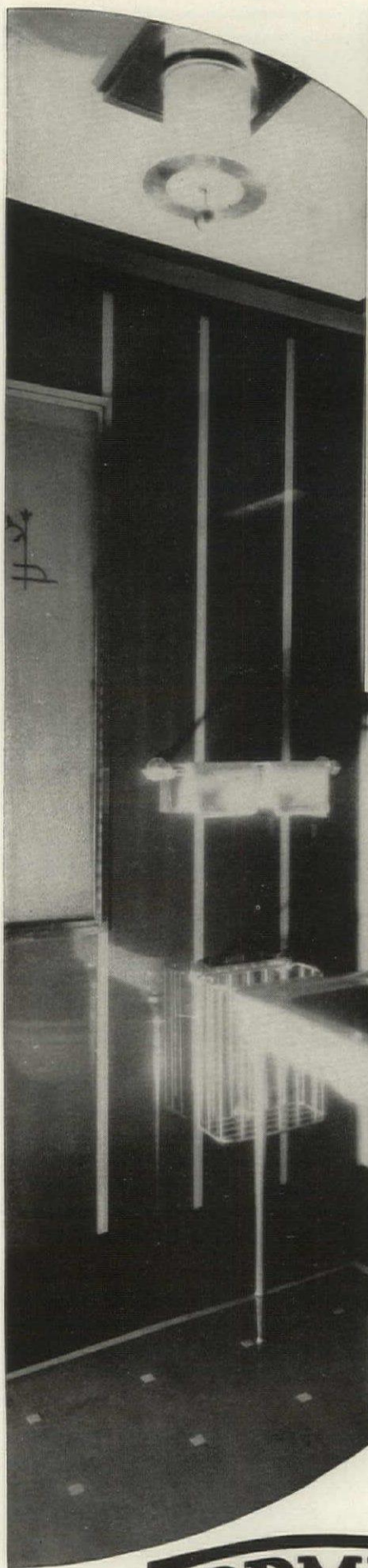
An encouraging trend for the building industry, this 1931-1939 drop in vacancies is substantiated by conditions in metropolitan Cleveland where the supply of vacant housing is measured in inches by an unique yardstick. Thus, for the past fourteen years, the research department in County Auditor John A. Zangerle's office has tabulated the weekly amount of space (in inches) devoted to advertising residential vacancies in the *Sunday Cleveland Plain Dealer*. Stacked up beside the 1931 figures, last year's vacancies in inches looked like this for the three classifications of housing covered by the survey:

	1939	1931
Apartments .....	3,252	6,055
Houses .....	2,856	5,157
Furnished apts. & houses.....	1,045	2,229
Total .....	7,153	13,441

Auditor Zangerle's statistics indicate that apartment vacancies dropped 46 per cent during 1931-39; house vacancies, 44 per

(Continued on page 66)





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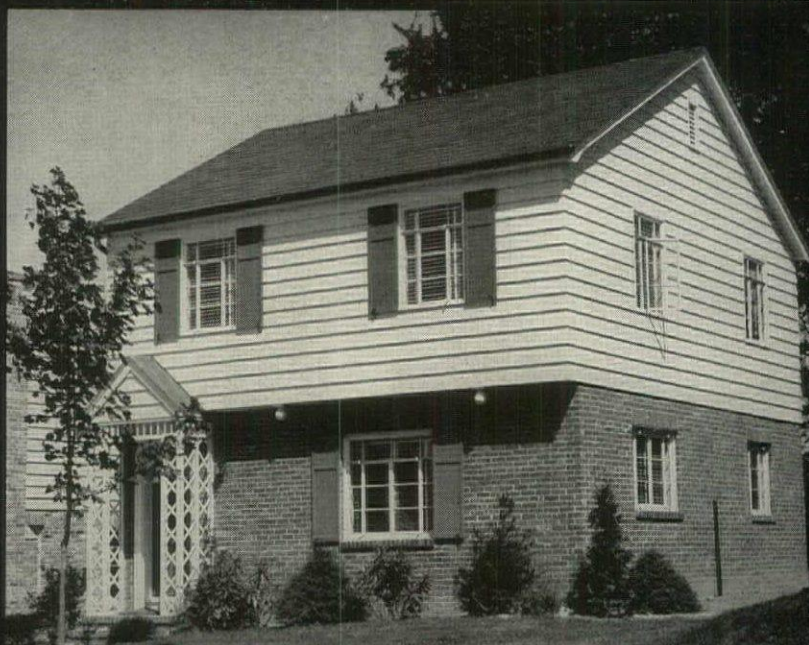
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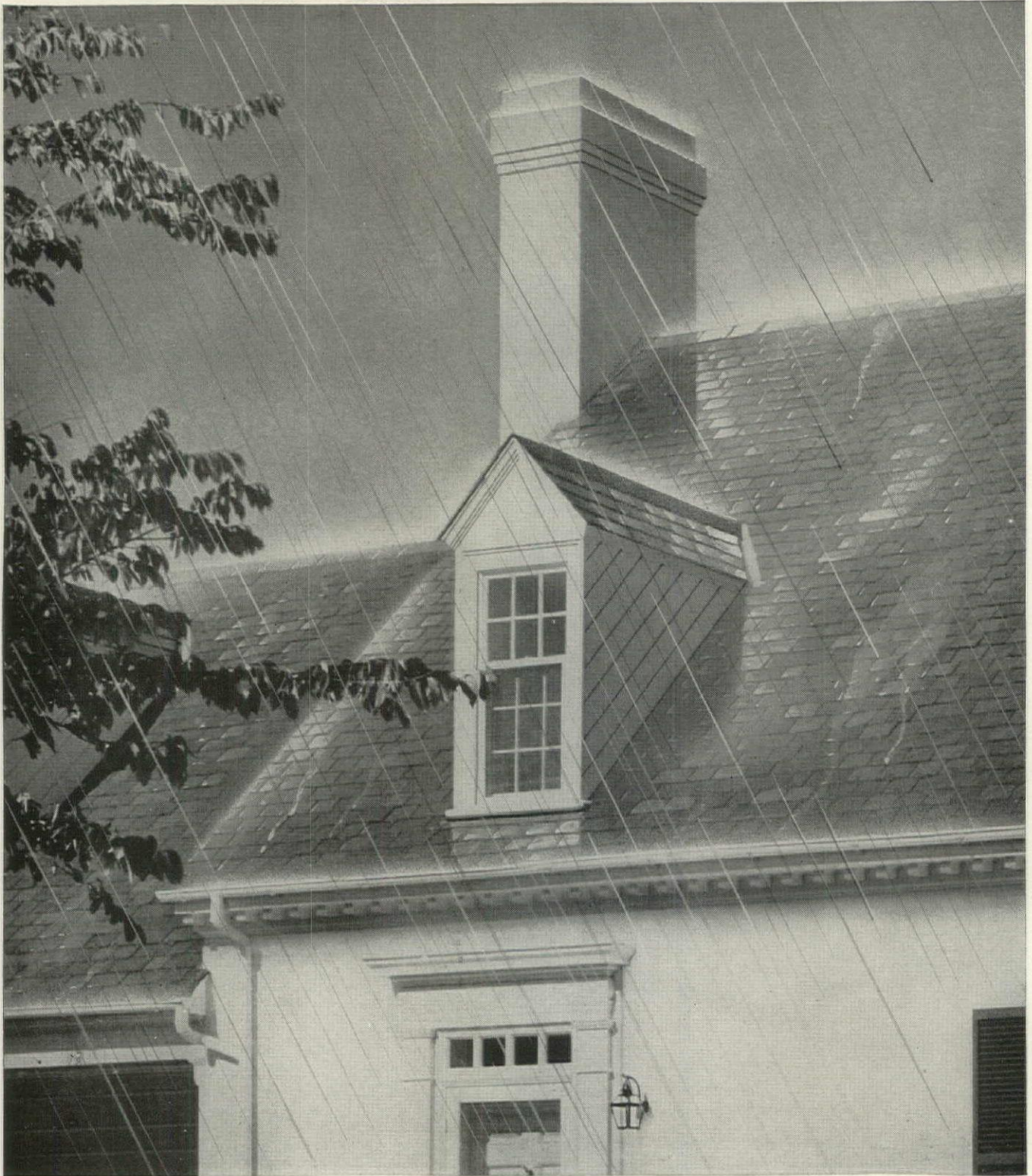
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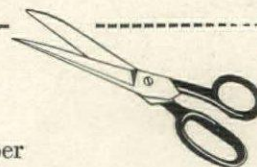
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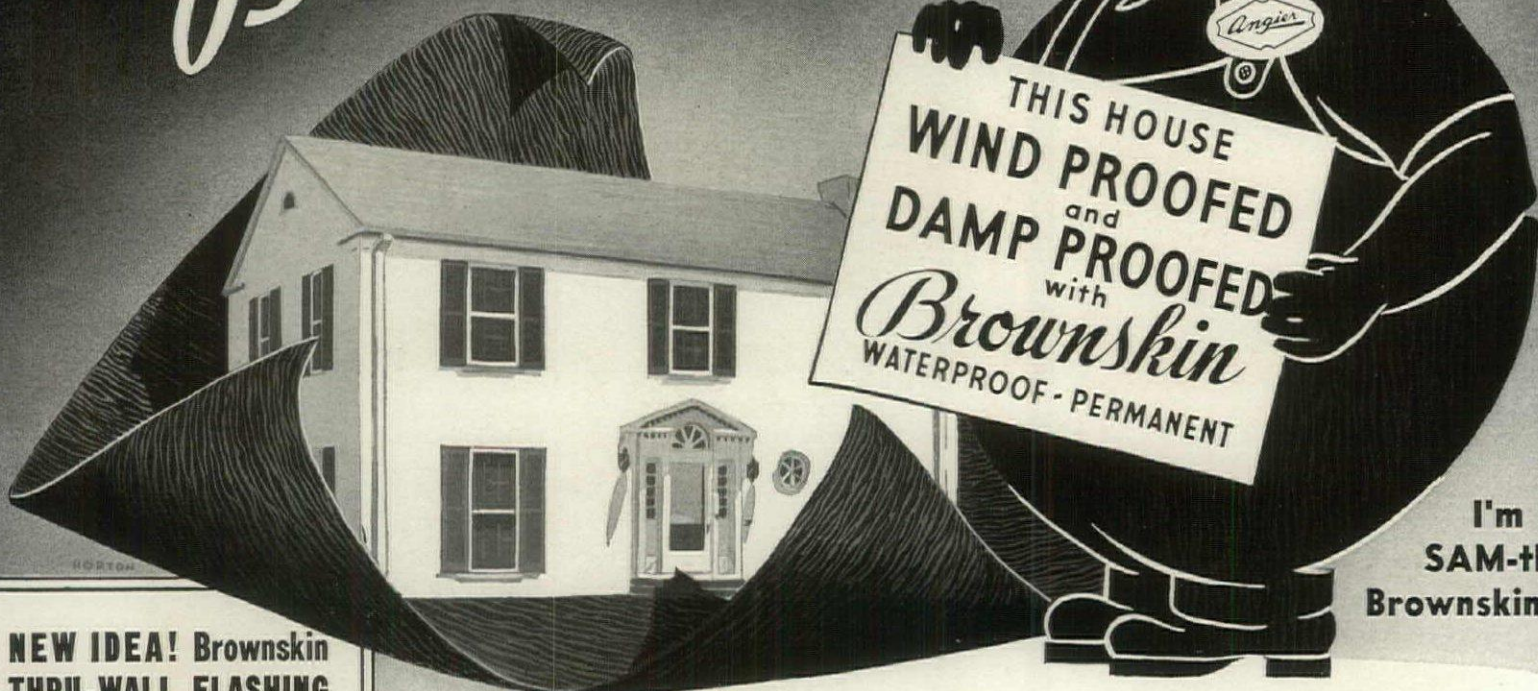
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Pure copper bonded to s-t-r-e-t-c-h-a-b-l-e Brownskin. Vapor-Seals and dampproofs 100%. Easily shaped by hand. Has the advantages of heavy copper at 1/5 the cost.

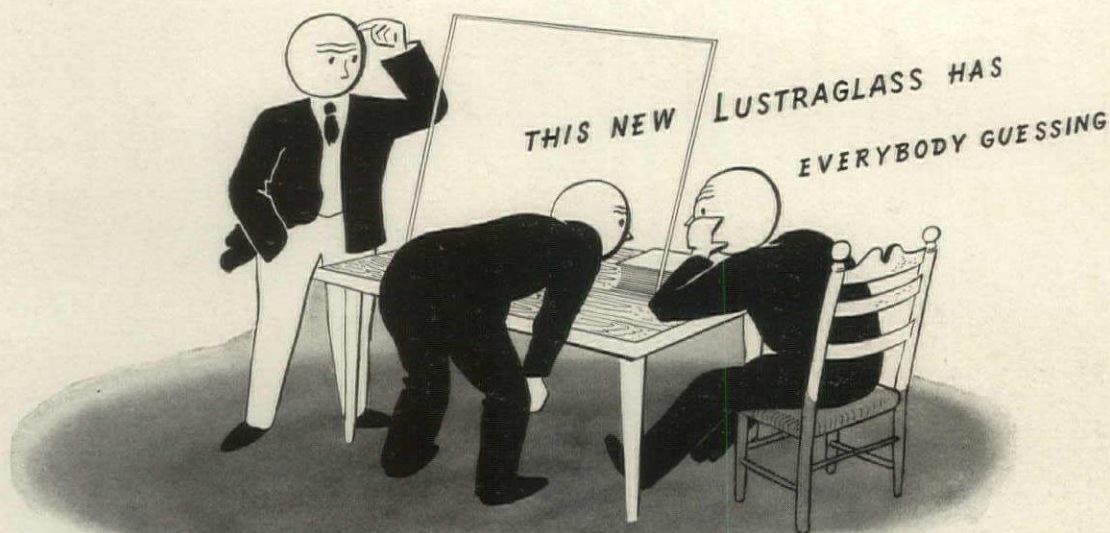


## Brownskin

Far superior to ordinary sheathing papers because (1) Resilient with a stretch of 15%; (2) Specially treated to resist deterioration and highly Waterproof; (3) Extremely tough; (4) Windproof; (5) Dustproof; (6) Most effective economical Vapor-Seal.

**A HOUSE IS EASIER TO SELL—  
WHEN "WRAPPED IN BROWNSKIN"**





## what would you call it?

*you can't call it window glass*



... because it is practically free of that waviness and consequent distortion which distinguish window glass from plate.

*and you can't call it plate glass*

... because it is not made by the plate glass process and, although it looks like plate, it sells at window glass prices.

Experts who have seen this new Lustraglass agree that it represents the greatest forward step in the history of sheet glass making ... Years of intensive research created it. It cost thousands of dollars to perfect it ... Its jewel-like luster, ultra-violet ray transmission and "whiteness of metal" alone place it above competition. And now add to these its plate-like appearance, freedom from distortion and low price, and you have a sheet glass that demands the immediate attention of every architect and builder.

### AMERICAN WINDOW GLASS CO., PITTSBURGH, PA.

Manufacturers of Plexite, the safer safety glass; Lustrablu and Lustragold for ornamental uses; Crystal Sheet, Chipped and Special Glass for industrial purposes.

### THE SHADOWGRAPH TELLS THE STORY by amplifying distortion and defects 20 times



(1) This is high quality cylinder drawn window glass. The bent and twisted lines shown by the shadowgraph testing device indicate the presence of considerable distortion. This glass became obsolete in 1928.

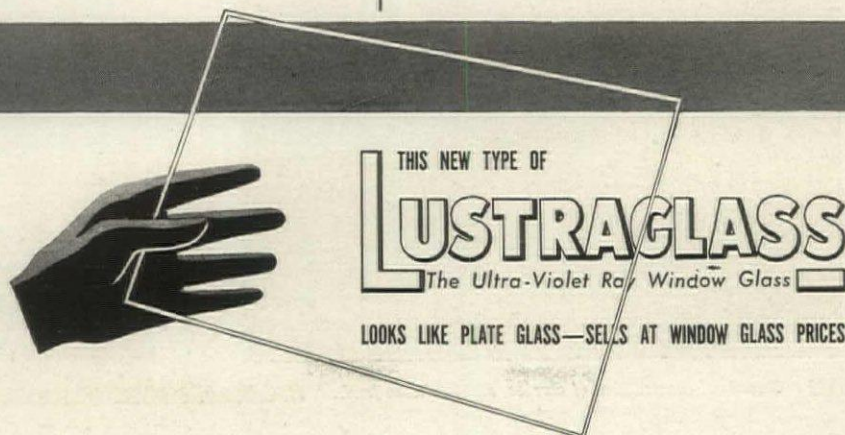


(2) Here is what most manufacturers offer today as top quality window glass ... Made by the sheet drawn process, it shows a characteristic distortion in the waviness of the black lines.



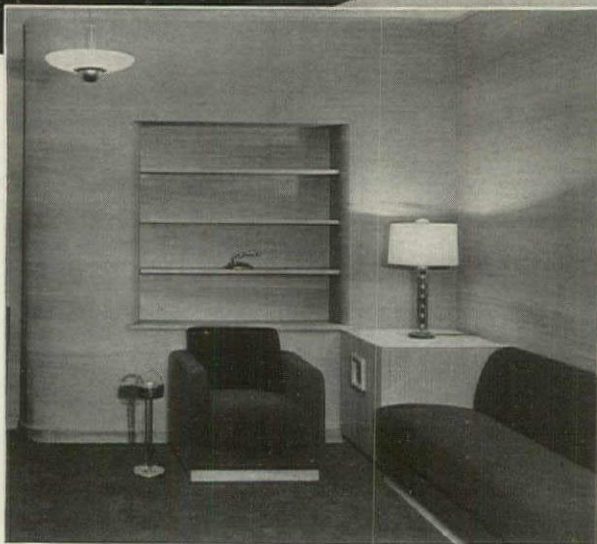
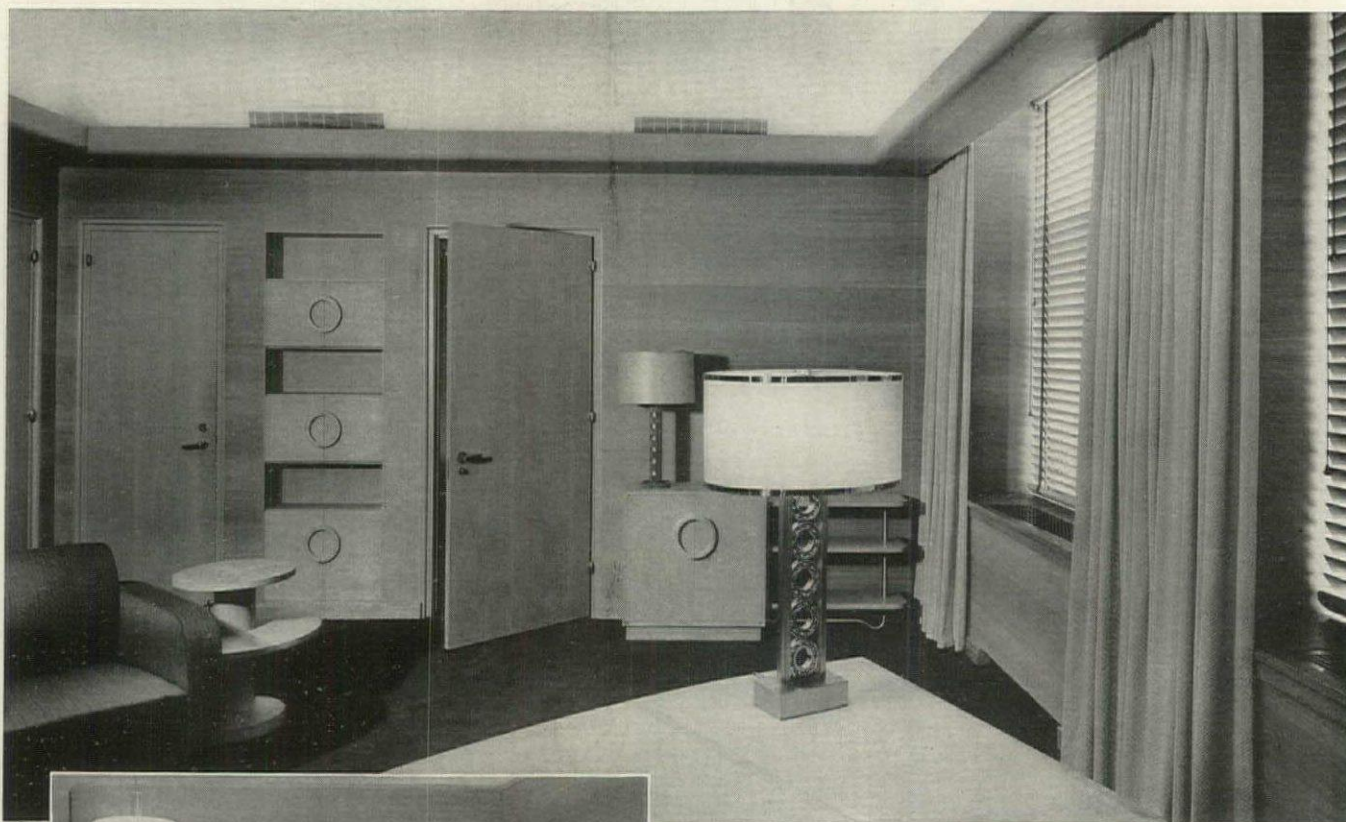
(3) Now look at this "shadowgraphed" sample of the new Lustraglass. Obviously an important improvement. The lines are straight, showing relatively perfect vision—freedom from distortion.

Write for the new Windowgraph Slide Rule Chart and a sample of the new Lustraglass. Examine both—then tell us what you think.

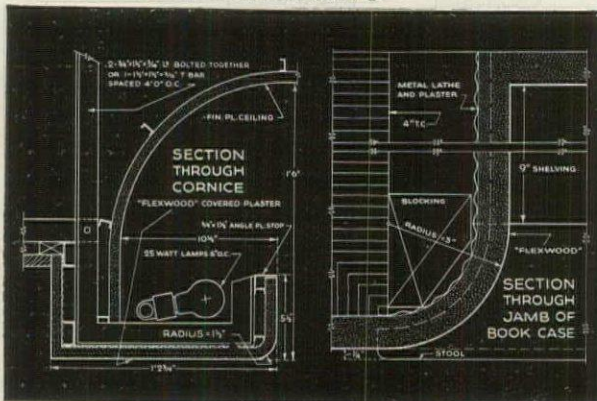




# The art of modern wood treatment



*Rift Oak Flexwood treatment, private offices, Ford Motor Sales Bldg., New York; Walter Dorwin Teague, Designer. (Photos: Robert M. Damora.) Gavin Hadden, Eng.*



*Details of construction of cornice, and bookcase jamb.*

**FORD OFFICES AND SHOWROOM  
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[WOOD IN FACILE FORM]

To create a rich, mellow atmosphere, expressive of the personality and character of the Company...and a setting as streamlined as the latest Mercury or V-8, Designer Walter Dorwin Teague treated walls and cornices with Rift Oak Flexwood, end-matched and applied horizontally. The same treatment is used as a background for the huge showroom. The richness of this impressive, genuine wood interior is belied by its moderate cost. The ease and speed of application of Flexwood brings the luxury of rare and exotic wood interiors within the limits of the average decorating budget.

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Manufacturers of Flexglass, Plywood, Armormply and Weldwood



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Flexglass has been selected by the Design Committee for the 15 ft. curved curtain-wall forming the background for the Glass and Metal Section in the Exhibit of Contemporary American Industrial Arts at the Metropolitan Museum of Art, New York.

**UNITED STATES PLYWOOD CORPORATION, 103 PARK AVE., NEW YORK**

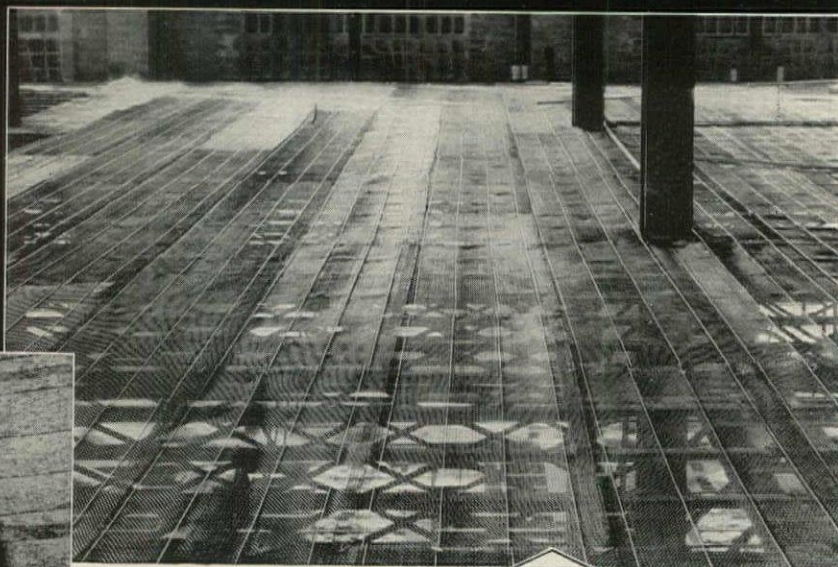
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**LIGHT CONCRETE FLOORS**



*with*



**BAR-X-LATH**

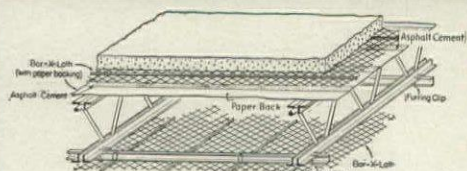
Where plans call for concrete slabs over steel joists, Steelcrete Bar-X-Lath offers many advantages as an economical and efficient reinforcement. These sheets of expanded metal with their stiffening longitudinal rods, spaced 7" on centers, have ample strength and rigidity for such service. As shown in the detail drawing at the left, the lath and the rods, placed near the bottom of the concrete slab, assure maximum reinforcement and protection against cracks.

For such work Steelcrete Bar-X-Lath is available with Waterproof or Kraft paper backing which offers sufficient "give" to permit the wet concrete to envelop fully the solid reinforcing rods.

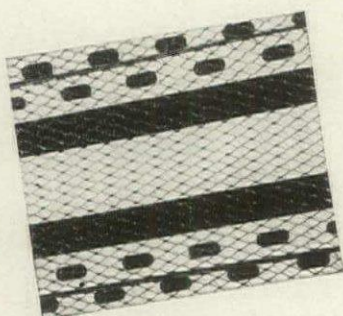
Steelcrete Bar-X-Lath with or without paper backing provides a perfect base for plastered ceilings and walls. Write for latest literature and complete specifications.

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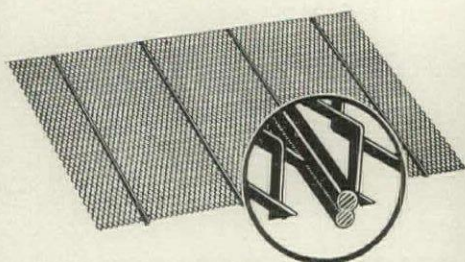
*Listen to the Mill Whistle! Every Sunday, 5 PM—EST—the Musical Steelmakers—coast to coast Mutual Broadcasting System.*



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*Bar-X-Lath with paper backing minimizes plaster waste*



*The extra rigidity of Bar-X-Lath permits the use of wide-spaced furring*

*The*  
**CONSOLIDATED** *Expanded Metal*  
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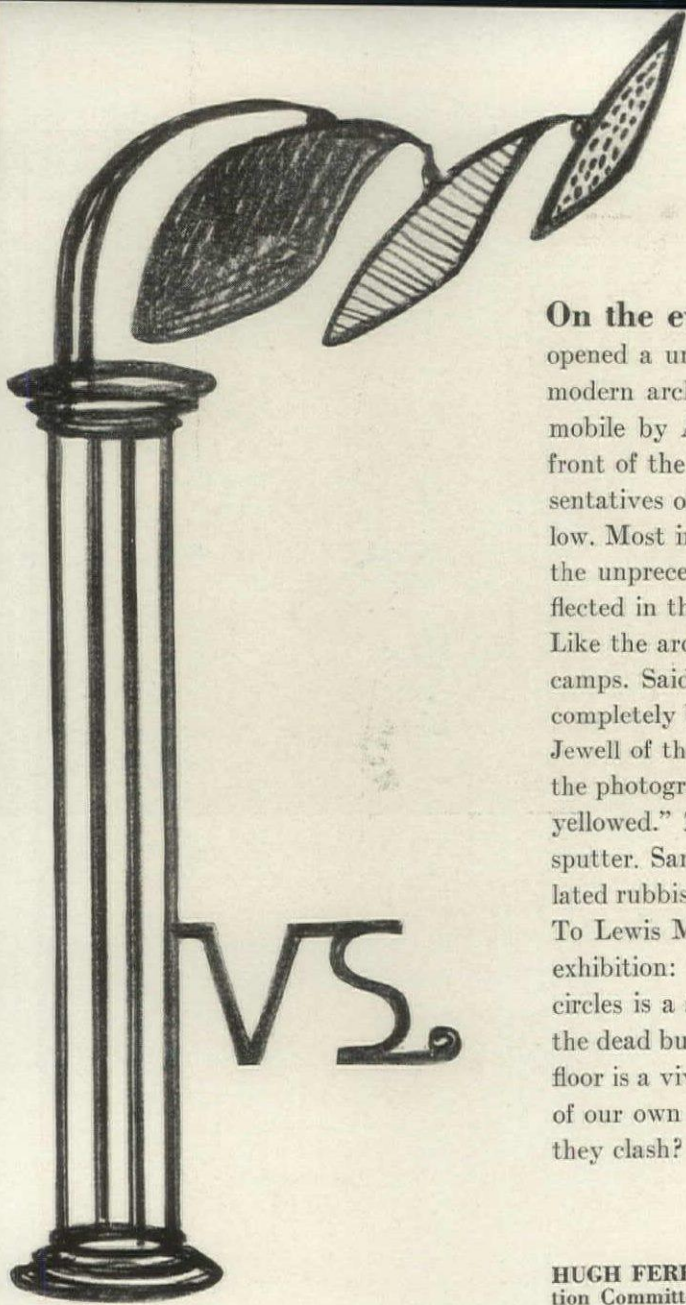
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**On the evening of March 5,** the Architectural League of New York opened a unique exhibition: **VERSUS**. A competing display of traditional and modern architecture, the show was heralded to the public at large by a huge mobile by Alexander Calder (see left, and contents page), hung on the staid front of the League's clubhouse, and inaugurated with a dinner at which representatives of the two schools expressed their views. Their speeches are given below. Most interesting and unexpected of the consequences of the exhibition was the unprecedented attendance of both lay and professional visitors, a fact reflected in the attention devoted to the exhibit by the press.

Like the architects who prepared the exhibition, critics found themselves in two camps. Said Royal Cortissoz of the modern exhibit: "bleak . . . beauty goes completely by the board . . . a weakness for the cult of ugliness." Edward Alden Jewell of the New York Times found the traditional exhibit "dull—and some of the photographs of the older 'classical' structures have mellowed—that is to say, yellowed." *Time* took delight in the modernists' credo "that made traditionalists sputter. Sample sputter-causer: 'The heritage of our generation is the accumulated rubbish of a century of fake fronts.'"

To Lewis Mumford, writing in the New Yorker, there was little excuse for the exhibition: "That there is still any debate about these matters in architectural circles is a sign of curious architectural innocence. . . On one floor are depicted the dead buildings that were built to resemble other dead buildings. On the upper floor is a vivid array of fresh buildings, evolved freely out of the needs and tastes of our own day. One floor is a cemetery, the other is a delivery ward. How can they clash? How can there be any question of choice?"

**HUGH FERRISS**, Chairman of the Exhibition Committee.

In presenting **VERSUS** the aim of the League's Exhibition is to exemplify dramatically the opposition between the two leading schools of American architecture. We thereby set the arena for an heroic conflict of ideas, the outcome of which we consider of first importance.

Its importance to architects and allied artists is obvious. All of us are bound up, in one way or another, with the fate of architecture, and its fate is now in doubt. Economic problems aside, the world is in the upswing of a scientific and technological evolution so rapid as to be, in effect, revolutionary. Can architecture remain, essentially, what it was in the past, or must it undergo some radical and basic transformation? Our careers are bound up in the answers to be given that question. But professional interest aside, we believe this matter to be of real public concern. If it is a truism that our lives are formulated, to an incalculable degree, by environment, it is equally true that buildings have become an enormous and outstanding part of that environment. If people in general are as yet unaware of the silent but universal influence exerted on their daily lives by architecture, I know of no reason why they should not be made aware of it.

**EDGAR I. WILLIAMS**, President, The Architectural League of New York.

American Architects have always been bashful about expressing their architectural ideas. In fact our architectural progress has been affected and probably delayed by a certain humility and lack of courage in stating our own convictions. We started as a group of colonies and we still stick pretty generally to our colonial architecture.

After the Civil War the financial and social chaos was conquered and we demonstrated our ability and strength as a nation to push forward in a period of rehabilitation the like of which has no parallel in history.

But what of our architecture? We could not wait; we were too humble. We copied Victorian architecture, Gothic architecture, French architecture, Roman architecture. We imported our teachers from other countries. We have always bowed to Europe in the pursuit of the Arts.

So again, what of our architecture, our American Architecture? Shall it spring from a consideration of the elements of building or shall it spring from a belief that the elements of construction are merely to be used to perpetuate and slowly change traditional esthetic forms so that by this approach we may continue to develop an architecture of our own?

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Model of Philadelphia Saving Fund Society building  
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All textiles and furniture in the model room, designed  
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Walter B. Lane Photos

The main speakers at the opening of VERSUS, silhouetted against a model of McKim, Mead and White's Morgan Library. Left, Traditionalist William Adams Delano. At his right, Richard Alden Jewell and William Kendall. With back to camera, Leon V. Solon. Right, Modernist George Howe, flanked by League President Edgar I. Williams and Exhibition Chairman Hugh Ferriss.

## ARCHITECTURE IS AN ART

By Wm. Adams Delano, Architect

Shortly after I left college there was a popular music hall song that contained these lines:

"First she said she wouldn't

Then she said she couldn't

Then she whispered, 'Well, I'll see.'"

Of course in the end she did. My replies to Edgar Williams' repeated demands were much the same but, as you see, I am here. My reasons for not wanting to speak on this much discussed subject were and are that there is little to add to what has already been said. When you have listened to arguments on both sides you feel much as when you hear two boys wrangling: One says, "Yes, you did." The other, "No, I didn't." It goes on until one or other gets a black eye: Nothing has really been decided.

I remember my mother had a story she was fond of telling about a man and his wife: Some string had been cut in the house and the husband stoutly maintained that it had been cut with a knife. The wife, on the other hand, said it had been cut with a pair of scissors. The discussion became very acrimonious and finally the husband became so exasperated that he threw his wife into the pond. She could not swim and as she went down for the third and last time her arm appeared above the water making the sign of a pair of scissors.

I can't see any reason for so much acrimony. I don't want to be thrown into the pond because, at the end of a hundred or five hundred years, the result will be about the same whatever you believe

or I believe. The important thing is to hold in one's work to the principles one believes in and keep one's mouth shut—which I am not doing. In Harold Nicholson's life of Dwight Morrow he tells the story of how Mr. Morrow went, during the last war, to see some important British Minister and while he was sitting there a young man came in, full of his own importance and much excited. He said that unless what he proposed was carried out there would be slight chance of England winning the war. The Minister said to him: "John I am afraid you have forgotten Rule 6." The young man retired somewhat abashed and Mr. Morrow said to the Minister, "What is Rule 6?" The Minister replied: "Rule 6 is 'DON'T TAKE YOURSELF TOO SERIOUSLY'." Mr. Morrow said, "That is a good rule. What are the other rules?" and the Minister replied, "There aren't any others."

We must not take ourselves too seriously. We are in the midst of a revolution and we must recognize it as such. The Revolutionists are much more vociferous than the Conservatives—Revolutionists always are—but after they have shouted themselves hoarse their voices become a whisper. What they have said continues as an echo which reverberates in diminishing volume for many years. The good they have done remains: the evil lies interred with their bones. For I am an optimist at heart and believe that mankind is on the upgrade in spite of all that is going on about us. I know a great many will not agree to that thesis. As long as men build there will be improvements in methods, which only the blind cannot see, but these new methods must be tested by time.

I often think of an artist as a man on a bicycle. He has to keep going or he loses his equilibrium and falls off. On the other hand he must not go too fast or he is apt to "come a cropper." Today I feel that some of us in our exhilaration take the grade too fast and may have a spill. We forget that there are esthetic as well as physical laws that put a limit on architecture as on bicycling. I am a strong believer in tradition but tradition tempered with motion. Our trouble today, it seems to me, is that our scientific knowledge—what we have learned about chemistry and physics and machinery—has outstripped our intellectual capacity to make full use of these instruments. We have invented radio and movies, airplanes and new methods of construction, but so far we have not learned how to control these instruments so that they are today being used as means of propaganda and destruction. To make it pertinent to this evening's discussion—we are using all the new methods of construction, all the new gadgets, without reference to what our forefathers have handed down to us. We are discarding most of the spiritual qualities which over long years men have attempted to build up because we, in the conceit of youth, think these qualities are antiquated. We think we know a great deal more and better than they. This is perhaps inevitable but it is only a passing phase and from it will emerge a truer sense of how these new inventions can be used—not only functionally but gracefully. Andrew Lang, in one of his essays, wrote:

"'Tis the fault of all art to seem antiquated and faded in the eyes of a succeeding generation."



Visitors in the modern exhibit. FORUM editors can spot Lawrence Grant White, Mr. and Mrs. George Kosmak, J. André Fouilhoux, Walter Sanders, Richard and Wm. Adams Delano, Harvey Wiley Corbett, Frederick Woodbridge, Morris Ketchum, Ely J. Kahn, Thomas Williams.



Walter B. Lane Photos



Mrs. Antonin Raymond, Hugh Ferriss, Holger Cahill, Miss Elizabeth Litchfield.

Foreground: Otis P. Swift, Mrs. Edward D. Stone, Dan Cooper, Mrs. Peter Grimm, Alexander Calder. Against the far wall (right to left): Robert Brown, Mrs. Clara Fargo Thomas, Peter Grimm, Miss Ruth West, Howard Myers.



This I am sure is profoundly true. I should like to add, however, that in each generation—no matter what the fashion of the time—certain things are so well done that when many years have passed they come into their own again and are recognized as outstanding works of art.

Some years ago I was asked to put down what my architectural beliefs were. This was published and I looked it over a day or two ago. I doubt if I can say better what I believed and said in 1932. May I repeat parts of it to you tonight?

"I believe that Architecture is an Art and not a business. Furthermore, I believe that it is the most difficult of all the Fine Arts. It must serve practical needs and at the same time create an emotion, and the

architect's only tools for attaining the latter are such vague qualities as line, mass, proportion and color.

"I believe that well-trained architects can give this emotional quality to a structure in a degree that engineers, trained in a different school, cannot. I believe, therefore, that while Architecture involves Engineering, it goes far beyond it.

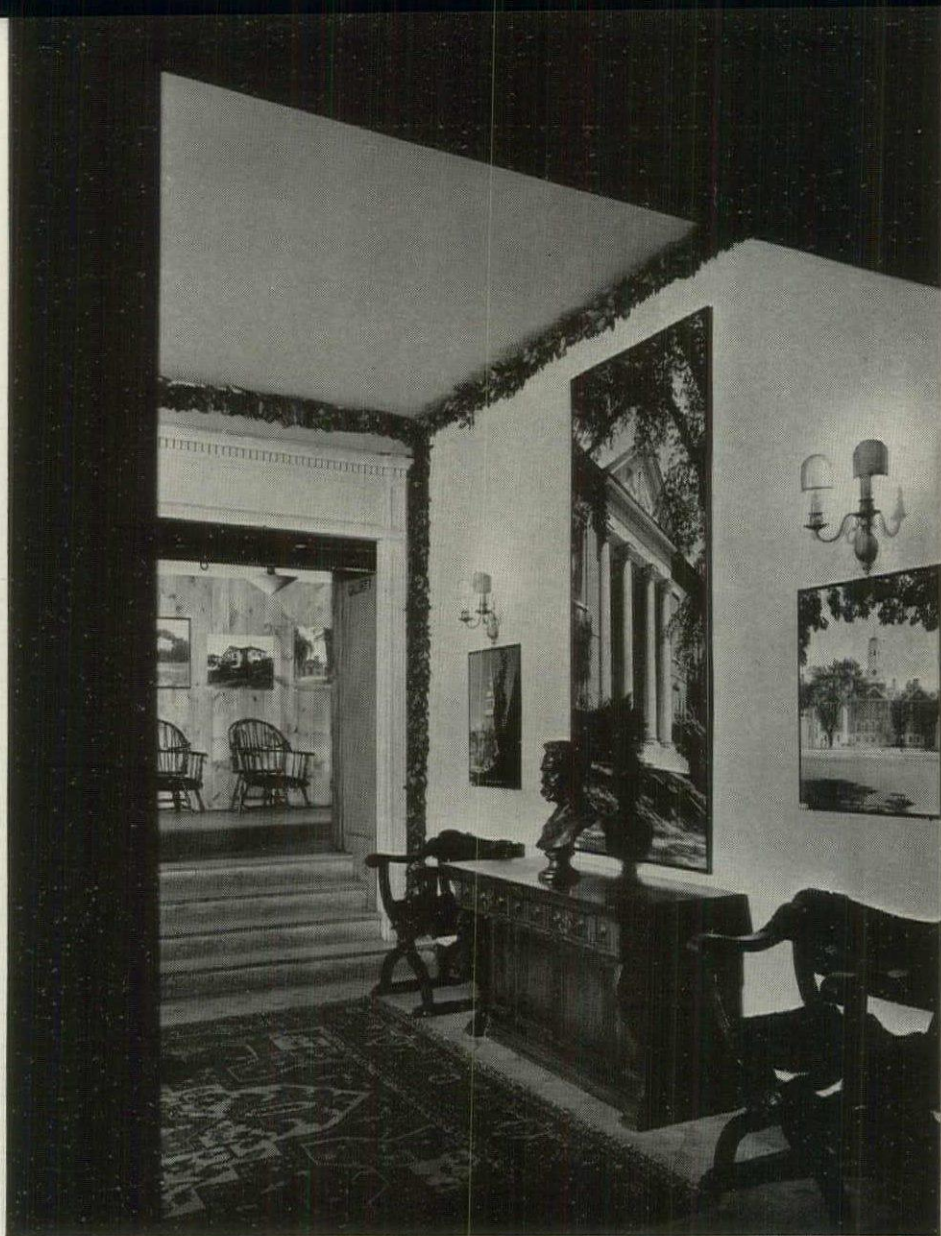
"I believe that the tendency today to let the engineering element dominate is unfortunate for I do *not* believe, as many modern designers profess to believe, that to express a function frankly of necessity creates a pleasant emotion; but I *do* believe that no structure can lay claim to being great Architecture which does not clearly express its purpose and which does

not adequately meet the needs for which it was created.

(Let me add that as I review the works of architecture of the past and what has been done in my own day and generation I am convinced that great architecture has never been created by reasoning and logic alone. In order to create an emotion in others—the end of all art—one must have it in one's own heart; in short, a spiritual quality which no amount of reasoning can replace. It is hard for me to see, therefore, how the present trend in our profession which, apart from its novelty, relies on its reasoned functionalism, can produce that emotional quality in the minds of future generations.)

(Continued on page 22)

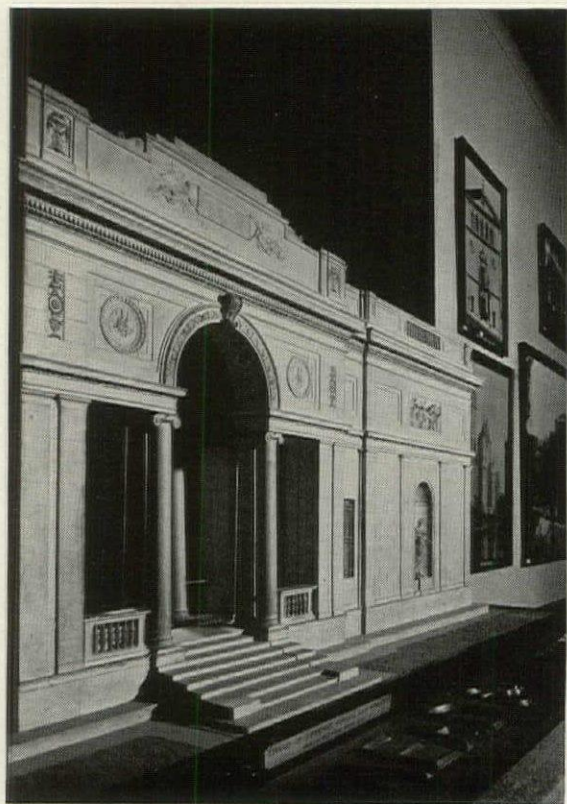
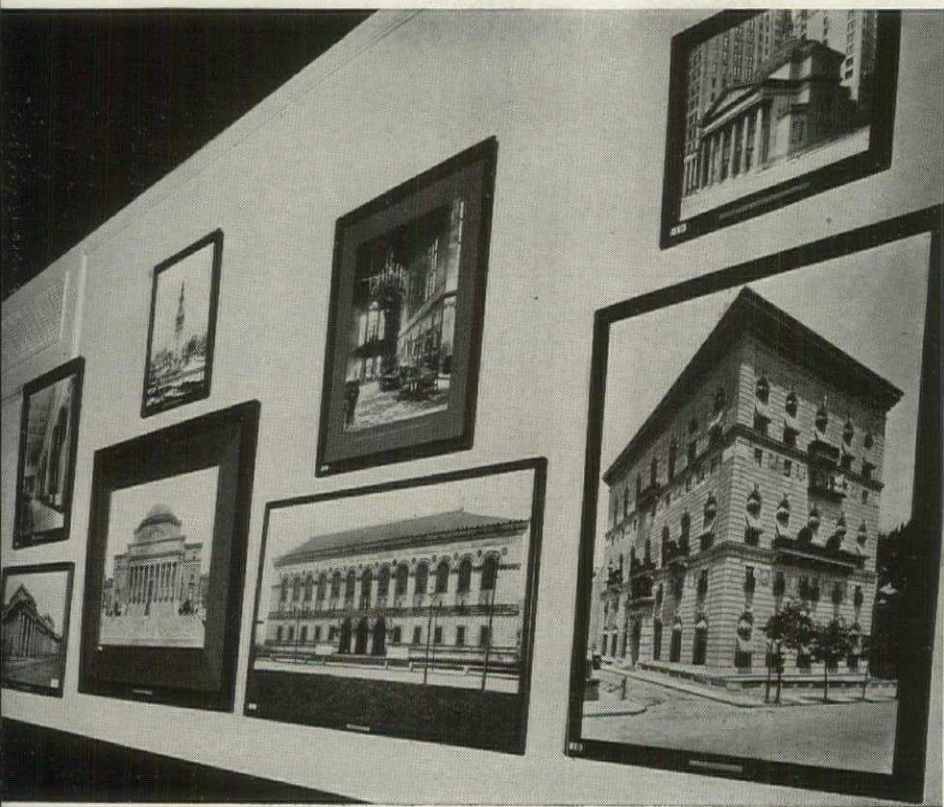




*Robert M. Damara Photos*

## FIRST FLOOR EXHIBIT

EXHIBITION COMMITTEE:  
 GEORGE A. LICHT, LAWRENCE GRANT  
 WHITE, LINDLEY M. FRANKLIN, OTTO R.  
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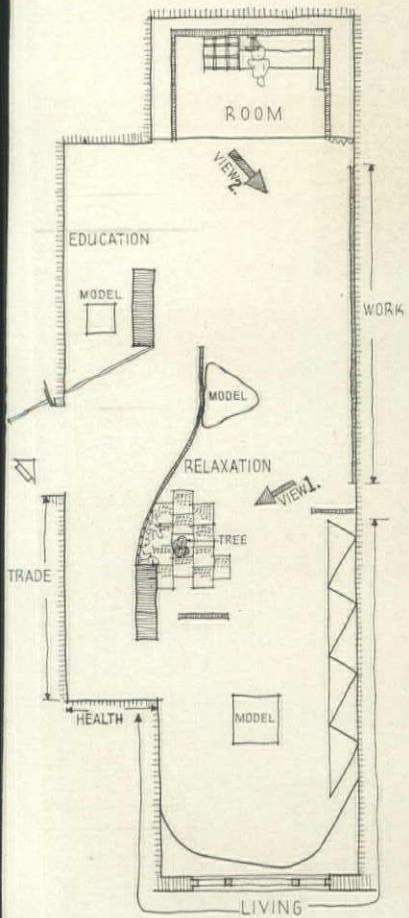




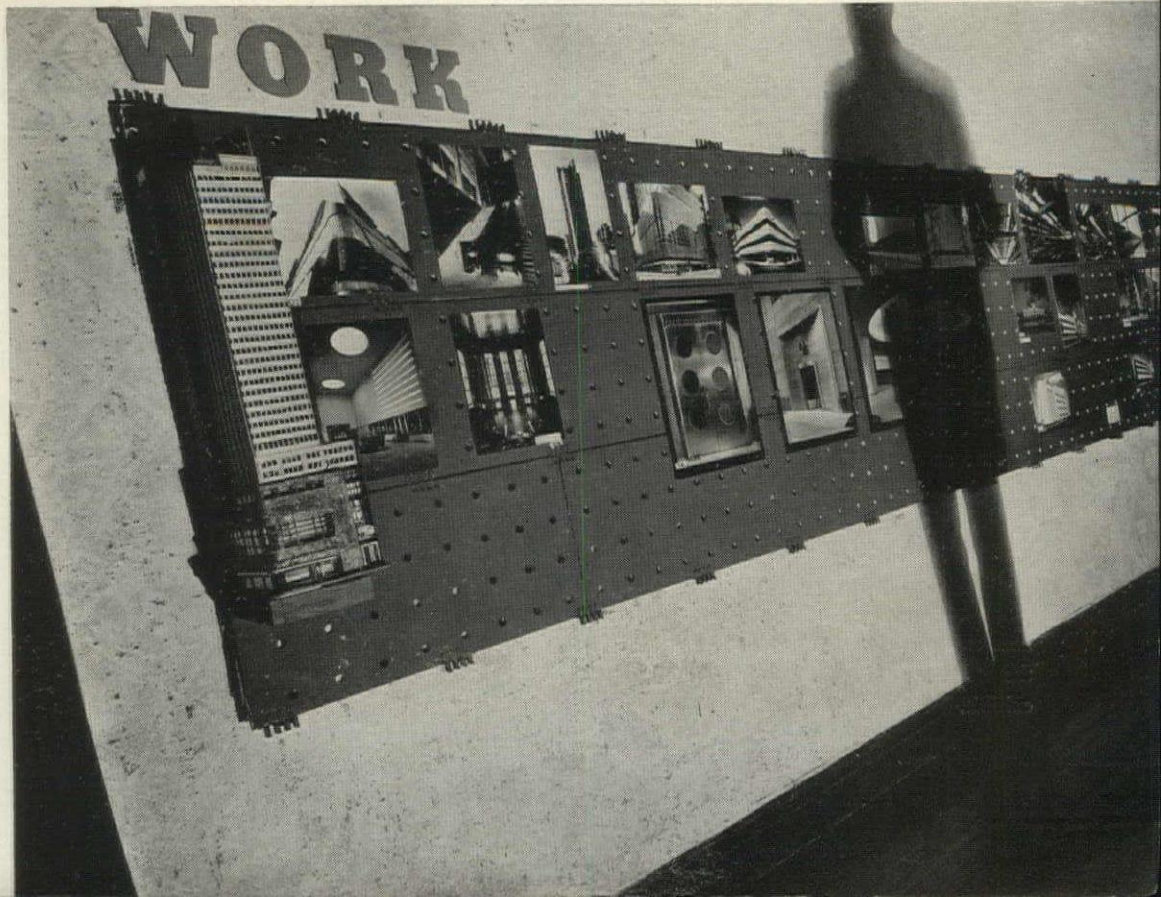
VIEW 1.

SECOND FLOOR EXHIBIT . . . . designed by GEORGE NELSON

EXHIBITION COMMITTEE: WALLACE K. HARRISON, GEORGE HOWE,  
EDWARD D. STONE, in collaboration with THE ARCHITECTURAL FORUM



VIEW 2.







Robert M. Damora Photos

Most-talked-of feature of the second floor exhibit was the model room—popularly known as “the upside-down room”—designed and executed by Dan Cooper. Hailed as a stunt, turning the room on its side actually proved first-rate exhibition technique; in no other way could a room be shown to crowds with equal completeness or effectiveness. At right, a detail of the “Living” section of the modern exhibit.





# "Remember a telephone upstairs!"

• This is the second appearance of the absent-minded professor, whose little misadventures will appear in these pages to remind you *not* to be absent-minded about upstairs telephones!



**T**HE Professor sometimes gets the little things mixed up, but he never forgets important matters like an upstairs telephone.

Be sure *you* remember to provide for an additional telephone on the second floor to save those stair-climbing steps. The best way, of course, is to include telephone conduit and outlets while the house is under construction. They cost little then and are easy to install. A few lengths of small pipe are usually sufficient for the

average home, to provide free passage for wires through concrete, insulation, fire-stops and around duct-work, and to avoid exposed wiring later.

Your telephone company will be glad to assist in laying out efficient, economical conduit systems. Just call the nearest Bell Telephone business office and ask for "Architects' and Builders' Service." No charge.







Left to right: Harvey Wiley Corbett, Antonin Raymond, Mrs. Laurent Oppenheim, Isamu Naguchi, Buckminster Fuller



Francis Keally, Tony Sarg, Henry F. Bultitude



Ernest Peixiotto, Mrs. Peixiotto, Thomas H. Ellett



Walter B. Lane Photos

Samuel A. Homsey, James F. Eppenstein, Richard Bennett

## ARCHITECTURE IS AN ART by Wm. Adams Delano (cont'd)

"I believe that the law of gravity is still in operation and that engineering feats, which enable the architect to carry great loads without apparent support, are not thoroughly satisfying to the eye.

"I still believe that an impression of enduring stability is one of the most essential qualities of great Architecture.

"I believe that size has little to do with great Architecture; a small structure which solves the problem perfectly may well awaken as keen an emotion as a vast one.

"I do not believe that because sunlight is considered beneficent to human beings, the walls of the rooms in which they live and work should be built entirely of glass. There may be too much of a good thing. (Let some eminent physicians proclaim that too much light all day long is bad

for human beings and glass walls would be shunned like the plague!)

"I do not believe that any new form of ornament, however bad, is better than an old and proven one; but I welcome the tendency today to create new forms rather than copy old ones and I rejoice in the many new materials—which give wider scope to the designers' imagination."

Of course my friends on the opposition bench (and, thank heaven, I have many!) will not agree to some of these statements. Which of us is right posterity alone can tell. We in the thick of the battle cannot see clearly—there is too much smoke—but we can at least be generous and try to understand the other fellow's point of view, and perhaps by mutual concessions to our differing opinions arrive at the betterment of the art we all love.

## TRADITIONALIST ARCHITECTURE AND INTEGRATED BUILDING

By George Howe, Architect

In a recent paper a famous Gothic specialist declared emphatically that the architecture of "the house, the school, the church" belongs to a continuous tradition we dare not, cannot, break. It seems that pride of ancestry sets them apart from the rest of building. Almost at the same time a man holding the highest place in the council of his profession was saying with public irony, "In the new world of mechanisms, to which we are now committed, we are expected to relinquish our aristocratic pretensions. It is indicated to us that architecture as a fine art is henceforth an anachronistic pomposity." Apparently art without aristocratic pretensions cannot be fine. Both men would seem to imply that an eternal gulf divides the architecture of the soul from the engineering of the body. Taking these and other traditionalists at their word engineers have gracefully yielded them the spirit and kept the flesh, together with the flesh-pots, for themselves.

Every so often in history a tool is invented which profoundly affects men's lives. Such a tool is modern engineering, and like its predecessors it has run afoul of tradition. Tradition is a transmitted habit of behavior which relieves men of making thoughtful decisions at every step. Without it life would be a succession of intolerable hesitations. With it we are condemned to almost insuperable inertia.

Beginning as a servant of the arts and the crafts, engineering has gradually taken command of a large part of our activities, including most of construction. The advantage of the engineer's direct attack on the functions of working, communicating, and building is obvious, as well as his ability to produce structures of a new strength and beauty without benefit

of ancient forms and proportions. Meanwhile the restrictive framework of traditional planning has been visibly cracking under the strain of expanding social and economic pressures, structural systems, and mechanical requirements. One might suppose, then, that architects in general would have been only too ready to experiment wholeheartedly, in their own more inspired field, with the powerful tool of engineering design. Actually too many of them, like the eminent gentlemen I have quoted, have seen in it a tinker's rather than a creator's tool. At first glance the persistence of this attitude may seem incomprehensible.

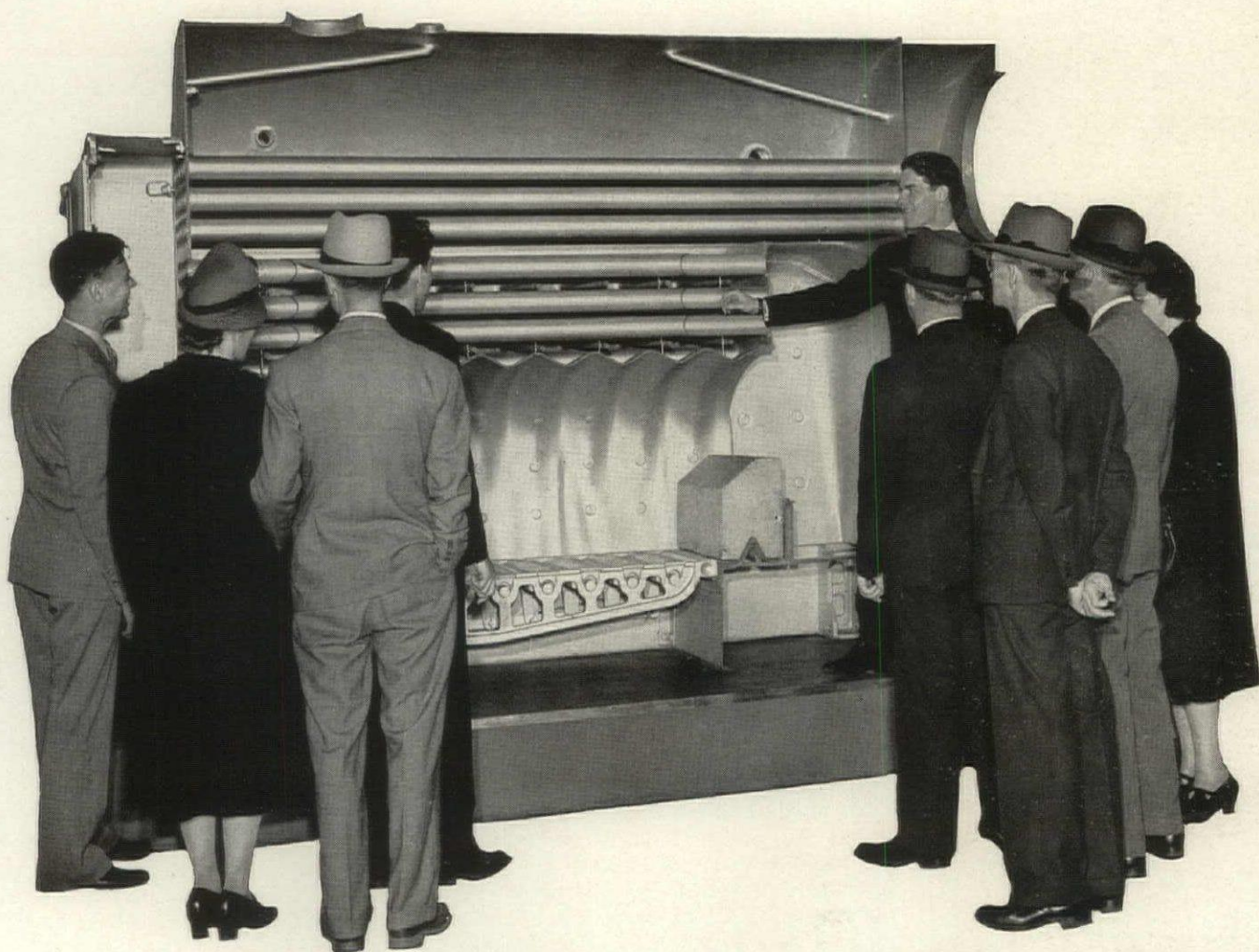
Considered in historic perspective the resistance has not lasted long. In professions less emotional than architecture, in mathematics, for instance, the same sort of continued opposition was met in the past. Even simplifications in the impersonal process of counting were fought at every step.

You will recall the events surrounding the introduction into Europe from Arabia of the symbol zero, and of positional numeration. The algorithm, the crass practical system of calculation which has made modern mathematics possible, threatened the existence of the abacus, the familiar counting-frame of our childhood, with its pretty colored balls on wires. The battle between the two is described by Professor Tobias Dantzig:

"Today, when positional numeration has become a part of our daily life, it seems that the superiority of this method, the compactness of its notation, the ease and elegance it introduced in calculations, should have assured the rapid and sweeping acceptance of it. In reality the transi-

(Continued on page 24)





—Let's look inside the Largest Selling Boiler

# TYPE C KEWANEE

—with the **CORRUGATED! CROWN SHEET**—

The "sawed-in-two" Type "C" Kewanee which attracted so much attention in the Kewanee exhibit at the New York World's Fair, graphically illustrates why this boiler has become the *largest selling boiler for heating big buildings.*

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✓ **CORRUGATED CROWN SHEET** adds extra effective heating surface while rugged strength is imparted by the massive ridges of the corrugations. Note also that the arched crown sheet is right-side up . . . self cleaning and self draining.

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✓ **PLENTY OF STEAM SPACE** insures a continuous flow of dry steam into the heating system.

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## TRADITIONALIST ARCHITECTURE AND INTEGRATED BUILDING

by George Howe (con'td)



Robert N. S. Whitelaw, Miss Louise Tamsberg, John Rothenstein, Director of London's Tate Gallery



Mr. and Mrs. Corbett, Gilbert Rohde, Miss Peggy Ann Mack



Walter B. Lane Photos

Mr. and Mrs. Walter Dorwin Teague, with Michael Hare behind them

tion, far from being immediate, extended over long centuries. The struggle between the abacists, who defended the old traditions, and the algorists, who advocated the reform, lasted from the eleventh to the fifteenth century and went through all the usual stages of obscurantism and reaction. In some places, Arabic numerals were banned from official documents; in others, the art was prohibited altogether. And, as usual, prohibition did not succeed in abolishing, but merely served to spread bootlegging, ample evidence of which is found in the thirteenth century archives of Italy, where, it appears, merchants were using the Arabic numerals as a sort of secret code."

The odd consequences of the resistance are only incidentally amusing, its nature is important. Though it is an example of opposition to a new craft tool in its purest form, its fanatical intensity shows that more than craft-union self-interest is involved in the conflict. Men tend unconsciously to make their ways of working an act of faith, and to identify them with their religious beliefs. Bishop Berkeley, a noted scientist and mathematician himself, looked on the invention of the infinitesimal calculus as an attack on the Catholic Church. He answered Isaac Newton's epoch-making work, in which the virtues of the system were exposed, in a tract called "The Analyst," with the subtitle "A Discourse Addressed to an Infidel Mathematician." Fear seems to underlie the contempt he pretended to feel for Newton's "fluxions" and "differences," the equivalents of our derivatives and differentials:

"He who can accept a second or third fluxion, a second or third difference," he wrote ironically, "need not, methinks, be squeamish about any point in divinity."

Accompanying this fear of new instruments we find a strange reverence for tools already familiar. Leibnitz, for instance, at the very moment when he and Newton were developing the calculus, saw in the symbols zero and one the same sort of mystical meaning classicists seem to see in the egg and dart. Laplace has told how the deeply religious mathematician contrived a system of number notation, using only these two symbols, and deduced from it strange consequences in theology:

"Leibnitz saw in his binary arithmetic the image of creation. . . . He imagined that unity represented God, and zero the void. . . . This conception was so pleasing to (him) that he communicated it to the Jesuit, Grimaldi, president of the Chinese Tribunal for mathematics, in the hope that this emblem of creation would convert the Emperor of China, who was very fond of the sciences. I mention this merely to show how the

prejudices of childhood may cloud the vision even of the greatest men!"

Long ago a few isolated, prophetic minds saw in the severing of the architectural soul from the engineering body impending death for architect and architecture alike. At the same time they saw signs of a fresh vitality in purely useful structures and began to experiment in a technologically founded system of design, integrating architecture with engineering, living with the machine. Gradually the movement they initiated took on the proportions of a school of thought. At various times its advocates have used new, living, functional, dynamic, organic and other similar adjectives to qualify it, its opponents every name but architecture. Someone has called it integrated building and the term seems to me more exact than any other.

Building serves three purposes, to meet the social and economic needs of living, to delight the senses, and last but not least to symbolize all that men aspire to hold and to command.

Engineering has proved it can serve the first purpose in new and unique ways. It has also offered the senses new delights in forms determined no longer by an external discipline of proportion and detail, imposed on inert matter, but by the control of internal directed forces. The symmetry of their complex interplay is magnificent in its nakedness, its canons of perfection are not geometric but dynamic. Finally, to become the symbol of our spiritual as well as our material aspirations, the purposefulness and symmetry of engineering only need to be turned to spiritual uses. "The house, the school, the church" of integrated building are to be engineering inspired by creative democracy without aristocratic pretensions. Creative democracy has so many new enemies, within and without, it needs weapons of accomplishment more effective than those it once inherited from ancient oppressors.

I say *are to be* because I do not intend to argue that integrated building has reached its goal or followed at all times a clear and consistent course. For myself I shall be satisfied if in our time it establish a direction to follow. Meanwhile it is better to build than to talk. A considerable number of works by recognized masters of integrated building in Europe and America exists. In the presence of an invention by any one of these men we may well say, as Schumann did on the appearance of an early composition by Chopin, "Hats off, gentlemen, a genius!" In another place the same musician-author gives us the answer to those lay critics addicted more to argument than action. "And if you are not satisfied, old gentlemen," he wrote to certain disparagers of the new music, "why not give us works yourselves—works, works, not always words?"



*Brunswick*

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- 32 Sparkling chromium trim
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- 35 Well-type economy cooker
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See Our Catalog in Sweet's 11-34

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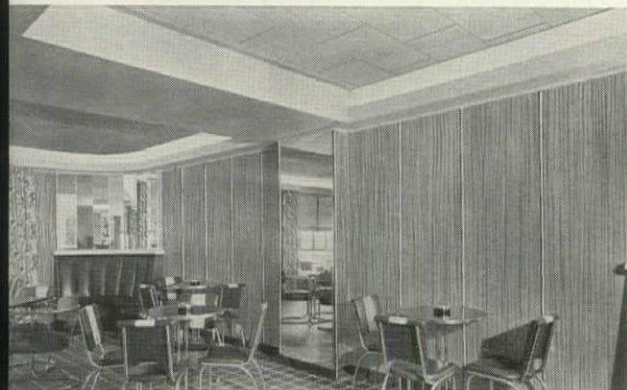
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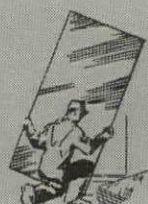


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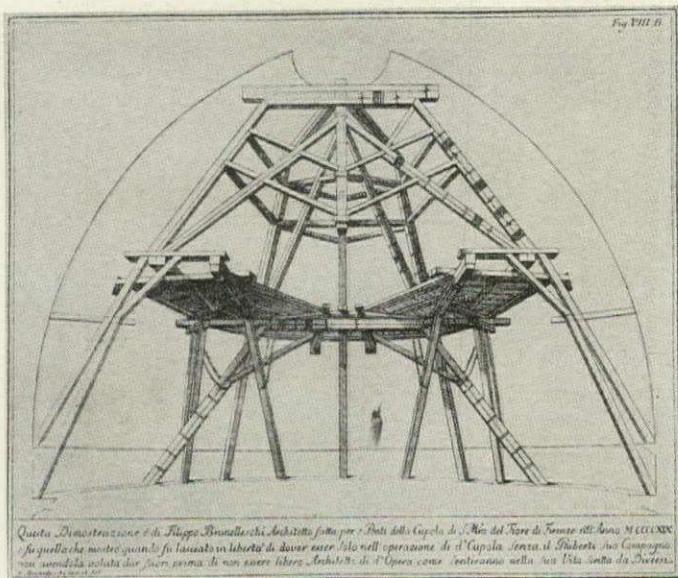
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# BOOKS

Renaissance engineering . . . House construction . . . Technical publications . . . A biography of Vanbrugh.



**Brunelleschi's Scaffolding for the Dome of the Cathedral of Florence**

**ENGINEERS AND ENGINEERING IN THE RENAISSANCE**, by William Barclay Parsons. The Williams and Wilkins Company, Baltimore. 651 pp., 211 illustrations. 7½ x 10. \$8.00.

The libraries are crammed with histories of architecture, its monuments, styles and types. The lack of a comparable literature on engineering is startlingly accentuated by the appearance of this book by the late General Parsons. The author was an engineer, and a distinguished one. He designed the first part of the New York subway system, surveyed for the Hankow-Canton railway, was on the board of consulting engineers for the Panama Canal and was retired from the army as Brigadier General of Engineers. Somehow during a full career he managed to collect the enormous body of facts presented in his book, and one of the by-products of his researches abroad was the obtaining of a Carnegie grant for the re-classification and cataloguing of the Vatican Library.

The Renaissance was an excellent choice for such a work. Long recognized as a high point of human culture, its considerable technical and scientific achievements have nevertheless been treated incompletely, and many of its greatest figures such as Leonardo, Brunelleschi, Peruzzi and Michelangelo have been presented only as artists. Here they appear in new roles, as civil and military engineers, scientists, and practical builders. The scope of the book is broad: it covers mining, assaying, abstract scientific research, canal and bridge design, building regulations, water supply, street paving and cathedral building. Many chapters are devoted to Leonardo, who was almost the Renaissance in one man. There are perhaps twenty separate studies of the outstanding structures of the period: the Rialto bridge in Venice and Santa Trinita in Florence, the dome of St. Peter's, moving of the Vatican obelisk, and the canals at Milan. Appendices give translations of original documents, standards of measure of the period, edicts on regulation of employment, canalizing rivers and cleaning streets. It would take considerably more space than is available here merely to enumerate the subjects discussed.

Unique as an extremely important piece of scholarship, the

book is of even greater interest because of the author's thorough knowledge of engineering practice and principles. Thus in the chapter which relates the fascinating story of the design and building of the dome of the cathedral in Florence, and Brunelleschi's difficulties with his critics and detractors, the reader is also given a very precise evaluation of the design of the dome both in relation to existing knowledge of the period and in the light of present-day engineering data. Obviously such treatment gives infinitely more than mere scholarship, and it is typical of the book as a whole. The book will unquestionably become a classic in its field. It is an extraordinary synthesis of the technical knowledge of the Renaissance and can be recommended without reservation to anyone interested in the technique and history of building.

**FRANK LLOYD WRIGHT: Supplement to the Loan Exhibition** held by the Institute of Modern Art, Boston. 10 x 7½. 75 cents.

The exhibition noted above is devoted only to residential work by Frank Lloyd Wright, and this illustrated supplement is consequently somewhat limited in its scope. Because of the dearth of available material on Wright's early houses it is of some value to architects, as it includes a number of plans and photographs of houses designed around 1900. There is also a chronology and a foreword by Dean Hudnut of Harvard.

**JAPANESE ARCHITECTURE**, by H. Kishida. Japanese Government Railways. 133 pp., illustrated. 5¼ x 7¾. 35 cents.

An attractive, brief and competently written guide to Japanese architecture, this book follows a well-established practice of many official tourist agencies abroad, which publish serious studies on various phases of national activities as a means of attracting visitors. The illustrations show a cross-section of the architecture from the earliest times to the present day, and there are a few color reproductions of prints; the text gives the main lines of historical development and descriptions of the most important structures.

**ALL ABOUT HOUSES**, by Groff Conklin. Julian Messner, Inc. 194 pp., illustrated. 7 x 9. \$2.00.

There is no news here for the small house architect, but the book suggests itself as a good elementary guide to small house construction for the client. A simple wood-frame house is taken as the example, and the entire construction process is explained in text and some 400 pictures. This method of visual instruction seems practically foolproof, and the book should give the layman a clear picture of conventional building procedure.

**USE AND ABUSE OF WOOD IN HOUSE CONSTRUCTION**, by R. P. Johnson and E. M. Davis. U. S. Department of Agriculture, Washington. 24 pp., illustrated. 6¼ x 9½. 10 cents.

A popular pictorial presentation of important features of home building. Based on a survey of 600 homes being built in various parts of the country, this booklet concentrates on those aspects of construction shown to be most in need of change or improvement. Proper framing methods, adequate nailing, wall braces, diagonal sheathing, roofing materials and foundations are among the subjects covered. The book is gauged accurately for the lay audience and tells its valuable story briefly.

(Continued on page 116)





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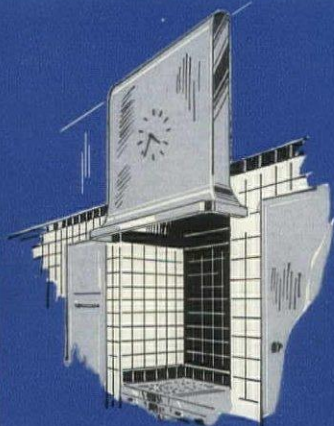
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# How STAINLESS STEEL

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*Stainless steel table tops and sink (left) and a stainless steel hood (above) for home kitchens.*



*Stainless steel bathtub used in conjunction with thin stainless steel flexible tile.*



*Stainless steel outside stair railing, easily fabricated from standard forms and shapes.*



*Stainless steel gutters, down spouts, and roof—the latter of a flexible composite sheet.*

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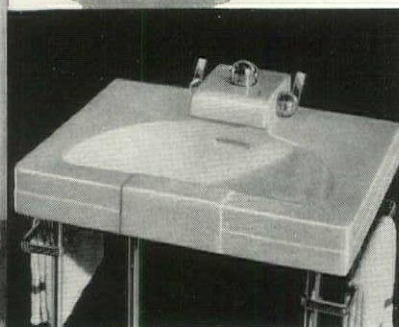
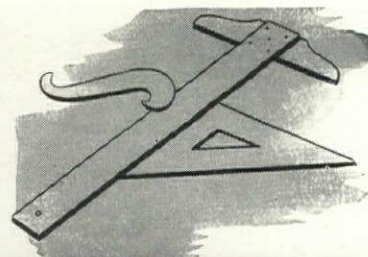
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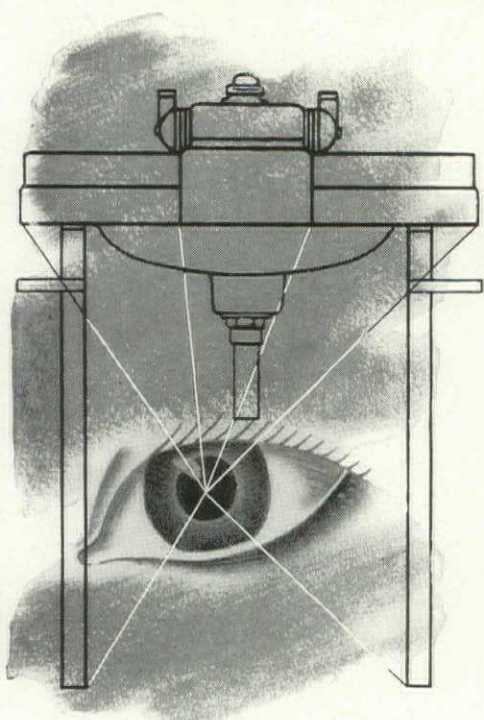




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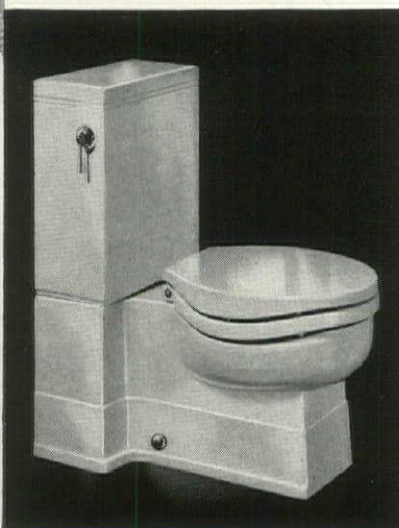
## Here's an Architect's eye-view of Crane Neuvogue



TO your clients, Crane Neuvogue expresses a modern freshness—a new smartness—a great new style in plumbing fixtures. To you, who look below the surface to find the basic reasons for its design, Crane Neuvogue stands as one of the finest realizations of a modern architectural ideal: making utility beautiful.

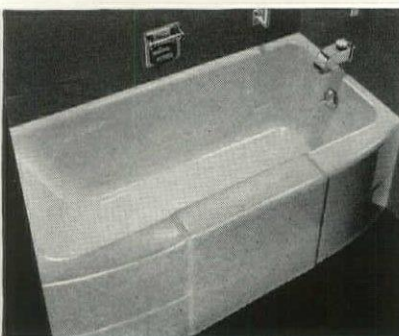
Neuvogue represents the application of modern design by Henry Dreyfuss to the problem of making bathroom fixtures smarter, more graceful, more beautiful as well as more functional.

★Despite its originality and greater convenience—Crane Neuvogue is priced for the moderate building budget. Remember, too, that Crane Quality is available in every price range. Use your Crane architects' catalog when specifying!



#### Neuvogue Closet

Notice how logical is the continuation of the line of the tank to the floor. Note, too, how the base is solid at the floor . . . how the tank conserves wall space. The seat has the correct hygienic curve, with a flat cover.



#### Neuvogue Bath

Here is a new conception of utility. The sides, running in a slight slant to the bottom, provide extra bathing area. The wide front rim is at once a shelf and a seat.



# CRANE

CRANE CO., GENERAL OFFICES: 836 SO. MICHIGAN AVENUE, CHICAGO, ILLINOIS

VALVES • FITTINGS • PIPE • PLUMBING • HEATING • PUMPS

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS





..against..

**FIRE  
HEAT  
COLD  
DAMPNESS  
WEAR  
HIGH COST**



Here's "one-stop service" for the small home... Flintkote Asphalt Shingles, Asbestos Siding, Rock Wool and Insulating Sheathing and Lath.

**E**VEN the low cost house can afford the protection, permanence, beauty, charm and comfort of more expensive homes if economical Flintkote Building Materials are specified. Attractive, highly styled shingles and sidings of fire-resistant asphalt and fireproof asbestos protect against fire, weather and wear. Decorative and structural insulation boards and fireproof, permanent rock wool protect against heat, cold and unwelcome noise. Scientifically correct asphalt coatings protect against dampness in walls and foun-

dations. And all Flintkote Products protect against high costs by combining quality with economy... economy in first cost and minimized upkeep.

Architects, builders and home owners, for more than 40 years, have found that building dollars stretch farther when Flintkote Building Materials are specified.

**HELPFUL INFORMATION... FREE**  
Write today for your copy of "The Catalog of Flintkote Roofings and Building Materials." Write too, for advice and assistance, freely given, on specific problems.

## THE FLINTKOTE COMPANY

30 ROCKEFELLER PLAZA, NEW YORK, N. Y.

CHICAGO...NEW ORLEANS...ATLANTA...BOSTON...DETROIT...WACO...LOS ANGELES

### FLINTKOTE QUALITY for 1940 Building Budgets

#### SHINGLES and SIDINGS

Asphalt, mineral surfaced  
Asbestos-Cement

#### INSULATIONS

Board, lath, sheathing      Rock Wool

#### WALLBOARDS

Decoboard tile and plank      HardBoard

#### ASPHALT COATINGS

Waterproofing      Dampproofing

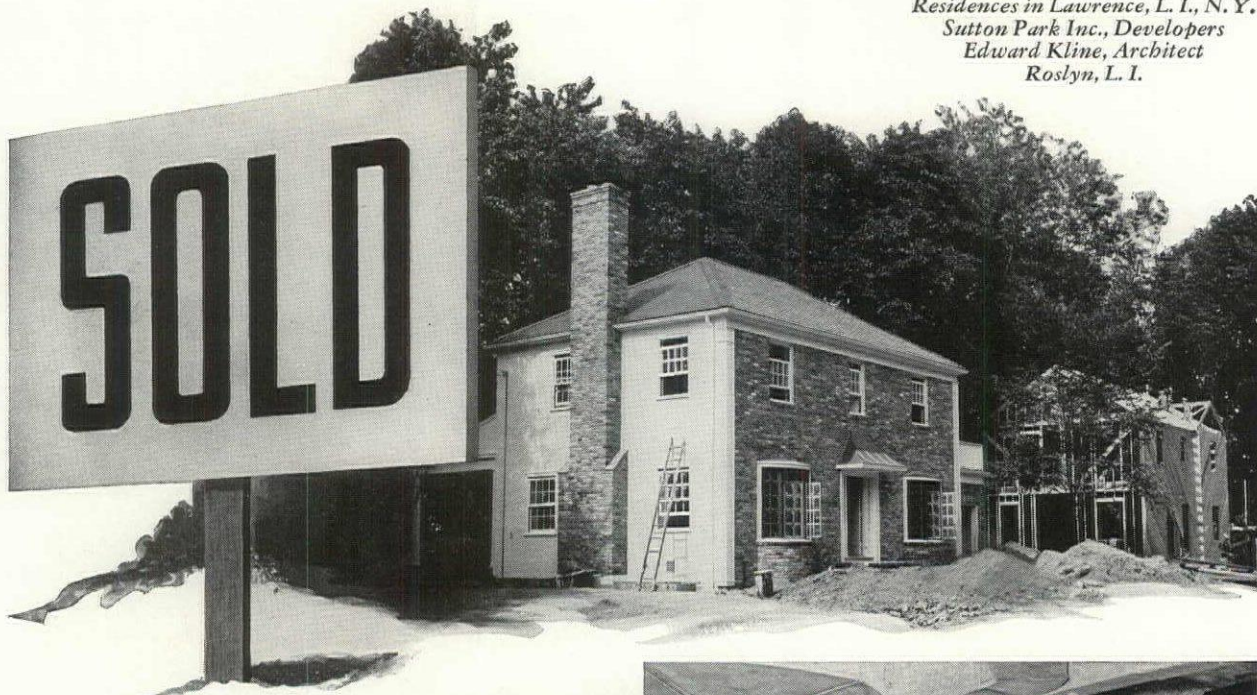
#### SOUND DEADENING FELTS

#### BUILDING PAPERS

Products of the same high quality are sold by the Beckman-Dawson Roofing Company and Richardson Roofing, affiliates of The Flintkote Company.



Residences in Lawrence, L. I., N. Y.  
Sutton Park Inc., Developers  
Edward Kline, Architect  
Roslyn, L. I.



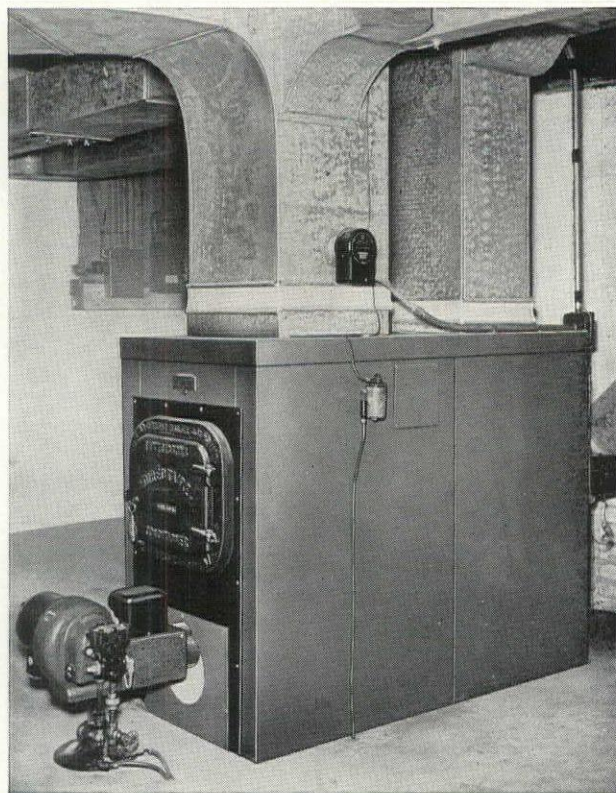
... and one good  
reason why ... the

**FITZGIBBONS**

*Directaire*  
**CONDITIONER**

Most prospective buyers know that outward beauty in a house, while important, is only skin deep, but *character is indicated in the basement*. This is certainly the case in these attractive Long Island homes where the first inspection by their ultimate owners disclosed a sturdy Fitzgibbons Directaire ready to start providing healthful comfort at the snap of a switch, and to keep right on providing it at a saving which will give their owners something to crow about when good suburbanites get together.

This is equally true for the individual home builder. Specify the Fitzgibbons Directaire in every air conditioned home you design, and be sure of satisfaction all-round.



*Neat and businesslike Fitzgibbons Directaire installations like this are helping to insure owner satisfaction from the low-cost six-room house to the finely appointed residence. Sizes from 80,000 to 600,000 B.t.u. Quick and simple installation. Easy Servicing.*

WHY NOT GET ALL THE STORY — WRITE  
TODAY FOR DIRECTAIRE CATALOG AF

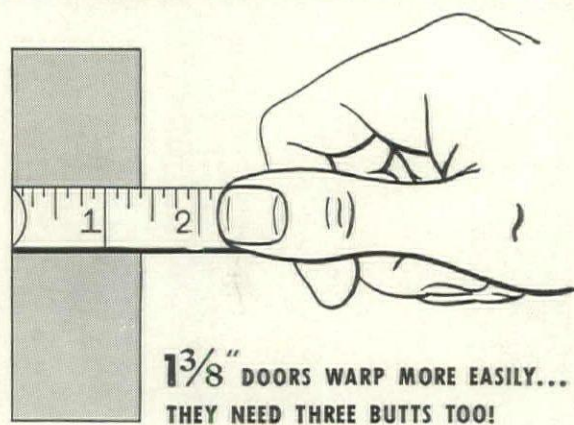
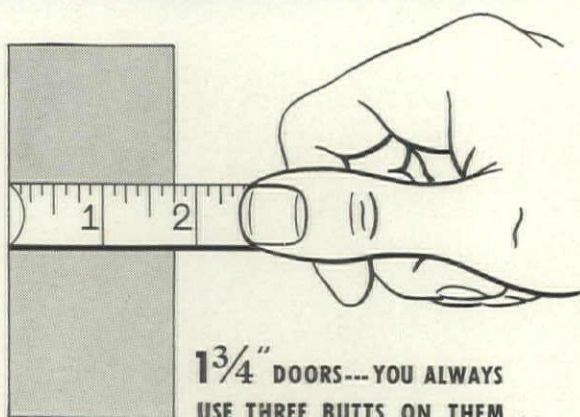
***Fitzgibbons Boiler Company, Inc.***

Air Conditioning Division, 101 PARK AVENUE, NEW YORK

Works: OSWEGO, N. Y.

Branches and Representatives in Principal Cities





**REMEMBER...THIN DOORS ARE MORE  
APT TO WARP THAN THICK DOORS!**

**"IT WON'T WARP",  
Says This THIRD BUTT...**

It holds the door in line, prevents warping, removes side strain and wear from the other two hinges. You get low cost "Anti-Warp Insurance" when you use Three Butts on every door in the house. The Stanley Works, New Britain, Connecticut.

**[STANLEY]**

Trade Mark

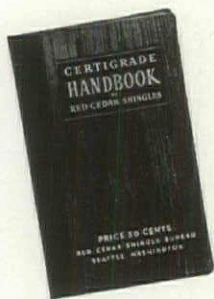
**REMEMBER...THREE BUTTS TO A DOOR**





George Wellington Stoddard, Architect.

## No Regrets . . .



### This Handbook for You

*This Certigrade Cedar Shingle Handbook, prepared by a wood technologist, mailed free on request. One hundred pages detailing uses, application and technical data. Write Red Cedar Shingle Bureau, Seattle, Wash., U. S. A., or Vancouver, B. C., Canada.*

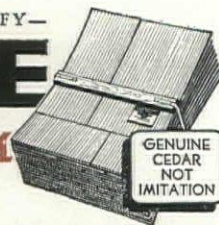
Genuine Red Cedar Shingles have a combination of very definite residential building qualities enjoyed by no other material. Triple coverage on roof with protection from hail and wind storms . . . attractive texture and shadow lines on both roof and side-walls, particularly when double-coursed on side-walls . . . attractive appearance that lasts . . . definite insulative qualities . . . low cost per square per year of life . . . dependable grades under the Certigrade inspection label.

FOR GUARANTEED GRADES AND QUALITY, SPECIFY—  
**CERTIGRADE**  
*Red Cedar Shingles*

Certigrades pass official inspection for grade and quality.



Sold only by established lumber dealers.







## EARLIER COMPLETION AT LOWER COST

**W**ITH 'Incor' 24-Hour Cement, you pour concrete one day, strip forms the next. That means rapid form re-use and faster job schedules.

On Queens Bridge Housing Development, Long Island City, New York, Corbetta Construction Co., Concrete Contractors, used 'Incor' in the roof slabs, in order to re-use forms in one day. That saved 7 working days. Overhead on this huge project was \$500 a day. The net saving was \$2242—or \$1.79 per cubic yard of 'Incor' concrete.

Specify 'Incor'\* 24-Hour Cement for earlier completion at lower cost. Write for copy of "Cutting Concrete Costs." Lone Star Cement Corporation, Room 2291, 342 Madison Avenue, New York.

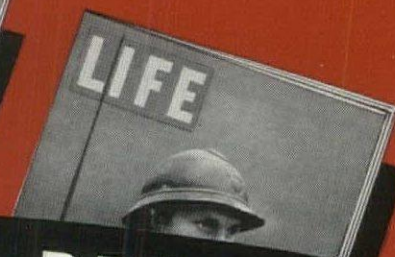
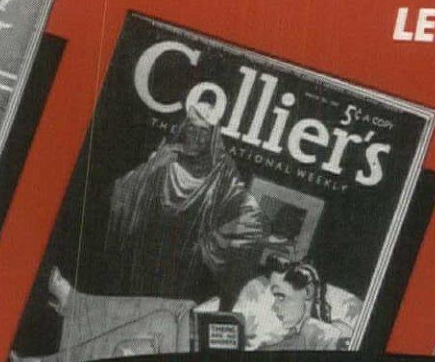
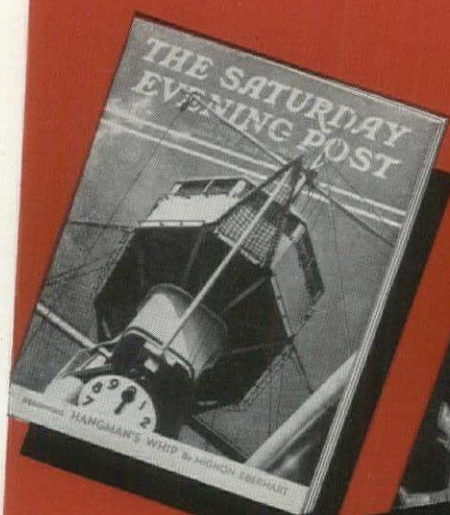
\*Reg. U. S. Pat. Off.

# LONE STAR CEMENT CORPORATION

MAKERS OF LONE STAR CEMENT • • • 'INCOR' 24-HOUR CEMENT



AMERICA'S NO. 1 RUST-PROOFING PROCESS TO BE  
ADVERTISED IN AMERICA'S 3  
LEADING MAGAZINES



45,000,000 READERS  
WILL BE TOLD WHY **BONDERIZING...**

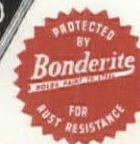
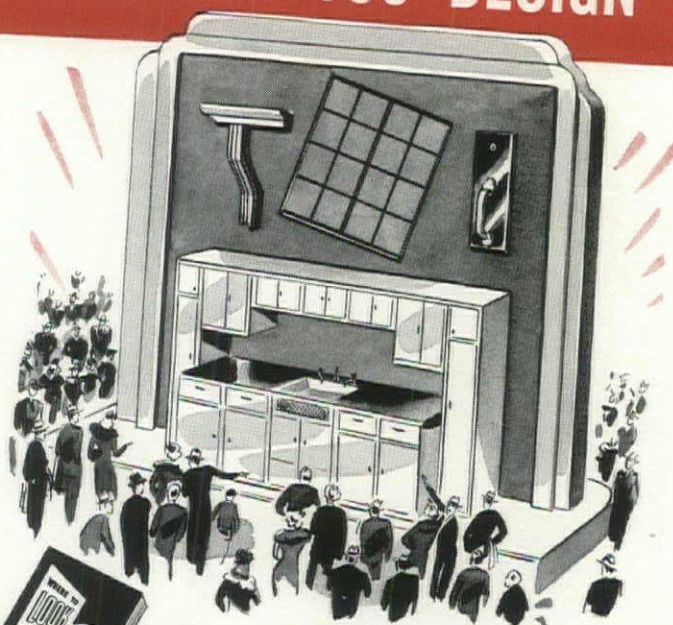
ADDS VALUE TO THE BUILDINGS YOU DESIGN

THIS advertising will explain to Mr. and Mrs. America why major producers of steel sash and screen frames, galvanized sheets, air conditioning equipment, electrical devices, steel kitchen cabinets, elevator cabs, bathroom cabinets and many others, prefer Parker Processes for protection from rust, for its paint-holding qualities and assurance of long-lived finish.

It will help you to get approval and appreciation when you specify Parker Protection on iron and steel items of building equipment.

Send for the booklet, "Where to Look for that Invisible Quality." It lists outstanding products that are Parker Processed as a standard manufacturing practice.

**PARKER RUST PROOF COMPANY**  
2180 E. MILWAUKEE AVE. • DETROIT, MICHIGAN



**APPEARING IN EVERY ADVERTISEMENT**  
This book is offered free and thousands of readers will ask for copies. It lists products that are Parker Processed and the manufacturers who use Parker Processes. You, too, will be interested in it. We will be glad to send you a copy.

**PARKER**  
*Processes* **CONQUER RUST**  
BONDERIZING • PARKERIZING





# The INSULITE WALL OF PROTECTION

Is Built On The  
CORRECT SCIENTIFIC  
Principle of

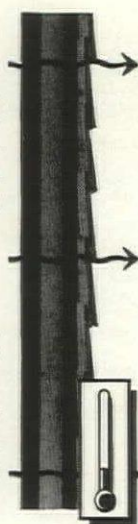
## VAPOR CONTROL

### HOW THE INSULITE WALL OF PROTECTION Controls Vapor



#### LEFT:

When vapor from the inside of a room with high temperature strikes Sealed Lok-Joint Lath it is turned back by a double asphalt coating on the studding side, thus retarding vapor from getting past the warm side of the wall.



#### RIGHT:

Then Bildrite Sheathing, the outside member of the Wall of Protection, integrally waterproofed with asphalt, but not sealed, allows colder outside air to draw out any vapor that may have escaped the barrier.

### INSULITE PRODUCTS INCLUDE...

**Structural:** Sealed Graylite Lok-Joint Lath, Graylite Lok-Joint Lath, Ins-Lite Lok-Joint Lath, Bildrite Sheathing.

**Interior Finishes:** Ins-Lite, Graylite, Smoothcote, Satincote in 4 washable colors, Hardboards, Acoustilite, Fiberlite.

Everybody in the building industry is talking about the new INSULITE Wall of Protection.

Built on the correct scientific principle of vapor control the INSULITE Wall of Protection retards vapor travel to the minimum and guards against moisture condensation within the walls.

The new Sealed Lok-Joint Lath is the same rigid, safe plaster base with twice the grip of wood lath, but stronger, integrally treated with asphalt, and double sealed with heavy asphalt coating on the stud side.

With Sealed Lok-Joint Lath on the inside wall and Bildrite Sheathing on the outside you have the perfect Wall of Protection, giving superior insulation, vapor control and structural strength. There's prestige in specifying the INSULITE Wall of Protection.

Write Insulite, Dept. AF40, Minneapolis, Minnesota, for samples and literature describing in more detail how the INSULITE Wall of Protection controls vapor travel and guards against condensation within wall areas.

Copyright 1940,  
by Insulite

# INSULITE



MINNEAPOLIS  
MINNESOTA

THE ORIGINAL WOOD FIBRE STRUCTURAL INSULATING BOARD





## WINDOW IDEAS BY ARCHITECTS

Apartment • 1260 Prospect Avenue

Milwaukee

Wisconsin

Herbert W. Tullgren

Architect

Fenestra "Projected Fenmark" Steel Windows selected by Architect Herbert W. Tullgren for this modern Milwaukee Apartment, do as much to create an interesting architectural exterior as they do to maintain a cheery, healthful atmosphere inside.

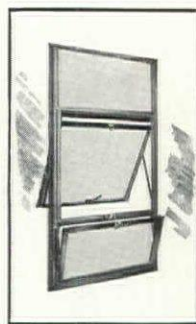
These sturdy steel windows with projected vents and fixed lights are especially suitable where weather protection is required when vents are open.

Open-out vents are designed to form canopies over openings. Also open-in vents are constructed to deflect the drafts upward and shed water to the outside.

All vents are arranged to permit easy, safe, economical, *inside* washing of both sides of windows. Screens, inside for open-out vents, outside for open-

in vents, are readily installed where necessary. Underscreen operators, which permit vent operation without touching screens, are available for open-out vents.

Complete details will be gladly furnished upon request. See Fenestra Catalog in SWEET'S for 1940 (31st consecutive year) or use coupon below.



*Fenestra*  
HEAVY CASEMENT-TYPE STEEL WINDOWS

Detroit Steel Products Co.  
2252 E. Grand Boulevard, Detroit, Mich.

Please send free literature, as follows:

- ☐ Heavy Casement-Type Steel Windows
- ☐ Detention Steel Windows
- ☐ Residence Steel Casements

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Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_



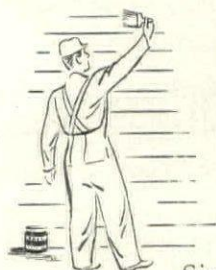
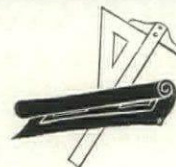


**"Why does the Kimball Home  
always look so nice?"**



BERTRAM A. WEBER, ARCHITECT

**"In the first place, it was designed by a good architect."**



**"In the second place, it has always been  
painted with Eagle White Lead."**

Since 1843 this weather-resisting paint has preserved the beauty of American homes. Eagle White Lead in oil creates an elastic paint film. Doesn't crack. Doesn't scale. Play safe—specify Eagle.

**THE EAGLE-PICHER LEAD COMPANY  
CINCINNATI, OHIO**

Makers of Eagle Home Insulation—Fireproof, Water-Repellent Mineral Wool



**EAGLE  
WHITE  
LEAD**

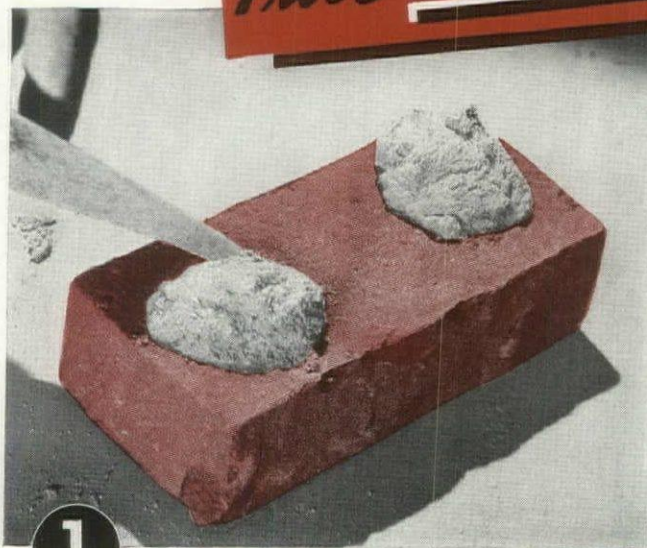


**"You're money ahead  
when you paint with  
white lead."**

Do you specify two-coat paint jobs? If you do, you'll want this new booklet, "Quick Facts About Two-Coat Painting." Write for free copy.

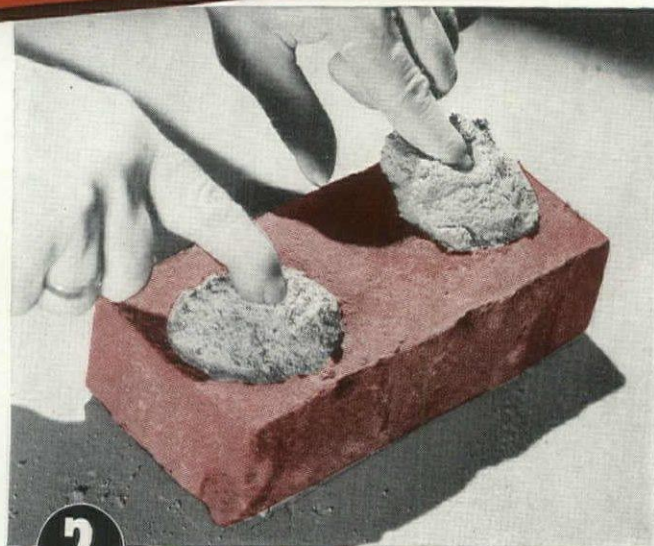


# MAKE THIS TEST - *Prove* **BRIXMENT** *is* **BEST!**



**1**

Slap a small amount of Brixment mortar, and an equal amount of mortar made with lime and cement, on a brick. Wait a minute, then feel each mortar.



**2**

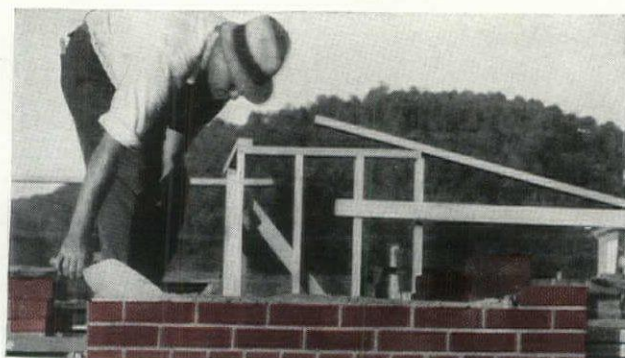
Test each mortar. You will find that the Brixment mortar stays plastic *far longer* than the other mortar. This proves *greater water-retaining capacity*.

## **BRIXMENT** has Far Greater **Water-Retaining Capacity!**

WATER-RETAINING CAPACITY is the ability of a mortar to retain its moisture, and hence its plasticity, when spread out on porous brick. High water-retaining capacity is of *extreme importance* in mortar. If the mortar does not have high water-retaining capacity, it is too quickly sucked dry by the brick; the mortar stiffens too soon, the brick cannot be properly bedded, and a good bond cannot be obtained.

Brixment mortar has extremely high water-retaining capacity. It strongly resists the sucking action of the brick. Brixment mortar therefore stays smooth and plastic when spread out on the wall.

*This permits a more thorough bedding of the brick, and a more complete contact between the brick and the mortar. The result is a better bond, and hence a stronger and more water-tight wall.*



# **BRIXMENT**

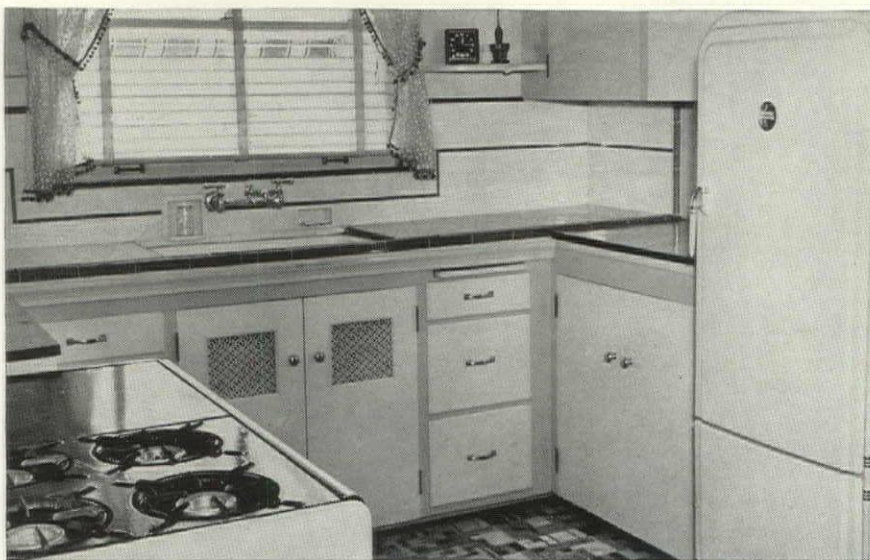
## **For Mortar and Stucco**





**ANOTHER  
PRIZE WINNER!**

This beautiful All-Gas home built and designed by T. B. Winship, Portland, Oregon.



**BECAUSE WOMEN  
HAVE THE LAST  
WORD**

...even in the purchase of a home... sleek, trim kitchens like this play an important part in getting a prospect's name on the contract. "Sell a woman the kitchen... and you've sold her husband the house!"

# ***GAS TURNS HOUSES INTO HOMES***

PROSPECTIVE BUYERS nowadays are looking for homes that offer all the comforts and conveniences of modern living.

That's why Gas and Modern Gas Appliances have become such record-breaking salesmen!

Gas, because it's clean, economical... up-to-date. Gas Appliances, because they are so good looking and compact... so perfectly suited to the American home of today!

Because gas-equipped homes sell easier, faster... they naturally bring bigger, surer, better profits. Thus, it is sound salesmanship—as well as good design—to let "Gas Do The Four Big Jobs" of cooking, water-heating, refrigeration and house-heating!

**PROFIT FOR YOU!** You can make more money by installing gas equipment for the "4 Big Jobs." Ask your local gas company for information!

## **AMERICAN GAS ASSOCIATION**

LET ***GAS***  
**DO THE 4 BIG JOBS**

**COOKING  
WATER HEATING  
REFRIGERATION  
HOUSE HEATING**



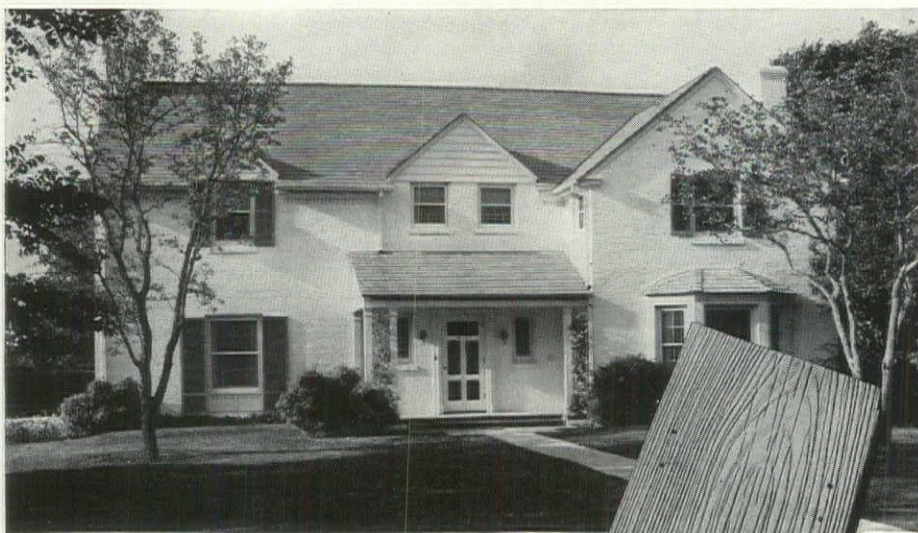
Be sure the gas appliances you specify bear the Approval Seal of the American Gas Association Testing Laboratories.



Made from fireproof, rotproof Asbestos-Cement

# RUBEROID-ETERNIT SHINGLES

Provide Roofs of priceless safety . . .  
and at a price your customers can afford



## ETERNIT TIMBERTEX

A tapered Asbestos-cement shingle with 1/4" thick butts, faithfully reproducing the charm and texture of weather-aged cypress. Colors are soft, rich "wood tones." May be laid in staggered shingle courses to give roof individuality.

Today, at a remarkably low cost, the roofs of the homes you build can have style, beauty and the priceless safety of fireproof, rotproof asbestos-cement shingles. In the RU-BER-OID-ETERNIT line there is a shingle in keeping with the architectural style of every home and in a price range to fit any building appropriation.

All Eternit Asbestos-cement Shingles have soft rich colors. The colors are not merely on the surface. They are built in—an integral part of each shingle. With the exception of the Hexagonal type shingle, all have the added attractiveness of texture—texture that reproduces the charm of weathered cypress or of age-old, rugged rock.

And with this beauty of texture and color, you have other advantages. Eternit Shingles may be laid in random widths and staggered butts. (See Gothics and TimberTEX, American method.) These features give further individuality and character to the roof lines.

Should there be an urge for reduced cost, investigate Eternit Twin American or Eternit Dutch Lap Shingles. The Twin American offers real economy, for two shingles are laid at a time. Eternit Dutch Laps are ingeniously designed. These shingles give the appearance of American method application with both sidelap and headlap protection—and at a low cost.

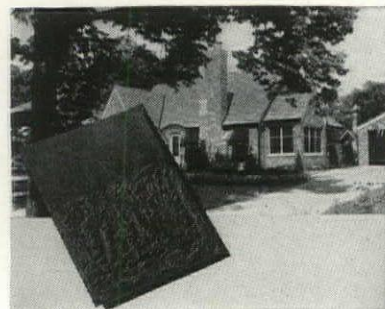
All RU-BER-OID-ETERNIT Asbestos-cement Shingles are backed by more than half a century of roofing experience. All are proved products—proved by performance in practically every climate in all parts of the world.

We urge you to investigate the complete line of RU-BER-OID-ETERNIT Asbestos-cement Shingles. You, too, will agree that homes should have the priceless safety, beauty and economy that Eternit Asbestos-cement Shingles afford. Write The Ruberoid Co., Executive Offices: 500 Fifth Avenue, New York, N.Y. Address Dept. AF-4.



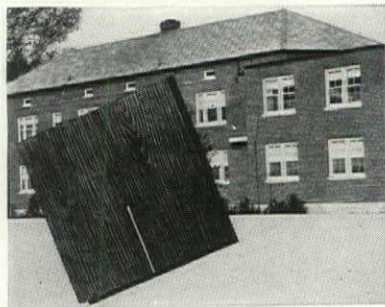
## ETERNIT GOTHIC

Another tapered shingle of age-old architectural charm. Rugged rock texture, heavy butts, soft mellow colors found only in the most expensive types of natural slate or stone. May be laid in random widths or with staggered butts.



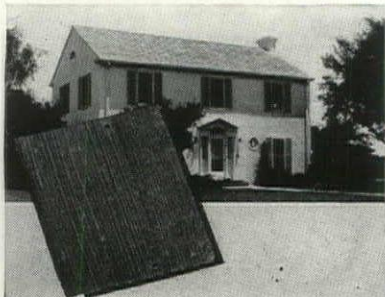
## TWIN TIMBERTEX

A remarkable new Asbestos-cement shingle. Textured like cypress. Self-spacing. Self-aligning. Two shingles are nailed at a time. Application costs approximately 50% lower. Beautiful "wood tone" colors.



## ETERNIT DUTCH LAP

A shingle of ingenious design. Provides roof lines of American method shingles with both headlap and sidelap protection. Beautiful cypress texture. Choice of attractive colors. Ideal for small homes or for re-roofing.



**RUBEROID**  
ROOFING AND BUILDING PRODUCTS



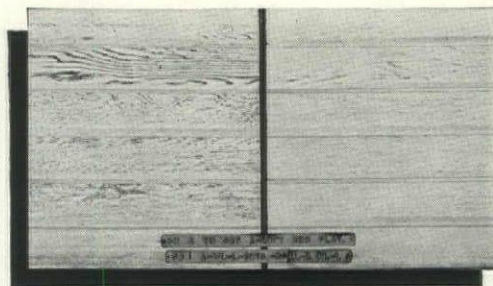


When you specify Aluminum House Paint as the first coat you are giving your clients the most enduring, most economical, and best looking job they could have.

Aluminum House Paint is highly impervious. By allowing less moisture to penetrate into the wood, it reduces swelling and shrinking. By allowing less oil from the topcoats to soak through and into the wood, it keeps topcoats more elastic and durable. This tougher paint film weathers evenly; will not check or crack so soon.

When repainting finally becomes necessary, Aluminum First Coater isn't needed again; just two topcoats. The benefits of the original Aluminum House Paint extend through numerous repaintings. The life of these new topcoats too, is lengthened by it.

These facts are fully documented in "Fifteen Years Behind the Brush." Write for this book. PAINT SERVICE BUREAU, ALUMINUM COMPANY OF AMERICA, 1947 Gulf Building, Pittsburgh, Pennsylvania.



*What a difference!* Test panels of Douglas fir siding after 6 years outdoors facing sun, rain and snow at U. S. Forest Products Laboratory, Madison, Wisconsin. *Left*, painted with ordinary type first coat and two white topcoats. *Right*, with Aluminum first coater and same two white topcoats.

There are many types of Aluminum Paint. For houses, always specify Aluminum HOUSE Paint, identified by the aluminum disk and wood grain label, and sold by the dealers of—

Carter Paint Company  
Gilman Paint &  
Varnish Co.  
Keystone Varnish Co.  
The Lowe Brothers Co.

John W. Masury & Son  
Mautz Paint &  
Varnish Co.  
Mobile Paint Mfg. Co.  
Thompson & Company



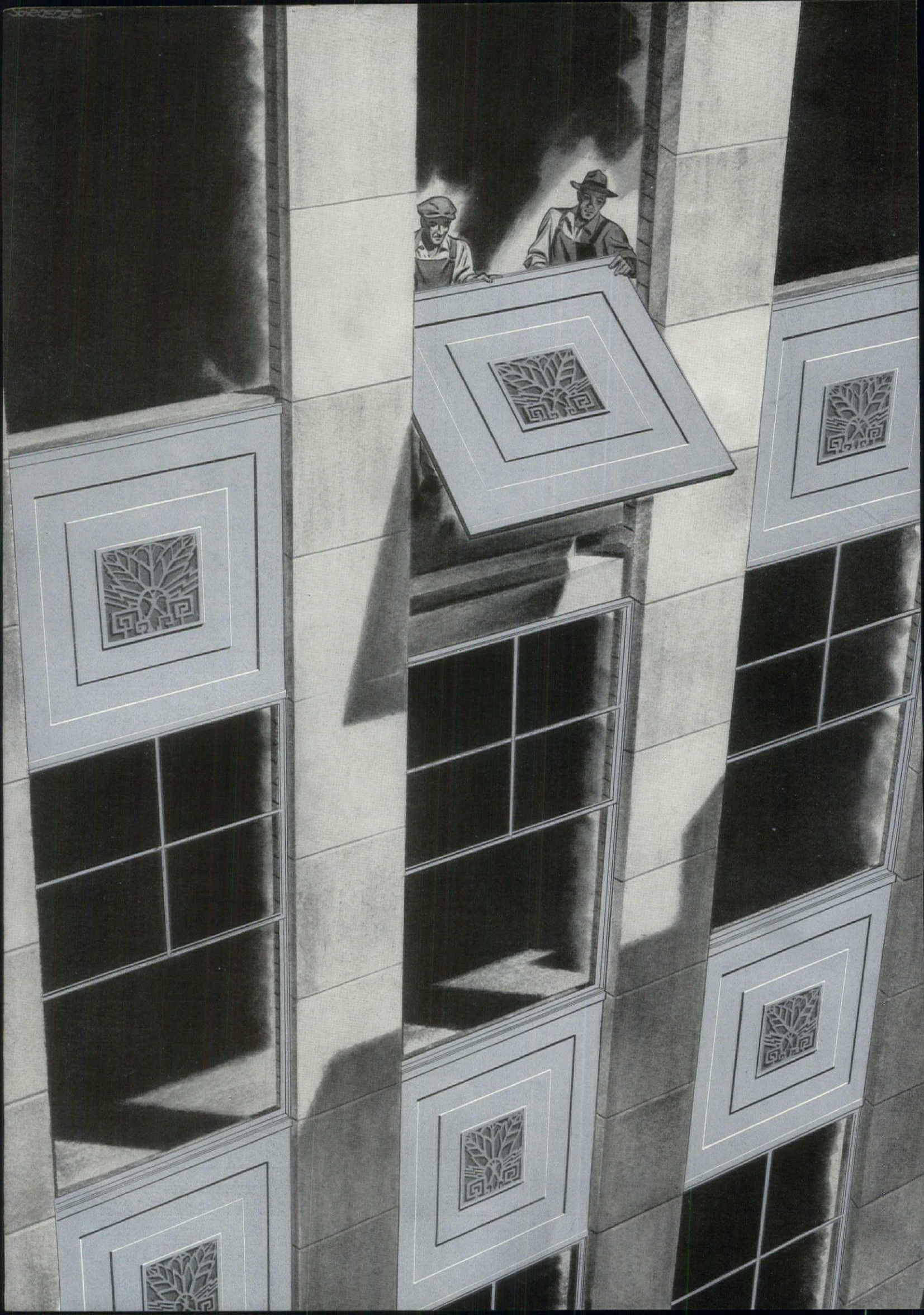
ALBRON

*Pigments  
for*

**ALUMINUM  
HOUSE PAINT**

FIRST COATER FOR WOOD









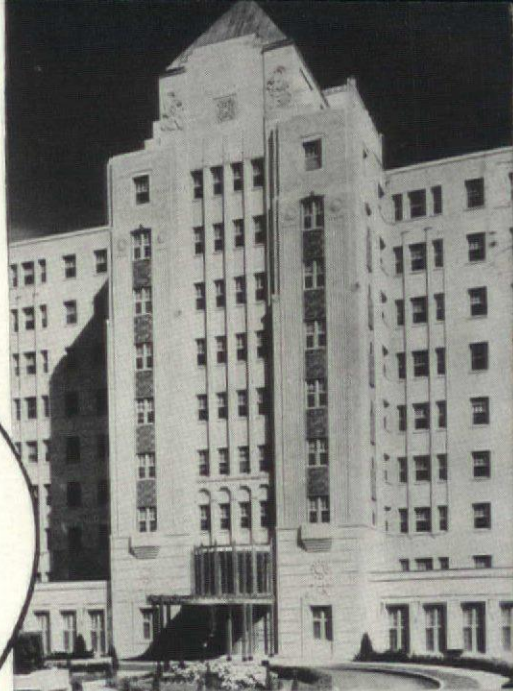
*"Wait up, Pete...he wants to  
take our pitcher"*

SETTING Aluminum spandrels goes so fast that you have to "stop the show" to get a picture. A line of Aluminum windows went in yesterday. The spandrels are set above them today. And tomorrow a second line of windows will go in.

Ease of handling and installing Aluminum spandrels means lower erection costs. Because of their lighter weight, supporting structures can be lighter and less costly. Everyone profits.

Free play is allowed the architect when he designs to build with Aluminum. It is available in all commercial forms. Being a very versatile metal, it reproduces intricate and detailed patterns faithfully. Its many attractive finishes provide a beauty which is lasting; Aluminum is highly resistant to corrosion. Costs little to maintain.

Aluminum Company of America, 2166 Gulf Bldg., Pittsburgh, Pa.



Aluminum spandrels are installed in the Kennedy-Warren Apartment Hotel, Washington, D. C., Joseph Younger of Washington, architect.



Aluminum spandrels and Aluminum windows are installed in the Field Building, Chicago, Illinois. Architects were Graham, Anderson, Probst & White of Chicago.

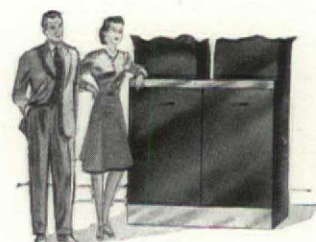
ALCOA  ALUMINUM

Reg. U.S. Pat. Off.





**FOR THE FINEST RADIATOR HEAT**  
G-E Oil Furnaces (for steam, hot water or vapor); compact, high heat transfer rate and low water content offer quick steaming—unusually economical in operation. Year 'round domestic hot water coil optional. Also a complete line of G-E GAS FURNACES.



**FOR CONDITIONED WARM AIR HEAT**  
G-E Winter Air Conditioners (oil or gas fired) circulate warm, clean, moistened air from one compact unit. Highly efficient in operation. Adding a single switch, offers the advantages of air circulation in summer. Cooling equipment can be added.



**"PACKAGED WEATHER" FOR STORES**  
G-E Unit Air Conditioners for low-cost air conditioning in shops, restaurants, offices, etc. Available in a complete range of sizes. Low in cost. Easily installed, little or no duct work needed.



**AIR CONDITIONING FOR HOMES**  
Compact G-E Units for cooling a single room, a group of rooms, or for conditioning the whole house. All G-E units are unusually quiet in operation.



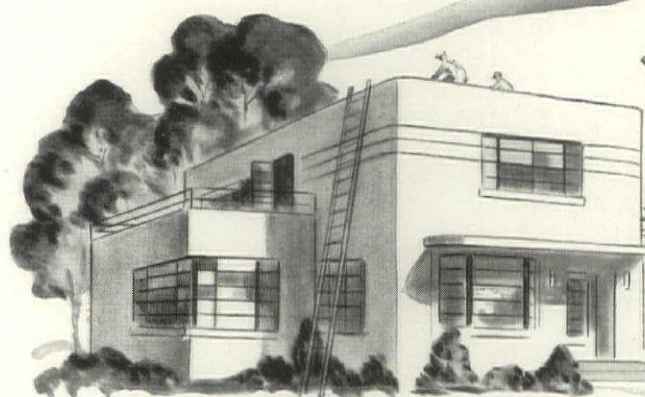
**FOR ATTIC VENTILATION**  
G-E Air Circulators move hot air out—draw cool air in. Ideal for use in small houses. A complete line of inexpensive models, all using the famous, quiet G-E Aphonic Fan.

**GENERAL  ELECTRIC**

HEATING...AIR CONDITIONING...COMMERCIAL REFRIGERATION



IF YOU'D LIKE  
TO KNOW WHAT  
WE THINK,  
MR. ARCHITECT



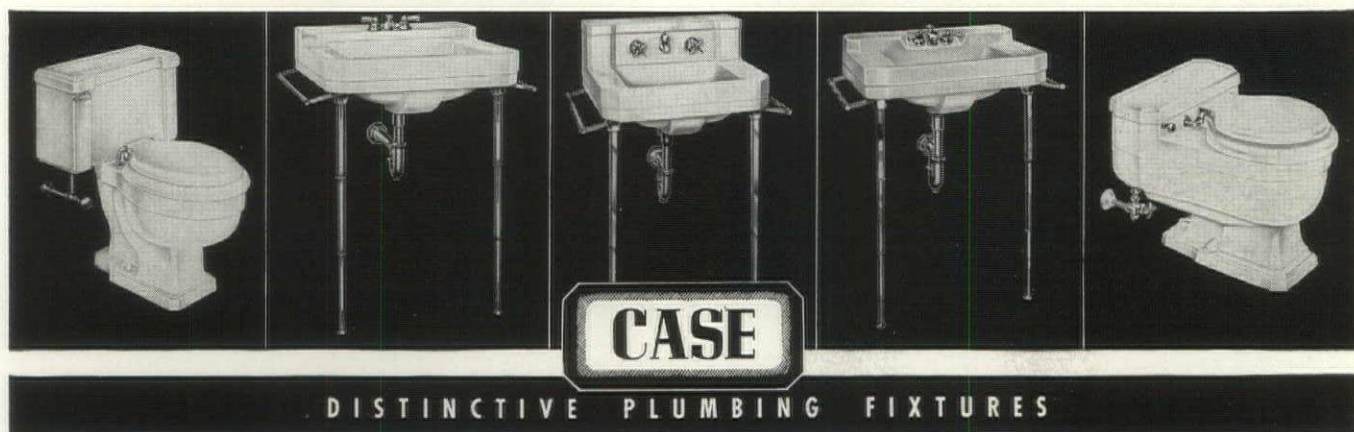
"WE are grateful for what you are doing to create a modern, useful, livable home for us. We are most grateful for the efficiency and long life of its equipment.

"Specifically, we are enthusiastic over our bathrooms and powder room. The three colors we selected are beautifully reproduced in the Case Plumbing Fixtures. We are impressed by our non-overflow T/Ns, their compactness and unobtrusive good looks, and their *quietness*. We delight in our three shelf-lavatories, the

smooth stainless china, the convenient fittings and side towel bars.

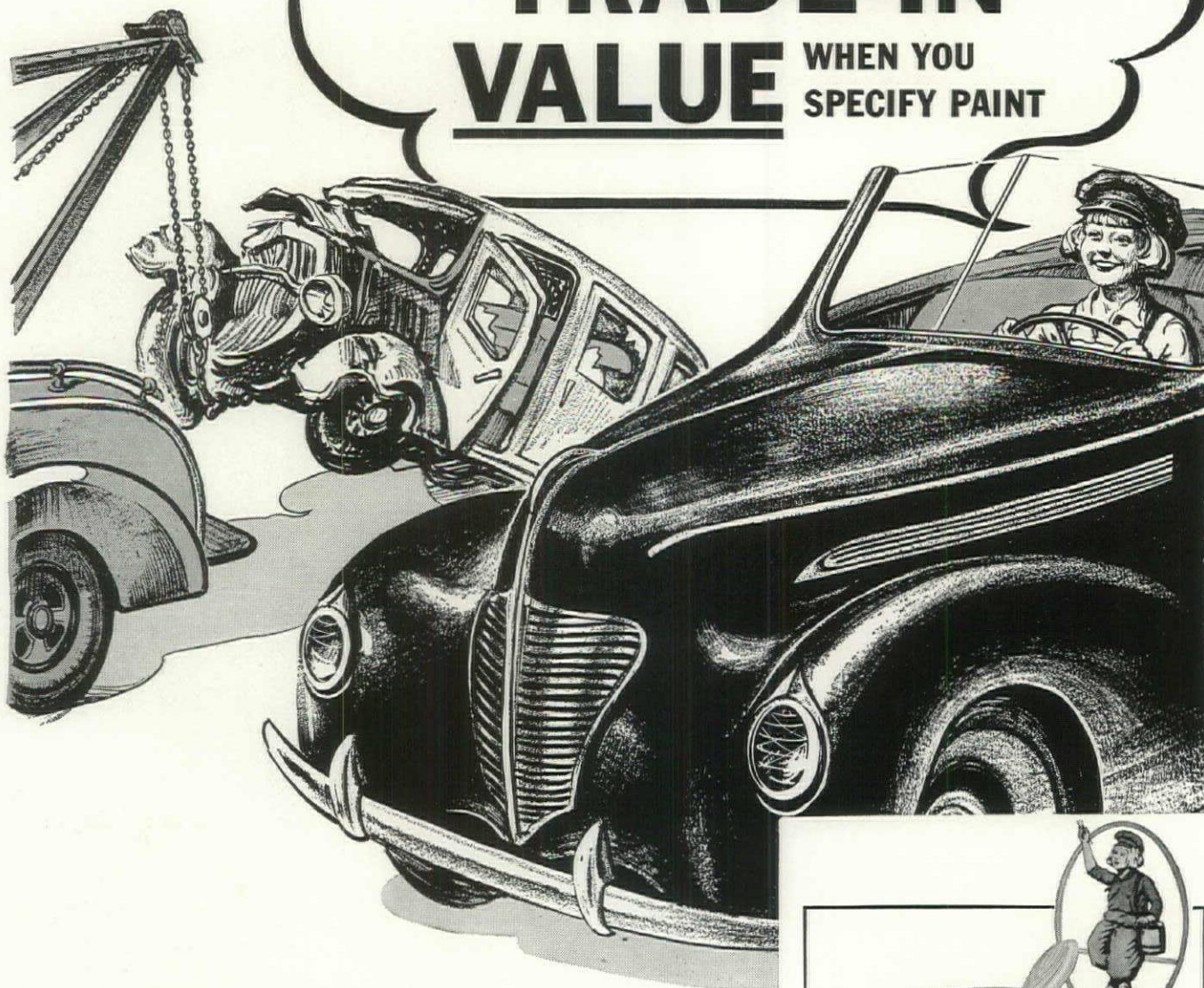
"Most of all, we are grateful because all this came well within the limits of our budget!"

*All* your clients will be grateful for Case Plumbing Fixtures. Sold and installed by Master Plumbers. On display in distributors' showrooms everywhere. For information write Dept. E-40, W. A. Case & Son Mfg. Co. Founded 1853, Buffalo, New York.





THINK ABOUT  
**TRADE-IN  
 VALUE** WHEN YOU  
 SPECIFY PAINT



DID YOU KNOW that the trade-in value of two different paint jobs can be very far apart?

You can have a "wreck" on your hands—or a job that nets you a generous allowance!

Trade-in value is whatever money you save when you "turn in" the old paint—in other words, when it's time to repaint.

When the previous painting was done with Dutch Boy White-Lead, the property owner gets a very advantageous trade. This fine paint cuts down the cost of the new work in two ways:

**1. No old paint to be removed!** Dutch Boy does not crack and scale. There are no scaly surfaces

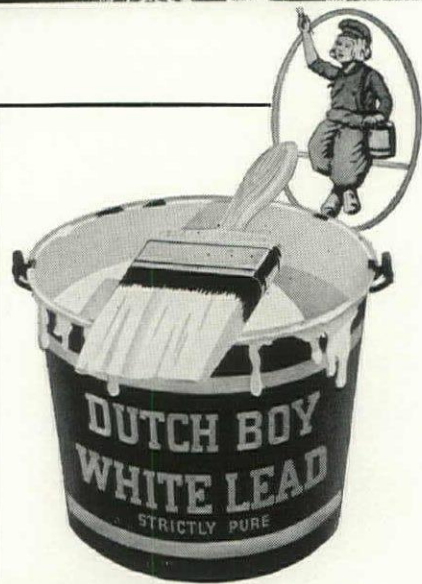
that have to be burned and scraped off (that's slow, costly work) before they can be repainted.

**2. No new priming coat.** Since the Dutch Boy is smooth and unbroken, it is not necessary to reprime the surface before applying the new paint.

Make sure that your clients get paint with this high trade-in value. Plus long wear. Plus beauty. Specify Dutch Boy White-Lead.

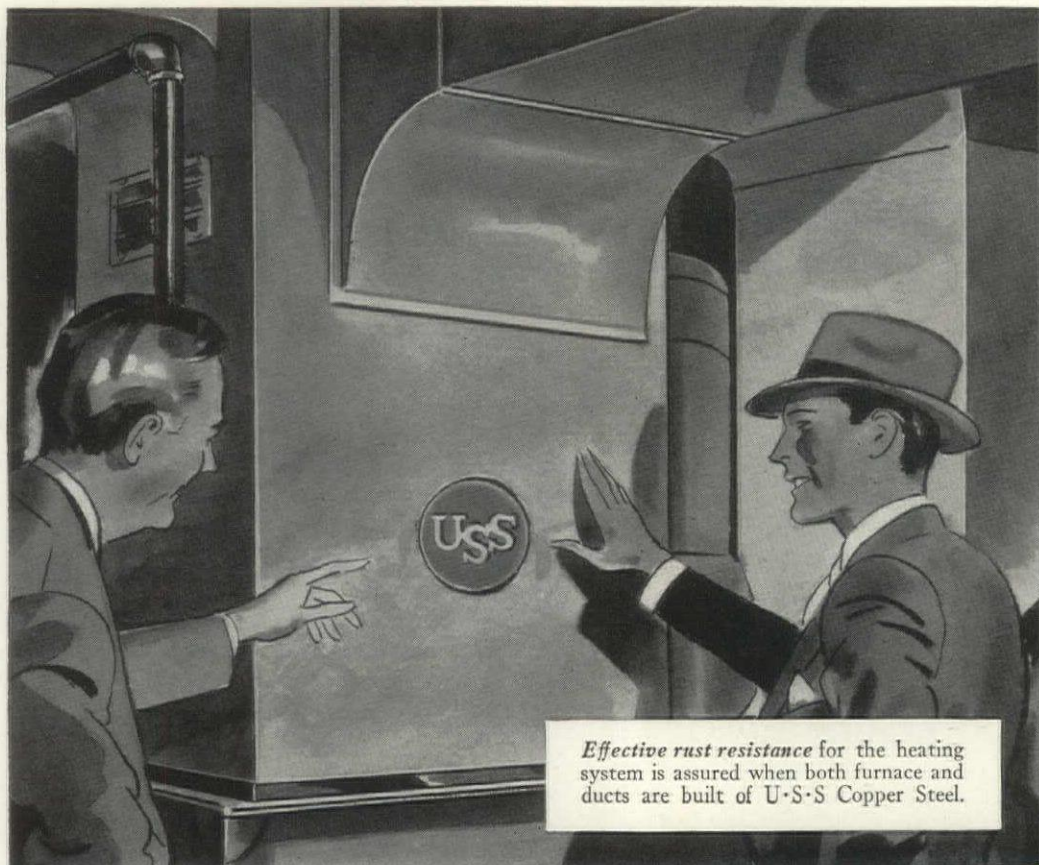
**NATIONAL LEAD COMPANY**

111 Broadway, New York; 116 Oak St., Buffalo; 900 West 18th St., Chicago; 659 Freeman Ave., Cincinnati; 1213 West Third St., Cleveland; 722 Chestnut St., St. Louis; 2240 24th St., San Francisco; National-Boston Lead Co., 800 Albany St., Boston; National Lead & Oil Co. of Penna., 1376 River Ave., Pittsburgh; John T. Lewis & Bros. Co., Widener Building, Philadelphia.



This is the slogan of the national advertising campaign on white-lead now being conducted by the Lead Industries Association. The purpose of this campaign is to promote a wider understanding of the advantages of white-lead paint.





**COST OF NEW HOME \$8000.**

*..plus 75 cents!*

### How 75¢ doubles rust protection in duct work

**Y**ES, that's all it costs in the average six-room house—75c more to build the duct work of U·S·S Galvanized Copper Steel rather than plain galvanized. Then you can be sure the heating system will withstand much longer the corrosive attack of high humidities, condensation or damp basements. U·S·S Copper Steel assures two to three times the rust resistance of plain steel—yet it adds practically nothing to the contract price of the home.

Prospective home owners are quick to see the necessity for long-lasting steel work—especially with modern humidified air heating systems. Where moisture and steel meet, there's bound to be a tendency to rust. U·S·S Copper Steel was tested for 21 years, along with other ferrous metals commonly used for the home, and was found far superior in service life.

Architects and builders are using U·S·S Galvanized Copper Steel extensively for large buildings. Its advantages are just as important for the home. Write for our latest booklet giving complete information.

CARNEGIE-ILLINOIS STEEL CORPORATION, *Pittsburgh and Chicago*

COLUMBIA STEEL COMPANY, *San Francisco*

TENNESSEE COAL, IRON & RAILROAD COMPANY, *Birmingham*

Scully Steel Products Company, *Chicago, Warehouse Distributors*  
United States Steel Export Company, *New York*



**Steel Insulation** stops 95% of radiated heat, lasts the life of the house. Fire-proof, moisture-proof, does not pack down or lose efficiency.



**Steel Windows** cost less to install, less to maintain, fit all types of architecture. They let in more light, assure better ventilation.



**Steel Kitchens** bring a lifetime of pleasure and relief from drudgery. They add modern style to any home.



**Steel Closets.** Complete units equipped with door, shelves, hooks, slip right into the wall. Easy to clean. Never need refinishing.

#### LOOK FOR THE U·S·S MARK

The U·S·S symbol placed by the manufacturer on any finished steel product is your assurance that he has used the best steel he can buy for its purpose.



**UNITED STATES STEEL**



*Compare  
them all*

**POINT by POINT**



**I**N the Gradutrol Humid-U-Stat Minneapolis-Honeywell has developed a superior humidity control. We are so confident of its efficiency and of the superiority of the Gradutrol System of which it is a part that we ask you to

*with the*  
**HUMID-U-STAT**

*Check Pneumatic  
Humidity Controllers for:*

- ✓ **HUMAN HAIR ELEMENT**  
for extreme sensitivity and permanence.
- ✓ **TEMPERATURE COMPENSATOR**  
to maintain relative humidity calibration at all temperatures.
- ✓ **UNIVERSAL ADJUSTMENT**  
for direct or reverse action and adjustable throttling range.
- ✓ **MATCHED UNIT DESIGN**  
for harmonious appearance with other controls.

compare it point by point with any humidity controller in the field. After such an appraisal, we are confident that there will be no question in the choice of such an instrument or pneumatic control system. • Minneapolis-Honeywell Regulator Company, 2740 Fourth Avenue S., Minneapolis, Minnesota. Canadian Plant: Toronto, Ontario. European Plant: London, England. Company owned branches in 49 other cities.

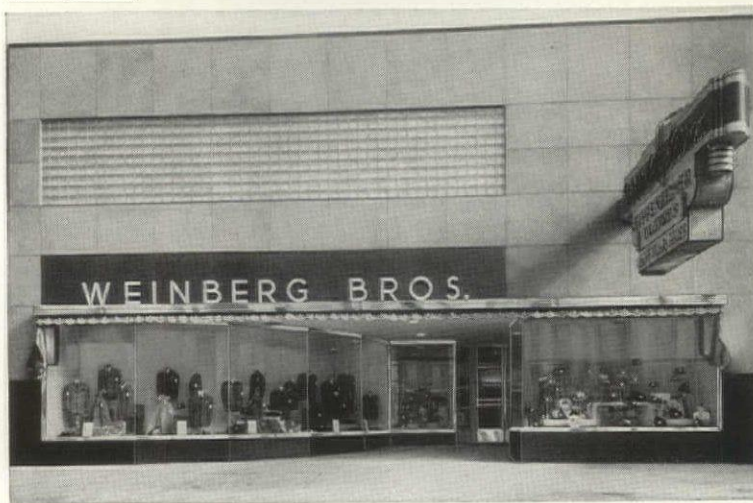
**MINNEAPOLIS**

**HONEYWELL**

*Gradutrol System*  
OF PNEUMATIC CONTROL



Hahn's, Washington, D. C., with Brasco Extruded Alumilite Store Front Construction. Architects: Porter & Lockie; Contractors: Chas. H. Tompkins Co.

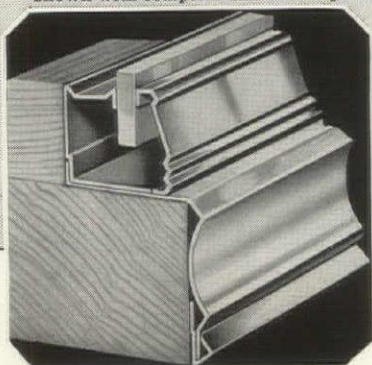


Weinberg Bros., Chicago, with modern store front of Brasco Extruded Alumilite Construction. Architect: F. W. Fischer; Contractor: Bergquist Construction Co.

**Brasco**  
MODERN  
STORE FRONTS

**Solid Stainless Steel, Aluminum, Bronze, Copper, Extruded Bronze or Extruded Aluminum, in Any Finish.**

Modern Brasco Shadow Line Sash, shown with complete sill covering.



**BRASCO'S** *high*  
**FACE VALUE is**  
**backed by 30 years**  
**of experience**

**I**T is no mere accident that the brilliant beauty of Brasco Store Front Construction is successfully retained over so many years of wind, wear and weather.

Time and study, research and responsibility, have gone into the development of today's Brasco line of Rolled and Extruded members, outstanding in design and appearance, and distinguished by sound, proven principles of construction.

The heavy gauged, unified members in all modern metals and finishes, the rugged reinforced bar construction, our exclusive patented principles for strength and glass safety, have all conclusively proven the merits of Brasco Store Front Construction over the past 30 years. There is no substitute for experience.

**BRASCO MANUFACTURING CO.**

HARVEY (Suburb of Chicago)

— ILLINOIS

*National Distribution for Your Convenience*

BRASCO MFG. CO., Harvey, Ill.

Send Samples and Details of Brasco Modern Store Front Construction.

Firm .....

Address .....

Individual .....

F440



# LETTERS

## Public Housing and USHA, cont. Forum:

... The question appears to have been very well handled. However, I note that the method used in determining the proper economic rent was not covered. In the determination of this figure, it was assumed that the same rental value would exist throughout the entire 60 years. Necessary replacements and upkeep were taken into consideration. However, even with replacements and proper upkeep, the rent of the housing unit 50-years old cannot approximate that of a new unit. There is, during the early years of the life of the project, more subsidy than the 50 per cent noted in the article. Long before the 60 years is up, it is doubtful that the units will rent for even 50 per cent of the rental value thus fixed at the beginning (once and for all). Then where is the money coming from to fully amortize the loan? Whether the Federal Government or the local housing authority will shoulder this additional subsidy remains to be seen. At best, it is an added burden to be passed on to posterity. . . .

I wonder if it occurred to the authors as it has to many of us that the very low income groups might be housed in buildings twenty to 40 years old with less subsidy. Just why the self-supporting family with income of \$1,200 should live in a place inferior to the subsidized lower income worker is not clear. I understand that in Great Britain during the past few years they have turned to making use of old houses for subsidized rentals. The administrative problems, while not simple, would not be unsurmountable. Such a program would have more of the element of justice. . . .

MRS. NEIL VAN EENAM  
Washington, D. C.

With reference to Point 1, THE FORUM feels justified in assuming that rents in USHA projects will be comparatively constant during the 60 year amortization period. Reason: rents for these projects are now at rock-bottom levels, are well below the current rent level of slum dwellings which were built 60 or 90 years ago and which are in much worse condition than the USHA project will ever be. Furthermore, the long-term trend of maintenance, replacements, etc., is considered in calculating the economic rents of USHA projects. Point 2: It has, indeed, occurred to THE FORUM that the low income groups might be housed in second-hand dwellings—see September 1939 issue, p. 149.—Ed.

## Forum:

... I was distressed to note that you did not use your usual accuracy in the brief reference to the Princeton operation under the head of "Research." As you recall, this was carefully covered in your Decem-

ber 1938 issue (page 486), but when referred to in the article on the USHA, the whole point is missed. I did not exchange the buildings with the municipality, and therefore the bonds are not guaranteed. Furthermore, there is no mention of the fundamental idea of having the Housing Authority turn over the buildings to the municipality in lieu of taxes. I know that this January issue will be widely read, and naturally regret these oversights. . . .

GERARD H. LAMBERT

New York City

To Reader Lambert, apologies for an inexcusable error. The Lambert Project in Princeton, N. J., was swapped with the local housing authority for \$30,000 of 4 per cent tax-free bonds. The authority agreed to give the project to the city at the end of 28 years in return for tax exemption of the property.—Ed.

## Forum:

... In answer to the question, "Are housing subsidies too high?" four means of producing low rents are alleged. These are low land and construction costs, low interest rates, low operating and maintenance costs, and direct subsidy. In view of the fact that the USHA subsidy is sufficient except to a negligible degree to pay off its own loans, the cost of land, construction, and interest cannot be reflected in the rents. Thus it cannot be said that lower land, construction, and interest costs will mean lower rents. Ironically, the opposite might very well be true, because better building, costing more money, might take less operating and maintenance costs, and since these latter items are reflected in the rent, the rent conceivably might be commensurately lower.

In your discussion of USHA slum clearance, it is evident that the technical, statutory definition of a slum is in mind. It must be remembered, however, that the U. S. Housing Act of 1937, as amended, has for its objective not only the eradication of slums, but the elimination of unsafe and insanitary housing conditions. This additional clause can mean only one thing: that equivalent elimination may be accomplished within or outside the strict limits of slum areas. Although the whole concept needs further clarification, so far as the *expressed* intention of Congress is concerned, equivalent elimination need not be totally accomplished by the elimination of unsafe and insanitary dwellings within slums. Scattered elimination is fully in consonance with the written, if not presumed, objectives of the law. . . .

Concerning subsidies . . . you make the statement that since Federal income taxes are calculated on a sliding scale, upper incomers bear the burden. This would be true if there were any earmarkings of in-

come taxes for housing. But the subsidy funds come out of general appropriations. Since income taxation constitutes but a minor item of taxes collected by the Federal government, and since, further, tax studies show that low income people bear proportionately a greater percentage of the tax burden than do high income people, it can be said that low income people themselves are paying the subsidies for low rent housing.

It is noted that you attribute the inability of the present subsidy to care for all of the \$800,000,000 so far authorized, to a Congressional error. I would be interested in verification of this, for the sum could have been deemed sufficient for the whole program. The statutory provision is that USHA give annual subsidies *up to* the going rate of Federal interest, plus 1 per cent of the total cost of any project. It is clear from a reading of Section 10 (b) of the U. S. Housing Act of 1937, as amended that Congress did not have in mind the necessity for maximum contributions under all circumstances. USHA has run short because it has found it necessary to use the maximum in each case . . .

JESSE EPSTEIN

Housing Authority of the City of Seattle  
Seattle, Washington

THE FORUM 1) referred to housing in general—not USHA housing in particular—when it referred to the four means of producing low rents, 2) said and still believes that "equivalent elimination" of sub-standard dwellings will toe the mark set by the USHA, but will not clear slums, 3) accuses Congress and Government houses of erring in not realizing that it would require full Federal subsidies in the large majority of cases to produce the low rents set as the program's goal.—Ed.

## Pooh, Bah, Hum

### Forum:

... The March issue has just arrived, joyously announcing (p. 2) that the FHA will *now* guarantee the mortgages on small rehabilitation projects, running from 16 units of \$100,000.

After many years of experience in the apartment field in New York, let me say (1) Experienced builders are not interested in dividends limited to a 6 per cent return, even with the promised 2 per cent surplus. (2) These same builders, *and* the above mentioned lending institutions, will not apply for FHA guaranteed mortgages because they cannot afford to wait six months to a year for commitments, for the Great Bureaucracy to unwind its red tape and graciously consent to insure these expenditures—pooh—bah—hum! Furthermore, there is an under-current of feeling, especially among the more ignorant—or is it the more experienced?—type

(Continued on page 120)



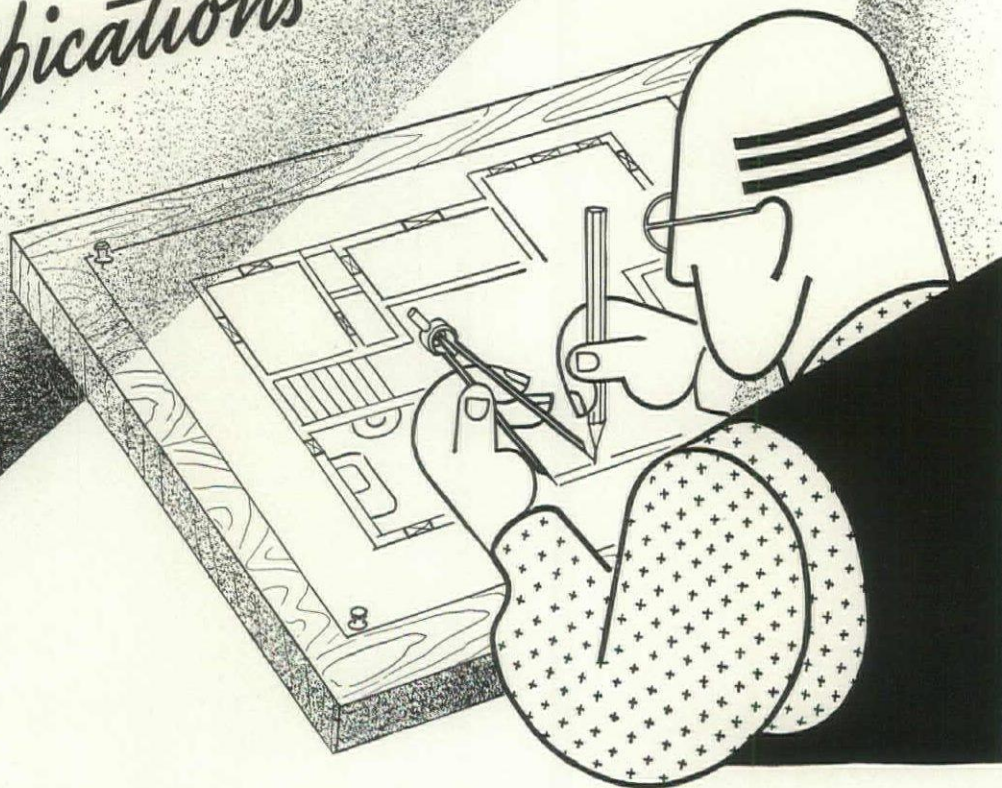


**PENBERTHY INJECTOR COMPANY**

Manufacturers of QUALITY PRODUCTS Since 1886  
DETROIT, MICHIGAN • Canadian Plant, Windsor, Ont.



# SUNBEAMS BELONG on Specifications TOO!



● Windows are playing a greater part in home decoration, in health and in charm than ever before. That's why windows must be trouble-free—to let in healthful sunbeams and not leak air or heat.

Eight years ago, Curtis introduced SILENTITE, the first "insulated" window. For the first time, homeowners could have windows which didn't rattle, jam or stick. And they got the further benefit of a window with built-in weather-stripping to provide greater year-round comfort and to help save up to 25% of the average fuel bill. Over 100,000 American homeowners are enjoying SILENTITE windows today.

Here are some of SILENTITE's patented features to

remember when you're selecting windows for the modern home: 1. Lifetime springs replace weights and cords; 2. Sash glides smoothly in metal channels; 3. Sturdy, built-in weather-stripping (Pittsburgh Testing Laboratory says it's the most effective known); 4. All wood parts given Curtis toxic-dip; 5. The beautiful designs of Mitertite trim add to room beauty; 6. "Pre-fit" sash—speeds installation costs; 7. Narrow mullions admit more light and look better.

Let us tell you more about the entire SILENTITE window family—first choice with America's leading architects. If you live in Canada, write to Edwards Curtis Limited, 991 Somerset Street West, Ottawa, Ontario.

CURTIS WOODWORK SOLD BY RELIABLE DEALERS EVERYWHERE



THERE IS ONLY ONE SILENTITE AND ONLY CURTIS MAKES IT  
Its patented features aren't available in any other window

CURTIS COMPANIES SERVICE BUREAU  
Dept. AF-4, Clinton, Iowa

Please send me full details on the SILENTITE Window Family.  
I'd like to know about other Curtis Woodwork too.

Name .....

Address .....

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# Are You Building Cottages?



New Type MO  
Multi-breakerR

★ This new Square D Multi-breakerR provides service entrance with 35 ampere mains and two lighting circuits, circuit breaker protection and branch circuit switching. It eliminates fuses—a movement of a lever restores the circuit. Built with either surface or flush mounting. The list price is only \$2.65.

There are larger Multi-breakerRs for every type of building. Ask your electrical contractor or write for bulletin CA-543.

CALL IN A SQUARE D MAN

**SQUARE D COMPANY**

DETROIT-MILWAUKEE-LOS ANGELES  
IN CANADA: SQUARE D COMPANY CANADA LIMITED, TORONTO, ONTARIO



Proctor & Gamble Co. Research Building,  
Cincinnati, Ohio

Architect: Henry Manley, New York City, as-  
sociated with engineers of Proctor & Gamble Co.  
Contractor: T. W. Conner, Cincinnati, Ohio

**REPUBLIC  
TONCAN IRON PIPE**  
— selected  
after exhaustive tests

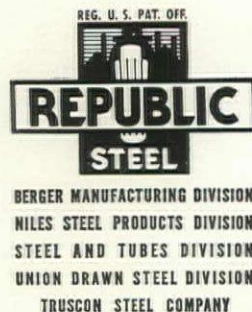
## *... Insures a Trouble-Free Piping System*

Long before this Research Building was started for one of the world's largest makers of soap, the engineers conducted exhaustive tests on pipe — and Republic Toncan Iron Pipe was written into the specifications.

No wishful thinking — plain, common sense business procedure was employed to make certain that pipe trouble in this building would be kept at a minimum through the use of this alloy of refined open hearth iron, copper, and molybdenum.

Let the experience of these cautious engineers guide you when prospective builders entrust to you the plumbing, heating, and power piping systems of structures of every type. Specify pipe for long life — for economy in maintenance — with just three words — Republic Toncan Iron.

And if you would like to review the service records of Republic Toncan Iron Pipe in buildings of every type, ask for Booklet 333. Write Republic Steel Corporation, General Offices, Cleveland, Ohio.



**MADE OF THE ALLOY OF REFINED OPEN HEARTH IRON,  
COPPER AND MOLYBDENUM THAT GROWS OLD SLOWLY**



# When you want weather-proof exteriors, specify **EXT-DFPA**

**EXT-DFPA is widely used for modern streamlined residences, stores, service stations!**

EXT-DFPA—the exterior type of Douglas Fir Plywood—is made with synthetic resin binder, hot-pressed under hydraulic pressure to form panels that are guaranteed by the manufacturer against ply separation due to moisture or any sort of weather condition. All EXT-DFPA is made in strict accordance with U. S. Commercial Standard CS45-38 and is edge-branded with a distinctive "grade trade-mark" for easy specification and identification.

EXT-DFPA is unsurpassed for use as exterior finish on residences, stores, service stations, warehouses, farm and other buildings . . . for signs and displays, boats, refrigerator cars and boxes, milkhouses, auto trailers, bus bodies and floors, gusset plates for bolted and ring-connected joints in trusses for roofs and bridges. EXT-DFPA is made in a variety of thicknesses and sizes and in several appearance grades. All progressive lumber dealers handle it.

For your information, consult Sweet's Catalog or write for any of this free literature: Suggested Specifications for Douglas Fir Plywood; Commercial Standard CS45-38; Construction Manual for Douglas Fir Plywood Dri-Bilt Houses; or Finishing Booklet. Douglas Fir Plywood Association, Tacoma Bldg., Tacoma, Washington.



#### Left: LOOK FOR THIS EDGE BRAND

Every genuine EXT-DFPA panel has this "grade trade-mark" stamped on its edge. Specify and insist on it . . . for it's your protection.

the type of Douglas Fir Plywood made for permanent exposure to weather and water!



#### RESISTS HURRICANE AND SALT WATER

Built in 1936 and located near the ocean, neither the salt-laden storms, heavy fogs nor the September, 1938, hurricane had any effect on the EXT-DFPA exterior of this residence in Marblehead, Mass. It was designed by Donald Chapin Goss for John T. Robbins. 3/4" 5-ply was specified.



#### SPECIFIED BY AIR CORPS

More than 1,000,000 sq. ft. of EXT-DFPA were used in the Army Air Corps' emergency barracks building program undertaken at 11 air fields in August, 1939. Economy, speed of erection and permanence were the reasons for the selection.

#### Left: IDEAL FOR ALL BOATS

More and more boats, from dinghies to cruisers, are being built every year of EXT-DFPA, each a testimonial to its water-proofness.



**SPECIFY DOUGLAS FIR PLYWOOD BY THESE "GRADE TRADE-MARKS"**

PLYWALL D.F.P.A.

EXT.-D.F.P.A.







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## RESIDENTIAL WINDOWS

WITH "SEALAIR" ALL-ALUMINUM CONSTRUCTION!

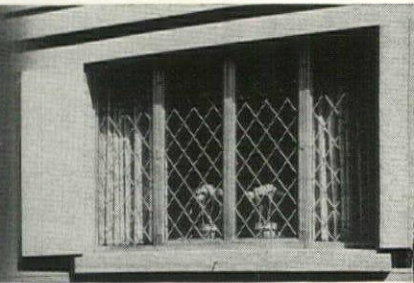
Before writing specifications for your next residential job, be sure you have all data on Kawneer stock and standard Windows—now furnished in both double-hung and casement types with effective built-in "Sealair" weathering.

These famous windows are no longer in the luxury class. In fact, over a period of years, their cost is actually lower than that of windows made from less durable materials. Upkeep ex-

pense is practically eliminated, since no painting is ever required. And no rusting, rotting, shrinking, swelling, or warping can occur. Complete line of factory-fitted units, with putty or metal glazing, is available in over 125 standard sizes and arrangements. Aluminum or bronze screens and storm sash are also available.

Write today for latest data. THE KAWNEER COMPANY, NILES, MICHIGAN.

★  
DOUBLE-HUNG or CASEMENT  
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OVER 125 STANDARD SIZES  
AND ARRANGEMENTS  
★

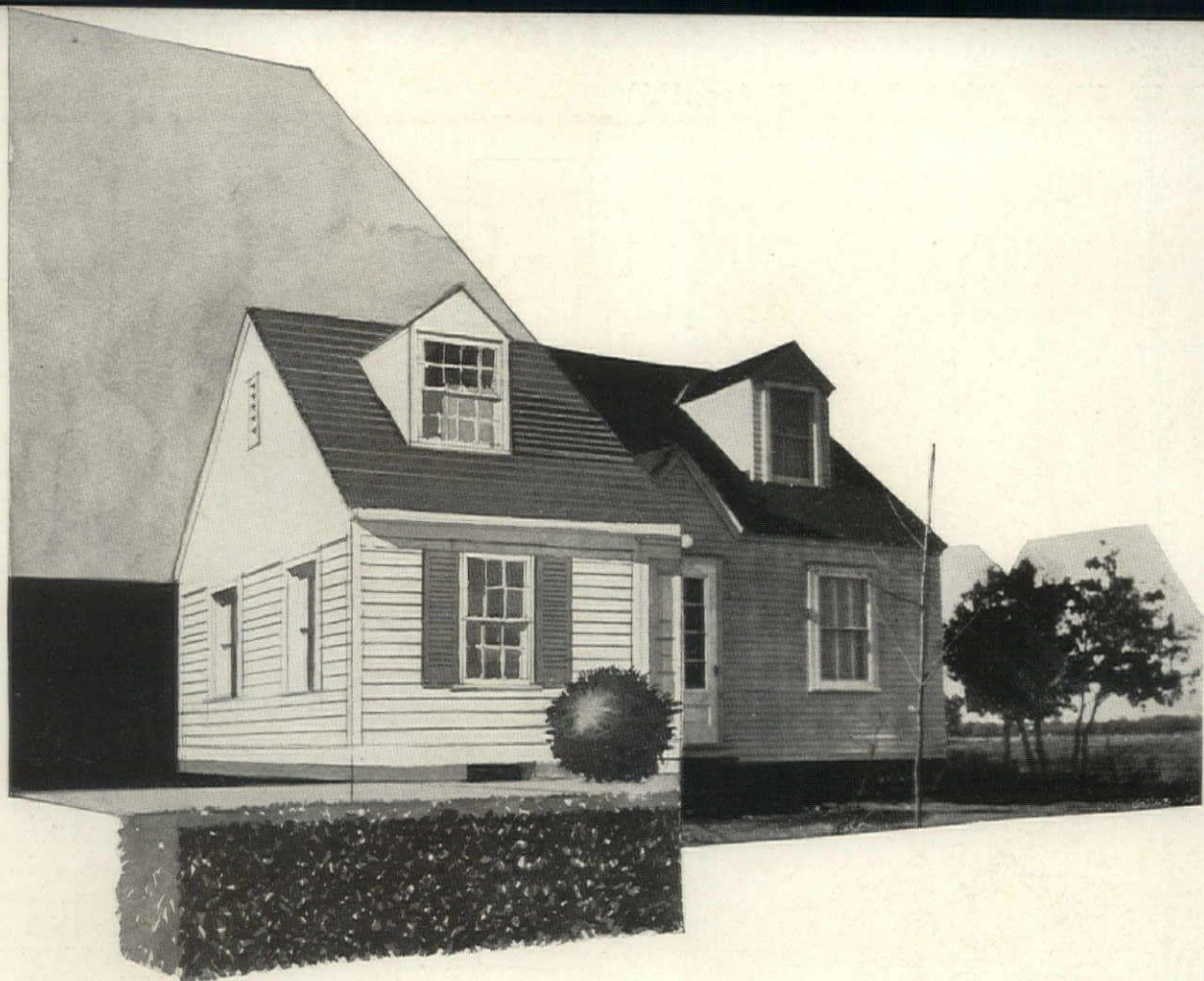


ALUMINUM, BRONZE AND OTHER NON-FERROUS METAL—

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STORE FRONTS • DOORS • WINDOWS • ARCHITECTURAL METAL WORK





## THE LOW COST HOUSE (cont'd)\*

The portfolio which starts off this issue is an advertisement. The editors think it is one of the best advertisements for architectural service ever published. It is aimed at the biggest market for architectural service ever known. It is intended to show the builders of America that better design can sell the low cost house.

Included is a score of houses priced at about \$3,000. These houses meet the needs and the pocketbooks of about 3,000,000 potential home owners. But they are not very attractive. Some are even ugly—despite, and often because of efforts at ornamentation. Only a few have even the rudiments of good design. Not one really takes advantage of the opportunities which the basic floor plans and readily available stock materials afford. And so there is also included a series of sketches to show what *can* be done. These sketches are no mere collection of pretty pictures. True, the renderer has sometimes taken the liberty of showing the planting as it might look five years later. But the houses themselves have been redesigned in a way that will vastly improve their appearance even before the bushes begin to grow. Most of these suggested improvements add but little to cost and some represent a saving.

1940, by all accounts, will see a boom in low cost houses. FHA has lowered requirements on Title II (20-25-year) loans. RFC will now discount Title I (15-year) mortgages which conform to these new standards. Enterprising builders have begun to reach the pay-dirt in the hitherto untapped vein below the \$3,500 level. A survey by THE FORUM (March 1940, p. 207) shows that those who have met this market plan 60 per cent more work this year than last. And, if these facts do not convince you, a Sunday's drive through your home-town suburbs will. The long-awaited low cost house is here.

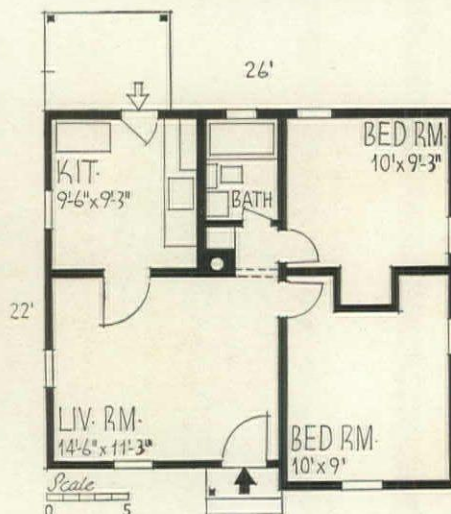
Droves of low cost houses are being built all over America. They will be built in huge quantities during the next few years. Will the follies of the Twenties be avoided in the Forties? Will the architects give the little house a great big hand? If they do, chances are good that America will give the architects one too.

\*Almost every issue of THE FORUM presents small houses. During the past five years Reference Numbers on small houses have been published in April, '35; October, '35; April, '36; November, '36; April, '37; July, '38; November, '38; April, '39; July, '39; October, '39.—Ed.





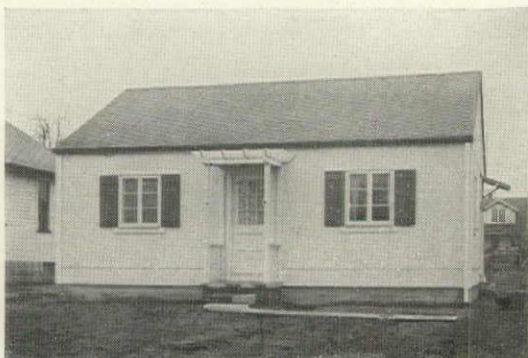
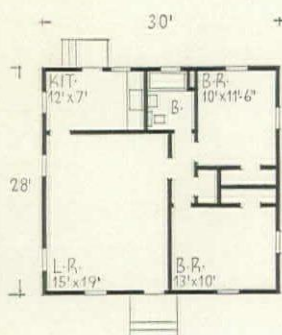
OHIO: \$2,450 with heater, plus lot.



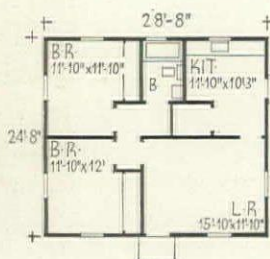
MICHIGAN: \$2,750 with lot (\$300), heater by owner.



FLORIDA: loan, \$1,900.



INDIANA: \$2,850 with lot (\$150) and heater

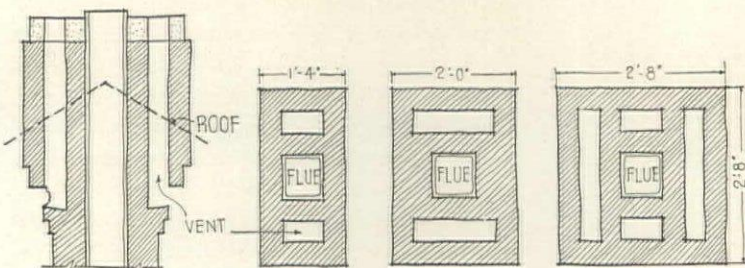
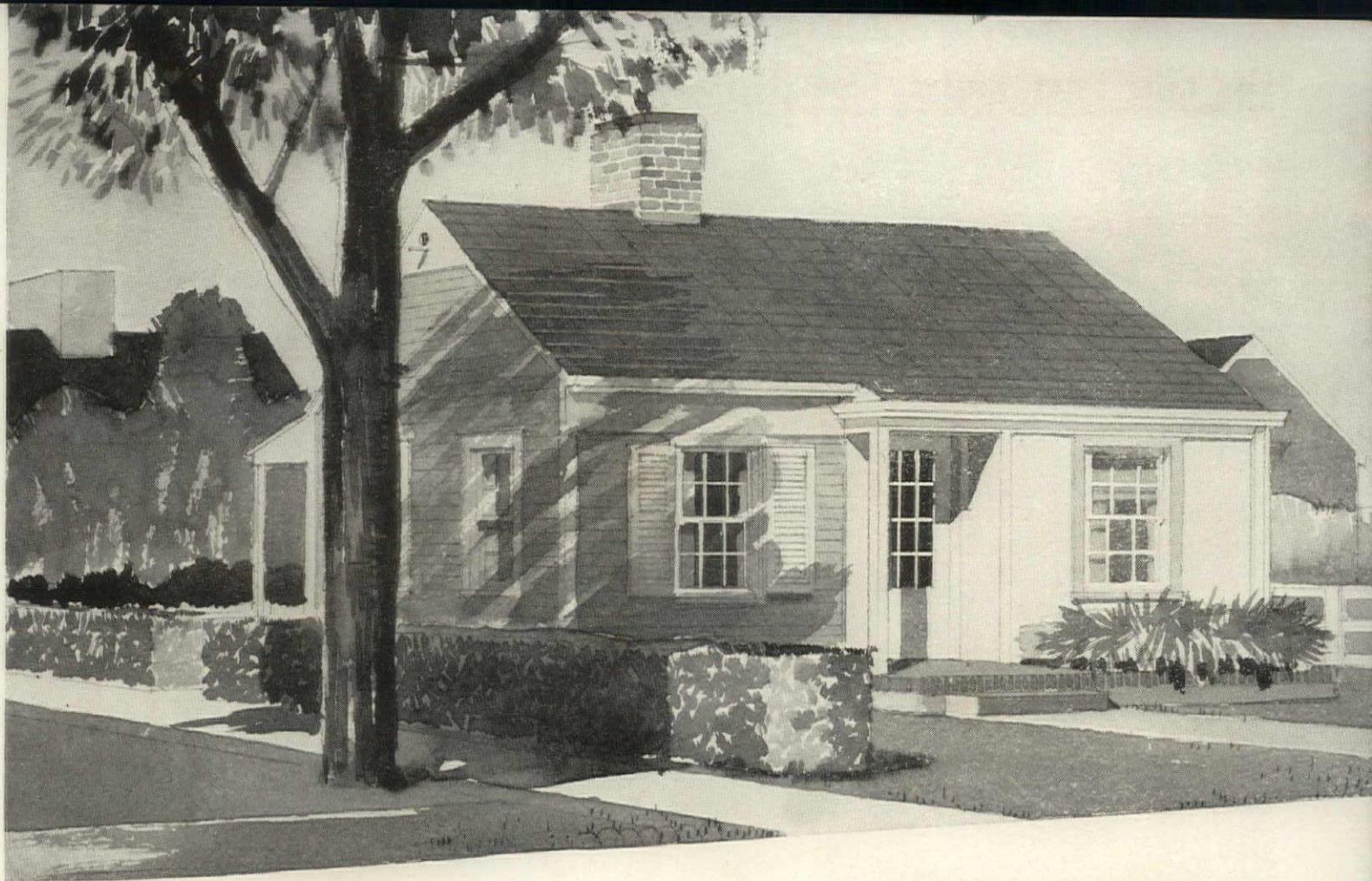


Low cost houses are not all alike, even those which have the same number of rooms arranged in much the same way. Some have basements and basement stairways, some do not. Some are turned sidewise to the street, some endwise. The larger ones have stairways leading to future attic rooms. Each scheme satisfies a specific set of requirements which the others fail to meet. The houses on this page are the smallest and simplest kind which have no stairways at all. Because they are not very wide, this type is almost always placed with its side to the street. The first two plans are very similar. Both are framed in two simple spans with 10 and 12 ft. joists, room sizes are almost identical. While the upper version is no doubt slightly cheaper to build, the second has the advantage of providing private communication between both bedrooms and the bath. This is accomplished with a tiny, angular hallway which takes space only from the corners of the three rooms.

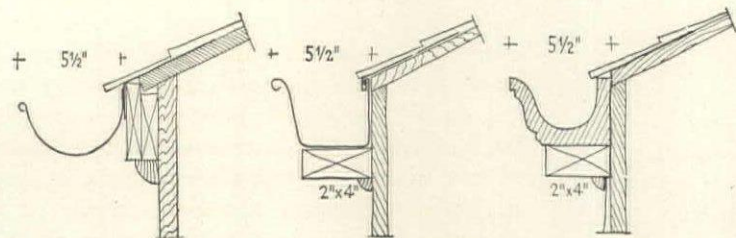
The third plan, while almost the same arrangement, is almost half again as large as the first two. The extra space is given over to larger rooms, especially a larger living room, and to more generous closets. Since equipment, doors, windows, etc., remain the same as in the smaller plans, it is doubtful whether this increases costs in proportion to the benefits realized. The fourth plan provides space for an enclosed, ground-floor heater, and exceptionally generous closets. The hallway, however, seems unnecessarily wasteful.

THE EXTERIORS on the opposite page might apply to any of these plans, actually are based on the first two. The projecting bedroom element, as in the upper plan, is utilized to provide a hood for the entrance door, tied-in with the general roof line. In place of two pairs of slat shutters, a single pair of louvered shutters is used, and strip shingles are substituted for the hexagonal type. Main reasons for the improvement in appearance are, however, the carefully studied trim, larger and better-looking windows, and a bigger chimney. As indicated by the rear view, there is no reason why the back of the house cannot be as attractive as the front.

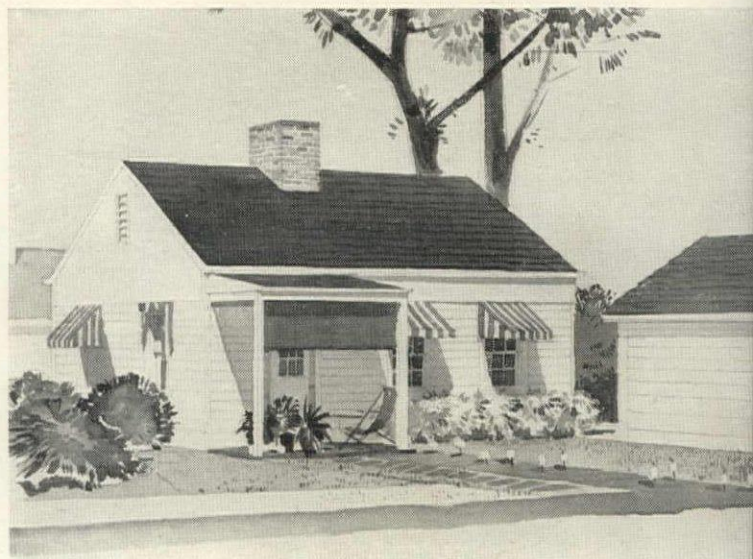




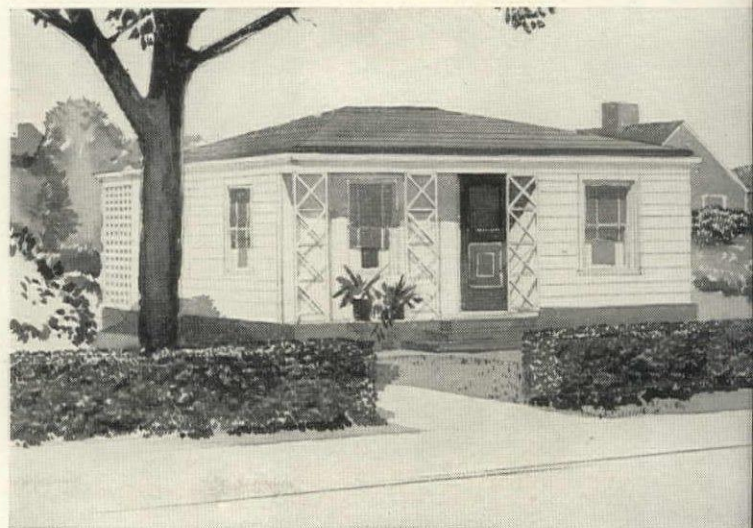
**CHIMNEYS** are an exceedingly important element in the design of the low cost house. Spiky chimneys may be avoided by corbelling-out just below the roof line, and the extra space utilized to ventilate the attic, thus adding immensely to summer comfort. The chimney shown in the perspective is the middle type, with vents front and back.



**GUTTERS** should be an integral part of the cornice, not an afterthought. Any of the stock types, whether wood or metal, may be used, but it must be remembered that all kinds take the place of the usual wood molding. Where the gutter is provided in addition to such a molding, the cornice becomes too heavy, and downspouts awkward.



REAR

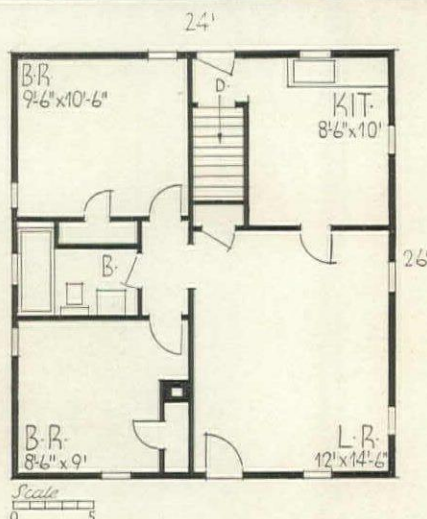


VARIATION

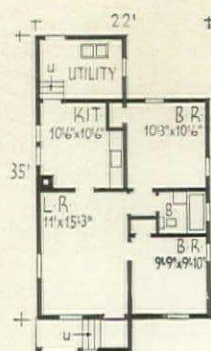




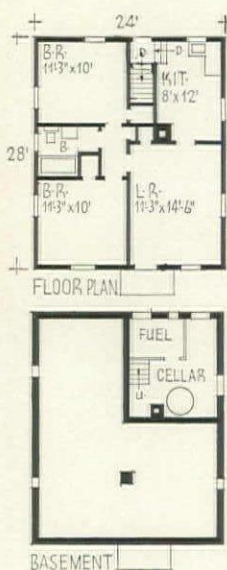
MINNESOTA: \$2,750 with lot (\$250).



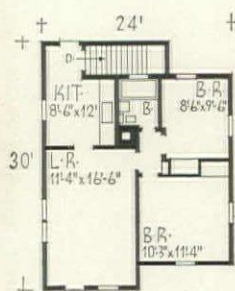
MICHIGAN: \$2,900 with lot (\$350) heater by owner,



INDIANA: \$3,350 with lot (\$300) and heater.



IOWA: \$2,600 without lot.



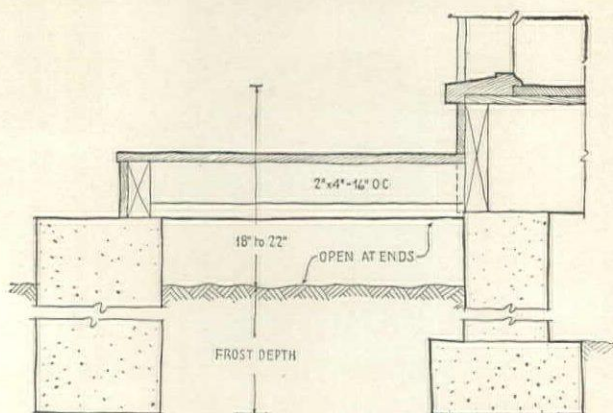
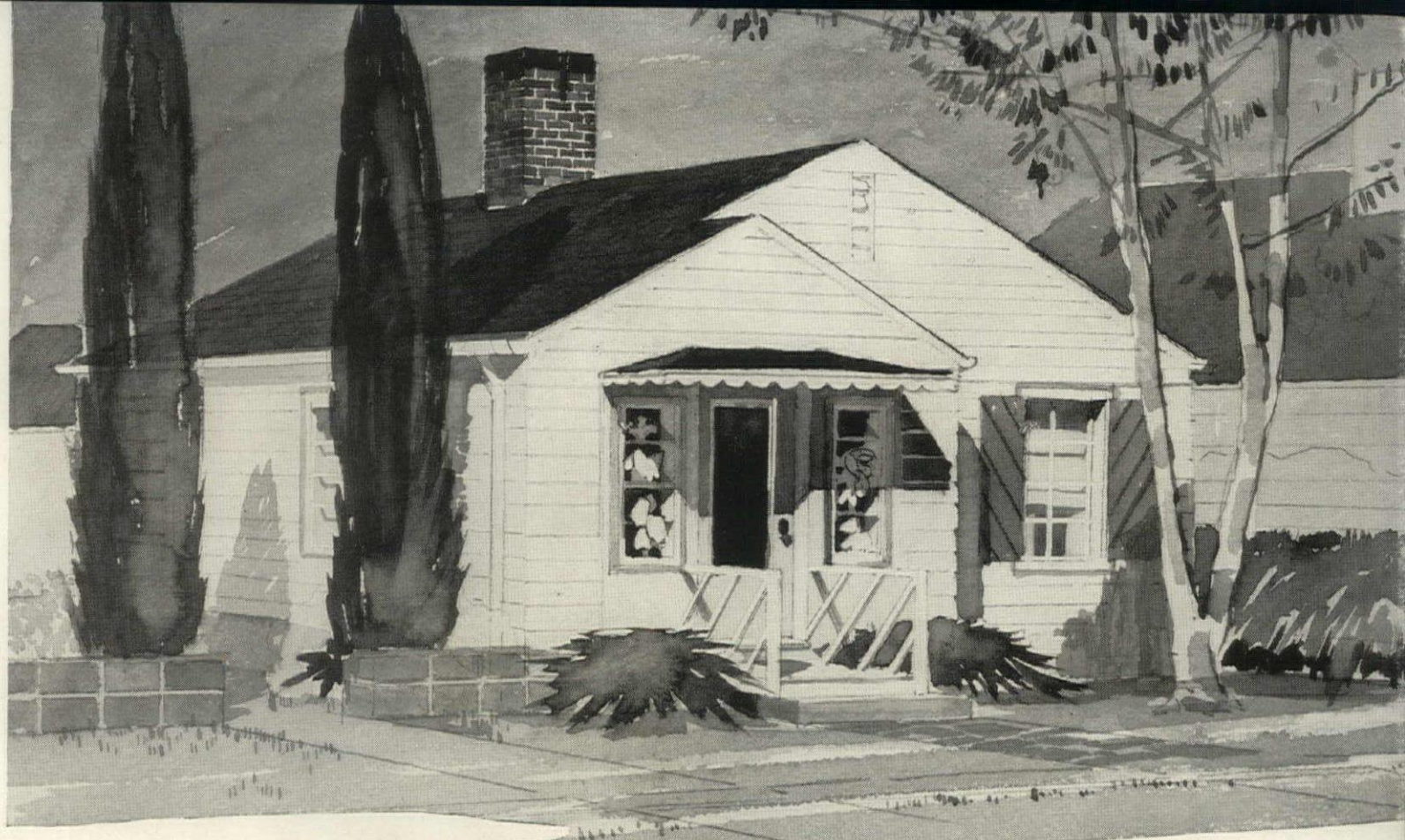
End-to-the-street plans, like those on this page, save valuable lot-frontage. They are therefore much used for houses midway in size between the smallest, basementless type and the larger kind which have provision for attic rooms. Usually, as in the three upper plans, this means separation of kitchen and bath, and where a basement stairway is provided it is placed between the kitchen and the back bedroom, with the rear door opening into the landing.

A deficiency of this arrangement is that it leaves no natural place for the bedroom closets, and these are often tucked in rather carelessly. Sometimes, as in the second plan, one of the closets is located so as to cut off private circulation between one of the bedrooms and the bath. To this difficult problem, the answer given in the upper plan is perhaps best, although the chimney is unfortunately placed. The bottom plan sticks to the usual side-to-the-street arrangement by locating the basement stairway as an addition on the rear.

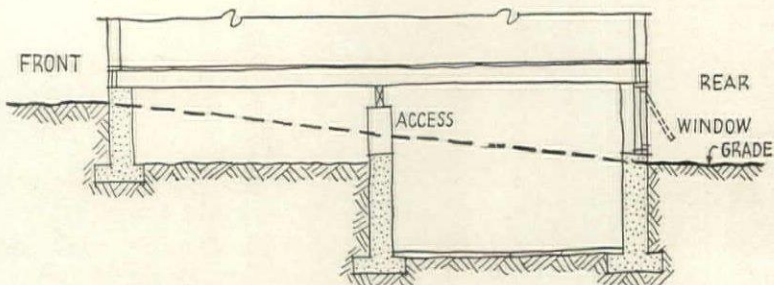
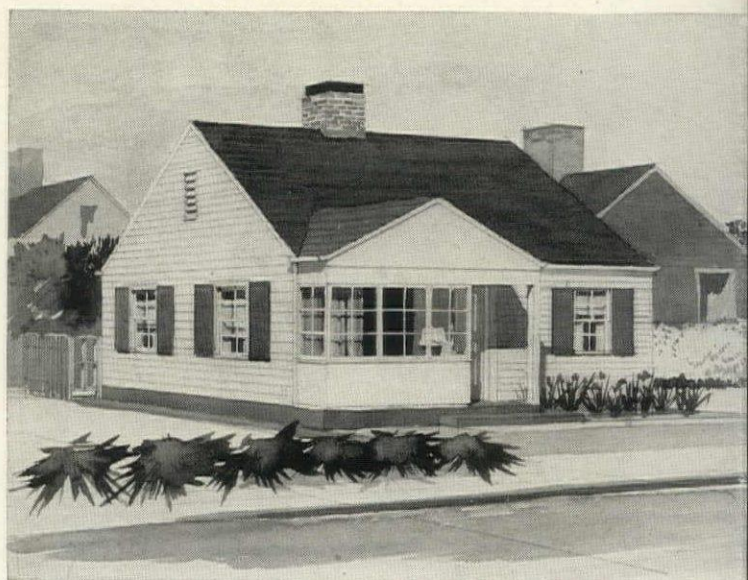
EXTERIORS for end-to-the-street houses need not necessarily be gabled in that direction, as the photographs at the left demonstrate. The designs on the opposite page present both types, the upper drawing employing the projecting living room of the bottom plan, the middle drawing a modification of this idea which creates a hooded entrance, and the lower drawing a flat front.

Biggest problem in the design of this type is to keep the house from looking too high out of the ground. This may be done either with area-ways (a simple construction is shown on page 219) or by grading up at the front of the house, a particularly good solution for the house with a money-saving partial basement. Chimneys and cornices are treated as shown on the previous pages. Be sure to keep the projection of the roof along the rake to a minimum, as indicated in the sketches.





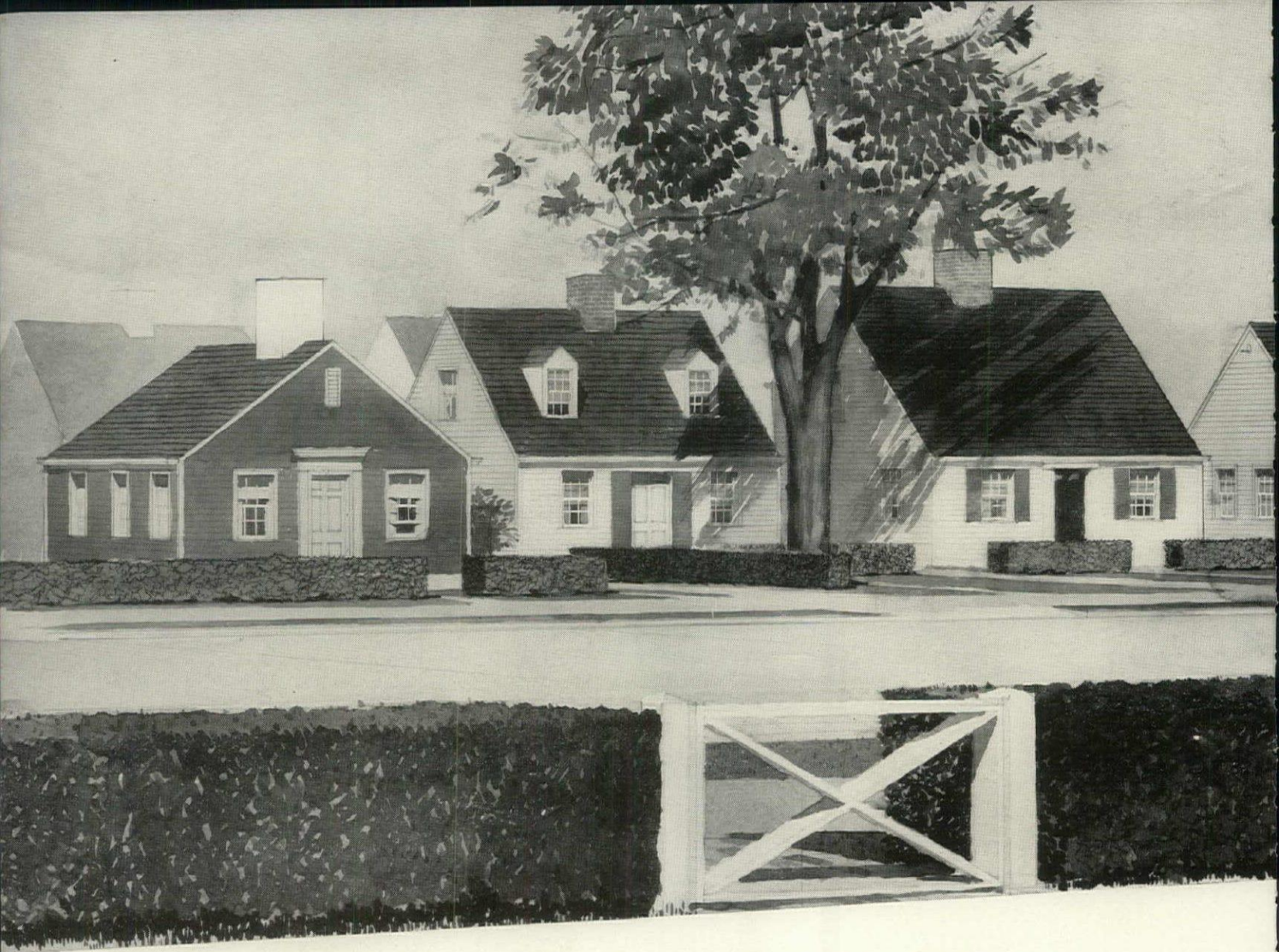
**ENTRANCE PLATFORMS** cause the low cost builder a good deal of trouble and, if badly handled, will spoil an otherwise commendable design. Here, as always, the best solution is the simplest one. Be sure to have a full step at the door, so as to make the platform as low as possible, raise the grade so that only two steps are needed, and keep the platform wide so that it doesn't look skimpy.



**GRADING** up at the front of the house will immensely improve its appearance. When this is combined with the half or quarter basement, no areaways are needed and it actually saves money.







## GROUPING

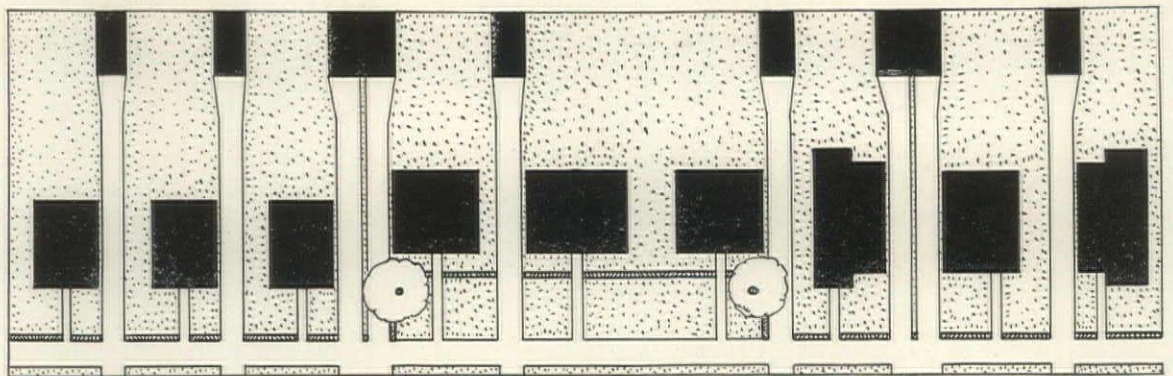
The biggest mistake most developers of low cost houses make is to assume that because they have hit upon a successful formula of plan and exterior, which sells, that this is the only solution adapted to their locality. Besides producing a monotony which is but little relieved by varying the shutters and adding a false gable here and there, this has the effect of limiting the market. A much better scheme is to vary the size and type of house, relying for economy on standard elements, plumbing, etc., rather than a stereotyped plan, and thus incidentally to meet the needs of a much larger group of customers. When this method is combined with varying setbacks, group planting, etc., as in the scheme illustrated above, an attractive community pattern may be established. None of the houses in this group departs from the plans already in use in low cost work, and their juxtaposition in groupings of this type is capable of almost endless variation. An essential contributing factor is the location of unsightly electric supply lines at the back of the plot.



*J. N. Erhart*



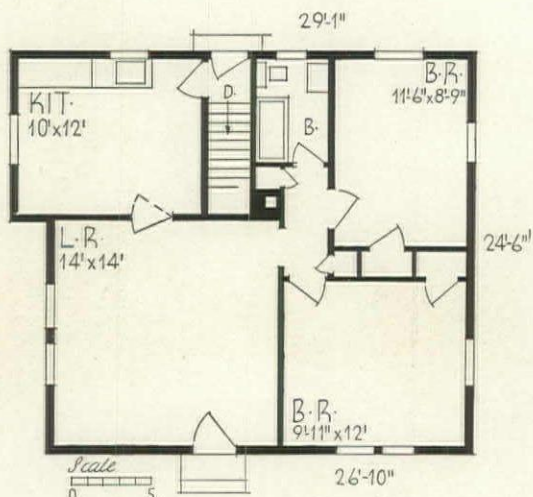




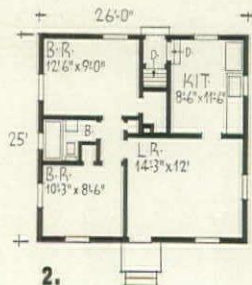
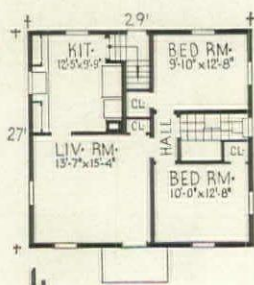
GROUP PLAN



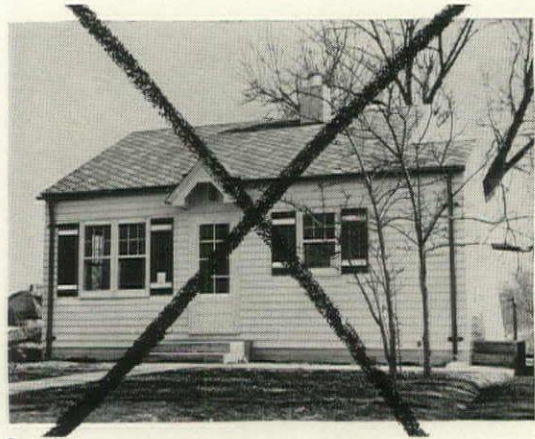
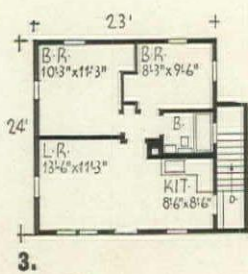




Next in the low cost scale are houses with basement stairways, placed sidewise to the street. These particular examples show the importance of good design by contrast: they are paired as to plan, represent good and bad extremes on the outside. The upper two are "variations" by the same builder, from a plan which is notable for its workable efficiency.



Strangely enough, the plan on the left, which goes with the old-fashioned exterior that has been crossed out, is in several respects superior to the one on the right. The arrangement of the bath is better, closets more nearly adequate, and room sizes more generous. Despite these superiorities, there is little doubt as to which was easiest to sell.

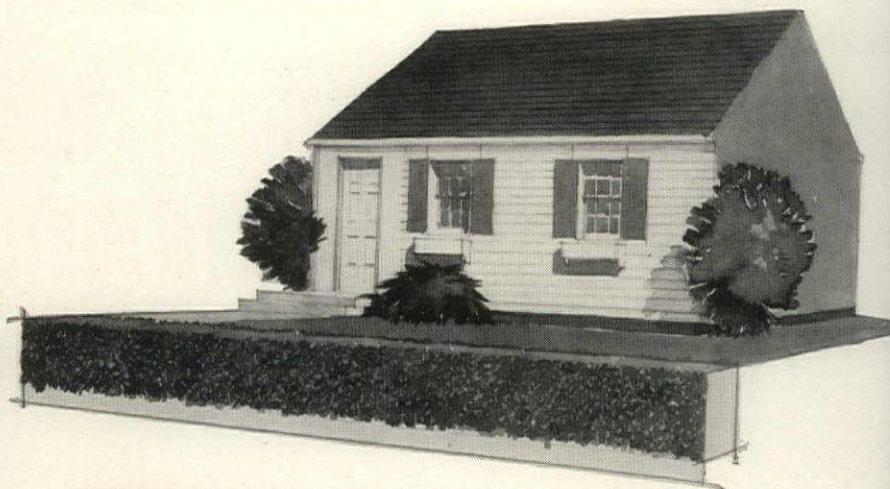


Both of these little houses have front kitchens, both have projections at the side. In the one that has been crossed out, money has been misspent on an awkward hood and badly painted shutters; without this "decoration," the better-proportioned windows and attractive doorway make the second by far the better looking.





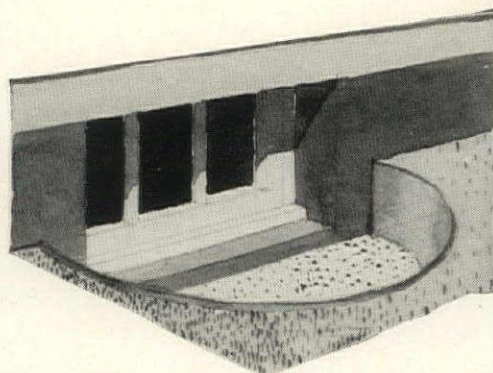
NEW JERSEY: \$2,990 with lot, heater.



**PLANTING** must be properly planned for the low cost house to look its best. Avoid spiky, pointed plants and concentrate planting. A few larger, more spreading bushes are much more effective than numerous small plants, and a box hedge a real asset.



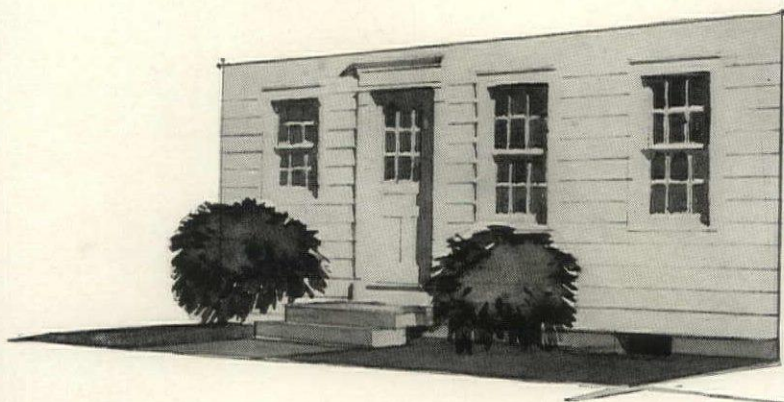
2. INDIANA: \$2,966 with lot (\$350).



**AREAWAYS** lift the all-important grade line, simplify the problem of making the entrance platform good looking. A sheet of metal or flexible asbestos, bent in a curve, makes a simple, gravel-bottomed areaway at almost no added cost.



4. NEW YORK: \$2,500 with lot.



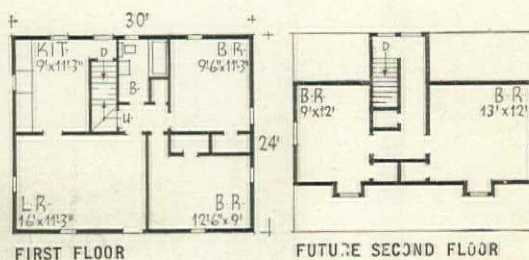
**STOOPS** can make or break the low cost design. They should be broad, of simple materials, not too "blocky." Basement areaways should be kept away from the platform to allow room for planting and in order to prevent accidents.



## THE LOW COST HOUSE (cont'd)

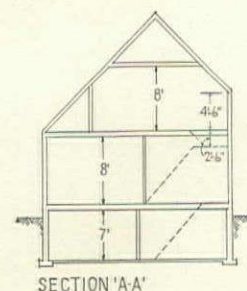
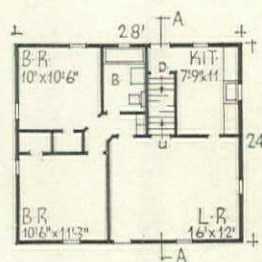
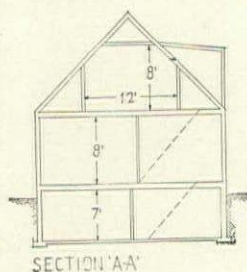


MINNESOTA: \$3,393 with lot (\$575).



Aristocrat of the low cost field is the type of house which provides for future finished bedrooms in the space beneath the roof. This means an attic stairway, preferably rising from the bath-bedroom hall, and a roof pitch steep enough to accommodate the upstairs

rooms, usually 45°. Dormer windows are a desirable, but not a mandatory feature. Ordinarily, the position of the stairway is such as to require a rear dormer to afford sufficient headroom at the upper landing.

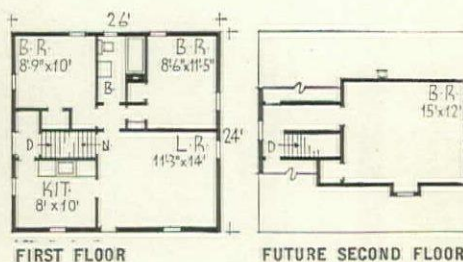


This arrangement permits the addition of two second-floor bedrooms. The principle design problem it presents is the treatment of the rear dormer, which is likely to be very crude and boxlike unless carefully handled. To this problem, the small rear views on

the opposite page present two solutions: the "salt box" cross-section (dimension diagram above, at right) with a high wall at the back, or a rear dormer set back as much as possible from the rear wall.



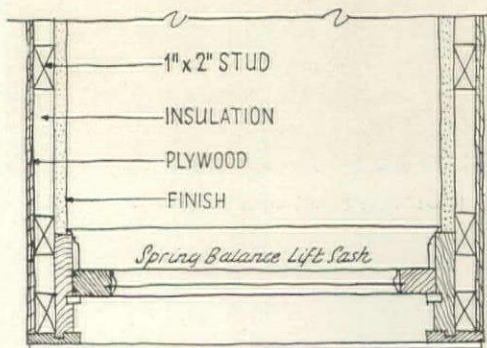
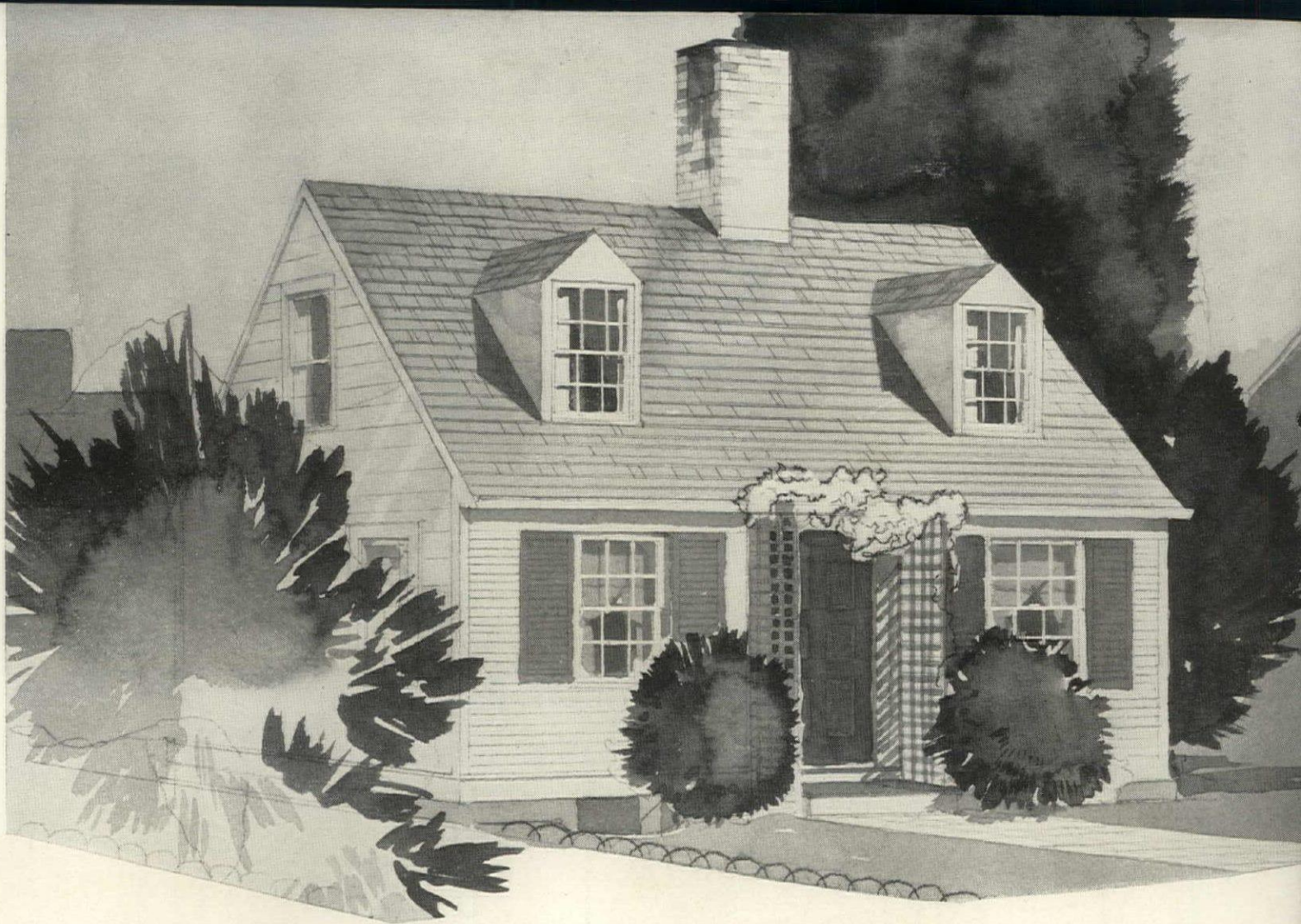
MINNESOTA: \$3,000 incl. lot \$3,500.



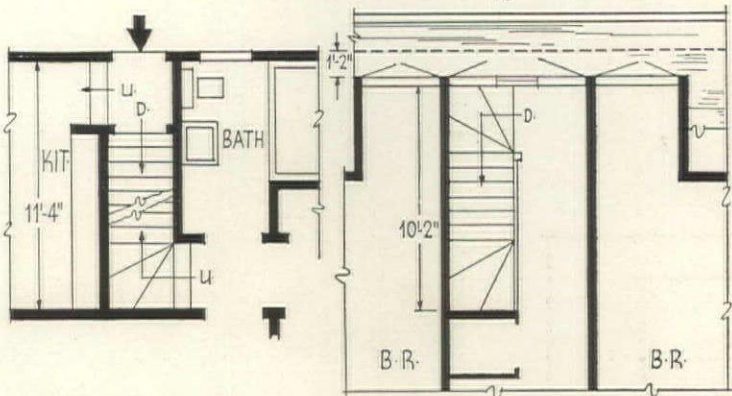
Where the attic stairway is parallel to the line of the ridge, no rear dormer is needed. While this is undoubtedly the cheaper arrangement, it permits but one additional room on the second floor, which may not warrant the added cost of the stairway. In

the example given above, it has the additional disadvantage of not affording private communication between the second-floor bedroom and the bath, but this is perhaps not so serious in a house with three bedrooms as in one with only two.





REAR



FIRST FLOOR

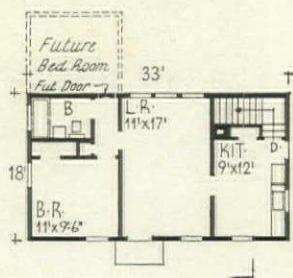
SECOND FLOOR

**DORMERS** present a major problem in the low cost house when provision is made for future second-floor bedrooms. In the case of the individual dormer, the most important thing is to keep the "cheek"—or window jamb and sidewall detail—as narrow as possible. How to do this is shown by the upper drawing. The lower drawing shows first and second floor plans for the dormer in the lower sketch at the right. This dormer owes most of its charm to the fact that it is set back from the rear wall of the house, and this, in turn, calls for the modifications of the stairway shown on the plans.

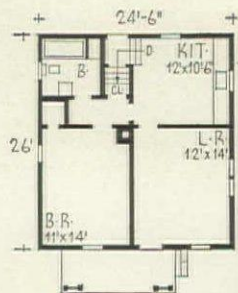




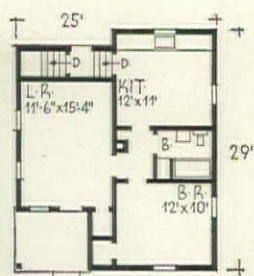
## THE LOW COST HOUSE (cont'd)



IOWA: approx. \$2,500.

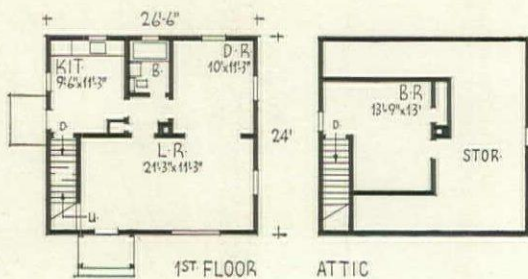


INDIANA: \$3,095 with lot (\$295).



INDIANA: \$3,165 with lot (\$325).

Single-bedroom plans are capable of considerable variation, as indicated by these two versions. Inclusion of a few such units in every low cost development would add to the variety of the house types and thus improve the appearance of the groupings, while providing facilities tailored to the needs of childless couples and old people, thus broadening the potential market. The addition of a second floor room, as shown in the unusual example below, makes this type suitable for a variety of needs, including those of the family which requires a separate dining room.



WISCONSIN: \$2,925 with lot (\$425). Tub, lavatory, heater and interior finish by owner.

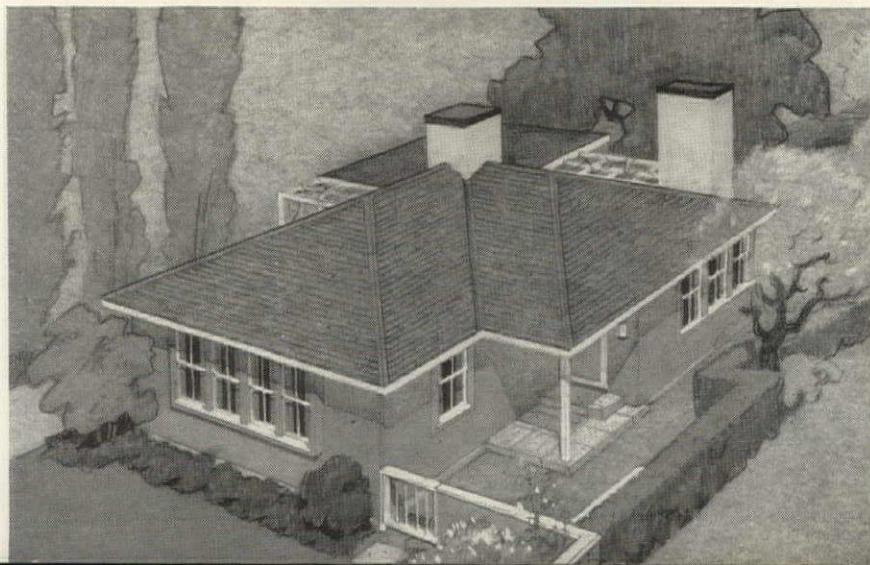
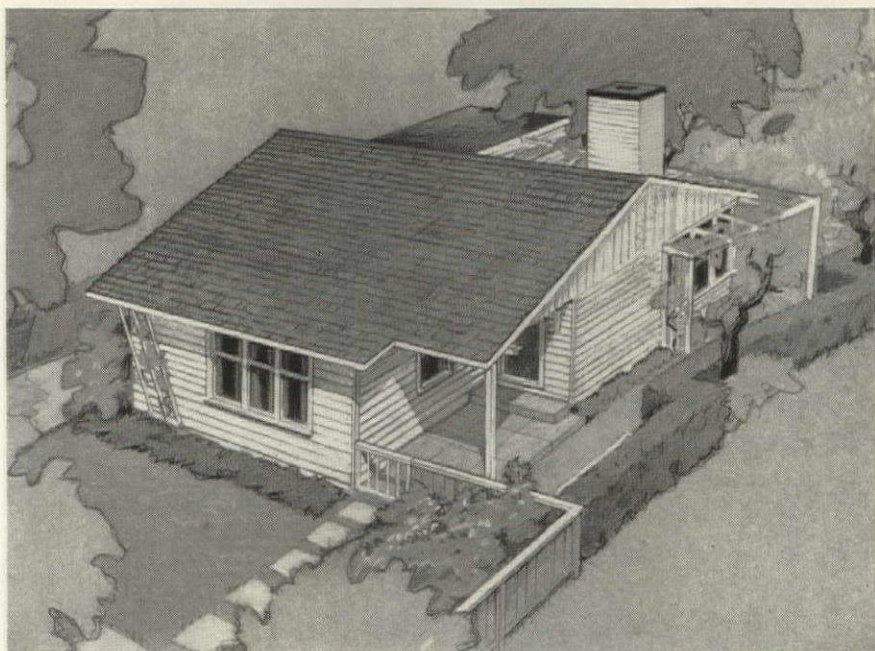
The house designs shown on the preceding pages represent the collaboration of New York Architect William Hamby and Forum Editor Henry Wright. Examples of existing practice in the low cost field were furnished by the Federal Housing Administration.



# LOW COST HOUSE FOR **LIFE** GARDNER DAILEY, ARCHITECT



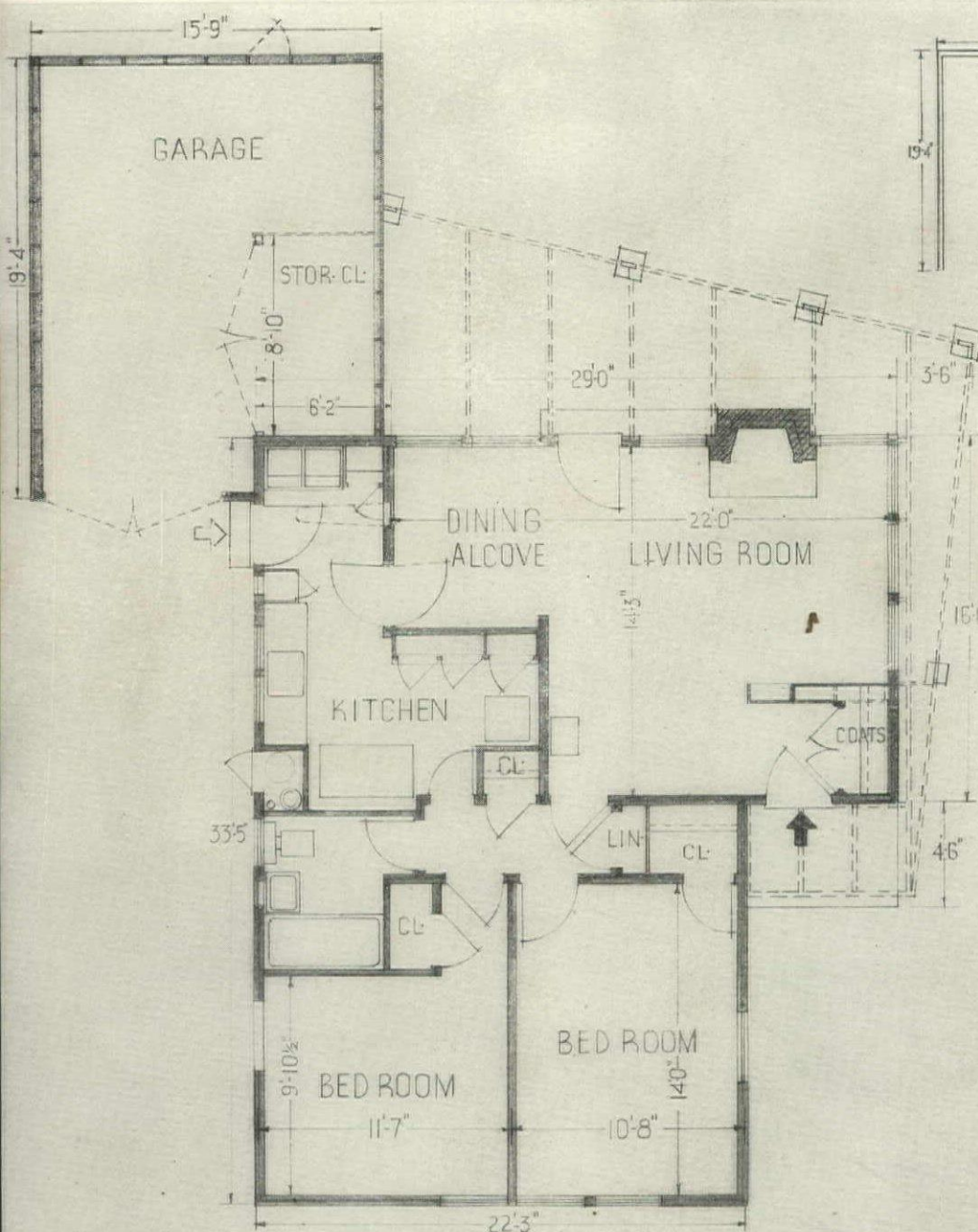
Gabriel Moulin



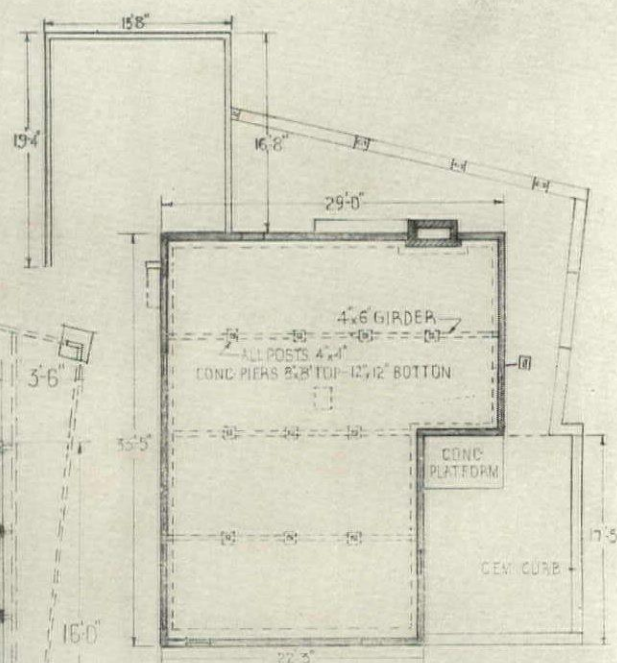
The value of architectural service in the low cost field is not, and should not be limited to exterior treatment alone. This design shows that it goes much deeper than that. To the problem of low cost design—and low cost *construction*—the architect brings an idiom all his own, and, at the same time, peculiarly American. Neither “Modern” nor “Traditional,” his solution—whether in its flat, gabled, or hip roof version—goes to the root of what the buyers of low cost houses are looking for: better facilities for better living. Whether the buying public is ready to accept so fundamental an approach remains to be seen. THE FORUM, for one, hopes that it will. In any event, builders of low cost houses have much to learn from this excellent and thoughtfully studied plan. An adequate vestibule and coat closet are provided. Space for dining is definitely set aside. The rear living room and porch are a feature of most new homes in the higher brackets, and cost no more in this location. Storage space is sufficient and properly disposed. The attached garage is convenient and attractive. There is more than a suspicion that even a few of these features might “sell” the most conservative.



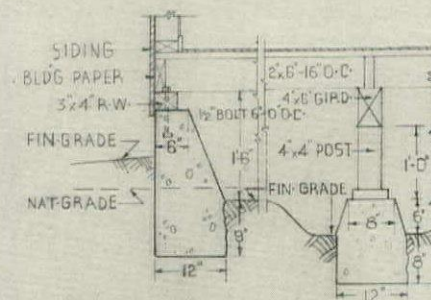
# LOW COST HOUSE FOR LIFE



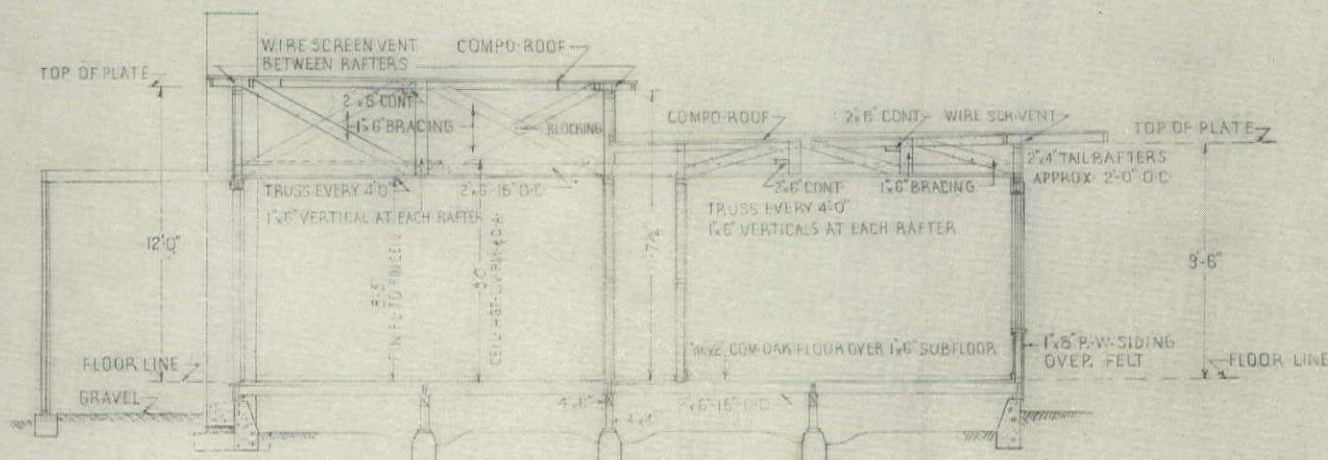
FLOOR PLAN SCALE 1/8" = 1'-0"



FOUNDATION PLAN SCALE 1/16" = 1'-0"

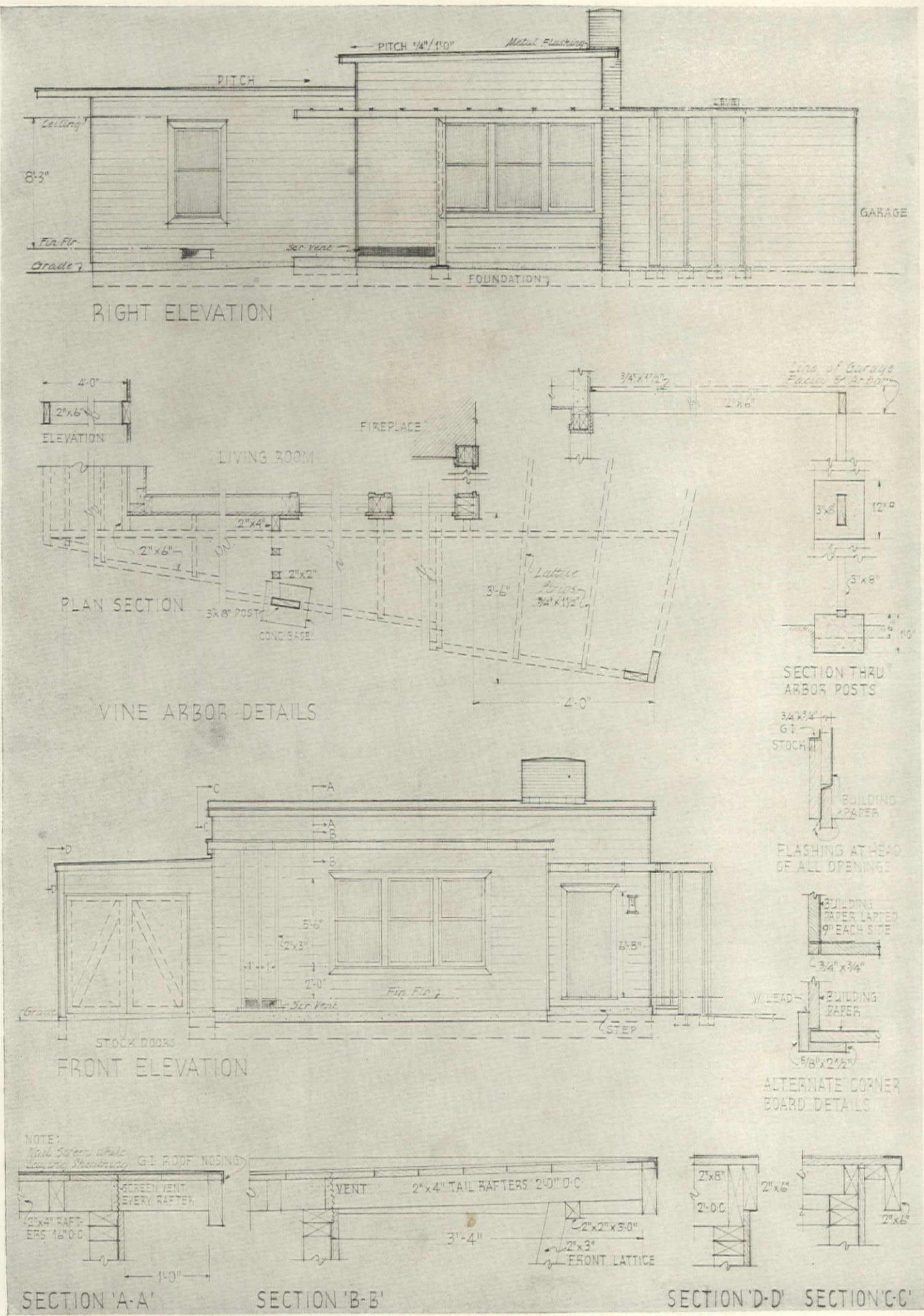


FOUNDATION PLAN SCALE 3/8" = 1'-0"



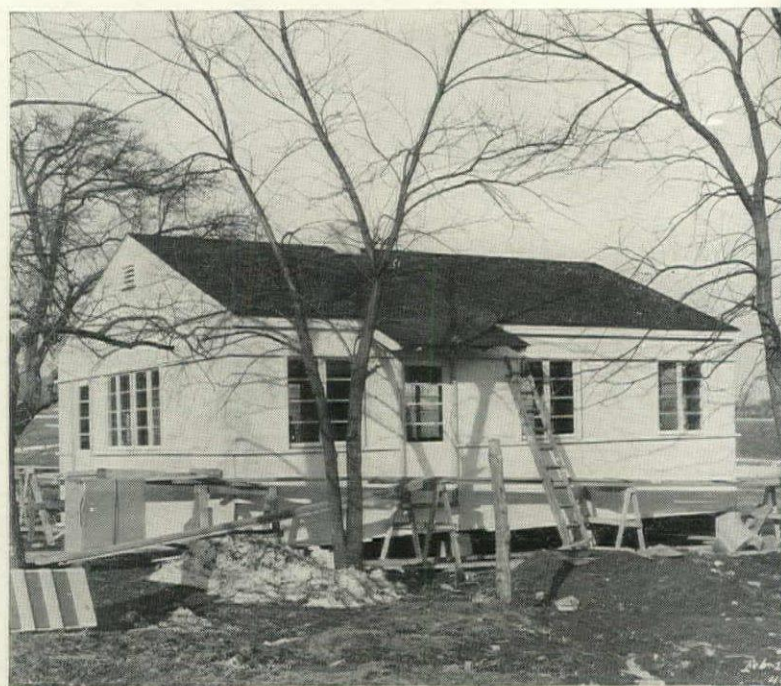
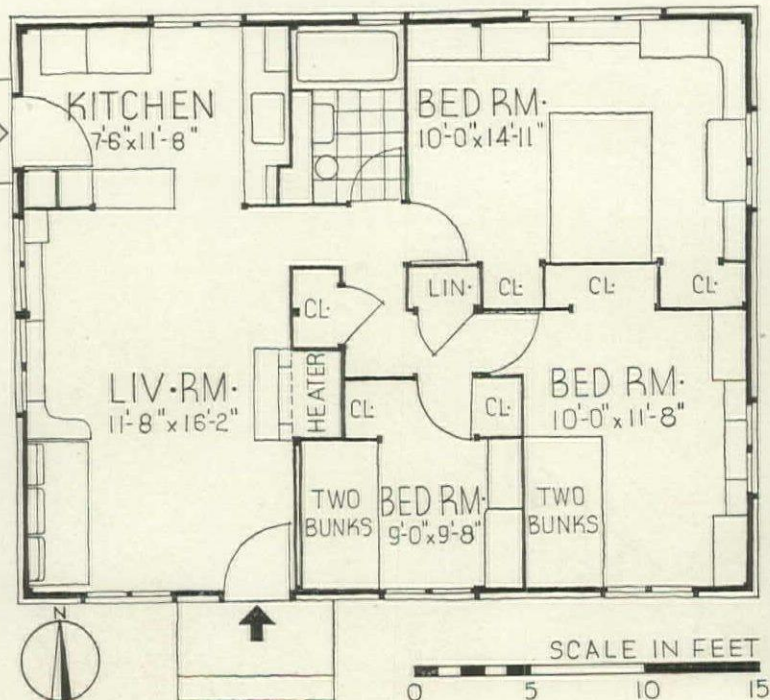
LONGITUDINAL SECTION SCALE 1/8" = 1'-0"







# 1. EXPERIMENTAL HOUSE No. 2 JOHN B. PIERCE FOUNDATION



Eric J. Baker Photos

**EXTERIOR** of the John B. Pierce Foundation prefabricated house frankly expresses its basic material—plywood. Photograph was taken fifteen work hours after piers had set and frame construction started.

The result of years and thousands of dollars of research, this three-bedroom prefabricated house was erected last month by the John B. Pierce Foundation at a cost of about \$2,600, including built-in furniture but excluding land and builder's overhead and profit. In both plan and construction it is a distinct improvement over the Foundation's preceding experimental house (ARCH. FORUM, Sept. 1939, p. 44) whose exterior walls were a bare  $\frac{5}{8}$  in. of plywood.

After wood columns had been set on concrete piers, structural exterior walls were built up horizontally in three operations: 1) long waist-high plywood girders were set in place at the floor level, 2) stock wood casement windows were separated by plywood panels into which they slide when opened and 3) atop these went another layer of plywood girders. Typical wall section, outside-in:  $\frac{5}{8}$  in. plywood, 1 in. mineral wool insulation, 1 in. air space,  $\frac{1}{4}$  in. plywood. Roof is constructed of rafters, plywood sheathing and asphalt shingles. Despite unfavorable weather conditions, the house was enclosed in two days, ready for occupancy in ten days.

Particularly noteworthy in a house costing only \$2,600 are the generous over-all dimensions (24 x 32 ft.), the three bedrooms which will comfortably sleep six persons, the abundant closet space and the extent of built-in furniture. Since the mortgage on a house may cover the cost of all built-in equipment, the last mentioned feature would reduce the purchaser's cash outlay for furniture—an important consideration in the low income brackets. The house is heated through a plenum chamber by a coal-burning grate which occupies a fireplace position in the living room.

A detailed analysis of the design, construction, equipment and cost of this significant low cost house will be presented in THE ARCHITECTURAL FORUM for May.

**LIVING-DINING ROOM** measures about 12 x 16 ft., is open to the all-electric kitchen through a door and serving counter. Note plastic strip at counter which provides electrical outlets at 6 in. intervals.







**BEDROOMS** in the \$2,600 house are compact but large enough to permit easy circulation. Master bedroom, left, boasts two closets, built-in chests, shelves, a dressing table and a desk. With the exception of the center segment of the triple window, all casements slide back into the plywood walls, permit 100 per cent ventilation. Upper bunk in other corner bedroom, above, may be shifted to the floor. Bunks in third bedroom are built-in.

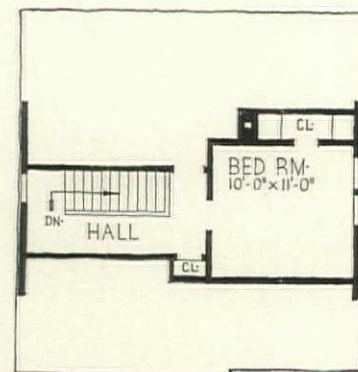


**KITCHEN AND BATHROOM** feature equipment designed by the Foundation, most of which will soon go into industrial production. Plumbing lines serving both rooms are compactly arranged, pre-assembled in the shop, handily installed behind removable porcelain enamel panels in the bathroom. Since most of the equipment in this house, including the heating system, is similar to that installed in the predecessor house completed last September, the results of operating tests are available. They will be discussed fully in the May issue of THE FORUM.





## 2. & 3. HOUSES IN BUFFALO, N. Y. HERBERT C. SWAIN, ARCHITECT

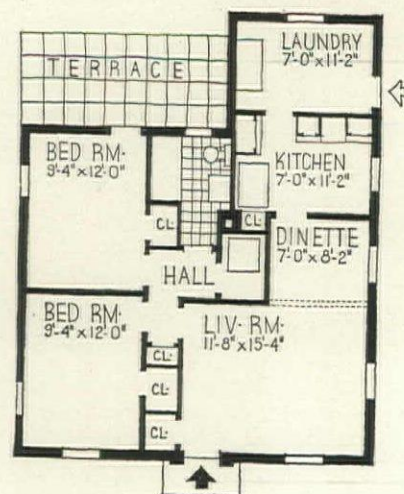


FIRST FLOOR 0 5 10 15  
SCALE IN FEET

Two inexpensive concrete block houses by Developer R. C. Dewey with exceptionally well-studied plans. Both are without basements, and have centrally located ground floor heaters. The upper plan provides unusually generous living and dining space, an adequate kitchen and utility room, and two bedrooms in a compact square, utilizing the device of tucking one of the bedrooms on a second floor beneath the roof. In the lower plan, which includes the same accommodations on a single floor, the problem of dining space has been solved in an interesting way. Sales price including lot: \$4,500 and \$4,400, respectively.

### CONSTRUCTION OUTLINE

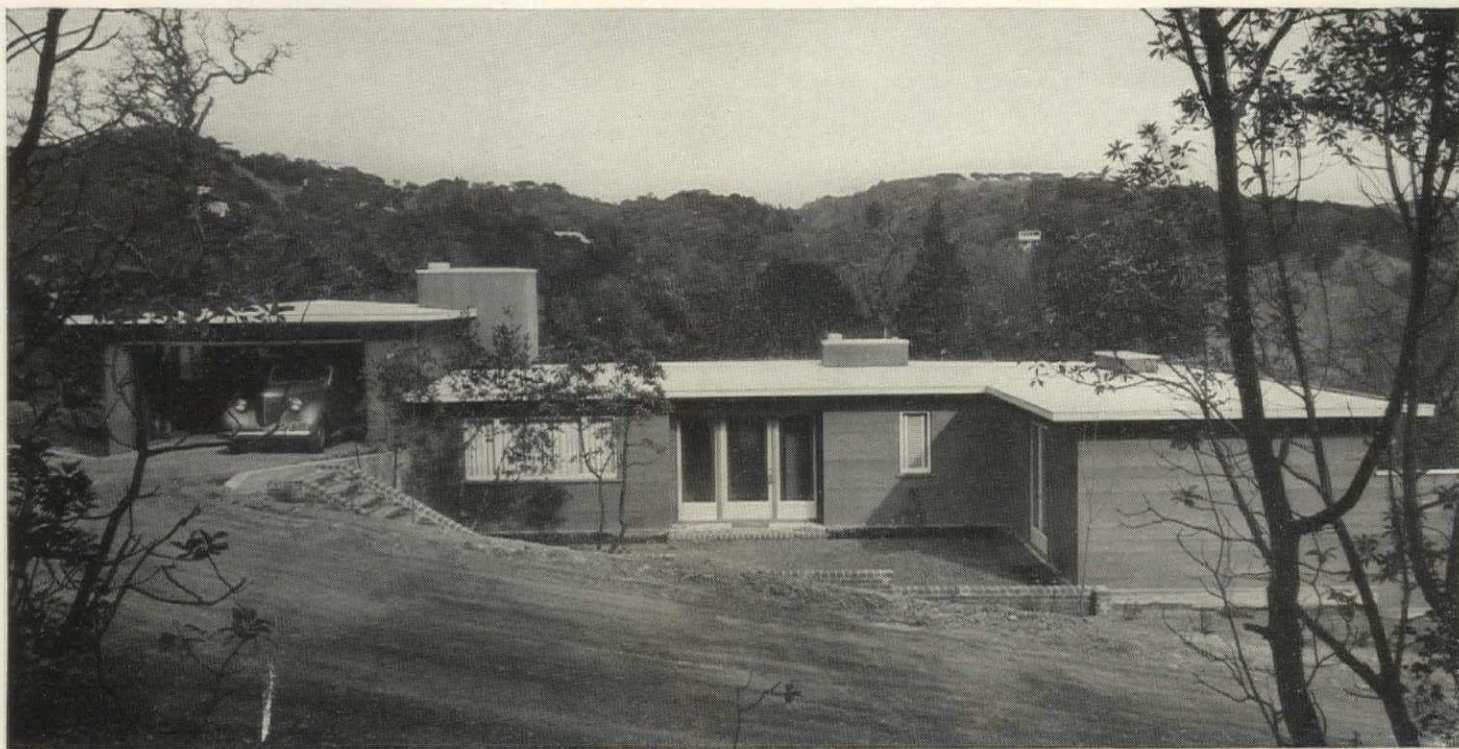
**STRUCTURE:** Exterior walls — Waylite blocks by Linton Concrete Production Corp., 15 lb. felt, furring; inside—National Gypsum Co. Gold Bond foil lath and plaster.  
**ROOF:** Covered with asphalt shingles, Certain-Teed Products Corp.  
**SHEET METAL WORK:** Flashing—40 lb. tin. Gutters and leaders—Cop-R-Loy. Wheeling Steel Co. Ducts—galvanized iron.  
**INSULATION:** Attic floor and roof—rock wool, Eagle Picher Lead Co.  
**FLOOR COVERINGS:** Monttile, Thos. Moulton Co.  
**WALL COVERINGS:** Bathroom — Sealex linowall, Congoleum-Nairn, Inc.  
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp.  
**HEATING AND AIR CONDITIONING:** Winter air conditioning, filtering and humidifying; Janitrol unit, Surface Combustion Corp.



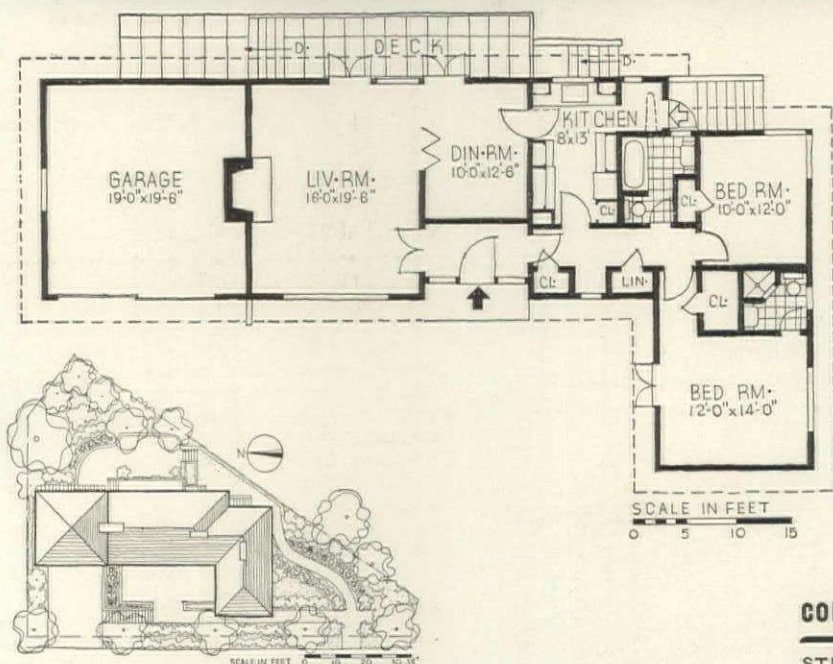
FLOOR PLAN 0 5 10 15  
SCALE IN FEET



#### 4. HOUSE IN KENTFIELD, CALIF. FREDERICK L. R. CONFER, ARCHITECT



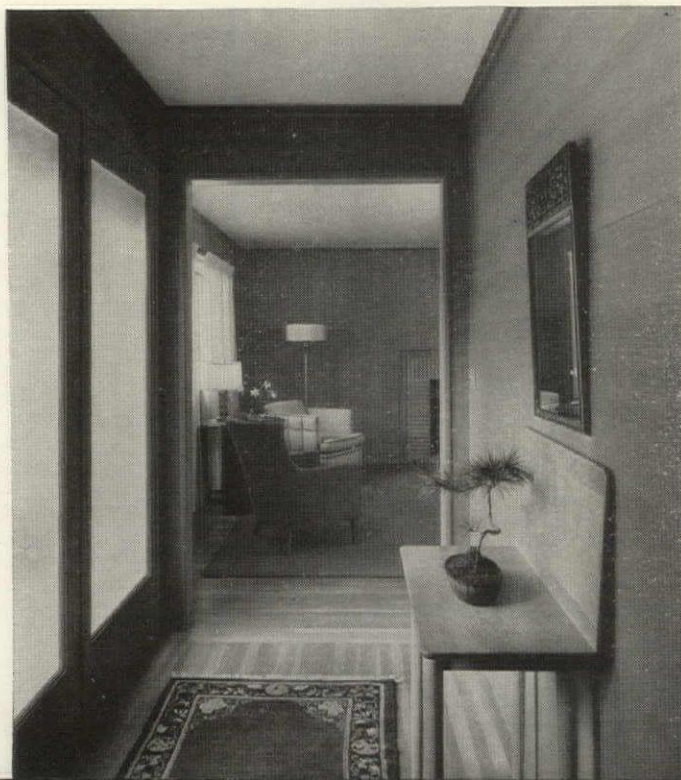
H. G. Woods Photos



A clearly articulated design, in which the doors and windows indicate very precisely the workings of the plan. Color values of the exterior are the exact reverse of the conventional scheme, but both the white roof and dark walls of natural redwood represent a practical solution. Natural woods have also been used effectively in the main interiors. Especially noteworthy is the plan, a straightforward arrangement which solves admirably every problem commonly found in the one-story house. Cost: about 32 cents per cu. ft.

#### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—redwood siding, studs; inside—Gold bond plaster, National Gypsum Co. Floor construction—joists, Oregon pine sub-floor, oak finish floor.  
**ROOF:** Covered with tar and gravel.  
**FIREPLACE:** Damper—Richardson & Boynton Co.  
**SHEET METAL WORK:** Gutters—built-up composition. Remainder—Armco, American Rolling Mill Co.  
**WINDOWS:** Sash—wood casement. Glass—single strength.  
**FLOOR COVERINGS:** Main rooms—select oak. Kitchen—linoleum, Armstrong Cork Co. Bathrooms—tile.  
**WALL COVERINGS:** Living room—oak plywood, U. S. Plywood Corp. Bedrooms and bathrooms—Gold Bond plaster, National Gypsum Co. Halls and kitchen—Oregon pine.  
**WOODWORK:** Living room and dining room—oak; remainder—Oregon pine. Doors—“Sturdibilt,” M. & M. Woodworking Co. Garage doors—overhead, Frantz Mfg. Co.  
**HARDWARE:** By Schlage Lock Co.  
**PAINTING:** By W. P. Fuller Co.  
**ELECTRICAL INSTALLATION:** Wiring system—knob and tube. Switches—General Electric Co.  
**KITCHEN EQUIPMENT:** Range—General Electric Co. Refrigerator—Frigidaire Corp. Sink—American Radiator-Standard Sanitary Corp.  
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp.  
**PLUMBING:** Soil pipes—cast iron. Cold water pipes—A. M. Byers Co. Hot water pipes—Mueller Brass Co.  
**HEATING:** Warm air system, filtering, humidifying, Aladdin Co. Water heater—American Radiator-Standard Sanitary Corp.

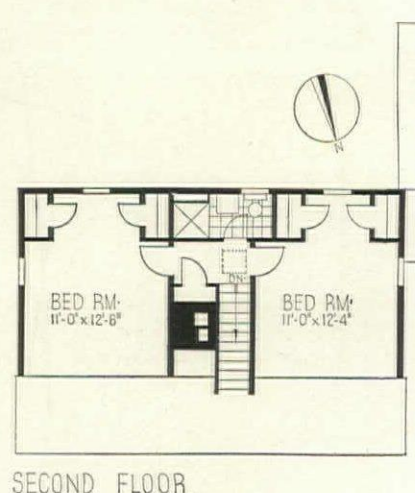
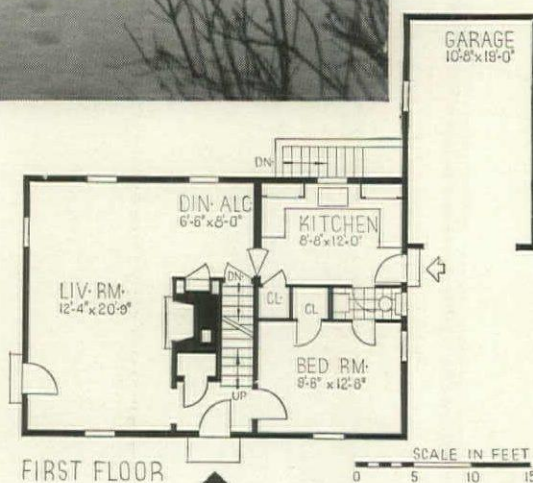
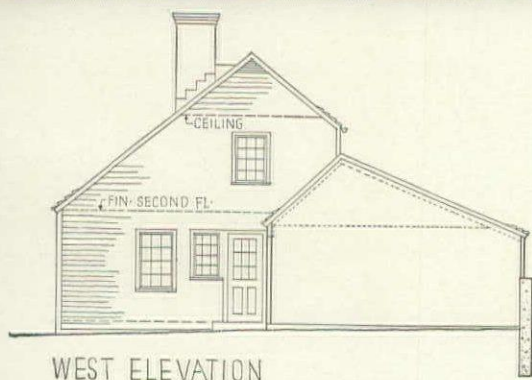




## 5. HOUSE IN FARMINGTON, CONN. MAXWELL MOORE AND CHARLES SALSBUR ARCHITECTS



The salt-box is a common dwelling type in New England, but only rarely are the one- and two-story fronts reversed as in this example. There was reason for the change, however, as the land slopes up to the rear, and the two-story section faces south. The type of living-dining room shown is a practical solution for the small house with a central chimney, offering both convenience and economy. The second-floor bedrooms are well-placed, each enjoying a southern exposure and cross-ventilation. Cost: about 33 cents per cu. ft.



### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—red cedar clapboards, Celotex Corp. Vapor-Seal sheathing, studs, lath and plaster; inside—U. S. Gypsum Co. perforated rocklath and plaster. Floor construction—wood joists, sub- and oak-finished flooring.

**ROOF:** Covered with Perfection red cedar shingles.

**FIREPLACE:** Damper—H. W. Covert Co.

**SHEET METAL WORK:** Flashing, copper.

**INSULATION:** Outside walls—Celotex Co. Attic floor—2 in. rockwool, U. S. Gypsum Co. **WINDOWS:** Sash—double hung, Silentite, Curtis Cos. Glass—single strength, quality B.

**FLOOR COVERINGS:** Main rooms—oak. Kitchen and bathrooms—linoleum, Armstrong Cork Co.

**WOODWORK:** Materials by Curtis Cos. Garage doors—Stanley Works.

**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp.

**PLUMBING:** Hot and cold water pipes—copper tubing, Chase Brass & Copper Co.; remainder—galvanized steel. Pump—F. E. Meyers Bros. & Co.

**HEATING:** Hot water system, General Electric Co. Radiators and grilles—Tuttle & Bailey Mfg. Co.

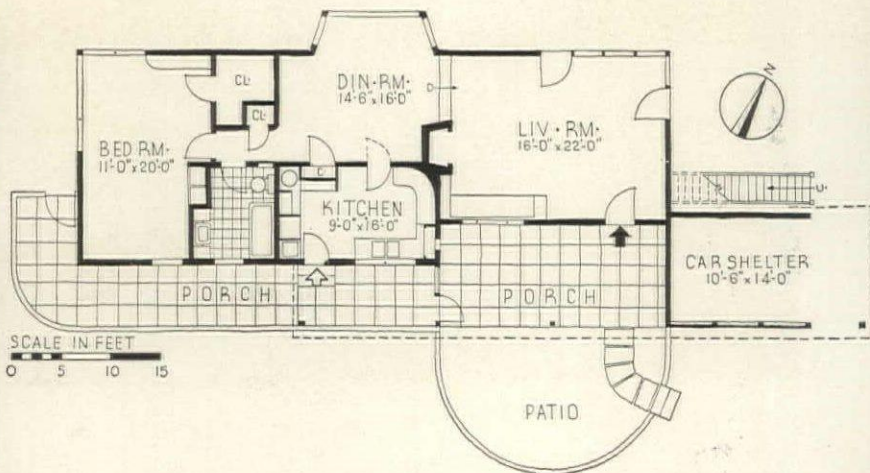




The principal view is to the north of this house, which simplified the problems of fenestration in a climate where direct sunlight within the rooms is not desirable. The south wall is protected by a roof over part of the terrace, and by an overhang which screens the remaining windows. An interesting feature is the sun deck, glazed in part to break the wind. Further evidence of climatic influence is to be seen in the plan, where every effort has been made to provide ample through ventilation. Cost: 40 cents per cu. ft.



SOUTH SIDE



## CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—wood frame, plastered inside and out. Floor construction—cement slab; integral coloring, L. M. Scofield Co.

**ROOF AND DECK:** Covered with asbestos roofing, Paraffine Cos.

**FIREPLACE:** Heatilator Co.

**SHEET METAL WORK:** Galvanized iron.

**INSULATION:** Roof—mineral wool blanket, U. S. Gypsum Co.

**WINDOWS:** Sash and screens—Druwhit Metal Products Co.

**FLOOR COVERINGS:** Main rooms—colored cement. Kitchen and bathrooms—linoleum, Armstrong Cork Co.

**WOODWORK:** Cabinets—sugar pine; remainder—Douglas fir.

**HARDWARE:** By Schlage Lock Co.

**PAINTING:** Materials by W. P. Fuller & Co. and L. M. Scofield Co.

**ELECTRICAL INSTALLATION:** Wiring system—flexible conduit. Switches—Despard, Pass & Seymour. Fixtures—Pryne & Co. and General Electric Co.

**KITCHEN EQUIPMENT:** Range and refrigerator—Westinghouse Electric & Mfg. Co.

**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp.

**PLUMBING:** Hot and cold water pipes—galvanized steel.

**HEATING:** Recessed electric fan type wall heaters; storage type water heater, Thermador Electric Mfg. Co.



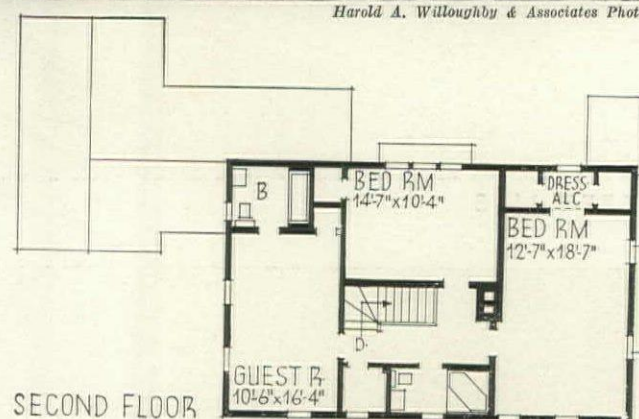
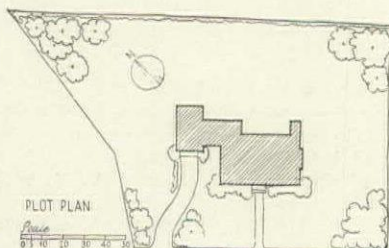
John Mülner



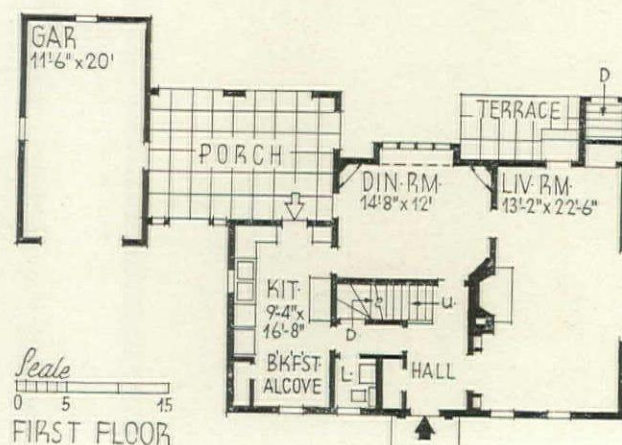
## 7. HOUSE IN NORWOOD, MASSACHUSETTS



Harold A. Willoughby & Associates Photos



The owners' requirements included a living-dining porch at the rear, convenient circulation between the kitchen and main entrance, and a guest room with a separate bath; it was also stipulated that the house be Early American with a fair amount of paneling and other characteristic detail. Despite the emphasis on archaeology, the plan shows a thoroughly livable arrangement and a very efficient use of space. The house is set in the approximate center of an ample plot, and is so oriented that the main rooms have east, south and west exposures. Cost: about 35 cents per cu. ft.







#### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—studs, sheathing covered with cedar clapboards; inside—gypsum lath and plaster, National Gypsum Co. Floor construction—Douglas fir joists, sub-floor and oak finish flooring.

**ROOF:** Covered with shingles, Bird & Sons.

**SHEET METAL WORK:** Flashing and leaders—copper. Gutters—fir.

**INSULATION:** Outside walls and attic floor—4 in. mineral wool with Vapor-Seal, Celotex Corp. Weatherstripping—Burrowes Mfg. Co.

**WINDOWS:** Sash—wood, double hung. Balances—Unique Window Balance, Inc. Glass—single strength, quality B.

**STAIR:** Risers and stringers—white pine. Treads—oak.

**FLOOR COVERINGS:** Main rooms—oak. Kitchen and bathrooms—linoleum, Armstrong Cork Co.

**WALL COVERINGS:** Living room—two walls wood paneling, remainder—plaster on gypsum lath, U. S. Gypsum Co. Bathrooms—linoleum dado, Armstrong Cork Co.

**WOODWORK:** White pine throughout.

**HARDWARE:** By Schlage Lock Co.

**PAINTING:** Materials by Boston Varnish Co., Benjamin Moore & Co., Minwax Co. and Samuel Cabot, Inc.

**ELECTRICAL INSTALLATION:** Wiring system—BX. Switches—Arrow, Hart & Hegeman Electric Co.

**KITCHEN EQUIPMENT:** Range—General Electric Co. Refrigerator—Frigidaire Corp.

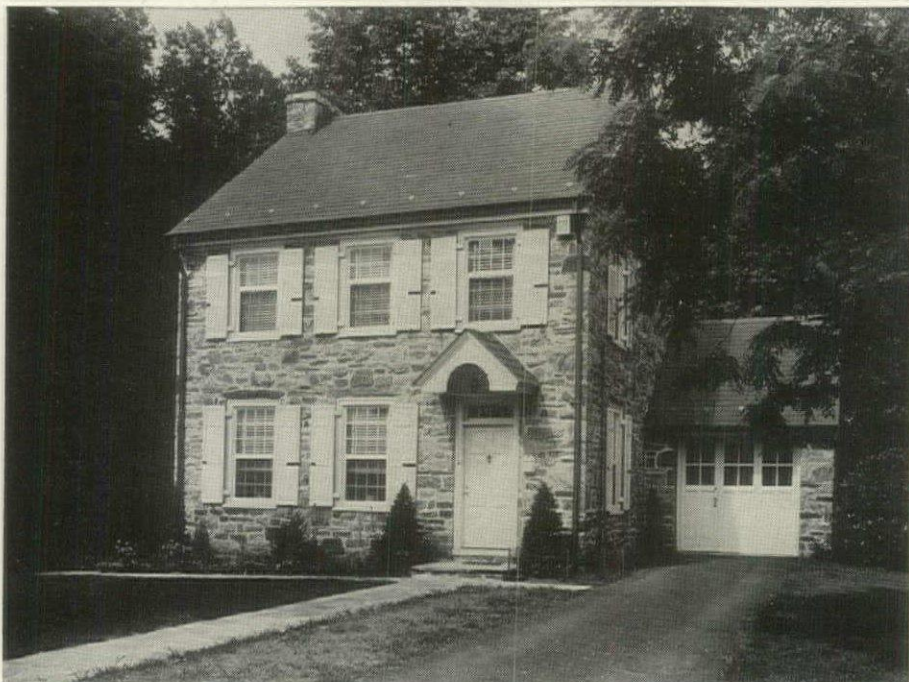
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp. Seat—C. F. Church Mfg. Co. Cabinets—Hess Warming & Ventilating Co.

**PLUMBING:** Soil pipes—cast iron. Hot and cold water pipes—Streamline copper, Mueller Brass Co.

**HEATING:** One pipe steam system. Boiler and radiators—American Radiator-Standard Sanitary Corp. Oil burner—Williams Oil-O-Matic Co. Regulator—Mercoid Sensatherm, Mercoid Corp. Water heater—Taco Heaters, Inc.



## 8. HOUSE IN SOMERTON, PA. LOUIS E. McALLISTER, ARCHITECT



Richard R. Frame Photos

The stone house, as distinguished from the frame house with stone veneer, is a comparatively rare type in the domestic field. There is ample local precedent, however, for both the construction and appearance of this small residence. The plan gets the most out of a limited area, space having been given to a few units of good size rather than to many small rooms. With two walls of glass and ample space for dining, the kitchen seems to have been handled most successfully. Cost: 28 cents per cu. ft.

### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—stone, 2 in. wood furring, wood lath and plaster. Floor construction—pine sub-floor, oak finish.

**ROOF:** Covered with asbestos shingles.

**FIREPLACE:** Dampers—H. W. Covert Co.

**INSULATION:** Attic floor—rockwool bats.

**WINDOWS:** Sash—double hung wood; storm sash. Glass—Pennvernion, quality B, Pittsburgh Plate Glass Co.

**WALL COVERINGS:** Main rooms—wallpaper. Kitchen and bathrooms—Linowall, Armstrong Cork Co.

**ELECTRICAL INSTALLATION:** Wiring system—BX. Switches—Bryant Electric Co.

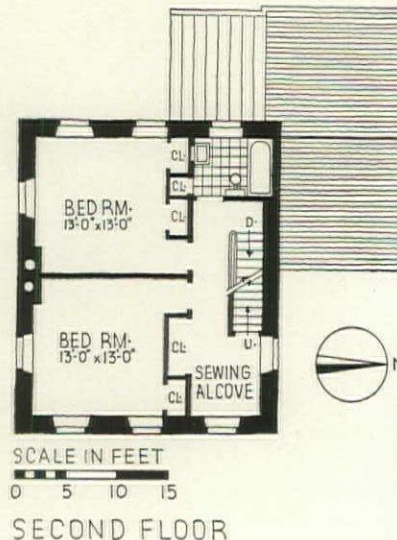
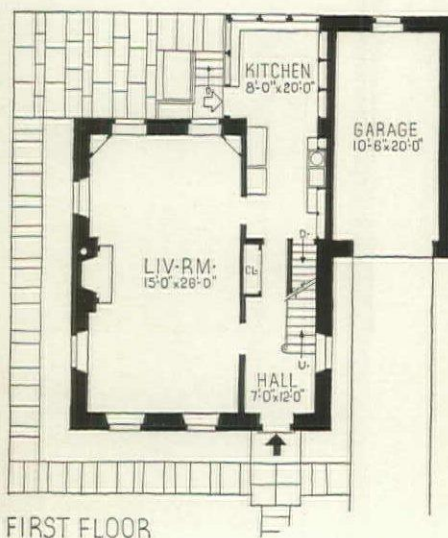
**KITCHEN EQUIPMENT:** Range—Chambers Corp. Refrigerator—Electrolux, Servel, Inc. Sink—Ebco Mfg. Co.

**BATHROOM EQUIPMENT:** All fixtures by Hajoca Corp.

**PLUMBING:** Cold and hot water pipes—copper.

**HEATING:** Hot water system.

Valves—James P. Marsh Corp. Thermostat—Minneapolis-Honeywell Regulator Co. Water heater—Taco Heaters, Inc.

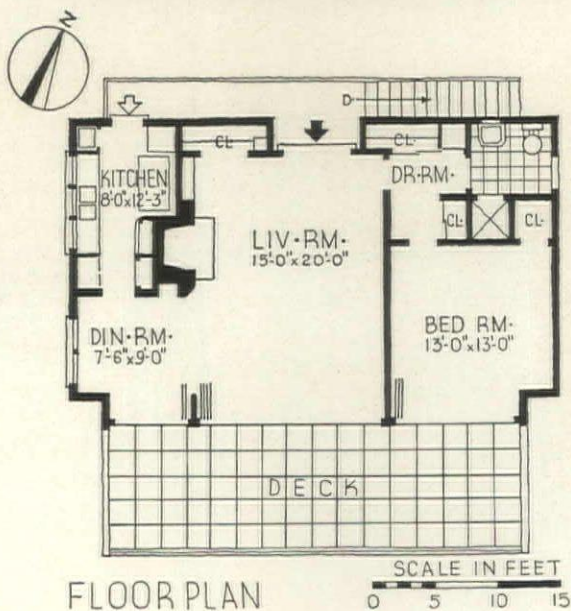




## 9. HOUSE ON DE SILVA ISLAND, CALIF. MARIO CORBETT, ARCHITECT



Sonya Noskowiak Photos



Located on a heavily wooded island, and facing a striking view of the San Francisco skyline, this example shows an interesting approach to the problem of designing for the site. The white, crisply edged mass looks well in the setting of luxuriant foliage, and the placing of the living floor on the upper level opens up the view and leaves space below for a garage and general storage. Further emphasis is given the view by the line of folding doors which serve as a front wall, and by the deck. Cost: about 33 cents per cu. ft.

### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—redwood siding, building paper, sheathing, studs; inside—U. S. Gypsum Co. gypsum board and plaster. Floor construction—pine. Ceilings—plaster.

**ROOF:** Covered with Pabco roofing, Paraffine Co.'s. Deck—Oregon pine, W. P. Fuller Co. paint.

**FIREPLACE:** Damper—Superior Fireplace Co.

**INSULATION:** Roof—insulation board, Celotex Corp.

**WINDOWS:** Sash—sugar pine. Glass—Penn-vernion double strength and sheet, Pittsburgh Plate Glass Co. Basement—Sky-tex, Blue Ridge Glass Div., Libbey-Owens-Ford Glass Co.

**FLOOR COVERINGS:** Main rooms—Oregon pine. Kitchen and bathrooms—linoleum, Congoleum-Nairn, Inc.

**WOODWORK:** Trim and cabinets—Oregon pine. Folding doors by Richards-Wilcox Mfg. Co.

**HARDWARE:** By Russell & Erwin Mfg. Co. **PAINTING:** All material by W. P. Fuller Co. Floors—oil hardener, Standard Oil Co.

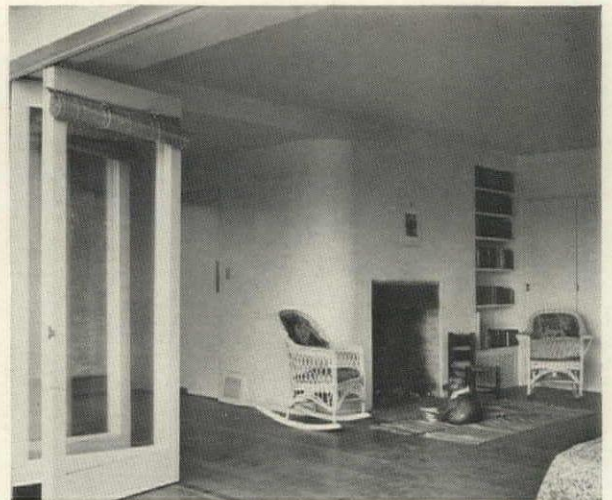
**ELECTRICAL INSTALLATION:** Wiring system—knob and tube. Switches—General Electric Co. Fixtures—Boyd Lighting Fixture Co.

**KITCHEN EQUIPMENT:** Range—Westinghouse Electric & Mfg. Co. Refrigerator—Kelvinator Corp. Sink—Kohler Co. Cabinets—Oregon pine.

**BATHROOM EQUIPMENT:** All fixtures by Kohler Co. Cabinets—Hallensheid & McDonald.

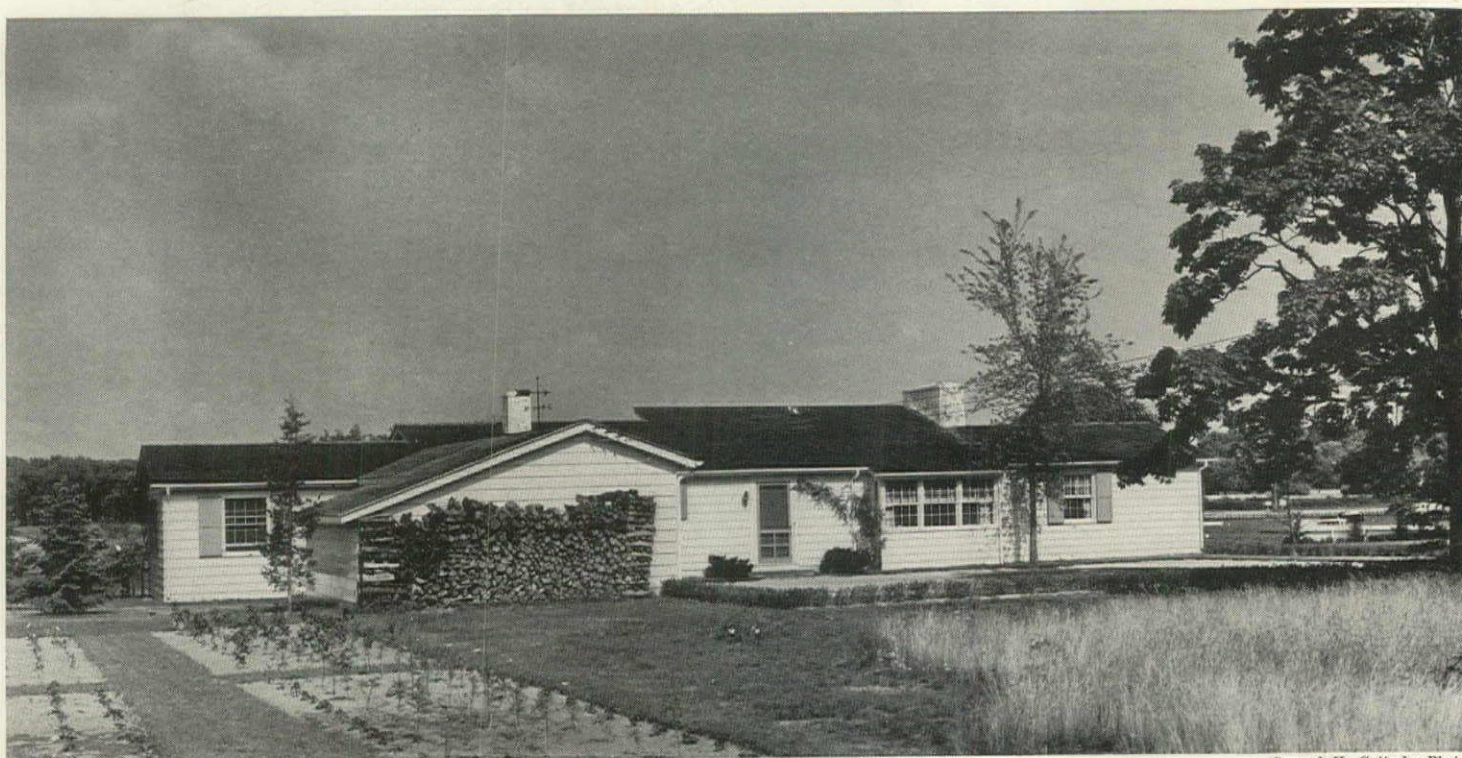
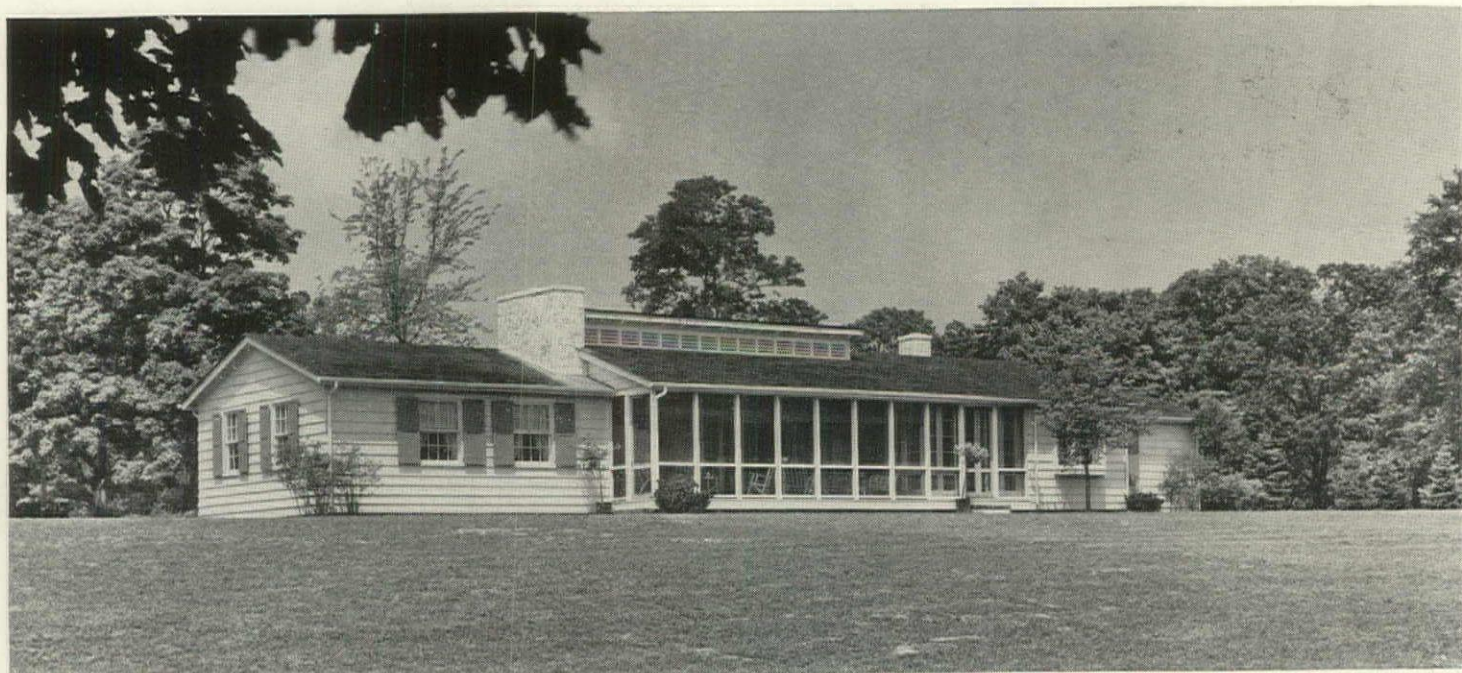
**PLUMBING:** Soil pipes—cast iron. Hot and cold water pipes—galvanized iron.

**HEATING:** Warm air system. Boiler—H. C. Little Co. Water heater—Thermador Electric Mfg. Co.





## 10. HOUSE IN ISLIP, LONG ISLAND, N. Y.



Samuel H. Gottscho Photos

A summer house, located on the south shore of Long Island. Budget limitations dictated the use of exposed frame in most of the rooms, and this in turn suggested a modular plan. All rooms, rafters, partitions, closets and stud spaces are laid out on two-foot centers. Wall heights were established to permit the use of standard eight-foot panels without cutting. Most interesting of the many excellent features is the staggered roof, permitting ventilation of the living room at its highest point. Cost: 33 cents per cu. ft. includes unusually high cost of bringing services and utilities to the houses, which, when subtracted brings the house into the \$10,000 cost range.

### CONSTRUCTION OUTLINE

**FOUNDATION:** Concrete block.  
**STRUCTURE:** Exterior walls—frame, beveled cedar siding, 15 lb. felt, Douglas fir studs; inside—studs exposed, Idaho pine sheathing or various types of panels.  
**ROOF:** Covered with Perfection cedar shingles.  
**FIREPLACE:** Damper—H. W. Covert Co.  
**SHEET METAL WORK:** Ducts—galvanized iron; remainder—16 oz. copper.  
**WINDOWS:** Sash—double hung, white pine. Glass—quality A, single strength, Libbey-Owens-Ford Glass Co.  
**FLOOR COVERINGS:** Main rooms—oak. Kitchen and bathrooms—linoleum, Congoleum-Nairn, Inc.  
**WALL COVERINGS:** Various types of paneling; some wallpaper in Master bedroom. Bathrooms—Presdwood, Masonite Corp., over pine sheathing.  
**WOODWORK:** Trim and doors—pine. Ga-

rage doors—overhead, Cornell Iron Works. **HARDWARE:** By Yale & Towne Mfg. Co., Stanley Works and Richards-Wilcox Mfg. Co.

**ELECTRICAL INSTALLATION:** Wiring system—BX. Switches—toggle, Pass & Seymour.

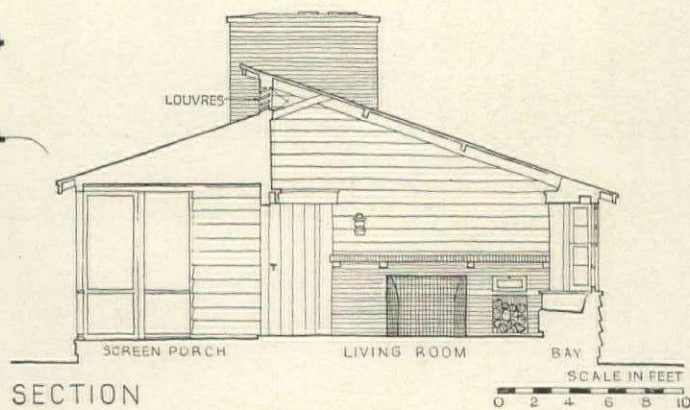
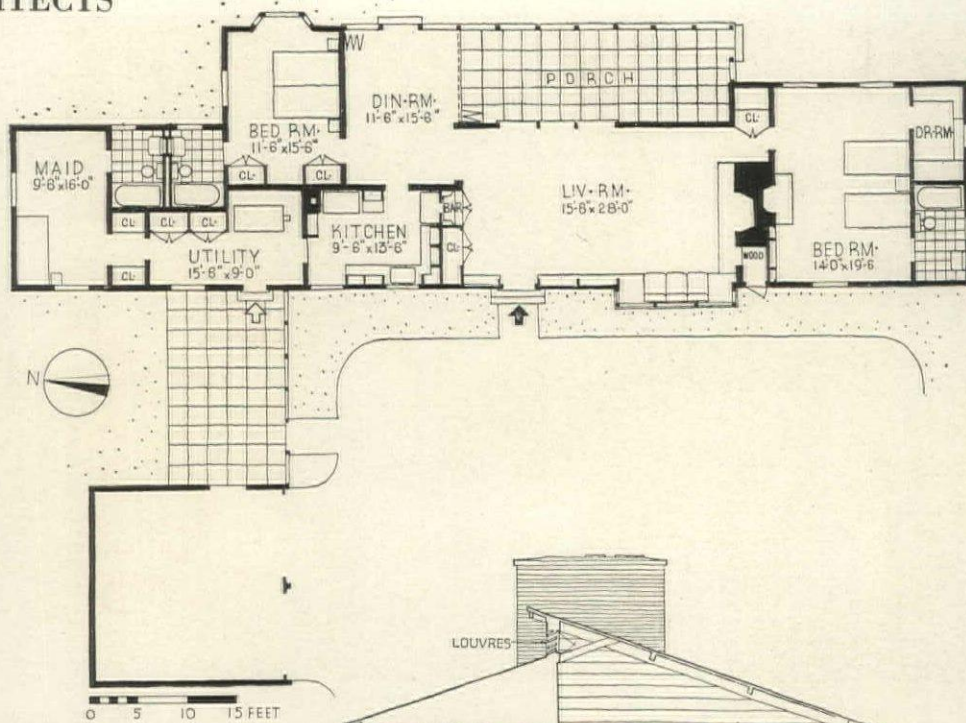
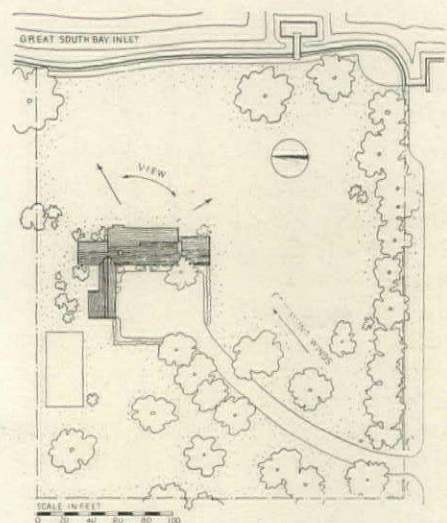
**KITCHEN EQUIPMENT:** Range—gas. Sink—American Radiator-Standard Sanitary Corp. Cabinets—white pine; linoleum counter tops, Congoleum-Nairn, Inc.

**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp. Cabinets—United Metal Box Co. Accessories—G. M. Ketcham Mfg. Co.

**PLUMBING:** Soil pipes—cast iron. Waste and vent pipes—galvanized iron. Water pipes—copper tubing.

**HEATING AND AIR CONDITIONING:** Split system, filtering and humidifying. Oil burner—May Oil Burner Co. Grilles—Tuttle & Bailey, Inc. Thermostat—Minneapolis-Honeywell Regulator Co.





PORCH



LIVING ROOM

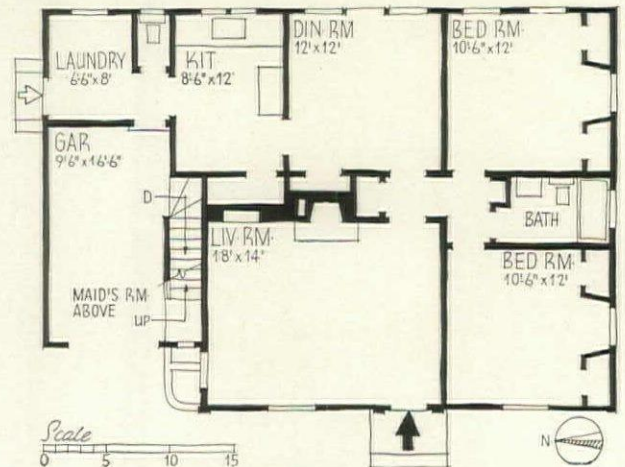




# 11. HOUSE IN ATLANTA, GA. WILL W. GRIFFIN, ARCHITECT



William Dunn



## CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—plaster on wood lath, studs, sheathing, 15 lb. felt, weather and T. & G. boarding; inside—plaster. Floor construction—wood joists.

**ROOF:** Covered with asphalt shingles.

**FIREPLACE:** Damper—H. W. Covert Co.

**SHEET METAL WORK:** Flashing—16 oz. copper; remainder—galvanized iron.

**INSULATION:** Attic floor—Rockwool, Eagle Picher Sales Co.

**WINDOWS:** Sash—double hung, white pine. Glass—double strength, quality A. Pittsburgh Plate Glass Co.

**FLOOR COVERINGS:** Children's room, kitchen and bathrooms—linoleum, Armstrong Cork Co.

**WOODWORK:** Pine throughout; mill work by Barnesville Planing Mill. Garage doors—J. G. Wilson Corp.

**HARDWARE:** By P. & F. Corbin.

**PAINTING:** Materials by Sherwin-Williams Co. and Pratt & Lambert Co.

**ELECTRICAL INSTALLATION:** Switches—Bryant Electric Co. Fixtures—Chase Brass & Copper Co.

**KITCHEN EQUIPMENT:** Range—Atlanta Gas Co. Refrigerator—Electrolux, Servel, Inc. Washing machine—Maytag Co.

**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp. Cabinets—F. H. Lawson Co.

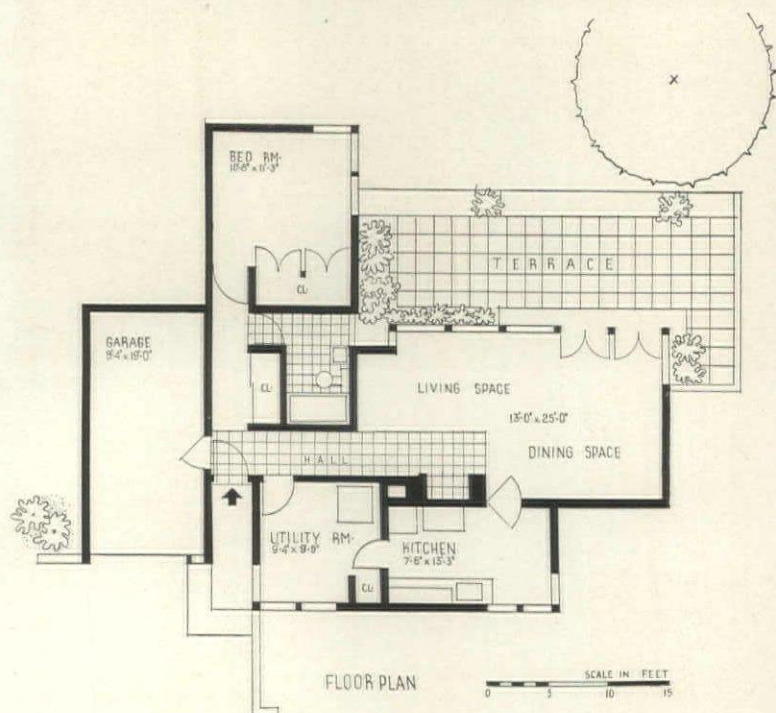
**HEATING:** Warm air system, Moncrief Co. Water heater—Ruud Mfg. Co.



Edgar Orr Photos



## 12. HOUSE IN MADISON, WIS. WILLIAM KAESER, ARCHITECT



Vernon J. Kraft Photos

The architect comments: "A young doctor, interested in being as contemporary as possible both in his work and living, was looking for a low cost house and offered me a chance to experiment. Completely traditional construction was used, and the house was so designed that it can have two rooms added." A number of excellent features are to be noted, the use of tile in the corridor, extending to become part of the hearth, the sheltered entrance, and the pleasant fenestration of the living room. Cost: 36 cents per cu. ft.

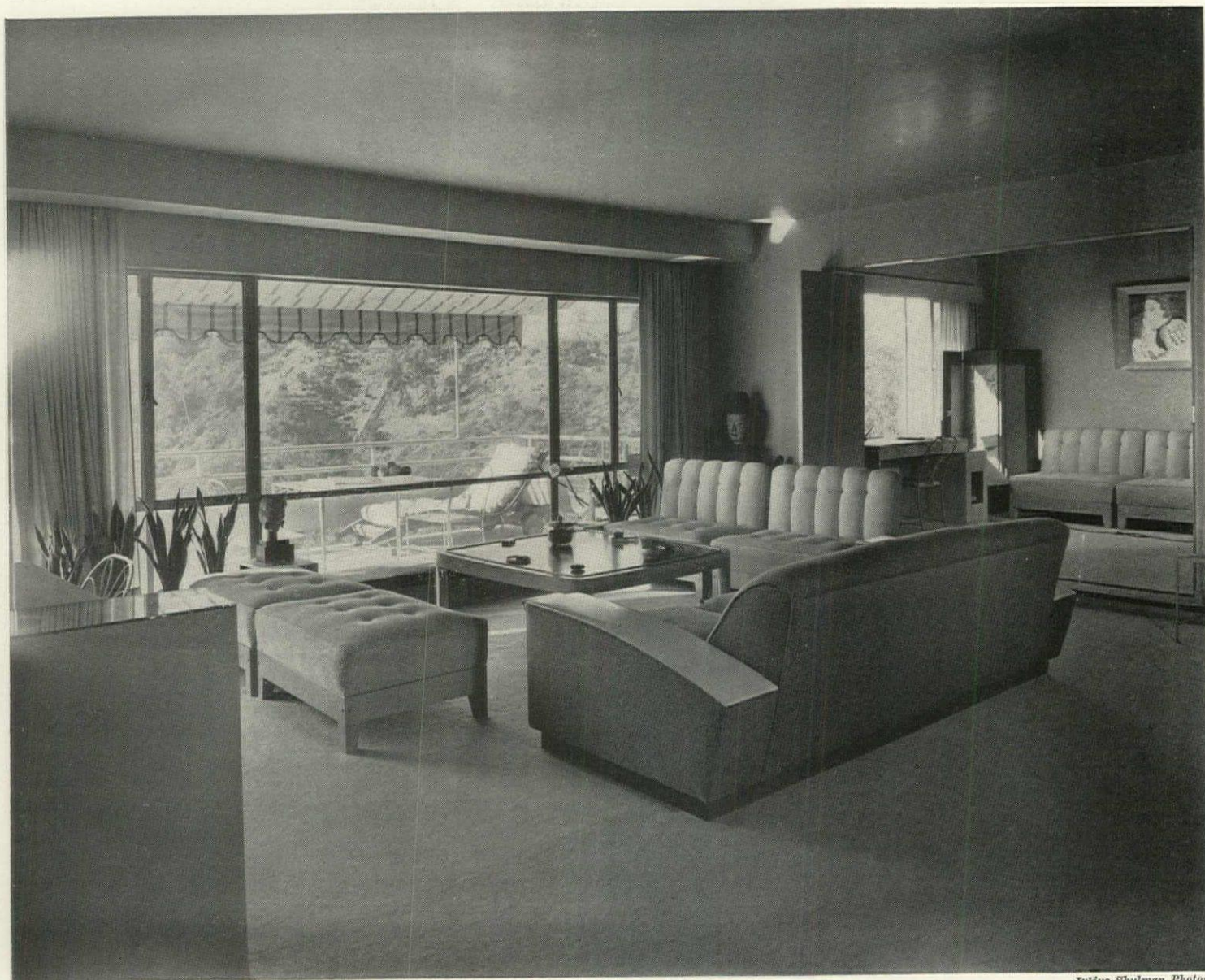
### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—Douglas fir, Masonite Co. sheathing, cement plaster; inside—Douglas fir, Insulite Co. lath and plaster. Floor construction—Douglas fir joists. **ROOF:** Covered with 3-ply built-up roofing, Ruberoid Co. **FIREPLACE:** Damper—Colonial Damper Co. **SHEET METAL WORK:** Flashing and ducts—Armco, American Rolling Mill Co. **INSULATION:** Outside walls—Insulite Co. Roof—Gimco rock wool, General Insulating & Mfg. Co. Weatherstripping, Chamberlin Metal Weather Strip Co. **WINDOWS:** Sash—Crittall Federal, Inc. Glass—Libbey-Owens-Ford Glass Co. **FLOOR COVERINGS:** Main rooms—red oak.

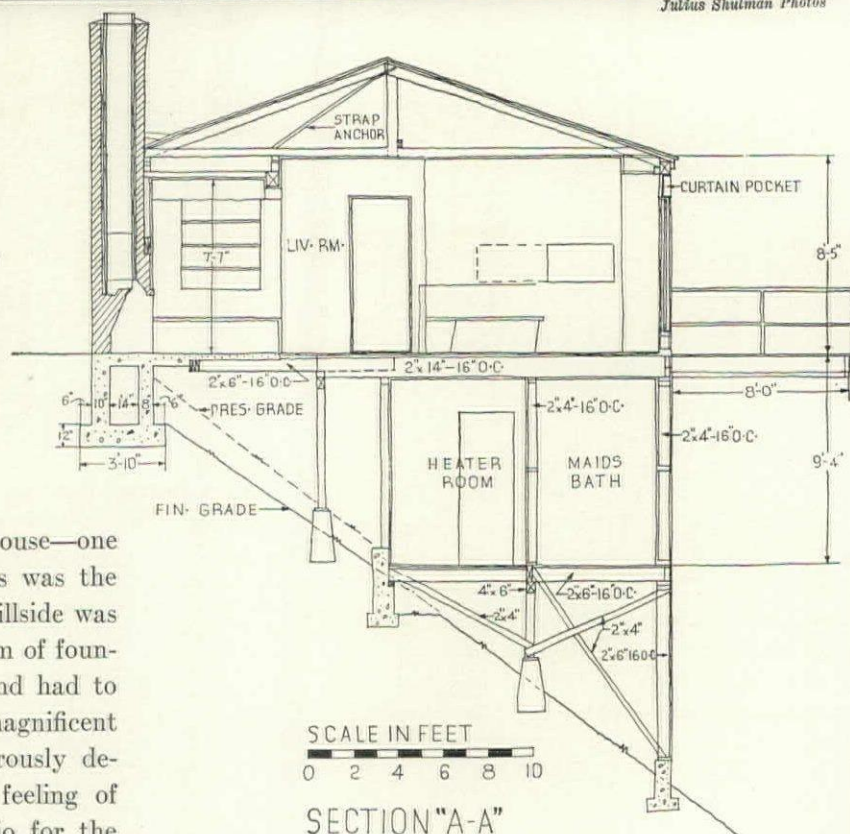
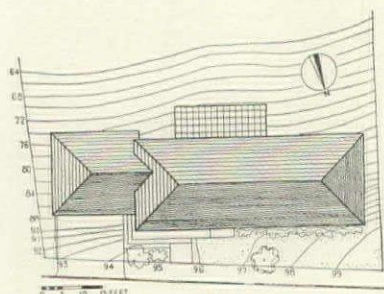
Halls—concrete. Kitchen and bathrooms—linoleum, Armstrong Cork Co. **WOODWORK:** White pine throughout. Garage doors—Frantz Mfg. Co. **HARDWARE:** By Yale & Towne Mfg. Co. **PAINTING:** Material by Sherwin-Williams Co. **ELECTRICAL INSTALLATION:** Wiring system and switches—General Electric Co. **KITCHEN EQUIPMENT:** Range—gas. Refrigerator—Leonard Refrigerator Co. Sink—Kohler Co. Cabinets—fir plywood. **BATHROOM EQUIPMENT:** Fixtures by Kohler Co. **PLUMBING:** Hot and cold water pipes—wrought iron, A. M. Byers Co. **HEATING:** Warm air system. Boiler, grilles and regulator—Wisconsin Oil Burner Co. Water heater—Welsbach & Co.



# 13. HOUSE IN HOLLYWOOD, CALIFORNIA

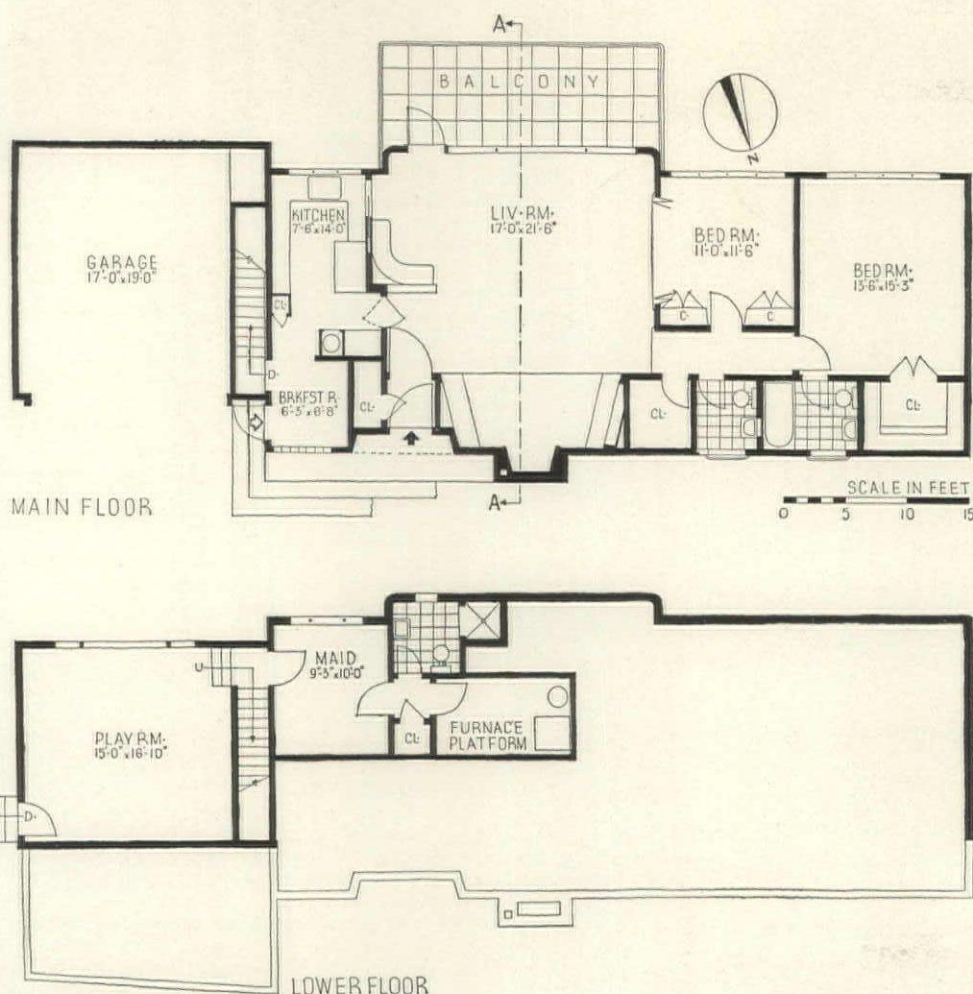


Julius Shulman Photos



The architect comments: "The first idea for this house—one room—was short lived due to district restrictions, as was the flat roof, and the final result was as shown. A steep hillside was the site and the problem was to use it with a minimum of foundation cost. As it was, we ran into some deep fill and had to redesign the foundations. The main rooms have a magnificent view overlooking Hollywood, and through the generously designed balcony the relatively small home has the feeling of spaciousness. The playroom below serves as a studio for the owner, whose hobby is painting." Cost: \$3.60 per sq. ft.





### CONSTRUCTION OUTLINE

**FOUNDATION:** Reinforced concrete. Water-proofing—Anti-Hydro Waterproofing Co.

**STRUCTURE:** Exterior walls—stucco over galvanized wire mesh and felt, studs; inside—plaster. Floor construction—T. & G. white oak finish flooring. Ceilings—plaster.

**ROOF:** Covered with shingle tile, Gladding, McBean & Co. Deck—covered with canvas.

**SHEET METAL WORK:** Flashing, leaders and ducts—Toncan galvanized iron, Republic Steel Corp.

**WEATHERSTRIPPING:** Ideal Weather Stripping Co.

**WINDOWS:** Sash—steel casement, Druwhit Metal Products Co. Glass—double strength, quality A, Libbey-Owens-Ford Glass Co. Glass block—Insulux, Owens-Illinois Glass Co.

**FLOOR COVERINGS:** Main rooms—oak. Kitchen and bathrooms—linoleum, Armstrong Cork Co.

**WALL COVERINGS:** Kitchen and bathrooms—Sanitas, Standard Coated Products Co.

**HARDWARE:** By Schlage Lock Co. Garage doors—Pacific Overhead Door Co.

**PAINTING:** Materials by Sherwin-Williams Co.

**ELECTRICAL INSTALLATION:** Wiring system—flexible conduit. Switches—Bryant Electric Co. Fixtures—L. & Y. Electric Co. and Leo Dorner Co.

**KITCHEN EQUIPMENT:** Range—Gaffers & Sattler. Refrigerator—Kelvinator Corp. Sink—Washington Eljer & Co.

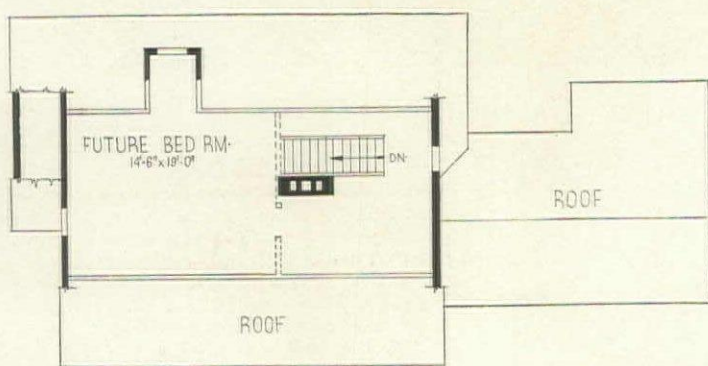
**BATHROOM EQUIPMENT:** All fixtures by Washington Eljer & Co. Accessories—Hallensheid & McDonald. Cabinet—Dura Steel Products Co.

**PLUMBING:** Soil pipes—cast iron. Hot and cold water pipes—galvanized iron.

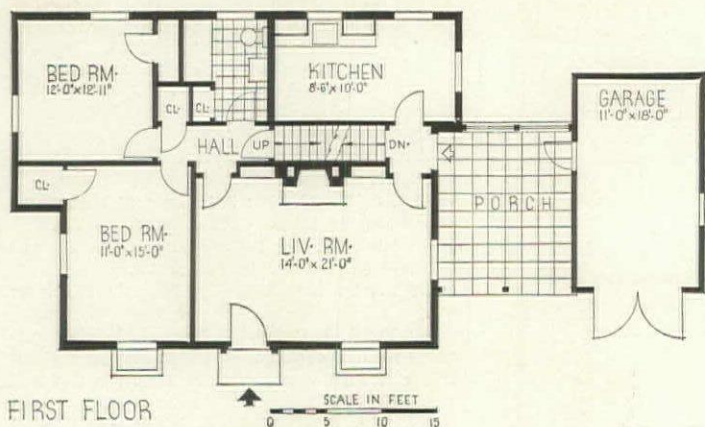
**HEATING:** Unit gravity heating, Hayes Furnace & Mfg. Co. Water heater—Crane Co.



# 14. HOUSE IN CINCINNATI, OHIO ROBERT ISPHORDING, ARCHITECT



SECOND FLOOR



FIRST FLOOR

A high roof provides space for a future bedroom upstairs, and a dormer at the rear has already been constructed. The present bedrooms open off a separate hall, with the bathroom so placed that it will conveniently serve the additional room. There is a well-protected porch which acts as a link between house and garage and serves to increase the size of the dwelling at little extra expense. Cost: about 28 cents per cu. ft.

## CONSTRUCTION OUTLINE

**FOUNDATION:** Poured concrete.  
**STRUCTURE:** Exterior walls—brick, concrete block and plaster. Interior—plaster. Floor construction—oak finish flooring.  
**ROOF:** Covered with asphalt shingles, Johns-Manville Corp.  
**FIREPLACE:** Damper—Donley Bros. Co.  
**SHEET METAL WORK:** Armco iron throughout, American Rolling Mill Co.  
**INSULATION:** Attic floor—rock wool, Johns-Manville Corp. Weatherstripping—Higgins Mfg. Co.  
**WINDOWS:** Sash—double hung, white pine. Glass—double strength, quality A, American Window Glass Co.  
**STAIR:** Risers—yellow pine. Treads—oak.  
**FLOOR COVERINGS:** Main rooms—carpet. Kitchen—linoleum, Armstrong Cork Co. Bathrooms—tile.  
**WALL COVERINGS:** Main rooms—wallpaper. Kitchen and bathrooms—vitrolite enamel, Pratt & Lambert, Inc.  
**WOODWORK:** Knotty white and yellow pine throughout.  
**HARDWARE:** By P. & F. Corbin.  
**ELECTRICAL INSTALLATION:** Wiring system—BX. Switches—Arrow, Hart & Hegeman Electric Co.  
**KITCHEN EQUIPMENT:** Refrigerator—General Electric Co. Sink—linoleum and stainless steel. Cabinets—Farley & Loetscher Mfg. Co. Fan—West Wind Co.  
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp. Cabinets—F. H. Lawson Co.  
**PLUMBING:** Soil pipes—cast iron. Hot and cold water pipes—copper.  
**HEATING:** Gravity hot air system. Grilles—Tuttle & Bailey Mfg. Co. Water heater—Ruud Mfg. Co.



# 15. HOUSE IN PASADENA, CALIF. HARWELL HAMILTON HARRIS, DESIGNER

The use of a low-pitched roof furnished an opportunity to give added spaciousness as well as interest to the main interiors of this house, and the roof is particularly effective when seen from the street level above. The plan is excellent, with a flexible disposition of living space and an efficient arrangement of services. The house faces the garden, all rooms opening to the terrace through glazed doors which extend from floor to eaves. Cost: \$4 per sq. ft., excluding garage.

## CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—stucco over 15 lb. felt, Douglas fir studs; inside—stucco on gypsum board lath. Floor construction—Douglas fir sub-floor, joists and finish flooring.

**ROOF:** House—covered with redwood shingles. Garage—covered with Pabco roofing, The Paraffine Co.'s, Inc.

**FIREPLACE:** Damper—Superior Fireplace Co.

**SHEET METAL WORK:** Flashing—Armco galvanized iron, American Rolling Mill Co.

**INSULATION:** Roof—aluminum foil.

**WINDOWS:** Sash—pine casements. Glass—Fennvernion, quality B, Pittsburgh Plate Class Co.

**FLOOR COVERINGS:** Main rooms—Amhaco broadfelt, American Hair & Felt Co. Kitchen, laundry and bathrooms—linoleum, Armstrong Cork Co.

**HARDWARE:** By Schlage Lock Co., Stanley Works, Win-dor Casement Hardware Co., Payson Mfg. Co.

**PAINTING:** All material by Sherwin-Williams Co.

**ELECTRICAL INSTALLATION:** Wiring system—BX. Switches—toggle.

**KITCHEN EQUIPMENT:** Range—Universal gas, Cribben & Sexton. Refrigerator—Gibson Refrigerator Co. Sinks—American Radiator-Standard Sanitary Mfg. Co. Drain-board—Armstrong Cork Co. Range cabinet tops—Formica Insulation Co.

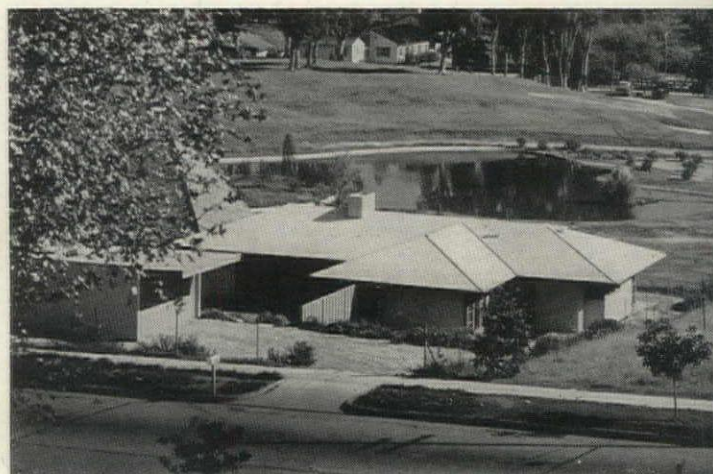
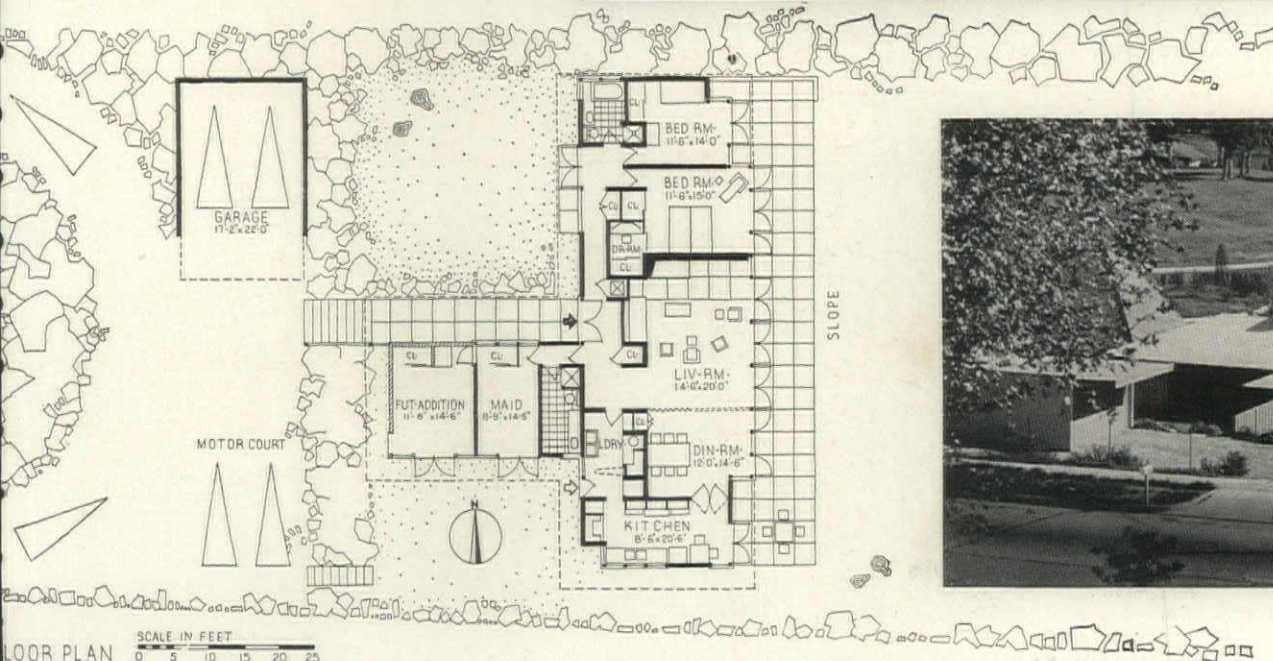
**BATHROOM EQUIPMENT:** Fixtures—American Radiator-Standard Sanitary Corp. Showers—Fiat Metal Mfg. Co. Cabinets—Hallensheid & McDonald.

**PLUMBING:** Supply pipes—galvanized iron.

**HEATING:** Gas fired forced draft furnace. Heaters—Thermador Electric Heating & Mfg. Co.



Fred R. Dapprich Photos





## 16. HOUSE IN LOS ANGELES, CALIFORNIA

A plan for a completely level lot, located on a hillside overlooking the city. The curved street which touches three sides of the lot presented a major problem, as it was considered desirable to open the main rooms to the view without loss of privacy. A solution was found in the use of screen walls and trellises and in an admirable plan arrangement. The placing of the entry well within the mass of the house, for example, is a particularly good illustration of the skill displayed in handling a difficult site. The design is marked by a very positive treatment of vertical and horizontal elements which contributes much to the open appearance suggested in the plan. Cost: 41 cents per cu. ft. (including garage).



VIEW 1.

### CONSTRUCTION OUTLINE

**FOUNDATION:** Reinforced concrete.

**STRUCTURE:** Exterior walls—cement stucco over 15 lb. felt on 2 x 4 in. studs; inside—interior stucco. Interior partitions—interior stucco or white pine 3-ply veneer. Floor construction—oak over T. & G. subfloor, Wolmanized girders, American Lumber & Treating Co.

**ROOF:** Covered with El-Rey roofing.

**FIREPLACE:** Heatilator Co.

**SHEET METAL WORK:** Flashing—galvanized iron.

**INSULATION:** Outside walls and roof—1/2 in. Celotex, Celotex Corp.

**WINDOWS:** Sash—sugar pine, casement, Whitco hardware, Vincent Whitney Co. Glass—double strength, crystal, Libbey-Owens-Ford Glass Co. Screens—In-Vi-So, Disappearing Roller Screen Co.

**FLOOR COVERINGS:** Main rooms—Carpet. Kitchen and bathrooms—linoleum, Armstrong Cork Co.

**WALL COVERINGS:** Kitchen and bathrooms—Sanitas, Standard Coated Products Co.

**WOODWORK:** Trim and doors—white pine. **HARDWARE:** By Schlage Lock Co. and Richards-Wilcox Mfg. Co.

**PAINTING:** By Sherwin-Williams Co.

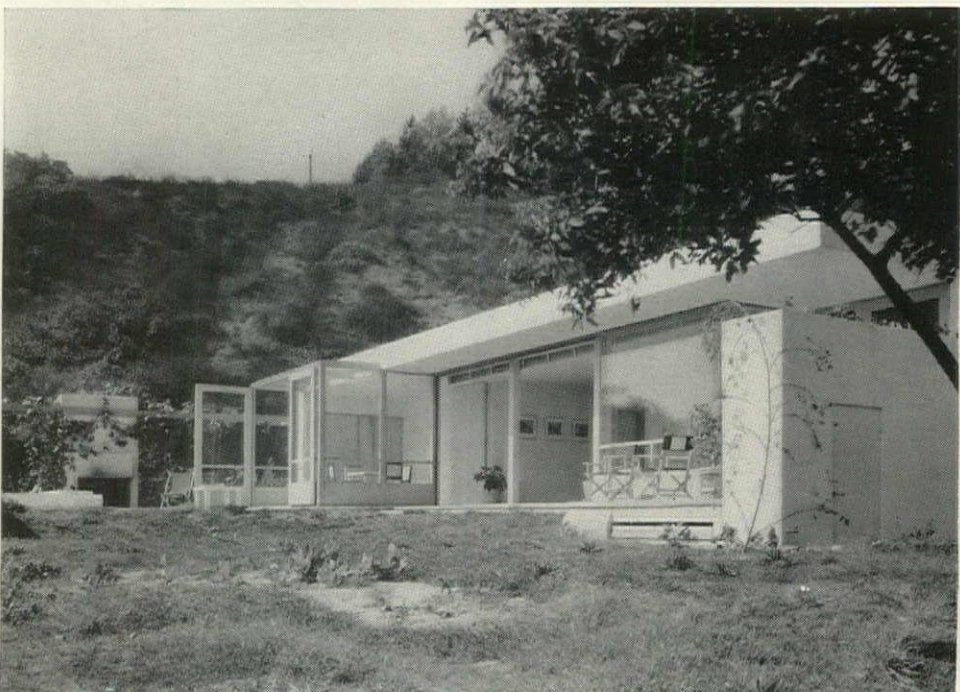
**ELECTRICAL INSTALLATION:** Wiring system—BX. Switches and fixtures—General Electric Co.

**KITCHEN EQUIPMENT.** Range—Hot Point, Edison-General Electric Appliance Co. Refrigerator—electric, Stewart Warner Corp. Sink—Kohler Co.

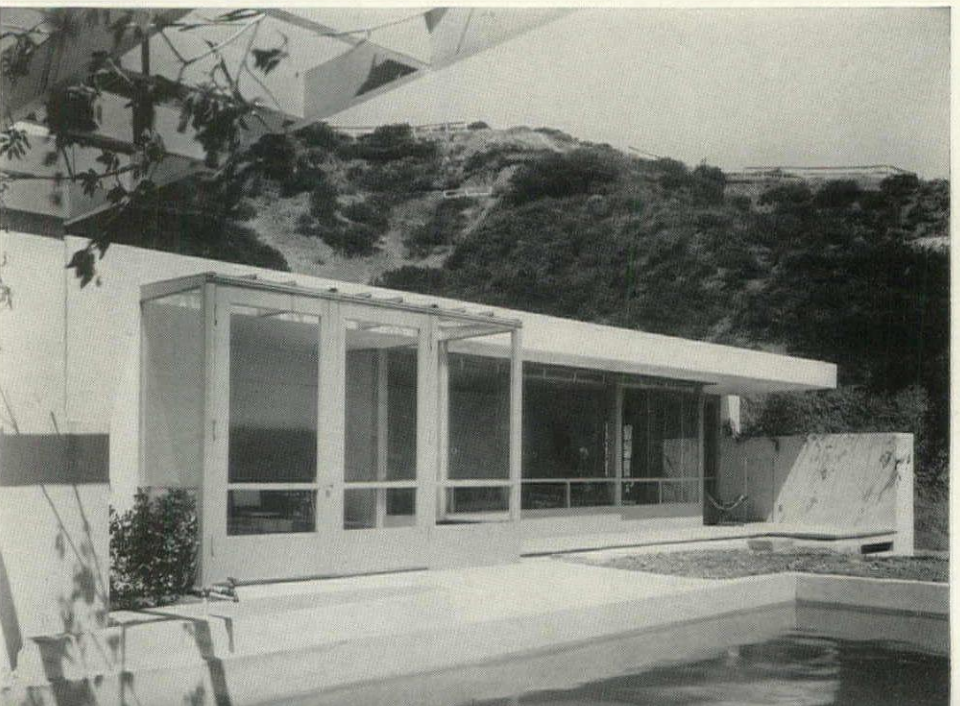
**BATHROOM EQUIPMENT:** Basin—Kohler Co. Tub—tile, Gladding, McBean & Co. Accessories—Hallensheid & McDonald.

**PLUMBING:** Cold water pipes—galvanized iron. Hot water pipes—wrought iron.

**HEATING:** Marvelaire filtering system. Water heater—American Radiator Co.

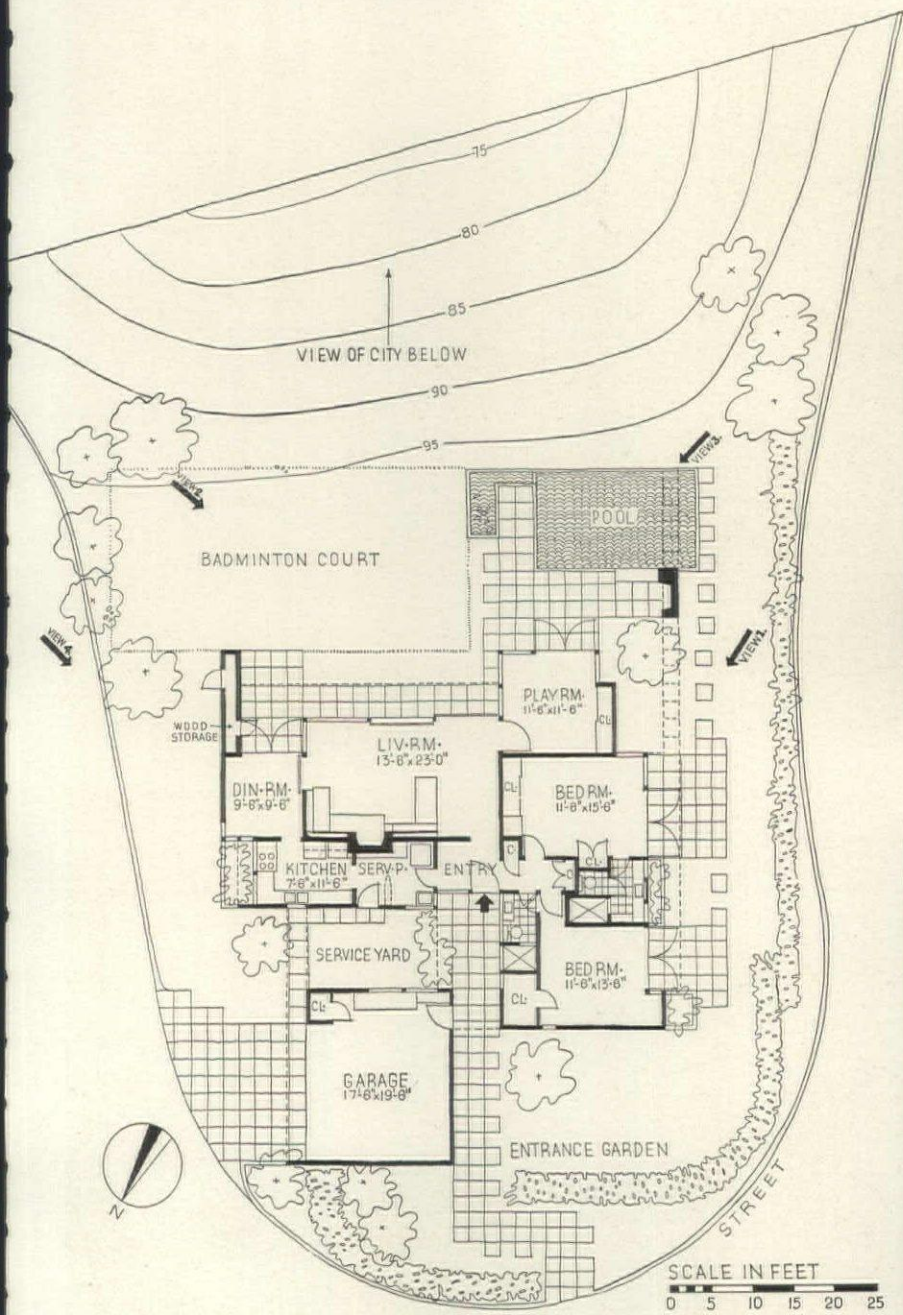


VIEW 2.



VIEW 3.

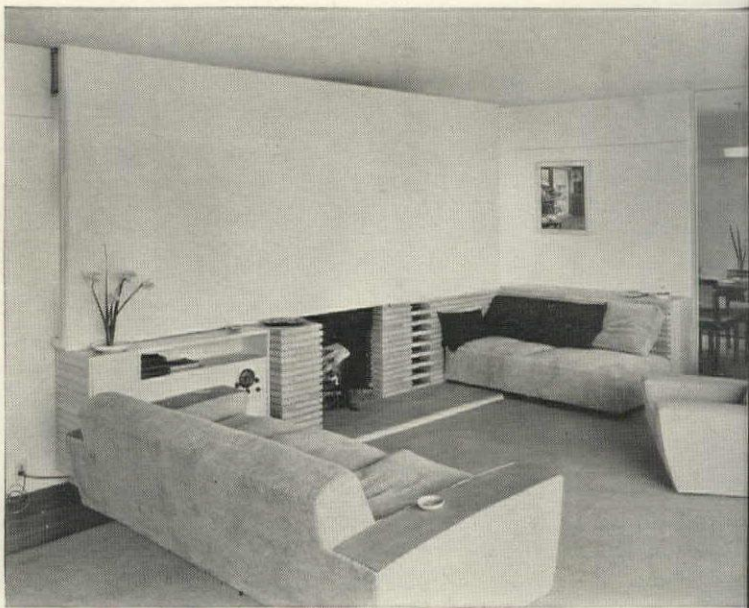




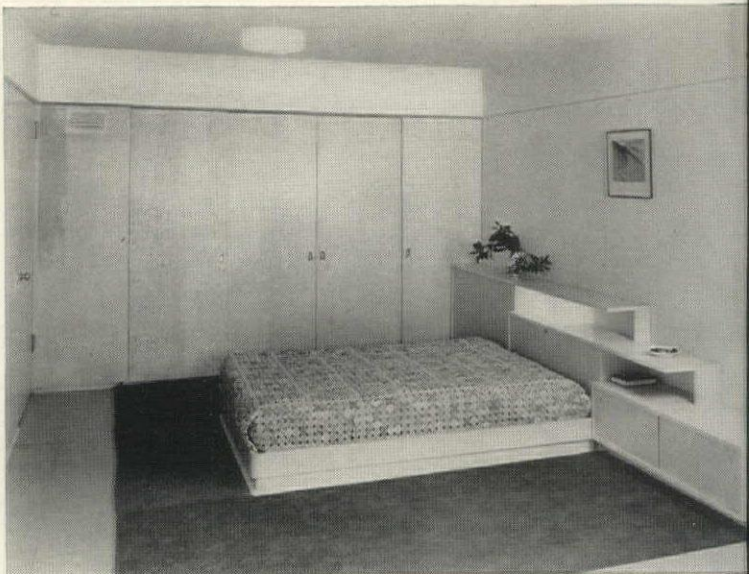
VIEW 4.



Lynton Vinette Photos



LIVING ROOM



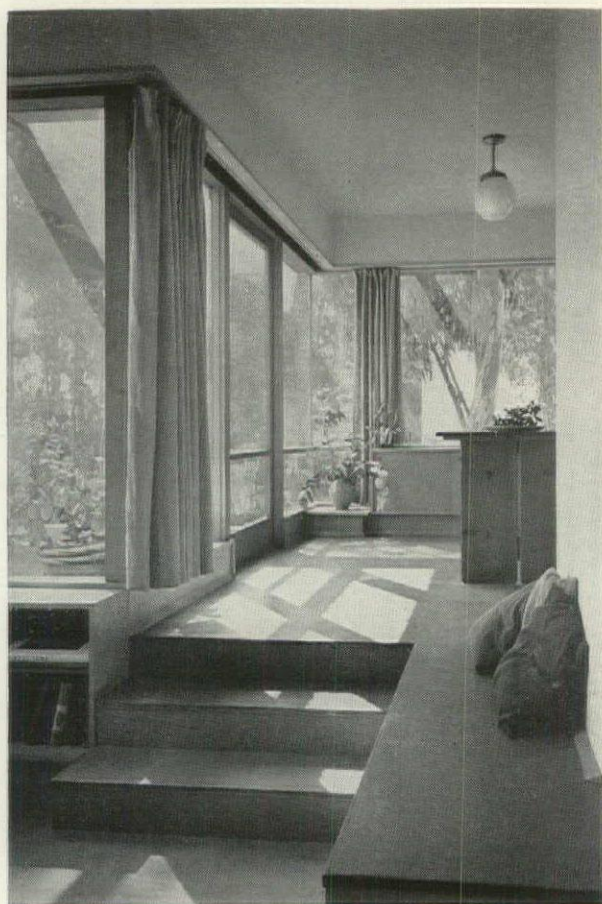
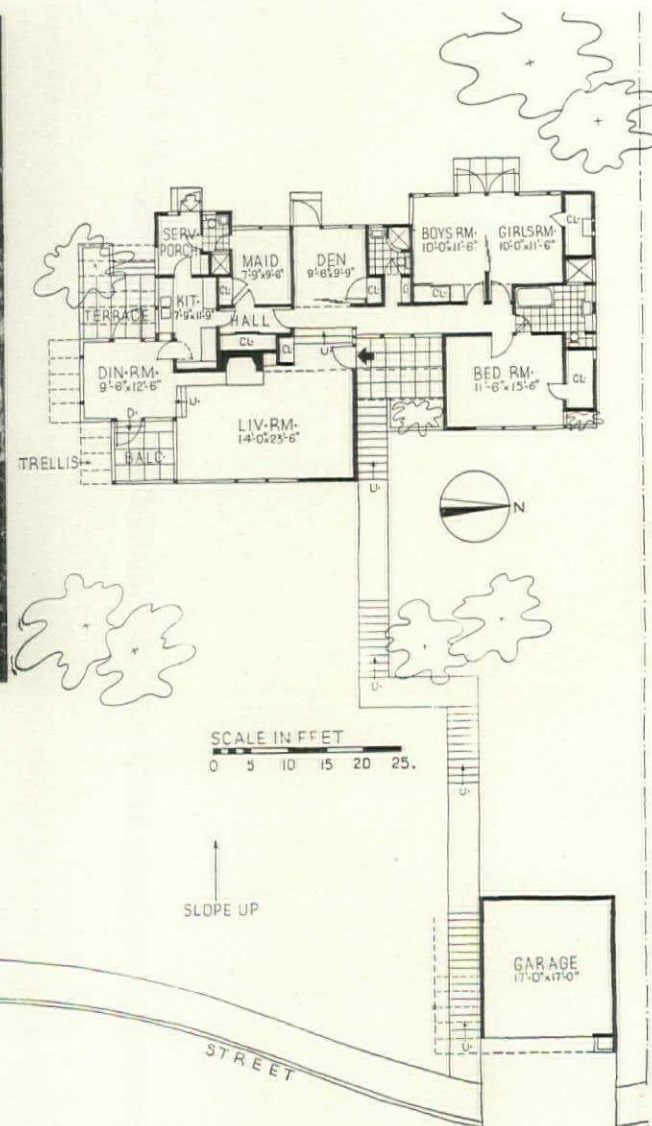
BEDROOM



KITCHEN



# 17. HOUSE IN LOS ANGELES, CALIF. GREGORY AIN, DESIGNER



Fred R. Dapprich Photos



Julius Shulman

The architect comments: "This house was built near the top of a rather steep lot sloping up from the street. The disadvantage of such a lot is that the view is back over the street, and retaining privacy without losing the view is difficult. A solution in this case was attempted by keeping the walls near the entrance blank. Living room, dining room and den are usually used as one large room, but the den can be shut off by sliding wall panels. Cost: 44 cents per cu. ft. (including garage and basement).

## CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—cement stucco over 15 lb. felt on 2 x 4 in. studs; inside—hard wall plaster or 1/4 in. plywood.  
**FLOOR CONSTRUCTION**—Wolmanized girders, American Lumber & Treating Co., Douglas fir sub-floor and Armstrong Cork Co. finish cork flooring.  
**ROOF:** Covered with El-Rey roofing,  
**FIREPLACE:** Superior Fireplace Co.  
**INSULATION:** Roof—Alco aluminum foil, Aluminum Co. of America.  
**WINDOWS:** Sash—sugar pine, casement, Whitco hardware, Vincent Whitney Co. Glass—double strength, plate, Libbey-Owens-Ford Glass Co.

**WOODWORK:** Trim—white pine. Cabinets—White pine, 5-ply, U. S. Plywood Corp. Interior doors—Sievering Co. Exterior doors—sugar pine.  
**HARDWARE:** By Schlage Lock Co.  
**PAINTING:** Material by Sherwin-Williams Co.  
**ELECTRICAL INSTALLATION:** Wiring system—BX. Switches—Arrow, Hart & Hegeman Electric Co.  
**KITCHEN EQUIPMENT:** Refrigerator—Electrolux, Servel, Inc. Sink—Kohler Co.  
**BATHROOM EQUIPMENT:** All fixtures by Kohler Co. Shower—tile, Gladding, McBean & Co. Cabinets—Hallensheid & McDonald.  
**PLUMBING:** Cold water pipes—galvanized iron. Hot water pipes—wrought iron.  
**HEATING:** Gas fired warm air heaters. Water heater—General Heater Corp.



## 18. HOUSE IN CLEARWATER, FLA. ADAMS & PRENTICE, ARCHITECTS



A small winter residence for a family of four and occasional guests. Economy was an important factor in the design, and the effect of a small lot may be seen in the plan, as in the living room where little space was available for windows. Arranged in a compact block, and covered by a white hip roof, the house has a solid, comfortable appearance typical of the more conservative local dwellings. Cost: about 24 cents per cu. ft.

### CONSTRUCTION OUTLINE

**FOUNDATION:** Concrete.

**STRUCTURE:** Exterior walls, studs, sheathing, cypress shiplap; garage and terrace walls—concrete block, stucco finish. Interior partitions—U. S. Gypsum Co. Sheetrock; some Johns-Manville asbestos sheet wall tile. Floor construction—fir plywood subfloor, oak finish flooring.

**ROOF:** Covered with shingles.

**SHEET METAL WORK:** Ducts—galvanized iron; remainder—copper.

**WINDOWS:** Sash—wood, double hung. Balances—Unique Window Balance, Inc.

**FLOOR COVERINGS:** Main rooms—oak. Kitchen and bathrooms—linoleum.

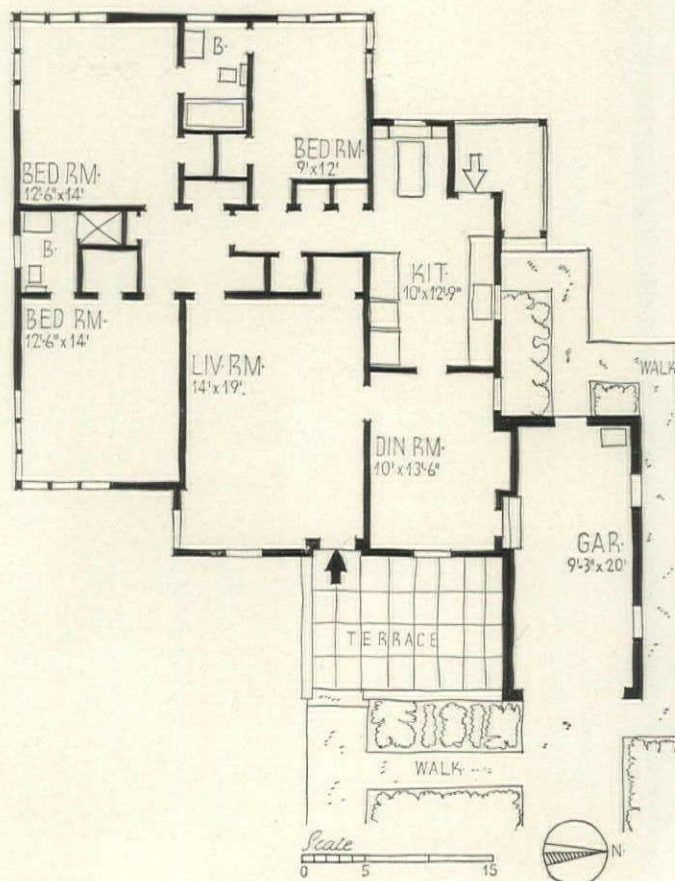
**WOODWORK:** Garage doors—overhead type.

**PAINTING:** Materials by Samuel Cabot, Inc.

**ELECTRICAL INSTALLATION:** Flexible armored conduit.

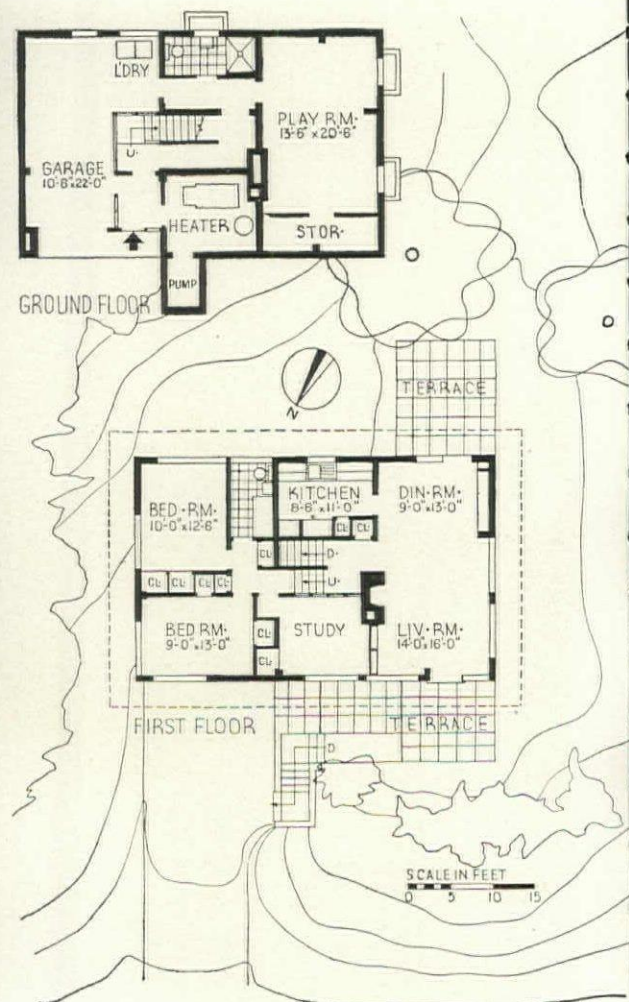
**KITCHEN EQUIPMENT:** Range—gas. Refrigerator—electric.

**PLUMBING:** Hot and cold water pipes—copper tubing. Water heater—General Electric Co.





19. HOUSE IN



William Keck Photos





LIVING ROOM



KITCHEN

The architect comments: "The feature of this house is the large high-ceilinged living room, with the space of the living room extending over the kitchen, study and stair, giving two-thirds of the ground area to the living room. The result is a feeling of spaciousness in a very small house and coolness during the summer. The next feature is the use of colored glass in the high windows; over the kitchen there is a sheet of blue transparent plate, and in the south wall of the living room is a sheet of peach-colored glass. The latter is well up under the eaves and only the winter sun reaches it. The projecting eaves shelter the walls and reduce glare." Cost: about 32 cents per cu. ft.

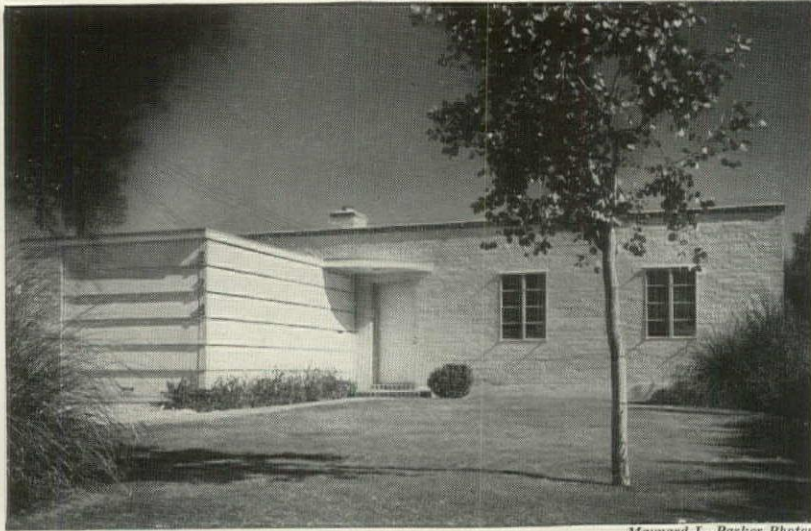


## CONSTRUCTION OUTLINE

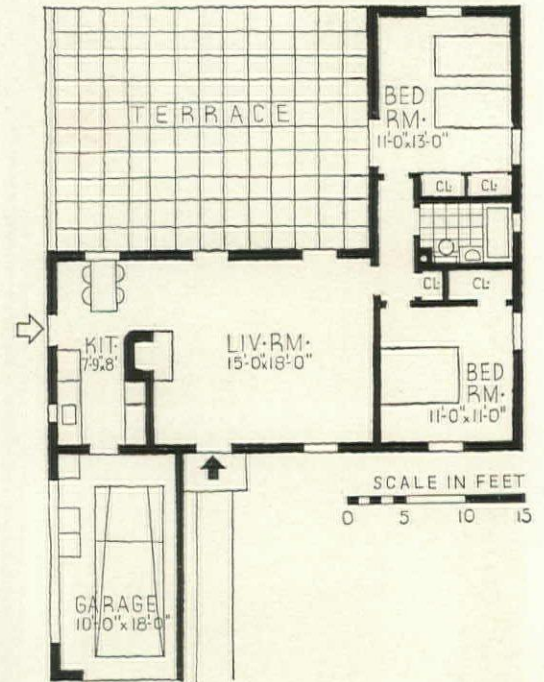
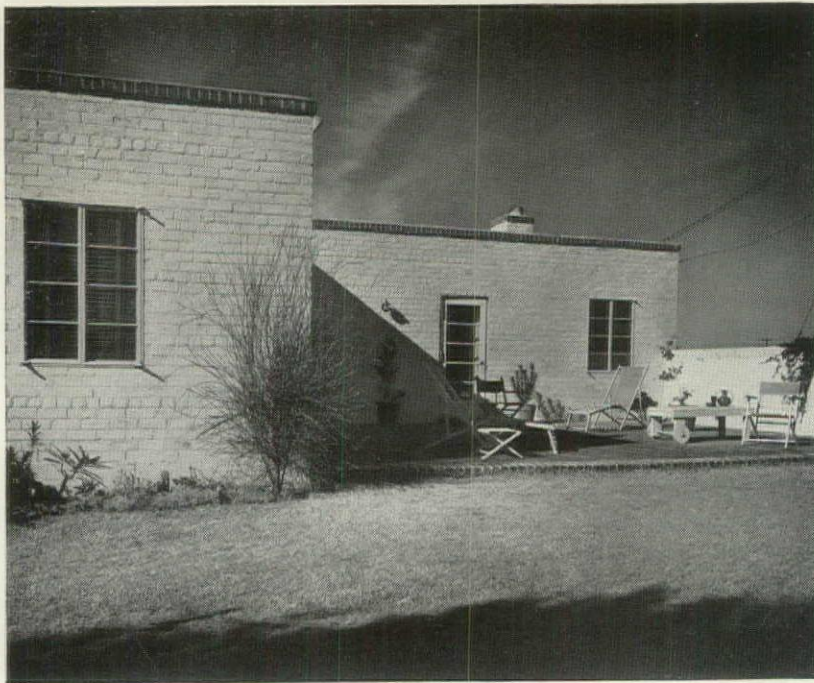
**FOUNDATION:** Cement block, Waylite Co. Waterproofing—mulsified asphalt, Bird & Son.  
**STRUCTURE:** Exterior walls—cement block, Waylite Co.; voids of block filled with loose aggregate. Interior partitions—studs and "Weatherwood," U. S. Gypsum Co. Floor construction—joists and "Weatherwood."  
**ROOF:** Covered with built-up asphalt roofing, Bird & Son.  
**FIREPLACE:** Damper—Heatlator Co.  
**SHEET METAL WORK:** Flashing—Toncan galvanized iron, Republic Steel Corp.  
**INSULATION:** Outside walls—Waylite Co. Roof—Red Top Vapor-Seal, U. S. Gypsum Co.  
**WINDOWS:** Sash and screens—metal, Truscon Steel Co. Glass—double strength, quality A, and plate, Libbey-Owens-Ford Glass Co. Glass partitions—hammered glass, Blue Ridge Div., Libbey-Owens-Ford Glass Co.  
**FLOOR COVERINGS:** Main rooms—oak. Kitchen and bathrooms—linoleum, Armstrong Cork Co.  
**WOODWORK:** Trim—pine. Exterior doors—Fenestra casement, Detroit Steel Products Co. Garage doors—Overhead Door Co.  
**HARDWARE:** By Sargent & Co.  
**PAINTING:** Floors—Minwax Co. Sash—Pittsburgh Plate Glass Co. Exterior walls—Bondex cement paint, Reardon Co.  
**KITCHEN EQUIPMENT:** Range and refrigerator—Hot Point, Edison-General Electric Appliance Co. Sink—Crane Co. Cabinets—Nappanee Co.  
**BATHROOM EQUIPMENT:** All fixtures including water heater, pump and septic tank, Crane Co.  
**HEATING:** Heating and winter conditioning, Century Co.



## 20. HOUSE IN TUCSON, ARIZ. ARTHUR T. BROWN, ARCHITECT



Maynard L. Parker Photos



A one-story house which approaches a practical minimum in size. The Z-plan is highly suitable for its purpose, as it gives formal interest to the exterior and permits the creation of a protected terrace at the rear. The kitchen-dining arrangement is a most ingenious and economical use of space. Textured brick walls and wood siding have been used effectively on the exterior and do much to enrich the plain rectangular mass. Cost: about 45 cents per cu. ft.

### CONSTRUCTION OUTLINE

**FOUNDATION:** Reinforced concrete.  
**STRUCTURE:** Exterior walls—12 and 8 in. brick; inside—plaster. Floor construction—cement slab; Lithochrome coloring, L. M. Scofield Co.  
**ROOF:** Covered with built-up roofing, Philip Carey Co.  
**FIREPLACE:** Damper—H. W. Covert Co.  
**SHEET METAL WORK:** Flashing and downspouts—galvanized iron.  
**INSULATION:** Roof—Eagle Picher Sales Co.  
**WINDOWS:** Sash and screens—Detroit Steel Products Co. Glass—double strength, quality B, Libbey-Owens-Ford Glass Co.  
**WOODWORK:** Interior doors—Douglas fir, Wheeler Osgood Co. Exterior doors—California pine. Garage door—asbestos Flexboard, Johns-Manville Corp.  
**HARDWARE:** By Schlage Lock Co. and Frantz Mfg. Co.  
**PAINTING:** Materials by National Lead Co., Sta-coat Paint & Varnish Co., L. M. Scofield Co. and Pioneer Paint Co.  
**ELECTRICAL INSTALLATION:** Wiring system—rigid conduit and metallic tubing. Switches—tumbler, Bryant Electric Co.  
**KITCHEN EQUIPMENT:** Range—Magic Chef, American Stove Co. Refrigerator—Coldspot, Sears Roebuck & Co. Sink—Crane Co. Cabinets—Hallensheid & McDonald. Ventilator fan—Pryne & Co.  
**BATHROOM EQUIPMENT:** All fixtures by Crane Co. Cabinet—Hallensheid & McDonald.  
**PLUMBING:** Soil pipes—cast iron, A. M. Byers Co. Hot and cold water pipes—galvanized steel.  
**HEATING:** Floor furnace, gravity type, Ward Heater Co. Water heater—Bastian-Morley Co., Inc.

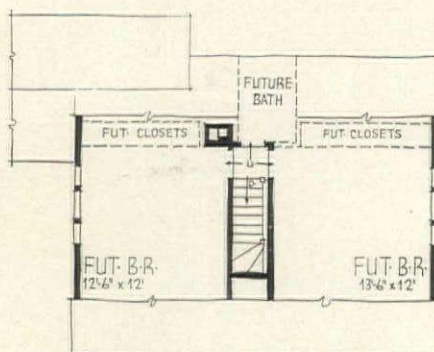
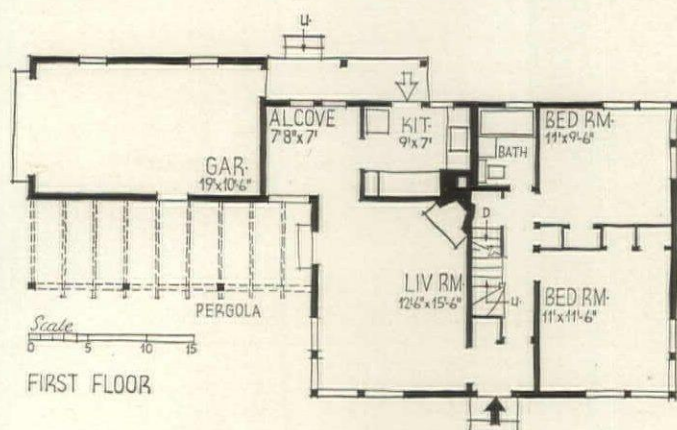




## 21. HOUSE IN HARMON-ON-HUDSON, N. Y.



EVANS, MOORE & WOODBRIDGE, ARCHITECTS



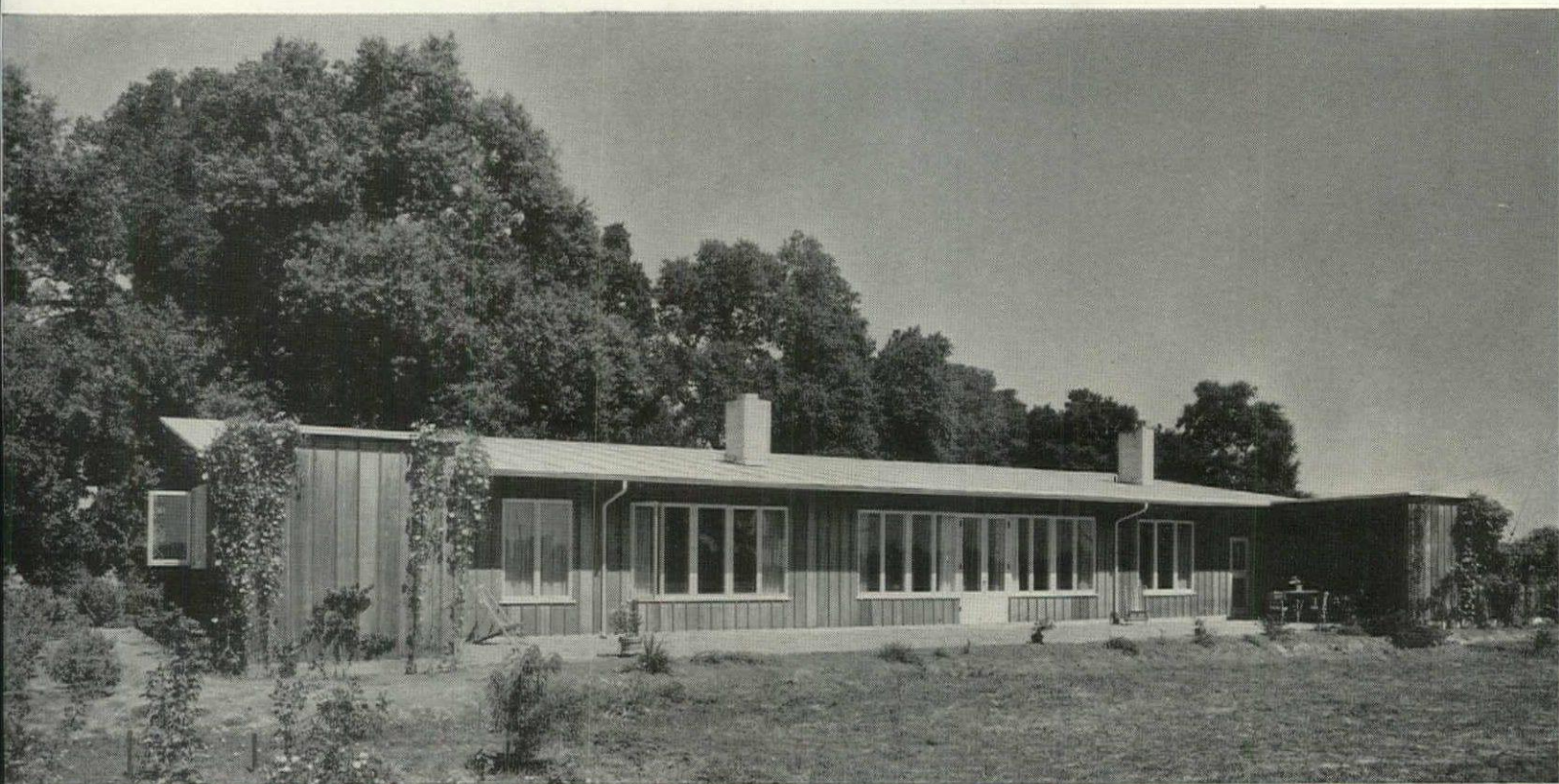
### CONSTRUCTION OUTLINE

**FOUNDATION:** Concrete block.  
**STRUCTURE:** Exterior walls—frame, Celotex Corp. Vapor-Seal sheathing, flush board siding. Interior partitions— $\frac{1}{2}$  in. Kelly Board, Calvin Tomkins. Floor construction—oak and some fir finished flooring.  
**ROOF:** Covered with red cedar shingles.  
**FIREPLACE:** Damper—H. W. Covert Co.  
**SHEET METAL WORK:** Flashing and leaders—copper. Gutters—fir. Ducts—galvanized iron.  
**INSULATION:** Outside walls—Vapor-Seal, Celotex Corp. Roof—Balsam wool, Wood Conversion Co.  
**WINDOWS:** Sash—wood, double hung. Glass—single strength, quality A.  
**FLOOR COVERINGS:** Living room—oak. Bedrooms—fir. Kitchen and bathrooms—linoleum, Congoleum-Nairn, Inc.  
**WALL COVERINGS:** Bathrooms—plaster. Remainder of rooms—Kelly Board, Calvin Tomkins, covered with paint or wallpaper.  
**HARDWARE:** By Ostrander & Eshleman.  
**ELECTRICAL INSTALLATION:** Wiring system—BX. Fixtures—Lightolier Co.  
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Mfg. Co. Accessories—Charles Parker Mfg. Co.  
**PLUMBING:** Hot and cold water pipes—brass.  
**HEATING AND AIR CONDITIONING:** Warm air system; Thatcher unit and oil burner with automatic humidifier and filters, Thatcher Furnace Co.

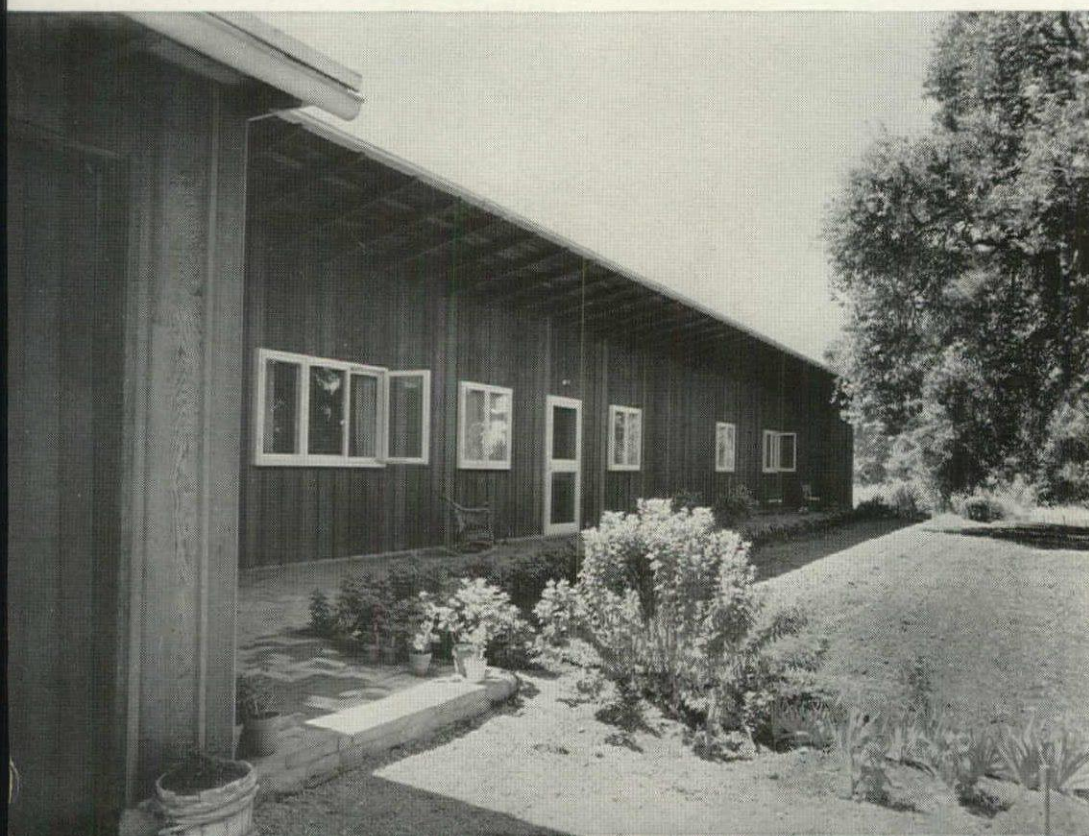
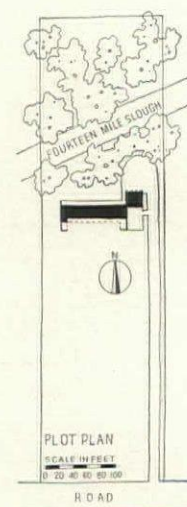
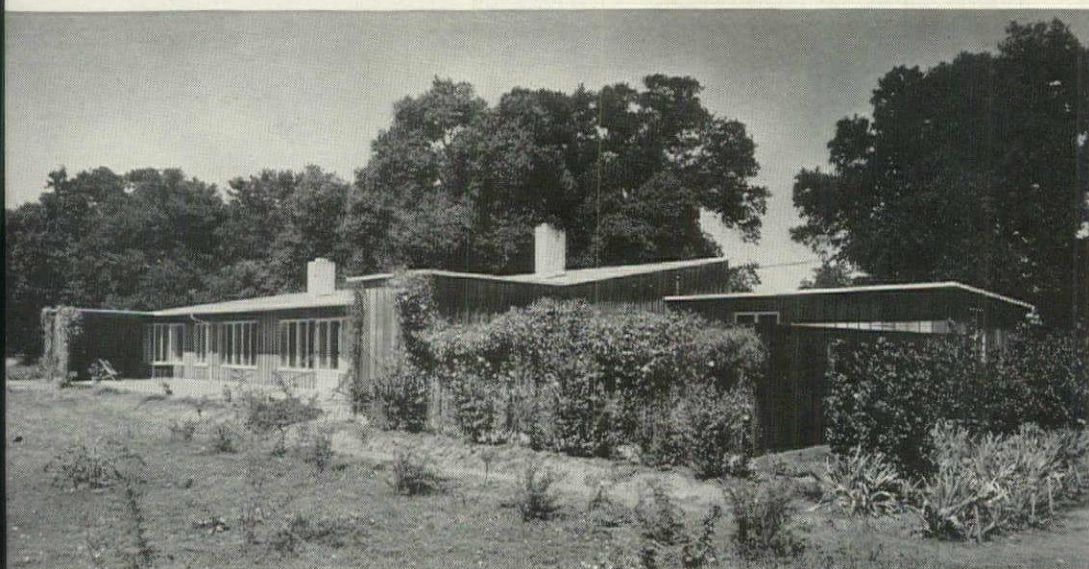
Conventional in its use of Colonial precedent save for the fenestration, this example brings out the changes taking place within the framework of traditional house design. Aside from admitting more light, the windows as arranged make the use of shutters a superfluous decorative note. A center stair was required to leave space for the future bedrooms, and it also makes possible the complete separation of living and sleeping quarters with a minimum of difficulty. Cost: 35 cents per cu. ft.



## 22. HOUSE IN STOCKTON, CALIFORNIA



Roger Sturtevant Photos

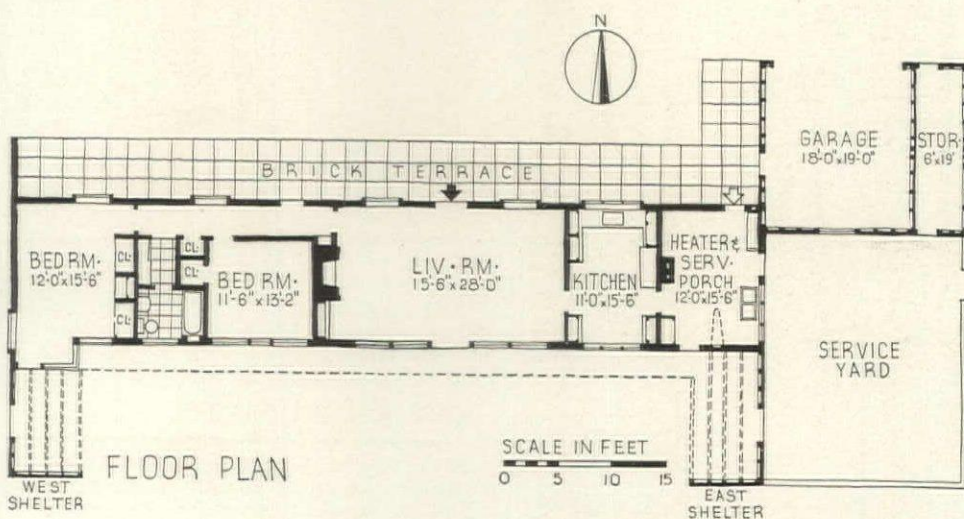


The "in-line" plan is frequently restricted in its use by conditions of climate, site, and owner preference for more conventional types. Rarely have its possibilities, both visually and practically, been better suggested than here. The shape is an extended rectangle, terminated at the ends by shelters and services; it relies for its effect entirely on fenestration and wall textures. Covered with low shed roofs, the house could hardly be more simple in form or construction. Advantages of the plan are obvious: the natural lighting and ventilation leave nothing to be desired, and each room is intimately related to the setting. The design is given additional consistency by the use of the exterior wall color within the house. Cost: \$4.92 per sq. ft.





LIVING ROOM



### CONSTRUCTION OUTLINE

**FOUNDATION:** Reenforced concrete.

**STRUCTURE:** Exterior walls—T. & G. redwood with battens, 15 lb. felt, Douglas fir sheathing; inside—Insulite Co. boarding or plywood. Floor construction—hollow partition tile over concrete slab.

**ROOF:** Covered with white mineral surfaced roofing.

**SHEET METAL WORK:** Galvanized iron throughout.

**INSULATION:** Ceiling—2 in. Pakfelt, Plant Rubber & Asbestos Co.

**WINDOWS:** Sash—sugar pine casement. Glass—single strength, quality B.

**WALL COVERINGS:** Living room—redwood. Bedrooms—Insulite, Insulite Co. Kitchen—3-ply California pine wall board, U. S. Plywood Co. Bathrooms—plywood and Douglas fir.

**WOODWORK:** Doors—Rezo, P. S. Buckley Door Co. Garage doors—Douglas fir, vertical redwood siding.

**HARDWARE:** By Casement Hardware Co. and Frantz Mfg. Co.

**ELECTRICAL INSTALLATION:** Single phase 110/220 volt service.

**KITCHEN:** Range—Electric. Sink—American Radiator-Standard Sanitary Corp.

**BATHROOM EQUIPMENT:** All plumbing fixtures by American Radiator-Standard Sanitary Corp.

**PLUMBING:** Soil pipes—cast iron. Cold water pipes—galvanized steel. Hot water pipes—wrought iron galvanized. Pipes by A. M. Byers Co. and Reading Iron Co.

**HEATING AND AIR CONDITIONING:** Warm air system with filtering and ventilation, Aladdin Heating Corp. Boiler—Sunbeam, The Fox Furnace Co. Water heater—Wesix Heater Co.



WEST BEDROOM



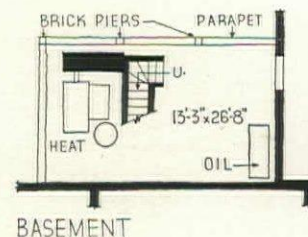
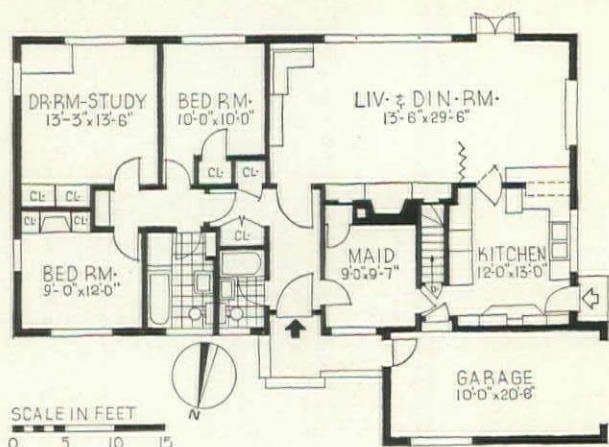
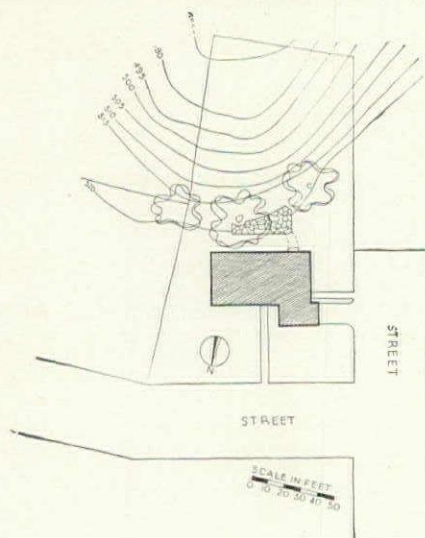
KITCHEN





Ralph W. Brown Photos

The compact plan below shows a number of excellent features. The possibility of complete separation of sleeping and living quarters eliminates one of the common disadvantages of the one story house. Relation of the garage to the front door, basement and kitchen has also been well studied, although the difficulty of access from the latter to the main entrance is open to question. The placing of the baths was obviously established with an eye to economy, but the resulting separation of the maid's room and bath by the front hall might well prove inconvenient. The exterior, unfortunately photographed under difficult conditions, is a simple statement of the facts of the plan. Cost: 31 cents per cu. ft.



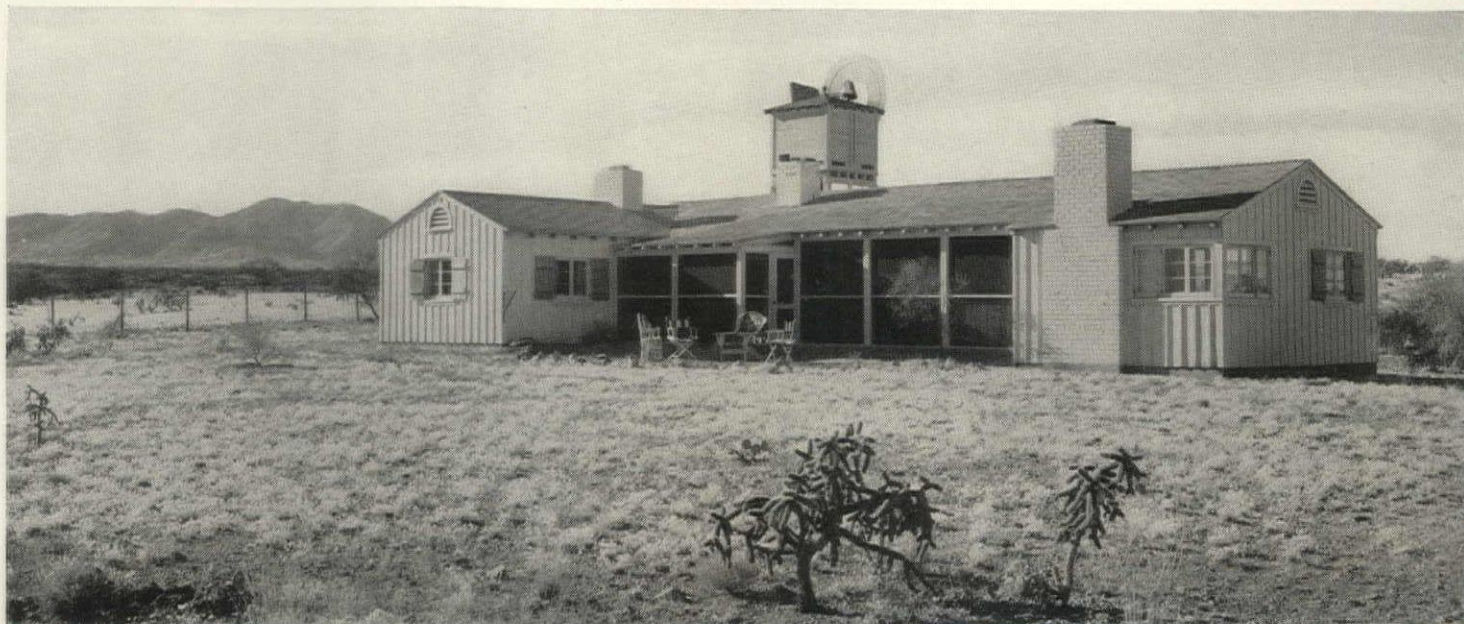
### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—brick veneer, building paper, pine sheathing, studs; inside—U. S. Gypsum Co. rock lath and plaster.  
**ROOF:** Covered with Vermont slate.  
**FIREPLACE:** Damper—H. W. Covert Co. Screen—Bennett Fireplace Co.  
**INSULATION:** Outside walls and attic floor—rock wool, Barrett Co. Sound insulation—Balsam wool blanket, Wood Conversion Co.  
**WINDOWS:** Sash and screens—Detroit Steel Products Co. Glass—Libbey-Owens-Ford Glass Co.  
**FLOOR COVERINGS:** Kitchen, bathrooms and front hall—linoleum, Armstrong Cork Co.  
**HARDWARE:** By Russell & Erwin Mfg. Co.  
**PAINTING:** Materials by Medusa Portland Cement Co. and E. I. DuPont de Nemours & Co.  
**KITCHEN EQUIPMENT:** Range—Glenwood Range Co.; Phi-gas—Phillips Petroleum Co. Refrigerator and washing machine—Sears Roebuck & Co. Sink—Kohler Co.  
**BATHROOM EQUIPMENT:** Two lavatories by Kohler Co., remainder of fixtures by American Radiator-Standard Sanitary Corp.  
**HEATING AND AIR CONDITIONING:** Unique oil burning air conditioner; heats, filters and humidifies, no cooling, Excelsior Steel Furnace Co. Regulators—Minneapolis-Honeywell Regulator Co. Water heater—Phillips Petroleum Co.





## 24. HOUSE IN TWIN BUTTES, ARIZ. RICHARD A. MORSE, ARCHITECT



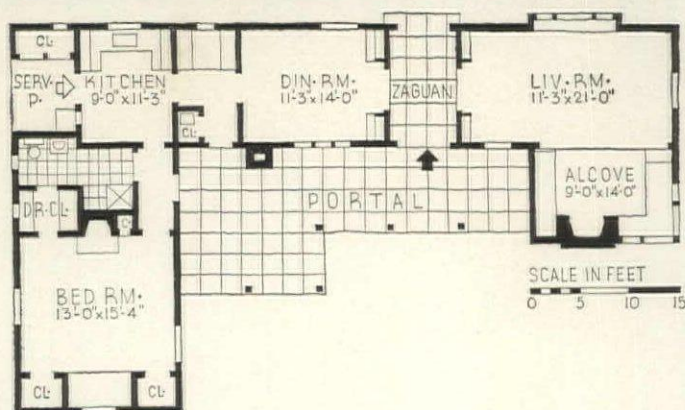
Al Buchman Photos



LIVING ROOM



DINING ROOM



A ranch house of conventional design, its long lines reflecting the need for free circulation of air. The porch is a required part of the general scheme for living and is used as a passageway between the various parts of the house. In harmony with the house and its surroundings is the living room, an attractive informal room broken up into two units for greater flexibility of use. Cost: about 44 cents per cu. ft.

### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—Douglas fir frame, sheathing, building paper, California pine siding and battens; inside—redwood paneling or Celotex, Celotex Corp. or rough pine boards. Floor construction—reinforced concrete slab, except V-jointed pine over fir sub-floor in living room.

**ROOF:** Covered with red cedar shingles.

**FIREPLACE:** Damper—H. W. Covert Co.

**SHEET METAL WORK:** Flashing—galvanized metal.

**INSULATION:** Outside walls—Cabot's Quilt, Samuel Cabot, Inc. Weatherstripping—Accurate Metal Weatherstrip Co.

**WINDOWS:** Sash—outswinging pine casement. Glass—single strength, quality B, Libbey-Owens-Ford Glass Co.

**FLOOR COVERINGS:** Living room—pine. Kitchen—linoleum, Armstrong Cork Co.

**WALL COVERINGS:** Bathroom—Salubra, Frederick Blank & Co.

**HARDWARE:** By Russell & Erwin Mfg. Co. and Stanley Works.

**PAINTING:** Materials by A. S. Boyle Co., Scofield Co. and Sherwin-Williams Co.

**ELECTRICAL INSTALLATION:** Wiring system—flexible metallic cable. Switches—tumbler, Bryant Electric Co.

**KITCHEN EQUIPMENT:** Range—Wedgewood, James Graham Mfg. Co. Refrigerator—Montgomery-Ward. Sink—Crane Co. Cabinets—pine.

**BATHROOM EQUIPMENT:** All fixtures by Crane Co. Cabinets—Lawco, F. H. Lawson Co.

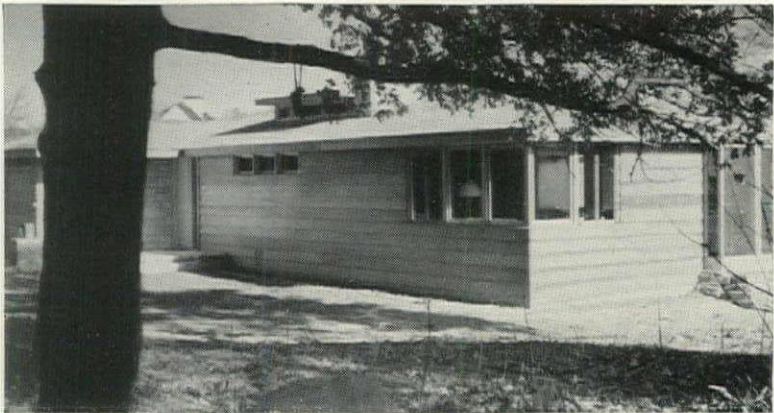
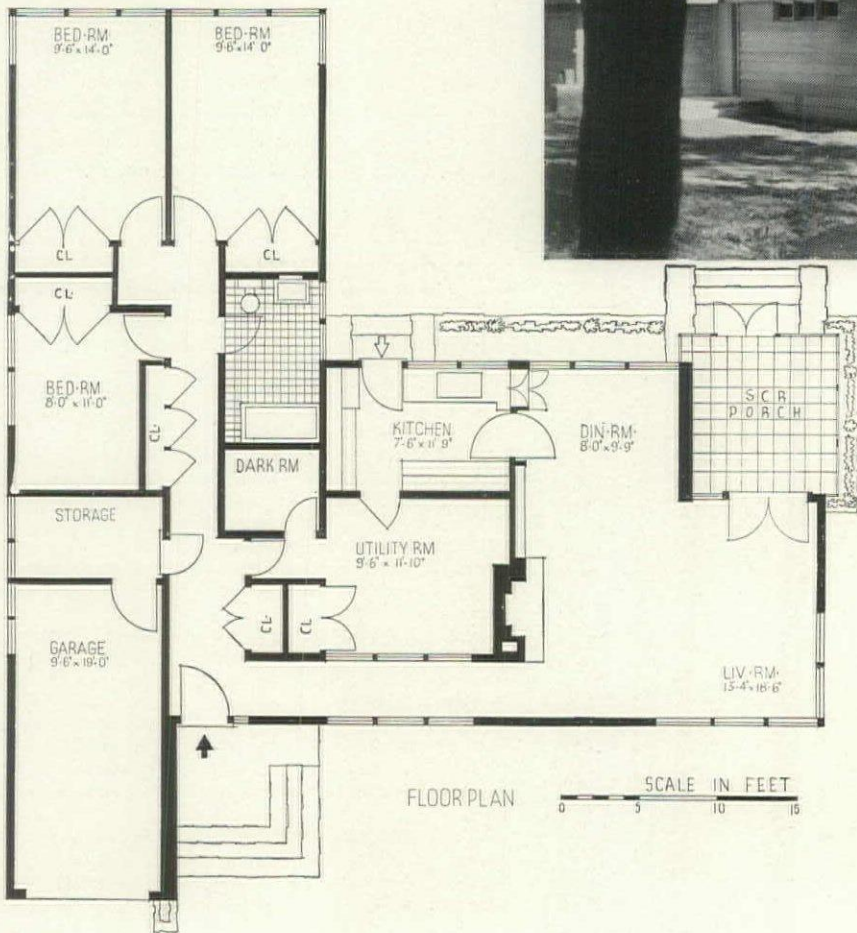
**PLUMBING:** Hot and cold water pipes—copper, Anaconda, American Brass Co.



25. HOUSE IN MADISON, WISCONSIN



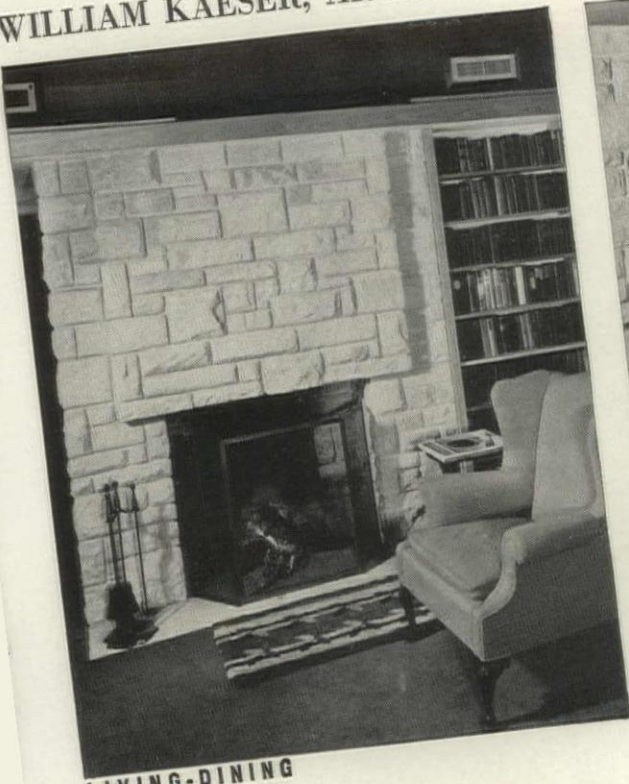
Vernon J. Kraft



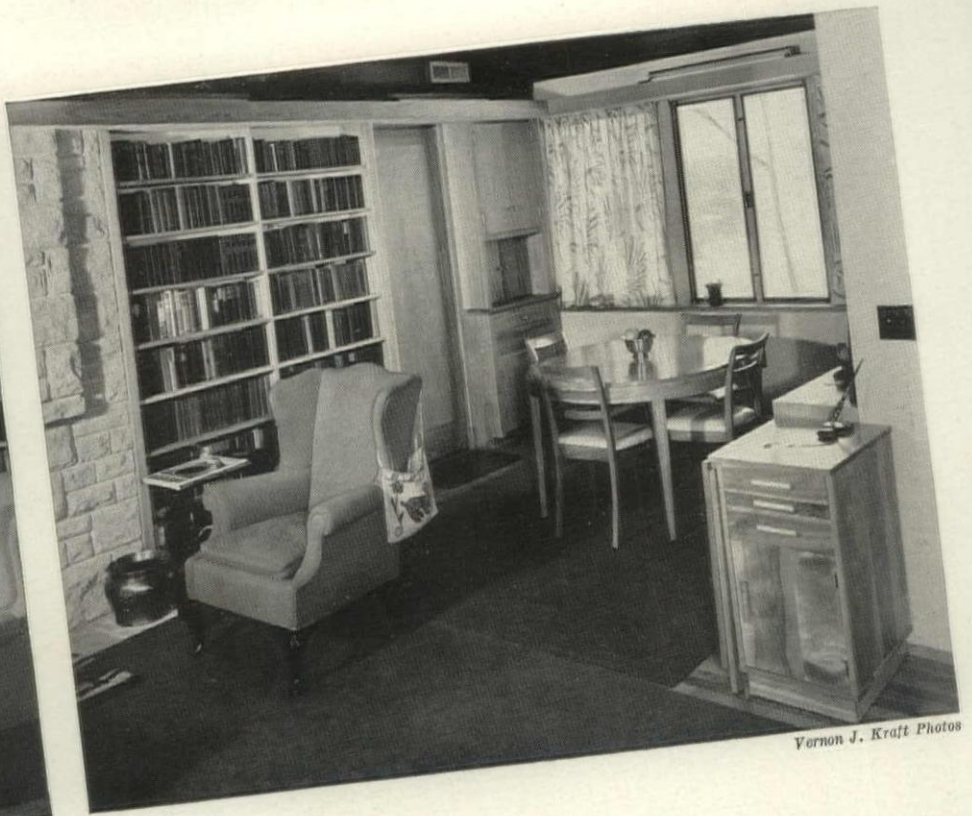
ENTRANCE SIDE



# WILLIAM KAESER, ARCHITECT



LIVING-DINING



Vernon J. Kraft Photos

Requirements for this house were three bedrooms, one bath, a small kitchen, adequate storage space and a dark room. No provision for servant's quarters was desired. The house produced to fit the family's needs is on one floor, has unusually generous provisions for storage. An interesting feature is the inside utility room, placed to receive a certain amount of daylight. The exterior design also reflects the owners' requirements in the use of traditional siding and a pitched roof. Cost: 40 cents per cu. ft.



## CONSTRUCTION OUTLINE

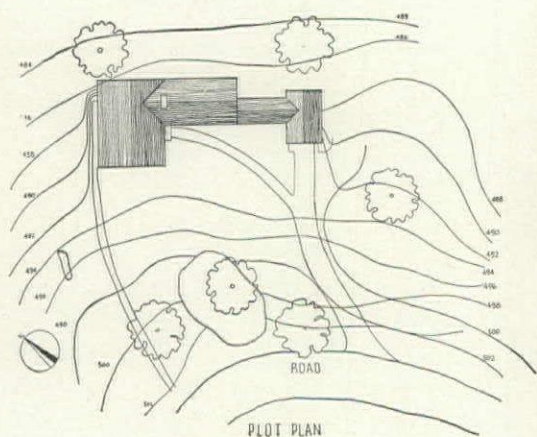
FOUNDATION: Concrete blocks.  
 STRUCTURE: Exterior walls—Insulite Co. sheathing, redwood siding; inside—plaster and rock lath, U. S. Gypsum Co. Floor construction—precast concrete joists used as beams, hemlock sub-floor on wood joists.  
 ROOF: Covered with asphalt strip shingles, Flintkote Co.  
 FIREPLACE: Damper—Colonial Fireplace Co.  
 SHEET METAL WORK: Flashing and ducts—Armco galvanized iron, American Rolling Mill Co.  
 INSULATION: Outside walls and roof—Gimco rockwool bats, General Insulating & Mfg. Co.  
 WINDOWS: Sash and screens—steel, Meske Bros. Iron Co. Glass—quality B, Libbey Owens-Ford Glass Co.  
 FLOOR COVERINGS: Main rooms—red oak. Kitchen and bathrooms—linoleum, Armstrong Cork Co.  
 WOODWORK: Cypress throughout.  
 HARDWARE: By Yale & Towne Mfg. Co.  
 PAINTING: Material by Sherwin-Williams Co.  
 ELECTRICAL INSTALLATION: Wiring system and switches—General Electric Co.  
 KITCHEN EQUIPMENT: Range—M. Chef, American Stove Co. Refrigerator—Frigidaire Corp. Sink—Kohler Co.  
 BATHROOM EQUIPMENT: All fixtures—Kohler Co. Cabinet—Hess Warming & Tilting Co.  
 PLUMBING: Hot and cold water wrought iron, A. M. Byers Co.  
 HEATING: Gas fired warm air, hum system, Bryant Heater Co. Grilles—E. Coleman Co. Thermostat—Minneapolis-Well Regulator Co. Water heater—W & Co.



## 26. HOUSE IN PUTNEY, VERMONT

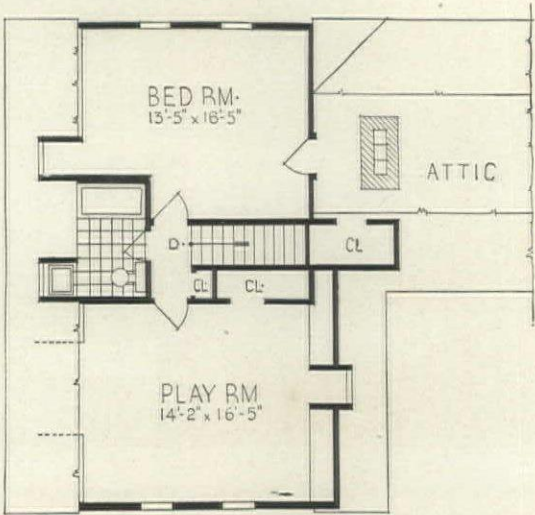


Lewis R. Brown



A traditional design of considerable vigor and freshness. The client required a house suitable for year-round living in a Vermont community and an appropriate background for his possessions. The plan is well adapted to the site, and despite its elongated appearance the house can be heated economically. Particularly successful in appearance is the rear elevation, in good character with the local architecture without rigid adherence to precedent. Cost: 31 cents per cu. ft.



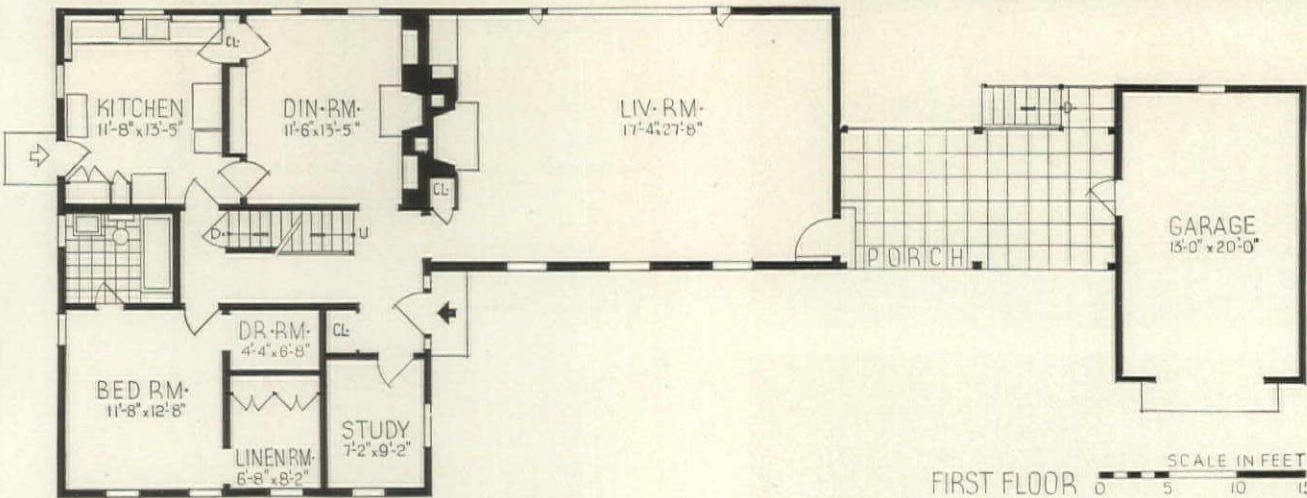


SECOND FLOOR



Lewis R. Brown

DINING ROOM



LIVING ROOM

FIRST FLOOR 0 5 10 15

SCALE IN FEET



### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—red cedar clapboards, Bermico building paper, Brown Co., sheathing, metal lath and plaster, U. S. Gypsum Co. Floor construction—pine and oak.

**ROOF:** Covered with red cedar shingles.

**FIREPLACE:** Damper—H. W. Covert Co.

**INSULATION:** Roof—rock wool, Johns-Manville Corp.

**WINDOWS:** Sash—double hung, pine, Gregg Co. Glass—Libbey-Owens-Ford Glass Co.

**FLOOR COVERINGS:** Kitchen and bathrooms—linoleum, Armstrong Cork Co.

**WOODWORK:** Trim—white pine. Cabinets—Angel Co. Doors—Brockway-Smith Co.

**GARAGE DOORS:** Overhead Door Co.

**HARDWARE:** By P. & F. Corbin and Earle Hardware Co.

**PAINTING:** Material by Boston Varnish Co.

**ELECTRICAL INSTALLATION:** Wiring system—BX. Breaker panels—Westinghouse Electric & Mfg. Co. Switches—Harvey Hubbel, Inc. Fixtures—Moe Bros.

**KITCHEN EQUIPMENT:** Range and refrigerator—Westinghouse Electric & Mfg. Co.

**LAUNDRY EQUIPMENT:** Washing machine—Bendix Home Appliances, Inc.

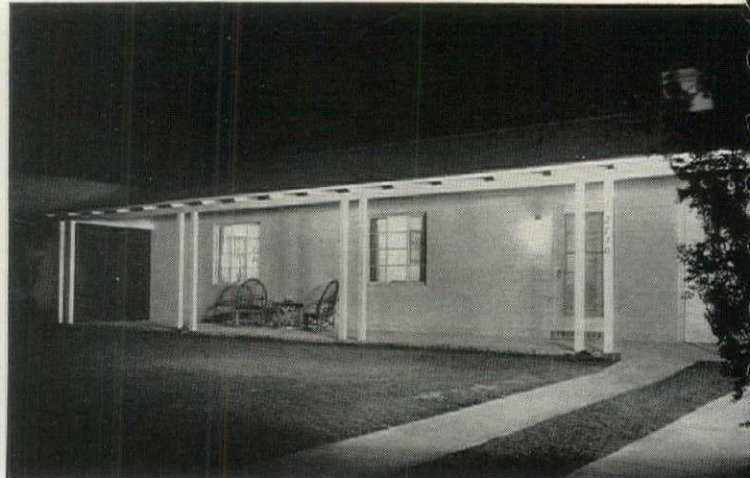
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp.

**PLUMBING:** Soil pipes—cast iron. Hot and cold water pipes—galvanized iron. Pump—Burke electric rotary, Decatur Pump Co.

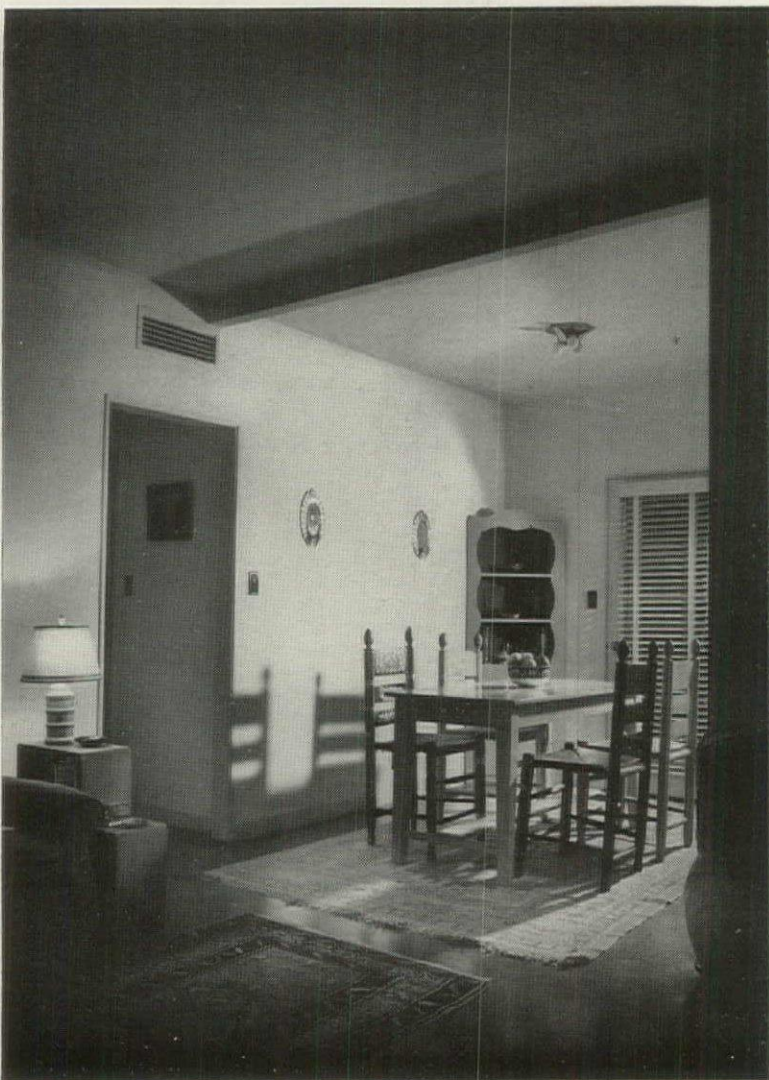
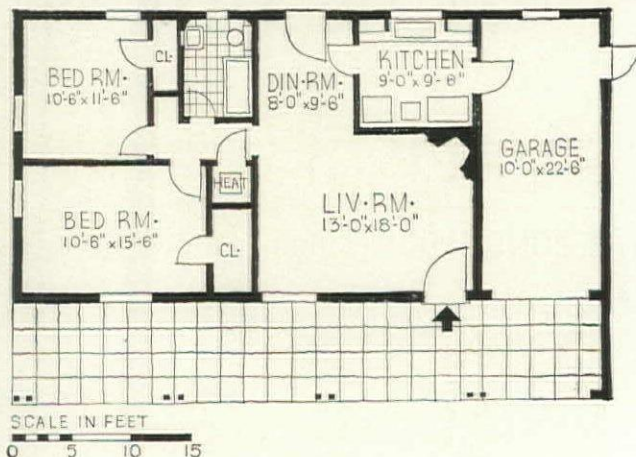
**HEATING AND AIR CONDITIONING:** Thermostatically controlled oil fired hot air system, Fox Furnace Co., Div. of American Radiator-Standard Sanitary Corp. Oil burner—Petroleum Heat & Power Co.



## 27. HOUSE IN TUCSON, ARIZ. ARTHUR T. BROWN, ARCHITECT



Maynard L. Parker Photos



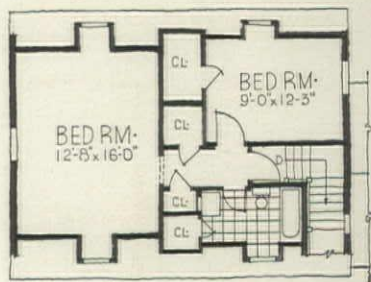
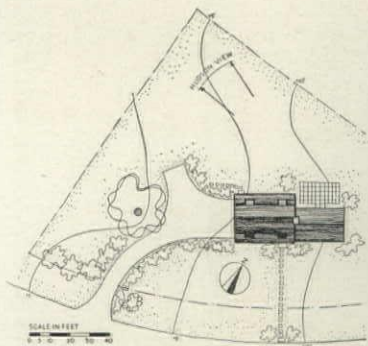
Built in an economical rectangle, this example shows something of local influence in the long porch and the roof treatment. The climate makes a vestibule superfluous, and the front door opens directly into a corner of the living room; there is no direct access to the bedrooms from the main entrance, but the disadvantage would be slight in a house of this size. The rear terrace is a pleasantly informal addition to the living space. Cost: 50 cents per cu. ft.

### CONSTRUCTION OUTLINE

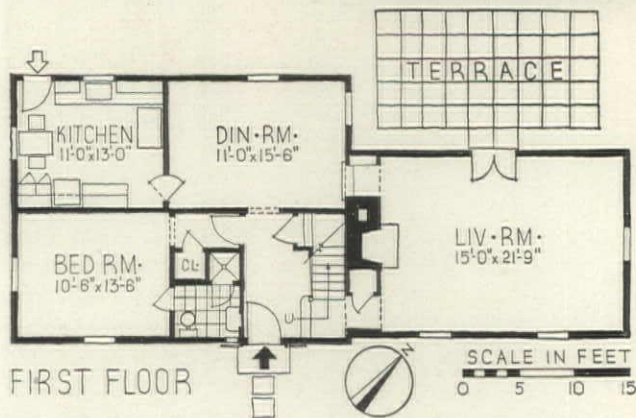
**FOUNDATION:** Reinforced concrete.  
**STRUCTURE:** Exterior walls—common brick; inside—plaster. Interior partitions—Douglas fir studs, rock lath and plaster, U. S. Gypsum Co. Floor construction—concrete slab; Lithochrome coloring, L. M. Scofield Co.  
**ROOF:** Covered with cedar shingles.  
**FIREPLACE:** Damper—H. W. Covert Co.  
**SHEET METAL WORK:** Flashing and ducts—galvanized iron.  
**WINDOWS:** Sash—steel casement. Glass—double strength, quality A, Libbey-Owens-Ford Glass Co.  
**FLOOR COVERINGS:** Kitchen—linoleum, Armstrong Cork Co.  
**WOODWORK:** Cabinets—Douglas fir plywood. Remainder—California pine.  
**HARDWARE:** By Schlage Lock Co. and Hall Mfg. Co.  
**PAINTING:** Materials by National Lead Co., Stacoat Paint & Varnish Co., L. M. Scofield Co. and Reardon Co.  
**ELECTRICAL INSTALLATION:** Rigid galvanized conduit and electrical metallic tubing. Switches—tumbler, Bryant Electric Co.  
**KITCHEN EQUIPMENT:** Range—Magic Chef. American Stove Co. Refrigerator—Frigidaire Corp. Sink—Crane Co. Cabinets—Douglas fir plywood.  
**BATHROOM EQUIPMENT:** All fixtures by Crane Co.  
**PLUMBING:** Soil pipes—cast iron. Hot and cold water pipes—galvanized steel.  
**HEATING:** Thermos'atically controlled forced hot air furnace, Race Air Conditioning Co. Water heater—Bastian-Morley Co., Inc.



## 28. HOUSE IN IRVINGTON, N. Y. EDWIN M. LOYE, ARCHITECT



SECOND FLOOR



FIRST FLOOR



John Gass

A compact little house, situated overlooking the Hudson River. In spite of its small size it contains three bedrooms of adequate dimensions and a separate dining room. The abrupt drop in level made possible the two-car garage below the house, in addition to the small amount of basement space needed. Placing of the terrace was determined by considerations of view, and this in turn helped establish the location of the living room. Cost: about 42 cents per cu. ft.

### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—clapboard, paper, wood sheathing, studs, wire lath and plaster.

**ROOF:** Covered with wood shingles.

**FIREPLACE:** Damper—H. W. Covert Co.

**INSULATION:** Floor over garage and roof—4 in. rock wool, Eagle Picher Lead Co.

**WINDOWS:** Sash—double hung, wood, Curtis Cos.; balances—Unique Window Balance Co. Glass—sheet, single strength, quality B, Pittsburgh Plate Glass Co.

**FLOOR COVERINGS:** Main rooms—oak. Kitchen—linoleum, Armstrong Cork Co. Bathrooms—tile, Franklin-Olean Tile Co.

**WOODWORK:** Trim and doors—pine, Curtis Cos., Inc. Garage doors—overhead, Rowe Mfg. Co.

**HARDWARE:** By P. & F. Corbin Co.

**PAINTING:** Kitchen—enamel, Sherwin-Williams Co. Floor—stain, shellac and wax. Exterior—Samuel Cabot, Inc.

**KITCHEN EQUIPMENT:** Range—Estate Stove Co. Refrigerator—General Electric Co. Sink—American Radiator-Standard Sanitary Corp.

**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp. Cabinets—Columbia Metal Box Co. Accessories—Charles Parker Co.

**PLUMBING:** Hot and cold water pipes—brass, Chase Brass & Copper Co.

**HEATING AND AIR CONDITIONING:** Forced warm air system, filtered and humidified. Boiler and water heater—American Gas Products Co. Thermostats—Minneapolis-Honeywell Regulator Co.





## 29. HOUSE IN LOS ANGELES, CALIFORNIA

Hillside lots appear to be the rule in the Los Angeles area, but this one presented uncommon difficulties. The owners wanted all rooms save the library to be on one floor, and as there was a 27-foot drop in grade this led to the unusual solution illustrated. The library was placed on the second floor for privacy, and has about 2,000 sq. ft. of deck spaces. Glass was used liberally where the view made it desirable. Roof decks are an important part of the design, as there is practically no usable ground area. Cost: 36 cents per cu. ft. This figure covers the built-in furniture, which includes all beds, dressers, couches, desks, buffets and the radio cabinet.

### CONSTRUCTION OUTLINE

**FOUNDATION:** Reinforced concrete.

**STRUCTURE:** Exterior walls—4 x 4 in. red-wood posts 3½ ft. on center, outside, stucco; inside—plaster and U. S. Plywood Corp. panels. Floor construction—oak and plywood over sub-floor. Ceilings—Vermiculite plaster, Blue Diamond Corp.

**ROOF AND DECK:** Covered with Johns-Manville Corp. roofing.

**SHEET METAL WORK:** Armco galvanized iron throughout, American Rolling Mill Co. **WINDOWS:** Sash—Druwhit Metal Products Co. Glass—Libbey-Owens-Ford Glass Co.

**FLOOR COVERINGS:** Main rooms—carpet. Kitchen and bathrooms—linoleum, Armstrong Cork Co.

**WALL COVERINGS:** Main rooms—plywood, U. S. Plywood Co.; remainder—Sanitas, Standard Coated Products Co. Bathrooms—tile, Gladding, McBean & Co.

**HARDWARE:** By Schlage Lock Co.

**PAINTING:** Materials by Matthews Paint Co.

**ELECTRICAL INSTALLATION:** Wiring system and switches—General Electric Co.

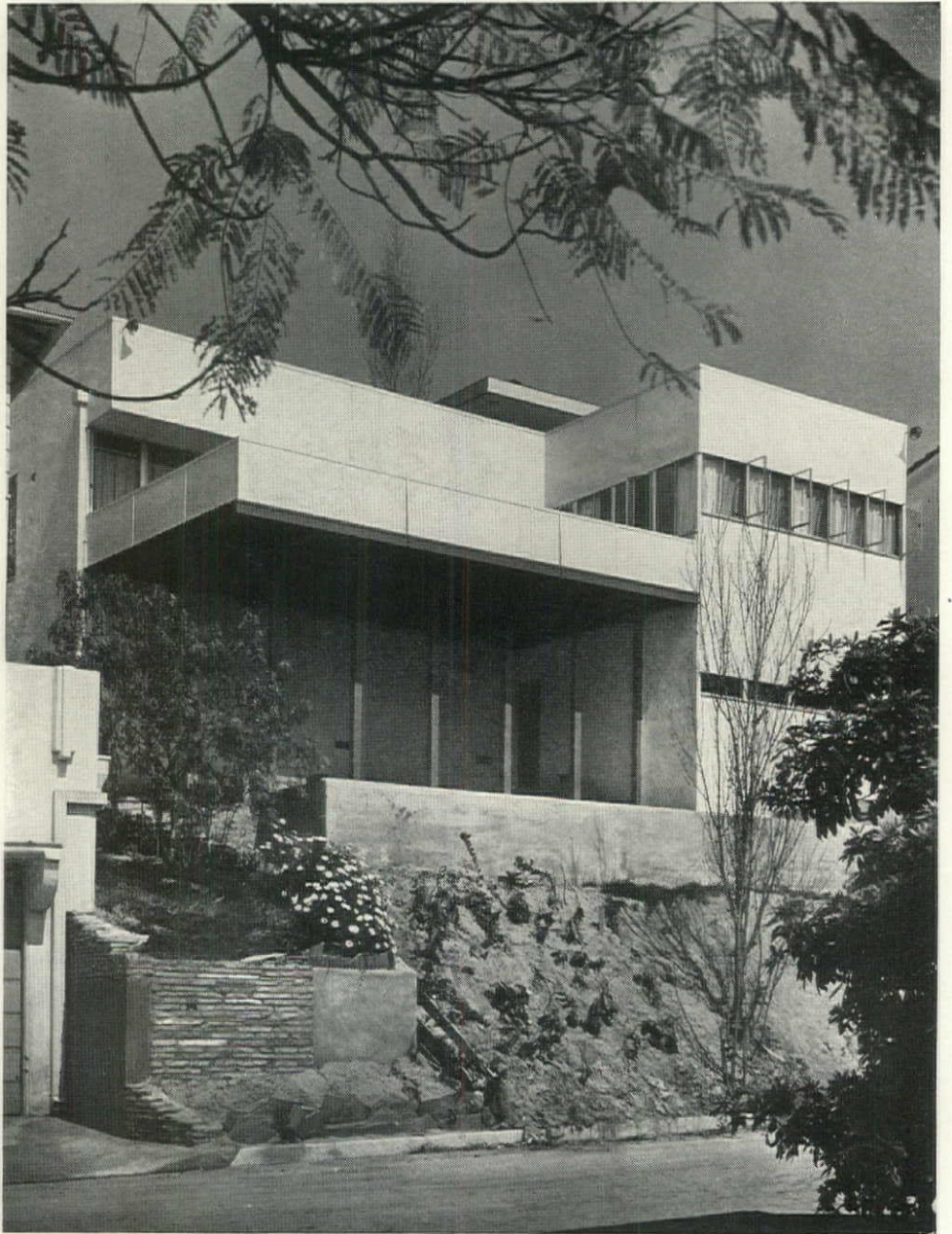
**KITCHEN EQUIPMENT:** Range—Gaffers & Sattler. Refrigerator—Westinghouse Electric & Mfg. Co. Sink—stainless steel, U. S. Steel Corp.

**LAUNDRY EQUIPMENT:** Washing machine—Bendix Home Appliances, Inc.

**BATHROOM EQUIPMENT:** Toilet—W. A. Case & Son Mfg. Co.; remainder of fixtures by American Radiator-Standard Sanitary Corp.

**PLUMBING:** Soil pipes—cast iron. Hot and cold water pipes—galvanized.

**HEATING:** Forced air system, filtering and humidifying, L. J. Mueller Furnace Co. Thermostat—Minneapolis-Honeywell Regulator Co. Water Heater—Bastian-Morley Co.



Julius Shulman Photos

### LIVING ROOM



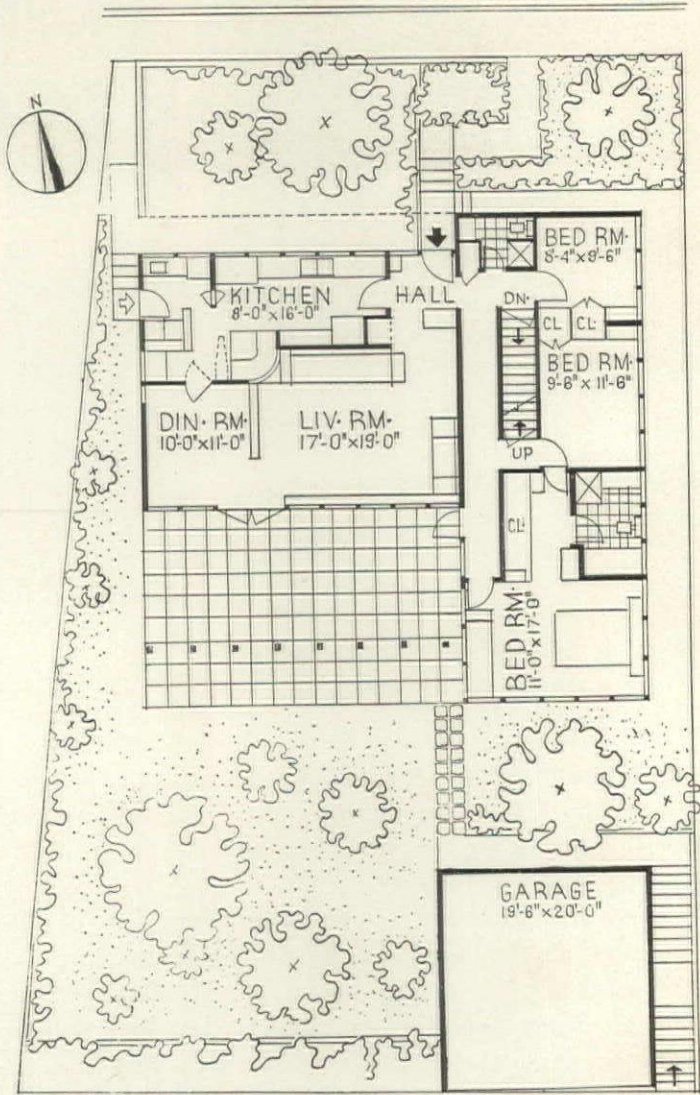




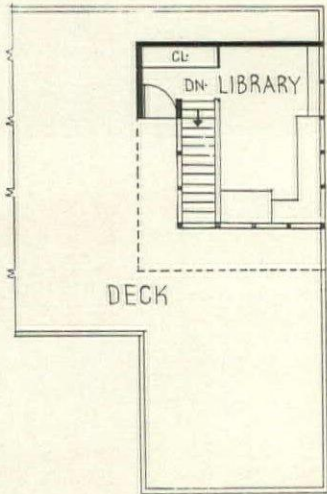
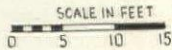
KITCHEN



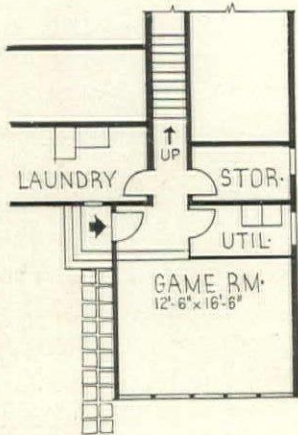
LIBRARY



FIRST FLOOR



SECOND FLOOR



GROUND FLOOR



### 30. HOUSE ON PUGET SOUND, SEATTLE, WASH.



Richard Garrison



K. S. Brown

Some time ago the director of the Seattle Art Museum spoke of a new type of residential architecture in the Northwest, which he called "Puget Sound architecture." The result of that phrase and idea is to be seen here and in the eight pages which follow: five houses which form the basis for a subdivision of unusual interest. The project was sponsored by a local business group, consisting of The Bon Marché department store, the Seattle Trust and Savings bank, and the Puget Mill Co., whose aim was to promote a sound addition to Seattle's residential sections by dramatizing the idea of a distinct regional type of architecture. The validity of the latter is a question left to the

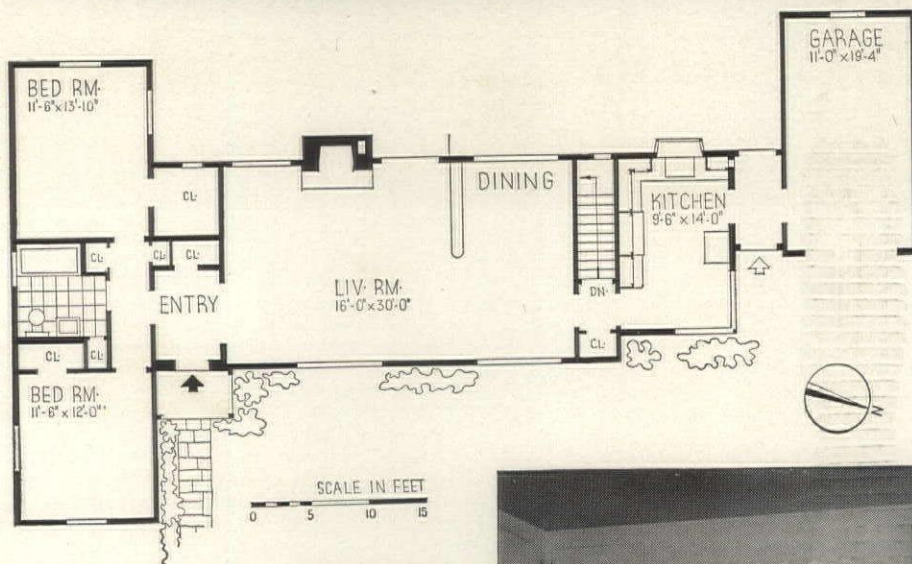
reader; there can be no question, however, as to the improvement these houses represent over the conventional development for moderate cost homes.

The house illustrated here is interesting for its use of pre-fabricated plywood walls, and all interior and exterior finishes are applied directly to the structural units. The plan provides highly desirable conditions of light and ventilation, privacy for the sleeping quarters and a very satisfactory arrangement of services. Economy of construction is guaranteed by the simplicity of its outlines. Cost: 42 cents per cu. ft.





Roger Dudley



### CONSTRUCTION OUTLINE

**FOUNDATION:** Concrete. Waterproofing—Flintkote, Flintkote Co.

**STRUCTURE:** Exterior and interior walls and ceilings—plywood with interlocking joints, glued to light studs; inside muslin stretched on surface in white lead, painted as an ordinary plaster or canvas wall. New waterproof veneer of Douglas fir; patent system of the Speedwall Construction Co.

**ROOF:** Covered with red cedar shingles.

**WEATHERSTRIPPING:** Chamberlin Metal Weather Strip Co.

**WINDOWS:** Glass—single strength, quality B, Libbey-Owens-Ford Glass Co.

**FLOOR COVERINGS:** Main rooms—oak. Kitchen and bathrooms—linoleum, Congoleum-Nairn, Inc.

**WOODWORK:** Fir used throughout.

**HARDWARE:** By Sargent & Co.

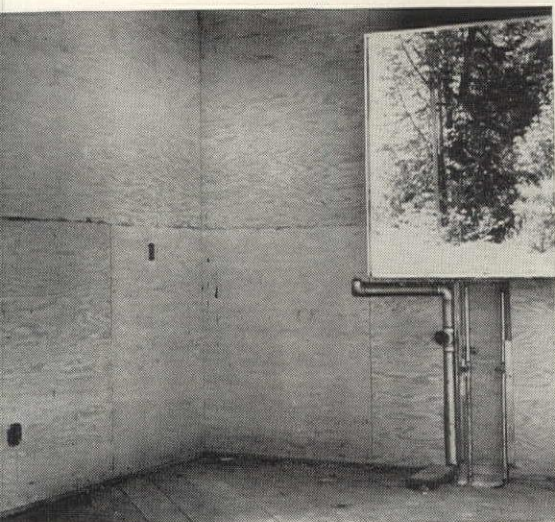
**PAINTING:** Materials by Benjamin Moore Paint Co., E. L. Bruce Co., Carl F. Miller & Co., and Samuel Cabot, Inc.

**ELECTRICAL INSTALLATION:** Wiring system—knob and tube. Switches—Despard, Pass & Seymour. Fixtures—Seattle Lighting Fixture Co.

**BATHROOM EQUIPMENT:** All fixtures by Crane Co.

**PLUMBING:** Soil pipes—cast iron. Water pipes—wrought iron.

**HEATING AND AIR CONDITIONING:** La Salle air conditioner, filtering and humidifying; unit includes oil burner and boiler, La Salle Oil Burner Co. Water heater—Wesix Electric Heater Co.



K. S. Brown



Richard Garrison



## 31. HOUSE ON PUGET SOUND, SEATTLE, WASH.



Richard Garrison Photos

There is an interesting contrast of texture in this house, and a very vigorous use of shadow. Flush siding on the garage doors, horizontal siding with shallow moldings, and a wall covered with vertical battens make up the three types of wood on the exterior. The plan shows all living quarters on the ground floor, with bedrooms inconspicuously placed over the garage. A small basement occupies the center of the house. Corner windows are a prominent feature of the design, as in many other houses of the group, and the characteristic mixing of traditional and modern elements is also to be noted. Cost: about 34 cents per cu. ft.

### CONSTRUCTION OUTLINE

**FOUNDATION:** Monolithic concrete. Waterproofing—Pabco, Paraffine Cos.

**STRUCTURE:** Exterior walls—cedar facing, building paper, fir studs, wood lath, and plaster. Interior partitions—wood lath and plaster; fireplace wall—plywood. Floor construction—sub-floor and oak finish flooring.

**ROOF:** Covered with cedar shakes. Deck—waterproof membrane and Mastipav, The Cott-A-Lapp Co.

**FIREPLACE:** Damper—Majestic Co.

**SHEET METAL WORK:** Flashing—Armco galvanized iron, American Rolling Mill Co.

**WINDOWS:** Sash—vertical grain fir. Glass—double strength, quality B.

**FLOOR COVERINGS:** Main rooms—oak. Kitchen and bathrooms—linoleum, Armstrong Cork Co.

**WALL COVERINGS:** Bedrooms—wallpaper.

**WOODWORK:** Fir throughout.

**HARDWARE:** By Russell & Erwin Mfg. Co.

**PAINTING:** Material by Schorn.

**ELECTRICAL INSTALLATION:** Wiring system—knob and tube. Switches—General Electric Co. Fixtures—National Tube Co.

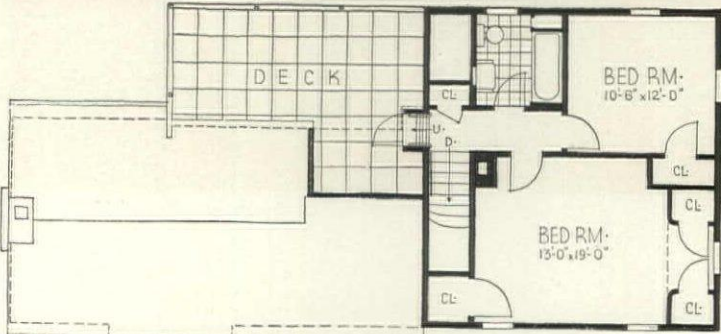
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Mfg. Co.

**PLUMBING:** Soil pipes—cast iron. Water pipes—steel, National Tube Co.

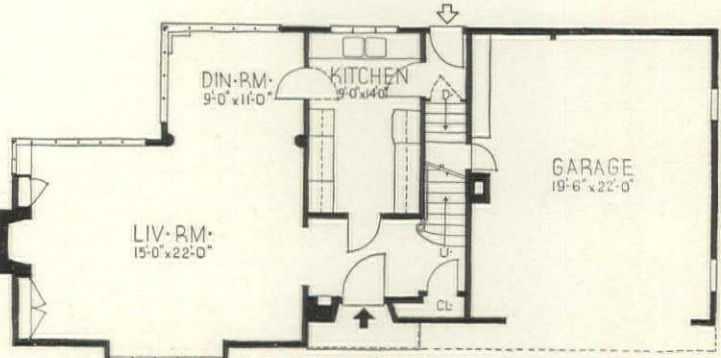
**HEATING AND AIR CONDITIONING:** June air, filtering and humidifying, Power Plant Engineering. Thermostat—Minneapolis-Honeywell Regulator Co.



J. LISTER HOLMES, ARCHITECT

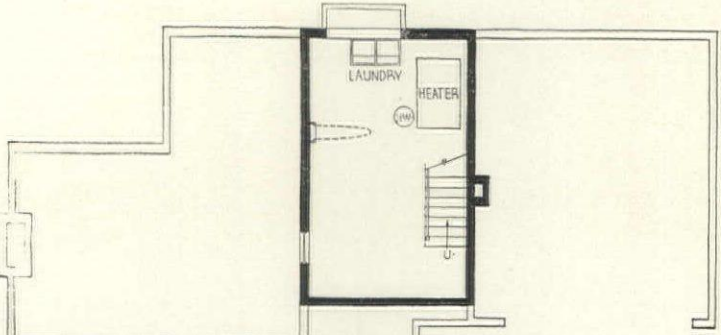


SECOND FLOOR

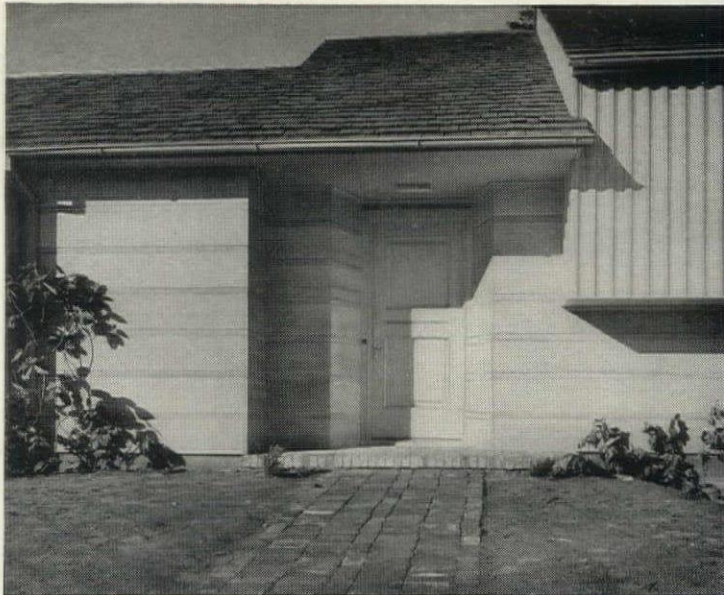


FIRST FLOOR

SCALE IN FEET  
0 5 10 15



BASEMENT



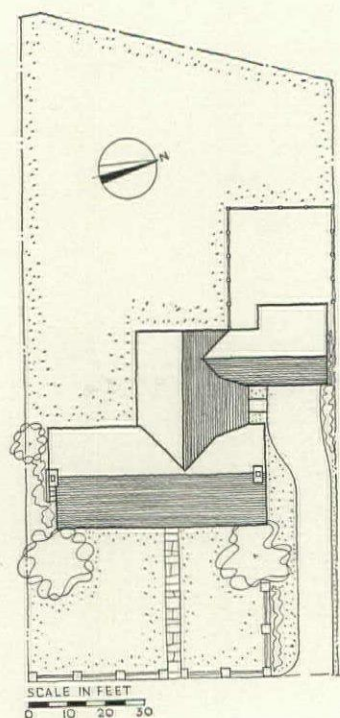


## 32. HOUSE ON PUGET SOUND, SEATTLE, WASH.



Richard Garrison Photos

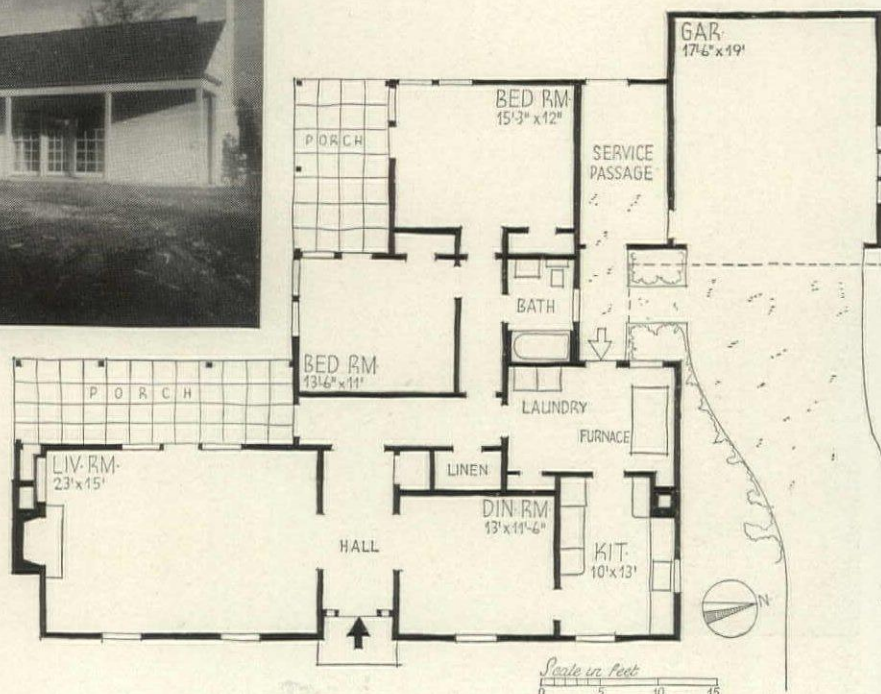
The discrepancy between the rear of this house and the handsome front elevation may be attributed to the somewhat complicated plan. The necessity of providing adequate living and sleeping quarters on one floor, with sufficient privacy for each group of rooms, presents a difficult problem to the architect where the amount of land available does not permit spreading out the various units. Here a central hall forms the nucleus of the plan, with additional corridors leading to the bedrooms and the outdoor terrace. Interiors, such as the living room shown on the opposite page, are simple in treatment and similar in character to the modified traditional exterior. Cost: about 26 cents per cu. ft.







WEST ELEVATION



LIVING ROOM



### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—hand split shakes, Brownskin paper, Brown Co., shiplap and studs. Interior partitions—studs, wood lath and plaster. Floor construction—fir sub-floor and oak finish flooring.

**ROOF:** Covered with hand split cedar shakes.

**FIREPLACE:** Damper—Superior Fireplace Co.

**SHEET METAL WORK:** All Armco Iron, American Rolling Mill Co.

**INSULATION:** Ceilings—Weatherboard, U. S. Gypsum Co.

**WINDOWS:** Sash—wood, double hung. Glass—single strength, quality B, Libbey-Owens-Ford Glass Co.

**FLOOR COVERINGS:** Main rooms—red oak. Kitchen—linoleum, Congoleum-Nairn, Inc. Bathrooms—linoleum, Armstrong Cork Co. Laundry room—tile, Tile-Tex Co.

**WOODWORK:** Fir used throughout.

**HARDWARE:** By Russell & Erwin Mfg. Co.

**PAINTING:** Material by I. F. Laucks Co. and Sherwin-Williams Co.

**ELECTRICAL INSTALLATION:** Wiring system—knob and tube. Switches—Bryant Electric Co.

**KITCHEN EQUIPMENT:** Range—Malleable Iron Range Co. Sink—American Radiator-Standard Sanitary Corp. Fan—West Wind Corp.

**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp. Seat—C. F. Church Mfg. Co. Cabinets—American Glass Co.

**PLUMBING:** Soil pipes—cast iron. Water pipes—galvanized steel, National Tube Co.

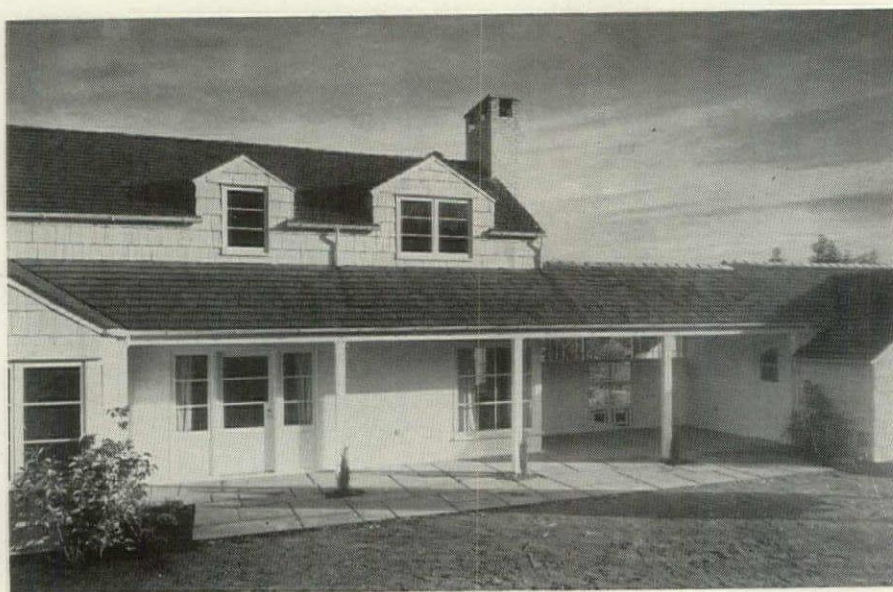
**HEATING:** Warm air system, automatic humidifier, La Salle Oil Burner Co. Grilles—Air Control Products. Thermostat—Minneapolis-Honeywell Regulator Co. Water heater—National Radiator Co.



### 33. HOUSE IN SEATTLE, WASHINGTON



Richard Garrison Photos



Most unusual in this house is the manner of getting into it; the main entrance is at the rear, reached by a pleasant walk through the gateway and along a sheltered terrace. The arrangement is consistent with the plan, which definitely orients the house to the rear garden. Rooms are ample in size and well placed; the kitchen seems particularly good in this respect, being within convenient distance of the front door and guest lavatory. The combined living-dining room is used in a very workable form, as the two spaces can be separated without difficulty if need should arise. Also worth noting is the size and number of closets. Cost: about 33 cents per cu. ft.

#### CONSTRUCTION OUTLINE

**FOUNDATION:** Concrete.  
**STRUCTURE:** Exterior walls—hand split shakes, building paper, fir shiplap; inside—studs, wood lath and plaster. Floor construction—oak finish flooring.  
**ROOF:** Covered with hand split shakes.  
**SHEET METAL WORK:** Armco iron throughout, American Rolling Mill Co.  
**WINDOWS:** Sash—wood, double hung and casement.  
**STAIRS:** Treads—oak. Risers and stringers—fir.  
**FLOOR COVERINGS:** Main rooms—oak. Kitchen—linoleum, Congoleum-Nairn, Inc. Bathrooms—(1st) linoleum; (2nd) tile.  
**WALL COVERINGS:** Bedrooms and halls—wallpaper. Bathrooms—Marlite, Marsh Wall Products Co.  
**WOODWORK:** Fir used throughout.  
**HARDWARE:** By Yale & Towne Mfg. Co.  
**KITCHEN EQUIPMENT:** Sink—Kohler Co. Fan—West Wind Corp.  
**HEATING AND AIR CONDITIONING:** Fully automatic oil burning air conditioning and heating plant.

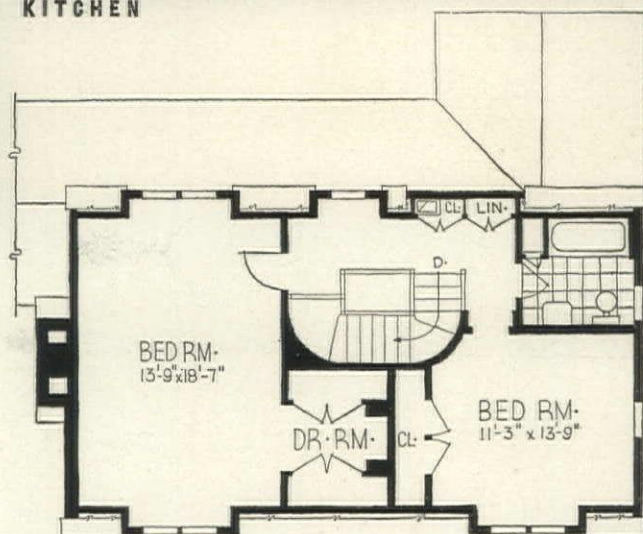




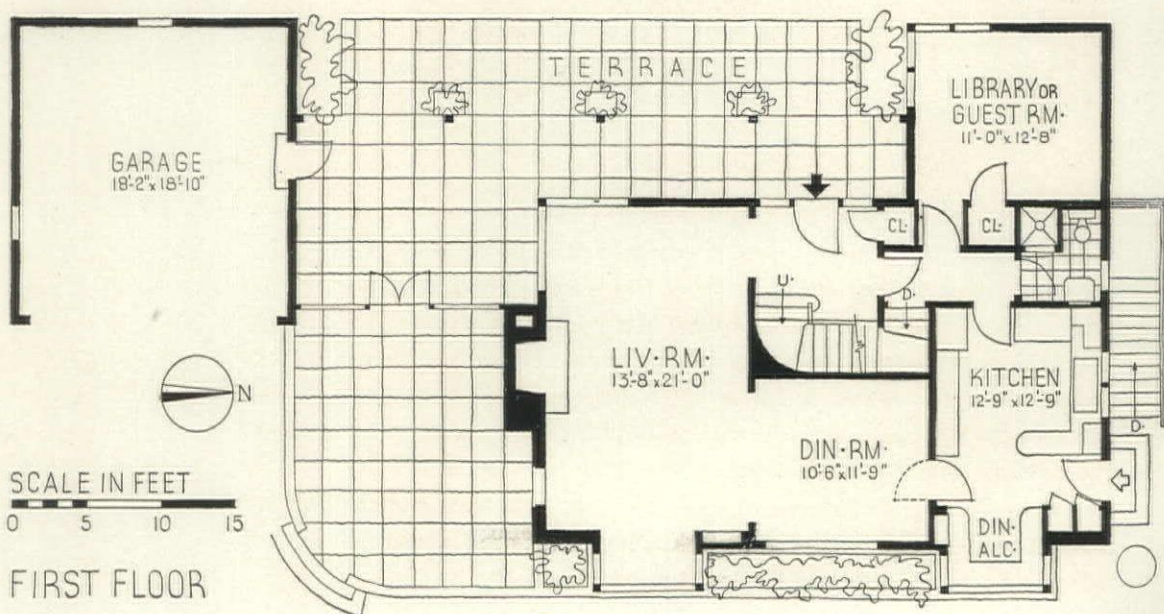
TERRACE



KITCHEN



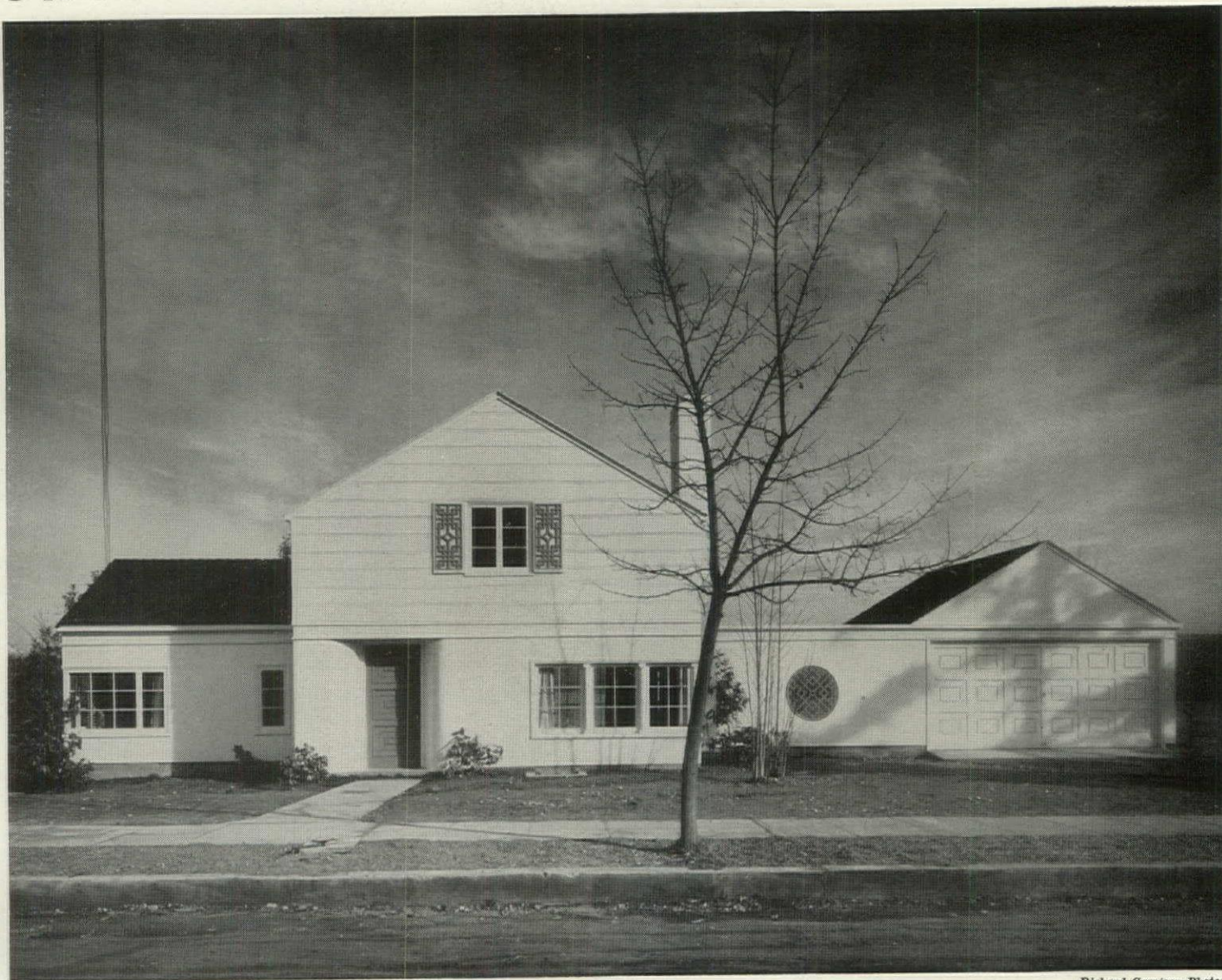
SECOND FLOOR



FIRST FLOOR

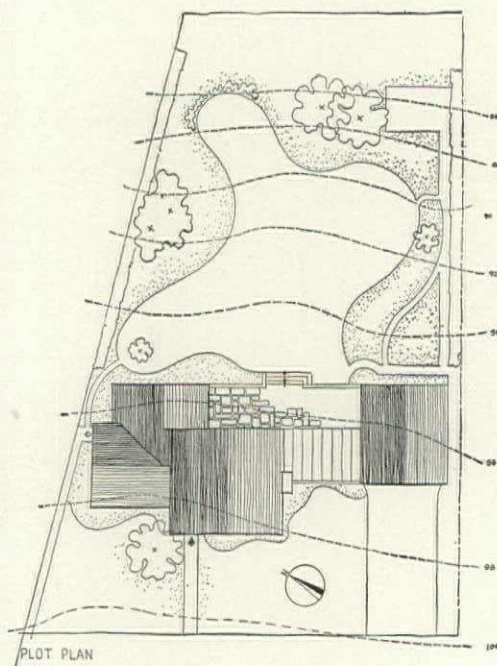


### 34. HOUSE ON PUGET SOUND, SEATTLE, WASH.



Richard Garrison Photos

A recognition of the importance of properly planned outdoor living areas is characteristic of most of the Puget Sound houses, and in this example it is given particularly clear expression. In addition to the terrace, sheltered by the house and garage, there is an outdoor extension of the living room, protected from sun as well as wind, and equipped with a fireplace. An advantage of the plan is that it gives a small house the appearance of considerable size at little expense. Less easily comprehended contributions to the new architecture of the Northwest are the Oriental touches on the exterior. Cost: 36 cents per cu. ft.





# ARTHUR LOVELESS AND LESTER FEY, ARCHITECTS



LIVING ROOM

## CONSTRUCTION OUTLINE

**FOUNDATION:** Concrete.

**STRUCTURE:** Exterior walls—first floor,  $\frac{3}{8}$  in. plywood, Harbor Plywood Co., second floor, T. & G. cedar siding; wood frame; inside—lath and plaster. Floor construction—oak finish flooring.

**ROOF:** Covered with Perfection shingles.

**SHEET METAL WORK:** Flashing and leaders—galvanized iron. Gutters—cedar.

**INSULATION:** Ceiling and attic—Celotex, Celotex Corp.

**WINDOWS:** Sash—wood casement. Glass—single strength, quality B, Libbey-Owens-Ford Glass Co.

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

**FLOOR COVERINGS:** Main rooms—oak. Kitchen and bathrooms—linoleum, Congoleum-Nairn, Inc.

**WALL COVERINGS:** Main rooms—wallpaper. Bathrooms—Marlite, Marsh Wall Products Co.

**WOODWORK:**—Fir throughout.

**HARDWARE:** By Russell & Erwin Mfg. Co.

**PAINTING:** Material by Reardon Co.

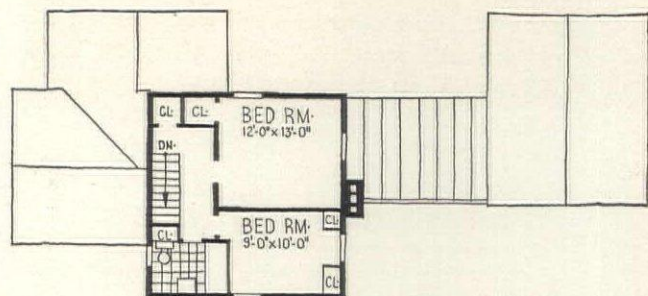
**ELECTRICAL INSTALLATION:** Wiring system—knob and tube. Switches—Bryant Electric Co. Fixtures—Cascade Fixture Co.

**KITCHEN EQUIPMENT:** Sink—Kohler Co. Cabinets—Burke Millwork Co.

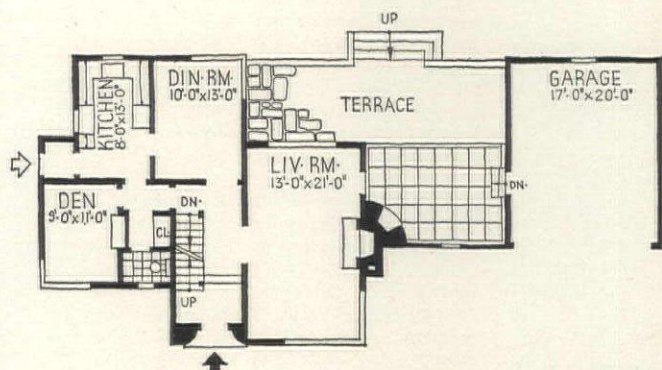
**BATHROOM EQUIPMENT:** Fixtures by Kohler Co.

**PLUMBING:** Soil pipes—cast iron. Hot and cold water pipes—galvanized iron.

**HEATING:** Forced warm air system, filtered and humidified, Roscoe Mfg. Co.



SECOND FLOOR



FIRST FLOOR

SCALE IN FEET  
0 5 10 15

## STAIR HALL





# 36. HOUSE IN MIAMI BEACH, FLA. POLEVITZKY & RUSSELL, ARCHITECTS

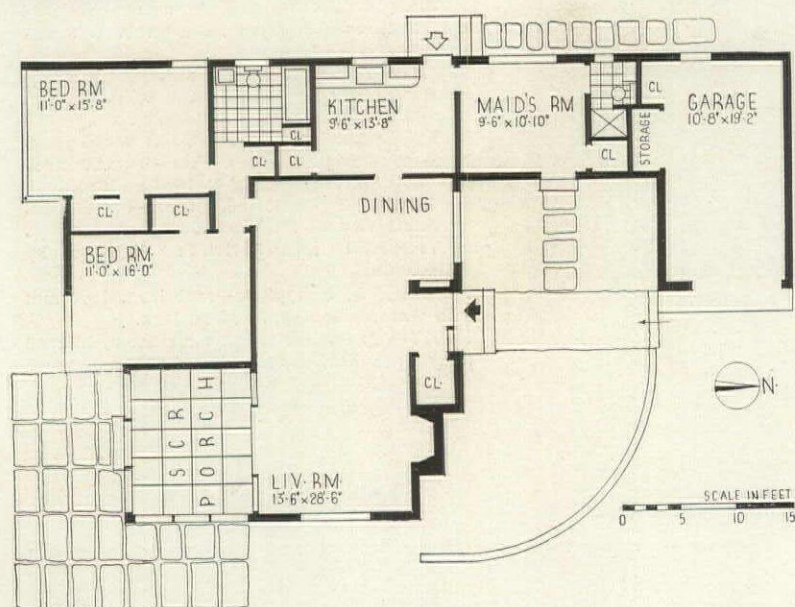


ENTRANCE



Ernest Graham Photos

SOUTH SIDE



The influence of climate is evident in this house, whose plan shows the effort made to obtain cross or through ventilation where possible; of equal interest is the clerestory window in the dining room, an excellent device for obtaining additional light and ventilation. The exterior is a good example of the contemporary trend in Florida residential architecture, modern in its general approach but distinctly regional in character. Cost: 49 cents per cu. ft.



## CONSTRUCTION OUTLINE

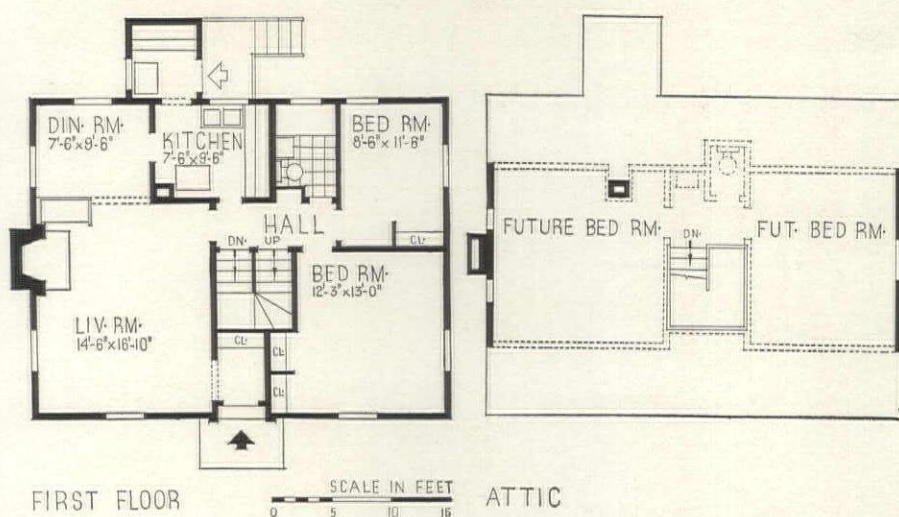
**FOUNDATION:** Reinforced concrete. Waterproofing—Sec Mfg. Co.  
**STRUCTURE:** Exterior walls—concrete block, exterior stucco; inside—studs, furring, U. S. Gypsum Co.'s rock lath and plaster.  
**ROOF:** Covered with 4-ply built-up asphalt and paper roofing, gravel top. Deck—covered with Parkay, Wood Mosaic Co.  
**INSULATION:** Outside walls, ceiling and roof—rock wool, Johns-Manville Corp. Weatherstripping—Chamberlin Metal Weather Strip Co.  
**WINDOWS:** Sash—Lemco, Lundell-Eckberg Mfg. Co. Glass—double strength quality A.  
**FLOOR COVERINGS:** Main rooms—carpet. Kitchen—linoleum, Congoleum-Nairn, Inc. Bathrooms—tile, Mosaic Tile Co.  
**WOODWORK:** Trim—magnolia. Interior doors—"Sturdibilt," M. & M. Woodworking Co. Front and garage door—covered with Presdwood, Masonite Corp.  
**HARDWARE:** By Schlage Lock Co.  
**PAINTING:** Materials by Sherwin-Williams Co.  
**ELECTRICAL INSTALLATION:** Switches—Bake-lite Corp. Fixtures—Novelty Lighting Corp.  
**KITCHEN EQUIPMENT:** Range—Estate Stove Co. Refrigerator—Sparks-Withington Co.  
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp. Cabinets—Lawco, F. H. Lawson Co.  
**PLUMBING:** Hot and cold water pipes—copper.  
**HEATING:** Bathroom heaters—Thermador Electric Mfg. Co. Water heater—American Radiator-Standard Sanitary Corp.



# 35. HOUSE IN BELLINGHAM, WASH. F. C. STANTON, ARCHITECT



Jukes Studio



A great deal of room has been packed into this small house, and the first floor plan makes the addition of two upstairs bedrooms a simple matter. The stairs have been placed to permit landing near the center of the second floor; their reversal allows for a more economical location of plumbing fixtures, and gives space for a closet in the entrance hall. The exterior is suitably modest in character, and completely free from the attempts at pretentiousness often seen in dwellings in this price class. Cost: about 18 cents per cu. ft.

## CONSTRUCTION OUTLINE

**FOUNDATION:** Poured concrete, steel reinforced.

**STRUCTURE:** Exterior walls—cedar siding, building paper, shiplap, studs; inside—plaster. Floor construction—wood joists, oak and fir finished flooring. Ceilings—plaster.

**ROOF:** Covered with cedar shingles.

**SHEET METAL WORK:** Steel throughout, Columbia Steel Co.

**WINDOWS:** Sash—wood, double hung.

**FLOOR COVERINGS:** Living room and halls—oak, E. L. Bruce Co. Bedrooms—fir.

**KITCHEN:** linoleum, Congoleum-Nairn, Inc.

**WOODWORK:** Trim and cabinets—fir.

**HARDWARE:** By Russell & Erwin Mfg. Co.

**ELECTRICAL INSTALLATION:** Wiring system—knob and tube. Switches—Harvey Hubbell, Inc.

**KITCHEN EQUIPMENT:** Range—wood burning. Sink—Kohler Co.

**BATHROOM EQUIPMENT:** All fixtures by Kohler Co.

**PLUMBING:** Soil pipes—cast iron. Hot and cold water pipes—copper, Chase Brass & Copper Co.

**HEATING:** Torrid Zone, steel furnace, fan, humidifier, and filters, wood fuel, hand fired, Lennox Furnace Co. Grilles—Hart & Cooley Mfg. Co. Thermostat—Minneapolis-Honeywell Regulator Co.



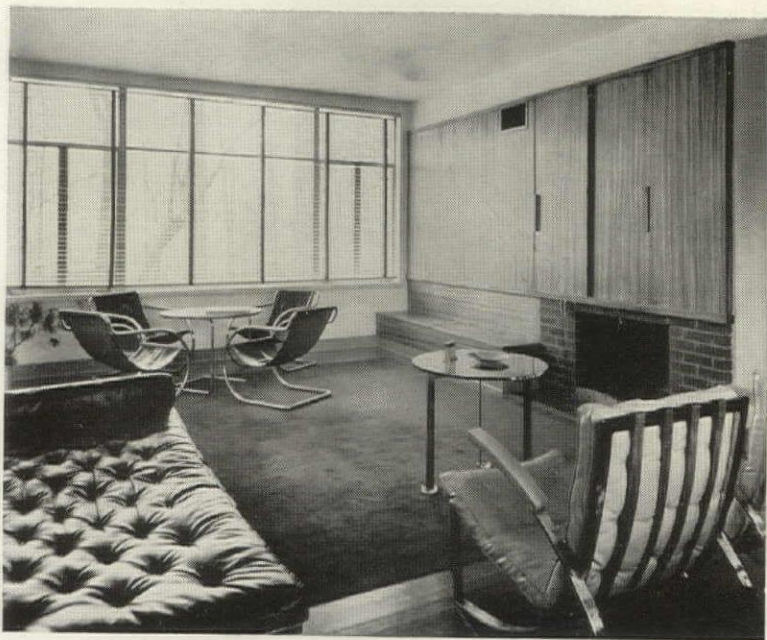
## A black and white photograph of a modern, single-story house with large windows and a flat roof, surrounded by tall, bare trees in a wooded setting. A small, detached garage is visible on the right side of the house.

THE ARCHITECTURAL FORUM





DINING ROOM



LIVING ROOM

## CONSTRUCTION OUTLINE

**FOUNDATION:** Poured concrete, Hermitage Cement Co. Waterproofing—Mulsified Asphalt Co.

**STRUCTURE:** Exterior walls—terra cotta tile, Clay Products Co., inside plaster; partitions—wood studs, National Gypsum Co. plaster, and some Douglas fir plywood.

**ROOF:** Covered with roofing felt, Weaver Wall Co. Deck—Masonite laid in mastic, Masonite Corp.

**FIREPLACE:** Damper—Cahill Co.

**SHEET METAL WORK:** Armco galvanized iron throughout, American Rolling Mill Co.

**INSULATION:** Roof—rock wool, National Gypsum Co.

**WINDOWS:** Sash and screens—Truscon Steel Co. Glass—double strength, quality B, and plate, Libbey-Owens-Ford Glass Co.

**FLOOR COVERINGS:** Main rooms—oak, Bond Woolf Co.; remainder—linoleum, Congoleum-Nairn, Inc.

**WOODWORK:** Doors—Huttig Sash & Door Co.; exterior and garage doors covered with Masonite, Masonite Corp.

**HARDWARE:** By Yale & Towne Mfg. Co. and Richard Wilcox Co.

**PAINTING:** Materials by Glidden Co., Sherwin-Williams Co. and American Asphalt Paint Co.

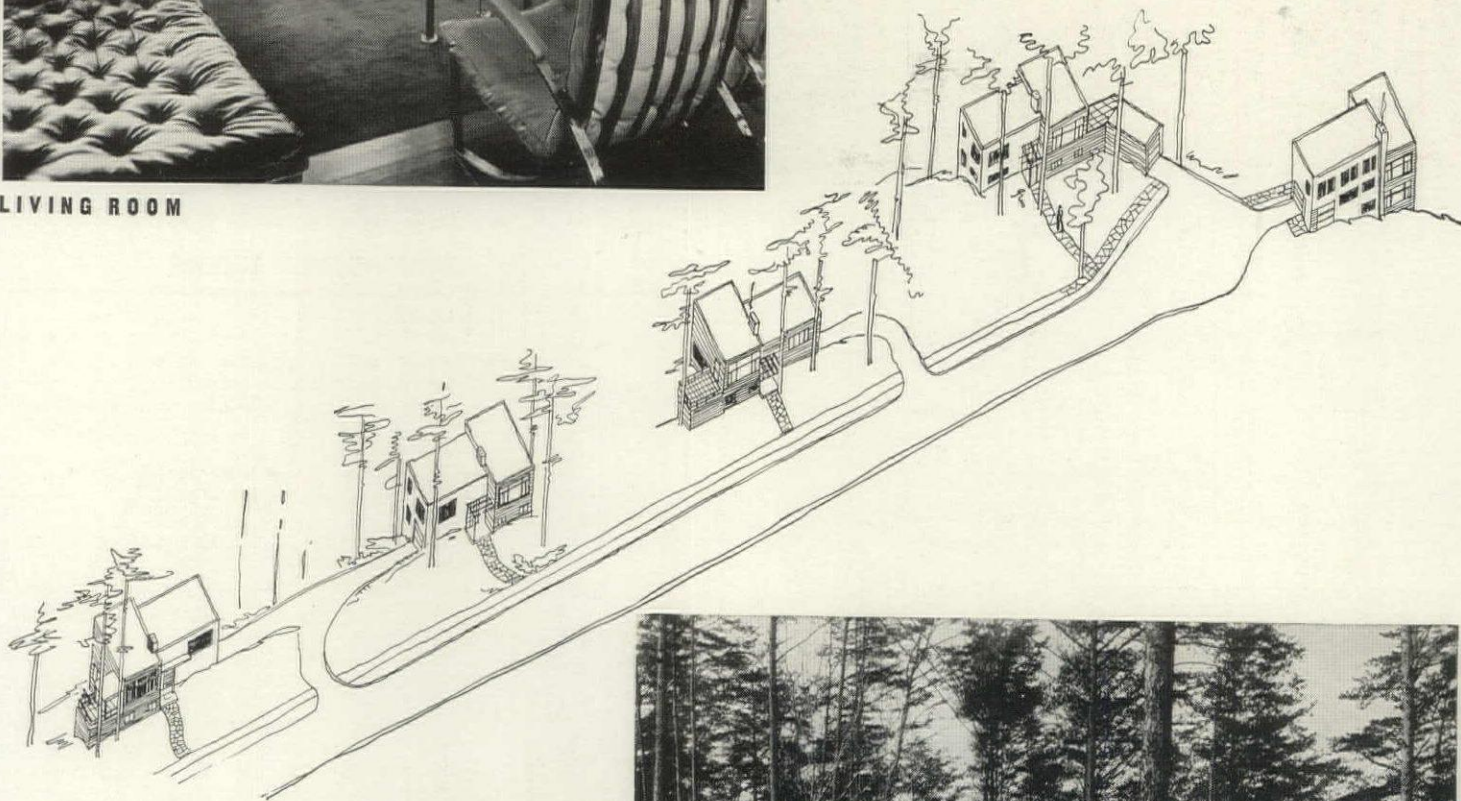
**ELECTRICAL INSTALLATION:** Wiring system—General Electric Co. Switches—Harvey Hubbell, Inc. Fixtures—Sears, Roebuck & Co. and Kurt Versen, Inc.

**KITCHEN EQUIPMENT:** Range and refrigerator—Westinghouse Electric & Mfg. Co. Sink and cabinets—Sears, Roebuck & Co.

**BATHROOM EQUIPMENT:** All fixtures—Briggs Beautyware, Briggs Mfg. Co.

**PLUMBING:** Pipes by Alabama Pipe & Foundry Co., National Tube Co., Republic Brass Works.

**HEATING AND AIR CONDITIONING:** Winter air conditioning, blower, filters, humidifier, stoker, American Furnace Co. Boiler—Atlas Foundry Co. Grilles—Auer Register Co. Thermostat—Minneapolis-Honeywell Regulator Co.



The Seymour residence, second to be built, uses the same wall materials and detail as the first. It is also similar in its general arrangement, with staggered floors and entrance level.



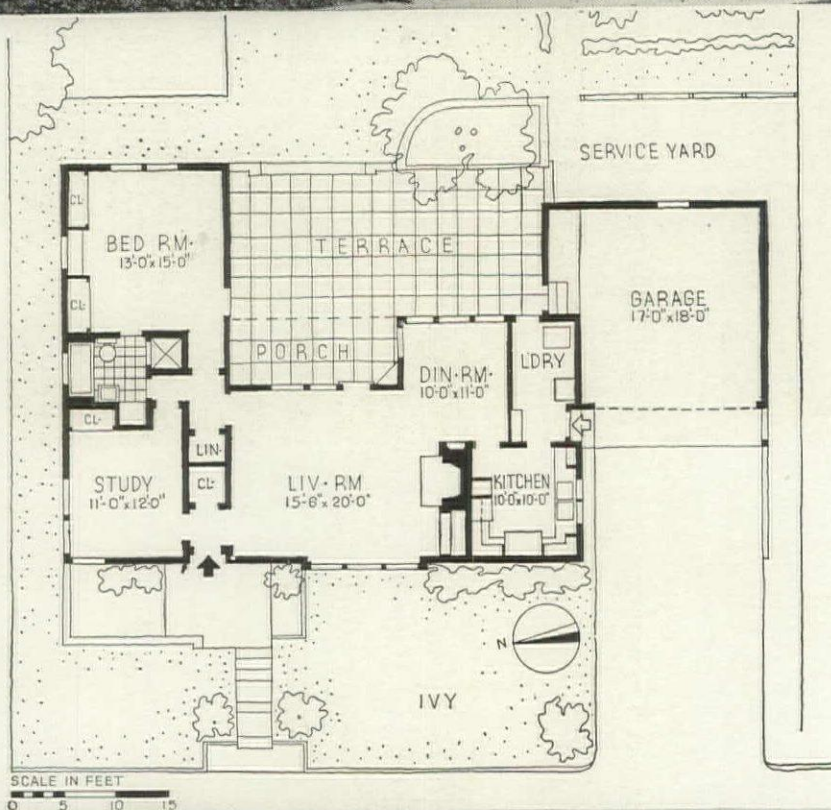


# 38. HOUSE IN BRENTWOOD, CALIF. WINCHTON LEAMON RISLEY, ARCHITECT



Miles Berné Photos

The owners required "a one-story, maidless house with ample space for outdoor living, well protected from the prevailing winds. The owner, an enthusiastic gardener, desired the garden to be visible from the main living spaces." The plan is well adapted to meet these requirements, particularly in the relation of indoor and outdoor spaces. The one bath also serves as the guest lavatory, and the study is properly placed for use as an extra sleeping room. Cost: 27 cents per cu. ft.



## CONSTRUCTION OUTLINE

**FOUNDATION:** Reinforced concrete.  
**STRUCTURE:** Exterior walls; stucco on metal lath, Brownskin paper, Brown Co., wood frame; inside—metal lath and plaster, U. S. Gypsum Co. Floor construction—oak finish flooring.  
**ROOF:** Covered with Perfection shingles.  
**FIREPLACE:** Damper—Superior Fireplace Co.  
**SHEET METAL WORK:** Galvanized iron throughout.  
**WINDOWS:** Sash—wood, double hung. Glass—single strength, quality A, Pennvernon, Pittsburgh Plate Glass Co.  
**FLOOR COVERINGS:** Main rooms—oak. Kitchen and bathrooms—linoleum, Armstrong Cork Co.  
**WOODWORK:** Pine throughout.  
**HARDWARE:** By P. & F. Corbin.  
**PAINTING:** Materials by Sherwin-Williams Co.  
**ELECTRICAL INSTALLATION:** Switches—Bryant Electric Co. Fixtures—Luminaire Co.  
**KITCHEN EQUIPMENT:** Range—General Electric Co. Refrigerator—Electrolux, Servel, Inc. Sink—American Radiator-Standard Sanitary Corp.  
**BATHROOM EQUIPMENT:** All Fixtures by American Radiator-Standard Sanitary Corp.  
**PLUMBING:** Hot and cold water pipes—galvanized steel.  
**HEATING:** Marvelaire gas fired forced air furnace, Water heater—Race Air Conditioning Co.

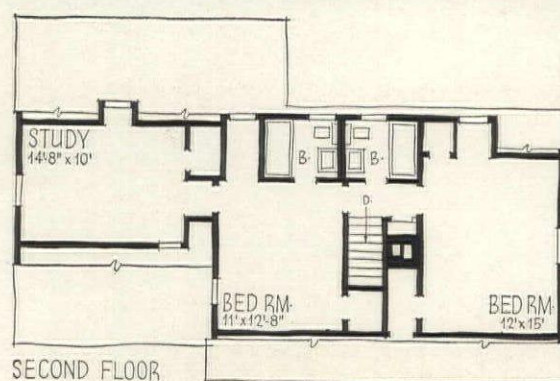
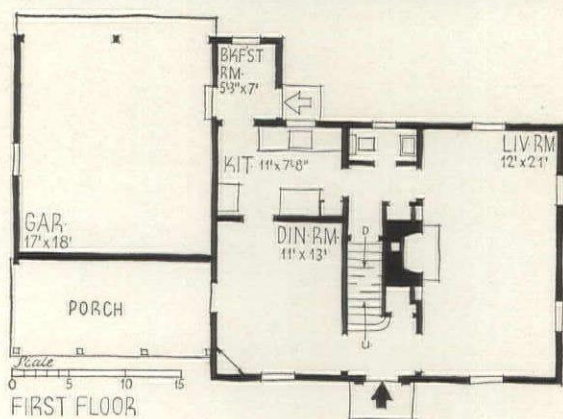




# 39. HOUSE IN CHATHAM MANOR, N. J. RANDOLPH EVANS, ARCHITECT



Gustav Anderson



## CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—wood frame, shingles, sheathing; inside—metal lath and plaster.  
**ROOF:** Covered with wood shingles.  
**INSULATION:** Attic floor—rock wool, Johns-Manville Corp.  
**WINDOWS:** Sash—wood, double hung, Andersen Corp.  
**FLOOR COVERINGS:** Main rooms—oak. Kitchen—linoleum, Congoleum-Nairn, Inc.  
**HARDWARE:** By Schlage Lock Co.  
**PAINTING:** Material by Devco & Reynolds Co.  
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp.  
**HEATING:** Steam system. Boiler and radiators—American Radiator-Standard Sanitary Corp. Oil burner—Delco Appliance Div., General Motors Corp. Thermostat—Minneapolis-Honeywell Regulator Co.

A familiar and practical type is illustrated here. In appearance a one-story dwelling, the house is actually a complete two-story arrangement with the dormers concealed, as is customary, at the rear. There is a central stair, which works well with the upstairs; the main departure from the standard layout is the downstairs lavatory, conveniently located between the kitchen and living room. An equally useful addition to the plan is the small breakfast room, so placed that it also serves as a service entry. Cost: 38 cents per cu. ft.

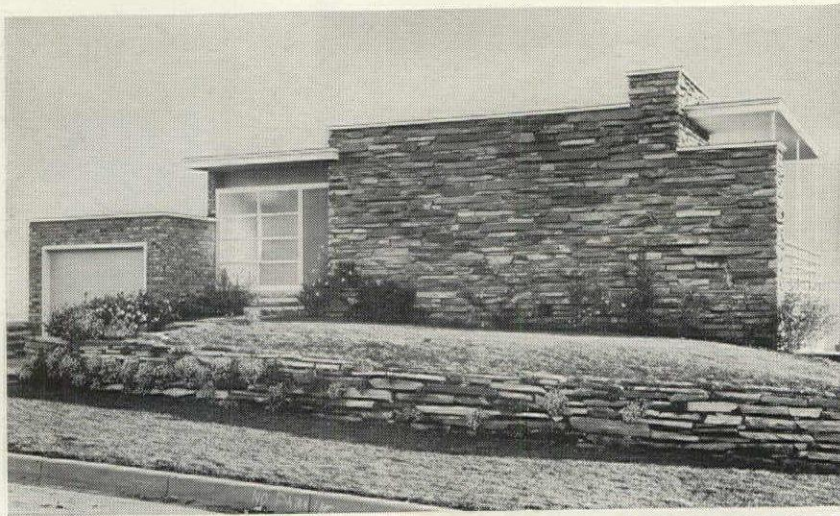


40. HOUSE IN SALT LAKE CITY, UTAH

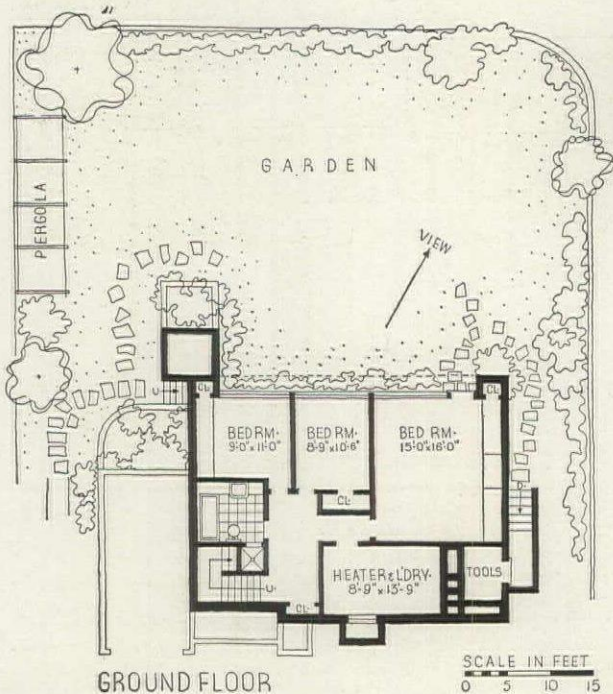
Sliding windows and panels, no invention of modern building, are nevertheless among its characteristic features, and their use is well illustrated in this example. The house shows a reversed arrangement of living and sleeping floors, the result of a sloping site. View was an important consideration in the design, and its influence is particularly evident in the large curved window of the living-dining room. The overhangs were arranged to screen the windows in summer and to admit the sun in winter, a successful experiment according to the architect, who states that "on winter days we find that when the sun shines it provides sufficient heat for the house." A deliberate attempt was made to add interest to the exterior by a varied use of materials. Cost: 40 cents per cu. ft.



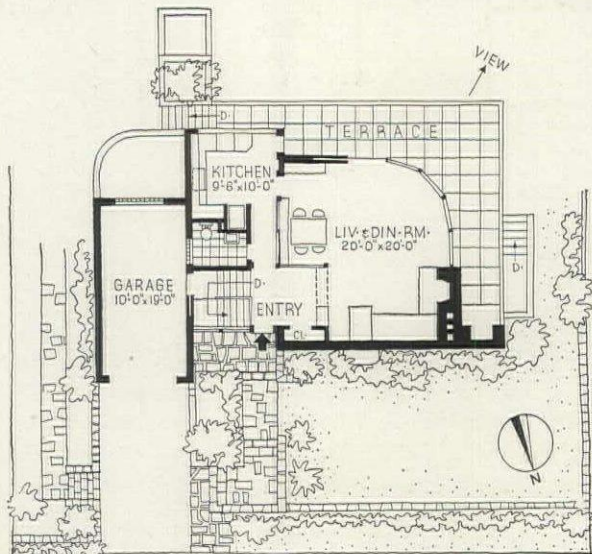
D. F. Davis



ENTRANCE SIDE

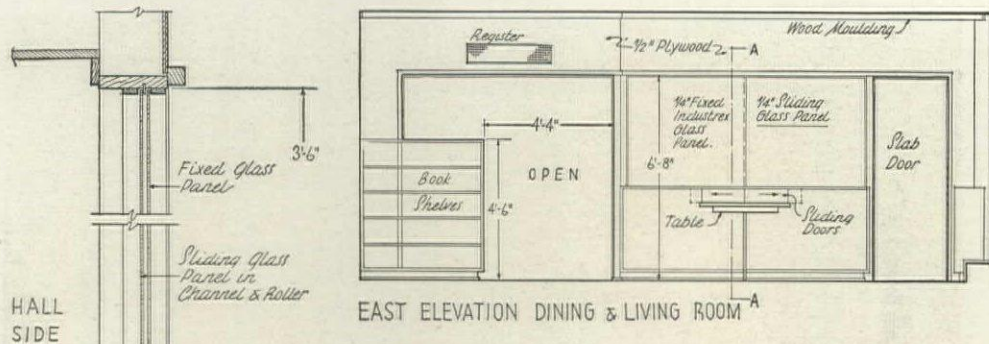


GROUND FLOOR



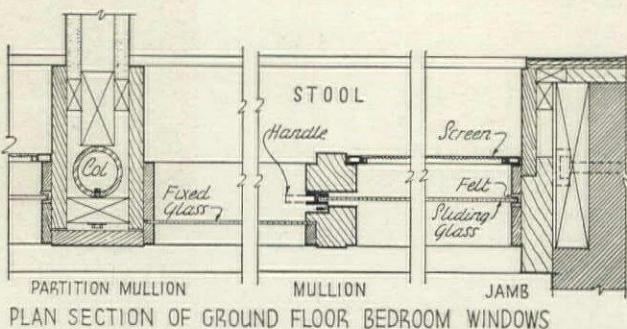
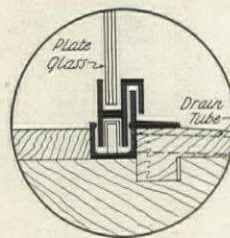
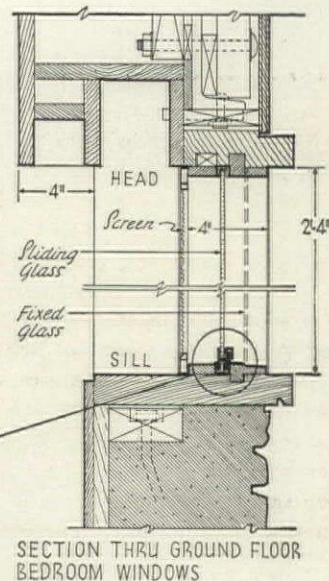
FIRST FLOOR





HALL SIDE

SECTION A-A THRU CABINET



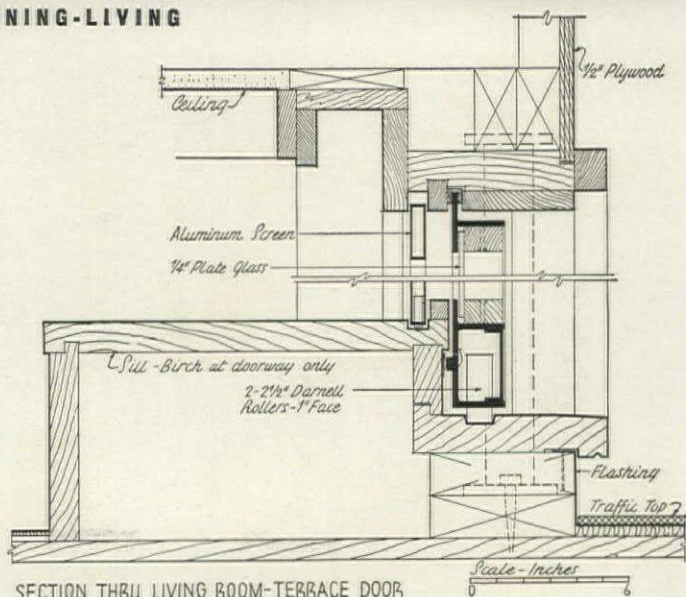
D. F. Davis Photos



DINING-LIVING

## CONSTRUCTION OUTLINE

**FOUNDATION:** Concrete block. Water-proofing, American Asphalt Co.  
**STRUCTURE:** Exterior walls—local flagstone, 2 in. Thermax, Celotex Corp., wood strips, Super-Harbord plywood, Harbor Plywood Corp. Floor construction—wood joist, sub-floor and plywood finish.  
**ROOF:** Covered with composition roofing, American Asphalt Co.  
**SHEET METAL WORK:** Galvanized iron, Armco. American Rolling Mill Co.  
**INSULATION:** Outside walls—Celotex Corp. and Reynolds Co. metallation. Roof—U. S. Rockwool Co. rockwool.  
**WINDOWS:** Sash—sliding; extruded aluminum shapes by Kawneer Co.; screens (fixed)—Orange Screen Co. Glass—Libbey-Owens-Ford Glass Co.  
**FLOOR COVERINGS:** Living room—Masonite finish, Masonite Corp. All other rooms—linoleum, Armstrong Cork Co.  
**WOODWORK:** Interior doors—Farley & Loetscher Mfg. Co. Garage doors—Frantz Mfg. Co. Hardware: By Schlage Lock Co.  
**PAINTING:** Materials by Pratt & Lambert, Inc. and I. F. Laucks, Inc.  
**KITCHEN EQUIPMENT:** Range—Magic Chef, American Stove Co. Refrigerator—Electrolux, Servel, Inc. Ventilating fan—Trade Wind Co.  
**BATHROOM EQUIPMENT:** All fixtures by Kohler Co.  
**PLUMBING:** Water pipes—copper, Chase Brass & Copper Co.  
**HEATING AND AIR CONDITIONING:** Hot air system; gas fired Janitrol burner, Surface Combustion Corp. Boiler, unit filters, humidifiers and cooling, Fitzgibbons Boiler Co., Inc. Grilles—Hart & Cooley Mfg. Co. Thermostat—Minneapolis-Honeywell Regulator Co. Water heater—Ever Hot Heater Co.



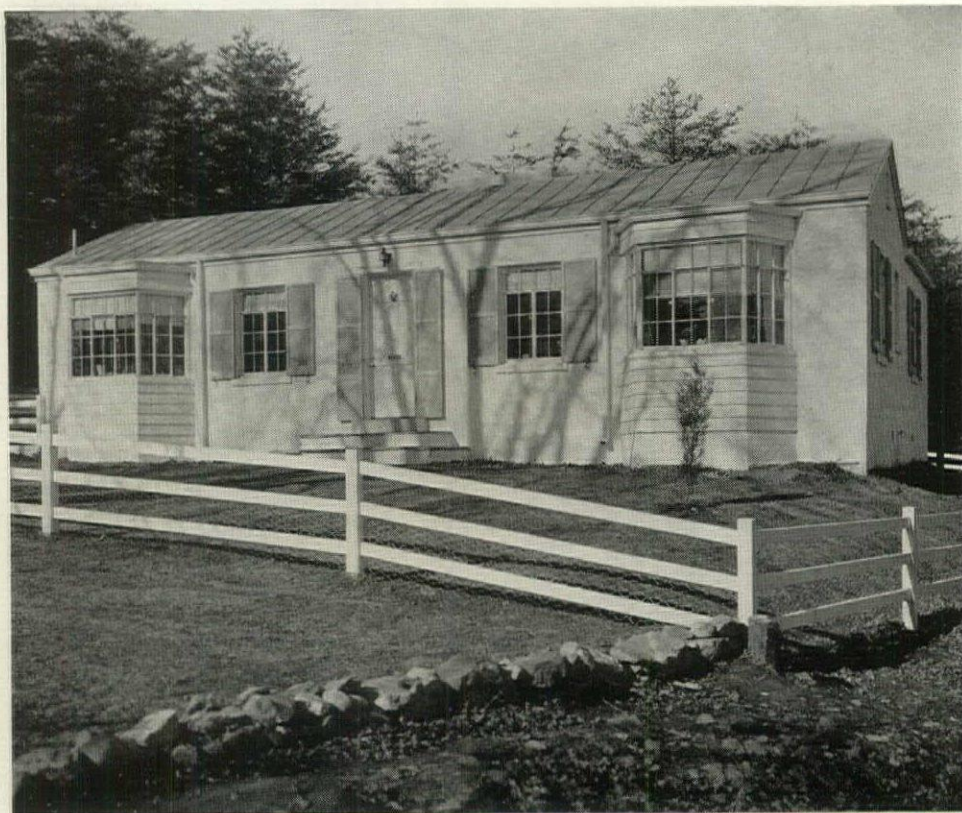


# 41. HOUSE IN WASHINGTON, D. C. JOHN J. WHELAN, ARCHITECT

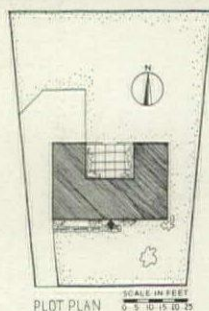
Several features uncommon in current small house work are shown here, in particular the completely symmetrical plan and the front entrance directly into the center of the living room. The latter makes use of the full height of the roof, with the beams made less conspicuous by the simple device of painting them white. Two bays, shutters and small-paned windows combine to give an appearance of intimacy to the front, and one bay provides unusually pleasant dining space in the kitchen. Cost: 39 cents per cu. ft.

## CONSTRUCTION OUTLINE

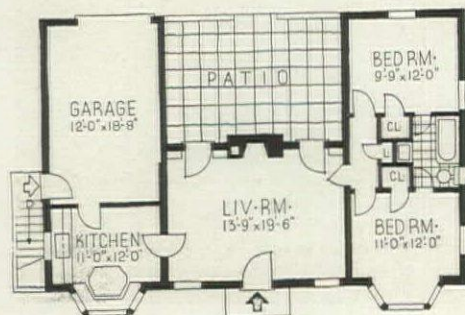
**FOUNDATIONS:** Cinder block.  
**STRUCTURE:** Exterior walls—brick veneer, cinder block back-up. Interior partitions—wood studs and plaster.  
**ROOF:** Covered with sheet metal.  
**FIREPLACE:** Damper—H. W. Covert Co.  
**SHEET METAL WORK:** Copper, 16 oz., throughout.  
**INSULATION:** Attic floor—rockwool.  
**WINDOWS:** Sash—Fenestra, Detroit Steel Products Co. Glass—single strength, A.  
**WOODWORK:** Cabinets and doors—Morgan Sash & Door Co. Garage doors—Overhead Door Co.  
**PAINTING:** All material by E. I. Du Pont de Nemours & Co.  
**KITCHEN EQUIPMENT:** Range, water heater, refrigerator—Edison General Electric Appliance Co.  
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Mfg. Corp.  
**PLUMBING:** Hot and Cold water pipes—copper, Chase Brass & Copper Co.  
**HEATING:** Warm air including winter air conditioning.



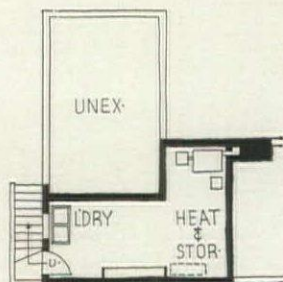
Walter D. Wilcox, A.R.P.S., Photos



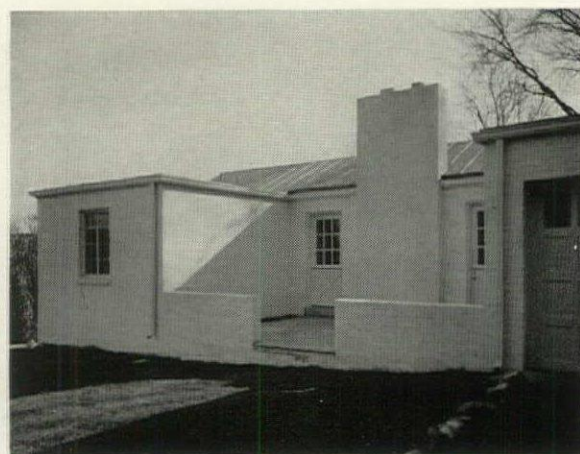
PLOT PLAN SCALE IN FEET 0 5 10 15 20



FIRST FLOOR



BASEMENT SCALE IN FEET 0 5 10 15



NORTH SIDE



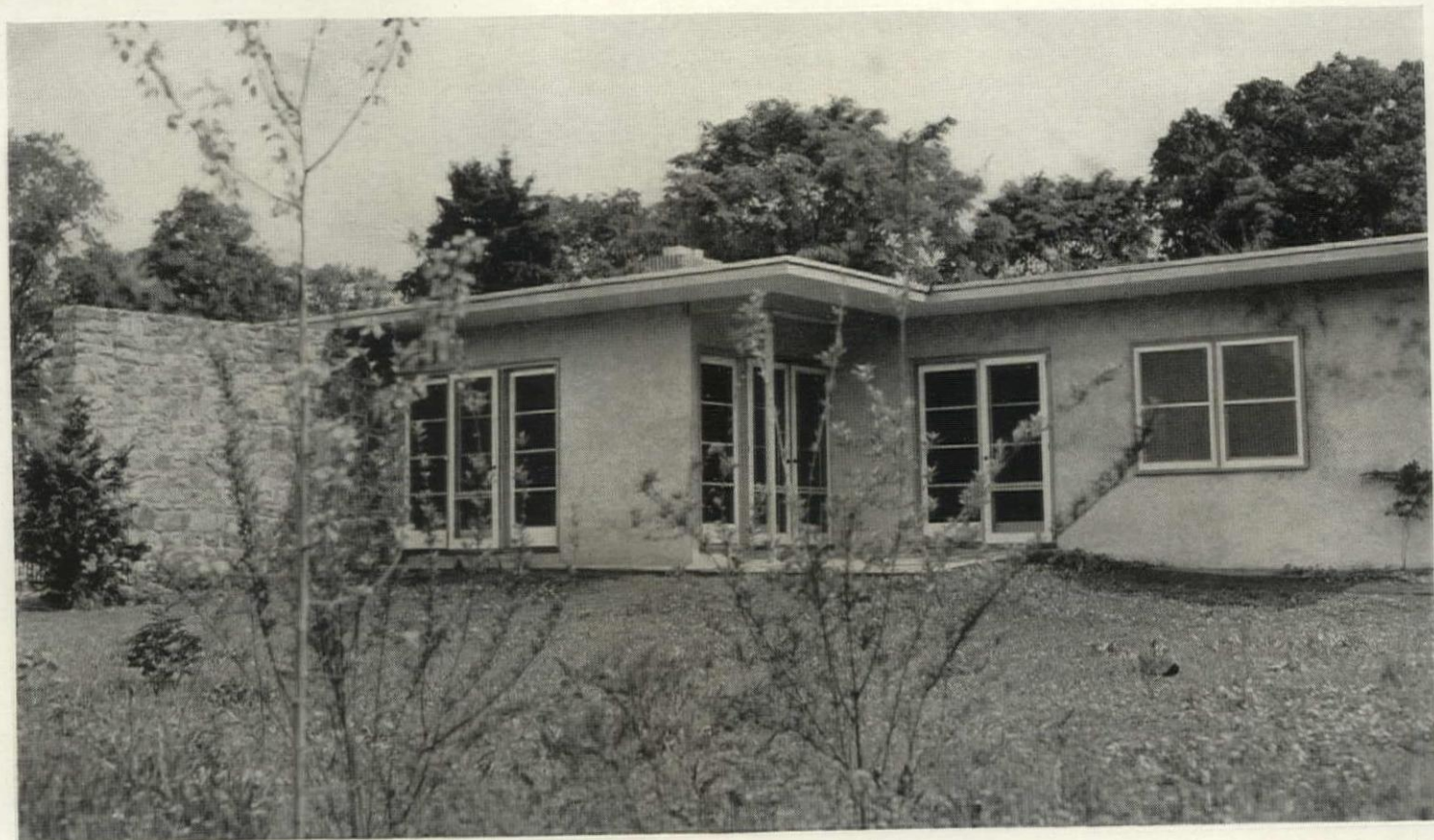
KITCHEN



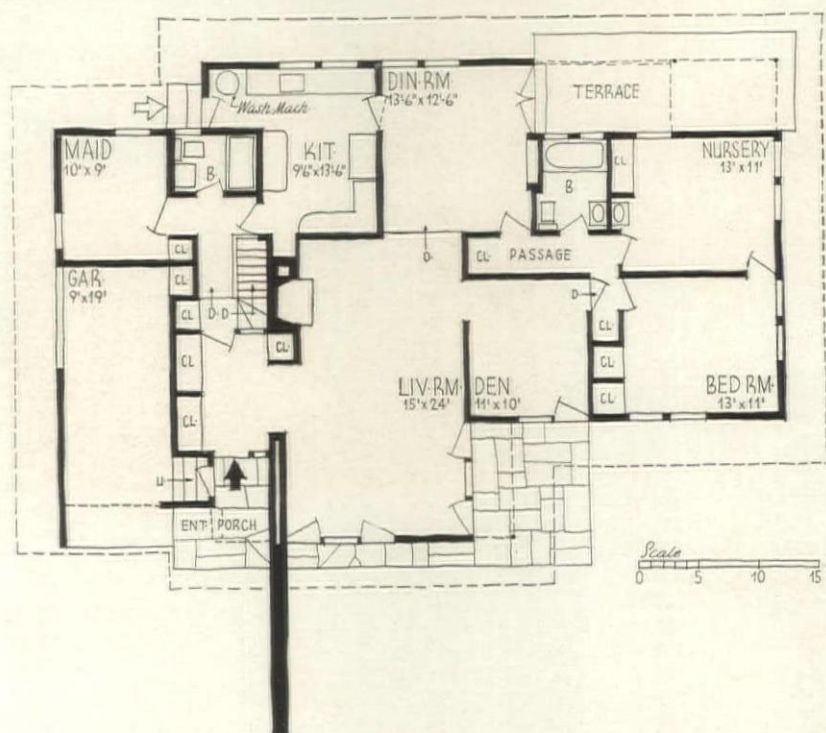
LIVING ROOM



## 42. HOUSE IN MADISON, N. J. JAN RUHTENBERG, DESIGNER



ELMER TUTHILL, ARCHITECT



This house was designed for a family of four; the den is convertible into a guest room if extra sleeping space is needed. The plan is open, with the entrance hall, living room and dining room part of the same space. A very practical means of avoiding the expense of a third bathroom is shown in the nursery, where a lavatory has been installed. Outdoor living areas have been provided at both the front and rear, the former screened from the entrance by a free-standing wall of masonry and the latter within convenient reach of the kitchen. Cost: about 41 cents per cu. ft.

### CONSTRUCTION OUTLINE

**FOUNDATION:** Cinder block and concrete.  
**STRUCTURE:** Exterior walls—fieldstone, stucco; inside—Homasote Co. board and U. S. Plywood Corp. plywood. Floor construction—hardwood finish flooring. Ceilings—Homasote Co., Textile Co. and U. S. Gypsum Co.  
**ROOF:** Covered with asphalt roofing paper.  
**SHEET METAL WORK:** Flashing—copper.  
**INSULATION:** Homasote throughout, Homasote Co.  
**WINDOWS:** Sash—wood. Glass—Mississippi Glass Co.  
**FLOOR COVERINGS:** Main rooms—waxed, Minwax Co. Kitchen—linoleum, Armstrong Cork Co.  
**WALL COVERINGS:** Living room and halls—plywood, U. S. Plywood Corp. Remainder of rooms—Homasote, Homasote Co.  
**WOODWORK:** Trim—pine. Garage doors—Frantz Mfg. Co.  
**HARDWARE:** Brass.  
**PAINTING:** Materials by U. S. Gypsum Co., Devoe & Reynolds Co., Minwax Co.  
**ELECTRICAL INSTALLATION:** Fixtures—Kurt Versen, Inc.  
**KITCHEN EQUIPMENT:** Range—gas, Standard Gas Equipment Co. Refrigerator—electric, General Electric Co.  
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp. Cabinets—Miami Cabinet Div., Philip Carey Co.  
**PLUMBING:** Pipes—galvanized iron.  
**HEATING:** Janitrol unit, Surface Combustion Corp. Radiators—American Radiator-Standard Sanitary Corp. Water heater—Penfield, Wood Mfg. Co.

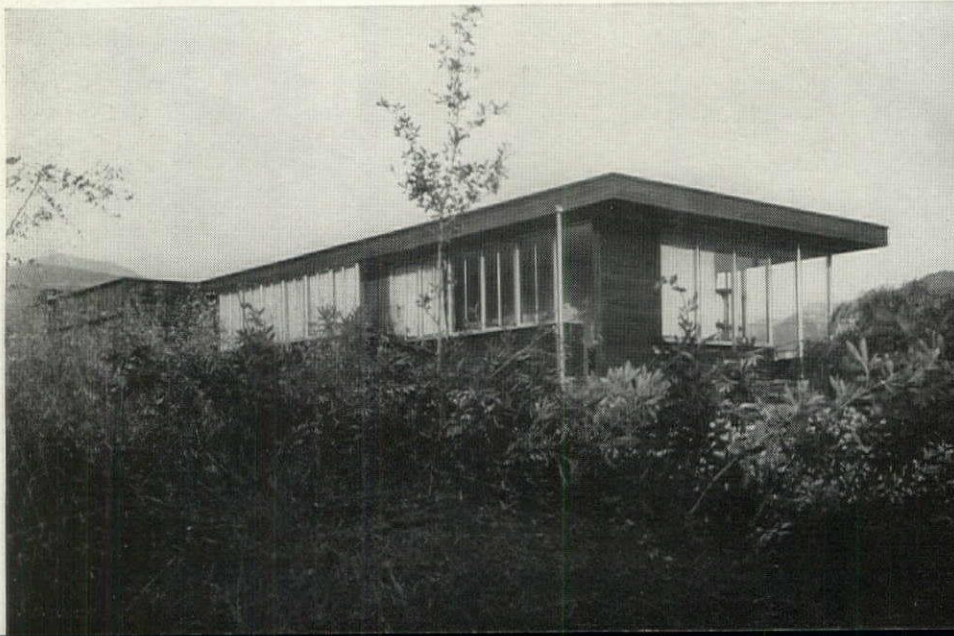
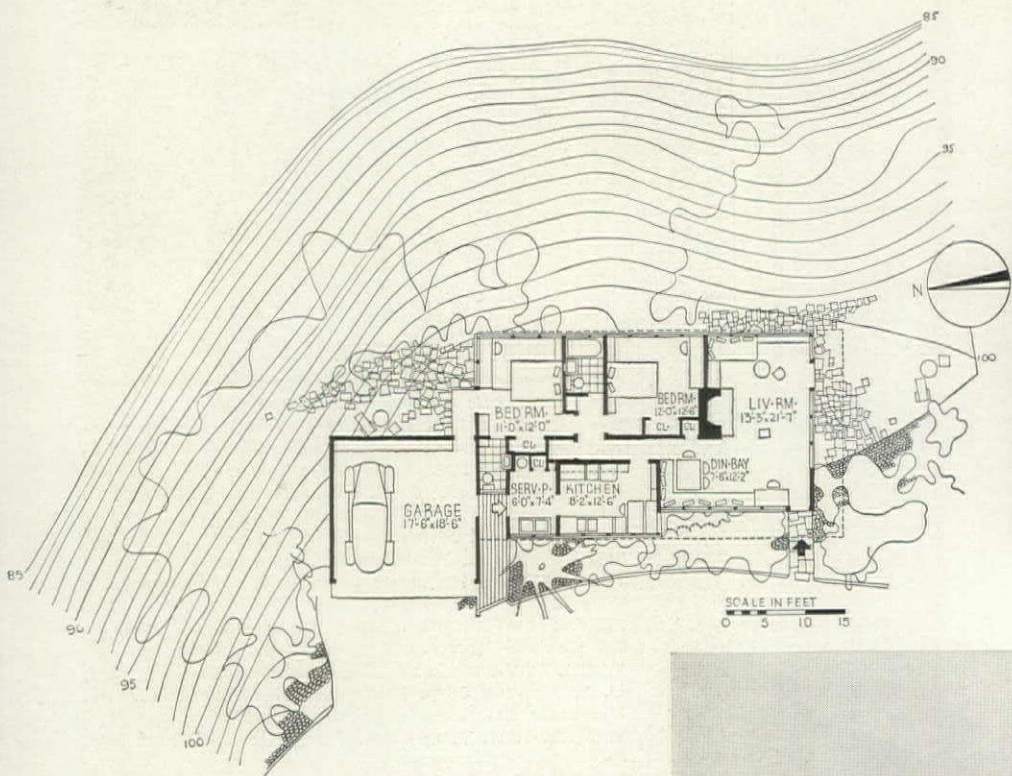


43. HOUSE IN GLENDALE, CALIFORNIA

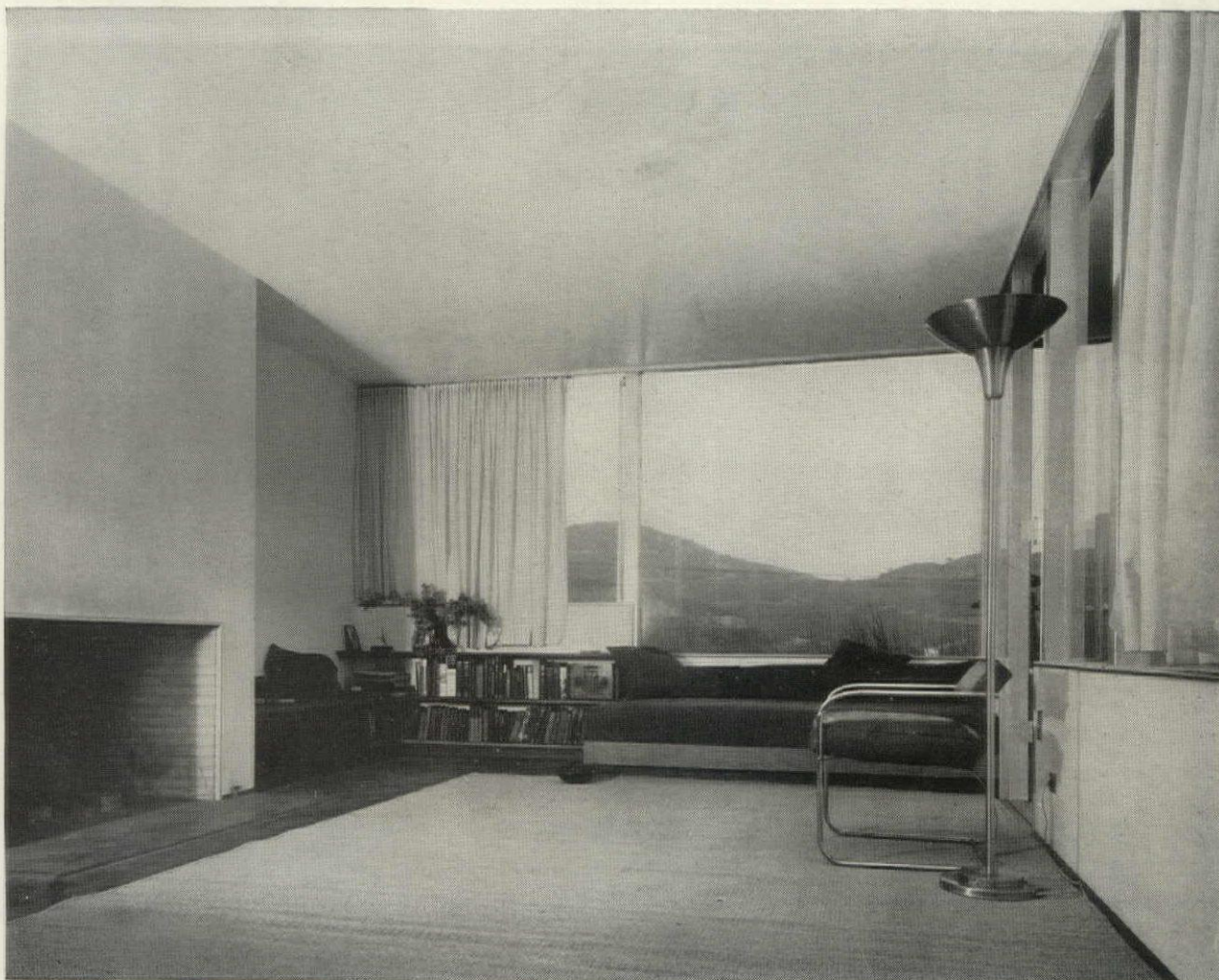
The familiar pattern of Mr. Neutra's residential work is easily recognized here, in the generous and orderly fenestration, the quiet interiors and the well-studied plan. One change that has tremendously enhanced the appearance of the exterior is the use of natural wood siding. The house was designed for a young couple who presented no unusual requirements. A limited amount of level ground suggested the development of a compact rectangle whose interior arrangement has been worked out with admirable efficiency. Cost: 34 cents per cu. ft.



Luckhaus Photos







LIVING ROOM

# CONSTRUCTION OUTLINE

**FOUNDATION:** Reenforced concrete. Water-proofing—Anti-Hydro Waterproofing Co.

**STRUCTURE:** Standardized diagonally braced timber chassis, redwood shiplap siding: inside—plaster, U. S. Gypsum Co. Floor construction—reenforced concrete slab.

**ROOF:** Covered with composition roofing, Johns-Manville Corp.

**FIREPLACE:** Superior Fireplace Co. damper.

**SHEET METAL WORK:** Flashing—galvanized sheet metal, Columbia Steel Co.

**WINDOWS:** Sash—steel casements, Druwhit Metal Products Co. Glass—quality A, Pittsburgh Plate Glass Co.; Factrolite obscure glass in bathroom—Mississippi Glass Co.

**WOODWORK:** Trim—Douglas fir. Cabinets—redwood and white pine. Doors—"Sturdibilt" M. & M. Woodworking Co.

**HARDWARE:** By Schlage Lock Co.

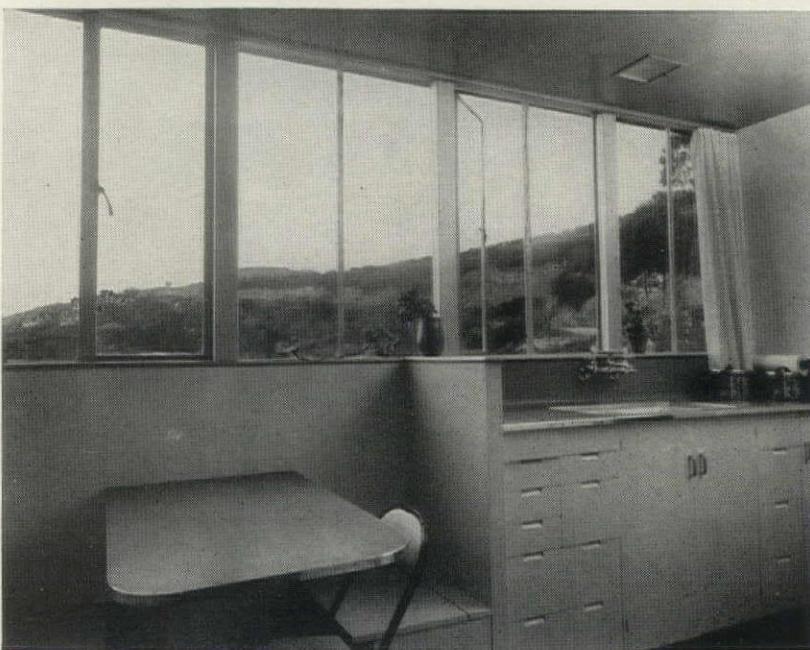
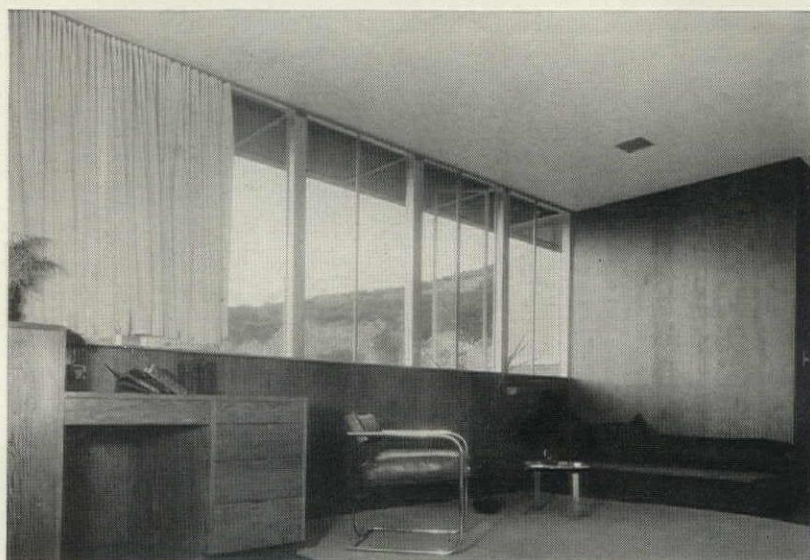
**ELECTRICAL INSTALLATION:** Wiring system—flexible conduit. Switches—tumbler. Fixtures—Pryne & Co., Inc.

**KITCHEN EQUIPMENT:** Range—Wedge-wood, James Graham Mfg. Co. Refrigerator—Crosley Co. Sink—American Radiator-Standard Sanitary Mfg. Co. Cabinets—white pine.

**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp.

**PLUMBING:** Cold water pipes—galvanized steel. Hot water pipes—galv. wrought iron.

**HEATING:** Recessed built-in gas wall heaters and gas outlets for portable heaters, Andrews Heater Co.

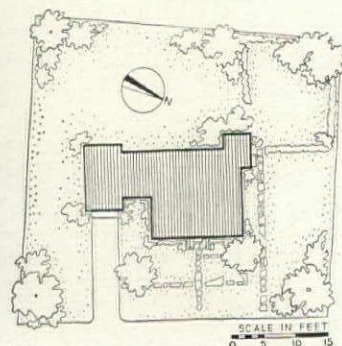




## 44. HOUSE IN

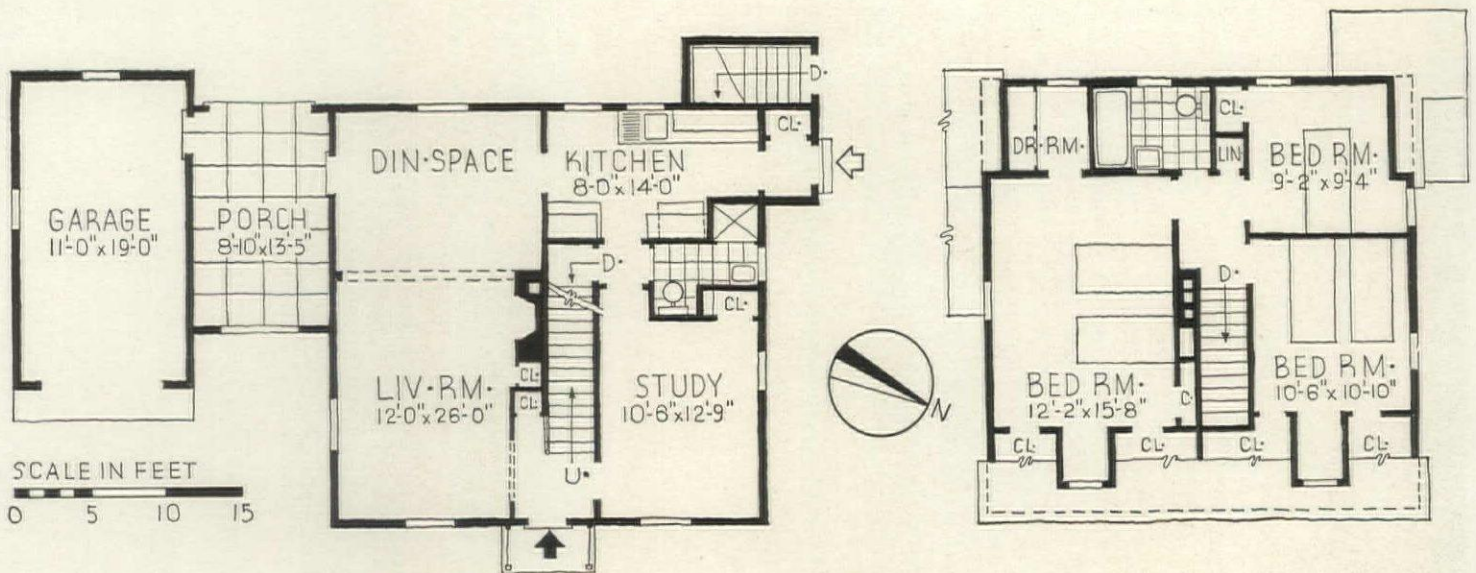


*Harold A. Willoughby & Associates*



The architect comments: "A house was desired that permitted the use of the study as a guest bedroom, or even as a dining room. The exterior required was that of a Colonial type low-eaved cottage, to be built in a suburban neighborhood with houses similar in general style, size and cost. The lot chosen was level, and of ample size to allow for the placing of the house in the center of the lot. The porch was placed at the rear to get the proper exposure." Cost: 30 cents per cu. ft.



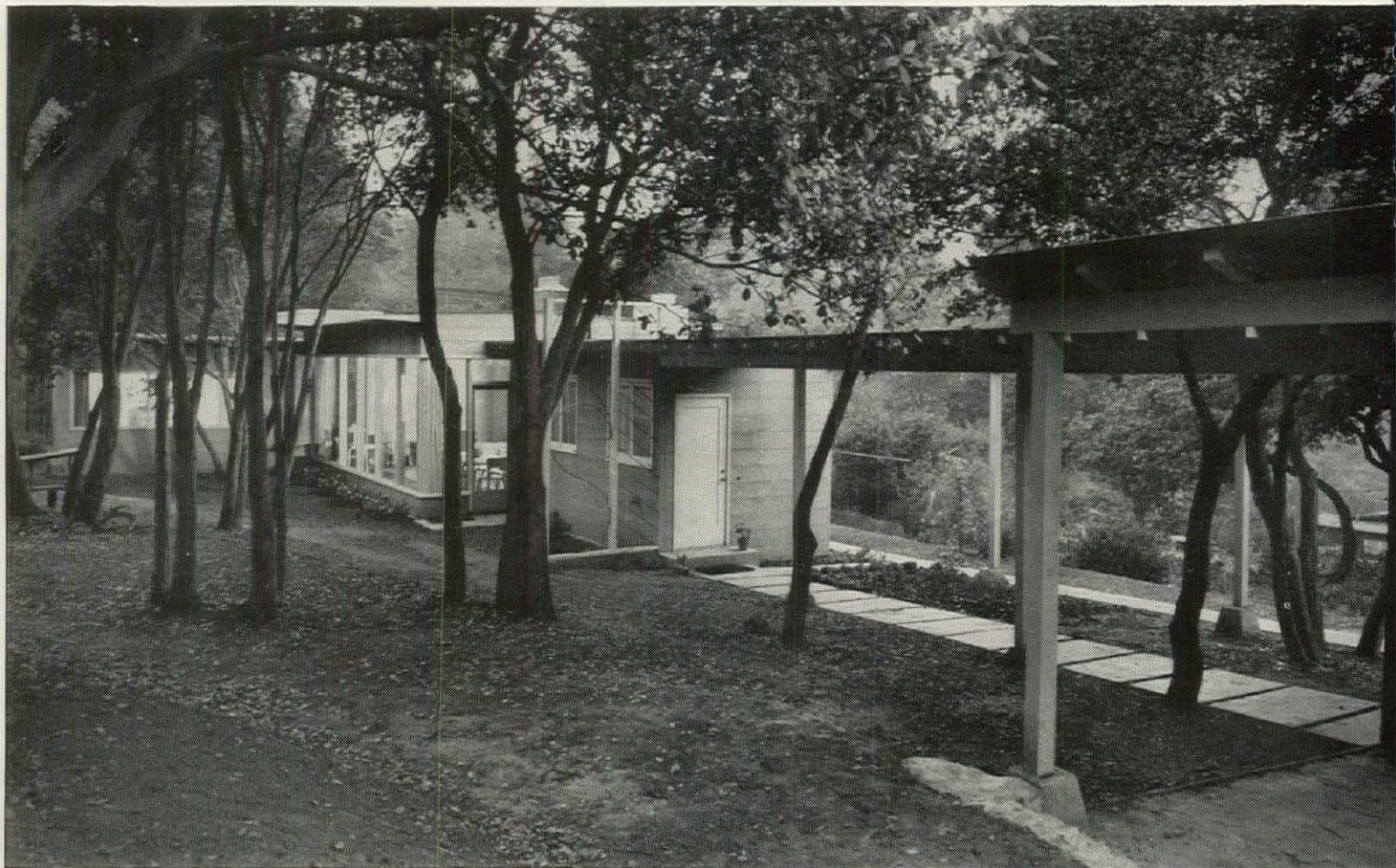


#### CONSTRUCTION OUTLINE

**FOUNDATION:** Poured concrete.  
**STRUCTURE:** Exterior walls—studs, sheathing, red cedar shingles and clapboards; inside—gypsum lath and plaster, U. S. Gypsum Co. Floor construction—Douglas fir sub-floor and oak finish flooring. Ceilings—lath and plaster.  
**ROOF:** Covered with asphalt shingles, Flintkote Co.  
**SHEET METAL WORK:** Flashing—16 oz. copper. Gutters—flr. Leaders—Toncan metal, Republic Steel Corp.  
**INSULATION:** Outside walls and attic floor—Flintkote Co.  
**WINDOWS:** Sash—double hung, wood. Glass—single strength, quality B.  
**STAIR:** Risers and stringers—white pine. Treads—oak.  
**FLOOR COVERINGS:** Main rooms—oak. Kitchen—linoleum. Bathrooms—tile.  
**WALL COVERINGS:** Living room—one wall wood paneling. Remainder of rooms—plaster on gypsum lath, U. S. Gypsum Co.  
**WOODWORK:** White pine throughout.  
**HARDWARE:** By Lockwood Hardware Mfg. Co.  
**ELECTRICAL INSTALLATION:** Wiring system—BX.  
**KITCHEN EQUIPMENT:** Range—Magic Chef, American Stove Co. Refrigerator—General Electric Co. Sink—Briggs Mfg. Co.  
**BATHROOM EQUIPMENT:** All fixtures Briggs Beautyware, Briggs Mfg. Co.  
**PLUMBING:** Soil pipes—cast iron. Hot and cold water pipes—iron size brass.  
**HEATING:** One pipe steam system. Boiler and radiators—H. B. Smith Mfg. Co. Oil burner—Timken Silent Automatic Div., Timken Detroit Axle Co. Thermostat—Minneapolis-Honeywell Regulator Co. Water heater—Taco Heaters, Inc.

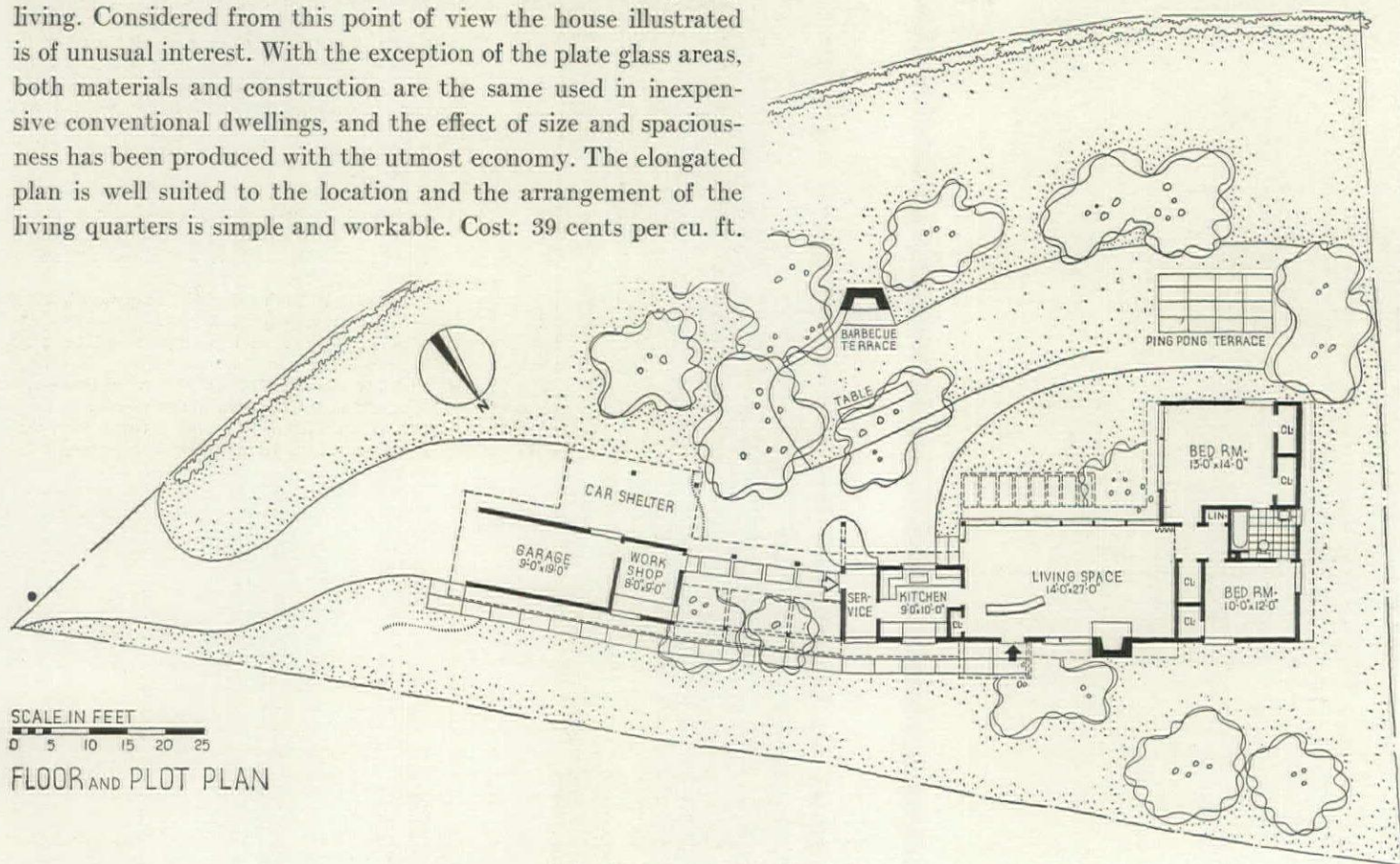


## 45. HOUSE IN SAN FRANCISCO, CALIFORNIA

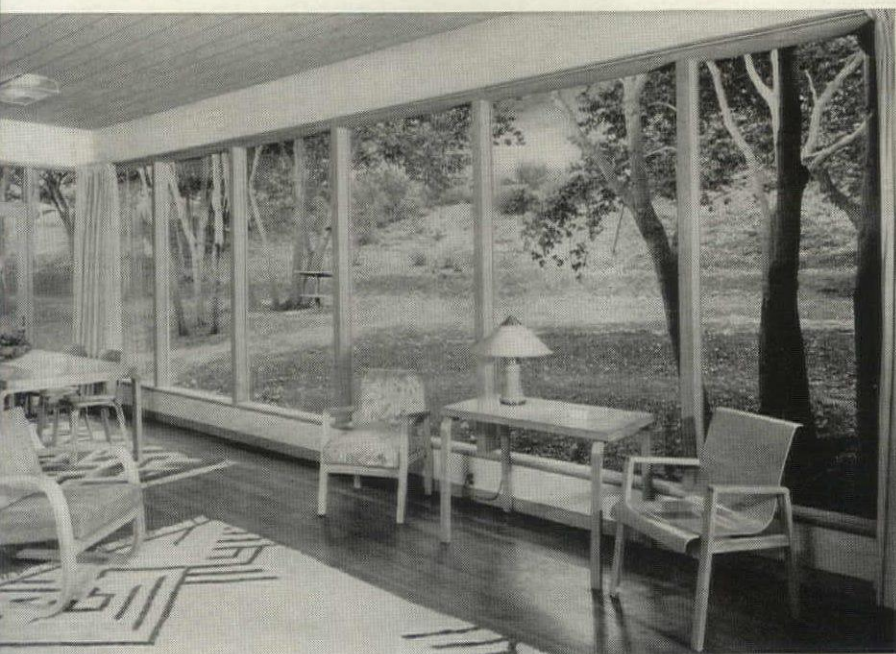
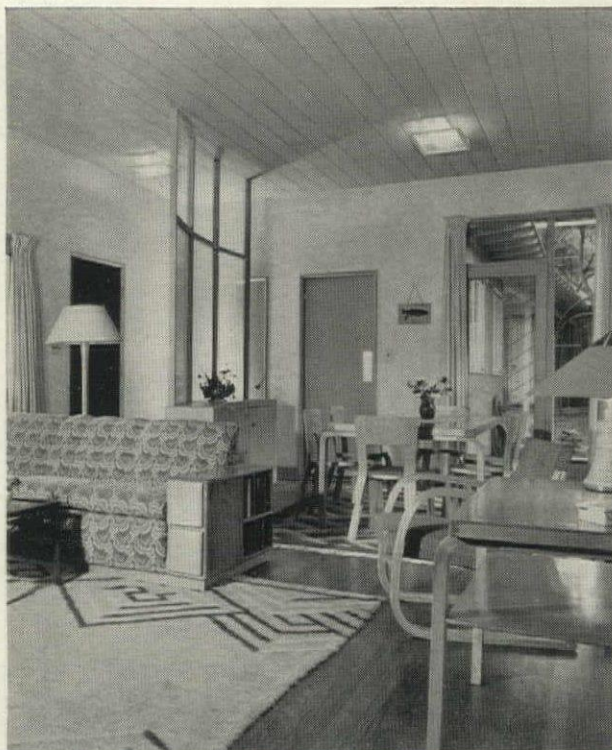
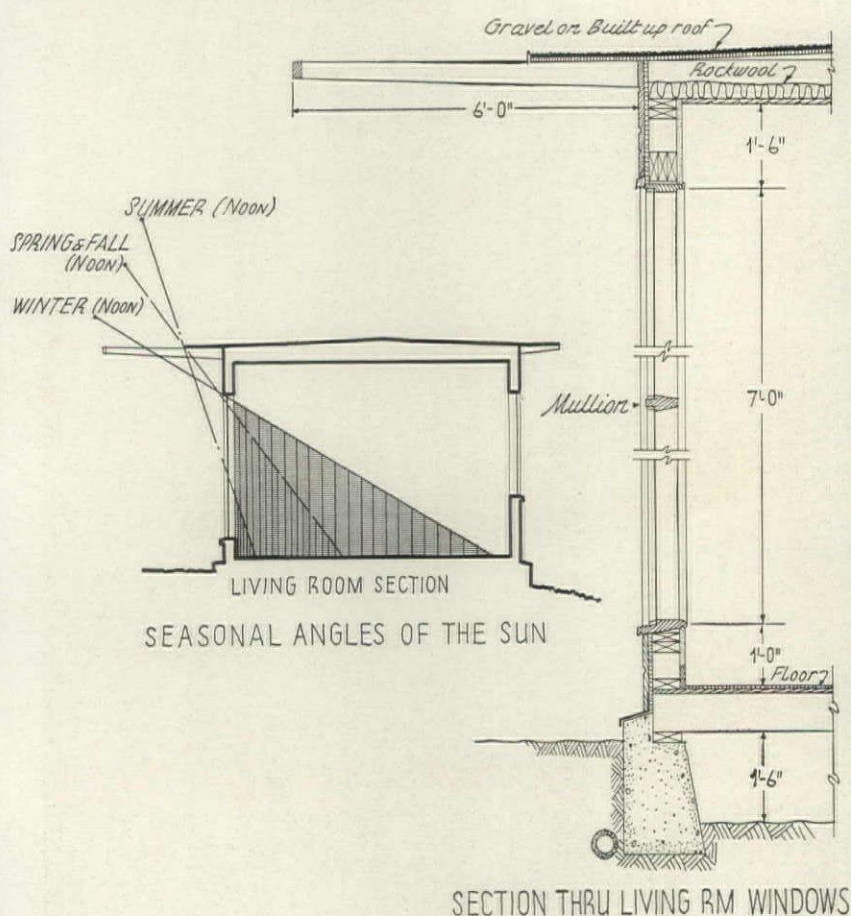


John H. Lohman Photos

Perhaps the most encouraging single factor of the current trend in design is the rediscovery of modest materials, and their effective use in providing a suitable background for contemporary living. Considered from this point of view the house illustrated is of unusual interest. With the exception of the plate glass areas, both materials and construction are the same used in inexpensive conventional dwellings, and the effect of size and spaciousness has been produced with the utmost economy. The elongated plan is well suited to the location and the arrangement of the living quarters is simple and workable. Cost: 39 cents per cu. ft.







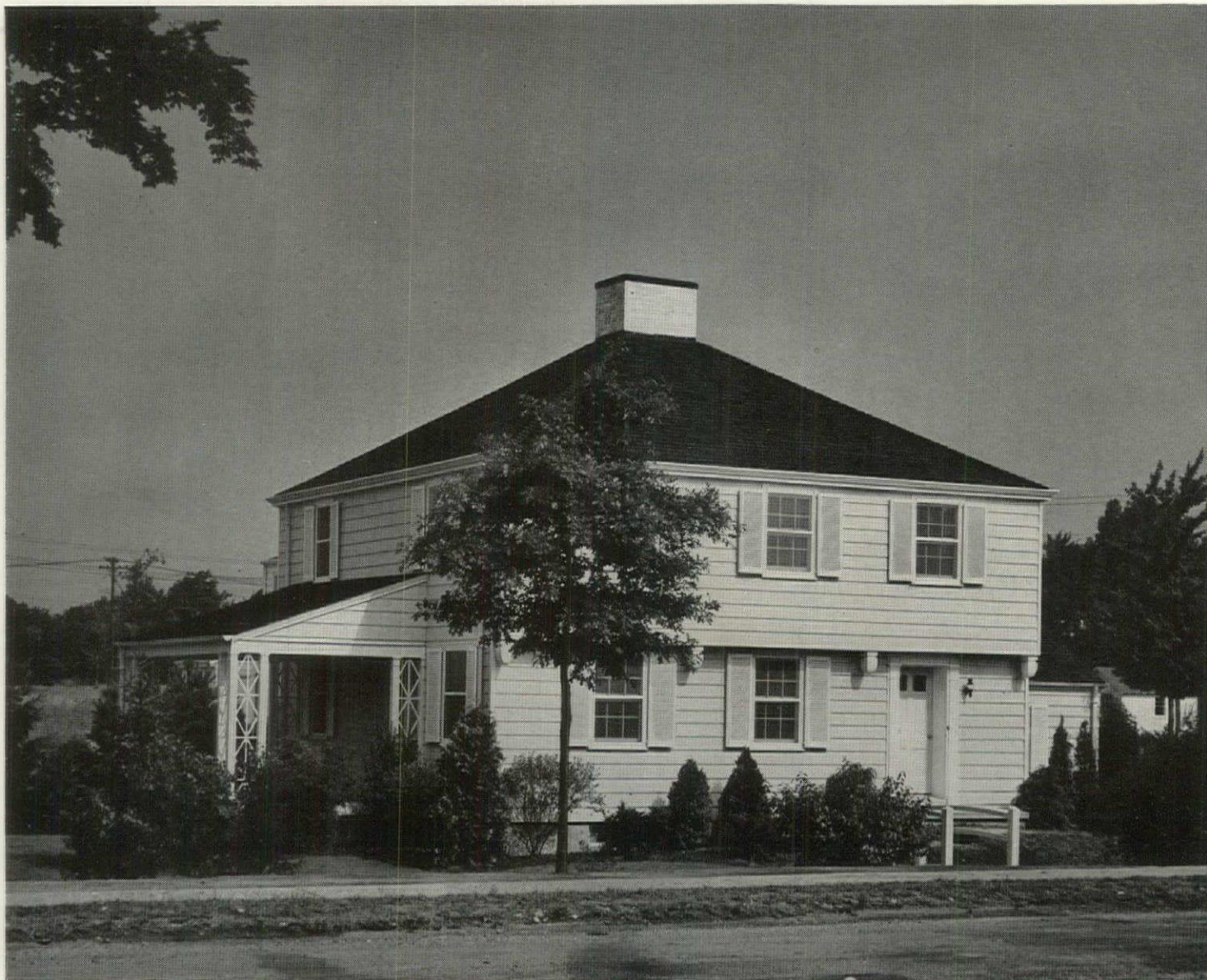
## CONSTRUCTION OUTLINE

**FOUNDATION:** Reinforced concrete.  
**STRUCTURE:** Exterior walls—redwood siding, Sisalkraft Co. building paper, fir sheathing, studs; inside—plaster board, U. S. Gypsum Co. and California stucco.  
**ROOF:** Covered with 5-ply asphalt and felt, topped with gravel.  
**SHEET METAL WORK:** Galvanized iron throughout.  
**INSULATION:** Ceilings—rockwool, Johns-Manville Corp.  
**WINDOWS:** Sash—wood casement. Large sheets hung on Whitco extended butt hinges,

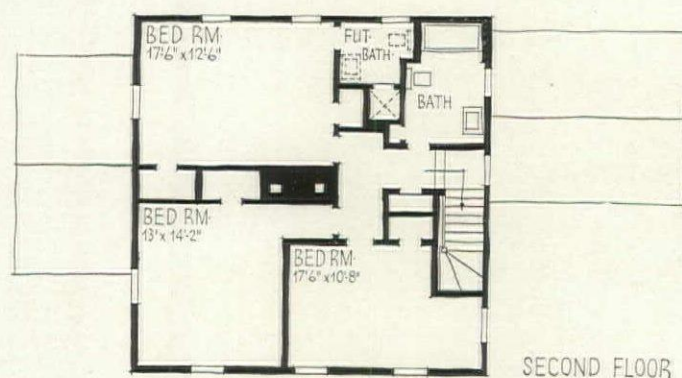
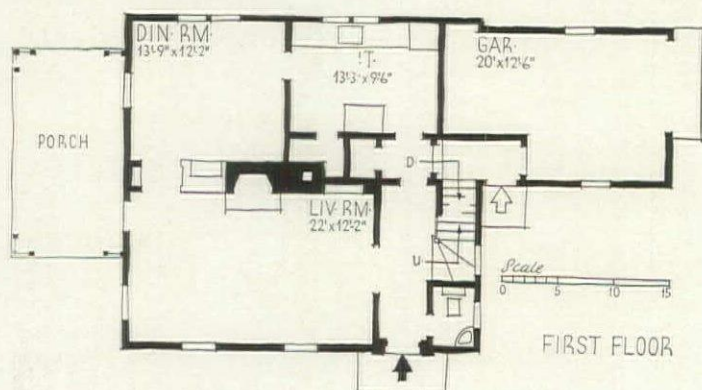
Vincent Whitney Co. Glass—Pittsburgh Plate Glass Co. Screens—Rolscreen Co.  
**FLOOR COVERINGS:** Kitchen and bathrooms—linoleum, Armstrong Cork Co.  
**WALL COVERINGS:** Main rooms—California stucco. Kitchen and bathrooms—plaster.  
**WOODWORK:** Exterior door—solid oak. Garage doors—redwood. Remainder—Oregon pine.  
**HARDWARE:** By Palace Hardware Co.  
**PAINTING:** Material by W. P. Fuller Co. and Samuel Cabot, Inc.  
**ELECTRICAL INSTALLATION:** Wiring system and switches—General Electric Co.

Fixtures—Karl von Hacht.  
**KITCHEN EQUIPMENT:** Range—Magic Chef, American Stove Co. Refrigerator—Frigidaire Corp. Sink—Crane Co. Cabinets—Paramount Built-in Fixture Co.  
**LAUNDRY EQUIPMENT:** Washing machine—Bendix Home Appliance, Inc.  
**BATHROOM EQUIPMENT:** All fixtures by Crane Co. Cabinets—Hallensheid & McDonald.  
**PLUMBING:** Soil pipes—cast iron. Cold water pipes—A. M. Byers Co. Hot water pipes—L. J. Mueller Furnace Co.  
**HEATING:** Warm air system. Valves—Alladin Heating Co. Water heater—Ruud Mfg. Co.





Gustav Anderson



## CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—wood sheathing, shingles, studs; inside—insulating lath and plaster.  
**INSULATION:** Attic floor—4 in. rock wool, Johns-Manville Corp.

**WINDOWS:** Sash—double hung, Andersen Corp.

**FLOOR COVERINGS:** Main rooms—oak. Kitchen—linoleum, Congoleum-Nairn, Inc.

**HARDWARE:** By Schlage Lock Co.

**PAINTING:** Material by Devoe & Reynolds Co.

**KITCHEN EQUIPMENT:** Range—Magic Chef, American Stove Co.

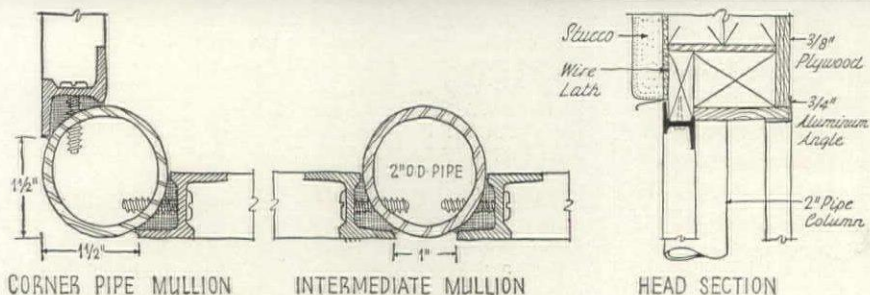
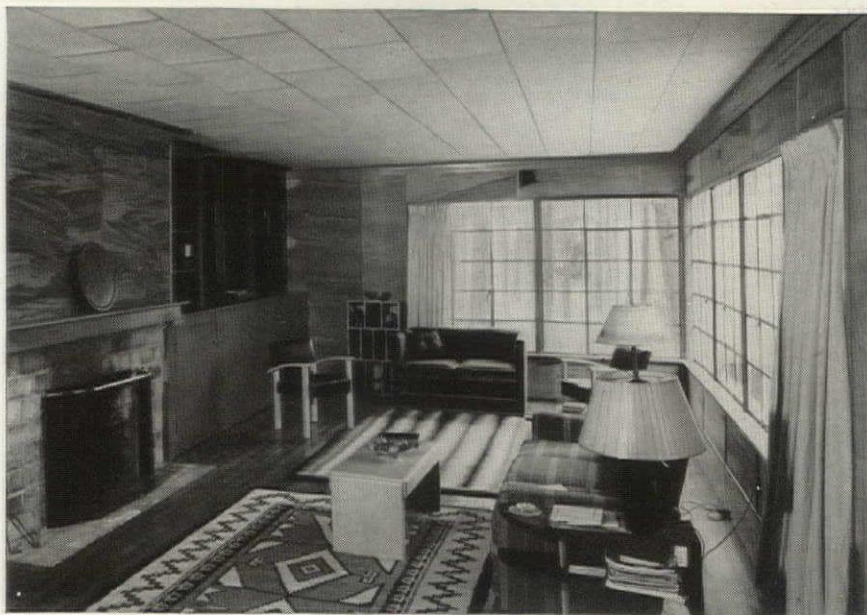
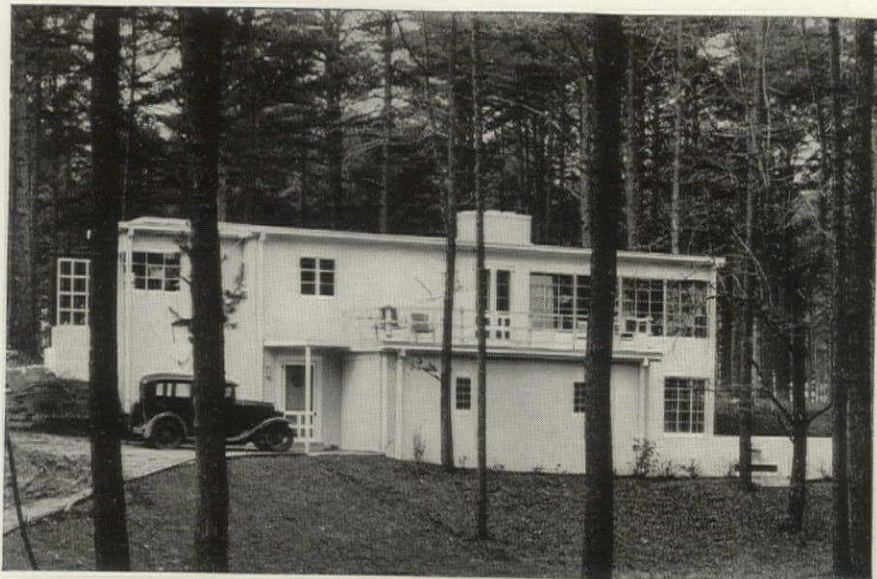
**BATHROOM EQUIPMENT:** All fixtures by American Radiator-Standard Sanitary Corp.

**HEATING:** Janitrol gas fired air system, Surface Combustion Co. Grilles—Tuttle & Bailey Mfg. Co. Thermostat—Minneapolis-Honeywell Regular Co.

The square plan offers not only greater economies over less compact types, but also provides excellent light and ventilation since it is possible for every room to be placed in a corner. Above is a typical example, with three bedrooms of good size, adequate services and provision for a future bath. An attempt to mitigate the severity of the form of the house is seen in the placing of the porch and garage, and in the use of a slight overhang above the first floor. Cost: about 36 cents per cu. ft.



# 47. HOUSE IN AUBURN, ALA. SIDNEY WAHL LITTLE, ARCHITECT



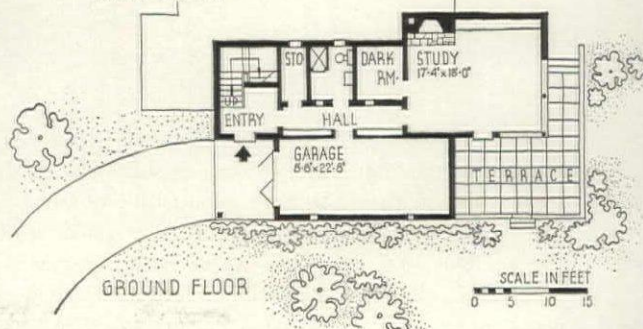
The architect comments: "This residence was designed to meet the requirements of a college professor and his wife whose academic work is play production and whose hobbies are photography and music. The combined living-dining room houses the record-player and collection of recordings in a sound insulated cabinet. The room is adequate for large gatherings. The whole lower floor is devoted to hobby and study: there is a dark room, a study, and equipment for bookbinding and for making the accessories of play production." Cost: about 28 cents per cu. ft.

## CONSTRUCTION OUTLINE

**FOUNDATION:** Concrete footings, brick walls.  
**STRUCTURE:** Exterior walls—studs, lath, sheathing, Sisalkraft Co. paper, exterior stucco on Johns-Manville Corp. "Steeltex" lath. Interior partitions—gum plywood, U. S. Plywood Corp. Floor construction—pine sub-floor, oak finish flooring. Ceilings—beveled planks, Johns-Manville Corp.  
**ROOF:** Built-up roofing, Philip Carey Co.  
**FIREPLACE:** Damper—H. W. Covert Co.  
**SHEET METAL WORK:** Flashing—16 oz. copper; remainder—Armco iron, American Rolling Mill Co.  
**INSULATION:** Attic floor—4 in. rockwool, Johns-Manville Corp.  
**WINDOWS:** Sash and screens—Detroit Steel Products Co. Glass—single strength, quality B. Glass blocks—Insulux, Owens-Illinois Glass Co.  
**FLOOR COVERINGS:** Kitchen and bathroom—linoleum, Congoleum-Nairn, Inc.  
**WOODWORK:** Trim and cabinets—pine. Interior doors—fir covered with Masonite, Masonite Corp. Exterior doors—pine, Henderson Mills.  
**HARDWARE:** By Russell & Erwin Mfg. Co.  
**PAINTING:** Materials by Minwax Co., Southport Paint Co. and Sherwin-Williams Co.  
**ELECTRICAL INSTALLATION:** Romex wiring, General Cable Corp.  
**KITCHEN EQUIPMENT:** Range—gas, Sears, Roebuck Co. Refrigerator—Frigidaire Corp.  
**BATHROOM EQUIPMENT:** All fixtures—Briggs Beautyware, Briggs Mfg. Co.  
**PLUMBING:** Soil pipes—cast iron. Hot and cold water pipes—galvanized iron.  
**HEATING:** Warm air, gas heated; floor furnace for bedrooms and Janitrol unit, Surface Combustion Co. for living room. Thermostat—Minneapolis-Honeywell Regulator Co. Water heater—Crane Co.



MAIN FLOOR

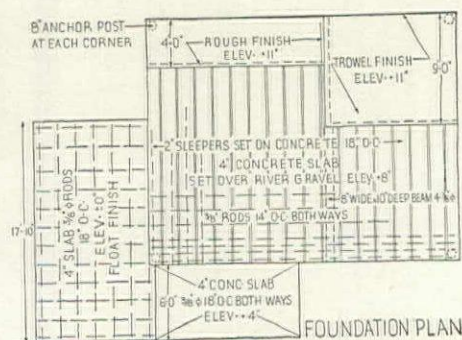
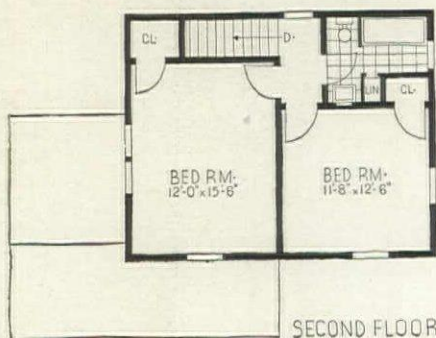
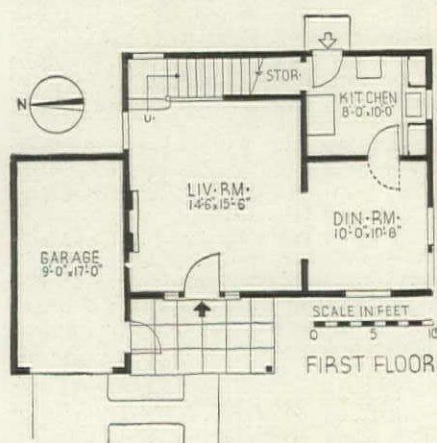




# 48. HOUSE IN HOUSTON, TEXAS M. P. de NIPPELL, ARCHITECT



Merchants



## CONSTRUCTION OUTLINE

**FOUNDATION:** Reinforced concrete slab.  
**STRUCTURE:** Exterior walls—wood framing, studs, siding, 15 lb. felt; inside—canvas. Floor construction—red oak finish floorings on 2 in. sleepers, creosote treated. Felt between flooring and sleepers.  
**ROOF:** Covered with No. 1 Perfecton shingles.  
**SHEET METAL WORK:** Copper bearing galvanized iron, 26 gauge, throughout.  
**INSULATION:** Roof—Celotex Co.  
**WINDOWS:** Sash—checkrail type. Glass—single strength, quality B, Libbey-Owens-Ford Glass Co. Screens—Avalon Mill & Lumber Co.  
**STAIR:** Treads—oak. Risers and stringers—pine.  
**FLOOR COVERINGS:** Main rooms—select red oak. Kitchen—linoleum, Congoleum-Nairn Co. Bathrooms—tile.  
**WALL COVERINGS:** Main rooms—wallpaper. Kitchen and bathrooms—Sanitas, Standard Coated Products Co.  
**WOODWORK:** Trim and cabinets—yellow pine. Garage doors—overhead type.  
**HARDWARE:** By Sargent & Co.  
**PAINTING:** All materials by Martin-Sevour.  
**ELECTRICAL INSTALLATION:** Wiring system—knob and tube. Switches—Despard, Pass & Seymour.  
**BATHROOM EQUIPMENT:** All fixtures by Kohler Co. Cabinets—Lawco, The F. H. Lawson Co.  
**PLUMBING:** Soil and waste pipes—cast iron. Vents—cast and galvanized iron.  
**HEATING:** Water heater—Lawson Mfg. Co.

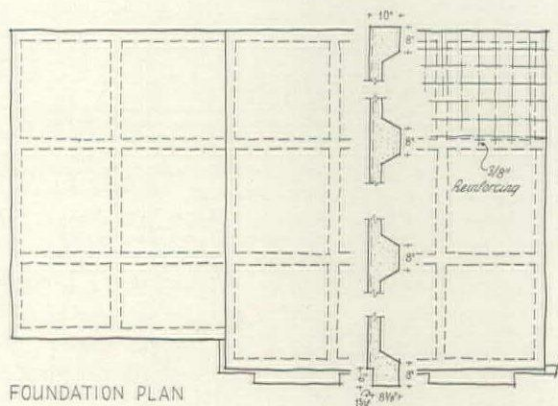
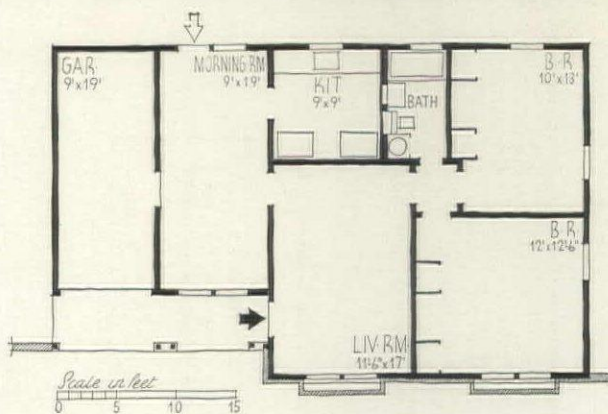
There is a long tradition behind the use of New England Colonial in California and the Southwest, and the style has inevitably been modified in the course of time. Shown here is a good example, restrained in its general treatment and a pleasing combination of the two main elements of the house and garage. The plan is simple, with waste space virtually eliminated. This house and the two which follow are located in Garden Oaks, a residential development in which the customary design standards for subdivisions have been notably improved upon. Cost: 31 cents per cu. ft.



## 49. HOUSE IN HOUSTON, TEXAS



Merchants



FOUNDATION PLAN



MORNING ROOM

### CONSTRUCTION OUTLINE

**FOUNDATION:** Reinforced concrete slab with concrete beams poured monolithic.

**STRUCTURE:** Wood frame. Interior partitions—Sheetrock, U. S. Gypsum Co. and fir panel board.

**ROOF:** Covered with Dutch lap asbestos shingles, Keasby & Mattison.

**WEATHERSTRIPPING:** Protex Weatherstripping Mfg. Co.

**WINDOWS:** Double hung wood.

**FLOOR COVERINGS:** Main rooms—Broadfelt. Kitchen and bathrooms—linoleum. Congoleum-Nairn, Inc.

**HARDWARE:** By Sargent & Co.

**PAINTING:** Sash—2 coats paint, John Lucas & Co.; remainder—Textone, U. S. Gypsum Co.

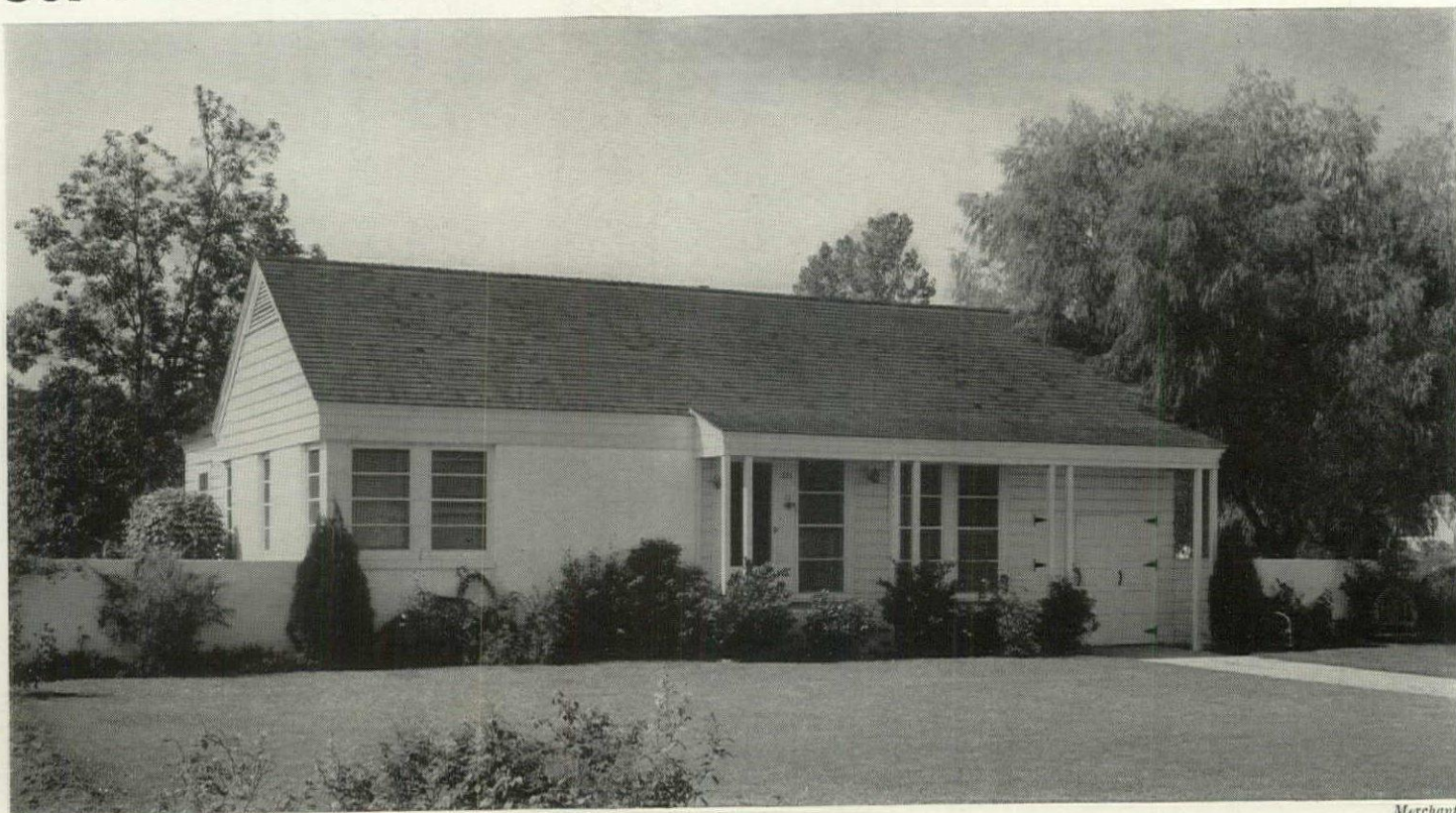
**ELECTRICAL INSTALLATION:** Wiring system—Romex, Rome Wire & Cable Co.

**BATHROOMS EQUIPMENT:** Fixtures by Richmond Radiator Co. Fittings—Central Brass Co. Cabinets—Lawco, The F. H. Lawson Co.

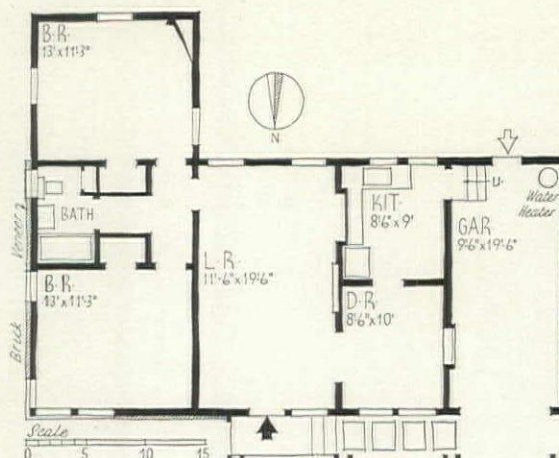
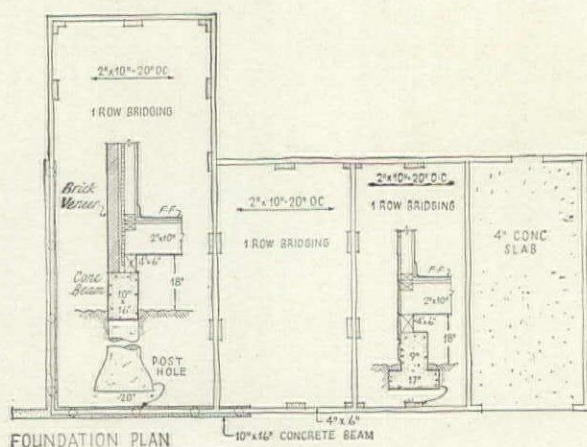
### TALBOTT WILSON, IRWIN MORRIS, ARCHITECTS

A conventional plan in most respects, save for the "morning room," which serves as extra sitting space, dining room and service entry. Additional room of this sort in an otherwise minimum house has obvious advantages. The exterior shows good character, both for the climate and price class. As in the house on page 294, low garden walls of brick serve to extend the lines of the structure and to tie it in more closely with its surroundings. Cost: about 36 cents per cu. ft.





Merchants



### CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—wood frame and studs and brick veneer. Interior partitions—studs, sheathing and No. 2 shiplap. Floor construction—joists, sub-floor and white oak finished flooring.

**ROOF:** Covered with No. 1 Perfection shingles, Long Bell Lumber Co.

**WINDOWS:** Sash—check rail type, Wm. Cameron Lumber Co.; balances by Unique Window Balance Co. Glass—single strength, quality B, Libbey-Owens-Ford Glass Co. Screens—Avalon Mill & Lumber Co.

**FLOOR COVERINGS:** Main rooms—clear white oak. Kitchen—Inoleum, Congoleum-Nairn Co. Bathrooms—tile.

**WALL COVERINGS:** Main rooms—canvas and wall-paper, Birge Co.; one wall of living room V-joint paneling. Kitchen—Sanitas, Standard Textile Products Co.

**WOODWORK:** White pine throughout, Wm. Cameron Lumber Co. Garage doors—Crossland Overhead Door Co.

**HARDWARE:** By Sargent & Co.

**PAINTING:** All material by John Lucas & Co.

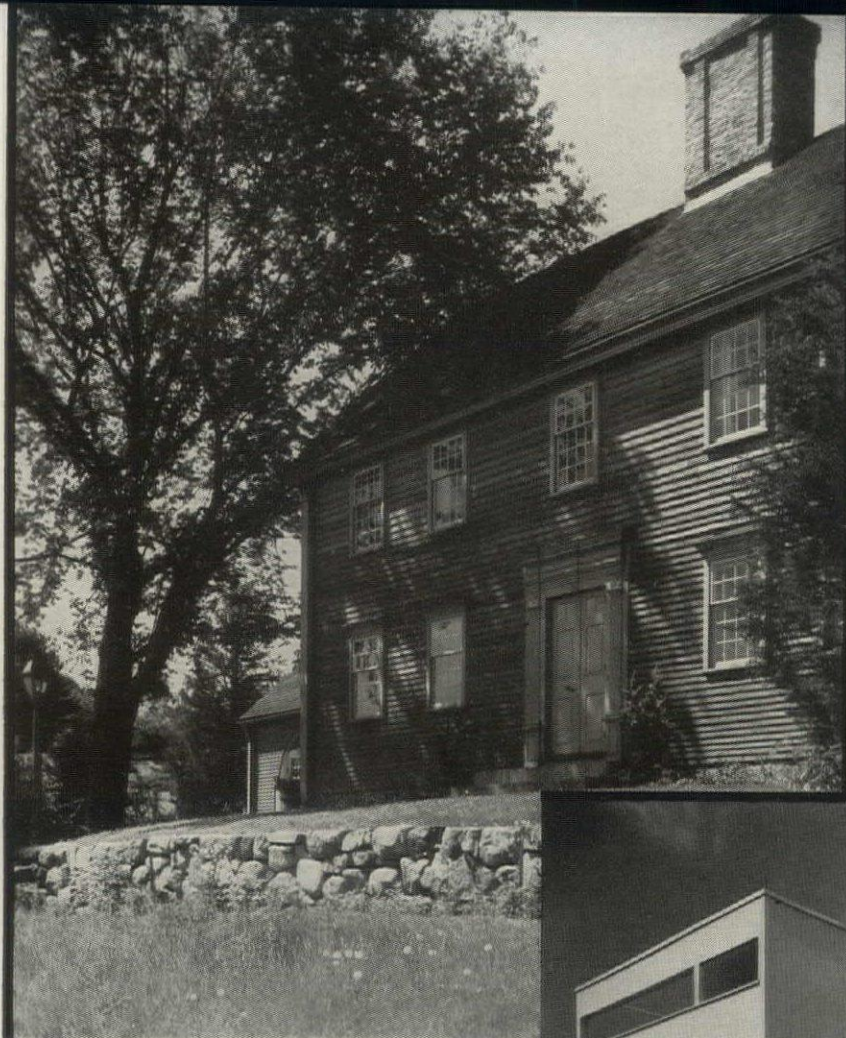
**ELECTRICAL INSTALLATION:** Wiring system—knob and tube. Switches—Despard, Pass & Seymour. Fixtures—Westinghouse Electric & Mfg. Co.

**BATHROOM EQUIPMENT:** All fixtures by Kohler Co. Cabinets—The F. H. Lawson Co.

**PLUMBING:** Soil pipes—cast iron. Vent pipes—cast and galvanized iron. Water heater—Lawson Mfg. Co.

A design for a completely level site, its horizontality accentuated by the effective use of low brick walls. The house is well planned for operation without a servant and combines practical compactness with a regard for the need of good ventilation. A vestibule was omitted as unnecessary, the shelter furnishing all needed protection for the front door. Cost: about 43 cents per cu. ft.





THORP HOUSE, SUDBURY, MASS.

DERBY, BARNES & CHAMPNEY, ARCHITECTS

*Haskell*

HACERTY HOUSE, COHASSET BEACH, MASS.  
GROPIUS AND BREUER, ARCHITECTS



*Paul Davis*

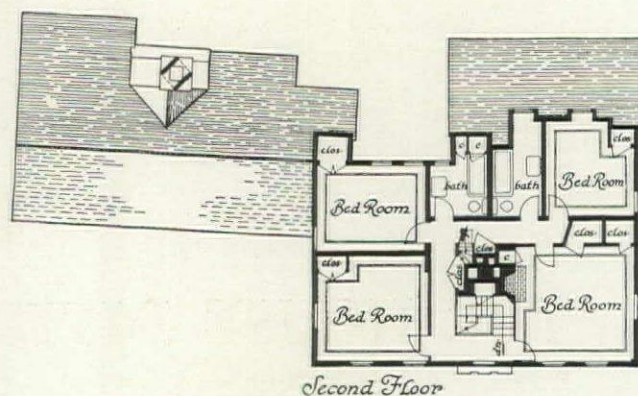
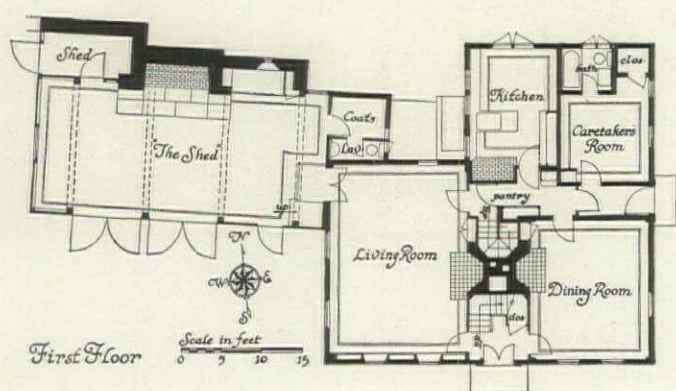
In more modest form the exhibit *Vs* (see page 15) now takes its place in the pages of *THE FORUM*. Here, as often as opportunity offers, will be displayed competent and parallel examples of traditional and modern architecture. Opening with two houses this month, it is planned to publish a variety of buildings which permit of direct comparison. Such material should prove provocative and, it is hoped, instructive.—The Editors.

**THE HOUSE DIVIDED** There is a distinct trend in house design today, clearly visible in any representative collection of new work. It shows, reasonably enough, a combination of old forms and new forms. It offers the possibility of an indigenous, workable and completely persuasive architecture for America. These houses are the extreme components of this trend, utterly contradictory in their basic approach: symmetry versus the free plan, and design from a preconceived exterior against design for a special living problem in a particular location. One opens to the out of doors; the other shuts itself in. Traditionalists may well object to a house so designed that it looks a century and a half old the day the owner moves in; many modernists will take exception to an exterior so brutally uncompromising. The question here, however, is not one of good or bad but rather of contrast: here is the composite symbol of an architecture in transition—the house divided.





Haskell

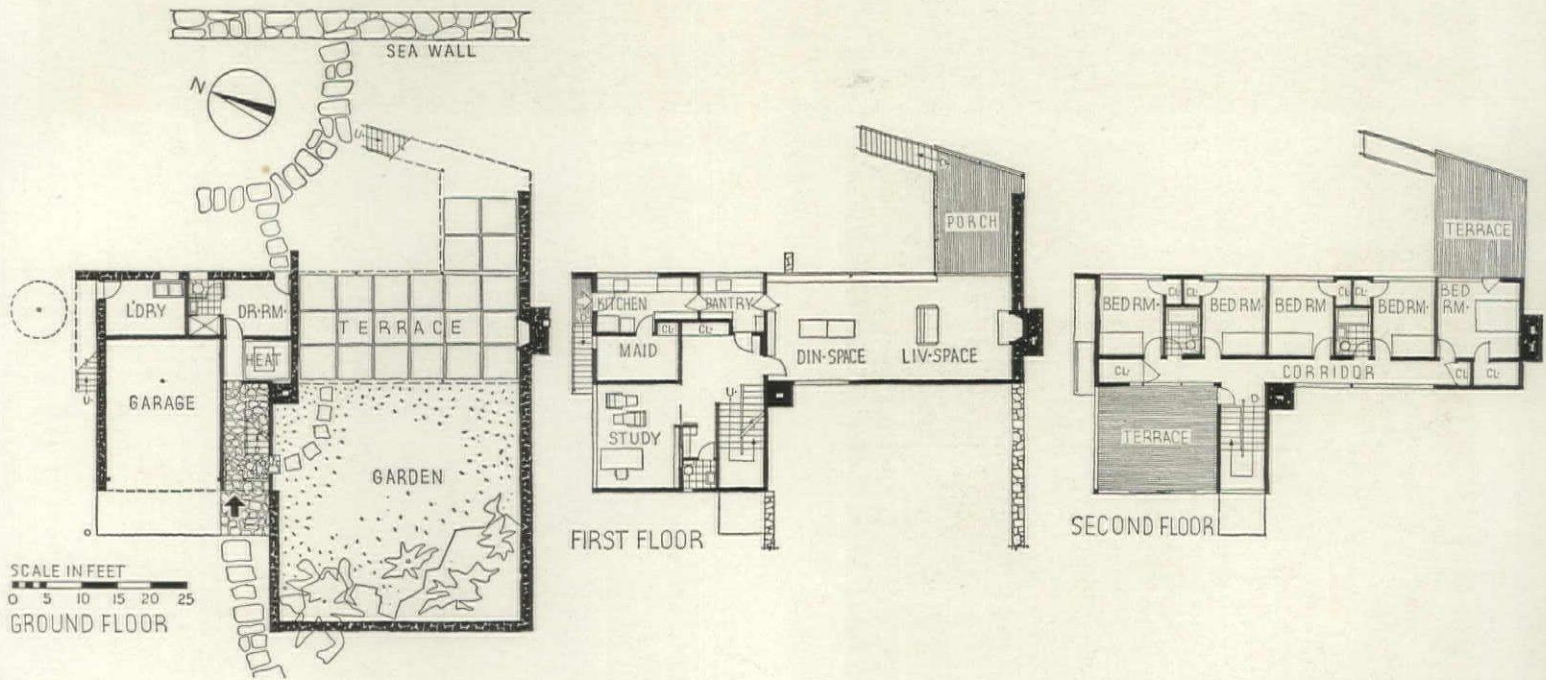


The settings differ, but they are not important. There have been Colonial houses at the seaside, modern houses in the country. The materials are alike: stone, wood and glass. It is the approach that changes the solution,





Paul Davis

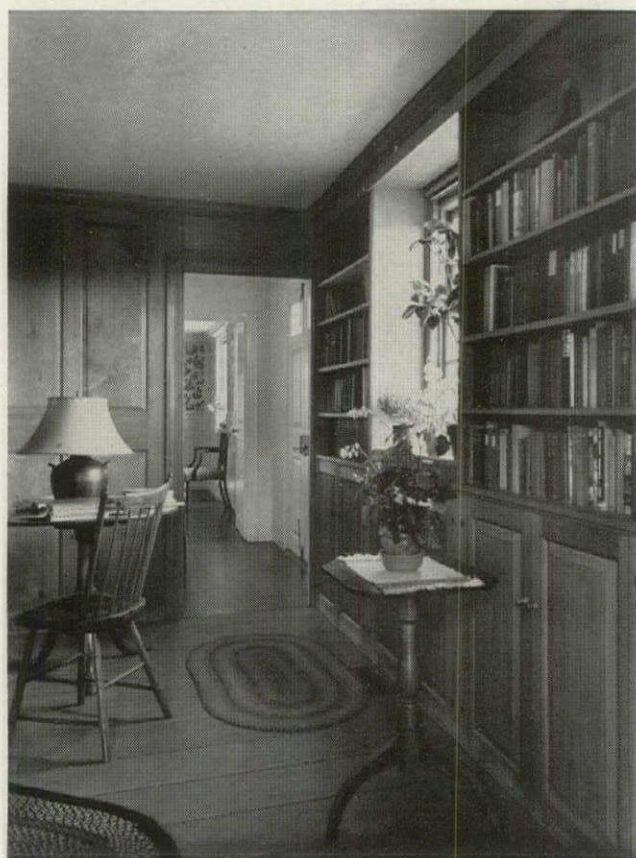


not the materials. Even the structures are not fundamentally different: both are based on the familiar stud frame. Tradition versus No Tradition? Emotion versus Logic? There is some of both in each.





Haskell Photos

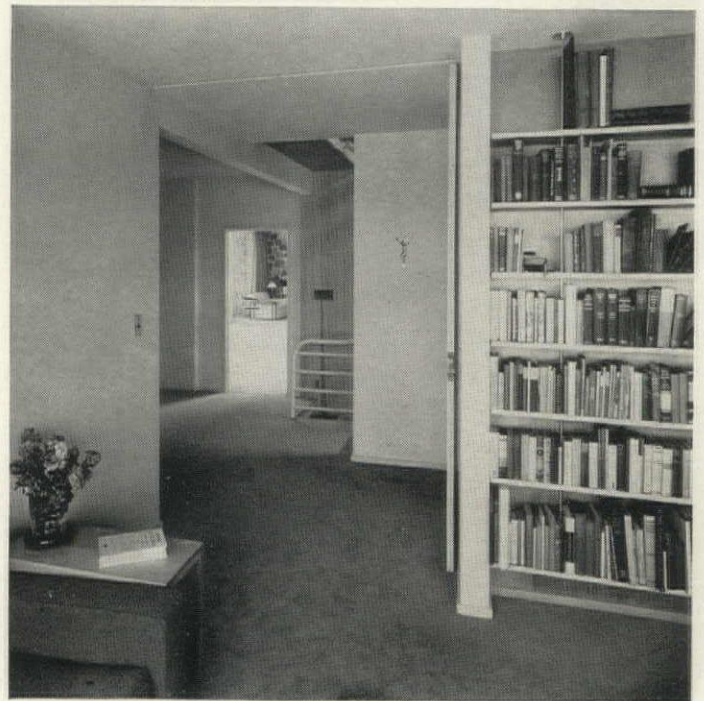


Does the outside belong outside or in?—and in what proportions? The fireplace is a sentimental survival of the





Paul Davis Photos



days of inefficient heating—so what? asks the modern house. Compare these rooms wall by wall, piece by piece: they both work. The essential difference lies in the fact that quite a bit has happened since 1790.









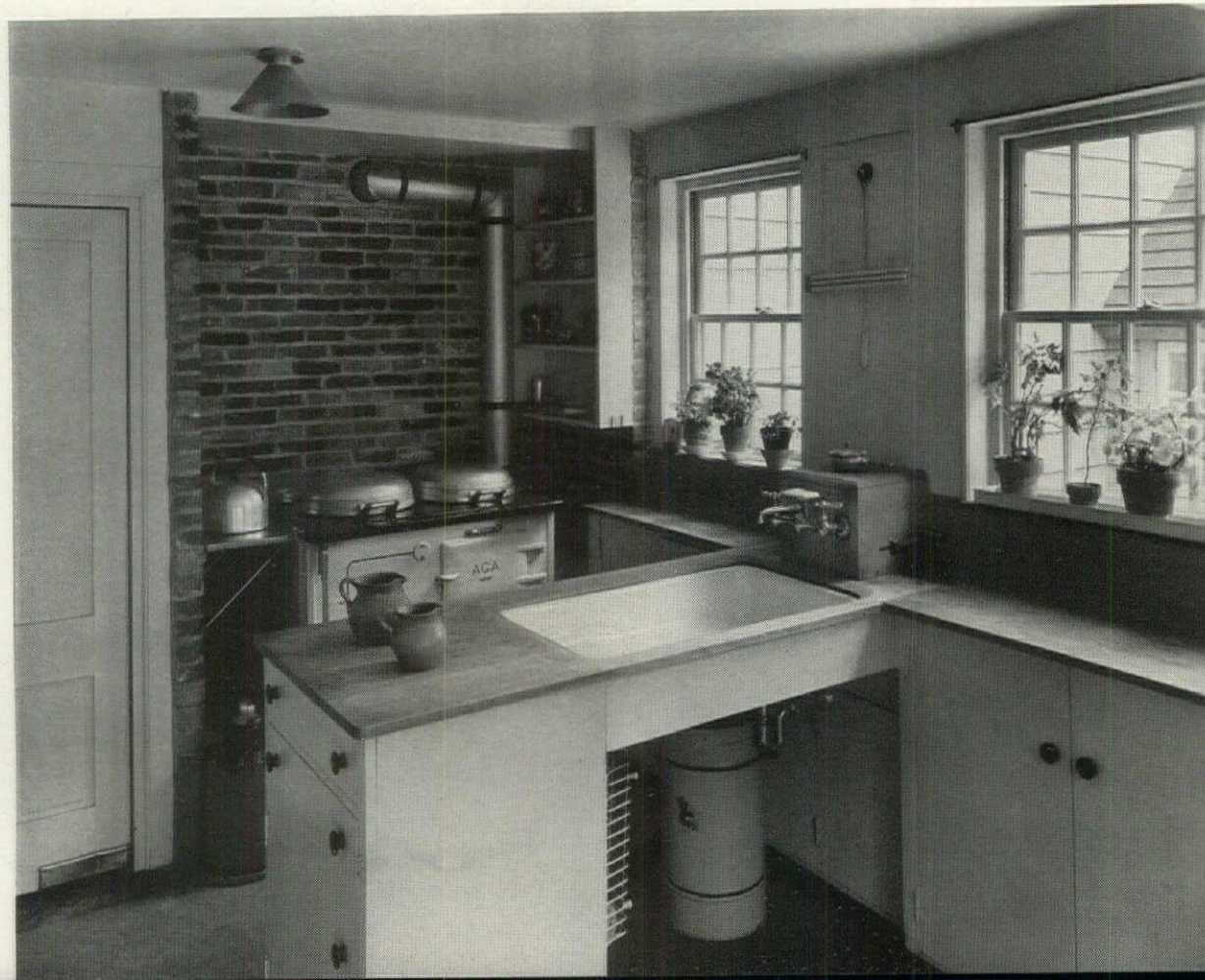


THORP HOUSE  
SUDBURY, MASS.  
DERBY, BARNES & CHAMPNEY  
ARCHITECTS



Does a view of the sea improve the quality of the roast? Or do cooks prefer flowers? Is this the warmth of home versus the operating room?—or the calm of quiet backgrounds versus the clutter of relics of a dead

*Haskell Photos*





HAGERTY HOUSE  
COHASSET BEACH, MASS.  
GROPIUS AND BREUER  
ARCHITECTS



past? Beauty, they say, lies in the eye of the beholder; something has happened to twentieth century eyes: the impact of a new environment. Some like it, others don't; there can be no unanimity in a time of change.

*Paul Davis Photos*





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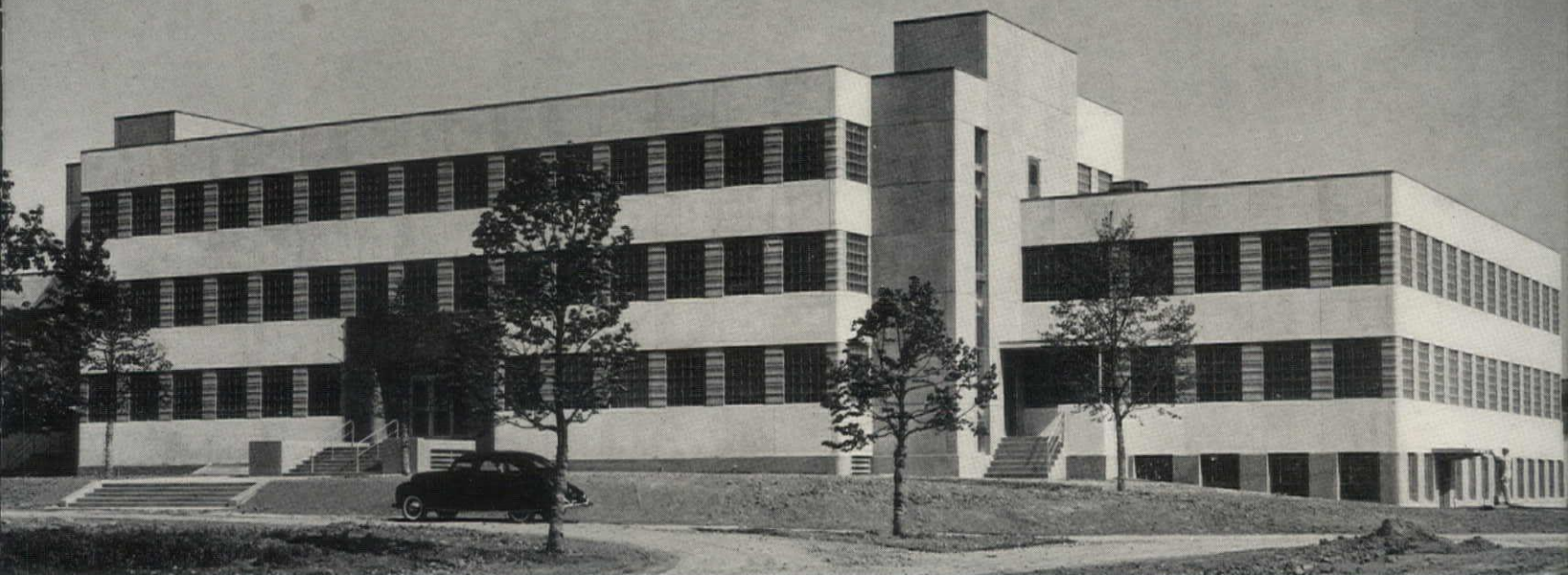
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 DAVID J. ABRAHAMS  
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 ARTHUR T. BROWN  
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**Structural and Decorative Properties Combined in One Product.** Architectural Concrete Slabs are factory-made concrete units, up to 100 square feet or more in area, 20 feet or more in length—but only two inches thick. *High structural strength* comes from reinforcement with heavy galvanized steel fabric and curing under strict plant control. *Permanent beauty* is the result of exposing colored aggregates—crushed quartz, marble,

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**Properties Bring New Building Economies.** The large sizes and varied shapes of thin Architectural Concrete Slabs, with or without integral returns, may eliminate up to 80% of joints. You reduce danger of leakage as well as costs. A single slab may include the coping and window head, or, as a spandrel, include the window head below and the window sill above. Another saving is the frequent use of slabs as forms for the structural concrete, reducing form and scaffolding costs.

These are only a few of the important advantages of thin Architectural Concrete Slabs for modernization and new work. Write for more complete information—or see **SWEET'S CATALOG, Section 4.** Universal Atlas Cement Co. (United States Steel Corp. Subsidiary), Dept. A2, Chrysler Bldg., N. Y. C.



• **This ceiling—panels and beams—**consists of thin Architectural Concrete Slabs, used here also as forms for the concrete floor above. Atlas White cement is the matrix which sets off the carefully selected and graded colored aggregates. Dept. of Justice Bldg., Washington, D. C. Architects, Zantzing, Borie, and Medary, Philadelphia; Slabs by John J. Earley, Washington, D. C.

# ARCHITECTURAL CONCRETE SLABS

MADE WITH ATLAS WHITE CEMENT







**2000 FEET OF GUTTERS AND DOWNSPOUTS PAINTED IMMEDIATELY  
... 37 SMALL HOMES READY FOR SALE—BECAUSE THE  
ARCHITECT SPECIFIED ARMCO GALVANIZED PAINTGRIP**



*Small houses in the Belle View Subdivision, Baton Rouge, La. Architect, Roy Haase, Baton Rouge, La.*

### **Architects prefer it**

Another favored ARMCO metal is ARMCO Ingot Iron. Material specifications in other medium and low cost house issues of *The Architectural Forum* reveal that it was specified more than any other trademarked sheet metal. The architects knew that extra-durable ARMCO Ingot Iron may be depended on to give a full measure of satisfactory service.

● THESE 37 small homes in Baton Rouge were built to sell at a low price, not to rent. This meant there would be no time for gutters and downspouts to "weather" before painting. It meant also that every detail, from the buying price to the up-keep cost, had to be right.

To be sure the gutters and downspouts were right, the architect chose ARMCO Galvanized PAINTGRIP Sheets. The paint-holding bond-erized film makes a surface that can be painted at once. And tests have shown that good paint lasts at least 150% longer than on ordinary galvanized metal because it is kept from contact with zinc oxides that dry out paint.

ARMCO PAINTGRIP Sheets will give you the same desirable results! Specify them on your next job. For more information, write to The American Rolling Mill Company, 1301 Curtis St., Middletown, Ohio.



**ARMCO**  
**PAINTGRIP SHEETS**



**SPECIFY  
THIS 2-POINT INSULATION  
AND YOU CAN  
GIVE THEM -**

# HALF PRICE HEATING!

● When "extras" start fighting estimates and clients' dreams start getting out of hand, there's a way of smoothing things out and still keeping the budget in balance. *Half Price Heating* is the answer.

The simple, inexpensive and money-saving combination of Window Conditioning and a good Ceiling Insulation saves as much as 50% of the annual fuel bill.

But best of all, *Half Price Heating* can often be accomplished without increasing costs at all. In most cases your heating engineer will be able to specify a smaller, less costly heating unit as original equipment. The money saved here goes a long way towards the cost of Window Conditioning and Ceiling Insulation. The net result: a healthier, more efficient and economical home—a home, for instance, that will



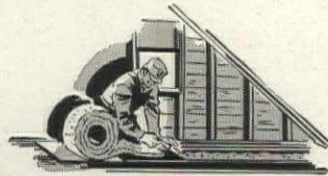
**L·O·F WINDOW CONDITIONING  
PLUS A GOOD CEILING OR  
ATTIC INSULATION ASSURES  
HEATING ECONOMY AND CLIENT  
SATISFACTION ALL YEAR 'ROUND**

## HOW THIS 2-POINT INSULATION SAVES



1. *Window Conditioning* (storm sash) has proved in thousands of homes that it alone will cut fuel costs as much as 25%—in some places even more.

2. *Attic (or Ceiling) Insulation*, when installed in homes already Window Conditioned, will bring additional savings. These two simple insulations together can save up to 50% of the annual fuel bill. Specify them in the houses you design.



The Government, through the Federal Housing Administration is making it easier than ever before for America to build—and build better—an effort in which Libbey-Owens-Ford is glad to cooperate.

save enough in fuel to pay from 18 to 24 F. H. A. payments over the life of a 20-year mortgage.

Libbey-Owens-Ford does not make or sell Attic or Ceiling Insulation; our sole interest is economic. We believe that this 2-point insulation, when written in your specifications, assures a comfortable, healthier and more economical home. Libbey-Owens-Ford Glass Company, Toledo, Ohio.

# LIBBEY·OWENS·FORD QUALITY GLASS

LOOK FOR THE LABEL







## SPECIFICATION:

"...and all hardware shall be hand forged on the job."

Ridiculous, you say... a hangover from horse and buggy days! We agree. Another hangover from horse and buggy days is *windows in a millwork specification.*

Windows being a functional part of a house are certainly not to be classed with trim and moldings. Surely any basic essential that affects the air-conditioning system, insulation system, heating system, lighting system and structural system—that affects design and view—is worthy of extra consideration.

Good windows today are made by specialists. For 36 years Andersen has specialized in the design and construction of stock window units and frames. Both our manufacturing and our sales efforts have been aimed at supplying window units as an essential, lifetime, functional part of a house in which lasting quality is of paramount importance. Andersen Complete Window Units are distributed the same as other functional systems in a house. Stocks are available from nearby distributors through all lumber and millwork dealers. Complete specifications and details in Sweets Catalog.

# Andersen Corporation

WINDOW SPECIALISTS FOR 36 YEARS  
Bayport, Minnesota

ONLY THE RICH CAN AFFORD POOR WINDOWS

## MONTH IN BUILDING

(Continued from page 4)

cent; all furnished vacancies, 53 per cent. While total vacancies—measuring 596 ft. or well over a quarter of a mile—were 46 per cent short of the 1931 length, only small improvement was noted over the 1938 total.

**TOMORROW'S HOUSES** will not be of "wood, plaster, brick and stone, but of glass, steel and plastics—fireproof and weatherproof, with rubber windows." Thus ran one of a hundred interesting predictions last month by the New England Council's New Products Committee. No group of sooth-saying crack-pots, the committee is composed of 29 leaders in New England's manufacturing, banking, transportation industries and educational institutions, is chairmanned by President Karl T. Compton of the Massachusetts Institute of Technology, is therefore worthy of attention.

In discharging its two-fold purpose, 1) "to awaken a larger consciousness of what is necessary if New England industries are to live and grow in this fast-changing world" and 2) "to expedite the application of those methods by which new products are developed and brought into use," the Committee last month summarized a survey of top-flight research directors in the U. S., Canada, England, France and Germany. Conclusions were based upon the combined answers of these researchers to one significant question: "What will be the outstanding contribution from your field of research during the next three years?"

Covering every industrial product from vitamin tablets to Diesel locomotives, the Committee made many an eye-opening prognostication. A few random excerpts: "... enormous increase in quick freezing of food stuffs... rayon will be made from milk... paper will replace wood, leather and cloth to a surprising degree... huge field to be opened in interior illumination through the use of fluorescent tubes... tires guaranteed for a minimum of 100,000 miles... three-dimensional movies...". Of particular interest to the building industry, however, are the conclusions of Compton's Committee regarding house construction:

- Trend is toward wider public acceptance of the value of insulation in walls and attic floors and greater use of large ventilating fans in attics.
- Lath and plaster construction will gradually be eliminated in favor of pre-fabricated plywood wall panels.
- Use of porcelain enameled metals for architectural materials will increase.
- Glass tiling will be inserted in roofs to light attics.
- Panel type heating is coming—floor and ceiling coils to replace today's radiators.

(Continued on page 68)





Renderings by R. H. Millson, Associate of A. H. Knappe, Architect

## Pratt & Lambert Paint and Varnish



### PIERRE VAN CORTLANDT ELEMENTARY SCHOOL, CROTON-ON-HUDSON, N. Y.

(top left) A. H. Knappe & Associates, Architects, N. Y. City.  
Goodman Brothers, Painting Contractors, New Rochelle, N. Y.

### MUNICIPAL BUILDING, NORTH TARRYTOWN, N. Y.

(center) A. H. Knappe & Associates, Architects. Charles  
Margotta, General Contractor (Painting), North Tarrytown, N. Y.

### OCEAN AVENUE ELEMENTARY SCHOOL, NORTHPORT, L. I.

(lower right) A. H. Knappe & Associates, Architects. Colonial  
Art Decorators, Inc., Painting Contractors, New York City.



**M**AXIMUM decorative effects have been consistently and economically accomplished in the last decade by this architectural office, averaging from four to six schools per year. Moreover, maintenance costs — always an important factor in schools, municipal buildings and institutions — have been cut by reason of the durability of Pratt & Lambert Paint and Varnish. Whatever your finishing problems may be, the P&L Architectural Service Department nearest you will co-operate closely with you in securing the desired result. Use this helpful, practical service!



PRATT & LAMBERT-INC., Paint & Varnish Makers  
NEW YORK • BUFFALO • CHICAGO • FORT ERIE, ONT.



## MONTH IN BUILDING

(Continued from page 66)

- ▶ Economy of coal as a fuel should again assert itself as electrical ignition is introduced into automatic coal stoking equipment.
- ▶ Vacuum concrete, which dries in an hour and does not crack, will enjoy increasing application.
- ▶ Powdered fuel ash—now a waste product of coal combustion—will be used with cement to make concrete.
- ▶ Homes built today without air conditioning will be obsolete by 1950. Initial cost of air conditioning equipment will be lowered through standardization and packaging.
- ▶ Like the bottle, the future window pane will be made of plastic, paper or rubber.
- ▶ Consequently, the glass industry will direct its attention toward building blocks, fabrics, insulation and other new uses.
- ▶ Glass blocks will be freely used for interior partitions.
- ▶ Furniture will be sold as "packaged rooms" which will include all the necessary furnishings, furniture, floor coverings, draperies, lamps and other accessories.
- ▶ More furniture will be designed as dual-purpose pieces so that one- and two-room apartments may be used by two- to four-person families.

Since manufacturing is New England's prime source of wealth and income, the Council's New Products Committee called upon all industrialists and investors to heed well these signs of the times, pointed out that "research has already earmarked certain companies for oblivion. Others, today virtually unknown, will be the future 'blue chips.'" For the benefit of all U. S. industry, the Committee might well have dusted off the old prediction that, "As goes Maine, so goes the nation."

**MET'S BIG THREE.** The Metropolitan Life Insurance Co. has had its financial fingers in the construction of three of the world's largest projects—Parkchester, the biggest housing development; Empire State Building, the tallest office structure; Rockefeller Center, the largest commercial building project. Tight-lipped like most financial institutions, the Met speaks only in generalities concerning its investments in these record-breakers. Months ago, however, behind closed doors in the U. S. Senate Building's Old Caucus Room, the Met got down to brass tacks as the Temporary National Economic Committee fired a barrage of questions at Father Frederick H. and Son Frederick W. Ecker, president and vice president of the \$5 billion insurance company.

**Parkchester.** After explaining that the Met, whose real estate loan portfolio is no-

toriously bare of FHA-insured mortgages, prefers to invest directly in the construction of housing projects, Son Ecker briefly described the \$50 million, 12,273-family Parkchester in New York City (ARCH. FORUM, Dec. 1939, p. 412) whose first apartments were opened for tenancy last month. The testimony which followed gave a clue to the Met's attitude toward additional direct investments in rental housing:

TNEC's Special Counsel Gerhard A. Gesell—What are your plans for the future with respect to these housing developments?

Frederick W. Ecker— . . . That will depend on our experience, and I don't mean by experience that we have got to wait a long time. We want to get this to the point where we are sure from a practical demonstration that it is the success that we believe it will be, and if that is so, I anticipate that we will expand further in that field.

Gesell—And in expanding will you go beyond the State of New York?

Ecker—I would anticipate so, yes.

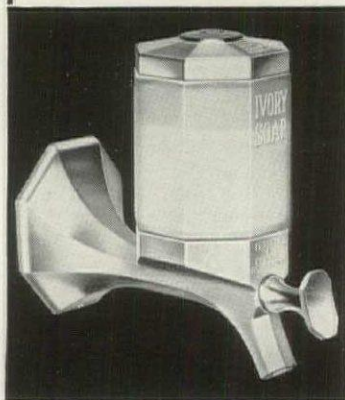
Gesell—I take it from your hesitancy concerning your future plans that you consider this still in the experimental stage.

Ecker—I wouldn't say so, and yet on things of this sort you can't be absolutely sure until you see just what does happen.

(Continued on page 70)

THIS WAY TO THE  
DOTTED LINE ON  
THE LEASE!

SIGN HERE



Delivers pure, gentle,  
rich lathering  
**IVORY SOAP**  
in Flakes or Granules

**W**HAT makes one building seem more desirable than another as a prospective "business home"? Usually you'll find the answer in the little refinements of service that building has to offer.

And here's a fact that many a building operator has discovered. Oftentimes some relatively inexpensive service provides the final urge that leads a prospective tenant up to the dotted line. Some particularly attractive service which reflects the thoughtfulness of the management. Like Ivory Soap Dispensers in the washrooms, for example.

**IVORY SOAP DISPENSERS**

PROCTER & GAMBLE, Industrial Sales Dept., Gwynne Bldg., Cincinnati, Ohio

Ivory Dispensers put washrooms in a favorable light with prospective tenants. Because they're so unusually attractive . . . so inviting to use. And Ivory Dispensers deliver genuine Ivory Soap—one of America's most popular toilet soaps. A soap famous for its purity, gentleness, richness of lather and all-round cleansing satisfaction.

Ivory Dispensers spruce up washrooms surprisingly. And create a surprising amount of tenant good-will. An illustrated folder will tell you more about Ivory Dispenser service. Write for it.

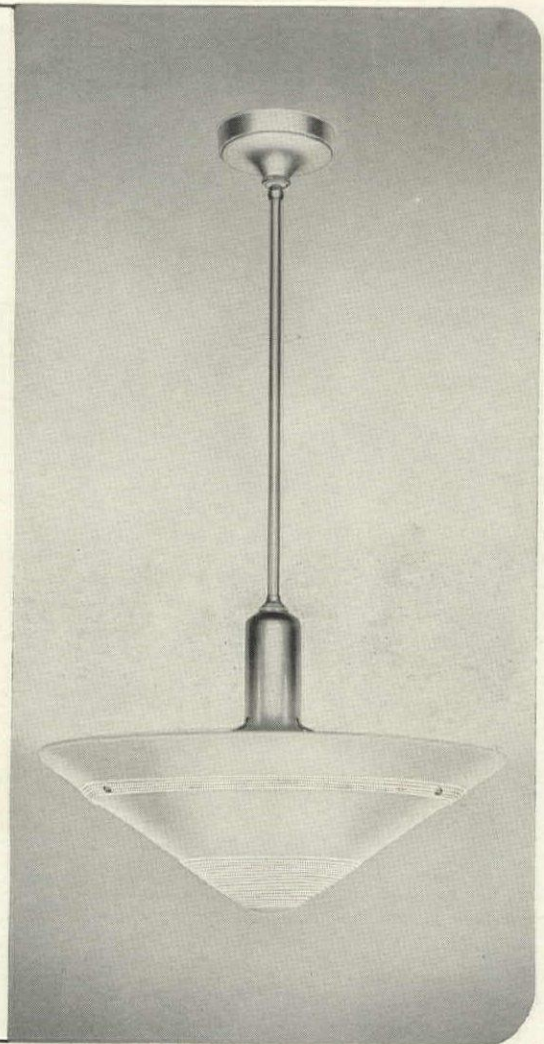


# modern

AS TOMORROW'S BLUEPRINT



WESTINGHOUSE MAGNALUX



To the architect, the Westinghouse Magnalux allows full play in decorative schemes, because it is effectively simple and unobtrusive in design, blending well with all types of interior decorative schemes. Even more important is the fact that it provides increased lighting efficiency for all types of general office lighting.

The standard Magnalux Luminaire is fitted with a patented Hi Flec glass basin which, because of the *selected increase* of glass thickness in the lamp filament zone, combines the charm of uniform low surface brightness with a high factor of reflection from ceiling and side walls. The Magnalux gives high

intensity lighting with low surface brightness—a soft quality of light particularly suited to those areas wherein high comfort seeing is important and glare must be avoided.

Magnalux is available in a wide variety of hanger types and basin styles and in a complete range of sizes, enabling the architect to specify this unit for any indirect lighting application. Whether you are interested in designing new offices or in modernizing existing quarters, be sure to investigate the possibilities of Westinghouse Magnalux Luminaires. Westinghouse Electric & Manufacturing Company, Lighting Division, Edgewater Park, Cleveland, Ohio.

# Westinghouse

Lighting  
Equipment





★ EASTMAN KODAK STORE, Milwaukee, gets a brilliantly colored, smartly designed floor at exceptionally low cost by using Armstrong's Asphalt Tile. Field is old rose marble. Disc is black. Strips are travertine and cordovan marble. ★



## CAN YOU TALK FLOOR ECONOMY TO YOUR CLIENTS ?

**W**HEN your clients ask your advice on floorings, you will find that there are a lot of things to be said for Armstrong's Asphalt Tile.

From a client's point of view, Armstrong's Asphalt Tile is an ideal flooring. Its first cost is low. Maintenance is easy and inexpensive—simply routine sweeping and occasional washing and waxing. Its smooth, even surface will not become a catchall for dust and dirt. Its rich colorings run right through the material so they will not scuff or wear off. And it can be laid in bright smart designs like the one above.

From your own point of view, Armstrong's Asphalt Tile is a wise choice

when your building or remodeling budget is limited. It is economical to install and never requires expensive refinishing. It is available in attractive plain and marble effects—suitable for every type of interior and almost any colorscheme imaginable. Furthermore, it is the only type of resilient floor that can be safely used over concrete in direct contact with the ground.

### Send for Idea Booklet

For full information, see *Sweet's* or send for free, illustrated booklet, "Floor Beauty at Low Cost." Armstrong Cork Company, Building Materials Division, 1204 State Street, Lancaster, Pa.



## ARMSTRONG'S FLOORS ASPHALT TILE

Linoleum - Linotile (Oil-Bonded) - Rubber Tile - Cork Tile - Linowall Wall Covering

## MONTH IN BUILDING

(Continued from page 68)

There are, of course, in all new undertakings many a slip between cup and lip.

**Empire State Building.** From the ground up, the Met has been financially interested in the Empire State Building. In early negotiations it agreed to lend \$24 million on a 50-story loft building, subsequently agreed to lend \$27.5 million when the plans were changed in favor of a 102-story office building to cost about \$29 million atop a \$17 million site. It was also agreed that the 20-year mortgage bear interest at 6 per cent during construction, 5½ per cent to 1940 and 5 per cent thereafter. Amortization was to take place at a rate of about 2 per cent per year.

But the Empire State Building did not live up to snuff—thanks to Depression and, perhaps, to keen competition offered by the continually expanding Rockefeller Center fifteen blocks to the North (see below). Said Met's Father Ecker last month before TNEC: "Under the [business] conditions that have obtained, it has not been a success. They have not been able to rent it. The income has been quite insufficient to pay the interest on the mortgage." Extent of this insufficiency is measured by the fact that the building at the close of 1937 owed the Met exactly \$4,362,000 in back interest.

Rather than foreclose, the Met decided to let Ex-governor Alfred E. Smith continue operation of the building, to make it easier for him by readjusting the mortgage. Thus, the interest rate was knocked down to 2 per cent for the year prior to September 1, 1938. From that date to March 1, 1943 the rate will be 2½ per cent and will then jump up to 4 per cent for the duration of the loan. The TNEC hearings also revealed that at the time of the mortgage adjustment, the operators of the building paid off \$500,000 on account of principal, and the Met canceled all back interest that was due.

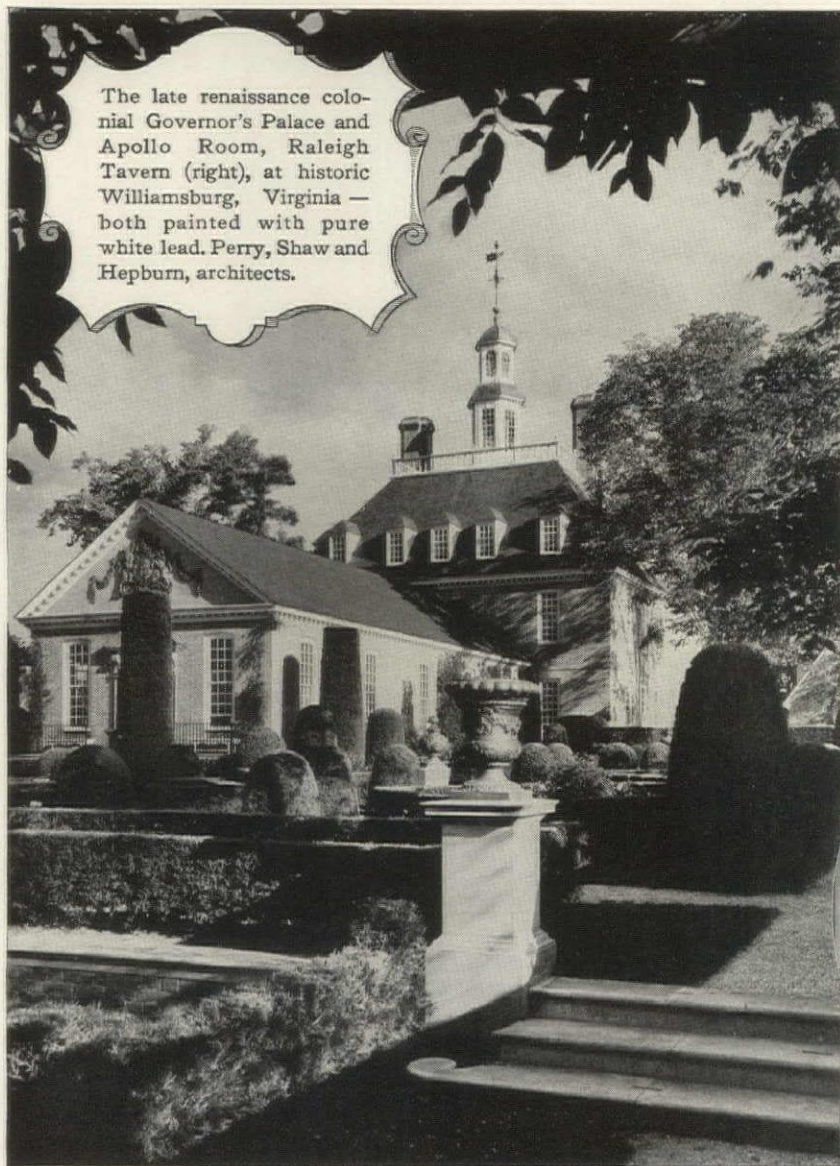
Pointing to the scheduled jump in the interest rate, James V. Hayes, Special Assistant to the Attorney General and the Justice Department's TNEC representative, asked if Mr. Ecker were "in a position to forecast the possibilities of the building in 1943 to pay 4 per cent." Ecker's answer: "No, except the gradual improvement in conditions, and our best judgment is in 1943 it will be on a paying basis." Concluded Senator Joseph C. O'Mahoney, the Committee's ringleader: "It occurs to the Chairman to remark that, if the TNEC is to succeed in the objectives it undertook, perhaps the Empire State and a lot of other properties will be making money in 1943."

**Rockefeller Center.** While the fourteen buildings which comprise Rockefeller Center

(Continued on page 72)



The late renaissance colonial Governor's Palace and Apollo Room, Raleigh Tavern (right), at historic Williamsburg, Virginia — both painted with pure white lead. Perry, Shaw and Hepburn, architects.



Take a  
tip on **PAINT**  
from Beautiful

*Williamsburg*



**I**N the beautiful restoration of Colonial Williamsburg, Virginia, there's a lesson in paint for every architect.

In this work — probably the most famous decorative job in recent years — pure white lead paint was used exclusively on the House of Burgesses, the Governor's Palace, Raleigh Tavern, Bruton Parish Church and other principal public buildings — *both inside and out*.

Inside — because the rich beauty of the colonial colors, obtained by tinting pure white lead, so faithfully recapture Williamsburg's original loveliness and can be economically maintained since this paint is easily and *safely* cleaned by washing.

Outside — because white lead, which is made from the durable metal lead, gives paint an elasticity and a toughness that enable it to protect and last for years without cracking and scaling.

WHAT RANGE OF COLORS CAN YOU GET WITH WHITE LEAD? This is only one of the many important paint questions you'll find fully answered in the valuable booklet "WHAT TO EXPECT FROM WHITE LEAD PAINT." Send for your free copy today.



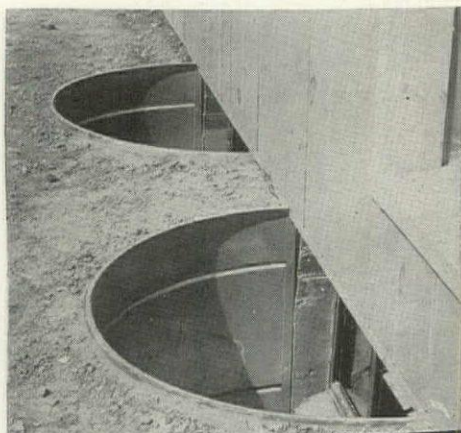
As Williamsburg so strikingly illustrates, pure white lead paint is the ideal medium for decorative interior paint styling. Furthermore, when it comes to exterior painting, Williamsburg stands as a testimonial to the soundness of the rule: The higher the white lead content, *the better the paint*. You can't get a more durable outside paint than pure white lead paint, that is, one containing one hundred per cent white lead. This is the kind good painters mix from lead-in-oil. In many localities it is also sold now in prepared, ready-to-use form — in white and colors.

LEAD INDUSTRIES ASSOCIATION

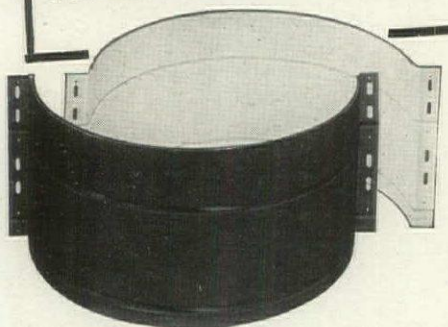
420 Lexington Avenue, New York, N. Y.







**Save 50% on  
AREA WALL COSTS**



### Use DONLEY Steel Area Walls

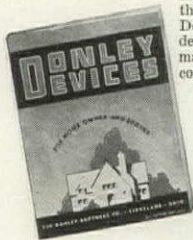
Cut costs on homes with below grade windows—use these low-priced, prefabricated Donley Steel Area Walls and save 50% of the average masonry area wall cost. Just set them in place, nail or bolt to foundation if desired, and back fill. No foundation required—need not extend below the frost line—installed by inexpensive labor.

Made of 16 ga. copper bearing steel flanged, ribbed and arch-formed for strength. Regularly supplied painted two coats of high grade paint, the last coat being aluminum. Also supplied with a protective coating of porcelain enamel over a special enamelling steel, the window side finished in a gleaming white.

End flanges are perforated for nailing or bolting to foundation where desired, but in many installations, earth pressure alone holds area wall in place. Smooth, light color reflects maximum sunlight into basement. See table for standard sizes.

Painted	Porcelain Enameled	Inside Width	Height	For Use with Window Sizes
No. 1	No. 21	38 1/4"	17 1/2"	3 light 10x12
No. 2	No. 22	33 1/4"	23 1/2"	3 light 10x16 3 light 10x20
No. 3	No. 23	44"	23 1/2"	3 light 12x18

For those who desire to bolt the walls to the foundation, we offer a special 3/8" diameter galvanized bolt, at low cost. For further details about Donley Steel Area Walls, send for the new 44 page catalog "Donley Devices", 22nd edition, which also describes many other articles that make homes more convenient, more comfortable. Write today.



**The  
Donley  
BROTHERS COMPANY**

13945 Miles Avenue Cleveland, Ohio

## MONTH IN BUILDING

(Continued from page 70)

apparently have experienced financial difficulties similar to the Empire State's, the Met has lost no sleep over its investment in this uptown Manhattan commercial "city." In 1930 it bought about \$43 million of 5 per cent bonds secured by Rockefeller Center buildings and Mr. Rockefeller's lease of the land from Columbia University. To date the interest has been paid promptly, some \$8 million of the principal has been paid off and, according to Father Ecker, the Rockefellers "are anxious, if we would take the money, to pay . . . off [the balance] tomorrow." Interesting in the light of these facts was Counsel Gesell's documented observation that "... Rockefeller Center has operated at a very substantial deficit as of December 31, 1938 running into some \$39 million. That money has been made up by contributions, I understand, from Mr. Rockefeller."

Making mention of neither operating deficits nor profits, Director Merle Crowell of Rockefeller Center's public relations department month ago let the Newark (N. J.) Real Estate Board in on some of the Center's hitherto guarded secrets:

► Rockefeller Center in January was 87 per cent rented and, despite the frequent addition of new buildings, this occupancy ratio has been continually increasing. In January 1935 its five buildings (excluding two theaters) were 75.6 rented. A year later, after the addition of two more buildings, the figure was 77.5. Next year the same group boasted an 84.3 per cent occupancy ratio. In January 1938, after the opening of the Time and Life Building, occupancy totaled 86.5 per cent. Only in 1939 after the opening of the Associated Press Building did the ratio fall—and then only by 3.5 per cent to an even 83 per cent. The January 1940 ratio of 87 covers the new Holland House and the U. S. Rubber Co. Building which are now nearing completion.

► The average rental per sq. ft. runs somewhere between \$2.75 and \$3.

► The number of tenants totals 1,146, but, if tenants' subsidiary companies were counted individually, the total would be almost double.

► The average tenant occupies about 3,000 sq. ft. of floor space, but the extremes are 200 and 300,000 sq. ft.

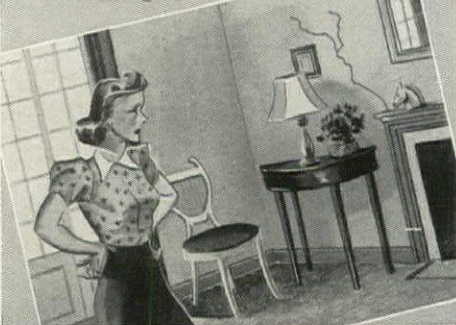
► Assuming that all factors remain constant, the Center will produce an annual rental of about \$13.5 million when fully tenanted.

► Total net rentable area of the Center is 5.1 million sq. ft.

► Total cost of Rockefeller Center to date has been about \$100 million, including construction costs, acquisition cost of land not rented from Columbia Univer-

(Continued on page 74)

*Small Homes*  
are a better investment  
when nationally-known  
WALL-TEX is made a part  
of the wall structure



**WALL-TEX**  
*Decorative Canvas*

### Safeguards Against PLASTER CRACKS

Architects, contractors, builders and investment men have learned to think of Wall-Tex as a structural material that becomes an integral part of walls and ceilings. That's because it has a tough, enduring wall-canvas base—strength that plaster needs to protect against cracks. Enduring and protective Wall-Tex decoration increases the value of property and makes it easier to sell at a better price. Millions of people know Wall-Tex for its protection against plaster cracks and for its non-absorbent, honestly washable surface.

Types of Wall-Tex: Stiffened Canvas and Lining Cloth—ideal for painting, stippling or tinting. Decorative Wall-Tex—a broad selection of distinctive patterns and single-color pastels. For all rooms and many uses. A money-saving decoration. Mail the convenient coupon.

### Send for useful FILE FOLDER

Columbus Coated  
Fabrics Corporation,  
Dept. F-4, Columbus, O.

Send your Building and Architectural Data File and swatches of Wall-Tex to—

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_





## WHAT DO THEY SAY ABOUT YOU..

*After their House is Built*



**M**ANY a home that suited its owners perfectly when they moved in turns out to be a headache when the operating costs pile up. Then the owners, who may have stretched their resources to make the down payment and keep up the installments, are likely to say, "Why didn't someone tell us that it would cost so much to operate this house?"

One of the operating expenses that often run far higher than anticipated is the heating bill. Keeping a house warm enough to be comfortable and healthy with high cost fuels in very cold weather upsets many a carefully planned budget.

So the owners fret about the cost, or endanger their health by keeping their home too cool for comfort. Criticism about heating costs can be avoided. Show your owners how it is healthy to

be comfortable and smart to keep warm at low cost by using either hand-fired or automatically stoked bituminous coal or coke. The choice of a heating plant and fuel for a new home should be made only with a complete understanding of these important factors: 1—*The cost of installation of the heating plant.* 2—*The yearly operating costs based upon sufficient heat for comfort.* 3—*The degree of convenience for which your clients are willing to pay.*

To help you serve your clientele, we have prepared two interesting booklets: "Unmasking the Great American Delusion That 'You have to Be Cold to Be Healthy'," and Modern Basement Plans illustrating the fundamental principles of planning basements for modern coal heating. Free copies of these booklets are yours for the asking.

IT'S HEALTHY TO BE COMFORTABLE • TREAT YOURSELF TO PLENTY OF HEAT THIS WINTER

**BURN BITUMINOUS COAL OR COKE**

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NATIONAL COAL ASSOCIATION

AP 4-40

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Western Office:

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Please send me a free copy of the Unmasking Story and the Modern Basement Plan Book.



Name .....

Address .....

City.....State.....



2,000,000

FEET

WALKED ACROSS  
THIS PARLOR FLOOR

—YET IT LOOKS AS IF  
NOBODY HAD STEPPED THERE!

Across the threshold of the Appalachian Oak Floor exhibit at Chicago's World's Fair, stepped a million people, treading, shuffling, scraping, in a floor-punishing procession. When the last visitor had gone, when they came to cart away the furniture, the floors still gleamed in brilliant beauty, almost as fresh-looking and attractive as at the day of the opening.

**Those floors were finished with shellac!** Shellac is built to take punishment. It's the toughest, most scar-resisting finish ever created. Bring down a hammer blow on a shellacked floor, and it may dent, but the shellac won't crack! That's why shellac is used on those torture-chambers-for-floors—bowling alleys and dance floors. "You can't hurt me!" the shellac says to feet and furniture. "And you can't hurt me!" the floors say when shellac is on top to take the blows and the scrapes. Shellac preserves the wood while it protects the surface.

On your next building, write enduring beauty for the floors into your blue-prints...specify shellac. Write to

**SHELLAC Information Bureau**  
70 Pine Street, New York City, for a free copy of the standard specifications for the reference of architects, as approved by the American Bleached Shellac Manufacturers Association.

## MONTH IN BUILDING

(Continued from page 72)

sity, cost of equipment, taxes, ground rent, administrative expenses, operating losses, etc. Actual construction costs represent about two-thirds of this amount.

**BANKER'S POLL.** During the past decade the local banker has played an increasing part in the house building business. In conjunction with his residential lending activities, he frequently dictates design (one ill-founded reason why Modern architecture has not spread more rapidly), helps write specifications, supervises construction and, in the case of his acquired properties, manages an entire rehabilitation project. A big cog in the building machinery, the banker's opinions carry weight.

In recent issues, *Banking*—mouthpiece through which the American Bankers Assn. talks to itself and others—has analyzed these opinions as they pertain to real estate and housing. Basis for the articles is a questionnaire to which *Banking* received 2,068 responses well distributed among all 48 States.

Question No. 1 asked "What are the prospects regarding real estate prices and rentals in your area—is the trend up or down?" Answers indicate that the course is definitely upward in all sections of the country. About 47 per cent of the bankers designated the trend as "up," while another 20 per cent said "slightly up." A steady trend was noted by 20 per cent; a downward trend, by the remaining 13 per cent.

Most comments volunteered by bankers on this question touched on the activities of Government in Building. Examples: "sales jeopardized through HOLC bargain prices" . . . "too much FHA activity" . . . "sales are throttled by HOLC" . . . "new structures get long-term loans and cheap interest rates, making old structures a drug on the market" . . . "there is too much FHA financing."

Question No. 2: "Do you believe that the housing problem in your area can be solved adequately on a sound profitable basis by private capital?" Since *Banking* defined neither "housing problem" nor "private capital," replies to the query are more interesting than informative. About 83 per cent of the 2,068 banker-respondents answered the question affirmatively; 10 per cent said "no"; the balance would not express an opinion\*.

(Continued on page 76)

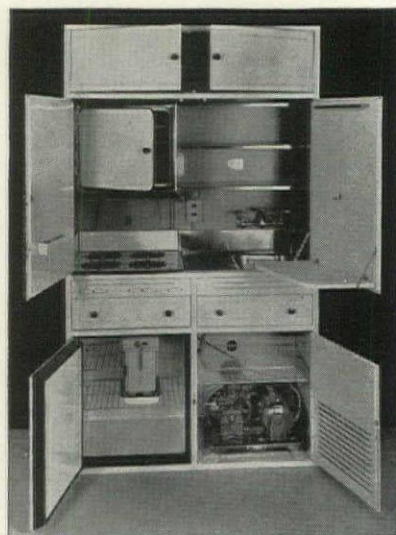
\* Answers to *Banking's* other questions show that the nation's financiers 1) consider air conditioning adaptable at present only to high priced houses and commercial buildings, 2) look for increased construction costs throughout the country and 3) will spend millions of dollars for improvements on bank-controlled real estate during 1940. (At mid-month *Banking* had not yet totaled the expenditures.)



## Home Comfort

This compact, all-steel Pureaire Kitchen transforms an ordinary room or small apartment into a real home . . . Contains range, oven, monel sink and drainboards, refrigerator and unit, with generous storage . . . Cooks without allowing odors or vapors to escape into the room . . . A fully guaranteed, highly perfected piece of equipment, now in its twelfth year of production . . . Satisfied owners everywhere . . . Costs no more than a conventionally equipped kitchen and much easier to install . . . Plan it into your next small apartment, hotel or remodeling operation. . . . Write for full information.

THE PARSONS COMPANY  
Detroit



Patented and patents pending

PARSONS

*Pureaire*  
KITCHEN



*An interesting spandrel treatment...*

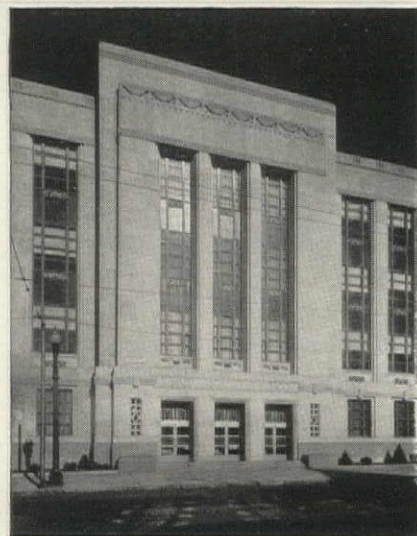


*Alberene Tremolite Spandrels, Timken Vocational School, Canton, Ohio;  
Chas. E. Firestone, Architect.*

## ALBERENE TREMOLITE WITH METAL INSETS

One reason why the dark stones from the Alberene quarries are popular with architects and builders is because they harmonize or contrast with most of the materials commonly used on exteriors. For the Timken Vocational School, Canton, Ohio, Chas. E. Firestone, Architect, designed an unusual spandrel panel carrying through the vertical lines separating the lights of the windows, with an aluminum inset below the sill. The photo above shows how closely Alberene Tremolite matches the color value of the glass.

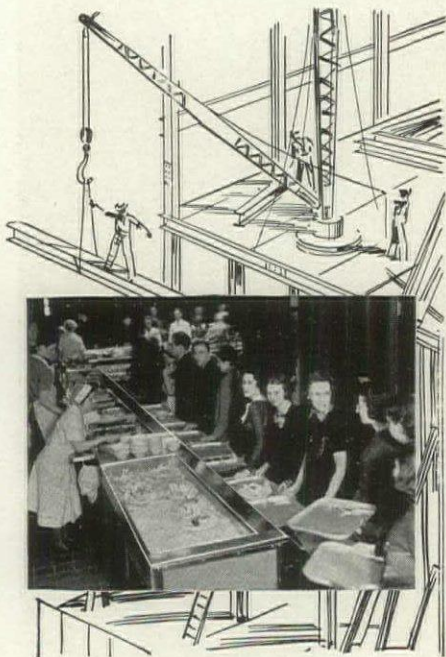
Having great toughness and density, Alberene Tremolite can be cut into sections as thin as  $\frac{7}{8}$ " for facings, bulkheads, spandrels and panels. The stone polishes naturally to a rich, deep satiny finish, not reflective or mirror-like. It is a good stone to remember when you want a durable, dark stone which can be installed at moderate cost. A request on your business letterhead will bring you samples, conveniently boxed, showing the range of stones, including black and mottled dark blues and greens. Please address Alberene Stone Corporation of Virginia, 417 Fourth Avenue, New York. Quarries and Mills at Schuyler, Virginia. Sales offices in principal cities.



## ALBERENE TREMOLITE

*from the  
Alberene Quarries*





## FOOD for STUDENTS

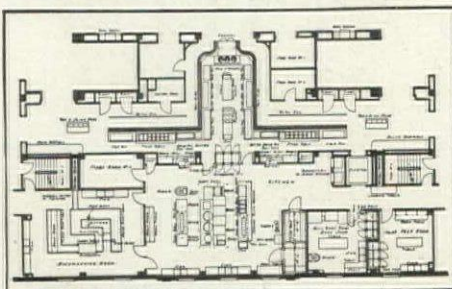
**T**HE construction of a School Building is important not only as it provides a place for the instruction but also for the Health of the students.

It is important therefore, that the Food Service Departments be so planned that the students may be served good food as economically as possible. The relation of dining room and kitchen to the plan as a whole, the coordination of various trades involved in the installation of the equipment, are all problems in which the Van Engineer can be of great assistance.

*Have you such a problem on the boards?*

**The John Van Range & Co.**  
EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD

328 EGGLESTON AVE., CINCINNATI, OHIO



## MONTH IN BUILDING

(Continued from page 74)

The lopsided affirmative reply seems to indicate that the banking business 1) does not yet know the extent of the housing problem, 2) over-estimates the low cost housing capabilities of private enterprise or 3) has some economic cure-alls up its sleeve which no one has yet seen. It may also indicate that the banking business misunderstood *Banking's* ill-phrased question. Comments on the question substantiate this possibility, also show that even the bankers do not know the meaning of "private capital"—many a banker's comment implied that an FHA-insured mortgage is not a private capital mortgage. For instance: "Private capital unwilling to compete against FHA". . . . "FHA selling banks down the river."

Challengeable is *Banking's* bland conclusion to its findings on the housing front: "Private capital has been quite successful in solving the housing problem on a sound profitable basis."

**REGISTERED HOMES.** Ever since the Federal Home Building Service Plan was born to the Federal Home Loan Bank Board in 1936, it has been an ailing child. It was fondly hoped that the Plan, which is built around a portfolio of architect-designed small houses, would greatly foster residential construction. But in four years, it has not learned to stand on its own feet, much less to walk. Its intended playmates—local savings and loan associations, contractors and material dealers—have stayed in their own back yards, have had but little to do with the Plan.

Called in to doctor up the weakling infant, the American Institute of Architects and its manufacturing affiliate, the Producers Council, last month had put the Federal Home Building Service Plan on its feet, announced that they would have it walking in jig-time. Hereafter, A. I. A. will encourage local architectural participation in the program in an effort to get more architects in the low cost house business, to improve the design of these houses. Meanwhile the Council will marshal the support of building product manufacturers and, through them, the support of local material dealers, contractors and builders. Backing them both up will be FHLBB's field organization which will turn the heat on local mortgage lenders. Thus, if any home building program has the makings of success, it is the rejuvenated Home Building Service Plan.

Only justification for such a program is that it assist prospective home owners as well as the building factors who participate. This the FHLBB Plan should do. By going to any one member of the local building profession, the prospect is as-

(Continued on page 78)

**Only**  
**SISALKRAFT**  
OFFERS THESE  
...MULTIPLE USES  
...EXTRA VALUES

**1 SIDE WALL PROTECTION** Over all sheathing, to provide positive protection against air, moisture and dust infiltration.

**2 FLASHING** Sisalkraft is pliable, waterproof, tough, effective as a flashing around door and window openings.

**3 UNDER FLOORS** Laid as a dry sheet under finish flooring, Sisalkraft helps to check buckling, warping and basement air and dust infiltration.

**4 MOISTURE BARRIER** A vapor seal of Sisalkraft applied behind the plaster base of side walls, is an effective barrier against condensation.

**5 CONCRETE CURING** Waterproof and air-proof. Sisalkraft applied over fresh concrete, retards rapid evaporation—assures a hard, smooth concrete.

**6 OVER SUB-FILL** A sheet of Sisalkraft over sub-fill keeps finish floors dry at or below grade.

**7 PROTECTING FLOORS DURING CONSTRUCTION** Sisalkraft over finish floors, stairs, woodwork, protects against stains and damage.

**8 PROTECTION OF MATERIALS** A covering of Sisalkraft assures materials being kept in condition for satisfactory performance in the job.

These are but a few of the multitude uses for Sisalkraft—more than a building paper. Write for complete file of information on this unusual material.

**The SISALKRAFT Co.**  
205 W. Wacker Drive, Chicago, Ill.  
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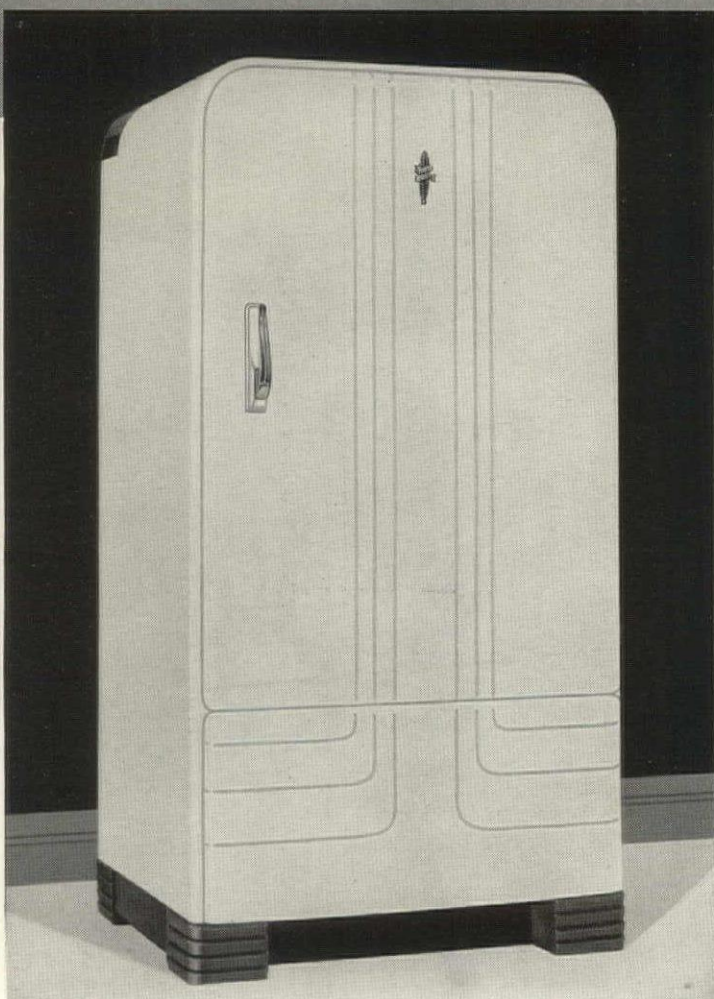


# REPLACING YOUR REFRIGERATORS?

POLL YOUR TENANTS...YOU'LL FIND THEY VOTE FOR

# *Gas Refrigeration!*

because it freezes silently  
... with no moving parts!



## DIFFERENT FROM ALL OTHERS

- NO MOVING PARTS in its freezing system
- PERMANENT SILENCE
- CONTINUED LOW OPERATING COST
- MORE YEARS OF DEPENDABLE SERVICE
- SAVINGS THAT PAY FOR IT

*Tenant* "Having used several kinds of automatic refrigeration in apartment houses, I feel that my present Servel Electrolux gas refrigerator is the perfect refrigerator, due to its silence, sturdy beauty, fast freezing and absolute dependability." Mrs. A. C. Ford, 742 S. W. Vista Ave., Portland, Ore.



*Builder* "As a builder of apartment houses, and having had experience with various kinds of automatic refrigeration, I have become convinced that Servel Electrolux gas refrigerators are best. Tenants like their silent dependability." Mr. S. E. Henderson, 742 S. W. Vista Ave., Portland, Ore.



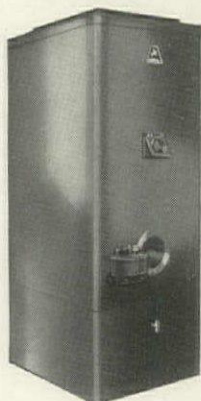
**SPECIFY THE REFRIGERATOR THEY HEAR ABOUT • BUT NEVER HEAR**



"OUR  
LOCHINVAR  
MODEL 80  
FITS OUR  
HOME AND  
PURSE"



**THIS NEW LOCHINVAR  
GIVES YOU *automatic*  
OIL HEAT AND WINTER  
AIR CONDITIONING AT  
A PRICE YOU  
CAN AFFORD!**



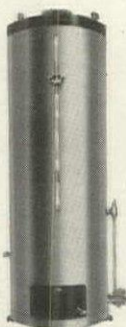
● If you are planning on building a small home, you'll want a heating system that is designed to fit it in size, capacity, economy of operation and price. At the same time, it must produce the same heating satisfaction and comfort that the furnace for the larger homes would, that cost 3 to 4 times as much. The Lochinvar Model 80

meets these requirements. It is not to be confused with space heaters or oil burning stoves, that may be housed in furnace casings. This furnace has the same quality construction that is found in the larger models that Lochinvar build. The Lochinvar Model 80 is a complete winter air conditioning unit giving automatic oil heat, forced air circulation, filtration, and automatic humidification. It gives 72,000 btu's at register and because its size is only 25" wide by 31" deep by 68" high, it can be easily installed in either utility rooms or small basements. We know that this Lochinvar Model 80 will give you the greatest dollar for dollar furnace value ever offered the small home owner and we urge you to write us for further information on this furnace as well as the complete line of Lochinvar furnaces.

#### LOCHINVAR'S NEW OIL BURNING WATER HEATERS

Newly improved in design and efficiency, Lochinvar now manufactures a 20, 30, 40 and 50 gallon storage size in automatic oil burning water heaters that are misers on fuel consumption. Literature on request.

[All units listed as standard]  
by Underwriters Laboratories]



**LOCHINVAR  
CORPORATION**  
14247 Tireman Ave.  
DEARBORN, MICH.

## MONTH IN BUILDING

(Continued from page 76)

sured of well-rounded service on his entire building problem—from design to finance. In general, this service will entail:

- Guidance in design selection—FHLBB has already prepared a portfolio of 400 original house designs contributed by the nation's leading residential architects. And, the number in each locality will be swelled continually by contributions from home-town architects for home-town use. Distinctly different from any national or local stock-design service, the Plan provides that the problems of a prospect receive individual attention. Thus, whoever first interviews the prospect must refer him to a participating architect who may assist in site selection and choice of a house design which fits the site, the neighborhood and the family's needs. The architect will also prepare detailed working drawings, specifications and cost estimates.

- Sound financial counsel—The local lending institution will advise the prospect as to how much he should spend, how much he should borrow, etc.

- Assurance of qualified builders and building materials—Only those builders, contractors and dealers whose work and materials are beyond question will be permitted to participate in the program.

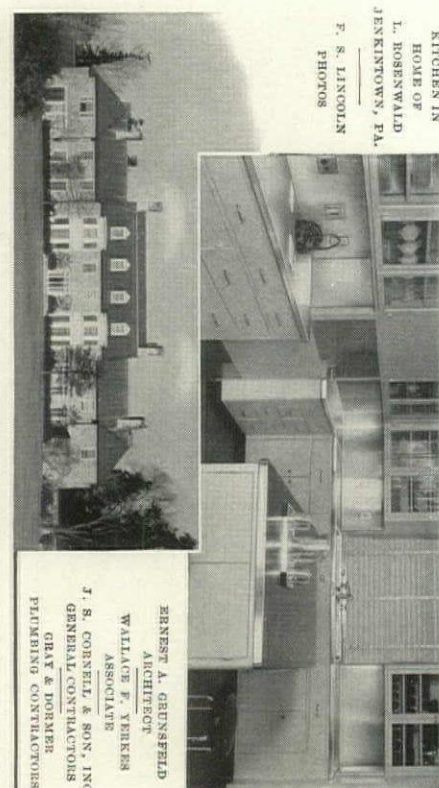
- Construction supervision—Competent periodic inspection will be made by those not employed by the builder or contractor—either the architect or a representative of the mortgagee.

- House registration—Every house completed under the Plan will be registered on FHLBB's Washington records, and a "Certificate of Registration" will be issued to the owner.

Increased home building volume which these consumer benefits may produce would naturally aid all branches of the industry. In addition many local builders, contractors and dealers, who individually cannot afford extensive advertising campaigns, may pool their promotional funds, use the canned publicity which FHLBB has prepared and tested. They stand to benefit further by the reputation which quality products build up. While their individual fees will be comparatively small, architects will tap through mass operations a market which they might not otherwise reach. Finally, lending institutions will have better collateral for their loans.

At present the program is being concentrated in the few communities which showed the greatest interest in FHLBB's pioneer Plan: Minneapolis and St. Paul, Minn.; Hinsdale, Ill.; Tottenville, Staten Island, N. Y.; Charlotte, N. C.; New Orleans, La.; Grand Rapids and Kalamazoo, Mich.; Madison, Wis.; and Fargo, N. D. Other cities will participate later.

(Continued on page 80)



KITCHEN IN  
HOME OF  
L. ROSENWALD  
JENKINTOWN, PA.  
F. S. LINCOLN  
PHOTOS

ERNEST A. GRUNSFELD  
ARCHITECT  
WALLACE F. YERKES  
ASSOCIATE  
J. S. CONNELL & SON, INC.  
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Write today for FREE Planning Service and Booklet AF-440  
ELKAY MFG. CO., 4704-14 W. Arthington St., Chicago, Ill.

**MANSION or BUNGALOW**  
ALVERTHORPE, the Home of LESSING J. ROSENWALD, is completely equipped with  
**ELKAY "Sturdibilt" Cabinet Sinks**  
MADE OF 18 U. S. STANDARD GAUGE GENUINE 18-8 STAINLESS STEEL

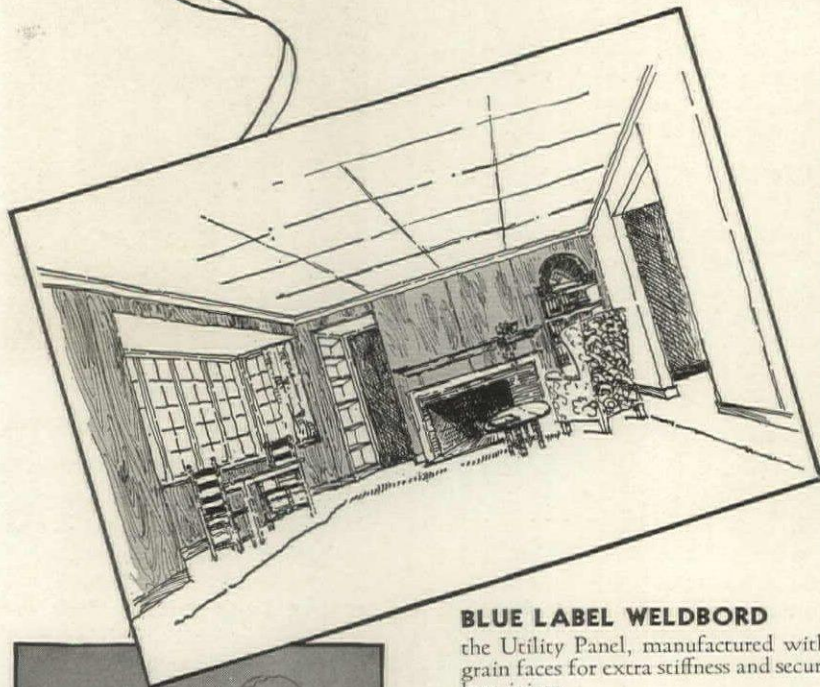
But, whether your home is a mansion or a bungalow, ELKAY Custom-built equipment will meet your individual needs and fit your purse. The tarnish-proof Stainless Steel surfaces reinforced with 14 gauge steel sheets and heavy longtude-inal steel channels, and the solid welded, round cornered construction throughout, assure you of a lifetime of charm and beauty, of permanent service and satisfaction.



BLUE LABEL

DE LUXE

*Beauty is NOT Skin-Deep*  
where **WELDBORD**  
*is applied*



Specifications which call for WELDBORD insure the *lasting* beauty and stability of the job, and guarantee remarkable economy in the development of the entire project . . . Whether the installation be minimum-priced "Blue Label" or nominally-priced "DeLuxe", the job eliminates messy, fragile plastering . . . Bright-finishing provides *permanent* decoration with either quality but, where paper or paint is to be applied, "Blue Label" is the perfect base without hazard of grain-raising or checking. WELDBORD conforms with F.H.A. requirements for interior paneling.

**BLUE LABEL WELDBORD**

the Utility Panel, manufactured with cross-grain faces for extra stiffness and secure tight-butt joints.

\* 7½¢ per sq. ft.

**De LUXE WELDBORD**

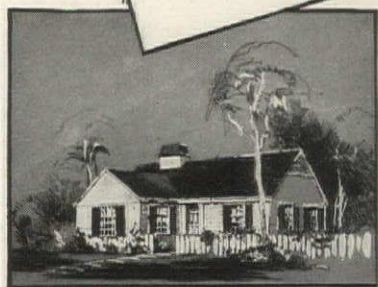
the Decorative panel, with long-grain book-matched faces of Oak, Walnut or Mahogany.

\* 17½¢ per sq. ft.

All WELDBORD panels are 48" x 96" x ¼". Blue Label grade is hardwood throughout; De Luxe grade may be obtained over Masonite (at buyer's option) and mill-prefinished, at a somewhat higher cost.

\*Prices are approximate list, F. O. B. nearest warehouse.

{ The "Plywood Handbook of Residential Construction" contains complete data on dry-wall technique—FREE to Architects and Builders—send for your copy. }



... from "Small House Designs" by Samuel Glaser, Architect, Boston

# WELDBORD

HOT-PRESS RESIN-BONDED

*Hardwood* **PLYWOOD** *Paneling*

**UNITED STATES PLYWOOD CORPORATION**

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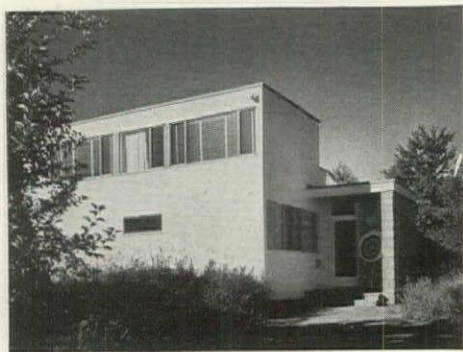
FOR FURTHER  
INFORMATION





# Insulate with Cabot's "Quilt"

and avoid moisture  
accumulation  
in the walls



House at Lincoln, Mass. insulated with Cabot's "Quilt."  
Architects: Walter Gropius and Marcel Breuer

"Because Cabot's "Quilt" leaves room for air circulation in the walls, it prevents the accumulation of moisture that may be caused when the air space is completely filled. Houses properly insulated with "Quilt" have never been known to have paint failures resulting from moisture condensation.

The high insulating power of Cabot's "Quilt" is proved in government tests which we will be glad to have you examine. It is rot-proof, vermin-proof, stays permanently in place and does not settle. With a new convenient fastening strip on the 16-, 20- and 24-inch sizes, Cabot's "Quilt" is now easier than ever to install.



## FREE BOOKLET Build Warm Houses.

Write today for your copy of this informative, file-size booklet, which gives much useful data on insulation. Address Samuel Cabot, Inc., 1273 Oliver Building, Boston, Mass.

# Cabot's "Quilt"

Heat Insulating      Sound Deadening

## MONTH IN BUILDING

(Continued from page 78)

Operating in favor of its general acceptance, the Plan requires no revolutionary hand springs from the building industry. On the contrary, FHLBB, the A.I.A. and Producers Council recognize the fact that Building is at present a localized industry, have therefore offered a plan for local application. Unchanged is the customary routine in which houses are built and sold. Only innovation: introduction of technical control to the small house construction field—a field where, according to last month's joint A.I.A.-Council statement, "home ownership has suffered severely . . . because of faulty planning, shoddy construction, insecure equities and unfavorable financing."

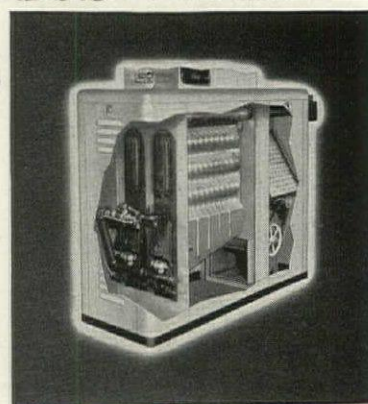
**EARNINGS.** In view of last year's increased building operations, it is axiomatic that 1939 earnings of manufacturers of building materials and equipment should be considerably better than those of 1938. Of the 31 companies which by mid-month had reported their 1939 earnings, all but one showed an improved trend; twenty made twice as much money as in 1938. In contrast to the 1938 reports which were discolored with nine net losses, not one of the reporting companies last year wrote its annual report in red ink. Herewith the roll call of net earnings:

Year Ended Dec. 31	1939	1938
Acme Steel#	\$1,915,331	\$ 368,168
American Rolling Mill	4,011,908	1,307,880*
Belden Mfg.	378,201	101,711*
Bridgeport Brass	459,058	251,890*
Carrier Corp.#	69,099	1,133,021*
Detroit Steel	525,625	188,756
Detroit Steel Products	616,362	173,288
Electrolux	1,658,468	2,040,922
Flintkote	1,432,383	811,818
Florence Stove	1,233,475	876,833
Formica Insulation	271,021	53,520
Harnischfeger Corp.	172,934	335,275*
Inland Steel#	10,947,251	4,916,203
Johns-Manville Corp.	3,639,719	930,302
Jones & Laughlin Steel#	3,188,944	5,879,958*
Lehigh Portland Cement	2,257,221	704,003
Libbey-Owens-Ford Glass	8,062,752	3,930,460
McCord Radiator	69,036	316,777*
Minneapolis-Honeywell Regulator	2,158,582	1,003,289
National Gypsum	1,455,237	921,632
National Steel	12,581,636	6,661,652
Owens-Illinois Glass	8,434,915	5,383,805
Paraffine Cos.†	473,655	364,260
Penn-Dixie Cement	361,786	86,710
Pittsburgh Plate Glass Co.	49,442,609	6,488,907
Republic Steel#	10,671,343	7,997,825*
Ruberoid	608,127	515,472
Stone & Webster	1,024,083	761,306
Trane Co.	530,533	196,625
U. S. Gypsum	7,365,847	4,725,497
U. S. Steel	41,226,039	7,755,914*
#—preliminary		†—3 mos. to Dec. 31
*—net loss		

## RYBOLT



THE IDEAL  
HEATING UNITS  
FOR LOW COST  
HOUSING



### The Gasmaster Rybolt Steel Gas-Fired Winter Air Conditioner

RYBOLT Winter Air Conditioners in steel or cast iron, for coal, gas or oil, embody the latest features and modern improvements. They are unusually compact, efficient and attractive and come in various sizes to meet all requirements. Low in first cost, simple to install and economical in operation, they are ideal for low cost housing. The complete RYBOLT line also includes modestly priced steel or cast furnaces for all fuels. Write for descriptive literature and data sheets.

### Rybolt Cast Coal-Fired Winter Air Conditioner Series 157



THE RYBOLT HEATER CO.  
617 MILLER ST. • ASHLAND, OHIO





*Carrara bathrooms and kitchens are beautiful, practical, and modern. This bath, designed by Architects Walter T. Karcher-Livingston Smith, is a good illustration of why you can point to a room with pride if you design it with Carrara. Note the handsome, sturdy Carrara Glass shelves.*

# *Design it with* **CARRARA**

and You'll Point  
to it with Pride!

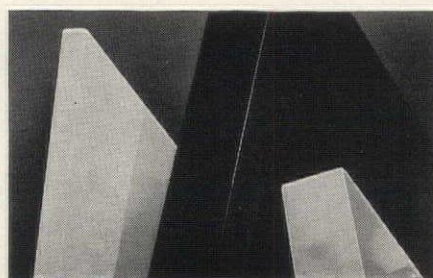
**W**HEN you call on Carrara Structural Glass to help you express your ideas of bathroom beauty, the result is almost invariably a room of which you can well be proud. For Carrara walls are smooth, polished, and accurately reflective. They have the mirror-like beauty which only a mechanically ground and polished structural glass can possess. They give the architect a wide choice of exquisite colors from which to build his color harmonies. And they *stay* beautiful . . . always.

No need to fear that Carrara walls will check, craze, stain, absorb odors or fade in color. Moisture and chemicals won't hurt them. A damp cloth keeps them spotlessly clean. And although they command a premium price, there's scarcely a client who won't admit they're worth it!

Specify Carrara Glass for bathroom and kitchen walls . . . and for attractive, practical window sills all over the house. We urge you to write us for complete information about Carrara, the Modern Structural Glass. Address Pittsburgh Plate Glass Co., 2084 Grant Bldg., Pittsburgh, Pa.

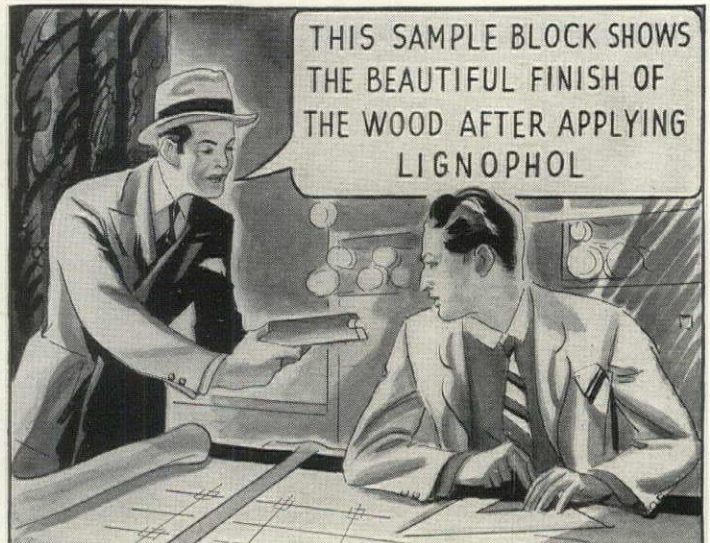
At the New York World's Fair, visit the Glass Center Building and the Pittsburgh House of Glass

**CARRARA**  
*The modern Structural Glass*  
PITTSBURGH PLATE GLASS COMPANY





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## **LIGNOPHOL**

### **IS A ONE APPLICATION WOOD FINISH**

For TRIM and FLOORS in residences, schools, gymnasiums, factories.

## **LIGNOPHOL**

### **PRESERVES**

LIGNOPHOL protects your floors and trim easily—economically—and for years.

## **LIGNOPHOL**

### **BRINGS OUT THE NATURAL BEAUTY OF THE WOOD**

Shades—natural, light, medium and dark brown.

*See reproduction of various woods in Natural Colors in Sweets' Catalog, Page 17/47.*

### **NOTHING TO WEAR OFF**

Shellac and varnish are easily scratched and wear off. LIGNOPHOL leaves nothing on the surface to be scratched or worn off.

It will protect your floors against warping, dry rot, cracking, splintering, pitting, scuffing and burn marks from rubber shoes. All excellent reasons why you should investigate LIGNOPHOL for every wood floor or trim job on your list.

#### **FOR YOUR CONCRETE FLOORS USE LAPIDOLITH LIQUID**

A chemical liquid that will dustproof and wearproof your floors. No retreatment.  
The finish is permanent.

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**L. SONNEBORN SONS, INC.**

**88 LEXINGTON AVENUE**

**NEW YORK CITY**



## NEW INSULUX DECORATIVE DESIGNS

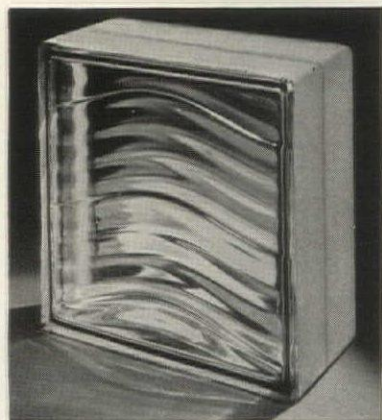
# *Dramatize the Beauty of Glass*



**ABOVE:** In the Coffee Shop of the Commodore Perry Hotel, Toledo, exterior panels of Insulux "Circon" block bring diffused daylight . . . form a decorative feature of the room . . . exclude an objectionable view . . . and, having high insulation value, lower costs of heating and air conditioning.



**DESIGN No. 30**—The "Circon," so called because the design suggests concentric circles when the panel is completed. An excellent pattern for residential use. Available in 8 x 8-inch sizes.



**DESIGN No. 24**—A design by Walter Dorwin Teague. The waved ribs form a continuous pattern that gives the panel unusual beauty. Available in 8 x 8 and 12 x 12-inch sizes.

**I**NSULUX Glass Block are basically a functional material, designed to transmit daylight, insulate effectively and help maintain better control of interior conditions.

Yet there are many places—in homes, theaters, hotels, shops, restaurants, etc.—where Insulux Glass Block are used mainly as a design element to add decorative beauty to interior and exterior. For such uses, Insulux offers you special decorative designs that take full advantage of the fluidity and translucence of glass . . . dramatize the natural beauty of the material.

It is impossible to catch in a photograph the full effect of these exclusive Insulux designs. May we suggest that you ask your Insulux distributor to show you samples of the decorative block pictured at the left. Owens-Illinois Glass Company, Insulux Division, Toledo, Ohio.

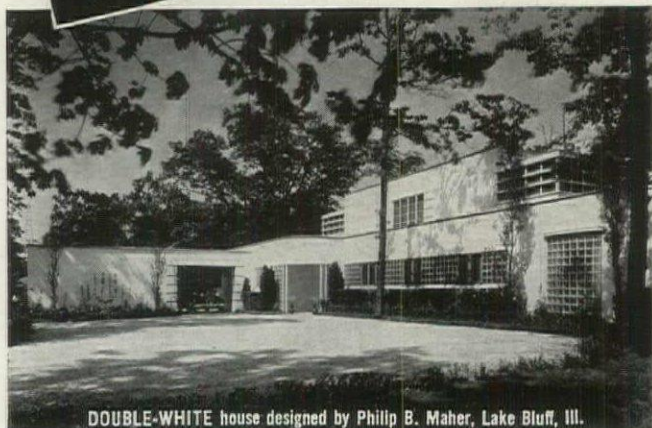
**OWENS-ILLINOIS**  
**INSULUX**  
*Glass Block*

**THERE ARE PLACES IN EVERY BUILDING THAT NEED INSULUX**



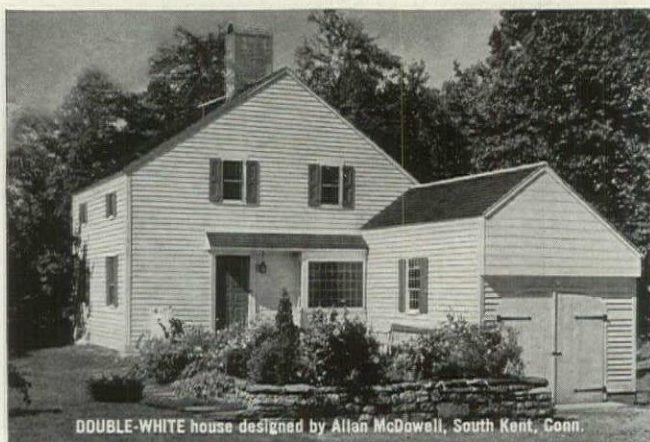
# GLEAMING WHITE

*year after year*



DOUBLE-WHITE house designed by Philip B. Maher, Lake Bluff, Ill.

Cabot's DOUBLE-WHITE looks well for years because its pure white pigments are not affected by gases in the air which soon discolor most white paints.



DOUBLE-WHITE house designed by Allan McDowell, South Kent, Conn.

The DOUBLE-WHITE house stays clean and bright because, as the paint slowly and stubbornly wears down, it literally *sheds* the dirt.

Widely used by leading architects, Cabot's DOUBLE-WHITE is made by our patented Collopaking process in which the pigments are literally torn apart—divided into particles of sub-microscopic size—and colloiddally compounded with the oil. Thus, in addition to its extra whiteness, DOUBLE-WHITE gives you the advantages of greater hiding power and longer life.

**FREE—The White Book.** Shows many prize-winning houses painted with Cabot's DOUBLE-WHITE. *Old Virginia White* and *Gloss Collopakes*. Contains full information. Write today, Samuel Cabot, Inc., 1272 Oliver Bldg., Boston, Mass.

## Cabot's DOUBLE-WHITE

**and Gloss Collopakes**  
(COLLOIDAL PAINTS)

## NOW! and HOW!

### Real Window Insulation With VENETIAN BLINDS



### Chicago ALUMILITE Slashes Winter Heat Loss..Repels Sun

● Chicago Alumilite\* Venetian Blinds, justly famous for their beauty, are equally sensational in their remarkable insulating qualities. They actually keep sunny rooms as cool in summer as those on the shady sides. In winter they can be adjusted to reduce heat loss through windows by as much as 75%, thus effecting an important saving in fuel.

#### Immune To All Climates

Chicago Alumilite is 98% pure aluminum and is absolutely immune to all climatic conditions. Slats cannot warp, chip, peel or deteriorate in any way. Dirt cannot become ingrained in the hard surface and scrubbing is never necessary. Of course they never require refinishing.

#### Reflect Room Colors

From a decorative standpoint these blinds are amazing. They reflect surrounding room colors in beautiful hues and harmonize with any color scheme.

#### Give Indirect Lighting

The precisely calculated design of Chicago Alumilite slats controls light so that a scientifically correct indirect lighting effect is achieved. This quality is greatly appreciated in schools and office buildings.

The complete, illustrated story of Chicago Alumilite Venetian Blinds will interest you. Mail the coupon for the facts, together with information on our complete line which also includes wood, rigid or flexible color-metal and Plastone blinds.

\*Patented process owned by Aluminum Company of America.

**CHICAGO** *Venetian Blind* COMPANY  
MICHIGAN AVENUE AT 39th STREET • CHICAGO, ILLINOIS  
World's Largest Custom Blind Manufacturer

#### Outstanding Examples:

*School of Architecture,  
U. of Minnesota  
Kraft Building, Chicago  
Alfred I. DuPont Bldg., Miami  
Ford Building, Detroit  
Edgewater Park Hotel, Biloxi  
Archbishop Diocese Bldg., Seattle  
Corn Exchange Bank, New York  
Pacific National Bank, Seattle*

CHICAGO VENETIAN BLIND COMPANY  
Michigan Avenue at 39th St., Chicago

Please send facts about Chicago Alumilite and your full line of venetian blinds.

Firm Name.....

Street.....

City..... State.....



**BRUCE**

**STREAMLINE**

(FACTORY-FINISHED)

**FLOOR**

PEGGY, AREN'T YOU  
AFRAID THE CHILDREN  
WILL SCRATCH YOUR  
BEAUTIFUL FLOOR?

NOT AT ALL, IT  
DOESN'T SCRATCH LIKE  
AN ORDINARY FLOOR  
BECAUSE THE FINISH  
IS IN THE WOOD..NOT  
JUST ON THE SURFACE



## New Low-Cost Factory-Finished Flooring RESISTS SCRATCHES ... HAS BEVELED ENDS AND EDGES!

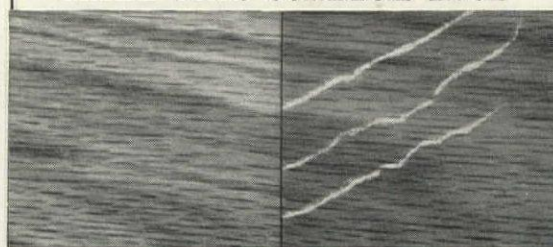
● Now, you can give home owners a factory-finished hardwood floor that will *stay* beautiful for years to come! And no wonder! Bruce STREAMLINE Flooring is finished a scientific new way that penetrates the pores of the wood ... gives floors a tough, lustrous, lasting finish that wears with the wood. That's why it doesn't scratch, chip or peel like ordinary flooring finished the old style surface way. What's more, this amazing new flooring usually costs less than ordinary flooring finished on the job.

Home owners everywhere like

the gracefully beveled ends and edges, and the generous width of the strips (3¼"). This new idea creates a shadow "patterned" effect that gives floors an appealing new beauty like that of expensive plank floors.

Then, too, a Bruce STREAMLINE Floor is ready for use the very instant the last nail is driven in ... because there's no sanding, finishing or polishing to do. Available in Oak, Maple, Beech in several shades and grades. Installed exactly like ordinary strip flooring. Send the coupon for full details and "Scratch Test" Panel.

### MAKE THIS SCRATCH TEST



"BRUCE-WAY"

SURFACE FINISH

Send for this "Scratch Test" Panel. Half is finished the new "Bruce-Way" used on STREAMLINE Flooring—other half finished the ordinary surface way. Scrape a coin across both finishes. See how the ordinary surface finish scratches and chips away, while the "Bruce-Way" finish is unharmed.



**E. L. BRUCE CO.**

1568 THOMAS STREET

MEMPHIS, TENN.

HARDWOOD FLOORINGS — FLOOR FINISHES — TERMINIX

E. L. BRUCE COMPANY

1568 Thomas Street, Memphis, Tennessee

Gentlemen: Please send complete data on Bruce Factory-Finished STREAMLINE Flooring and a "Scratch Test" Panel.

Name.....

Street.....

City..... State.....



## Of Special Interest

### To All ARCHITECTS and CONTRACTORS

Stock sheets finished in porcelain enamel are now available to the building industry at a new low price. The advantages of a porcelain enamel finish for industrial constructions are well known. Besides a complete range of colors available for your selection, it is important to remember that porcelain enamel requires no maintenance. Its color *cannot* fade and its gleaming or matt finish will remain constant forever.

Through the internationally famous laboratories of the Mellon Institute of Industrial Research and the expansive research laboratory of the O. Hommel company the new, inexpensive Hommelaya Process of Vitreous Enameling was perfected. Embodying all the beauty and durability of ordinary porcelain enamel, the Hommelaya Process is able to offer a distinct savings over ordinary porcelain enamel by the elimination of needless processing of the steel.

We ask you to consider the Hommelaya Process on that job you are planning now. Not only is it ideal for industrial building construction but lends itself perfectly on such domestic items as copings, shingles, shutters, baseboards, closet and bath fixtures, window frames, sidings, and all construction work where the element of corrosion is a problem.

For further information write the O. Hommel company, 209 Fourth Avenue, Pittsburgh, Penna. Your inquiry will receive a prompt reply.

*The O. HOMMEL COMPANY*  
209 FOURTH AVE.,  
PITTSBURGH, PENNA.

*"World's Most Complete Ceramic Supplier"*



Just a year ago this month the new Payne Zoneair was introduced to the gas heating field. Yet in that short time it has won countless friends from coast to coast.

Why such outstanding, immediate popularity? Simply because the New Payne Zoneair offers, in a single, compact unit, all the features of true winter air conditioning. It heats, circulates, ventilates, filters and humidifies—*automatically!*

Used individually to heat separate groups of rooms, it provides the added advantage of convenient, economical zoned warmth.



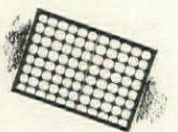
**HEATS**—The Payne Zoneair keeps the home in the comfort zone 24 hours a day. Just the degree of heat you want—*automatically controlled.*

**CIRCULATES**—Like all Payne units, the Zoneair employs the principle of *circulating* air distribution. A vital factor for health and comfort.



**VENTILATES**—A blower attachment, operating independently of the heating element, floods the home in summer with cooling ventilation.

**FILTERS**—Fine - spun, glass - wool filters clean the air before it enters the rooms—remove dust and impurities—keep walls and hangings cleaner.



**HUMIDIFIES**—Proper humidity, an optional Zoneair feature, is conducive to good health—prevents excessive dryness and irritating head colds.

For information about the latest 1940 Model Payne Zoneair, see your local dealer or write the factory direct.

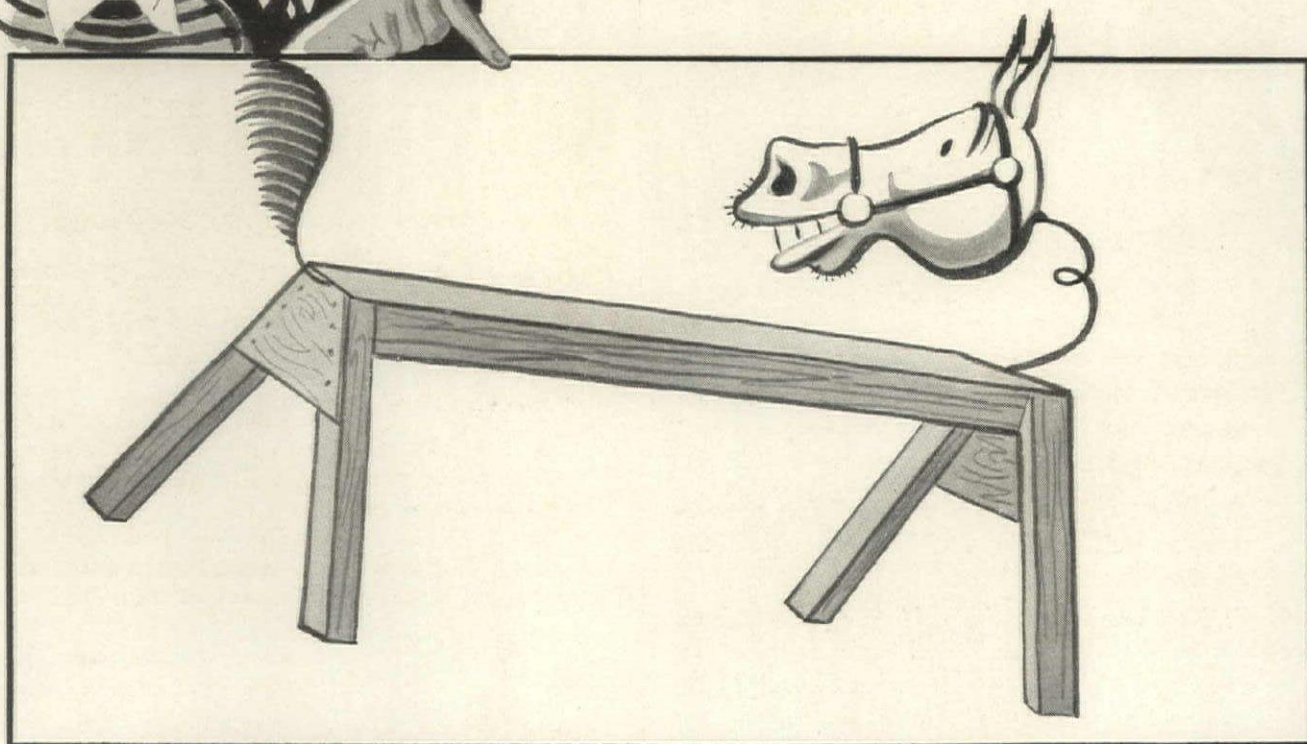
*Payne*

**FURNACE AND  
SUPPLY CO., INC.**  
BEVERLY HILLS, CALIF.





Meet *Certain-teed* son. He's a  
horse that all of us  
**ARCHITECTS** can ride  
in the Lucky Forties



**"Why is the horse named Certain-teed, Daddy?"**

"He represents one of the biggest and best names in building—the Certain-teed Products Corporation. And he's certainly one horse the whole building industry can ride with profit."

**"How does Certain-teed profit you, daddy?"**

"Well, son, most of my living comes from people who want to live in homes. That goes for the entire industry, too. That's why we can all ride this horse, Certain-teed. He sells my customers and prospects on the basic idea of building or remodeling."

**"How, daddy?"**

"Through Certain-teed national advertising that shows

35,000,000 Americans how much better off they and their country will be when they invest in building. Home owners are the real backbone of America, I think."

**"Don't all big companies do that, daddy?"**

"Not like Certain-teed. There's one outfit that has the courage and the vision to sell the industry *above* their products—that's why I'm backing this horse to help me in 1940."

**"Will Certain-teed help you enough to get me a new bicycle, daddy?"**

"I'm sure he will, son. I'm betting we'll climb on Certain-teed's back and gallop right into the best profit year we've ever known."

### *Certain-teed's Basic Policy*

Certain-teed believes that only as the Building Industry prospers, so will the nation. Therefore, we consider it our duty to promote the building industry *as a whole*, by stimulating the universal desire to own and live in a good home. For that reason Certain-teed advertising sells your services and your industry *first*; and Certain-teed products *last*. In the interest of the 6,000,000 crafts-

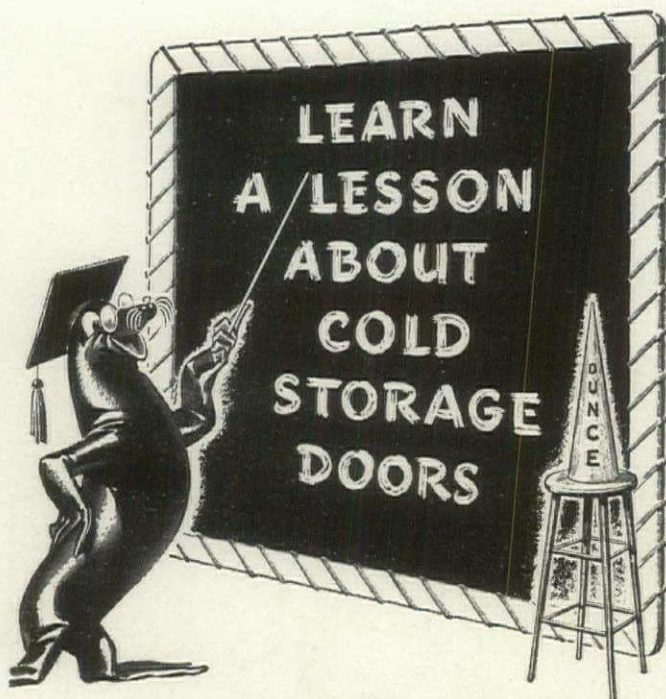
men who depend on the Building Industry for a livelihood Certain-teed pledges to remain faithful to this basic policy.

### **CERTAIN-TEED PRODUCTS CORPORATION**

100 EAST 42ND STREET, NEW YORK

ASPHALT ROOFING, SHINGLES AND SIDING • STRUCTURAL INSULATION  
WALL BOARDS • GYPSUM BOARD, LATH AND PLASTER PRODUCTS





Students, it's elementary that the prime requirements of cold storage doors are ruggedness, ease of operation, and efficient insulation. But today another factor is important. What is it?

**Beauty.**

Right! Now tell us the reason why.

**Because modern plants are built for appearance as well as utility, and cold storage doors must harmonize.**

That's the answer! Now, what cold storage doors, long-famous for ruggedness and good insulation, have new effortless operation and new streamlined beauty?

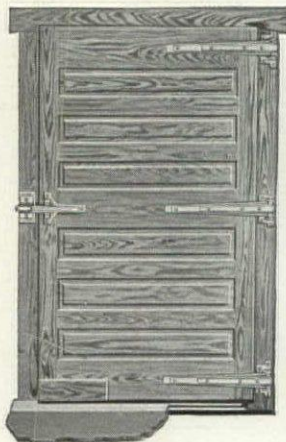
**Jamison-built cold storage doors.**

Correct! And how has this been accomplished, students?

**Jamison engineers and Paul Cret stylists have designed a new easy-operating "Model W Wedgetight" Fastener and a new flow-lined "Adjustoflex" Hinge.**

Class passes 100%! And don't forget, students, there's no increase in price! For collateral reading get a copy of the new Jamison Bulletin 122. It's free. Write to the Jamison Cold Storage Door Co., Hagerstown, Md. Branches in principal cities.

*Jamison, Stevenson & Victor Doors*



Jamison Standard Door



See our Catalog in Sweets Catalog File



## Only this method provides WALL-SIZED PANELS

**New book tells how the Bemis module simplifies design problems, permits complete flexibility**

\$4,000,000 of architect-designed Precision-Built Homes have already been erected. They are in all parts of the country—all sizes, all types.

*Wall-sized panels*—exclusive with this method of fabrication—are only one of the important and interesting features of Precision-Built construction.

TOMORROW'S HOMES tells the whole story—shop fabrication, field erection, estimating—shows the architect ways to profitable new business; shows how to save time in planning, drafting,



READY TO OCCUPY IN 30 DAYS

curing in the wood frame house. The use of this module means standardization, integration, simplification and time-saving—yet it does not in any way restrict the flexibility of your design.

Precision-Built Homes are built of standard materials and with quality construction throughout. They are doubly insulated; they stay "new" longer; they are eligible for F.H.A. Insured Mortgage Loan.

TOMORROW'S HOMES is privileged to architects (in the U.S.) without charge. It is profusely illustrated with photographs, working details, rafter tables, area, lineal foot and cubic yard tables. It shows you how to build even low-cost houses at a profit. We invite you to write for your copy, using your firm's letterhead. Only one copy to a firm.



ANY STYLE OF ARCHITECTURE

estimating and supervising the job. The finished house is ready for occupancy, 30 days after your plan is approved.

The Precision-Built method employs the Bemis 4" module—the most frequent increment oc-

**HOMASOTE COMPANY**  
TRENTON . . . NEW JERSEY



# SPECIFY G-E QUALITY WIRING MATERIALS ... for Electrical Systems in Homes • Factories • Farms



The electrical wiring you specify governs the usefulness of every building you design—whether it be a home, an industrial plant or a farm. Of course, the wiring should be adequate for the electrical needs of the building. But equally important, quality materials should be specified to provide lasting dependable service.

## Clients Will Benefit

The line of General Electric wiring materials, built to one high quality standard, contains materials suitable for any type of installation in any building. By specifying adequate wiring layouts and G-E materials you will enable your clients to use electricity conveniently and efficiently now and in the future.

## Three Wiring Manuals

For assistance in planning adequate wiring General Electric has prepared three manuals—a factory wiring manual, a home wiring manual and a farm wiring manual. Appropriate G-E wiring materials are shown in each manual. G-E wiring materials are also shown in Sweet's 1940 Architects Catalog. To obtain any of the manuals see the nearest General Electric Merchandise Distributor or check and mail the coupon at right.



General Electric Company	
Section CDW-0354	
Appliance and Merchandise Department	
Bridgeport, Conn.	
Sirs: Please send me the manuals I have checked below:	
<input type="checkbox"/>	Adequate Wiring for Industry
<input type="checkbox"/>	Farm Wiring Handbook
<input type="checkbox"/>	G-E Home Wiring Manual
Name.....	
Address.....	
City.....State.....	

# GENERAL ELECTRIC



● Private bar at Seagram-Distillers Corp. headquarters, Chrysler Bldg., New York. Guests are also treated to an exquisite new brand of comfort—on seats of U. S. ROYAL FOAM whipped latex cushioning. Designed and executed by Ross-Frankel, Inc., Morris Lapidus, Associate.

# ADAPTABLE!

**ONE-PIECE UPHOLSTERING  
EASILY CUT TO SHAPE**

*or supplied molded to any desired contour*

## U.S. ROYAL FOAM

*Cushioning of Whipped Latex*

One-piece, *sag-proof* units replace all inside parts of upholstered furniture.

Millions of connecting air cells provide buoyancy that changes sitting to effortless floating, and 'breathe'

- constantly for cool self-ventilation.

*Inquire today about the application to your problems. (If one of them happens to be better sleep, be sure to ask about the U. S. Royal Foam Mattress, too!)* Address



**U.S. ROYAL  
FOAM  
CUSHIONING**  
Trade Mark  
Reg. U. S.  
Pat. Off.



**UNITED STATES RUBBER COMPANY**

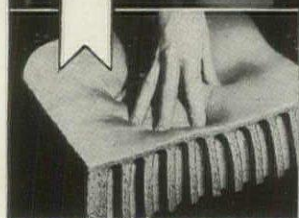
MISHAWAKA, INDIANA

### A SINGLE UNIT DOES THE ENTIRE CUSHIONING JOB

- Applied direct to any solid base
- Simpler construction, more comfort, longer life, for

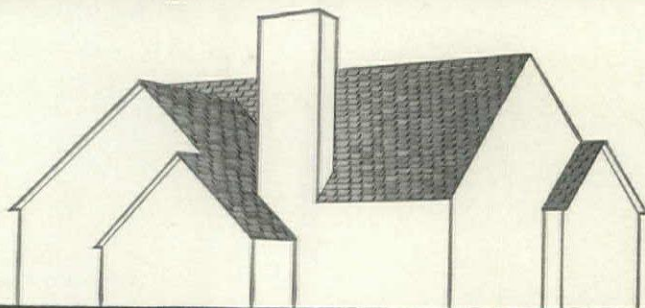
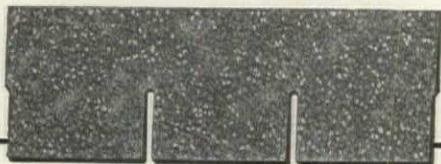
**FURNITURE • BUILT-IN SETTEES**

**THEATRE SEATS • TRANSPORT SEATS**



## Barber Announces the MAGNATAB

*A new, heavier shingle with a thicker butt which meets all F. H. A. specifications.*



**THE** Magnatab Shingle is constructed with an extra-thick coating made with *The Vital Element*—Trinidad Native Lake Asphalt. The thicker butt not only gives extra protection, but also lends itself to interesting roof design.

**"Color-styled" too**—Like other Barber asphalt roofings, the new Magnatab Shingle has been "color-styled" by Howard Ketcham. A wide selection

of interesting colors is available for your choice.

**Remember**—Barber is the *only* roofing manufacturer that offers roofings with the added protection of *The Vital Element*—Trinidad Native Lake Asphalt.

Barber's research laboratories are always ready to answer your questions regarding the uses or limitations of asphalt. There is no cost or obligation

for this service. For full particulars, address Barber Asphalt Corporation, Barber, New Jersey.

*Nationally advertised Barber Genasco Products, made with The Vital Element, include: Bonded and other types of Built-up Roofings, Shingles, Sidings, Roll Roofings, and other Barber Products include: Waterproofing, Asphalts, Fabrics, Resurfacer, Asphalt Protective Products (Plastics and Liquids), Spandrel Beam Waterproofing (Spandrel Cloth and Cement).*

**FOR FURTHER  
INFORMATION**

**SEE OUR  
CATALOG IN  
SWEET'S**

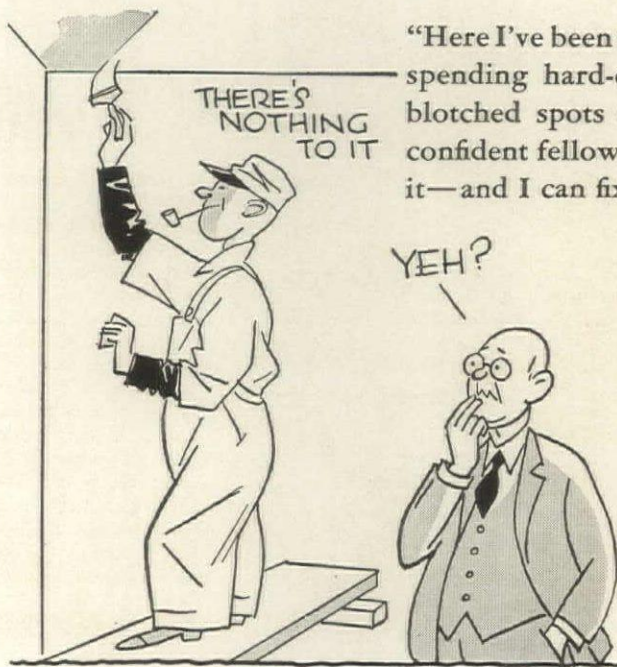
## BARBER GENASCO QUALITY ROOFINGS

**SHINGLES • ROLL ROOFINGS  
SIDINGS • BUILT-UP ROOFINGS**



# "WHAT NEXT?"

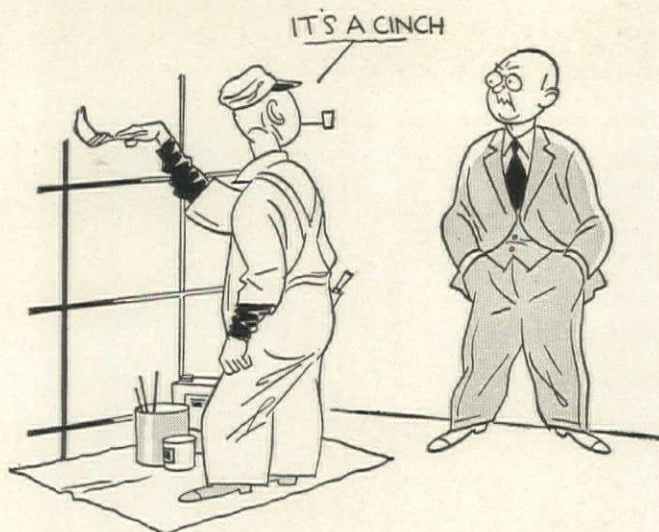
*Says MR. JONES*



"Here I've been fuming around for more than two years, spending hard-earned money trying to cover up the blotched spots on my ceilings—then along comes a confident fellow who calmly says, 'There is nothing to it—and I can fix it all with BONDEX-PRIMER.'"

"The day he was ready to put on the finish coat I moseyed in expecting to see him get the wind taken out of his sails. I was that sure he couldn't cover up the dark spots—but there they were, taking the smoothest, sweetest finish you ever hoped to see. The painter gave me a knowing glance and chuckled, 'That's just one thing BONDEX-PRIMER will do.'"

"But I still had an ace up my sleeve. 'Wait 'til you get to those masonry blocks and try to paint over those asphalt expansion joints.' But the fellow just grinned and said, 'BONDEX-PRIMER will take care of that too.' And doggone it, it did!"



"What finally laid me in the aisle was when he showed me some creosote-stained, outside stucco walls he had painted. Believe it or not—there was *complete* hide—BONDEX-PRIMER had done the 'impossible' again!"



"Now if you're having painting troubles of any kind, or finding it *tough going* when it comes to making paint adhere to any metal or non-porous surfaces, sit down and write THE REARDON COMPANY, St. Louis, Mo., about BONDEX-PRIMER. It's got more uses than you ever dreamed of—cost is a surprise too!"





## DOOR DATA

*You'll find useful*  
**THE YEAR 'ROUND**

*Write Today*  
**FOR**

**THIS NEW CATALOG**

*on rolling doors of all types*

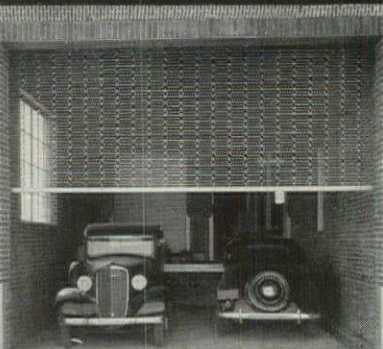
### STEEL ROLLING DOORS



Composed of steel interlocking slat curtain that raises vertically and compactly coils on a barrel above the lintel. Spring counterbalanced for easy operation. Convenient—saves space—durable—economical to install. Fire-proof (but also built in automatic labelled types for fire protection). Built in any size—manual or motor operation.

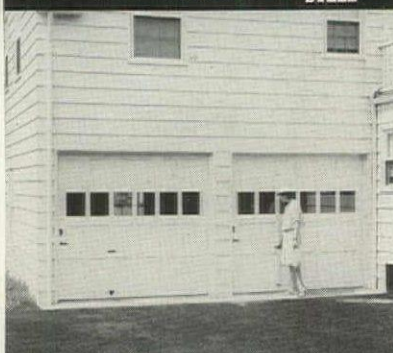
Provides protection against burglary and trespassing with the advantages of air, light and vision. Operates similar to Steel Rolling Doors. Grille composed of heavy steel rounds and ornamental links. Locks in steel jamb guides. Remarkably strong when closed—out of sight when open. For any size door or window. Manual or motor operation. A recent development of many uses!

### METAL ROLLING GRILLES



### Rol-TOP DOORS

**WOOD OR STEEL**



A sectional, overhead type door built in wood or steel. Suited for any use . . . ideal for residence garages. Raises smoothly to overhead position on ball bearing rollers in heavy steel tracks. Provides for sash lights. Spring counter-balanced. Operates easily the year 'round—out of the way—rugged—economical—simple to install. All sizes. Also motor operated.

Offices and Agents in All Principal Cities  
**The KINNEAR**  
MANUFACTURING COMPANY  
1640-60 FIELDS AVE., COLUMBUS, OHIO  
FACTORIES: COLUMBUS, OHIO  
SAN FRANCISCO, CALIF.

**Pioneers**  
In Rolling  
Doors For  
Commercial &  
Industrial  
Buildings &  
Residential  
Garages

**KINNEAR**  
ROLLING DOORS

# WALRUS

MANUFACTURING COMPANY  
DECATUR ILLINOIS

*Our*  
**Fortieth Business Year**

LABORATORY AND  
VOCATIONAL FURNITURE

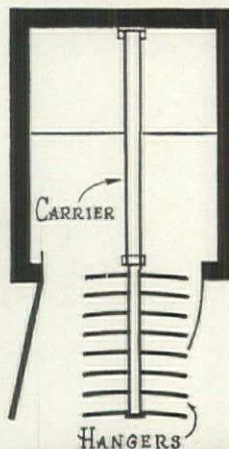
SODA FOUNTAINS  
STORE FIXTURES  
ICE CREAM STORE EQUIPMENT  
REFRIGERATED DISPLAY CASES  
BOOTHES • TABLES • CHAIRS

*Save up to \$40*  
*per Closet in Cubage*



**K-Venience Clothing Carrier**  
—In Sizes to Fit All Closets

One of 40 space-saving closet fixtures in the K-Venience line.



**-and Double Closet Capacity**

Figuring average house costs at from 25 to 45 cents per cubic foot, a few dollars spent for K-Venience Clothes Closet Fixtures, will give you economy planned closets which are equal in utility to those twice their size. For example, a closet 2' x 5'—equipped with K-Veniences, can give you the same clothing capacity you would ordinarily get in a closet 4' x 5'. This saves between 80 and 90 cubic feet or from \$20 to \$40 in cubage. K-Veniences also keep all apparel orderly, easily accessible, and provide eye-catching sales appeal to answer Mrs. America's demand for more closet space.

**FREE CATALOG** with plans, ideas and helpful data showing how K-Veniences Double Closet Capacity. Write today.

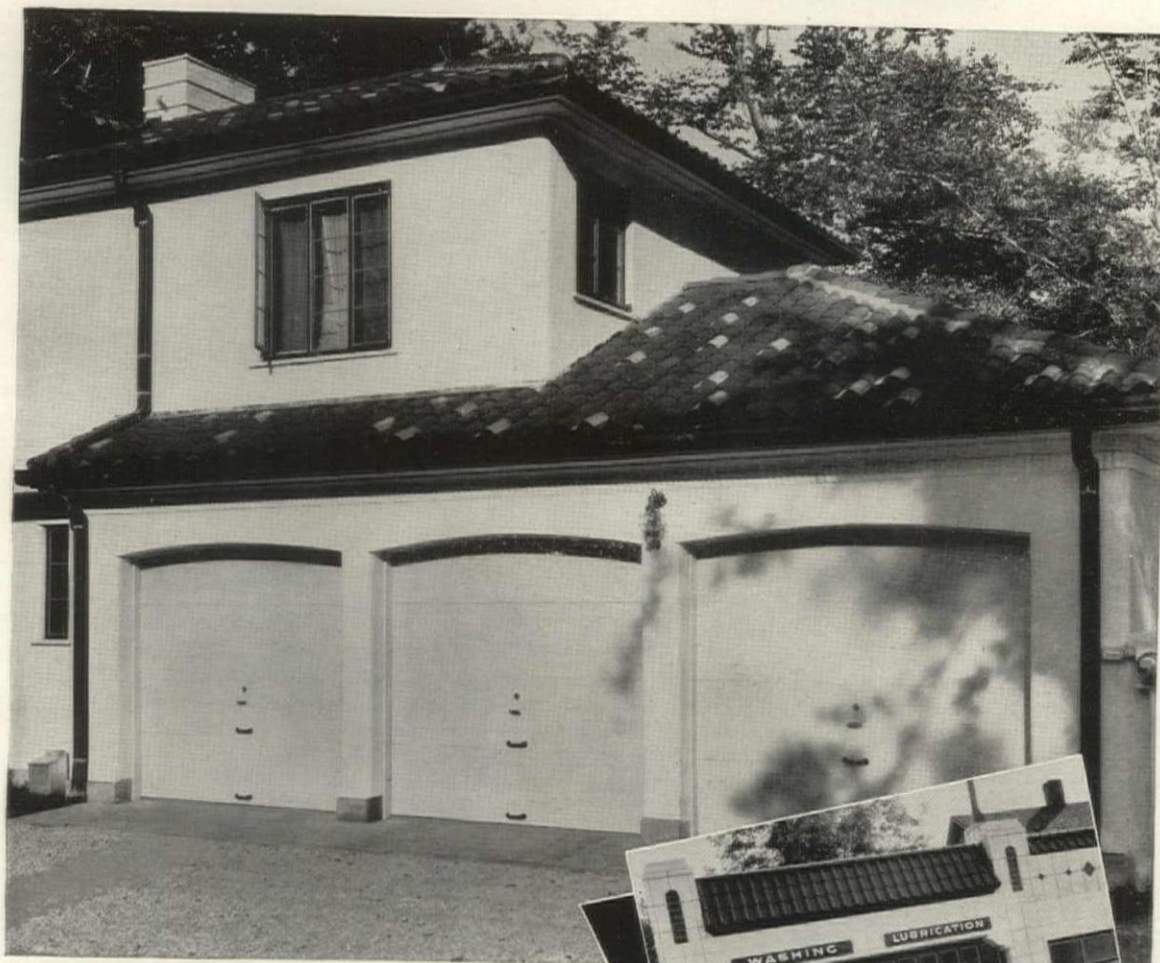
**KNAPE & VOGT** MANUFACTURING COMPANY  
Dept. F-4 Grand Rapids, Mich.



# THE "OVERHEAD DOOR"™

TRADE MARK

## WITH THE MIRACLE WEDGE



### THE DOOR BEYOND A DOUBT!

Complete satisfaction is the report of more than a million users. From the smallest homes to multiple installations, you can depend on The "OVERHEAD DOOR" with the MIRACLE WEDGE.

In stock or special design, Standard Model or Master Model with "Power-Tubes" - it is adaptable to any opening, blends with every type of construction. Expert installation is a vital part of our service; we take full responsibility.

**OVERHEAD DOOR CORPORATION**  
Hartford City, Indiana, U. S. A.



#### COMMERCIAL-INDUSTRIAL

Hand-operated or electric, wood or steel, all sizes to meet your requirements.

**MAIL FOR FREE LITERATURE!**

Please send full information and free literature on doors for the purpose checked:

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

- ☐ Private Garage
- ☐ Public Garage
- ☐ Warehouse
- ☐ Factory
- ☐ Greasing Station
- ☐ Other Buildings
- ☐ Wood Sections
- ☐ Steel Sections
- ☐ Hand Operated
- ☐ Electric
- ☐ Standard Model
- ☐ Master Model



**The heart of a  
kitchen is the sink**

**THAT'S WHY I  
INSTALL KOHLERS**



"TAKE THE NEW WILSHIRE. Two big basins and two depressed drainboards come in mighty handy. Kohler Duostrainers . . . rinse hose . . . 3-inch ledge for 'around the sink' articles . . . acid-resisting, crystal-white enameled cast iron . . . roomy cabinets and drawers . . . who wouldn't be proud and happy to have a sink like this!"



**"THEN THERE'S THE CAMBERLEY.**

In small kitchens I install the new 54-inch size. All sorts of Kohler work-savers. If the kitchen's a bit larger, in goes the 60-inch. My clients say it saves time and trouble."

Among other one-piece Kohler ledge sinks that offer your clients many attractions are the Cymbria, with one basin and one drainboard; Wellwin, with two basins only; and Sea Cliff, with one deep laundry tray and one sink basin. Write for complete details. Kohler Co. Founded 1873. Kohler, Wisconsin.

**KOHLER of KOHLER**  
PLANNED PLUMBING AND HEATING

# mural-tone

wall paint  
is "sweet music" to  
builders of small homes

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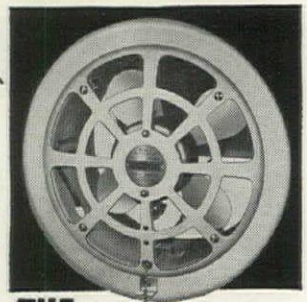
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G. M. Gilroy, R.A., Manager, Architects' Service Dept. Photo: Bachrach

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## FORUM OF EVENTS

### AWARDS

To the following, election to Fellowship in the American Society of Landscape Architects: John W. Gregg, head of Landscape Design, University of California; Allyn Ryerson Jennings, general superintendent, Department of Parks, New York City; Norman T. Newton, assistant professor of Landscape Architecture, Harvard; Michael Rapuano, member New York City Park Commission and Municipal Art Commission.

To DALE LLOYD, first prize in a competition sponsored by the Cincinnati Landscape Association among the students in landscape architecture at the University of Cincinnati for the redevelopment of Avon Fields as a municipal recreation area.

To MISS HARLEAN JAMES, executive secretary, American Planning and Civic Association, Washington, Corresponding Membership in the A.S.L.A. "in gratitude for

her long and valiant defense and advancement of public parks. . . ." Also to Miss Katherine McNamara, " . . . our practitioners have looked to her for wide and organized information."

Posthumously to RAYMOND M. HOOD, who died August 14, 1934, the Medal of Honor of the New York Chapter, A.I.A. "for distinguished work and high professional standing." The medal was accepted by Raymond M. Hood, Jr., a student of architecture at Princeton, at the Chapter's annual dinner, February 27.

To GRANT W. VOORHEES, Iowa State College, first prize of \$200 for the best design of a pedestrian bridge of steel awarded by the American Institute of Steel Construction; second prize, \$100, to Vincent W. SeeBach, New York University; third prize, \$50, to Mae G. Greene, New York University. Eighty-four students from thirteen colleges participated.

To HENRY V. HUBBARD, Charles Dyer Norton Professor of Regional Planning at Harvard and Chairman of the Department of Regional Planning, the title of Professor Emeritus as of September 1, 1941. Prof. Hubbard has been a member of the faculty since 1906, a member of the firm of Pray, Hubbard & White, 1906-18, and a partner in Olmsted Brothers since 1920. He founded *Landscape Architecture Magazine* in 1910 and is its editor; was a founder and editor of the *City Planning Quarterly*, 1925-34; and has been consulting editor of *The Planners' Journal* since 1935.

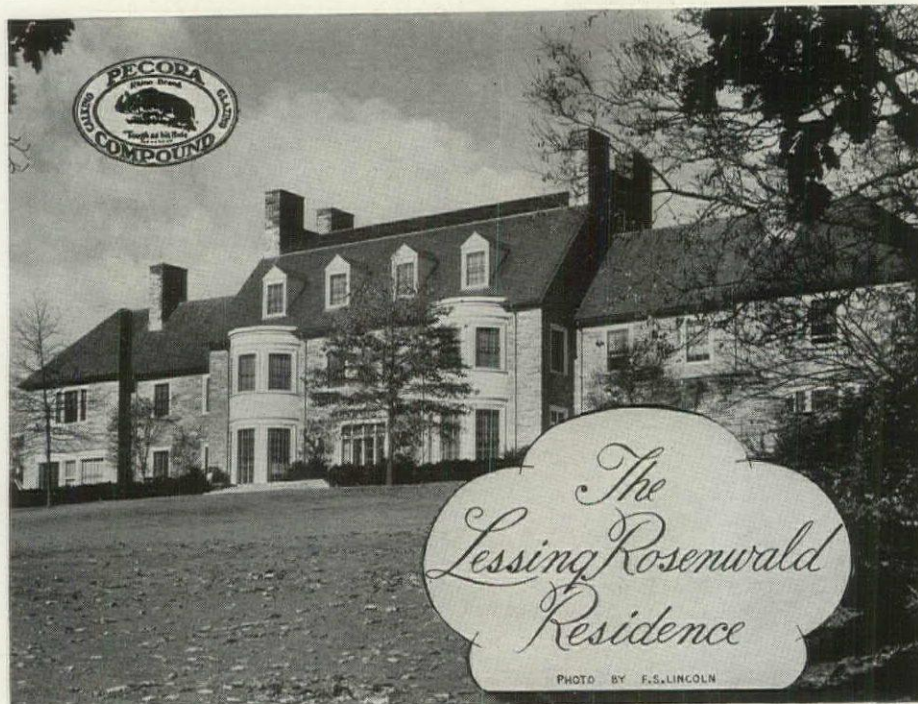
To GANO DUNN, president of Cooper Union, the Hoover Medal, "awarded by engineers to a fellow engineer for distinguished public service."

To PHILIP TORCHIO, the Edison Medal, "for distinguished contributions to the art of central station engineering and for achievement in the production, distribution, and utilization of electrical energy."

To DR. RUPEN EKSERTIAN, Philadelphia, the Worcester Reed Warner Medal of the American Society of Mechanical Engineers "for influential engineering papers of permanent value published in the Transactions of the A.S.M.E."

To JOHN I. YELLOTT, assistant professor at Stevens Institute of Technology, Hoboken, N. J., the Pi Tau Sigma Medal of the American Society of Mechanical Engineers with the citation, "Outstanding young mechanical engineer of 1939."

(Continued on page 100)



The Lessing Rosenwald Residence, Jenkintown, Pa. Architect, Ernest Grunsfeld, Chicago, Ill. Gen'l. Contrs. J. S. Cornell & Sons, Philadelphia, Pa.

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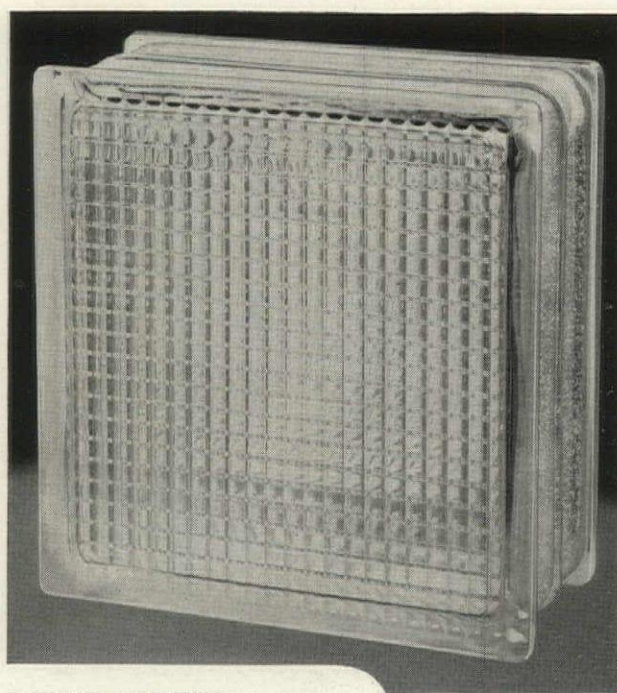
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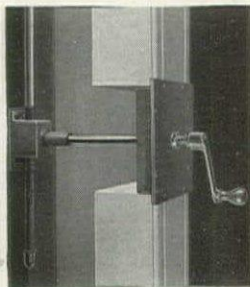
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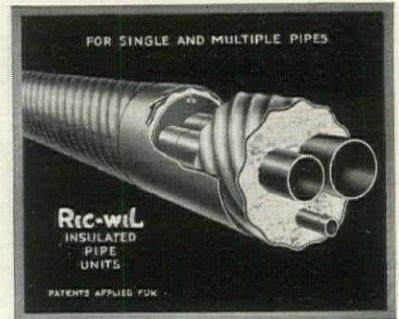
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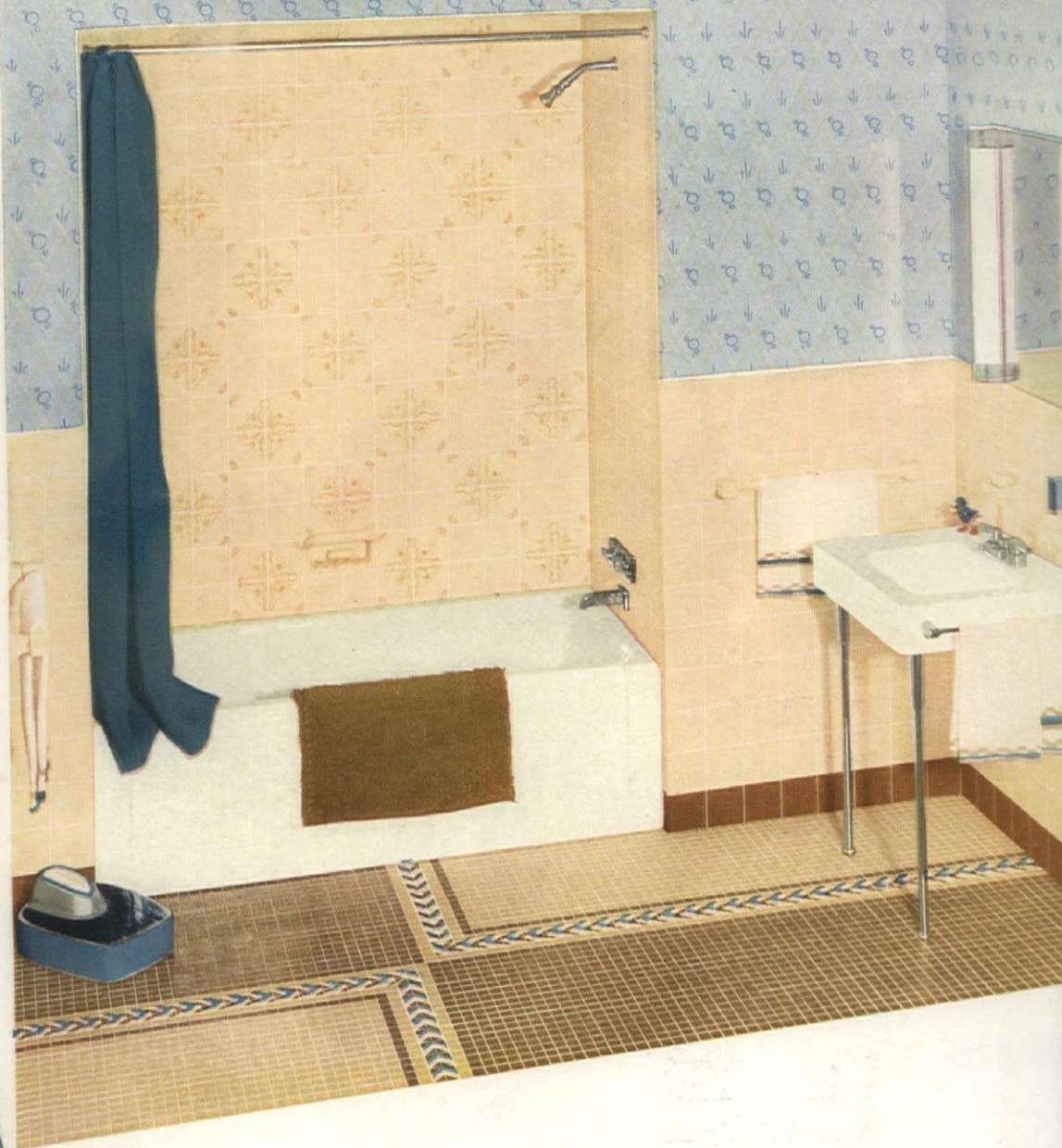
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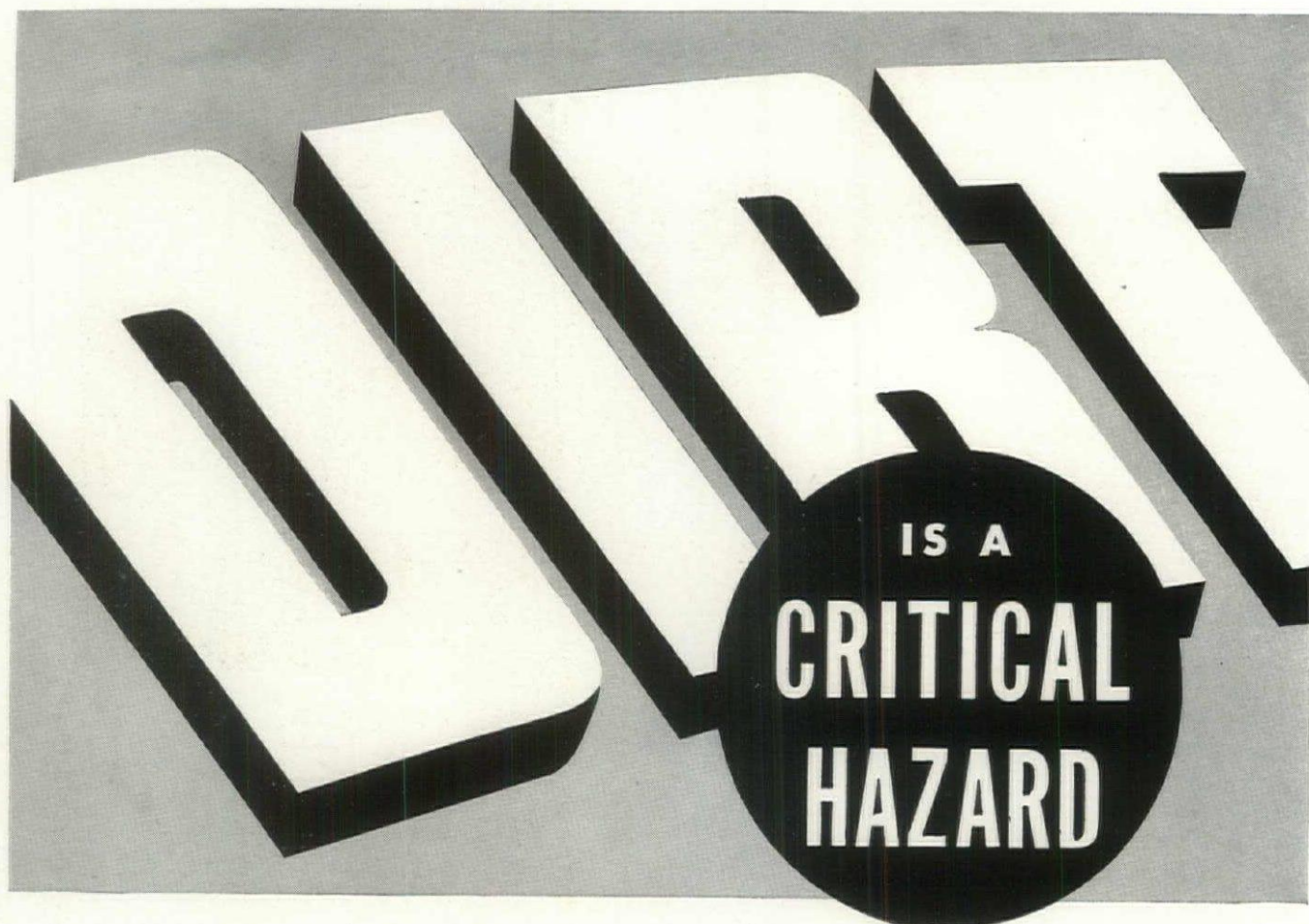


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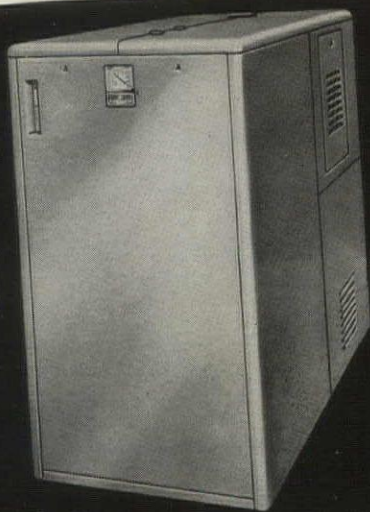




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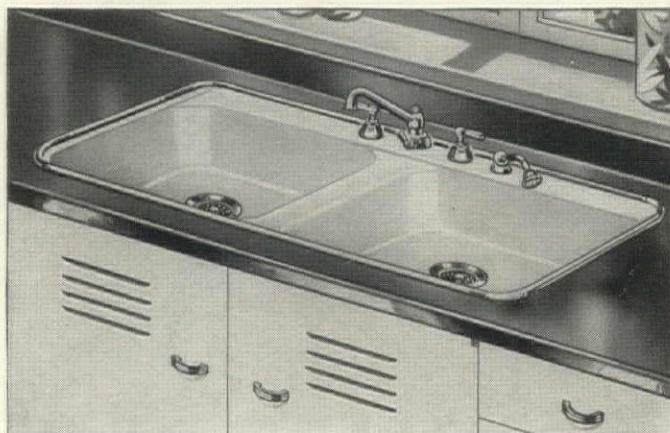
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## FORUM OF EVENTS

(Continued from page 96)

TO VINCENT G. KLING, East Orange, N. J., the Boring Gold Medal by Columbia University School of Architecture as a result of a competition open to all fourth year students, Runner-up, Arnold W. Eckhoff, Palisades Park, N. J.

### COMPETITIONS

SYRACUSE UNIVERSITY College of Fine Arts will hold a competition July 13, which will serve as a basis of a grant of one \$375 scholarship and four at \$185. Prospective

contestants may obtain full details of the conditions by addressing the School of Fine Arts, Syracuse University, Syracuse, N. Y.

NEW YORK CHAPTER, A.I.A. will award this year for the first time since 1933 their Apartment House Medal. Buildings under construction between January 1, 1933 and October 1, 1938 in the five boroughs of New York City are eligible. Membership in the Chapter is not a re-

quirement for entering the competition. Contestants must submit photostatic copies or typical floor plan and photographs of their buildings before April 15, to the secretary of the Chapter, 115 East 40th St. Jury of awards: Dean Leopold Arnold, chairman, Carl Feiss, Frederick G. Frost, Julius Gregory, Arthur Holden, Charles C. Platt, Harry Milton Prince, Prentis Sanger.

LEBRUN TRAVELING SCHOLARSHIP Competition is announced by the New York Chapter, A.I.A. It carries a stipend of \$1,400. Contestants must be nominated by members of the Institute, with recommendations and documentary evidence of ability, by April 15. The Competition is open to architects or architectural draftsmen between the ages of 23 and 30 who are citizens of the U. S. and who have been engaged for at least three years in architectural practice or as architectural draftsmen. Details available from New York Chapter, A.I.A., 115 East 40th St., New York.

PRINCETON UNIVERSITY. A competition in design, to be held from April 18 to 29, will serve as a basis for a grant of the Princeton Prize. Holder is exempt from tuition fees, and will receive \$500. Application blanks and regulations may be had by addressing Secretary, School of Architecture, Princeton University, Princeton, N. J.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY. A competition to be held from May 4 to 13, will be the means of selecting the holder of a scholarship, value \$600, as a special student in the fourth or fifth year of the course in architecture. Applications should be received on or before April 8, addressed to Dean Walter R. McCornack, 77 Massachusetts Ave., Cambridge, Mass.

### EDUCATIONAL

COLUMBIA UNIVERSITY, New York City, announces the establishment of course in large scale physical planning for city, State and nation, which began February 7, under the direction of Wayne D. Heydecker.

HARVARD UNIVERSITY Graduate School of Design and Smith College Graduate School of Architecture and Landscape Architecture will hold a summer school in these subjects from July 1 to August 10. Walter F. Bogner is chairman of the faculty. Further details from Harvard University, Cambridge, Mass.

MILLS COLLEGE, Oakland, Calif. announces its fifteenth residential summer session

(Continued on page 104)



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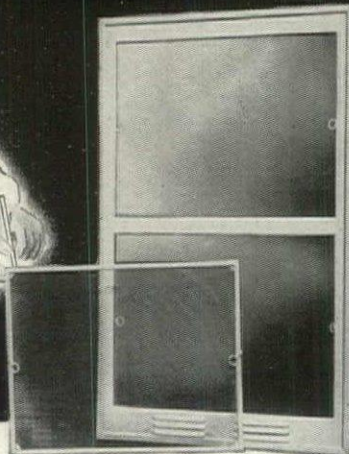
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Smyser-Royer Design #70

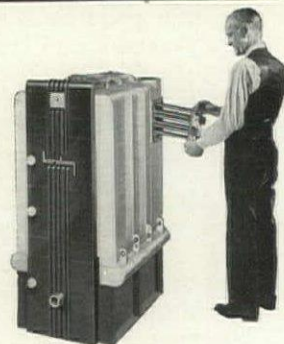
Estate of Jerome Robert Cerny, Architect  
Lake Forest, Ill.

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**A** MONTH or so ago we inadvertently made a statement in one of these ads, that no other Small House Boiler had a Biltin Tankless Heater. That was wrong.

Some small *steel* boilers have.

What we should have said was this,

That the Burnham Junior Yello-Jacket is the only *cast iron* small house boiler that has a Biltin Tankless Heater.

The Junior Yello-Jacket saves the cost of a tank. The domestic hot water it supplies is never rusty or discolored.

*See Sweets'. See for yourself.*

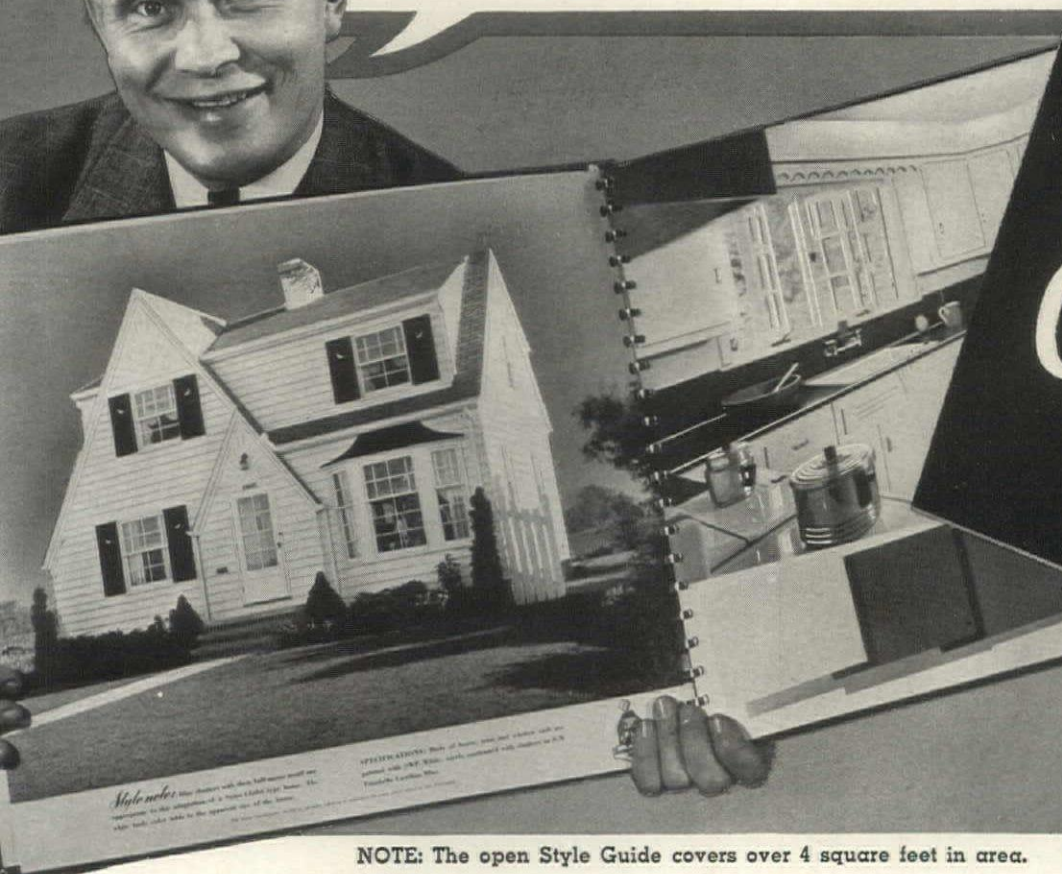
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## FORUM OF EVENTS

(Continued from page 100)

for men and women, in which the courses in art, starting June 23, will be under the direction of L. Moholy-Nagy with the assistance of Charles Niedringhaus.

**AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS**, New York. Graduate fellowships in electrical engineering have been established through the setting up of a \$25,000 trust fund by the Westinghouse Electric & Manufacturing Co. A Fellowship Committee of the Institute will select each year the recipients. The awards provide a minimum allowance of \$500 each. In recognition of the late Dr. Fortescue's contributions to the industry, the Fellowships will be known as the Charles LeGeyt Fortescue Fellowships.

**CHICAGO ARCHITECTURAL CLUB ATELIER**. In its new quarters, 7148 Merchandise Mart, the Club is continuing its atelier work under the Ecole system, governed by patrons. The Club's scholarship program has been interrupted for the past eight years. Arthur Adams is patron of the Atelier and of Design; Roaul Jossett, patron of Sculpture; Massier—Earl J. Leiser.

**FEDERATION TECHNICAL SCHOOL**, 116 East 16th St., New York. A complete review course in preparation for the late spring examination for registered architects; a night lecture introductory course in the Hardy Cross method of rigid frame structures; a similar course in the design of welded steel structures. These in addition to the school's established courses. A complete descriptive catalogue is available.

**NEW YORK UNIVERSITY School of Architecture and Allied Arts**, New York City, announces elementary and advanced courses in estimating, which began January 30, under the direction of A. Benton Green, architect.

**NEW YORK UNIVERSITY**, New York. A new color work shop will open February 19, to meet the needs of artists, art teachers, interior decorators, fashion stylists and others. Fifteen Monday evening sessions with Burton J. Jones, director of the work shop.

**SAN FRANCISCO ART ASSOCIATION** announces its first Abraham Rosenberg Traveling Scholarship, which seeks to assist a student or artist who has already accomplished independent creative work of professional standing. Applicants shall have been registered in the California School of Fine Arts for at least two semesters. Further information from the Association at 800 Chestnut St., San Francisco. Closing date for receiving applications, June 15.

**SCHOOL OF DESIGN**, Chicago. Spring semester began February 12, under the direction of Laszlo Moholy-Nagy. Courses lead to a designer's diploma after four years and an architect's degree after six years. Curriculum is patterned largely after that of the Bauhaus. George Fred Keck heads the Department of Architecture.

**SYRACUSE UNIVERSITY**, Syracuse, N. Y., announces its summer session courses by the Department of Architecture starting July 1 and lasting six weeks. A bulletin of information may be obtained by addressing Director of Summer Sessions, Syracuse University.

(Continued on page 108)





*Representative home: Sheffield Village in Oakland. Developer: E. B. Field. Architect: Theodore N. Thompson. Plumbing Contractor: L. J. Kruse Company. Briggs Wholesaler: Moran Plumbing Supply Company.*

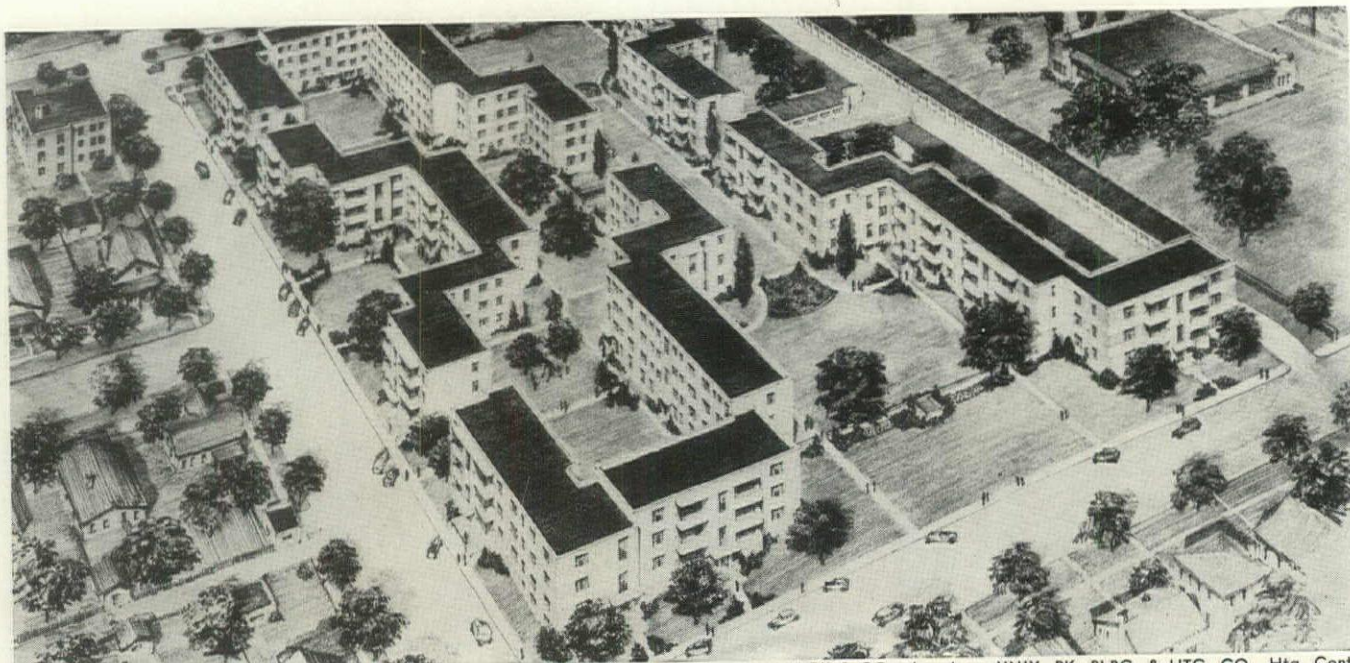
## **... and CALIFORNIA'S largest F. H. A. Project**

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## YOUNG STREAMAIRE CONVECTORS TO HEAT NEW HOUSING DEVELOPMENT

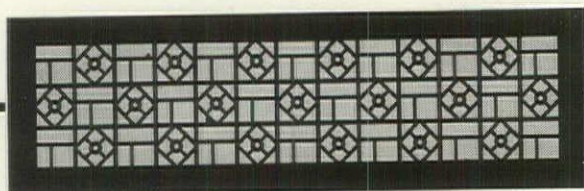
Denver's beautiful new Country Club Garden Apartments, a \$1,200,000 project, is the first major FHA housing development in the Rocky Mountain states and consists of five buildings containing 187 individual apartments ranging in size from two to five rooms.

Five heating plants employing forced hot water systems are being installed and 949 YOUNG Streamaire convectors will heat all rooms. The selection of STREAMAIRE convectors for this important group project is a distinct tribute to YOUNG engineering and standards of quality.

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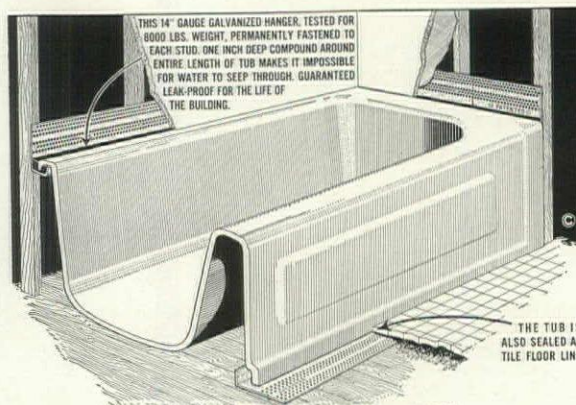
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*The Glory of a Sunset* changing and fast fading into dusk is photographed on the artist's mind. On canvas, he makes it live again, so thousands may for centuries pause and marvel at its beauty, just as he did. The architect pictures in his mind the beauty of a home. He turns to nature for the material with which to best translate his picture into being. For ages, Genuine White Pine has played a major role in serving the architect's needs. Suited for so many uses, and easy to work with, this famous lumber has those rugged qualities which give it permanence.

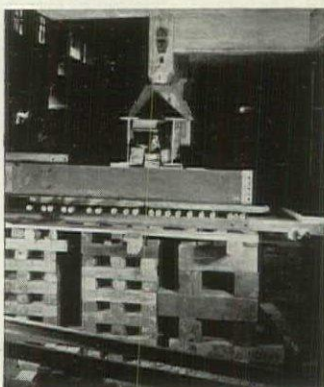


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Four hundred automobiles used the garage throughout the operation. Also located in the building are mail and express offices, an electric appliance store, and a bookshop. None suffered any interruption in service.

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311 Ross Street Pittsburgh, Pa.

Branch Office, 1600 Arch Street, Philadelphia, Pa.

## FORUM OF EVENTS

(Continued from page 104)

**STEWARSON SCHOLARSHIP.** Owing to present conditions, the Managing Committee of the John Stewardson Memorial Scholarship in Architecture has decided that the Scholarship will not be offered in the year 1940.

**UNIVERSITY OF ILLINOIS,** Urbana, announces the ninth Kate Neal Kinley Memorial Fellowship for 1940-41, yielding \$1,000 for a year's advanced study of the fine arts in America or abroad. Examination of contestants, June 1. Applications receivable not later than May 15. Further details and application blanks from Dean Rexford Newcomb, Architecture Building, University of Illinois.

**YALE UNIVERSITY,** New Haven, Conn. announces a change in aim and emphasis in connection with the post graduate course in architecture. Through weekly discussion meetings in New Haven, and weekly meetings in New York, under the direction of Wallace K. Harrison, architect, the course is attempting to formulate a new philosophy of architecture in society.

### CALENDAR

April 12-13. First Housing Conference of the Department of Architecture, University of Texas, Austin. Architects, planners, and members of allied professions are invited.

April 15 —. Exhibition of 60 centuries of Persian art at old Union Club, 5th Ave. & 51st St., New York, under the direction of Arthur Upham Pope.

May 1-3. 1940 Spring Meeting of the American Society of Mechanical Engineers, Hotel Bancroft, Worcester, Mass.

May 4-12. National House and Garden Exposition in the Coliseum, Chicago.

May 19-24. American Institute of Architects' 72nd Convention, Louisville, Ky.

June 24-28. 43rd Annual Meeting. American Society for Testing Materials, Chalfonte-Haddon Hall, Atlantic City, N. J.

### CORRECTION

Kerner and Pyroneel incinerator units described in FORUM, December 1939, pages 52 and 54, as coal fired incinerators operate without supplementary fuel.

### DIED

Samuel E. Barney, civil engineer and Professor Emeritus of Civil Engineering at Yale, 81, died in New Haven. He was born in New Haven, was graduated from Sheffield Scientific School in 1879, and after an apprenticeship in railroading he became a consulting engineer for corporations and municipalities. He joined the faculty at Yale in 1882, and retired in 1924. He was a member of the American Society of Civil Engineers.

EDWARD PEARCE CASEY, architect, 75, in New York. Born in Portland, Me., Mr. Casey varied his education by taking the degrees of Civil Engineer and Bachelor of Philosophy at Columbia in 1886 and 1888, after which he studied

(Continued on page 112)



## THE AMERICAN HOME



See how USG sells  
Better Walls and  
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### Guarded against Fire—by Perforated Rocklath and Plaster

**T**HIS child is protected against the menace of fire—thanks to the walls and ceilings of his home. Perforated Rocklath and Plaster provide that protection. Perforated Rocklath is fire-proof! Tests show that a *Perforated Rocklath partition, properly plastered, will hold fire at bay for at least one hour!*

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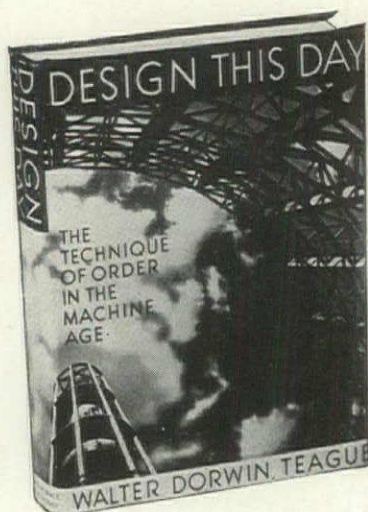
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... the only book on the whole subject of design and all its related aspects ... by one of America's leading industrial designers ...

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4. Fitness to Function
5. Fitness to Materials
6. Fitness to Techniques
7. Unity
8. Simplicity
9. Rhythmic Relationships
10. Rhythm of Proportion
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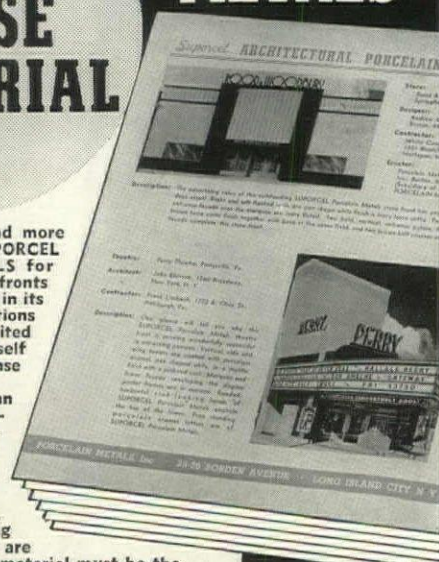
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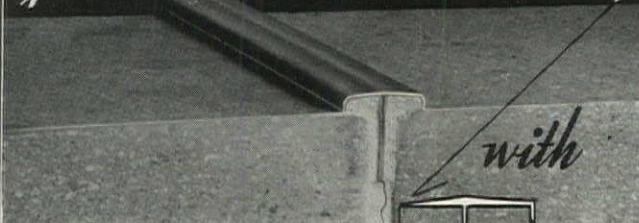
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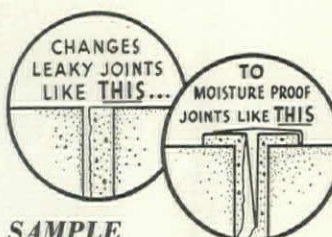
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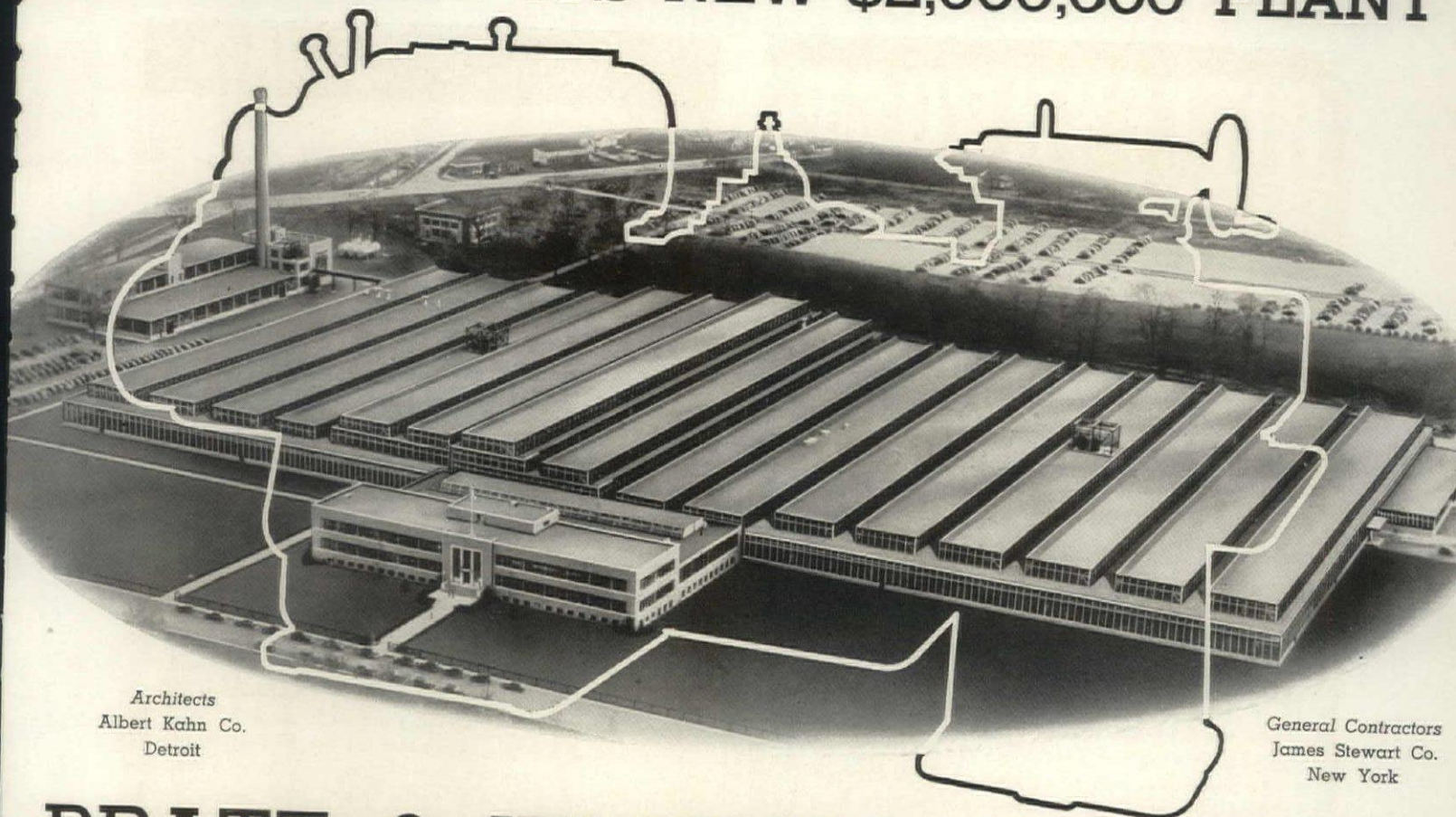
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*This Outstanding Job, covering 671,000 Sq. Ft.,  
Indicates the Nationwide Confidence of Architects  
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**T**HE new plant of Pratt & Whitney, Division Niles-Bement-Pond Co., at West Hartford, Connecticut, is probably the most modern and best equipped establishment of its kind in existence.

Every improvement that technical skill could devise, to increase tool and machine manufacturing efficiency and reduce overhead, was incorporated. This called for a roof to match other advanced features. Naturally, The Philip Carey Company, with over 50 years of practical roof-

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The roof is a 4-ply Built-Up Roof over cork on a steel deck, bonded for 20 years of trouble-free service. Over 3,100 tons of roofing materials went into the job.

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DOOR CHIMES



President  
\$6.95 to \$11.50

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## FORUM OF EVENTS

(Continued from page 108)

architecture at the Ecole in Paris for three years. Among his best known works is the Congressional Library, Washington, with which he was occupied from 1892 to 1897. He had been a vice president of the Beaux-Arts Society and of the Architectural League, New York. He was a Fellow of the American Institute of Architects.

KIRTLAND KELSEY CUTTER, architect, 79, in Long Beach, Calif. A native of Cleveland, he was educated at Brooks Military Academy, at the Art Students' League, New York, and studied in Europe for several years.

He established a practice in Spokane, Wash., in 1885, moved to Long Beach, Calif., in 1923. Mr. Cutter was a Fellow of the American Institute of Architects.

JOHN CALVIN STEVENS, architect, 84, in Portland, Me. One of the most remarkable lines of succession in the architectural profession was broken when the eldest of three generations of Stevens passed on. Not only Portland but most of the State of Maine bears witness to Mr. Stevens' architectural efforts. In his long practice he found time to be a member of the Portland City Council, a member of the Boston Society of Architects, The Architectural League of New York, the American Federation of Art, president of the Portland Society of Art, and a Fellow of the American Institute of Architects.

### MISCELLANEOUS

ARCHITECTS' EMERGENCY COMMITTEE, New York, has had made of fine Lenox china an architect's tea set, in which the various pieces are decorated with Schell Lewis's drawings of historic buildings. The drawings are shown in sepia on an ivory base, and the decoration is in purple lustre. The set is copyrighted, and a limited number has been made for sale for the benefit of the Committee's relief fund. Complete set consists of fifteen pieces, and sells for \$35. Illustrations and further details may be had from the Architects' Emergency Committee, 115 East 40th St., New York.

### PERSONAL

The Architectural Section, Public Works Department, U. S. Naval Air Station, Pensacola, Fla., desires to bring its A.I.A. catalogue file on building materials, appliances, and equipment up to date.

The Gates Rubber Co., Denver, Colo., has organized a Home Building Advisory Department to assist its employees. The company will appreciate receiving manufacturers' literature to establish a file and library relative to small homes.

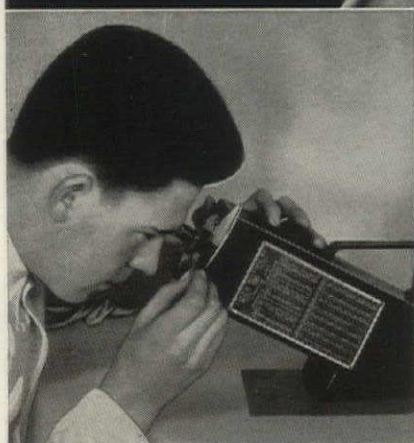
William F. Kussin, architect, announces the removal of his offices from 7 River St., Concord, to 50 Beacon St., Boston, Mass.

Thomas Larrick, architect and engineer, Lawrence, Kan. is now teaching architecture at Ohio University, Athens, and would appreciate having his correspondence addressed to him at 400 Elmwood Place, Athens, Ohio.

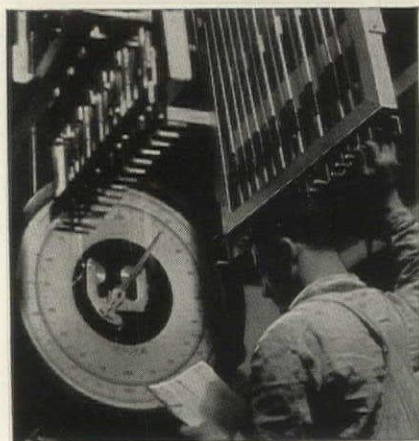
Frederick G. Seelmann, architect, has terminated his partnership with the firm of Treanor & Fatio, architects, and has established his own office for the practice of architecture in the Paramount Theatre Building, Palm Beach, Fla. Mr. Seelmann requests that manufacturers' catalogues and samples be sent him.



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THIS DEVICE measures the viscosity or thickness of a paint to fractional degrees and is typical of the ingenious instruments used in checking Pittsburgh Paints.



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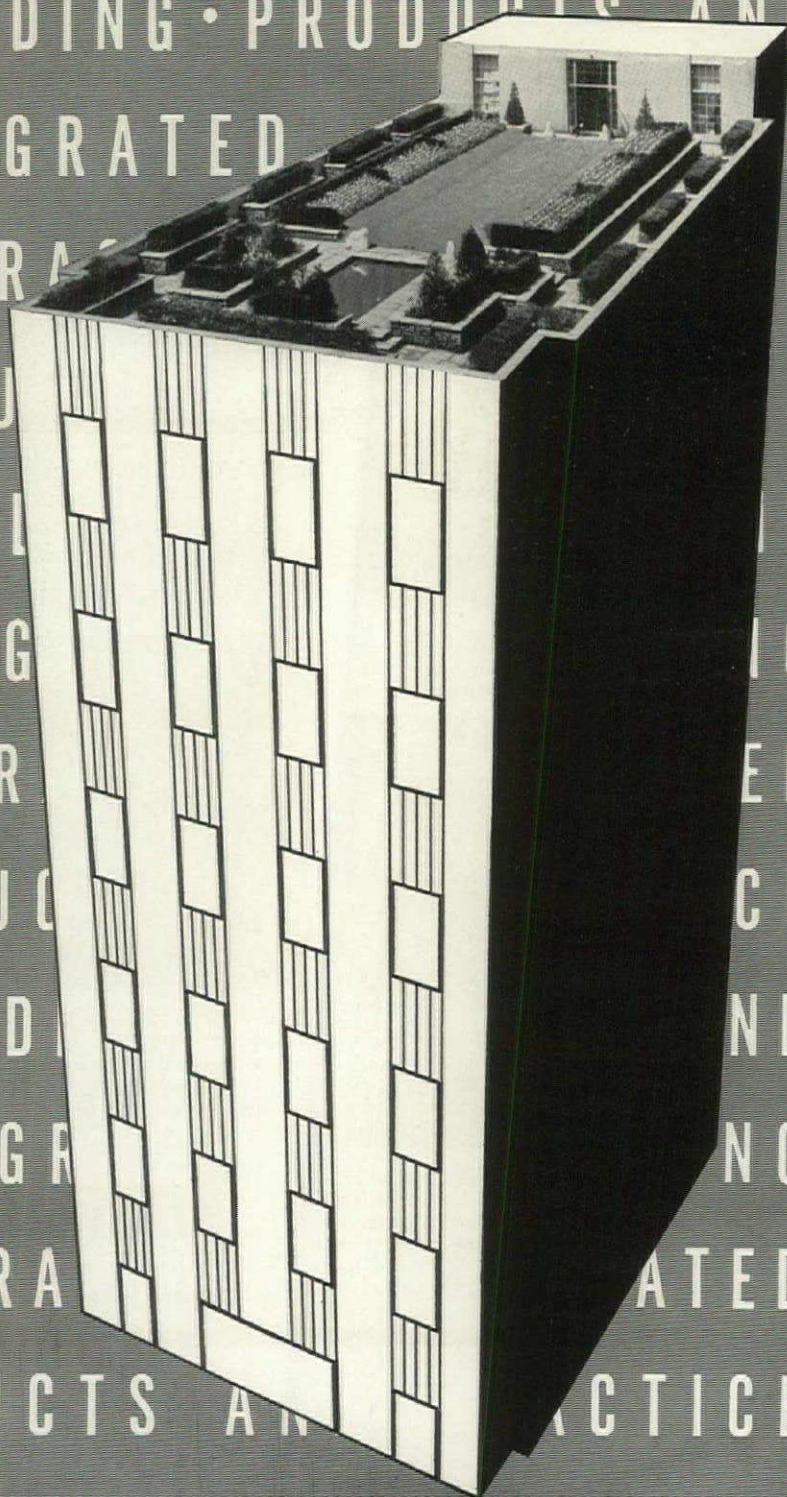
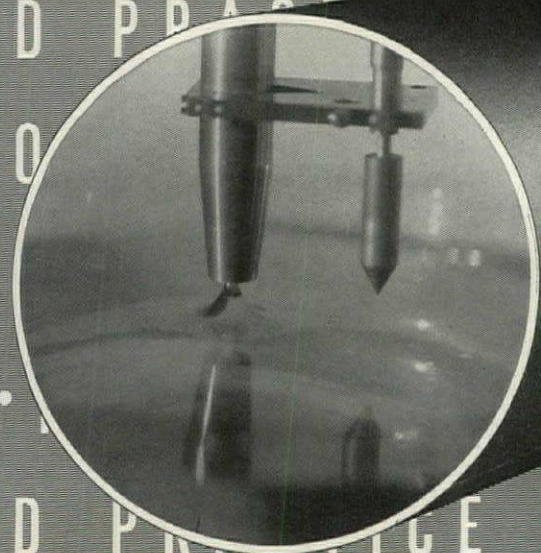
For complete information and addresses of all Pittsburgh Branches, see Sweet's Catalog—or write direct to Pittsburgh Plate Glass Co., Paint Division, Pittsburgh, Pa.

Copr. 1940 Pittsburgh Plate Glass Co.

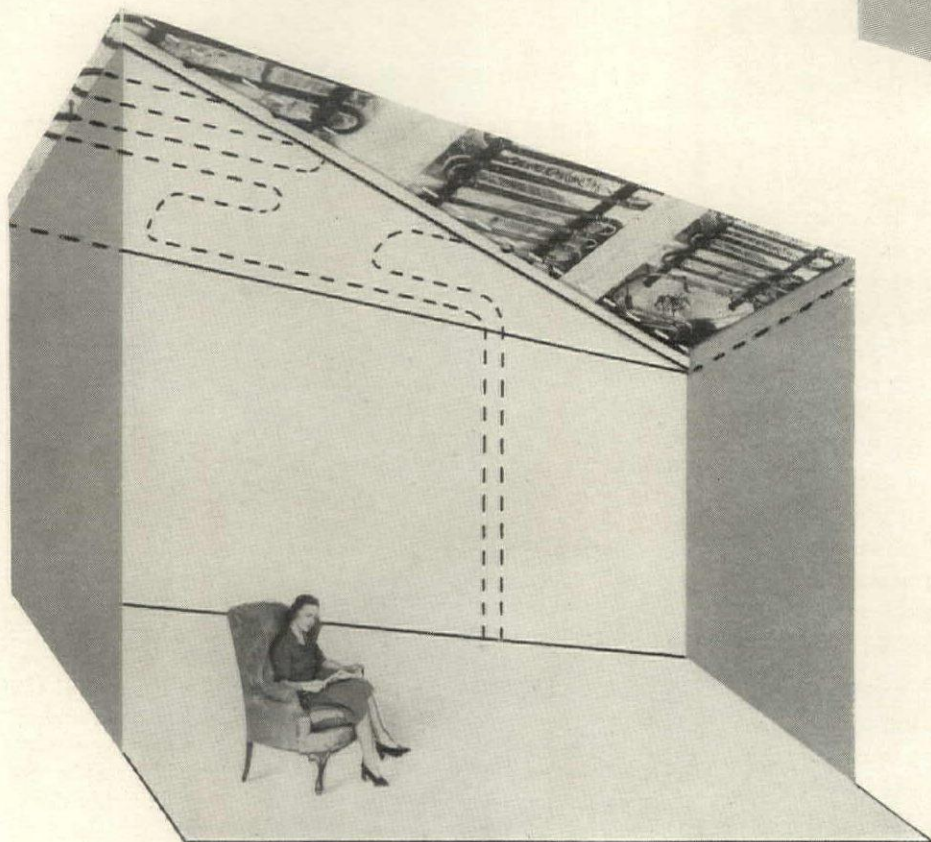
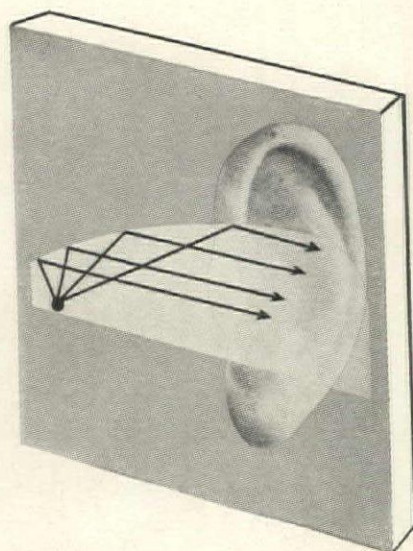
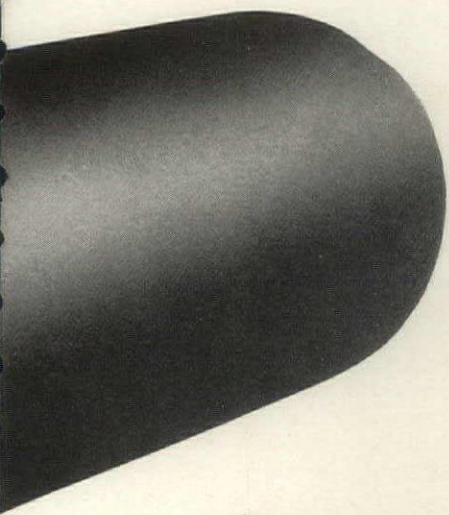
**PITTSBURGH**  **PAINTS**  
*Smooth as Glass*  
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Too often in technical articles, pompous writing masquerades as Authority. The editorial assumption that self-interest *compels* people to read their professional magazines is another tradition THE FORUM has broken. Clear, documented text, graphically illustrated, seems the right way to THE FORUM . . . and judging by the mail, to its readers.

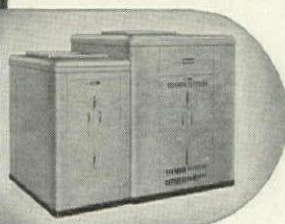
**THE ARCHITECTURAL FORUM**



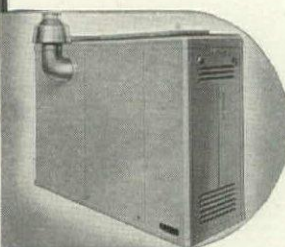
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**WINTER AIR CONDITIONERS**

**Scientifically Designed—Beautifully  
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**THE HENRY FURNACE & FOUNDRY CO.**

**3485 East 49th St. • Cleveland, Ohio**

## B O O K S

(Continued from page 30)

**PLASTICS, PROBLEMS AND PROCESSES**, by Mansperger and Pepper. International Textbook Co., Scranton, Pa. 187 pp., illustrated. 6 x 9. \$2.50.

The first textbook on plastics as applied to handicrafts and the industrial arts. Its value lies in the description of the various kinds of plastics, their properties and history. Also useful is the chapter explaining the proper methods of working with the material. Unfortunately the greater part of the book is devoted to drawings and photographs of napkin rings, letter holders, lamps, cigarette boxes, etc., almost all of which are in the worst tradition of handicraft design and ten-cent-store "modernistic."

**SIR JOHN VANBRUGH, ARCHITECT AND DRAMATIST**, by Laurence Whistler. The Macmillan Company. 327 pp., illustrated. 6½ x 9¾. \$5.00.

Vanbrugh was born in 1664, in one of the most brilliant periods of English history: Wren, Steele, Addison and Congreve were among his contemporaries, and Jonathan Swift wrote satires at the expense of his architecture. Where he learned his trade is a matter of conjecture, for he began as a soldier, spent part of his early career in the Bastille, and returned to London to become its most popular dramatist. When at the age of 35 he was commissioned to design Castle Howard he was still known to the public at large as a playwright. It is true that in this golden period of the amateur, such swift development was not entirely unknown, for every gentleman was expected to know something of architecture. Wren himself had begun as a mathematician, and Perrault became architect for the Louvre while still a physician. Whatever his training, Vanbrugh displayed a vigorous and unusual talent in his earliest work, and he lived to become one of the great architects of the Renaissance. For some curious reason, in the two hundred years since his death there has been no complete biography, and Laurence Whistler's book is important if for only this reason. It is an excellent piece of work as well, richly documented and entertainingly written. There are fourteen plates, showing photographs and drawings of Vanbrugh's most important buildings.

**INTERIOR ELECTRIC WIRING AND ESTIMATING**, by A. Uhl, A. Nelson, and C. Dunlap. American Technical Society, Chicago. 342 pp., illustrated. 6 x 8½. \$2.50.

A complete manual on wiring for the mechanic and architect. All common systems and equipment are described and illustrated, and information is given on approved methods of installation. There is a section on cost estimating.

**HOW TO DESIGN AND INSTALL PLUMBING**, by A. J. Matthias, Jr. American Technical Society, Chicago. 388 pp., illustrated. 6 x 8½. \$3.00.

Another volume in the excellent series of textbooks on the building trades. The author is a licensed plumber as well as a writer and teacher, and discusses all phases of current practice in the field. Illustrations are copious and good.

As a service to interested readers, THE ARCHITECTURAL FORUM will undertake to order copies of books not conveniently obtainable locally, which have been reviewed in this department. Checks and money orders to be made payable to THE ARCHITECTURAL FORUM.



# Specify Sloane-Blabon Linoleum Wherever—Whatever Your Need



*This Game Room in Texas, by W. & J. Sloane, features Sloane-Blabon Plain Linoleum, with appropriate insets in contrasting colors.*



*Classroom in Sayville High School, Sayville, Long Island. Quiet, long-wearing Sloane-Blabon Linoleum was the logical selection.*



*An interest-attracting exhibit floor at San Francisco, with Sloane-Blabon Plain Linoleum in contrasting fields of Gray and Blue.*



*Office at Museum of Modern Art, New York. A Sloane-Blabon Linoleum was specified for its durability and economy of maintenance.*

From New York to San Francisco—from Texas to Wisconsin there is a Sloane-Blabon distributor nearby to supply that fine quality Linoleum for which Sloane-Blabon has long been famous. The Sloane-Blabon line is a *complete* one with a range of well styled designs and colors in Battleship, Plain, Jaspé, Inlaid and Marblitone that give you complete freedom in working out your interior schemes. Furthermore, being *mill-waxed*, a feature with Sloane-Blabon, our Linoleum meets specifications as delivered, thus reducing finishing time and cost. Since Linoleum must be waxed for proper maintenance, why not specify the Linoleum that reaches the job in that condition—Sloane-Blabon.

Whether the job is commercial, residential, or institutional, you will save money for the owner, by specifying "Sloane-Blabon Linoleum."

*We will be glad to send you a copy of the new Sloane-Blabon pattern catalogue in which you will find many helpful suggestions for fine floors. Architects are also invited to use our Architect's Service Department for help on any special floor covering problems or for any jobs that require something in an individual inset or custom made floorings.*

## L I N O L E U M S

BY

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A National Institution with Distributors Everywhere



## For beautiful streamlined foundations **LUX-RIGHT STEEL AREAWALLS**

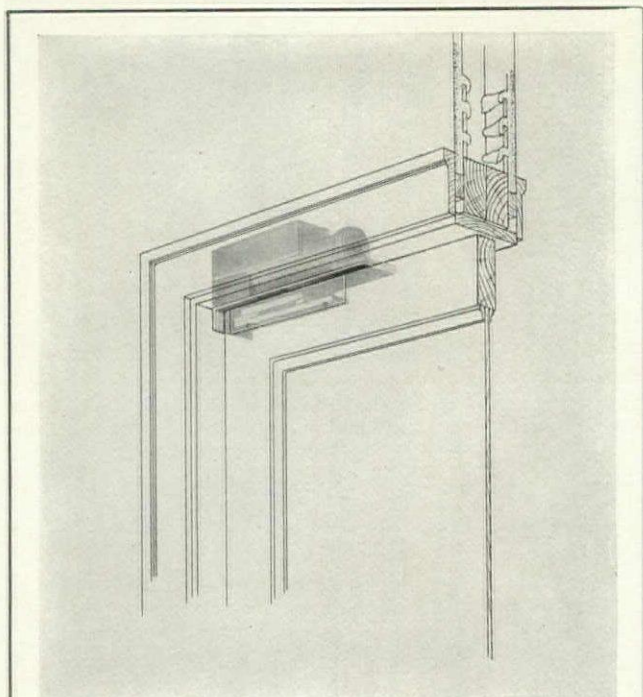


### for basement window wells

These durable steel window well walls put an end to ragged, crumbling foundation lines. For any type of residence, apartment, school or industrial building.

Architects and builders throughout the country have been quick to note the economy of Lux-Right Steel Areawalls—they never crack or crumble. Made in ONE piece of heavy-gauge, corrugated, rust-resisting, copper-alloy steel, they're hot-dipped galvanized in pure zinc AFTER formation. Easy to install. FREE folder AF30 gives full details. Write or wire.

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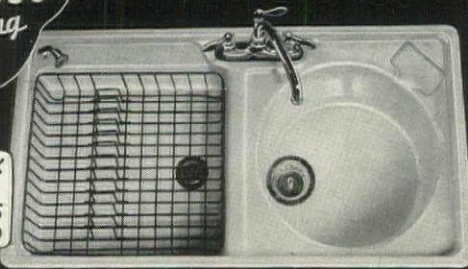
### Control for Double Acting Doors

Smoother, quieter, safer, more positive control of the double acting doors in the kitchen—pantry—dining room area is supplied by this new LCN Overhead Concealed Closer, No. 422. Full rack-and-pinion action both ways. Centers door without flapping. No danger of sudden slaps. No cutting of floors. Simple to install and adjust. For details send for folder 339. Norton Lasier Company, 466 W. Superior St. • Chicago, Illinois. (Makers of LCN concealed and surface door closers in 86 types and sizes.)

## NEW EBCO Dishwashing SINK



THE SINK  
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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!

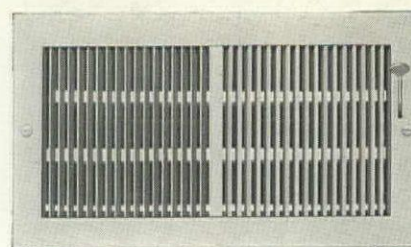
Write for details!

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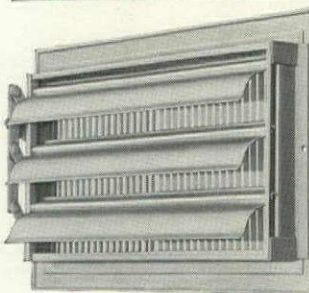
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### The **AIRO-FLEX** With Multi-Plane Louvre Control

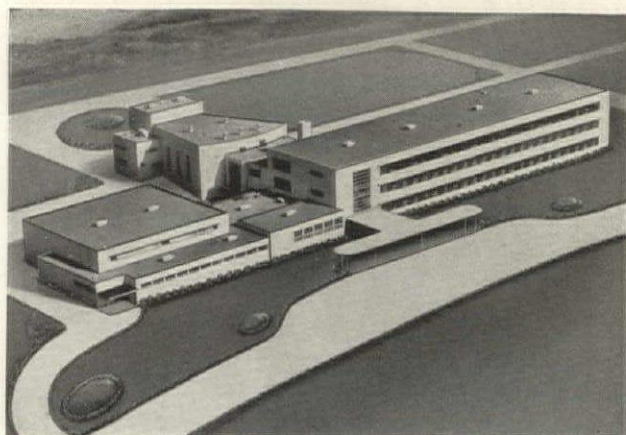
HERE is a medium priced yet excellently made air conditioning register, which gives perfect air flow control in every direction, and is highly adaptable to practically all conditions on the job. Upward and downward flow is accurately regulated by the new Auer Multi-Plane Louvre or back blade, operated by lever. For lateral directional control, grille bars are easily adjustable at installation for any single or combination flow, straight, right, or left. For your air conditioning work, specify this fine Auer Airo-Flex by name. Complete Auer Register Book No. 40, helpful in your specification of registers or grilles, sent on request.

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& GRILLES  For Air Conditioning and Gravity



# EVERY BUILDING HAS ITS LIFE LINE



TO INCREASE LIFE EXPECTANCY, and decrease maintenance costs, Wolmanized Lumber was applied as sleepers, plank, etc., in Bossier City High School, Bossier City, Louisiana. Wolmanized Lumber was specified by the architect, Samuel G. Weiner, of Shreveport, Louisiana.

Every building has its *life line*, the place where the structure first begins to age.

By taking care to select enduring material for that critical area, you can add years of usefulness to the whole building.

Wolmanized Lumber\* is made to give endurance at *life line* danger points. It stops termite and decay damage wherever penetrating or condensing moisture threatens damage.

In comparison with the cost of the repairs it prevents, the outlay for this protection is almost ridiculously low. In frame buildings you use Wolmanized Lumber for sills, joists, and subfloor, and that method safeguards the whole structure of an ordinary dwelling at less than 2% addition to total cost. In other types of construction, Wolmanized Lumber used for sleepers, subfloors, nailing strips, roof decking, and similar exposed points gives comparable protection, comparable economy.

Wolmanized Lumber makes a more enduring building, and a more satisfied client. Specify it by name, to be sure of getting material which is always treated under one standard specification, and sold under one brand, from coast to coast. We will be glad to send you complete information about using it. AMERICAN LUMBER & TREATING COMPANY, 1425 Old Colony Building, Chicago.

\* Registered Trade-Mark

## WOLMANIZED LUMBER

LUMBER FOR ENDURING, ECONOMICAL CONSTRUCTION





## LETTERS

(Continued from page 58)

of builder, that to get an FHA guarantee, one needs to be in with just the right people. How this latter feeling has come about I cannot explain, but I know about the year-delay business from experience.

When businessmen wish to build or remodel, they want action—delays cost them money. Delays, to a huge octopus-like Bureau, are its bread-and-butter.

No, my dear FORUM, there will be no rush for these insured mortgages.

RICHARD BANKS THOMAS

New York City

So far, it appears that 2, 927, 048 individuals have been "in with just the right people," for that many borrowers (as of Dec. 31, 1939) had obtained FHA-insurance on all types of residential property loans. However, THE FORUM is keen to expose the weaknesses of Bureaucracy, invites Reader Thomas and any others, to submit evidences of some specific, unwarranted delays on the part of FHA.—Ed.

### Allen Convenes

Forum:

... The 26th annual convention of the Michigan Society of Architects held at Grand Rapids on March 15 and 16 encountered certain difficulties, all of which were surmounted by the acumen, intelligence and discretion of the general chairman of the convention, Me.

In the first place the convention head-

quarters was the Hotel Pantlind and by a strange prank of fate the hotel at the same time was housing a convention of Beauty Shop Operators. I went to the hotel management in a frank and manly way and objected to this.

"Why do you object to having beauty parlor operators convening here while the architects are in session, Mr. Allen?" inquired the manager, waving a tambourine.

"I don't want our boys to get mixed up with a lot of pan handlers," I replied. The manager laughed hollowly and added a 10 per cent service charge.

You can imagine with what horror the delegates greeted the news that the convention actually included business sessions. What will people think of next. This craze for novelty is the canker that is gnawing at the vitals of the ship of state; I attribute it to That Fellow In Washington. (I mean the other one; the one who keeps telling me I can't deduct *that* from my income tax.) The business sessions were for the most part devoted to discussing the problems of the unification of the profession, my agents tell me. I was busy making smoker and banquet arrangements and also talking to one of the beauty shop operators, a lady with heliotrope hair, who informed me that her little salon is known as "The Peter Pan Beauty Shop; Bring in Your Pan Before It Peters Out." She is a constant subscriber to THE FORUM; she takes the spiral binding out and makes hair curlers from it. This is a waste of time; if she would just let her customers look at some of the photographs of non-Allen-designed buildings their hair would curl instantly.

The State of Michigan consists of two peninsulas; the upper peninsula is almost entirely surrounded by water. The lower peninsula is almost entirely surrounded by Albert Kahn.

The observation above has nothing to do with the convention; it just came to me in a flash. I keep having these flashes all the time; my doctor thinks I am reaping the bitter harvest of long years of eye strain. In my early days as a draftsman I worked in Smith, Hinchman & Grylls' office in Detroit and the office was right across the street from the hotel. The hotel had a number of lady guests who were allergic to window shades.

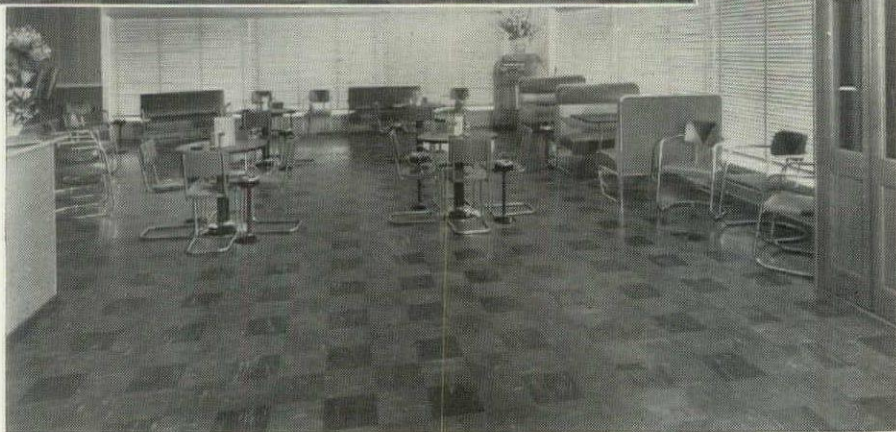
The concluding event of the convention was a banquet at which the principal speaker was Dean Walter R. McCornack of Massachusetts Institute of Architects, who made a speech that contained more sound sense, more vision and more real inspiration than all the 25 other speeches at annual M.S.A. banquets put together. I regard Dean McCornack as a man of whom the profession can justly be proud; my admiration of him is only slightly dimmed by his openly expressed statement that every time THE FORUM arrives he looks first to see what Allen said last.

ROGER ALLEN

Grand Rapids, Mich.



Pictures show lounge of modern bowling alley.



## AZROCK... bowls 'em over

When covering floors, shoot for a high score with AZROCK Tile as your ball—a strike is certain. All tenpins will tumble down, for AZROCK meets all requirements.

AZROCK has beauty. Many all-the-way-thru colors and several sizes mean individuality for every floor. AZROCK is not expensive in first cost; its durability, the many years of service its use guarantees; the low overhead in the maintenance of an AZROCK Floor—all these add to the economy which AZROCK gives its users.

AZROCK is quiet and comfortable underfoot. It is moisture-proof as well as fire-resistant—cigar and cigarette "burn stains" wipe away in ordinary cleaning. And AZROCK is micro-cut by an exclusive process—lays up so close that no dirt can collect.

In specifying AZROCK Floor Tile, you recommend a product proven in installations throughout the United States and in several foreign countries. Whatever your problem... recreation center, office, store, theater, factory or hospital... there is an AZROCK Floor Tile to serve you.

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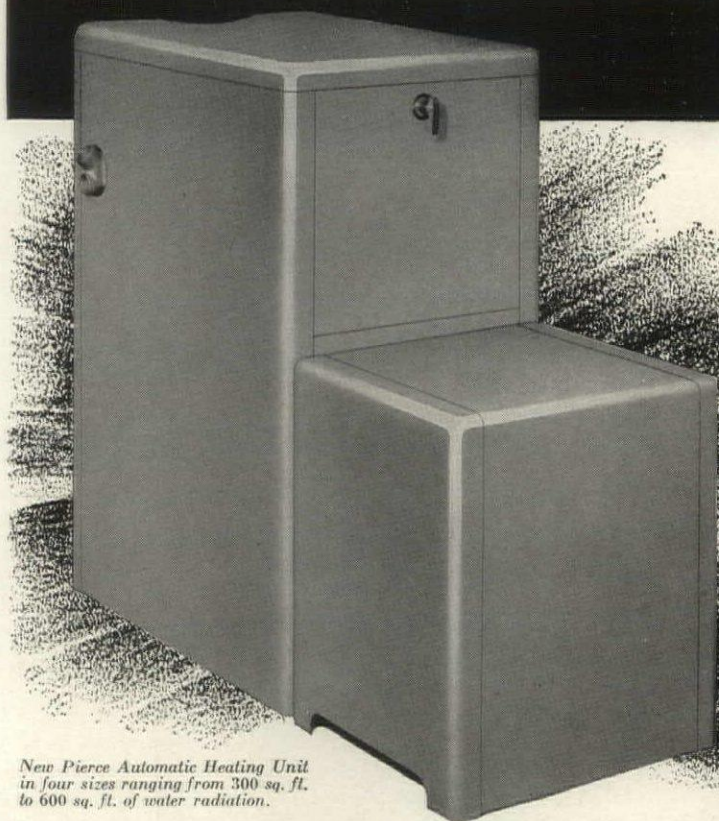
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New Pierce Automatic Heating Unit in four sizes ranging from 300 sq. ft. to 600 sq. ft. of water radiation.

this Complete  
**PIERCE**  
Oil-Fired Unit  
is Priced to fit

## Big-Boiler Efficiency at Small-Boiler Cost

At last you can do what you've always wanted to—specify "automatic hot water heat with year 'round domestic hot water" for the small home. And you can be sure that the heating unit will live up to your highest standards. For this is not just a big boiler stripped of features and scaled down in size. It is a boiler built especially for homes up to 6 rooms, planned and engineered for small-home use.

Back of its high efficiency stands Pierce's 101 years of experience and research in heating methods, plus a design that was created exclusively for oil firing. (Gas-fired units can be obtained if desired.)

The unit is shipped complete—with a high duty, high efficiency oil burner installed in a complete combustion chamber. That means you get all the tightness and trueness of structure that only factory machinery and factory methods can produce—a boiler with seamless asbestos gaskets throughout.

Write today for specification data... plus complete descriptive information. This information should be in the data file of every architect and specifications writer. Just sign and mail the coupon below.

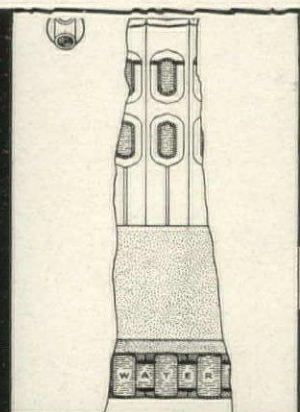


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## Automatic Heating Unit

- Combustion Chamber completely surrounded by water — even at the base.

Here is a Pierce feature that reduces heat losses, improves efficiency and heightens economy. It eliminates the necessity of building an insulated refractory base when the unit is installed.



- A colorful fixture in the basement. You get quick, thorough heating of your rumpus room by using the Pierce as a radiator in that room.



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PIERCE BUTLER RADIATOR CORP.,  
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Without cost or obligation, please send me specification data and descriptive information on the new Pierce small-home heating unit.

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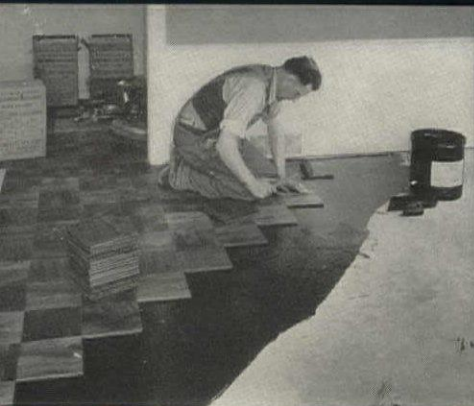
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**HASKELITE WOOD FLOORING**



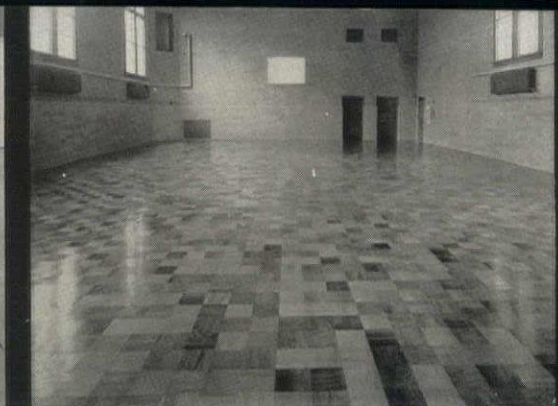
Dr. R. Landess Lassater's Residence, Winnetka, Illinois  
Architect: Allen and Webster, Chicago

**HASKELITE** *Compound  
Lumber*





Haskelite laid directly on concrete sub-floor in mastic. Notice the freedom from unsightly joints.



INSTITUTIONS: Haskelite—without expansion joints—provides hard-wearing, easily cleaned floors for schools, hospitals, public buildings, etc.



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"Haskelite guarantees that it will re-furnish any piece or pieces of Haskelite Compound Lumber Flooring showing separation due to glue failure caused by liquid or atmospheric moisture, hot or cold.

"Haskelite will re-furnish any piece or pieces of Haskelite Compound Lumber Flooring that shows an expansion in excess of three-tenths ( $3/10$ ) of an inch per one hundred (100) inches.

"This guarantee covers two complete annual cycles of weather conditions following date of completion of installation."

● Not once, during the two years Haskelite Floors have been in actual use, has the company been asked to make good on this air-tight guarantee.

This one fact alone means plenty to the architect. It is proof of the most practical kind, that Haskelite Wood Block and Plank Floors STAY FLAT without cupping, buckling or warping. It provides the solution, once and for all, to the moisture problem as it affects ordinary wood flooring. It means the end of specifying wood substitutes where genuine wood floors are desired.

**What is Haskelite?** Haskelite is compound lumber, formed by permanently bonding together three selected veneers, in a way that eliminates the natural tendency of solid wood to expand and contract with changing humidities.

**How About Cost?** Instead of the premium you'd expect to pay for this "successor to solid wood flooring," it has in many instances a decided cost advantage. Installed cost of a Haskelite Plank is usually half that of any other type of plank floor. A Haskelite Block Floor can be laid in place at costs that compare favorably with other good block and parquet floors. And maintenance costs stay low for

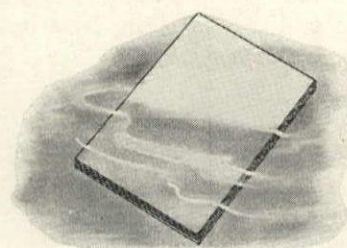
the life of the floor, principally because the floors stay flat.

**Is Beauty Sacrificed?** Not in the slightest. For a Haskelite Floor is real wood. It retains all the highly desirable beauty, warmth and charm of this material, while eliminating its undesirable qualities. It brings besides such important features as elimination of expansion joints, installation directly over concrete with complete safety, resistance to rats and other vermin—all "musts" in what an architect would call the "ideal" floor.

### Send Now for Samples and Technical Data

Get acquainted with Haskelite—inspect actual specimens. Write now for samples, specifications, and descriptive data. No obligation, of course.

### MAKE THE "Water Test" YOURSELF



If you want a first hand demonstration of Haskelite's inertness in the face of humidity changes, do this: Put a block in water—overnight or longer. Let it dry thoroughly. Try to detect expansion when wet—contraction when dry—and there's no ply separation for the glue is waterproof.

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HASKELITE MANUFACTURING CORP.

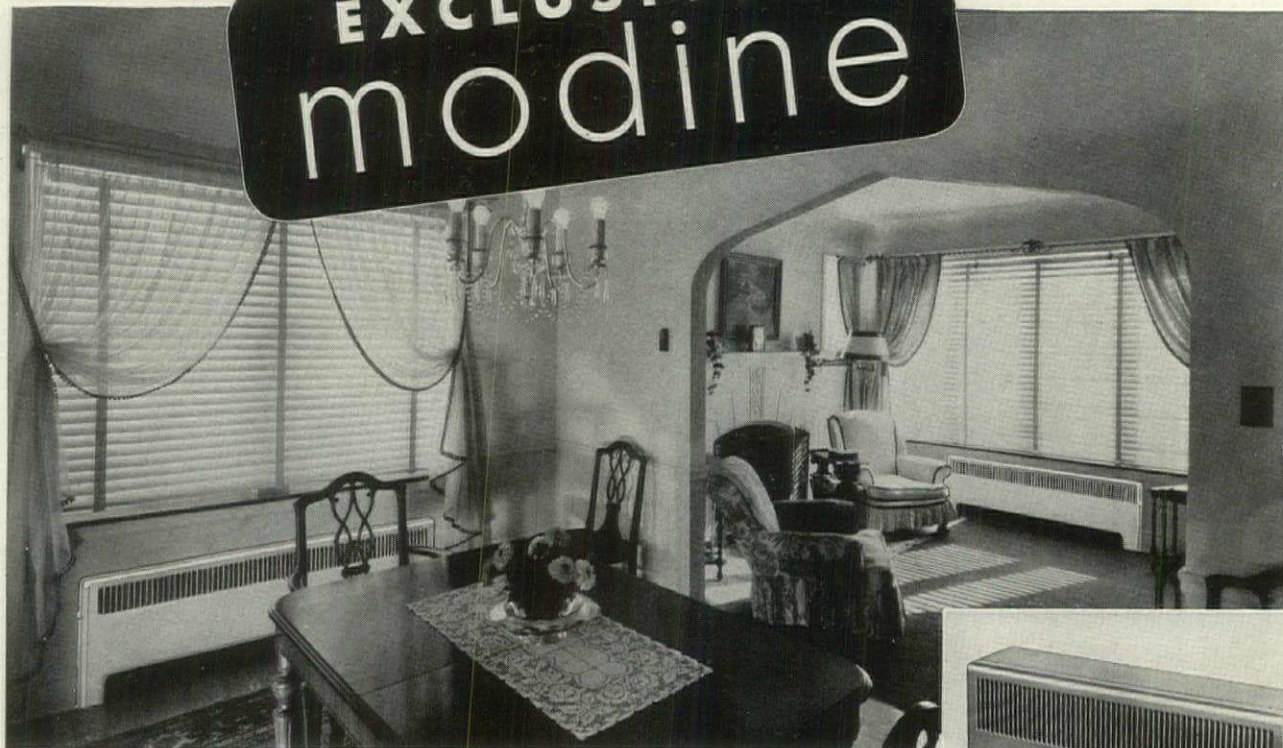
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## Bonderizing PROTECTS CONVECTOR ENCLOSURES AGAINST RUST at no extra cost

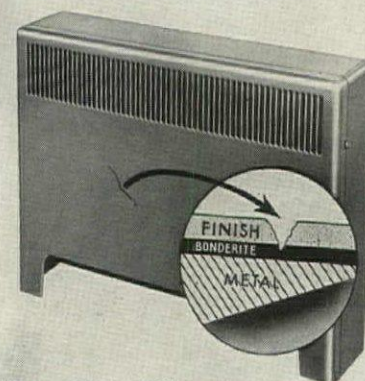
Not only is Modine the *first*—and the *only* manufacturer to factory-Bonderize all convector enclosures ... Modine makes *no extra charge* for this accepted method of rust proofing and finish protection.

Modine Bonderizing is the same famous (Parker) process used by leading makers of motor cars, steel windows and screen frames, kitchen units, bathroom cabinets, etc.

Convector enclosures must be protected against rust ... particularly when recessed in the wall or behind plaster. Exposed to moisture, the steel rear halves are subject to rust and corrosion which is never discovered until disintegration has begun.

Paint alone is *not* sufficient protection. Bonderizing seals the metal from moisture, making it resistant to

*This seal assures positive rust protection*



Floor Cabinet Type

the formation and progress of rust...and it anchors the prime coat of paint to the steel. Thus the main causes of paint failure are eliminated. Should the finish of a Bonderized enclosure front be chipped or scratched, progress of rust around the injury is effectively prevented. Any applied decorative finish lasts longer and keeps its fine appearance. *Literature on request.*



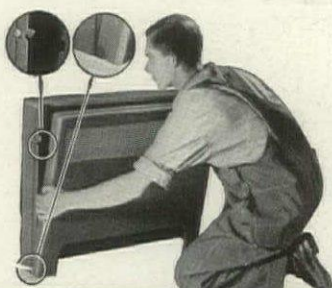
See your 'phone book for Modine representative's name in "Where to Buy It" section under Heating Apparatus.

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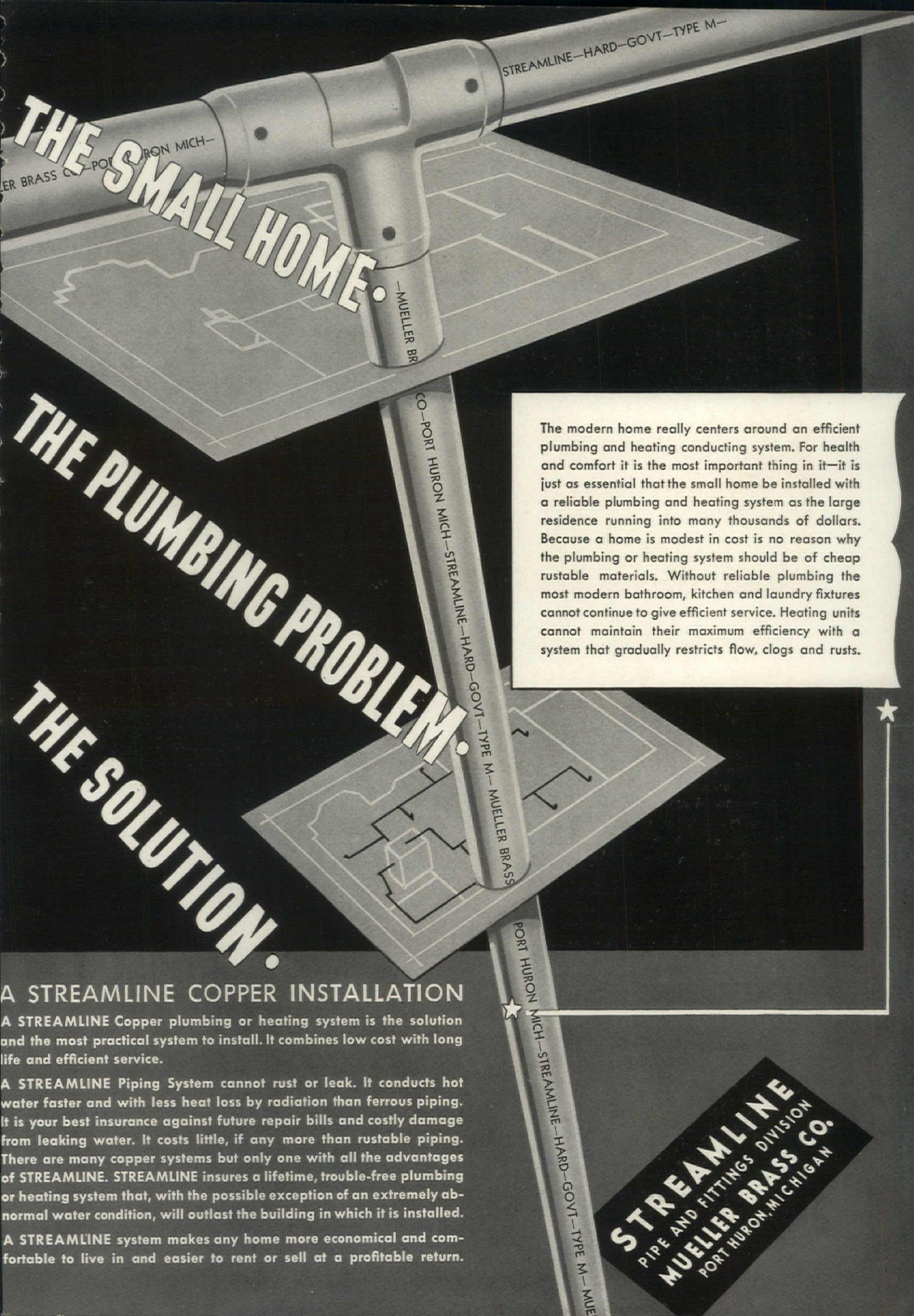
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THE PLUMBING PROBLEM.

THE SOLUTION.

The modern home really centers around an efficient plumbing and heating conducting system. For health and comfort it is the most important thing in it—it is just as essential that the small home be installed with a reliable plumbing and heating system as the large residence running into many thousands of dollars. Because a home is modest in cost is no reason why the plumbing or heating system should be of cheap rustable materials. Without reliable plumbing the most modern bathroom, kitchen and laundry fixtures cannot continue to give efficient service. Heating units cannot maintain their maximum efficiency with a system that gradually restricts flow, clogs and rusts.

## A STREAMLINE COPPER INSTALLATION

A STREAMLINE Copper plumbing or heating system is the solution and the most practical system to install. It combines low cost with long life and efficient service.

A STREAMLINE Piping System cannot rust or leak. It conducts hot water faster and with less heat loss by radiation than ferrous piping. It is your best insurance against future repair bills and costly damage from leaking water. It costs little, if any more than rustable piping. There are many copper systems but only one with all the advantages of STREAMLINE. STREAMLINE insures a lifetime, trouble-free plumbing or heating system that, with the possible exception of an extremely abnormal water condition, will outlast the building in which it is installed.

A STREAMLINE system makes any home more economical and comfortable to live in and easier to rent or sell at a profitable return.

**STREAMLINE**  
PIPE AND FITTINGS DIVISION  
**MUELLER BRASS CO.**  
PORT HURON, MICHIGAN



# **They also Serve who only Stand and Wait**





**I**N THE WEEK BEFORE NEW YEAR'S, 1940, Istanbul was quiet as Wall Street on a Sunday.

Robert Canuti, the AP's English-educated Turkish correspondent, hadn't had a first-class story for almost three months—not since the Turko-British treaty handed the Kremlin a short and snappy answer.

► But while man was dozing, Nature woke. Beneath the surface of ancient Asia Minor, subterranean ledges lost their age-long balance, slipped and skidded sideways.

The first totals of homeless, dead, and injured—usually exaggerated in such disasters—were not exaggerated this time. Pictures that came by “slow camel” added to the terrible tale. It was the biggest earthquake story since Yokohama.

And Robert Canuti, his months of waiting ended, had it on the wires to the western world before it was known in the streets of Istanbul. At once, the machinery of international relief began to whirl, and help was on the way.

► Most people think of Press Association men as daring young acrobats of

the newspaper world, always somersaulting from one hot story to another... now in Tokio, next in Singapore—now in Bucharest, soon at Brussels.

But the complete, the almost miraculous, world-coverage of the great Press Services comes from men who mostly stand and wait. Correspondents like Robert Canuti in the quieter capitals—and the thousands of “stringers,” in the world's little towns and villages, so-called because they paste their infrequent dispatches into a string and measure their payment by the inch.

Men like these form the nerve ends of the wire services—indispensable divisions of journalism's army of 300,000 men.

► The development of these world-wide Press Services, accurate, unbiased, and unsubsidized, is an American achievement. It is an outstanding example of American organizing genius—and it has all happened within the lifetime of most news-readers now living. More than that, the Press Services are the standard bearers, throughout the world, of the 20th century American tradition of accuracy and fair play in news-reporting. Something new under the sun.

► It wasn't until the 1890s that the dream of the modern Associated Press began to take form. A few courageous pioneers—Victor Lawson, Frank B. Noyes, Melville Stone, and Adolph Ochs—worked zealously for it, and in time press associations began pointing eager fingers at the map of the world and putting new correspondents wherever a fat dot showed an important city.

By the time an emperor with a withered arm unleashed the hounds of war in 1914, U. S. Press Services had spun their webs around the globe. AP's now seasoned network was being kept on its mettle by a lusty young competitor, an independent service called United Press, fathered in 1907 by E. W. Scripps.

► Due chiefly to the vision of these pioneers, the U. S., in less than half a cen-

tury, has shed its news provincialism. Today... let a flood sweep down the Yangtze, a strike begin in Melbourne, a regiment revolt in Addis Ababa, and in a matter of minutes or hours the teletypes in the U. S. begin to chatter.

► FLASH—calls the foreign cable, and begins gasping out its own curt, staccato language... SMORNING FRENCH CRUISER AIR-BOMBED IN ENGLISH CHANNEL. “Flash,” calls the New York operator. “French cruiser bombed.” A rewrite man works frantically, and soon the fingers of another operator start the electric current flowing. Operators in Philadelphia, Chicago, and almost a score of other U. S. cities stand up crying “Flash.” In a few seconds, every cranny of the U. S. will have the news.

From 50,000 news sources all over the globe, this river of news flows day or night. For while America sleeps, one half the world is wide-awake, busy getting into and out of trouble, busy making that perishable stuff called news.

► To every self-respecting newspaper, Press Association news is the breath of life. A paper pays for as much of it as it can afford and use. A country weekly can have as little as \$18 worth a week, a metropolitan daily as much as \$2,500. But whether a paper gets “pony” or multiple wire service, it counts its Press Association service as perhaps its most valuable asset.

► Press Association news is just as indispensable to The Weekly Newsmagazine as to a daily newspaper. To be sure, TIME has its own special correspondents, too—its own force of 500 news-scouts—its own check-and-query system.

But the stories from the daring acrobats and the quiet watchers of the Press Associations supply a basic pattern of the world's news... the vital pattern, which in the Newsmagazine, becomes the continuing narrative of our times, followed every week by 700,000 cover-to-cover readers.



This is one of a series of advertisements in which the Editors of TIME hope to give all the readers of Architectural Forum a clearer picture of the world of news-gathering, news-writing, and news-reading—and the part TIME plays in helping you to grasp, measure, and use the history of your lifetime as you live the story of your life.





## KITCHEN CABINETRY of wood, metal and newest compositions



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**S**election of Kitchen Maid Cabinetry solves many a problem for both architect and builder. Constructed of wood, metal and newest compositions...each where it serves best...this famous cabinetry meets every individual preference. Available in two price ranges, it is also adaptable to practically any budget. Write for color catalog and details.

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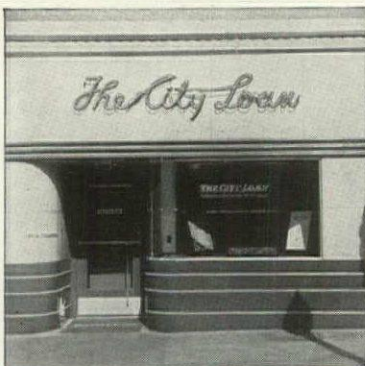
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☐ Builder



☐ Dealer  
☐ Owner



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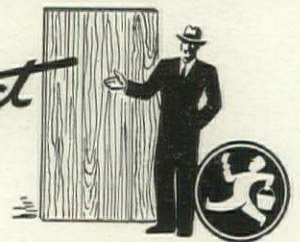
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*Mr. Architect*



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was created for  
**PLYWOOD**

**L**AUX RESIN-BOUND PLYWOOD finishes have been developed in close cooperation with plywood engineers. Laux Rez, sealer and primer, provides hard surface for perfect plywood finishing. White Rez "transforms" soft woods into "luxury woods." Plasterez gives smart, plaster-like interiors. Rezitex—beautiful, durable exteriors. Laux Casein Glue—for all dry-wall construction.

**FREE:** Dry-wall specifications manual. Gives construction, finishing detail and specifications. Write to Laux Sales Co., Seattle, for free copy.

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(Division I. F. Laucks, Inc.)  
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Los Angeles, 859 East 60th St. • Chicago, 6 N. Michigan Ave.  
Houston, 2812 Center St. • Dallas, 307 Great Nat'l Life Bldg.



# Information, Please!

## CAN YOU ANSWER THESE QUESTIONS?

1. What type of paint is best suited to concrete, stucco and masonry surfaces?
2. A basement wall is damp. Can it be painted?
3. What happens when water freezes in tiny pores in concrete and mortar?
4. Is there any paint that helps prevent mortar joints from crumbling?
5. Can a concrete building be painted as soon as the forms are removed?
6. What paint is being used on thousands of concrete swimming pools?
7. Can concrete floors be painted successfully?



## THE ANSWERS:

Give yourself an A-1 rating if you have answered all of the questions correctly.

1. A paint containing Portland cement as a base—Medusa Portland Cement Paint—is best suited to concrete, stucco and masonry surfaces because it bonds perfectly to the surface and gives a hard, cement-like finish to the wall.
2. Damp or dry basement walls of concrete, brick or unglazed tile can be painted with Medusa Portland Cement Paint.
3. When water freezes in tiny pores of concrete and mortar, it expands and may cause tiny cracks and the beginning of disintegration. Medusa Portland Cement Paint helps prevent water from entering the pores.
4. Medusa Portland Cement Paint helps prevent mortar joints from crumbling.

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5. A concrete wall or building can be painted with Medusa Portland Cement Paint immediately after the forms are removed.
6. Medusa Portland Cement Paint is widely used for keeping pools beautiful.
7. Concrete floors can be given a beautiful, alkali, water and abrasion resisting finish with Medusa Floor Coating, properly applied.

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### MEDUSA PRODUCTS CO.

Division of Medusa Portland Cement Company  
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# New **MILCOR** Metal Trim Manual

simplifies your design problems . . .  
saves your time in planning, drafting

Just off the press! A guide book on Milcor's enlarged line of Metal Trim — the most complete in the field . . .

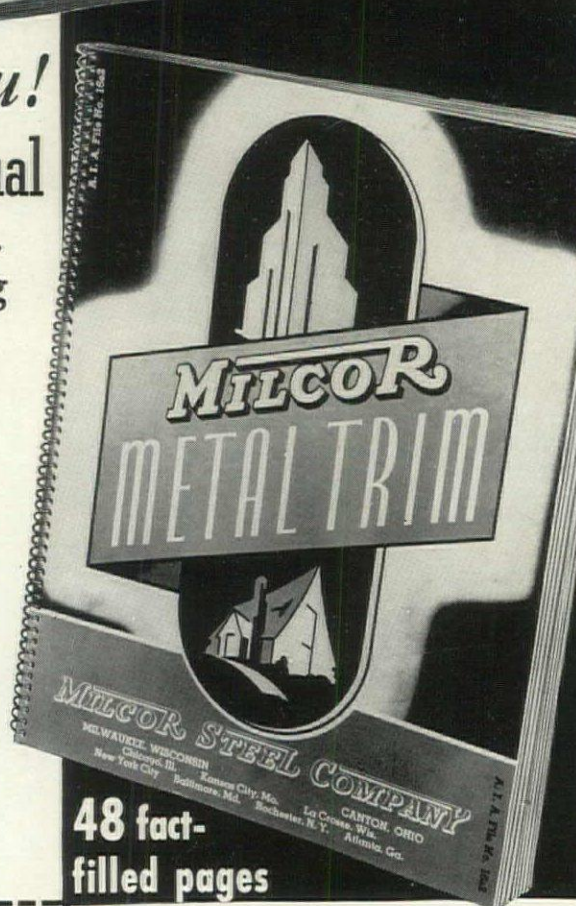
This handy manual helps you simplify construction in harmony with modern, practical design . . . please clients with the enduring beauty, fire-safety, durability, sanitation, and low maintenance costs of metal trim.

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and accessories, builds a coordinated, fireproof structure of steel that withstands stress and protects plaster surface beauty.

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F-154



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and mail  
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Looking at it from all angles  
the ideal modern wall!

PRACTICALITY

BEAUTY

ECONOMY

IN NO OTHER TYPE of material at anywhere near the price could you get the beautiful effects possible with Nairn Wall Linoleum. Delicate pastels, rich dark tones, in mottled and striated effects!

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Nairn Wall Linoleum retains its original beauty year after year. Sanitary and waterproof, it is easily maintained by washing with mild soap and warm water.

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The "Nairn Bath" above combines Nairn Wall Linoleum "Coral," No. 7975, with Personal-ized\* Floor of Nairn Adhesive Sealex Linoleum—No. A7262, with inexpensive, ready-cut Nairn insets, feature strips and borders. Dressing table top is Plain Linoleum, "White," No. 1113.

\*Trademark Registered U. S. Pat. Off. by Congoleum-Nairn Inc.

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**WALL LINOLEUM**

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PERMANENT  
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*Selected for Santa Fe Railroad Train Sheds, Bakersfield, California.*



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## STEEL FLOOR AND ROOF SYSTEM

*Permits Any Type of Built-Up Roofing*

The adaptability of Wheeling Long-Span Steel Floor and Roof System to any architectural plans has made this modern fireproof construction the most efficient and economical for many types of buildings. The Long-Span system consists of channel shaped joists of Wheeling COP-R-LOY which can be quickly welded into a rigid deck, the smooth level surface of which takes any type of built up roofing. There are no delays waiting for this deck to dry. This rigid construction offers maximum protection not only against fire but against moisture and leaks. Dampness cannot warp this deck or cause it to buckle and break the insulation and protective paper roofing. For specifications and full details write the nearest Wheeling office.

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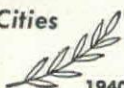
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Offices and Warehouses in Principal Cities



1890

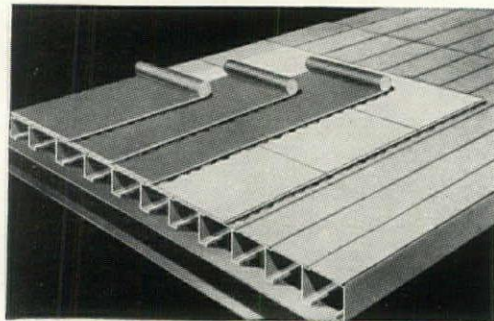
GOLDEN ANNIVERSARY



1940



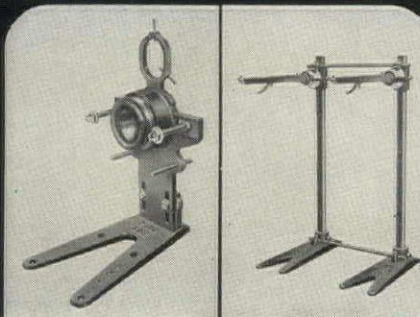
*A crew of 6 men can lay and weld 1,000 square feet of Long-Span Roof Deck in one hour.*



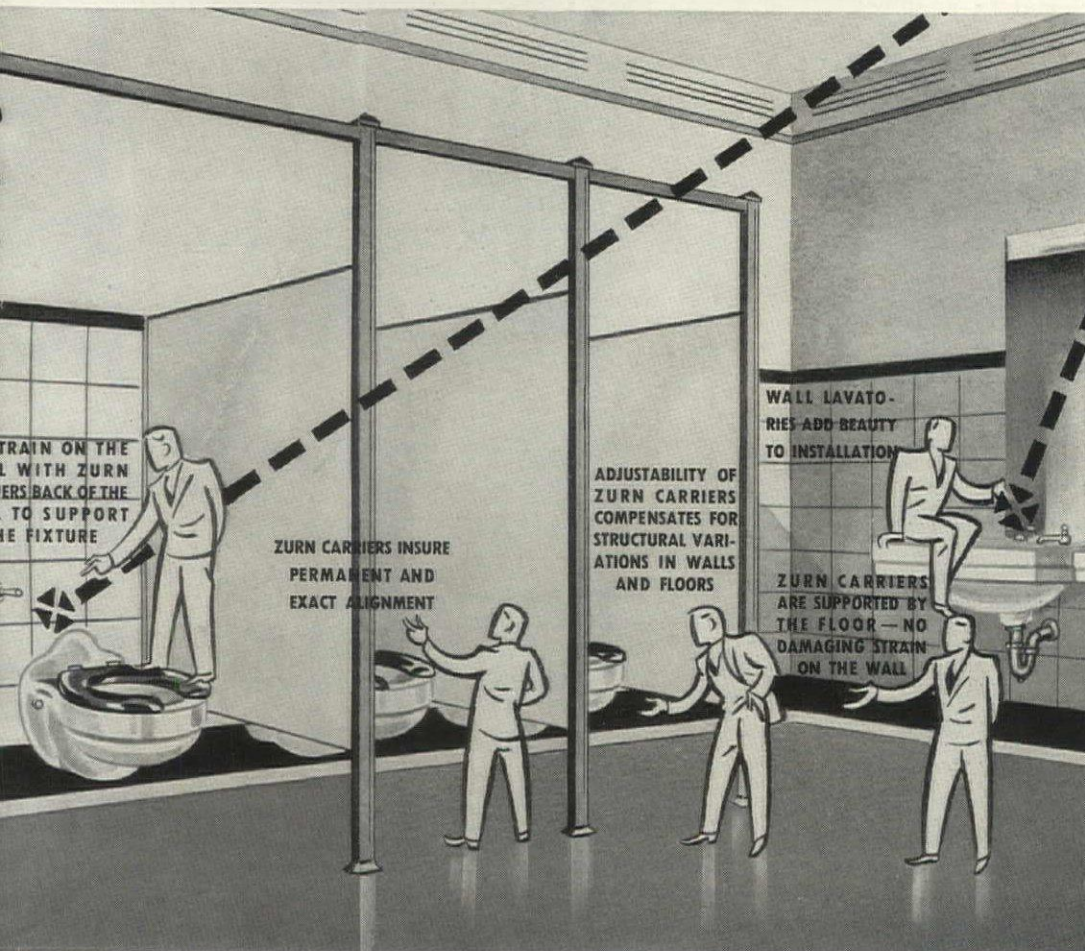
*The smooth surface of Long-Span Roof Deck simplifies application of insulation and any type of built-up roofing.*



**WHEN YOU SPECIFY WALL FIXTURES—SPECIFY  
ZURN ENGINEERED CARRIERS and forestall  
damaging strain on the wall and installation grief**



**FOR ALL TYPES  
AND MAKES OF  
WALL FIXTURES**



**EXTRA FLOOR SPACE** is provided by Wall lavatories and sinks for accommodating hampers, supply cabinets, waste baskets, etc.



**AID TO SANITATION.** Wall fixtures in toilet rooms and washrooms promote cleanliness. Floors are easy to clean and keep clean.

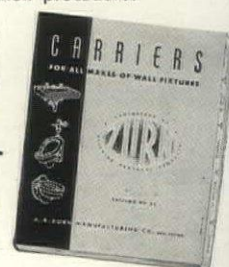


**NO DAMAGING STRAIN ON THE WALL.** The cantilever construction of Zurn Carriers (similar in principle to that used in supporting huge bridges) relieves the wall of damaging strain.



**NO INSTALLATION GRIEF.** Simple, positive adjustments compensate for structural variations in floors and walls. Step-by-step instructions insure correct installation procedure.

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When you specify Wall Fixtures—be wary of "half-way" specifications that may let you in for installation grief and "jinx" the job. Go all the way—assure permanent satisfaction from the Wall Fixtures by specifying the Carriers to support them—*Zurn Engineered Carriers* for all wall fixtures.

Zurn Engineered Carriers have a functional identity as distinct as that of the fixtures they support, and therefore are as worthy of specification. They alone offer you tested mechanical features such as: (1) Cantilever construction; (2) Positive adjustability, both vertically and horizontally; (3) Easy, quick installation; (4) Permanent perfect fixture alignment.

These advantages enable you to utilize in full, the convenience, style and sanitation of Wall Fixtures in a wider range of projects, and positively forestall the risks usually traceable to common contrivances and ordinary methods for supporting Wall Fixtures. Specify Zurn Engineered Carriers for every Wall Fixture installation.

The basic line of Zurn Engineered Carriers includes 25 different styles—a type for supporting every type and make of Wall Fixture. Each type and its application is fully described and illustrated in the Zurn Carrier Catalog. If you haven't a copy, use the coupon and get it today.

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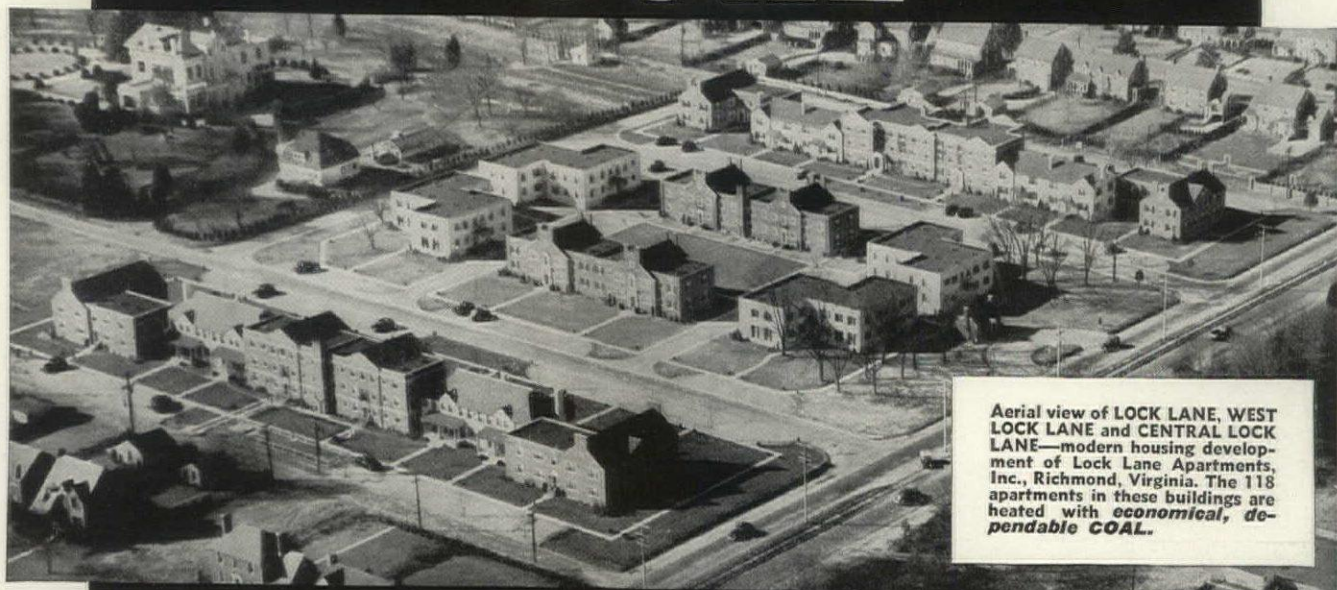
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# Credit **COAL** with



Aerial view of LOCK LANE, WEST LOCK LANE and CENTRAL LOCK LANE—modern housing development of Lock Lane Apartments, Inc., Richmond, Virginia. The 118 apartments in these buildings are heated with *economical, dependable COAL*.

## 30% **SAVING\*** on heating cost!

\*"AT THE VERY LEAST," says the President of Lock Lane Apartments, Inc., Richmond, Virginia, "we expect to show a 30% saving on fuel cost." He refers to heating three groups of apartments in his city, known as Lock Lane, West Lock Lane and Central Lock Lane. When the first of these was being built in 1938, the Lock Lane management thoroughly investigated the efficiency and economy of competing fuels. The result—

### "WE CHOSE COAL FOR ECONOMY, SAFETY AND DEPENDABILITY"

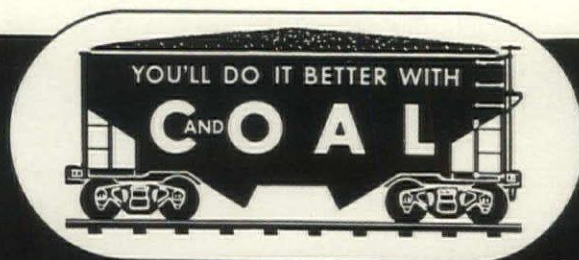
On the strength of its record for satisfactory and economical automatic heat in the 32 Lock Lane apartments, COAL heat was specified for the project's next two units totaling 86 apartments. Fuel costs for the three units combined is estimated, for not all have been in operation a full year. But the owners regard 30% as a *minimum* saving.

30% is a low figure! You'll find agreement on this among thousands of owners of dwellings, institutions and other public buildings who depend on modern coal heat for satisfaction and low fuel bills. Yes, savings of over 50% are not uncommon!

Perhaps you can effect a 30% to 50% saving by a change-over or new installation of modern coal burning equipment. It will pay you to compare fuel efficiencies and costs.

If you wish, the Fuel Service Engineers of Chesapeake and Ohio Lines will analyze your heating problems and give you accurate comparative estimates on fuel costs. This railroad can also help you secure the type of bituminous coal best suited to your individual needs. Chesapeake and Ohio Lines serve "The Coal Bin of America" where the country's finest high and low volatile bituminous coals are mined . . . cleaned . . . prepared . . . and uniformly sized to the specifications of users.

For information or assistance on your fuel problems, write **GEORGE H. REINBRECHT**, Coal Traffic Manager, 2909 Terminal Tower, Cleveland, O.... Send for free copy of interesting brochure, "The Coal Bin of America."



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● Warehouse for Woodbury & Company, dealers in industrial supplies and heavy hardware, Portland, Oregon. A stucco dash finish gives an interesting texture without disturbing the character of the board-formed surfaces. Richard Sundeleaf, architect; Wegman & Sons, contractors.

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