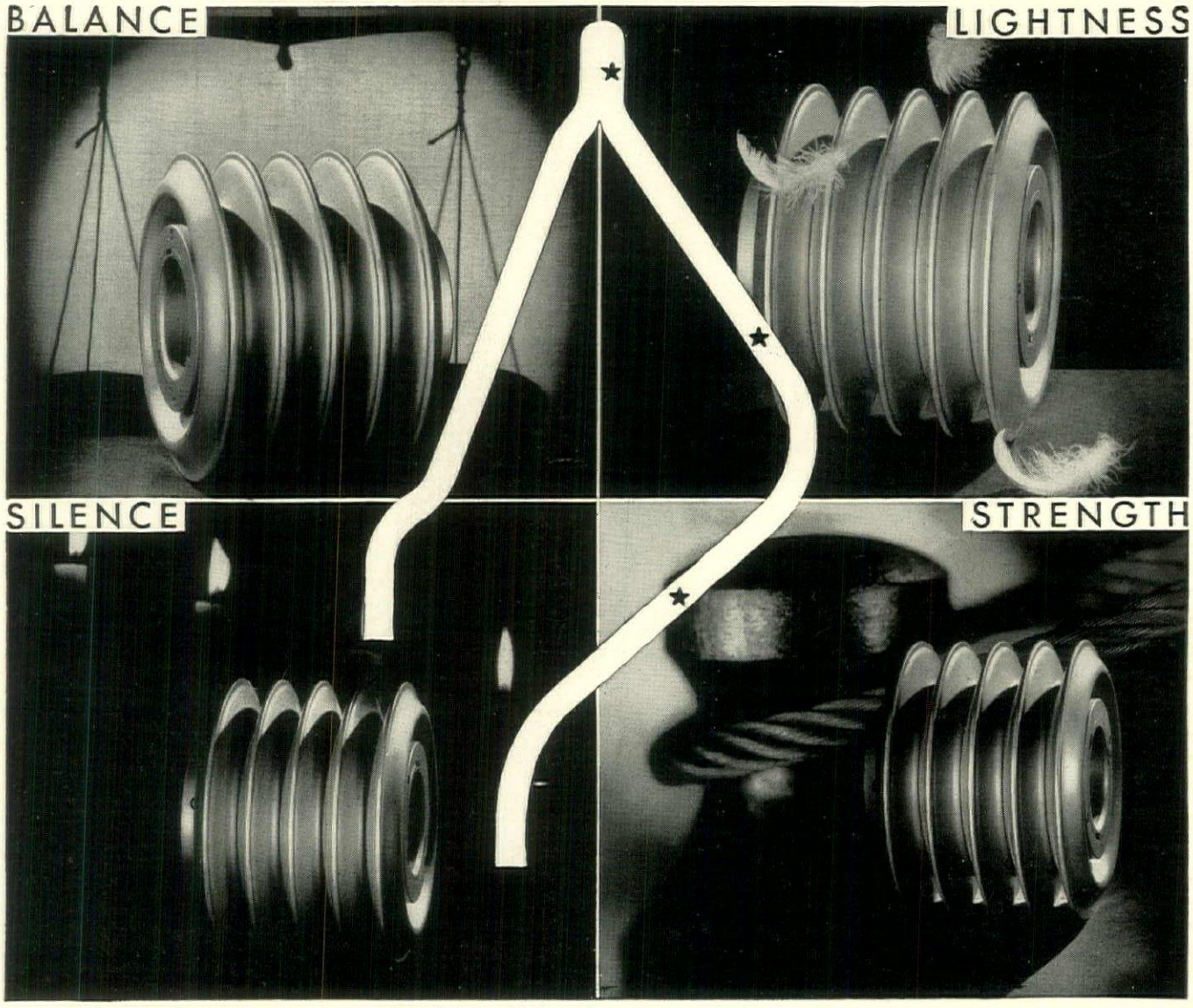
THE ARCHITECTURAL FORUM

INCLUDING "BUILDING MONEY"

AUGUST, 1935

ERN HOUSE . . COLONIAL CHURCH . . MODERN CHURCH . . HOME FINANCE . . COLORED SCULPTURE



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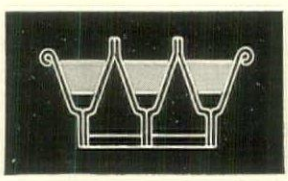
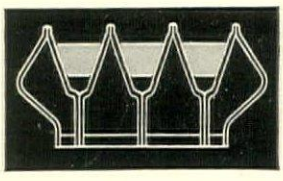
Former Design: cross-section showing unsupported outside plate.

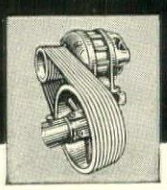


★ ★ ★

New Duro-Brace Design: cross-section showing outside plate braced by a convex reinforcing steel plate.



TEXROPE DRIVES



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ARCHITECTURAL FORUM

AUGUST 1935

Editor, HOWARD MYERS, *Managing Editor*, RUTH GOODHUE, *Associates*, JOHN CUSHMAN FISTERE, ALAN JACKSON, ERNEST BORN, MAX FORESTER, GEORGE NELSON, PAUL GROTZ.

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VOLUME LXIII NUMBER TWO

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VOLUME L
Number

THE MONTH IN BUILDING

OLUME. The anticipated decline of sidential building during June happily iled to materialize, with volume for the rst two weeks equal to the first two eeks in May, and up 100 per cent over ie same period last year. Dodge's figure r the 37 Eastern States during the period as $25,779,200. Non-residential construcon was up slightly from last year, but ot enough to cheer anybody.

Because of the slackening in public orks, the total construction volume for ie January 1-June 15 period was off from st year's total for the same period—15,038,300, as against $790,574,900. If ie President's works program tends build-g-ward, as the Construction League of ie U. S. was demanding last month, the nd of the year is likely to bring 1935's otal considerably out in front.

Most of the residential building (approximately 60 per cent) is speculative, nd unfortunately there is no accurate auge of sales. From scattered reports, owever, sales seem to be following close ehind construction, which is in many ways ie healthiest sign in the industry.

ABOR. Organized building labor was eset with dual woe last month. The inamural contest over the Building Trades epartment seemed no closer to a satisctory conclusion when the old McDongh faction, representing a large group of nall unions, refused to attend an elecon called by President William Green. Whether a legal decision will finally dermine which of the Green or McDonough roups is really the Building Trades Dcartment, or whether it will be fought out local feuds, remained a question.

The second woe was an even greater ie. Using General Johnson's New York orks program for a test ruling, Harry opkins ruled that prevailing wages would ot be paid on public works projects. Unoubtedly he had weighed the political onsequences of such a decision with his White House chief. And having weighed iem, he must have known what he was sking. Because he finally decided to take ie risk, not a few interpreters were ready ith the explanation that the President as seeking not only the payment of less an union wages on public works projects, it that he was taking that means of drivg down wages on private as well as pubprojects. Such a move, in the opinion almost every member of the building dustry, except the union leaders, would more to stimulate building than any her thing. The President could not possibly go on record as favoring lower wage scales, but he could in the name of spreading employment limit wages on public works. That the lowering of wage scales on one type of project would lead to lower wages on other types seemed a conclusion almost safe from dispute.

BONDS UP. When construction contracts fell off in 1929, and again in 1930, from their all-time high in 1928, it was the fall in real estate bond and stock financing that caused it, and not a drop in institutional or individual lending. This is a fact which, in view of the current disrepute of mortgage bond financing, has been little placarded by the building industry, either in or out of Washington, in its effort to regain its fundamental place in the scheme of things. It suggests the industry's biggest present job: drastic revision of financing methods which in the past have brought an unmistakable measure of overbuilding, servilitude to building operation labor, untold woe to investors, and undue business to many a sharp lawyer. Present pitifully low totals for commercial building contracts are thoroughly secondary results, although they point out the need of concentration on the problem by the entire industry.

It is apparently not going to be so much a matter of "driving all the racketeers and chiselers out of the housing and real estate business," as Dr. Walter Pitkin demands in "Let's Get What We Want," as a problem to be solved by the very ones whose mistakes have won his censure. If for no other reason than that they know the problem and its implications better than anyone else.

Meanwhile, the pulse of the commercial building industry was still to be measured by tracing the trends in the value of the real estate bonds of the past era. That pulse has been extremely faint, but can be reported to be slightly less so, and measure-taking—which had ceased—has been resumed again by the dealers in these securities. Three recent studies have been made, all of which are dulled by the multiplicity of outstanding issues (Sculley Brothers & Co., an extinct Manhattan bond house, once issued an 86-page list of them, in fine type) and the consequent impossibility of arriving at any truly accurate conclusions.

Perhaps the most reliable of these, by Griffith, Wagenseller & Durst, of Los Angeles, has held to 53 identical issues, the general market value of which has increased practically 50 per cent over what it was at the end of 1932. Issues have been switched in Amott, Baker & Co.'s 200-issue index of Eastern bonds. Just as unreliable as a definite index of the industry's true state was a chart of 250 selected issues published last month by Eli Watson & Co. (see cut). But it radiated some genuine rays of cheer through its obvious custom tailoring, and provided some interesting data as to which types of property have

Deputy Catharine

Harris & Ewing Photo

Deputy Walsh

shown gains.

These stirrings, bespeaking a reviving market for real estate securities, were backed up by other factors, succinctly outlined in a recent report of the Real Estate Securities Committee of the Investment Bankers' Association. Excerpt: "The excess of investible funds and the difficulty of obtaining satisfactory returns should soon force insurance companies and savings banks to purchase good real estate issues, and serve to reduce interest costs thereon."

Dissenter Allen *International*

DEPUTIES. With far less excitement than the events warranted, the Federal Housing Administration changed Deputy Administrators last month. To succeed J. Howard Ardrey, the Dallas-New York banker who had charge of Titles II and III, the President moved up Robert M. Catharine from his post as assistant deputy, and to succeed Albert L. Deane, who returned to General Motors, Arthur Walsh was called in from New Jersey to take charge of Title I.

Years of experience in real estate and mortgage banking, plus a willingness to listen to people outside as well as inside New York are part of Catharine's qualifications. Although he lacks Ardrey's gift for hard talking, he is regarded by his associates as a hard worker, well deserving of the promotion.

As vice president of Edison Industries, Arthur Walsh has the promotional perspicacity required in his new job. His handling of Jersey's FHA has been one of the bright spots of the program.

Again Washington began whispering that as soon as Congress adjourns, the President will name a new FHAdministrator to replace Acting Administrator Stewart McDonald. Unfortunately the job has taken on a decided plum-like character, which probably means that the new man will be a politician first, and a mortgage man second.

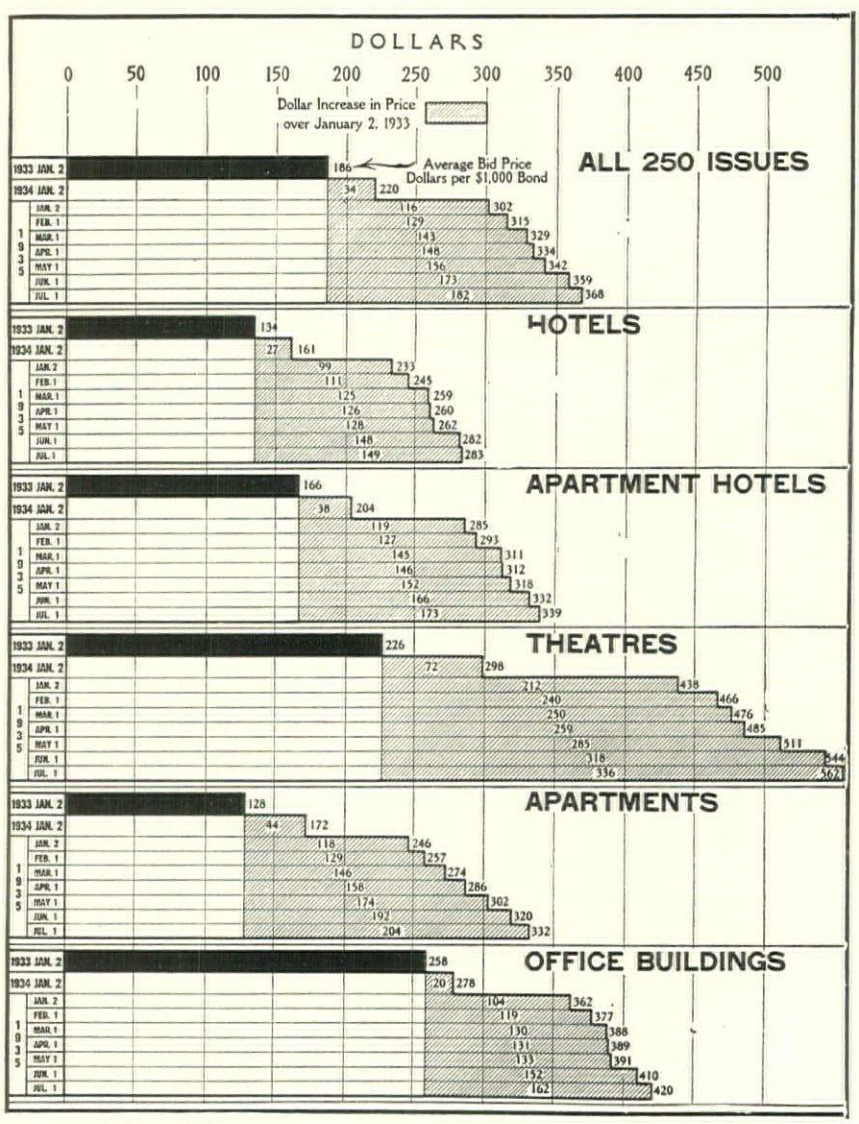
HOUSING BLOW. Despite Ickes' belligerent reception of the Cincinnati housing decision, denying the Government's right to condemn land for housing, the offices of Director A. R. Clas of PWA's Housing Division were noticeably gloom-struck by the news. Not so much, observers thought, because the decision would hamper progress, but because it was the first time that anyone had ever succeeded in upsetting the dictatorial attitude which the Housing Division has assumed toward local desires.

It is unlikely that the Government will take an appeal to the Supreme Court, for though social welfare may be on its side, the law obviously is not. The decision, specifically upholding the opinion of Judge Charles I. Dawson of Louisville in condemnation proceedings brought in that city, was a two-to-one ruling, the dissenter being Judge Florence Allen, newly appointed to the bench by the President.

What effect the ruling would have on the future activities of the Housing Division was a question that Secretary Ickes immediately answered. "We are not going to stop this work merely because of restriction of the condemnation power. Three courses are open to him: (1) either obtaining vacant land, (2) building where the U. S. can buy all the land directly from cooperative owners, and (3) turning over the problem of property assembly to the cities.

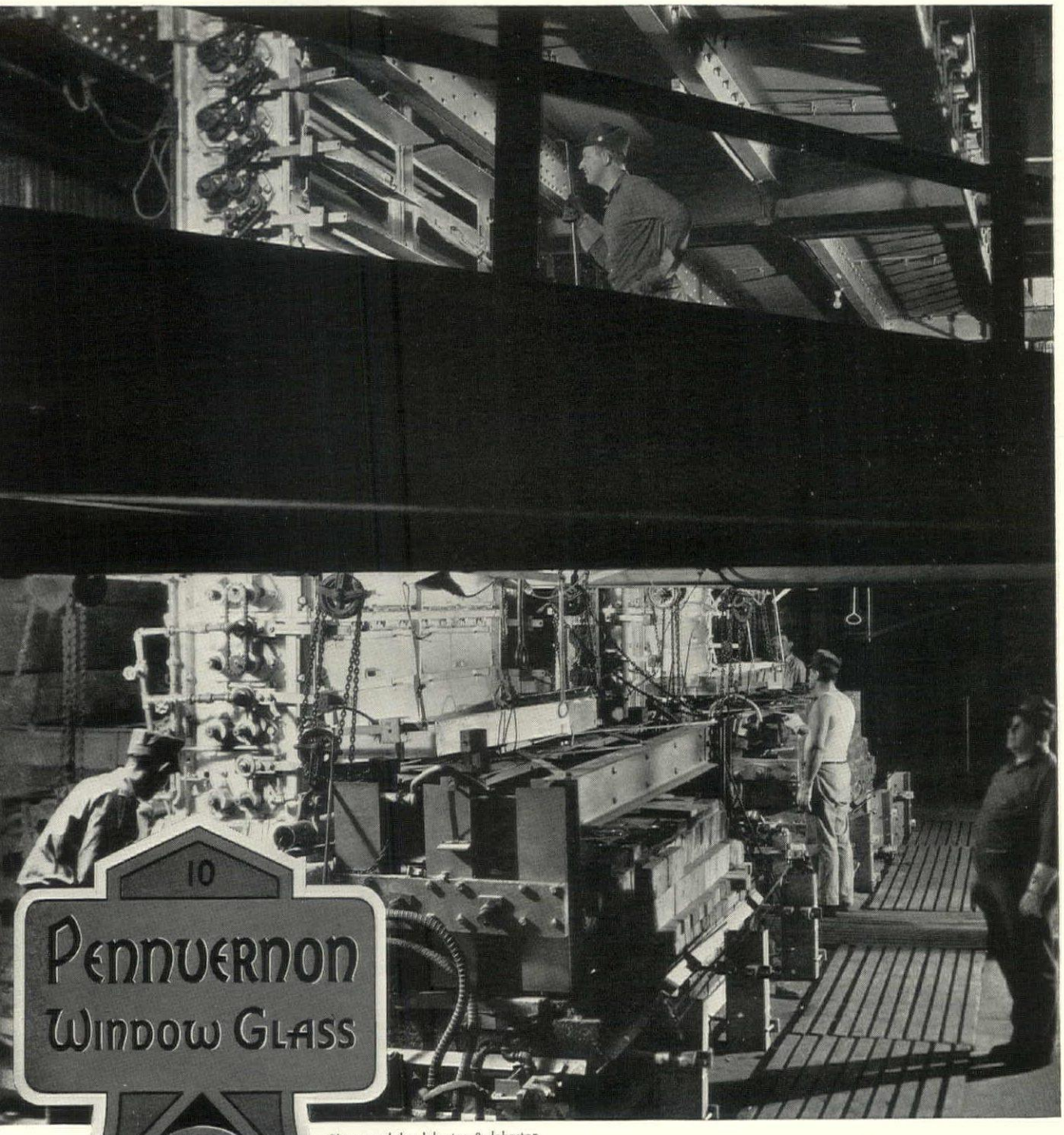
Although the last plan seemed the most sensible in view of decisions upholding the right of local housing authorities to condemn land for the same purpose, it was very unlikely that Secretary Ickes would adopt it. From the first, he has refused to delegate any more power to local groups than he has been forced to—and to permit them to buy land, which offers such well recognized opportunities for profiteering, is something that would disturb the honest Secretary's sleep.

It seemed probable that future Government housing would be accomplished without slum clearance, and sites chosen in undeveloped areas, where the problem of land acquisition is comparatively simple.



Mortgage Bonds' Recovery

Specify "Pennvernon"...not just "window glass"



Photograph by Johnston & Johnston

UP FROM THE DEPTHS of the melting tank below, this specially-designed Pennvernon drawing machine draws the molten glass, forms it into the brilliant, clear sheets which have made the name "Pennvernon" synonymous with high quality. Skilful Pennvernon Craftsmen tend the machine carefully and faithfully, day and night.

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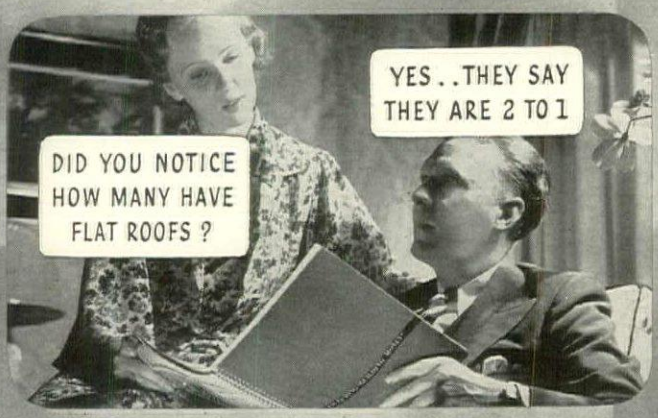
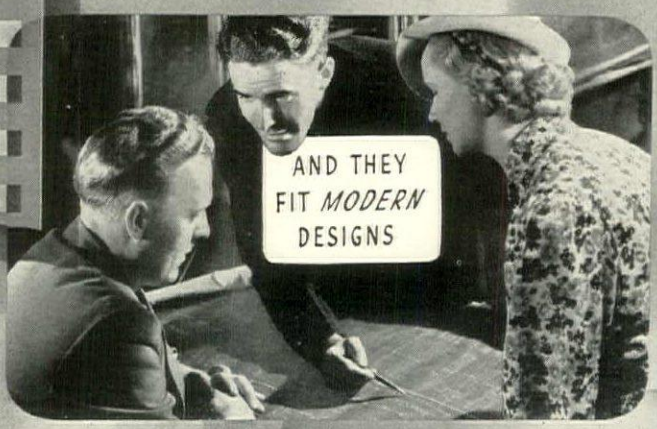
What is happening IN THE ROOFING BUSINES





*Nation-
contest a
architect
General
tric and
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for best h
for mo
living.

There is a very good reason for the warning that coal tar pitch and felt should always be used for flat deck roofs. The long life of coal tar pitch and felt roofs on flat decks . . . 30, 40, 50 years . . . is in great contrast with the many failures which have occurred in other types of roofs on flat decks after a comparatively few years. In the current movement toward flat decks in residences, architects can perform a great service to their clients by advising them of the advantages of the best type of roof materials for that particular condition.

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LETTERS

ank Watson's Book

rum:

. . . Mr. Watson's book brings together interesting collection of facts, but I find yself in disagreement pretty much from rt to finish with his use of them. For ample, to consider the relation through ne of owned and rented homes, and not ke account of the shift that took place ring the last three decades in changing me ownership from approximately nership in fact to "buy on a margin" a grave fault in a serious piece of work. ither can I understand how anyone, in aling with this problem, could so comtely ignore the question of the differenl distribution of income. For it is out this differential dstribution that the using problem arises. . . .

It seems to me that Mr. Watson overoks entirely the fact that the use of habiltions is an act of consumption. . . . hat he proposes, I take it, is fundaentally a scheme for increasing our items pecuniary wealth by issuing a greater lume of credit in respect to consumpn. This argument, and the remainder the book, strike me as being very much ong the line of what took place after ice had passed through the looking glass!

FREDERICK L. ACKERMAN

New York City

orum:

. . . This is the best brief text book on e building situation that I have seen. . . While the author discusses briefly esent sales methods he fails to show hat manufacturers can do by adopting ore efficient, more aggressive sales methds to improve conditions. The whole probm, of course, is centered in lack of sales olume, and while this in some measure is ue to the difficulties mentioned above it a question whether these difficulties are ne cause of low volume or the low volume the cause of the difficulties. At any rate is quite generally agreed that if manufacurers would take the initiative and apply, ay, automobile sales methods to the buildng industry, many of the problems conronting the industry would be eliminated. Oil burner manufacturers and refrigerator nanufacturers have already done this with uccess. The rest of the building material eople have become so dependent on conractors and subcontractors, who lack sales ability, that they are reluctant to change o more modern marketing methods. Of course, any change must be gradual beause of investments in the old system, but oo few manufacturers recognize what a huge potential market is being lost by gnoring what will one day be an inevitable necessity. This sales problem, I think, is the most important in the industry; more aggressiveness from this angle will go a long ways in solving the other problems of costs and financing methods.

STOWELL M. MEARS

Metuchen, N. J.

Excerpts from Frank Watson's "Housing Problems and Possibilities in the United States" first appeared in THE FORUM, June, 1935, p. 592, then in a limited edition published by THE FORUM. Now it may be purchased from Harper & Brothers for $1.25 a bound copy.—ED.

Neutra's Neophytes

Forum:

Architecture is advancing into a stage where routine work, as turned out by a routine organization, is considerably less significant and a steady experimental spirit, balanced by professional conscientiousness, is very much required.

. . . All members of the new architectural office must be permeated by that devoted professional spirit which causes a spontaneous contribution of what every one is called to contribute in proportion to his experience, ability and to the length of time he has partaken in the work of the organization. It should rather resemble the experimentally efficient and reliable organization for planning airships or ocean liners than the old style architectural office that was divided dualistically into a department for formalistic art and one for the fulfillment of utilitarian requirements.

Without romantically imitating a precedent, we must recognize the merits of the medieval construction guilds. They formed a steady framework and container into which flowed for assimilation a steady stream of young talent and good will to acquire experience; not in order to compete, but to cooperate with and in due time replace the diminishing efforts of the elders. New people were trained and old people died out, but the organization lasted, had a natural, a biological development and warranted a natural development of technical and designing ideas without hectic and sensational novelties every spring and fall.

The next decade of architectural history will not be marked by isolated originality, but will bring credit to organizations which in their teamwork have acquired a competence comparable with the apparent competence of the old recognized routine office and its archæological library.

The founder of this office, therefore, has decided to broaden its scope without abandoning too much of the quality, by training a younger generation to share in his work, responsibilities and income in proportion to the capacity and experience which each of the new members of the organization can invest according to his judgment.

In the relation between the architect and his apprentices, assistants, collaborators, the following is understood:

1. An aspirant for a permanent position (temporary students pay a monthly tuition fee and pursue their studies on such media as the current office work may supply) must, after not less than four months of apprenticeship, declare his intention and then according to his rating by the architect will receive notice for how much longer he may have to continue apprenticeship before receiving the status of an assistant.

2. When accepted as assistant, he will receive wages according to the architect's judgment not exceeding 15 per cent of the net income from such portions of the professional work on a certain job as he has been sharing by his effort.

3. He shall continue to work in the status of an assistant until according to the judgment of the architect his ability promises his acceptance as a collaborator.

4. When accepted as collaborator he is expected, and promises, to handle at least one job at a time with complete responsibility, doing such work in office and field, in conversation with contractors and clients, as may be delegated to him by the architect, with the conscientiousness and precision of an experienced and loyal associate of the architect. Results are gauged, not working hours counted.

5. When the collaborator proves these qualities and his sustained interest in the job delegated to him his name will, in all publications of such work, appear as that of the official collaborator on this job and he will receive 30 per cent of the net income from it, or from those portions in which he has shared by his work.

6. The collaborator is expected to perfect his ability to handle two or more jobs at a time in a reliable and responsible manner and direct and guide a number of assistants, whom the architect will install as his aides, subordinated to and supervised by him. His income will naturally increase with the number of jobs he proves capable of handling and the number of assistants he can supervise without decreasing the precision and quality of the work.

7. Any job acquired by an assistant or collaborator by true merit of his personal contact and individual effort shall yield 20 per cent of its net income, in addition to the regular compensation, to the member acquiring it and shall otherwise be handled like all other jobs. . . .

8. On special occasions the architect may invite the combined work of several collaborators and arrange accordingly for compensation of participants.

9. Any member accepting the confidence, the credit and the advantages given to assistants and official collaborators acknowledges the permanency of this relation. And enters into the spirit of a perpetual organization for that sustained responsibility and professional service, which has in the past been ordinarily associated with a single

(Continued on page 8)

LETTERS

(Continued from page 7)

person who acts as employer of more or less temporary and irresponsible help.

10. In the course of natural events the activity of the architect will decrease and the participation and influence of the collaborators will increase. Assistants will advance to collaborators, aspirants to assistants. It is desired and in the interest of the work that all these natural changes should be friendly understood and handled equitably and amicably. Both younger and older men shall have a friendly attitude toward each other and by proper self-criticism maintain that atmosphere in which every detail of production, however small, appears as what it is: a subject of creative effort, integrally and correctly related to the whole. It is understood that while current events might sometimes press toward speedy and exhaustive work, the career of a professional and capable architect is a life filling issue and must be pursued with patience. A serenely developing organization of powerful determination, such as the one described, will under present and future circumstances obviously give more satisfaction to each participant than erratic individualistic effort. And certainly promote the sound growth of a high quality of work.

RICHARD J. NEUTRA

Los Angeles

Appraising Architects

Forum:

Looking back over more than twenty years of practice as a professional architect, I can now see some of the opportunities for added service which surround the architect engaged in a varied practice in a moderately sized city. During this period, I appeared from time to time, with more or less success, as an expert on valuation before some court or commission. It was because of these somewhat isolated experiences that the serious study of the art of "valuing" or "appraisal of property" began to take a share of my time. I see now that appraisal might well have been added to my habitual service list.

An architect who is possessed of a keen desire for the factual side of his profession and delights in the engineering phases of his work is pretty well suited to the exacting work of appraising. It has been my observation that architects, like most professional men, drift into certain specialized phases of the profession, but most generally a thorough going understanding of the requirements of housing constitutes the basis of the most of the work of this profession. If the architect decides to offer appraising as part of his continual service to a client he starts at least with the essential background for the work.

In my own case after the appearances before courts and commissions I found myself equipped with the theory and practice of estimating costs of reproduction by the cube method, and the development of units of cost from ever changing material and labor "unit costs." In addition to this knowledge, it became necessary to inform myself concerning the theories of obsolescence, depreciation, and changes in values brought about by shifts of the population; to apply those theories; and to appreciate and recognize trends induced by changing social conditions and customs.

Most professional men have a high regard for the results being obtained through the efforts of mutually helpful professional organizations. Data and information obtained from such group efforts consist of a splendid mixture of the theoretical and very practical results obtained through actual practice. An organization of this type, specializing in housing appraisal work, has been just founded under the auspices of the United States Building and Loan League in Chicago. It is called the "Society of Residential Appraisers." Efforts toward its development have arisen especially in this quarter because it is now widely recognized that appraisals are the values on which long term investments rest secure or unsecure for the future.

The services of the Society are already in performance, the initial undertaking, publication of a monthly magazine of scientific and professional quality, having materialized in three issues of the "Residential Appraisers' Review."

Needless to state, membership is open to all persons who seek the common end of greater efficiency and a larger remunerative success in the appraisal of property. It is apparent to me that the qualifications of the individual appraiser will be constantly raised in the years that lie ahead and as a result we can be assured that real ability and equipment for this sort of service will be more in demand than at any other period in the financing of housing projects.

FERMOR S. CANNON.

Indianapolis

Mr. Kastner

Forum:

Your label "structural engineer" attached to my name in the article on page 26 of your July issue is incorrect.

The structural engineer is Mr. W. Krauss, a licensed engineer. The mechanical engineer is Mr. W. Luff.

ALFRED KASTNER

Philadelphia, Pa.

Federal Reserve Competition

Forum:

In regard to the results of the competition for the Federal Reserve Board Building, published in the last issue of THE FORUM, permit me to say that the reporting in the form of adequate illustrations of the various projects submitted seems to me an unusually satisfactory method; and I wish to congratulate you on the very excellent results.

Very often plans are reproduced without elevations or elevations without pl which, to the professional man, is extrem unsatisfactory. I think your account of competition would have been even m satisfactory had you given space to reproduction of the sections as well as plans and elevations. However, the acco as given is far superior to most reports this nature.

ARTHUR BROWN, JR

San Francisco

"Even the layman"

Forum:

I congratulate you and all who c tribute, in your efforts to produce a fi rate, up-to-date general information pa for the entire building industry—a what's more, in such a way, that even t layman better comprehends the amount time and effort spent by the various di sions within the whole building industry, their research and experimentation to p duce the best in return for the building d lars investment that is possible; resulting a better understanding of the intricate c tails and profusion of knowledge in the u of these details an architect must have properly serve his client.

FRANCIS K. DRAZ

Cleveland

. . . damn lucky, these American

Forum:

We architects in China are in the sa time everything, that is real estate wor ers, builders, plumbers, lighting and m chine engineers. It is not like in the hon lands, we have no large electric powe behind us, all we have here is rock. Ju think, all the other material is brought b coolies in small baskets to the buildi site. Every nail, every pound of lim every brick, this all including lumbe which comes from Oregon, we have to g from elsewhere. How nice do the architec have it in the States. Everything is t their disposal, trade trained man, minut materials, etc., etc. In such conditions is nice to be an architect.

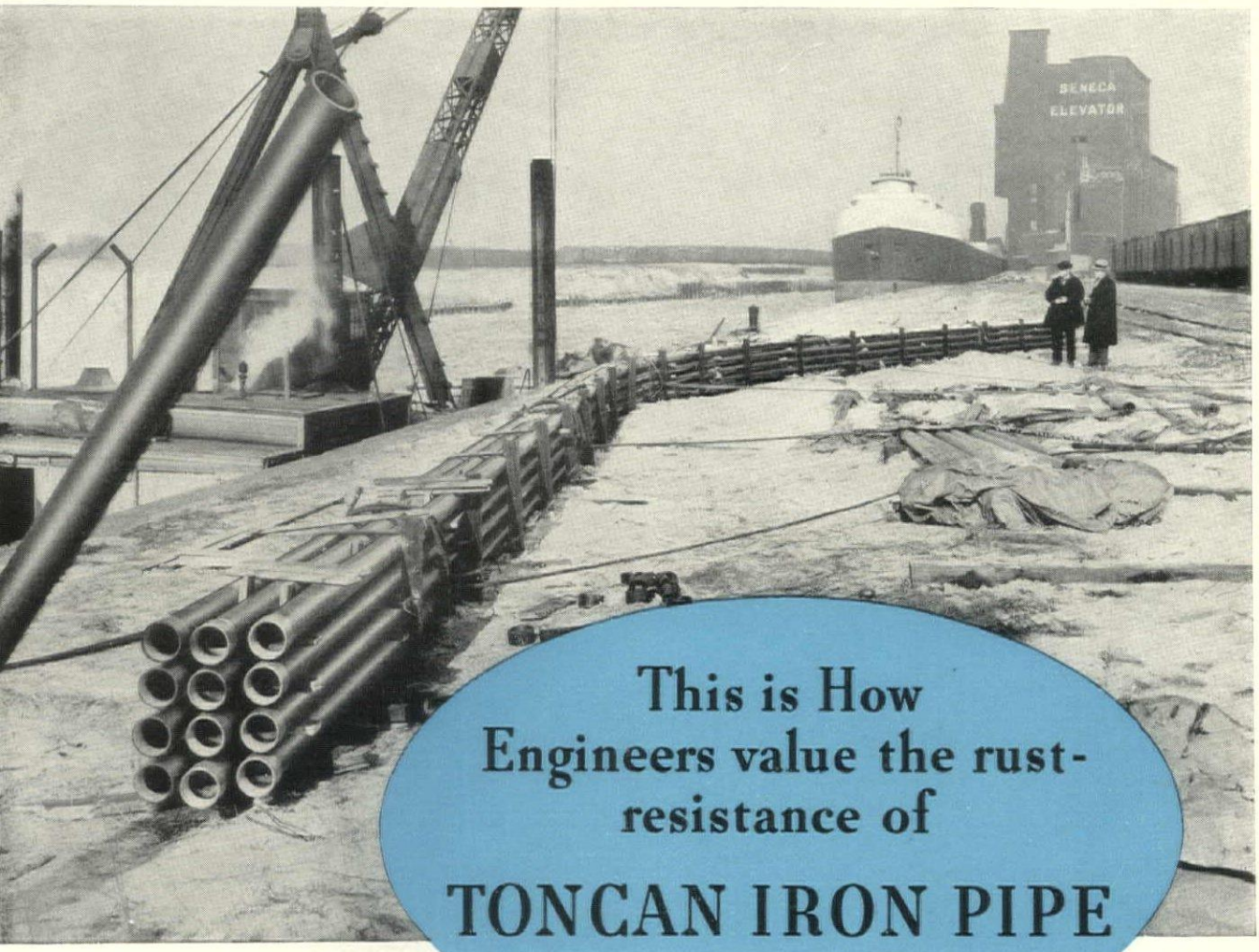
Yes, your FORUM, it is a wonder bool it gives one many a good hint and make one think, but in the same time we ou here some times can get angry, how eas and how nice do our friends have it wher Science works hand in hand with them.

There is, however, one thing missing i THE FORUM and that is a part wher architects should exchange their daily wor ries and experiences, illustrations fro various lands in regard to labor, materials regulations, etc., etc. Could that be take up? The fact is that THE FORUM is nov the real relationship between architects We have all our bad times and also ou funs; why not exchange them?

J. L. LIPPORTE

Kuling, China

The Letters columns of THE FORUM are ope to all readers for exchanges of "funs and ba times."—ED.



This is How Engineers value the rust-resistance of TONCAN IRON PIPE

WHERE electric cables cross a stream, one of the engineering assignments that calls for more than usual vision is the design of the conduit —conduit that will not only be watertight when installed, but that will remain so for years.

Engineers in charge of this creek crossing at Buffalo, N. Y., selected standard weight black Toncan Iron Pipe to carry the cables—because similar installations using the same material have given excellent service —because this alloy of refined open hearth iron, copper and molybdenum shows the highest rust-resistance of any ferrous material in its price class. It will be safe, an insurance of continued electrical service—and economical because it will last longer.

To understand the real value in this modern alloy pipe, read the story of its development, manufacture and application in "Pipe for Permanence." A copy will be sent upon request.

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It is not a matter to be taken lightly, the confining of children in artificial surroundings during the most active time of their lives.
HERMAN NELSON System of Air Conditioning for Schools
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FORUM OF EVENTS

ARSHALL FIELD'S OLLING CATALOGUE

ARSHALL FIELD is the biggest wholesale ouse in the Midwest. As such it has more an passing interest in the current Mod-nize Main Street campaign for it is the lain Streets of the U. S. which sell larshall Field goods and account for its osperity. Last month Marshall Field con-ibuted a brand new idea to Main Street odernizing by putting Main Street on heels.

Out of Chicago, bound for Peoria chuffed sleek, air conditioned eleven car train, The Merchandise Express." The cars had een stripped of seats, outfitted with helves, counters, indirect lighting. There as a sleeping car for the train crew, a eception room with service bar, an office ar with desks, typewriters and teletype o the home office in Chicago. The main urpose of the train was to show the latest Marshall Field products to small town tores which cannot often afford to send epresentatives to Chicago to pick up the atest trends in merchandize. Cleverly the Marshall Field executives kept their desti-ations and times of arrival a secret lest ompetitors stage rival shows. But once in town traffic around railway stations was topped as buyers and the curious public hronged to see the new train. It was only he merchants, however, that Marshall ield wished to interest; "The Merchandise Express" sells nothing at retail. But for ale at wholesale prices was such mer-handise as Czechoslovakian glass, china, amps, stoves, cooking utensils, handker-hiefs, linens, toys, sweaters, bathing suits, tc. Twenty-four salesmen and one sales irl are kept busy selling at the train's various stops. A story of the train's first trip: In St. Louis a buyer from Stix, Bauer & Fuller placed a large order for gloves. The order was teletyped to Chicago and next morning the gloves were put on sale. By that afternoon, most of the gloves were sold and the buyer returned to the Express, placed a second order.

HOMES

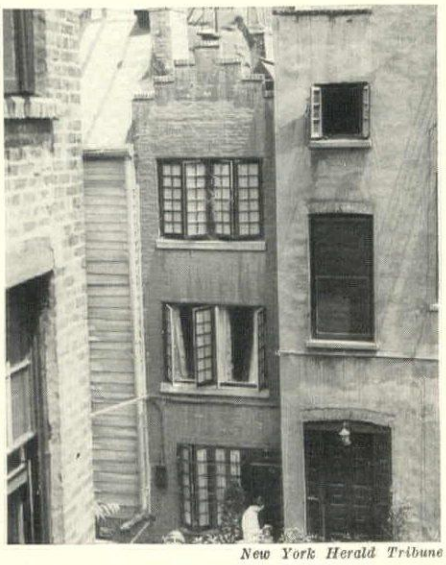
LAST month two private residences made news for two vastly different reasons. One was an architectural freak leased by well-known Manhattan socialite; the other was

Gottscho

JOHN MEAD HOWELLS HOME

a handsome Georgian house built prior to 1772 and purchased and restored by John Mead Howells, architect son of Novelist William Dean Howells.

What made Mrs. Killiaen Van Rensselaer's new Manhattan house extraordinary was its narrowness, 9 ft. 6 in., and the fact that its entrance is through a rear door. A three-story brick building, it nestles in old-fashioned Bedford Street where, legend has it, it was built to fill up an alley that once connected Bedford Street with a garden. There are fireplaces in every room but kitchen and bathroom, with two fireplaces in the third floor skylit studio. Much of the furniture is miniature.



New York Herald Tribune

KILLIAEN VAN RENSSELAER HOME

Nobody in the neighborhood has been able to advance a theory as to the age of the house or the name of its architect but no one has disputed its title as the narrowest house on Manhattan Island. It was for many years the residence of Edna St. Vincent Millay.

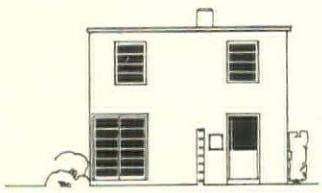
John Mead Howells' Charleston house was built by Colonel John Stuart, a British officer. The carving and wood work of two of its rooms were sold several years ago to the Minneapolis Museum of Art. This Museum and New York City's Metropolitan

(Continued on page 12)

Foto-Ad Photos

Because Main Street cannot come to it, Marshall Field designed these cars to take Marshall Field to Main Street

NORTH



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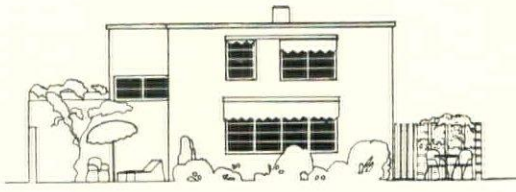

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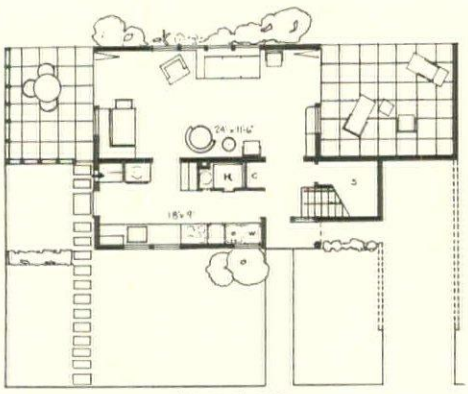
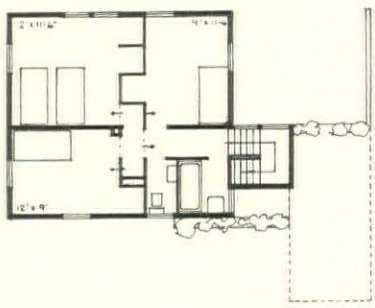


FIRST FLOOR



SECOND FLOOR

Prize winning design in the New York Chapter A.I.A. Competition for a $3,000 to $5,000 house. Architect: J. André Fouilhoux. For construction details see page 22.

FORUM OF EVENTS

(Continued from page 11)

Museum of Art helped Mr. Howells to reproduce the original woodwork so exactly that photographs reveal no discrepancies between the original and the restorations. Only exterior changes made by Mr. Howells were the removal of some dark shutters from the windows, a new coat of white paint and the addition of a white painted brick wall.

FIRST TO FOUILHOUX

BELIEVING that the successful design of a house to cost between $3,000 and $5,000 is one of the major problems now facing the architectural profession, the New York Chapter, A.I.A., invited its members to submit designs in competition. Last month these were put on exhibition at the Architectural League of New York. The competing submissions were distinguished not so much by a prevalence of "modern" examples of architecture as opposed to "traditional" but by the honesty and skill with which the architects concentrated on problems of plan and circulation. First place went to J. André Fouilhoux, partner of the late Raymond Hood. Second place was won by Theodore Haneman and third by Frederick G. Frost. Mr. Fouilhoux won fourth place.

The jury of award consisted of Oliver Reagan, chairman; Henry Wright, A. Lawrence Kocher, managing editor of The Architectural Record; Harvey Stevenson, Lewis Welch, Robert McLaughlin, James R. Thomson, Frederick J. Woodbridge, Ralph Walker, Harold D. Hynds and Mrs. Jean Austin.

The first place design by Mr. Fouilhoux (which is reproduced above) calls for the house placed at the front of a 50-foot lot with the rear of the lot given to a garden. The program described a dwelling to be occupied by a family of four, two adults and two children. The garage indicated in the drawings is optional. Mr. Fouilhoux's construction specifications are illustrated and described in Products and Practice, page 22.

AMERICAN FURNITURE MART

FOR the past several years designers and magazines have insisted upon hailing modern furniture as being, with prosperity and the building boom, just around the corner. But the canny wholesalers of furniture have continued to pay scant attention to modern, considering it a poor third in sales appeal to the customary amorphous type of furniture—"commercial" or "Borax" to the trade—and to Early American. This year, the largest, noisiest and perhaps most significant of wholesale showings of furniture revealed that the wholesalers were changing their minds.

The American Furniture Mart opened in Chicago in July, two weeks later than usual, and attracted an all-time record number of buyers. For two weeks, some 7,000 of them punched and fiddled with enough pieces to fill 1,700,000 sq.ft. of space. What surprised the buyers most was the fact that the long heralded decline of Early American had finally arrived. Where last year's Mart gave 30 per cent of its space to Early American, this year's screwed it down to a niggardly 8.4 per cent. "Borax" furniture, as usual headed the list with 37.2 per cent o space. Modern advanced from 26 pe cent last year to 29.7 this year. Englis (17.4 per cent) came next and Frenc with 7.3 per cent trailed Early American The significance of this change in em phasis and space allotment is understoo when you realize that the orders place at the American Furniture Mart will late account for 70 per cent of the nation' new furniture.

Rivals for honors were "Amodec" an the Kroehler Manufacturing Co. of Chi cago, world's largest makers of office an upholstered furniture. Both companie entered the modern field. "Amodec" i the trade name for furniture manufac ured by 11 concerns and designed by Donald Deskey and Leo Jiranek (ARCH. FORUM, Jan. 1935, p. 50).

Kroehler

KROEHLER DINING SET

The theory behind "Amodec" is simply to correlate the various pieces in a room so that each will blend with the other and be related in the purchaser's mind by its trade name. To date, "Amodec" has worked out 26 designs in case goods, 43

(Continued on page 28)

Crane Modernization Service
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● If you will look at a manual or guide on plasterin you will find that more than half of all the major plaste troubles that can develop are intimately tied up wit setting time — the length of time it takes for plaster t set after it is mixed.

The reason is that the setting time of the plaste varies as field conditions vary. If field conditions di not vary; if plaster were always used with the sam amount of sand, the same kind of sand, and mixe with clean water in a clean mixing box; if it wer always applied over the same kind of lath in the sam thickness and used up in the same length of time setting time would not be a problem.

But, as everyone knows, these conditions do vary

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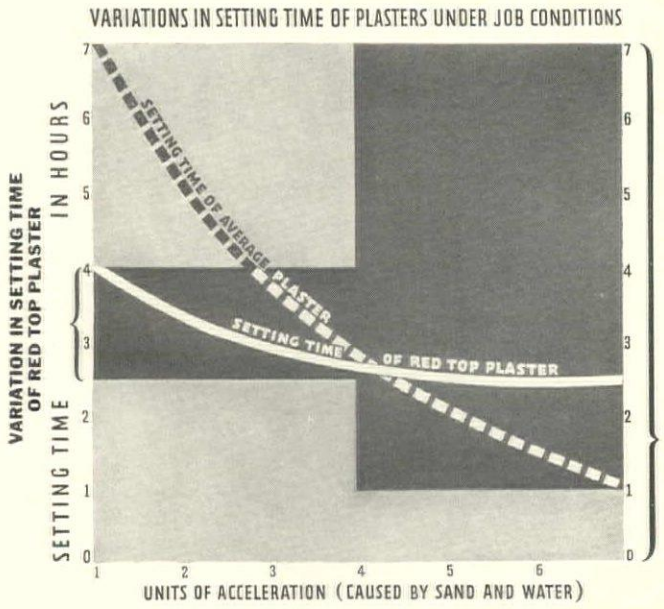

THE RED TOP GUARANTEE

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3 To set in regular time despite sand impurities that would accelerate or retard the set of ordinary plaster.

4 To set in regular time whether machine-mixed or hand-mixed.

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6 To set in regular time, and to set in the same time when sanded for use either as brown coat or scratch coat.

7 To set irrespective of climatic conditions, and not to dry out before setting.

8 To set with more uniform surface hardness than ordinary plasters, thus providing for better application of white coat.

9 To set from the base out to the surface, instead of from the surface in to the base, and to take its set evenly.

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This graph tells a story of typical job conditions. It shows how important this development in plaster quality is to the architect and to everyone else interested in better construction.

(Where markets demand a longer or shorter setting time, as they do in some parts of the United States on account of job practices, Guaranteed Red Top is made with a longer or shorter setting time; but even in such cases the setting time established for that particular market has the same dependability and the same freedom from change caused by job conditions as if it were made in the same setting range shown by this graph.)

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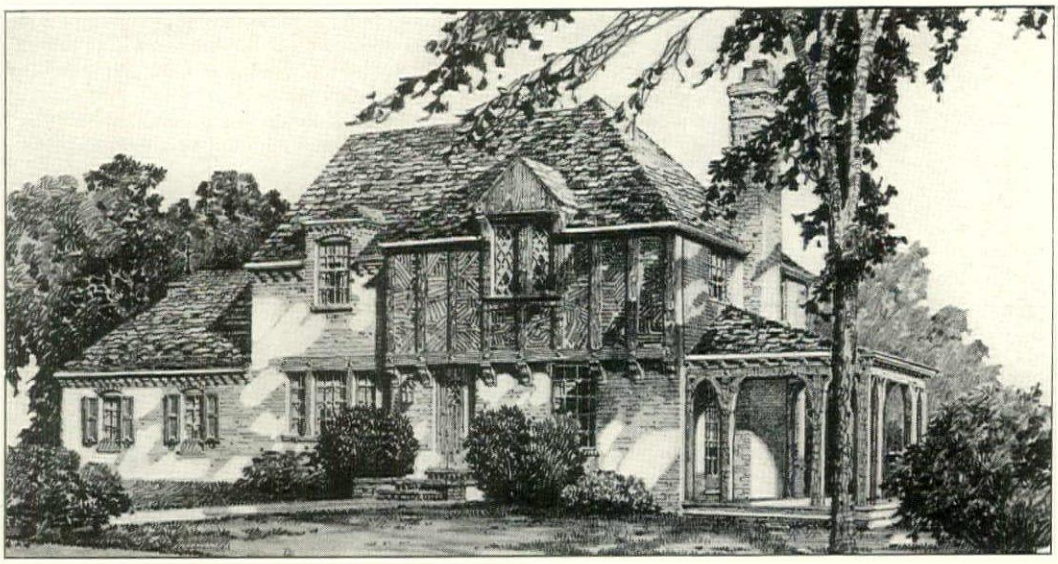

The first G-E New American Home in Washington, D. C., now being built at Rollingwood. Air Conditioned by General Electric.

WAVERLY TAYLOR, INC., sponsors of the well-known Foxhall development, are starting three more projects—Rollingwood, Rock Creek Terrace and a third as yet unnamed. All will consist of detached brick and stone houses ranging from $13,000 to $30,000, including five G-E New American Homes. Each home in Rollingwood ($15,000 to $20,000) and Rock Creek Terrace ($20,000 to $30,000), and at least thirty-eight homes in the third development ($13,000 to $15,000) will have winter air conditioning, with space for condensing units for summer cooling, which may be added by the purchaser.

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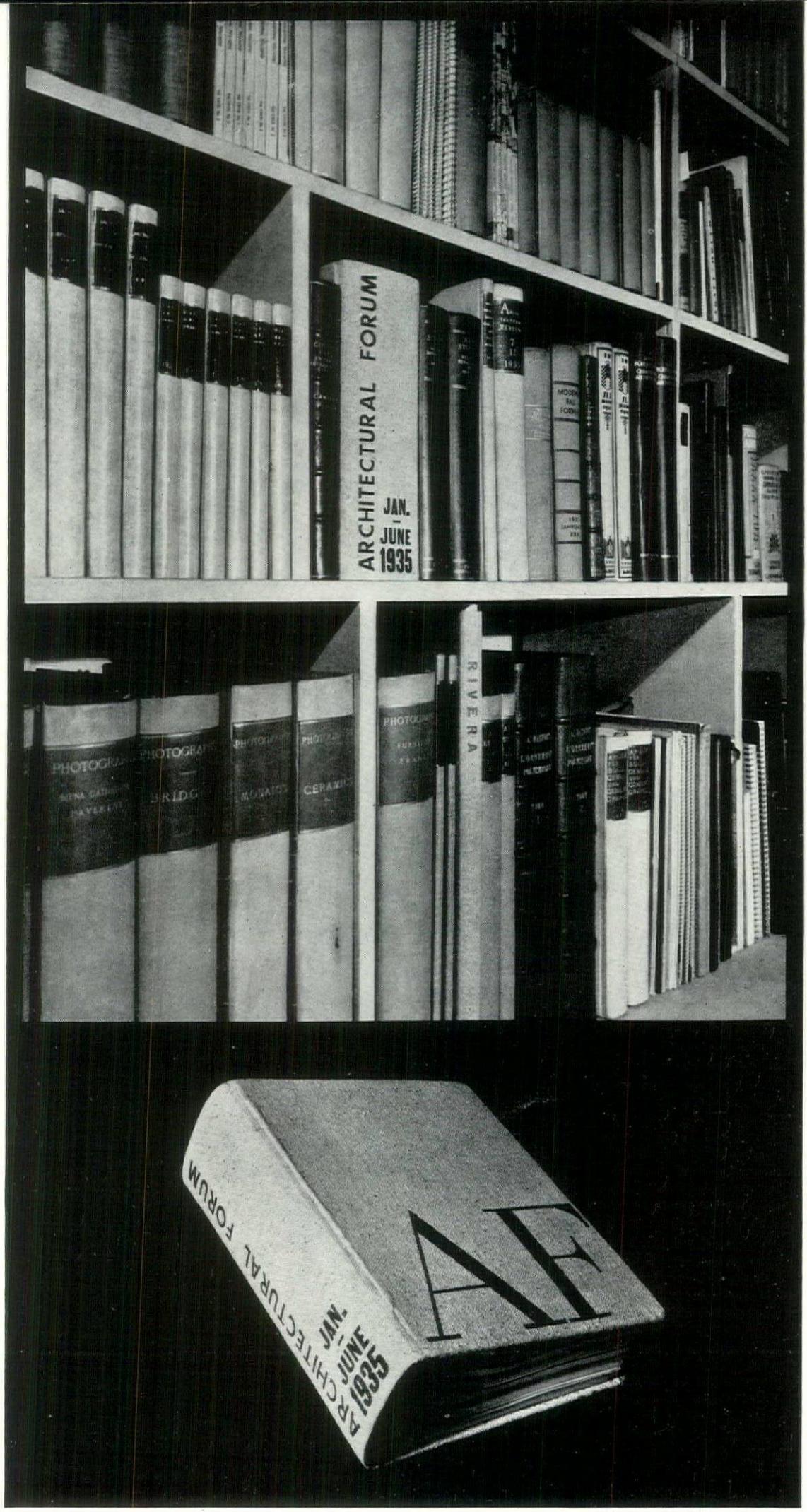

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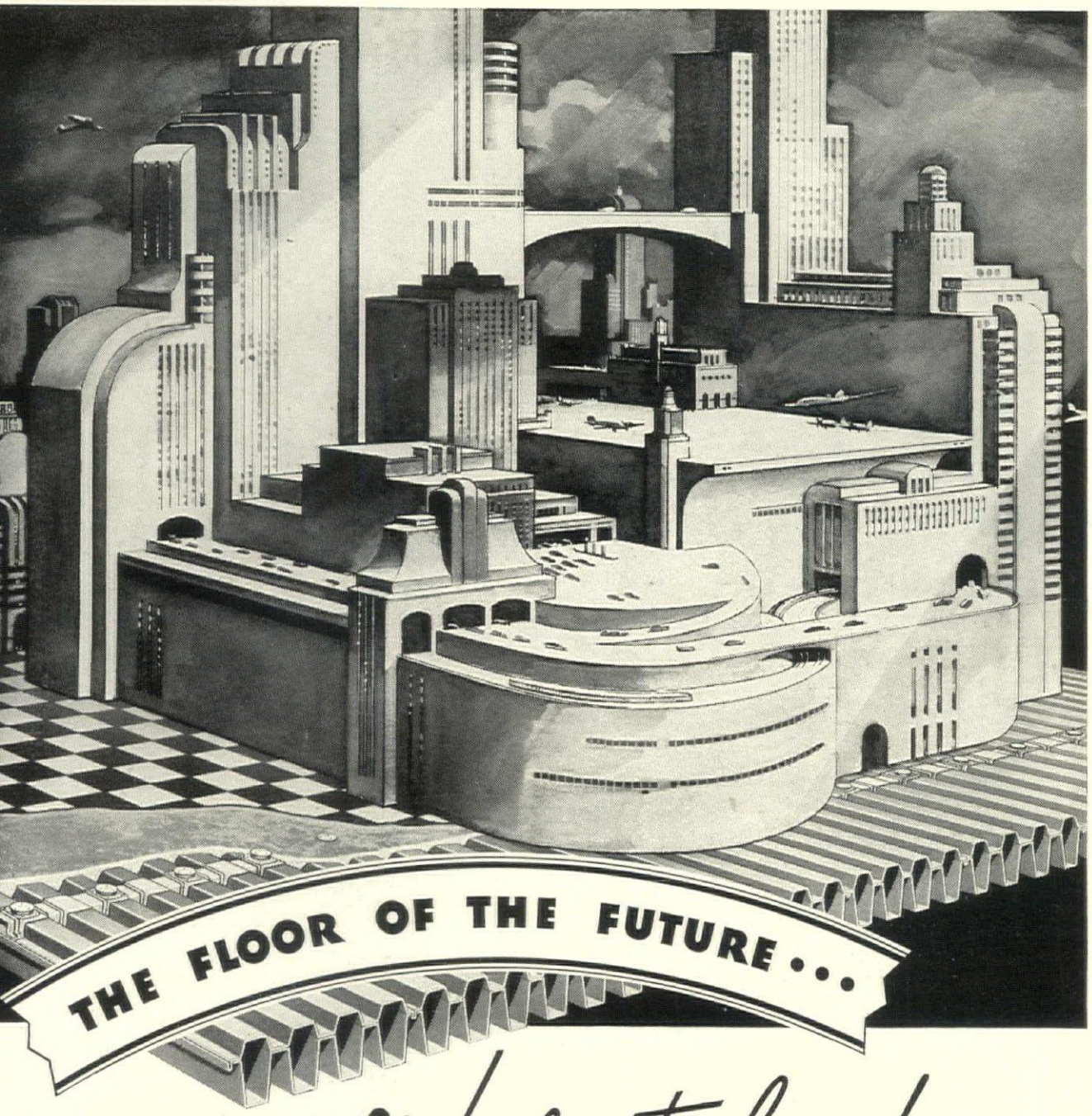

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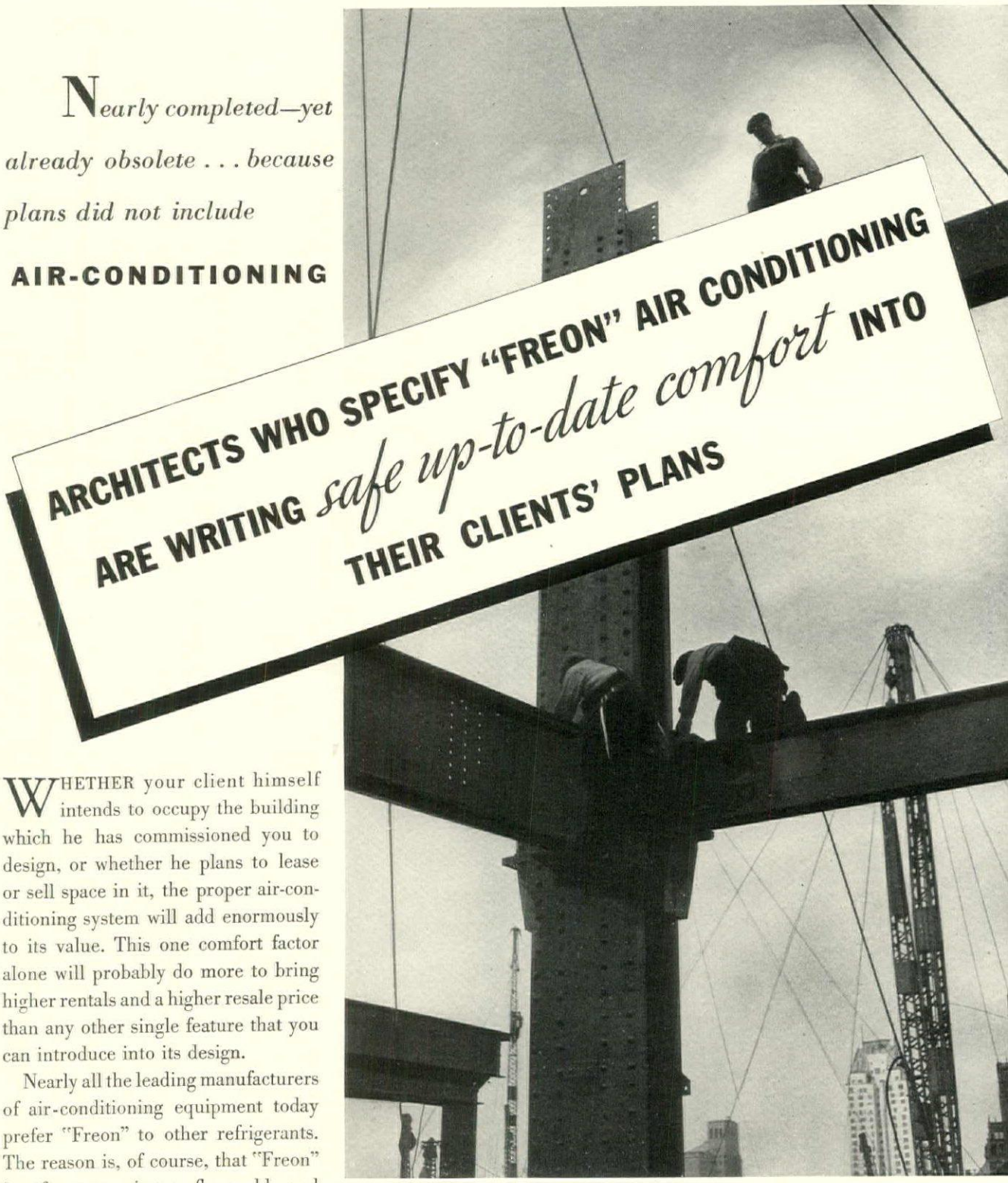

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BOOKS

TONES OF RIMINI, by Adrian Stokes. G. P. Putm's Sons, New York. 264 pp., 48 photographs, ½x8, $3.00.

ıly once in a long, long time does a book like this appear, and en so completely unattended by publishers' ballyboo that its pearance on the reviewer's desk takes on the proportions of an t of Providence; it is not a book one would care to miss. The bject of this work, an obscure church in a drab Italian town, d some reliefs contained therein, is one hardly calculated to ouse widespread reader interest, yet so curious are the bypaths to which his study has led the author, so fascinating and unexcted are his digressions that it would be a rare person who uld lay it aside after having once glanced through it.

The theme of the book is the Tempio Malatestiano in Rimini d the sculpture of Agostino di Duccio which adorns the inrior. Sigismondo Malatesta was an aristocrat by birth and by ofession a soldier of fortune. To celebrate his love for his istress Isotta, later his wife, and to provide a fitting tomb for r, he remodeled the Gothic church of San Francesco, and had gostino take charge of the low-relief sculpture for the chapels. is with these reliefs that Mr. Stokes is concerned primarily, d photographs of them make up the larger part of the illustraons in the book. The surpassing excellence which the author tributes to Agostino's work in the Tempio is well summed up his important distinction between carving and modeling. arving is essentially a thinning down of a stone, the removing layers to liberate a living form within. Modeling, on the ntrary, is a plastic approach; the sculptor's interest is not in e stone, but in lights and shadows, the rhythm of a design. hus Donatello, for example, is primarily a plastic sculptor ther than a true carver, like Agostino, and consequently, cording to the author, inferior to the latter at his best.

The great love for stone characteristic of early Renaissance aly, and typified by Agostino, is one of the explanations of the eat achievements of the time, and Mr. Stokes' study of stone, rticularly the limestones and marbles of the Mediterranean gion, takes up a major part of the book, forming the thread, it were, which ties the book together. He begins, "I write of one. I write of Italy where stone is habitual." Never has anying more beautiful been written about Venice, the city of stone d water, made beautiful by the polishing of countless hands d feet, the carving of the elements, than in the first chapter. he chapters which follow, making up a hundred pages of introuction, deal with the stone landscape of Mediterranean counies, forming what the author terms "A Geological Medley." he clearness of the air so typical of the region, and the eographical character of the Mediterranean basin, are all udied as fundamental influences which in large part made the t of Italy and Greece what it was. Following the section ealing with the Tempio sculptures are chapters on astrology, edieval and classical philosophies, all going to present an traordinarily illuminating picture of the whole of Mediterınean civilization.

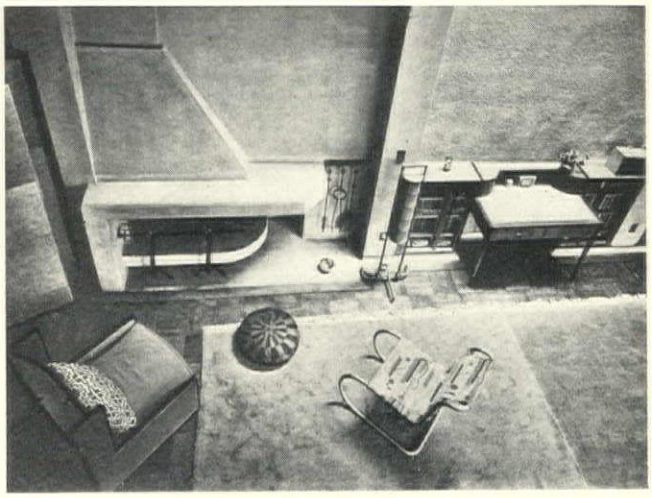
This is not an easy book to understand completely, even if is most readable. Nor is it a book whose value to the architect obvious. Yet so broad is the author's understanding of fundaıentals of architecture, so provocative are his comments Bernini and Le Corbusier, for example, are classed as birds of feather), that no thoughtful architect could possibly read the ook without taking from it much valuable material for meditaon. To the layman the technical matters so ably discussed may ot be of palpitating interest, although it is safe to predict that ıey will become so, due to Mr. Stokes' remarkably compelling nd personal way of presenting his ideas, and for his benefit it might be well to remark that while primarily a book of criticism, this work has few contemporary equals from the point of view of purely literary merit. All of which goes to indicate that "Stones of Rimini" is to be recommended without reservations.

ANTONIN RAYMOND: His Work in Japan, 1920-1935. Preface by Elie Faure, Paris, and an article by Antonin and Noemi P. Raymond. Edited by Katsuya Nakamura, published by Johnan Shoin, Tokyo. 11x12.

When Frank Lloyd Wright departed from Japan after the completion of the Imperial Hotel in 1920, sailing amid the tearful farewells of his Japanese workmen, one of his assistants, Antonin Raymond, stayed behind. Today, after fifteen years of successful practice, his work has been collected and published, a record of considerable achievement.

Few countries have been better prepared to adopt modern architecture than Japan, a fact which Mr. Raymond notes in his introduction. "The doing away with all but essentials, discipline, are at the basis of Japanese charm . . . Nothing 'furnishes' or 'decorates' or conceals the void odious to an Occidental. Nothing veils the sharpness of the openings." This might be a description of the Tugendhat House, or Le Corbusier's Villa Savoye. Again, "The Japenese home possesses a wonderful flexibility. During the night and in winter it is a box hermetically closed to the exterior, divided into rooms inside. In summer . . . the house becomes nothing more than a pavilion open to all the winds." The work begun by Wright and Van de Velde was anticipated centuries ago in Japan.

Externally the houses illustrated show the strong influence of Le Corbusier, but their plans are anything but "international." The Japanese of today, in spite of his eagerness to adopt Western forms, is still very reluctant to let himself be seen in his natural habitat. The living rooms are set away from the entrance to the house, and a non-committal reception room is reserved for the visitor. Upstairs the differences are even more marked. The bedrooms are simple open spaces on the floors of which sleeping mats are spread at night. The baths, while making certain con-



ARCHITECT'S RESIDENCE, TOKYO

cessions to Occidental plumbing, still maintain definitely Japanese characteristics. The tub, for example, is usually of natural white wood emitting a good odor; it is deep and when one is seated in it the very hot water comes up to the neck. "It would be well," remarks Mr. Raymond, "to propagate the idea of the Japenese bath elsewhere."

(Continued on page 42)

PRODUCTS AND PRACTICE

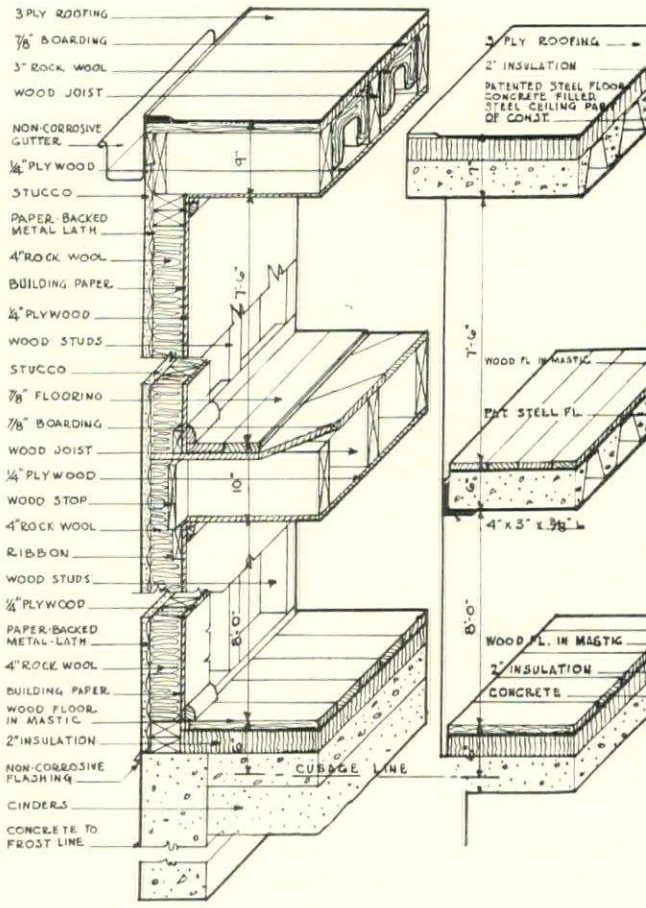
Mr. Fouilhoux designs a $4,000 house, and finds that the blessings of prefabrication are not yet with us.

IT is a long way from super-skyscrapers to sample houses, but at least one architect has demonstrated conclusively that there is no inconsistency in outstanding achievement in both fields. Mr. Fouilhoux turned to the study of low cost houses because in his opinion this is the one field in which the least has been accomplished by architects, and in which there is the greatest need for something to be done. His recent prize-winning drawings show some of the fruits of this study.

In his competition drawings for the Low Cost House Competition of the New York Chapter of the A.I.A. (see Forum of Events, p. 12) Mr. Fouilhoux devoted the major part of his effort to keeping down cost, as was indeed necessary in a a house to be built for as close to $3,000 as was possible. Prefabricated units seemed a logical answer to the need for economy, but it was found that none of the units available at the present time could offer any saving over customary methods of construction. Nevertheless the house was planned around a modulus unit so that prefabricated units could be used if they should become available. The problem of economy was studied from all angles; the findings as expressed in the prize-winning drawing are as follows:

PLAN. It is square in shape to reduce the wall area as much as possible. The stairs are built in a separate outside unit to save the cost of framing. Partitions are reduced to a minimum; the open plan which is a result produces a much more spacious interior than is common in houses of this type. Living and dining room are together. The arrangement of two terraces at either end of the large room is admirable. For the small cost of a few low walls two outdoor living spaces are created which can be used for a large part of the year. The smaller terrace is well situated for its use as an outdoor dining space. Upstairs the single bathroom is divided in two and an extra washbasin is added, giving what is virtually an extra bathroom.

HEATING. It was discovered that the cost of a conventional heating layout would amount to more than a reasonable proportion of the total cost of the house. A small furnace was finally decided upon and set in the center of the plan. Ducts are virtually eliminated by the scheme adopted, grilles off the space above the heater being adequate for heating the second floor. This obviously represents a heating plant in a most compact and inexpensive form; should air conditioning be desired, no radical departure from the present arrangement would be necessary.



Isometric drawings showing alternate methods of construction

SEE "FORUM of EVENTS", Page 12, for plans and elevat

CONSTRUCTION. Wood construction is still the cheapest g method of building a house: many systems using steel or c crete are on the market, but until they can more nearly appro the price of wood there is little likelihood of their wide in houses of this class. Two schemes of construction were s mitted on the drawing. The first is wood frame minus sheathi the stucco finish being applied to paper-backed lath appl directly to the studs. Insulating wool is packed between studs, and ¼-inch plywood is used for the interior. This t of construction, while definitely not fireproof, might nevert less be classified as slow-burning, due to the absence of spaces between the studs, and the fire-resisting qualities of insulating material. The stucco, of course, is added protect for the outside. The alternate scheme employs a patented s floor construction with concrete-filled steel pans. It was p posed to omit the sheet steel ceiling and leave the construct exposed, but it was retained to give the pans the necess rigidity.

Only one estimate was received on the plans, a figure $4,100. Mr. Fouilhoux makes no claims as to the accuracy of t estimate, which would vary considerably depending on lo ity, number of houses built at one time, and other fact Economies in construction can frequently be arrived at by cl analysis of the elements of a house by contractor and archit obviously on a competition drawing this collaboration hardly possible. Mass building operations also result in savi but here too no accurate estimate can be made until an act situation is studied. One thing, however, is made clear by t very thoughtful study of Mr. Fouilhoux: complete prefabri tion may some day be the solution of our low cost housing but that day has not quite arrived.

PRODUCTS AND PRACTICE *Continued on page 45.*

In ruby and brown on a field of blue Armstrong's Linoleum, the compass in this gay recreation room floor in a Memphis home repeats the nautical spirit of the other furnishings.

Recreation rooms— "demand a floor like this!"

NEVER was there a gayer, more adaptable floor for recreation rooms than Armstrong's Linoleum. With custom-cut insets and a full palette of rich, pure colors in Plain, Jaspe, or Marbelle Linoleum to draw from, you can repeat in the floor the colors and decorative motifs that establish the spirit of the room. Almost any design your pencil can draw can be translated, by Armstrong-trained layers, into a colorful and distinctive linoleum floor.

Your clients will like these floors. They're quiet . . . comfortable . . . easy to clean. Waxed, they are excellent for dancing. And game boards can be built in with the assurance that scuffing feet will never wear off the colors.

The next time you are called in to create a recreation room that must be "different," remember Armstrong's Linoleum and Armstrong's Architects' Service Bureau, which offers you experienced technical assistance in modern floor construction. For full information, write now to Armstrong Cork Products Company, Floor Division, 1203 State Street, Lancaster, Pennsylvania.

Armstrong's Linoleum Floors

Your clients are asking . . . "GIVE MI SOMETHING UNUSUAL IN MY HOME!'

PUT ON THE UTILITY TOP AND HAVE

The finest ping-pong table you ever played on.

An ideal party card table, bar or buffet supper table.

Design or remodel to include a smart recreation room that features this sensational new

BRUNSWICK HOME BILLIARD TABLE

Whether you are designing a new house or remodeling an old one, this new billiard table of modernistic design will solve your problem of providing something new and different for your client. Its engaging colors harmonize with the most sophisticated interior decoration and color combinations. With it the puzzled hostess finds a new and stimulating source of entertainment. Troubled parents relax when sons and daughters entertain their friends at home. And it is now offered at a price much lower than the old type billiard table. Thus, it also meets the budget requirements of modest incomes.

4 Unique Innovations

Time-worn principles were completely discarded. New laws of streamline design were applied. The results, achieved under the direction of a world famous architect, are remarkable in four ways:

First: *Streamline Design.* Harmonizes with modern home decoration. Chromium legs have screw adjustments to level table.

Second: *"I-Rest" Cloth.* Gray-purple in color. Perfected by Faber Birren, world famous color expert. Neutral to eye nerves. Soft and restful as twilight. Makes the perfect background for any interior decoration scheme.

Third: *Perfected New Table Bed.* Set in position by two people in 6 minutes. Research perfected new metals and new methods of construction. The heavy, bulky, slate bed of old fashioned tables now unnecessary.

Fourth: *Utility Top.* Fits neatly on cushions converting table into a ping-pong table, card table, buffet supper table, etc.

IMPORTANT

Ask about our special bonus arrangement on all tables sold through contacts your organization refers to us.

Priced Low For Average Homes

It is of standard and durable construc tion throughout. Full size, every inch Brunswick, genuine Monarch qualit cushions, sturdy as a pyramid, sleek as sloop, modern as tomorrow's automobile Yet it sells for under $200.00 . . . o time payments if preferred. It has al the fine quality that Brunswick has pu into tables for 90 years. So include i in your plans with positive assurance o satisfaction.

Our creative staff will help you wit suggestions on recreation room desig and remodeling. Write to our Chicag office for full-color folder giving com plete details, or inquire at the leadin retail store in your city.

THE BRUNSWICK·BALKE·COLLENDER CO.

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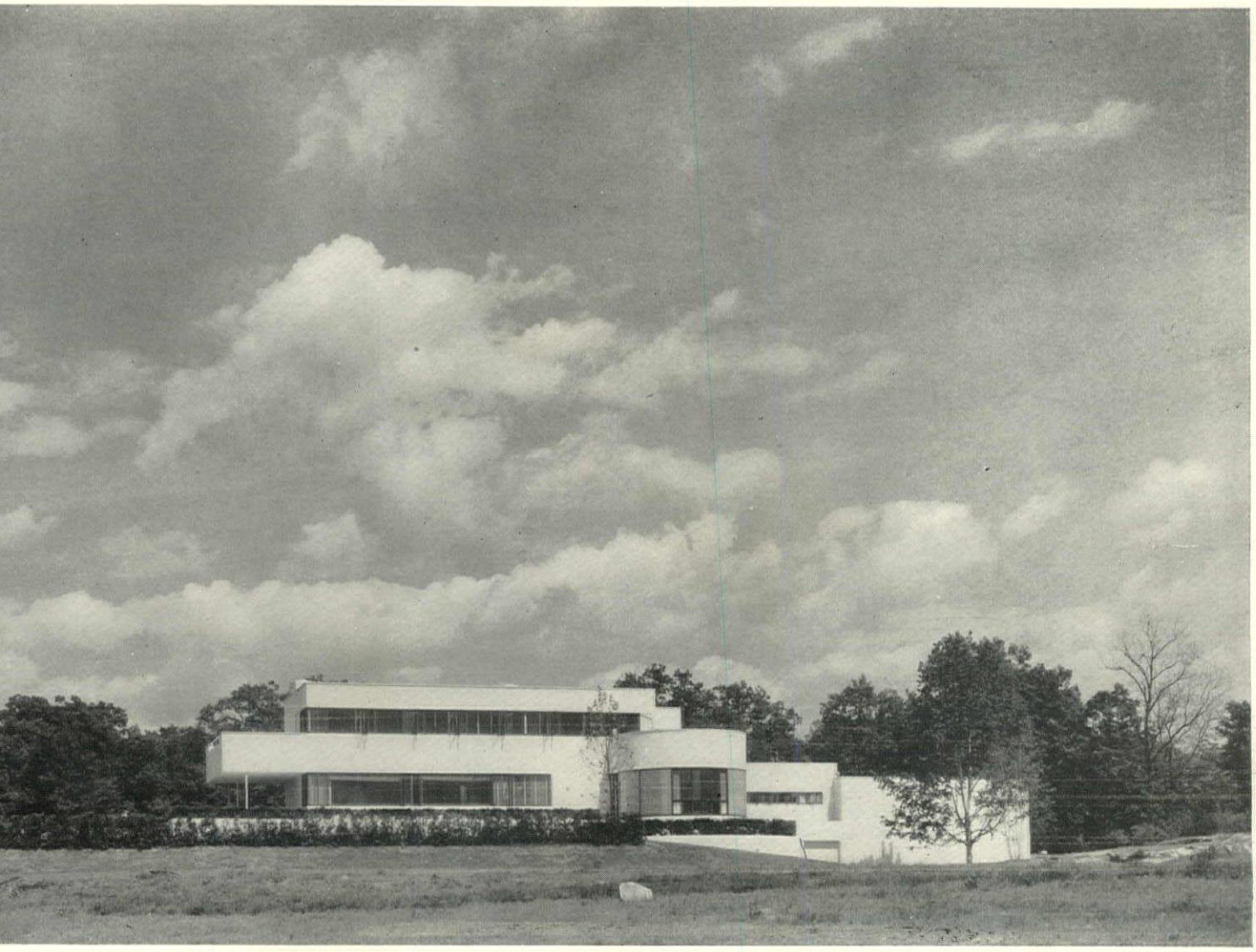
Branches and Distributors in Principal Cities of the United States

DESIGNED BY EDWARD D. STONE IN COLL

HOUSE OF RICHARD H. MANDEL,

MT. KISCO
NEW YORK



John Gass

ODORE A. PRIGOZY
ural and
nical Engineer

CHARD DAVIS
al Contractor

The development of American architecture has often been retarded by unbalanced scholarship, prejudice, an arrogant desire for respectability. But here and there in this land encouraging signs appear of a broader conception of Architecture and a finer understanding of basic physical and psychological requirements for living.

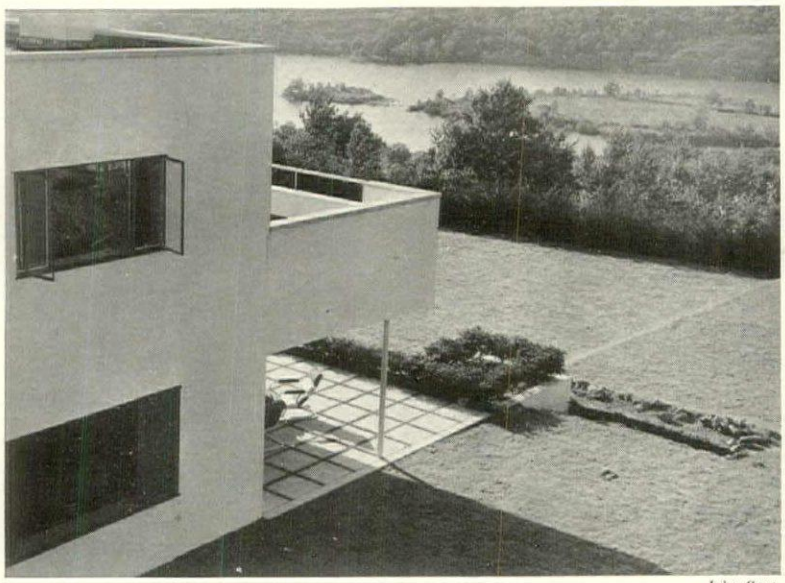
It is refreshing to find this significant house at Mount Kisco, N.Y. Like a giant airplane the house seems to partake of the openness of the landscape and the sky. Harmony is successfully accomplished with nature's setting by means of contrast rather than a blending with the soil. (As, for instance, in George Howe's "Square Shadows," ARCH. FORUM, Mar. 1935, p. 193.)

Conceived by three young men — one of whom was the client, the Richard Mandel house is a vital expression of the aspirations of a young up-and-coming group. The designer, Edward D. Stone, has boldly and unhesitatingly translated a theory and scheme of living into the physical form of a house in which to live. There is no blind following of the European so-called International Style, no smugness, no dependence for elegance upon the dead glamour of the past.

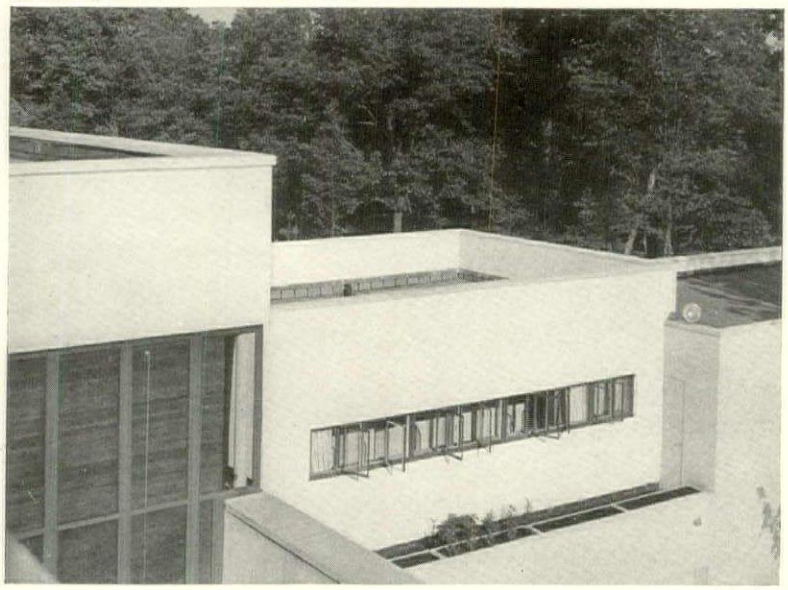
Until very recently, building materials have seen little advancement so far as their application to domestic architecture has been concerned. The ingeniousness of the industrialist, the resourcefulness of the contractor, have been largely misdirected toward the interpretation of an architecture styled in the remembrance of times past. Here, we find materials and building methods applied to a rational end. Yet no untried materials or revolutionary building methods have been employed.

The Joneses will take it or leave it; most likely, when they understand it better, they

RICHARD MANDEL HOUSE



John Gass



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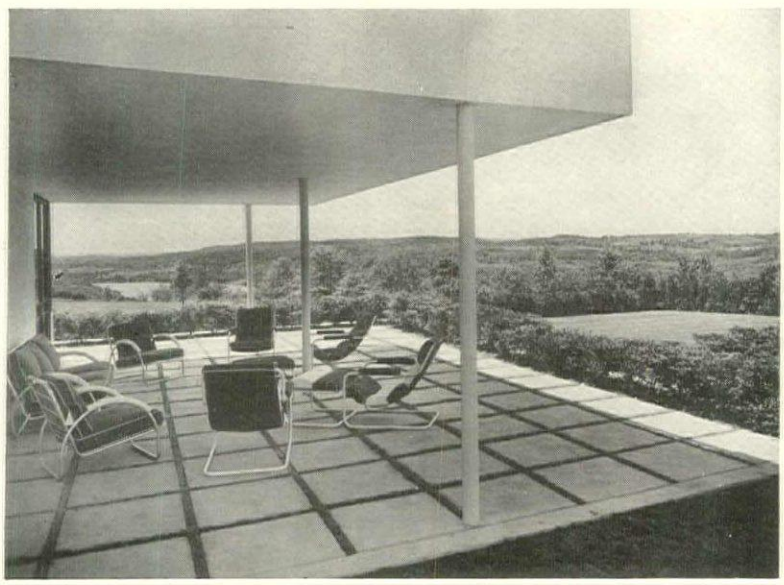

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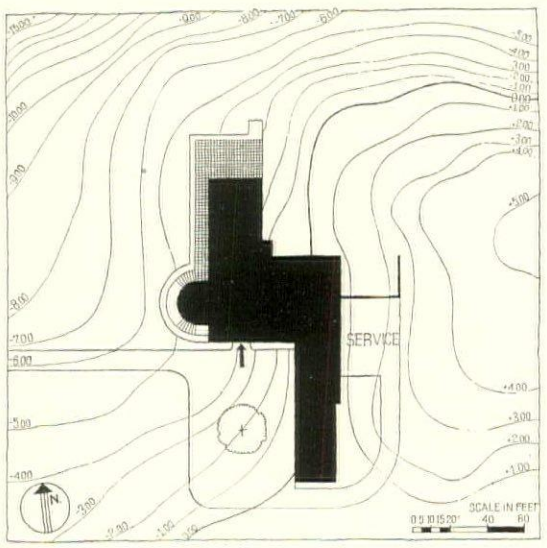
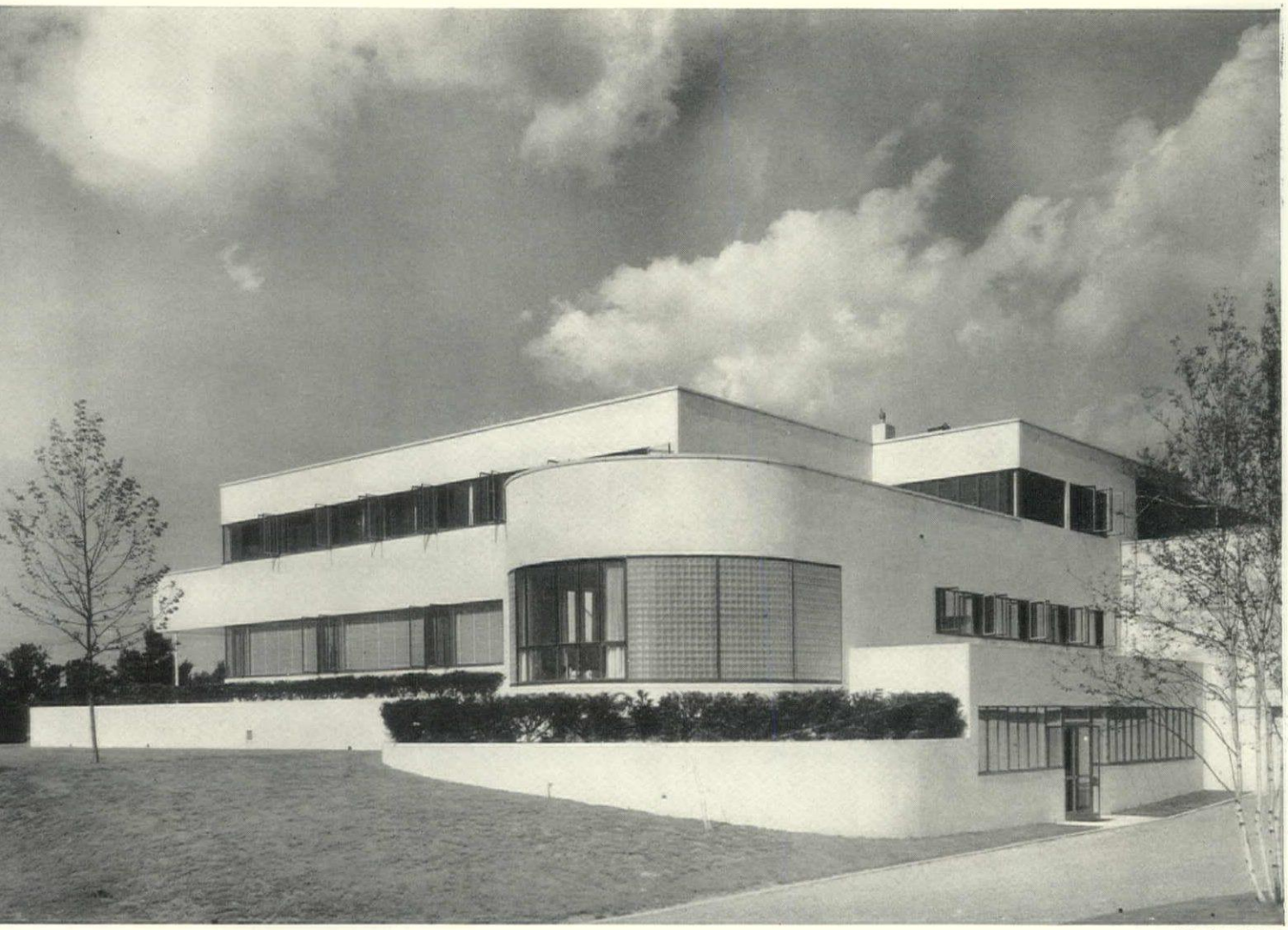


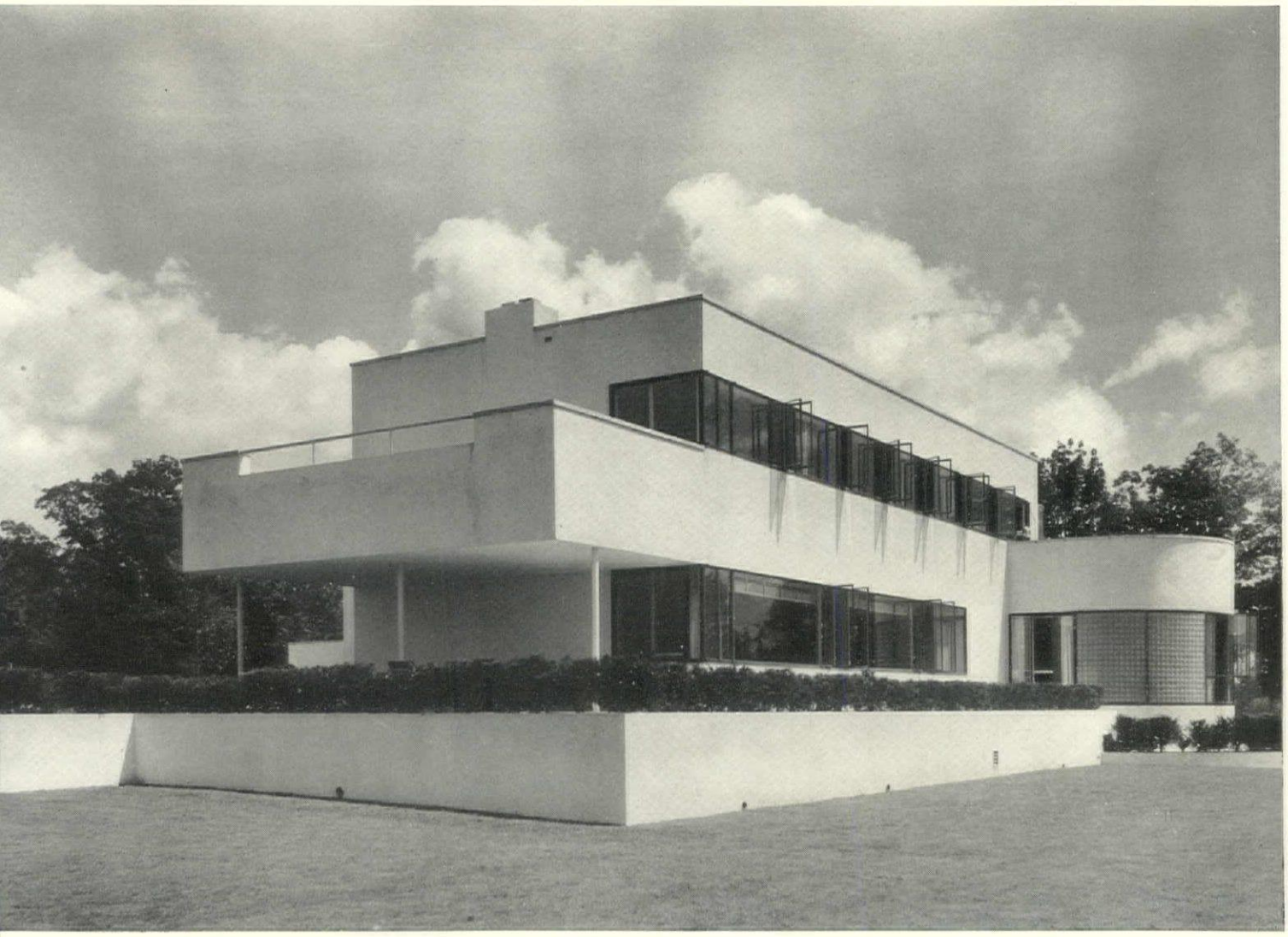
SITE—A sloping site required partial excavation only for the ground floor, and at the same time gave light and air to service portions, and other utility rooms on the ground floor. The 90-acre site overlooks the Croton Reservoir, and the house is oriented to take full advantage of the Westchester landscape.

will want one like it. The interiors themselves are a natural translation of the pattern of the rooms themselves. Donald Deskey has relied on quiet lines, pleasing colors and sympathetic materials to achieve interiors that do not obtrude upon present day living. The view from the windows takes its place naturally in the decorative scheme. Most of the furniture is of stock design by Donald Deskey. One feels that this is a house designed for a person who knows what he wants to do with his time, who selects his pastimes and friends as he does his surroundings with a view to adding to the fullness of living life today.

PLANS AND TECHNICAL DESCRIPTION
ON PAGES 86 - 87 - 88



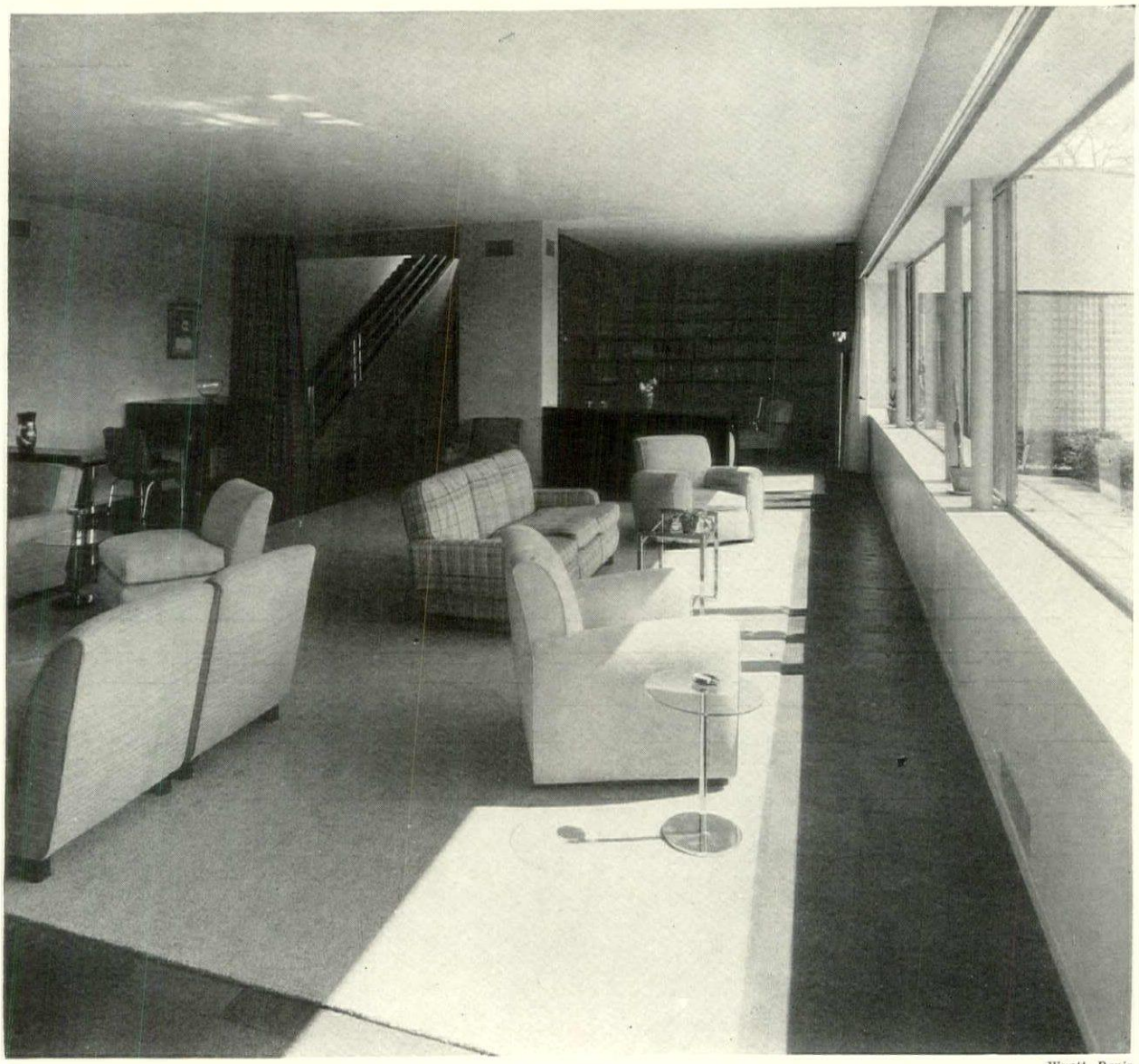
John Gass Photos



RICHARD MANDEL HOUSE

Emelie Danielson

CEILING—White
WALLS—White
FLOOR — Black ter
razzo
CHAIRS — Gree
leather
DRAPERIES—
Woven white cello
phane
METAL table leg
and lally column
—Chromium finis



Wyatt Davis

CEILING—White
WALLS — Beige. A
cork panel at one
end. Library is
English Brown oak
CHAIR FABRICS—
Strong yellows, tan
and yellow plaids,
etc.
FLOOR—Cork with
beige rug

URAL PAINTING BY WITOLD GORDON

Wyatt Davis Photos

ILING—White. WALLS—Beige. BAR FRONT—White formica. CHAIR UPHOLSTERY—Lemon yellow leather. SEAT UPHOLSTERY—Emerald en leather. MURAL PAINTING—Terra cotta, white, black, varying greens and yellows. FLOOR—White, terra cotta, green mastic tile.

RICHARD MANDEL HOUSE

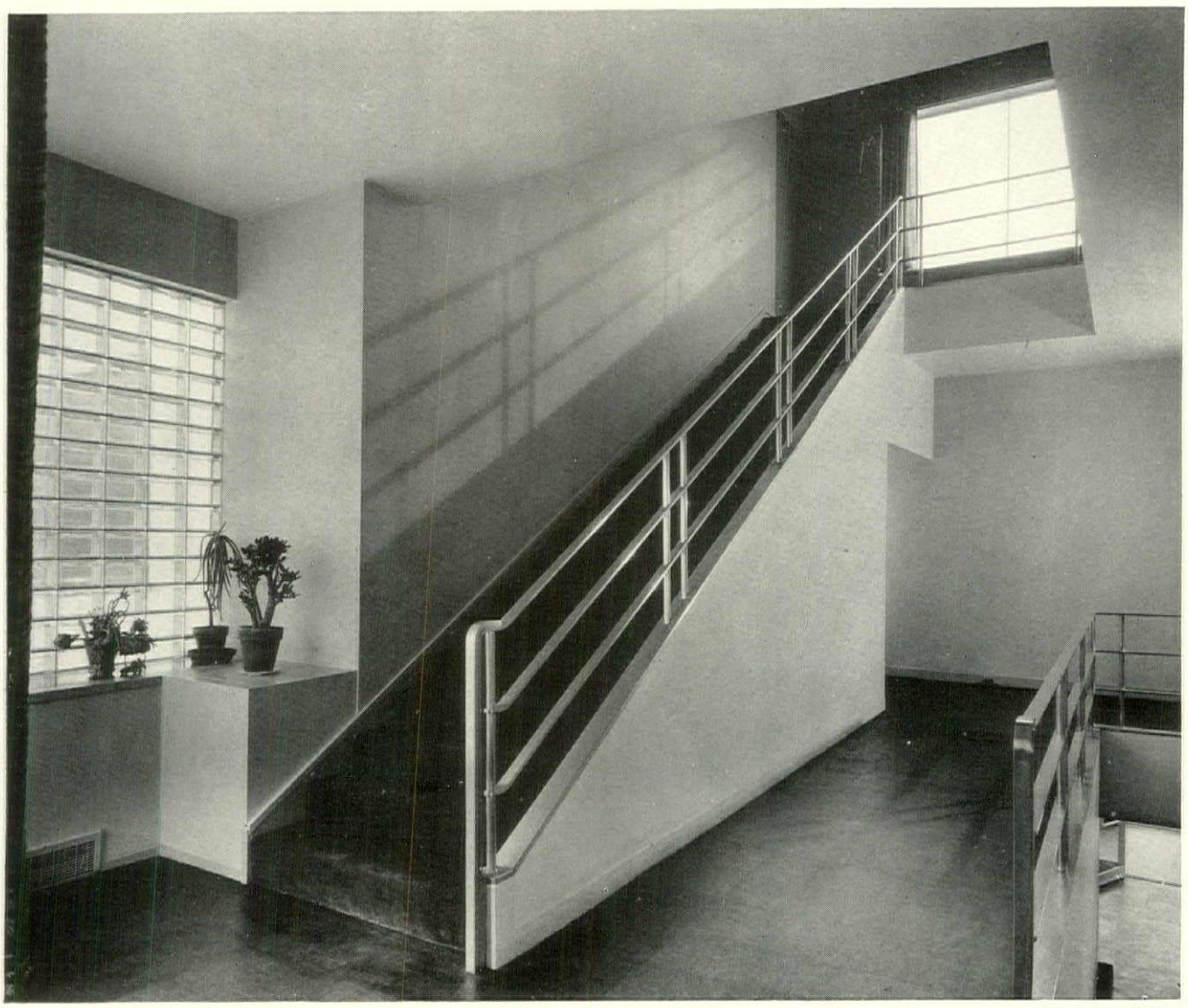
CEILING—White

WALLS — White
cept wall with
which is bluep
blue

FLOOR—White
leum, border
two sides in ru
tile, blue to m
opposite wall

MANTEL — W h
marble

FURNITUR
Bird's-eye ma
Chairs, one
and one chartr



Wyatt Davis Photos

CEILING AND WALLS—White

FLOOR—Black mastic tile

SEATS—Dark blue

WALLS—Varying colors to emphasize the various planes of the space

CEILINGS—White

FLOOR—Cork

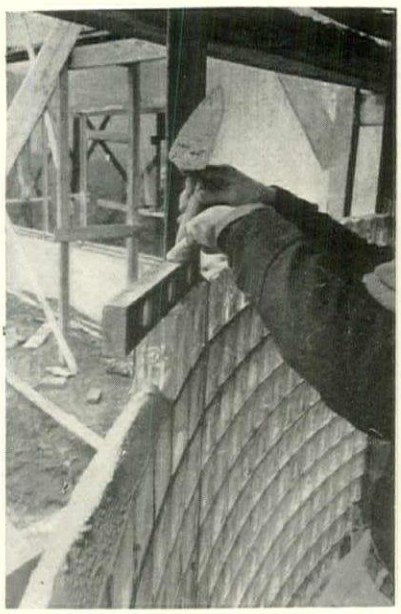
STAIRS—Carpet, dark brown

STAIR RAIL—Aluminum

LIGHTING BOX under plants

Wyatt Davis Photos

1
2



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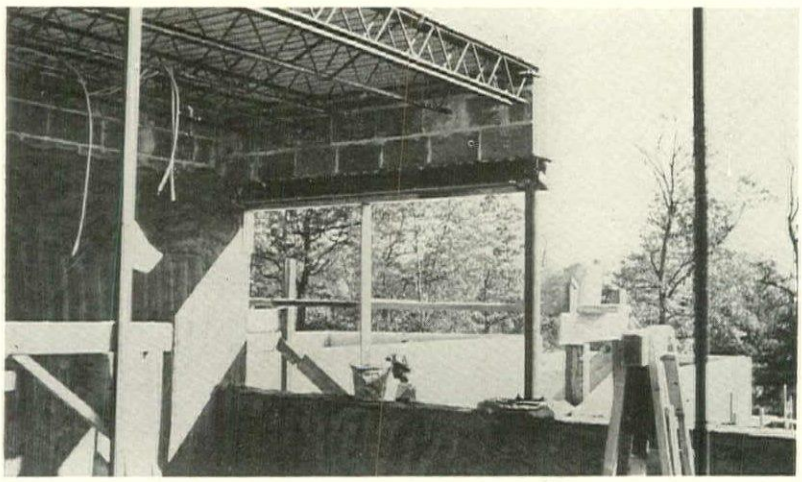

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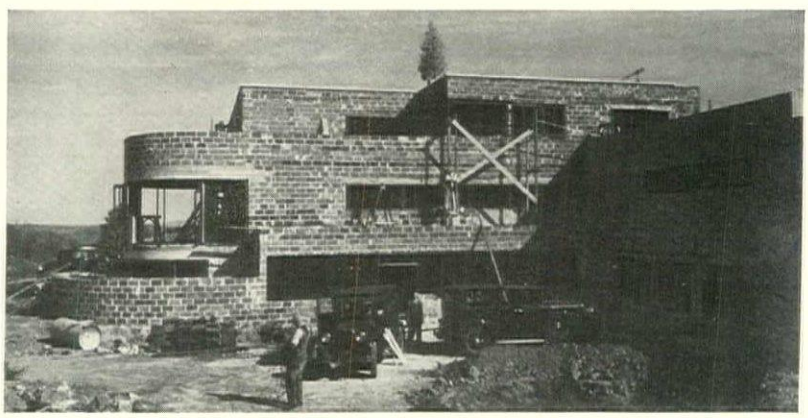

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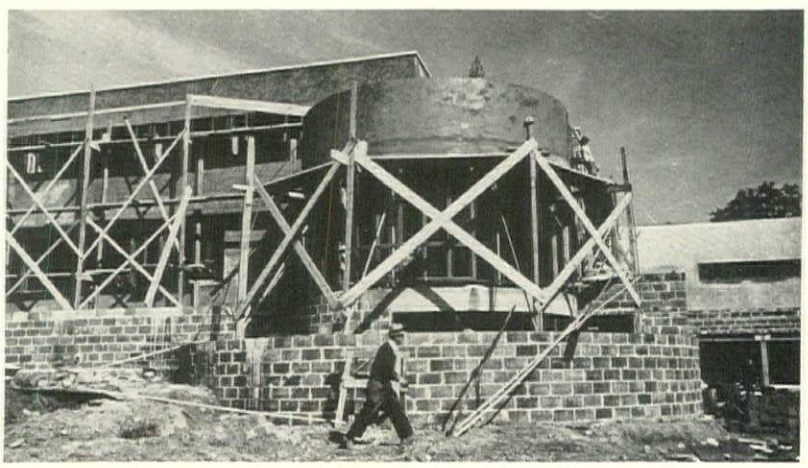


1-2 Setting glass blocks. **3** Open steel joists ting complete freedom in locating pipes, cond ducts and ease in installing insulation. **4** block wall construction. Steel window lintels a columns afford maximum window areas. **5-** before and during exterior plastering with **7** Glazing.

CONSTRUCTION OUTL

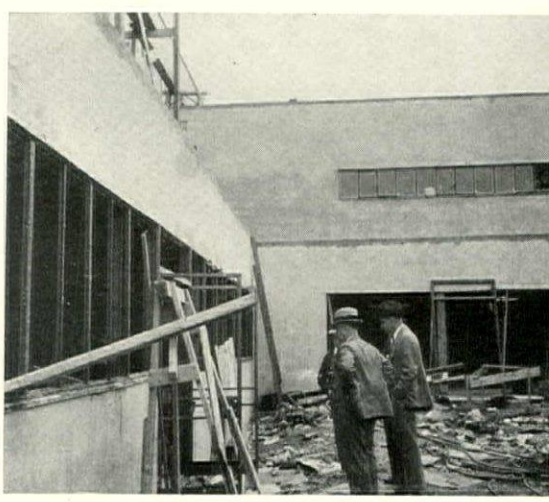
COST: Approximately $60,000 (without furnishings 50c. a cubic foot.

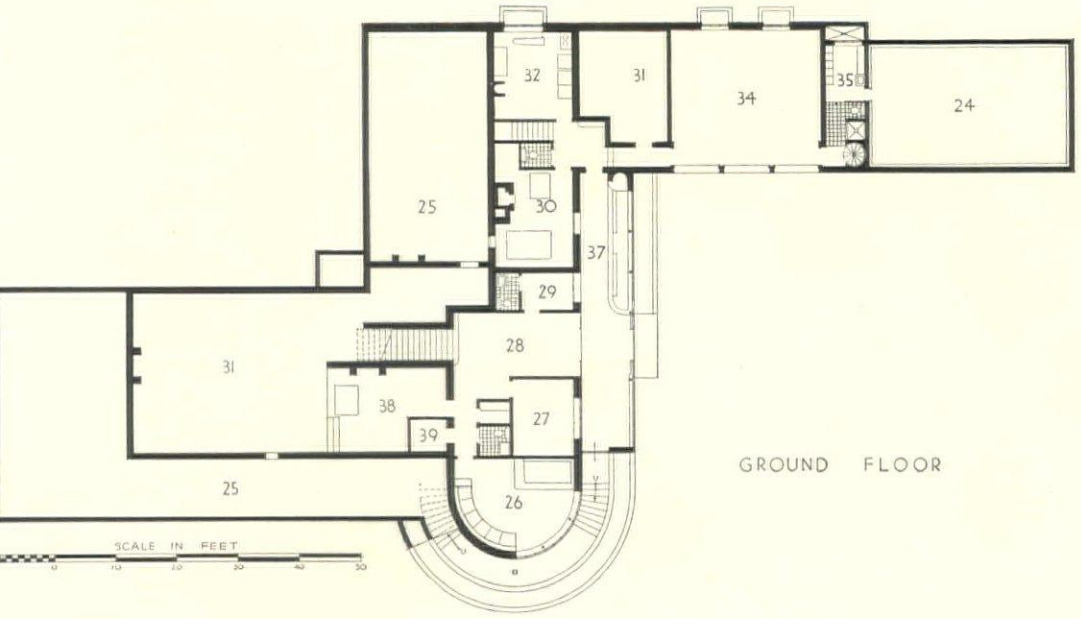
PLAN: After its relationship to the site the organi the plan recognized four separate functions (1) the quarters, (2) the children's quarters which togethe the top floor and are themselves sufficiently sepa insure privacy, (3) on the first floor the living quarte are adjacent to but quite separated from the gues and (4) on the ground floor the ample service quarte unit is complete unto itself and each serves perfect as frequently happens, the owner entertains guests ational features are a swimming pool, squash co and living terraces, the latter off many of the b affording full enjoyment of the countryside from th tion upon which the house stands.

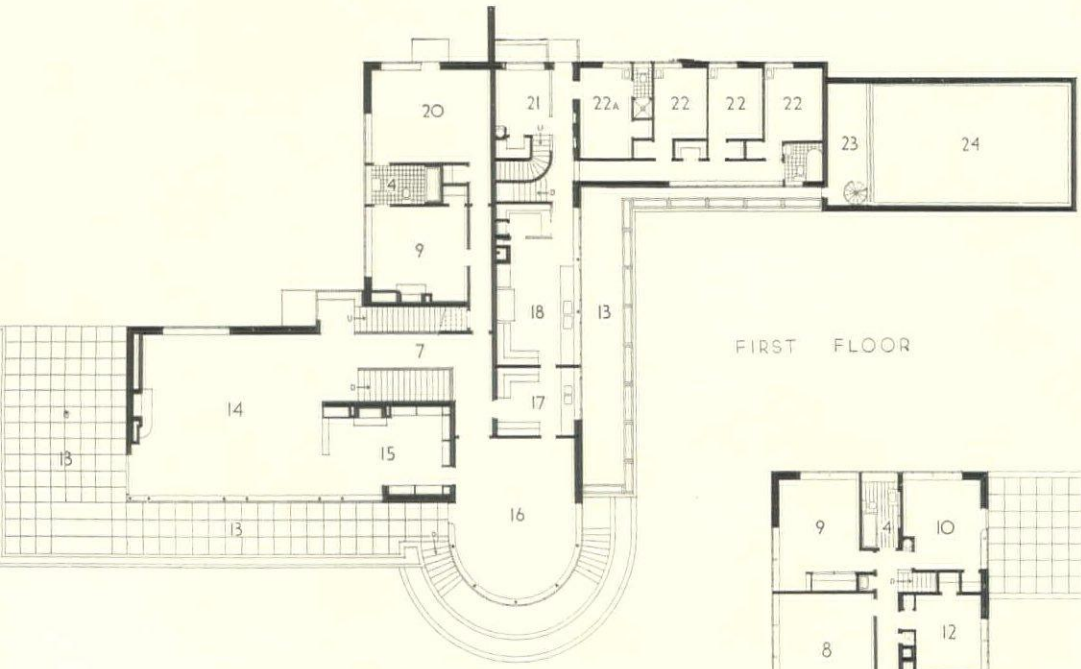
CONSTRUCTION: Fireproof throughout.

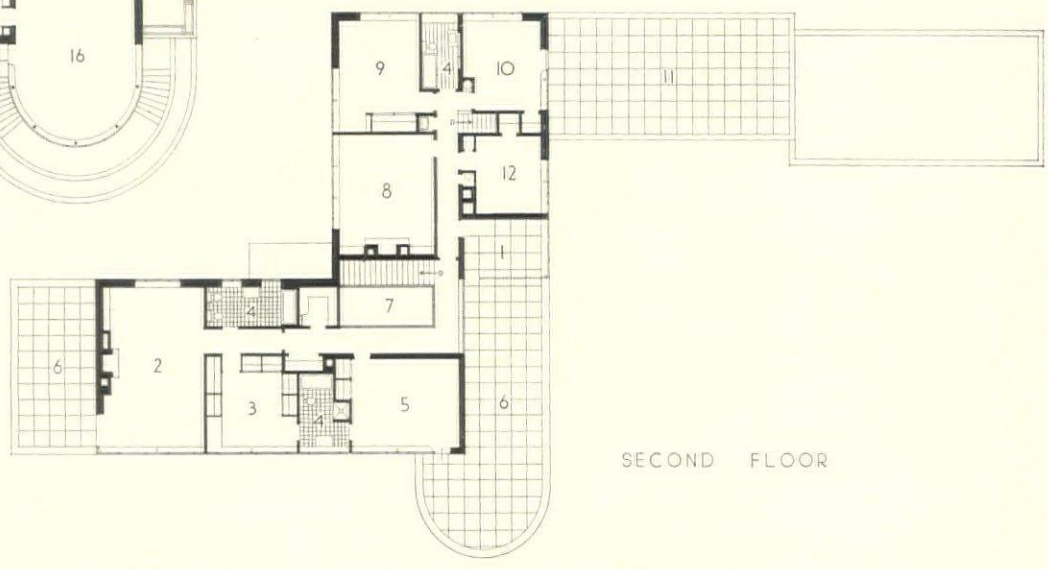
EXTERIOR WALLS: 12 in. cinder block, waterproo a stucco exterior. Interiors have metal furring wit on metal lath.

FLOORS: There is no excavation under the baseme A 4 in. reenforced concrete slab is laid directly o fill, with flooring of mastic tile, used because other finish flooring were believed not so well suited structural flooring laid directly over the fill. The firs









1. Sleeping porch
2. Master bedroom
3. Dressing room
4. Bathroom
5. Master bedroom
6. Sun deck
7. Stair hall
8. Children's play room
9. Child's bedroom
10. Child's bedroom
11. Play deck
12. Nurse's room
13. Terrace
14. Living room
15. Library
16. Dining room
17. Pantry
18. Kitchen
19. Guest room
20. Guest room
21. Servants' dining room
22. Servants' bedrooms
22A. Chauffeur's room
23. Balcony
24. Squash court
25. Unexcavated
26. Bar room
27. Office
28. Entrance hall
29. Powder room
30. Boiler room
31. Storage
32. Laundry
34. Garage
35. Locker room
37. Plant room
38. Conditioning room
39. Wine storage

3 in. reenforced concrete slab, mixed thick to ay on metal lath over open steel joists. Finish flooring includes cork in the living oom, library and halls, terrazzo in the dining oom, rubber tile in the pantry and kitchen, nd carpeting in the guest quarters. Wood egs were set in the wet concrete to hold the arpeting. The second floor, same construcion. Ceilings are metal lath and plaster. Finish flooring is white linoleum in the mas-er bedroom, a color found none too practicable. Cork floor in the playroom, all others re carpeted. Bathroom floors are either of eramic tile or rubber tile.

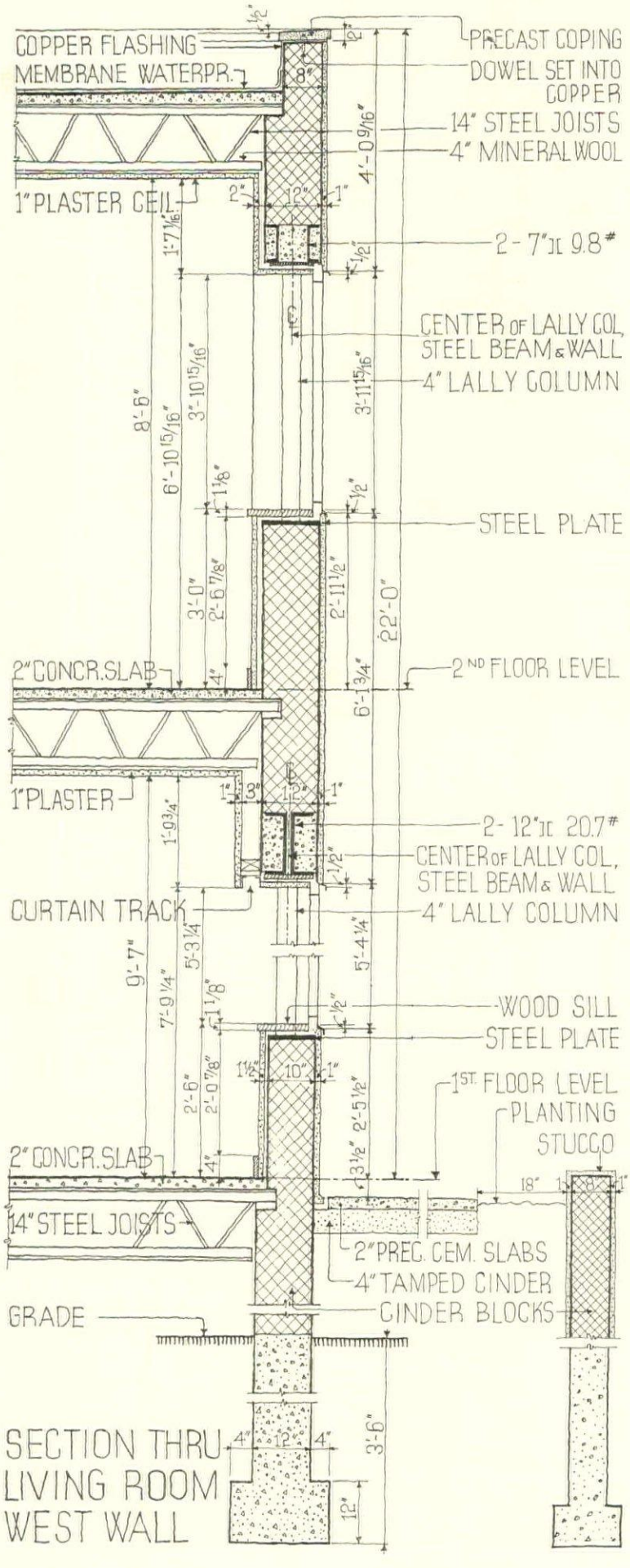
ROOFS: Roof construction same as for floors, except that there are two 3 in. slabs of conrete with membrane waterproofing between, and 4 in. rock wool insulation for all exposed roofs. On roof decks, 12 in. slate squares are set in mastic, and a prepared roofing is used for all others.

PARTITIONS: Interior partitions are gypsum block and plaster, with wood bases, the latter being found less serviceable than anticipated because of a tendency to come away from the wall. With the exception of the wood bases and wood sills, there is no interior trim in the house at all. Doors are all flush panel wood with flush steel trim. (See detail.)

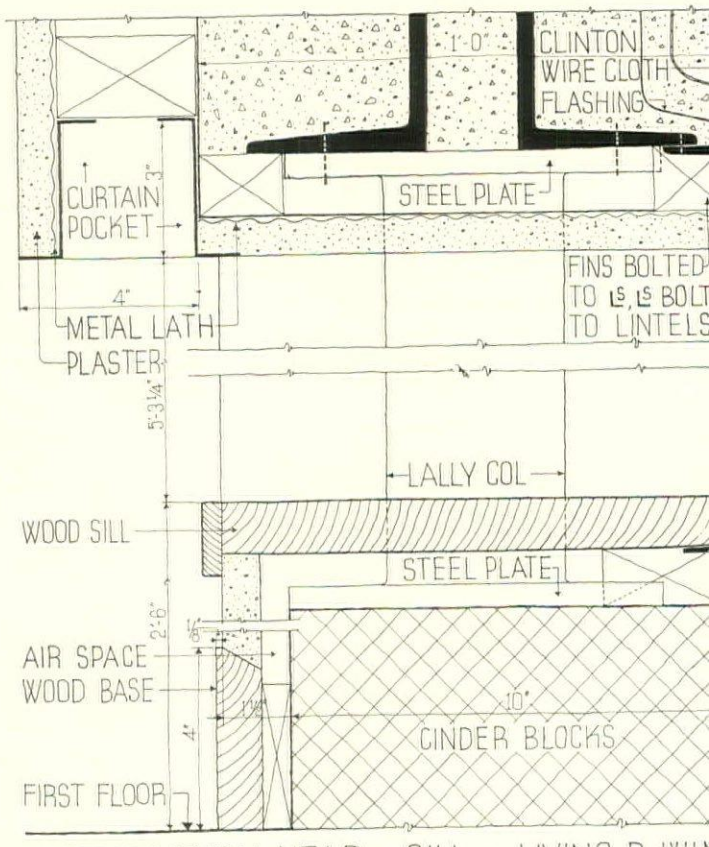
GLASS AND GLAZING: Two different types of glass brick are used, one a vacuum brick in the circular dining room wall, and the other type in the hallways. In another hallway an obscure glass is used. All windows have plate glass. The window frames are metal, set flush with the exterior wall. (See detail.) Where large glass areas are employed, lally columns are used for support.

ILLUMINATION: All rooms are indirectly lighted. In the dining room, the principal light source is a flush glass panel in the center of the table; the same treatment is used in the library and bar, where panels in the top of the shelves and the bar tops respectively throw light against the ceiling. General lighting is from flush panels in the ceiling, and from indirect wall fixtures.

HEATING AND AIR CONDITIONING: Aside from the service wing, which is heated by a two-pipe vapor system, the house is air conditioned, except that no mechanical refrigeration is used. The system is in two



SECTION THRU LIVING ROOM WEST WALL



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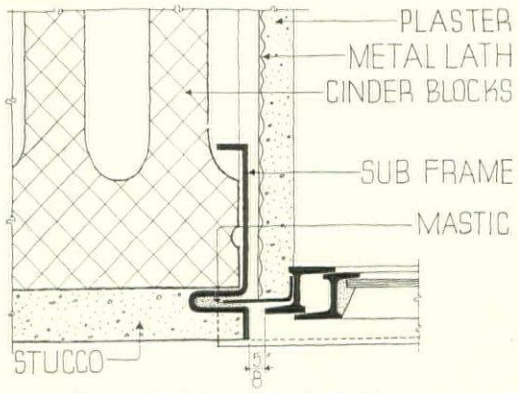
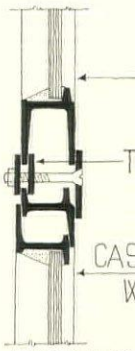


JAMB OF LIVING R. WINDOW



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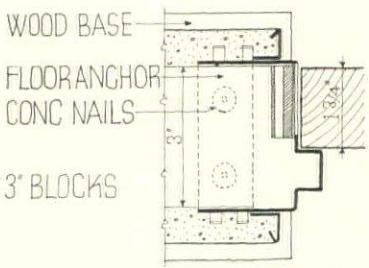
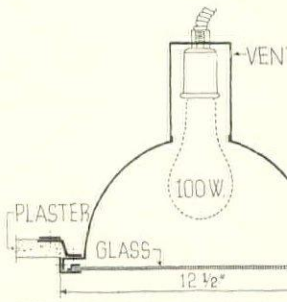


TYPICAL MET. DOOR BUCK



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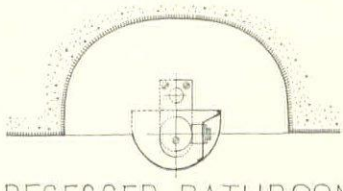
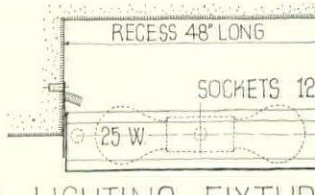


RECESSED BATHROOM



LIGHTING FIXTUR

parts, one serving the children's wing, the other the main part of the house. The use of open joists permits maximum freedom in running ducts and pipes in the floors. Conditioned air is distributed from grilles near the ceiling, and the air is returned through grilles near the floor. The well water used for summer cooling is used for the swimming pool, and for watering the grounds after it has passed through the conditioner. The fuel bill, expected by the owner to be higher because of the large glass areas, is reported to be no more expensive than for a traditional house of similiar size previously occupied by him.

MISCELLANEOUS: Stock furniture throughout. Floodlight burglar alarm system con trolled from a switch in the master bedroom Bar room with decorations by Witold Gor don. Mirror fastened to sill in bathroom to permit daylight shaving, with cupboard and medicine chest built under window. (Se details.) Squash court with maple floor an walls.

Esther Born

ERNST KAHN

author of the following article on

ECONOMICS OF HOUSING IN THE UNITED STATES

was for twelve years financial editor of the famed Frankforter Zeitung. Associated with Ernst May in the building of the finest of Frankfort's low cost housing, he was until the rise of the National Socialists, director-general of all Frankfort housing. Invited to this country, along with Sir Raymond Unwin and Miss A. J. Samuel by the National Association of Housing Officials to make a study of American housing conditions, he has remained here to lecture at the New School for Social Research, and to promulgate a housing project to be built in Palestine. THE ARCHITECTURAL FORUM *is pleased to present on the following pages Part One of a two-part analysis of the U. S. housing problem by Dr. Kahn, in which his fresh approach to the subject, and his seasoned grasp of it, combine to produce some significant, if salty, answers.*

ONE HUNDRED DOLLARS A HOUSE

. . . is all the Federal aid required to produce ample low cost housing under the interest subsidy plan proposed as a substitute for Government financing or building.

by ERNST KAHN

THE World War brought building in Europe to a sudden halt. Men and material were needed for the war machine, and there was no need for new shelter. Vacancies increased to 10, 12, 20 per cent as millions of young husbands joined the colors and their wives were forced to close their homes and return to their parents' homes. Most of the unmarried men were likewise in the field, so the normal increase of families by marriage was interrupted. An example is provided by Germany where before the War the number of marriages fluctuated between 7 and 8 per thousand and dropped to 5 in the years from 1915 to 1918.

When peace came, not a single belligerent nation was ready for the tremendous housing shortage that sprang up almost overnight. The dissolution of millions of families by the death of their nourisher was more than offset by the sudden upward sweep of the marriage rate, which in Germany reached a peak of 15 per thousand in 1920. Further, the almost complete stoppage of normal maintenance and repair took a heavy toll on existing residential buildings.

A housing shortage, like the deprivation of any necessity, is a sizzling social and political bomb. The masses, faced with lack of food, unemployed, and suffering from the inevitable post-war disillusionment, were in no mood for substandard housing. All manner of emergency measures were tried. Maximum rents, compelling owners and tenants to take in subtenants, and providing temporary shelter in old railway cars were the most common sedatives. Owners were not permitted to fix their own rents, could not evict undesirable or non-paying tenants, and were compelled to house families at the pleasure of the political authorities. The tenants themselves turned bitter at the encroachment upon their family privacy. But the most desperate malcontents were the homeless couples who often had to wait years to find shelter.

The high cost of building and building money propels European governments into housing.

In normal times, such a shortage would immediately beget a building boom, but this was not the case in post-war Europe. Why did private enterprise fail to supply the houses so eagerly asked for? The foremost and decisive reasons were the abnormal cost of building and the abnormal height of interest rates. All building operators realized that building costs prevailing at that time (from 50 to 100 per cent above normal) could not last (being based on a temporary shortage of material) and that any investment in housing would result in heavy losses as soon as the normal price level was established.

The lack and cost of capital was a factor even more c
mental to any private housing activity. The main ite
calculating rents the world over is the amount paid f
terest. Usually not less than 60-70 per cent is directly
directly required for payment of interest on the capit
vested or borrowed. After the War the mortgage rat
European capital markets ran two or three times as hi
in normal times. The usual cost of mortgage mon
Europe for inexpensive housing is from 3½ to 4 per
From 1920 to 1922 mortgage money, if available at
price, cost as much as 12 per cent.

Consequently, practically all European governm
neutral or belligerent during the War, were pushed
taking an active part in housing to avoid even more
lence and uprising than actually took place.

To make things worse for the Governments, the cri
housing situation combined with the general unrest r
the public realize that the problem of sheltering the m
had never been properly met even before the War. It b
to be apparent that Capitalism, no matter how grea
merits in other directions, had utterly failed to solve
housing problem in practically any direction. Even
most ardent admirer of "laissez faire, laissez aller" ha
confess that the result of a hundred years of individua
in town building, etc., was little short of complete fa
architecturally, economically and socially. And, finall
became obvious that housing could not be solved wit
some planning and supervising by Authorities. In s
countries statesmen, administrators and architects rea
that this very emergency offered this country's first g
opportunity for a thoroughgoing reform of human sh
and a total reorganization of urban living.

It is not quite easy to show in a fully satisfactory
what the different European governments actually spe
assisting low cost housing and which system they follo
as the policy very often changed and the subvent
granted by the different central governments freque
were augmented by additional help offered by St
and municipalities sometimes hidden under various h
ings. A compilation published at the author's sugges
in the 1933 "Wirtschaftskurve" by Hans Kampfm
offers some characteristic figures for the period 1920 to
being the period of the principal publicly assisted low
housing activity in those eight European countries w
seem most interesting.

It is nearly impossible, as I have already stated, to
an exact impression of the methods followed by the diffe
countries without being very exhaustive. Howe
Table 1 (p. 91) may offer some characteristic facts, sho

•	New Dwellings Erected			Public Money Offered	
Country	Per 1,000 Inhabitants	With Public Help per 1,000 Inhabitants	Total (In Millions of Gold Dollars)	Subsidies	Loans and Guarantees
				In per cent of the Total	
gland and Vales	38	28	550	45	55
land	60	24	165	19	81
den	20	4	24	9	91
mark	22	12	46	13	87
way	8	5	36	44	56
gium	27	10	60	20	80
choslovakia	10	5	103	13	87
many	28	21	998	.....	100

activity in housing, most impressive in Holland, and ther illustrating that this activity only partly was ed on public help. Nevertheless, what the governments eight countries supplied to accomplish the task, either the form of subsidies or on a loan or guarantee basis, ounts to billions of gold dollars.

r in Europe, depression in the U. S. create allel shortages in low cost housing.

n examining today's housing situation in the U. S. the erver cannot help but note its resemblance to the Euron problem of fifteen years ago.

Compare the four-year War with the five-year Depres-; compare the European doubling up of families re-ing from the men's absence on the battlefield with the ting of unemployed from the cities back to their rural ive places in the U. S.; compare the War-time drop in European marriage rate with the reluctance of marry-in times of unemployment in this country, and finally pare the scarcity of material and cheap capital which tructed Europe's private enterprise housing with the ficially high building costs and the poorly organized tgage market in America — you are faced with practi-y the same task in today's United States as faced you Europe fifteen years ago.

To illustrate the situation by facts and figures: Whereas number of dwelling units erected in 257 cities of the S. averaged 400,000 a year between 1925 and 1929, this re fell steadily to 20,848 in 1934, thus leaving the num-of new homes for a constantly increasing population w that destroyed by fire (30,000 a year), not to mention ther several thousand homes demolished for other ons. As to the conditions of the existing homes, any tor is amazed at their sorry appearance. In the 63 cities nted by the Real Property Inventory 44.6 per cent of the ses were found to need minor repairs, 15.5 per cent ctural changes and 2.2 per cent were fit for demolition .

triking similarities between Europe and the United es are also apparent in the other conditions which build shortage. Doubling up of families is reliably estimated per cent. The shift of population from cities to farms, ch totaled 800,000 from 1930-1932, has been reversed. 933 and 1934 the net movement from farms to cities 227,000 and 211,000 respectively.

The movement of the marriage rate, too, follows European figures. The pre-Depression figures for the United States may be put at 10.5 marriages per thousand inhabitants; the Depression let it drop temporarily to 7.5. It started up again last year with an average of 9.4 per thousand. Record marriage rates of 14 to 15 per thousand are as likely for the U. S. of 1936 and 1937 as they were actual in post-war Europe.

Assuming, then, as we have a right to, that a major increase in residential building is imminent, the question arises whether the old system of housing by private enterprise without any government help is feasible.

It seems to be a rule valid all over the civilized world that the rent should not require much more than 15 to 20 per cent of the income. This share may be somewhat higher in this country than in others as the rent in America frequently embraces amenities usually not offered in most European countries, such as heating, bath, refrigeration and sometimes even light. Based on a limit of say 20 per cent of the income to be spent for shelter, the odds for satisfactory housing activities unassisted by public help appear rather hopeless. What builder is prepared and able to offer decent and cheap rents to the 60 per cent of the population whose income is below $1,000?

To begin with, wages and prices of material bring the cost of a single family house to twice the present cost of English ones and are some 100 per cent higher than in pre-War times. Unfortunately, this extraordinary high cost of building by no means exhausts the difficulties. Important as this undoubtedly is, even a very considerable reduction would not solve the problem. Even if for one reason or another an average dwelling unit could be erected at half the present prices and thus bring the cost down to an approximation of the present English price level, rents still would be twice as high as they are over there. The full explanation for this amazing fact will be shown later on. For the time being it may be sufficient to give just the most important reason — the difference in house financing on both sides of the Atlantic. The European house-owner has to pay half of the American money rates for his mortgages, sometimes he pays even less. The high rates prevailing here are the more strange when you realize that money is far more abundant in the U. S. than in Europe, especially in Continental Europe. There are two reasons responsible for this decisive advantage in European housing, 1) a better organization of long term credit and 2) the participation of the Government in financing low cost housing.

When money costs 4 per cent or more, there can be no housing for the poor without Federal aid.

As stated above, it was primarily the high rate of interest which forced European governments to go into housing. Different as the causes for the present obnoxious rates in this country are, the regrettable consequences to housing are just the same and rents based on mortgages bearing a return of more than 4 per cent will always make housing for the low income groups impossible.

I claim that for a rich country like the U. S. the scarcity of cheap mortgages is unnatural. It seems to me just a problem of better organization to place sufficient money at reasonable rates at the disposal of a housing program, no matter how ambitious it may be. Sad to say, this organ-

ization is bound to take considerable time. Years may elapse before this aim will be achieved. And yet the country can scarcely afford to wait as long with its urgently needed re-housing job. Consequently the U. S. government will be forced to assist housing at least for some time to come.

Once you accept the necessity of at least temporary public participation in housing the question arises as to which form or rather degree of government activity seems to be most efficient.

The fundamental question a government has to decide is, whether housing has to be taken over as a public agency, such as schools and roads, or whether it is wiser to leave the management and the financial responsibility to private enterprise and to confine the country's share to some degree of financial and other assistance and supervision. There are varying degrees of governmental participation, but the major alternative has to be decided first. At first glance, it may look as if the decision is more or less dependent upon the political doctrines, Socialists naturally advocating public ownership, conservatives preferring some other solution.

I propose to leave dogmatic theories completely out of this discussion. The decision should be dependent on practical considerations exclusively. In fact, nothing is more detrimental to practical housing than being dogmatic.

It is logical, in some respects, for a government to consider housing as a public obligation, just as some governments, even capitalistic ones, consider telephones, railroads, etc., as proper objects for State ownership. There is at least one European country which has adopted this policy: Austria, or rather Vienna.

Crushing public debt is not the only consequence of government-built dwellings.

One should, however, realize, what such an attempt means, if fully carried on. In Vienna the authorities have practically assumed the complete housing activity for the lower income classes which embrace the bulk of population. Should the U. S. adopt such a program, the old established housing interests would eventually disappear. The lifetime of any house is limited to a certain number of years; consequently the privately owned homes would slowly be replaced by houses erected by the authorities. This process would be considerably accelerated if the government's dwellings should be offered at lower rents than those which had to fix their rents on a profit-making basis. As low rents seem to be the principal, if not the only motive for such an activity, the disappearance of privately owned low cost homes would inevitably be the final outcome. An elimination of private ownership causes far-reaching political, social and financial consequences.

Financially, the government would face a gigantic task never experienced before. Basing the need for the 20-year period from 1935 to 1955 at 500,000 units a year* (a total of 10,000,000 homes), of, say, $4,000 each, the government would have to invest some 40 billion dollars. Even if such task should and could be carried on as a paying proposition, it would involve a creation of public debt to an extent hitherto unknown. Whether the floating of such huge issues would be possible without serious disturbance to t security market is more than doubtful. The essent question from a financial point of view seems to be whet a sufficient return of the invested capital would be possi or even within the aims of those responsible.

*An estimate based on past averages, normal increase in family population, the acceleration of obsolescence by the Depression, and the undoubling up of families.

2. U. S. Marriage and Birthrate

(Per 1,000 Population)	Birth Rate	Marria Rate
1920	23.7	12.0
1921	24.2	10.8
1922	22.3	10.3
1923	22.2	11.1
1924	22.4	10.5
1925	21.5	10.4
1926	20.7	10.3
1927	20.6	10.2
1928	19.8	9.9
1929	18.9	10.1
1930	18.9	9.2
1931	18.0	8.6
1932	17.4	7.9
1933	16.6	8.2*
1934	17.2	9.4*

*Estimat

In the case of Vienna the authorities renounced such ambition from the outset. They did not expect any retu whatever on the invested capital. The rents simply co the expenses caused by management, repair, etc. Ap from the heavy taxes which such a system necessar would cause (not less than 2 to 3 billion a year in the c of the United States) it would inevitably involve trem dous losses for the individual owners of the old houses. the State scarcely would dare to deprive many millions citizens of their income and so drive them and their cr itors into bankruptcy, heavy indemnifications would ha to be paid, burdening the taxpayer's shoulders with ad tional charges of billions of dollars. No congress, no pr dent could dare to do it. In the case of Socialistic Vie such an experiment was feasible only because inflation l practically wiped out all financial obligations of the hou owners.

The political consequence of 100 per cent public hou ownership should be carefully considered before ente such a task. Few advocates of public housing are consci that a considerable percentage of the population, or rat the voters, are house-owners. There is little doubt that rise of National-Socialism in Germany was partly att utable to property owners and other middle-class gro who felt that their very existence was endangered by th responsible for housing in that country.

There are other reasons which make publicly owned managed housing appear somewhat problematic. There for instance, the question whether a government, be federal or a local one, is a good administrator in this p ticular field. From my experience in Germany, I should hesitate to say that it is more than doubtful. If the admi tration lies with municipalities, the danger of graft o least favoritism cannot be denied, be it expressed when contracts are issued or the tenants chosen. In case hou is centralized in a federal agency, as it seems to be the tention in the U. S., another danger arises in the stri bureaucratic machinery which is scarcely avoidable. both cases the collecting of the rents is much more diffi

3.

EAR	Number of Dwellings to Be Built	Average Mortgage Interest Rate	Number of Units Temporarily to Be Assisted	Number of Units Not to Be Assisted Any More As Result of Anticipated Interest Rate Reduction	Total Number of Units to Be Assisted Each Year	Average Mortgage Subsidy Assuming $3,000 Mortgage	Annual Aid Required	Average Net Rate of Interest on Mortgage
36.....	500,000	5.5%	350,000	.....	150,000	1.50%	$15,750,000	4 %
37.....	500,000	5 %	250,000	.....	250,000	1.30%	23,400,000	4 %
38.....	500,000	5 %	250,000	.....	250,000	1.20%	30,900,000	4 %
39.....	500,000	4.5%	200,000	150,000	150,000	0.75%	20,250,000	4 %
40.....	500,000	4.5%	200,000	200,000	100,000	0.64%	17,280,000	3.89%
41.....	500,000	4 %	150,000	200,000	150,000	0.50%	12,750,000	3.74%
42.....	500,000	4 %	150,000	50,000	300,000	0.50%	14,250,000	3.60%
43.....	500,000	3.5%	100,000	250,000	150,000	0.50%	12,000,000	3.39%
44.....	500,000	3.5%	100,000	50,000	350,000	0.50%	12,750,000	3.05%
45.....	500,000	3.5%	100,000	50,000	350,000	0.50%	13,500,000	3.00%
Total.....	5,000,000		1,850,000	950,000	220,000		$172,830,000	

an through any other landlord. This, anyhow, is defitely borne out by European experiences.

Those in favor of direct federal activity as planned by the esent Administration may consider the present plans ly a demonstration to encourage others to enter the low st housing field. In fact, the 120 or even 250 million dolrs usually mentioned as the amount the Federal Governent intends to invest, certainly does not carry the probn very far. At its best it is only a very modest contribun leaving the bulk of the solution to other agencies. I am raid it will do considerable harm and not tend to induce ners to follow the example for these reasons: the Governent seems to be willing to base its rent-calculating on conions not within reach of private competitors. So that as monstrations they are meaningless. The government makes point that it does not propose to compete with private terprise, but as a matter of fact by the simple device of ng its credit, it is creating a demand for housing at ntals that can not be matched unless the same cheap ney is available to individuals.

If, however, the government should abstain from hous, what else should be its role? Since low rents are primarbased on low mortgage rates, it becomes apparent that government's participation should be one which inres the availability of a plentiful supply of mortgage ney at rates sufficiently low to procure the desired ntals. It is by no means necessary, however, for the govment itself to supply the money. On the contrary, such lan is to be definitely avoided for the same reason that vernment building should be avoided. In many cases, European countries preferred to offer a guarantee to mortgagee, instead of lending the money direct. As far Federal credit is concerned, such a guarantee is scarcely ferent from a bond issue. But there is, in practice, a ded difference. Furthermore, in European countries the arantee is never given for the total mortgage, since the t 40 to 60 per cent is usually considered a good risk in od times and bad, and requires no guarantee outside the perty itself.

Inasmuch as the National Housing Act does this very ng, the problem is not one of direct government lending, of additional mortgage guarantees. The problem still o get the interest rates down under the special guaranes of the NHA.

The plan to reduce the effective interest rate to 3½ per cent by direct federal subsidy.

The plan which I propose is one that follows a primary principle of government aid, i.e., it should be the most inexpensive form of assistance possible. To illustrate the plan, let us suppose that in meeting the expected yearly demand of 500,000 dwelling units a year, 350,000 would be intended for the poorer classes, and as such, objects of government aid. Using the Department of Labor average of $4,000 per unit, the total cost of low cost housing would be $1,400,000,000. Under the Federal Housing Administration, 20 per cent of this would be the equity of the property owners, and the remaining $1,120,000,000 would be mortgage money.

At the present time, average rate of interest is about 5½ per cent, but at that figure the housing could never rent for a figure low enough to house the population for which it is intended. Rents based on 3½ per cent money, however, would be within the reach of those to be housed. (See table.) Therefore the government should pay yearly a direct subsidy of 2 per cent to the builders of housing to bring down the effective interest rate to 3½ per cent. Two per cent of $1,120,000,000 is not quite $22,500,000.

Table 3, which attempts to show what such a program would mean to American housing, requires some explanation. First, it is not a forecast, for such an undertaking inevitably fails. It is impossible to know beforehand the number of houses which will require aid, the future developments in the bond markets, or the dates at which anticipated mortgage rate reduction will materialize. Also the table does not take into consideration the constant decrease in principal by amortization. It aims to show only a general trend of the annual interest reduction system based on a theoretical example.

The government grants annual aid to a certain percentage of dwellings of a 5,000,000 unit housing program, spread over ten years. The average interest rates are supposed to decrease with the growing popularity of the newly established mortgage insurance system. This should make it possible to house an increasing percentage of families in the lower income groups without subsidies. It is estimated, rather arbitrarily, that the mortgage interest rate decreases gradually from 5½ per cent in the first year to 3½ per cent in the eighth year.

As a result of the assumed decrease in rates it is presumed that out of the 500,000 homes to be erected annually, a constantly decreasing number will require annual aid. The calculation starts with 350,000 to be built in the first year and drops to 100,000 in the program for 1942 (when the average interest rate approaches 3½ per cent). This cheaper money should enable the mortgagee to convert old mortgages with high interest rates into those bearing lower rates. Such a conversion is usually not possible before the first three years have passed, and this is the basis for the three-year period which precedes possible conversions.

The Table indicates that out of the 350,000 units erected in 1935 a certain percentage (150,000 units) can be carried without any aid after 1938. The reason for considering only 150,000 of the 350,000 units is this: If an interest rate of 4½ per cent is assumed, it may provide rents cheap enough for a part but certainly not all of the tenants. Consequently, a considerable percentage of those 350,000 units originally subsidized needs further assistance. In the last column of the table, it is noted that the average net interest to be paid by the houseowner is decreasing, and finally reaches 3 per cent. It is important, however, not to be misled by "average interest rate" for it is neither necessary nor useful to give the same aid to all the various types of low cost housing since the acceptable rate of interest varies widely.

If the estimated figures prove to be fairly close to the actual facts for this program, the amount of government aid will be very small, if compared with England's yearly burden for housing in 1940 ($100,000,000). Furthermore, it may be more than counterbalanced by savings in governmental expenditures for relief. The yearly assistance, averaging $17,290,000, will be well spent, and not a sacrifice if 5,000,000 decent dwellings can be built by 1945.

$1 per room per month is the rental reduction obtained by a 1 per cent cut in interest.

It may be useful to show the decisive influence of money rates on housing. Let us base our example on a four-room flat erected at a total cost of $4,000, thus bringing the average price for each room at $1,000. Let us further assume that in this particular case the other current expenses to be charged on the tenant (including profit, taxes, depreciation, maintenance, losses on vacancies and arrears, etc.) should require $240 for the flat or $60 for the room, we arrive at these results.

Influence of the rate of interest on the rent in a typical case:

Rent per room and month	If the capital invested costs
$11.67	8%
10.83	7
10.00	6
9.16	5
8.33	4
7.50	3

The influence of the rate of interest on the rents obviously is of the greatest importance. A change of just 1 per cent enables a reduction of nearly $1! It goes without saying that it is up to this very factor whether housing the poorer classes will be possible or not.

It is true, it may take some years until the proper technique is developed and before the American public realizes the fundamental difference between the ill-famed mortgag debentures of pre-Depression times and a conservative easily salable guaranteed new mortgage bond. In som parts of Continental Europe, this type enjoys a highe reputation than government securities. One may reason ably hope that before long capital for housing can be pro cured without government interference, cheap enough t offer decent shelter for the bulk of the population. Thi not only would make a continuance of government mone unnecessary but should enable a conversion of expensiv money, borrowed in the initial years of housing activity into cheaper money. This would enable government t bring a stop to at least part of its annual help.

The financial advantage of such a system as compare with any other is obvious. If adopted by the authoritie it should save billions. At a cost of a few hundred millio dollars, the most gigantic housing program ever see could be carried out.

There will, of course, always be a certain portion of th population, which could not even afford a rent based on a interest rate as low as 3 or 3½ per cent. This, however, from a financial point of view a minor problem as it refe to a very small percentage of the population such as soci elements, families with many children, etc. Besides th housing of these elements is relief rather than a housin problem.

PART TWO OF DR. KAHN'S ANALYSIS, TO APPEAR THE FORUM FOR SEPTEMBER, WILL DISCUSS IN DETA COMPARATIVE FINANCING METHODS, COSTS OF BUIL ING, COSTS OF MANAGEMENT.

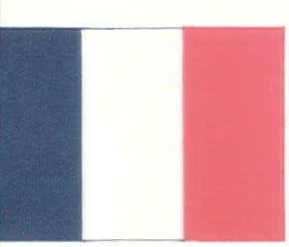
TWO SCULPTURED DOORWAYS

ROCKEFELLER CENTER, NEW YORK

The smoke of verbal conflict has finally cleared away from the gray towers of Rockefeller Center. Offices have filled, shops are rented, tea is served on the top of the British Empire Building, Prometheus is no longer the victim of unkindly gibes. In this year of grace, 1935, Rockefeller Center is an accomplished fact. It is time to begin a considered appraisal of its architecture and the arts which have found refuge there . . .

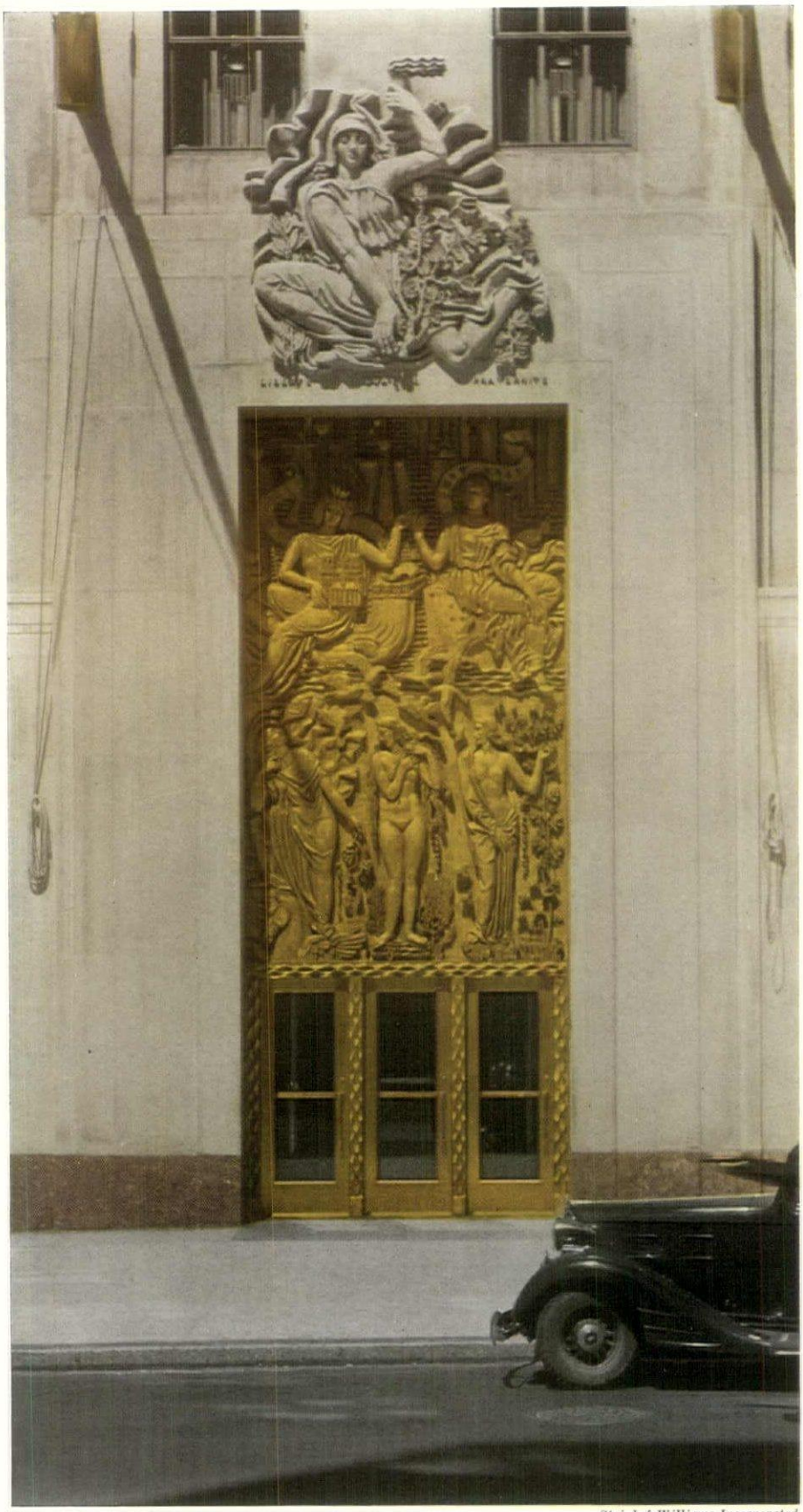
Minute specks against a colossal backdrop, stand the British Empire Building and La Maison Francaise, twin sphinxes flanking the approach to a modern Karnak. Never was there a more rigidly formal, a more entirely symmetrical composition; never was there more pressure to reproduce in one building the identical features of another. Yet the two most important features of these buildings, the sculptured doorways, are utterly different in conception and execution. For Janniot the space was a unit, to be filled with his attitudinizing ladies, his squirming symbols. For Jennewein the solution lay in the doors below, their vertical divisions dominating the composition . . .

Which of the two is better, whether either is good or bad, is for the moment of minor importance. Their chief significance lies in the fact that they represent a rarely found freedom of treatment permitted in a completely balanced arrangement.



AISON FRANCAISE

BRITISH EMPIRE BUILDING



Steinhof-Williams Incorporated

ALFRED JANNIOT

SCULPTOR

LA MAISON FRANCAISE

Ten tons of gilded bronze went to symbolize friendship and mutual understanding between the cities of Paris and New York. Long noted as a leading sculptor of France, M. Janniot is here represented for the first time in America. At the top of the panel sit Paris and New York, hands amicably joined, while at their feet three figures, Poetry, Grace, and Elegance disport themselves among the trees and birds of two hemispheres. The over-all pattern recalls the extraordinary "tapestry of stone" which covers the entire walls of the Colonial Museum in Paris, the work which first focused world-wide attention on this artist. Subordinate in the composition are the three doors, main entrances to La Maison Francaise, center of French activities in New York.

PAUL JENNEWEIN

CULPTOR

ITISH EMPIRE

ILDING

Steinhof-Williams Incorporated

Controlling factors in the design of the doorway in the British Empire Building are the entrances. Three doors create three vertical panels: three figures in each panel sum up the nine symbols of British industrial and agricultural activity. The nine gilded spots on a ground of blue represent Merchant Marine, Fishing, Wheat, Sugar, Cotton, Wool, Tobacco, Coal and Salt. All is clear, sharp definite; only the verticals of the door divisions enliven the static figures. Like Janniot, Sculptor Jennewein selected bronze for his medium, treating it less as a vehicle for plastic effects, and relying more on color and value than on the forms themselves. Both are consistent solutions of the problem of integrating the doors with the spaces above them.

Mac Rae

ROCKEFELLER CENTER FROM FIFTH AVENUE

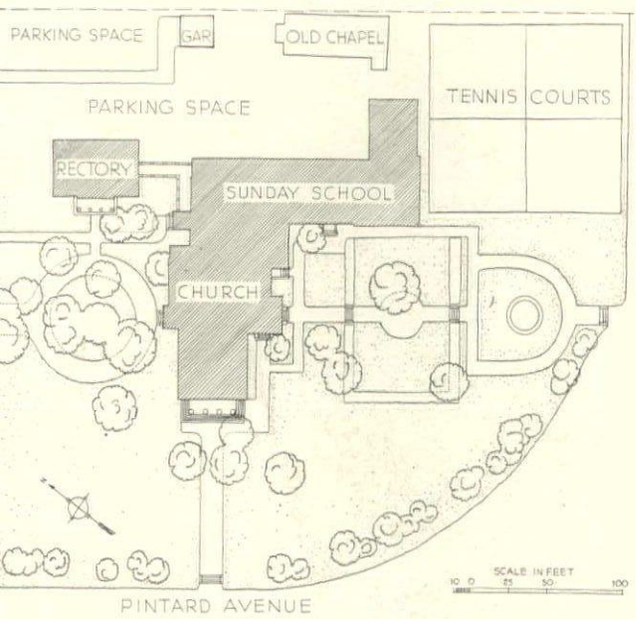
Janniot, Alfred Auguste, fresco painter as well as sculptor, was born in Paris in 1890. He began exhibiting at the Salon in 1908, won the Prix de Rome in 1920. Perhaps his finest work is the great Monument to the Dead in Nice; best known is his tremendous relief covering the entire wall surface of the Colonial Museum in Paris. Examples of his sculpture are in the Voisin, Boileau, Bailby and other collections.

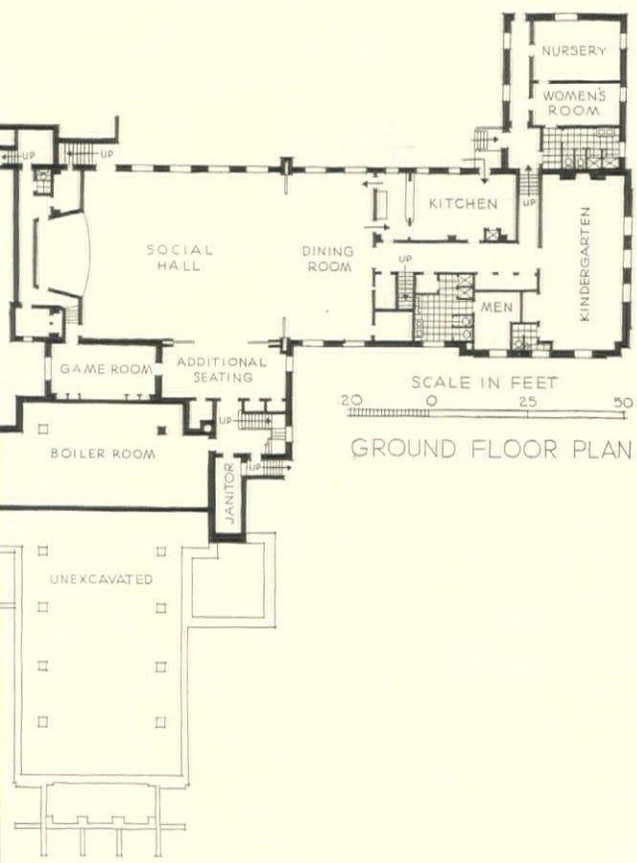
Jennewein, Carl Paul, was born in Stuttgart, Germany, 1890. Came to the United States in 1907, studied in the Art Students' League, New York City, won the American Academy Fellowship in Rome in 1912. Principal works: Sculpture for Philadelphia Museum of Art, Arlington Memorial Bridge, Washington, D. C.; many war memorials; bronzes in Metropolitan Museum of Art, Corcoran Art Galleries, other museums.

IRST PRESBYTERIAN CHURCH

EW ROCHELLE, N. Y.

FFICE OF JOHN RUSSELL POPE, ARCHITECT





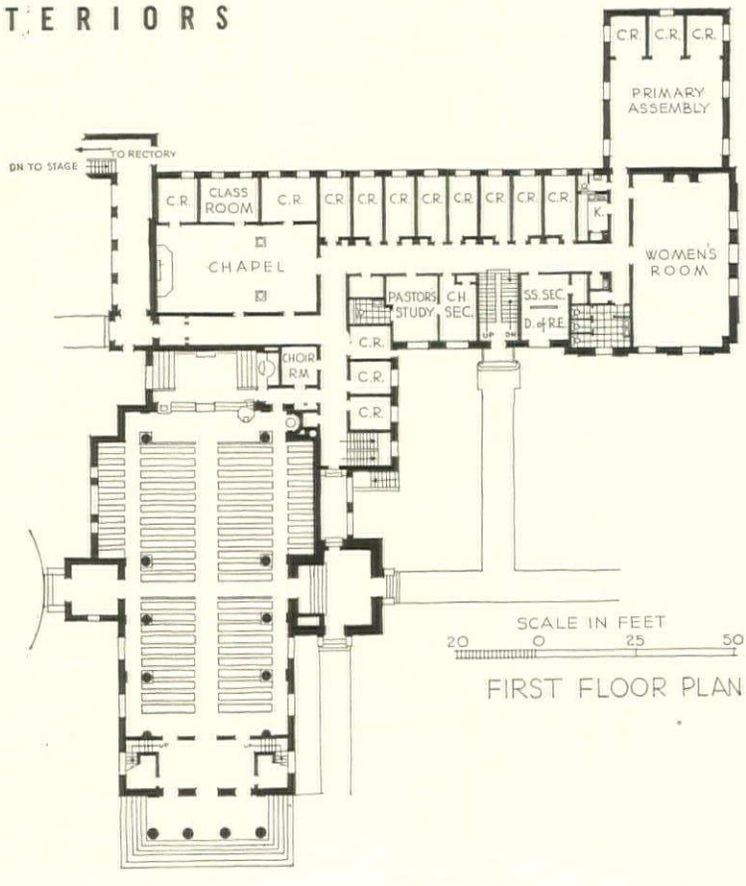
In 1784, on the site of this church, one Louis Pintard built himself a wooden farmhouse. A century and a half later, when plans for the present church were begun, both architect and congregation felt they could do no better than to continue the Colonial tradition, and the little house was moved to its present location where it serves as the rectory. The site of the church is unusually fine, and the building was laid out to take advantage of the magnificent old trees and the sunken garden. Particularly worthy of study is the plan, in which the problems of re-using certain areas for varying purposes have been adroitly worked out. The social hall on the ground floor can be expanded or contracted to become a dining room, theater, or gymnasium as need arises. Upstairs the assembly halls are also frequently called upon to do double duty. In planning the Sunday school great care was taken to embody the latest ideas of leading educators, and for the classrooms a small unit, based on public school practice, has been adopted. This arrangement has been found to be most satisfactory, and costs but little more since each child must have 15 sq. ft. of space no matter how it is apportioned.

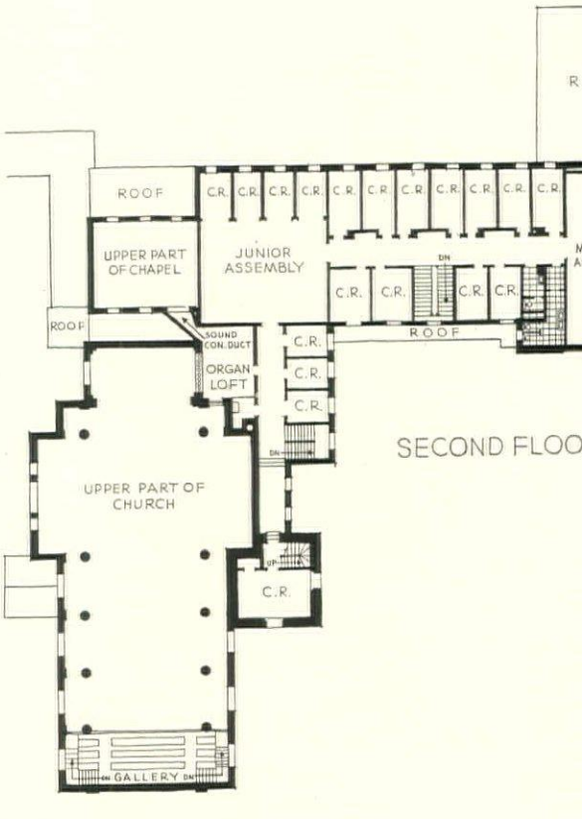
The church exterior is faced with a pleasant warm-colored local stone, and the quoins are from the remains of a church that had burned down some years before. These and other economies made it possible to build the church for $422,800, a cost of approximately 60 cents a cubic foot.

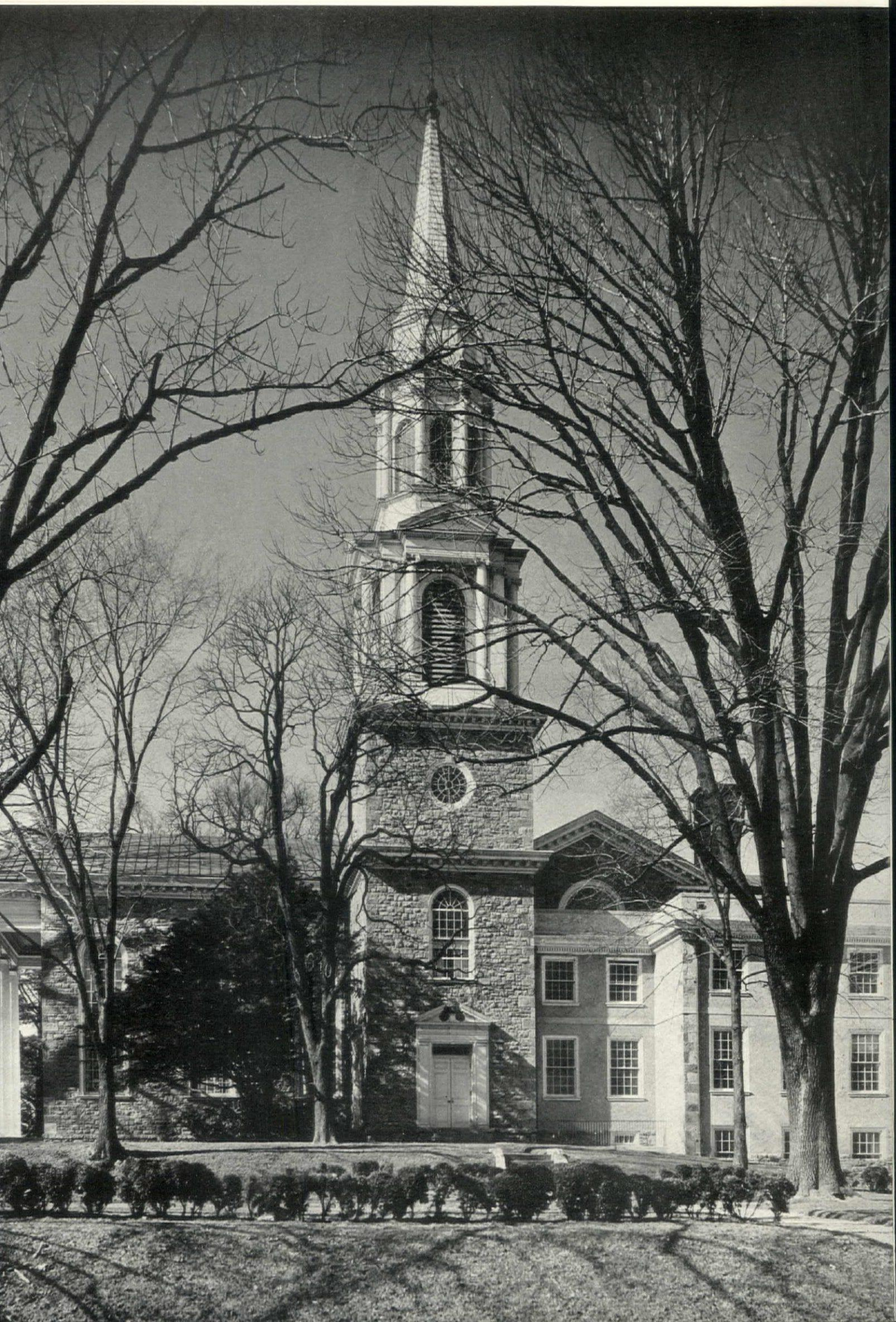
Between this church and the church of St. Joseph in Hindenburg which follows immediately in this issue, the contrast is startling to say the least. At first glance one might classify the American structure as Colonial, the German as Modern, and let it go at that; further examination of the plans discloses a rather paradoxical situation. The thoroughly contemporary appearance of St. Joseph's is due primarily to its straightforward acceptance of modern structural methods; its plan, an expression of liturgical requirements that have remained unchanged for a millennium, is not essentially different from those of many 11th Century churches. For the plan of the First Presbyterian Church, on the other hand, there is no recognizable precedent earlier than the 20th Century. Its many functions, social hall, gymnasium, nursery, theater, game room, kindergarten, dining room, classrooms, assembly halls, and offices, are recent developments representing a conception of a church vastly different from that of the early American churches which were almost exclusively houses of worship.

All photos,

EXTERIORS



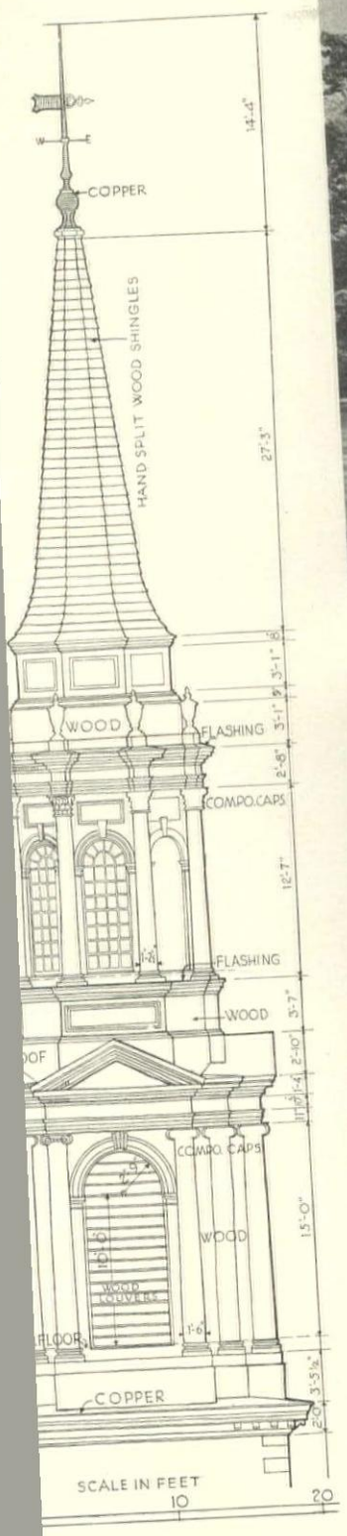




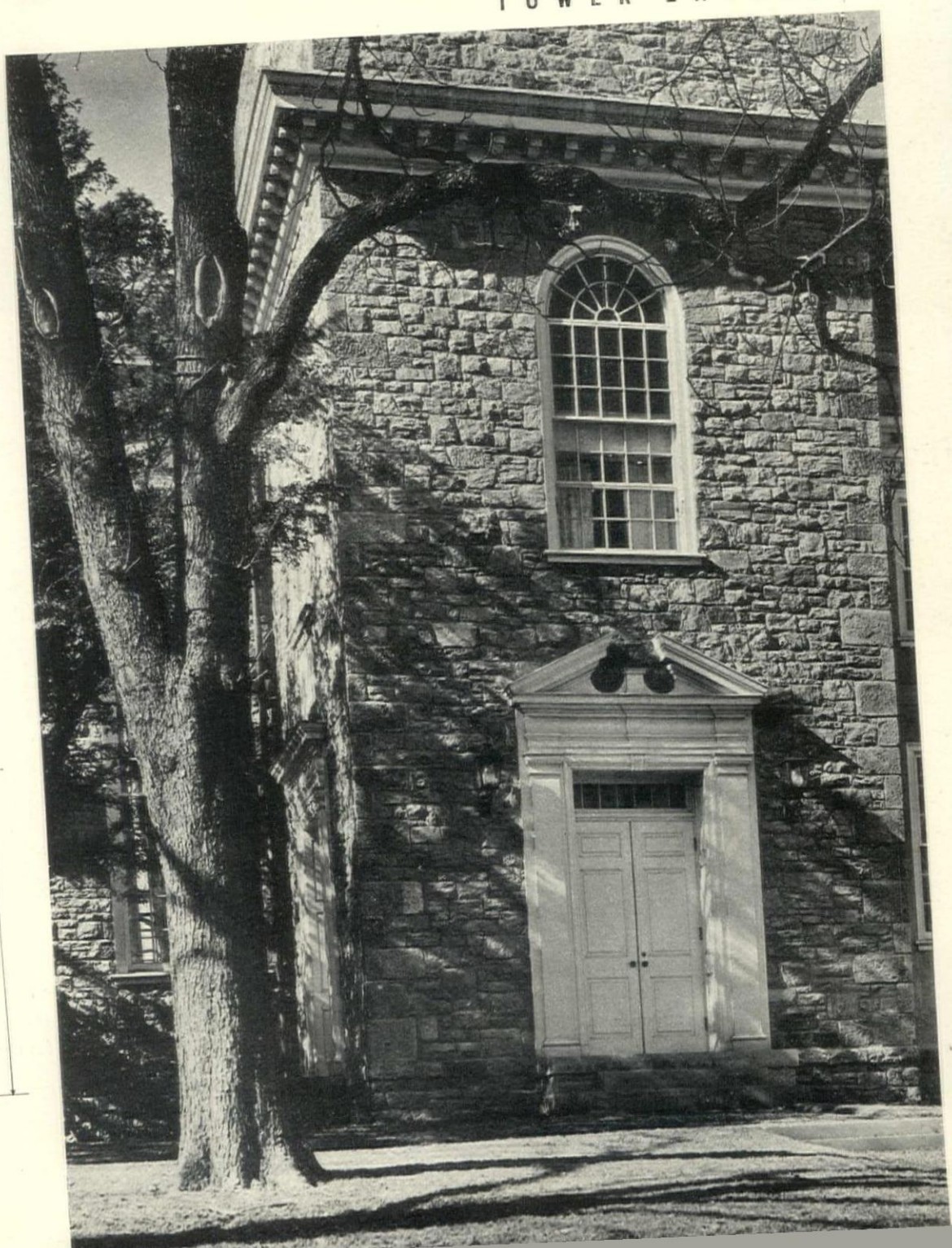
FIRST PRESBYTERIAN CHURCH

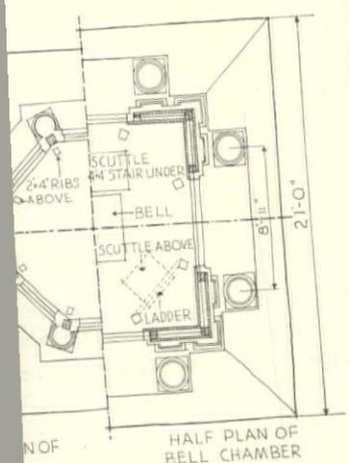
ROCHELLE, N. Y.

RECTORY



TOWER ENTRANCE

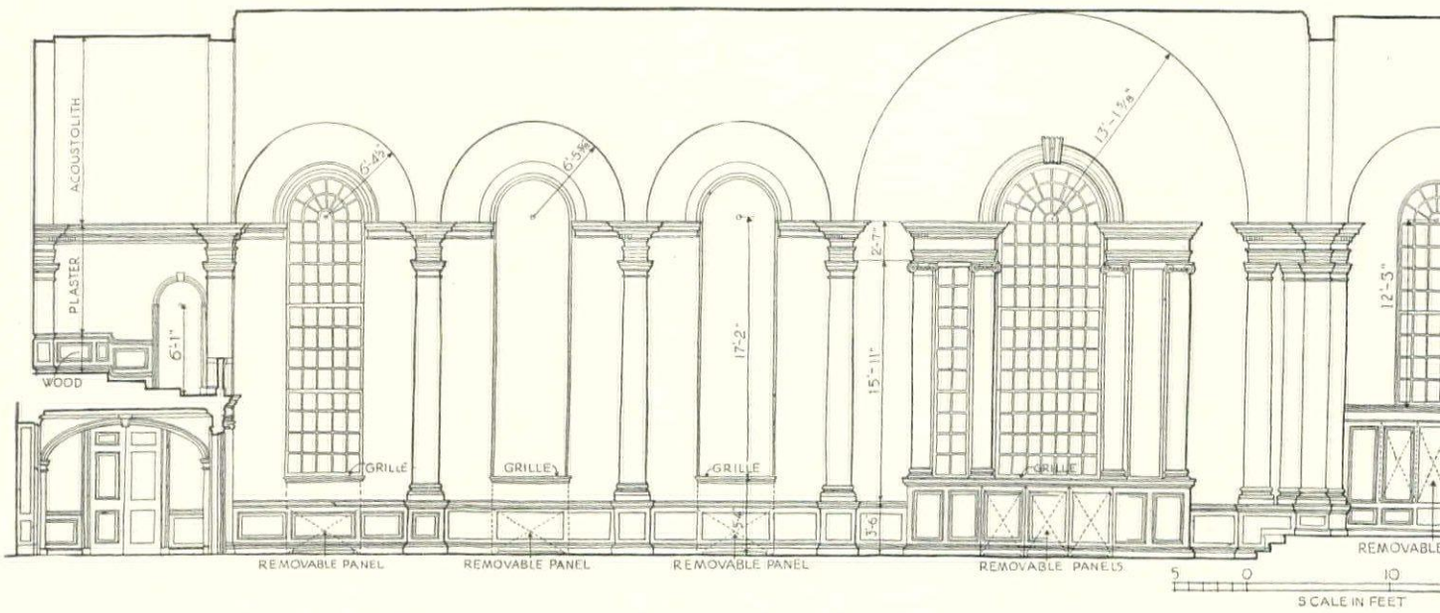




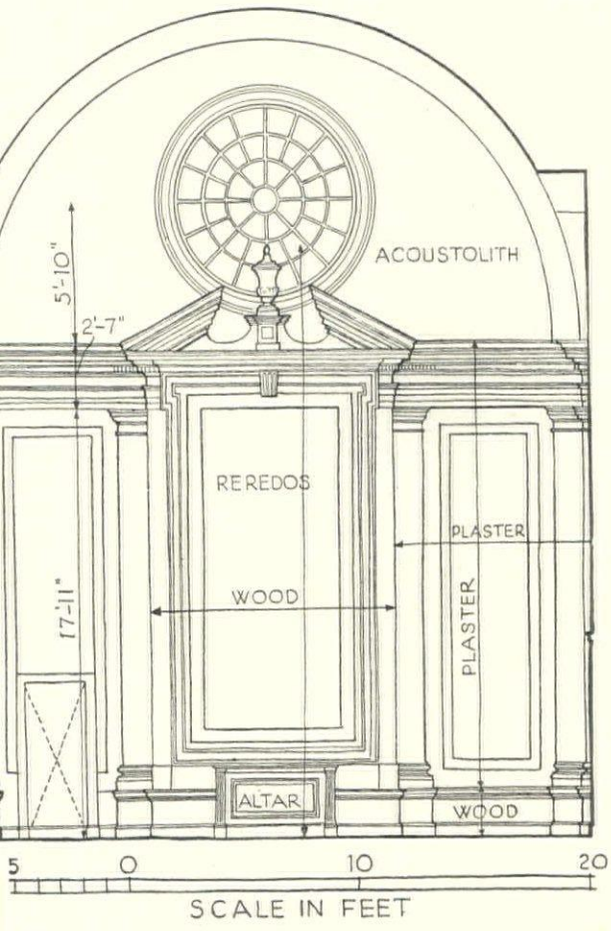
HALF PLAN OF BELL CHAMBER

FIRST PRESBYTERIAN CHURCH

ALTAR



Colonial motives are combined with skill and taste in the interior of the church, and an effect of quiet dignity has been obtained by spar use of ornament and the repetition of simple forms. More than any other part of the building, this severe white room satisfies the pres day desire for clean forms, openness, and light. The use of stained glass windows, a most uncommon feature in this style, gives warmth color to the interior.

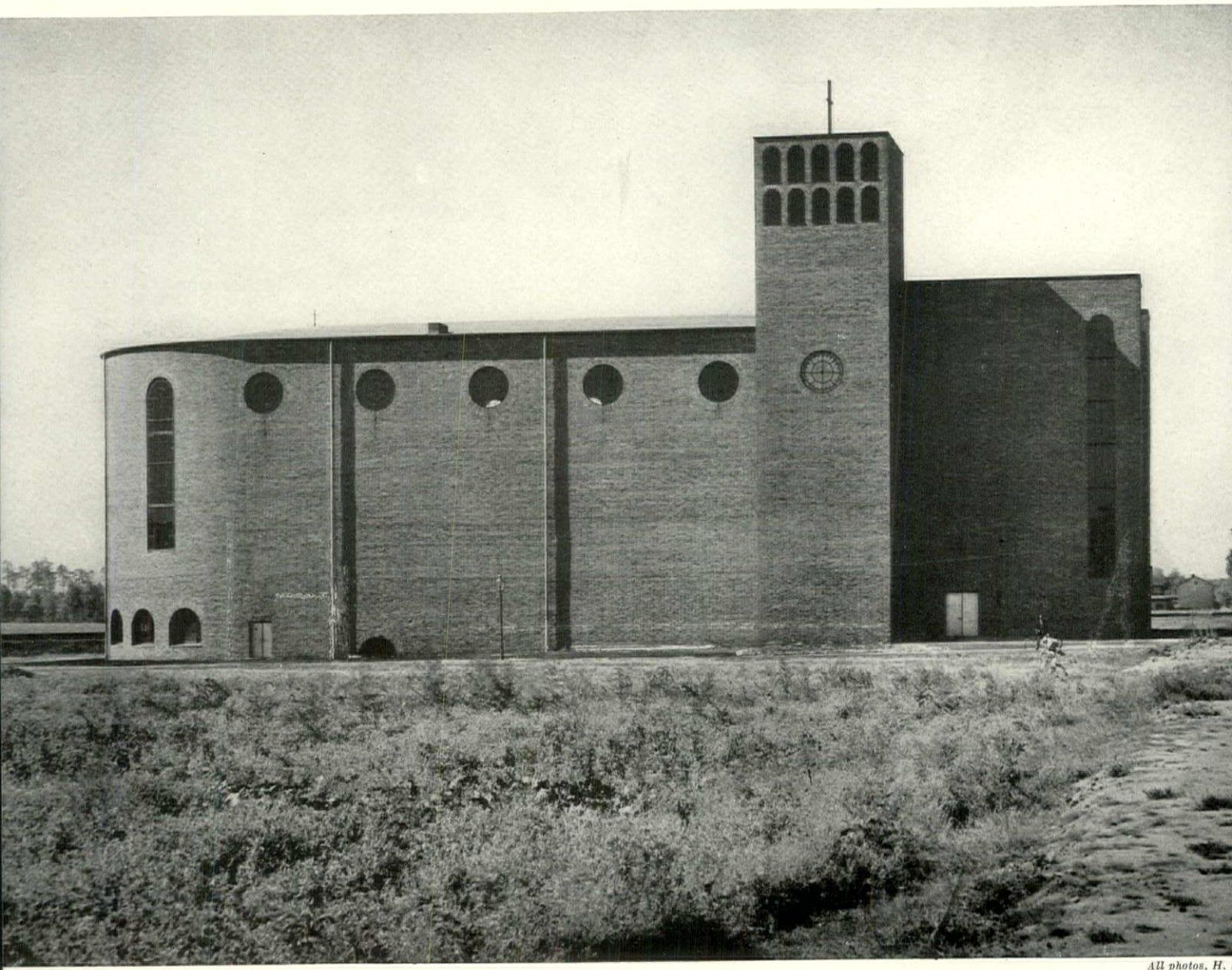

ACOUSTOLITH
5'-10"
2'-7"
REREDOS
PLASTER
WOOD
17'-11"
PLASTER
ALTAR
WOOD
5
0
10
20
SCALE IN FEET

FIRST PRESBYTERIAN CHURCH

NEW ROCHELLE, N. Y.

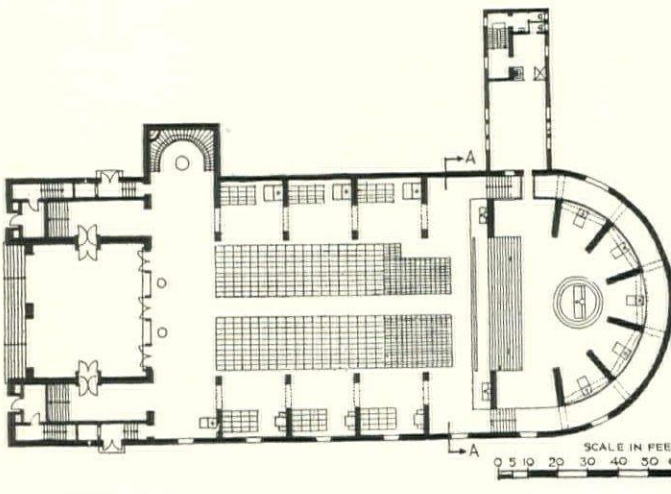
ST. JOSEPH'S CHURCH, HINDENBURG, GERMANY

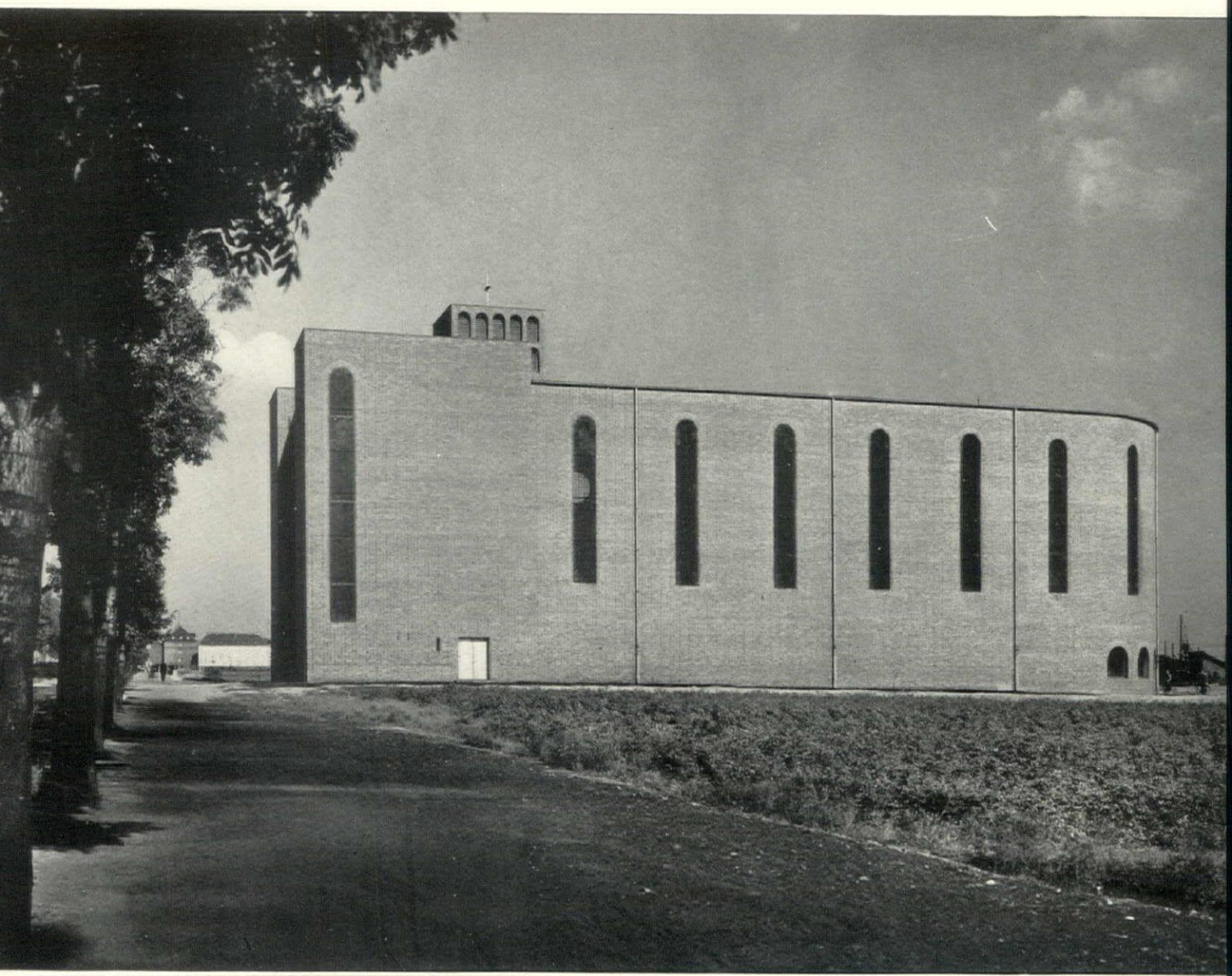
DOMINIKUS BÖHM, ARCHITECT

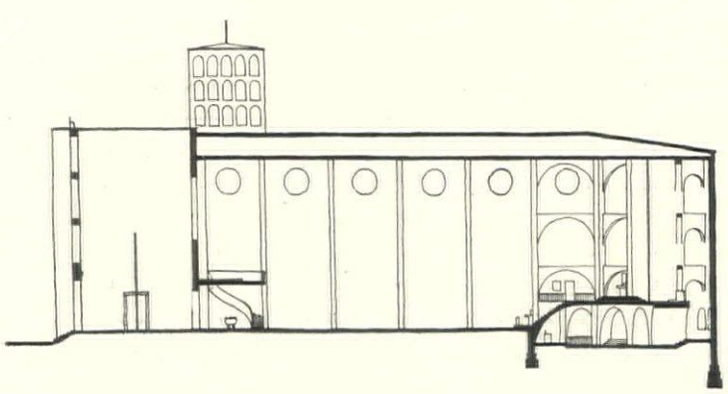


All photos, H.

Little more than a decade has sufficed for Germany to demonstrate that the church of today is still a problem for the architect, not the archæologist. Church after church has been built, each employing forms consistent with modern construction, all possessing to a marked degree the sincerity and deeply religious atmosphere heretofore associated exclusively with ecclesiastical buildings of the past. Latest in this notable series is the church of St. Joseph, a massive brick shell enclosing a single space where all is subordinated to the one immemorial purpose of the church: worship.







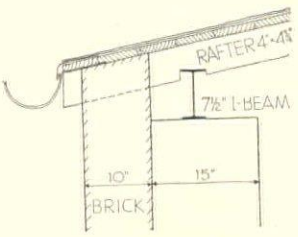
The present isolation of the church will be of short duration, as four- and five-story dwellings have been planned for its immediate surroundings. Structural members are set inside the thin walls, for only on the interior will their effect be appreciated. The long windows on the south side are in effective contrast to the circular openings in the opposite wall. This arrangement makes for clearly directional lighting, at the same time conveying a strong feeling of the traditional orientation of the Catholic church.

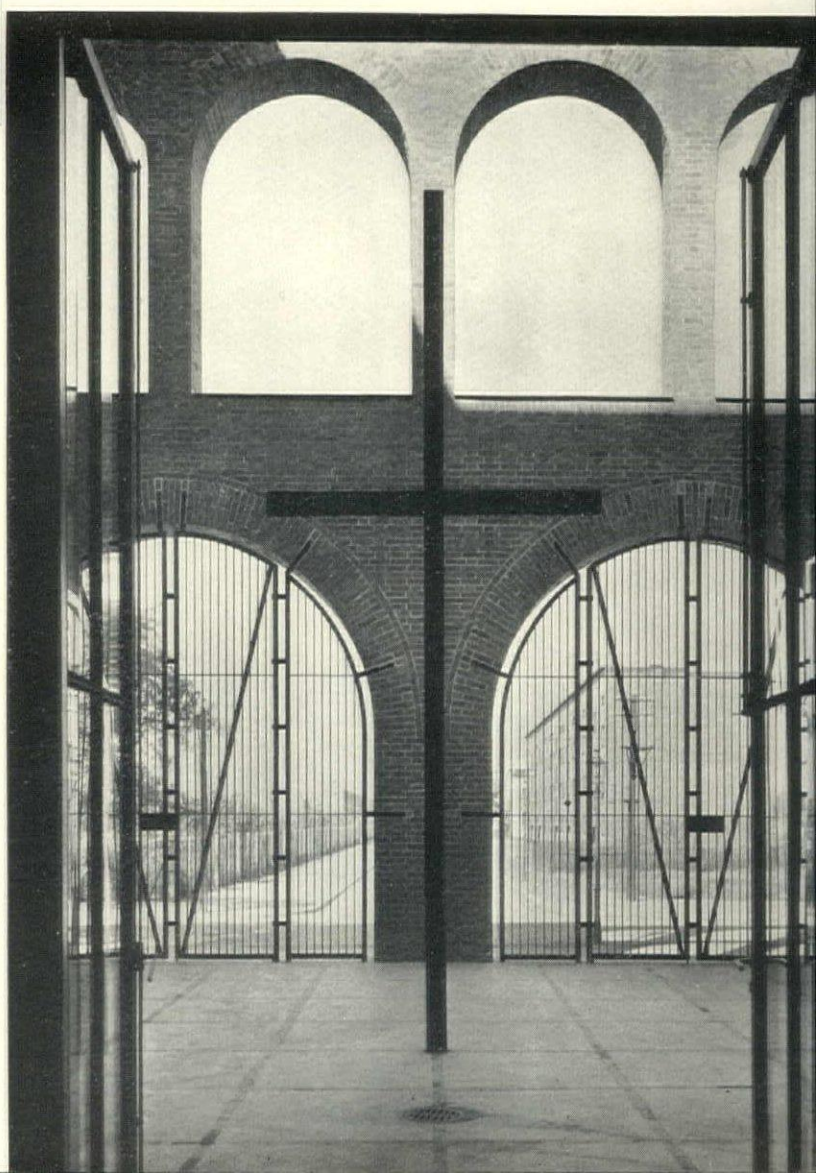
ST. JOSEPH'S CHURCH

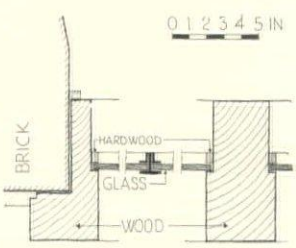
EXTERIOR

With extraordinary skill the architect has employed every means at hi disposal to emphasize the mass of the church. By placing piers on th central axis instead of the usual openings, by keeping the entire facad at the same height, and by moving the side doors off the centers of th towers, he created a design which the eye must take in as a whole be cause there is no focal point where it can rest. Most notable is the fin unity of scale between the slender cross, entrance, and rose window Religious fervor responds to the solemnity of this simplicity, and th emotional appeal of the ritual achieves new heights in the absence o elaborate architectural motives and ornamentation.

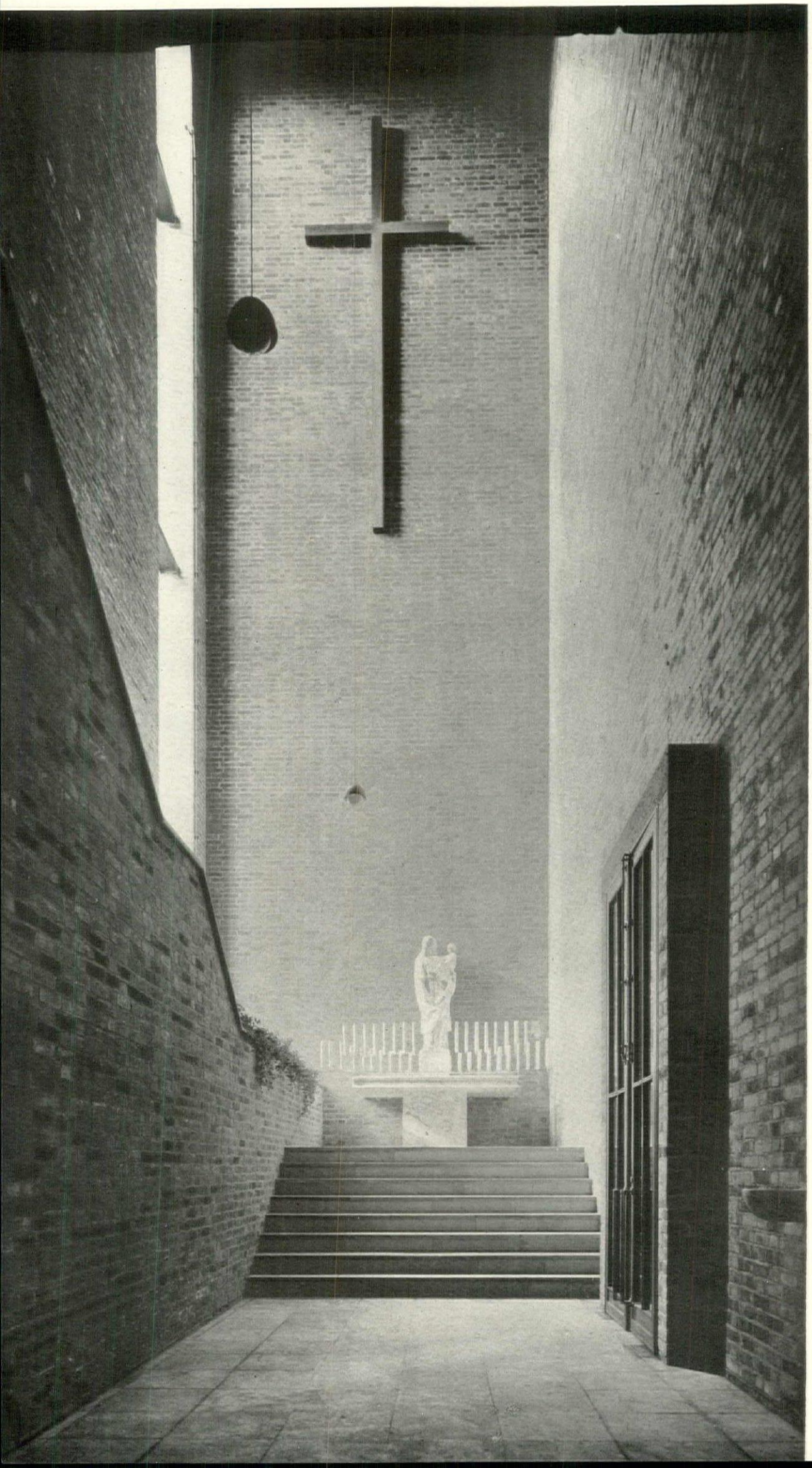
THE ATRIUM

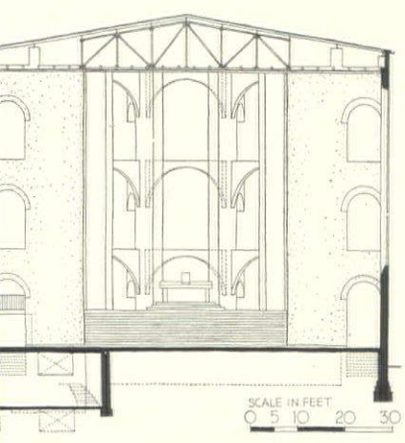

RAFTER 4"-4½"
7½" I-BEAM
10"
15"
BRICK




0 1 2 3 4 5 IN
BRICK
HARDWOOD
GLASS
WOOD

ST. JOSEPH'S CHURCH

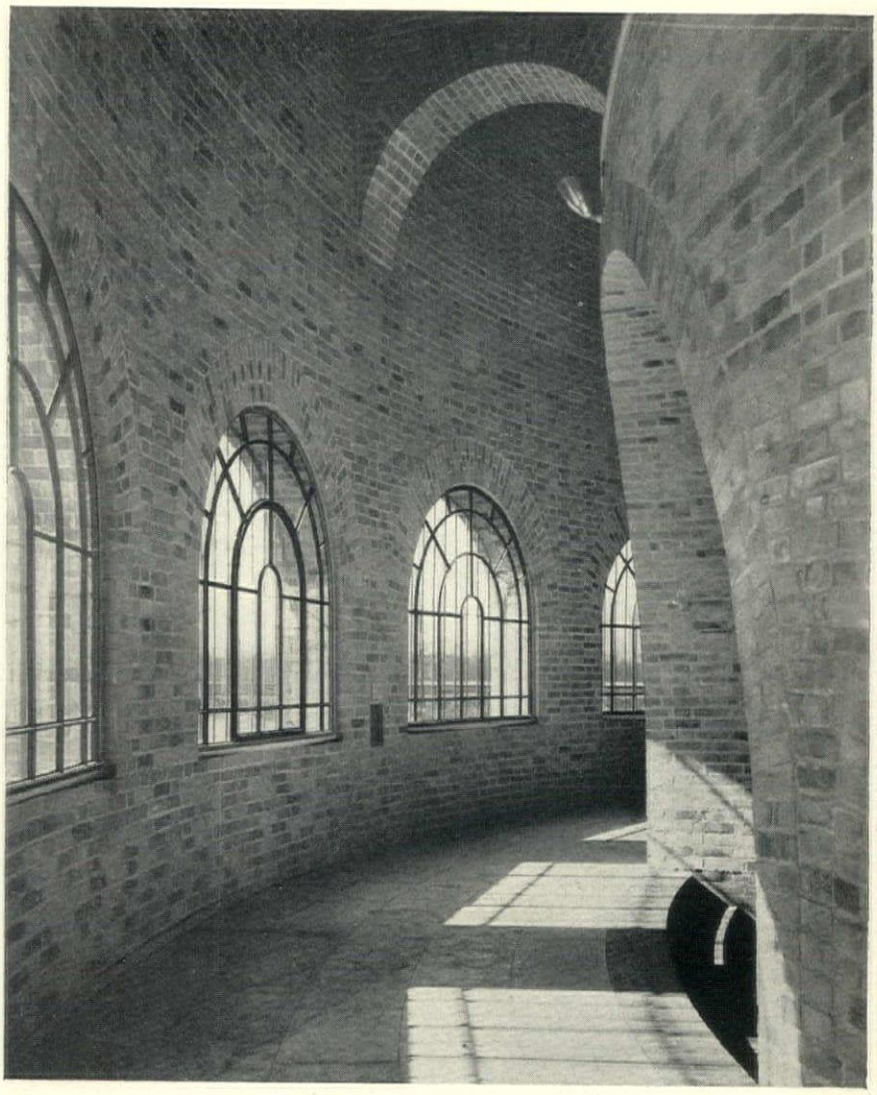




These two interiors demonstrate that church architecture need not be traditional, nor is there any necessity that architecture be "international" to be modern. In the Lady Chapel the dramatic possibilities of the tower interior have been superbly realized.

ST. JOSEPH'S CHURCH

AMBULATORY



AISLE

ST. JOSEPH'S CHURCH

The church is characterized by the simple, honest use of good materials; brick, wood, and metal are fittingly employed in appropriate forms. These three stone seats illustrate this attitude. For a parallel to the sensitive feeling for material achieved by the carving of the plain marble blocks, one must look back to the days of the early Renaissance.

LONGCHAMPS RESTAURANT

CHANIN BUILDING, NEW YORK

LOUIS ALLEN ABRAMSON, ARCHITECT

NEW EXTERIOR

Standard Flashlight Co., Inc.

For two years a restaurant in the basement of the Chanin Building at Lexington Avenue and 42nd Street, New York City, with entrance only from the building arcade and from the subway level, languished with no customers and no profit. And yet within a four-block radius more than 12,000 executives maintain their offices. When Longchamps leased the space for its seventh Manhattan restaurant it sought an architect who could solve the problem of bringing customers in and conquering their aversion to dining in a basement. Mr. Abramson's successful solution included the acquisition of two street level stores and their conversion into a main entrance and cocktail bar. Thus the more valuable street level space serves chiefly as an appetizer with which to lure patrons down an unusually large stairway to the larger (and lower rental) basement room. To attract transient trade the entrance is accentuated with black Carrara glass and a bronze marquise with illuminated soffit.

Standard Flashlight Co. Inc.

STAIRWAY TO BASEMENT DINING ROOM

The stairway is directly opposite the revolving doors of ton Avenue entrance and is so mirrored as not only to a than it is but also to afford entering patrons a reflecte large part of the basement dining room. This treatment a illusion of removing the dividing floor lines. The central the dining room, where Longchamps exhibits its much fresh vegetables, is built into a platform to make it a fo attraction. Mirrors are again used to mask the varying basement's structural columns.

D

STAURANT LONGCHAMPS NEW YORK

nd after from nearly the same

Drix Duryea, Inc.

Drix Duryea, Inc.

EMENT DINING ROOM

Drix Duryea, Inc.

LONGCHAMPS

THE MAIN BAR

The atmosphere of the cocktail lounge was purposely kept light to contrast with the prospect of more substantial dining downstairs. The shape of the bar was determined by the form of the stairwell opening; the bar and well follow the same pattern. The Louis XIV Lords and Ladies in red, yellow and gold are by famed Winold Reiss.

Drix Duryea, In

COLUMBIA BROADCASTING STATION

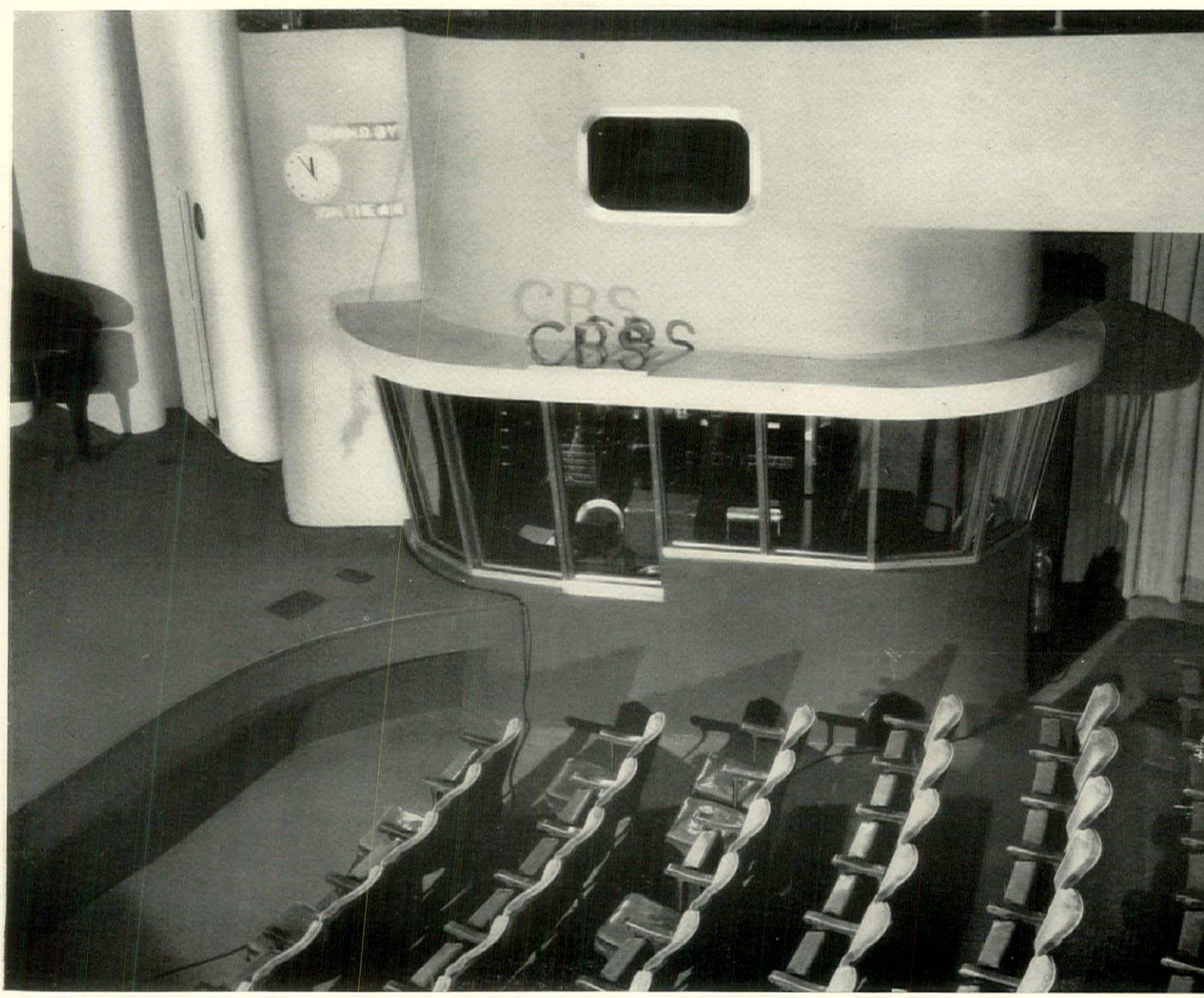
NEW YORK

WILLIAM LESCAZE, ARCHITECT

All photos, Underwood & Underwood

Soon after the Columbia Broadcasting System embarked upon its unparalleled career of expansion, the need for a studio in which to seat large audiences became pressing. The obvious thing to do was to spend a lot of money and build one. But CBS is rarely extravagant and never obvious. Combing the theater district, where there was a practically unlimited choice of empty houses, they leased one, re-christened it the CBS Radio Playhouse. Remodeling was necessary and Architect Lescaze was called in to effect the necessary changes with a minimum of expense. His solution is shown on this and the following page. Two units were erected on either side of the proscenium, one for control, the other for clients. Work was simplified by the fact that there were boxes only at the balcony level; the space below was clear. The units were built of plywood and compo board, with double windows set in metal frames, slanted to improve visibility. Extensions of the units cover the lower part of the proscenium arch, and connect them with the front of the balcony, both most ingenious arrangements which give the impression that considerably more remodeling has been done than was actually the case. Screens designed to correct acoustical defects, set around and above the stage, complete the changes made. The clean, modern effect seems admirably suited to radio, the new "art" which sometimes tries so hard to take on an elfin Hollywood spirit, which architecturally, at least, is something rarely to be emulated.

COLUMBIA BROADCASTING STATION



FORD BUILDING

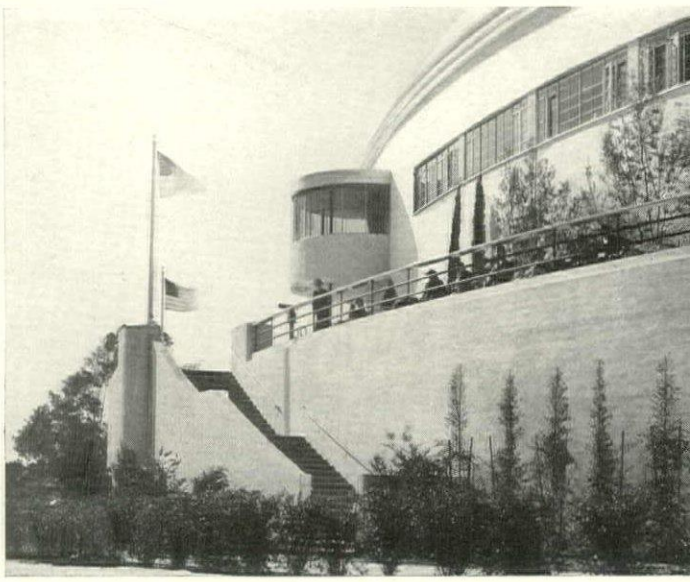
CALIFORNIA-PACIFIC-INTERNATIONAL EXPOSITION

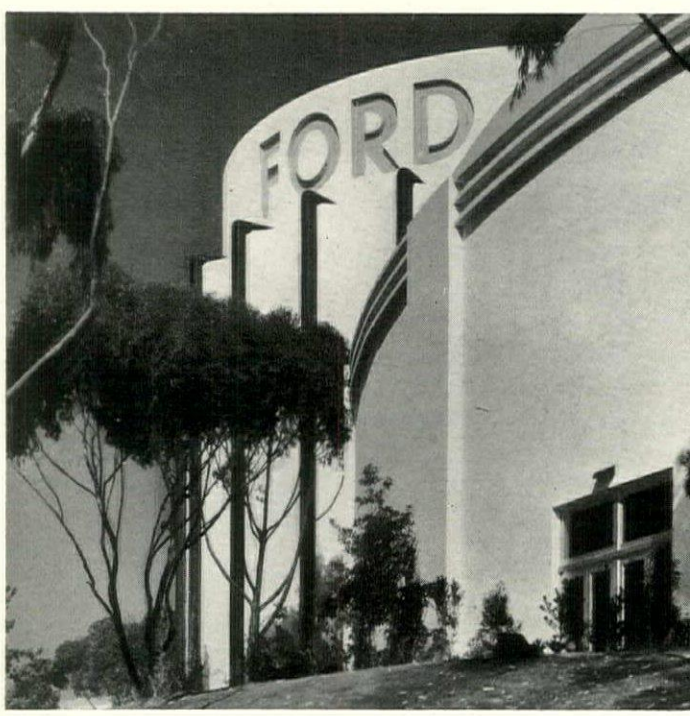
WALTER DORWIN TEAGUE, DESIGNER

RICHARD S. REQUA, ARCHITECT

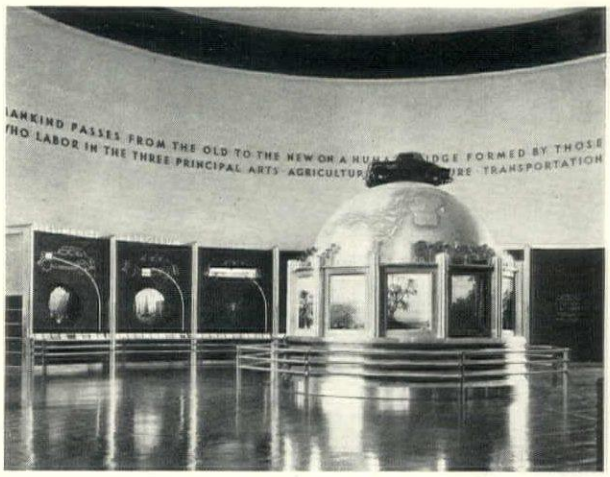
When the first Century of Progress Exposition burst upon Chicago its 36,626,546 visitors divided their automotive attention between General Motors and Chrysler. Mr. Ford was not caught napping when the second edition followed a year later. So successful was this venture in three-dimensional publicity that exhibitions now form a major activity in the Ford scheme of advertising. The present building not only reflects the lessons learned at Chicago, but establishes an admirable pattern for industrial exhibits which are gaining great popularity throughout the U.S.

FORD BUILDING

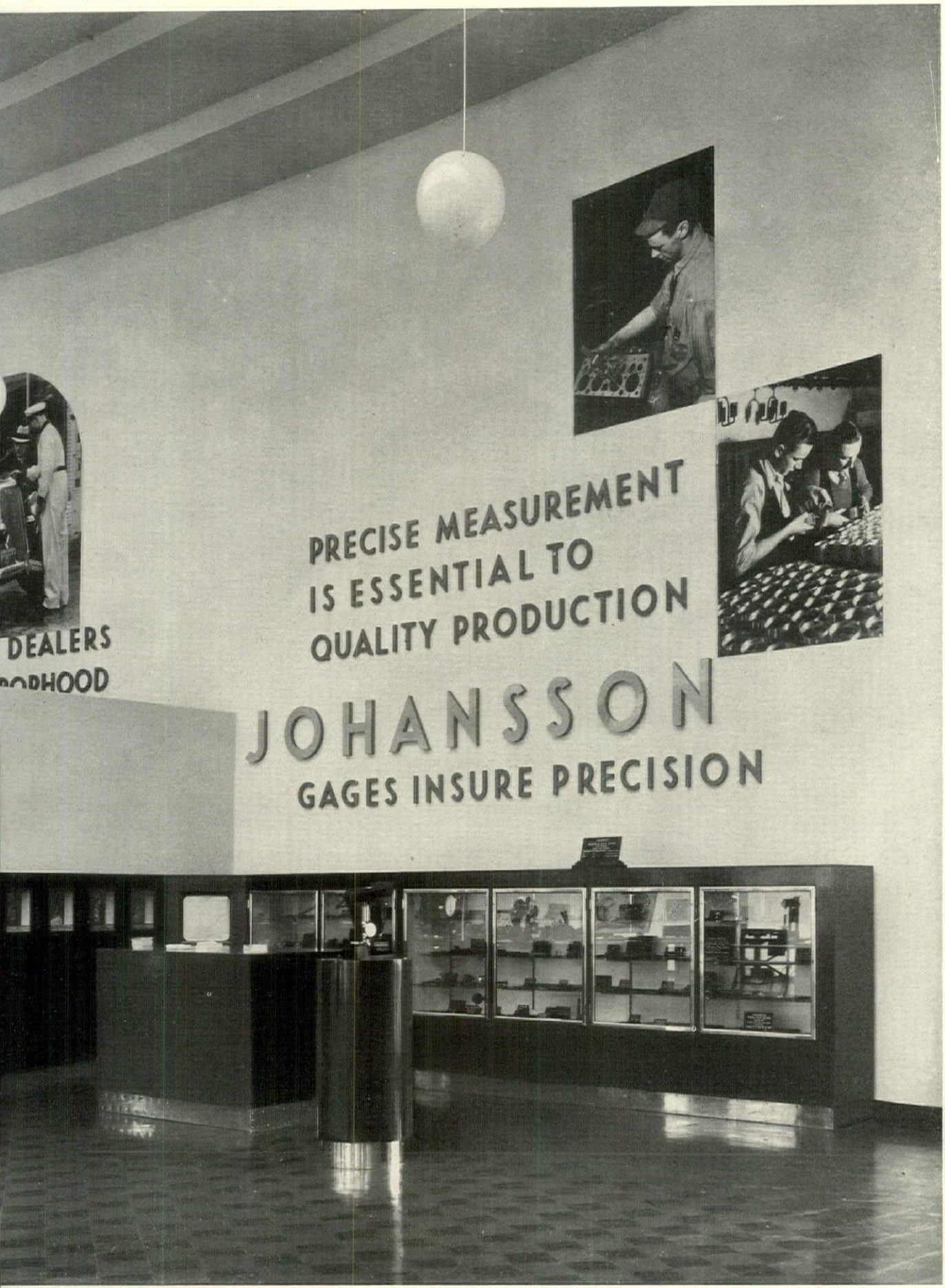




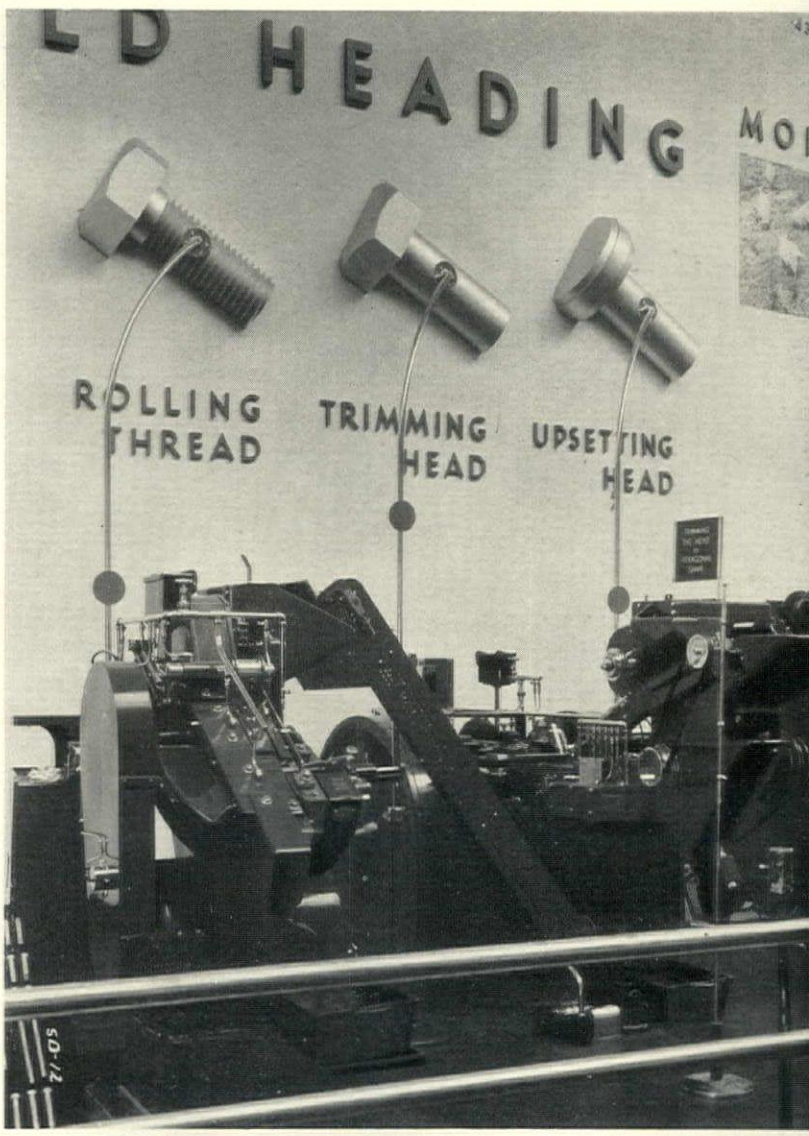
The exterior of the Ford Building expresses its function: thin curving planes, agreeably white against the California sky, indicate the long unbroken wall spaces of the interior. On the rotunda the sharp edges of the flutes are blunted by blue vertical reflectors which cover them, an unconventional treatment which emphasizes the lightness and temporary character of the construction. A long terrace across the back of the building provides resting visitors with a fine view of the city and San Diego Bay. Within the rotunda are set dioramas which show the Ford in use in the lands bordering the Pacific, and illuminated diagrams describing with admirable brevity the various products used in the cars, and their locations. The plan of the exhibitions beyond the rotunda is in the form of a ring; here the purpose is to create a continuous and dramatic presentation of Ford products and processes. Main cause for discontent with the Chicago exhibit was that the great hall could be entered from either end, a situation which rendered impossible anything but a random display. This disadvantage was overcome in the San Diego building: the visitor is directed to the first of the exhibition halls, follows through a logical sequence of exhibits, and ends where he began, in the rotunda.


ANKIND PASSES FROM THE OLD TO THE NEW ON A HUM IDGE FORMED BY THOSE
WHO LABOR IN THE THREE PRINCIPAL ARTS AGRICULTUR URE TRANSPORTATION

John T. Moss



This illustration shows the procedure followed in all the exhibits. Display cases or machines are set on the floor or wooden platforms. Above them is a large caption with photographs or diagrams. The advantages of this remarkably simple and rational technique are manifold: an exhibit is always effective even when crowds hide the floor displays; if a process cannot for one reason or another be adequately demonstrated by the machine (for example, welding), supplementary photographs can be used to illustrate the more complicated and bulky operations. The captions make for instant comprehension, and consequent interest.

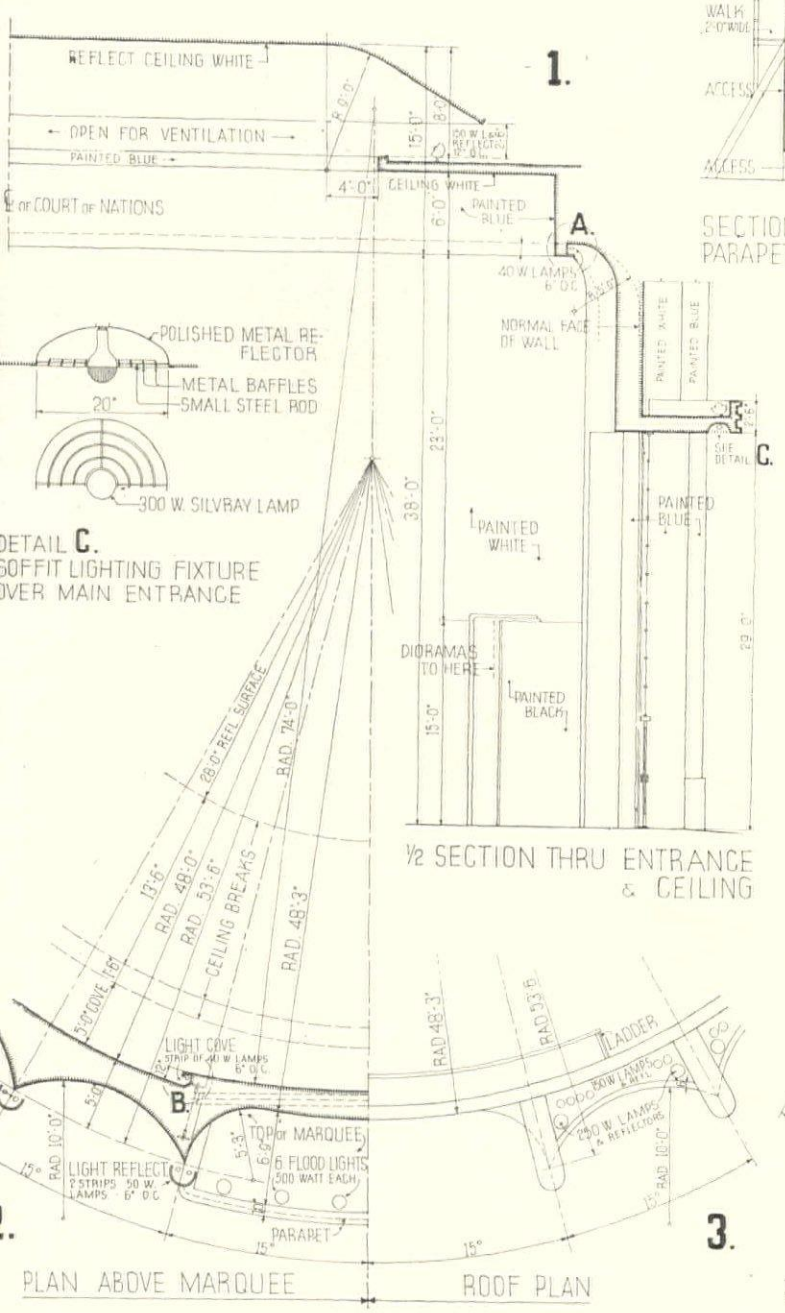


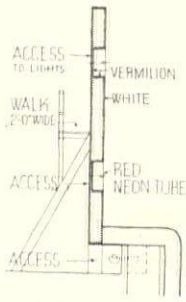
When an operation is too large to display in the exhibition hall, s body welding, it can be shown pictorially on the wall. When is too small in scale to be seen by a crowd of people, as in the llustration on the right, the same technique holds good. Large odels of the bolt show instantly what the machines are doing.

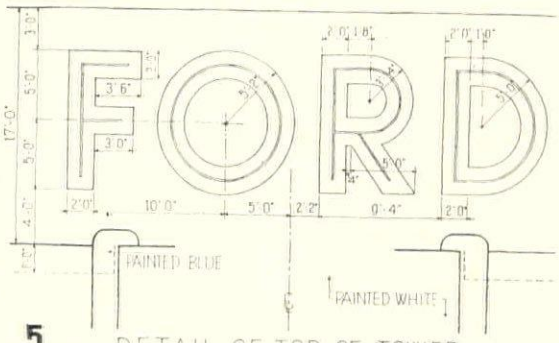
Two features of the Ford building combine to make it an outstanding piece of exhibition design. First already described, is the use of the walls. The enormously increased effectiveness of the exhibits due to this method may be seen at a glance from the illustrations on this and the preceding pages. Particularly worthy of study is the use of captions: one word whenever possible, identifies the exhibit below; a dozen more tell the story. Second of the noteworthy features is the plan. The superiority of the curved or interrupted axis for exhibition use is well known rarely taken advantage of. Here the curved walls give a sense of flow to the succession of displays which is very agreeable, but at the same time the spectator's attention tends to be concentrated on the exhibits at hand because they cannot see very far ahead. The impossibility of forming an accurate estimate of how much lies ahead also tends to lessen fatigue. (Anyone who has visited the Louvre and similar museums in Europe is familiar with the feeling of exhaustion brought on by the sight of seemingly endless halls. Between the first and second exhibition halls the visitor can go out on the terrace or into the patio to rest.

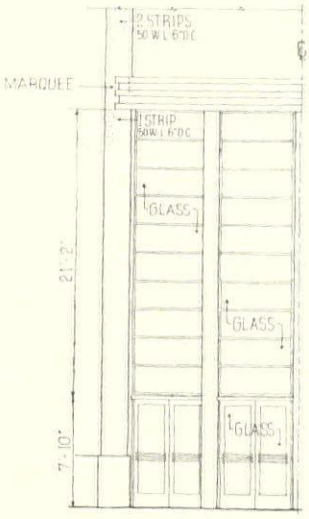
The color scheme is the same as was used in Chicago: white, two tones of blue, and vermilion for accents. Machinery is dark blue, the floor is in two tone blue composition tile, and walls are white. Large letters in the captions are faced with satin-finished chrome, others are red.

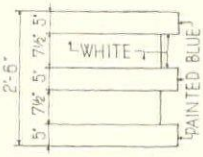
When the Ford Company began using exhibitions for advertising, Mr. Ford made only two stipulations "Show them how it is done," and "Have plenty of places to sit down." Much of the success of this latest exhibition may be attributed to the thoroughness with which it fulfilled these two all-important requirements.

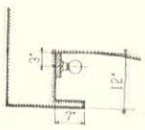

REFLECT CEILING WHITE
OPEN FOR VENTILATION
PAINTED BLUE
CEILING WHITE
PAINTED BLUE
A.
40 W LAMPS 6" O.C.
NORMAL FACE OF WALL
PAINTED WHITE
PAINTED BLUE
SEE DETAIL C.
PAINTED BLUE
PAINTED WHITE
DIORAMAS TO HERE
PAINTED BLACK
POLISHED METAL REFLECTOR
METAL BAFFLES
SMALL STEEL ROD
20"
300 W. SILVRAY LAMP
DETAIL C.
SOFFIT LIGHTING FIXTURE
OVER MAIN ENTRANCE
1.
½ SECTION THRU ENTRANCE & CEILING
RAD. 74'-0"
RAD. 48'-0"
RAD. 53'-6"
CEILING BREAKS
RAD. 48'-3"
LIGHT COVE
STRIP OF 40 W LAMPS 6" O.C.
B.
TOP of MARQUEE
6 FLOOD LIGHTS 500 WATT EACH
LIGHT REFLECT 2 STRIPS 50 W. LAMPS 6" O.C.
PARAPET
RAD. 10'-0"
15°
PLAN ABOVE MARQUEE
RAD. 48'-3"
RAD. 93'-6"
LADDER
500 W LAMPS & REFLECTORS
RAD. 10'-0"
ROOF PLAN
3.

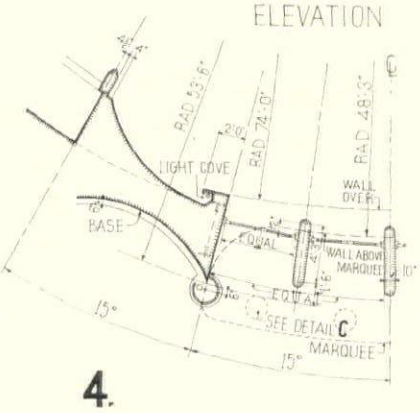

ACCESS TO LIGHTS
VERMILION
WHITE
WALK 2'-0" WIDE
RED NEON TUBE
ACCESS
ACCESS
SECTION THRU PARAPET WALL

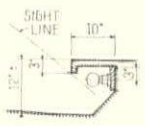

FORD
PAINTED BLUE
PAINTED WHITE
5. DETAIL OF TOP OF TOWER

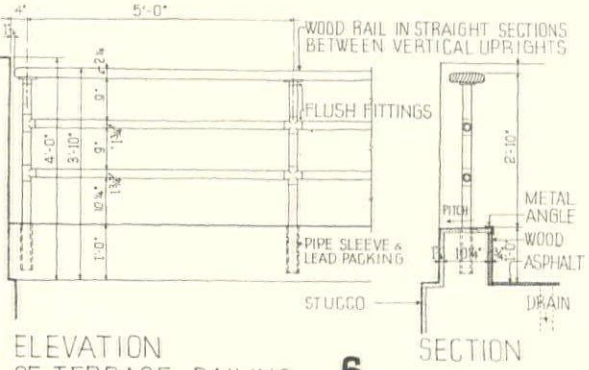

2 STRIPS 50 W L 6" O.C.
MARQUEE
1 STRIP 50 W L 6" O.C.
GLASS
GLASS
GLASS
ELEVATION

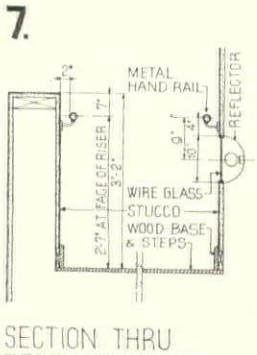

WHITE
PAINTED BLUE
DETAIL OF MARQUEE

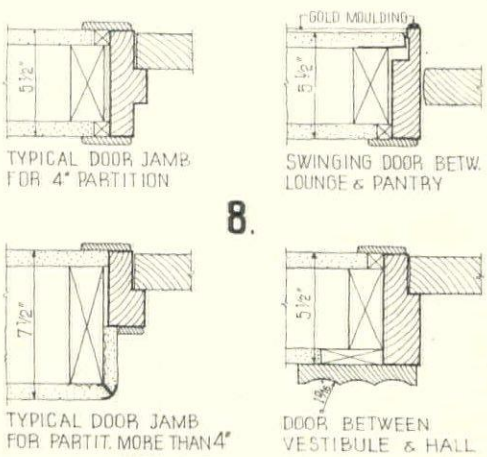

DETAIL A.

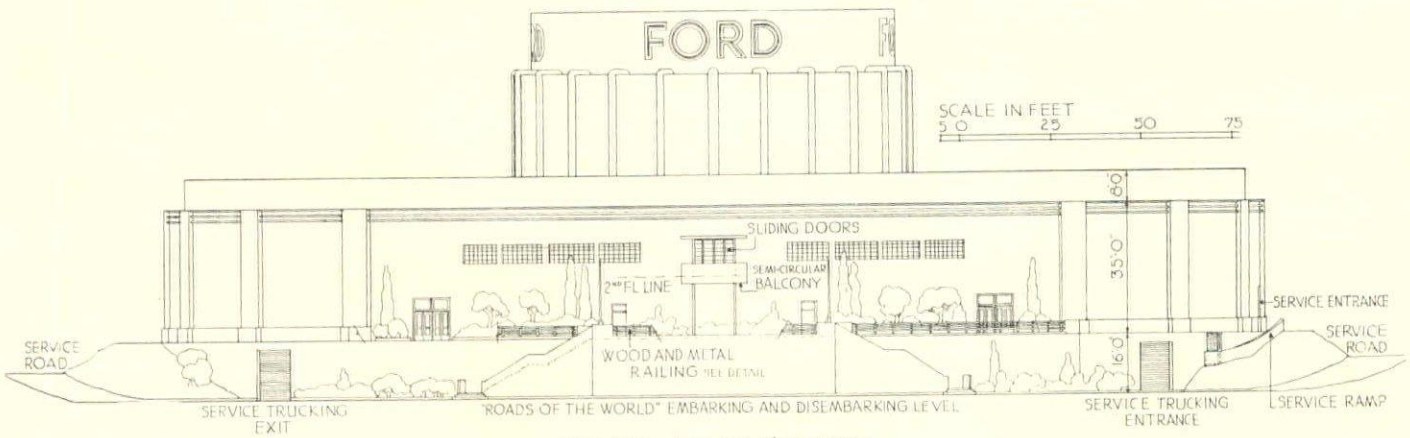

RAD. 53'-6"
RAD. 74'-0"
RAD. 48'-3"
LIGHT COVE
WALL OVER
BASE
WALL ABOVE MARQUEE
SEE DETAIL C
MARQUEE
15°
4.
PLAN OF MAIN ENTRANCE DOOR


SIGHT LINE
DETAIL B.

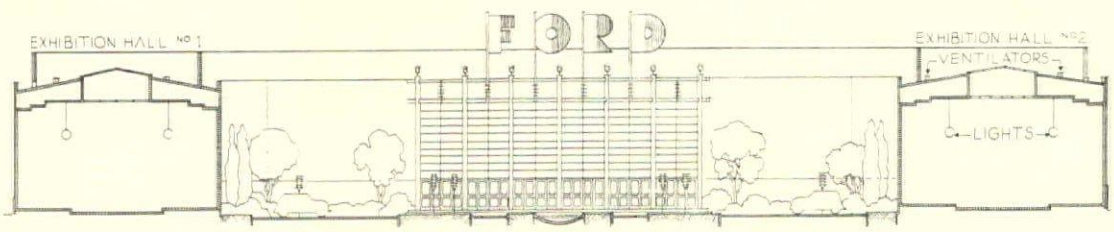

5'-0"
WOOD RAIL IN STRAIGHT SECTIONS BETWEEN VERTICAL UPRIGHTS
FLUSH FITTINGS
PIPE SLEEVE & LEAD PACKING
STUCCO
METAL ANGLE
WOOD
ASPHALT
DRAIN
PITCH
ELEVATION OF TERRACE RAILING
6.
SECTION


7.
METAL HAND RAIL
REFLECTOR
WIRE GLASS
STUCCO
WOOD BASE & STEPS
SECTION THRU TERRACE STAIRS

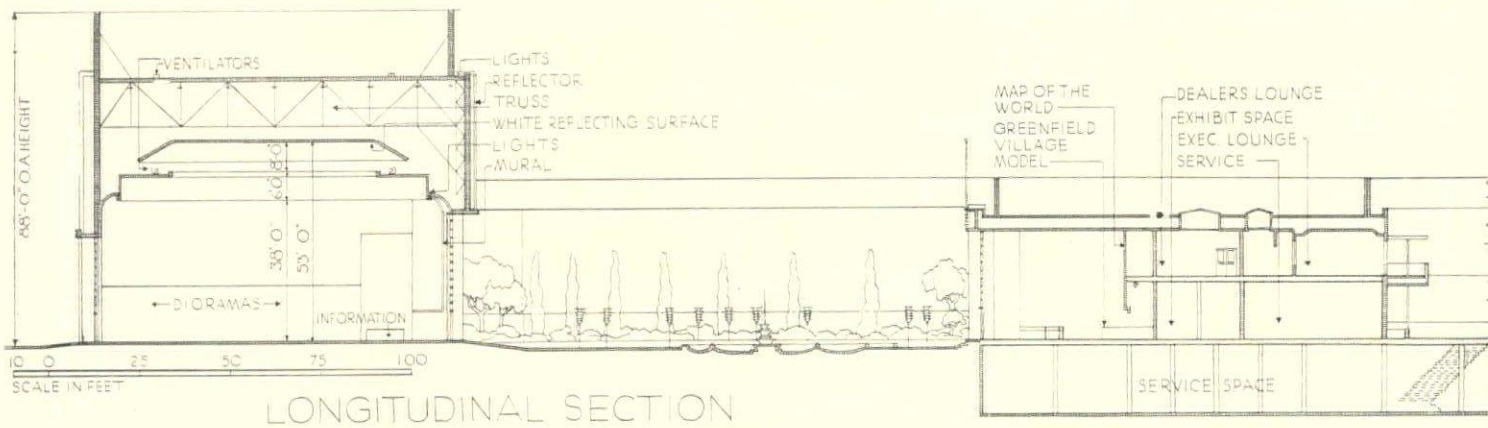

TYPICAL DOOR JAMB FOR 4" PARTITION
GOLD MOULDING
SWINGING DOOR BETW. LOUNGE & PANTRY
8.
TYPICAL DOOR JAMB FOR PARTIT. MORE THAN 4"
DOOR BETWEEN VESTIBULE & HALL



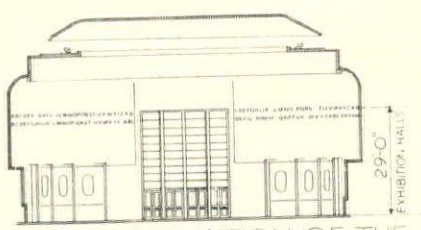
REAR ELEVATION



CROSS SECTION

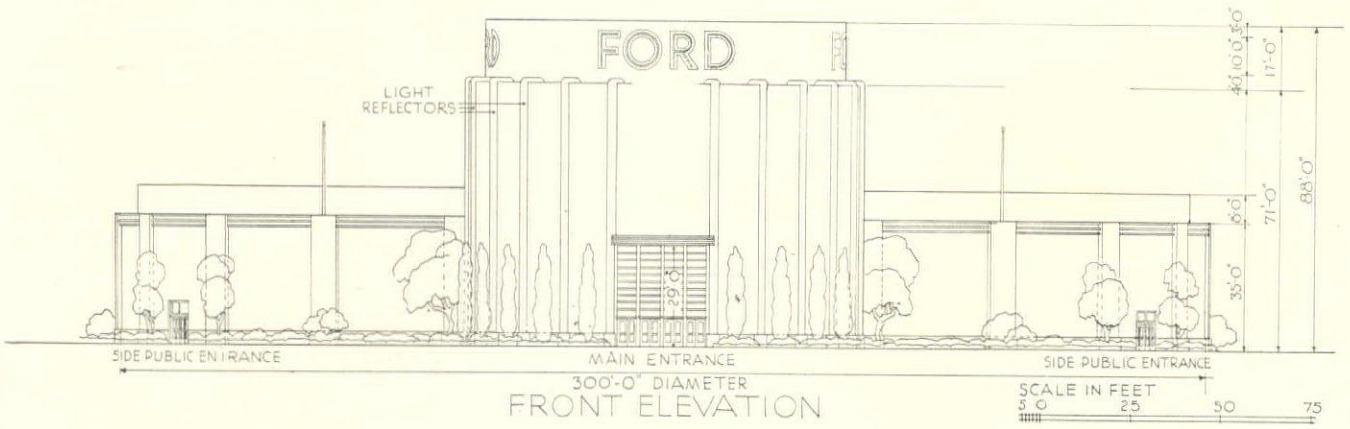


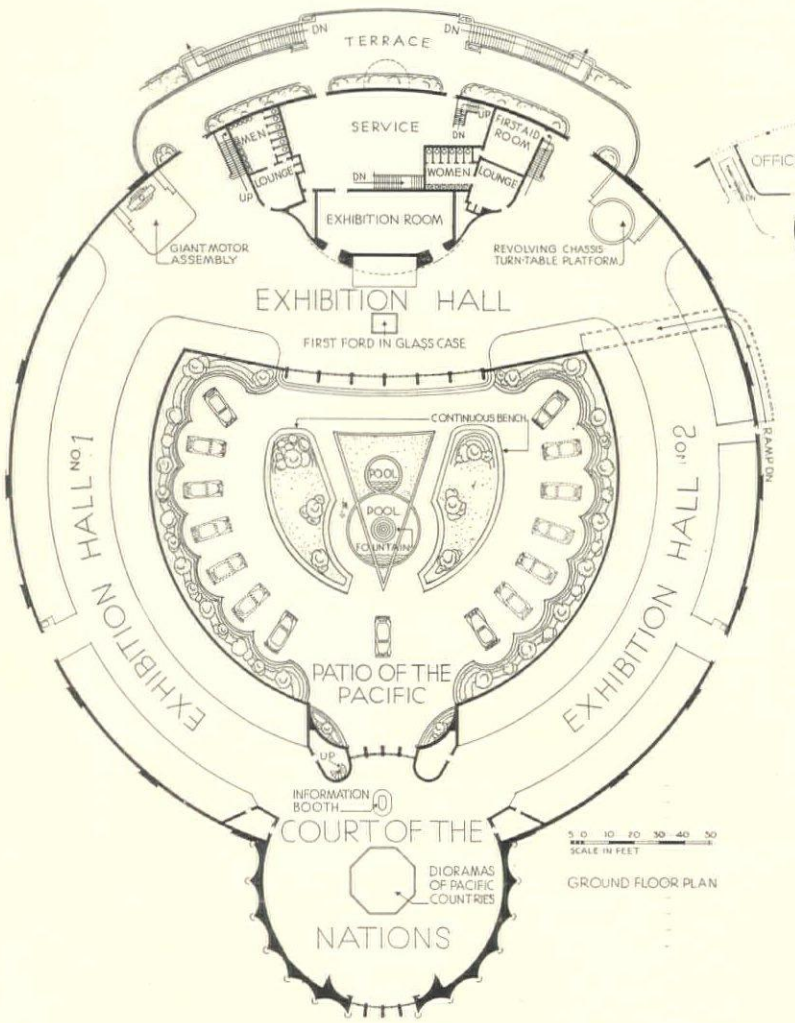
LONGITUDINAL SECTION

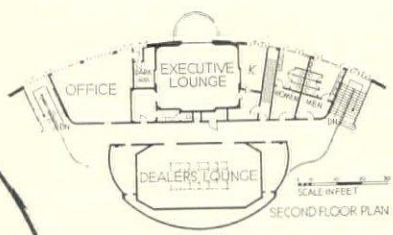


NORTH ELEVATION OF THE COURT OF THE NATIONS

Construction of the tower is steel throughout with the exception of the drum, which is of wood. In the exhibition halls steel columns and trusses are used, with wood studs. The exterior finish is stucco, laid on metal lath; inside the building the finish is plaster on rocklath. In the exhibition rocms walls and ceilings have two coats of acoustic plaster. Floors are of moultile on concrete in the rotunda and exhibition rooms; paving in the patio is flagstone, and on the terrace it is concrete slab with a cement finish. White metal where used in the building is satin-finish chrome.



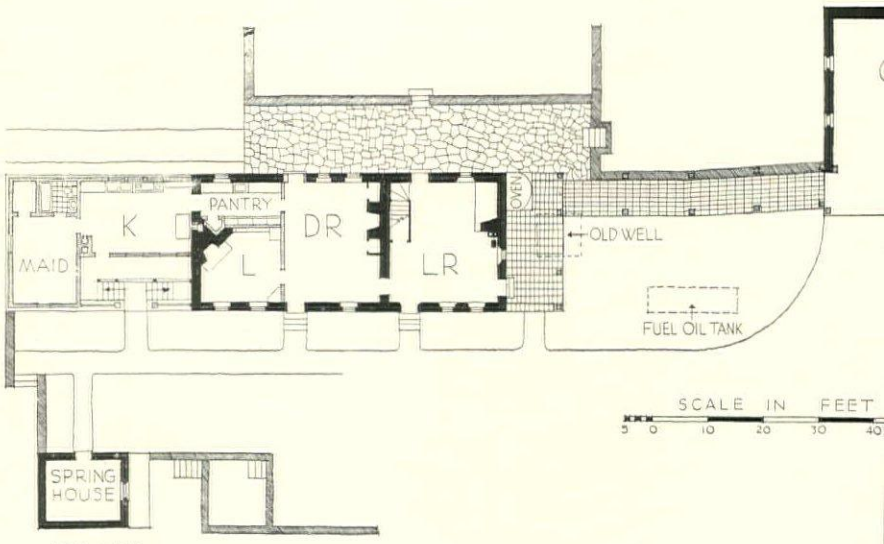




he Patio of the Pacific was designed primarily as a pleasant out-or court in which visitors might rest; here, however, as in the nainder of the exhibit, the quietly insistent advertising predomi-es. Around the edges of the court cars are placed, each in a little he of planting, against a strip of dark blue which forms the base the wall. According to Mr. Teague, reflections on cars are of re importance visually than the actual body contours, and they carefully considered in the design. In the Ford Building advan-e was taken of the southern California climate to set them out of ors where the reflections of sky, trees, and white walls show the dies to best advantage. Other examples of the ever-present adver-tising aim of the exhibit are to be found in the design of the pools, and the various decorative features of the facades. The plan of the building is notable for the ease of circulation, and for the large unobstructed floor areas. The curved axes of the two exhibition halls are stopped by the information desk in the rotunda, and by two large displays of a giant motor assembly and a Ford chassis in the rear of the building. Services are unobstrusively placed in the back, with washrooms and lounges easily accessible to visitors, and the offices on a floor above. On the curved wall which encloses the service unit is placed a large decorative map showing the loca-tion of Ford plants in various parts of the world.

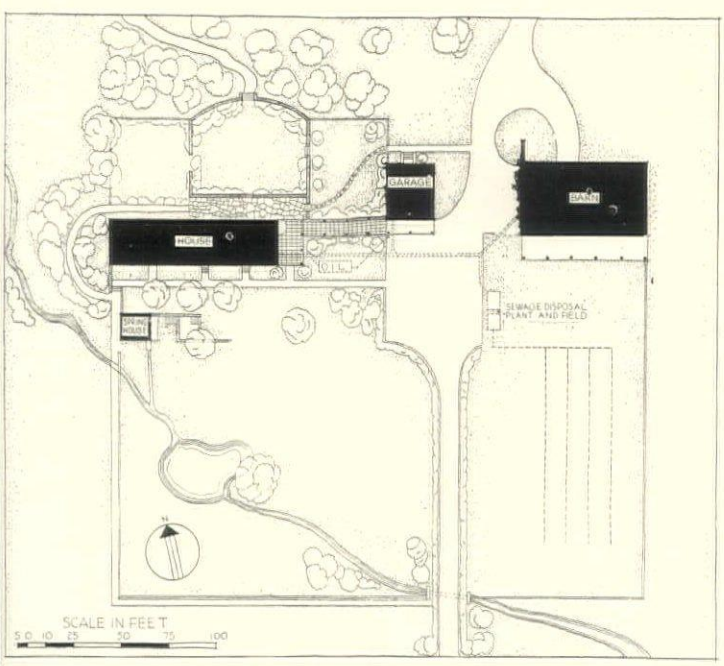
ALTERATION TO THE HOUSE OF H. P. BRIST

An old stone house, part of a farm group which has been unobtrusively transformed into a suburban estate. A service wing, with kitchen, maid's room, and bath was added, and modern equipment was installed in the house. New terrace walls were built in back of the house, and the gardens as they now are add considerably to the available outdoor living space. The other old buildings on the property, a spring house, the present garage, and a barn, have been repaired where necessary and incorporated into the group. Cost of alterations was about $25,000.



PLAN

OVEN

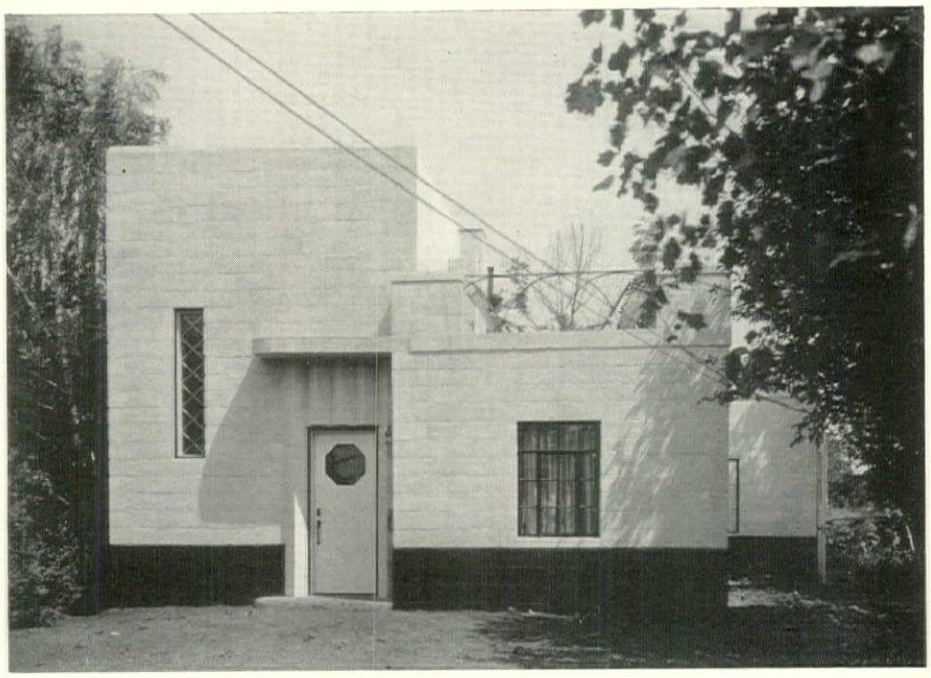


PLOT PLAN

A SMALL CONCRETE HOUSE

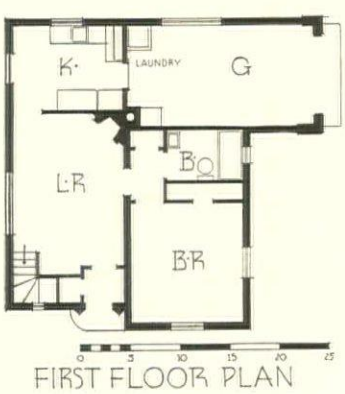
INDIANOLA, IOWA

OREN THOMAS, ARCHITECT

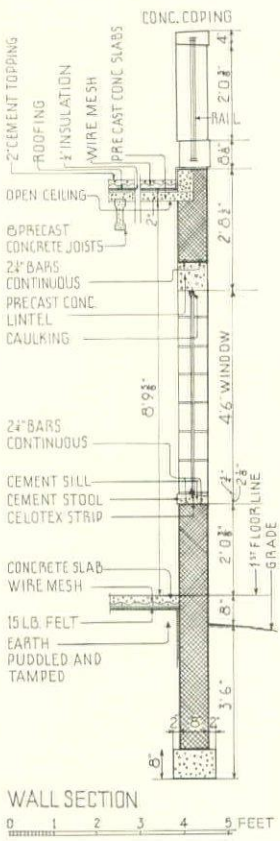


Characterized by its owner as possessi "individuality, beauty in design, and extrem livability," this concrete house is more no able for the fact that it was built for $2,78 a figure which includes everything but t cost of lot and furniture. The extraord narily low price was made possible by c signing for a maximum amount of standa materials, and strict limitation of the nu ber of materials and trades. The house w built almost entirely by local mason m chanics. Walls and partitions were co structed of standard cinder concrete blo units, and upper floors and roof are of co crete slabs and precast concrete joists l exposed on the under side. Plastering w done only in the bathroom, kitchen, and the fireplace. Economical in operation well as construction, the heating costs f the current year, including gas used f cooking, were only $65.80.

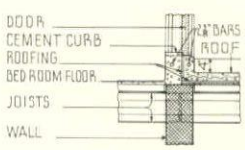
SECOND FLOOR and ROOF PLAN



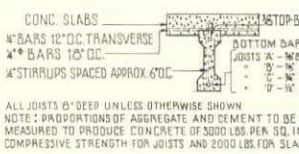
FIRST FLOOR PLAN



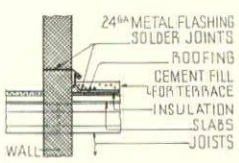
WALL SECTION



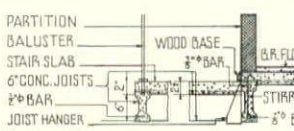
CURB UNDER DOOR BETWEEN BED ROOM AND ROOF TERRACE



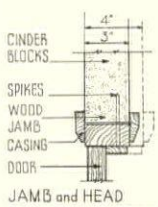
TYPICAL JOIST AND SLAB SCHEDU



TYPICAL FLASHING WHERE LOWER ROOF JOINS 2ND STORY WALLS



SECTIONS B-B AND A-A



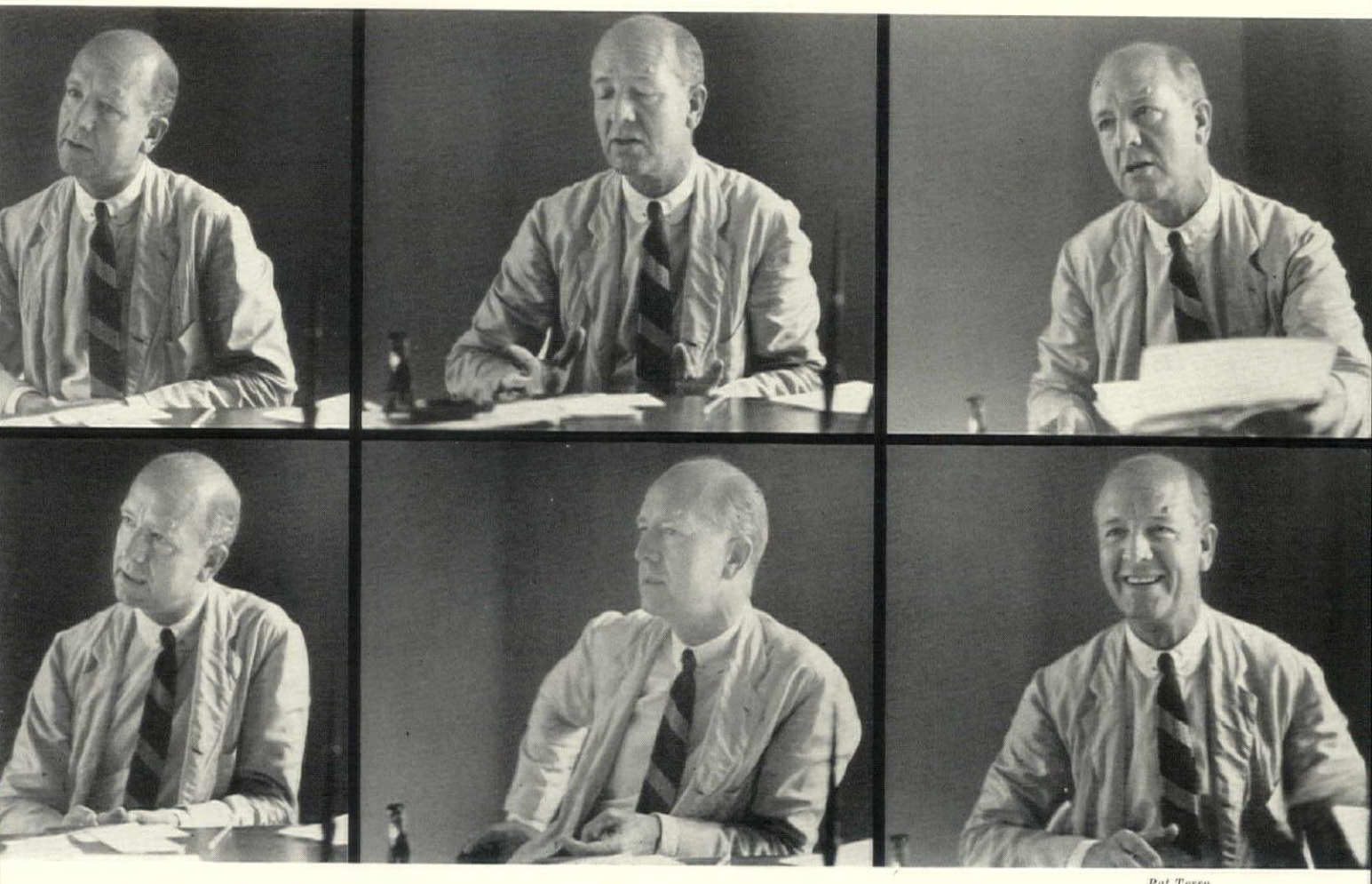
JAMB and HEAD
TYPICAL INTERIOR DOOR FRAME

BUILDING MONEY

A monthly section devoted to reporting the news and activities of building finance, real estate, management and construction

CONTENTS

JOHN CUSHMAN FISTERE
Editor



Pat Terry

Man of the Month PETER GRIMM (see page 140)

AIR CONDITIONING FOR HOMES

is a forecast based on Washington's current booming. A review of the housing that makes the Capital the center of building gossip.

IF federal efforts to revive the building industry have done nothing more, they have brought to Washington and its satellite counties the tidiest building boom the city has known since it was burned by the British. Visiting architects, builders, realtors, and mortgage men, blistering in the summer sun of Washington, last month looked with envy at the truckloads of lumber and supplies rolling through the streets of outlying districts. What each one prayerfully wondered was whether similar scenes would ever be enacted in their home towns. Was Washington the first swallow of a changing season or just a *rara avis* sent winging by the heavy hiring of New Deal agencies?

To some extent, it was the latter, since the Federal payroll in Washington now numbers 90,000 names, as opposed to the 60,000 enrollment under Hoover. And yet, although the visiting building men had no New Deal to bring permanent or even temporary prosperity to their towns, each had some reason (a new factory, rising rents) to believe that within a year the Washington phenomenon might be duplicated.

Thus it was that the way the building industry was acting in Washington became of national significance. What innovations were the architects and builders planning? Where were they getting the money? In what price range was the biggest demand? These and a hundred other questions Washington was answering for itself, and for anyone else who could find any resemblance to his situation at home.

Conditions. From a vacancy percentage of 12.53 in 1933, Washington apartment houses filled up at a tremendous clip during 1934, so that when the year ended, less than a hundred out of the 22,313 units in the town were unoccupied, about ½ of 1 per cent. The jumping of rents which inevitably accompanies a limited supply of space drew loud cries of protest from Government workers and sympathetic Congressmen. So rent-dry did renters think they were being milked that Congressman Henry Ellenbogen, whose housing conscience sometimes gets the best of his judgment, immediately introduced a bill asking for a commission of Congressmen to fix rents and control building throughout the District. Although it was unpassed last month, it threw such a scare into Washington property owners and brokers that they rushed their best legal mind, Roger J. Whiteford (who is also the FHA's general counsel), into the controversy with facts that seemed to prove that real estate men were just about making a living.

Instead of a rent law, the Washington *Post's* Publisher Eugene Meyer, onetime Federal Reserve Board chairman, asked that the law of supply and demand be permitted to work without Congressional interference: Said he: "Legislators, both national and State, could do more for the tenant by bringing about fair taxes than could possibly result from rent commissions with their inevitable growing costs for salaries, clerks, rent for quarters, etc., to say nothing of the check on a normal operation of the law of supply and demand."

Spurred on by the desire to produce enough housing in a quick enough time to prevent the establishment of a commission, Washington builders stepped up their pace of production into boom proportions. The result of their building has already dropped the occupancy figure from 99.5 to 97.5 per cent.

Ranking only 17th in population, Washington has raced ahead of every city in the U. S., save New York, in construction volume. Permits for 1,597 housing units in the District of Columbia alone have totaled $6,571,090 for the first six months of 1935. In Arlington County, Va., home building is up 1,000 per cent over 1934, and is up 300 per cent in Montgomery County, Md.

The six-month total for 1935, according to Department of Labor building permit figures, for the District itself is:

	SINGLE FAMILY		MULTI-FAMILY Dwelling		
		Permit Value	Structures	Housing Units	
Jan.	70	$409,150	4	26	$46,000
Feb.	67	389,080	11	53	103,500
Mar.	146	883,410	66	272	510,000
April.	115	706,550	22	123	234,500
May.	197	1,333,550	34	140	308,500
June.	153	1,049,250	44	235	597,600
	748	$4,770,990	181	849	$1,800,100

This total of 1,597 units with a permit value of $6,571,090 compares with a total for the first six months of last year of 418 units valued at $2,354,330, and with a total for the entire year of 1934 of 864 units costing $5,160,030.

Though volume figures are stimulating, the real interest for the nation lies in t kinds of houses that are making the v ume. Are they prefabricated, are they fi proof, do they have air conditioning, they have cellars? How much do th cost? Answering the last question first, t building is heavily concentrated in t $5,000 to $7,000 price range. A breakdo of 1935 building as compared with 19 reveals:

Price Range	FIRST SIX MONTHS OF 1935 No. of Units	YEAR 1934 No. Uni
Under $2,000	8	
$2,999	4	
$3,999	51	
$4,999	112	
$5,999	190	1
$6,999	191	1
$7,999	81	1
$8,999	79	
$9,999	30	
$11,999	25	
$12,000-$15,000	8	
$15,000-$18,000	8	
$18,000-$20,000	0	
$20,000-$25,000	2	
$25,000-$30,000	0	
$30,000-$35,000	1	
$35,000-$50,000	1	
Over 50,000	2	
	793	7

Taylor. To many a Washington competit and to many a real estate man country over, Waverly Taylor, youth veteran among Capital builders, is bellwether of the business. Trained as architect, he quit that side of the bu ing business to design and build for h self. His Foxhall row houses are on a with Pittsburgh's Chatham Village most of the important respects. Well on Washington's social ladder, he kn what smart people have, and knows h to give the non-smart a close approxi tion of the real article.

Just completing the last of the houses which constitute Foxhall, Ta has three new developments under w calling for another 150 houses eventua and 73 houses immediately. Five of th are supposedly adapted from the "N American" houses offered by the Gen Electric Company from its competit entries. Eschewing fireproof constructi and making few concessions to modern in the planning of the houses, all are to of standard brick or stone constructi One group of fifteen termed Rollingwo

s to be in the $15,000–$20,000 class, all in simplified Norman style. The second project, Rock Creek Terrace, clings to Colonial for its 20 houses, ranging in price rom $20,000 to $30,000. The third development, still unnamed, will eventually umber 100 houses, but only 38 will be uilt this season. This development will lso be Colonial.

Despite the insistence of many developers that architects are wrong in believing that living rooms on small lots are est placed at the rear facing the gardens, Developer Taylor will side with architects, lace his kitchens and garages on the front f the lot, with living rooms opening on erraces and porches at the rear. (See lans.) The houses range in size from three edrooms and two baths to five bedrooms nd three baths. All have a living room, ining room, and a room to be used as brary or study on the ground floor. All re fully excavated with a recreation room the basement.

More interesting than anything else bout Taylor's 73 houses is the policy he as adopted toward air conditioning. A mplete air conditioning system, minus nly the compressor, is being installed in each house. Purchase of the compressor is optional with the buyer at an additional cost of between $300 and $500 depending upon the capacity. Should the buyer postpone purchase of the condenser, summer cooling is effected through use of tap water. A central system with duct distribution is used for all the houses, all rooms being conditioned except the kitchen and baths, where inability to conceal the ducts made radiator heat more desirable.

Although the plant capacities vary with the size of the houses, the following figures are typical: 90,000 B.t.u. heating, 24,000 B.t.u. cooling, supplying 1,200 cfm. heating and 1,000 cfm. cooling, using about 300 cfm. outside air. During the winter, the plant completes six air changes per hour, and during the summer, eight or nine.

Because of the keen competition in the air conditioning cost figures were not available, but it is estimated that the entire air conditioning plant costs about 10 per cent of the house cost, whereas ordinary heating would have been about 7 per cent.

Harris & Ewing

Koplin. One who went the whole hog on air conditioning was Frank Koplin and his Washington Builders, Inc., which is building 48 houses on a 50-acre tract near 14th St. and Rittenhouse, N. W., to sell for $11,950 including lot, air conditioning, electric range and refrigerator. The houses are of the semi-detached type, designed by Harry Sternfeld, professor of architecture at the University of Pennsylvania. All houses are to be of brick, with three bedrooms and two baths, living room, dining room, entry and kitchen, and a fully excavated cellar with laundry and recreation room.

However welcome Koplin's houses may be to government clerks and other home buyers, they are thorns in the side of the otherwise happy Washington home builders. Like the marketwise operators from New York who descended on Florida when that State was running a high building fever, Koplin is regarded as a menace by local men, not only for himself but as a warning that possibly others will follow from Philadelphia and New York. Nevertheless, he is there, and his houses are air conditioned.

The capacity of the units are:

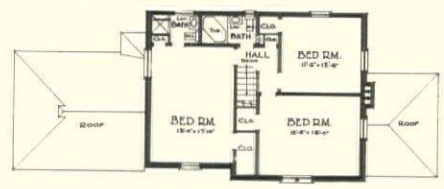
Air circulation	1,000 cfm., heating 800 cfm., when cooling
Heating capacity	90,000 B.t.u./hr.
Cooling capacity	20,000 B.t.u./hr.
Humidifying capacity	3 lb. ¾ hr.
Dimensions, approximate	43″ x 43″ x 18″ high.

The duct system is laid out with dampers so that the first floor may be cooled during the day and the second floor at night.

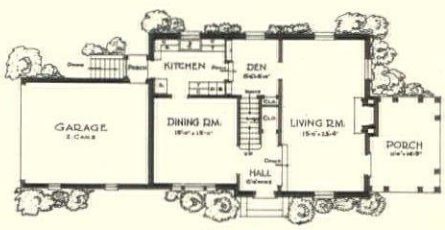
Following good practice in group planning, there are no driveways between the houses; instead, a private rear street serving all the units. Innovations in the planning and design include: zinc gutters, maple paneling with aluminum trim for all first floor rooms, individual overmantel sculpture by Carlo Ciampaglia, oversized casement windows making the most of the cross ventilation provided for each room, dropped living room, and decorative gateways between the houses.

Colonial Village. Though it has no air conditioning to mark it, one of Washington's most stimulating developments is the FHA-insured moderate-cost project in Clarendon, Va., Colonial Village, first of the units under the FHA's Housing Division to get under way.

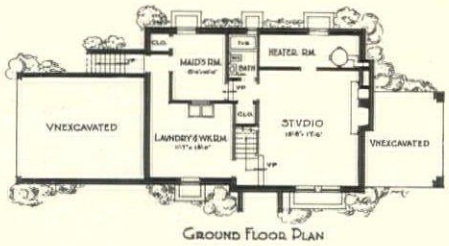
Costing $1,128,600, of which $875,000 is represented by a 4½ per cent 15-year mortgage from the New York Life Insurance Company, Colonial Village has taken the place of the Meadville project (Arch. Forum, Mar., 1935, p. 262) and the Joseph P. Day project (Arch. Forum, May, 1935, p. 506) as a demonstration



Second Floor Plan



First Floor Plan



Ground Floor Plan

ylor and a Rolling Wood House

Unwilling to risk building a house as far to the Left as were most of the New American houses, Taylor modernized his equipment, and stopped there.

of limited dividend housing under the FHA.

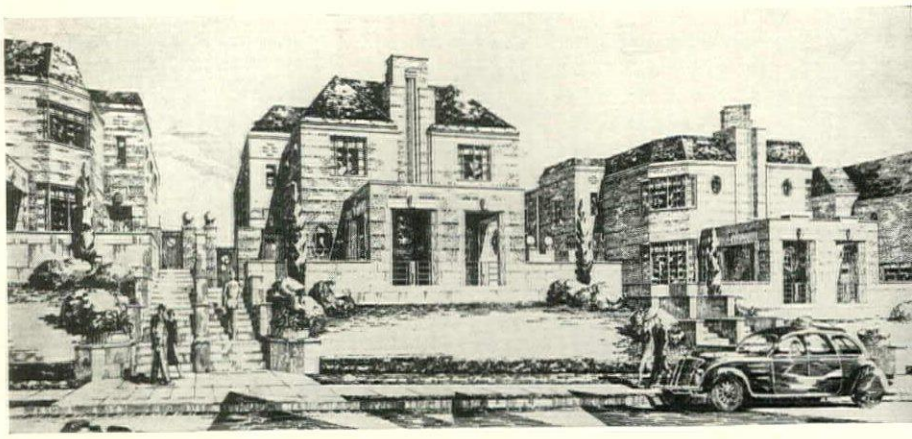
Colonial Village is being built by Gustave Ring, 31-year old promoter whose Westchester Apartment alongside the Cathedral was his major contribution to Washington building before he saw the possibilities of the FHA-insured mortgage for apartment house units. For two years Ring had shopped Colonial Village around Washington lenders with no success. When the National Housing Act was passed, he tried to squeeze it in under the regulations of Title II for not more than 4-family houses, but again could get no local financing. With some changing of plans, and a slight reduction in the rents, made at the suggestion of Messrs. Miles Colean and Eugene Klaber of the FHA, Ring finally submitted it as a low cost housing scheme under Title II—and this time, with the New York Life Insurance Company taking on all attractive comers, he had his project approved.

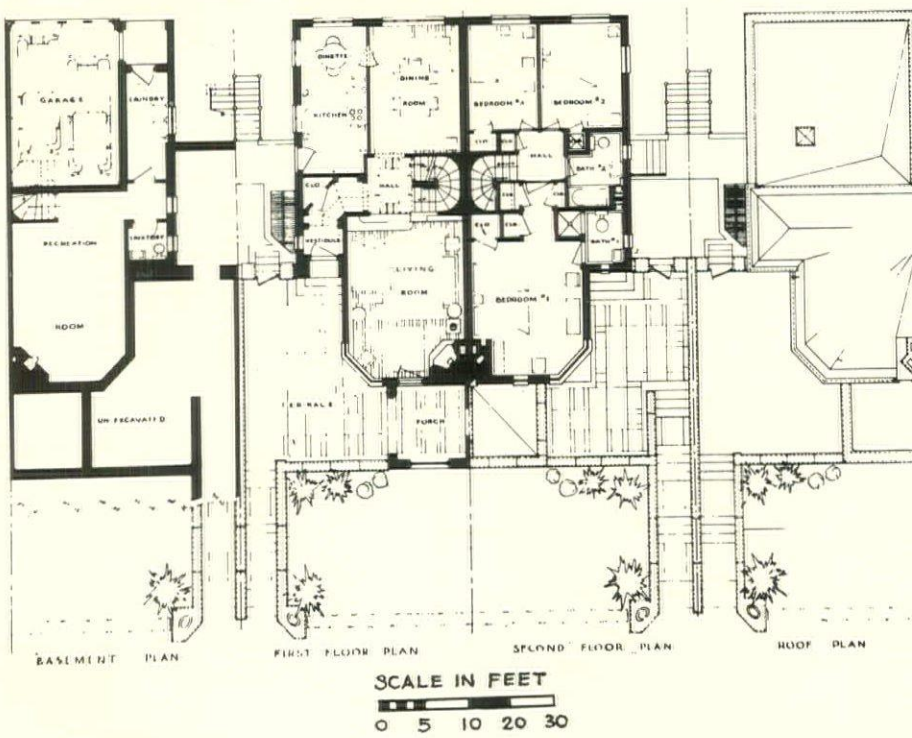
Colonial Village is on a hillside, overlooking the Potomac River, within seven minutes of down-town Washington, in a section long neglected by Washington operators. The possibilities of the site for apartments was recognized by Ring, who had the zoning changed in order to permit the erection of apartments. The entire tract of land comprises fifty acres, of which about fifteen are included in the first operation. Plans are ready for the development of the balance.

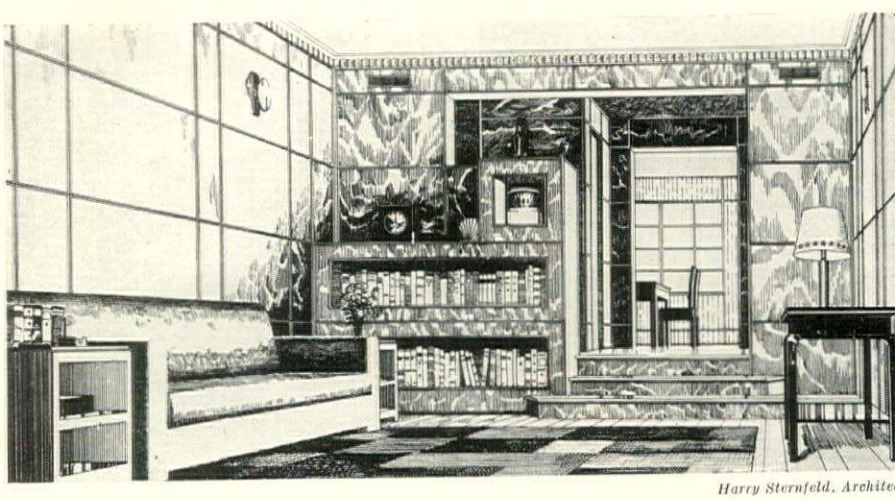
Sizes of the apartments are three, four, and five rooms, at $37.50, $50.00, and $62.50 per month, prices being based on a charge of $12.50 per room per month. This is something of an innovation in Washington, and will be a substantial reduction in the cost per room, as the average cost per room at present, in apartments, is about 50 per cent greater. It was possible to secure such economy in planning this development because Ring purchased the land as acreage, and does his own construction work.

There will be fully equipped laundries, play rooms, an assembly room, and recreational rooms for the use of tenants. There will also be garages, which can be leased independent of the apartments. It is also hoped to have a community shopping center, community center building, including swimming pool, private playgrounds, and other recreational features.

The apartments will have gas stoves, refrigerators, full kitchen equipment, fully equipped tiled bathrooms, built-in radiators, oak parquetry floors and painted walls. They will be centrally heated with automatic oil burners, for heat and hot water.







Harry Sternfeld, Architec

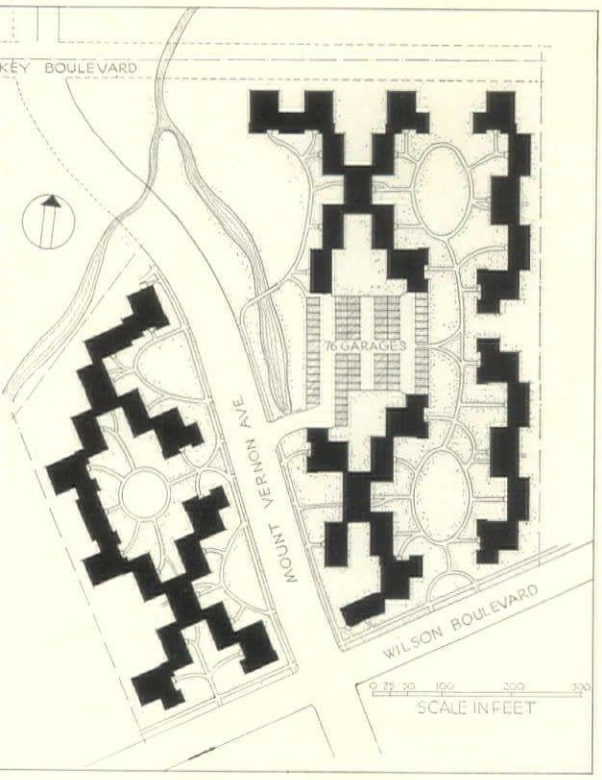
Formidable Row Housing

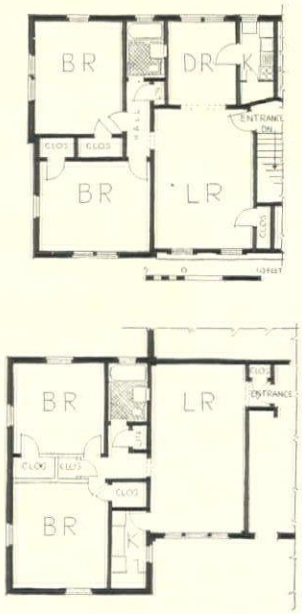
Designed to be "in keeping with Washington dignity" is the Koplin-Sternfeld co tribution to the new era in housing. Air conditioning and maple-paneled interio are the principal innovations

Millers. No recounting of Washington activity during the last 25 years would be complete without including the Miller Brothers (W. C. and A. N.), veterans of 23 years' standing. In two old developments (Wesley Heights and Spring Valley) and one new one (Westerleigh) they are building 40 houses, ranging in price from $15,000 to $60,000. Alone among all Washington builders, the Millers offer steel framing, but not for the entire house as they used to, but for the first floor only.

This, in the opinion of Bill Miller, on time president of the National Associatio of Real Estate Boards, gives the house a the rigidity it needs, solves the termi problem, and since the houses would n be fireproof anyhow, saves in the co

Harvey Warwick, Architect





Types of units

. . . . and the ground plan which won FHA insurance for the Ring project.

Colonial Village

. . . . and below its promoter, Gustave Ring. Nearest to completion of FHA-insured limited dividend developments, it rents for approximately $15 per room.

Harris & Ewing

ction. Like all their competitors, the lers offer houses stuffed with equip-nt. Traditional in design, mostly onial, they are slightly more open in n than the houses of five years ago. side from these four, there is nothing report but activity. The same kinds of ses as were being built five years ago, roved in equipment, but not in plan design, are being offered at slightly er prices. The North Washington Realty npany has built 150 houses in the last 18 nths costing from $7,000 to $13,000. perly called "bungalows" they consist wo bedrooms, living room, dining room, hen and bath, all on one floor.

lso in the lower brackets are the houses Meadowbrooke, Inc., priced from $10,- to $12,500, detached, semi-detached, row. They, too, are equipment-heavy. Thus is Washington meeting its build- boom. And thus, it appears, will the nitects and builders of other U. S. cities et similar conditions of demand next r or the year after.

vance. At every meeting of building men ing the past five years, at least one and usually all the speakers have slipped into their addresses a plea not to "repeat the mistakes of the past." In so far as Washington is typical of the nation, the mistakes of the past seem certain of repetition, except in two major respects—poor construction, and unsafe financing. The second mortgage has almost disappeared; and Washington had never been notoriously guilty of poor building even in the past. Striking at a buying market well above the average, and building on land that is almost twice as costly as land for similar houses in other cities, the home builders of Washington have offered in the past well-built houses. Today's houses are even better. But as for controlled production, improved planning, larger sites, or any of the other hoped-for reforms, the report must be negative.

Boiling all Washington houses in the same pot, the resulting stew is something like this:

Price.....$11,000 to $13,000

Plan.....Closed type, with three bedrooms, two baths, living room, full dining room, kitchen, and one recreation room.

Design.....English or Colonial

Equipment.....Strongly emphasized offering at least one novelty, preferably air conditioning.

Construction.....Standard but good

Financing.....First mortgages only ranging from 60 to 75 per cent at 6 per cent.

In striking contrast with the developments described are three semi-experimental attempts in construction.

One, the mosaic concrete prefabricated houses of Earley Process, Inc. (ARCH. FORUM, Feb., 1935, p. 187), Berger Manufacturing Company's steel-framed house (ARCH. FORUM, July, 1935, p. 26), and a new copper-covered frame house sponsored by Chase Copper & Brass (to be published in THE ARCHITECTURAL FORUM).

Although much publicity and steady crowds have marked the building of these houses, most of the visitors leave their pocketbooks home while inspecting. Next year, perhaps, they will offer competition. But in Washington, as elsewhere, public interest has not yet reached the point where it is translatable into sales.

PETER GRIMM SIGNS UP

as the U. S. Treasury's mortgage watchdog and general real estate adviser to the Administration.

A GOOD real estate executive is as prime an essential to a bank as a burglar-proof vault. But since February, 1935, the biggest bank in the U. S., with more than $5,000,000,000 in its portfolio, has been without a real estate officer of any kind. Last month that lack was supplied with the naming of New York's Peter Grimm to the job of Assistant to the Secretary of the Treasury.

No better time, and possibly no better man, could have been chosen by the President to fill the gap made in the Treasury ranks when Marriner Stoddard Eccles was upped to the chairmanship of the Federal Reserve Board. Between the eighteen different Federal agencies directly or indirectly participating in the real estate and building business, there is something less than harmony. For some time an informal central loan committee, composed of Morgenthau from the Treasury, Fahey of the Federal Home Loan Bank Board, Eccles, MacDonald of the FHA, Myers of the FCA, Jones of the RFC, has been meeting in Morgenthau's office to coordinate the activities of all. Beyond routine approvals of bond issues, the committee has been ineffectual as a committee. Such a thing as the Financial Survey of Urban Housing (see p. 145) which could have been invaluable to all Federal mortgage lending agencies had it been completed and interpreted in time, was allowed by the committee, which was nominally in charge of it, to peter out. Had someone like Grimm been on the scene when the FHA was framing its mortgage insurance program, there would not have been the ill-advised snubbing of private lenders, or the encouragement of commercial bank lending at the expense of members of the Federal Home Loan Bank System.

These are problems of coordination, and while they will constitute part of the job to which Peter Grimm has been assigned, his major task will be expert counseling in the manner of pledging Federal credit, and correlating the activities of the mortgage lending agencies with budgetary estimates of the Treasury.

Economizer. Whatever additional service stripes Peter Grimm may have sewn on his sleeve in Washington, he already has earned one as the most persistent barker for municipal economy that ever molested a Tammany-controlled New York City. As chairman of the Citizens Budget Commission, the legal name of the voluntary tax watchdog organization in New York, he was a constant caller at Board of Estimate meetings, ready with facts and figures, to point his finger at avoidable wastes.

Said Columnist George Britt in applauding Economizer Grimm after a particularly brilliant attack on municipal waste:

"The words economy and Peter Grimm are getting to be synonymous. For four years he has been coaxing and cajoling, demanding and exhorting, for reductions in the city budget. If the reductions haven't materialized, at least the process has turned an engaging young realtor into an uncommonly well-informed public figure. Peter Grimm is the kind of man who appears designed by nature to be the leader and figurehead of good causes. He is tall and suave, endowed with charm and a sense of being reasonable, able to state his case in graceful and polite phraseology. The old-time tax hearings at the Board of Estimate, with Peter Grimm and Jimmy Walker as protagonists, were a delight to all observers—except that the Mayor always won."

Peter Grimm is New York-born. Forty-nine years old, he has spent all his life in the real estate business, first with Stephen H. Tyng, Jr., then, after two years as a flying major during the war, in business for himself until 1929, when he became president of William A. White & Sons, big midtown renting specialists.

Like many another recent New Deal appointee, Peter Grimm is a Republican, albeit a liberal one. As short a time ago as 1931, he was engaged in stirring up the voters of New York State into defeating his good friend, Franklin D. Roosevelt. But since the Democrats have been in power, he has shown more than average sympathy for many of their aims, signalized by his willingness to serve as the chief land buyer for his local Municipal Housing Authority.

Because of his politics, Grimm has already won a lambasting from good Congressional Democrats, who disguise the the reason for their antipathy by raising their hands over his participation in some reorganization deals that are being investigated by the Sabath committee.

"While we are not alleging that Mr. Grimm is guilty of any wrong doing," complained Congressman Sabath, "the appointment was unwise at the present time because we are going to renew our investigation into his activities with various New York real estate bondholders' organization moves."

But Congressman Kennedy of New Yo was more to the point. "Now," said "Grimm is to be confidential adviser Secretary Morgenthau, when his testimo shows he has been connected with Char D. Hilles, a leading Republican. Grim has played with the Republicans and n he is going to be an adviser to the Dem cratic Administration."

Undoubtedly, to be subjected to ma more such attacks before he is finish Grimm moved into his air-cooled off across the way from his air-cooled suite the Willard Hotel, and prepared to go work.

Apart from general consultation on mortgage matters, he launched imm diately into a study of the mortgages he by:

Home Owners Loan Corporation	$2,700,000,0
Federal Farm Mortgage Corporation	$725,000,0
Federal Land Banks	$2,100,000,0

What to do about them when the del quencies start mounting, as they ha already begun to do, will be Grimm's fi job. He also became a new point of co tact for seekers of insurance for FHA l cost housing mortgages, and one of first considerations was likely to be t mortgage for the apartment house Brooklyn of his good friend, Joseph Day.

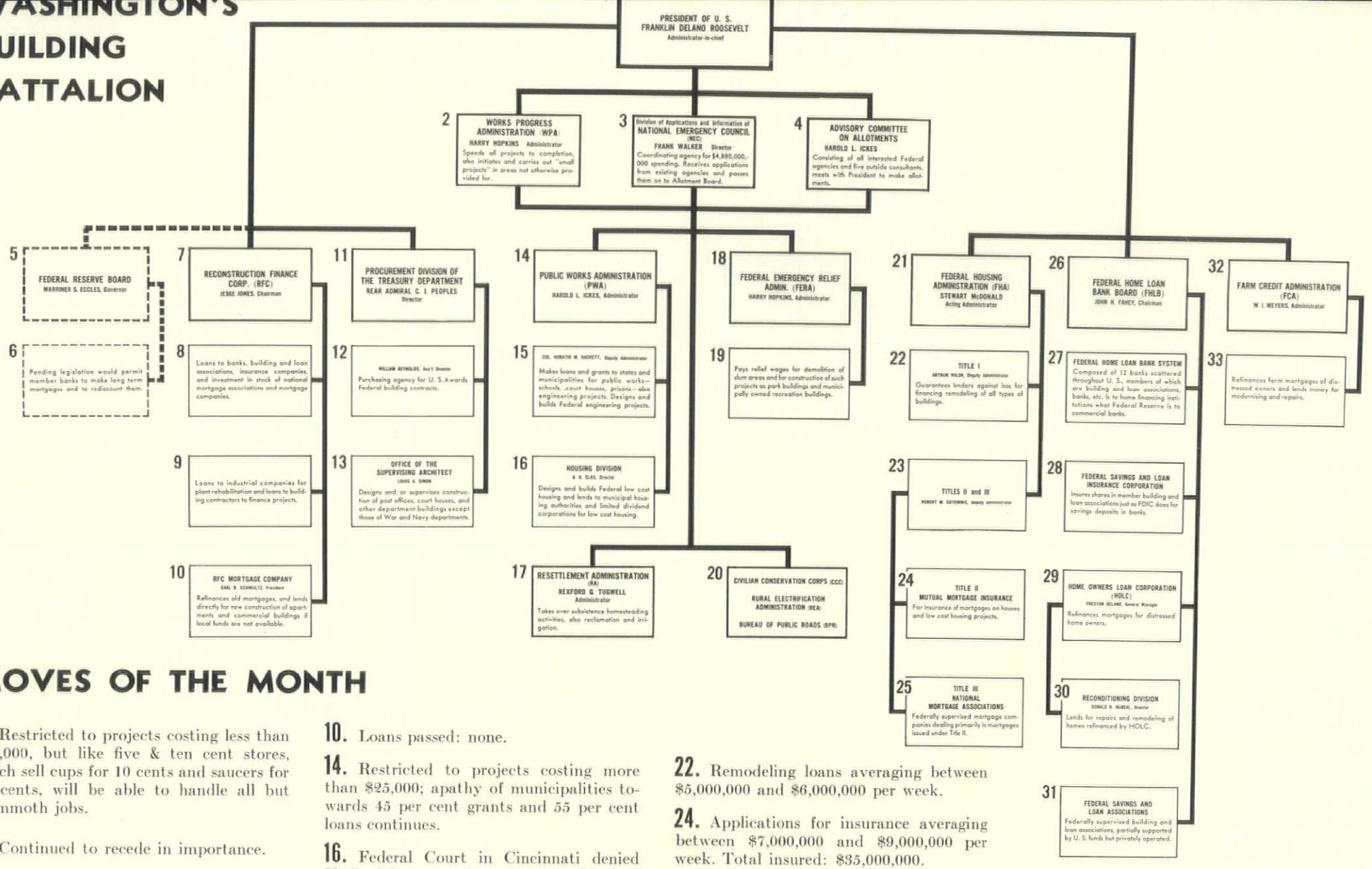
As far as real estate and building a concerned, his significance was mu greater than any particular job he may doing. For the first time, there is a m allied to all the Federal agencies interest in building finance who understands r estate. Those who have come away fr Washington with heads sore from butti into stone walls may find in him a ga way to their desires.

There was some talk that the real reas for the Grimm appointment was a mo towards consolidation of all eighteen the real estate and building agencies. Bu was nebulous talk, built on ignorance the activities of each of the groups, cording to Washington officials. And the possibility remains. Should the n Assistant to the Secretary find that have enough in common, that may his major recommendation when his months' term of service is concluded.

¶ Though it had not yet become major concern of the new Assistant Morgenthau (see above), the Home Ow ers Loan Corporation was last mo beginning to be worried. They were taken by surprise, for they as well everyone else knew from the start t HOLC's real job lay not in saving hom but in getting the saved home owners meet their interest and amortization p ments.

(Continued on page 142, column 3)

WASHINGTON'S BUILDING BATTALION



MOVES OF THE MONTH

2. Restricted to projects costing less than $25,000, but like five & ten cent stores, which sell cups for 10 cents and saucers for 10 cents, will be able to handle all but mammoth jobs.

3. Continued to recede in importance.

6. Bill rewritten by Senator Glass restricting real estate loans and almost excluding any discount privileges (See "Month in Building," p. 3.)

10. Loans passed: none.

14. Restricted to projects costing more than $25,000; apathy of municipalities towards 45 per cent grants and 55 per cent loans continues.

16. Federal Court in Cincinnati denied U. S. right to condemn land for housing. (See "Month in Building.")

17. Held 3-day conference to define policies, but announced no projects.

22. Remodeling loans averaging between $5,000,000 and $6,000,000 per week.

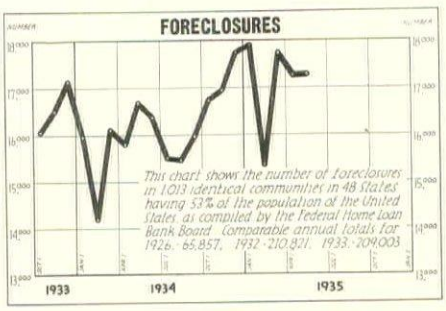
24. Applications for insurance averaging between $7,000,000 and $9,000,000 per week. Total insured: $35,000,000.

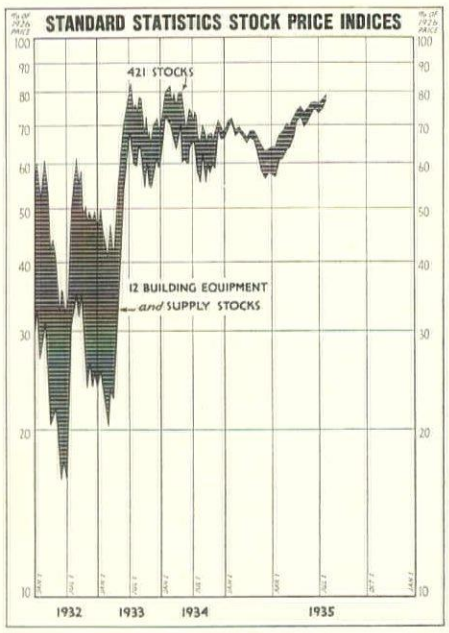
29. Announced delinquencies of about one-sixth interest and amortization due. Started foreclosure against 568 owners. (See page opposite.)

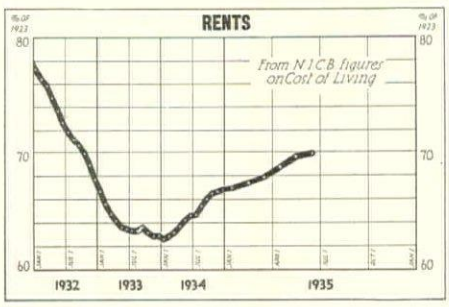
32. Peter Grimm appointed Treasury Assistant Secretary to advise on all Federal mortgage financing. (See page opposite.)

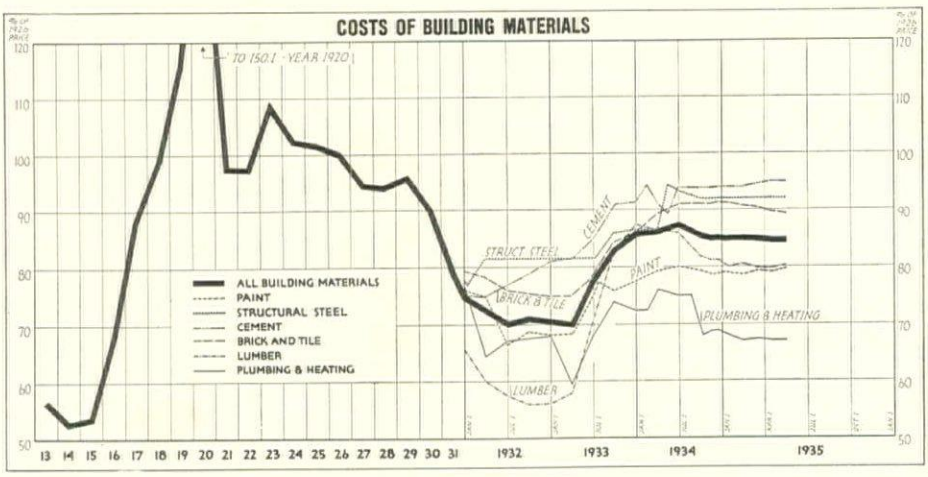
BUILDING'S UPWARD TREK

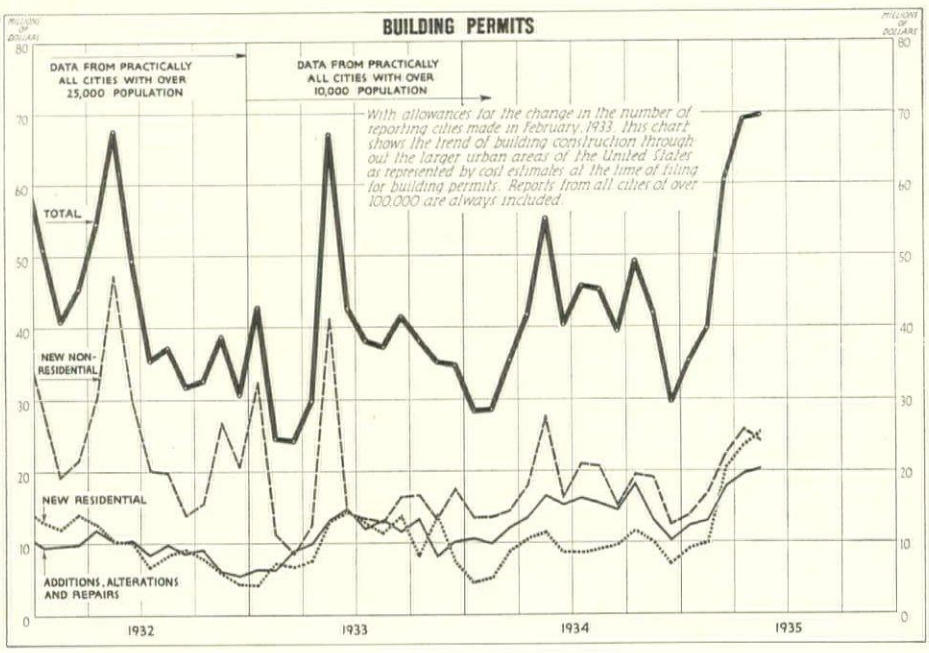
continues with the May rise in permits, costs remain steady as rents rise; stocks up.











(Continued from page 140)

To inquisitive reporters who were wor dering just how well home owners wer living up to their part of the bargain Chairman Fahey last month gave out th figures which showed that approximatel one-sixth of the interest and principal an interest payments was more than 90 day past due, and thus definitely delinquen The May 31 figures, the last availabl indicated the following:

Of the $100,000,000 interest due th HOLC on that date, $72,000,000 had bee paid. Of the remaining $28,000,000, $14 000,000 is more than 90 days overdu Of the $58,000,000 principal payments du $36,000,000 has been paid, and the tot more than 90 days in arrears was $11,000 000, making a total of $25,000,000 out $158,000,000 delinquent.

Of one thing the HOLC was thankfu Up to last month, good-fellow Congres men, anxious to help out a constitue back home at the expense of their gover ment, had done very little special pleadi for delinquents. How long such a cooper tive attitude will continue remains to seen, and Chairman Fahey for one ha his fingers crossed.

However, with a record of 568 for closures up to June 30 to prove that meant what he was saying, the Chairma stated:

"The repayment of loans to the Hor Owners Loan Corporation cannot neglected by persons who have no clai to indulgence of the American people a whole. The success of this enormo servicing operation is dependent upon t inherent honesty of American people. T Corporation's executives recognize that some cases the borrower is unemployed otherwise unable to make his payments full for the time being. Such instances w be given reasonable consideration. But t corporation has already begun foreclosu proceedings against several hundred bo rowers who wilfully defaulted in the payments. It must continue that policy the public interest."

Despite such brave talk, there st loomed in the future the day when son noble Congressman, bleeding for the po home owners, will introduce a bill aski for an HOLC moratorium, which granted will soon lead to a fight to ha all HOLC mortgages written off as inve ments in recovery.

Of one of his other charges, the Fe eral Home Loan Bank System, Chairm Fahey was less worried. For the seco successive month, advances to membe of the System had increased, reaching total of $76,657,648, a gain of $4,500,0 over its low of April 10. The Chairm traced the increase in borrowings, whi were still only a drop in the bucket, the reduction in interest rates from 3 to 3 per cent, a reduction which may so be reflected in a decrease in interest ra offered by members of the System.

BRITAIN'S MAINTENANCE MORTGAGE

or periodic home repairs is explained to a U. S. delegation, nay soon be adopted by U. S. building and loans.

THE average home owner is as unprepared to pay the bill for repainting his house as he is to pay for his wife's emergency operation for gall-stones. Unlike seasoned building owners and managers who annually earmark 1 or 2 per cent of the property value for maintenance and repairs, home owners find it difficult enough to budget their incomes to meet fuel bills, taxes, mortgage interest and amortization, without trying to include repairs.

Until 1933 British home owners were as repair-lax as Americans. But in that year Sir Josiah Stamp, whom Americans as well as Britons rate high as a practical economist, sponsored what he termed a "maintenance mortgage" among Britain's building societies. Last month Sir Josiah, along with other good building society men, was in Salzburg, Austria, attending an international convention. Because Sir Josiah was there and because they wanted to hear about Stamp's maintenance mortgage from Stamp himself, a dozen U. S. mortgage men also journeyed to the famed little Austrian town. Among them were Israel Friedlander, Houston, Texas, president of the American Building and Loan Association, Morton Bodfish, dynamic executive vice president of the association and building and loan lobbyist, Herman Cellarius, Cincinnati's veteran building and loan expert, and Editor Henry S. Rosenthal of *American Building and Loan Association News*.

In recognizing Sir Josiah Charles Stamp England's No. 1 economic trouble shooter Americans are likely to forget, if they ever knew it, that besides being a director of the Bank of England, president of the biggest railroad in England (the £200,000,000 London, Manchester & Scotland), Sir Josiah is board chairman and co-founder of the biggest building society in Great Britain—the Abbey Road Building Society. Reputedly the busiest man in British business, he attends Abbey Road meetings regularly, still knows a good loan when he sees one. Powerful and aggressive in appearance, Sir Josiah speaks rapidly in a thin, reedy "soft pedal" cockney voice, tires his audience by giving them too much to think about in too short time.

The maintenance mortgage is simplicity itself, adaptable to any lending institution which makes amortized loans—savings bank, insurance company, or mortgage company. An example of the plan at work: a new house is built valued at $7,000, with a first mortgage of $5,000, repayable in monthly installments over a 15-year period. Assuming, for instance, it is an FHA mortgage, the monthly payments would be approximately $54.51. To the regular mortgage is then added an additional $1,308.24 (two years more payments) and the mortgage is listed at $6,308.24. But only $5,000 is payable when the mortgage is issued, the remainder is held in reserve to take care of repairs.

Thus when a painting job is required, instead of going through the motions of having his mortgage increased, the owner

Sir Josiah Stamp — *Globe*

whose maintenance mortgage plan drew American building and loan men to Salzburg.

simply submits the bill to the mortgagee for payment. As soon as the bill is paid by the lending institution, the outstanding balance of the mortgage is increased, and interest on the repair loan dates from that time.

As other repair necessities arise over the life of the loan, the same procedure is followed. There is no increase in the monthly payment, only the addition of the number of monthly payments required to pay the maintenance bills, plus the normal interest rate. No re-appraisals are necessary, and there is no need for involved bookkeeping.

If for instance a loan were granted on the terms stated above, two paragraphs under the section of "Conditions of the Deed" could be inserted as follows:

"1. Five thousand dollars ($5,000) of this amount shall be known as the original loan on the property and shall be repaid in monthly installments, including interest, taxes and insurance, of $54.51.

"2. One thousand, three hundred and eight dollars and 24 cents ($1,308.24) of this amount shall be known as the Maintenance Loan and shall be set aside for the maintenance of the property during the life of this mortgage, and may be used for such purposes as painting, general repairing, and such modernization as may be desirable to preserve the value of the property. Interest at 5½ per cent per annum shall be payable from the date of payment of such bills for such work as is specified herein, and the money so used to pay such bills shall then be added to the balance of the $5,000 and shall be payable according to the terms set down in Clause 1."

Drawing on his experience with maintenance mortgages in Great Britain, J. L. Gibson, London building society executive, reported that within a few months after the plan's adoption about $7,500,000 of his association's funds were put out for repairs.

Said he:

"The strongest argument in favor of the Maintenance Mortgage idea is the fact that it does not necessarily affect the autonomy of the association offering this type of mortgage. Whatever their present period for repayment may be, an agreed percentage extension of this period would merely become a universally applicable rider. Thus the mortgagor could have the confidence of feeling that any necessary maintenance charge could be met merely at the cost of an extension of his period of repayment without increasing the actual periodical amounts of his payments. In this connection, it might be well to point out to the mortgagor that he is incurring no additional obligation whatsoever since, should at any time, the necessary maintenance expense come within his own current financial ability, he is at perfect liberty to take care of them without availing himself of his maintenance mortgage privileges, and in this case, the original mortgage period, and the original periodical payments would remain unchanged.

"On the other hand, associations would be in a very much stronger position to insist upon adequate maintenance of the property upon which they have loaned money in order to protect their interest in them."

That maintenance mortgages would be warmly welcomed by other than mortgagees seemed apparent to anyone who studied its implications. To architects, it would mean continuing business on houses of their design; to contractors, material dealers and manufacturers, it would mean steadier sale of products and services. And to the general field of real estate, it would most certainly mean the general maintenance of property values, an ounce of prevention against future slums and blighted areas.

MORTGAGES OUTSHINE U. S. BONDS

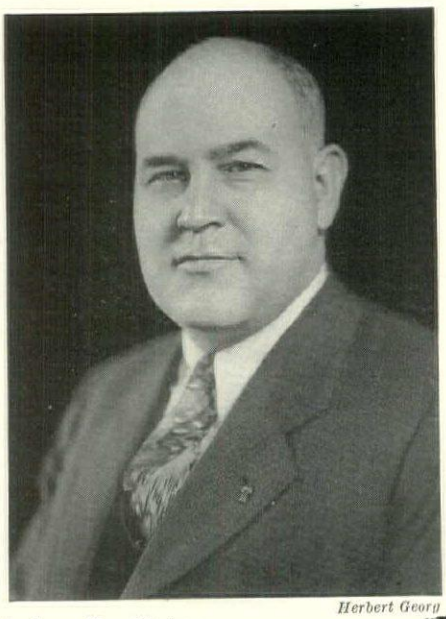
in an Illinois jurist's opinion, based on present yields (5 to 6 per cent, as opposed to 2) and future prospects.

IT IS THE opinion, in fact the frequently expressed opinion, of many a real estate man that a good mortgage is the best investment in the world, better even than a U. S. Government bond. But when a Probate Judge refuses to permit a trust institution to invest in Government obligations, and suggests instead that it buy good mortgages, it becomes more than a routine boast. It may even be interpreted as a strong slice of evidence that real estate is again winning its way back in public estimation.

The Probate Judge was Benjamin S. De Boice of Sangamon County, Illinois; the trust company, the First State Trust and Savings Bank of Springfield, conservator for seven estates.

Publicity-wise Judge De Boice, well knowing that his opinion was news, held back his decision for two weeks, waiting for the Chicago front pages to run out of sensational news. An honest, able judge whose record is starred with convictions of crooked politicians, Judge De Boice was what Abraham Lincoln once was—a Springfield lawyer. Like nearly everyone else in Springfield he is a collector of Lincolniana.

In his thousand-word opinion, Judge De Boice held that "during this period of business uncertainty and lowering prices the investing public has turned to Government obligations as a cyclone cellar in which to place investments. This rush for investment in Government obligations has produced an ever-lowering rate of return until the present net return on such obligations is around 2 per cent."

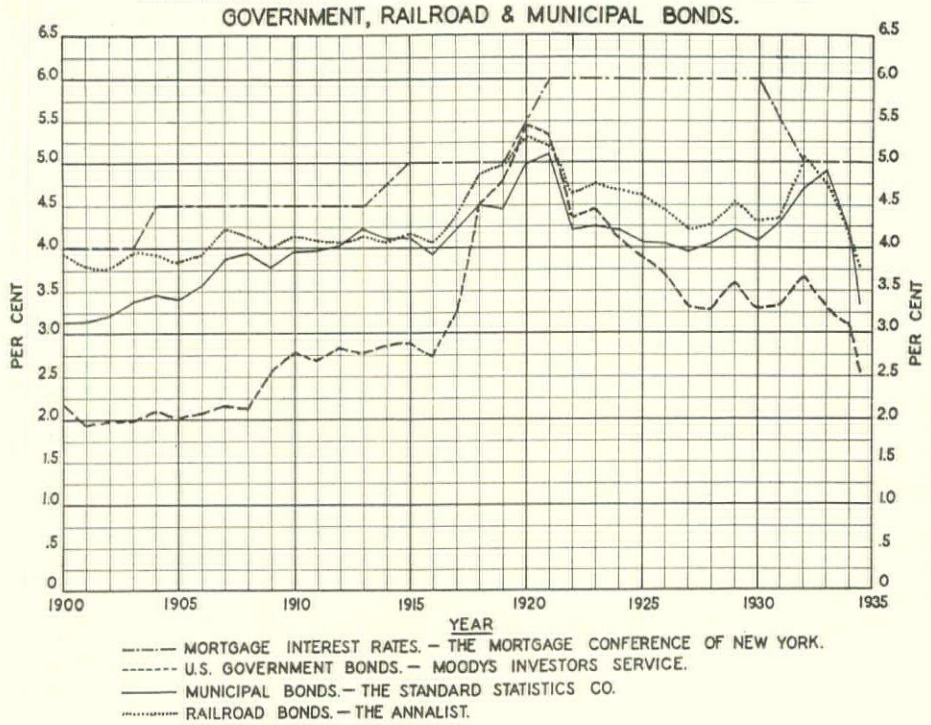


Herbert Georg

Judge De Boice

. . . called on the Lunatics, Idiots, Drunkards and Spendthrifts Act.

COMPARISON OF MORTGAGE INTEREST RATES WITH YIELD OF GOVERNMENT, RAILROAD & MUNICIPAL BONDS.



This chart, prepared by the Mortgage Conference of New York, understates Judge De Boice's case, reflecting as it does conditions in the highly competitive New York market.

The court recommended instead that the bank hold the funds until such time as investments could be made in real estate mortgages, calling upon Section 18 of Chapter 86 of the Lunatics, Idiots, Drunkards and Spendthrifts Act to prove it right to do so.

Besides outlining the types of securities including 50 per cent first mortgages, in which the funds in question could be invested, this expansive Illinois statute demanded the use of "some official discretion in the matter of approval of investments," according to Judge De Boice.

Launching into a spirited analysis of the relative merits of mortgages and governments, Judge De Boice declared:

"We are upon the eve of a period of inflation. The trend of prices upon most tangible goods is upward and real estate prices have shown a definite gain. Today bank reserves are the largest in history and every bank and insurance company in the country is full to overflowing with cash, awaiting the opportunity for investment.

"In view of the fact that the national debt is today almost $29,000,000,000, the highest point in our history, we may safely say that there is a greater saturation of investments in Government bonds among our people than ever before. Just as soon as the rank and file of our people become convinced that we are on the eve of a period of inflation there will be a wild rush to convert the low interest bearing investment in Government obligations into higher interest bearing industrials and tangible property, and we will witness a repetition of the experience of the early '20s, when Government bonds sank below 85 under similar conditions.

"In view of these facts, this Court does not consider that an investment of Government obligations at this time is a judicious investment for a conservator to make of its ward's funds. A repetition of the conditions of the early '20s may produce an even greater loss, and Government bonds will probably go even lower than they did at that time. Certainly it is not judicious to risk the loss of 15 per cent of the principal in the hope of earning a mere 2 per cent return thereon.

"At the present time the prevailing interest rate upon real estate mortgages is between 5 per cent and 6 per cent [see chart], and, although as yet real estate is not moving upon the market fast enough to satisfy the demand for this kind of investment, yet we feel safe in predicting that the day is not far distant when such investment will be plentiful.

"The Court therefore finds that the prayer of the petition for authority to invest ward's funds in Government securities should be, and the same is hereby denied, and the petitioner is instructed to hold said funds on deposit and make diligent effort to find investments in the class of real estate mortgages described in said Section 18, hereinabove quoted."

HOUSING'S DEPENDENCE UPON INCOMES

s emphasized in the Financial Survey of Urban Housing, 61-city statistical our-de-force, providing hitherto unrecorded data on home finance.

F every ounce of the house-painter's rt could be called upon, and every U. S. ouse kept scrupulously hatched, cross-atched and dotted to represent its owner's ue equity in it, a casual glance up and own a city's streets would afford a dread-lly accurate measure of its economic lse, and Prosperity and Depression would me and go with a flourish. As impossible d embarrassing a custom on the part of . S. home owners would have obviated e Financial Survey of Urban Housing.

Such was the name, and such the general tent, of a study finally brought to com-etion in Washington last month, after onths in which an interested building in-ustry had many an occasion to despair of er seeing hide or hair of it. Shunted from he New Deal agency to another, and sev-al times close to being pigeon-holed for ck of funds, this first attempt to gather d compile an accurate and comprehensive t of figures on the state of housing nance throughout the country was lucky have been placed under the general spices of the Department of Commerce n whose hands the U. S. census), else it obably never would have seen the light day and print.

The Financial Survey of Urban Housing as launched as an elaboration of the U. S. eal Property Inventory of 1934 (ARCH. ORUM, Nov. 1934, p. 321). In the latter, e housing problem, fast maturing as a tional issue, received for the first time me adequate *physical* definition. Lend-s joined producers in the building indus-y in lauding the RPI as a stock-taking of e supply of existing housing accommoda-ons. The Federal Housing Administra-on pounced upon its figures and made od use of them in promoting moderniza-on. But to many a seasoned building ead, with more than cursory interest in e betterment of U. S. housing standards, d in the restoration of a crestfallen in-ustry, the RPI had not dug deep enough. It was all very well to define the problem terms of rusty eaves and teetering chim-eys, and it was distinctly advantageous be able to point out exactly the extent overcrowding as a social ill, but was a tional willingness to do something about e housing problem already being reflected U. S. legislation to spend itself in meet-g needs thus simply defined?

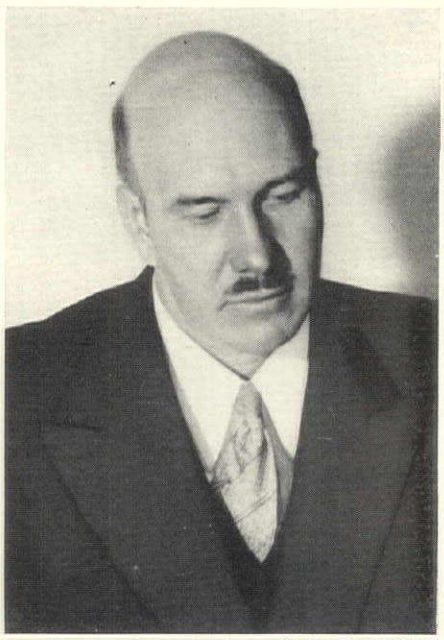
None other than Mrs. Roosevelt, be-ween trips to the West Virginia coal mines, had anticipated the answer. One of her many pet projects, the Farm Housing Survey, devised to keep women enumerators busy listing rural housing woes, was conducted by the Department of Agriculture currently with the RPI. In it, matters of finance were not slighted as they had been in the RPI. Someone's hand had edited the schedules with a view toward getting at the economic aspects of farm housing. That someone was Statistician David Lawrence Wickens, onetime professor of banking at the University of Michigan, who emerged as the logical choice as director of the Financial Survey of Urban Housing, once it had been decided upon.

The deciding was done by the Federal Mortgage Committee, an evanescent outgrowth of the President's Central Statistical Board, where labored Winfield Riefler, whom building men remember as the chief brain behind the National Housing Act. To most lenders at the present time a strong Federal Mortgage Committee, to unify and direct the activities of all the various Washington agencies concerned with building, would be an answer to a long-incanted prayer. But Washington rivalry or littlemindedness led the group of members of various units, such as the Farm Credit Administration, the Home Owners Loan Corporation, *et al.*, which used to meet occasionally in the name of a Federal Mortgage Committee, to assume no such conception of its purpose. One of the few things that it ever did was to consider and approve the Financial Survey of Urban Housing.

Most encouraging among those consulted while the survey was still under consideration was ruddy, genial Herbert U. Nelson, whose years as manager of the National Association of Real Estate Boards have made him without peer as an observer of trends in realty, and as spokesman for that broad branch of the building industry including those who live with the housing problem from day to day. Said he, in the face of objections from other practical men: "Let's try it, anyway." Upshot was that the survey got its allotment from the Civil Works Administration, its director from the Department of Agriculture, and a home in the Department of Commerce, under Assistant Director Nathanael H. Engle, a former Brookings man with a reputation as a practical thinker.

Census experts sniffed at the survey at first, said rolling pins would fly when housewives were asked if their rent were paid, or if their mortgage payments were in arrears; yet last month Statistician Wickens could proudly say that only 1 per cent of the families solicited had refused replies. No adequate answer save customary New Deal confusion, and a desire

Director Wickens



Harris & Ewing Photos

Overseer Engle

City and Geographic Area	Percentage Distribution of Number of Owner-Occupants Reporting 1933 Family Income, by Income Groups.									
	$1 to 249	$250 to 499	$500 to 749	$750 to 999	$1000 to 1499	$1500 to 1999	$2000 to 2999	$3000 to 4499	$4500 to 7499	$7500 and Over
New England										
Portland, Me.	5.0	8.7	9.6	7.0	19.0	14.1	18.6	8.0	4.1	2.5
Nashua, N. H.	6.2	9.2	10.5	9.8	22.8	17.0	12.3	6.1	2.0	0.8
Burlington, Vt.	4.2	8.5	7.4	11.3	19.8	17.8	12.6	8.4	4.5	2.3
Worcester, Mass.	6.4	8.3	9.8	7.1	18.9	14.3	16.0	8.2	4.8	2.8
Providence. R. I.	7.5	9.4	11.4	9.8	19.4	15.2	13.4	5.1	3.2	1.8
Waterbury, Conn.	3.6	9.5	10.5	8.2	19.1	10.6	16.4	10.9	4.7	3.5
Middle Atlantic										
Binghamton, N. Y.	2.5	6.8	8.2	7.3	22.5	15.5	18.8	8.9	4.3	3.2
Syracuse, N. Y.	6.7	8.9	14.1	9.2	20.4	13.7	13.3	5.9	2.3	1.3
Trenton, N. J.	7.7	10.3	15.7	12.0	18.6	12.2	10.2	4.3	1.8	0.4
Erie, Pa.	12.5	12.9	13.7	10.0	17.4	9.9	7.7	3.4	1.2	0.8
Williamsport, Pa.	12.3	13.6	13.7	11.0	16.1	12.6	6.0	2.6	2.0	0.8
East North Central										
Cleveland, Ohio	9.4	11.8	13.1	9.6	16.6	12.3	10.9	5.1	2.4	1.4
Indianapolis, Ind.	6.4	7.4	10.9	7.4	16.5	13.9	14.4	8.5	5.2	2.4
Decatur, Ill.	12.1	13.9	13.9	8.3	14.6	11.6	7.3	3.1	0.5	0.2
Peoria, Ill.	7.0	9.2	12.2	10.0	19.4	15.0	12.1	6.1	2.6	1.1
Lansing, Mich.	9.7	10.9	13.2	11.9	20.8	12.4	10.5	3.4	1.4	0.5
Kenosha, Wis.	11.6	16.9	14.1	12.6	16.6	10.8	7.0	3.0	0.5	....
Racine, Wis.	14.5	15.7	15.3	9.6	15.4	9.8	7.2	1.9	0.9	0.2
West North Central										
Minneapolis, Minn.	6.0	8.7	11.2	10.8	20.4	16.0	14.2	5.8	2.9	1.0
St. Paul, Minn.	5.5	8.4	11.1	10.3	21.4	16.8	14.5	4.9	1.7	0.9
Des Moines, Iowa.	7.7	9.2	11.3	9.1	20.1	15.9	11.8	5.5	2.4	1.2
St. Joseph, Mo.	5.7	9.7	11.3	9.4	20.7	15.9	13.2	4.3	2.7	1.3
Springfield, Mo.	11.0	10.8	14.2	10.0	19.0	13.4	9.5	4.1	1.5	0.3
Fargo, N. D.	3.8	9.3	7.7	8.4	16.0	18.7	19.1	8.3	3.3	0.9
Sioux Falls, S. D.	7.3	7.4	9.8	12.2	20.3	16.3	12.3	6.6	2.6	1.4
Lincoln, Neb.	8.9	10.8	13.0	10.2	16.8	13.3	12.2	6.0	2.7	0.9
Topeka, Kan.	7.7	9.5	14.5	12.5	17.5	15.0	12.4	5.2	1.6	0.8
Wichita, Kan.	9.0	13.2	13.4	10.9	18.5	14.0	9.6	4.6	1.8	0.7
South Atlantic										
Frederick, Md.	8.8	8.8	10.6	11.2	24.5	13.8	10.6	6.0	2.4	1.3
Hagerstown, Md.	9.4	13.1	12.4	8.9	20.1	12.7	9.0	6.8	2.4	0.6
Richmond, Va.	4.9	6.8	8.3	6.9	16.4	15.1	18.6	12.2	5.4	2.1
Wheeling, W. Va.	13.4	13.9	14.8	9.7	16.6	11.1	8.5	2.9	1.4	0.6
Asheville, N. C.	8.4	12.3	14.0	10.1	15.3	14.5	12.9	6.0	2.4	0.8
Greensboro, N. C.	6.0	11.9	11.8	8.6	13.7	12.5	15.7	8.6	6.1	3.6
Charleston, S. C.	8.6	7.9	9.8	7.8	15.4	12.0	18.6	9.6	5.5	2.3
Columbia, S. C.	11.2	9.0	11.9	6.9	12.8	11.6	16.5	11.3	4.0	1.6
Atlanta, Ga.	6.3	8.0	9.9	7.6	17.3	14.7	16.5	10.2	4.5	2.1
Jacksonville, Fla.	15.6	13.9	11.1	7.1	14.6	11.9	12.2	5.2	2.0	0.7
East South Central										
Paducah, Ky.	19.2	11.0	11.9	9.0	14.4	12.7	9.1	3.3	1.2	0.8
Knoxville, Tenn.	11.4	11.4	12.2	10.6	18.6	14.2	11.0	5.3	1.6	0.4
Birmingham, Ala.	14.5	12.5	11.2	8.2	15.8	13.6	11.1	4.6	2.3	0.3
Jackson, Miss.	9.6	9.5	7.9	6.6	14.6	15.0	17.7	10.0	3.0	1.9
West South Central										
Little Rock, Ark.	11.2	8.5	9.9	7.9	16.1	13.0	14.7	8.4	2.6	1.3
Baton Rouge, La.	13.6	10.7	12.1	7.5	14.8	9.5	12.2	4.9	4.6	2.3
Shreveport, La.	10.8	10.8	10.5	9.7	14.3	14.3	12.5	8.6	5.0	2.0
Okla. City, Okla.	8.2	9.7	11.9	8.3	16.9	15.1	13.3	7.0	3.8	1.6
Austin, Tex.	9.1	11.6	11.5	9.5	15.0	14.1	12.4	6.8	4.6	1.2
Dallas, Tex.	5.7	8.0	10.2	8.4	17.2	17.1	17.1	8.1	2.9	1.4
Wichita Falls, Tex.	9.4	9.0	11.9	7.4	15.4	15.0	13.1	7.9	4.2	1.8
Mountain										
Butte, Mont.	11.5	10.0	17.5	10.2	14.4	11.3	8.2	3.9	1.5	1.0
Boise, Idaho	7.5	10.4	14.1	8.2	20.0	14.9	13.2	3.8	2.1	0.2
Casper, Wyo.	5.9	19.5	12.0	9.3	23.0	18.3	10.8	3.9	2.0	1.2
Pueblo, Colo.	19.9	16.5	11.4	6.8	14.8	11.9	8.1	3.2	0.5	0.2
Albuquerque, N. M.	2.1	6.0	14.2	7.5	20.2	13.8	20.2	9.3	2.1	1.4
Phoenix, Ariz.	9.6	11.3	10.1	6.9	16.3	13.2	12.7	7.9	2.7	2.4
Salt Lake City, Utah	10.6	9.4	10.9	9.5	17.4	15.6	12.7	6.1	2.3	0.5
Reno, Nev.	6.3	8.8	8.6	8.3	15.1	17.9	14.7	9.9	3.6	1.7
Pacific										
Seattle, Wash.	11.4	12.8	13.6	8.4	17.4	15.2	11.3	4.8	1.7	0.6
Portland, Ore.	10.0	11.0	12.3	9.7	17.4	15.4	10.5	4.7	1.4	0.5
Sacramento, Cal.	5.5	5.9	10.0	9.3	16.1	17.2	17.9	8.8	3.2	1.0
San Diego, Cal.	7.0	10.2	11.7	8.4	21.4	16.3	13.1	4.8	1.9	0.6

Owners' Incomes at Low Ebb in 61 Cities

to be accurate even at the expense of spee could explain the delay in getting the fact gathered early in 1934, before the public late as the present. The survey faltere first as replenishment of CWA funds hun in the balance, and several times as admi istrative allotments dwindled to nothin A siege of intestinal flu kept Direct Wickens in a Washington hospital for month.

To make matters worse, news releas about the survey went to the press sp radically, and it received hopelessly litt publicity. That the releases were ill-time and ill-pointed could be laid to a numbe of things outside the fact that the Com merce department's publicity staff has bee one of the few not to have appreciably fe the New Deal influence. Probably mos responsible were the difficulties under whic the survey was accomplished. Seemingl evident was a lack of perspective on th part of those who made up the tables fo publication, but if faulty perspective ther is, the explanation undoubtedly lies in th very enormity and character of the survey and in the divergency of existing view points in the far-flung group for which was carried out.

The simple relationships drawn in th tables presented herewith are likely to b just a start. For instance, the survey un doubtedly has more meaning nationall than the Department of Commerce ha cared to stress. In some cases, what woul seem to be perfectly good national tota and averages have not been made. Like th RPI, the Financial Survey was considere by many of its sponsors to be first of all demonstration program, to show thos communities "desiring to take an activ part in the direction of their own future how they might go about doing so. To much praise cannot be spoken for this ob jective, but a national approach was mad in collecting the figures which is not to b overlooked.

The Approach. Financial Survey of Urba Housing's data cover 15 per cent of th families in one or more cities in ever State, totaling 61 cities. These were th same cities covered in the RPI, wher routine for the collection of similar stati tics had already been perfected. Thre questionnaires were used, one for tenant one for owner-occupants, and one fo owner-landlords. Nearly half of the replie were obtained by personal interviews wit families in designated territories; the othe half, including those to all of the owner landlord questionnaires, were received b mail. Check was made at every strategi point to insure a quality of reply repre senting the essential facts in the cas Nearly half a million schedules were re turned, one-third of a million being actu ally tabulated and analyzed.

"In entering upon the project," says D rector Wickens in explanation of th schedules, "emphasis was laid on makin

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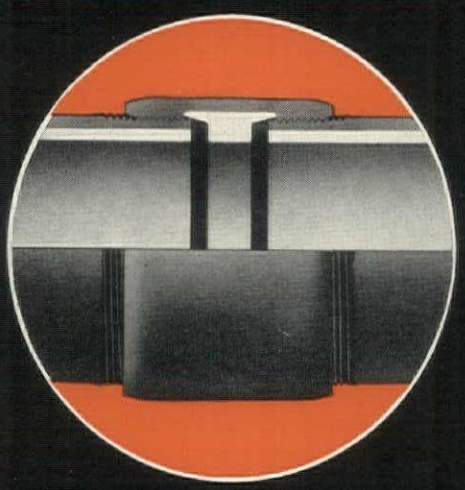

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NATIONAL DUROLINE PIPE

Area and Number of Cities	Average Family Income—Home Owners and Tenants					
	Home Owners			Tenants		
	Yearly Average Income		Percent Decline From 1929	Yearly Average Income		Percent Decline From 1929
	1929	1933		1929	1933	
Average, 52 cities	$2,269	$1,478	35	$1,512	$1,052	30
New England, 4 cities	2,746	1,857	32	1,701	1,217	28
Middle Atlantic, 4 cities	2,183	1,445	34	1,556	1,079	31
East North Central, 6 cities	2,251	1,291	43	1,657	1,027	38
West North Central, 10 cities	2,152	1,436	33	1,580	1,132	28
South Atlantic, 9 cities	2,275	1,619	29	1,218	924	24
East South Central, 3 cities	2,212	1,351	39	1,218	783	36
West South Central, 6 cities	2,444	1,591	35	1,543	1,091	29
Mountain, 6 cities	2,142	1,300	39	1,561	1,045	33
Pacific, 4 cities	2,157	1,395	35	1,648	1,142	31

Income Reduction, 1929-33

the inquiry yield specific answers to all the principal phases of the problem. The physical description of the property was taken as a starting point, but the main emphasis was placed upon data covering values, rents, incomes, indebtedness and financing terms, so that the results might provide the basis for diagnosing and dealing with housing questions, locally and nationally. Many Government and private agencies were consulted to insure the incorporation of ideas deemed essential in a comprehensive attack upon the problem."

All three schedules opened with questions as to the location and type of the building, its construction, and the race of its occupant. In the shortest of the three, *tenants* were asked the number of rooms and persons in the unit occupied; their annual rent bill for the years 1929, 1932 and 1933, and what utilities were included in their rent; whether their rent was fully paid, and, if not, the extent of their delinquency; what their family income consisted of; the occupation of the head of the family, and the proportion of full time he was employed in 1933. *Owner-occupants* were asked similar questions relating to their income, in addition to fifteen questions on the financing of their dwellings by amount of loan, year it was made, interest rate, term, ratio of debt to value, priority of obligation and some of credit. The same block of fifteen questions was contained in the questionnaires to *landlords*, who also filled in their gross rents for the years 1929, 1932 and 1933.

Results. Among the more immediately apparent conclusions to be drawn last month from the survey were the following:

1) *The state of the housing industry is indisputably linked to family incomes, and family incomes fell one-third from 1929 to 1933.* Nothing has ever placed more emphasis upon the fact than the Financial Survey, which renders a great service in accurately defining the precipitous fall which incomes took in 1933. The relative decline in home-owners' incomes ranged from 17 per cent in Binghamton to 53 per cent in Racine. The decline in average income of tenants varied from 15 per cent in Richmond to 47 per cent in Racine.

Average incomes reported for owners declined at a more nearly uniform rate and more sharply during the four years than tenant-incomes. The largest changes in average incomes among the geographic areas occurred in six East North Central cities where declines in home-owners' incomes were 43 per cent and in tenants' incomes 38 per cent (see table, left).

2) *Family incomes (and thus, too, the housing industry) are preponderantly dependent upon employment and wages.* Here the matter is somewhat more narrowly defined. Not content merely to trace the fall of incomes, the Financial Survey lays bare the proportion of family return attributable directly to wages and salaries and affords an opportunity for correlation of the figures on rent delinquencies and mortgage arrearages with those on employment and wages. Wages and salaries constituted 92 per cent of the average annual family income of all tenants reporting. The head of the average tenant family was employed 65 per cent of full working time in 1933, the proportion varying from 59 per cent in the cities of the East South Central States to 72 per cent of full time in the West South Central States.

3) *The housing market, from the landlord's viewpoint, is finally dependent upon family incomes.* Succinctly, the survey suggests to owners and financiers of income property some practicable limits to the amount chargeable for rents set by incomes. The classification of families on the basis of the ratio of rent to income shows that delinquency in payments increased markedly as the rent-income ratio rose above 20 per cent. Of families with rent-income ratios between 15 and 20 per cent, about 16 per cent were delinquent whereas those with ratios of 35 to 40 per cent were delinquent in 34 per cent of the cases.

The above comparisons of rent-income ratios with delinquencies are on a city-by-city basis. When averages for geographic areas were arrived at, the lowest rent-income ratio was 20.4 per cent for southeastern cities, and the figure ranged upward to 27.8 per cent for northeastern cities (see table, below).

The data on actual rentals, reduced to a per room per month basis, proved interesting, if not particularly useful as averaged nationally. These showed that the rent charged in 61 cities in 1933 was $252 per

Area and Number of Cities	Average Rent Bills					Income Data			Ratio of Rent to Income	Per Cent with Rent not Paid Jan. 1, 1934
	Per Dwelling Unit				Per Room Per Mo.	Average Total 1933	Per Cent from Wages	Per Cent of Full Time Employment, Family Head		
	Per Year			Per Mo.						
	1929	1932	1933	1933	1933					
Average, 52 cities	$329	$284	$252	$21	$4.80	$1,062	92.0	65	23.7%	27.0
New England, 4 cities	340	295	298	25	5.10	1,194	91.0	66	25.0	24.0
Middle Atlantic, 4 cities	351	314	274	23	4.30	984	98.4	63	27.8	33.0
East North Central, 6 cities	418	347	295	25	5.50	1,099	93.2	61	26.8	28.7
West North Central, 10 cities	258	236	217	18	4.50	949	91.3	69	22.7	29.7
South Atlantic, 9 cities	351	311	277	23	4.40	1,143	92.5	69	24.2	28.4
East South Central, 3 cities	239	190	159	13	3.30	779	90.0	59	20.4	38.1
West South Central, 6 cities	321	273	236	14	4.70	1,095	92.4	72	21.6	22.6
Mountain, 6 cities	324	285	252	21	5.30	1,081	88.7	62	23.3	24.0
Pacific, 4 cities	344	354	257	21	5.20	1,120	88.4	66	22.9	17.0

Rents, Incomes and Rent Delinquencies

ear, or $21 per month. The rent per room er month averaged $4.80, varying from 3.30 for four East South Central cities $5.50 for seven East North Central ties.

Realizing the value of the survey's gures for larger cities, where slum clear- ice programs are being initiated locally id nationally, Coleman Woodbury of the linois State Housing Board recently dug to Financial Survey of Urban Housing's reliminary figures, and in a bulletin to

All-Event

AHO's Woodbury
He was enabled to bugle.

embers of the National Association of ousing Officials disclosed some pertinent dings.

In search of a maximum low-cost hous- g rental, Houser Woodbury listed the rcentage distribution of tenants by onthly rentals in five Northern and estern cities (Syracuse, Peoria, Minne- olis, St. Paul and Seattle) and in three uthern cities (Birmingham, Atlanta and klahoma City), all over 100,000 popu- ion, as follows:

Monthly Rental	Five Northern and Western Cities	Three Southern Cities
Under $10	4.4	32.1
$10–$19.99	33.6	34.9
$20–$29.99	32.6	17.5
$30 and over	29.4	15.5

Putting this together with the fact disclosed in many a local survey that substandard housing runs from 30 to 60 per cent of all housing, with most in the lower rental ranges, Mr. Woodbury quite logically deduced that a large proportion of the urban families now poorly housed are unable to pay more than $20 a month. With the survey behind him, he was enabled to bugle: "The new Works-Relief program must provide for rentals of $20, or preferably under, for family sized units!"

Thus has use been made already of some of the survey's surface data on rents. The inquiry went deeper into the rent situation, however, to define it more closely; and, given time, housing proponents and others may arrive at still more interesting conclusions from the facts presented. Yet to be analyzed was a store of data on the difference between rent representing the cost of room space and the cost of such facilities and services as furnishings, electricity, mechanical refrigeration, heat, light and garage. It is recognizedly essential that rents be thus broken down in establishing criteria and making comparisons of housing costs.

4) *The housing market, from the producer's viewpoint, is also dependent upon incomes, to a degree not to be overclouded by the factor of supply and demand.* A simple tabulation of family incomes in the year 1933, by income groups, for each of the cities covered (see table, p. 146), roughly serves to indicate the range and limitation of average purchasing power, and thus partly to define the market for both the producer and the income property entrepreneur. However, with such a tabulation, the survey's sponsors ended the definition.

Area and Number of Cities	Average Annual First Mortgage Payment Required	Average Total Income, 1933	Ratio of Mortgage Payment to Income	Per Cent with Mortgages in Arrears
w England, 6 cities	$293	$1,780	16.5%	22.0
ddle Atlantic, 5 cities	207	1,371	15.5	27.4
st North Central, 7 cities	326	1,236	26.4	50.8
st North Central, 5 cities	249	1,436	17.3	32.8
uth Atlantic, 10 cities	329	1,597	20.6	35.1
st South Central, 4 cities	270	1,300	20.8	38.5
st South Central, 7 cities	347	1,609	21.6	46.6
ountain, 8 cities	260	1,427	18.9	34.1
cific, 4 cities	296	1,394	21.2	31.7

The Architectural Forum

wner-Occupiers' Mortgage Payments, Income and Arrearages

City and Geographic Area	Ppercent of Properties Mortgaged		Average Value of Mortgaged Properties		Average Debt Outstanding		Ratio of Average Debt to Average Value	
	Owner-occupied	Rented	Owner-occupied	Rented	Owner-occupied	Rented	Owner-occupied	Rented
New England								
Portland, Me	46.7	41.3	$6,142	$7,474	$3,102	$3,990	50.5	53.4
Nashua, N. H	56.8	....	5,290	....	2,226	....	42.1	....
Burlington, Vt	49.7	41.8	6,378	5,722	2,918	3,064	45.8	53.5
Worcester, Mass	83.6	69.3	6,744	7,283	4,522	5,047	67.1	69.3
Providence, R. I	63.2	50.4	6,393	6,901	3,156	4,051	49.4	58.7
Waterbury, Conn	81.1	....	8,112	....	4,868	....	60.0	....
Middle Atlantic								
Binghamton, N. Y	45.6	....	6,637	....	3,049	....	45.9	....
Syracuse, N. Y	76.9	67.1	6,478	7,504	3,692	4,709	57.0	62.7
Trenton, N. J	68.8	39.8	4,176	4,020	2,438	2,308	58.4	59.7
Erie, Pa	49.7	36.5	4,957	5,704	2,858	3,659	57.7	64.5
Williamsport, Pa	36.1	28.7	4,035	4,653	2,285	2,331	56.6	50.1
East North Central								
Cleveland, O	67.0	53.2	6,635	8,008	3,794	5,425	57.2	67.7
Indianapolis, Ind	63.8	51.2	4,946	4,776	2,781	2,723	56.2	57.0
Decatur, Ill	50.1	31.8	2,788	2,684	1,685	1,647	60.4	61.4
Peoria, Ill	54.0	40.3	4,745	5,417	2,393	2,844	50.4	52.5
Lansing, Mich	57.4	36.5	3,967	3,555	2,361	2,026	59.5	57.0
Kenosha, Wis	65.3	48.2	5,273	6,698	2,837	3,913	53.8	58.4
Racine, Wis	67.1	53.5	5,529	6,875	3,257	4,109	58.9	59.8
West North Central								
St. Paul, Minn	48.0	41.4	4,207	5,186	2,104	2,783	50.0	53.7
Minneapolis, Minn	55.9	46.2	4,819	5,830	2,525	3,300	52.4	56.7
Des Moines, Ia	49.5	35.4	3,624	4,119	1,928	2,149	53.2	52.2
Fargo, N. D	57.9	....	5,168	....	2,605	....	50.4	....
Sioux Falls, S. D	53.4	40.8	4,538	5,222	2,118	2,548	46.5	48.8
Lincoln, Nebr	48.2	36.5	3,860	4,148	2,069	2,626	53.6	63.3
Topeka, Kan	44.0	26.2	3,632	3,831	1,829	1,992	50.4	52.0
Wichita, Kan	53.5	38.8	3,002	3,107	1,704	1,782	56.8	57.4
Springfield, Mo	50.1	25.4	3,004	3,082	1,590	1,487	52.9	48.2
St. Joseph, Mo	42.9	24.7	3,756	3,245	1,973	1,770	52.5	54.5
South Atlantic								
Frederick, Md	30.5	....	3,945	....	1,961	....	49.7	....
Hagerstown, Md	49.6	25.2	5,275	4,445	3,215	2,995	60.9	67.4
Richmond, Va	49.7	34.2	5,971	5,893	3,544	3,689	59.4	62.6
Atlanta, Ga	58.3	40.7	4,828	6,990	2,766	4,890	57.3	70.0
Wheeling, W. Va	35.3	21.9	4,422	5,791	2,186	2,962	49.4	51.1
Greensboro, N. C	36.8	29.3	5,836	6,476	3,613	3,964	61.1	61.2
Columbia, S. C	58.4	33.7	5,107	5,607	2,930	3,510	57.4	62.6
Charleston, S. C	32.9	23.6	4,761	4,139	2,396	2,148	50.3	51.9
Asheville, N. C	46.9	14.5	4,000	3,738	2,739	2,981	68.3	79.7
Jacksonville, Fla	47.6	....	4,513	....	2,355	....	52.2	....
East South Central								
Paducah, Ky	30.7	7.1	2,772	4,458	1,626	2,150	58.7	48.2
Knoxville, Tenn	43.3	25.6	3,294	2,189	1,623	1,555	49.3	71.4
Birmingham, Ala	52.4	22.9	3,675	5,718	2,264	2,975	61.1	52.0
Jackson, Miss	61.5	....	4,538	....	2,285	....	50.4	....
West South Central								
Oklahoma City, Okla	61.7	43.1	4,279	6,882	2,489	3,816	58.2	55.5
Dallas, Tex	53.3	39.6	4,212	4,749	2,253	2,696	53.5	56.7
Austin, Tex	39.2	29.2	4,199	3,776	1,948	1,921	46.5	50.9
Wichita Falls, Tex	41.4	20.9	3,106	2,522	2,060	1,825	66.3	72.4
Baton Rouge, La	53.3	....	4,292	....	1,931	....	45.0	....
Shreveport, La	59.7	35.1	3,882	4,925	2,137	2,675	55.0	54.3
Little Rock, Ark	43.8	23.9	3,682	3,883	2,317	2,417	62.9	62.2
Mountain								
Butte, Mont	24.4	15.1	3,327	6,334	1,373	3,307	41.3	52.2
Casper, Wyo	44.0	....	3,141	....	1,787	....	56.9	....
Boise, Idaho	45.1	....	3,515	....	1,518	....	43.2	....
Pueblo, Colo	40.9	22.5	2,375	2,142	1,406	1,262	59.2	58.9
Albuquerque, N. M	54.6	44.1	3,902	5,858	2,361	2,544	60.5	43.4
Phoenix, Ariz	55.6	43.6	4,249	4,858	2,392	2,589	56.3	53.3
Salt Lake City, Utah	54.0	42.9	3,858	6,892	2,236	4,124	58.0	59.8
Reno, Nev	50.6	29.2	5,996	4,964	2,982	2,445	49.7	49.3
Pacific								
Portland, Ore	51.0	33.8	3,612	4,509	2,044	2,475	56.6	54.9
Seattle, Wash	49.2	36.4	3,907	8,648	2,138	4,944	54.7	57.2
San Diego, Calif	50.6	38.6	4,224	4,867	2,296	2,804	54.4	57.6
Sacramento, Calif	54.5	45.0	4,409	4,838	2,724	3,105	61.8	64.2

The Debt Picture in 61 Cities

An attempt is made to establish rela tionships between owners' mortgage pay ments, incomes and mortgage arrearage in the table on p. 149, similar to thos found true in the table opposite on rent incomes and rent delinquencies. The im practicability of comparing the advantage of home ownership over renting by th figures presented here must be admitted; the tables are placed opposite each othe merely to show their relationship in th scale of housing finance. However, it i established that whenever the ratio o mortgage payments to incomes exceeds th norm, as it apparently does in the cas of the East North Central cities, the effec is sharply reflected in the mortgage arrear ages.

The difficulties in arriving at any genera conclusion from the financing data gathere in the survey were, in the words of Direc tor Wickens, "increased by the variabilit of conditions and procedure which hav accompanied a comparatively unstandard ized market, and which have resulted i important differences in cost, credi source, and procedure even between neigh boring cities." Facts unearthed, howeve gave building money men, not without thei interest in the foregoing conclusions, mate rial along a dozen directions which the never before had known. As much materia was obtained on foreclosures and reductio of debts, there seemed room and furthe opportunity for isolation of the worst o the financing methods by checking then against this data. But inasmuch as thi has not as yet been done in any great deta it must be foregone, for the present, i favor of a description of the conditions.

Financing Data. A majority of the owne occupied dwellings were found to hav mortgage indebtedness. These debts range between $2,000 and $3,000 in most cities the highest average being $4,900 for Water bury, and the lowest $1,520 in Pueblo Properties in cities of the East North Cen tral and West North Central States wer generally more heavily indebted than were properties in the cities of New England and the South.

Both the purchase price and the 193 value of the properties were highest fo cities in the northeastern United States and lowest for the South Atlantic and Mountain cities. The least relative chang between average cost of properties and average value as of January 1, 1934, oc curred in the northeastern States.

A larger proportion of owner-occupied properties was acquired without the as sumption of debt during the years 1920 1929 than in the four years 1930-1933 but in most cities from 60 to 70 per cen of the properties acquired in either perio used credit in making the transaction

*Lacking in the table for home owners is th factor of taxes, for which a separate inquir would have to be undertaken.

Area and Number of Cities	Average Mortgage Debt Outstanding on Identical Owner-Occupied and Rented Properties in 52 Selected Cities					
	Owner-Occupied			Rented		
	1930	1933	1934	1930	1933	1934
New England, 4 cities	4,224	3,680	3,904	4,867	4,545	4,157
Middle Atlantic, 4 cities	3,334	3,202	3,165	3,823	3,672	3,604
East North Central, 6 cities	3,316	2,982	2,878	3,848	3,545	3,614
West North Central, 10 cities	2,474	2,174	2,079	2,796	2,437	2,389
South Atlantic, 9 cities	3,392	3,023	2,902	4,917	4,593	4,396
East South Central, 3 cities	2,709	2,256	2,099	3,430	3,191	3,050
West South Central, 6 cities	2,695	2,295	2,148	3,342	2,937	2,752
Mountain, 6 cities	1,961	1,851	1,767	3,460	3,143	2,998
Pacific, 4 cities	2,840	2,462	2,327	4,185	3,745	3,611

Debt Reduction, 1930-34

Most cities reported that the greater part of the consideration was represented by credit extended when the property was acquired. In general, assumption of larger percentages of debt was most frequent in the New England cities and other industrial areas or those which had experienced recent real estate activity, and least frequent in the Mountain cities and most Southern cities. For most cities in all areas owner-occupied properties used larger percentages of credit than rented properties.

Interest rates most frequently found were somewhat above 6 per cent per annum for owner-occupied one-family dwellings, the extremes for individual city averages being 5.43 in Syracuse and 7.95 in Butte. An average rate of 7 per cent or more predominated in cities of the Mountain and West South Central States, and was occasionally found elsewhere. Contract rates between 5 and 6 per cent were more common in cities of the New England and Middle Atlantic States.

Term of loan varied widely for different cities. Loans of the shortest terms were commonest in areas where commercial banks and individuals do a large proportion of the lending, while the term of loan was found to average longer where building and loan associations are the more important sources of credit, as commonly in cities of the Middle West and cities of the smaller sizes in some other areas.

Amortization was found to be the rule, rather than the exception, annual payments required in most cities averaging between $200 and $350 per year. A substantial proportion of the loans on owned homes were in arrears in 1934, the most common delinquent proportion being between 30 and 40 per cent. The lowest rate of delinquency for cities included in the survey was 14 per cent for Syracuse properties and the highest, 63 per cent for Oklahoma City.

Debt-value ratios, based on present values, averaged well above 50 per cent, ranging mostly between 30 and 85 per cent, with a fairly equal distribution of properties within that range.

Types of financing reported included mostly first mortgages. In no area did second mortgage financing exceed 12 per cent of the reported credit on owner-occupied properties, and for most cities it ranged from 2 to 5 per cent of the total.

De Gueldre

NAREB'S Nelson

. . . . jumped the survey's gun

The largest volume of second mortgage financing was reported for the New England and Middle Atlantic cities.

Source of credit data proved the most interesting of all the survey's findings on financing. Asked what type of lender supplies most of the building money in the U. S., many a seasoned mortgage man would scratch his head. The answer, the individual mortgagee, would come out hesitantly if at all. To name off every type, in order of its importance would be a test which 99 per cent of U. S. mortgagees would flunk, 1 per cent pass by guesswork. For previous to the Financial Survey of Urban Housing no comprehensive survey of the relative importance of individuals and various types of mortgage lending institutions in the lending picture had ever been made.

Possible exception to this was a recent check made by the National Association of Real Estate Boards' Herbert U. Nelson, which leaned heavily upon preliminary figures of the survey. Unable to wait for the survey's final results, which he suspected would show a preponderance of individual mortgagees, and thus substantiate his thesis that the Federal Housing Administration is slighting its biggest task in denying mutual mortgage insurance to this group, NAREB's Nelson carried out his own survey through local real estate boards, jumped Financial Survey of Urban Housing's gun by three months.

Individuals held 25 per cent of the mortgages, guessed some local boards. Other guesses went as high as 75 and 80 per cent. Mr. Nelson concluded 33⅓ per cent. Final results of the Financial Survey showed him just 9 per cent too high (see table below).

Building and loan associations were found to hold more than half of the total amount of the loans on owner-occupied properties in six widely separated cities. Savings banks had as large a proportion in two, located in New England and the Middle Atlantic States, respectively; while individuals had more than 50 per cent in nine cities, and between 35 and 50 per cent in fourteen additional cities. Life insurance companies were relatively more important as lending agencies in the West North Central and South Eastern cities.

Loans on rented dwellings in individual cities were found concentrated largely in one class of institution.

Types of Mortgagee	Number	Amount	Percent of Total
Total reporting agencies	90,506	$237,966,900	100.0
Life insurance companies	8,840	36,299,400	15.3
Building and loan associations	15,222	33,721,000	14.2
Commercial banks	12,103	38,021,200	16.0
Bond issues	47	304,100	0.1
Savings banks	9,805	28,605,300	12.0
Mortgage companies	7,094	17,505,400	7.4
Construction companies	622	1,282,000	.5
Title and trust companies	2,656	7,253,900	3.0
Home Owners Loan Corporation	2,401	6,813,200	2.9
Individuals	27,429	57,468,800	24.1
Other	4,287	10,692,600	4.5

The Nation's Home Mortgagees in Cross Section

LENDING IN THE DARK

is outlawed by Brooklyn's savings banks, whose Mortgage Information Bureau has become a model for the U. S.

In Lawrence, Mass., in Philadelphia, and in the New York boroughs of Manhattan and Brooklyn there are emerging four different organizations, each designed to make better lenders, owners and managers of local savings bankers. A fifth such group is scheduled for Fall initiation in Boston, giving substantiation to the belief that for the first time in the history of mortgage practice the long and much needed cooperation between lenders is coming into definite being.

In Lawrence, it's the Greater Lawrence Mortgage Information Bureau; Philadelphia's group is called Property Service, Inc.; in New York it's simply the Mortgage Conference; and in Brooklyn the parent of them all, the Group Five Mortgage Information Bureau, is half way through its second successful year.

All are based on the principle of sharing private information for the benefit of all. To the central bureau, whatever its name, the members forward daily, weekly, and monthly reports of loans, sales, foreclosures, reports of property modernization, and details of other operations of common interest. Compiled and filed at the bureau, they are available to all members for guidance in similar problems. Such is the basic system, and in different groups, supplementary activities of different kinds are carried on.

The Mortgage Conference of New York, for instance, is now tabulating lenders' experience on 100,000 mortgages, hoping to answer such questions as:

What the collective experience has been with each type of property as compared with each other type—for example, how mortgages on one-family houses have stood up as compared with mortgages on apartments.

How much importance can be attached to the relation between the loan and the appraised value, and on what types a difference between, say, 40 per cent and 60 per cent loans is, or is not, an important safeguard.

To what extent and under what circumstances the once customary large portion of land value in total appraised value has been a factor of safety, or just the reverse, in recent experience.

Do almost all mortgages on homes with values higher than, say, $10,000, $15,000, $20,000 or $25,000 ultimately become troublesome investments?

At what general level of real estate values can first mortgage loans be made up to the legal limit of 60 per cent, and in what circumstances should the limit of safety, generally speaking, be, say 40 p cent.

Also in preparation under Director Joh F. McKean are reports of members' r habilitation projects, records of all ne construction in New York, and an assemb of all available data on population an housing.

But it is the Brooklyn group who experience is old enough to indicate th full scope of a mortgage informatio bureau's activities. The Brooklyn Burea opened a one-room rent-free office in th tower of the Williamsburg Savings Ban in April, 1934, with a staff of one and budget of $6,000. Of the 20 Brookly banks, 12 joined, immediately subscribin hopefully the ante of $10 per $1,000,00 of mortgages, and what was even mo important to the Bureau's success, pled ing 100 per cent cooperation in the grantin of information.

As chairman of the bureau the membe elected the man who gave them the idea- Bernard Francis Hogan, then vice pres dent and now president of the Great New York Savings Bank. Besides boostin its roster to eighteen of the Brookly banks, membership has been granted four banks in the neighboring borough Queens, one bank in Manhattan acro the river, two upstate New York bank and the RFC-financed Institutional Secu ities Corporation, discounting agency f all New York State savings banks.

So strongly do the members insist o 100 per cent cooperation from their co leagues that they refused the dues pa by one institution which failed to giv requested information on its loans an property owned. The original ante of $1 per million of mortgage and real esta investment has been increased to $20, an the budget doubled to supply the eve increasing scope of the Bureau's work.

Without attempting to usurp the fun tions of individual appraisers, or the re estate officers of member banks, the burea aims to supplement their work with bas information, not opinion, that woul otherwise not be available. Its work divided into four major parts: (1) Perio ically published information originatin with the bureau; (2) answering specif queries of members on real estate, mor gages, mortgage practice, or new loan (3) representation of the membership matters of public interest pertaining their mortgages and real estate; (4) mai tenance of a tenant file for the use no only of members, but of all owners an brokers in Brooklyn and Queens.

. Reports and Studies Sent to Members

A. *Monthly reports*, issued the 20th of ach month, cover total sales, foreclosures, ew loans made by members from the 15th f the month preceding to the 15th of the urrent month, showing number and dollar alue, and are broken down according to uilding types and geographic districts. Reports are accompanied by notes as to he types of buildings suffering most from oreclosure, types of property and sections howing greatest sales volume and loan opularity.

B. *Vacancy surveys*, published twice a ear, cover all properties owned by mem- er banks in Brooklyn, and are supple- ented by volunteered data from New ork banks, covering now about 20,000 ousing units. They are subdivided accord- g to sections so that members may com- are their own vacancies with those of her banks. An example of the value of e surveys: A member discovered that s 36 per cent vacancy in one area of rooklyn was far out of line with the acancies of other members. An intensive nting campaign drove their occupancy o to 88 per cent in five months, to 94 r cent in a year. Also apparent from e surveys are the relative rentability of fferent types of housing accommodations.

C. *Interest reports*, issued monthly, show llections of mortgage interest for each onth at the end of 15-day periods.

D. *Special reports*, issued from time to ne. To date, seven reports have been eased, another is in preparation. They vered: effect of interest rate reductions interest collections, which purported to ow that payments bettered 60 per cent a reduction in interest of 1 per cent; mparison of foreclosures and sales by ars and neighborhoods since 1930; per- ntage of sales to foreclosures in neigh- rhoods to establish the forwardness of e different districts; maps of Negro opulation trends, of heavy foreclosure eas, of neighborhood trends; and de- iled reports of neighborhood conditions.

Inquiries from Members

Topping all services the Bureau gives its members is the handling of specific quiries, and therein lies the key to the ureau's success. Instead of spending the lk of its time in making exhaustive fancy rveys, which make interesting reading, t which have a minimum of direct ap- ication to the members' business, the ureau concentrates its time in answering detail the hundreds of weekly requests r data.

A. *Inquiries on real estate* cover a wide nge of problems, comparative rentals, novations, sales, foreclosures: Typical eries: "Please send us a full description of all renovations within four blocks of Evergreen Street, including current incomes and cost of improvements." "The following properties are giving us trouble and we would like to know what information you have on the neighborhood . . ."

B. *Inquiries on New Loans*. Eight members send all their mortgage applications to the Bureau, and before members of the loan committees inspect the property they are given detailed reports which include:

I. Amount and arrearage of mortgages on similar properties in the block.

II. Foreclosures in block, including amount of mortgage, bank appraisal, and asking price.

III. Rentals on similar properties.

IV. Recent sales in block.

V. Report of inspection of particular property by a member bank, if any, and reason for rejection or the amount of offer made.

VI. New construction in neighborhood.

VII. Analysis of general trend of neighborhood.

From less than a dozen a year ago, requests of this sort from members now number a hundred a week.

C. *Queries on General Practice*. The Bureau has collected forms for mortgage applications, inspection forms, etc., used by members, all of which are available to other members. Soon to be issued are standard forms for all members.

3. Representation in Matters of Public Interest

A. *Construction Standards.* From the sad experience of managing foreclosed properties, banks have learned the high price of cheap construction. To avoid such expenses, the Bureau, under the leadership of Fred Gretsch, Lincoln Savings Bank Vice President, has developed standards of construction for apartment houses, and is working on others for one- and two-family houses. Introducing no major innovations, the standards are, however, unusually high, and are not to be waived without written permission of whatever member bank is making the loan. Regular bank inspection or the certificate of a recognized architect will be employed to see that the requirements are met.

B. *General counsel* on such subjects as rent relief checks, elevator strikes, and building racketeering.

4. Tenant File

To put an end to rent chiseling, an extensive tenant file, contributed to and open to the inquiries of others than member banks, has been assembled. Data includes:

A. Name of every dispossess served in Brooklyn and Queens obtained daily from court records.

B. Name of every tenant who vacates, leaving rent unpaid.

C. Names of all tenants in arrears more than 30 days, or who, for other reasons, are undesirable.

In addition to these services, the Bureau has on file:

1. An assortment of records, which includes full data on about 4,000 pieces of property, giving full information as to character, rentals, income, expenses, neighborhood trends, appraisals, mortgage and foreclosure, and asking price.

2. About 100,000 cards on the mortgages held by member banks, detailing amount

Ira L. Hill

Mrs. Millicent Pierce Kemp

Her bureau is making better lenders, owners and managers of Brooklyn bankers.

of mortgage, location, interest rate and mortgagee.

3. Record of every property inspected by member bank and report on mortgage application, telling why application was refused, or offer made.

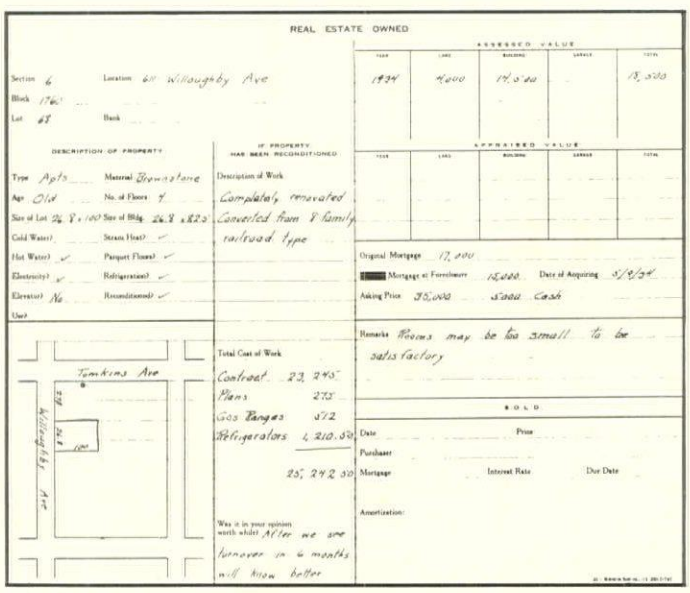
4. Complete records of all new construction, filled ground, lawsuits against members.

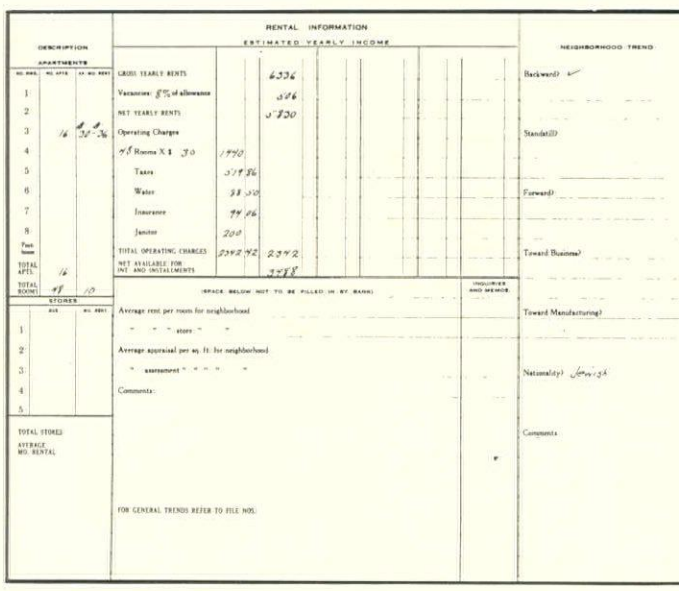
5. A record in photographs, plans and figures of all rehabilitation work done by member banks.

To handle the tremendous organization problem involved in assembling the data and recording it ready for immediate use was a task which would have taken the best in any seasoned mortgage officer or real estate man. But the Brooklyn savings banks picked neither a seasoned operator nor, in fact, a man. Instead they chose a young woman, half a dozen years out of Bryn Mawr, whose mortgage experience up to the time she opened the office in the Williamsburg Tower was exactly zero.

Mrs. Millicent Pierce Kemp stepped from college into the City Bank Farmers Trust Company, first in the trading department, then into four years of statistical, security analysis, and trust investment research. When she stopped to marry in 1932, she had no thought of returning to business—but the opportunity offered in directing the work of the Group Five Bureau was too great.

Like many another woman in business she stands out from her male colleagues because of her deft handling of detail, and her ability to organize facts in sensible array. To the dozens of bankers from other cities who have investigated the workings of the Brooklyn bureau, she has emphasized the fact that in other cities such institutions as Mortgage Information Bureaus might not work. Such a bureau, she points out, succeeds or fails depending on the 100 per cent cooperation of all the members. That 100 per cent cooperation in Manhattan, for instance, would be obtained is a subject of current debate. From the standpoint of the Brooklyn banks, however, the results have been found well worth the time it takes to cooperate.





Ownership Facts

On cards like these the records are kept of property owned by member banks, outlining a description of the property, results of reconditioning, if any, assessed and appraised values, offers made, and full rental data. Similar cards are filed on loan applications. They form the basis of the personal reports issued at the rate of 100 a week to member banks.

A THEORY IS EXPLODED

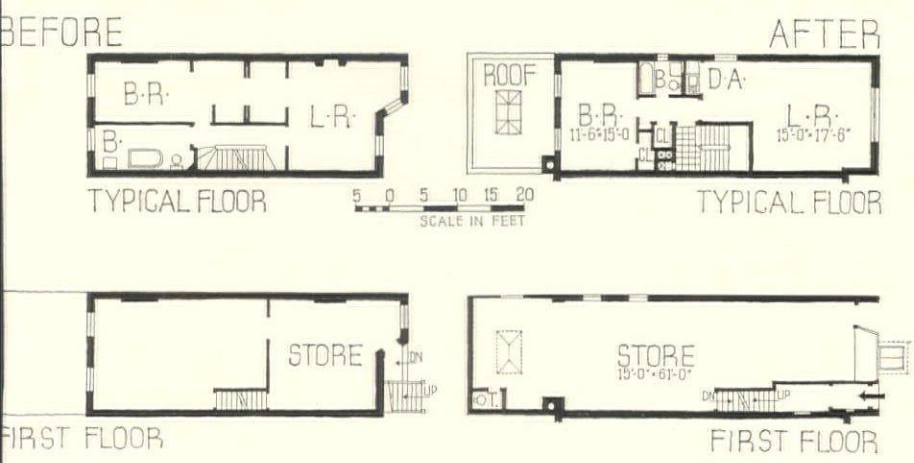
ınd a sizable return assured in 16-ft. flat's modernization.

REFUTING the theory that modernization or narrow buildings generally fails to ake enough splash to count, a job done y the Bank for Savings in New York upon crusty old 1880 walk-up with a frontage f but 16 ft. was last month beginning to ıstify itself as a tenant-getter.

A return of over 25 per cent on the cost f renovation, and of from 7 to 8 per cent n the total investment seemed assured. rior to the building's modernization, the ank's investment in it amounted to $30,-00, plus several thousand dollars in fore-osure costs. Twelve thousand dollars ere spent in remodeling it. As shown in the plans and photographs below, the flats, each 62 ft. in length, were completely modernized, and more spacious bedrooms and living rooms achieved in the process. The considerably enlarged living rooms were made possible by the alteration to the front, which gave the building the air of distinction reflected in its rentals.

Gross return on the building will be $6,240, figuring $3,000 for the store and $1,080 for each of the three flats. When taxes of $1,200 and operating expenses of approximately $1,500 per year are subtracted, a net return of $3,500 may fairly be expected. This is sufficient to amortize the cost of renovation in four years, with a 1 per cent return on the total investment left over, although it is doubtful whether the bank or a possible buyer would decide to amortize over so short a period.

The notably good design was done in the bank's own architectural department.



vestment, $30,000; Return, 0

Investment, $42,000; Return, $3,500

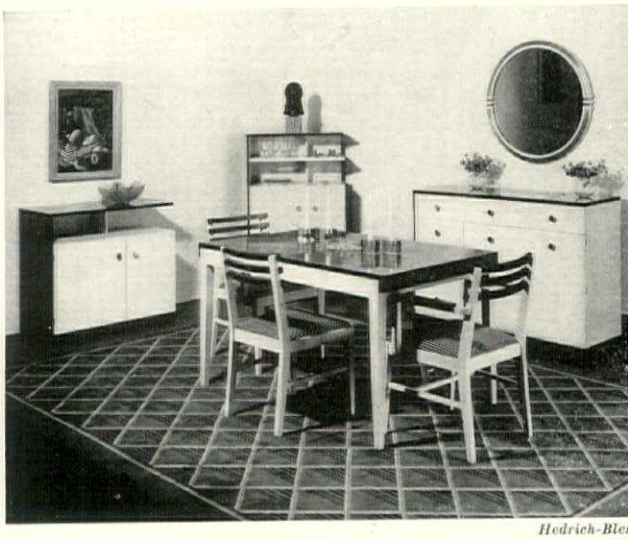
FORUM OF EVENTS

(Continued from page 12)

in upholstered, 30 in. mirrors, 20 in. end and occasional tables
Approximately "Amodec" prices (all retail):

Three seat, upholstered couch (top price)	$140
Desk	$49
Chairs	$18 to $70
Single Bed	$19.50 to $38
Chest	$30 to $60

Kroehler Manufacturing Co. is offering complete series o furniture for bedrooms, living rooms, and combination livin room dining rooms. Kroehler chose Gilbert Rohde as it designer. The Rohde furniture is in severe lines of consider



Hedrich-Ble

AMODEC DINING SET

able beauty and is exclusively limited to solid oak, eithe natural finish or stained gray. The lines are low, the construc tion solid. In sharp contrast to the "Amodec" price list Kroehler's:

Three seat couch	$98.50
Desk	$39.50
Chairs	$22.60 to $40
Single Bed	$16.50 to $18.50
Chest	$30

It must be noted that the Kroehler furniture is cheape not so much through its assembly line production as throug the fact that it uses cheaper woods and less trimming tha "Amodec." The Furniture Mart last month heralded wha should prove a merry sales fight between two top-notch an alert manufacturers.

JORDAN MARSH'S COMPETITION

ONE of the best known of Boston's department stores, bi rich Jordan Marsh Co., last month burst into full-pag advertisements in Boston's newspapers with the names 19 New England architects who had won prizes or honorabl mentions in the store's architectural competition for th design of four small homes. The Boston *Post's* proud editoria statement that this competition was "the most outstandin building project ever launched by a retail store" could n easily be denied. Prize money totaled $4,200 brought entri from most of Boston's well-known small house architect

(On pages 34 and 35 appear the winning Jordan Marsh drawings. Forum of Events continued on page 37.)

PERMANENTLY SILENT

. . . that's one of the big reasons why Electrolux appeals *so strongly* to tenants and prospective tenants

And this modern gas refrigerator brings you and your tenants these other big advantages, too:

FOR TENANTS

1. Low operating cost
2. Finest modern beauty
3. Every worthwhile convenience

FOR OWNERS

1. No moving parts to wear
2. Long life
3. Gas company service

EACH YEAR, more and more tenants are demanding the freedom from noisy refrigeration which only Electrolux offers. That's one of the important reasons why, in New York City alone, 4500 apartment buildings are already equipped with this modern gas refrigerator.

For Electrolux has no moving parts *to cause* noise . . . no moving parts, either, to *become* noisy! A tiny gas flame does all the work . . . circulates the simple refrigerant, which produces instant cold, silently and unfailingly. Add to the permanent silence of Electrolux its low operating cost, its sparkling beauty, its many convenience-features, and it's easy to understand why Electrolux makes such a big hit with tenants and prospective tenants . . . why apartments offering this *silent* refrigeration find rental season more successful.

And remember, too: because Electrolux has no moving parts to wear, you are freed from *this* cause of refrigeration complaint, interrupted service, and shortened life. Your local gas company displays Electrolux . . . backs and services every one it sells. See and examine it at your gas company's showroom today! Servel, Inc., Electrolux Refrigerator Sales Division, Evansville, Ind.

NEW *Air-Cooled*

ELECTROLUX

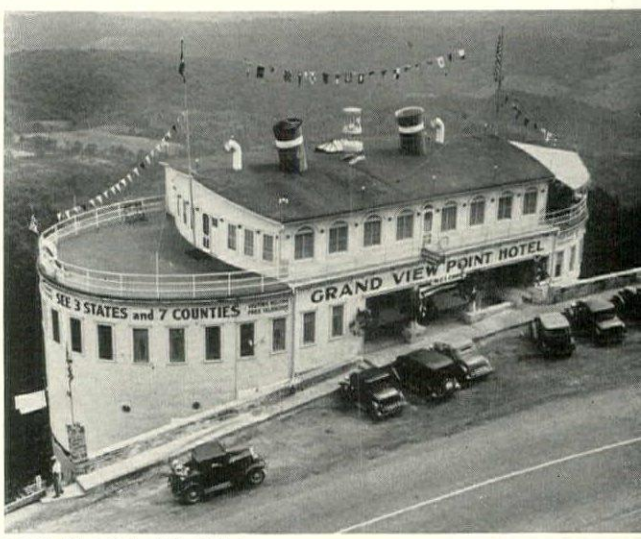
THE SERVEL *Gas* REFRIGERATOR

PALACES OF THE HOT DOGES

History fails to record the name of the intrepid genius who first conceived the idea of inflating a frankfurter to the Gargantuan proportions of a building. But only his identity remains obscure as this display bears not too silent witness. Here motoring America meets at a thousand cross roads to gorge—amid architectural garniture that cannot quite conceal the excellence of the food, the modesty of the prices. You will notice that California has the greatest number of representatives, but you should expect that, for anything haywire is always most haywire in California.

Plucking their inspiration from nursery rhymes, the "comics" or occasional exuberant moments, the designers of these "eaties" vie with one another in a fantastic free-for-all, to the delight of vast numbers of their fellow citizens, the great profit of their employers and the utter astonishment of visitors from foreign shores.

CALIFORNIA

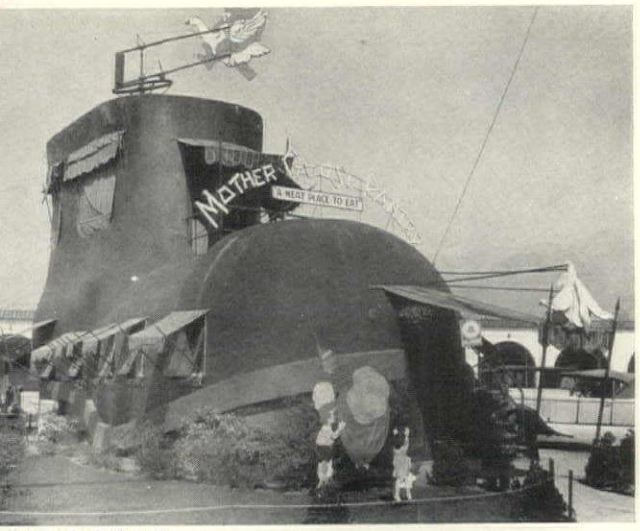


PENNSYLVANIA

CALIFORNIA

All photos, Ewing Galloway

RHODE ISLAND



ALIFORNIA

CALIFORNIA

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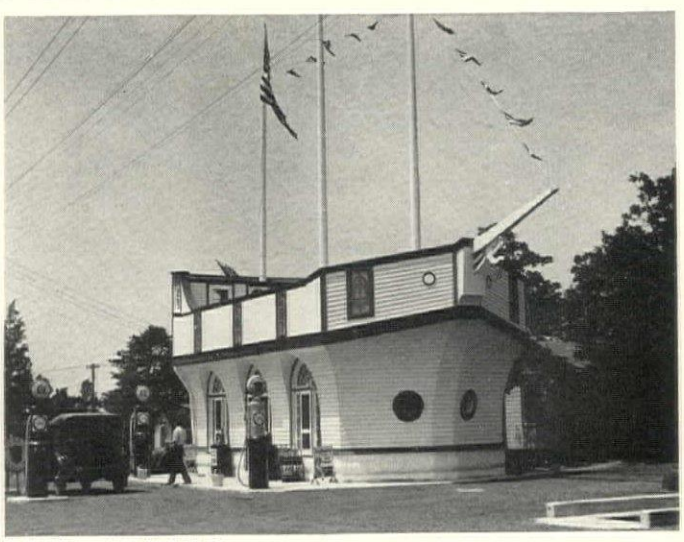
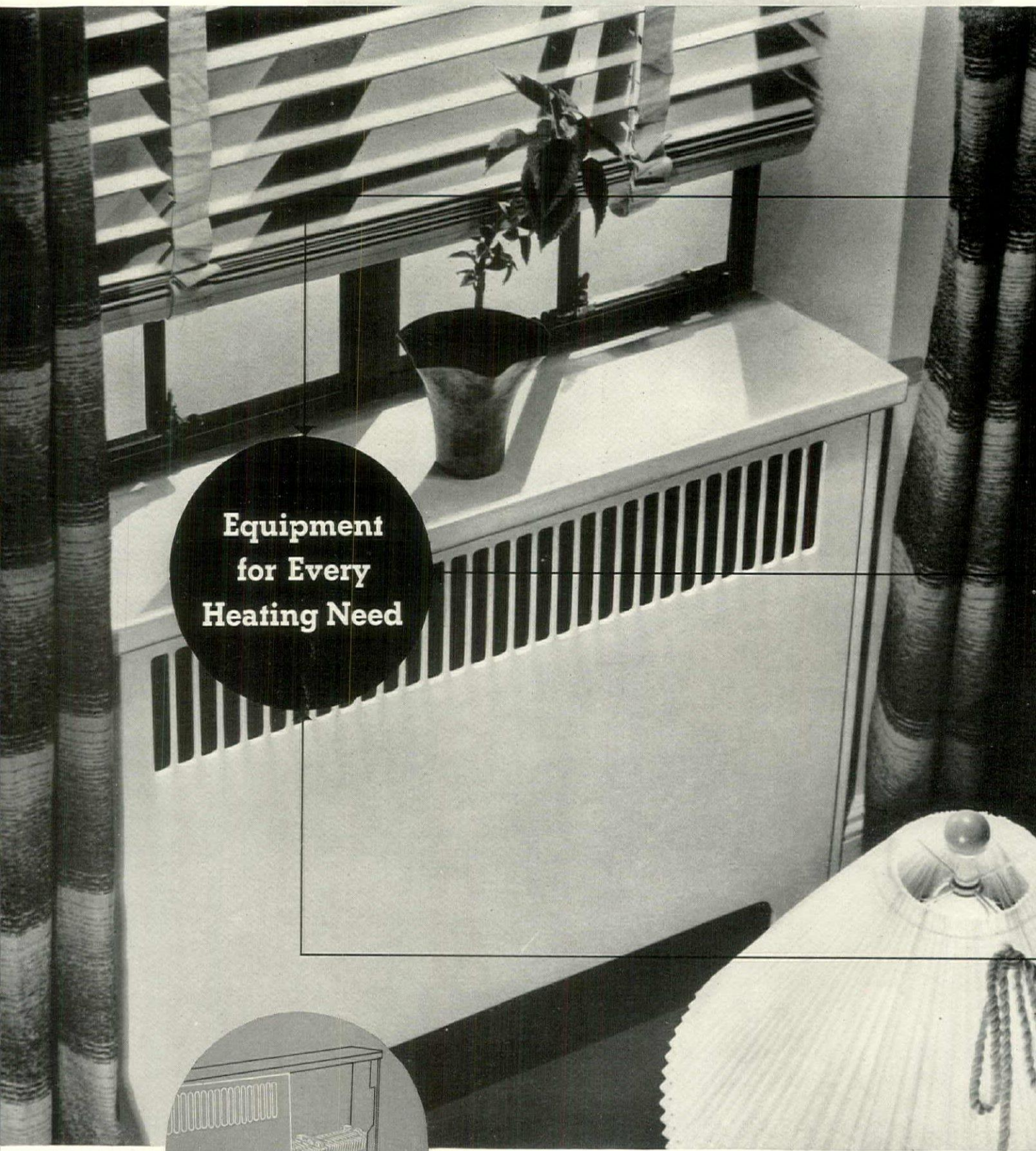


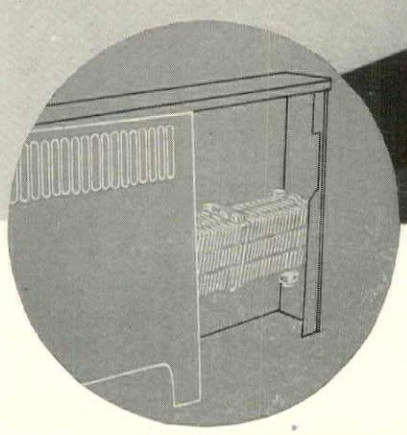
NEW JERSEY

ALIFORNIA

CONNECTICUT

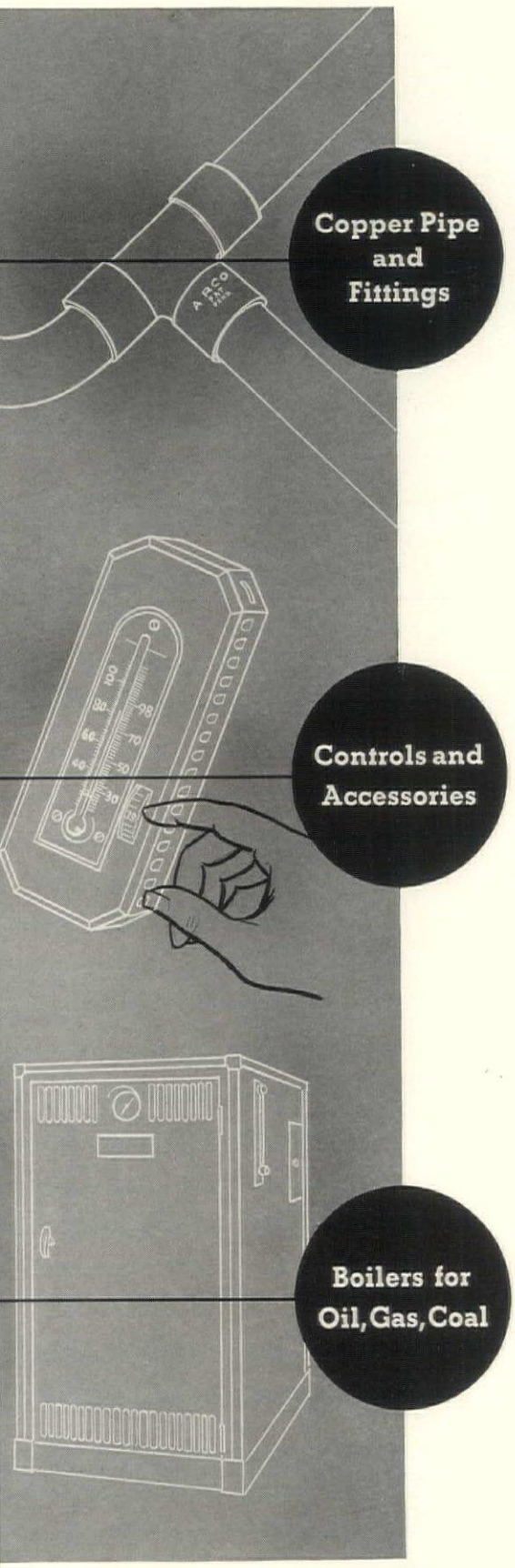
CONCEALED RADIATION





The Arco Convector for concealed radiation: Cast Iron units come in four widths, and in lengths varying by 2½". Front panels and enclosures in a size and style for every requirement. The new Convector Catalogue tells all. Write for it.

part of the complete line of



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- Arco Convectors are a part of the complete line of American Radiator Systems which provide modern heating for every purse and purpose. Whether the home is large or small, the fuel gas, coal or oil, there is an American Radiator System to meet the requirements efficiently and economically.
- You can be certain of undivided responsibility backed by the best known name in heating by specifying American Radiator products on all heating installations. Write today for information on the complete line of modern heating equipment.

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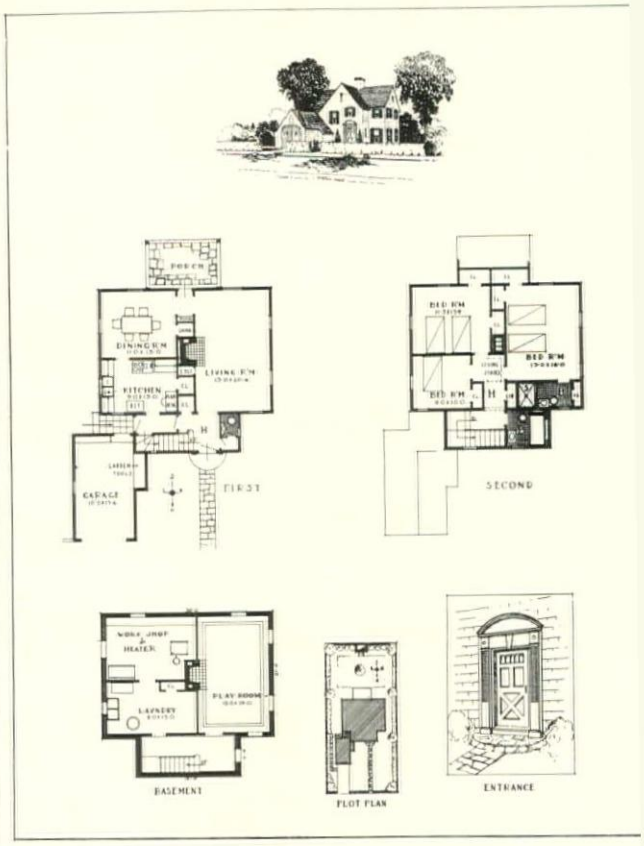
Division of AMERICAN RADIATOR & STANDARD SANITARY CORPORATION

40 West 40th Street, New York, N. Y.

BETTER HOUSING PROGRAM

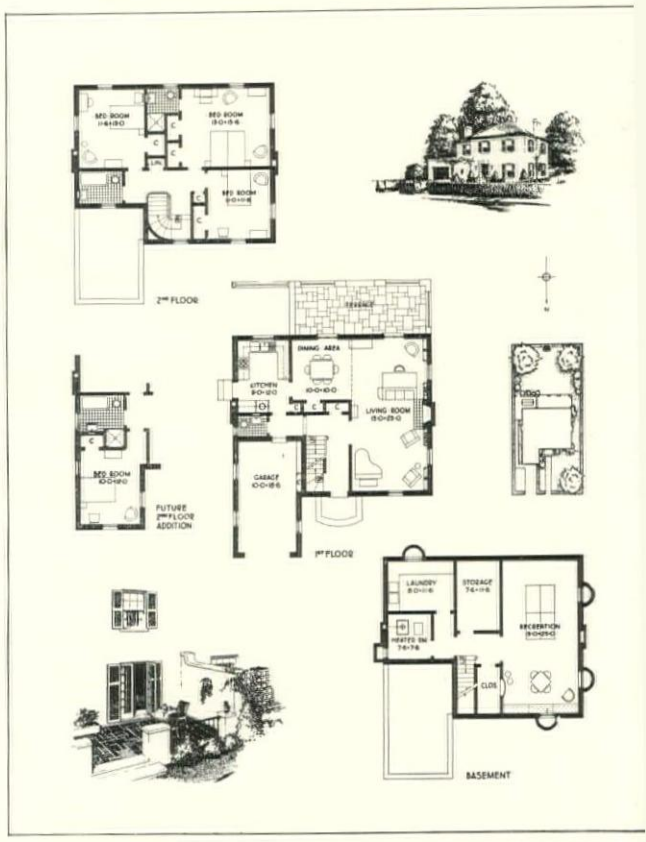
FORUM OF EVENTS

(Continued from page 34)



Class A ($5,000 to $7,500)—Robert L. Stevenson, Architect

Class B ($7,500 to $10,000)—Wendell R. Holt, Architec

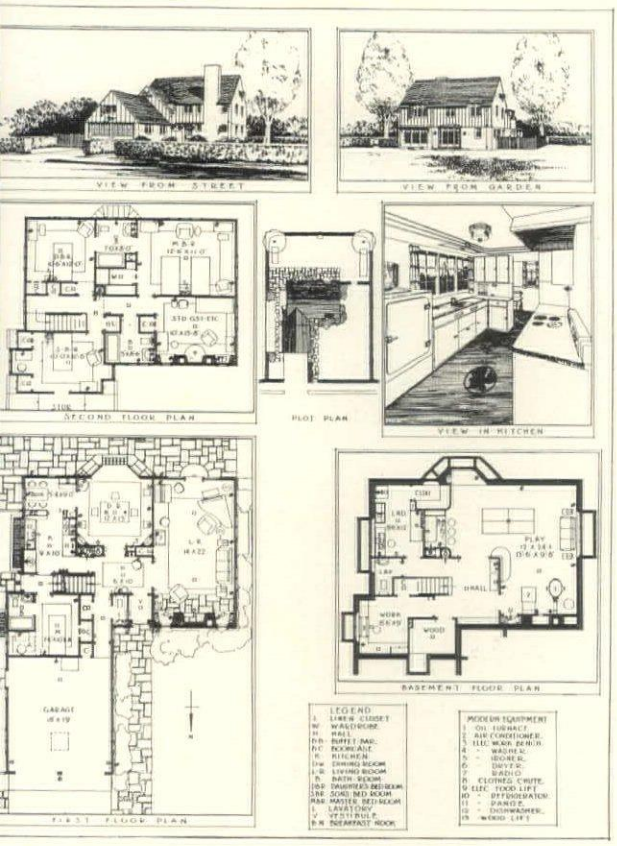


JORDAN MARSH CO. COMPETITION PRIZE WINNERS

(Continued on page 35)

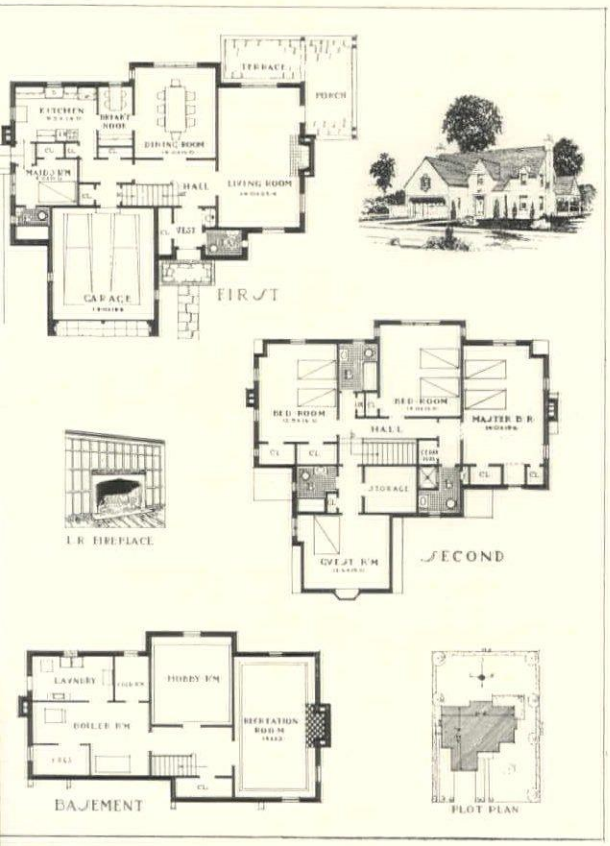
FORUM OF EVENTS

(Continued from page 34)



ss C ($10,000 to $13,000)—Raymond J. Percival, Architect

Class D ($20,000 or less)—Robert L. Stevenson, Architect

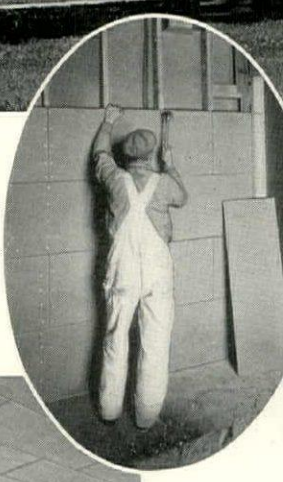


RDAN MARSH CO. COMPETITION PRIZE WINNERS

(Continued on page 37)

In the modern MANOR..

ABOVE—*Air conditioned Manor House, designed by M. R. Evans of Lancaster, Pa., for the Lancaster Real Estate Board as a model home. All exterior walls are insulated with full inch Armstrong's Temlok.*



ABOVE — *App Temlok Insul Lath. In this m air conditio home, Temlok sures econon operation of heating and co equipment.*

ABOVE — *For interior partitions, the architect specified half-inch Temlok Insulating Lath.* RIGHT —*Because of its surface texture, Temlok Lath provides an excellent base for plaster.*

Air conditioning efficiency and economy are assured with full inch **TEMLOK**

FOR efficiency and economy in home air conditioning it is vital that an adequate thickness of insulation be used. And throughout the country, architects are finding that Armstrong's Temlok Building Insulation in the full inch thickness gives complete satisfaction.

Full inch Temlok helps insure accurate temperature control at minimum cost! And it does more! Because it is fabricated from the resin-impregnated fibres of the southern yellow pine, Temlok resists the efficiency-destroying effects of moisture . . . provides dependable insulation for as long as the building stands!

In the modern, air conditioned Manor House, shown above, one-inch Temlok Insulating Lath was specified for all exterior walls and for the first and second floor ceilings. In addition, all interior partitions are insulated with half-inch Temlok Insulating Lath so that individual rooms or parts of the house can be cooled or heated independently without waste.

Complete description of Armstrong's Temlok Insulating Lath—as well as the other forms of Temlok Building Insulation: Board, Plank, Tile, etc.—will be found in the current issue of Sweet's.

For additional information and samples, write to Armstrong Cork Products Co., Building Materials Div., 900 Concord St., Lancaster, Pa.

Armstrong's

TEMLOK BUILDING INSULATION

FORUM OF EVENTS

(Continued from page 28)

JORDAN MARSH COMPETITION (Cont.)

Coincident with the anouncement of the winners came Jordan Marsh's business-like invitation for bids from builders in the metropolitan Boston area and a promise to start construction on seven houses immediately. The houses will be built with FHA cooperation.

The well-picked Jury of Award consisted of R. P. Bellows, chairman of the Boston Municipal Art commission and chairman of the jury; Dean William Emerson of the M.I.T. School of Architecture; Fred A. Wilson, president of the Massachusetts Master Builders' Association; Professor Charles F. Killam of Harvard; Rodney Long, president of the Massachusetts Real Estate Exchange; John T. Burns, former president of the Exchange; Mrs. James J. Storrow, president of Better Homes in America, Inc.; Mrs. Thomas C. Walker, president of the Massachusetts Federation of Women's Clubs; Miss Alice F. Blood, director of the School of Home Economics, Simmons College. After deliberating an entire Friday and most of a Saturday the jury finally picked as first prize winners: Robert L. Stevenson of Boston in Class A ($5,000 to $7,500), and Class D (not more than $20,000), Wendell R. Holt, South Hadley, in Class B ($7,500 to $10,000), Raymond J. Percival of Forestville, Conn. in Class C ($10,000 to $13,000). Second prizes and honorable mentions in Class A went to C. F. Springall, W. Sanford Full and Ernest G. Frizell, Robert L. Stevenson, Charles F. Goodale, Charles W. Newell; in Class B to Robert L. Stevenson, Chester Pliny Currier, J. Henderson Barr, Allen C. Congdon, Frederic Leslie Ford; in Class C to Royal Barry Wills, Israel Nigrosh, Robert L. Stevenson, Lawrence B. Anderson and Constantin A. Pertzoff, John W. Foss; and in Class D to Royal Barry Wills, John P. Heffernan and Arthur C. Sprague, C. R. Pipe, Robert L. Stevenson, J. William Beal, Sons.

R. L. STEVENSON

By far the most spectacular winner was Mr. Stevenson who with two firsts, a second and three honorable mentions ran away with $1,475 in prizes, more than a quarter of the offered total. A graduate of the Rhode Island School of Design and the Beaux-Arts School in New York City, Mr. Stevenson had his early training with Stanford White. He has lived in Boston for fifteen years, specializing in residential work. In all he submitted twelve designs to the competition, was pleased to announce when informed of his success that the Jordan Marsh contest marked his twenty-fifth anniversary in architectural competitions.

LINCOLN VILLAGE

IN Rockport, Indiana, the Fourth of July was a gala day. The Kiwanians staged an Indian raid under the leadership of Chief Funny Face. A parade started forming at 9:00 A.M. The McGuffey Club held its first annual business meeting. But by far the most important event was the dedication of the Lincoln Pioneer Village, designed and planned by George H. Honig, built by FERA labor, supervised by the Spencer County (Ind.) Historical Society, dedicated by Philip Lutz, Jr., Indiana Attorney General:

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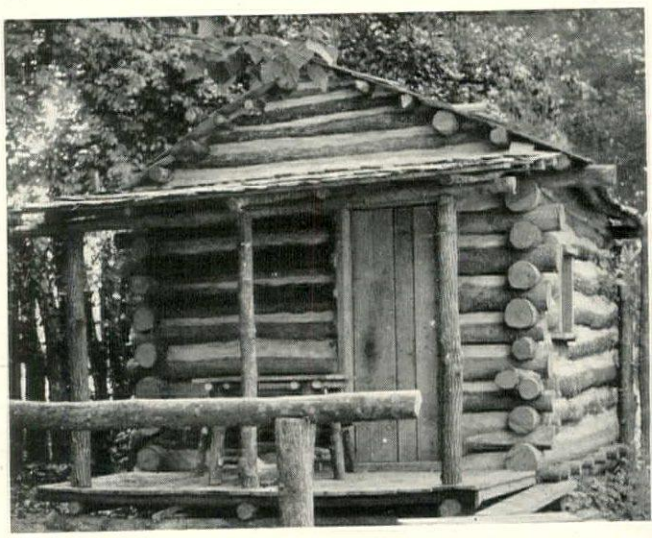
FORUM OF EVENTS

(Continued from page 37)

"The world will make a path to this memorial. . . ."

Like the New Salem State Park in Illinois, the Lincoln Pioneer Village commemorates the early years of the President's life. In this district he lived from the ages of seven to twenty-one. His mother, Nancy Hanks Lincoln, was buried here at the age of 35; here too is buried his sister, Sarah. It was in 1828 that Lincoln left Rockport for his first flatboat trip to New Orleans, seeing, for the first time on this trip, the abuses of slavery. In Rockport was John Pitcher's law office and Lincoln used to walk seventeen miles to borrow or return a law book from him. Nearby in Gentryville was the William Jones store where Lincoln worked for thirty cents a day.

The Lincoln Pioneer Village consists of replicas of most of the stores, offices, and homes connected with Lincoln's Indiana days. Grouped together in four of the City Park's thirty acres the Village is surrounded by a stockade and gate. Included are such historical reproductions as: Judge



JUDGE PITCHER'S LAW OFFICE
Lincoln walked 17 miles to get there

Pitcher's office, Spencer County's first court house, the Reuben Grigsby cooper shop where both Thomas and Abraham Lincoln worked (this was originally in Gentryville). Included also is a replica of an Indian Village which stood on Rockport's site before 1807. The entire Village is a simple, unaffected memorial to the Civil War President which will unquestionably become one of the many Meccas of the nation's legion of Lincoln enthusiasts.

ARCHITECTS ON PARADE

WHAT Federal architects do in their spare time as well as what they do when they are at work was resplendently revealed last month at the fourth annual exhibition of the Association of Federal Architects in the National Museum, Washington, D. C. The public gaped at water colors, peered at wood carvings, pored over plans and specifications, scrutinized line drawings, admired renderings. The Quartermaster's Office transformed a picture of a tank into a thing of beauty. The Agriculture Department showed a tiger hunter at the kill with cowering woman at the side, a series of enlarged insects. The Veterans' Administration exhibited every step in the building of the hospital at Roanoke, Va., from the assignment by law from Congress to the final photographs of the completed building. The roll call of blue prints in this exhibit weighed 29 pounds.

On display was the Association's gold medal which will be

(Continued on page 41)

One of the world's largest hotels ... and it's roofed with Genasco

The Stevens Hotel, Chicago, is one of the world's largest. In planning such a structure, only the finest, most durable type of roof could be considered . . . a Genasco Standard Trinidad Built-up Roof was specified.

The years that it has given absolute protection are but a promise of years and years more of dependable service.

Not only is a Genasco Standard Trinidad Built-up Roof used on many hostelries in Chicago and elsewhere, but on commercial, industrial, institutional and public buildings throughout the nation.

Trinidad Lake Asphalt with which a Genasco roof is waterproofed is a native product and from nature's processing it gets its ability to afford unusual protection against the destructive actinic or ultra violet rays of the sun. A Genasco Standard Trinidad Built-up Roof, because of its lasting satisfaction, upholds the reputation of the architect who specifies it.

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STANDARD TRINIDAD **Built-up Roofing**

The Stevens Hotel, Chicago, has been protected with a Genasco Standard Trinidad Built-up Roof since its erection. Architects: Holabird & Roche, Chicago. General Contractors: Geo. A. Fuller & Co., New York. Roofing Contractors: Advance Roofing & Sheet Metal Works, Chicago.

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Please send me a copy of your illustrated book "For Your Roof" which carries illustrations of many prominent buildings in all parts of the country protected with Genasco Standard Trinidad Built-up Roofing.

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● The home-owner today wants the most modern heating system. That means warm air. The warm air heating system is right because it is now the *cleanest* type of heating you can specify. The warm air heating system is simple, compact and easy to install. The cost is low. Blowers can be utilized, thus providing year 'round comfort. And the *right* filter is the Dustop replacement-type filter—it is highly efficient, yet extremely low in cost and maintenance expense. Dustop air filters are also available, complete with frames, for commercial or industrial applications. Inquiries are welcomed. Owens-Illinois Glass Company, Industrial Materials Division, Newark, Ohio.

OWENS-ILLINOIS DUSTOP AIR FILTERS

FORUM OF EVENTS

(Continued from page 38)

ven to the "individual or firm practicing architecture in ıe United States that has made the most outstanding con-ibution for the ensuing year to Federal Architecture." The sociation went on record as hoping that this medal would as eagerly sought within the architectural profession as the Nobel Prize in other professions.

The exhibition was in charge of a committee consisting of H. Stratton, Chairman, Veterans' Administration; A. L. lakeslee, Treasury Department, F. W. Southworth, Navy epartment; L. M. Leisenring, War Department; H. A. Mag-ıson, Agricultural Department. Part of their program in-uded the award of prizes for outstanding presentations by dividuals and departments. The Jury of Award was com-osed of Arthur B. Heaton, president of the Washington hapter A.I.A., Victor Mindeleff, past president and Francis Sullivan, vice-president.

Most signal individual award went to J. Wilmer Smith r his barracks at Balboa (rendered by Joseph A. Parks). he first prize for the departmental ensemble exhibit was on by the Office of the Supervising Architect of the Pro-ırement Division of the Treasury Department. One of its ıtstanding exhibits was a water color presentation of the S. Mint at California. The exhibit also included a series six delicate pencil drawings.

Architect Ralph Brodie of the Navy Department took st award in water colors with Architect James B. Corey, epartment of Agriculture and Architect H. R. Woodward, ar Department, second and third. Architect James Robert odge, Department of Agriculture, won first award in pastels th a picture "Dome of the Cathedral, Florence." In the rts and Crafts class R. L. Wood, War Department, won st place and in pencil drawings, Howard C. Sullivan of e Navy Department took honors.

In all, the show represented the work of about 300 Federal chitects. Only general observations to be made were: the chitects had an unusually good time showing their work d evidently also enjoyed its creation; none of the Federal chitects have been conspicuously tempted by "modernism."

OMPETITIONS

RCHITECTS, draftsmen, designers and students living in the ıteen middle western States, from Ohio to Nebraska and ɔm Minnesota to Arkansas, are invited by the Chicago rchitectural Club to participate in a terra cotta wall block mpetition. Prizes, given by the American Terra Cotta ɔmpany and the Northwestern Terra Cotta Corporation of ıicago, will total $500. The competition will be for the sign of either a one- or two-story building with terra cotta achine-run wall blocks used in the facades. Finished draw-gs are due midnight, September 15. Information from the ıicago Architectural Club, 1801 Prairie Ave., Chicago.

Information published in the July ARCHITECTURAL FORUM ncerning a competition for the Marietta, Ohio, Memorial ty Hall has been superseded by a decision of the City ɔuncil to withhold action until after a vote of the people, ıgust 13. Prospective competitors are invited to apply for formation from the Architectural Adviser, Howard Dwight ıith, A. I. A., of the Architectural School of Ohio University, ɔlumbus, before August 10. The competition is now ex-cted to start about August 20.

The University of Pennsylvania School of Fine Arts an-unces the award of the John Stewardson Memorial Scholar-ip to George C. Rudolph, graduate student in the Depart-ent of Architecture, and 1934-35 Theophilus Parsons ıandler fellow. The appointee receives an allowance of ,000 for the study of architecture in this country or abroad.

BOOKS

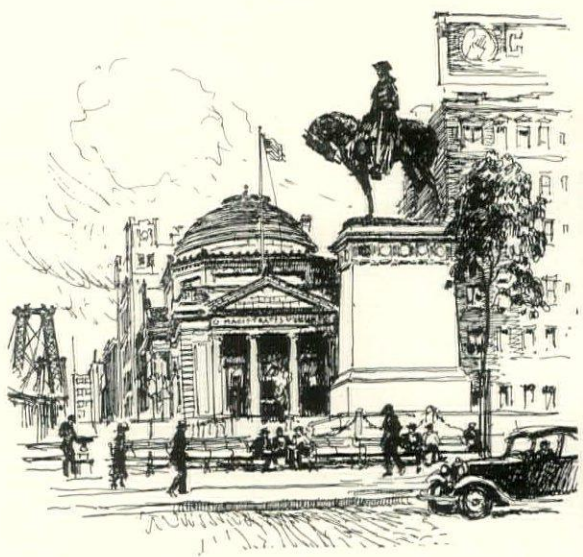
(Continued from page 21)

Among the most interesting projects in the book are tho wooden summer camps and week-end cottages built in t mountains. Constructed of logs, boards, and bamboo, co ered with thatched roofs, they are a refreshing combinati of Japanese influences, and those of Wright and Le Corbusi The best of these is the one the architect built for himse with generous, open rooms, and a long ramp from the ma room to the quarters on the second floor.

There is great variety in the material published, includi not only residences, but factories, office buildings, gas st tions, a hospital, and two embassies. With the regrettab exception of the Yokohama office building for the Standa Oil Company of New York, a drab affair resembling a mi Western post office, the work is of unusual interest.

MAGICAL CITY. Intimate Sketches of New Yor Pictures by Vernon Howe Bailey, with notes Arthur Bartlett Maurice. Charles Scribner's Son New York. 254 pp., 8¼x10¾, $2.50. Selectio from a series of sketches published daily in t New York Sun.

Mr. Bailey's book suffers from an inaccurate title. Here no magical city. The excellent drawings which go to ma it up are good reporting on diverse aspects and activities a large city, and that is all. For the New York which transformed by smoke, and clouds, and rain into somethi fantastic beyond recognition, the city which at dusk see the creation of some dreamy demiurge with a taste for t



WILLIAMSBURG BRIDGE PLAZA, BROOKLYN, N. Y

theatrical, one looks to Pennell, perhaps, but not to "Magi City." Which is in no sense a disparagement of Mr. Baile drawings. Few people can go out with a sketchbook and p and ink, and come back with drawings as fresh and spirit as truthful in their presentation of a given scene, as the Anyone who wishes to learn something about sketching fr an acknowledged master of the craft will find plenty study in this book. And with the interesting notes of M Maurice the book is a guidebook of value to anyone w wants to extend his acquaintance with the most fascinati of cities.

REVERE Thru-Wall Flashing*

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*Patent No. 1,928,589

STRENGTH This new flashing of Revere Copper (soft temper) or non-staining Revere Leadtex (lead-coated sheet copper) is much stronger than plain sheet metal flashing. The design is simple but effective: parallel ribs are rolled at 3-inch intervals along the full width of the flashing, and embossings are rolled between each rib. Because the ribs are rolled rather than stamped, they are of equal thickness with the rest of the flashing and the metal retains its original softness.Because they extend the full width of the flashing, they provide a stiffened counter-flashing face that hugs the wall tightly.

EFFICIENCY The parallel ribs permit a water-tight interlocking joint with 2-inch overlap to form continuous flashing without the use of solder. The ribs also allow water to drain off quickly. These ribs and embossings make an unusually tight bond between mortar and flashings, prevent all lateral movement of the wall, and allow for expansion and contraction.

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Another advantage of this flashing is its availability through the country-wide organization of Revere Distributors. The well-known Cheney Flashing is also available at Revere Distributors, and is reduced in price. These two flashings answer your requirements for every type of construction. If you would like specification details, address our Executive Offices.

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Carrara is a ground and polished structural glass, brilliant and reflective of surface, with a hard, fine-textured finish that results in unusually long life. No building's age can be fixed by the appearance of its toilet rooms if they are finished in Carrara! For the passing years have no effect upon Carrara walls and partitions. Carrara does not check, craze, stain or absorb odors. It is impervious to moisture, chemicals, oils, grease, grime and pencil marks. It is as easy to keep clean as any glass . . . just wipe it occasionally with a damp cloth.

Carrara is exceptionally easy to handle, too. It offers the architect a wide scope for original treatments and decorative effects. And its cost is surprisingly reasonable. We invite you to write for full information concerning this modern, beautiful material.

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PITTSBURGH
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CARRARA

The modern structural glass

PRODUCTS AND PRACTICE

(Continued from page 22)

1. AIR COOLER

The Trane Company anounces the addition of the new nall cooler to the numerous air conditioning products of eir line. The company plans to market the new product r $70, a cost which is based on an increased market which ch a unit will find. It is designed for use in small stores, fices, and homes. In addition to its economy, the product as the advantage of being easy to install and can be t in without disrupting the activities within the building. communities where the cold water supplied is at a temrature below 60°, this water may be used for the cooling edium, which, of course, reduces the original cost and erating cost to a minimum, as well as supplying one of e most efficient means for cooling known. The unit also erates on direct expansion refrigerants such as Freon, Amonia or CO_2 but it is probable that the majority of installaons will be of the cold water type.

2. ELECTRIC AIR CLEANER

The Westinghouse Electric & Manufacturing Co. has anunced the development of an electrical unit to remove dust d other solid and liquid particles in air, which is claimed be the most efficient air cleaner as yet constructed. The vice is in the form of an electrostatic air cleaner which rmits the particles to remove themselves from the air. ectrically the unit is a comparatively simple device. It so arranged that it draws particle-filled air past two small res, suspended horizontally. Connected to a power pack, nich raises their voltage, these wires "charge" all air parcles in their vicinity. Next the ionized particles are drawn rough a series of plates which are also charged. The plates ve opposite polarity, within the result that just as a edle jumps over to a magnet, so do these air particles move d cling to the plate. Thus the air is made to clean itself.

In addition, a film of oil covers each plate to make certain at the particles after being attracted, stick to the plates. The air, freed of particles, is then sent on into the room means of a fan. The unit requires only about 50 watts to erate, the same amount of current consumed by an ordiry electric lamp.

After the aluminum plates fill up, they may be cleaned simply running water over them.

3. NEW CUT-OFF

Steam and vapor boilers are sometimes ruined due to firing thout sufficient water. This is especially likely in cases where tomatic heating is used. Minneapolis-Honeywell Regulator o. announces a new low water cut-off and duplex switch signed to prevent this danger. This control is arranged to en the circuit to the burner control when the boiler water vel has reached a danger point, and closes the same circuit tomatically when the water level rises. It is further proded with a mercury switch for connection with alarm or gnal systems.

4. NEW PAINT

The New Jersey Zinc Co. is now manufacturing a new indusal paint for protection against corrosion which is termed Zinc Dust" paint. This is claimed to be superior to other ms of protective paint for use on irons or steels. It may be plied either with brush or spray. Among other advantages imed is the fact that since Zinc Dust is non-toxic and that it be used with many of the synthetic resin vehicles, it is an cellent paint for underwater exposures on the inside of drink- water tanks or piping. It is also suggested as an anticorroe primer for steel ship hulls.

(Continued on page 46)

(Continued from page 45)

805. STEELTEX

For light concrete floors and roofs Johns-Manville of Steeltex floor lath, a combined reenforcement and form wh makes possible important structural advantages and ec omies in construction.

A fabric of 12-gauge cold-drawn electrically welded g vanized steel wire in 3 or 4 in. mesh provides the reenforci The mesh is attached to a tough corded backing—which a as the form—by means of crimp wires. These crimps a space the reenforcement at proper distance from the ba ing so that concrete completely surrounds and embeds wires, saving the labor of blocking up or pouring the s in two operations.

Steeltex is furnished in rolls 4 x 125 ft. and applied unrolling over joists and cutting to length. It is then attac to an end or anchored joist, drawn taut by a special stretc and fastened by clips to intermediate joists.

Another form of Steeltex, in 2 x 2 in. mesh, with a spe damp and waterproof backing, is produced to serve a base for stucco. Use of the wire mesh reenforcement, i pointed out, provides adequate tensile strength by thoroug embedding in the stucco a fabric of steel while the back seals the back of the slab against penetration of moist and dampness. For this type construction Steeltex come rolls 110½ ft. x 49 in. or 49 x 52 in. sheets. It can be applied over sheathing where it wished to stucco exterior of a frame building.

806. TAKAPART WALL

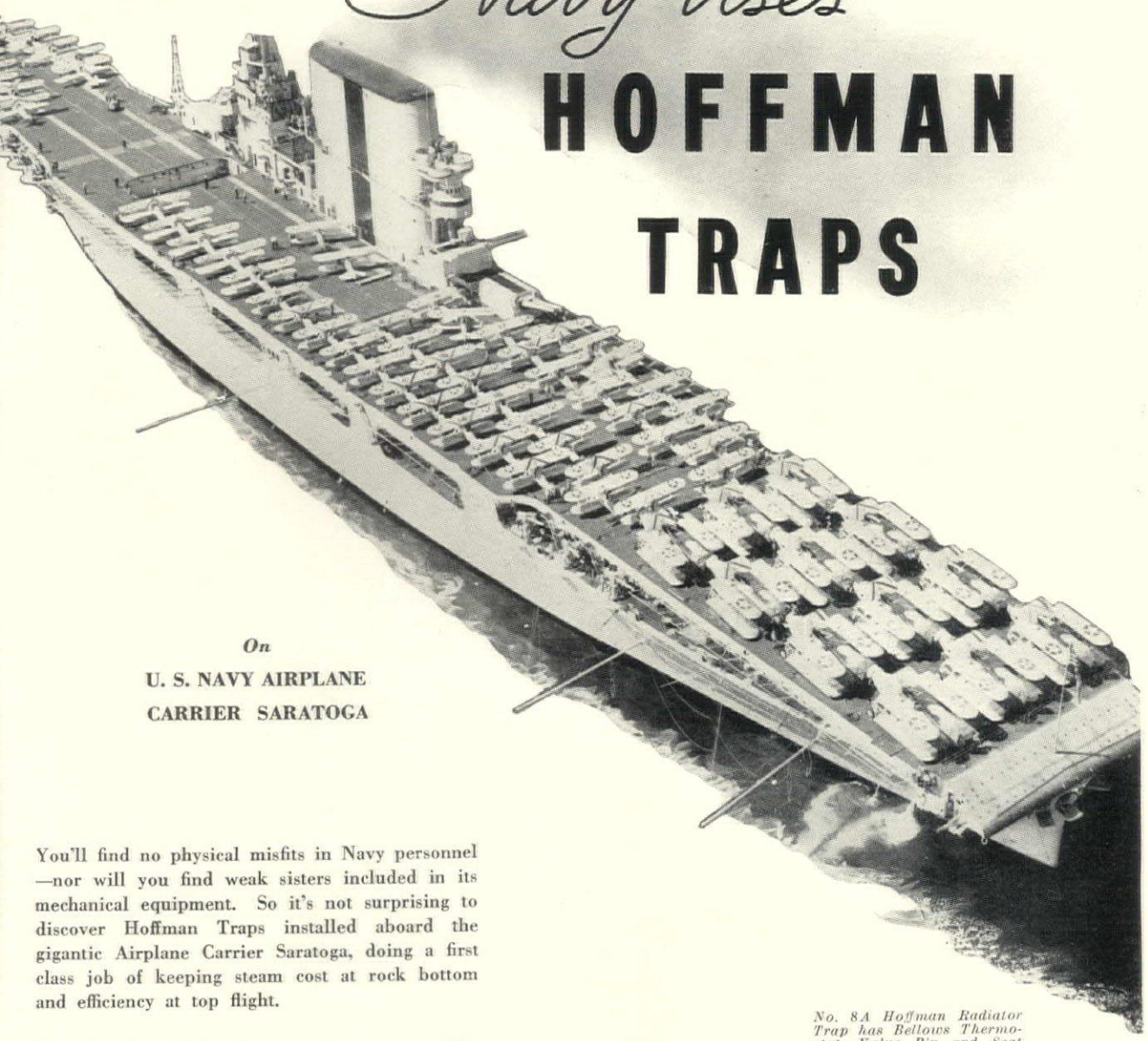
The Takapart Products Co. announces a new fireproof which is claimed to eliminate all wet trades, can be pain has almost complete salvage value, and is insulated aga sound transmission, at a cost no higher than an ordin wall. It comes in precast dry sections in standard wid and heights eliminating all mixing on the premises. precast units contain a core of cellular fireproof insulat material. Spaces between units are filled with precast gyps members so designed that when the joints are pointed t become invisible, making the wall a continuous unbro surface ready for painting and similar in appearance to ordinary plastered masonry wall. The base is made of a m ture of asbestos fibers and Portland cement formed un pressure and projects $\frac{3}{16}$ in. beyond the face of the w Units are 3 in. thick, not including projection of the b on each side and weigh 9 lbs. per square foot of wall a Where glazed units are desired, frames are provided in pl of the precast units for the glazed areas. Where doors oc the jambs are erected as a sectional unit at the same t the wall is being erected. Units are so spaced as to al the passage of electric conduit both vertically and h zontally throughout the wall.

807. NEW THREE-LIGHT BULB

Westinghouse announces a new bulb that gives 50, 100 150 watts of illumination. This makes it possible to ob three levels of illumination with the table models of certi portable lamps. Table lamps which have hitherto been us only as decorative light sources may now also serve as rea lights. The low wattages provide decorative and conve tional light while the 100 and 150 watts available at the t of a switch provide satisfactory reading and study light. bulb is frosted inside, and has a mogul screw base. The a age life of a bulb is 1,000 hours.

(Continued on page 49)

Navy Uses HOFFMAN TRAPS



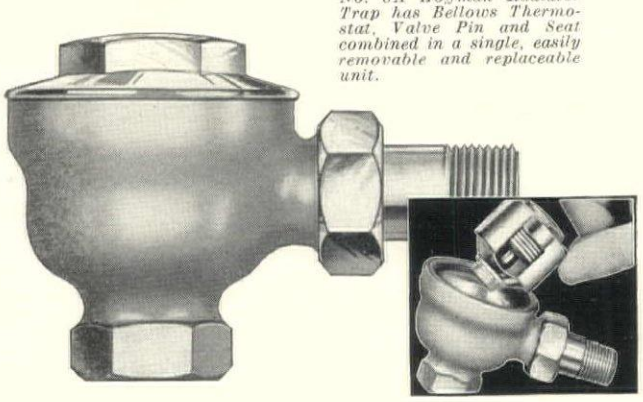
On
U. S. NAVY AIRPLANE CARRIER SARATOGA

You'll find no physical misfits in Navy personnel —nor will you find weak sisters included in its mechanical equipment. So it's not surprising to discover Hoffman Traps installed aboard the gigantic Airplane Carrier Saratoga, doing a first class job of keeping steam cost at rock bottom and efficiency at top flight.

Exacting demands for heating efficiency are fully satisfied by the manifold superiorities of Hoffman Traps. Such features as hydraulically formed, "tested-in-the-making" bellows thermostats, cage-mounted and interchangeable without adjustment . . . wear-proof valve pins and renewable seats . . . double seated, "balanced" valves in the larger capacity units, are reasons why Hoffman Traps last longer while giving better service.

Any steam heating system can be completely equipped with Hoffman Specialties—thus centering full responsibility for satisfactory operation upon one manufacturer. Many architects are today making the flat specification, "Hoffman Traps throughout," knowing that client satisfaction can be taken for granted. If you haven't complete information on Hoffman Traps, Venting Valves, Supply Valves and Pumps, write to the Hoffman Specialty Co., Dept. AF-10, Waterbury, Conn.

No. 8A Hoffman Radiator Trap has Bellows Thermostat, Valve Pin and Seat combined in a single, easily removable and replaceable unit.

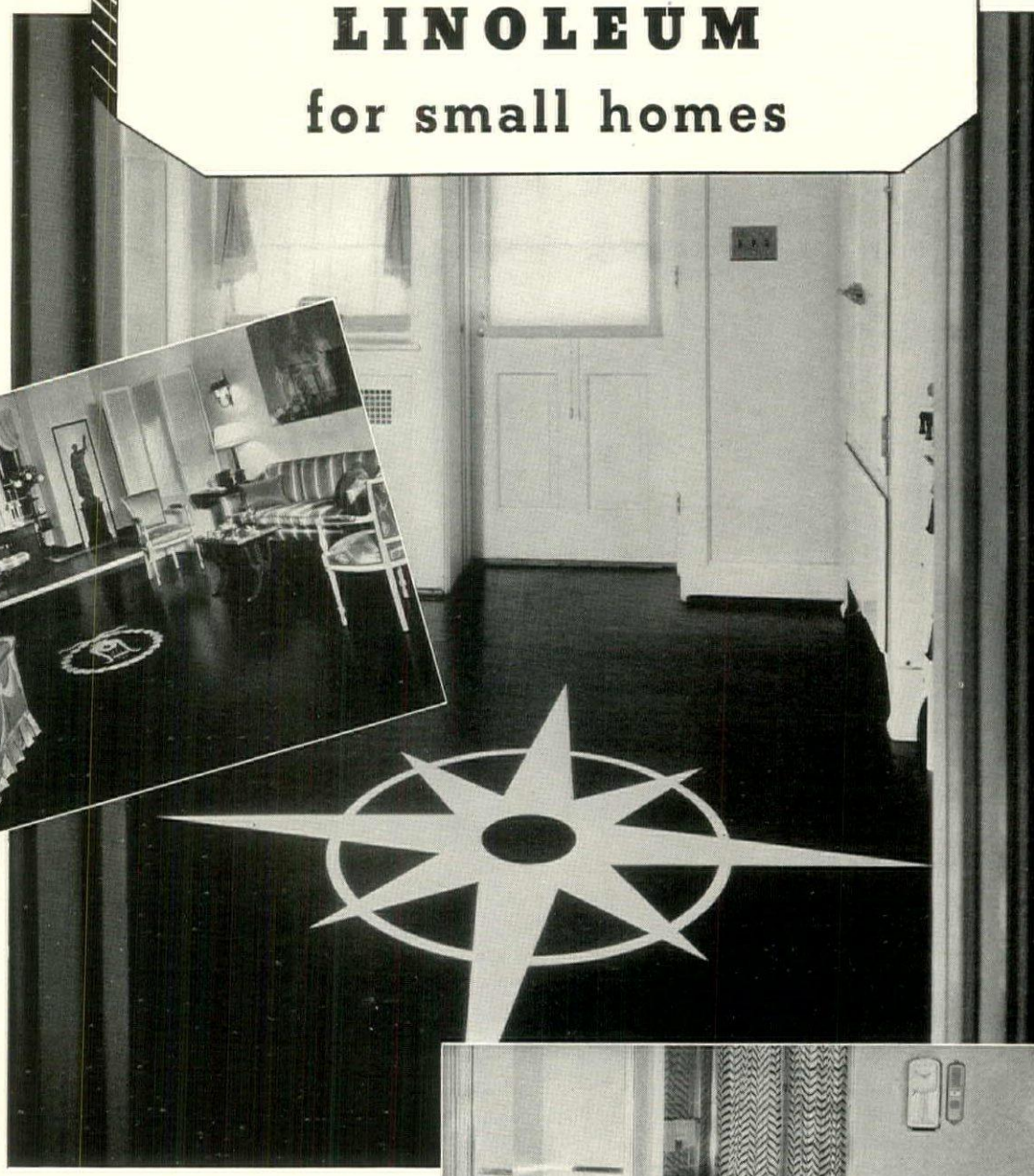


HOFFMAN

VALVES · TRAPS · PUMPS

OLD EVERYWHERE BY LEADING WHOLESALERS OF HEATING AND PLUMBING EQUIPMENT

SLOANE-BLABON LINOLEUM
for small homes



ABOVE: *Kitchen.* INSET: *Living-room*

RIGHT: *Hall and bathroom*

The variety of patterns, colors and qualities available in Sloane-Blabon Linoleum gives you an opportunity to create a really distinctive floor, no matter how small the room. Illustrated are a few small-home rooms which owe their distinctiveness in large part to the use of Sloane-Blabon Linoleum. For pattern reproductions, samples, etc., write Sloane-Blabon Corporation, 577 Fifth Ave., N. Y.

PRODUCTS AND PRACTICE

(Continued from page 46)

SHRINKPROOF WOOD CONSTRUCTION

Frank R. Walker Co. announces a joist support and partition shoe which eliminate much of the settlement in wood frame buildings due to shrinkage. Instead of setting the partition studs on top of the wood floor joists, the shrinkproof partition shoe is placed over the top of the joist. These are fastened near the bottom of the joist so that any shrinkage of the joist from the top does not affect the level of the bottom of the partition studs above. A somewhat similar principle is employed in the use of the joist support which obviates the necessity for deep cuts in studs to receive the conventional wood band.

PICKPROOF LOCK

A lock so nearly completely burglarproof that it is undertaken by Lloyd's is now manufactured by the Dudley Lock Co. Known as the Dudley 4-in-1 Pickproof Lock, it has been tested by police executives in every way imaginable. The key is of a unique design said to be copy-proof which has four edges operating four sets of pin tumblers instead of the conventional type. Each lock is sold with a registry tag and no duplicate key will be sold without presentation of this registry tag to an authorized dealer or to the Dudley Lock Co. itself. The method of installation is so simple that it requires only two minutes to replace old and obsolete cylinders with this new lock.

RADIATOR TRAPS

The Sarco Co., Inc., is constantly improving its line of radiator traps which are particularly useful for application to existing steam systems. The company also manufactures adapters which can be used on old-fashioned two-pipe gravity systems to convert the outlet valve into an efficient radiator trap, utilizing the old valve body without disturbing the piping connections. Sarco engineers will also survey an ancient system and make recommendations for increasing its efficiency by the use of more modern valves.

LIGHT-WEIGHT CEMENT

The Porete Manufacturing Co. has brought out a new light-weight Portland cement cellular concrete called Poreterm which has wide possibilities as a heat and sound insulating material.

Poretherm is a high grade heat insulating material made of Portland cement with or without an addition of mineralized wood fiber. It is usually made in two weights, 19 lbs. and 32 lbs. per cubic foot. It can be made in precast shapes, in form of slabs and blocks and various sizes, but its principal use is where it is poured in the field.

Some of the advantages of Poretherm, compared with other insulating materials, are, being a Portland cement product it is permanent and fireproof, unlike materials made of vegetable or wood fiber it does not deteriorate or spoil when continuously exposed to moisture, and it is odorless, vermin-proof and fungi-proof.

Poretherm is poured on the job in an ordinary tilting type concrete mixer. Portland cement and water to which the Porete Foaming Agent is added are mixed to the consistency of a creamy emulsified cement slurry, which is poured and placed easily. This slurry is cast and finished to the proper level at which it sets; no expansion takes place after the material is poured, because the air has been beaten mechanically into the slurry, and no chemical action takes place for producing a gas.

(Continued on page 50)

PRODUCTS AND PRACTICE

(Continued from page 49)

812. ELECTRIC TIME CLOCK SYSTEMS

The Holtzer-Cabot Electric Co. of Boston is announci its extensive line of Electric Clock Systems required in mo ern establishments—schools, hospitals and public buildin These systems include watchman's clock systems, elaps time recorders, fire alarm movements and fire and watch co trol desks. They are based on a simplified hourly correcti of all clocks, which eliminates the necessity of wearing co tacts in secondary clocks, thereby eliminating maintenan and guaranteeing long life and economy. An illustrated boo let has been prepared describing these clocks and may had upon request.

813. ALUMINUM

The Aluminum Co. of America has issued a new bo which describes in complete detail the physical character tics and uses of their product. In recent years the rapid increasing field of uses for aluminum in all branches machine design as well as in building construction has l to the development of a great number of alloys, each which is listed in this booklet. While the greater numb of these have at present no direct application to the fie of building, the increased importance of this material quires that the architect become more than superficial acquainted with its properties. The newly developed allo which have greater resistance to corrosion than pu aluminum are described in considerable detail, as well as t methods of protecting the metal from the action of the e ments. Ease of fabrication of aluminum and the facility wi which it may be worked are among the reasons for its i creased use on interiors. The booklet contains a numb of illustrations of buildings on which it has been employed

814. NEW LUMINESCENT PAINT

Grobet File Corp. of America announces the production a new luminescent paint called "Dialux," the principal e ment of which is a phosphorescent salt known as sulphur calcium. This is one of those compounds which has the pro erty of becoming luminescent after a short exposure to eith natural or artificial light. Dialux does not contain any radi active matter and is neither inflammable nor toxic. It can applied on metal, glass, cloth, paper, wood and hard rubb compositions. It is made in two varieties, (1) for brush app cation with a resin base; and (2) for air gun application wi an enamel base. Both varieties dry quickly and have hig mechanical resistance. Covering capacity is 20-30 sq. ft. p pound. Its use is indicated wherever luminescent indication dark places is desired.

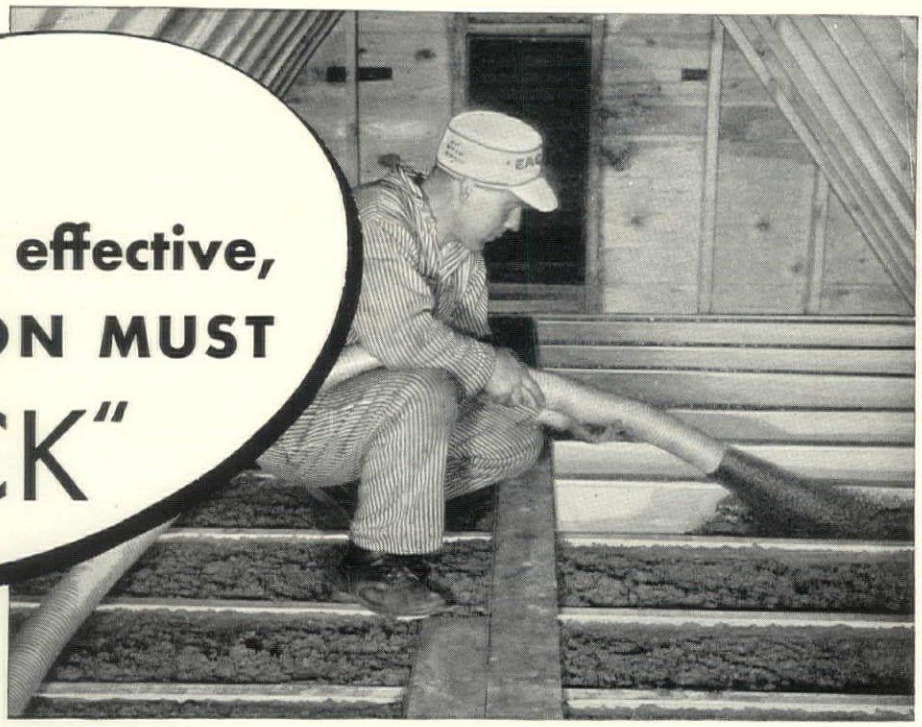
815. INNOVATION IN RUBBER FLOORING

Stedman Rubber Flooring Co. has recently introduced new development to answer the need for a rubber tile floor a price in keeping with present-day hospital budgets. This a reenforced rubber tile floor of ⅛ in. thickness. Previous this, rubber floors have been available only in $\frac{3}{16}$ in. and ¼ i thicknesses. The new material is made from the same formul as the heavier grades and is available in the same range colors.

ERRATUM

Due to erroneous information received, credit was give to the Kalman Steel Corporation for the steel joists use in the Wyatt Clinic (June issue). Actually they were fu nished by the Soulé Steel Company.

"To be really effective, INSULATION MUST BE THICK"



Eagle Home Insulation gives your clients wall-thick insulation at moderate cost!

• All authorities have come to the same conclusion. The *best* insulation is *thick* insulation. Not half-an-inch thick. Not one-inch thick. But *full wall thickness.*

Eagle Home Insulation provides this "wall-thick" insulation at moderate cost. Eagle Home Insulation is a soft, fluffy "wool" that is made from rock. It is blown between the joists in the attic floor and into the hollow spaces between wall studdings by a special pneumatic process. It packs evenly and will not settle. Trained operators do the work. In most homes the complete job takes from one to two days. No building alterations are necessary. And there is no mussing up inside.

U. S. Bureau of Standards tests give Eagle Home Insulation the exceptionally low conductivity rating of 0.27 (at 103° F. mean temperature). In ordinary wall thickness (3⅝") Eagle Home Insulation has the insulating efficiency of a solid concrete barrier *eight feet thick.*

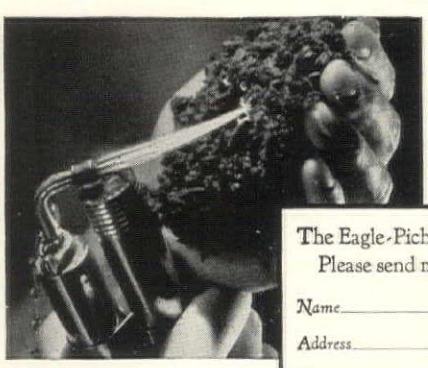
For free sample, mail the coupon below.

FOR COMPLETE DATA, SEE SWEET'S CATALOG

• This is how Eagle Home Insulation is blown between joists in the attic floor by a special pneumatic method. The hose is run in through an open window. No muss downstairs.

• No building alterations are necessary when Eagle Home Insulation is installed. To gain access to hollow spaces between wall studdings, operator removes a few pieces of siding, or a few bricks, or makes small openings in stucco.

• Eagle Home Insulation is also available in "bat" form for new construction. These bats are 15" by 18" and 3⅝" thick.



• Giving Eagle Home Insulation the fire test. Even when subjected to the flame of a blow torch, it does not char or burn. By filling hollow walls which ordinarily act as flues once a fire starts, Eagle Home Insulation provides real protection against the fire hazard.

EAGLE HOME INSULATION

BETTER HOUSING PROGRAM

• Boost the Better Housing Program in your community. It is creating new commissions for architects.

The Eagle-Picher Lead Company, Dept. AF-8, Cincinnati, O.
Please send me free samples of Eagle Home Insulation.

Name_____

Address_____

City_____ State_____

NOT FOR JUST A YEAR

THE man or woman for whom you design a home is undertaking what is likely to be the most important purchase of a lifetime. Your plans are the embodiment of a dream brought to realization by the savings of many years. It is therefore supremely important to the home-builder that his investment not only pay dividends in pleasant living, but remain sound throughout the years, secure against rapid depreciation and excessive upkeep cost.

Kalman Steel Joists make any home a better, safer place to live in, and a sounder investment. These joists in combination with concrete floor slab and plaster provide security against fire and give the owner the benefit of lower insurance rates. They form a substantial floor structure that never shrinks or warps, is immune to termites, absorbs sound and vibration.

For all the advantages they offer, the use of Kalman Steel Joists adds only a few cents a square foot to the building cost. They may be conveniently and economically applied to any type or size of dwelling.

BETHLEHEM STEEL

KALMAN BUILDING STEEL

KALMAN STEEL CORPORATION, Subsidiary of Bethlehem Steel Corporation. General Offices: Bethlehem, Pa. *District Offices:* Albany, Atlanta, Baltimore, Boston, Buffalo, Chicago, Cincinnati, Cleveland, Detroit, Houston, Milwaukee, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, St. Paul, Syracuse, Washington. *Pacific Coast Distributor:* Pacific Coast Steel Corporation, San Francisco, Seattle, Los Angeles, Portland, Honolulu. *Export Distributor:* Bethlehem Steel Export Corporation, New York

MANUFACTURERS' PUBLICATIONS

AMONG the manufacturers' publications recently received, of interest to the architectural profession, were the following:

316. PAINTED SURFACES

Under the title of "New Color Harmony for Your Home," a booklet from E. I. du Pont de Nemours & Co., giving their recommendations of paints and finishes for different uses.

317. WALLBOARD

From the Johns-Manville Corp., a new folder describing the uses of Asbestos Flexboard.

318. HEATING EQUIPMENT

From the National Radiator Corp., a small folder listing sizes of boilers and radiators.

319. CEMENT AND CONCRETE

From the Portland Cement Assn., a reference book entitled "Cement & Concrete," giving interesting figures of the cement and concrete used in the United States during 1934.

320. PANEL FACES

From the American Walnut Manufacturers' Assn., A. I. A. File No. 19e, giving proper specification for and sizes of various types of veneers and plywoods available.

321. POWER PUMP

From the Worthington Pump and Machinery Corp., folders illustrating single vacuum pumps, steam booster compressors, four-cycle gas engines, drill steel shop equipment, centrifugal pumps, both single and two-stage types, and the new Rock Master for light drilling jobs.

322. FURNACE LININGS

From the McLeod & Henry Co., a new booklet describing at considerable length, with diagrams and tables of sizes and properties, their line of furnace linings, arches and refractories of all sorts.

323. FLOODLIGHTING

From the General Electric Co., a folder giving particulars and prices of G-E Handy Floodlights.

324. WALL FINISH

From the Standard Wall Covering Co., a small folder showing, in various finishes, available sizes of Mono-Tile.

325. SOFT AND HARDWOODS

From the Dierks Lumber & Coal Co., a broadside particularly addressed to architects, on the subject of quality lumber, both soft and hardwoods.

326. HEATERS

From the McCord Radiator & Mfg. Co., A.I.A. File Number 30d 11, giving details and engineering data on McCord Unit Heaters.

327. ELEVATOR EQUIPMENT

From the Otis Elevator Co., new folders in regard to car doors, car gates, hoistway door closer and electric interlock, and patterns of steel elevator cars.

328. WELDING

From the Air Reduction Sales Co., a new catalogue listing and furnishing technical data for their line of Airco-Wilson arc welders.

(Continued on page 54)

MANUFACTURERS' PUBLICATIONS

(Continued from page 53)

829. AIR CONDITIONING

From Gar Wood Industries, Inc., the Gar Wood Air Conditioning Guide, written by Donald J. Luty, and intended as a text book of domestic air conditioning for the engineer and architect, in plain English rather than highly technical language, together with examples of methods of calculation and layouts.

830. PIPE FLANGES

The Taylor Forge & Pipe Works is now releasing a new 96-page catalogue of their pipe flanges and seamless steel fittings for welding which is in effect a text book on this particular subject.

831. CONCRETE INFORMATION

From the Portland Cement Assn., No. AC 6 and No. AC 7 of their Structural and Technical Bulletin on the use of reinforced concrete.

832. PLUMBING FIXTURES

From the Speakman Co. a new catalogue for architects, arranged for quick reference. Their well-known line of fixtures includes the Mixometer valve, self-cleaning showerheads, shower and bath fixture combinations and shower piping data which should be of considerable value in writing plumbing specifications.

833. BUILT-IN HEATER

A completely revised catalogue from the Commodore Heaters Corporation, A.I.A. File 30-C-4, describes the Convectofin heater units, with tables of the effective heating capacities of the various types.

834. CELESTIALITE

From the Gleason-Tiebout Glass Co. a new booklet on Celestialite with a report of laboratory tests of the efficiency of the unit.

835. SOUND CONTROL

From the Johns-Manville Corp., a new series of bulletins on sound control, and a new catalogue on roofing including J-M insulated roof and Holorib steel deck, which are now available as a complete roofing unit.

REQUEST FOR DATA

To obtain any of the publications reviewed on these pages, indicate the number and send coupon to THE ARCHITECTURAL FORUM, 135 East 42nd St., New York

.....

.....

.....

NAME .....

STREET ADDRESS .....

CITY AND STATE .....

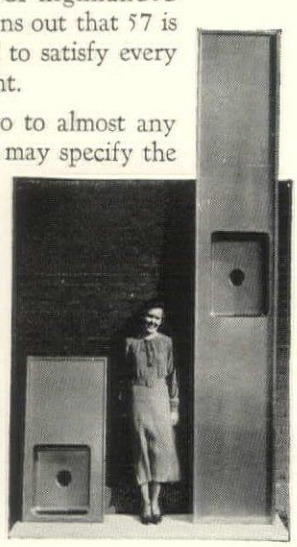
Please check here if engaged in Architectural Practice

This double-bowl sink is one of those things that makes a hit with clients. In the kitchen, the extra bowl comes in handy for cleaning vegetables—while the other harbors pots and pans. In the pantry, one bowl for washing and the other for the hot water rinse.

Apologies to Mr. Heinz for our highhanded seizure of his number. But it turns out that 57 is exactly the number of models we need to satisfy every conceivable sink and cabinet requirement.

And in some of these models, we go to almost any length to please you. For example, you may specify the sink illustrated above in any length from 46″ to 144″ *in fractions of an inch.* In other words, we cut the sink to fit the kitchen, instead of asking you to alter the kitchen to suit the sink.

Having decided on the length, you will discover that you have a free hand in writing the other sink specifications. We manufacture both cabinet models and apron type sinks. Specify the latter with low backs or high backs—with smooth drainboards or grooved drainboards—with square or rounded corners.



The long and the short of standard Monel Metal cabinet sink units. The big fellow is 144″ long, the little one 48″ long.

And if you want to throw in a Westinghouse dishwasher, that can be installed in our standard cabinet sinks without alteration. In short, there are practically no limitations in Monel Metal—nothing to hinder you from giving your client *your idea* of a perfect sink.

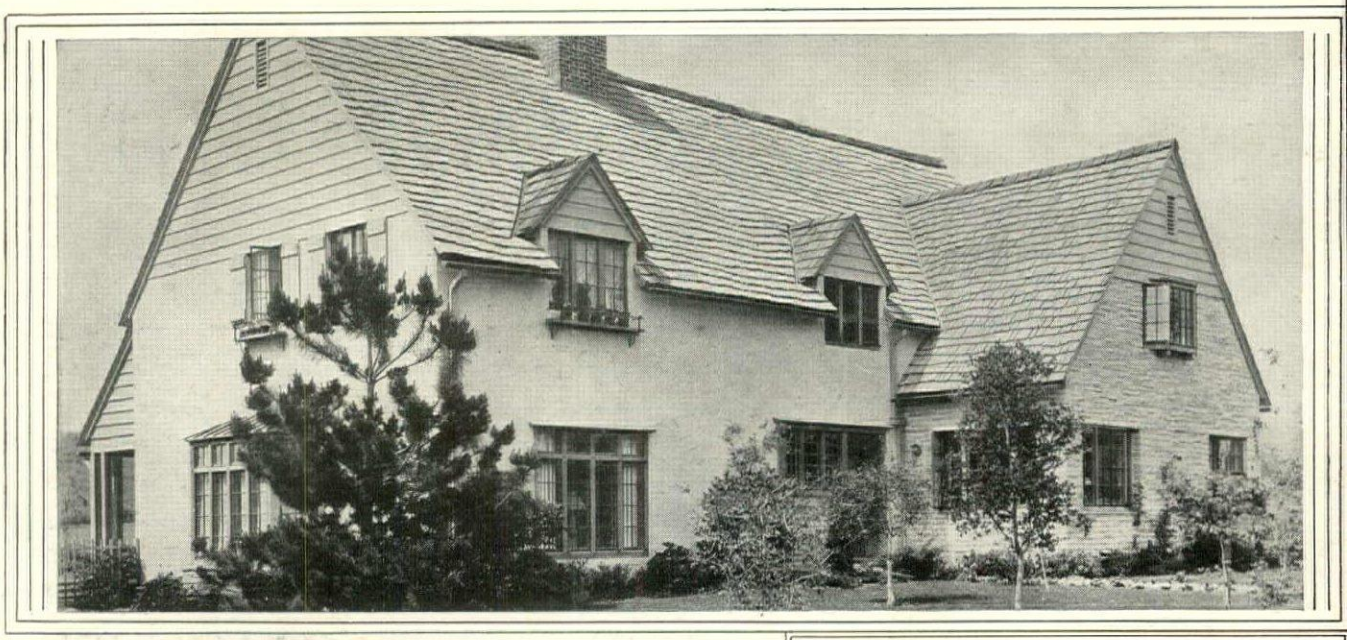
For complete information and prices on Monel Metal sinks, get in touch with the distributors, Whitehead Metal Products Co. of New York, Inc., 304 Hudson St., New York, N. Y., or their branches in principal cities.

• • •

THE INTERNATIONAL NICKEL CO., INC.
67 WALL STREET NEW YORK, N. Y.

Monel Metal is a registered trade-mark applied to an alloy containing approximately two-thirds Nickel and one-third copper. Monel Metal is mined, smelted, refined, rolled and marketed solely by International Nickel.

ADVERTISING INDEX



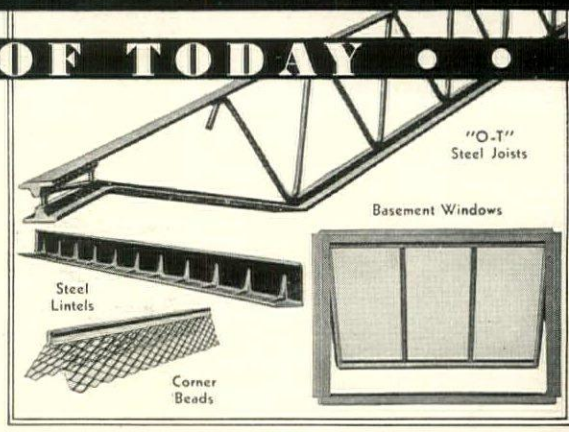
SOUND BUILDING

THE BASIC NEED OF TODAY . . .

One of the most pronounced lessons learned from the great building expansion of 1920-1930 has been the fallacy of unsubstantial, shoddy construction. Building investments running into countless millions have depreciated today to almost nothing because they were based on the principles of long profit and quick turnover instead of good character and permanence of building construction. Certain it is the lesson has been learned—and the fallacy will not be repeated.

Truscon can help you build permanently—help you to give your clients buildings that will show the minimum of yearly depreciation—that will cost less to maintain—and that will possess the highest degree of fire safety and enduring beauty. In short, Truscon can help you to produce buildings that are good, that will stay good, and that will carry a high resale value ten or twenty years from now. And yet, with all of these advantages, Truscon contributes definite building economies.

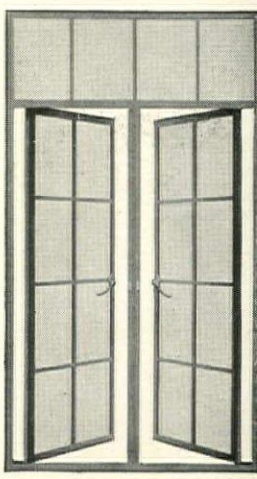
Truscon's catalog in 1935 Sweet's is complete. 80 pages of specifications, details and illustrations filed for your convenience and assistance.

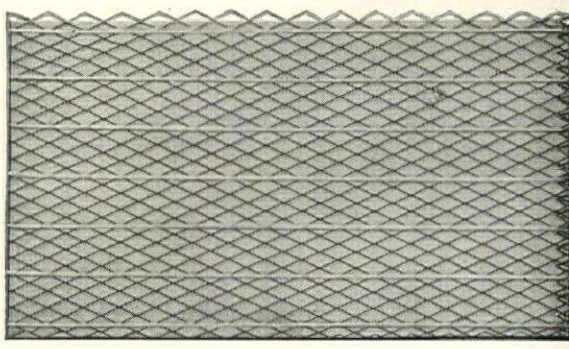


STEEL JOISTS
Truscon steel joists provide rigid and substantial construction, coupled with fire safety.

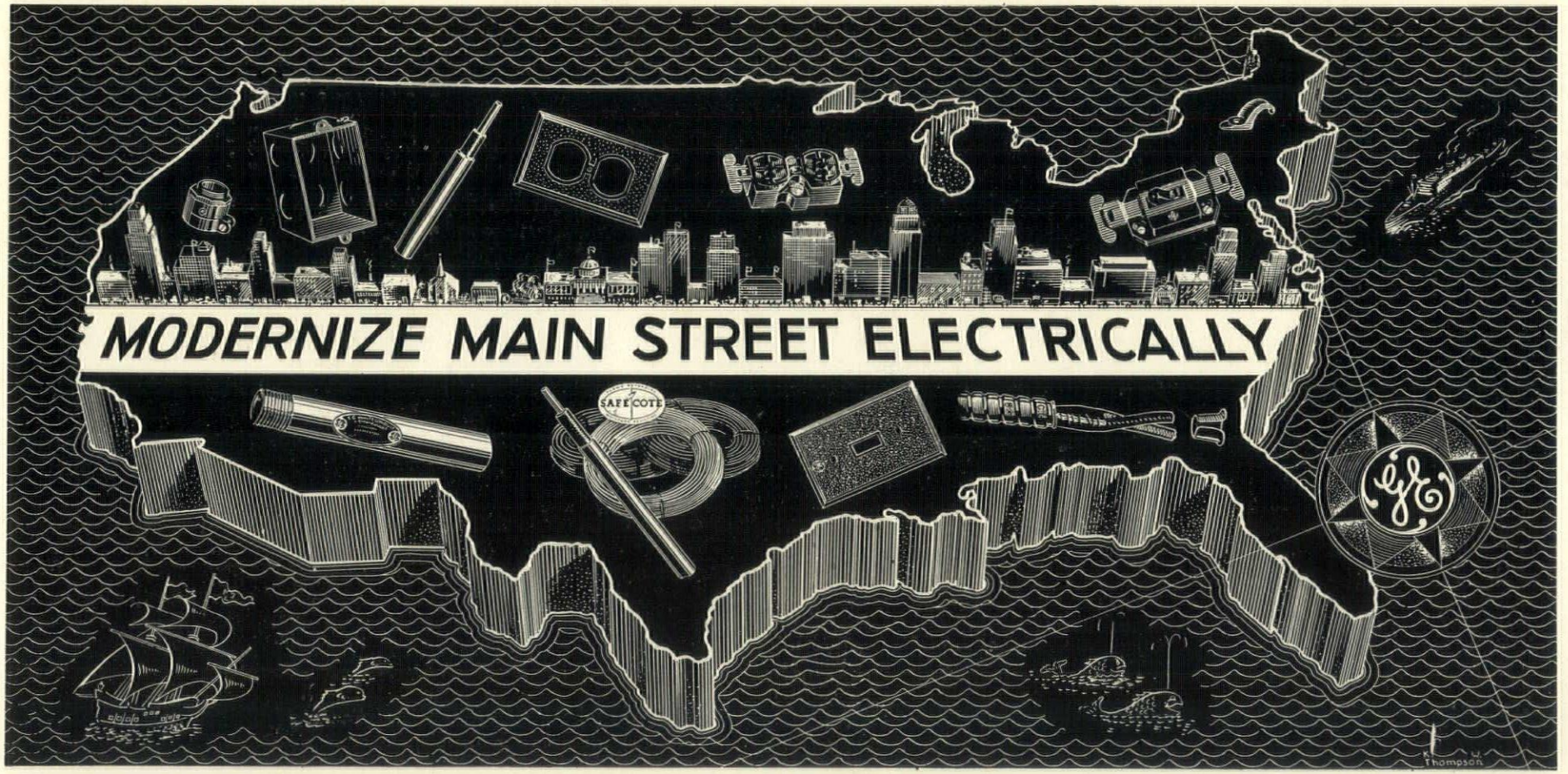
STEEL CASEMENTS
For a happy combination of beauty, charm, utility and fire safety, Truscon steel casement windows provide a new standard in window construction.

INSULMESH
Truscon Insulmesh for fire safety, for crack-proof walls and ceilings and for enduring beauty of plaster effects.





TRUSCON STEEL COMPANY
YOUNGSTOWN, OHIO
Sales and Engineering Offices in all Principal Cities

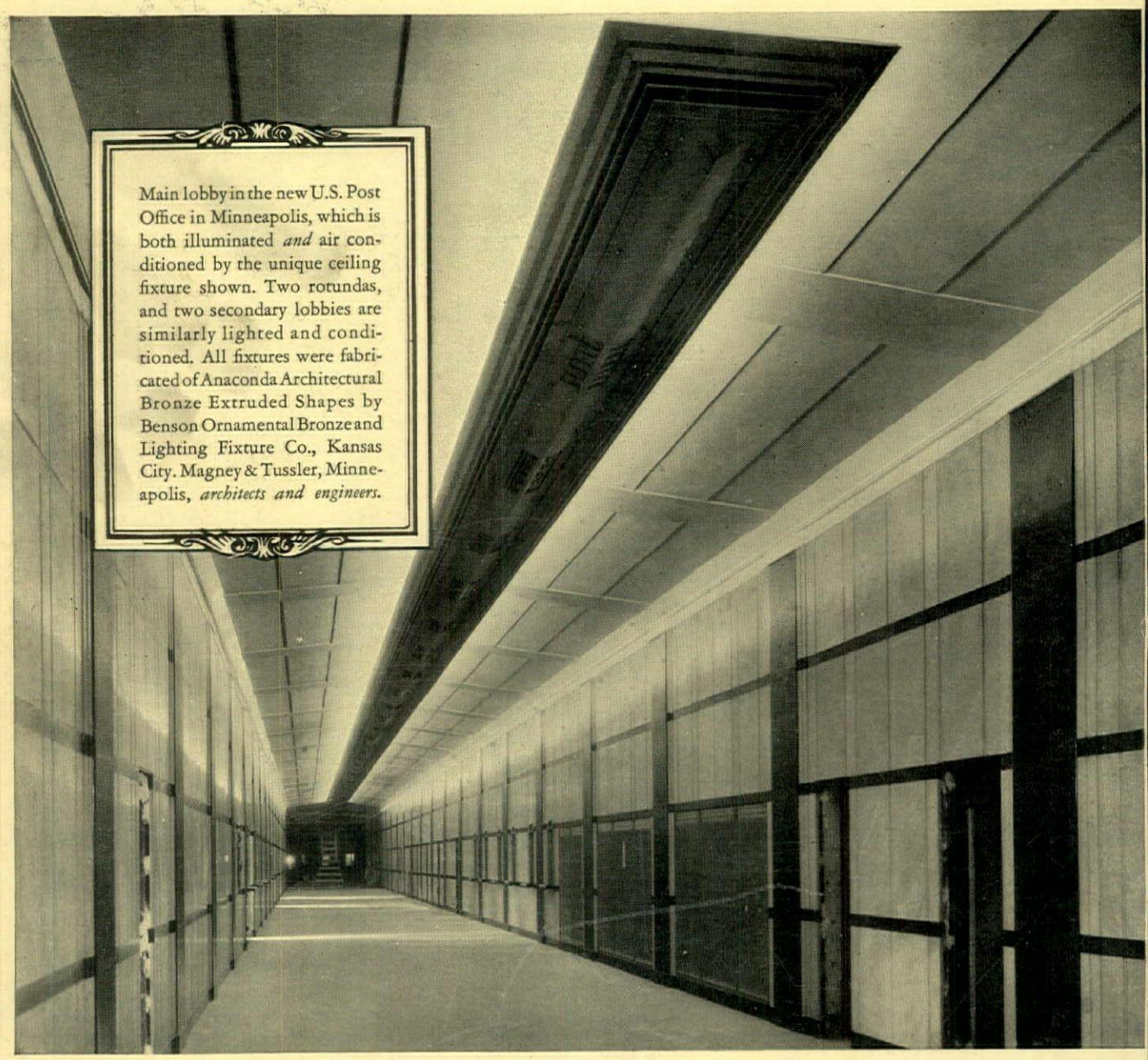


Business men and property owners in America are beginning to modernize. They realize the increased business modern structural and electrical planning can bring them. Government agencies have made modernization possible. Architects everywhere are being consulted.

It is up to you to see that this rewiring of America's business properties is dependable and adequate. On a building's wiring system depends its electrical efficiency and economy. General Electric "Safecote" Building Wires, Hot Galvanized Rigid Conduit, BX Armored Cable, Switches, Convenience Outlets are available everywhere. Specify reliable G-E Wiring Materials for modernization work or new building. Write for complete information to Section CDW-228, Merchandise Dept., General Electric Company, Bridgeport, Conn.

GENERAL ELECTRIC WIRING MATERIALS

Printed by
The Schwenker Press, N. Y.



Main lobby in the new U.S. Post Office in Minneapolis, which is both illuminated *and* air conditioned by the unique ceiling fixture shown. Two rotundas, and two secondary lobbies are similarly lighted and conditioned. All fixtures were fabricated of Anaconda Architectural Bronze Extruded Shapes by Benson Ornamental Bronze and Lighting Fixture Co., Kansas City. Magney & Tussler, Minneapolis, *architects and engineers.*

Unique Fixture . . . *for illumination and air conditioning* . . . of Extruded Bronze

One massive fixture . . . fabricated from Anaconda Architectural Bronze Extruded Shapes . . . provides all the illumination required in the main lobby of the new U.S. Post Office in Minneapolis. In it are five hundred 50-watt lamps, entirely concealed, the lighting being totally indirect. Also, an all-year air conditioning system is connected with the fixture, delivering 300,000 feet of filtered, washed, heated *or* cooled air per hour. The air is discharged horizontally through the sides of the fixture and returned through the bottom.

¶Anaconda Extruded Bronze offers almost endless possibilities for the faithful execution of original designs. Thousands of standard extruded shapes are available in Architectural Bronze and Nickel Silver. And Copper and various Copper alloys may be had in a wide range of standard drawn shapes.

THE AMERICAN BRASS COMPANY
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ANACONDA
from mine to consumer

ANACONDA COPPER & BRASS