

AMERICAN ARCHITECT AND ARCHITECTURE



Charles Purcell

JANUARY 1937. UNIT PLANNING No. 1—CLOSETS

Heater-Rust Ended...

FOR MONTGOMERY WARD & COMPANY

Storage heaters of non-rust EVERDUR (Strengthened Copper), installed in their building at St. Paul, Minn., will provide clean hot water indefinitely...and cut overhead by eliminating rust-repairs

ADD another nationally-known name . . . that of Montgomery Ward & Company . . . to the growing list of owners of Everdur Metal storage heaters. In their St. Paul plant, an Everdur Metal heater has replaced a heater of rustable material which lasted for less than 7 years. And as this is written we learn that 3 similar Everdur heaters have just been ordered for installation in other Montgomery Ward & Company plants.

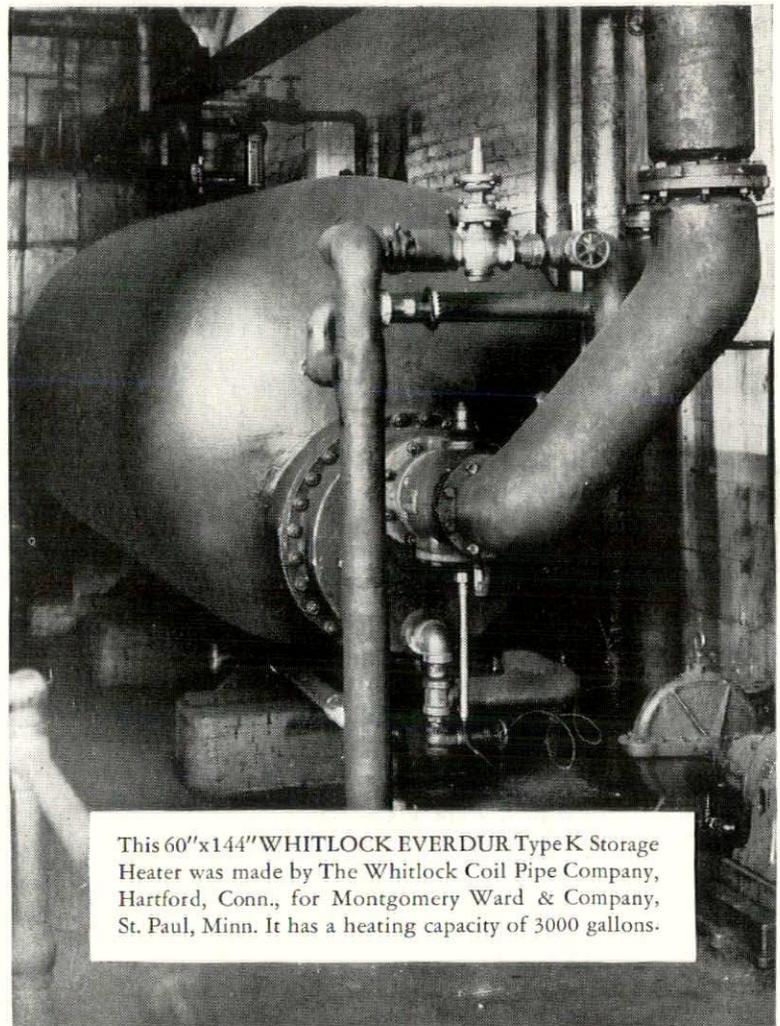
Clean hot water . . . no rust expense

Despite the fact that the St. Paul water is extremely corrosive, Montgomery Ward & Company can count on "lifetime" service from their Everdur Metal heater. Everdur is as rustless as copper and as strong as steel. And while serving dependably for years . . . heaters of Everdur also assure clean, rust-free water indefinitely . . . and reduce overhead by eliminating *all* repair and replacement expense due to rust.

Everdur is readily welded by all commonly used methods and fulfills every requirement for strong, durable heater shells. Obtainable from leading equipment manufacturers.



36157



This 60"x144" WHITLOCK EVERDUR Type K Storage Heater was made by The Whitlock Coil Pipe Company, Hartford, Conn., for Montgomery Ward & Company, St. Paul, Minn. It has a heating capacity of 3000 gallons.

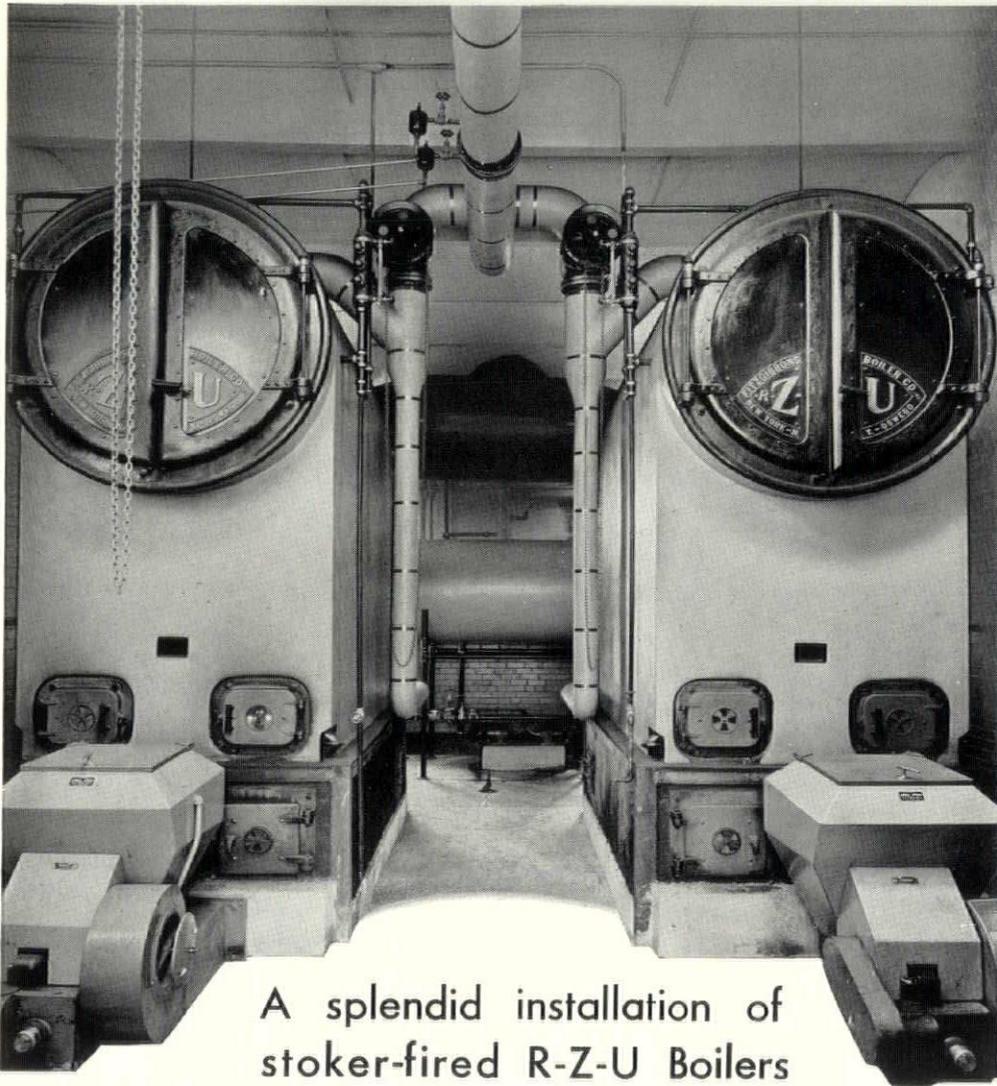
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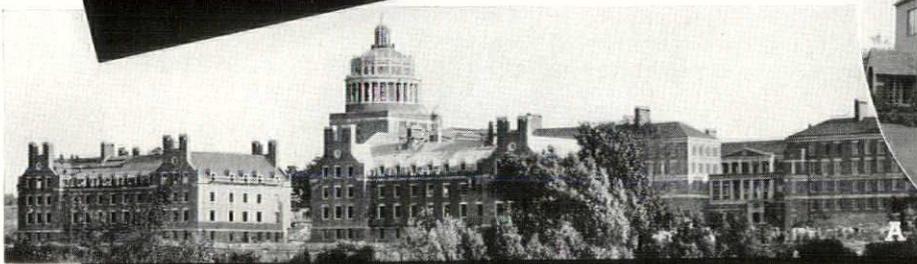
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Results of "Corrosion Study"—
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● Architects and engineers are thinking more of selecting—or "prescribing"—materials today than ever before. The day of blanket pipe specifications, for instance, is over. Knowledge of the material, its record, and the conditions under which it is to serve is now the order of the day.

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the profession's experience with pipe, smokestacks, tanks, and other applications where the selection of proper ferrous metals is essential.

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AMERICAN ARCHITECT AND ARCHITECTURE

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KENNETH KINGSLEY STOWELL, A.I.A.
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HENRY H. SAYLOR, A.I.A.
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Associate Editor

CARL MAAS
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Director of Technical Service

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LEGISLATION

SENATOR ROBERT WAGNER, the Democratic godfather to low-cost housing, is now in Washington with a brand new housing bill tucked in his inside coat pocket. That in itself is news, but of even greater import is the announcement by William Green, president of the American Federation of Labor, that Labor's "number one bill" will be none other than this same housing measure sponsored by Senator Wagner.

In simple terms this means just one thing: "The boys are ganging up." Balked on every hand last year in his attempt to get any kind of housing legislation, it is apparent that Senator Wagner plans to bring every possible force to bear in this session of Congress. And one of these forces will be Mr. Green.

Last spring there was the Committee for Economic Recovery with its housing plan which urged that all attempts to meet the problem be handled by private enterprise. There was the Ellenbogen Bill; and there were lobbyists, industrialists, and professional men, all with a panacea for housing ills. The net result was a lot of talk and squabble and no action at all.

This year the question of housing legislation will be on an entirely different basis. In the first place many of the more pressing problems that faced the last session of Congress have now been ironed out. There has been at least a degree of economic recovery. Unemployment has decreased. Many of the claims made for a possible building boom have been justified. Housing shortages are more apparent. The housing problem, viewed at this point, shows up not as the second, third, or fourth most pressing necessity, but as the first need of both private individuals and interested industries.

It must be pointed out, however, that the path to housing legislation is still not strewn with roses. Foes of the New Deal, fighting for a decentralization of recently accumulated bureaucratic powers, will oppose Senator Wagner's bill at the drop of the hat, if only as a matter of principle. This is why the decision of William Green and his laborites to join hands with the housing needs is of primary importance.

From a hard, practical standpoint it must be apparent that Mr. Green can swing at least a few votes in both House and Senate. He can bring pressure to bear where pressure is most needed. But even more important, he has an organi-

—ENCOMIUM—

our highest praise for
FREDERICK L. ACKERMAN

Because, as a member of the Housing Committee of the New York Chapter of the A. I. A., he is one of the first to attack the popular fallacy that all housing and construction ills can be cured simply by applying the principles of automobile production to building;

Because he minces no words in saying: "Houses cannot be produced and marketed like automobiles";

Because, when he says "The automobile is held up as a shining example of perfect conduct in the industrial field, while construction is referred to as Peck's Bad Boy," he says something that we would like to have said ourselves;

Because he proves conclusively, at least to our satisfaction, that if the automobile were hindered by laws governing production, heckled by forty-odd trades engaged in jurisdictional disputes, hampered by bad mortgage practice, and weighted down by the precedents of years, it might very well still be pointing with pride to the "horseless carriage";

Because we hope that his remarks will put an end to the comparison of two individually excellent but totally unlike things;

Because, finally, we always like to see someone prove that "what's sauce for the goose may not necessarily be sauce for the gander."

zation of competent and experienced publicizers who can do much to make people in great numbers conscious of the housing problem. And he is not hesitating to use this weapon. Already in New York City he has put housing back in the headlines. Catherine Bauer, executive secretary of the Labor Housing Conference (the housing affiliate of the A. F. of L.) has been a regular attendant at the hearings of the New York City Housing Authority. "The nation faces a housing shortage which will require 13,000,000 new dwelling units in ten years," she says. "The housing shortage in New York is not a temporary or a special condition, and it cannot be solved by temporary or local measures," Miss

Bauer told the meeting. That means just one thing—she recommends national action, housing legislation.

Benevolent as Mr. Green's sponsorship of slum eradication may appear, there are some people who wonder if he isn't playing "both ends against the middle." Don't forget that all is not serene in Mr. Green's own backyard. John L. Lewis, with his Committee for Industrial Organization, has been openly challenging the power of American Federation of Labor. There is growing unrest in the Green group. Is Mr. Green figuring that a Federal enactment to promote housing would increase the demand for skilled labor? Would up wage scales? Is his backing of Senator Wagner merely a plan to strengthen his own position in the labor scrap?

Naturally no one really knows the answers to those questions. Housing enthusiasts are not particularly concerned, for, whatever Mr. Green's motives are, the housing cause is bolstered by the backing of Labor.

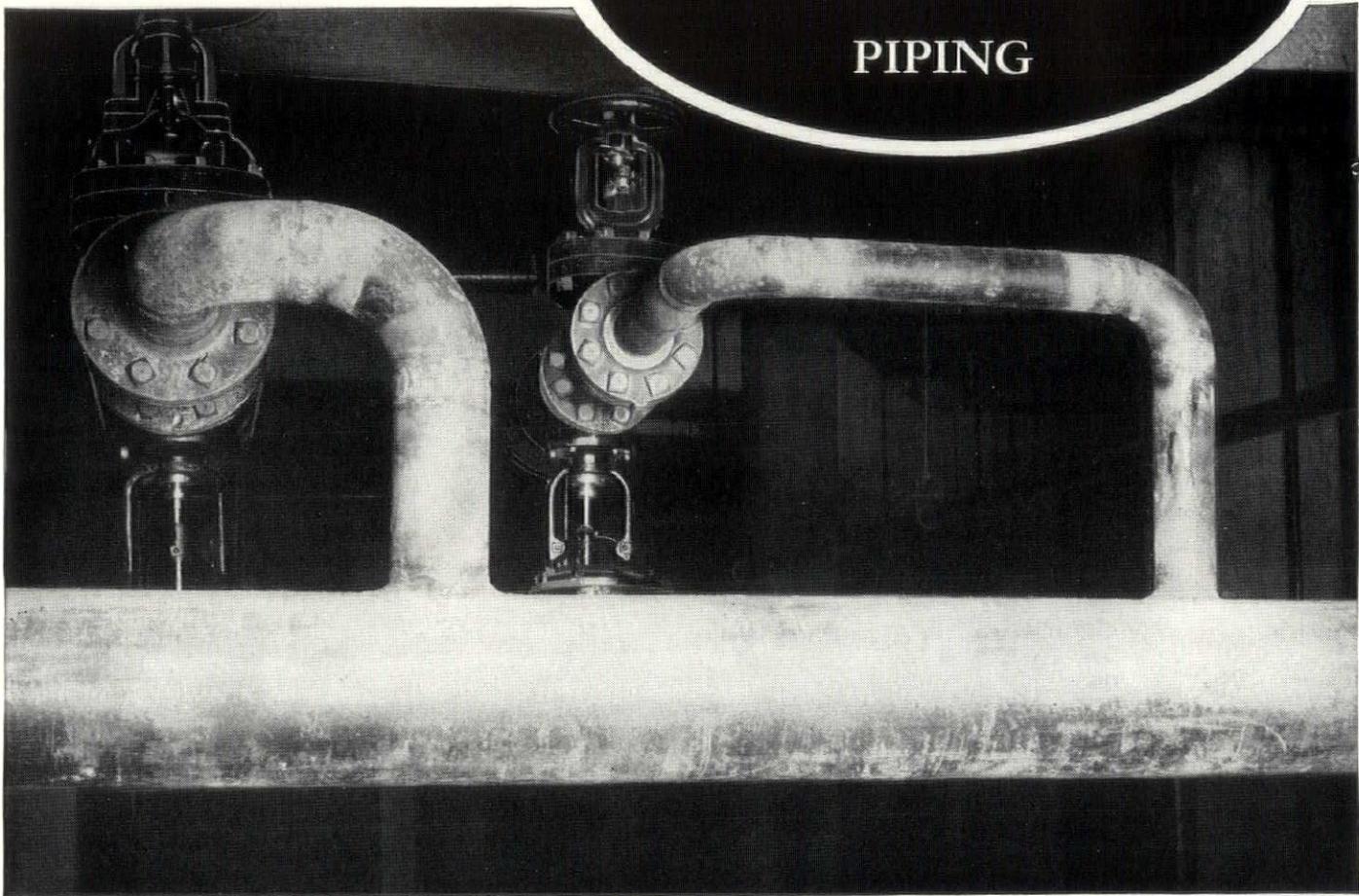
With all of these factors to be considered, the action of this Congress should be at least interesting, if not dramatic. There is strong reason to believe that before April Fool's day there will be Federal legislation for housing. But there will be a scrap—one well worth watching.

GOVERNMENT

CONTRARY TO FORMER POLICY, the Home Owner's Loan Corporation last month made public statistics on the number of foreclosures authorized on homes on which the government has lent money. When foreclosures were rising, detailed figures were not available at the public relations office. But during October, for the second successive month, foreclosures dropped to 6,265, a decrease of 1,013 from September and 1,938 from August. Total authorizations for foreclosure in 1936 numbered 57,413 up to November 1.

THE FEDERAL HOUSING ADMINISTRATION closed 1936 with approximately \$700,000,000 in new business on its books. This increase, says Administrator Stewart McDonald, represents a 70 per cent gain over 1935, almost entirely due to mutual mortgage insurance, the permanent part of the program. The total volume of mortgage insurance in 1936 will be more than two and one-half times that of 1935. Since it began operations in 1934 the FHA had transacted \$1,125,-

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839,240 worth of business up to last December 1. Administrator McDonald estimates that his entire program has created the equivalent of one year's work for 2,000,000 men.

APPARENTLY STICKING UP TO HIS DECISION to hold down appropriations, President Roosevelt announced last month that he would ask for only \$500,000,000 to continue the Federal work relief program until June 30, 1937. This action came directly on the heels of an estimate submitted by the United States Conference of Mayors in which they said there was a need for at least \$750,000,000. There are approximately 2,300,000 persons still on relief roles.

PRESIDENT ROOSEVELT'S PROBLEM of decreasing Federal expenditures was made no easier last month by the announcement that the Resettlement Administration has only about \$14,000,000 left in its bank book—about enough to carry on until February 1. Neither Dr. W. W. Alexander, acting administrator, nor Milo R. Perkins, assistant administrator would estimate how much will be needed to continue the program until June 1. At the current spending rate it would require something like \$30,000,000. RA was originally voted \$85,500,000 for the 1936-37 rehabilitation program.

CONSTRUCTION

ASIDE FROM A CLIMATE where the sun shines practically all of the time, Miami's latest claim to fame is the completion of a



PHOTO: NEWSPICTURES
9,000 tons of steel were riveted together in the record-breaking time of 43 working days for Nine Rockefeller Plaza, the newest addition to Rockefeller Center in New York

\$25,000,000 construction program begun only 11 months ago. Many new homes, apartments, stores, theatres, schools, office buildings, hotels, and estates pushed Miami's construction average to more than \$1,000,000 a month. Proud boast now is that the city, on twenty-four hours notice, can accommodate more than a quarter of a million visitors. Miami is said to have more quarters for tourists than any other resort twice its size in the country.

LOOKING AHEAD INTO 1937, Lewis H. Brown, Johns-Manville President, has prophesied that approximately 425,000

home units will be built—about seven times the 1934 total.

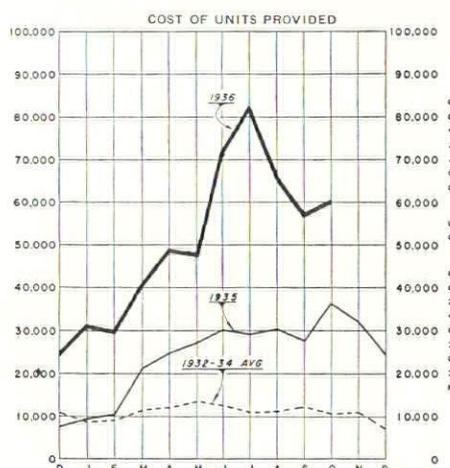
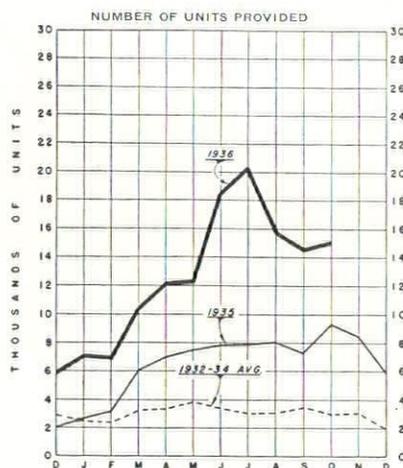
ALMOST 58 PER CENT of the \$208,204,200 of projected construction placed on record during November in the 37 eastern states is residential. With this announcement by the F. W. Dodge Corporation it becomes apparent that the home builder is out in front again in a construction parade that bids fair to sweep the country. Cumulative totals for the first 11 months of 1936 show these results: Total volume \$2,475,600,300 as against \$1,580,408,400 in 1935.

IN SESSION AT MADISON, WISCONSIN, last month, the National Lumber Manufacturers' Association decided to build one thousand demonstration home units of from one to three homes each in 1,000 cities. Purpose is to put before the home-minded public the fact that low-cost homes of real beauty and charm and equipped with basic modern necessities can be built of lumber at costs ranging from \$2,500 to \$3,500. The homes will be built next spring with local labor at market prices for materials and as single houses which any one wanting to own a home might arrange to build.

HOUSING

"QUODDY VILLAGE," the \$2,000,000 group of Colonial buildings near Eastport, Me., which housed the engineers employed on the government's tide harnessing project, will not be converted into a vocational school for boys as the administration had planned. When funds for the completion of the tide harnessing venture were refused by the last Congress, the National Youth Administration, directed by Aubrey Williams, attempted to salvage the investment by creating a trades school for 2,000 or more boys. Last month, while no cause or reason was evident, both Mr. Williams and Harry L. Hopkins refused to discuss Quoddy's future. Apparently it will be abandoned.

IRA S. ROBBINS, counsel to the New York State Board of Housing, predicted last month that the next Congress will authorize a government commission to assist states and cities in the financing of low-rent housing ventures. Mr. Robbins expressed the hope that a "new housing enactment would eliminate the continuation of the highly centralized Federal activity in the housing field."



These charts, compiled by the Federal Home Loan Bank Board from residential building permits reported to U. S. Department of Labor, show the trend in construction—both as to number of units provided and the cost of such units

TERNE ROOFS



A fine house should have a fine roof. The architect who built this house must have been thinking of this phrase when he specified a terne roof and had it built with standing seams, mindful of the steep pitch.

Outlast HOUSES

IN the past few months sales of terne plates have increased greatly. It's no wonder. Sheet metal workers say that a terne roof is the best that can be built, and they can prove it. Go through the Old South. Colonial mansions, covered with clinging vines, moss and ivy, are roofed with terne plates which have lasted far better than other structural parts.

USS Copper-Steel Ternes are made

to resist corrosion, are fire-proof, lightning-proof and weatherproof. They form a lighter, stronger roof than any other material commonly used. USS Ternes are easy to apply on any kind of a roof, and while repairs are seldom necessary, even in case of accident, damaged areas can simply and quickly be replaced. We recommend USS Copper-Steel Ternes particularly for residences and public buildings.

With all these advantages, USS Copper-Steel Ternes are inexpensive, amazingly so when you consider their record of life-long service. Also, when you specify USS Ternes you have at your disposal the technical assistance of men who are thoroughly versed in roofing problems.

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UNITED STATES STEEL

HOUSING (Continued)

LANGDON POST, chairman of the New York City Housing Authority, told the National Association of Housing Officials last month that "the only way to achieve a housing program in this country is by the cruel, hard, terrible way of a housing shortage." "The lower income groups are in a housing shortage right now," he said. "It will be felt very strongly soon. Inside of a year the middle income group will begin to feel the pinch."

IN NEW YORK, cognizant of an impending housing crisis, Mayor Fiorello H. LaGuardia called a conference of housing experts, architects and interested private citizens to discuss ways and means.

"INCLUDING REGULAR LEVIES and special assessments, the average home owner pays the price of his house in his tax bill about once every thirty years. With interest rates and amortization rates what they are now, he pays for it again, for his financing, about once every twenty-five years. This means that the average family which must buy its home on credit is asked to pay for its home something like three times over in every generation." These are the words of Herbert U. Nelson, secretary of the National Association of Real Estate Boards, in which he summarizes the housing problem in terms of carrying costs. Says he: "We need a Federal housing policy that will strike two cardinal problems—the carrying charges involved in interest and amortization and the carrying charge involved in local taxes. If these two basic factors are attacked, the rest of our worries about good housing will disappear."

SHOWS AND FAIRS

MADISON SQUARE GARDEN has been selected as the site of a home show that will exceed in size and exhibition range any exhibition of this character ever held in this country. To be held May 12 to May 22 under the name of the North American Home Exposition, the show has been planned by Thomas G. Grace, FHA director for New York; Gates Ferguson, associate state director; Captain R. L. Purdon; Joseph M. Upchurch, chief of the exhibit section of FHA; and L. Porter Moore. Peter Grimm, past president of the Real Estate Board of New York and Assistant Secretary of the Treasury under Henry Morgenthau, Jr., is also a member of the exposition

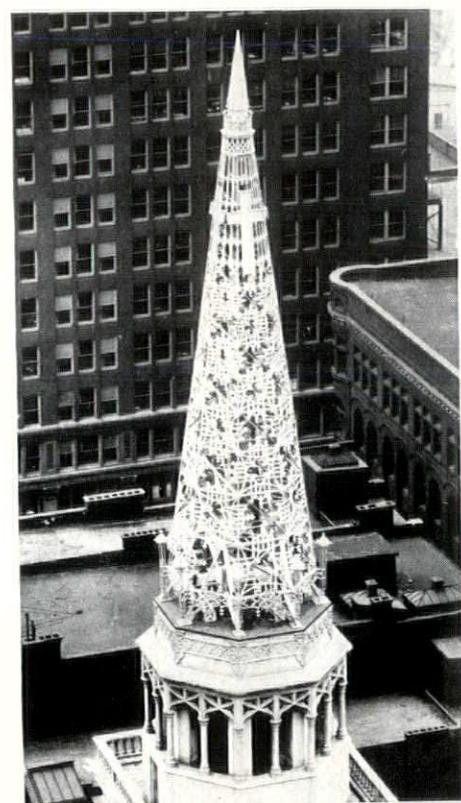


PHOTO: ALUMINUM COMPANY OF AMERICA
In this changing world, few things are what they seem. Therefore it is a matter of small surprise to learn that what appears to be a wooden steeple on the Methodist Episcopal Church in Indiana, Pa., and a cast-iron one on the German Evangelical Protestant Church in Pittsburgh are both actually made of aluminum.

advisory committee. At the conclusion of a recent meeting in New York, where FHA officials met with local real estate men and representatives of the Garden, Mr. Moore intimated that approximately 92,000 square feet of floor space would be required to house the show.

THE NEW YORK WORLD'S FAIR OF 1939 announced last month that wide international support for its venture was assured. Already 21 nations have voted to make this fair the official international exposition for that year. Invitations to foreign nations to participate, issued in the form of books in an expensive limited edition, have now been sent to fifty-nine countries. Said Grover Whalen, Fair president: "We expect to have a larger representation of governments and industries than any previous fair in history." Naturally Mr. Whalen was delighted. For with the signing of these 21 nations, which form the International Convention Bureau, the year 1939 is definitely allocated to New York. This precludes the representation of any of the signatory nations in the exposition to be held in San Francisco in 1939. The approval of the Bureau carries with it the virtual promise of the members to support and participate in the selected exhibition.

AMERICAN ARCHITECT AND ARCHITECTURE,
572 Madison Avenue,
New York City.
Gentlemen:

Lest it be thought that I had a personal ax to grind, I purposely waited until every architectural publication had had an opportunity to review and publish the results of the recent competition for the design of a typical building for the N. Y. World's Fair Corporation. So far as I have been able to determine, no such publication questioned, or presumed to criticize the awards as made.

As exhibit "A" I refer to a copy of the program of the competition. I call particular attention to sections IV, V, VI, and especially to the last paragraph in section VI. You will note how enticing is the prospect for the first prize winner. He not only receives a cash prize of \$1,000, but is awarded, as part of the first prize, a commission to design one of the buildings at the Fair. I venture to say that every architect who entered this competition was not concerned so much with the monetary gratuities involved as with the prospect of the glory and fame

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THE PLUMBING INDUSTRY, ARCHITECTS HAVE
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LIGHTER WEIGHT FIXTURES WITH FUNCTIONAL
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THAT COMPLEMENT CREATIVE PLANNING . . AT
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Close-up of old bricks painted with Eagle Pure White Lead and Eagle Lead Reducing Oil. Painter reports that paint set up quickly and spread easily, leaving no brush marks.

... specify Eagle Pure White Lead mixed with new Eagle Lead Reducing Oil.

• Brick and stucco—like lumber—need protection against the weather.

Their beauty is enhanced—their years of service extended—by a good paint film.

Careful tests show that Eagle Pure White Lead is an ideal pigment for brick and stucco exteriors. It wears longer—anchors deep in the surface it is applied to—because it's a *chemically active pigment*.

As a mixer for White Lead, Eagle-Picher has just introduced a new Lead Reducing Oil. It makes a perfect seal for all porous surfaces—no spar varnish needs to be used in the priming coat.

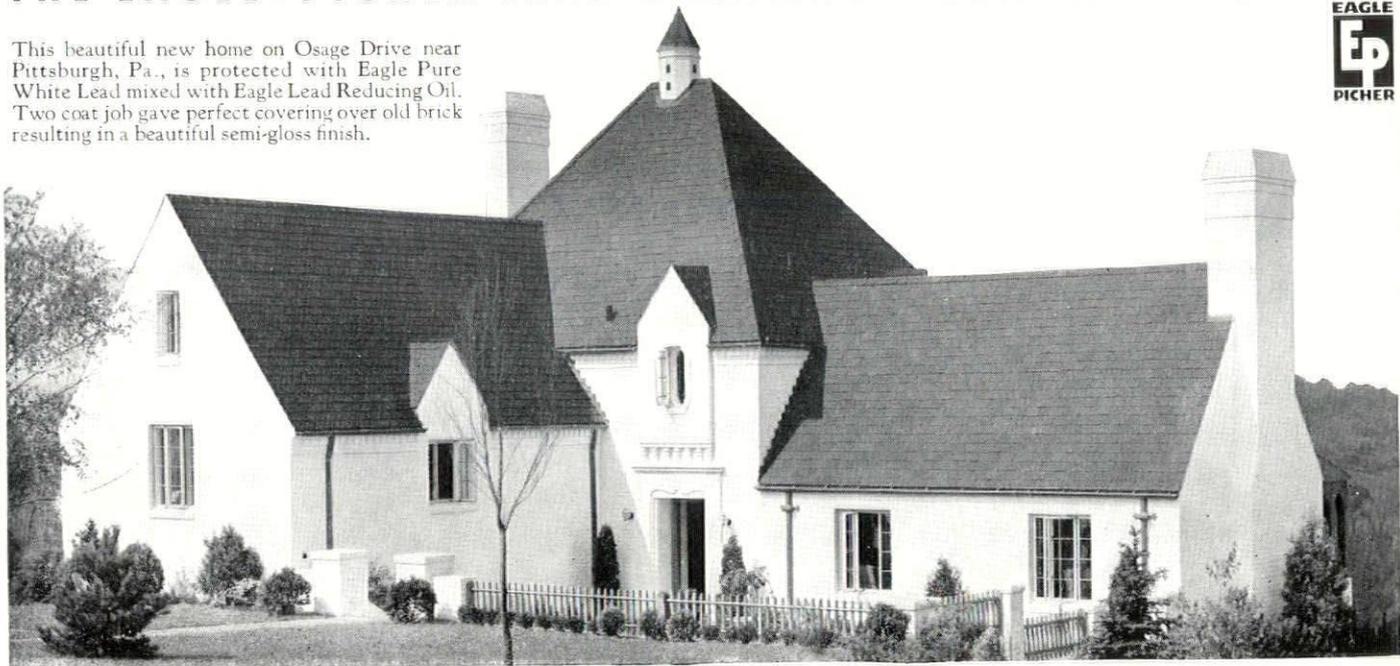
Easy to Use—Dries Quickly

Painters are enthusiastic about Eagle Lead Reducing Oil because it sets up so quickly—often within an hour—and dries from 5 to 7 hours faster on most jobs.

Eagle White Lead, mixed with the new Reducing Oil, brushes out quickly and smoothly—gives a tough, durable paint film that beautifies and protects. You can also safely specify this combination for washable flat or semi-gloss interiors.

THE EAGLE-PICHER LEAD COMPANY • CINCINNATI, OHIO

This beautiful new home on Osage Drive near Pittsburgh, Pa., is protected with Eagle Pure White Lead mixed with Eagle Lead Reducing Oil. Two coat job gave perfect covering over old brick resulting in a beautiful semi-gloss finish.



Eagle pure **WHITE LEAD**

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coincident with being designated as architect for a building at the Fair. That this thought was also in the mind of the author of the program is evident from the last paragraph of Section VI "Prizes." I quote: "The jury is empowered to withhold any of the prizes, *except the first*, and any honorary mentions, if in its opinion designs submitted do not merit these awards. Not more than one prize will be paid to any one competitor. Drawings receiving prizes become the property of the Fair Corporation." Italics are mine.

What happened? After interminable delay in announcing the awards, it was disclosed that no first prize had been awarded, an "honorarium" had been given instead; all other prizes were awarded.

In consideration of the program, does this not constitute a violation of the trust fostered in all architects who entered the competition?

If for some reason, technical or what-not, the author of "the most meritorious" design was not eligible for the first prize, why in the name of honesty and the terms of the program wasn't the award given to the next "most meritorious" design? Namely, the one awarded second prize. Since this competition had received the official approval of the American Institute of Architects, as so stated in the program, why doesn't this respected institution soundly censure such a flagrant violation of the program?

And finally, why is it that no architectural publication has seen fit to take an honestly suspicious attitude in this competition to the end that the aspect of honesty and fairness in all future competitions be unimpaired?

Very truly yours,
(Signed) S. M. Kurtz, R.A.

"YOU ARE THE ARCHITECTURAL ADVANCE GUARD OF THE FAIR." With this statement Grover Whalen, president of the New York World's Fair of 1939, announced the awarding of contracts for the design of the first three buildings of the Fair.

First contract to be awarded—that for the Communications Building to cost \$240,000—went to Francis Keally and Leonard Dean. The building will occupy about 80,000 square feet of floor space, including an indoor and garden restaurant, and will house radio, television, telegraph and telephone exhibits.

The contract for the Business Administration Building, in which office appliances will be displayed, was awarded to Eric Gugler and Slee & Bryson. Covering more than 50,000 square feet. This building will cost \$20,000.

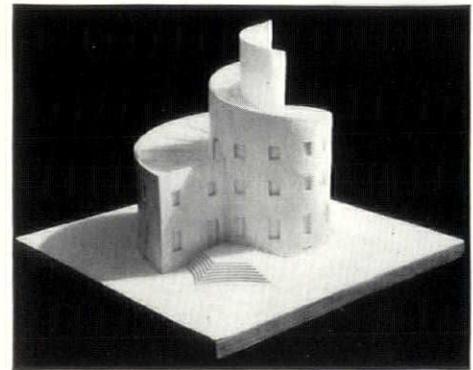
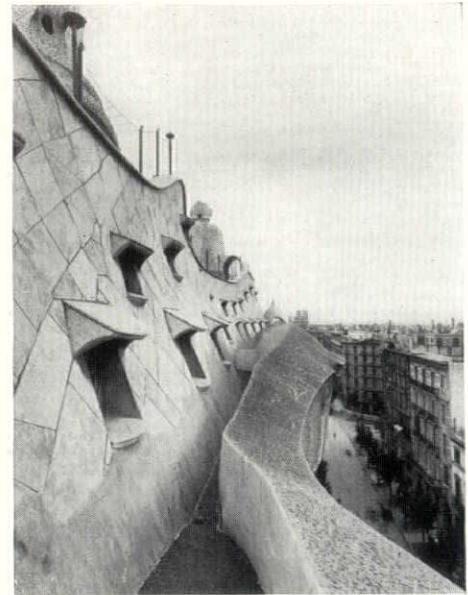
Thomas Harlem Ellett was awarded the contract for the Exhibitors headquarters which will cost \$90,000. This building, two stories high, will be erected between the exhibit and concession areas.

ART

THE LEADERS OF THE LATEST ART MOVEMENT based on Freud, the irrelevant and the supernatural, found that they had a gold mine on their hands last month when The Museum of Modern Art opened an exhibition of Fantastic Art, Dada and Surrealism. Next morning a startled public woke to stare at a fur-lined tea cup and other whimsies pictured in their morning papers. Fifth Avenue shops alert to new style promotions began to display Surrealist hats, shoes and what-not. After some 15 years of mediocre success in Europe the movement definitely had arrived in America. And more than a little of its success is due to clever publicity. Consisting of a group of some competent painters and writers and madmen, all with a fine flare for publicity, Surrealism has gained its main strength by grafting such great names as Peter Breughel, Lewis Carroll, the four Marx Brothers and Donald Duck to the movement. Firmly believing in the credo that no matter what you say or do, get it on the front page, Surrealists could not help but feel pleased with the unconsciously Surrealist statement of the art committee of the Defenders of Democracy, who called the movement a foul communist plot. Chief weakness of the committee's report is that Mrs. John D. Rockefeller Jr., the Hartford Antheneum, the Museum of Modern Art and scores of other prominent and capitalistic people and museums have notable collections of the accused work.

ORGANIZATIONS

IN AN EFFORT TO STIMULATE GREATER interest in architectural design among real estate developers, the New Jersey Chapter of the American Institute of Architects last month awarded its first "Certificate of Merit." This Certificate, which will be awarded annually, is given to the development in New Jersey which, in the opinion of the A. I. A. Committee, has attained the highest standard of architecture in the houses built.



Architecture at the Museum of Modern Art's exhibition of Fantastic Art, Dada and Surrealism. (Above) Irrelevant building in Barcelona, Antonio Gaudi, Architect. (Below) Model of "The Snail" by Emilio Terry, Architect

This year's Committee, composed of Kenneth W. Dalzell, President, Arthur B. Holmes and Neil J. Convery, after a tour of all the principal real estate developments in the State, awarded the certificate to Arthur R. Rule, the developer of Wychwood.

The citation, made at the annual convention of the New Jersey Association of Real Estate Boards, read: "Certificate of Merit awarded by the New Jersey Chapter of the American Institute of Architects to Arthur R. Rule, for general excellence of Architecture in his development 'Wychwood' in Westfield, N. J."

FOR A GOOD MANY MONTHS, more than one young architect or designer has believed that established organizations and institutions leave much to be desired. Specifically, this newest generation of designers has felt that it was offered all too little opportunity for self expression—that present organizations not only gave

it no chance to exert its influence on the trend of architectural thought, but actually stifled and scoffed at its attempts.

Last month the first fruits of this thinking ripened. The Designers of Shelter in America became a recognized entity.

First to conceive of this organization, first to start querying young designers about their interests, first to make a move toward coalition, was Jan Ruhtenberg, whose experience with the German Werkbund had taught him the benefits that might be derived from such action. As early as the spring of 1936 he was talking and urging that young designers get together and do something. There was a meeting and then, through the summer, the idea languished, only to be revived again this fall. In the first part of November another meeting was held. And from this group, composed of P. A. Bezy, J. M. Fitch Jr., W. R. Huntington, John Huntington, Carl Maas, Albert Mayer, Gilbert Rohde, Jan Ruhtenberg, W. B. Sanders, Harold Sterner, A. C. Shire, P. L. Weiner, H. N. Wright, and Grace A. Young, the present aims, constitution, and purposes were evolved.

Briefly, the proposed program of activities will follow this skeleton outline:

1. Publication of a magazine, and public utterances in outside media;
2. Sponsorship and arrangement of exhibits;
3. Sponsorship and arrangement of lectures and courses for members and others;
4. Holding of summer schools;
5. Furnishing educational services and advice to existing institutions;
6. Collective action to present the organization's view on definite projects of public and semi-public nature such as fairs, large-scale government projects, etc.; also to propound such and other projects as may seem necessary or desirable;
7. Co-operative work by groups within the organization, such work when sufficiently significant to be publicized or exhibited or urged for adoption by the organization. Such co-operative efforts will be important for the development of the members, irrespective of their public influence.
8. To carry on research by which both products and practices are analyzed; also broader research into basic problems affecting the whole basis of architectural work.
9. Joint activities and enterprises with other organizations such as Artists' Congress, Writers' League, etc.

10. To advance the position of members by protecting them from abuses of trade practice, and to assure full credit

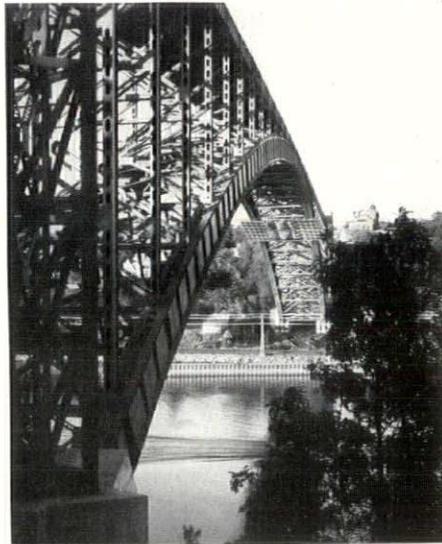


PHOTO: C. P. CUSHING

The Henry Hudson Bridge across Spuyten Duyvil is another link in New York's new highway system

to members on published or merchandised work; to sponsor the principles of prevailing wages and collective bargaining; to examine and take a stand on such professional questions as the requirements of license laws.

These, then, are the principles for which the Designers of Shelter in America will stand. Here is the first musket shot that says in architectural parlance; "Youth will be served."



PHOTO: ACME

A bitter legal war rages about Detroit's "Trailer Towns." Health authorities seek to force motor nomads to move into homes, while trailer families contend that paying rent in parking lots entitles them to set up housekeeping

Heading up this new organization are the following officers: President, A. C. Shire; Vice President, Jan Ruhtenberg; Secretary, James Fitch; Treasurer, Henry Wright.

ANNOUNCEMENTS

Alfred Shaw, Sigurd E. Naess, and Charles F. Murphy, Architects, formerly associated with the firm Graham, Anderson, Probst & White, have formed a firm to be known as Shaw, Naess & Murphy with offices in the Railway Exchange Building, Chicago.

Walter B. Phillips, Architect, 19 West 44th Street, New York City, announces the opening of a branch office at Seaview Avenue and County Road, Palm Beach, Florida.

Fred A. Slifer and E. Richard Cone announce the opening of offices at 342 Endicott Building, Saint Paul, Minnesota.

Maurice H. Finkel, Practicing Architect of Detroit, Mich., announces the opening of offices in New York City at 156 W. 44th Street.

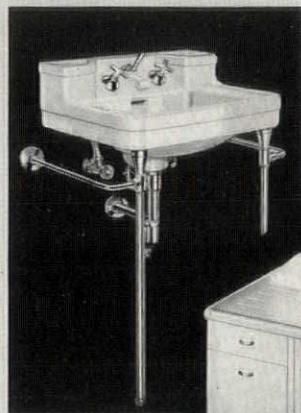
The firm of **McIver and Cohagen, Architects**, Great Falls, Montana, has been dissolved, and A. V. McIver, Architect, is now practicing alone.

Solon Gerscovici, Architect, announces the removal of his office to Room 1422, 101 Park Avenue, New York City.

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Useful things can be made beautiful—as witness this Crane Lavatory. It is made of vitreous China—the most sanitary and durable material for the purpose.



The Crane Sunnyday kitchen sink is scientifically designed for labor-saving. Generous drawers for storage. Out-of-the-way faucets. Rinsing and vegetable spray. Depressed drainboard.

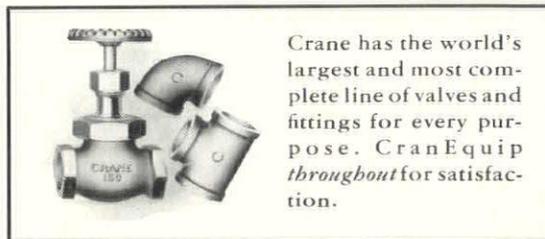


Here's an easy-to-keep-clean laundry tub—the Crane Everbrite. Solid porcelain (all clay) impervious to stain. Rounded corners.

IT'S the old, old story, of course. The client wants quality—but must watch the dollars. Where, then, can you safely go for plumbing fixtures that will not "let him down?"

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SCHOOLS AND SCHOLARSHIPS

COMPETITION FOR THE STEEDMAN FELLOWSHIP, founded in memory of James Harrison Steedman, M. E., to assist well qualified architectural graduates to benefit by a year of travel and study of architecture in foreign countries, sponsored by Washington University of St. Louis, will be held for the 11th time this spring. An annual award of \$1500 is offered to the winner.

THE ROTCH TRAVELLING SCHOLARSHIP, carrying prize money of \$2500, will this year be awarded for a term of not less than 15 months of study and travel abroad. Examination of candidates will be held early in April, but candidates must register before March 1, 1937, and must fill out application blanks which will be furnished on request by C. H. Blackall, Secretary, 31 West St., Boston, Mass.

COMPETITION FOR THE LE BRUN TRAVELLING SCHOLARSHIP is announced by the Executive Committee of the New York Chapter of the American Institute of Architects. The program will be issued about January 16th calling for drawings to be delivered about March 1st, 1937. Those wishing to enter the competition should arrange for nomination by a member of the A. I. A. Nomination blanks can be obtained from the Secretary of any Chapter of the A. I. A.

BEGINNING THIS MONTH New York University's School of Architecture will offer the tenth series of practical

courses reviewing the fields of architectural design, construction and practice. Each course consists of a two-hour session weekly for fifteen weeks. The intent is to summarize the more important aspects of each subject. All of these courses assume previous grounding in the subjects presented. They are scheduled in the evening and on Saturday afternoon, for the benefit of those who are employed. Courses offered are: Architectural Design, History of Architecture, Architectural Practice, Building Construction and Superintendence, Mechanical Equipment and Structural Design.

THE NEW YORK UNIVERSITY SCHOOL OF ARCHITECTURE and Applied Arts was recently awarded the University Medal of the Groupe Americain de la Société des Architects Diplomes par le Gouvernement Francais, highest honor of its kind, for the third time in five years at the annual reception of the School held at the University's Bryant Park Center, 1071 Sixth Avenue, New York.

The award, made by Lewis G. Adams, president of the Groupe, climaxed an evening of addresses on "The World's Fair" by Percy S. Straus, member of the Fair's executive committee and chairman of the committee on architectural and physical planning; Robert D. Kohn, and Walter Dorwin Teague, members of the board of design; and Ernest Piexotto, chairman of the collaborative council of the Architectural League.

The University Medal is awarded annually to the architectural department of the College or University having the best record of accomplishment in the teaching of architecture along the lines followed by L'Ecole Nationale et Speciale des Beaux Arts in Paris. The medals are supplied by the Parent Society in France and hence are of semi-official character. The prize was also awarded to New York University in 1931 and 1934.

These included:

Beaux Arts Institute of Design. Paris Prize medals: Frank Montana (first) and Raoul DuBrul (second). Medals for Excellence in Design: Miss Taina Waisman, Joseph Caponnetto, Erling Iversen, Walter Ouspensky, Arnold Arbeit, Vito Girone, Donald Dunklee, Mario Cantoli, Louis Bellini, Sidney Katz, and Kassel Slobodien. American Institute of Architects Medal: Herman C. Litwack. Books: James V. Balsamel and Frank Bellini.

Sachs Interior Decoration Contest: Donald Dunklee (second).

Joseph R. Gangemi Award for the best water color done in regular class work: Anna Patricia Fried.

William T. Armstrong Prize for the best water color done outside of regular class work: Sidney Katz.

Solomon M. Deievie Award in analytic: William S. Falkenstein.

Dean Bossange also announced that Allen C. Johnson, a former student, had last year won the Princeton Prize.

OBITUARIES

HOWARD E. HAYNIE, immediate past president of the Institute of Real Estate Management, National Association of Real Estate Boards, died recently after a very brief illness. Mr. Haynie at the time of his death was president-elect of the Chicago Real Estate Board.

ERNEST R. GRAHAM, who was senior partner in the architectural firm of Graham, Anderson, Probst & White, Chicago, until his recent death, willed his fortune to the American School of Fine Arts, founded last year in Chicago as a free institution for advanced instruction in architecture, sculpture, painting and kindred subjects. Mr. Graham's estate, amassed in the field of architecture, valued at more than \$1,570,000, will be held in trust for the present, but will eventually go to the School.

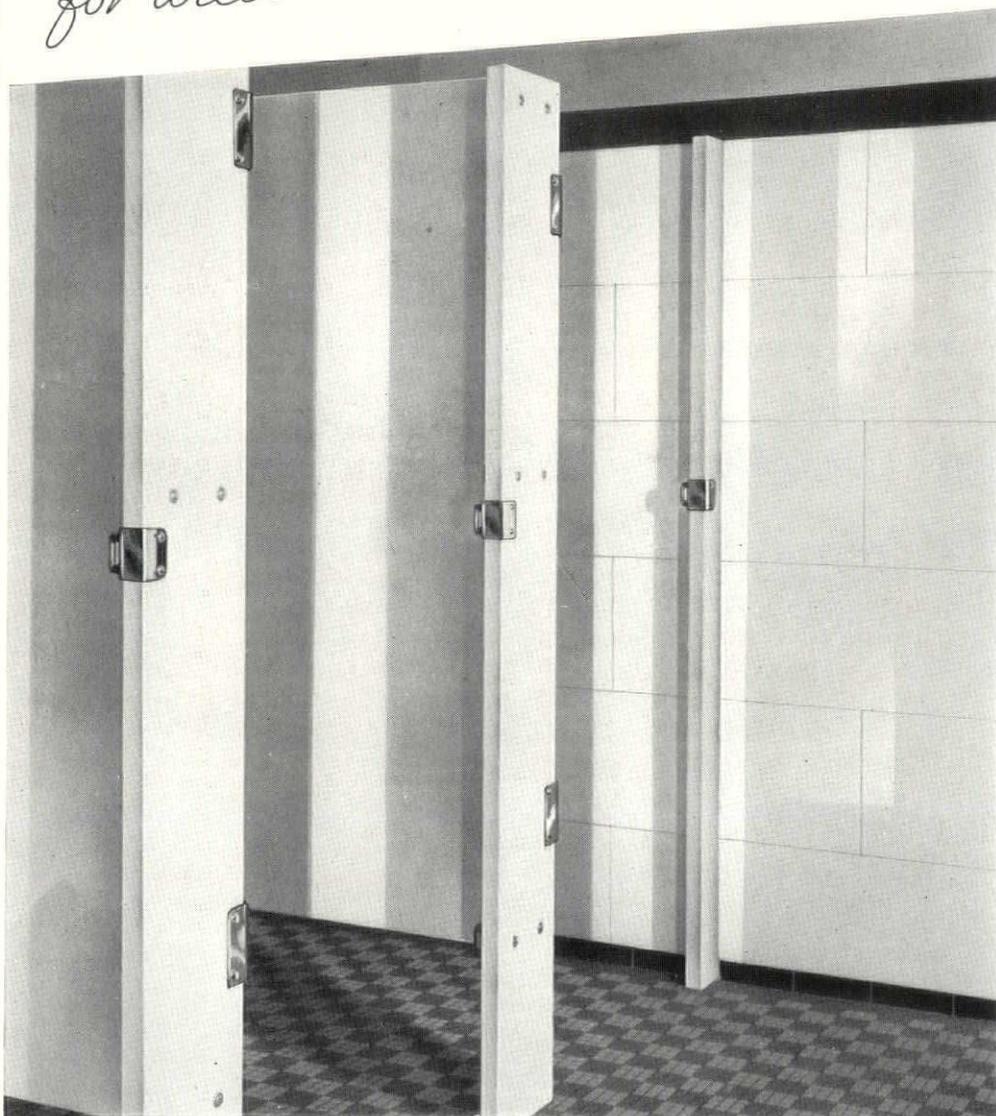
JOHN J. MURPHY, former Tenement

House Commissioner, an authority and lecturer on housing problems, long an advocate of progressive legislation to end fire hazards in tenements and improve their sanitation, died last month in his Riverside Drive, New York Home after a brief illness.

GEORGE W. KELHAM, chief architect for the Panama-Pacific Exposition in 1915, died last month in San Francisco at the age of 65. Born in Manchester, Mass., educated at Harvard, Mr. Kelham started his career in New York City. Moving to San Francisco in 1906 he was the designer of the present Palace Hotel, the Standard Oil, Shell Oil and Russ buildings, and the San Francisco public library and Federal Reserve Bank. He was a member of the American Institute of Architects, and the Beaux Arts Archi-

HOWARD JUDSON WHITE, a member of the firm of Graham, Anderson, Probst & White, died last month from a heart attack suffered on the street while he was on his way to his office. Less than two weeks before Mr. White's death, the senior partner of the firm, (see above) Ernest Robert Graham, also died and associates of Mr. White believed that concern over his partner's death brought on the heart attack. Born in Chicago in 1870, educated in public schools there, he entered an architect's office as an apprentice draftsman and soon became a master of building design. He was a former president of the Illinois Society of Architects. His designs include the Field Museum, the Wrigley Building and the Union Station in Chicago, the Chase National Bank in New York, the Union Station in Cleveland and many other well-known buildings.

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BOOKS

THE LESSON OF JAPANESE ARCHITECTURE. By Jiro Harada. Edited by C. G. Holme. 192 pages, 8¾ by 11¼ inches. Illustrations from photographs and drawings. Printed in Great Britain. New York: 1936: The Studio Publications, Inc. \$10.

The author, who is connected with the Imperial Household Museum in Tokyo, is particularly qualified to interpret Japanese architecture for us, since he knows Western methods and materials almost, if not quite, as well as he does those of his own country. While our literature rather abounds in books interpreting Japanese gardening, it has been woefully deficient in satisfactory pictorial representation of Japanese houses. The many photographs are particularly instructive in that many of them are of details, making clear the Japanese genius for using wood structurally and pleasingly. The text consists of a rather brief historical survey, an exposition of Japanese thought and tradition in construction, and captions accompanying the illustrations which tie together the architecture and its background of everyday and ceremonial use.

HANDBOOK OF ENGINEERING FUNDAMENTALS. Edited by Ovid W. Eshbach. 1081 pages, 6 by 9 inches. Illustrations from graphs. New York: 1936: John Wiley & Sons, Inc. \$5.

The publishers of this work have embarked upon the rather staggering task of preparing a wholly new series of engineering handbooks. This first volume of the series, in view of the fact that mathematics, physics and chemistry form the basis of all engineering, deals with these fields, and presents what is believed to be a complete summary of the facts pertaining to the fundamental theory underlying engineering practice. Particular attention has been given to arrangement, typography, and convenience in use. Section headings in this volume are: Mathematical and Physical Tables; Physical Units and Standards; Theoretical Mechanics; Mechanics of Materials; Engineering Thermodynamics; Electricity and Magnetism; Radiation and Light, Acoustics and Meteorology; Chemistry; Metallic Materials; Non-metallic Materials; Contracts. There is, naturally, a particularly comprehensive index.

DIRECTORY OF COMMERCIAL TESTING AND COLLEGE RESEARCH LABORATORIES. Compiled by Ann E. Rapuzzi under the direction of A. S. McAllister. 55 pages, 7½ by 10¾ inches. Pamphlet binding. Washington, D. C.: 1936: U. S. Department of Commerce, National Bureau of Standards. 15 cents.

This directory is issued by the U. S. Department of Commerce to meet the need which is increasing for independent commercial testing services. The list is geographical in arrangement, so that any manufacturer should have no difficulty in locating a commercial testing laboratory for the establishment of acceptance tests and similar requirements in connection with the marketing of commodities in domestic and export trade.

MODERN FURNISHING AND DECORATION. By Derek Patmore. 41 pages, 7¼ by 10 inches, and 48 plates. Illustrations from drawings and photographs, many in color. Printed in Great Britain. New York: 1936: The Studio Publications, Inc. \$4.50.

A new edition of the book published in 1934. New illustrations, many of them from color photographs, have been added. The author, who is also an interior decorator and a critic in matters of art, has sharply defined ideas of what man should do with his environment indoors, and an emphatic way of expressing them. His tastes are sympathetic

with the contemporary school, and discriminating in his insistence upon adding real beauty to mere functionalism. The illustrations, particularly those in color, are superbly shown.

HEADS AND TALES. By Malvina Hoffman. 416 pages, 7 by 9½ inches. Illustrations from photographs. New York: 1936: Charles Scribner's Sons. \$5.00.

In the whole history of sculpture, there is perhaps no more thrilling event than the determination of the Field Museum in Chicago to commission a single sculptor to go about the world and model the racial types with the purpose of bringing these together into one great Hall of Man. Miss Hoffman writes the story with all the intimate personal charm that it would have if one could hear it from her own lips. Undertaking the staggering task in 1930, Miss Hoffman produced one hundred bronzes and a unified scheme of arranging them in the Museum. It is more than likely that within the lifetime of many now living, some of these racial branches will disappear from the earth. The record has been made just in time. While the Field Museum quest forms the main theme of the book, the life and other works of Miss Hoffman have been intimately interwoven with this racial opus—a fact for which the reader will be grateful.

THE STORY OF ARCHITECTURE IN AMERICA. By Thomas E. Tallmadge. 332 pages, 5¾ by 8¾ inches. Illustrations from photographs and drawings. New York: 1936: W. W. Norton & Co., Inc. \$4.

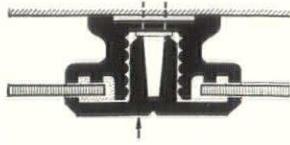
Almost ten years ago Mr. Tallmadge published the first edition of his readable history, a book unburdened by the detailed and dry cataloging that has distinguished too many architectural histories. The work is, in this second edition, brought down to the year 1927 with a sketchy discussion of the contemporary scene. It is probably too much to expect that this more recent history should be in as balanced a perspective as the main body of the book. Future editions, which seem likely to follow, will undoubtedly bring many of these more recent matters into better balance. Incidentally, a hope might be expressed that future editions will correct the unusually large number of typographical errors, particularly with respect to names.

WROUGHT IRON. Its Manufacture, Characteristics and Applications. By James Aston and Edward B. Story. 59 pages, 6 by 9 inches. Illustrations from drawings, photographs and photomicrographs. Pittsburgh: 1936: A. M. Byers Co. Gratis to those who request on business letterhead.

Considering the wide use of wrought iron, surprisingly little information concerning it is available in printed form. We have plenty of tables showing strength, sizes and shapes. There is in print, however, very little about recent advances in puddling and other steps in manufacture. Moreover, we know too little about the characteristics of wrought iron as compared with some of the recently introduced ductile ferrous alloys. Here, then, is the answer to that need for concise technical information.

THE PARISH CHURCHES OF NORFOLK & NORWICH. By Claude J. W. Messent. 298 pages, 4¾ by 7 inches. Illustrations from pen drawings by the author. Norwich, England: 1936: H. W. Hunt. \$3.

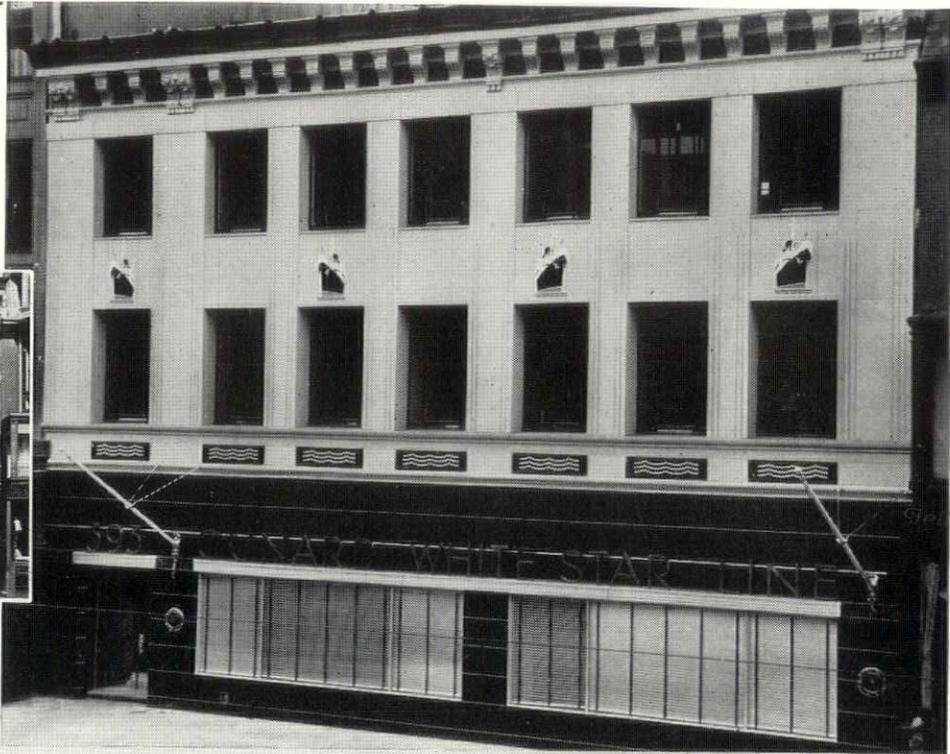
A paragraph or two of description, with dates and changes in the structure, covering seven hundred existing churches and two hundred seventy-five which are in ruins. The little volume is frankly a guide book of a specialized character covering the parish churches of these two counties of England.



FULL SIZE DETAIL OF JOINTS



- Illustration above shows building as it appeared before refacing.
- Illustration at right shows building after refacing with Revecon construction.



Cunard White Star Building Remodeled with

REVECON

Building modernization grows apace with interesting architectural "face-lifting" operations. A current example is the use of Revere Revecon in refacing the Cunard White Star Line Building at 395 Boylston Street, Boston, Mass. As the illustration shows, porcelain enameled panels are held in position with Revecon Structural Sections, alumilited natural finish, secured to steel furring by Parker-Kalon drive screws. Panel sizes run up to 2'-6" x 8'-0". The enameling steel stock is 16 U.S. standard gauge. Total panel area, about 1400 sq. ft. Total length of Revecon sections used, about 1250 ft.

The predominating color is battleship gray porcelain. The black area at the street level is structural glass. The small black panels with the contrasting wave motif, under the second floor windows,

are also porcelain-enameled steel. Outstanding in the general scheme are the four porcelain enamel ship murals done in the Cunard colors of red and black, with background colors of white and gray.

Each panel is readily removable, without disturbing adjacent panels—an advantage of the Revecon system. A noticeable feature of the finished job is the uniform flatness of the panels, with practically no high lights. All of the enameled panels are "Suporcel," made by Porcelain Metals, Inc., Long Island City, New York. The architects were Kilham, Hopkins & Greeley, 126 Newbury St., Boston, Mass. The general contractor was E. A. Abbott Company, 3 Park St., Boston, Mass. The Revecon Sections were installed by E. T. Ryan Iron Works, Inc., 19 Braintree St., Boston, Mass.

The Revere Revecon System is a method of using a framework of extruded aluminum alloy (Revecon Structural Sections) to construct surfaces with any type of sheet material sufficiently rigid to stand on edge. Sheets may be any standard thickness up to 1/2-inch. Capped or pointed-joint construction may be used. The entire structure forms an integral unit, yet individual panels are free to expand or contract without distortion, and can readily be removed or replaced. This system, with complete data of interest to architects, is covered in the Architects' Desk Manual of "Time-Saver Standards." If you do not have a copy of this manual, write us on your own letterhead for the Revere Revecon Handbook. Please address your request to our Executive Offices, 230 Park Ave., New York City.

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ARCHITECTURALLY SPEAKING

by

OTIS ELEVATOR COMPANY

ELEVATORS will now roll on wheels along the guide rails (technically speaking, roller guide shoes). The wheels will be rubber-tired—roll silently—have spring action that has been compared to “knee action” in the automobile.



Even a little thing like a guide-rail gadget can have a history. And this newly perfected roller shoe has certainly been through the mill in the Otis engineering and testing departments.



Displacing the metal shoe that slides along the tracks, the wheel presents obvious advantages: No longer necessary, for instance, to keep the rails lubricated. No more cleaning up of messy oil splatters in the hatchway. More silent operation. And less friction, of course—which means a saving in power. Tests have shown that the power saving is substantial with this new device—and savings increase with higher car speeds.



Have you noticed the visibility Otis Streamlined Escalators are getting today? Department stores are featuring them “as an aid to shopping comfort” with placards in their stores and in their advertising. Many other types of buildings are “pointing with pride” to their “moving stair-

ways.” And even the funny-bone ticklers have seen in the Escalator a worthy subject for their jibes at humankind. Which means just one thing—the public is becoming more and more Escalator conscious—and now is the time to review Escalator installation possibilities.



May we stress this point about Otis Maintenance? . . . That it is distinctly not a repair service. It is *maintenance*, with all that the word can imply—and then some. It is maintenance *for* an Otis Elevator by the manufacturer *of* the Otis Elevator. It carries the same assurance of quality as the Otis Elevator itself. It should go along with the elevator the way a ramrod goes with a gun—should be arranged for with each new installation.



Finger-Tip Control is getting its slice of elevator interest and attention at this writing—from the modernization angle as well as new installation. We predict that, within a few years, you’ll find Finger-Tip elevators in almost *any* building.

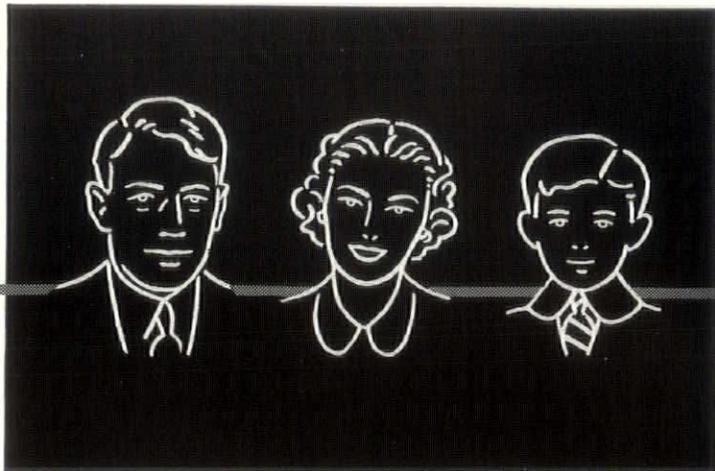


Again we want to make it clear that Finger-Tip Control is available for *any* elevator service—passenger or freight—“operator control” or “passenger control” or a combination of both.

**PROBLEM
No. 5**

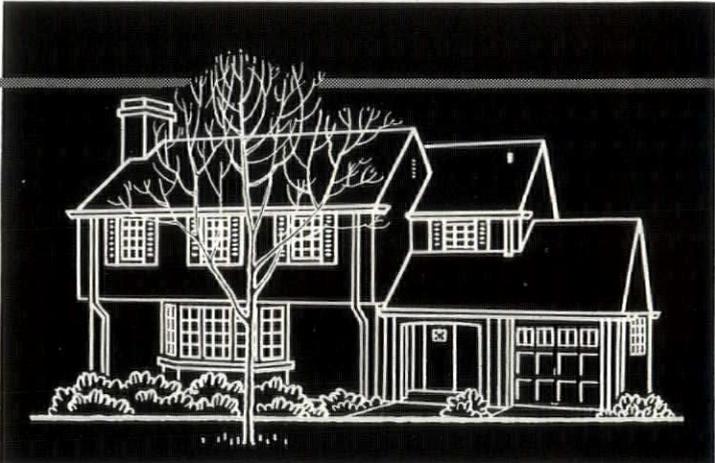
WHEN THE CLARKS...

VERY pleasant people, the Clarks. Lyman, Mary and young Lyman, age 9. All fond of the country. It won't be long until they



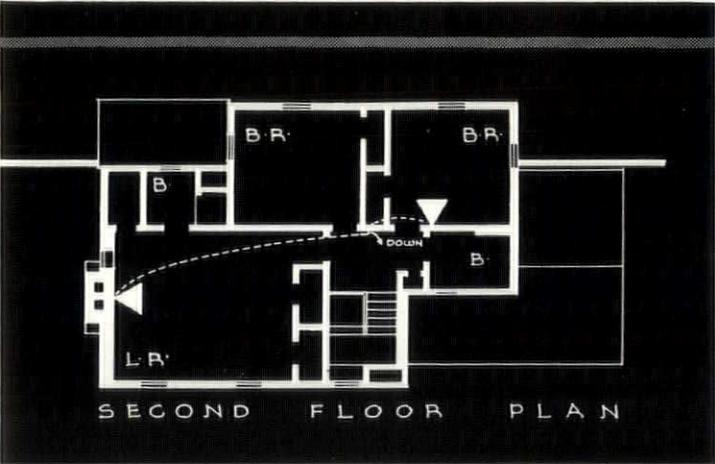
MOVE INTO THIS HOUSE...

just beyond the city limits. You feel the house is planned right, that it will be comfortable and livable. But have you asked yourself this question:

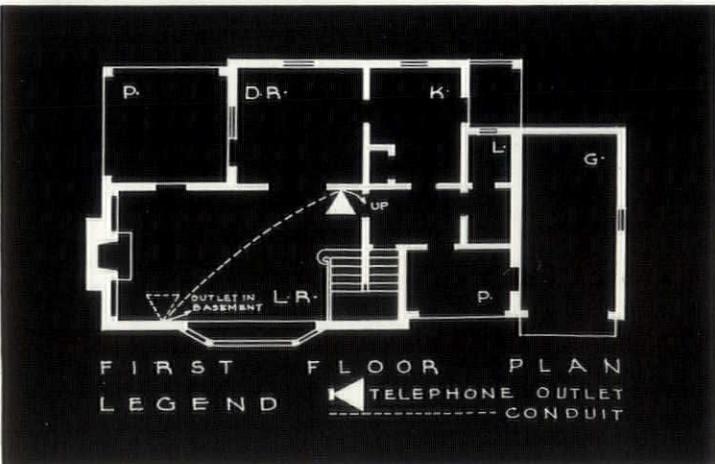


**WHAT TELEPHONE
ARRANGEMENTS
WILL THEY FIND? ...**

First of all, built in conduit, or pipe, to prevent exposed wiring and protect against certain types of service interruptions. It's easy to indicate this equipment in your plans. And it's inexpensive to install while the house is under construction.



An outlet for a telephone in the master bedroom will save steps during the day and provide protection at night. An outlet for a portable telephone in the guest room adds an extra touch of hospitality for visitors. Since the living room, dining room and kitchen are all so near each other, one outlet in the living room will be ample for the first floor. And an outlet for a portable telephone in the basement game room will save unnecessary stair climbing when the Clarks are entertaining.



This is a suggested approach to a typical problem. Our engineers will help you develop economical conduit layouts. No charge. Call your local telephone office and ask for "Architects' and Builders' Service."



This linoleum floor WORKS OVERTIME..



This inviting Armstrong's Linoleum Floor greets customers in Stuart's Pharmacy, Mt. Vernon, N. Y. Field is No. 024 Marbelle with circles and diamonds of No. 40 Ruby, No. 48 Yellow, and No. 27 Black.

YET IT ALWAYS LOOKS *smart AND inviting*

FROM early morning till late at night, drug store floors have to stand hard wear. And this heavy traffic is one of the reasons why so many drug stores are using floors of Armstrong's Linoleum.

These floors are durable. They can take heavy traffic without showing it. They're economical to install and easy to maintain. Daily sweeping and an occasional washing and waxing will keep them in first-class condition for years.

In addition, Armstrong's Linoleum Floors are attractive and comfortable and quiet underfoot. They're available in hundreds of colorful standard patterns. Or they may be custom-designed to order, like the one shown above.

Besides Linoleum, Armstrong also offers the only complete line of resilient tiles—Linotile, Accotile, Cork Tile, and Rubber Tile. All are durable, comfortable, and inexpensive to maintain. And each has

special qualifications that make it ideal for various kinds of commercial installations.

Armstrong's Architectural Service Bureau offers you technical assistance in planning resilient floors. For more complete information, see Sweet's or write now for a color-illustrated copy of "Better Floors for Better Business." Armstrong Cork Products Co., Building Materials Division, 1201 State St., Lancaster, Pa.



ARMSTRONG'S *Linoleum* *and* RESILIENT TILE FLOORS

LINOTILE · ACCOTILE · CORK TILE · RUBBER TILE · LINOWALL · ACOUSTICAL CEILINGS

AMERICAN ARCHITECT AND ARCHITECTURE

THIS MONTH

CHARLES DuBOSE, who painted the cover, has just completed the interior designs for Pan-American Airways new fleet of transatlantic planes.

TRENDS is now classified for the busy reader. The articles are also shorter, more concise, and will include "Encomium" our highest praise for anyone who by deed or thought furthers the cause of architecture.

ARCHITECTURAL OVERTONES was borrowed from musical terminology because it aptly expresses the dominant note of the influence of broad inspiration on a better architecture.

INTERIOR DESIGN is a part and parcel of architectural practice. Each month hereafter a home, apartment, theatre, shop or what you will, will be analyzed from the viewpoint of interior decoration.

FAVORITE FEATURES first appeared, with great success, in Architecture. Each month minor architectural details will be shown in photograph, plan and elevation.

UNIT PLANNING is designed to help save unnecessary office study expenses on all elements of architectural plan that can be reduced to a formula.

TECHNICAL DIGEST, a new monthly feature will recommend and analyze worth while articles from more than 100 current American and European periodicals.

NEXT MONTH

ERNEST BORN, armed with many government passes, a camera and his trusty easel painted a picture of the New Golden Gate Bridge in San Francisco for our cover.

BERTHOLD LUBETKIN OF LONDON, one of the leaders of the Tecton group and of MARS has written an article introducing the work of modern English Architects.

ARCHITECTURAL OVERTONES will be a group of beautiful photographs of steel and concrete bridges on the Pacific Coast.

FAVORITE FEATURES will be devoted to eaves and eave returns, an important but neglected subject.

UNIT PLANNING, NO. 2 of this series, will present facts and figures concerning the design and use of stairs.

CALENDAR

EXHIBITIONS, Jan. 4th to Jan. 30th, Masters of French Painting from Courbet to Seurat at Jacques Seligman & Co., 3 East 51st Street, N. Y. C. **Jan. 4th to Jan. 16th**, Memorial exhibition of the work of George Pearse Ennis at the Grand Central Art Galleries, 51st Street & 5th Ave., N. Y. C. **Jan. 4th to Jan. 16th**, Decorative paintings. **Jan. 20th to Feb. 3rd**, Group show of portraits. Both at the Decorators' Club, 745 5th Ave., N. Y. C. **Jan. 5th to Jan. 30th**, "21 Years of Drawing" a retrospective exhibition of etchings and drawings by John Taylor Arms at Grand Central Art Galleries, 51st Street and 5th Ave., N. Y. C.

EXPOSITIONS, Jan. 18th, 19th, and 20th, Concrete Industries exposition at the Sherman Hotel, Chicago. **March 15th to 19th**, National Oil Burner and Air Conditioning exposition in Convention Hall, Commercial Museum, Philadelphia.



ARCHITECTURE AND GOVERNMENT

Architects benefited when the New Deal put the pump to heavy industry in the form of an enormous building campaign. The President looks with favor on the continuance of governmental building activity and private practice should get a greater share of it in the next four years

SO far as the United States Government is concerned, this month is very much more than just the first month of a new year. It is also the first month of another four years of the present administration. The question then is what will these next four years mean to architects and the architectural profession?

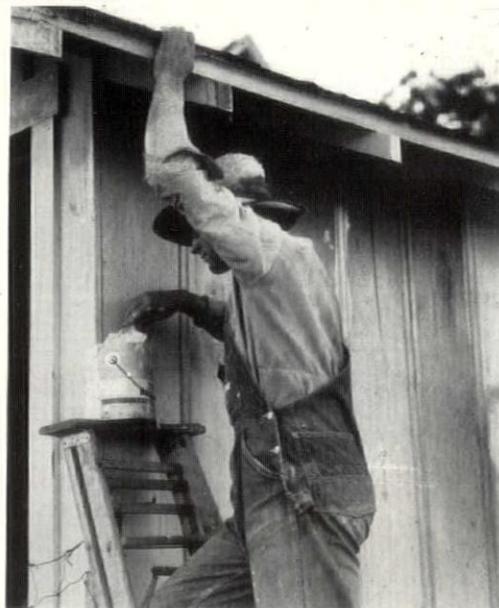
In his campaign speeches, Mr. Roosevelt promised to do something about housing. At one point the President said, "We need action and more action to get better city housing. Senator Wagner and I had hoped for a new law at the last session of Congress. We who believe in better housing have not been defeated. I am confident that the next Congress will start us on the way with a sound housing policy." This seems to mean that the Wagner-Ellebogen bill, which has spent most of its existence bobbing up and down like a cork, will be passed, but even at that its form may be changed.

The 75th Congress, consisting of 409 Democrats, 105 Republicans, 1 Independent, 7 Farmer Laborites, 8 Progressives and 1 in doubt, will convene on January 5th. Most of the more vociferous anti-New Dealers, such as Senator Hastings of Delaware, have gone down to defeat, while others, such as Representative Wadsworth, are at least temporarily chastened by a lack of Congressional support. On January 20th, President Roosevelt will be inaugurated for his second term of office. Thus the man who received more popular and more electoral votes than any other president should find the stage set entirely to his liking.

The President's critics have accused him of vacillation and political opportunism—his friends, of meeting emergencies with emergency measures. At the present time, the lack of plan for the Emergency Works Progress Administration constitutes an emergency. Funds for it are exhausted and it seems likely that the work of this agency must taper off. The President has promised sufficient money to carry it through the fiscal year, but beyond this time nothing is known about it. In the meanwhile, he talks about jobs for the men over forty, and people who have already been cut off WPA rolls are holding "sit-down" strikes. Whatever course is decided upon—whether WPA continues as such or is divided up among other alphabetical agencies—it is obvious that the President cannot afford to let WPA become his Frankenstein.

Although the plans of a great many other Federal units are still uncertain pending Congressional action, a survey conducted last month by AMERICAN ARCHITECT AND ARCHITECTURE, of the various department heads in Washington, disclosed that the government will continue to be abnormally active in the building field. Just how much of this work will go to private architectural firms is, of course, a moot question. The record shows that a great deal of it already has under the New Deal. And at present there is every indication that private practice will continue to get a major part of government work.

PHOTO: GLOBE



TREASURY AND WAR DEPARTMENTS



PHOTO: WURTS BROS.

The Treasury Department since August 1933 has undertaken 1,200 federal building projects at a total cost of about \$300,000,000. During this time some \$6,500,000 in fees and salaries was paid to private architects for assistance in planning and drafting specifications for these buildings. Of a total of \$267,909,000 spent for actual construction in four years, \$207,024,000 was spent for buildings outside the District of Columbia. Until the Procurement Division was set up, in June 1933, as a single permanent agency to control all federal building, the office of the Supervising architect normally controlled the building of Post Offices, Federal Buildings, and Public Works. Of the 21 leading architects invited to set up their offices in Washington under the Procurement Division, 10 have returned to private practice, and there is at present no indication that they will be replaced.

The Army's four year budget for new construction including housing is slightly over \$78,000,000, of which \$14,150,000 is a regular appropriation. In the same period there is an allotment of some \$48,000,000 for repairs. Army buildings are no longer standardized, since an effort is being made to suit the architecture to the climate. Relatively little army work is designed by private architects.

PWA through its system of loans and grants has made possible a construction program, the total estimated cost of which is in excess of \$2,379,000,000. Of this amount, \$840,000,000 went into buildings. Thanks to this agency, 3,637 Educational buildings, costing \$535,118,000, have been erected. 46 were libraries, 272 were colleges and universities, and the remainder were secondary schools. PWA also furnished money for the building of 63 municipal auditoriums and armories, 301 courthouses and city halls, 420

Although officials of the War and Treasury Departments flatly refuse to comment on their expectations pending publication of annual reports and the budget message, legislation which was introduced last year at the request of the War Department revealed that that agency hopes for at least a \$27,000,000 construction program during the next four years, while the known Congressional intent with regard to the Treasury building program indicates an annual appropriation of about \$60,000,000 for new post office construction alone.

With respect to the construction program which is forecast for the Treasury Department, Congress, in co-operation with the department several years ago in an effort to get away from the old "pork barrel" method of selecting projects, decided upon a long-term plan of post office construction under which Congress would appropriate lump sums and the department would select the projects to be constructed according to a long range schedule free from Congressional influence. During the past several years, the annual appropriation for this work has run from approximately \$60,000,000 to \$65,000,000, and while officials of the Procurement Division definitely refused to predict what would happen, there has been no evidence that the new Congress will attempt to upset this balance.

This estimate of the funds which the department will receive for normal post office construction, does not take into consideration, of course, appropriations which might be made for large central buildings to house various New Deal activities.

As to the War Department's plans, Chairman McSwain of the House Military Affairs Committee last year, on the recommendation of the department, introduced a bill authorizing expenditure of \$29,960,733 for construction of military posts during the next four years. The measure was reported but not passed at the last Congress, and it is understood that an intensive drive will be made to enact it in the coming session. The proposed legislation would authorize expenditure of \$8,000,774 for the fiscal year 1938; \$7,507,220 for the fiscal year 1939; \$7,498,099 for the fiscal year 1940 and finally \$6,954,632 for the fiscal year of 1941.

Congress, at the last session, also appropriated \$115,000,000 for river and harbor improvement under army engineers. Of the amount appropriated, a considerable portion remains yet to be spent. In addition, Congress authorized appropriation of \$310,000,000 for flood control work under army engineers and an additional \$272,000,000 for flood control work on the Mississippi River and its tributaries. Appropriations covering these authorizations, particularly for the general program, are expected to be made from time to time during the next four years.

Also pending before the War Department is the plan to construct 6 frontier air defense bases and a series of intermediate stations. A bill authorizing the bases was passed in the last Congress and a special committee of the War Department is now studying proposed sites. Congressman Wilcox, author of the plan, estimated each of the new bases would cost in excess of \$10,000,000. The report of the special committee is expected to be made in the next session, whereupon a drive will be started to appropriate money necessary for the work.

PUBLIC WORKS ADMINISTRATION

Secretary Harold Ickes expressed the opinion that the emergency activities of his organization should be tapered off. "I believe that it will be necessary to round out a complete program by making allocations for additional limited projects. We are working now with that end in view. However, I believe we should immediately set about to retrench all along the line. I am not in favor of approving projects for states or communities in which a large measure of prosperity already has returned." Ickes forecast continued Federal financing of low cost housing projects, but asserted that

the cities would have to bear the major responsibility. "In short, future housing will be carried on as a non-Federal function," he said. "The real burden must be assumed by the cities."

The PWA Administrator is backing the Wagner-Allenbogen housing bill which passed the Senate last year and which will be introduced into the coming Congress. This bill would set up a permanent housing authority to make loans and grants for low cost housing construction. Under it, the experimental housing activities which have been carried on by PWA would be considerably expanded, except that construction and administration would be a non-Federal function under the new plan.

The Public Works Administration has eligible for allotment a large number of projects, but in view of Ickes' retrenchment policy and the apparent unwillingness of the President to embark on any considerable PWA building program, it is not likely that many of these will be approved, although technically there is about \$200,000,000 of PWA money still available.

FEDERAL HOUSING ADMINISTRATION

Stewart McDonald, head of the FHA, forecast a tremendous acceleration in home building and predicted that FHA would do much to protect the public against most of the unhappy experiences of the last boom period. In expanding on his prediction of a substantial increase in building, Housing Administrator McDonald said, "The home building outlook for the next four years is excellent, both from the viewpoint of volume and of quality. A long sustained upward trend on the construction chart lies ahead. During the worst years of the depression, home building virtually ceased. An enormous back log of building has piled up. To catch up with the accumulated shortage and to supply the increasing demands for proper housing will require years of the utmost activity in the construction industry. The year now closing has been remarkably successful for the Federal Housing Administration. Nearly \$700,000,000, all private capital, in new building has been added to our books. This includes home mortgages accepted for insurance, insured modernization and repair notes, and mortgage insurance commitments for large scale housing projects. A constantly growing proportion of the home mortgages accepted for insurance represent new home construction amounting to as much as 53 per cent of the total for the months of July through September."

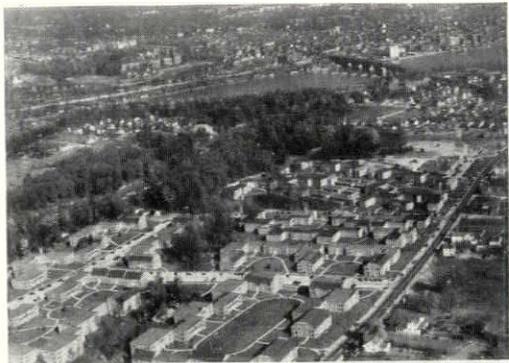
"The total volume of our business for 1936 represents an increase of 70 per cent over 1935, yet we have hardly scratched the surface of the potential market. We have prepared a solid foundation for the anticipated home building activity in the next four years and thereafter. The Federal Housing Administration with its scientific valuation system, its home mortgage financing methods and its insistence on high building standards will be a potent force in protecting the public against the unhappy experiences of the last boom period."

HOME OWNERS LOAN CORPORATION

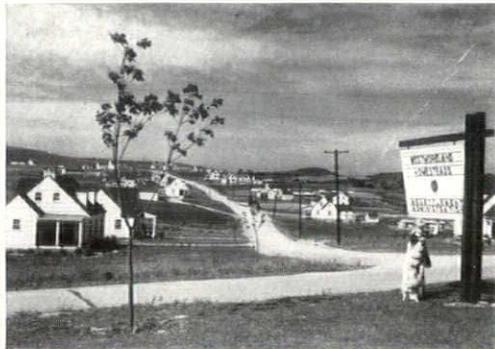
John H. Fahey, Chairman of the Federal Home Loan Bank Board, said that the government having completed its emergency work and withdrawn from the direct lending field is now offering every possible encouragement to the private lending institutions. "It is assisting them to meet the mortgage needs of our people and not only to finance new construction to meet the housing shortage, but to plan for better and more economical housing," he said. In addition to the assurance by Chairman Fahey that his organization is doing all it can to assist private agencies to meet the mortgage needs of the public, officials of the Home Owners Loan Corporation under the Home Loan Bank Board said that every care will be taken not to unbalance the real estate market in liquidating the three billion dollars which was lent to more than one million home owners. They pointed out the original intent of the HOLC was to stabilize the real estate market and said that every effort will be made to maintain that balance now that HOLC has become a

hospitals and institutions, 96 penal institutions, 45 social and recreational buildings, 6 residential buildings, 42 offices and administration buildings, and 50 warehouses, laboratories and shops. That a major portion of construction during the past 3 years was made possible by PWA money is proven by the facts that 70 per cent of all school building and 64 per cent of all hospital construction was done with money from this agency. The Housing Division of PWA has been equally active in the matter of low cost housing and slum clearance. Here a \$130,000,000 program, comprising 50 projects in 35 cities of the United States and two insular possessions, is in active construction. The Division has used the services of about 250 private architects who have received about \$3,500,000 in fees.

A total of \$486,420,000 in modernization and repair notes has been insured by the FHA. In addition, this agency has commitments to insure mortgages amounting to \$29,160,000. Of the large scale housing projects on which commitments to insure have been made by FHA, three have been completed, three have been started, and two will soon begin. The advantages of this agency to private architects are obvious.



During the past three and a half years HOLC has rescued more than a million families from imminent foreclosure and eviction. In addition to these loans, HOLC has undertaken reconditioning jobs on more than 388,000 individual dwellings, or about 39 per cent of all the homes which it has refinanced. In March 1936, the last month for which official figures are available, reconditioning contracts already awarded amounted to more than \$72,000,000. In addition, repair cases totalling some \$4,000,000 were pending authorization.



The Resettlement Administration has completed construction of 19 projects, providing homes for 1,089 families at a total cost of \$4,657,221. In addition, it has now under construction three suburban resettlement projects, which will provide 2,750 families with homes at a total cost of \$28,445,674. A number of smaller projects also are under construction. All the projects are designed by government architects.

The Bureau of Reclamation on July 1, 1937, the end of its fiscal year, will have spent \$217,756,000 during the past four fiscal years. The largest project which it undertook was the Grand Coulee Dam, the total expenses being \$55,750,000, of which PWA contributed \$15,000,000, ERA \$20,000,000, and the general fund \$20,750,000. The second largest, Boulder Dam, has so far cost \$47,600,000. Of this, PWA contributed \$38,000,000, while the balance came from the general fund.



collection rather than a lending agency. In this connection it is known to be the aim of Chairman Fahey to build up a collection organization that will handle in a sympathetic and understanding manner, the million cases, at the same time taking into consideration that the HOLC is dealing with the public's money which must be safeguarded.

RESETTLEMENT ADMINISTRATION

Resettlement officials said that 75 projects which they have planned for the future are more nearly the size of the 27 agricultural communities now being completed than of the original suburban resettlement types at Greenbelt, Maryland, Greenhills, Ohio and Greendale, Wisconsin. The 75 projects, if completed, would, officials said, be more on the scale of the project at Hightstown, N. J., where a 200-family unit was constructed at the cost of about \$1,600,000. In addition, officials said, a definite program for land acquisition and planning for additional Greenbelt towns has been under preparation for the past year, and if additional funds are allocated for this program, a limited number of new cities for the future developments will be selected.

There is also some indication that the Resettlement Administration will ask additional funds from the new Congress to carry a relief load of some 250,000 drought relief workers who were transferred from the WPA through to June 30th, the end of Resettlement's fiscal year. At the present rate of spending, a sum of about \$30,000,000 will be needed of the \$85,500,000 voted by the last Congress for the 1936-37 rehabilitation program. Only about \$14,000,000 to \$16,000,000 will be left to see it through until February 1st. Subsistence grants to drought-stricken farmers had already eaten heavily into the appropriation and then to add to the Resettlement Administration's trouble, WPA unloaded about two-thirds of the farmers employed on drought relief projects.

BUREAU OF RECLAMATION

Plans for continuance of work already under way and adoption of several new projects was outlined by John C. Page, acting director of the Bureau. About January 1, 1938 the first important step on the construction of Grand Coulee Dam known as the "low dam" will be completed, he said. Contract for this work has already been let, but an additional \$5,000,000 or \$6,000,000 will be needed to complete the job. At the completion of the "low dam" which will be 177 ft. from the foundations, negotiations for letting the "high dam" contract should be under way. This structure will cost about \$60,000,000 and is to be erected on the low dam. The Bureau anticipated no great difficulty in securing a sufficient appropriation to let the contract.

The next large project under consideration by the Bureau is the Central Valley project of the Sacramento and San Joaquin Valleys of California. These will require ten years to complete and will cost about \$170,000,000. To date \$4,000,000 have been appropriated for them. As in the case of the Grand Coulee, Director Page feels that the necessary funds will be forthcoming from Congress when needed.

Part of the future program includes two large dams, one near Friant and the other in the Kennett region. Several large canals will also be constructed, and a small dam downstream for directing water supply for power purposes. The canal locations will be as follows: two from the Friant dam, one leading north, the other south, a third canal near the Delta.

In addition, a huge pumping system will be installed to divert water from the Sacramento Basin to the comparatively dry San Joaquin Basin. Work on Boulder Dam is practically completed, but an additional \$5,000,000 will be expended in the next two years on installation of power house equipment.

The construction of the huge All American Canal in Southern California to run from the Colorado River to the Imperial Valley is virtually all under contract. However, some smaller contracts will be let including foundations for wasteways, siphons, and bridges across the canal. This work is

expected to be completed at the end of 1938 or the start of '39. In connection with this project, is the Coachella Canal in the Salton Sea region which will be under construction soon. It will be 130 miles long. The original estimate of the cost of both the All American and the Coachella Canals was about \$39,000,000. To date \$12,000,000 have been allotted, leaving \$27,000,000 yet to be appropriated to complete the full project.

In addition, Page said there are some 16 projects planned on which it is expected \$10,000,000 will be spent annually for each project. Of these, all but two are under way. The remainder, for which money has already been appropriated, will be under construction in the near future. Some of these latter projects will be finished within four years, while yet others will continue some time longer than the four-year span.

TENNESSEE VALLEY AUTHORITY

The building program of the TVA extends into the next four years and beyond. How far beyond depends upon the speed with which the suggested program is pushed to completion. The record, so far, shows a definite tendency to keep ahead of schedule. In this connection, it is pointed out that the big Wheeler and Norris Dams originally slated for completion in 1937 already have been completed, while the Pickwick Landing Dam, set for dedication in 1939, has progressed at such a rate that it is likely to be out of the way a little more than a year from now.

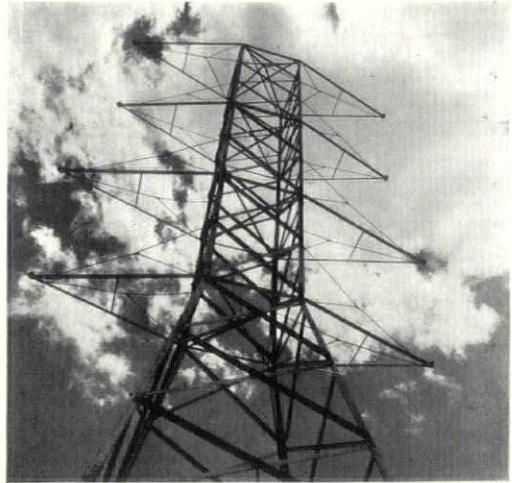
Many of the preliminary steps, which at first required months, now are rounded out in weeks, officials said, and thus more rapid headway is being made on the Guntherville, Chickamauga and Fowlers Bend Dams than was promised when they were allowed a four-year construction period. Early in 1937, the start of the Fontana Dam at an estimated cost of \$29,000,000 is scheduled. In 1938, the staff is booked to turn its attention to Watts Bar at a cost of \$31,000,000 and Gilbertville Dam at \$60,000,000, although earlier starts are not unlikely. By 1939 or 1940 the way is expected to be clear to push the Coulter Shoals Dam; the raising of Hales Bar Pool, and the raising of Wilson Dam and lock dam No. 1.

Aside from its definite objectives, the TVA is regarded as a national proving ground for land and water resources planning, and backers of the idea are constantly urging that it be expanded so as to apply to other large river valleys throughout the country. Proposals to extend the idea to the Wabash, Ohio and Potomac Rivers already have been advanced, so the extent to which this type of construction is carried on in the future depends considerably upon the attitude of Congress.

CIVILIAN CONSERVATION CORPS

Robert Fechner revealed extensive building operations which his unit could carry on if continued by Congress. Although uncertain as to its fate, the Resettlement Administration is planning to continue with its work until June 30th when its appropriation ends on the thirty projects which it now has under way. In addition to these thirty projects, the agency has about seventy-five projects for which the preliminary plans have been drawn and approved, on which it could go ahead if the money is made available by Congress.

Although the Civilian Conservation Corps expires on March 31st, President Roosevelt has asked Director Fechner to supply estimates of operating costs until July 1, 1938, and it is anticipated that there will be considerable pressure in Congress to have the unit established on a permanent basis. If the agency is continued, it will mean the construction of thousands of buildings—large and small; thousands of dams, also varying in size; and the construction and overhauling of many miles of roadways, foot trails and bridges during the next four years. It will also mean the construction of several hundred new CCC camps to house the men, at a cost of \$18,000 to \$20,000 each. Most of the buildings will be of a portable nature which can be transferred from one camp site to another. Director Fechner explained



TVA has received a total of \$150,900,000 of which roughly \$125,000,000 have been spent for dams, navigation and flood control, power, national defense, parks, forestation, soil erosion, fertilizer, education, and housing. So far as the latter is concerned, TVA has made the most noteworthy experiments in community planning ever tried in this country. This has been carried on under the able direction of Earle Sumner Draper and his able group of authority architects and town planners.

Because the cost of construction is not figured separately, there are no cost estimates available of various jobs done by CCC. Besides this Agency's road and trail work, bridge building, etc. CCC has constructed 34,992 buildings. These include 763 barns, 97 bath houses, 449 overnight houses, 68 combination buildings, 2,278 dwellings, 1,206 equipment and storage buildings, 858 garages, 30 lodges, 799 lookout houses, 1,897 lookout towers, 12 museums, 248 trail-side shelters, and 19,807 miscellaneous buildings. Plans and specifications were prepared by National Park Service, the Forest Service, and private architects.



The National Park Service spent approximately \$15,000,000 in the past four years for buildings, roads and other construction. The construction included new administration buildings, museums, naturalists' residences, dwellings for park superintendents, rangers and employes, lookout and observation towers, and boat docks and wharves. In all instances, National Park architects drew plans and specifications for these buildings. In many cases the work was done with PWA money.



Since August 1933 the Indian Bureau has had a construction program of approximately \$63,000,000. Of this, public works allotments totaled \$30,869,000 while \$32,300,000 has been allotted for emergency conservation. Of the public works money, \$5,192,300 was spent on construction of day schools, \$4,445,700 on hospitals, and \$1,380,900 on quarters. The remainder for water and sewage systems, heating and power equipment, roads, bridges, irrigation and flood control. About fifty per cent of the Bureau's architectural work was done by government architects, the remainder by three architectural firms: Mayers, Murray and Phillip, and Fellheimer and Wagner of New York, and Schmidt, Gordon and Erickson of Chicago.



PHOTO: GENDREAU

that during the past, the organization has developed a special type of building which can be easily moved from one camp to the other at no great expense.

In discussing the construction program which the CCC might carry on during the next four years, Mr. Fechner said that in addition to the work already outlined, the co-operating departments—Agriculture and Interior—have worked up tentative plans covering that period providing for completion of structures ranging from steel observation towers to tool houses in which to store forest fire-fighting equipment. The program also calls for constructing a large number of picnic shelters, lodges and accommodations for visitors to national and state parks and other recreational areas.

NATIONAL PARK SERVICE

The National Park Service plans to spend between \$5,000,000 and \$10,000,000 for new building construction during the next six years, according to Thomas C. Vint, Chief of the Division of Plans and Designs. Foremost in the plans is an entirely new building set-up in Yellowstone National Park where it is hoped that the old army buildings, now in use for the 18th year, will be replaced with an entirely new administration building, as well as museum, shop, utility and warehouse buildings.

Shenandoah National Park, which was dedicated last July, is also foremost in plans of the Service for administration and other necessary buildings, Mr. Vint said. Likewise, as soon as Great Smoky Mountain National Park is formally established, it too will be in line for proper administration buildings. "Several other parks, mostly in the West, are badly in need of between five and fifteen dwellings each to house the employes," he said. Among these are Grand Canyon, Yosemite, Rainier, Zion and Sequoia.

It is the aim of the Service, according to Director Arno B. Cammerer, that actual buildings be constructed in the future to blend with the landscape rather than to stand out, architecturally. For that reason, he said, the building program will not be as extensive as it might be. As with the others, he pointed out that all Park Service plans are subject to Congressional appropriations, and in some cases might have to be modified for that reason.

BUREAU OF INDIAN AFFAIRS

Just what the Bureau of Indian Affairs hopes to do is best shown, officials said, by a glimpse of what was done with \$1,500,000 at the Navajo Agency in Arizona, where the whole reservation for 50,000 Indians was completely rebuilt with new schools, hospitals, roads, water systems, power and drainage systems. For a hundred other field units, a similar layout is projected, with variations according to the number of Indians at each location and conditions faced in each reservation.

The building program, running into many millions of dollars, included schools, hospitals, power plants, administration structures and housing for actual bureau employes. The Indians' own housing is distinct from the bureau program, although financing is part of the general program of aid.

Samuel M. Dodd, budget officer of the Bureau, said that native labor and nearby material would be used, as was done at the Navajo Agency. By this means an enormous amount of construction can be carried on with a limited sum, he explained. Stone, adobe and permanent or long-lasting materials are being used, thus reducing the drain on timber and averting the soil erosion resulting from extensive use of logs in areas where they cannot be cut without damage to forests.

Modern plumbing and many other modern materials are being used in the Indian structures, even where the designs are only slightly changed adaptations of primitive buildings, Mr. Dodd said. In all reservations the aim is to blend designs into the landscape, to adhere to low structure, where there is no need for height.



PHOTOS: SAMUEL H. GOTTSCHO

Two views of the pool showing the loggia and the fence which is Charlestonian in effect

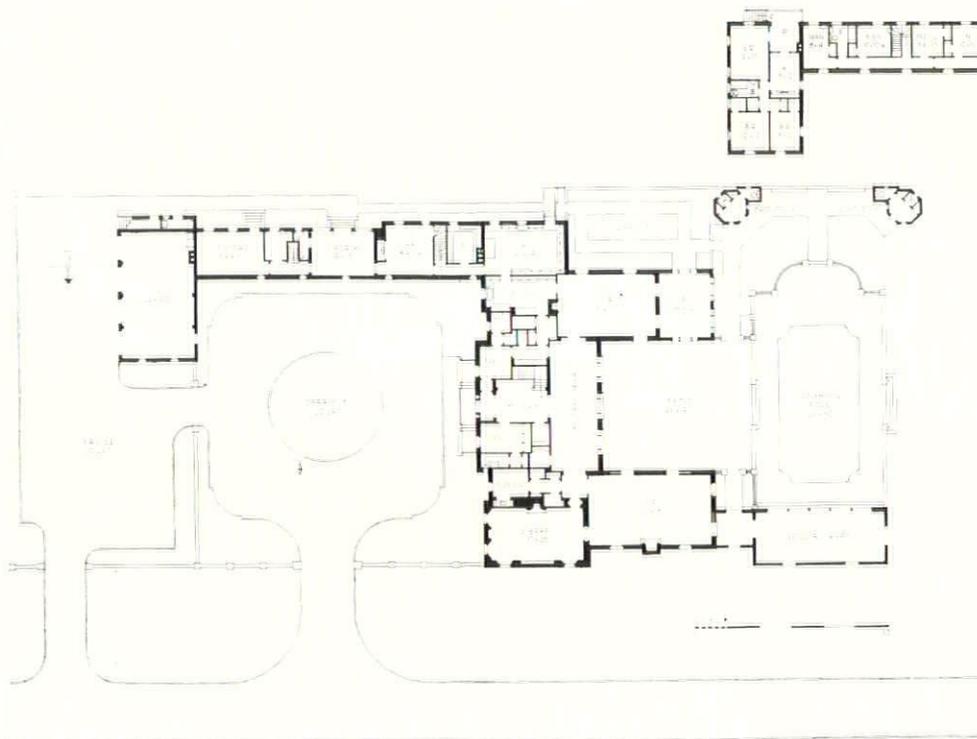
"SOUTHWOOD"

HOME OF MRS. JOHN A. VIETOR, PALM BEACH, FLORIDA

WYETH AND KING, ARCHITECTS, RUBY ROSS WOOD, DECORATOR

THE elements that influence the plan of a house are of primary importance in judging the result. Oftentime they may be economic factors, or number of persons in a family, or site conditions. These most frequently apply to the smaller house where maximum efficiency in a minimum area is a fundamental requisite. The Vietor house, however, could scarcely be considered a small house. The restrictions governing its design naturally included those of site and the owners' mode of living, but the size of the rooms was actually determined by furniture which the owner already possessed. Because of these physical demands the house was literally planned from the inside out. Not only did the furniture establish room dimensions, but also exercised an influence on fenestration and the style of the exterior.



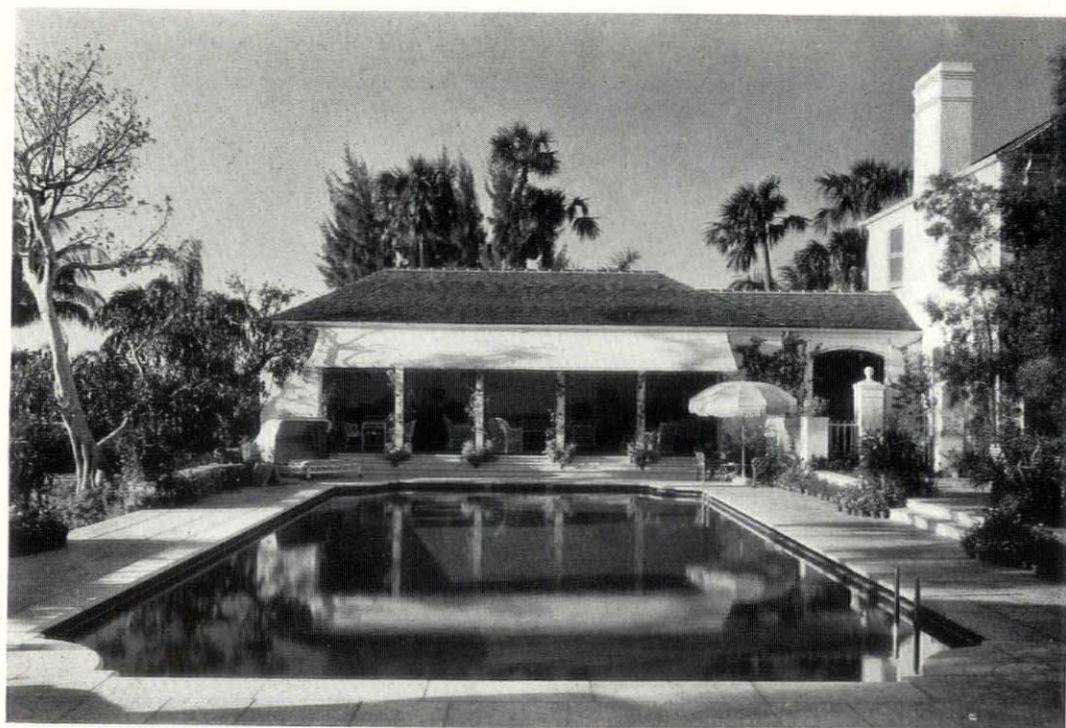


SECOND FLOOR PLAN

HOUSE OF MRS. JOHN A. VIETOR
 PALM BEACH, FLORIDA . . .
 WYETH AND KING, ARCHITECTS
 RUBY ROSS WOOD, DECORATOR



Planned to fit a lot 450 x 150, with the entrance court to the east and the patio and living wings on the swimming pool which is toward the lake to the west, the house recalls the charm of early Charleston and New Orleans architecture. White cast-iron treillage, adjustable-slatted jalousies, oyster-white stucco walls and a tile roof ranging from salmon to wine red stand in sharp contrast to the lush semi-tropical landscape. All of the service units are placed in the long spur of the essentially L-shaped plan. (Opposite page) The main entry on the carriage court. (Above) One of two living wings showing one of the octagonal bath houses. (Right) The paving of the patio and the walk around the pool is Quarry Keystone. In the background the loggia





The warm climate dictates an emphasis on semi-outdoor living. (Above) The loggia overlooking the pool is furnished with comfortable chairs and sofas of rattan painted white. All cushions are removable. Old French wind globes holding large candles are unusual. The flooring is of slate. (Left) The breakfast porch is enlivened by five paintings on glass by Louis Bouché. Here again the furniture is painted rattan. The flooring is black and white marble brought from Cuba

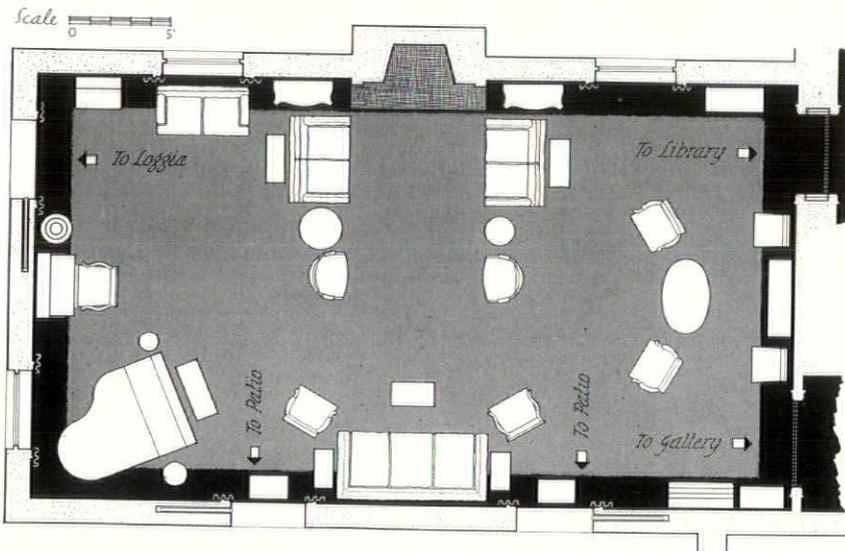
**HOUSE OF MRS. JOHN A. VIETOR
PALM BEACH . . . FLORIDA**



(Above) The brilliantly floriated old French wallpaper recalls an out-of-door atmosphere in the Gallery. Despite the subject, the wallpaper has a definitely architectonic quality in the dado of flowers entwining a pilaster to terminate in a floral frieze. Chandeliers of bronze are ornamented with Waterford glass. Much of the furniture is antique upholstered in cream and beige. (Right) The Hall in white has the same flooring of gray, beige and black used in Gallery

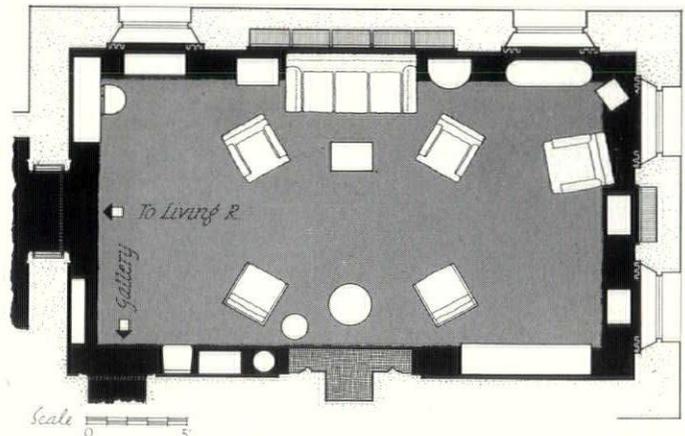


WYETH AND KING, ARCHITECTS
RUBY ROSS WOOD, DECORATOR



Adequate traffic lanes, conversational groupings and the proper relationship of conveniences are primary considerations in furniture arrangement. The location of the fireplace flanked by windows on the long wall make it the obvious center of a formal main furniture grouping. Since both ends of the room are essentially entrances they are sparsely furnished. However the two arm chairs and oval table seem to be placed too far into the room on the main entry side while the angled piano hardly would seem the best practice. The color scheme is definitely cool with its white trim and pale blue Chinese paper embellished with a white bamboo pattern. The Chinese note is repeated in the cut fret pattern of the deep pile beige-white rug and in the porcelain accessories. 18th Century English furniture carries out the beige, white, pale blue and green-blue color scheme

HOUSE OF MRS. JOHN A. VIETOR . . . PALM BEACH, FLORIDA



The pine paneling in the library was brought from Mrs. Vietor's New York apartment. Since the ceiling of its new setting is higher than the original the architects found a solution to the problem by using a Bermuda tray ceiling. At intervals in the paneling are insets of old painted leather originally parts of an early English screen. They recall the fine leather bindings of the books. The furniture is a combination of 18th Century mahogany and chintz upholstered pieces. The furniture arrangement is direct and comfortable

WYETH AND KING, ARCHITECTS, RUBY ROSS WOOD, DECORATOR



The dining room depends mainly on the fine Persian rug, 18th Century mahogany furniture and paintings by Benjamin West, Sartorius and Shaver for its air of dignity. The upstairs hall holds a collection of needlework and tapestries and a marine painting

**HOUSE OF MRS. JOHN A. VIETOR
PALM BEACH, FLORIDA . . .
WYETH AND KING, ARCHITECTS
RUBY ROSS WOOD, DECORATOR**



PHOTOS: HEDRICH-BLESSING STUDIO

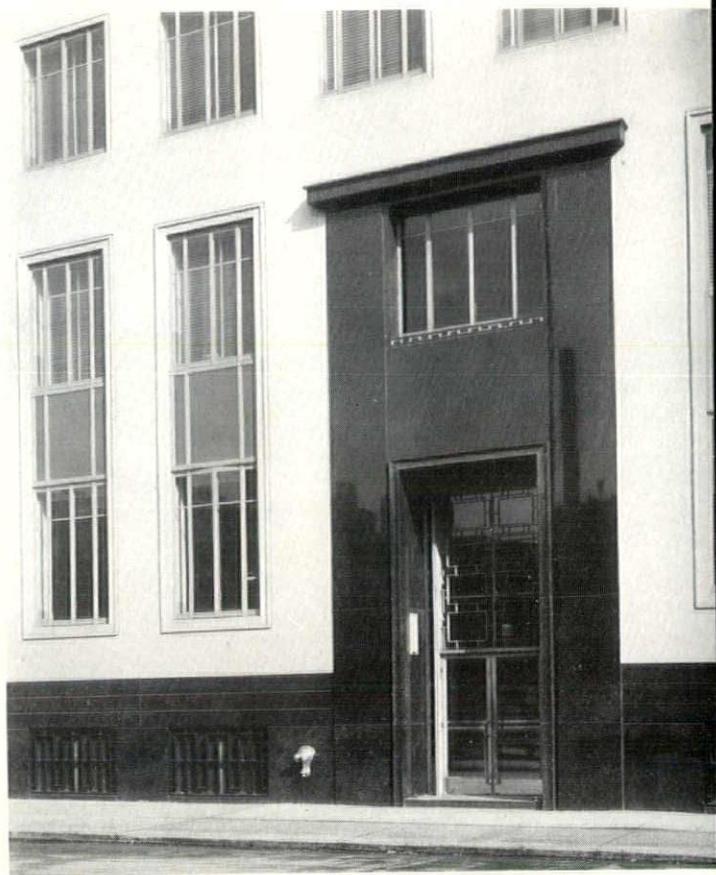
AMERICAN MEDICAL ASSOCIATION BUILDING, CHICAGO
HOLABIRD & ROOT, ARCHITECTS



To carry out adequately the numerous functions of the Association and to insure its architectural standing in an improved environment, the old building underwent extensive remodeling. Improvements included the addition of two stories, an entirely new exterior and considerable internal remodeling. The first three floors, together with the basement, virtually comprise a large printing and publishing establishment to take care of the journals, documents and data that are issued by the Association. The facades are faced with buff Indiana limestone, in which are set steel sash windows. Of interest is the fact that the work was carried out during the stress of a severe winter and that temporary interior partitions of hollow tile, with the necessary glazed openings, were erected as a protection during the work on the exterior walls. These partitions were placed some 4 feet inside the outer walls, which were entirely removed, then rebuilt with the new stone facing backed with brick and lined on the inside with a furring of hollow tile

AMERICAN MEDICAL ASSOCIATION BUILDING
HOLABIRD & ROOT, ARCHITECTS

On the exterior (right) the base and entrance motif are of American black granite and the entrance doors, grille and windows above are built up of extruded bronze with an oxidized finish. The main floor lobby (lower left) has walls lined with Notre Dame marble and terrazzo floors of harmonizing colors. View (lower right) of a typical floor lobby. Elevators and all other mechanical equipment were included in the remodeling





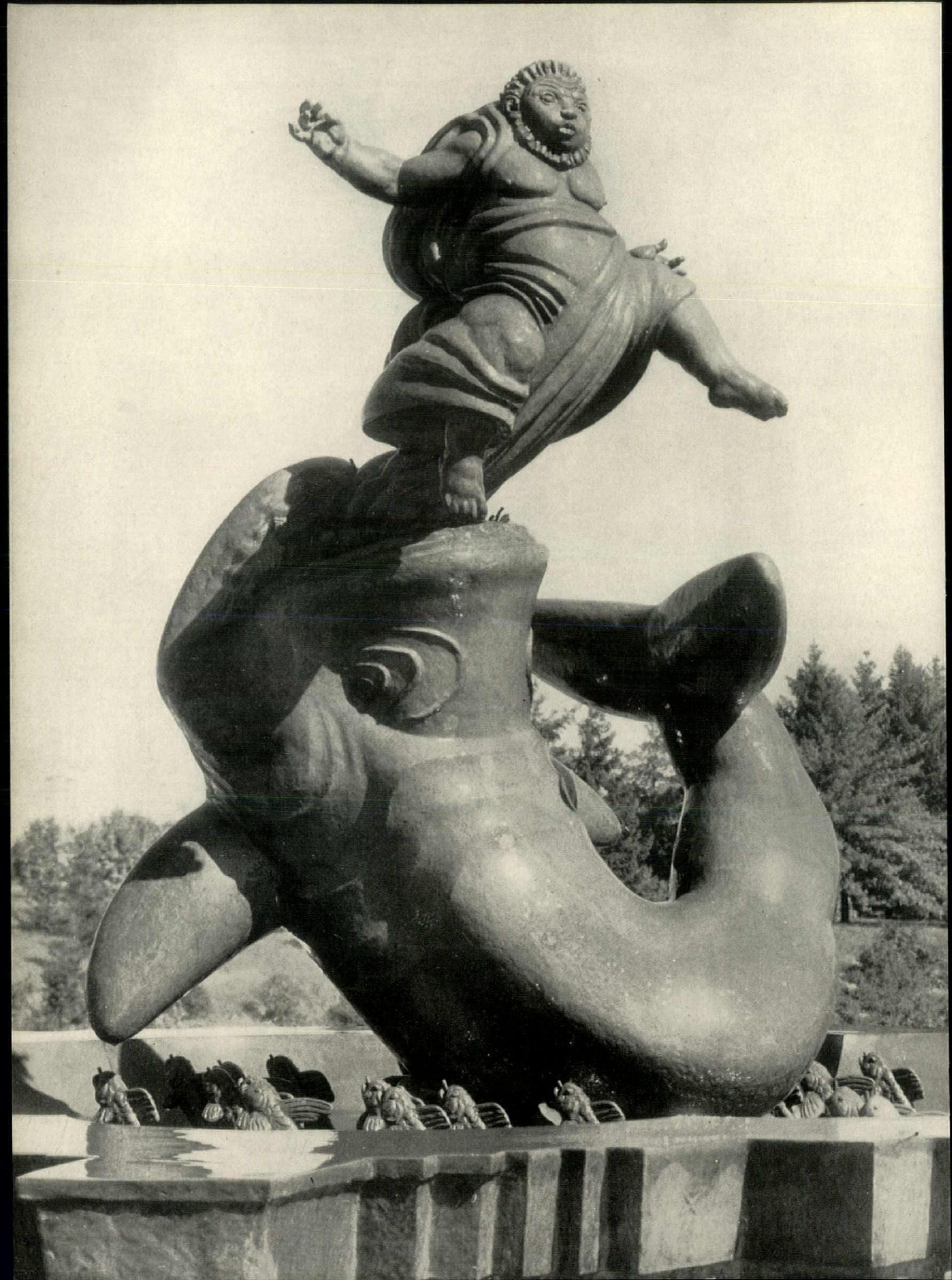
PHOTOGRAPHS: COURTESY OF R. W. TEBBS

THE SETTING OF THE JONAH FOUNTAIN

**ARCHITECTURAL
OVERTONES . . .**

CARL MILLES

Eliel Saarinen brought Carl Milles to Cranbrook in 1929. Here the man who wanted to be a sailor goes on with his work as one of the world's greatest living sculptors. That the hospitable charm of Cranbrook life appeals to the Milles temperament is clearly indicated by his becoming an American citizen and his creation in Michigan of the Orpheus fountain and the giant white onyx "Peace." The examples shown here on the grounds in Cranbrook are irrefutable evidence of his genius.





The range of Milles' technique is as extraordinary as the moods of his first love, the sea, brutal and brooding, sweeping, calm, and often dappled with the sunlight of gay wit. On the surface there is always a fine and subtle feeling for decoration and underneath a sense of restrained power. (Opposite) "And the Lord spake unto the fish" and a charmingly bemused Jonah with outflung arms surveys the lawns of his Michigan setting. The base, in typical Millesian character, is best when seen under the playing deflection of running water. On its triangulated surface reliefs illustrate episodes in the biblical life of Jonah. (Above) He enters Nineveh to preach as he was bid. (Following pages) Two fountain figures originally designed for the garden of the sculptor's home in Lidingö, Sweden. One is a Mermaid and Dolphin and the other a Triton.





The polished formalized base of the fountain of the water sprite (right) offers an interesting contrast to the Jonah base. Here, while the surface treatment is sophisticated, the effect has lost none of its air of gay good humor.



Comparison of the Dancing Girls to the sitting Boar on the opposite page illustrates immediately Milles' mastery of surface. Neither the smooth quality of the dancers nor the simplified indications of the Boar's coat conceal the marvelous play of muscle.

The torso of the Folke Filbyter, originally designed for the Folkunga Fountain in Linköping, depicts the hungry-eyed, worried, ruthless old local king searching the countryside for his kidnaped grandson and successor.





"And the Lord prepared a gourd, and made it come up over Jonah, that it might be a shadow over his head, to deliver him from his grief"

SURREALIST ARCHITECTURE

THANKS to the latest art fad, surrealism, the old theory of expressing the personality and character of an owner in the design of his residence can now be brought to its logical conclusion in expressing the subconscious meanderings of his mind between sticks and stones and steel and glass. However, it seems probable that surrealism as an art movement will be devoted to objects of smaller size and portability. Let us be spared more architectural nightmares.

There is an opportunity for a surrealist to give a true graphic expression to the building industry situation, for it will take such a genius to paste up the unrelated parts, the conflicting policies and programs, and all the scrambled thinking that enters into the housing of man's activities. It is a perfect subject for a surrealist "collate," and the suggestion is made by Dali, Ernst and their cohorts by giving a mural a hundred feet long at the World's Fair for just this purpose.

Conversely, it might be well for realists rather than surrealists to paint a picture of the possibilities of organizing a building industry on a less surrealist basis. Perhaps it is the function of the architect or architectural organizations to study the possibilities of this realist mural, which should replace the present surrealist picture which we have been looking at so long.

MERE WORDS,—OR MORE HOUSING?

THE next few months, and probably the next few years, will hear an increasing din of discussion of America's major building problem,—Housing (with a capital H which means low-cost housing for the low income groups). With the increase in incomes, the accelerated abandonment of unfit dwellings, the increase in the marriage and birth rates, the "undoubling" of families, the negligible amount of new housing, the increase in rents charged,—Housing will again make headlines and headaches. Last year the topic was soft-pedalled as a dangerous issue during the political campaign, and even the AIA refused to commit itself one way or other until it could see which way the cat would jump. The Wagner-Ellebogen Bill was sidestepped and sidetracked in 1936, but January 1937 will find a new Wagner Bill introduced, and it will be definitely slated for passage as an administration measure, backed now by strong labor support (thanks to Catherine Bauer and her associates). It therefore has more than an even chance of passing without emasculating amendments.

This legislation is needed to break the present deadlock. It should provide the means for a real building program for every municipality. Whether such programs will be carried out probably will depend on the local political situation and the relative strengths of the local lobbies, *i.e.*, labor (or tenant) vs. real estate (or landlord). Architects and architectural organizations cannot remain aloof without impairing their prestige.

1937 will not solve our housing problem, but the studies made during the past four years should bear fruit if the new Wagner Bill can be made an effective instrument. In addition, we hope that the entire government program, as it relates to building, will *really* co-ordinate the activities of FHA (which terminates officially this year), the Resettlement Program, the WPA, the PWA, and the Procurement Division work.

Samuel K. Stowell

EDITOR

Architects and Avocations



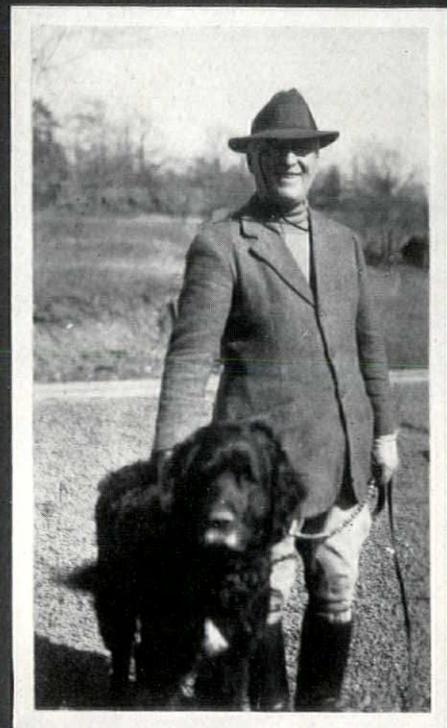
*L. Andrew Reinhard
in an introspective mood*



*John Holabird (dark
glasses) golfs—perhaps
with prospective clients*



*Henry R. Shepley
preserves
the maritime
traditions of
New England*



*Stephen Frank Voorhees,
like movie stars, has
his favorite horse*

HOUSING and PLANNING

BY SIR RAYMOND UNWIN

Co-designer of the first Garden City and for more than fifty years identified with housing and town planning, excerpts from Sir Raymond's series of lectures at the Town Planning Studio, Columbia University, will be presented each month until the series is completed

THE NATURE OF MAN, HIS LIFE IN THE FAMILY AND SOCIETY, AFFORD THE BEST BASIS FOR GOOD HOUSING AND PLANNING

I CANNOT stress too strongly the importance of human psychology in studying the housing and planning of a community. From knowing man, his likes and dislikes, his habits, conventions and prejudices, we learn much that is important to the way he should be housed. In a study of the history of housing also we may trace the rise and fall of certain essentials of housing and planning. We may find what has proved successful and what has proved unsuccessful.

Let me recall to you that 50 years ago a gloom rested on all economics and sociology. The Malthusian theory was then believed by most as gospel truth. This taught us that population would always tend to increase faster than subsistence, and that there would never be enough of material goods to take care of the ever-increasing population. A pessimistic idea, indeed, and one which undermined progress of many kinds. Today we think more rationally.

We realize now that our main problem has become one of how to secure the effective distribution of the great amount of goods which we have, rather than that of how to create enough goods to go 'round.

Consider for a moment the main faculties of this animal man. He has dexterous hands to turn to many uses. He has the power of thinking and of deduction. He possesses emotions giving rise to strong likes, dislikes, loves, hates, and passions. Furthermore he has a retentive memory, that enables him to remember not only facts but feelings and sensory impressions. Out of this ability there grows the power of association, which influences his prejudices, and his convictions and gives rise to many of his standards, values and conventions.

This last characteristic of man is one which an architect should thoroughly understand, for differing customs, habits, and conventions determine various types of housing. A house must supply the proper atmosphere for the people who are to live in it. Equally the plan of a community must provide the requisite satisfaction for the desires and purposes of the group of people to inhabit it.

This leads us naturally to a discussion of tradition and the part it should play in modern architecture. The young man is apt to scoff at tradition; to want to throw aside much that has been done before and confine himself solely to what is new. The advantage of the approach of youth is that he comes to his problem with a fresh viewpoint and a mind open to experiment. The older architect, through this power of association of which I have spoken, has built up preconceived ideas and prejudices. He clings to the things which he learned to like early in his career. He, too often, has a mind closed to the new idea and the fresh viewpoint; but he has an advantage over the younger man in that he knows the value of tradition; he has had the opportunity to watch change; to note progress step by step; to learn the value of the good features in the old methods. We need both tendencies; the important matter is that there should be mutual understanding as to the limitations in both viewpoints.



PHOTO: ACME

L.L.D., Dr. of Architecture, Dr. of Technology, Past President of the R.I.B.A., formerly Chief Technical Officer for Housing and Town Planning in the British Ministry of Health



PHOTO: COURTESY OF SWEDISH TRAVEL INF. BUREAU

. . . This wigwam of the Laplanders illustrates my point that the actual physical needs of man are few. Living as these Laplanders did in this primitive hut, they were highly civilized in many ways. Indeed, they were far better off than many of our slum dwellers today. . . .

**MINIMUM HOUSING REQUIREMENTS—
ENGLAND**

- 2 Persons 1 room, min. requirement**
- 3 Persons 2 rooms, min. requirement**
- 5 Persons 3 rooms, min. requirement**
- 7½ Persons 4 rooms, min. requirement**
- 10 Persons 5 rooms, min. requirement**

Two extra persons are allowed for each additional room beyond this. The rooms cited above must by law have an area of 110 square feet to count for two people; 90 square feet for 1½ people; 70 square feet for 1 person, and over 50 square feet for half person or child under ten.

To return to our discussion of man and his many abilities, finally he has imagination, the greatest gift of all. And this is really the chief faculty needed by any designer. It is the creative concept or imaginative quality in a design of a building, or site, or city which differentiates the outstanding from the mediocre.

Thus man has these many abilities or powers, of body, mind, and emotions of association, and imagination. But no two men are alike; the abilities possessed by each vary in their proportion. And it is the varying proportion possessed of these assets which make up individuality.

Man has always been a community-forming animal rather than an individualistic one. Again, do not confuse this with communistic. There is a parallel here, of course, but the two words as used today mean quite different things.

I believe that man's greatest achievement—when founding his community structure—lies in his ability to take advantage of the differences in the abilities of various individuals. Co-operation among men of different capacity is limited only by their ability to understand each other's differences, and to appreciate their value.

In our complex modern society there are, unfortunately, many factors which are dangerous to this co-operation. The division of society into classes is one of these, for this means extremely different manners of living.

We must, if we are to expect co-operation from all, find means to satisfy the whole nature of man. Our problem in housing is to remove these lines which divide one group of people from another, and thus to create in place of this diversity of standards, one common standard at least of cleanliness and decency. Our experience in England is very encouraging. We have proved that if the slum dwellers are given decent and adequate dwellings, the majority of them will soon learn to adapt their lives to the improved conditions. As many as 90 per cent in some cases have made good. Considering that many of them have been slum dwellers all their lives and that the ne'er-do-wells gravitate to the slums, records of 80 to 90 per cent making good tenants of the new houses provided are as encouraging as they are remarkable.

There were two types of origin for early English communities. There were the free men who by choice selected one of themselves for protector, and who worked under him out of choice. There was the other type of society where men were divided into two classes: semi-serfs under the control of the lord or chief who often represented a race which had conquered them. There was a village nearby where the lord's manor house and the houses of the other cultivators were grouped on the land. So persistent was this system that even in 1820 there were still villages with these large common fields.

Long after the Elizabethan period, however, when people of different classes and station had ceased to associate closely with one another in the sense of living together under one roof, they still lived together in the villages and shared much of the life of these communities. This condition sprang from the multitude of personal relationships which existed between these people, and formed ties to bind them together. The landlord and tenants, parson and his flock, the tradesman and customers; master and servant; farmer and laborers, and doctor and patients, all were in direct relation and shared common interests forming a network of community life.

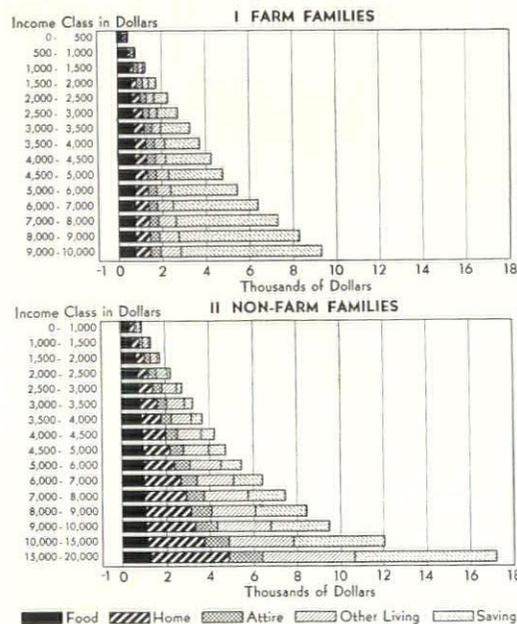
These linking relationships exist today and must be considered in planning. In fact, planning must be based upon these ties between various kinds of persons who live together, each dependent for something upon the other.

An important consideration in housing and planning is the constant change in what is considered, from one generation to another, the minimum accommodation for decent living. Once again we see the link between housing and the human element.

The understanding of human nature and human needs, physical, spiritual and cultural, is all-important. Planning must be based on a knowledge of man in his environment.

One of the architect's most important tasks is to think about and learn to envisage life in terms of human needs, desires, habits, feelings, etc. Upon this knowledge of relationships are housing and community planning based.

EXPENDITURES OF FAMILIES BY INCOME GROUPS



. . . Directly concerned with the relative rent paid, a recent survey into this subject was made by the FHA here, showing that families with incomes of \$4,000 spent per year an average of 15% of that amount for rent. Families with incomes of \$2,000 spent 25% for rent. Families with incomes of \$1,000 spent 30% for rent. These are facts to be taken into consideration in any housing or community planning scheme. . . .

**THE SCOPE AND LIMITATIONS APPLICABLE TO PLANNING
A PHYSICAL SETTING FOR HUMAN LIFE AND ACTIVITIES**

Planning, in our case, includes two parts: a mental conception of the scheme, and its expression in relation to some particular area.

Planning involves both the physical aspect and the human aspect. Physical planning, after all, is only a part of life planning. And actually one cannot do the physical planning well without some knowledge of the whole human problem involved. However, life planning is not strictly the technician's job. An architect or planner makes no pretense to special knowledge of planning human life, as such, he only claims to design the physical setting for that life. Physical planning involves a faculty for transferring to drawings, or models, a conception or idea born in the mind or imagination. This must, of course, involve to a large degree knowledge of life planning and psychology, science and so forth. I stressed previously the importance of the human element in housing. It is still a debatable question whether or to what extent the town planner or architect should assume so great a knowledge as to undertake planning human life, over and above designing the physical setting for it. Many town planners have become life planners simply because there has not been any group of men to do that side of the job for them.

What part does individualism play in town planning? Should each individual occupant be allowed to treat his property as he sees fit, without regard for his neighbors? This is a question which is of real importance. It brings up the age-old argument for and against interference with individual life and the expression of individual tastes. It also brings up the old arguments for and against the community interest and welfare being rated above individual interest and welfare. Does not the good of the greatest number outweigh the rights of the individual to inflict harm?

In this country, "rugged individualism" is accepted as a sort of national tradition, as a characteristic of the American people. The result of some interpretations of it is evident in many places. A few people may exert their right—as individualists in useful self-expression and creative effort; while the majority may exert theirs chiefly in neglect, or pernicious efforts. Much good development and individual architecture has been ruined by dirt, neglect and wanton carelessness on adjacent property. In short, the people living in the neighborhood who possess initiative and a sense of what is worth while, or a social conscience, suffer from the majority who possess neither.

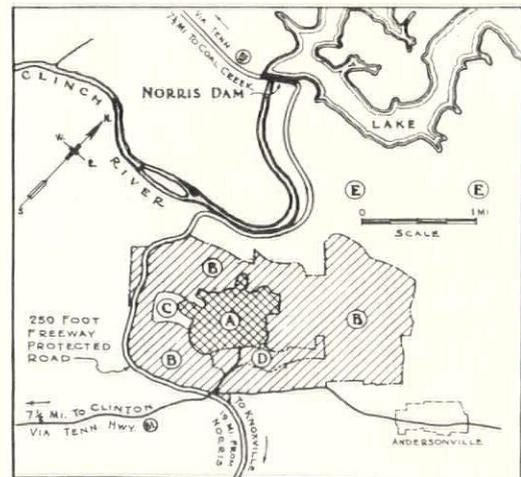
To be sure the sum of unregulated individual efforts did produce in the past some kind of result; but then these efforts were each on a small scale and could average out. Today our enterprises are on a scale extending to whole nations or continents. The new choice lies between planning and regulation for the public good, and the same regulation to serve a private interest. We must, however, pass to the physical planning and think in terms of the plots we have to deal with, the streets, the parks and the buildings, not in sections as such, but as parts of a whole community. Even on a small area we think in terms of grouping our sites and buildings; the relation of one to the other in the sense both of utility and of beauty. We must then expand our interest to include neighborhoods. From the neighborhood our interest expands to planning a whole suburb or town. Finally we reach regional planning and think in even larger areas. National planning is actually being seriously considered at this time in England. Theoretically perhaps national planning is an obvious extension; but practically we planners are asked to prove that any one man or group of men has enough knowledge to be able to plan successfully and wisely on such a huge scale. Is the planning of which we are capable better than the confusion of no plan? This poses a problem in education and training which has been by no means solved completely.

Certainly, one very important thing for us planners to do is to get the confidence of the public. To do this we must offer them something better in the way of town, or regional planning, than the planless conditions they have experienced previously. In a sense then the planners become directors.

Planning in its relation to the individual, and to freedom, is of greatest interest and importance. We must remember that life planning is not our



... At 10 dwellings to the acre the whole population of the world would not occupy the State of Kansas. A small patch about 100 miles square would represent to scale the area which would accommodate all the people living in the United States at the present time, according to the English housing standard of 12 dwellings to the acre, and in addition the same amount again allowed for industrial and other urban building. . . .



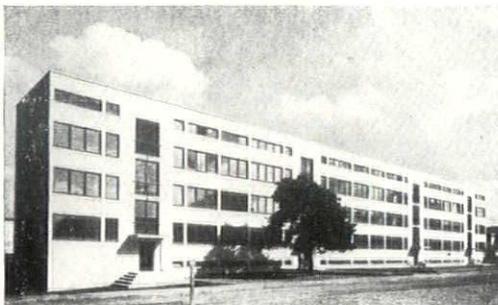
- A Town Area.
- B Protective Belt.
- C Construction Unit.
- D Demonstration Farm.
- E Town Forest.

... A good example of national planning is what is being done in this country in the Tennessee Valley. Here by community planning the most is being derived from individual efforts and plans. . . .



NOTRE DAME DU RAINCY, PARIS

. . . Here is the most modern of ecclesiastical architecture and yet we still find this style adopting the spire to express aspiration. This seems to be something essential in the design of all places of worship. An expression, no doubt, of their function in life. . . .



APARTMENTS, BERLIN

. . . Here is a modern group of houses which has the rudiments of order and design. The architect tried something entirely different. . . .

job, though we must understand something of it. Our job is to adjust the physical planning to the human needs; a plan of those needs should be available for our use.

The other big question in the matter of planning, in regard to scope and limitations applicable to planning a physical setting for human life, is the one dealing with area of space available. We are all suffering from a misconception that there is not enough space to build our towns without crowding.

The London region has a diameter of about 50 miles. There is actually plenty of room in that region to house all the families in England and Wales at not more than 10 dwellings to the acre; to provide 117 square miles for industry and business buildings, the area of the L.C.C., there would still be 130 square miles of open space left over. There are ten million people living in London. To provide for them a minimum of 7 acres of recreation ground per 1,000 persons would increase the radius of the town only 1.125 miles.

What I am trying to show here is that if you plan, utilizing space to its best advantage, rather than building in a haphazard and congested manner, you will increase the size of a town by a mere fraction. If, for instance, in London we were to build 500,000 houses for 2 million people, at a density of 12 dwellings to the acre, we should increase the radius of the town only 0.65 of a mile more than if we built them at 40 to the acre. Unfortunately, for lack of systematic planning, we have in London spread our town areas over ten times that amount. That is always the result of haphazard rather than planned building.

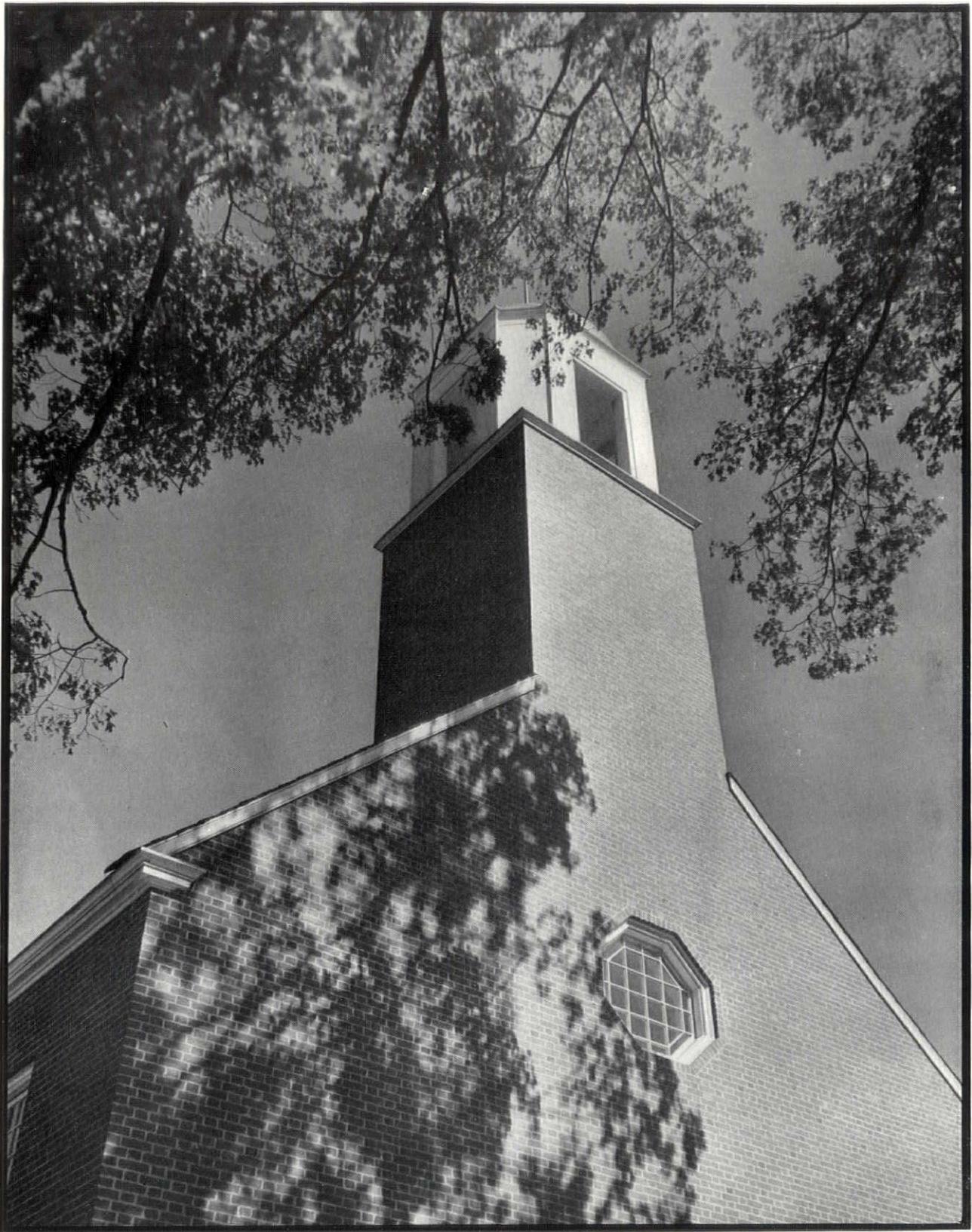
WHAT IS MEANT BY DESIGN AS INVOLVED IN HOUSING AND PLANNING

I have been informed that in this country it is unconstitutional to forbid a man to erect a building simply because it is ugly. Laws govern such things as use, sanitation, heating, etc., but have nothing to do with the aesthetic aspects of a building. This is not true in my country. It is just as bad to erect an ugly building as an unsafe one—almost as bad anyway. We feel that a designer has no right to inflict on the sensibilities of the people living in a community an ugly structure. The question of amenity cannot be excluded from any sound definition of general welfare as it is now understood.

In speaking of the different elements of design, the importance of thinking of the two aspects of every design problem—the subjective and the objective—cannot be over-emphasized. The objective deals with that which is to be designed, in our case with buildings, sites, regions, etc. The designer is vitally concerned as well with the subjective aspect, which has to do with man himself, and reactions which a design may arouse in him. Design consists essentially in establishing such relations between things as will give added values due to the relations rather than to the things themselves. The subjective satisfaction I am speaking of may arise from very different relations. It may result from designing for use, designing for vision, or designing for feeling. It is the relation of these different objectives in design with which we are concerned. Man acts and reacts as a unified being. Objective design when good must therefore satisfy the whole man.

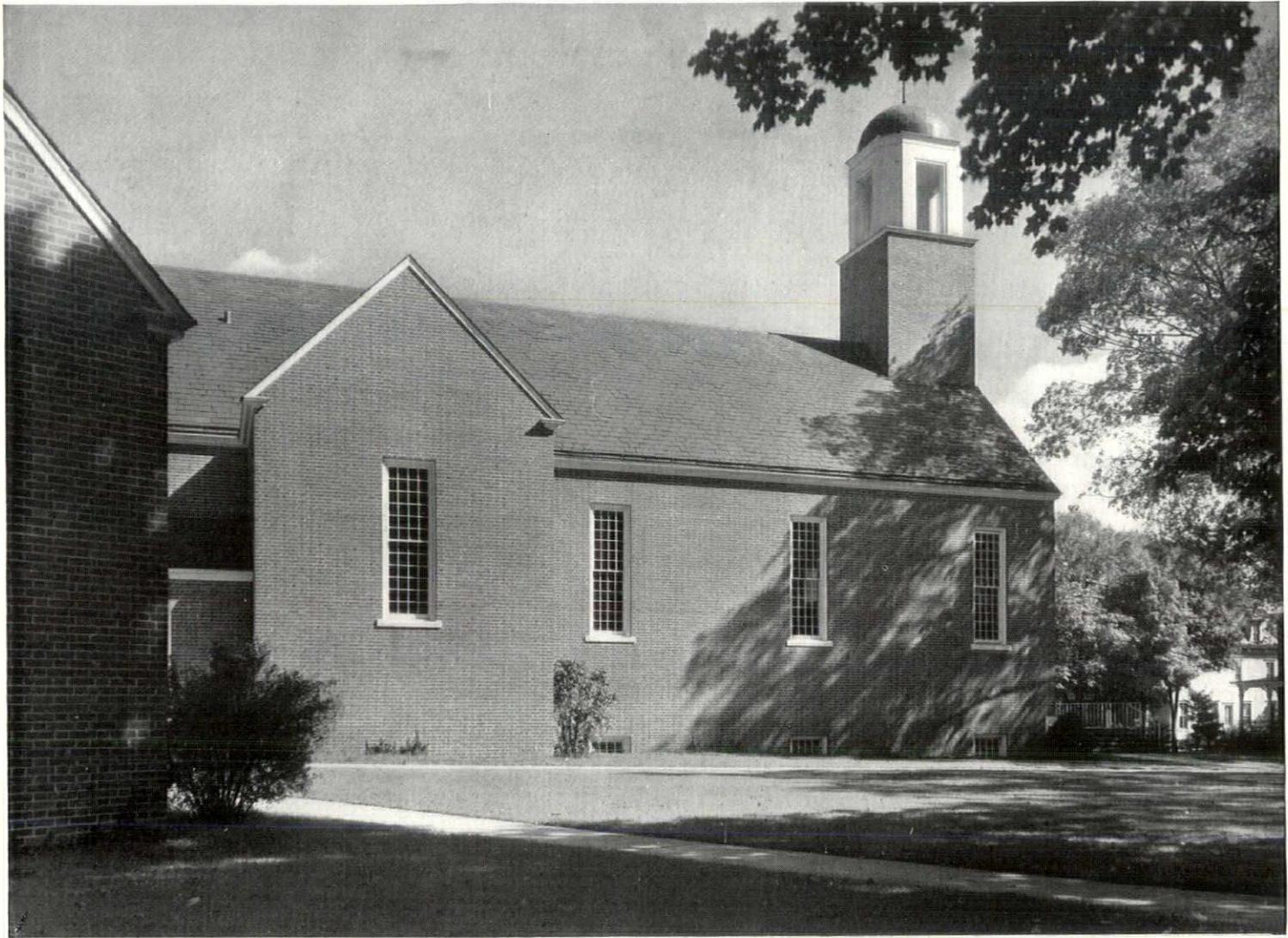
We have the brain and the hand which are satisfied with efficiency, convenience, utility and such practical matters; the emotions, and the imagination qualified by association, to which form, order, harmony, what we call aesthetics, appeal more directly. Too often we forget that we must satisfy the whole man, and try to satisfy only one faculty. Use and beauty are often confused, particularly today when there is such widespread propaganda concerning beauty as the result of proper functionalism in design. The modern designer claims that anything which is functionally right is beautiful. I do not believe that is necessarily true; a design which proves in every way useful and practical may not be in the least beautiful, and conversely, a very beautiful object may have not the slightest practical use value.

To be able to combine formal and orderly design with natural beauty, calls for sympathy and understanding of both. Bringing that down to the actual details of planning constitutes art of design.

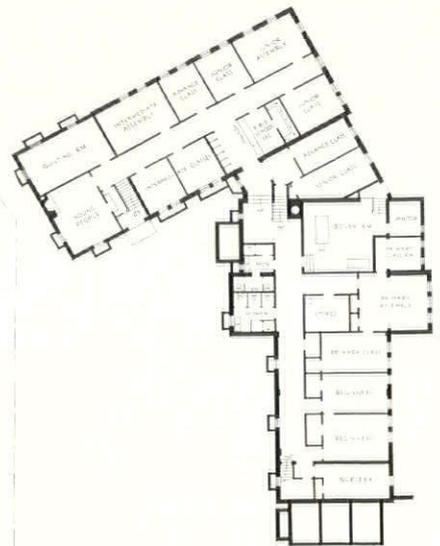
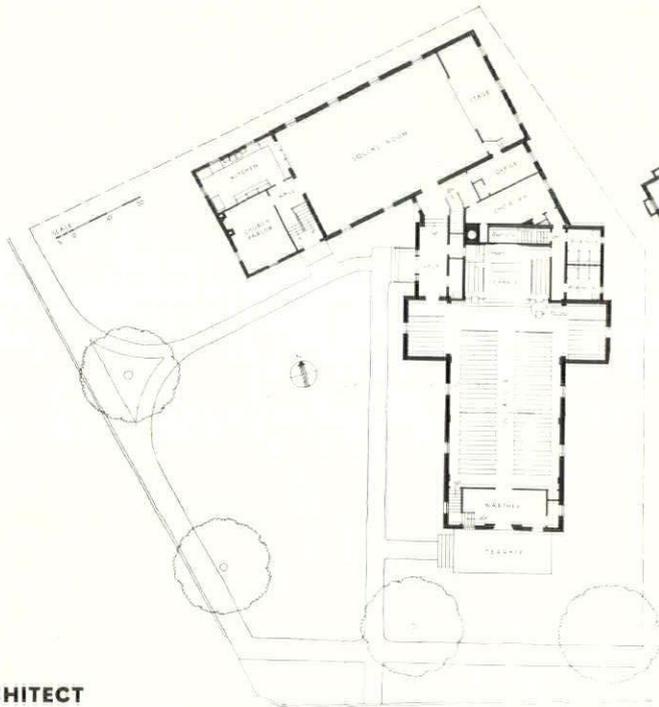


PHOTOS: VAN ANDA

CHURCH OF CHRIST DISCIPLES, DANBURY, CONNECTICUT
WILLIAM WEBB SUNDERLAND, ARCHITECT



The restraint exercised in both the use of materials and in the design is typical of the best precedent for this New England church. The center of many activities, the large social room has independent entrance and services. The basement floor contains the numerous departments of the Bible school



BASEMENT PLAN

CHURCH OF CHRIST DISCIPLES

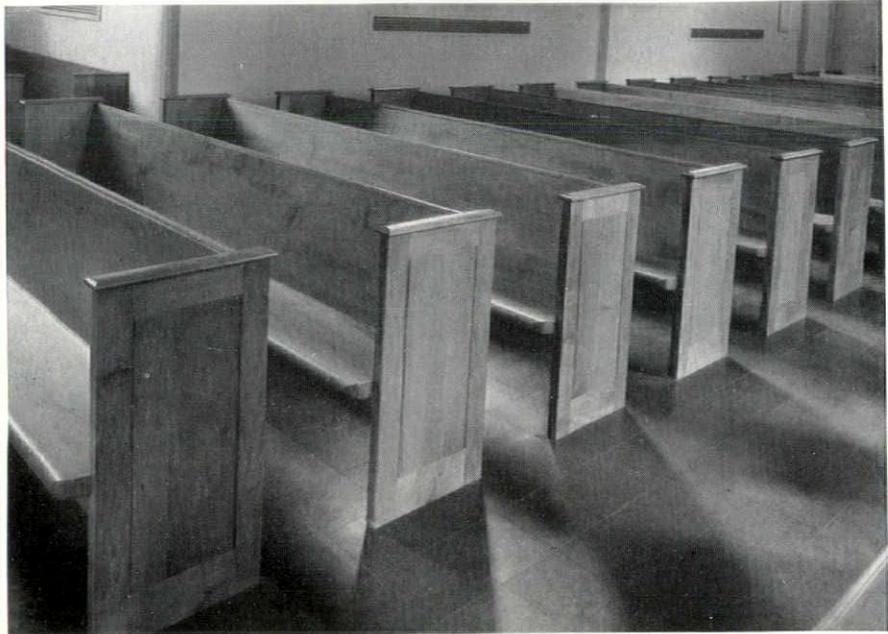
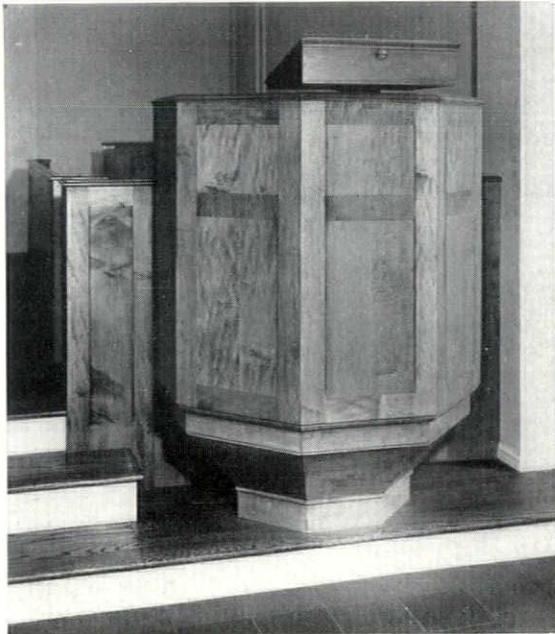
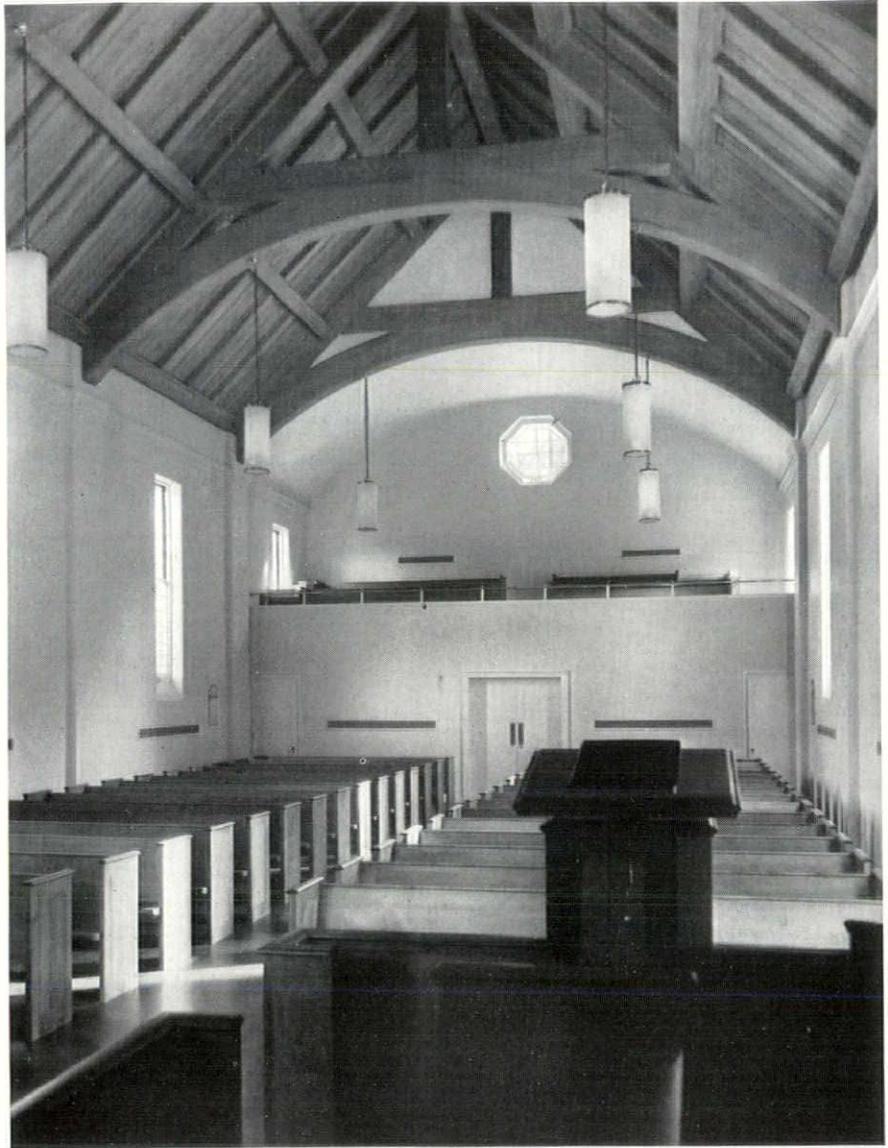
WILLIAM WEBB SUNDERLAND, ARCHITECT



CHURCH OF CHRIST DISCIPLES

WILLIAM WEBB SUNDERLAND, ARCHITECT

As simple in line and treatment as the exterior, the interior is highly colorful. The narthex walls above the chair rail are orchid; the chair rail and walls below are ivory as is all the wood trim. The nave, transept and chancel are blue. The ceiling of the nave is paneled with clear white pine, which includes the sheathing of the steel trusses, and is stained acid gray-brown. View (right) of nave looking toward the gallery. Detail (lower right) of pews and (lower left) of pulpit

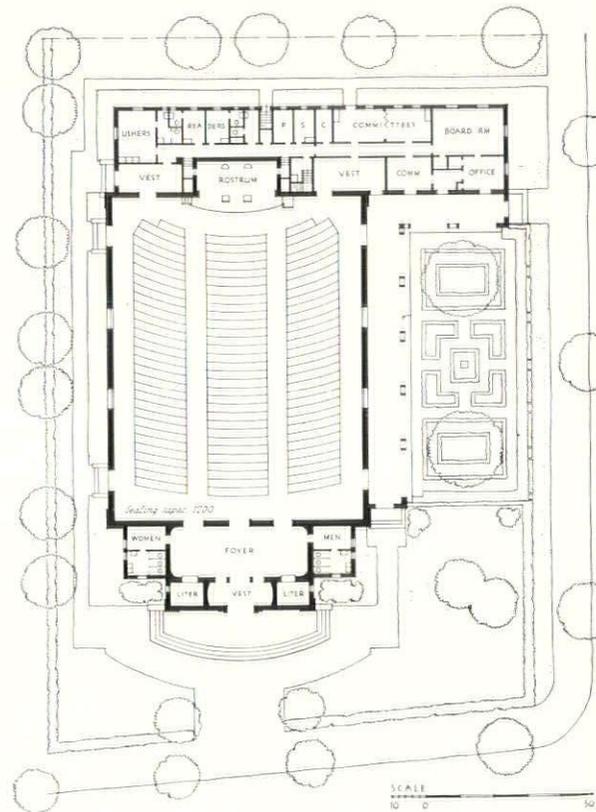
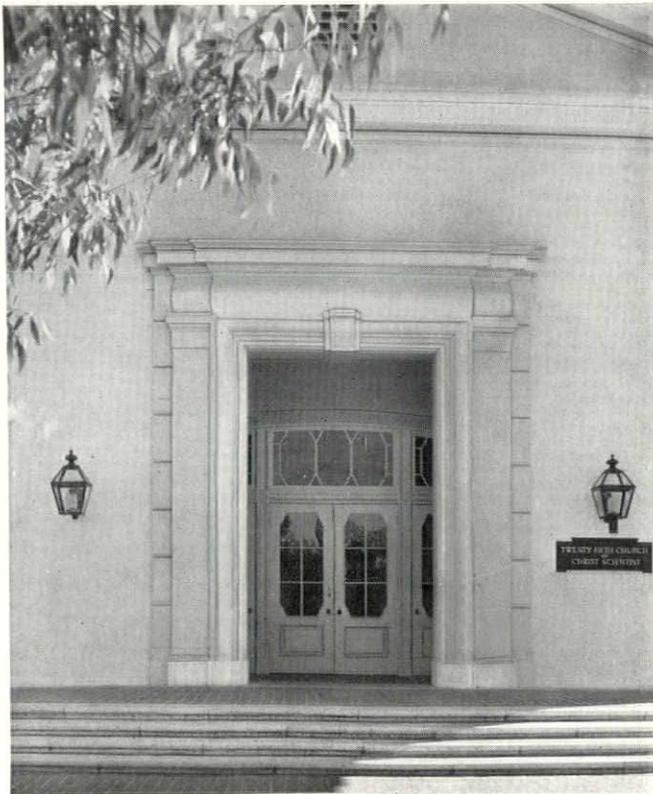


TWENTY-FIFTH CHURCH OF CHRIST SCIENTIST, LOS ANGELES, CALIFORNIA

H. ROY KELLEY, ARCHITECT



PHOTOS: HAIGHT



TWENTY-FIFTH CHURCH OF CHRIST SCIENTIST
H. ROY KELLEY, ARCHITECT

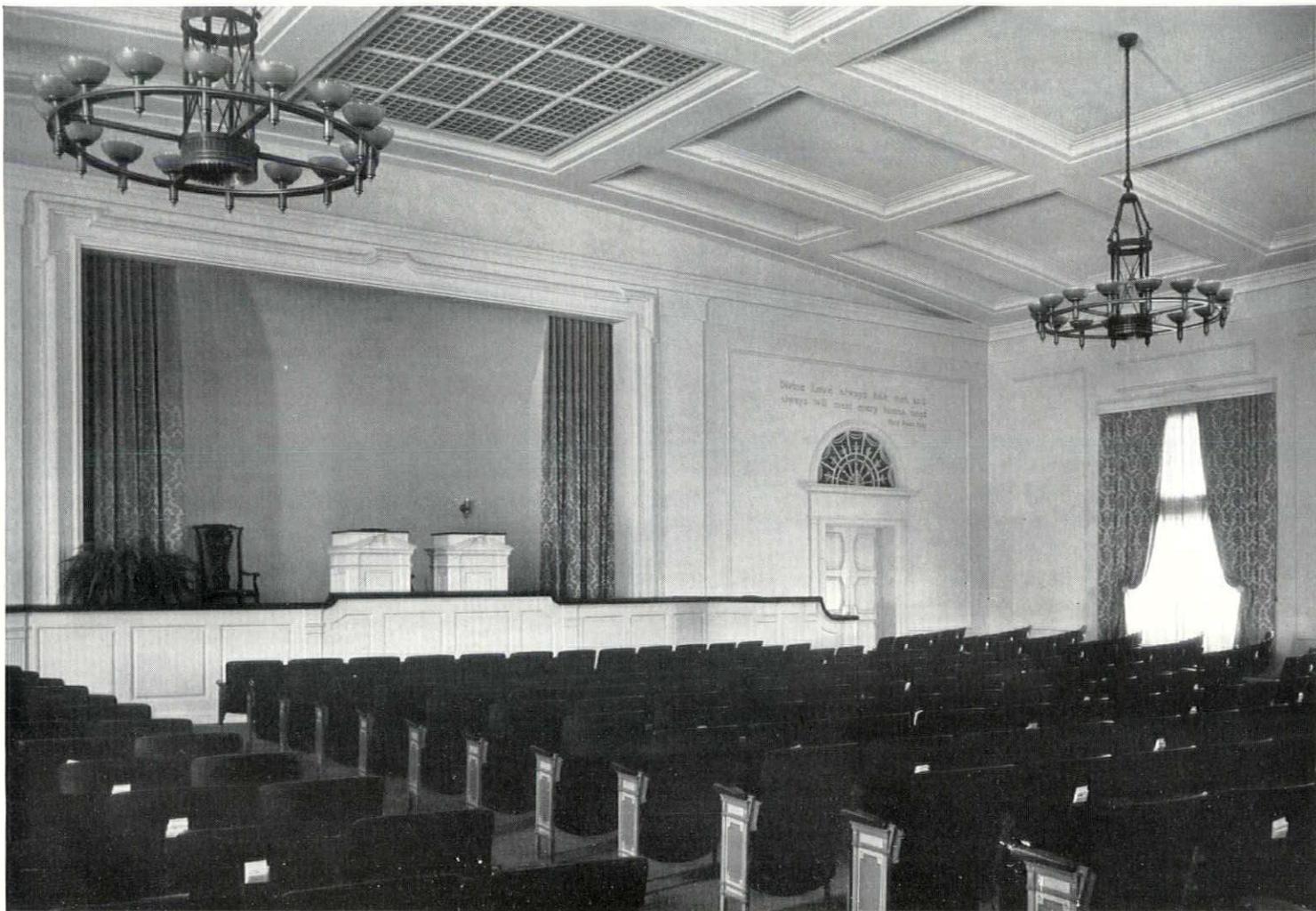
An unusual feature supplementing the frank treatment of this church, is the patio garden, sheltered from the side street by a low wall surmounted with hedging and intermittently broken by piers. Serving as a restful, secluded space for gatherings before and after the services, the patio affords direct access to the church proper besides being the means of entry from the street to the various committee rooms at the rear of the building



TWENTY-FIFTH CHURCH OF CHRIST SCIENTIST
H. ROY KELLEY
ARCHITECT



Great spaciousness is effected in the interiors by the simplicity of the design and the similar decoration of the walls and ceilings as contrasted to the dark floor coverings and furniture. View (right) of Foyer. View (below) of Auditorium looking toward rostrum



Tuesday, December 1.—Crystal Palace, which since the days of Queen Victoria has stood as an outpost of advanced thinking, in building construction, was lost to the world yesterday. Well filled with fireworks, which were used annually in display on Sydenham Hill, the building fell an easy prey to flames in spite of its construction of iron and glass. Crystal Palace was built for the World's Fair of 1851 in Hyde Park, and opened by Queen Victoria with great pomp and ceremony. A year later it was taken down piece by piece and erected, with extensive additions, on Sydenham Hill high on the south rim of the bowl that holds London.

Washington, Wednesday, December 2.—The flow of architects to Washington for the purpose of designing public buildings on a salary basis, which was strongly in evidence two years ago, is definitely on the ebb. Possibly half of the men who came down to the Procurement Division as designing architects have returned to private practice. Their places here are not being filled.

A group of architects employed in the various building activities of the Government meets every two weeks for dinner at a quiet restaurant in the northwest section, and to this I was fortunate in being bid tonight. There is no organization, neither are there any officers or dues; they have dinner early and feel perfectly free to leave immediately afterwards for other activities. Nevertheless, a slowly dwindling group huddled around a big table discussing a little bit of everything. It seemed to me significant that whereas a few years ago the talk might have been of foreign travel, some particularly outstanding architectural creation, or of who is doing what, tonight the chief subject of concern was what are we going to do to bring our cities out of the unplanned mess they are now in. In a word, the matters nearest the heart of these architects—and it is perhaps typical of architects generally—are far more strongly tinged with the social and economic considerations than with the purely aesthetic.

Washington, Thursday, December 3.—I pity the person who comes to Washington seeking information or perhaps a favor from some one of the multitudinous branches of Government—that is unless he knows through his own experience or that of others where to go and whom to see. My own activity today in attempting to find out what the various building agencies of the Government are going to do in the next four years

THE DIARY

Henry Taylor

prompts this bit of vicarious sympathy. Unless one knows where to go and whom to see, it is easy to picture the pilgrim growing gray and bowed with years through continuously finding himself in the wrong department.

Over to John Earley's studio across the Potomac, to see some of the many interesting things he is doing. For the first time I had a chance to examine the details of his scheme for prefabricated dwellings. Earley solves the great problem of making waterproof the vertical joint between wall sections by permitting the water to come in as it will, and then taking it out again at the bottom—a scheme which obviates a lot of complicated defenses. He feels that by making the vertical joint opening wide enough to avoid capillarity, water is far less likely to enter—it rarely finds its way around the sides of an outside door, for instance.

Philadelphia, Friday, December 4.—The housing clans have gathered from near and far for the annual National Association of Housing Officials Conference. It rather surprised me to find myself in an assembly which was considerably larger than the business meetings of an A.I.A. Convention, and conducted possibly with even more speed and dispatch. Today's session ended with a dinner this evening at which Sir Raymond Unwin greeted the assembly with words of encouragement as to our recent housing progress in this country. It was all the more comforting by reason of the fact that Sir Raymond usually tells us in his own exceedingly polite manner that we talk a good deal about housing over here, but do relatively little.

Philadelphia, Saturday, December 5.—From the time a number of breakfast table groups gathered at eight-thirty this morning, to the end of a bus trip through Philadelphia's old and new housing areas, we have been absorbing housing theory at a rapid rate.

One matter stands out in relief in the light of the two days' conference: the Government has built a number of demonstration projects to afford decent shelter for low-income groups. Under the necessity of combining this work

with the need of providing employment to the more or less skilled, the resulting projects have cost too much money. That is to say, if a rental is charged on the basis of their cost, it will be too much for those for whom the housing was intended. A logical way out seems to be nearing an acceptance stage in New York City. The local housing board figures first how much the rental should be, and then offers to buy the properties from the Government at a capitalization on that basis. The difference between this amount and the cost can be charged off to relief. It is quite evident that some such transaction is likely if the Government succeeds in persuading the various local housing authorities to shoulder the responsibility for what has been built.

Monday, December 7.—I was sorry to miss the North American Conference on Church Architecture and Allied Arts which was held at the Cathedral of St. John the Divine a while ago. Elbert M. Conover, director of The Interdenominational Bureau of Architecture, tells me of a letter which Sir Giles Gilbert Scott wrote to Dean Gates. It was to have been read at the meeting, but arrived too late. Sir Giles says, among other things, "In my view, the chief failing in the typically modern church is that it does not possess the religious atmosphere of ancient churches. I am, of course, aware that this opinion is not one which it is easy to substantiate on purely logical grounds, because what I have called religious atmosphere may be simply the association of ideas in our minds. We have become so accustomed to old churches that we may be too apt to regard any departure from ancient forms and methods as something antagonistic to devotional character: and it is, of course, quite possible that, in future times, the churches of today will be considered to possess the very characteristics which to me they seem to lack . . ."

"I think the trouble arises, in part at any rate, from our too sudden plunge into modernism. The result is often crude and uninspiring. Gradual evolution, in church architecture as in other branches of art and industry, is no doubt inevitable and wholesome, but sudden and revolutionary changes are dangerous. A good deal of our modern, or rather modernistic, work appears to me to be the result of affectation rather than conviction: and no work of art can carry real weight or make any strong appeal unless it be inspired by sincere and genuine conviction on the part of the artist. . . ."

"There are many fine modern churches to which my criticism has no possible application. It is intended rather as a warning, given in all humbleness, against a tendency which shows itself, here and there, in the work of some of our too-enthusiastic apostles of modernism."

Wednesday, December 9.—Frank Lloyd Wright has gotten around to our cemeteries. I am surprised that he has been so long in reaching them, for they are, it seems to me, one of the worst expressions of contemporary civilization.

Friday, December 11.—Someone is always destroying our tribal gods. Here we have been thinking for lo these many years that the Egyptian builders had a trick or two up their sleeves that builders of later eras have lost—otherwise, how did they build the pyramids? Now Ernest E. Howard comes along and says that all that was mere child's play: the stones of the pyramids weigh from two to five tons each, which ten or twelve men with crowbars could readily handle; tomb pictures and later records make clear the fact that the Egyptians knew levers, ropes and blocks, wooden sleds, and greased skidways. They used timber scaffolding, cribbing, gin poles, probably even derrick booms. It all makes one wonder whether we have learned much since.

Tuesday, December 15.—More housing tonight at a large dinner of the National Public Housing Conference presided over by Miss Fannie Hurst, enthusiastic low-cost housing devotee. Governor Lehman and Mayor LaGuardia spoke. Senator Wagner was to have been there, but was kept away by illness. Three points stand out in relief as an impression of sentiment: the first is that the necessity for subsidy is now taken for granted. This is not particularly new in essence, since our cities are already subsidizing their slums in providing for them public services far in excess of the tax return from these decaying areas. Few will dispute that it is better to subsidize decency than filth. Second, there seems little doubt that the Wagner Bill will be brought up early in the coming session of Congress, and will be passed. Third, New York City particularly is facing an acute housing shortage in the low-rental class by reason of the city's enforcement of the State law closing up tenements that fall below an acceptable measure of decency. These old-law tenements must either be improved or closed. Many of them are being closed, so that at the moment there is a floating

population of some forty thousand people driven from their hovels with little or no housing available within their means. New housing, of course, will not meet the needs of this emergency, for even with money, land, and plans ready now, the housing would not be available for a year at least. There is the alternative of asking a moratorium, suspending enforcement of the law, which has been followed before, with the result that the day of reckoning is merely postponed.

Monday, December 21.—The architectural profession is certainly being "done good by" these days. Starting with the announcement of the Edward Langley bequest to the A.I.A., two more memorial funds have just been made available. The memorials to the late Arnold W. Brunner, provided for in the will of his widow, are established among ten architectural and educational institutions here and abroad. Ernest R. Graham, long a powerful figure in large-scale architectural enterprises in Chicago, has left an impressive sum for the establishment of the American School of Fine Arts in Chicago.

Wednesday, December 23.—I see that our brothers of the R.I.B.A. have organized a camera club. They have recently held an exhibition of prints of which it is said the standard is technically very high. Most, if not all of the subjects, are at least partly architectural. They have the advantage over there of having the R.I.B.A. membership concentrated more closely in London. Nevertheless, it might be possible over here to organize an annual exhibition of architectural photographs by architects in connection with the A.I.A. Convention. If we do, I suppose the name of Frederick L. Ackerman might as well now be engraved on the first medal.

Saturday, December 26.—Hotel refurbishing is speeding up. It seems but a few years ago that a hotel customarily waited until its public rooms were hopelessly out of date and conspicuously shabby before it called in the architect and decorator. They do not wait for any such condition today. The Urban Room, three years ago the talk of Chicago, has been dismantled and replaced by something newer and, if possible, gayer. In talking with the manager of the Congress Hotel, Chicago, recently, I expressed some concern over the rapidly forced obsolescence of these cafés, casinos, bars and the like, and hinted that the present new creations

will probably be considered out of date three years from now. "That is the schedule," I was told. "The cost of these architectural and decorative changes is charged off in three years to make way for another change." The hotel profit, it seems, lies in the transient room business; to get people to come and engage rooms, the hotel must put up a gay and inviting front. Probably there are a good many hotel managers who might have this policy explained to them.

Tuesday, December 29.—I wish some reputable research organization, such as the Brookings Institution, would tell us, with facts and figures in proof, whether the machine age is, or is not, putting men out of work. Much of the evidence from varied sources indicates that since one man with modern machinery can make many pairs of shoes a day, as compared with the old-time cobbler who took many days to make a pair by hand, there ought to be a lot of shoemakers walking the streets. Yet along comes the Machinery and Allied Products Institute to speak a good word for the machine. They tell us that dial telephones increased from 2.7% of the Bell System in 1921 to about 32% in 1930. Yet telephone operators increased from 190,000 in 1920 to around 249,000 in 1930, while telegraph and telephone line men almost doubled in the same period. One would think that electric refrigeration might have put quite a dent in the business of the ice men. Nevertheless, according to the U. S. census, between 1920 and 1930, ice dealers increased from 8,000 to more than 19,000.

Thursday, December 31.—Edward D. Pierre of Indianapolis dug out of his archives the other day a paper which he sent me. It is called "The Architect and the Small House." It is too long to quote in full, but here is an example of the tenor. "Isn't the small house about the most important factor in building to ninety per cent of the American people? Does it not affect the lives of more of us, and mold our tastes more than any other classification of building? If this is true, then is it asking too much of the architect who feels his obligation to society to find some solution for the small house problem?" The question was asked in 1927 in the program approved by the Architects' Small House Service Bureau and a Regional Meeting of the A.I.A. The question might well be asked in these first days of 1937. It has not been answered.

THE PORTFOLIO Outdoor Paving

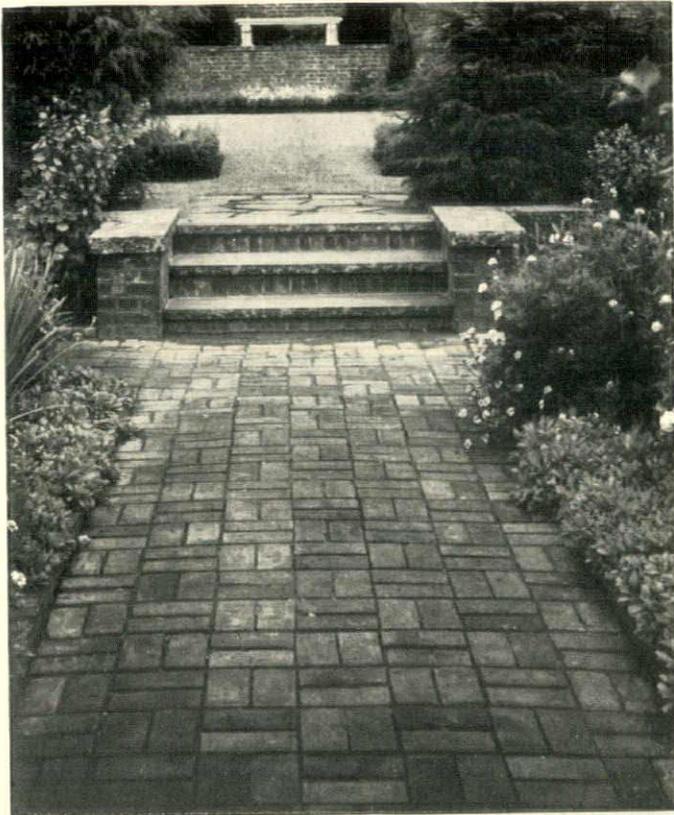


PORTFOLIOS IN PREPARATION—Show Windows, February . . . Porch Columns and Posts, March . . . School Entrances, April . . . Wood Floors, May

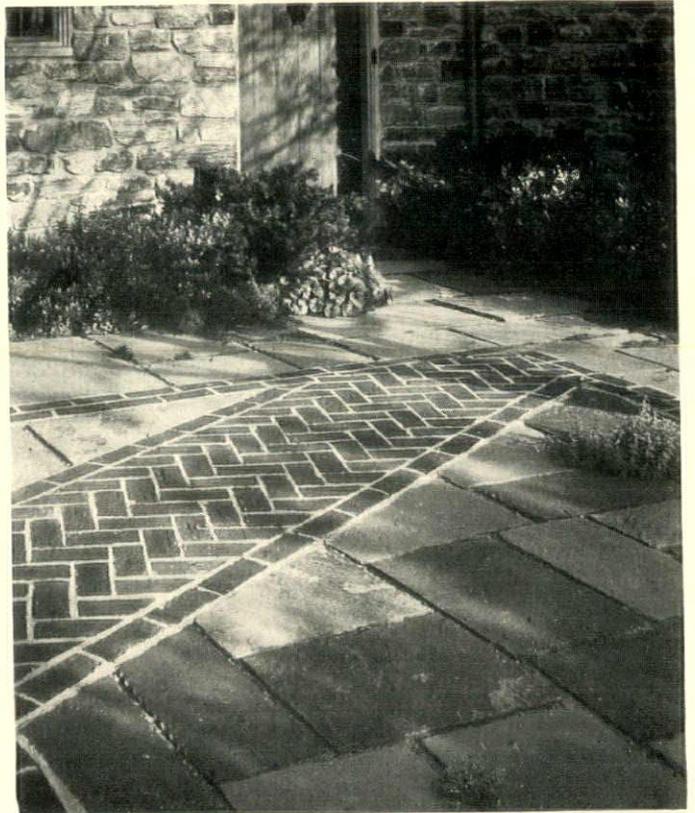
The Editors welcome photographs of these subjects. . . . Forms close eight weeks in advance of publication. A list of the subjects that have appeared will be sent upon request. Certain of these past Portfolios are available to subscribers at 25 cents each; or five subjects for one dollar

Paving about the Museo Provincial at Cordova,
photographed by Eleanor Roche

NUMBER 123 IN A SERIES OF COLLECTIONS OF PHOTOGRAPHS ILLUSTRATING VARIOUS MINOR ARCHITECTURAL DETAILS



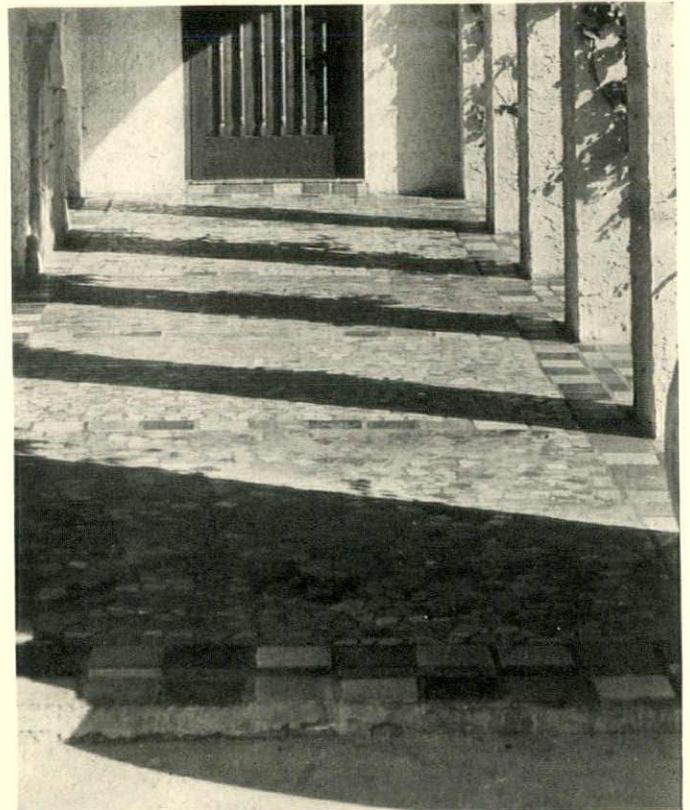
Flatwise basket weave brick in a garden path
Olmsted Brothers



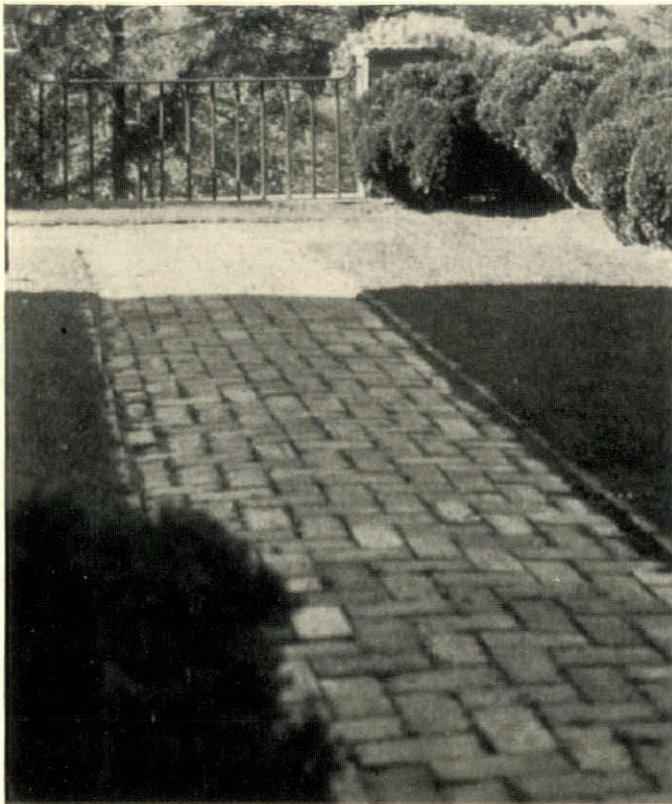
Brick and flagstone on a country house terrace
Waldron Faulkner



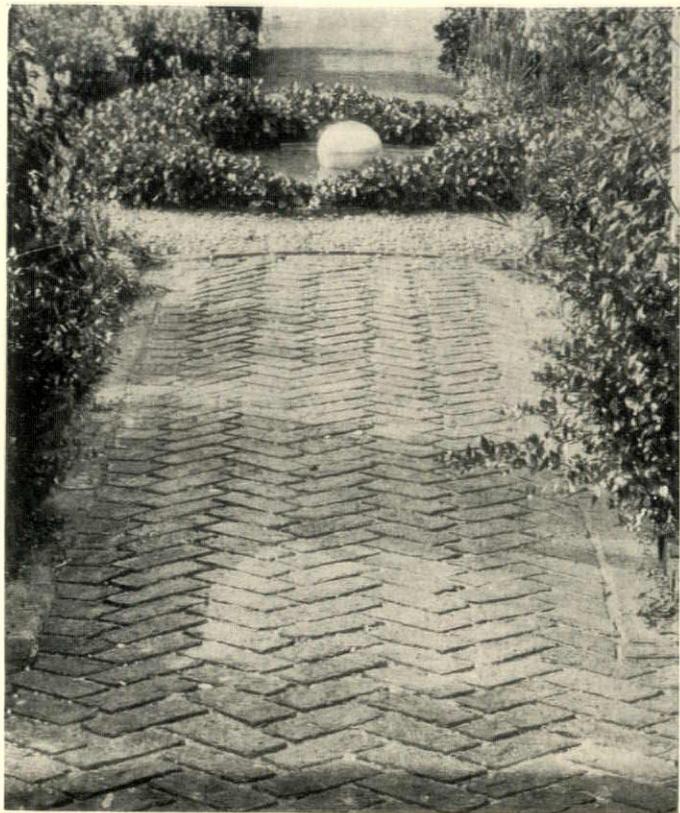
Brick on edge with three-quarter inch joints
Vitale & Geiffert; Gilmore D. Clarke



Tile and small stone in a loggia
Miami Beach, Fla.



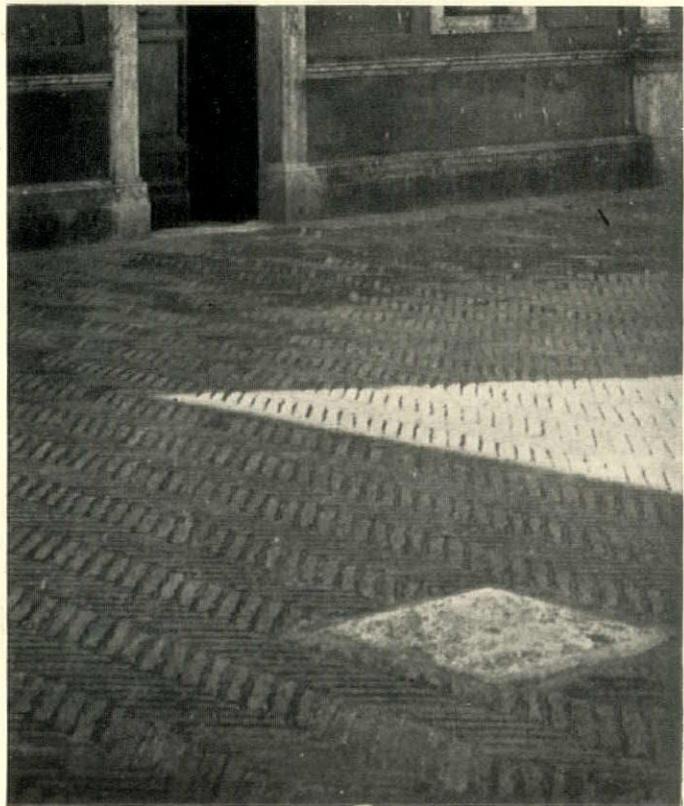
Old brick laid dry in a garden walk
A. F. Brinckerhoff



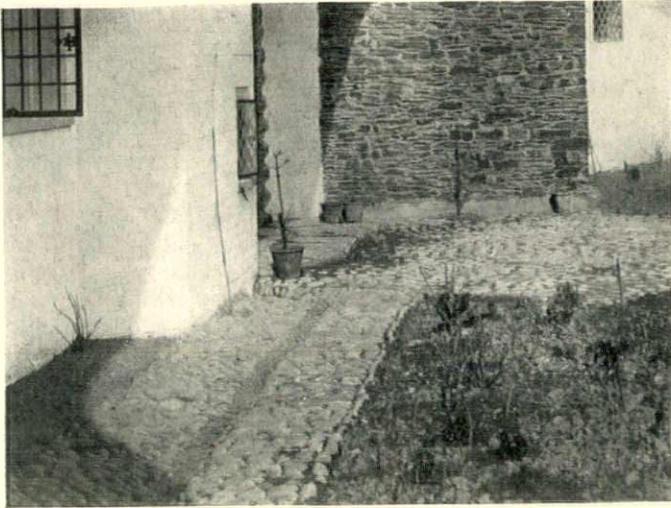
Herringbone brick laid flatwise for a garden walk
Olmsted Brothers



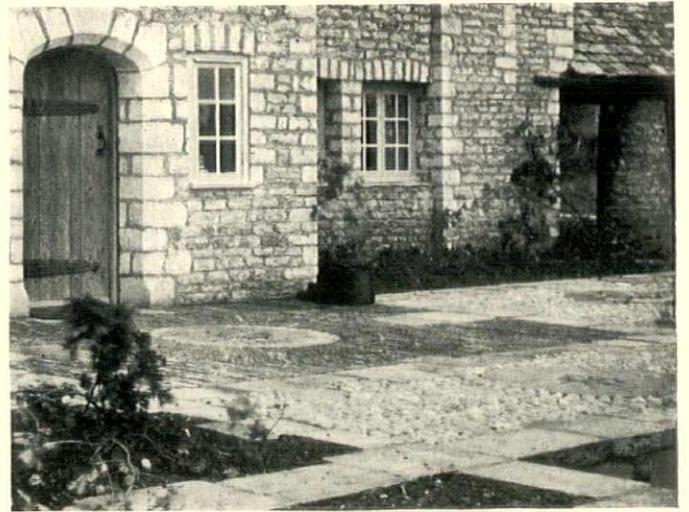
Utah flagging with grayish yellow and dull orange stone
Gordon B. Kaufmann



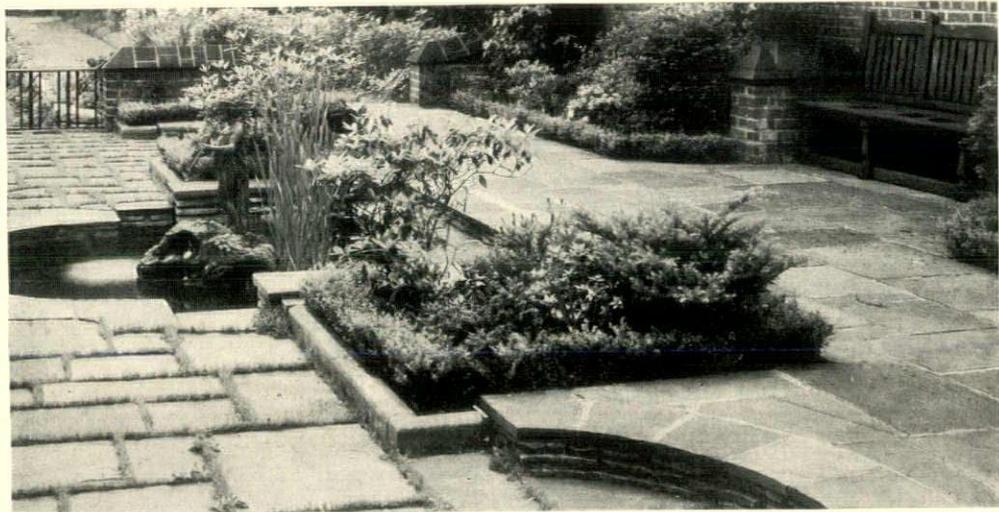
Herringbone pattern of vitrified brick in a courtyard
Villa Belcaro, Siena-Baldassare Peruzzi



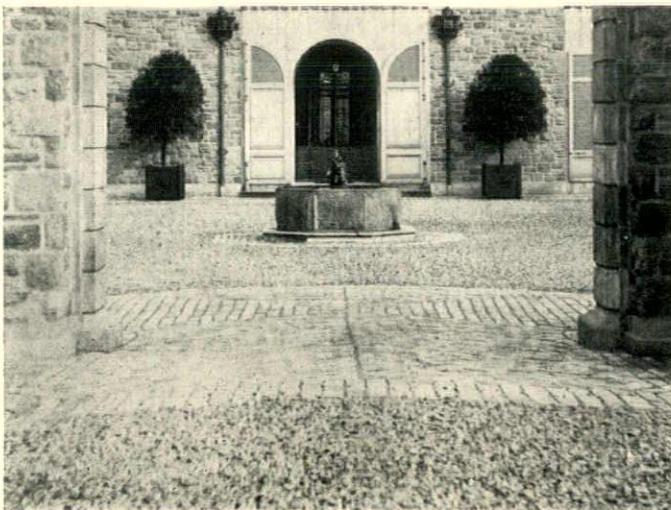
Cobblestone walk around a house in Devonshire, England
Oliver Hill



Cobblestone and tawny-buff limestone, Witney, Oxfordshire, England
Oliver Hill



Flagstone laid with white mortar joints and with grass joints
Eric J. Reeves



Granite block in combination with broken stone drive
Edmund B. Gilchrist



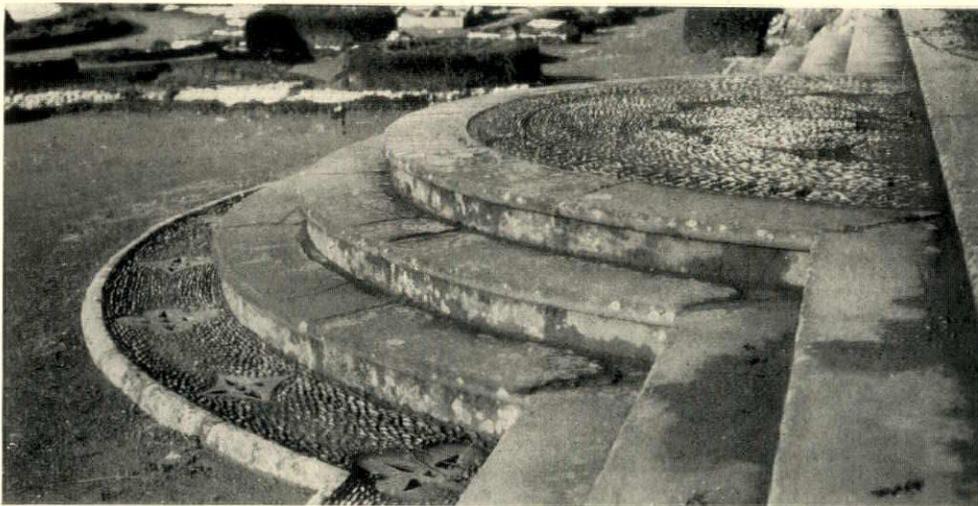
Flagstone and cobblestone with pattern lines of block
Canons Ashby, Northamptonshire, England



Granite block in swirls on a country house driveway
A. F. Brinckerhoff



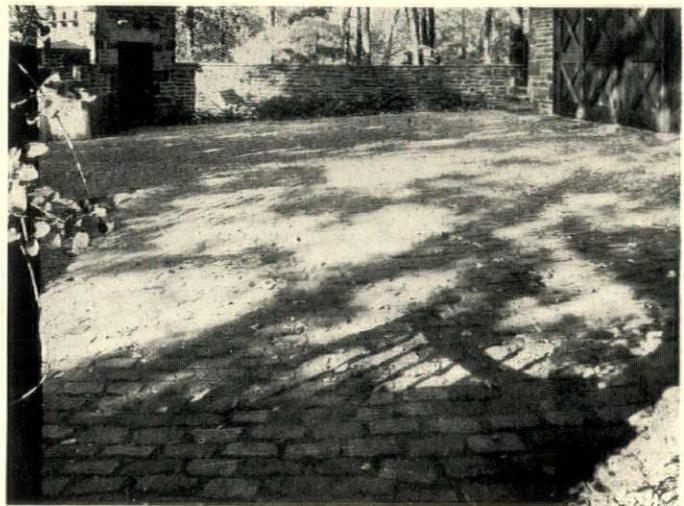
Round pebbles in cement, Moncloa Gardens, Madrid,
photographed by Eleanor Roche



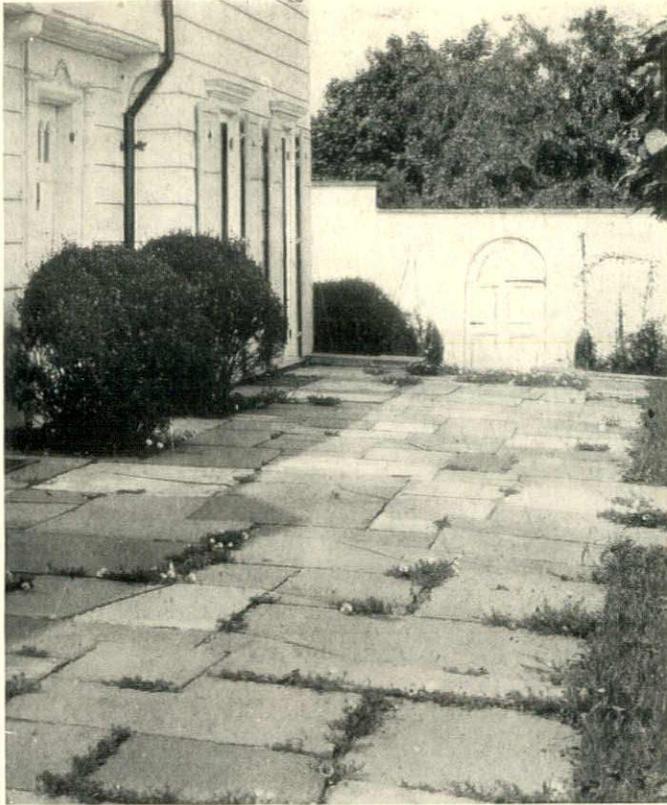
Stones and pebbles with perforated stone catch basin tops. Ville Collodi, Lucca, Italy.
From the photographic collection of Pitkin & Mott



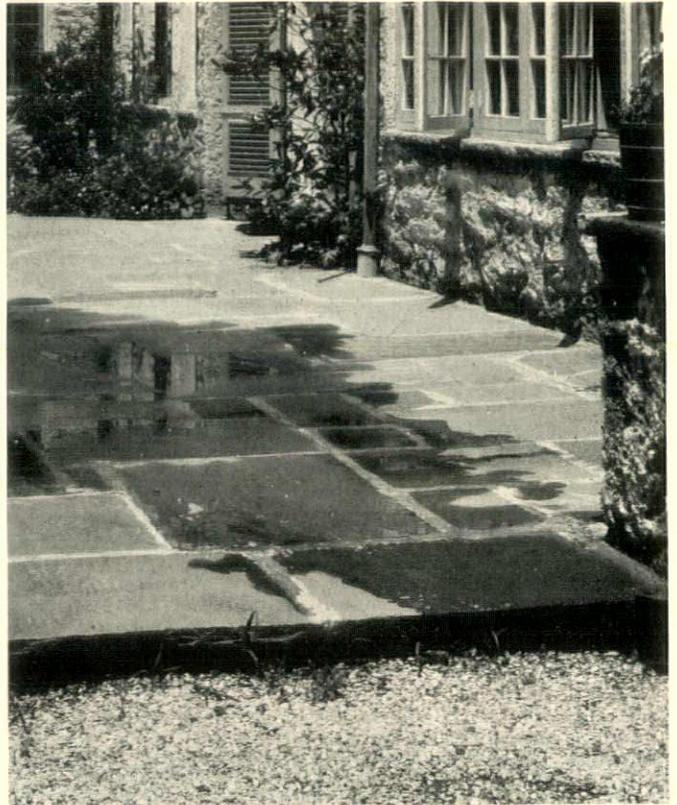
Adjoining the mounting block, stables at Bourton House,
near Broadway, Gloucestershire, England



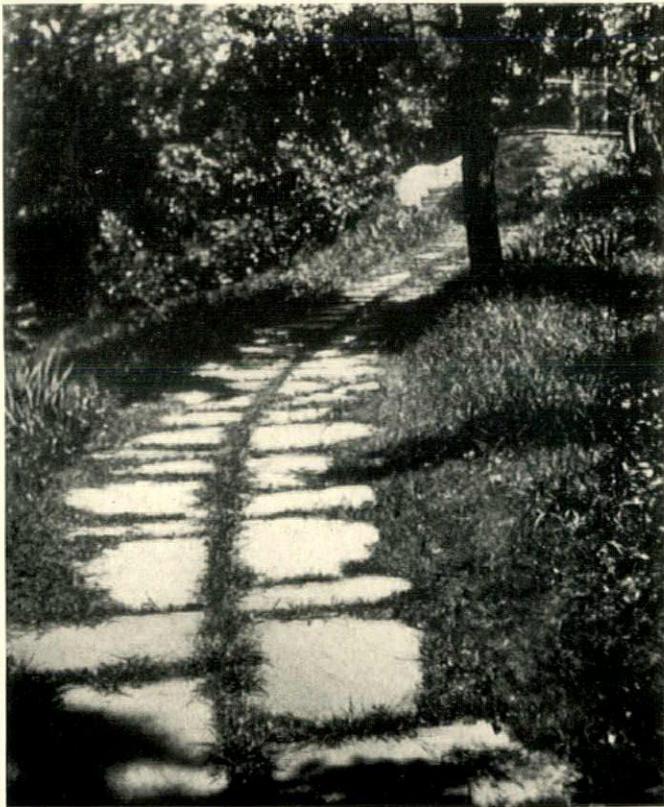
Belgian block in the courtyard of a country house
Frank J. Forster; R. A. Gallimore



Flagstone laid dry with planting space next to building
Peabody, Wilson & Brown



Ashlar flagstone with broad white mortar joints
Willing, Sims & Talbutt



Flagstone garden walk accenting middle joint line
Olmsted Brothers



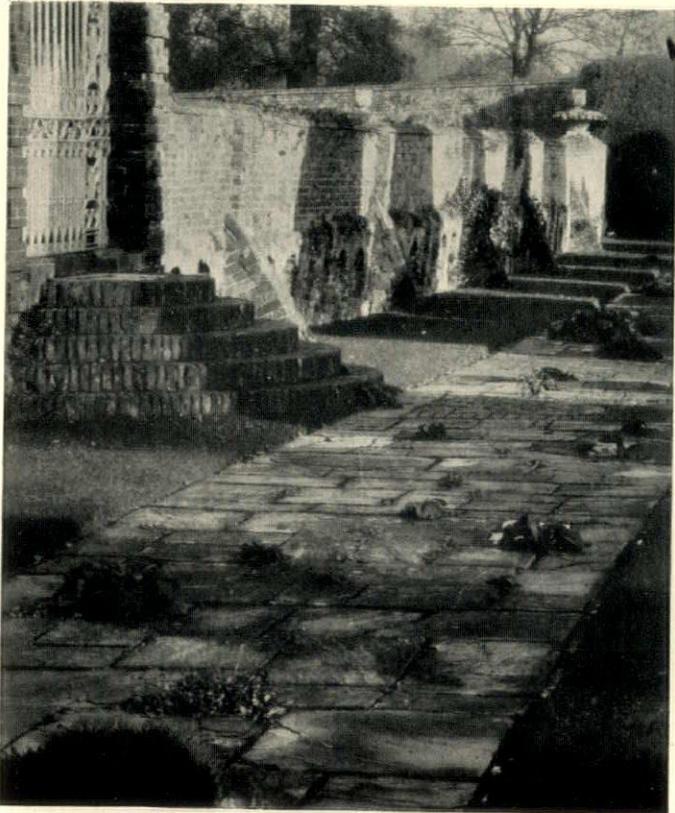
Broken flagstone in a garden path,
Radnor, Pa.



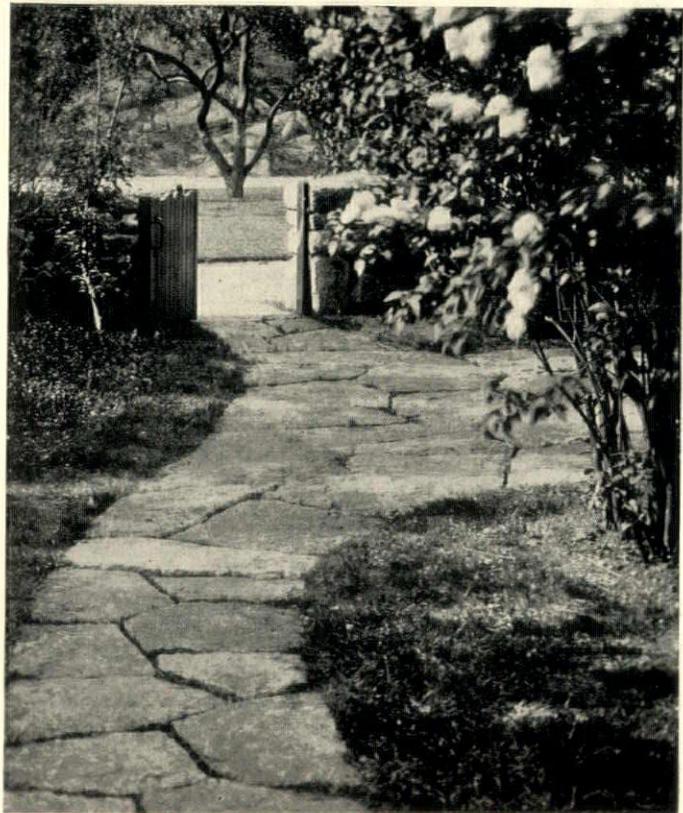
Random Ohio stone in a garden path
Vitale & Geiffert; Gilmore D. Clarke



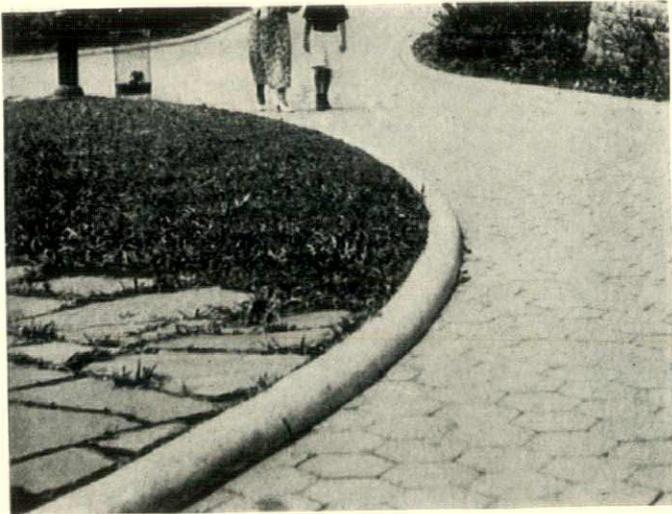
Crab Orchard flagstone in selected colors with concave cement joints
A. F. Brinckerhoff



Flagstone with incidental rock plants, Packwood House,
Hackley Heath. Warwickshire



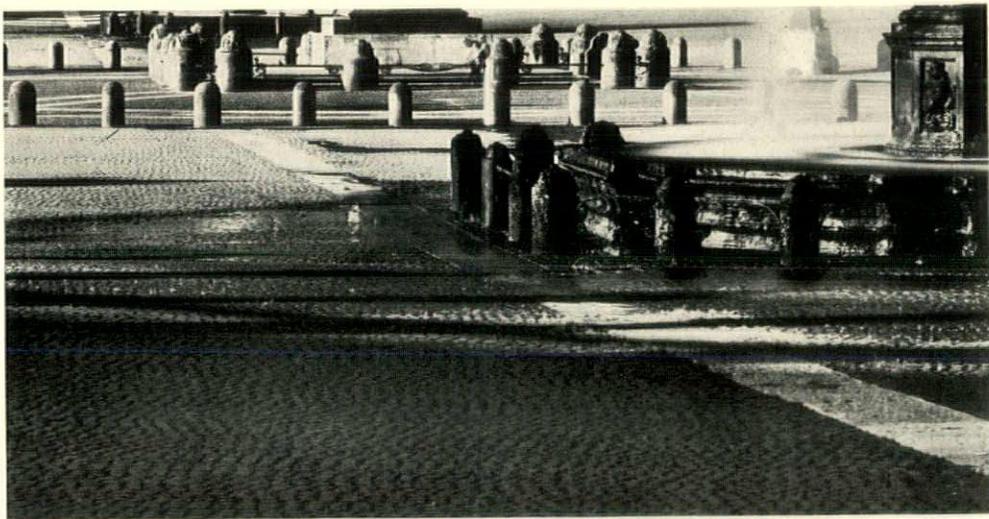
Irregular stone, straight on outside edge
Olmsted Brothers



Hexagonal asphalt tile with concrete curb
New York City Park Department



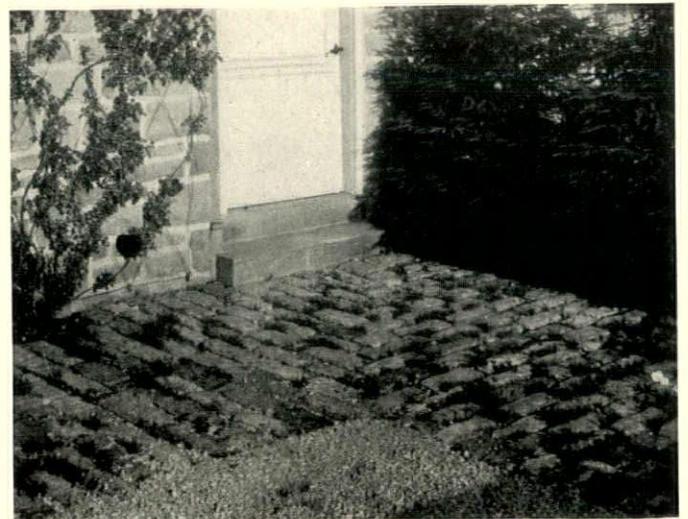
Granite slab, block and pebbles around Lincoln Memorial
Henry Bacon



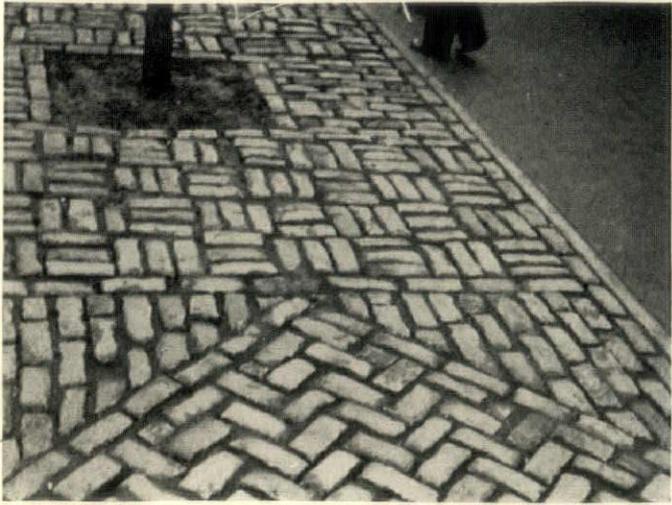
Cobblestone with rectangular stone division lines in the
Piazz di S. Pietro, Rome



Flagstone paving with definitely planned planting spaces
Vitale & Geiffert; Gilmore D. Clarke



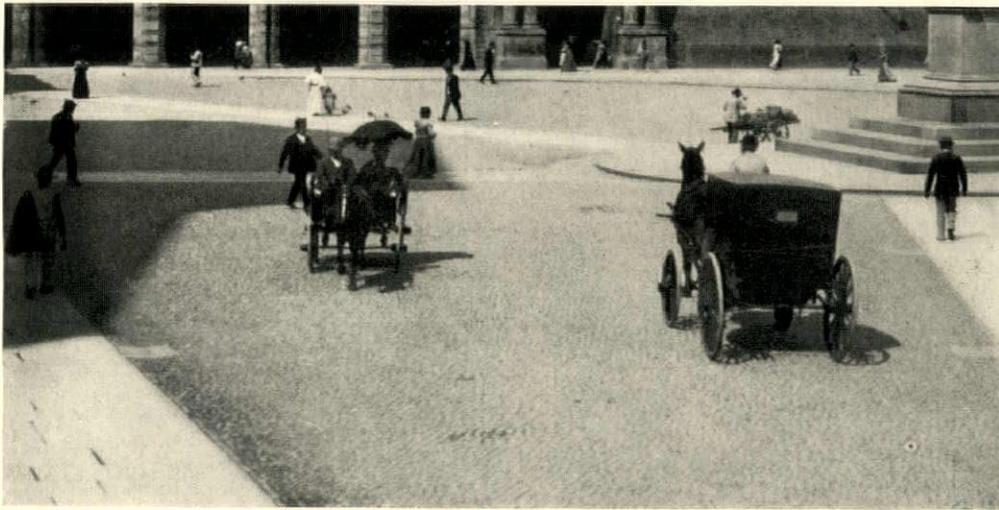
Old brick laid in seeded soil
Edmund B. Gilchrist



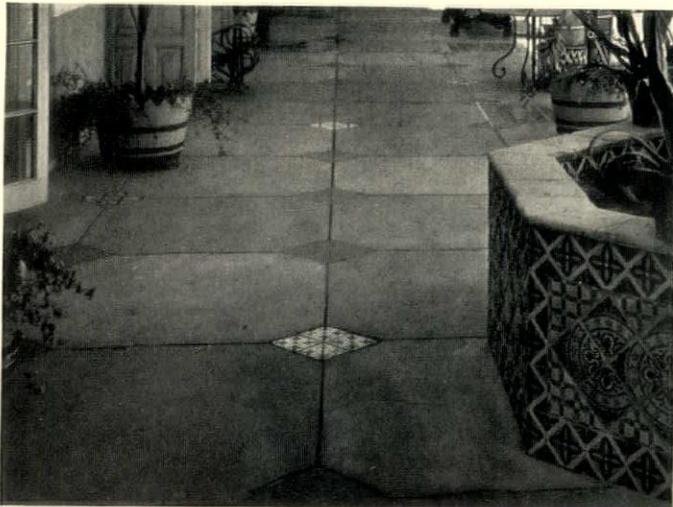
New York City Park Department uses granite block in soil to afford natural moisture for trees along sidewalk



Black and white mosaic in a courtyard, Ostia, Italy



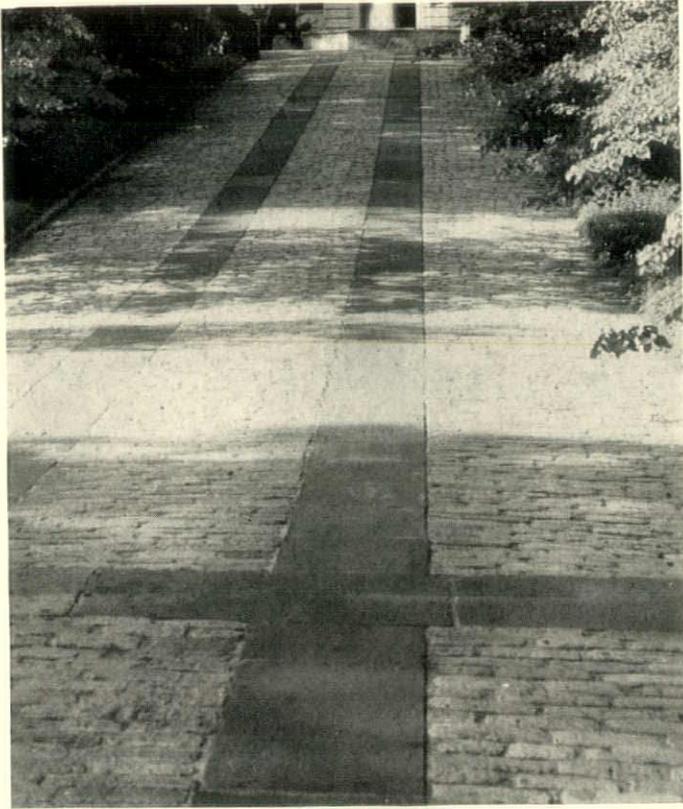
Cobblestone with rectangular stone division lines in the Palazzo Pubblico, Bologna



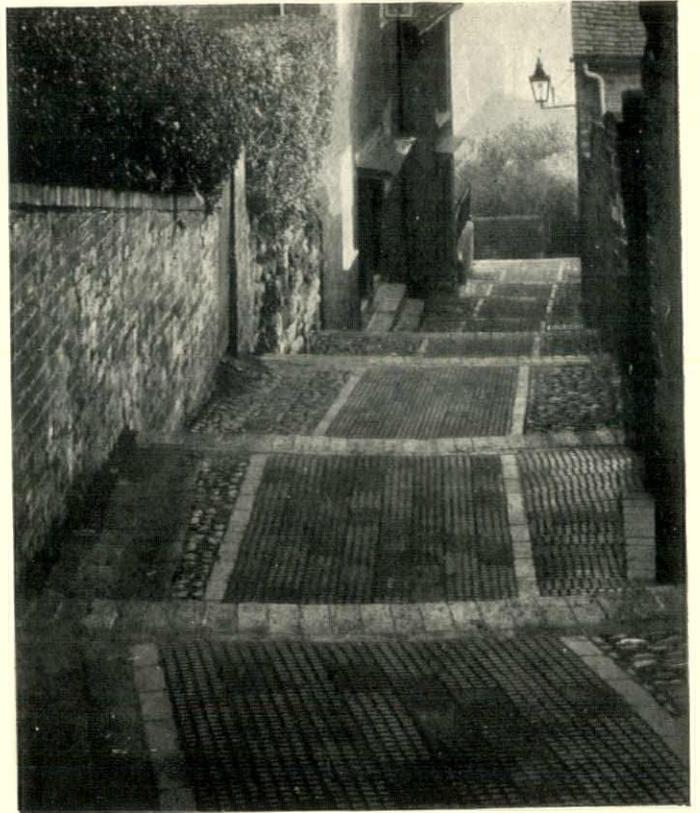
Scored cement with tile inserts
Benjamin O. Berry



Large square tile in seeded walk
Morgan, Walls & Clements



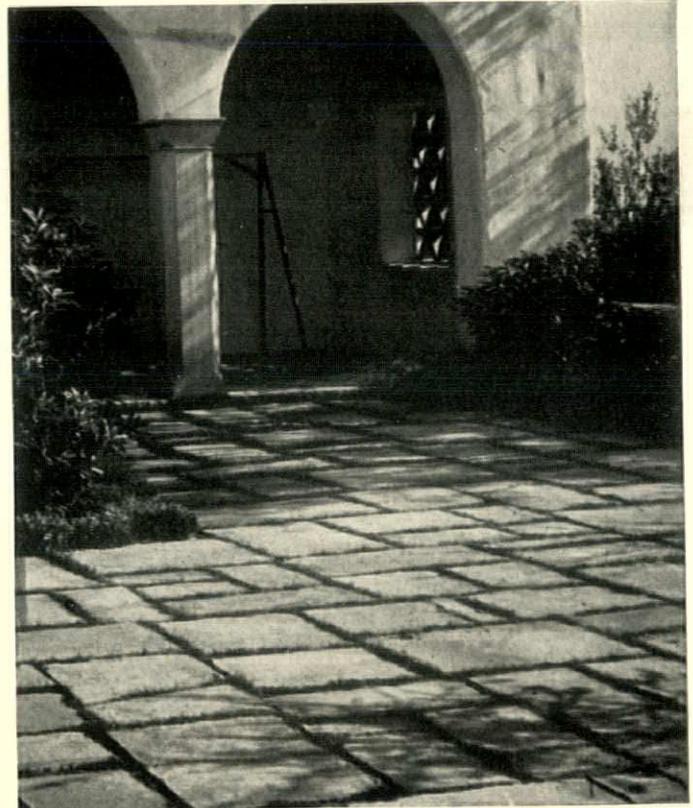
Granite block and heavy flagstone patterning a driveway surface
Vitale & Geiffert; Gilmore D. Clarke



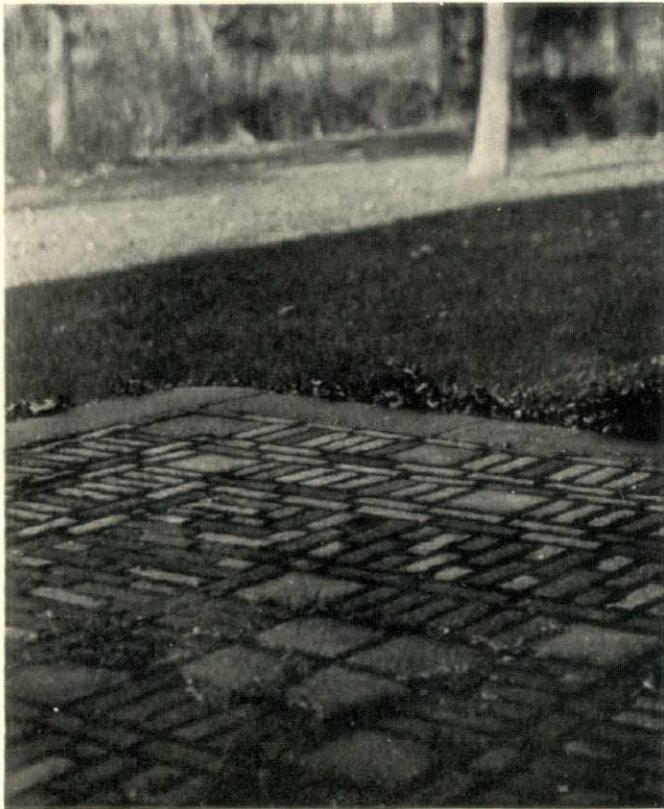
Brick, pressed slag and cobblestone in a stepped street,
Bridgenorth, Shropshire



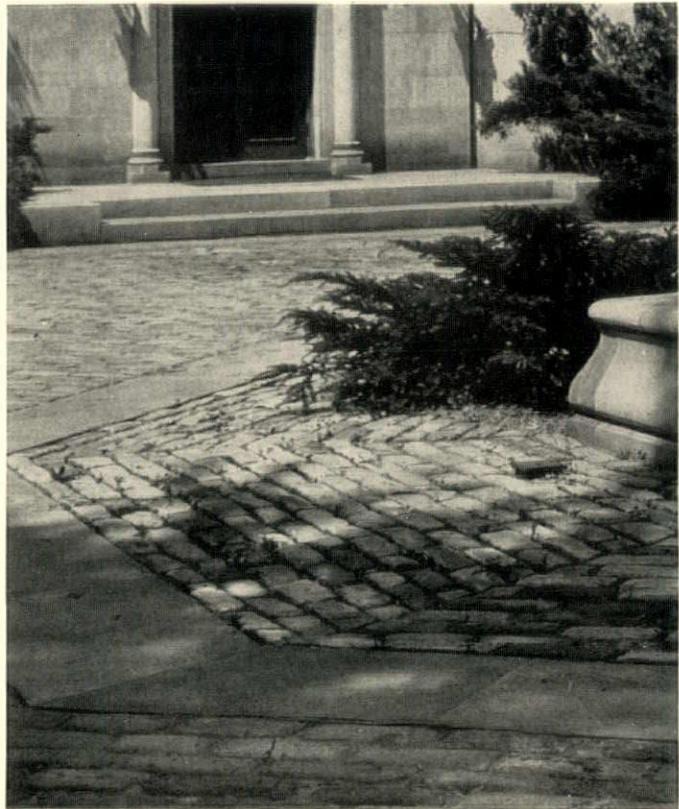
An effort to preserve continuity in joint lines of irregular flagging
Frank Wetmore Smith



Slab precast against natural split stone, laid in seeded soil
Gordon B. Kaufmann



Brick and tile in terrace pattern
Charles W. Stoughton



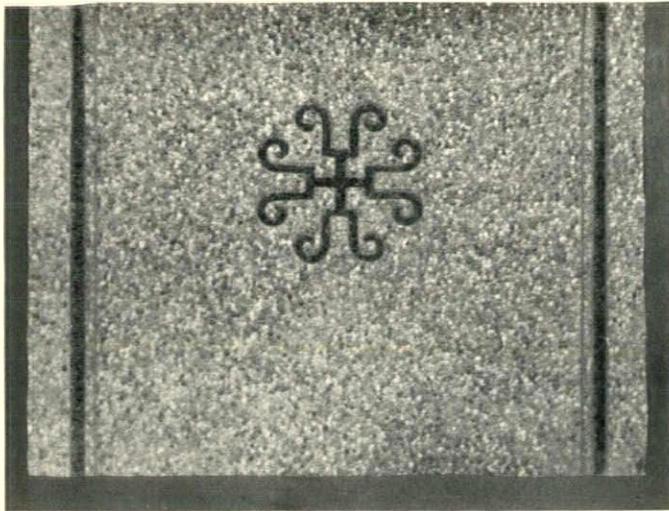
Granite block and flagstone in entrance court
Vitale & Geiffert; Gilmore D. Clarke



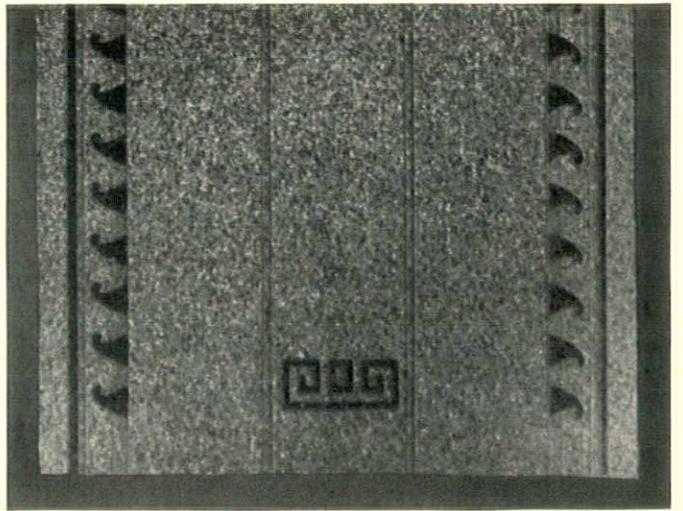
A random pattern of clay tile in a California patio
Jonathan Ring



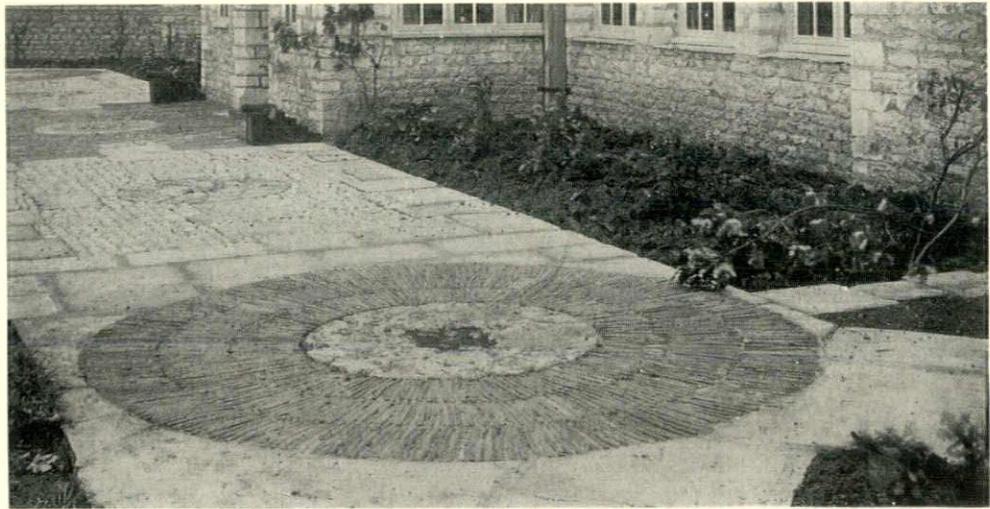
Irregular natural stone with brick edging
Olmsted Brothers



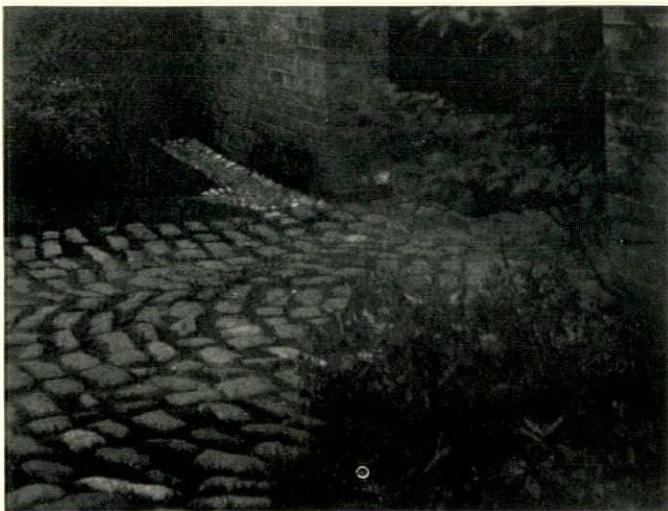
Precast sidewalk slab utilizing fine colored aggregate
John J. Earley



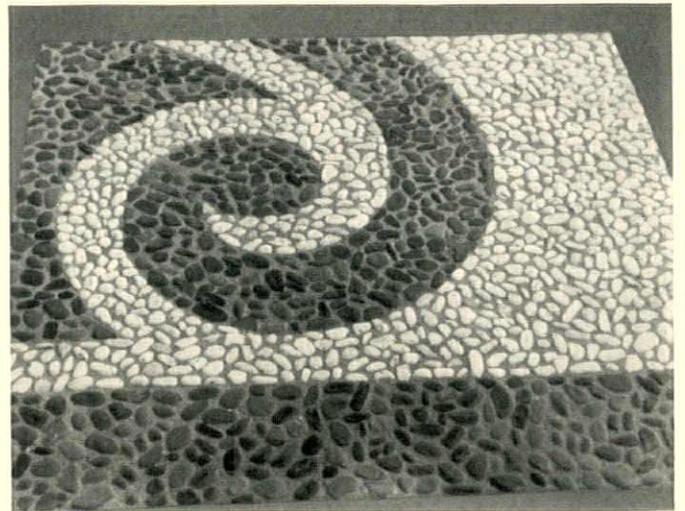
Precast sidewalk slab utilizing fine colored aggregate
John J. Earley



Native stone with a radial pattern of finger tile



Granite block in seeded soil with cobblestone gutter
Wesley Sherwood Bessell



Black and white selected stone in a precast slab
Paul P. Cret; John J. Earley

HIPPODROME STAND
LA PLATA, ARGENTINA



PHOTO: MOREAU

CONCRETE

THE BASIS FOR SOUTH AMERICA'S NEW ARCHITECTURE

By **THEODORE SMITH-MILLER**
SMITH-SOLAR & SMITH-MILLER ARCHITECTS, SANTIAGO

Concrete construction in South America differs basically in many respects from usual practices in this country. One of the most common of native materials, its natural characteristics are there exploited to the fullest

Architects began to design all kinds of buildings using concrete as a plastic masonry. European stone architecture was imitated by applying to the surfaces colored stucco simulating stone work. The flexibility of the concrete and the ease with which stucco could be molded into the most lavish ornament helped create the florid architecture for which South America is unfortunately famous. The European influence, thus degenerated, swept across the Pampas and over the Andes, disseminating concrete "wedding-cakes" from the Caribbean to Cape Horn. Stucco capitals were pasted on concrete columns and stucco cornices were applied to concrete pediments as you might expect to find it done in a Hollywood studio. This hypocritical building flourished in the days when North American architects were developing the skyscraper with the stone architecture hanging from the steel frame of the building. Only a few years ago, schools of architecture in different South American universities began teaching the theory of reinforced concrete construction. The European trend toward functionalism was eagerly followed by the younger generation of architects who were already familiar with the plasticity and freedom of concrete. Today there is finally emerging in South America a more truthful and sensible architecture.

THE great development of concrete construction in South America is due mainly to the fact that the ingredients of concrete are native to almost every country below the Equator. Sand and gravel can be found in most places; cement factories are already supplying the market; and the production of steel rods for concrete has recently become a native industry.

During the colonial days, the wealthy Vice-Royalty of Peru built at great expense many elaborate churches and palaces of stone, but the scarcity of limestone and the difficulties of transportation from the mountains made almost impossible a more general development of this building material. For many years and even centuries, people were limited to the use of brick and adobe for all kinds of buildings. One may travel for days through Argentina without seeing a single stony hill and there is hardly a single stone building in all Chile, in spite of the rocky Andes which extend throughout the entire country. In the last fifty years the growth of industries and the need of rigid frame buildings created a demand for a stronger construction. As the steel work for a steel frame building had to be imported already prepared from Europe or the United States, reinforced concrete was obviously the answer to this acute need.

PLANNING

Every part of a concrete building is essentially structural. No superstructure conceals the function that the concrete is performing, as might be found in other types of construction. A good example of this is the Hippodrome Stand at La Plata near Buenos Aires in which the shape of the structure is determined by the purpose for which it is to be used and the physical laws governing the construction. This does not mean that the hands of the architect should be tied by the engineer, but rather that there should be co-operation in order to produce an efficient, economical and beautiful structure. This co-operation has proved advantageous.

The ideal concrete building would be a structure consisting of columns and slabs calculated to support walls at any point on the floor areas. The Tribune Building in Montevideo is a perfect example of this type. The sections of the columns are especially light and the freedom with which the building has been treated shows the flexibility that can be obtained only with reinforced concrete.

As shown in the picture on the opposite page, the large opening of the third floor has been spanned with a hollow beam without interfering with the usefulness of the floor. The openings in the floor slabs that can be observed in the centre picture are for vertical circulation and are successfully expressed in the finished exterior. The filling stations in Montevideo are examples of cantilever construction showing the adaptability and lightness of concrete efficiently designed. Another example is the building on Diagonal Avenue in Buenos Aires in which the lightness of the concrete work again allows great flexibility of treatment.

Buildings erected in those areas exposed to earthquakes,

however, require diagonal bracing to withstand the earth's movement. This may be obtained by using concrete exterior wall sections between the columns. In this type of construction, columns should be rectangular in plan with their long axes perpendicular to the walls. Concrete used thus has proved to be more resistant to earthquakes than steel frame construction. It has the required elasticity to permit vibrations without cracking, acting as a single unit, whereas a steel frame building is too elastic in its members and suffers complete disjuncting at the points of riveting.

Some experiences have demonstrated that buildings with a low centre of gravity have successfully resisted earthquakes. Making a strong backbone out of the staircase with the flights acting as diagonal slabs inside the concrete-enclosed stair well has become a practice in Chile. This treatment allows the building to be of very light construction without concrete exterior walls and still to be earthquake-proof up to heights of six or seven stories. Foundation walls, however, must be rigidly framed to act as beams to withstand the earthquake undulations so that the whole building will have an undeformable base on which it may move as one unit. In these buildings with a low centre of gravity, the exterior walls are filled with brickwork reinforced with steel rods from the concrete columns at the ends of the panels.

In submitting the plans to the Building Department, the architect must present complete specifications including those for the concrete work. The Chilean Regulations are primarily based on the German Code of 1925, but include precautions against earthquakes. These precautions can be appreciated upon seeing the earthquake-proof buildings of the West Coast as compared with the lighter ones on the Atlantic Coast of which these pictures are typical.

FILLING STATIONS, MONTEVIDEO.

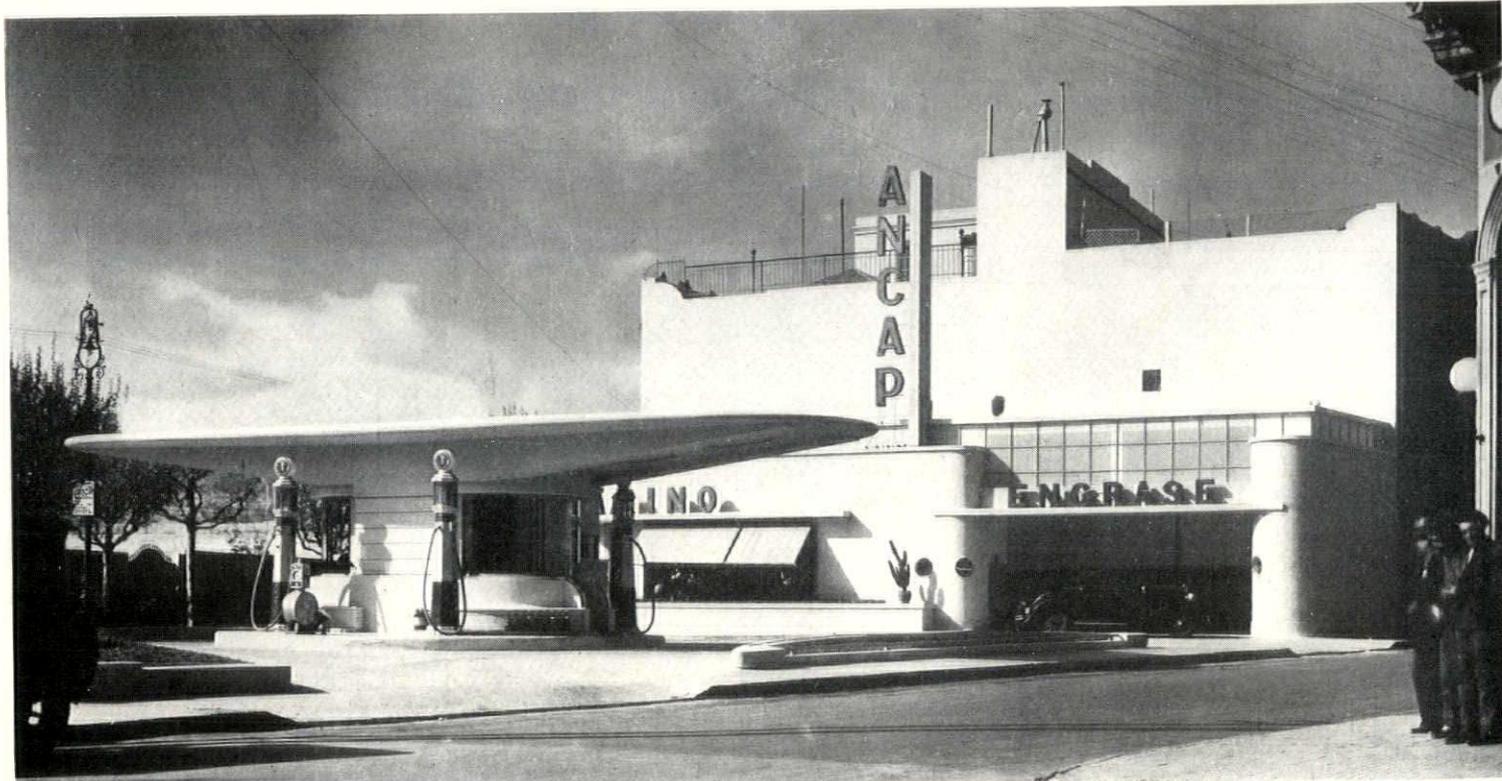
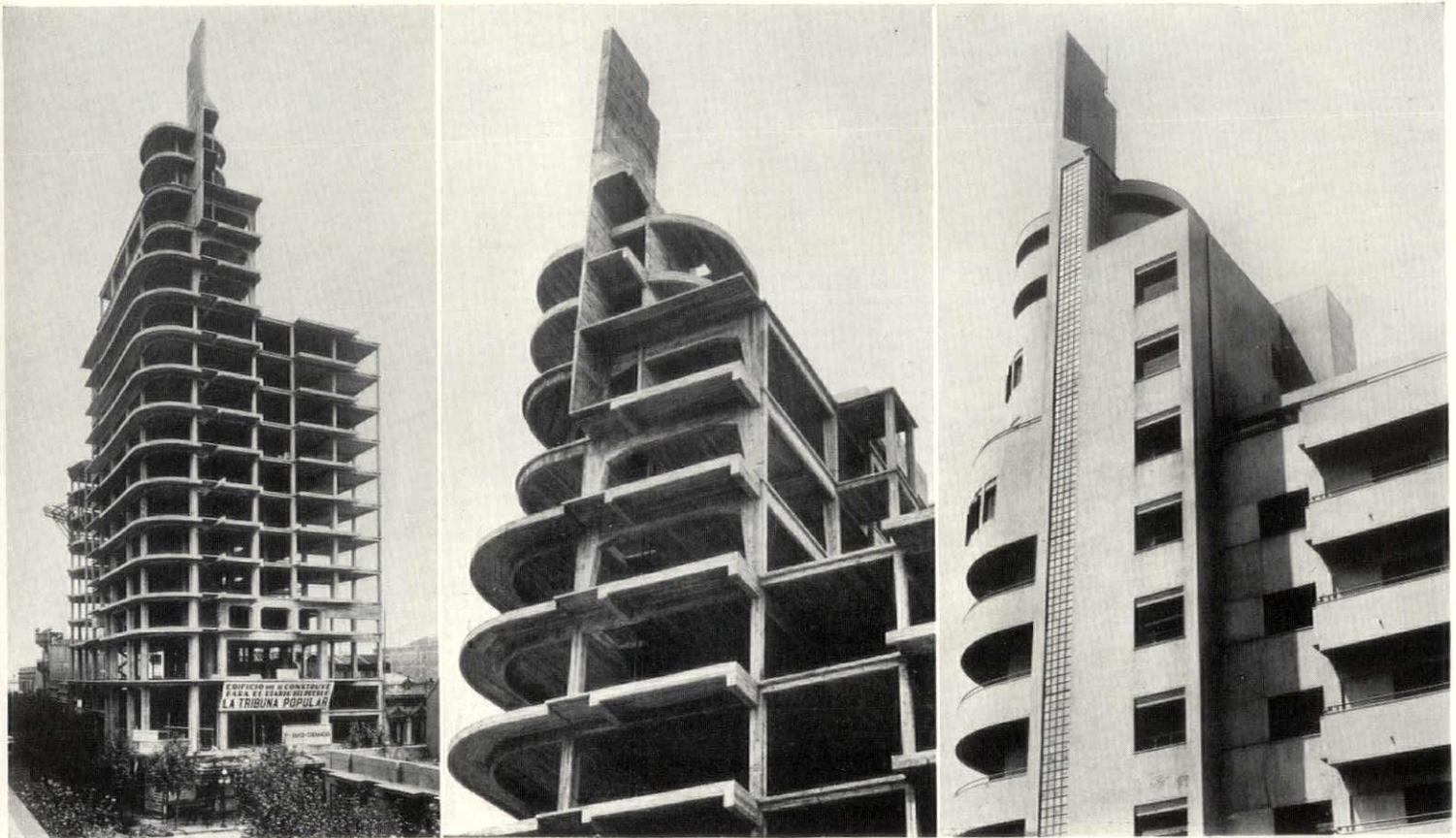


PHOTO: JAEGER



TRIBUNE BUILDING, MONTEVIDEO, VALABREGA, ARCHITECT

PHOTO: BARROS

R. LORENTE ESCUDERO, ARCHITECT



PHOTO: JAEGER

CONSTRUCTION

After the excavation is made for a reinforced concrete building, the grade is covered with a layer of coarse concrete on which the steel bars of the foundations are assembled. The rods are checked by the architect or the concrete engineer before the molds are set in place. Special concrete plans are made showing the location and dimensions of all the steel rods. Molds are made at the shop of the contractor and are brought to the job when the progress of the work requires them. Usually these forms are made according to the concrete plans, in panels that allow easy transportation and assembly at the job. Preferably a very light and soft wood such as poplar is used.

Metal molds are seldom employed. For the manufacture of large quantities of concrete panels for prefabricated houses, however, the metal molds are preferred as they leave a smooth finish which does not require plastering or finishing for interior partitions.

In South America the architect is faced with the problem of heat insulation and the use of brick for exterior wall sections has proved most successful. The South American brick is very porous, irregular, and larger than those used in North America. The surface is therefore very rough, and when brick filling is used for the walls of concrete buildings, it is covered with stucco. For terraces on tops of buildings,

it is advisable to cover the slab with a layer of hollow tile as insulator, filling the joints with mortar and laying the waterproof material on these. The use of stucco does not add insulation qualities to the concrete walls, but does act as weather-proofing.

There are different methods to protect the porous surfaces of concrete, some by merely painting them with a solution of glycerine or oily materials to fill the pores, others by applying a thin layer of cement mortar. The protection of concrete which has proved most successful is stucco. If great surfaces are to be covered, it is advisable to provide joints for about every twenty-five square feet. This will allow a worker to complete a whole panel with continuous work and to produce an even surface with the same mixture. All horizontal moldings projecting from walls should be covered with a waterproof cement stucco as well as the face of the wall immediately over it. This protection of concrete with stucco might be compared to the application of paint to preserve steel. As an example of this we have the Tribune Building in Montevideo in which the feeling of concrete has been kept in spite of the stucco protection. Structures of brick and concrete can also be protected with stucco.

Concrete construction always presents new and different problems in different places and conditions; these are drawn from experiences encountered in South American building.

PINI BUILDING, BUENOS AIRES. A. J. VARANGOT, ARCHITECT

PHOTO: FORERO





The Livingston County Courthouse, Geneseo, N. Y., one of Mr. Bragdon's first important commissions

SALVAGED FROM TIME • III

Extracts from the Autobiography of **CLAUDE BRAGDON**

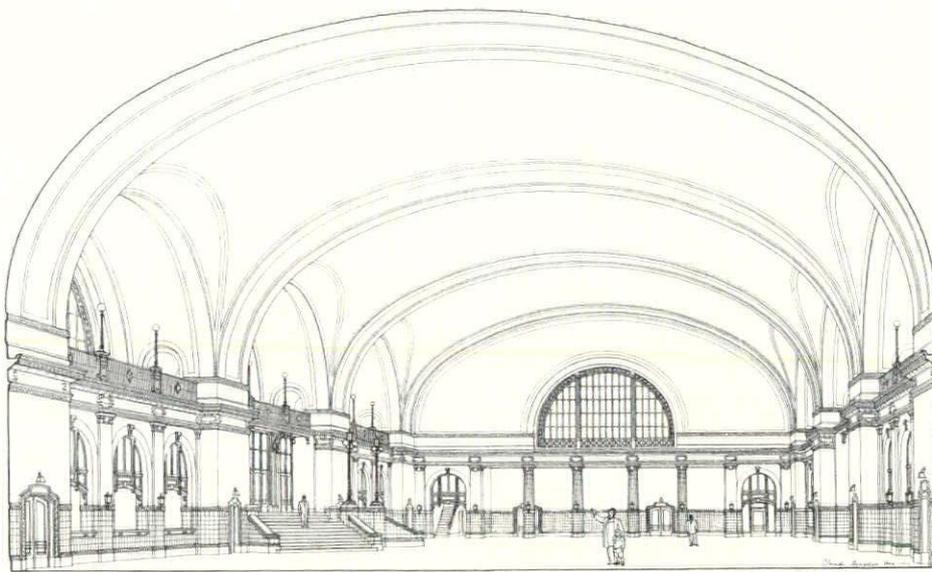
III

I RETURNED to America and to Rochester, the city of my adoption, and engaged in the practice of architecture, this time by myself. My office was not a large one, but I had, so to speak, "the carriage trade." My practice was not confined to Rochester, but extended throughout that section of the State, so that my brother-in-law, Harry Wilkinson, used to call me "A Cosmopolite of Central New York." Two incidents connected with the building of the

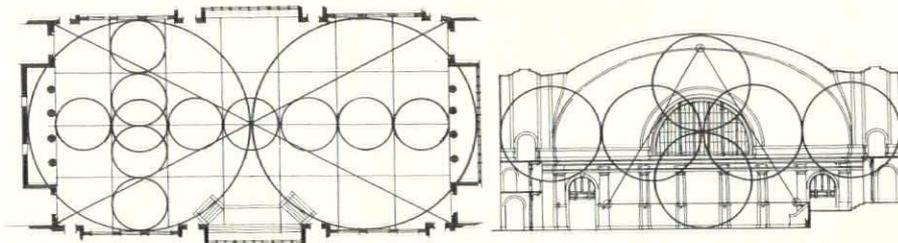
Geneseo Courthouse stick in my memory; one amusing, and the other tinged with the sadness of "old, unhappy, far-off things."

The ceremonies connected with the laying of the cornerstone were put in charge of the local lodge of Masons, at their request. There was a procession down the main street of members in full regalia led by the Silver Cornet Band. With a silver trowel the stone was laid according to an impressive ritual by the Grand Master and his brother Ma-

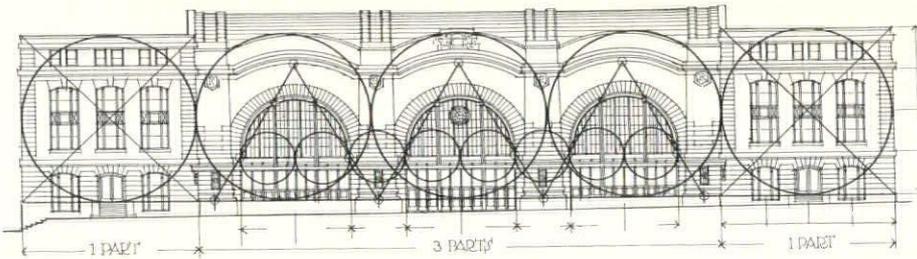
sons; with a silver square and level it was declared to be level, and with a silver plumb-bob, true. But no sooner had the crowd dispersed and the last Mason marched away to the diminishing music of the band than the contractor, Michael Manion, a beefy, red haired, red faced Irishman, in his shirt sleeves and with a three-day growth of stubble on his chin, assembled his helpers and said to them: "Here, boys, let's get hold of this stone and set it *right!*"



INTERIOR OF THE WAITING ROOM OF THE NEW YORK CENTRAL STATION AT ROCHESTER, N. Y.
CLAUDE DRAGON AND THE NEW YORK CENTRAL ENGINEERING DEPARTMENT—ASSOCIATE ARCHITECTS

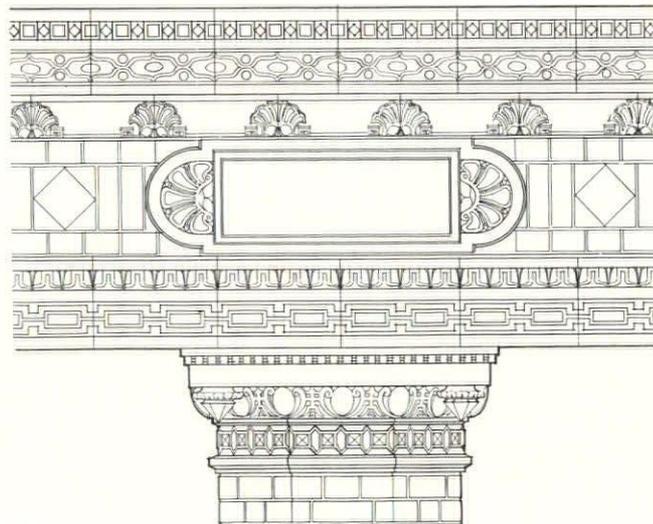


STREET FACADE, ALSO PLAN AND TRANSVERSE SECTION OF WAITING ROOM, OF THE NEW YORK CENTRAL PASSENGER STATION AT ROCHESTER, NEW YORK—CLAUDE DRAGON, ARCHT



THE APPLICATION OF "MUSICAL" RATIOS AND OF REGULATING LINES TO ARCHITECTURE

Above, some of the analytical drawings indicating Mr. Bragdon's search for a "musical" scheme of proportions and one that would suggest a railroad station through the relation of five aligned circles to the driving wheels of a locomotive. At the right is an indication of his efforts to "jaz" canonical ornament—a procedure which he soon abandoned for quests in other directions



I sometimes had occasion to enter the County Clerk's office in Geneseo, for the old building in which the records were housed was being converted into a wing of the new Courthouse. There I sometimes saw a poorly dressed, prematurely old-looking man whose face had the unnatural pallor of a fungus grown in a cellar. "Do you know who that man is?" Judge Coyne once asked me; "that is Ferdinand Ward."

As soon as the curtain has been rung down on some crime or scandal which had usurped the Front Page at the time of its occurrence, the whole thing is finished so far as the public is concerned—the actors are as good as dead from the moment the headlines about them cease to assail the optic nerve. But those people must continue to live on, and here, in this unexpected place, I had happened upon one of them. Ferdinand Ward's sole title to fame lay in the eminence of the man whom he had made his dupe and brought to humiliation and financial ruin—President and General Ulysses S. Grant—for Ward was as sorry a scoundrel as the light of a great publicity ever brought into a court of law. He had served his ten-year sentence in the State Penitentiary, and there he was, performing petty, purgatorial tasks until his "foul crimes had been burnt and purged away." He could not have been more dead, so far as the world was concerned, had the grass been growing on his dishonored grave.

When I was engaged upon the Library and Historical Building in Canandaigua, it was proposed to fit up a room in the basement as nearly as possible like the living rooms of that general locality in Colonial—or rather, post-Revolutionary—times. In order to collect the necessary data I visited every important old house for many miles around. The best ones were not in villages, but along the line of the old post roads. On these and other excursions I often came upon houses of a kind which seemed peculiar to this general locality. These were not as old as the oldest frame houses, but dated probably from the first few decades of the Nineteenth Century. Their peculiarity consisted in the fact that they were built of selected round, smooth stones, about the size of a man's fist, laid in horizontal courses with recessed joints, so that each stone showed a roughly semi-hemispherical face, the exterior angles, door and window heads, jambs and sills being of dressed stone. It would cost a small fortune to construct such a cobblestone wall now-a-days, even assuming it could be done, for the workmanship

impressed me as quite extraordinary.

At intervals along the post roads were houses which in coaching days had been taverns. In one of them I found the original tap-room and bar practically intact. The ballroom of the Eagle Tavern, which used to stand on the corner of East Avenue and Culver Road in what was then the outskirts of Rochester, had a "spring floor" which used to send the dancers higher in the air and facilitate the cutting of "pigeon wings."

There still remains a surprisingly large amount of good Colonial architecture in this part of New York State. Many of the early settlers came from Maryland. They were far other than the ordinary type of pioneer, being men of parts, possessing wealth and culture, and belonging to the class of which Washington and Jefferson were representatives. They resumed, under new conditions and amid different surroundings, the lives to which they had been accustomed. They built houses like the southern houses, kept slaves—which they had brought with them—and each family had a carriage in which its members went visiting in true old southern fashion, sometimes driving fifty miles in order to dine with friends.

In 1894 I contributed three articles entitled "Colonial Work in the Genesee Valley" to the *American Architect*, illustrated with sketches and measured drawings. These were re-published later in "The Georgian Period." The majority of the houses therein described and illustrated by me have since been torn down. This shows, I think, the value of these vicarious labors, inspired by my enthusiasm for these palpable evidences of the simple yet dignified mode of living in that earlier period of our national life.

In 1909 I was appointed architect of the new two-million-dollar New York Central Station for Rochester. This was by far my most important commission. I was anxious—over-anxious—to make the building an illustrious example of architectural art. This caused me to start all wrong: I had in mind to build a monument to the railroad, to the city, and incidentally to myself, just as McKim tried to do in the New York City Pennsylvania Terminal with such lamentable results so far as the travelling public is concerned, for the building is a veritable Temple of Fatigue. What I ought first to have determined to do was to provide a thoroughly practical, economical, and sufficiently handsome structure, expressive, so far as possible, of its function.

Fortunately, when I attempted to cast a railway station in the mold of Sancta



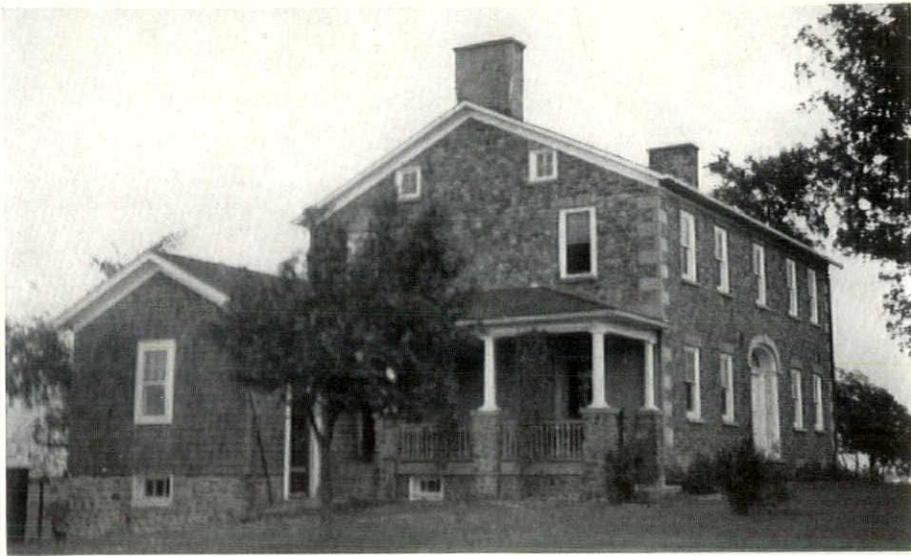
Entrance detail of the Italian Presbyterian Church, Rochester, with sgraffito panel designed and also executed by Mr. Bragdon

Sophia and other famous buildings I saw the folly of such procedure. So next I set seriously to work to develop a thoroughly good *plan*, without too much thought concerning exterior appearance—I could take care of that later on. With the help of the New York Central engineers I arrived at a solution which satisfied both them and me. But I went wrong again in trying to compose a façade out of admired architectural forms and features, however inappropriate they might be. The resultant design looked as much like a city hall, a courthouse, or a post office as a railway station.

Again made conscious of the unsoundness of my method I resolutely put away all my photographs, books, and

plates. Like a *mantram* I repeated over and over to myself: "This is a railway station!" I went down to the New York Central tracks and watched the great locomotives with their long, powerful boilers, squat smokestacks, linked and aligned driving wheels—watched until I *felt* them, until I *became* them in imagination. Then the answer came: there was the archetype of which I was in search!

On a piece of paper I drew five equal, aligned, tangential circles, like the driving wheels of a locomotive engine: the two end ones exactly defined the height and width of the office sections of the station at the right and left of the waiting room, and the three remaining circles circumscribed the



A local type of early Eighteenth Century houses along the old post roads in northern New York, noted by Mr. Bragdon in his search for Colonial architecture of the Genesee Valley



Many of these houses, dating from the early Nineteenth Century, were built of cobblestone laid in horizontal courses between cut-stone quoins

great round-arched windows which gave it light.

The station was built in just that way—of dark brick and brownstone with the ironwork painted the color of cinders. It has at least this merit: no one could possibly mistake it for anything but what it is. On one of my son Henry's first visits to New York we passed the Pennsylvania Station. "What's that building, Father, a library?" he asked.

In the proportioning of the façade and of the waiting room I made use of one of those systems set forth in my book, "The Beautiful Necessity"—what might be called the "musical parallel,"

by reason of the employment of those numerical ratios subsisting between the consonant intervals within the octave, namely: 1 : 2, the octave; 2 : 3, the fifth; 3 : 4, the fourth; 4 : 5, the major third; and 4 : 7, the subminor seventh.

The waiting room is twice as wide as it is high and twice as long as it is wide—the interval of the octave, or, if one prefers to name it so, the shape of a root-four rectangle. There also occur the ratios 2 : 3 and 4 : 7—the fifth and the diminished seventh. The beauty of the proportions of this room have often been remarked, the consensus of opinion being that they are very fine.

Just before the building was opened, when the waiting room was still empty and bare, I took Mrs. Marie Russak on a tour of inspection. A friend of Annie Besant, and herself an occultist of note, she had been an opera singer. As we were standing in a gallery overlooking the waiting room, in her full, powerful voice she ran up the notes of the diatonic scale. At the utterance of a certain note the whole place seemed to become a resonance chamber, reinforcing the tone with a volume of sound so great as to be almost overpowering: the walls, the floors, the entire building seemed to vibrate. "There!" said the singer as the sound died away in overtones, "Now your railway station has found its keynote—now it is *alive*." This was one of the strangest things that ever happened in my experience; I have often wondered whether those musical ratios in the design had anything to do with it.

When the idea of a locomotive as an archetype became firmly fixed in my mind it influenced all my thought. For one thing, I was impressed with the necessity of employing no ornament which antedated steam transportation itself. I found that all architectural ornament in common use was older than the age of steam, therefore I was confronted with the alternatives of eliminating ornament altogether or of inventing it. The first seemed too easy a way out, and the second too difficult for a talent atrophied by continual copying. What I did, therefore, was to deal with some of the canonical ornamental motifs with a free hand, much as a jazz band leader might syncopate or otherwise distort motifs from Beethoven or Bach. This compromise, which never satisfied me, prompted me to undertake an inquiry into the whole subject of ornament in an effort to develop an ornamental mode appropriate to our time and temper. "Projective Ornament" was the result of this quest.

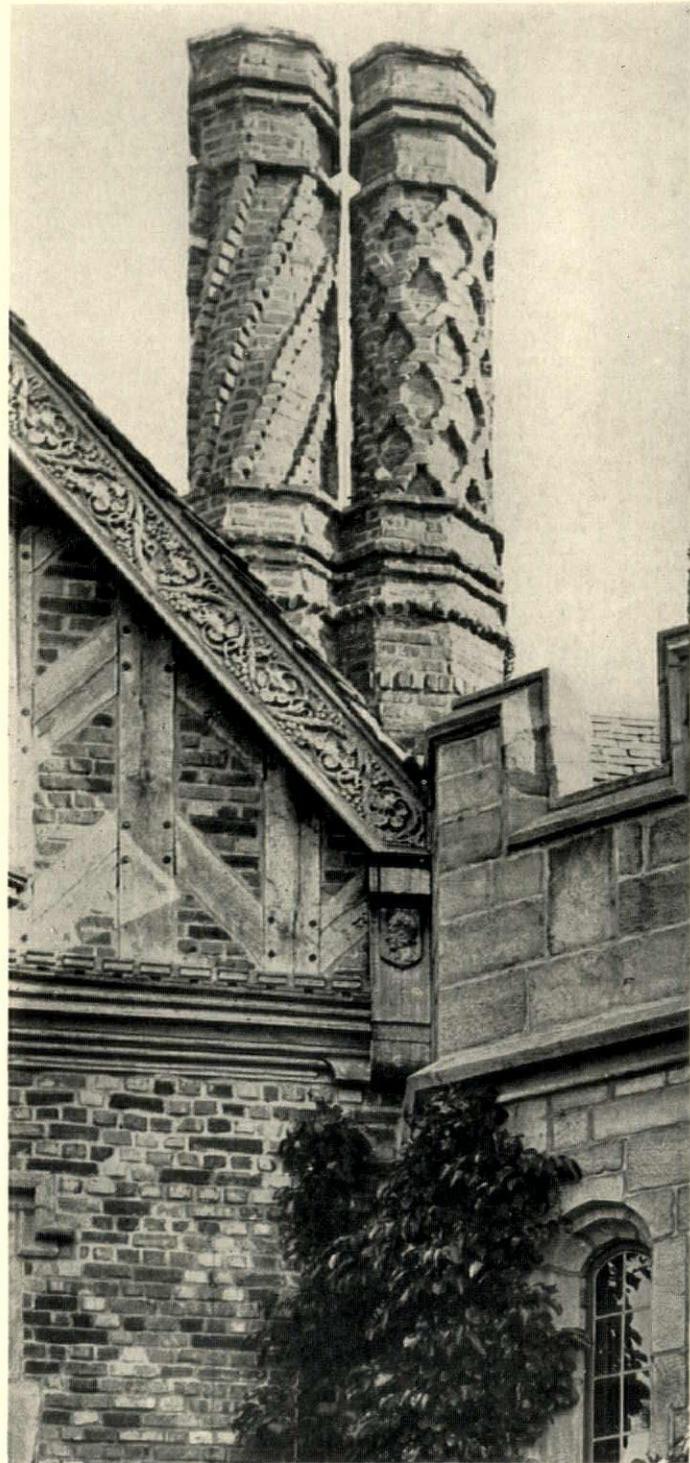
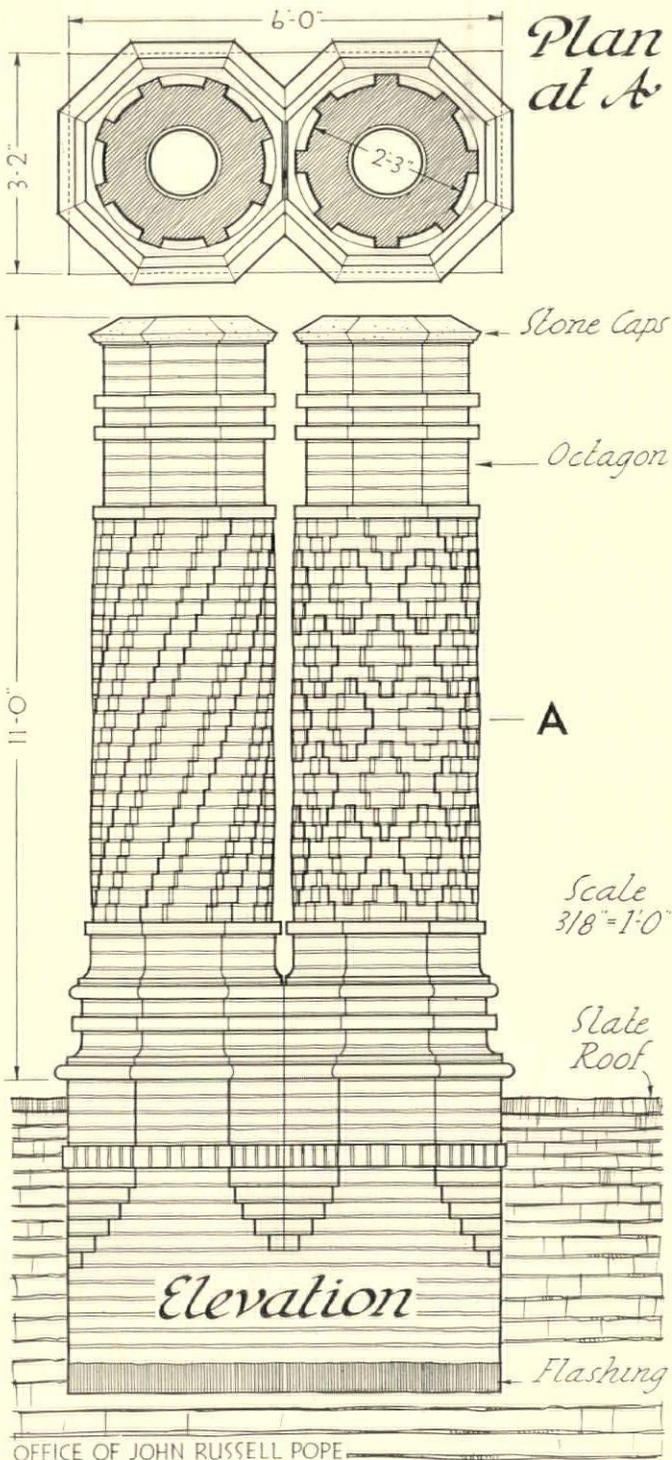
The Rochester Station was opened to the public in October, 1913. I had been almost continuously occupied with it for four years and it was a relief to have this work at last successfully completed. But my greatest thrill came earlier: with the erection of the first of the roof trusses. The lower chord of this truss established the profile of the waiting room ceiling—a five-centered arch. Outlined against the sky it looked beautiful, having exactly the appearance of a true semi-ellipse. At that moment I felt much as Noah might have felt when he first beheld the rainbow in the sky.

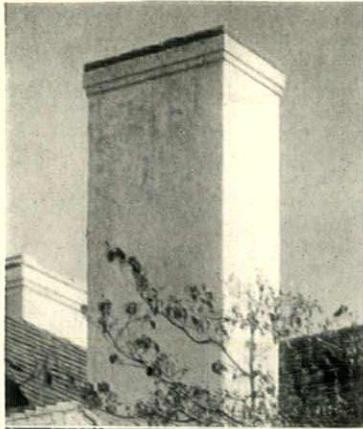
(To be continued)

FAVORITE FEATURES

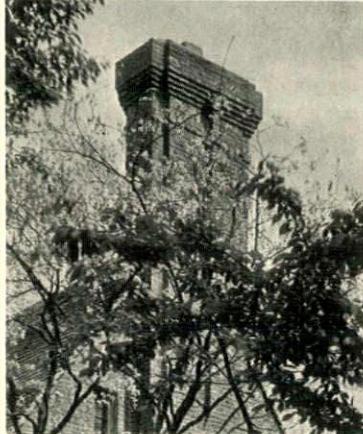
Common problems of design in everyday practice—how the results look and how the drafting-room detailed them

Chimney Caps...

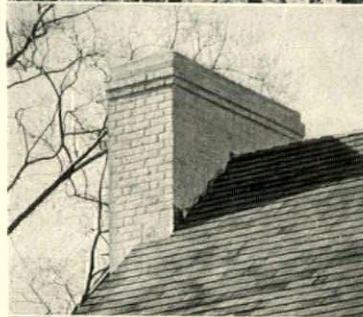




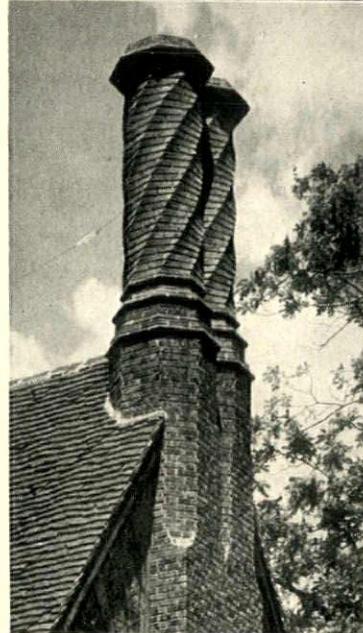
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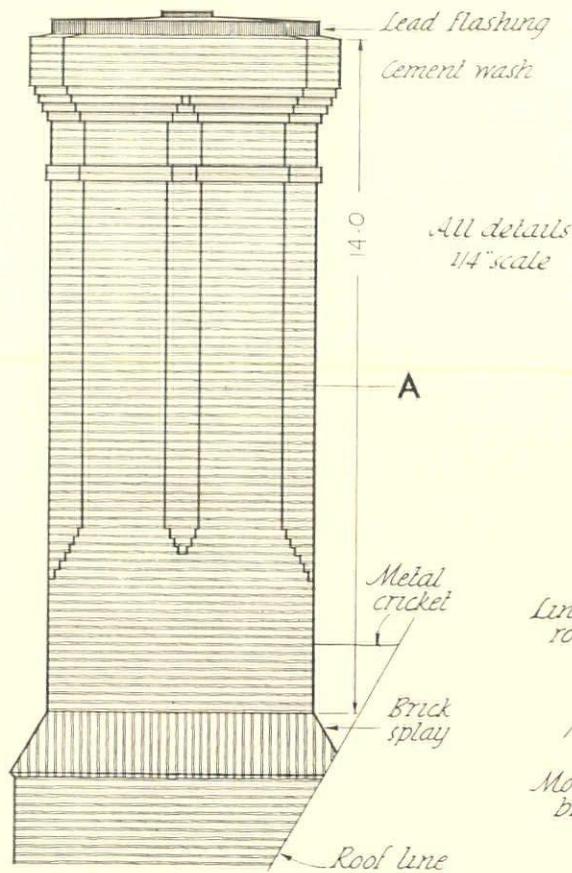
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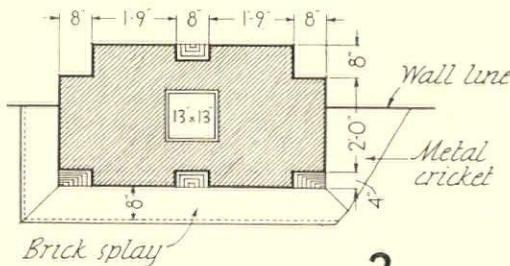
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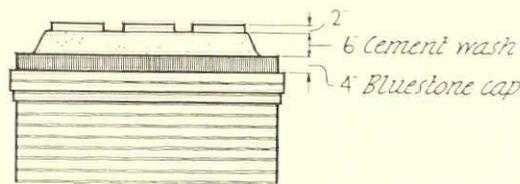


Elevation

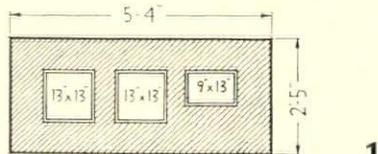


Plan at A

JULIUS GREGORY

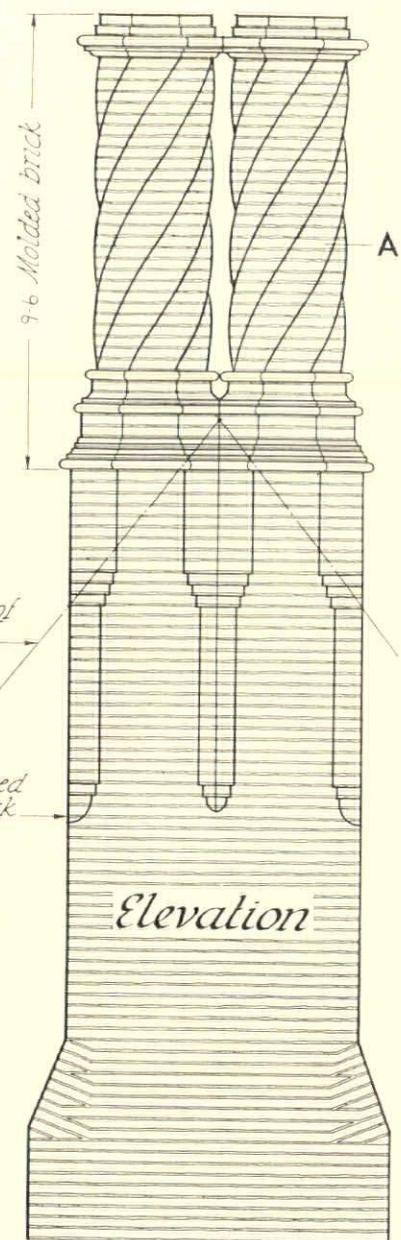


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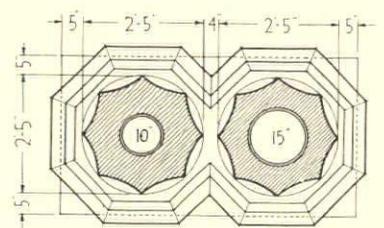


Plan

J BRADLEY DELEHANTY

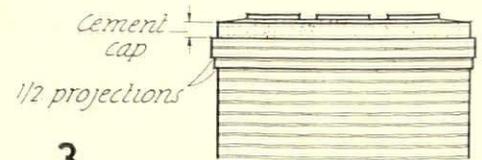


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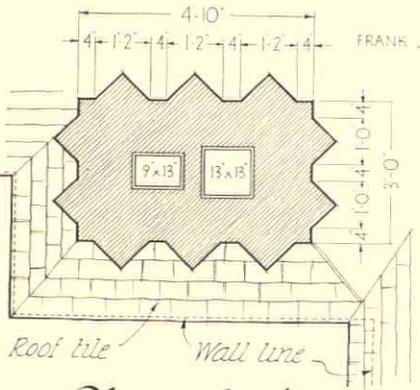
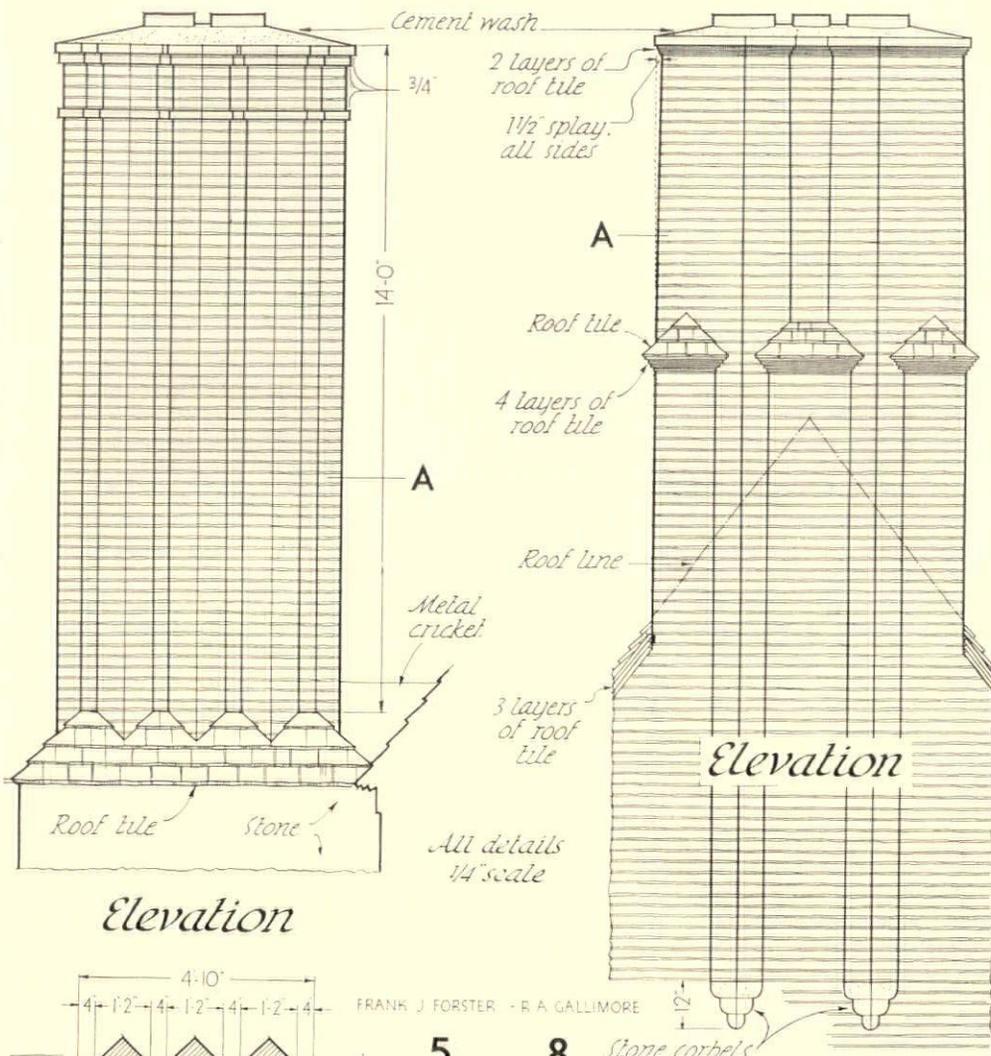
Plan at A

DWIGHT JAMES BAUM

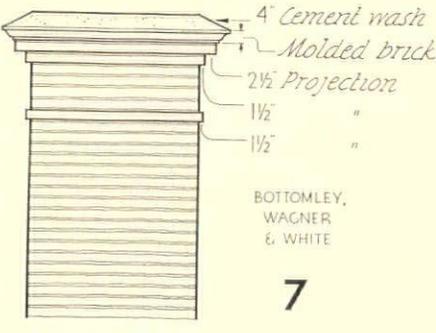


Elevation

ELECTUS D LITCHFIELD



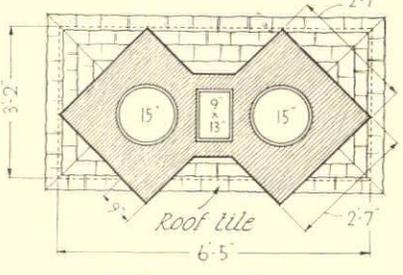
Plan at A



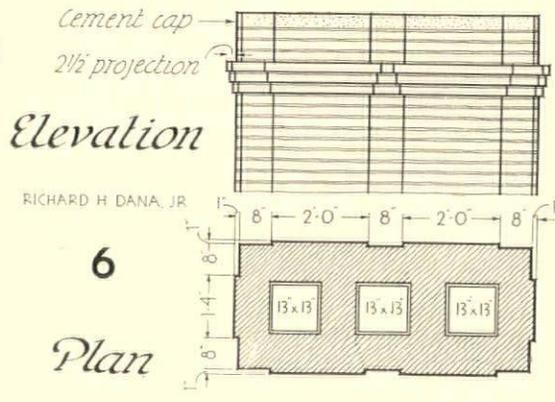
Elevation

BOTTOMLEY,
WAGNER
& WHITE
7

FRANK J FORSTER - E A GALLIMORE
5 8



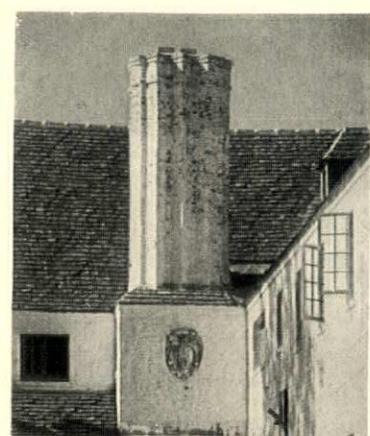
Plan at A



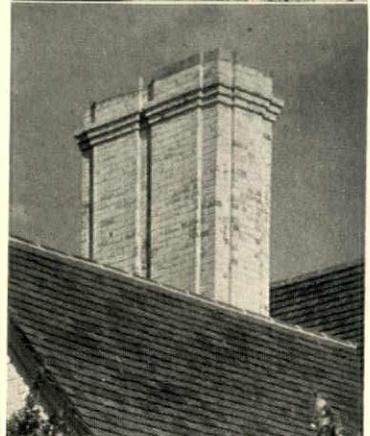
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Plan

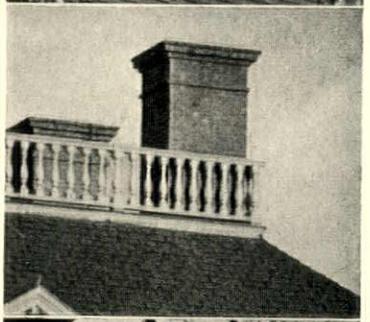
RICHARD H DANA, JR.
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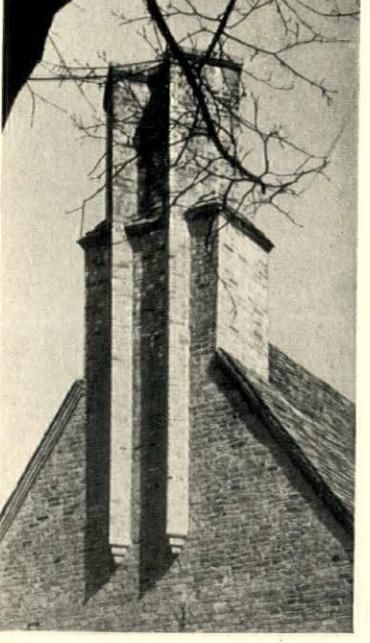
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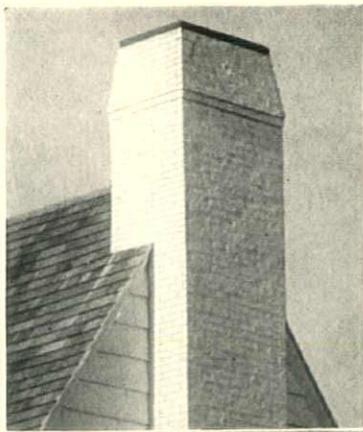
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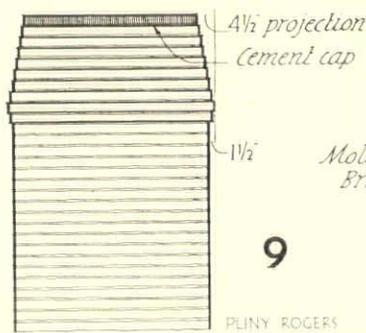
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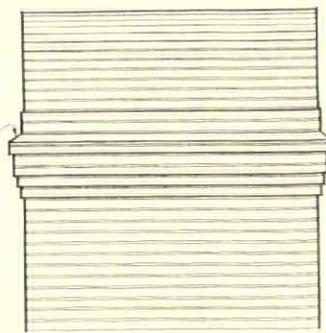


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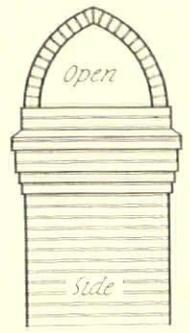


Elevation

PLINY ROGERS

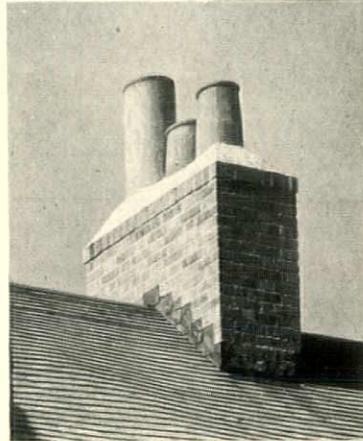


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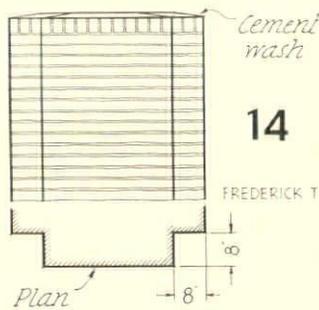


W DUNCAN LEE

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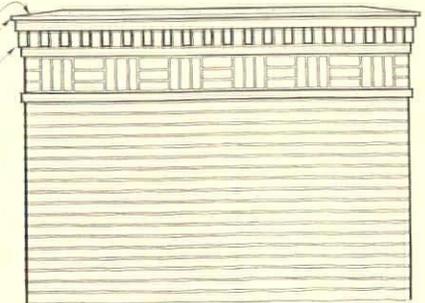
Elevation

All details 1/4" scale

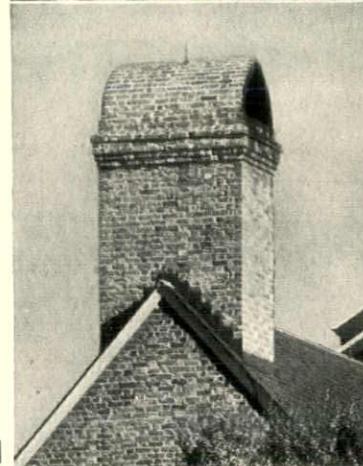
Cement wash
Tile cap
Brick dentils

12

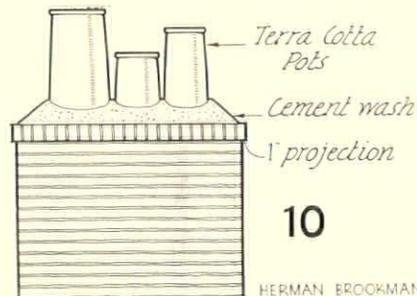
FEARODY, WILSON & BROWN



Elevation

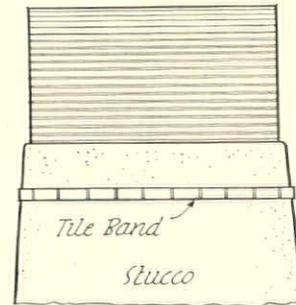


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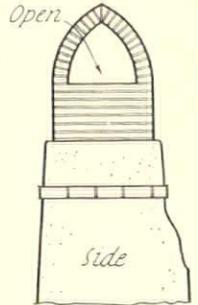


Elevation

HERMAN BROOKMAN



Elevation



HARRY H WHITELEY

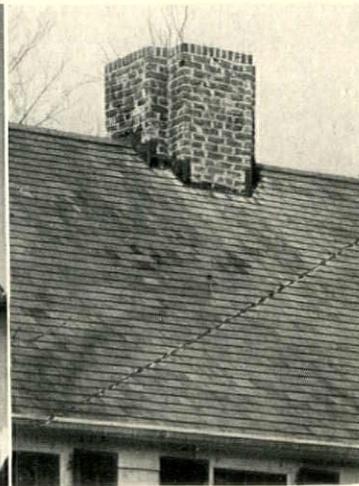
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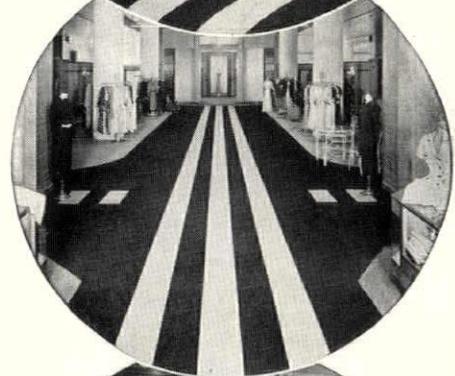


13



14

Favorite Features, initiated in June, 1931, will appear in its enlarged form hereafter. Instead of the unusual and rare achievement, it will bring the details more commonly met in practice, shown by varied and successful examples



"Carpet Counsel most necessary to the solution of Block's carpet problem"

PEREIRA & PEREIRA
ARCHITECTS & ENGINEERS

WE have acted as Carpet Counsel to Pereira & Pereira on many projects. Recently we worked with them on the William H. Block department store in Indianapolis.

Referring to this unusual project, Mr. William Pereira says:

"Block's presented a problem not easy to solve. Their requirements necessitated not only the use of the finest materials, but also a considerable variety. All departments—some carrying delicate merchandise, others exposed to heavy traffic, still others dedicated to unusual conditions, such as the restaurants—had to be studied

for their individual carpet solutions.

"We had the pleasure of seeing our designs executed with great care and understanding. Bigelow's facilities for special design fabrication, as well as their research on commercial carpet, were tremendously advantageous. We feel that their expert advice and great variety of fabric construction were most necessary to the successful solution of the problem."

If you, too, have a problem, may we serve as your Carpet Counsel? Contract Department, Bigelow-Sanford Carpet Co., Inc., 140 Madison Ave., New York, N. Y.





House at Concord, N. H., painted with Cabot's DOUBLE-WHITE; blinds, Cabot's Gloss Collopakes. Henry Otis Chapman, Jr., and Harold W. Beder, Architects.

Not Yellowish—Not Grayish It's DOUBLE-WHITE

Hundreds of architects have found Cabot's DOUBLE-WHITE the most satisfactory white paint that they have ever used. It is made of special pigments which are not discolored by exposure to atmospheric gases. It has greater hiding power and longer life because of the patented Collopaking process, which divides the pigment hundreds of times finer than in ordinary paints. As a result the DOUBLE-WHITE house is whiter when it is new, and stays whiter year after year. **The White Book FREE**—Write today for *The White Book*, containing full information about Cabot's DOUBLE-WHITE, Old Virginia White and Gloss Collopakes. Samuel Cabot, Inc., 1145 Oliver Building, Boston, Massachusetts.

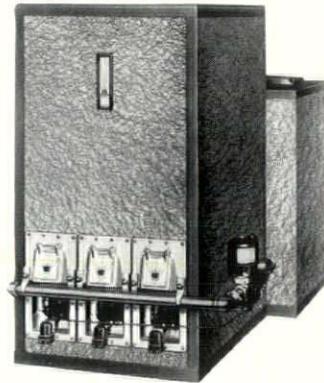
Cabot's **DOUBLE-WHITE** and Gloss Collopakes

House at Greenwich, Conn., painted with Cabot's DOUBLE-WHITE; blinds, Cabot's Gloss Collopakes. Architects, Evans, Moore & Woodbridge, New York City.



TECHNIQUES.. (CONTINUED)

SMALL HOME AIR CONDITIONER



from 61,000 to 153,000 Btu per hour.

A new Sunbeam Gas-fired Air Conditioning Unit for small and average-sized homes has been produced by The Fox Furnace Company, Elyria, O. Like all Sunbeam air conditioners, this unit warms, filters, humidifies and circulates the air in winter, and in summer purifies the air and provides cooling ventilation. If desired, mechanical cooling equipment can be added. Space saving compactness is one of the features of the unit which fits into limited areas. Capacities at register range

711M

PREDESIGNED DUCT SYSTEM

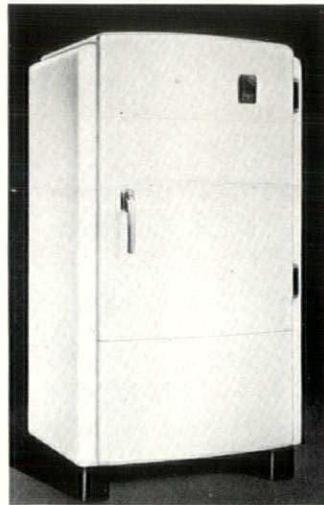


A new duct system to carry air to and from the rooms of a home, and composed of pre-designed stock parts, has recently been placed on the market. Run-outs from the trunk lines to the grilles of this duct system are limited to four sizes, all a single depth to fit a standard 2 x 4 inch partition. These sizes are maintained for the entire run without transformation. Every trunk line is standardized. By means of a newly-developed method of trunk design, the number of stock parts required has been reduced to one standard-sized panel for each depth. If a single depth trunk is used, there is only one part employed, hence better balanced air distribution is claimed. Made by Gar Wood Ind., Inc., Detroit.

712M

REFRIGERATION

REFRIGERATORS



The Hotpoint refrigerator line for 1937 will include three new models—Imperial, Deluxe and Standard. All models will feature the new hermetically sealed unit, called the Thrift Master, which is said to deliver twice as much freezing power as formerly. Another feature is the new Speed Freezer which makes ice cubes and frozen desserts faster than before. All-steel cabinets, gliding shelves and an ever-visible food safety gauge are other features of this new line of refrigerators manufactured by Edison General Electric Appliance Company, Chicago.

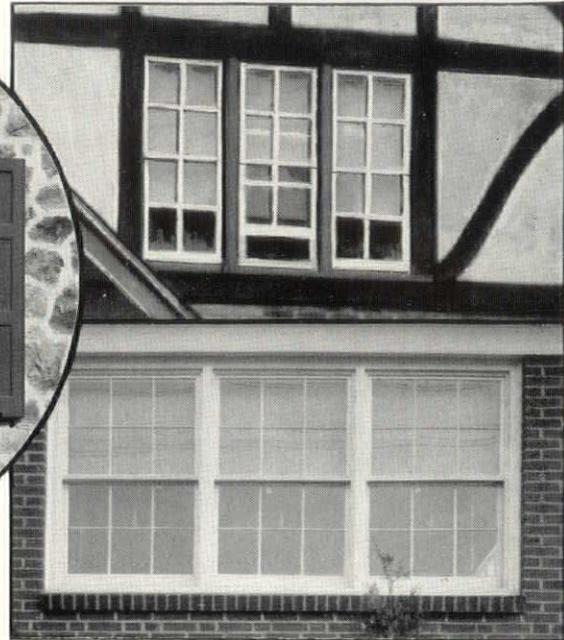
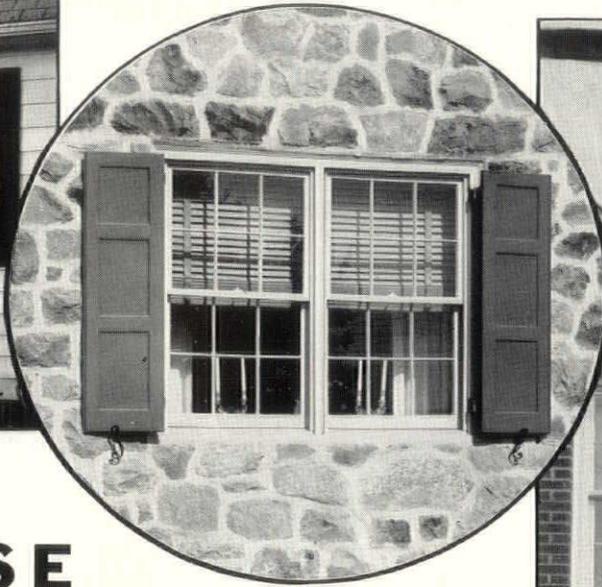
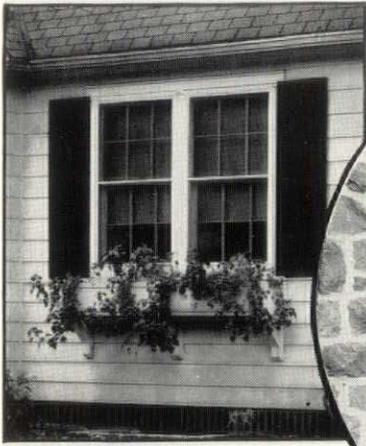
713M

MISCELLANEOUS

ROLLER GUIDE SHOES FOR ELEVATORS

A new type of elevator guide shoe, which produces an action somewhat similar to the "knee action" of an automobile, has been announced by Otis Elevator Company, New York. This shoe consists of rubber-tired wheels, supported by a spring action, which roll silently on the elevator guides. Among its advantages, are claimed quietness, smoothness of operation and economy. No lubrication of guides is necessary.

714M



CHOOSE ANY WALL YOU WANT—

This Frame Fits Them ALL

The outside casing, blind stop, jamb and parting stop are uniform in all *Silentite* double-hung *Windows*. Only the jamb liner and brick mold differ in varying wall types.

By standardizing the parts of the *Silentite* double-hung *Window Unit*, so that one basic frame may be used with any type of wall, Curtis has simplified specifications. Buying is facilitated. Installation is standardized.

The architect also appreciates the value of pre-fit windows. For every part of a *Silentite Window* is precisely machine-fit at the Curtis factories to tolerances usually found only in fine machinery. As a result, installation time and labor are saved; easy, troubleproof operation is assured; while the fitting of frames, windows, trim, storm sash and

screens is controlled by a single responsible manufacturer. Nothing is left to guesswork.

From the standpoint of design, there is no space wasted in *Silentite*. The slim casing, trim and mullions not only assure greater beauty, but make the entire unit a more flexible factor in designing.

Easy to specify and easy to install, *Silentite* is also an easy window to live with. There are no drafts or dust—no weights or cords—no swelling or rattling. Five times more weathertight than the ordinary double-hung window, *Silentite* is insulated for the air conditioning era and is an important fuel saver for any home, large or small.

CURTIS COMPANIES SERVICE BUREAU
DEPT. AA-1, CURTIS BUILDING, CLINTON, IOWA

Send, today, for complete information on the advantages of the *Silentite Window*. The coupon is a convenient way to get the facts.

CURTIS BROS. & CO., CLINTON, IOWA
CURTIS & YALE CO., WAUSAU, WIS.
CURTIS SASH & DOOR CO., SIOUX CITY, IOWA
CURTIS DOOR & SASH CO., CHICAGO, ILL.
CURTIS-YALE-PURVIS CO., MINNEAPOLIS, MINN.
CURTIS COMPANIES INC., CLINTON IOWA
CURTIS, TOWLE & PAINE CO.,
LINCOLN, NEBR., TOPEKA, KAN.

Curtis Woodwork is available through the following distributors:
Allen A. Wilkinson Lumber Co., Indianapolis, Ind.
Rust Sash & Door Co., Kansas City, Missouri
Morrison-Merrill & Co., Salt Lake City, Utah
Hallack & Howard Lumber Co., Denver, Colorado
Campbell Coal Company, Atlanta, Georgia
Jacksonville Sash & Door Co., Jacksonville, Florida
W. P. Fuller & Co., Boise, Idaho; Portland, Ore.;
Seattle, Tacoma, Spokane, Wash.

OTHER CURTIS PRODUCTS: Exterior and Interior Doors • Frames • Trim • Entrances • Moldings •
Pane. Work • Kitchen Cabinets • Cabinet Work • Mantels • Stairways • Shutters • Screens • Storm
Doors and Windows • Garage Doors • Miterite Door and Window Trim



THE "INSULATED" DOUBLE-HUNG WINDOW

CURTIS COMPANIES SERVICE BUREAU, Dept. AA-1
Curtis Bldg., Clinton, Iowa
 Please send me further information on the Curtis
Silentite Pre-Fit Window Unit.
 For information on other Curtis products, as listed
above, check here.

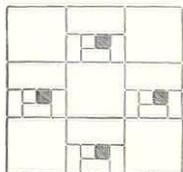
Name.....
Street.....
City.....
State.....

SPARTA MOUNTED TILES

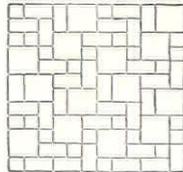
INTRODUCING PAPER MOUNTED CERAMIC MOSAIC ABOVE 2"x2"



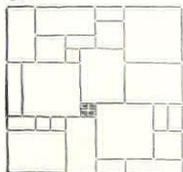
The Christian Science Publishing Building of Boston. Chester Lindsey Churchill, Architect.
PATTERN NO.:



751



301

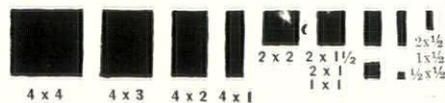


707

Because scale is one of the most important principles of design, architects will welcome Sparta large-size ceramic mosaic tiles (made in sizes up to 4" x 4"). Paper-mounted, set by the FLOATING method, which insures absolute permanence, Sparta large scale tiles cost no more than the least expensive small size ceramics and are infinitely superior to them in design possibilities. Thoroughly tested by use.

Write or telephone for specifications, sketches, samples or suggestions. We cheerfully serve architects in every locality.

Here are the sizes we will mount indi-



vidually or collectively. Try a new pattern with them. The result will please you.

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SPARTA
CERAMIC CO.

110 EAST 42ND STREET, NEW YORK, N. Y.
LEXINGTON 2-1618

HOUSERS HOLIDAY



Warren Vinton, Dr. Edith Elmer Wood and Dr. Joseph of N. Y. U. and Bernard J. Newman



John Ihlder, Sidney T. Strickland, C. F. Palmer and Harold S. Bittenheim



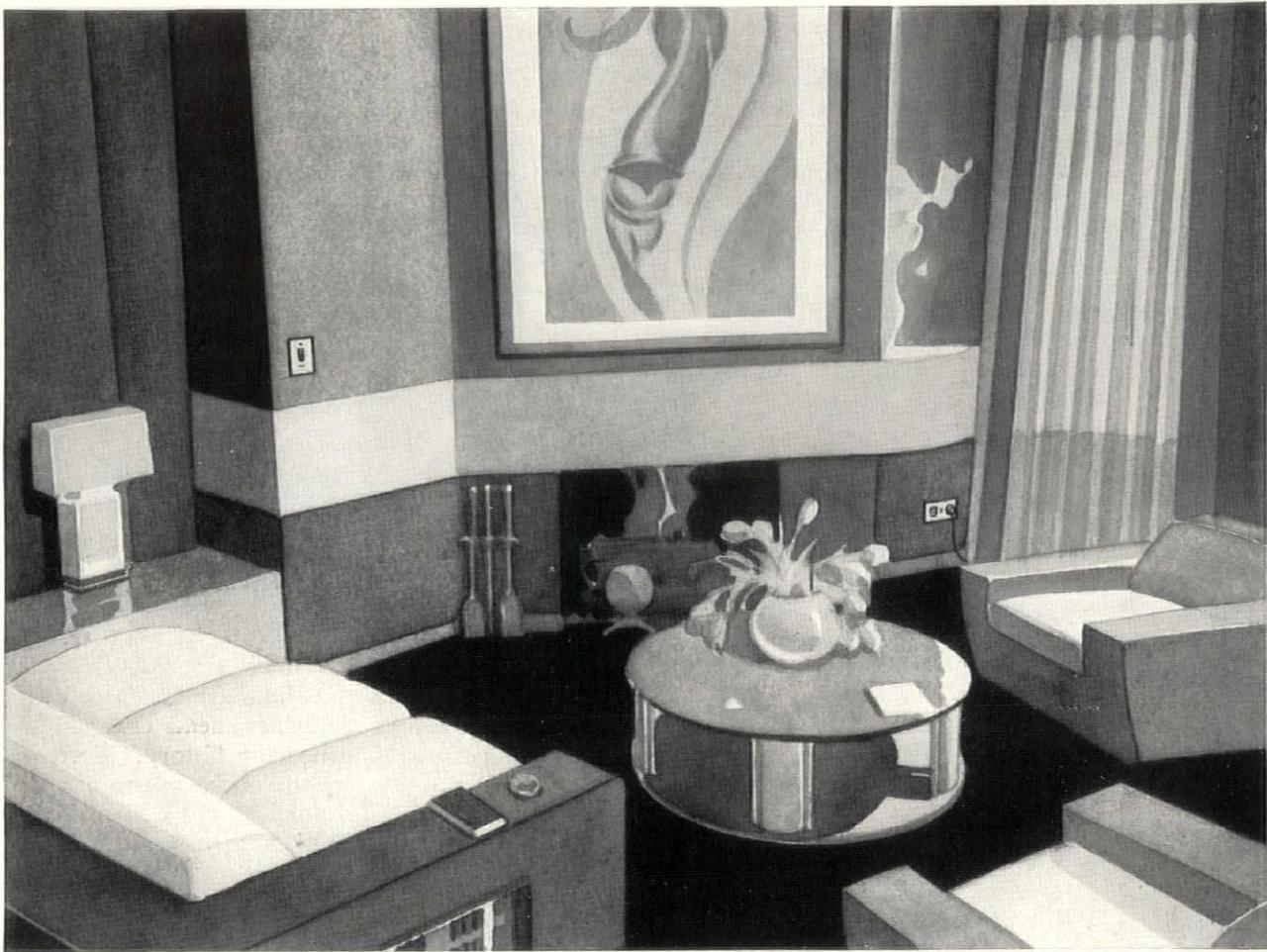
Arthur W. DuBois, Frank Cordner and Eugene H. Klaber

COLEMAN WOODBURY, at the annual meeting of the National Association of Housing Officials, in Philadelphia, Dec. 4-5, summed up in his report, as director, the year's progress in housing. Here is an attempt to stress only the highlights:

In most large cities at least, an appreciable amount of housing is being undertaken once more. Some of it is the more conventional small-house construction, assisted directly or indirectly by the Federal Home Loan Bank or the Federal Housing Administration. A considerable portion, particularly in the larger cities of the east, is apartment house construction which is proceeding according to the old methods.

A sizable amount of direct public housing construction is also under way. PWA projects are being built in thirty-five cities. Of the total of fifty projects, a large proportion is now past the stage of foundations: one is being occupied. The three Greenbelt projects of the Suburban Resettlement Division of the Resettlement Administration are all well advanced. First Houses in New York City have been in operation throughout the year. Hopkins Place, a small development built by the Alley Dwelling Authority in Washington as a

(Continued on page 108)



SPECIFY G-E PLANNED WIRING* ONCE AND YOU'LL ALWAYS SPECIFY IT

The days when electrical wiring could be looked upon as trivial and unimportant in home design are gone forever. Today the value and the comfort of a modern home depend upon its wiring. For only if the wires have sufficient capacity, and are properly laid out, can electrical equipment, appliances and lights perform satisfactorily. Only with the right number of outlets can appliances and portable lamps be conveniently used. Only with the proper switches can modern lighting be conveniently controlled.

Now, as never before, planned wiring is needed — wiring that will assure the home owner of getting full benefits from his electrical equipment. And so architects everywhere are turning to the G-E Radial Wiring System in order that the electrical wiring in the homes they design will be modern and fully adequate. If you are not already specifying the G-E Radial Wiring System, do so for the next house you design. This system of planned wiring is adaptable for every size and type of house. It is adequate for the present and for

the future. Every possible need is cared for. The G-E Radial Wiring System is easy to specify, simple to check during installation and sure to satisfy home owners. Specify it once and you'll always specify it.

For further information about this planned wiring, the G-E Radial Wiring System, see Sweet's 1937 or Time-Saver Standards Catalog or write to Section CDW-901, Appliance and Merchandise Department, General Electric Co., Bridgeport, Conn., for a copy of the G-E Planned Wiring Manual for Architects and Engineers.

(*G-E Radial Wiring System)

GENERAL ELECTRIC

WIRING MATERIALS

APPLIANCE AND MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONNECTICUT

part of its program of slum reclamation, has been completed.

The year 1936, therefore, has seen tangible results from the preceding months of surveying, planning, and talking. None of the results is perfect, and many of them have their severe critics, as might logically be expected.

About the middle of the year HOLC stopped lending, and speeded up the process of transforming itself into a collection and management agency. Holding roughly three billion dollars worth of mortgages on small house property—over one-sixth of the estimated total mortgage indebtedness on this type of property—HOLC is an awesome monument to the building, lending and land development practices that did so much to bring on the worst depression in American history.

In March, 1936, the New York City Housing Authority obtained from the Court of Errors and Appeals of New York State, a particularly significant decision on housing as a public use, and the justification of utilizing the power of eminent domain to achieve it. This decision, coming when it did, immediately after the withdrawal of the Louisville eminent domain appeal to the U. S. Supreme Court, did a lot for the morale of housers.

With many large-scale developments in the medium and low-rent class about to be opened for occupancy, it is interesting to note that every large-scale development in the country with substantial government participation, and which has been opened for occupancy a reasonable period of time, is now practically one hundred per cent rented.

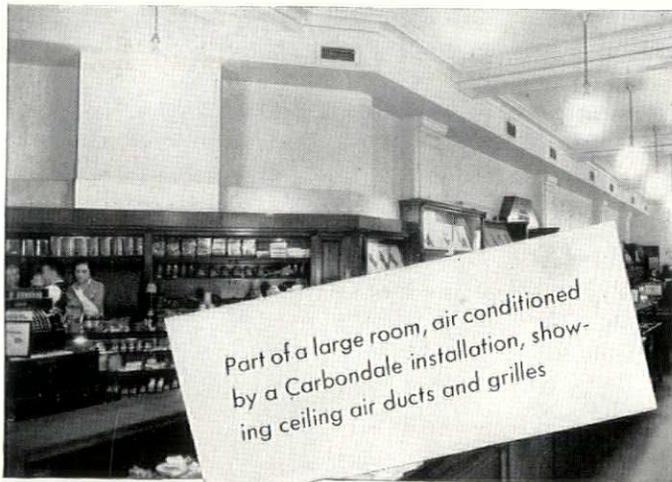
A lot has been written and said during 1936 about minimum housing standards. The question is not entirely a tech-

nical matter. It involves an entire philosophy. On the one hand, one may believe that the most that should be sought in twentieth century America as minimum low-cost housing is bare shelter and sanitation. At the other end of the scale there are those who believe that the resources and abilities of the country make possible moderately comfortable and safe housing, arranged in neighborhoods with some of the amenities of civilized life, and with protection from the rapid deterioration which has attacked nearly all such residential districts in the past.

The year 1936 surely will be noted as the first year in which a branch of Congress approved a bill calling for direct Federal assistance and subsidy in a long-term program for low-rent housing—the Wagner Bill, passed by the Senate.

In summing up the activities of 1936, official housing agencies advanced a little. They were hampered by lack of a clear-cut program. Occasionally they got in each other's way. During a large part of the year their fair-weather friends had decidedly cold feet. The slow steps of the official agencies were particularly exasperating to those who saw a general housing shortage tightening down on the cities, and who feared that without more spectacular progress most of the agencies would be swept aside in favor of more drastic attempts to provide shelter of some kind. On the other hand, we can see in the record of 1936 some few achievements that will undoubtedly remain as landmarks in housing history. Moreover, we can sense within the last few weeks the return of an intellectual climate undoubtedly favorable to the development of a sensible comprehensive program fitting together both official activity and private enterprise in housing.

Get ready for 1937 AIR CONDITIONING



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Carbondale specialists, with their exceptionally broad background of experience, stand ready to discuss your needs, advise and estimate costs, without obligation.

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WASHINGTON



WORK-SAVERS

Never duplicate on dimensions unless absolutely necessary. Put no more figures on the $\frac{1}{8}$ - or $\frac{1}{4}$ -inch plans than are essential for the general laying out of the work on the job if there are larger scale drawings for special portions. Rather than duplicate, it is better to make a note on dimension lines such as: "See dimension on Drawing 7." Then if you make a change it will not be necessary to go through the entire set of plans to make all drawings agree. When a change is made go through all drawings affected *at once*, either altering the figures or putting circles around those which are incorrect.

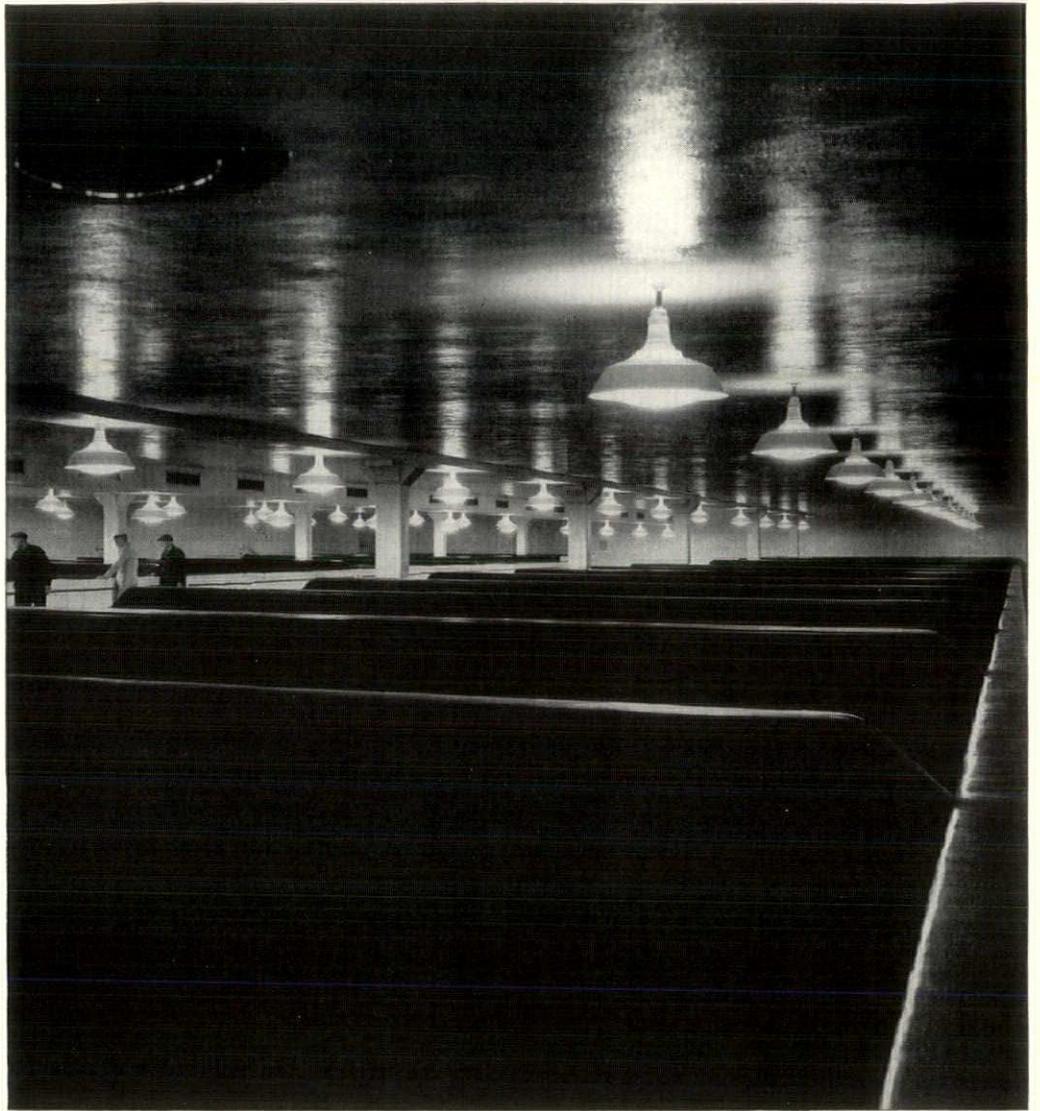
GERALD K. GEERLINGS.

YOU can make an effective rendering in line only and without shadows. But you *cannot* get along without a first-class pencil, regardless of your technique. The drawing above was made entirely with an HB Microtomic Van Dyke Pencil, exactly the reproduced size, on an egg-shell finished illustration board. To show the client what the entrance of his house will look like, trace freehand over the $\frac{1}{4}$ -scale elevation. The suggestion of flagging, forecourt wall, magnolia tree, and vista into the hall and bedroom above can be done with an economy of line and effort by using the precise, dependable Microtomic Van Dyke Pencil. As you know, they come in 18 degrees.

MICROTOMIC VAN DYKE PENCIL

EBERHARD FABER





BEER-TIGHT CONCRETE FOR ANHEUSER-BUSCH

Concrete brew-storage tanks for new stock-house at Anheuser-Busch's St. Louis plant had to be strong, dense, thoroughly cured—as watertight and impervious as a piece of finely glazed china. Work started with ordinary cement, but cold-weather strengths were unsatisfactory. So Leonard Kehr, architect and engineer, authorized Borsari Tank Corporation to switch to 'Incor', the improved Portland cement which cures or hardens in one-fifth the usual time.

With 'Incor', 7-day strengths averaged 3500 lbs., amply exceeding Mr. Kehr's 3000-lb. requirements. And because 'Incor' combines with water five times as efficiently as ordinary cement, the thoroughly cured concrete is dense and impervious—tight as a drum.

When the thermometer goes down, concreting costs go up. Expensive heat-protection, slower re-use of forms, freezing risks, delayed completion—four sound reasons for switching to rapid-hardening 'Incor' on work now in progress. Write for free copy of new book, "Winter Construction"—address Lone Star Cement Corporation, Room 2211, 342 Madison Ave., New York . . . 'Incor' and Lone Star Cement sales offices in principal cities.

*Reg. U. S. Pat. Off.

'INCOR' 24-HOUR CEMENT

NEW CATALOGS...

Readers of AMERICAN ARCHITECT and ARCHITECTURE may secure without cost any or all of the manufacturers' catalogs described on this and the following page by mailing the prepaid post card printed below after writing the numbers of the catalogs wanted. Distribution of catalogs to draftsmen and students is optional with the manufacturers

Floor Finishing and Maintenance

63 . . . A new 64-page manual issued by Midland Chemical Laboratories, Inc., Dubuque, Iowa contains information on the treatment and maintenance of the various types of floors, including wood, terrazzo, rubber tile, composition, asphalt, linoleum, marble, tile, concrete, etc. A chapter outlining the characteristics of some commercial woods is also included. Filing size; A. I. A. File 23-i.

Stainless Steel

64 . . . A booklet (ADV. 142) giving general information on Enduro Stainless Steel and illustrating many of its important applications has been released by Republic Steel Corporation, Cleveland, Ohio. Included are a chart listing the analyses and detailed properties of 13 of the principal types of Enduro and a table setting forth the degree of corrosion resistance of four leading types.

Air Conditioning

65 . . . "This New Comfort—Air Conditioned" is the title of a new 28-page consumer brochure issued by American Radiator Company, New York. It describes in detail the seven comfort features provided by American Radiator Conditioning Systems and outlines in plan various types of radiator heating systems which can be used as part of a complete American Radiator Conditioning System.

Non-Ferrous Nickel Alloys

66 . . . A new booklet describing the solution to many actual metal problems as encountered by the engineer has been issued by The International Nickel Co., Inc., New York. Containing 48 illustrated pages, this booklet has been prepared primarily as a guide to Monel and other non-ferrous nickel alloys in the fields of engineering applications, such as hydro-electric and steam power plants, highway maintenance, sewage disposal, refrigeration, etc.

American Walnut

67 . . . "The Story of American Walnut" (Eighth Edition) has just been published by American Walnut Manufacturers Association, Chicago. Habitat, botany, physical and mechanical properties, veneering and construction, its use in decorative composition, are subjects discussed. An illustrated account of characteristic figure types is included.

Fire Protection System

68 . . . The Rockwood Dualguard Fire Protection System, which combines the functions of a sprinkler system with a sensitive heat detecting system, is illustrated and described in a large-sized brochure issued by Rockwood Sprinkler Company, Worcester, Mass.

Water Tube Boilers

69 . . . Ratings, dimensions, mechanical specifications, sectional details and complete descriptions of the Mills Water Tube Boilers are contained in an illustrated booklet (Catalog No. 1566) issued by The H. B. Smith Company, Westfield, Mass.

Flue Pipe

70 . . . Johns-Manville, New York, has made available a 20-page brochure describing J-M Transite Flue Pipe, an asbestos-cement product for venting domestic gas burning appliances. Detail drawings showing how to install this pipe in various types of construction, photographs of actual installations, tables of weights and prices, are included in its content.

Water Works Specialties

71 . . . Various types of water works specialties, including cast-iron pipe, socket fittings and clamps, dresser couplings and sleeves, valves, indicator posts, and fire hydrants, are cataloged in a 28-page booklet (Catalog 1) issued by Grinnell Company, Inc., Providence, R. I. Ratings, dimensions and list prices are given.

Lighting Fixtures

72 . . . Chase Brass & Copper Company, Inc., Waterbury, Conn., catalogs its line of commercial lighting fixtures in a 16-page booklet (Edition C-1). A six-page broadside supplement illustrates a number of new Chase residential lighting fixtures. Filing size; A. I. A. File 31-F-232.

Hard Maple Flooring

73 . . . A four-page service folder has been issued by Maple Flooring Manufacturers Association, Chicago, for use by architects and others when discussing flooring grade requirements with clients.

Oil Burning Boiler

74 . . . The Pierce Oil Burning Boiler No. 2 designed for larger buildings is illustrated and described in a four-page catalog issued by Pierce Butler Radiator Corp., Syracuse, New York.

Comfort Cooling Equipment

75 . . . Bulletin 1119 published by Carbondale Machine Corporation, Harrison, N. J. illustrates some of the air conditioning installations made by this company.

Welding

76 . . . Air Reduction Sales Company, New York, has published a 20-page filing-sized catalog (Form ADG 1047) which contains a practical demonstration of gas and electric welding and hand and machine gas cutting, including latest developments in applications and equipment.

NO POSTAGE REQUIRED ON THIS CARD

AMERICAN ARCHITECT and ARCHITECTURE

January, 1937

New York, N. Y.

Please have the following catalogs reviewed in this issue sent to me.
Numbers

• I also desire further information about the new products described in this month's "Techniques." . . .

Numbers

• I would like to have catalogs and information concerning the following products advertised in this issue. (Write page number or name.)

Check here for FREE copy of "WHEN YOU BUILD" booklet.

Name

Firm name

Address

City

Occupation

These NEW Catalogs may be obtained through

AMERICAN ARCHITECT and ARCHITECTURE

Redwood Lumber

77 . . . Publication 509-R released by California Redwood Association, San Francisco, California, contains standard patterns of worked redwood lumber, including T & G partition, ceiling and flooring; shiplap and rustic; drop siding; bevel and bungalow siding; anzac and log cabin siding; sills, wall boarding, grooved roofing, etc.

Automatic Sewer Valve

78 . . . The McClintock Automatic Hydraulic Sewer Valve is illustrated and described in an 8-page, filing-sized catalog issued by O. B. McClintock Company, Minneapolis, Minn. Details of a typical installation and information on how the unit operates are given.

Gate Valves

79 . . . Bulletin 47 issued by The Kennedy Valve Manufacturing Co., Elmira, New York, describes a new line of fully bronze-bushed standard iron-body wedge gate valves. It contains sectional views of the valves, with references to outstanding features of design.

Floodlights

80 . . . Closed, open, special and underwater floodlights, searchlights and accessories are completely described and illustrated in Catalog 316 issued by Crouse-Hinds Company, Syracuse, New York. Installation suggestions, calculation data, and information on other miscellaneous lighting equipment are included.

Air Conditioning

81 . . . Gar Wood Industries, Inc., Detroit, Michigan, presents data on its Tempered-Aire Air Conditioning Systems in a 16-page brochure (Form B431) recently published. Also included is brief information on the GarWood Indirect Air Conditioning System.

Glass and Fibre Products

82 . . . In an interesting 20-page brochure Corning Glass Works, Corning, New York, presents certain highlights of its progress in glass-making together with descriptive data on its newly developed Corning Fibre Products.

Building Paper

83 . . . An illustrated four-page folder issued by Angier Corporation, Framingham, Mass., describes the features and advantages of Brownskin Resilient Building Paper in building construction. Filing size; A. I. A. File 19-G.

Cast-Iron Heating Units

84 . . . A general catalog (Form 219) of information on the National-Williams Oil-O-Matic Cast-Iron Units, which incorporate a Williams Oil-O-Matic Oil Burner in a National Boiler, has been released by National Radiator Corporation, Johnstown, Pa. Included are sectional and dimensional drawings, ratings, and other pertinent data.

Venetian Blinds

85 . . . The features of Wilson Venetian Blinds are briefly outlined and illustrated in a six-page folder recently issued by The J. G. Wilson Corporation, New York.

Home Air Conditioning

86 . . . The features of the Hold Heet System of Home Air Conditioning are fully described in a six-page catalog (No. 836) issued by Russell Electric Co., Chicago.

Insulating Wool

87 . . . Descriptive and specification data on Red Top Insulating Wool is contained in a new 16-page catalog (IW-24) issued by United States Gypsum Company, Chicago. An actual sample of the material is included with each booklet.

Air Conditioning—Space Heating

88 . . . Complete air conditioning, refrigeration and space heating equipment for industry, business and the home is illustrated and described in a new 16-page bulletin (CE-100) issued by Carrier Corp., Newark, N. J. Capacities, ratings and diagrams are included. Filing size; A. I. A. File 30-F-1.

Duplex Wiring Receptacle

89 . . . Complete data on the features of the improved Bryant Duplex Receptacle are contained in a new four-page catalog issued by The Bryant Electric Company, Bridgeport, Conn. Filing Size; A. I. A. File 31-C-71.

Sash Pulleys

90 . . . The Stanley Works, New Britain, Conn., has published a twenty-page booklet (Catalog No. 1) showing the complete line of Stanley Sash Pulleys offered by the Pressed Metal Division of the Company.

Automatic Coal Burner

91 . . . Stoker Division, Pocahontas Fuel Company, Inc., Cleveland Heights, Ohio, describes and illustrates its O. P. Automatic Coal Burner in an 8-page catalog recently released.

Oil Furnace

92 . . . A four-page catalog (Form 411) issued by Scott-Newcomb, Inc., St. Louis, Mo. gives facts about the S-N Oil Furnace.

Coupled Pumps

93 . . . The Cameron Pump Division of Ingersoll-Rand Company, has just issued Bulletin No. 706. It covers its line of Coupled Pumps of capacities from 150 to 5000 gpm against heads between 20 and 250 feet. The bulletin shows many views of pump installations, as well as the construction details of these units.

Plywood Deflection Charts

94 . . . Deflection charts for use in selecting the most economical thickness of Douglas Fir Plywood for concrete forms, subflooring, sheathing and other structural use are contained in a 6-page folder issued by Douglas Fir Plywood Assn., Tacoma.

Flexwood

95 . . . "Flexwood News and Views," issue No. 5, gives much interesting data about various types of Flexwood and shows some striking illustrations. Flexwood of California Redwood is prominently featured. The booklet is offered by Flexwood Division, United States Plywood Co., Inc., New York.

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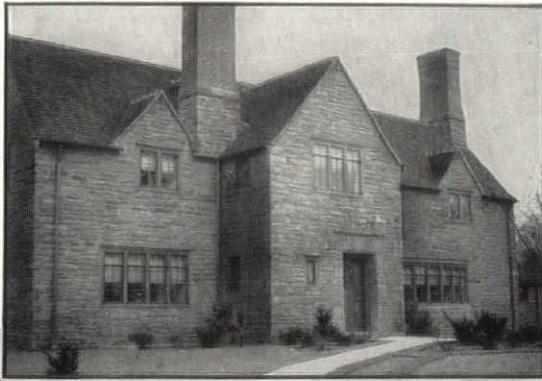
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NEW CARRIER INSTALLATION

Just Completed! In mid-December, George V. MacKinnon, Pres. John B. Stetson Co. Philadelphia, moved into this new home designed by Architects Carswell, Berninger & Bower and completely winter air conditioned by Carrier. Unit used is adaptable to large or small homes.

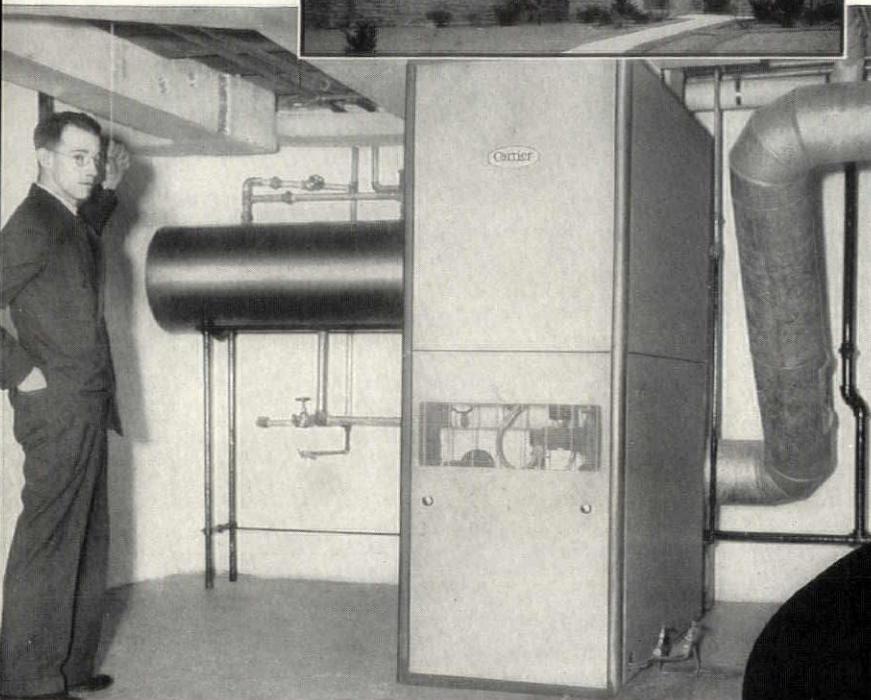


Makes News in Philadelphia

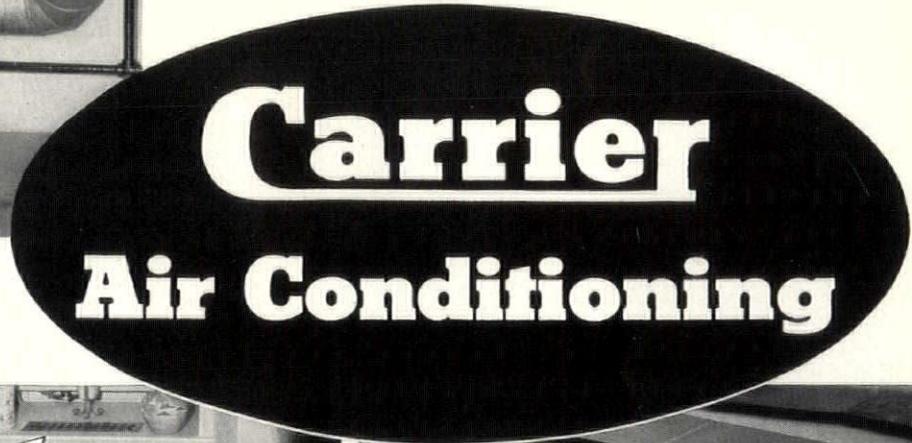
THE new complete line of Carrier Air Conditioning and Automatic Heating equipment for the home, is the big news for 1937 in the home field. It takes its place among the many outstanding achievements by Carrier*—the same engineering organization that has accomplished such famous installations as those in Radio City, the U. S. Capitol, the Queen Mary, Macy's, the Waldorf-Astoria, Child's, and overseas in a Sultan's harem, a ruler's palace, mile deep mines.

This new equipment brings within the reach of the lower and medium priced home builder a new standard of comfort, a new safeguard to family health and happiness. Specifically, the unit operating in this home provides even distribution of clean, fresh air, automatically temperature controlled. Year round hot water. Concentrated radiator heat at any desired point. Controlled humidification.

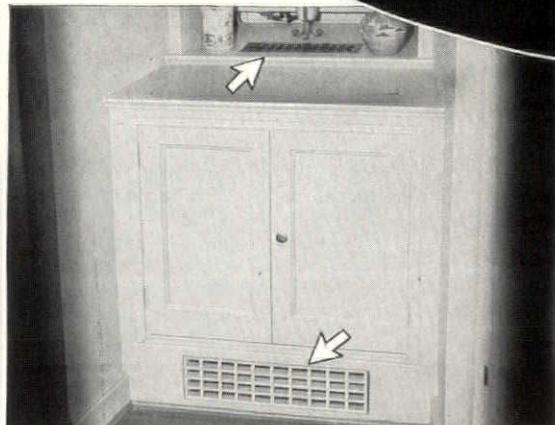
Mail the coupon below for full information on all Carrier home equipment.



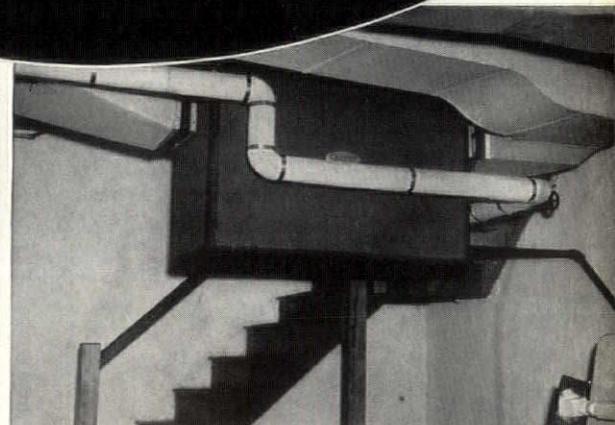
The Works. See how neat and compact is this new Carrier unit, what head room basement affords. Clean, fresh properly humidified air is circulated all winter long, with hot water available the year round. This unit is oil-operated. Similar units for gas operation, too. Summer air conditioning can be added at any time at reasonable cost.



Puzzle . . . Find the Grill. Without the aid of the arrow, you'd never know where to look. Concealed grills like this give positive air motion, even heat distribution, without hot and cold spots. Flexible duct connections are especially constructed for sound absorption.



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Extra Unit. This home is large enough to warrant a separate air conditioning unit and duct system for the servants' quarters. While operating on the same heating plant, this extra system assures complete elimination of cooking odors, etc., from living quarters of the house.

PHOTOGRAPHS BY WALTER ENGEL, PICTURES, INC.

***WILLIS H. CARRIER** in 1911 founded the new industry when he disclosed the Carrier law of Air Conditioning to the American Society of Mechanical Engineers, and began making air conditioning installations.



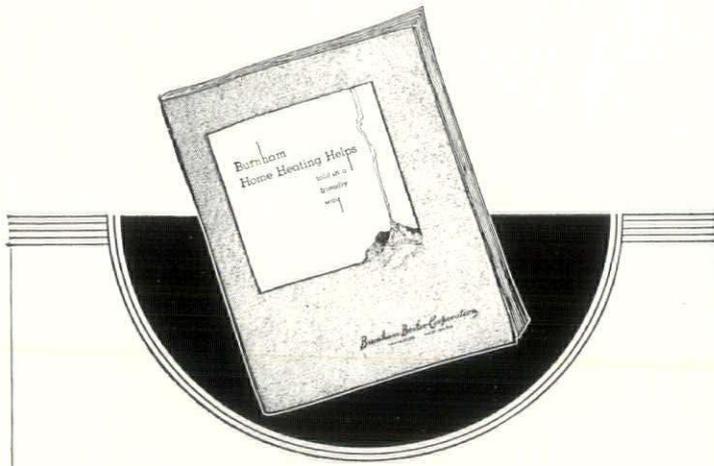
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To use one architect's comment: "It certainly has helped us to take the cuss out of heating ping-pong with both those who think they know all about heating, and those who frankly admit they don't know a thing."

If therefore, you have any clients you feel this Home Heating Helps Book would be of assistance to, send us their names and along it will go. Or if you prefer, we'll gladly send it to you for placing in their hands.

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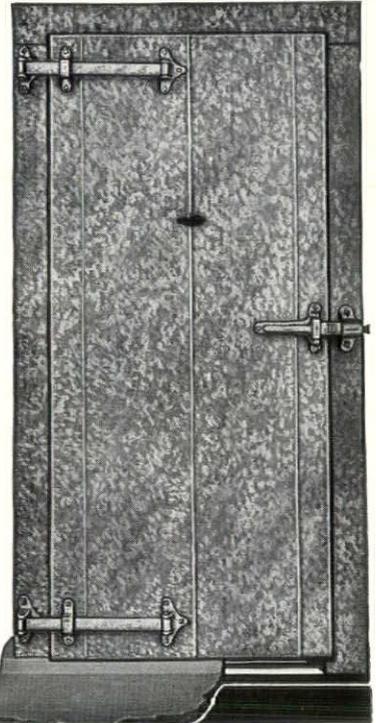
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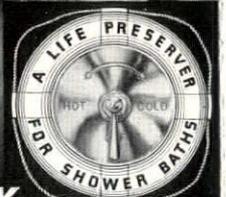
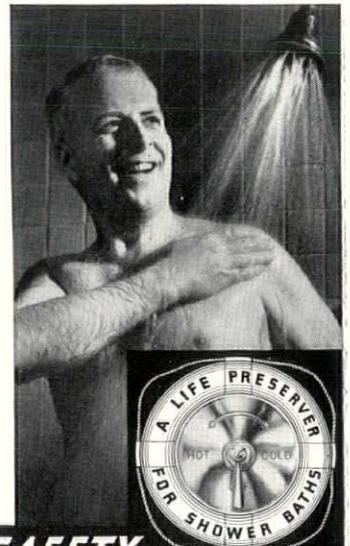
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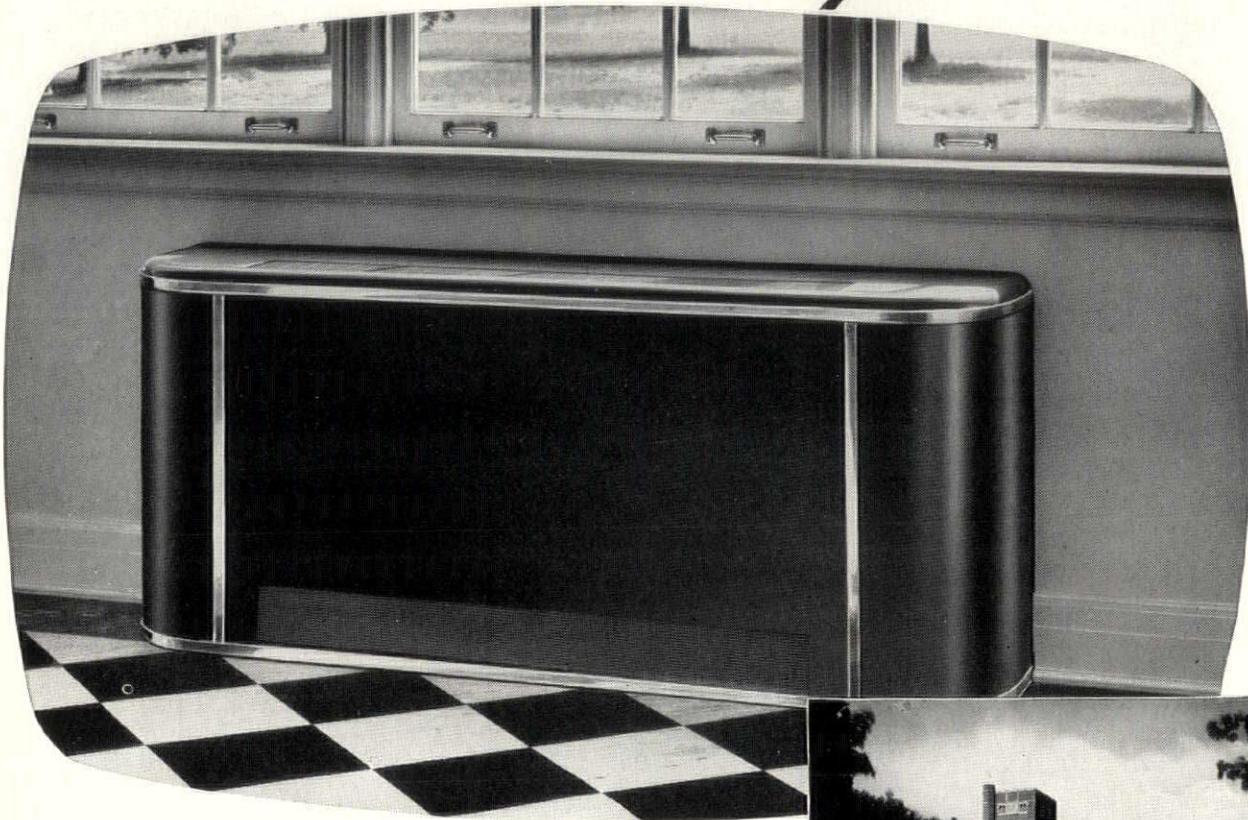
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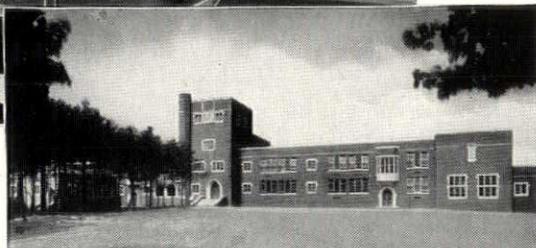
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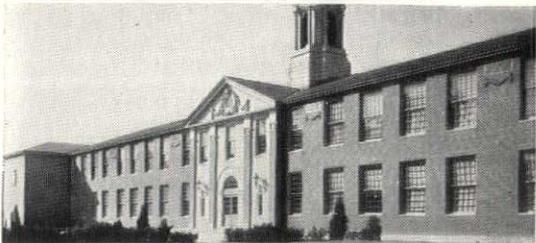
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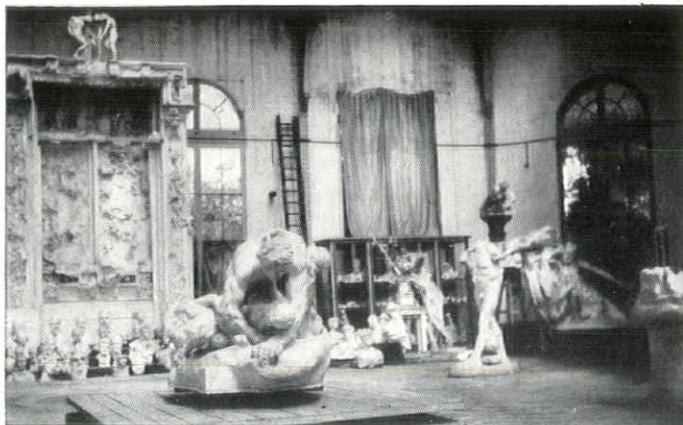
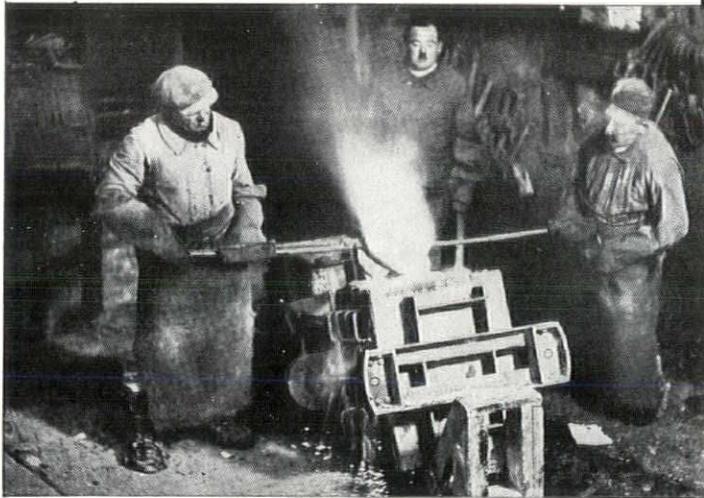
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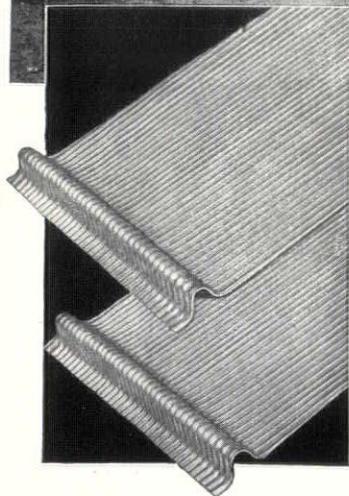
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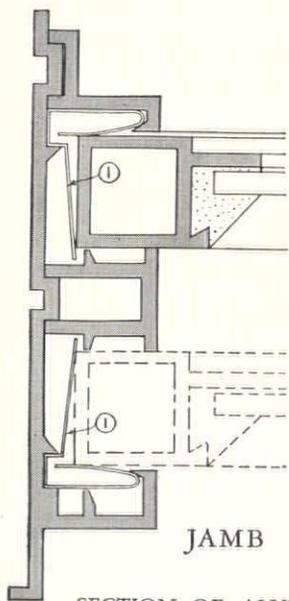
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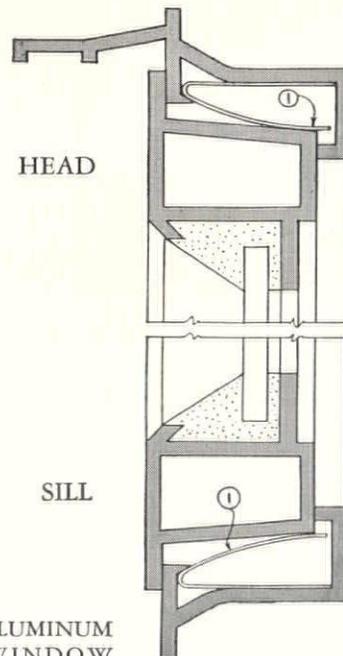


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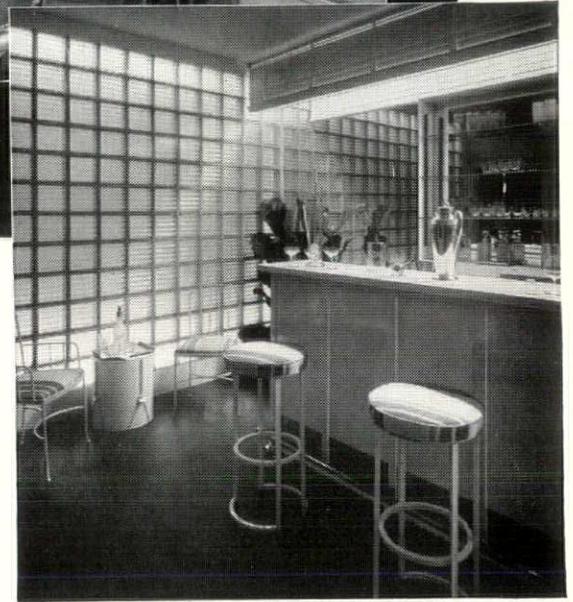
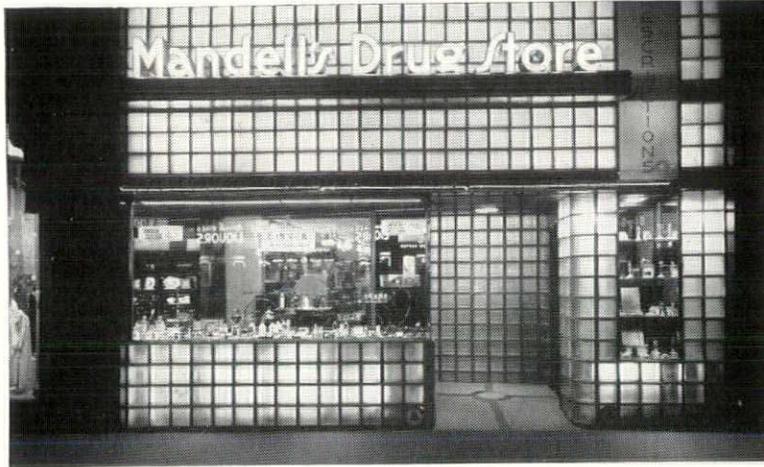
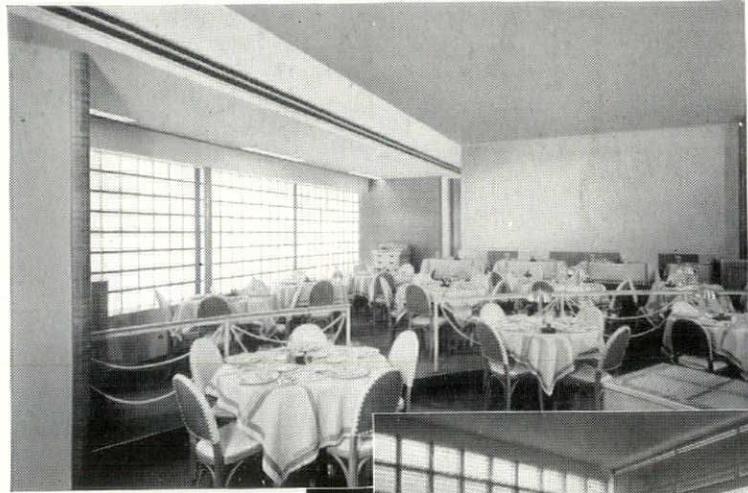


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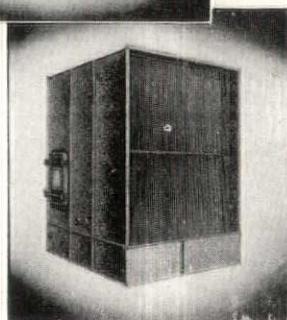
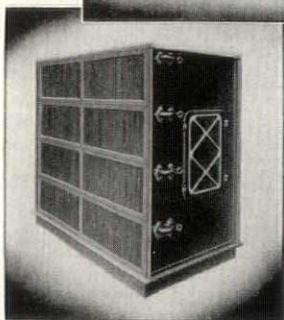
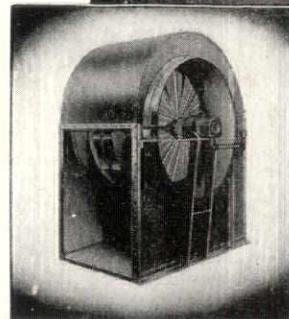
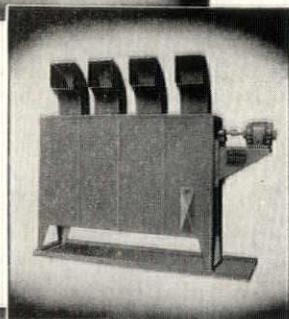
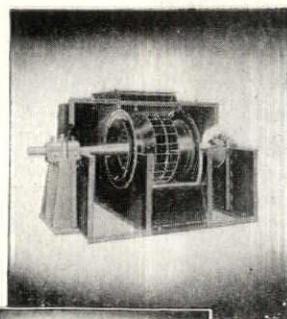
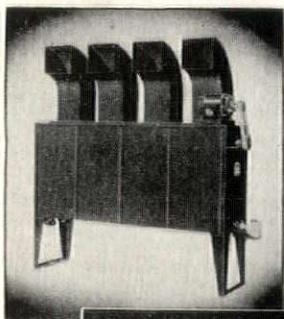
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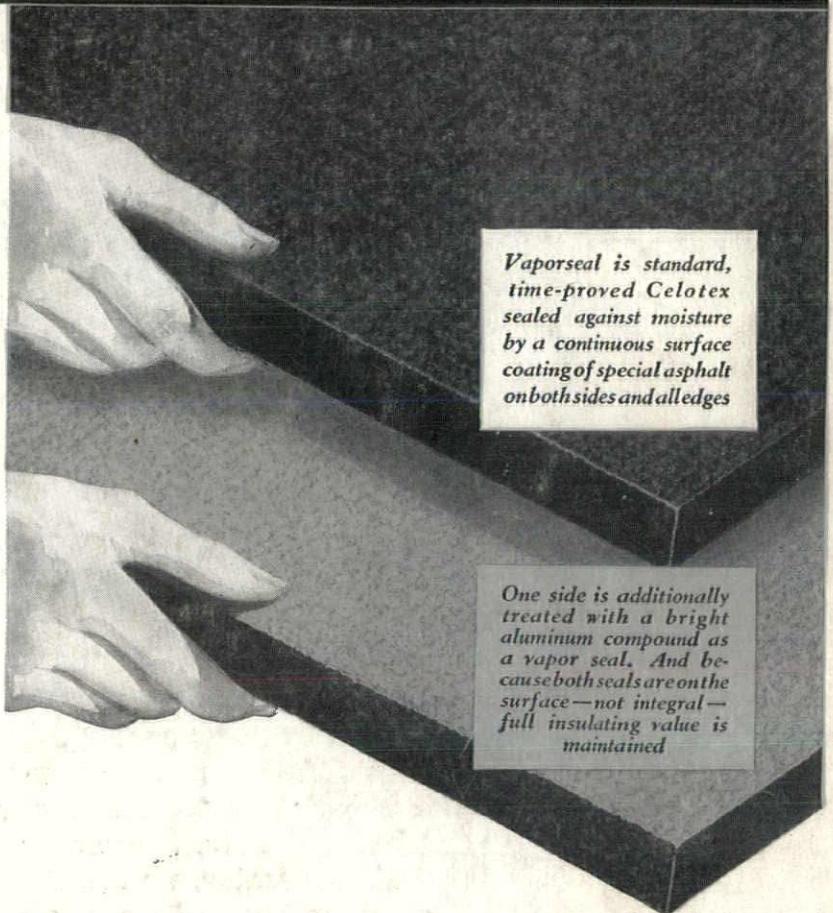
SUPERIOR FOR 7 REASONS:

1. It is integrally waterproofed—then sealed in asphalt for added protection—and further sealed against vapor by a bright aluminum compound on one side!
2. Original Celotex insulating value is maintained because the two seals are on the surface!
3. Stronger and stiffer—provides far greater bracing strength than ever before!
4. Has the same thickness—25/32"—as the sheathing it replaces!
5. Marked for nailing to assure proper application and fast installation—fits tight, stops wind infiltration!
6. Protected against termites and dry rot by the patented Ferox Process!
7. It is backed by the Celotex Written Life-of-Building Guarantee!*

* The Celotex Written Life-of-Building Guarantee, when issued, applies only within the boundaries of Continental United States.

CELOTEX Vaporseal Insulating Sheathing is an entirely *new* contribution to the building field—a vastly *improved* sheathing that offers greater advantages than ever before. It provides all the time-proved qualities of regular Celotex plus a number of entirely new advantages. Vaporseal has greater *bracing* strength than ever before. It gives new protection

against moisture because of its *continuous* surface seal of special asphalt—and new protection against vapor because of the *additional* bright aluminum compound on the framework side. It has a logical place in the homes and other buildings you create. May we send you a sample and further information, without obligation to you?



Vaporseal is standard, time-proved Celotex sealed against moisture by a continuous surface coating of special asphalt on both sides and all edges

One side is additionally treated with a bright aluminum compound as a vapor seal. And because both seals are on the surface—not integral—full insulating value is maintained

CELOTEX

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World's Largest Manufacturer of Structural Insulation

CELOTEX CORPORATION AA-1-57

919 N. Michigan Ave., Chicago, Ill.

Without obligation to me, please send sample and full information about Celotex Vaporseal Insulating Sheathing.

Name _____
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City _____ State _____