

# AMERICAN ARCHITECT

AND ARCHITECTURE

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COMPETITIONS  
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NOVEMBER

1937

Donald C. Goss, Architect, designed this home in Marblehead, Mass.



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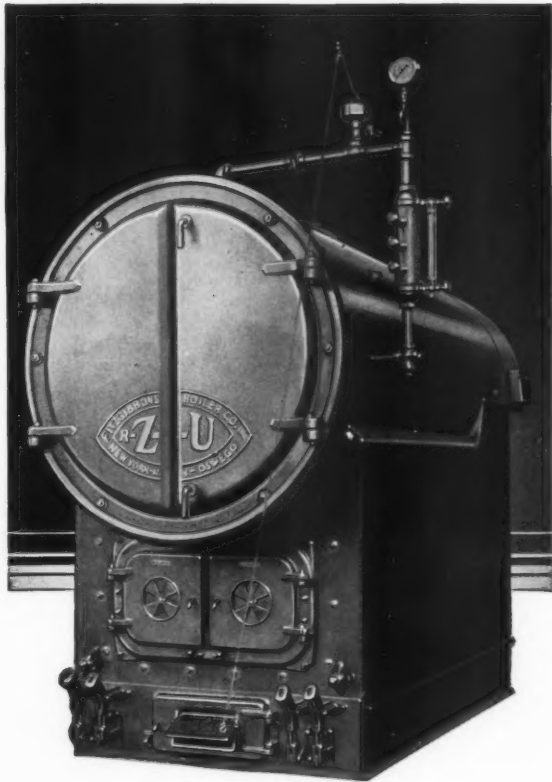
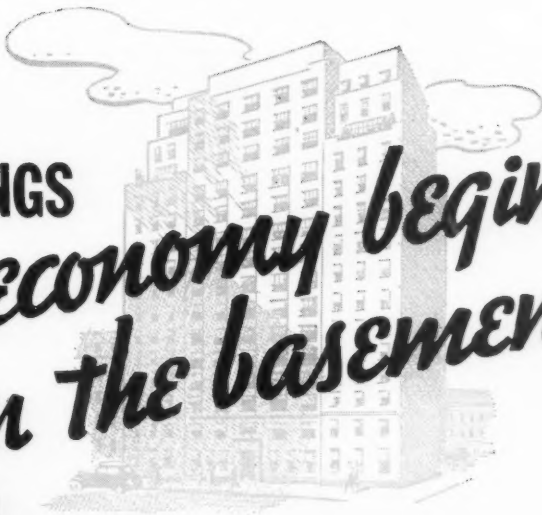


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American Architect and Architecture, published monthly by Hearst Magazines Inc., 572 Madison Avenue, New York, N. Y. \$3.00 per year; Canada, \$4.00; Foreign, \$5.00. Entered as second class matter April 5th, 1926, at the Post Office at New York, N. Y., under the act of March 3rd, 1879. Issue 2663, dated November, 1937.

AMERICAN ARCHITECT AND ARCHITECTURE, NOVEMBER 1937

1

# Follow Corrosion Study and Specify **WROUGHT IRON**



● Wrought iron pipe was specified for main supply, cold and drinking water lines, and supply and drainage lines in the swimming pool at the West Junior High School, Binghamton, N. Y.



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# AMERICAN ARCHITECT AND ARCHITECTURE

## CONTENTS NOVEMBER 1937

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## NEXT MONTH

The winning designs in the Structural Clay Products Competition . . . Paul Cret's new Federal Reserve Building . . . Pittsburgh architects edit a section of the magazine to show their idea of what a professional journal should be . . . A group of retail stores from California, Midwest and

New York . . . The Portfolio covers the subject of Resilient Floors . . . Favorite Features shows photographs and scale details of Sheathed Chimney Breasts . . . Time-Saver Standards bring Residential and Commercial Furniture Sizes . . . A cocktail lounge in Syracuse.

<b>COVER.</b> Portico detail from the Cutts house (circa 1840) Orwell, Vt. From a photograph by Frank J. Roos, Jr.	
<b>TRENDS</b> .....	4
<b>EDITORIAL</b> .....	21
<b>THE COMPETITIVE PRINCIPLE.</b> By Hon. Otha D. Wearin.....	22
<b>PARIS, 1937—A CRITIQUE.</b> By Talbot F. Hamlin.....	25
<b>THE WAGNER-STEAGALL HOUSING ACT OF 1937.</b> Comments by Coleman Woodbury, Clarence S. Stein, Langdon W. Post, Albert Mayer.....	35
<b>HOUSE OF MRS. K. WILDER, GLADSTONE, N. J.</b> Perry M. Duncan, architect.....	39
<b>HOWLAND RESIDENCE, BEVERLY HILLS, CALIF.</b> Lloyd Wright, architect.....	41
<b>WEEK-END HOUSE, BEACH HAVEN, N. J.</b> J. Joshua Fish, architect.....	43
<b>TWO-FAMILY COTTAGE, MIAMI BEACH, FLA.</b> Theodore Visscher & James Burley, architects .....	45
<b>SUMMER HOUSE AND STUDIO, HARVEY CEDARS, N. J.</b> J. Joshua Fish, architect....	47
<b>THE DIARY.</b> Henry Saylor.....	49
<b>ARCHITECTURAL OVERTONES.</b> Peiping .....	51
<b>FLORIST SHOP, LOS ANGELES, CALIF.</b> Morgan, Walls & Clements, architects.....	59
<b>SHOE STORE, BUENOS AIRES.</b> Daniel Duggan, architect.....	63
<b>WAREHOUSE FOR JOSEPH H. REINFELD, INC., NEWARK, N. J.</b> Frank Grad & Sons, architects .....	65
<b>THE PORTFOLIO.</b> Doorway Side-lights .....	67
<b>FAVORITE FEATURES.</b> Garage Doors.....	77
<b>DISTRICT POLICE STATIONS, CHICAGO, ILL.</b> Paul Gerhardt, Jr., architect.....	79
<b>AMERICAN TWIST DRILL COMPANY, DETROIT, MICH.</b> Ditchy-Farley-Perry, architects	83
<b>UNIT PLANNING—IX. HOTEL BEDROOMS AND BATHS.</b> By Jule Robert von Sternberg	85
<b>TIME-SAVER STANDARDS: Hotel Bedrooms</b> .....	92
<b>BOOKS • TECHNICAL DIGEST • TECHNIQUES • OFFICES</b>	

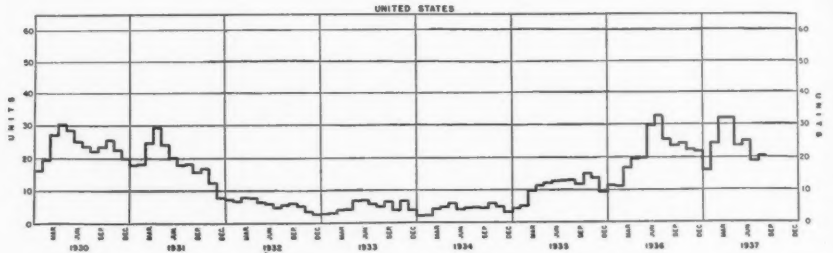
**CONSTRUCTION**

THE VALUE OF SEPTEMBER BUILDING PERMITS, in Dun and Bradstreet's 215 selected cities, slipped 1% below the total for the preceding month of August. This rather piffling decrease may be viewed without alarm, since a usual seasonal drop of around 10% is expected. The September total of \$86,710,800 was 2.2% below the same month of last year.

Excluding New York City, building permit values in the rest of the country were 3% under August, but 1.2% above September of last year. These apparently paradoxical figures are explained by the fact that though New York City rose 10% over August figures, its total was still 16.4% below September, 1936.

**NOTES ON FOREIGN BUILDING OPERATIONS**, which are given in the current issue of *News and Opinion*, suggest that a couple of our sister nations are having their troubles, too. Material prices in Great Britain are said to be in a state of such flux that equipment dealers in some sections will not issue quotations covering a period longer than the next 24 hours. Building permits for June totalled \$43,000,000 which was 13% below June of 1936. In Holland, it is stated, building has benefited very little from the upswing in general business, there having occurred a rise in the costs of construction equivalent to 30% over levels of last year. The second quarter of this year was considerably below the same period last year.

In contrast to England and Holland, it appears that activity in Germany is being well-maintained at a pace very



The rate of residential building as graphed by the Federal Home Loan Bank Board. Units represent the number of dwelling units provided per 100,000 population in cities of 10,000 or more population



PHOTO: DUBOIS-THE DRAKE

Laslo Moholy-Nagy, formerly professor at The Bauhaus, Dessau, now directing the New Bauhaus, an American school of design, Chicago

nearly that of 1936, that country's all-time peak construction year. A shortage of both materials and capable labor is being felt by the German building trades. Sweden, Switzerland and Canada seem to be doing rather nicely, with activity running well above 1936.

**INDICATIVE OF THE EFFORT TO IMPROVE CONSTRUCTION** which is being made by mutual savings banks in order to insure better loans, savings banks in the New York area have announced stringent minimum requirements for six-story apartment houses. Use of second-hand brick and steel is prohibited. Stricter provisions regarding the size of floor beams are laid down. Most important of all is the point that architectural supervision must be provided and each new building must have a building superintendent on the job during the entire time of construction.

It is stated that any building on which savings banks make a loan must comply with suggested specifications. Builders must contact the savings institution prior to beginning construction, so that the bank may have its representative or architect inspect the building during construction. In lieu of this, banks may accept a certificate from the architect stating that construction has been carried out in accordance with the plans and that minimum specifications have been fulfilled.

A copy of these requirements may be obtained from the National Association of Mutual Savings Banks, 60 East 42nd Street, New York City.

**VERTICAL VERSUS HORIZONTAL UNIONISM** is the text of a statement made by J. H. Hansen, Secretary of the Brick Manufacturers Association of New York, and appearing in a recent issue of the *Dowservice*. These remarks are newsworthy because Mr. Hansen comes right out with some kind words about the CIO and the type of unionization it represents. His reasons seem to be the result of both



A luncheon hour at Taliesin. Mies van der Rohe, recently arrived here on a visit, visits Frank Lloyd Wright and talks architecture, present and future, with the master and his students

# Specify Welding

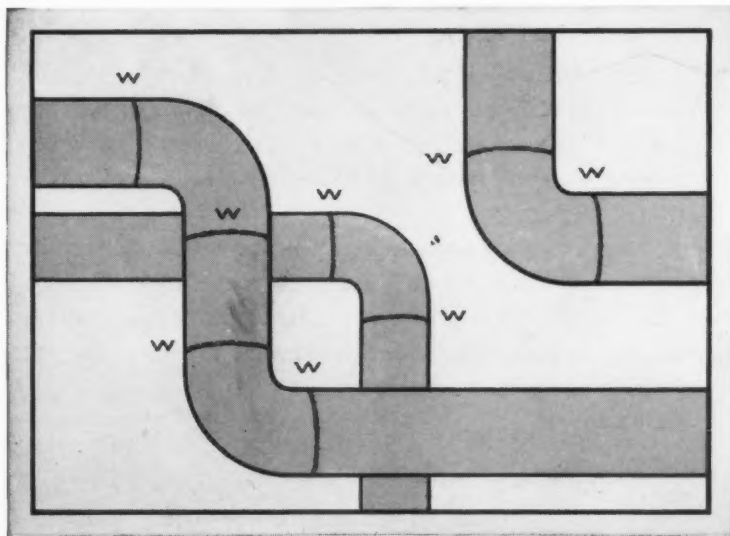
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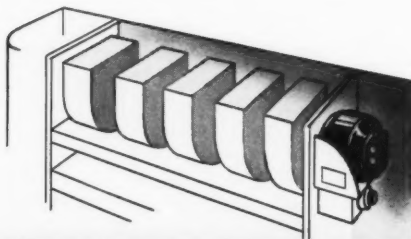
## THE NEW HERMAN NELSON AIR CONDITIONER FOR SCHOOLS

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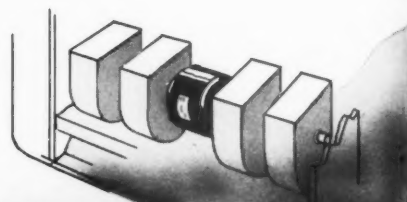
IT IS absolutely necessary that equipment used in the classroom to maintain correct air conditions be practically noiseless. To this end, Herman Nelson research engineers have produced a unit which is more quiet than any other.

This has been accomplished by the design of the New Herman Nelson Air Conditioner for Schools, which utilizes to best advantage entire space within the cabinet. The most radical departure from past precedent is the location of the motor in the end compartment—out of the air stream. This location of the motor provides additional space for the fan assembly.

Larger fans, running at tip speeds as much as 25% slower than other units, assure quiet operation at full capacity. Other exclusive features of the New Herman Nelson Air Conditioner for Schools which contribute to its most quiet operation are the Her-Nel-Co motor, the heating element with streamline tubes and large free area, and streamline floating dampers.



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# operation

## Minimum of Space Needed for This Attractive New Unit

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thought and investigation. After describing the confused conditions existing in the construction industry because of so many different unions, none of which has full responsibility, Mr. Hansen comments:

"That complete unionization is not tantamount to destruction is evident not alone in scattered industries throughout our country, but in whole nations, such

as in Norway and Sweden, where it is said a non-union worker does not exist, and yet industrial and economic activities are carried on under almost unbelievable calm. The same thing is frequently true in completely unorganized industries. The comparatively normal operation of industry under a union in full control, as opposed to the troublesome times ex-

perienced when an industry is in the throes of organization or working under several quarreling factions, is not an unnatural state of affairs. It is upon the acknowledged assumption of power, with its attendant responsibility to the industry, that union leaders become business-like. In the construction industry, however, no one union feels responsible for the smooth operation of the industry, and judging from the hundreds of cases of jurisdictional disputes between different unions, few unions have that confidence of their position and jurisdiction which promotes calm and judicial leadership. At the present time, aside from the constant danger of interruptions due to squabbles between crafts within the AFL, there is the even larger danger of interruptions due to squabbles between the AFL and the CIO. How long this struggle between the two will continue is impossible to state. The construction employer, however, who lends his influence towards the continuance of the struggle is merely prolonging the state of war, which is a constant threat to the smooth operation of his industry. The struggle is between craft unions and industrial unions, not between Green and Lewis. Is it not to our best interests, therefore, to lend our support to the side that will interfere with our efficiency the least? Certainly that is an industrial union, whether it be called the CIO or the ABC, and whether it be headed by Lewis, Green or John Smith."

Without entering the controversial aspects of this question, it appears to us that Mr. Hansen's statement typifies an outlook calm and unprejudiced—which, in these rancorous days, is most laudable.



PHOTO: ACME

**CONTROVERSIAL MURALS:** Above, Frank A. Mechau's "Dangers of the Mail" for the Post Office Department Building, in which some folks do not like the inclusion of nude white women. Below, Rockwell Kent's mural for the same building in which an Esquimo message to Porto Ricans bids them throw off the bonds of U. S. rule



PHOTO: ACME

**A STEP HAS BEEN TAKEN BY THE CHRYSLER Corporation**, which, if followed by other large concerns, may have an effect on architects throughout the country. This Company employed an architect to make up general plans for sales and service agencies. A year was spent in this endeavor, resulting in the production of a book containing 48 building plans to fit every size dealership, taking into consideration all practical variations in lot size and location. Plans given in the book—"Dealer Building Information"—are complete and may, if it is so desired, be used just as they are. Chrysler dealers can study these suggested plans and use them as a guide to determine exactly what type layout best fills individual needs. If adaptations of the layout is required, a dealer may specify changes to the Chrysler Service Division and a complete set of plans will be drawn especially for his use.

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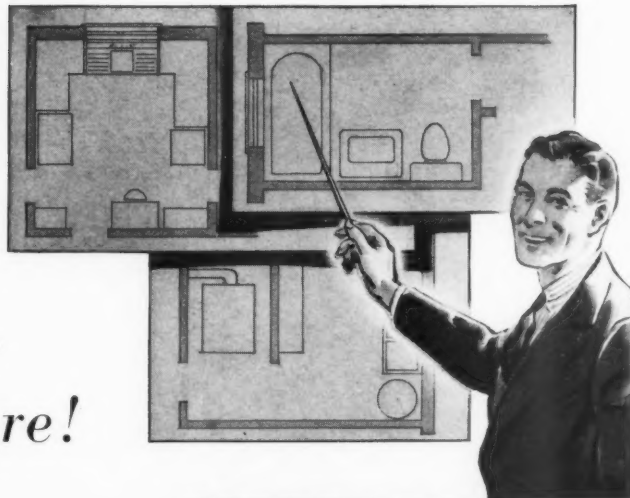
*Armstrong-Stedman Reinforced Rubber Tile in Kosair Crippled Children Hospital, Louisville. Field is ivory antique with designs in Indian red paisley, medium jade, dark oak, light jade, and dark mahogany.*

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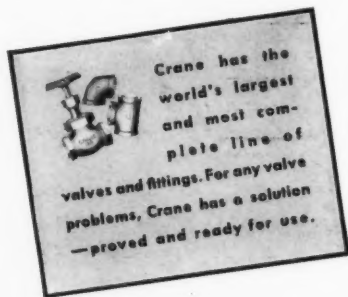
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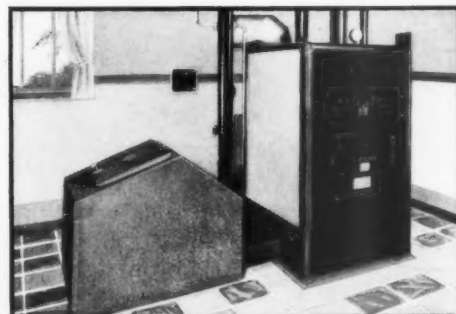
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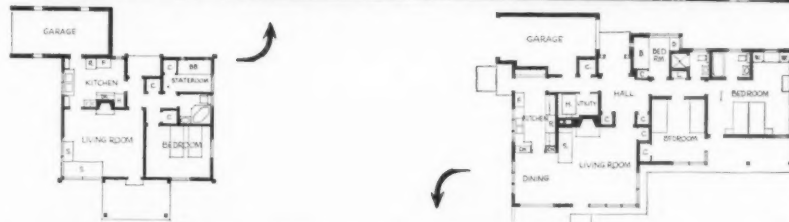
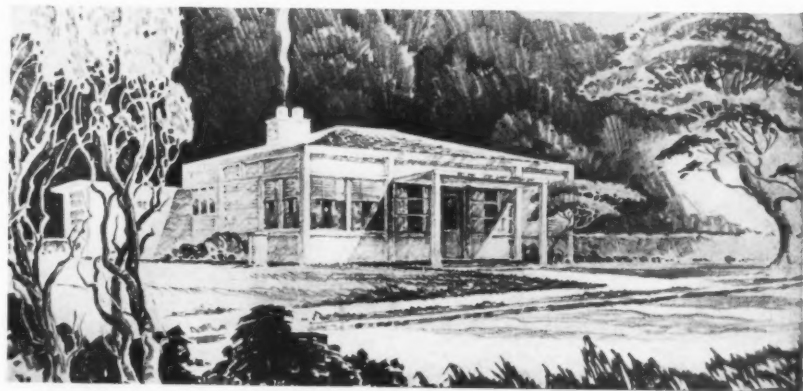
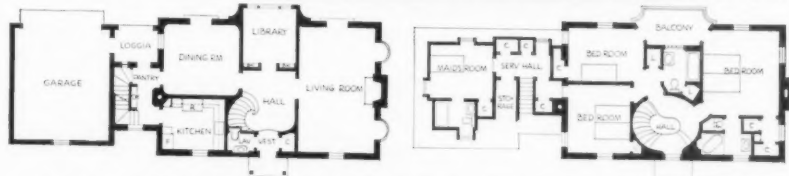
At first glance one is inclined to say, "More bread out of the local architect's mouth!" There is a by-product of unpredictable size, however, in the prodding this may be to the other local dealers to rebuild and improve their own stations, with the aid of the best architectural talent available.

**HOUSING**

**THE A. I. A. IS SWINGING INTO ACTION** to mobilize architectural support of the national housing program, according to Walter R. McCornack of Cleveland, Chairman of the Institute's Committee on Housing. The plan outlined by Mr. McCornack is designed to utilize all the man power and intellect of the architectural profession in ridding the housing field of "social hysteria and false notions." Sixty-nine chapters of the A. I. A. will unite in carrying out the Institute's program.

Mr. McCornack pictured Congress as having thrown down the gauntlet to the building industry, with a demand for immediate action to decrease the cost of homes, just as automobile makers have lowered the prices of cars. The \$5,000 limit set by the Housing Act as top cost of a four room dwelling should be chopped in half, Mr. McCornack says. Further, the real objective of a housing program is to provide decent abodes for people now living in unsanitary and socially degrading homes, not to provide business for manufacturers, bail out greedy landowners, assure a new era for speculative builders or create a lot of work for union labor. Yet under the recent housing program, asserts Mr. McCornack, many who composed these groups seemed to think that such was the case. Another evil was the fact that evicted slum dwellers—thrown out to make room for housing projects—often had to move into worse dwellings than those they had previously occupied.

It is up to architects, he implies, to be unbiased arbiters between the building



"THE HOUSES OF TOMORROW" is Mr. Grover Whalen's name for these New York World's Fair models. Top, Verna Cook Salomonsky, architect; middle, Harold Sterner, architect; bottom, Evans, Moore & Woodbridge, architects. Abbreviations in plans: B, bunk; BB, double bunk; BK, bookshelves; C, closet; CH, china cupboard; D, desk; DR, dresser; F, refrigerator; H, heater; L, linen closet; R, range; RA, radio; W, wardrobe; S, sofa or seat. Other houses for this group on the following Trends page. The "Town of Tomorrow" will cover ten acres and include thirty to thirty-five houses



**PROBLEM No. 10**

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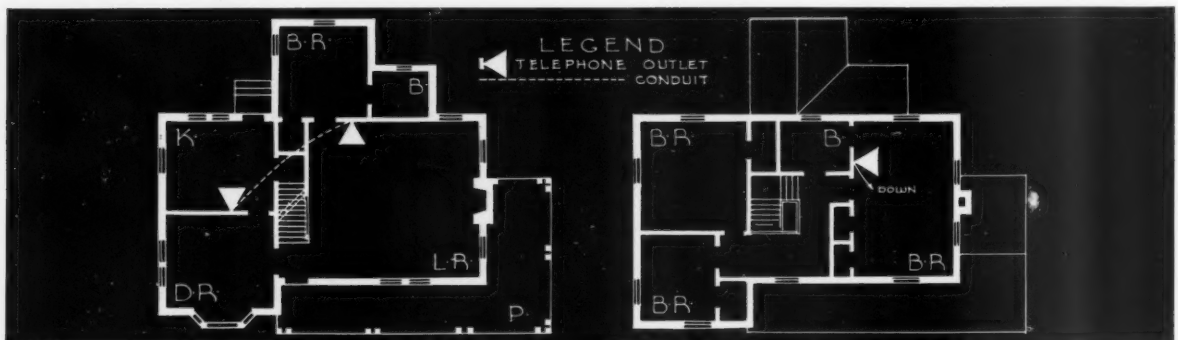
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*J. Linerd Conarroe*





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● G-E Home Wiring is an improvement over old-type wiring methods. It assures a home wired for a lifetime. It provides adequate wire sizes, switches and outlets. Circuits are controlled by individual circuit breakers on each floor. When Mazda lamps made by G-E are used, properly shaded and of the correct wattage, eye-strain is ended and with it much of the nervous tension caused by incorrect lighting.

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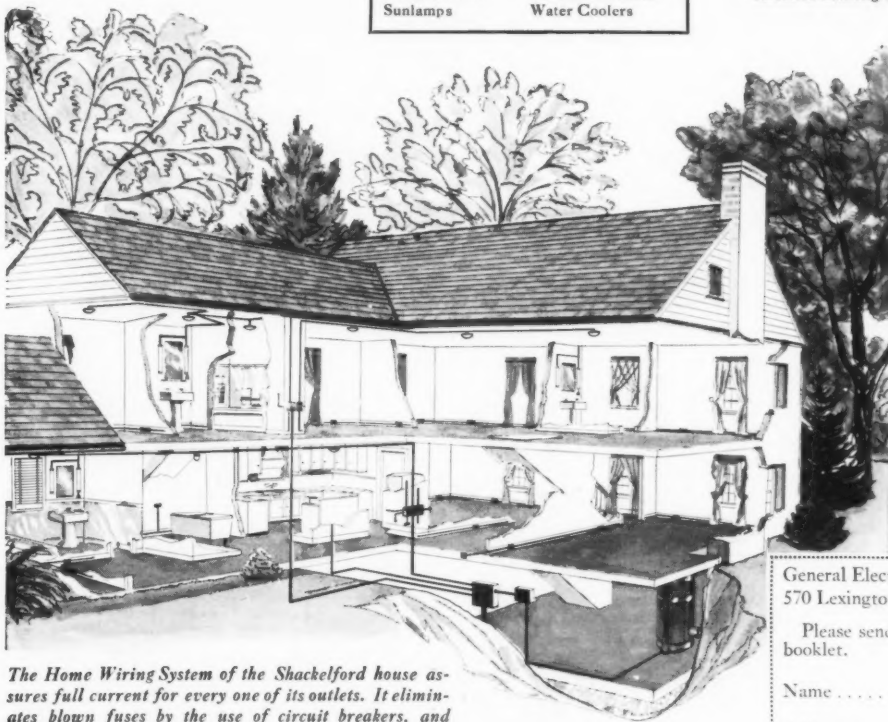
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|-------------------|-----------------------|
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| Electric Cookers  | Electric Irons        |
| Food Mixers       | Ironers               |
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| Ranges            | •                     |
| Refrigerators     | Clocks                |
| •                 | Fans                  |
| Chafing Dishes    | Radios                |
| Coffee Makers     | •                     |
| Percolators       | Curling Irons         |
| Sandwich Grills   | Immersion Heaters     |
| Toasters          | Radiant Heaters       |
| Urn Sets          | •                     |
| Waffle Irons      | Christmas tree lights |
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The Home Wiring System of the Shackelford house assures full current for every one of its outlets. It eliminates blown fuses by the use of circuit breakers, and provides full electrical comfort by careful placing of convenience outlets and switches.



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# GENERAL ELECTRIC

RESEARCH KEEPS GENERAL ELECTRIC YEARS AHEAD!

public and the building industry, to see that the nation gets full value received for the millions it is plunking into housing. And since localities reap the chief benefits of this work, Mr. McCornack thinks they should—and eventually will—bear a greater share of the cost.

**SOLUTION OF THE HOUSING PROBLEM THROUGH**

better alignment of distributive channels is urged by Arthur R. Herske, Vice President and Sales Manager of the American Radiator Company, in an address recently delivered at the Boston Conference on Distribution. Mr. Herske divides housing into three classifications; first, slum clearance and blighted area rehabilitation, relating usually to families whose annual incomes are less than \$1,200; second, housing for the group with incomes up to \$3,000 per year and which now purchase homes from speculative builders; third, housing for the owner-builder group, whose members have an annual income in excess of \$3,000. Mr. Herske compares the third group to the man who goes to a merchant tailor and has his clothes made to order; the second group to the man who patronizes a ready-to-wear clothing emporium; and the first group to that pitiful individual who wears hand-me-down garments obtained from charitable

sources, and whose limited income precludes the possibility of his ever being able to purchase new raiment.

With this pattern in mind, Mr. Herske points out that the housing industry has woefully neglected the second group—the mass market. Of all automobiles sold, he says, 79% are Chevrolets, Fords and Plymouths. Thus the motor industry has aimed at 93% of our population, whereas the home-building field has been primarily designed for only 7% of our 130 millions of people.

To enable the housing industry to render maximum service to the nation during this period of high rentals—the time most auspicious for housing progress—Mr. Herske advocates use of an educational program by industrial organizations to emphasize the value and comforts of home ownership, along with establishment of national home-selling organizations to bring buyer and seller together and the elimination of high-cost specialty selling.

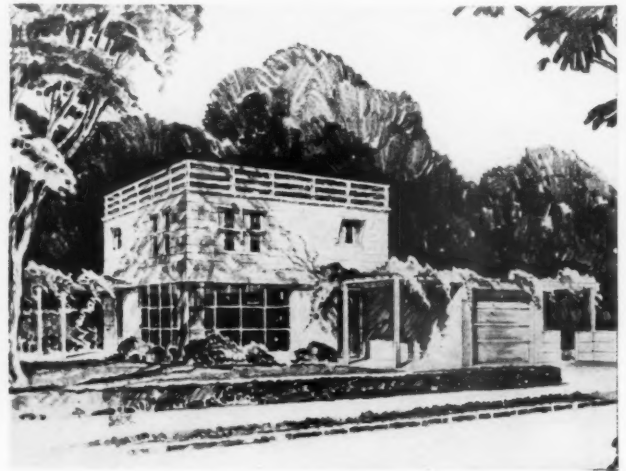
**THE DOLLAR VOLUME OF RESIDENTIAL**

WORK handled by architects during 1937 will show an average increase of 27% over 1936, according to a survey among representative architects in 168 communities throughout the country, which has just been completed by the Ruberoid

Company. These architects reported that 74% of their clients are interested in new construction rather than modernization, and that there is a growing tendency among home builders of moderate means to engage the services of an architect for supervision of construction in addition to preparation of plans and specifications. The three factors considered most responsible for this latter fact are assurance that materials and construction will be up to specifications, a realization of the necessity of experienced, unbiased guidance, and a growing appreciation of the fact that investment in an architect's fee saves money in the end. Women, according to 82% of replying architects, are most frequently responsible for the general type of house to be built.

**HOME CONSTRUCTION WILL BE STIMULATED,**

according to FHA officials, by the recent decision of the Federal Reserve System to allow member banks the privilege of using certain types of residential mortgages for collateral in obtaining loans from regional Reserve banks. While this status is given all types of residential mortgages which conform to certain standards, FHA insured mortgages are specifically placed on the preferred list. The Federal Housing Administration (Continued on page 120)



More "Houses of Tomorrow." Left, by Chapman & Beder; right, by Adams & Prentice



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● The Helms Bakeries building on Washington Boulevard, Los Angeles, affords another example of how concrete combines structural and architectural functions. The monolithic concrete walls are finished with stucco. Lintels, window and door trim, coping and other details are cast stone, set in the forms and concreted in place. Both stucco and cast stone are made with white portland cement. Grant & Bruner, Ltd., Los Angeles, were the architects. Write us for helpful manual, "*Forms for Architectural Concrete.*"

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## NOW AND THEN

RECENTLY newspapers carried front page stories about housewives picketing neighborhood meat markets in a brief but effective buyers' strike. Meanwhile a building buyers' strike goes on without attracting much public attention. Yet it is more dangerous because there is not the immediate demand for a house that there is for a steak. Therefore the architect's, the building industry's and eventually the entire country's prosperity must suffer because of the feeling that building costs are too high.

¶ It is perfectly true that building costs have risen. But so have the national income, rents and commodities. Building costs were, as usual, the last to advance. People persist, however, in comparing 1937 costs with the fallaciously low prices of 1935-36 instead of making a logical comparison with those of 1926. New building in any appreciable volume is the direct result of increased rent, which in turn reflects a rise in the national income or in prices generally. Thus we have a sort of perpetual leap frog. It must be remembered that in the cycle of increased national income, rents and building costs, we have periods of building slack which must be taken up before there can be another advance.

¶ Let us look at today's building picture. Where formerly more than half of the building dollar went into overhead that included land purchase, financing, etc., now only one-third of that dollar goes that way. Obviously this leaves a much larger portion for actual construction. During the past few years tremendous progress has been made in improving building techniques and materials. Insulation, air-conditioning, mechanical refrigeration and improved automatic heating have been brought within the means of the average home builder. Better and more efficient products and equipment are available at lower costs due to larger volumes of production. Consequently when we build a house today we get a better house for the money in comfort, convenience and design than would have been possible in 1926, and the price is still about one fifth less than it would have been then.

¶ We need buildings, we need new houses and housing. Statistics indicate that we are 1,600,000 homes short of the 1929 per capita housing standard. Thus, by using the norm of 500,000 new dwellings per year, we find that we must build at least 820,000 new homes annually for the next five years if we are to meet the requirements of accepted standards of American life. Again using statistics, we find that about 20% of our homes are directly designed by architects. On this basis, we can expect 41,000 homes to be designed by architects each year over this period of time. This presents a very attractive picture. But on the other hand, the boom has not started and it will not until the architect, the builder and the manufacturer use the commonsense method of pointing out to the prospective home builder the fact that today he can build a more convenient, more efficient, more economical home for his money than he could before the late depression.



EDITOR

# THE COMPETITIVE PRINCIPLE

By **HON. OTHA D. WEARIN**

Member of Congress from Iowa  
Member of Ways and Means Committee

**T**O compete or not to compete for the selection of architectural designs is the problem that has been tossed into the arena of congressional controversy largely, if not entirely, because of the debate over the proposed Thomas Jefferson Memorial, and it remains to be settled sometime in the future, insofar as the Federal Government is concerned. The resolution providing for the latter passed the House without having a provision for a competition to select a design incorporated therein and with entirely too much of a *carte blanche* of authority placed in the hands of a creature of the legislative department of the government. The test of sentiment on architectural competitions should have been made at that time.

There are two schools of thought on architectural competitions among government officials just as there are two such schools within the architectural profession and they probably support their positions with somewhat the same general arguments. Those who believe in the competitive principle, and I am one of them, point with pride to the results thereof since the selection of the design for the bronze doors of the Baptistery in Florence, Italy. The most outstanding examples of early architectural achievement in the Capital City, as well as later structures, resulted from competitions and, incidentally, in the first instance at the suggestion of Thomas Jefferson, whom some people now seek to memorialize without recognizing the finest things for which he stood and which are basic in our government structure, namely, equal opportunities for all. Those buildings, the United States Capitol designed by William Thornton at the age of thirty, the White House

PHOTOS: CUSHING







designed by James Hoban at the age of thirty, Washington Monument by Robert Mills and the Pan-American Building by Paul Cret at thirty-one, are the things that make Washington what it is today, the most striking and unusual city in all America. In my opinion, and I am supported in it by many of the nation's most eminent architects, if there is anything drab and uninteresting about our modern National Capital it is some of the most recent additions to our public buildings, designed without competition. The principal thing they have to commend them is mass. I dare say that no one ever thinks of coming to Washington to see the so-called "Federal Triangle" except perhaps the Department of Commerce Building which has been highly advertised, and the design for which was selected as a result of competition, but they do come to see the Capitol, the White House and the Washington Monument.

There is a reason why so many of our public buildings and monuments, the designs for which were the results of competitions, are superior. Such a policy brings forth the best men and women in the profession regardless of age or experience. Recent competitions for the selection of designs for post office murals have indicated a wide professional interest in the policy. Frequently young geniuses who might not otherwise be unearthed are given an opportunity as in the case of Thornton and Hoban, although they may not be perfect examples because of the fact that the field was not as crowded then as now. Moreover, these young men have an opportunity for a longer life of service to the nation than if they had been forced to toil their way slowly to the top.

If the government adopts a policy of arbitrarily selecting architects to design its buildings at least two unfortunate tendencies may develop. First, the younger men of the profession, who may have superior ideas and abilities in many instances, will be ignored because of a tendency on the part of public officials to select older more experienced men, partly to avoid criticism of themselves in event of dissatisfaction with the work performed. Let us attribute honesty of motive to them but

likewise a desire to insure what we might style the success of precedence for their enterprise, thus hiding behind the cloak of authority which is not a factor in a free and honest competition where the best man wins regardless of age, color, breed or birth, which is as it should be in America. Second, the arbitrary selection of architects may have a tendency to develop a uniform type of architecture in Washington or, for that matter, to a certain extent throughout the nation, which would certainly be an unfortunate trend both for the profession and the inspiration of the public. Discovery, change, and development have suckled the human race from barbarism to the full flower of its present arts and sciences which would never have been possible had there been a tendency to approve some one established order in any field. If it had happened in architecture we might still have favored the same type of cave frequented by Neanderthal man.

If the government desires to preserve the spirit of democratic competition that inspires men to do their best and that brings from the most obscure chambers of the profession, as well as from Fifth Avenue offices, the geniuses of the field as did Thomas Jefferson, to prevent the development of uniform design that may be either good or bad but that at best smothers originality, and to continue the discovery of men like Robert Mills, Bertram Goodhue, Paul Cret and others while they are still in their youth, and thus give them an opportunity for long lives of service, it has one of two alternatives; first, it can include in resolutions providing for the construction of memorials and other buildings a specific provision that the design shall be the result of a competition, or, second, the Congress can enact a law specifying that the design for all memorials and structures involving more than a certain sum shall be selected by a committee of disinterested parties from a field of competitors. The latter probably would be preferable in the long run.

The government or, in other words, the taxpayers will under such an arrangement have the benefit of the best of the profession, and the design of federal architecture will continue to do honor to the genius and originality of a constantly growing race and civilization.



PHOTO: GENDREAU

VAN DE KOLL FROM MOSENMEYER

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VAN DE POEL FROM MOONBEYER



# PARIS 1937

A CRITIQUE BY TALBOT F. HAMEN

At night the Exposition is at its best. Entering by the Trocadero Gate and over the wide terrace where the old Trocadero once stood, one comes suddenly to a cliff-like edge. Below are sloping walks, terraces and magnificent flights of stairs that surround perhaps the most beautiful and astonishing fountain ever built. Twenty great nozzles inclined upwards at about twenty degrees, arranged in four banks of five each, shoot out a great sheaf of water two hundred feet, to fall in a continuous roar into the long basin below. Scale is given by numerous small vertical spouts on either side, that frame the central climax and fill simple basins stepped down from level to level. Beneath, in the great basin, similar jets form a colonnade on the sides, and between them sheets of water spout transversely across the pool. The whole is lighted by carefully concealed spots and floods, and by under-water lights, suddenly, yet gently, changing color.

Thus it is that water makes almost the first great impression, and color the second, and it is the brilliant use of both that is one of the Fair's outstanding achievements.

Framing this central fountain are broad banks of grass, vividly green and fresh from the continual spray; then wide walks thronged with a crowd whose noise is overcome by the rush of the water, and immediately beyond, thick trees half hiding the many national buildings behind them. The trees are lit by colored flood lights in the lower branches, alternately amber and green, and the effect is indescribably fairy-like. Many of the less important walks have no other light than this. At the Quai, the Trocadero Gardens are closed by the long masses of the German and Russian buildings. Between them, the Trocadero bridge spans the Seine, and from its piers at the water's edge, more fountains spread fans of changing colored spray, and a short way up and down the river still more fountains, shot from anchored floats, complete this extraordinary water exhibition.

Further up the Seine, a group of barges is anchored with their decks literally filled with nozzles and spouts and colored lights of all conceivable types. These are the fam-

ous Fontaines Lumineuses, and they are controlled from across the river by a great keyboard similar to an organ manual. The possible changes seem infinite, and the effects are lovely and exciting. The result is a sort of magnificent "color organ," with the magic of water and steam added. Extraordinary effects are produced by contrasts of planes of color against each other, and of vertical jets of water with fan-shaped or diffusing jets. And all this, it may be well to note, was designed by an architectural firm, as the result of competition.

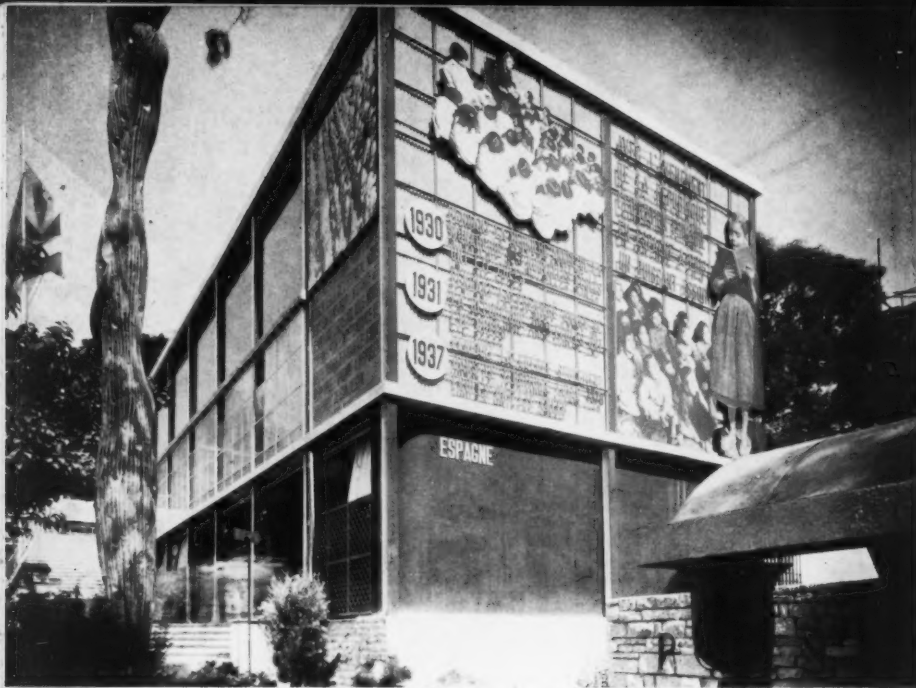
Great and exuberant imagination, and a tremendous scale, are two of the outstanding merits of the Exposition. The simple height of clear white surfaces and piers that distinguishes the new permanent Trocadero buildings is superb, and does much to make one forget the not too creative detail. The great curving wings of these buildings embrace this center of the Exposition, and somehow hold and bind into one harmonious picture the extremely varied national buildings between. With the tremendous plaza and its broad sweeps of green, of path, and of water, all designed in simple, broad forms, a sense of compelling dignity is given that is noble and serene. Somewhat the same feeling of impressive grandeur characterizes the exterior of the imposing, permanent Musées d'Art Moderne, especially the stepped court between it and the Seine with its broad basin, its square beds of flowers, and its sculptures.

If great scale is the property of these permanent buildings, equally well done and equally beautiful is the sense of intimate, human scale achieved in many of the other exhibition buildings. That is the merit of the decentralized plan; it allows a building, or a group of buildings, to be designed primarily for exhibition with no false grandeur to distract one, and with varied and quiet garden courts for rest and contrast. Such is the group La Femme, L'enfant, et La Famille; such are the varied open spaces around and between the buildings of the Centre des Metiers. Everywhere the visitor finds trees, pools, the purling of fountains, and a sense of enclosure away from the bustle and crowds of the main thorough-

fares. Every effort has been made to preserve the existing trees of the Quais and the little squares of the site. Buildings are built around them; sometimes the trunks run up in the centers of porches or halls. The trees, as it were, form an architecture of their own, reinforcing and humanizing the simple posts and planes that distinguish most of the buildings. Again and again building shapes and groupings that look confused on the plan achieve meaning, beauty, and an engaging human quality because of the trees and gardens.

Another most important and significant merit of the Exposition is its daring use of many materials, and especially of glass. This is what most differentiates it from fairs of the past. Occasional buildings, like that of the Société des Artistes-Decorateurs, recall the box-like and stodgy solidity of much of Chicago in 1933, but they are the exception. Generally, the buildings are light and airy, with literal acres of glass flashing in the sun, reflecting the sky and the trees around, and giving again and again an atmosphere of the most attractive gaiety. Noteworthy examples are the Pavillon de Metal, where glass is combined with slim supports of steel, minimum wall surfaces and a thin tower sheathed with green or shining copper and stainless steel; the stair hall ends of the Pavillon des Arts-Feminins, where the glass walls reveal the rococo fantasy of the plan within; the national buildings of Denmark, Czechoslovakia, Sweden, and Italy. In the Austrian building, too, the entire facade is of great sheets of glass about eight feet by twelve feet, revealing an enormous photo-mural of mountain scenery filling the curved wall behind. This example is particularly instructive in revealing the importance of trees. Without trees in front and at the sides the building would seem empty and naked; with them reflected in the glass surfaces, the whole becomes a delight.

Another feature to be noted is the use of a translucent glass of great beauty, made by sealing two layers of plate glass with matted glass fibres between them. The effect is a sort of textured mother-of-pearl, and the light coming through it is pleasant and



diffused. This glass is used extensively; the most striking use is probably in the Czechoslovakian building, where the entire walls are formed of it. This building, by the way, is a tour-de-force of beautiful steel construction, held on four columns with wide integral cantilevers at each floor and the roof.

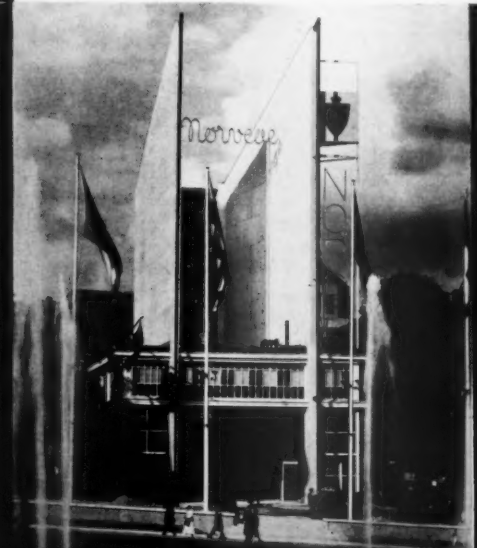
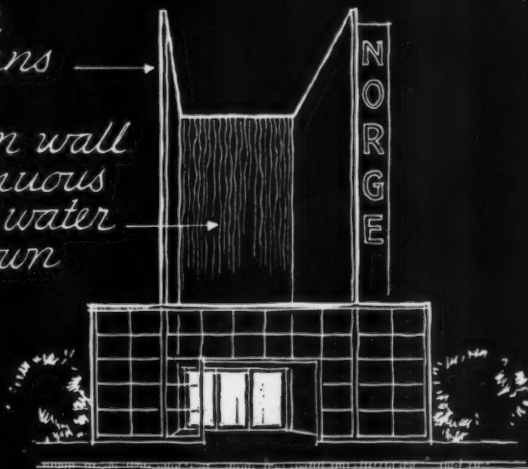
The free use of color is another delight at the Exposition. As in lighting, so in the color treatments, the effects sought are subtle and delicate. Against the creamy white of the permanent buildings of stone is contrasted a scheme based on a clear light sky-blue, a light and dark green, occasional muntins and trim members of bright red, and a standard awning color, used everywhere, of a clear red-orange. Under a sunny sky, this color range combines with the all-pervading green of the trees and the gray-blue of the Seine into a constantly pleasing harmony.

There is also a surprising form harmony running through the whole. It is a difficult harmony to explain, for it embraces such differing expressions as the surrealist vagaries of the Pavillon d'Elegance, the rococo imaginativeness of the Pavillon de Bois and the simple surfaces of the Pavillon de Yachting. It seems a harmony of flat roofs, with copings or projecting shelf cornices simply expressed, of large window areas, of subordination of details, of dominance of the horizontal over the vertical.

There is little in the Exposition which could frankly be termed "International Style," with the possible exception of the Swedish building (the stupid exterior of which conceals a host of interior felicities), yet the whole has style. Perhaps its most significant achievement is that here, in 1937, is a host of buildings which differ enormously in plan, conception, and detail, each one free and in its own way creative, and yet each helps the next and all seem part of one movement, one great design, one culture. Those which are exceptions to this blanket statement are all expressions of basically different cultural ideals such as the pavilions of Germany, Roumania, Egypt, Russia and Italy. The only other exception, that of Norway, is the result of an effort to splurge by the use of exaggerated and useless forms. Perhaps this new harmony is a real thing; perhaps it is more than momentary, and expresses a real internationalism that gives

*High, thin side screens*

*Back screen wall with continuous curtain of water flowing down over it*





# PARIS 1937

## FOREIGN PAVILIONS

(Left above) Czechoslovakia's pavilion is a splendidly engineered building in steel and Thermolux. Krejcar, Architect, and J. Polirka, Engineer. (Center above) Sweden's pavilion is an example of unselfconscious simplicity in the use of light steel framing with panel board infill. S. I. Lind and Seen Ivar, Architects. (Right above) Poland's pavilion is a curious arrangement of free exhibits held together by an interesting stone cloister-like connection. Pniowski & Brukalski, Architects. Finland's wood pavilion is of unusual architectural and structural significance. Alvar Aalto, Architect. Denmark's pavilion has the quality of sound architecture in that it is completely designed to fulfill its purpose with both efficiency and taste. Tyge Hvass, Architect. (Below) Italy's pavilion bears the definite stamp of contemporary official building in Italy. Its one weakness is a monumental quality out of harmony with exhibition purposes. Marcello Piacentini, Architect. Opposite page (top) Spain's pavilion is a frank composition of glass and steel framework serving as a background for propaganda in the form of silhouetted lettering and photo-murals. The concrete sculpture in the left foreground is by Alberto. Sert & La Casa are the Architects. (Center) Japan's pavilion, with much the same exterior effect, translates the jewel-like elegance of the Orient into candid terms of steel and glass. Sakakura, a former pupil of Corbusier, was the architect. (Below) Norway's pavilion, despite pretentious high corrugated iron side screens, offers considerable interest in the backlighted curtain of water constantly flowing over the glass back screen, making the building especially effective at night. Schistad & Korsmo-Knudsen, Architects

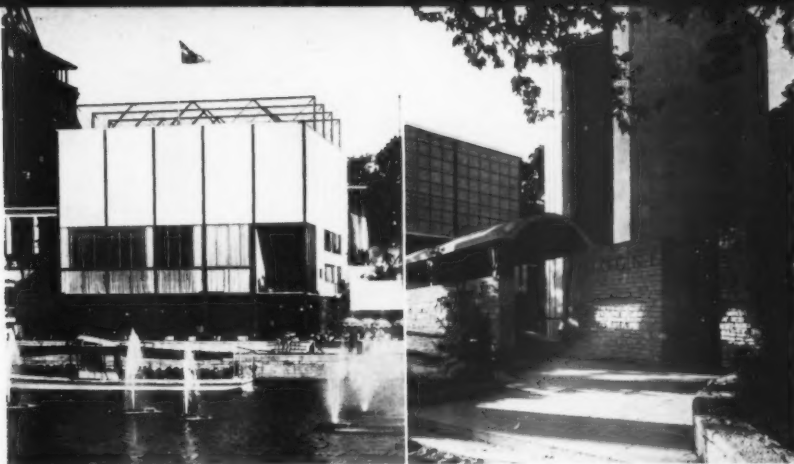
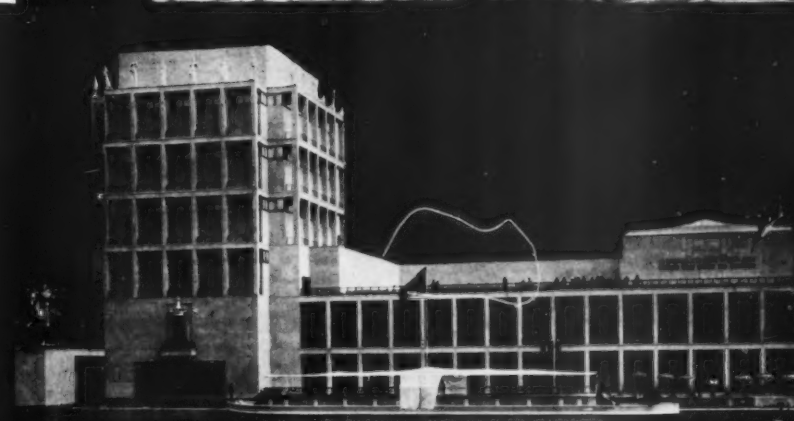
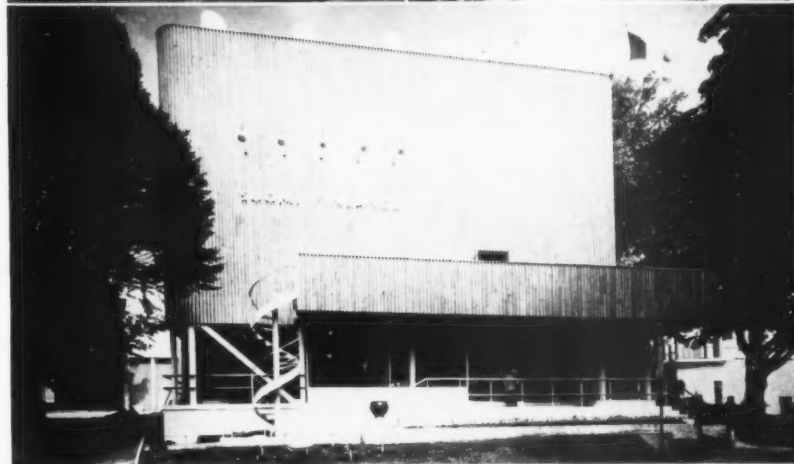
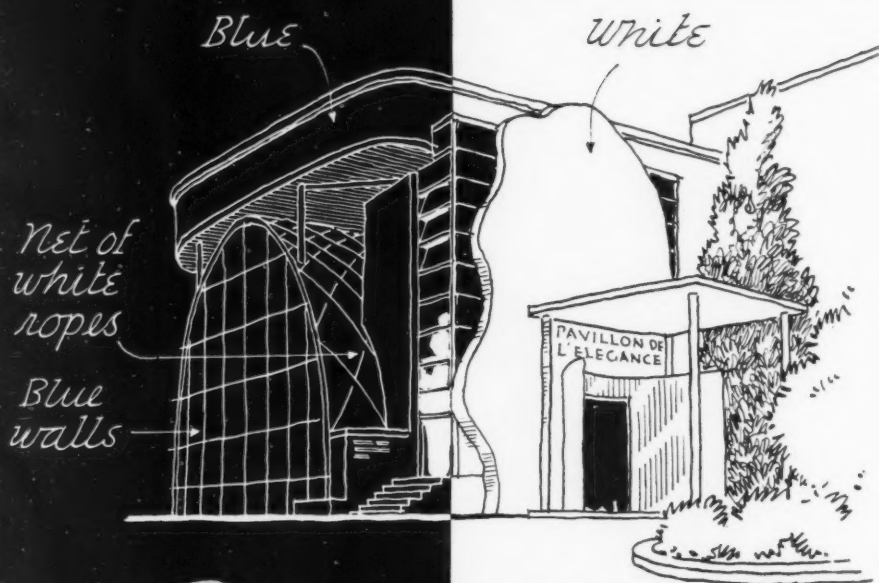


PHOTO: PAN





(Above) The Aviation Palace suggests aerodynamics, with its vast transparent form of steel and rhodoid, a plastic. Audoul, Hartwig & Cérodius, Architects. (Left) Surrealism in buildings serves best to house the fashion displays. Ailland, Kohlmann & Ventre, Architects. Opposite page (top): The Photography and Motion Picture Pavilion uses a projected movie as a decorative frieze. De Saint-Maurice & Lemaire, Architects. The pavilion for the Union des Artistes Modernes houses some of the best work of the most advanced French designers and painters. Pingusson, Jourdain & Louis, Architects. The façade of the Publicity Pavilion consists of a metal grille ornamented with large advertisements. Grange, Le Roy, Vandenbensch & Vazeille, Architects. (Below) The Hygiene Pavilion designed by Robert Mallet-Stevens, Architect

point to the enormous and moving tower of Peace, surrounded by its crowded circle of national flags.

Of course the Exposition has its faults. The worst is its enormous distances, and the actual physical difficulty of getting along the Seine banks to its multifarious centers. The right bank Quai had to be kept free for city traffic; its road becomes an impassable barrier between sections of the Exhibition for nearly a mile. The Musées d'Art Moderne becomes only on paper a part of the effect of the whole. The entire south end of the main axis becomes a sort of terra deserta, lost and forlorn, to be reached only by a tiresome cross-over on a high foot-bridge. But distance is only part of the trouble; there has occurred a real confusion of functional relationships. Sections devoted to art are here, there, and everywhere. Building materials are generally near the Pont Alexandre III and the Grand Palais, but Plastics and Paints, and the buildings of the Grand Masse of both the Ecole des Beaux Arts and the Ecole des Arts Decoratives are away out on the main axis near the Ecole Militaire. The best centralization is of the Centre des Metiers, still far from complete, but the petits metiers (including for some strange reason Le Corbusier's surrealistically brilliant tent of L'Esprit Nouveau) are miles way, not in the Exposition grounds at all, but at the annex at the Porte Maillot. This makes a serious study of any subject extraordinarily difficult and wearing. To know the exhibits at all thoroughly would require at least a month of solid time, and half of that at least would be devoted to getting from one place to another. Nor is the system of little electric trains much help. They cover most of the show, to be sure, and they are silent and

# PARIS 1937

## FRENCH PAVILIONS

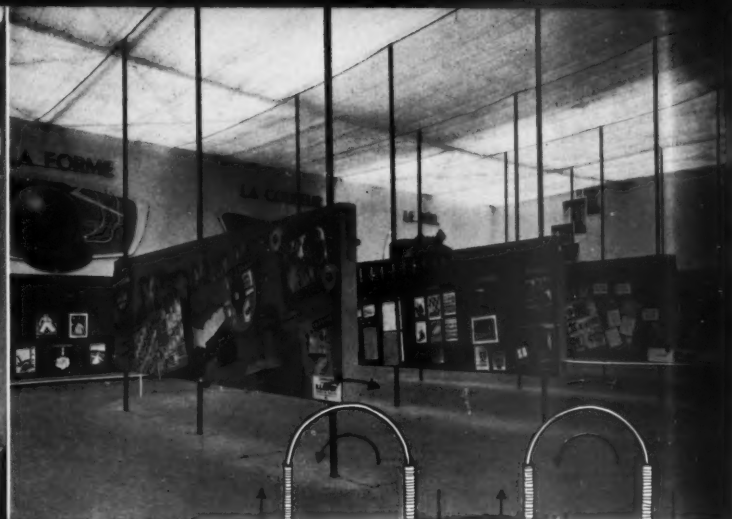
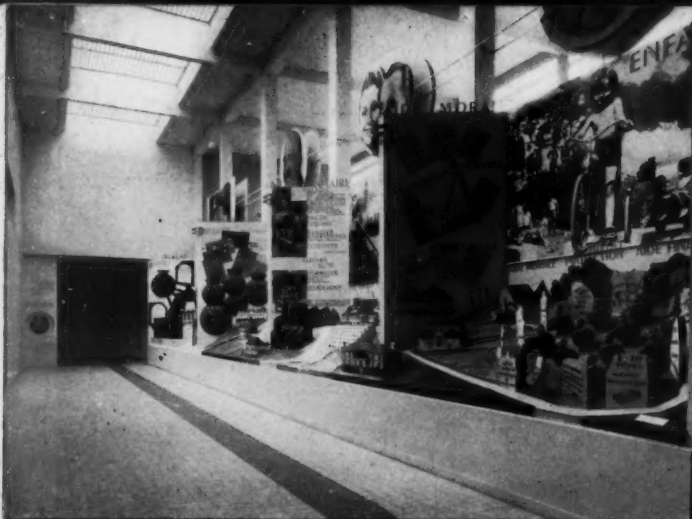
comfortable, but in the entire route they cover there are but three stops! The system of boats on the river is much more useful, and equally pleasant; in fact, a round trip on one of these boats, which takes about an hour, is the best way to get a general impression of the whole.

Related to this difficulty of enormous distances and confused functions is the matter of the one great wasted opportunity of the Fair. That is the fact of the unexplainable petering out of the character both of buildings and exhibits on either side of the main axis south of the Eiffel Tower, and the two exciting buildings, the Cinema and the Presse, which it straddles. North of these is the superb opening between the British and Belgian buildings, then the great bridge, with its flanking fountains, followed by the magnificence of the Trocadero layout. South of them is a second-rate State Fair, with leftover exhibition buildings and booths selling beer, lemonade and cheap souvenirs. Fortunately, as seen from the Trocadero, the Eiffel Tower closes the view and becomes the climax; one forgets the wastes beyond.

Yet despite all this, the Exposition remains a great creation, instinct with the beauty of disciplined exuberance, with a surprisingly sensitive feeling for form and color. And what exuberance there is! Again and again the architects have taken the opportunity offered by temporary buildings to build almost dream creations. Such is the Pavillon d'Elegance, with its curved forms covered with a network of rope, out of which sprout more rigid structural forms; within, the whole becomes a labyrinth of caves of white plaster, beautifully lit, with surrealist plaster trees and shells, and great hands forming booths in which swaying faceless mannequins of plaster wear the lamé and satin of Patou, or Alix. Such is the Pavillon des Arts Feminins, with its swirling curved walls, its enormous mural and its airy glass-walled halls. Such, in a different way, is the Pavillon de Metaux, with its steel supports, its great circular end, its cantilevered balconies, its vestibules of gleaming polished copper and steel. Such is the Pavillon de Bois, with its classic, symmetrical form sheathed in golden-brown wood used in a great variety of ways. Such is the Polish building, with its separate units, so different yet so harmonious; and such is the Pavillon de St. Gobain (the great French glass company), perhaps the most brilliant individual building in the Exposition, with its black-glass-covered columns and girders, its curved front, its glass brick walls, its vault-light roof and floors, and its lovely fountains.

One element in the design of individual buildings seems more important than any other, circulation. That, more than any other single thing, makes or mars an exhibition

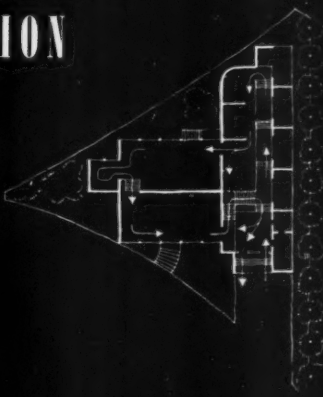




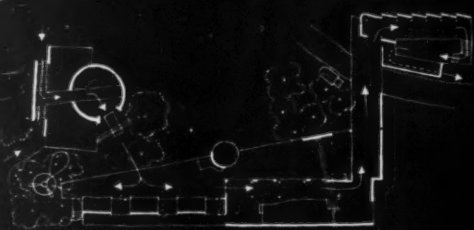
# PARIS 1937

## CIRCULATION

Although circulation in the fair was bad, because of its elongated plan, circulation in most individual pavilions was admirable. Reading clockwise (above): Traffic flowed past dramatic displays in the Social Service Pavilion; a serpentine arrangement of lateral panel displays and railings in the Advertising Building; a veritable house of glass, the St. Gobain Glass Company Building; the exterior stairway of steel characteristic of the unpretentious Swiss Pavilion; a steel spiral stairway, which lends a graceful note to the Finnish Pavilion; and ramps and stairway in steel and cement on the Spanish Pavilion. The plans illustrate circulation in the various buildings



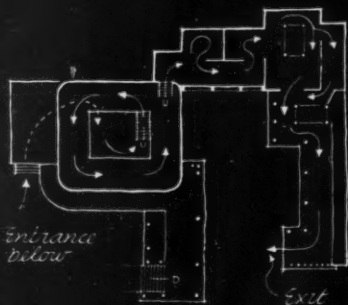
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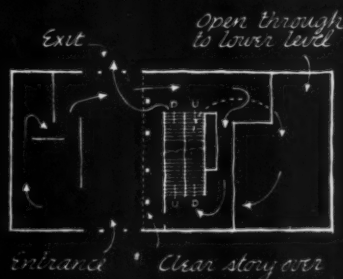
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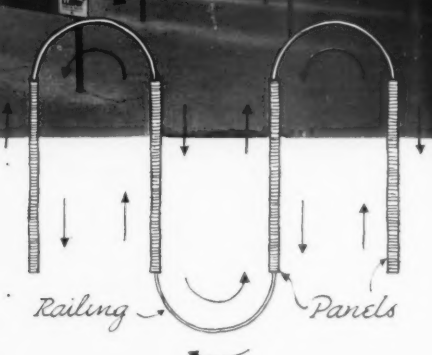
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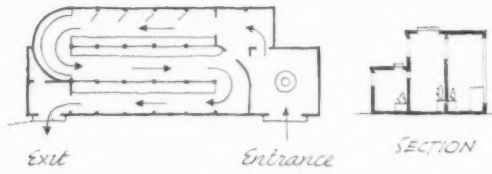
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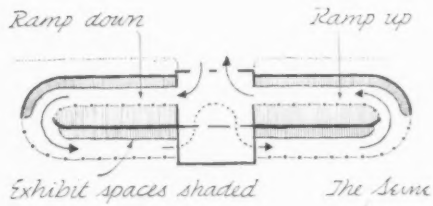
building, not only determining the pleasantness or unpleasantness of one's experience with the building as a whole, but also determining the impress and lasting quality of the effect of the exhibits themselves. The visitors progress through the building must be controlled; the element of choice must never be allowed, for that means indecision, delay, and crowding. Usually, this has been well solved, but the larger the building, the more difficult the problem. The single great hall, as in the German or Russian buildings, is not usually the best answer. Differences in level have been brilliantly used in many cases, and the best buildings usually have entirely separate entrances and exits. A sort of spiral path on two or even three levels works most effectively in the buildings of Finland, Sweden, and Czechoslovakia. In the interesting Hygiene Building there is a ramp system, first down, with exhibits along the gentle slope, then the main Red Cross element directly under the Entrance Hall, then back and up again on the other side in a symmetrical rising ramp. Simple "S" circulation is imaginatively used in many cases, especially in the building of the Social Service Works of the French Government. With these systems, and combinations of them, enormous quantities of varied exhibits can be brought into one coherent pattern. It is to be regretted that with all the brilliant solutions of this circulation pattern in other national buildings, the United States Building seems to have none at all; indecision and aimless wandering destroy the effect of its exhibits almost entirely.

It does not seem quite enough to use mere booths and screens to produce or control this circulation. Actual integration into the building design seems necessary as well. In the Czechoslovakian Building, for instance, small exhibits are concentrated on the lower floors in booths and dioramas framed dramatically in black, with a great use of rich carved and etched glass screens. From there,

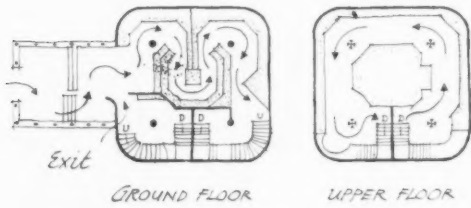




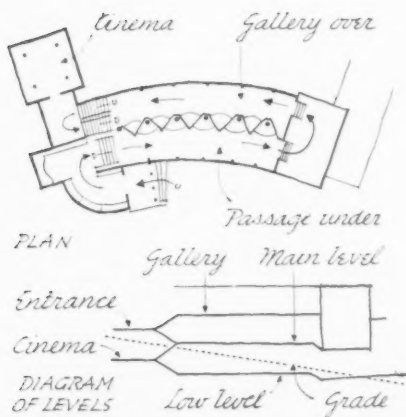
**SOCIAL SERVICE**



**HYGIENE**



**CZECHOSLOVAKIA**



**HOLLAND**



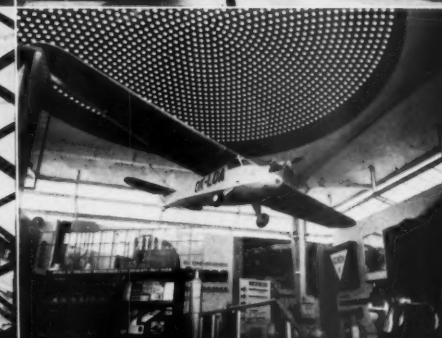
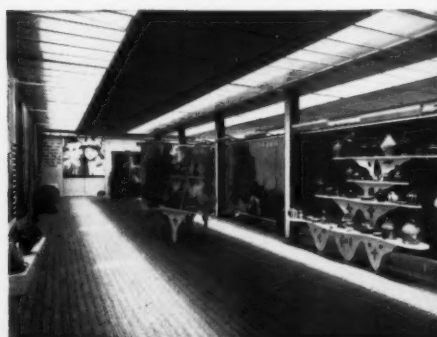


ingenious stairs lead to the upper floor where large machines and mechanical parts are located; there, the airy height becomes a virtue and serves as well for a climax. In Mallet-Stevens' building for the Social Services of France, the integration is by means of varying the levels, the color, and the lighting of the different aisles, and the emphasis of direction by mosaic lines in the floor. Again and again, in the really serious and successful buildings, exhibit and building are designed as one unit. That, it seems to me, is perhaps the most important technical achievement in the Exposition.

Certain buildings stand out as especially successful and beautiful. The Pavillon de St. Gobain perhaps heads the list, with its brilliant, curved, plate glass facade, its mirrored rear wall, and its ends of glass brick; within, the light pours down through vaulted roof and floors. Even the ducts and louvers of the air-conditioning system are glass. It is a poem of light; and here, as so often in this Fair, the trees that stand in front of it are integral parts of its effect. And the exhibits within are as clearly designed as the building itself. Then comes Finland's building because of the imaginative charm of its arrangement, its level changes, its almost Pompeian courts, its exquisite craftsmanship, and the beauty and

originality of the detailing of the wood which sheaths most of it. Next, the Czechoslovakian building, for its ingenious circulation, the brilliance of its steel frame and cantilevered balconies, the beauty of its glass, and its unity. Then the Pavillon de Bois for its lavish use of wood, its clear, simple openness of conception, and its elegance. Then, perhaps the most charming, most original of all, the building of Poland, with its portico entrance of rough stone, bronze and concrete, its simple and perfectly arranged exhibition pavilion proper.

Finally, the memory returns again and again, as in the Exposition itself one's feet seem led inevitably back, to the Trocadero center at night, with the changing, delicate lights on the Eiffel Tower, the almost elemental power and grace of the multitudinous small jets, and the central torrential plunge of that vast fountain. There the spirit of all the best at the Fair is incarnated. Clarity, power, delicacy, schooled but vivid and varied exuberance; these form the essence of the Fair's contribution. We need no longer fight about modern architecture, and the rightness of the left wing or the wrongness of the right. Paris in 1937, has tested them, proved them. At least, it says we have an architecture of infinite possibilities, yet one architecture, born of our life in our age.



## PARIS 1937 DISPLAY TECHNIQUE

(Above) The St. Gobain Glass Company Building is an extraordinary engineering feat since it is built almost entirely of glass in one form or other. At the right are illustrations showing the high order of contemporary publicity and sales methods, each individual and fresh. They include examples in the Spanish, Japanese, Swiss, Czechoslovakian, Aviation and Modern Artists Buildings

PHOTO: MOULDE



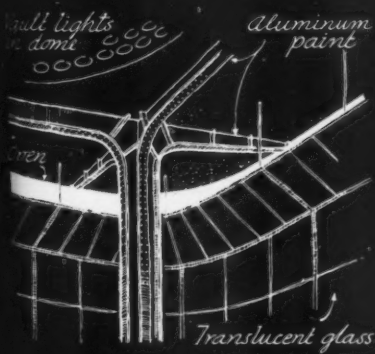
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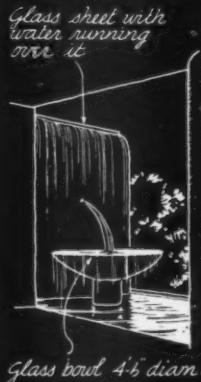
A detail of the Publicity Pavilion and (below) the garden in the Polish Pavilion. On one side of the Austrian Building (right) is a large mural in tan and gray raised cement. All solid interior walls are covered by a huge photomural of a Tyrolean scene



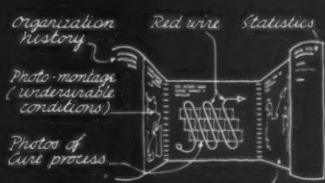
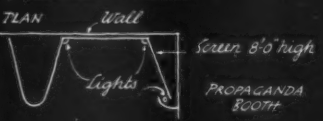
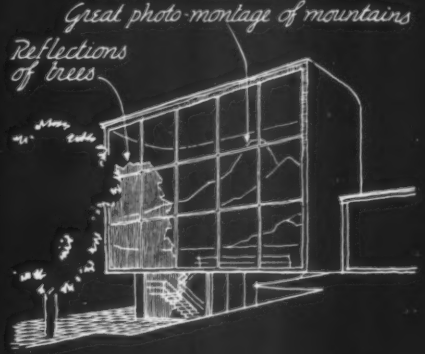
PHOTOS: BONNEY



An example of the steel and glass construction system in the Czechoslovakian Pavilion



Two of the many unusual features of the St. Gobain Building



Pavillon de La Femme, L'enfant, La Famille

Photo-montage, desirable end



PHOTOS: VAN DE POLL

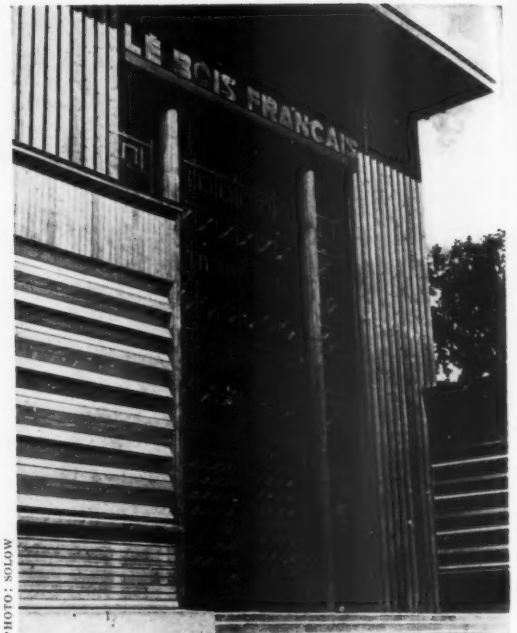
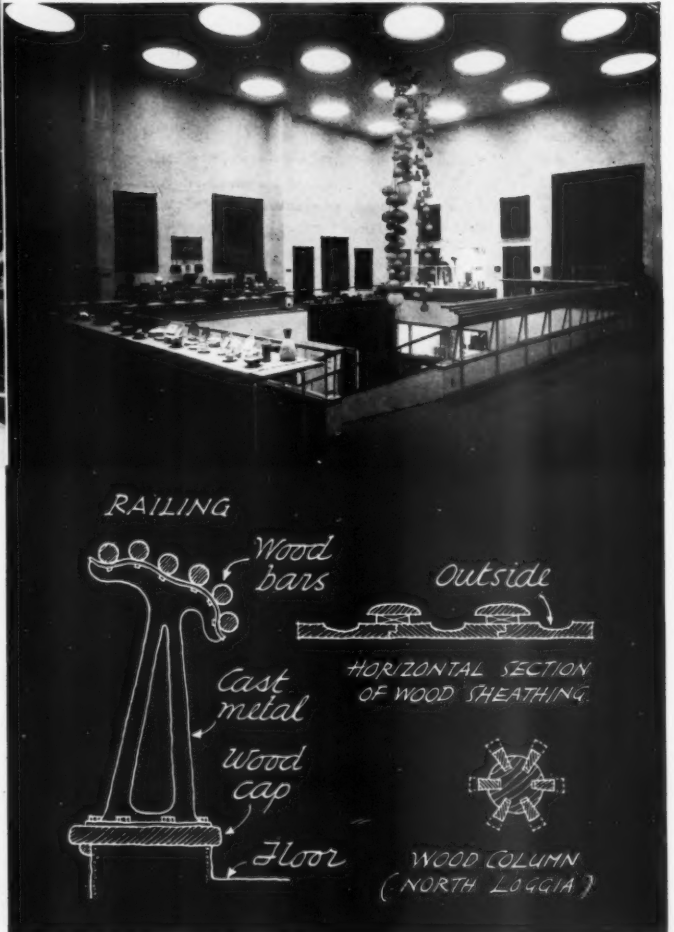


PHOTO: SOLOW

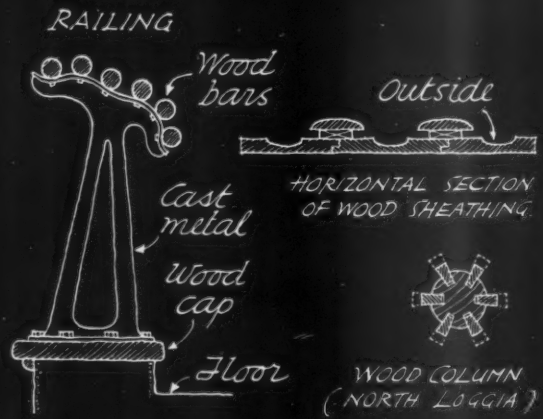
(Above) The building used for exhibits of the wood industries sets out to prove that wood is one of the most flexible of materials and does it very successfully. (Left and below) The exterior treatment of the Finnish Pavilion is of vertical wood sheathing with a clear natural varnish finish. There are many other unusual details such as the fin type reinforcements on columns and quadruple posts laced together. The interior is equally fine. Alvar Aalto, Architect

PHOTO: BONNEY



# PARIS 1937

## WOOD STRUCTURES



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# THE WAGNER-STEAGALL HOUSING ACT OF 1937

**COLEMAN WOODBURY**, . . . Director, National Association of Housing Officials

**CLARENCE STEIN**, . . . Architect of Sunnyside, Radburn, Hillside Homes

**LANGDON POST**, . . . Chairman of New York City Housing Authority

**ALBERT MAYER**, . . . Architect, formerly with Resettlement Administration

*With Nathan Straus, a member of the New York City Housing Authority, named by the President to be Federal Housing Administrator, the \$526,000,000 program for housing begins to take form. The Wagner housing act as passed, although radically compromised from its original draft, should serve as the foundation for achieving adequate housing for those in the lower income brackets. Accordingly, the Editors asked for an expression of opinion from a number of architects long identified with housing. Their comment is presented herewith.*

## COLEMAN WOODBURY

In recent weeks I have heard two types of comment on the Wagner-Steagall Act. One group seems to think that the bill was so weakened by Congress that nothing worth while can be done under it. The other group sees little but fine weather and clear sailing ahead. I disagree most heartily with both of these opinions. Let's examine each of them for a moment.

I believe that anyone who will re-read the bill as originally introduced by Senator Wagner and the Act as passed will be amazed that so many of the fundamentals of the original measure remain intact despite the widespread verbal changes. The principle of local responsibility has been maintained. The prospect of uniting the low-rent public housing activities of the federal government under one agency still exists. Annual grants, the pay-as-you-go principle applied to housing subsidy, remain untouched. Although the amount of bonds and appropriations authorized was cut down, it still allows a very substantial start to be made within the next two or three years. If all the funds are wisely used, the long-awaited housing program for families of low income will be very well launched.

To be sure, the Act has weaknesses that may prove in practice to be serious. The civil service provisions are very bad. The requirement of clearance equal to new construction neglects a basic economic housing fact—the approaching and, in some cities, the existing shortage of low-rent quarters. The flat cost limits are also unfortunate. Furthermore, the requirement of local contributions to subsidies and some non-federal capital funds, although sound in principle, will cause difficulty in some communities that sorely need more and better housing.

These and some other sections will require careful and sympathetic interpretation by the new Administrator. Without this, they may make a lot of trouble. None of them, however, nor any combination of them seems certain to prevent substantial accomplishment under intelligent administration and the close co-operation of local and federal authorities.

As to the Pollyanna view of things, I would be the last to deny that recognizing local responsibility for planning, initiating, building, owning and managing low-rent housing is a long step toward a practical, flexible program, particularly in a country as large and varied as ours. Some of our problems of the last three or four years will be taken care of by this shift from centralized to de-centralized organization. Many of the most bothersome administrative and technical problems, however, will still haunt us. Wise site selection, land cost, difficulties of assembling sites, the types of housing to be built, the most economical balance of construction and maintenance costs, tenant selection, proper maintenance and operation of the properties, plus encouragement of healthy neighborhood life with a minimum charge on the rents, are, and will continue to be, problems requiring skill, patience and open minds.

And this is not all: de-centralization of responsibility will create at least two new problems of first importance. Local financing must be forthcoming both for projects and for the day-to-day operations of local authorities. Without appropriations commensurate with their important and varied duties, local authorities simply will not be able to do what is expected of them. Good intentions, civic spirit, and devotion to a fine program are splendid things, but they do not assemble large tracts cheaply, nor do they design economical buildings. Local authorities must have money to build up first-rate staffs. In the long run, this money will be saved many times over, but securing it in the first place is not going to be particularly easy in many localities. Secondly, local authorities and their friends must realize that the individuals and groups opposed to this kind of housing are usually stronger in local opinion and legislation than they are in Washington.

In short, the Wagner-Steagall Act makes possible a fine start toward a low-rent housing program in the United States. It is not perfect, but it can be made to work by careful and sympathetic administration. By and of itself, however, it solves



PHOTOS: COURTESY PWA

PWA Cedar Central Apartments, Cleveland



PWA Lockefield Garden Apartments, Indianapolis

relatively few problems. It transfers many troubles from Washington offices to cities throughout the country. Furthermore, de-centralization creates other difficulties that should not be overlooked. If local and federal authorities will work together, however, their combined experience and knowledge will produce results. The National Association of Housing Officials stands ready to help all housing authorities.

### CLARENCE STEIN

Many of the best friends of housing are dissatisfied with the Wagner Housing Bill. I think they have lost their sense of perspective. They seem to forget that until a few years ago there were only a handful of people in these United States who understood the need of active governmental participation in housing. Within these few years there has grown a country-wide movement strong enough to force Congress to pass legislation making housing a permanent policy. In doing this they have taken the step that makes governmental housing on a colossal scale inevitable. We can no longer turn back.

The law as it stands, like most legislation of a tired Congress, is a compromise—consisting of good and bad elements.

First let us consider the good. The Authority is to consist of one member, the Administrator—instead of a Board. This centralizes responsibility which is the only way to get things done.

The declaration of policy is that of employing the funds and credits of the United States "to remedy the unsafe and unsanitary housing conditions for families of low income." "Families of low income" is defined as those "who cannot afford to pay enough to cause private enterprise . . . to build an adequate supply of decent, safe, and sanitary dwellings for their use." This means in most large cities some two-thirds of the population. Admittedly the amount of funds and credit authorized under this act is absurdly small for this purpose. But this is not important. The acceptance of active responsibility is the thing that counts. The political strength of those who require aid will see that the amount is increased in the future.

The law limits the loans to be made through the Housing Authority to 90% of the development and acquisition costs and the annual contribution (or subsidy) to 80% of what may

be required. It is claimed that most local governments cannot afford to make up the difference. I do not agree. This law is intended to make housing a local responsibility. If housing is to be a local responsibility the local governments should do their share towards paying the expense. If they want housing badly enough they will find the means with which to pay a share of the cost. They pay for a lot of things that they cannot afford any more than housing. Education is an example. Ten per cent of original cost, 20% of annual loss, may be enough for the local governments to pay in the beginning. It should be increased as time goes on. Otherwise, we will never be able to build at the scale required. If the national government should attempt to foot the whole bill, there will be justifiable political opposition of the rural districts.

Land can be used as local contribution. Therefore, it would appear to be a good municipal policy for cities to take land where taxes are not paid. Let them stop being soft-hearted towards the land owners and become soft-hearted towards those who need homes.

A large part if not all of the local government's annual contribution can be covered by tax exemption. This should be easy to secure without too much political opposition—even of the real estate interests. Where municipalities find that they cannot adjust their taxes immediately to take care of the additional governmental cost of housing State credit should be made available. State credit might also be used as a means of developing housing for those higher bracketed income groups which are not taken care of by the national law, and which, along with the very poor, are unable to secure decent homes. Some of our states, notably New York, can at present borrow at a lower rate of interest than the United States.

Capital grants are permitted as an alternate. Sir Raymond Unwin pointed out that this method has not been as successful in Europe as annual grants. It was included in the bill as a compromise. Its use is not compulsory and so it need do no harm. In general, it seems to be better to give the authority as broad powers as possible.

One great defect of the law is that the action and power of the Authority is hedged in too much. Those that drew up the law forgot or never knew that housing in this country is still in an experimental stage.



PWA Liberty Square Development, Miami



PWA Meeting Street Manor Development, Charleston

On this basis I object to the limitations that are set on the cost of housing. I do not think that the type of housing proposed should cost more than \$1,250 per room if the work is administered locally and sanely. But such limitations should be set by the Housing Authority—an administrative body—and not by Congress—a legislative body.

What the houses actually cost will depend to a great extent on the manner in which the law is administered. The outstanding defect of the law is that it places its administration in that Department of the U. S. Government which is primarily responsible for the circumlocution system under which housing was carried on under the PWA. We all appreciate honesty in carrying out governmental activities but when this means the absurd waste of time and money that we have witnessed in the centralized administration of housing, we are driven to question its *economic* value. Suspicion and red tape and unnecessarily complicated precautions have put the housing program back at least a year and as a result lost a large share of the money that could have been spent for housing (which was turned over to WPA and other uses). It has been the principal cause of the excessively high cost of most housing built directly under the PWA.

The new act does not give the Authority the power to carry on housing directly as has been done by the PWA. National funds and credit are to be used to assist in the several states and their political subdivisions, through Authorities set up by these local governments. But I can find nothing in the law that prohibits the continuation of the dictation of all policy by centralized Authority. What is there that will prevent the Authority from passing on the appointment of the Architect which is the equivalent to choosing the Architect? What will prevent them from refusing loans unless the Architect copies specifications prepared in Washington and accepts their canned plans? What is to prevent national supervisors from dictating the manner in which the buildings are to be erected and even from taking all control of supervision from the local Architects as was done in the centralized housing under the PWA?

I am not arguing that a national government should not have power of criticism and supervision of the housing for which it pays 90% of the cost. They have it in Europe. But in those countries that have had long experience, such as Great

Britain, the central government leaves as much as possible to the local authorities and their Architects. All that it attempts to do is to protect itself by seeing that the planning is adequate and that construction is as good as the standard that it has set up. And that is what our U. S. Authority should do. It is still hoped that it may do so if a strong enough and a wise enough man is appointed as Administrator of the Authority.

#### LANGDON POST

The United States Housing Act of 1937, more commonly known as the Wagner-Steagall housing bill, is the first step towards a long-range Federal housing program. This is probably the most important thing about it. Housing was first recognized as a proper activity for the Federal Government in the National Industrial Recovery Act of 1933, but now for the first time it is separated from the effort to provide employment and is established in an organization which must stand on its own feet.

The beginning which has been made through the Housing Division of the Public Works Administration must therefore now be developed into a long-range program for improving the living conditions of that third of the population which is ill-housed. The most pressing need and the conditions which most demand immediate action are, of course, the slums of our large cities, although there is unquestionably plenty of bad housing elsewhere which should also receive attention.

The \$500,000,000 which has been provided for the initial three year period will not go very far. The Act was amended by both the Senate and the House of Representatives with certain restrictions which may somewhat hamper its administration. The limitation of construction cost to \$1250 per room, or \$5,000 per dwelling unit in cities of 500,000 population or more, and to \$1,000 per room, or \$4,000 per dwelling unit in smaller cities will create difficulties in various localities where construction costs are high. In New York City, for example, it seems to mean that fireproof construction is out of the question. Nevertheless, the limitation is reasonable in principle, and if it is given a liberal interpretation in such matters as the definition of a room and of a dwelling unit there is no reason why it should not be workable.

The amendment which restricts the amount which may be lent in any State to ten per cent of the total does seem manifestly unfair to States like New York, Pennsylvania, Ohio and Illinois, and perhaps a few others, which have a very large proportion of the city slums. I sincerely hope that this particular restriction can be modified during the next session of the Congress.

On the other hand the Act is fair, generous and sensible in its subsidy provisions and embodies a flexible formula for annual payments which, in the opinion of experts, is decidedly the best formula yet evolved to make low rentals possible for those who most need them.

Taking it as a whole, therefore, I repeat that this Act does for the first time set up the proper basis for an adequate low-rent housing program in the United States and if this program gets thoroughly under way during the next three years we will actually be moving toward the real solution of the housing problem.

### ALBERT MAYER

The great, the stirring fact is that public subsidized housing has now a permanent place in our activities as a nation. However thin the entering wedge, housing has jumped from its emergency make-work status, with the future of even its completed projects uncertain, to a recognized public responsibility.

Of course, the amount of housing provided for is ridiculously small as compared with the need. Of course, it still leaves us incomparably far behind any of the other Western nations. But small as it is it is better than we deserve and is a tribute to the energy and tenacity of relatively a handful of people. If we want provision on the scale that we need we must realize we have only begun. We must vastly increase the breadth and intensity of pressure behind the movement, we must effectively mobilize the masses who should have it. We must not only push for more Federal action, we must see that the States and localities bestir themselves both to co-operate with the Federal government and to find funds of their own. In every city, in every state, housing must become a vital issue if we are really to get anywhere.

There are, of course, major defects in the bill. One of these is the restriction that a maximum of only 10% of the funds can go to any one State. This means not more than one or two good-sized projects a year in any one city. It is hardly enough to permit any one Authority to engage a capable and adequate permanent staff and to adopt a land acquisition policy, so that it could become the spearhead of experience from which others could learn. It still smacks too much of the hand-to-mouth policy that perforce existed in the emergency program.

A second serious defect is the limitation of construction cost per dwelling to \$4,000 in the smaller cities and \$5,000 in the larger ones, with no limitation on the land cost. If any such restriction had to be included, it would have been much more sensible to have done exactly the reverse—though, of course, not so advantageous to owners of real estate. The U. S. Housing Authority and local public opinion must limit land cost.

How can construction costs be reduced in the localities where that is necessary to meet the bill's limits? It is not likely that pre-fabrication or other new building methods will do much to reduce construction costs in the next few years. Lowered standards of amenity will, no doubt, be sought as a solution, though any defensible degree of lowering acceptable to an American community will have much less effect on costs than is generally supposed. Nor is the program big enough to affect the labor and material market. In my judgment a substantial cost reduction will come mainly from one source. The officials who control policy, the architects and engineers in charge of design, must abandon the attitude of super-safety, super-meticulousness which has so far characterized public housing and has scared the life out of contractors. This imponderable has increased costs by an incalculable but very large percentage. This is not to say that we must take a lot of chances, stand for sloppy work. But it is to say that we must approach public housing design in a sensible spirit exactly as we do good private work, protecting our clients' interests but not to such a fantastic degree that the client cannot afford to build. We must take public housing out of its cotton wool wrappings and deal with it realistically and sanely. If the Wagner bill's cost restrictions force us into that degree of courage where we are not all frightened to do anything but the superbest, for fear that someone somewhere may criticize us, that apparent obstacle will prove something of a boon.

PWA Cedar Springs Place, Dallas







PHOTOS: GEORGE H. VAN ANDA

## HOUSE OF MRS. K. WILDER GLADSTONE, NEW JERSEY

Inspired by the stone houses of the Cotswold district in England, this modern adaptation is well related to the site. The projecting one-story wing and the low stone walls defining the entrance court, do much to knit the structure to the landscape. Walls are of fieldstone, and the roof of wood shingles.

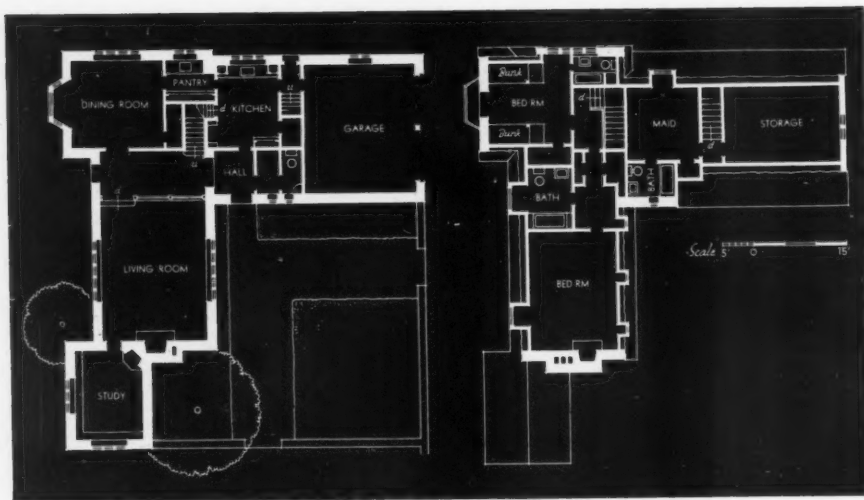
**PERRY M. DUNCAN, ARCHITECT**





**HOUSE IN GLADSTONE, N. J.**  
**PERRY M. DUNCAN, ARCHITECT**

Interiors are consistent with the character of the exterior. The beams of the ceiling in the living-room are from timbers of an old barn, and the ceiling itself is made from sheathing of the same barn, finished in silver gray. Plaster used on the walls was tinted before application, necessitating no further finish. The raised gallery at the entrance end of the living-room lends more of the same character to the room.





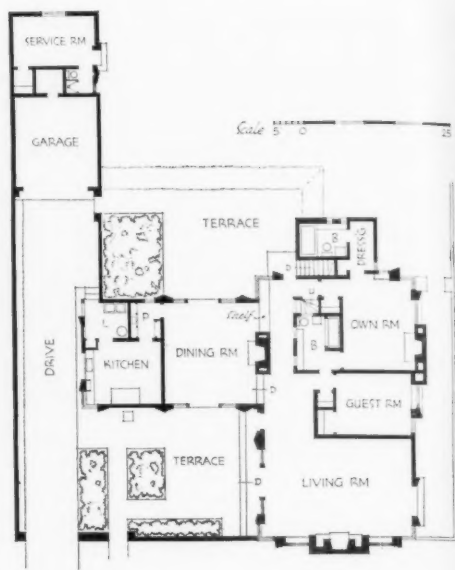
## HOWLAND RESIDENCE, BEVERLY HILLS, CALIFORNIA

**LLOYD WRIGHT, ARCHITECT**

PHOTOS: SHULMAN

An extraordinary transformation has taken place in the renovation of what was originally a banal Spanish-type bungalow. Redesigned to provide a secluded garden court, opening from principal rooms, the house is of stud and metal lath construction with a plaster finish. Exterior plaster is treated with a light blue cement paint. Redwood trim has an air-brushed aluminum paint finish. An interior continuation of the exterior cantilevered cornice serves as a shelf for indirect lighting. A deep air space under the sun terrace roof provides insulation





The sculptured salmon-colored cast stone mantel is characteristic of the architect's fresh and very personal style. An identical sense of fluidity is also evident in the plan. Here there is a flow of space not only between main rooms, but in relation to rooms and garden courts. This results in a sense of privacy, airiness and spaciousness seldom found in a house on a relatively small city lot

**HOWLAND RESIDENCE  
BEVERLY HILLS, CALIFORNIA  
LLOYD WRIGHT, ARCHITECT**



WEEK-END HOUSE  
BEACH HAVEN, N. J.

J. JOSHUA FISH, ARCHITECT



PHOTOS: SCHNALL

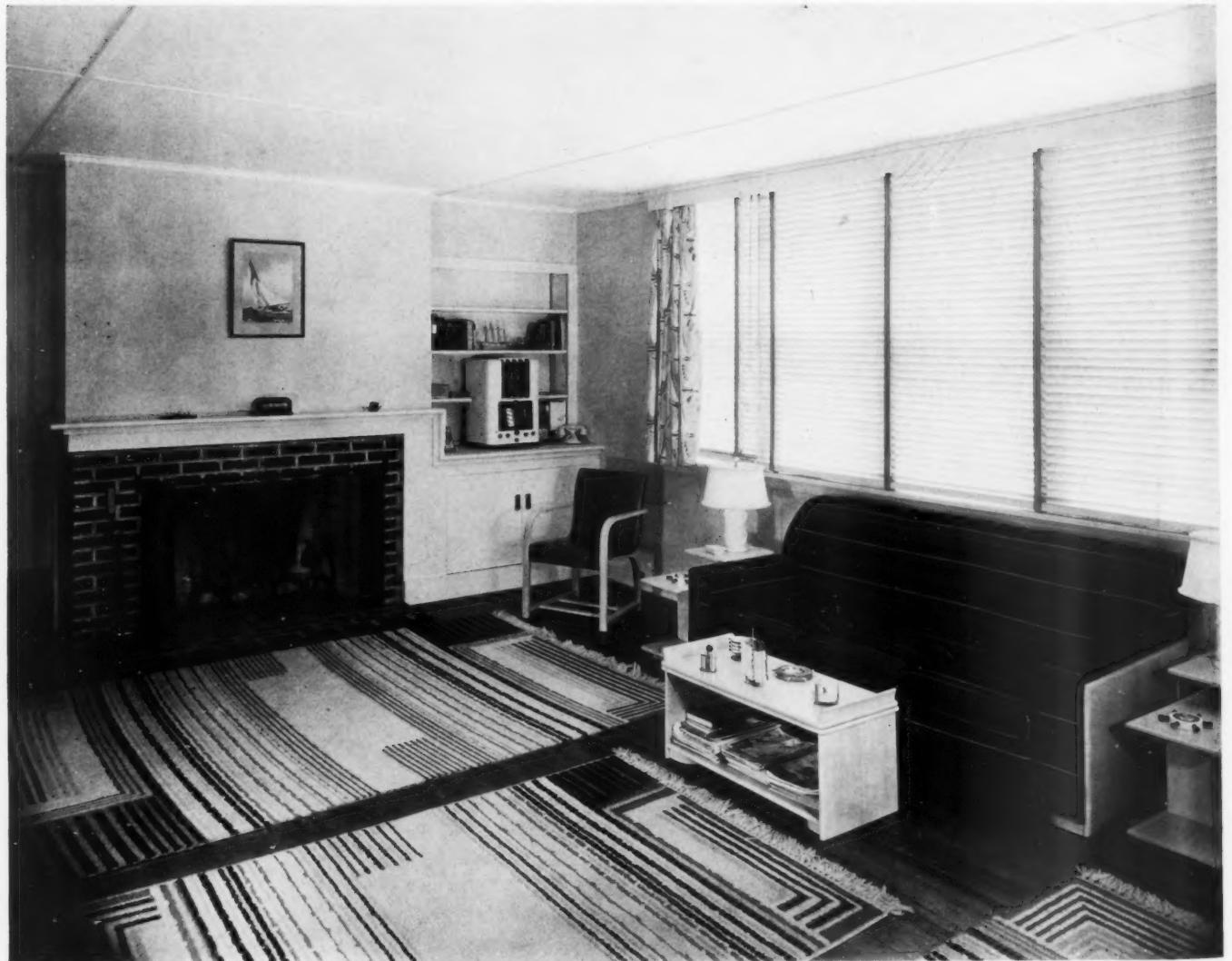


**WEEK-END HOUSE, BEACH HAVEN, N. J.**

**J. JOSHUA FISH**

**ARCHITECT**

Designed solely as a week-end house for two persons, the compact plan has, nevertheless, most of the amenities to be found in houses of a larger type and for year 'round occupancy. All rooms with the exception of the bath, have double exposures, and in addition to the porch on the first-floor level there is a sun deck over the living room. Asbestos shingles make up the exterior finish, and painted insulation board is used on the interiors. Roof is of the built-up type with a wood platform used on the sun deck.





PHOTOS: SAMUEL H. GOTTSCHO

## TWO-FAMILY COTTAGE, MIAMI BEACH, FLORIDA

**THEODORE VISSCHER & JAMES BURLEY, ARCHITECTS**

One of four identical cottages and built for seasonal occupancy, the plans are as compact and efficient as the usual apartment layout. Privacy is insured by the distinctly separate means of entrance and the staggered massing of one apartment over the other. Construction is of concrete blocks with a white stucco finish. Windows, exterior trim and second floor deck railing are painted sea green.





**TWO-FAMILY COTTAGE, MIAMI BEACH, FLORIDA**  
**THEODORE VISSCHER & JAMES BURLEY, ARCHITECTS**

Interiors are airy and well lighted and reflect the simplicity of the exterior. Since the apartments are rented furnished, as much of the furniture as possible is built-in. Living and bedroom walls are painted white and floors are of black mastic tile.







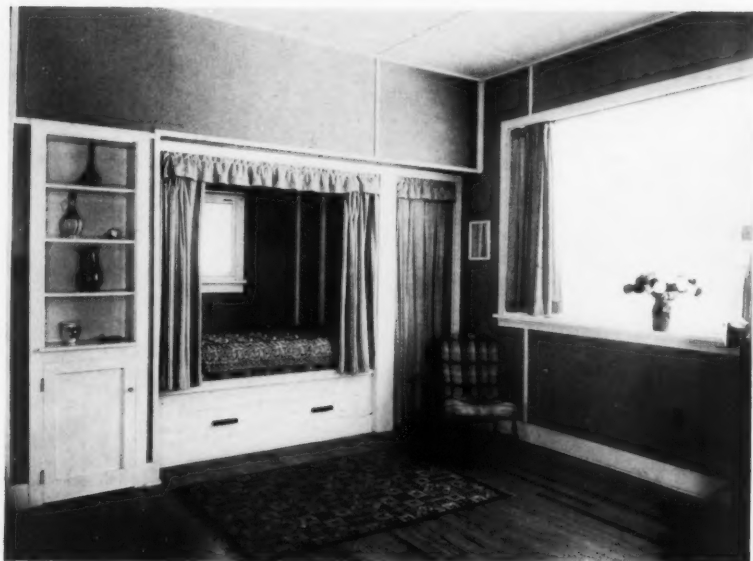
PHOTOS: SCHNALL

## SUMMER HOUSE AND STUDIO, HARVEY CEDARS, N. J.



Simple frame construction and the use of standard siding and windows as employed here, are highly successful in achieving a modern appearance. The results would tend to refute the popular belief that these materials seldom lend themselves to contemporary expression. Advantage was taken of the slope to allow for garage and laundry on the lower level, and the staggered-type plan affords protection from frequent northeast storms.

**J. JOSHUA FISH, ARCHITECT**



Besides the ample terrace facing the ocean, the roof of the bedroom wing is used as deck space for outdoor lounging. The large studio has a great picture window facing north, and a built-in bunk for use of the owner when working late. Interior finish is of unpainted insulation board with white wood trim.

**HOUSE AT HARVEY CEDARS, N. J.**  
**J. JOSHUA FISH, ARCHITECT**

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## THE DIARY

Henry Taylor



*Friday, October 1.*—How does one know when he has produced good architecture? Wesley Bessell and I were discussing this question today, and arrived at one fairly reliable test. It is this: If, after five or ten years, an architect can still look with pleasure on what he has done, it is probably good architecture. Of course, he must be rather searching in his questioning, not allowing too much in favor of the production because it is his own child. There is, of course, the old story of Thomas Hastings, was it not, who found himself going several blocks out of his way on his morning walk to the office in order to avoid seeing a building he had designed long since and now found not so good. Bessell seems to think there is some help for the architect in keeping his judgment straight if he will try to project his appraisal over a period of years into the future, and think how the building he is doing will look then. It is a disturbing thought when one considers how such phantoms as Art Nouveau, Gustav Stickley Furniture, the Morris Chair, and the like have held a high place in our artistic appreciation only to pass into the discard soon afterward.

*Saturday, October 2.*—What about rusty reinforcing bars? Some architectural inspectors reject them, or insist upon their being wire-brushed clean before bedding in the concrete. Usually, of course, the rust represents a very brief accumulation, such as these metal bars will acquire almost over night. I believe a Research Fellowship at Lehigh University has been given the task of finding something more about this rust. Professor M. O. Withey, in a University of Wisconsin bulletin, says that a better bond was secured when using rusted round rods than when using plain round rods. There still remains the question as to whether the rust, having once started, is going to continue to increase while in the concrete.

*Monday, October 4.*—A committee in charge of a monument for St. Louis symbolizing the union of the Mississippi and the Missouri Rivers questioned the fish that Carl Milles put into the sculpture. "These are neither from the Mississippi nor the Missouri. They are unlike anything that comes out of these turbid waters," said the committee. "They are foreign fish," Milles replied. "They are from far away. The statue is so good that fish from all over the world come on to see it."

*Tuesday, October 5.*—John W. Laing, one of the great British builders, is over here to see what we are doing in our large-scale housing. I doubt whether Mr. Laing will go back with many particularly valuable

ideas, for England has long since been through the early stages of attempting to supply shelter for those who are unable to pay an economical rent. It is more likely that we could, if we would, learn much from Mr. Laing's long experience. For one thing, he believes that the way to build houses for the great mass of people is through large-scale operations by larger building companies. With this tackling of a large problem in a large way, he suggests the purchase by the Government of large tracts of land at low prices—the acquisition of land being one of our most difficult hurdles—this land to be resold for housing purposes at cost; the additional Governmental aid being in the form of low-interest loans. It is probably only through the formation of large building companies with year-round employment at a fair wage that we can bring our costs down to a reasonable level.

Hard as it is for us to understand, British experience, as conveyed to us through both Mr. Laing and Sir Raymond Unwin, proves that it is cheaper to build individual houses with their gardens than the apartment type of housing. To American ways of thinking there seems something quite wrong with that picture.



*Wednesday, October 6.*—W. Duncan Lee says that he believes our forthcoming presentation of Mt. Vernon will reveal for the first time "the use made of dummy windows and transoms and other cute little tricks about which we now kid our fellow architects." He doubts, however, whether we shall get a picture or measurements of George Washington's very clever corner posts. Lee found these upon an occasion when he was called in to advise about the building. Some of the floors and wainscotting had been removed. He goes on to say, "We have all probably seen the 'L' and 'T' post adzed out of solid 12" x 12" timbers and the carefully framed 45° braces. George, however, let nature provide his post and brace all in one, with no need for tenons and pins to join them. He picked out his oak trees still in the ground, and when he found one with a good stout limb branching at

about 45°, he cut through both trunk and limb a few feet above the crotch, squared two sides and put it upside down to form post and brace at the corner of his house. Only the outer and inner faces were adzed. The bark is still in the crotch and covers the sides."

*Friday, October 8.*—Gerald Geerlings tells me of a serious threat to the convenience and pleasure of luncheon conferences. It seems that drawing on the tablecloth has become a national problem. I always thought these sketches washed out easily, but apparently the wear and tear in laundering has become another one of these things we have to worry about. Some of the hotels are now furnishing pads, but it is going to slow up thought in having to check the flow of ideas long enough to look for a pad. Incidentally, the statistician reveals that of tablecloth marking, 68½% are statistics; 13% are plans, whether of houses, boats, baby carriages, or what not; 7% run to verse, song titles, etc.; 3% are so-called humor; and 3% just unclassified blobs.

*Monday, October 11.*—How are you going to know whether a field welded joint of steel or piping is really tight? Heretofore it has been largely a matter of faith in the human element. Science is on the trail, however, and has devised a means of testing joints of pipe, at least, with an X-ray machine. It seems a laborious process at first glance, but in a large and important pipe line, the detection of one faulty joint would more than pay for the expense of the X-ray in the entire line.

*Wednesday, October 13.*—The old system of political appointments of architects for city work seems to have been rather successfully superseded in the case of New York City by the procedure adopted two years ago. A jury of three distinguished architects is selected by the presidents of the architectural organizations, the Fine Arts Federation, and the Municipal Art Society. The jury sends out a questionnaire to the practicing architects seeking specific qualifications on the basis of which questionnaires a list of sixty is named. From this list appointments for architectural work by the city are made. In order to avoid depriving the city of the services of the eminent men selected for the jury, their names automatically appear on the list.

*Friday, October 15.*—Most of us are un stinting in our praise of, and admiration for, the early American master builder. He achieved, in some way that we know little about, beauty of proportion, honesty of treatment, and delightful naivete of detail.

Nevertheless, he was certainly at times a great fakir. Harry Leslie Walker called my attention today to a rather spectacular example of this in the tower of the old church at Bennington, Vt., which appeared on last month's cover. I confess that I had not noticed what is clearly evident in the illustration, namely, that the graceful oval windows in the upper part of the tower are not windows at all, but merely painted semblances of these. It would be an interesting thesis for some architectural student of an inquiring mind to gather together the numerous examples of features in early American architecture that are not what they seem—features introduced purely in the interest of appearances rather than function.



*Sunday, October 17.*—After twenty-three years the Cathedral of Rheims is to be reconsecrated tomorrow. Through the skill of M. Deneux, the architect, and the generosity of Mr. John D. Rockefeller, Jr., the great pile has been brought back, as nearly as lay within man's power, to take its place again among the architectural treasures of the world. The bombardment of 1914 destroyed much that can never be replaced, particularly in sculpture and glass. But with the sprinkling on the high altar of Gregorian water containing salt as a symbol of incorruptibility, ashes as a symbol of penitence, and wine as a symbol of generosity, Cardinal Archbishop Suhard tomorrow will bring Rheims Cathedral back to its position as one of the world's great Houses of God.

*Monday, October 18.*—At a luncheon meeting of the Chapter today, with Langdon Post as guest speaker, it became evident that a much closer and more satisfactory arrangement is contemplated between architects and the New York City Housing Authority in the design and construction of large-scale housing projects. There has been heretofore entirely too wide a participation of architects upon one project, with the result that the Authority and practitioners lacked centralization and the highest efficiency. Inspection and supervision by the Government took the place of the customary supervision by the architect, with the result of higher costs and failure to utilize all of the professional aid that the architect could have brought to the task.

*Tuesday, October 19.*—With many members of the Building Congress to see a radical departure in heating systems which American Radiator has been developing for seven years past. It applies a system of forced hot water heat through very tiny fin radiators, with air turbines just behind the radiator to recirculate the air in a room through the radiator under pressure. In other words, the old scheme of hot water heat by gravity

flow with natural convection of the air about a radiator gives way to the scheme utilizing pressure at both ends—pressure for the water and pressure for the air. The whole radiator assembly requires considerably less than the space between normal studding, and a depth of 4¾". The hot water at 190° is fed to the radiators through small size copper piping, and the air turbine is driven by a ½" copper tubing air line. Radiators are all one size—50 square feet of equivalent cast iron radiation. With the small piping sneaked in directly through the studs, the radiator installation is almost like a glorified electric junction box. The cost of installation is said to be about equal to a forced hot water heater system with concealed radiation.

*Thursday, October 21.*—I see that under Timothy Pflueger's direction San Francisco is out to break some mural records in its Golden Gate Exposition. Two of these murals are to be 165 feet long by 65 feet high, and mere paint has been cast into the discard. The murals are to be made of glass, marble, various metals and enamels, including elements that are fluorescent enough to yield color changes under ultra-violet light.

*Saturday, October 23.*—H. E. Wichers, who is associate professor of architecture at Kansas State College, says that the architectural profession is trying to foist on the farmer designs for houses that belong only in the suburbs of a city. He gives three points in which the farm house should differ from the suburban house, and those designing farm houses seem mostly to be unaware of these. First, a central rear hall is vital, taking care of farm traffic to and from work room, wash room, bedrooms, living room, dining room, kitchen, basement and second floor. In a word, the rear hall is the important element here, not the front hall. Second, the front door should face the entrance drive, not the highway. Professor Wichers says that hundreds of letters come in every year asking, "What can I do to get my visitors to come to the front door?" Third, the vital element is the work room—possibly tracing its ancestry back to the English scullery. It is a place for heavy work: canning, laundering, taking care of recently butchered meat. It should have a concrete floor, drained, a sink and a stove, among other elements. It should not be in the basement, but on the ground floor.

*Monday, October 25.*—President David Allan Robertson of Goucher College sets a rather interesting pattern for architectural procedure in establishing the architectural future of his college. The president asked the Baltimore Chapter to appoint a committee consisting of the Chapter's president, incoming president, and the five past presidents, and asked this committee to suggest a method of procedure. The scheme finally

adopted by the college involves an appointment by the trustees of an advisory Architectural Board as a continuing body with overlapping terms, the members to be paid for their services, but ineligible to act as architects for work executed by the college during their period of service. The Advisory Board will proceed to secure a site plan, will employ architects, possibly conduct a limited competition, employ landscape architects, engineers, real estate experts, and the like. In short, the Advisory Board will not merely advise the trustees, but will have power to act for the trustees, with their approval, in all matters relating to the building of Goucher College. Incidentally, the first members of the Advisory Board are Edward L. Palmer, Jr., Richmond H. Shreve, and James R. Edmunds, Jr.

*Wednesday, October 27.*—It would probably be rather generally agreed that there are architects who do not know that they are dead. It is news, however, to find the following communication to the Editor of *The Builder* London. "Sir,—An unfounded rumor, to the effect that I am demised, is giving me a good deal of trouble. Would you be so kind as to insert a note to the effect that the statement is much exaggerated.

WILFRID TRAVERS  
(F.R.I.B.A.)

8 and 9, Great James-street, W. C. 1."  
Which seems to excite the Editor of *The Builder* very little, for he laconically heads the letter, "An Unfounded Rumour."



*Thursday, October 28.*—John D. Rockefeller, Jr., when you come to think of it, has displayed a surprising catholicity of taste in his architectural achievements—the Georgian of Williamsburg; the Louis XIV of Versailles; Byzantine in the Palestine Archaeological Museum; the French Mediaeval Gothic of Rheims; and the American skyscraper of today in Rockefeller Center, New York. I do not happen to know what his hospitals in China look like, but do not doubt that they belong in their locations as consistently as do the other works mentioned.

*Saturday, October 30.*—The cupola of the old Bennington church seems very much in the forefront of this month's Diary. Denison B. Hull of Chicago tells me that he has just completed restoring the old church. He thought at the outset of his labors, just as we did, that Asher Benjamin had designed the famous old meeting house. Research, however, revealed that while Asher Benjamin undoubtedly had a profound influence in the design, the actual architect of the church was Lavius Fillmore, a cousin of President Millard Fillmore.

ARCHITECTURAL OVERTONES

# PEIPING



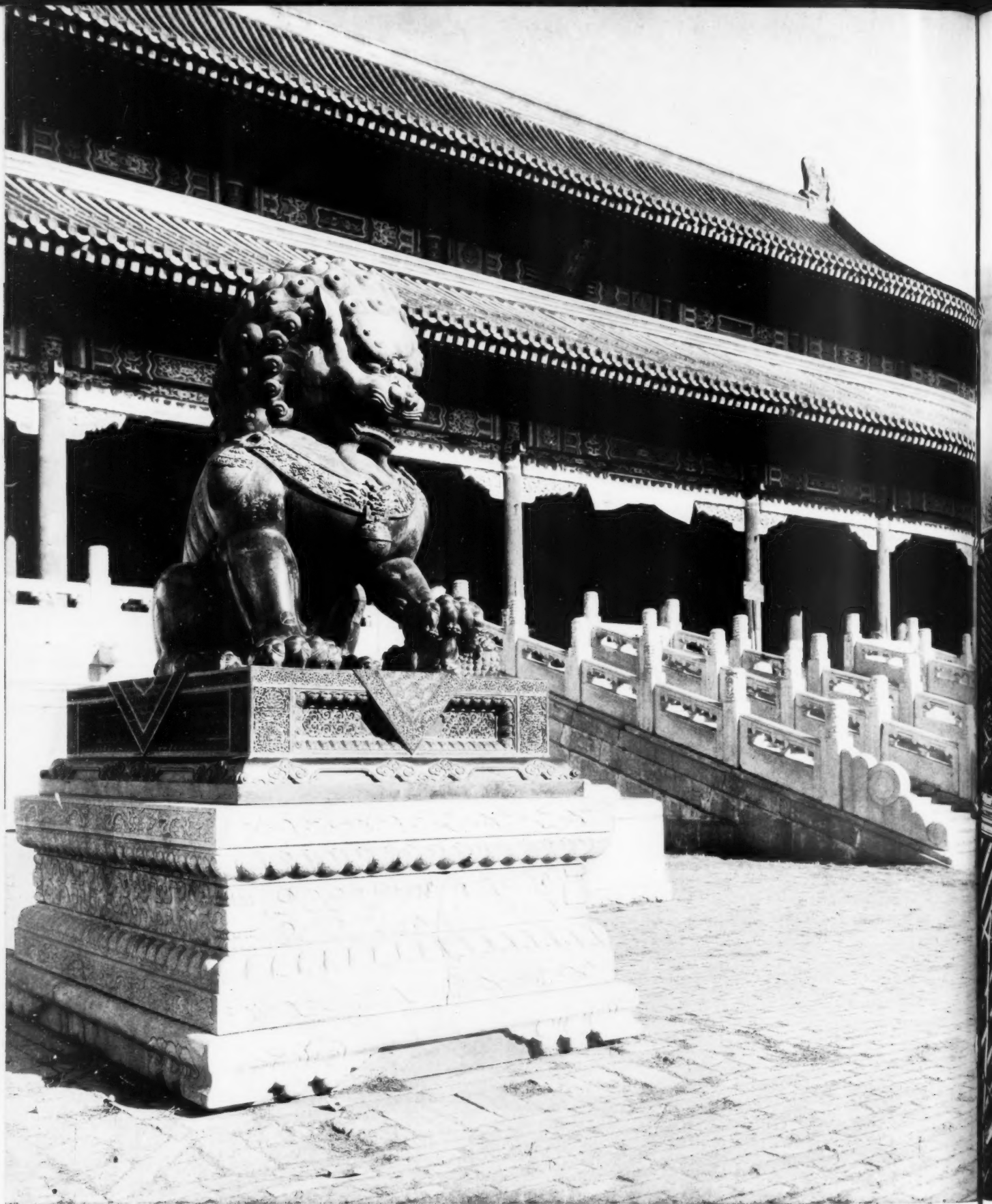


PHOTOS: GENDREAU

(Above): A courtyard in the Forbidden City, showing the contrast of rugged masonry walls and delicate ornament. (Opposite page): A pai-loo in the Summer Palace. These typical archways derive from the toran of Indian stupas and were erected only by special authority to commemorate famous persons

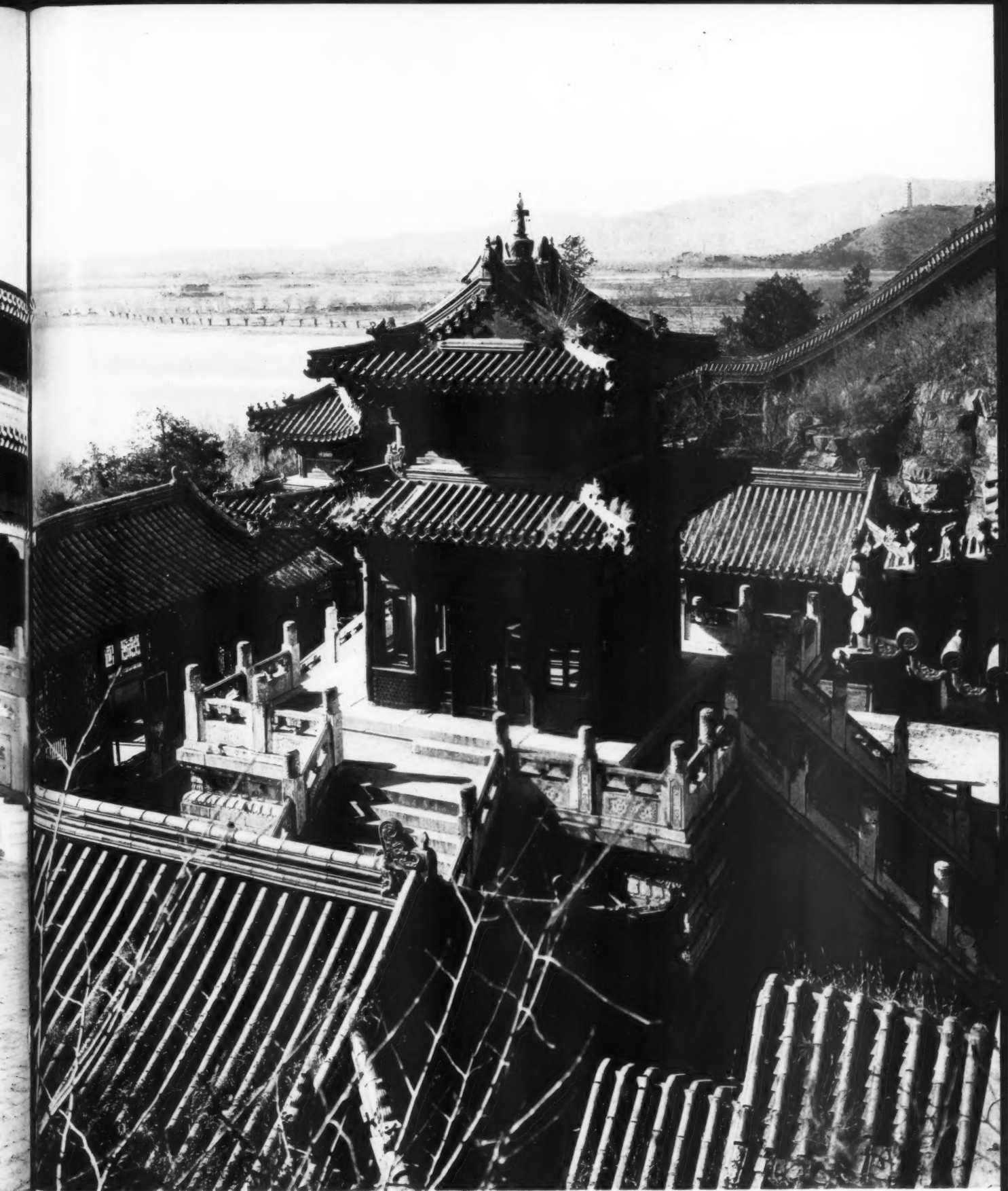
**S**INCE its founding by Kublai Khan in the thirteenth century, Peiping has been known first as Cambulac, and from the sixteenth century as Peking. Under these three names it has attracted both the romantic and the invader. During the rule of Mongol, Ming and Manchu it was the center of great cultural attainment. What this means exactly can be gained from the opinion of one of the earliest European writers about China, the traveled Franciscan, Giovanni de Pilano Carpini, who wrote, "Their betters as craftsmen in every art practised by man are not to be found in the whole world." It was not until recently, however, that the merit of their architecture came to be understood in the Occident.



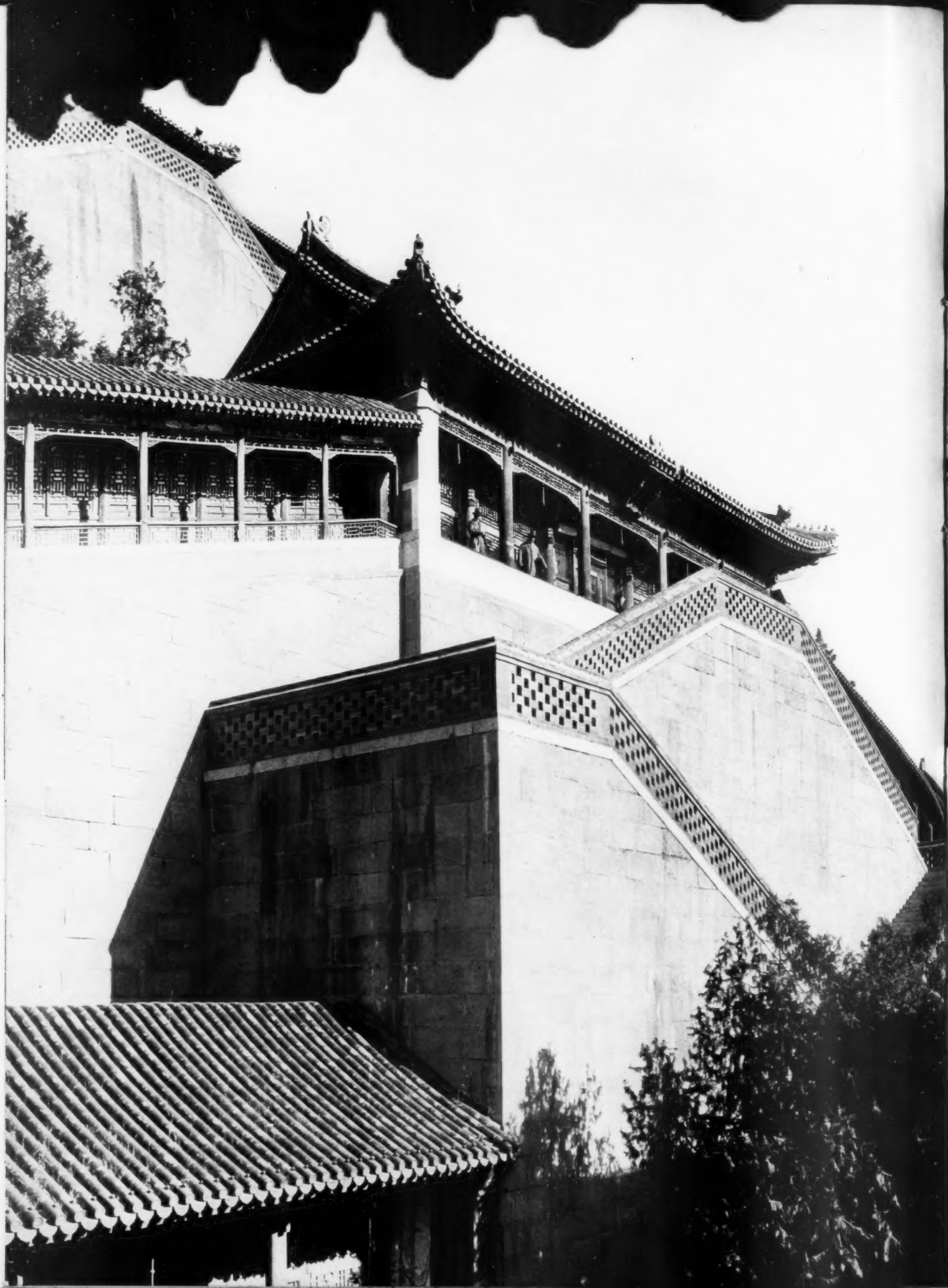


One of the fierce-looking bronze lions that guard the Forbidden City. Chinese sculpture, in contrast to Chinese painting, depends on an exotic, conventionalized quality devoid of true plastic sense



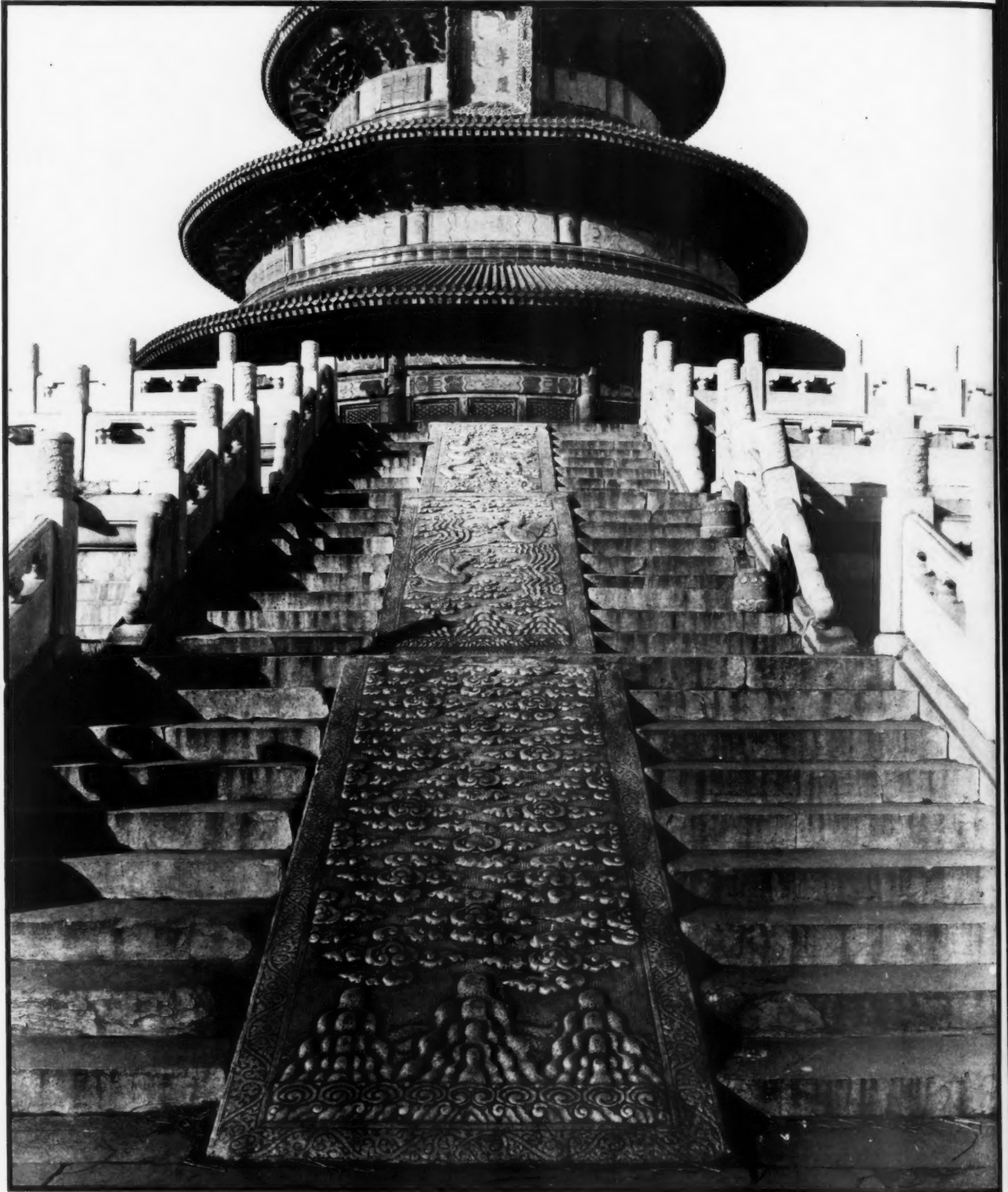


Roofs with fantastically decorated ridges and eaves are a predominant characteristic of Chinese architecture. The method of supporting them on columns with masonry or wood infill is reminiscent of our steel construction





Because of accent on roofs and the method of columnar construction Chinese buildings are developed horizontally. There is naturally a great deal of semi-religious tradition governing their design. An example of this is that all important buildings must face south. The Temple of Heaven, which is illustrated on the first page of this section, was used by the Manchus as the place for the winter solstice sacrifice. At the top of a triple circular terrace is the temple with a blue tile roof. The terrace is 210 feet at the base, 150 feet in the middle terrace, and 90 feet at the top. The platform is laid with marble stones forming circles in multiples of nine, beginning with a circle of nine stones and graduating to an outer circle of eighty-one. (Opposite page) Stair leading to the top of the Summer Palace. (Above) Marble terraces in the Forbidden City



The magnificent Temple of Heaven





PHOTOS: M



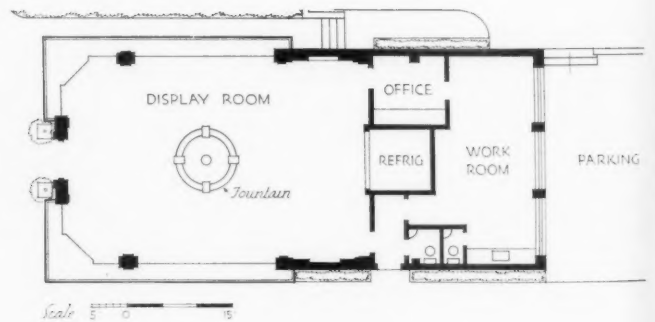
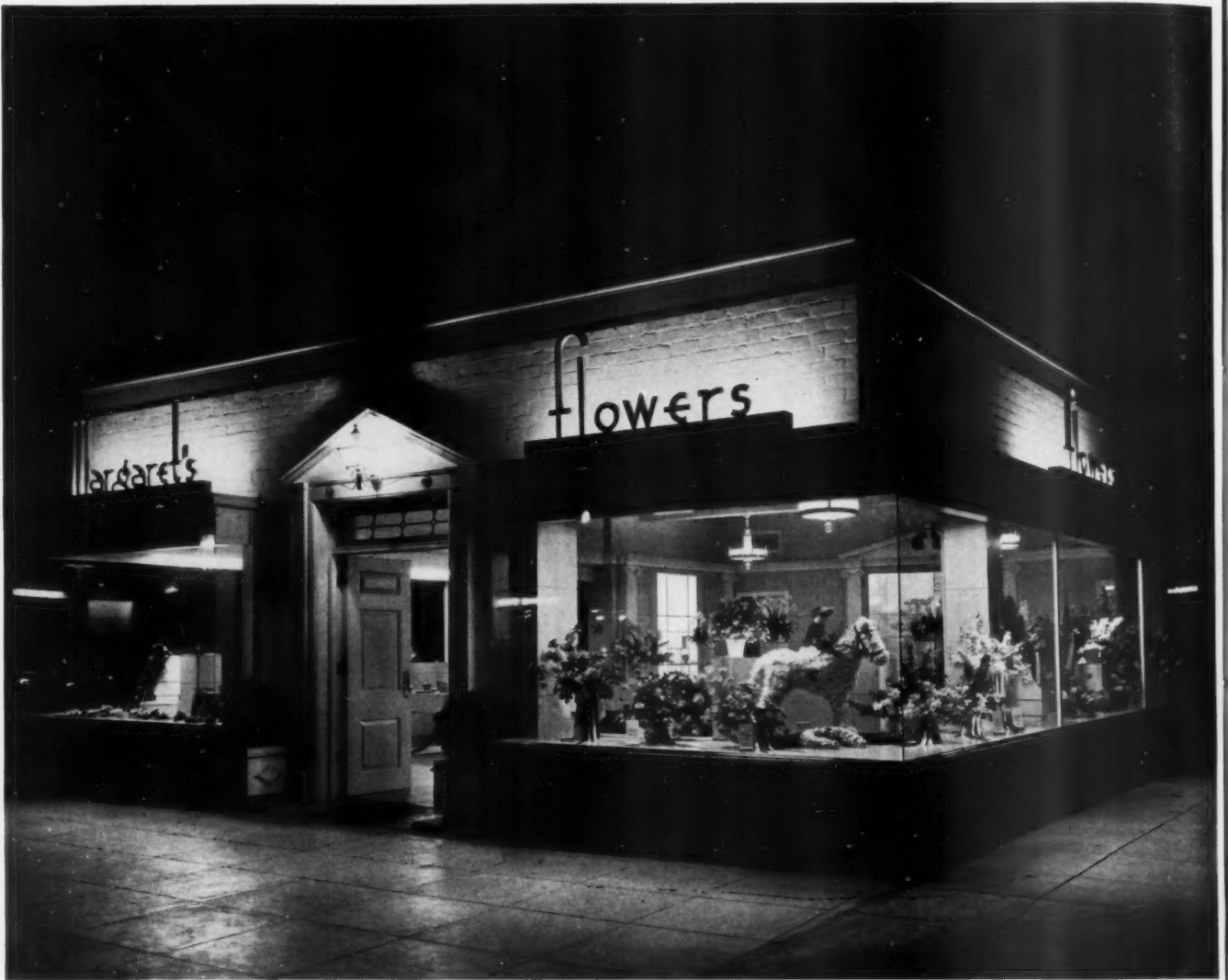
PHOTOS: MUTT STUDIOS



## FLORIST SHOP, LOS ANGELES

**MORGAN, WALLS & CLEMENTS, ARCHITECTS**

The restraint exercised in both the use of materials and the design is noteworthy in this solution to a common architectural problem. Display windows are given prominence by their projection over the narrow planting strips between sidewalk and building. The sign over the windows is in character with the rest of the building and yet not too prominent as is often the case in a structure of this nature. Reinforced common brick, painted a light buff with pale green trim for accent, completes the exterior design.



**FLORIST SHOP, LOS ANGELES, MORGAN, WALLS & CLEMENTS, ARCHITECTS**



At night the concealed lighting over the plate glass display windows throws a diffused light on the building which makes the block letters of the sign stand out very effectively. The large unbroken display windows allow complete view of all merchandise within, and invite the patronage of the passersby. . . Interiors are simple and of the same refined character as the exterior. Lighting is by means of fixtures hung from the exposed trusses. Display cases are not too many and were given the same thorough consideration as other parts of the shop. Furnishings in harmony with architectural design complete the interior decoration.





The indirectly lighted wall display, the island type of fixture and architectural treatment again serve to emphasize the harmony of the many parts of the design.

**FLORIST SHOP, LOS ANGELES**  
**MORGAN, WALLS & CLEMENTS,**

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An ingenious device to call the attention of passersby to the condition of their shoes is the sloping mirror used at the base of the exterior. Since the merchandise is small in size, the show window and display cases are kept small and at eye level. The name of the shop is the sole decoration and is well set off by the simple surrounding surfaces



PHOTOS: GOMEZ

DANIEL DUGGAN, ARCHITECT

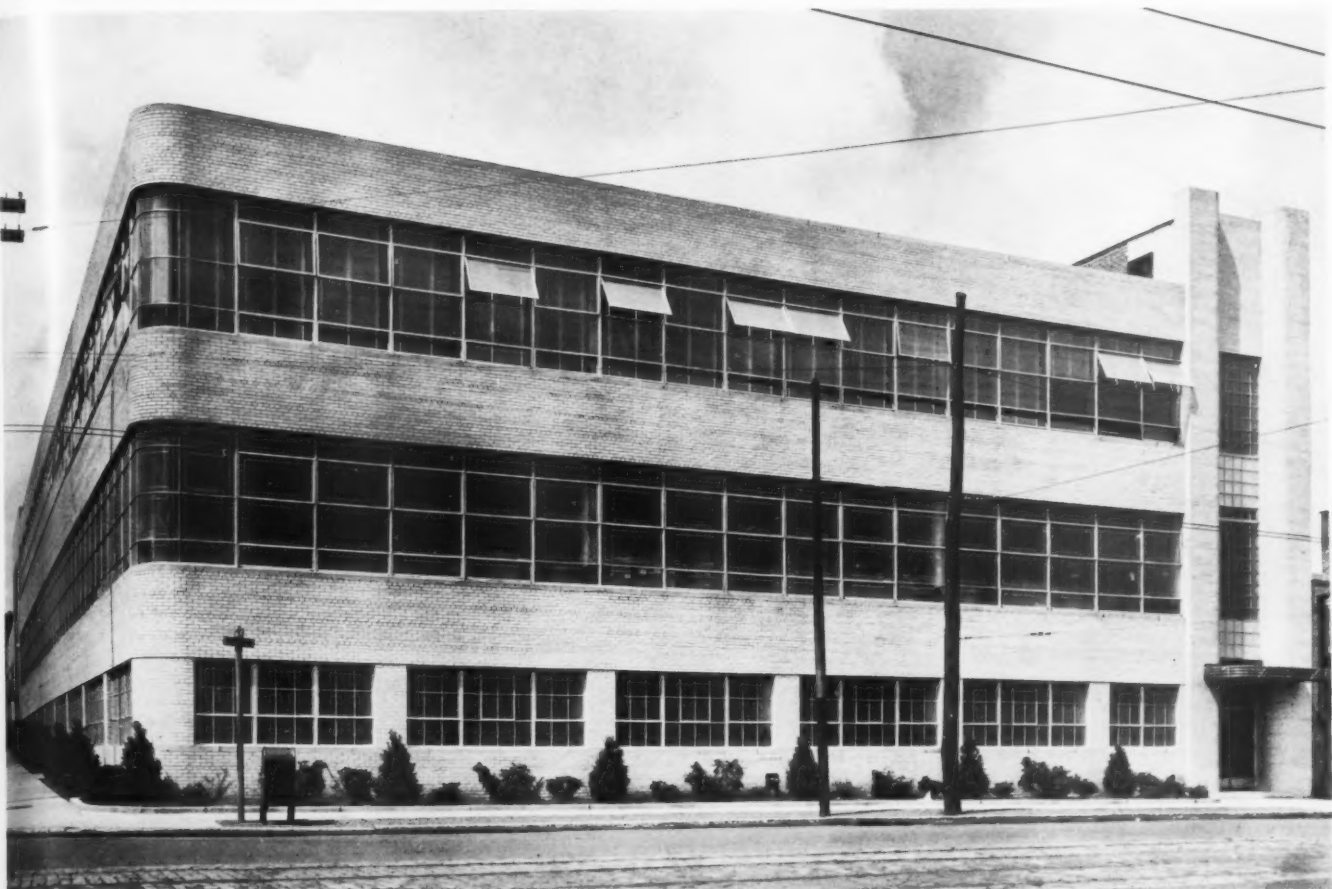
## SHOE STORE, BUENOS AIRES



SHOE STORE, BUENOS AIRES  
DANIEL DUGGAN, ARCHITECT

Appointments within are in keeping with the refined character of the exterior. Flush paneling of wood is used on walls and ceiling, and all built-in furniture is of the same wood. Upholstery and carpeting is of brown material to blend with the walls and ceiling. Direct lighting is used in all display cases, and indirect lighting in the sales room proper





PHOTOS: HAROLD A. BERLA

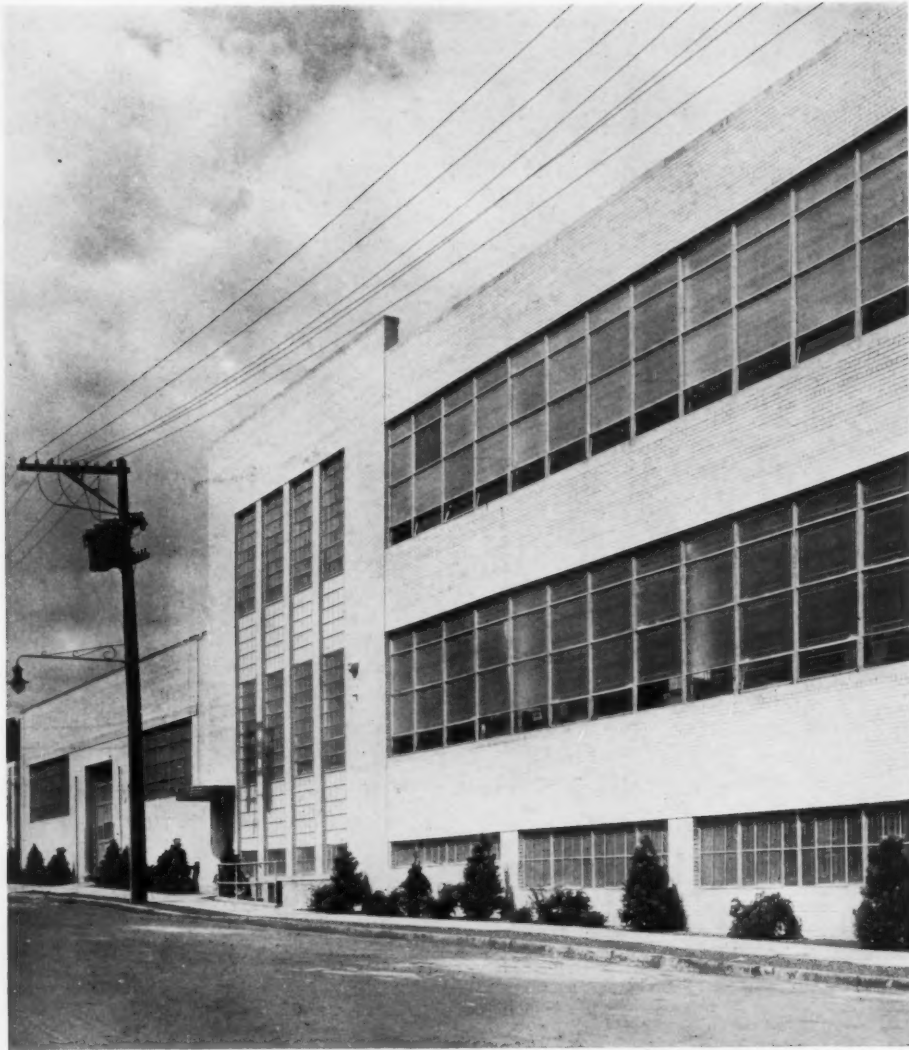
## WAREHOUSE FOR JOSEPH H. REINFELD, INC., NEWARK, N. J.

### FRANK GRAD & SONS, ARCHITECTS

Continuous horizontal glass areas give a feeling of lightness to this building which is used for the storage and distribution of wines and liquors. Naturally the plan is as open as possible and careful attention has been given to the loading platforms and truck garage. Foundations consist of wood piles with concrete floor and walls. The exterior walls are of brick and tile, with steel sash used throughout. The floors are of monolithic concrete.

FIRST FLOOR PLAN





(Top) A view of the exterior looking toward the garage in the rear. Interior is designed for a rapid distribution of stock. This is moved about by hand trucks and roller platforms



**DISTRIBUTING WAREHOUSE  
FRANK GRAD & SONS**

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THE PORTFOLIO  
**Doorway Side-lights**



John Brown House  
Providence, R. I.

**PORTFOLIOS IN PREPARATION** — Resilient Floors, December . . . Roof Textures, January . . . Rain Leader Heads, February . . . The Eaves Line, March  
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

**NUMBER 133 IN A SERIES OF COLLECTIONS OF PHOTOGRAPHS ILLUSTRATING VARIOUS MINOR ARCHITECTURAL DETAILS**



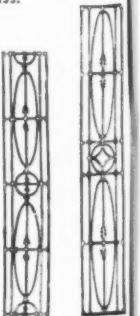
The Rope Memorial (1719)  
Salem, Mass.



Colonel Crosby House  
Brookfield, Mass.



New York, N. Y.  
Lee Perry

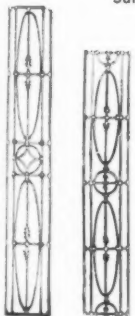




Syosset, Long Island  
Delano & Aldrich

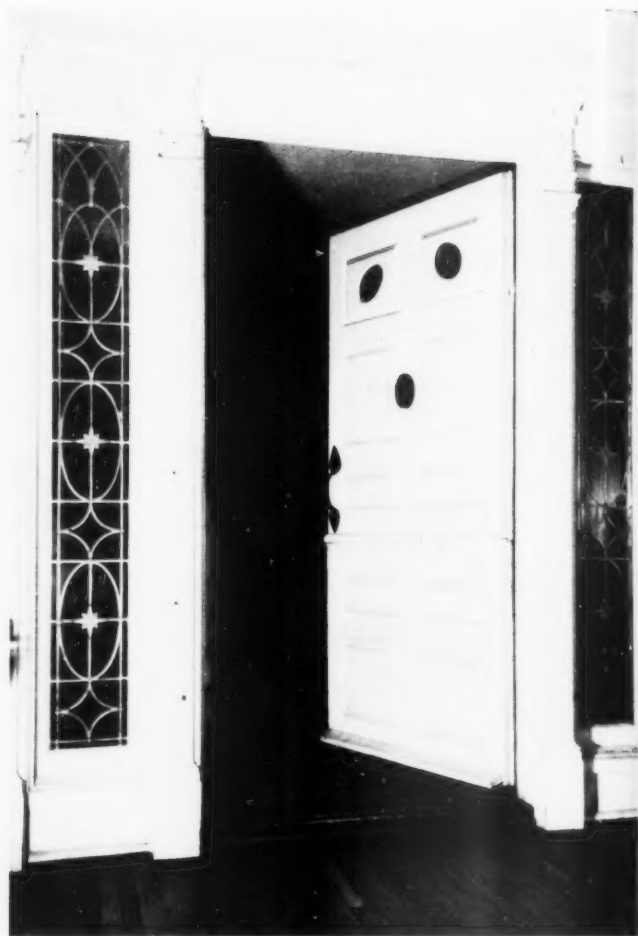


30 Chestnut Street  
Salem, Mass.



Washington, D. C.  
Horace W. Peaslee; Gertrude Sawyer; J. H. Lapish



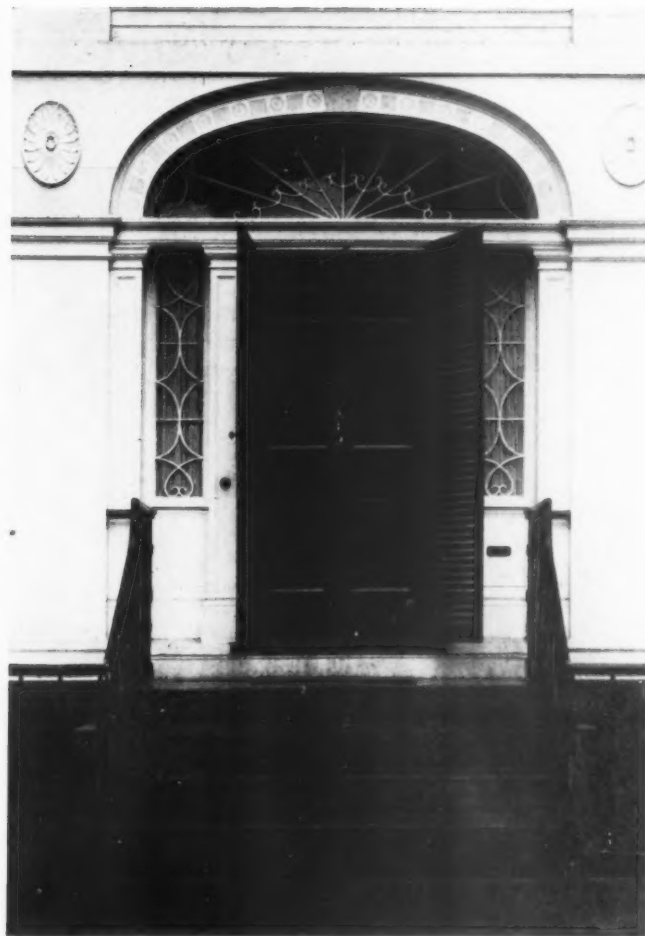
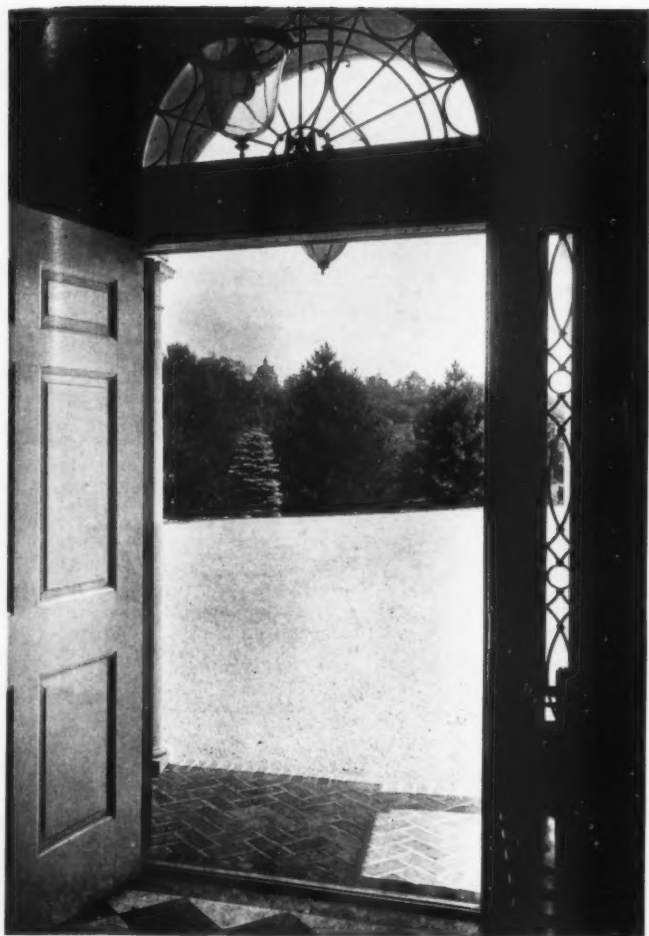


Top left, Old house in  
North Newport, N. H.

Top right, Huntington, Long Island; Old door  
from Flushing, Long Island; Side lights,  
J. J. Pettit

Right, New Haven, Conn.  
Douglas Orr

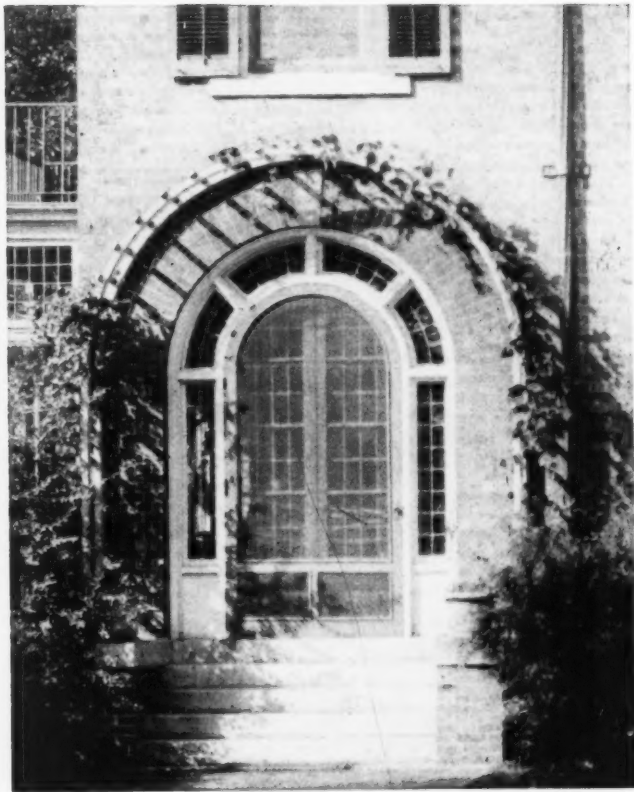




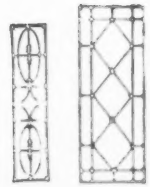
Top left, Wheatley Hills, Long Island  
Office of John Russell Pope

Top right, Daniel H. Peirce house (1799)  
Portsmouth, N. H.

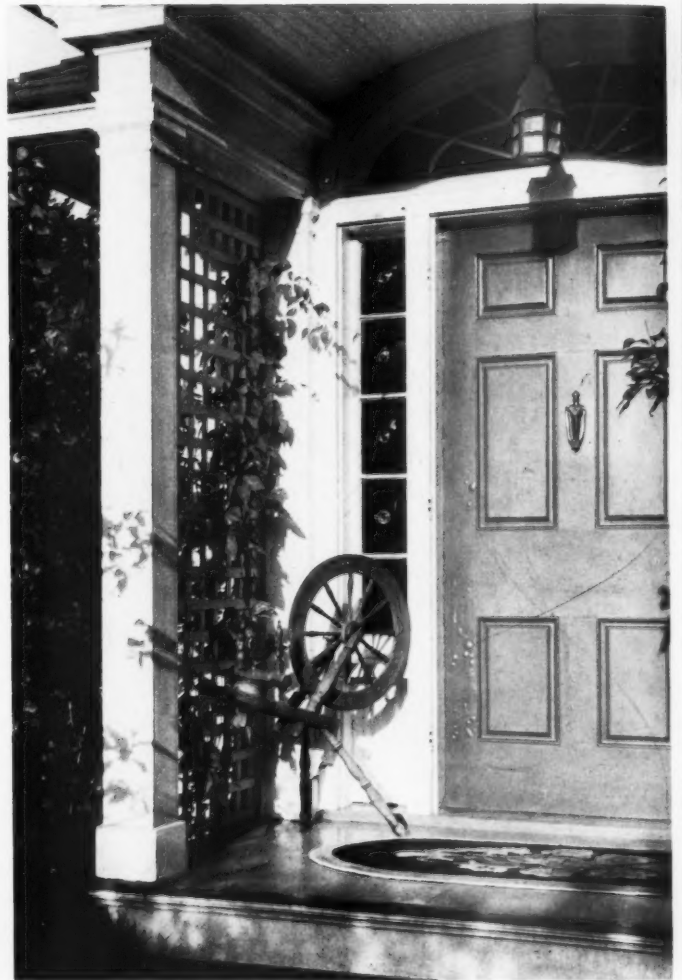
Left, Greenwich, Conn.  
Lloyd Westbrook



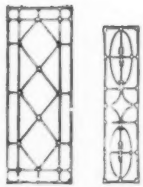
Detroit, Mich.  
William B. Stratton



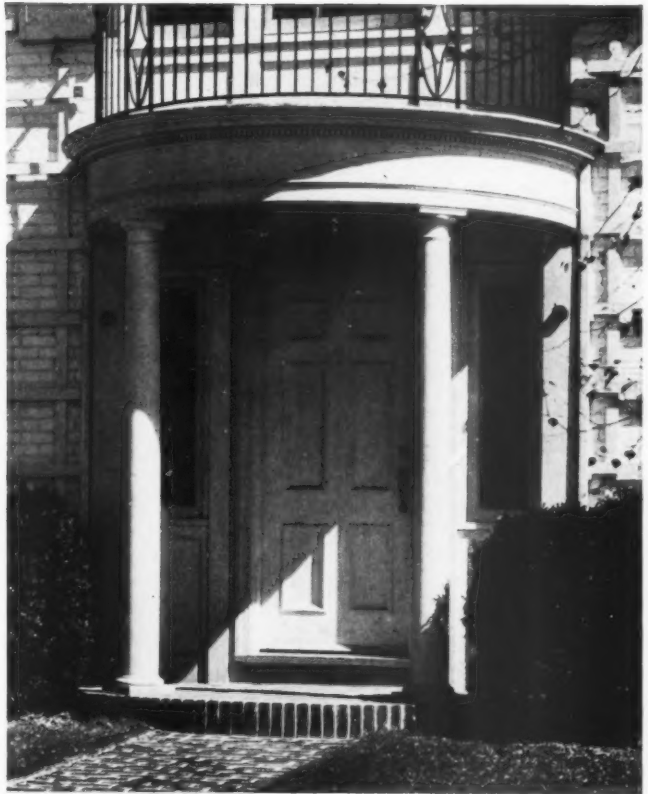
Beverly Hills, Calif.  
Roland E. Coate



Lake Placid, N. Y.  
Maurice M. Feustmann



Bronxville, N. Y.  
Edwin Earle Lucas

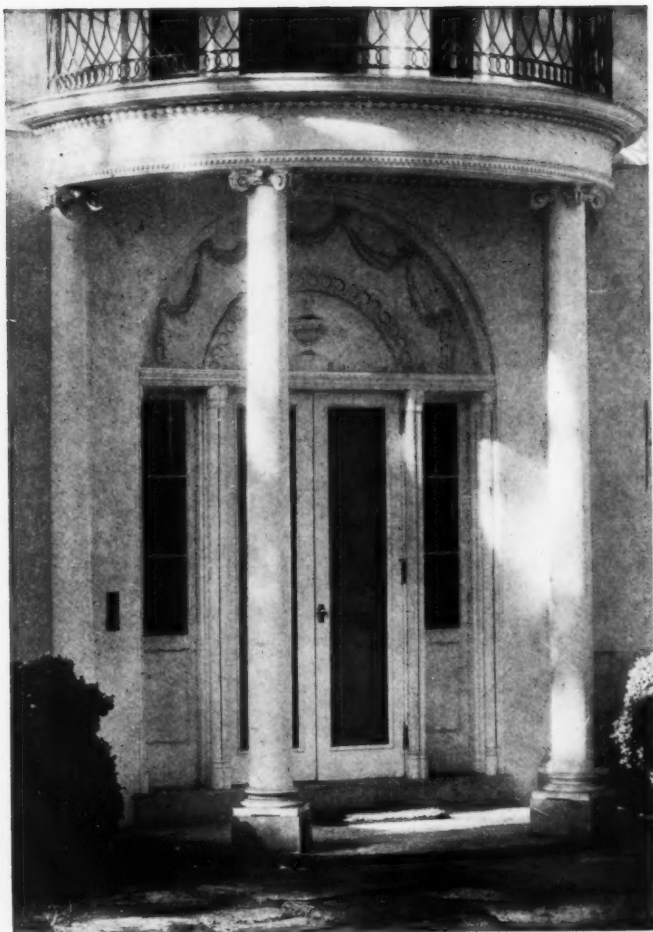


Cambridge, Mass.  
Chapman & Frazer



Hartsdale, N. Y.  
Dwight James Baum





Top left, Atlanta, Ga.  
Hentz, Adler & Shutze

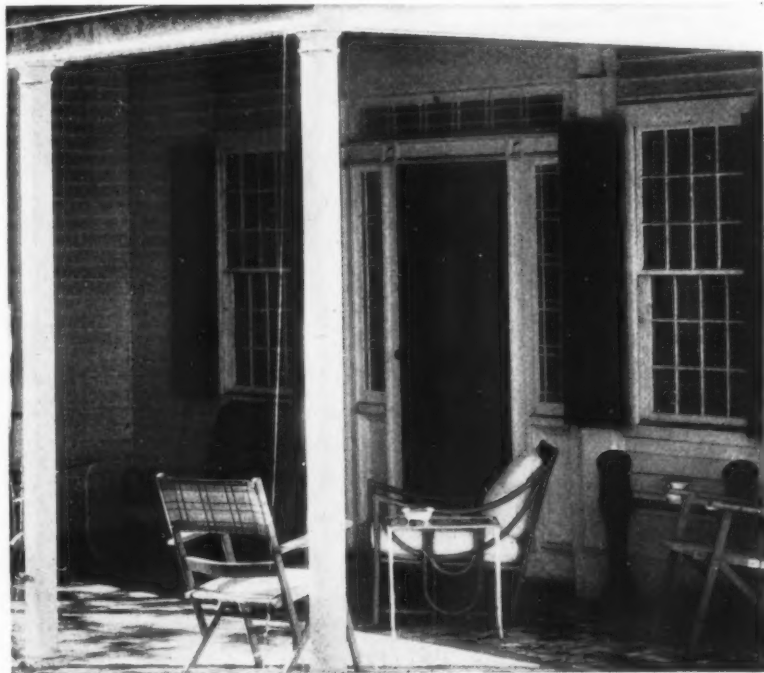


Top right, Kansas City, Mo.  
Edward Buehler Delk



Right, Hackensack, N. J.  
Wesley S. Bessell





Top left, Glen Head, Long Island  
Roger H. Bullard

Top right, Tarboro, N. C.  
Dwight James Baum

Left, Norfolk, Conn.  
Robert M. Carrere



Kansas City, Mo.  
Edward Buehler Delk



Lendal, York  
England



Pawtucket, R. I.

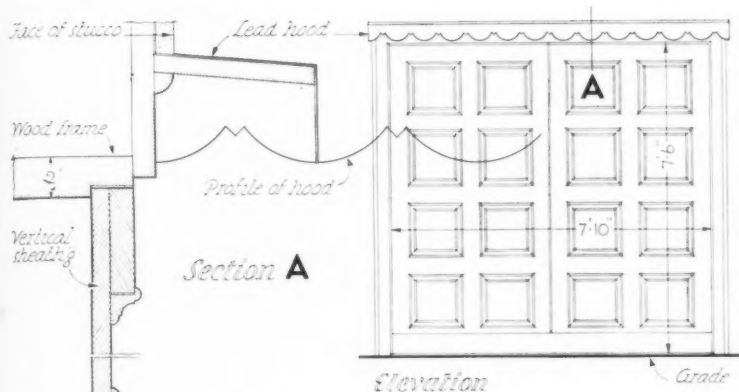


T. Frederick Norton

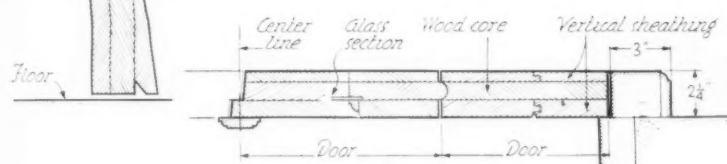
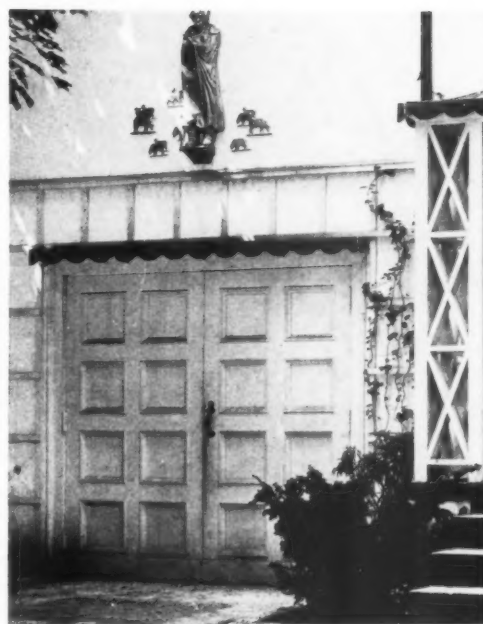
# FAVORITE FEATURES

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

## Garage Doors...

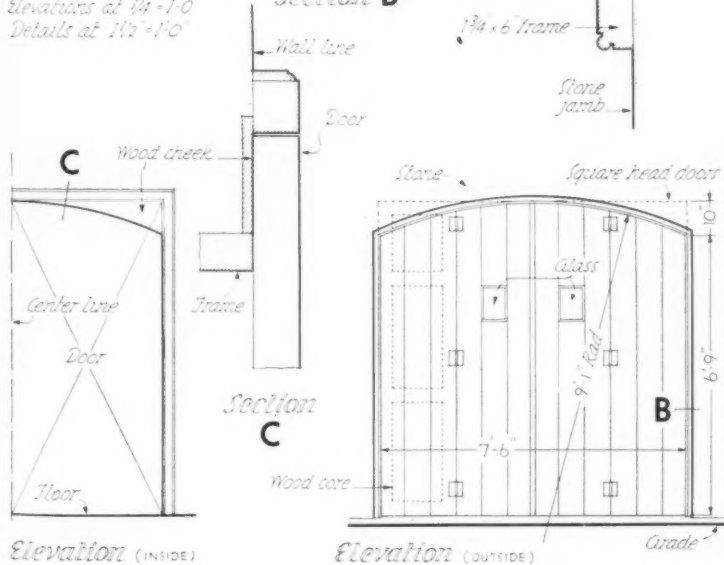


WILLIAM GEHRON



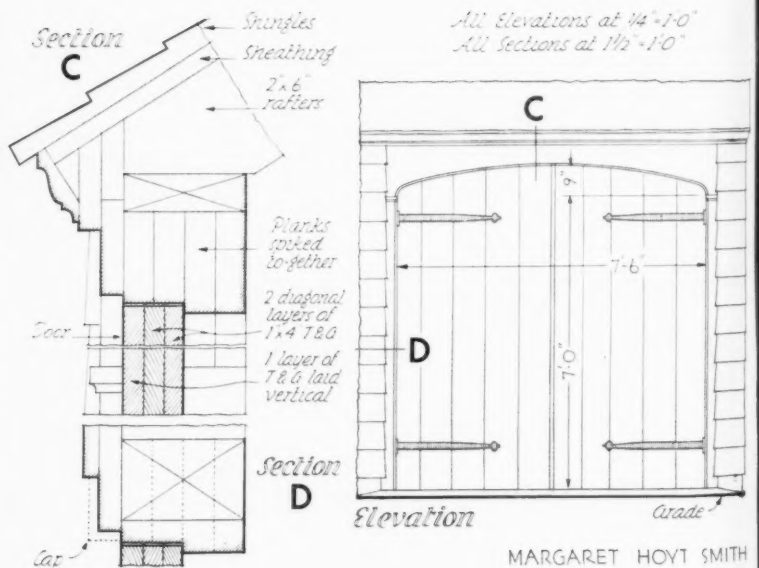
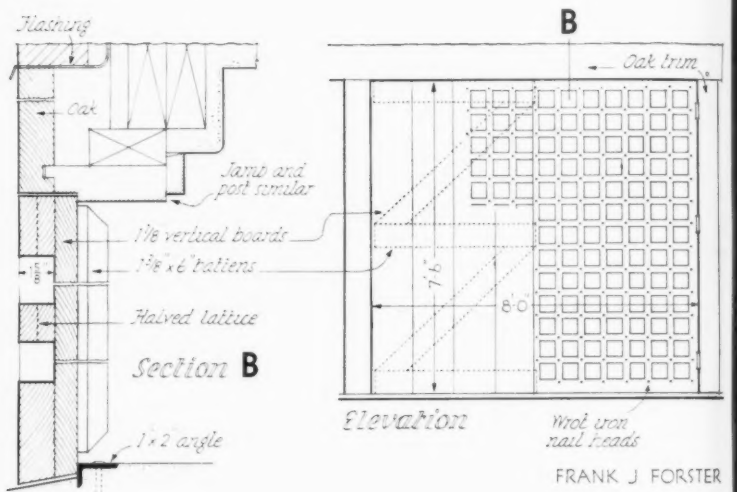
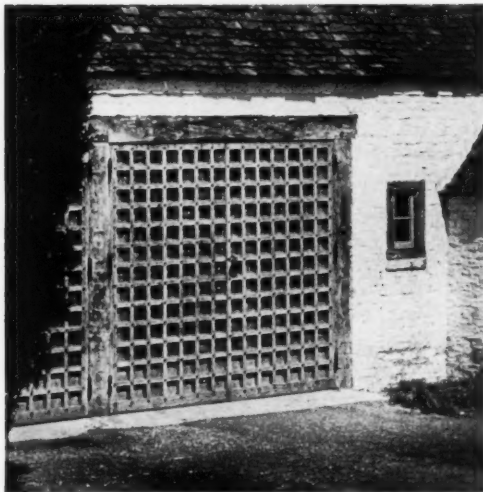
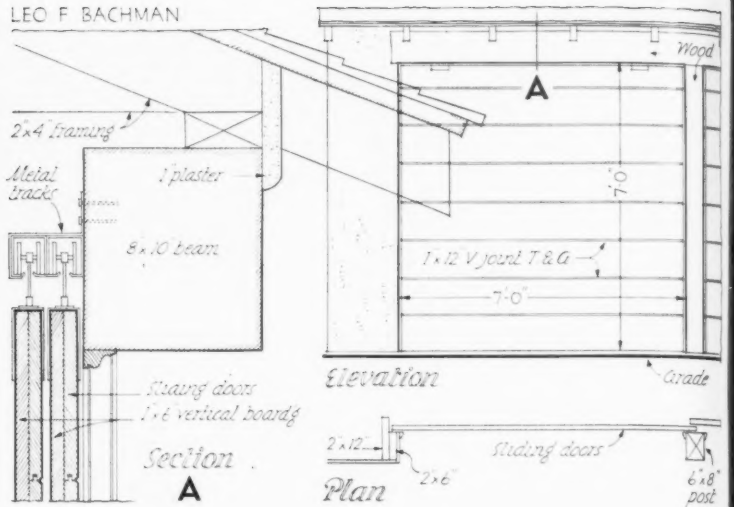
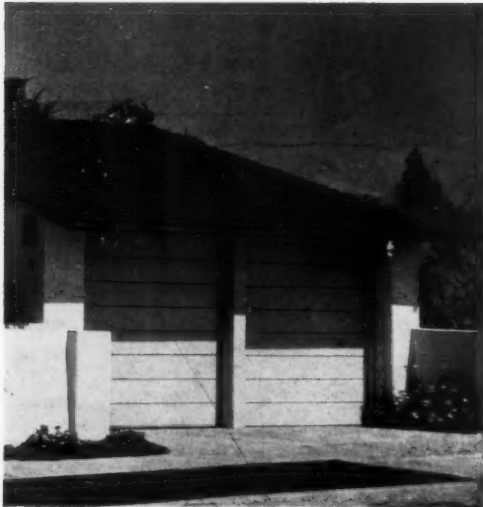
Section B

Elevations at 1/4"-1'0"  
Details at 1/2"-1'0"



ELECTUS D. LITCHFIELD





MARGARET HOYT SMITH

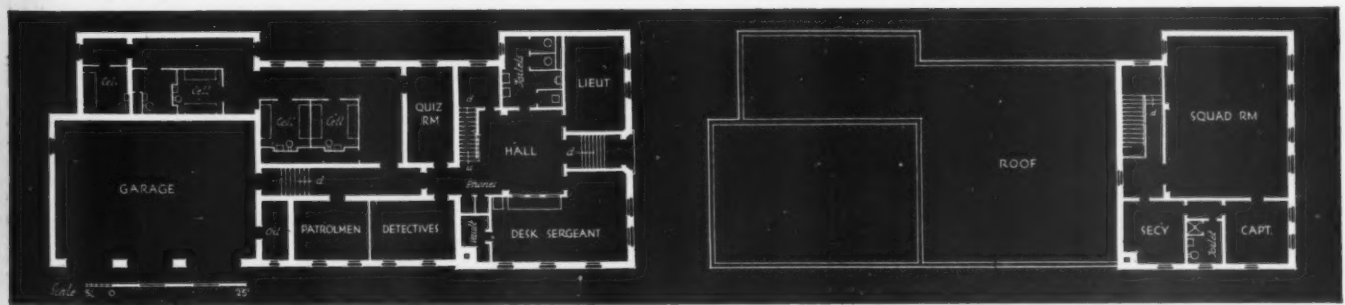
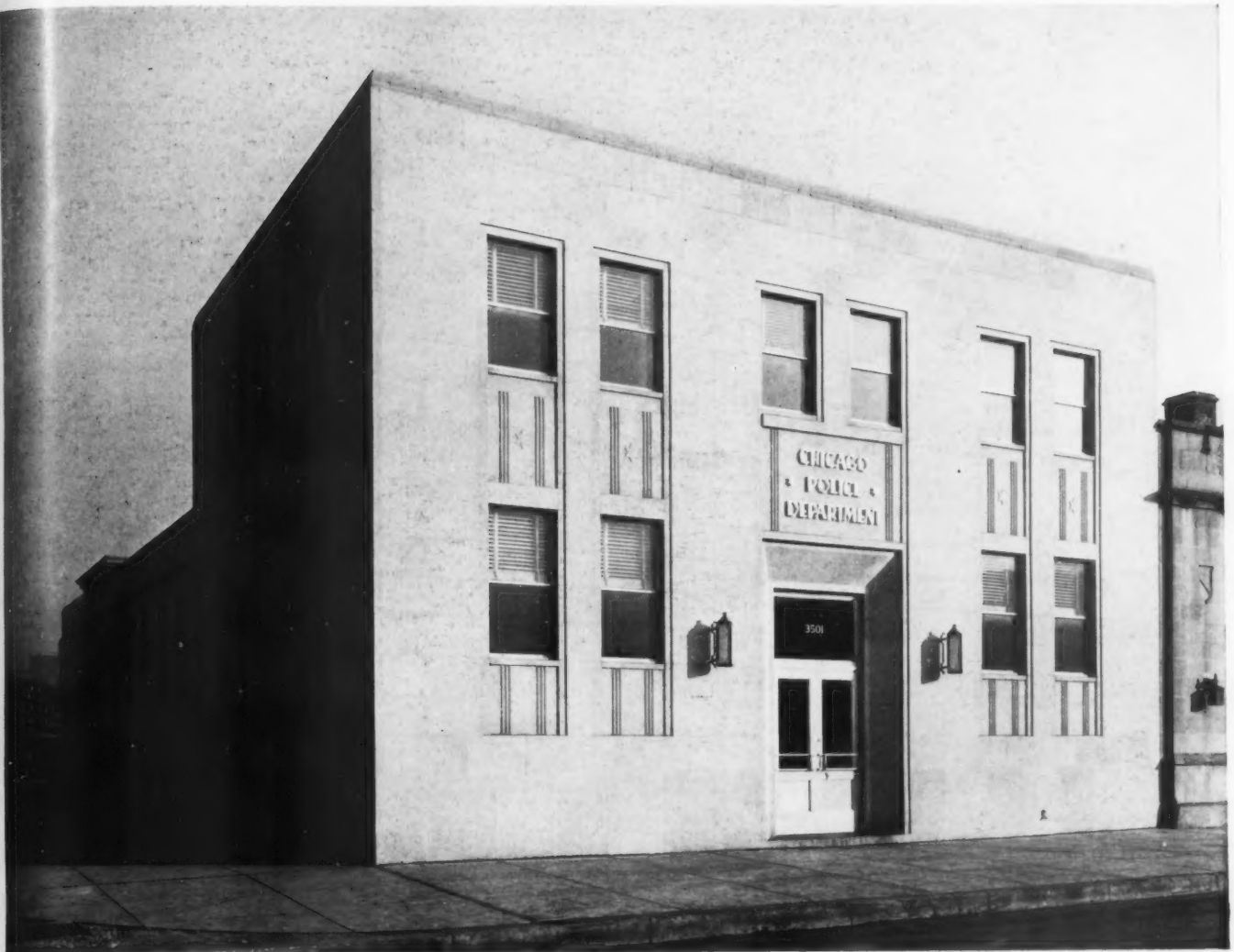


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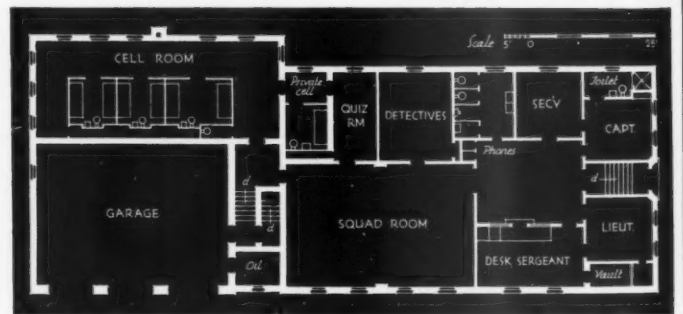


FIRST FLOOR

SECOND FLOOR

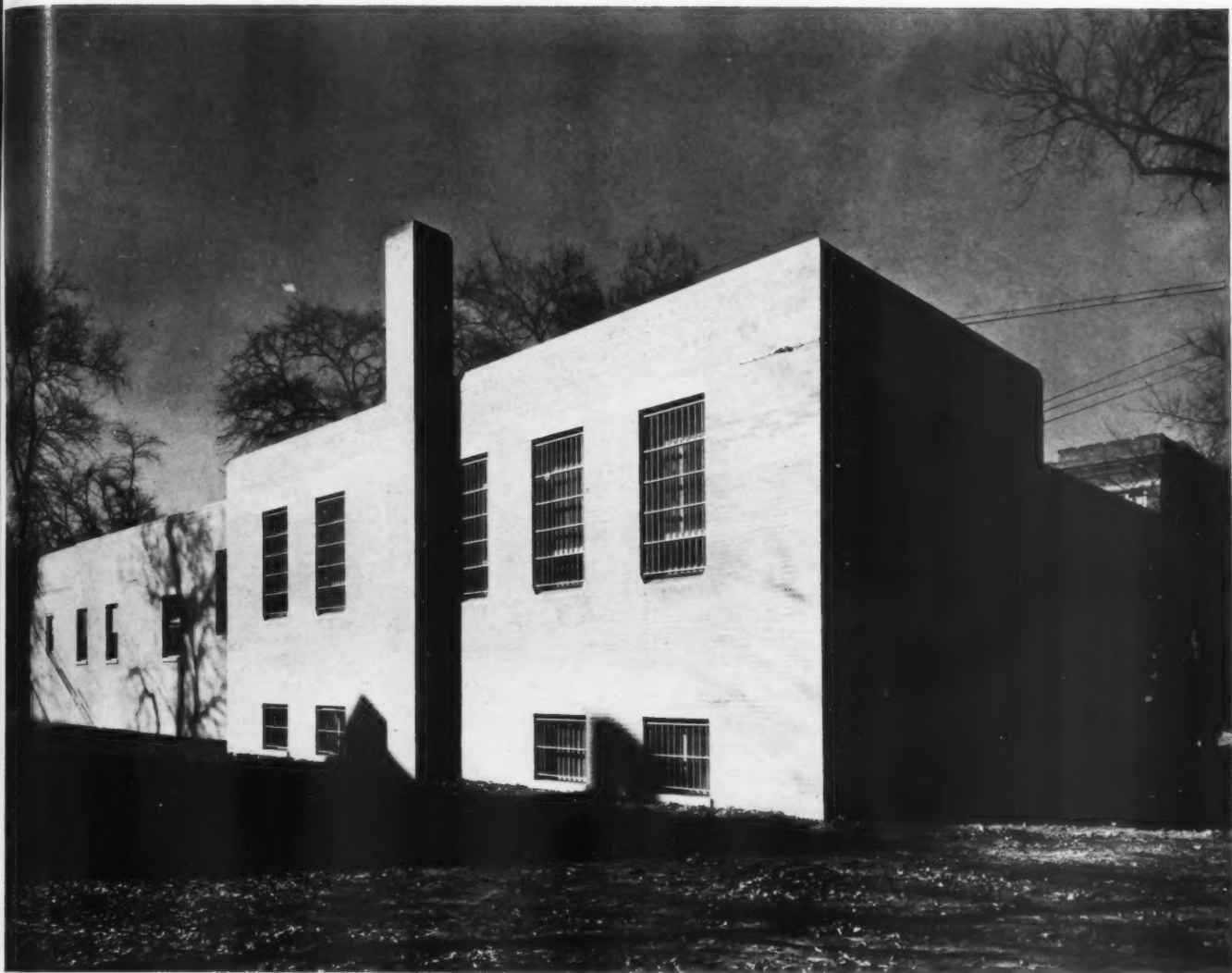
**PAUL GERHARDT, JR., ARCHITECT**

**DISTRICT POLICE STATIONS, CHICAGO, ILL.**

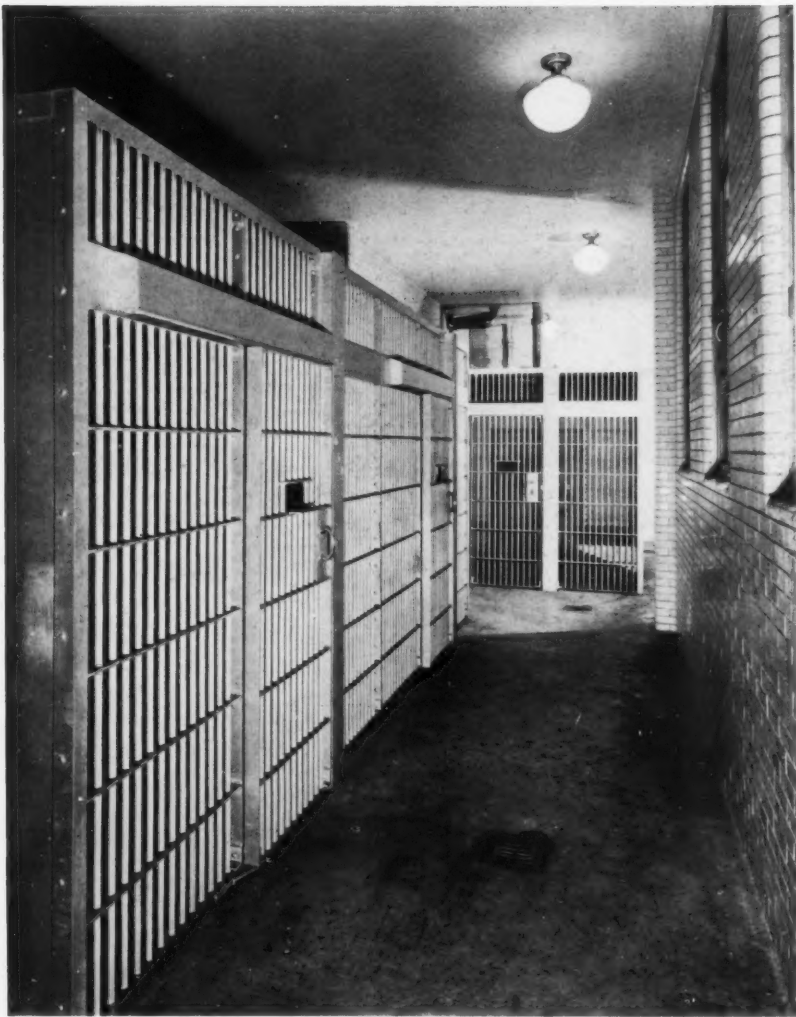


CHICAGO DISTRICT POLICE STATIONS • PAUL GERHARDT, JR., ARCHITECT





As the result of a PWA grant of 45% of the cost of the buildings, the City of Chicago was enabled to construct five new stations in various outlying points. Three of them are of a one-story type (above and opposite), and two are, because of narrow lots, two-storied. Each building contains approximately 105,000 cubic feet of area, and cost about \$6,000. They are of reinforced concrete with Indiana limestone facing on the street front and brick facing all other exterior walls. Double hung windows and entrance doors are of aluminum.



Glazed brick faces all walls in the cell area. Interior entrance, vestibule, stairs and lobby have Alabama white marble floor and wainscot. Other flooring is linoleum and rubber tile. The revolver ranges in the basements have steel plate ceilings and walls lined with 2" wood planking to absorb sound and prevent ricochet.

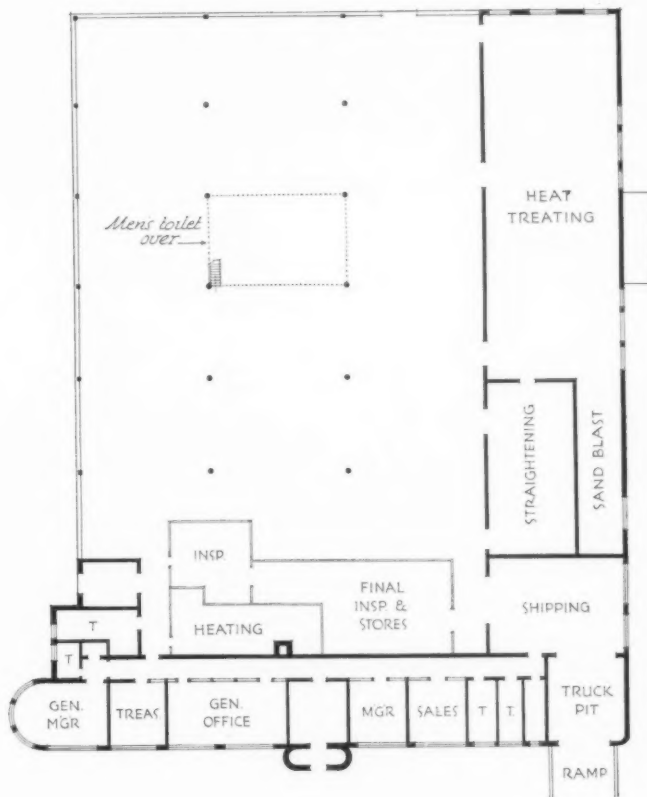
**CHICAGO DISTRICT POLICE STATIONS**  
**PAUL GERHARDT, JR., ARCHITECT**



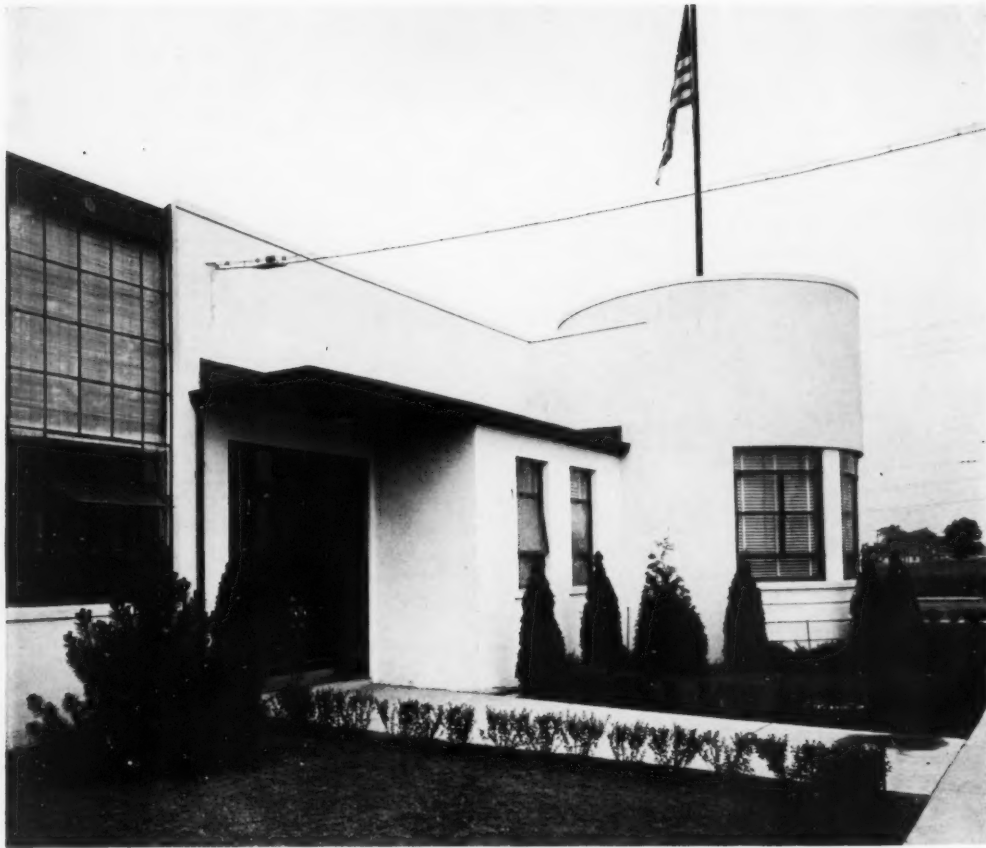
## AMERICAN TWIST DRILL COMPANY, DETROIT, MICHIGAN

**DITCHY - FARLEY - PERRY, ARCHITECTS**

Scale 10' 0" 50'



Well studied fenestration and simple concrete surfaces unornamented except with the company's name result in an unusually clean looking factory building. Structural steel frame is used with poured concrete walls on street facades and brick at the side and rear. The roof is of the steel deck type with 1" insulation and built-up asphalt roofing. Floors are of concrete slab reinforced with wire mesh



The contrast between concrete walls on the administrative part of the building and the large glass areas in the shop area is very effective. Two separate forced warm air systems with filters and humidifiers are used for shop and office. Lighting in the shop consists of high intensity mercury vapor lamps and in the office indirect lighting is used

**FACTORY BUILDING  
DITCHY - FARLEY - PERRY**

A double bedroom of de luxe class in the transient section of the Waldorf Astoria, New York. Schultze & Weaver, architects



PHOTO: MATTIE EDWARDS HEWITT

## UNIT PLANNING—IX HOTEL BEDROOMS AND BATHS

By JULE ROBERT VON STERNBERG, R.A.

THE hotel bedroom unit is the natural determinant of the complete hotel plan. It is important, then, to define it, and to determine range limits for its variables of size, location and equipment, and to establish construction and plan constants. Of the five general types of hotels (apartment, residential, club, resort and transient), we are concerned in this analysis primarily with the factors that influence the design of the bedroom unit in the transient hotel.

**Determinants.** Four factors influence these variables and constants, and an analysis of them will provide basic standards and a plan vocabulary for the design of typical bedroom units. These factors are: 1. Custom (size, fenestration, appointments, and mechanical equipment). 2. Construction (steel layout, floor and wall construction, building standards). 3. Servicing (maintenance, comfort-convenience). 4. Guest comfort.

The size and type of the hotel bedroom is determined by two factors: the size and clearances

of the furniture and equipment contained in it, plus the amount of light, air, comfort and space required or demanded by its occupant. The space required by a room's furniture and equipment may be definitely indicated by their sizes, number and necessary working spaces. The living space required by its occupant will range from a necessary minimum to a luxury maximum.

### BEDROOMS

**The Guest Room.** For convenience, most hotel rooms conform to four types: A, B, C and D. A-rooms are single rooms with single or double beds, and are generally 9' wide, 13' to 14' long, and have single windows. (Some hotel planners, however, prefer to use two or more windows in every room, since a room with two windows is more attractive, and a better renter, than one with only one window.)

B-rooms are double rooms with double or twin beds, and are generally 11'-3" wide and 13' to 14'

AMERICAN ARCHITECT  
AND ARCHITECTURE.  
NOVEMBER 1937 . . 85

# H O T E L BEDROOMS AND BATHS UNIT PLANNING NUMBER . . . . . 9

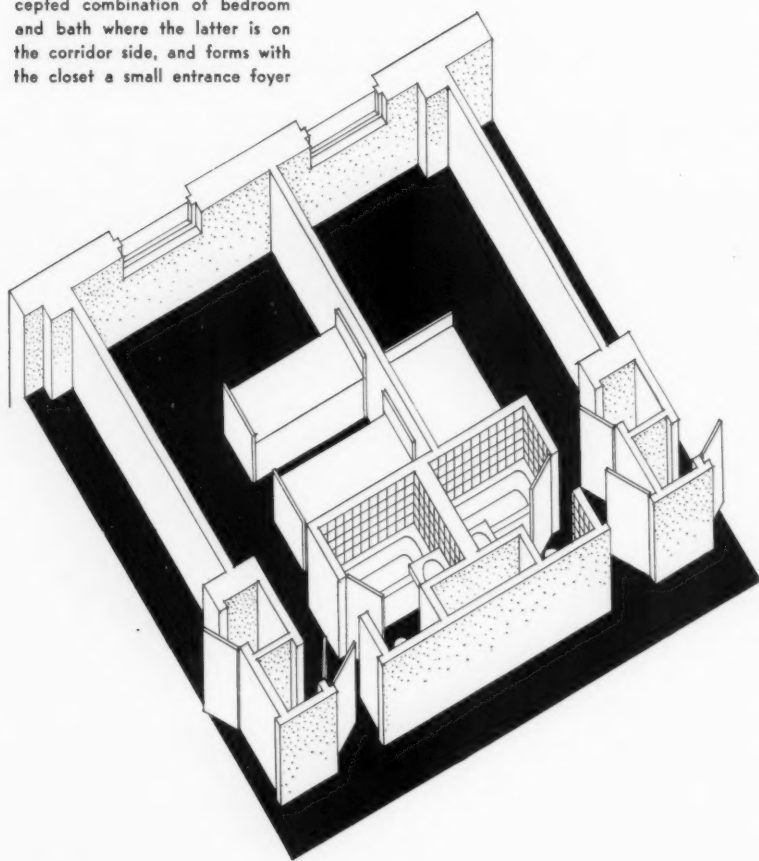
long and they usually have paired windows.

C-rooms are generally corner rooms, and may be used as parlors en suite with A- or B-rooms, or as individual guest rooms. They are from 12'-6" to 14' wide and from 16' to 20' deep. Fenestration should preferably be on two sides.

D-rooms have the same dimensions as C-rooms, but since they are used for more continuous residence, they usually have more individuality in their decoration and furnishings. They are often equipped with closet or convertible beds so that they may be occupied as one-room apartments. This type of room is generally serviced by special elevators that make no connection with the transient floors of the hotel.

**The Sample Room.** Most commercial types of transient hotels provide a number of sample rooms (also called *galeries* or *salons* by the higher types) which are combination bedrooms and display rooms for salesmen's samples. They are generally 12' to 16' wide and 20' to 30' long, and are provided with closet beds and baths, and, when possible, they should also have dressing closets close to, or adjoining, their baths. Sample rooms are generally confined to the lower bedroom floors of the hotel, and are segregated because of their semi-public character.

An example (Hotel Schroeder, Milwaukee—Holabird & Roche, architects) of the most widely accepted combination of bedroom and bath where the latter is on the corridor side, and forms with the closet a small entrance foyer



**Rooms en Suite.** There is no standard practice regarding the number or the arrangement of rooms *en suite*. The connecting room, originally popular, then restricted largely to the outside corners and to a few de luxe arrangements, is now being more widely used. This is due to an increasing use of the hotel by automobiling families, conventions and other groups who prefer flexible communal room arrangements.

Connecting rooms are preferably grouped or paired, so that A and B-type, or A and C-type rooms adjoin, providing ideal accommodations for families and small groups. De luxe suites, consisting of central living rooms with from one to three adjoining bedrooms, should be located in the lightest, best aired parts of the floor. Generally, the living room is placed on the corner to take advantage of cross ventilation, frequently necessitating single wall exposures for the adjoining bedrooms. Some planners, however, would give the most favorable location to the master bedroom.

The connecting door should preferably be placed on the walls opposite the bed walls when possible. They should be located so as not to interfere with furniture, and are usually placed near the corridor end of the room to leave a maximum of wall space near the windows.

**Use-ratio.** The following percentages of each room type apply in most large American transient hotels: A-rooms—20-30%, B-rooms—40-60%, and C-rooms—10-20%. The number of sample rooms and D-rooms will depend on individual policies.

B-rooms are the best sellers—they provide maximum flexibility and utility at a relatively lower initial cost. A-rooms are meant for the single person (usually male) who will spend only a short time in the hotel. These rooms carry the lowest rate. C- and D-rooms are luxury rooms and, in numbers, are confined to the higher type hotels.

**Location.** The smaller, cheaper rooms (A- and some B-rooms) should always have the least favorable positions on the plan: at the deep end of courts, with the poorest light and near the noisiest circulation. B-rooms should be placed on the street side and near the open ends of courts. C- and D-rooms should generally be placed on the outside corners and on the street side.

A-, B- and C-rooms will ordinarily be distributed on every bedroom floor (with the exception of sample room floors), but D-rooms should be placed on separate floors with separate street accesses.

**Bathrooms.** It is now accepted practice in large hotel design to provide a private bath for every room. A-room baths usually contain only showers, basins and toilets, in rooms that are generally 2'-9" to 3'-0" wide and 7'-6" to 8'-6" long.

Baths for B- and C-rooms should be 5' to 5'-6" by 6'-6" to 7'-0", and should contain combination tubs and showers, basins and toilets. Tubs 5' long are used in the smaller rooms, and 5'-6" tubs in the larger. The shower head will be 74" above the bottom of the tub and should have an adjustable head and spray. Lavatories should be standard sides: 18" by 22" or 22" by 24", with mixing faucets and pop-up valves. Circulating ice-water

# H O T E L BEDROOMS AND BATHS UNIT PLANNING NUMBER . . . . . 9

taps should be located above them. (In D-type rooms, fixtures will have these same dimensions, but in addition may be colored.) Water closets, in all types, should have open-front seats; these are frequently without covers, and should preferably be of the silent flush type.

The best location for the bathroom is at the corridor end of the room, forming, with the closet on the opposite wall, a small entrance foyer. Where the plan does not permit the introduction of separate foyers, a common lobby serving two adjoining rooms may be used, flanked by the bathrooms. A third type (the "in-and-outer") introduces the baths between two adjoining rooms. This type is often used in corner rooms where it is impossible to use the corridor-type bathrooms.

**Closets.** Most hotel bedrooms do not have adequate closet space. One large closet should be provided in A- and B-type rooms, and one or two in C- and D-rooms. Sample rooms should preferably have dressing closets or a single large closet.

Closets for A- and B-rooms should have floor areas of  $5\frac{1}{2}$  to 9 square feet. The minimum depth is 22" (to accommodate a hanger with clothing), and the width should be about 3'-0". C- and D-type rooms should have total closet floor areas of 9 to 16 sq. ft., preferably in two closets.

Closet accessories consist of a rod with hangers and a shelf above for hats and small luggage. The hang rod should be 66" to 72" above the floor, and should be provided with 4 to 6 wood hangers. The closet rear wall sometimes contains a sliding door communicating with the adjoining room, or with plumbing stack, for hotel employe use only.

## PRACTICAL EQUIPMENT

**The Guest Room.** The development of accessory practical equipment in the modern hotel room reflects an attempt to provide every possible convenience for the guest. A study of hotel features that appeal to most guests revealed that the latter appreciate rooms that can be found quickly, unaided; bathtubs that fill and drain quickly; mixing faucets; and doors that unlock easily.

Double-entry doors (inset closets in the room door to permit delivery of laundry and clothing without entering the room) have become a desirable standard for all rooms.

Room radios and house telephones should also be provided as standard equipment in all rooms. Radios may be of two types: a speaker wired to a central house receiving set, permitting the choice of several programs, or an individual receiving set. Both the set and the speaker should be recessed in the wall to prevent tampering by amateur mechanics. An access panel may be provided in the closet wall.

Telephones are always placed on bed tables. Their bell boxes may be attached to the walls or to the undersides of the tables. The latter arrangement permits a more flexible furniture arrangement.

Friction door hinges and modern door locks above the knob, door bolt switches, luminous door numbers and ventilated or louvered doors are considered excellent practice.

Windows, where necessary, should be provided with screens or roll screens, washable window

shades and colored awnings. Venetian blinds are recommended only for the more de luxe rooms (types C and D). They are more expensive to maintain and their operation is not understood by most hotel guests.

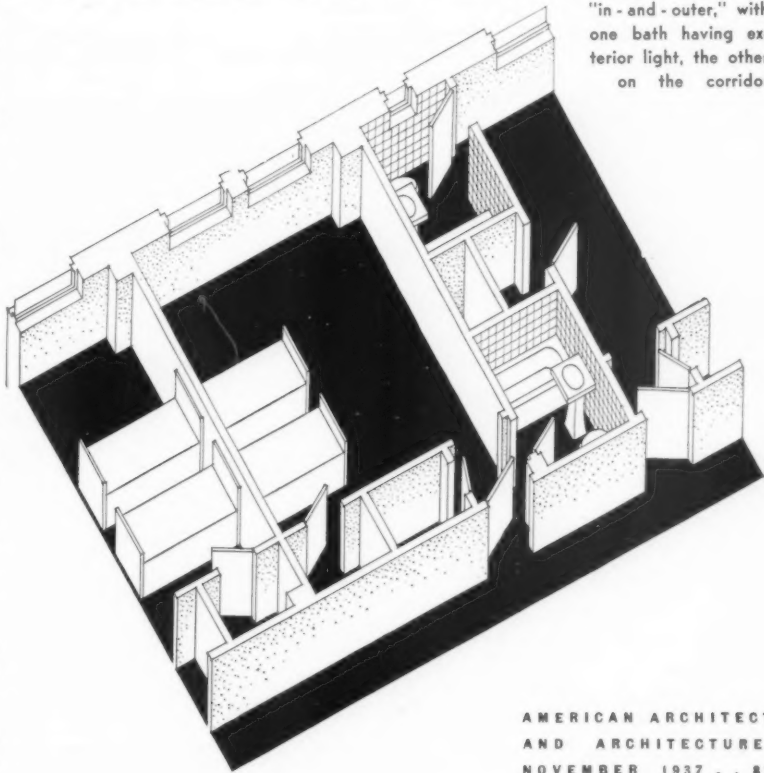
Room clocks are not general practice, but their use is recommended by several authorities. They should be recessed high on the wall, from 7' to 8' above the floor, and should be silent and electric in operation.

Other accessory equipment includes full-length mirrors, carpet padding and carpet plugs. Full-length mirrors are usually applied to the room side of closet or bathroom doors, and are 14" to 22" wide and 64" to 72" high. Carpet plugs are inserted in the finished concrete floor  $2\frac{1}{2}$ ' on centers. They have taken the place of carpet stripping, which must be placed in the finished floor when it is laid.

**The Bathroom.** Bathroom equipment should always be protected against rust and breakage. China faucet handles, for instance, break easily and may inflict a serious cut. Metal door bucks should always be raised on non-ferrous plinths to prevent their being attacked by floor water.

Combination tubs and showers require a metal curtain rod. Stall showers should be equipped with either a glass door, or, as is more customary, a curtain and rod. Towel bars should be located on dry walls (not over the tub or lavatory) and should be two in number, providing at least 4' of rod. Where pin-type towel hangers are used, they are generally placed on the wall near the lavatory, about 74" above the floor. They should be of metal and should have three or four arms.

Another type of bedroom and bath planning (Hotel Savoy Plaza, New York—McKim, Mead & White, architects) called the "in-and-outer," with one bath having exterior light, the other on the corridor



AMERICAN ARCHITECT  
AND ARCHITECTURE,  
NOVEMBER 1937 . . 87

# H O T E L BEDROOMS AND BATHS UNIT PLANNING NUMBER . . . . . 9

Towel bars may be of metal or glass with metal sockets. Toilet paper holders (95% of that sold in this country is of the roll type), soap and glass holders may be of either metal or tile.

The medicine cabinet should be approximately 18" by 24", recessed, with a hinged mirror door. It should also contain a recessed open shelf at the bottom, approximately 6" high and 4" deep, for the accommodation of soap, toothbrushes and glasses. Wall-attached combination corkscrews and bottle-openers, dwarf hooks for shoe cleaning cloths, make-up and face cloths may also be introduced and a hook should be provided on the wall above the water closet for a douche bag. Clothes hooks may be attached to the back of the door.

Towel hampers of metal or of wicker should be provided. Stationary ice water faucets over the bathroom lavatory are preferable to swivel faucets which are occasionally used, because they are more nearly foolproof and cannot be left to leak on the floor.

**Furniture.** The number of pieces of furniture provided for the separate room types varies considerably. Generally, the more expensive rooms will have the greater number of pieces. Little has been done with built-in furniture in the modern hotel. The use of such equipment, which would be a definite part of the architectural plan of the room, is not widespread. Initial expense, inflexibility, and the traveling public's unfamiliarity with built-in furniture, act at present against its wider use. With the introduction of air-conditioning ducts and the more extensive use of hotels by the motoring public, space-saving, built-in furniture will probably be used, to reduce room sizes, and consequently room rates.

A number of older hotels have renewed their outmoded furniture by sawing off its legs and by stripping it of projections. Modern hotels are increasingly adopting modern furniture construc-

ted of rich woods and plainly designed. Combination pieces, which are considerable space-savers and increase the apparent size of the room in which they are used, are also popular. The combination desk and dresser is an example of this tendency.

**A-Room Furniture.** The single bedroom usually contains a single or three-quarter bed, a dresser, a combination dresser and desk, one straight-back chair, a bed table, a full-length mirror and one wall mirror.

**B-Room Furniture.** The B-type room should contain a three-quarter bed or twin beds, a dresser, a writing desk, a bed table, a folding baggage rack, a straight-back and an armchair, a full-length mirror, and a wall mirror.

**C-Room Furniture.** The C-room should have twin beds, a writing desk, dresser, cabinet, bed table, folding baggage rack and mirrors. In addition to two straight-back chairs and two armchairs, it may also have a bench.

**D-Room Furniture.** The furnishing of a D-room should include convertible or disappearing beds, combination dresser and writing desks, a cocktail table, a utility table seating four, and a larger number of chairs—from four to six. It will also have a telephone stand, book shelves and special cabinets for linens, liquor, magazines and games. The furnishing of this type of room must reflect and be an aid to its more continuous residential function. Furniture must have a living room character, must be compact and must usually perform dual functions. The development of this type of hotel room was considerably stimulated by the depression; the long-term occupancy provided a steady income for the hotel management and the guest usually found it less expensive than maintaining a large apartment or town house.



A typical single bedroom, with double bed, permitting assembly with other rooms, Hotel New Yorker, New York—Sugarman & Berger, architects



An end of the Swedish Suite, one of the more expensive offerings of the Waldorf Astoria, New York. Nordiske Kompaniet, interior decorators



**Sample Room Furniture.** The sample room is usually furnished according to the requirements of each particular guest, and in accordance with his specific instructions when making the reservation or upon his arrival. The usual B-type furniture may be used, or the room may be completely fitted out as a small display room with display tables and racks provided by the hotel. The furniture, when not in place, is stored in large closets located on the sample room floors.

**Fireproof** construction in this country is usually of the steel frame type with reinforced concrete, or unit reinforced block type floors, and with partitions of terra cotta, gypsum block, or of steel and plaster. Ceilings may be plaster on the concrete slab or unit block panel, or may be furred down to conceal construction or mechanical equipment. Partition thicknesses, where sound-proofing is not essential, are usually constructed of 3" terra cotta tiles or gypsum blocks. Door and window frames should be of metal. All doors, including closet, bath and entry doors, are usually of wood, but window sash should be of metal. Baseboards may be of metal or, more commonly, of painted cement.

**CONSTRUCTION**

**T**HE construction economy of a modern hotel is an attempt to provide the most satisfactory room arrangement for the least cost. The adjustment of these, at times, opposing influences may be partially indicated by a series of behaviorables that are based on plan practice and anticipated hotel requirements.

Wherever possible, for example, bathrooms are paired so that they can share a common plumbing stack. Rooms of like size, or with a common long dimension, are grouped to permit an economical steel layout, and superposition of rooms, baths and corridors is carefully studied to permit the most satisfactory arrangement of steel columns, ducts and shafts.

**Construction Types.** A modern fireproof hotel, according to some authorities, should have at least 150 rooms to be economically practicable. However, the majority of existing hotels in this country contain less than 200 rooms, and many hotels contain less than 50. Fireproof, and semi-fireproof construction are accepted standards in all contemporary hotel construction.

**Semi-fireproof** construction will employ masonry bearing walls, wood or steel floor joists and partitions of wood and plaster, or of steel and plaster.

**Steel.** Columns are arranged in bays whose shorter dimension varies from 12' to 16' (room widths), and whose longer dimension varies from 12' to 24' (room or room and bath depths). The usual hotel section consists of rooms on two sides of a center corridor, forming a wing. When girders run across the wing, they are usually concealed above the lateral partitions. When girders run the length of the wing, connecting interior columns, they are usually concealed in the furred ceilings of bathrooms and foyers. In either case, provision must be made to accommodate the girders once the room plan is established.

The steel layout has another partial determinant in the first floor plan. Columns, when possible, should come down to the first floor with some regularity, to permit their convenient architectural absorption in the large public rooms.

Larger hotel plans are composed of a number of wings forming three-sided courts, which are served by a central bank of stairs and elevators. Interior steel columns in such wings consist of one or two rows. A single row of columns is used in wings from 30' to 40' wide, and a double row in wings from 41' to 60' wide.



Typical double bedroom in the Stevens Hotel, Chicago (Holabird & Roche, architects), providing the accepted quota of equipment and furnishing

A corner double bedroom in the Lord Jeffery, Amherst, Mass. (Putnam & Cox, architects), representing the better hotels outside of the cities

**MECHANICAL EQUIPMENT**

**HEATING AND VENTILATING**

**The Guest Room.** The usual hotel heating system is a two-pipe, down-feed, vacuum return system. Phantom type convectors are used when they can be hung from metal windows and window sills. Tube type radiators are used beneath wood windows. In either case these should be adapted for guest control.

Radiators or convectors are preferably located directly under the window, but this position has two disadvantages. It requires lower, more expensive radiators, and more piping to reach the riser, which is generally in the room corner. However, it permits more flexible furniture arrangements, provides more efficient heat, and improves the appearance of the room. Convectors should always be recessed, and radiators enclosed with metal if not recessed.

An alternate position for the radiator is to one side of the window, or in an outside corner of the room. There it will interfere with furniture and impair the appearance of the room. This arrangement, however, has a lower first cost.

**The Bathroom.** Bathrooms should always be heated, although many inside bathrooms rely for their heat on the air from the room, which is drawn through them by the exhaust ventilation. Bathroom radiators are usually of the fin type with metal covers. They are hung on the wall underneath the lavatory. Their piping should never pass through the floor, because of possible leakage of floor water on the ceiling below.

Ventilation for the bathroom is obtained by means of an exhaust grille located on or near the ceiling, and connecting with a galvanized iron elbow having a friction damper and leading into an exhaust duct in the pipe shaft. The register must have fixed fire louvers and the bathroom door must be provided with slots or grilles to permit through ventilation.

The inside bath predominates in all fireproof hotels. Experience has shown that it is more easily ventilated than the outside bathroom. Backdrafts through a bathroom window may cause a discharge of bathroom air into the bedroom. Artificially controlled exhaust ventilation assures an even, complete change of air every two to five minutes, a rate that seems standard for the industry, and is equal to, or better than, most code requirements. Hotels in warmer areas use the more frequent rate.

**Plumbing.** The plumbing of the hotel bathroom is contained in a large shaft, at least 1'-4" to 2' wide and 4' to 7' long, extending through the bedroom floors and connecting with the central plumbing and drainage system. This shaft contains not only water and drainage pipes, but carries a ventilating duct for the bathrooms it serves.

Access to the shaft must be provided at every floor. When the shaft adjoins a corridor, an access door may be introduced at that point. In other cases, access doors may be introduced in closet walls or behind the medicine cabinet, but the corridor access obviously is to be preferred.

**Electrical.** Most existing hotel bedroom lighting is inadequate. The guest room combines the functions of living room, sleeping room and office, and its lighting should be so designed that it satisfies each of these three functions. A medium level of general illumination should be provided by means of a central, semi-indirect ceiling fixture controlled from a wall switch. Usual guest room planning provides an entrance foyer or short hall serving the entry, the bathroom and sometimes a closet. This foyer should be lighted by a small light with a wall switch inside the entry door. It provides enough illumination for a person entering the room and lighting it should not disturb a person in bed.

A light on the dresser, or on a wall bracket above it, of 40w or 60w, a bed light of 40w, a floor or table light for writing of 50 to 60w and a closet light of 40w, will provide for specific lighting requirements. Convenience outlets in the bedroom are usually 2 to 4 in number. One should be 3' above the floor near the dressing table to accommodate guests' curling irons and razors. Other outlets should be located according to furniture requirements. Outlets for radio, unit air-conditioner, and clock, should also be provided if they are necessary.

Sample rooms require a commercial-type high-intensity ceiling light, that provides—assuming a standard 8'-6" to 9'-6" ceiling height—2w of light for every square foot of floor area.

General illumination in the bathroom is achieved by means of a center outlet over the medicine cabinet, or more luxuriously, by means of side brackets on either side of it. These should be controlled from a wall switch near the door or near the lavatory. A convenience outlet for curling irons and razors may be combined with the lavatory switch.

**Air Conditioning.** Air conditioning is destined shortly to become essential in all better class hotels. Already, a number of large installations have been made in various parts of the country, particularly



A bath in the Hotel New Yorker, New York, providing both tub and shower



A bathroom in black and gold marble adjoining a boudoir in the Waldorf Astoria

in the South and Midwest, and many existing hotels are contemplating the installation of a system in the near future.

Three systems are available, as follows: 1. The portable air conditioning unit, requiring only an electric outlet. It may be installed in the guest room without piping or plumbing of any kind. 2. A unit system of air conditioning. This type will condition a single floor of guest rooms. 3. A central station system with pumps and compressors located in the basement. This system is designed to condition the entire building.

Air conditioning grilles should be located in the wall close to the ceiling. They should be louvered with an adjustment at some convenient point, approximately 4'-6" above the floor, to permit guest control of the amount of cooling air that enters the room. Space for air conditioning ducts and outlets should be considered in planning any new hotel. Vertical ducts may be located in plumbing shafts, and horizontal ducts placed in furred corridor ceilings.

**Sound Conditioning.** The problem of sound control is most serious for those rooms that are exposed to particularly noisy traffic, or are within sound of kitchens and noisy servicing areas. This can be corrected in several ways: by sound-treating the offending areas with an acoustical material applied to the ceilings and side walls, and by the use of silent equipment. 2. By covering the ceiling of the guest room with an acoustical material. 3. By using a window ventilator which will muffle the outside air passing through it. Sound conditioning of hotel kitchens, restaurants and bars is good practice in contemporary hotel design. Sound-treating the individual guest room is more infrequent, but may prove a valuable advertising asset and attract guests. Window ventilators are not widely used, because of high initial and maintenance costs.

Sound transmission through walls, floors and ceilings requires special corrective construction. Carpeted floors with carpet padding reduce the noise of footfalls. In some cases, hung ceilings with an intervening layer of sound-absorbing felt will act as an additional sound-proofing.

Ordinary block and plaster partitions are perfect sound transmitters. Connecting doors between bedrooms also pass a considerable amount of sound. Partitions may be sound-proofed by constructing two independent walls with an intervening layer of hair felt. The connecting door, or double doors, should fit very tightly, and should not be of panel construction. The door should be heavy and flush, without a through keyhole.

Bathroom noise may be reduced by opening the bathroom off a small foyer adjoining the guest room. Locating the fixtures on the wall farthest from the bedroom, and the use of silent flush type water closets, will also reduce the bathroom noise. When a bathroom wall adjoins a bedroom, the partition between them should be sound-proofed.

### SERVICING AND MAINTENANCE

SERVICING and maintenance are important considerations in the design and finishing of the hotel bedroom. The number of rooms to the

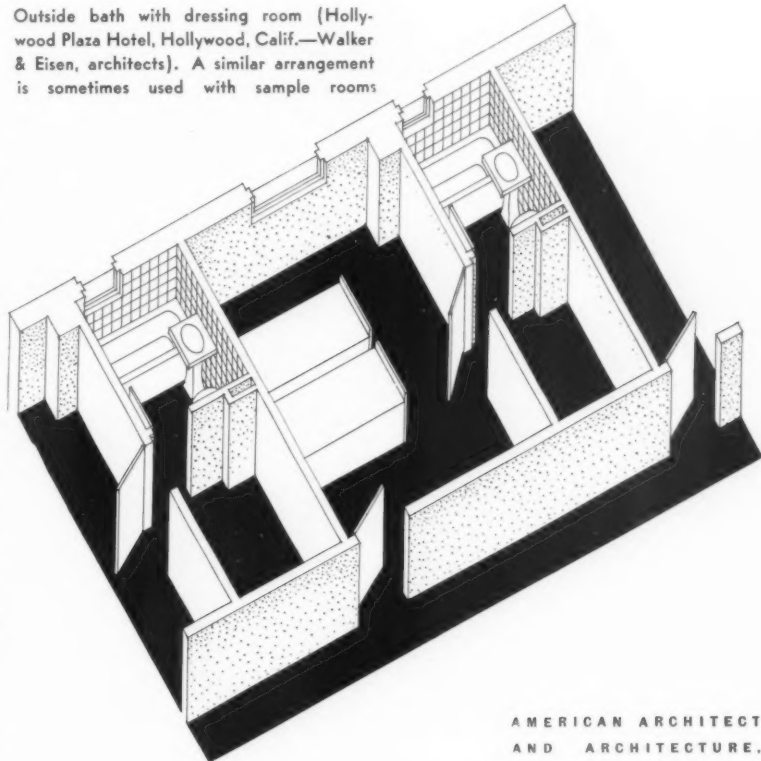
floor, for example, will be determined by the so-called "rule of eight." Practice has indicated that the average chambermaid can take care of 16 or 17 rooms; floors containing multiples of this number permit most efficient use of maid service. However, one chambermaid may handle 8 rooms on two successive floors.

Bedroom walls should be washable flat surfaces, free from projections. Bathroom walls and fixtures should be simply arranged and designed to permit easy cleaning. Radiators should be covered, and should have solid rather than perforated metal tops to prevent soiling walls or curtains. Window shades should be washable.

Bathroom wainscots may be of tile, glass, linoleum or other materials easily kept clean and not affected by water. Floors may be of tile or linoleum. Ceilings and in cheaper work the upper side walls may be enameled.

The standard carpet width of 27" still determines the width of hotel rooms. Laying and replacing carpet that requires wasteful cutting indicates poor hotel planning. Cleaning bedroom carpets may be done by one of three methods. These are: 1. With the conventional light vacuum cleaner. 2. With the truck type motor and tank cleaner. 3. With a central system of built-in pipes connected to a motor and tank in the basement. This latter system is used in most of the larger hotels, and though expensive to install, is said to be cheaper and more efficient to operate. Vacuum outlets are located in the corridor walls and should be within 50' of the farthest corner of any carpeted floor.

Outside bath with dressing room (Hollywood Plaza Hotel, Hollywood, Calif.—Walker & Eisen, architects). A similar arrangement is sometimes used with sample rooms



## H O T E L B E D R O O M S A N D B A T H S U N I T P L A N N I N G N U M B E R . . . . . 9

AMERICAN ARCHITECT  
AND ARCHITECTURE,  
NOVEMBER 1937 . . 91

**PURPOSE**

This sheet is intended to serve as a guide in developing typical bedroom-and-bath units used in laying out transient or semi-commercial hotel plans. Information contained herein is the result of a survey of current practice in offices of architects specializing in hotels and of hotel managements and systems. Accompanying diagrams, tables and text indicate methods of attacking typical problems, and may be varied to suit specific conditions. Information was obtained by J. R. von Sternberg. Examples of typical units and combinations are given in T.S.S. Serial No. 94, "Hotel Bedrooms-2-Unit Plans" (November 1937).

**ROOM ELEMENTS AND SIZES**

Hotel bedroom-and-bath units contain three principal elements: (1) bedroom, (2) bath, and (3) closet. A fourth element, the foyer, is often introduced.

**Bedrooms** are of two general types: (1) those used as bedrooms only, by transients, (2) those which serve as combination offices, sample rooms and sleeping rooms. In addition, many transient hotels contain a proportion of rooms to be occupied as non-housekeeping one-room apartments. Variations in sizes of all types are determined by furniture requirements and by the amount of space for which occupants are willing to pay. Dimensions and window and door sizes are given in the accompanying tables.

**Small bedrooms** should accommodate a single or three-quarter bed and bed table, dresser or combination dresser-desk, one straight chair, wall mirror, and full-length or door-mirror. One window is usually provided, but rooms with two or more windows rent more quickly. In urban hotels complete bathrooms are provided. Small hotels in suburban and rural areas sometimes have lavatories within the room, all occupants of one floor using a common bathroom.

Usually 20% to 30% of a hotel's accommodations are in this "small" class. Plan location of such bedroom units is normally the least favorable: at deep ends of courts, with poorest light or view, or near noisiest corridors.

**Medium-sized bedrooms** are the smallest normally intended for two persons. Usual minimum furniture requirements include twin, three-quarter, or double beds and in some cases one extra straight chair, in addition to requirements outlined for small rooms. Bathrooms are similar to those for small rooms. Two windows, singly or paired, are commonly provided. Percentage of these units to the total ranges usually between 40% and 60%. Location is normally more convenient and less noisy than that of small rooms.

**Large bedrooms** are of two kinds: (1) more luxurious rooms for transients; (2) one-room apartments. Dimensions for both are approximately the same, differences lying mainly in appointments. Both are intended for single or double occupancy. In addition to furniture requirements for medium-sized rooms outlined above, a vanity, bureau or highboy and small table are often provided. In one-room apartments, beds are usually convertible or closet types and other furniture is of higher quality than in rooms for transients only. At least two windows are always included. Proportion of large rooms (transient type) in urban hotels ranges from 10% to 20% of total accommodations; otherwise percentages vary according to individual hotel policies. Large rooms (transient) are ordinarily limited to most favorable positions on a few floors: outside corners, fronts of buildings, or other positions having the best light, air, and view. Apartments are segregated in semi-independent floors, wings or other areas having no public connection with transient areas, but convenient to normal hotel services.

**Sample rooms** should have as much clear floor space as possible. Beds are usually closet type. Other furniture may vary from the minimum outlined for small bedrooms to complete sets of display tables and racks; when not in use, such equipment, as well as extra chairs, etc., is usually stored in adjacent areas set aside for the purpose. Dressing space is most often provided in large closets. Number of sample rooms per hotel varies, more being included in large urban hotels of commercial type than in small suburban hotels. Since rooms are semi-public, they are usually located in lower bedroom floors, convenient to lobbies. See also T.S.S. Serial No. 94.

I - TYPICAL GUEST ROOMS					
ROOM TYPE	DIMENSIONS		ACCOMMODATION (Type of bed)	LOCATION (Common practice in urban hotels)	CLOSET AREA
	Width	Length			
Bedrooms	Small	9'-0" ±	13'-0" to 14'-0"	Single or ¾ bed	Least valuable, as courts, etc.
	Medium	11'-3" ±	13'-0" to 16'-0"	Twin beds, ¾ or Double	Court or street
	Large Δ	12'-6" ±	16'-0" to 20'-0"	*Twin beds, ¾ or Double	Street, outside corner
Sample Rooms	Single	16'-0" ±	14'-0" ±	*Twin beds, ¾ or Double	Semi-public
	Double	35'-0" ±	16'-0" ±	*Twin beds, ¾ or Double	Semi-public

Δ Includes 1-room apts., which are usually separated from rooms for transients, and are more luxuriously equipped

\* Closet or convertible beds in 1-room apt., closet type in sample rooms

**II - TYPICAL DOUBLE HUNG WINDOWS**

TYPE	APPROXIMATE DIMENSIONS		
	Width	Height	*Sill Height
Single	4'-0"	6'-0"	2'-8"
Paired	each, 3'-0" pair, 6'-6"	6'-0"	2'-8"

\* Check with radiator convectors or enclosures

Note that New York Codes require a minimum window area equal to 10% of room area. Consult local authorities

At least 2 windows (or 1 pair) are usually included in all but smallest rooms

**III - TYPICAL DOORS**

Doors are usually 1 ¾" thick and 6'-8" to 7'-0" high. Width varies from 2'-8" to 2'-10" for bedroom entry and connecting room doors; 2'-4" to 2'-6" for baths; 2'-8" to 3'-0" for sample room entry doors (to accommodate cases, furniture etc.)

# HOTEL BEDROOMS-1-Planning Elements

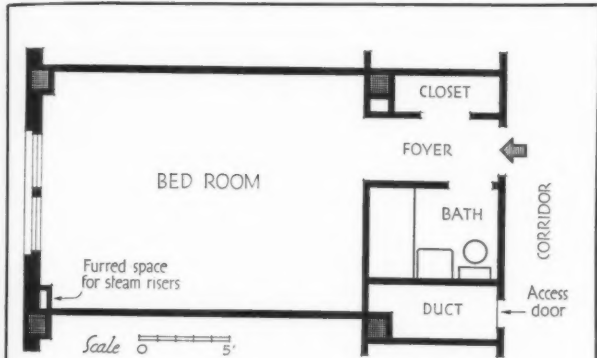
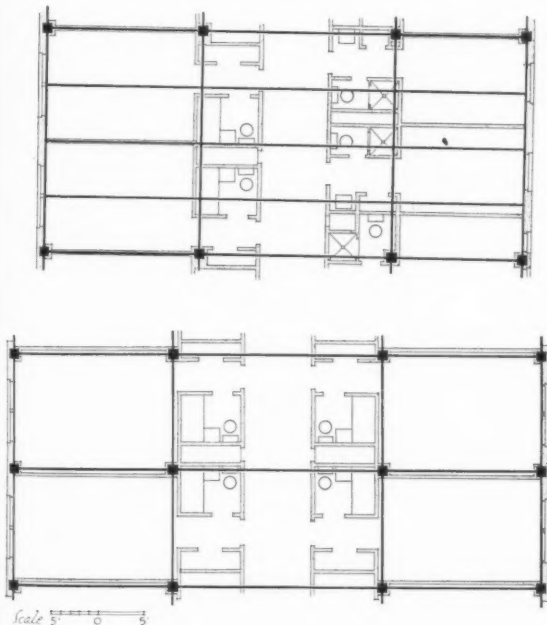


Figure 1—Bedroom-and-bath unit of the "corridor" type in which bath, foyer and closet are grouped at corridor end of unit. Other combinations are shown in the following T-S.S. In all types, bath and plumbing shafts must adjoin



Figures 2 and 3 indicate methods of adjusting units to typical steel framing. Above, transverse girders; below, longitudinal girders. Framing should neither block shafts, nor run directly beneath bath fixture traps unless bath floor can be raised or ceiling below furred. Column spacing of 12'-6" permits accommodation of two room widths (11'-0" and 13'-0") within two adjacent bays

**Bathrooms** are of minimum size except for more luxurious bedroom types, and follow in general layouts shown in T-S.S. C8.1.1 and C8.1.2 for three-fixture baths. In hotels for men only, tubs are sometimes omitted; baths in women's hotels usually contain a tub or tub-shower combination. In large transient or semi-commercial hotels, baths for large rooms may contain both tubs and stall showers; otherwise the tub-shower combination is common.

**Closet** areas for various types of rooms are given in Table 1. Except in rare instances closets are not completely fitted, minimum sizes and equipment shown in T-S.S. C9.1.1 and C9.1.2 being the usual standard.

**Foyers**, into which corridor, bath and closet doors open, increase wall-space within the bedroom, thus making possible the use of minimum sized units without sacrificing comfort. Privacy is also increased. Foyers are standard in larger or more exclusive hotels. Their use in typical commercial or transient establishments depends upon the particular problem at hand. For location of foyers in various types of plan combinations see T-S.S. Serial No. 94.

## EQUIPMENT

**Plumbing** stacks are located in continuous vertical shafts. Access doors are required, the most convenient location for these being the corridor wall (see accompanying diagrams). Connections to fixtures are made horizontally through walls to prevent leaking bathroom floors. For fixtures, sizes, etc., see T-S.S. C8.1.1 and 2; for stack sizes see T-S.S. Q9.1.1, 2 and 3.

**Heating and Ventilating.** Baths are usually mechanically ventilated through wall registers opening into G.I. ducts contained in plumbing shafts and operated by exhaust fans at tops of shafts. Registers require fixed fire louvers and bathroom doors have slots, grilles or louvers for air circulation. Window ventilation of bathrooms may cause back drafts. Ventilation of bedrooms is at present accomplished almost entirely by windows, and heating by radiators or convectors placed below windows. *Air conditioning* of bedrooms should be considered, either by means of individual room conditioners, unit systems serving floors, wings, etc., or by central systems.

Radiator covers with solid tops, often integral with window stools, are employed to prevent soiling of draperies. Heating risers are ordinarily furred in room corners.

**Electrical.** For general illumination, bedrooms usually contain one ceiling or two wall fixtures, controlled by a switch at the corridor door or foyer. Supplementary local lighting is ordinarily supplied by from two to four portable fixtures requiring convenience outlets, one of which should be adjacent to the normal bed location. Telephone outlets should also be close to bed location. Convenience outlets are occasionally provided for fans and clocks. Tamper-proof radio connections, for master-set or individual control, are common equipment.

In bathrooms illumination is supplied by one or two switch-operated wall fixtures at the lavatory; a convenience outlet is also included. Foyers usually have a ceiling fixture operated by a switch located at the corridor door. Closets may have lights operated by automatic door switches.

## PLANS

Arrangements of elements in one of the many plan types is shown in Figure 1. One wall of the bathroom should adjoin the plumbing shaft. Arrangements of units to conform to typical structural steel layouts are shown in Figures 2 and 3. Additional methods of combining units in pairs grouped about common plumbing shafts, or to fit various plan locations, are given in T-S.S. Serial No. 94.

## CONSTRUCTION DETAILS

In fireproof hotels of masonry construction, carpet plugs should be inserted in floors, 2'-6" on centers, around the perimeter of the room to accommodate all-over carpets, standard in most hotels. Door saddles should be designed for carpet clearance. Saddles for bathroom doors should be of cement, marble, or a similar impervious substance. Interior trim is usually of wood or metal. Door trim, particularly for bathroom doors, should be set upon plinth blocks formed of materials which are resistant to moisture.

**HOTEL BEDROOMS—2—Unit Plans**

**PURPOSE**

In this T-S.S. are contained typical combinations of hotel bedroom unit plans. Types are those used by architects specializing in hotels and recommended by hotel systems and managers. Accompanying plans indicate methods of solving typical problems and may serve as bases for planning to meet specific conditions. Information was obtained by J. R. von Sternberg. Plan elements, room sizes and other data necessary in laying out individual units are available in T-S.S. Serial No. 93, "Hotel Bedrooms—1—Plan Elements" (November 1937).

**PLAN TYPES**

Varying locations of bathrooms, closets and plumbing shafts constitute the chief differences between types of bedroom-and-bath units, commonly designated by hotel men as: *corridor*, *common lobby*, and *"in-and-out" bath*.

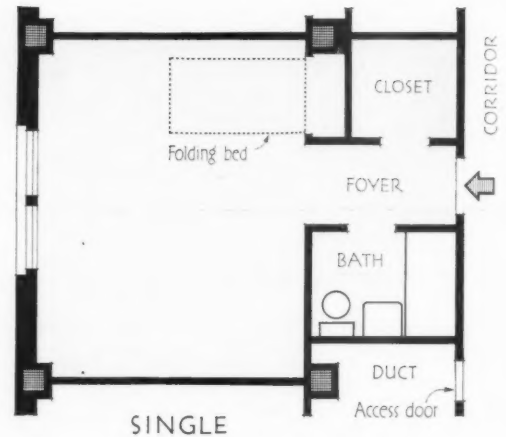
**Corridor plans** are those in which closet, foyer, bath and plumbing shaft are located at the corridor end of the room. Chief advantages are privacy, minimum noise from corridors and baths, and convenient access from corridors to plumbing shafts.

**Common lobby** units are those in which two bedrooms are served by one lobby. Foyers may or may not be used, as shown in the accompanying drawings. Subordinate elements are usually at the corridor end of the room. Common lobby plans are used when (1) available space will not permit inclusion of independent room foyers; (2) it is desired to permit use of adjoining rooms *en suite* without providing intercommunicating doors; or (3) maximum privacy, resulting from use of both foyer and lobby, is desired.

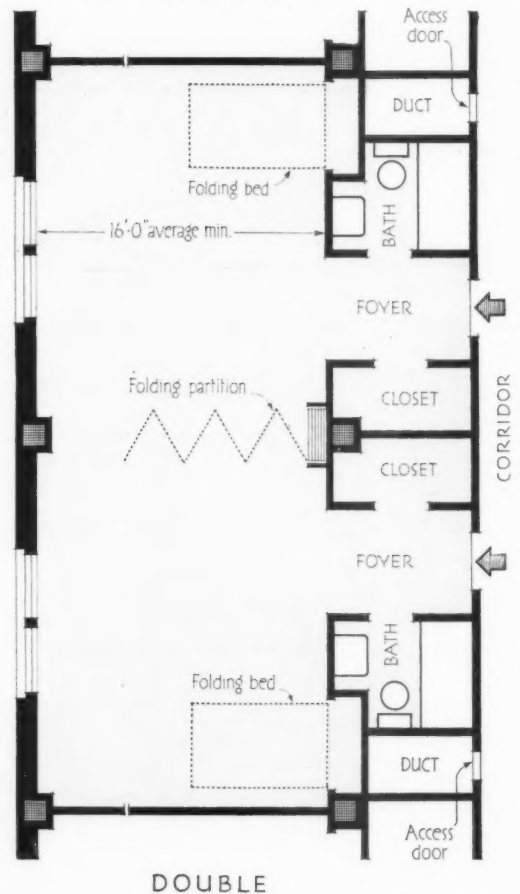
**In-and-out units** are those in which baths, shafts and closets are arranged at sides, between rooms. Foyers are usually omitted. Bathroom partitions adjoining bedrooms are often sound-proofed to reduce noise transmission. Access to plumbing shafts is obtained from bedrooms or baths.

**Corners** usually contain the larger rooms which command higher rentals, and are often occupied by rooms *en suite* or by combinations of large and medium or small bedrooms. These permit changes in location of baths, foyers and closets without waste space. One type of corner plan is shown in the drawings.

**Sample rooms.** Both single and double sample rooms are shown. Beds are closet type, and where possible dressing closets should be included in order to make available for display cases, etc., the maximum amount of clear floor space. Closets, foyers, baths and plumbing shafts may be located at ends of rooms similarly to "in-and-out" type.



NOTE See T-S.S. C8.11 and C8.12 for Bath Rim layouts  
 For Rim sizes see "Hotel Bedrms-1-Planning Elements"  
 (Serial No. 93)

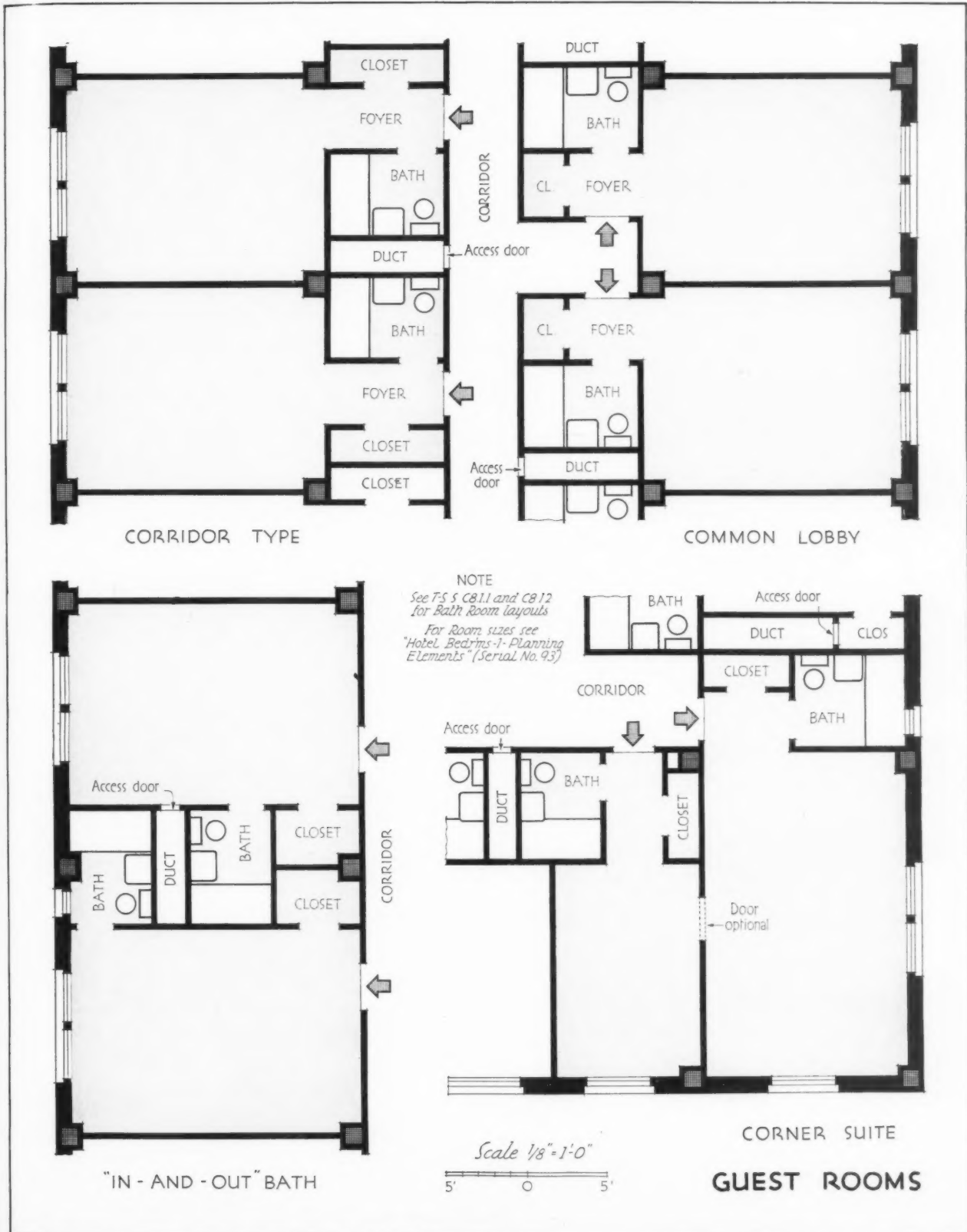


**SAMPLE ROOMS**

Scale 1/8" = 1'-0"



**HOTEL BEDROOMS-2-Unit Plans**



## BOOKS FOR THE ARCHITECT'S LIBRARY

**PIONEERS OF THE MODERN MOVEMENT FROM WILLIAM MORRIS TO WALTER GROPIUS.** By Nikolaus Pevsner. 240 pages, 6 1/4 by 8 3/4 inches. Illustrations from photographs, drawings, and paintings. Printed in Great Britain. New York: 1937: Frederick A. Stokes Company. \$3.50.

There is a well authenticated thread running throughout the work of many men by which we trace back to its head waters the river of modern thought. The author has performed a real service in evaluating, with what seems to us to be justice and discrimination, the real meaning of the arts and crafts movement, art nouveau, the part of engineering, the contributions of men like Walter Crane, C. R. Ashbee, Otto Wagner, Frank Lloyd Wright, Van de Velde, Voysey, Loos, Muthesius, Behrens, Gray, and others.

**SEASIDE HOUSES AND BUNGALOWS.** Edited by Ella Carter. 112 pages, 7 1/2 by 10 inches. Illustrations from plans and photographs. Printed in Great Britain. New York: 1937: Charles Scribner's Sons. \$2.50.

An aggregation of photographs and plans which, excepting for the fact that they are all built near the sea, have few other connecting relationships, either in style, size, or architectural merit. It seems possible that the illustrations have been brought together largely because of having been published previously in various issues of one magazine.

**FERIENHAUSER FÜR GARTEN, GABIRGE UND SEE.** By Herbert Hoffmann. 100 pages, 9 by 11 1/2 inches. Illustrations from photographs, plans, and details. Stiff paper binding. Stuttgart: 1937: Julius Hoffmann. Obtainable in America from The Architectural Book Publishing Co. \$2.70.

Cottages, shacks, week-end retreats, and other similar structures in a wide variety. One or two American examples are included. The text is in German throughout.

**THE HOUSE OF HEALTH: The Practical Book of Building.** 128 pages, 8 1/2 by 11 inches. Illustrations from drawings, plans, and photographs. Stiff paper binding. Garden City, N. Y.: 1937: Garden City Publishing Co. \$1.

An attempt to educate the layman in matters upon which he might, with better results, be advised by his architect and engineer. The book also contains drawings by several well known architects, of houses designed to be fireproof, to be attractive from front and from rear, to be octagonal in plan, or to have some other qualification that has very little to do with the needs of a particular client.

**SAND-LIME BRICK. Simplified Practice Recommendation R-38-37.** 10 pages, 6 by 9 inches. Pamphlet binding. Washington, D. C.: 1937: United States Department of Commerce. 5 cents.

**BUILDING CONSTRUCTION. Prepared by Division of Construction and Public Employment.** 28 pages, 6 by 9 inches. Illustrated with graphs. Pamphlet binding. Washington, D. C.: 1937: United States Department of Labor.

An official survey of the amount of building construction in principal cities in May 1937, and comparing the first five months of 1936 with 1937.

**CREATIVE DESIGN IN FURNITURE—Wood, Metal, Glass, and Plastics.** By William H. Varnum. 160 pages, 6 by 9 inches. Illustrations from drawings and photographs. Peoria, Ill.: 1937: The Manual Arts Press. \$2.50.

Attempts to delve into the esthetic impulses of a creative art movement and at the same time present practical information on materials for the beginner, the advanced craftsman, and the professional designer naturally result in a good deal of "punch pulling." Obviously influenced by the

spatial theories of Laslo Maholy-Nagy, the author has a tendency to give the term "functionalism" a somewhat stylistic connotation. In the more practical chapters on materials, construction and the projection of designs there is considerable information of value. Unfortunately the illustrations are banal. On the whole this book is better suited to the needs of beginner and amateur than to those of the advanced designer or craftsman.

**REAL ESTATE. A Practical Guide to Ownership, Transfer, Mortgaging, and Leasing of Real Property.** By William J. Grange, assisted by Jacob Quat. 542 pages, 5 3/4 by 8 1/2 inches. New York: 1937: The Ronald Press Company. \$5.

Here is a comprehensive and exhaustive presentation of the myriad of legal intricacies surrounding the holding of real property. The author is a member of the New York Bar, and author of other recognized works on special phases of law as interpreted for the layman.

**ALUMINUM PAINT MANUAL.** 102 pages, 5 1/4 by 8 1/4 inches. Illustrated with photographs and a chart of surface textures. Stiff paper binding. Pittsburg: 1937: Aluminum Company of America.

With the rapidly widening field of usefulness for aluminum paint, the present handbook is particularly timely. There is herein a vast fund of information regarding the scientific knowledge about aluminum flakes as a pigment and the various vehicles in which it is suspended. Here are specific instructions as to what kind of aluminum paint is best for various purposes, how it should be mixed, and how applied. A valuable reference book for the specification writer.

**STAINED GLASS OF YORK MINSTER.** By Canon F. Harrison. Preface by H. N. Bate. 48 pages, 11 1/2 by 16 1/4 inches. Illustrations in full color. Stiff paper binding. Printed in Great Britain. New York: 1937: The Studio Publications, Inc. \$2.50.

This is the second in a new series of volumes recording with large and particularly fine color plates some of the treasures of art. The reproductions are far above the ordinary, having been made at great pains with the use of special scaffolding and under ideal conditions of transmitted light, so as to show the windows and their details in direct elevation.

**AN INVESTIGATION OF STUDENT STUDY LIGHTING. Circular No. 28.** By John O. Kraehenbuehl. 36 pages, 6 by 9 inches. Illustrations from photographs and graphs. Pamphlet binding. Urbana, Ill.: 1937: University of Illinois. 40 cents.

**CONTROL OF ELECTRIC MOTORS.** By P. B. Harwood. 390 pages, 6 by 9 inches. Illustrated with photographs, graphs, charts, and diagrams. New York: 1935: John Wiley & Sons. \$4.50.

Stated in the preface, the purpose of this book is "to describe briefly the characteristics of various types of motors, and to explain how these characteristics are used for control purposes." Of most specific interest to the architect and building technician will be the chapters on characteristics of direct and alternating current motors. In each of these a table lists the appropriate speed class and type of motor for the various usages, including fans, pumps, freight and passenger elevators, washing machines, etc. A discussion of the principle of the photo-electric cell may prove of interest to those concerned with possible increased future use of this control device in planning of all types. In general, this book is directed toward the specialist who specifies and purchases, designs and builds, and installs and operates electric motors and their control devices. A reading of it may give the architect better equipment to deal with this specialist.



FRENCH CASINO ★ MIAMI BEACH ★ FLORIDA



ARCHITECTS: THOMAS W. LAMB, INC.



CARPET COUNSEL BY **BIGELOW**



**W**ORKING with the internationally known theatre architects and designers—Thomas W. Lamb, Inc.—has been our privilege on many occasions. Speaking of the French Casino project at Miami Beach, Mr. Lamb says his firm was very pleased with our cooperation—especially our preparation of numerous special carpet samples.

The resulting patterns and colors exactly met the architects' wishes.

We've had so much experience in working with architects on projects of all kinds that our Carpet Counsel service will surely be helpful to you—whatever your problem. May we talk it over? Contract Dept., Bigelow-Sanford Carpet Co., Inc., 140 Madison Ave., New York.

# TECHNICAL DIGEST

## KEY TO PRESENTATION

Typical reference: 15 N'37:14-26 **gptv**  
This indicates: Issue of November 15, 1937, pages 14 to 26 inclusive, presented according to the following key:

**d**—detail drawing    **g**—graph    **p**—plan  
**s**—section            **t**—text        **v**—photo view

Accordingly, **gptv** means graph(s), plan(s), text and photographic view(s) in the article mentioned.

NOTE: Readers desiring to secure copies of any publications mentioned herein are advised to have their local bookseller obtain them, or write to the periodical of origin, either directly or in care of AMERICAN ARCHITECT AND ARCHITECTURE.

## CONSTRUCTION

**Strength of brickwork in relation to that of bricks and mortar.** (N. Davey). *The Master Builder* (London). Ag'37:271-273 **gt**

A paper presented in 1937 before the London Congress of the International Association for Testing Materials. The sectional headings include: test conditions, effect of mortar composition on the compressive strength of small piers, effects of stronger brick, the grain-shape of sand, and weather-tightness. There are graphs and tables.

A mix of 1:3, plus 50-60% of lime (by volume) was found best for general use.

**Demonstration flat at King's Cross.** (G. Dower, Arch.). *Architects' Journal* (London). 2 S'37:368-369 **dtv**

Brief presentation of unusual structural features and equipment. Brick facings have been used in the outer walls of the cavity walls with three types of inner facing, also used for partitions. (1) Hollow panels of dovetail steel sheeting similar to those used for floors and roof. These have slag wool insulation. (2) Anhydrite blocks. (3) Hollow tile blocks. Door, window frames and stairs are of pressed steel.

Same: *Design & Construction* (London). Ag'37:377 **pstv**

**Lessons from a building collapse.** (E. E. Seelye). *Engineering News-Record*. 15 J1'37: 93-96 **dtv**

Review of last year's apartment house collapse in New York City by one of the experts appointed to investigate it.

Main defect claimed was lack of distribution of the load on two 14-in. girders which carried the tower load. A number of other faulty details in workmanship are explained and illustrated in this report, the author making the point that steel-and-bearing-wall buildings such as this are not simple engineering because of the many indeterminate problems involved. He finds fault with the whole system of speculative building which re-

sults in inadequate engineering and skimpy workmanship, but sees hope for better and safer construction in the new legislation.

## COSTS

**What is cost engineering?** (H. P. Maxton). *Engineering News-Record*. 2 S'37:391-394 **gt**

With the subject defined as "management to keep down construction costs" this article outlines methods developed from experience with the TVA. A list of the subheadings follows: Preparation of a financial schedule, review of the estimate and progress schedule, outline of a series of reports to be made to the contractor (labor control, cost analyses, comparison of estimates with actual unit costs, cost graphs, cost trend studies), method of reporting, kinds of report (labor, equipment efficiency, analyzed unit costs, time studies). The place of piece-work, bonus, competition and the use of charts and graphs for all data are also discussed.

## DESIGN AND PLANNING

**Motion picture theatres—reference issue.** *Byggmästaren* (Stockholm). No. 25'37:271-282 **pstv**

Brief Swedish text with views and drawings of a number of European examples. More space is devoted to the new Victoria and Royal Cinemas in Stockholm, in store and office combination buildings, respectively.

**Gardens.** (G. Hinz, K. Wiesner & H. Wiepking-Jürgensmann). *Moderne Bauformen* (Stuttgart). Ag'37:385-400 **pt**. Continued from N'36 and F'37.

Location of house and garden on lots of varying shape and size. Layout of elements: vegetable and flower gardens, lawn, placing of trees and swimming pools. Lists of flowers for borders and beds. Good and bad path-plans graphically compared.

**Houses and domestic buildings.** (F. E. Towndrow, B. E. Verstone). *Design & Construction* (London). Ag'37:380-403 **ptv**

Reference supplement including a technical article by Richard Neutra, seventeen British examples and projects (half, modern), two by Neutra and a few views of details.

## HEATING & AIR CONDITIONING

**Infra-red rays and their applications in modern buildings.** *Revista de Arquitectura* (Buenos Aires). J1'37:323-325 **dtv**

Under the above heading this article (in Spanish) explains the principles and application of panel heating of the embedded piping type. The photo views

show several layouts of looped piping, elegantly called "*serpentina de calefacción*."

**Electric motors for air conditioning application.** (J. A. Rodgers). *Heating and Ventilating* S'37:48-51 **tv**

There are two classes of motors used in air conditioning: (1) operators for valves, timing, etc., discussion of which is omitted in this study, and (2) motors for air moving equipment, etc., for fans, blowers and compressors.

The advantages and limitations of the various types are discussed in full, including: split-phase or resistance split-phase motors, capacitor or condenser motors, shaded pole, polyphase and direct current motors. There is a table giving the effect of change of fan speeds upon power requirements, mention of radio interference, and a brief section on motor protection.

**Corrosion of air conditioning ducts.** (R. W. Baker from *National Engineer*). *Real Estate & Building Management Digest*. J1'37: 19 †

The moisture deposited by highly humidified air may shorten life of galvanized ducts. Faulty conditioning may leave too high a sulphur content in the air stream. This will actively corrode duct metal. Consequently it is important that only the best quality galvanized, corrosion-resistant ferrous sheet metal be used for air conditioning ducts.

**Exclusion of solar heat.** (From *The Decorator*). (London). R. E. & B. M. D. J1'37:19 †

It has been found by tests that metallic paints have less reflectivity for solar radiation than white, non-metallic paint, and that they also re-radiate heat more slowly. In experiments using large wooden boxes with metal lids with various coatings, the best combination was discovered to be white paint on top and aluminum paint on the under side of the lid. This resulted in a difference of 30°F. between the surface and the inside box temperatures.

## MATERIALS AND FINISHES

**Merchandising designed concrete.** (H. F. Thomson). *Engineering News-Record*. 19 Ag'37: 303-306 †

Description of a modern construction method: truck delivery of ready mixed concrete. Central mixing (with truck delivery) and truck-mixing are compared. Possible length of haul is stated to be about 30 miles, non-agitated, stiff mixes much less (5-in. slump concrete only one mile). The rate of delivering ready-mixed concrete usually exceeds job mixing rate. Special trailer-truck equipment

# FACTS *about the* FINISH

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ACCURATE, UNDISTORTED REFLECTIONS like this, adding interest and beauty to the modern bathroom or kitchen, can be produced only by a structural glass like Carrara, which is mechanically ground and polished.

CARRARA GLASS is made with one finish only — mechanically ground and polished. There is no second best quality. Every light of Carrara produced has the flawless, smooth and lustrous surface . . . the mirror-like reflective qualities . . . which only a ground and polished glass can provide, and which mean so much to modern bathroom beauty. The grinding and polishing of Carrara results also in richer, more uniform colors, having greater depth. When the outer "crust" has been removed from the glass, the dense-structured, homogene-

ous core thus exposed will never check, craze, stain or change color with age. When you are designing bathrooms and kitchens, specify Carrara glass for walls . . . and make sure of getting a glass that is mechanically ground and polished. We invite you to send the coupon for our free book containing complete information about Carrara.

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IT has always been the policy of the Pittsburgh Plate Glass Company to develop and manufacture paint and glass products as exactly suited to the requirements of the architect as possible. For this reason, we welcome suggestions from architects as to how we may make our products and our service even more valuable to them. And conversely, we are always glad to do everything within our power to aid the architect in matters relating to the use of glass and paint.

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**TAKE A "20-YEAR LOOK AHEAD"—  
ELECTRICALLY!**

"This drawing 'looks ahead' to visualize an urban street system. Traffic lanes of the type already found on Triborough Bridge, New York, are assumed to exist throughout the city, conforming to its architectural scheme and providing continuous flow of traffic without traffic lights. The traffic system, including abutting buildings, is artificially illuminated."—*Hugh Ferriss*

ANACONDA MANUFACTURES A COMPLETE LINE OF WIRE AND CABLE FOR EVERY INDUSTRIAL.

# What will the future demand of your project's wiring facilities?

Recall what changes the past 20 years have brought . . . safeguard your client by planning "20-year-adequacy" for your new project

THE demands of modern motorized transportation are being met by wider and more elaborate highways. Yet the enormous increase in electrically-operated equipment finds today's commercial building still in the "dirt road" era. Practically 95% of present-day building, authorities say, is obsolete from a wiring standpoint!

Consider what this means in terms of your present project. Will the new building be adequate *electrically* for the demands which are sure to be made upon it? The cost of installing wires and cables now to provide for all conceivable future requirements is small compared with the cost of replacement later.

Proof of the high cost of replacing wiring is seen in the case of a metropolitan



department store. An expenditure of \$100,000 was necessary recently to bring the building up to date electrically!

How much better to plan your project for "20-year-adequacy" . . . so far as future requirements can be determined! Make use of the many improvements in cable design pioneered by Anaconda Wire & Cable Company.

As an aid to you in obtaining ideal wiring specifications, Anaconda offers the services of its Engineering Department to assist your engineers, consultants, or electrical contractor in the solution of technical wire problems. With this experienced aid, your new project can be planned for "20-year-adequacy" so far as any of us can foresee the future.

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Here is an Anaconda cable that has a remarkable record of continuous performance without a single reported failure. Millions of feet of *Duracode* are in use by utilities for network cable and vertical risers. . . .

The outstanding characteristics of this Anaconda cable are: 1. Its remarkable stability. This has been demonstrated by accelerated aging and other tests as well as by use in the field. 2. The compound is highly resistant to moisture, acids, and alkalis. 3. Low susceptibility to combustion and explosion. 4. Its heat-resisting characteristics permit large emergency overloads.

It pays not only to install adequate wiring but to use *modern, improved* types of cable like this one. Make sure that you are getting the benefit of the tremendous strides in cable manufacture. Specify Anaconda . . . where standards are being improved constantly. 37638

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can deliver up to six cubic yards if paving will stand the gaff. The usual load is two yards, which can be driven across subsoil. If job requires a change in mix or rate of delivery a telephone call to the plant will arrange for it. Such concrete can be held to rigid design specifications by trained men and results in improved concrete practice.

**Workability of concretes and mortars.** (E. W. Scripture). *Engineering News-Record*. 1 J1'37:17-21 gtv

The speed of modern projects requires ease of placing despite knowledge of the greater strength of drier mixes. But the water-cement ratio does not hold for mixes which are not workable. This shows the value of a study of workability. The article discusses the flow-shear conception, mobility, roles of mix components, effect of additional materials (table shows six classes and their effects): (1) Finely divided admixtures; (2) Limes, clays, cements; (3) Soaps (Stearates); (4) Electrolytes; (5) Protective colloids (glue, tannin, sugar); and (6) Organic dispersing agents (increase mobility and cohesiveness).

**Building limes.** (British Bldg. Research Station abstracts). *Architect & Building News* (London). 20 Ag'37:237-238 †

A detailed account of the various types of limes, their preparation, reactions and notes on their use. Among those considered are: *Class I: Non-hydraulic limes* which set only by drying out and harden by atmospheric action, which cannot be used in damp places without addition of Portland cement. *Class II: Moderately hydraulic limes* and *Class III: Eminently hydraulic limes*. The term hydraulic means that under moist conditions these limes can set out of contact with air, like Portland cement though much weaker.

See also: *Architects' Journal* (London). 26 Ag'37:335-336 †  
*The Builder* (London). 27 Ag'37:374-375 †

**Lightweight brick.** (E. Gunn). *Architect & Bldg. News* (London). 3 S'37:284 †

An excellent brief description of the development of brick, first the general factors affecting size, weight and form, then the special tendency toward lighter weight units. These include the "frog," the perforated and cellular bricks.

**Metals from powders.** (C. Hardy, from Inco). *Science Digest* O'37:83-85 †

"Powder metallurgy" is not new but is finding rapidly increasing uses: for production of highly refractory materials, alloys too hard and brittle to machine, and alloys of exactly controlled composition.

Metal powders made in various ways are fused by pressure and heat without melting. Impurities can be eliminated by careful compounding of ingredients.

Many new and useful products cannot be made in any other way.

The greatest limitation of the process is size because of the pressures required (two to one hundred tons per square inch). The present limit is a bearing six inches in diameter and six inches deep.

**Stained glass—Art and Science.** (L. Saint, from *Science Service Radio Talk*). *Science Digest* Ag'37:89-91 †

Description of experimental rediscovery of medieval stained glass methods, and of the modern process. The point is made that the effects obtained in the Middle Ages were not accidental or due to primitive methods but the result of careful experimentation.

**Glass-Reference issue.** *Rassegna di Architettura*. (Milan). Je'37:207-250 gtv

A collection of a dozen technical articles (in Italian) on glass, including references to architecture, daylighting, biological action of light, roofing, large openings, artificial light, applied art, statics, insulation, safety glass, and laws relating to glass.

**The expanding use of plastics.** (R. W. Staley, from *The Purdue Engineer*). *Science Digest*. Ag'37:50-52 †

History and description of a modern industry. There are three chemically different types of organic plastics: from synthetic resins, from cellulose derivatives and from proteins. Two classes are made according to reaction to heat: the thermo-plastic soften and become workable—the thermo-setting become infusible and insoluble when cooled after heat treatment.

Manufacture, fabrication and uses of various types of plastics are also considered briefly.

**Fireproof doors and plywood panels.** (D. V. Calk, from *The Timberman*). R. E. & B. M. D. J1'37:18 †

Doors having a fire-resistant rating of three-quarters of an hour are usually 1½-in. thick—one-hour doors, 2-in., and three-hour, 2½-in. Half-hour doors could be manufactured one-inch thick but there is no demand for them.

Solid wood cores not over 1½-in. thick, impregnated with as much fireproofing chemical as possible, are essential to a really fire-resistant door. The separate plies of all-veneer doors will burn off and peel. Cores thicker than 1½-in. will shrink and crack. Key-in-knob locks are recommended, since they do away with holes which would permit passage of smoke and flame.

**What is White?** (From *Painter and Decorator*). *Business Digest*. Ag'37:5-6 †

White paint thinned with pure linseed oil has a slight yellowish cast when it is first applied. This will bleach out in a few days of sunlight. Inferior oils adul-

terated with non-volatile mineral oils will yellow with age and remain tacky. The photo-chemical effect can be observed in the case of white storm sash which turns yellow when stored in the dark and bleaches out again in sunlight in a cycle which may be repeated several years.

The mixture of Prussian blue tends eventually to give a greenish cast to white paint. Lampblack gives a bluish gray that may later yellow, but is useful in undercoats, gray appearing to cover better than white and giving the slight contrast helpful in brushing a finish coat evenly. Bleached oil is unnecessary for exterior work since sunlight will bleach regular linseed oil.

**New uses for sugar.** *Science Digest*. O'37: 36, 54 †

Mortar, paint and textile coatings are among materials newly found to benefit by an addition of sugar.

Joints of sand-lime mortar gain 60% in strength with the addition of 6% of sugar.

Octoacetate of sucrose is a recently discovered ingredient for lacquer and varnish. This is also an effective textile waterproofing.

New plastic molding resins are being made of sugar compounds.

## PLUMBING

**Lead pipe helps to prevent weakening of buildings.** Lead. S'37:7 tv

Cracks in bathroom floors, walls and ceilings below, gaping trim and creeping fixtures have all been found due to joists and beams which have been notched to pass pipe runs. A superior way of avoiding this is claimed in this brief article illustrating the use of lead pipe reeved through holes bored in the centers of joists.

This eliminates many fittings because of the flexibility of lead. Hard pipe so installed would require so many fittings as to be impracticable. Structural strength of the timbers is not impaired seriously by holes near the neutral axis as it is undoubtedly by notches across extreme fibers. Even studs may be passed in this manner if piping is not of too great diameter.

## SPECIFICATIONS

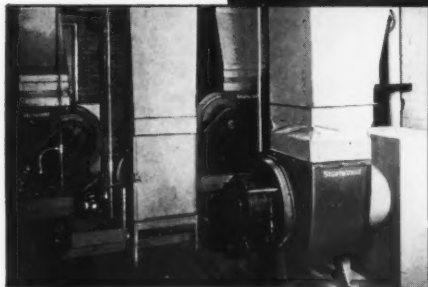
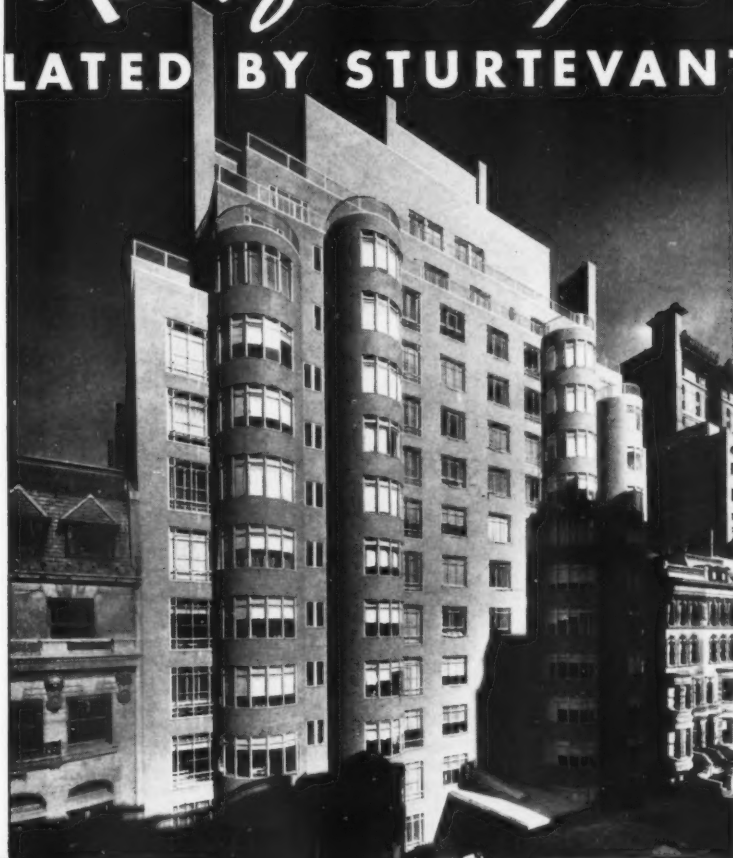
**Good specifications protect the loan.** (B. F. Betts). *American Bldg. Assoc. News*. S'37:468-475 ptv

A concise explanation of the part taken by the specification in a building operation. Illustrated by numerous small progress photo views of typical trades at their work.

Order, clarity, completeness and careful checking are termed the essentials of specification writing. There is a table of the sixteen trade classifications commonly used in specifications.

# Rockefeller Apts.

## VENTILATED BY STURTEVANT FANS



*Architects: W. K. Harrison and J. A. Fouilhoux. Consulting Engineers: Syska and Hennessey. Twenty-one Sturtevant Multi-vane Fans and Four Sturtevant Propeller Fans ventilate the corridors, bathrooms, squash court, recreation rooms and kitchen, and supply conditioned air for the restaurant.*



**T**HE NEW Rockefeller Apartments in New York City embody the last word in modern apartment house architecture. No expense has been spared in coordinating every phase of modern design with the ultimate in comfort and convenience for the tenants. ☛ It is

significant that Sturtevant Fans and Blowers were chosen for the complete ventilating system and for the individually ventilated rooms and the air conditioning system as well.

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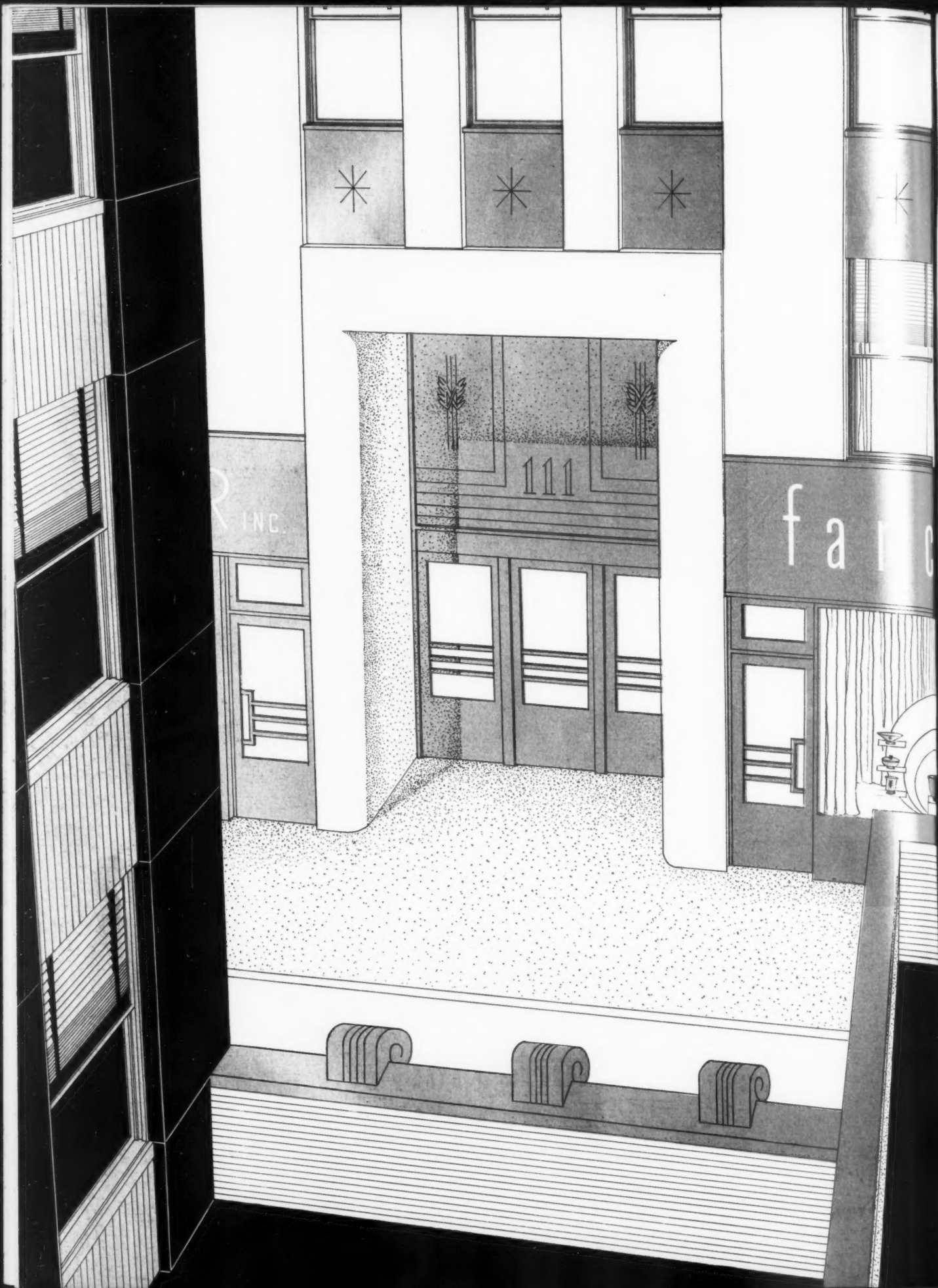
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Fans, Blowers, Air Washers, Air Conditioning, Heating, Vacuum Cleaning, Drying, Mechanical Draft Equipment





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# IMPRESSION

A building must impart an impression favorable to its occupants; a sense of elegance for the modiste's shoppe, simplicity for an apothecary shop, refinement and permanence for the bank or office building, a more bizarre exterior for the variety store. In creating that impression, Aluminum lends itself readily to the will of the artist.

With Aluminum, an impression is lasting. Striking effects are accomplished with its varied finishes. The natural ability of Aluminum to resist corrosion preserves its attractive appearance without the added protection of paint, and with a minimum of maintenance. Fortunate is the building owner whose architect specifies Aluminum liberally.

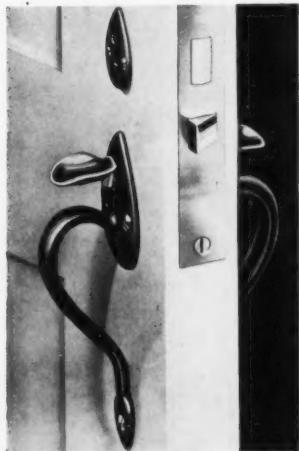
Spandrels of cast Aluminum add beauty and simplify construction; light in weight, they are easy to handle, lessen building costs. Windows, sills and doors are available ready-made, in styles suited to every type of architecture. For complete building fronts and other construction, Aluminum sheet and a wide variety of standard rolled and extruded shapes permit the designer much latitude; special shapes can be developed for the individualist.

Alcoa Aluminum extruded shapes provide strength without the use of excess metal. This, coupled with the natural lightness of Aluminum, accounts for Aluminum construction costing less than other nonrusting materials. Aluminum Company of America, 2195 Gulf Building, Pittsburgh, Pennsylvania.



ALCOA • ALUMINUM

**COLONIAL LATCH**



Two modernized adaptations of the Pre-Revolutionary type of thumb latch have been produced by the Lockwood Hardware Mfg. Company, Fitchburg, Mass., in its Osterville and Cataumet designs for Cape Cod and other old-style cottages. The departure from the original lies in the treatment of the part on the inner side of the door. In place of the lift latch, the thumb latch and handle have been repeated on the inside, making both sides of the door alike. An

adequate locking device, which was lacking in original models, has been added in the form of an inexpensive mortise lock.

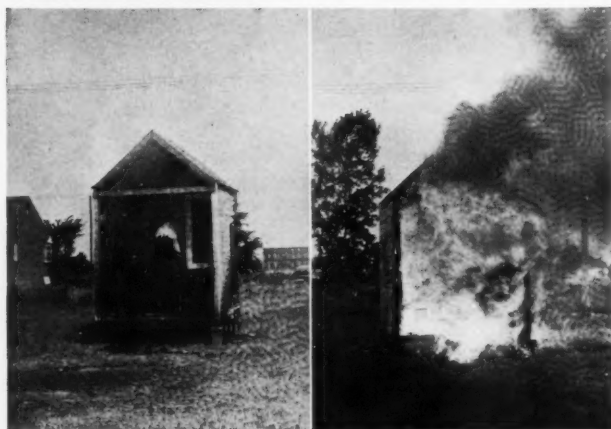
**856M**

**ROTARY ROOF VENTILATOR**

The Swartwout Company of Cleveland has just announced a new rotary roof ventilator for industrial and commercial building application. In detail construction many improved features are claimed for this roof ventilator. Foremost of these is the new stainless steel, fully enclosed, dust-tight, oil-less ball bearings on which the head turns with the wind. Interior construction is of stream-lined steel tubing welded into a one-piece head frame. The body is designed along modern lines and has slightly increased area in the discharge opening. The new rotary is made in sizes from 12" to 72" throat diameter and is especially adaptable to general industrial and commercial building ventilation as well as for removal of smoke, fumes, excessive heat, moisture and similar substances.

**857M**

**FLAMEPROOFING MATERIAL**

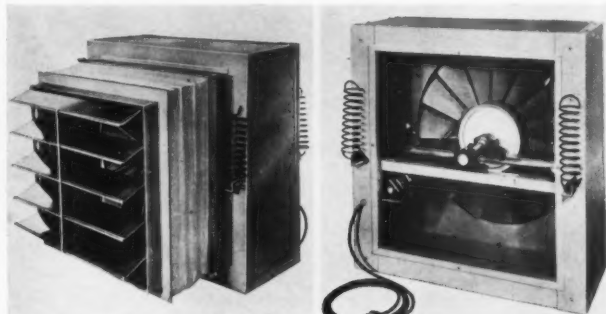


The achievement of complete flameproof protection for buildings and their contents with a new liquid product is claimed by the United States Flame Proofing Corporation, Detroit, and was demonstrated recently. At this demonstration, two small, furnished test houses were stored with

excelsior and kerosene-soaked materials, and set on fire. One house was fire-proofed with the new material; the other was untreated. Three and a half minutes after the firing of the test houses, the fire in the treated house was completely under control; i.e., it burned itself out. Neither building nor furniture had been seriously affected. The entire untreated house was well on its way to becoming a total loss. This fireproofing liquid is now on the market and will be available in every section of the country.

**858M**

**HOME VENTILATOR**

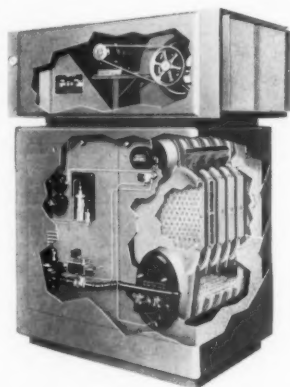


Gar Wood Industries, Inc., Detroit, Michigan, has announced a new ventilator which removes stagnant air from bedrooms and the attic by the fan suction and draws in fresh, cool night air into the home through doors and windows. The ventilator is controlled by a conveniently located switch. The shutter, which comes as a part of the ventilator, automatically opens and closes with the turning off and on of the fan and eliminates the necessity of opening and closing the window by hand. The unit consists of a specially designed fan and motor enclosed in a metal case, which is suspended on coil springs from the ceiling or rafters. A vibration deadening canvas boot connects the fan housing proper with a wooden frame which is installed in a window casing or other opening made for the discharge of hot air. The frame is equipped with an insect screen and an automatic aluminum outlet shutter. Installation can be made in a few minutes. It may be plugged into an electric light circuit.

**859M**

**GAS FIRED AIR CONDITIONER**

The new AGP Gas Fired Air Conditioner, Type 2-FE, heats, humidifies, filters and circulates air. One of the important elements introduced into its design is the "Counter-Flow Principle" of operation. The fan unit, mounted on top, blows air down over the heating surfaces in counter flow to the upward passage of the products of combustion on the other side of this heating surface. The counter flow principle of heat transfer is said to increase, to a maximum, the rate of transfer of heat from metal to air, and to reduce the weight and size of the heating sections. In designing the cast iron





*Glass*—used generously—contributes its remarkable utility and charm to this interesting house, the residence of Mr. Earl Butler, Des Moines, Iowa. Kraetsch & Kraetsch, architects.

When the proper placement of windows can bring the ever-changing, colorful panorama of all outdoors into the home; when mirrors are built-in to perform their magic of brightening dark corners and repeating engaging colors within—the quality of the glass employed becomes a matter of paramount importance.

LIBBEY-OWENS-FORD GLASS COMPANY, TOLEDO

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QUALITY GLASS 



Tego plywood house at Greenbelt, Md.  
(Resettlement Administration)

## TEGO-BONDING

### PLYWOOD FOR DIFFICULT PROBLEMS

THE general answer to critical questions about Tego-bonded plywood is "Yes!"

Is it weatherproof, waterproof, steamproof, boilproof, bakeproof, moldproof?

Is the joint stronger than the wood itself?

Can it readily be curved or bent after bonding?

Does it permit the use of face veneers that are thin, fragile, end-grained and difficultly matched, without staining, separation or open joints?

Such questions, and many others like them, can all be answered in the affirmative only for plywood made with Tego Resin Film.

Tego Resin Film is manufactured by *The Resinous Products and Chemical Company, Inc., Philadelphia, Pa.*

RESINOUS  PRODUCTS

heating sections the pin heating type surface used on AGP Ideal Gas Boilers has been used on the inner flue surfaces. These sections are made of cored cast iron and are assembled, in various numbers, into one complete heating unit. As only one thermostatic pilot is necessary gas consumption is reduced to a minimum. The new unit, a product of American Gas Products Corporation, New York, has a lustrous baked enamel finish of gun metal grey. **860M**

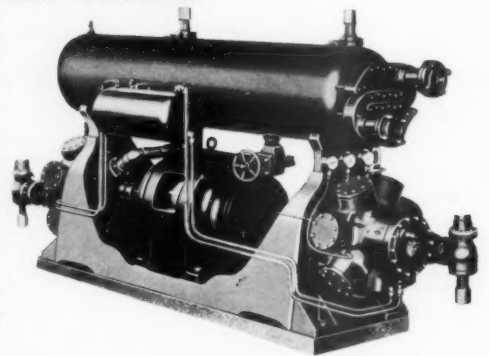
#### BATHTUB MOULDINGS



Metal Unit Mouldings are designed to cover and make watertight joints between bathtub and wall finish, sinks and backsplash, around shower stalls and other joint conditions where tile or porcelain meet materials of different coefficients of expansion and contraction. They are made of a specially designed extruded aluminum alloy and are finished in satin aluminol. This finish is created by a special finishing and polishing process which becomes part of the basic metal and is said to prevent staining or tarnishing. These mouldings come complete with corner pieces and finial pieces. They are bonded to the wall with Metal-Unit Bonding Compound especially developed for this purpose. No special tools, screws, plugs or anchoring are required. No mitering or angle cuts are necessary as the moulding is soft and thin enough to be bent along all contours. Product of the Metal-Units Company, New York. **861M**

#### AIR CONDITIONING COMPRESSOR

A new development is a complete line of high speed compressors that turn up 1750 revolutions per minute, utilizing the radial principle of design—cylinders placed in a circle around the crank-



shaft. Designed by Airtemp, Incorporated, air conditioning subsidiary of Chrysler Corporation, Dayton, Ohio, the new units incorporate the same principle of design as that adopted by aeronautical engineers to eliminate motor failure in airplanes and to increase the motor capacity in proportion to weight. These compressors are built in sizes from 10 to 75 hp capacity. They can be installed in practically any part of a building. A floor that will support the compressors standing still will support them when they are operating at full speed, so vibrationless is their operation. Perfect dynamic balance is said to be assured due to the use of connecting rods of 7/16" width and an ingenious system of counterweighting. Large valve areas combined with small lift results in quiet valve operation. **862M**

# Modern basement design

FOR DEPENDABLE HEATING

Plus **ECONOMY  
IN FUEL**



BASEMENT PLANS FOR MODERN  
BITUMINOUS COAL HEATING

## Five of the Reasons

### FOR RECOMMENDING MODERN BITUMINOUS COAL HEATING

To design your clients' homes for modern coal heating is to give them a convenient, economical and dependable heating system—bituminous coal in modern coal-burning equipment.

The fundamental principle of designing for modern bituminous coal or coke heating is to keep driveway, coal storage and heating unit as close together as possible. How this can be done so as to provide abundant basement space for other utility or recreational purposes is shown in detail in our portfolio of "Six Typical Basement Designs for Modern Bituminous Coal Heating," A. I. A. file 30-G. A copy will be sent you, without obligation, if you will fill out the coupon and mail it to either of our offices.

Copyright—National Coal Association, 1937



**1** Convenience: With modern bituminous coal, your clients can have the amount of convenience for which they wish to pay at the lowest cost of any fuel. Boilers, furnaces and bins for hand-firing can be so designed that labor is reduced to a minimum. Automatic firing is available either through hopper feed stokers requiring a few minutes' attention once a day, even in the coldest weather, to the fully automatic bin feed stokers.

Economy: Modern bituminous coal is the lowest fuel in first cost, the cheapest by far to burn. Tremendous unmined supplies scattered throughout the country insure plenty of fuel in the future, which means that your clients will not face rising prices due to imminent shortages of supply.



**3** Dependability: bituminous coal is a safe fuel, free from danger of explosion. It cannot leak and injure floors and floor coverings. Dealers always have ample supplies. Coal burners are the simplest, most dependable type of automatic heating equipment.

Cleanliness: Scientific washing, sizing and dustproofing treatment make today's bituminous coal clean to handle and clean to burn. No greasy soot on walls and furnishings. Modern enclosed storage bins insure spotless basements and living rooms.



**5** Health: Health authorities have long advised uniform home temperatures for health and comfort. Avoid unhealthy "Temperamental Temperatures" by using modern bituminous coal. Its sustained fire keeps the floors warm, prevents a cold layer of air at ankle height, insures health and comfort by maintaining uniform temperature in your home.

#### NATIONAL COAL ASSOCIATION

The National Organization of Bituminous Coal Operators

804 Southern Bldg.  
WASHINGTON, D. C.

307 N. Michigan Ave.  
CHICAGO, ILLINOIS

Please send me a set of "Six Typical Basement Designs for Modern Bituminous Coal Heating," A. I. A. file 30-G. I understand there is no obligation involved.

Name..... Firm.....  
Street..... City..... State..... AA-N



Flooring takes no harder beating than in roller skating rinks. As world-famous White City, 1,500 may skate at once, with maximum comfort and ease on Hard Maple's smooth, resilient, safe surface. For 20 years this flooring has stood up under this terrific test. In factories, mills, offices, warehouses, stores, schools and homes, Hard Maple's permanence and beauty afford equal satisfaction.



## IMAGINE FLOORING-WEAR LIKE THIS ... Every Day for 20 Years!

AS MANY AS 10,000 rolling wheels a night for 20 years . . . and still in good condition! Read what Chicago's White City says about Hard Maple's record at its roller skating rink:

"The Hard Maple floor at our White City rink was laid in 1917 and used practically every day since . . . Nearly 10,000,000 skaters have used this floor in the past 20 years.

"Nothing is so hard on a floor as roller skating—yet our Hard Maple floor is still in good condition, has had few repairs, and only occasional sanding, sometimes not being touched for two years at a time. Brushing alone keeps it clean.

"We have experimented with other materials on other properties, but always have run into difficulties . . . We know of no flooring comparable to Northern Hard Maple."

Performance like this indicates what tremendous savings Hard Maple Flooring offers builders. So tough-fibred, tight-grained, its resistance to abrasion is remarkable—does not splinter, sliver, or develop ridges. Warm, dry, resilient, it reduces fatigue, increases efficiency. Lastingly smooth, it *stays* sanitary, reduces cleaning costs . . . speeds up traffic . . . simplifies alterations. On every count, Hard Maple satisfies . . . and saves.

Before building or remodeling, check this superior flooring against your requirements. Specify **MFMA\*** Northern Hard Maple, (in strips or blocks), the only flooring whose grading is **MFMA SUPERVISED**.

*See our catalog data in Sweet's, Sec. 17/66. Write for folder describing good service finishes for old or new Hard Maple floors.*

**MAPLE FLOORING MANUFACTURERS ASSOCIATION**  
1784 McCormick Building, Chicago, Illinois

# Floor with Maple



\***MFMA**—This trademark on Maple Flooring guarantees that it conforms to the exacting grade standards of the Maple Flooring Manufacturers Association. It protects you against species substitution and inferior grade. It assures you of *genuine* Northern Hard Maple. Look for it on the flooring you buy.

NORTHERN HARD MAPLE IS THE LONGEST-WEARING COMFORTABLE FLOOR







# 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

## Expanding Blanket Insulation

371 . . . What the features of Kimsul Expanding Building Insulation are and how they can be applied to the problem of reducing the all-over costs of insulating a building are discussed in a 16-page brochure recently published by Kimberly-Clark Corp., Neenah, Wisconsin. Physical properties, installation procedure and specification data are fully presented. Filing size: A.I.A. File 37-B.

## Plumbing Fixtures

372 . . . Containing full information and data on all plumbing fixtures manufactured by Briggs Manufacturing Co., Detroit, a new 48-page catalog introduces a new line of plumbing fixtures known as the "Line Leader." Each page of the catalog is self-contained, setting forth all color and factual data on each item as well as an illustration of the unit. Each page also contains dimensional drawings for installation.

## Unit Heaters

373 . . . Airtherm Mfg. Co., St. Louis, Mo., has issued an 8-page catalog (Bulletin 210) which describes the Air-blanket method of heating which is said to provide complete control of convection air current without the need of louvers, deflectors or ductwork.

## Expansion Joints

374 . . . The principal features of Yarnway Expansion Joints—wrought steel, cylinder guided and Gun-pakt or Gland-pakt type—are set forth in Bulletin EJ-1906 issued by Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa. Data on how to figure expansion in pipe lines, prices, dimensions and typical installation pictures are given.

## Boiler for Coal Firing

375 . . . The Ideal Boiler for automatic coal firing is illustrated and fully described in a 12-page booklet (Form 8455) issued by American Radiator Company, New York. Information given includes ratings and data, dimensions and assemblage, control applications. Filing size; A.I.A. File 30-C-13.

## Insulated Windows

376 . . . Insulaire Air Space Insulated Windows are described in a four-page brochure issued by Insulaire Company, Detroit. Filing size; A.I.A. File 19-E-14.

## Faucets

377 . . . The various types of faucets manufactured by The Chicago Faucet Company, Chicago, are cataloged in a new booklet (Catalog F) recently published by this company. Included are lavatory faucets, bath and shower fixtures, sink and laundry faucets, stops, tank fillers and valves, drinking fixtures, etc. Filing size; A.I.A. File 29-h-5.

## Maintenance Points

378 . . . A Plant Maintenance Manual giving definite recommendations for the maintenance painting of plants, structures and equipment under normal industrial operating conditions has been published by The Debevoise Company, Brooklyn, New York. Swatches showing the color range of the various paints are included. A standard specification form is also given. Filing size; A.I.A. File 25.

## Hot Water Heating

379 . . . The "Taco-One" Venturi System for automatic one pipe hot water heat and year round domestic hot water is described and illustrated in an 8-page booklet recently published by Taco Heaters, Inc., New York.

## Small A-C Welders

380 . . . A publication describing the features, construction and application of the Midget Marvel Flexarc Welder has been announced by the Westinghouse Electric & Mfg. Company, East Pittsburgh, Pa. Specifications and operating costs are included together with a list of questions and answers covering the use and operation of this welder.

## Automatic Anthracite Burner

381 . . . The D&E Automatic Anthracite Burner is featured in a four-page booklet recently published by Dickson & Eddy, New York.

## Cameras

382 . . . Booklet No. 1244 issued by E. Leitz, Inc., New York, describes and gives list prices of various types of Leica Cameras and accessories. The booklet is also profusely illustrated with reproductions of pictures taken with the Leica Camera.

## Thermostats

383 . . . Robertshaw Heat Controls for every commercial cooking need, including urns, steam tables, ranges, rinse tanks, dishwashers, etc., are illustrated and described in a 12-page catalog issued by Robertshaw Thermostat Company, Youngwood, Pa.

## Painting Masonry Surfaces

384 . . . How to paint concrete, stucco, masonry and other surfaces with Medusa Portland Cement Paint, Medusa Floor Coating, or Medusa-Lite is explained in a 24-page catalog recently issued by Medusa Products Company, Cleveland, Ohio.

## Switchboards

385 . . . Low-voltage Switchboards with draw-out-type air circuit breakers for buildings, industrial plants, and power stations are presented in catalog GEA-2596 published by General Electric Company, Schenectady, N. Y.

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New York, N. Y.

November 1937

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## AMERICAN ARCHITECT and ARCHITECTURE

### **Plywood Sheathing and Subflooring**

386 . . . Complete information, with photographs, drawings and charts, on the use of plywood panels as sheathing and subflooring in residential and industrial construction is contained in an 8-page booklet published by Douglas Fir Plywood Association, Tacoma, Washington. Rigidity values, deflection tables, nailing schedules and specifications are included. Filing size; A.I.A. File 19-E-5.

### **Wiring Devices**

387 . . . Catalog No. 37 just issued by Bryant Electric Company, Bridgeport, Conn., gives complete data on its line of wiring devices. Items include lampholders, connecting devices, flush switches and plates, surface switches, interchangeable unit devices, rosettes, fuses and cutouts, etc. Wiring diagrams and list prices are given.

### **Convectors**

388 . . . Trane Convectors are described and illustrated in a 24-page catalog (Bulletin 110) recently released by The Trane Company, La Crosse, Wisconsin.

### **Electric Door Operator**

389 . . . The Aut-O-Dor Electric Door Operator for folding doors, swinging doors, straight sliding doors and overhead type doors is described and illustrated in Catalog No. A-65 published by Richards-Wilcox Mfg. Company, Aurora, Illinois. Specifications, wiring diagrams and plans are included.

### **Basement Plans**

390 . . . The National Coal Association, Washington, D. C., has issued a 40-page portfolio of typical basement plans for modern bituminous coal heating. Filing size; A.I.A. File 30-G.

### **Service Doors**

391 . . . Bulletin No. 13 issued by The Kinnear Manufacturing Company, Columbus, Ohio, pertains to Kinnear Roll-Top Doors for industrial or commercial service openings. Installation and specification data are briefly reviewed. Filing size; A.I.A. File 17-A-12.

### **Tank Construction**

392 . . . "Wrought Iron for Tank Construction" is the title of a new technical bulletin issued by A. M. Byers Company, Pittsburgh. It explains the advantages of using wrought iron for tank construction and illustrates many typical examples. Filing size; 32 pages and cover.

### **Back Water Sewer Valves**

393 . . . The features of Josam Backwater Sewer Valves are fully explained in a four-page folder issued by Josam Manufacturing Company, Cleveland. Dimensional data and list prices are given.

### **Electrical Porcelain**

394 . . . A fact manual and wall chart which illustrates the proper installation of knob, tube and cleat wiring under the latest code revisions is offered by Standard Electrical Porcelain Manufacturers, Chicago. Reproductions of representative all-porcelain outlets, switch and receptacle boxes with porcelain covers to fit all boxes are shown.

### **Windows**

395 . . . Lupton projected windows, pivoted windows, continuous windows, window operators, steel tube doors and steel skylights are cataloged in a 32-page booklet offered by Michael Flynn Manufacturing Co., Philadelphia, Pa. Specifications, sizes, details, etc., are given. Filing size; A.I.A. File 16-E-1.

### **Centrifugal Refrigeration**

396 . . . A new semi-technical manual on centrifugal refrigeration has been published by the Carrier Corporation of Syracuse, N. Y. This 48-page illustrated brochure treats of the principle and operation of the Carrier Centrifugal machine embodying the use of the refrigerant, Carrene. Physical data of engineering import, description of accessories and parts, and thermodynamic characteristics of refrigerants complete the outline of this manual.

### **Motors**

397 . . . Century Slip Ring Motors of 1 to 350 Horsepower are illustrated and described in Form 1032, a new 8-page catalog issued by Century Electric Company, St. Louis, Missouri.

### **Indirect Lighting**

398 . . . Five classes of indirect lighting equipment are featured in the recently published Handbook J of Curtis Lighting, Inc., Chicago. More than 100 illustrations of various styles of luminaires and their most outstanding installations are included. Sections are devoted to general lighting information, construction data, and planning of indirect lighting.

### **Vacuum Concrete Floor Finish**

399 . . . Vacuum Concrete Corporation, New York, has issued a six page booklet pertaining to vacuum concrete floor finishes. It describes its advantages, gives pertinent facts about application, and discusses its use for resurfacing old concrete floors. Filing size; A.I.A. File 4-i-3.

### **Water Heaters**

400 . . . A revised, six-page illustrated bulletin No. 35-37 on Adscow Water Heaters for industrial and institutional installations, including Type E heater for gravity recirculation, submerged heater and condensate cooling service, and Type F heater for maintaining suitable water temperatures to prevent water freezing in elevated tanks, is available from American District Steam Co., North Tonawanda, N. Y.

### **Tilework**

401 . . . The 1937 edition of Basic Specification for Tilework, Bulletin K-300, is available from The Tile Manufacturers' Association, Inc., New York. This complete specification covers preparatory work, both new construction and alterations, installation, types and grades of materials used in tilework, terms, mortar mixtures, etc. Filing size; A.I.A. File 23-A.

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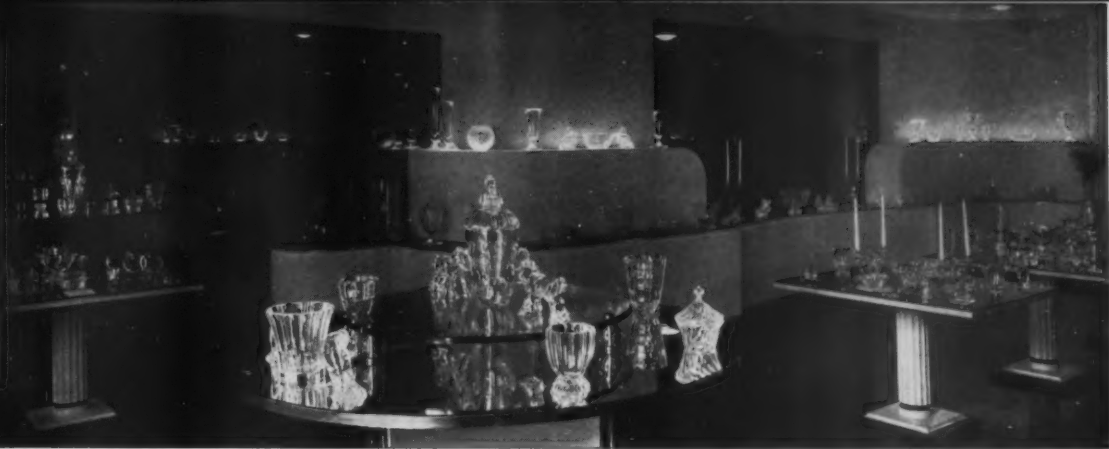
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### 1. PERFECT SETTING!

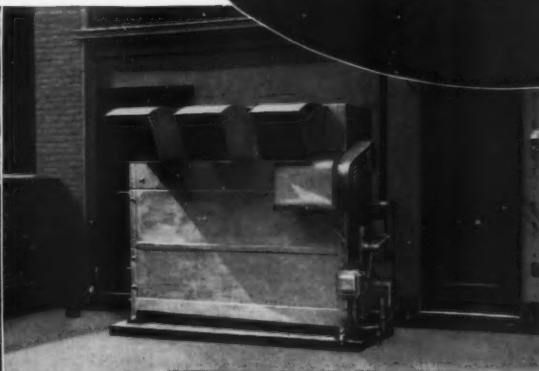
Steuben Glass is displayed to its best advantage in these modern surroundings—where the air is always clean and free from dust—cooled and dehumidified in summer; heated and humidified in winter. Notice the grilles? Carrier designed them specially to assure adequate, even distribution of the conditioned air.



# ALL GLASS Building secures ultra modern features with

# Carrier Air Conditioning

Automatic Control, Low Water and Power Costs—  
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**2. TOO WARM? TOO COOL?** Just turn the button! Throughout the office section of the Corning Building, complete year 'round air conditioning is provided by Carrier Weathermasters—54 in all. Although automatically controlled, each unit also provides individual control of temperature and air volume.

**5. CREDIT** for designing the Corning Office Building—one of the most unusual in the world—goes to William and Geoffrey Platt, Architects, New York. Syska & Hennessy—also of New York—were the mechanical engineers. The builders were Marc Eidlitz & Son, Inc., New York. And the Air Conditioning? By Carrier, of course!



**3. SPACE IS VALUABLE!** So the Carrier System is placed—not in the basement—but on the roof! Here's the Carrier Evaporative Condenser which reduces water consumption to a fraction of the amount usually required. In back—the pent house where other equipment is installed.

**4. COOLING** for the complete building is achieved with one Duplex type Carrier Compressor. And here again, utmost economy is assured by an ingenious method of thermostat control—which automatically stops one motor when not needed.

**Why Carrier?** There's a good reason why you should work hand-in-hand with Carrier. Carrier has devoted 35 years exclusively to air conditioning. Designing new equipment, perfecting new methods of installation, discovering tested "short cuts" that save your time and money, and assure the success of the finished job.

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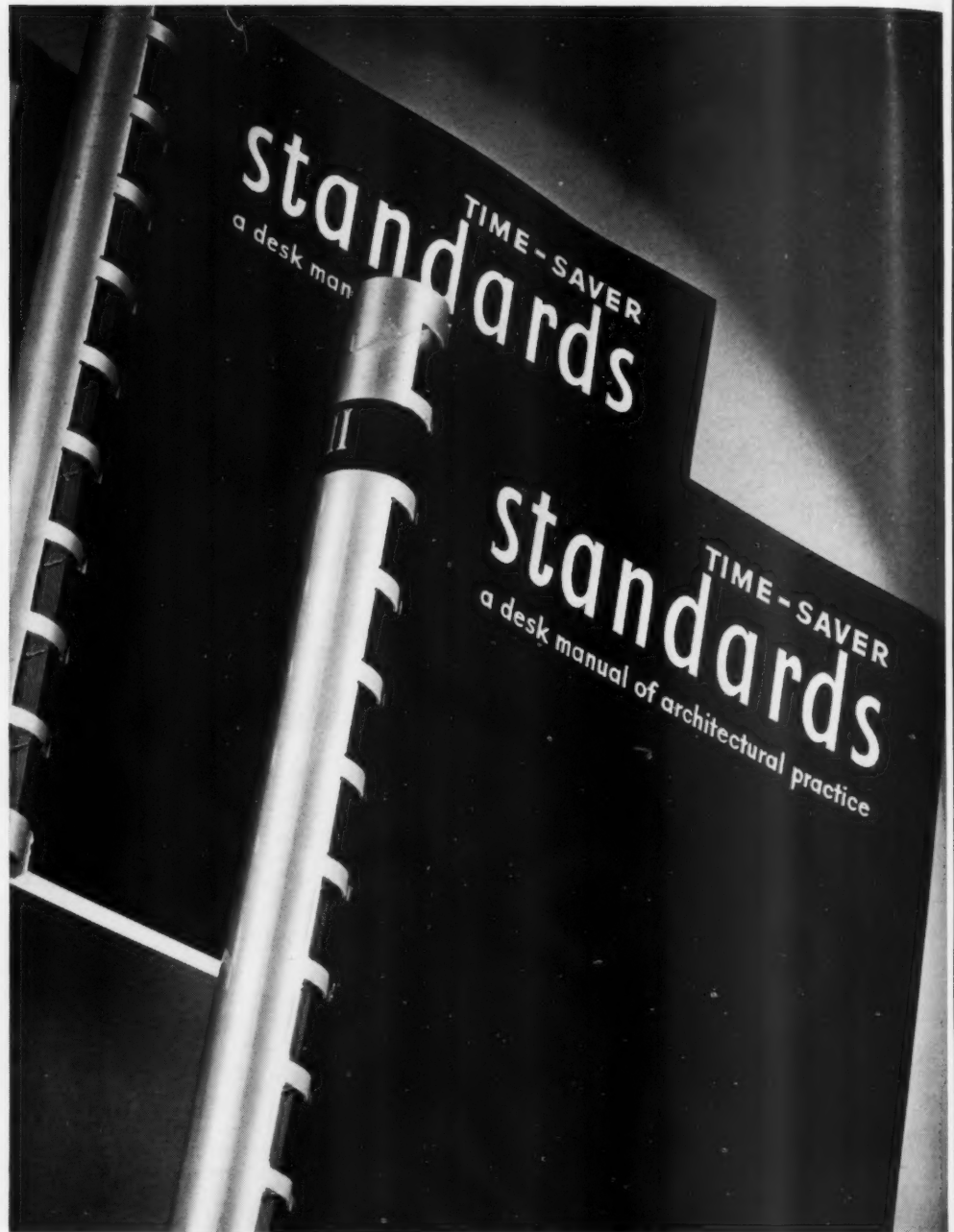
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*If you are not familiar with Time-Saver Standards, turn to page 92 for a typical sheet. Time-Saver Standards sheets contain much needed and often used data on all phases of building design and construction. "Architecturally minded," they present solutions to the problems most commonly met in practice.*

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## HOUSING ADMINISTRATOR

Nathan Straus of New York City is President Roosevelt's appointee as first Administrator of the United States Housing Authority. His appointment was announced October 19. For the last year and a half Mr. Straus has been a member of the New York City Housing Authority. Hillside Homes, a limited dividend project, financed by the PWA in its earlier days, was sponsored by Mr. Straus, and remains one of the eminently successful large-scale housing projects. In 1935 Mayor LaGuardia of New York City appointed Mr. Straus a special commissioner for the City of New York to study European housing.

## ARCHITECTURAL LEAGUE OF NEW YORK

Officers and members of the Executive Committee for the year 1938-39, the Architectural League of New York, have recently been elected as follows: President, Ralph T. Walker; Treasurer, Edward P. Corning; Secretary, William Platt; First Vice President, Hildredth Meiere; Second Vice President, Gaetano Cecero; Third Vice President, Alfred Geiffert, Jr.; Fourth Vice President, Leon V. Solo; Fifth Vice President, Francis Keally. Other members of the Committee are: Henry F. Bultitude, Arthur Loomis Harmon, L. Andrew Reinhard, Wallace K. Harrison, Frederick J. Woodbridge, Austin Purves, Jr., Archibald Manning Brown, Fletcher Collins, and Irvin L. Scott.

## OF THE OFFICES

Walter Charles Pfeiffer, architect, has opened an office for the general practice of architecture at 548 Westminster Avenue, Elizabeth, N. J., and requests that manufacturers' data be sent to him.

Jones, Roessle, Olschner & Wiener, architects of Shreveport, La., are opening a branch office in the James Building, Ruston, La., and would like to receive manufacturers' catalogs and technical data.

Andrew R. Morison and Cornelius L. T. Gabler, architects, announce the formation of a partnership for the practice of architecture under the firm name of Morison & Gabler, with offices in the Murphy Building, Detroit, Mich.

A consolidation of interest to the profession is the recent acquisition of the A. B. See Elevator Company, Inc. by the Westinghouse Electric Elevator Company. Headquarters are being removed from 1500 North Branch Street, Chicago, to 150 Pacific Avenue, Jersey City, N. J.

Gerald S. Adelman and Benjamin X. Forester announce their association for the practice of architecture under the firm name of Gerald S. Adelman—B. X. Forester, with offices at 540 North Michigan Avenue, Chicago, Ill. Manufacturers' catalogs are requested.

Hart Wood and Arthur J. Russell announce the formation of a partnership for the practice of architecture with offices at 2512 Manoa Road, Honolulu, Hawaii. Mr. Wood went to the Island in 1919. Mr. Russell, after having practiced in Boston and New York, went to Honolulu in 1934.

A woodworking company of Central New England is seeking an estimator-draftsman with some experience covering store fixtures, cabinet work, and other architectural woodwork. Any draftsman interested should write in detail, giving previous connections, age, and references, addressing AMERICAN ARCHITECT AND ARCHITECTURE, Room 505, 572 Madison Avenue, New York, N. Y.





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Silentite "Insulated" Windows more than pay their way. They save installation cost because they're pre-fit! They save fuel money—as much as 25%—because they make use of the most efficient weather-stripping known—a patented Curtis feature.

Silentite was introduced in 1932—first major improvement in window construction in almost 300 years. Today, thousands of architects are numbered among its friends.

It will not stick or bind. It cannot rattle. It is draftless and dustless. There are no weights to jam or cords to break. Even a child can raise and lower them easily. That's real window news!

Your specification of Silentite Windows and other Curtis woodwork, with 71 years of woodworking experience behind it, is your assurance to the owner that his house will never have window "pains."

Just return the coupon for complete information on Silentite Double-Hung Windows and on the new Silentite Casement.



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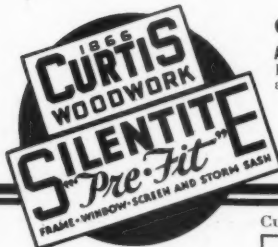


History repeated itself this year when Curtis made window history once more with the new Silentite Casement—also "insulated." Ask for details.

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## COMING EVENTS

Sixth International Exhibition of Lithography and Wood Engraving to be held at the Art Institute of Chicago from November 5 to January 10.

National Association of Housing Officials' Annual Meeting, Hotel Statler, Cleveland, O., November 18 to 20.

Sunday afternoon Study Hours (3:00 p.m.) on Color and Design, Metropolitan Museum of Art: November 14, Early American Types by Aymar Embury II; November 28, Modern Types of Small Houses by Walter Gropius.

Twenty-second Annual Exhibition, Society of American Etchers, in conjunction with the National Exhibition of Contemporary Swedish prints, November 4 to 30, Rockefeller Center, New York.

The Chamber of Commerce of the United States calls a building industry conference to analyze the causes of the slowing down of residential building, and to suggest means for stimulating activity in this field, November 17 and 18, Washington, D. C. At the morning session, November 17, under William Stanley Parker, chairman, Municipal Problems will be discussed; at a luncheon meeting, Samuel F. Clabaugh, chairman, Residential Financing; afternoon session, A. P. Greensfelder, chairman, Residential Construction. November 18, morning session, Ernest T. Trigg, chairman, Merchandising Houses; afternoon session, William A. Klinger, chairman, Local Group Servicing; dinner meeting, Henry I. Harriman, chairman.

### STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

OF AMERICAN ARCHITECT & ARCHITECTURE, published monthly at New York, N. Y. for October 1, 1937.

State of New York }  
County of New York } ss:

Before me, a Notary Public in and for the State and county aforesaid, personally appeared R. F. GARDNER, who, having been duly sworn according to law, deposes and says that he is the business manager of the AMERICAN ARCHITECT & ARCHITECTURE, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Hearst Magazines Inc., 959 Eighth Avenue, New York City; Editor, Kenneth Stowell, 572 Madison Avenue, New York City; Managing Editor, Carl Mann, 572 Madison Avenue, New York City; Business Manager, R. F. Gardner, 572 Madison Avenue, New York City.

2. That the owner is: Hearst Magazines Inc., 959 Eighth Avenue, New York City. Sole Stockholder; The Hearst Corporation, 100 West Tenth Street, Wilmington, Delaware. Sole Stockholder; American Newspapers Inc., 100 West Tenth Street, Wilmington, Delaware. Sole Common Stockholder, W. R. Hearst, 111 East 57th Street, New York City.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

R. F. GARDNER,  
Business Manager.

Sworn to and subscribed before me this 27th day of September, 1937.  
(SEAL) EDNA K. EIDEL.

Notary Public, Kings County No. 126; Kings Co. Register No. 9020.  
Cert. filed N. Y. County No. 33; New York Co. Register No. 9-E-29.  
Commission expires March 30, 1939

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## TRENDS

(Continued from page 16)

officials expect that this will make it more desirable than ever that new construction loans be insured under terms of the FHA's mortgage system.

OF CONSIDERABLE IMPORTANCE TO HOUSING is the annual meeting of the National Association of Housing Officials to be held in Cleveland the 18th, 19th and 20th of this month. This Association serves as a clearing house of information, primarily for public officials concerned with the administration of housing programs, rural and urban. It is designed to aid in the evolution of administrative standards and procedures in the supervision, construction and management of housing developments, under public auspices or oversight. The Cleveland meeting is to be principally devoted to discussion of the Housing Act and its relation to other kinds of housing administration.

A BUILDING INDUSTRY CONFERENCE to analyze the causes of declining residential construction will be held by the Chamber of Commerce of the United States during the latter part of this month

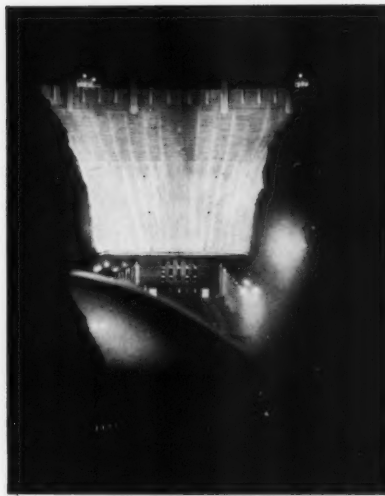


PHOTO: ACME

Electricity generated in its own plant serves to floodlight the stupendous barrier that is Boulder Dam


or the first of next. It is stated that the conference will provide an opportunity to set forth efforts of the important units of the building trades to bolster privately financed low and medium priced residential construction. Further, the conference

will attempt to develop a program to overcome the slackening rate of home building. Burdensome taxation will no doubt be dealt several lusty socks, if past pronouncements from the Chamber may be taken as any indication.

OF COURSE YOU'VE HEARD ABOUT THE DUKE OF WINDSOR'S coming visit to our shores. After going down into German mines, and viewing the dwellings of Nazi workers, the Duke intends to make a survey of American housing and working conditions. He is expected to arrive here about the middle of November, all details and publicity of his peregrination are being handled by Arthur Kudner and his Manhattan agency. Unquestionably, the Duke's tour will help focus public attention on housing, and such being the case we welcome him and his Duchess most cordially.

HEALTH STANDARDS OF LOW-COST HOUSING were set forth by Professor C. E. A. Winslow of Yale at the annual meeting of the American Public Health Association held in New York recently. Professor Winslow declared that regardless of whether the six million dwelling units now needed by the United States are built by government or private

### Tulsa Prefers





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Atlas White portland cement was used in the terrazzo floors of Villa Saint Felix, Plymouth, Mich. Art Mosaic & Tile Company, Toledo, terrazzo contractor. O'Meara and Hills, St. Louis, architects.

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FURTHER INFORMATION ABOUT FINE TERRAZZO APPEARS IN SWEET'S

1-9



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A few years ago, it became necessary to install a new roof. To preserve this ancient structure, descendants of the “Old Swedes” searched for the best roofing available. They selected U·S·S Ternes. Based on rigid service tests and experience with terne roofing on old colonial homes, the present roof, with proper care, should give this old structure lasting and substantial protection.

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agencies, they should be designed to meet certain minimum health needs. Among the requirements mentioned: 500 cubic feet of air space for each adult, 250 for each child; separate accommodations for day and night occupancy; where living and sleeping rooms are occupied at different times, figures per room must be doubled for the entire house or apartment, giving a mean total allowance of 800 cubic feet per person. Other basic standards cited by the Professor were heating provisions adequate to maintain a dry-bulb temperature of from 68 to 70 degrees, ventilation flues to remove heat and fumes, and provision for at least one electric fan in places where the summer heat is considerable.

**PUBLIC HOUSING, OVER THE NEXT FIFTEEN YEARS**, is destined to become the best investment people can make in low-return bonds, predicts Langdon W. Post, chairman of the New York Housing Authority, in a recent talk before the Municipal Bond Club of New York. Mr. Post says that if the Government lends ninety per cent of the total cost of a housing project and local authorities must obtain the other ten per cent, provided the Government subordinates its interest there would be no difficulty in getting the other 10% as a first mortgage, thus paving the way for the entrance of private capital. Such an investment, prophesies Mr. Post, based on previous housing project experience, will be characterized by safety and stability.

**"BUY HOUSING AS A HEDGE AGAINST INFLATION,"** is the advice of W. M. Kiplinger, the Washington prognosticator, in an article appearing in the November issue of *Cosmopolitan*. After arranging a phalanx of facts to support the thesis that inflation is around the corner, Mr. Kiplinger says:

"What to do? You can't buy much food ahead, and you can't buy clothing ahead (except a little), but you can buy housing ahead. It's too late now to buy or build at the 'best time' and thereby beat the game of rising prices, for the 'best time' is past. But even now is a 'less bad time' than the future will be. The same applies to house furnishings. So—if you are urged to build or furnish now, you may discount a bit for salesmanship but figure net that the salesmen are right.

"Avoid the squeeze which comes when activity in building gets near the peak, when demand for stuff is so active that production capacities cannot quite meet demand, when purchasers bid prices up, anxious to get what they need at any price. The squeeze time has not yet come in most places, either in building or in other lines, but it will come later. Anticipation of it is one way of minimizing the bad effects of inflation."

Incidentally this might be a pretty good point to mention to vacillating clients.

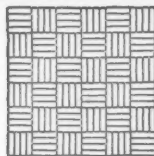
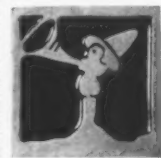
**THOSE WHO PRIDE THEMSELVES ON SIGHTING SILVER** linings have a rather tough competitor in the person of Harold T. Donaldson, President of the United States Building and Loan League. After the stock market had been flopping to new lows for about a month running, Mr. Donaldson opined that this was proving a healthy thing for house buying and building, and spoke as follows:

"There always will be competition for the money of the man of average means between investment in permanent goods

and use of his extra dollars in an attempt to make a quick gain. The recent developments in the share markets have served to check up once again the dream of the little man about doubling and tripling his funds overnight. He turns with relief to the solid earth and the house upon it."

**FRANK LLOYD WRIGHT'S IMPRESSIONS OF MOSCOW ARCHITECTURE**, appearing in *Soviet Russia Today*, set forth the attitude of the old maestro toward Russia's attempts to adapt modern design to its needs. Says he: "I disliked the Palace of Soviets exceedingly, and do

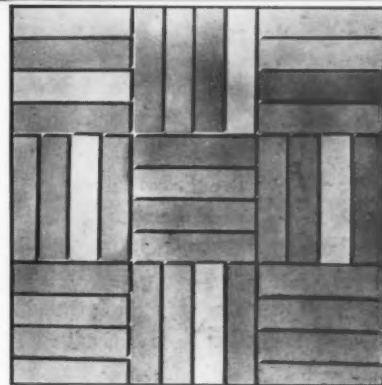
# SPARTAN "WEAVES"



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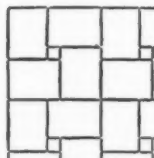


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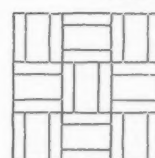


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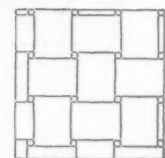
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**Moderate Cost**

so yet. I had hoped to change the minds entangled with its erection, but the foundations were in. The palace suffers from grandomania of the American type in imitating skyscraper effects way up to the soles of the enormous shoes of Lenin. Nothing more incongruous (than the Lenin statue) could be conceived and I believe nothing more distasteful to the great man Lenin if he could see it."

Mr. Wright discovered the masses eager for marble columns, glittering chandeliers and signs of luxury, and not yet ready for the "higher simplicity." He praised the enthusiasm of the people and saw a social consciousness in their architects lacking in other lands. "What a

pity that architecture in Soviet Russia is not as free as the man!" In the new hotel in Moscow he sees a reversion to the "metropolitan style" which Americans have learned to hate, but which seems to please the Russians at the moment because mere size is important to them. Mr. Wright is, nevertheless, most hopeful for the future in Russian architecture.

#### LEGISLATURE

EARLIER THIS YEAR THE NEW YORK STATE LEGISLATURE passed three bills affecting the architectural profession. Recognizing the fact that architects should participate in matters of this sort, James William Kideney, President of the New York

State Association of Architects, announced recently that this body is resuming its legislative activities. At the last meeting, action was taken toward this end through adoption of the following resolution:

"That the New York State Association being statewide should be the voice of the profession in the State, and should represent the profession in State legislation.

"That, this Association is to subscribe to the Legislative Index for 1938.

"That, a legislative committee of five is to be appointed by the president with power to select a representative of the profession. This representative is to be a licensed architect of the State of New York, skilled in legislative procedure. His duty shall be to digest the Reports of the Legislative Index, to study all legislation affecting the profession, to make periodic reports to the Director from, and the Secretary of, each affiliate organization, to attend meetings of the Legislative Committee to be held during the legislative session and to otherwise act for and in behalf of the profession, as may be required to further the interests of the architect and the building industry in legislative affairs.

"That the Legislative Committee is authorized to expend such sums as are necessary for the defraying of the expenses of this legislative program. This amount is to pay for the subscription to the Index and the salary and expenses of our representative, under the direction of the Legislative Committee.

"That the State Association recommends to its affiliate organizations that each of them appoint a Legislative Committee to co-operate with our committee and our representative."

This is reported in the expectation that it will be of interest to architectural groups in other states.

#### FAIRS

MR. GROVER WHALEN and his New York World's Fair of 1939 have been rather quiet of late and we had begun to think all arrangements for that mammoth spectacle had been completed and there was nothing left to do. But, no, the calm seems to be explained by a period during which elaborate plans for "The Town of Tomorrow" have been in preparation.

"The Town of Tomorrow" is to be a full-scale modern community representing a segment of a town of 3,500 population. It will cost over \$1,500,000 and will include thirty to thirty-five houses and group houses, a community arts center, a nursery school, a playground and stores. Materials will be contributed by manufacturers and houses will range in size from four to ten rooms, in reproduction price from \$3,000 to \$15,000. The "town" will be designed by leading



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COLUMBIA BLINDS are now used very successfully on many of the finest schools and industrial institutions in America. Their superior quality and their adaptability for special purposes has encouraged architects to specify Columbia Venetian BLINDS where hitherto, other materials have generally been used. For partitions, as illustrated above, they offer perfect control of light and ventilation and may be raised or lowered quickly, with amazingly little effort. Detail drawings have been prepared by our Architectural Service Department, accompanied by a series of interesting photographs which show many unique installations in offices, public buildings and commercial installations. You will find this data invaluable.

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**THE COLUMBIA MILLS, Inc., 225 Fifth Ave., New York**





# Garden Decoration and Ornament for Smaller Houses

by **G. A. Jellicoe**

The author, who is well known as a town-planner and designer of houses and gardens, analyzes in this profusely illustrated volume the structural features and ornaments of gardens for small country houses, suburban and town houses. *The London Times Literary Supplement* praised it for its "beautifully chosen illustrations" and spoke of it as "of a quality rare in modern garden books . . . full of stimulating ideas." *Country Life* says "it should be of great value to home and estate owners and garden lovers all over the world." \$6.00

# The Supervision of Construction

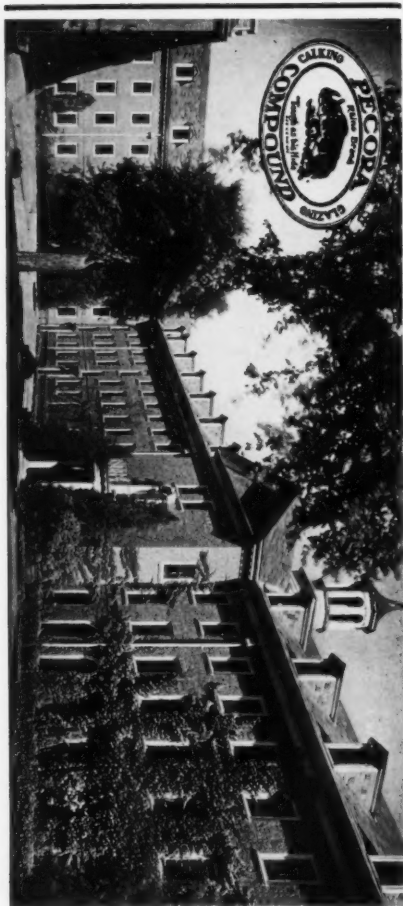
by **W. W. Beach**

This book is perhaps the first comprehensive treatment of the supervision of construction to be published and is indispensable to architects, engineers, construction superintendents, technical libraries, students and all interested in architecture and engineering. Written by one of the best-known architect-engineers in the Middle West, it is an authentic, up-to-date handbook that fills a long-felt need. Within its 488 pages are included all the details of the superintendent's work; there are appendices, 20 diagrams and illustrations. \$6.00

#### Contents

- The Duties of Superintendents
- A Superintendent's Records
- The First Day on the Job
- Beginning the Work
- Contract Changes
- Foundations and Masonry Materials
- Concrete Form-Work
- Concrete Work
- Concrete Reinforcement and Other Built-in Members
- Waterproofing and Dampproofing
- Finishing Concrete Surfaces
- Roughing-in by Pipe Trades
- Job Progress
- Masonry
- Terra-cotta, Cut-stone, and Pre-cast Stone
- Structural Steel
- Miscellaneous Metal-work
- Structural Carpentry
- Roofing and Sheet-metal-work
- Furring, Lathing and Plastering
- Marble-work and Tiling
- Finish Carpentry
- Finish Hardware
- Glass and Glazing
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architects, who will be selected by the Fair after consultation with participating manufacturers.

### AN APPEAL

ETHAN ALLEN DENNISON, Chairman of the Architects' Committee, American Red Cross, reminds us that the annual roll call of this great organization is now under way. During the floods of last January and February, the Red Cross demonstrated once again its capacity for speedy and merciful action. More than 1,000,000 persons were given either emergency help or were permanently rehabilitated by the "Greatest Mother of Them All." Because the Red Cross is America's chosen agent when disaster strikes, and because it fills a vital need, we are glad to endorse its appeal and solicit your support of its drive for membership during the two weeks, November 11th-November 25th.

### AWARDS

THE AMERICAN INSTITUTE OF ARCHITECTS announces that eight Edward Langley scholarships aggregating \$4,900 have been awarded for 1937-38 "to promote higher education in architecture."

The winners—five architectural draftsmen, one architect and two graduate students—were chosen from seventy-one competitors. The eight Langley Scholars are:—Miss Elisabeth Coit of New York City; Joseph Victor Keyes of Washington, D. C.; Douglas Pope Maier of Cleveland Heights, Ohio; John Joseph Brust of Milwaukee, Wisconsin; Kenneth Leroy Haynes of Des Moines, Iowa; Arthur Debose McVoy of Gainesville, Fla.; Samuel Wilson, Jr., of New Orleans, La.; Paul Eugene Haynes of Los Angeles, Calif.

Miss Coit plans to make a survey of low-cost housing materials, design and construction, McVoy will continue graduate study, and the others will devote their scholarships to travel in Europe and the United States.

### A REQUEST

ARCHITECT DEWEY SOMDAL, our great and good friend from Shreveport, La.—member of the firm of Neild & Somdal—was here a short while ago conferring with Lee Lawrie on subjects sculptural. During the course of his visit, Mr. Somdal gave us some valuable pointers as to the type of material he is interested in seeing included in "Trends."

We would very much appreciate similar advice from other readers. If you, for instance, have any suggestions or criticisms we would certainly like to hear them. Because we are sincerely anxious to make "Trends" both interesting and informative . . . to give you exactly what you want—as well as we can—in the way of news, reports, facts and figures.



Sylvania Hotel, Philadelphia, Pa.

## HEATING MODERNIZATION CUTS COAL CONSUMPTION

Sylvania Hotel Saves 260 Tons  
of Coal in First Year with  
Webster Hylo System

### HEATING COMFORT FOR GUESTS

Philadelphia, Pa.—The Sylvania Hotel reduced coal consumption 260 tons in a single heating season as the result of a Webster Heating Modernization Program carried out in the fall of 1935.

This substantial reduction in heating expense was accomplished in a building only 12 years old by equipping 1,000 radiators with Webster Metering Orifices and applying Webster Hylo Variator Control.

The decision to modernize the heating system in this well-known Philadelphia hotel was based not so much on possible economies as on the opportunity to improve heating service.

The effectiveness of the Webster Hylo System in assuring added comfort for guests is shown in the following statement by Ralph Romsper, Chief Engineer of the Sylvania:

"In two heating seasons, all sections of the Hotel have received steam evenly and rapidly regardless of outdoor weather conditions. Overheating and underheating have been reduced to a minimum."

Before modernization, Webster Engineers estimated that modern heating would save 140 tons of coal per season. During 1935-36, when the degree day load was 17.5 per cent greater than normal, coal savings exceeded the estimate by 86 per cent. For the first five months of the 1936-37 season, when the degree day load was 4.5 per cent greater than normal, coal savings exceeded the conservative estimate by 59 per cent.

The Huffman-Wolfe Co., well-known Philadelphia firm, acted as modernization heating contractors.

These before-and-after facts point the way to maximum comfort and economy in heating new buildings as well as in modernization of existing installations. Consult your architect, engineer or heating contractor. Or address WARREN WEBSTER & CO., Camden, N. J. Pioneers of the Vacuum System of Steam Heating Representatives in 60 principal U. S. Cities—Est. 1888

# COMING NEXT MONTH

## IN AMERICAN ARCHITECT AND ARCHITECTURE THESE FEATURES (AMONG OTHERS)

**FEDERAL RESERVE BUILDING.** Washington, D. C. Paul Cret, architect. The latest government building erected under the Federal building program.

**W. H. HALL STORE.** New York. Starrett & VanVleck, architects. A specialty shop designed for the sale and storage of furs to a better class clientele which shops in a leisurely manner.

**WORTH'S STORE.** South Bend, Ind. Ernest W. Young, architect, and C. E. Swanson Associates. A characteristic example of the smaller city clothing store primarily designed for a quick turnover of stock.

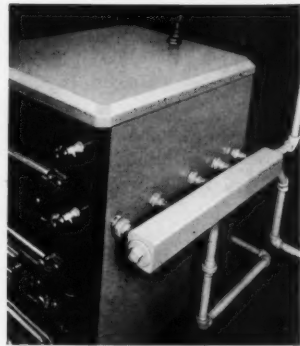
**HAROLD'S SHOE STORE and NOBBY KNIT SHOP.** Westwood, Calif. Allen Siple, architect. Typical of the smaller specialty shop catering to a feminine clientele.

**STRUCTURAL CLAY PRODUCTS INSTITUTE COMPETITION.** The winning designs in the first competition for the use of structural clay products in residential and other types of building. The competition was for both executed and projected work.

**ALSO:** An article on architectural training; a section edited by Pittsburgh architects; Portfolio on resilient floors; Favorite Features on chimney breasts; Time-Saver Standards on furniture sizes; Trends; Architects (personalities); The Diary; Books; Technical Digest; and Techniques.

The December number will be another issue chock-full of useful and helpful information for every active architect. Don't miss it!

Burnham jacketed sectional boiler showing Header Heater as part of its standard equipment.



## Burnhams Now Equipped With Header Heaters

**YOU** know there are certain advantages in having a cast iron sectional boiler's sections connected by a header for Summer-Winter hot water. One is, that it increases rapidity of circulation.

As the header is always connected at the hottest place in the boiler, it's plain to see that if a Taco coil was placed inside the header, it would be the height of efficiency for furnishing hot water supply for kitchen and bath.

Such a Header Heater is now standard equipment with the Burnham cast iron jacketed boilers, for either coal or oil. Another Burnham improvement adding convenience and efficiency.



The Header Heater with its flexible connectors for each section.

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*Manufacturers of Heating Equipment  
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# Burnham Boiler

## INDEX TO ADVERTISERS

This index is an editorial feature, maintained for the convenience of readers. It is not a part of the Advertisers' contract and American Architect and Architecture assumes no responsibility for its correctness.

Aluminum Co. of America.....	104, 105
American Brass Co., The.....	Second Cover
American Steel & Wire Co.....	122
American Tel. & Tel. Co.....	12
Anaconda Wire & Cable Co.....	100, 101
Armstrong Cork Co.....	9
Barber Co., Inc., The.....	119
Bethlehem Steel Co.....	20
Bigelow-Sanford Carpet Co., Inc.....	97
Burnham Boiler Corp.....	128
Byers Co., A. M.....	2
Carnegie-Illinois Steel Corp.....	122
Carrier Corp.....	113
Celotex Corp.....	Back Cover
Columbia Mills, Inc., The.....	124
Columbia Steel Co.....	122
Crane Co.....	10
Curtis Companies Service Bureau.....	117
Eagle-Picher Lead Co.....	116
Fitzgibbons Boiler Co., Inc.....	1
Frick Co.....	120
General Electric Co. (Home Bureau).....	14, 15
Jamison Cold Storage Door Co.....	118
Johns-Manville .....	130
Libbey-Owens-Ford Glass Co.....	107
Linde Air Products Co., The.....	5
Lone Star Cement Corp.....	Third Cover
Maple Flooring Mfrs. Assn.....	110
National Coal Assn.....	109
National Tube Co.....	122
Nelson Corp., The Herman.....	6, 7
Owens-Illinois Glass Co.....	13
Pecora Paint Co., Inc.....	126
Pittsburgh Plate Glass Co.....	99
Portland Cement Assn.....	17
Powers Regulator Company, The.....	116
Reading Iron Co.....	129
Resinous Products & Chemical Co., Inc.....	108
Scribner's Sons, Charles.....	125
Sparta Ceramic Co.....	123
Staedtler, Inc., J. S.....	118
Sturtevant, B. F., Co.....	103
Trane Co., The.....	18, 19
Union Carbide & Carbon Corp.....	5
U. S. Steel Products Co.....	122
Universal Atlas Corp.....	121
Warren Webster & Co.....	126

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FOR both private offices and general office areas, Johns-Manville has provided the first truly modern office partition—Transite Walls.

Already in use throughout the country, Transite Walls are proving the most satisfactory and economical answer to every partitioning need. Asbestos and cement in composition, they are highly fire- and sound-resistant, immune to rot and decay. An ingenious construction method (providing a flush, projection-free surface suitable to any type of finish) assures easy, rapid installation, with a minimum of dirt and disturbance. *And just as easy relocation with 100% salvage!*

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Why not get all the facts? Our new Transite Walls brochure contains complete details. Write Johns-Manville, 22 East 40th St., New York, N. Y.

Below. A truly versatile partitioning, Transite Walls are ideally adapted to subdivide outside office areas, whether low-railing, ceiling-high or borrowed-light partitions are desired. And changes can be made easily, economically, with no loss of material.



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SAVES UP TO \$1.22 A CU. YD. OF CONCRETE**



Construction of Chicago Zoo's new giraffe house fell 6 weeks behind. No news in that, for many things can happen to delay a building job. But it certainly is news when lost time is made up at no extra cost. And that is what 'Incor' 24-Hour Cement made possible here. Reason:

'Incor,' a basically improved Portland cement, cures five times as fast, saves "dead" days waiting for concrete to harden. You pour concrete one day—strip forms the next.

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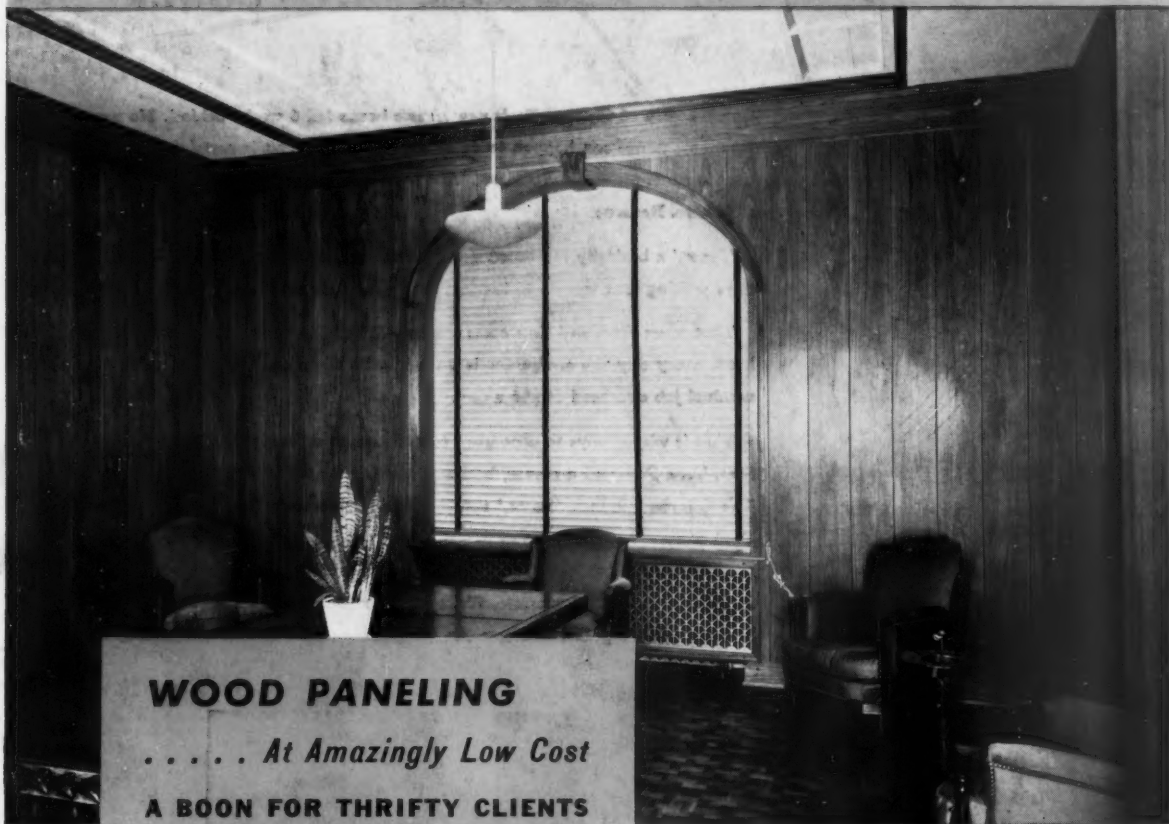


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