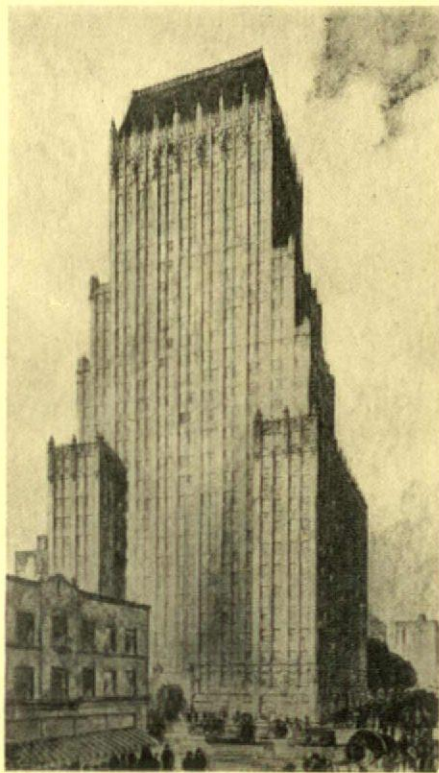




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February 1931

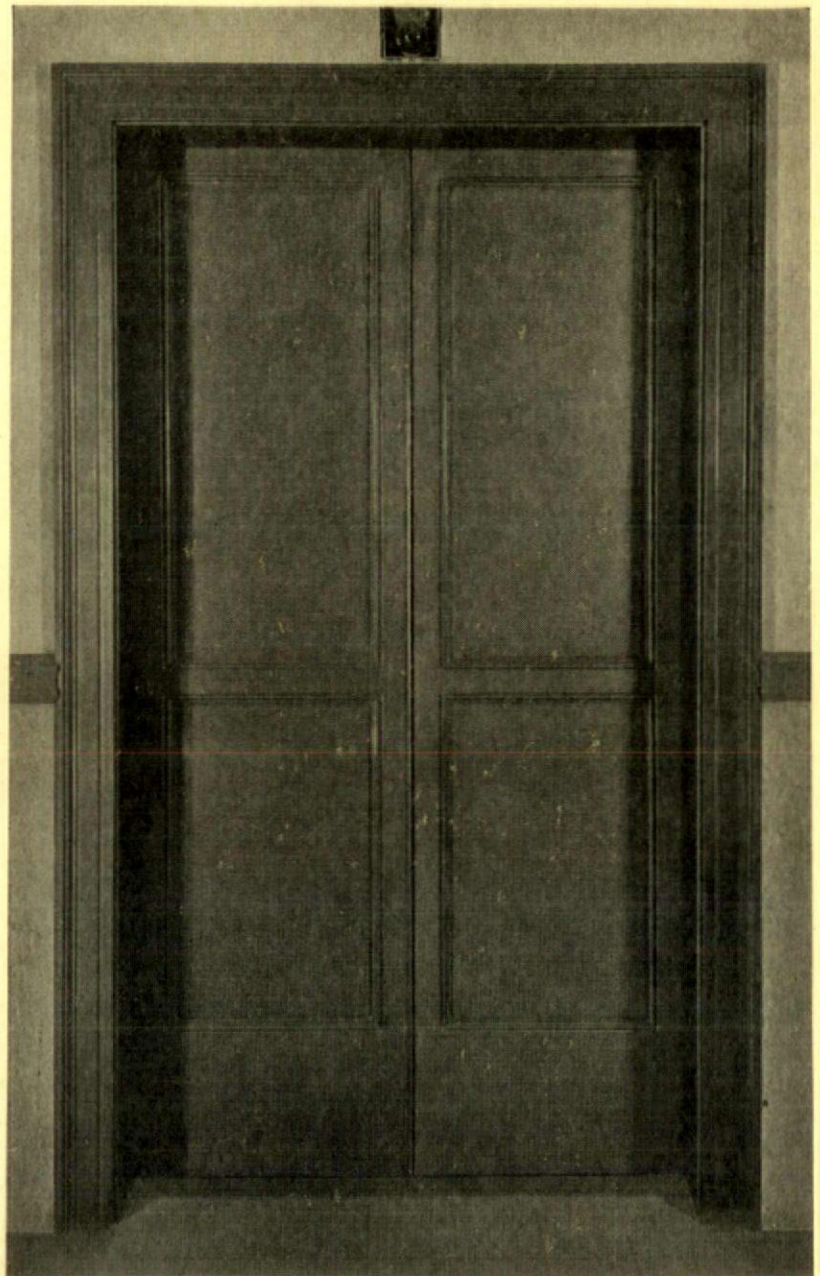


The Sterrick Building, Memphis, Tenn. Wyatt C. Hedrick, Inc., Architects and Engineers. Doors, frames and trim are baked bronze enamel of special shade to meet the architects' requirements.

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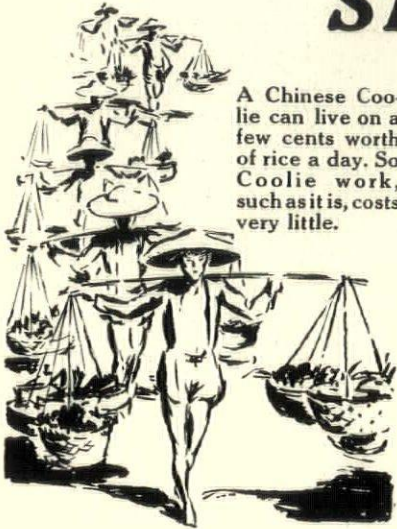
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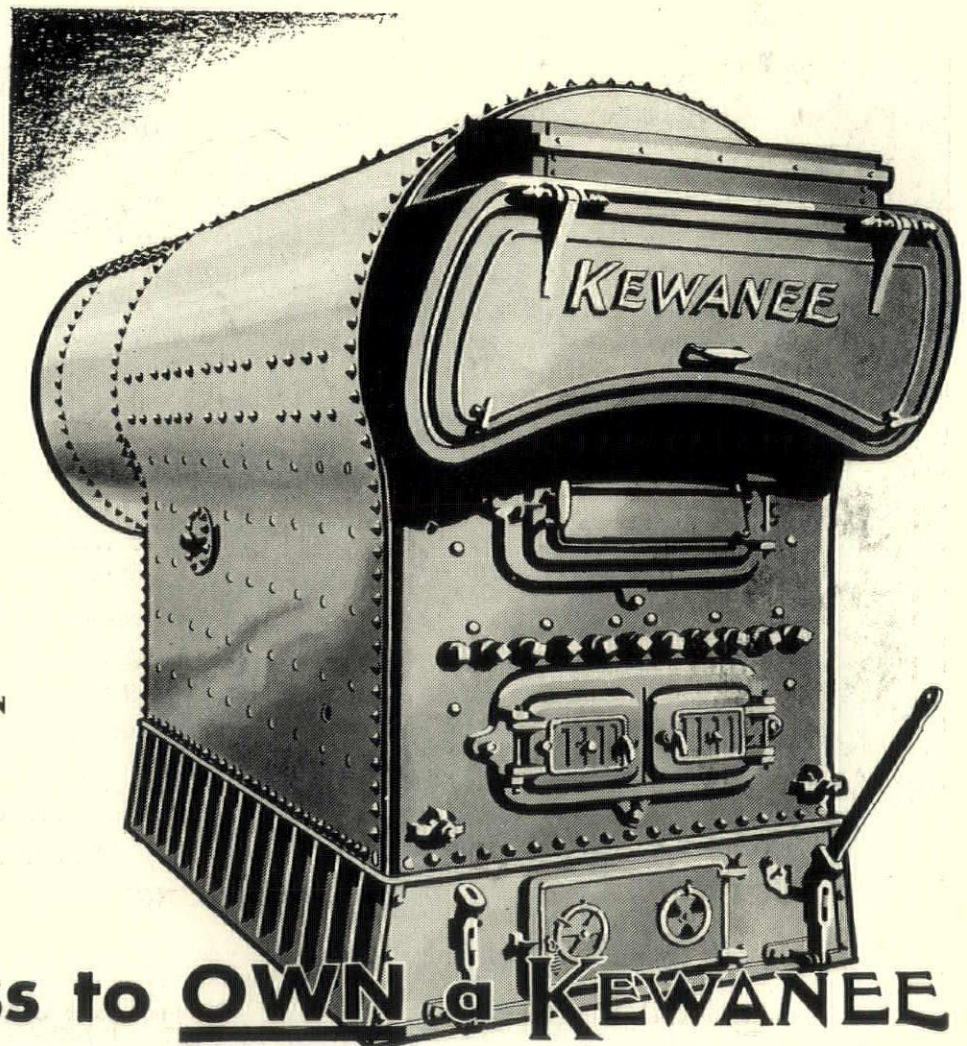
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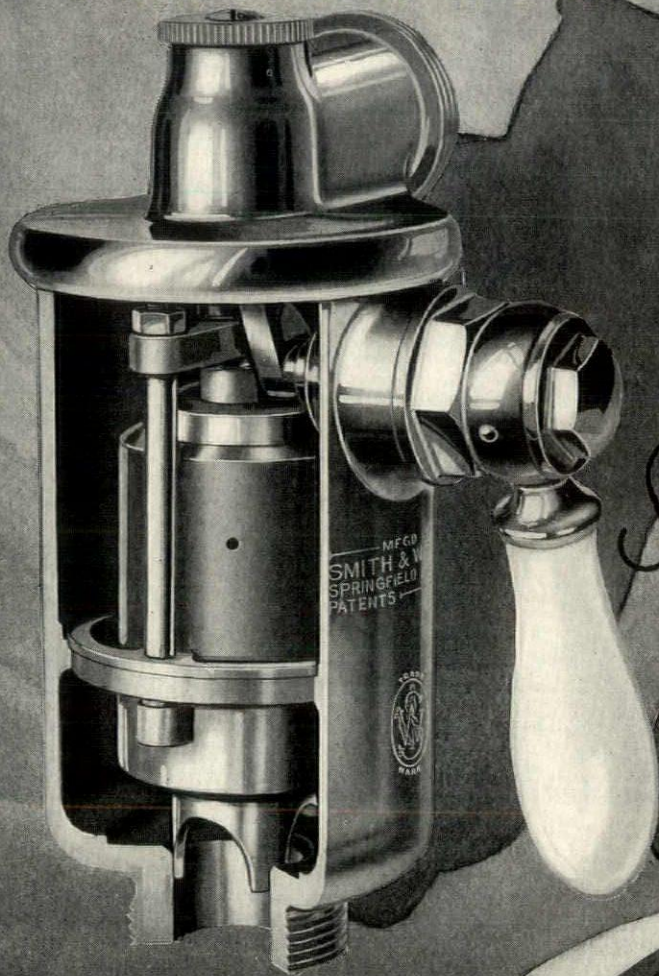
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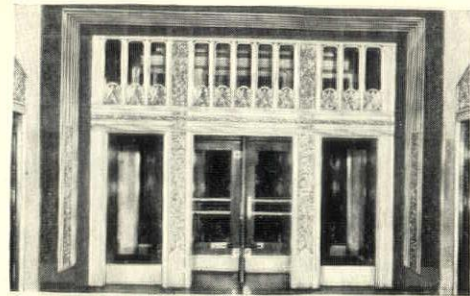
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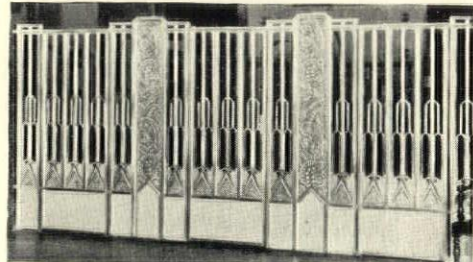
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MASSACHUSETTS

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both the grace and the vigor
of today's design



Entrance doors, exemplifying the adaptability of Alcoa Aluminum. (See above)

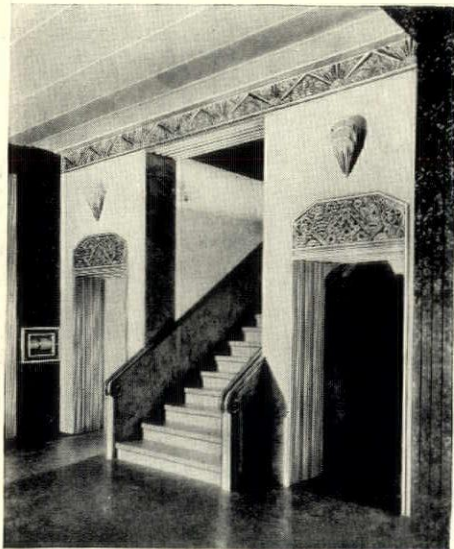


The entire vault gate construction is fabricated out of Alcoa Aluminum. (See above)



A strikingly pleasing effect is obtained by the use of Alcoa Aluminum for all visible metal. (See above)

Hand rails, grilles and night deposit box as well as elevator door frames are wrought of Alcoa Aluminum. (See below)



The Howard Avenue Trust & Savings Bank Building, Chicago; Architect—Jens J. Jensen; General Contractor—Wm. G. McNulty & Bro., Chicago; Ornamental Metal Contractors—The E. M. Weymer Co., Inc., Chicago, and The American Iron and Wire Works, Chicago.

IN design and detail, the Howard Avenue Trust & Savings Bank Building, Chicago, expresses both grace and vigor.

Using Alcoa No. 43 Aluminum Alloy—the architect, Jens J. Jensen, has secured a pleasing combination of strength, durability and softness of tone—an effect in evidence in front door and vestibule grilles, lobby door frames and grilles, mail box, balcony and stair railing, vault grilles and screen.

Alcoa Aluminum is produced in cast, extruded and sheet form. In any form it is easily worked and finished. It is remarkably light— $\frac{1}{3}$ the weight of other metals commonly used—but it is strong and tough. It is eminently adaptable for exterior use as it resists corrosion—does not streak adjoining surfaces. And, with all its virtues, Alcoa Aluminum is low in cost—comparable to other metals which do not possess its specific advantages. These important advantages are putting Alcoa Aluminum at the architects' disposal for spandrels, mullions, sills, door frames, grilles and for many other purposes.

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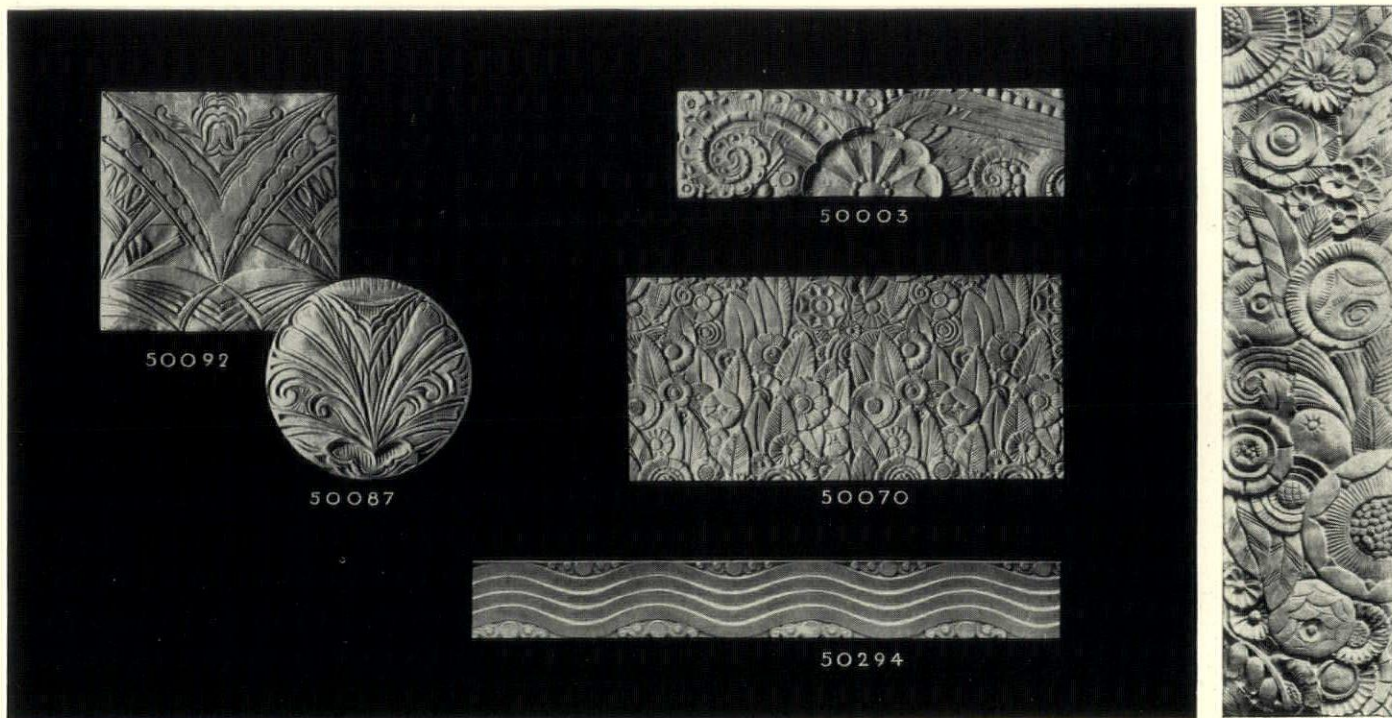
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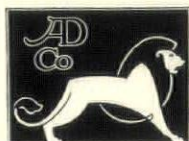
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At this time we wish to also announce to architects the retention of Professor Rexford Newcomb of the University of Illinois, as professional advisor to our Chicago Studios. Mr. Newcomb is Professor of the History of Architecture at the University of Illinois and is the author of many well-known architectural books. He will act as our advisor and consultant to insure our clients approved designs of authenticity and beauty. This is just another step on the part of the Architectural Decorating Company to insure our clients the most complete service possible in the plaster ornament field.

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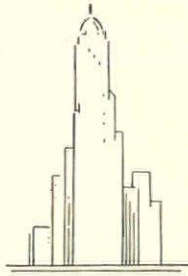
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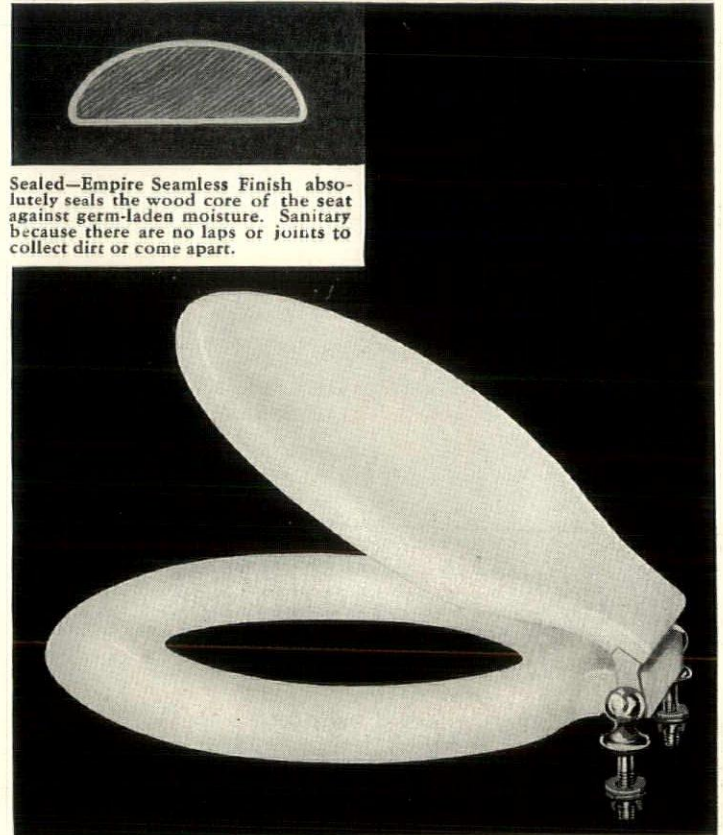
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Empire White Seamless Finish toilet seats are ideal for the modern hotel, apartment or office building. These new seats offer every advantage of the most expensive toilet seat at a price that enables the architect or owner to make a substantial saving on cost.

We believe that our Empire finish is unexcelled by any other type of finish on the market today.

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P R O G R E S S



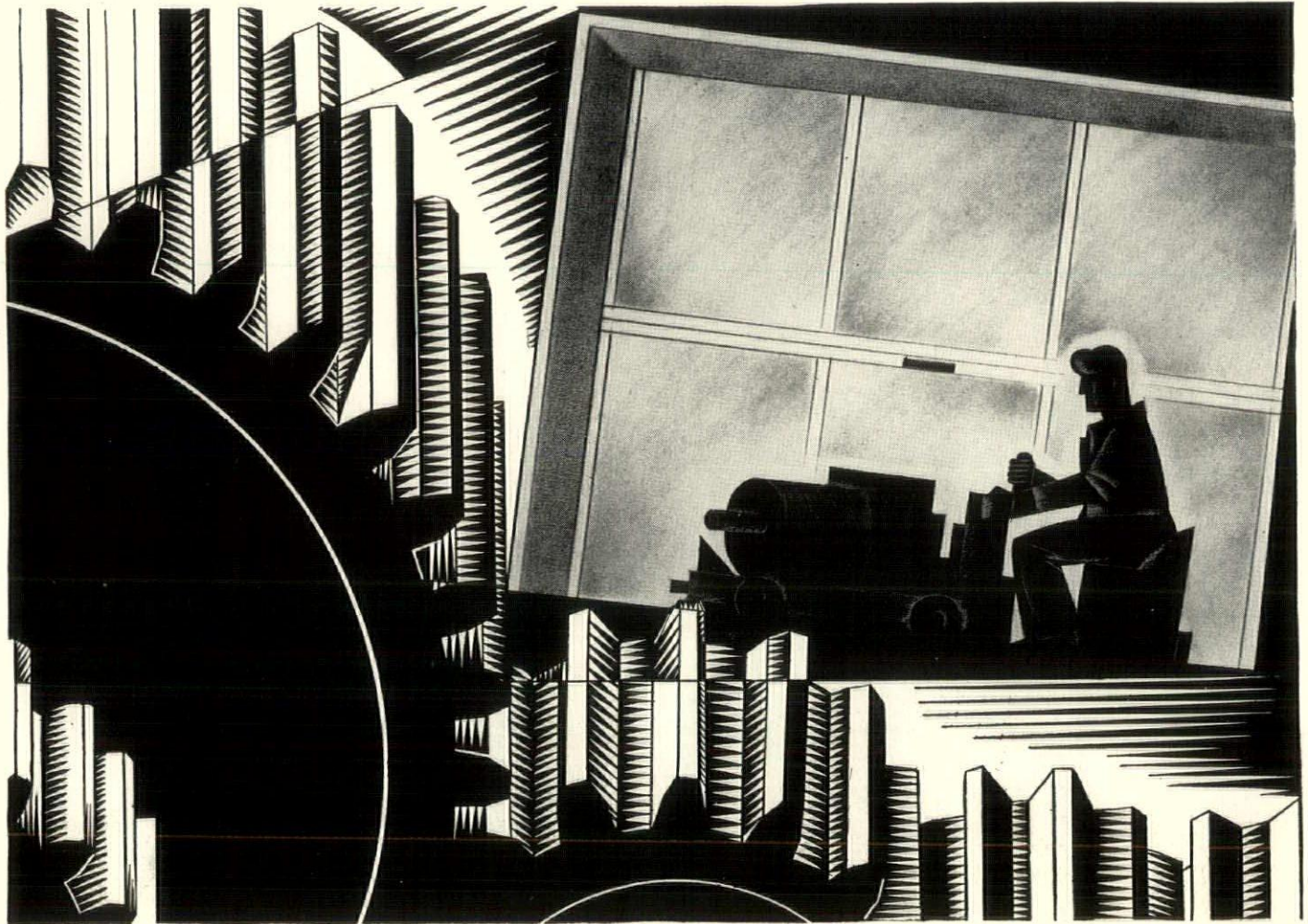
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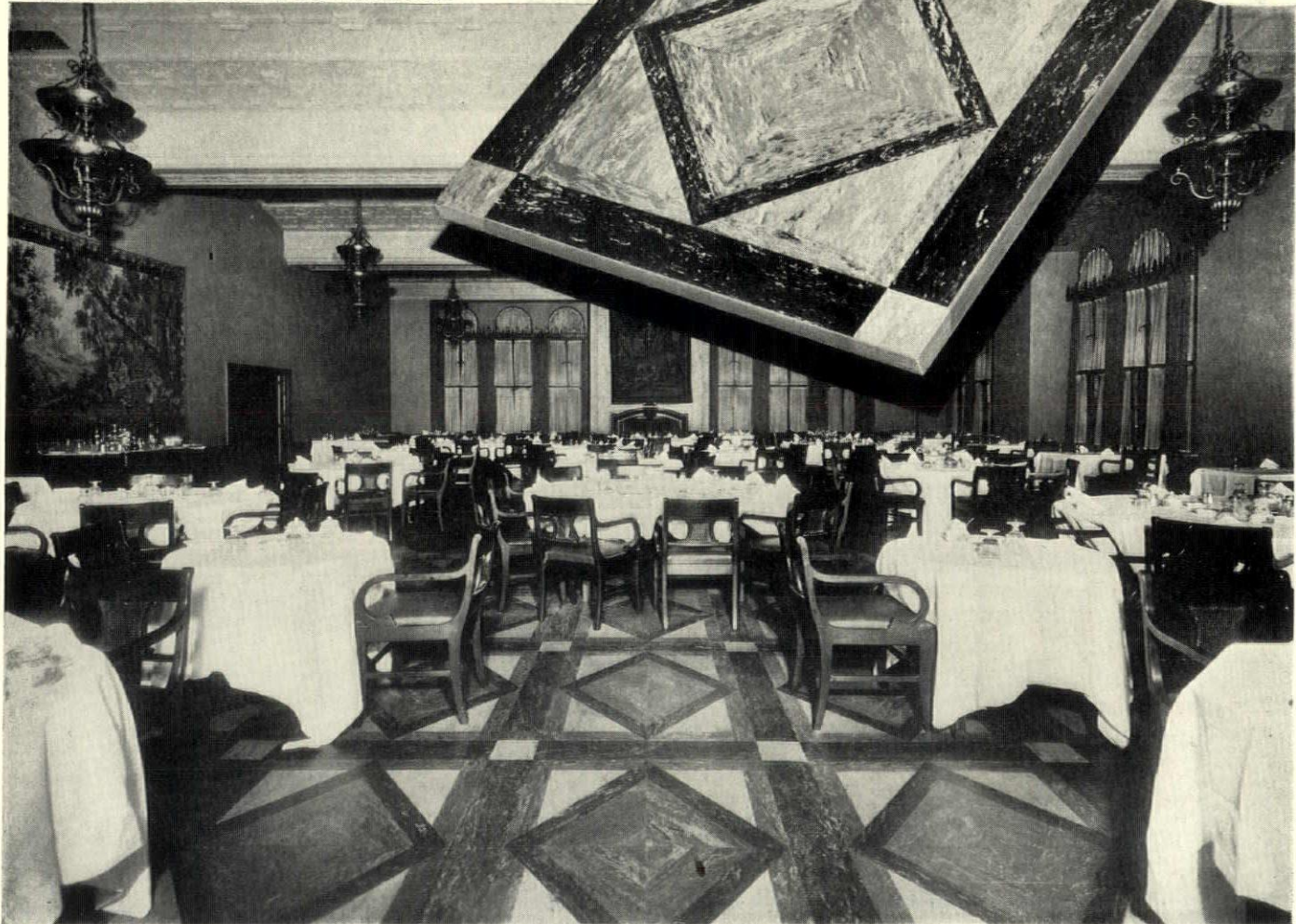
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The Dining Room of the Chicago Club, Chicago. Granger & Bollenbacher, Architects. The floor is laid in an interesting pattern worked out in three contrasting Stedman tilings—Red Gold Paisley, Black Gold and Grey Walnut Gold.



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say —



*if you showed
her these rich
Fabric Wall
Coverings in
charming new
patterns . . .*



ARCHITECTS' wives usually have a keen appreciation for the finer aspects of home furnishing. So we make this suggestion: Send for a few representative patterns of this rich fabric wall covering and go into a conference with Mrs. Architect.

Chances are she will find them the most charming patterns and beautiful colorings she has ever seen in moderately priced wall coverings. She will be delighted with their refreshing individuality—and much of their charm she will attribute to their richness of fabric texture.

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the stairway—are easily wiped away with a damp cloth. Colors, even the most subtle pastel shades, are non-fading. The beauty of this fabric wall covering lasts for years.

Wall-Tex is used in many of America's finest residences—and because of its long-run economy it is the ideal wall-covering for hotels, hospitals, public buildings of all kinds.



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Davis, Dunlap and Barney
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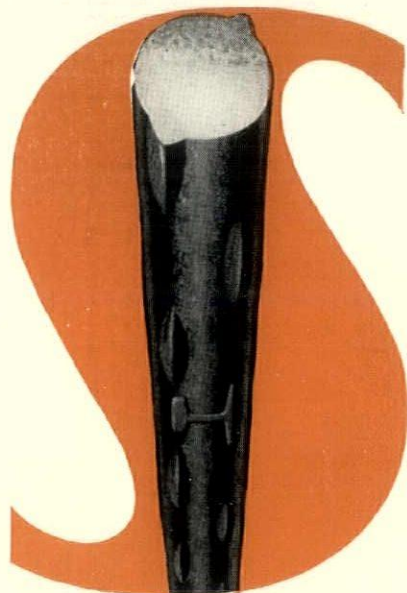
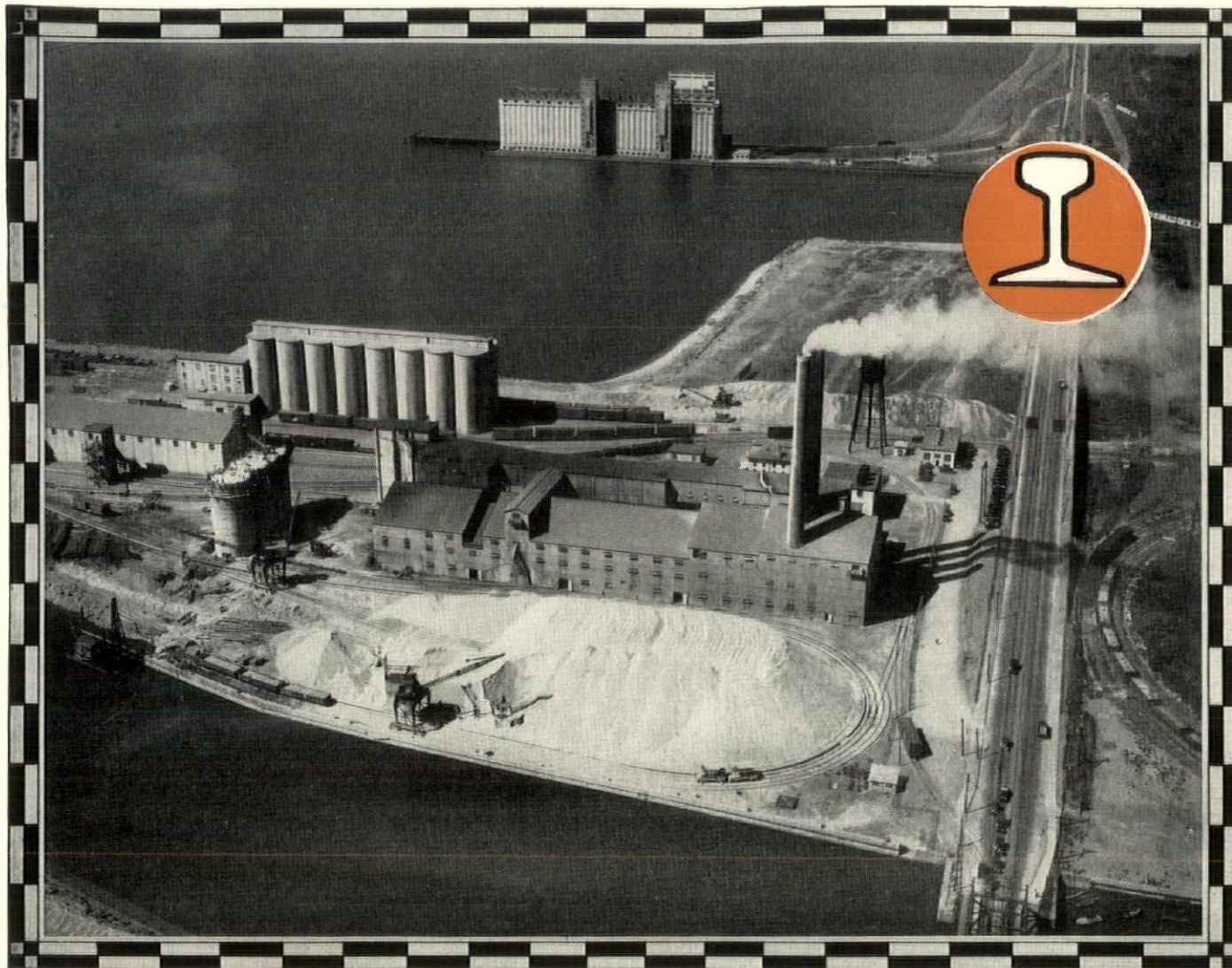
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"GIVE us more rental space," building owners demand. So the architect fits heating units inside the walls of the building.

In modern structures these radiator recesses are insulated with Armstrong's Corkboard. Walls must be kept thin or there is no saving in space. But the thinner the walls, the more heat is lost through them—unless its passage is stopped. Heat must be thrown into the room to be effective—not conducted outdoors by brick or steel.

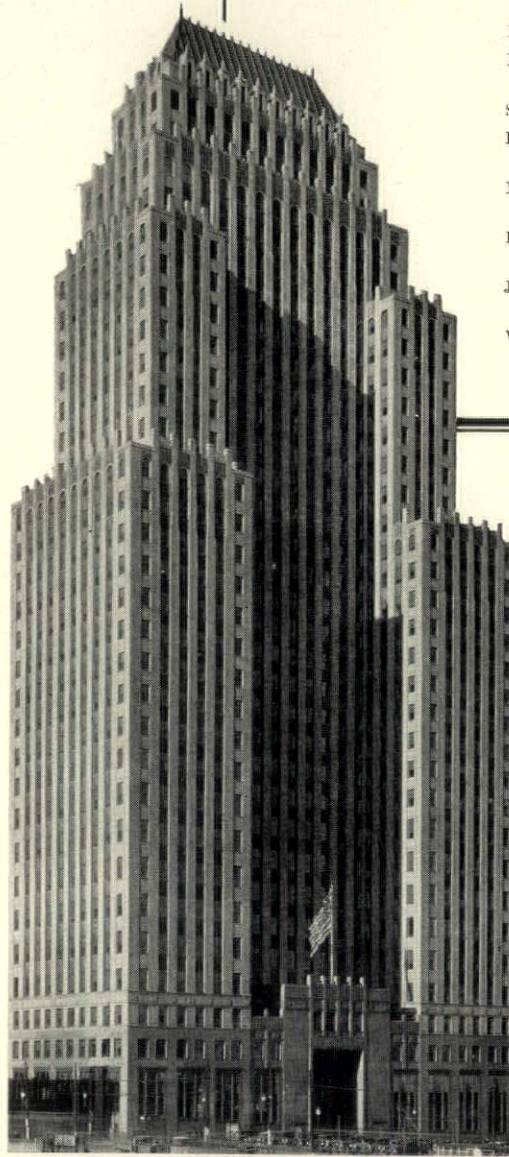
The insulating efficiency of Armstrong's Corkboard assures permanent service. Its resistance to moisture makes it last as long as the building itself. Structurally strong, it is easily worked for this or any other type of installation.

Many other uses

There are many places where Armstrong's Corkboard is serving building needs. For years it has insulated roofs of all kinds. Especially in factories, where "ceiling sweat" threatens damage to materials and machinery corkboard on the roof checks this danger. It makes it possible to maintain low temperatures in cold storage plants and quick-freezing rooms.

Because of its unique composition, cork is useful for many other purposes. Air-borne sounds can be muffled with cork. So Armstrong's Corkoustic, the cork acoustical material which lends itself to decoration, lines many school and theater auditoriums. Cork is resilient, too. Armstrong's Cork Machinery Isolation absorbs vibration and noise caused by all types of machinery. In the Koppers Building, for instance, vibration has been banished from air compressors and ventilating pumps by means of cork.

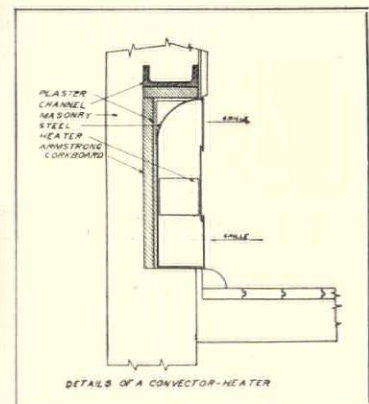
Every day sees some new use for cork.



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STATE BANK BUILDING, Chicago, Ill.
INDIANA AND MICHIGAN ELECTRIC BUILDING, South Bend, Ind.
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Pittsburgh's largest office building, the Koppers Building, architects Graham, Anderson, Probst, and White. Here Armstrong's Corkboard serves many purposes, including the insulation of radiator recesses.

This sketch shows how radiator recesses are being insulated in modern office buildings.



It may be just the material you are looking for now to do some special work, solve some puzzling situation. Armstrong engineers are always at your service for consultation. Armstrong Cork & Insulation Company, 936 Concord Street, Lancaster, Pennsylvania.

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FOR FEBRUARY 1931



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 1925

1. Seymour H. Knox residence, Aiken, S. C., Peabody, Wilson and Brown, Architects.
 2. L. H. Shearman estate, Manhasset, L. I., J. W. O'Connor, Architect.

3. General Howard S. Borden residence, Rumson, N. J., George S. Chappell, Architect.
 4. Thos. A. Edison Junior High School, West Orange, N. J., Guilbert

& Betelle, Architects.
 5. State Capitol Building, Raleigh, N. C., Atwood Nash Inc., Architects.
 6. United Piece Dye Works, Lodi, New Jersey.

7. Richmond Borough Hall, St. George, S. L., Carrere and Hastings, Architects.
 8. S. L. Rothafel Bronze Tablet, Roxy Theatre, New York.

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As modern as the "Wings of Progress" which crown this unusual building

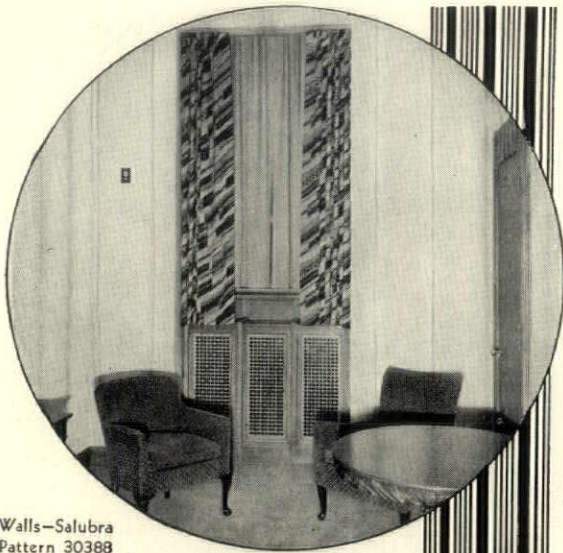
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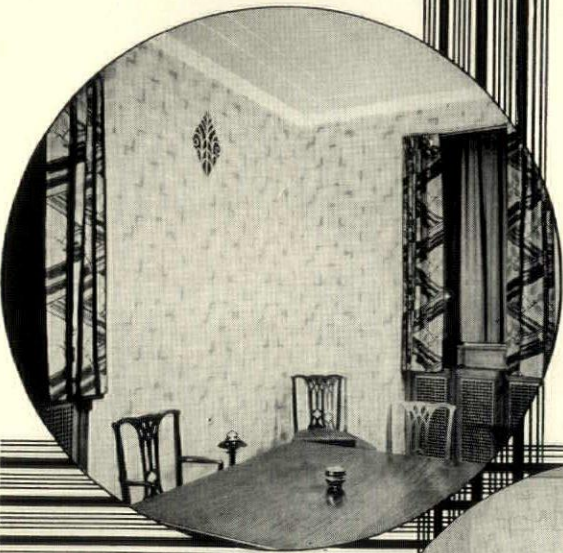
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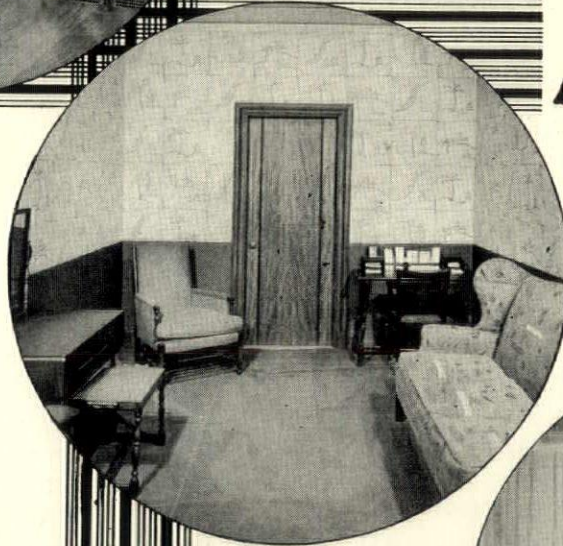
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Walls—Salubra
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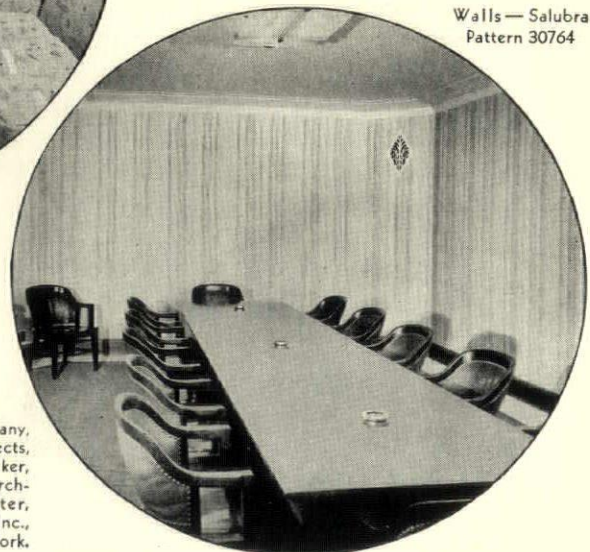
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Genesee Valley Trust Company,
Rochester, New York—Architects,
Voorhees, Gmelin and Walker,
New York, N. Y.; Associate Arch-
itect, Carl C. Ade, Rochester,
New York; Seebach-Kimble, Inc.,
Decorators, Rochester, New York.



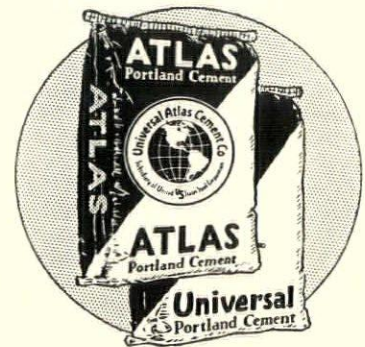


Concrete columns and floors at the newly remodeled Saddle & Sirloin Club, Chicago; high-early-strength concrete made with Universal Atlas methods and cement used in the construction. Poirot Construction Co., Chicago, contractor.

Saving time and materials with *Universal Atlas* high-early-strength concrete

● ● ● The high-early-strength concrete used in remodeling the Saddle and Sirloin Club, Chicago, permitted the removal of alternate rows of shores five days after the concrete was placed. This is much sooner than is practicable with concrete made by ordinary methods. Not only was time saved but equipment also. Shores that were removed at the five-day periods were immediately available for use on other sections of the work. This permitted the contractor to cut down on the equipment required for the job.

● ● ● High-early-strength concrete made with Universal Atlas methods and cement (the same Universal Atlas standard portland cement as furnished for regular work) is stronger, more durable and more watertight than ordinary concrete. Send for booklet containing these methods for saving time and securing improved concrete.



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The Cover

CHURCHES in Palermo, Italy, form the subject of this month's cover, a water color by Sherwood T. Allen which was made while he was on a four and a half months' tour which included North Africa, Italy, and France.

Mr. Allen writes that he was "born in the Great Northwest, raised in the shadow of the Rockies, and inherited a pretty large share of wanderlust." He has worked in all four corners of the United States, and in Mexico and Canada.

Following graduation, Mr. Allen worked in the offices of Penrose Stout, Shreve and Lamb, and Dwight James Baum, all New York architects.

Next Month

SUPERVISION—How to make clients want it when they don't.

DESIGN—Photo murals as a new and effective means of interior decoration.

MATERIALS—Knotty pine, with measured details of some early Colonial rooms in museums.

BENJAMIN FRANKLIN BETTS, A.I.A., *Editor*
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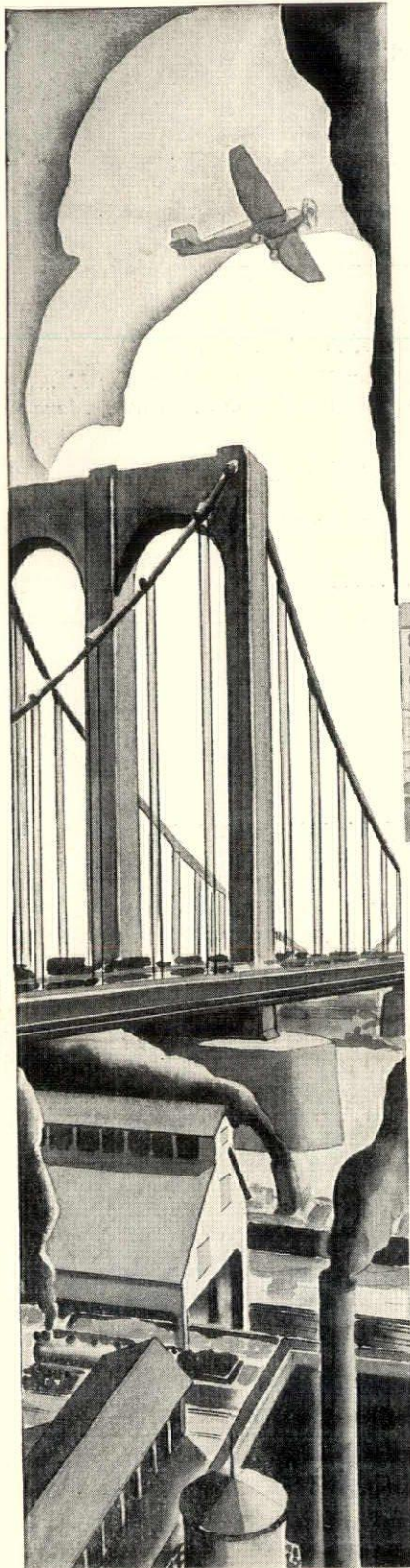
IN THIS ISSUE

Cover—A water color by Sherwood T. Allen

A Good House <i>By Benjamin F. Betts</i>	19
Is the Government Treating Architects Fairly? <i>By Benjamin F. Betts</i>	20
"Horse and Buggy" Building <i>By Francis Keally</i>	22
This Advertising Wasted Our Money <i>By Joshua H. Vogel</i>	24
Senlis . . . the Town that Paris Forgot <i>By Samuel Chamberlain</i>	26
Frost? . . . No, Decay! . . . How to Prevent It! <i>By D. W. Kessler</i>	28
"How Much Will It Cost?" <i>By Tirrell J. Ferrens</i>	30
Atmosphere to Sell \$50 Shoes—Pinet Shoe Store <i>By Eugene de Lopatecki</i>	32
Investors Have Fewer Jobs for Architects <i>By Edward P. Simon</i>	38
Park System Operated at a Profit <i>By William H. Gregory</i>	40
Sketches <i>By Albert R. Southwell, Albert S. Golemon and George R. Wiren</i>	44
What to Put on Working Drawings <i>By Edwin S. Parker</i>	46
Kairwan <i>By Arthur H. Gilkison</i>	48
Where Patrick Henry Lighted the Torch of American Liberty <i>By Beaufort N. Eubank</i>	52
What Architects Are Talking About.....	54
Down Dixie Way—Sketches <i>By E. J. Gibert, Christopher Murphy, Jr.</i>	56
An Easy Way to Hold an Exhibit, Dallas, Texas <i>By Ralph Bryan</i>	58
As It Looks to the Editors.....	60
World's Longest Bridge—The Golden Gate Bridge, San Francisco..	68
Judged the Best House.....	70
The Readers Have a Word to Say.....	72

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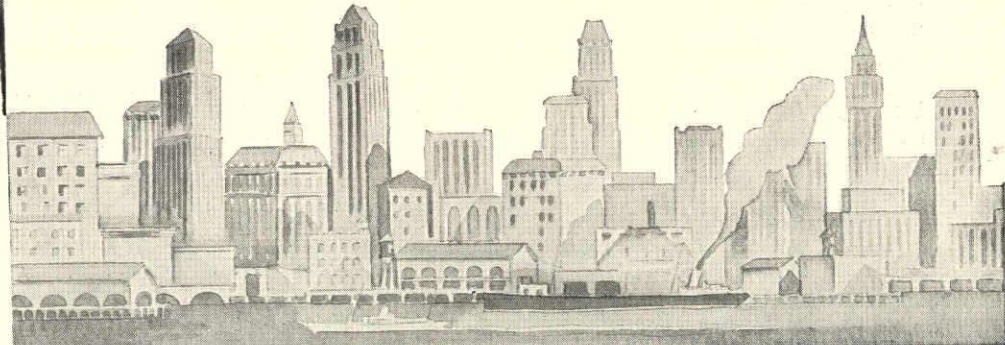
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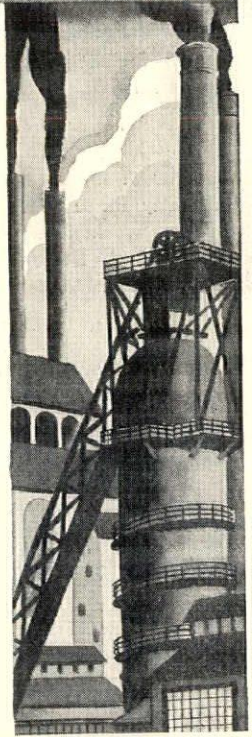
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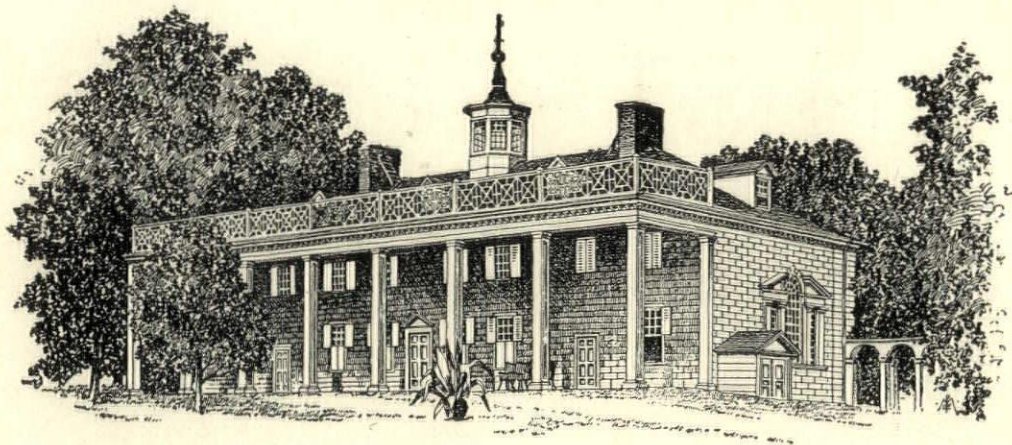
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A GOOD HOUSE

By Benjamin F. Betts, A. I. A.

WHILE the exploits of George Washington as a truthful boy, great statesman and valiant soldier are emphasized on the anniversary of his birth, the contribution of his family to American domestic architecture is given scant attention. Yet today Mt. Vernon, a harmonious unit, restful and dignified, well-built, stands pre-eminently a good house. In enlarging the original house built by his elder brother, Washington said: "Nothing but durable materials shall be used in this house"; to his good taste we are indebted for a living example of a house designed with refinement and restraint. Of the multitudes who have visited and who will visit this historic shrine there must be few who have not been impressed by its beauty or have failed to realize that Mt. Vernon was not only the country seat of the "father of our country" but that it is also the symbol of what a good house should be.

A GOOD house takes its place gracefully in its environment. It fits its site. It meets the specific requirements of those who live in it. If it meets these needs well, it must of necessity express something of the personality and individuality of its owners. It is a house built of honest materials and honest workmanship. True to itself it typifies the spirit of a home-loving people.

THE home is said to be the backbone of the nation. Good houses cannot fail to cement the qualities that make good homes, better citizens, and a more stable and upright nation. In giving American families houses that are a "source of profound influence and inspiration in the lives of all citizens," architects are making a substantial contribution to the well-being of the United States.

... Is the GOVERNMENT TREATING ARCHITECTS FAIRLY?

By
Benjamin F. Betts, A. I. A.

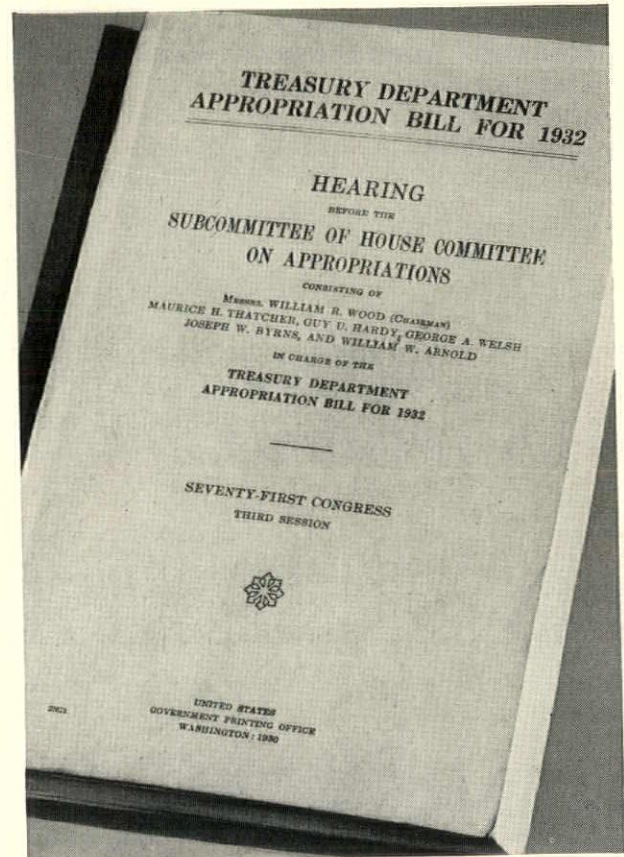
TO what extent should government enter into business? In maintaining a Supervising Architect's office which is actually a "Designing" architect's office, hasn't the United States Government entered into competition with all architects of this country? A "Supervising" architect's office has its place and is an essential government office. The extent to which the government should enter into the practice of architecture has been a moot question for years. The present unemployment emergency should demonstrate the fallacy of the precedent that has been set up and the desirability of employing private architects to design Government buildings.

If the Government is justified in conducting an architectural office in competition with its private citizens, who have invested capital in the maintaining of offices throughout the country, it can with equal propriety and justice enter into any other business. So far the Government has not entered into the making of automobiles, fabricating of steel, production of cement, nor the operation of public utilities.

Business is not the function of government. A government is set up to administer the affairs of state; to regulate the affairs of the nation for the good of the whole. The question was summed up by Abraham Lincoln, "A Government of the people, by the people, and for the people . . ."

However, the question is not wholly one of whether the Government should or should not usurp the functions of private architects, but whether or not in the last analysis the nation obtains the best designed buildings for its money in which to conduct the affairs of government. Is it not reasonable to assume that a proper selection of private architects would result in better conceived buildings that would better meet locations and traditions than one designed in a remote central office?

What the office of the Supervising Architect thinks about the employment of outside architects is graphically told in Government reports of the discussion which resulted when Congress was asked for an appropriation to cover 1932 activities. This discussion took place on November 24, 1930, before the Subcommittee of House Committee on Appropriations in charge of the Treasury Appropriation Bill for 1932. Included among those who took part in the discussion were Ferry K. Heath, Secretary in Charge of Public Buildings; James A. Wetmore,



THIS OFFICIAL DOCUMENT

tells when and how the government
employs private architects for local work

Acting Supervising Architect; L. C. Martin, assistant to Assistant Secretary of the Treasury in charge of public buildings, members of the subcommittee, and others.

William R. Wood, chairman of the subcommittee, wanted to know whether the employment of outside architects would not expedite the public buildings program. He said, "If you will take my own town, for instance, where they will build a new court-house, we have some of the best architects in the country. They know the kind of building that is suitable for that section of the country and they could draw plans for the

71st CONGRESS
3d Session

Union Calendar No. 535 H. R. 14040

[Report No. 2093]

IN THE HOUSE OF REPRESENTATIVES

DECEMBER 2, 1930

Mr. ELLIOTT introduced the following bill; which was referred to the committee on Public Buildings and Grounds and ordered to be printed

DECEMBER 11, 1930

Reported with an amendment, committed to the Committee of the Whole on the state of the Union, and ordered to be printed

[Omit the part struck through]

A BILL

To enable the Secretary of the Treasury to expedite Federal building program

Work Delayed by Red Tape

IF THE Government program to relieve unemployment is to mean anything, there must be wholesale slashing of departmental red tape.

As that program now stands, it calls for more architects than are at present in the public service.

Benjamin F. Betts, editor of the Architect, puts the situation in saying:

"Buildings cannot be built have been planned. Under Federal red tape procedure, it perhaps five years before construction work would be made a dent in the unemployment.

"It is physically impossible to complete in an adequate program into of less the Federal supervision who draws up those plans, side assistance. Even with outside architects it will be before enough work can be show any appreciable effect.

If the purpose is to give why not begin by providing employed local architects?

Again to quote from the Architect:

ARCHITECTS NEED WORK TOO

And Can Hasten Government Construction if They Share in It.

The government has promised for the relief of unemployment that approximately a billion dollars' worth of construction work will be started within a few months. If this work is to be planned by government architects and engineers, it will be many years before the effects of such an enormous program will be felt.

These large expenditures for construction work will be slow in attaining the desired results because of our government's limited engineering and

1 and empowered to obtain by contract without competi
2 topographical surveys of sites, test pits and borings wh
3 such sites have been selected although title thereto ma
4 not have been vested in the United States; to limit to
5 such number of days as he deems proper the advertising
6 for bids for sites for public buildings; to restrict the compe
7 tition in bidding on the construction of public buildings
8 to such persons, firms, or corporations only as possess the
9 qualifications which he deems necessary and proper in the
10 public interest to require; to obtain outside architectural,
11 engineering, technical, or professional services to such extent
12 as he deems necessary in connection with the plans and
13 specifications for Federal buildings which have been specially
14 authorized to be constructed where the sites have been
15 selected

OUT THE RED TAPE

Benjamin F. Betts, editor of the American Architect, makes a good suggestion for speeding up employment. It is to cut red tape. He points out that the government is so slow in getting its building work started that it would probably be five years under the ordinary procedure before enough Federal construction work could be gotten under way to make a dent in unemployment. The remedy, according to Mr. Betts, is for Congress to appropriate funds for the employment of private architects and not rely exclusively on the Federal supervising architect and his staff.

Employing Local Architect

In an editorial appearing in its December issue, The American Architect stresses the desirability of employing private architects as a means of expediting the Government's program of public construction. Attention is called to the point that, whereas formerly the Treasury Department had only limited power to engage outside architects, an act of July 3 gave authority to contract with private architects for complete services. It is pointed out that at least, by having a problem treated by architects with detailed knowledge of local conditions and thereby prepared to give it thorough study instead of committing the task to engineers who are under the necessity of working under pressure in turning out plans after the order of a production factory. The local benefit of having plans prepared by a local architect would not only make a more satisfactory solution through more careful consideration of the points involved, but it would also be a worth-while fact in relieving local unemployment. While the plan for a new Hartford Postoffice was given to a local firm, in the case of the Springfield Postoffice it was done in Washington. On the other hand, the job appears to have been done much more satisfactorily in Hartford, it being observed, for one thing, that the problem of mail truck delivery has been solved in a more satisfactory manner. This, however, may have been possible because of a site which is more favorably located in relation to the Postoffice Station. The question of private architects is also mentioned.

The Government should employ private architects and GET SOME WORK STARTED

By Benjamin F. Betts, A.I.A.

EMPLOYMENT of private architects as a means of expediting the government's program of public construction work should be given favorable consideration by Congress and the Treasury Department. To do so would be in harmony with the government's avowed intention to have underway within the next few months what is reported to be a billion dollars worth of construction work as a means of relieving unemployment.

In the past, the Treasury Department has had but limited power to engage outside architects. But on July 3, 1930, an act was passed which gives this department authority to contract with private architects for complete services. The Treasury Department has made the statement that the question of employing private archi-

building which would be perfectly proper. Do you not think that you could expedite this business a whole lot by using local architects at, perhaps, a cheaper figure than by doing it here, handling this great mass of business in your establishment?"

To this, Mr. Heath, Secretary in Charge of Public Buildings, replied, "You could not do it more cheaply."

James A. Wetmore, Acting Supervising Architect, at once amplified this statement saying, "You could not do it more cheaply nor faster. In every case where we have matched our office against outside architects we have beaten them in time and cost."

Where speed is a requirement probably the average architect could compete successfully. Time spent in the preparation of sketches and working drawings is an important element when work must be gotten underway quickly, but the proper (Continued on page 100)

AMERICAN ARCHITECT WIDELY QUOTED

in editorials and letters written by architects to newspapers in an effort to make the government realize the urgency of immediate action only possible through widespread employment of private architects, as urged in the editorial on page 19 of the December, 1930, issue

YOU CAN'T SATISFY THE MOTOR CAR

"Horse and Buggy"

SHOULD we or should we not solve our present day architectural problems in terms of modern materials, modern construction and in consonance with the modern point of view without too much slavish regard for tradition? Is it not true that every great age of civilization has produced a contemporary architecture? In asking this I am thinking of the great temples in Egypt, the Parthenon in Greece, Notre Dame in France, the architecture of the Italian Renaissance and subsequent periods in which the architects planned and designed their buildings with materials which were at hand, solving the problems of the day in which they lived.

Let us take a cross section through the present day movement in architecture, and pause to consider the manner in which we accomplish certain things and our reasons for so doing. This is distinctly a machine age. Today we are able to turn out thousands of motor cars in twenty-four hours, whereas only thirty or forty years ago perhaps one or two beautiful carriages would have been manufactured in the same time. In some instances, during the dark and middle ages, centuries were re-

By FRANCIS KEALLY, A. I. A.

Sketches by the author

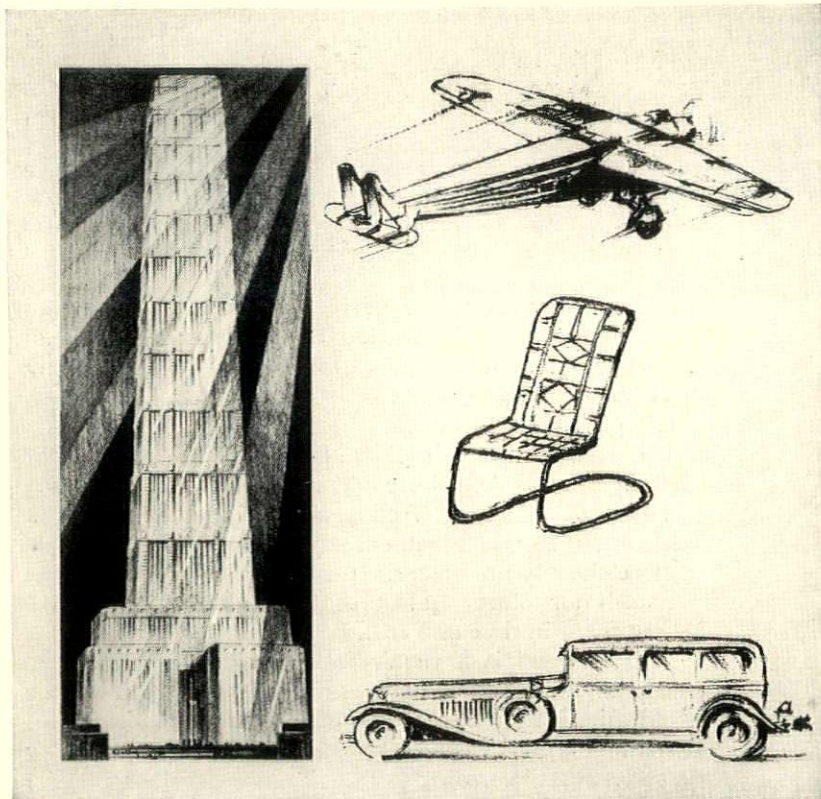
quired to complete certain monuments in Europe, whereas now a plot empty today may become in less than a year's time the resting place of a monument perhaps a thousand feet high.

What does all this mean? It means that we have been educated to see things grow fast, to think fast, and to live fast. We drive our motor cars today at an average speed of fifty miles an hour without batting an eyelash, whereas the past generation were content to drive in their carriages at the rate of six or eight miles an hour.

As this increase of speed marks the modern age, so does the multiplication of building materials and equipment. Compared to Colonial times the modern period is rich indeed in this respect, yet it should be noted that while we have gained many new materials and methods we have lost certain others that the early builders enjoyed. Chief of these is wood. In Colonial days the architects were limited in their structural work

largely to the use of wood and stone and brick. Steel was an unknown quantity, and this means that their spans and lintels had limits which seem restricted indeed to us. A wooden truss having a span of sixty feet would have been considered a remarkable achievement. Compare this with the Hudson River suspension bridge, which is thirty-five hundred feet from pier to pier. I know of an engineer who is developing a clear span for airplane hangars of half a mile, worked out on the principle of the suspension bridge. If, however, we followed tradition in building our skyscrapers as we do in building our country houses, we would be greatly limited in solving our present day urban problem.

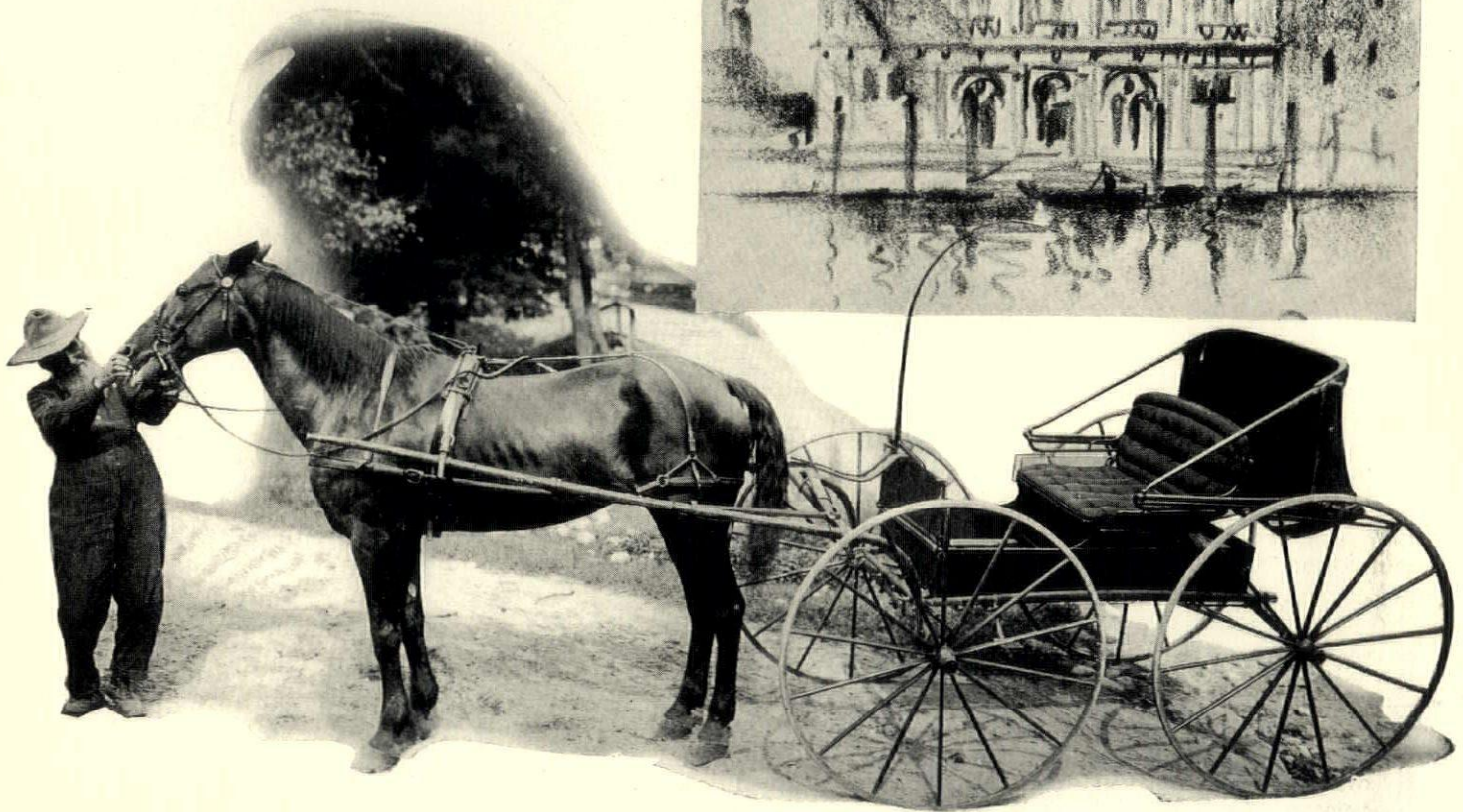
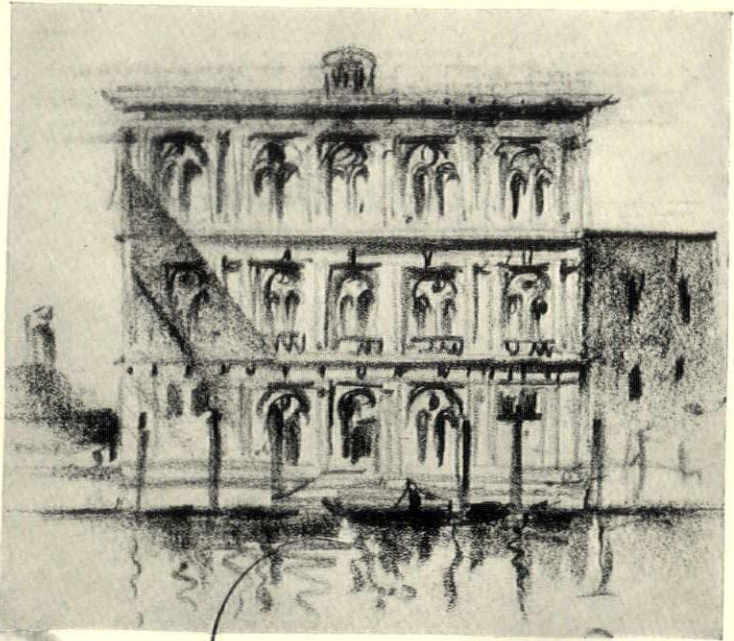
We have been ambitious in the solution of our commercial architectural problems, while we have progressed very little in



THE SAME GENIUS that has created the airplane, the metal chair, and the motor car, would have conceived buildings in the light of modern thought, materials and needs . . . if there had never been a building

OWNER WITH A

Building



A 500-YEAR OLD BUILDING used as a model for a modern building is like offering the motor car owner a horse and buggy for a fast journey

the use of modern materials and practices in our domestic architecture. Should we not plan a house, for example, to conform to our new mode of living and give the owner a plan that meets his modern needs? To do this should we not orient ourselves architecturally to face the rising sun? If we hold to tradition in such problems, we are likely to start at the roof and build down, thus limiting the floor plan to certain dispositions which may not accord with the requirements of our modern ways of living. Should not every architectural problem be solved by beginning at the ground and permitting the building to take such interior and exterior expression as the plan dictates?

To illustrate the effect of the difference between our modern life and older days, note the relation of dress to domestic architecture. Costume design has always followed architectural design, and has often been in harmony with it. Consider the beautiful Venetian costumes that were contemporary with ornate palaces, and the elaborate Elizabethan costumes for which the Tudor manor architecture furnished a background.

Today, however, the keynote of our clothes is comfort and simplicity, conforming to our needs in a fast-moving, practical age. Yet we go on building houses which copy Elizabethan manors, French chateaux and Italian villas. The incongruity is obvious. While interest in architecture and furniture of early periods is an admirable thing in itself, it may lead to abuses. For example, in certain houses we may find straight-backed chairs of the Italian and Spanish Renaissance provided for general use; these chairs are uncomfortable; they *always were* uncomfortable. But they were designed to be used transiently; a person was not supposed to attempt to relax for hours in them and find comfort. Other chairs, one may hope, were provided for that purpose. Should not the interior of our houses reflect, then, the comfort which we all like and the lack of ceremony which is characteristic of our mode of living today?

What is new in architecture? Are we approaching or have we arrived at a new architectural era? If we have arrived, what has been the cause of the change in architectural expression? (Continued on page 72)



"THE very best spent money going into any building is that paid to a good architect to design and superintend its construction. No more labor and materials are required to produce a beautifully proportioned structure, skillfully fitted to its intended use, than would go into an unattractive building of the same size."

—An excerpt from "Laws and Customs," as prepared by the Seattle Real Estate Board.

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A. I. A.

For Kiosk and Kurhaus---

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A. I. A.

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AMERICAN INSTITUTE OF ARCHITECTS

Publicity Office ELiot 5021
321 Smith Tower

"This Advertising

The Experience of the Washington State Chapter, A. I. A. By JOSHUA H. VOGEL Chairman, Committee on Public Information

DOES newspaper advertising pay or does it not? So far as the architectural profession is concerned, this is a question to be answered in the negative according to conclusions reached by the Washington State Chapter of the American Institute of Architects. This Chapter spent \$1,500 during 1928 and 1929 and the committee in charge felt that results did not warrant further newspaper advertising since the chief benefits expected were not realized.

These benefits were: 1, that the newspaper would give architects proper credit when buildings were illustrated; 2, that new clients would be developed through paid advertisements; 3, the advertisements would be read by important business men.

The committee came to the conclusion that the greatest benefits result from properly prepared stories, written by architects, which are effective in the way of general education of the public. These stories are read.

If the money is to be spent for printed matter, the committee believes that direct mail pamphlets should receive first consideration.

The Chapter, like other architectural associations, believes that something should be done to influence the public in favor of the use of architectural services. Plans were accordingly made in 1928 and an agreement was entered into with the Seattle-Post Intelligencer to the effect that the Chapter would purchase advertising space for a definite term, and that the paper would turn



A. I. A.

For *Excubitorium and Auditorium*

CONSULT AN ARCHITECT

A. I. A.

Publicity Office: EL lot 5021
321 Smith Tower

A. I. A.

For *Exedra and Exhibition Hall---*

CONSULT AN ARCHITECT

AMERICAN INSTITUTE OF ARCHITECTS

Publicity Office EL lot 5021
321 Smith Tower



A. I. A.

FOR HOSPITAL AND HOTEL

CONSULT AN ARCHITECT

A. I. A.

Publicity Office: EL lot 5021
321 Smith Tower



BUILDINGS must, to satisfy the demands of an educated public, be both conveniently and permanently constructed and beautifully and permanently designed . . . the one man whose lifework is the designing and supervising of these two factors of beauty and utility is the Architect . . . consult him!

WASHINGTON STATE CHAPTER
THE AMERICAN INSTITUTE of ARCHITECTS

Publicity Office
321 L. C. Smith Bldg.

A. I. A.

For *Stoa and Schools---*

CONSULT AN ARCHITECT

AMERICAN INSTITUTE OF ARCHITECTS

Publicity Office EL lot 5021
321 Smith Tower



A. I. A.

For *Tablinum and Tabernacle*

CONSULT AN ARCHITECT

A. I. A.

Publicity Office: EL lot 5021
321 Smith Tower

A. I. A.

For *Bargello and Banking House---*

CONSULT AN ARCHITECT

AMERICAN INSTITUTE OF ARCHITECTS

Publicity Office EL lot 5021
321 Smith Tower

Original advertisements were two inches in width

WASTED OUR MONEY"

its weekly small house plans space over to the Chapter and otherwise endeavor to give more publicity to matters in which the Chapter was interested. Similar informal arrangements were made with other Seattle newspapers, and they were supplied with news articles which were also made available for publication in other cities in the State.

An advertising fund was raised by sending personal letters to each Chapter member asking for a weekly subscription pledge. These pledges constituted contracts, and when a sufficient number were received to cover six months advertising in a newspaper, these contracts were turned over to the newspaper for collection.

The advertising copy was prepared in cooperation with the newspaper. News articles were published, generally on the building page of the newspapers. The plans used on the building page were obtained from the Architects' Small House Service Bureau.

In addition to this, contacts were made with material manufacturers, and through social events, cooperative dinners, exhibits, etc.

For instance, the Chapter sponsored an exhibit of photographs of Brick Architecture made available by the Pacific Northwest Brick and Tile Association. Thousands of people visited this exhibit in 1928, which was held in the auditorium of Seattle's leading department store and in another large department store in Tacoma.

The Chapter supported the introduction to the public of the Metropolitan Builder's Exhibit in Seattle as a permanent exhibit of building materials. The local architects have contributed to an architectural exhibit which is displayed throughout the building material space, where prospective builders daily pass in and out.

The Chapter adopted a design for a sign to be (Continued on page 118)

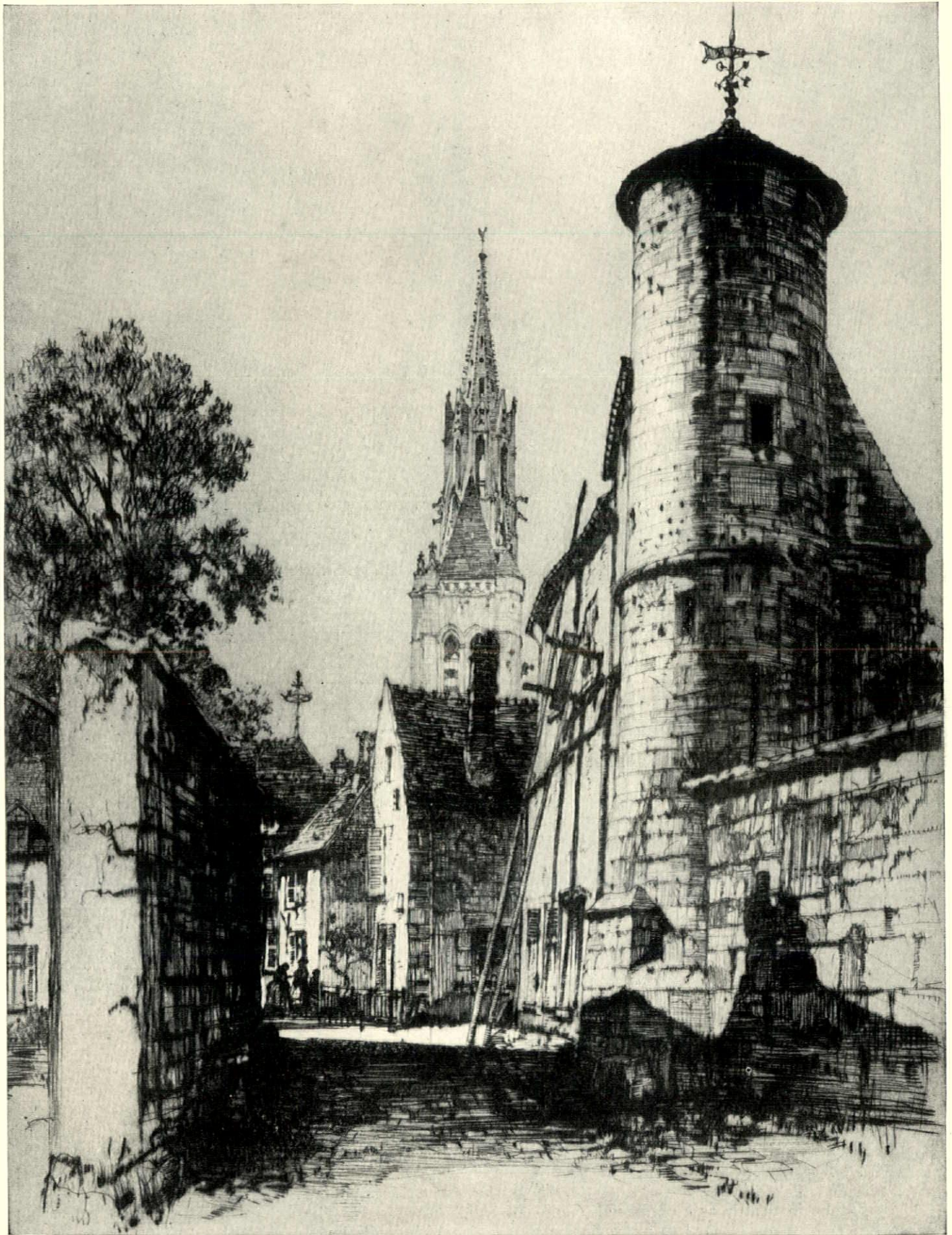
THE editors of The American Architect would like to receive a story written by an architect analysing this campaign of the Washington State chapter. The story should tell:

1. . . what was wrong with the advertising.

2. . . what should have been done in order to make the campaign a success.

Seventy-five dollars will be paid for the best story submitted. It should be not more than 1,500 words and be sent to the editors by February 28.

WHY WAS THE CAMPAIGN A FAILURE?



ONLY ONE PLACE TO WORSHIP is left in this forgotten old town, the Cathedral of Senlis, which boasts one of the few completed Romanesque towers found in the North of France

SENLIS.. the town that PARIS FORGOT

By
Samuel Chamberlain

Dry-points by the author

WHEN the incessant clatter of taxi horns and screeching brakes begins to break down his resistance and shatter his nerves, the Parisian, like every other city dweller, begins to cast about for a quiet corner in the country. Over a period of some years the suburbs of Paris have been developing. Green slopes have been transformed into "lotissements" of pink and mustard villas, each with its pale green set of ceramic gee-gaws. Glaring red roofs now dominate the suburban scene. Where the "bourgeoisie" has its villas, the humbler Frenchman has his ready-made two-room "pavillon" (and what a misleading word *that is*), built of the flimsiest materials that will hold together, and bought on the installment plan. By now the noise-weary Parisian has gotten to the country, but by so doing he has not strewn much beauty in his path.

As a consequence one has to scour the countryside to find an unspoiled town close to Paris, one that is neither "banlieue" nor too populous. But such a town does exist, and its name is Senlis, twenty-five miles due north of Paris.

Two things account for its preservation: it is not on a main railway line, and, being an ancient, close-packed fortified town, it provides no haven for the intruding villa. Senlis supplies an old world tranquillity within an hour of the screeching bustle of the Gare du Nord, and fortunate is the Parisian business man who can make this calm old town his home. For years the real estate agencies of Senlis have not been burdened by the listing of any houses for sale.

At present Senlis has a population of about six thousand, but in its prime it boasted fifty. Komroff's celebrated novel "Coronet" gives a graphic picture of its former grandeur. But in this hectic twentieth century, Senlis seems a bit subdued and overshadowed, and quite content to enjoy a ruddy old age.

One of the most striking reminders of its former magnitude is the number of (Continued on page 110)



THE TOWN MASON is housed in the ancient Hotel Dieu, a medieval cloister approached through the old Gothic gateway shown above. The slippered shuffle of meditative friars has given way to the squeak of two-wheel carts and the sharp ring of clinking brick



CHARLIE CHAPLIN cavorts on a silver screen in the apse of a fine old towerless church, with the drone of murmured prayers and medieval chants replaced by the snappy blare of tingling jazz and horseplay humor

NORTH SIDE WASHINGTON MONUMENT

This marble, of large crystal structure, shows considerable spalling. The dark streaks are stalactites similar to those found in limestone caves except that they are attached to the wall instead of being suspended from a roof, and issue from joints or fissures

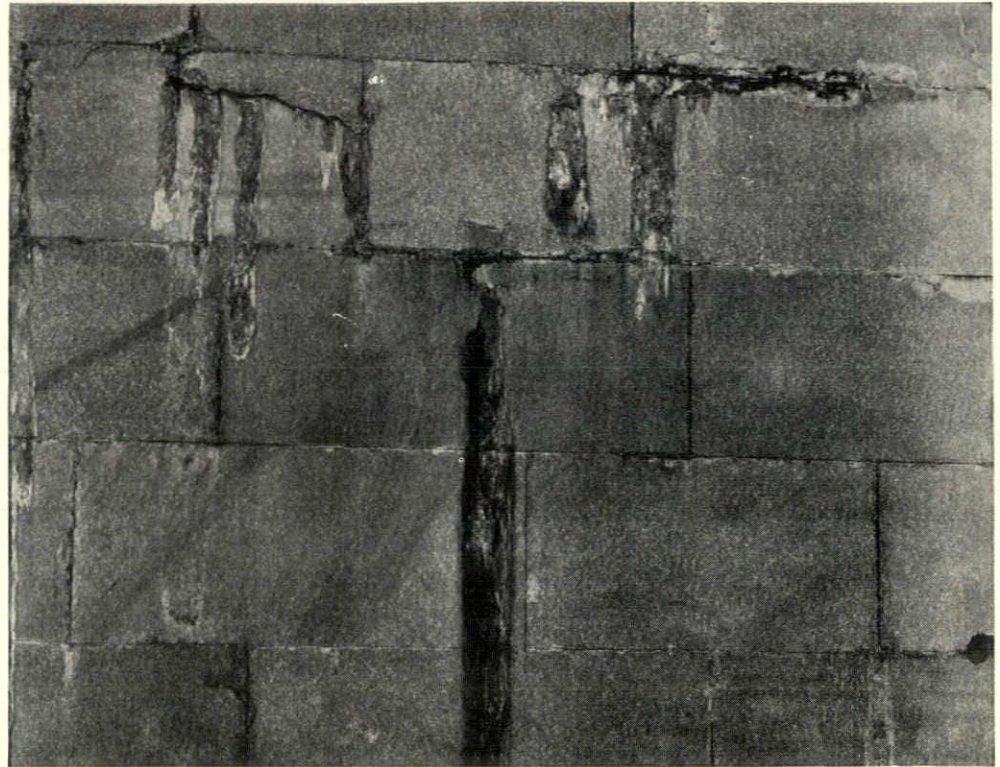


FIGURE 1

FROST?..No, Decay!

By D. W. KESSLER

Civil Engineer

United States Bureau of Standards

EXPERIENCE has shown that permanence is a relative term and that the most carefully executed structures suffer deterioration from the ravages of time. In this country we have not fully realized the extent of such effects on stone structures, nor should we for many years to come. However, it is portentous to note that some of our older buildings have undergone repairs where decay has weakened or removed conspicuous parts of the stonework. Close inspection of most buildings which are past the half century mark in age will usually reveal many defects not apparent to the casual observer.

Early obsolescence of many buildings caused by rapid growth of the nation and the march of progress removes them from considerations of permanence, but we have structures which should stand for centuries. If this nation has not yet rivaled the Old World in architectural achievements, there can be little doubt that it will in the future, and in building for centuries there

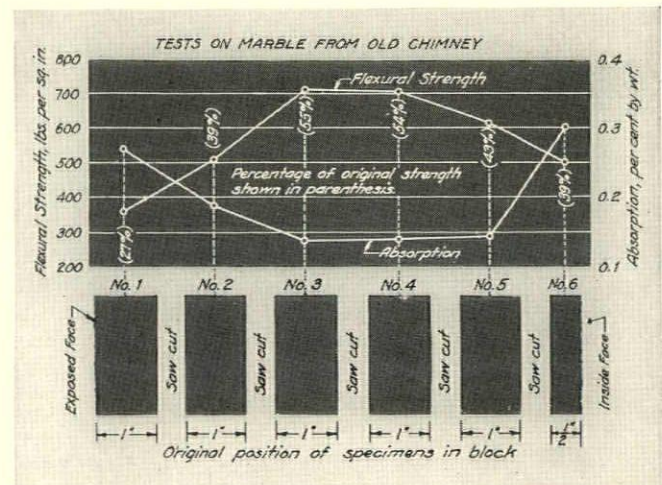
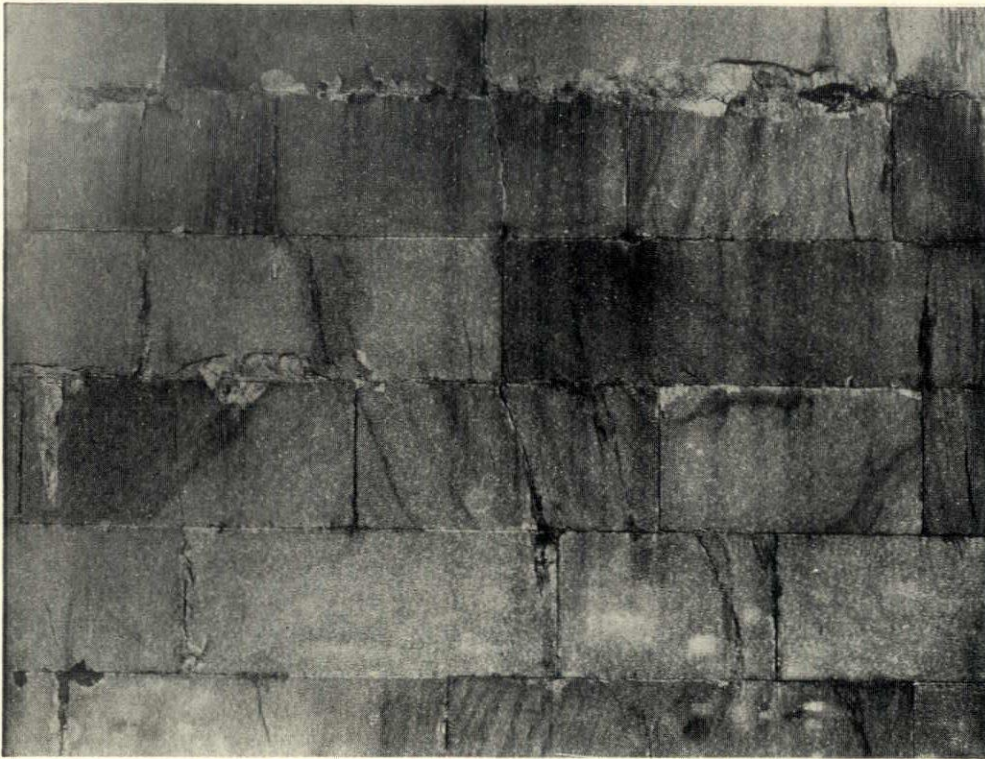


FIGURE 3

A BLOCK OF MARBLE taken from a chimney of the United States Patent Office Building, was sawed into six parts, and each part tested for strength and absorption. The strength of the outside face, it will be noted, is less than one-third that of the original marble and has greater absorption

arises the all-important question of durable materials. How can one select materials for centuries of service in a rigorous climate, where actual demonstrations of our materials for even one century are few? Estimates



**SOUTH SIDE
WASHINGTON
MONUMENT**

Spalling is no worse on this side, although this type of marble should show as great a temperature weathering as any other. Most of the spalling occurs along horizontal joints and may be partly due to load stresses. There are fewer stalactites on this side

FIGURE 2

... how to prevent it

of durability based on examination of stone outcrops have been tried, but due to different conditions arising in masonry walls from those in the natural ledge that method is open to question. Laboratory tests simulating the actual conditions of exposure may afford valuable information but this depends much on how well actual conditions are duplicated in the tests. Questions of durability have not received as much attention in the past as they should and much research is needed to establish a scientific basis for such determination.

Weathering processes are probably more complicated than is generally realized. Many writers on the subject of masonry decay have been inclined to place most of the blame on frost action. While it can be readily dem-

onstrated that frost can injure or totally disintegrate many masonry materials, it can also be demonstrated by tests in the laboratory that some materials which are not very durable have an extremely high resistance to frost action.

Dense materials like granite, marble and slate have shown very great resistance to frost action under laboratory test conditions which are probably far more severe than the conditions of service exposure. It is a well-known fact that slate has a low degree of coherence along the cleavage and hence if frost produced appreciable internal stresses in this material, it would split into thin sheets. Since this does not occur we must conclude that such dense materials are not stressed appreciably by frost.

Other weathering causes may render a sound material unsound and susceptible to frost attack. A group of materials between the very dense and very porous appear to be susceptible to frost action, while the very porous may or may not be very resistant to frost action, depending on the size of the pores. Large pore materials where free to drain do not hold water in the pores for an appreciable length of time, hence they are seldom frozen in a soaked condition. Materials having a large percentage of fine pores do not dry rapidly and are often frozen in a soaked condition, which is apt to produce disintegration.

Chemical agencies (Continued on page 76)

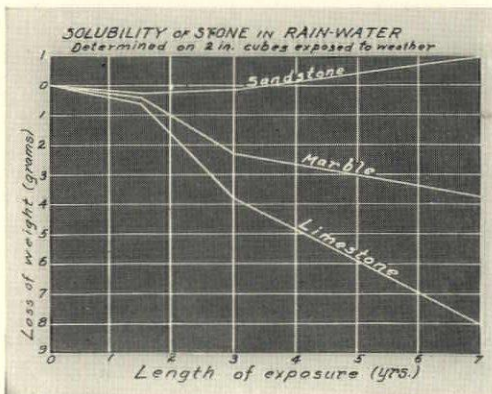


FIGURE 4

FOR SEVEN YEARS pieces of sandstone, limestone and marble were exposed to the weather and then weighed, with the result shown in this graph



an answer to the client's question "HOW MUCH will it cost?"

By **TIRRELL J. FERRENZ, A. I. A.**
of Frank D. Chase, Inc., architects and engineers

"Our firm's work extends from coast to coast. In the past four years, there has been no case that I can recall wherein final bids have materially exceeded our judgment on costs."

THE loss of many desirable commissions and the downfall of many otherwise capable architects may be directly attributed to a lack of familiarity with costs.

"How much will the building cost?" That is the question which the client invariably asks—frequently before he has crystallized in his own mind exactly what sort of a building he wants. The architect is expected to answer and woe unto him if his preliminary shot goes wide of the target. Available reports indicate a high percentage of misses. Blind estimating is all too prevalent. How can this unhappy situation be corrected?

The simplest policy is to avoid a commitment until a definite program has been established, but it is rarely possible to sidestep an answer without creating an element of doubt in the client's mind. A reasonable and fairly accurate idea of what an undertaking may be expected to cost is usually essential to a decision as to whether it is worth while proceeding with. The client is therefore justified to a certain extent in demanding a preliminary estimate. But whether justified or not, the demand is invariably made.

Poorly considered estimates and guesses based on snap judgment are always saturated with dynamite. If they are inaccurate, a client may be led into an expensive program beyond his ability or desire to finance. Sometimes this unpleasant situation is recognized before final commitments are made: the project is then either abandoned or revamped. Clipping the wings of a soaring ideal to bring it back to harsh realities is always an agonizing process. The result in either case is most likely to be a



Mr. Ferrenz's article was submitted in answer to the request for articles on estimating, published in the November issue of *The American Architect*. Another interesting article on this same subject will be printed in an early issue.

loss of confidence by the client and a loss in monetary return by the architect. The profession as a whole suffers in consequence.

It has been often said that first impressions are the most lasting. This is particularly true with respect to estimates. A preliminary figure will frequently be retained in a client's mind until the project has been completed even though the subsequent development may be unrecognizable when compared to the original plan.

It is thus evident that ability to judge quickly and accurately the cost of any proposed structure is a priceless boon to any architect. Like (Continued on page 96)

OFFICE BUILDINGS 3 Stories & Under

Date	Job No.	Name	Type	Cost Data		
				Total Cost	Sq.Ft.	Cu.Ft.
1925	1053	Acme Printing Corp	25-F	\$35,294	3.39	30.84
'26	1097	Radio Supply Co.	25-F	42,074	4.03	33.6
'26	1106	Western Terminals Co	25-F	30,676	3.86	29.2
'28	1357	Waldo Mfg. Co.	35-FC	108,629	4.67	34.8
'28	1364	Burton Specialty Co.	25-F	84,852	4.26	34.1
				100,727	6.03	47.3

Name Burton Specialty Co. Job No. 1364
 Location Chicago, Ill. Type Office
 Built 1928 _____

Size 42'x150'
 Face Br. 3 sides
 Stone trim
 Wood joist const.
 2 panelled offices
 D.H. metal windows
 Bas. finished
 Outside D.S.
 Future addition

TOTAL COST \$ 84,852 ==			
Item	Unit	Total Cost	Unit Cost
Gross Area-	Sq.Ft.	19,900	\$4.26
Contents-	Cu.Ft.	249,400	\$4.14
Plumbing- Fixtures		26	\$3.88
Wiring- Outlets		327	\$2.79
Lighting Fixtures			\$9.45
Heating- Radiation		2897	\$6.10
Oil Burner & Tank			\$1.125
Total Mech.			\$14,848
Struct. Steel- Tons	See Misc. Iron		over
Masonry			\$22,064
Carpentry & Millwork			\$18,250
Roofing- Sq.	For Insul. See over	63	\$7.60
Sheet Metal			\$245
Glazing			\$1968
Plastering			\$7265
Painting			\$4335

MARBLE

Date	Job No.	Name	Kind	Cost Sq.Ft.	
				Floor	Wain.
1927	1206	C.R.L. Winship			
'27	125	_____	Pink Ala.	-	235
'28	1	_____	Napoleon Gray	110	-
'28			_____	_____	280
'28			_____	_____	315

HEATING Store & Office Bldgs.

Date	Job No.	Name	Bldg.	Cost	
				Cu.Ft. Cont.	Sq.Ft. Rad.
1927	1206	C.R.L. Winship			
'27	125	_____	Store	2.16	\$2.23
'27	125	_____	Office	2.45	\$2.07
'27	125	_____	Office	2.31	\$1.96
'27	125	_____	Office	2.42	\$2.03

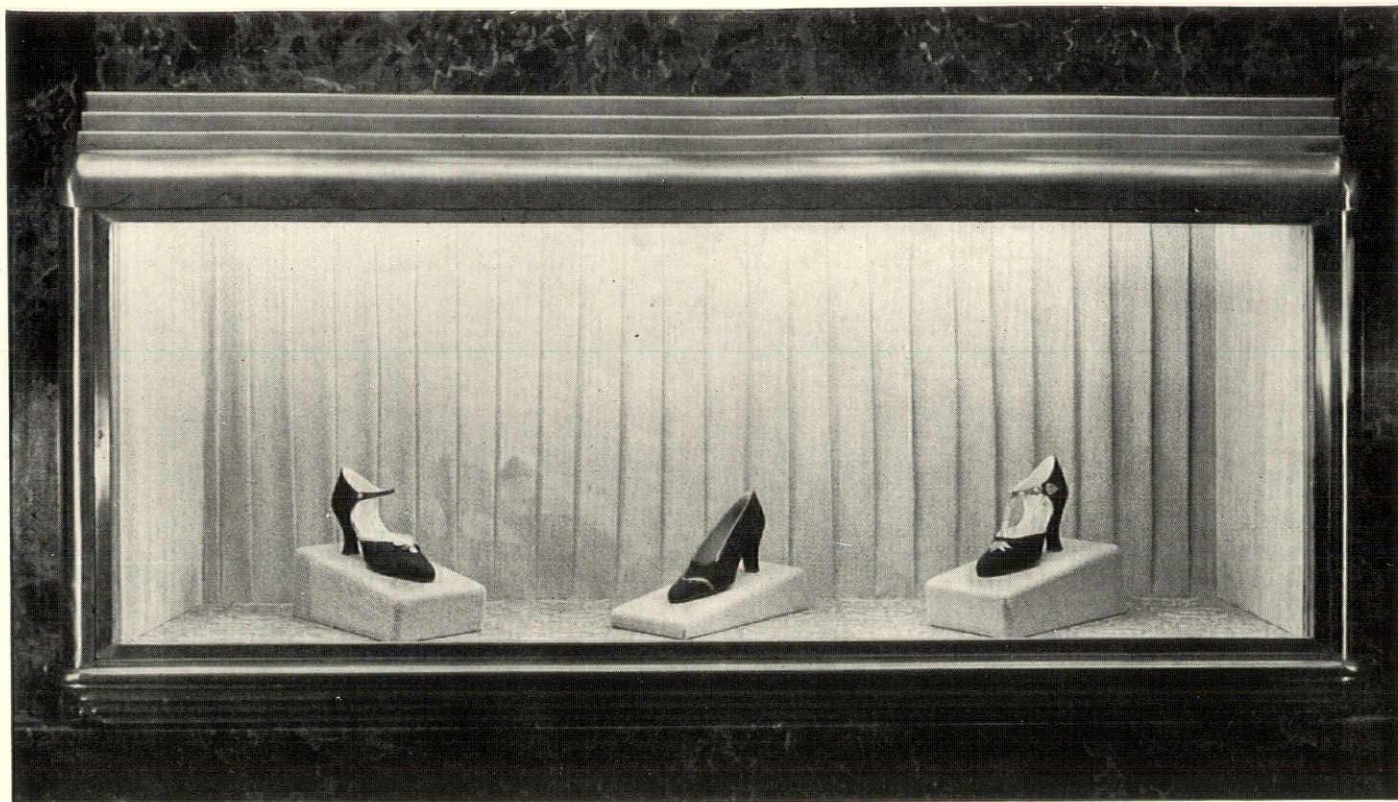
STRUCTURAL STEEL 1-Story Factories & Shops

Date	Job No.	Name	Bldg.	Tonnage	Cost per Ton	Lbs per Sq.Ft.
'27	1239	S.L. Simon & Co.	Shop	1.66	87	15.3
'28	1311	Metal Specifiers, Inc.	Shop	200	88	15.4
'28	1352	Northern Fdy. Co.	Factory	350	85	15.5
'28	1359	Mackwood Printing Co.	Factory	572	84	15.4
'28	1366	Deerfield Printing Co.	Factory	285	80	15.4
'28	1366	C.H. Return Mfg. Co.	Shop	92	78	15.3
'28	1366	Chicago Egg Co.	Shop	285	80	15.4
'28	1366	Chicago Printing Co.	Shop	92	78	15.3
'28	1366	Chicago Printing Co.	Shop	100	89	15.3
'28	1366	Chicago Printing Co.	Shop	146	100	14.35
'28	1366	Chicago Printing Co.	Shop	425	92	15.3
'28	1366	Chicago Printing Co.	Shop	235	78	15.3
'28	1366	Chicago Printing Co.	Shop	78	75	15.3
'28	1366	Chicago Printing Co.	Shop	158	90	15.3
'28	1366	Chicago Printing Co.	Shop	130	75	15.3

TO MAKE GOOD PRELIMINARY ESTIMATES

- 1 RECORD THE COST of every project going through the office, breaking costs down into major items. Supplement this first hand information with data from other architects, contractors, appraisers, estimators, etc.
- 2 KEEP SQUARE FOOT AND CUBIC FOOT COSTS on every job which goes through the office
- 3 CLASSIFY COST DATA according to materials, such as marble, heating, structural steel, etc.

FOR MORE ACCURATE ESTIMATES prepare a detailed estimate based on approximations of quantities involved in the building as indicated by preliminary plans



"Atmosphere" SELLS \$50 SHOES

By EUGENE De LOPATECKI

Photographs by Drix Duryea

FIFTH AVENUE recently witnessed the opening of one of its finest stores selling women's shoes, the production of a firm of New York interior decorators and an American architect interpreting the conceptions of Louis Sue, one of France's prominent architects of the modern school. Through the cooperation of these artists and craftsmen they succeeded in solving a novel and unusual merchandising problem.

Expensive wearing apparel and its merchandising are an old story to New Yorkers. But successfully to operate a retail store and sell women's shoes for as much as fifty dollars a pair, in these days of trade recession and falling prices, calls for courage, ingenuity and imagination. And the problems were solved so well that the store, opened early in September, is already a proven success.

When F. Pinet, founded in Paris in 1807, selected as a site for their first American store a unit having a frontage of sixteen feet in the building on Fifth Avenue between Fifty-third and Fifty-fourth streets, a problem arose of designing a store front hedged about by many

limitations. Each of the store units in this block is bounded on the sides and top by an ornamental bronze moulding, which is an integral part of the architectural treatment of the whole facade. This space had to be utilized to provide a show window and a broad inviting entrance to a corridor, fifty feet in length, leading from the sidewalk to the large salon where the fitting and sale of shoes takes place.

It is patent, to anybody who gives the matter thought, that the large retail show window is a poor place to display for sale a few pairs of dainty shoes literally worth their weight in gold. And yet to draw enough customers within the doors of the shop to support the business requires an impressive display of store front and merchandise.

The solution of these problems may be seen in the photograph of the store front. The vitrine, or show case, isolated in a broad expanse of Levanto marble, and the plain semicircular arch, lead the fascinated passer-by to investigate the long corridor, whose walls are executed in the same marble, and repeat the vitrines at regular

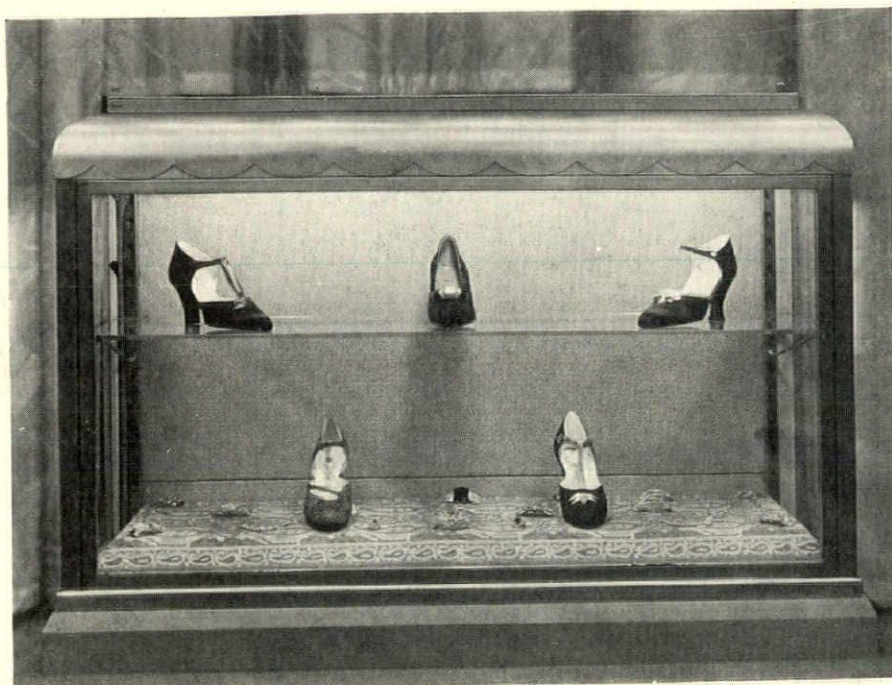


THE ONLY SMALL SHOW WINDOW ON THE BLOCK

The small size of this show window contrasts so well with the larger windows on the rest of the block that more people seem to stop and look at this window than at any of the others. Display cases similar in design are placed along the fifty-foot corridor leading to the store itself.

No shoe boxes and few shoes

■ **BUCKLES AND SHOES** are displayed in a few strategically placed show cases, the merchandise for sale being kept in a stock room which is entered through doors panelled in various decorative woods



intervals, leading the eye to the main display fixture placed axially in respect to the corridor at the far end of the rose, silver, grey and green salon. The effect of this arrangement is that the shopper starting at the street vitrine is lured, while still out of doors, by a logical and seductive series of delightful impressions into the store itself.

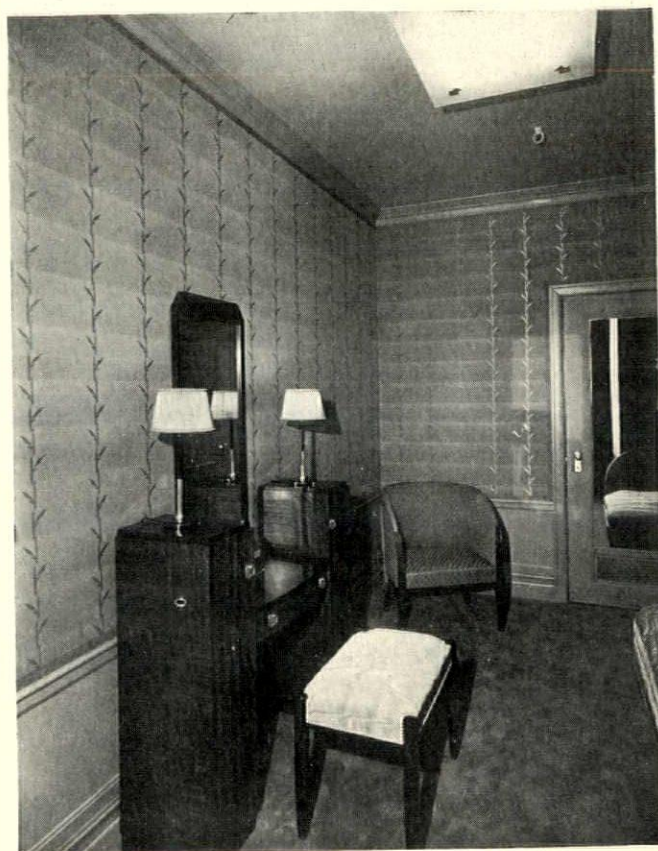
Within the store the customer discovers a richly appointed and restful place to make herself comfortable and a heavily upholstered chair of shape and coloring to suit her mood and costume. No shoe boxes are visible. A few show cases, each containing three or four pairs of exquisite footwear, are placed at strategic points in the architectural scheme. The main part of the salon is arranged symmetrically about the axis of the corridor, false columns having been introduced to supply a formal arrangement. To the right of the main section is a raised dais reached by two steps running the full length of the salon, where two vitrines, one in each window, comfortable chairs, smoking stands, French telephones and other comforts invite the customer to be at her ease.

Indirect lighting from lamps concealed behind glass panels in the cornice throws a soft glow on the cove above, and diffuses a mellow light which mingles with the natural daylight from large curtained windows.

Louis Sue, well known modern French designer, executed rough sketches in pencil and color from dimensions supplied by the owners. These suggestions were turned over to the New York decorating firm, A. Kimbel and Son, Inc., who, working with a measured plan supplied by Henry C. Pelton, architect, interpreted the scheme, making such structural and color changes as were necessitated by the specific details of the problem. Mr. Octave Tierce, of A. Kimbel and Son, Inc., designed all the furniture and had it made in their own workrooms, supplied the design for the carpet, which was woven especially for the job, as was the silk damask in silver and soft rose tones to complete the color scheme.

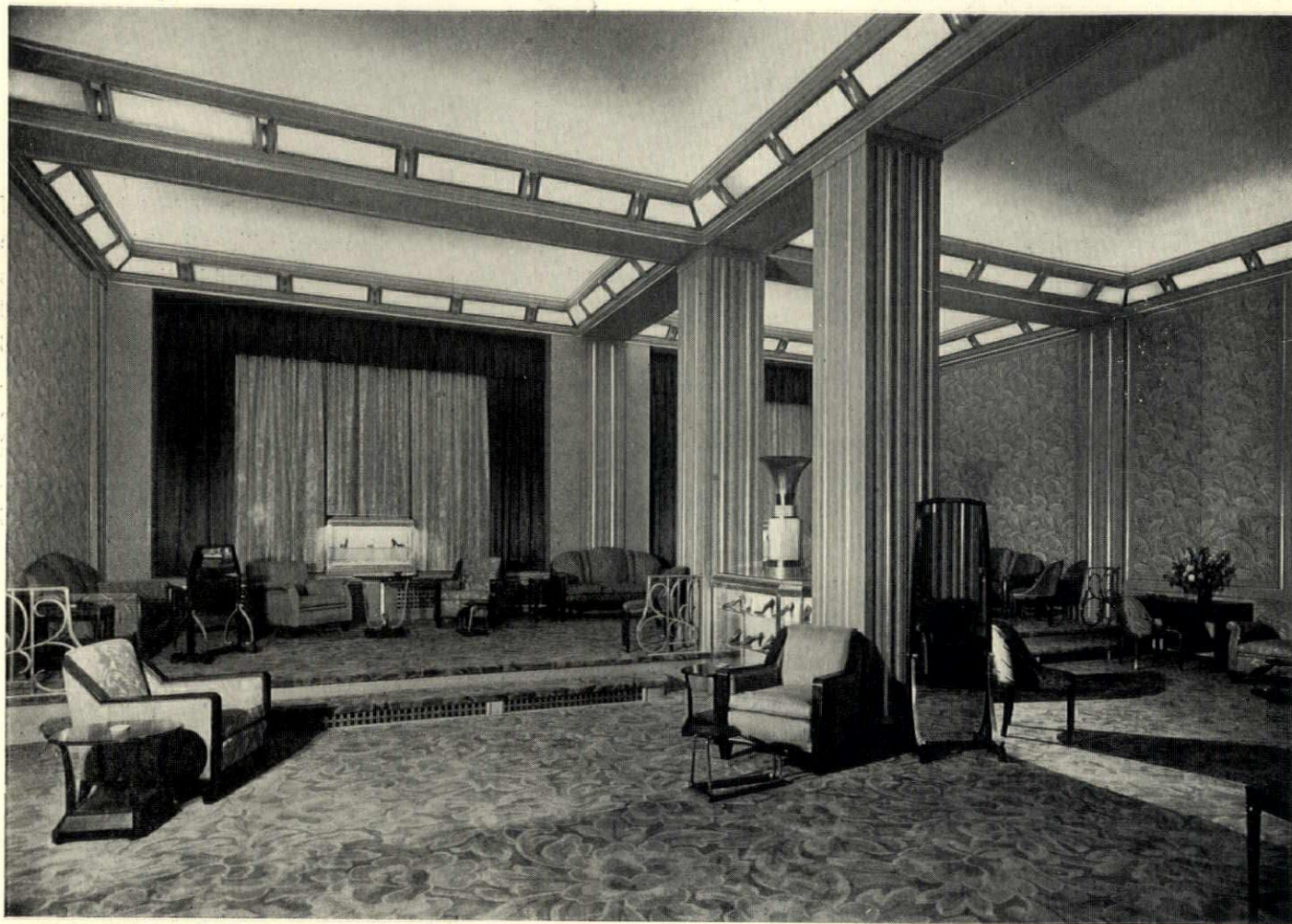
Working drawings for the structural changes and the exterior were made by Henry C. Pelton, architect, and executed by Marc Eidlitz and Son, Inc.

Vitrines, torcheres, and the structural parts of the salesmen's stools are made of German silver, chromium



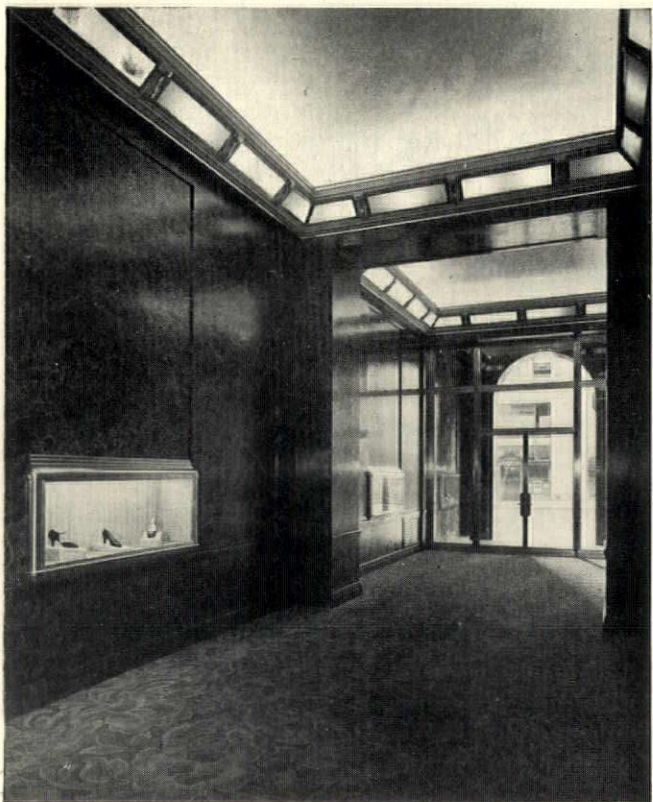
LADIES ROOM with dressing table of oriental walnut. Top of center table and side cupboards of black bakelite with drawer handles of chromium plated metal. Walls covered with fabric

are seen in this shoe store



BEHIND THE CURTAINS are show cases to be seen from Fifty-fourth Street which adjoins this side of the store

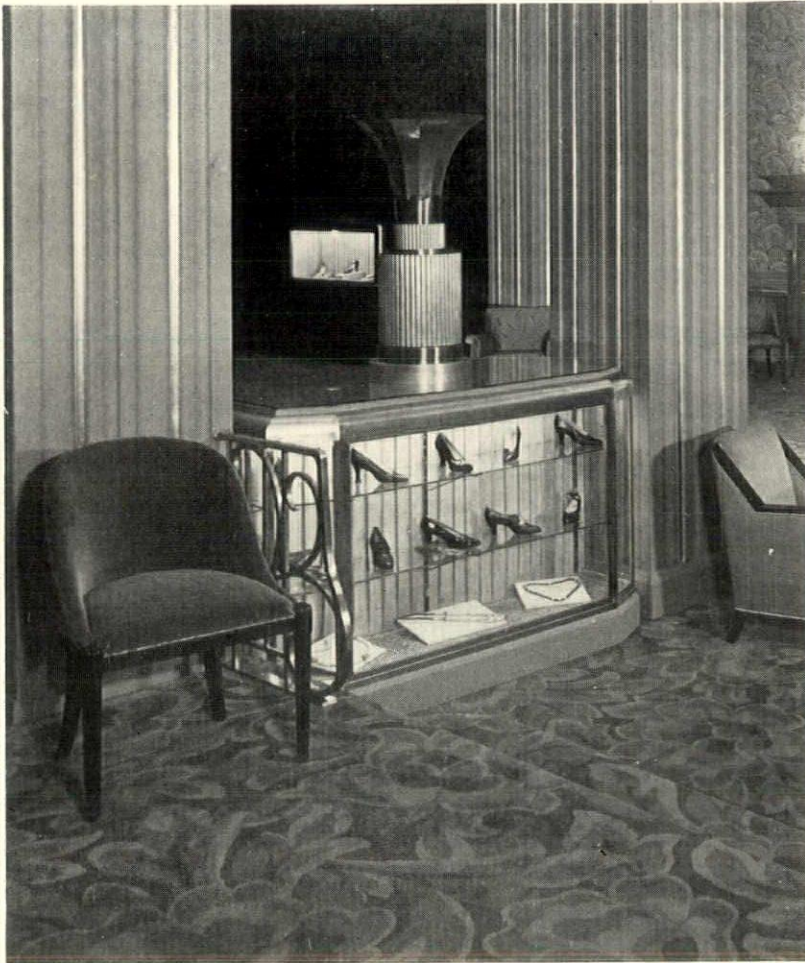
FROM THE INSIDE looking towards Fifth Avenue. Indirect lighting, levanto marble and heavy carpets induce a feeling of respect towards the fashion of the merchandise displayed for sale



plated with a satin finish. Oriental walnut is used throughout for the chairs and sofas.

A variety of fabrics has been used on the furniture, augmenting and emphasizing the rose, silver and pale gold tones of the wall coverings. An occasional sharp accent of green relieves the scheme of any monotony, as do the furniture fabrics which are of varying designs and textures, practically all of them having been especially designed and woven for this particular job.

The Pinet policy includes the principle that a customer paying from twenty to fifty dollars for a pair of shoes is entitled to the satisfaction of knowing she is buying an article which few other women will be seen wearing. Consequently each style is limited to an edition of thirty-six pairs, each pair numbered like a fine



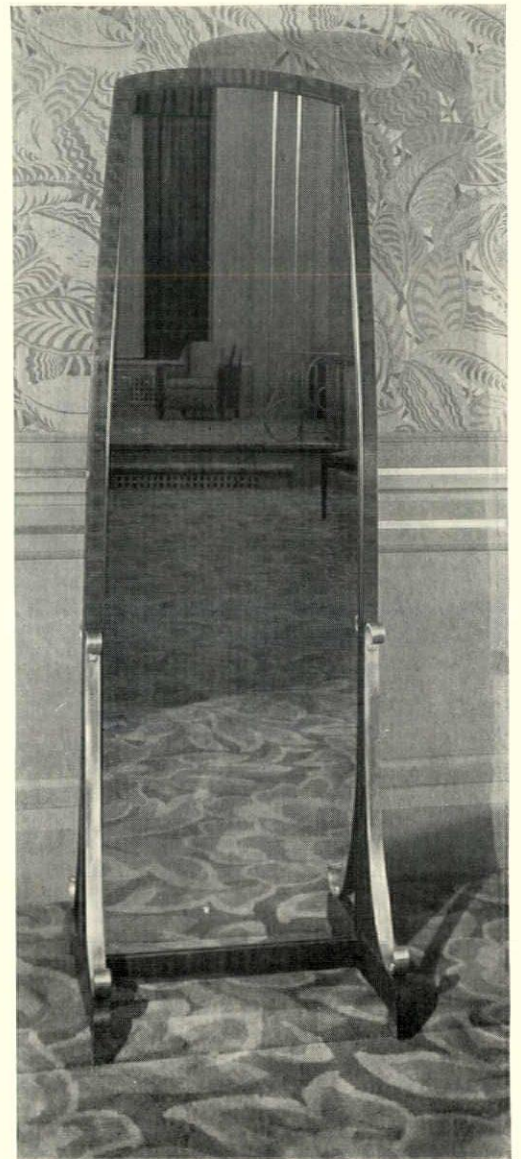
NECKLACES, suitable for wear with the shoes in the case in which they are displayed, help lend a suitably luxurious air

book. The merchandise is kept out of sight except for a few samples discreetly displayed in the show cases. Ample space is provided in another room for the hidden stock.

Liaison between the French owners and the French designer on the one hand, and the American architect, decorator and building contractor on the other, was maintained entirely by letter and by the store manager. The designing of the furniture, fabrics and fixtures and the revision of the original plans was entrusted to the decorators. In spite of the fact that the French and American architects never met during the entire period, nor in fact have ever met in person, the venture was carried through to a successful conclusion.

This unusual experiment, whereby leading talent in two widely separated countries was brought together for the amiable prosecution of the work, opens up a truly international field for the operation of the talents of architects and decorators whose work seems to be well liked by an owner, regardless of how many miles may separate the designer from the locality of the job. It presages that day when talent shall be truly international, when the American architect shall design the Parisian skyscraper and the Parisian designer lend his playful and chic fancy to the New Yorker.

■ **MIRROR** framed in oriental walnut of crossed veneers with satin-finish chromium plate supports, a combination of materials extensively used for the furniture scattered throughout the store. Furniture designed and executed by A. Kimbel & Son, Inc. Wall covering is an especially woven brocaded damask in tones of grey and rose; it gives a lustrous glowing background that at no time is overemphasized

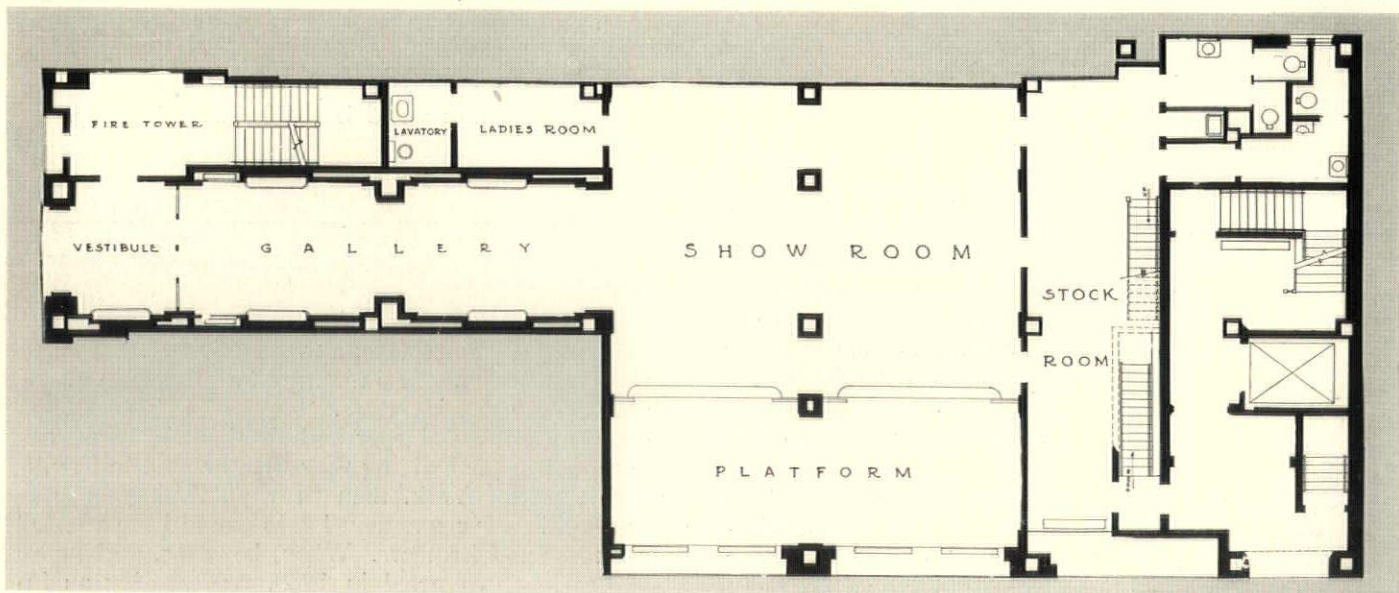
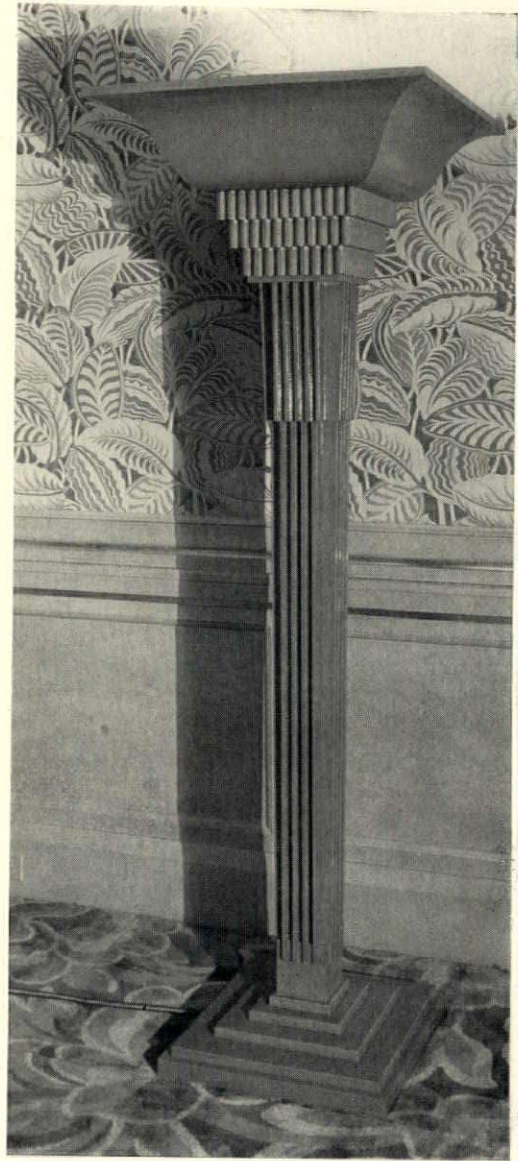


Heavy carpets and an artistic



HAND FORGED satin-finish chromium plated brackets and oriental walnut table top and base. The carpet is in tones of taupe-grey sufficiently subdued in color tone to act as suitable background

- **INDIRECT LIGHTING** from two fixtures like this make the alcoves in which they are placed the most valuable selling areas in the store



touch subordinate the price thought

OUT OF 46 BUILDINGS, Investors have fewer

So full of provocative ideas was the address made by Mr. Simon at the dinner given to Secretary Lamont by the Board of Governors of the Philadelphia Building Congress, December 9, 1930, that it is printed here

MOTORING through the woods of Maine several years ago I was uncertain as to the proper road to reach my destination, and accosting a stranger asked him a number of questions regarding the roads thereabouts and the names of the nearest villages. To all my questions his answer was "I don't know"; finally, in desperation, I asked him what did he know. After a pause he said, "Well, I know I'm not lost."

It would seem to me the Building Industry finds itself in the position that both the stranger and I occupied at that time. He knew where he was, and I knew where I wanted to go.

I may well start with the question: How can we best take steps to ascertain where we are going and thereby aim to cure certain ills which today afflict the building industry?

This question is being asked throughout the world today, as is evidenced by the report of the proceedings of the International Congress of Architects, held at Budapest, in September of this year. I quote from their proceedings: "Considering the economic conditions of today, as well as the radical changes in production since the World War, the Congress deems it necessary that a more complete instruction should be given in finance, economics and the working of organizations than formerly. Without detriment to the Architects' artistic conceptions, the compositions should be studied with an idea of their actual execution, especially from an economic point of view."

Let us consider what has happened during the life of the present generation. It has been relatively only a few years ago since Philadelphia's City Hall tower was the highest in America, dwarfed only, in the world at large, by the Eiffel Tower in Paris. Today William Penn's statue is overshadowed on all sides by giant structures, some of which house enough workers to populate a fair sized city.

The economic structure of buildings has changed no less than the physical during the last fifty years. Formerly, the typical building enterprise concerned one man or a small group; if a manufacturer or a merchant needed a new factory or store he paid for it out of the profits of his business. Today, almost every building of importance is owned by a great body of investors. A

WHAT CAN WE

THE PROBLEM

UNDREAMED OF HEIGHTS have been attained by buildings.

GREAT CHANGES have taken place in the economics of building.

THOUSANDS OF INVESTORS now finance buildings where once risk and ownership were vested in one man.

BUILDING FAILURES impair savings and purchasing power of these thousands of investors.

RENTS ARE SHATTERED throughout an entire neighborhood when unsound building projects are foreclosed.

THE MOST DISORGANIZED ACTIVITY in the modern business world is the building industry.

mistake in building economics seventy-five years ago affected only one enterprise; a mistake in building today reaches far beyond the building into the pockets of thousands of direct investors.

For example, had Harper and Brothers in 1854 sunk more capital in the building they then erected in Franklin Square, New York, than their publishing business could afford, their consequent losses would have affected only Harper and Brothers. When, however, an Empire State Building is erected in 1930, representing an investment of approximately \$50,000,000, its financial success directly involves the fortunes of thousands of people, many of whom may never even see the building.

34 DO NOT PAY...AND SO

Jobs for architects

DO ABOUT IT?

THE SOLUTION

RISK TO CAPITAL can be reduced by economic research and education, which will stimulate building.

FINANCIAL RESPONSIBILITY of owner, contractor and sub-contractors should be known by all parties.

INFORMATION POOLED by architects, material men, bankers, contractors and sub-contractors, will eliminate irresponsible persons.

ONE SOURCE should supply the architect with accurate and comprehensive information about all factors which he must consider.

A CENTRAL BUREAU or building congress should coordinate the various organizations in the building industry in each city for the mutual welfare of all.

An uneconomic building in 1930 is obviously much more serious to the public than was the same type of building in 1850. The shift in ownership and financing has effected a complete dependence of every branch of the building industry upon every other branch. I do not mean the obvious fact that the work of architects, engineers and contractors is all interrelated; but in the most inclusive sense, the fortunes of realtors, bankers, designers, builders and investors hinge upon the success of every sizable building project.

In the long run, realtors cannot flourish at the expense of bankers, nor operators at the expense of contractors. Every unsound enterprise means direct loss, not only



By EDWARD P. SIMON, A.I.A.
of Simon and Simon, Architects, and
Vice-President Philadelphia Building Congress

to the owners and builders of that particular building, but to every sound project in the neighborhood as well, because the soundly financed projects must meet the competition of lowered rents in the foreclosed projects.

It's like the rain

"That falls alike

Upon the just and unjust fellow;

But most upon the just, because

The unjust has the just's umbrella."

Now no investor or contractor courts loss. Losses in building occur because owners ignore or do not understand all the elements in modern building economics.

A wrong estimate spells disaster, and that wrong estimates are as common as right ones is attested by the general state of the building industry throughout the country. The Associated General Contractors of America vouch for the statement that there have been fifty per cent of failures in cycles of five year periods in the building industry.

Many millions have been invested in building improvements and developments. Without the benefit of full and completed surveys and analysis there is growth, yet there are growing pains as the price of this progress. Some of these improvements are more apparent than real. Today vacancy is in many quarters at an unprecedented level, some buildings have not fulfilled expectations, some are very definite disappointments. Outstanding successes are all too few. (Continued on page 88)

P A R K S Y S T E M

operates at a

P R O F I T

an interview by William H. Gregory

with

JAY DOWNER

Chief Engineer

Westchester County Park Commission

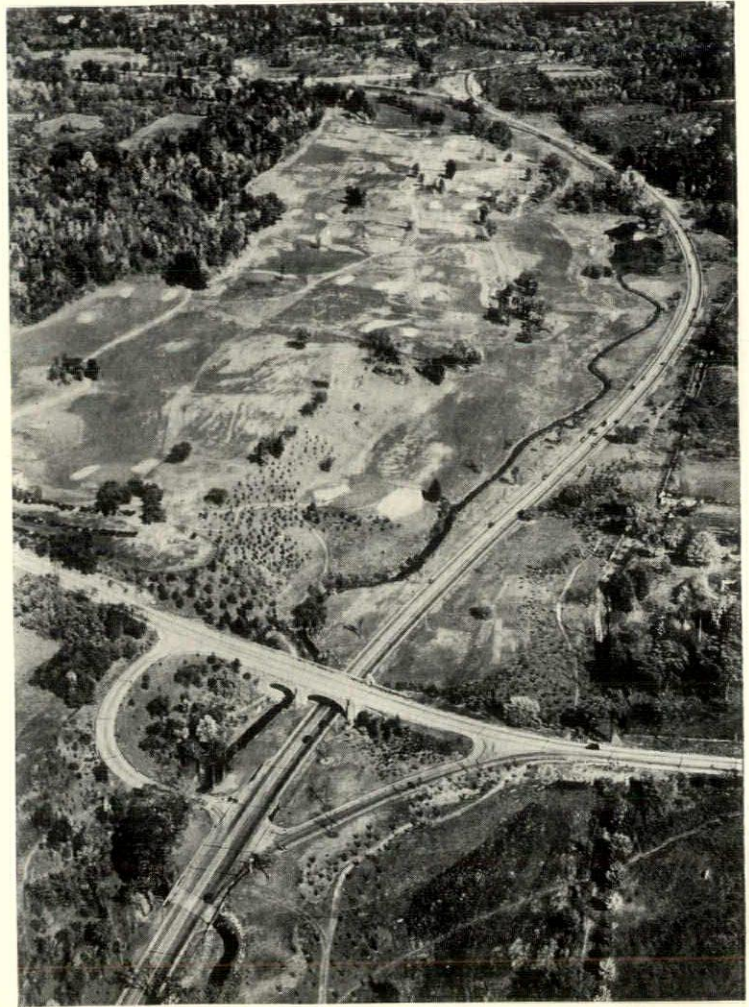
New York

UNIQUE in diversity of its physical characteristics, motor parkways and recreational facilities, the Westchester County Park System is also notable for the fact that it is paying for itself through the medium of enhanced values of taxable property combined with direct income from golf courses, beaches, pools, rentals, concessions and amusement park features. It is, moreover, of particular interest to the architectural profession because of the high standards of design in the treatment of its structures and the influence particularly of the parkways on an adjacent building development. Bridges, bath houses and other park structures are designed primarily for their utilitarian purposes but they are artistically adjusted to their surroundings.

Westchester County embraces a 450 square mile expanse of picturesque territory lying immediately north of New York City. Through this area are distributed public park reservations aggregating more than 17,000 acres of land and an interconnecting system of 160 miles of parkway routes.

The park system has unquestionably exerted an important influence on architectural standards in the development of Westchester County as a whole. Distinction of design has opened up broader fields for architectural expression and the community has been enriched both in material prosperity and artistic standards.

The influence of the parkways in establishing higher standards, according to Jay Downer, Chief Engineer, has been due to economic factors rather than ordinances or other regulatory measures. Lands along the park-



\$39,423.98 NET PARK PROFIT FROM

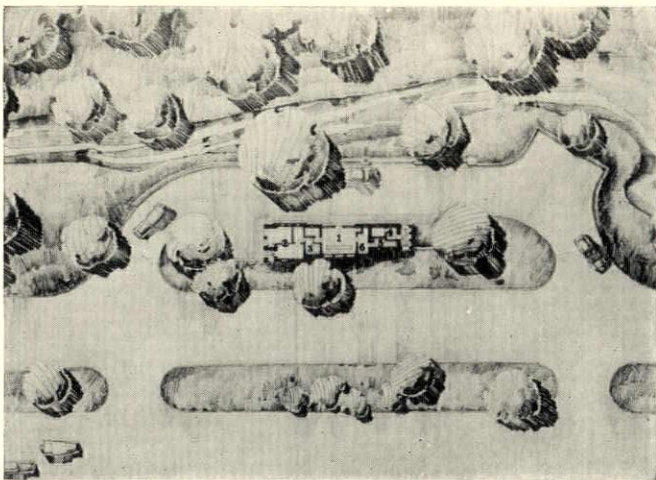
- concessions
- golf courses
- bath houses
- rentals
- a Coney Island

ways have become so valuable for high class residential uses that cheap or unsightly building developments would not bring adequate returns. This may be regarded as an important fundamental factor. It is in turn reinforced by zoning regulations which are not controlled by the Park Commission but formulated and enforced by the separate forty-six cities, towns and villages in the county.

The Park Commission has, however, secured the co-operation of local municipalities along the parkways in framing their zoning ordinances. In general these ordinances limit apartment house districts adjoining the reservations or within sight of the parkways to the garden type of apartment buildings. The Commission cooperates with contractors and architects who contemplate building in these areas. The services, in an advisory capacity, of Major Gilmore D. Clarke, landscape architect of the Commission, are available to prospective builders who submit plans for approval or criticism. This system has produced satisfactory results.

The matter of improved architecture and high stand-

Surrounding land values have jumped



GASOLINE STATIONS afford a fruitful source of revenue and utility sides are kept away from the main road, as in the site plan of the station on the Sawmill River Parkway shown above. Designed by C. F. Lloyd and Perry Duncan of the office of the county's landscape architect, Gilmore D. Clarke

MANY TYPES of architecture are used for gasoline stations, this colonial type on the Hutchinson River Parkway being in strong contrast to the English type shown above. Penrose V. Stout was consulting architect



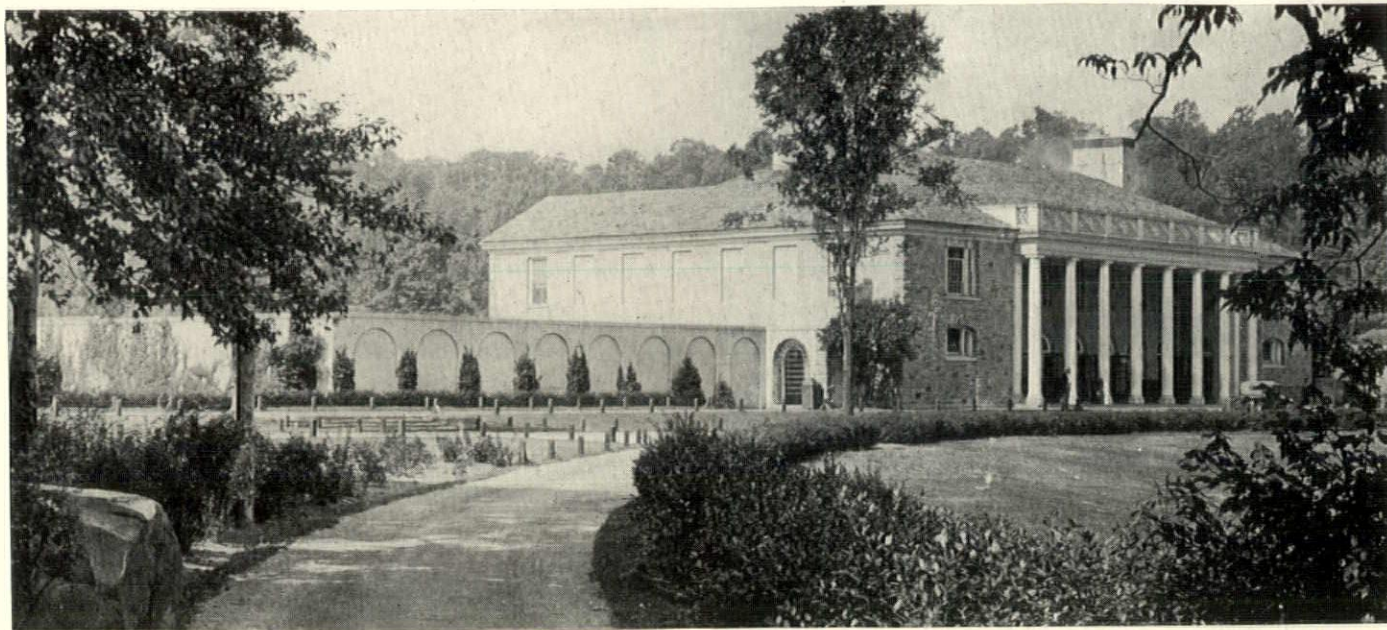
ards of building development along these parkways is really an aspect of the underlying economics of road building that has only recently been given the attention it deserves. For this reason the Westchester type of parkway has attracted world-wide attention. Officials and engineers from nearly all European countries, from China, Japan, Australia and New Zealand have journeyed to Westchester County to study these parkways.

Heretofore arterial express highways have been considered almost entirely from the standpoint of traffic movement. The new angle of economics involved is the effect of the road on its adjacent lands. It has now been demonstrated that enormous mileages directly abutting on trunk highways built in recent years cannot be absorbed by industrial or business uses. Lands so situated are, on the other hand, undesirable for residential use by reason of close proximity to heavy motor traffic.

The Westchester County parkways are planned on the principles of securing both efficiency in the movement of traffic and the most profitable utilization of adjoining lands. This result is attained by acquiring a right-of-way of sufficient width to afford strips of land for park treatment on both sides of the paved roadway. There are no privately owned lands directly abutting the pavement.

from 10 cents to \$2.00 a square foot

Good architecture and expert landscaping have



BATH AND FIELD HOUSE produce income in Tibbetts Brook Park. O.S. Gette, consulting architect

Promiscuous access to the parkway drive from intersecting streets is thereby excluded. Grade crossings are eliminated by bridges carrying main intersecting thoroughfares over or under the parkways.

As there are no privately owned dwellings or buildings adjoining the pavement, there are no roadside parking problems. The result is that the parkways afford the nearest approach to the uninterrupted flow of express traffic that has yet been devised.

The desirable minimum width for parkway reservations is 250 feet. The paved roadways are laid to a width of 40 feet with provision for future widening to 60 feet. Geometric planning on rigid lines is avoided. With the flexibility of location afforded by the excess width, the motor road weaves through the reservation. Depending upon ever-varying topography, it may lie near the middle or pass close to either side, now through a wooded stretch, or along the stream bank. Even at places where the flanking strip is narrow, naturalistic landscape has been preserved and restored. The result has been described by some visitors as an illusion of driving for many miles through an unlimited park.

The effect of these parkways has been an immediate increase in the value of adjoining lands in private ownership. Instead of overlooking a bare pavement, such lands have the advantage of a park-like prospect with its grass, trees, light and air. At the same time they are conveniently accessible to an express motor route.

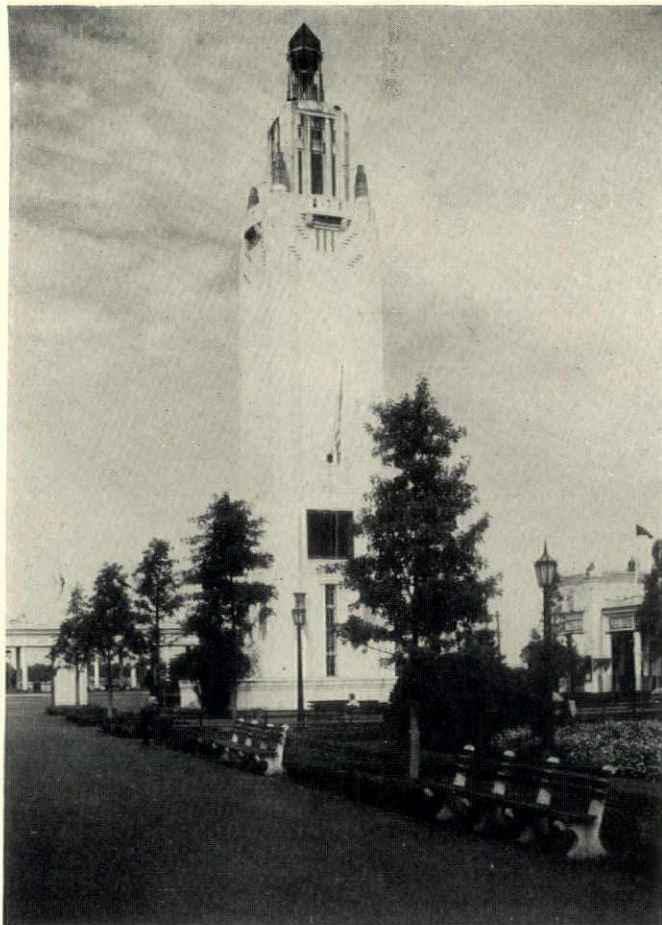
Within a few years, land values have risen in some instances from acreage prices of 10 cents or less per square foot to \$2.00 or more. The general level of values in the southerly part of the county is such that the future trend will probably shift from private dwellings along the parkways to garden apartments. Heavy investments



NATURAL BEAUTY is taken full advantage of and there are many spots such as this gem. Tibbetts Brook Park. Gilmore D. Clarke, landscape architect

AT RIGHT, music tower in "Playland," a high-class Coney Island which is a fine source of revenue. Walker & Gillette, architects

proved their investment value in Westchester

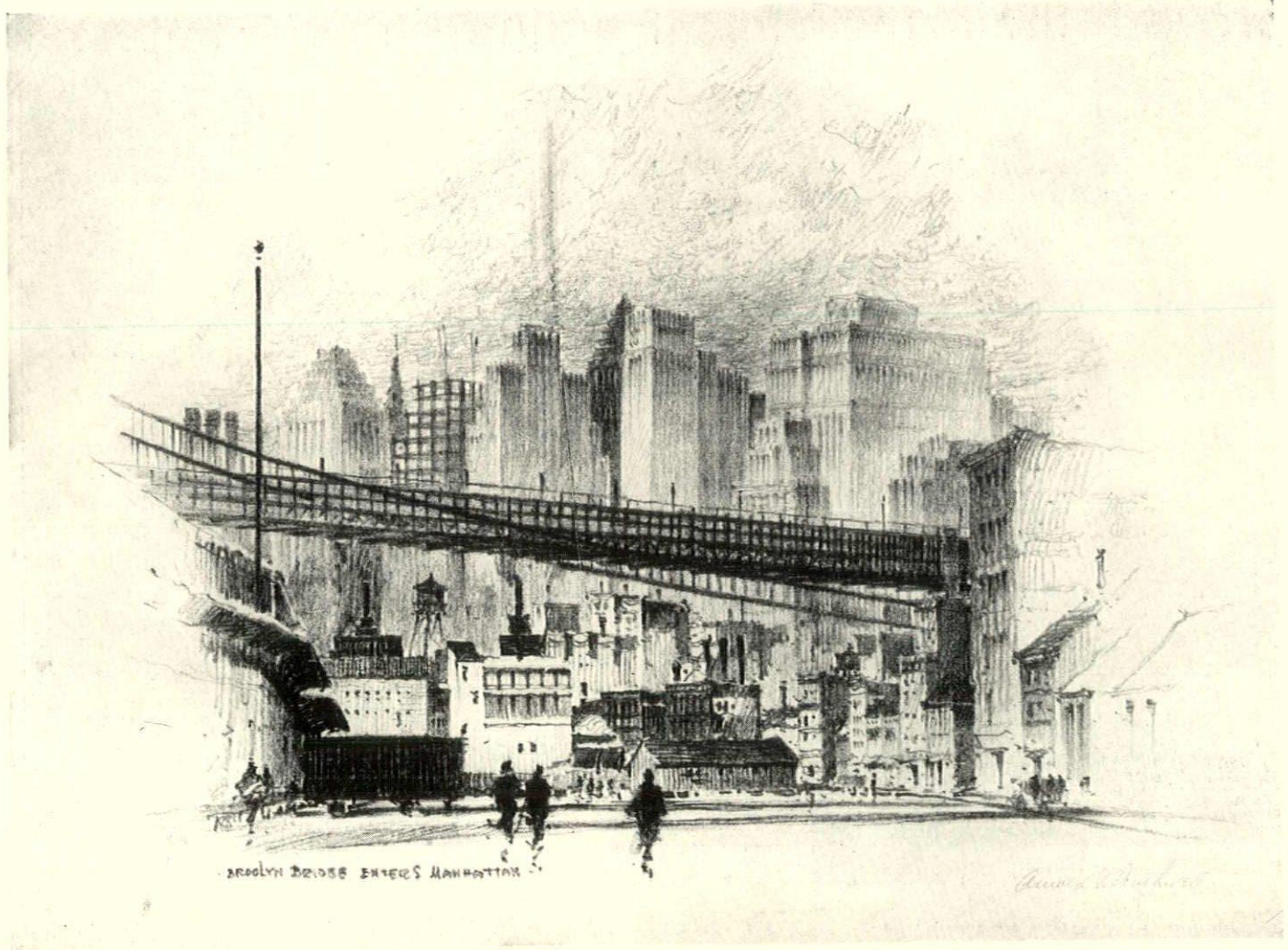


AMONG THE FINEST bridges of their period in the world are those designed for the Westchester County Park system. Gilmore D. Clarke, landscape architect

of capital in this type of housing have yielded large increases in the county's tax revenue.

The park program now involves appropriations of more than \$60,000,000 for the purchase of land, construction and development work. These appropriations have been financed through bonds to be paid off in from 40 to 50 years. Interest and amortization on these bonds is offset by tax revenue from enhanced valuations created by the park system. In 1923 the total assessed valuation of taxable property in the county was \$788,029,096 representing the accumulated wealth in the 240 years since the county was founded in 1683. At the end of 1929 the total had risen to \$1,644,114,324, an increase in 6 years greater than the total for the previous 240 years.

Entirely independent of the capital financing are the operation and maintenance expenses of the system, which amounted to \$1,544,207.84 for the year 1929. But the receipts from golf courses, bath houses, rentals, concessions and amusement park features were \$1,583,631.82. The taxpayers were, therefore, entirely relieved of expenses and a surplus of \$39,423.98 was turned in to the county treasury. A large proportion of the total revenue was derived from Playland, the unique development at Rye Beach, which converted what was formerly a seaside slum area into a great recreational center. The golf courses also turned in substantial receipts.



SKETCHES

BROOKLYN BRIDGE ENTERS MANHATTAN

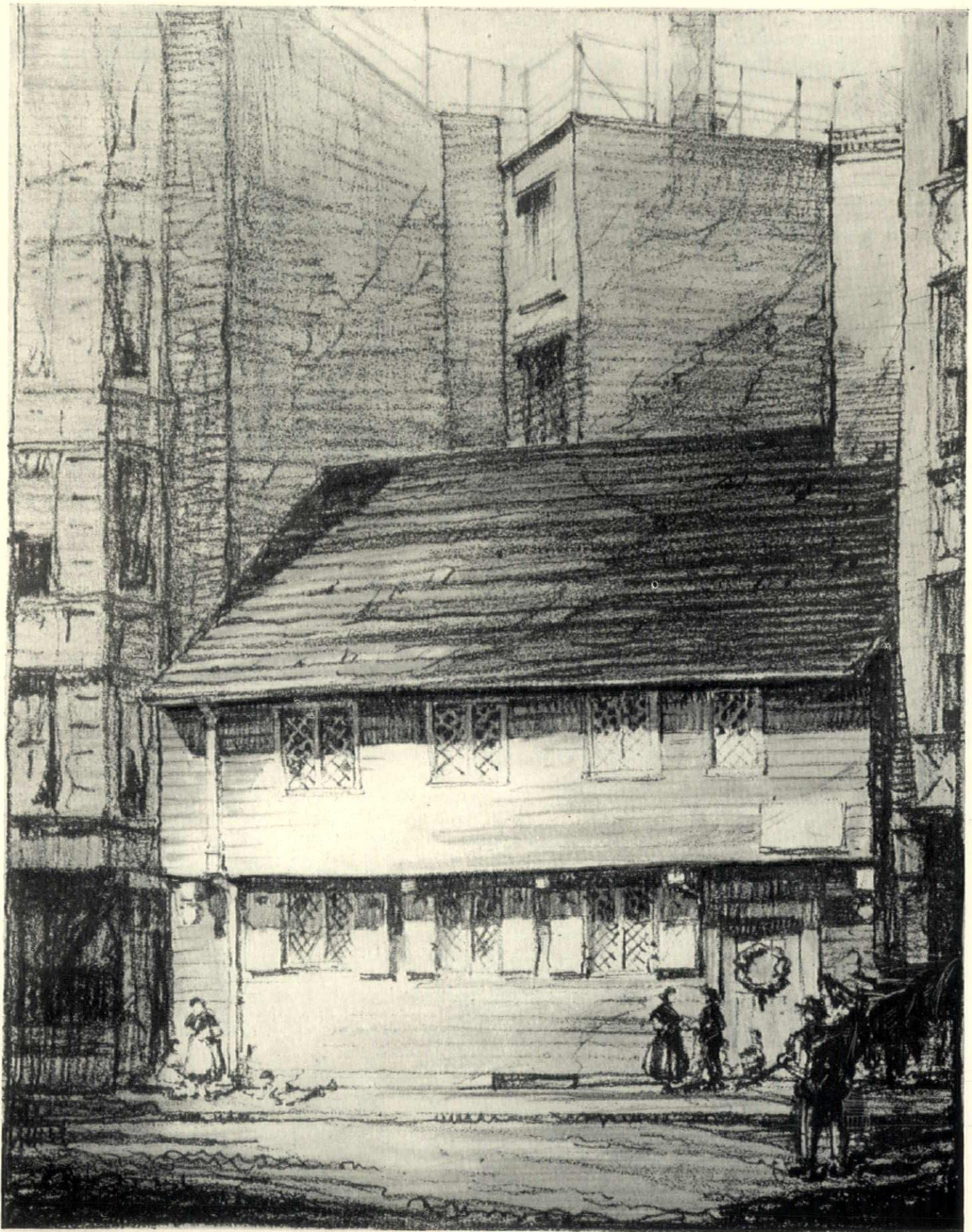
pencil sketch by
Albert R. Southwell
of the office of
Shreve, Lamb and
Harmon, architects,
New York



CHARTRES

pencil sketch by
Albert S. Golemon
of the office of
F. W. & D. E. Steinman,
architects and engineers,
Beaumont, Texas





HOUSE OF PAUL REVERE. A sketch in lithographic pencil on a specially treated paper. By George R. Wiren, architectural designer with Stone & Webster, Boston.

WHAT TO PUT ON Working Drawings



By EDWIN S. PARKER

Consultant on newspaper buildings
with S. P. Weston, Inc., New York

AN architect was being selected for a school building. Out of the many who had applied, six were being considered, and of these six, three were to be allowed to compete for the job.

These six had submitted sets of plans for inspection, and the professional advisor was explaining their various features. "Here," he said, "is a large scale drawing of a soil pipe. What possible interest has a plumber in a picture of a soil pipe? What he wants to know is size and runs and valves and cleanouts, and these are scarcely shown at all." This architect was at once eliminated.

Now it may be argued that his was a small point, but not at all. Any man who will waste his drafting time merely putting lines on paper is not the best man to handle a job. Simply making pictures of things is the sign of a man who can't make himself think. Such methods are a waste of time and confusing to those who must make practical use of the drawings.

Let us consider what a drawing really is. It is a document of information which can be expressed better by lines than by words. We are telling the carpenter and steel man what to do. Anything beyond this is confusing and wasteful, anything less fails of its purpose.

Take, for an example, the laying out of a service stair. It is usually drawn in detail at small scale. Then the floor heights may change, and this elaborate drawing has to be erased and done over again. When the iron man finally gets the job, he makes his own shop drawing and submits it for approval.

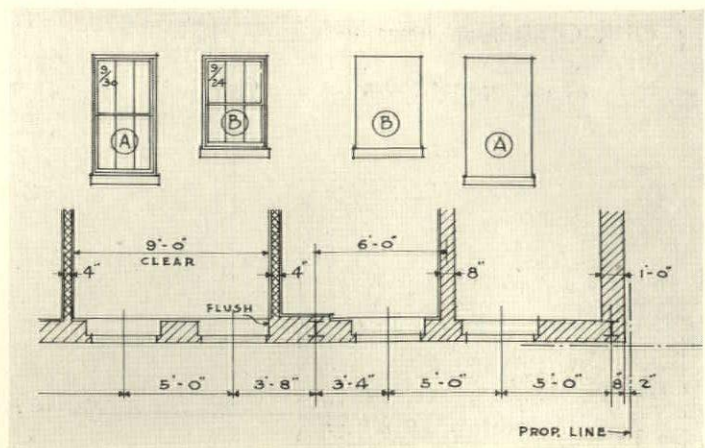
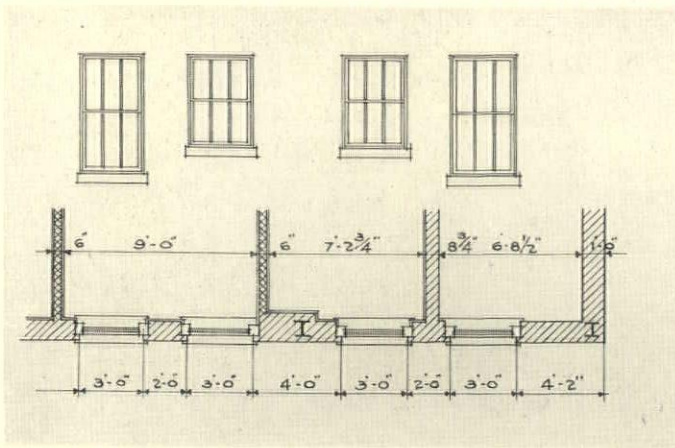
Now here is the vital point—only the iron man's drawing really counted. Care in drawing the stairway on the plans was only a pretty picture. To make his detail, the contractor needed to know the number of risers, width of stair, and size of well. The architect needed to know that a given stair could be run between the floors, that his story height was practicable, and if he wanted to change the story height, how much and how easily could it be done. For all this, a line diagram of the stair tells the whole story. The newel and hand-rail are shown at larger scale once for all floors. The kind of stair and its supporting value are specified. Then, when the plans are determined beyond probable

change, the newels and rail can be shown for the client's benefit—but it is for his benefit only.

Probably the greatest source of waste is in the drawing of windows, especially in plan. The window boxes are shown, kind of sash, and sometimes the sill. Each window in the whole plan is done thus, and in masonry it is dimensioned for opening and pier.

Now what does the architect need to know? Just two things—inside opening and outside opening, so partitions will not come in the reveal or pipes interfere. What does the mason need to know? The center of the frame. That is the point to which he works in setting the frame in the wall. The dimensioned opening means nothing to him—he is merely building something into the wall, and if he has to work back to the center through a maze of figures he will somewhere make a mistake and set a frame wrong. What does the contractor need to know? The kind of window needed for the mason to set. He can get this from the elevations where the openings are scheduled, one window of each type being drawn completely and the rest blank openings with a number or letter. Moreover, the type of window should be shown on the elevations as above, or similarly on the plans, but not on both. Under no circumstances should a feature be shown definitely in more than one place. First, it takes time, and second, there is no man living who can carry changes all the way through a job and not miss some of the various places where a feature may be shown. And the contractor will be sure to base his price on the one detail not changed. Then trouble. Show it once, and show it there completely.

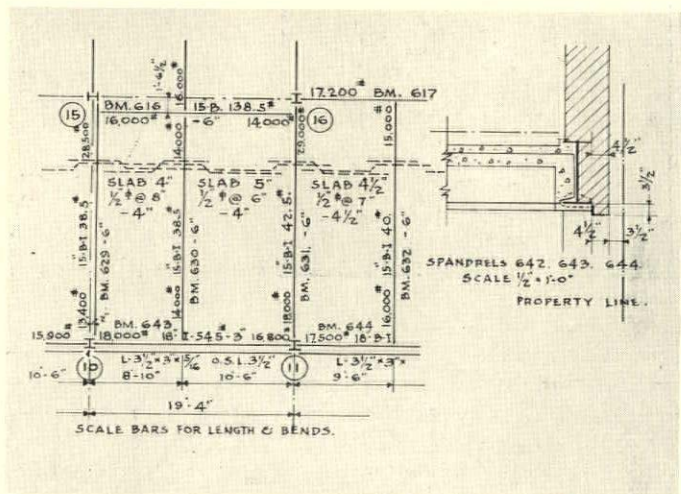
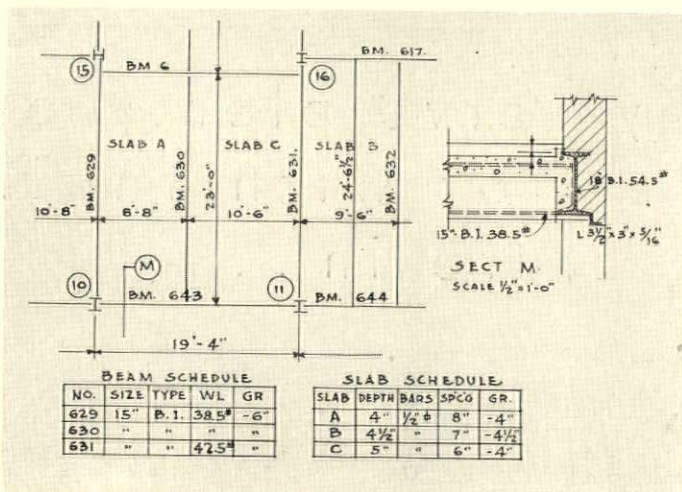
What should a steel framing plan show? The size and kind of beam, its grade above or below the floor, its location, and its reactions. From this the contractor can order the material and . . . (Continued on page 74)



WRONG

Start dimensions from property line; give center of windows, which is what the mason wants to know; and detail each type of window once, lettering repetitions, as a means of simplification

RIGHT

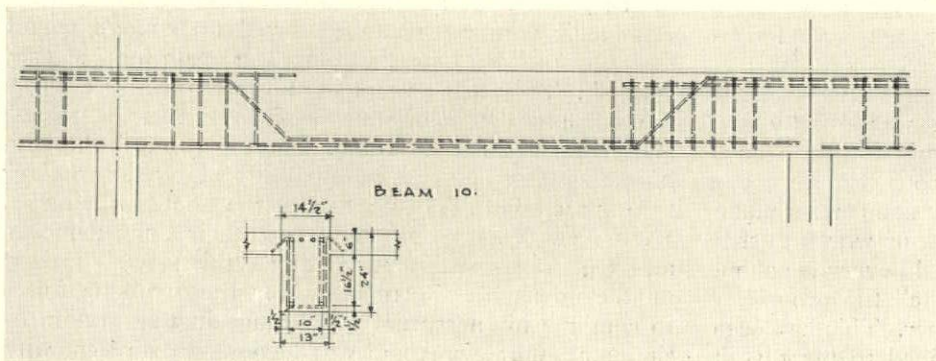
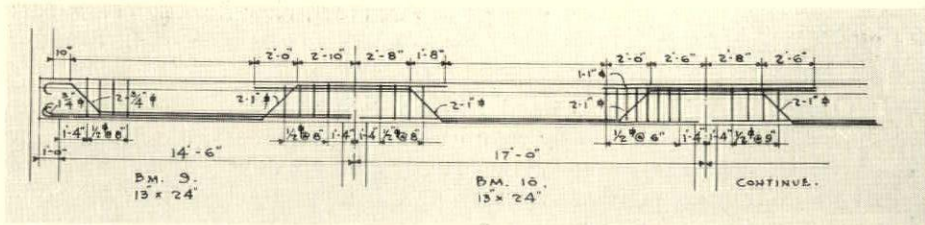


WRONG

The good-looking drawing at the left is confusing and hard to follow. That at the right gives all information without repetition, and is not as confusing as it appears at first glance

RIGHT

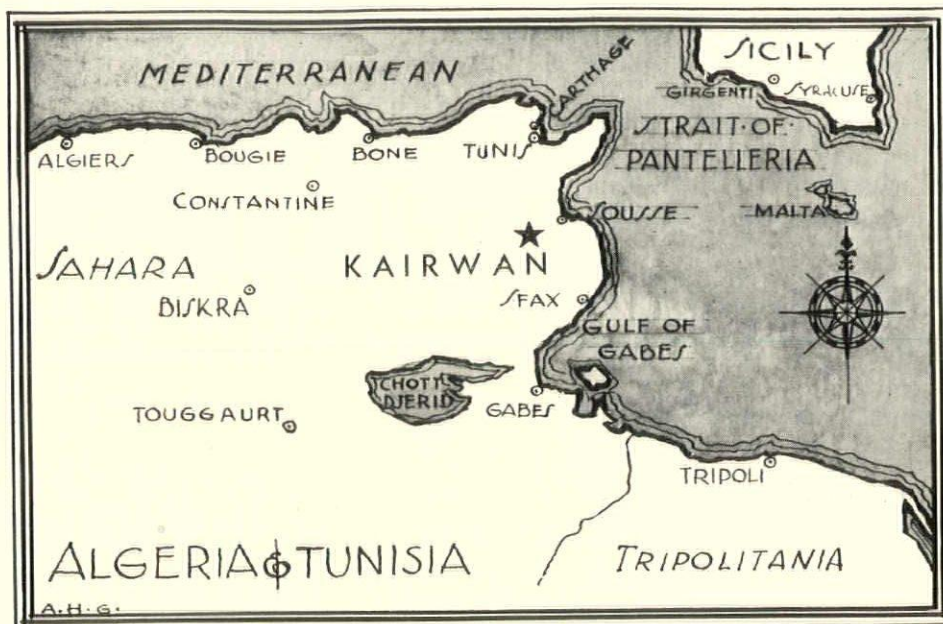
WRONG Below—To get length of bars, adjacent beam details must be found; for size and number of bars, plan must be consulted; double dotted lines take excessive time to draw; shop drawings are difficult to check. Yet this method is standard in some offices



RIGHT Above—Instead of being scattered over a number of sheets, all information is given in one place at 1/4" or 1/8" scale

MAKE IT EASY FOR THE CONTRACTOR AND MISTAKES WILL BE FEWER

OUR GUIDE, an unwashed little urchin with a dirty turban and ragged bournous



... They serve plenty of local color with their architecture in...

KAIRWAN

By Arthur H. Gilkison

Architect, New Rochelle, New York

SOMEWHAT travel stained after a trip through Sicily, I left Palermo by steamer for Tunis, from which city I reluctantly departed in three days to journey to Kairwan by way of the uninteresting town of Susa. I say uninteresting since, on rising at 5 A.M. and riding six hours in an African train, few towns would seem interesting. Here we met an Englishman whose hobby was warning all and sundry not to go to a certain hotel in Cairo. It seems that while a guest of this hotel the Englishman was greatly annoyed by the prevalence of those inquisitive little bugs which frequent beds. Calling the proprietor he made adverse criticism of the accommodations whereupon he was told he could take it or leave it, or words to that effect, which so annoyed him that he told everyone about the incident and then sent a card to tell the proprietor he had lost another prospective customer. This had been going on for two years and he confided to me that it was not worth the trouble and time that it took. But the English are a stubborn race.

Kairwan proved to be all that I had expected and the old Town enclosed by a high battlemented wall seemed almost a city of the unreal, with its white walls, towers, domes and medley of costumes, people, camels and odors.

We stayed at the Hôtel Splendide but splendid it was in name only. While here we met two young American scenic painters, who had saved up enough money to spend two years abroad doing "real painting," as they called it. They told us that the night before we arrived, they were awakened by someone turning their door knob and trying to enter the room. Peering through the keyhole, they saw an Arab go stealthily along the corridor testing each door. The next night these lads, who hailed from New York's East Side, left their door unlocked and took turns sitting up with a "thirty-two" trained on the doorknob. Fortunately for the Arab he failed to continue his nocturnal wanderings in that section of the hotel. Our own room was keyless, so we slept with a first line of defense consisting of the dresser backed solidly against the door and a tin wash basin and pitcher



THE MOST CURIOUS CITY in Tunisia is entirely enclosed by battlemented walls through the gates of which issue a weird conglomeration of costumes, people, camels and odors

FOR FEBRUARY 1931



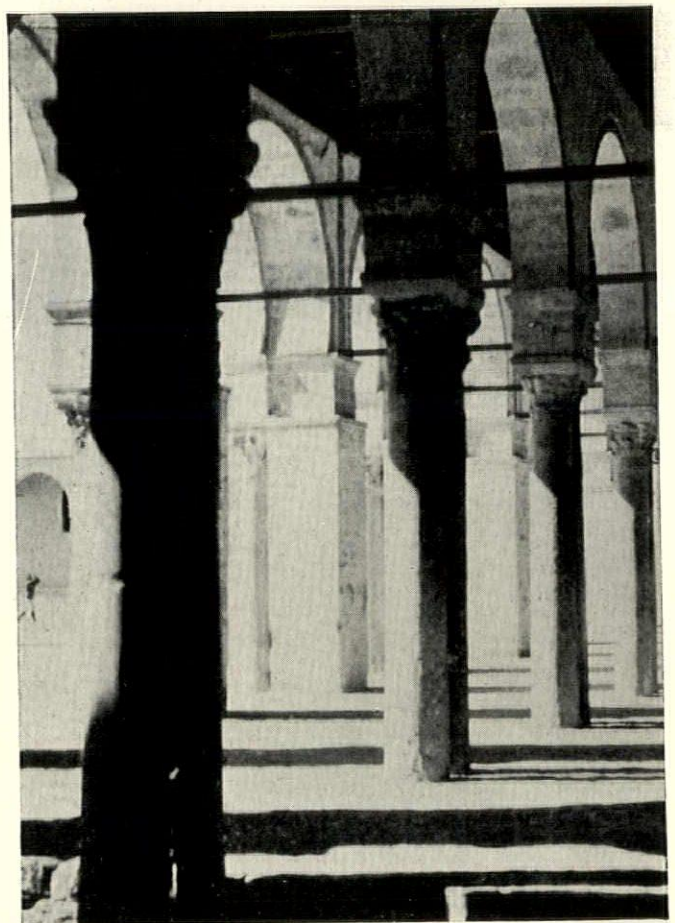
IMPROVISED SALES ROOMS crowd the passer-by off the sidewalks of streets that seem to have evolved with an utter disregard of everything but the picturesque

OUT OF THE RUINS of Carthage and Susa came most of the building materials used in the Sidi Okba Mosque, which accounts for the many beautiful columns used in this arcade

neatly balanced on the edge ready to crash a warning if it were moved. The same night, a guest lost his watch, cheques and even his trousers while he slept.

Later in Batna, we had a somewhat similar experience. Our room was on the ground floor overlooking a garden and in American fashion we threw the French windows open and went to sleep surrounded by fresh air and nothing else. About 4 A.M. I was awakened by a slight sound and looking up saw silhouetted against the open window an Arab. Happily he was as frightened as I and made his exit through the window as quickly as a cat. We aroused the landlord, who reluctantly changed us to a second floor room insisting all the while that we had been dreaming. He still professed not to believe us next morning until shown the trampled bushes outside the window. Needless to say, that was our last ground floor room and our request on arriving at a hotel after that was a room on the second floor and a key.

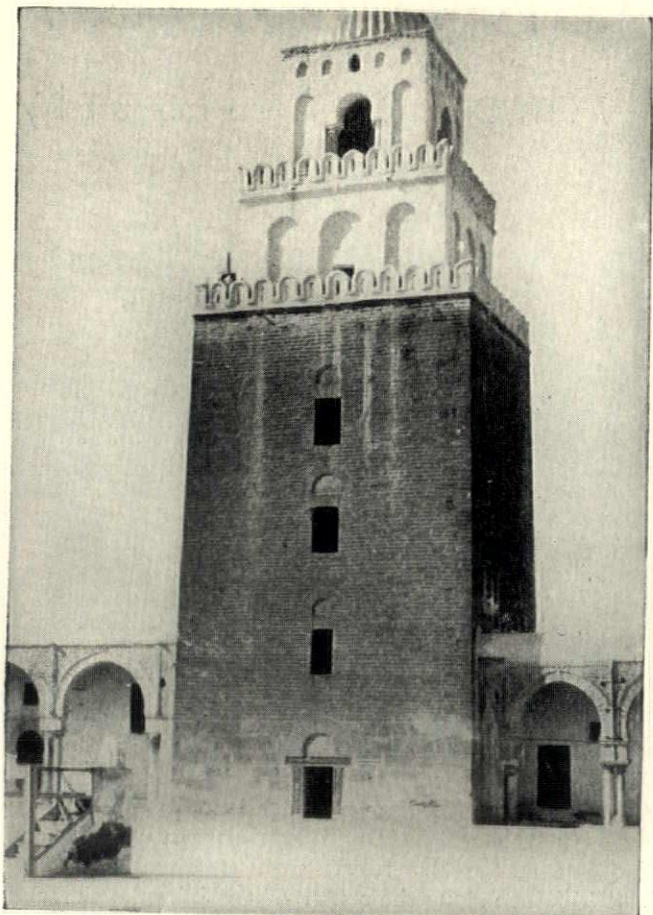
To return to Kairwan on our first sortie from the





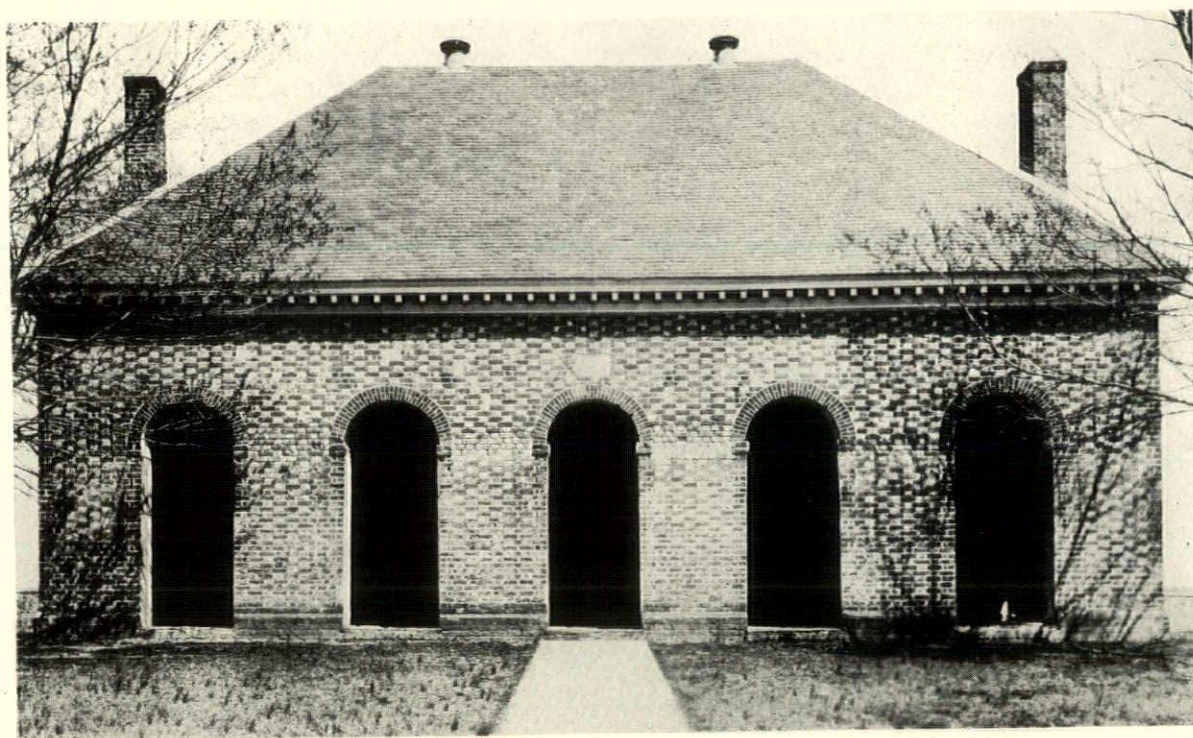
SIDI OKBA is one of the oldest mosques in the world and, in plan, resembles those of ancient Egypt. It was started in A.D. 671

SETBACKS like a modern skyscraper, battlemented parapets, and a ribbed dome feature the tower of the Sidi Okba Mosque



hotel we were greeted by a group of men and boys who insisted, one and all, on being our personal guides. We impressed upon them in our best Arabic French that we did not wish guides, but not to be discouraged the whole pack followed us, lead us and guided us to wherever we did not wish to go. It grew to be almost a game: When they pointed to a mosque we would look the other way, just to show our dislike for guides. It was a hard battle but we gradually wore the pack down until just one remained, a ragged urchin of about thirteen years, with a scabby head covered by a dirty turban and a ragged bournous for decency. But shake this one we could not: if we went into a store, he waited until we reappeared; if we returned to the hotel, he followed us. We had lunch and when we came out again, there he was. We sought to lose him by taking a lengthy nap; when I looked out, he was at the hotel entrance. So we gave up and from then on as long as we remained in Kairwan we had a constant companion who carried our sketching out- (Continued on page 84)

"when the King violates his duty, the compact between the people and the King can be dissolved"



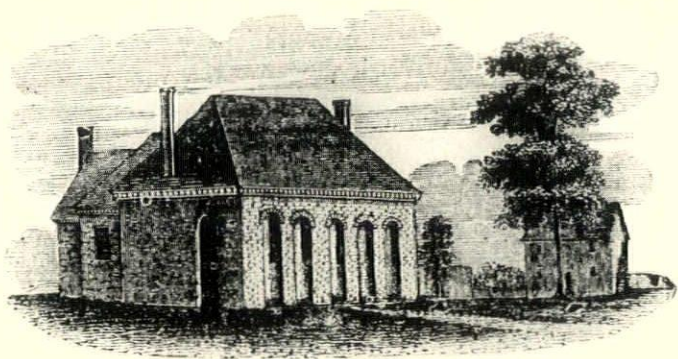
HANOVER COURT-HOUSE IN EASTERN VIRGINIA, BUILT 1735

where PATRICK HENRY lighted the torch of American liberty

By BEAUFORT N. EUBANK
of Eubank & Caldwell, Inc.

LAST summer, on a hot day in July, my wife and I were driving through Eastern Virginia. We came to Hanover Court-house about noon and stopped to have lunch in the shade of the trees on the old court-house lawn. The Clerk of the Court joined us and told some interesting facts concerning the history of the building.

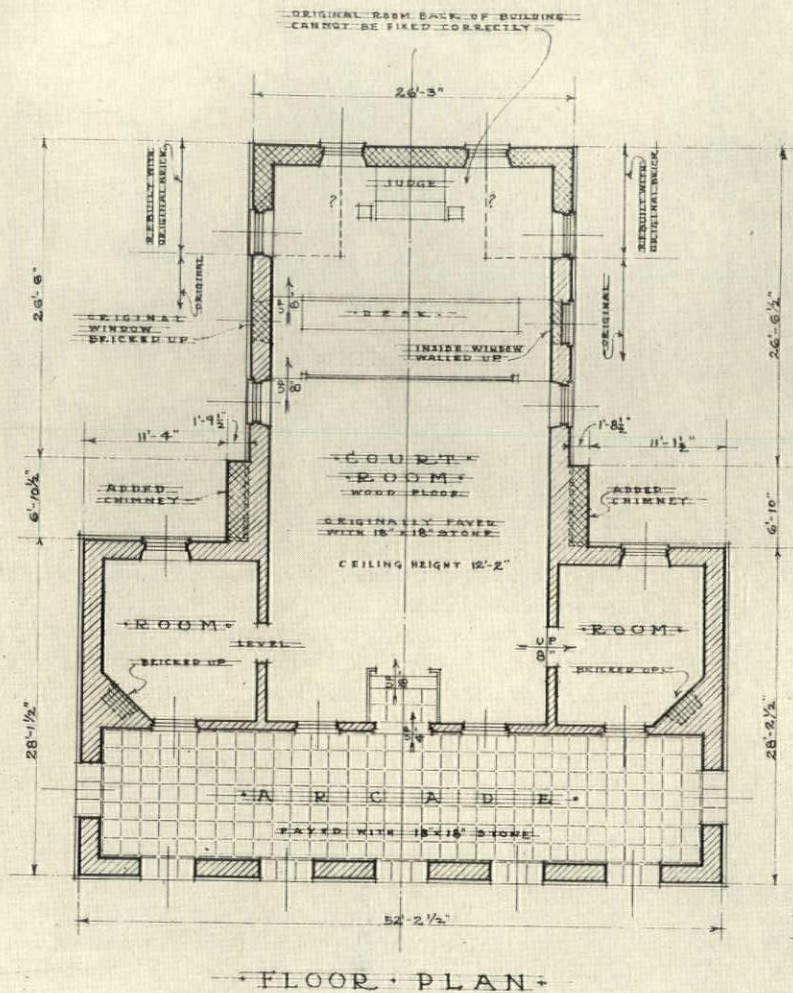
The Hanover Court-house was built in 1735 and has been in constant use as a court-house ever since. On this spot the eloquent Samuel Davies, founder of the Presbyterian Church in Virginia and subsequently President of Princeton College, on May 8th, 1758, recruited Captain Samuel Meredith's Company and sent them forward to the old French War. Within the walls of this historic building, Patrick Henry on December 1st, 1763, made his great speech for the people in the "Parson's Case" taking the bold ground that when the King had violated his duty at that time the compact



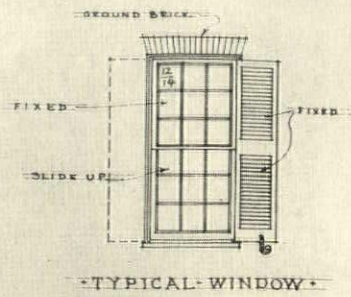
As the Hanover Court-house appeared when Patrick Henry made his famous speech in the "Parson's Case." From an old wood cut

between the people and the King could be dissolved. The torch of the American Revolution was lighted on that memorable day.

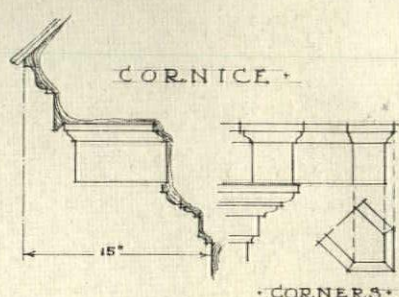
The building is constructed of brick which measures $9' \times 4\frac{1}{4}' \times 2\frac{3}{4}'$, with glazed headers. They are laid four courses in thirteen inches in lime mortar with a flush joint, ornamented by running the side of the trowel about $\frac{1}{2}''$ deep along the center of the joints. All arches,



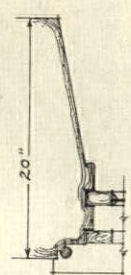
FLOOR PLAN



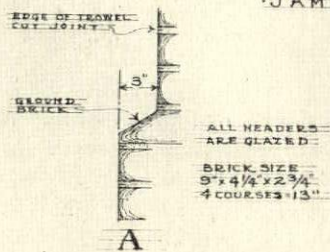
TYPICAL WINDOW



CORNICE

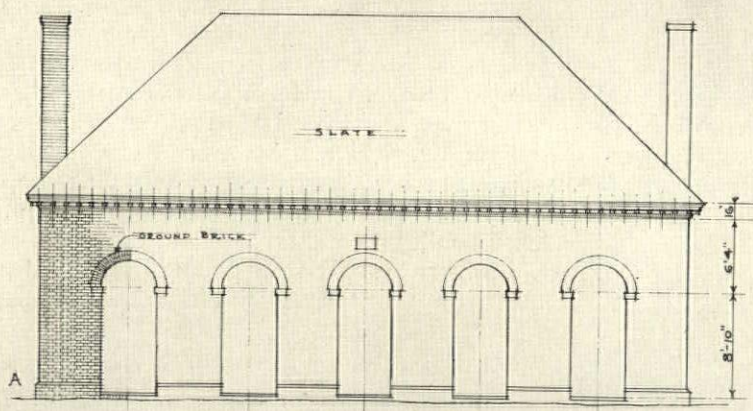


JAMB



A

MEASURED & DRAWN BY B. N. NEUBANK JULY 6 1929



FRONT ELEVATION

base course and corners are ground to a smooth surface, the entire work being laid in Flemish bond.

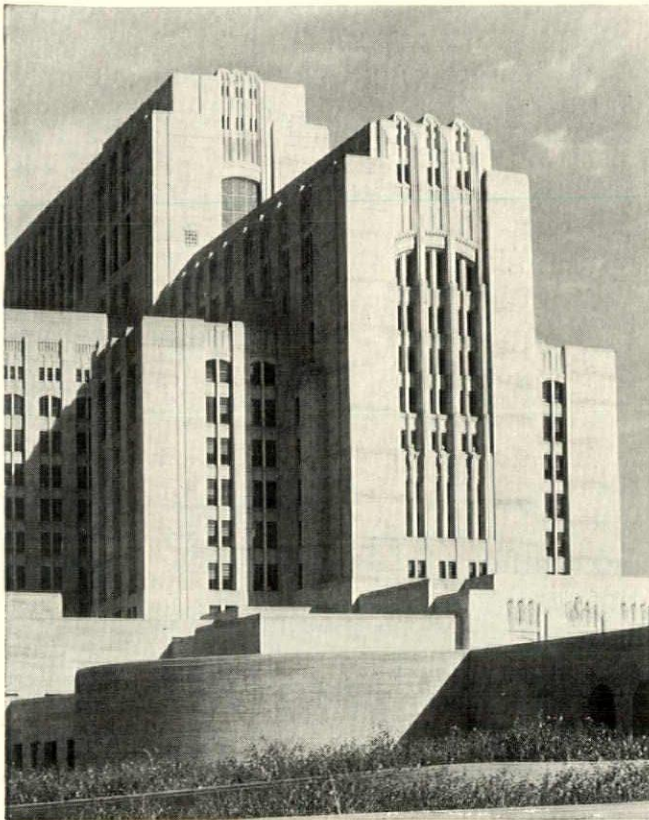
The exterior walls are 20 inches thick, while the wall between the court-room and arcade is 10" thick. The building is plastered throughout, including the arcade walls and ceiling. There is no moulded plaster, everything being square with flared window jambs. The upper sashes are fixed while the lower sashes slide up and are held in an open position with wooden pegs. The

blinds are hung on wrought iron hinges and held open with wrought iron hardware.

The floor of the arcade is paved with 18"x18" stone slabs about 3" thick; these are very much worn. The court-room was paved in the same way until a few years ago, when a wood floor was installed. The interior contains no woodwork of importance. The exterior wood cornice gives a nice effect with an interesting detail at the corner, where

(Continued on page 118)

WHAT ARCHITECTS



MOTT STUDIOS

OF CONCRETE, the Los Angeles County General Hospital. Designed by the Allied Architects Association of Los Angeles, California

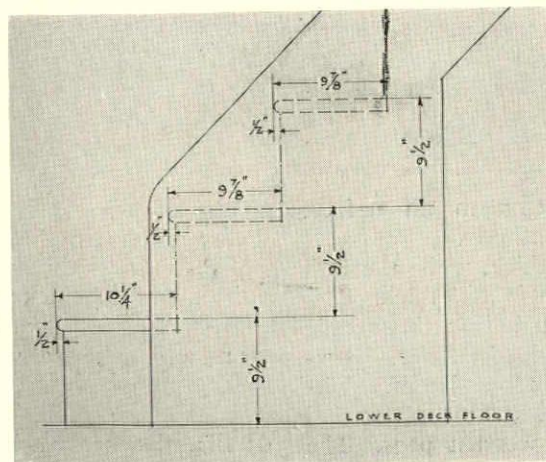
KITCHENS are superseding kitchenettes, according to a survey made in twenty-six cities by the National Association of Real Estate Boards. Less than one-fifth of one per cent of the thousand apartment houses surveyed were without kitchen or kitchenette facilities. In Chicago, the survey shows that the tendency is towards more laundry work being done at home.

FORMATION of large-scale housing development corporations, with a portion of the initial capital contributed by manufacturers of building materials and supplies, would diminish the number of unsanitary, poorly built residential structures in New York City and stimulate the building industry, according to Louis J. Horowitz, chairman of Thompson-Starrett Company, Inc. These corporations would provide opportunity to introduce installment home buying on a large scale.

Kitchens Superseding Kitchenettes
Manufacturers Should Help Finance Large Housing Developments
Open Displays Will Influence Future Store Planning

STORE planning is bound to be considerably influenced by the growing popularity of open displays, that is, where the merchandise is openly displayed inside the store. In a test recently conducted in a drug store, and described in a recent issue of *Advertising & Selling*, a number of well-advertised specialties were hidden from view for two weeks and only sold to customers who asked for them by name. Then the same goods were put on open display for two weeks. There was a tremendous increase in sales, ranging from 43 per cent to 500 per cent. The average increase was 118 per cent.

THE sales value of murals for decoration is testified to by Milton Rogasner, proprietor of the recently renovated Iris Theatre in Kensington, Philadelphia. The patronage of this theatre had faded to almost nothing, when it was decided to close it and have John C. Wonssetler paint a number of murals despite the forecasts of those who felt that such an industrial district cared nothing for art. In the words of Mr. Rogasner, "These hard-working mill operatives went wild over the murals. We discovered that they had really a better appreciation of art than many persons who claim an extended and profound knowledge of art. They came to enjoy and not to criticize. The beauty of these murals sank deep into their souls, and quickly the popularity of the theatre extended for miles around and beyond the limits of our district. Mothers brought their children from a distance to see the murals; the theatre with its murals has become



EASY STAIRS used on the new buses of the Fifth Avenue Coach Company, New York. These stairs, which are 18" in width, are exceptionally easy for the average person and present a proportion that is excellent wherever there is necessity for a steep stair which is to be used by a large number of people

ARE TALKING ABOUT

Chicago Loop Rebuilt Twice
Since Fire

Factors of Obsolescence Which
Affect Skyscraper Life

Murals Have Strong Sales Value

one of the show places of Kensington. We have discovered that it pays big to mix art with business."

RAYMOND HOOD, according to an article in the *New York Times*, has to pay an extra cover charge at the restaurants he visits because he defaces so many table cloths with his pencil notations. It is related that once, taking his little cousin for a walk, he was inspired with an idea for the *Daily News* building and, having no paper handy, used her new white frock as a sketching pad to the great dismay of his wife. Incidentally, the porch columns of his house are covered with his designs for buildings.

OBSCOLESCENCE of skyscrapers is reported on by Arthur Warner, chairman of the National Association of Building Owners and Managers. He says:

"The useful life of office buildings is much shorter than most people presume. Skyscrapers don't wear out. They are torn down before actual old age creeps upon them and are replaced by structures that are more suitable for modern requirements. Style is as important in the office building field as it is in women's wear. Style, however, in skyscrapers is evidenced by an increasing utility and an improvement in service.

"There are five factors of obsolescence affecting the useful life of skyscrapers, (Continued on page 112)



WORSINGER

APARTMENT HOUSE LOBBY at 315 East 68th Street, New York, designed by Walter von Nessen of Nessen Studio, Inc. Walls are of plaster, dark salmon in color, the relief is plaster toned with the salmon color of the wall. Frieze consists of horizontal fillets of alternating silver and vermilion; doors, black with chromium bands

IN MIAMI, Florida, on Biscayne Boulevard between Seventh and Eighth Streets, is located this gasoline station. Designed by Solomon Kaplin, architect, of Philadelphia, Pa.





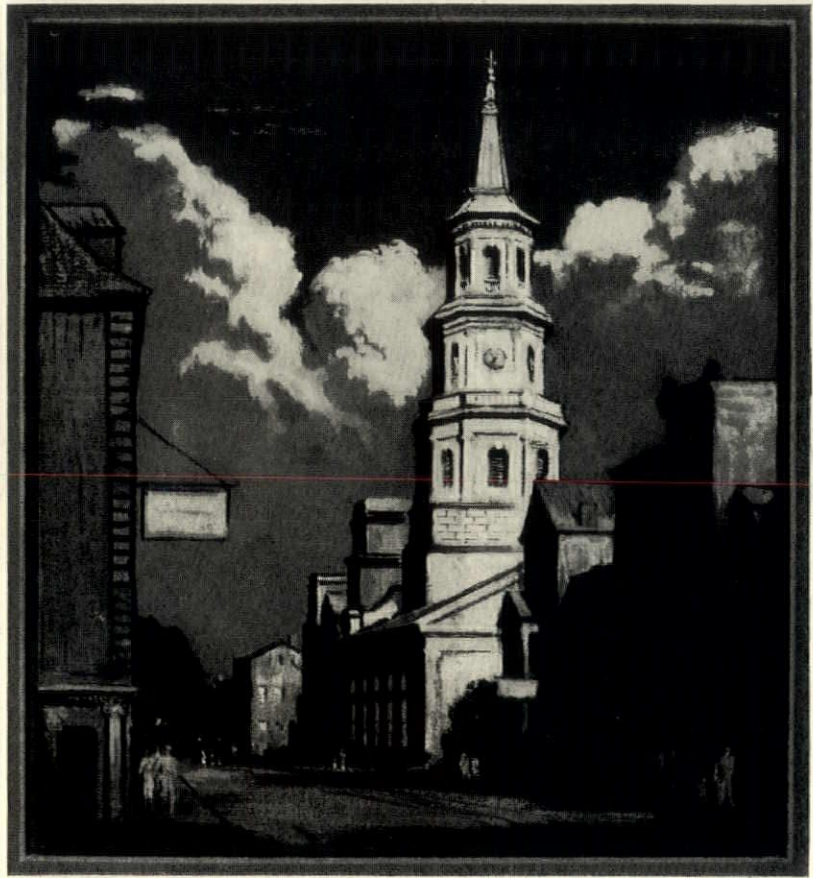
FISH MARKET, NEW ORLEANS

by E. J. Gibert of the firm of Emile Weil, Inc., architects, New Orleans

Made on grained surface French charcoal paper of medium gray color, most of the blocking out and sketching being done with H, B, and F grade pencils. Colored pencils were used to give a suggestion of color

down
DIXIE
way

St. Michael's Church
Charleston, S. C.
a painting in oils by
Christopher Murphy, Jr.,
Savannah, Ga.



Drawing on gray
French charcoal
paper with pencil
and colored
crayons

•
Green Shutters
New Orleans
by E. J. Gibert



Dallas architects discover
an EASY WAY to
HOLD AN EXHIBIT

By RALPH BRYAN, A. I. A.

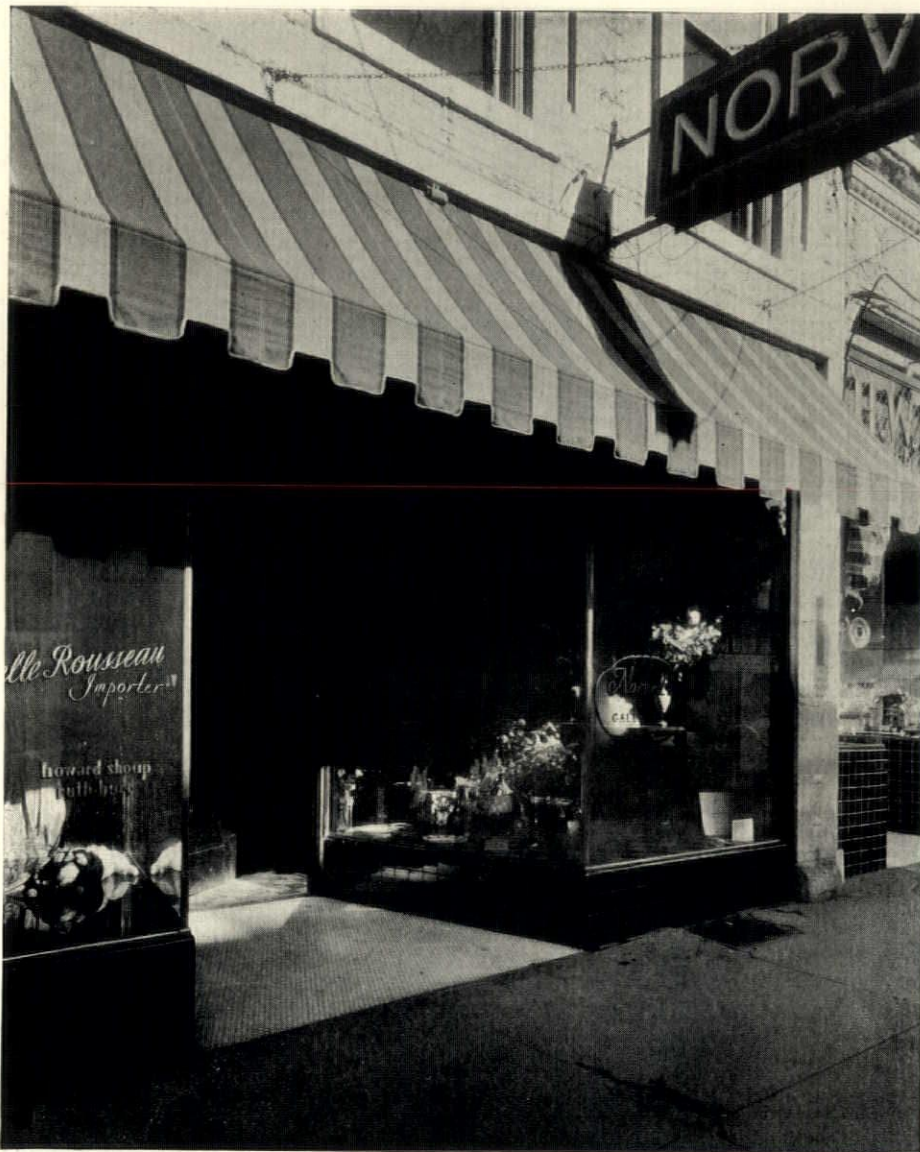
THE architects of Dallas have recently held an exhibition of their work which may possibly have set a record for the ease and simplicity with which it was assembled and hung for public inspection. As an example of maximum results in public interest with the minimum of effort on the part of the exhibitors, the Dallas display might well be an inspiration to architects in any community.

From the thirtieth of November to the fifteenth of December, 1930, with an extension of time to January first, due to public interest, an exhibition of some one hundred and fifty pieces was hung in the Norvell Galleries in Dallas, representative of the current work of fifteen local offices. During that time, it is estimated that some one thousand patrons of the arts and prospective builders viewed the display. The only publicity used was a form letter to the patrons of the gallery and editorial comment on the art pages of the Dallas newspaper. One thousand visitors may not seem a particularly startling total but considering the absence in this case of modern

high-pressure methods of publicity, generally considered necessary for getting the public away from the fireside or the office, it was most gratifying.

The moral of the above is that it is possible to assemble a collection of architectural work without the effort that generally frightens the average group of architects out of the idea, and that once assembled the resultant publicity can be just as much or little as the energy of the group dictates. Admitting that architectural exhibits are attractive forms of public education, it is hoped that the results of the Dallas show may encourage others.

The idea of an architectural exhibit has been discussed by architects in Dallas since 1922, when the Dallas Architectural Club staged a most successful exhibit of Texas work. This was the first comprehensive collection of its kind to be held in the State, and while its results were satisfactory, it entailed much hard work. And it has been the recollection of the effort put forth at that time that kept the North Texas Chapter from



A GOOD LOCATION for an architectural exhibit because the store was centrally located and consequently easy for people to visit

holding a similar exhibition. It appears that the architects of Texas are no different from those elsewhere, in that they are too modest or lethargic to do much for advertisement of their wares.

It was outside effort that aroused the Dallas architects. The Norvell Gallery is a private institution with a splendid reputation for collecting, displaying and selling *objets d'art*. It occurred to the owners of the Gallery that the hanging of an exhibit of architectural work in their rooms would bring an attractive array of visitors to their premises. This is a sound bit of logic and a good business idea. The idea was thought to be creditable when broached informally to individual members of the local chapter and so was officially put before the North Texas Chapter of the American Institute of Architects. The Gallery assumed the obligations of assembling the exhibit, of the hanging, of the publicity and of maintaining a competent attendant at the show. In exchange it asked for the approval of the chapter and for the appointment of a committee to assist, pri-

HELD WHERE OBJETS D'ART ARE SOLD

The Norvell Gallery thought that an architectural exhibit would attract visitors, asked approval of the local A. I. A. Chapter, and handled all details

marily, as a jury to judge work.

Within two weeks the secretary of the Gallery personally called upon each architect in the informally selected group, aroused his interest, looked over his material, caused sketches to be mounted and photographs to be framed, and finally delivered in time for the judging and hanging preparatory to the opening tea on Sunday afternoon, the thirtieth of November.

The attractive and efficient secretary did not have an easy job in those two weeks, as anyone who has tried to assemble work from fifteen offices knows. But as a capable worker in line of duty she made it easy for the exhibitors and did a better job of it than an individual architect or a committee of them would probably have had the energy to do.

So there is the formula for a community exhibit: A reputable down-town show place, known for its connection with the arts, and one willing to carry out the mechanics of collecting and showing the exhibit in exchange for the visitors which such a show will attract to its place of business. Add to the formula speeches, radio-broadcasting, paid advertising, and similar forms of ballyhoo which the energies, enthusiasm and purses of the interested parties may afford, and you have as simple or as elaborate a bit of public education as can be desired. Suffice it to say, for the Dallas show, that the interest it created in the newspapers, in the lay comment and within the profession, has made an exhibit in 1931 a certainty with slightly greater plans for publicity. It may be that by gradually crawling up on the architects, year by year, the exhibit may finally become one of the big things of the Southwest with every architect working his head off, and liking it, instead of wanting to be shoved into activity. However, there are limits to anyone's optimism, (Continued on page 122)

. . . As It Looks

Riverside Church Trick Construction

THE proponents of honesty in construction are having a rather hearty laugh at the expense of the recently finished Riverside Church in New York City. The *American Weekly* recently published a story about this church, in which it was stated that "in the old Gothic, where there was nothing but stone in the construction, the walls were made thick at the base and thinner toward the top. This obviously could not be done with steel. However, the problem was triumphantly solved. It took engineers two weeks of solid work to figure out how they could re-distribute the load." Two weeks of solid work to fit modern materials to a design based upon tradition!

Railway Lifts Smoking Ban

SMOKERS have long wondered when railroads would "be their age" and come to a realization that courtesy to the fair sex no longer demands that one refrain from smoking. The Boston & Maine Railroad conducted a poll among 7,182 persons; the result was 78 per cent in favor of smoking in diners and 22 per cent against. Of the women, 74 per cent wanted tobacco; of the men, 80 per cent. What a change in sentiment during the last fifteen years! But no greater than the changes which have come over the architectural profession, changes which must be met frankly and honestly, with clear thinking unhampered by traditions as out-of-date as the diner's ban on smoking.

Reliable Estimates Can Be Made

THAT architects are interested in estimating is indicated by the many excellent articles received in answer to the request for such articles printed in the November issue. Most of the articles met on somewhat common ground, but there were many variations which indicated how large a part good judgment and experience play in attaining any degree of accuracy.

It was plainly evident that there are many architects who know how to make reliable approximations of cost. Opinions varied on the subject of the degree of accuracy of the preliminary estimate. These ranged from five to twenty per cent of the low bid, to a close approximation of the average of all bids received.

Opinion was general that for reliable estimates it is essential to keep careful records of job costs with major trade costs broken down; square foot and cubic foot costs; and, in the cases of certain types of buildings, unit costs per room, theatre seat, hospital bed, or other unit. Some, however, advocated the use of quantities of structural materials involved and percentage allowances for items of other classes. Still others felt that a contractor should be called in to make a preliminary estimate based on reasonably complete plans and a preliminary specifica-

tion. It seems apparent that most unreliable estimates made by architects are due to failure to take into consideration all items that a contractor must of necessity include in his estimate.

Practically all agreed that both the square foot and cubic foot method are fraught with danger and of value only as a check on more careful calculations or as a rough guide which is of value in the early stages of developing studies of a project.

Foundations of Lead and Hair

WHILE it is not entirely accurate to say that the new Waldorf-Astoria is supported on a foundation of lead and hair, these materials are used in the column foundations as cushions to insulate the superstructure from the vibration of railroad trains which pass below the hotel. This is not the first example of a building supported on materials rarely thought of in connection with foundations, for all buildings built over railroad tracks in New York, Philadelphia, and Chicago are insulated from vibration by some such means. Engineers go to much pains to prevent buildings, as well as the nerves of its occupants, from being racked to pieces by the movement of heavy trains.

Medusa Advertises Ask Your Architect

IN recent advertisements, the Medusa Portland Cement Company has made prominent use of the phrase, "Ask your Architect." One fine result from the use of this phrase is that architects will more and more have to become experts on materials in order to be able to answer the questions which clients will undoubtedly ask them after reading advertisements such as this. It is to be hoped that the time is not far distant when every prominent manufacturer of building materials will make use of some such phrase in his advertising. It will be to both his and the public's welfare.

"Consult A Builder"

THE December issue of THE AMERICAN ARCHITECT contained an editorial which discussed the plan of a building magazine to urge use of the slogan, "Consult a Builder." The editor of that publication states, "We have no thought to 'short circuit' the architect, as you suggest. . . . We have the greatest admiration and respect for the architectural profession and it is our only regret that the architects are so limited geographically. It would be very desirable if all communities could have the benefit of the special training which many of the architects possess and we are heartily in accord with any program that would cause the architects to become more enterprising, to extend their services, and to acquaint the general building public with the benefits which come from employing skilled and competent talent."

to the Editors . . .

Oak Flooring Grades a Mistake

JUST how the Oak Flooring Manufacturers' Association expects to clear up the naming of their grades by the new terms is somewhat of a mystery—although quite in keeping with the impractical and sales hindering terminology of the entire lumber industry, intelligible only to experts. The new quarter sawed grades are, "clear," "sap clear" and "select." Plain sawed grades are now known as "clear," "select," No. 1 common and No. 2 common. An architect using oak flooring, which is only one of countless items with which he must be familiar, will find himself tripping up time after time by specifying "select" quarter sawed when he wants the second quality just because "select" is second quality when he orders plain sawed. The lumber trade is always full of explanations for the use of their antiquated terminology—all of which are just rather foolish alibies.

A Cause for Alarm

CONSIDERABLE publicity has been given a statement made abroad by Frank Baldwin, secretary of The American Institute of Architects, particularly the portion in which he referred to the increasing tendency toward the development of great construction companies that include architects and engineers on their staffs. Many others view this situation with concern both for the profession and its effect on architecture in the United States. No one can say with assurance that the idea will become thoroughly established. It would appear to be a long way off, at any rate, but at the same time is something to think about. A more logical development of this idea would be the selection, by the owner, of an architect, engineer, contractor and possibly others at the inception of a building to act in a harmonious relationship throughout the design and construction of the building.

A.I.A. on "Consult an Architect"

IN various recent issues of THE AMERICAN ARCHITECT, considerable publicity has been given to the idea of manufacturers advertising, "Consult an Architect." Many A. I. A. chapters have written to the magazine endorsing this idea, as have many manufacturers. The Southern California Chapter thought that the Producers Council ought to do something about it, and so wrote them. The Council withheld a definite answer until after referring the matter to the Board of Directors of the Institute because, as we understand, the idea had formerly been frowned on by the Institute through fear that the use of incompetent architects might be encouraged. The progressive thought shown by the changed attitude of the Institute is well expressed in a resolution passed at the recent Detroit meeting of the Directors, which reads, "Resolved: That as far as the Board of Directors is concerned it can say to the Producers' Council and to all others interested in the use of slogans, referring to

the employment of the architect, that the Institute has no objection to the use of such slogans." It is to be hoped that every Producers' Council member will now make use of some such phrase in his advertising.

Less Coal Consumed

SIXTY-FOUR million less tons of coal were consumed in the first eleven months of 1930 than during the same period in 1929, according to the National Industrial Conference Board, Incorporated. While the industrial depression may account for a large part of the decrease, other more permanent factors are playing an increasingly larger part. Among these may be mentioned the increased efficiency of coal-burning equipment, competition of gas, oil and other fuels; water power developments; and increased production of coal in foreign countries. In 1929 the fuel oil consumption increase was equivalent to about four million tons of coal. The increase in natural gas consumption for replacing coal for the same year was equivalent to about one million tons of coal. Long distance natural gas pipe lines now under construction will add to coal's competition.

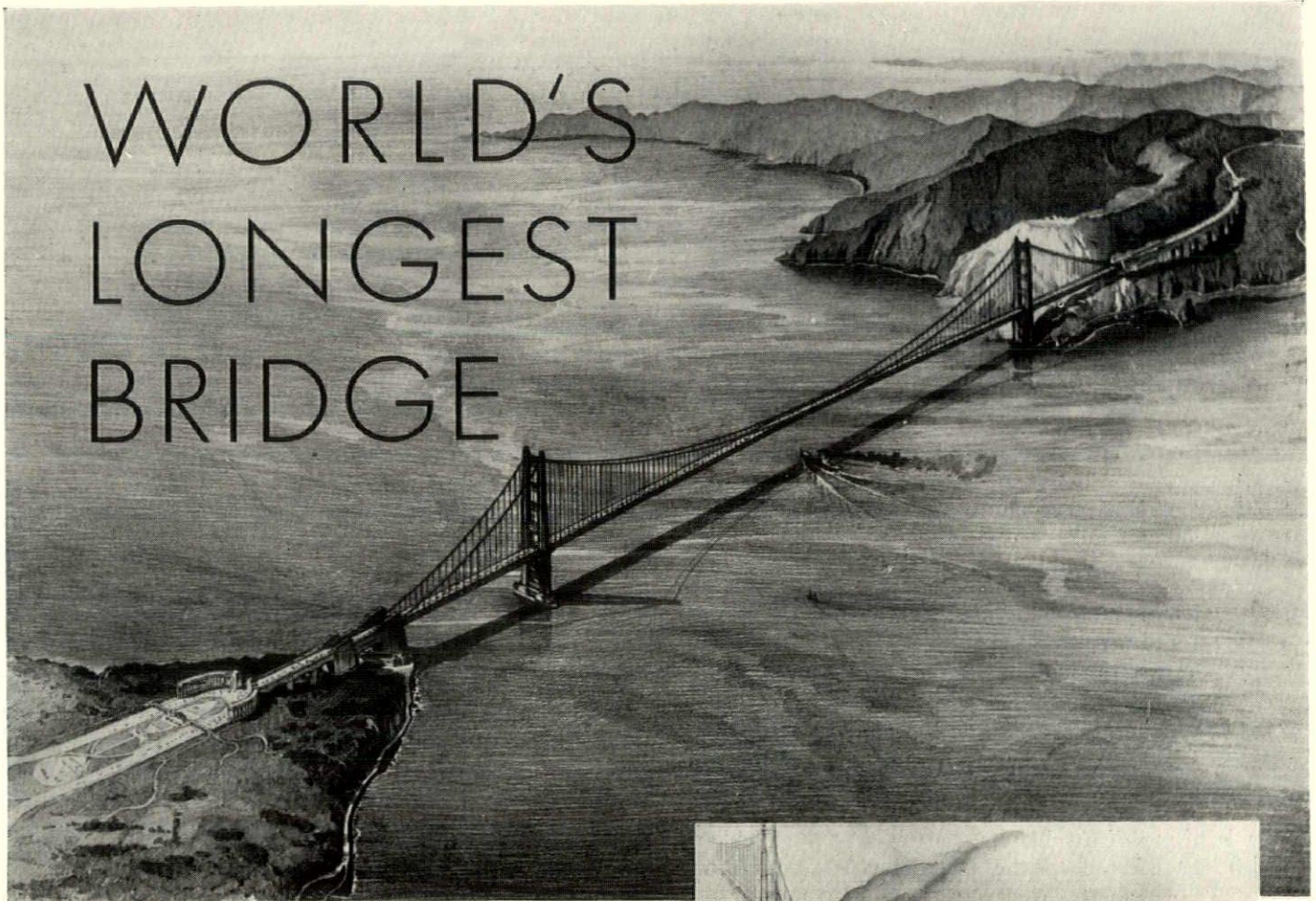
Lays Bet On Heating Cost

CONFIDENCE in the operation of his heating system has led a manufacturer to wager that the system will save fuel cost for its owner. The wager can, naturally, apply to replacement installations only. This manufacturer has organized a subsidiary funding corporation to finance the replacement of obsolete heating systems. The owner pays twenty-five per cent of the contract price upon signing the contract. The balance of the contract is paid in three equal annual amounts. If the fuel saved by the new system does not equal the amount of the annual payment, the owner owes the manufacturer nothing. It is stated that fourteen systems have been installed under this type of contract. Thus far fourteen owners have had to pay their installments.

Architects Good Contributors

NEW YORK CITY'S Emergency Employment Committee has secured pledges amounting to more than eight millions of dollars to be used as a fund to give employment to the heads of needy families three days each week for a period of eighteen weeks. The Building Industry Division, under the chairmanship of Stephen Voorhees, of Voorhees, Gmelin and Walker, architects, pledged a sum in excess of \$240,000. Of this amount, the architects of New York City pledged approximately forty thousand dollars. As a group this was exceeded only by the mason builders' contribution of forty-four thousand dollars. Rather good for a group in the building industry that has felt the lack of active building as much or more than any other.

WORLD'S LONGEST BRIDGE



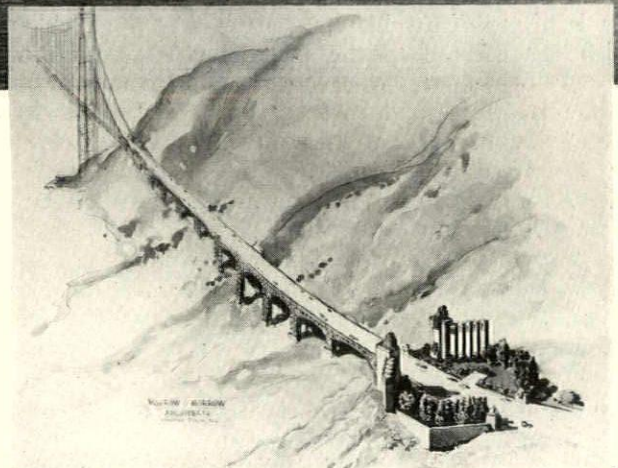
The Golden Gate Bridge San Francisco

Morrow & Morrow, Architects

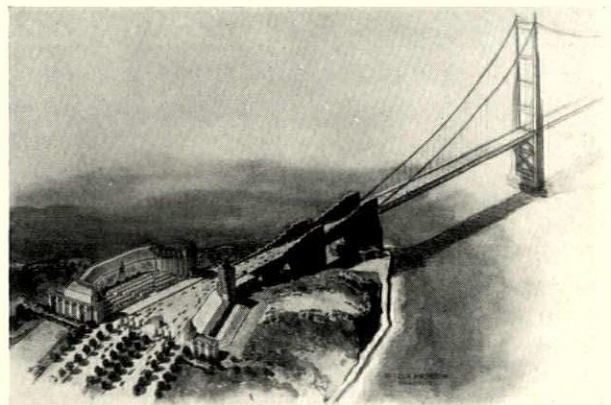
THE longest span and the highest clearance of any bridge in the world is the claim for the \$35,000,000 Golden Gate Bridge, which will connect the city of San Francisco with the prosperous though not fully developed country to the north. The span will be 4,200 ft., the length 6,400 ft. from end to end, and the distance between portals 8,943 ft.

According to Irving F. Morrow, architect, "Throughout a considerable portion of the year, high fogs render the light of San Francisco colorless or gray. Even in full sunshine the characteristic atmospheric effects are blue rather than warm. Local architecture has consistently evaded the implications of this situation by remaining itself colorless.

"Our conception is a full polychrome, increasing in richness by successive steps as it focuses upon the bridge, culminating in the final monumental pylons in pure metallic gold—veritably, as well as symbolically, the Golden Gate. The entire composition thus at all times will be alive, on the grayest day only a degree less so than on the brightest. Confident use of color is characteristic of modern architectural developments."



North Approach, conceived in full polychrome with monumental pylons in pure metallic gold



San Francisco Portal which provides accommodations for the public and halls for memorial museums

THE READERS HAVE A WORD TO SAY ABOUT

Government Employment OF PRIVATE ARCHITECTS

• WRITES NEWSPAPER

Editor, THE AMERICAN ARCHITECT:

This morning I read the editorial in your December issue entitled, "The Government Should Employ Private Architects."

I am delighted that you have encouraged the profession to seek publicity on this matter, and I am writing *The New York Times* in the hope that I may do my part with a letter pertaining to this question, as I have realized for some time that the Government was not doing the right thing by our profession, and that if any work has been given to outside architects, it has been largely a matter of political influence.

From the Treasury Department, however, I have learned that very little if any work has been given out in this manner and the time is certainly opportune to bring pressure to bear on Secretary Mellon, who, I understand, has the entire matter under his control. I have personally talked with Mr. Mellon about this but got little if any satisfaction.

Congratulating you on taking the initiative in this matter, which I hope will meet with success, I am—*Ethan Allen Dennison, of the architectural firm of Ethan Allen Dennison and Associates, 40 East 49th Street, New York City.*

• INFORMS CONGRESSMEN

Editor, THE AMERICAN ARCHITECT:

In relation to the employment of private architects on government work I would say that it is a matter which we, of course, would heartily approve.

As far back as August 13 we wrote to Mr. Ferry K. Heath, Assistant Secretary of the Treasury, who has charge of the government architectural office, urging that private architectural service be utilized. I quote from his reply as follows: "At the present time it is the intention to employ the services of private architects for only a limited number of the federal building projects."

We wrote to the following Congressmen whom we are acquainted with or who represent our district: Mr. Richard B. Wigglesworth, Mr. Charles L. Underhill and Mr. Frederick W. Dallinger, also to Mr. George Akeron, the secretary of the President. Replies from all the Congressmen indicated approval of the idea and showed that in bringing the matter to the attention of Mr. Heath they received the same answer that I did directly. It would appear, therefore, that it is Mr. Heath who must be convinced of the desirability of the objects outlined in your editorial.

If you will send us three or four reprints of your

editorial I shall be glad to send them to the persons mentioned above and use them elsewhere if possible.—*Lloyd M. Hendrick, Jr., Hendrick and Hayward, architectural service, 192 Boylston Street, Boston.*

• ARRANGES RADIO TALK

Editor, THE AMERICAN ARCHITECT:

I am arranging for the dissemination of particulars, in connection with your "Get Some Work Started" campaign, over Station WBNX in the Bronx during the next few weeks.—*Edward Whitewell, architect, 606 West 116th Street, New York City.*

• TELLS ABOUT SPRINGFIELD TROUBLE

Editor, THE AMERICAN ARCHITECT:

I have just read your editorial in regard to the Government practice of designing Government buildings by Government employed architects.

I heartily agree with you that this practice is improper in every way. The U. S. Government has enough to do without operating an architectural department. I think that a careful survey of the many public buildings that have been constructed under government architectural supervision and design demonstrate the fact that the Government does not properly design and arrange buildings for the purposes to which they are put.

Springfield at this time has a controversy with the Government architectural force on the design of a new post office. I have not concerned myself particularly in regard to it but the pictures that have appeared show a building that is certainly not architecturally sound. There is a fight on now between the interests in Springfield and the Government architectural force on this question, and, of course, it will delay the work. If this had been placed in the hands of private architects of known ability, there would not have been any public protest on the question of design, and in my opinion the Government would have gotten a very much better building in every way.—*S. M. Green, Samuel M. Green Company, architects and engineers, Springfield, Mass.*

• WRITES GOVERNOR

Editor's Note: Mr. Ragan sent THE AMERICAN ARCHITECT the following copy of a letter he had written to the Hon. John Garland Pollard, Governor of Virginia.

My dear Governor:

Some time ago I wrote you as to the wisdom of letting the State's architectural work to local architects, or at least giving local architects the preference, all things being equal. You favored me with a most courteous and

prompt reply, for which I thank you.

I am again taking the liberty to address you along this line, because I believe it the wiser policy and I sincerely trust that you can and do see it in this light.

First, it gives all a fair and equal chance to succeed and appeals mightily to the local pride of local architects and communities.

Second, it stimulates wholesome competition and promotes more rapid development locally and generally in both architecture and material achievement.

Third, it insures better and more commodious buildings at less expense to the tax-payer and meets with more general and uniform public approval.

Fourth, all the architects of the State are citizens and taxpayers and as such each contributes his part and all should stand upon the same footing and enjoy equal opportunity in the matter of home building and supporting and in local and State development.

Fifth, architects and their respective families are caught and hard pinched in this financial and business depression and each should have a fair chance at any line of employment the State may have to offer them, including the erection of public school buildings.

Sixth, I can see no reason why the Government, State or Federal, should engage in architecture any more than in manufacturing or railroad constructing.

Seventh, every job taken from the local architect contributes to unemployment in such community.

Enclosed please find a personal letter to me and an editorial from *THE AMERICAN ARCHITECT*'s December issue, which I will thank you to note carefully.—*C. R. Ragan, architect, 202½ Second Street, S. W., Roanoke, Va.*

• WE TALK PROFESSIONAL ETHICS— BUT DON'T USE THEM

Editor, THE AMERICAN ARCHITECT:

Frank Lloyd Wright's remarks in the December issue of *THE AMERICAN ARCHITECT* about the Institute touched a responsive chord. I am just convalescing from a brisk encounter with professional ethics as some members of the Institute see them; if you will lend me your shoulder for a moment I would like to cry on it.

In a little town near Grand Rapids a Methodist Church burned to the ground immediately after a dinner had been given to a local politician. (Perhaps there was no connection.) This town has a very efficient fire department, as you will realize when I tell you that the fire department had the fire well under control before and architects arrived on the job. However, I have no doubt that several of my colleagues arrived in time to trip over the hose.

The next day the invasion commenced in earnest, and before the architect was finally selected, twenty-one architects by actual count had put in an appearance and asked for the work. This does not include the number who applied by letter only. I have done quite a bit of work in this town, and the Board of Trustees of the church invited me to come up to a meeting. The first thing that they asked me was, "Will you make a sketch without obligating the Board?"

Thereupon I went into my dance and told them that as a member of the Institute I could not prepare preliminary sketches until I had been engaged. They re-

plied, "But Mr.— of Detroit has already prepared a sketch, and so has Mr.— of Grand Rapids; both of them are members of the Institute, aren't they?"

This left me out on a limb, but nevertheless I stuck to it that I would not make any preliminary drawings. Finally I gave in sufficiently to make a pencil layout of a floor plan idea that I wanted to explain; I am sorry I even did that.

Before they got through they had a stack of sketches on hand that a greyhound would have had difficulty in jumping over. When the final decision was made, Mr. X— of Grand Rapids (who hadn't submitted a sketch at all) had three votes and I had two. Mr. X—, incidentally, had done a great deal of work for the local politician aforesaid, who was chairman of the Board.

Now I am very glad indeed that Mr. X— got the job; I would have been even gladder to get it myself, but failing that I am very glad indeed that it went to someone with sufficient self respect to refrain from spending money on water-color drawings purely on speculation. But what do you imagine the Board in this case thinks of architects as professional men?

The older I get (and the past season has brought my age way up in the nineties) the more convinced I am that all the ills that afflict the architect are our own fault. We scheme and intrigue; we are as jealous of each other as a lot of opera singers, and we insist on doing a lot of work for nothing. Then when we get a job we cap the climax by allowing irresponsible contractors to figure simply to knock the price down. Some times I regret that I didn't take up some good clean profession like umbrella mending.

I have decided, however, that in my own case the game isn't worth the candle; if the only way that I can get jobs is to make a lot of preliminary drawings without any assurance of ever being paid for them, then I will get along without those jobs. Fortunately I am able to supplement my professional income by writing of various kinds, and I have enough steady clients to allow me to greet the wolf with the ancient Chinese gesture of contempt.—*Frank P. Allen, Architect, Frank P. Allen & Son, Grand Rapids, Mich.*

EDITOR'S NOTE: The following letter was written by Mr. Allen to the chairman of the church building committee and shows a good sales angle from which to handle the question of speculative sketches.

Mr. Z— :

We would regret it very much if your committee, now engaged in the selection of an architect for the rebuilding of your church edifice, should get the idea that we have refrained from submitting preliminary sketches of this work because we were not interested sufficiently to do the necessary work entailed in drawing an intelligent sketch.

Our attitude has been simply this; selection of an architect on the basis of preliminary sketches is a dangerous procedure, and one in which the honest architect is penalized in direct proportion to his honesty. In other words, when the presentation of attractive sketches is made the basis on which the architect is to be selected there is a constant temptation for the competing architects to promise more than they can perform. The architect who makes a sincere effort to keep the cost of the building down within your appropriation will find

BRONZE..

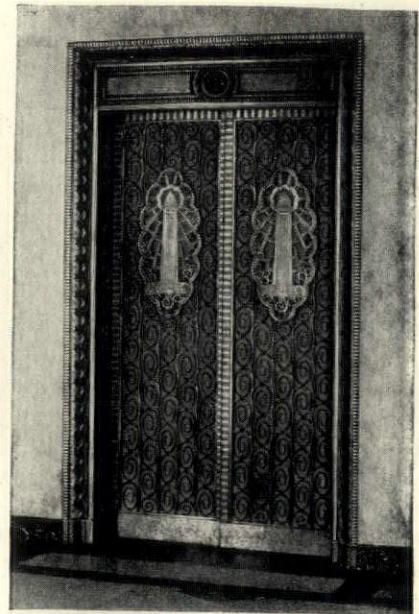
NICKEL SILVER..OR IRON..*but
ever faithful to Architect's Designs*

On this page are three examples of recent General Bronze jobs . . . Three types of elevator doors — three different styles of designs — three different metals.

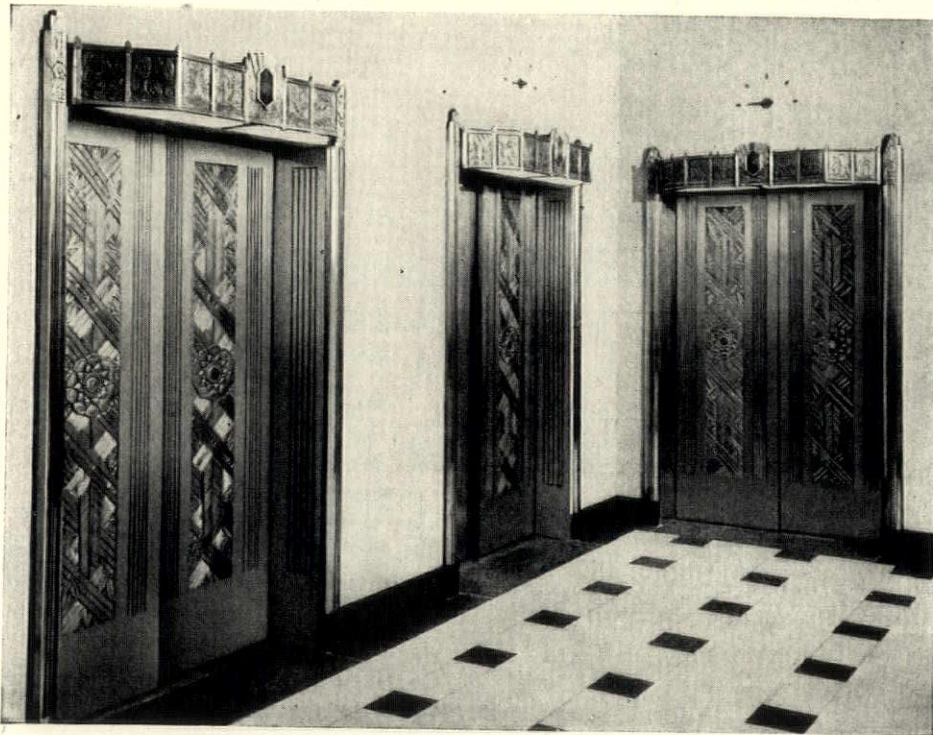
The doors of the Chicago Daily News Building are of modern *nickel silver*. The vertical design gives an effect of height and loftiness. Metal strips on each side accent this idea . . .

The design of 1 La Salle Street shows the use of *bronze* at its best. Fineness of scale, of line and of shading — such as bronze can achieve . . .

The Foshay Tower doors are cast *iron* with a classically wrought design. The bas relief representation of the building — worked into the door — is *bronze* — an effective combination for contrast . . .



Foshay Tower, Minneapolis, Minn.—Wrought Iron Elevator Doors with cast bronze inserts. Architects: Magney & Tussler.



Chicago Daily News—Elevator Doors, nickel silver. Architects: Holabird & Root.



1 La Salle Street, Chicago, Ill. — Elevator Doors, bronze. Architects: K. M. Vitzthum Co.

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Both with the older and modern architectural metals, General Bronze has had wide experience. This construction and technique experience is available through the new "Metal Engineering Service." It is a *practical and personal* service rendered from our New York and Minneapolis offices. Architects are sincerely invited to avail themselves of this new General Bronze department.

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FOR FEBRUARY 1931

his sketches outshone by some competitor who has disregarded the cost element in an effort to get a good looking sketch.

An architect should be selected on the same basis as a doctor or a lawyer is selected—solely on the basis of their reputations and on the results that they have achieved in the past. You can learn more about an architect in ten minutes by looking at work that he has designed and supervised and talking to clients for whom he has worked in the past, than you can learn in hours of looking at well-drawn and handsomely colored sketches. Water colors will not keep a poor roof from leaking, and pen and ink perspectives will not keep your plaster from cracking if the footings are inadequate.

At R—, less than 10 miles from Z— there is now being erected a school building from our plans and under our supervision. The R— Board of Education desired to spend \$85,000 for the school complete. The Secretary will tell you that all the contracts are let, the fixtures and equipment purchased, architect's fees paid, and there remains a slight balance out of the appropriation. Mr. K—, the secretary of the Board, is a friend of yours and I refer you to him for evidence as to whether the service we rendered his board satisfied them.

You will learn far more about an architect's ability by thus consulting his clients than by weeks of dazed contemplation of preliminary sales sketches, which in the last analysis are merely exhibitions of water-color technique.

We hope that we will have an opportunity to talk to your full committee before they reach a final decision.

• CHURCH ASKS BAILEY QUESTIONS ABOUT DECEMBER ARTICLE

Editor, THE AMERICAN ARCHITECT:

Both your magazine and Mr. G. R. Bailey are to be congratulated upon the very timely and interesting article appearing in the December 1930 issue of *THE AMERICAN ARCHITECT*. It presents in a very forceful manner the possible results of an intensive study of building economics together with one method of prosecuting such a study. However, there are some items that are not clear and are, therefore, open to question.

1. It is stated that, "This factor of land charge places a proper penalty on the plans which develop the smaller net rentable areas. With properties valued upward of \$200 per sq. ft. this land investment charge will vary from 75 cents per net rentable square foot for a twenty story building to four times that figure for a five story building." From the explanation given, it seems that this "land charge" is intended as an annual sq. ft. rental rate required to pay interest on the land cost. If so, it is not a "land charge" but a land interest. But it is an error to suppose that this can be derived by "assessing a percentage, such as 5 per cent" because the ratio of net to gross income must also be considered. It is also an error to suppose that this land rental rate will vary inversely as the number of stories; because every increment of height brings its increment of loss in the net rentable area. Not only so, but the land rental will be nearer \$2.50 for 20 stories and \$9.00 for 5 stories than \$0.75 and \$3.00 respectively, depending upon the governing conditions in each individual case.

2. The same or similar errors of mathematical conception seem to apply to the "additional construction charge" for extra perimeter. Quite evidently, the author does not understand the mathematical relations of the economic elements of buildings.

3. It would be interesting to know the complete schedule of rental rates upon which the three given rates were based; it might be possible to prove that the office depths here used are too great and hence uneconomical. It is quite generally considered that 24 to 26 feet is the most satisfactory depth and it would be a valuable contribution to our common store of knowledge if it could be shown that 30 feet is still better.

But the value of the objective lessons of this series of studies is not destroyed by such inaccuracies of detail. This study points to the fact that, in perhaps the average case, the architect assumes too little initiative in and responsibility for the economic success of the project; and that the owner seldom gives his full cooperation and assistance. He is an incompetent architect who can furnish merely "plans" and nothing more; and he is an incompetent owner who expects nothing more of the architect. It is probably true that the owner is the more incompetent of the two. The absolutely common purpose (as between the owner and the architect) so essential to the highest pecuniary excellence of the project is too frequently lost sight of in the mad scramble to "rush plans to completion." The most critical period in the history of the entire project is thus neglected and permanent assets to the investment are replaced by equally permanent liabilities.—*Eugene B. Church, architect, Houston, Texas.*

• AND BAILEY ANSWERS CHURCH

Editor, THE AMERICAN ARCHITECT:

Although it seems to me that Mr. Church has been a little unduly critical, nevertheless it is a very satisfying thing to realize that other people, and particularly architects, are interested enough in the subject to take up the cudgels with as much zest as has Mr. Church and his criticisms as being his sincere feeling regarding the matter and, consequently, constructive.

With respect to Mr. Church's first paragraph, he is quite correct in stating that the land charge is a land interest, the only difference being that in real estate parlance, at least in this district, interest is frequently referred to as a land charge. I believe that Mr. Church feels that my analysis set-up was more or less of an operating estimate, which it was not, it being purely and simply a comparative analysis for the purpose of determining the economics of various floor plans. As a matter of fact, it would be useless as either an operating or financial set-up but it does illustrate the economics of alternate floor plans with a fraction of the labor that would be involved if the whole procedure were gone through with. As I stated before, the origin of this set-up was with the National Association of Building Owners and Managers, which includes in its membership some of the keenest minds, so far as this subject is concerned, that are to be found in the country. Mr. Church is quite correct in stating that it is an error to suppose that this land charge or interest will vary inversely as the number of stories but for comparative purposes, we



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Houses owned by Dr. George Woodward at Chestnut Hill, Pa. Restored by H. Louis Duhring Philadelphia, Architect

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obtain the desired result by making it inversely proportional to the rentable area. I do not agree with Mr. Church's statement to the effect that every increment of height brings its increment of loss in the net rentable area, as many buildings, particularly in Chicago, have more rentable area on the twentieth floor than they have on the eighth or ninth, for the reason that banks of local elevators drop off. I do not understand Mr. Church's figures for the land interest charge per square foot when he figures it out to be \$2.50 for twenty stories and \$9.00 for five stories. As a simple example, take a lot 100 feet by 200 feet. The 20,000 square feet in this lot at \$200 per square foot would represent an investment of \$4,000,000 and a five per cent interest charge would amount to \$200,000 per annum. Now, a twenty story building on a lot of these dimensions should develop at least 212,000 net rentable square feet exclusive of the basement and there consequently would be a charge on a square foot basis of \$200,000 divided by 212,000 square feet or 94½ cents in this instance. A five story building, roughly speaking, would have approximately one-fourth the area and four times the square foot land charge or \$3.78 a square foot.

With respect to Mr. Church's second paragraph, I vigorously protest that I do have some understanding of the mathematical relations of the economic elements of buildings and that same understanding has been the result of studies made by some of our largest construction companies and some of our largest architects. Any

building, all other things being equal, which has a great deal more exterior wall than another, is going to cost more per square foot.

So far as Mr. Church's third paragraph is concerned, there perhaps he has picked up something which I was remiss in not including in the article and that is, that different cities have vastly different requirements as to the depth of office space. Chicago and New York can rent 30 foot space. As a matter of fact, there has been a demand in the Board of Trade Building for space in excess of 30 feet in depth, particularly on the part of brokers who desire to have a quotation board on the back of the corridor wall with a great many chairs between this quotation board and the exterior wall so that the clients sit with their backs to the light and read the stock quotations. Detroit, on the other hand, and some of our other cities have difficulty in disposing of deep space.

Let me say in conclusion that an analysis, such as was outlined in your magazine, is no more than a fractional beginning of the study that should be put on an office building. Such an analysis serves its purpose and has done so time and again in determining the relative values of various floor plans but no two projects are in any way the same and in addition to an analysis study, there should be the operating set-up, the income set-up, the annual financial set-up and the year to year or progressive picture estimate.—G. R. Bailey of *Albert H. Wetten & Co., Real Estate, Chicago, Ill.*

Building Complaints Handled by Better Business Bureau

THE type of complaint being handled by the Construction Industries Division of the Better Business Bureau of St. Louis, the first organization of its kind and described in the May issue of *THE AMERICAN ARCHITECT*, is shown from the following cases:

A man complained to the Bureau that the installation of his furnace was defective. He related that efforts to procure an adjustment were ineffective.

A woman complained that a contractor charged her for painting done which was to be included in her original contract.

A man complained to this office that he thought his general contract included the millwork, but now he had received a bill from a planing mill company, after his payment of the original contract in full.

A man complained to this office in reference to a deal with a real estate company that involved the exchange of a four-family flat for a lot with the condition that he would be able to secure a permit from the Building Department to build a double flat on the lot. After the exchange was completed he was refused a permit.

A woman complained to this office that she was being charged twice for the lumber which was bought for her, with the possibility of a lien being filed against her property if she did not pay.

A man complained that the plans and specifications in his contract with a construction company were not being carried out as agreed.

An appeal for aid in securing a receipt for an electrical job which had recently been completed and paid for in full.

A woman complained to the Bureau that a planing mill failed to repair improperly veneered doors.

A woman complained that a roofing company had agreed to put a new roof on a building, when actually they had only repaired it.

Two owners of homes complained that they had contracted with a company to waterproof damp brick walls with a proprietary cement paint. The paint was applied, but the walls are still damp.

Checked advertising in daily newspaper in reference to the infringement of the trade-name of a local material company. Secured satisfactory adjustment and change in advertising copy.

SUNSHINE is harnessed to furnish hot water in Florida, residents of which state make use of the sun's rays to heat water without fuel cost. The heaters consist of two parts: an insulated copper tank in which water is stored, and a copper plate to which is soldered a flat coil of copper pipe enclosed in a glass-covered air tight frame which is placed on the roof. The heated water is kept hot over night and during cloudy periods in an insulated storage tank. It is said that over 5,000 such heaters are in use.

STRUCTURAL STEEL CREATED THE SKYSCRAPER

STEEL SOON BEARS RIPE PROFITS

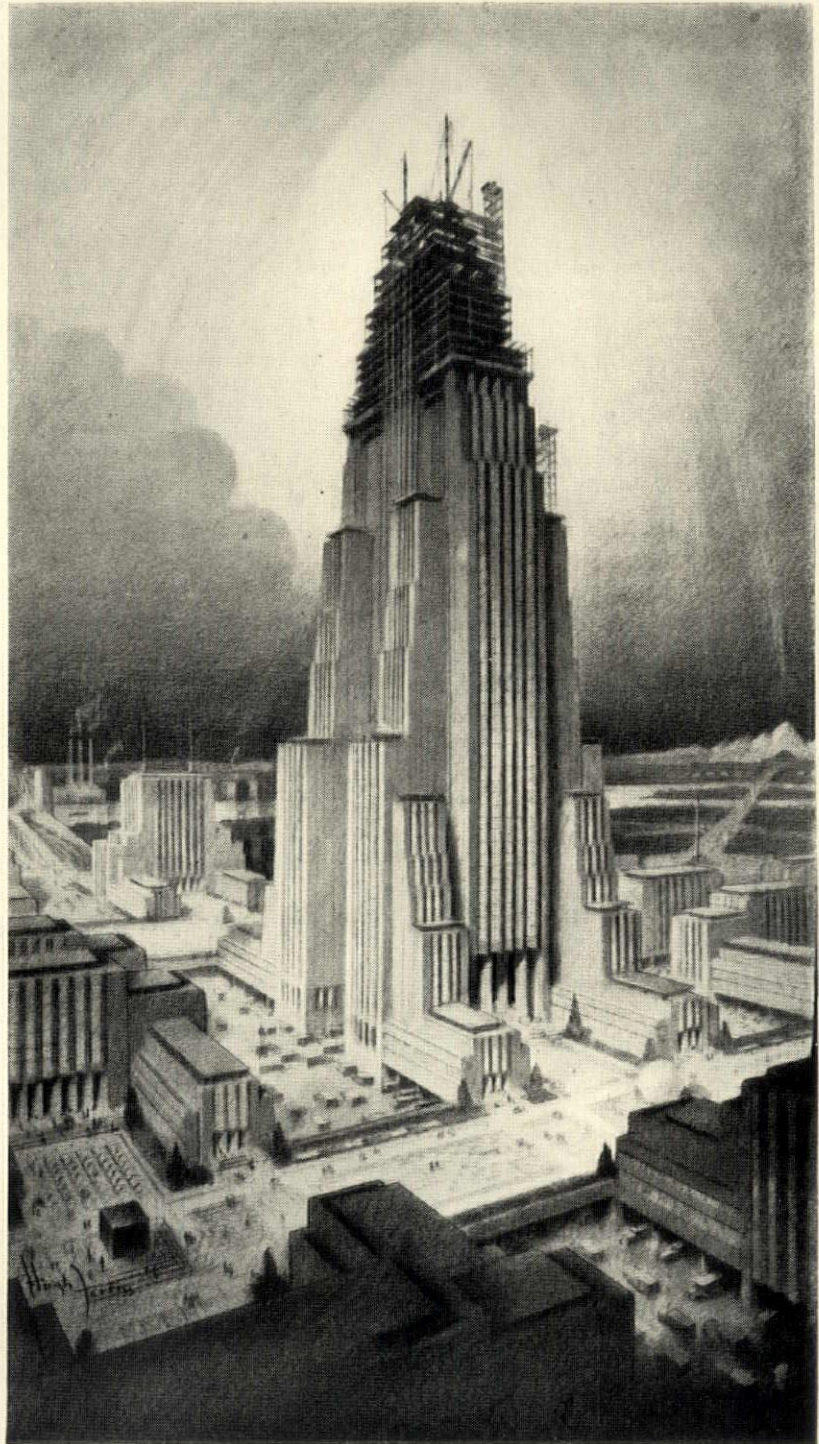
THE "cloud-touchers" are steel! Every one knows that now. Knows, too, that the higher spires and more daring spans to come must be steel. Of greater significance is a growing recognition of this fact: The humble building at a skyscraper's base, or the modest bridge astride a rural stream, is ready sooner, serves better and lasts longer when this matchless metal is used.

For steel brings the same speed and economy in construction, the same predetermined strength and security to homes, schools, and small as well as large apartment and mercantile houses, factories and bridges. It comes to a building site ready to go into place. Heat or cold, rain or snow cannot affect it. It is permanent, fire-resistive, cannot shrink. It may be quickly erected wherever and whenever men can work.

Before building anything, find out what steel can do for you. The Institute serves as a clearing house for technical and economic information on steel construction, and offers full and free co-operation in the use of such data to architects, engineers and all others interested.



The co-operative non-profit service organization of the structural steel industry of North America. Through its extensive test and research program, the Institute aims to establish the full facts regarding steel in relation to every type of construction. The Institute's many publications, covering every phase of steel construction, are available on request. Please address all inquiries to 200 Madison Avenue, New York City.—In Canada, to 710 Bank of Hamilton Bldg., Toronto, Ontario. District offices in New York, Worcester, Philadelphia, Birmingham, Cleveland, Chicago, Milwaukee, St. Louis, Topeka, Dallas, San Francisco and Toronto.



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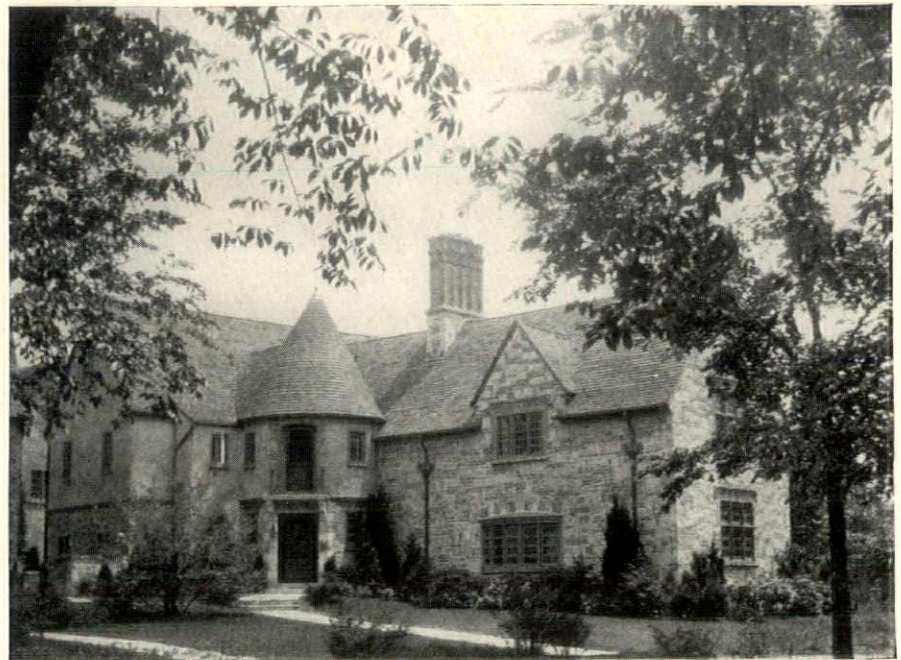
FOR FEBRUARY 1931

Judged the Best House

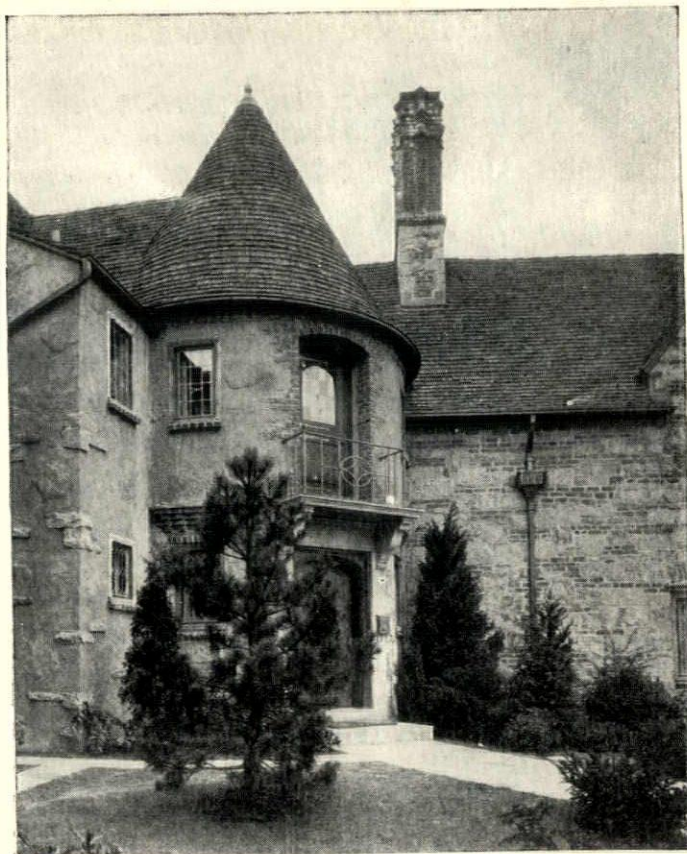
built in the
borough of Queens
New York, in 1929

CERTIFICATES of appreciation are awarded each year by the Queensboro Chamber of Commerce, to the architect, owner and builder of the structure in each of several classes which in the opinion of the Better Building Committee contributed most to borough improvement during the previous year.

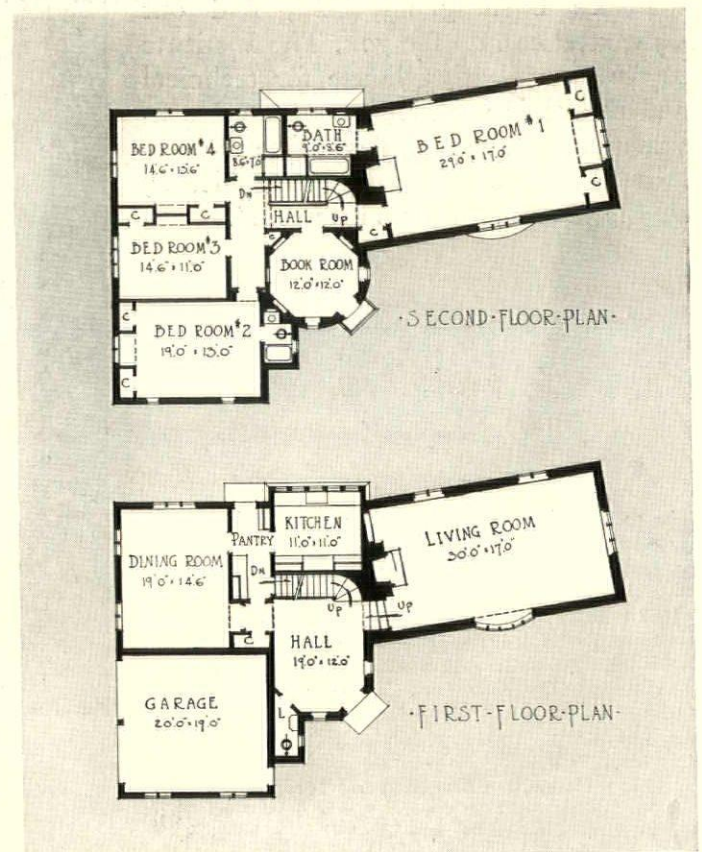
Lawrence M. Elliott was the architect who received the 1929 award for the Guyon L. C. Earle house at Forest Hills Gardens, of which Mr. Earle acted as general contractor.



THE FIRST COMMISSION of the architect after entering practice, and the first Queens award for a house designed and built for sale



COMBINATION OF MATERIALS in the forms of Elizabethan England and provincial France contribute to the interest of this house at Forest Hills Gardens



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See our catalog in Sweets.

Controlled Companies of
American District Telegraph Co.
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Horse and Buggy Building

(Continued from page 23)

What part of our work is new and what part old? Between the Scylla and Charybdis of new and old, what should be our proper course?

Does tradition hamper progress in architectural thinking? This question and many others are now passing through the minds of many of us. When did this so-called modern movement begin? When and where will it end? When balconies in theatres and similar structures were first cantilevered, about thirty years ago, thus eliminating the old system of carrying the balcony load by intermediate columns—that was new. And what a shock it must have been to the eye to have seen such a balcony for the first time! When, about fifty years ago, the first steel skeleton building was constructed in Chicago, thus eliminating the old method of bearing walls—that was new. When cement was discovered—that was new. When steel was invented—that was new. So we go back through the centuries, noting continual discoveries and improvements of methods and materials and the new types of building in which they found expression. So we find the primitive house or hut built for shelter, a shrine for some kind of worship, a stockade for defense, a mound for the grave of a chief or hero; these simple buildings are expressions of very old inventions and usages. Were they not new ideas once?

New problems are today being presented to the architect which cannot be expressed in traditional terms but require that he evolve or create his own style and expression if the particular problem is to be solved in a straightforward, honest manner conforming to modern requirements. It is only in recent years that the architect has been required to deal with extensive mechanical equipment involving complicated systems of heating, ventilation, plumbing and electric wiring. These mechanical equipments have become a part of our life and must be dealt with. They are as necessary today as the vital organs in the human body.

I believe the day is forever past when we, as architects, can sell the idea of transplanting a Venetian palace from Venice to Fifth Avenue, and by clever juggling of parts transform this same building which was originally used as a residence by some famous Venetian family, into a modern jewelry shop, or a modern department store, or perhaps a modern restaurant. The new development in architecture which we are considering comes usually under the name of "modern," but the significance of this term is easily lost. It is modern only in the sense that it is contemporary. As such it is bound to have many expressions, some of which are and will be badly conceived.

We have spoken of solving problems in a modern way. This should not be misunderstood. There is no new principle involved. The development of the architecture of the age of Louis XIV was a modern, that is to say contemporary, movement in its day. Architects and builders of all ages have asked and answered these questions:—What is the function of the building? What is its purpose? What shall be its character? From this analysis it is clear that the dominant thought has been:

form should follow function. Consider, for example, all the tombs of Abydos, the most venerated of all burial grounds of Egypt. One finds that their problem was to build a structure that could be used for a tomb and then they proceeded to build it with the available materials.

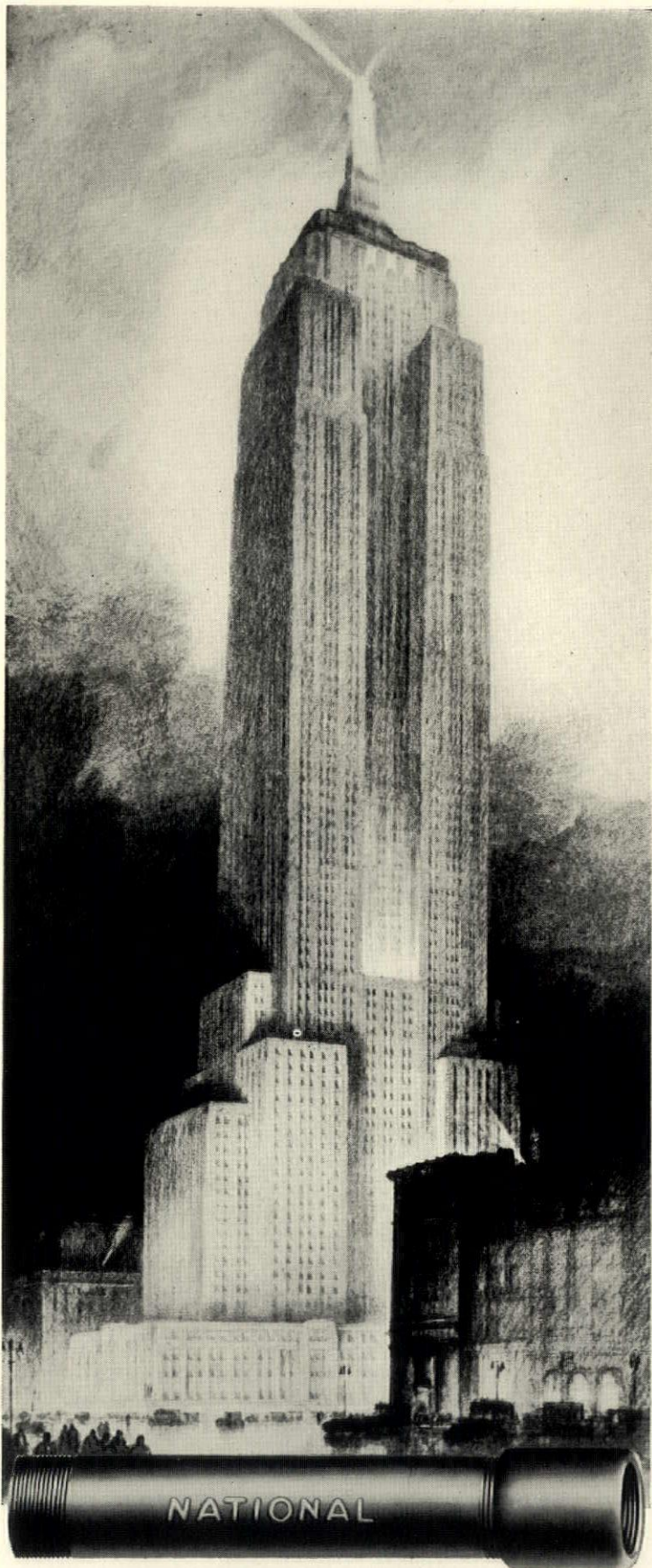
It is a long reach from the tombs of Egypt to the house of today, and while the uses to which the tomb may be put are not very different today from what they were in Egypt, our mode of living is very different from that of the Egyptians. Should not our houses be designed in accordance with it? Let us consider three representative influences that have modified our conception of domestic work.

The traditional house, as most of us picture it, has some form of slanting roof. Prior to the invention of methods of making flat roofs that would be water tight, the house had to have some form of slanting roof to shed the water. That is not true today; our houses may have flat roofs with impunity. This one invention gives the architect an opportunity for utilizing his roof surfaces and for reducing the cubage of his building.

The motor car developed as a commercial success about 1902 and since then has become of such importance that it must be taken into consideration in every residential problem, just as the kitchen is taken into account. The motor car must be housed just as the mechanical equipment in the kitchen must be housed. It is part and parcel of the present day domestic architecture.

When the motor car came upon us suddenly some twenty-eight years ago, no accommodations had been made in our houses for this vehicle. What happened? Those who were fortunate enough to have stables, converted them into garages. Those who did not have stables met the problem in a helter-skelter manner. The sheet metal manufacturers seized the opportunity to market their wares and manufactured thousands of small buildings known as metal garages. For the main part these garages were badly designed. They were frequently placed as far from the house and road as possible; and usually they were located at the rear of the property. The owner, evidently indifferent to his own comfort and convenience, did not stop to think that perhaps the garage was as much a part of his house as any other room. This treatment of the garage continued for years until someone was courageous enough to bring the garage from the rear of the lot and see that it was well designed and placed near the house or that it was incorporated into the house itself. In other words, the garage has become, in a way, the front entrance to the house.

Another transforming influence in recent years has been the perfecting of methods of heating and ventilation. One of the effects of this improvement has been the metamorphosis of the cellar. The old-fashioned cellar was and, where it exists, still is the hiding place of all kinds of junk which a family collects over a period of years. Into this part of the house, until re-



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Conceived in great daring, designed in a consciousness of means never before given to architecture, the new Empire State Building will lift its beacon to pierce the sky eighty-five stories above the streets of New York. Framed with steel, clothed in stone and concrete, fortified and made lasting by every provision that art or science commends—America salutes this latest architectural and engineering achievement. In such an edifice, the use of any material is a high recognition of merit.

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cently, guests never dared to enter and the family entered it only when necessary. It was a place to avoid on account of its unattractive, dusty, and indeterminate condition. The old furnace was usually placed in a prominent central position and the area subdivided in a haphazard fashion for the storage of various household goods. With the development of the modern oil and gas heaters, the dust resulting from ashes has been eliminated and as a result all basements can be designed so as to be not only dry, well ventilated and well heated, but attractive and clean. In many recent houses part of the cellar is allotted to a party room. This room may be used for entertainments, as a game room or a gymnasium. Thus, the architect finds the possibility of using economically for living purposes space which was, in other days, largely wasted.

These are some of the changes in the problems which the architect faces in designing country houses. Similar changes are involved in all his problems, whether they relate to civic architecture, commercial architecture, or other types.

The next movement which we shall probably see in

the field of architecture will be the giving up of traditional forms in domestic work in favor of simpler forms derived from conditions imposed by modern methods of construction.

By way of summary, I could do no better than to cite the following illustration: I have been asked to design a modern theatre railroad car. The character of the structure of the shell of the car is metallic; in other words, the car must be structurally and decoratively executed in metal of one kind or another. What attitude should one take in solving this problem? Should one go back to traditional styles, in which plaster, stone and wood were the mediums which made up the architect's palette, so to speak, or should he attack this problem in such a manner as to utilize present day materials, so that the car shall express the material of which it is built? The answer seems clear to me: The car should be designed irrespective of traditional styles, and forms of decoration should be used which would not in any way interfere with the effectiveness of the car considered as a practical and useful adjunct to modern life.

What to Put on Working Drawings

(Continued from page 47)

detail the members and connections. These things should be shown simply and directly. But here again, what is meant should be said. Is the clearance to the center or to the edge of a beam? Show the dimensions accordingly. Is the column or beam directly over the one below? Say so in an intelligible way.

Take the drawing of an average spandrel section for example. It probably shows a beautifully drawn I-beam sealing four and a half inches back of the facing. That looks fairly definite. But where is that beam from some given point? No hint is given, except that it is so far from the face and the face is so far from somewhere else. A long hunt will reveal that the wall has or has not set back at this story. Simplify this—run a plane up the full height of the building, such as the property line. Measure everything from this plane. If the edge of the spandrel is to be four and a half inches back from the face, dimension to this edge. Don't get out the steel handbook and, from the width of flange, compute the distance to the center. Say what you want to say, and if changes of sections are made in the shop for some reason, the detail still holds good.

What does the contractor for the concrete work want to know? He wants to know the size and location of beams and slabs, and the number and size of bars. But here we are dealing with a continuous structure and one part laps over onto the next. The size of beam tells him how to make his forms, but noting the number of bars tells him next to nothing. The bars may be in the bottom of one beam, bend up, and lie in the top of the next. He needs to know which bars do this, where they bend, and how far they lap over. Only a continuous diagram of the whole line of the beam will show this, though it can well be done at small scale. The bends and lengths of bars should be dimensioned, and the number and spacing of stirrups shown. To show each beam by

itself is sheer folly—the individual bars are the important thing, for from that information the steel is bent and cut. It saves time to do the job thoroughly, for checking a bar schedule is hopeless for the man who designs the details. And on the job, errors show up at once.

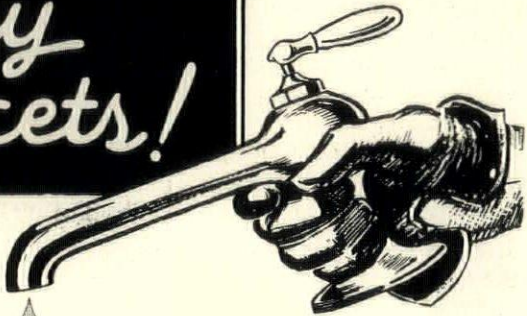
Lastly, what about the controversy over the right way to dimension a partition? Should it be to both sides, or to the middle? The answer is, no. It is all a case of what you are trying to say. Must a room be a certain width? Then dimension the room wall to wall. Does the partition line with the reveal of a window? Then show it that way, and call attention to it. Get the location from the window, for the window will be there before the partition is set—it is, so to speak, logically prior. If it lines with the edge of a beam, show that.

Contractors sometimes waste hundreds of dollars making the fireproofing just an inch and a half instead of standardizing beam bottoms. For all they know, some partition may have to come on the edge of a beam and it may be dimensioned as such. But they have no way of telling without much study. If the partition comes more or less to a given line, dimension it to the middle—many partitions are located to a convenient inch or foot anyway. Usually the thickness shows to scale, but if there is any doubt, show the nominal thickness separately. It won't be just that thickness actually, so why pretend that it will be in a long tie-up of dimensions? There is no place more liable to error than such a line anyway, and if two such lines have to match at various points it is deadly—and often useless.

These cases are merely instances of a general principle. Ask yourself: What does the man on the job want to know? Then say that, and no more and no less. Especially don't say more. He won't take the time to read any of it if you do.

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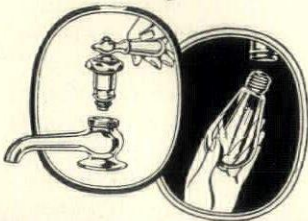


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Frost? No, Decay!

(Continued from page 29)

have been considered as affecting masonry mainly at the surface, but in the light of present knowledge the surface effects are usually insignificant compared with what takes place within. During the past century the acid condition of rainwater has been greatly augmented, particularly in industrial centers, by sulphur gases from the burning of coal and oils. Evidently this contamination has greatly accelerated acid action over that of the ever-present content of carbonic acid gases. The solvent action of acid rainwater on limestone and marble has long been recognized by the surface effects, but there has been little said of the same action striking at the more vital parts of such materials.

Some studies have been made at the Bureau of Standards for the purpose of learning more about this phase of weathering and the results have given marked indications that the action of weak acid solutions or rainwater on the interior of carbonate stones is a prominent factor in bringing about decay. This process is probably analogous to that which results in the formation of caves in limestone regions, but on a much smaller scale. Acid rainwater permeates the pores and each time the pores are enlarged somewhat at the expense of the bonding material between the grains or crystals.

A good example of this action is seen in the United States Patent Office Building. The part referred to is of a very large crystal calcite marble formerly called "Alum marble." There are parts of this building from which one can pull out crystals which have become entirely loosened from the blocks. Figure 5 is the base of a column in this building which shows an advanced stage of weathering. This seems to be mainly due to solution between the grains, but no doubt frost action becomes a factor in the process after the pores have been enlarged by acid action.

A block of marble 8 inches thick was taken out of the top of a chimney on the Patent Office Building and sawed into six slabs each about one inch thick. These were tested for strength and absorption and the results are shown in Figure 3. The strength of the slab from the outside face is seen to be less than one-third that of the original marble, then it increases toward the middle of the block to over one-half of the original and drops down to about two-fifths on the other face,

which was somewhat protected from the weather. The porosity of this marble when fresh from the quarry is about one per cent. Absorption values indicate that the porosity was about twice as high on the weathered faces as in the middle of the block, which in turn was fifty per cent higher in porosity than the original material.

Further evidence that the interior of limestones and marbles is dissolved by rainwater is presented by Figure 4.

This shows the results of weight measurements on sandstone, marble and limestone freely exposed to the weather over a period of seven years. The sandstone, due to its inert constituents, showed no loss in weight but rather a slight gain, which was probably due to the accumulation of dirt on the surface. The marble showed a definite loss and the limestone a little more than twice that of the marble. Since the last two materials are practically identical in composition the different rates of solution must be accounted for by the physical structure. The porosity of the limestone being several times that of the marble, the logical conclusion is, that the limestone was dissolved inside at a greater rate because rainwater could reach the interior more readily.

The weathering of materials such as sandstone, granite and slate, which are mainly inert to acid attack, is not so easily accounted for as that for carbonate stones. Since these materials usually consist of a

conglomeration of different materials, which vary greatly from one deposit to another, each particular deposit may be a problem within itself.

One type of decay which frequently affects masonry is that due to efflorescence. This is caused by a leaching process carrying water soluble salts from the masonry walls and depositing them where the water finally evaporates. The surface deposit of efflorescence does not injure the masonry but often some of the salts crystallize in the pores near the surface. It is the internal stresses produced by the growth of crystals inside the stone that caused scaling of the surface. This type of decay appears to affect all types of masonry, but not at the same rate.

Decay of stone masonry from efflorescence seems to be the most serious of all weathering agencies but its

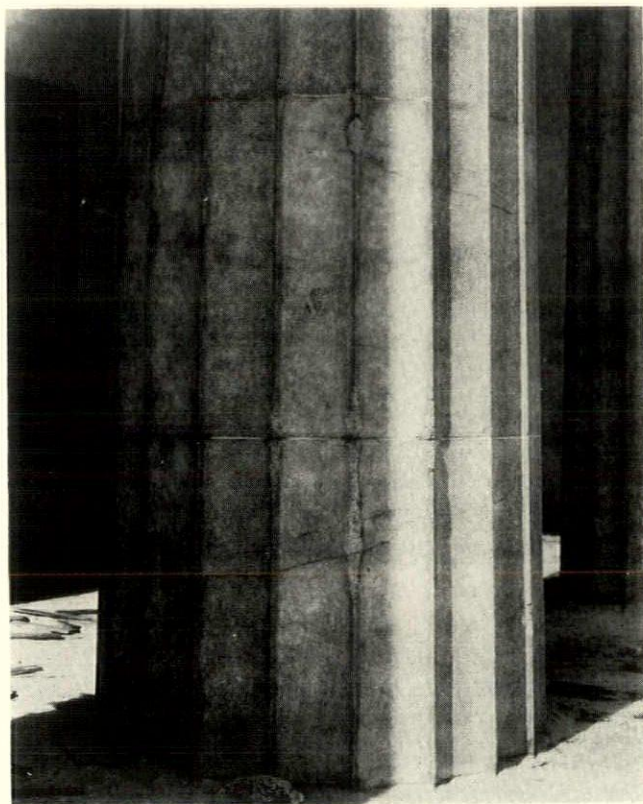


FIGURE 5

ACID RAINWATER permeated the pores of the crystal calcite marble columns of the United States Patent Office Building and enlarged them at the expense of the bonding material between the grains. One can pull out occasional loosened crystals

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ABOVE: The new International Telephone & Telegraph Corp. Building, 67 Broad St., N. Y. C. LEFT: One of the general offices.

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remedy is largely a structural problem. It is not feasible to select materials that are free from water soluble salts but even though such are present no harm will result unless considerable water passes through the walls. (See Bureau of Standards Technologic Paper No. 349, pp. 540-543.) The rise of moisture from the ground is often as serious as faulty drainage from the roof or open masonry joints.

SOME materials are subject to rather early disintegration due to inherent causes. Certain slates have been found to give satisfactory service for only 15 or 20 years. The decay is a result of chemical alterations taking place within the slate and seems to be independent of all external agencies except for an occasional soaking. This type of decay can be reproduced by merely soaking and drying the material several times. Although the mineral constituents of such slates may be relatively stable by themselves, certain combinations of these are conducive to a chemical interchange of elements which results in decay.

A serpentine stone formerly used to a considerable extent for exterior purposes appears to be affected by chemical changes within. This stone has given good service over a period of fifty years or more, but after such exposure it begins to show considerable erosion. This is probably not caused by a chemical interchange of elements but merely by expansive forces due to a hydration of certain mineral constituents.

Considerable space has been given by various writers on the subject of weathering to the effect of heat and cold on stone exclusive of frost effects. It is assumed that the thermal expansion of the surface layers due to being heated or cooled through a greater range of temperature than the interior causes stresses which result in decay. Also in materials composed of aggregates of different minerals having different rates of expansion, the result is said to be harmful. Aside from a few geological examples of this type of decay we have very little evidence in support of the theory. Granites might be expected to suffer from such causes more than any other type on account of having large crystals of different minerals. Also large crystal marble might be affected because calcite crystals expand differently in different directions. Such decay would be expected to be more pronounced on the east, south and west sides of buildings and less on the north.

IT would be a difficult matter to prove the theory from such exposure comparisons because the northern exposures are often weathered the most. Figure 1 is a close-up view of the base of the Washington Monument in Washington, D. C., taken on the north side, while Figure 2 is a similar view of the south side. The marble is a very large crystal material which should show as great temperature weathering as any marble. Although both views show considerable spalling, the condition appears to be no worse on the south side of the monument.

Granite has, in several cases, been observed to scale, particularly in the base courses of buildings but seldom in monuments. The evidence indicates that this is not a temperature effect because it is usually more prominent on the shaded parts. An example of this is found on the pilasters on the east side of the Union Station at Wash-

ington. The scaling is not very conspicuous on the sunny side but more so on the shady side. This decay is evidently due to the crystallizing effects of water soluble salts, being more pronounced on the less exposed side, no doubt, because the rains cannot wash away the salts there as they do on the more exposed sides.

In some granites there is also found evidence of decay from a kind of internal decomposition similar to that of certain slates. Many are of the opinion that this action on granite is confined to a shallow zone which has been injured in the finishing process, but this theory is not always substantiated by observations.

The state penitentiary walls in Philadelphia show deep erosion, although it may be remarked that this is not a good example of granite but rather a descendant of this material, it being a granite gneiss. This structure was built in 1823.

As a tribute to the durability of granite for building purposes it seems only fair to point to what is probably the oldest granite structure in this country, the old King's Chapel in Boston. Constructed about the middle of the eighteenth century of blocks obtained from surface boulders said to have been split by fire, this building has shown excellent weathering resistance under very severe climatic conditions.

AFTER considering various ills to which masonry is susceptible, one may wonder if there are not remedies for any of them. Although the decay of masonry is not as serious a question in this country as in the older ones, nevertheless, there is a growing demand for means of preserving old structures. Various theories and processes have been propounded but the treatments most relied upon in this country are those which strive to prevent the percolation of water through the masonry. Evidently this object, if successfully attained, will prevent decay by any of the causes mentioned in this article except the possible injury from temperature changes.

There are a number of difficulties attached to the task of preventing moisture penetration into the masonry. Surface applications even where effective are not all that is desired because moisture often rises through the foundation. Sealing up the exterior surface causes most of the rising moisture to pass out through the inside of the walls. Partial sealing of the exterior surface may cause it to scale off from frost or salt action, and it seems that there are a number of materials that offer great difficulty when it comes to sealing all of the surface pores. In spite of these difficulties there are cases in which it seems evident that decay has been arrested by successful treatment.

A treatment for preserving masonry should be reasonably permanent and its life expectancy should be known, so that renewal can be made at the proper time. Treatments of paraffin base appear to be good for at least ten years, stearate solutions about two years, while some others are still less permanent. In Europe considerable attention has been given to developing a treatment which supplies a cementing material as well as a void filler. This seems to be the ideal goal, as it would enable us to bring about the restoration of materials that have become too friable for effective treatment with wax preparations.



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*—and notice how much of its beauty
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DECORATIVE units, charming in themselves, do not always combine pleasingly. When you see a room that immediately appeals to you, the chances are that one unit has taken a firm hand in the situation and made the others behave. And frequently that unit is the floor—the largest decorative area in any interior.

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Six reasons why Architects should visit Crane Exhibit Rooms

Rich resources of the world have been brought together by Crane Co. to help architects create a new, distinctively American room . . . the bathroom of today.

From Italy was imported the Brocatello Sienna marble of the *Chateau* lavatory and the dental lavatory illustrated above. The designs of the lavatory and the Louis XVI metal-work and trimmings used throughout this bathroom are the work of French artists. The colored porcelain of the marble-enclosed *Tarnia* bath and the vitreous china of the closet, reviving an ancient and beautiful art, were produced by Crane potteries in America. The working parts of the quiet *Corwith* closet, the sure-action pop-up *Accesso* bath waste, the mechanical perfection of the glass-enclosed shower,

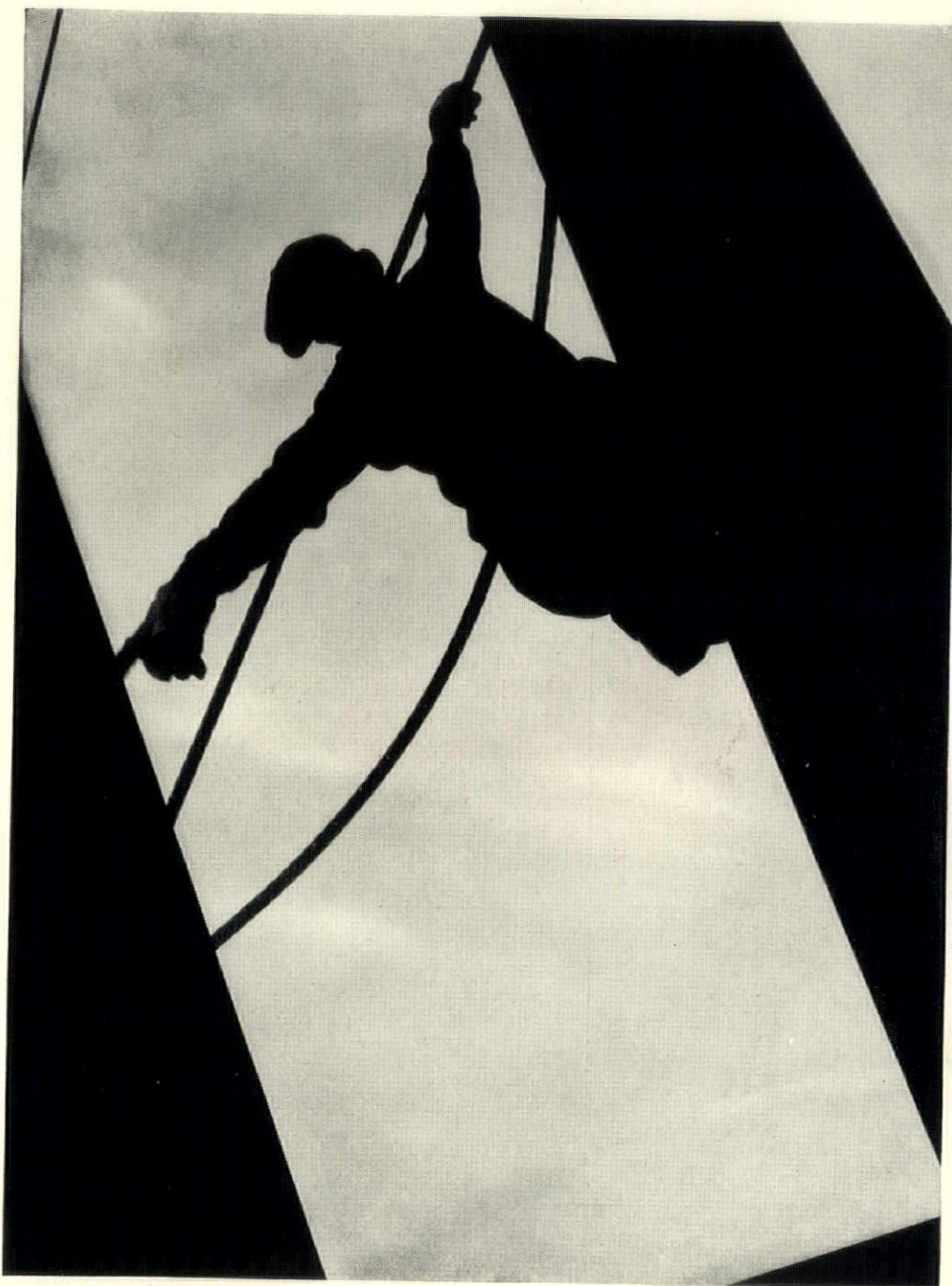
have been developed by the most resourceful modern production engineers.

In Crane Exhibit Rooms in every important city in America, such materials . . . and a wealth of other ideas for the smallest Cape Cod cottage as well as for town houses in chateau or villa style . . . are on display. Here architects can see all the varied ideas that are revolutionizing bathrooms and plumbing. They will find new and more beautiful fixture designs, helpful suggestions for color decoration, many improved comfort-giving and labor-saving appliances, and innovations in piping materials that increase dependability and lower construction costs. A visit now and periodic visits hereafter to the Crane Exhibit Rooms near you will be richly profitable.



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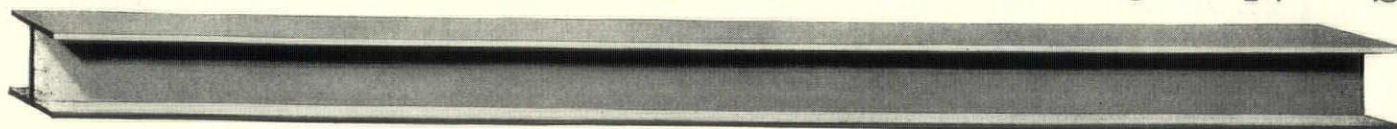


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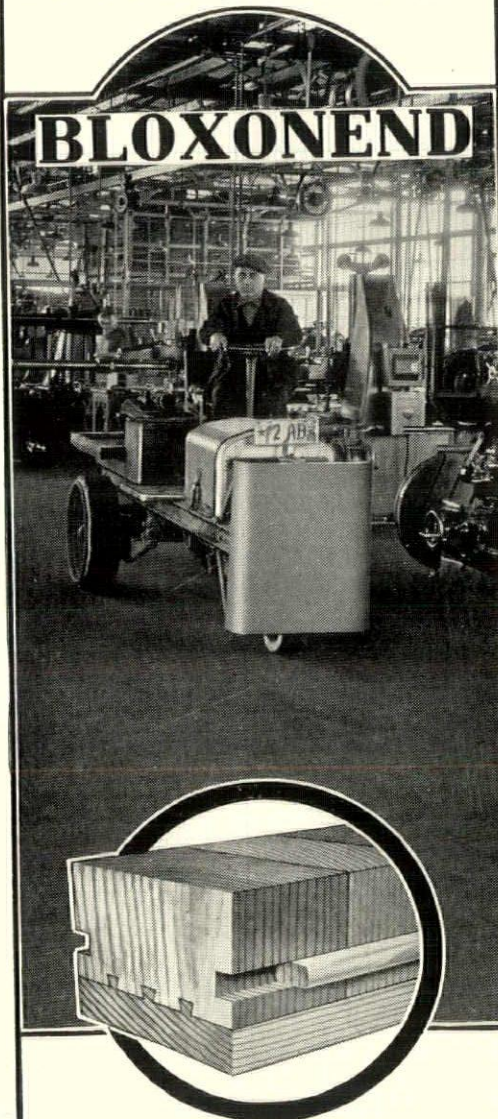
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KAIRWAN

(Continued from page 51)

fits, shooed off the other urchins and shooed off the flies. In fact, he was one of us. I say he, but for a long time we did not know just what this youngster with the ragged bournous and the constant smile was, so we called him "It." When we left Kairwan our "It" wanted to go along; he didn't know where we were going, but he wanted to go, and indeed it was like leaving an old friend when we left him behind.

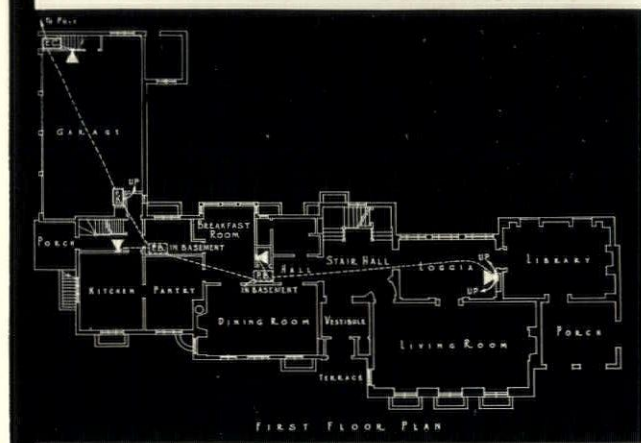
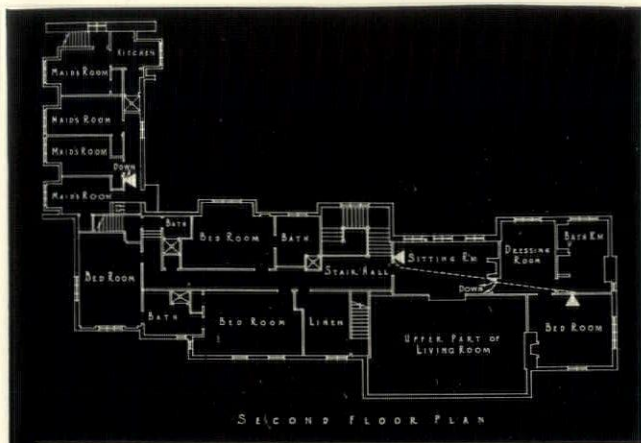
Baedeker says, "Kairwan is the oldest Capital of Ifriquia and the most curious in Tunisia" but as Baedeker has a habit of saying things like that, and not knowing ourselves just how much of Africa is Ifriquia we shall have to let the first part go as it is, but we will vouch for the second.

We had heard so much about the Aissaouas who give what the guide book calls "hideous castigations" every Friday afternoon, that we looked hopefully forward to seeing these people who every week with unflinching regularity cut themselves almost in half with swords, shove their eyeballs out, eat glass, scorpions, cactus, and what have you, and have many other alluring pastimes. They turned out to be well worth seeing, though I entered the mosque where they performed with a feeling of incredulity and emerged with the same.

The matinee began late in the afternoon, when a group had assembled. After much swaying and chanting, to put themselves and their audience in the proper mood, a dish of broken glass was passed around for examination. It appeared to be real. Then a thin gentleman proceeded to make a light lunch of it with relish. Herman the magician used to say that "the hand is quicker than the eye," so whether he ate the glass or deftly substituted a more delectable substance, I could not say, but in any case he was not fussy about his food. Next, the priest who acted as a stage manager held a live scorpion deftly between his forefinger and thumb, allowing its authenticity to be inspected if desired, and a more nasty looking insect I have never seen. Then a compatriot bit it in half and swallowed it. Some say he ate the end without the sting, but heaven help him if he ever got absent minded and ate the wrong end. Even if it were only an African grasshopper he has my vote for being braver than the lad who ate the first oyster.

THE much talked of man who cuts himself in the middle with a sword—recently pictured, by the way, in Ripley's "Believe It or Not"—seemed to me to be palpably a fake, for this fat belled native simply pulled the huge sword deep into one of the many wrinkles of his big stomach until it seemed as though the sword were half way through his body—at that it is a trick to toughen one's anatomy sufficiently to resist the blade. There were many more tricks and the man who nearly shoved his eyeball from its socket with a long spike had a punishing act if you cared to look at it.

Kairwan has numerous mosques, the largest being the Sidi Okba or Grande Mosquée, one of the oldest in the world and, next to the Kairwan Mosque at Fez, the most important in Barbary. Founded in the year 671, the plan resembles that of the oldest Egyptian Mosques.



TELEPHONE CONVENIENCE CAN BE PLANNED TO MEET FUTURE REQUIREMENTS AS WELL AS PRESENT NEEDS

DISTINCTION in a house is as much a matter of arrangement inside as of appearance outside. Every added convenience contributes to it. And many architects consider *telephone* convenience especially important.

Telephone convenience consists simply in having *enough* telephones—in living-room, library, bedroom, boudoir, kitchen and laundry—wherever they will save time and energy. It is as properly a part of the small home as of the large residence. It can be provided for in advance, by specifying conduit for telephone wires within walls and floors.

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Eight telephone outlets, including one in the basement, and an inter-communicating system, provide suitable telephone convenience in the residence of Mr. Henry P. Williams, 180 Provencal Road, Village of Grosse Pointe Farms, Michigan, as shown above. HUGH T. KEYES, Detroit, Architect.



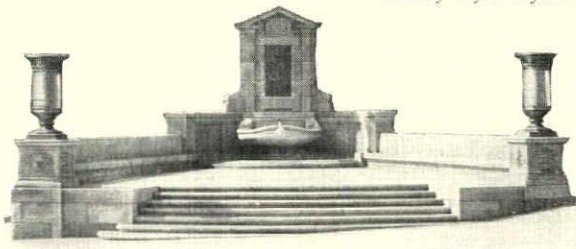
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The building materials were largely supplied from the ruins of Carthage and Susa, which accounts for the many beautiful columns. The massive looking tower has two setbacks resembling those of modern times, with battlemented parapets, and it is topped with a dome. The radiating designs painted on the side of the tower represent huge spiders, symbols having the power to ward off snakes and scorpions.

The mosque, covering an irregular area of about 240 feet by 400 feet and enclosed by a fortress-like wall, has a large court surrounded by a colonnade of antique columns. Below the pavement of the court are large cisterns with filtering apparatus to collect rainwater. The interior of the sanctuary has a T shaped plan with a nave and sixteen aisles with eight rows of arcades, giving the impression of a forest of columns. These are of surprisingly varied materials, white and colored marble, granite and porphyry, with a variety of caps including Roman, early-Christian and Byzantine. The beautiful Mihráb Chapel decorated with gold lustered faience is impressive and the Mimbar or Friday pulpit a good example of early-Moorish art.

The use of alcohol is prohibited by the Mohammedan religion. However, many cafés exist where the boys park the camel and sit down for a drink of mint tea or coffee. The beggars are a pest and leper women with babies at their breasts expose their sores and ask for alms.

ONE night about 9 o'clock I heard a great beating of drums. I was told it was a wedding procession and that I would do well to follow it as it wound through the streets of the town. The groom walked sadly in the midst of friends who carried torches and lustily beat drums to get him in the spirit of the thing. He wore a white veil to cover his head and shoulders and looked as though he were having a thin time of it and hoped the ceremony would be postponed at the last minute. In Kairwan marriages are arranged by the parents and the groom strangely enough is not supposed to see his bride's face until after the ceremony. What a game of chance this turns out to be!

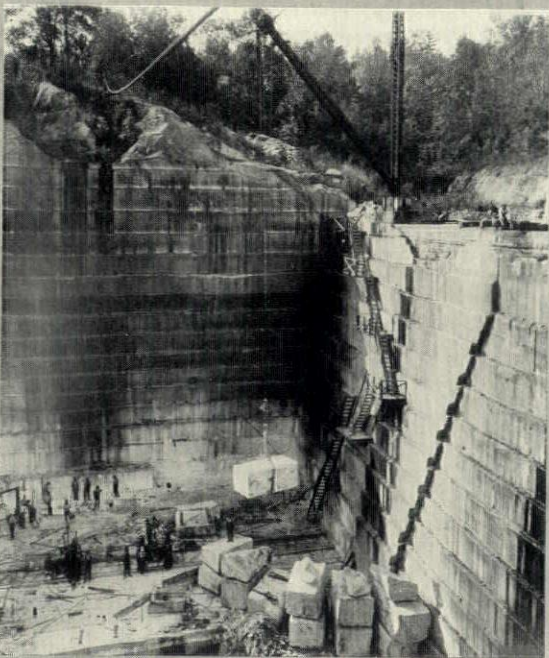
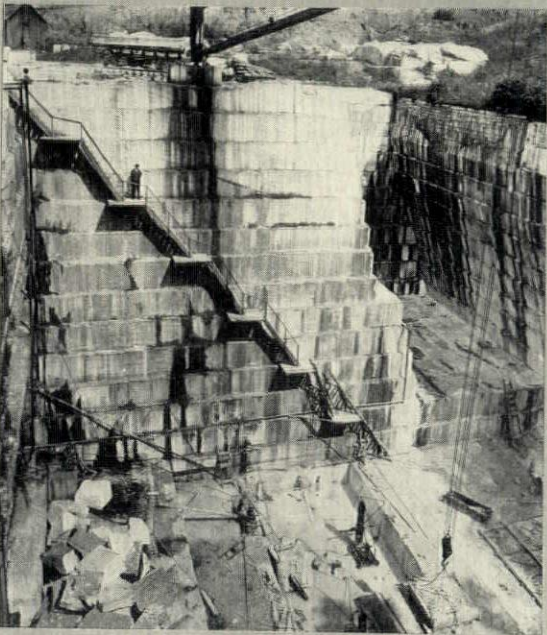
The shops or Souks consist of a room about 10x15 feet where raw material is made into a finished product and sold at a counter at the front, all of which is open to the street. The methods of manufacture are primitive, tailors sewing with the aid of bare toes, wood workers using the bow and string method of drilling holes, while in a carpenter shop I saw two men laboriously making planks, sawing by hand long slices from a large log.

The Place de Tunis is a huge open air market place where everything is sold from old shoes to braised cows hoofs; the latter are made into delicious hoof soup. Many butcher shops display their wares to the delight of millions of flies. I am not certain what the favorite meat of the natives is, but from the meat displayed it seemed to be entrails.

Late in the afternoon the square is taken over by various snake charmers, jugglers and story tellers who are highly amusing and I found myself drawn each afternoon to these performances.

One unpleasant impression of this part of Africa is the prevalence of eye diseases. A good doctor would do a thriving business here, as the children one and all seem to have sore eyes. I was told this condition developed

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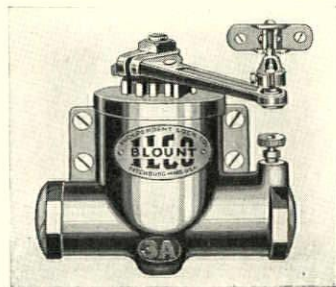
In modern living, noise is a destructive waster of man-power. Architects work side by side with scientists to develop means of guarding the modern worker from jarring, jolting, unnecessary sound. Man must fortify himself against noise; complete door control is the most important weapon in this defense.

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from the idea that sore eyes were the "Will of Allah" and it was sinful to drive the flies away from the festering eyes of the babies. As flies are more than plentiful the result is inevitable.

At one time Kairwan was known as "one of the four gates of Paradise through which neither Christian or Jew durst enter; to spend one's last days within its walls and to be buried in hallowed earth outside its gates seemed to believers the height of bliss." Be that as it may, if one wants local color with his architecture and contrast from life as we live it, by all means pay a visit to Kairwan.

Investors Have Fewer Jobs

(Continued from page 39)

A partial study made of forty-six central city buildings erected since 1923, representing a total investment based on building permits of eighty-six million dollars, has revealed that of these only twelve are probably financed successfully; and of these twelve, seven were erected for special purposes that automatically assured their success. The remaining thirty-four, representing investments totaling fifty-six million dollars, have failed to yield the return anticipated. Some are operating at a loss.

The situation, I grant you, is unduly severe and dependent on many factors possibly not fully capable of control and elimination, yet this alone is not the basic cause of affairs.

Many of these projects could never have been an unqualified success under even boom conditions. In other words, the present distress in the building industry is by no means due entirely to the general business depression. Col. W. A. Starrett, writing in 1928, at the peak of prosperity, said:

"When an industry ranks among the first two or three in a great industrial nation, and no one engaged in it makes more than a living except indirectly, something is wrong. The answer is that building, while conducted with high technical efficiency, is economically the most disorganized major activity known to modern business, agriculture perhaps excepted. Building and farming linger in the economics of the 19th century, whence all but they have fled."

BUT it is not so much where we are, but where we are going that counts. The entire human family can be divided generally into two great groups—those who are interested in where we are, and those whose chief concern is where we are going. The former believe that deviation from tradition spells disaster. They fulfill a certain function in society by preserving values that have already been won, but the others, that look to the future, the prophets that are interested in where we are going, are the ones who effect progress.

America is a dynamic country, with a dynamic civilization; and building economics must follow a dynamic program to keep pace with it.

Dynamic building economics is an economics of trends based upon facts. The most modern economist realizes, with the most ancient of philosophers, that "everything changes." Nothing is static in modern American cities; and if he is to make *change* serve him, the American

SYSTEM—

“an orderly combination of parts—
into a whole, according to some
rational principle—giving it unity”

STANDARD ENGLISH DICTIONARY

THE Dunham Differential Vacuum Heating System is essentially a system—a heating unity, built according to a rational principle. Sub-atmospheric steam controlled in accordance with the demands of outside weather is the simple, logical basis of Differential Heating performance.

That it is a perfected system may be seen from the close approach to the theoretical ideal. The Differential System, installed with the new Dunham concealed radiation, will not be seen nor heard; you will not feel nor smell it, for the heating is so mild and so accurately maintained that there is no overheating to intrude on the consciousness of the building occupants.

Compare both comfort and cost and you will see why Differential Heating is so frequently chosen for the finest buildings as well as for those where costs are most carefully considered.

DUNHAM DIFFERENTIAL HEATING

THE HEATING SYSTEM
THAT “CHANGES GEARS WITH THE WEATHER”
“Cool” Steam (133° F.) “Warm” Steam (133° to 212° F.)
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Fuel savings of 25 to 40% have been demonstrated by installations in all types of buildings, including the largest of office, commercial and apartment buildings. Heating costs may also be cut on existing systems. Plants can often be changed over to Differential Heating by simple and convenient alteration, the cost of which is paid out of fuel savings.

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From the Atlantic to the Pacific Ric-wil Conduit is proving every claim made for it. Hospitals, Educational Institutions, Central Heating Plants, Industrial Plants and many others comprise the ever growing list of satisfied Ric-wil customers.

Before you make a decision, investigate all of the various methods of insulating underground pipes. Check drainage facilities, cradling of conduit, loads imposed on conduit, side joints and insulating materials. And investigate efficiencies of actual installations.

The Ric-wil Catalog, efficiency test reports and details of typical installations will be gladly furnished upon request.



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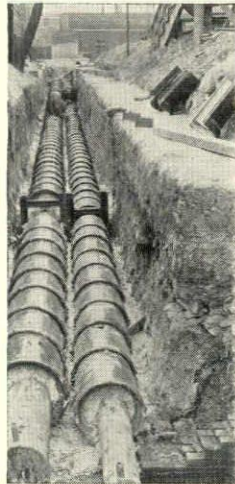
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builder, along with the American manufacturer and merchant and financier, must develop the facts.

Trends can be charted accurately only from a vast groundwork of facts: facts governing development and relative growth of localities, facts regarding building character and cost, rentals and expenses, management and incomes, facts not only of those conditions as of today but as they were yesterday. We cannot make estimates of the future with any uniform possibility of success until we know the past. The future contains enough uncertainty which can never be accurately foreseen, but if we approach it with the proper perspective, equipped with scientific knowledge, we can at least avoid some of the errors of the past. Their constant repetition is not only unnecessary but overwhelming.

NOTHING will so stimulate building as reducing the likelihood of losses in buildings. Today we cannot escape the fact that many building operations have fallen far short of their expected possibilities.

But this direct loss, often a very severe one, is still only a small part of the widespread damage. Foreclosed properties and their improvements, sold under the hammer or taken over by the mortgage holders, with the previous equity eliminated, may be rented at lower rates and these rentals effect and jeopardize other neighboring properties which may have been economically conceived and soundly financed. In other words, one's neighbors and what they do can endanger not only our lives and safety but also our pocket books.

Further curtailment in avoidable losses will react very definitely not only towards reducing building costs but likewise the interest required on funds invested in the building industry. Just as life insurance companies have found that health research and health education, by increasing longevity, can reduce insurance rates, so the building industry will discover that economic research and economic education, by reducing risk to capital, can lower building losses.

The question is asked: How can the architect, the builder, the contractor, the investor, get the facts vital to his enterprise? Why should it not be possible for a new owner to profit by the experience of the former owner?

Why should not the architect be in a position to secure from one source accurate and comprehensive information as to the many factors which it is his task to consider, whereas today it is necessary for him to collect his information from many sources, many of which are questionable?

Why should not the banker be in a position to learn accurately the actual cash investment which the prospective builder is prepared to invest in his own enterprise, and why should it not be possible for the builder to determine in advance the financial responsibility both of the owner and the sub-contractor?

What would it mean to the legislator if he had at his disposal a reliable fund of information as to the real property values, the relative congestion of various areas, and above all, business trends? And no less important, what would be the value of such a source of information to the City and State Engineering Departments?

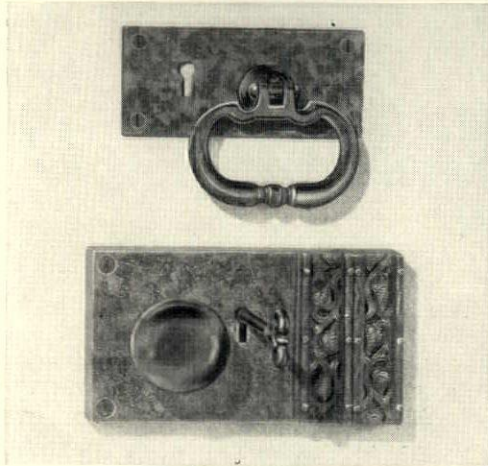
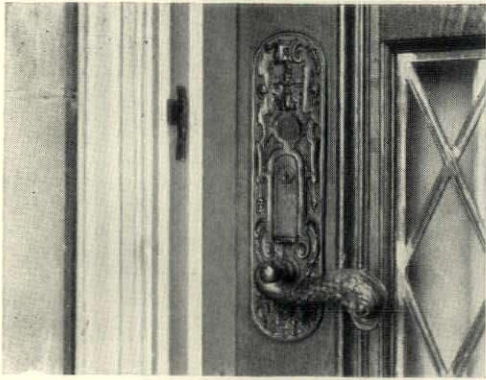
Some of these facts which should be available to all, are known only to the designer, others only to the realtor, and still others only to the builder and the banker.

(Continued on page 92)

YOUR OWN

IDEAS

IN HARDWARE



At top—A Sargent door-handle designed especially for the residence shown below. It is of solid bronze, beautifully fitted to the architectural style. And a Sargent rim lock adapted from an Elizabethan original, particularly appropriate for residences of this type.

PERHAPS as no other craftsman, an architect appreciates the importance of attention to detail. A single jarring note — from a carelessly selected item of equipment — may spoil an otherwise perfect ensemble. With an understanding of the architect's problems, with a knowledge of the mechanics of design, Sargent offers hardware of unquestioned quality in a wealth of designs to harmonize with all standard schemes of building decoration.

Architects who specify Sargent Hardware have come to consider it — not merely as necessary equipment to be selected in keeping with the building style — but as a dependable, additional means of expressing true character in decoration. Sargent & Company, New Haven, Conn.; 295 Madison Avenue, New York; 150 North Wacker Drive, Chicago.

Our line is adequately represented in Sweet's, 1931 edition, volume C, pages C3780 to C3878.

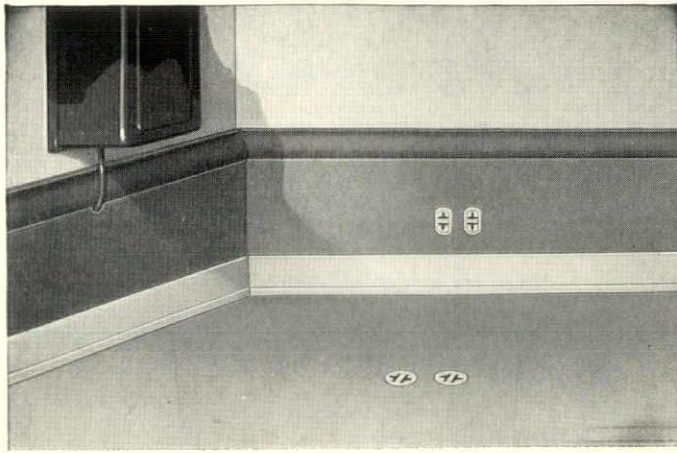


Sketch of an interesting interpretation of English architecture—Seeburger & Rabenold, architects, Philadelphia, Pa.

SARGENT

LOCKS AND HARDWARE

FOR FEBRUARY 1931



UTILITY

... Continuous Concealed wireways for any number of Telephones, Desk Lights, Buzzers, and other outlet Connections

CONDUO-BASE enables you and your clients to install outlet connections at any point along the base in five minutes' time—without the usual tearing up and patching of finished work.

Saves the cost of pre-fixed outlets—the cost of wire molds—the cost of baseboards. Specified by leading architects all over the country. Favored by building owners and tenants.

Conduo-Base eliminates entirely the necessity of determining beforehand the location of electrical outlets, and the unsightly, dangerous exposed wiring for electric equipment at a distance from a pre-fixed outlet.

We will be glad to send you detailed information.

Licensed Manufacturers

Dahlstrom Metallic Door Co. United Metal Products Co.
Jamestown, N. Y. Canton, Ohio

Knapp Bros. Mfg. Co.
Chicago, Ill.



Obviously it is impossible for one individual or one isolated organization to cover the whole field. The task of getting a comprehensive picture of all phases of the building industry cannot be delegated to the banker any more than it can be represented as strictly an architect's problem. It is a problem which we all must face for it is in this age of dynamic building economics increasingly vital to the success of all.

It would seem that the builder should pool his information with the materials man, the banker with the architect, the electrical contractor with the plumbing contractor. It is industry's problem—one problem of applying scientific principles to an industry which has fallen behind in the march of progress.

I do believe that the problem of coordinating and pooling our information, the question of developing a fund of knowledge which will make it possible for all those interested in the building industry to know, with a great degree of accuracy, where their money is coming from, is not impossible of solution. I believe that reasoning men, brought together by a common interest, can find a way out.

As many of you know, this represents the ideal of the Philadelphia Building Congress, organized eight years ago through the initiative and vision of D. Knickerbocker Boyd. Mr. Boyd was a pioneer in his field. As its president for eight years, he piloted the ship through uncharted seas. Through all these years, with a few loyal and active supporters, he held steadfastly to the ideals for which the Congress was formed.

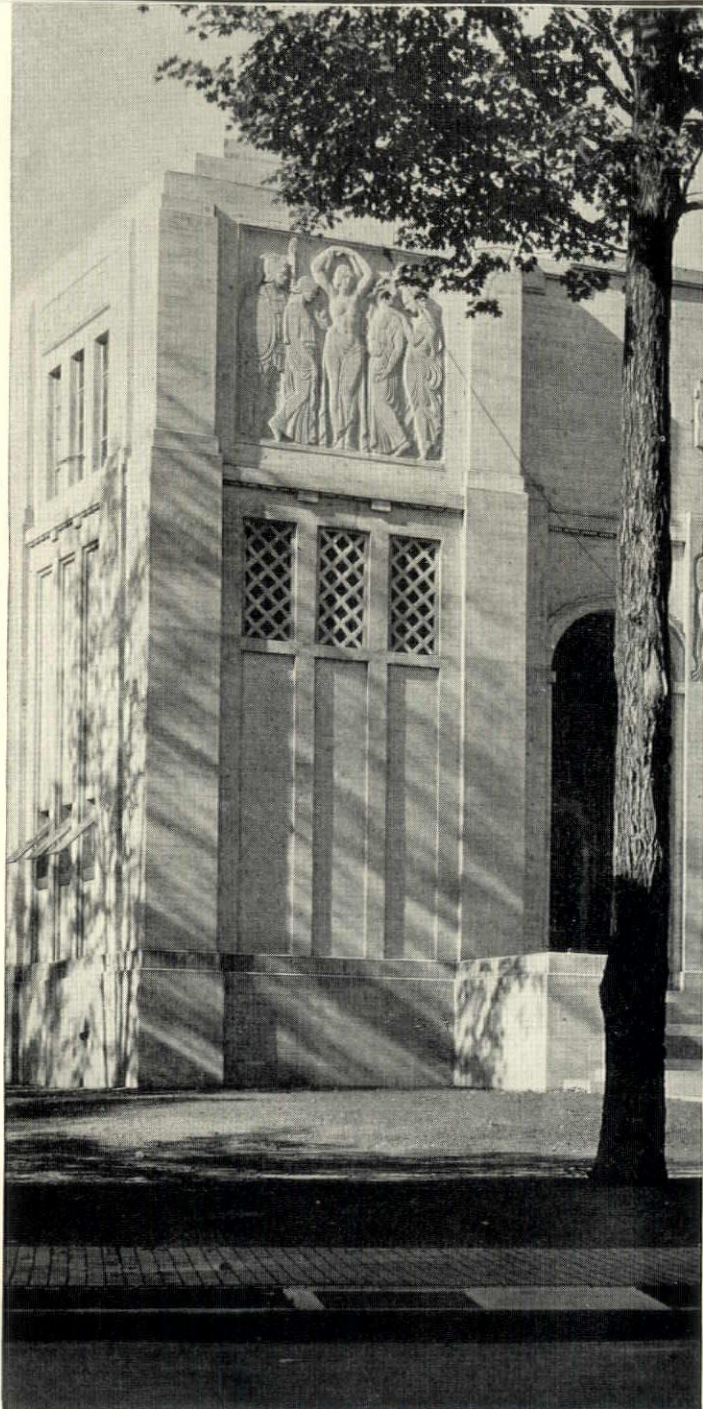
Today it is the feeling of the officers of the Philadelphia Building Congress that the time is ripe to take active steps to make this ideal a reality. It is my particular desire, and I speak for the other officers of the Congress, to emphasize that:

WE believe the plan of coordinating the industry's problems through a central agency is far more important than the Philadelphia Building Congress itself. We recognize that the Congress, or any other scheme of federation, will be unsound if it is without the wholehearted support of a large proportion of the organizations within the industry in Philadelphia. We further believe that this organization must not be controlled by any one branch of the industry, but must rather be governed by a method of proportional representation which aims to insure complete objectivity in all its functions.

Today some forty-five organizations are functioning in the industry in Philadelphia. The Congress or federation idea does not imply that the functions of any of them will necessarily be lessened. Rather, it means that working together, these organizations can immeasurably improve their service to their members, effect a substantial saving in funds expended, and derive added assurance of the mutual welfare of all.

I do not anticipate that once there has been brought into being in Philadelphia a central organization of the type that I have indicated that all the ills of the building industry will be miraculously cured over-night; but I do insist that we will be taking the right road, that we will be in step with the times, and that we will have contributed, as much as human intelligence can, to the building of a sound business revival in the building industry and a greater and renewed prosperity for our City.

MONOLITHIC CONCRETE



Corner Pylon
Norton Memorial Hall
Chautauqua, New York

•
Otis F. Johnson, *Architect*
Lord & Hollinger, *Structural Engineers*
Fred M. Torry, *Sculptor*
Lorado Taft, *Consultant on Aesthetics*
All of Chicago

•
Rust Engineering Company, *Builders*
Pittsburgh

Norton Memorial Hall is an auditorium seating 1,500 people. The building is approximately 83 by 143 feet, with walls 40 feet high. The entire building is of reinforced concrete, the exterior left just as it came from forms and molds except for cleaning with brush and water.

PORTLAND CEMENT *Association*

Concrete for permanence and firesafety

33 WEST GRAND AVENUE
C H I C A G O

A National Organization to Improve and Extend the Uses of Concrete

More clients for the Architect

SLOWLY but surely there is growing a widespread demand for better residential design and construction. Even speculative builders and development companies are finding it pays to entrust their projects to the skilled hands of an architect.

Good Housekeeping is one of the influences which is bringing this about. No other magazine of equally large circulation champions good domestic architecture as Good Housekeeping does in its pages every month.

In scope the editorial program of Good Housekeep-



Penrose V. Stout, A. I. A., designed this country house described in February Good Housekeeping.

ing Studio of Architecture and Furnishings covers almost every problem and interest of the home owner. Design, construction, the choice of materials and equipment, all are discussed from the layman's viewpoint by distinguished architects.

The effect of this is decidedly far reaching. Not

only because Good Housekeeping has 1,750,000 readers, but also because these readers are mainly of the type whose aspirations, standards of living and incomes place them among the most logical prospects for the architect's services and the products of the building material manufacturer in the residential field.

GOOD HOUSEKEEPING
Everywoman's Magazine

Desco
METAL
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STORE FRONTS

Are Designed to Stay Modern

Weber & Heilbroner's Store, 42nd Street and Madison Avenue, New York City, is equipped with Desco Store Fronts.



DESCO STORE FRONTS are popular with designers of modern shops because the handsome appearance and rich quality of this equipment are invaluable in keeping the shop looking up-to-date and consequently attractive to tenants and tenants' customers. Made in a wide variety of metals, including solid copper (plain or embossed), solid bronze in all standard finishes and aluminum alloy (white metal), Desco Store Fronts harmonize with any building design. You will be pleased with the results of specifying them for your next building.

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Pacific Coast Office—450 Skinner Building, Seattle, Washington

For full architectural details see Sweet's catalog. Write us for complete working data and price list. Remember, too, wherever you are there is a distributor near you. We also carry a complete line of "Desco" construction material in our New York City Warehouse.

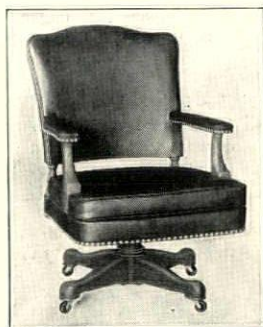


CHAIRS . . . THAT GIVE THE BUSINESS OFFICE DISTINCTION

A sure way to add that desired touch of individuality to the modern office is by the thoughtful selection of chairs. To reflect truly the character of the executive whose office they grace, they must be sturdy, practical, comfortable, dignified, and in keeping with other features of design.

The best traditions of fine craftsmanship are reflected in B. L. Marble Business Chairs and are further enhanced by the beauty of the natural figure and grain of the fine cabinet woods from which they are constructed. A wide choice of designs permits a selection that fully meets every specific office requirement.

Write for a complete catalog.



This executive chair is one of many distinctive types shown in the B. L. Marble Catalog.

Cooperation in the selection of business chairs is offered to architects, without obligation.

The

No. 640 1/2

B. L. MARBLE CHAIR COMPANY
BEDFORD, OHIO

New York Office: 101 Park Avenue • Telephone: Caledonia 5-7026

How Much Will It Cost?

(Continued from page 30)

most desirable accomplishments, there are no short cuts to estimating efficiency but with the aid of the proper tools it is not beyond the reach of any practitioner of fair intellect.

There is no single tool so effective as the Experience Table, that mighty prop of the insurance business.

Let the architect begin at the earliest practical moment to keep a careful record of the cost of every building project with which he is identified, breaking down this cost in each instance into all the major items of which it is composed. In offices where it is the practice to award all contracts on a separated basis, a mass of first-hand data on individual items is always available.

THIS data should be supplemented wherever possible by additional information of an accurate nature obtainable from other architects, contractors, estimators, appraisers, owners, investment houses, technical magazines and any other sources of a reliable nature. Proper information is frequently difficult to obtain owing to its confidential character, but by pursuing a diplomatic and industrious course, the passage of time will reward the seeker with a quantity of data which is susceptible of classification into many highly useful forms.

The basic form for recording this data is one which gives the detailed costs of the individual building. A loose-leaf sheet which has proven very satisfactory is shown in Form No. 1. This sheet is capable of showing in a small space all the essential facts about any one project. Attention is directed to the columns showing the cost per gross square foot of floor area and per cubic foot of contents. It is well to supplant these items with a figure showing cost per room for apartment buildings and cost per bed for hospitals, two very handy units. Additional data may be entered on the back in cases where the space on the face proves insufficient. The cross-section of the building is an extremely helpful feature as it exposes many salient facts at a glance.

ALL buildings are classified as to type as noted on the upper right hand corner. A summary sheet for each type is then made as shown by Form No. 2. The type illustrated, office buildings, is separated into two groups inasmuch as structures over three stories in height frequently have many characteristics such as elevators, caissons, etc., not possessed by the smaller buildings.

As the volume of data increases, the information contained on Form No. 1 may be conveniently segregated further into many of its components. Thus Form No. 3 contains a summary of data on Structural Steel which gives not only the cost per ton for various buildings but also pounds of steel required per square foot of floor area, both highly significant items. The form for heating likewise shows cost per cubic foot of contents and cost per square foot of radiation. The form for Marble gives the kind, cost per square foot for floors and cost per square foot for wainscoting. Similar sheets may be provided for Lighting, Plumbing, Sprinkler Systems, Smokestacks, Roofing, Tiling, Plastering and so on to suit each particular architect's needs. (Continued on page 98)

This is No. 3 of a series of advertisements setting forth things to look for when considering partitions.

COMPLETE SERVICE
QUICK DELIVERY
LOW PRICES

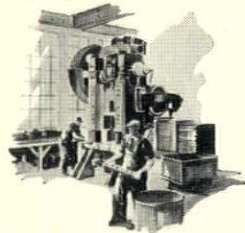
These and other advantages are **YOURS** when dealing with the largest manufacturer of partitions . . .

HAUSERMAN SERVICE is as distinctly superior as Hauserman Partitions. Every detail is attended to by full-time Hauserman Engineers. Only Hauserman gives Hauserman service . . .



Hauserman Engineers cooperate with Architects to assure complete client satisfaction.

Hauserman factory-directed erection crews install the partitions. Erection



Years of experience and large volume output assure highest quality at surprisingly low cost.

by experts saves time, assures the best results. Rearrangements,

too, are handled by skilled erectors . . . Thirteen years' experience in the manufacture of partitions and a large volume of standardized production (1100 linear feet of partitions in a day) enables Haus-



Assembly by trained erectors saves time, eliminates needless confusion.

erman to give quick delivery, highest quality and new low prices.



Hauserman Movable Steel Partitions meet every office or industrial requirement. They afford the ideal method of subdividing space.

THE E. F. HAUSERMAN COMPANY

A nation-wide organization of Partition Specialists

6814 GRANT AVENUE

CLEVELAND, OHIO

Factory Directed Planning and Erection Service from these 13 Factory Branches

- | | | | | | | |
|---------|--------------|-----------|-------------------|-------------|-----------|------------|
| Newark | Philadelphia | Buffalo | Boston | Kansas City | Chicago | Pittsburgh |
| Detroit | Cincinnati | St. Louis | Washington, D. C. | New York | Cleveland | |

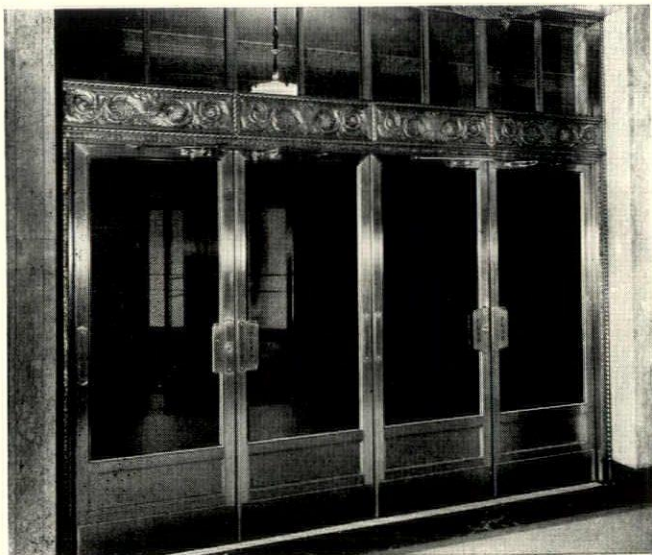
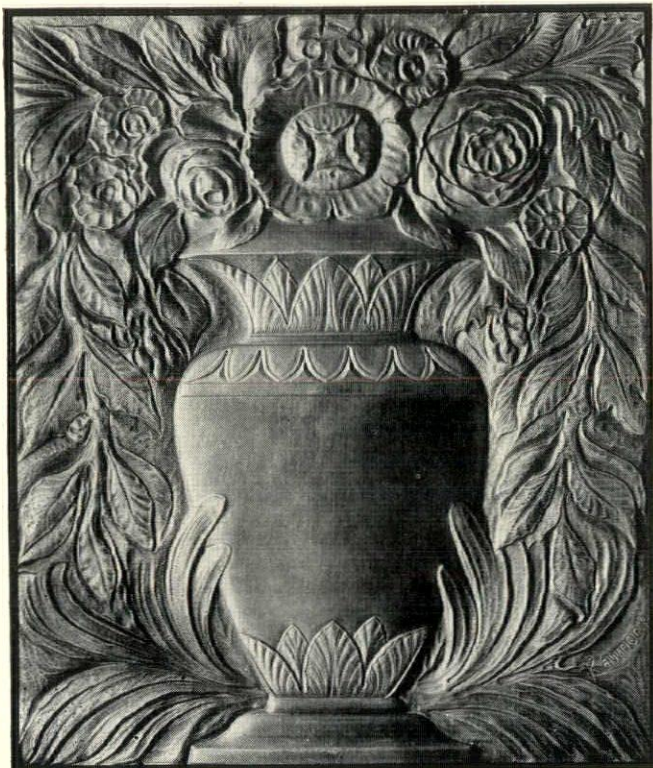
When in New York, don't fail to see the
1931 PARTITION SHOW
 An Exhibition of Progress
 in Steel Partitioning
 Occupying the Entire Top Floor at
10 East 40th St., New York

HAUSERMAN MOVABLE
STEEL PARTITIONS

ARCHITECTURAL BRONZE

BY THE
Kawneer
COMPANY
NILES, MICHIGAN
and subsidiaries

PRODUCTS
RUSTLESS METAL SEALAIR
WINDOWS - DOORS - ARCHI-
TECTURAL CASTINGS AND
STORE FRONTS



These three groups of forms compose the groundwork of a simple system which requires little labor to maintain and provides a broad range of concise information at one's finger tips. Many interesting and instructive supplementary tables may be made up from these major experience tables, such as: effect of story heights on cost; effect of floor loads, column spacing, number of stories, and number of rooms; relation of cost to width; and others. In addition to these tables, the architect will find it helpful to consult the business graphs published by the Department of Commerce, various business magazines and banking institutions. Especially valuable are those graphs showing total building contracts awarded, iron and steel composite price, steel plant operations, freight car loadings and time money rates. A knowledge of labor rates and labor efficiency is absolutely essential. All such information will serve to fortify and clarify one's own judgment as to price trends and general market conditions.

It is necessary, of course, that all data be applied with careful consideration of the characteristics of the proposed structure. The most pertinent items to keep in mind are the kind of facing material, the number of finished elevations, the type of foundations, the floor loads, the amount of interior subdivision, the general character of the interior finish, type of heating system, sprinklers if any, elevator facilities, and the locality where the building is to be erected.

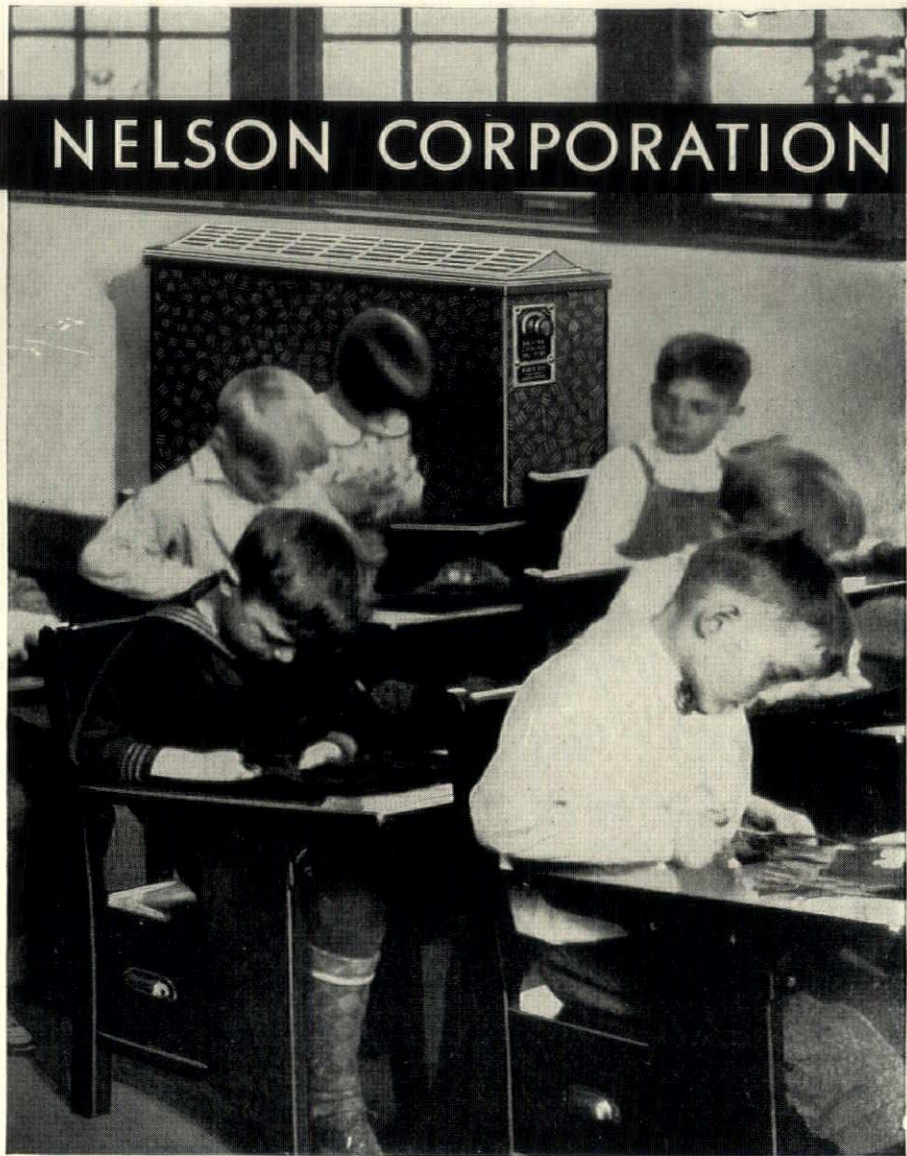
No undue originality is claimed for the system outlined above. It is not infallible, neither will it function as a substitute for breadth of experience and a balanced mind. It is not intended to replace the more accurate estimates which are obtainable by proper pricing of detailed computations of quantities. Such computations are both useful and essential after drawings have advanced to the stage where reasonably approximate quantity surveys are possible. But for answering preliminary demands for cost information, the results obtainable by the use of these quick judgment units are almost uncanny in their accuracy and effectiveness.

A warning may not be out of place at this juncture. Extravagant promises as to costs can only lead to embarrassment and disappointment. Lean heavily on the experience tables in forming your judgment. Interpret them in the light of your individual experience as applied to the problem at hand. Then tell the client the "bad news" at the start. The outcome will be a happy revelation. The owner will live to a ripe old age and the architect will live to design more and better buildings.

APPLICATION of architectural control in Washington, D. C., and in Rancho Santa Fe, California, was an outstanding development in regional planning during 1930, states a report of the Committee on City and Regional Planning of the American Institute of Architects. The beautiful country district of Rancho Santa Fe, near San Diego, California, has taken effective means to protect itself in this regard. Nearly 200 owners of estates and small farms totalling 5400 acres in area have signed and put on record a protective covenant not only establishing permanent architectural control, but also a maintenance association in which every owner has a vote, a complete zoning plan, and a building code for the area, which is not under municipal government.

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T. H. N. Corp.

THE HERMAN NELSON CORPORATION



Good ventilation stripped of its high costs has long been sought by school authorities, and health authorities. Today such ventilation is offered.

The Herman Nelson Her-Nel-Co System of Ventilation offers good ventilation at a definite reduction in building and maintenance costs, and a saving of half the fuel costs. This means a saving of millions of dollars to tax payers.

Science has long recognized that the vital factors of good ventilation are: air motion, temperature, and humidity.

The Her-Nel-Co Ventilator controls these factors without the expensive expedient of using a continuous stream of outdoor air. In fact, outdoor air is only used when necessary and in an amount required to remove excess heat or body odor. Such outdoor air when admitted is tempered by intermixture with indoor air, but is not preheated.

Architects are invited to write for the book "The Herman Nelson Her-Nel-Co System of Ventilation," which shows how simply and effectively it offers full ventilation results with saving in building costs, boiler costs, and fuel costs.

HERMAN NELSON HER-NEL-Co

SYSTEM OF VENTILATION

The Herman Nelson Corporation are makers of the *Univent System of Ventilation*, the *Her-Nel-Co System of Ventilation*, the *Herman Nelson Invisible Radiator*, the *Herman Nelson hi-Jet Heater*, and other heating and ventilating equipment.

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SPRINGFIELD, MASS.	HARRISBURG	DETROIT	APPLETON, WIS.	OMAHA	VANCOUVER, B. C.
PROVIDENCE, R. I.	PITTSBURGH	CLEVELAND	MINNEAPOLIS	EMPORIA, KAN.	TORONTO, ONT.
HARTFORD, CONN.	JOHNSTOWN, PA.	COLUMBUS	DULUTH	KANSAS CITY	WINNIPEG, MAN.
NEW YORK CITY	ALLENTOWN, PA.	CINCINNATI	ST. LOUIS	DENVER	CALGARY, ALTA.
SYRACUSE	ERIE, PA.	TOLEDO	BIRMINGHAM	SALT LAKE CITY	LONDON
ALBANY	WHEELING, W. VA.	INDIANAPOLIS	NASHVILLE	BUTTE, MONT.	OSLO
ROCHESTER	WASHINGTON, D. C.	EVANSVILLE, IND.	CHATTANOOGA	SPOKANE	MELBOURNE
BUFFALO	BALTIMORE, MD.	CHICAGO	MEMPHIS	PORTLAND, ORE.	TOKYO, OSAKA
PHILADELPHIA	CHARLOTTE, N. C.	PEORIA, ILL.	NEW ORLEANS	SEATTLE	BUENOS AIRES



MAIN ST. OR BROADWAY

HOTEL UTAH
Salt Lake City
Recently re-equipped
with
Kimball Elevators



With



1883

KIMBALL

Straight-Line-Drive ELEVATOR MACHINES

Whether You Build
on Main or Broad-
way . . . Investigate

A machine of simplicity and compactness, these Kimball Straight-Line-Drive Machines are powerful—noiseless and vibrationless.

Made with motor and machine aligned and bolted together as one integral unit there can be no misalignment of units—or improper meshing of gears—all wearing points are housed and run in oil.

There is a Kimball Elevator Machine made for your requirements. Write for information.

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1A

Is the Government Treating Architects Fairly?

(Continued from page 21)

designing of the structure should not be sacrificed to make a showing of how fast draftsmen can draw. If the difference in time is due to Government red tape, hampering outside architects, it should be possible to solve this to the advantage of the building program as a whole.

Mr. Byrns, of the House Committee, asked, "Where you use a local architect . . . he sticks on the job, does he not? . . . As I understand it, he is there, for the fee paid him, to see that the contractor performs the work in the way he has agreed to perform it."

Mr. Wetmore said, "Not to the extent of supervision and inspection . . . The architect supervises the work to the extent of seeing that the letter and spirit of his design are carried out, but the actual superintendence of the job and the inspection to see that the contractor lives up at all times to the plans and specifications is done by an inspector from our office."

"If that is true," Mr. Byrns replied, "my question would, of course, fall to the ground, but I was thinking if that other plan prevailed possibly it might not be so very much more expensive than the present method . . ."

GOVERNMENT architects often claim that the various types of buildings required are of such special nature that through long experience with the problem they are better able to cope with the situation. Government buildings do not differ greatly in construction from private buildings. Granting that certain planning requirements are somewhat different from those encountered in other buildings, they can be stated as briefly or elaborately as conditions warrant. It should be a function of the Supervising Architect's office to prepare a program for each project and possibly act as a liaison officer between government departments and the architect. Mr. Wetmore made a point of this argument at the hearing.

"We have had so much experience in designing public buildings," Mr. Wetmore explained, "that we can do the work faster than the outside architect. We have this architectural work running on such a basis that it is like a big hopper, with the sites and projects pouring in at one end, and the plans and specifications pouring out at the other. After the hopper is filled, we complete plans and specifications for a building every two and a half days. If the Department of Justice passes on from twelve to fifteen sites per month we could continue to turn out the buildings at that rate. It would mean an average of one building every two and a half days."

"How long would it take to get one project from one end of the hopper to the other?" Mr. Welsh wanted to know.

"From four to six months," replied Mr. Wetmore. "When you have the hopper loaded, and want to speed up, or when you have more sites than you can feed into the hopper and keep it going, then you could let the work to advantage to outside architects."

"Is there any necessity for that, or to what extent are



Modern Radiation turns to Alcoa Aluminum

It was inevitable that manufacturers should make radiators of Alcoa Aluminum. Today, you can order aluminum radiator units, in standard size sections, from stock.

In principle, these radiators are new. A heating unit passes through a series of hollow flues or fins, made of Alcoa Aluminum. It is only a matter of seconds before these flues heat to steam temperature. Instantly, the air at the floor line rushes through the flue, is charged with heat and shot quickly into the room.

These new radiators, made of Alcoa Aluminum, operate on any hot water, vapor, or vacuum system. The radiators have a rating of up to 600 lbs. pressure. They can be used as concealed or exposed radiation units. They occupy about $\frac{1}{3}$ the space of an old-fashioned radiator. With Alcoa Aluminum only $\frac{1}{3}$ the weight of common metals, these small, efficient radiators weigh only about $\frac{1}{7}$ as much as the old type and bring a saving in shipping, handling and setting up.

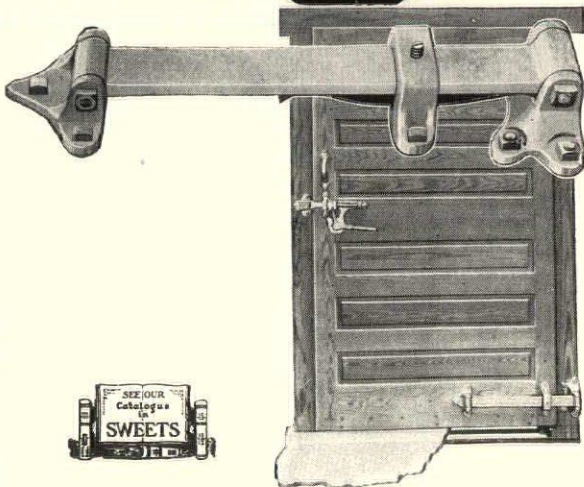
Made of Alcoa Aluminum, these new radiators are immune to the attack of rust, even when used under conditions where the atmosphere is loaded with moisture, gas or acid fumes. Their cost is low—considering the better heating they provide.

Our nearest office will be glad to put you in touch with the manufacturers that make and carry aluminum radiator parts. ALUMINUM COMPANY of AMERICA; 2440 Oliver Building, PITTSBURGH, PENNSYLVANIA.



ALCOA ALUMINUM

**A RIGID HINGE
is NOT
"Just as
good"**



All Jamison and Stevenson Doors are equipped with Spring Hinges, because long experience has shown that a rigid hinge is unable to compensate for wear. When a door doesn't seal at the heel, refrigeration escapes. Rigid hinges can't prevent this. Ball bearings don't help. Only the pressure of a spring hinge will save the cold air you pay to create. *The Jamison Hinge is also adjustable.*

Another exclusive feature of Jamison & Stevenson Doors is the patented WEDGETIGHT FASTENER . . . Faster in closing—faster in opening—forces the door tighter on its seal.

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D. E. Fryer & Co., SEATTLE & SPOKANE . . . Southern Representatives,
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. . . The von Hamm-Young Co., Ltd., HONOLULU . . . Okura & Co., JAPAN

**Jamison
& Stevenson
Cold Storage
Doors**



you getting outside architects?" queried Mr. Thatcher. "There are twenty-four projects that have either been assigned to private architects . . . or where we are just about ready to make the selection of an outside architect," reported Mr. Martin.

This was amplified by Mr. Wetmore, ". . . When the Chicago building, for instance, came up for consideration, of course, we were trying to get as many buildings started as we could throughout the country. We wanted to get some work going in every state so as not to be apparently favoring any locality. Now, if my office had taken up the Chicago building, I would have had to put forty men on that job for six months and thereby withdraw forty men who were working on smaller buildings scattered around throughout the country . . . by using outside architects for that job, we were able to prepare plans for several buildings scattered throughout the country."

It is apparently the policy of the Supervising Architect to retain small buildings in his own office and engage outside architects to handle large work. This policy is open to question since it might be more advantageous to the country as a whole to reverse this procedure, if the Government office must serve in a designing capacity. At the time of the hearing there were ninety projects in the office of the Supervising Architect against twenty-four being handled by outside architects.

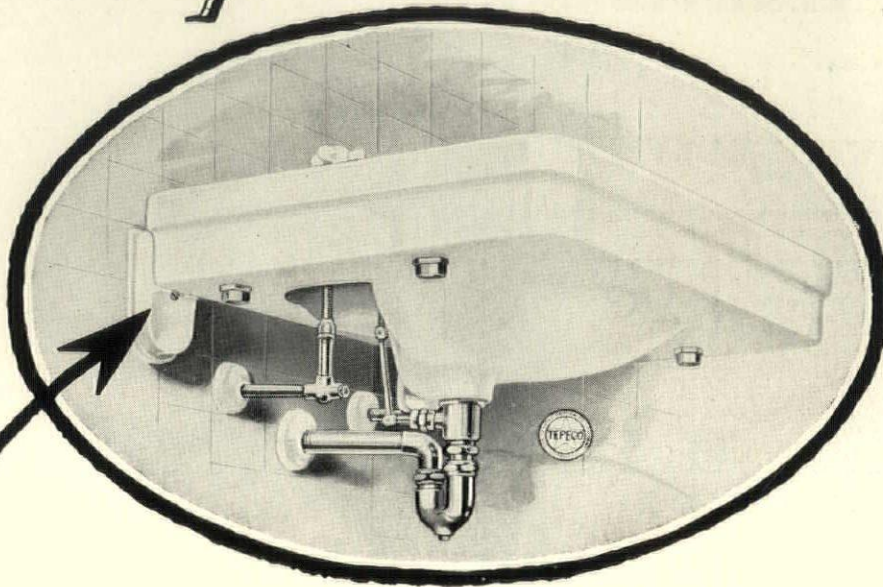
LATER in the hearing, Mr. Martin said, "As Mr. Wetmore has explained, the policy of the department is to place with outside architects any large projects where the title is vested, and where the Supervising Architect can not start any plans within a month after the time the title becomes vested. . . . We do not intend to have any job or site-owned case lying in the office more than 30 days before we take it up for drawings and specifications. . . . If we secure an accumulation of site cases . . . that . . . would require more than 30 days in order to get started on the plans, immediately one or two of them will be selected for outside architects."

To the inquiry as to how long it takes to get a report, from the Department of Justice, on a site title, Mr. Wetmore stated that, on an average, it is something like four months, or so, but condemnation cases may run fully a year.

If the delay in passing upon titles to property is due to the Department of Justice's being clogged up with other and more pressing business, would it not be a good idea to create a separate department to handle this work? It should be possible to quickly solve this problem if it is delaying getting work underway. A business firm or corporation would soon find a means of overcoming a handicap of this nature. Why can't the Government?

DURING the hearing, the question of the comparative cost of handling work in the Supervising Architect's office and by outside architects came up for discussion. On this subject Mr. Wetmore said, "The last figures we had showing a comparison of the cost as between work done in our office and by outside architects showed 4½ per cent for work done in our office, including inspection, as against about 6 per cent on the outside, commercial job, plus 1 per cent for a portion of the

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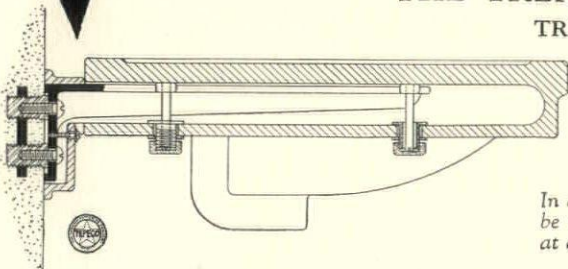


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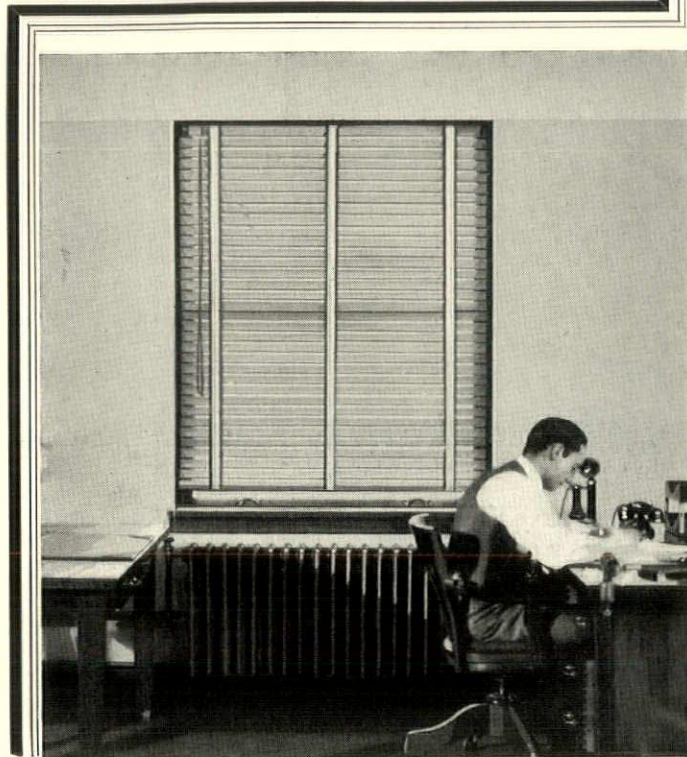
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engineering fees for the building, and without inspection."

The estimate of the Supervising Architect of the cost of outside professional services of the public buildings program was \$4,078,000 for 1931 and 1932. For the fiscal year 1931, \$1,675,000 was appropriated and \$2,400,000 was estimated as required for 1932.

Mr. Wetmore was asked how he arrived at the amount paid for outside architectural work. He stated that his office has a scale of fees. In the District of Columbia this scale is 5.3 per cent on the first \$5,000,000 and a four-tenths reduction on every \$1,500,000 over that amount. One and one-half per cent extra is allowed for special engineering services, these services being based on an engineering cost of not more than twenty-five per cent of the cost of the building.

"How does the outside architectural work in the District of Columbia compare in price with that on the outside?" asked the Chairman.

"Outside we pay 4.5 per cent plus the 1½ per cent for engineering services," replied Mr. Wetmore.

"I do not mean the Institute work," explained the Chairman.

"I am talking about our fee," answered Mr. Wetmore. "Our fee is 4.5 per cent outside, plus 1½ per cent for engineering . . . 1½ per cent for the limited special engineering service up to 20 per cent of the cost of the building."

UPON being asked who fixes the fee scale, Mr. Wetmore said, "That has been fixed by the department. You see, the standard scale of the American Institute is a flat 6 per cent plus 1 per cent for engineering. That is, 1 per cent on that part of the special engineering services that may be utilized. That runs to something over 5 per cent."

"Altogether, we are going to pay a pretty good price for outside architectural work before we get through with this," remarked Chairman Wood.

"It is less than the rate of the American Institute," argued Mr. Wetmore.

"I understand it is," replied the Chairman, "but to these gentlemen who get these jobs for the Government it is worth something by way of advertising."

"Do not they have to do something more than these architects do? Do not they supervise?" queried Mr. Byrns.

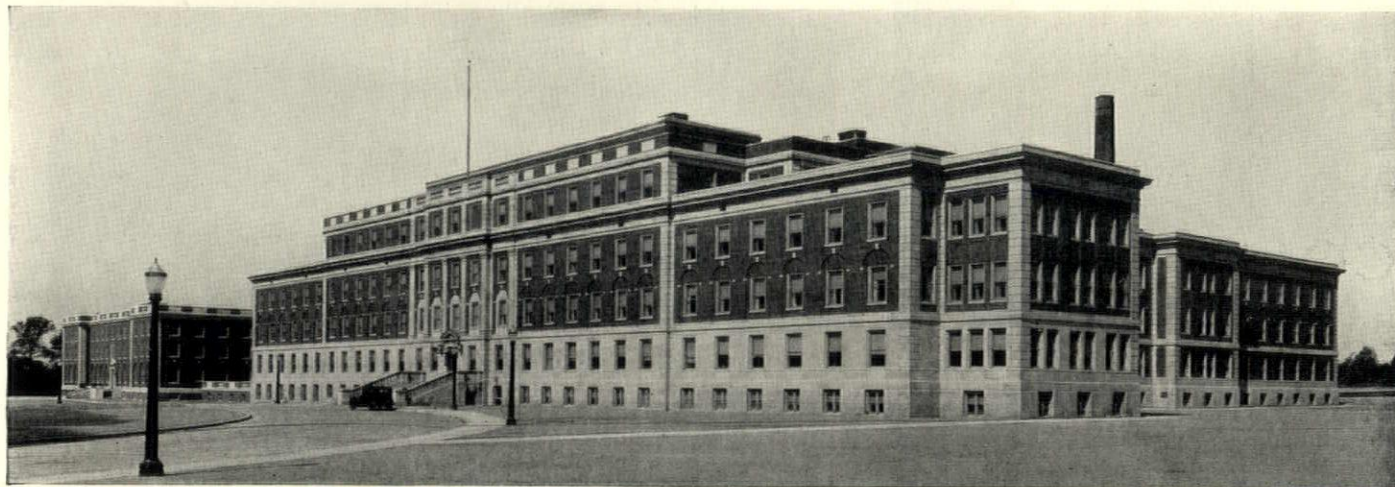
"They compare very well with what we are doing in outside employment," explained Mr. Wetmore. "The owner furnishes what is called the clerk of the works. He corresponds, too, very well with what we call our construction engineer. He is on the job to see to the inspection of work. The architect on an outside commercial job goes around several times a month to see that everything is going on satisfactorily so that he can certify to the payments due at the end of the month. On our work they do substantially the same thing. . . ."

The chairman asked, "Does the outside architect who gets this work at the scale of prices that you have mentioned here do the same amount of work and the same amount of supervision if it is an outside job and he is getting 6 per cent?"

"Practically, replied Mr. Wetmore, "because in the case of the outside private building, the owner has to put on at his own expense the clerk of the work. The

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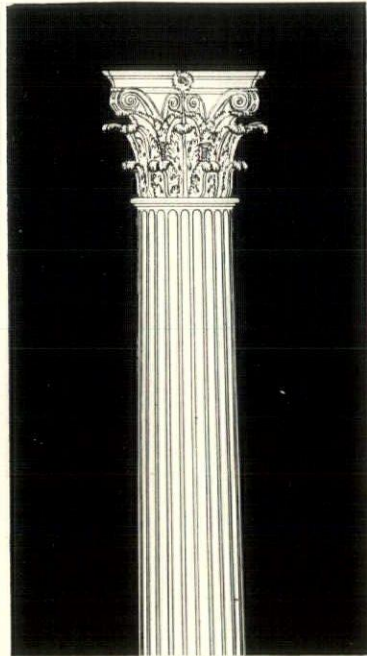
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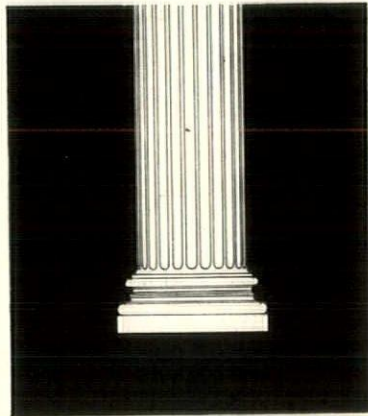
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CHICAGO . . . Conway Building	MEMPHIS . . . 42 Keel Avenue	ST. LOUIS . . . Louderman Bldg.
CINCINNATI · Union Trust Bldg.	MINNEAPOLIS . . Andrus Bldg.	YOUNGSTOWN . . Stambaugh
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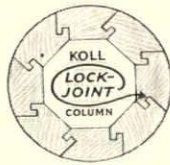


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Treasury Department, in our case, puts on the superintendent at the expense of the Government."

It was not made clear at the hearing whether or not the 4½ per cent stated by Mr. Wetmore to be the cost of handling work in his office included overhead, office rent, telephone, stationery, and supplies. If such items as these were not included they should have been since they are actually a part of the cost that must be paid by the taxpayers, including architects. The difference in scale of fees paid for work in the District of Columbia and outside is not easy to understand. No explanation was offered at the hearing. But apparently the Government is interested in saving the architect's fee when possible.

"How do you determine who shall get outside work and who shall get inside work? What rule do you have governing?" queried Mr. Thatcher.

"I do not know that there is any fixed rule except the size of the building," explained Mr. Wetmore. "If we were to take on one of these very large buildings like, for instance, the Chicago building I mentioned before, it would have meant that we would have had to take out of our drafting force 40 men for a period of six months, which would have cut down the output of the smaller buildings in the districts in which Congressmen are interested throughout the country." Incidentally, there are about 600 employes in the Supervising Architect's office.

"What is the smallest construction that you have outside architects' services in?" asked Mr. Thatcher.

"I think the smallest was a contract for the design of a small building down at Kingsport, Tenn.," replied Mr. Martin.

MR. WETMORE amplified this, saying, "That was a very special case, where an architect was designing the whole of a civic center in which our building was to be located, and they employed him, not for his whole architectural service, but simply for the designing of the building. . . ."

"What is the smallest job in the field?" inquired Mr. Thatcher.

"The smallest in the field was the Parcel Post Building down at Jacksonville, Fla.," said Mr. Martin. "We selected the architect for that just about two or three weeks ago because we wanted to get something going in Jacksonville."

"That is a flat rate down there of 4 per cent," added Mr. Wetmore.

"How much is available in the expenditure for cost of the building?" asked Mr. Thatcher.

"There is about \$375,000 available for construction," answered Mr. Martin. "On present prices that might be reduced to something like \$280,000."

"You are not always governed, then, by the smallness of the cost or the bigness of the cost in employing of outside help?" inquired Mr. Thatcher.

"Not always," answered Mr. Wetmore.

The office force of the Supervising Architect has been materially increased to speed up the whole building program, so that according to Mr. Martin, "by the end of 1931 we will be going at a rate that would allow us to complete everything that is in the drawing stage before the end of 1933, and the balance of that authorization, \$135,000,000, could be completed within two

49

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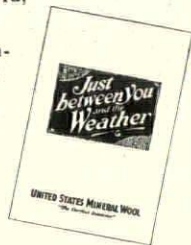
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years and a half thereafter (1935). . . . The Supervising Architect's office is really organized to absorb at the rate of 12 to 15 projects a month. We turn them out that fast and we can pick them up that fast. The time it takes for actual sketches, and preliminary drawings, working drawings, and writing of specifications, advertising for bids, ranges from four to six months."

According to Mr. Heath, "We are now going at the rate of about 12 projects a month. If we continue at that rate, until 1932, we will be going faster than the authorized limits of expenditures per annum and that will have to be increased to keep up the speed at which we are going now."

The Supervising Architect makes it a practice when possible to expedite work by making separate contracts for demolition, excavation, foundations and superstructure.

THE Committee Chairman asked the question whether he could be given any idea of the number of people now employed in various projects that are underway. It was stated that it is estimated that 1,000 men are employed on every \$10,000,000 job, exclusive of people employed in manufacturing and fabricating plants. Inquiry at the Bureau of Labor Statistics of the Department of Labor brought the reply that while no definite figures were available, the indications were that for every man employed directly on the building there would be indirect employment provided for five more outside and apart from the job.

It developed in the hearing that the salary appropriation for the Supervising Architect's office for 1931 is \$418,810 and that estimated for 1932 is \$429,720. The estimated increase was stated to be due to salary adjustments under the Brookhart Act, a limited number of promotions, and grade reallocations made subsequent to and hence not provided for in the appropriation for 1931. Mr. Wetmore stated that he had about 600 employees in his office. Two-hundred and thirty-eight are under the statutory and three hundred and eighty-eight are under general expenses. All under the latter were said to be technical positions. Salaries in the office range from \$7,000 down to \$1,500.

Public buildings are unquestionably as a class our most important buildings. The Government executing its own work removes this class of building from competition; removes the opportunity of having them designed by the best minds in the profession. At the salaries paid how can the Supervising Architect attract to his office the best talent, except possibly in an emergency like the present? Is the Government using good judgment in continuing to design its own buildings? Have the true functions of government been overlooked in entering into competition with the business of its citizens? One of the functions of the Government is to foster business which produces revenue with which to conduct government. When the government enters into business it removes a revenue-producing unit. If carried far enough there would be no revenue with which to conduct government. The result would be a different form of government than that upon which the fundamentals of the Government of the United States are based.



The Riverside Church, New York City. Henry C. Pelton and Allen & Collens, Associated Architects.

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additional artistic effect but also it gives additional unity to the design.

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The Town That Paris Forgot

(Continued from page 27)

old churches which punctuate its medieval profile. There are at least a half dozen of them, in addition to the cathedral, which is quite capable now of housing the entire population. Before the Revolution there were at least half a hundred, according to the town historian. Now only the cathedral serves in the capacity of a house of worship.

But the practical French have not allowed the other churches to remain idle shells. The beautiful little church of St. Pierre, a rich Gothic treasure, has been transformed into the town market place. Twice a week its warm whitewashed nave is thronged with vegetable vendors and bartering housewives. Geese squawk, and the hoarse voices of cheese barons echo down the graceful aisles.

Then there is the town cinema, installed in a fine old towerless church whose name seems lost from the records. Charlie Chaplin cavorts on a silver screen in the apse; the peanut gallery is in the clerestory and on the organ platform. On Saturday nights they have movies in Senlis. The bloods of the town wind fancy silk scarves around their necks, pull their caps down on one side, light strong cigarettes and install themselves in one of Senlis' religious relics.

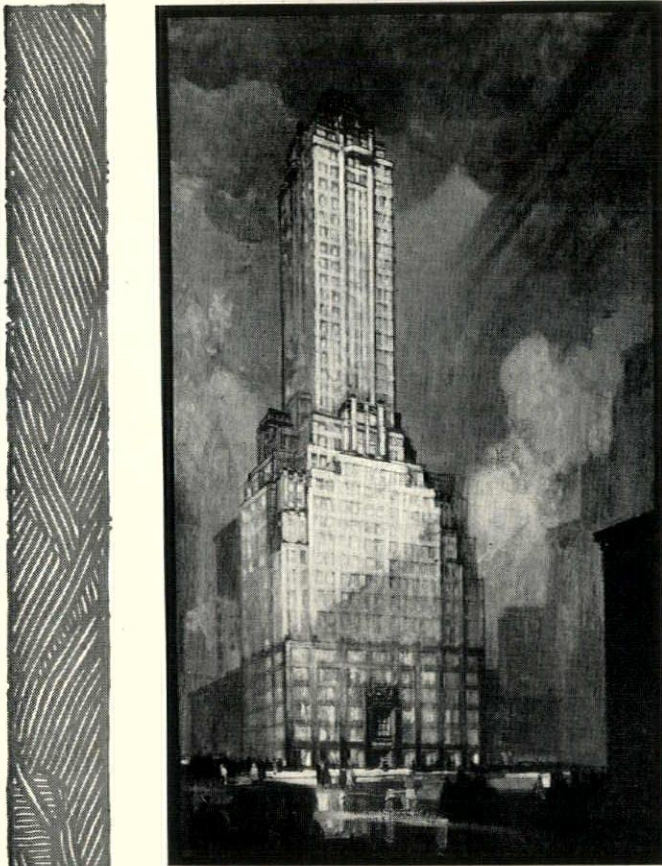
Another Gothic veteran, the church of St. Fram-

bourg, has been taken over by the town carpenter and cabinet maker, and its lofty reaches are filled with stacks of lumber and unfinished casements. The drone of a planer and the whine of a circular saw are the only chants which reverberate through its empty vaults now.

Finally there is the ancient Hotel Dieu, a bit of medieval cloister approached through a fine old Gothic gateway. This has been converted into the headquarters of the town mason. Sun still pours into the mossy cloister, but it no longer lights upon meditative friars strolling in the shelter. In their place are piles of sand and brick, stacks of construction poles and two-wheeled carts.

There is a touch of sadness to all of this, but a touch of the picturesque also. The Senlisiens accept the circumstance most casually, so there is really no need for the views of a passing sentimentalist. Yet one cannot help but conjecture in one's mind what a shrine, what a national treasure one of these fifteenth century relics of Senlis would be, if it could by some miracle be transplanted to New America, which the hand of a medieval craftsman never touched.

○ O. McINTYRE, the popular columnist, says "The inside of the Chrysler Building looks like salami."



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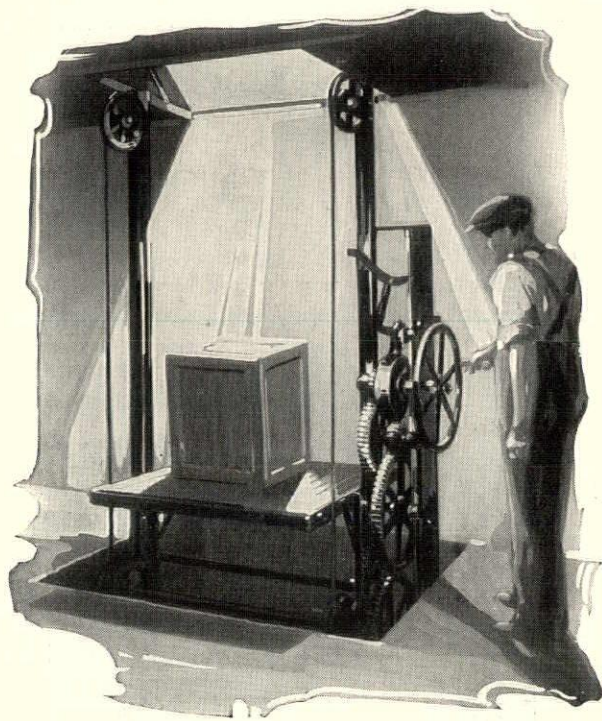


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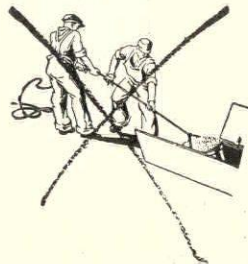
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What Architects Are Talking About

(Continued from page 55)

which usually operate to cut short the life of the buildings before actual wear and tear has had much influence. They are:

"Growth of business district. Shifting in location of the business district.

"Erection of newer buildings of a different type.

"The greater efficiency in the layout and operation of the newer buildings.

"Damage caused by new buildings, cutting off light and air."

WHEN talking about building conditions, Colonel William A. Starrett said, "Although the total of new construction of all kinds in 1930 was some 20 per cent. less than the totals for the previous twelve months, still we must not forget that it was approximately six billions of dollars. The figure represents a stupendous volume of human activity and achievement, however it may be measured in point of time or with what other totals it may be compared. Without its beneficial effects on our social and industrial life one dislikes to think what the last year would have been."

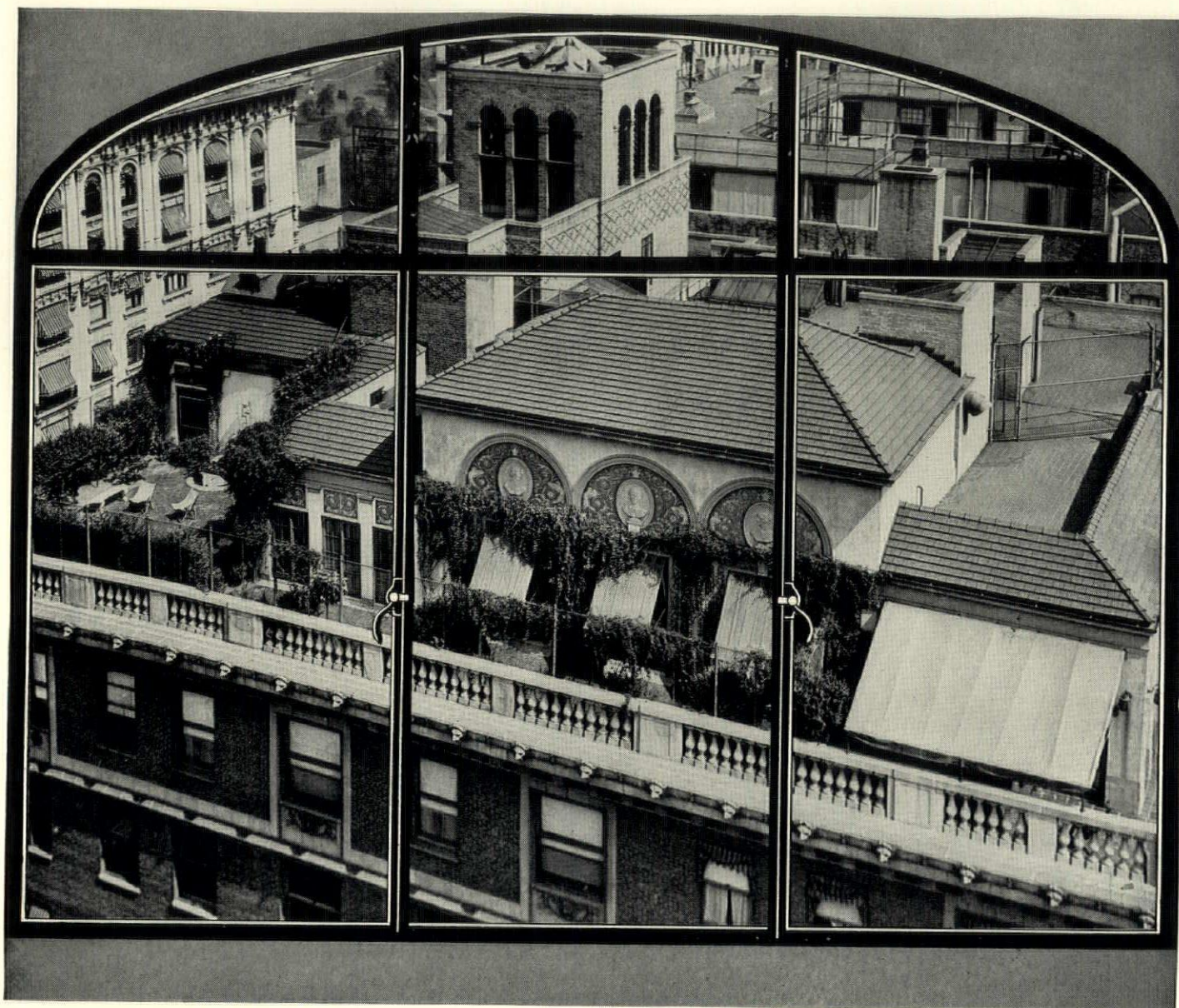
ROBERT D. KOHN, president of the American Institute of Architects and the New York Building Congress, has been elected an honorary corresponding member of the Royal Institute of British Architects.

Others honored by the Royal Institute were Prime Minister James Ramsey MacDonald and the Earl of Derby, who were elected honorary fellows, and Major Sir William Orpen and Sir Bernard Partridge, who were chosen honorary associates.

CONSTRUCTION costs on large buildings are only 3½ per cent. above the lowest point for the last decade, and on monumental type buildings are 1 per cent. below the lowest point, according to a detailed analysis made public by Lou R. Crandall, president of the George A. Fuller Company.

INDEPENDENT merchants who have organized against chain stores are evidently out for blood. In several instances craftsmen who came on the jobs wearing branded overalls of a national chain store were sent home until they learned better.

SOME ideas on elevator planning are contributed by William H. Gompert, architect, who says "The most important factor in the planning of an office building is the elevator layout, since it is the heart and pulse of the structure and greatly influences the general plan of the building. The ideal arrangement for elevators is to have the cars arranged in alcoves of not more than four cars deep and facing one another. This makes a compact arrangement and a simple plan for the upper stories



A NEW *FLATNESS* MAKES ALL THE DIFFERENCE

LOOK through a sheet of ordinary window glass and then through Pennvernon—and you're struck with a difference. "How much *clearer*, better glass," you'll say . . . Then look at Pennvernon—along its bright, flat surface—and you see the reason. An almost complete freedom from waves, streaks, "reams" and surface burns—the same flat, shining smoothness on both sides.

The two pieces of glass may contain the same material, but the difference in handling—the new Pennvernon Flat-drawing Process

—has produced a flatter, brighter, clearer sheet than was ever before possible—and it has done this without increasing the cost to you.

This new glass is ready at the Pittsburgh Plate Glass Company's warehouses in all leading cities. Samples are yours for the asking. And a really interesting new booklet describing

and picturing how Pennvernon is made, will be sent you if you'll just ask the Pittsburgh Plate Glass Company, Grant Building, Pittsburgh, Pa.

PENNVERNON
flat drawn
WINDOW GLASS

of the building. It also makes possible better starting supervision on the ground floor.

"To place the required number of elevators in a single row is not in accordance with the best modern practice, although a downtown building completed a few months ago has about twelve cars arranged in a single row with a spread of about 97 feet from one end to the other."

NEW YORK sings tenor, Chicago bass, and London a lusty barytone, according to Dr. William Braid White, Chicago, Director of Research in Acoustics at the American Steel and Wire Co. He says, "Up about fifteen stories above the ground is where the characteristic ground tone of the city may be heard."

UNEMPLOYMENT among draftsmen in New York is being relieved by a committee composed of representatives of all organizations of architects in the City. Headquarters Architectural League, 115 E. 40th Street.

COPPER lightning rods are coming into popularity to protect trees on stock farms and private estates. On stock farms, horses have a habit of gathering under trees during a storm, with many consequent fatalities.

H. ROY KELLEY, of Los Angeles, won the competition for the model American home, sponsored by the Home Owners Institute of America. This house has been built at Sleepy Hollow, N. Y., Farrar & Walmough of New York acting as supervising architects.

"IN the sixty years since the Chicago fire, practically the entire loop district of Chicago has been rebuilt twice, more than half of it three times and much of it four times," according to Earle Shulta, of Chicago. "A survey of lower Broadway in New York City, shows that there are only three buildings more than forty years of age, all of which are marked for demolition except one which has been substantially rebuilt within the last ten years. Only seventeen buildings are more than twenty-five years old in that section of New York City."

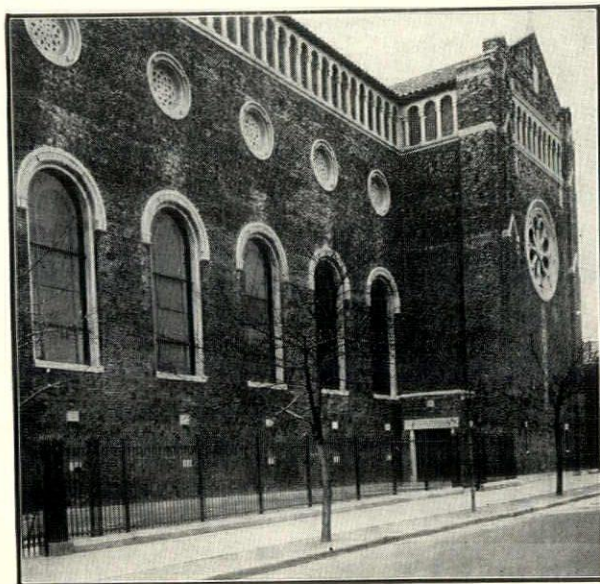
CONCRETE in building construction will be discussed at the Engineers Club of Philadelphia, 1317 Spruce St. the afternoon and evening of February 17.

BULLETINS

"BUILDERS HARDWARE," commercial standard CS22-30, describes the commercial standards for builders' hardware, proposed by the Advisory Committee on Standardization of Builders' Hardware, and approved by the industry. Published by the Bureau of Standards, U. S. Department of Commerce. Price 10 cents.

"HOSPITAL PLUMBING FIXTURES" is simplified practice recommendation R106-30 issued by the Bureau of Standards, U. S. Department of Commerce, Washington, D. C. Price ten cents.

"THE EFFICIENCY OF LIGHT WELLS," Technical Paper No. 11 on Illumination Research issued by the



CHURCH OF OUR LADY OF ANGELS
73rd Street and Fourth Avenue, Brooklyn, N. Y.
Robert J. Reiley, Architect David Lupton Sons Co., Steel Sash

Lord & Burnham Co.

SASH OPERATING DIVISION
Graybar Building New York City
Representatives in Principal Cities of the
United States and Canada

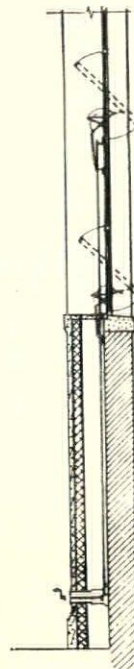
Operating Ventilators in Tall Church Windows

IN THIS church building the sills of the side windows are thirteen feet above floor level, and the windows are deeply revealed.

Mechanical equipment is carried down one of the mullions and behind the marble wall, to an operating point 18 inches above floor level.

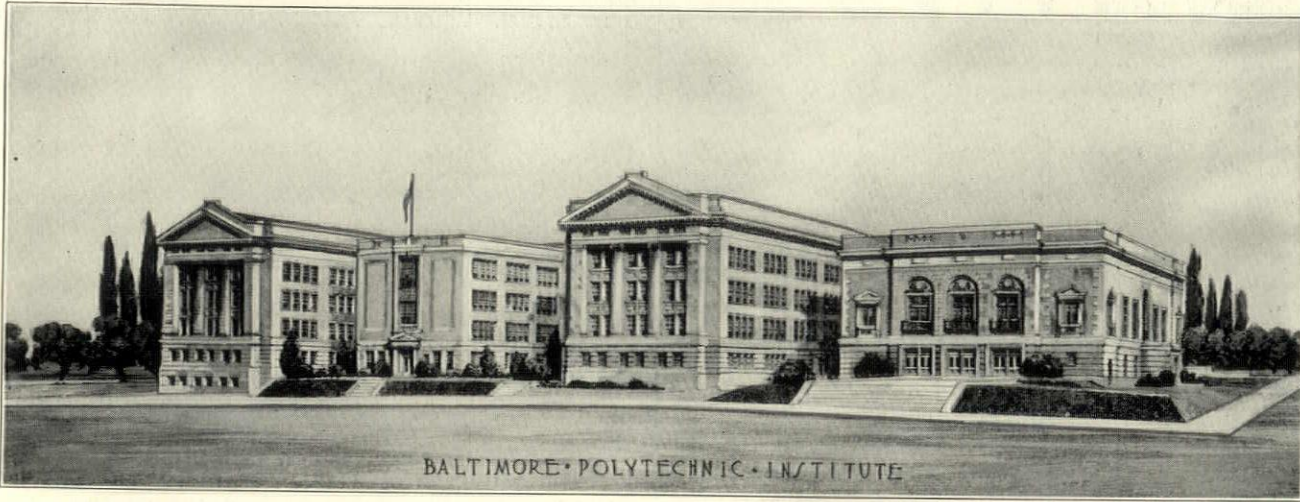
Other windows, in the sanctuary, are 24 feet above the floor.

Standard or special equipment is furnished and installed by Lord & Burnham Co. to meet every sash operating problem



Vertical Section through window and wall. Shows position of apparatus.

DOES NOT BREAK THE BOND



BALTIMORE • POLYTECHNIC • INSTITUTE

Architect: Charles M. Anderson

Supervising Engineer: H. L. Leimbath

When Architects and City or College Officials Get Together on Educational Building Projects

CHENEY

INTERLOCKING THRU-WALL FLASHING IS INVARIABLY SPECIFIED IT PREVENTS SEEPAGE — LEAKS — EFFLORESCENCE

In witness whereof Cheney Flashing has been installed in the following individual structures and is specified as Standard for educational buildings of the States, Cities and Universities listed.

State of Delaware Schools
 State of Virginia Schools
 City of Baltimore Schools
 City of Beverly Schools, Beverly, Mass.
 City of Boston Schools, Boston, Mass.
 City of Elmira Schools, Elmira, N. Y.
 City of Hartford Schools, Hartford, Conn.
 City of Portland Schools, Portland, Maine
 City of Yonkers Schools, Yonkers, N. Y.
 Bridgeville School, Bridgeville, Del.
 Danvers High School, Danvers, Mass.
 Elbert School, Wilmington, Del.
 Eliot Junior High School, Washington, D. C.
 High School, Chicopee, Mass.

High School, Medford, Mass.
 High School, Tuckahoe, N. Y.
 Seton High School, Baltimore, Md.
 St. Mary's School, Glens Falls, N. Y.
 Dartmouth University Buildings, Hanover, N. H.
 Harvard University Buildings, Cambridge, Mass.
 University of Maine Buildings, Orono, Maine
 Yale University Buildings, New Haven, Conn.
 Cornell University, Myron Taylor Hall, Ithaca, N. Y.
 Meharry Medical College, Nashville, Tenn.
 Western State Teachers' College, Bowling Green, Kentucky
 Baltimore Polytechnic Institute, Baltimore, Md.
 Perkins Institute, Boston, Mass.

CHENEY SERVICE — Our Engineers are available to assist you in detailing plans and specifications, or plans may be forwarded to our offices for this purpose. There's no obligation. Valuable information on the use of Cheney Flashing is contained in the New Cheney Catalog. Write for it today.

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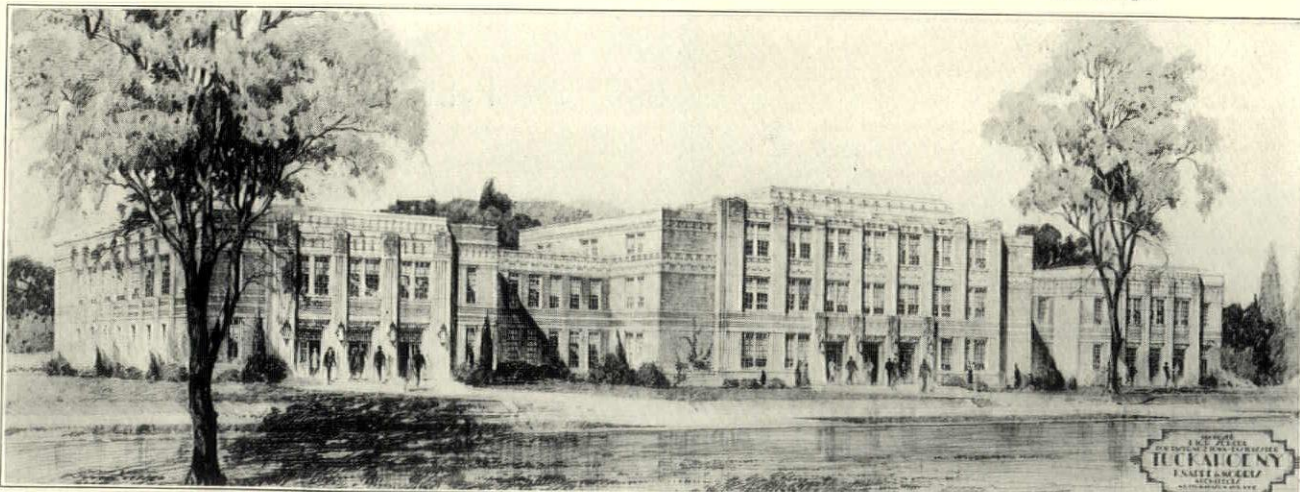
969 MAIN STREET

WINCHESTER, MASSACHUSETTS

New York

Philadelphia

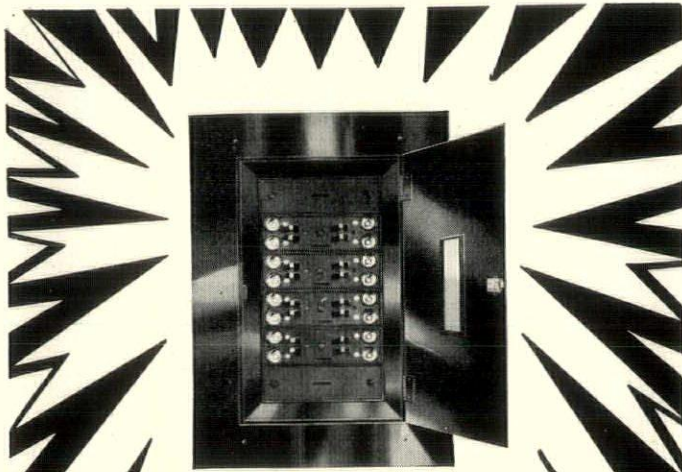
Pittsburgh



Tuckahoe High School, Tuckahoe, New York.

Architects: Knappe & Morris, New York City.

DOES NOT BREAK THE BOND



The Visible Sign of Better Wiring

Even with electrical installations where appearance is not considered important **FA** Panelboards are appreciated for "the Sign of a Better Job."

For really right products *look* right and service ability is always accompanied by convincing appearance. **FA** proves this.

*There is ready and practical
co-operation awaiting you at
FA. Write or call an FA man.*

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ELECTRIC COMPANY
ST. LOUIS

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Cleveland, Ohio	St. Louis, Mo.
Dallas, Texas	San Francisco, Calif.
Denver, Colo.	Seattle, Wash.
Detroit, Mich.	Tulsa, Okla.
Kansas City, Mo.	Toronto, Can.
Los Angeles, Calif.	Vancouver, Can.
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FA Panelboards are the
"Sign of a Better Job"

Department of Scientific and Industrial Research. By H. F. Meacock and G. E. Lambert. Price 28c from The British Library, 551 Fifth Avenue, New York.

"THE MEASUREMENT OF SOUND ABSORPTION," by V. L. Chrisler and W. F. Snyder of the Bureau of Standards, is Research Paper No. 242. Issued by the Bureau of Standards, U. S. Department of Commerce, Washington, D. C. Price ten cents.

"LIGHT FRAME HOUSE CONSTRUCTION," issued by the Federal Board for Vocational Education in cooperation with the National Committee on Wood Utilization, U. S. Department of Commerce, Washington, D. C. Contains technical information for the use of apprentice and journeymen carpenters. A 216 page paper bound book with illustrations and much valuable information. Price forty cents.

"PRELIMINARY REPORT ON CONSTRUCTION," District of Columbia. One of the reports issued by the Bureau of the Census, U. S. Department of Commerce. Price 5c.

COMPETITIONS

The National Soap Sculpture Committee, 80 East Eleventh Street, New York, announces the seventh annual competition for prizes offered by the Proctor & Gamble Company for small sculptures, using white soap as a medium. The competition will close May 1. Prizes for amateurs total \$1,850; for professionals, which are those making their living by art, prizes total \$1000. Hints on how to make soap sculptures are contained in booklets issued by the committee.

Students of architecture in the United States and Canada are invited to participate in a competition for the design of the most beautiful highway bridge in steel. The competition will be held by the American Institute of Steel Construction, which offers the prize money of \$500 for the first, \$250 for the second, and \$100 for the third best design. Preliminary sketches, to be placed in judgment on April 3, 1931, should be sent to the American Institute of Steel Construction, 200 Madison Ave., N. Y. C.

The fourth competition for the A. W. Brown Traveling scholarship is announced and programmes will be mailed to applicants about March 14. Application blanks may be obtained from the secretary of the committee, Wm. Dewey Foster, 25 West 45 Street, New York City.

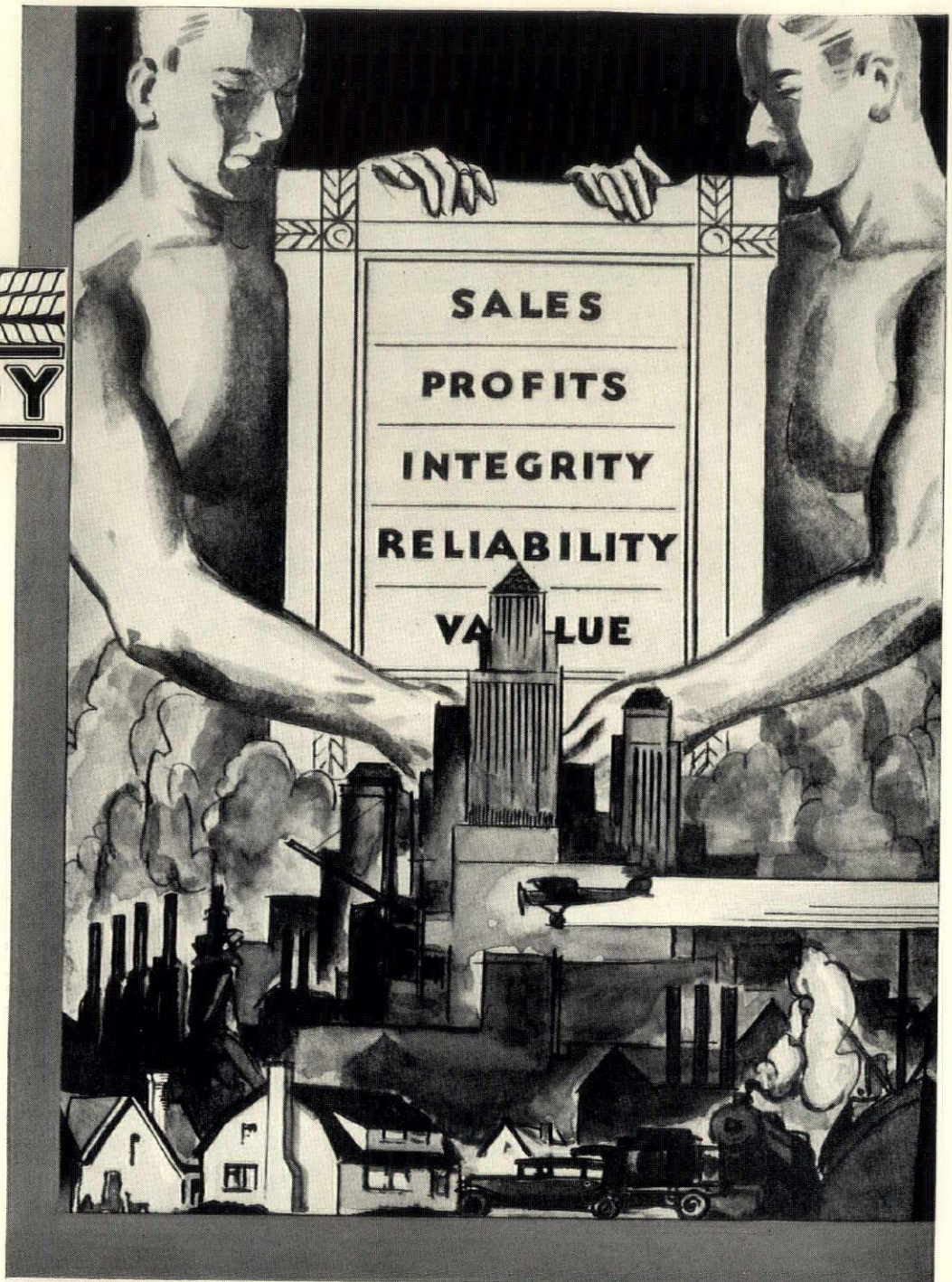
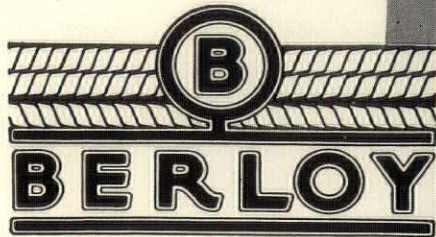
PERSONALS

HERMAN SCHOENFELDT has opened an office at 108 North Michigan Avenue, Chicago, and will specialize in the design of interiors for residences, offices, stores and shops. He would like to receive manufacturers' catalogs.

ANDERS & REIMERS, architects and engineers, have moved their offices to 721 Columbia Building, Cleveland.

BLACK & BIGELOW, INC., engineers, announce that the name of the firm has been changed to A. A. Bigelow & Co. with offices at 551 Fifth Avenue, New York. Mr. Black, who has resigned as president, will continue his association with the organization as consulting engineer.

ARNALDO GLADOSCH, architect and engineer, Rio de Janeiro, Brazil, S. A., is just doing a twenty-six story

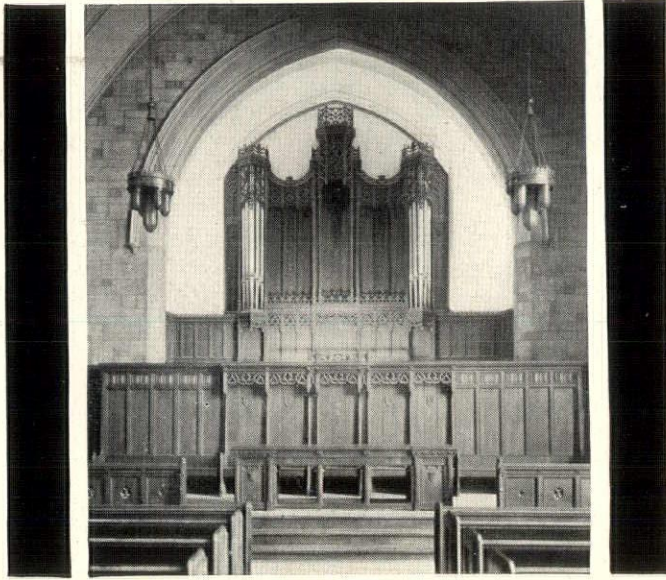


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- BASE SCREEDS
- CORNER BEADS
- CHANNELS
- STEEL JOISTS
- FLOOR CORES
- STEEL CEILINGS
- OFFICE EQUIPMENT



Another Installation ... by Kundtz Craftsmen

THE First Presbyterian Church of Flint, Michigan is one of the recent additions to our ever-growing list of church installations. Architects all over the country are specifying Kundtz Craftsmanship to insure interiors of *permanent* beauty.

Our architectural division of planning and designing is at all times ready to cooperate with builders and architects. There is no charge for this service.

THE THEODOR
KUNDTZ COMPANY
CLEVELAND, OHIO



DETAIL OF LECTERN

KUNDTZ CRAFTSMEN
CHURCH AND SCHOOL FURNITURE

building housing the Alhambra Theatre and wishes to receive manufacturers' catalogs and literature.

WALTER ROBB WILDER and HARRY KEITH WHITE, architects, have dissolved the partnership of Wilder & White. Mr. Wilder will practice at the Wilderness, Suffern, N. Y., and Mr. White at 19 W. 44th St., N. Y.

JOHN HENRI DEEKEN and HUBERT MARION GARRIOTT announce their association in practice under the firm name of John Henri Deekin, A.I.A., architect, and Rubert Marion Garriott, A.I.A., associate.

DEATHS

EDWIN DELOS WEARY, president of the architectural firm of Weary & Alford Co., Chicago, died on December 13. He was born in Akron, Ohio, in 1853.

RALPH STARRETT, president of Starrett Brothers of Illinois, builders, died on December 1. He was born in Lawrence, Kansas, in 1868.

Patrick Henry

(Continued from page 53)

they used a mitered block. The building never had gutters. Originally the building had a room with a fireplace at the rear.

The corners of the original side walls are very clear, as they have installed windows at this point and have used the old bricks to fill in the corners to make the court-room rectangular in shape. The present rear wall was built of the original and other old brick laid in common bond. The high window shown in the north wall of the old cut has been filled in. On the south side there is an old window complete with sash, frame and blinds on the outside, but this has been walled up and plastered over on the inside. This window was not an original opening. The two chimneys on each side of the court-room were added and are not laid to match the original work. The roof is slate.

Advertising Wasted Our Money

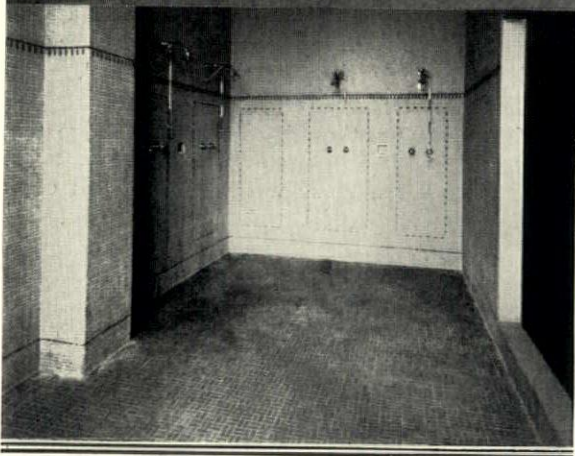
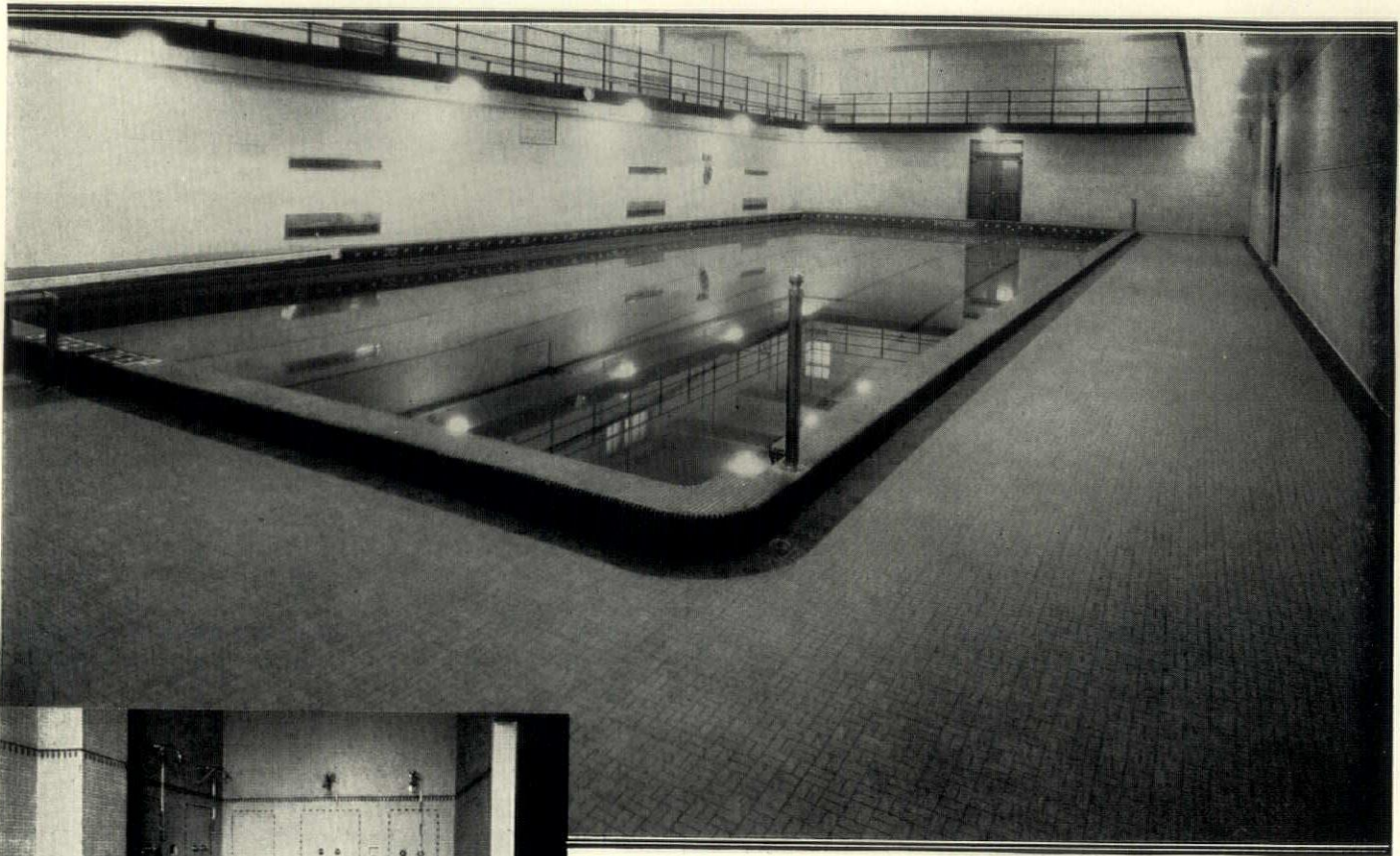
(Continued from page 25)

placed by Chapter members on all buildings under construction of which they were architects.

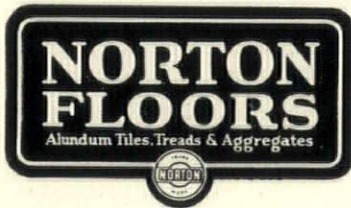
An effort was made to have building material manufacturers, through their advertising, carry to the public the message of the value of an architect's service.

The Chapter Bulletin offered another avenue for public information. This publication was started in 1920 with the primary purpose of conveying Chapter information to members. It has continued with this same purpose but has been used also to give Chapter news to those whom it appeared practicable to effectively interest in matters of public or semi-public importance.

At the end of 1928 we found that our publicity work had resulted in many inches of free space in the form of articles in addition to the paid advertising space. The Committee at this time recommended the continuing of



Lincoln Square Building, Worcester Boys' Club
Worcester, Massachusetts
Frost, Chamberlain & Edwards, Architects



100% NON-SLIP

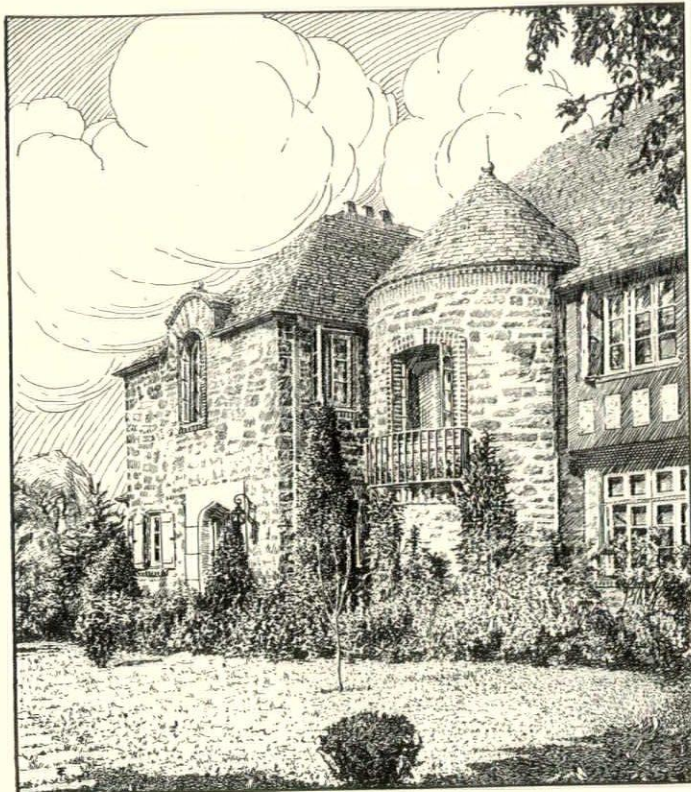
... and Permanently So!

THE entire floor and curb around this pool and the floors of the accompanying two shower rooms assure maximum safety against slipping accidents . . . for they are 100% Alundum Ceramic Mosaic Tile, non-slip wet or dry. • The floor around the pool is $2\frac{1}{4} \times 1\frac{1}{16}$ " salmon Alundum Mosaics in a basket-weave design with borders of green tile of the same kind and size. The curb is also of green Alundum Mosaics but in the $1\frac{1}{16}$ " square size. • The shower room floors are identical with the floor around the pool except that the one off the locker room does not have the green border and has walls of Wheeling buff tile.

NORTON COMPANY -- WORCESTER, MASS.

T-278

NORTON PRODUCTS • Grinding Machines; Lapping Machines • Grinding Wheels; Abrasives for Polishing; India Oil Stones • Laboratory Ware, Refractories; Porous Plates • Norton Floors—Alundum Tiles & Aggregates



Wallace & Warner designed this house at Rosemont, Pa. The natural resistance of the fieldstone walls to cold, heat and noise has been more than doubled by the use of CABOT'S QUILT.

A Permanent Sentinel Against Cold, Heat and Noise

On the south coast of England stands a curious little building called "Domesday Hut." It was standing in 1086, and its original construction still remains—oak timbers thatched with *Zostera Marina*; the same tough, century-defying sea plant that is the insulating material in Cabot's Quilt.

Zostera Marina is rot-proof, vermin-proof, and fire-resistant. It will never pack down, decay, or lose its insulating power. Therefore, you can use it to build a warm house in New Brunswick, a cool house in New Orleans, or a quiet house in New York. And you can give your client more comfort, health and peace of mind than he thought possible for so little money.

Clip coupon below, or write to

Cabot's Quilt



Samuel Cabot
Incl

141 MILK STREET, BOSTON, MASS.

Gentlemen: Please send me your new Quilt Book, "Build Warm Houses."

Name

Address AA-2-31

advertising in the papers in similar form for 1929; favored advertisements in trade journals and in manufacturers' publicity material; and the continuing of articles on art, architecture, architects and building in all publications carrying our advertisements.

The editorial staff of the newspapers were glad to receive help in the form of news items and news articles to make reading matter, for which the architects might have been paid, since it cost them time, and made the newspapers more readable. In other words, we helped the newspapers gather news for the public along the lines of architecture. We saved them the expense of having an art or building page editor, whereas their music department and household economics department cost were handled by paid employees.

During the year 1929 the committee came to the conclusion that paid advertising space in the newspapers was ineffective except insofar as it brought to the attention of the newspapers the fact that the public is interested in architecture and the fact that architects are a body worthy of consideration.

The Washington State Chapter therefore at the end of the two years campaign of public information, after a careful analysis of the results, recommended against paid advertisements in the form of space in newspapers. The chief benefits which it was thought would be received through paid advertising were not obtained.

BY paying for space we thought we would oblige the newspapers to always give architects credit for their designs of buildings when these were published in connection with some real estate or other item about the building. We found that the make-up of the paper's staff made it almost impossible for the various reporters to give architects credit for their work. If architects prepared the news articles due credit was given to the author, but in many cases where the article was cut down the name of the architect would be omitted from the article even though the owner or builder or the realtor was mentioned. Newspapers seemed to be unable to give consideration to the fact that the architects were advertising, and paying for advertising space will not change the viewpoint of the reporter, nor does it educate him.

The architectural offices in Seattle analyzed the source of their clientele. They found that the advertisements had brought no clients. By questioning friends at random we found that the advertisements were not read even by some of the architects.

We did, however, find that properly prepared publicity stories by architects were effective in the way of general education of the public through the medium of the daily press, and our friends told us that they read them.

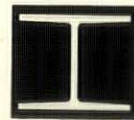
When building a house or other building, people do not go to the newspapers for information. They consult their friends, possibly a neighborhood lumber dealer, material agent, or loan association. They are serious readers of magazines and other literature devoted primarily to architectural subjects. They will then read articles which they can secure at the Permanent Builders Exhibit in Seattle or similar exhibits in other cities.

In Seattle, these articles are publications of the Seattle Real Estate Board regarding "The Use of an Architect," or articles prepared by loan associations such as "The Fee Paid an Architect Is the Cheapest Investment," "An Architect Is an Economical Necessity," "Why Employ an Architect," or articles such as "Do I Need an



■ **FOUR-FIFTY
SUTTER
BUILDING,
SAN FRANCISCO**

**FRAMEWORK
OF
BETHLEHEM
WIDE-FLANGE
STRUCTURAL
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BETHLEHEM STEEL COMPANY

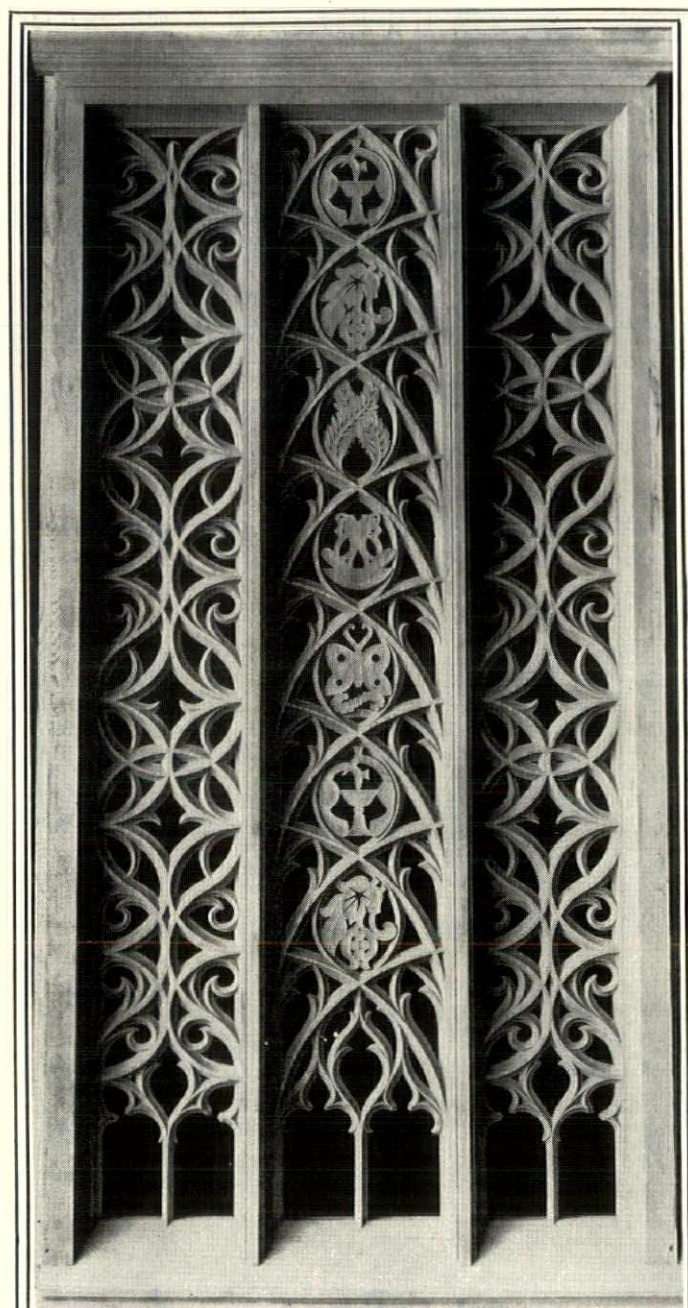
General Offices: Bethlehem, Pa.

**District Offices: New York, Boston, Philadelphia, Baltimore,
Washington, Atlanta, Buffalo, Pittsburgh, Cleveland,
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**Pacific Coast Distributor: Pacific Coast Steel Corporation,
San Francisco, Los Angeles, Seattle, Portland, Honolulu.**

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BETHLEHEM



Wood Carvings of CHARACTER

Sections of various traceried ornament as carved for the University of Chicago Chapel. To the finest detail "American" craftsmen correctly interpret architects' designs. Bertram Grosvenor Goodhue and Bertram Grosvenor Goodhue Associates, were the Architects.

American Seating Company



*Carvings and Cabinet Interior Work
of Finer Character — Seating for Churches,
Schools and Public Auditoriums*

GENERAL OFFICES: 14 E. Jackson Blvd., Chicago, Illinois
BRANCHES IN ALL PRINCIPAL CITIES

Architect," "Architectural Services Protect You," etc. If these articles are received by prospective builders through their natural local contacts they are read.

If men or women read enough articles in the news columns when enjoying themselves with the newspaper or magazine, they will associate architects with all big new buildings. The owner who is going to build a large building will inevitably consider that an architect, engineer, or contracting firm must handle his project. This is the type of owner the architects wish to have for clients. These clients must be and can be educated to favor the choosing of an architect, largely by news articles read as news.

Big business men read the newspapers but do not read the advertisements. We found this out by questioning at random a group of men as to whether they had seen the architects' advertisements. They had not seen them at all. They had, however, read news articles telling why the owners of a recently built big building had valued an architect versus an engineer or contracting firm.

THE architect's state license law does not prevent an engineering or contracting firm from employing a licensed architect and thus meeting the requirements of the law, and at the same time not giving true architectural services. This condition also can be met. Talks before social clubs, contacts with bankers and loan associations, and the real estate boards in which architects personally sell the services of architects are the best ways to reach the large owner. If periodicals similar to THE AMERICAN ARCHITECT, in which the architects explain actual cases, were laid on the desk of every business executive regularly each month, it would do more to combat the contracting and engineering concerns usurping architectural functions than any form of advertising.

Summing up, the newspapers get circulation and more profit from the legitimate merchant advertiser who has a finished product to sell in large quantities to many people at a definite time and place. Architects' services are not a finished commodity, but a creative effort or skilled product which rarely sells twice to the same person except at long intervals.

The skill of the architect can not be sold to a number of people at one time. It is not a question of selling the public something tangible like a set of blueprints. If this were so, blueprints could be advertised. It is a question of educating the public to know what an architect does, why his service is valuable, so that when such a person is in need of an architect's services he is prepared to meet the architect intelligently on common ground, appreciating architectural service for art's sake as well as for economic reasons.

An Easy Way to Hold An Exhibit

(Continued from page 59)

so the above is expressed as a hope rather than as a prophecy.

While this article is supposed to serve as a story of "how it was done," it should not be out of place to say something about the work shown. Generally, it was just such a creditable exhibit as might be had in almost any similar city, where the work finally judged and hung was the selected work of about sixty per cent of the local offices. The work shown ranged from skyscrapers



Careystone Shingles

THE NEW ROOF *With* THE "WEATHER AGE" TEXTURE

CAREYSTONE SHINGLES—a more beautiful roof, with a veined, rippled surface which softens the sunlight and deepens the shadows. A more permanent roof, unaffected by the weather and requiring no attention. A fireproof roof, made entirely of two non-combustible substances, Asbestos Fibre and Portland Cement. And, best of all, these superior shingles cost about the same as smooth surface roofs.

Behind this achievement is more than a half century of successful manufacturing experience, years of patient research, and an ambition to produce a

roof covering suitable for the most elaborate structures, but which could be economically used on the small home where first cost is important.

Careystone Shingles are made in several widths, and in five colors—Windsor Gray, Weathered Brown, Georgian Red, Bristol Green and Tudor Black. The colors are solid thru and thru, not veneered or pressed into the surface.

In order that architects may know the appearance and quality of Careystone Shingles, we have made up packages of miniature samples, which will be mailed on request. Write today for your set.

THE PHILIP CAREY COMPANY × Lockland, Cincinnati, Ohio
Branches in Principal Cities

BUILT-UP ROOFS
ASPHALT PRODUCTS
ELASTITE EXPANSION JOINT
WATERPROOFINGS
ROOF PAINTS



HEAT INSULATIONS
ASBESTOS MATERIALS
CAREYSTONE CORRUGATED SIDING
ASFALTSLATE SHINGLES
BUILDING PAPERS

TRADE **YALE** MARK
DOOR CLOSERS

*An Important Feature of
the Well-Planned Building*



IN MODERN construction of every type, from private residences to great office buildings, Yale Door Closers contribute the final perfecting touch of quiet, comfort and efficiency.

The strength and dependability of Yale Door Closers are the result of more than thirty years of experience in the construction of fine quality door controlling devices. They are made in models and sizes to meet every requirement.

Write for Illustrated Booklet

THE YALE & TOWNE MFG. CO.
Stamford, Connecticut, U. S. A.

to cottages, with more sketches displayed than photographs. A number of splendid renderings, particularly of the tall office structures of which we have four under way in Dallas now, made the gallery a rendezvous for studious young draughtsmen. There should have been a few more plans, particularly of certain of the residential work and there was one group of progress studies showing the layman what the architect does between the initial thumbnail sketch and a photograph of the finished structure. There should have been a few more of such groups, as they may help to explain our fees to our Scotch clients.

The single exhibit which probably caused the most comment was a collection of photographs of colonial Texas work, taken and assembled by David R. Williams. It is Mr. Williams' philosophy in the design of his houses that we can well go to the examples of early Texas architecture for guidance in our present-day problems of detail, material, texture, color and even plan; that we have such a wealth of indigenous architecture, suitable to us climatically and historically, as to make the employment of foreign styles not only unnecessary but entirely out of place. The practical application of his argument was seen in the picture of his recent residences in Dallas and Corsicana, shown side by side with the photographs of early structures. The success with simplicity and frankness of his work is sometimes shocking to the layman used to detail and plenty of it. It will be interesting to see whether or not Mr. Williams' work will be influential in the development of a Southwestern Architecture.

The following offices were represented in the Dallas exhibit: A. C. Becker, Bryan and Sharp, Dewitt and Washburn, Flint and Broad, Herbert M. Greene, La-Roche and Dahl, Henry C. Knight, Anton F. Korn, Kramer and Kerr, Lang and Witchell, Mark Lemmon, Arthur E. Thomas, H. B. Thomson, and David R. Williams. Photographs of murals by Buck Winn, of Dallas, were also shown, while water-color sketches of old New Orleans by Forrest Kirkland, another Dallas artist, were shown in an adjoining room.

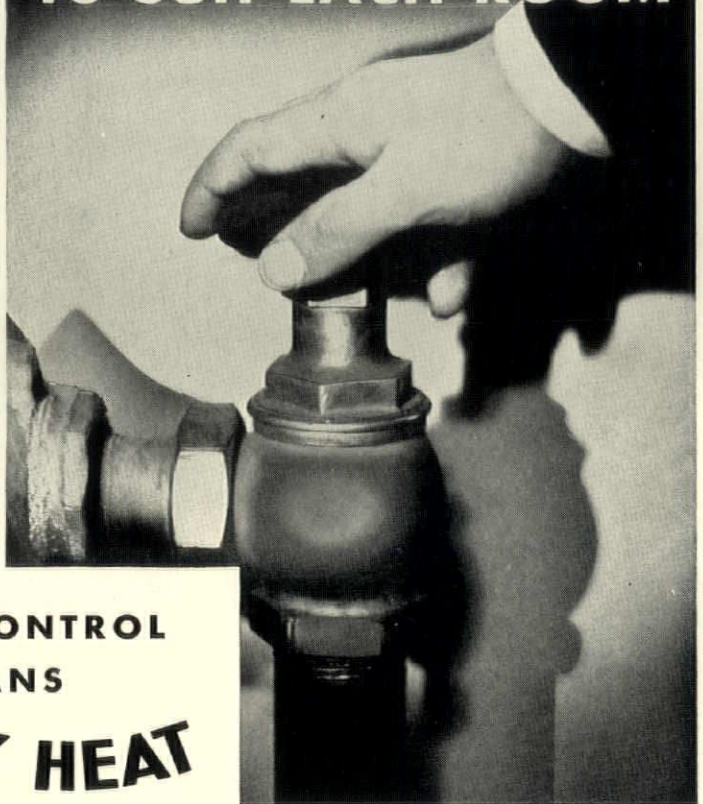
THE development that is taking place in the integral garage, or garage built as an integral part of an office, hotel, or other structure in a central district is referred to in a bulletin of the Planning Foundation of America, by Miller McClintock, Director of the Albert Russel Erskine Bureau for Street Traffic Research.

Mr. McClintock states, "The final trend in this development is clearly forecast. It may be called the self-contained block, that is, a block or city square which contains within it all of the facilities necessary so far as it is related to automotive traffic. In the central area of the block there will be a structure capable of accommodating all of the commodity and commercial movements, and in addition provision on the upper floors for the parking requirements of all the tenants and patrons of tenants who have business within the block. This self-contained block has just been proposed by the National Capitol Park and Plan Commission as part of the program for the development of government buildings in the so-called Triangle Area. Another interesting example of the fulfillment of this tendency is shown in the Pickwick Hotels Building in Kansas City and in the Carew Towers now being constructed in Cincinnati."

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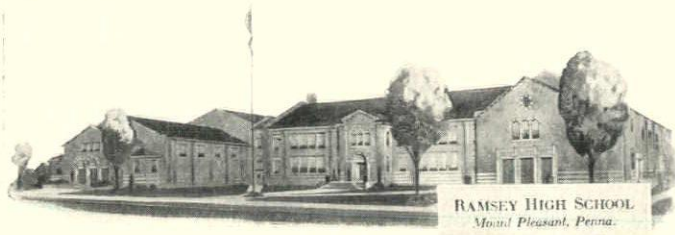
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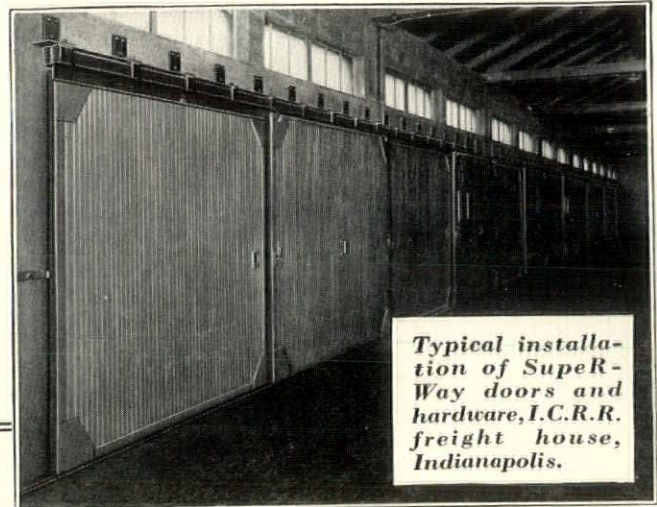
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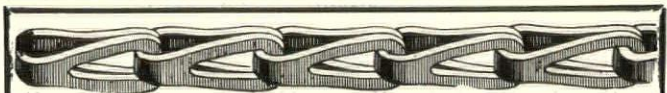
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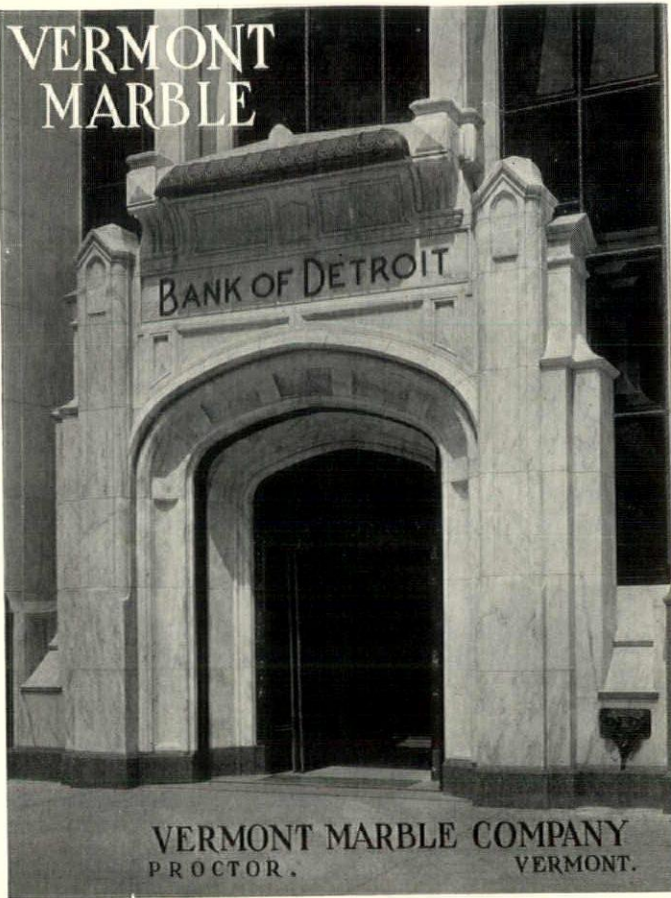
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<p>Adam, Electric Co., Frank..... 116 Aluminum Co. of America.....3, 101 American District Telegraph Co..... 71 American Institute of Steel Construction, Inc. 69 American Seating Co. 122 American Sheet & Tin Plate Co..... 18 American Tel. & Tel. Co..... 85 Architectural Decorating Co..... 5 Armstrong Cork Co., Floor Division.. 81 Armstrong Cork & Insulation Co..... 13 Atlantic Terra Cotta Co..... 79</p> <p>Berger Mfg. Co., The..... 117 Bethlehem Steel Co. 121 Blank & Co., Frederic..... 15 Bostwick-Goodell Co., The..... 104 Buckeye Blower Co., The..... 127 Burlington Venetian Blind Co..... 126</p> <p>Cabot, Inc., Samuel..... 120 Carey Co., The Philip..... 123 Carnegie Steel Co..... 4 Carter Bloxonend Flooring Co..... 84 Cheney Co., The..... 115 Chicago Faucet Co., The..... 75 Classified Ads..... 130 Columbus Coated Fabrics Corp..... 10 Conduo Base Co., The..... 92 Crane Co. 82 Crittall Casement Window Co..... 109 Cutler Mail Chute Co..... 131</p> <p>Detroit Show Co..... 95 Dextone Co., The..... 133 Doherty-Brehm Co. 111 Dunham Co., C. A..... 89</p>	<p>Energy Elevator Co..... 112 Fiske, Iron Works, J. W..... 14 Fulton Sylphon Co..... 125</p> <p>General Bronze Corp..... 65 Georgia Marble Co., The..... 87 Good Housekeeping 94</p> <p>Halback & Co., C. E..... 110 Hartmann-Sanders Co. 106 Hauserman Co., The E. F..... 97 Herman Nelson Corp., The..... 99 Home & Field..... 129</p> <p>Illinois Steel Co..... 83 Independent Lock Co..... 88 "I Want" Page..... 130</p> <p>Jamison Cold Storage Door Co..... 102</p> <p>Kawneer Co., The..... 98 Kerner Incinerator Co..... 80 Kewanee Boiler Corp..... 1 Kimball Bros. Co..... 100 Kundtz Co., The Theodor..... 118</p> <p>Lord & Burnham Co. (Greenhouse) Back Cover Lord & Burnham Co. (Ventilating).. 114 Ludowici-Celadon Company..... 67</p> <p>Marble Chair Co., The B. L..... 96 Midland Terra Cotta Co..... 7 Milcor Steel Co..... 131</p> <p>National Electric Light Association.... 126 National Tube Co. 73 North Star Granite Corp..... 131 Norton Co. 119</p>	<p>Peelle Co., The..... 8 Peerless Unit Ventilation Co., Inc.... 107 Pittsburgh Plate Glass Co..... 113 Portland Cement Association..... 93</p> <p>Rail Steel Bar Association..... 12 Rambusch Decorating Co..... 131 Richards-Wilcox Mfg. Co..... 126 Ric-Wil Co., The..... 90 Rising & Nelson Slate Co..... 11 Ruberoid Co., The..... 128</p> <p>Sargent & Company..... 91 Sloane, W. & J..... 77 Smith & Egge Mfg. Co., The..... 126 Smith & Wesson 2 Smyser-Royer Co. 86 Standard Tank & Seat Co..... 6 Stedman Rubber Flooring Co..... 9 Stromberg-Carlson Telephone Mfg. Co. 128</p> <p>Tablet & Ticket Co., The 128 Thorp Fireproof Door Co....Second Cover Trenton Potteries Co., The..... 103 Truscon Steel Co..... 134</p> <p>Universal Atlas Cement Co..... 16 U. S. Mineral Wool Co..... 108 U. S. Ozone Co. of America..... 132</p> <p>Vermont Marble Co..... 128</p> <p>Westinghouse Electric Elevator Co. Third Cover Westinghouse Lamp Co..... 126</p> <p>Yale & Towne Mfg. Co..... 124 Youngstown Sheet & Tube Co., The.. 105</p>
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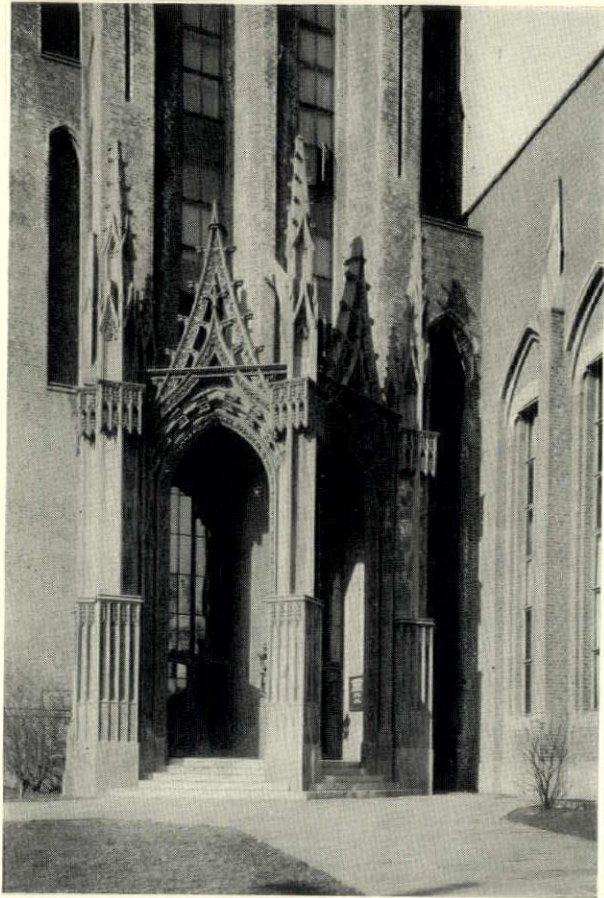
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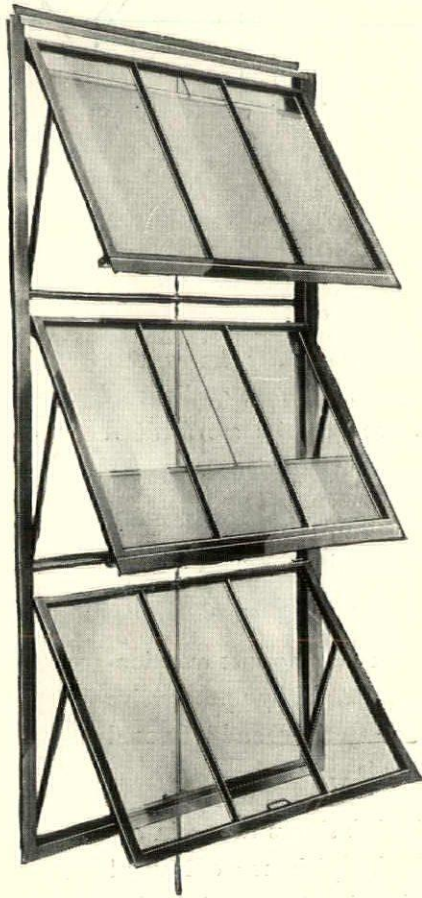
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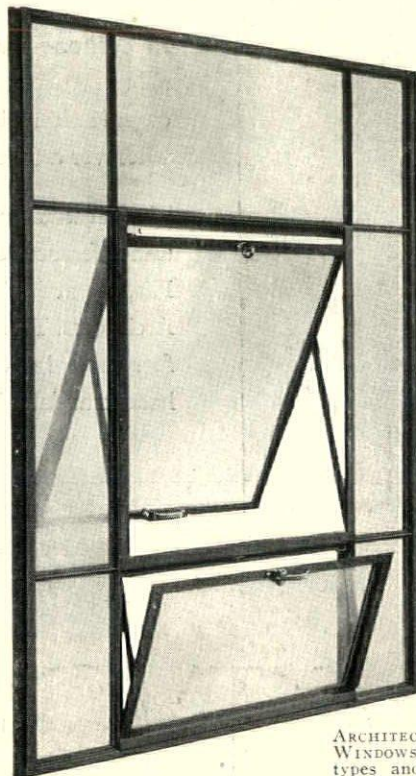
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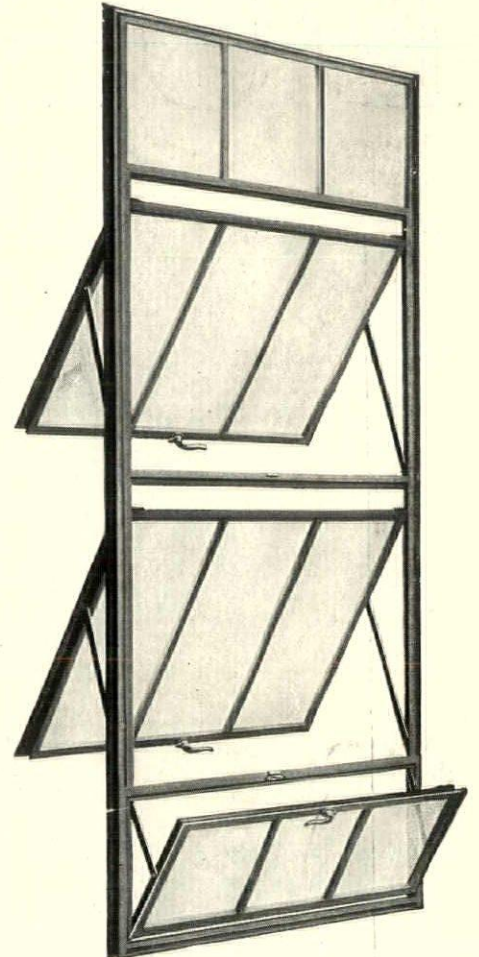
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