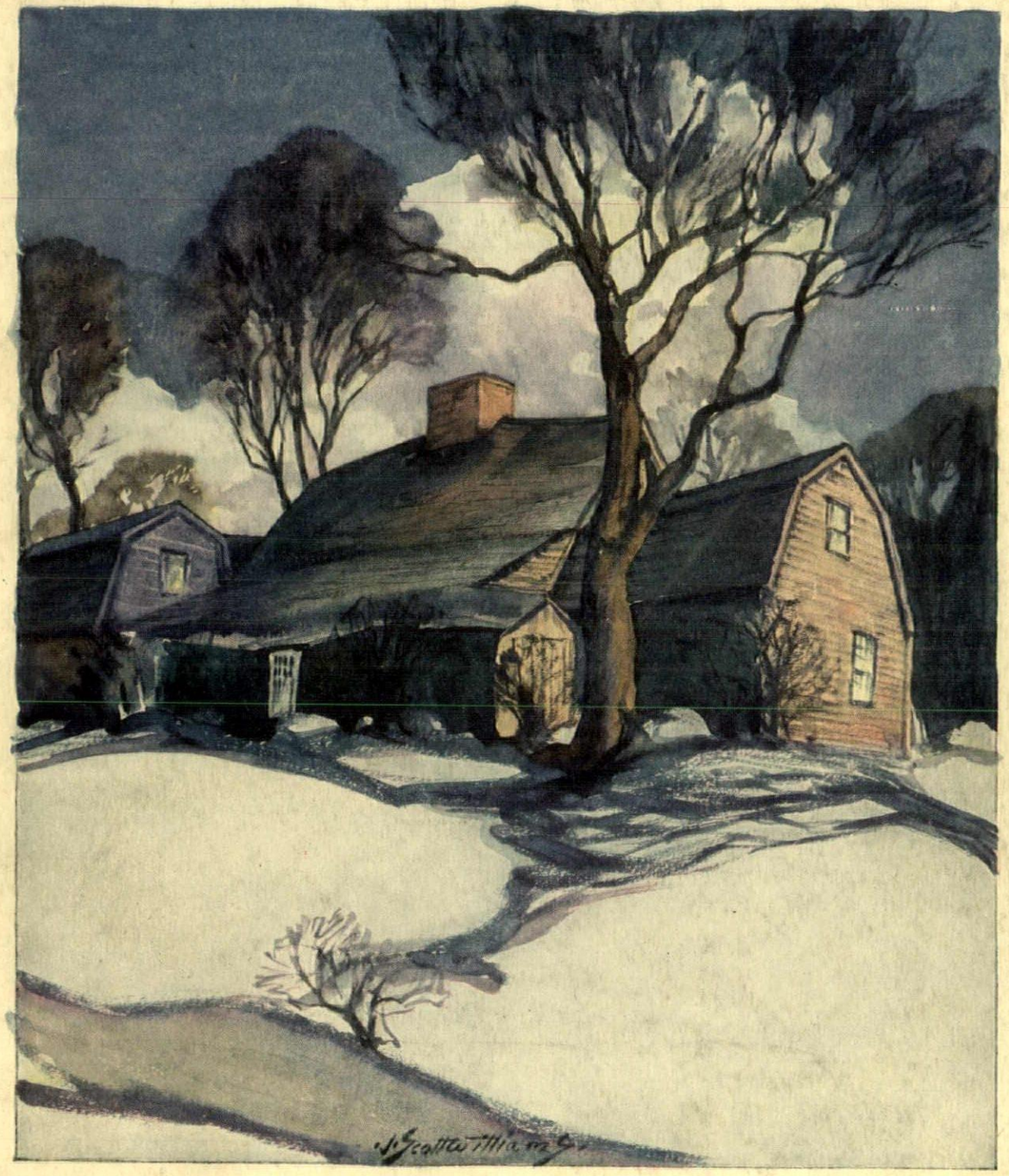


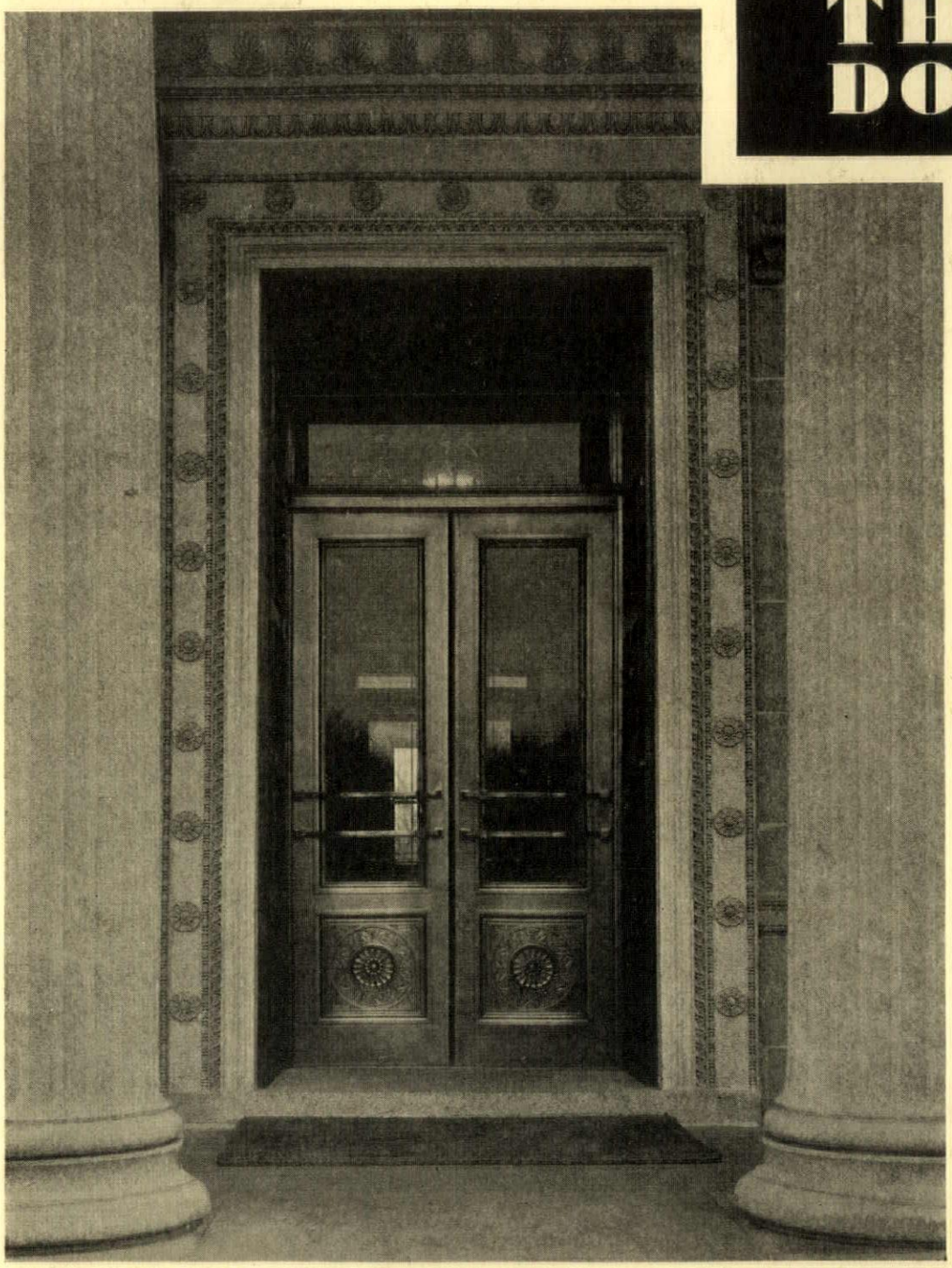
THE AMERICAN ARCHITECT

FOUNDED 1876

December 1930

Entrance — Administration Building, Lakewood Cemetery Association, Minneapolis. Ernest Kennedy, Architect.

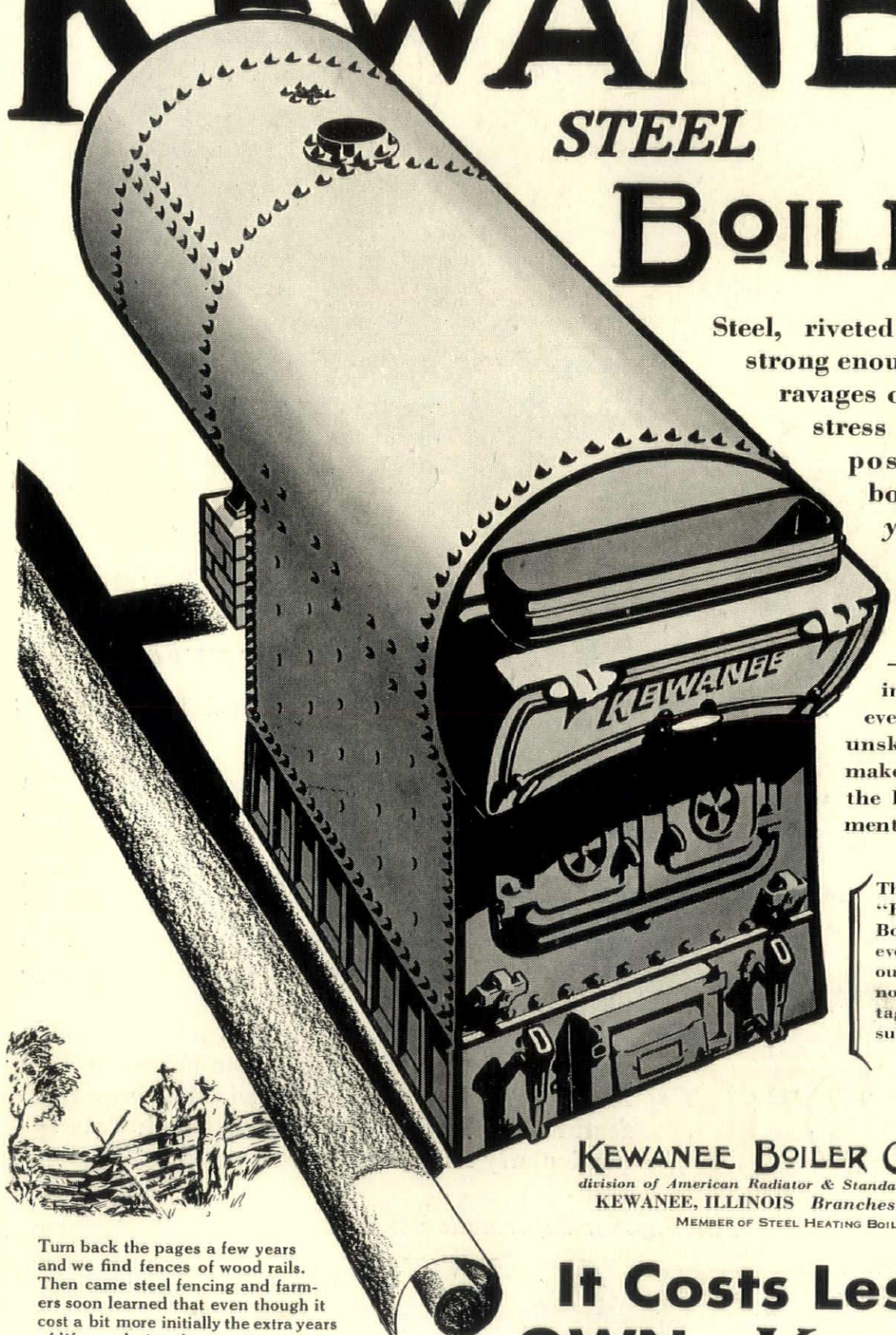
Specify THORP DOORS



FUNCTION must always control design. Here we find simple dignity, strength wrought into the doors that form the entrance to the Administration Building of the Lakewood Cemetery. Doors and frames are of hollow bronze fashioned by Thorp. Thorp craftsmanship may be depended on always to give tangible expression to the design which the architect visions.

THORP FIREPROOF DOOR CO., *Minneapolis, Minnesota*

KEWANEE STEEL BOILERS



Steel, riveted construction; strong enough to stand the ravages of time, and the stress and strain imposed on every boiler; *adds extra years to the life* of Kewanee Boilers.

Those extra years—plus the fuel saving guaranteed for every year by correct, unskimped design—make a Kewanee by far the best boiler investment an owner can have.

The arrival of Type "R" Steel Residence Boiler means that every building, without exception, can now have the advantages of Kewanee's superior design and construction.

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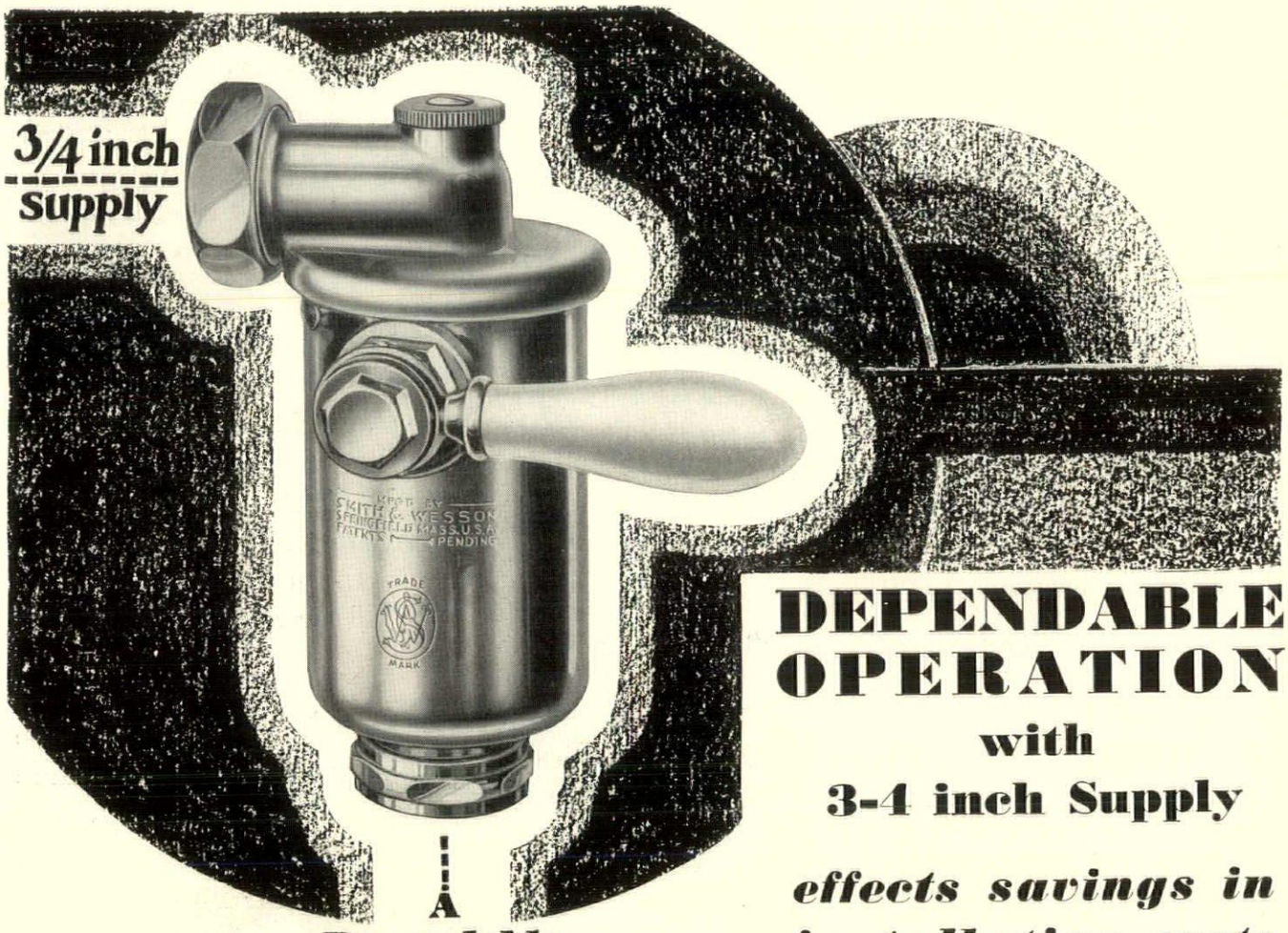

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Dependable
Flush

DEPENDABLE OPERATION

with 3-4 inch Supply

effects savings in installation costs

PROSPECTIVE builders are ready to listen to recommendations that will effect reductions in cost.

The Smith & Wesson Flush Valve gives a dependable flush with a ¾″ supply. It operates successfully at a pressure of 15 pounds where a minimum of 30 gallons per minute can be supplied at the valve.

The use of ¾″ pipe means a considerable saving in installation cost. Your clients will be interested to hear about this and other important features of the Smith & Wesson Flush Valve—particularly its all-metal construction.

For Further Information Write

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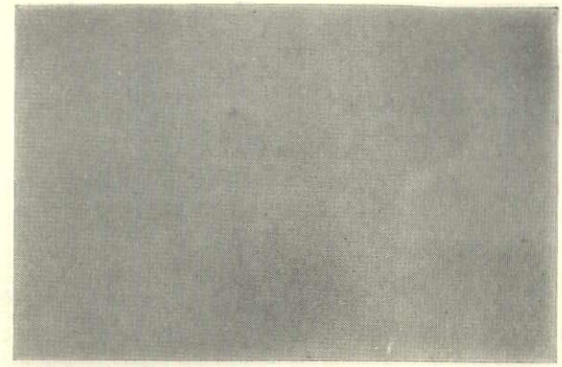
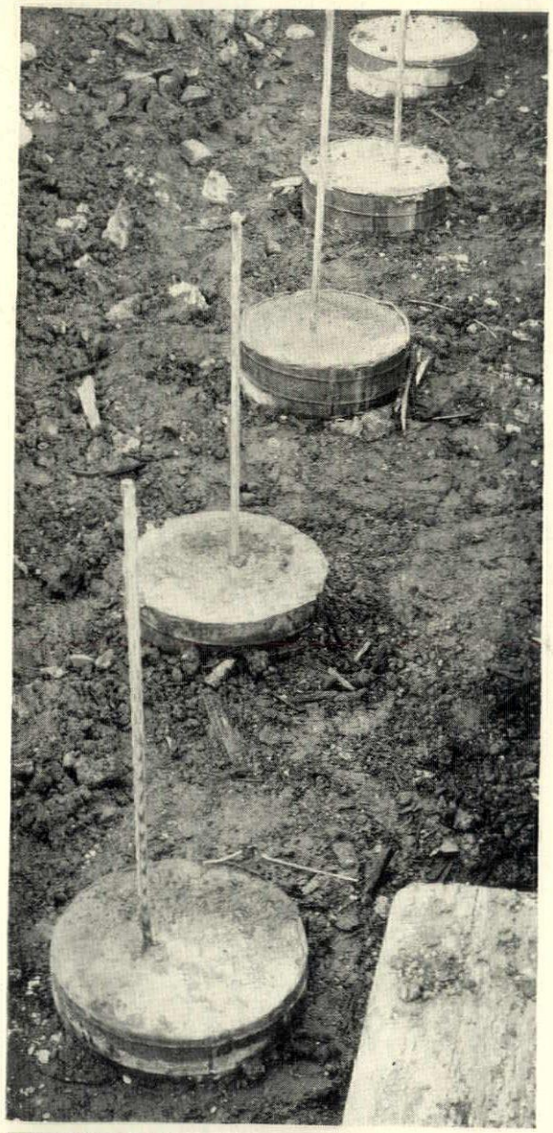
FLUSH VALVE DIVISION

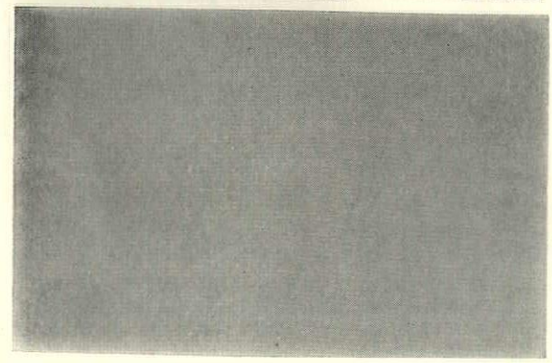
SPRINGFIELD, MASSACHUSETTS

The American Architect, published monthly by International Publications, Inc., 57th Street at 8th Avenue, New York, N. Y.; Yearly subscription, $5.00. Entered as second class matter, April 5th, 1926, at the Post Office at New York, N. Y.; under the act of March 3rd, 1897. Issue number 2590; dated December, 1930.

The SHELL resists COMPRESSION







In a job like the one illustrated, the sub-surface compression set up by row upon row of piles is terrific. In all likelihood the columns of green concrete would be crushed or distorted by such pressure—except for one protecting factor! The SHELL of spirally reinforced steel into which each RAYMOND CONCRETE PILE is poured, is left in the ground. There is a separate shell for each pile. And these shells do more than resist compression. They preserve the pile.

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A Form for Every Pile—a Pile for Every Purpose

Raymond

Carolina Theatre, Greensboro, N. C. James M. Workman and J. H. de Sibour, Architects

CRITTALL CASEMENTS IN KEITH THEATRE COMBINE BEAUTY AND UTILITY

THE CAROLINA—a Keith Theatre in Greensboro, N. C.—furnishes another interesting example of the use of Crittall Windows. In that building, Universal Leaded Casements were employed most effectively—the installation contributing not only to the beauty of the facade but also providing light and ventilation for floor space which could not otherwise have been utilized.

In institutional and office buildings, too, Crittall Casements are extensively used today. A wide variety of types, sizes and designs permits a practically unlimited range of application. Three separate and complete lines are offered. Stanwin and Norman Casements are available in standardized units; Universal Casements are custom-built to the architect's own specifications. All are backed by the guarantee of the world's largest manufacturer of metal casement windows.

Crittall's complete catalog is in Sweet's—pages A-1131 to A-1200. Refer to that section for details and specifications on the complete line of Crittall Casements. Upon request, we will gladly furnish any special information required.

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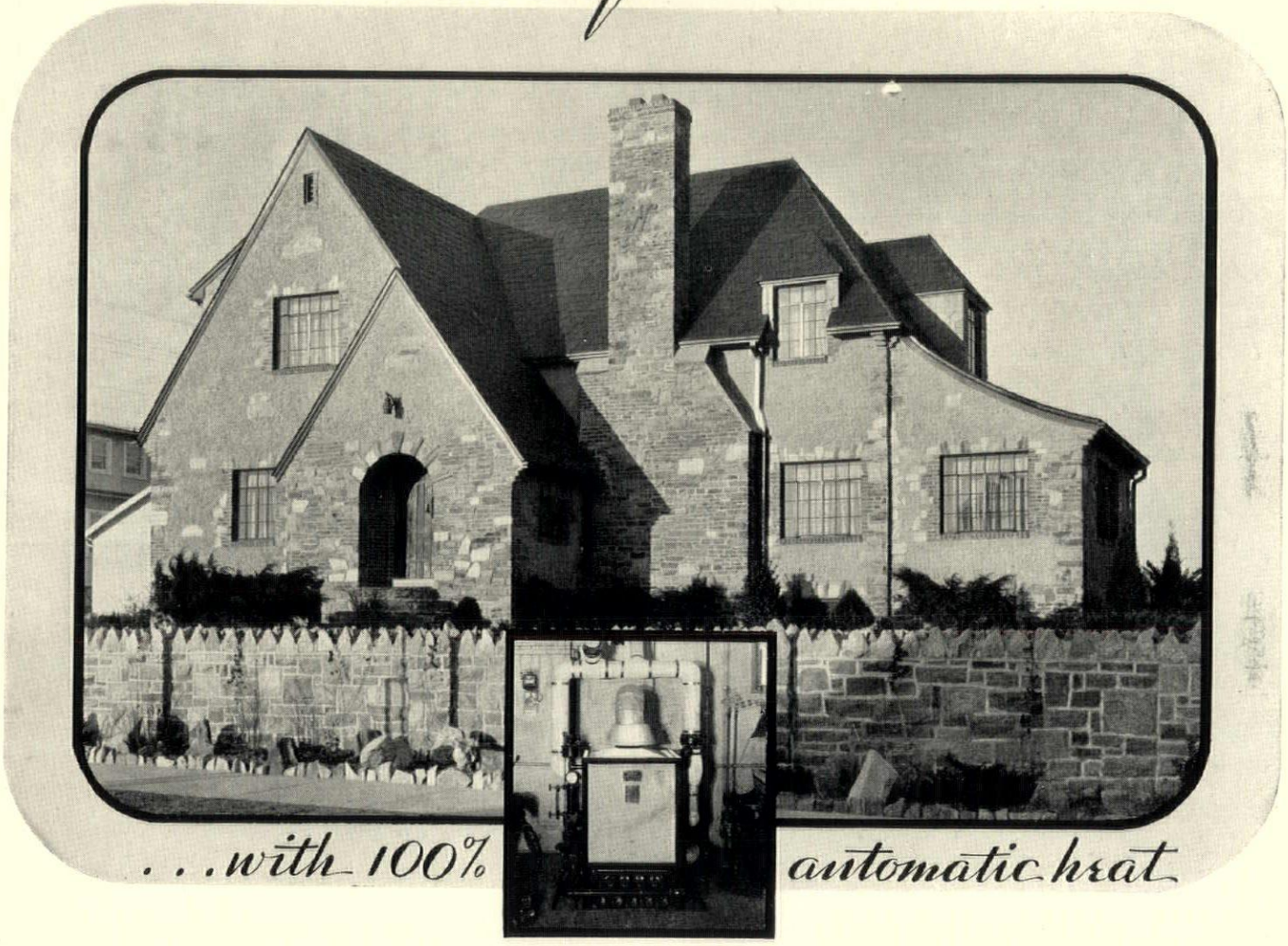
CRITTALL CASEMENTS

a Beautiful House BECOMES a Comfortable Home



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transform *houses* into modern comfortable *homes*. They give the owner the same kind of freedom from heating cares that he would have in an apartment or hotel. That is why the 100% automatic heat from Ideal Gas Boilers has become so popular.

And now with the house heating gas rates being steadily reduced everywhere, more and more architects are making Ideal Gas Boilers standard in their specifications.

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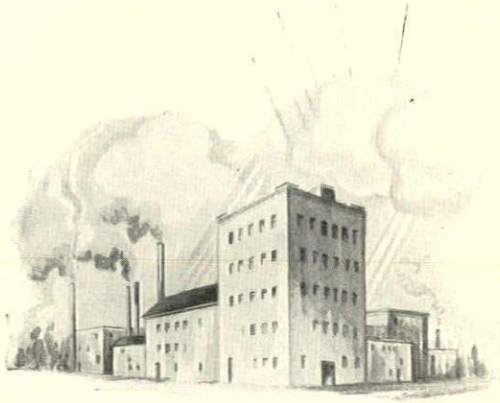

"... he gave his building the quiet that men seek in forest and field"

BUILDINGS *have* voices. Some are harsh voices that shout and scream. Voices that ceaselessly call, "Don't think . . . hurry, hurry, hurry!" Voices that distract the men who work within their walls.

But here and there you find a quiet, friendly building that hardly whispers. It never, never repeats what is spoken within its walls. Even when people fairly swarm through the corridors you barely hear the building's voice. And then it only says, "Hush . . . we must have no noise here." For the architect planned more than beautiful lines. He gave his building the quiet that men seek in forest and field.

* * * * * *

Armstrong's Corkoustic — strong, resilient panels of cork — applied directly to walls and ceilings, absorbs sound. Echoes and reverberations and other air-borne sounds that abound in offices, schools, hospitals, auditoriums, are hushed.

Corkoustic has interesting decorative possibilities, too. Wherever the effect desired is one of dignity—directors' rooms, for instance—we suggest the natural brown panels. The design is limited only by your ingenuity. Colors and unusual patterns, if desired, are quickly applied with cold-water paints and stencils.

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Armstrong's (A) *Product*

Armstrong's CORKOUSTIC

for the acoustical treatment of all buildings

TE-PE-CO'S *Speedway* « « «

A Fast Seller with Quick Action

CLOGGING of the passageway in a water closet is a frequent source of trouble, caused by people attempting to dispose of articles that will not pass the contorted trapway of ordinary closets.

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It is made with back supply for connection to a concealed or seat action valve, in both the regular and juvenile height.

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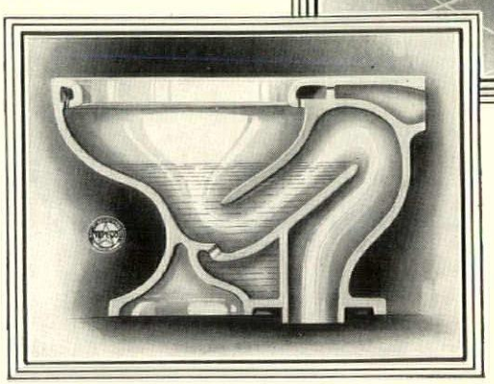
NEW YORK CITY

Plate 4521-T—Back Supply Speedway Equipped with Flush Valve. Other models shown in Catalogue.



Details of construction, showing large water surface and unobstructed passageway.

OUR GUARANTEE

We make but one grade of ware — the best that can be produced—and sell it at reasonable prices. We sell no seconds or culls. Our ware is guaranteed to be equal in quality and durability to any sanitary ware made in the world. The Te-pe-co trade mark is found on all goods manufactured by us and is your guarantee that you have received that for which you have paid.

Some of the Recent Installations of the Speedway

Agricultural School, District No. 1	Grosse Point, Mich.
Ketchikan High School	Ketchikan, Alaska
Saeger-Hokendauqua School	Hokendauqua, Pa.
Williamson Hotel	Williamson, W. Va.
Ulhlein Job	Milwaukee, Wis.
Grand Riveria Theatre	Detroit, Mich.
Providence Gas Service Bldg.	Providence, R. I.
Wilson Theatre	Detroit, Mich.
New York Herald-Tribune Bldg.	New York City, N. Y.
Arcade Bldg.	Asheville, N. C.
Detroit Office & Newspaper Bldg.	Detroit, Mich.
Sunbury Converting Works	Belvidere, N. J.
Raytheon Mfg. Co. Factory	Newton, Mass.
Florence Critterton Home	Detroit, Mich.
Parochial School	Yeadon, Pa.
Nurses' Home, St. John's Hospital	St. Louis, Mo.
Texas & Pacific Hospital	Marshall, Texas
St. Thomas Hospital	Akron, Ohio
French Broad Hospital	Asheville, N. C.
Children's Ward, Tuberculosis Hosp.	Wallum Lake, R. I.
Yankee Stadium	New York City, N. Y.
Park Pavilion	North Milwaukee, Wis.
Belcher & Loomis Warehouse	Providence, R. I.
Filbert Wholesale Bldg.	Philadelphia, Pa.
Coroner's Court Bldg.	St. Louis, Mo.
J. L. Hudson Store	Detroit, Mich.
St. Joseph's Seminary	Cleveland, Ohio
Chemistry Bldg., University of Ohio	Columbus, Ohio
Jupiter School	Buncombe Co., N. C.
Boardman School	Boardman, Ohio
High School & Jr. College	Asheville, N. C.
Junior High School	Indianola, Ohio
McDonald High School	McDonald Towship, O.
Leesburg School	Leesburg, Fla.
Weaverville School	Weaverville, N. C.
Ontario School	Columbus, Ohio
Duke Power Co. Bldg.	Charlotte, N. C.
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TE-PE-CO
ALL-CLAY PLUMBING FIXTURES

It is now possible for USG acoustical experts to determine by scientific methods the cause and effect of various noises, tones and pitches, as well as measuring accurately the efficiency of different methods and materials for controlling sound.

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2000 Lincoln Park West Building, Chicago (McNally and Quinn, Architects). The USG System of Sound Insulation prevents the transmission of noise from one apartment to another.

Noise from pianos, radios, late parties, etc., can be prevented from bothering occupants of adjoining suites by employing the USG System of Sound Insulation.

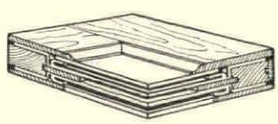
At Your Service on any phase of Architectural Acoustics

A Message to Architects
from the
United States Gypsum Company

. . . .

WITH the growing agitation for noise abatement and the increasing desire for comfortable noise levels in modern buildings of all kinds, many architects have expressed a need for reliable counsel on all phases of architectural acoustics. To meet this situation, the United States Gypsum Company has developed a complete acoustical service.

The USG service includes a competent staff of experts capable of advising architects on any problem of sound control. The creation of a great variety of scientific materials and methods to control noise, and the maintenance of skilled installation crews, enables us to predict definite results and assume full responsibility for them in every assignment which we undertake.



Detail of USG Sound Insulative Door. This door prevents the transmission of sound from room to room.

Where architects and their clients wish to prevent the transmission of objectionable noises from one room or floor to another, the USG System of Sound Insulation meets all requirements. It is a practical method of floor, wall, ceiling and door construction, scientifically designed to confine noise to the room of its origin. The cost is surprisingly low—usually amounting to less than 1% of the cost of the building.

Where it is desirable to reduce noise levels or to provide proper hearing conditions by means of sound absorption, Acoustone, the USG acoustical tile, has been used with great success.

Our complete facilities in architectural acoustics are at your service. For further information or for a consultation with one of our sound control experts write to us. Please address the United States Gypsum Company, Dept. 2612, 300 West Adams Street, Chicago, Illinois.

USG SYSTEM *of* SOUND INSULATION

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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. I., Carrere and Hastings, Architects.
8. S. L. Rothafel Bronze Tablet, Roxy Theatre, New York.

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THE frequency with which the phrase "ornamental metal work by FISKE" has appeared in architectural specifications during the past 70 years is in itself a fitting testimonial to the ability of the FISKE organization.

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ESTABLISHED 1858

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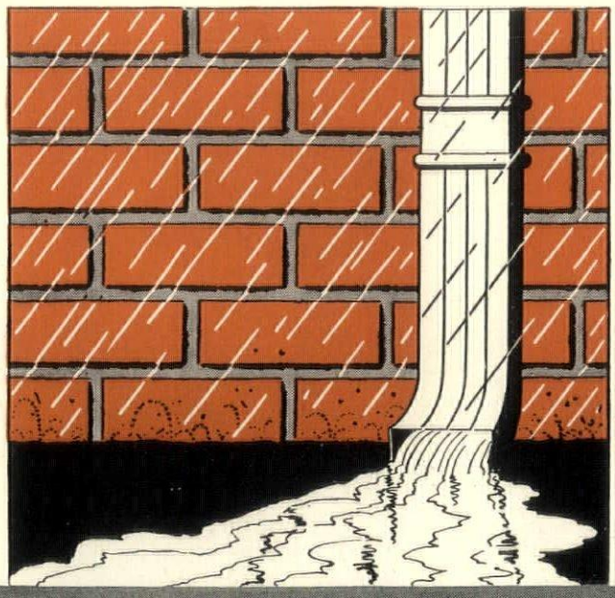

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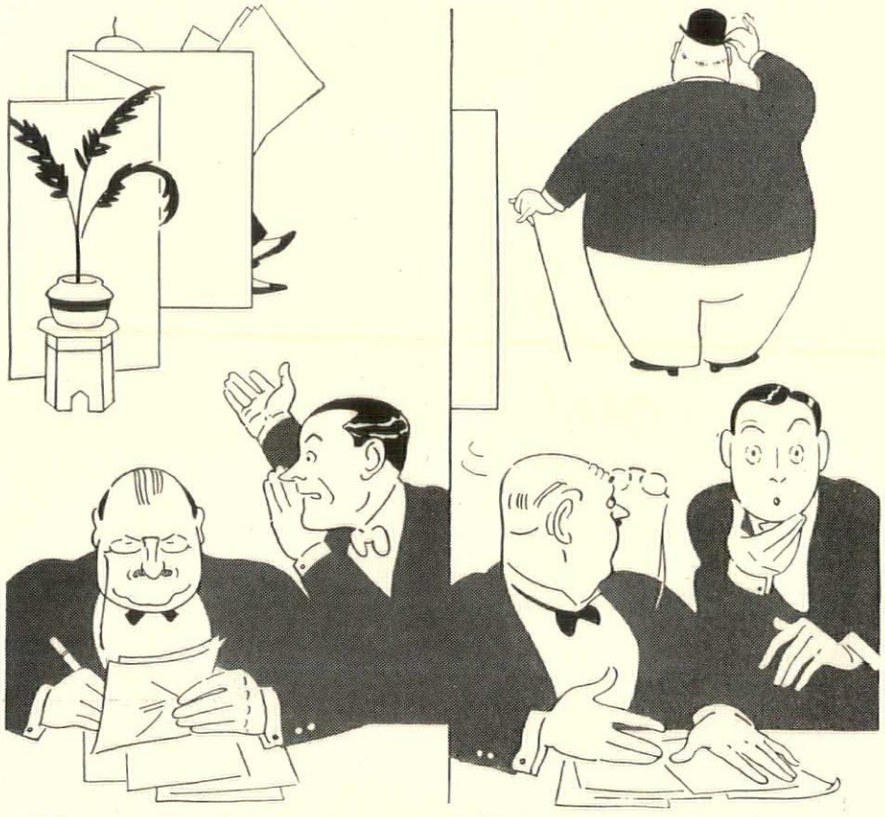

"He's a six-footer" . . . . "Measured which way?"

Can figures be facts if they are wrongly arrived at?

In considering performance of heating systems, no analysis or comparison based on hasty acceptance of inaccurate measurements or of incomplete facts, can be safe, or useful.

Unless *all* the factors which may influence the result have been checked, to speak of, for example, "lbs. per sq. ft. per season" means just as little as to say "twice as long as a piece of string."

Altogether there are 45 of these variable factors,—each of which may affect the requirements and results for better or worse. To allow any one of them to be forgotten or disregarded may lead to faulty conclusions.

Engineers, architects and heating contractors will find the related subjects of heating steam consumption analysis, estimating and heating cost accounting, as presented by Warren Webster & Company, of vital interest.

A request for further details will bring a Webster steam heating specialist to discuss this vitally important subject.

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Heating requirements vary so widely that no one type of heating system can be expected to provide the greatest return on the dollar invested in the heating equipment for all types and sizes of buildings. Realizing this, Warren Webster & Company have consistently developed an entire group of Webster Systems of steam heating to provide *a heating system for every need and every purpose.*

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Warren Webster & Company, Camden, N. J.
Pioneers of the Vacuum System of Steam Heating
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Systems of Steam Heating

a 155

This is one of a series of advertisements discussing the factors affecting heating steam consumption. The purpose of the series is to call attention to the methods of heating steam consumption analysis, estimate and heating cost accounting developed by Warren Webster & Company to provide a reliable basis for comparing heating system efficiency. Actual detailed facts and figures of steam consumption of a number of Webster Systems of Steam Heating, prepared in accordance with these methods, are available for your examination.

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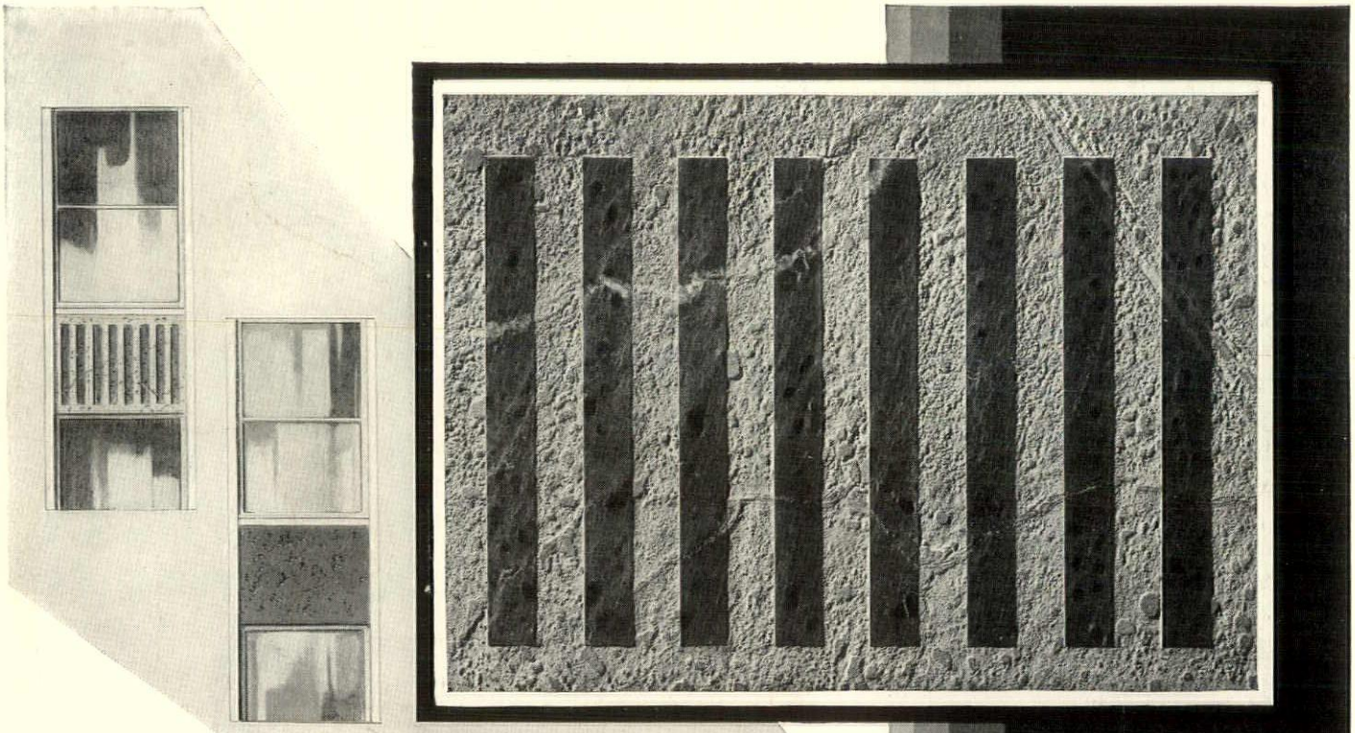

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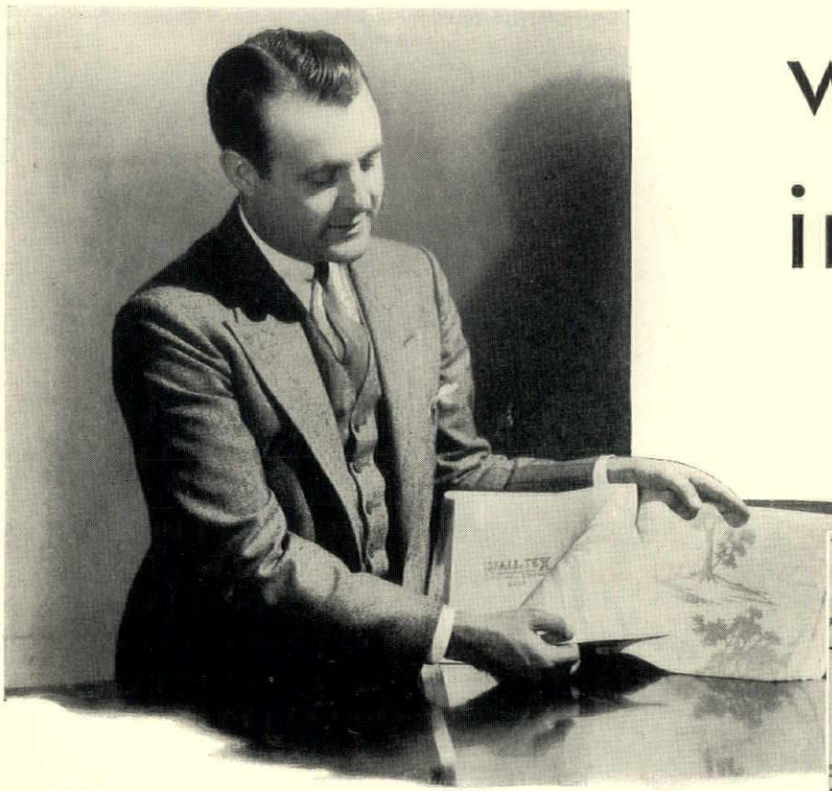
ALBERENE STONE

SPANDRELS—THIN—BEAUTIFUL—ENDURING

What well-dressed walls will wear in 1931..



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fabric wall coverings of enduring beauty

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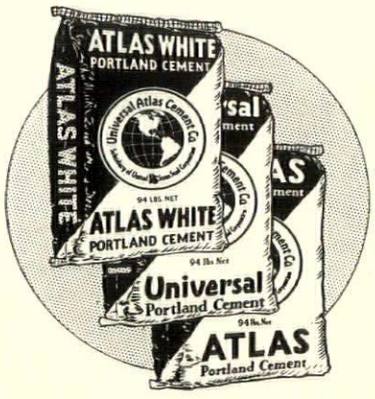
Almost endless variety in *color* and *texture* secured with *Atlas White* stucco

● ● ● People are demanding attractive colors *on* their homes and business buildings as well as *in* them. Atlas White, a pure white portland cement, places at the architect's disposal an almost endless variety of tints and textures for the design of distinctive stucco homes and buildings.



Because Atlas White is neutral, it brings out the true color value of any pigment or naturally colored sand used. It makes possible a complete range of clear colors, from delicate pastel tints to rich, warm shades.

In addition to its value purely as a building material, Atlas White portland cement has had for years the advantage of national advertising. It is used from coast to coast for fine stucco.

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Concrete for Permanence

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Volume CXXXVIII
Number 2590

The AMERICAN ARCHITECT

DECEMBER
1930

FOUNDED 1876

The Cover

AN OLD HOUSE at Dedham, Mass., is the subject of this month's cover, which was reproduced from a water color by J. Scott Williams.

Mr. Williams is well known in the architectural profession because of his murals and his activities as first vice-president of the Architectural League of New York. He designs in stained glass, is an excellent etcher, and works in oils, although water color is his favorite play medium. He also does an occasional journalistic drawing and has literally done thousands of illustrations of various kinds.

He worked with Charles A. Platt on glass for the University of Illinois Library, and on glass for Mr. Platt and Grosvenor Atterbury for Johns Hopkins University. His activities include, among others, murals in the Park Central Hotel, New York, and in the main American office of Thomas Cook & Son.

Next Month

WALDORF-ASTORIA—All about the drawings for this new hotel.

BUSINESS—A system for small offices as easy to keep as a check book.

ENGINEERING—Problems in ventilation that were handled wrong and what should have been done.

IN THIS ISSUE

Cover—A Water Color by J. Scott Williams

THE AMERICAN ARCHITECT, *Published monthly by* INTERNATIONAL PUBLICATIONS, INC.
Fifty-seventh Street at Eighth Avenue, New York, N. Y.

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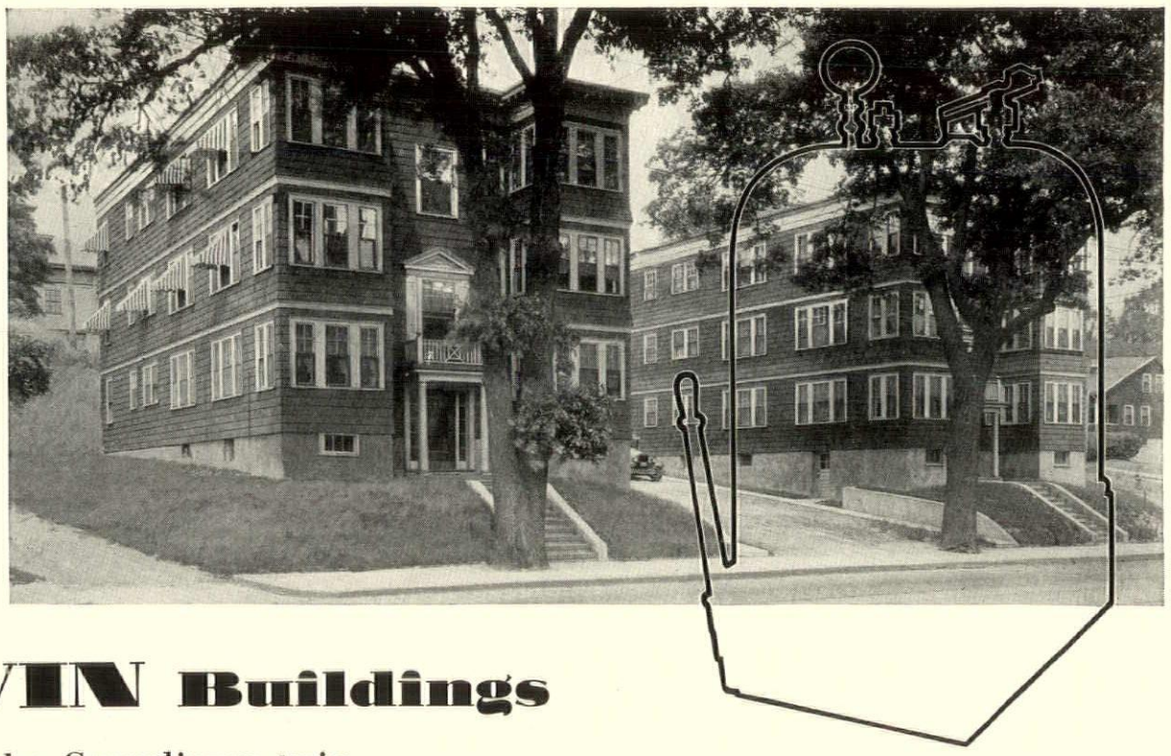
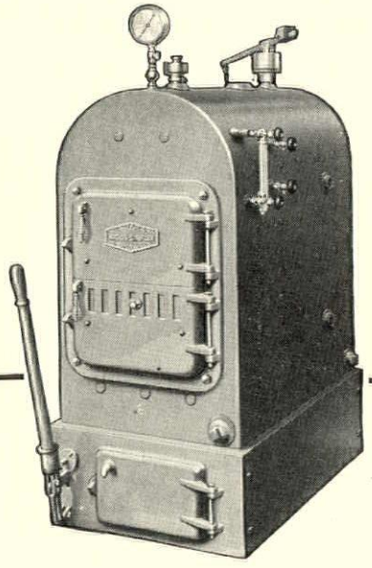


TWIN Buildings

Both of the Cornelissen twin apartment buildings, Boston, Mass., contain the same amount of cast iron radiation. Both are heated with oil, using the same type of oil burner. The only difference in the heating equipment is the *boiler*. One building is heated with a single pass Heggie-Simplex Residence Type Steel Boiler. The other building is heated with a standard make of double pass residence steel boiler. The building equipped with the Heggie-Simplex Residence Type Boiler is heated at a fuel cost 20% below that of the other.



—Yet ONE is Heated for 20% LESS

AGAIN the single pass Heggie-Simplex Residence Type Steel Boiler proves its greater economy for residences and small buildings! This modern heating unit is not a "Tom Thumb" edition of the Heggie-Simplex Boiler for large buildings. It is designed specifically for buildings with radiation loads of 1730 sq. ft. or less. It is constructed to meet the requirements of these jobs, and at the same time produce the highest operating efficiency. To operate on the chimneys found in small buildings. To necessitate only morning and evening attention. To make cleaning possible in the shortest period of time and easily. To burn fuel —any fuel—with unmatched economy. To harmonize in a dignified manner with modern basement furnishings. Its durable welded steel construction not only prevents cracks, leaks and costly repairs, but minimizes insurance charges as well. For detailed information—write *Heggie-Simplex Boiler Company, Joliet, Illinois—Representatives in all principal cities.*

HEGGIE-SIMPLEX

STEEL HEATING BOILERS

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.

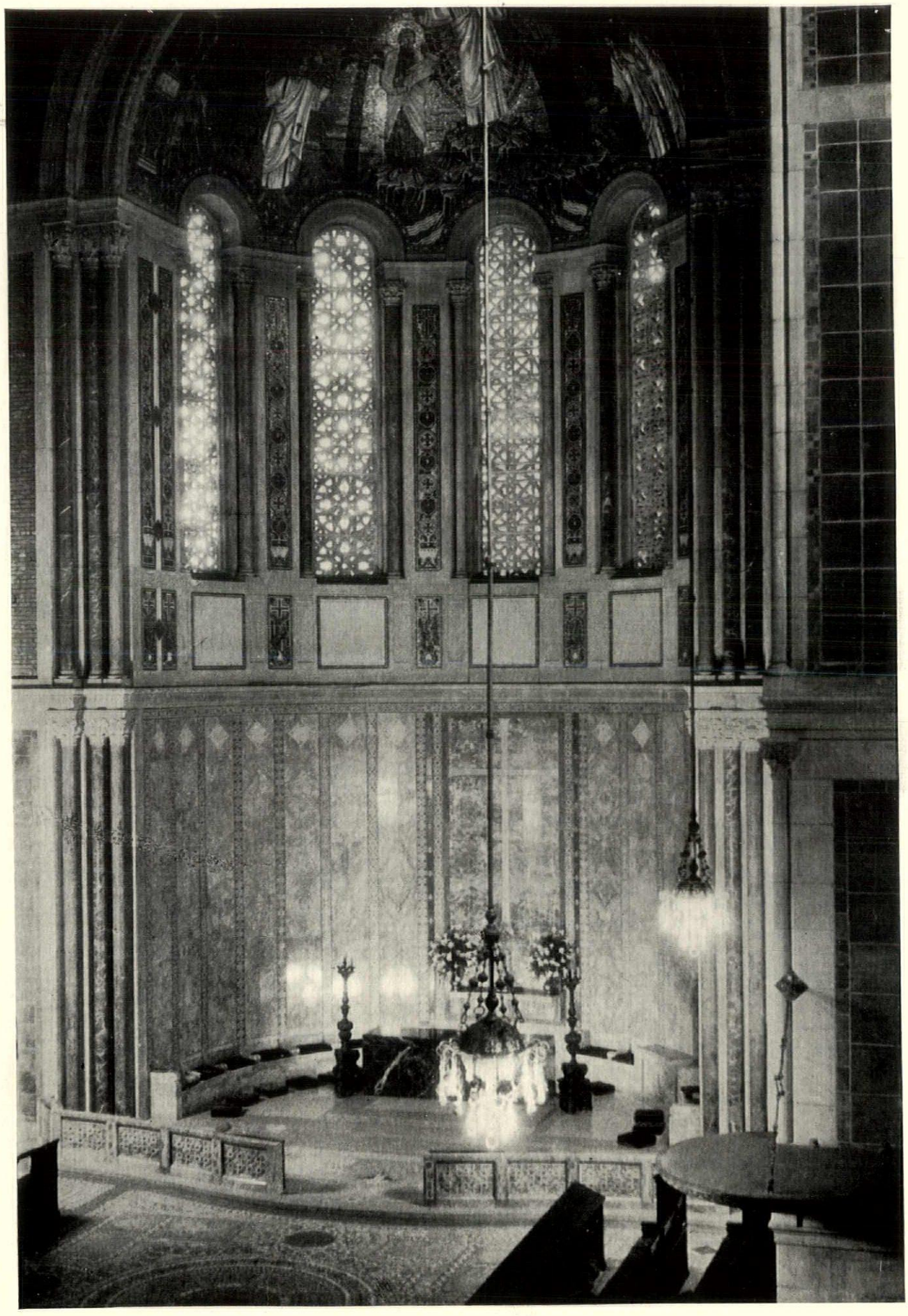
In the past, the Treasury Department has had but limited power to engage outside architects. But on July 3, 1930, an act was passed which gives this department authority to contract with private architects for complete services. The Treasury Department has made the statement that the question of employing private architects will *probably* receive favorable consideration *providing* "Congress grants the additional funds that would be necessary for the payment of such architects and for increasing the staff of the office of the Supervising Architect to a point where increased construction work might be expeditiously handled and properly supervised."

IF additional funds are necessary to make the Act of July 3 effective, then Congress should immediately take steps to make them available. If this is not done, all red tape should be cut and authorizations for various buildings be made to include the fees paid private architects.

Now is not the time to discuss the question of whether or not the government should enter into the practice of architecture. It is a time for action. One thing is certain—if the government attempts to handle complete service on all work now authorized it will take many months or years to make a noticeable dent in the unemployment situation.

To engage a local architect for each project would have a far-reaching effect, and at once start in rotation the wheels of the building industry. It would give a large number of architects needed employment, together with a large force of draftsmen, specification writers, engineers and clerical help. In a relatively short time, a yet larger number of contractors would begin to function, thus absorbing skilled craftsmen, mechanics and laborers. Material dealers and producers of materials employing thousands of men and women would resume their activities. Much money would soon be put in circulation and other commercial activities would be in demand.

THE building industry occupies an important key position in our financial and commercial structure. It is a good place in which to start a revival of good times. Government building programs—federal, state and municipal—offer an opportunity which should be embraced, by placing projects in the hands of many local private architects as soon as possible. Employment of a large percentage of the unemployed will then, shortly, become an accomplished fact. It is a simple problem in arithmetic and common sense.



THE SILENT VOICE

photograph and poem

by H. LeRoi Ames

I come to pray when Thou art here alone,
Asking restoration from the well
Of Thy great love, to banish my alloy.
I cannot speak. Lord, how can I atone?
Thou knowest what my memory cannot tell
Of all my broken vows, my stolen joy.

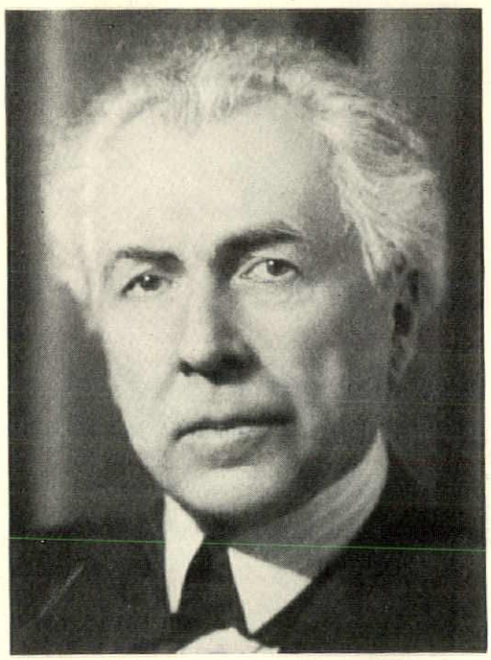
I humbly come to rest my weary heart,
To bare my wretched sin-soiled soul,
Asking forgiveness and Thy grace.
O God, I'll try to play the better part
Lest again my footsteps wayward stroll,
Sad'ning my heart with tears that burn my face.

I come repentant, Thy still voice to hear,
To lift my faith above this sordid strife
To truth which learned, destroys the lie,
"Arise, go, sin no more," comes to my ear.
With spirit cleansed, I can correct this life
Knowing that when I call Thou wilt be nigh.

Architecture as a profession is

ALL WRONG

By FRANK LLOYD WRIGHT



I HAVE no sympathy whatever with the view entertained by certain facetious young men in architecture—that the A. I. A. is made up of old gentlemen who catch cold easily, wear rubbers, carry umbrellas, and resent any innovation whatsoever as a personal affront. The A. I. A., of course, is the soul of the profession—or was. And the time was, I remember, when there were men in the profession—and the profession meant the A. I. A.—one knew and that one had to know.

What has become of the architect in this old-sense?

Who and where they say they are, themselves, may be gleaned from city directories throughout the country—now ten, to one then. Nevertheless, the old-style practitioner as a "professional" is a "specimen," to be stuffed and exhibited soon. In no art gallery either, but in a museum for unnatural history; such is the gratitude of a great Republic.

Do you remember when editors were individuals in their own right—editors like Horace Greeley, Charles A. Dana, James Gordon Bennett, Marion Reedy, Henry Watterson, and many more? Today it is the Times, The Sun, The Herald, etc. If you do remember, you may also remember when architects were likewise, say Richardson, Louis Sullivan, John Root, "Old Man" Jenny, Dankmar Adler, "George B.," the aristocratic "R. M. H.," and Henry Hardenberg, idol of the Manhattan rich—Yes, and later Charles McKim, Stanford White, and many others.

Today it is "The Firm."

Today all is more or less in the style of Graham, Anderson, Probst and White, etc., etc., etc., etc., to an extent, at least, showing clearly enough the tendency to organize the work of an architect into a business, alongside the hat, cap and shoe business. We know who runs the business but, unless unpopularly curious, we no longer know who makes the designs.

The individual architect serves the business as best he can or the business will use his name and "lay him off"—unless the undertaker comes along, in time, to "lay him out."

So "Be Businesslike or Bust" is no idle threat.

* * *

Promotion, Financing, Operating, Building—here are four departments of modern architectural practice unknown to yesterday's architect, who devoted his mind and extended his powers in the direction of making plans and writing specifications for a real building that he himself expected faithfully to superintend.

Well—Standardization, Mass-effort, Mass-production—they are here in architecture rampant for the masses, rampant in all else in machine-made Usona.

More power to them all but more brains too, and—smile if you like—more heart. Having neither, they have no Style.

* * *

Forces are blind forever. Human interests affected by these forces are just as blind over long stretches of time, but not forever. Awakening comes before "the end," as it comes to the napper on the train who barely manages, by commotion, to get out on the station platform, "just in time," leaving his luggage to be sent back from down the line.

So I imagine it will be, with us, in architecture.

This tendency to commercialize, centralize or organize and standardize is expedient, or it wouldn't be here. It is profitable or it wouldn't continue.

Certainly it is the end of the old order.

But the beginning of any new order the American

THE
OLD SYSTEM

Like a conductor subject to the stupid avarice of his concert-master or piccolo player

•

THE
NEW SYSTEM

The architect becomes a thoroughly competent business man. Like the conductor of a well-organized orchestra, he assumes undisputed leadership and correlates his units into a symphony of harmonious beauty

people can afford to accept will scrap the commercial expedients now in use in architecture as make-shift, having once "got by."

In other words, the old-fellows are gone—"done in" by time and the circumstance we sometimes stupidly call Progress. But "The Firm" or the "Plan Factory" that takes their place in the immediate present is no more than a passing make-shift while the country gets its eyes open and looks to itself.

* * *

Something important in the long run, more important than all else beside—the essentially human-values—have been overlooked or deliberately left out. Important omission for this reason:

Man is going to conquer the Machine. The Machine is not going to conquer Man—even though in all this, it may seem to have him down. We see in all these make-shifts now in use in architecture the work of the minions of the Machine—Mechanization—Standardization—Merchandizing. Sell it—or sink it and sink with it.

Machine overproduction glorifies salesmanship.

But soon, individuality will be doubly desirable and infinitely more treasured in America just because of this issue between the Man and the Machine, just as genius is now at a premium in Russia—for reasons not so dissimilar as one might think, glancing superficially at the matter.

* * *

I don't know just what procedure is going to evolve from this convolute "Progress" to enable the man of ideas, technique-trained and adequate, to get those ideas into the form of practical, beautiful buildings for the human joy and use—tomorrow—where there is so little or none today.

Had I just one guess, I should say this man would have more in common with the composer-conductor of an orchestra. The orchestra, and therefore that office, is modern.

Modern industrial, and therefore economic affairs, are becoming daily more "orchestrated," meaning more dependent upon each other if not better correlated in this country. The characteristic building enterprize that is attractive to bond-holders (*Continued on page* 84)

HOPI *symbols used for main entrance grille, Denver National Bank, designed and executed by Nena de Brennecke*

METAL WORK
designed from motifs of the
AMERICAN INDIAN

By Nena de Brennecke

San I-delfonso. Eagle Dance

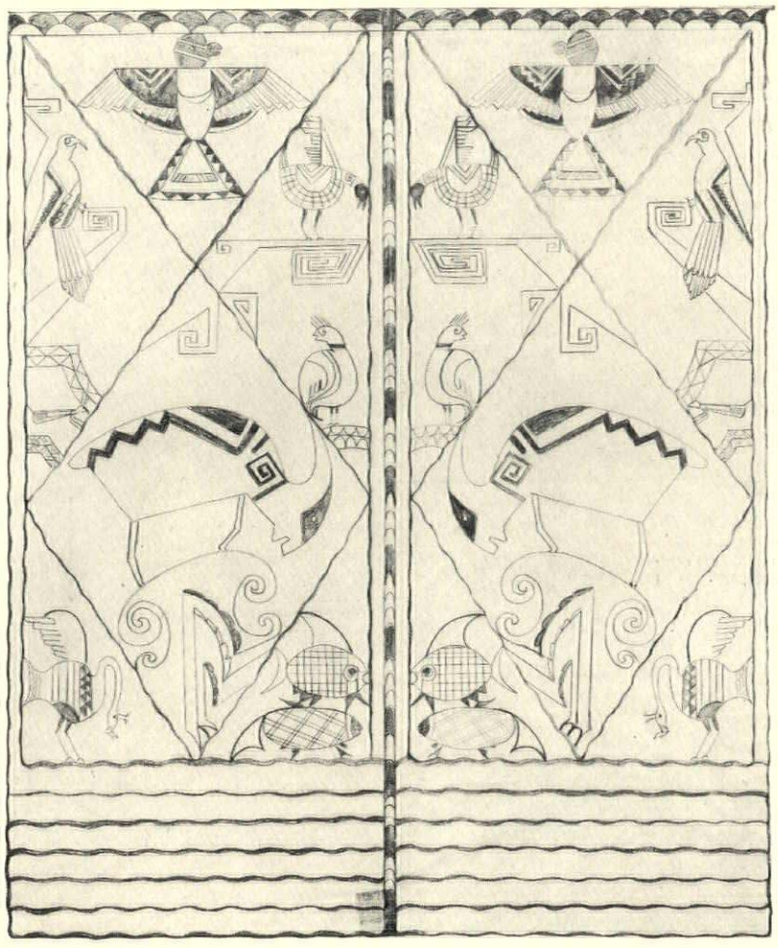
FEW architects and designers have become sufficiently acquainted with the designs and symbolism of the American Indian to believe that in them lies a great source of artistic wealth. The American Indian has, like many other races since prehistoric times, used design and decoration not as utility but as pure aesthetic and symbolical spiritual expression. To them, as to the Greeks and others, have been held as sacred certain animals, reptiles, birds, fishes, and plants, as well as the elements of fire, water and air. We find many analogies between their mythology and that of the Greeks. There is an even greater analogy with that of the Orientals.

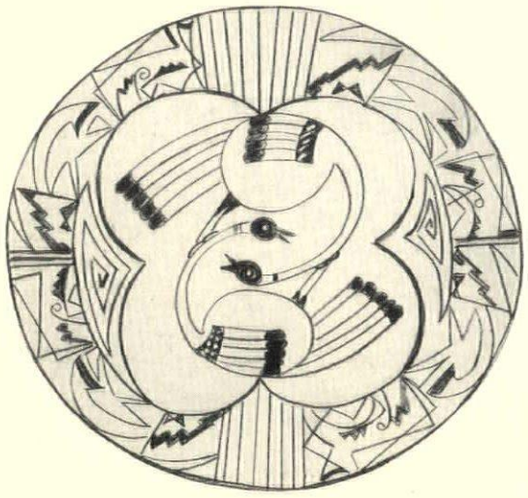
Indians in America were divided into two classes, the nomadic and the sedentary, which latter became the "pueblo" dwellers. These, by reason of being a settled people, gave greater attention to artistic expression. Their early forms of pottery were sun dried, left unpainted, and decorated by regular thumb indentations, thus producing a rhythmic and highly decorative pattern known as corrugated and found nearly all over the south-western area of the United States.

Later, decoration was used extensively, and it invariably shows a finely developed sense of rhythm and adaptation to form. We often find Indian pottery designs of marked similarity to those on Greek vases, such as the Greek key and other conventionalized forms of natural objects. At times this decoration is purely pictorial, but always includes insertions of abstract forms and ideas. Frequently the decoration has symbolic meaning such as a desire or prayer for protection. On water vessels we find water symbols such as fish and water fowl, so that the vessels may never be empty. On storage jars are found plant life, and on those used in religious rites are symbols pertaining to sacred and aesthetic ideas and sacred animal life.

To different tribes the same design may be an expression of a different idea; steps are sometimes clouds and at other times mountains. Today easy communication has resulted in different pueblos intermingling their designs, which originally were distinctly tribal.

The Indian works as does the Oriental, perhaps with more similiarity to the Chinese, in that he observes an object till he has stored in his mind its essentials, then uses only the lines and forms necessary to express the desired idea or object. But he goes further than the Chinese in that he very often depicts the attributes and locality of the animal or bird, as the case may be, together with inanimate objects (*Continued on page* 102)

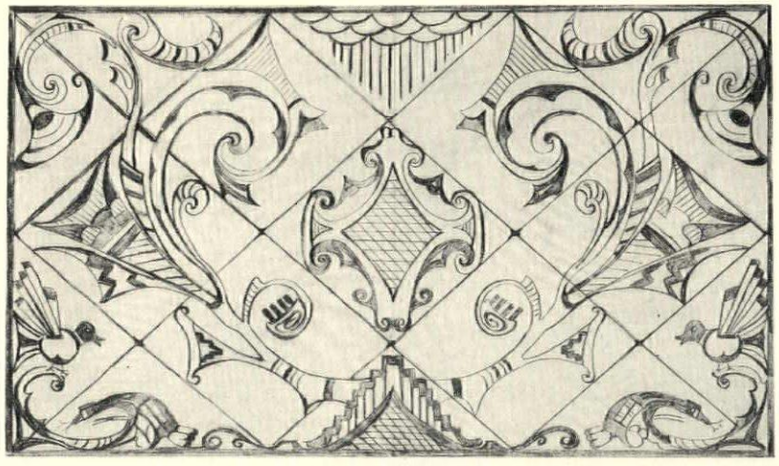




PREHISTORIC *Mimbre design from bowls and plates, adapted to wrought iron*

•

AT LEFT: *Design for bronze or iron gates in which prehistoric Mimbre designs, including the thunder bird, have been used*



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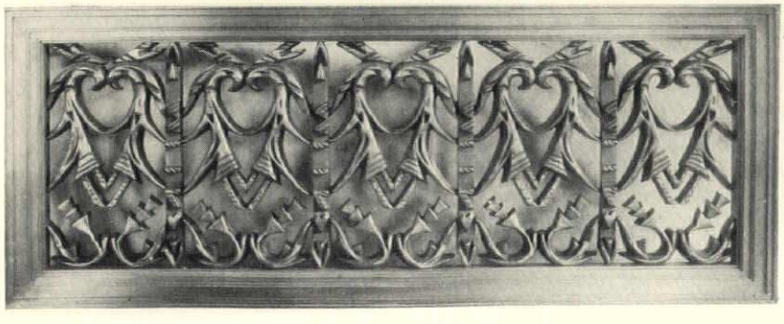
THE ZUNI *symbol of good luck in youth is in the center, and is surrounded by symbols of mountains and irrigated fields, clouds and rain, and flowers and fruit blossoms which have received rain*



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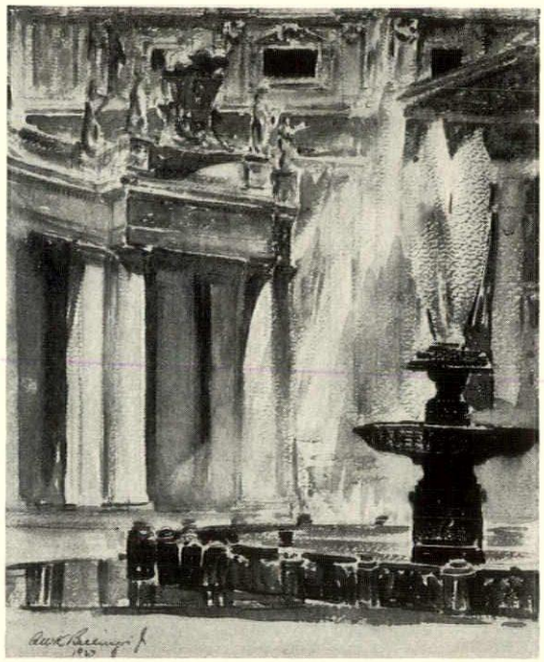
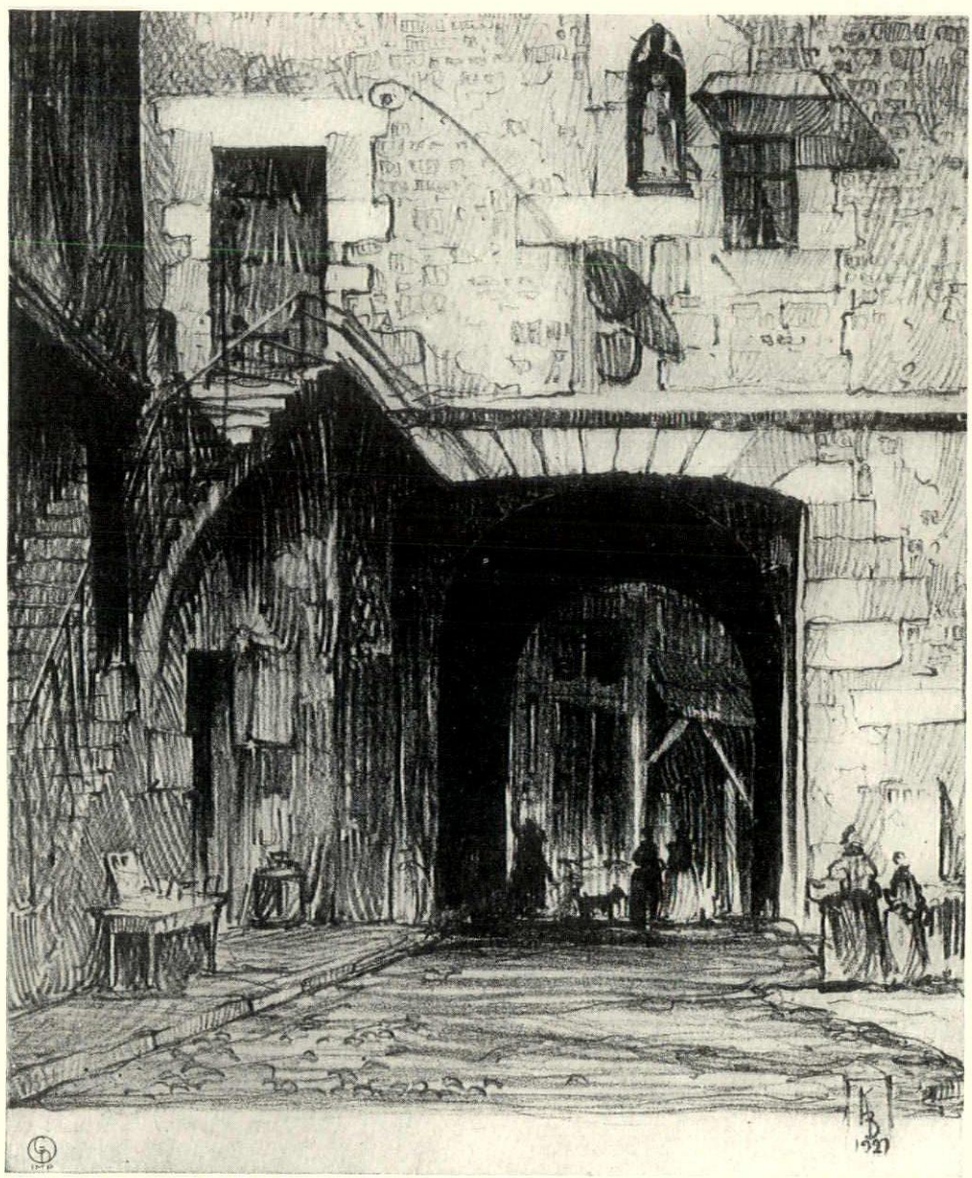
THE THUNDER BIRD, *which is symbolic of rain, the sun symbol and the squash blossom, clouds and lightning, and the circle of germination and fertilization of the crops are symbolically used in the main entrance grille of the Denver National Bank, designed and executed by Nena de Brennecke. William and Arthur Fisher, architects*

Two Watercolors and a Lithograph

BY

A. W. K. BILLINGS, JR
an Architect of Boston, Mass.





ST. PETER'S
ROME

•

MONT
ST. MICHEL

•

ROMAN RUINS
PARIS


A.W. KENNEY
DILLING JR.

why HIGH-HAT the decorator?

BY BEATRICE HUTTON

Being the result of more or between Mrs. Hutton

DOES the architect so despise us, we who also serve in our humble way? Often have I felt that courteous condescension when in consultation with the Architect and our client. So must the chiropractor feel in the presence of the eminent physician.

Frankly, the attitude puzzles me. I would think it the old distrust for the woman in business had I not seen the male decorator receive the same treatment. Architects do not hesitate to criticize the decorator's work to the client. What of ethics? Must they be one sided? The decorator does not consider it fair play to pass critical judgment on the architect's work, even though he or she may see faults which could be corrected if spoken of in time.

In one house recently completed the client requested the architect to supervise the work of the decorator, the client being away at the time his house was being finished. The result was that when the dining room was finished, draperies hung and rare and lovely furniture assembled—making an unusually fine room—the architect, who was not experienced in visualizing interiors, beheld the room, did not like it. The decorator was obliged to take back the furnishings. Of course the client is to blame in thinking of the decorator as subordinate to the architect. But the architect knows that he has not specialized as the decorator has on the furnishing of interiors. I am referring only to seasoned decorators for I can well understand how irritating it must be for an architect to have a novice attempt to complete a fine house.

I have just finished work in a house that was beautifully thought out by its architect, yet I was fully aware of mistakes that he had made. An obvious one was a clumsy mantle shelf for the living room. The client expressed her disapproval to me and asked me what I thought of it. I lied quite readily and said it was quite suitable. It was changed in time, but not because of my criticism. The window screens were fly traps and the only window in the maids' dining room was so high that when seated no maid could ever see out. A ceiling was badly plastered. I saw all these things but kept silent.

This same architect had his painters already working in the house but the client asked for my supervision of the colors. This meant a great deal of time as the walls and trim of each room were painted a different color. For this I received not one cent, although I made it understood that I would expect remuneration from the draperies, rugs and any new furniture they expected to buy. I had, you see, my own staff of painters and could have made a profit from the painting.

In spite of the fact that I was at the house almost every day, the architect seemed to have no idea of the time I was saving him. I had no trouble with his men and never held them up for a moment. When we were almost through, the architect decided he didn't like the color schemes and said so to the client. Fortunately for the peace of mind of the client, I was allowed to finish and perhaps can not be pardoned the chuckle when I heard that the architect was bringing prospective clients to see the house and exhibiting with pride what his painters could do. What I do not understand, is the lack of co-operation accorded decorators by architects, and why they can not play cricket.

why BLAME the architect?

BY MELVIN PRATT SPALDING, A.I.A.

less friendly correspondence and Mr. Spalding . . .

ALAS, the poor architect! How he is maligned by our fair decorator friend! And this is probably a mild censure for the public's consumption compared to the curses heaped upon him in private.

However, this skeptical and blasé attitude on his part has some reason for being. A short time ago, when decorators sprang into being, they had neither the training, the taste nor the tact they now have. They had not been through the grill and grind of an architectural education. This new creature simply slipped it over on the architect, charmed the client and spoiled beautifully thought-out interiors by touches bizarre but seldom drab.

Thus at the start the architect became mistrustful, and realizing that he too might be able to put on airs, gradually acquired the habit of putting on "dog" and getting away with charm and interior decorating. At this stage, he could do as well as the decorator because he at least had an architectural background and a better conception of how to complete the ensemble.

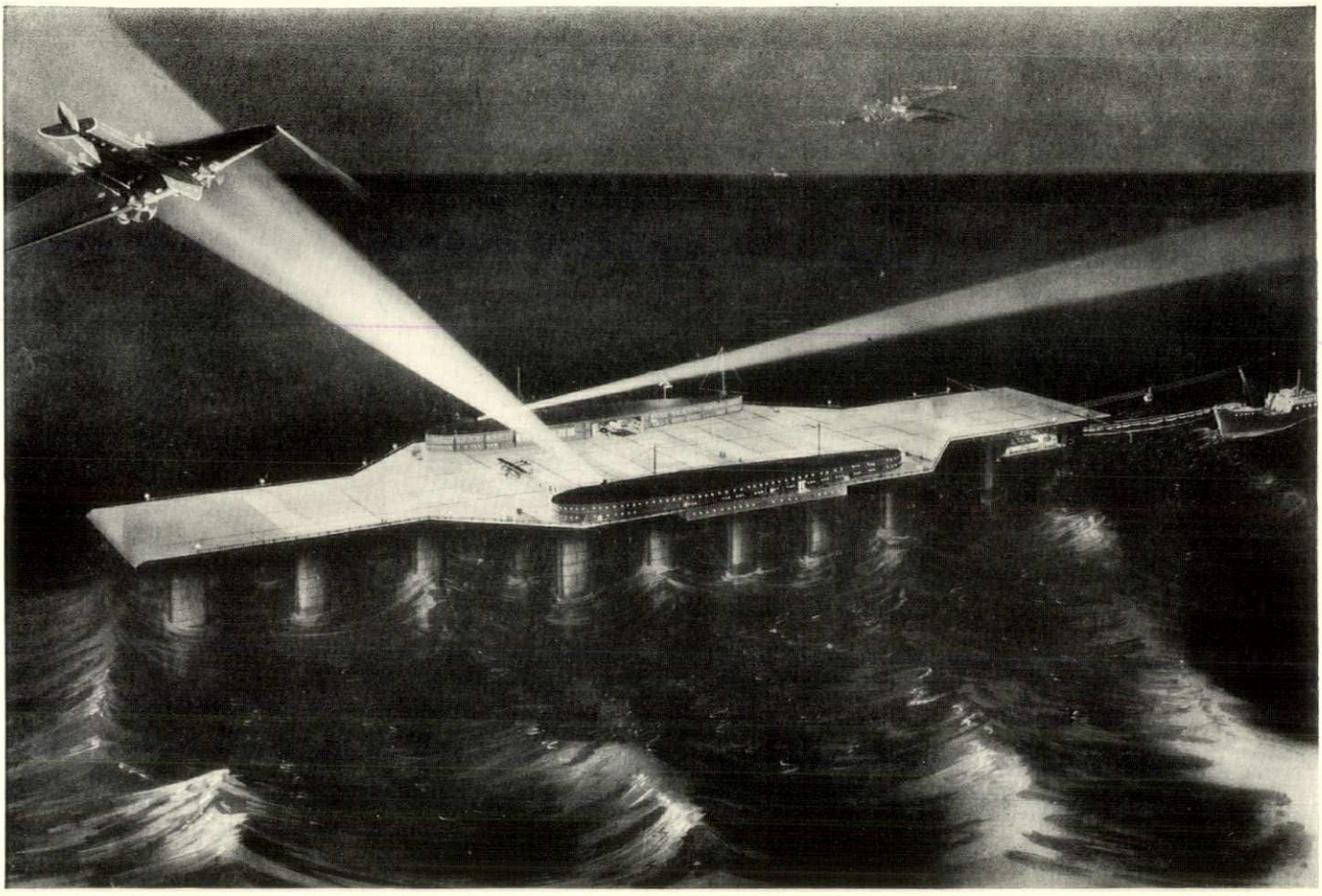
Then decorators began to improve. But architects in the meantime had begun to feel that they had been pretty slow in simply designing the house; that the interiors and grounds were so intimately connected with it, why not do it all? They became imbued with the jealous pride of wishing to make the entire creation theirs. Decorators and landscape architects were all right in their way—they could be put up with if they were restricted to putting in a few curtains and flowers. The old condescension remained. As decorators improved they began to want to do everything inside the house except the attic stairs and the kitchen cupboards. Architects got so heated up in their creation that they brought office boys along to keep the decorators out.

Now decorators and architects and landscape architects ought to start a sort of a League of Nations and create some boundary lines, or the smarter members of these tribes will get the upper hand and secure more than their share. I heard of a decorator the other day who planned a whole house.

But to end this retort in more serious vein, I really agree with the idea that architectural backgrounds fall within the architect's province but that he should not be a decorator until he has studied decorating as thoroughly as the decorator has. This same rule applies to the decorator concerning the architectural backgrounds.

I think our decorator friend has given us unhappy examples of her experience with architects. I do not think that most co-operation can be painted as dark as this. Lack of co-operation is generally one-sided. If both have had equally good training, harmony should exist because results are arrived at from aesthetic knowledge and practice. In her case, she has probably been unfortunate in having inferior co-operation, because she does know decorating.

To always find this utopian state of perfect co-operation and continuous game of cricket would not be humanly possible. Individuality and personality enter into the picture. Idealists like architects and decorators frequently have these to the degree of eccentricity. I propose that the decorators and architects fall in love with each other and high-hat the clients so impressively that every job will be carte blanche.



TRANSATLANTIC FLYING A COMMERCIAL REALITY THROUGH

Man-Made Islands

By J. T. W. Marshall

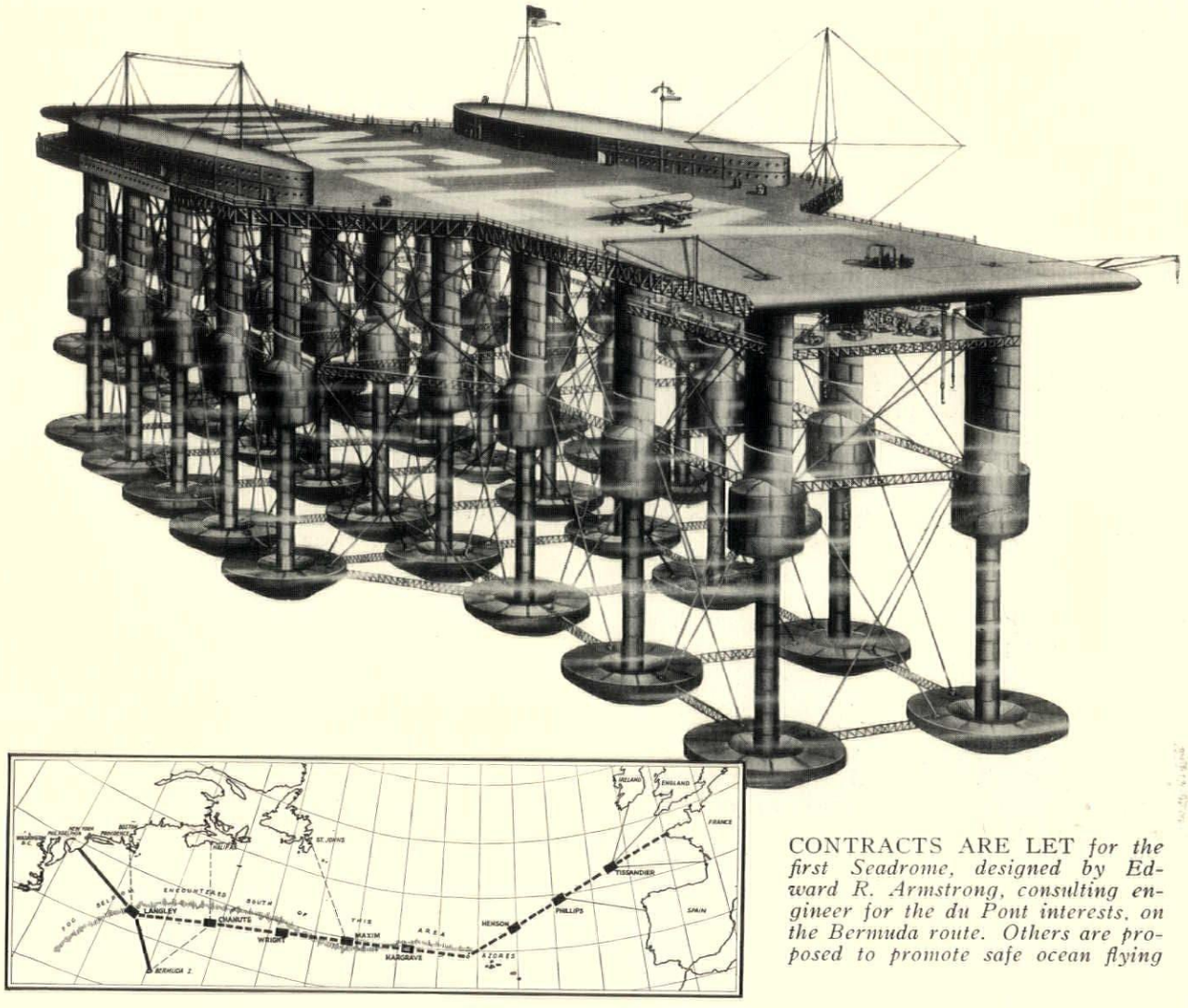
Consultant in Electrical Acoustics, Installations and General Electronics

THE signing of construction contracts definitely assures the building of islands in mid-Atlantic to service transatlantic seaplanes and to furnish hotel and restaurant facilities for their passengers.

Eight man-made islands between the United States and Europe would make mid-ocean landings possible regardless of wind and wave, and reduce the transatlantic flight to a series of 400 mile hops. While capital for this project is being negotiated, plans for a single Seadrome between the United States and Bermuda are actually materializing.

The Seadrome is a great floating structure of steel, designed for anchorage in mile-deep waters and to weather the most severe gales. Working drawings have been developed by Henry J. Gielow, Incorporated, naval architects, from the original designs of Edward R. Armstrong, the inventor, who is consulting engineer in the Du Pont interests. As planned for commercial purposes on the New York-Bermuda airways route, the Seadrome will include in its stream-lined superstructure a large and luxurious hotel and restaurants in addition to airplane hangers and aviation repair shops.

The seadrome deck, of steel, 70 ft. above sea level, is 1,100 ft. long, 340 ft. wide in the central zone and 180 ft. wide at the ends. It is supported by 32 buoyancy tanks, located in the relatively undisturbed water below wave action and connected to the deck by means of stream-lined iron columns, the whole forming a deep truss of tubular struts and steel cable ties. The buoyancy tanks are arranged symmetrically in four rows, the outer row being composed of five tanks, 34 ft. in diameter, and the central rows of eleven tanks each 27 ft. in diameter.



CONTRACTS ARE LET *for the first Seadrome, designed by Edward R. Armstrong, consulting engineer for the du Pont interests, on the Bermuda route. Others are proposed to promote safe ocean flying*

All tanks are 38 feet deep. The longitudinal spacing of the buoyancy tanks averages 100 feet. Below the buoyancy tanks the lower columns extend 100 feet to support the ballast tanks, which contain iron-ore ballast sufficient to bring the center of gravity of the structure as a whole about 10 feet below the center of buoyancy.

Due to its design, a seadrome does not roll, pitch or heave when exposed to wave action. Waves go through the open-work structure without being disturbed or their orbital movement of propagation broken up. There is no release of energy from the wave system, and therefore there are practically no stresses produced in the seadrome when it encounters the maximum in waves associated with the most severe storm possible at sea.

It is interesting to note that bending stresses induced by very long sea waves in a large ocean liner when her bow and stern are supported on two crests with the trough amidships, or when a crest is amidships and her ends practically unsupported over the troughs, are of the order of one million foot-tons.

In the seadrome, however, under similar wave conditions, careful design has offset the lower hydrostatic pressures in the region of the trough by reason of increased hydrodynamic pressure caused by the orbital velocity of the water. (According to the trochoidal theory of wave formation, the wave changes position but the water does not advance as a whole. Individual water particles describe circular orbits in a vertical plane parallel to the direction of the wave's motion. The up and down currents thus created produce a hydrodynamic effect.) The resulting bending moments are thus reduced to only a few per cent of those incurred by a large steamer.

All exposed parts of the seadrome in the region of the water-line and above are of stream-line shape to reduce wind resistance to a minimum. The lower column system is made amply strong in order to avoid the need for struts and ties, which would greatly increase the water current resistance as well as introduce considerable complication in erection and maintenance.

The deep sea draft of the seadrome on station duty is 177 feet. Obviously, such a great draft precludes erection close to shore, so special construction is adopted to permit this operation in shallow water, with a draft of approximately 44 feet. The ballast tank columns are designed to telescope up inside the stream-lined upper columns connecting the (*Continued on page* 68)

THICKNESS OF INSULATION NECESSARY TO CUT

Radiation Costs

By Paul D. Close,

Technical Secretary, American Society of Heating and Ventilating Engineers

IN the March, 1930, issue of THE AMERICAN ARCHITECT, a formula was presented by the writer for determining the proper thickness of insulation to use. This formula was based on the fuel saving resulting from the insulation, and also involved the geographical location of the building, the type of construction, the cost of the insulation and the fuel, and the return on the investment.

Mention was also made of the relation of radiation saving to the thickness of insulation required, and it was pointed out that a more accurate solution of the problem should take into consideration both the fuel and radiation savings, although the former is usually the more important. However, there might be a condition whereby proximity to a cheap supply of fuel would render the item of fuel saving of little or no consequence. Under the circumstances, the reduction in the amount of radiation required would be the sole criterion for determining the amount of insulation to be used, unless the problem of wall or ceiling condensation were involved.

Of course, boiler capacity might also be a governing factor in selecting the insulation, but in the majority of cases, the reduction in the heating load resulting from the insulation would not permit the use of the next smaller boiler of the same type, unless the calculated requirements in the first case only slightly exceeded the capacity of the smaller boiler. However, it is not uncommon in the case of large industrial buildings with thin concrete or metal roof decks to eliminate one or more of a battery of boilers by properly insulating the roof. In the case of one installation with which the writer is familiar, the insulation cost was less than that of the $7,000 boiler which it was possible to eliminate.

This article deals with the relation of radiation to insulation, disregarding other factors which influence the thickness of insulation required. Under these conditions, the proper thickness of insulation is that thickness, the installed cost of which is equal to the monetary value of the radiation saved. In other words, if the cost of the insulation were $1,500, and the saving in radiation were only $1,000, then the thickness of insulation would be excessive, if other factors (for example, fuel saving) are disregarded. The thickness of insulation required to exactly equal in value the saving in radiation may be determined from the following formula:

$$y_r = \frac{U}{D} - \frac{k}{U} \qquad D = \frac{2.4\,z}{(t\text{-}t_o)\,h} \text{ (for steam)}$$

$$D = \frac{1.6\,z}{(t\text{-}t_o)\,h} \text{ (for hot water)}$$

where—

- y_r = thickness of insulation required based solely on radiation—inches
- z = installed cost of insulation per square foot per inch thickness—cents
- U = coefficient of transmission of wall or roof—Btu per hour per square foot per degree Fahrenheit
- k = conductivity of insulation—Btu per hour per square foot per degree Fahrenheit per inch thickness
- h = cost of radiation—dollars per square foot
- t = inside temperature at wall or roof—degrees Fahrenheit
- t_o = base temperature on which radiation was calculated—degrees Fahrenheit

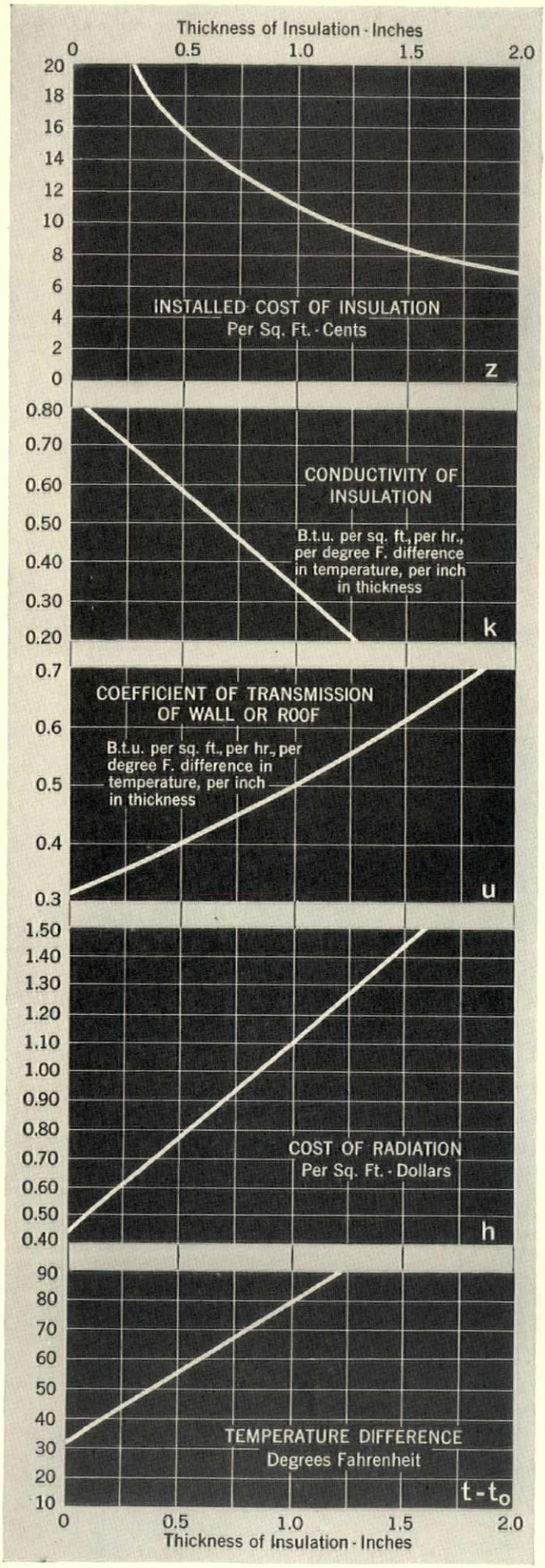
IN order to illustrate this formula, consider a typical problem. What thickness of insulation would be required, when based solely on the radiation saving, for the following conditions: 6 in. concrete roof, built-up roofing, no ceiling ($U=0.50$); conductivity of insulation, 0.33 ($k=0.33$); installed cost of insulation per square foot per inch thickness, 11 cents ($z=11$); value of radiation saved per square foot, $1.10 ($h=1.10$); inside temperature at roof, 80 deg. ($t=80$); outside base temperature, zero degrees ($t_o=o$); steam heating system? Substituting these values in the formula:

$$D = \frac{2.4 \times 11}{(80-0) \times 1.10} = 0.30$$

$$y_r = \frac{0.50}{0.30} - \frac{0.33}{0.50} = 1.01 \text{ in. or } 1 \text{ in.}$$

If a hot water system were installed, the value of D would be 0.20 and the thickness of insulation required would be 1.84 in. or nearly 2 in.

It is interesting to compare the variation in the thickness of insulation required with variations in the various factors involved. Suppose one were desirous of estimating the thickness of insulation required for various types of construction, when all the other factors remain the same; that is, assuming the installed cost of the insulation to be 11 cents per square foot per inch ($z=11$), the value of the radiation saved to be $1.10 per square foot ($h=1.10$), etc. The coefficient (U) of a 2 in. plank roof, covered with built-up roofing is 0.345, and the thickness of insulation required for a steam heating system, if based *solely* on the radiation saving, is 0.20 in. The relation between the coefficient of trans-



C U R V E S

showing variation in the thickness of insulation required with variations in each of the factors

mission and the thickness of insulation is shown by curve U. For these conditions, no insulation would be required if U=0.31, which is the approximate coefficient of a 6 in. concrete roof covered with built-up roofing, and with a suspended metal lath and plaster ceiling.

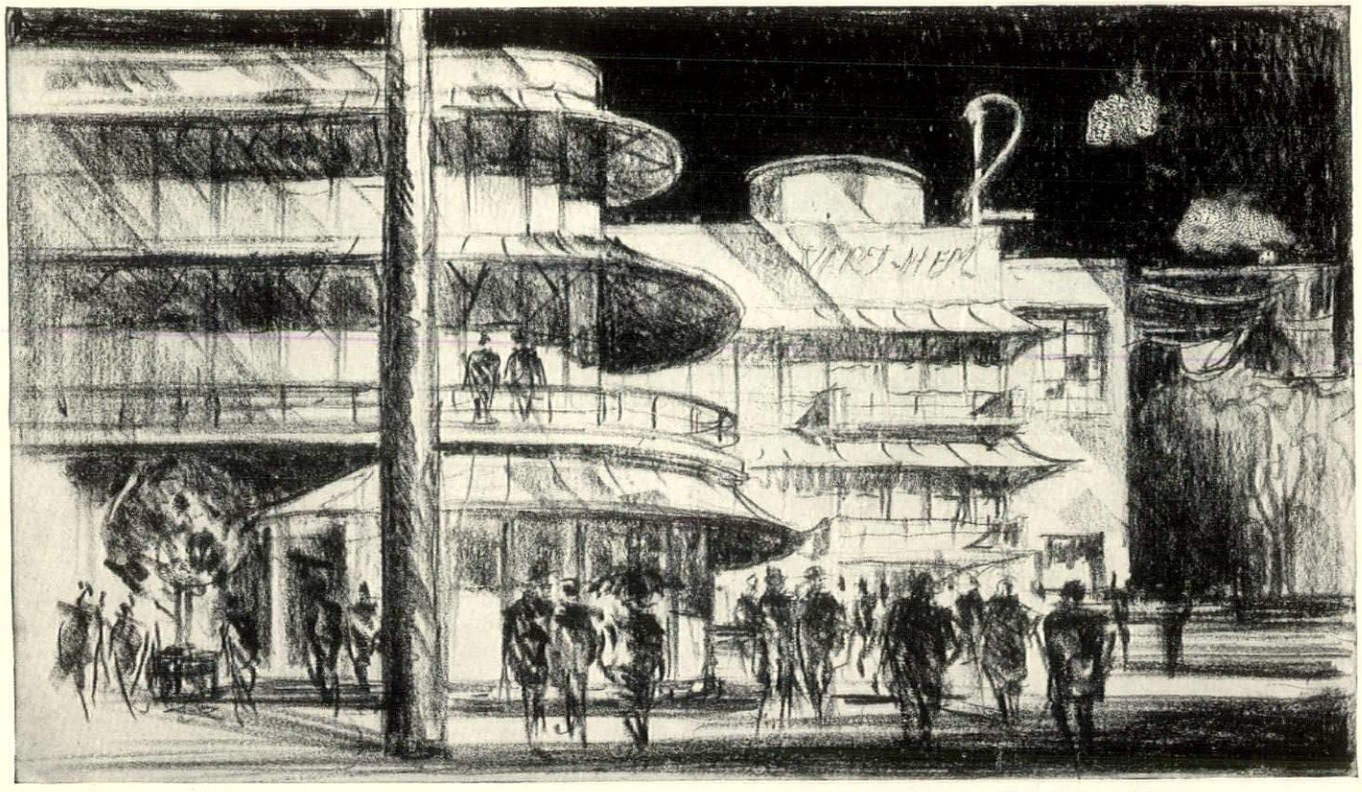
SINCE one inch of insulation is required for the same type of roof without the suspended ceiling, it might at first appear that the suspended ceiling and air space are equal to one inch of insulation having a conductivity of 0.33. This is not true, however, as the coefficient of transmission (U) of a 6 in. concrete roof insulated with a material having a conductivity of 0.33, is 0.199. It merely means that if the roof has a coefficient of 0.50, a one inch thickness of insulation for the conditions involved would exactly balance the radiation saving, whereas the thickness of insulation required to balance the radiation saving—dollar for dollar—becomes zero, if the roof has a coefficient of approximately 0.31. Carrying the analysis in the other direction—that is, considering a roof of a higher coefficient of transmission—according to the curve shown the thickness of insulation required for a 3 in. concrete roof covered with roofing and having a coefficient of 0.610, is about 1.5 in.

Curves showing the variation of the other factors (k, z, h and $t—t_o$) are shown in the accompanying charts. From curve h, which represents the variation in the value of the radiation saved with the insulation thickness, it will be noticed that at $1.50 per square foot for radiation, the insulation thickness is about 1.6 in., whereas at a radiation cost of 44 cents per square foot, the insulation thickness becomes zero.

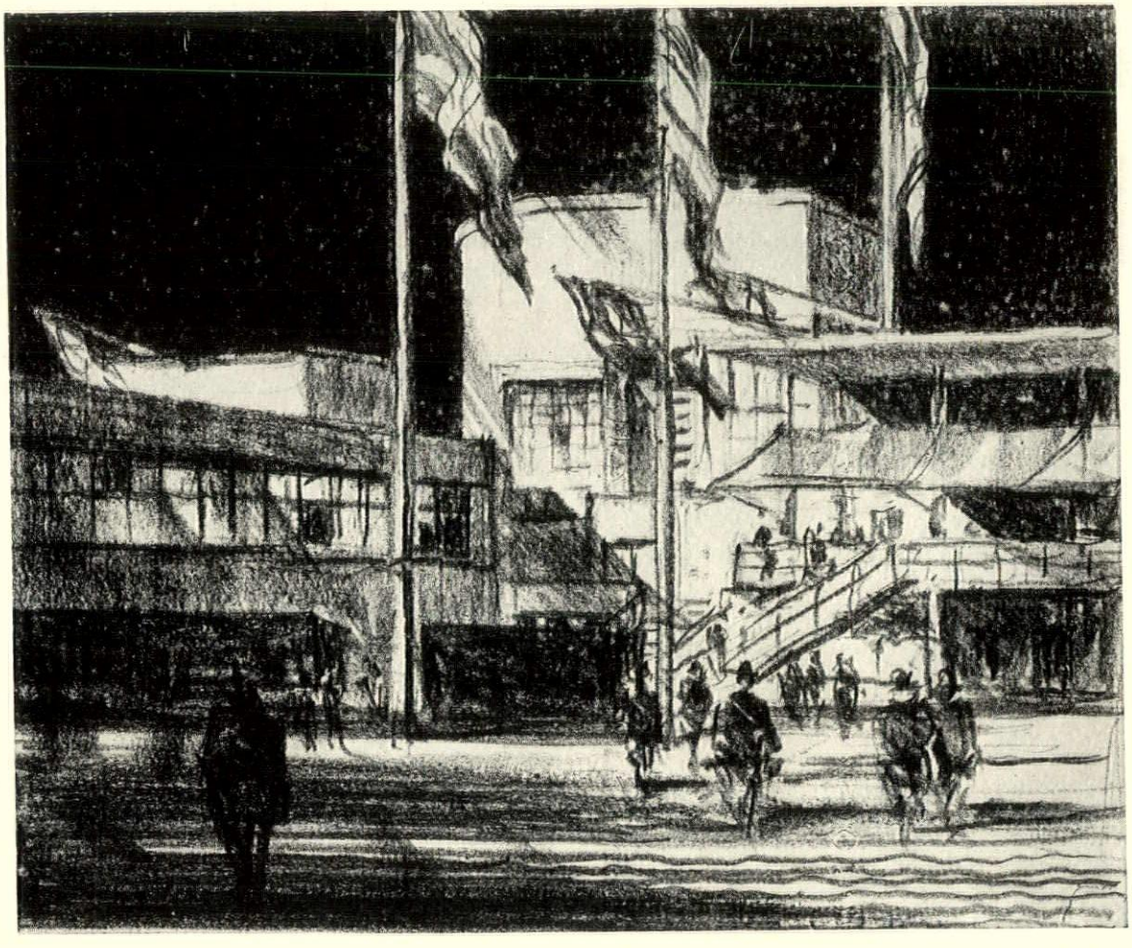
Similarly, if the temperature difference ($t—t_o$) is 32 deg. instead of 80 deg., it would not pay to insulate for the conditions involved, at least so far as the saving in radiation alone is concerned. As the temperature head ($t—t_o$) increases, the insulation thickness also increases, as would be expected. At $t—t_o$=56 deg., y=0.5 in., at 80 deg., y=1.00 in., and at 90 deg., y=nearly 1¼ in. Again it should be emphasized that this variation is based on the assumption that the other factors remain constant, that is, U=0.5, k=0.33, h=$1.10, etc.

The thickness of insulation decreases as the cost of insulation increases, as will be seen from curve z. On first thought, this may appear inconsistent, but it must be remembered that this curve represents a balance between insulation cost and radiation saving. In other words, if the cost per inch of the insulation increases, a lesser thickness must be used to equal the radiation saving. Furthermore, the less the thickness used, the smaller will be the saving in radiation. Consequently, an increase in the insulation cost has a double effect.

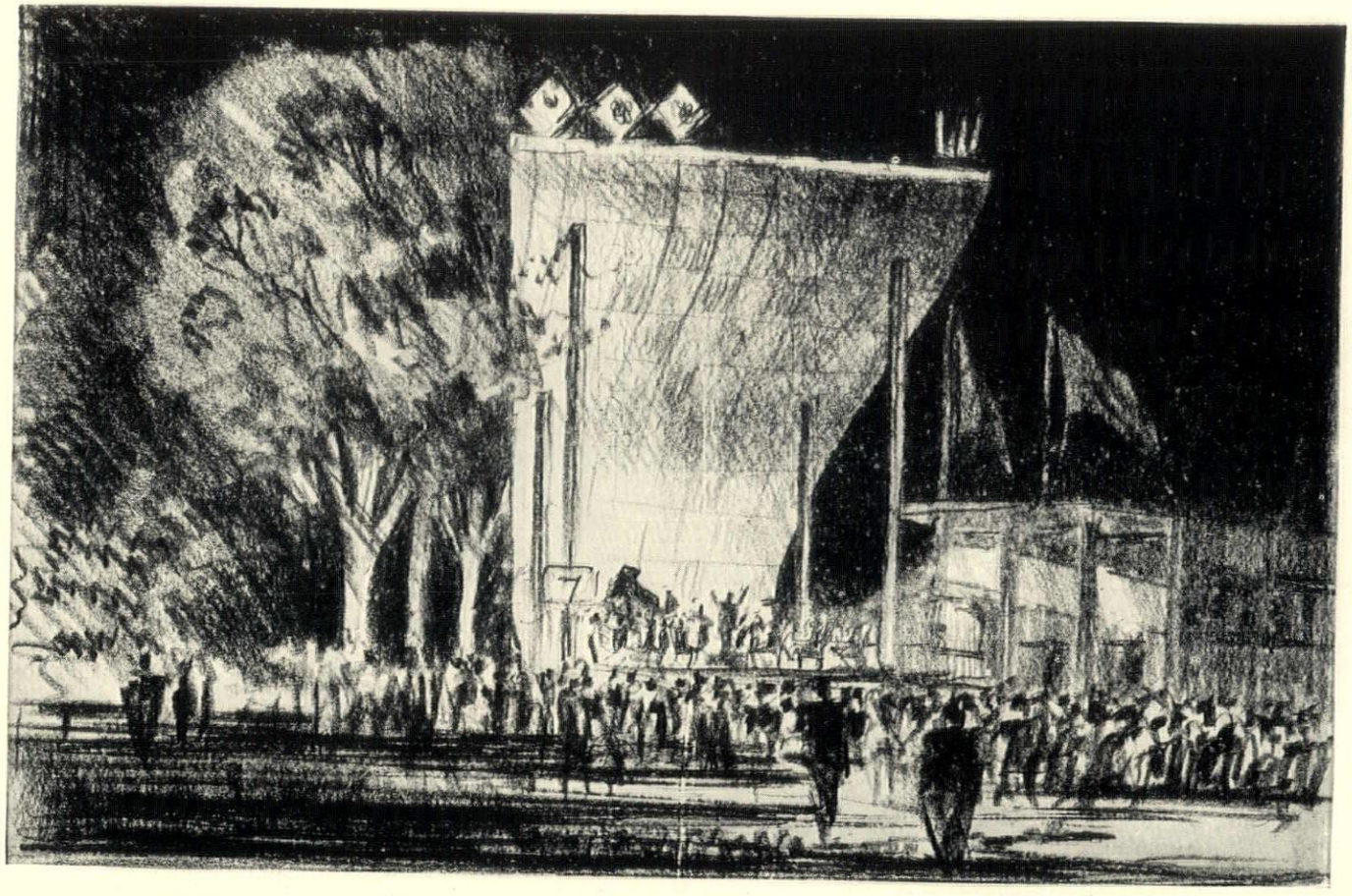
It will be observed from curve k that the insulation thickness decreases with an increase in the conductivity, assuming that the installed cost per inch remains constant. While approximately 1¼ in. of a material having a conductivity of 0.20, (*Continued on page* 92)



METAL AND GLASS FACADES *of the Paradise Restaurant were relieved by colorful awnings that added a gay note to counteract the somewhat severe outline of this group*



FLAGS ADDED *to the holiday atmosphere and also served as a supplementary symbol of identification. They were as much in keeping and as necessary as in a parade*



THIS BANDSTAND *was scientifically calculated to reflect the maximum volume of sound*

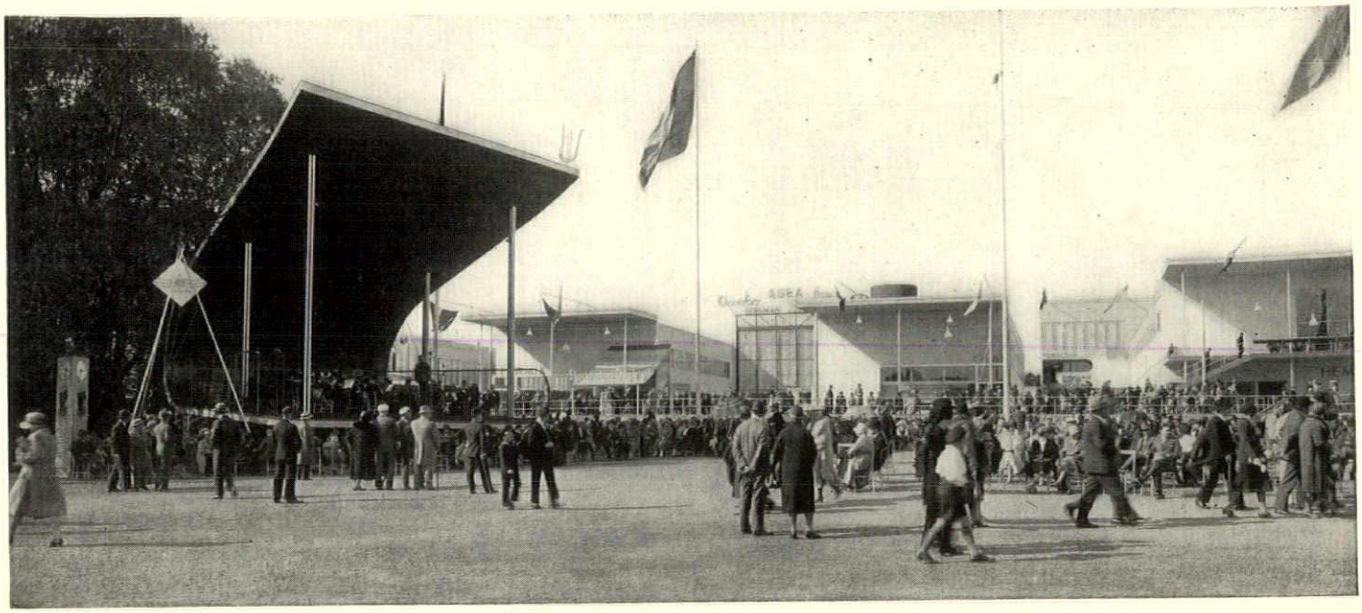
MY IMPRESSIONS OF THE Stockholm Exhibition

BY FRANCIS KEALLY, A.I.A.

THE Stockholm Exhibition of 1930—the Swedish National Exhibition of Modern Industrial and Decorative Arts—was laid out on a simple, informal scale as opposed to our general grandiose, large, skyscraper conceptions. The buildings themselves were simple, straightforward, and severe, their designer clearly bent on speeding the visitor to the exhibits inside and not attempting in any way to arrest the attention of the observer by any external architectural embellishments on the structures themselves. Yet in the mere combination of simple line with varied colors on the exterior walls, the introduction of large decorative block letters, which usually stood out from their background, the use of brilliantly colored flags in addition to beautiful plants and flowers—all these elements contributed in giving a certain individuality to the ensemble.

The architect wanted to get away from what has been done in so many expositions—a grand architectural orgy where every architectural motive of the past in some way or another had been introduced. On the contrary, Mr. E. G. Asplund, chief architect of the exposition, took as his cue for this exposition the primitive simplicity of the country fair where the exhibits are the thing, and where no one expects to find any architecture. This was no place for a Grand Prix de Rome project. After all, at a circus the show is the thing and not the architecture of the tent. But while on this subject, isn't there something significant about the functionalistic character of a simple canvas tent? Think for a moment how much of the real flavor of the circus is lost when it is played in a permanent building, such as Madison Square Garden, or if it were played in a magnificent opera house.

Another point of view which Mr. Asplund had in mind when laying out the exhibition was to bring back



PRIMITIVE *in simplicity like the delightful casualness of a country fair*

the spirit of the old public square and market place, which was so prevalent in the time of the great guilds where beautiful festivals were held in the open and where the grand piazza played such an important role in public life. In the larger square at the exposition, open-air concerts were alternated with pageants and public festivals, as well as choral singing and gymnastic exhibits. "Today," writes Dr. Gregor Paulsson, the exposition's general commissioner, "we use public squares only as intersections for traffic, and except for athletic contests we seldom meet in the mass. It is the purpose of the exposition to restore public life to the open square." Really a beautiful thought!

There is one thing that remains in my mind as being the outstanding feature of the exposition, and that is, that quantity production is not incompatible with true artistic quality and that machine fabrication does not mean the abandonment of real art values. The exhibition of the arts and crafts in these buildings was an inspiration to anyone interested in keeping up a high standard of art where quantity production is the rule. Architects and designers throughout Sweden attempted to show in this layout that by their collaboration with the manufacturers it was possible to guide quantity production along aesthetic lines without an appreciable increase in cost. This point of view was applied to even the cheapest kind of goods, including such things as the common variety of kitchen chair, the primitive kitchen stove, inexpensive china and other merchandise of a similar nature which finds its way into a house. I remember seeing a very cheap set of china which had been simplified and beautified without increasing its cost. This was applied to the ordinary tumbler and cheap glassware, the proportions and silhouettes of which were developed along refined and beautiful lines.

The site of the exhibition was irregular in shape and decidedly limited in area. The available finances were likewise limited. Here was no opportunity for a formal scheme like the Champs Elysees or Versailles, and no room for the grand prix layouts of the Chicago, St. Louis and San Francisco expositions; Stockholm's plan had to be developed upon a smaller and more intimate scale. The architect designed his buildings along functionalistic lines or what might better be described as a grand stunt. But after all, shouldn't an exposition be a place where one should try out ideas? An exhibition of this nature is only a temporary structure. As a matter of fact, in the designing of exposition buildings which are of a temporary character, has not the architect an unmissable opportunity to experiment with radical conceptions, small or large, good or bad, in order to stimulate new thought, new points of view, or to even shock the observer so that he carries away with him a certain imaginative impression which later on may blossom into a really worth while and beautiful conception.

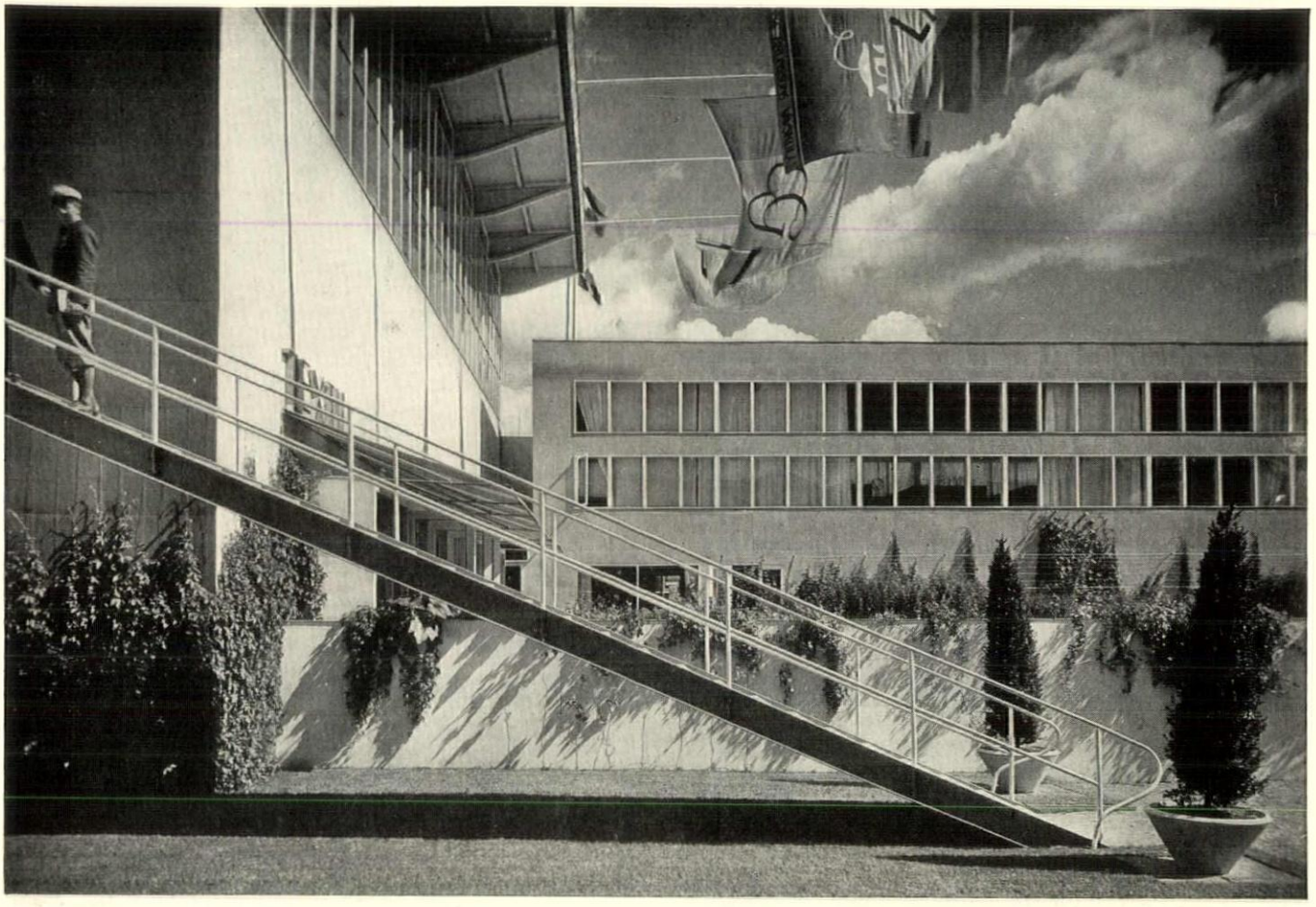
BEFORE leaving Stockholm this summer, I met Mr. Asplund. He made plain the limitations within which he had been obliged to work, always aware, of course, that the ideal thing would have been large and beautiful halls for the exhibits. The Arts and Crafts Society of Sweden, who were the backers of this exposition, could not give him carte blanche as to expense, and he felt under the circumstances that the interest of the visitor should be centered on the exhibits in the interior rather than on the buildings in which they were placed. His problem was to house the exhibits in simple, well-arranged, and inexpensive structures. It is the old story of size, quality and amount of money available being the three things which control any building operation; any two controling the third. In this case a certain bulk was required and the amount of money was limited which,

Scale was small and in keeping

ENTRANCE TO STAINED GLASS *exhibit. In a simple and inexpensive way, the architect tried to interpret to the passerby what was exhibited inside the building*

with a city like Stockholm . . .

Combination of simple line and curve



FUNCTIONALIST LINES *and forms were relieved by beautiful colored flags. Brilliant colors were introduced in various tones on the exterior walls of many buildings*

therefore, determined the quality of the buildings.

There was, to be sure, a dramatic contrast between the plain, functionalistic exhibition group and Stockholm's beautiful town hall. Would it not have been a mistake, however, for Mr. Asplund to have sought in the temporary structure of this exposition, the permanent character of a building intended to last through the ages, such as the town hall in Stockholm possesses?

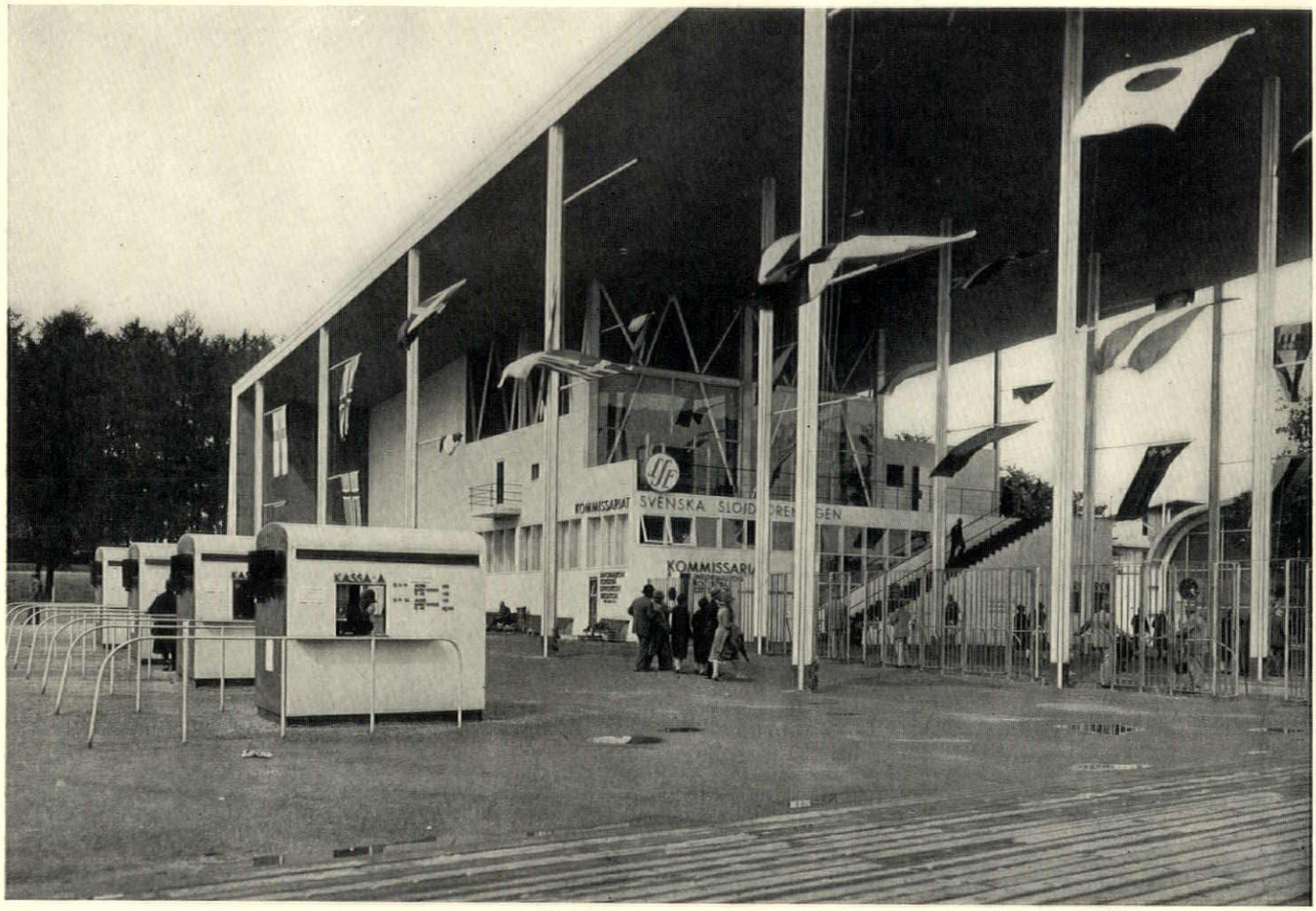
I like what Baron Ramel, Sweden's Minister for Foreign Affairs, has said about the exposition. "The Exhibition held in Stockholm," the baron remarks, "aroused many impassioned discussions in Sweden, as well as in foreign countries, on account of its new orientation and its unscrupulous ruptures with architectonic principles hitherto prevailing."

"I am not the competent person to express an opinion on the value of this architecture from an aesthetic and practical point of view. But I venture to think that it holds a fund of new ideas, too bold, if not too shocking, to be recognized at once in all quarters. As a framework for an exhibition where the exhibited objects are of the principal importance and the frame's simplicity is intended to emphasize the beauty of these objects, this architecture seems to have proven to be excellent. The new ideas which have burst forth here possibly contain seed which will fertilize the architecture of the future."

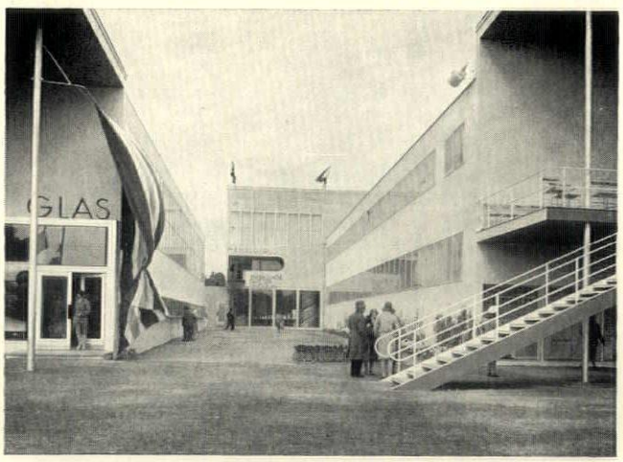
SMALL COURTS *gave an intimate touch and a small, human scale to the exposition*

One of the leading purposes back of the exhibition has been to spread among the workers the idea that simple and inexpensive furnishings for the home can be made beautiful and that the home itself, in its plan and

created a distinctive character . . .



COLUMNS OF OPAQUE GLASS *over a steel core were used in the Administration Building. These, illuminated at night, presented a most weird and striking effect*



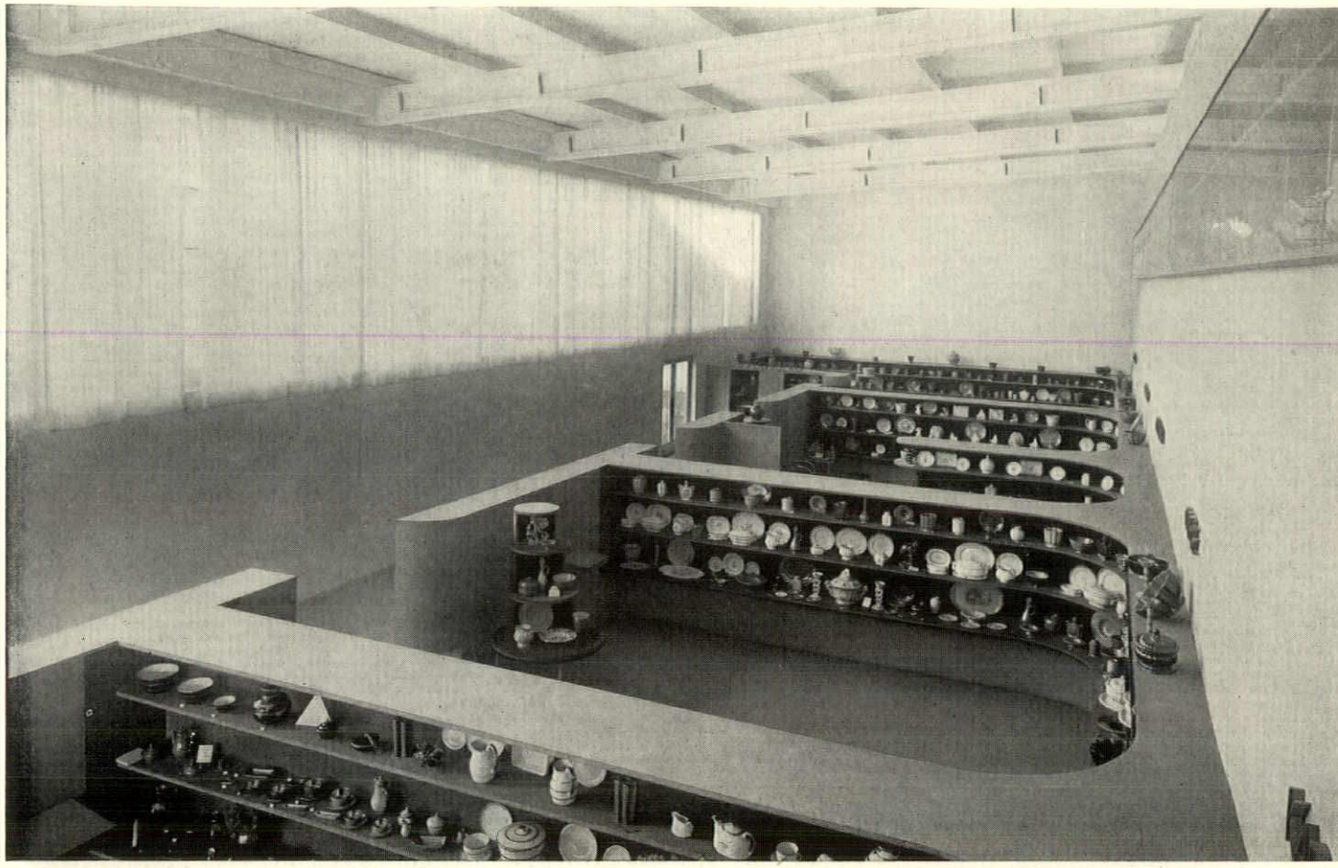
UNIQUE CONCEPTIONS *of form were tried, some good, some bad, but all worth trying*

arrangement, can be made attractive and charming. Dr. Gregor Paulsson, the general director of the exposition, has been interested for many years in raising the standard of living, and increasing the appreciation of beauty among the working people in Sweden. It was he who, in connection with the exposition, conceived the idea of holding a competition among twenty Swedish architects for a group of small houses designed to bring out modern ideas in house planning for the workingman. The architects were required to take the same floor area as that of certain existing badly-planned houses in Stockholm, and re-plan the same area along modern lines. As far as I know, this is the first time any such idea has been developed in an exposition, and to my mind it was a very interesting experiment.

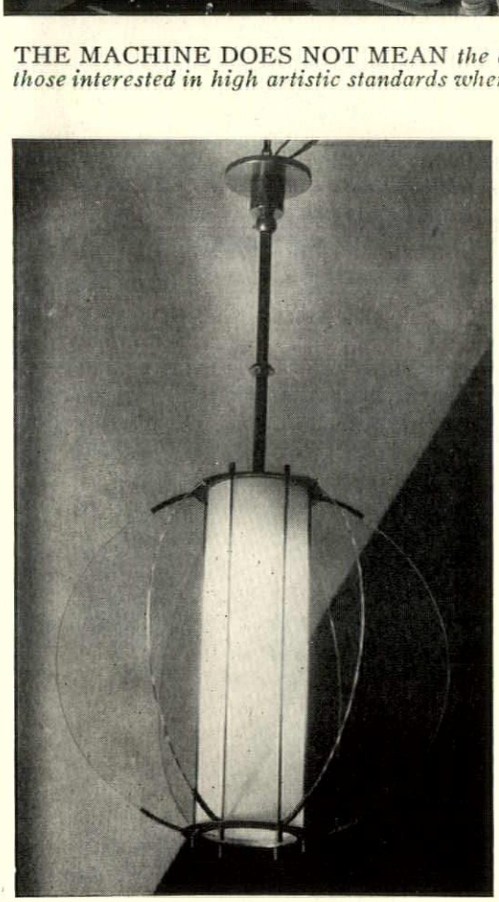
The results were very stimulating and encouraging. The prize-winning designs were built at actual size in a little community at one end of the exhibition grounds. This part of the exhibition attracted a great deal of attention and fully merited the credit which it received.

The layouts showed conscientious study of the problem. As a result of such a serious attempt to improve the domestic planning in Sweden, the Swedish working classes no doubt will derive a great deal of benefit from these exhibition houses.

Prior to the opening of the exhibition, other competitions were held among the furniture and interior decorative designers, with the result that some distinctive furniture and room layouts were shown in the exhibition. These rooms gave the native and the foreign

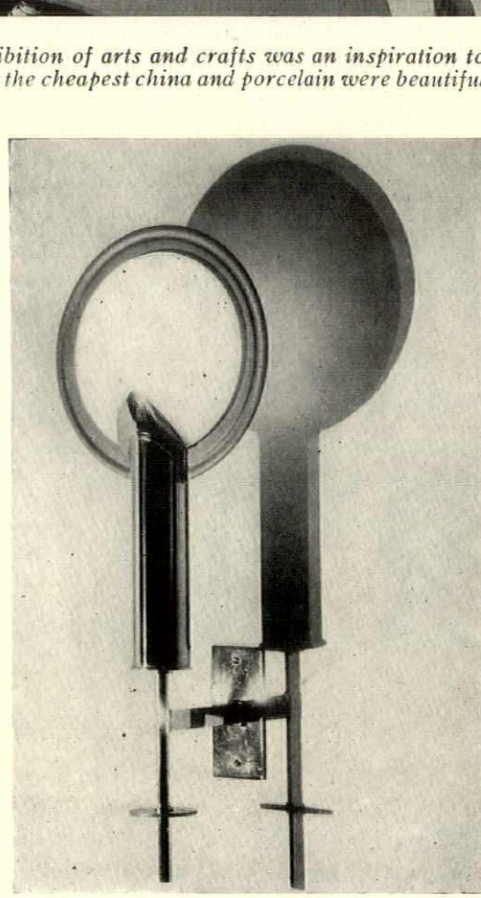


THE MACHINE DOES NOT MEAN *the end of real art values, for the exhibition of arts and crafts was an inspiration to those interested in high artistic standards where quantity production rules. Even the cheapest china and porcelain were beautifu*



LIGHTING FIXTURE

manufacturers showed the possibility of getting away from common-place stock designs without materially increasing the cost

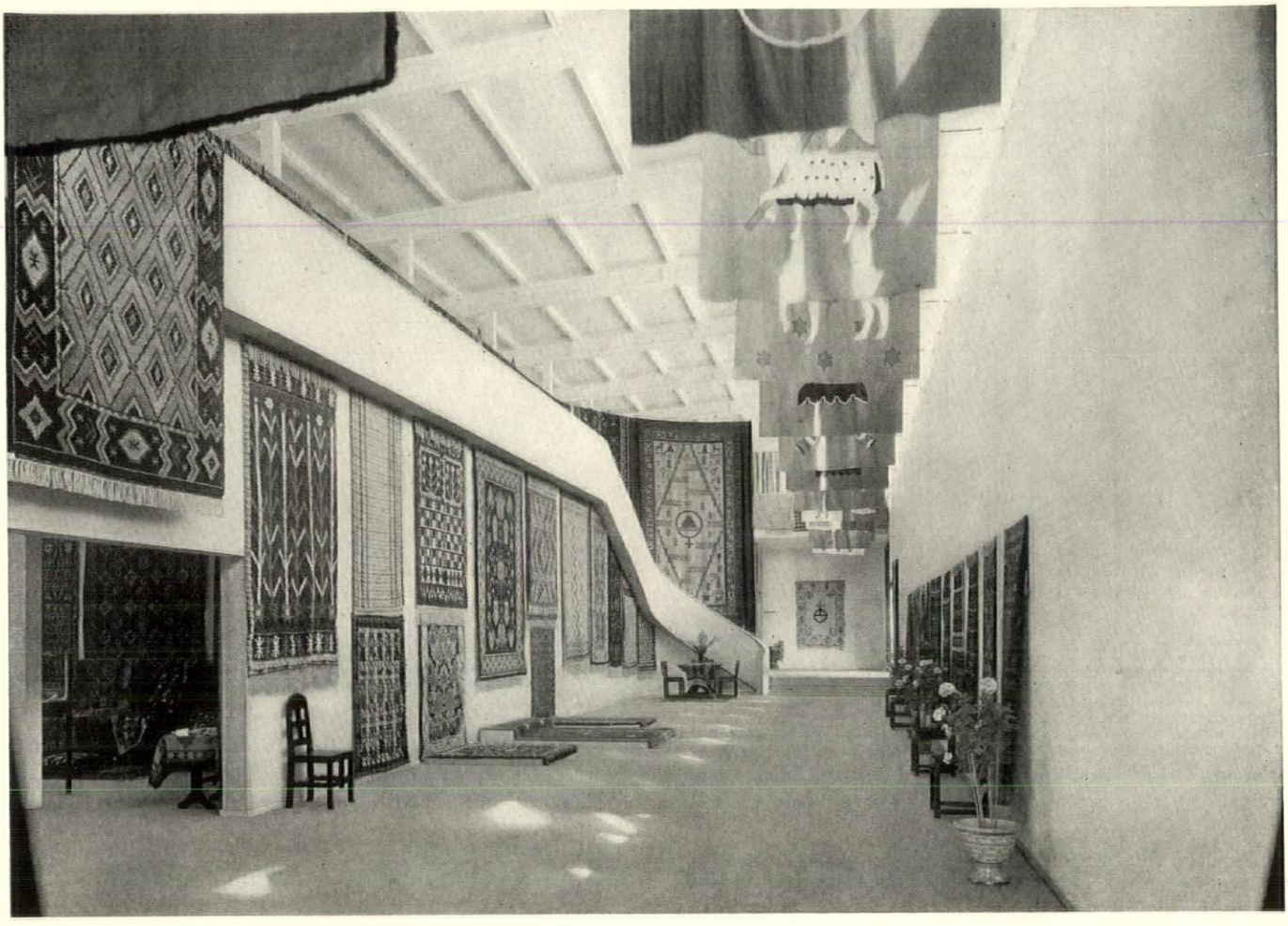


Functionalism sought at low

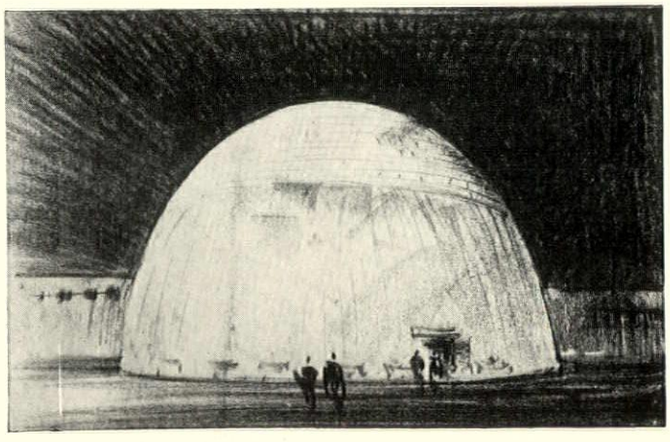
SMALL HOUSE EXHIBIT *was a feature. Here the architects tried to prove that in plan, arrangement and furnishings, the small house may be made attractive and convenient*

cost in Stockholm Exposition

SWEDEN has awakened to a

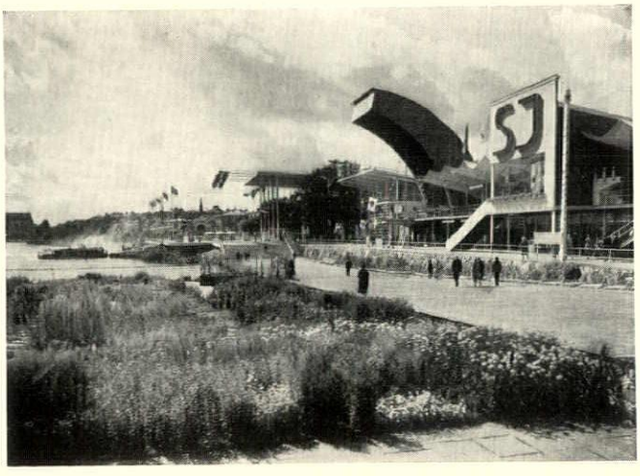


NO CONFLICT *between the interior architectural embellishment and the exhibits, for simple, economical backgrounds were provided and the exhibits allowed to dominate to the great advantage of the Exhibition*



PURELY FUNCTIONAL

the Planetarium afforded an all embracing view of the heavens and reminded one of the so very functional Eskimo igloo



ON THE WAY OUT, *one saw a skyline of virile irregularity which reflected the functional point of view held by the architect of the Exhibition*

AS ONE ATE *in the Paradise Restaurant, the all glass and metal walls gave an unobstructed view of the main part of the Exhibition. Way off in the distance was the beautiful silhouette of old Stockholm, contrasting both the old and the new*

PLANTS AND SHRUBS *were used in beautiful colors to relieve the severe outline of some of the buildings, such as one often finds in Spain, where flowers are played with against perfectly plain white walls*

visitor alike a better knowledge of what can be done along modernistic lines without shocking the eye. We can learn a great deal from the Swedish designer and craftsman, who seems to have a fine sense of design, especially in the combination of beautiful native woods and manufactured goods.

What did this exposition mean to the mass of the people of Sweden? Will it take a greater amount of beauty into their homes and lives? The answer is unquestionably—yes. For even the humblest worker could take home to his tiny dwelling the thought that even the cheapest of furniture and furnishings can be beautiful. It has held up before him an ideal of beauty that is within his reach and that he, with his limited means, may make an accomplished fact. And so, long after the exposition buildings are torn down, the memory of their contents and the influence of architects upon those contents will make the exposition a living memory to the people of Sweden.

A FEW TRIFLES CAN Sour a Client

BY ROGER ALLEN, A.I.A.

Frank P. Allen & Son, Grand Rapids, Mich.

IT seems, according to a story that my friends are fond of telling me, that a lady architect presented her nonplussed husband with triplets.

"Exceeded the estimate again," he murmured accusingly, when speech returned to him.

This little anecdote illustrates one of three things that the average American believes implicity. The first is that a plumber always forgets half his tools; the second is that Calvin Coolidge is a very silent man; and the third is that an architect's estimate is as unreliable as that of a trout fisherman. Now, as a matter of fact, most of the plumbers that I have observed arrive on the job with so many tools, wrenches and various objects of bric-a-brac that it is obvious that they can have left nothing back in the shop but the telephone; our ex-president's written output will soon equal in quantity, at least Arthur Brisbane's, and is it not possible that the third article of faith may be in error?

That there is some measure of justification for the existing skepticism in regard to our estimates must be obvious to all of us in the profession. It cannot be denied that clients have been induced to proceed with work which, at its termination, has cost them appreciably more than they expected to invest. To say that in many cases this is the client's own fault is to beg the question, for surely it is as much the duty of the architect to warn his client against undue expenditure as it is the duty of an attorney to warn him against conduct that will bring legal complications.

If an architect's estimate is incorrect it might be assumed that its incorrectness could be due only to one of two causes; either he is incompetent to estimate costs, or he is competent but dishonest, wilfully misrepresenting in order to induce the owner to proceed. Let us examine these two theories for a moment.

After an architect has been in practice for a number of years he has, if he is at all intelligent, a very fair knowledge of unit costs at his command. He has tabulated the actual cost of hundreds of buildings, separated the total costs into their component parts and determined the costs per cubic foot. If he is in doubt as to the probable cost of any particular job, it is easy enough to obtain a very close estimate on the preliminary sketches from some builder in whom he can repose confidence.

There is no reason to believe that architects as a class are incapable of estimating costs with an accuracy that satisfies all practical requirements. Unfortunately the many times when the building costs *less* than the architect's estimate receive little or no publicity, human nature being constituted as it is.

Well then, is the architect dishonest, wilfully leading the client astray? In some cases he is, perhaps, but these cases are in a vast minority. They eliminate themselves, architects of this type; the news of their misguided optimism travels fast and clients avoid them as they would the plague. Just as unsuccessful doctors find themselves slipping down the professional ladder, so do dishonest architects find clients few and hard to come by.

I believe that today there are few competent architects who do not conscientiously try to give the client as true and accurate a statement as possible of the probable cost of a building operation. I believe that their sins are sins of omission, and that the public complaint is directed not at any inaccuracy in the items that he includes, but at the fact that the items that he includes are not *all* the items required for a complete building.

When a man or a woman embarks, for instance, on the adventure of building a house, the picture they have in their mind is of a com- (*Continued on page* 96)

Make up a list of accessories and

GET IT ALL IN THE ESTIMATE

GENERAL CONSTRUCTION

Finish grading to be done?
Lot to be seeded?
Lot to be sodded?
Waste and supply for fountain or pool? (Check for plumbing also; placed in G. C. to obtain location.)
Terrace paving: slate, brick, cement?
Walks and drives: stepping stones, slate, ribbon drive, cement?
Work bench in garage?
Underground garbage container?
Incinerator: gas, flue type, garbage burning water heater?
Insulated milk bottle receptacle?
Servidor package delivery?
Shoe shelves in closets?
Closet shelves finished with moulded wood nosings?
Tiling for sink, drainboard or work table in kitchen or pantry?
Fountain or aquarium in sun porch?
Cedar lining for how many closets?
Deafening quilt for floors?
Screens: copper, galvanized; swinging, sliding or rolling type?
Weather stripping, caulking?
Special glass: violet ray type, plate, 1/8" plate, Libby-Owen?
Integral coloring in plaster?
Linoleum special patterns inset in entry, vestibule, etc.?
Flagpole?
Fruit and vegetable closets insulated and vented?

PLUMBING

Central control board to permit individual fixtures to be cut off at one point?
Where should sill cocks be located?
Underground piping for permanent lawn sprinklers?
Overhead car washer for garage?
Piping tagged with colored linen tags?
Oversized waste for bath tub for rapid emptying?
Piping for fountain, pools, etc.?
Brass pipe, wrought iron. Cast iron laterals in place of tile?
Water meter in accessible location?
Water softener?
Shower in basement?
Remote control for hot water heater?

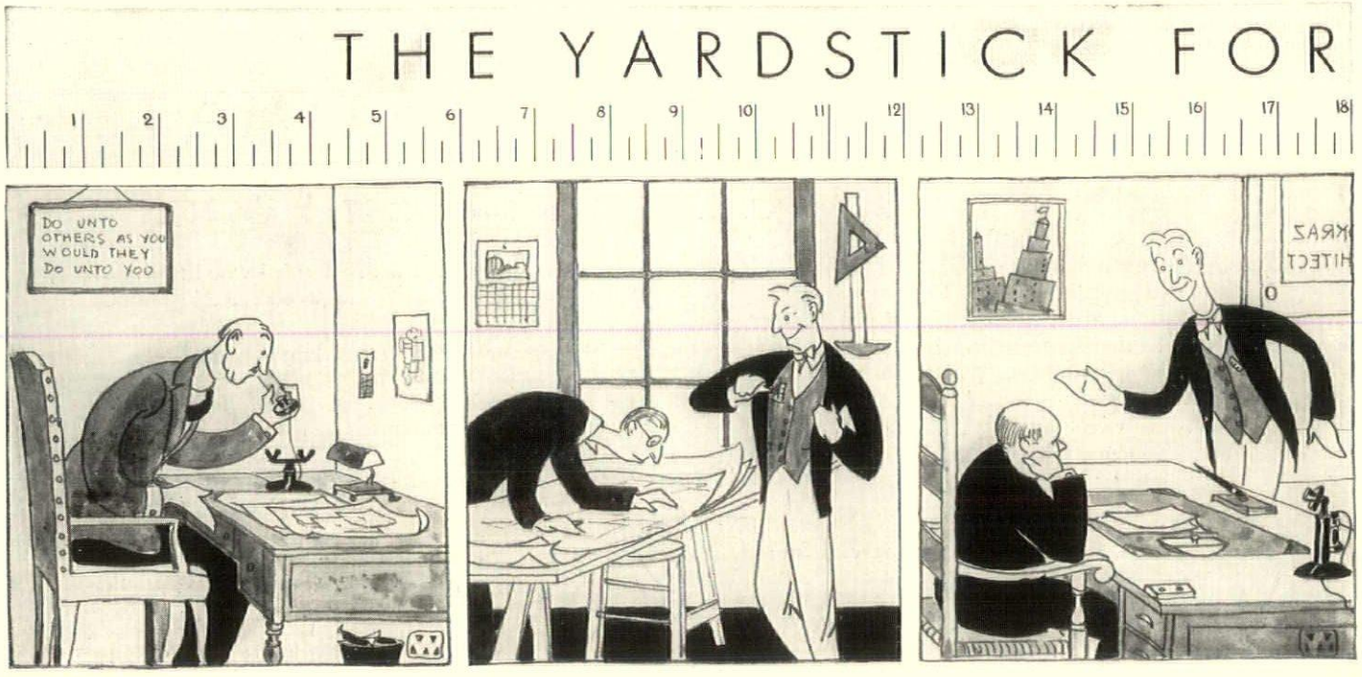
HEATING

Heat source: oil, gas, coal?
Firing devices: oil burners, automatic stokers?
Thermostatic control?
Humidifiers: at boiler or in cabinet on first floor?
Coal storage room to have ceiling plastered? (Check for G. C.)
Boiler room to have ceiling plastered? (Check for G. C.)
Rack for shovels, scoops, ash sifter?
Ash containers under floor?
Ash hoist?
Pipe covering?

ELECTRIC WIRING

Special circuits; for ironing, electric fireplace, motion picture outlet, etc.?
Ventilating fan outlets?
Concealed lighting?
Switch plates plain for lacquer finish?
Three-way switches: to garage?
Electric heater in garage, switched from house?
All base receptacles double type?
Bell transformer?
Annunciator?
Inner phones: to garage?
Telephone outlets: provisions for extension and portable phones?
Lights on outside of house under cornice for protection against prowlers?
Special weather-proof outlets near front door for exterior lighting of Christmas trees, etc.?
Radio wiring: ground, antennae, extra loud speaker outlets?
Battery charger in garage?
Violet ray water filter?
Special lighting for pools, fountains, etc.?
Circuit directory at distribution panel?
Meter in window closet for reading from outside? (Check for gas and water meters also.)
Flood lighting?

CHECK IT WITH THE OWNER



when He comes for a JOB

By Clement W. Fairweather, A.I.A.

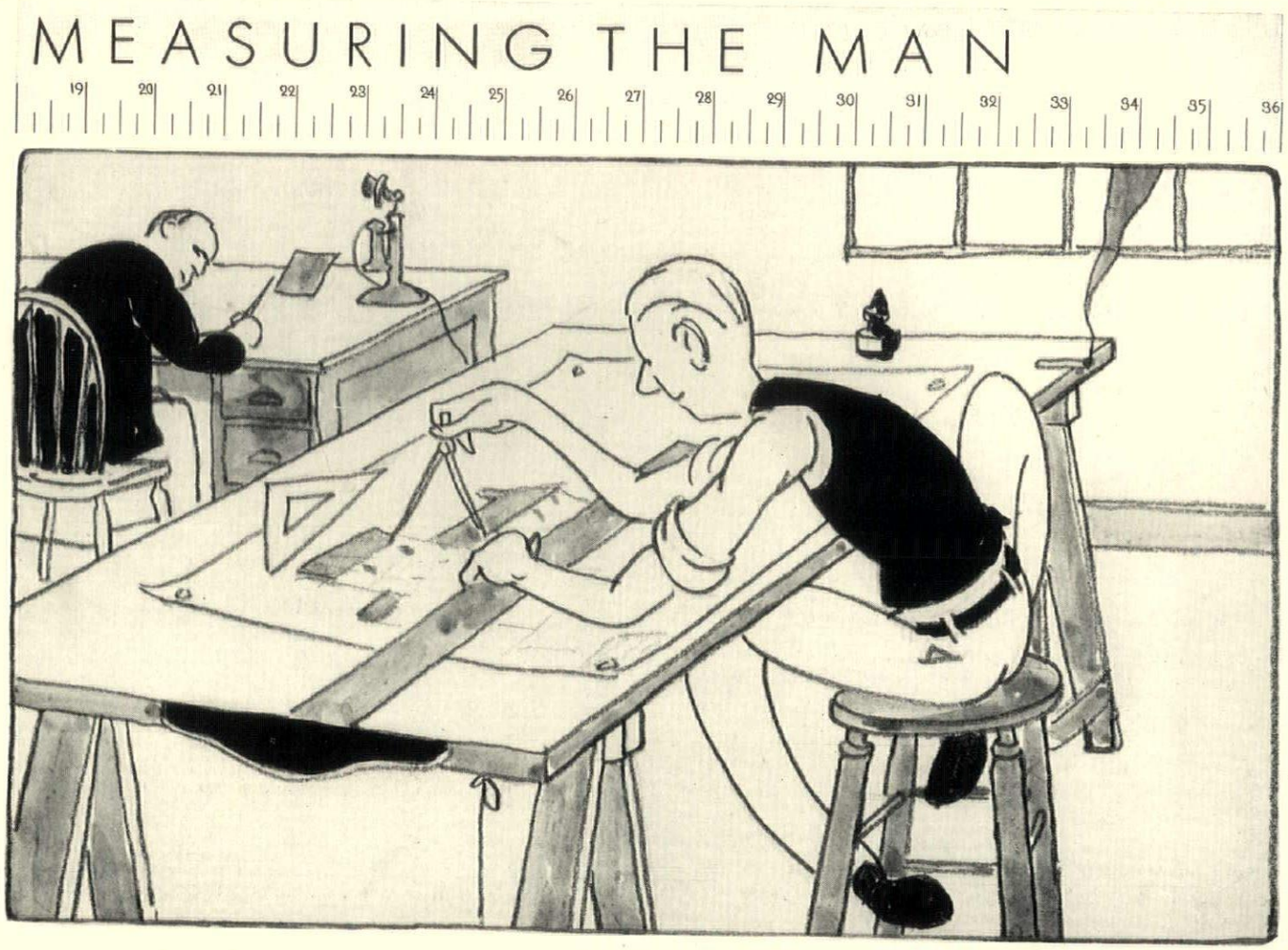
This is the last of three articles on how architects select draftsmen. But what would the draftsman do if he were running the office? Many capable men know as much or more than the "boss." They know what an architect can do to make it easy or difficult for the draftsman to do his best work. The editors wish to hear from draftsmen on this subject. Articles should be mailed by January 1. Seventy-five dollars paid for each one accepted.

"A YARDSTICK to measure draftsmen!" How about a yardstick for the draftsman to measure the boss? One is reminded of the old story of the farmer who was looking for help. Seeing a likely looking lad waiting around the market place and finding him to be anxious to work, he agreed to hire him if he would get a written "character" from his last employer. This the boy promised to do and departed on his errand; but he failed to return. The farmer went about his business, sold a hog, examined some new fangled farm machinery, drank a few glasses of cider, abandoned the attempt to hire help, and climbed into his wagon preparatory to going back to the farm. But as he picked up the reins he espied his friend of the morning and called out to him, "Hey, has thou got thy character?" and the "help" replied, "No, but I have gotten thine, and I baint a comin'."

What are the qualifications to be sought in hiring draftsmen? Surely character is more important than expert technical skill, whether the office be small or large, for in an office employing only one or two draftsmen, the expert technical skill should be in the brain and fingers of the boss who would normally do much of the drafting work himself. Willingness to work along with the boss and to assist him in diverse tasks, to help on problems of design, to do practical work as well, to cheerfully stop detailing a front entrance, to run down to the building department, and do other odds and ends would seem to be more necessary qualifications.

How can one tell if an applicant has the required spirit? By personal interview, of course; by telephoning other offices in which he has worked, and by study of such exhibits as the draftsman may have with him. But how many of us have the ability to size up character by personal interview when many applicants have deceptive surface personalities? The man who has "it" may be selling poor wares and perhaps would be doing more useful work if selling some other commodity than draftsmanship. The fellow who has little to say for himself and makes a poor impression may be a fool for work and loyal to the last degree. We wouldn't give the applicant more than six inches of the yardstick on his sales talk.

MEASURING THE MAN



PERFORMANCE . . . . 18 inches

Can one look for truthful data when one asks a former employer for information as to a candidate? We doubt it. When some one calls us up we are very loath to say anything against a former associate or even to damn him with faint praise. If a draftsman didn't fit in with us, it might have been due to dumbness on our part.

Maybe we did not take the trouble to find out what he was best at, and he might be just the very man for this other job. We would only give the candidate six inches on what the other fellow says about him.

When he shows us work which he has done, we don't know how long it took him to do it or how much help he had from others in doing it. On exhibits we might give him six inches more of the yard stick, in which case he will have climbed half way up it.

Now in the good old days when one could ride along on the five orders or even get along with one or two, we used to award the other eighteen inches on the nicety of a shoe polish and the cleanliness of finger nails, but in these more intricate modernistical days we base the marking on conduct and performance on a trial extending over a week or two. For that, really, is the solution of the problem. Give the candidate a trial on the board. It is the only way to find out if he is qualified. Hire him on trial. Keep him if his work is satisfactory and release him in due course if it isn't. But release him with a word of advice and encouragement. There is no sense in hiring a man with a feeling of awful finality and the thought that an instant of carelessness may mean a lifetime of regret.

In the larger offices, the problem is simpler. Almost any applicant can fit in some corner of the organization. Suppose the candidate says he can beat Raymond Hood at design and draw like Otto Eggers! Try him out and if he doesn't make good one can always have him check foreign blueprints. These offices can afford to take time to break in and train their staffs to meet the needs and exigencies of their practices and there are few draftsmen who will be unable to find a suitable niche if given a chance and handled sympathetically.

Important though it may be to guard against the risk of employing the wrong man, it is more important to avoid the necessity of engaging men at all, as far as possible. A frequent turnover in any office is not conducive to efficiency and the well run office should be mainly staffed by permanent employees with the necessity for engaging new men *(Continued on page 76)*

Symmetry and Ornament Discarded AS RUSSIA casts off the Past

By Roderick Seidenberg

Who recently returned from Russia, where he acted as consulting architect on a number of building projects

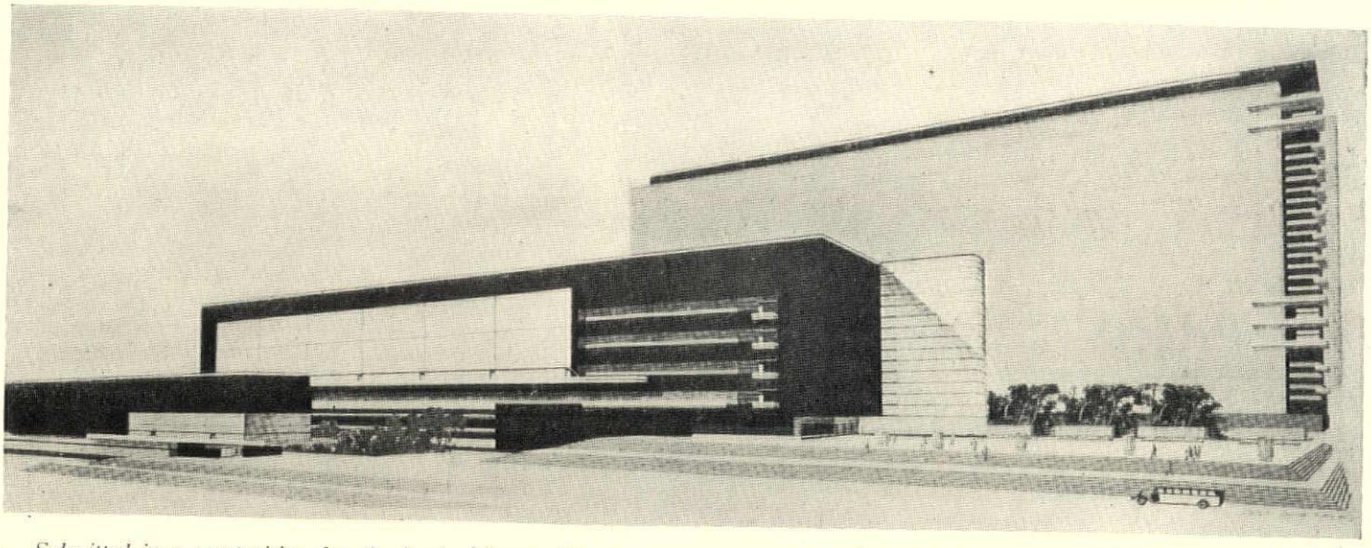
SAINT BASILE, *with the tower of the Kremlin at the left, now a Government museum. From a water color by the author*

YESTERDAY . . . Russian architecture indulged in a riot of color and ornament

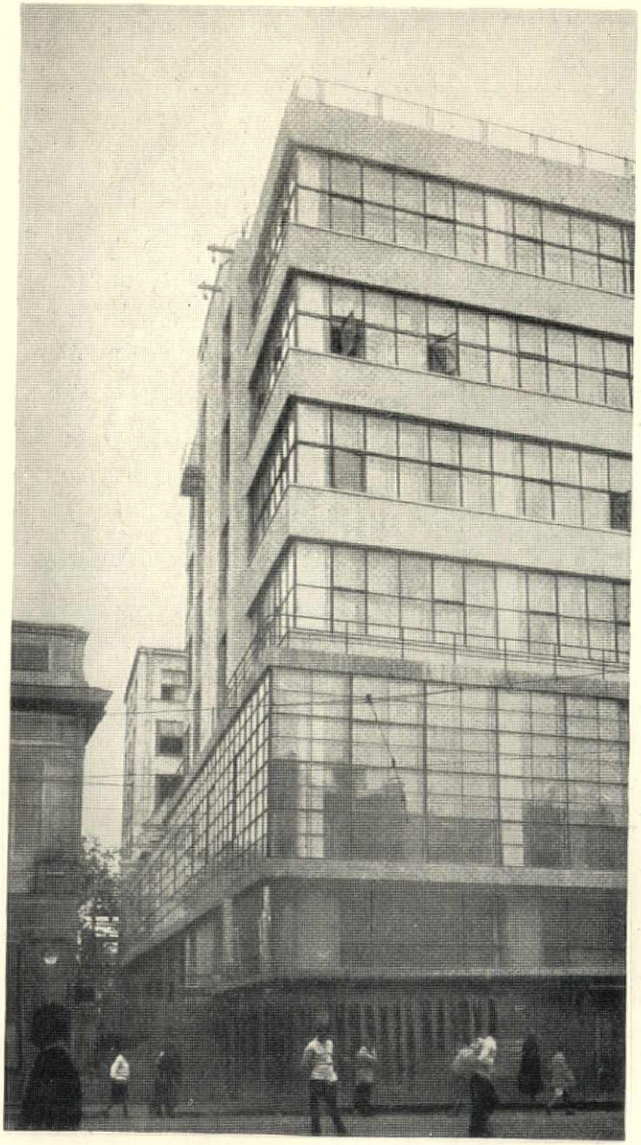
CERTAIN fundamental aspects of modern Russian architecture can best be discussed by turning back for a moment to Russia's very ancient buildings. On the surface, certainly, there would seem to be no possible relation between two such alien periods. Indeed, nothing so clearly mirrors the profound changes in Russia of today as the sharp contrast between the current work and its fascinating and varied background of archaic churches, Baroque towers, Empire dwellings and a motely of 19th Century Rennaissance buildings. Only a vast upheaval in the social structure and in the actual everyday life of the people could account for such a significant and drastic change in their architecture. Yet, it seems to me, there is discernible a very precise relation between the antique style and the stark, forthright structures that are everywhere in evidence today. This difference is encompassed, by and large, in the distinction between architecture as art and architecture as engineering.

Whereas the early structures followed a deep instinctive sense of architecture, contemporary buildings are the product of a strictly functional solution of each specific problem. Whereas the ancient work dealt with the expression of largely intangible qualities, modern work concerns itself with the rational organization of concrete and tangible requirements. Thus, in such constructions as the Kremlin Wall, and the so-called Chinese Wall in Moscow, which certainly were sufficiently practical in their own time, these underlying tendencies flowered in the rich, superbly conceived towers that embellished them. Such an expression would be unthinkable today. On the other hand, the highly rationalized work of the present reveals in its turn a kind of intensity in its logic, which also approaches abandonment. This quality of intensity is perhaps peculiarly Russian—a sense of absolutism foreign to the well-balanced French and the well-established English. It has deeply affected the character of Russian architecture both modern and ancient. Passion and taste are in some ways alien qualities and Russian architecture, which has often been criticized for its lack of taste, might well be defended by the greater asset of its wealth of passion. The architects of the Italian Rennaissance achieved the miracle of combining both taste and passion, perhaps this will happen again in the full noonday of the modern style. For the moment, historically, taste is an irrelevant concept for Russia, which is fortunately beginning with the more robust virtues. Its architecture will, in the end, be enriched by its intensity, for it is rooted in a principle as profound and fecund as that of the past.

What are the salient characteristics of the new manner? To say that it is utilitarian is to speak of the purposes of the buildings and structures rather than the quality of their architecture. Its dominant qualities, it seems to me, are its rational approach to a functional solution of the problem; its emphasis upon logic and its strict realism. It is an architecture akin to engineering. The unrelenting search for the right solution along scientific lines is in some measure the result of dire economy. This pressure has without question affected not only the Russian building processes and standards,



Submitted in a competition for the Lenin Library, Moscow. *D. Fridman, W. Fridman and D. Markow, architects*



An office building for the Gostorg Company, Moscow. B. Welikowski, architect

TODAY, Russian architecture exhibits a rational approach to a functional solution

a. *It is an architecture akin to engineering*

b. *It exhibits a strict economy that makes a solution stark and barren*

c. *Ornament is discarded, expression being achieved through placing and relation of form alone*

d. *Symmetry is discarded as arbitrary and lifeless*

e. *Circular and half circular forms are used in conjunction with rectangular masses*

f. *It is communal in nature, and highly expressive of a people*

but also the Russian conception of architecture. Everywhere the strictest economy dictates the simplest, most direct solution and often enough architecture, as a result, is reduced to a stark and barren answer. In some cases a blessing in disguise, economy has also been a drag upon creative imagination.

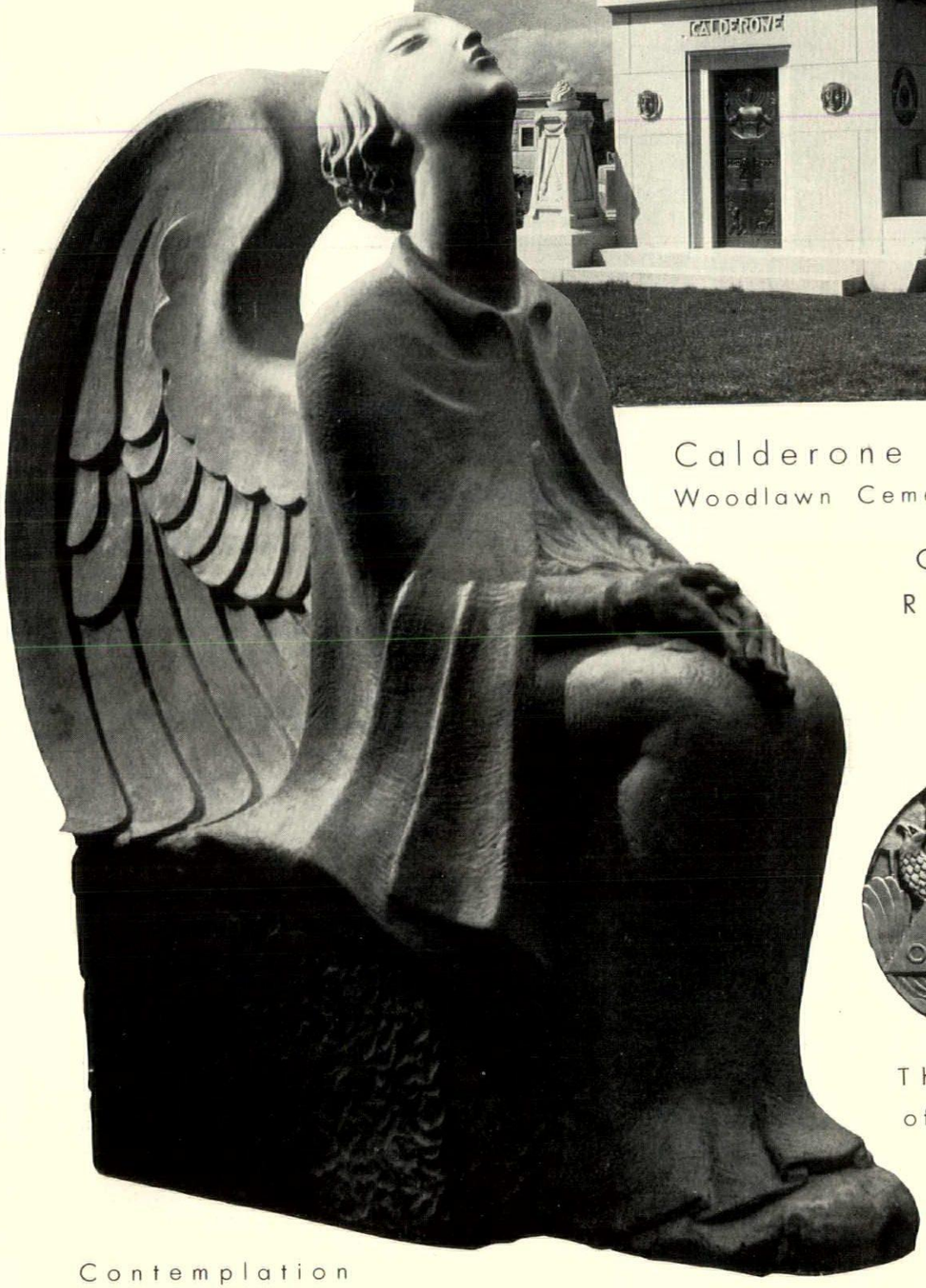
Yet it is possible to over-emphasize the significance of this factor, important as it is in its effect on design. For economy in itself is a negative condition and it is hardly to be credited with giving force and character to work. The stringently logical, rationalized approach which is manifest in Russian buildings is due to a revolution in the thought and feeling of architecture in keeping with the revolutionary changes in the social organization. Thus, architecture reflects not so much momentary impoverishment as a fundamentally realistic approach to the primary problems of life. (*Continued on page 72*)

Calderone Mausoleum
Woodlawn Cemetery, New York

ONORIO
RUOTOLO
Sculptor

photographs by
De Witt Ward

The Synthesis
of the Gospels

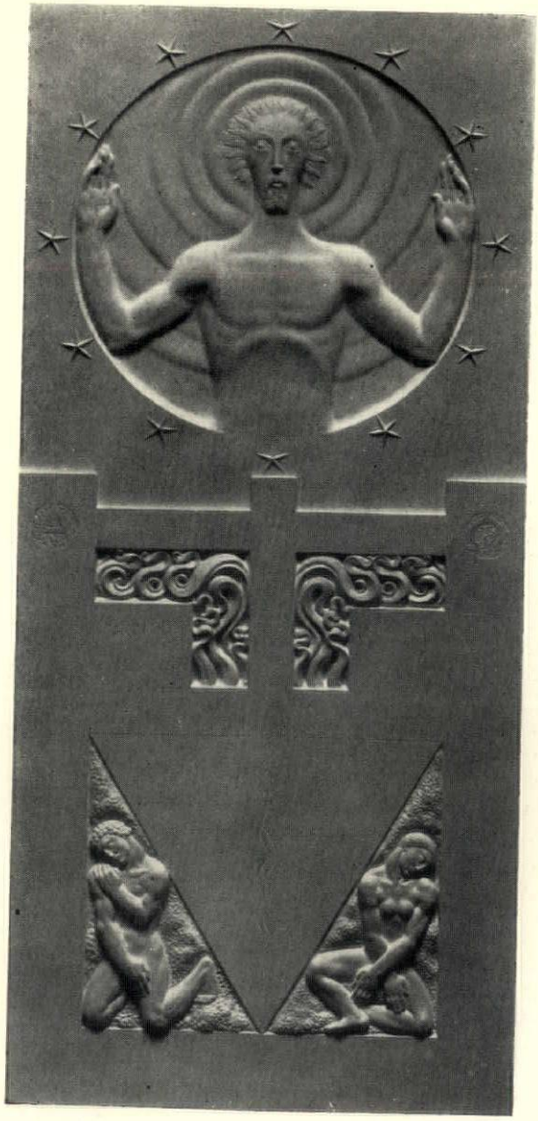


Contemplation

IN MEMORIAM

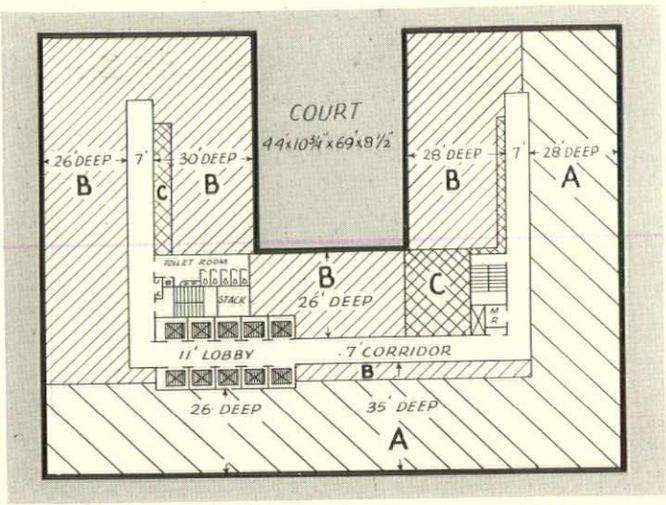
The Return

The Christ of Life



The Idyl of Death

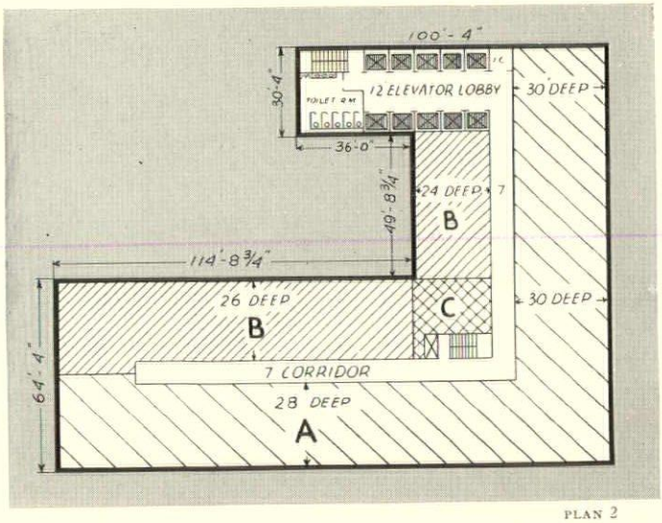
Typical floor plans, 8th to 16th floors; "A" space rented for



PLAN 1

$736,236 Income

71.9% *"A" space, 22.8% "B" space, 5.3% "C" space*



PLAN 2

$564,174 Income

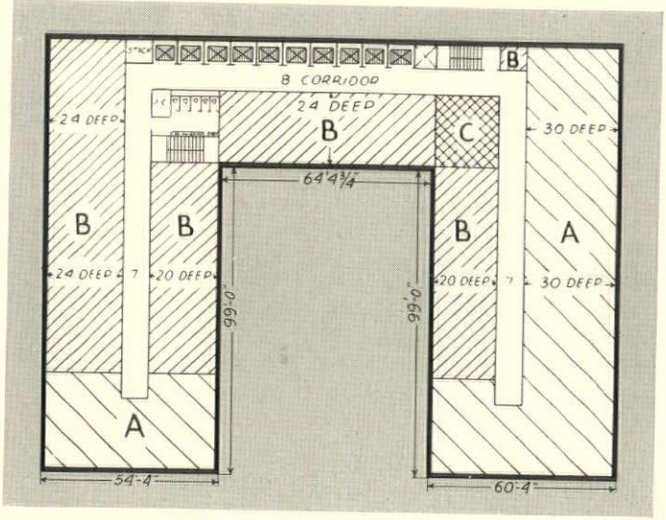
80.6% *"A" space, 16.2% "B" space, 3.2% "C" space*

$500 STUDY ADDS

DATA	NOTES	PLAN 1.	PLAN 2.	PLAN 3.	PLAN 4.
1 Lot area		28,346 sq. ft.	28,346 sq. ft	28,346 sq. ft.	28,346 sq. ft.
2 Court area		3,129 sq. ft	8,166 sq. ft.	6,376 sq. ft.	2,976 sq. ft.
3 Building area		22,375 sq. ft.	17,338 sq. ft.	19,128 sq. ft.	22,528 sq. ft.
4 Exterior perimeter		776.4 ft.	709.6 ft.	838.3 ft.	855.2 ft.
5 Public space, sq. ft.	15 floors	56,700 sq. ft.	51,885 sq. ft.	60,960 sq. ft.	70,230 sq. ft.
6 Rentable area, sq. ft.	15 floors	264.375 ft.	197,535 sq. ft.	210,210 sq. ft.	251,640 sq. ft.
7 Cubic contents, cu. ft.	15 stories	3,775,334	2,921,453	3,223,068 sq. ft.	3,795,968 sq. ft.
8 Cube per sq. ft. rentable	No. 7 ÷ No. 6=	14.3	14.8	15.3	15.1
9 Building investment, per rented sq. ft.	No. 8 × 72¢	$10.30	$10.66	$11.0	$10.87
10 Sq. ft. lot area, per rented sq. ft.	No. 1 ÷ No. 6	107 sq. ft. (Per ft. 1.60)	143 sq. ft. (Per ft. 2.15)	134 sq. ft. (Per ft. 2.02)	112 sq. ft. (Per ft. 1.69)
11 Land value per rentable sq. ft.	No. 10 × $50.00	$5.3	$7.18	$6.72	$5.63
12 Total investment per sq. ft.	No. 9 + No. 11	$15.65	$17.84	$17.77	$16.50
13 "A" space, sq. ft. & %, 8th to 16th	"A" area × 9	114,066 = 71.9%	95.445 = 80.6%	80,532 = 63.9%	93,924 = 62.2%
14 "B" space, sq. ft. & %, 8th to 16th	"B" area × 9	36,144 = 22.8%	19,242 = 16.2%	41,274 = 32.7%	41,940 = 27.8%
15 "C" space, sq. ft. & %, 8th to 16th	"C" area × 9	8,415 = 5.3%	3,834 = 3.2%	4,320 = 3.4%	15,120 = 10%
16 "A" space, sq. ft. & %, 2nd to 7th	"A" area × 6	50,556 = 47.8%	51,618 = 65.4%	36,984 = 43%	47,016 = 46.6%
17 "B" space, sq. ft. & %, 2nd to 7th	"B" area × 6	49,584 = 46.9%	24,840 = 31.4%	44,220 = 53%	43,560 = 43.4%
18 Total "C" sq. ft. & %, 2nd to 7th	"C" area × 6	5,610 = 5.3%	2,556 = 3.2%	2,880 = 3.4%	10,080 = 10%
19 Total "A" space value	(No. 13 + No. 16) × $3.00	$493,866.00	$441.189.00	$352,548.00	$422,820.00
20 Total "B" space value	(No. 14 + No. 17) × $2.50	$214,320.00	$110,205.00	$213,735.00	$213,750.00
21 Total "C" space value	(No. 15 + No. 18) × $2.00	$28,050.00	$12,780.00	$14,400.00	$50,400.00
22 Total value of all space	No. 19 + No. 20 + No. 21	$736,236.00	$564,174.00	$580,683.00	$686,970.00
23 Income on 90% basis	No. 22 × 90%	$662,500.00	$507,500.00	$522,500.00	$618,000.00
24 Land charges	(6% + 2%) × $1 × $50.00	$113,384.00	$113,384.00	$113,384.00	$113,384.00
25 Building charges	(6% + 2% + 2%) × No. 7 × 72¢	$271,824.00	$210.345.00	$232,060.00	$273,310.00
26 Total charges	No. 24 + No. 25	$385,208.00	$323.729.00	$345,444.00	$386,694.00
27 Average revenue per rentable sq. ft.	No. 23 ÷ No. 6	$2.50	$2.57	$2.48	$2.46
28 Pro-rated charge per rentable sq. ft.	No. 26 ÷ 6	$1,455.00	$1.64	$1.64	$1,535
29 Net for operating and profit, sq. ft.	No. 27 — No. 28	$1,045.00	$0.93	$0.84	$0.925

THE MOST PROFITABLE PLAN *was indicated by a study of this analysis*

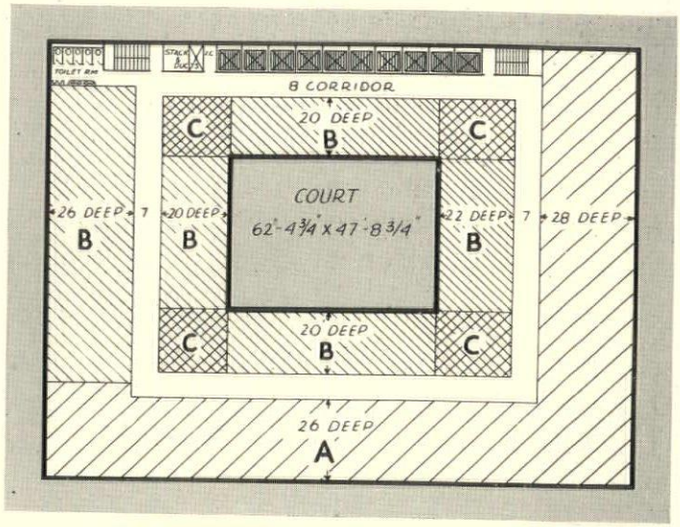
$3 a square foot, "B" space for $2.50, and "C" space for $2



PLAN 3

$580,683 Income

63.9% "A" space, 32.7% "B" space, 3.4% "C" space



PLAN 4

$686,970 Income

62.2% "A" space, 27.8% "B" space, 10% "C" space

$50,000 TO INCOME

BY G. R. BAILEY

of Albert H. Wetten & Co., Real Estate, Chicago

IT is not difficult to visualize the tremendous impression that lower Broadway, Wall Street, 42nd Street, Broad Street, Michigan Boulevard and La Salle Street make on the strangers who visit our shores for the first time. Surely, as they rock on their heels to scan our towers of commerce which stretch toward the sky, they must feel that these immense structures, representing millions of investment, represent also the last word in economic development. But do they? Too often they do not.

Were a census to be taken to determine the percentage of our office buildings which have been constructed with a full knowledge on the part of the owners that they represented the most economic development possible for their given sites, the result would, we imagine, be rather startling. Project after project has proceeded on the basis of a plan which has appeared to be the best of several alternates. The architects have drawn, let us say, half a dozen possible developments and the owners and their rental agents have reviewed them and selected the one appearing to be the most practicable. This approved plan has then been released for construction and a project is at once under way involving great sums of money. And yet, in spite of the large amount of money at stake, the owners, architects and rental agents often have not been mathematically certain that the approved plans represented the maximum economic development. Although not as simple as setting up an equation in calculus and twice differentiating for maxima and minima, still this mathematical assurance is just as positively obtainable.

The largest factor of uncertainty that has had to be met in the past has been the question of just what rentals could be counted on for various grades of space. This uncertainty is no longer necessary. In connection with any sound project contemplated for an established district, rates for various grades and depths of space can be set up which may be used for the purpose of comparative analysis with full confidence that the estimated income resulting therefrom may be relied upon. Many large office buildings in recent years have been placed on the market with rental schedules which have been adhered to almost without deviation. But the rental schedules of these buildings have been carefully and intelligently prepared. In the past, attempts have often been made to rent offices at a single rate for all space, regardless of its depth, frontage, height in the building or distance from the elevators, on the basis of first come, first served. Fortunately located buildings, put on the market under favorable conditions, have been successfully rented under this plan but the theory is not sound. Space is no more subject to a single rate or price, regardless of its quality, than is any other merchantable article or product. *(Continued on page 76)*

Architecture is changing from a creative profession..

AND

Clients are Responsible

•

An interview by
Leicester K. Davis with

ROBERT RODES McGOODWIN, A.I.A.

DAVIS

OCCASIONALLY I meet an architect who, as Navy men say, "grouses" over difficulties in dealing with clients. "It's getting so," one confessed to me the other day, "that when a new client comes my way, I begin to shiver at the prospects of trials and tribulations that are almost sure to lie ahead. Architecture is changing from a creative profession to I don't know what—and clients are responsible!"

All architects do not feel that way. A number whom I know are welcoming the modern seeker for architectural counsel as an altogether wholesome stimulus to the advancement of their profession. Robert Rodes McGoodwin, A. I. A., of Philadelphia, is one of them.

Mr. McGoodwin's work has for many years been with that type of client—the new home builder—from whom most often spring the difficulties and misunderstandings encountered in the relations of architect and owner. What he says impresses you with his knowledge, his love for his profession, his earnest desire to lend a hand in coödinating the practice of architecture smoothly and as effectively as possible within the swiftly moving social and economic forces of the day.

"At no period in the history of architectural progress have there been greater opportunities for architects and laymen to met in whole-souled coöperation," Mr. McGoodwin began the hour or so I spent in his office recently. "The problems of architecture have become those which require the layman's aid in solving.

"A change has come about in the relations of client and architect. Architects, a bit grudgingly sometimes, realize that a modern world, while acknowledging its need of them, demands that lay and architectural ideals and ideas be given equal consideration. The role of the architect has become re-creative rather than purely creative: re-creative in the sense that architecture must give full expression not only of the designer but also the 'self' of the family, business, industry, or institution which it is called upon to serve.

"THE man who contemplates the building of a house is insistent that it visualize his and his family's personalities and preferences, and no one else's. Failure of architect and client to contact each other with the mutual understanding and coöperation which makes this possible lies, I believe, at the root of most of the friction which arises in their relations.

"Until comparatively few years ago, design and its plans and specifications were matters on which few laymen felt capable of passing judgment. The architect's word was first and final authority. The practice of architecture became, almost automatically, a mild and altrusitic dictatorship. The architect knew architecture. His skill was acquired through apprenticeship and study. His appreciations were specialized and broadened by travel, by intimate association with architectural developments of which the average layman knew little.

"Even with responsibility thus thrust upon him unreservedly, there is substantial proof of how well the architect of two and more decades ago discharged his stewardships. It was his conscientious thoroughness that became the greatest stimulus, perhaps, the lay mind could have had in progressing (*Continued on page* 80)

EWING GALLOWAY

ART

The Temple of Love is the gem of an age when architecture expressed the artist

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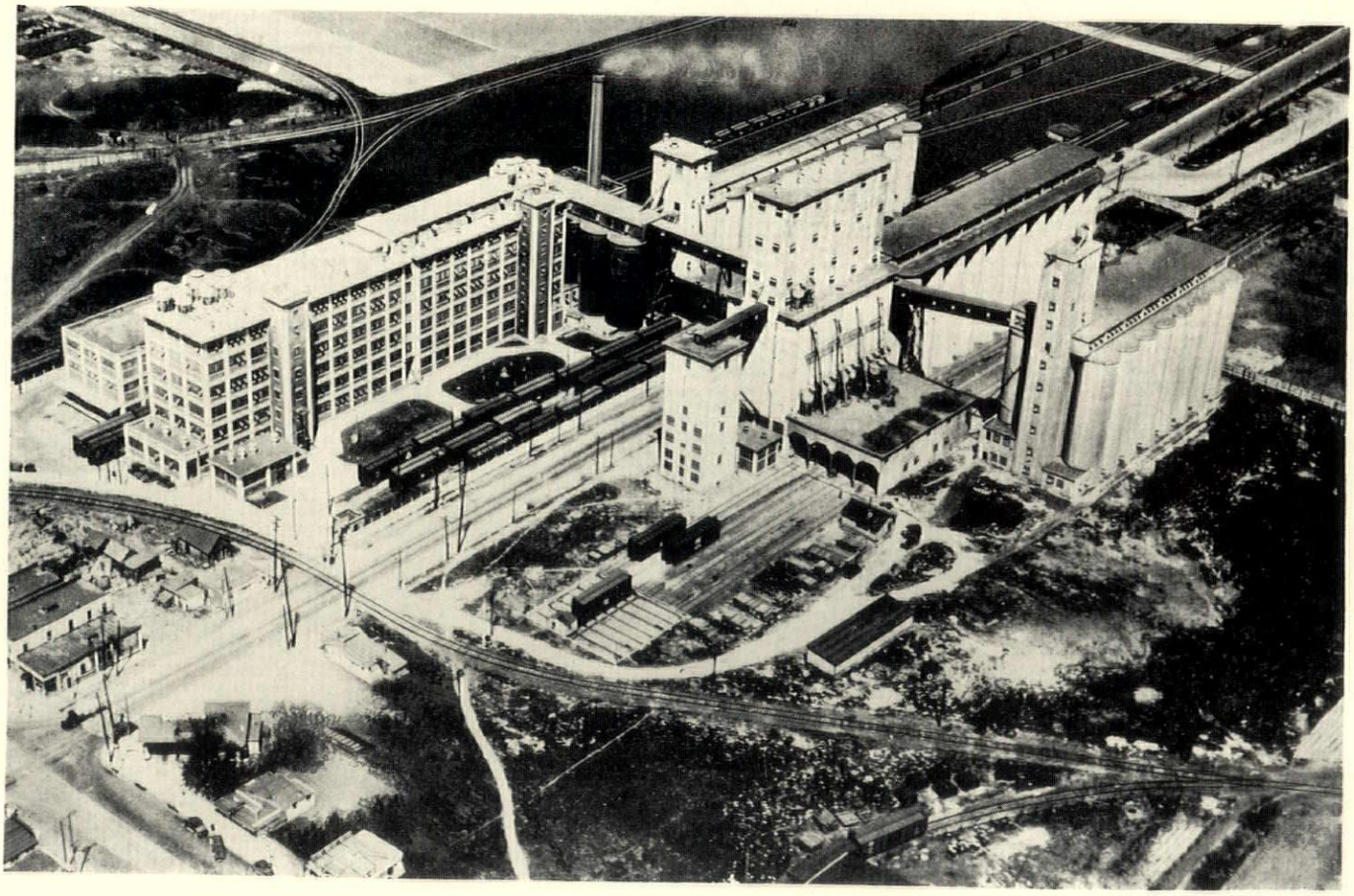
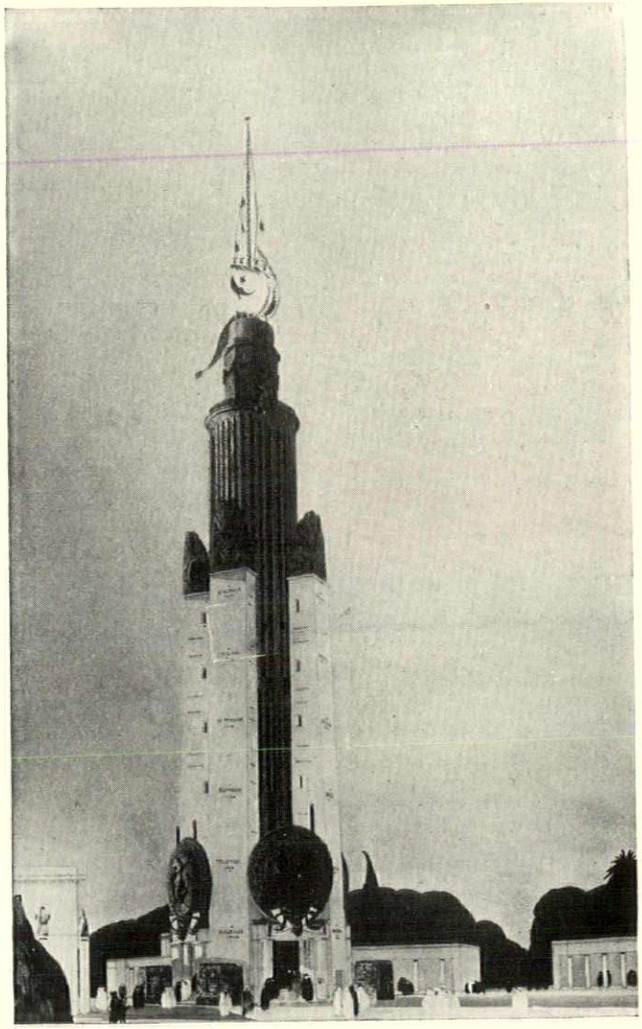
BUSINESS

But today architecture must express the personality of an Industry, a Business, an Institution, even a Family . . .



EWING GALLOWAY

WHAT ARCHITECTS



TOWER *to be built at the Boise de Vincennes, Paris, for the Colonial Exposition in* 1931. *The central shaft will be of bronze buttressed by four half columns on which will be inscribed names of French colonizers*

BUILDINGS in the Chicago World's Fair will be brilliantly painted in bold colors and some of the outstanding details will be covered with gold leaf. It is expected that the exposition will demonstrate as never before what can be done with large areas of brilliant colors. In the architecture itself, precedent will be abandoned to a large extent and conventional architecture thrown to the winds.

THE Brooklyn Chapter of the American Institute of Architects held an exhibition in October of the work of members of the local chapter in conjunction with the annual lighting exhibition of the Brooklyn Edison Company.

Bold Colors for Chicago's World's Fair

To Celebrate Fiftieth Anniversary of Skyscraper in 1934

Annual Competition for Steel Houses

CELEBRATION of the fiftieth anniversary of the birth of the skyscraper is to be held in 1934. The American Institute of Steel Construction is appointing a committee to consult with various associations in order to promote a fitting observance of the occasion. The Institute credits Chicago as the home of the first building, framed in steel in which the walls were supported by the structural frame.

IN order to encourage the building of residences in steel, the American Institute of Steel Construction will hold annual architectural competitions and will also publish approved designs for steel residences as well as disseminate general information on steel house design and erection.

AS an expression of their appreciation for his forty-two years of distingished service, students of engineering of the Alabama Polytechnic Institute, Auburn, Ala., have had made and hung in Ramsay Hall a life-sized oil painting of Dean John Jenkins Wilmore of the Auburn School of Engineering.

WHAT is said to be America's first windowless factory will be built for the Simonds Saw and Steel Company at Fitchburg, Mass. It is planned as a one story structure and will cover five acres, according to the Austin Company. Walls will be solid and sound resisting. The roof will have neither windows nor skylights. Lighting will be by means of 1,000 watt lamps arranged to provide uniform light intensity. Walls and ceilings will be painted blue, green and white. Machinery will be painted orange.

CINCINNATI will have an unofficial jury of architects, sponsored by the local A. I. A. chapter, to study plans submitted for building permits. The personnel of this jury will change each week and its object will be to improve the general character of architecture in the community, also to protect the investments of owners of existing buildings. Each plan submitted will be classified as "distinguished," "approved," or "disapproved," and copies of the jury's findings will go to the owner, the architect and to the newspapers.

ARE TALKING ABOUT

America's First Windowless Factory

Cincinnati Chapter A. I. A. Plans to Improve Local Architecture

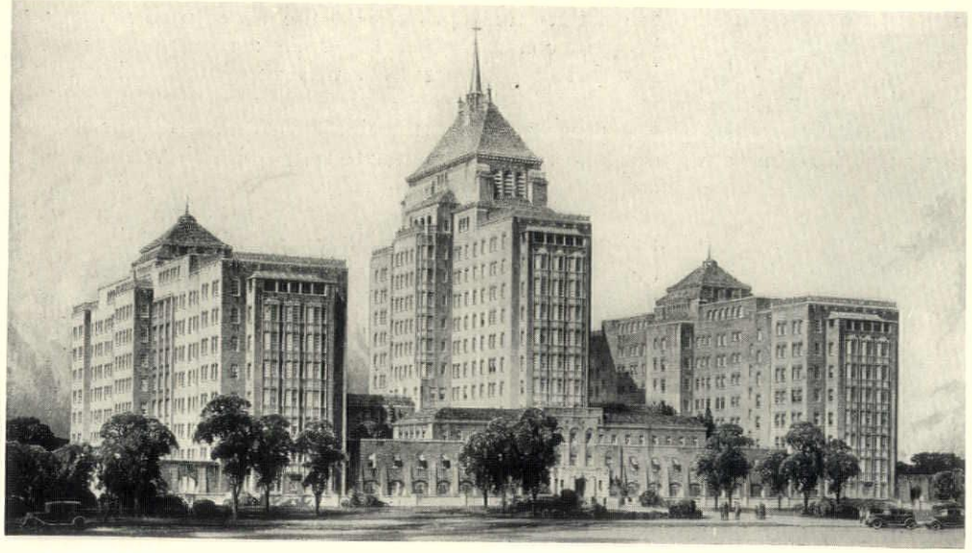
Maxim Perfects Noise Silencer

AN exhibit of the forthcoming World's Fair, to be held in Chicago in 1933, will be made at the Architectural and Allied Arts Exposition, to be held in New York next April under the auspices of the Architectural League of New York and the American Institute of Architects.

"WE have a number of residential structures where the frame work shows clearly how the architect has conceived the form of the front walls to harmonize with the steel," said Otto von Halem, director of the Beratungsstelle fuer Stahlverwendung in addressing the recent convention of the American Institute of Steel Construction. "Clearer still, the architecture of churches shows the transition from the old styles of such buildings to a new and characteristic architecture developed from the steel framing."

HIRAM P. MAXIM has announced the perfection of a device to prevent noise from entering rooms through the ventilating spaces. A successful demonstration was given at a meeting of the Board of Directors of the Hartford National Bank and Trust Company. In order to install the silencer, the window is opened, the silencer, which is five inches wide, is slipped into place, and the window then closed on the frame holding the device. An electric fan, which is part of the silencer, may be used to bring air either into the room or exhaust it. It is said that orders have been received for installations in the Chrysler Building and several large New York hotels. (*Continued on page* 90)

POSTER COMPETITION, *Chicago World's Fair. First prize design, by William Welsh*



KINGS COUNTY *Hospital, Brooklyn, New York. Leroy P. Ward, Inc., architects. Hand made brick in a range of sunny colors adds to the distinction and effectiveness of the brickwork on this public building*

. . As It Looks

Three Christmases Each Year

NO less than three Christmases are celebrated each year at the birthplace of Christ—the Grotto of the Nativity in the Basilica of the Nativity in Bethlehem. This is one of the oldest if not the oldest church in Christendom, having been built by Constantine in 330 A.D. Below the altar is a silver star, marking the spot where Christ was born. Above this star are sixteen silver lamps which are always burning: six Orthodox, four Latin, and six Armenian. Each of these rites has the privilege to worship in the Grotto and each celebrates its Christmas there. The Latin or Western church celebrates its Christmas on December 25, the Orthodox or Eastern church on January 7, and the Armenian on January 20.

Windowless Buildings

A NEW artificial sunshine is being experimented with by engineers of the General Electric Company. It is expected that the results of these experiments will make a windowless office building possible. Should they be entirely successful, there will result as astonishing an upheaval in design as attended the introduction of steel construction, particularly in industrial work. But will man, particularly in an office building, even be content to be shut off from a view of the outside world?

Human Nature Is Reasonable

DOWN in Alabama, an owner of a large estate enclosed his property with a wire fence. The fence was soon covered with beautiful climbing roses. At frequent intervals signs were erected prohibiting the picking or cutting of the flowers under penalty of the law. Few persons could resist the impulse to carry off sprays of roses. The owner replaced the signs with others requesting that passersby refrain from picking the flowers, so that others could enjoy them. Now, no one thinks of carrying off the roses. The perversity of human nature is a factor to be reckoned with. And how quickly human beings respond to a reasonable suggestion.

Consult a Builder

IT is difficult to imagine any one entering into a building operation without consulting a builder. So when a prominent magazine edited for builders offers the slogan "Consult a Builder," it has the appearance of advice intended to "short circuit" the architect. Does "Consult a Builder" indicate an ulterior motive on their part, since architects representing the owner insist upon good materials, sound construction and competitive bidding? The editorial states in part, " . . . . Thousands of dollars could be saved and much more satisfactory results secured if those 'about to build' would first consult a builder. . . . . Hammer that slogan home to the public, and the position, influence and business of builders will be still further strengthened. . . . . " Will advice of this nature help the cause of architecture in America? Will it give the American public the kind of homes and buildings it ought to have? If the facts were generally well known would it strengthen the builder's position?

Gas Station Architecture

THE Chamber of Commerce of Knoxville, Tenn., co-operating with the architects of that city, approached the owners of gas stations with an offer to aid them in the improvement of the appearance of their stations in order to improve the appearance of the city. The reply of the gas station owners was to the effect that they considered the stations entirely satisfactory as they stand. Here is an opportunity for public education in the value of good architecture that should interest every community in the United States.

In the Relief of Unemployment

A MOVEMENT is on foot in New York to inaugurate a five-day week for architects' offices as an employment relief measure. A few offices have temporarily resorted to a four-day week. While this is in effect a wage reduction, it has the beneficial effect of continuing the employment of many who would otherwise be obliged to seek employment elsewhere. It has an advantage to the individual offices through retaining the organization intact in anticipation of work, at present delayed, being authorized to proceed. It is a relief measure that can be put into effect everywhere.

Architects Study Unemployment

ON November 13, 1930, a group representative of architectural interests in Metropolitan New York met to discuss the existing unemployment situation as it affects the architectural profession, the building industry and business conditions generally. As a result of this meeting, Julian Clarence Levi was appointed acting chairman to organize an emergency committee to analyze the situation and determine what steps the profession can take locally to stimulate renewed activity in building construction as a means of relieving unemployment. It is believed that directing attention to this matter locally through a relatively small group will produce results more quickly than would be the case with a cumbersome national group.

This action by New York architects is timely. They have gone about it in a direct and sane manner that should be fruitful of results. The same idea can be put into effect with little effort and loss of time by groups in every locality. A large number of such emergency committees have vast potential possibilities in the reorganization of the building industry into a going concern that can quickly help to renew prosperity.

to the Editors . .

Uniform Accounting Systems Urged

UNIFORM office accounting systems for architects' offices are highly desirable. To adopt such a system would fill a long felt need and would automatically establish more nearly uniform fees for various classes of work. When more architects know their true costs of producing drawings and supervising construction work they will be more eager to maintain a fair and reasonable fee. A uniform system would permit an exchange of cost information between offices that would be based upon the same conditions and thus possess tangible value. The installation of a uniform cost accounting system in all offices throughout the State of Tennessee has been recommended by the Committee on Cost Finding and Accounting of the Tennessee Chapter of the Institute. It would be a good idea if every architect in the United States gave this matter serious consideration.

Church Memorials

WHY should churches be desecrated by ill-considered memorials? Kind hearted people often make donations that, collectively, tend to spoil the architect's original conception. A New York church has found an excellent way to handle such gifts. An architect was commissioned to make pencil sketches of a number of suitable memorials; estimates of cost were then prepared. These sketches were then given to a committee. Whenever somebody wants to donate a memorial, a selection is made from among these sketches. What could be simpler?

Who Is Santa Claus?

SANTA CLAUS, that legendary and jolly figure who dominates and inspires our Christmas sentiment, some time in the middle ages fused into and became one in the popular mind with Saint Nicholas. This giftful saint, a fifth century Bishop of Smyrna, was the patron saint of all children, scholars, lonely travelers, merchants and countless others whom he had befriended. His generosity was proverbial and he is credited with many kind deeds, most of which were anonymous and many of which were miraculous. For instance, he heard of a noble family which had lost all its money. On each of three successive nights, he took a purse of gold and dropped it through a grating in the nobleman's house, thus providing each of the three daughters with a dowry so that they could marry. Hence, and because of his kindness to a pawnbroker which made him the patron saint of that clan, the three balls in front of pawnbrokers shops. Since St. Nicholas is the patron saint of Russia, it is likely that tradition borrowed his garments from that country so that, as it has been phrased, "we have an Asian saint, clad in a Russian blouse, trousers and boots, arriving on our housetops in a strictly Scandinavian vehicle."

Art Director For Manufacturer

THE commercial advantage of beauty is emphasized by the announcement of the Westinghouse Electric and Manufacturing Co. that it has appointed Donald R. Dohner as Director of Art. This appointment has as its aim the improvement in appearance of electrical machinery and Mr. Dohner will co-operate with the engineering department in designing electrical apparatus with due regard to artistic principles as well as mechanical excellence. A course for the company's designers and engineers is planned in order that they may work with a more intelligent appreciation of beauty.

Pipes on Decline

SINCE architects number so many devotees of the lowly pipe, the fact that this method of smoking tobacco is on the decline may be of interest. Last year, production of pipes showed a decline of 25.1% as compared with 1927, which year was less than 1925, and 1925 was less than 1923. The humble corn cob accounts for 10% of all the money spent for pipes.

Advertising Campaign Planned

THE Tennessee Chapter of the American Institute of Architects at its annual meeting held at Knoxville October 24, 1930, passed a resolution pledging its continued efforts to promote publicity for the building interests of the State of Tennessee. This chapter plans to secure sufficient financial pledges to enable it to secure the services of an advertising agency to make a market analysis and develop a concrete plan for a campaign to sell architectural service to the public. The plan is to be developed with the anticipation of placing the campaign in operation when conditions in the building field warrant the expenditure and will accomplish the best results.

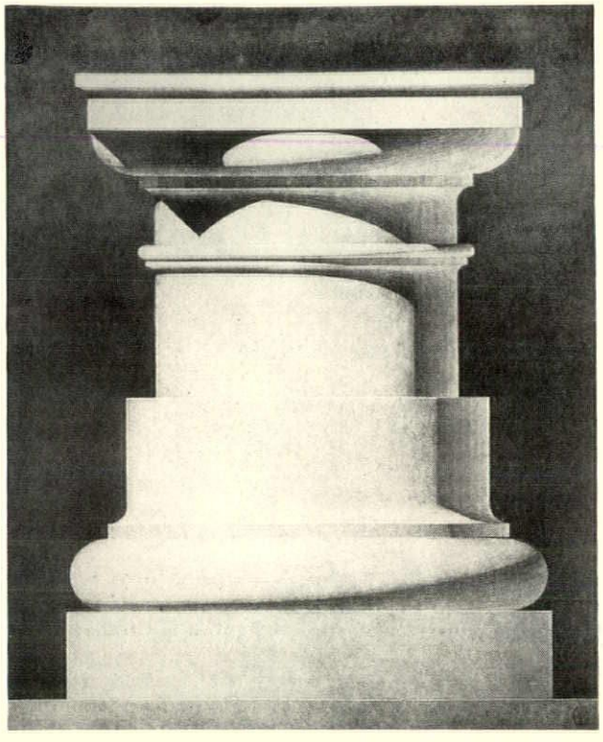
To Get More Business

ARCHITECTURE and root beer may be far apart, but the business principles affecting both are the same. Hence this story. The Charles E. Hires Company has been making root beer since 1875 but of recent years found that its sales were not keeping up with the increasing population. So a sampling and advertising campaign was started. The result—net profits of $224,000 in 1927; $414,000 in 1928; $620,000 in 1929; and an estimated $875,000 for 1930. If Hires had not carefully thought through their campaign, it would have been a failure, for advertising cannot produce unless it is basically sound. So with campaigns conducted by architects; those carefully thought out will be successful, others will be merely an expense which the profession can ill afford.

ARCHITECTURE
ALLIED ARTS

BOOKS

ENGINEERING
BUSINESS ECONOMICS



A Tuscan column. From "Shades and Shadows for Architects"

Shades and Shadows for Architects

By Richard S. Buck, Jr., C.E., B. Arch.; assisted by Wilbert C. Ronan, C.E. in Arch., B. Arch., and Galen F. Oman, B. Arch. Eng., B. Arch.; edited by Thomas E. French. Published by the McGraw-Hill Book Company, Inc., New York. Illustrated; indexed; 134 pages; size 9¼ x 12¼; price $3.

THE principles and problems of drawing shades and shadows and the methods of solution most practical for actual presentation use are given in this book. It is formulated on sound pedagogical principles. Mr. Buck is assistant professor of architecture at the Ohio State University, as is also Mr. Oman, while Mr. Ronan is professor of architecture and Mr. French is professor of engineering at that University.

The authors have assembled those graphical problems which constantly arise in architectural work with the solutions which are actually used on presentation drawings. Only those solutions based on the simplest procedures of descriptive geometry have been used. All are designed to use the minimum number of construction lines; accurate curves are sought by the use of guide tangents and a thorough knowledge of the character of the line rather than by multiplying plotted points.

After the two introductory chapters, each chapter deals with one of the basic methods. Each general discussion is followed by a group of problems employing the method. The book is divided into titled or numbered sections with subheads to facilitate reference in the solving of any particular problem with which the student may have difficulty.

Perspective Projection

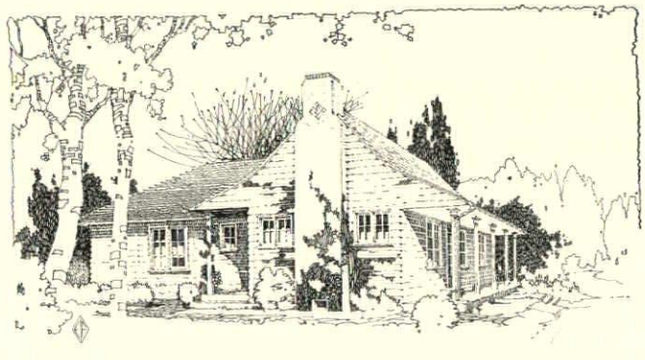
By Ernest Irving Freese. Published by the Pencil Points Press, Inc., New York. Illustrated; 54 pages; size 9 x 12; price $1.50.

MR. FREESE, a well known architect of Los Angeles, presents a new method of making perspective drawings without the use of a vanishing point. The entire work may be done within the confines of an ordinary drafting board or table with T-square and triangles, no extra equipment being needed. The idea is based on ordinary applied geometry rather than upon the theory of optical phenomena.

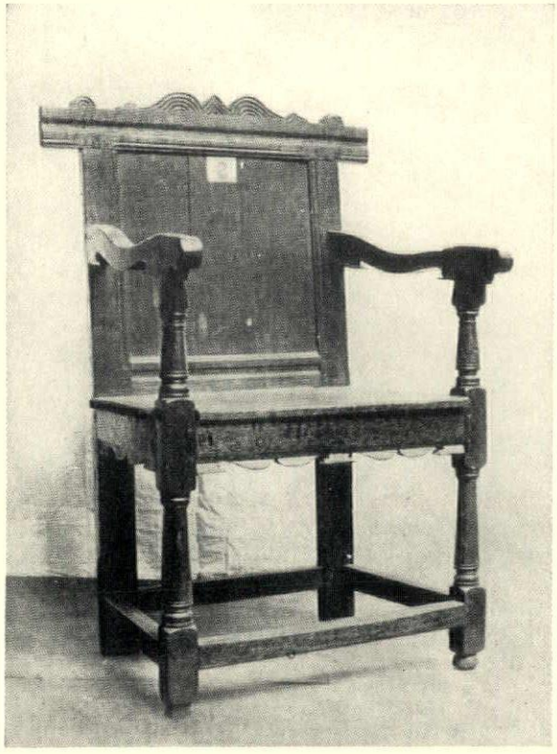
The system has been used for many years by Mr. Freese, and also by men to whom he has taught it. No knowledge other than ordinary drafting ability is needed, and the idea can readily be grasped by an intelligent person in less than five minutes study of the first chapter, which is concerned with straight line figures. Another chapter is concerned with curved line figures. After explaining the idea thoroughly, the author explains "expedients" or quick methods of using the system; and enlargements and reductions, domes, foregrounds, and interiors. There is a chapter devoted to the author's drafting room method. This entire part of the book occupies 43 pages. The rest of the book is devoted to sketches which have been made by this method.

Mr. Freese is an excellent draftsman and the drawings illustrating the system are unusually well done and easy to understand. He writes well and expresses his thoughts clearly and concisely.

This is a book that will not only prove invaluable to the student draftsman, but also to more matured draftsmen and architects who find their present method of making perspective drawings either cumbersome or lacking in verity.



A new and easy method of making perspective drawings was used in the rendering of this sketch by the author. From "Perspective Projection"



Governor Edward Winslow's Chair. From "Early American Furniture Makers"

Early American Furniture Makers

By Thomas Hamilton Ormsbee. Published by Thomas Y. Crowell Company, New York. Illustrated; indexed; 183 *pages; size* 6½ *x* 9¾; *price* $3.50.

"FREQUENTLY we forget that our Early American Furniture was once new. We overlook the fact that it mirrors the economic, social and political conditions of the time when it was made. It also bespeaks the character of the men who produced it. If this book gives its readers a glimpse of these conditions and something of the personality of these practitioners of the cabinet-making art, the author will have obtained his goal."

That extract from the book gives the spirit in which it was conceived, for the author is more concerned with the artisans and their times than he is with types of early furniture. The book is well illustrated and interestingly written. It contains, as a section, a pictorial outline of American furniture. It also has a chronological list of American furniture makers and clock makers. There is a chart listing furniture in England with that contemporary in the United States and including a list of the important historical events that took place during those periods.

Weld Design and Production

By Robert E. Kinkead. Published by the Ronald Press, New York. Illustrated; indexed; 108 *pages; size* 6 *x* 8½; *price* $4.00.

THIS book is an attempt to organize the available information on welding in such a fashion as to make it easy to use. It is intended not only to bring together the basic information on welding, but to so arrange it that every new fact may be valued and given its proper relation to other facts. It covers safety in welded structures, how welds are made, physical properties of welds, effect of physical conditions on weld behavior, requirements for a constant result, machine welding, etc.

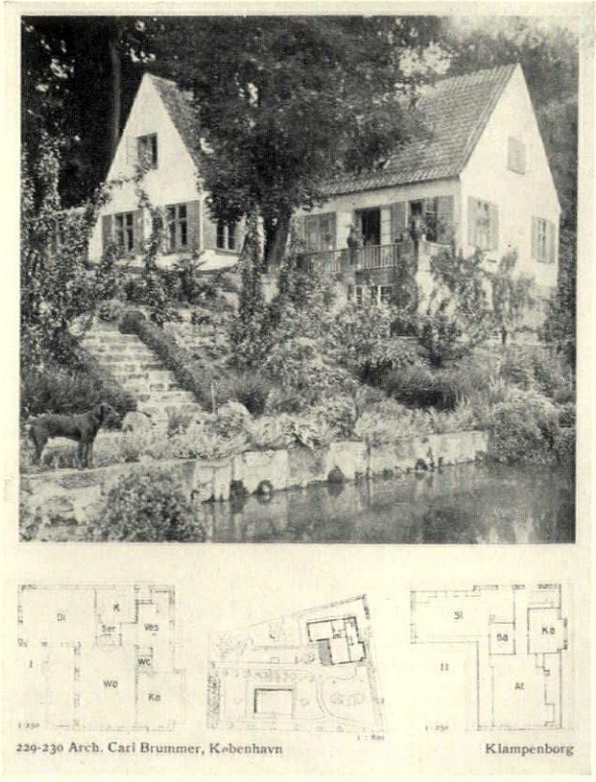
Moderne Villa's en Landhuizen in Europa en Amerika

Edited by Prof. Ir. J. G. Wattjes. Published N. V. Uitg.-Mij "Kosmos," Amsterdam, Holland; American agent, D. Jos. Van Riemsdyck, 139 *Dyckman Street, New York. Illustrated; indexed;* 161 *pages; size* 9½ *x* 12½; *price* $10.

"MODERN Cottages and Country Houses in Europe and America" is a collection of photographs and plans of houses of the type indicated by the title and including those built in France, Switzerland, Austria, Hungary, Czecho-Slovakia, Germany, Finland, Denmark, Sweden, Norway, England, Belgium, Holland and the United States.

Prof. Wattjes, in making his selection, seems to have done so with the idea of indicating the range of types in each of the various countries. The contrast, in many cases, is remarkable. The extreme modern is shown as well as more conservative designs.

The book is arranged in sections, each section being devoted to a different country. There is an introduction translated into several languages, including English. It forms a very interesting collection of its kind.



A house at Klampenborg, Denmark, Carl Brummer, architect. From "Moderne Villa's en Landhuizen in Europa en Amerika"

THE READERS Have a Word to Say

CONTRACTOR ADVERTISES ARCHITECTS

Editor, THE AMERICAN ARCHITECT:

You make frequent reference to the policies of manufacturers regarding their efforts to advertise the architect. I have not as yet read any articles in which the contractor goes out of his way to promote better architecture and business standards.

We have in our valley, comprising the eastern part of Los Angeles County, California, a contractor who has unceasingly pushed the architects more than they have ever taken the trouble to push themselves.

He starts with an article published in the paper, regarding the house to be built by him from such and such architect's plans, making reference always to the economical way in which drawings prepared by architects work out. He follows this up with road signs and signs at the site of building, one side giving his name and his A. G. C. seal, the other side reading "Employ a Certified Architect—It Pays." Half his money spent on advertising is spent on behalf of the architects, as the side of the sign refering to architects makes no reference to himself in any way.

Recently the architects have woke up and are asking him to figure the work which they have in his territory. In fact he does no work unless it is from a certified architect's office.

Are there many contractors doing similar things to stabilize the building industry from a business and ethical standpoint?—*George L. Kendrick, draftsman to a certified architect, 794 East 4th St., Pomona, Cal.*

TO GET MORE BUSINESS FOR ARCHITECTS

Editor, THE AMERICAN ARCHITECT:

I am intensely in accord with the attitude that you and your lively publication are taking on "selling architecture to the man-in-the-street."

The man of "big-business" already has, through his own efforts and initiative, acquainted himself with the value of our services in spite of our reluctance to advertise; since this type of men are the leaders in all large projects we find the architect placed in his proper sphere on such undertakings. It is the average man who builds a home or sits on a school board or building committee for some social, municipal or county project that is sadly uninformed and misinformed, and to me this man is the "average layman" and he plays a vital part in the vast majority of building in this country of ours.

Just a few short years ago the term "architect" conjured up in the minds of the average laymen a fellow who draws blueprints and pictures of buildings. They had not the slightest idea of what constituted the duties, trials and tribulations of an architect except that in some vague, mysterious way he had something to do with building and received fabulous sums of money for these blueprints and pictures from anyone foolish enough to buy them. The contractor always built the building in spite of the architect and to him all credit was due. Some indiscreet contractors have capitalized on this impression and we have done nothing to correct it or to place ourselves in our proper place in the public's eyes. Our silence has appeared as an admission of the apparent correctness of this impression.

In support of this situation we see the great popularity of the so-called "free plan" idea fostered by so many building organizations and the "un-understandable" and detrimental practice of many newspapers, especially locally, the Detroit Free Press, in maintaining a plan service where complete stock plans and specifications can be purchased by mail for as little as $15.00.

Is there no way that people can be brought to understand that they are paying for plans whether they think so or not and that nearly always the net result of this system is waste and other undesirable features that in the end cost more than a competent architect's services without the gratifying results thereby obtained? The contractor tells them that he will furnish plans free, but you and I know that he has paid somebody something for drawing them and the cost is included in his figure on the job; since the plans are his, competition has been stifled and the unhappy owner takes whatever the contractor wants to give him for his money and makes him like it, which usually amounts to about 75% of full value, the balance being credited to financing fees and what not, if not and why not.

Another practice employed by some builders is the "low estimate catch." This is a serious proposition for an honest architect to bump up against and until the average layman is better acquainted with architects and architecture I see no way to overcome it. I have had prospective clients come in and give me a crude sketch of what they want to build and one of the first questions is, "What do you think this will cost?" When I give them an honest approximation of what the cost will be, they are horrified and tell me that John Jones or Henry Smith or some other contractor has already said he will build it for about 20% or 30% less and out he goes with the idea that architects are either crazy or else they will add a lot of needless expense to his job. Of course when the job is done experience has taught its lesson, but it is a long, long time, if ever, before this same man builds again.

Dignity is a very becoming virtue but bread and butter are infinitely more nourishing. We as professional men are dealing with men who can think and talk only the language of commerce, men to whom a home is usually an investment very little different than the equipment or buildings in their particular lines of endeavor and it

is a mistake to think that they do not apply the same sort of reasoning and calculation to the building of their homes, stores and offices. This reasoning is flavored strongly by what they have learned of advertised products and methods. Time, money, comfort and convenience are the prime factors and appearance is an afterthought, or at best of secondary importance as long as it is not offensive.

Advertising has really become the educational medium of the average adult. Advertising moulds his desires, his opinions, and it supplies nine-tenths of the facts upon which he draws his conclusions and in many cases even draws his conclusions for him.

The architectural profession has leaned backwards in its contempt for advertising, while others have realized the vital necessity for advertising and have taken advantage of it. They have acquainted the public with the intricacies of their particular line of work. Would anyone question the dignity of the Steel Industry, the Automobile Industry, our Public Utilities, the Press, our Banking Institutions? These institutions spend millions of dollars annually to give the man-in-the-street a very definite idea of the part they play in his life, comfort, welfare and prosperity by giving him no end of data regarding their business methods and glimpses of the inner workings of their various units. He learns what functions they perform and how they perform them and can see the benefits thereby to be derived by employing them or their products measured in dollars and cents which, after all, is the one language that has the loudest voice to our fictional, yet very real man-in-the-street.

He must know what we do, how we do it, why we can save him money and make his life more comfortable and how and why he should employ our talents, before he will give us a chance to direct the investing of what, in most cases, is his life's savings.

To some of our largest firms this rambling discourse would no doubt sound like the ravings of small fry because their clientele has been established by years or by luck or by good work done and this subject to them is not even interesting. But there are many, many architects throughout the small towns in this land of ours who are capable, intelligent, and, if given the opportunity, could no doubt turn out monuments equal to anything yet produced, and to us this is a real problem that requires the attention of the profession as a unit and since it takes more clever heads than mine to figure it out, I can only hope and help as much as possible.

Perhaps this view of the situation may give you a thought that is a bit different from the rest and if your patience has carried you as far as this, I thank you.—*Edwin W. Byers, Architect, Flint, Mich.*

ST. LOUIS CHAPTER PASSES RESOLUTION ENDORSING "CONSULT AN ARCHITECT"

Editor, THE AMERICAN ARCHITECT:

Your letter of September 24, 1930, was received in due time, but return has been delayed as we wanted to place this entire matter before the St. Louis Chapter American Institute of Architects. Undoubtedly you are familiar with the resolution that was passed by the American Institute of Architects when this matter was presented to the Board for consideration. That you may have ready reference the reply received from the Board is quoted.

"*Resolved,* That the St. Louis Chapter be advised, in answer to its inquiry, that the Institute has given its endorsement to the principle of organized publicity in the hope of developing a larger public appreciation of the cause of good architecture. It is gratefully aware that many agencies in various ways and with admirable public spirit are assisting this interest. To single out a particular one of these for the official approval of the Institute would seem to the Board, however, invidious and unfitting. (152-B-5-30)"

At the meeting of the St. Louis Chapter held on September 30, 1930, I was instructed to advise you that a resolution had been passed a copy of which I am enclosing for your records. This I believe disposes of the matter so far as our Chapter is concerned.

If we can be of any further assistance to you we will be glad to do so.—*P. John Hoener, Secretary, St. Louis Chapter A. I. A.*

Resolution adopted by the St. Louis Chapter, A. I. A., at its regular meeting held September 30, 1930, and to be forwarded to the American Architect.

Resolved, That it is the sense of this body that the use of a slogan as suggested by the "American Architect," such as or similar to "Consult an Architect," when used in connection with the advertisements of building materials, will be of assistance in the developing of a larger public appreciation in the cause of good architecture, but it is further

Resolved, that in the endorsing of a slogan the St. Louis Chapter American Institute of Architects, fully appreciating the splendid spirit of co-operation shown by many manufacturers, does not imply or suggest a compulsory or mandatory use of any slogan.—*Wilbur T. Trueblood, President, P. John Hoener, Secretary.*

CHICAGO CHAPTER ENCOURAGES USE OF "CONSULT AN ARCHITECT"

After discussion, the Executive Committee was of the opinion that this matter should receive encouragement, but did not take official action relative to the same. —*Carl E. Heimbrodt, Secretary, Chicago Chapter, A. I. A.*

HAVE ADVERTISED FOR FIVE YEARS "CONSULT YOUR ARCHITECT"

Editor, THE AMERICAN ARCHITECT:

For the past five years, the Chicago Faucet Company has featured "Consult your Architect" in its Chicago Sunday Tribune advertising.

We feel that people who want proper advice on a building should go to an architect, just as they would go to a doctor or a dentist or a plumber for specialized service.

It is our intention to continue urging the public to consult an architect on both new and remodeling work.—*C. H. Bishop, Advertising Manager, the Chicago Faucet Company.*

If the owner says . . .

"WE WANT YOU TO DESIGN THE BUILDING"

Is it a contract?

BY GEORGE F. KAISER, LL.B.

WHAT HE DID. Brown, president of a corporation, had numerous conferences with an architect by the name of Archer concerning property which the corporation desired to buy. When the corporation finally bought the property, Brown, who had contemplated and agreed to have Archer do the work, wrote him that the corporation had its own architect who did all its chain store work and deemed it advisable to have its regular architect do that particular job.

WHY HE DID IT. Brown thought that, as there was no regular written agreement between Archer and the Corporation, he was privileged to employ whoever he saw fit to do the work.

WHY HE SHOULDN'T HAVE DONE IT. The Court said that Brown shouldn't have employed another architect but should have permitted Archer to do the job even though there was no written agreement between Archer and the Corporation, and on the Corporation's failure to do this, Archer was entitled to damages for the breach of his oral agreement, when he had accompanied Brown to another city to look at a site. It was not disputed that Brown had enjoined Archer to look after the corporation's interest in the sale, and that the architect's fee of six per cent for plans, superintendence, letting of contracts, and looking after surveys, had been discussed and agreed upon between them verbally.

what incompetence is ground for revoking license?

WHAT HE DID. When the State Board moved to revoke Hearn's license to practise as an architect under the State Law on the ground of gross incompetency and recklessness in the construction of a building, Hearn, of course, sought for some way to defeat the Board in its attempt to deprive him of his license. After consultation with attorneys, Hearn finally decided to meet the Board's action with the claim that the Act under which it was proceeding was void for uncertainty, because of its failure to define the terms "gross incompetency and recklessness."

WHY HE DID IT. Hearn was afraid to face the facts alleged in the complaint against him. By resorting to a technical defense he hoped he would be able to invalidate the charge made against him without having to face the facts alleged against him.

WHY HE SHOULDN'T HAVE DONE IT. The Court, on dismissing Hearn's claim, said that the words referred to clearly implied that the license should not be revoked for trivial causes. Whatever action or conduct of an architect brings him within the meaning of those words, must be left to the sound discretion of the State Board, because it is a practical impossibility to set out in detail, in a statute, every act which would justify the revocation of a license, although, of course, it must be some act or conduct which in the common judgment would be considered grossly incompetent or reckless. So Hearn lost his license.

» » » » » PERMANENTLY BEAUTIFUL

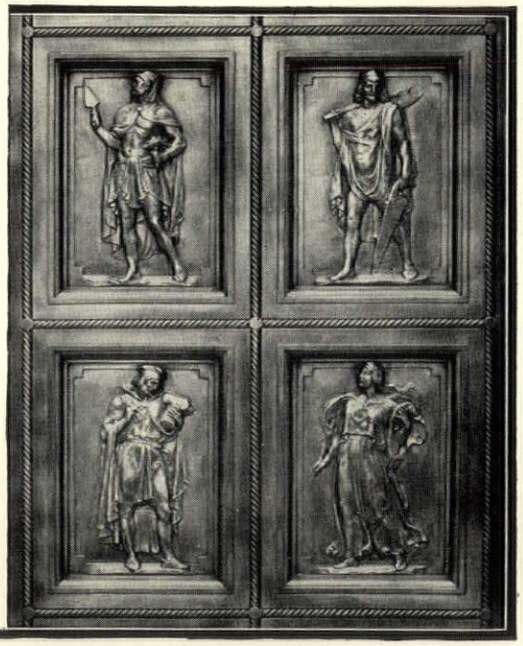
This doorway of cast BRONZE

THE FIDELITY-PHILADELPHIA TRUST BUILDING

The doorways of the three entrances again show how faithfully bronze can represent the architect's and sculptor's creation. The bronze doorways are rich in sculptural detail—yet the total effect is architecturally harmonious.

The doors are modeled in low relief and finished in medium statuary patine. The entrance screen above the doorways is ornamental bronze and imported cathedral glass —specially treated to subdue light. The leading is repoussed and gold leafed. The colonettes, cheneaux, and lanterns are also cast in bronze and modeled in low relief.

Architects . . . . . Simon & Simon
Sculptors . . . . . Piccirilli Bros.
Contractors . . . . . Irwin & Leighton



Above is shown a detail from the bronze doorway. In 24 panels is depicted an allegory of the evolution of civilization and commerce.

"DISTINCTIVE PRODUCTIONS IN ALL METALS"

GENERAL BRONZE CORPORATION

480 HANCOCK STREET · LONG ISLAND CITY, N. Y.

NEW MATERIALS & EQUIPMENT

BRIEF REVIEWS THAT MAKE IT EASY TO KEEP IN TOUCH WITH THE PROGRESS MADE BY PRODUCERS

New Style Gas Fired Heater

The Unit-or is a new type of gas-fired heater, made in three heights, manufactured by the American Gas Products Corporation, Chrysler Building, New York. An inner jacket directs the heated air through a grill in the front cover of the appliance. It can be operated with or without thermostatic control, and can be used with or without a vent. The cover comes in either grained walnut finish or a dark green crystalline enamel.

Unit Heater

The Buffalo Forge Company, Buffalo, New York, has introduced a new model B Breezo-fin unit heater, which is of the small suspended type. It is made in eight sizes, permitting a selection for size, air capacity and room temperature. The heaters are suitable for any steam pressure from 2 lbs. to 250 lbs.

Shower Fixtures

The Bradley Washfountain Co., Milwaukee, Wisconsin, announce the addition of the Bradley "5-in-a-Group" shower, to their line of group washing fixtures. The new group shower is circular in shape, and accommodates five users at one time. A new type of mixing chamber concealed in the central standard allows tempering of water at any pressure. Valves are placed in each of the five compartments, and operate independently of each other and, due to a new reservoir construction, greatly minimize the danger of sudden change in water temperature when an adjacent valve is open.

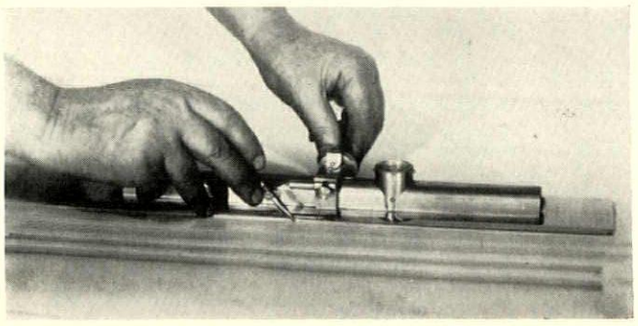
The fixture is lacquered in green Duco finish. No receptors are required, a slight pitch to the finished floor carrying away all water down the central drain. The show is completely piped at the factory, requiring but three connections on the job: the hot and cold supply lines and drain.

Bronze Steam Valves

Jenkins Bros., 80 White Street, New York, have placed on the market a new line of standard bronze valves. They are made in globe, angle, cross and check types for all standard services. There is a one-piece screw-over bonnet in combination with the slip-on stay-on disc holder which is declared to be an entirely new departure in bronze valve design.

Small Size Washer

A new washer called the "Apartment," made by Altorfer Bros. Company, Peoria, Ill., is designed for use wherever space is limited. It occupies a space 20 inches square, but has a full 18-inch porcelain tub which is lowered by a simple ratchet arrangement so that the machine may be stowed away beneath a table or in the corner of a closet when not in use. The washer has forty pounds per hour capacity, is aluminum encased, and has a soft-roll manual dryer and single switch control without levers. All mechanism is enclosed.



New Drafting Instrument

A rolling parallel ruler for use where accuracy of spacing is required has just been placed on the market by the Alpha Instrument Company, 2103 K Street N. W., Washington, D. C. This ruler is in itself a micrometer and, with ordinary care in operation, the spacing is said to be made with an accuracy well within one 1-1000 of an inch. For a great variety of work, the ruler may replace the T-square, scale and dividers.

IMPERIAL Hand Made Shingle Tiles were chosen to roof this picturesque clock tower and other buildings on the place of Mr. Leonard C. Hanna, Jr., Mentor, Ohio. Robert O. Derrick, Inc., were the architects.

SEE OUR Catalogue in SWEETS

LUDOWICI-CELADON COMPANY

Makers of IMPERIAL Roofing Tiles

NEW YORK: 565 FIFTH AVENUE — 104 S. MICHIGAN AVENUE, CHICAGO — WASHINGTON: 738 FIFTEENTH ST., N. W.

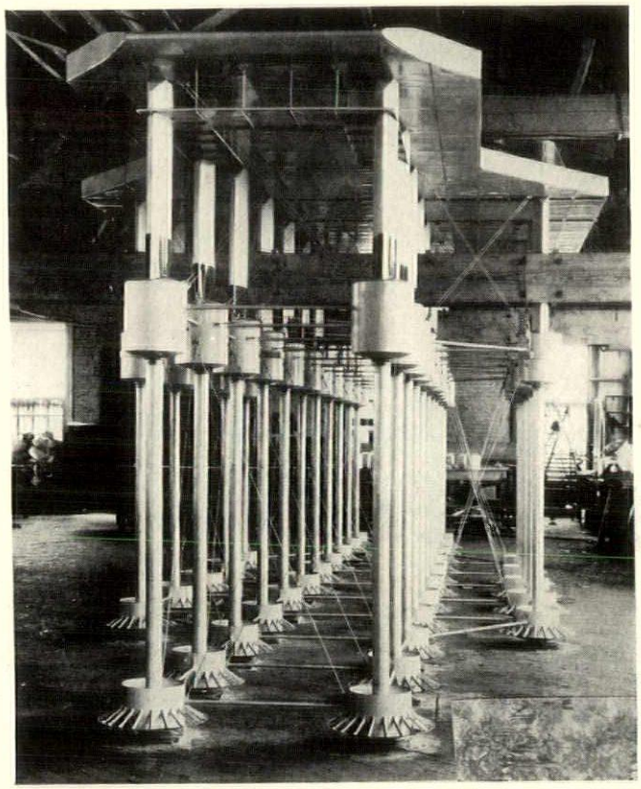
Man-Made Islands

(*Continued from page* 31)

buoyancy tanks with the deck; the ballast, ballast tanks and ballast tank columns under this condition being supported by the buoyancy of the ballast tanks.

The structural weight totals some 17,500 tons. Soft steel is the principle construction material, used with riveted joints, the single exception being the deck plates, which are welded. Special rivets of copper and steel alloy are specified in all situations directly exposed to sea water to minimize corrosion brought about by electrolytic action.

Decks and bulkheads divide the buoyancy tanks into 7 watertight compartments, a total for the whole structure of 224 subdivisions, thus insuring adequate buoyancy under all conditions. An electrically driven bilge pump is provided in each buoyancy tank to drain seepage water from any compartment. Provision is also made to use compressed air to clear any compartment of water should it be necessary. Either the bilge pump or the air system is used to maintain the desired water line displacement and trim. Any compartment is accessible from the inside for maintenance and repair, special paints being ordinarily used to inhibit corrosion.



MODEL *of Seadrome built at a* 1/32″ *scale and tested in Chesapeake Bay. The completed structure will be* 1,000′ *long,* 340′ *wide, have a deck* 70′ *above sea level, and require* 17,500 *tons of steel and iron. Displacement,* 40,000 *tons*

The streamlined columns, connecting the deck with the buoyancy tanks, are made of iron, because investigation has shown that iron is very resistant to corrosion by salt water. The record of longevity of iron sailing ships establishes beyond question that iron, for all practical purposes, will last indefinitely in sea water. According to Lloyd's Register of Shipping, there is a total of 163 iron sailing ships still in commission, all of which are over 40 years old.

The Brasher Air Breakwater system will maintain a safety zone 250 feet by 600 feet astern of the seadrome. In this unique system compressed air released from submerged perforated pipes effectively breaks up all wave motion throughout the safety zone. The rising air bubbles break up the wave formation, thus reducing a sea dangerous to large ships to a condition of minor turbulence in which a rowboat can navigate. This will make possible the transference of supplies to the seadrome under practically all weather conditions.

The anchorage gear towing connection is attached to the two forward buoyancy tanks in line with the lower chord of the main truss system of the seadrome. The method of attachment distributes the anchorage stress throughout the structure. The design is such that the cable connecting with the anchorage buoy can be led aft through the structure to the tension engine located in the power area, by the operation of which slack in the connecting cable brought about possibly by the seadrome drifting up on the anchorage buoy, can be automatically taken up and so prevent its fouling the submerged portion of the seadrome.

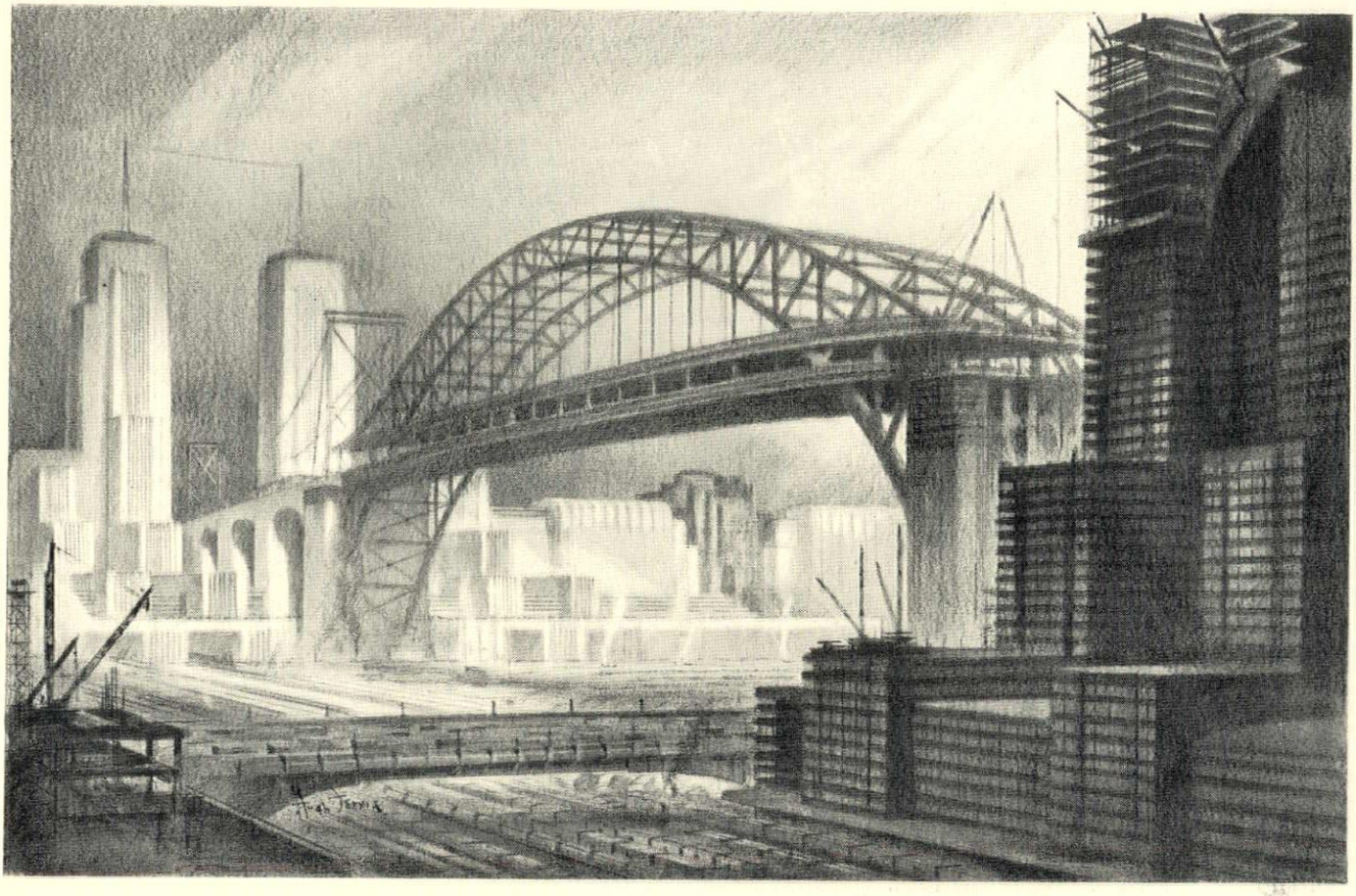
Fin areas are provided at the stern so as to bring the center of air pressure aft of the center of water pressure, in order that the seadrome will trail into the wind at any wind velocity in excess of 15 miles per hour, a condition of operation necessary for safe landing and take-off of planes. To prevent yawing after coming up into the wind, electrically operated air rudders are provided. These rudders are automatically controlled by a damped wind vane, and hold the seadrome into the wind irrespective of the direction or force of the ocean current at any time when the wind is of sufficient force to affect the landing and take-off of planes.

It may easily be seen that a structure built along these lines will theoretically possess the requisite stability and seaworthiness, remaining steady and level without pitch, roll, or heave under all storm conditions. On the practical side, Mr. Armstrong has checked up each step with small models in an experimental basin. Waves were generated by mechanical means and slow-motion movies taken to study the behavior of the models.

Second only in importance to the design of the seadrome itself is the problem of providing a safe and efficient anchorage system. From the results of tests made with models, complete data as to the stresses to be expected have been obtained. The depth of the ocean

STRUCTURAL STEEL CREATED THE SKYSCRAPER

TO INDUSTRY STEEL BRINGS BRAWN



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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. Canadian address: 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.

AMERICAN INSTITUTE OF STEEL CONSTRUCTION

STEEL INSURES STRENGTH AND SECURITY

on transatlantic route varies from two to three miles. Such a great depth precludes the possibility of using anchor chains as ordinarily used on ships because they would break of their own weight before reaching the bottom of the sea.

It has been experimentally determined that the total stress of the seadrome on its anchorage will at no time exceed 200,000 pounds when subjected to the maximum forces of wind, wave and current. According to these calculations the current resistance will total about 35,000 pounds with a 1½ knot current, the maximum expected at the anchorage site.

A huge concrete bowl nearly 100 feet in diameter and weighing about 1500 tons will serve as the anchor. It will be towed to the chosen location and gradually sunk.

TO this anchor are attached two parallel 150 foot lengths of forged steel anchor chain, to which, in turn, are fastened the twin galvanized steel anchor cables made up of 6 sections varying in diameter from 2¾ inches at the bottom to 3¾ inches at the top. The chains connect to the anchor arm by means of a swivel to prevent any twisting of the chains or cables which might be caused by the rotation of the seadrome or the anchorage buoy. To compensate for possible wear due to contact with the bottom of the ocean, the terminal cable section is increased to 3½ inches diameter. Chain is used at the anchor connection rather than cable to minimize wear and to avoid kinking of the cable or fouling of the anchor. The cable diameter increases as it approaches the surface so as to give a uniform factor of safety throughout its length.

An anchorage buoy relieves the seadrome of the weight of the cable and also eliminates any possible heaving stress on either seadrome or cable. Connection is made through a centrally mounted steel shaft supported by both radial and thrust roller bearings. To the anchorage buoy in turn is fastened the seadrome connecting cable 3¼ inches in diameter and about 500 feet long, the seadrome end being attached to the towing gear in such a way that it can be hauled up under the seadrome deck by the tension engine provided, which is regulated to maintain a minimum tension of 5,000 pounds on the connecting cable so that under no conditions can it foul the under-water portions of the anchorage buoy or the seadrome structure.

The twin anchorage cable will be about three and a half miles long. The floating concrete bowl is to be towed to a position over its final resting place. Its 17,900 feet of double cable will be extended in a straight line and supported by pontoon buoys at 500 foot intervals. The bowl is then scuttled, and at the instant of sinking, small charges of powder are simultaneously exploded in each of the 36 pontoons, releasing the cable.

It is estimated that more than an hour will have elapsed before the anchor system reaches its final resting place in the "red clay" of the ocean bottom.

The seadrome exceeding, as it does, the dimensions of any floating structure hitherto built, has been designed so as to be simple in construction and easy to assemble with facilities ordinarily available, so that its great size does not involve any more expense in fabrication and erection than the usual in structural bridge and ship building practice. The deck system, or superstructure, is a structural bridge design of the truss type involving no special stresses or sections. The buoyancy system, or substructure, requires a combination of ship building methods and tank shop practice for its fabrication. The tank units, with their connecting columns and struts will be fabricated on marine ways and launched, after which they will be towed to the assembly point in Delaware Bay, about ten miles west of Cape May, N. J.

According to the general plan worked out for the assembly, fabrication of deck trusses and the floor system will commence simultaneously with the construction of the buoyancy units. As planned, buoyancy tanks will be built by the Sun Shipbuilding Company, of Chester, Pa., and companies associated with it in the work, producing among them four units every thirty days. The Belmont Iron Works, of Philadelphia, Pa., will construct the necessary deck system to go with one section of two tanks every 15 days.

The first four tanks will be assembled in skeleton form, under the Philadelphia Navy Yard crane, to give an erection platform on which to locate the erection derrick necessary to complete the balance of the structure at the Delaware Bay assembly point, to which the first unit will be towed and anchored when completed. Deck structural material and additional buoyancy units will be barged and towed to the erection site, completing the assemblage of the structure in the shallow draft condition.

Sikorski amphibian planes traveling night and day, with stops for meals at the seadromes, would make a normal transatlantic crossing in 36 hours. The seadrome hotels will accommodate passengers not wishing to fly during the night. An express mail service will take but twenty hours elapsed time. Due to the difference in time of five hours, one could leave London at 5 p. m. and arrive in New York at 7 a. m.

The cost of the seadrome is astonishingly low as compared with the fifteen to twenty million dollars required for one of the big modern express liners. The price of two modern liners would cover the entire cost of the transatlantic seadrome service. On the basis of a deck area of approximately 400,000 square feet, the cost of ten dollars per square foot is not exorbitant as compared with metropolitan land values.

The New York, Atlantic City and Bermuda airway, requiring but one seadrome, will afford an opportunity to test the scheme, and develop the operating procedure and personnel necessary to put the complete project into effect.

The seadrome design has been arranged with hotel facilities, including a cafe. Being about three hours by air from New York or Atlantic City it is estimated that the facilities offered on the seadrome combined with the novelty of the trip will help materially to attract traffic. In view of the special privileges available on a seadrome located outside the 12-mile limit, it is believed a profitable operation of hotel, club and recreation enterprises is ensured.

• • •

ITS annual competition for fellowships in architecture, landscape architecture, painting and sculpture have been announced by the American Academy in Rome. The competitions are open to unmarried citizens of the United States who are not over thirty years old. The executive secretary is Roscoe Guernsey, 101 Park Avenue, New York.

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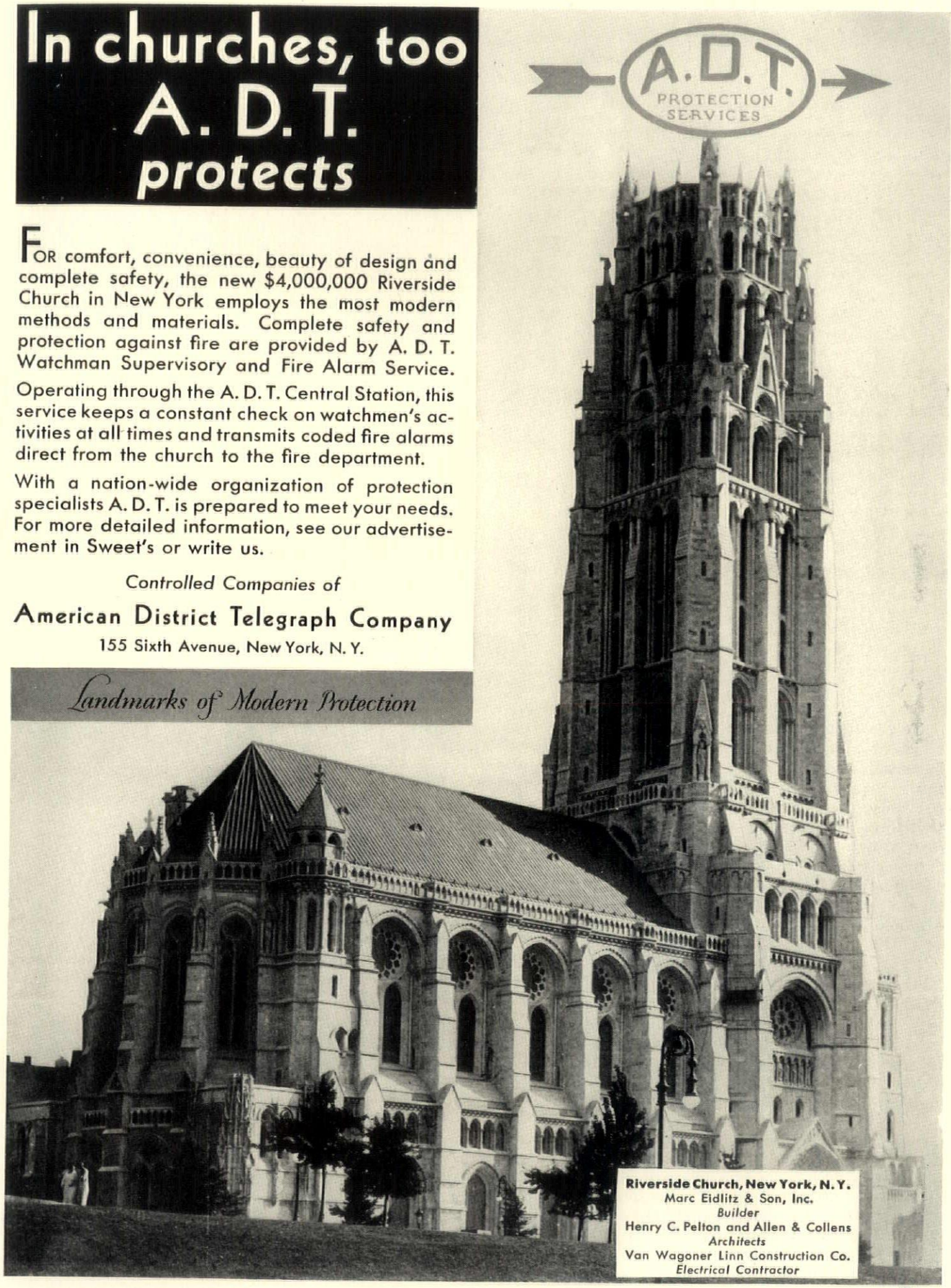

Riverside Church, New York, N. Y.
Marc Eidlitz & Son, Inc.
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Henry C. Pelton and Allen & Collens
Architects
Van Wagoner Linn Construction Co.
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5012

Building housing the plant of the newspaper "Iswjestia," Moscow. G. Barchin, architect

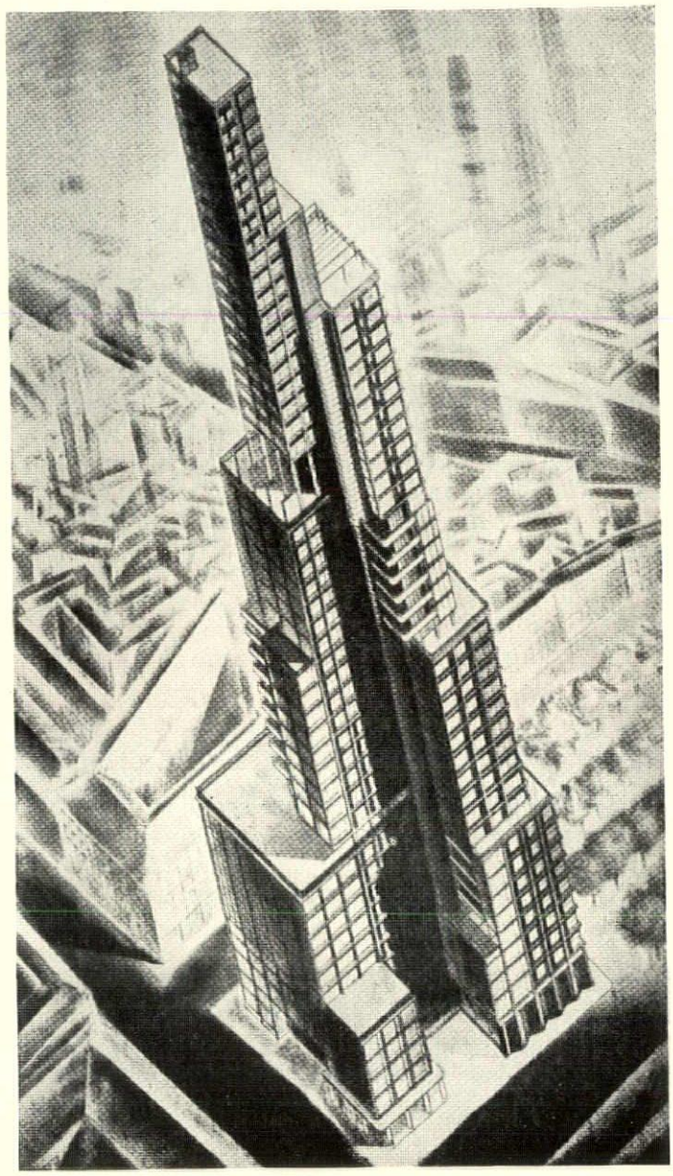
Russia Casts Off the Past

(*Continued from page* 49)

Technologically Russia has done considerable work which promises well for the future economy of its building programs. It has perhaps just begun to devote itself to this urgent phase of the problem. Meanwhile, Russian engineers have tested the standards of safety with a sharp eye toward more and more economy. In design Russia has developed very interesting and significant forms. The use of sharply conflicting masses, whether simply in direction, or in materials, as glass and masonry, gives a dynamic quality to the work. Russia has, for example, experimented with a circular and half-circular form in conjunction with rectangular masses. These elementary geometric masses, simply placed, are indicative of the vitality and directness of its architectural thinking. Voids and solids have been treated with a refreshing spirit of innovation.

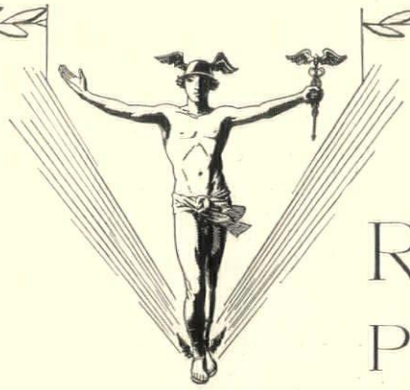
The Russian architects have abandoned ornament altogether as irrelevant, outmoded and bourgeois, achieving freedom and expression through the placing and relation of form alone. Certain primary principles of monumental architecture such as symmetry, derived from a more formal and aristocratic age, have been discarded as arbitrary and lifeless; in general little has been accepted from the past without a keen, critical sense of its suitability. Thus Russian work reflects a certain unity of thought and feeling which is lacking elsewhere.

There are unmistakable virtues in modern Russian architecture. On the other hand, the buildings as a whole possess a rather monotonous character which may well be due to a depressing similarity of color. The dark, hard grey which is, with few exceptions, everywhere in evidence, is harsh and unresponsive to the play of light and shade. I am not insensitive to the psychological reasons for the particular color values which Russia has developed, yet it would seem as though, sooner or later, a wider palette must be used. The architect is entitled to consider the span of life of a structure rather than the occasion of its erection in determining its appearance.



Study of a skyscraper for Moscow, a type of building not favored in Russia. Lopatin, architect

Furthermore, intensive standardization doubtless adds to the monotony of the result. While this is a measure of economy, it may well be that it is too stringently applied. Here again it is only fair to bear in mind Russia's present lack of variety in building materials. Restricted to a very narrow range, the work suffers in consequence. But all these factors tend to strengthen the impression that the buildings lack individuality. It is important in this connection to distinguish between the personality of the designer and the individuality of the building. Perhaps one of Russia's gravest problems lies precisely in



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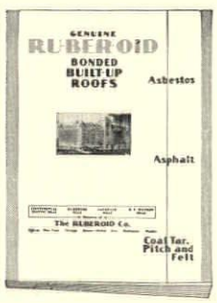

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Office building of Mosselprom, Moscow. Vertical bands are of white stucco and horizontal bands are of blue tile

achieving the latter without undue emphasis on the former. For its architecture will of necessity be a communal architecture, having a typical character.

There is, finally, another matter which deserves critical attention. Buildings designed wholly under the impetus of a functional solution without regard to aesthetic principles or prejudices should be regarded much as we regard the machine—not as works of art, but as the efficient means to a given end. As we built without aesthetic considerations, so likewise should we judge without recourse to aesthetic feelings or standards. Some of the most efficient and best designed machines are mongrel looking affairs, as for example, the typewriter. In purposely forcing this issue I wish merely to emphasize the dangers of a too rigorous approach. For we should season our architecture with a firm and balanced sense of fitness. Here again Russia is faced with a problem demanding the highest creative effort. The search for forms expressive of the life and times demands the highest integrity, for the Russian architect must needs proceed with rigorous logic on the one hand, and a wholly new sense of aesthetic values on the other. Consciously to abandon aesthetic considerations is merely to fall backwards; it is Russia's problem rather to achieve and develop a new sense of aesthetics.

As a class, however, Russian buildings possess one quality which places them in advance of the modern work of other countries. They reflect the increasingly rationalistic organization of society which is the dominant characteristic of life today, whether in Russia or elsewhere. Man is becoming increasingly a conscious unit in a conscious social structure rather than a free individual. Russian architecture reflects this new status in a far more deliberate manner than the architecture of other countries less advanced in this inevitable reorganization of society. Russia is the pioneer in this development and upon it falls the responsibility and the opportunity of leading the way.

Russians are pioneers and this fact brings them close to America. Until near the end of the last century, America could still be counted a pioneering country. The qualities developed under this long phase of our history have brought about not only our vast territorial developments but, in a later period, an even more intensive technological development. Russia is in a somewhat similar historical position, however divergent its economic and social structure may be. Thus, psychologically, Russia and America have much in common, and the particular approach of Russia to the practice of architecture is by no means alien to us. There are, needless to say, great and obvious differences between buildings in the two countries, differences in materials, in building methods, in function and purpose, in design and massing. The startling thing is that despite these differences and their quite obvious social, economic and political causes, much of the most recent work in Russia and America bears many fundamental resemblances.

Russian architects are, in one respect, in a very happy position. Since the land is nationalized, they enjoy unparallelled opportunities in the free development of functional planning. Such chances are denied, by and large, to the architects of other countries. Arbitrary plot lines, which so often hamper the American architect, do not exist; at any rate, they are not determined by private property conditions. Similarly, speculative building projects are unknown. In these matters Russian architecture does not suffer from economic exploitation.

It may be appropriate to hazard a guess concerning the future. Technology is the same the world over. Science and industrialism are factors of international scope. And architecture, which must needs express contemporary life, is ever more subject to the universal reorganization of social life. Everywhere society is conceived in terms of larger and larger organized masses. With the full development of this trend, all national expression, as such, may disappear, to be replaced by an idiom of wider applicability. Thus architecture, which by its nature will become increasingly communal, will sooner or later become wholly internationalized.

REAL ESTATE TAXED TOO HEAVILY

"THE burden of taxation rests too heavily on real estate," is the opinion of Leonard F. Reaume, president of the National Association of Real Estate Boards, expressed at the recent convention of the Mortgage Bankers Association. "The auto has created additional expense for roads and streets but real estate should not be made to bear the total cost of providing highways for vehicles. Many associations and individuals are studying possible solutions for this problem, and are investigating whether or not the state income tax, sales taxes and miscellaneous city revenues could relieve the tax burden on real estate." Mr. Reaume urged that the Mortgage Bankers Association and other national associations should undertake analyses of home ownership and building problems in order to solve the problem of individual ownership.

In the New Bismarck Hotel, Chicago,

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are done very quickly and costs are always low"

"When the New Bismarck Hotel, the Metropolitan Office Building and the New Palace Theatre were built about five years ago, the architect specified Chicago Faucets for use under the hardest and most trying conditions—in the kitchen, scullery, etc., where faucets get plenty of use and abuse. There are about 550 in use.

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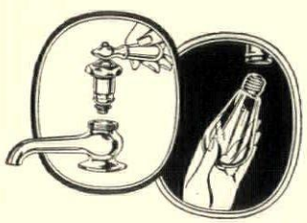
(Signed) GEO. G. DISTLER,
Chief Engineer,
New Bismarck Hotel Co., Chicago.



A Chicago Faucet is made with a standardized, interchangeable unit. Both the seat and washer are renewable at the cost of a few cents. There is no wear on the body—the same body can be used for either compression or self-closing by just changing the unit. A Chicago Faucet can be kept as good as new with the same ease that you would change a light bulb.

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CHICAGO FAUCETS

When He Comes for a Job

(*Continued from page 47*)

occurring infrequently. The staffs in such offices should work harder as occasion demands and should be permitted to function at lower pressure when circumstances so warrant.

No office should expect to be made up only of world beaters. In hiring men one should remember that one is not picking an "All American" team. The other fellow is entitled to some of the good men. It should be an all willing team. A team of men all pulling in one direction, all working for the interests of the boss and all receiving a share of the interest of the boss, each member performing his particular function to the best of his ability by every other member of the team. Each member of the team should encourage and guide the younger members, helping them to fit themselves for more important duties, and new men should be engaged for the lower positions and the older men of the staff be promoted to more important work.

WHEN recourse is had to employment agencies, the fee should be paid by the boss. The draftsman gets the thin end of the stick at best and should be allowed to keep all he earns. That is, to keep all that his wife doesn't need—which won't be much. Voluntary employment agencies—those that make no charge to employer or employee—should receive the co-operation of employer and employee. There are several very good agencies of this nature which we refrain from naming because we disapprove of free publicity, but we will be glad to furnish the information on request if those interested will enclose a stamped addressed envelope and some small gift.

A yard stick to measure draftsmen! We have reinstated the title to bring us back to the subject. The invitation to submit ideas on the hiring of draftsmen said the article should be about two thousand words long and it is hard for us to string the subject along to that length. We covered the subject fully in the first six hundred words and any employer who studies the first part of this article and follows its advice can feel confident of securing exceptionally able draftsmen.

But we go on in the hope of winning the prize. The program of the competition asked for personal anecdotes in connection with the hiring of men. Here is an anecdote of yesterday. A draftsman came to us looking for a job. We asked him how long he had been out of work and he said about a month but that he had been finishing up some house work which he had been doing nights. Why did he have to do that work at home in the evenings? That statement reminded us of one office we worked in. We landed a good job and flirted with the boss about the idea of bringing it into the office. But he flirted with the idea that he should get the bulk of the profits and we ended up by doing the job at home nights. The draftsman should be encouraged to bring work into the office and helped to develop a sufficient connection to enable him to change his status from draftsman to employer.

Some years ago, quite a few in fact, for it was in the dark days of nineteen fourteen, we were in urgent need of a job ourself and conducted a written campaign among about fifty of the leading architects' offices in New York. Whether our letter sounded particularly pathetic or not, we don't recall, but we do remember that the great majority of the firms written to sent us a courteous note in reply; in spite of the fact that few architects had much work at that time we received a number of friendly leads and ultimately landed a job.

Some of those letters we kept appreciatively for a long time and we have tried in the spirit of the courtesy we ourselves received, to handle the yard stick with a sympathetic thought for the needs of the applicant, to measure him in the hope that he will fit our needs or, failing that, that we will be able to give him some lead elsewhere—for few things are more depressing than "going the round of the offices."

Added $50,000 to Income

(*Continued from page 53*)

An experienced agent should be able to state what rentals can be obtained in connection with any building contemplated for an established district, from space fronting on a main street, fronting on a court or alley or space back of re-entry angles which has no direct light. The rates also vary with height above the ground and various depths from the exterior windows to the corridor. Here we discover the factor that allows a building to be analyzed mathematically, for no two floor plans will produce the same amount of different grades of space, and the plan which produces the maximum amount of the highest rental yield area is usually the one to be sought.

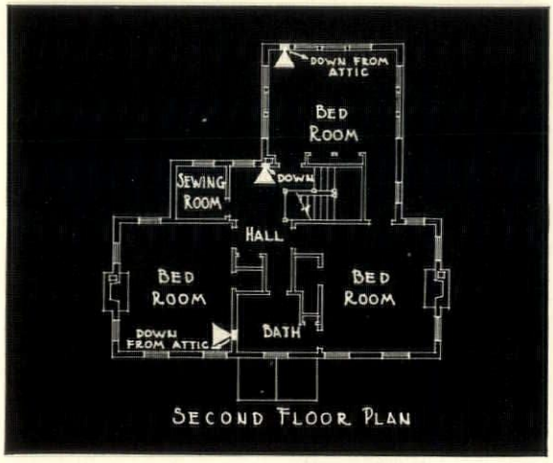
Ordinarily the major income derived from any building is realized from the typical floors. A good start therefore is to first determine the typical floor plan that will produce the best investment and adjust it, if necessary, to a required first floor layout. Three major factors determine the economics of a typical floor plan and these are, in their usual order of importance, the average square foot rental, the square foot construction cost and the square foot land cost. All charges are computed on the basis of net rentable area, rather than gross rentable area or whole floor area, as the real purpose of the analysis is to set up the cost and expense of the income producing unit against that unit of income, whatever it may be.

The average square foot rental for any plan can be determined by applying the various rates for certain grades of space to the areas included under the respective ratings, and dividing the total by the total number of net rentable square feet on the floor. Inasmuch as safe estimates are based on a 90 per cent occupancy of the building, this percentage should be applied to the average rental and the unit consequently reduced by 10 per cent.

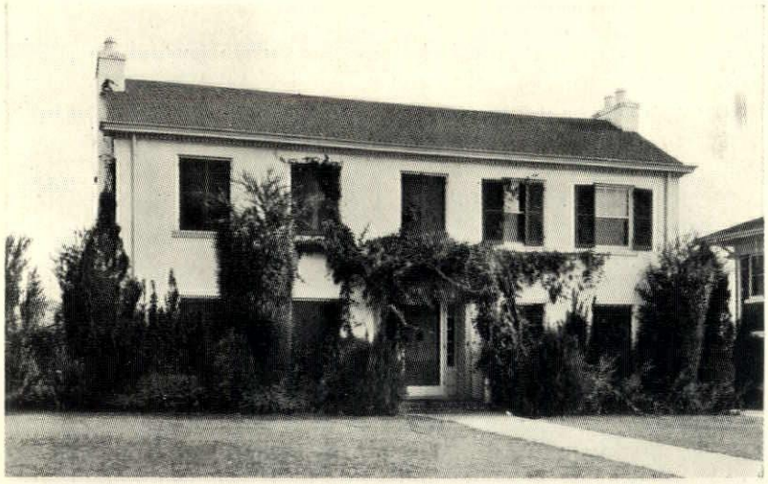
Architects are invited to Consult freely with Bell Company representatives

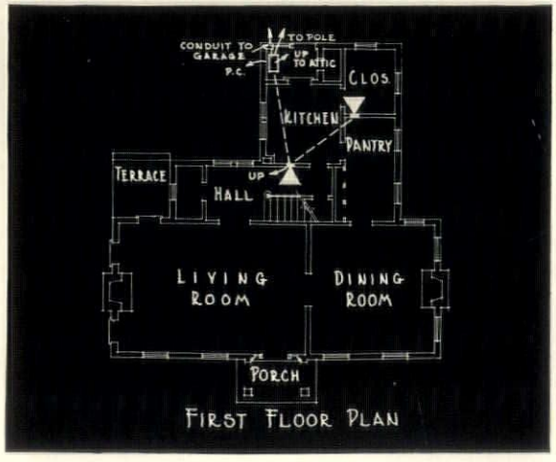
THE telephone company is constantly studying ways to improve its service. It has much data of interest to architects, particularly in view of the increasing importance of complete *telephone convenience* in the modern home. A call to the Business Office will bring a representative to discuss with you and your clients any questions that may arise in planning for the telephone arrangements in new and remodeled residences.

An important feature of this telephone convenience is the building in of conduit and outlets within the walls and floors during construction or remodeling. This gives improved appearance, by concealing the telephone wiring, and affords protection against certain types of service interruptions. Telephone outlets should be provided in all the important parts of the house. The home owner can then utilize just those which best meet his immediate needs, and he can readily rearrange or expand the service in the future.



Modern telephone convenience is provided for in the residence of Mr. Tom C. Gooch, 3724 Armstrong Avenue, Dallas, Texas, by six telephone outlets, including one in the garage. LANG & WITCHELL, Architects, *Dallas.*





The square foot construction cost may be computed by dividing the cost of a typical story by the number of net rentable square feet on the floor and applying a proper percentage such as 8 per cent, representing 6 per cent on the investment and 2 per cent for prepayments or depreciation. So long as the same basis of charges or costs is applied to all plans, the result from a comparative standpoint will be the same whether 5, 6 or 8 per cent is used.

CUBIC foot costs are accurate enough for studies of this kind providing they are supplemented by unit exterior wall costs. The plan with the greatest number of square feet of exterior wall to be built should be penalized proportionately. This angle can be overcome by adding to the estimated cubic foot cost of the typical story the estimated perimeter cost. For instance, if 70 cents per cubic foot is used and a unit of $3.00 per square foot for exterior wall is applied, plans of the same cube would differ in their cost by the excess of exterior wall that one plan might possess over another. Plans of the same cube can vary in the amount of exterior wall required, because of courts, by as much as two or three thousand square feet. This difference represents a cost of from $6,000 to $9,000, and the plan with the greatest perimeter will accordingly be penalized per rentable square foot by an additional construction charge equal to 8 per cent of this sum divided by the net rentable area.

The square foot land charge is computed by dividing the total area of the lot by the estimated number of square feet of net rentable area in the building and assessing a percentage, such as 5 per cent, against this fractional allotment multiplied by the square foot value of the property. 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 square foot 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. Here lies one of the answers to the reason for great height in our American buildings. Any study of the economic minimum or maximum height of a building is inextricably involved with the factor of land charge.

In connection with the project for which the reproduced floor plans were prepared, the following schedule for estimating rentals was employed:

"A" SPACE—$3.00 per square foot (Space with unobstructed light 30 feet in depth or less)

"B" SPACE—$2.50 per square foot (Space fronting on a court or narrow alley, 26 feet deep or less and space back of the 30 foot limit for "A" space)

"C" SPACE—$2.00 per square foot (Space without direct light and space back of 26 foot limit for "B" space)

From the recapitulation it is shown that Plan 2 produces the greatest amount of "A" space with Plan 1 following next and Plan 3 and 4 last, the latter two about on a parity. Normally we would look to Plan 2 to yield the best final result but a study of the figures indicates that the land charge for this plan is high enough to offset the higher average square foot income yield.

Plan 1, although ranking second with respect to income, shows so much lower a combined construction and land charge than the others that the net result places it first by a wide margin. This plan was the one adopted.

The recapitulation reproduced here was one of the early analyses attempted and although it served its purpose it did not include several refinements that have been added since, such as the perimeter penalty referred to under construction charge. In this instance 2 per cent representing taxes was included in the land and construction charges but taxes should rightly fall under operating costs. A block of typical floors was used in connection with this chart also, whereas a single floor is usually sufficient. It is evident in reviewing the net for operating and profit that higher first and second floor rentals will be required. As a matter of further information in connection with the project illustrated, the lower and right hand building walls were street frontages and the upper and left hand walls were alley frontages.

It is readily seen from the principles involved that recapitulations of many kinds may be made but one of the most satisfactory used in recent years is shown below. This set-up includes all the factors necessary to a complete typical floor analysis.

BUILDING PLAN ANALYSIS OUTLINE

1. Lot Area
2. Construction Area
3. Exterior Wall Perimeter
4. Net Rentable Floor Area
5. Ratio-Rentable to Construction Area
6. Cubic Contents
7. Cube Per Rentable Sq. Ft.
8. Cube Cost of Typical Floor
9. Perimeter Cost of Typical Floor
10. Total Construction Cost of Floor
11. Bldg. Investment per Net Rentable Sq. Ft.
12. Lot Area " " " " "
13. Land Investment " " " " "
14. Land Charge " " " " "
15. Bldg. Charge " " " " "
16. Total Invest. Charge " " " " "
17. Net Rentable "A" Space
18. " " "B" "
19. " " "C" "
20. " " "D" "
21. " " "E" "
22. Total Value all space on typical floor
23. Ave. Net Rentable Sq. Ft. Rate
24. Rentable Sq. Ft. Income—90 per cent
25. Net for Operating before taxes, insurance and management.

As a summary of this article let it be said that nothing is truer than the statement, so often quoted by the National Association of Building Owners and Managers in connection with its Building Planning Service, that no plan is ever over-studied. Many computations in addition to those outlined above should be made in conjunction with any large project and that is the message we have attempted to convey in the above paragraphs. Only as a result of exhaustive study can any owner know that his money is to be invested in a building that represents the maximum in economic design.

Fenestra Casements OPEN

Fenestra Casements CLOSE

Fenestra Casements LOCK

WITHOUT TOUCHING SCREENS

When you specify these sturdy steel casements you specify *screen-free* operation, for Fenestra Fenwrought Casements can be opened wide, closed snug-tight and securely locked without touching the inside screens.

And your clients will have screens that are fly-tight —a Fenestra advantage permanently insured by the non-warping, metal-to-metal contact of the *flat screen frame* held firmly against the *flat casement frame*—and they'll have screens which can be easily and quickly removed for convenient washing of the windows.

Architectural beauty, permanence, lasting satisfaction are built into the rolled steel frames, the attractive hardware and the wide-swinging leaves of Fenestra Casements—craftsmanship of the high type you would expect from America's oldest and largest steel window manufacturer. Ask for the "Fenwrought" catalogue.

DETROIT STEEL PRODUCTS COMPANY
2288 East Grand Boulevard, Detroit, Mich.
Factories: Detroit, Mich., and Oakland, Calif.
Convenient Warehouse Stocks

Interior of a residence at Deerfield, Illinois. Architect, Howard & Frenaye, New York City. Owner and Contractor, C. C. Brackett.

Fenestra
STEEL CASEMENTS

Clients Are Responsible

(*Continued from page* 55)

toward its present grasp of architectural possibilities and qualities. Those of owner type began to sense the significance of architecture, not as the creation of an individual skilled in design, but as a vehicle for definitely conveying an impression of personality and purpose. The really remarkable thing is that this growth of appreciation should have come about in so short a time. The very swiftness of the transition made it difficult for architects to effect proper adjustment. Almost without warning came necessity for a change of gears in conceptional point of view, for change in the manner of approach to problems involving architectural services, for a less personal and more vicarious state of mind on the part of the designer. Instead of creating from within himself, the architect has had to subordinate his own desire for self-expression to the interests of interpretation and coordination. Upon this, I feel, pivots the real success of architectural service.

"If the architect is sufficiently trained as a philosopher and analyst, in addition to possessing proper technical equipment, he will be capable of doing far more than meeting the practical requirements of his profession. His designs will express character that reflects as it should his client's personality rather than his own.

"It is not enough that an architect be an adept in design. Interpretation requires the philosophical approach: the ability to vision oneself in the abstract as an instrument of service; to assume at will the motivations of others; to form detached conclusions reached through impersonal analyses. These are things which free the mind from preconceptions and mesh it with the client's on a common meeting ground of understanding.

"Today the architect is in close touch with practically every form of human behavior and its reactions to conditions and environments. He is called upon to meet and anticipate an almost infinite variety of existing and potential requirements affecting modern living. He sits in council with executives whose hard-boiled fronts must be broken down before the esthetic can be coupled with the needs of business and industry. His judgments are sought for building codes, municipal projects, by manufacturers of a thousand and one materials, equipment and accessories planned to house mankind in greater comfort, with increased efficiency, economy and safety.

"The architect has no cause to feel chagrined because clients with definitely self-recognized needs come to him almost as well informed as he upon the essentials and fundamentals of type or period or other things which they desire embodied in design. It happens frequently. I, personally, welcome clients of this kind as a means of clearing the air of those non-essentials which so quickly becloud important issues. In my own practice, my client and I usually settle down at once to a small-scale survey of the subject. Together we develop each element in its relation to individual requirements and desires.

"I do not mean by all this, of course, that the architect should function as a cog in the wheels of economic progress. Architecture is one of the forces upon which economic and social cogs depend for effective movement. Far from becoming subservient to the whims of those who employ him, the architect should mould, manipulate the unseen fourth-dimension through channels which he alone controls in securing correct materialization.

"Architectural coordination begins with the combining and re-combining of esthetic and structural elements which form the completed structure. Modern construction has developed tremendously the technical elements associated with plans and specifications. Each has its own specialized and rapidly amplifying sets of factors, rules and standards of practice. Acoustics, insulation, roofing, heating, plumbing, lighting, steelwork, concrete, ceramics—as examples—have expanded to ramifications undreamed of a few years ago. Each has its own sharply grouped, highly trained experts to whom the architect has found it well to divert many matters dealing with actual structural technic.

"It would be next to impossible to add sufficiently differentiated abilities to the personnel employed by the average architect that would insure handling, in detail and with adequate skill, all the intricate phases commingled with the mechanics of structural practice. No thoroughgoing architect fails, however, to keep abreast of the progress made in structural methods. Much of today's designing is inspired by advances which have been made by the mechanical arts. The architect must be well versed in all principles involved by modern construction. He must have at his finger-tips whatever data, current information, rules and standards are required to fortify his superintendence and make authoritative check-up on every structural element and accessory embraced by his designs."

"HOW far," I asked, "do you feel that the co-operation of the architect should go beyond providing design that fulfils architectural requirements? Do you believe, for instance, that in addition to preparation of plans, it is logical for architectural services to include the interior and exterior environmental treatment of a client's home?"

"I do, most certainly," said Mr. McGoodwin emphatically. "Plans and elevations and routine services make possible, after all, but a frame which must be filled effectively. The complete picture, the things with which it is made, comprise the total of frame and environmental elements. The care with which these are selected to become a part of the design insures the satisfactory architectural result. I should not feel that I had rendered a full measure of service if my client and I did not work out together at least the general scheme of the landscaping; did not decide together upon the major details of interior furnishings and their arrangement. For these, too, must receive their respective shares of architectural interpretation and coordination. And in such matters, as you can readily see, the cultural development of the architect becomes an impressive factor. Breadth of appreciation and understanding of things allied to, though not perhaps a part of, architecture extend the scope of architectural coordination immeasurably."

To a layman who has contacted some fifty-seven baffling varieties of views upon the subject of client and architect relations, Mr. McGoodwin's opinions clear the mists from several well-worth-considering essentials.

A Floor in the Spirit of the Inimitable *Chippendale*

The grace and sturdy strength that characterize Chippendale's work are reflected in this Armstrong's Linoleum Floor—Handmade Marble Inlaid No. 73

Yes—any type of furniture or any color scheme is "at its best" with an Armstrong Floor

A GLANCE is enough to show you how well the spirit of this master craftsman's delicate but sturdy cabinetwork is reflected by the floor of Armstrong's Linoleum. And the creations of Phyfe, Hepplewhite, Sheraton, and the Adams brothers find certain Armstrong Floors equally suited to their style—as do the robust creations of our moderns.

That's one definite recommendation of the Armstrong Line of linoleum to you as a stylist. There's a design in this line to fit in well with any interior you may plan, with any color scheme you may contemplate. More than that—if you like individualized treatment—you can create your own *floor* design by combining plain, jaspé, and marble colors of Armstrong's Linoleum, with perhaps a standard figure inset (Linoset) and colorful feature borders (Linostrips).

Armstrong's Linoleum Floors give good service for years. Cleaning costs are low, and housework light. Daily care is no more difficult than dusting the furniture. Occasional waxing or relacquering as needed maintains the sheen of newness indefinitely.

Complete your files by writing for the current Armstrong Specification book. You will also find us represented in Sweet's Catalog. If you'd like colorplates and samples of material, we'll be glad to send them, too. Just address Armstrong Cork Company, Lancaster, Pa.

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Armstrong's Linoleum Floors
for every room in the house

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THE SQUIBB BUILDING, New York City.

Architect: The Firm of Ely Jacques Kahn, New York City
Consulting Engineer: H. B. Oehrig, New York City
General Contractor: Shroder & Kopel, New York City
Plumbing Contractor: F. B. Lasette, Long Island City, N. Y.
Heating Contractor: J. L. Murphy, New York City

In a *Worthy Building* for a *Worthy House*

IN the fine neighborhood of the Savoy Plaza, the New Netherlands and the Plaza Hotel, and taking its place rightfully among such neighbors, the new Squibb Building in New York embodies beauty, convenience, and structural soundness, without and within.

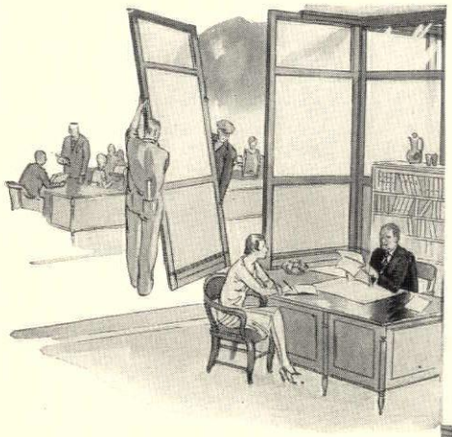
Its proportions are lofty and graceful, its external parts all satisfyingly composed, its approaches and immediate setting dignified, its interior rich in effect and interesting in detail.

In such a building, where architects, engineers, and builders have been free to incorporate the best, it is not strange that piping should be carefully considered and that the major tonnage should be NATIONAL—

America's Standard Wrought Pipe

National Tube Co. : Pittsburgh, Pa.
Subsidiary of United States Steel Corporation

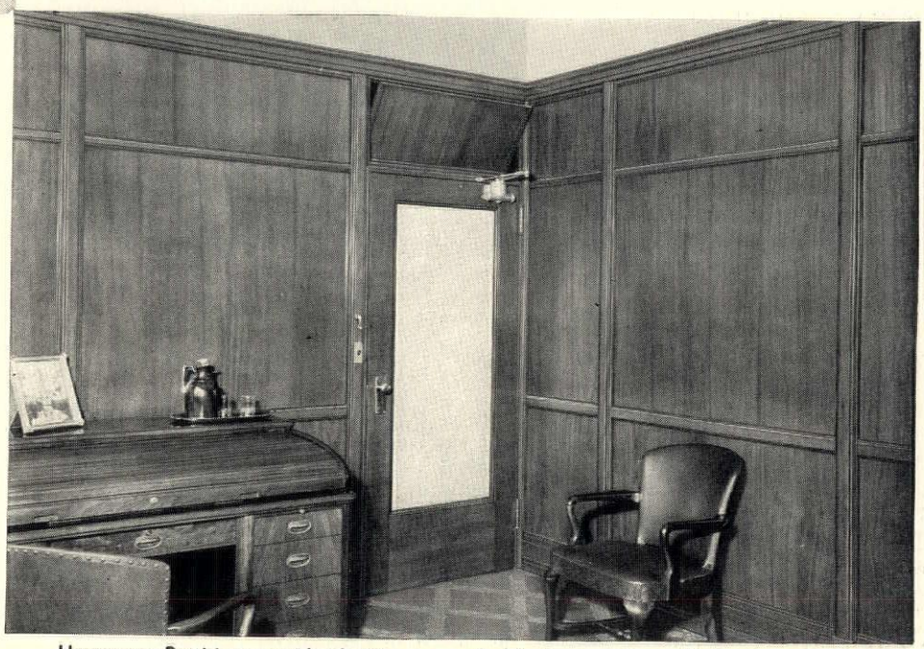
NATIONAL PIPE



The First Requirement of a Partition is— IT MUST BE EASY TO LIVE WITH! . .

Beauty of design, details of form, and quality of finish, all contribute in determining partition values . . . Hauserman Partitions harmonize with any surroundings . . . create dignified, attractive business homes.

[This is No. 2 of a series of advertisements setting forth things to look for when considering partitions.]



Hauserman Partitions provide pleasing, economical business settings which never grow old.

Well-balanced design and beauty of line mean as much in partitions as in automobiles. And just as one automobile excels another in eye-value, so do Hauserman Partitions stand out alone as the most pleasing in design.

Every detail of these better partitions is carefully worked out to assure permanently pleasing appearance. Rolled forms of finest furniture steel provide beauty of line and detail. Concealed assembly gives them that part-of-the-building look, yet permits easy dismantling and economical rearrangement.

The quality and variety of their finish is unsurpassed. Hauserman Partitions offer a choice of 100 attractive colors and exact duplications of selected grains. All parts are completely finished and all finishing is done in the manufacturer's plant.

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HAUSERMAN MOVABLE STEEL PARTITIONS

Architecture as a Profession is All Wrong

(*Continued from page 23*)

today is attractive and successful most often on account of its size and importance. But, on account of its size and importance, it is now out of *individual* scale.

So the architect's employer today is more likely to be a corporation than any—except the extraordinary—individual. But more important, therefore, that this corporate aggregate, with its inherent weakness in initiative, and the mediocrity of its "committee decisions," center upon the architect competent to create. That can only mean upon the supreme-individual, however he may be "hooked up" or "hooked in" to the corporate aggregation.

It becomes all the more important to insure performance of the "piece" or building *according to design,* as greatly conceived—details being more than ever consequential *as invention.* It is indispensable in fact, now, to have the conception natural to new materials and economic methods. Lines of least resistance in industry must now be followed to maximum human-benefits. Nor does that mean entirely biggest immediate net-profits to the landlord. In short, the architect being more important than ever, it is imperative today that he qualify for his job—"profession" or no "profession."

Qualifying would mean knowing industrial conditions well, knowing modern tools and methods even better, and knowing best of all their relation to the specific human-purposes of the building project. And here again, say, as the composer-conductor we have in mind knows his score, knows his instruments, knows his players, and knows their possibilities in relation to the human desire for music.

It is true that the modern architect on any creative-basis, except in circumstances extraordinary, can no more be compounded of several men today than he could have been in the old order. Imagine several men together leading that orchestra!

ARCHITECTURE today is a great orchestration of materials, methods and men. The Architect must be correlated to it all, but rise above it all. When he does so, Machine conditions will only have extended his opportunities, however he may choose to divide his responsibilities. A creative *"modern"* architecture would probably mean financial ruin to the architectural "Firm" as now organized, and certainly the end of the plan-factory. The plan-factory knows it, or will, soon. The old triangle unluckily sponsored and fostered by the A. I. A.—"Owner, one; Architect, two; and Contractor, three"—that has formed the basis of professional architectural practice has proven about as satisfactory "service" as the triangle that forms the prevalent pattern of the popular play or novel. It gives rise to the same demoralization.

The architect usually sits where the unlucky husband sits in the domestic triangle—as happily circumstanced. And the building comes out of the embroglio much as the illegitimate child.

The commissioned builder is too often a competitor of the commissioned architect, easier for the client to understand and therefore to depend upon, to the detriment of the real issue—the building—if the architect knows his work. Various other modifications of the triangle have arisen with serious drawbacks for the owner, architect or contractor, or all together.

NO system will be sufficiently adequate for modern conditions that does not give to the architect complete control of his design and assure control by him until final completion of the building. Anything else in the way of "system" can not cope with modern conditions, however the architect may have made shift to stay with his conception in the past.

The old system was too often comparable to one (keeping our composer-conductor figure in mind) in which that conductor would be subject to the stupid ambition or avarice of his concert meister or his paymaster or perhaps even his piccolo player.

Great corporate enterprises are taking the place of individual enterprise—business interests like a man who will enter into their game, go to jail with them or for them if necessary. A man who will play cricket and stay put.

"Business" wants a "safe-man" . . . as it calls him—meaning one, who, if he has to be bought, will not only *stay* bought, but like it, and believe in it for the sake of the by-products to which all are cheerfully resigned.

It doesn't matter much how much of an architect this fellow is, if he can make a popular picture of his building.

The great corporation itself is the broker-builder and merely "uses" him.

Well then, and why not the great corporation actually the builder, as a matter of fact, and directed by a real architect—"profession" or no "profession"?

• • •

THE A. I. A.—in the main an honorable institution—does not stand for corporate use of the architect as a tool. But the A. I. A. is an institution—therefore a refuge.

I have never joined the "Institute," not that it could make any difference to the Institute. The A. I. A. has a code of ethics. But some of its members, I found, did whatever they thought necessary so they might live. Wherever in practice I encountered an A. I. A., I found this so invariable true that I came to believe my own standard of conduct in selling my services and building my buildings was higher in practice if not in theory.

I recall at this point a signed up professor of ethics—A. I. A.—who got to Tokio when I was doing my best to get work on the Imperial Hotel finished. This man hurried around to my Oriental clients to tell them the whole thing "violated" the Occidental ordinance and would come tumbling down on their heads the first shake of a quake.

"Holocaust" was his word—I remember. He wanted something done about it. Right away. He was ready to help do it. So from first to last A. I. A. came to signify for me—Arbitrary Institute of Appearances.

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OFTEN AN ECONOMY

Our engineers are especially keen in pointing out the way to economy in the use of marble for exteriors. Often their suggestions as to jointing and bonding make it possible for you to use Georgia Marble at a cost not appreciably greater than that of a commoner material. . . And in addition to this—Georgia Marble in itself is a decoration which requires no costly enrichment to obtain a striking and beautiful effect.

Lorain Street Branch of the GUARDIAN TRUST COMPANY, Cleveland, O., Rowland Johnson, *Archt.*, Geo. L. Craig, Inc., *Contrs.* The facade is Georgia Mezzotint Marble with Georgia Creole Marble base and trim. The white metal used in the large openings of the bank proper, contrasts beautifully with the bold veining in the Creole Marble trim.

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1328 *Broadway*	814 *Bona Allen Bldg.*	648 *Builders' Bldg.*	622 *Construction Industries Bldg.*	1200 *Keith Bldg.*
NEW YORK	ATLANTA	CHICAGO	DALLAS	CLEVELAND

And the Institute has the right to be shocked by all this and to "doubt" . . . or, "unimportant if true."

And I have encountered a good many business men who despised "professionalism"—afraid of it. Afraid, that is, that their own interests in connection with their building might suffer to maintain "ethical" agreements existing among professionals to defend them from the quack and determine "where, when and whose fees."

But I saw that these same business men were ready to "trim" the architect where he was trimmable.

The A. I. A. should modernize and become frankly a commercial organization like a labor-union. Organize to maintain a fair wage or fee and keep the architect on the job in his true capacity as such! Let ethics go where they can be practiced without betrayal when commercialization or selfish ambition shows itself the real boss of the situation. Ethics are now—of the dust.

• • •

And that brings us to the point of departure for the architect who is creative and competent and as "ethical" in that connection as the discipline of the high-quality of his own effort makes him be.

Such an architect—and there is none other looking toward the future, no less than in the past—loves his building too well to be false to it in any particular.

And that description will apply to a good many American architects I know; some, A. I. A. I should like to "join" them.

Of course these suppositious figures of speech assume genuine Architecture with a capital A is desired, and inevitable. Inevitable because America is growing up—coming of age.

And it will follow that no one architect, commercialized howsoever, can in future characterize and execute as many buildings, by one fifth, as most firms are ready and anxious to do, and *must* do now or go bankrupt.

Because, for one thing, each project may have great consequences in Standardization and Repetition. In order to avoid the characteristic monotony fatal to modern effort—see the sky-scraper as it aggregates—greater concentration as well as deeper insight must go to details as valuable invention. This begun, architecture will evolve.

There is no question as to the greater economic value of an architect's services to building, corporate or private, when he can render that service. The question of compensation may safely lie open between employer and architect—then.

• • •

The "profession," unable to forsee the consequences to itself, has allowed monstrosities like the plan-factory to breed, to meet the present "situation." Helplessly it has rendered the "situation" to the enemy.

The A. I. A. has allowed the engineer as a separate "institution" to build its buildings and has become satisfied merely to put the architecture *on* the thing.

The A. I. A. may not be wholly to blame for having made a mess of the matter with the "triangle"—an inherently bad matter. Finally it finds itself going to work for the contractor. For *him* mind you—when it was "professional" to keep him in his place, whom it was a "professional" privilege to despise.

So at the moment we need the "Engineering Architect," profession or no profession. An architect not

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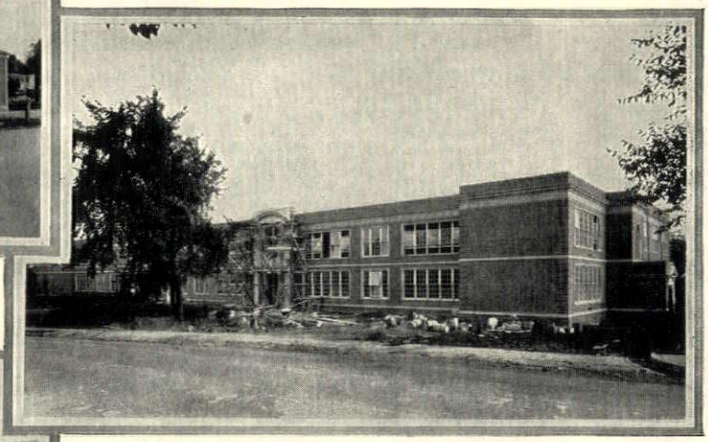
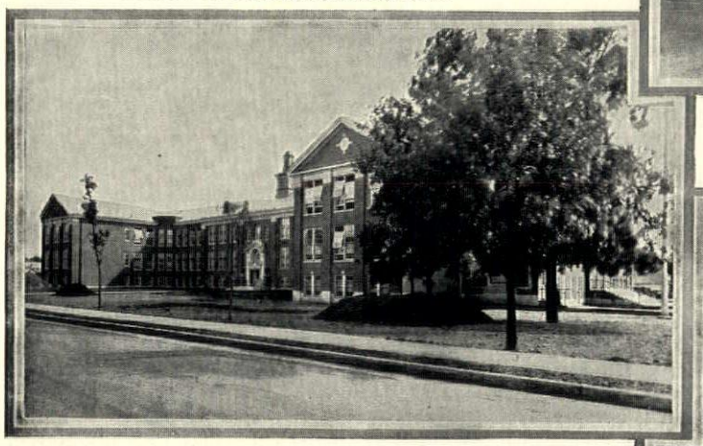
Vernon L. Davey Junior High School, East Orange, N. J.
Contractor: Frank P Farrell Newark, N. J.
Architects: Guilbert & Betelle, Newark, N. J.



High School, Milburn, N. J.
Contractor: N. F. Cantello, Elizabeth, N. J.
Architects: Guilbert & Betelle, Newark, N. J.



Washington High School, Ridgewood, N. J.

High and Grade School, Somerville, N. J.
Contractor: Elling Bros., Grove Street, Somerville, N. J.
Architect: J. Noble Pearson & Son, Perth Amboy, N. J.

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Main Office and Factory

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only familiar with shop-work and factory conditions in America but an architect who can sense the human benefits actually to be derived from mechanized-production that might make our living in a Machine-Age less destructive to individuality—not more and more destructive. The engineer can no more accomplish this than a professor of mathematics can make music, which is sublimated mathematics.

We need now an architecture more an instrument for human joy to play on—than any we can get under present conditions.

The A. I. A. is an institution. Institutions can change but little. Therefore the A. I. A. is helpless to make this new architect. It can only feel insulted by the need for him, or sadly feel the lack of him, in no small degree its own fault.

The real cultural problem for our country at this time lies in finding or growing men who *can* deal because they *desire* to deal with the economic and industrial issues of the Machine and gladly deal with those issues *as constructive elements in design.* A young man's job —and great art.

Unless what I have just seen with my own eyes, among the young men at Princeton, belies the future, the coming generation of architects are the psychological shock-troops to be thrown against the flabby "make-believe" that has obscured the real issue for us here in America, or the young men themselves will "cut through."

Not as "professionals" probably. We may have to have a new name for this new architect we are talking about.

He will be master of organized building—master because the situation demands him and the quality of his imagination. The nature of his knowledge and the greatness of his *desire*—make him master.

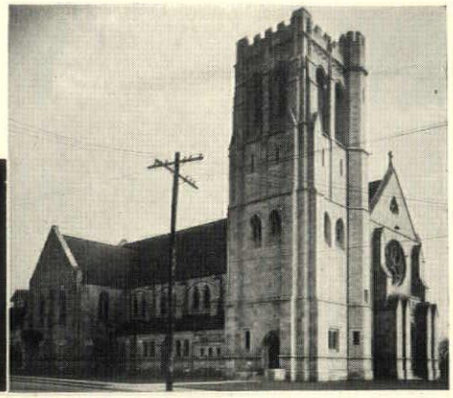
Six-Room Houses Cost Less Than Formerly

THE cost of building a six-room, story and a half, frame house is thirteen per cent less today than it was a year ago, according to figures obtained by the Marine Midland group of 18 New York state banks. Analysis of the various items is as follows:

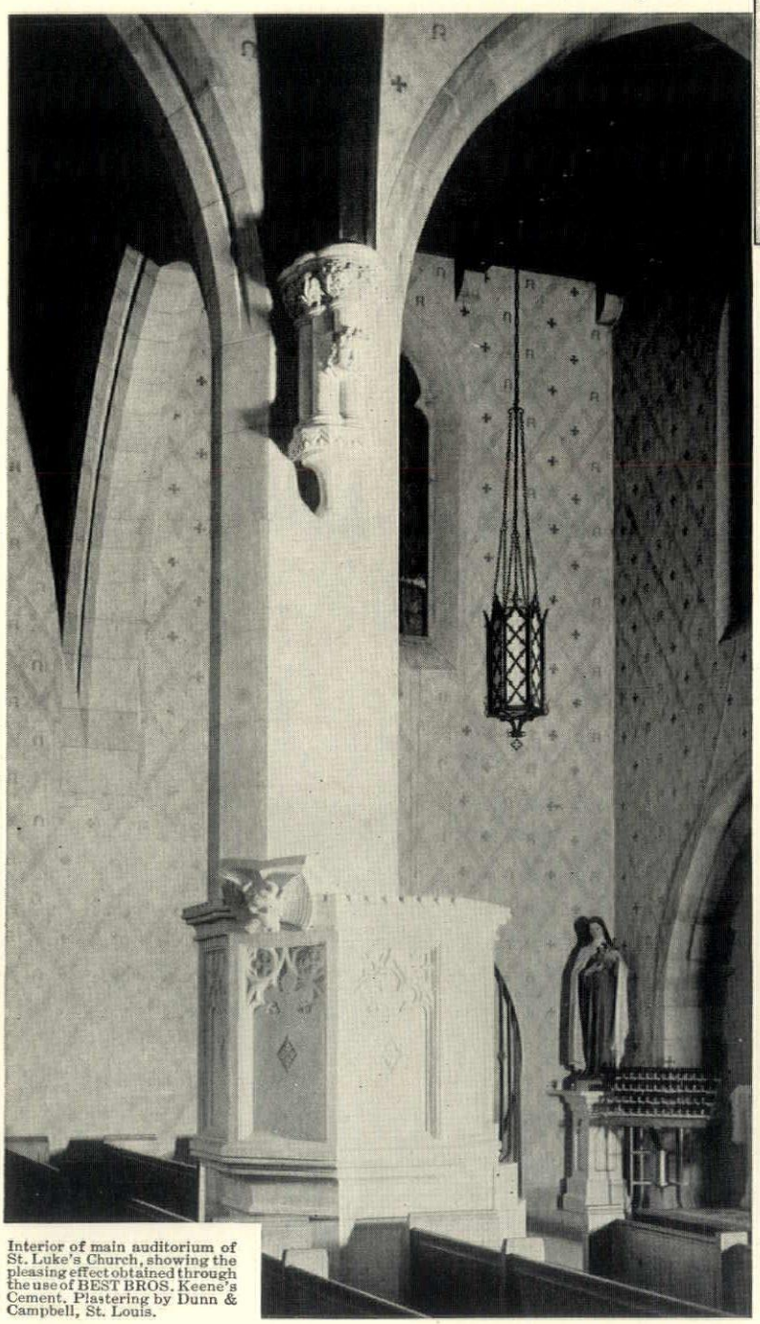
	1930	1929
Masonry (including excavating)	$595.50	$701.39
Lumber and millwork	2044.66	2407.69
Plastering	325.00	335.00
Plumbing	475.00	483.00
Heating	210.00	250.00
Painting (interior and exterior)	335.00	400.00
Hardware (rough and finished fixtures)	77.00	97.95
Electrical Fixtures (including wiring)	148.00	178.00
Tile	34.00	45.00
Gas service	34.45	34.45
Shades	20.00	30.00
Miscellaneous (surveys, insurance, permits)	50.85	50.85
	$4349.46	$5013.33

Here Again . . .

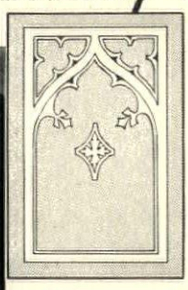
BEST BROS.
KEENE'S CEMENT



Solved the Problem of Beauty with Economy



Interior of main auditorium of St. Luke's Church, showing the pleasing effect obtained through the use of BEST BROS. Keene's Cement. Plastering by Dunn & Campbell, St. Louis.



AGAIN BEST BROS. Keene's Cement has proved its quality and adaptability . . . this time in the beautiful St. Luke's Catholic Church, Richmond Heights, Mo., near St. Louis. The problem was to find a treatment for the interior walls that would be beautiful and lasting . . . and economical. There were objections to brick and ordinary plaster . . . and decorative tile or Bedford Stone were too expensive. Then Guy Study, of Study, Farrar and Rothenheber, architects of the church, had the thought of BEST BROS. Keene's Cement.

In writing of the successful results, Mr. Study says:—

"We sought for a treatment of the plaster in St. Luke's Church that would be permanent, reasonably economical and in entire sympathy with the character of the architecture. This was obtained by plastering with BEST BROS. Keene's Cement. While this was still wet we marked off the walls with a diamond pattern and in the center of the diamonds, stamped the Greek letters Alpha and Omega and a Greek cross.

"We used a trowel perforated with these designs and merely pressed the trowel on the plaster, so that the design was a raised ornament. The criss-cross diamond pattern was obtained with a sort of rake or trowel. After the plaster was thoroughly dry, we washed the entire wall with a glaze, slightly tinted.

"This simple lattice work design is the type of design common in Gothic work and it is more than probable that in many of the old churches the plaster was scratched this same way. Nearly all who have seen these walls have been tremendously struck by the beauty of this simple method of decoration."

BEST BROS.
FAST FINISH
KEENE'S CEMENT

This newest Best Bros. Product is receiving enthusiastic favor everywhere. It needs no admixtures. Used with good aged lime-putty, it will set up fast enough for finish troweling without waiting. FAST FINISH sacrifices none of the characteristics of Best Bros. (Regular) Keene's Cement. It produces the same durable, perfect ceilings and walls and is readily adaptable to all types of modern interior finishes and color effects. Write for further information.

BEST BROS. KEENE'S CEMENT CO.
1060 W. 2nd Avenue Medicine Lodge, Kansas
Sales Offices in: New York, Chicago, Toledo, St. Louis, San Francisco, Kansas City, Philadelphia (40)

What Architects Are Talking About

(*Continued from page 57*)

PRIZES totaling $3,150 are offered for the best wired and lighted structures in the Southeast which are built or remodeled by March 31, 1931. The contest is open to architects, designers and building contractors who are residents of Alabama, Florida, Georgia, Tennessee, North Carolina, South Carolina, or Virginia, and the entries must be for structures erected in those states. There are seven groups of prizes, which are offered by the Southeastern Division, National Electric Light Association, Haas-Howell Bldg., Atlanta, Ga.

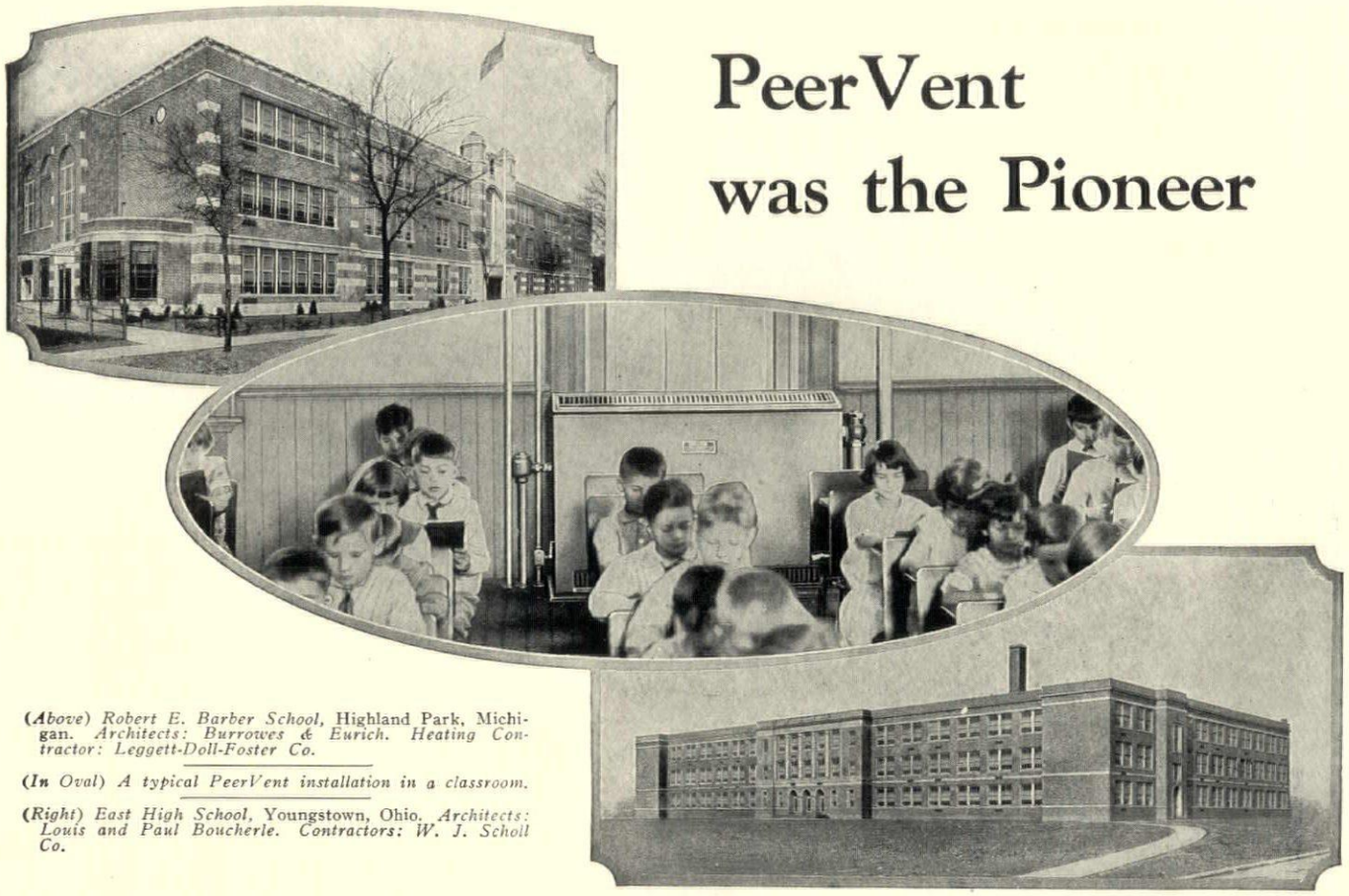
FINANCING, designing and constructing houses on a sound and practicable basis is the aim of a comprehensive program now being considered by President Hoover and the planning committee of the White House Conference on Home Building and Home Ownership. Details of this were placed before the recent meeting of the Associated General Contractors of America by A. E. Horst, a member of the committee and president of the association.

The program outlines seven different reforms which Mr. Horst claims have been long needed. Included are the establishment of "sound systems for making appraisals; for grading the construction merit of new structures; for examining residences under construction and reporting on the merit of the construction methods; for first and second mortgage financing; for stabilizing credit practices; for the adoption of a uniform lien law; and for the introduction of systems for conducting local coöperative promotional campaigns to accelerate sound construction projects." If this plan is found acceptable, a mandate will be issued to joint committees of representatives of business interests directly concerned and details worked out.

CHINESE builders for thousands of years worked from miniature models instead of from individual designs. When a building was erected that stood up well, an exact model of it was made and this model was then followed in new construction. As it was necessary to pattern minutely the details of the hand-made model in laying plans for the new structure, the number of designs was limited. That largely explains the conservatism of Chinese architecture.

AWARD of the French traveling scholarship of the American Institute of Architects to Pierre Mathe of Paris is announced by Dr. Charles Butler of New York, chairman of the Institute's Committee on Education. M. Mathe, who is twenty-eight years old, will tour the United States under the auspices of the Institute. Airports will be his chief field of study.

PeerVent was the Pioneer



(*Above*) *Robert E. Barber School,* Highland Park, Michigan. *Architects: Burrowes & Eurich. Heating Contractor: Leggett-Doll-Foster Co.*

(*In Oval*) *A typical PeerVent installation in a classroom.*

(*Right*) *East High School,* Youngstown, Ohio. *Architects: Louis and Paul Boucherle. Contractors: W. J. Scholl Co.*

PeerVents should be used not only in schools but in such other public or semi-public buildings as theatres, department stores, hotels, churches, banks, auditoriums, offices, etc., where large numbers of people gather and where extreme conditions for heating and ventilating exist

PEERVENTS installed 19 years ago still give satisfactory and efficient service. These first units were then based on 22 years of experience in the heating and ventilating field. The PeerVent of today employs the same basic principles but the recent models are greatly improved in construction and mechanical excellence—better radiator, better fans, better motors, etc. Peerless is always a little in advance with improvements.

PeerVents are constructed on sound engineering principles, are exceptionally well built and absolutely noiseless in operation.

The PeerVent Heating and Ventilating Unit fully meets all requirements of the most stringent state and municipal codes covering the ventilation of school buildings.

Write for the Peerless catalog describing and illustrating PeerVents.

PEERLESS UNIT VENTILATION CO., Inc.
BRIDGEPORT, CONNECTICUT
Pioneers in Unit Ventilation
Resident Engineers in Principal Cities from Coast to Coast

A TRAVELING exhibit of sketches is being routed through the offices of architects in Tacoma, Wash. These sketches were submitted in a recent contest sponsored by the Tacoma Draftsmen's Club under the chairmanship of John Richards, of the office of Heath, Gove and Bell. The judging committee's comments are attached to each sketch.

THE New York Society of Architects has extended its activities to admit a Junior League, intended to be of benefit to draftsmen or junior architects who are not registered. The object of the new organization is partly social, but mainly educational, and a series of lectures is being given under the direction of Louis E. Jallade.

COMMEMORATION of the one hundredth anniversary of the building and loan association idea in the United States will be observed by the United States Building and Loan League. The League has plans under way for a thousand banquets to be held in various cities and towns on the night of January 3, 1931. Philip Lieber, Shreveport, La., is chairman of the banquet committee.

ARCHITECTURAL traveling scholarships for residents of Oregon have been established by Ion Lewis, of the architectural firm of Whidden & Lewis, Portland. Scholarships are confined to students or graduates of the University of Oregon.

Thickness of Insulation Necessary—Radiation Costs

(*Continued from page* 33)

and costing 11 cents per square foot, would equal the radiation saving at $1.10 per sq. ft., this thickness would be reduced to one inch if the material had a conductivity of 0.33, because the material of higher conductivity would result in a smaller radiation saving, which in turn would permit a lesser thickness of insulation. At a conductivity of 0.59, the thickness becomes 0.5 in., whereas if the conductivity is 0.835, not even the smallest increment of a material costing 11 cents per square foot per inch thickness would result in a sufficient radiation saving to equalize the value of the radiation saving at $1.10 per square foot and this small increment of insulation. Hence, at a conductivity of 0.835, the insulation thickness becomes zero.

It will be apparent from the foregoing analysis that if the radiation saving were the *sole* basis for determining the thickness of insulation, no insulation would be required in many cases. Since a hot water heating system requires more radiation than a steam heating system, more insulation is required for the former than the latter. If an indirect heating system is used, the radiation saving is seldom an important factor, and no insulation would be needed when considered from the radiation standpoint alone.

If the fuel saving is the sole basis for determining the thickness of insulation, a greater thickness usually will be required than if the radiation saving is the sole basis, provided the cost of the fuel is comparatively high. As previously stated, if the fuel is sufficiently cheap, it does not pay to use insulation from the fuel saving standpoint.

Today, a home is not modern without *Moist Air*

Ingenious Humidifier is remarkable forward step for health and comfort

AS LOW AS $150

F.O.B. FACTORY—INSTALLATION EXTRA

$150 to $225, f. o. b. factory, installation extra, in beautiful metal cabinet. Supplied also for recessing in wall. Water, fed in by the supply at the top, spreads out over the first section, overflows and spreads out over the second, and so on until the last section is reached. A drain carries away the small unevaporated surplus.

ONLY a little way in the future, steam, hot water, or vapor heated homes without Moist Air (correct humidity) will be as obsolete as homes with old fashioned heating systems.

Even today, many architects are specifying a Doherty-Brehm Humidifying Radiator as a part of the radiator heating system in every new home they plan. And recommending it to clients and friends whose houses are already up.

Completely solves the dry air problem

This ingenious invention completely solves the problem of correctly moistened air in buildings with radiator heating . . . steam, hot water, or vapor. It brings remarkable new living comfort and health while adding very little to the building costs. Simple to install as an ordinary radiator, it banishes forever the dry air that threatens with colds, sinus troubles, mastoids, many winter ills. It cuts fuel costs, for overheating is no longer necessary for comfort.

One humidifies the whole house

Install one of them in place of an ordinary radiator in a new house or old. The only extra piping needed is a water supply and a drain. One will humidify a house of up to 12 rooms, evaporating up to 100 gallons of water daily, automatically regulating the amount to changing weather demands. And it heats while it humidifies. One actually gives off more heat than an ordinary radiator of the same radiating surface.

Silent, attentionless . . . handsome cabinets

Since there are no moving parts to get out of order or to make noise, no fans, belts, or motors, it is silent and attentionless. No steam, no odor. Few articles of home equipment give so much . . . so unobtrusively . . . and at such little cost.

Even the cabinets have been worked out to fit into the finest homes. It is supplied in period wood cabinets to harmonize with finest furnishings. Or in handsome metal cabinets. Or for recessing in the walls.

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The Doherty-Brehm Radiator Humidifier is sold by **CRANE** through dependable heating and plumbing contractors everywhere. Your clients can buy it under the **CRANE** Budget Plan and *pay only 10% down, the rest monthly.* Specify it for new buildings. Recommend it for modernized ones.

Mail coupon for A. I. A. File Book

You should have this book in your A. I. A. file. If you haven't it, mail the coupon at once.

DOHERTY-BREHM

HUMIDIFIER

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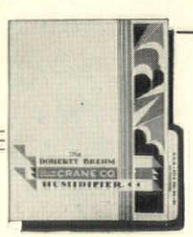

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Please send your booklet about humidity and the Doherty-Brehm Radiator Humidifier, for my A. I. A. file.

Name .....

Address .....

BULLETINS

"CONSTRUCTION AND PROTECTION OF AIRPLANE HANGARS" is the name of a bulletin containing recommended good practice requirements of the National Board of Fire Underwriters, 85 John Street, New York.

"EFFECTIVENESS OF MOISTURE-EXCLUDING COATINGS ON WOOD" has been prepared by the United States Department of Agriculture, Washington, D. C., from which free copies may be obtained.

"PROTECTION OF OPENINGS IN WALLS AND PARTITIONS AGAINST FIRE," as recommended by the National Fire Protection Association, is the title of a new booklet issued by the National Board of Fire Underwriters, 85 John Street, New York.

A CHANGE IN GRADE DESIGNATIONS has been adapted by the tile industry and particulars are contained in an announcement just issued by the Associated Tile Manufacturers, 420 Lexington Avenue, New York. The change affects names, not the grading rules.

OF SIGNIFICANCE in the third annual Christian Herald church building competition are indications that the church auditorium is ceasing to be the chief concern of the architect and clergy, and that more attention is being directed to housing a complete program of church activity, including religious education. It is also noted that the children's worship room is gaining favor as over against department assembly rooms for every department.

Awards were made in three classes, each class having three prizes of $250, $100 and $50 respectively, with a grand prize of $50. The jury consisted of F. L. S. Mayers, A. I. A., H. J. M. Grylls, A. I. A., Louis La Beaume, F. A. I. A., Paul H. Vieth, Ph.D., and L. C. Wright, D. D. R. H. Blatter, A. I. A., was professional advisor.

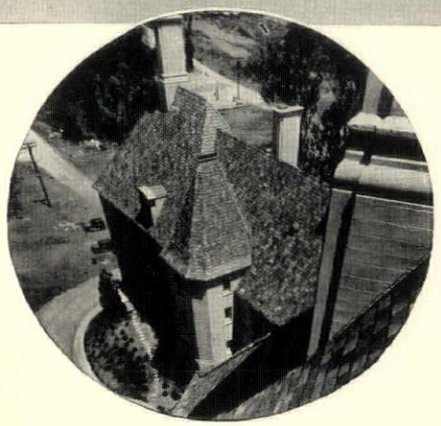
Prizes awarded were: Class A—first prize: Trinity Methodist Church, Springfield, Massachusetts, Allen & Collens, Architects. Second prize: Idlewild Presbyterian Church, Memphis, Tennessee, George Awsumb, Architect. Third prize: First Baptist Church, Asheville, North Carolina, Douglas D. Ellington, Architect. Honorable mention: First Presbyterian Church, Wilmington, North Carolina, Hobart Upjohn, Architect.

Class B—First prize: First and Central Presbyterian Church, Wilmington, Delaware, Brown & Whiteside, Architects, Interdenominational Architectural Service, Inc., Consultants. Second prize: First Presbyterian Church, Hackensack, New Jersey; E. P. Mellon, Architect; Henry E. Tralle, Consultant. Third prize: Grace Lutheran Church, San Diego, California, Albert J. Schroeder & Frederick Kennedy, Jr., Architects. Honorable mention: Chinese Christian Church, Honolulu, T. H. Hart Wood, Architect.

Class C—First prize: Hickman Mills, Missouri, Christian Church, Hoener, Baum & Froese, Architects. Second prize: Glen Echo United Presbyterian Church, Columbus, Ohio, Ralph R. Orr, Architect. Third prize: Trinity Evangelical Lutheran Church, Swissvale, Pennsylvania, Schmertz & Fisher, Architects.

Grand prize, all classes, Trinity Methodist Church, Springfield, Massachusetts, Allen & Collens, Architects.

MONOLITHIC CONCRETE



IN this structure, the floors and walls —interior and exterior—are of reinforced monolithic concrete. The exterior has no finishing coat—the concrete was purposely left just as it came from the forms. Structural frame is of steel. Exterior ornamentation was *cast in place*. So built, this edifice offers positive assurance of firesafety and long life, with little if any structural maintenance through the years.

Views are of Building for Christian Science Benevolent Association for Pacific Coast in San Francisco, California. Henry H. Gutterson, Architect; Walter L. Huber, Structural Engineer; George Wagner, Contractor—all of San Francisco, California

PORTLAND CEMENT *Association*

Concrete for permanence and firesafety

33 WEST GRAND AVENUE
CHICAGO

PERSONALS

C. O. Boyce, architect, has opened new offices at 924-26 Chamber of Commerce Building, Cincinnati, Ohio. He desires manufacturers' samples and catalogs.

E. Haviland Boyle has moved his studio to his country place, Shadow Lawn, Scotia, New York. He will continue his regular practice and specialize in rendering of architectural subjects and in architectural model making.

James William Thomas, architect, announces that owing to the death of C. E. Howell, the former organization of Howell and Thomas will continue under Mr. Thomas' name at 3868 Carnegie Ave., Cleveland.

Harry W. Bogner, architect, formely of the firm of Judell and Bogner, has opened his own offices at 759 North Milwaukee Street, Milwaukee, Wis. He would like to receive manufacturers samples and catalogues.

G. Massena and Alfred V. duPont recently returned from France and will practice architecture in the United States. Their address is Nemours, Wilmington, Del.

Lloyd W. Worden, architect, has opened an office at 314 South Division Street, Traverse City, Mich., and would like to receive manufacturers catalogs.

Rankin & Kellogg, architects, have moved their offices from 1805 Walnut Street to the Architects Building at Seventeenth Street at Sansom, Philadelphia.

Sam Biderman, A.I.A., has moved his office from the Thomas Building to 1107 Browder Street, Dallas, Texas.

Boyd, Abel and Gugert, architects, have moved their offices to 1904 Architects Building, Philadelphia.

Trifles Can Sour a Client

(*Continued from page* 44)

plete house, ready to have the radio hooked up and the furniture moved in. They do not know and they certainly do not care who is supposed to do which; they expect everything to be done, no matter which particular contractor does it. And when they learn that item after item was not included in the contract but must be paid for as an "extra" (one of the most hated words in the language) they begin to feel abused. And they are justified in feeling abused.

Recently the secretary of the Chamber of Commerce in a neighboring city talked to me movingly of the sorrows and tribulations of house building. He had just moved into a new home, and his woes were fresh in his mind.

"Mind you," he said, "I am thoroughly sold on the value of the architect's service. If I were building again I would go right back to Mr. Blank, but I would make sure that when he told me that the house complete would cost so many dollars he would be meaning by 'complete' just what my wife and I meant. I got an estimate on the cost of the house from him before I started. He told me that the house would cost so much; the plumbing, heating and electric wiring so much more. I told him to shoot. Then when the house was done, I found that the contract price didn't cover the building

STRIKING A MODERN NOTE IN LIGHTING

with wiring adapted to restaurant needs

by FREDERICK PUTNAM PLATT—A. I. A.
of F. P. Platt & Bro., Architects, New York, N. Y.

In the Horn & Hardart Company restaurant at 1165 Sixth Avenue, New York, light enhances the inviting atmosphere of the restaurant and provides appetizing display for food.

Uncontrollable factors necessitated the development of an unusual type of exterior illumination for this building and the decorative scheme of the interior called for a lighting plan that would take full advantage of the colors and materials used.

In such a situation, where specific questions of lighting practice are raised, proper co-operation between the architect and the lighting and wiring section of the local electric service company can be most valuable. Information about changing styles in lighting and about the use of light for both decorative and merchandising purposes helps materially in reaching a happy solution of the problems.

Passers-by are attracted by the unusual exterior illumination—lighted panels installed at the sides of the window jambs.

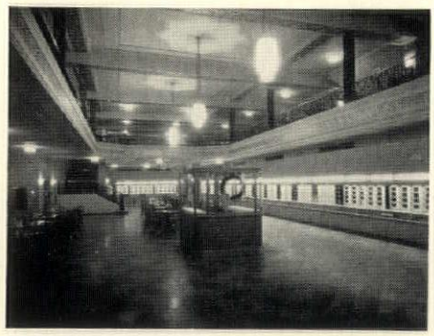
For the exterior illumination in this case, lighted panels are used at the sides of the window jambs. These give a pleasing effect, both day and night, while they also bathe the interior with a soft glow of light which enriches the decorative features.

Modernistic ceiling and side wall fixtures make the restaurant interior inviting. A continuous hood-light over the cafeteria and automat counters is used in the merchandising of food.

The total connected load in this restaurant is 63 K.W. for lighting and 50 H. P. for power. Every care has been taken in the wiring to provide for possible future needs of the kind that are constantly developing through the increasing use of electricity.

Attractive pendant type fixtures provide general illumination over the mezzanine well.

Hood light illumination is used over the counters with a concealed lamp in each food compartment.



In the smaller bays a modernistic, box-type carved glass fixture is used.

For information about trends in lighting standards, and about adequate wiring, call on the Wiring Bureau of your local electric service company, or write direct.

NATIONAL ELECTRIC LIGHT ASSOCIATION, 420 LEXINGTON AVENUE, NEW YORK, N. Y.

of the garage, the sodding and seeding, the cement walks and the drive, the electric refrigerator and the window shades. Now maybe, strictly speaking, these are *not* part of the contract, but they are essential to comfortably living in this house. I'm perfectly willing to pay for them, but I would have paid for them with a better grace if I had known before I started just what they were going to cost me."

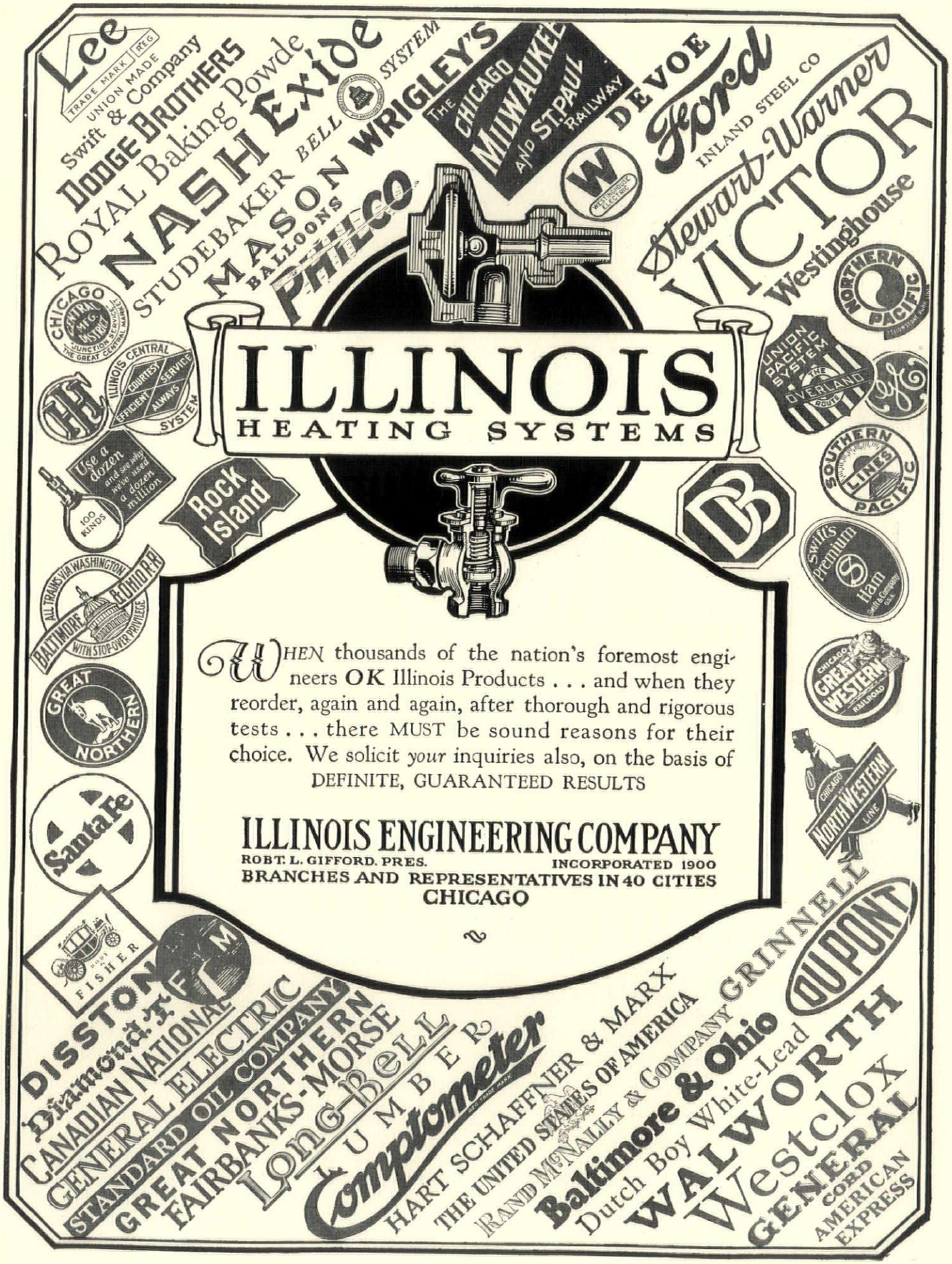
Undoubtedly this experience is typical of many. Of course, one reason that some house architects do not include all the accessory items in their estimates is because they are operating in direct competition with speculative builders or contractor-architects who keep their costs down by eliminating expensive items. But the intelligent architect can turn this lack of completeness into an effective argument for his own services.

One of my colleagues has developed an exceptionally complete skeleton specification that he submits to all his clients. In addition to all the standard items of construction, plumbing, heating and wiring he has made out a list of accessories that is unusually full. It lists such items as oil burners, automatic firing devices, humidifiers, screens, weatherstrips, radio antenna, radio loud-speaker outlets, a special electrical circuit for a home movie projector, additional telephone outlets, garbage incinerators, underground garbage receptacles, electric clocks, interior telephones, curtain rods, window shades, and so on. The client, at a consultation with the architect, checks off all items that he desires to have included in the contract; the tabulation is in duplicate, one copy going to the client, the architect retaining the other. Thus a very fruitful source of future argument is eliminated, for both the architect and the owner have a written record of exactly what is to go into this house.

But another and more unusual use for this check list has been developed by my resourceful friend. When, as sometimes happens, a potential client is weakening under the high pressure arguments of some speculative builder who is offering him a "complete" house at a price that my friend knows is impossibly low, he gives a copy of this check list to the client: "Ask him how many of these items are in this 'complete' house of his," he advises, "and then tell me what he says."

"And you'd be surprised," he concluded, when telling me how the system worked, "how large a percentage of them actually *do* come back and order plans. Of course none of them want all the items in that accessory list—if they did they'd have to build an extra house just for the accessories—but all of them want some of them, and they will be sure to decide that without a certain three or four of them life in any house would be insupportable. And since one or two or three of these are items that the gyp builder has left out to save money, the result is that they feel that he is not, in fact, offering them a complete house. And back they come to me."

Clients, I have found, are usually ready to pay a fair price for what they want. They know, most of them, that Santa Claus died last Tuesday, and that what they get they will have to pay for. Their complaint against the architect is not that they have to pay an excessive price but that they have to pay extra for things they believed were included in their contracts. When we all learn to include in our estimates the items our clients believe are actually as requisite as the foundations, then the joke about architect's estimates will lose its point.



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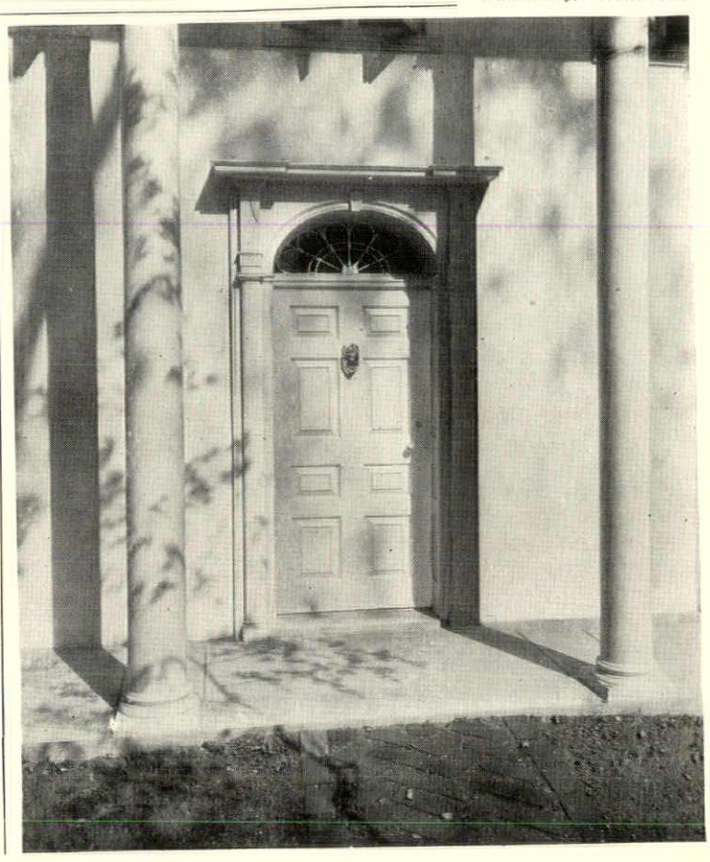
From December Good Housekeeping... formality on a small scale in a house by Edgar and Verna Cook Salomonsky, architects.



MAKING DREAM HOUSES COME TRUE

THE dream house does not, Topsy-like, "jest grow," as many a disillusioned house owner knows. What is needed to make the dream come true is the creative mind and guiding hand of the architect.

No one appreciates this more than the editors of Good Housekeeping. And no magazine of large circulation is doing more to carry the truth of this to its readers.

Every month a large section of Good Housekeeping is devoted to house design, sound construction, the selection of materials and equipment, and decorating and furnishing. Actual interiors and actual lived-in houses...the completed works of recognized architects...are used as subjects. Virtually every phase and problem is covered in a practical and useful way.

Good Housekeeping's advertising pages are likewise made to further the cause of good domestic architecture. Here the prospective house builder finds advertised only dependable materials and equipment. For Good Housekeeping guarantees every advertisement—expertly appraises or tests in its laboratories every product so that it can be guaranteed.

Good Housekeeping is probably best fitted among all magazines of large circulation to promote good domestic architecture and the use of good building materials. By environment, tastes and pocketbooks, the 1,750,000 families Good Housekeeping reaches are by far the most logical market for the services of the small house architect and the products of the building material manufacturer.

GOOD HOUSEKEEPING

Everywoman's Magazine

Eastern Outfitting Co. Bldg., Los Angeles, Calif. Claude Beelman, Architect; J. V. McNeil Co., General Contractors; Wigren-Lawrence Glass Co., Glass and Store Front Contractors.

NATURALLY PREFERRED *for* Modern Buildings

For full architectural details see Sweet's catalog. Write us for complete working data and pric. 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.

DESCO STORE FRONTS are so often the choice for modern buildings because they themselves are preeminently modern in character. Naturally, they add to the general element of modernness which the architect seeks to include in all building details. Also the handsome Desco designs are rich in appearance. They harmonize with any architectural style. And, too, Desco Store Fronts have the additional quality of flexibility, which protects the glass against abnormal wind pressure. 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 allow the architect a wide choice of materials and designs. Specify Desco Store Fronts for your next building.

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Desco METAL REG U.S. PAT OFFICE **STORE FRONTS**

Motifs Designed from the American Indian

(*Continued from page 25*)

and abstract ideas, their cause and effect. In fishes we find criss cross lines indicating their life in water, in birds we find clouds and mountains as indicative of flying.

The eagle, "Thunder Bird" as they call it, is sacred and has it attributes beside or as a part of its decoration; it is supposed to bring rain and hence a good harvest. These decorations consist of a group of semi-circles from which depend vertical lines to indicate rain and with diagonals projecting upwards to represent lightning.

Cloud symbols on pottery are often shown with a rainbow below, this being a prayer for rain—but only sufficient for their needs.

To the Indian, all objects have a separate existence. The ring resulting from striking a vessel denotes its voice, and the breaking releases its soul. Thus, we find a hole in the bottom of vessels, as in the prehistoric Mimbre Valley, to allow its soul to escape before burial with its owner. Sometimes the vessel is deliberately and completely broken.

As all painting is freehand and never corrected, Indian design demands complete coordination between hand and eye and a visual conception of the whole design before starting.

In teaching drawing, I have invariably stressed this point: have in your mind what you wish to say, draw as if running a race, keep your eye on the goal and do not look at the sides of the track, and make use of the basic laws of nature for good composition and design. The Greeks did this, so does the Indian; many moderns are striving for this, some have achieved it. Certain schools call it "Dynamic Symmetry."

The Acoma Indians, who are of the Apache tribe, divide their designs into symmetrical spaces and repeats, the plain part being as important as the decorated. Furthermore, the repeats follow the rythm and time beats in music, as we find in a rondo or a Bach fugue. This we find in all good design, not only in the Indian, but in the Egyptian and Assyrian sculptured friezes, and in the work of other schools.

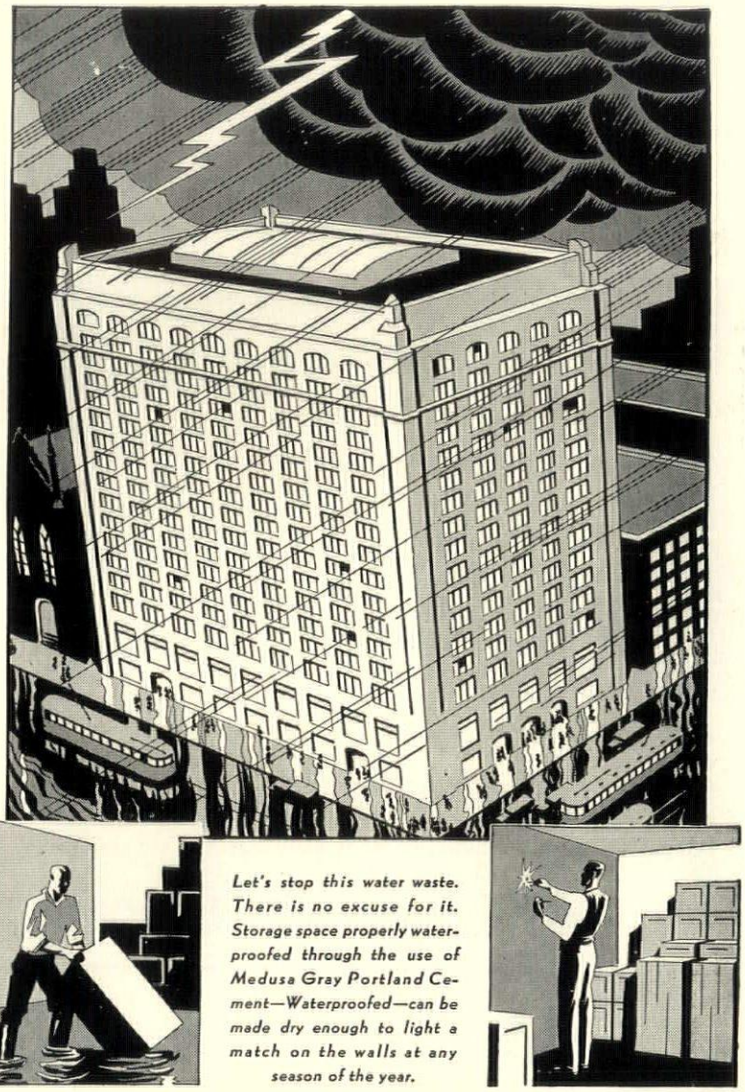
The Zuni is somewhat Gothic in its spiritual conception, always going upwards. The Hopi made more use of pure symbolism than do other Indian tribes.

The Indian always brings back his line, "the path" as they call it, to the road of life, and never completes a circle around any pottery, this being symbolical of the terminaiton of their life span.

Those of us who have witnessed Indian dances, enacted in the form of early Greek plays, cannot fail to realize the intense observation of nature evidenced by these people as seen, for instance, in the "eagle" dance where swooping movements and peculiar bird steps reach an indescribable height of emotional beauty.

Water Waste!

what it means



WATER WASTE represents the millions of dollars lost through the ruining of merchandise in damp or wet basements and warehouses. Additional millions are lost in moving stored merchandise endangered by water. Water waste also represents valuable basement store sales space due to loss through damp, unsanitary conditions. The protection of interior decoration is also an important factor.

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New Ventilation Code of New York City

THE ventilation problem—one of the most difficult with which the writers of the municipal building codes have had to deal—has been attacked in an entirely new manner in the new Building Code which The Merchants' Association of New York is now writing at the request of the City Administration.

In general, the proposed code intends that many spaces in which the air is now dead shall be ventilated by artificial means. The proposed code provides that in all cases the ventilation shall be sufficient to render the air harmless for the occupancies that are permitted.

As a means of accomplishing its purpose of providing pure air for everyone, the committee has recommended the establishment of a simple basic formula. Under this formula an index figure based on window space, floor area, cubical contents and proposed occupancy is established for all types of buildings. From the index figure, it is easy to calculate the ventilation requirements.

The present New York building code attempts to deal with the ventilation problem by permitting the presence of not more than one part of carbon dioxide to a thousand parts of air. For several reasons this test has been found impracticable. It is practically impossible to determine the amount of carbon dioxide that will be present under varying conditions. It has been found that even when the carbon dioxide content is below the specified amount, areas may still be badly ventilated. In the judgment of the committee the carbon dioxide index has been absolutely worthless.

The proposed code, as written by the subcommittee, reads as follows:

"Spaces above grade, with or without windows, designed for human occupancy only, shall have ventilation either from windows or from mechanical means, or from both, in accordance with the following index and requirements:

"Cubic contents per person plus 10 times floor area per person plus 100 times window opening per person equals index.

"For Rooms With Windows

"If the Index is less than 300 there shall be supplied an amount of fresh air equal to 2½ cubic feet per minute per square foot of floor area, and an air exhaust of 2 cubic feet per minute per square foot of floor area.

"If the Index is between 300 and 520 there shall be supplied an amount of fresh air equal to 2 cubic feet per minute per square foot of floor area, and an air exhaust of 1½ cubic feet per minute per square foot of floor area.

"If the Index is between 520 and 850 there shall be supplied an amount of fresh air equal to 1½ cubic feet per minute per square foot of floor area and an air exhaust of 1¼ cubic feet per minute per square foot of floor area.

"If the Index is between 850 and 1650 there shall be required an air exhaust only of 1 cubic foot per minute per square foot of floor area.

"If the Index is above 1660 no ventilation is required.

(*Continued on page* 106)

"For Rooms Without Windows

"If the Index is below 850 the requirements shall be the same as for rooms with windows.

"If the Index is between 850 and 1650 there shall be required an air supply of one cubic foot per minute per square foot of floor area and an air exhaust of 1 cubic foot per minute per square foot of floor area.

"If the Index is over 1650 there shall be required an air supply of 1/3 cubic foot per minute per square foot of floor area and an air exhaust of 1/3 cubic foot per minute per square foot of floor area.

"Interior partitions shall have transoms, and when partitions occur 30 feet or more away from a window or similar opening, the room so formed shall have ventilation based upon the Index without windows.

"Plans for structures except one and two family dwellings, designed for human occupancy and filed with the Building Department, shall have designated thereon the number of persons which the rooms and various spaces are planned to accommodate.

"Spaces below grade without windows and designed for human occupancy shall have a mechanical means of ventilation of at least 50 cubic feet per person per minute and at least 4 changes per hour."

The subcommittee that drafted the report was headed by Clyde R. Place, Heating and Ventilating Engineer. The other members of the committee are B. H. Belknap, W. H. Driscoll, Charles Hoffman, Arthur K. Ohmes and Frederic N. Whitley.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

Of AMERICAN ARCHITECT, published monthly at New York, N. Y., for October 1, 1930.

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

Before me, a Notary Public in and for the State and county aforesaid, personally appeared E. H. McHugh, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the AMERICAN ARCHITECT and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, International Publications, Inc., 959 8th Ave., New York City; Editor, Benjamin Franklin Betts, 959 8th Ave., New York City; Managing Editor, Ernest Eberhard, 959 8th Ave., New York City; Business Manager, E. H. McHugh, 959 8th Ave., New York City.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

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

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

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is.....
(This information is required from daily publications only.)

E. H. McHUGH, Business Manager.

Sworn to and subscribed before me this 25th day of September, 1930.
(Seal) G. E. STAHL.

Notary Public Queens County No. 1754, Reg. No. 5463. Certificate filed in N. Y. County No. 133, Reg. No. 1S190. Commission expires March 30, 1931.

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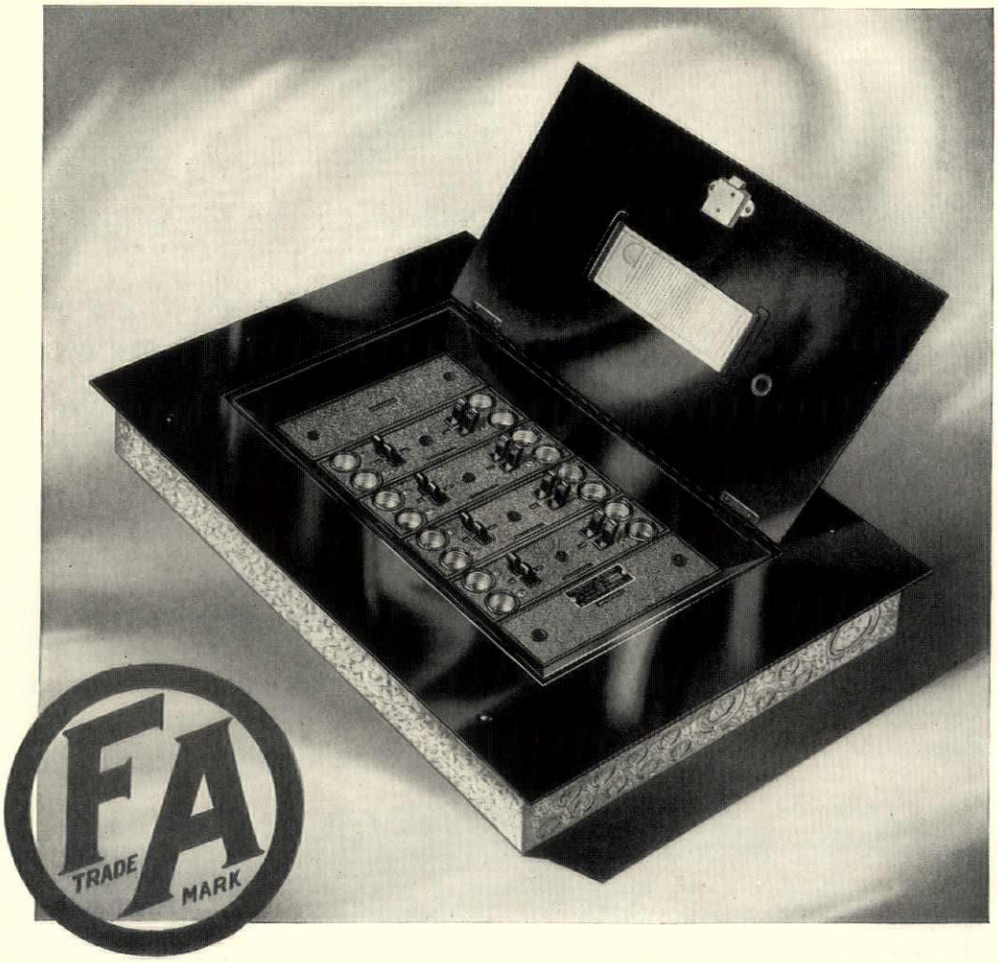

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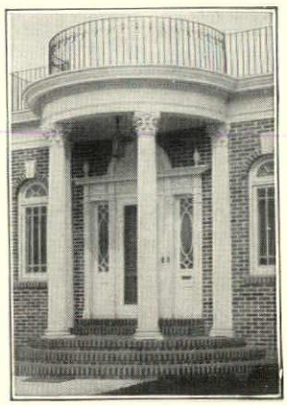

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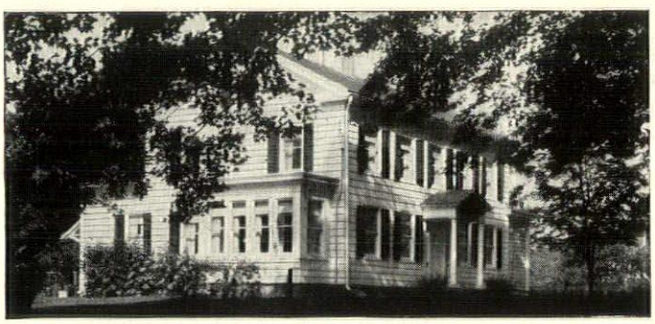

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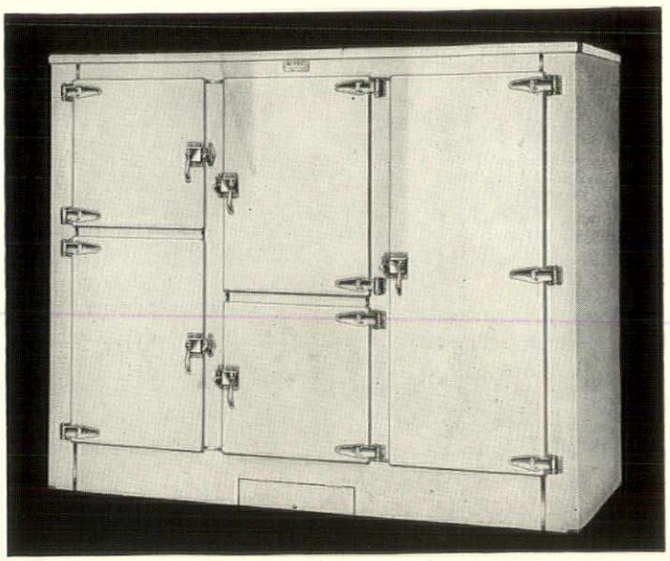

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TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., November 8, 1930.—SEALED BIDS will be opened in this office at 3 p.m., December 8, 1930, for the construction of the U. S. post office at Kosciusko, Miss. Drawings and specifications, not exceeding six sets, may be obtained at this office in the discretion of the supervising architect by any satisfactory general contractor, and provided a deposit of $15.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. JAS. A. WETMORE, Acting Supervising Architect.

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A WORLD association of contractors is indicated by affiliation of American general contractors with the International Federation of Building and Public Works, as recently authorized by the Associated General Contractors of America. The Federation has a membership of 162,000 general contractors representing thirty-five nations. Its extensive scientific researches in the construction field have produced many valuable building innovations which have not yet found their way into the United States.

"The Unofficial Palace"

"The unofficial palace of New York," as the old Waldorf-Astoria was called, is gone. On its site has been erected the 85-story Empire State Building, the world's highest structure.

A new and greater Waldorf-Astoria, on Park Avenue between 49th and 50th Streets, will open its doors in October, 1931. The superb architectural beauty of this veritable palace, and the rare distinction of its interior decorations will suitably continue a great tradition.

Carnegie Beams were used in the construction of both the Waldorf-Astoria and the Empire State Building.

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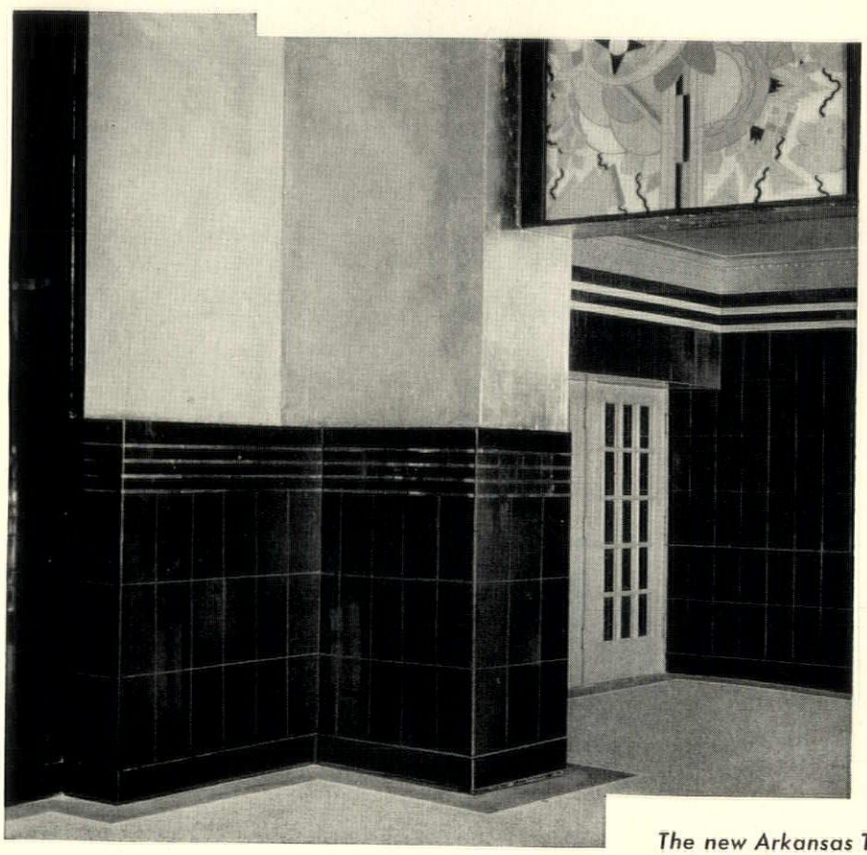
VITROLITE crystallizes the dream of the "*Modern*"



The new Arkansas Theater, Little Rock, Ark., pictured above, has a Vitrolite lobby. Standard black ashlar wainscoting, capped by four bands of polished aluminum, forms a striking contrast to the indirectly illuminated silver leaf walls above. Architects, Petter & McAninch, Little Rock, Ark. Contractor, Gordon Walker, Little Rock, Ark.

BEAUTY? Yes, startling beauty. Combine this inherent quality of Vitrolite with its many other advantages, and the reason for the thousands of new Vitrolite installations is supplied. But Vitrolite is "friendly" to the "architect," because it crystallizes modern thought. In shape and color it is adaptable. It is in itself the very spirit of a new era in architectural conception.

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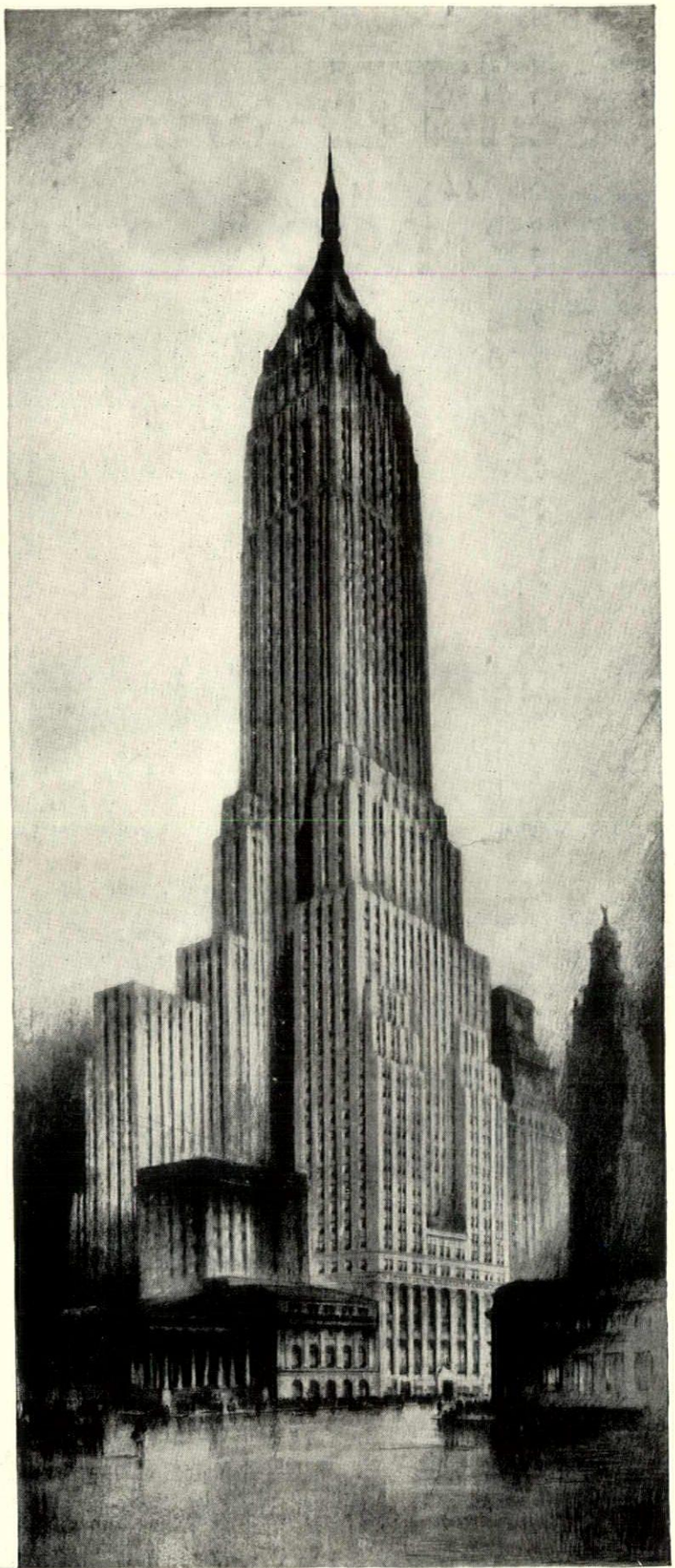

BANK of MANHATTAN BUILDING

New York City

Framework of Bethlehem Wide-Flange Structural Shapes

BETHLEHEM
STEEL COMPANY
General Offices: Bethlehem, Pa.

District Offices: New York, Boston, Philadelphia, Baltimore, Washington, Atlanta, Buffalo, Pittsburgh, Cleveland, Cincinnati, Detroit, Chicago, St. Louis.

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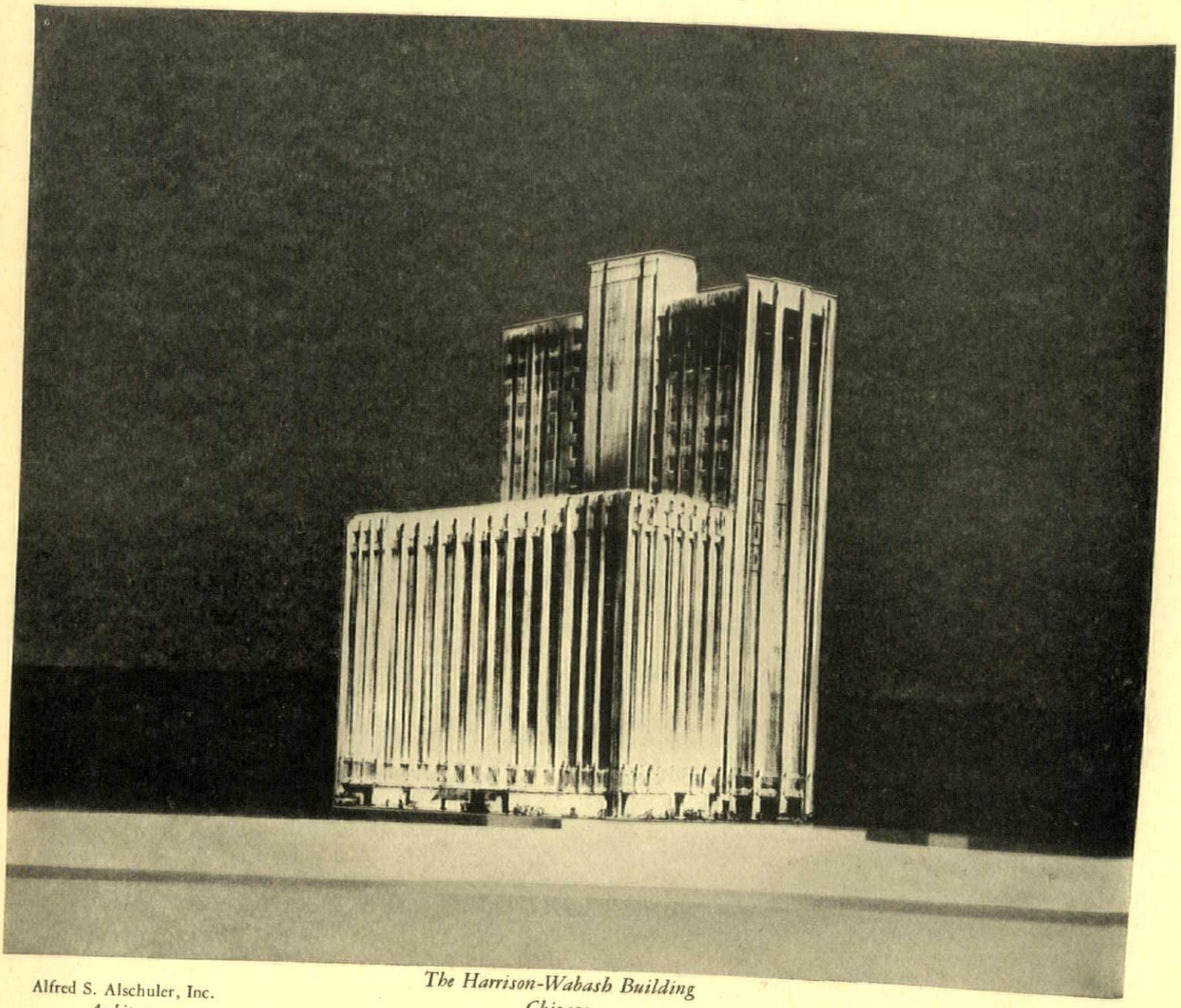

Alfred S. Alschuler, Inc.
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The Harrison-Wabash Building
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Henry Ericsson Company
Contractors

This new building is the advanced conception of hotel accommodation—where automobiles also receive efficient, orderly care. The famous "precision landings" of Westinghouse Electric Elevators are as essential in modern garage operation as in passenger transportation—permitting heavy or light loads to roll smoothly on or off. The elevators in the Harrison-Wabash Building are high speed—full automatic control—the highest type in this class of fine elevators.

Westinghouse Elevators
Are the Logical Highways of
Modern Architecture

ELEVATORS

Westinghouse Electric Elevator Company

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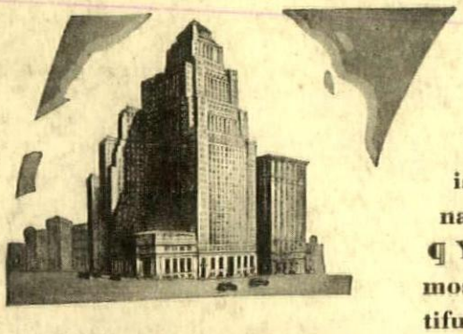

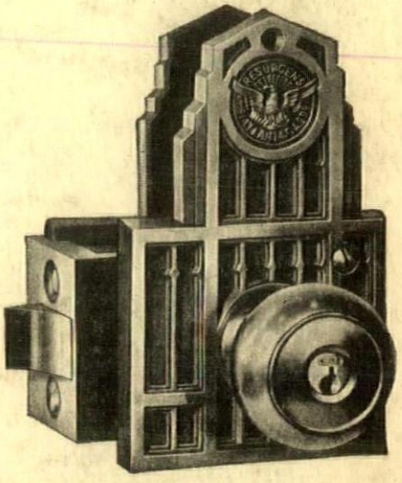

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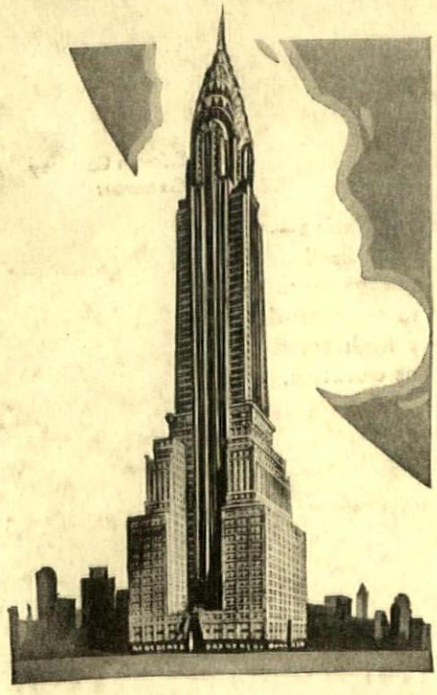

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