

BRICKS WITHOUT BRAINS
BY GROSVENOR ATTERBURY
THE PARIS EXPOSITION
GOTHIC BUTTRESSES

ARCHITECTURE

APRIL, 1936
FIFTY CENTS

CHARLES SCRIBNER'S SONS



TAKING THE OCEAN TO KEOKUK

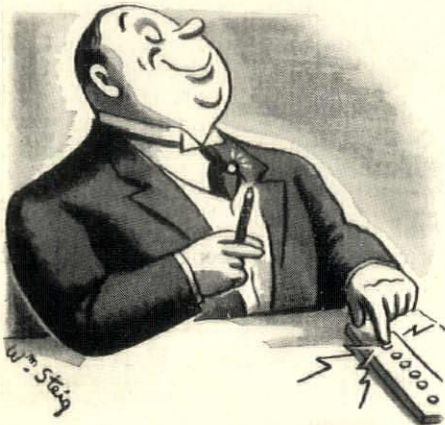
New England produces nearly a third of the two billion pounds of fish consumed annually in this country. Advanced methods of freezing and handling retain delicious freshness—make 'shore dinners' possible a thousand miles inland. Trawlers use a ton of ice to a ton of fish. In port, fish are rushed to freezing room—a mighty busy place all season long. Recently, freezing-room floor of Atlantic Coast Fisheries' Provincetown, Mass., plant was replaced. Concrete has to stand up under hardest wear and exposure—resist constant wetting and drying, freezing and thawing. That meant first-class concrete—'good enough' wouldn't do.

By using 'Incor' 24-Hour Cement, work was completed in 48 hours, saving an 8-day plant tie-up. And concrete is stronger, denser, more watertight—because 'Incor' cures thoroughly in the short time concrete can be kept wet. Hence, speed no longer means sacrificing quality; instead, you get better concrete, in one-fifth the usual time, at substantially lower cost. Suggesting that contractors be encouraged to estimate exposed work under watertight-concrete specifications which take full advantage of 'Incor's' greater curing efficiency. 'Incor'* 24-Hour Cement is made and sold by producers of Lone Star Cement, subsidiaries of International Cement Corporation, New York.

*Reg. U. S. Pat. Off.

'INCOR' 24-HOUR CEMENT

**"How I became President of the company—
—Yet I'm only 59"**



A Success Confession

*wrung from Rensselaer Morgan**

"FOR years I suffered that dread affliction that only four out of five men can understand. That scourge, Scratchitus (gritty pencils). I tried everything—all kinds of pencils, but I couldn't seem to find a smooth flowing one.

"Although I had an expensive desk set, my writing was terrible, my best friends told me. Grit got my goat. I always felt apologetic.

"Then I discovered Venus Pencils and now I have a charge account at the Ritz and a man tried to sell me his yacht.

"To end self-consciousness and be a Napoleon in Business, the first requirement is a superior pencil, one that can't scratch, one with strong points.

"Since I began to use Venus Pencils, I'm a different person. And father made me president of the company."

* Rensselaer Morgan, head of Morgan, Morgan & Morgan, did not receive one cent for this testimonial, yet he might have accepted it. But we thank him, instead. Here's to being Chairman of the Board, Rennie.

for the best in colored pencils ask for VENUS COLORING—thin, strong, smooth.

VENUS
PENCILS 10¢

• *This advertisement appears in Collier's and Time.*

What we say in this advertisement to the general public is different from our message to you. Architects and Engineers are not so much excited about smoothness in pencils. They assume that. What they are interested in is accurate grading.

As you know, Venus Pencils come in 17 shades of black—not an extraordinary fact.

Their real fame lies in their uniformity, year in and year out. Costly tests and elaborate supervision insure every pencil of any one grade being identical.

You can rely on their precise grading.

Perhaps that's why Venus Pencils are the largest selling quality pencils in the world.

Venus Pencils are also made in Toronto, Canada, by the Venus Pencil Company, Ltd., and in London, England, by the Venus Pencil Company, Limited.

AMERICAN PENCIL CO. HOBOKEN, N. J.

THE BULLETIN - BOARD

THE KATE NEAL KINLEY MEMORIAL FELLOWSHIP

BY authority of the Board of Trustees of the University of Illinois the committee in charge announces the fifth annual consideration of candidates for the Kate Neal Kinley Memorial Fellowship. The Fellowship yields the sum of one thousand dollars which is to be used by the recipient toward defraying the expenses of a year's advanced study of the fine arts in America or abroad.

The Kate Neal Kinley Memorial Fellowship is open to graduates of the College of Fine and Applied Arts of the University of Illinois and to graduates of similar institutions of equal educational standing.

Applications should reach the committee not later than June 1, 1936. Requests for application blanks and instructions should be addressed to Dean Rexford Newcomb, College of Fine and Applied Arts, University of Illinois, Urbana, Ill.

LOW-COST HOUSING CONFERENCE

PENNSYLVANIA State College, through its Department of Architecture, is holding a Conference on Low-Cost Housing on April 16 and 17 at State College, Pa. Among the authors of papers to be presented are: H. S. Buttenheim, N. H. Engle, Arthur C. Holden, Dr. Edith E. Wood, Ernest M. Fisher of FHA, H. N. Peaslee of PWA, and Pope Barney of Philadelphia.

A. I. S. C. STUDENT BRIDGE COMPETITION

THE following jury of architects and engineers have consented to serve as judges in the eighth student bridge design competition held annually by the American Institute of Steel Construction:

H. H. Allen, consulting engineer of Baltimore; Arthur G. Hayden, designing engineer, Westchester County Park Commission, White Plains, N. Y.; Theodore E. Blake, architect, New York; Archibald Manning Brown, President, Architectural League of New York; and H. H. Saylor, Editor of ARCHITECTURE.

Students of engineering and of architecture in the colleges and technical schools of the United States are eligible to participate in this com-

petition. The problem is a design for a grade elimination over-pass. The students are now invited to submit their preliminary designs which the jury will review on April 15, 1936, and select therefrom the ten best. The students who designed those will be requested to make finished drawings which the jury will judge on May 13, 1936. The best of the final drawings will receive a cash prize of \$100; the second best, \$50.

WPA ART SCHOOL

A NEW free art school for underprivileged students has been established in New York under the Federal art project of the Works Progress Administration.

The school, to be known as The Design Laboratory, has quarters at 10 East 39th Street. Some 200 students can be instructed on the single floor which the school has taken. The school will not compete with private institutions and will accept only students who cannot afford to pay for instruction.

In The Design Laboratory, "the greatest emphasis will be placed upon instruction in industrial design." According to Gilbert Rohde, director, "We already have in this country many excellent schools of fine art, a few good ones in graphic art, and many good trade schools, but a need which at this moment remains almost entirely unfulfilled is a school which co-ordinates training in esthetics, products, machine fabrication, and merchandising. It is the training which emphasizes this co-ordination which is so essential in the preparation for the work of the industrial designer.

"The basic plan of approach in the education of the industrial designer is perhaps best described by first stating what it will not be. We will not set out to make furniture designers, refrigerator designers or wallpaper designers out of our students. We will seek to make designers."

GROUPE AMERICAIN MEDAL TO PRINCETON

FOR the second time in the last four years, the School of Architecture of Princeton University has been awarded the Medal given annually by the Groupe Americain, Société des Architectes Diplomes par le Gouvernement Français. The winner is selected on the basis of the

record made by its students in the competitions in Architectural Design conducted by the Beaux-Arts Institute of Design in New York. The faculty, curriculum and program of the School must also be approved by the Société.

Princeton's Beaux-Arts record this year was impressive. During 1934-35, a total of 851 drawings from all parts of the United States, and even Canada and Mexico, were approved by local preliminary juries and sent to New York. Sixteen of these were voted "First Medals" and 30 were awarded "Second Medals." Princeton entered only 34 drawings but received 4 First, and 7 Second medals. In other words with only 4 per cent of the total number of contestants, Princeton won 25 per cent of the highest awards.

HARVARD SCHOOLS MERGED

THE overseers of Harvard University have approved a plan for uniting into one division the schools of architecture, landscape architecture, and city planning. These schools will now become departments in a new division to be known as the Graduate School of Design. Professor Joseph Hudnut will be chairman of the Department of Architecture and dean of the new school. Professor Bremer W. Pond will be chairman of the Department of Landscape Architecture, and Professor Henry V. Hubbard chairman of the Department of Regional planning.

HOUSE BUILDING

STATISTICS from the Bureau of Labor, covering building permits for residential units in 811 cities, show an increase of 143.8 per cent for the year 1935, as compared with 1934. These figures represent a substantial increase in construction activity. They should not be judged, however, without reference to a longer period. In 1928, a year of peak construction, the volume of contract awards for residential building totalled \$2,788,317,000. In 1929 this total fell to \$1,916,000,000. In the years following, this decline continued at a precipitate rate, and while industrial activity generally turned upward in 1933 and 1934, residential construction remained in the depths at a new low of \$248,840,000 for 1934.

(Continued on page 12)

ARCHITECTURALLY SPEAKING

by

OTIS ELEVATOR COMPANY

An interesting example of architectural foresight has just come to our attention. An architect, in planning a dwelling, indicated a hatchway that was to be used at some later date for an elevator installation. Until the owner was ready for the elevator, the space was used for closets (what woman ever had too many closets?). Recently, we installed a Personal-Service Elevator in that hatchway. We pass this on as an idea — because not many years hence a lot of people who are building today will wish they had made provision for elevators.



One of the most recent (and most important) trends in elevator modernization is the change-over from old-fashioned car-switch control to automatic Signal Control. As an elevator modernization possibility, it outshines all others in the direction of better elevator service. Needless to say, passengers notice the change and are favorably impressed. And the building owner is impressed by a material increase in operating efficiency which, of course, tends to reduce elevator operating expenses.



A tip: Recommend the purchase of *elevator service* rather than just an elevator installation. In other words, an elevator installation *plus* maintenance by the manufacturer. Reason: Four walls, no matter how good from an architectural standpoint, cannot defend the prestige

of a building against interior deterioration. And manufacturer maintenance helps prevent this inside decay where it is most noticeable.



Have you seen the latest Otis Undercounter Dumbwaiter? It's self-contained — and can be installed in a leased building and moved like any other store equipment. It brings the store-room within reach of the clerk's hand — leaves shelves free for *variety of display* rather than quantity of any one product. No unsightly overhead machinery required. Ideal for many types of retail stores — especially where sales-room space is limited.



The Escalator has gone modern. In its new streamlined dress of gleaming metal, it has helped modernize traffic facilities in a wide variety of buildings in the last few years. The Escalator is not fussy about the frills or materials of this dress. By this we mean that the new types of balustrading can be adapted to suit the architectural treatment of any building.

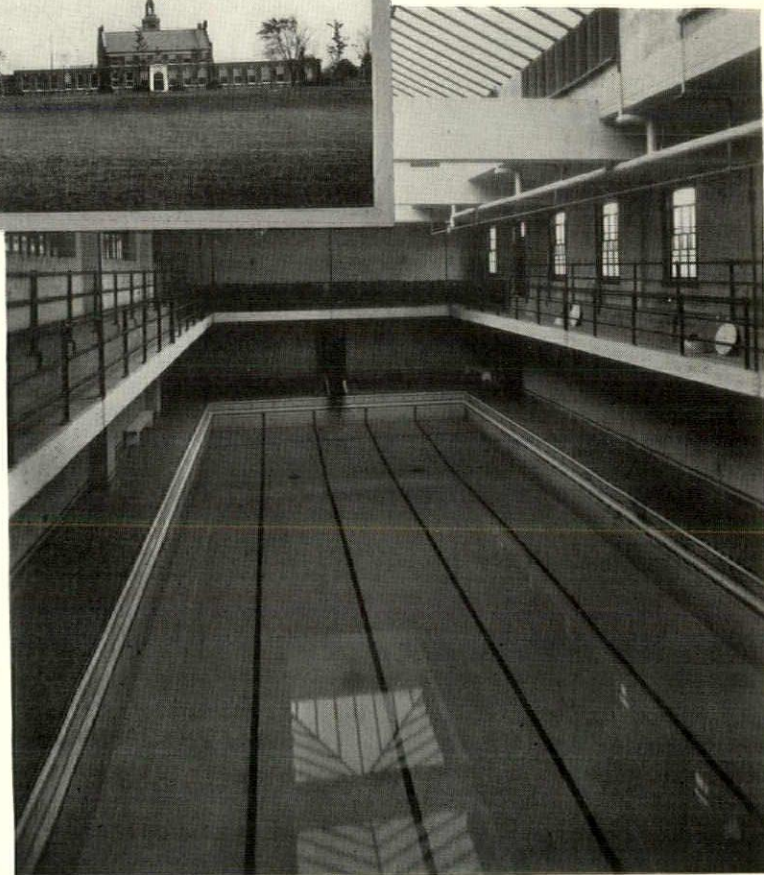


What would you like to see printed in "Architecturally Speaking"? We'll be glad to receive suggestions and answer questions on this page. We want to make this feature both interesting and worth while. Otis Elevator Company, 260 Eleventh Avenue, New York City.

THE ARCHITECT SAYS . . . about CHLORINATION



The University School, Cleveland, Ohio, and below, a view of the pool. Walker & Weeks, Architects, Cleveland. This well designed swimming pool, built in 1925, has been continuously sterilized by a W&T Chlorinator.



F. R. Walker says: "Bacteria need not be dreaded with the proper use of chlorine. We have numerous Wallace & Tiernan Chlorinators in many of our pool installations."

"FROM all available information the addition of chlorine . . . by use of proper apparatus is today the most satisfactory method of pool disinfection." So states the Joint Committee on Bathing Places of the American Public Health Association and the Conference of State Sanitary Engineers.

Thus, the architect protects his own professional standing as well as the health of the bathers who use the pool when he specifies chlorination — applied with W&T Chlorinators.

Proven trustworthy over two decades' experience, W&T chlorinators deliver dependable, cheap, trouble-free service year after year. They are the standard of chlorination.

Specify Wallace & Tiernan equipment when designing your next pool. A staff of field representatives experienced in all problems of sanitation awaits your request to be of service.

Ask for the W&T Swimming Pool Series reviewing sterilization of 8 different classes of pools.

"SWIM IN DRINKING WATER"

WALLACE & TIERNAN CO., INC.

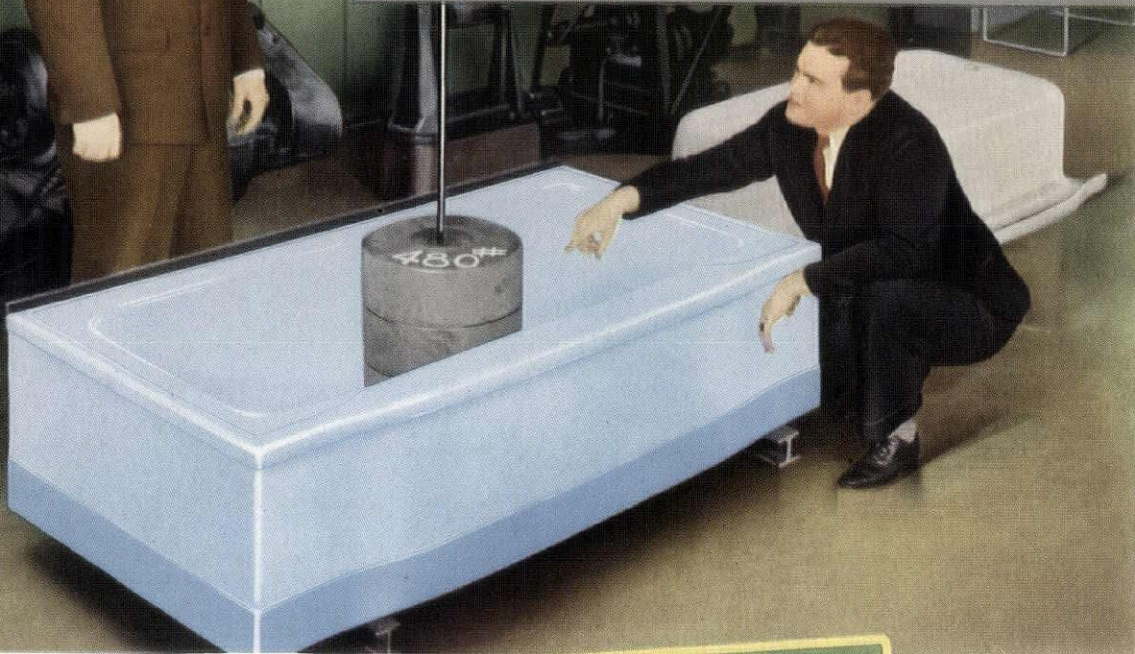
Manufacturers of Chlorine and Ammonia Control Apparatus

NEWARK, NEW JERSEY



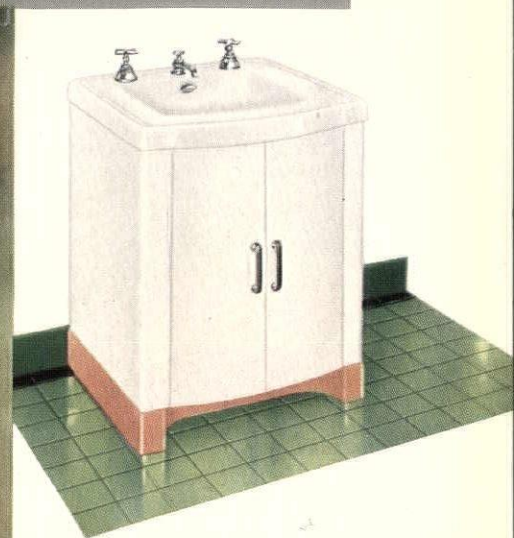
Branches in Principal Cities

102 YEARS OF USE ... and still going strong!

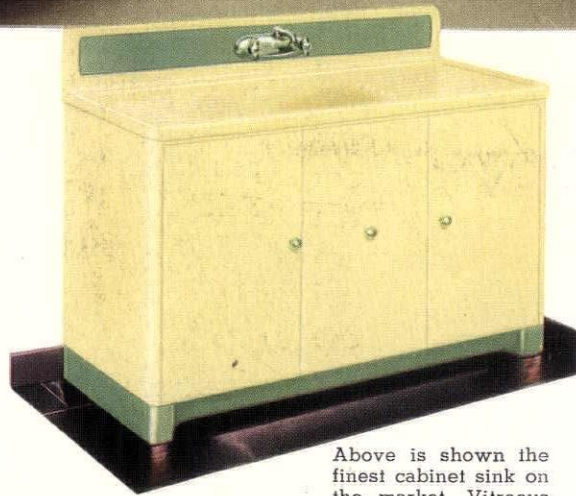


Above is a photograph of a dramatic test—a flexing test that would tear the heart out of a quitter. A 480-pound weight — more than 300 pounds heavier than the average person—was lowered and raised in the tub, flexing the metal 23 times a minute, for 139,000 times! The metal and porcelain flexed in unison and not a defect in the enamel or the metal showed up. It would take a family of four people, each weighing 480 pounds and each taking a bath every day in the year for 102 years, to equal this wear and usage. Yet, the base does not flex at all when any person steps into the tub.

Brigsteel Beautyware formed metal fixtures are twice as strong, but they weigh only one-third as much as cast iron fixtures. This light weight is obviously of prime importance to the architect, to the builder and to the home owner. Brigsteel vitreous porcelain finishes, in 83



Above is shown the first vitreous porcelain cabinet lavatory. Deep, wide basin; convenient, roomy utility ledge; large storage space; two polished plate glass shelves; recessed base for toe room—are features.



Above is shown the finest cabinet sink on the market. Vitreous porcelain or high-baked enamel finish.

gorgeous color combinations, fused by a special process on pure Armco Ingot Iron, give rare beauty, long life and superb quality to Brigsteel Beautyware.

The Briggs Department of Design and Color will gladly cooperate with you on new, practical color combinations.

Wholesalers all over the country are now provided with specially-designed fittings made for Brigsteel Beautyware by leading brass goods manufacturers.

Ask your Master Plumber for descriptive literature, roughing-in drawings and specification data, or, if you prefer, write Brigsteel, Detroit.



Popular, pedestal type lavatory; beautiful two-tone combination; acid resisting; easily cleaned overflow—an exclusive feature.

Plumbing Ware Division
BRIGGS MANUFACTURING COMPANY
Detroit, Michigan

Wide Rim Seat Tub; a safety and utility feature; Embossed Serpentine Bottom, with the safety tread; Lip Flange for tiling-in.



BRIGSTEEL
Beautyware
BETTER PLUMBING FIXTURES FOR BETTER HOMES

© 1936



● *The average person spends more than half a lifetime between four walls. Can the need for ample fenestration be questioned? Can the vital importance of quality in glass be over-emphasized?*



Libbey-Owens-Ford Glass Company, Toledo, Ohio manufactures a complete line of flat glass, including Flat Drawn Window Glass . . . Polished Plate Glass, both plain and colored . . . Heavy Sheet Glass . . . Greenhouse Glass . . . Safety Glass . . . Tuf-Flex tempered plate glass . . . Vitrolite opaque structural glass . . . Aklo heat absorbing glass . . . and distributes the Figured and Wire Glass manufactured by the Blue Ridge Glass Corporation of Kingsport, Tennessee.

LIBBEY · OWENS · FORD
Quality Glass



YOUNGSTOWN

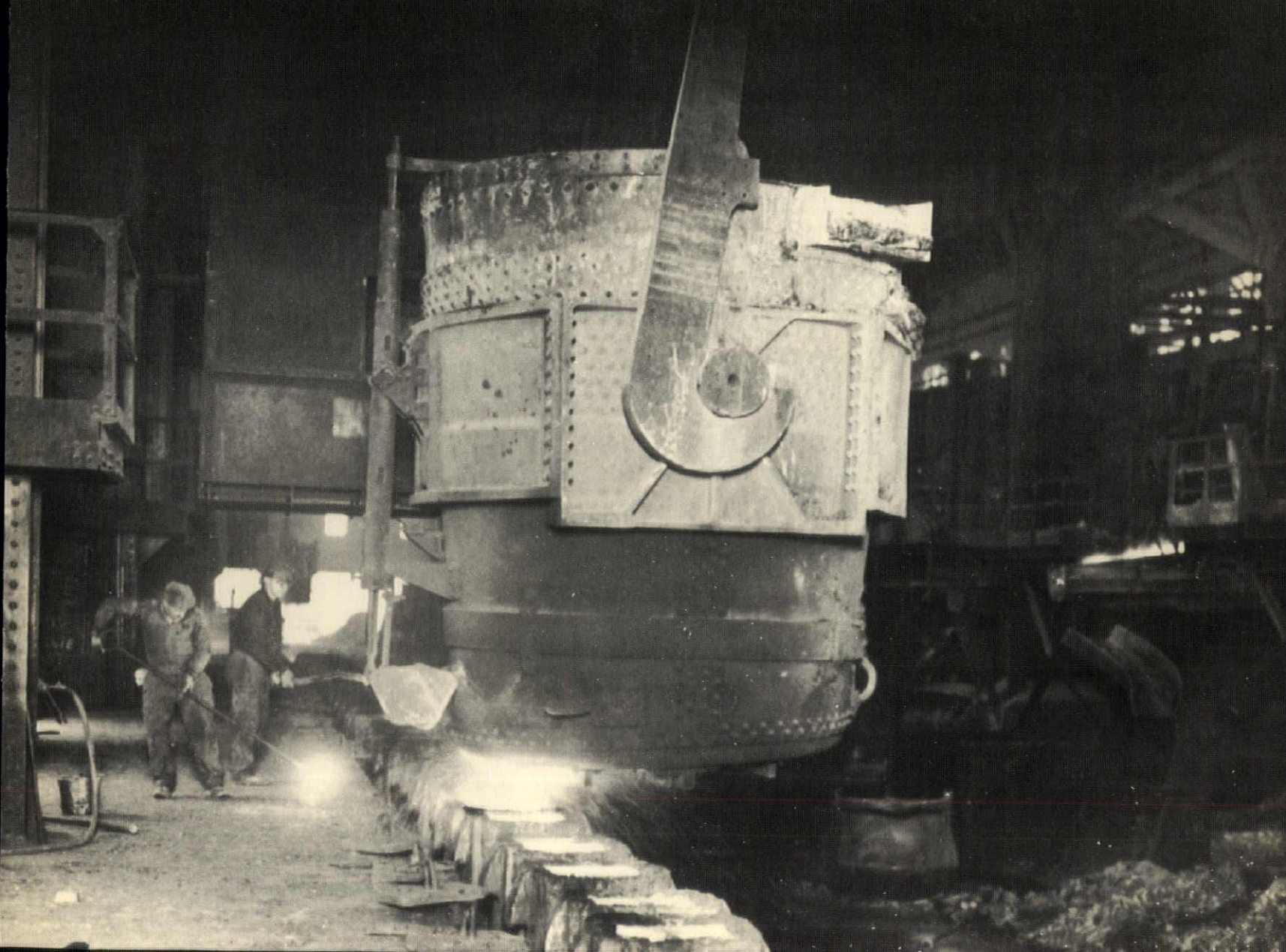


In the lurid, pulsing glare reflected from the haze overhead, Youngstown metallurgists and inspectors, ignoring the din and clamor, actively safeguard our customers' interests at every stage of the manufacture of Youngstown products

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General Offices : : : Youngstown, Ohio

Tubular Products; Sheets; Plates; Tin Plate;
Bars; Rods; Wire; Nails; Conduit; Unions;
Tie Plates and Spikes



Some "Sure-Enoughs" About Hand Made AND Mould Made Brick

A WHOLE passel of years ago, there was a writer-fellow over yonder in England, known in his parts as Charlie Lamb. Every once in a while he said something that was almost so. One of the things he said, as I recollect it, was: "It's better not to know so much, than to know so much that's not so."

Every time I hear a lot of goings-on about how hand made brick has it all over mould-mades, sort of wonder what they are really talking about.

Seems as how, when I crank up my nerve to ask 'em, their answer makes me think of what Mr. Lamb said.

If you care at all to know the facts what-is, I don't mind a bit setting 'em forth.

There was once a man named Mr. Jefferson. Well, he came back from England 150 or so years ago, toting along a brick mould. It was the mould that was the pattern for the bricks that went into Monticello, and pretty much all the other buildings he architected.

The slaves in those yore-days mixed the clay in a pug mill run by a mule on the end of a pole. The mixed clay came out of a hole on one side, was lumped up by a slave, and thrown into the mould and pressed down, then stroked off smooth with a stick.

So much for *hand-mades*.
Now how about our *mould-mades*.



Here's old Rastus carrying away to the drying rooms a mould full of our hand-mades.

The moulds are declare-to-goodness copies of Mr. Jefferson's. The clay is mixed by machine and pushed into the sanded moulds and the surplus scraped off. As a result you have all the desirable slight off-shapeness and softened edges of the hand-mades, without being so pronounced as to look sort o' maybe too-much.

These mould-mades of ours, have a uniformity of density you can't possibly get with hand-mades. So dense are our mould-mades that when hit together after their long burning, they'll fairly ring. It takes well nigh 30 days to make such brick.


And right here and now, want you to know that we make both hand-made and mould-made Old Virginians. It costs only a few dollars to set up a hand-made outfit. But it costs something around \$50,000 or so to get going for our mould-mades. The only reason we spent that fifty, was to make better bricks and still give 'em all the ear and nose marks of hand-mades.

So now folks, that's the truth. Believe as much of it as you like. But one thing sure, no one down here in Old Virginny makes a brick equal to ours, and ours is born old besides. So old it might just as well have been made by Mr. Jefferson himself.

HENRY GARDEN
Brick Maker for
OLD VIRGINIA BRICK CO.
with Mr. Jefferson as a Guide



And here's one of our mould-made moulds. It's made of cherry and maple with iron-bound edges after Mr. Jefferson's own pattern he brought back from England.

OLD VIRGINIA  BRICK

Old Virginia Brick Company
Salem, Virginia

Protection

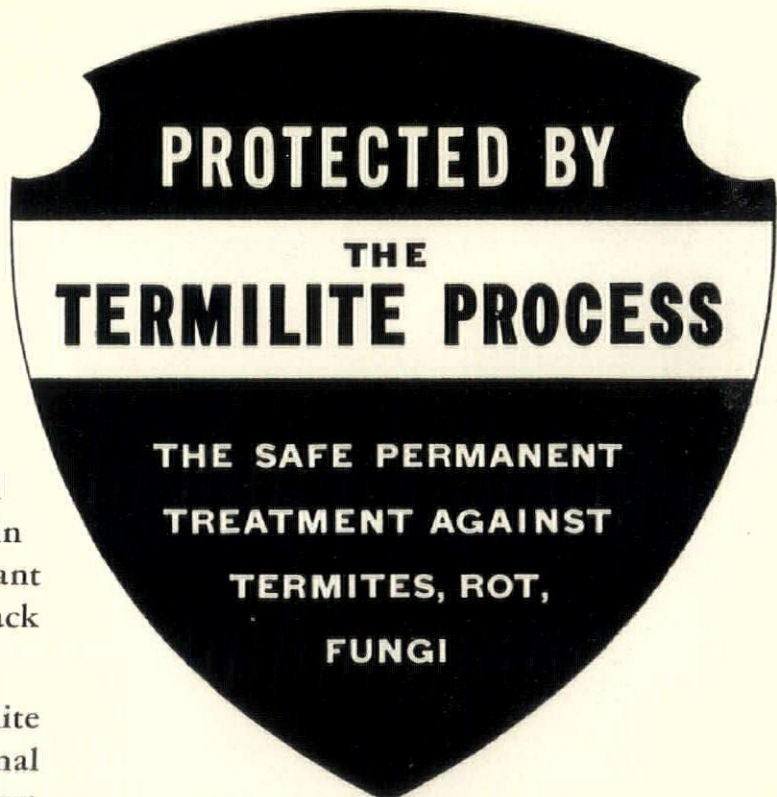
against the greatest scourge
in the building industry today

Insist
**ON THIS SEAL OF
PROTECTION**

Many years of research, experiment and tests have gone into developing this outstanding treatment, now being applied to Insulite products during manufacture in such a way that every fiber has this important and permanent protection against attack by termites, rot and fungi.

SAFE! No ingredient is used in the Termilite process that is harmful to human or animal life...safe to handle and use. Does not affect the appearance of Insulite. No added cost!

LOOK FOR THE SEAL. Look for this seal of protection. It appears on bundles of Insulite, whether the product be Building Board, Sheathing, Lok-Joint Lath, Tile, Plank or Roof Insulation. It is a permanent safeguard against damage to all buildings



by termites, rot and fungi. The Insulite Company, Dept. A26, Minneapolis, Minn.

(Build Right with Insulite)

INSULITE

The Original Wood-Fiber Insulating Board

IN EVERY ADVERTISEMENT TO PROSPECTIVE BUILDERS OR MODERNIZERS WE SAY:
"IT WILL PAY YOU TO SEE AN ARCHITECT WHEN YOU BUILD OR REMODEL"

The BULLETIN-BOARD

(Continued from page 4)

Looking at these figures in a different category, in 1933 the total volume of new urban home mortgage loans was \$673,100,000, of which \$129,000,000 represented loans for new home construction. In 1934 the total was \$2,512,000,000, of which \$110,000,000 was for new homes. In 1925, the peak year for all time, the sum of \$2,456,000,000 represents the loans for new home construction. In 1935 the estimated total of mortgage financing was \$1,702,000,000.

HENRY BROOKS PRICE

1873-1936

HENRY BROOKS PRICE, architect, formerly of New York, died on February 21 in Washington at his home, after a long illness.

Mr. Price was born in Baltimore and was educated at Johns Hopkins University and at the Ecole des Beaux Arts in Paris. Afterward he made his home in New York, where he designed the Numismatic Museum and an addition to the Hispano Museum. In 1931 he retired and moved to Washington. He was a

member of the American Institute of Architects.

FRANK A. BOURNE

1871-1936

FRANK AUGUSTUS BOURNE, architect, died February 15 at his home in Boston.

Mr. Bourne was born in Bangor, Me., and received his education at the University of Maine and at the Massachusetts Institute of Technology. Among his better-known works are the Winchester Congregational Church, Bangor Congregational Church, St. Luke's in Chelsea, St. John's in Franklin, the Mission of the Epiphany in Dorchester, the Church of All Nations, Our Lady of the Snows, in Dublin, N. H., the Ray Memorial School and Dean Academy Science Building in Franklin. Mr. Bourne also designed a score or more houses in Charles River Square.

Mr. Bourne wrote many articles and several books, among them, "Study of the Orders of Architecture" and "Architectural Drawing" (with H. V. von Holst and F. C. Brown). He also compiled bibliographies on city planning and housing. Mr. Bourne was a member of the American Institute of Architects.

PERSONAL

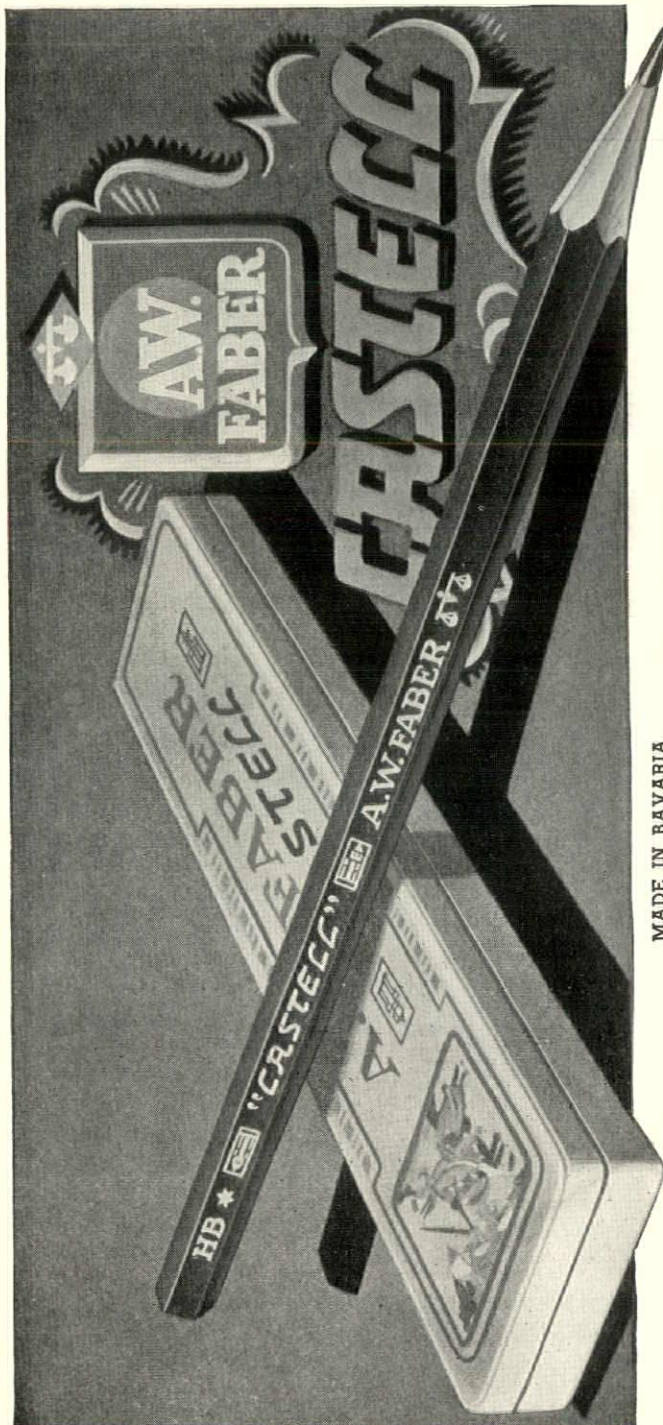
Walter V. Wuellner, architect, is now located at 1821 Liberty Street, Alton, Ill.

Announcement has been made of the change in name of the architectural firm of Robert O. Derrick, Inc., to Derrick & Gamber, Inc. Robert O. Derrick and Branson V. Gamber, architects, compose the firm, whose offices are located in the Union Guardian Building, Detroit, Mich.

Roger Allen, architect, succeeding the firm of Frank P. Allen & Son, announces the removal of his office to the Grand Rapids National Bank Building, Grand Rapids, Mich.

M. J. Mendelssohn, architect, has opened an office for the practice of architecture at 1434 St. Catherine Street, West, Montreal, Canada, and requests that manufacturers' catalogs be sent to him.

A new partnership is announced in the practice of engineering and architecture under the name of Rhenisch, Wilson & Waterman, with offices at 612 North Grove Avenue, Oak Park, Ill. The partners are Arthur R. Rhenisch, engineer; D. C. Wilson and E. A. Waterman, architects. The firm is setting up a complete new file of catalogs and would be glad to have all up-to-date literature from manufacturers.



MADE IN BAVARIA

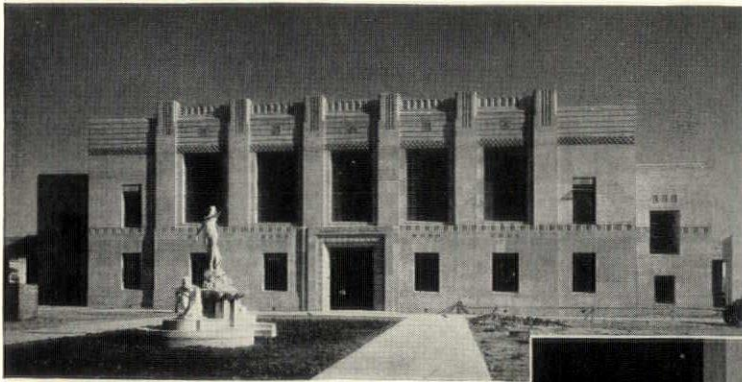
Positive accurate grading in all 18 degrees, 7B to 9H. "Castell" graphite is specially milled and refined by many processes to remove all grit and hard spots. Does not flake or crumble.

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"CASTELL"
DRAWING PENCIL

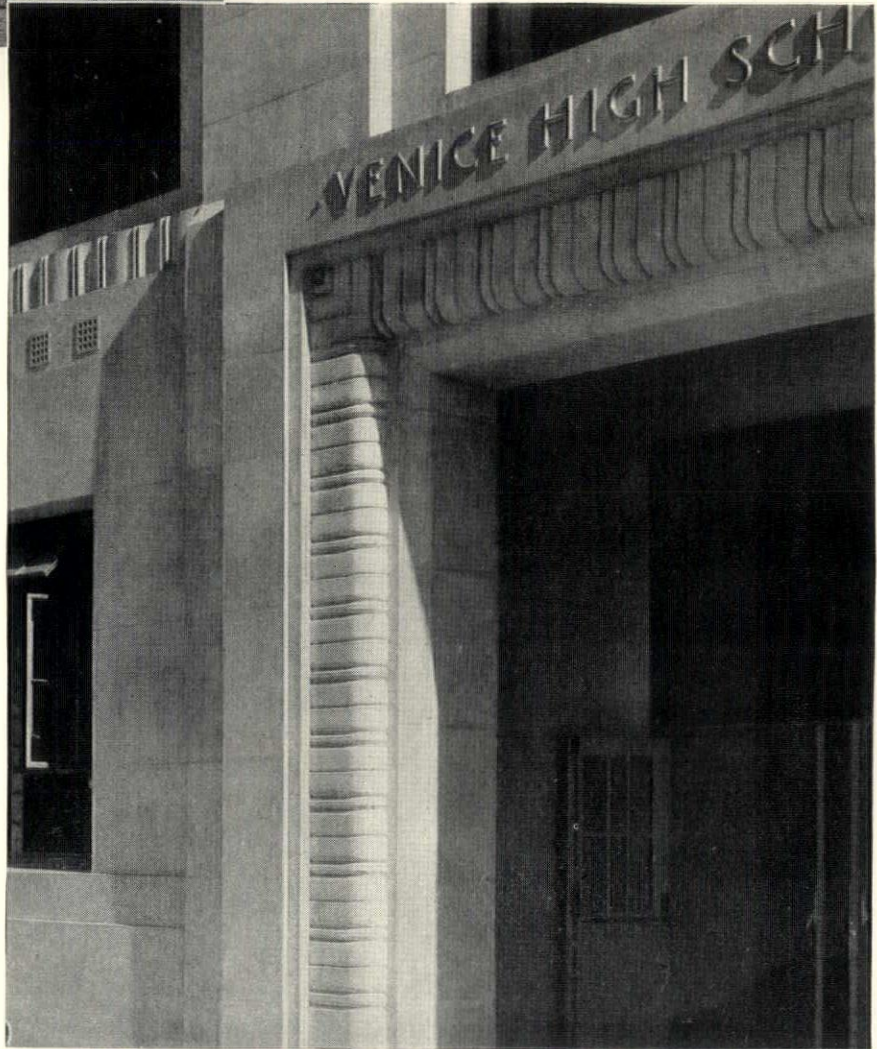
Write for sample in degree
you most frequently use.
Please state position with
company.



Main building and detail of entrance facade, Venice High School group, Venice, California. John C. Austin and Frederic Ashley, architects; G. A. Schulte, engineer; Clinton Construction Co., contractor.

“Throughout the design, the appearance of the exposed structural concrete was a major consideration and details were studied that would facilitate perfect removal of forms.”

Another
distinctive school
DESIGNED
for
CONCRETE



VENICE HIGH SCHOOL joins the growing roster of new schools designed to take advantage of the fire-safety, economy, low maintenance and architectural beauty of concrete.

Whether your commission is a public building or a factory . . . traditional or modern . . . selection of concrete as the combined architectural and structural medium gives you new design freedom.

You can select from a wide variety of textures adaptable to the style without imitation of other materials. Detail is cast integral at low cost.

Concrete exteriors endure—as proved by years of service in every climate. And low bids on scores of recent

jobs show that casting walls, frame and floors together in concrete is a decidedly *economical* way to build.

Let us send you information sheets (AC Series 1 to 12) on specifications, textures, and other details. Also new 64-page book “Forms for Architectural Concrete” (handy for specification writer and superintendent).

Copy of “Beauty in Walls of Architectural Concrete” sent on request.

PORTLAND CEMENT ASSOCIATION
Dept. A4-6, 33 W. Grand Ave., Chicago, Ill.

Architectural Concrete

Wrought Iron

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FOR NEW BUILDINGS . . BACKED BY LONG
SERVICE IN OLD BUILDINGS

Walter P. Crabtree

● As you study the specifications for buildings, nation-wide, one fact stands out. Wrought iron is held in high regard by leading architects and engineers.

Consider the new buildings illustrated. Note the services for which wrought iron is specified. The high regard which Walter P. Crabtree and other leading architects hold for wrought iron is based on its record of long service in old buildings.

Buildings such as those illustrated are not turned into "testing grounds" for unproved materials. Wrought iron

is specified for those services where its record proves it best.

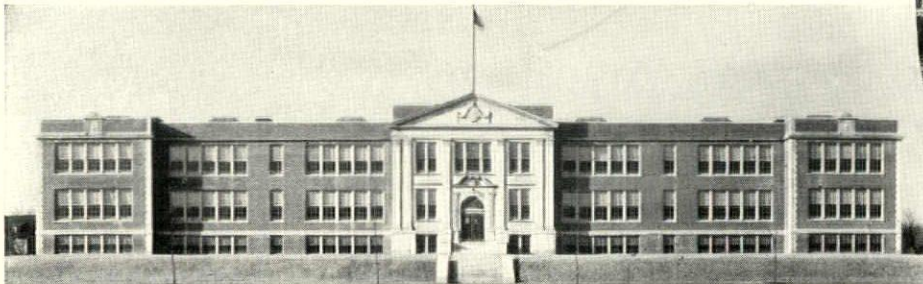
If you will tell us the communities in which you propose to build, we will tell you the lines in which we recommend wrought iron. This will be based on a laboratory study of the water supply coupled with records of past installations. There is no charge or obligation in asking for our recommendations from any Byers Engineer or our Engineering Service Department in Pittsburgh. A. M. Byers Company, Est. 1864.

Pittsburgh, Boston, New York, Washington, Chicago, St. Louis, Houston.

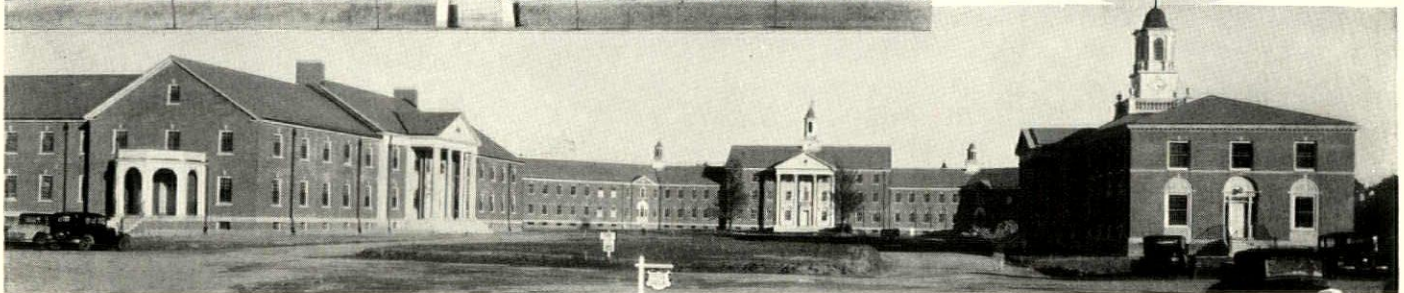
Typical
Examples of
"PIPE PRESCRIPTION"
WALTER P. CRABTREE
Hartford, Architect



Genuine wrought iron specified for branch drainage, waste lines and vents in Masonic Temple, New Britain, Conn.



UPPER LEFT—Genuine wrought iron specified for exposed hot and cold water lines, water main, branch drainage, waste and vents—Lincoln School, New Britain, Conn.



ABOVE—Genuine wrought iron specified for vents, soil and waste lines, underground electric and steam conduits and high and low pressure drips in Fairfield State Hospital, Newtown, Conn.—Main Entrance Plaza illustrated.

BYERS GENUINE WROUGHT IRON PRODUCTS

PIPE - WELDING FITTINGS - RIVETS - SPECIAL BENDING PIPE - O. D. TUBES
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ARCHITECTURE

REG. U. S. PAT. OFFICE

THE PROFESSIONAL JOURNAL

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THE BUILDING TREND

By E. L. Gilbert

APPROXIMATELY 66 per cent improvement was recorded in the per capita figure for total construction in February, 1936, compared with the average of the years 1933-1935 inclusive. Residential building amounted to nearly twice the volume reported for last year, while an 80 per cent increase was registered in Commercial, Industrial, etc. . . . Total building construction, including all three classifications, reached \$1.66 per capita in February, compared with \$1.92 in January, and in contrast with an average of about \$.98 for the month of February during the last three years. These figures represent the entire United States, as do the charts given below.

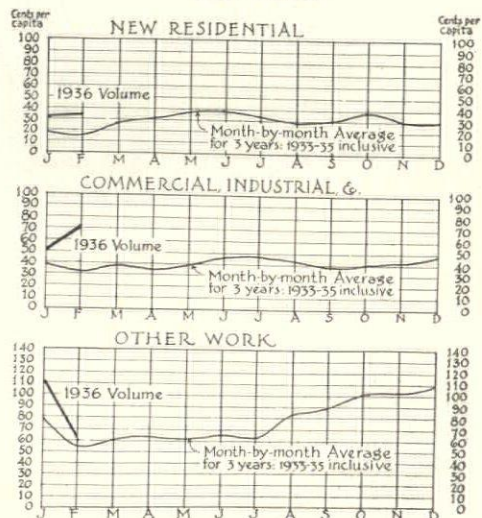
MONTH OF FEBRUARY
(DOLLARS PER CAPITA, ENTIRE U. S.)

CLASSIFICATION	1934	1935	1936
New Residential	\$.15	\$.18	\$.34
Commercial, Industrial, etc.	.30	.40	.72
Other Work	.53	.58	.60
Totals	\$.98	\$1.16	\$1.66

Building Material Prices,
U. S. Dept. of Labor,
end of February* 86.4 84.9 85.4

* Index numbers based on : 1926 = 100.

THE YEAR



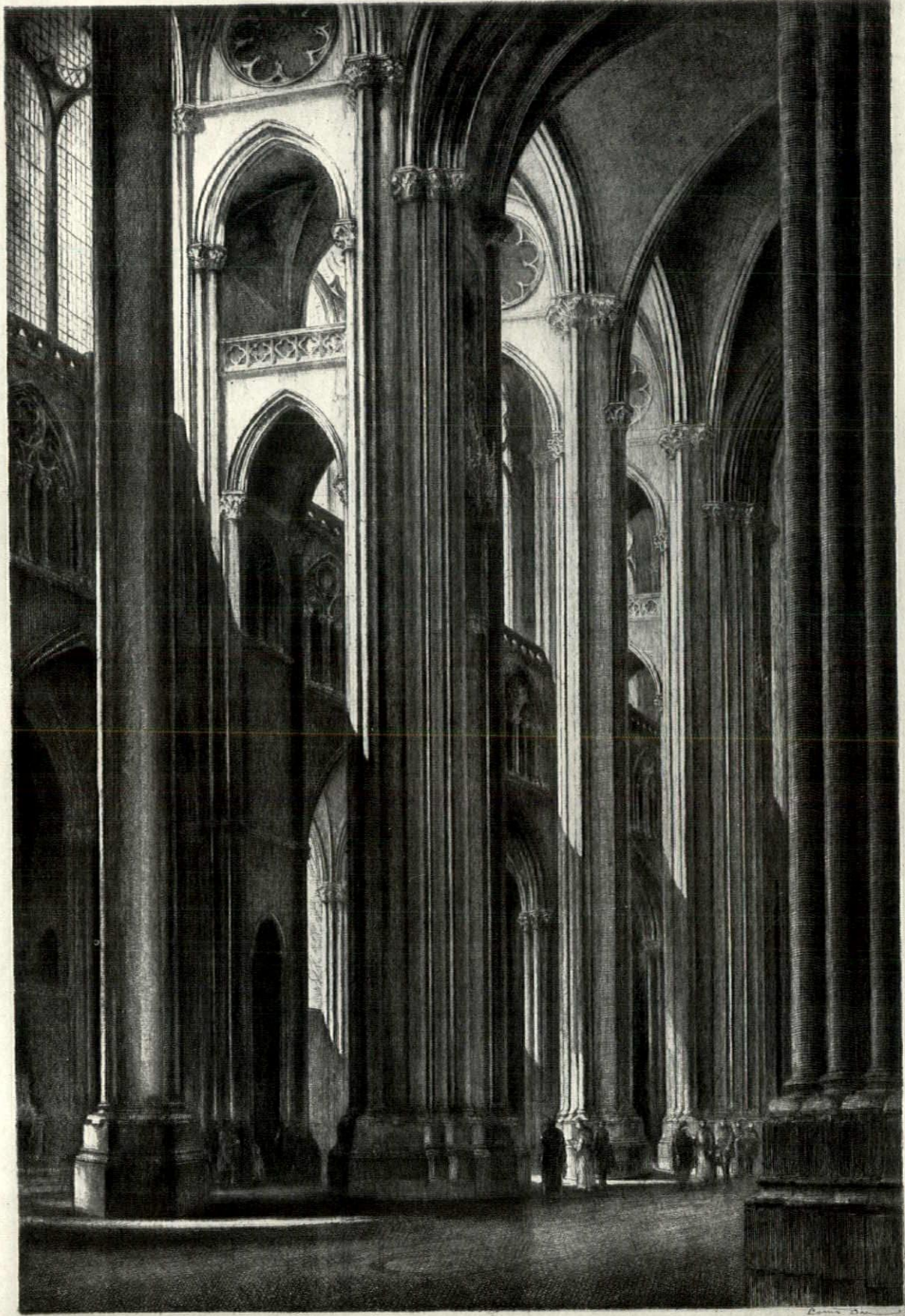
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THE NAVE, CATHEDRAL OF ST. JOHN THE DIVINE, NEW YORK CITY
From the etching by Louis Orr, American etcher of Paris

Reproduced through the courtesy
of Edward H. Marsh of Spring-
field, Mass., representing Mr. Orr
in America

◀ ARCHITECTURE ▶

APRIL, 1936

BRICKS WITHOUT BRAINS

A CHALLENGE TO SCIENCE, AND THE FACTORY-MADE HOUSE

By Grosvenor Atterbury

YOU can buy a first-rate automobile today for around twenty cents a pound—the price of ordinary lard. Twenty-five years ago you would have paid just about ten times the price for a car incomparably inferior in every way.

On the other hand, during that same period of time the price of a small house has about doubled—and it is probably not as well built today as it was twenty-five years ago.

This comparison doesn't seem to make sense. In fact, it indicates a serious economic and industrial dislocation. But even a superficial analysis makes the situation clear enough.

The formula for the motor car today is roughly 20 per cent material and labor, and 80 per cent brains; marvelously combined. That of the house is just the reverse—80 per cent labor and material, and 20 per cent brains—quite often less. And they are seldom properly mixed, at that.

Now, do not mistake this as a general indictment against modern building design and construction. Much of it is a marvelous example of scientific planning, co-ordination, and mechanization. It would be hard to find finer examples of this than the many-storied steel-skeleton structures that rise almost complete as fast as the derricks can climb skyward. But the point is that where this highly organized brain power is most vitally needed it is completely lacking.

Architecture can be spelled in two ways—with a capital "A" or a little "a." We usually talk about the capitalized kind—largely aristocratic or plutocratic.

But when we speak of "Bricks Without Brains," we refer, of course,

NOTE.—The illustrations in this article, taken from some forty houses produced during the research work alluded to in the text, under the auspices of The Sage Foundation and others, are shown not as a specific solution of the construction problem but merely to demonstrate the degree of standardization and factory production employed and the comparatively normal architectural results obtained.

to the architecture spelled with a little "a"—the common noun—which has been for years the forgotten branch of the family. This seems strange when you realize that it represents by far the largest single item in our national building budget, and most directly affects, at a safe guess, at least sixty or seventy millions of our people whose yearly family incomes average around \$2000 or under. For it represents their housing or—in the case of a large proportion—what has been more truthfully described as their "ware-housing." We might call it "bread-line architecture." And it represents today one of our most serious social and economic problems—and a correspondingly great opportunity.

The three dominant factors in the housing problem are the cost of land, the cost of money, and the cost of building. And in any place where the poor man should properly have his home the cost of building is fully two-thirds of the total investment. We are taking steps these days to distribute our working population on proper land and to lower the interest charges. But what have we done to reduce construction cost? In a broad sense the answer is "Nothing."

This is said advisedly, in spite of the fact that the writer had the unusual opportunity of devoting some twenty-odd years to research work in this field under subsidies from various sources. The object was to demonstrate, not so much a specific solution of the problem of economic construction, as a scientific method of approach to that problem. The program aimed at laying the foundation for a new basic industry devoted to the economic production of homes for the lowest income groups, on a factory basis, with a consequent reduction in cost to the point where the profit motive could function as it does in other industries and produce housing under the normal operation of the laws of supply and demand, without arti-

ficial government stimulus or appeal to philanthropy.

Looked at with respect to the great human and economic need for a scientific solution of the problem, this one-man, one-horse effort seems puny indeed. Yet we know of no other attempt of equal scope on a similar basis of absolutely independent and scientific research.

Now, once we apply to this problem such science, brains, and capital as our great organized industries employ, the housing of the working man will not only cease to be a burden on the community, but a legitimate source of profit and a much-needed stimulus to our permanent economic recovery.

We will not go into detail as to whose fault all this is. But if you think about it at all seriously you will, perhaps, ask what Science—with a capital "S"—the science of really great minds, has been doing in this crisis. And with Science we must include the philanthropists whose hundreds of millions have made the work of science possible.

What really interests us most vitally today? Is it the discovery that my umbrella, if projected through space at sufficient velocity, will actually become shorter, until, if Einstein's Theory is what it is cracked up to be, it will disappear altogether? Scarcely. I can lose umbrellas fast enough as it is; and the ownership of an umbrella is an academic question anyway.

Or are we practically concerned that Nova Centuris "went bust" in the outer darkness thirteen centuries ago? It doesn't hold a candle to our little financial smash-up six years ago from which we are still reeling.

And now we are spending millions to build 200-inch telescopes to scan the universe and determine whether it is getting measurably smaller or incalculably greater.

All of which, in the present state of the realm, seems brilliantly useless, especially when you consider the millions who cannot afford decent homes because none of our great

minds has ever been focused on the basic everyday problem of human shelter.

Science needs an intelligent board of directors. With a small amount of such brains as are now focused on the speed with which the neutron penetrates the nucleus of the atom, and only 2 or 3 per cent of the money now devoted to research into the living conditions at the dawn of history, the cost of the poor man's housing today could be cut in half.

And what are we doing? We are continuing to build in our good old Babylonian fashion, using brick, not without straw, but without brains. As a consequence of our failure to develop scientific methods of small-house production, the government, in its well-meant housing program, must needs tax us all—the poor man included—to produce so-called cheap housing. And in doing so it has no choice but to perpetuate our shockingly wasteful building methods and saddle the country with homes for the poor that, except for government subsidy, are beyond the reach of the people it is trying to house. Which is questionable even as an emergency measure.

What, may I ask, is the use of stimulating wasteful production, of priming a pump that will not hold water? For in this matter we must not forget two facts. First, that labor constitutes its own market. Labor must produce what labor can afford to buy. And, second, that when building labor because of intermittent employment asks from two to three times the wage of labor in other trades, there are only two economic alternatives. Either building wages must be reduced or the annual productivity of building mechanics must be greatly increased.

But what has actually happened? The man in the street knows—none better—what has happened to his rent bill in the past twenty-five years. The cost has more than doubled, following a corresponding increase in the wage and material cost of the building industry.

On the other hand, statistics quoted from the Department of Labor show that in many of the other basic industries, in spite of similar increases in wages, the manufacturing cost of the product has actually declined. In other words, the efficiency of labor has increased more than wages.

So we arrive at the deadly parallel:

the productivity per man, taking the automobile industry as an example—and there are others even more striking—has increased 172 per cent, while the productivity per man in the housing industry has actually decreased, in some trades 50 per cent.

In the explanation of this lies the key to the solution of the housing problem. It is, of course, standardization, machine, mass, and factory production.

And this was confirmed by the results of the rather limited researches already quoted, which demonstrated that we could, at the start, produce fireproof shells of small houses at a saving of around 20 per cent as compared with the ordinary brick-and-frame dwelling; and erect them in four or five days each. And we only scratched the surface of the problem.

Now we have space only to discuss very briefly two objections frequently raised and vitally affecting the possibilities of the factory-made house.

One is economic and the other esthetic.

The ablest economists agree that housing production for the masses would be one of the most powerful aids to permanent economic recovery; would do as much or even more than the expansion of automobile production did fifteen years ago. But when one of the most prominent says: "House building is an old industry, and therefore, presumably, does not present the same possibilities of mechanical improvements in process such as naturally present themselves in a new industry," we take issue with him.

The fact is that, as far as concerns the workingman's home, we have never yet had any organized industry.

Automobile manufacture, even prior to 1921, was better organized and more efficiently conducted than the building of the workingman's lit-

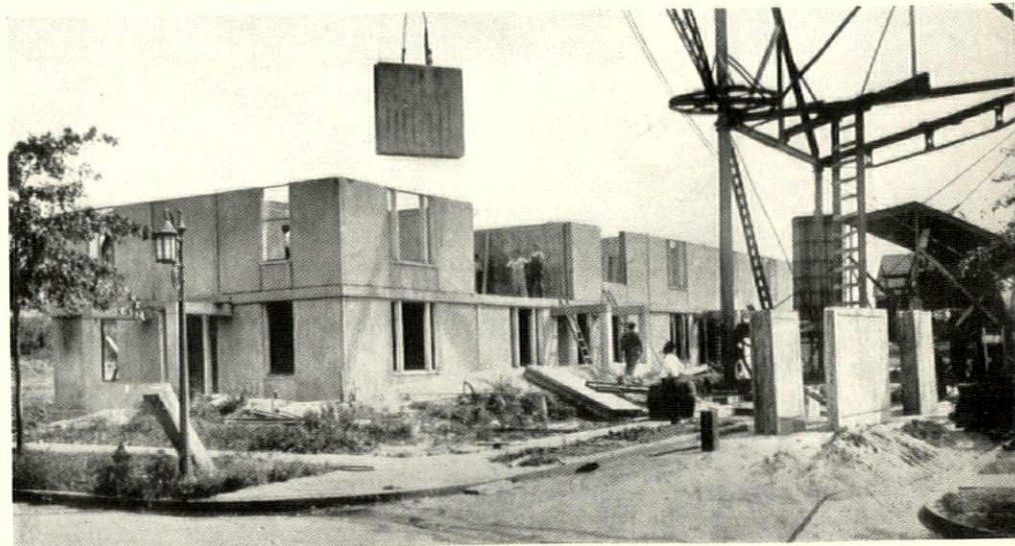
tle house is today. We were then—and still are, though with increasing exceptions—collecting our small houses in tens of thousands of little pieces, bags and bundles from all over the country, dumping them down on the site, hiring a dozen different kinds of workmen to fit them tediously together—each mechanic sworn to touch only one kind of stick, stone, or whatnot—and when the picture puzzle is finally put together in more or less water-logged condition, carting away again wagonloads of spoiled and unused material. It is an orgy of waste in time, labor, and material that would put any of our organized industries into bankruptcy. In this case the poor man, instead of the stockholder, pays the bill.

And when one sees this muss and litter and general disorder out of which such a house gradually assumes substance and shape—the hammering, sawing, measuring, losing, looking and finding, the waiting and scratching of heads—in "huddles" and out—all under the broiling sun, in rain and wind or snow—one is tempted to sing: "Come! Let's all build like the birdies build!"

Now, of course, this means standardization—not necessarily of the whole structure, but of its component parts—and this raises the second question. Will this annihilate all esthetic possibilities and produce millions of machine-made replicas with the monotony of prison cells and the hominess of ice-boxes?

Well, it all depends. Standardization can be a curse or a blessing—depending on the make of shoes you buy. For, like it or not, you and I are pretty good examples of standardization.

Standardized factory-made houses—Group 48 at Forest Hills Gardens in process of erection. Children's blocks raised to the nth power, assembled by crane. Sections were later reduced to permit use of ordinary derrick



In the good old days I used to have my shoes made to order—my clothes, shirts, and even my collars to measure!

On rare occasions I still dig out a suit which I had made to order in those halcyon days. But, normally, I am a complete walking catalog of factory products! And I should hesitate to embarrass my readers by asking those to stand up whose shoes, stockings, underclothes, shirts, collars, ties, hat, gloves, and at least everyday clothes, are not factory made also.

Yet nobody ever mistakes me for Smith or Jones—partly because they get their clothes probably on Fifth Avenue, while I get mine on the East Side; but principally because clothes do not make the man—if he is anything of a man—and partly, also, thanks to the law of permutations and combinations, which is the saving grace in standardization, as I will illustrate later.

Similarly the house does not make the family. If it did, heaven save us all in this country!

But this is not to say that in using standardization to house poor people within their means we are not bound to give them something more than mere bodily shelter and comfort—something better than warehousing. Far from it. We shall not be doing anything to boast about when we succeed in housing a man's body if we leave his soul to shiver outside.

But I take issue when any one says that standardization and its consequent economies in cost may not go further than window fasteners, door locks, and such things, on the ground that any further application of this principle would make it impossible to satisfy the esthetic demands of the problem.

The group shown in process of erection (opposite page) as it appears completed. Each house is composed of less than a hundred machine units instead of the thousands of hand units in ordinary construction

Just how far standardization and, consequently, machine production can go without doing this depends on a number of factors. The limit varies with the size of the house, standards of living and taste, the extent to which quantity production can function, the cost factor, improvements in processes of manufacture, and other technical questions—not to mention the leaven of good design.

But it is merely a question of degree; not of principle. "Our Babylonian brick"—a phrase coined by the writer years ago—of which we are still building our walls by what H. G. Wells calls our "coral-reef methods" are, of course, completely standardized units; but in answering this housing problem their use is as silly a performance as it would be for the railroads to set their engineers to pushing baby carriages by hand and leave their great locomotives and cars in the yards.

On the other hand, the increase of the unit so as to comprise a complete house—as Mr. Edison once proposed, including in one mold, as he told me, even the bathtubs and stair-rails—even had it proved practical and economical, would have given us standardization at its worst—a curse instead of a blessing. Somewhere between these two extremes there is a happy mean, and I would point out that such a solution has been found and used in most of our arts without unduly restricting the imagination.

For while standardization is an ugly word, it connotes some of the things that appear essential to man's expression of beauty, no matter what the medium. And it becomes especially obvious in music and, our present concern, architecture. Without order and rhythm music becomes noise. On the other hand, the whole wealth of our musical literature is expressed by the use of but twelve standardized notes—in varying sequence, arrangement,

combination, and repetition. And when our piano departs from these notes we say it is out of tune and re-standardize it—because anything but these twelve familiar tones we think outlandish and quite incompetent to express beauty.

Again, we not only require certain conventions to satisfy our esthetic senses, but we find them essential for the expression, recording, and preservation of our arts. What would be the value of our literature were it not for our standardized words and alphabet? What would happen to our libraries, not to mention income-tax forms and cross-word puzzles, if we had to use, instead, four or five thousand ideographs like the Chinese? Lincoln wrote the Gettysburg address with only twenty-six letters.

So I doubt if the use of standardized structural units, in factory-made houses, should be blamed as much as the designer for any lack in esthetic quality the critic may find in them.

As a matter of fact, when it comes to small-house architecture, the writer believes, as a result of long experience, that the limitation of present costs, together with the restrictions of small-lot areas, reduce the possibility of variety in plan to such a degree that the best solutions in each size of house show astonishingly little difference. So the plan is practically standardized by economic requirements.

Now, like any manifestation of collectivism, standardization is a bad master, but, if properly controlled and directed, it may be a good servant. And if we make intelligent use of it in reducing the cost of that structural portion of the house requisite to man's physical comfort, we can thereby gain the freedom and means to pay heed to his esthetic needs. We can invite his shivering soul, not into a cell, but a home. But this prophecy is based on other than the purely economic advantages of standardization—certain indirect benefits that, strange as it may sound, have to do with the imponderables—such as raising standards of architectural honesty, simplicity, self-restraint and taste in color, texture, and detail; the good manners of architecture so necessary in the small house, which, however much it must answer to the individual character of its inmates, should, in its exterior, show a decent respect for its neighbors.

To accomplish this end it is not

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necessary to put the designer's imagination in a straitjacket—except in the case of those poor fellows who have gone hopelessly modernistic and want to put us all into weird cages or containers—where they should be confined themselves, of course. But until we have laws protecting our vision as we have for our sense of smell, it would be a great boon to have the trouble controlled at the source.

And this brings us to another very important, though insufficiently recognized, aspect of the matter. For with the poor man's house we are almost always forced to deal collectively. They must constitute units in a group, and the effect of the whole is more important than the individuality of its elements. As in architectural design, to a large degree, the disposition of ornament is more important than its detail.

If asked to illustrate in the fewest words possible the esthetic value of standardization in this respect, my answer would be the Greek temple and the Albertina Rasch Girls. What would become of the beauty of a classic colonnade if each column was of a different height and shape and color, or of an entablature where every detail "expressed itself" without regard to its neighbor, or a decent respect for the design of the cornice as a whole.

On the other hand, it is astonishing what uniformity and repetition can do when set to good rhythm and routine on fairly good legs. It is even more astonishing how homely the individual chorus girl can be in her architectural details and yet not spoil the show, provided she doesn't dress and dance to her own taste regardless of the others. This is not to argue that all chorus girls—or little homes—should be ugly. But each house need not be an architectural gem in order that the group or street or community may have

charm and beauty, provided we architects and planners arrange the units of our routine as skillfully as are those of a well-trained chorus.

But, after all, the most convincing answer to those who say that standardization and esthetics can never inhabit the same dwelling would be actual examples to the contrary. For this purpose they should be houses constructed of standardized units such as to make possible the maximum economy in manufacture and erection, yet permitting substantially normal design of the whole without grave detriment to esthetic and architectural results. In other words, decent, self-respecting houses—not the cracker boxes that the lay mind is apt to assume must be the product of standardization.

Now, while the writer is not willing to rest his entire case on the examples illustrating this article—else he need not have written the foregoing pages—they appear to be the best available for the purpose. And whatever the reader's opinion may be, certain things can be said on their behalf.

First, that the casual visitor to Forest Hills Gardens passes them by without realizing that they are standardized, factory-made houses, while their owners have lived in them for from fifteen to twenty-five years with apparent satisfaction.

Second, that they are all constructible out of some twenty standard units.

Third—by way of apology—that they were the first of their kind, born in fact after several years of incubation, way back in 1907—like *amœba* in the primeval ooze in the faint dawn of what the writer fondly hopes may become a new day in housing production—and, therefore, must be viewed with a certain leniency. For while they were, apparently, well ahead of their times, they are now, in some respects, out of date.

And, finally, that whatever progress they may represent in themselves, their chief value lies in the

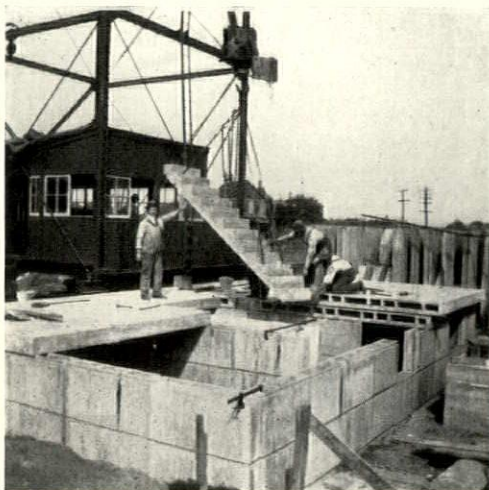
demonstration of the possibilities of that scientific approach to the constructional problem for which the writer is pleading.

For this we need the concentrated collaboration of the best brains in the country. The results we need will not come from the mere transfer by mediocre brains of our present building processes from the field to the factory, even though modified to permit of machine methods. We shall in that way, of course, make painful progress by trial and error. But what the crisis of today cries for is a far more radical and scientific attack: under the guidance of some powerful agency, free from all commercial influences, competent to evaluate and correlate the best work now being done, as well as inspire and direct concentrated and continuous research from the purely scientific point of view.

For, by way of prophecy, the great forward step toward ultimate economy in the production of homes for the poor will come with the complete abandonment of the dozen or so materials we now assemble in the field to meet the various structural requirements—a tedious mechanical synthesis—and the substitution of a chemical synthesis in the factory—with one material combining all the properties required.

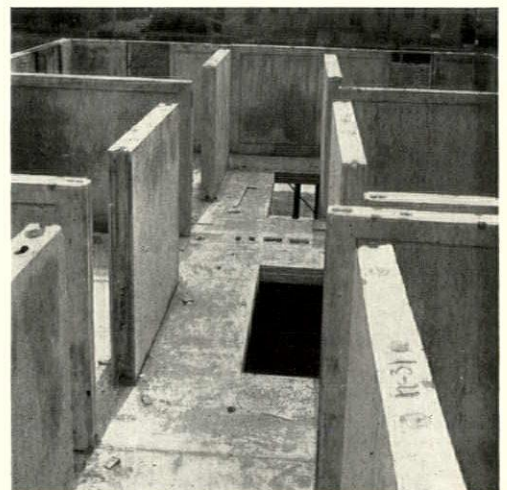
Factory production of small homes for less than a thousand dollars is far less improbable today than was a five-hundred-dollar car before the organization of the motor industry.

And, what may seem a surprising result of this mechanistic process, the leaven of beauty—far more vital to the poor man than to the rich—will not only survive but can work as it never has before in the homes of the masses. If the writer has not pointed out the right way, others surely will. For such a solution is clearly possible. Otherwise we must believe that waste is essential to beauty.



First run of stairs being set by crane man and three setters, Sewaren, N. J. Note tubular design of floor and wall sections with 60 per cent voids

When door and window frames were slipped into place between blocks, the building was ready for next tier of floor sections. Note absence of waste and rubbish

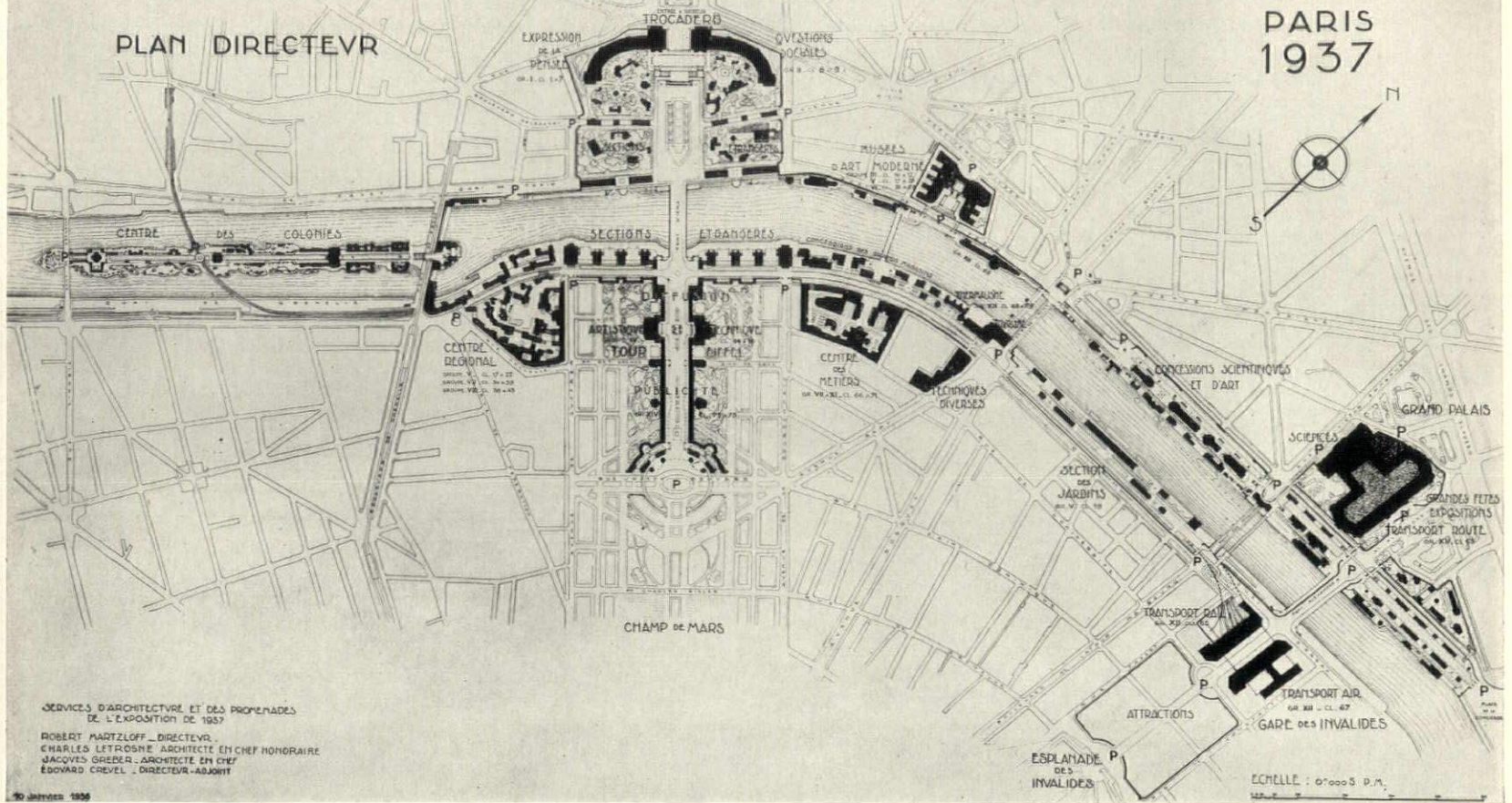


◀ ARCHITECTURE ▶
APRIL, 1930

EXPOSITION INTERNATIONALE DES ARTS ET DES TECHNIQUES
APPLIQUES A LA VIE MODERNE

PARIS
1937

PLAN DIRECTEUR



SERVICES D'ARCHITECTURE ET DES PROMENADES
DE L'EXPOSITION DE 1937
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CHARLES LETROSNE - ARCHITECTE EN CHEF HONORAIRE
JACQUES GREBER - ARCHITECTE EN CHEF
EDOUARD CREVEL - DIRECTEUR ADJOINT

To demonstrate that art can render life better and more beautiful for all people, there will be held in Paris, from April to October, 1937, an International Exposition. The French government expects it to serve as an expression of international co-operation in the fields of intellect, art, and industry. Exhibits must be really original; copies and imitations of former styles will be excluded.

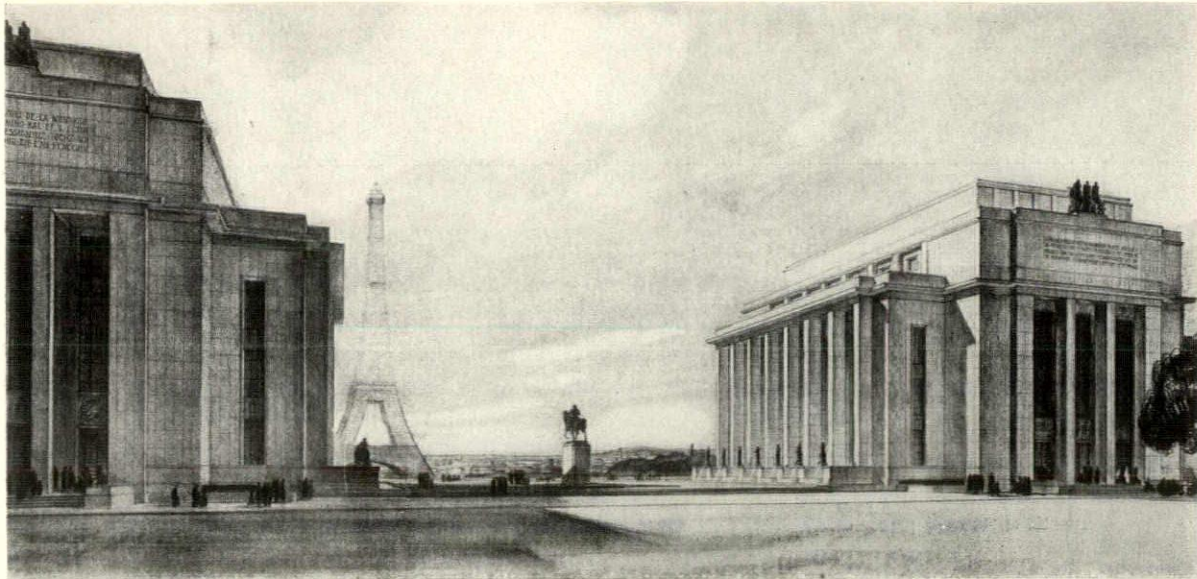
A site 156 acres in area has been chosen, together with supplementary areas nearby, and it is in the center of Paris, on both banks of the Seine from the Pont Alexandre III to the Pont de Grenelle—a distance of nearly two miles.

One-third of the total budget of 472,000,000 francs will be expended in permanent improvements: the redemption of certain blighted areas; the construction of two miles of planted terraces over the state railway on the left bank; widening the Pont d'Iena; creating an underpass at that bridge; building two museums of modern art; reconstruction of the Trocadero to give additional space for the Museum of Historical Architectural Sculpture and the Museum of Ethnography, and to house the Naval Museum (now in the Louvre), and to create a new Museum of Photography; creation of a vast terrace in front of the Trocadero, with a new Concert Hall under it, to seat 3500

M. JACQUES GREBER, CHIEF ARCHITECT

The Paris International Exposition of 1937

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Preliminary perspective of the Palais du Trocadero, as seen from the Place du Trocadero.

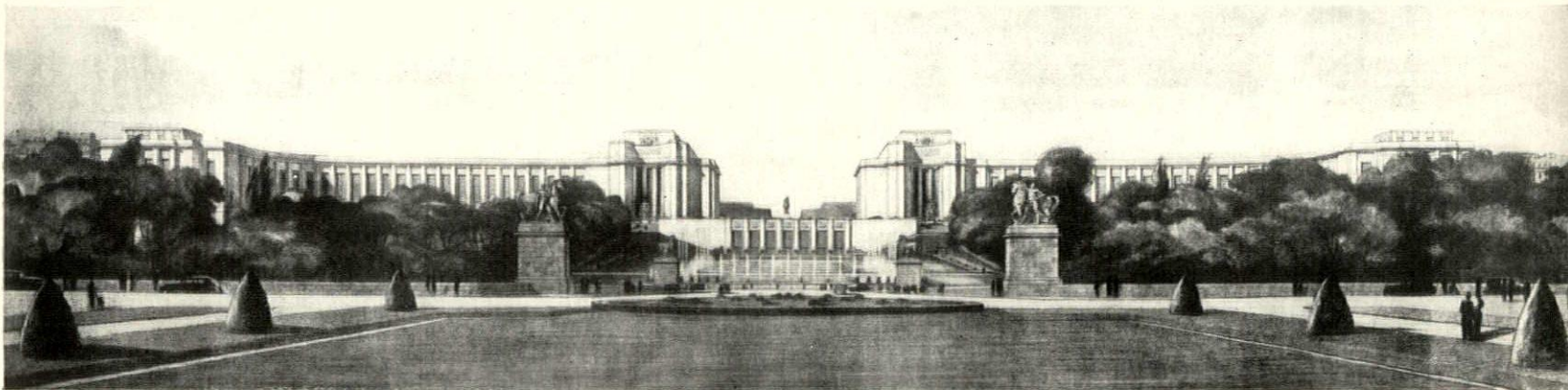
The silhouette and mass relation of all the buildings have been determined on a scale model of the entire site (including existing buildings and trees), before awarding to individual architects or groups of architects the final design of the parts. As a result of competitions open to all French architects, 230 were chosen and formed into 78 groups

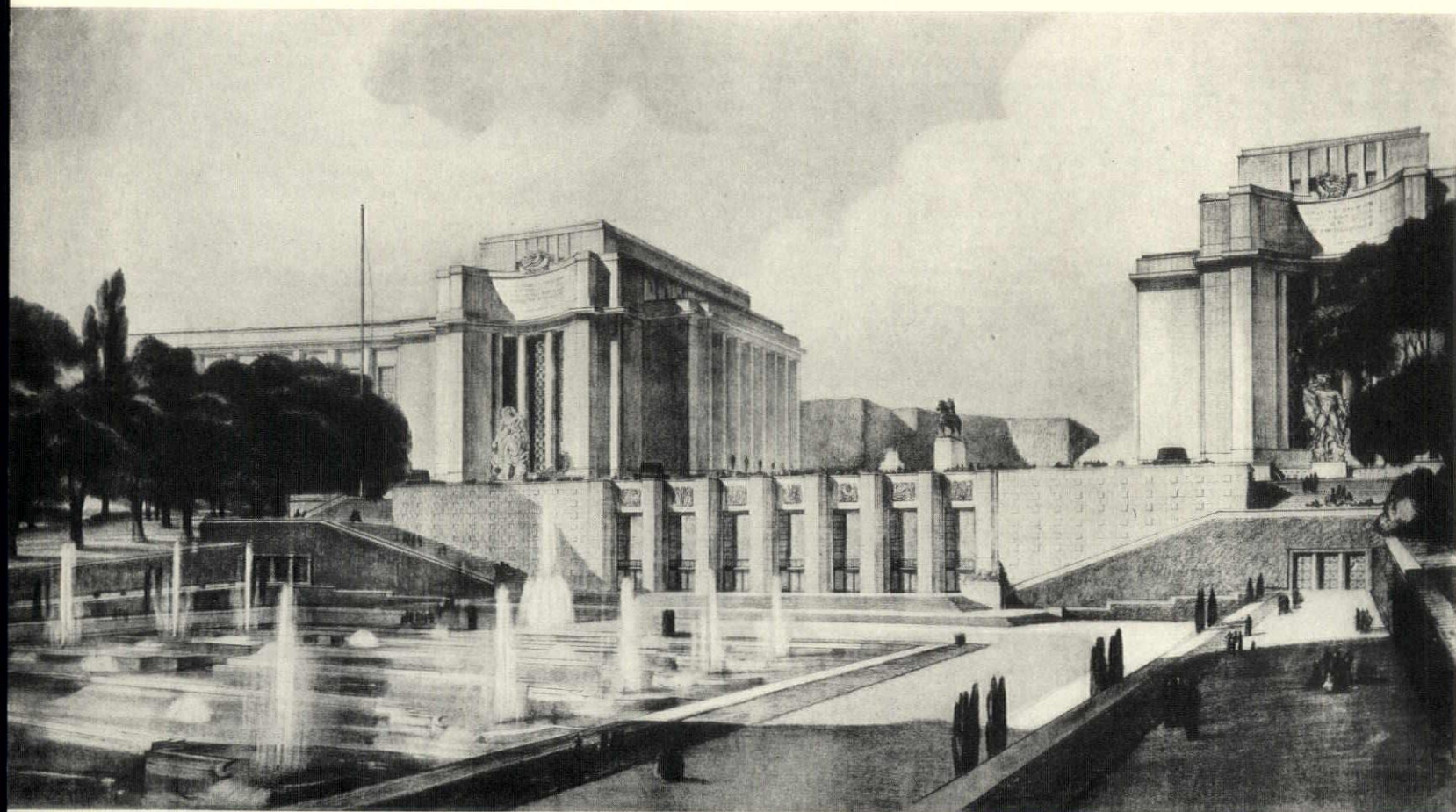
THE PARIS INTERNATIONAL EXPOSITION OF 1937

M. JACQUES GREBER, CHIEF ARCHITECT

Preliminary perspective of the Palais du Trocadero as seen from the Champ de Mars.

The buildings are being designed in a modern spirit but with no endeavor to be revolutionary or bizarre. They will be constructed of materials of the present—prefabricated units, stainless metals, glass, steel, and the like. The exposition, consequently, will be unique in character—the last word in modern design and materials, in harmony with a setting provided by an historical past





Preliminary perspective of the Palais du Trocadéro as seen from the gardens leading down to the Seine.

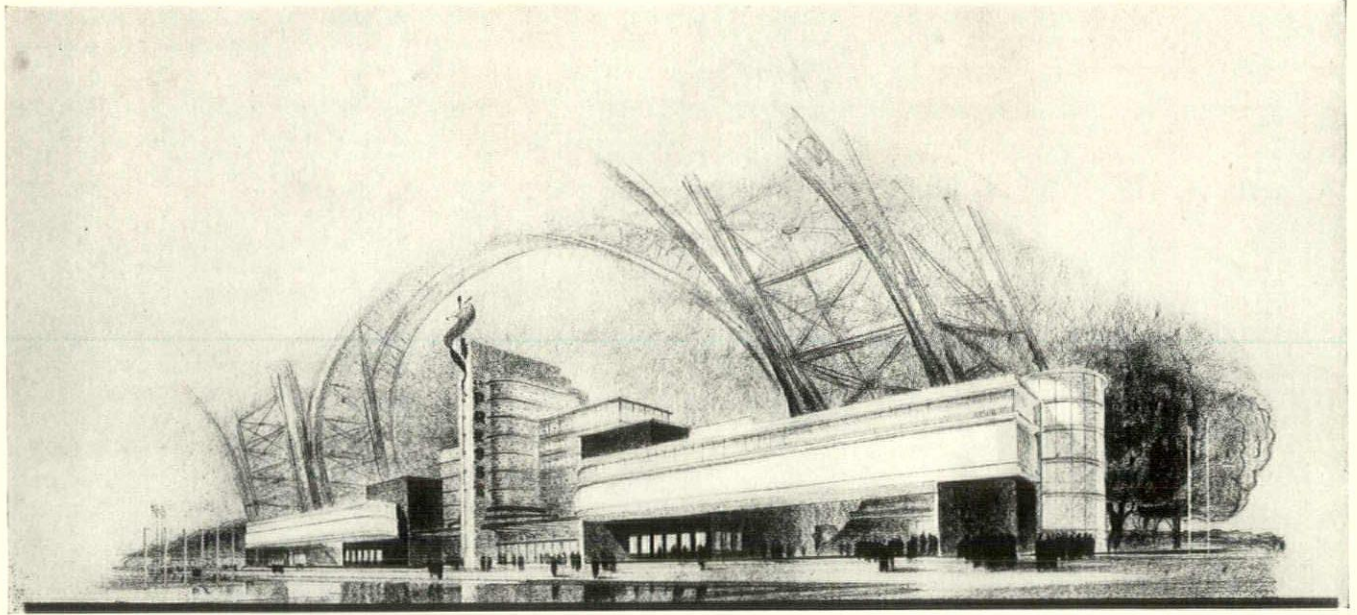
The beautiful trees and shrubs of the quays, the Trocadéro gardens, the Champ de Mars, the grounds of the former Garde Meuble, of the Grand Palais, and of the Esplanade des Invalides, will all be preserved. The art of the garden will be in evidence throughout the length and breadth of the site. This will give to the exposition the advantage of cool, shaded streets and will limit the size of the buildings. Structures of moderate size will line the streets and be placed in the gardens, and will have somewhat the appearance of beautiful shops, the attractive show-window displays inviting the visitor to enter and see the entire exhibit

THE PARIS INTERNATIONAL EXPOSITION OF 1937

M. JACQUES GREBER, CHIEF ARCHITECT

« ARCHITECTURE »

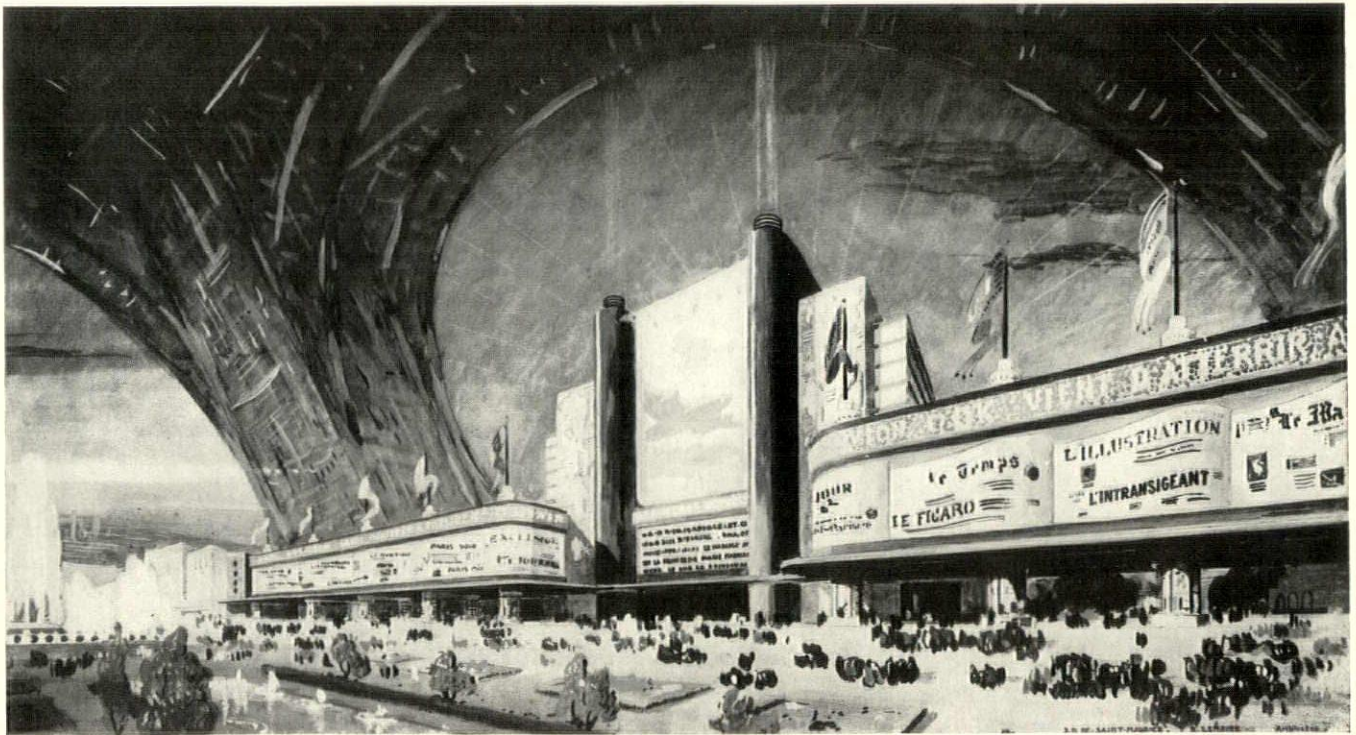
APRIL, 1936



*Preliminary perspective of the Pavillon de la Presse.
The year 1937 will mark the fiftieth anniversary of the Eiffel Tower—
creation of French engineering genius. At its base, under the huge lateral
arches, will be built two low buildings of metal and glass, with terraced
roofs*

THE PARIS INTERNATIONAL EXPOSITION OF 1937. M. JACQUES GREBER, CHIEF ARCHITECT

*Preliminary perspective of the Pavillon du Cinema et de la Presse.
It is here that the exposition will present the diffusion of artistic and
technical knowledge—radio and broadcasting, television, photography,
the press*



ARCHITECTURAL COMPETITIONS

By Percy Thomas, O.B.E., F.R.I.B.A.

President of the Royal Institute of British Architects

A FEW years ago a well-known writer on architectural subjects, referring to architectural competitions, compared a successful young architect with a successful film star, in that both professions offered opportunities for a sudden rise to fame and fortune to the young and unknown member.

It is because I believe there is a good deal of truth in that comparison, and that it is the open competition system which makes it possible, that I accepted the invitation of the editor to write an article on this subject.

I hope, however, that readers will bear in mind that I am writing only of the system and the conditions which obtain in my own country, and I know not how far they are applicable, or desirable, in the United States of America.

In Great Britain, the system of architectural competitions is now generally recognized by government and public bodies as the accepted method of obtaining designs for all public buildings of major importance, and in the majority of instances the competition is open to all architects, irrespective of age or other qualification.

To my mind, this satisfactory position can be attributed to two principal causes—first, that the promoters are satisfied that the system produces for them the kind of building they require, and, secondly, that the profession are satisfied with the fairness of the conditions under which they compete, and of the ability and integrity of the professional advisers and juries.

Now although today one rarely hears a voice raised against the competition system, there have been in the past many criticisms, and it might be interesting to your readers to consider these objections and the arguments which can be put forward in answer to them.

1. There is the usual one about the waste and cost to the profession. A typical example of this was published in one of the technical journals, where the contributor proved that for a job to cost £70,000 the total cost to the profession was approximately the same amount. Simply put, that for every competition held, many times the amount of the fees are spent by the profession as a whole.

2. That the architect is not in close touch with his client in the early stages of the job.

3. That promoters in general, and the public bodies in particular, are unwilling to leave the final decision regarding the design of their public buildings in the hands of an assessor. It should be explained that in this country, in by far the majority of cases, a single assessor is appointed who performs the functions of professional adviser and jury.

4. That competitions are costly to promoters and involve delay in proceeding with the work.

5. That there is a danger in open competitions of an unknown and inexperienced architect being successful.

6. That for a number of buildings, particularly buildings of a special character, experts or specialists in that particular class of building should be engaged.

1. With regard to the cost to the profession, the architect can, after all, please himself whether he enters for a competition or not, and, apart from the fact that the estimated cost of preparing an architectural design is often exaggerated, it should be borne in mind that in the average architect's office ordinary work is not sacrificed for competition work, and that time is made for it; even the payment of overtime is in many cases entered into on a sporting basis by the whole staff.

Against the actual expense in wages and material must be counted the gain in experience and technical knowledge which is to be obtained from every competition. Every one who seriously enters for a competition knows that the preliminary research work and the production of the design add to professional knowledge and experience, whatever the result.

2. There is something in the objection that the architect is not in touch with his client in the early stages of the job, but if, when the competition is decided, the successful architect feels that any decision previously arrived at between the assessor and the promoters could be improved upon, there is no reason

whatever why this should not be done. In practice I do not think the necessity would occur very often.

3. The third—the objection to delegating the sole authority to the assessor—I shall deal with more fully when I come to speak about the assessor. I am firmly convinced, however, that in the interests of the promoters as well as competitors the arguments are overwhelmingly in favor of our present system.

Our rules and regulations regarding the duties of an assessor could not be imposed upon persons outside our Institute, and, speaking generally, the average layman is quite incapable of judging the best solution of a planning problem, and his taste in the matter of elevational treatment is more likely to be influenced by the manner of presentation than would be that of a trained architect.

The objection that, because of the assessor's final decision, the promoters may have a design imposed upon them which they do not like and do not want to build, is answered by the fact that once the award is made they are at liberty to instruct their architect to make whatever alterations they require.

This has been stated to mean that competitions are merely to be considered as a means of selecting an architect, but this is obviously against the whole principle of our competition regulations, which are stated to be, "To obtain the best design for the purpose in view," and an examination of results will show that in practice it is the best solution of the problem which is placed first, and almost invariably carried out in the building.

4. A competition should make little difference in the matter of time. If an architect is engaged without competition he would, or should, spend the same time in digesting thoroughly the requirements of his clients, and in producing his preliminary scheme. In fact he would probably not work at such high pressure as the average competition requires.

I think it could be claimed that the directness and simplicity of buildings erected as the result of competitions are due to the thought and care spent in the preliminary stages.

As to cost, a competition means approximately in a building costing, say, £100,000, an additional 1 per cent to the promoters. These figures would be slightly increased for smaller sums and decreased for larger undertakings. For this additional 1 per cent, the promoters are able to obtain suggestions for the solving of their problem from some of the best architects in the country.

5. The fear of promoters in having an inexperienced young architect thrust upon them is, in practice, unfounded. Experience has shown that it is almost unknown for a man to win an important competition and be incapable of carrying out the work. Young he may be, but the very fact that to win in an open field calls for such qualities of planning, knowledge of the subject, and powers of grasping the essentials, insures that the winner, whoever he is, will be quite capable of carrying out his design. It may also be said that many of the leading members of our profession commenced a successful career by winning an open competition while young and unknown men.

6. The architectural specialist, unlike the specialist in other professions, obtains his position largely as the result of opportunity or accident, rather than deliberate inten-

tion. The main principles of planning and design are common to all classes of building, and while greater experience may bring perfection in detailed planning and equipment, it is more than counterbalanced by the freshness of mind and variety of solutions which are obtained by means of a competition.

The function of any building, whether a town hall, school, or hospital, is to fulfill its purpose in the most efficient and economical way, and, whatever the building, this fundamental principle remains the same and is largely a matter of skillful planning and sound common sense.

It should be remembered that success in competitions is not all luck. The architect who seriously enters for competitions knows that it is a waste of time unless he prepares himself by a thorough study of his subject, often involving many hours of research and visits to the latest buildings of a similar character.

So much for the objections to the competition system. Its advantages to the public are immense. It enables the building owner at a small extra cost to obtain solutions to his problem from some of the best men in the profession, and to retain the services of the successful one at the same fee that he would pay to any other member of the profession. It obtains for him the result of concentrated study of his particular problem; the experience gained in the latest building for his particular requirements both at home and abroad. It also means, in the case of

public work, that the architect is appointed on merit alone and not by wirepulling or political influence, and for the profession, apart from the opportunity it gives to the young and brilliant man, it has done more than anything else to advance the art of planning.

A study of competitive plans will show that nearly all accepted arrangements for buildings such as baths, hospitals, courts, etc., are largely the result of the competition system, just as any new and original treatment of a problem generally comes from the same source.

It is the concentrated effort to produce something better than what has been done before, in order to win, that makes the standard of architectural achievement in competitions so high.

COMPETITION CONDITIONS AND REGULATIONS

The regulations of the Royal Institute of British Architects governing the promotion and conduct of architectural competitions are the result of years of experience and many bitter controversies, and while I do not claim that they are perfect, I do feel that if they are taken in the real spirit of fairness and common sense by the three parties—the promoter, the assessor, and the competitors—they will be found little wanting.

In the matter of secrecy, fees, and the amount of work required from competitors, little or no fault can be found with them, and almost the only source of trouble today is found in the instructions or suggestions which are inserted in the model form by the assessor or promoters in order to express their particular requirements.

It would appear obvious that either any design which violates a definite instruction should be disqualified, or all instructions should be suggestive only, and give competitors complete freedom in the matter. This latter course is not always practicable, as there are occasions when certain definite requirements of the promoters must be communicated to competitors. In spite of this, however, it is surprising how many people hold that an assessor is justified in ignoring an express stipulation on the grounds that his job is primarily to select the best design. I do not agree, and maintain he is in honor bound to restrict his award to the best design

AMERICAN ARCHITECTURAL COMPETITIONS: APPROXIMATE AGES OF THE WINNING ARCHITECTS

ARCHITECT	AGE	BUILDING
Donn Barber	35	Connecticut Library and Supreme Court
Paul Cret	31	Pan-American Building
R. A. Cram	40	West Point
B. G. Goodhue	34	
John M. Carrère	40	New York Public Library
Thomas Hastings	38	
James Hoban	30	The White House
Raymond Hood	41	Chicago Tribune Tower
Guy Lowell	43	New York County Court House
H. Van B. Magonigle	39	McKinley National Memorial
Robert Mills	33	Washington Monument, Baltimore
H. H. Richardson	34	Trinity Church, Boston
James Gamble Rogers	44	New Haven Post Office
Egerton Swartwout	42	Missouri State Capitol
William Thornton	33	United States Capitol

which complies with the conditions he himself has laid down.

This matter, of course, is entirely the responsibility of the assessor, and no set of model conditions or rules and regulations can cover the occasional indiscretions of an assessor.

Now a word about the different types of competitions. They are, broadly, the open (single), the open in two stages (or dual competition), and the limited, with minor variations of all three.

Limited competitions are usually restricted to architects who receive direct invitation from the promoters, or who are selected by means of the submission of names and record of previous work. There have been a number of limited competitions in recent years, and there are many people, architects and laymen, who strongly advocate the principle. I believe the reason in many cases is that it gives them a sort of "safety-first" feeling. They feel satisfied that at least they know the worst that can happen.

Another argument used in favor of the limited competition is that for special buildings the competition should be limited to architects who specialize in that particular class of work. I have already stated what I consider are the objections to this argument, and they apply equally in this case.

It should also be borne in mind that the planning and equipment of special buildings are constantly changing with the progress of science and invention.

Personally, I feel that if the competition system itself is right, then the open competition is the simplest and fairest to the profession, and as it is undoubtedly the one which has produced our best men, it must also be the best from the promoters' point of view.

The open two-stage competition can only be justified in very exceptional circumstances. It has, I know, many supporters who would have practically all major competitions held in this way, but it is significant that few experienced competitors believe in it. They know that as far as the labor involved is concerned, the same amount of research work and thought must be put into the problem in the first stage. The elaboration of drawings, and even the working out of parts of the design are minor matters which

APPROXIMATE AGES AT WHICH CERTAIN ARCHITECTS WERE COMMISSIONED TO DESIGN IMPORTANT PROJECTS—NOT COMPETITIVE

ARCHITECT	AGE	BUILDING
Henry Bacon	46	Lincoln Memorial
Charles Bullfinch	24	State House, Boston
Charles Bullfinch	29	State House, Hartford
Thomas Jefferson	42	State Capitol of Virginia
Benjamin Latrobe	36	Bank of Pennsylvania
Benjamin Latrobe	39	United States Capitol
Charles F. McKim	40	Boston Public Library
Stanford White	28	Farragut Memorial, New York

take comparatively little time, and which in my opinion do not justify the delay and additional expense involved by a further stage. It can be safely stated that practically every competition of this character is won in the initial stage, and that the other competitors in the second stage are merely elaborating designs which have already lost, for it would take a bold man to depart fundamentally from a scheme which has already secured him a place in the second stage.

To overcome this difficulty one of the technical journals recently made the suggestion that before the second stage, the original sketches should be exhibited for all competitors to see, but that the sketches should be retained by the promoters for comparison with the final drawings, and would be binding upon competitors just as original esquisses are binding in student competitions, the idea being that any competitor selected for the second stage could retire if an inspection of the designs convinced him that it was useless for him to proceed further. But architects are all optimists and as the suggestion was also made that the competitors in the second stage should be paid a fee, I am afraid most of them would be tempted to take an optimistic view of their chances.

THE ASSESSOR

Under this heading I propose also to deal with the question of juries.

The question of the assessor is probably the most controversial and difficult in the competition system. Many hold the view that the jury system ought to be generally adopted, their argument being that errors of judgment would be fewer, that there would be less chance of the result resting upon the idiosyncrasy of the assessor, and that there

would be no playing up to the assessor's known opinion or prejudice, but the principal argument advanced in recent years is that with the jury system, the promoters could, if they desired (and they would desire), have representation on the jury.

I do not like the argument that you should include a representative of the promoters on the jury to make them feel that they are having some share in making the award. It does not seem quite honest, and if it is only their views that are wanted, surely these are obtainable before the designs are received, and the question as to how these views have been met in the designs submitted can only be decided by men whose training and experience render them competent to judge.

To the jury system itself, *i.e.*, a jury of architects, there can be no objection, although it is extraordinary how many architects, experienced in competitions, will prefer to leave the decision to one good man.

I consider that for most competitions, the single assessor, providing always he is competent, is the most satisfactory method.

The principle which I understand is common in America, of appointing a professional adviser who writes a program and conducts a competition but does not serve as a member of the jury which makes the selection, has not, to my knowledge, been tried in this country. It has always been felt that the man, or men, who advise the promoters and get to understand their requirements in the early stages, are the men best qualified to adjudicate upon the designs.

THE APPOINTMENT OF THE ASSESSOR

The appointment of the assessor is entirely in the hands of the president, for the time being, of the

Royal Institute of British Architects.

It can be realized that this does not always work out satisfactorily, and many suggestions have been put forward for an alternative method. The two most frequently advocated are (1) that the competitors themselves should select the assessor or jury, and (2) that the selection should be left to a body such as the Competitions Committee.

In support of the first, it is claimed that if competitors are to give of their best, they must have confidence in the men who are going to assess their work, and that this would best be achieved by the competitors themselves making the selection from a panel nominated by the president or the Competitions Committee.

One objection to this proposal is that the competitors as a body do not exist until they have studied the conditions and decided to compete, so the whole of the preliminary work of consultation with the promoters and the drafting of conditions and requirements would have to be done before the assessor was appointed and might convey ideas totally at variance with his own.

With regard to the appointment by the Competitions Committee, the objection to this is that the Committee is bound to include many of the men most suited to act as assessors. Are they to appoint themselves in turn, or are we to lose their services in this direction altogether?

I confess that at the moment I see no better way than the present, and although mistakes may occur, we have no guarantee that they would not also occur under a different system of selection.

In the selection of an assessor, it might interest your readers to know that, upon his election, the president nominates four advisers—men chosen to represent as far as possible all sections of the profession, and with a knowledge of the competition system. Upon being asked to appoint an assessor, the president invites each adviser to suggest two or three suitable names so that in addition to any whom he may think of himself, he is always provided with a list of suitable persons from which to make his selection, the final choice, of course, resting entirely with him.

Whatever the system by which the assessor or the jury is selected, the whole success or failure of the competition lies in his hands, and I think

a few plain words about his judicial position might be useful.

It has long been the recognized rule of the Institute that once an architect has been appointed to advise promoters upon the possibilities and organization of a competition and to act as assessor in the event of a competition being held, it is out of the question for him to act as architect for that particular building which was to be the subject of the competition.

The assessor having been placed in the position of responsibility towards his fellow architects, either upon the nomination of the president or at the direct invitation of the promoters, must fulfill his obligations towards them and not allow himself to be placed in a position in which his integrity might be questioned. If for any reason whatever the promoters decide not to go on with the competition and ask the assessor to act as architect, no matter at what stage of the proceedings this decision may be reached, it is the manifest duty of the assessor to decline to act as architect for the work.

It is true that the operation of this rule may appear to work harshly in certain cases, but we have to remember that the whole question of the good name of the competition system is involved, and it is the bounden duty of the Institute to protect that good name even at the possible risk of apparent hardship in particular cases.

There is another consideration that should not be forgotten. An assessor is a judge. He is, in the eyes both of the promoters and of the whole architectural profession, in a position of special trust. To his judgment, without even such a right of appeal as affects a judge of the High Court, is entrusted the duty of making an impartial decision which affects the material interests of scores, possibly of hundreds, of his professional colleagues. His decision affects the expenditure of many thousands, perhaps even of hundreds of thousands of pounds of the promoters' money.

It is, therefore, of the utmost importance that nothing should be left undone which will establish in the minds of the promoters, the competitors, and the general public what may almost be called the sanctity of the assessor's status. Errors of judgment he may make; that cannot be helped. But there must never be the faintest shadow

of a doubt cast upon his honor and his integrity.

It is for this reason mainly that the principle has been established that in no circumstances whatever should it be possible for any one to say or even hint that the decision or the advice of an assessor can possibly have been affected by the thought of his own material interests.

He is appointed to discharge a judicial function. He can have and should have no other connection of any kind with the matter.

The position in the case of an architectural assessor is a difficult and delicate one, from the very fact that he is himself in active practice. He cannot, like a judge, go to the bench and stay there. He fulfills his judicial function and then goes back to his practice. The very delicacy of the position makes it imperative that the principle stated above should be hedged and safeguarded in the most meticulous way, and that the principle should never on any excuse, however plausible, be departed from.

It is imperative, therefore, that an assessor should not be in a position to accept any kind of consultative or advisory commission in connection with the competition. If circumstances render a consultant necessary after the award, there is no real need for the assessor to be appointed in that capacity. It would be absurd to suggest that there are not other men in the country just as capable as he is of filling that position.

In spite, however, of all the difficulties and differences of opinion upon various details, I think it can be fairly stated that the architectural competition is now generally recognized as the accepted method of finding the best design for our public buildings, and the acceptance of this system, both by the public and the profession, is dependent upon the fairness of our conditions and the ability and integrity of our assessors.

Finally, I am of opinion that the competition system has a good stimulating effect upon architectural design. It holds out hope and encouragement to the young and hard-working assistant, and I find that public authorities are justly proud of the fact that the designs for their public buildings were obtained in competition open to the whole country.



Some of the decorators feel that there is a trend of decoration in America toward the modernized Empire, English Regency, Directoire and Georgian. This series of rooms represents an effort in that direction. A hall at the top of the main stairs is predominantly white; ceiling and walls are white, the niches serving to break up too great an expanse of white surface. An old console table stands under the painting framed in a mirror frame, and on the table are Waterford crystal candelabra

If there is anything in this series of rooms that falls short of satisfying the architect or decorator, he is asked to withhold his judgment until he has read the final caption on page 208

Photographs by Robert M. Glasgow

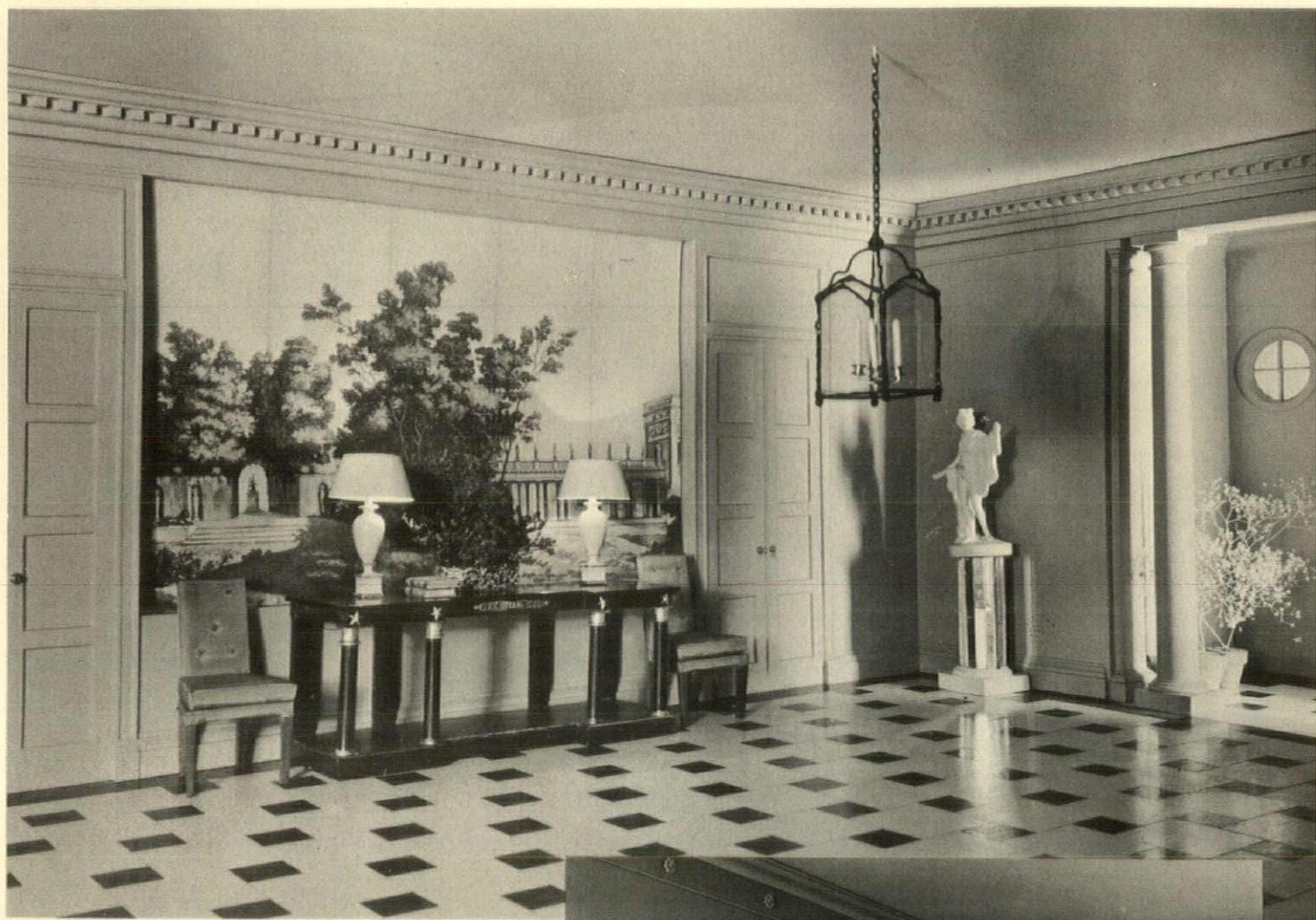
ARRANGED BY OTTO ZENKE OF THE DECORATIVE STAFF OF B. ALTMAN & COMPANY

Rooms in Modernized Traditional Styles

« ARCHITECTURE »

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The entrance hall is dominated by a large wallpaper panel copying an old Dufour hand-blocked paper, "The Cid." Statuettes are on mirrored pedestals. Black-and-white marble squares cover the floor, and the furniture is covered in brilliant rust fabric. Entrance doors just outside the picture to the right are tall and of dark mahogany



English Regency has been taken as the basis of the dining-room scheme, with blue walls and a polished inlaid floor. Curtains and draperies are blue and white; the furniture, mahogany, with white chairs upholstered in white leather. A scenic screen provides the only figured accent in the room

◀ ARCHITECTURE ▶

APRIL, 1936



Mr. Zenke has drawn on several periods for the bedroom. The tester bed and commode are of fruit wood, while some of the smaller pieces are painted. The use of a mirror screen and trim around the windows is entirely modern, but seems to blend well with the copies of antique furniture

In the library, traditional types of furniture have been used against a severely modern background—except for the Greek fret overdoor. The upholstery is a beige satin. Modern tables carry marbleized lamps. The two Chippendale armchairs are in green lacquer; rugs are modern and tufted



In the living-room, Mr. Zenke has used a modernized Empire suggestion, with warm gray walls and rug, white curtains, and draperies of green and white. The furniture is mostly fruit wood. The large semicircular bay window opens upon a flagged terrace, which is surrounded by a formal French garden

And now for the denouement: the interiors photographed in these four pages were built by Mr. Zenke at a scale of $1\frac{1}{2}$ " to the foot. So much effort has been put into the matter of properly scaled and textured details that it would be a keen observer indeed who would detect the fact that these photographs do not represent full-sized rooms. The photography, also, presented a real problem, for, as Mr. Glasgow points out, the point of view not only has to maintain the proper scale, but the proper light as well. Much of the photography was done with the use of mirrors—in some cases, a spotlight of 2000 watts was reflected from two different mirrors, and finally into the room. The interiors are now on an exhibition tour through some of the larger cities

Together with various traditional reminiscences in the bedroom, another photograph of which is shown on page 207, there is a strong modern note in the wood screen around the recessed mirrors of the dressing-table. The carpet also has an unusually pronounced tufted texture



THE SMALL HOUSE

—RESPONSIBILITY *and* OPPORTUNITY

By Henry H. Saylor

A FEW generations ago the medical profession might have said to the public, "If you want an arm sawed off or an appendix removed, we are at your service, but don't bother us with your smaller ills." Had that attitude been taken by the doctors, we should now be going to the druggist for anything less than a major operation.

Curious, is it not, that architects now view with alarm and outraged surprise the fact that the small house is being designed and built by men who took the job that the architect had spurned?

Look at it from another viewpoint. America has trained certain of her citizens to look after the health of the people; other citizens to know the law and advise upon it; other citizens to design and supervise her complex building. The doctor and the lawyer are doing their appointed jobs; the architect—well, some 80 per cent of American citizens are building their homes without his technical aid. Forget the esthetics involved: these citizens are taking, of necessity, what the jerry-builder and the profiteer and the land promoter and the honest, but technically untrained, builder are giving them, for a profit. If you picture America as a society divided into groups trained for the purpose of getting food, shelter, and facilitating the pursuit of happiness for all of us, the architect certainly isn't doing the job society has assigned to him. He is spending his time on the Lincolns and Cadillacs and Rolls-Royces, among buildings, and leaving the Fords and Chevrolets to be supplied, if at all, by the garage mechanic. And the large part of the public that is unable to pay for Lincolns and Cadillacs and Rolls-Royces is taking what it can get from the mechanic, who seeks a profit but who has neither the skill nor the professional lack of bias to earn it.

Professional medicine and the legal fraternity have long since found ways to serve the large part of the public that is unable to afford unlimited medical attention or legal advice. The professional technician in building must do the same. The responsibility rests with the profession, not with the public.

And as of the present date, the spring of 1936, there are signs that the profession of architecture has at last awakened to this responsibility.

The years behind us are strewn

with the wreckage of abortive attempts to meet the public need for better small homes. Prominent among these attempts were—and still are—the selling of plans. The profession knows, even if the public does not, that selling a plan is just about as effective as selling a sick man a bulk order on the drug store and telling him to go fill it and get well.

The doctors found a better way of rendering service than that—and I keep harking back to these parallels between ourselves and other professions for the reason that there are significant lessons that we can learn from them, rather than striking out blindly upon theoretical paths of our own devising.

The doctors devised the clinic. It made possible two things: the poor man can come to it and get the best diagnosis and prescription that medical and surgical skill affords; the doctors and surgeons can give quickly and efficiently of their knowledge and skill without having to spend three quarters of their working hours driving from the home of one patient to another, ringing doorbells, removing and donning coats and hats, unpacking and packing kit bags, stopping for traffic lights, answering irrelevant telephone calls, and all the other time-consuming details of the general practitioner's daily routine.

Taking a leaf from the doctor's book, the architect should be able to render technical service in building more easily and at decidedly less cost if he does not have to spend evenings and week-ends with a garrulous client, does not have to listen each night to telephone inquiries as to why the plumbers left the job at noon today, does not have to redraw plans because the housewife has just decided that she must add a shoe closet, or the prospective owner believes that, after all, he will require garage space for another car.

Just how the architect can render an adequate service more quickly and at less cost is at last being worked out. The details will vary, geographically, and in accordance with the volume of the practice. The important point is that the profes-

sion is attacking the problem instead of ignoring it.

At the Milwaukee Convention of last spring the fuse was lighted by a resolution:

"Resolved, That the Committee on Small Houses be instructed to study the development of a possible method of offering architectural service in the field of the small house in a manner appropriate to the opportunity and to the demand, and be further instructed to report the same to the Board of Directors at the earliest possible moment."

At the December meeting of the board the directors endorsed the proposal of the Committee on Housing to establish, through the assistance of the chapters, local groups of architects prepared to furnish plans, specifications, and individual supervision in the small-house field. And the march of progress was on. Buffalo, Washington, Baltimore, Boston, Salt Lake City, and New York soon organized groups of architects who saw the light.

Nevertheless this movement, like others before it, might have died aborning, had it not been for another important fact. After years and years of making building loans and issuing mortgages upon mere bulk of building, without so much as a serious question as to the technical quality of the house itself, as to the neighborhood in which it was built, as to the owner's continuing ability to meet interest payments—not to mention the merely academic question of amortization, and as to the probability of the building's remaining intact and comparatively fit during the period of the loan—after years of this inefficiency on the part of the loaning agencies, these latter suddenly awoke. The immediate cause of their awakening may have been the noise of collapsing values, and the rattle of foreclosure proceedings with regard to properties which were no longer worth their mortgage loans.

FHA and HOLC hung out some Stop, Look and Listen signals. You may or may not care for initialed government activities, but these two have turned the rugged in-

dividualism of realtors and bankers, in their home mortgaging activities, into saner and safer paths. FHA and HOLC said that a mortgage loan should be amortized, beginning with its date of issue. A mortgage loan should be insured, like any other risk, and here is a federal mutualized insurance company to underwrite it. A house on which a mortgage loan is sought should be honestly worth its cost—well designed and supervised in construction—and the responsibility lies with the loaning agency. A loan should be safeguarded by its maker both as to the homebuilder's proper choice of site and as to the community's actual need for additional housing.

These rather obvious essentials, now clearly and emphatically restated, brought sharply into focus the architect's opportunity to catch

up with his professional responsibilities. Without them he would have been facing the age-old problem of educating the low-income home builders as to their need of technical aid. With them, the loaning agencies, instead of ignoring the architect, will be sending clients to his clinics. Moreover, the cost of architectural services is being recognized by the loaning agencies as properly chargeable in the cost of the house and therefore as a part of the mortgage loan—an essential element in the cost, together with those of materials and labor. Thus, architectural service is no longer regarded as a luxury, obtainable by those who can afford something beyond the necessities, but rather as the first essential, without which a mortgage loan becomes at best a second-class risk.

Such a beneficent combination of

circumstances as that which now exists is portentous—the awakening of the architects to their neglected duties and opportunities, and the government-inspired consciousness of a need of the architect's aid on the part of the loaning agencies. If the problem of small-house practice is not solved now, it seems likely that the profession will not soon again have a chance to tackle it, for it will be taken over by those more adaptable to its demands.

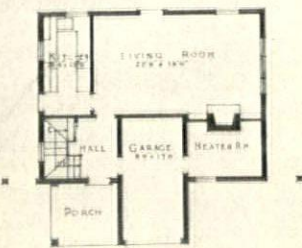
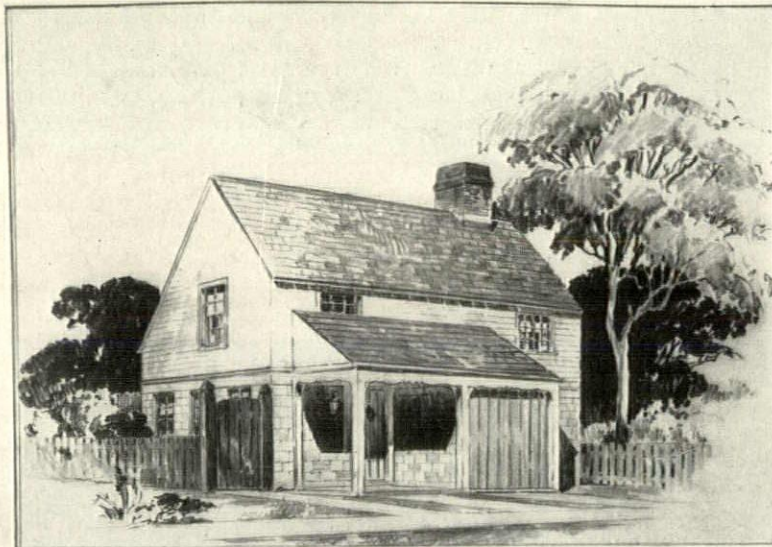
There is almost a crusader's spirit activating the groups of architects—mostly younger men—now being formed in the metropolitan centers. In the possession of this spirit they are alike; in their procedure they differ. Washington has its headquarters in a large loaning institution and the service is being advertised in the newspapers at the institution's expense.

Buffalo's group got off to a running start in collaboration with various agencies combining in a Better Homes Week.

Boston is building on the foundations left by the Architects' Small House Service Bureau, adding some new designs and incorporating supervision by the member living nearest the project, no matter whose the design.

In New York the difficulties of supervision in scattered sites in the distant suburbs are to be lessened, it is hoped, by a central supervising agency—possibly one of the group members.

Details of procedure are lacking, as this goes to press, regarding most of the groups. In a forthcoming issue, it is hoped, there may be an account of how each group functions. A comparison of ways and means should be of help to all. Any attempt at a rigid national pattern, I fear, is doomed to failure; conditions vary too widely for that. There is but one really vital element to be held by all these groups and others to come: the service offered must be a complete service necessarily limited, paradoxical as that sounds. In other words, no one of the essentials can be omitted; design, contract documents, supervision; though any or all will be abbreviated as may be practicable in this class of work.



FIRST FLOOR PLAN



SECOND FLOOR PLAN

At left, a typical example of what the New York group is doing in the presentation of its basic designs

◀ ARCHITECTURE ▶

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SMALL HOUSE ASSOCIATES



Here is a school building which expresses very clearly the architect's conviction that if beauty is to be obtained in much of his work, it must result from the manner of handling simple materials and the functional members of the structure. More specifically, the school reveals some of the possibilities that lie in the use of monolithic concrete

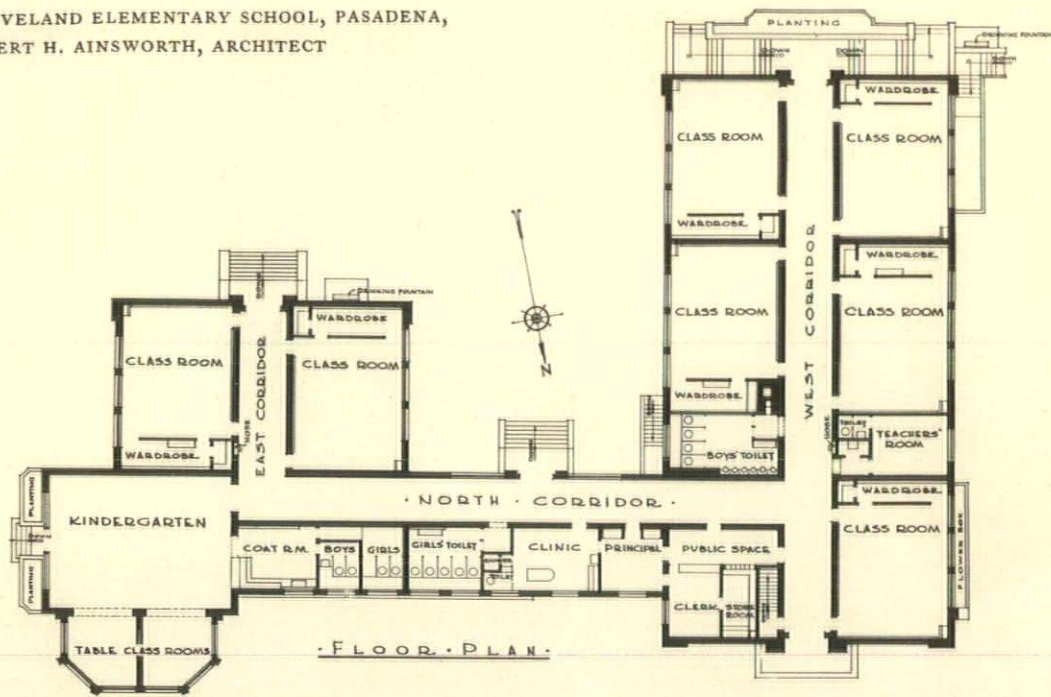
ROBERT H. AINSWORTH, ARCHITECT

Grover Cleveland Elementary School, Pasadena, Calif.

« ARCHITECTURE »

APRIL, 1936

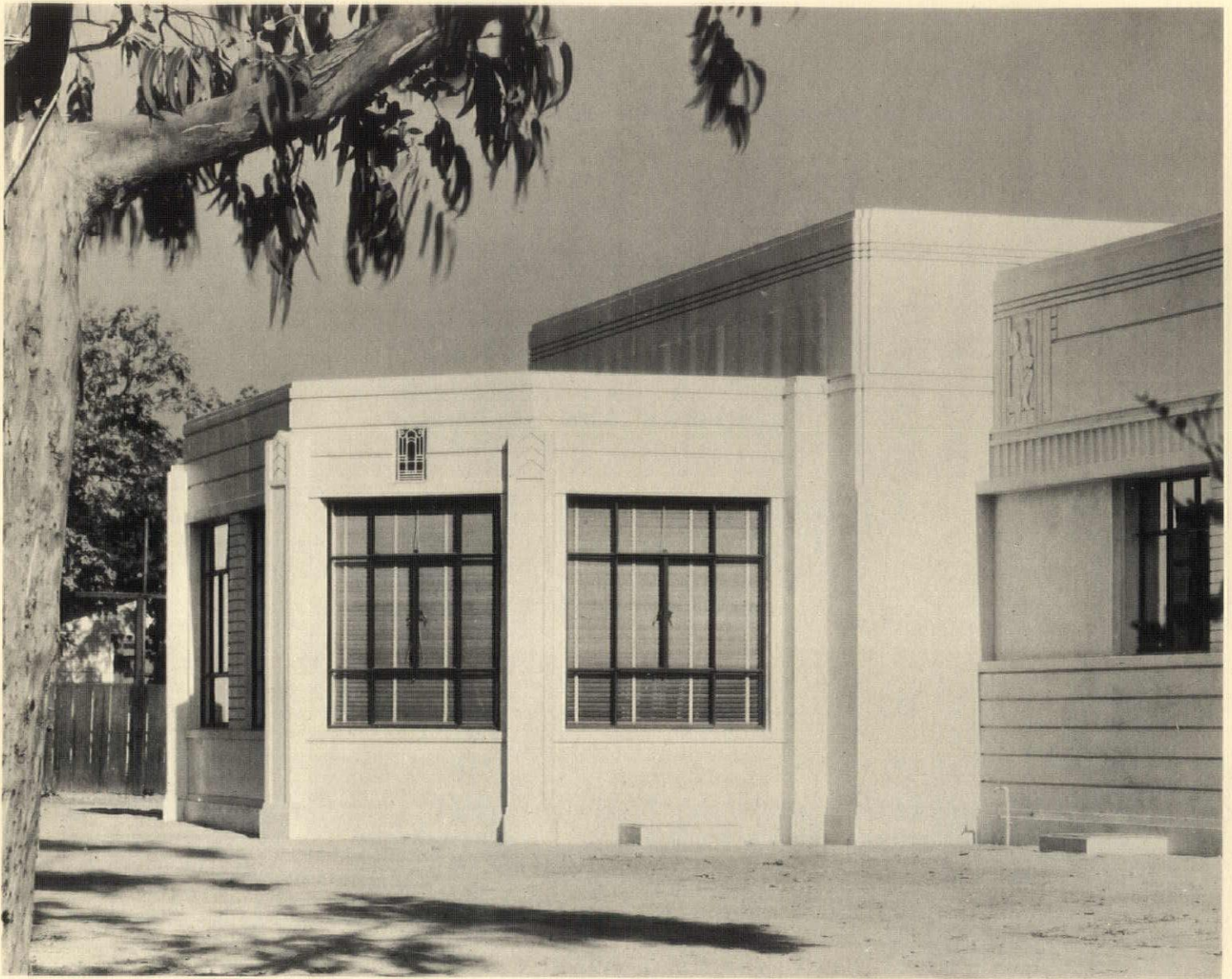
GROVER CLEVELAND ELEMENTARY SCHOOL, PASADENA,
CALIF. ROBERT H. AINSWORTH, ARCHITECT



The plan represents a typical small elementary school in a community where the cost of land imposes no great restriction upon open planning. It replaces a previous school building on the same site



All exterior surfaces were formed against oiled plywood, with a very restricted use of waste mold for ornamental panels. The mix was about 1 : 2½ : 3¼, with 6¼ gallons of water to the sack of cement



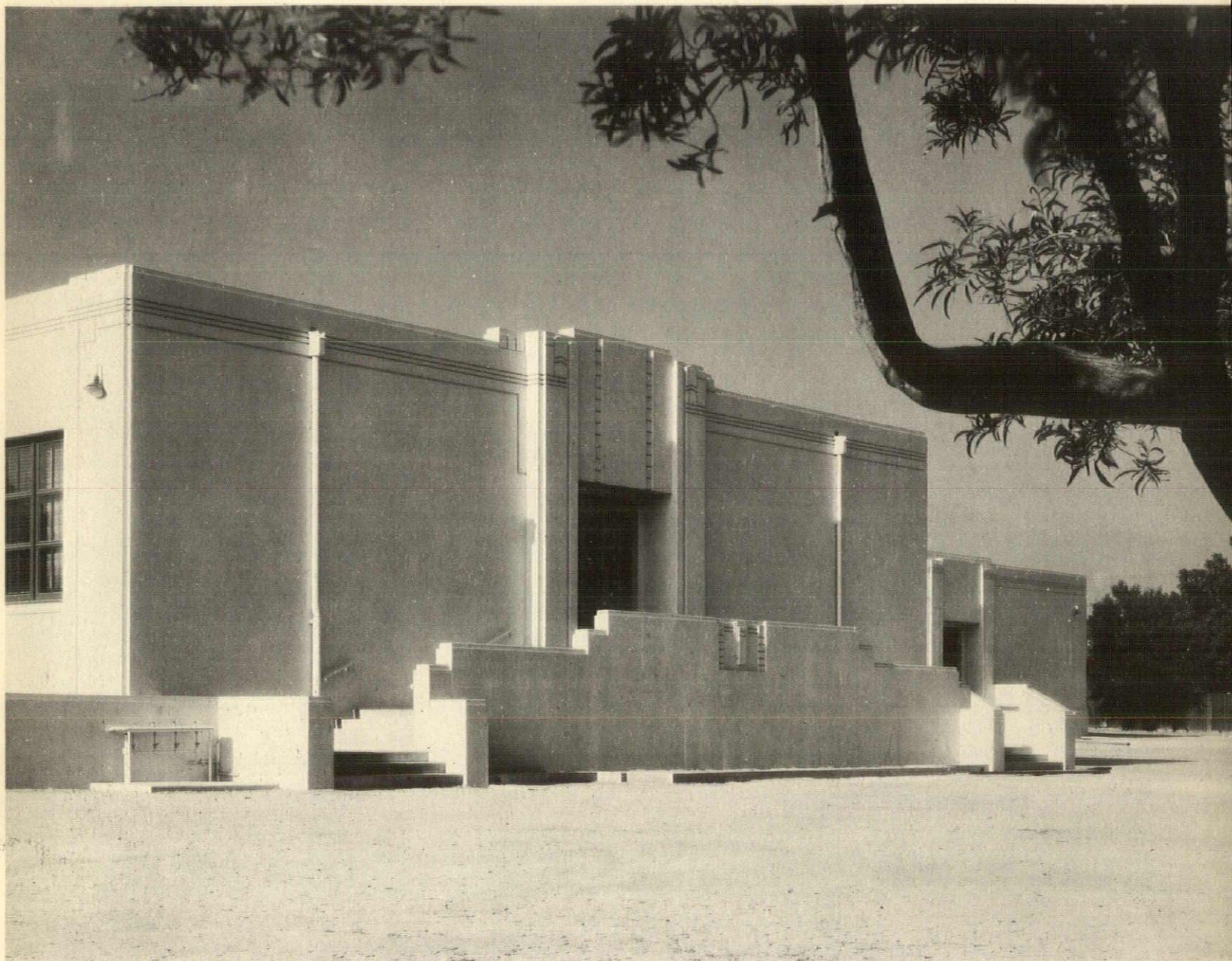
The kindergarten bay. Exterior walls are poured in a hollow monolithic section, with solid walls of smaller section for the corridors. An extra percentage of very fine sand was used to facilitate filling the rather thin forms, broken up as they were by wooden inserts for the reveals, and internal vibrators were used, necessitating extra bracing

GROVER CLEVELAND ELEMENTARY SCHOOL, PASADENA, CALIF. ROBERT H. AINSWORTH, ARCHITECT

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The poured concrete walls were painted a cream color with cement paint, the window trim and entrance doors painted olive green. As a precaution against damage of the surface by workmen in removing the waste molds, the inner surfaces of these latter were lined about one quarter of an inch thick with material of a different color from that of the rough backing; this served to warn the workmen that they were arriving at the surface of the concrete

GROVER CLEVELAND ELEMENTARY SCHOOL, PASADENA, CALIF. ROBERT H. AINSWORTH, ARCHITECT

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Saturday, February 1.—I was talking today with a man who has achieved an enviable position as an authority on international affairs and their interdependence. It seems that he went abroad as a news photographer, having proceeded in his education no further than the beginning of high school. In London he went to a wise counselor, and said: "How can I live in London, acquire an education, and support myself at the same time?" The wise man, after some consideration, said: "You can support yourself by contributing news photographs and news items to your American press. You can acquire an education by reading diligently, for four years, *The London Times*." It is not surprising that the scheme worked, for into the columns of the staid *Times*, in the course of four years, would certainly find its way a learned discussion by excellent authorities of practically any subject one might name. Incidentally, the study of *The Times* also produced the leads for news which, dished up in a more appetizing form, found ready acceptance in the American press.

Monday, February 3.—To Alexander Girard's office and apartment to see a model he has just completed for a new art school in New York City. The model itself was beautifully lighted from within and from without where it could be examined in detail by the group of professional men who had come to see it. It is a rather nice custom this, of having one's professional associates and acquaintances come in to see and criticize a piece of work still in project form. It is a pity it is not done more often.

Wednesday, February 5.—One is more and more amused these days at the striving for a use of materials that has never before been known. If you will accompany almost any decorator to his or her, probably *her*, latest job, there will be pointed out to you chair seats made of white calfskin, table tops made of asphalt, furniture in which appear woods that to your untutored eyes may look like oak or walnut, but which you are told are Scandinavian butternut and Mongolian tulip wood. Draperies are seldom, in these days, just fabrics—they are woven of Iceland goat hair, Siberian seal, or East Anglican skunk. Almost anything you may touch in the modern decorator's product is made of a material of which you have probably never heard. Just how and why it is better for its purpose, is left to your own vivid imagination.

Thursday, February 6.—Lewis Mumford launched a series of lectures on social and economic implications of housing with the first one this evening on the poverty of housing progress. The lectures are under the direction of the Housing Study Guild at the New School for Social Research. Mumford gave us a



The Editor's Diary

particularly vivid picture of housing progress, or lack of it, from the sixteenth century to date. As he pointed out, one of our greatest difficulties in securing housing today lies in the fact that as the standard of home demands rises, as it has been doing steadily, it becomes more and more difficult to secure a minimum standard of decent housing for the low-income third of the population. It is an interesting thing to contemplate the steady march upward of what we demand as a minimum standard. Housing is no longer four walls and a roof, with access to the town pump, but involves a growing complexity of equipment, comforts, and accessories. Housing as simple shelter would undoubtedly be within reach now, but meanwhile our demands have moved on, and the goal is even more inaccessible.

Saturday, February 8.—All of us have at least some sort of a vision in these days of the time not so very far distant when everything that industry puts into a structure will be prefabricated, brought to the site, and slipped into place with a minimum of field labor. There are certainly many men and an imposing array of minds expending every effort toward this end. I am not at all sure that there is not, as Harrison Gill points out, a lesson for us in one of the most common elements used in building today, the wood window. Here is an item that is, and has been for some time, a prefabricated product. The wide distribution of manufacturers and the keen competition to place the finished product in the structure at the least possible cost, has produced what? Not an assembled window, which is decidedly more easily made in the shop than on the job, but a knock-down product in a carton, which has to be put together on the site. Here is an instance of the economic development of one of a building's most important parts. Its development has been entirely brought about by the natural factors involved. Presumably it could be brought to the site as a completed window, framed together, glazed, painted. If that had proven itself to be the most economical way of getting it into the job, that is the way it would be done. Possibly, therefore, we are expecting too much in prefabricated wall

panels which are delivered to the site completely finished inside and out, ready to be hung to a frame, and produce overnight a building.

Monday, February 10.—I see that the National Gallery of Art, which Mr. Andrew Mellon plans to leave in Washington as a treasure house for the many things he has collected during an active life as a connoisseur, is to be designed by the Office of John Russell Pope.

Wednesday, February 12.—Mr. W. J. Cameron, whose Sunday evening talks on the Ford hour are usually informative, pointed out, the other night, the effect of the motor-car on building. For instance, it has brought about the construction of some fifteen million garages, one hundred seventy thousand filling-stations, thirty thousand salesrooms, fifty thousand repair garages. It is a lot of building. Of course, the building of roads was obviously a direct result of the motor vehicle, but it did more than build roads. It must have had considerable influence on building costs and methods. The motor truck hauled bigger loads of brick and stone over longer distances in less time and at lower cost. Altogether, the building industry has a great deal for which we may thank the motor vehicle.

Friday, February 14.—Louis La Beaura says that the architectural styles is over, and the result is a draw. The Modernists are retreating from their extreme position, and the Traditionalists are moving ahead. Doubtless a large part of this tendency to dig trenches in the middle ground is due to the fact that during the past five years or more, as La Beaura says, the architectural profession has been busy not in the practice of architecture, but in the discussion of architectural theories. "Both sides have often been eloquent, and sometimes logical." Out of it all, the great fact for which we may be thankful is that beauty is being sought as avidly as comfort.

Saturday, February 15.—Had an interesting session, lasting most of today with William Stanley Parker and some of his associates in Boston's effort to supply a limited architectural service for the builder of the small home. It was particularly interesting to find out certain minor points of differences in the proposed method of conducting this practice as between the Boston group and the New York group. Boston believes that the designs available are in sufficient number and variety so that the prospective client will find just what he wants, and changes from these should not be really needed, and if needed, should be paid for. The supervision is then entrusted to the member of the group near the job, no matter who has designed the house. They believe in

(Continued on page 218)

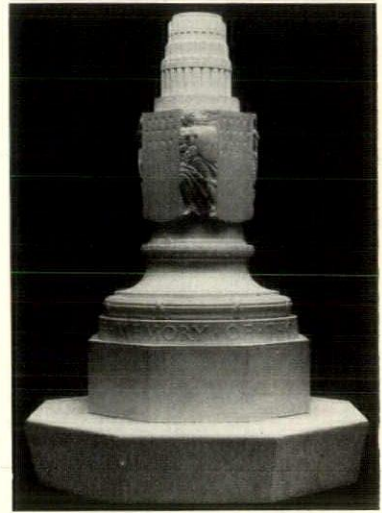


Relief for the Kansas City Liberty Memorial; Edmond Amateis, sculptor. H. Van Buren Magonigle and Wight & Wight, architects

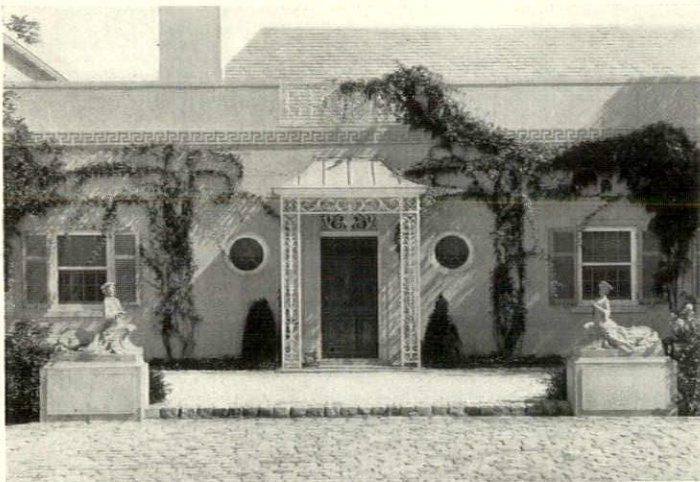


"The Young," directly modelled terra-cotta sculpture by Waylande Gregory. Awarded the Avery Prize for Sculpture

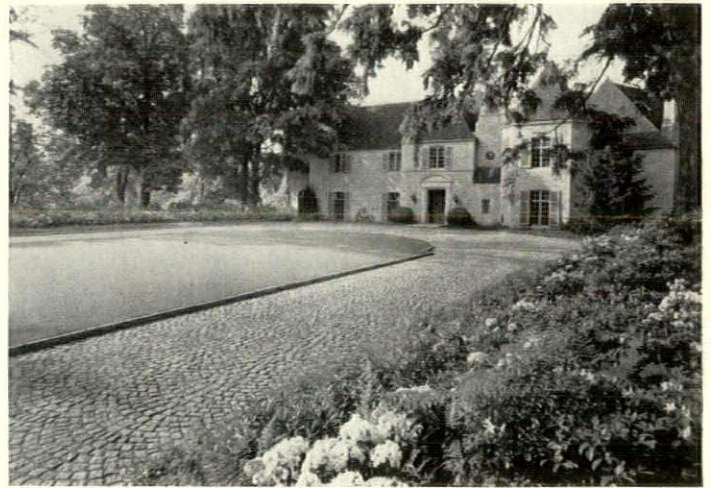
Flagstaff base for Milwaukee War Memorial. Benjamin Hawkins, sculptor. Awarded Honorable Mention in Sculpture



At The Architectural League Exhibition

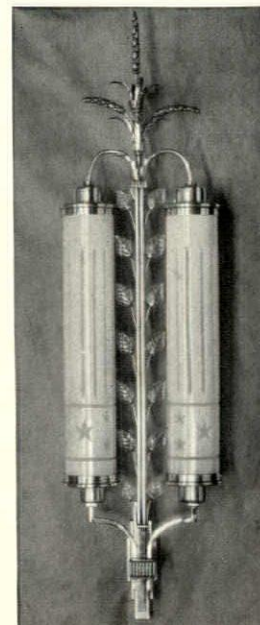
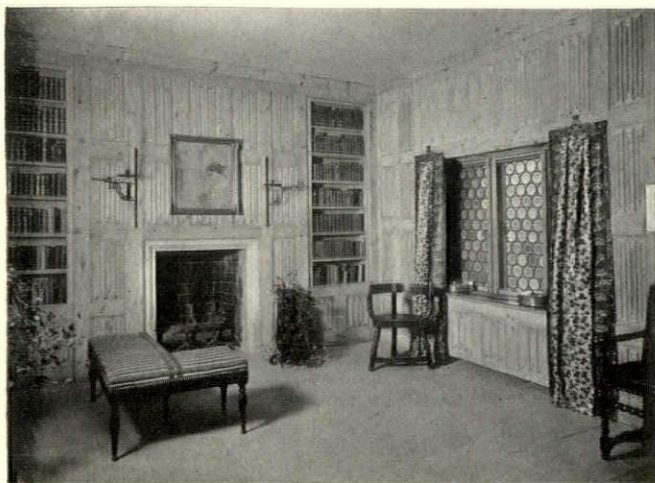


Exterior detail of an indoor tennis court on Long Island. James W. O'Connor, architect. Awarded Silver Medal in Domestic Architecture



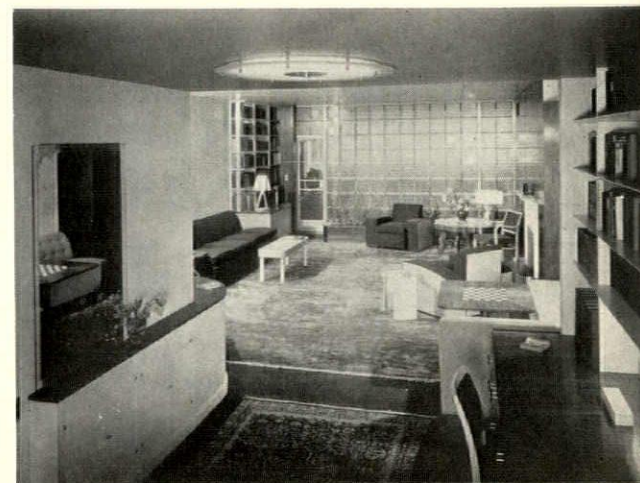
Entrance court, residence of Richard Hellman, Scarsdale, N. Y. A. F. Brinckerhoff, landscape architect; Lewis Bowman, architect

Reception hall, with old linen-fold pine, old bull's-eye glass casements, and stone floor. Arden Studios, interior decorators

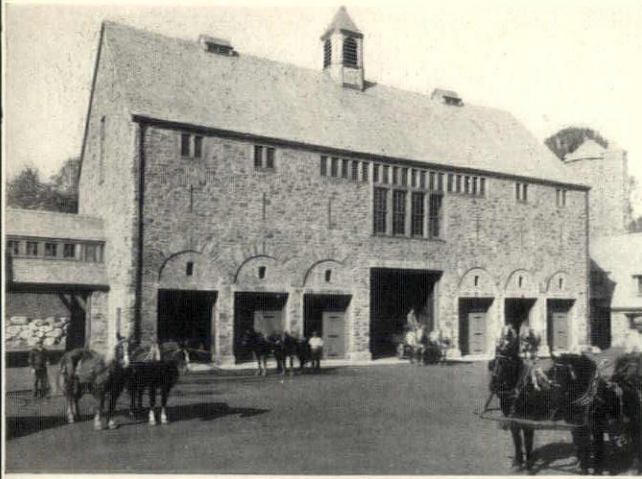


Wall fixture in matt aluminum finish, with crystal and engraved alabaster. Designed and made by Edward F. Caldwell & Co.

Living-room from foyer, apartment of Morris Sanders, architect. Awarded Silver Medal in Domestic Architecture



Hay barn, Westchester County, N. Y. Grosvenor Auerbury, architect



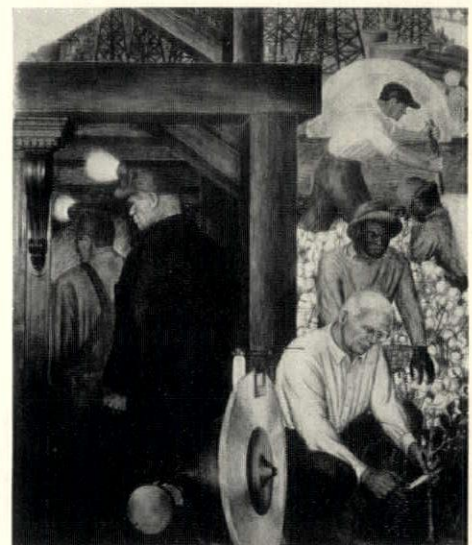
Murals in the entrance rotunda of the Ford Building, San Diego Exposition: "Spirit of America" and "Spirit of Asia." Painted by Charles B. Falls. Richard S. Requa, architect; Walter Dorwin Teague, designer



Water-color rendering by Elizabeth Hoopes of a dining-room by McMillen, Inc., interior decorators. Miss Hoopes was awarded the Birch Burdette Long Memorial Prize for Rendering



Fountain of Lumar, a translucent marble. Designed by Vahan Hagopian, architect; exhibited by Vermont Marble Company



Detail from mural at Evander Childs High School, Federal Art Project in New York City, painted by J. Michael Newell: "Evolution of Western Civilization." Awarded Medal of Honor in Painting

A circular extension dining-table, 5' in diameter extending to 7' diameter. Designed by Henry Kotzean of Schmieg, Hungate & Kotzean—



for distinguished achievement in the making of fine furniture, awarded the Gold Medal in Design and Craftsmanship

Main entrance, residence of David O. Selznick, Beverly Hills, Calif. Roland E. Coate, architect, awarded Honorable Mention in Domestic Architecture

Detail of steel doors for U. S. Government Exhibition Building. Design and craftsmanship by Oscar B. Bach

Post Office Building in Chattanooga, Tenn. R. C. Hunt & Co., architects; Shreve, Lamb & Harmon, consulting architects



(Continued from page 215)

Boston that supervision consisting of a visit to the job before one takes the morning train for the city is the ideal sort. New York, on the other hand, has a feeling that such intimate contact with the job and the client may involve the architect in charge with evening calls in person or by telephone regarding the minutiae of the job and why it isn't being built more quickly. The New York group's feeling is that to cut costs, all this must be ruled out, and the job given about five stated inspections, leaving to the owner and the builder the many arguments why the plumber or some one else isn't at work this morning. New York, moreover, feels that this inspection can be more efficiently done through a central office supplied with trained inspectors. It is these differences of practice in the various groups now working at the problem that will need to be ironed out through the application of the trial and error system.

Wednesday, February 19.—Considering the difficulties that faced the introduction of the Mutual Mortgage Insurance Plan a little over eighteen months ago, the Single Mortgage System has had an especially wide and quick acceptance. There were many hurdles in the path to start with. Mortgage lending laws in all of the forty-eight States had to be changed, and this has actually been done by legislative action in forty-five States. Moreover, a system of appraisal and underwriting had to be established. There are sixty-four underwriting offices in the forty-eight States, Hawaii, and Alaska. In addition to the rapid progress made by the scheme under the National Housing Act, it now seems evident that the great majority of lending institutions are establishing their own machinery for the writing of first mortgages in which amortization is immediately begun. In many States, the Single Mortgage Plan is not tied to the scheme of mutual insurance under the National Housing Act, but is being put into effect on a wide front without the insurance provision. I should venture the prophecy that within five years, at the outside, the amortized mortgage, with or without an insurance feature, will be so universally recognized that any other type will be an oddity. That is progress in full stride.

Friday, February 21.—We think of the term "air conditioning" as a product of quite recent inventive progress. As a matter of fact, as the Air Conditioning Manufacturers' Association themselves point out, the term was in general use as far back as thirty-two years ago. It appears in Stuart W. Cramer's book, published in 1904, and was in use before that time. Of course, in those early days it described practically the same functions of air warming, heating, and moistening as it does to-

day, but was then considered practicable only in connection with certain manufacturing processes.

Sunday, February 23.—Columbia's Avery Library acquired an interesting collection of drawings recently by gift from J. Henry Lienau, the son of Detlef Lienau, an architect practising in New York in the mid-Victorian era. Plans, working drawings, sketches, and photographs of work in the Metropolitan district, in Newport, and in New Jersey are included, showing the actual details of the famous gingerbread houses that marked the popular taste late in the second half of the nineteenth century. There were no blueprints in that day, and the architect, as he still does in England to a large extent, made delicately colored drawings. The elder Lienau came to the United States in 1848 from Germany, and was one of the founders of the American Institute of Architects in 1857.

Tuesday, February 25.—Charles Z. Klauder over from Philadelphia, telling me of the interest that he and his confreres on the Treasury Department's Advisory Committee on Architectural Design find in their work. Messrs. Klauder, Aymar Embury, Philip Maher, and Henry Shepley, with the Supervising Architect, make up this committee. A meeting is held each week in Washington where all the designs in progress are reviewed in detail, and written comments made upon them, subject, after correction, to further comment or approval. Frequently the designer in charge of the work is called in to explain the reasons for certain forms, or to debate with the critics the advisability of various parts of the design. There is no attempt on the part of the committee to have all of the government's architecture poured into one mould. They recognize the responsibility of holding fast to certain geographical traditions and vernacular—a post-office for Santa Barbara will differ widely from one in Natchez, or one in Salem, Mass.

Wednesday, February 26.—W. L. Wood, editor of *The Architect and Building News*, over from London to see, among other things, what we are doing in magazine publishing on this side. His problem differs from ours mainly in that he edits a weekly, which must be, first of all, a newspaper. The tight little island wants its news of competitions and costs and building progress hot and wet from the press. The weekly journal, therefore, has little time to spend on niceties of arrangement and beauty of presentation, which are elements that the American journals hold to be of paramount importance.

Thursday, February 27.—At midnight I staggered home after a six-hour session with a group of men who have given

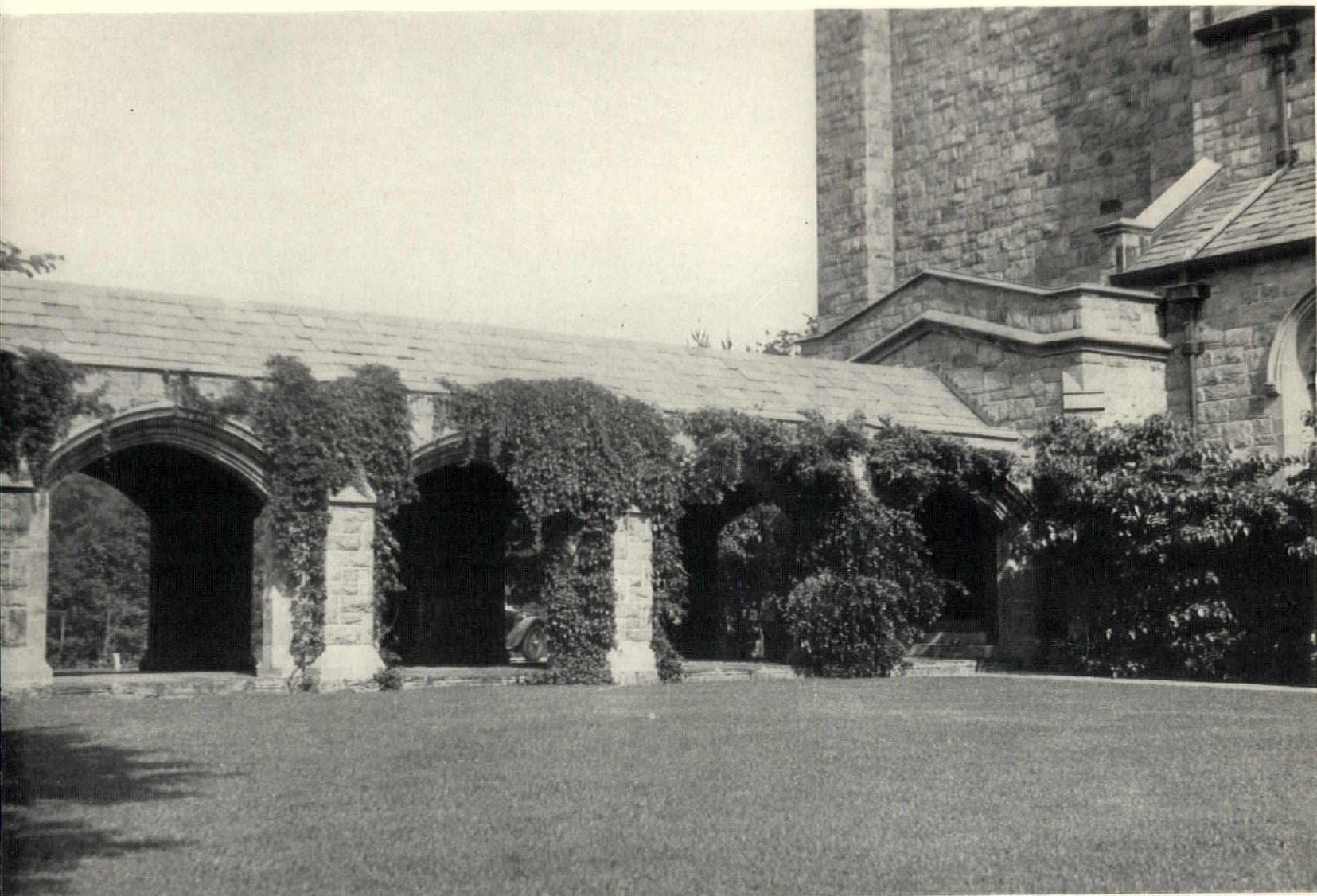
years of study and research to various phases of the mathematical bases of design. Edward Edwards told us of his efforts toward a simplification of teaching elementary design. Scott Williams had developed independently a somewhat similar simplification of the fundamental rules of composition in his teaching at the New York School of Applied Design for Women. Rutherford Boyd showed and explained a wood model which he had carved into a form based on the use of a parabola, substantiating the fact that a purely geometrical basis of design in three dimensions can express a beauty that man feels inherently right. Dr. William Churchill showed us the results of years of research among early writings in the placing of numbers and numerical relationships in apposition with letters and words. And Wilford Conrow showed us his simplification of geometrical form of the elements of the human body for purposes of representation. The human body naturally differs widely, but Conrow claims that deviations from this geometrical norm are evident at once to the eye of the artist. Any one of these branches of the same large subject would, to me at least, have sufficed to fill an evening with all the knowledge that I could conveniently assimilate. And so to bed.

Friday, February 28.—*McCall's Magazine*, like many of the journals circulating among the homes of America, is getting more excited about home building. Their latest scheme is to start building a certain house in various parts of the country at the time it appears in the magazine. The idea is that the readers can find plans and a perspective of a house, and, without too much travel, can go see it being built. I was particularly amused, however, by the condescension of a sub-title in the April issue, "Our Architect Helped."

Saturday, February 29.—At the annual luncheon of the Municipal Art Society today, George McAneny told us of his inspiring plans for the World's Fair in 1939. We heard also some other suggestions as to what the fair should be: from Olin Downes, music critic of *The New York Times*, as to what the fair should do with and for music; from Richard F. Bach of the Metropolitan Museum of Art, who put in an eloquent plea for art in industry; from Michael M. Hare, representing the youth of America in an iconoclastic mood; and Royal Cortissoz who pleaded that whatever the fair be, it be made beautiful. I was particularly interested in noting that Mr. McAneny apparently has in the front of his mind's picture, a great architectural setting. What is to be inside of the buildings is important, naturally, but I sensed again and again his emphasis of the fact that the fair must first of all be a magnificent and fitting spectacle, an inspiration in its plan and architecture. The other elements will follow.

◀ ARCHITECTURE ▶

APRIL, 1936



Many of the architect's creations fail to measure up to his expectations. Here is one of a series, however, that satisfy, in a measure, the designers themselves

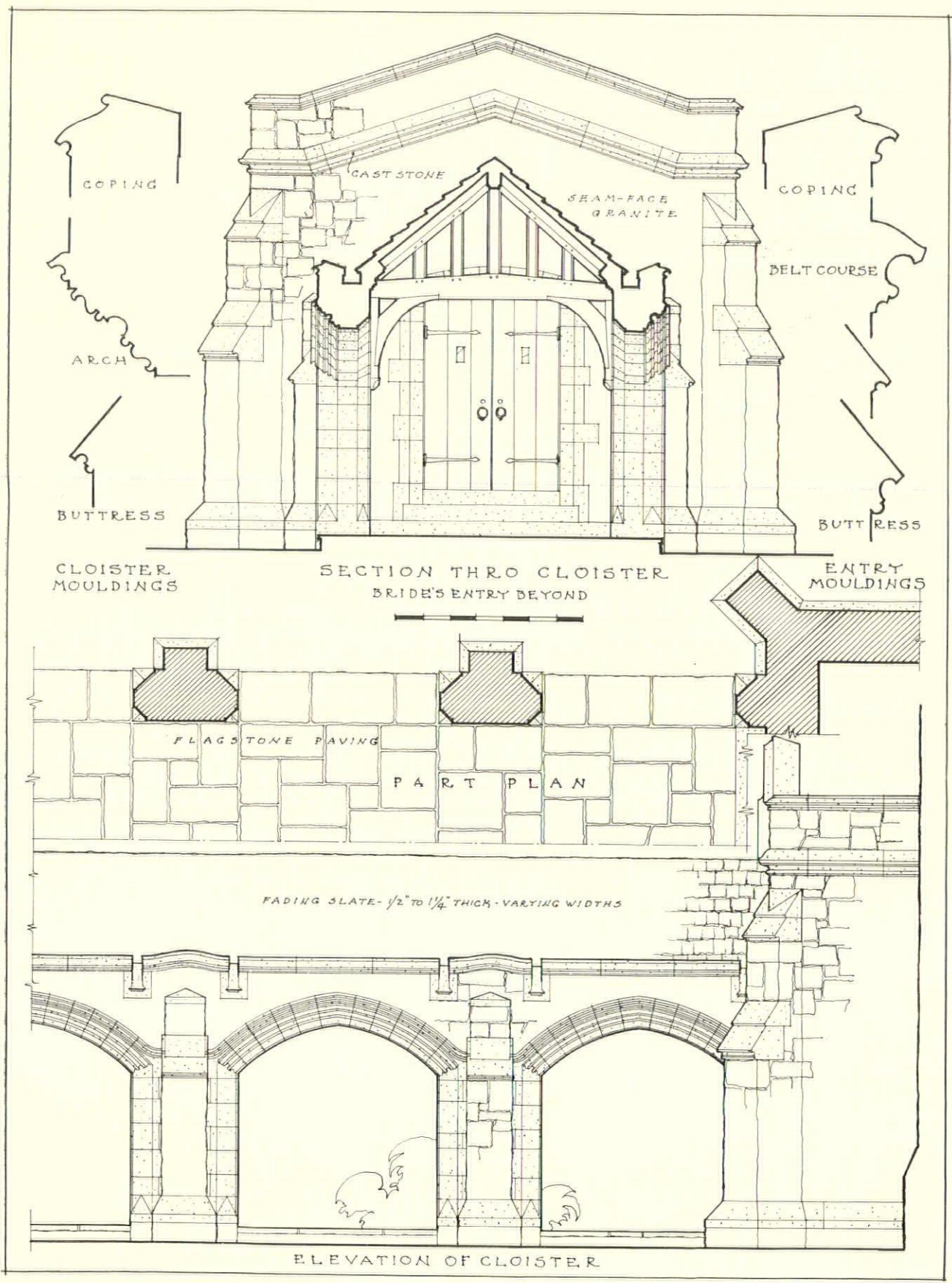
(Scale details overleaf)

The Cloister, The Reformed Church,
Bronxville, N. Y.

HARRY LESLIE WALKER
ARCHITECT

FAVORITE FEATURES

« ARCHITECTURE »
APRIL, 1936



*The Cloister, The Reformed Church, Bronxville, N. Y.
Harry Leslie Walker, architect*

NEW HOUSEBUILDING TECHNIQUES

Introduced by the technical survey made and reported by the FHA, which was printed in ARCHITECTURE'S November and December issues, we purpose reviewing in detail these new methods and materials. A snap judgment among them is impossible. For the

present, all we can do is to present the new systems. Their ultimate acceptance or rejection will depend largely upon your faith in their merits and your willingness to submit them to the test of use—"the proof of the pudding . . ."—EDITOR.

The Corkanstele System

BY NORMAN F. MACGREGOR, JR.

TWO demands are being created simultaneously in the mind of the American public. The first is for low-cost dwellings; the second, for quality construction. When the great wave of building which is confidently prophesied, finally surges over us, the architect will be called upon to weld these apparently irreconcilable elements, and provide a structure that is not only economical to erect, but that will be economical to maintain as well.

Obviously, before this can be accomplished, the initial expenditure must be removed from its position of primary importance, and placed in its true relationship with such fundamental factors as upkeep costs, durability, and fire safety. In other words, the house must be viewed in a forward perspective, extending over a period of at least a decade, to determine wherein true economy lies.

From this point of view, the new housebuilding techniques assume an additional importance. Particularly is this true of Corkanstele, for it is not intended to reduce the initial construction costs, but rather to provide a more scientific structural method; resistant to all forms of internal disintegration; fireproof; and insulated under terms of exact precision against noise and the infiltration of heat and cold. This, at a cost but slightly higher than that of an ordinary frame building, insulated in the customary way.

It is a semi-fabricated system, wherein steel angles and pure corkboard support the building. Thus the insulation becomes an integral part of the construction, and protects the building in its entirety. The method has no influence upon architectural style, but relates itself solely with the internal supporting members. The exterior and interior

finish, finish floors and ceilings, decorations and mechanical equipment are all applied within the complete option of the architect.

Corkanstele is a patented construction and may be used only under special grants issued by the owners of the patents or their authorized agents. It is evolved directly from industrial refrigeration, and differs only from its industrial parent in refinement of detail, adjusted thickness of the pure cork wall body, and the introduction of windows and doors. Obviously, there can be little question as to the insulating efficiency of a system with such ancestry, for where a change of temperature of but a few degrees might occasion the loss of a hundred thousand dollars worth of meat, eggs, fish or ice, precision must be paramount and proved. Corkanstele permits the same accuracy of thermal design in a residence that is found in industrial practice. No provision must be made for excess capacity to cover uncomputable factors such as poor workmanship and similar contingencies. The insulation heat loss is precisely computable, and—true to its industrial precedent—obtains over walls and roof complete.

CONSTRUCTION AND DESIGN PROCEDURE

The building may be designed by the architect in the ordinary manner and without any consideration of the structural method to be employed, but it is advisable for him to plan, wherever possible, upon the basis of a three-foot module for the exterior walls, as this is the stock width of the cork, and an adherence to this principle would naturally tend to reduce the cost of the building, materially. Stock steel sash

windows may be obtained to fit in with this module.

A general contract is let in the ordinary manner, for everything except the Corkanstele framework, and includes excavations, foundations, exterior and interior finish, roofing, and all mechanical trades such as plastering, plumbing, carpentry, heating, ornamental painting and decoration.

After the foundations are completed, the structural framework is set up of standard structural steel members, designed to carry the required loads in accordance with the specifications of the American Institute of Steel Construction. The studs, 3' on centers, consist of two steel angles, placed back to back, and are rigidly anchored to the foundations as shown in the diagram. Rabbeted corkboard, 36" x 12" x 3", is then slipped into place and clamped to position by horizontal steel T-bars, which are clipped to the studs, and which act as additional lateral bracing. The envelope is completed by a strip of cork slipped in at the rear of the angles, which completely sheathes the steel with insulation, and prevents any possible conduction, with resultant condensation. Any exterior or interior finish may be applied directly to the corkboard without provision for air space, and, if desired, a stucco or plaster finish may be used without recourse to steel lath, the porous surface of the cork supplying ample bond.

Structural steel beams, laid 3' on centers, are provided for the floors, and these are covered with precast corkcrete slabs, 36" x 12" x 2 1/4". The corkcrete is a fire- and sound-proof concrete, made of portland cement, sand and pure cork granules, reinforced with steel wire mesh, and precast in steel forms to the standard size required. The

resultant material is almost light enough to float in water, and saves one ton of dead load for every cubic yard used. Nevertheless, it is extremely strong, and has been tested to failure under a concentrated load of 700 pounds at the center point, and over a span of 32". The sub-floor, thus provided, is then ready for any finish desired. Hardwood may be laid in a mastic, or a composition flooring may be applied directly to the corkcrete surface.

The roof is constructed in an identical manner, and may be either flat or at any desired pitch. Roofing slate, etc., may be nailed directly into the roof slabs.

Partitions are built up of cork-concrete blocks, 12" x 36" x 3" (or double where required to accommodate pipes, etc.), laid in cement and lime mortar. These partitions, when erected, are ready to receive a finish coat of plaster.

ADVANTAGES

The advantages claimed for Corkanstele construction are based primarily upon the certain nature of the insulation. Cork, itself, is a natural insulating material of thoroughly proven quality, but most of the insulating materials in common use have a similar heat-passing laboratory rating. This rating is called "K," and is the number of B.t.u.'s which will pass through an ideal sample in thirty minutes. The value of the method, therefore, is dependent not so much upon the insulator as upon the method of application.

Thus "K" becomes variable on

the actual job, when subjected to the hazards of careless workmanship, improper practices, and the physical limitations of the actual structure itself. Nor does the laboratory "K" take into account the possibility of moisture impregnation, which would destroy the value of the insulation completely, or of packing, tearing and similar contingencies. It neglects, moreover, fire and vermin resistance, as it does disintegration, decay and rust, which latter can, in many cases, destroy the original properties as possessed under ideal conditions. The sponsors of Corkanstele feel that any of these failures is impossible with their method, due to the nature of the cork itself, and to the ease of supervision during construction.

Beyond the field of pure contingency, however, they feel it has profound inherent advantages accruing from the method of application. This can best be understood by comparing its principles with those of the other consequential methods.

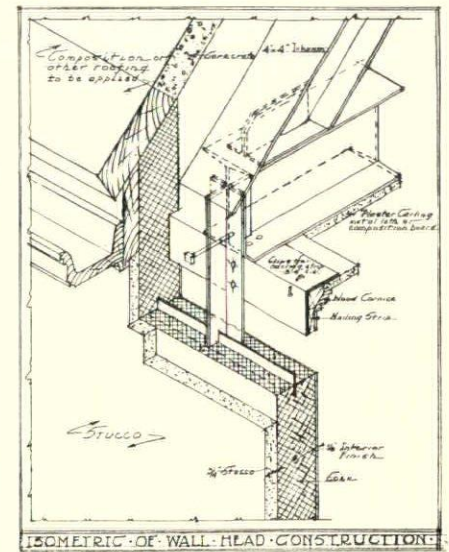
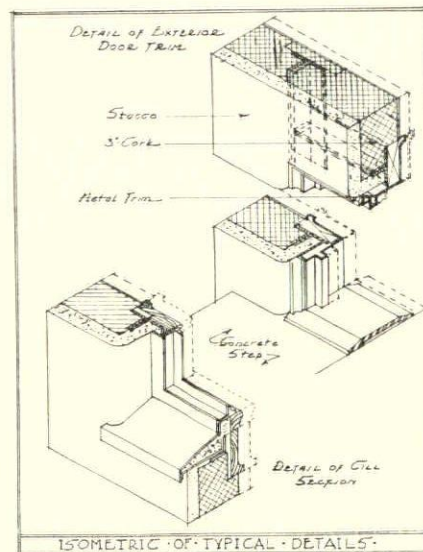
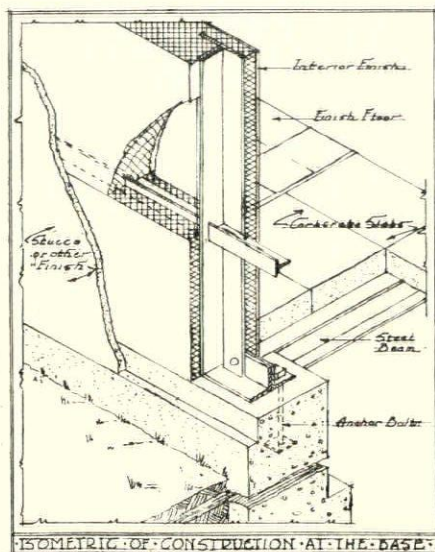
Sheet insulation may be applied to the entire exterior area of the walls and the roof, thus securing a complete coverage, but the insulating value of the sheet depends upon the thickness used, for thickness must be considered in all insulators, wherever or however employed. On the other hand, fill-in type of insulation, in the form of powder, sheets of thick masses, applied to the air spaces between the studs, only insulates the space so occupied. The insulating value, if any, of the frame itself, remains the same as before, and these members may occupy

from 25 to 35 per cent of the total wall area. Thus, while the use of 3 3/8" of wooly or fibrous types of insulating material may indicate a theoretical rating as low as .072 (for K = .2614) to .080 (for K = .2961), such factors as area which can be treated, workman performance, and supervision, introduce uncertainties which heating engineers customarily cover in practice by allowances of 20 to 30 per cent for contingencies.

With Corkanstele, however, the manufacturers point out, the wall insulation is the wall fabric, itself. In other words, the insulation is the structure. It can never do otherwise than deliver its full efficiency, for if it is built, it is insulated.

While the method has but recently been made available commercially, it has been experimented with in residences over quite a term of years. Experience has shown that houses encased in the cork effect a fuel saving of as much as 60 per cent over neighboring dwellings. From this evidence, and from laboratory computations, the Corkanstele engineers recommend a 40 per cent reduction in heating plant capacity.

Corkanstele is termite-proof, sound-proof, fire-proof, lightning-proof, and practically tornado- and earthquake-proof, for two Corkanstele houses stood the big Florida wind of 1928 without revealing such minor injuries as cracked stucco. The erection goes ahead quickly, usually taking from five to ten days to complete the enclosure. This without corollary costs, for all building trades work as usual, with regular tools and accessories.





The site of the house, overlooking a vast stretch of rolling plains on one side and the Garden of the Gods and Pike's Peak on the other, is one of unusual beauty and grandeur

Photographs by Laura Gilpin

WILLIAM E. FISHER AND ARTHUR A. FISHER, ARCHITECTS

House of Donald N. Gilpin, Colorado Springs, Colo.

« ARCHITECTURE »

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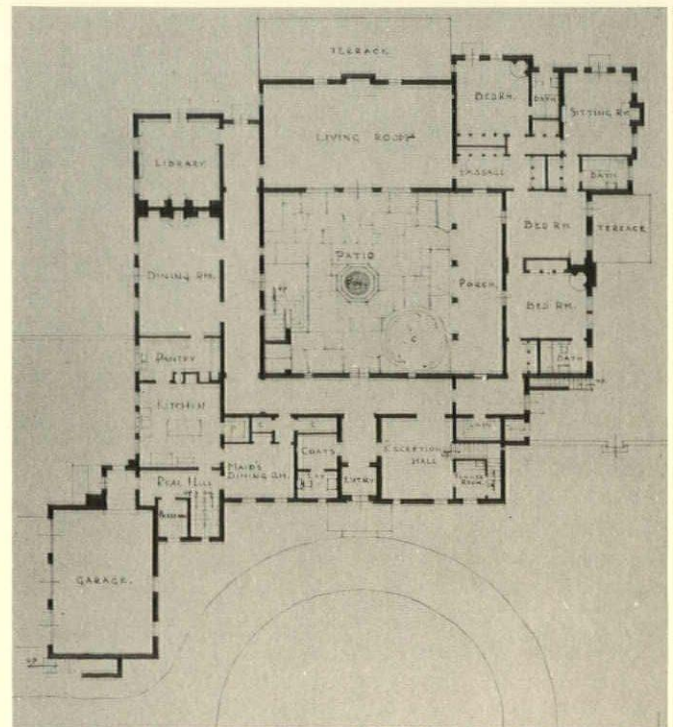


The entrance front. Walls have a warm glow, secured by adding a small quantity of red to the mix. For the roof, handmade terra-cotta tile are used, in variegated colors. The lower course, it will be noticed, overhangs the wall without any cornice members

As befits such a site, the house is spread out in avoidance of any feeling of constriction. Nevertheless the service, living and sleeping quarters are distinct unities grouped around the patio

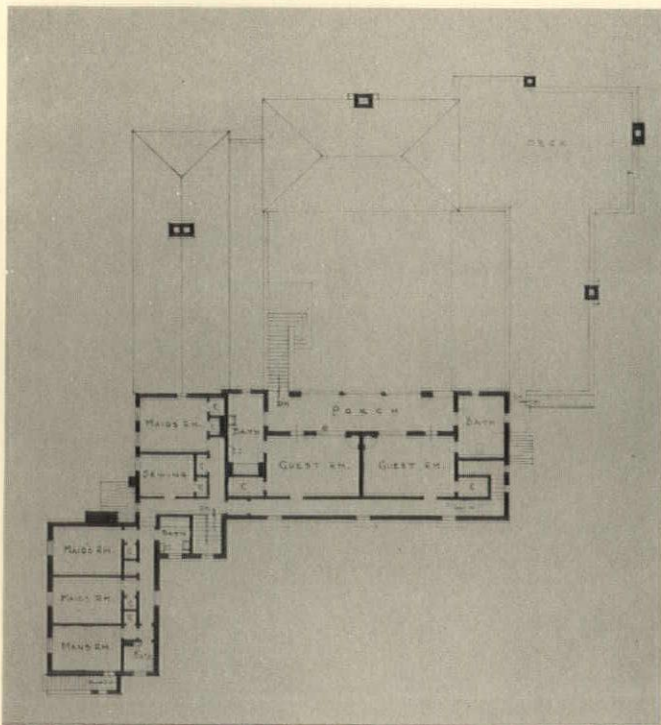
HOUSE OF DONALD L. GILPIN, COLORADO SPRINGS,
 COLO. W. E. AND A. A. FISHER, ARCHITECTS

« ARCHITECTURE »
 APRIL, 1936





The entrance doorway, true to the chief characteristic of the simpler Spanish prototypes, in that what ornament is used is made to count by concentration against plain wall surfaces of great extent and assymetrical form

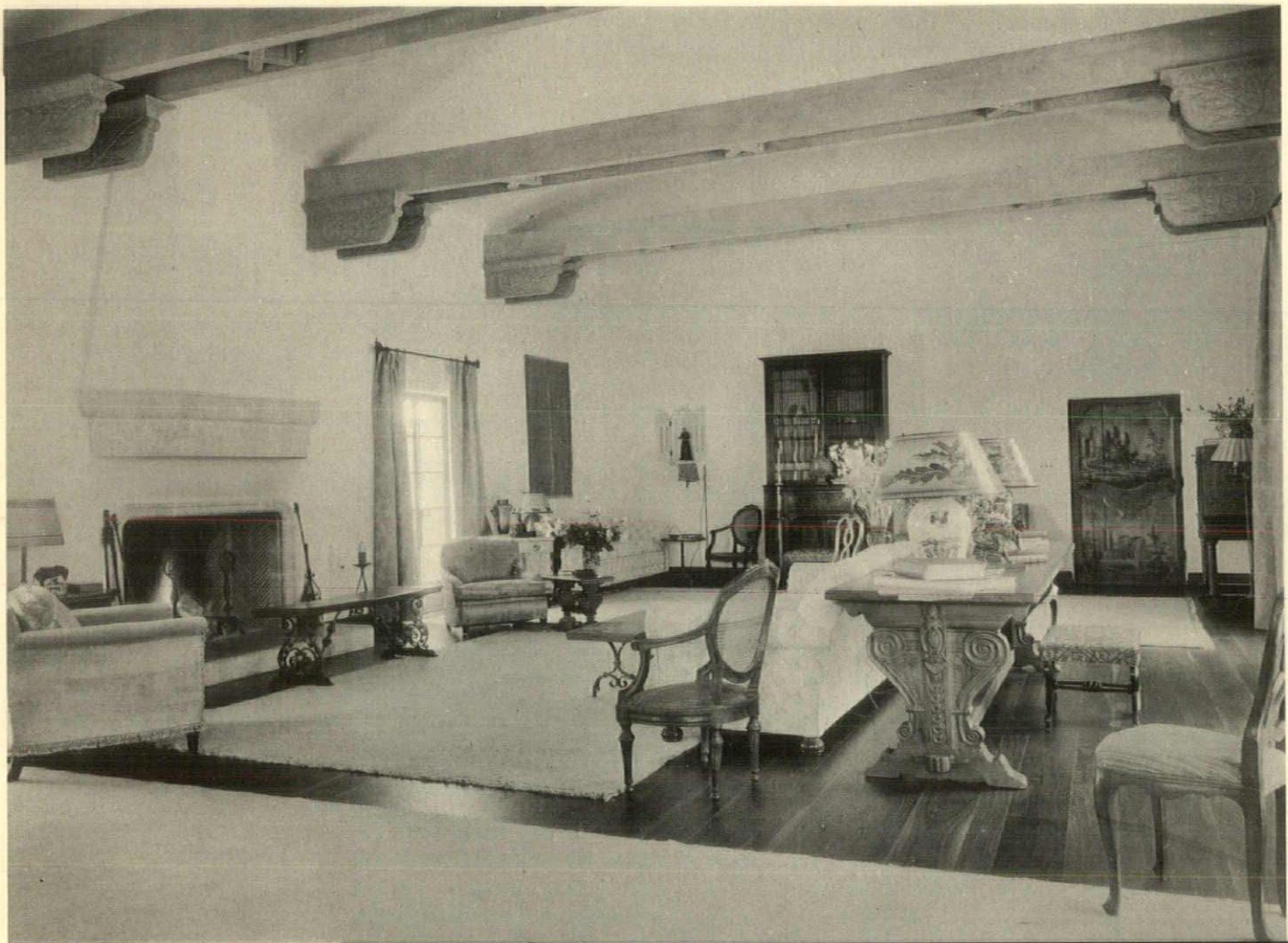


As in most houses of a widespread plan, the second floor is subordinate, but the architects have secured what must be a delightful effect in the pair of guest rooms behind a porch overlooking the patio

HOUSE OF DONALD L. GILPIN, COLORADO SPRINGS,
 COLO. W. E. AND A. A. FISHER, ARCHITECTS

« ARCHITECTURE »

APRIL, 1936



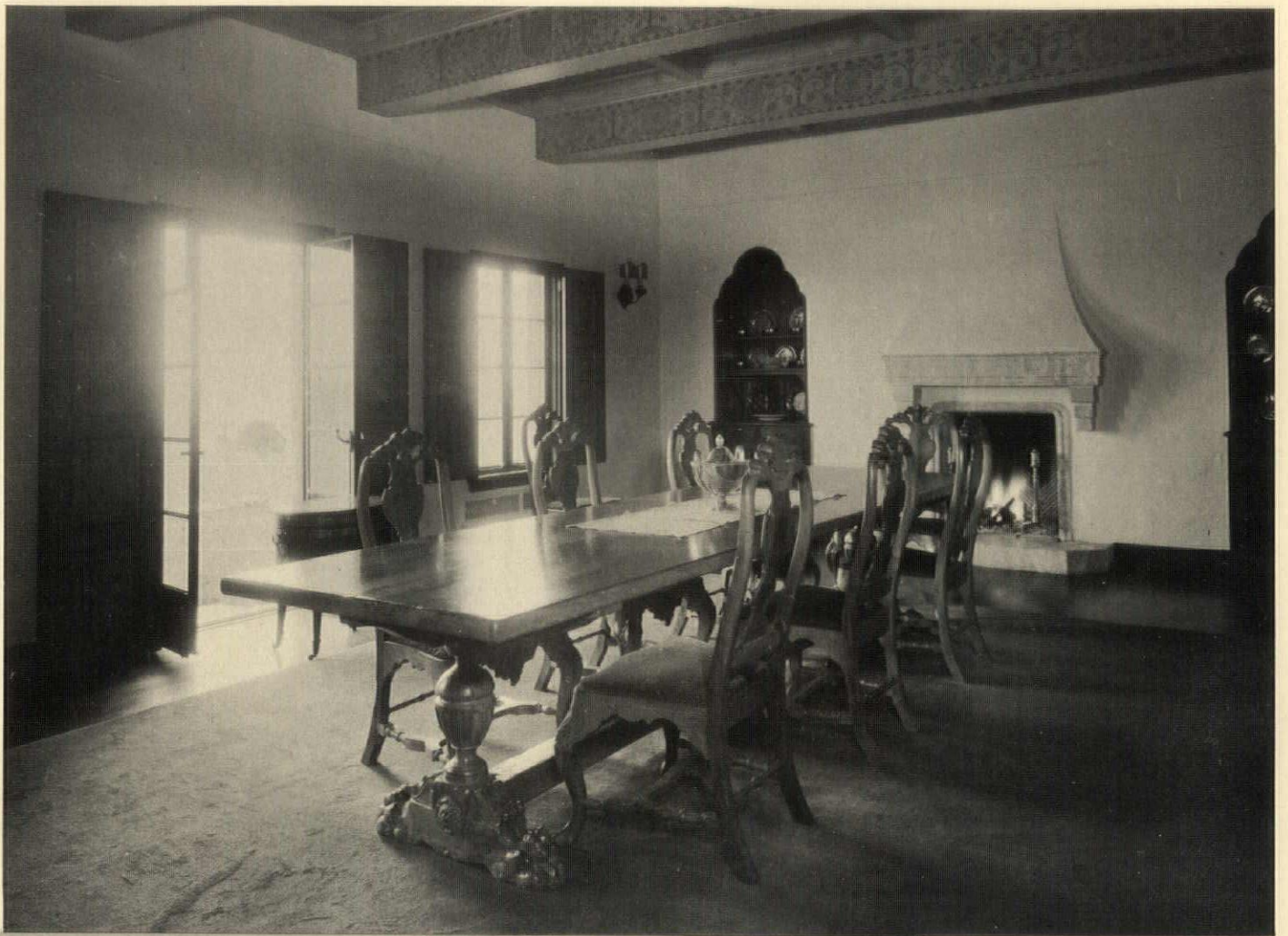
In the living-room, as throughout the house, the walls are white and are kept relatively bare, with the result that each bit of wrought iron, carved wood, each painting and each arrangement of flowers sounds its full note

The patio is typical of the early Spanish missions of the Southwest, with its fruit trees, its potted plants, and its splash of water in a small basin level with the stone paving

HOUSE OF DONALD L. GILPIN,
COLORADO SPRINGS, COLO.
W. E. AND A. A. FISHER,
ARCHITECTS

◀ ARCHITECTURE ▶
APRIL, 1936





Again in the dining-room the white walls afford a pleasing foil for the inside shutters with carved panels, and for the heavy oak beams, which were painted by John E. Thompson

The patio is an additional living-room not only in summer but during many days in winter, since the sun shines in Colorado nearly every day of the year. Along one side the roof forms a typical "portale"

HOUSE OF DONALD L. GILPIN,
COLORADO SPRINGS, COLO.
W. E. AND A. A. FISHER,
ARCHITECTS

◀ ARCHITECTURE ▶
APRIL, 1936



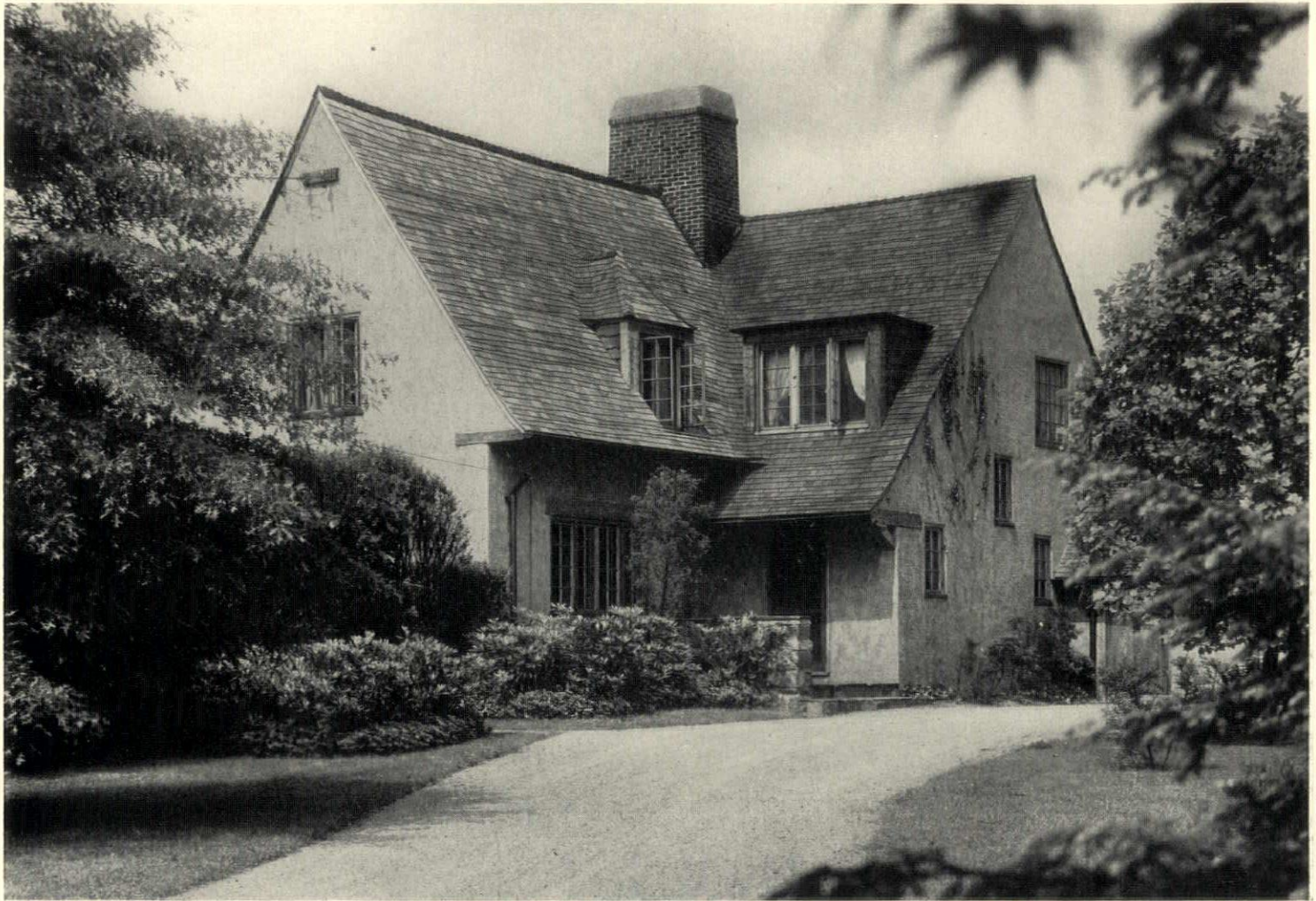
In the library, Boardman Robinson has painted an amusing mural of Don Quixote in bright colors over the stone fireplace



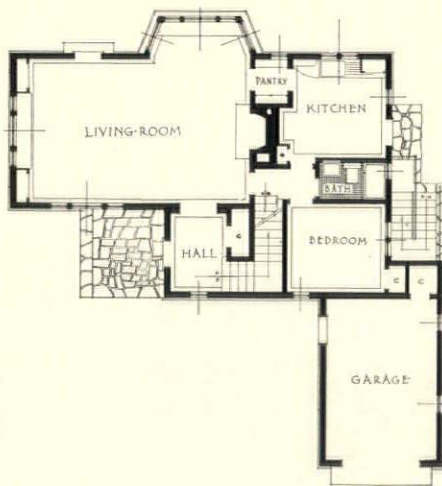
From the oak shelving and tile floor of the library one gains a long view over the rolling plains through the horizontally emphasized steel casements and French doors

HOUSE OF DONALD L. GILPIN, COLORADO SPRINGS, COLO. W. E. AND A. A. FISHER, ARCHITECTS

◀ ARCHITECTURE ▶
APRIL, 1936

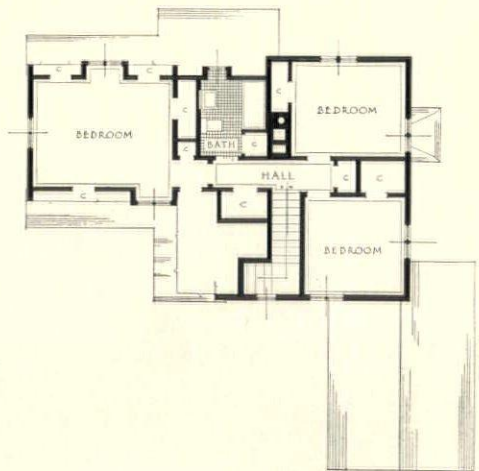


This house was planned to fulfill the ideas and requirements of a family of three. Four years after it was built, the three-windowered dormer over the front entrance was added



IN THE SERIES OF
ONE HUNDRED SMALL HOUSES

“After eight years, this little house is being added to by the same owner, architect, and contractor; which tells the story of a happy experience in building. And all of us seem to be liking it more than ever.”

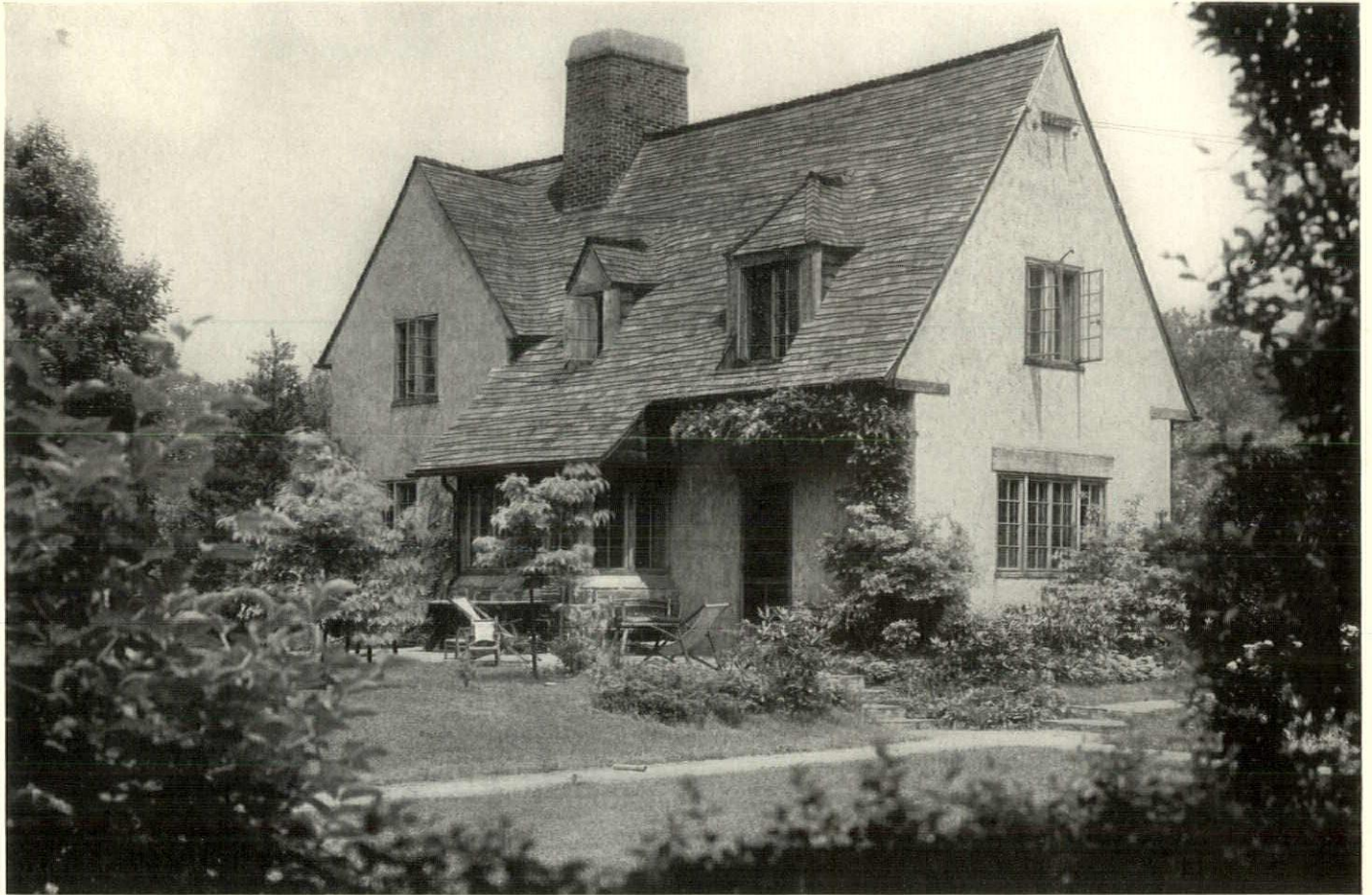


JULIUS GREGORY, ARCHITECT

House of Hugh MacNair, Great Neck, Long Island

◀ ARCHITECTURE ▶

APRIL, 1936



The house is of frame construction, with metal lath and a stucco made up of white cement and brown sand floated to a slightly rough texture. Such timbering as appears, and the outside trim, were adzed and stained a gray brown. The roof of wood shingles was stained a warm gray. Steel casements were painted a tone lighter than the trim



HOUSE OF HUGH MACNAIR
GREAT NECK, LONG ISLAND
JULIUS GREGORY, ARCHITECT

As stone is not native to this portion of Long Island, very little was used, and the foundation walls were built of cement blocks. The chimney is of common brick with a cement-plaster cap

« ARCHITECTURE »
APRIL, 1936

IN connection with certain remarks I have let fall touching on the curious inadequacy of some of our modern condensed house-planning, Mr. Ralph Moreland Karger of Forest Hills Gardens, New York, writes in part:

It delights me to thoroughly, sincerely and respectfully disagree with you.

Your August article in ARCHITECTURE, which you mention in the December issue, played havoc with my metabolism and I shall tell you why.

A careful glance through the history of architecture reveals the fact that the worthwhile buildings were not the homes of the average citizen. . . . It is only within the last few centuries that residential construction began to materialize in the march towards social refinement and gracious living. . . .

But Today, and you and I are interested in Today, an awareness has finally penetrated the dull mind of man and he has discovered the tremendous social significance of home environment. . . .

Now you advocate a rambling house, a spacious house with plenty of room to stretch in and entertain in, with a place for the well combed young man to woo the daughter of the household, a place for Dad to fumble about in, privacy for the maid, the cat and the dog, and generally speaking, just oodles of space to play about and live in—and to hell with the modern gadgets and impedimenta. But, Mr. Morris, how about the 90 per cent, plus or minus, of the people who can only afford a forty-foot lot and a \$4000 house? And you reply: let them cut out the electric dish-washer and the automatic hot water heater, the air conditioning and the oil-fired heating. Let them abandon their Fords and their garage and the extra bathroom, the mechanical refrigeration and the electric clothes washer. You blithely advocate that instead of employing these time-saving, labor-saving devices, these folks should put the money which would be spent on this equipment into the building of a larger house with more area to take care of and furnish and clean. Are the children of these households not as good as ours, that they may not enjoy the companionship and care of a mother who is not burdened with chores and fatigue? . . .

Regarding the architectural aspect—I love Frank J. Forster's houses and Julius Gregory's houses and others of that ilk. Contrary to your expectations I am not Moderne. My hair is thin-ning and the backs of my ears are drier than they were. Nor am I a socialist or a communist—I am too comfortable for that. But a forty-foot lot is only a forty-foot lot and four thousand dollars is only four thousand dollars. It is not a question of the flat roof *versus* the good old pitched roof or the corner window *versus* the double-hung with muntins and a feeling of verticality. It is something vastly larger than that—it is a question of the architectural brains of our country meeting and coping with the social and economic facts of Today.

There is a question there—something to decide. I would not suggest that any one make himself uncomfortable. I like the oil-burners and

The Reflecting Pool

Edwin Bateman Morris

electrical devices pretty well myself.

But there are two things in a home, the physical comforts and the spiritual comforts. I happened to say to a certain lady at dinner the other night that my children were a comfort to me. And she replied with considerable feeling: "You are indeed fortunate. Not every one can say that." One of the reasons they are a comfort is because they had a home to grow up in.

They did not have to visit with their companions in corner drug stores, in parked automobiles, and in road houses. Any one who can say, "My children's lives have been ruined, but I have had my oil-burner and air-conditioner"—he is the person who should have, by all means, an oil-burner and an air-conditioner.

I do not wish to enter into a controversy with Mr. Karger, whose honest conviction on his side of the question is apparent. The subject is too important for mere forensics.

Yet I trust I may say that ease and comfort, precious though they are, are not of real value if the price paid for them is too great. I trust I may say that a man's debt to the present generation requires him to have intellectual intercourse with friends. That mellows and continues the culture of which we are so proud. His debt to the next generation requires him properly to rear the children who by grace of God come and grow under his roof.

Since time was, the urge of civilization has been to pay too great a price for ease and comfort. You remember how the Ark of the Covenant was carried at first on human shoulders and was always a responsibility and an example to men. And then when its burden became too great it was placed on a cart, where it was no longer a care—and men forgot about it.

If the house-buying public fully realizes that the extra percentage that goes into the electrical and mechanical contrivances of a house (which carry a large depreciation and upkeep charge) would provide facilities for civilized living; and knowing that, deliberately chooses the contrivances, I have no fault to find.

But one buys a house—two buy a house, perhaps I should say—when the family is young. There are no children or the children are very little. The house, to their inexperienced eyes, appears adequate and easy. It is not until later that distracted parents wonder what is to be done.

I say again, therefore, that the responsibility of an architect in this case is a social one. The greatest value of an architect anyway is to pass on the benefit of experience to those who have not had experience. He has the responsibility of providing for exigencies he knows will come which novices would forget to take into account.

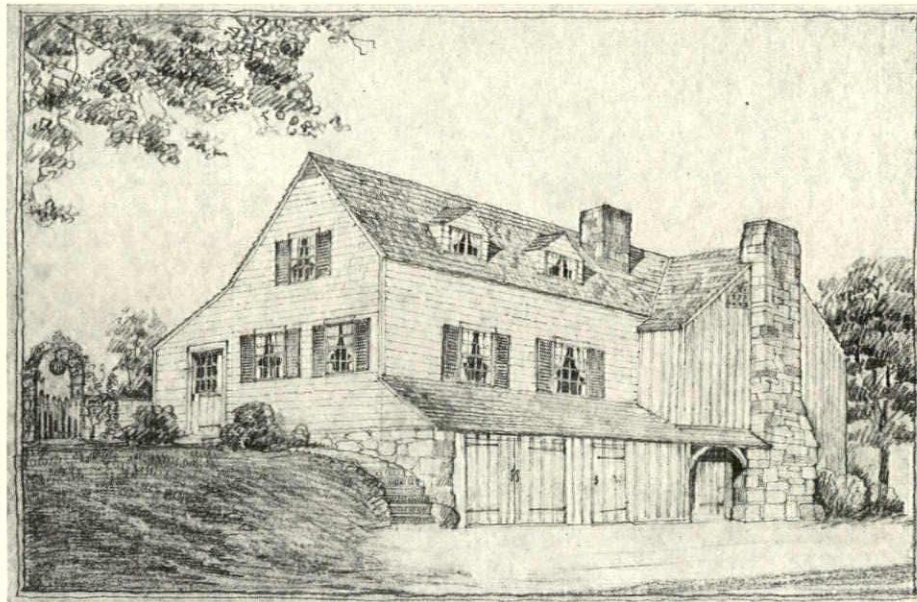
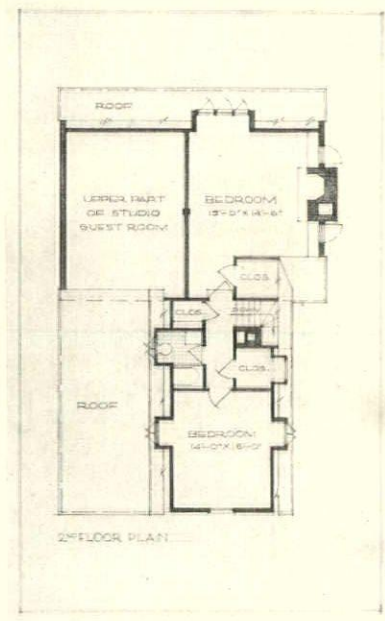
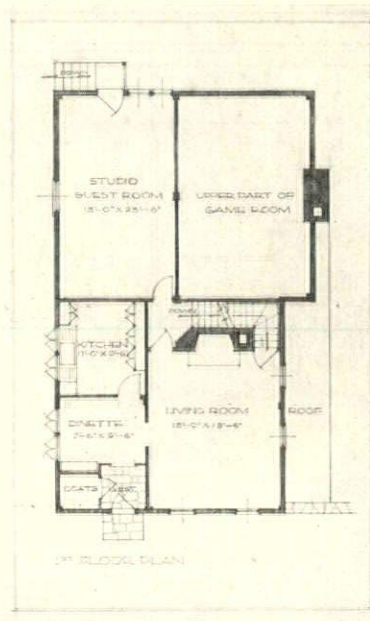
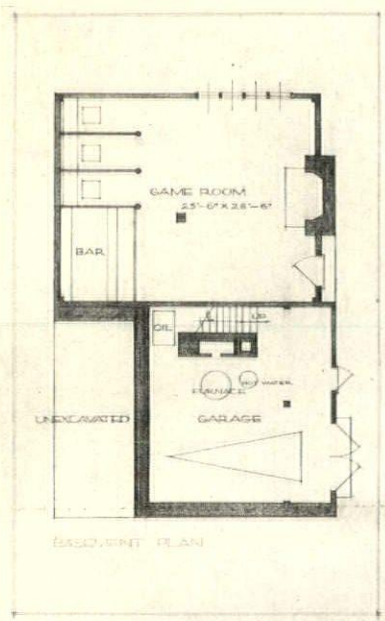
Therefore the architect who plans a house that does not provide for the civilized responsibilities of its occupants has not fully lived up to his Hippocratic oath.

I do not point a finger of scorn at an inexpensive house. I have lived in one all my life. As an architect, and an almost fanatic worshipper of my profession, I am hurt at a house plan which is under-adequate as to proper spaces and over-adequate as to mechanical equipment, when the cost of the one would have furnished funds for the other, or, at least, part of the cost of the one furnished funds for part of the other.

I should like to see it laid down as a rule that if it is a question of either the automobile or the children being forced out from under the roof-tree, it will not be the children.

I should like to see house plans which would provide a space for children to grow up under kindly eyes. Throw out the automobile, if something must be excluded. Duco finish will stand exposure far better than young hearts.

While writing this a young woman comes who runs a nursery school, a place where they teach very little children to play who have no place to play at home. In other words, we are having to develop community institutions in an endeavor to make up for the deficiencies in the architectural planning of homes.



Guest House of William Burnham, Weston, Conn.

SCOTT & TEEGEN, ARCHITECTS

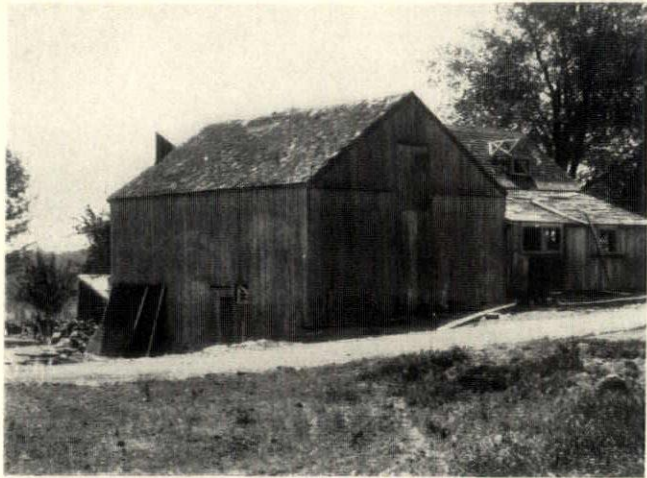
ADJOINING a large old Colonial farmhouse on the estate recently acquired by William Burnham near Weston, Conn., were several barns and sheds, for many years unused and hence in bad repair. While the owner was restoring and building an addition to the farmhouse, he decided to make the barn

nearest the house into guest quarters, and a portion of it into a general entertainment room of ample proportions. This barn was in reality two, at right angles to each other, the smaller being at a slightly higher level than the larger. The smaller had been used as a tool room, with a hay loft above and a

space for storing farm machinery below, whereas the larger barn had contained horse stalls, wagon space and a hay loft over.

Observation revealed that the framework of hand-hewn oak timbers, doweled together with wooden pegs, was in excellent condition. Due to insufficient wind-bracing, the

« ARCHITECTURE »
APRIL, 1936



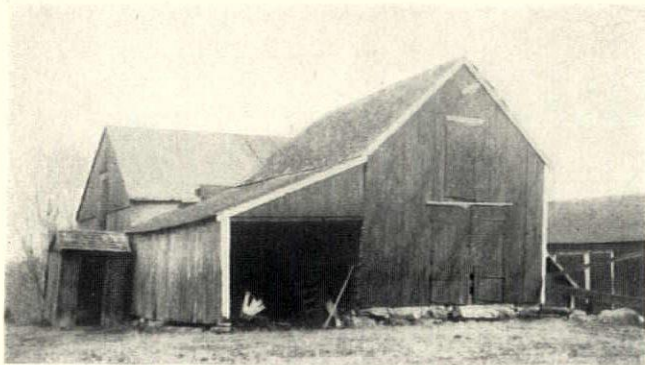
At left, the two barns as they appeared at the beginning of alterations; at right, the finished job, with, in the foreground, the outside stairway to the guest room

building had canted out of shape, but the whole framework was so thoroughly knit together that it was easily pulled back into its original position as a complete unit, without replacing or restoring any of the important structural elements. The foundation walls, two feet thick, were of random field stone, laid up dry.

etc., were obtained directly from the mill catalog. The stone for the fireplaces and chimneys was picked up from the adjoining fields. The body of the house was painted white with green shutters, and the rest in the familiar Connecticut red.

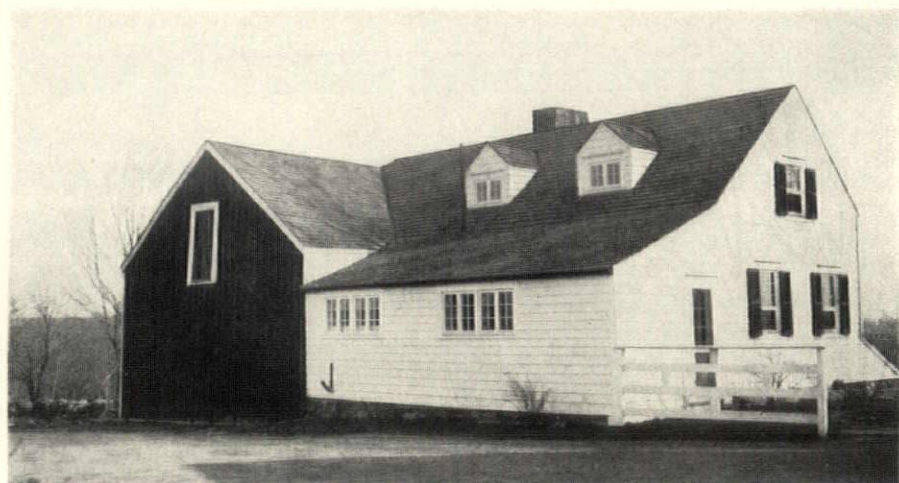
Plans were ultimately developed as shown in the illustrations. The lean-to beside the tool house, for-

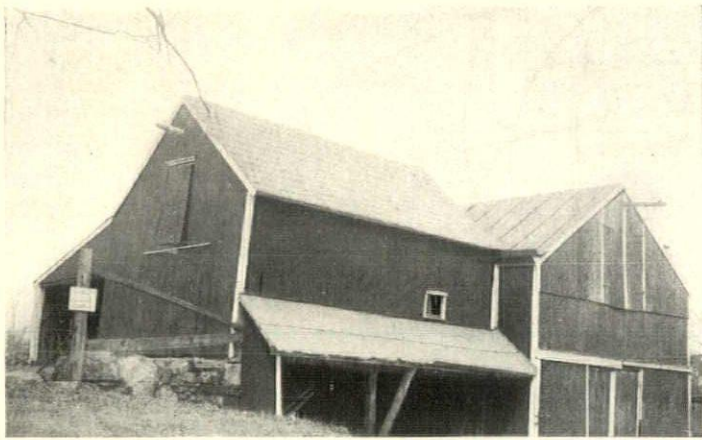
merly used as an enclosure for the family buggy, became the entrance vestibule, dining-room and kitchen. The tool house became the living-room, with a generous fireplace at one end. To one side of the fireplace a passage was cut through to the large barn, and a studio which is at an elevation corresponding to the mezzanine of the game room, placed



Before, during, and after the alterations, as viewed from the same corner. The barns at the start were none too promising in appearance, but the framework was in excellent condition

In the alteration of the succeeding work little of the lumber constituting the original structure was eliminated. The old sheathing, rafter beams and flooring were kept; then holes cut for the dormers and chimneys; and a new shingle roof to cover the whole. A new top flooring of pine was laid over the old floor, and all window frames, doors, trim,





there. The height of this room extends to the roof and thus includes part of the larger barn's hay loft. At the other side of the fireplace a winding staircase leads to the second floor quarters where four dormers and a window at the gable end were added to the hay loft to assure light for a small bedroom, a bath and two closets. Another and larger bedroom was provided by cutting through to the hay loft of the larger barn and lighting it by a large dormer on one side and two lunettes at one end.

The space formerly occupied by the horses and wagon storage became the game room. Here, except

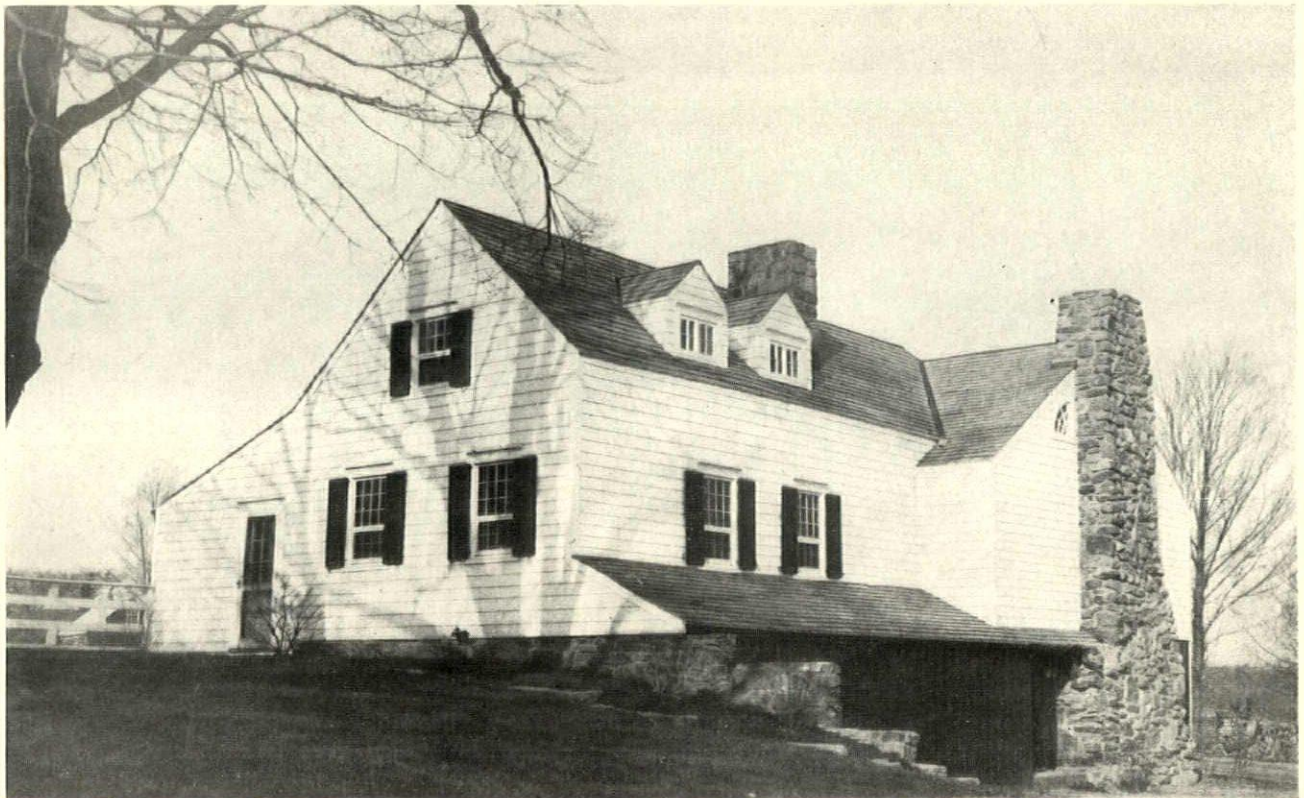
Due to a lack of proper wind-bracing, and partly also to the dry-wall foundation, the barns were decidedly out of true, but they were pulled back to the vertical without great difficulty



The finished result as seen from nearly the same view-point as had been assumed in making the preliminary perspective on page 232

for the addition of a large fireplace, a new entrance from the lower level, and a row of windows at one side, everything was left in its original state. The horse stalls became small alcoves in which groups could carry on their own private conversations, and one corner begged to be made into a bar. Fifty people can circulate in this space without any difficulty.

The cellar, with its furnace, hot-water heater and oil storage, was placed in the already excavated area under the tool house. This also serves as a garage for one car, and can be approached by stairs from the living-room.



ARCHITECTURE'S PORTFOLIO OF GOTHIC BUTTRESSES

*Subjects of previous portfolios are listed below
 at left and right of page*

❖ 1926
 DORMER WINDOWS
 SHUTTERS AND BLINDS

❖ 1927
 ENGLISH PANELLING
 GEORGIAN STAIRWAYS
 STONE MASONRY TEXTURES
 ENGLISH CHIMNEYS
 FANLIGHTS AND OVERDOORS
 TEXTURES OF BRICKWORK
 IRON RAILINGS
 DOOR HARDWARE
 PALLADIAN MOTIVES
 GABLE ENDS
 COLONIAL TOP-RAILINGS
 CIRCULAR AND OVAL WINDOWS

❖ 1928
 BUILT-IN BOOKCASES
 CHIMNEY TOPS
 DOOR HOODS
 BAY WINDOWS
 CUPOLAS
 GARDEN GATES
 STAIR ENDS
 BALCONIES
 GARDEN WALLS
 ARCADES
 PLASTER CEILINGS
 CORNICES OF WOOD

❖ 1929
 DOORWAY LIGHTING
 ENGLISH FIREPLACES
 GATE-POST TOPS
 GARDEN STEPS
 RAIN LEADER HEADS
 GARDEN POOLS
 QUOINS
 INTERIOR PAVING
 BELT COURSES
 KEYSTONES
 AIDS TO FENESTRATION
 BALUSTRADES

❖ 1930
 SPANDRELS
 CHANCEL FURNITURE
 BUSINESS BUILDING ENTRANCES
 GARDEN SHELTERS
 ELEVATOR DOORS
 ENTRANCE PORCHES
 PATIOS
 TREILLAGE
 FLAGPOLE HOLDERS
 CASEMENT WINDOWS
 FENCES OF WOOD
 GOTHIC DOORWAYS

❖ 1931
 BANKING-ROOM CHECK DESKS
 SECOND-STORY PORCHES
 TOWER CLOCKS
 ALTARS
 GARAGE DOORS
 MAIL-CHUTE BOXES

1931—Continued
 WEATHER-VANES
 BANK ENTRANCES
 URNS
 WINDOW GRILLES
 CHINA CUPBOARDS
 PARAPETS

1932 ❖
 RADIATOR ENCLOSURES
 INTERIOR CLOCKS
 OUTSIDE STAIRWAYS
 LEADED GLASS MEDALLIONS
 EXTERIOR DOORS OF WOOD
 METAL FENCES
 HANGING SIGNS
 WOOD CEILINGS
 MARQUISES
 WALL SHEATHING
 FRENCH STONWORK
 OVER-MANTEL TREATMENTS

1933 ❖
 BANK SCREENS
 INTERIOR DOORS
 METAL STAIR RAILINGS
 VERANDAS
 THE EAGLE IN SCULPTURE
 EAVES RETURNS ON MASONRY
 GABLES
 EXTERIOR LETTERING
 ENTRANCE DRIVEWAYS
 CORBELS
 PEW ENDS
 GOTHIC NICHEs
 CURTAIN TREATMENT AT
 WINDOWS

1934 ❖
 EXTERIOR PLASTERWORK
 CHURCH DOORS
 FOUNTAINS
 MODERN ORNAMENT
 RUSTICATION
 ORGAN CASES
 GARDEN FURNITURE
 WINDOW HEADS, EXTERIOR
 SPIRES
 BUSINESS BUILDING LOBBIES
 ROOF TRUSSES
 MODERN LIGHTING FIXTURES

1935 ❖
 CIRCULAR WINDOWS
 (GOTHIC AND ROMANESQUE)
 TILE ROOFS
 MOLDED BRICK
 DORMER WINDOWS
 ENTRANCE SEATS
 OVERDOORS, INTERIOR
 BRICK CORNICES
 SIGNS
 CHIMNEY OFFSETS
 WINDOW HEADS
 (EXTERIOR, ARCHED)
 UNUSUAL BRICKWORK
 SHUTTERS AND BLINDS

1936 ❖
 FIREPLACES (MEDITERRANEAN
 TYPES)
 PEDIMENTS (EXTERIOR)
 BALCONY RAILINGS
 (INTERIOR)



*Below are the subjects of
 forthcoming Portfolios*

Corner Windows

MAY

Self-supporting Stairways

JUNE

Window Heads

(INTERIOR)

JULY

Garden Enclosures

AUGUST

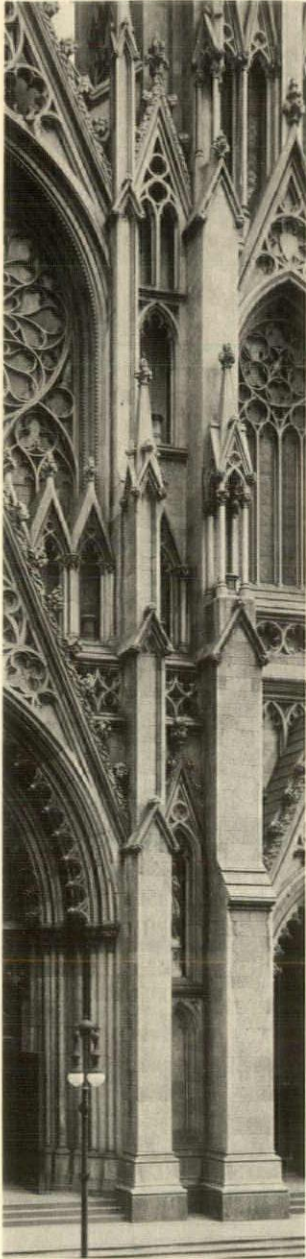
Church Lighting Fixtures

SEPTEMBER

Oriel Windows

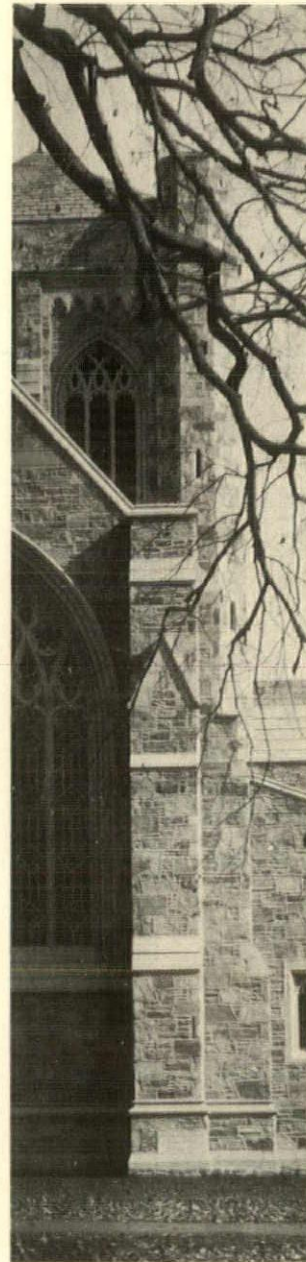
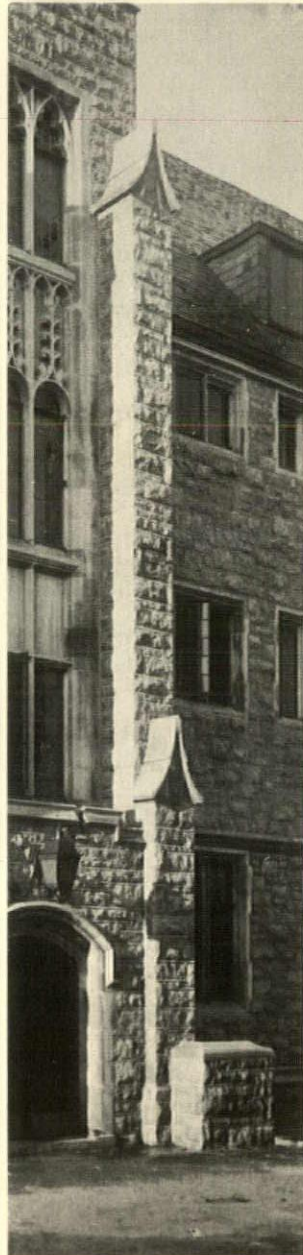
OCTOBER

*Photographs showing interesting examples under
 any of these headings will be welcomed by the Edi-
 tor, though it should be noted that these respective
 issues are made up about six weeks in advance of
 publication date*



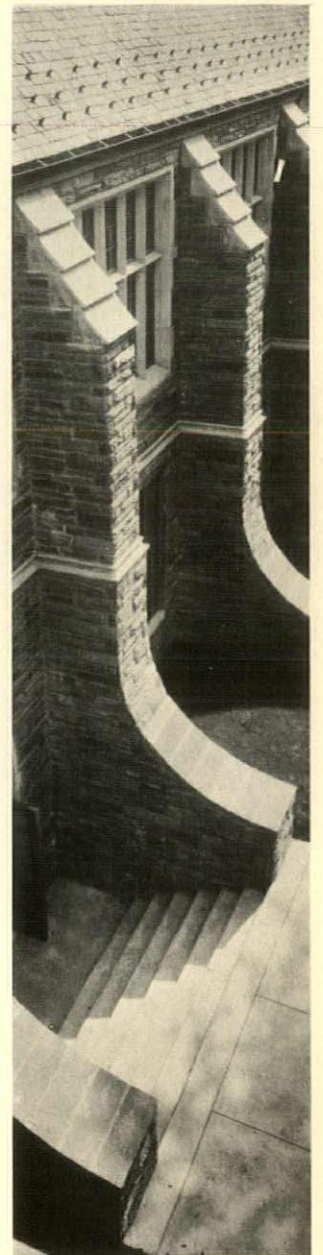
*St. Patrick's Cathedral,
New York City
James Renwick*

*Augustinian Monastery,
Villanova College,
Villanova, Pa.
Henry D. Dagit & Sons*

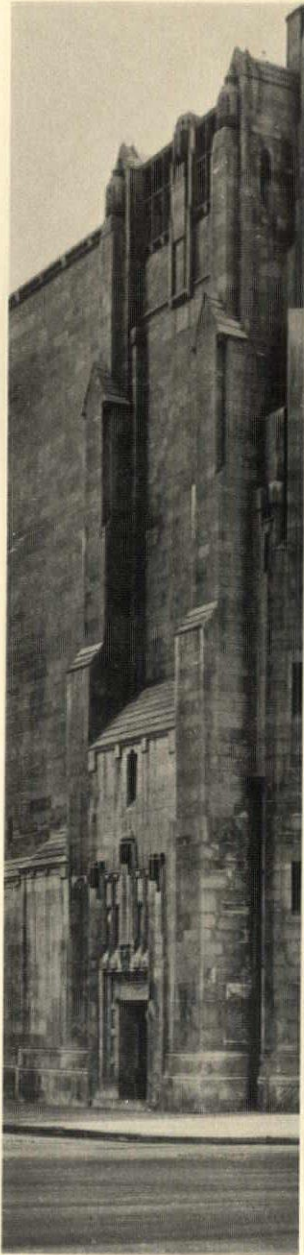
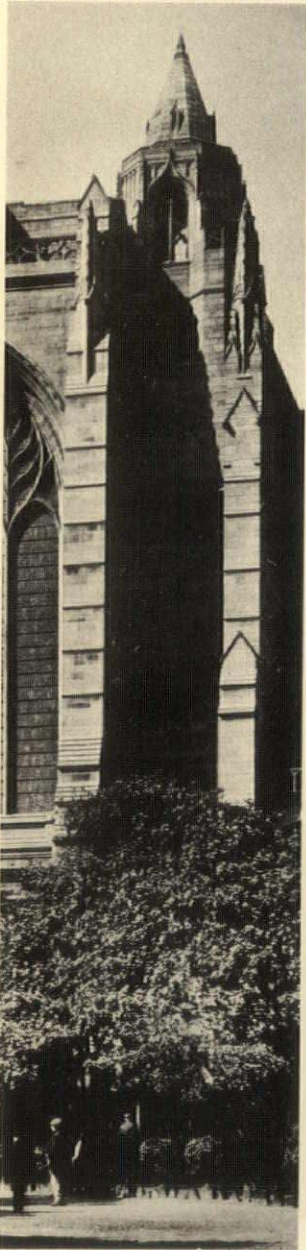


*St. Michael's Church,
Litchfield, Conn.
Rossiter & Müller*

*St. Madeleine Sophie's
Chapel,
Germantown, Pa.
Henry D. Dagit & Sons*

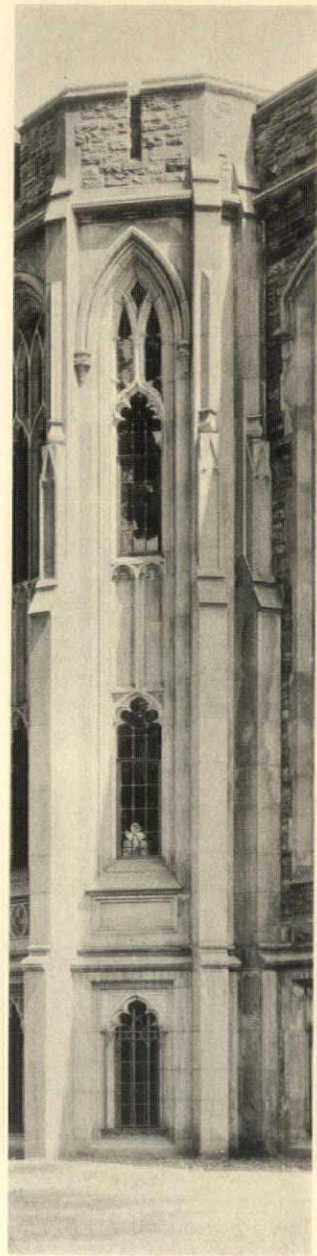
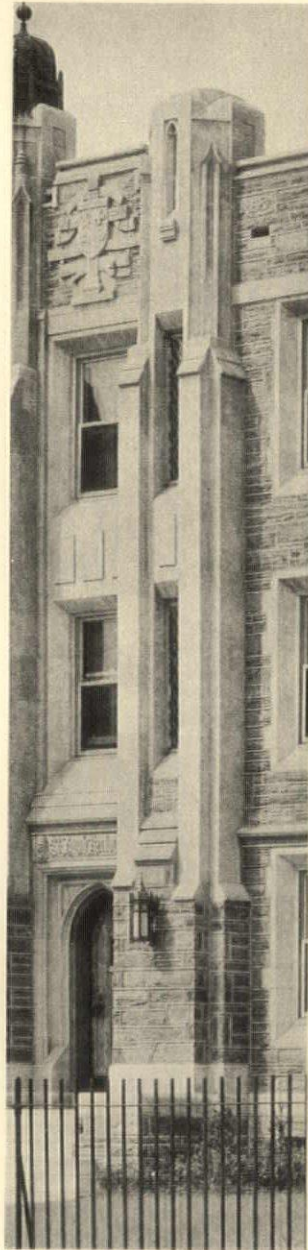


Liverpool Cathedral
Sir Giles Gilbert Scott

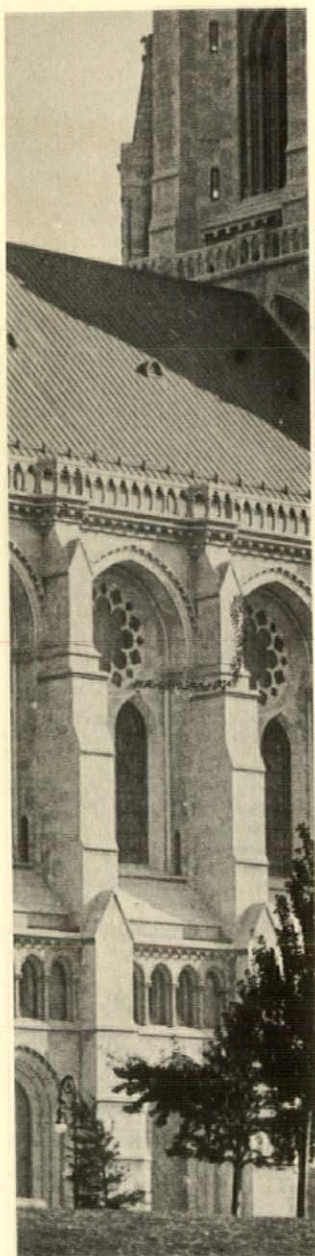


*Church of the
Heavenly Rest,
New York City*
*Mayers, Murray &
Phillip*

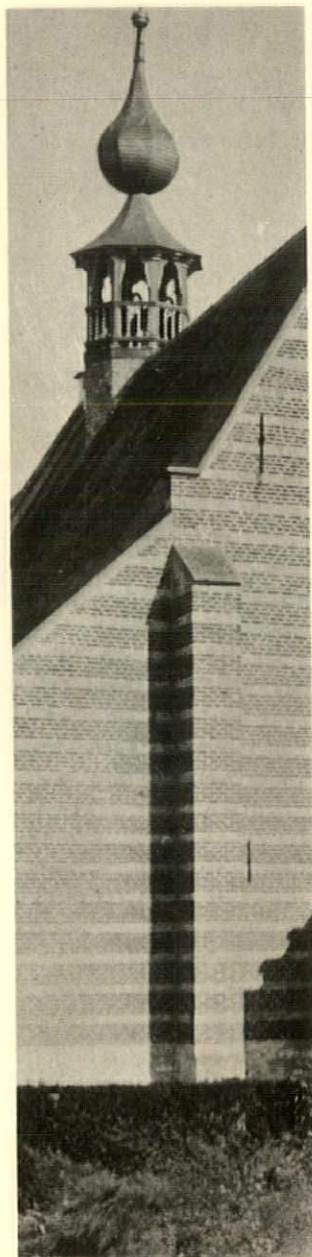
*St. Hugh Rectory,
Philadelphia, Pa.*
Henry D. Dagitt & Sons



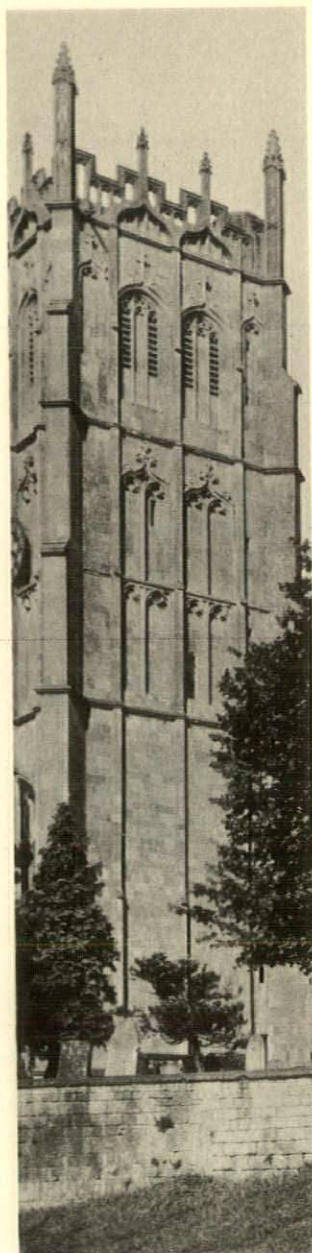
*Library, Fordham
University,
New York City*
Emile G. Perrot



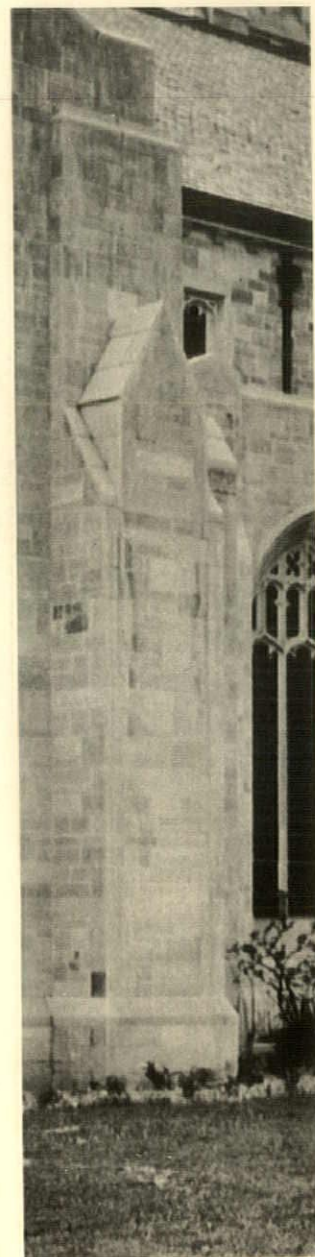
*Church at Herenthals,
near Antwerp, Belgium*



*Church Tower, Campden
House,
Chipping Campden,
Gloucestershire*

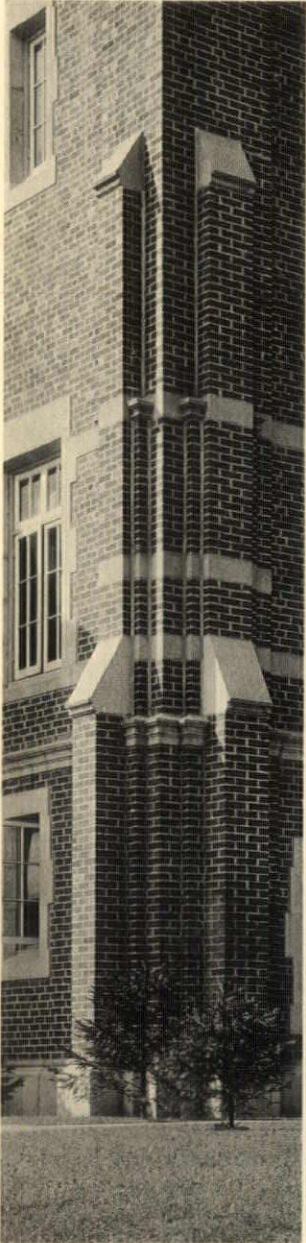


*First Baptist Church,
Cleveland, Ohio
Walker & Weeks*



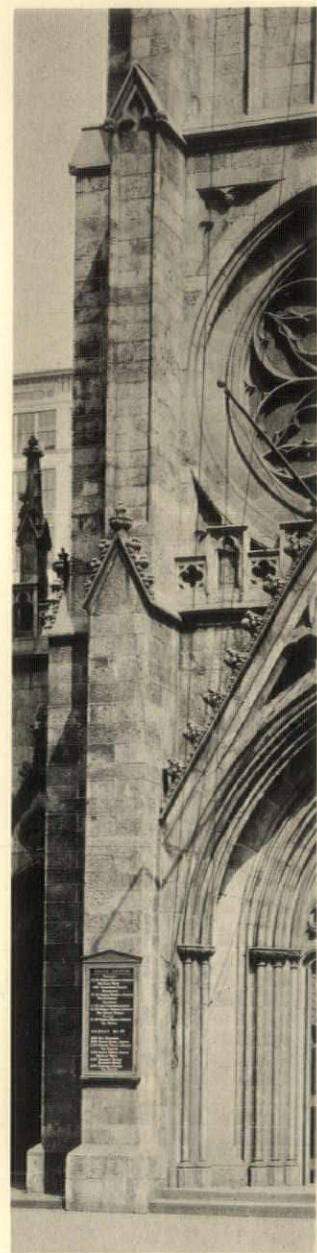
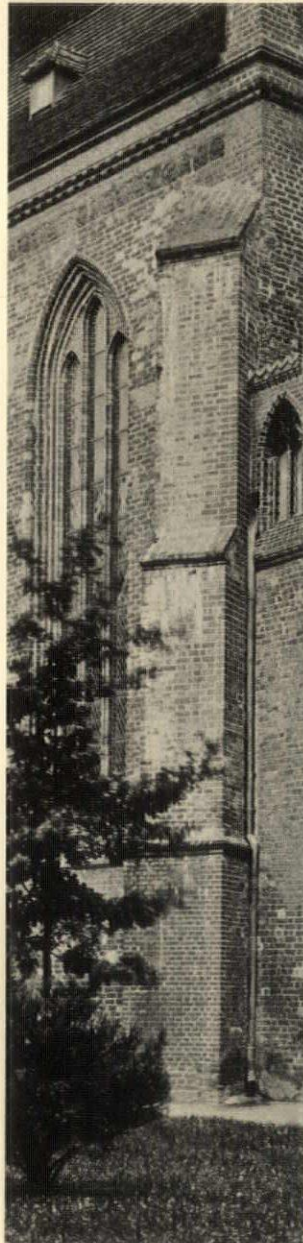
*The Riverside Church,
New York City
Henry C. Pelton;
Allen & Collens*

*Municipal Building,
Larchmont, N. Y.
Frank A. Moore*

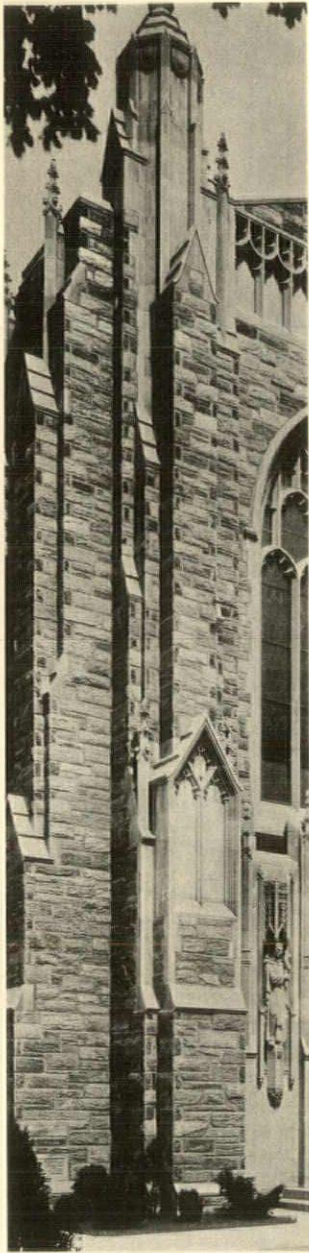


*Kent School, Kent, Conn.
Roger H. Bullard;
Arthur Loomis Harmon*

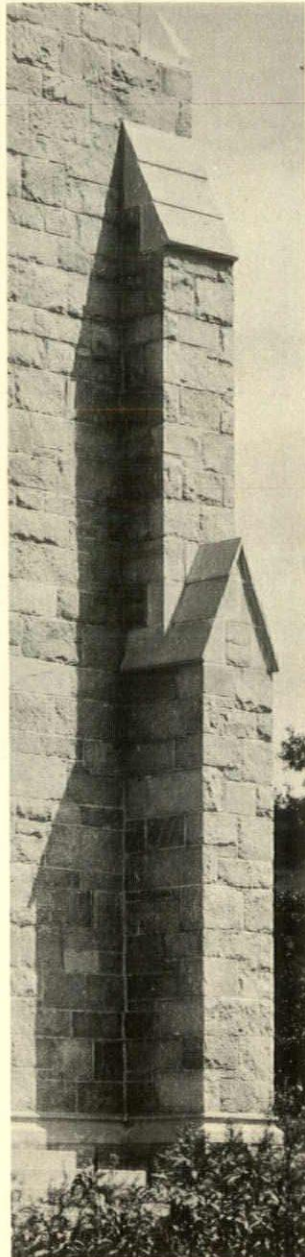
*Church at Greipenberg,
Germany*



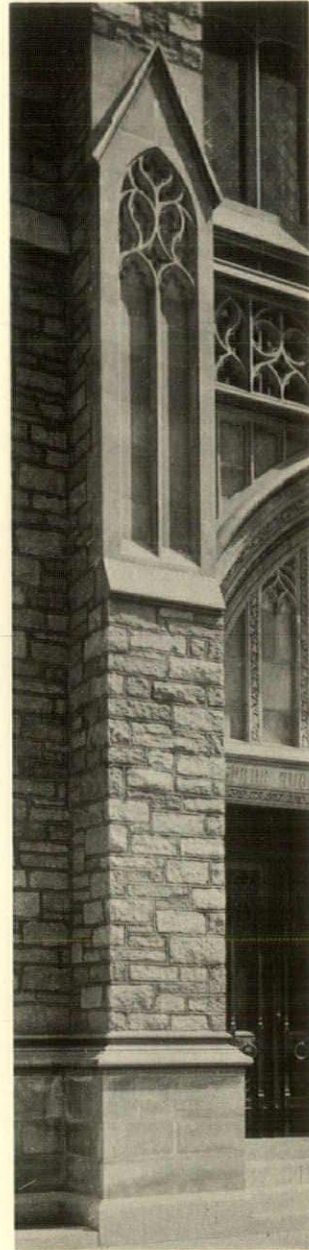
*Grace Church,
New York City
James Renwick*



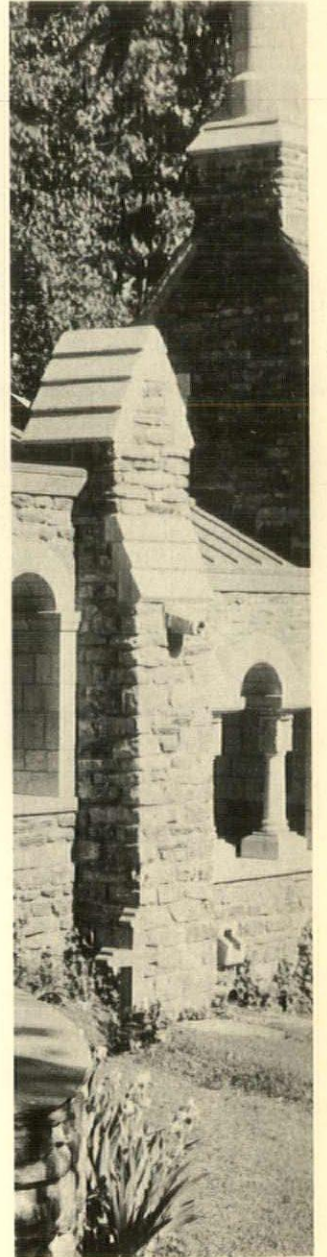
*St. Paul's Church,
Yonkers, N. Y.
Cram & Ferguson*



*Our Lady of Sorrows
Church,
South Orange, N. J.
Maginnis & Walsh*

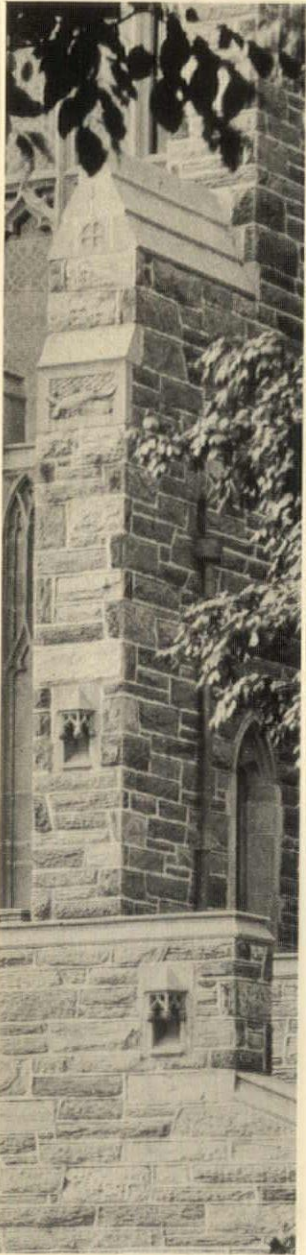


*Kent School, Kent, Conn.
Roger H. Bullard;
Arthur Loomis Harmon*

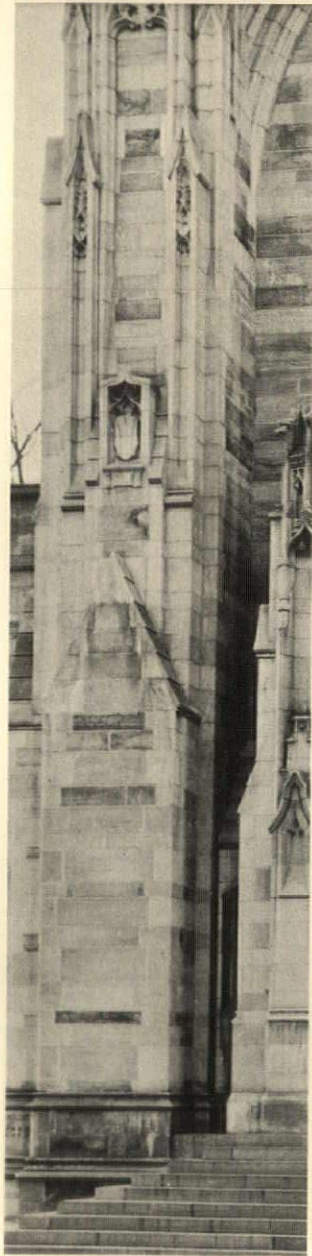


*Park Avenue Baptist
Church,
New York City
Henry C. Pelton;
Allen & Collens*

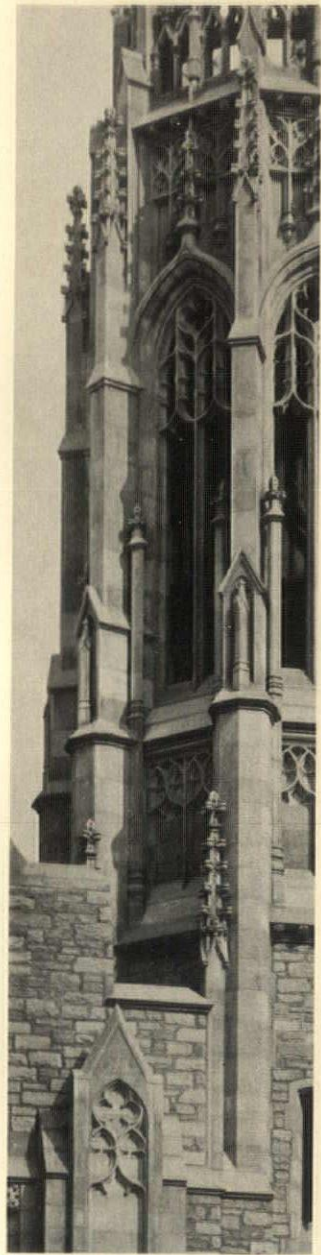
*Collegiate Chapel of
St. Andrew's,
Philadelphia, Pa.
Zantzinger, Borie &
Medary*



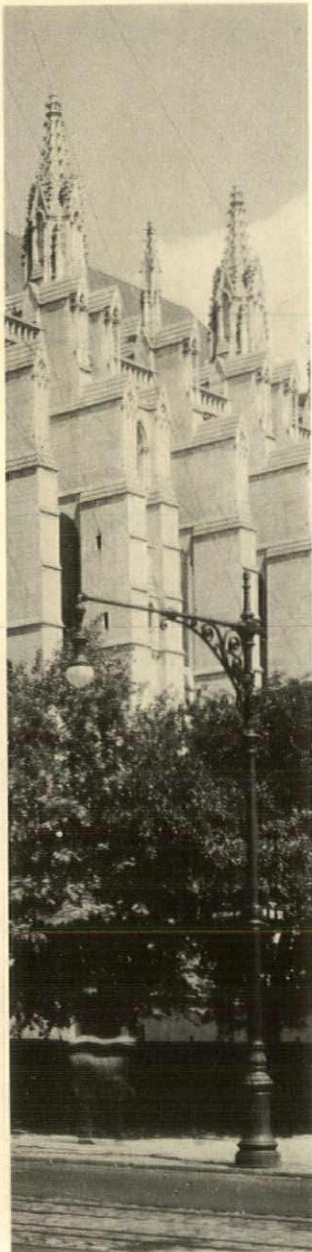
*First Presbyterian
Church,
Kalamazoo, Mich.
Charles Z. Klauder*



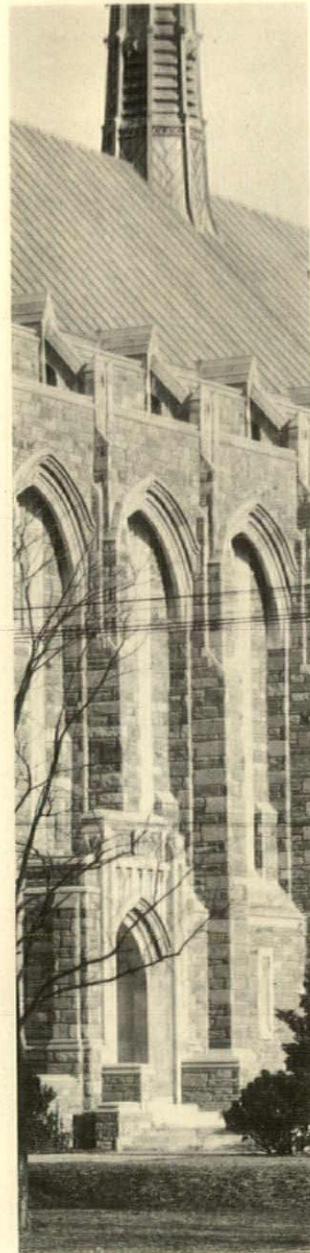
*The Riverside Church,
New York City
Henry C. Pelton;
Allen & Collens*



*Park Avenue Baptist
Church,
New York City
Henry C. Pelton;
Allen & Collens*

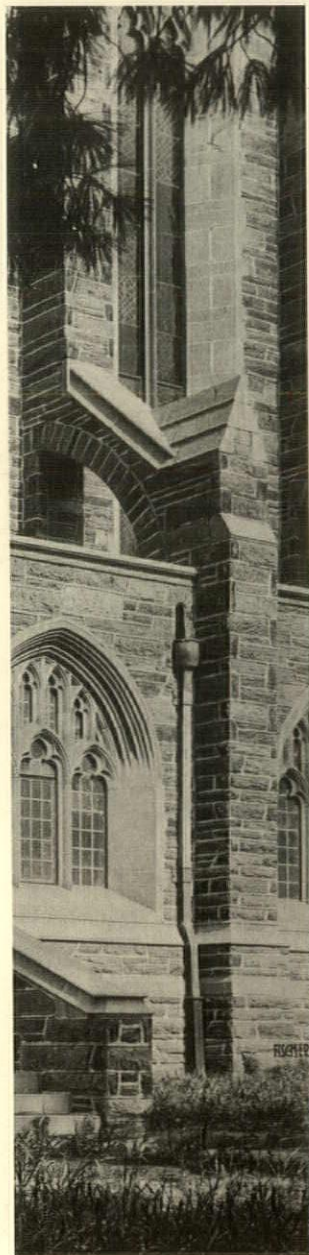


*Collegiate Chapel of
St. Andrew's,
Philadelphia, Pa.
Zantzinger, Borie &
Medary*

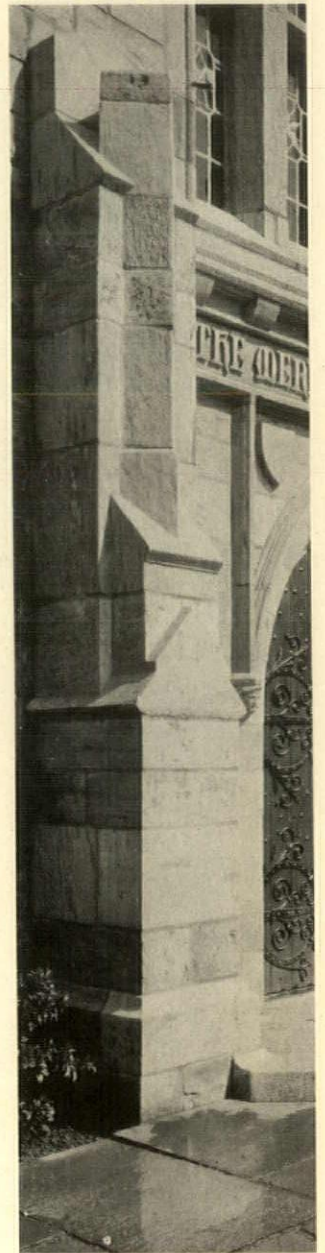


*Merion War Tribute
House,
Merion, Pa.
Walter T. Karcher &
Livingston Smith*

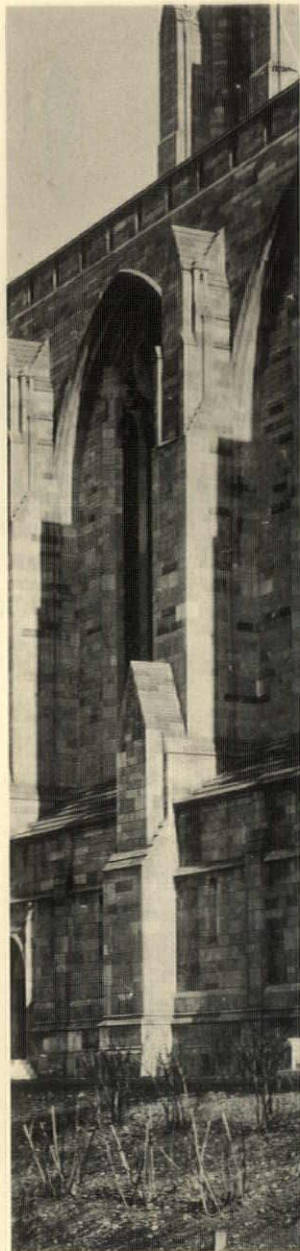
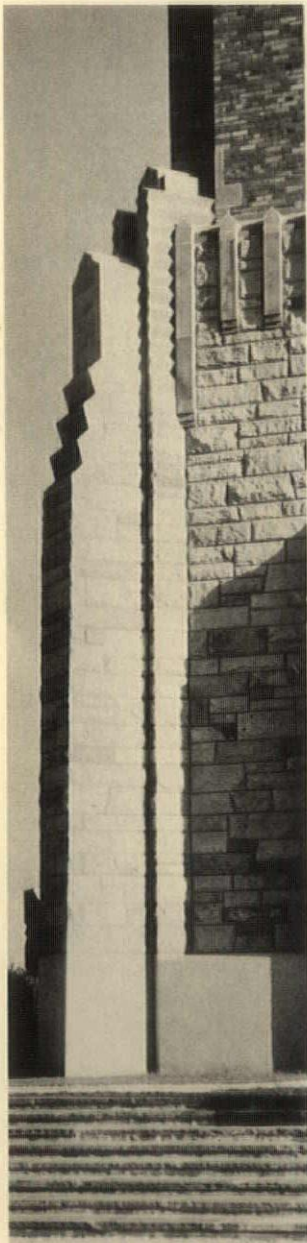
*Cathedral of St. John the
Divine,
New York City
Cram & Ferguson*



*Metropolitan Memorial
Methodist Episcopal
Church,
Washington, D. C.
Sundi & Wenner;
Bureau of Architecture,
M. E. Church, Advisory*

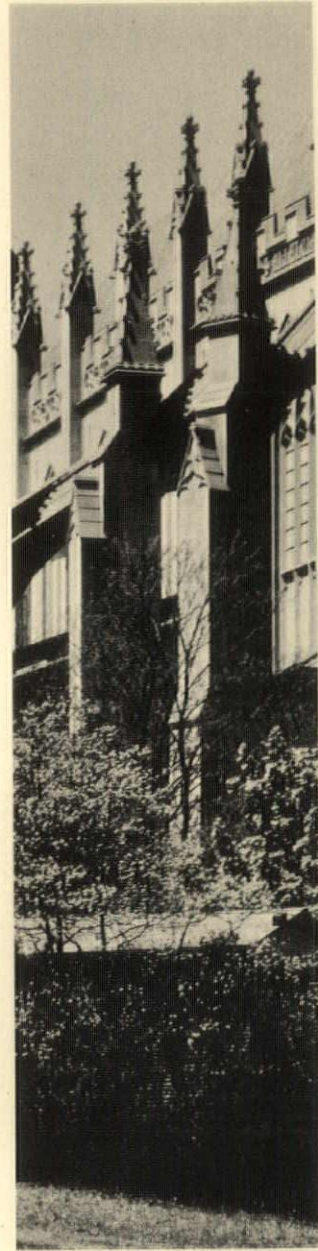
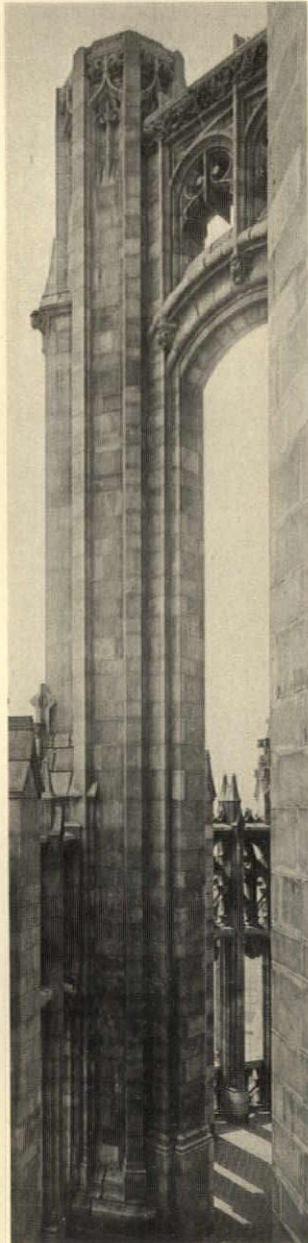


*Tower, Jones Beach
State Park,
Long Island, N. Y.
L. I. State Park
Commission;
H. A. Magoon*

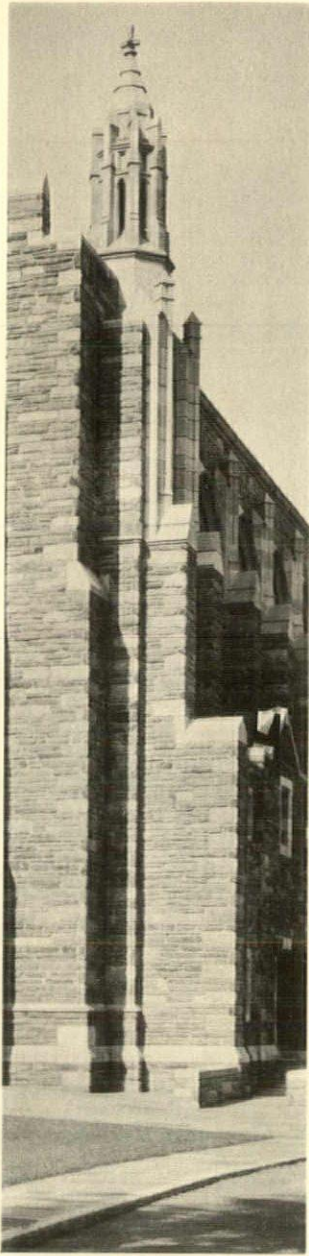


*University of Chicago
Chapel,
Chicago, Ill.
Bertram G. Goodhue;
Bertram G. Goodhue
Associates*

*Chicago Tribune Tower,
Chicago, Ill.
John Mead Howells;
Raymond M. Hood*

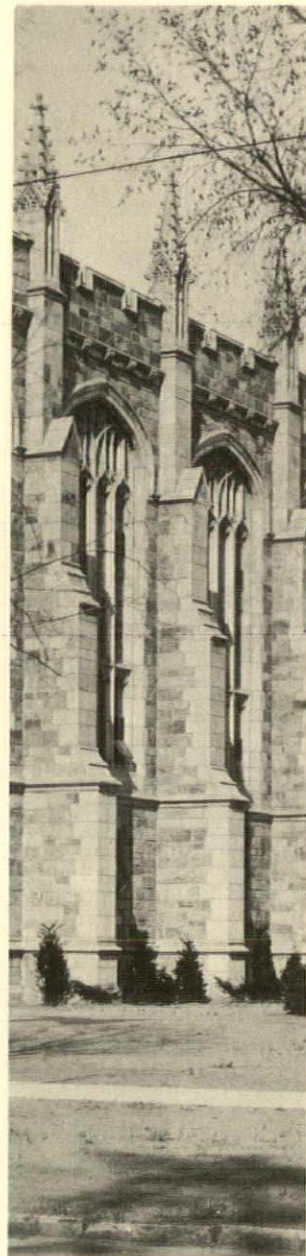
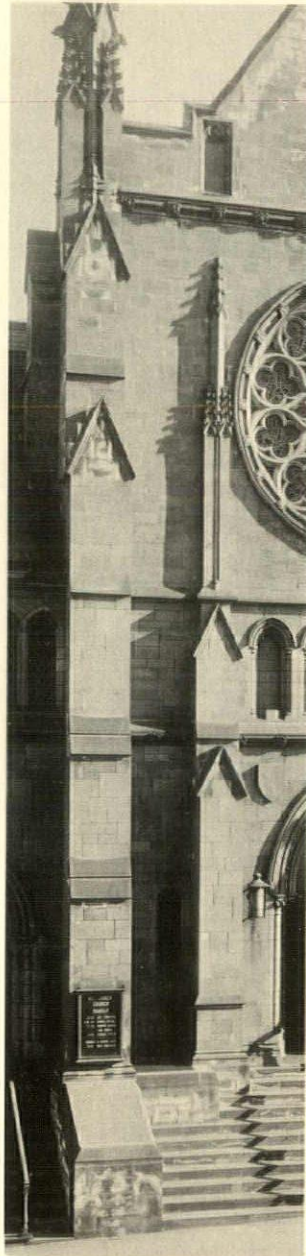


*Cathedral of St. Peter and
St. Paul,
Washington, D. C.
Frohman, Robb & Little*



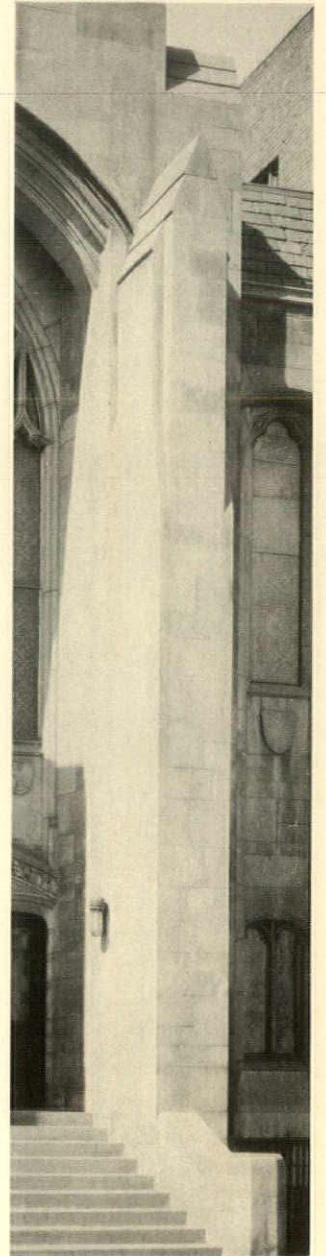
*Bryn Mawr Presbyterian
Church,
Bryn Mawr, Pa.
Walter T. Karcher &
Livingston Smith*

*St. James Protestant
Episcopal Church,
New York City
Robertson & Potter*

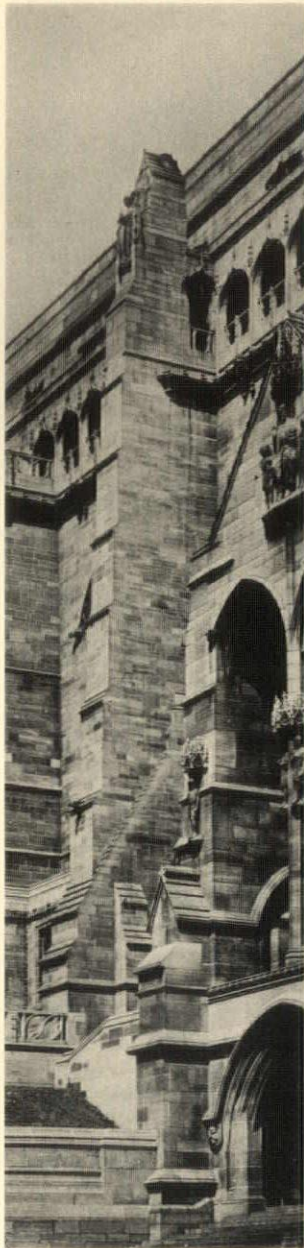
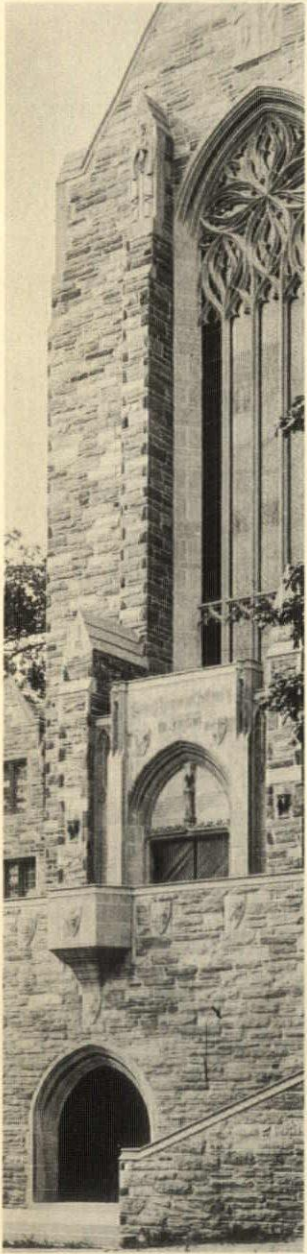


*St. Luke's Evangelical
Lutheran Church,
New York City
Edward L. Tilton;
Alfred M. Githens*

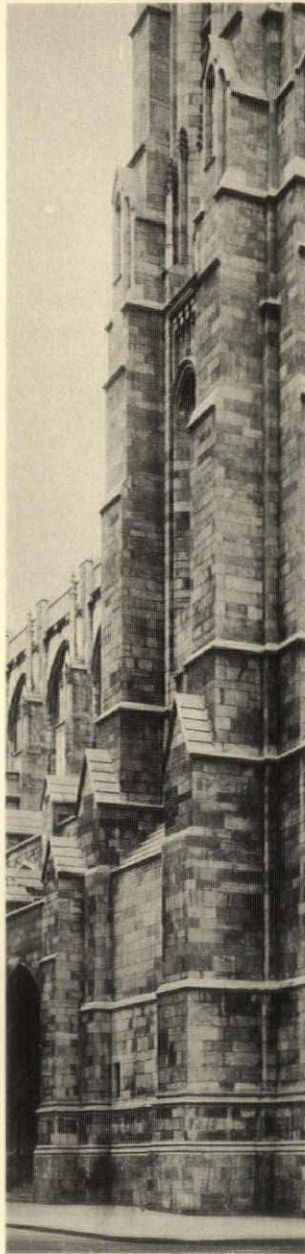
*Lawyers' Club,
University of Michigan
Ann Arbor, Mich.
York & Sawyer*



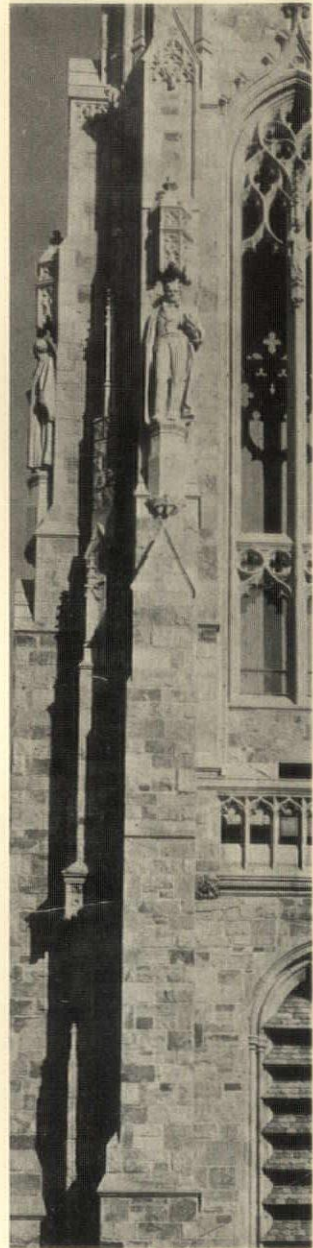
*Collegiate Chapel of
St. Andrew's,
Philadelphia, Pa.
Zantzinger, Borie &
Medary*



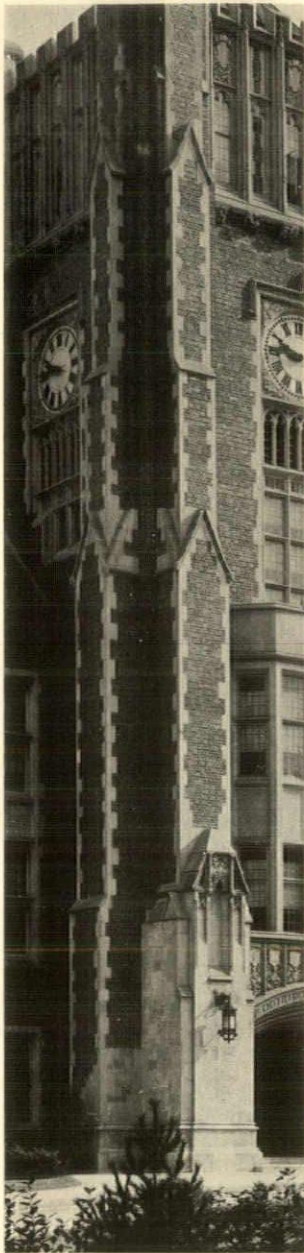
*Liverpool Cathedral
Sir Giles Gilbert Scott*



*© Wurts Brothers, N. Y. C.
St. Thomas's Church
New York City
Cram, Goodhue &
Ferguson*

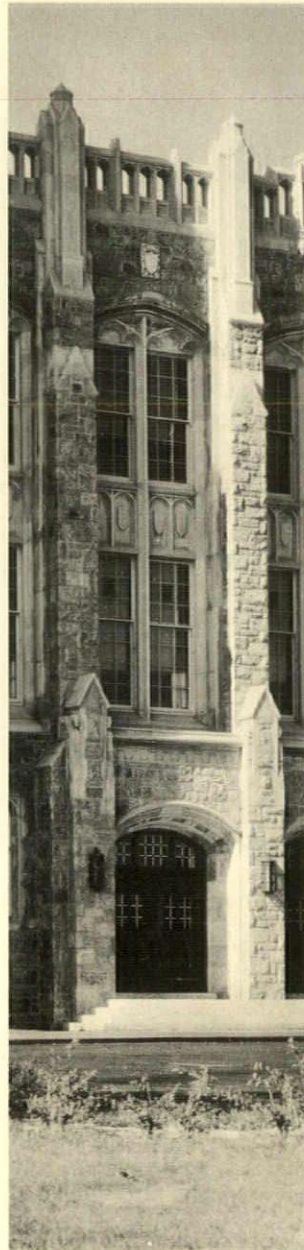


*Harkness Tower,
Yale University,
New Haven, Conn.
James Gamble Rogers*



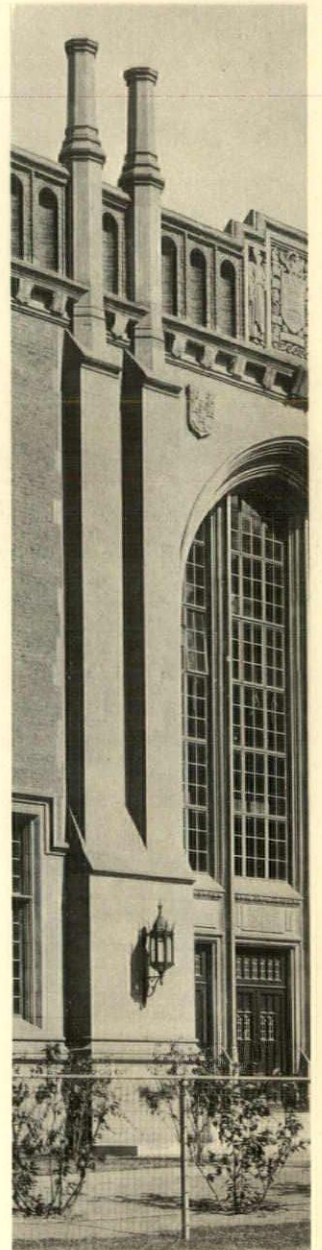
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South Orange, N. J.
Gilbert & Betelle*

*White Plains High School,
White Plains, N. Y.
Starrett & Van Vleck*

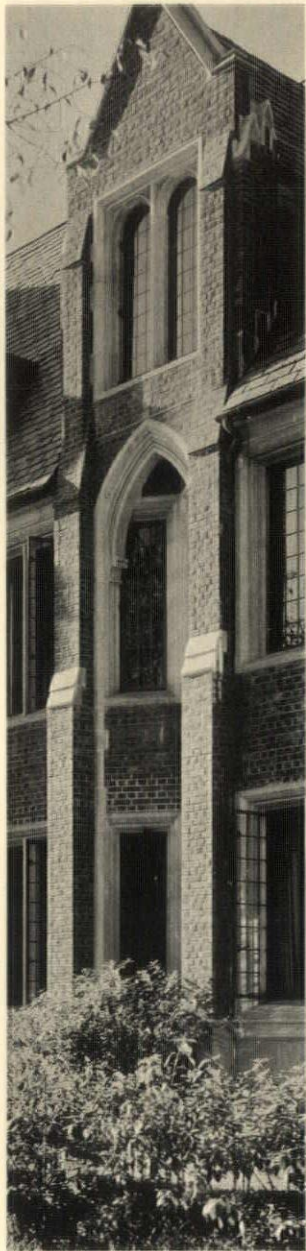
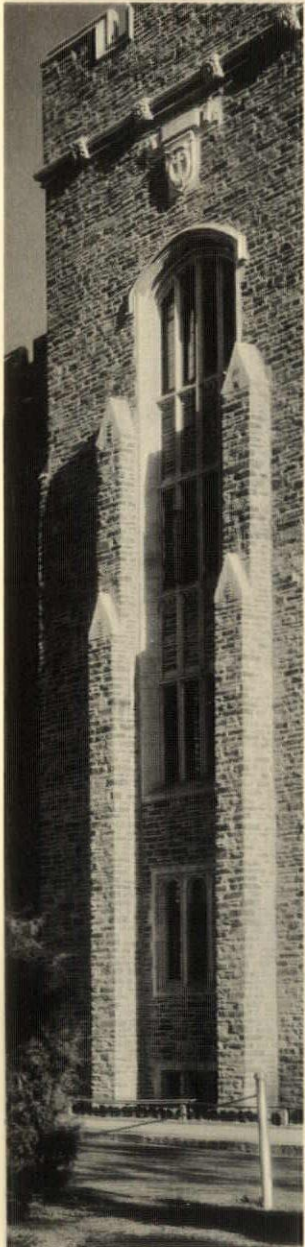


*Harkness Quadrangle,
Yale University,
New Haven, Conn.
James Gamble Rogers*

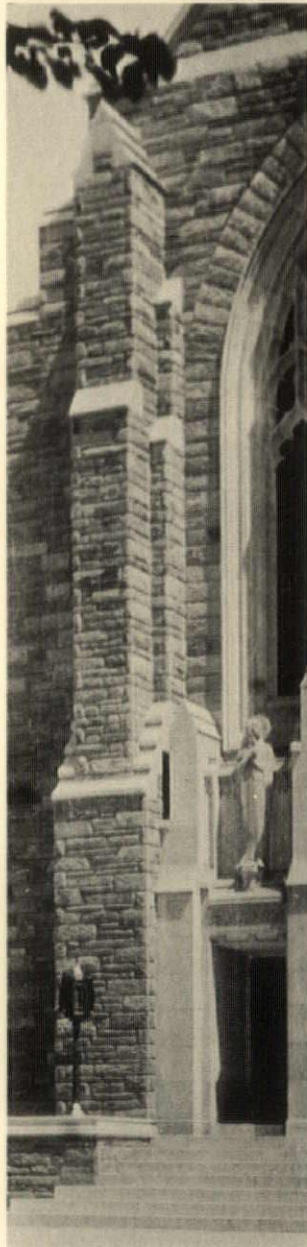
*Sterling Chemistry
Laboratory,
Yale University,
New Haven, Conn.
Delano & Aldrich*



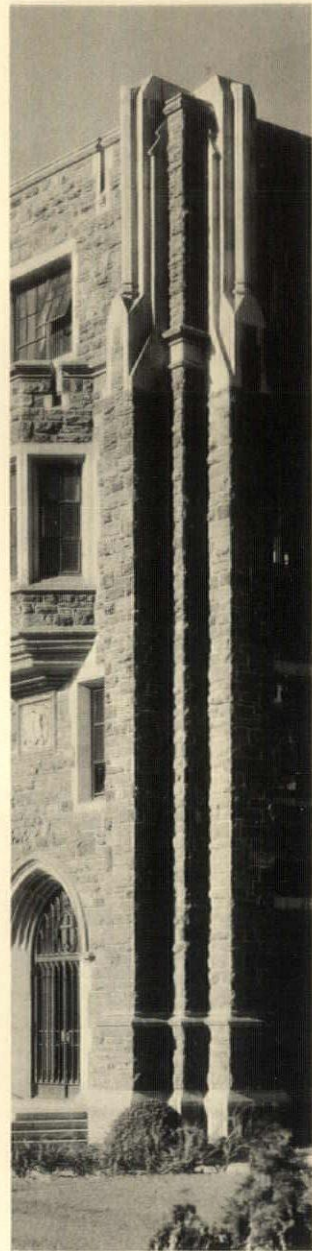
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Duke University,
Durham, N. C.
Horace Trumbauer*



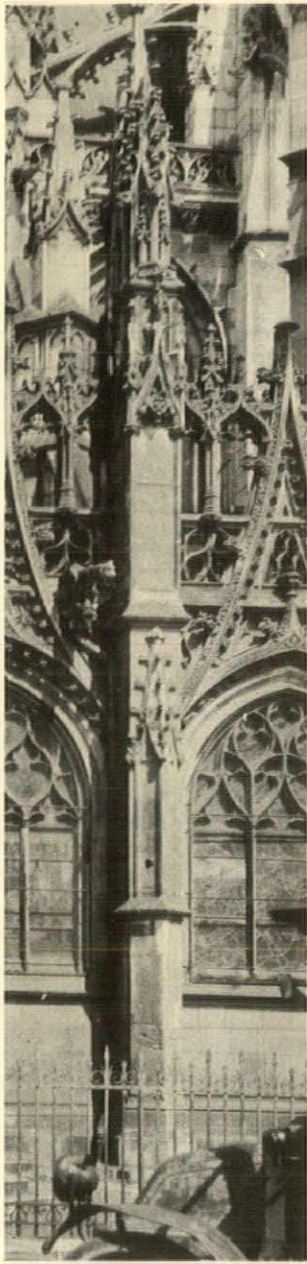
*Holy Cross Church,
Germantown, Pa.
Henry D. Dagii & Sons*



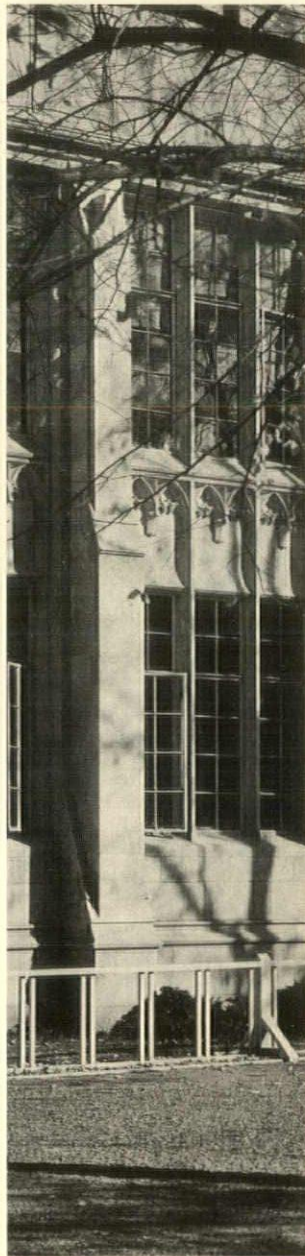
*H. B. Fine Hall,
Princeton University,
Princeton, N. J.
Charles Z. Klauder*



*Press Building,
Messenger of the
Sacred Heart,
Fordham, N. Y.
Robert J. Reiley*



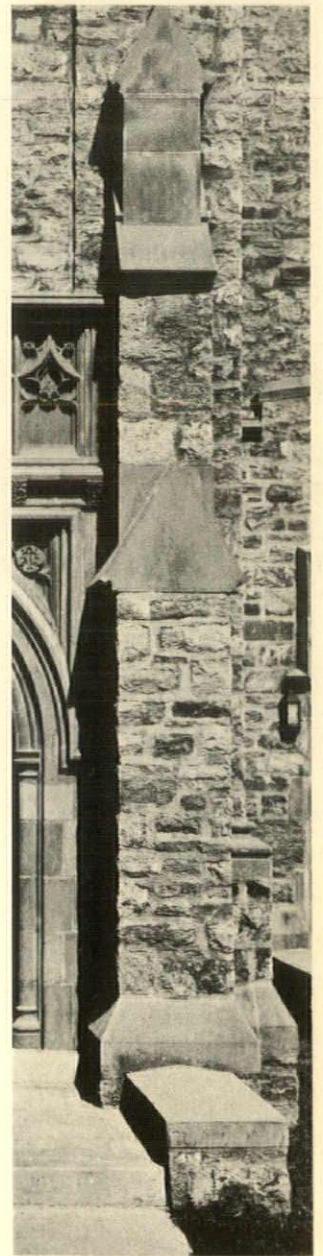
*Church of Notre Dame,
Louviers, Normandy,
France*



*Dickinson Hall,
Princeton University,
Princeton, N. J.
Charles Z. Klauder*



*Holder Hall,
Princeton University,
Princeton, N. J.
Day & Klauder*



*Blanchard Chapel,
First Presbyterian
Church,
Passaic, N. J.
Harry Leslie Walker*

*Park Avenue Baptist,
Church,
New York City
Henry C. Pelton;
Allen & Collens*



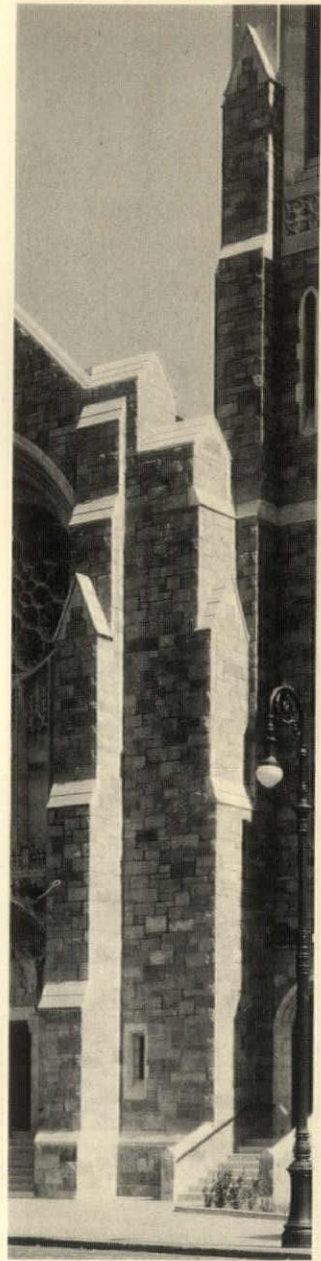
*Kitchen Building,
Princeton Dining Halls,
Princeton, N. J.
Day & Klauder*

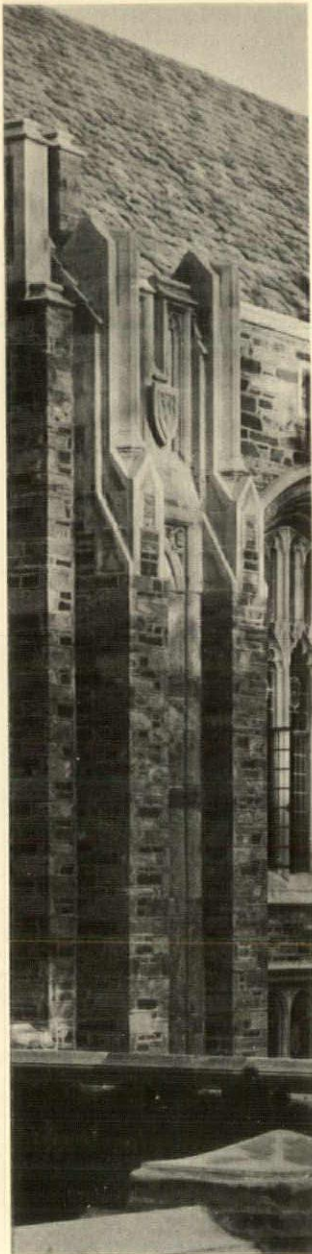


*O. H. P. Belmont
Mausoleum
Woodlawn Cemetery,
N. Y.
Hunt & Hunt*



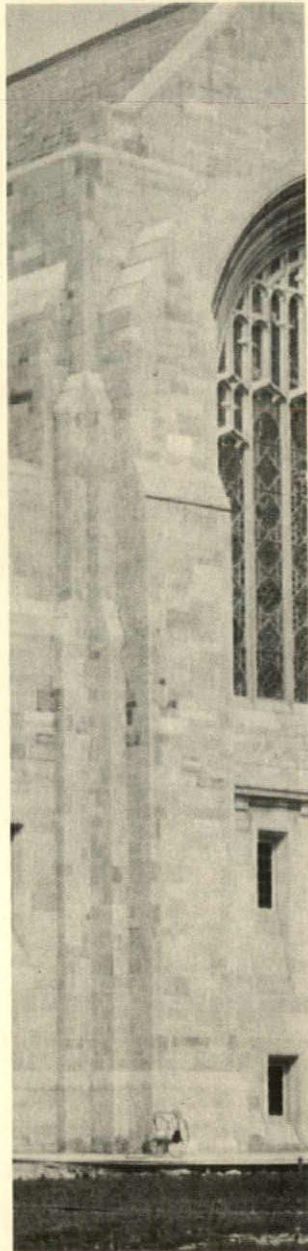
*Church of St. Peter and
St. Paul,
The Bronx,
New York City
Robert J. Reiley*



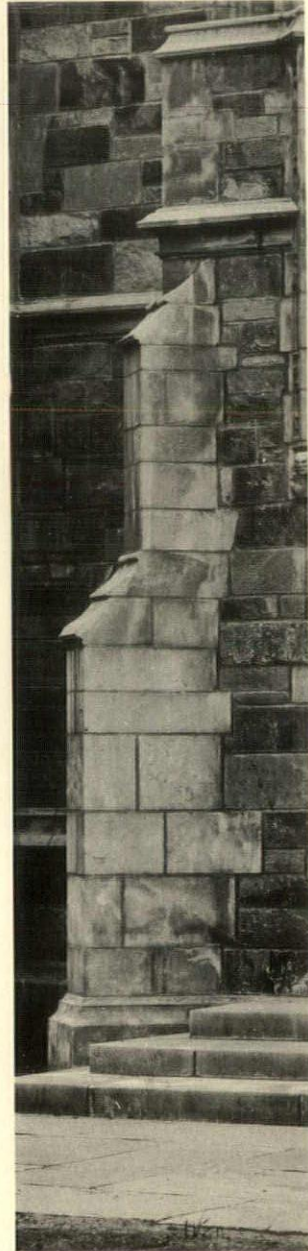


*First Baptist Church,
Cleveland, Ohio
Walker & Weeks*

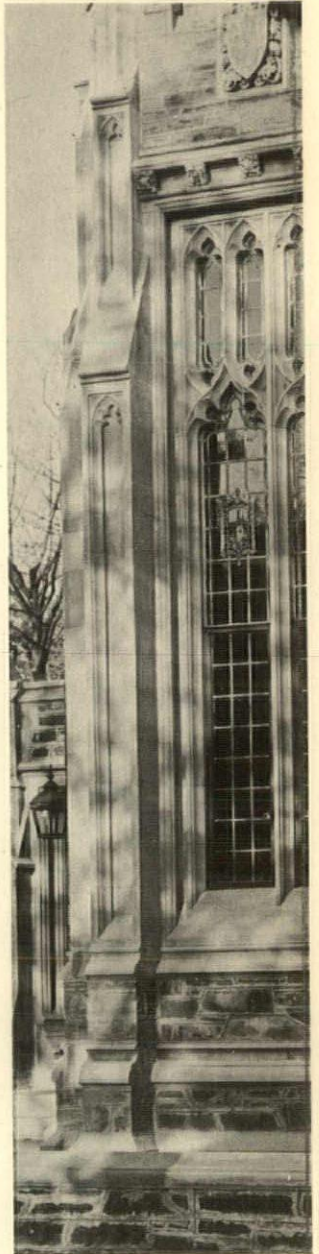
*Lawyers' Club,
University of Michigan,
Ann Arbor, Mich.
York & Sawyer*



*South Madison Hall,
Princeton University,
Princeton, N. J.
Day & Klauder*



*Sophomore Clubhouse,
Princeton University,
Princeton, N. J.
Day & Klauder*



DESIGN *in* MATERIALS

A DEPARTMENT DEVOTED TO A BETTER LIAISON BETWEEN THOSE WHO ARE DESIGNING THE NEW AMERICA AND THOSE WHO ARE PRODUCING THE MATERIALS WITH WHICH IT IS TO BE REBUILT

WHEN WE BUILD AGAIN

KENNETH M. MURCHISON HAS SOME VIEWS ABOUT APARTMENT-HOUSE PLANNING AND GADGETS, AS EXPRESSED TO THE APARTMENT-HOUSE GROUP OF THE BUILDING-MANAGEMENT DIVISION

KENNETH M. MURCHISON, one-time architect, all-time philosopher, present-time banker, thinks that apartments are going to make a right-about-face now that construction is getting under way again. It's a matter of sales resistance, for talking to connoisseurs of rentability about dropped living-rooms, electric kitchens, and cross ventilation, is like a ramble through faded pastures. All of which looks to us as though he meant that what we need is a nice new model every year, with done-over streamlining, just like the motor-cars have. We think that it may be pretty tough on the bankers, but if they don't mind, we shouldn't. In fact, the profession should like it quite a lot. Anyway, Mr. Murchison goes on to say that the bed that pops out of walls, the bookcase that turns from fairy tales to cocktails, and metal furniture that does not have to be polished, are all old stuff, too.

Some one has to be really creative about the situation, apparently. Murchison suggests "windows which do not have to be washed, hot water which is not too hot or too cold, an electric range which will heat up as quickly as a gas range, and an electric percolator which will perk coffee in five minutes instead of ten for those who have to be at the office before 9 A.M.—as savings bankers have to be.



"Apartments of the future must have no waste space, and almost every room should have a double purpose. If there are girls in the family old enough to have beaux their room should be a sitting-room until the curfew rings at 10.45; then a sweet-toned alarm will sound,

something like that of a dining-car, the beaux will go out into the silent night, and the sitting-room becomes the children's bedroom.

"There should be no apartments on the first and second floors of any apartment house of the future, unless rubber-tired ash cans are in universal use. This space will be given over to shops in front, and to garages in the rear. . . . The higher up the apartments commence, the better it is for all concerned."



He holds little hope for the future of built-in furniture, for he says that "most of it is awkward architecture, and oftentimes in the wrong place. Nothing is much worse than a built-in Pullman arrangement in the kitchen for eating purposes, unless they have a motion picture go by the window so that you will think the train is just getting into Ithaca.

"We are at last to have air-conditioning in an apartment house. At 400 Park Avenue, the New York Central is going to revamp the apartments with all sorts of streamlined, double-track ideas. They will probably have the cook scoop up water as she goes from the dining-room to the kitchen, as the Twentieth Century does between Albany and Buffalo, and when the meal is ready, she will undoubtedly drop a semaphore signal to indicate that the track is clear.

"Other railroad ideas might be very apropos, such as having the maid call out, 'All aboard on Track 3 for Baltimore, Washington, and all points south.' This would indicate chicken for dinner.

"If the family were eating too fast, she could blow two long and two short blasts on a whistle, to indicate 'slow down.' She could bring the

food in in one of the electric baggage trucks, of a smaller and more beautiful design than we see at present, and the New York Central could advertise these apartments as 'The Water Level Route to Park Avenue.'

"Everybody in the sheet-metal business is trying to get out new designs and space-saving kitchen equipment and, even if you have no kitchen, they have an answer for that. A few days ago I saw a new contraption built on the theory that you don't have to wash, but you've got to eat; a metal kitchenette that fits right over the bathtub and which is permanently left in place—so you can't possibly take a bath.

"What they missed was fixing their outfit so you could take a bath while the breakfast was cooking, right over your head. In fact, with a few changes in design, you could eat while bathing and thereby save ten minutes.



"One man's guess is as good as another's. Apartments of the future will have to be air-conditioned. The planning of apartments, though, cannot be materially improved upon. Just when renting conditions will warrant our builders in putting up large and expensive structures again, is still a question. But things are coming back, definitely, and before long it is the hope of every one that our antiquated structures will be demolished and new buildings, beautifully ventilated and illuminated, will be filled with tenants eager to live in the most modern habitation possible and, moreover, able to pay adequate rents for them."

Thank you very much, Mr. Murchison.

◀ ARCHITECTURE ▶

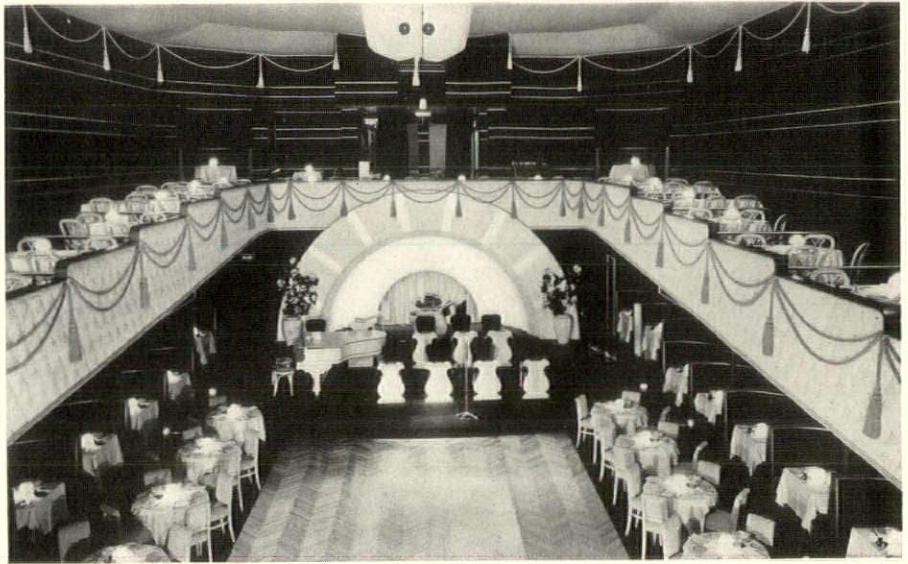
APRIL, 1936

New Thyatron-Tube-Reactor Dimming Equipment

LIGHT, as a decorative element, continues to develop in importance under the stimulus of constant research. Its potentialities are enormous, and each new discovery opens up wide vistas of possibilities. "Omar's Dome," a recently completed restaurant in Los Angeles, by Pruitt & Brown, architects, makes effective use of a new feedback circuit in the interior scheme, which permits of a novel flexibility in color flooding and lighting intensity. The system is similar to the one now used in a number of the country's foremost theatres, but it is the first installation applied to the requirements of a restaurant.

The principle involved depends upon the development of the Thyatron tube, which may be considered as a controlled rectifier and amplifier operating independently of moving contacts, brushes, etc. With the aid of a saturable-core reactor, which in effect is a magnetic type of amplifier, it permits a smooth control voltage to regulate and produce gradual changes in the relatively heavy flow of current to the lighting circuit.

The equipment in the restaurant is used in connection with five light circuits, one for the table fixtures, three for the colored balcony spot-



lights, and a fifth for the ceiling lights. These five circuits are controlled by means of four electron-tube panels, each of which is operated with two push-buttons mounted on a switch plate and located at a convenient point in the restaurant, where the effects produced may be observed. Pressing one of the buttons decreases the intensity of the lights on the circuit connected to the panel, while the other is used to increase the intensity.

The system provides a number of advantages, chief of which are: (1) a very high efficiency over the required dimming range, because energy is not dissipated as heat from resistors; (2) a freedom of moving parts carrying load circuit; (3) an absence of flickering lights, transition from one intensity to another being gradual; (4) an all-electric operation minimizing noise, promoting long life and permitting remote control.

A New Type of Shingle

A NEW type of cement-coated asphalt shingle is about to be announced by the leading manufacturers of roofing material.

These shingles, which will be known generically as cementop shingles, are the result of a special processing method developed by the Bakelite organization. By the new process conventional asphalt shingles are given an extra surface coating of special formula hydraulic cement in which mineral oxide pigments are incorporated.

Cementop shingles have several distinctive advantages over ordinary asphalt shingles. The cement coating provides a vehicle for the incorporation of a variety of permanent colors which could not be had here-

tofore. These colors include white, blues, greens, grays, reds, and black. A white siding material, so long needed, is now available. Of snow white, heat-reflecting cement, it fills a need for the Colonial type house.

In addition to yielding a very attractive roofing and siding material, the cement coating gives the shingles rigidity. It acts as a shield protecting the asphalt beneath from the rays of the sun. It seals the asphalt so effectively that tropical heat will not bake out the oils and other volatile elements present in asphalt shingles. These shingles also have better fire resistance, greater resistance to erosion, and greater insulation value.

Because the cement coating imparts rigidity, it is possible to expose a greater portion of each shingle butt. This, of course, means that fewer shingles are required to cover a given area. As a matter of fact, where an ordinary asphalt shingle can be exposed 5 inches, the cementop can be exposed 7 inches.

Those roofing manufacturers who have started production on the new cementop shingles, or will within the next few weeks, are: The Johns-Manville Corporation, The Ruberoid Company, McHenry-Millhouse Mfg. Company of New York, Inc., American Asphalt Roof Corporation, Amalgamated Roofing Company, and the Los Angeles Paper Manufacturing Company.

« ARCHITECTURE »

APRIL, 1930



IMPROVING THE BUILDING INDUSTRY

By *Rolland J. Hamilton*

President, American Radiator Company

WITH this large subject, I must necessarily confine myself to a few observations as to what our industry has learned or should have learned during the depression.

If my Latin holds good, the word constructive means "build together." If we are to have constructive policies in the building industry, doesn't that automatically mean that the various groups—architects, engineers, contractors, material men, labor, finance—must be more firmly bound together than at present and must attain a better group consciousness with all that this implies? So marked is this lack of unity that frequently it is denied that these component elements constitute an industry within the true meaning of that term. In any event our unmistakable duty lies in encouraging better understanding between these groups.

All of us have learned conclusively that the law of action and equal reaction is just as applicable to the building industry as it is to the stock market. It is perhaps not just a coincidence that by the end of 1932 building as a whole showed a decline from its peak of approximately the same percentage as

the average of industrial common stocks. I have been in the building industry practically all my life and never expected to see that situation. That it has happened indicates that at least some of the factors of psychology and of excess that ruled a few years ago in the stock market must have had their counterparts in the building industry.

Let's face facts. Will we do differently the next time? Many will, but it is the duty and self-interest of most of us to exert every influence at our command to direct otherwise. Did you, as an architect, a contractor, an engineer, or a material man, go past the reasonable bounds of good business in encouraging construction that was not needed or which you knew was wrongly designed, or located in an obviously unfit place, or was built poorly to come within prescribed limits of price? Did the labor unions jack up wage scales to the highest possible level regardless of future effects on the building enterprise? Did finance wink at overvaluations in order to get the business at a higher commission? The building industry should be a conservative line of endeavor and not a get-rich-quick scheme.

In thinking and planning for the future, let us not forget the small home and the low-priced apartment. Fifty-nine and four-tenths per cent of all building construction, in terms of square feet of floor space in 1928, was residential, and the greater portion of this was small residences or moderate-priced apartments. I am convinced that this class of work

deserves more attention from the industry than it has had. Who has been doing this class of work? You know as well as I do. Is it not worthy of more attention from good architects, from responsible contractors, and from the highest class financial houses? If I were to attempt just one prophecy, it would be that the moderate-priced single-family dwelling is going to be a bigger factor in the building industry during the next cycle than ever before, and moderate-priced, good multiple-story housing will be a close second.

Having pulled through this far, we should not get discouraged now or lose faith in our industry. We are facing a tremendous pent-up demand, especially for residential construction. It is beyond all question that never in history was there more demand for better living accommodations than at this very moment. I am optimistic enough to believe that within the next few years we shall see building construction beyond anything ever before witnessed.

It may be along different lines or with materials and methods differing from our preconceived notions. One cannot visualize the motor car of 1940, nor the materials, design, or mechanical equipment of buildings ten years hence, but my appeal is to have faith and the willingness to back it up by an open-minded preparedness to accept new ideas—ideas weighed not in the scales of our conventionalized ideas or selfish desires, but in concord with public demand and public service.

FIRE-RETARDING WOOD

THE development of fireproof building methods is gradually eliminating the fire hazard in modern construction. But fire continues to reap an appalling annual harvest which, during the period of 1935, amounted to 10,000 lives and \$245,000,000 in property in this country alone. Just what proportion of this loss occurred in fire-resisting struc-

tures, it is difficult to ascertain, but the principle fuel consumed was wood, man's most universal building material.

The obvious method for preventing large losses of this kind would be to limit the amount of available fuel at the point of origin of the fire. This could be accomplished by the extensive use of fire-retarding and in-

combustible materials, but investigation has shown that the majority of fires have their inception in the interior of the structure, where wood continues to be the most adaptable and serviceable material available for many purposes. The solution, therefore, must inevitably depend upon the discovery of either a synthetic substitute for wood, which

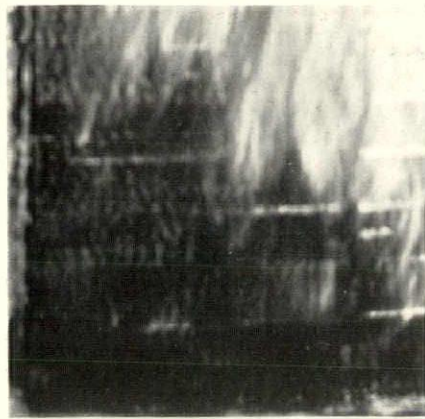
« ARCHITECTURE »
APRIL, 1936

not only possesses its desirable qualities but is fire retarding, or a method of rendering the actual material fire-proof.

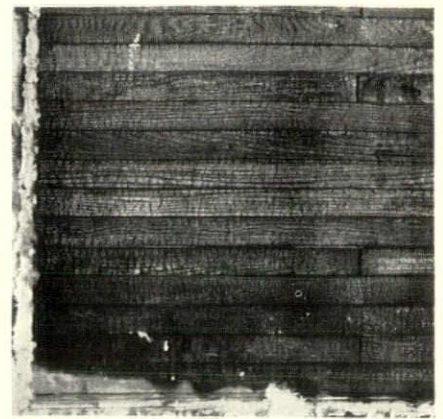
This latter goal has attracted the attention of men of science for centuries. As early as 400 B.C. Aeneas suggested soaking lumber in vinegar, whilst others have tried coating it with clay, washing it with mineral salts, and painting it with various metallic paints to develop a resistance against fire. Practically every conceivable method has been tried, from treating it with chemicals to charring it with fire, but the results in the past have been, at best, only partially successful or have changed the character of the wood in such a way as to impair its usefulness.

Modern science, however, has recently contributed a method which promises to fireproof the material permanently without affecting its workability or appearance. The process consists of impregnating the lumber with incombustible salts, and is effected by a method similar to that used in the treatment of wood with creosote for protection against decay. The technique, however, is exacting, for its success depends upon getting just the right amount of the salts into the wood, as a greater or a less amount fails to give the desired results.

The Underwriters' Laboratories have recently subjected the process to exhaustive tests to ascertain the extent to which the producer has been successful in decreasing the combustibility of the lumber by means of the chemical treatment, and to provide a basis for an opinion as to whether the treated product is likely to regain its original combustibility fully, or to a significant degree, during its useful life in service.



Red oak, not treated; exposed face when withdrawn from furnace



Red oak, treated; exposed face when withdrawn from furnace

For this purpose, fireproofed specimens of red oak and maple were selected and subjected to fire tests of various kinds for investigation of their susceptibility to ignition, their tendency to encourage spread of flame, and their contribution of fuel to an attacking fire. As an aid to judging the significance of the results, similar fire tests were conducted upon specimens of untreated commercial lumber.

Whole floors, constructed of both types of wood, were subjected to a roaring inferno, in gas-fired furnaces especially designed for such work. The behavior of both types under fire was observed through windows, and compared by one group of engineers, while a hundred feet away a second group recorded the temperatures of the floors by means of meters connected with thermocouples.

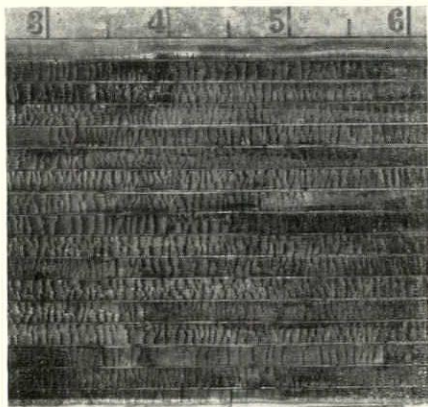
The fireproofed floors came from the furnace at the completion of the tests like a phoenix rising from the flames—blackened and charred on the exposed surface, but intact and

sound, having stood as a barrier against the fire and prevented its passage. The untreated floors, however, ignited and, on completion of the tests, were burning on both the exposed and unexposed surfaces.

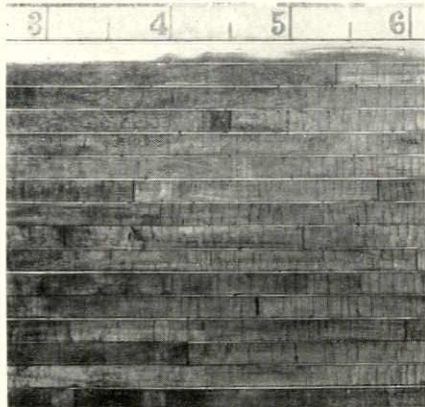
Similar experiments were conducted by applying fire to vertical panels, the ends of the wood and to individual pieces, with correspondingly good results from the processed specimens. As a result of these investigations, the Underwriters' Laboratories have been able to offer the conclusion that the material will not ignite readily, contribute fuel, nor add to the spread of the fire; and while it will char progressively when exposed to flame, it will cease to glow shortly after exposure.

Various extreme condition tests, some extending over a period of three and a half years, were conducted to determine the permanency of the fireproofing, taking into consideration the known properties of the chemicals and their reactions. The physical properties of the treated lumber were also investigated, and it was found that they were very little affected by the impregnation of the mineral salts. The workability was found to be equal in every way to that of the untreated lumber, the surface ability to take paint and varnish was unaltered, and the general appearance remained unchanged. The only perceptible difference was an increase in weight of about one-tenth over ordinary wood.

A full report of the tests performed, with their results may be obtained from the Underwriters' Laboratories report: "Fireproofed Red Oak and Maple Lumber for Flooring and Interior Trim."



Result of a fire spread test on maple, not treated, after fifteen minutes exposed to fire



Result of the same test on maple that had been treated, after twenty minutes exposure



W. Pope Barney, A. I. A., of Philadelphia, insists that after DOGS comes architecture



If Samuel Yellin has any real absorbing interest in anything other than metal working, it has to do with collecting examples of the craftsman's art in metal throughout the world

Leicester Bodine Holland, F. A. I. A., recipient of four degrees from the University of Pennsylvania (B.S., B.S. in Arch., M.A., and Ph.D.), professor of fine arts at his alma mater and chief of the division of fine arts in the Library of Congress, did yeoman service recently in blocking the proposed alterations to the east front of the Capitol



Edwin Hawley Hewitt, F. A. I. A., who has practised alone and with the late Edwin H. Brown in Minneapolis since 1904, has many interests outside of architecture—most of them civic. We do know that he is an authority on growing fine grapes, is interested in astronomy, fond of sketching, and here he is caught in evident enjoyment of his north country's winter woods

Sir Edwin Landseer Lutyens, whose work is as much admired and nearly as well known among American architects as it is in England and the British possessions beyond the seas



You know three men by reputation

« ARCHITECTURE »

APRIL, 1936

CO-OPERATION I WANT

VARIOUS ARCHITECTS' POINTS OF VIEW WITH REGARD TO THE AID AND SALES ACTIVITIES OF THE MANUFACTURER

The co-operation I expect from the building material manufacturers is intelligent service. I cannot give time to a man who does not know his stuff but am always glad to see the one who does.

My experience has been that a product falls down completely without able and experienced representation.

Julius Gregory, A. I. A.,
New York City.

We don't want a lot of sales talk, as we try to look at a product fairly, and high-pressure salesmanship will not influence us.

We want information regarding the material, its character, use, and method of installation; laboratory reports and other reliable recommendations and experiences encountered; names of architects who have used the product, names of buildings or locations where it has been used and can be seen.

We want drawings to a fair scale, showing method of use or application.

We want real specification data—not the usually highly colored prints and pamphlets and verbose literature, which is sometimes handed out to a busy architect by some young man who has learned all he knows from a book or a few weeks of intensive study. Sometimes we refer to these chaps, jocosely, as "hander outers." Send men around who have had practical job and technical experience.

We want A. I. A. letter-size catalogs—not the small leaflets which become lost in the bottom of the filing cabinets, nor the large ones that fold up like a bed sheet.

Office of Dwight James Baum,
F. A. I. A.,
Riverdale-on-Hudson,
New York City.



1. What the average architect wants most, in the way of co-operation from manufacturers, is to be freed from the calls of wind-bag salesmen. The fellow who barges in, and without taking the trouble

to ask if he may do so, helps himself to ten, fifteen or twenty minutes of an architect's time, and then leaves without so much as a "thank you," is bad enough. Worse still is the pest who calls periodically, leans across the gate, and says: "How do you do, Mr. So-and-so; *Jones' Cement*," and then looks at you with an idiotic grin. Remember, please, that the architect is a busy fellow, with a thousand distracting details on his hands, and that calls of this sort are nothing less than inroads on his time.

2. If a manufacturer has a new product, or an improved one that he wants to call to architects' attention, let him mail circulars or catalogs that tell the story as briefly as it can be told. Such matter is always looked over when time permits; if not, it is laid aside for a free moment. Personally, I much prefer this to the visits of high-pressure salesmen.

3. Manufacturers of standard products, who wish to keep their products before the profession, should be represented in "Sweet's Index." It is much easier to refer to "Sweet's," than to dig through a choked file of catalogs, many of which are obsolete.

4. When possible to do so, mail the architect a sample of your product. Most architects maintain sample files and are glad to add to them.

J. Frederick Kelly, A. I. A.,
of Kelly & Kelly,
New Haven, Conn.

The co-operation I would like to have from manufacturers can be divided into two different parts:

A. Information concerning the material.

B. Service in connection with same.

Information may again be divided into two parts:

(a) What the material may be expected to do and under what conditions it may be safely used.

(b) Complete data essential to the preparation of drawings and specifications for their uses.

Referring to B above, service which would be helpful, I frequently find that representatives of the

manufacturers, whether agents or dealers, often know very little about the material they represent and, what is even worse, they attempt to cover up this ignorance with an assumption of vast knowledge of the subject. Responsible material should never be advocated for any uses or under any conditions which are not favorable toward giving satisfaction.

A very large percentage of the literature received by the architects from manufacturers is of practically no value to the architect as it amounts to selling propaganda. I think it would be well for every manufacturer to determine by consultation with architects the best form in which to present his literature for their consumption.

Franklin O. Adams, A. I. A.,
Tampa, Fla.



I need from a manufacturer:

1. A legible, letter-size, A. I. A. file-numbered catalog describing and giving sizes, etc., and free from sales appeals, for my files.

2. An agent I can call in to give me current prices and other information.

3. An organization that will make prompt and good shop drawings.

4. In some specialized trades, such as heating, competent engineering service which will make the manufacturer's guarantee worth its face-value.

5. From other material men, samples of such size and color as will adequately describe the materials.

6. I don't have much time for sales visits nor for looking at advertisements, therefore I want them brief.

Thomas Pym Cope, A. I. A.,
Philadelphia, Pa.

The days have passed in which the architect can assume that he is the sole creator of a building or that it is his personal, individual work. We recognize more and more, as we go on in the profession, that

it is simply co-operation of a large number of persons and individuals. The final outcome is perhaps to the credit of the architect, not, necessarily, to his genius as a designer, to his knowledge of construction, to his sense of planning, but to all the great forces which come together to make a building.

In the old days a building was a comparatively simple thing. It was only a matter of some walls, a certain amount of ornament, no mechanical equipment, and very little of the modern practice in regard to circulation, the movement of people, the movement of produce, and all the thousand and one things which come into one of our modern buildings.

But today a building is just as complicated a piece of mechanism

as an automobile—more so in fact—and, like an automobile, it doesn't make a bit of difference how handsome the cushions and the upholstery may be or the inlay work on the interior of the car, or the tone and shape of the exterior of the car; if the old thing doesn't run. And a modern building must run.

We have to approach our problem from a practical point of view, of course, and we do need the manufacturers' support, their co-operation and instruction as to the use of materials that they are dealing in, so that we can fit our design and make use of those things which they have available.

Harvey Wiley Corbett, F. A. I. A.,
of Corbett, Harrison & MacMurray,
New York City.

That the manufacturer, on his part, realizes some of the needs set forth above, is shown by the excerpt from a letter to branch managers, salesmen and distributors:

The architect is a professional man just as is a doctor or a lawyer. Being in that classification, he does not relish high-pressure and "usual" selling methods. He does not want a salesman to come in and point out the things *wherein he may be wrong*, but rather he responds to the salesman who, without pretensions, places information in his hands or at his disposal that he can use.

C. L. Ellison,
Advertising Manager,
The Brunswick-Balke-Collender Co.
Chicago, Ill.

BIDDING PRACTICES

AND WHAT SHOULD BE THE FUNCTIONS OF THE VARIOUS PARTIES

In speaking before a Council meeting on the subject of Bidding Practices, William Stanley Parker, F. A. I. A., Chairman of the Joint Committee on Building Practices, suggested the following as a basis for action on the functions of the owner, architect, contractor, sub-contractor, material man, and labor.

The Owner should get what is called for and should pay a fair price for it, and estimates should be obtained in a manner that will permit him and his architect to know that the price is fair.

The Contractor should have general control of and responsibility for the execution of the entire work, and should be competent to assume such control and responsibility. He should submit a complete bid for the entire work under such conditions as will assure competition among sub-bidders on a one-price basis, including in this category all specially fabricated materials, whether installed by the producer or by others. He should select sub-contractors on the basis of competence as well as price, in the best interest of the owner, under procedure that will permit him so to act, and his own competence should in part be judged by the standing of the sub-contractors he recommends. He should be financially competent to carry through the work on his own



resources and to pay sub-contractors promptly in accordance with the terms of the contract. If the owner requires him to furnish surety it should be of such a nature as to protect the interests of sub-contractors who have lived up to the terms of their sub-contracts.

The Sub-Contractor should submit his proposal to the general contractors bidding on the work, under such conditions as will assure him that it cannot be misused to his disadvantage and that he cannot take advantage of a competitor by a revision of his proposal, all such sub-bids being on a one-price basis without opportunity for revision. He should secure his subordinate esti-

mates for specially fabricated materials under similar conditions. He should be selected by the general contractor on the basis of competence as well as price, and the bidding procedure should be such as will make it practicable for his selection to be made on that basis. He should recognize fully his responsibility as a sub-contractor to the general contractor, so long as the general contractor recognizes and fulfills his own responsibilities as such.

The Material Producer should submit estimates to sub-contractors under conditions similar to those under which the sub-contractor submits his estimate to general contractors.

The Architect should request bids on a basis that will permit bidders and sub-bidders to estimate and to be selected as outlined above. He should not be held responsible for the uneconomic practices of contractors and sub-contractors unless he invites bids on a basis which invites such practices and makes them financially profitable, in which case he should at least be held as responsible as they; and since he, not they, can control the basis on which he invites bids, he may be held primarily responsible if he fails to adopt some procedure that the industry has tested in practical use and approved as conforming to the conditions outlined above.

« ARCHITECTURE »

APRIL, 1936

He should have and should fairly exercise, in the interest of the owner, the power to approve the sub-contractors selected for those portions of the work believed by him to be of principal importance to its proper execution. In order wisely to exercise this power he should be

fully informed of all sub-bids submitted from which the selection is made.

The Owner should permit the architect to obtain bids as outlined above and should not urge, induce, or force the architect to follow any procedure which the industry and

the architect have decided is uneconomic and against the best interests of owners and the industry. He should employ an honorable and competent architect and should desire, in his own interest, the employment on the work of competent contractors at a fair price.



The PRODUCERS' COUNCIL

Producers' Council Clubs: Their Organization and Objectives

By *John F. Gowen*
Executive Secretary

THE Producers' Council was organized in 1921 as the producers' section of the Structural Service Committee of The American Institute of Architects. As the idea back of this movement grew, the desirability of sectional groups, which could work in co-operation with sectional groups of architects, became more and more apparent.

As a result there followed the establishment of Producers' Council Clubs in key cities throughout the United States. There are now twelve of these, located in Boston, New York, Philadelphia, Washington, D. C., Detroit, Cleveland, Cincinnati, Milwaukee, Chicago, St. Louis, San Francisco, and Los Angeles. These Clubs are organized under uniform regulations, and function under charters issued by the national body.

Their broad purpose is to promote locally the objectives of the national body and to co-operate with Chapters of The American Institute of Architects, architects, engineers, contractors, builders, the press, and the public, to further these objectives and every interest that tends toward the betterment of the building industry: to promote and encourage the adoption and use of new building material and equipment; and to work with state and municipal societies and other public and private agencies for the above purposes.

Membership is restricted to local representative of companies and as-

sociations which are members of The Producers' Council, Inc.

Because of their voluntary character they have many of the aspects of a social and civic club—an association of people for the furtherance of some common purpose. But they have not the broad opportunities of the purely social organization, for they have no facilities like a clubhouse, or common meeting place, their growth is restricted by rigid membership requirements, and their activities are limited by the fact that they can be carried on only at times suitable to the rather busy members.

Moreover, these Clubs are striving to make the intangible tangible—that is, to translate into terms of positive activity the broad and unbounded aims and ideals that brought the Council into existence. The very existence of a Council Club is predicated on the ideal of equal association of business friends and competitors for mutual benefit.

Club activities include periodic meetings, generally monthly, including joint meetings with architects, engineers, and other building interests, at which talks and discussions of informational or educational character are presented, dealing with the products and services of member companies, or with other matters and problems of joint interest. Other meetings promote better acquaintance and good fellowship. All tend to further the common interests of members and users of their products.

Among the important services that

the Clubs render in their respective cities to the building group, including other branches than the local Institute Chapters, is the conducting of Informational Meetings (usually held in connection with a lunch or dinner), whereat Council members present programs featuring the latest information about their products and services. These programs are conducted by means of lectures, motion pictures, exhibits, etc., and bring to the locality up-to-date data on important developments in building products. Obviously, such gatherings provide an unusual opportunity for all the groups in the building industry, and particularly for the producers and specifiers of materials, to meet and become acquainted.

Statistics and other types of "end on end" information are always boring, but during 1934-1935 eight Council Clubs held 44 meetings, at which architects, engineers, and other non-member interests were included. The total attendance was approximately 6600.

The Producers' Council, Inc., strives earnestly to bring about better mutual understanding between various elements of the construction industry. The Council Club presents one of the surest ways of doing this, because it is a means of establishing contacts by special services rendered collectively. The Council Club member, the architect, the engineer, the distributor, the supply man, the contractor, the building owner, all have a common interest, and that common interest can be furthered in no better way than through the respect that comes from mutual understanding. The Council Club presents to the city in which it is established the machinery for establishing an *entente cordiale* between all the various groups that comprise this loose and disintegrated construction industry, in which we all labor and from which we all draw our livelihood.

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Business is definitely better. Deflation has about run its course. Natural recuperative forces are in the ascendancy. There are signs of revival in the durable-goods industry and this means more building. Residential building is already under way. Replacement demand and the pressure of population are the two factors that will contribute to a revival of building. You want to keep posted and have your files thoroughly up-to-date. . . . See the best of the new products . . . we invite you to use the Service Card attached for your convenience. Address ARCHITECTURE, 597 Fifth Avenue, New York

Corkanstele

Technical data, general specifications and method of handling, photographs, history, industry and uses, development, explanation of insulation, F. H. A. ruling on Corkanstele construction, letters of comment from experienced users, and isometrical drawing of Corkanstele construction, assembled for technicians, developers, contractors, builders, realtors, and architects. G. 401

NO-D-K

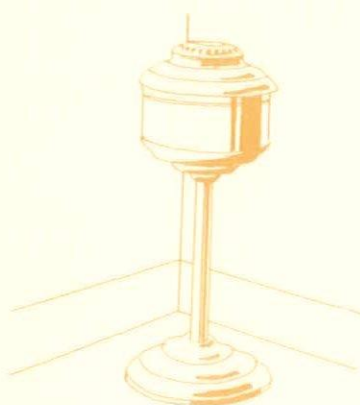
Highly concentrated hardwood cross-section with natural affinity for wood not possessed by other types of preservatives. Dark brown finish. Unusual depth of penetration which affords maximum protection. High boiling point and insoluble in water. Non-caustic. May be sprayed, used as a dip, or applied with a brush. Description, discussion of uses and advantages, and methods of applying. Tennessee Fireman Corp., Kingsport, Tenn. G. 402

Modern Stores

Flexwood, the genuine wood veneer cut to 1/8 of an inch, glued under heat and hydraulic pressure to cotton sheeting with water-proof adhesive, creates modern material for store interiors and store windows. Patented flexing operation breaks celluliferous unity of the wood to produce limp, pliable sheet to be applied by hand to any smooth surface, flat or curved. Waterproof Flexwood cement used to apply Flexwood. Installation pictures, woods available, description. L. S. Plywood Co., Inc., New York City. G. 403

Corozone

Aquazone Humidifiers, H-C Model Humidifiers, Commercial Coolers and Dehumidifiers, or attractive casings of moderate prices. Specifications, diagrams, photographs. The Corozone Air-Conditioning Corp., Cleveland, Ohio. G. 404



Paint as Light

Melody Flat White E. S. Finish has reflection value of 84 per cent, is washable and maintains light reflection value indefinitely. Will cover approximately 150 sq. per cent more area than average flat white paint, according to makers. Specification sheet, test results. Monroe, Fisher & Thayer, Inc., Philadelphia. G. 405

Special Hardware

For metal cabinets. Technically designed line of locks, handles, and bolts for use where security and dependable service are essential, such as institutions and public buildings. Special attention to Corbin Triplocks which have the Corbin pin tumbler mechanism and can be master-keyed with other Corbin pin tumbler locks, giving same degree of security and convenience. Specifications, diagrams. P. & F. Corbin Division, American Hardware Corporation, New Britain, Conn. G. 406

Pneumatic Spreader

Stoker which brings for the first time the many advantages of pneumatic conveyance system to "steam" size coal as well as to powdered coal. Finer particles burned in suspension, larger pieces burned in uniform, shallow layer on the grate in such a manner that the temperature at the grate line is below fusion point of the ash. No clinkers. Particularly adapted to the firing of power and process boilers for industrial uses. Mechanism can be located from eight to fifteen feet from boiler front. Available in five sizes. Iron Fireman Mfg. Co., Portland, Ore. G. 407

Adjustable Astragals

Can be made up in extruded bronze and nickel silver for use on wood or hollow metal doors. Keeps out cold, dust and wind, and other foreign particles. Cross-sections, specifications. The Michaels Art Bronze Co., Covington, Ky. G. 408

De Luxe Kitchen Cabinets

A. F. A. File of kitchen cabinets, color plates, descriptions and specifications. Color advisory charts and diagrams. Oxford Millwork Co., Oxford, Pa. G. 409

Architects' Specification Manual for Residences

Just issued by Southern Pine Association of New Orleans, it is intended to provide practical and authentic reference work on approved, simplified practices for specification and use of Southern pine lumber covering virtually every type of residential construction. G. 410

The Commodore

Radical departure in open-bowl type of lighting unit. Plaster used for bowl and aluminum for canopy and hushes, producing unit for which makers point out great advantages. Designed by Harold Van Doren. Purchase information, illustration. F. W. Wakefield Brass Co., Vermilion, Ohio. G. 411

Resilient Floor Coverings

Cushionite, a level cushion base for asphalt tile, linoleum, rubber tile, cork, wood blocks or carpet, trowel applied. Composite-plaster marble flooring, fireproof, sound-absorbing, durable, and especially adaptable for installation in large institutions. Manufacturers: Glaxo, Inc., Long Island City. G. 412

Lumar

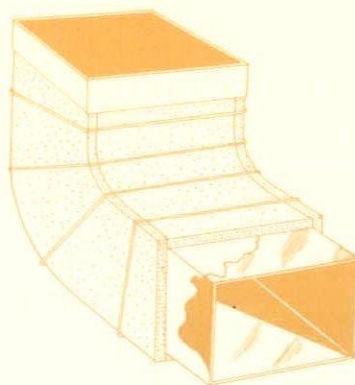
Internal structure of marble revealed! Novel luminous architectural element of wide application, providing beauty and light in entirely new form. Ordinary electric bulbs used as source of light although high wattages are unnecessary as the marble is translucent. Surface illumination never spotty nor uneven. Window panels comparable to stained glass available. Obtainable in a wide range of colors and types, and, in each product, internal coloring may be brought out in every degree from a dull warm glow to a brilliant radiance. For exterior or interior use. Mellon Institute of Industrial Research, Pittsburgh. G. 413

Plicote

In all laboratory tests, Plicote shows remarkable resistance to chemicals which has been borne out by actual service tests. Series of coatings for protection of metal, wood, or concrete against corrosion and deterioration from exposure to moisture, acids, alkalis, and other elements of nature and of industry. Engineering Manual complete with finish chart. The Watson-Standard Co., Pittsburgh. G. 414

Novoid Corkboard

For insulating air-conditioning ducts, square or rectangular, assures protection of the system. Cork Import Corp., New York City. G. 415



Gypsteel Plank

Much more profusely illustrated than previous edition, more clearly conveying the nature of Gypsteel Plank and the uses. Newest development is Dowelled Plank, a standard tongued-and-grooved unit, but all exposed metal reinforcing has been eliminated. Especially recommended for roofs of buildings requiring greater insulation or having high degrees of humidity. Individual units bonded together by means of a series of dowels cast in each plank at time of manufacture. Space given to all types of structural floor, roof, and ceiling slabs manufactured by the Structural Gypsum Division of American Cyanamid & Chemical Corporation of New York. G. 416

Rubber-Marble Flooring

Color plates, index to tile catalog and general descriptive coloration, styles, sizes, ranges, properties, diagrams, quantities,

care and cleaning, installation photographs and discussion of service offered to the architect by David E. Kennedy Company, Brooklyn. G. 417

Greenhouse for Country Home

Illustrations, descriptions, plans, specifications for greenhouse without workroom, with self-contained workroom and as workroom building. Lord & Burnham Company. G. 418

Tile Wall Units

Artistic, colorful, structural, fire-resisting, sanitary, economical. Installation photographs, specifications, estimate service. Conkling-Armstrong Terra Cotta Co., Philadelphia. G. 419

Volcano Model EW

Combination of air currents together with complete atomization of fuel, which burns in suspension, extracting maximum heat from every drop of oil. New design makes it possible to break velocity of air to minimum, thus eliminating loss of heat. Diagram, detailed explanation, features. Volcano Burner Corp., New York City. G. 420

Interior Decoration

Decorative fabrics for draperies and upholstery, together with trimming materials, presented by the International Silk Guild, New York City. G. 421

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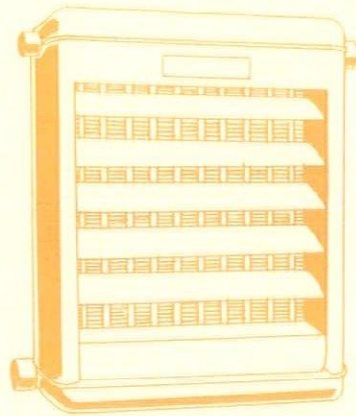
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More Well-Dressed Floors

List of some of the most recent hotel and tourist carpet and rug installations, including photographs, of the Hardwick & Magee Co., Philadelphia. G. 423

"Clip-On" Systems Manuals

Specifications and details for "clip-on" gypsum lath systems, Manual 1; specific lath, details and method of erection of "clip-on" gypsum lath—gypsum lath and felt systems applied to wood construction, Manual 2; and the same for construction for ceilings, walls, and partitions. National Gypsum Co., Buffalo, N. Y. G. 424

Road and Garden Curbing

Made from high-grade, open-hearth, heavy steel strip, 1/2 inch thick, 3 inches deep and comes in strips 16 feet long. Overlap of joints makes the length 12 feet 4 inches net after installation. Shorter pieces on special order. Joints designed to accommodate grades as well as level surfaces. Seven pairs of tapered pockets are pressed into the strip at equal intervals through which strong, tapered, steel stakes are driven into ground, holding curbing firmly and permanently in position. Description, illustrations. Joseph T. Ryerson & Son, Inc., Jersey City. G. 425

Bright Metal Mouldings

Complete selection of metal-covered mouldings for interior trim offered in chromium, copper, brass, stainless steel, etc. Plead for modern wall treatment and to conceal joints in wall-board installations. Application extremely simple with special fasteners. Actual size reproductions and full specifications. Colonial Sales Corp., New York. G. 426

Expansion Bolts

Architectural and engineering data on expansion bolts and devices for fastenings to masonry. West, published by the Rawlplug Co., Inc., New York. G. 427

El Glykol

Stainless water-proofing compound, good sealer, primer and penetrative. Uses, application, installations. Gerard Chemical Co., Elizabeth, N. J. G. 428

K-36

Describes and illustrates complete line of plumbing and heating materials manufactured by Kohler Company. Organized for workability and quick reference, simple in its presentation and thoroughly compact. General catalog. Various fixture arrangements, interesting descriptive schemes, and the merits and uses of numerous wall and floor materials form subject matter of several pages, with attractive bathroom and kitchen illustrations in full color. G. 429

Friez Products

Information on the Friez Windowair, an Educational Sheet on Effective Temperature, the Friez Hand Aspirated Psychrometer, the new Friez Comfort, Data Sheet No. 202 which is a reproduction of the American Society of Heating and Ventilating Engineers' Comfort Chart, and the Friez Portable Recording Instruments, all presented in a series of publicity releases, bulletins, charts, and diagrams. J. P. Friez & Sons, Inc., Baltimore. G. 430

Stanwaco

Photographs of large buildings water-proofed with "Stanwaco" water-proofing compounds, letters from satisfied owners, and list of various water-proofing products. Field test and laboratory tests. Stanward Waterproofing Co., New York City. G. 431

Zonolite

Dead-control Insulation, so named because it exercises constant and permanent check over heat flow by both conduction and radiation. Cannot tarnish or corrode. Expanded mica (vermiculite) home insulation. Advantages, properties, sample. F. E. Schindler Co., Inc., Long Island City. G. 432

Safe-Flex Fan

What is acclaimed as one of the most revolutionary developments in electric-fan design and construction is now being marketed by Sanion United Corporation, Rochester. Absolutely safe! Flexible blades of tough, moulded rubber rigid enough to deliver steady current of air strongly yet sufficiently soft to prevent injury. Guards eliminated! Motor stays cooler than ordinary fan motor, making for longer life and noiseless. Description, prices. G. 433

Venetian Blind Items

Complete line of hardware and fittings with prices, published by Fyres Equipment Mfg. Co., Inc., New York City. G. 434

RC-1 Colt Autosan

With random Speed Drive. Takes up less space than any other conveyor type disc washing machine. Compactly built. Autosan starts and stops in case of obstruction. Prices, dimensions. Colt's Patent Fire Arms Mfg. Co., Hartford. G. 435

Aluminum Chairs

Complete line of over one hundred models of modern, attractive aluminum chairs being offered by The General Fireproofing Co., Youngstown. Durable, light weight, finished in satin aluminum, sand-blast aluminum, plain colors or grained effects, and with unobstructed models offering unlimited color combinations in leathers, fabrics, or composition materials, these chairs offer many decorative possibilities. G. 436

Model 101 Window

Double-lung, spring-controlled type. Steel, electro-galvanized and weatherstripped at low cost. Fabricated from blue-annealed steel sheets, counter-weights eliminated and operating mechanism improved and simplified. Construction diagram and specifications. Campbell Metal Window Corp., Baltimore. G. 437

Homasote BIG Sheets

Insulation and base for wall-paper and paint, inside, in lieu of plaster, for exterior of homes, cabins, tourist cabins, storage warehouses, tool houses, poultry houses, barns, schools, play houses, prefabricated houses, window display backgrounds, partitions, etc. Ideal for air ducts in air-conditioning systems because of strength and non-fading qualities. Specifications, installation photographs. The Agasote Mill-board Co., Franton. G. 438

Armco H.T.-50

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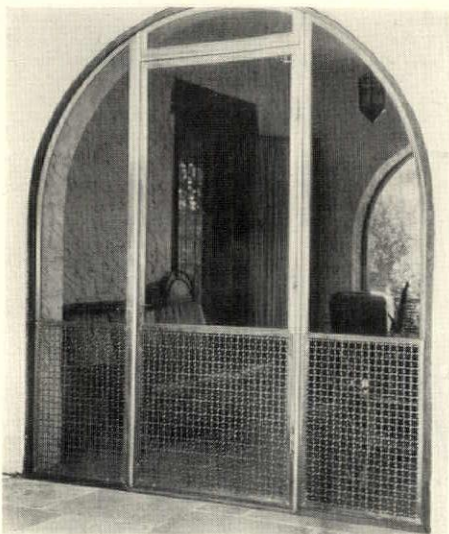
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