

Checked

JUNE 1931

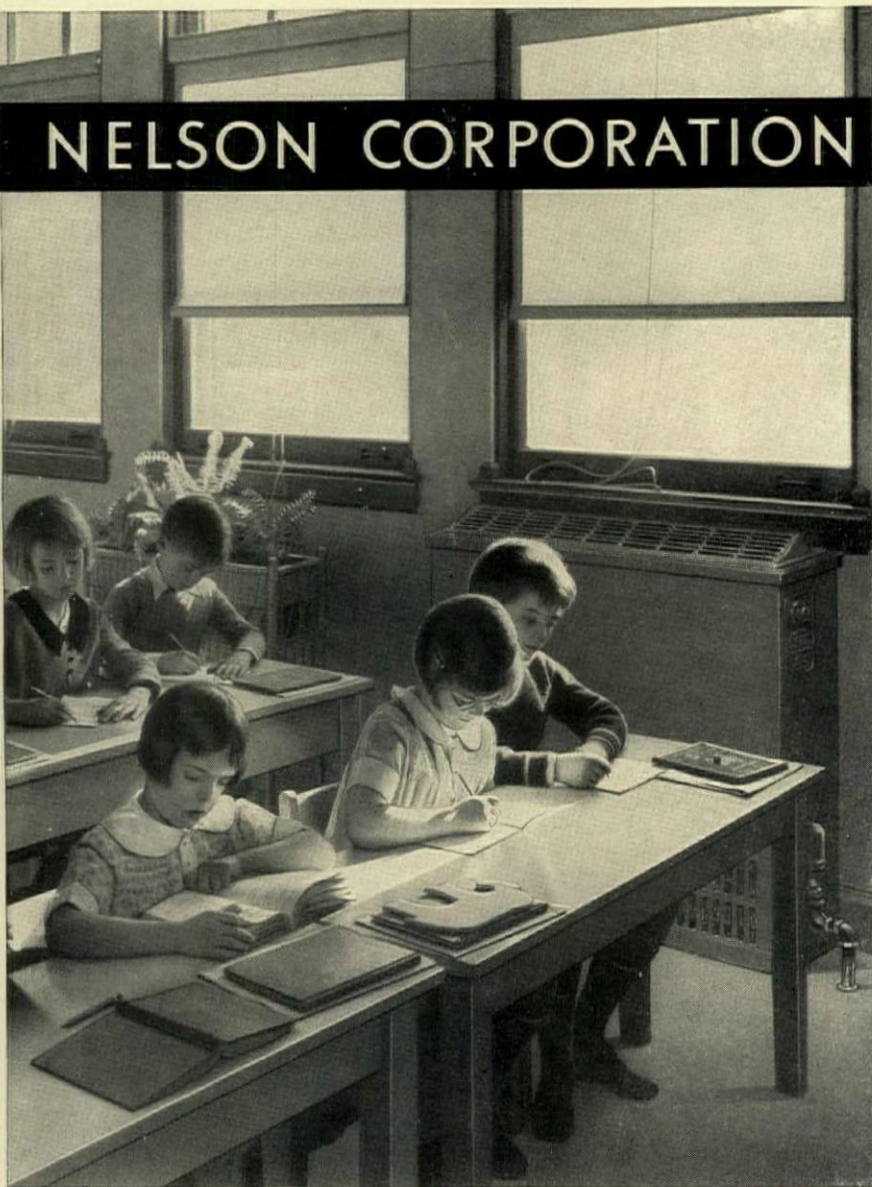
PENCIL POINTS

A JOURNAL FOR
THE DRAFTING ROOM

ARCHITECTS' AND
PRODUCERS' SYMPOSIUM
SEE PAGES 410 AND 435

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T. H. N. Corp

THE HERMAN NELSON CORPORATION



HERMAN NELSON

HER-NEL-Co

SYSTEM OF VENTILATION

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

Engineers, architects and school authorities see in the Her-Nel-Co System of Ventilation the practical solution of a most harassing problem.

In this system an invigorating, healthful atmosphere is created and maintained in the school room—without the expensive expedient of preheating a continuous supply of outdoor air.

It is estimated that the Her-Nel-Co operates at 50% of the fuel costs of systems based on supplying the school room with a fixed quantity of outdoor air—irrespective of outside weather conditions. Naturally this modern system also effects decided savings in boiler costs, radiator costs, and building costs.

School authorities, engineers, and architects interested in securing better ventilation, at a saving in fuel, maintenance and building costs, should write for the book, "The Herman Nelson Her-Nel-Co System of Ventilation".

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USED FOR THE
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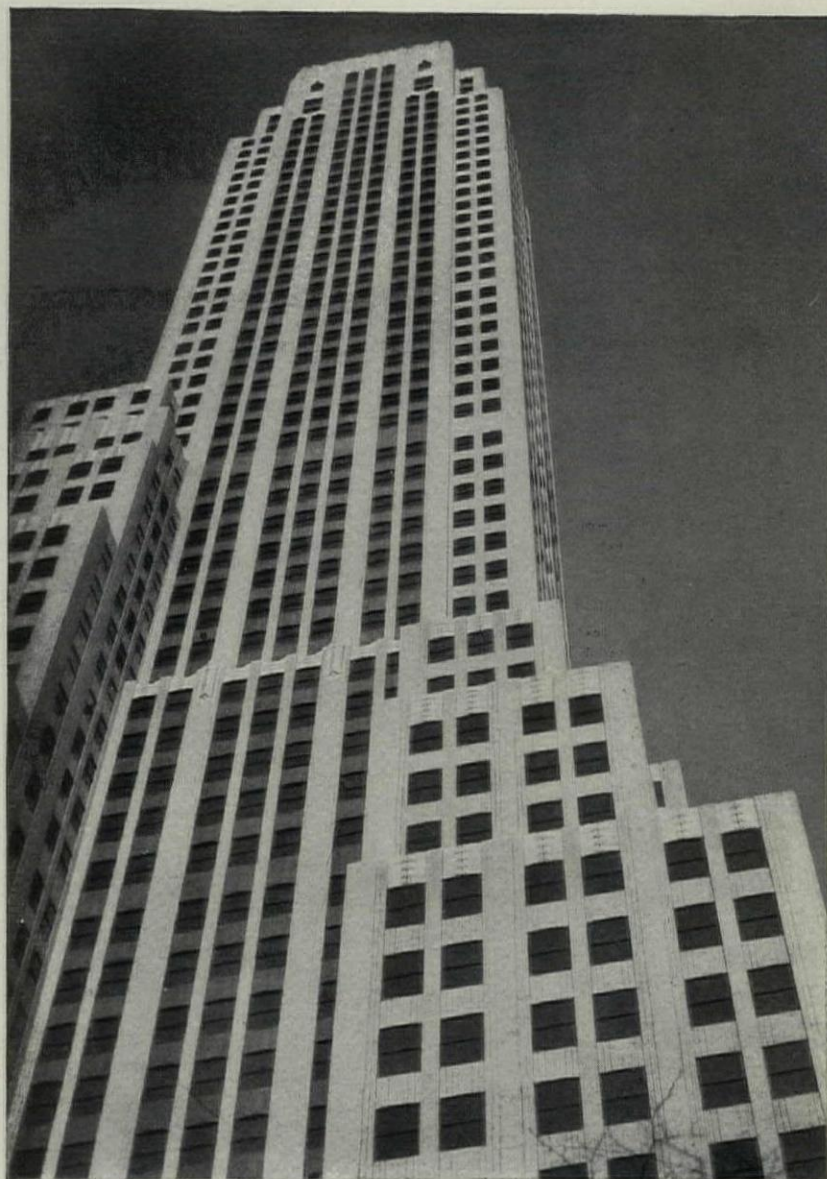
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To the Architect engaged in designing a commercial building, Atlantic Terra Cotta offers two most commendable qualities. One is the ability to achieve an attractiveness that will make the building desirable to prospective tenants. The other attribute is that of lower cost. Far from being expensive, Atlantic Terra Cotta frequently costs less than materials less colorful, less enduring, less economical in erection. ♦ ♦ A glorious array of colors is available in Atlantic Terra Cotta, and color will dominate future buildings. Silver, gold, polychrome—beautiful effects without limitation. ♦ ♦ And now a new development—mechanically made Atlantic Terra Cotta Wall Units for lining corridors and other interior wall surfaces at interesting lower prices.

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ATLANTIC TERRA COTTA CO., 19 WEST 44th STREET, NEW YORK

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Landmarks of Modern Protection

THE CAMDEN COUNTY COURT HOUSE AND CITY HALL



A. D. T. Night Watch and Fire Alarm Systems were specified by the Architects Edwards & Green, Camden, N. J. General Contractor: F. W. Mark Construction Company, Philadelphia, Pa. Electrical Contractor: Franks & Sweeney, Camden, New Jersey

MUNICIPAL buildings need protection as much as large office buildings and factories. In fact, the loss of a few minutes in case of fire—or a watchman's failure might result in irreparable damage.

The A. D. T. combined watch and fire alarm system enables the tenants to send a coded alarm showing exact location of the fire, reduces the

number of watchmen required and provides a continuous, positive check on their activities.

A. D. T. equipment has been specified for most of the newest, biggest and best buildings, and a total of 22 billion dollars worth of property.

Systems designed, built and maintained by A. D. T. are also available for Sprinkler System Supervision, and Vault and Holdup Protection. See Sweets Catalog or write for bulletins.

Controlled Companies of
American District Telegraph Company
155 Sixth Avenue, New York, N. Y.

No Open Seams, No Raw Edges,

on these

FLUSH PARTITIONS

F LUSH partitions are generally specified where the thought of appearance is uppermost in the architect's mind. The modern tendency is to prefer the simple, rectangular lines and absence of sound afforded by partitions of the flush type. Flush partitions find their way to specifications largely because of superior appearance, and it is logical for the architect to choose that type of flush partition which represents the highest ideal.

Flush Weisteel toilet and dressing room compartments and hospital cubicles permit the architect to do this very thing. There are no open seams, no raw edges in Flush Weisteel construction. There are no seams or corners which depend upon a filler for smoothness. The illustration to the left makes the method of Flush Weisteel construction quite clear. From it you can readily see why there can be no equal to Flush Weisteel.

You will find full details in the twenty-two page Weis catalog, beginning at page B-2921, in *Sweet's Architectural Catalog* for 1931. We shall be glad to make it possible for you to inspect either an actual installation or a sample section of Flush Weisteel so that you may more readily visualize the outstanding features of this unique construction.

FLUSH
WEISTEEL

HENRY WEIS MANUFACTURING COMPANY INC.
ELKHART (Established 1876) INDIANA



RU-BER-OID BUILT-UP ROOFS ARE USED THE WORLD OVER

Around the world—wherever you may go, there is universal confidence in RU-BER-OID Built-up Roofs. This is evidenced by the large number of schools, hotels, apartments, industrial and public buildings protected with RU-BER-OID Built-up Roofs, in every corner of the earth.

RU-BER-OID flexible specifications in Asbestos, Coal Tar Pitch and Felt, or Asphalt meet any condition of climate, atmosphere, unusual wear or roof design. Their price range makes them attractive for any work. Their service record is proved over a long period of years.

Bonded Roofs provide the architect, builder and owner with a guarantee

both as to workmanship and material for 10, 15 or 20 years according to the specification used. These roofs are applied only by approved roofing contractors of known ability, and the guarantee is backed by a National Surety Company Bond.

For your convenience you will find a complete catalog of RU-BER-OID Built-up Roof specifications bound in the 1931 edition of Sweet's. Should you desire supplementary information or face a roofing problem resulting from unusual conditions, there is an engineering department in each of the offices listed below which is at your service.



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REMEMBER—we will swing into line with all our facilities as readily and as earnestly on a job involving half a dozen Raymond Concrete Piles as on one where a thousand or more are only a portion of the whole work. Experienced architects, engineers and owners know this for fact, in the light of actual experience. It involves you in no way to have us submit data...



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546 Standard Piles—12,618 lin. ft.
144 Stub Piles—1,579 lin. ft.

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"A FORM FOR EVERY PILE — A PILE FOR EVERY PURPOSE"

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A Pile for Every Purpose

Now more than ever

the economy of the

10 POUND PRECAST
ROOF DECK

gives

Featherweight Concrete
INSULATING ROOF SLABS

(MADE OF HAYDITE AGGREGATE)

precedence over
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because of

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MILLIONS OF SQUARE FEET IN USE

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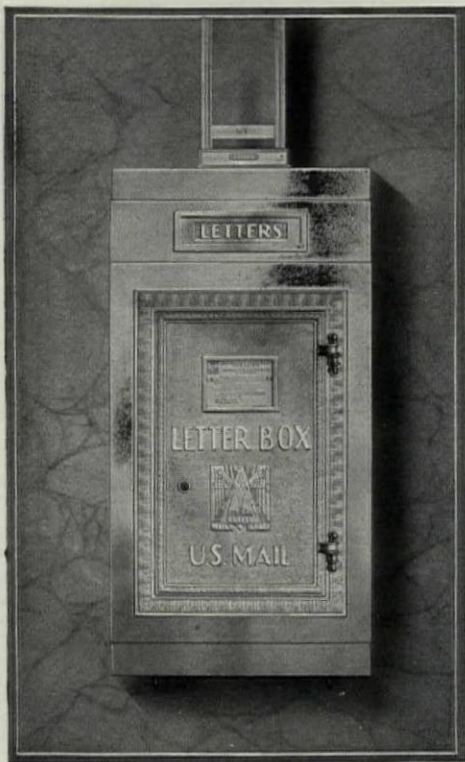
FEDERAL-AMERICAN
CEMENT TILE CO.

Executive Offices: 608 South Dearborn Street Chicago
Plants near CHICAGO . NEW YORK . PITTSBURGH . BIRMINGHAM
FOR OVER A QUARTER CENTURY

THE CUTLER MAIL CHUTE

The achievement of fifty years' experience in meeting the exacting demands of Post Office and Public use. Manufactured in our own Factory—built, equipped and operated for this purpose exclusively. The only such Factory in the world.

The business is limited and restricted by stringent Postal Regulations, but centered in one establishment it is possible to maintain the organization necessary to give to our customers, the public, and the Post Office Department a quality of work and service satisfactory to them, and to us.



Stock Design 4083
Aluminum

This also justifies the employment of specially designed machinery by which the highest standard of quality is maintained, and the cost of production reduced to the lowest possible level.

Buildings in which large quantities of mail originate are provided with two or more Mail Chutes usually installed in twin form. Recent refinements in the twin construction have reduced the space occupied and greatly improved its appearance.

The Mail Box, which is an integral part of the equipment is furnished in a variety of forms, either from stock or special designs. By the use in part, of stock models and patterns special Architectural requirements

can be met at moderate cost. Expert advice, full information and estimates will be gladly given on request.

CUTLER MAIL CHUTE COMPANY

J. WARREN CUTLER, President

GENERAL OFFICES AND FACTORY, ROCHESTER, N. Y.

KEWANEE

STEEL BOILERS

The "Good Name" Kewanee makes it the most acceptable boiler built

Kewanee is one of the best established heating boilers—with 65 years of boiler building prestige. It is also the *most acceptable boiler built*.

Acceptable because of its Kewanee workmanship: Even the best materials cannot stand the stress and strain to which all equipment in buildings of today is subjected unless responsible and skilled supervision is used in fabricating them.

Acceptable because it is adaptable for any fuel—Coal, Oil or Gas: And its design is such that a conversion from one to another and back again offers no complications.

Acceptable because its more careful engineering and advanced design insures to owners that economy in the use of fuel which is so necessary to successful building operations.

KEWANEE BOILER CORPORATION

division of American Radiator & Standard Sanitary Corporation

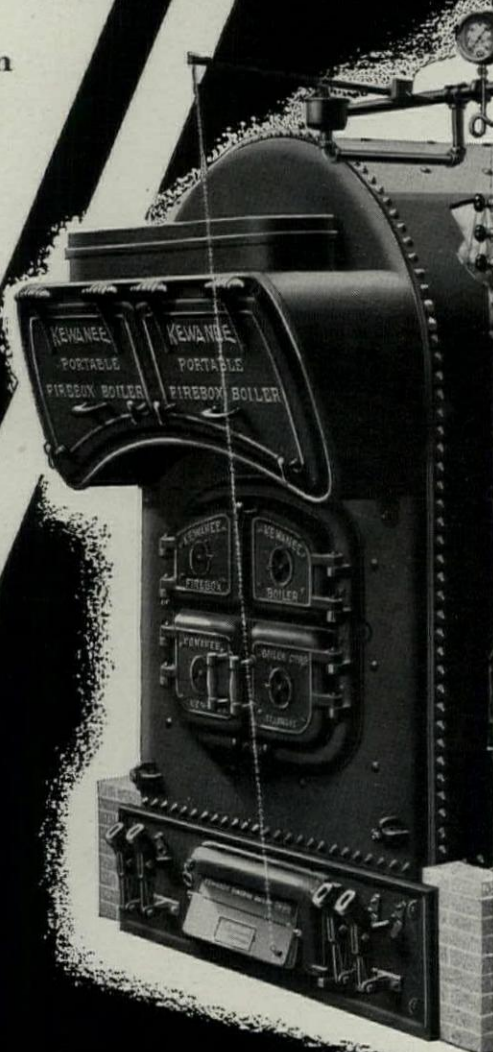
KEWANEE, ILLINOIS Branches in Principal Cities

MEMBER OF STEEL HEATING BOILER INSTITUTE

Steel plus Rivets equals Strength

For Big Buildings or Small Buildings: In capacities ranging from 370 to 36,000 square feet of radiation, for Coal, Oil or Gas.

**Experience Proves—
It Costs Less to OWN a KEWANEE**





He Chases Grim Shadows From Thirsty Lips with This New Fountain

In this fountain, the Clow Soldier of Sanitation has created an artificial, refreshing spring that is as safe and fool-proof as human ingenuity can make it. Every drinker is carefully guarded from possible contamination of lips that drank before.

The owner is protected against the mischievousness and irresponsibility which every public plumbing feature must meet.

The angle stream has its source beneath a protecting hood under which lips cannot get. That source is well above the top level of the waste bowl. Should the waste become clogged, willfully or accidentally, the waste water can never reach the drinking stream spout, to carry contamination to a drinker's lips.

The stream cannot be squirted by mischievous children. Place a finger over the

opening, and the water merely runs down into the bowl and into the waste, because of exclusive Clow double opening design.

Thus the Clow Soldier of Sanitation gives you a new drinking fountain, which more than meets every health specification or recommendation.

What he has done here is typical of his work to defeat high costs and the grim ghosts of insanitation.

The fountain pictured is available in either pedestal or wall-hung types.



The Clow Soldier of Sanitation is working for you in the Clow Plant as well as in the field. New designs, refinements, careful testing are his contributions. In the picture you see Joe Wade, East Grand Rapids, Mich.—Central Michigan Territory.

CLOW

CHICAGO

PREFERRED FOR EXACTING PLUMBING SINCE 1878

Consult your architect



What! No Throttle?

Just imagine
driving a car
that had only
two speeds,
Stop and Go!
Ridiculous
isn't it—
racing along
the highway at
80 miles per hour
then stop, dead!

Yet that is
exactly the way
lots of folks
are attempting
to control
heating systems,
with no choice
between feast

or famine;
between
full heat
and
no heat.

The steam consumption of heating systems and the comfort of the occupants are both very definitely related to the method of controlling the heating system. The "Stop, Go" kind of control *alone* is hardly adequate.

Effective heat control demands first of all a **CONTROLLABLE** heating system, one in which the supply of heat can be varied at will from nothing at all to maximum by minute degrees just as you control the speed of your car by a slight pressure on the throttle.

A Heating System and Control for Every Need and Every Purpose

Heating requirements vary so widely that no one type of heating system or no one control can be expected to provide comfort, economy and maximum investment return for all types and sizes of buildings. Realizing this, Warren Webster & Company have consistently developed an entire group of Webster Systems of Steam Heating together with effective central controls which function with the smoothness of the throttle on your favorite "8".

Learn about these Webster Systems and Controls

IMPROVED Webster Vacuum System provides distribution balanced from the start—the supply of steam to each radiator is so equalized that all radiators get steam at the same time and in substantially the same propor-

tion regardless of distance from the boiler. Here is a **CONTROLLABLE** vacuum system!

HYLO Vacuum Variator Control applied to an Improved Webster Vacuum System gives the building operator a *throttle* to adjust heat delivery from maximum down to less than one-third of maximum. Where semi-automatic operation is desirable, the HYLO may be supplemented by an exclusive Webster key room thermostatic control.

IMPROVED Type "R" System for residences and larger buildings gives advantages of steam with advantages of hot water, but without hot water limitations. Distribution balanced from the start—fully **CONTROL-LABLE** by a choice of control means depending on the needs of the installation.

Webster MODERATOR Control—applicable to *all* types of Webster Systems (5,000 sq. ft. and upward). Provides the ultimate in control—a *single centrally located gradual acting control*—automatic Roof Thermostat takes care of all factors for which automatic regulation is suitable; supplementary *manual* control provides amazing flexibility to meet unexpected operating conditions. The MODERATOR System actually puts your building under "Control-by-the-Weather".

Full details of any or all the above systems and controls on request.

Warren Webster & Company, Camden, N.J.
Pioneers of the Vacuum System of Steam Heating
Branches in 60 Principal U. S. Cities
Darling Bros., Ltd., Montreal, Canada
a 161

-since 1888
Webster
**Systems of
Steam Heating**

This is one of a series of advertisements discussing the subject of heating system control. The purpose of the series is to call attention to the need for adequate control and operation of heating systems, and to the control equipment and operating methods developed by Warren Webster & Company. Ask a Webster steam heating specialist to discuss with you this vitally important subject.

BEST BROS.
FAST FINISH
KEENE'S CEMENT

Quality plus Speed

FOR more than 40 years Best Bros. Keene's Cement Company has enjoyed the cooperation and friendship of architects throughout the nation. Since the beginning, we have aimed toward a closer relationship and a better understanding with the members of that profession.

As methods change and progress surges onward, we will keep apace. We will continue to welcome the suggestions of architects in an effort to better serve in the building material field.

And we still believe . . . as a line in our advertisements states . . . that "An Architect is an Investment, Not an Expense".

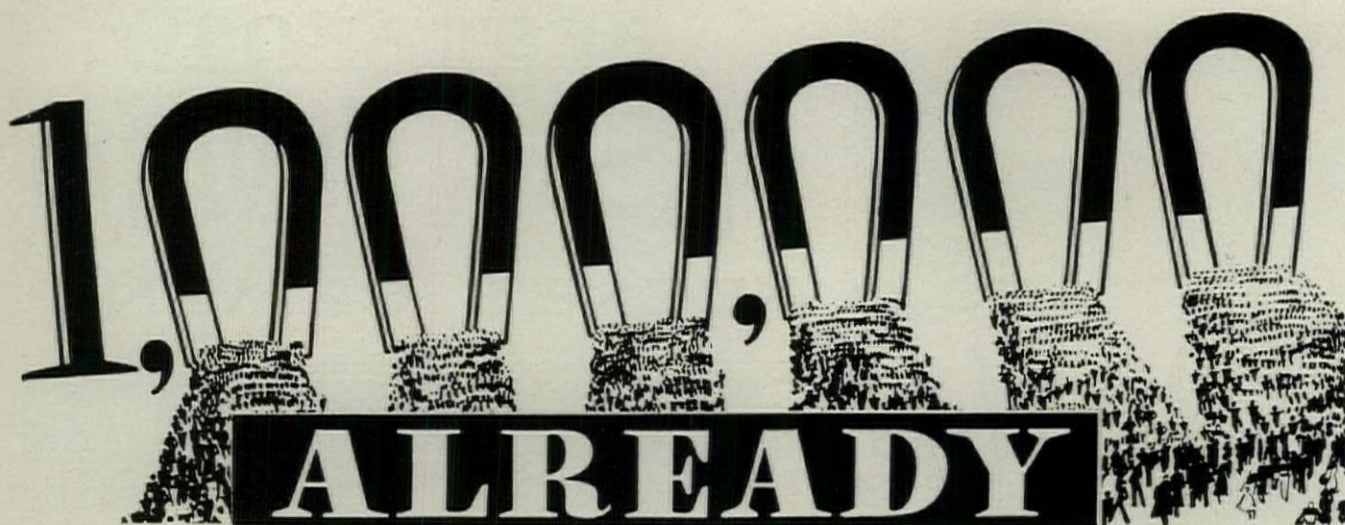
BEST BROS. KEENE'S CEMENT CO.

1040 W. 2nd Ave.

Medicine Lodge, Kans.

SALES OFFICES IN: NEW YORK CHICAGO CLEVELAND ST. LOUIS
 SAN FRANCISCO KANSAS CITY WASHINGTON





Architects Helped Create this Record-Breaking Acceptance

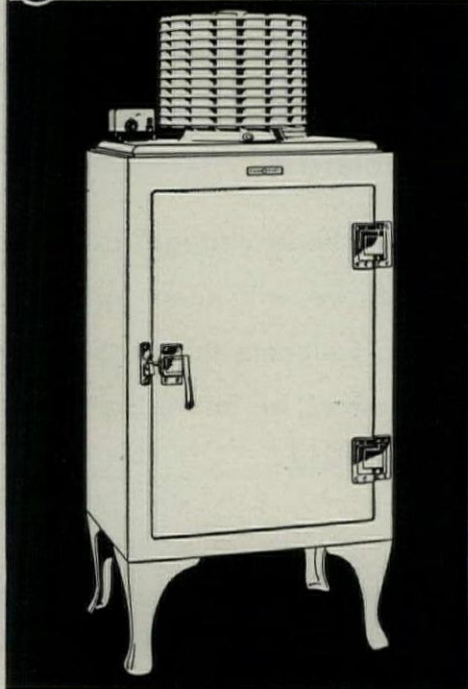
THE General Electric name was old and trusted when the General Electric Refrigerator was young. Architects well knew what to expect of General Electric. Therefore they promptly gave this refrigerator broadest professional approval. Today their judgment and faith have been richly confirmed. Their example—their expert opinion—has been a chief factor in record-breaking General Electric acceptance.

In June, 1927 The General Electric Refrigerator was unknown. Now there are more than a million satisfied users. And today the trend is accelerating. For a broad 3-Year Guarantee on the entire refrigerator now forecasts the continued economy *and surety* made possible by the famous current-saving Monitor Top mechanism—hermetically sealed—self-oiled—quiet—clean—safe from air, dirt, moisture and tinkering. Refinements also have been added, *and prices are lower.*

Specify economy, investment insurance, and freedom from refrigeration concern. That is what clients understand when you specify General Electric.

Expert Refrigeration Plan Service is available. Address Section CP6, Electric Refrigeration Department, General Electric Co., Hanna Bldg., 1400 Euclid Ave., Cleveland, O.

3 YEAR GUARANTEE



Join us in the General Electric Program, broadcast every Saturday evening, on a nation-wide N. B. C. network.

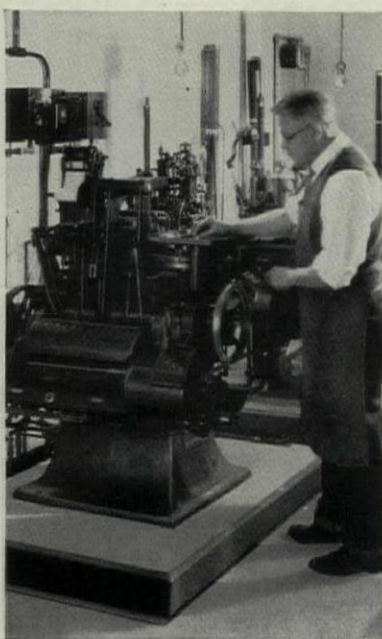


GENERAL  ELECTRIC
ALL-STEEL REFRIGERATOR

APARTMENT HOUSE, DOMESTIC, AND COMMERCIAL REFRIGERATORS • ELECTRIC WATER COOLERS



USG SOUND INSULATIVE DOORS are practical and highly efficient in preventing the transmission of disturbing noises between rooms.



USG SOUND INSULATIVE MACHINE BASES are designed to absorb vibration and prevent the transmission of noise caused by machinery.



ACOUSTONE, the USG Acoustical Tile, creates a more comfortable noise level while providing beautiful and harmonious decorative designs.

These USG Sound Control Materials Will Meet Your Exact Requirements

A Message to Architects from the United States Gypsum Company

ARCHITECTS who recommend and specify materials and methods for controlling sound often desire advice from trained acoustical experts. It is for this reason that the United States Gypsum Company maintains a complete Sound Control Service. Its purpose is to help architects diagnose the need for various types of sound control and prescribe the most practical and economical corrective measures.

The three materials pictured above illustrate a few of the many USG acoustical products. No matter what type of sound control you may need—auditorium correc-

tion, noise abatement, sound insulation or their combinations—the United States Gypsum Company supplies materials and methods of construction to meet your requirements. They include:

USG Sound Insulative Doors to prevent the transmission of noise from one room to another.

USG Sound Insulative Machine Bases to prevent the spread of noise caused by vibrating machinery.

The USG System of Sound Insulation to prevent noise from being carried through floors, walls and ceilings.

Acoustone, the USG Acoustical Tile, and Sabinite Acoustical Plaster to create a satisfactory acoustical condition, and to absorb disturbing noise created in business offices, restaurants, hospitals, schools, etc.

Whenever you believe sound control may be advantageous in old or new

buildings, we invite you to consult a USG Sound Control Engineer. He is trained to analyze the need for controlling sound, to *predict* definite results and recommend ways for attaining them. On all jobs assigned to us, we supply the materials and supervise their installation, thus relieving architects of all details and assuring undivided responsibility for the completed job.

Complete data on USG Sound Control Materials may be found in Sweet's Catalogue. For further information, or for an appointment with a USG Sound Control Engineer, please write to us. United States Gypsum Company, Dept. 286, 300 West Adams Street, Chicago, Illinois. In Canada: Dominion Gypsum Company, Ltd., Toronto, Ontario.

USG SOUND CONTROL SERVICE

Auditorium Correction—Noise Abatement—Sound Insulation

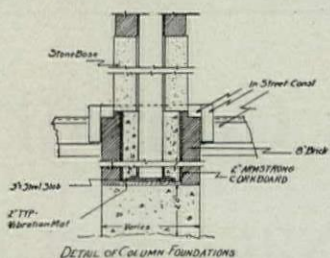
You can solve many Building Problems with **CORK**

A few of them are shown on this and the following page . . . Many other uses are being employed daily by architects

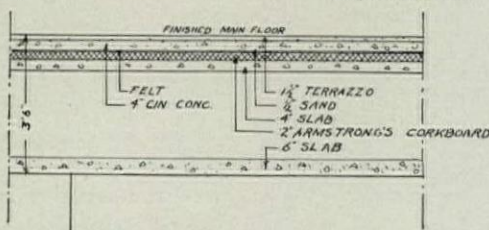
CORK CUSHIONS BUFFALO R. R. TERMINAL

VIBRATION is not admitted to the Buffalo passenger terminal of the New York Central Railroad. Columns and floors over track levels and over streets are sheathed with 2-inch layers of cork. Cork also insulates the passenger concourse and waiting room against outside temperatures. The sketches here show how it was applied.

Wherever moving machinery causes vibration, cork muffles both the vibration and the noise that accompanies it. Whole buildings can be isolated with Armstrong's Vibracork as well as all types of machinery.



The sketch above shows detail of insulation around columns; that below, detail of floor construction.



FLOOR CONSTRUCTION UNDER PASSENGER BRIDGE

CORK KEEPS DRINKING WATER COOL



Armstrong's Cork Covering insulates these drinking water lines at the Kansas City Athletic Club, Kansas City, Mo.

Cool drinking water, in adequate quantity and of good quality, is imperative in modern buildings.

Guests in hotels, tenants of office buildings and apartments, visitors to public buildings, students in school, and workers in shops, mills, stores, and factories are entitled to easy access to cool, wholesome, palatable water.

Armstrong's Cork Covering is the ideal insulation for refrigerated drinking water systems and all cold lines. It prevents refrigeration loss, is durable, easily applied, and presents a neat finished appearance.

CORK QUIETS BROADCASTING ROOMS

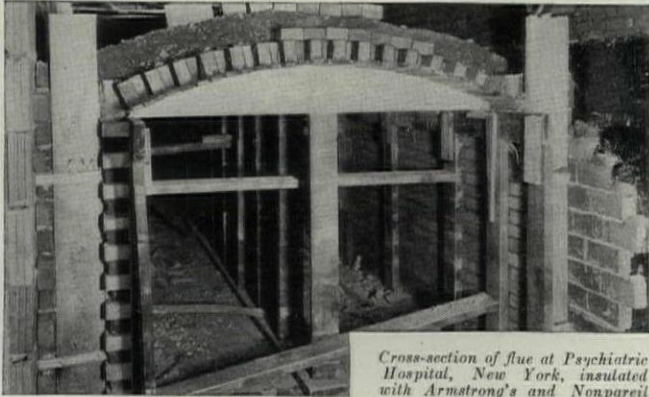
Air-borne sounds yield to the quieting influence of Armstrong's Corkoustic. For instance, radio station WCFL in Chicago is completely quieted by cork panels on the walls and ceilings.

Corkoustic is more than just a practical acoustical treatment. It insulates as well. And it lends itself to many decorative designs. Used either plain or with water paints, Corkoustic is a distinct aid in decoration.



Above: Generator Room of WCFL, where Corkoustic walls and ceilings cut down sound.

Left: Studio of station WCFL, insulated and quieted with Armstrong's Corkoustic. Cork tile quiets the floor, too.



Cross-section of flue at Psychiatric Hospital, New York, insulated with Armstrong's and Nonpareil Insulating Brick.

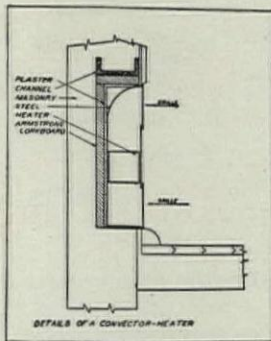
INSULATING BRICK LINE N. Y. HOSPITAL FLUE

New York's Psychiatric Hospital has lined a huge flue and stack with a layer of Nonpareil Insulating Brick, which forms a barrier that keeps heat away from patients' rooms.

Armstrong's and Nonpareil Insulating Brick are widely used for insulation of industrial furnaces. Armstrong's Insulating Brick are recommended for temperatures up to 2500° F.; Nonpareil up to 1600° F. Both Armstrong's and Nonpareil Insulating Brick are machine-sized to insure tight joints. Both brick are structurally strong.

CORKBOARD INSULATES RADIATOR RECESSES

In modern structures radiator recesses are insulated with Armstrong's Corkboard. Walls must be kept thin to save space. But the thinner the walls, the more heat is lost through them — unless its passage is stopped. Heat must be thrown into the room to be effective — not conducted outdoors by brick or steel. Because of its insulating efficiency and durability, architects are choosing Armstrong's Corkboard to perform this new function in modern office buildings throughout the country. Permanent insulat-



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

ing efficiency is assured when Armstrong's Corkboard Insulation is specified. Corkboard not only has a low coefficient of thermal conductivity but also a high resistance to moisture. Structural strength, light weight, and ease of application are added advantages.

CORK GUARDS SERUMS AND VACCINES IN LILLY PLANT

Right: These are some of the products made by the Eli Lilly Company and held at constant temperatures by Armstrong's Corkboard Insulation.



Left: Another view of the Eli Lilly laboratory in Indianapolis, showing insulated refrigerator door.

The world-famous Eli Lilly Company of Indianapolis, manufactures serums, vaccines, and other pharmaceutical supplies. Constant temperature is imperative. So Armstrong's Corkboard guards the Eli Lilly plant against temperature changes. Temperature charts show how well this task is accomplished — recording a variance of only two degrees.

There are many other important and practical uses of cork being employed daily by architects. Many times Armstrong engineers are called in to recommend the proper methods of installation. They would welcome an opportunity to help you.

Bring your files up-to-date with recent copies of bulletins on Armstrong products. We'll gladly send them to you—address Armstrong Cork & Insulation Company, 902 Concord Street, Lancaster, Pennsylvania.

Armstrong's
A
Product

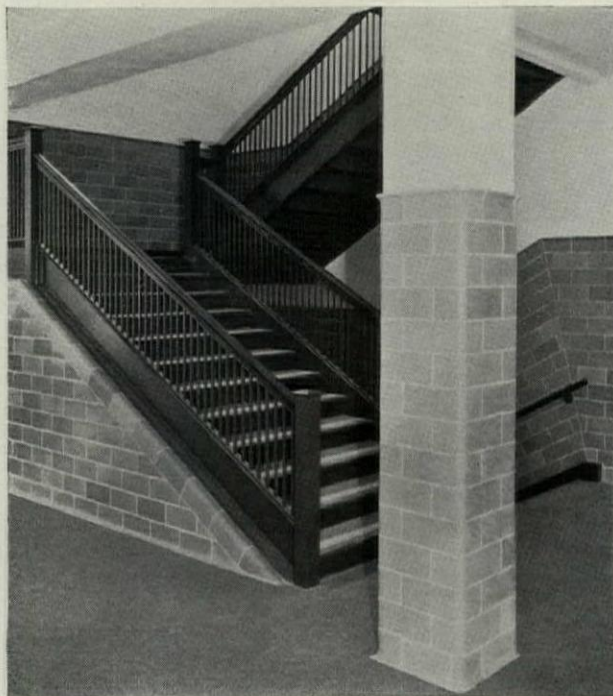
Armstrong Cork & Insulation Company

CORKBOARD . . CORK COVERING . . VIBRACORK . . CORKOUSTIC . . INSULATING BRICK

THE PRESENT DOLLAR MEASURES THE COST—THE FUTURE DOLLAR THE PROFIT

FOR BUILDINGS
WITH A FUTURE —
THIS MATERIAL
WITH A PAST

Natco
VITRITILE



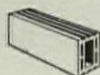
NATCO Vitritile is a structural unit for interior

or exterior



load bearing and non-load-bearing walls

charming shades and colors, both plain



and mottled



and partitions. Ranges of

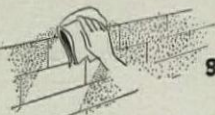
lend color harmony and interest. Faces are

glazed—and all glazing is high-fired, in temperatures of 2000°



and more. Natco Vitritile resists the attacks

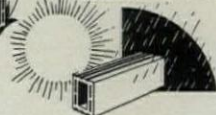
of dirt,



grease, chemicals



weathering



and time



. A com-

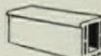
prehensive line of shapes



corners



wainscots



cove base



and so on provide

for all structural needs. Each piece is enclosed in a carton



insuring its arrival in first-class condition.

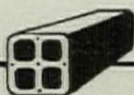
Wherever sanitation, permanence, freedom from maintenance and outstanding attractiveness are factors, Natco Vitritile is the logical material.

Natco Vitritile has a place somewhere in every building, everywhere in some buildings. It has only to be seen for a multitude of uses to suggest themselves; its field of use is practically unlimited. Send for a catalog . . . or turn to Sweets, A-677-730.

NATCO

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STRUCTURAL CLAY TILE

NATIONAL
FIREPROOFING
CORPORATION



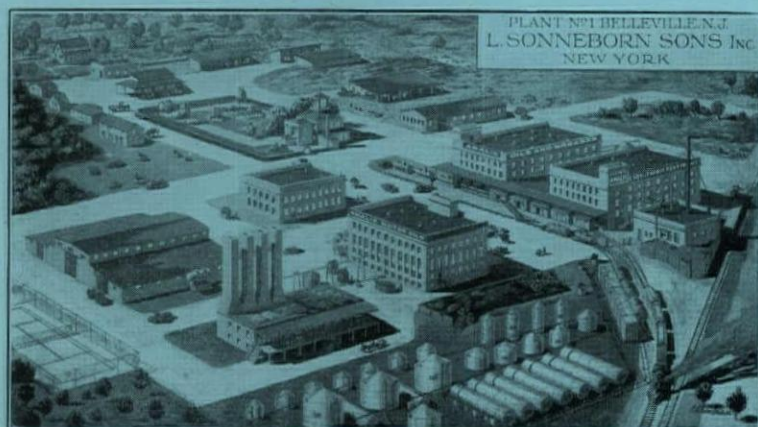
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cables in mason-
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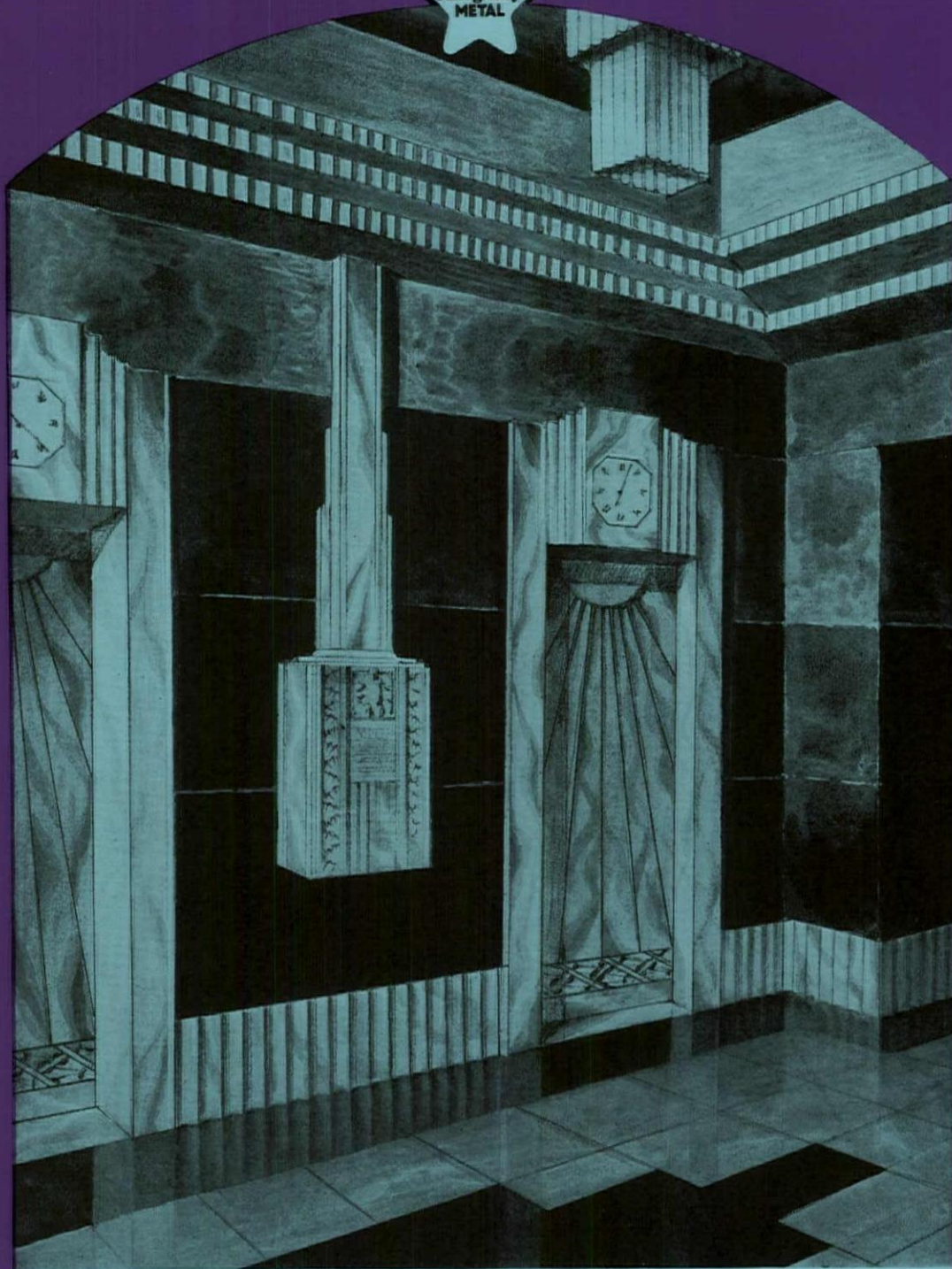
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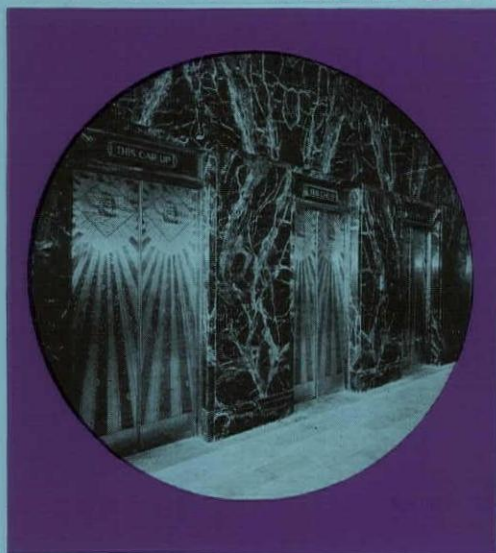
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has barely been touched. Dozens
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more effective results.

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dark blue glass throughout the lobby. And the subject

range of finishes. You can make it mirror smooth for
brilliant bands of light. Use it dull for dignity in design.
Etch it with any pattern to harmonize. Alternate
Allegheny Metal with brass, copper or black glass for
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On the opposite page you'll find the characteristics of
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by
SMYSER-ROYER



IN choosing exterior lighting fixtures for important structures, architects and owners regard craftsmanship in stock patterns and dependable reproduction of original designs as the first requisites. The growing preference for Smyser-Royer fixtures is proof of dependability and craftsmanship established through their 91 years of unfailing service to architects, builders and owners.

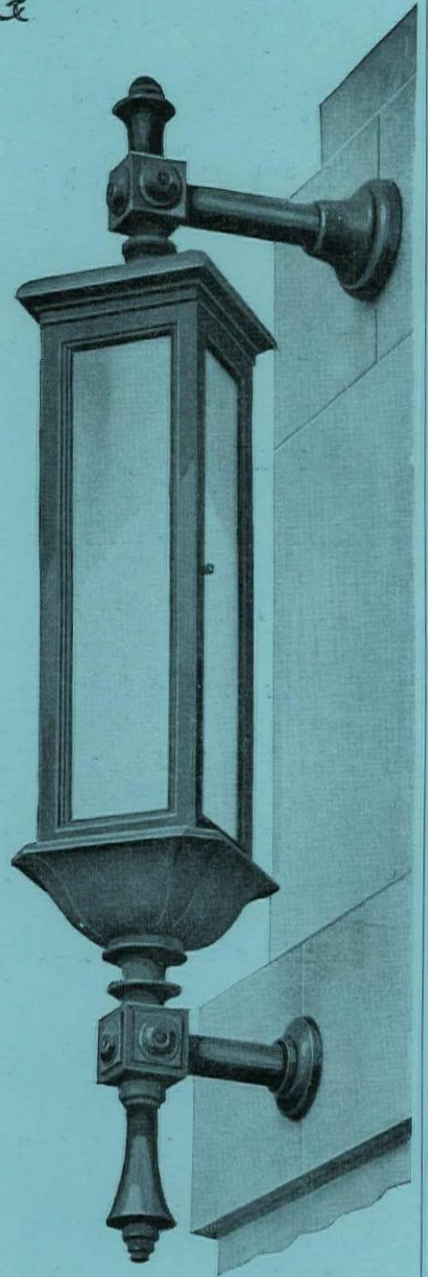
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SMYSER-ROYER COMPANY

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New Pennsylvania R. R. Station,
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Over-all height 10' 6 3/4"
Extreme projection 3' 5 1/2"
Body of lantern 1' 5" square
Top wall plate . . . 12 3/8" diameter
Lower wall plate 10 1/2" diameter

Lantern Design by Paul P. Cret,
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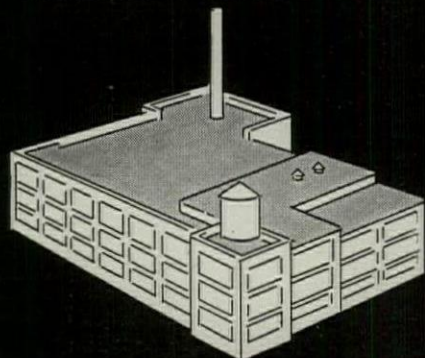
Rail Steel Bar Association, Builders Bldg., Chicago

RAIL STEEL

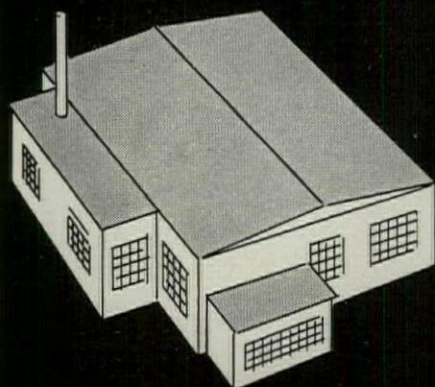
for concrete reinforcing

SPECIFY

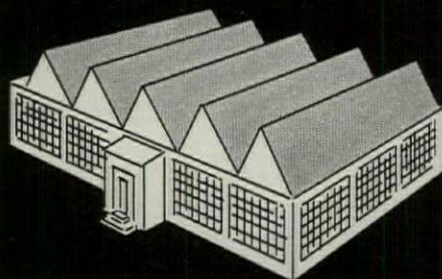
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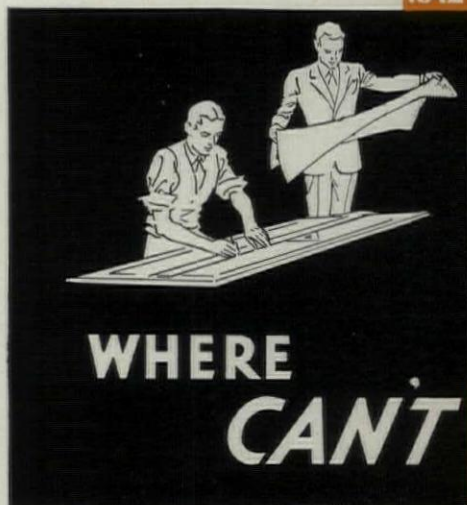
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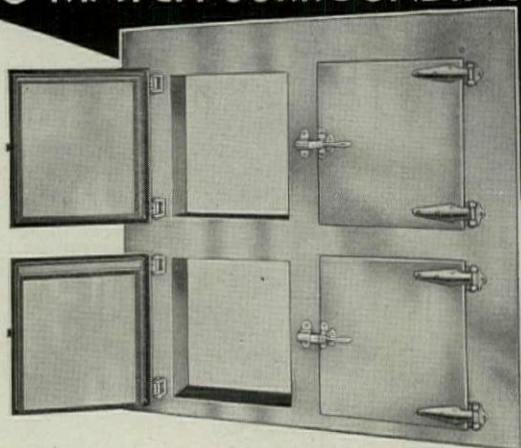
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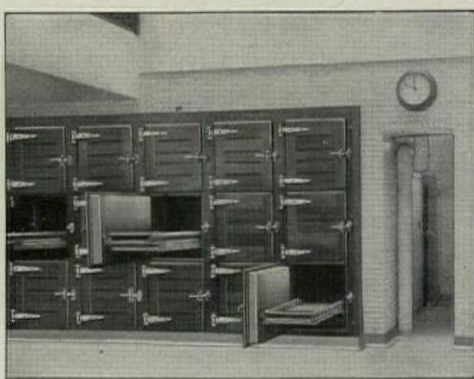
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HAMLIN
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Behind this door the ordinary noises of hallways, elevators, children's ward, nursery—in fact any noise common in public buildings, ceases and becomes only a soft murmur.

Hamlin Sound-Proof Doors are used in hospitals, sanitariums, colleges of music, gymnasiums, office buildings, broadcasting stations, hotels, etc., in all parts of the country. We match the finish of other doors.

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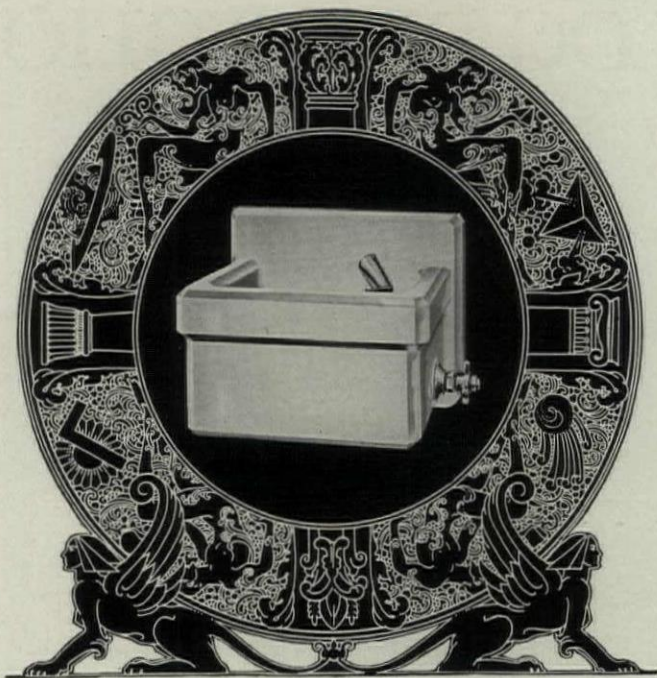
Our Catalog
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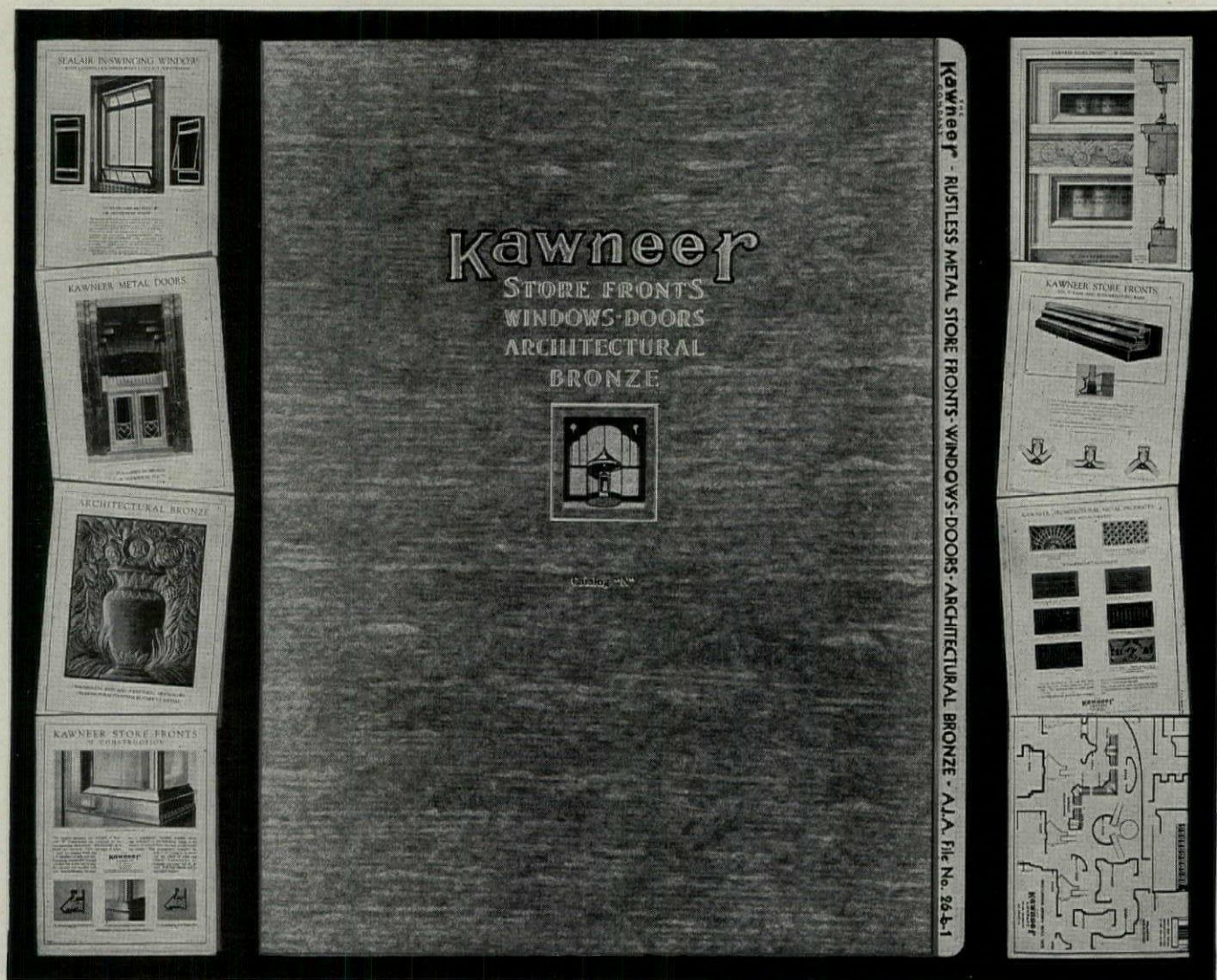
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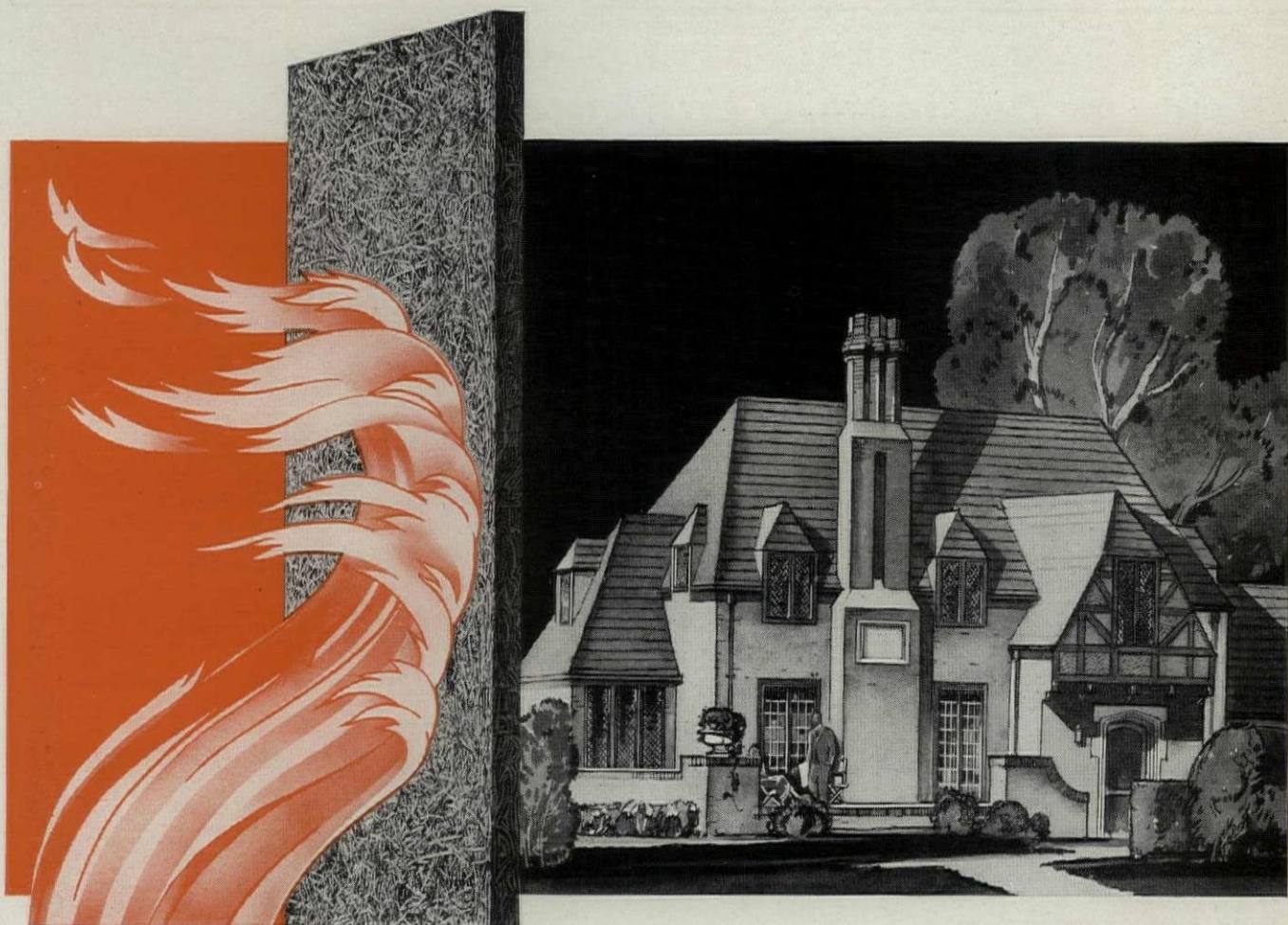
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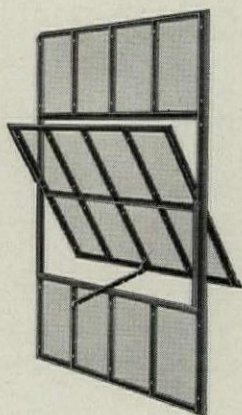
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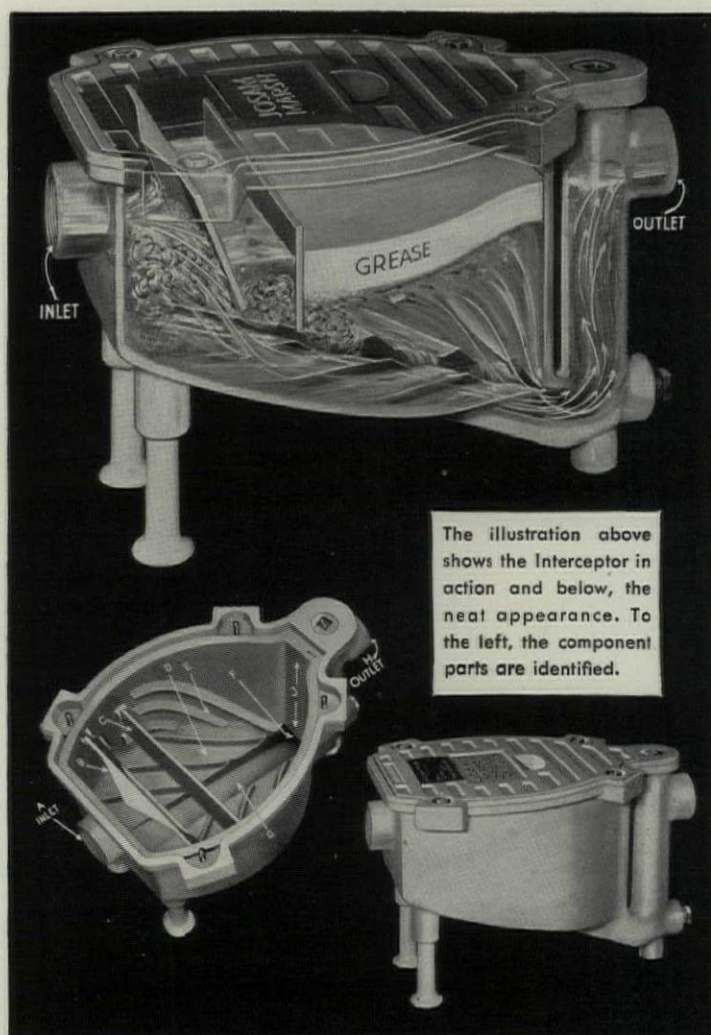
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for thorough grease interception



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Marsh**

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4908 Euclid Building

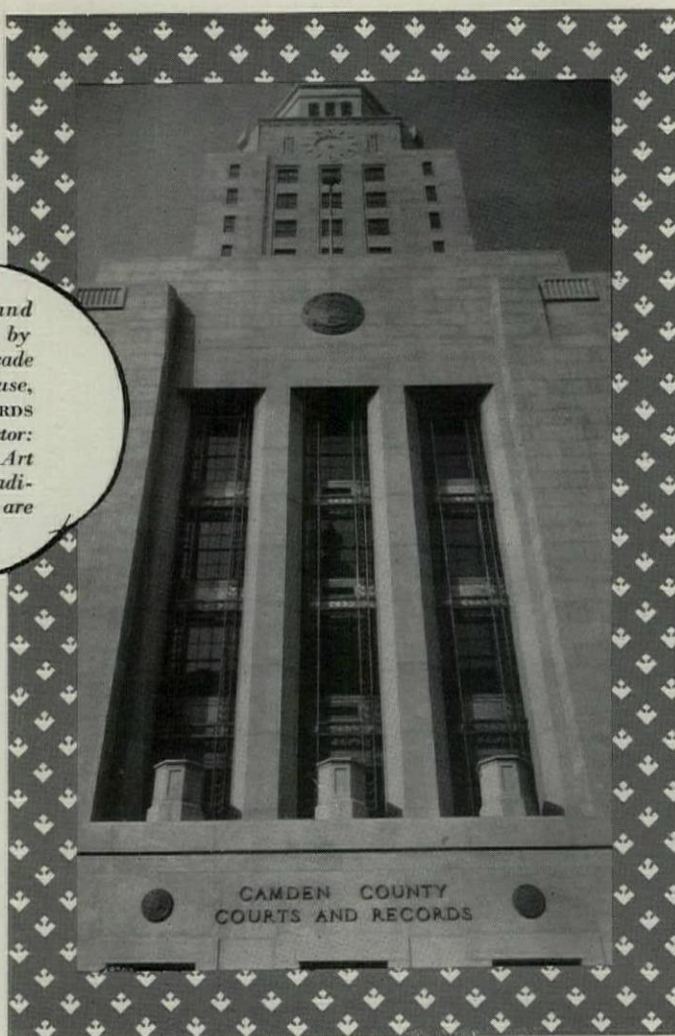
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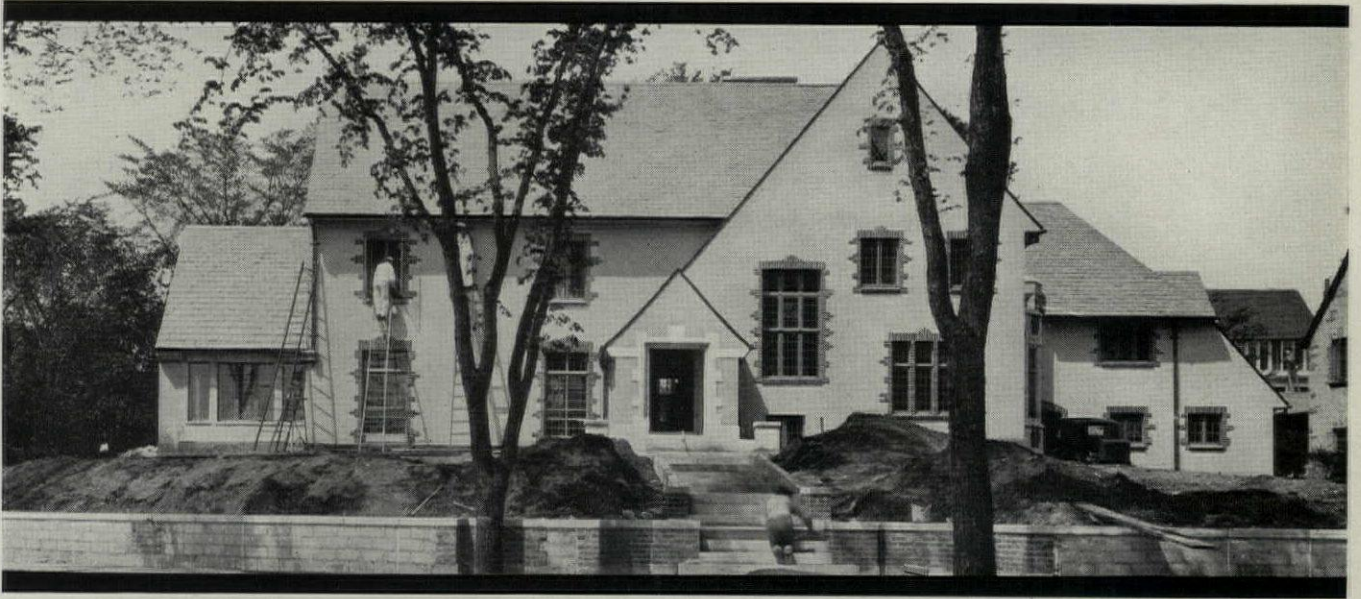
EVEN IF YOU LIVED IN CHINA, or Berlin, or Brazil, we'd not need to send you pictures of Art Metal installations. We could tell you where to walk to see them with your own two eyes. That promise holds for San Francisco or New York,

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Art Metal
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Jamestown, N. Y.

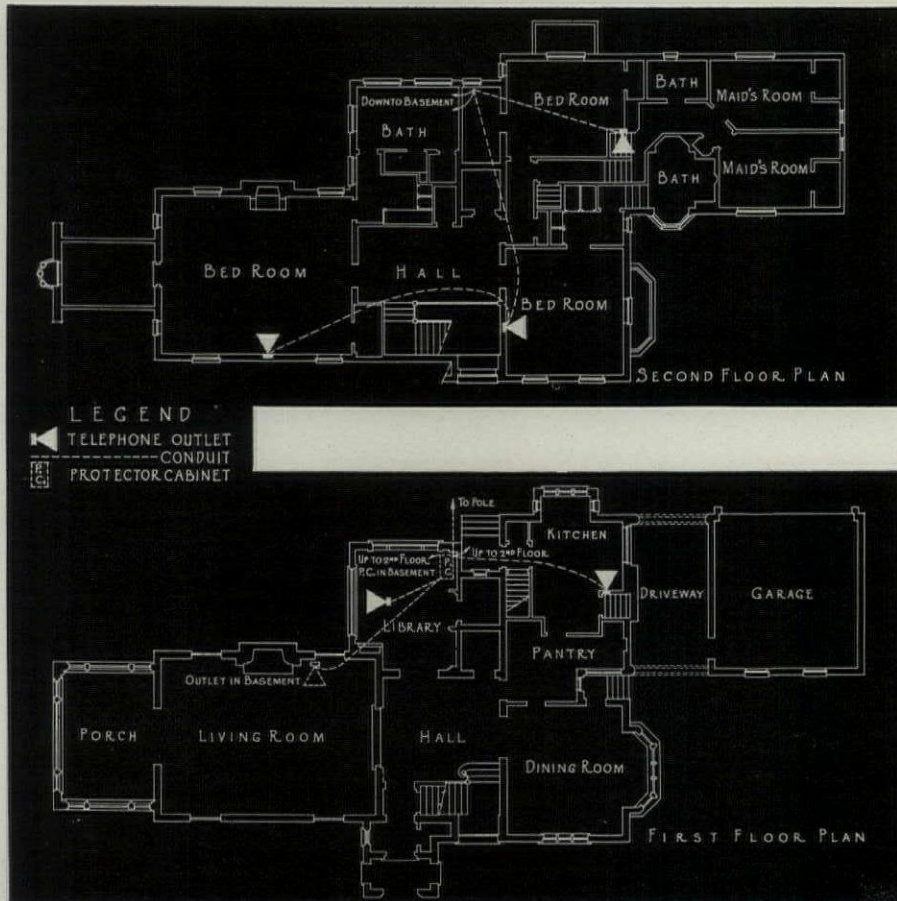
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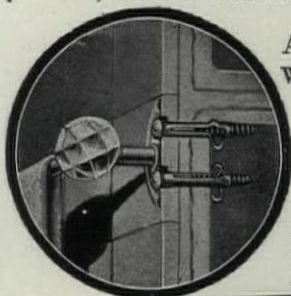
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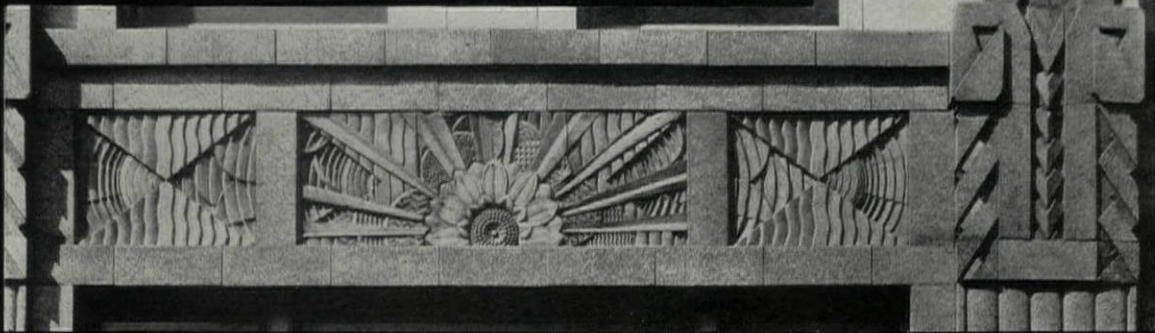
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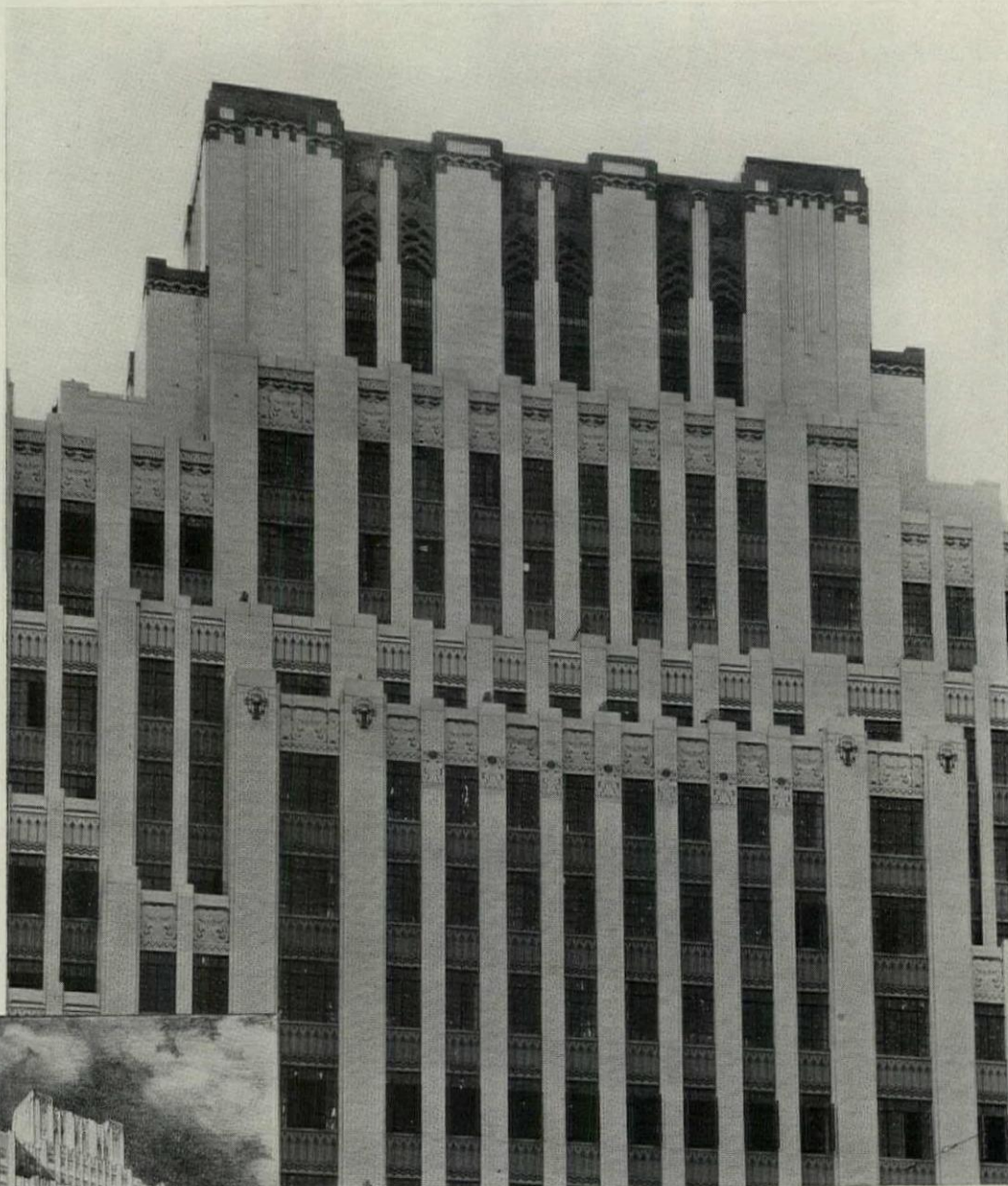


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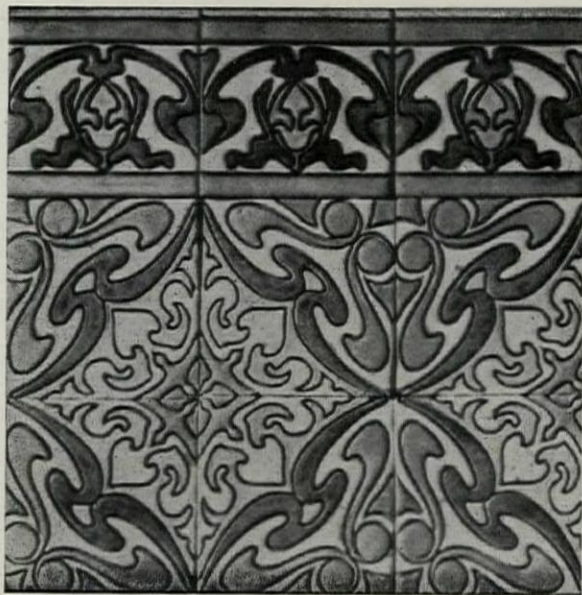
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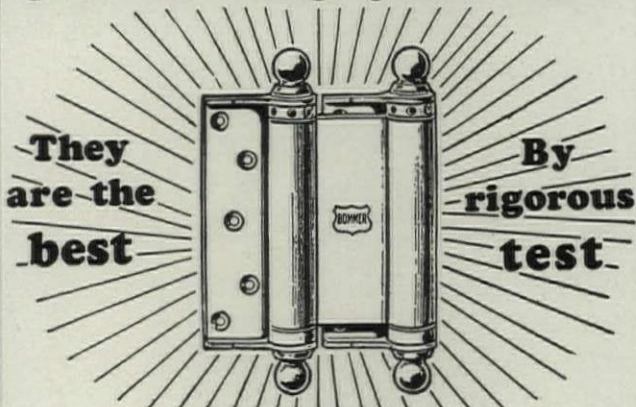
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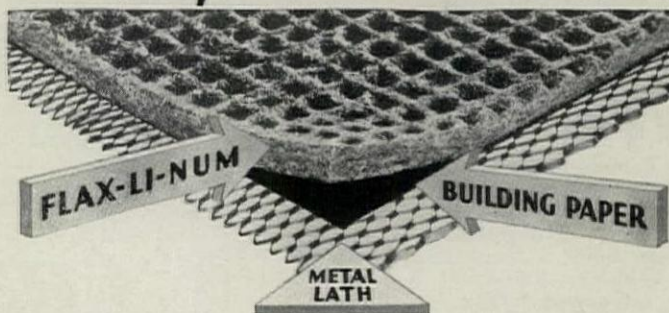
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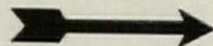
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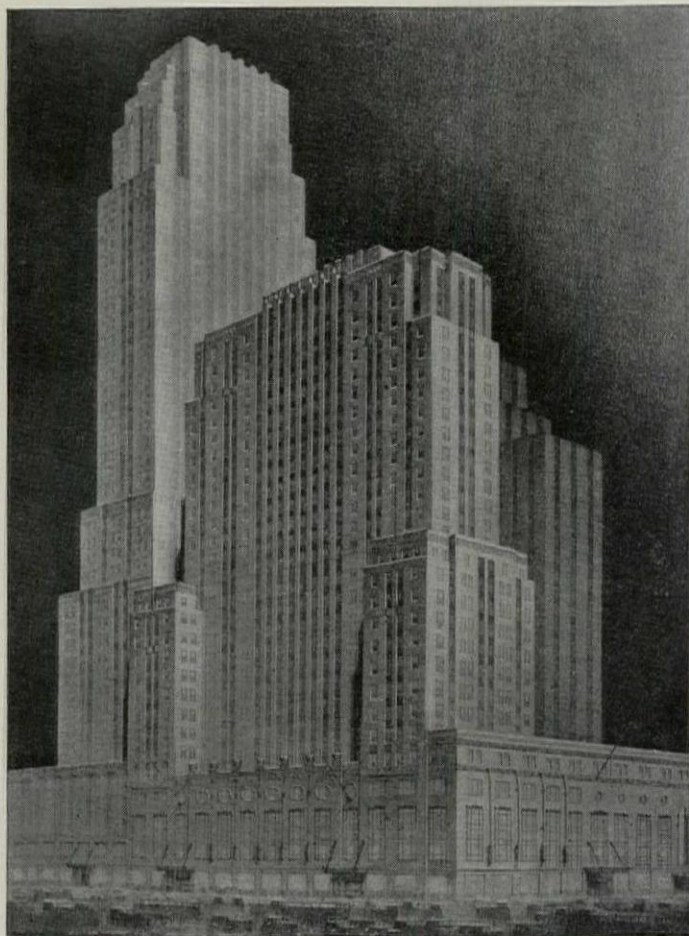
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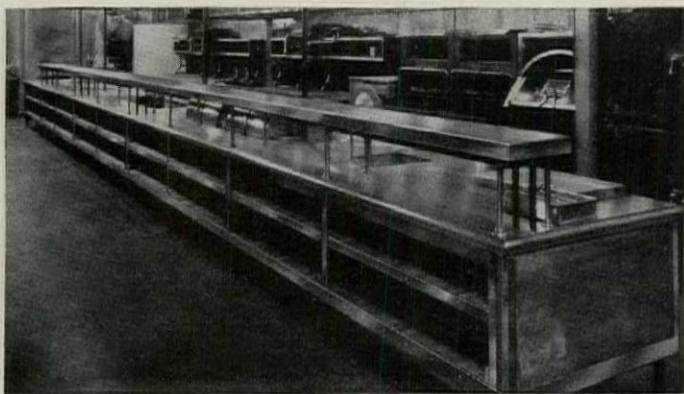
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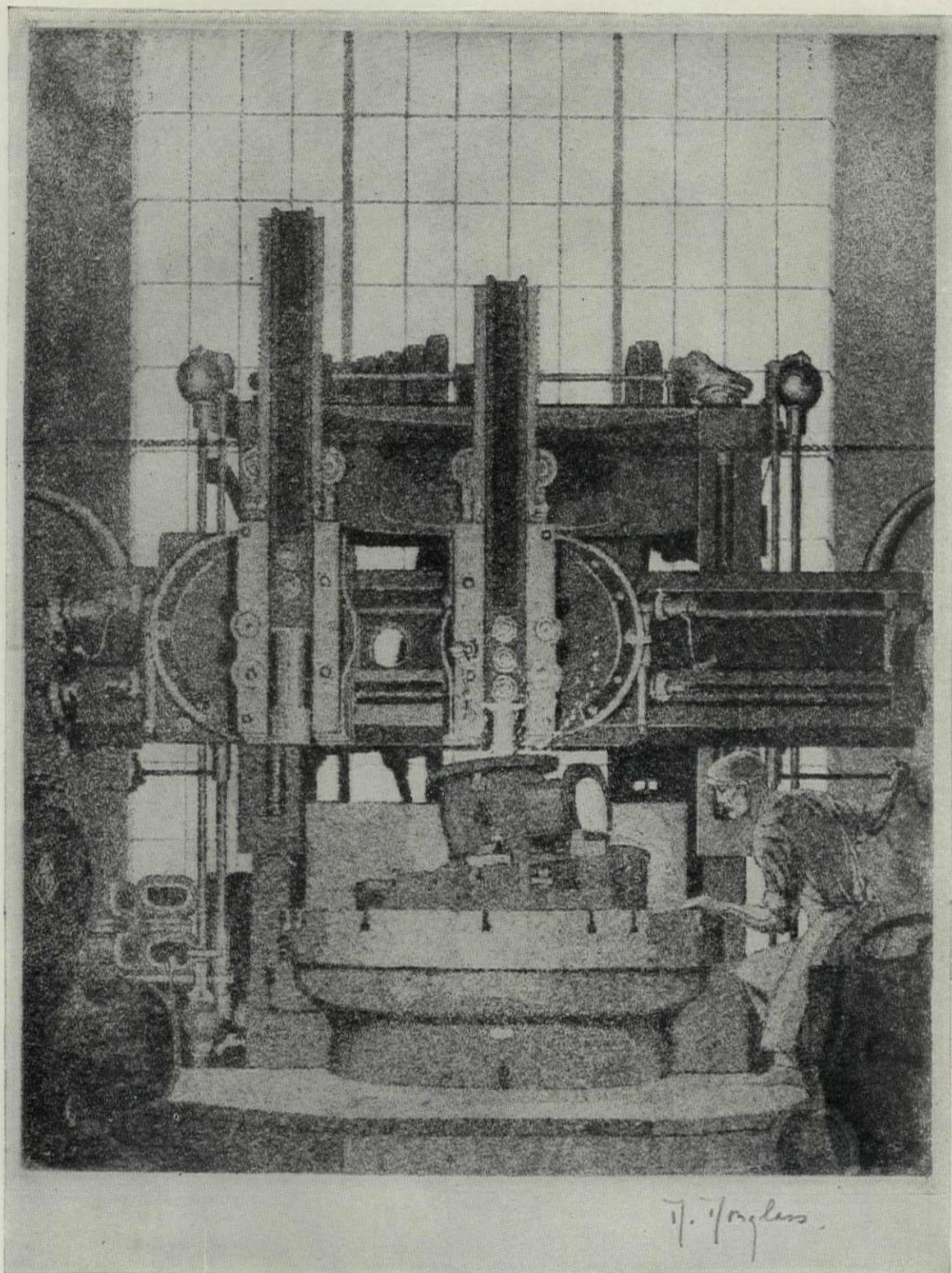
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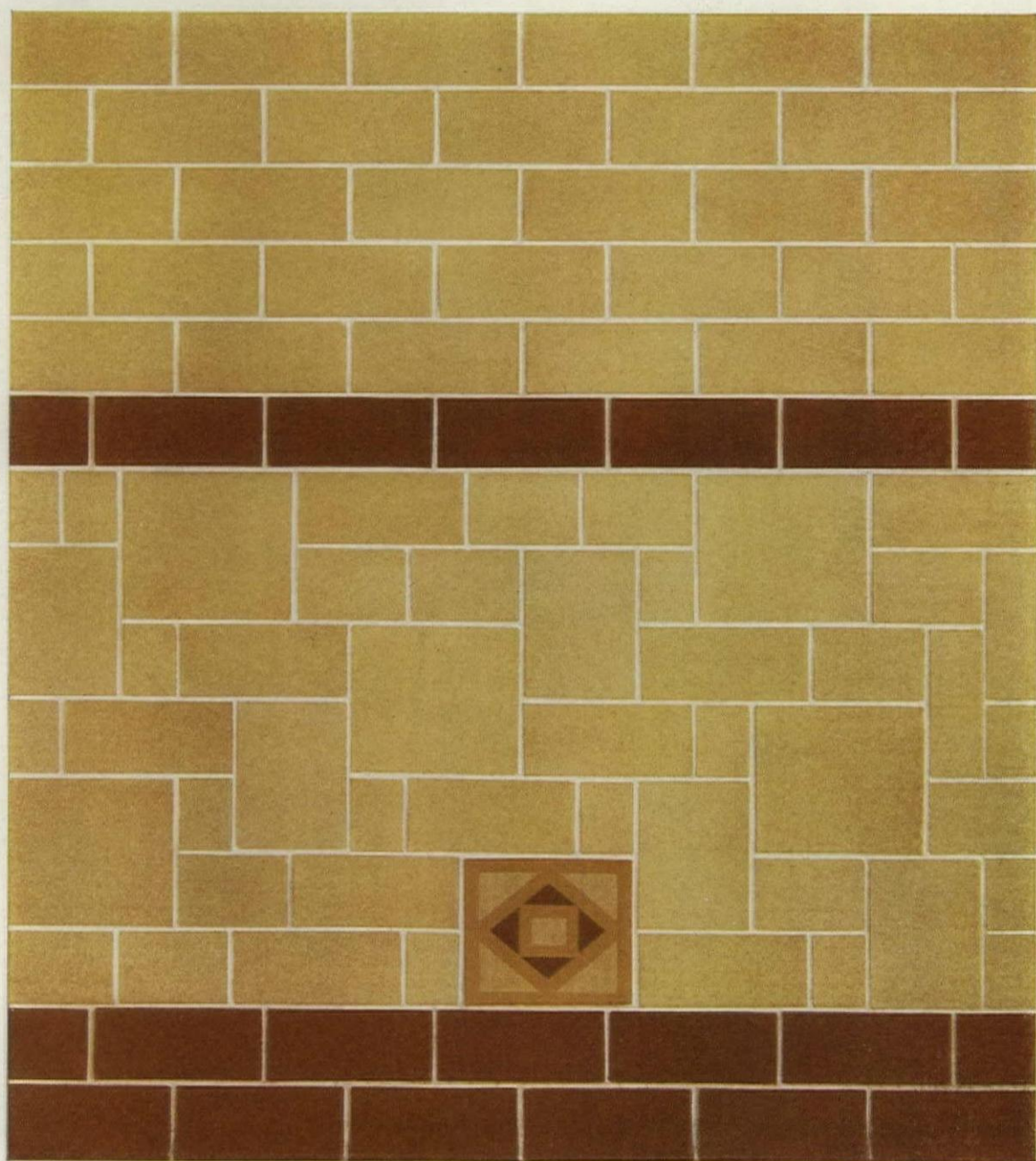
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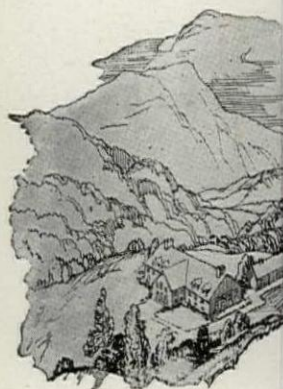
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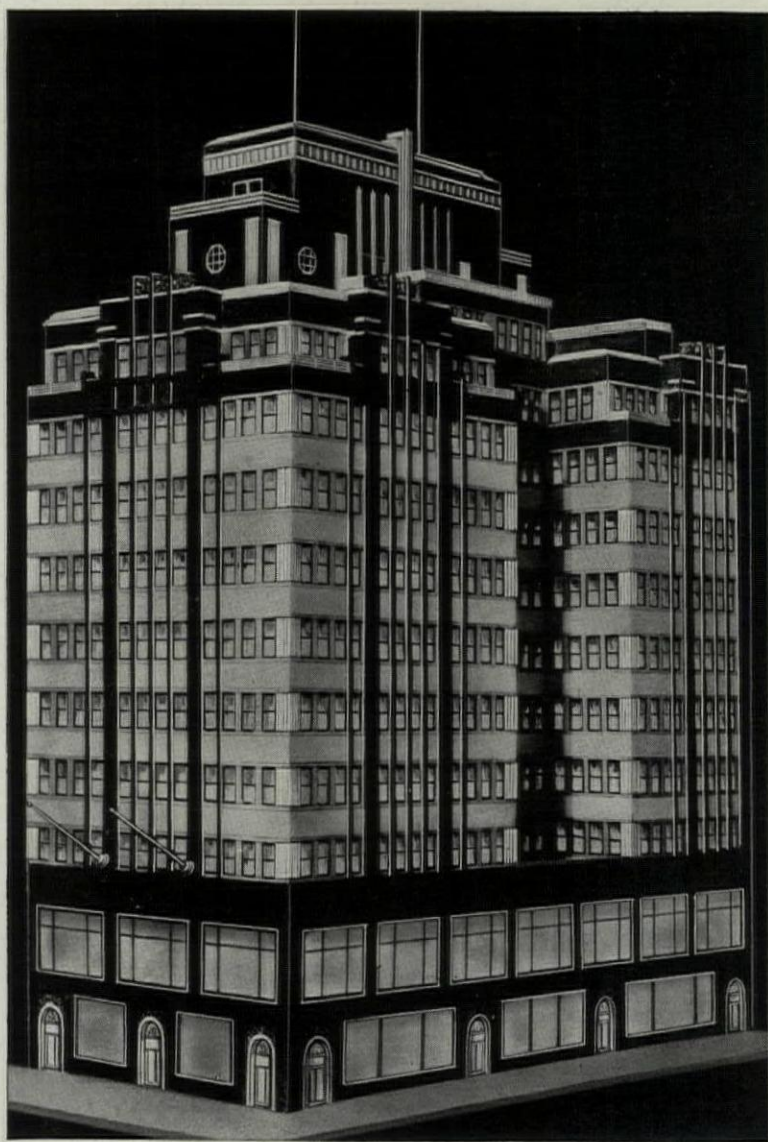
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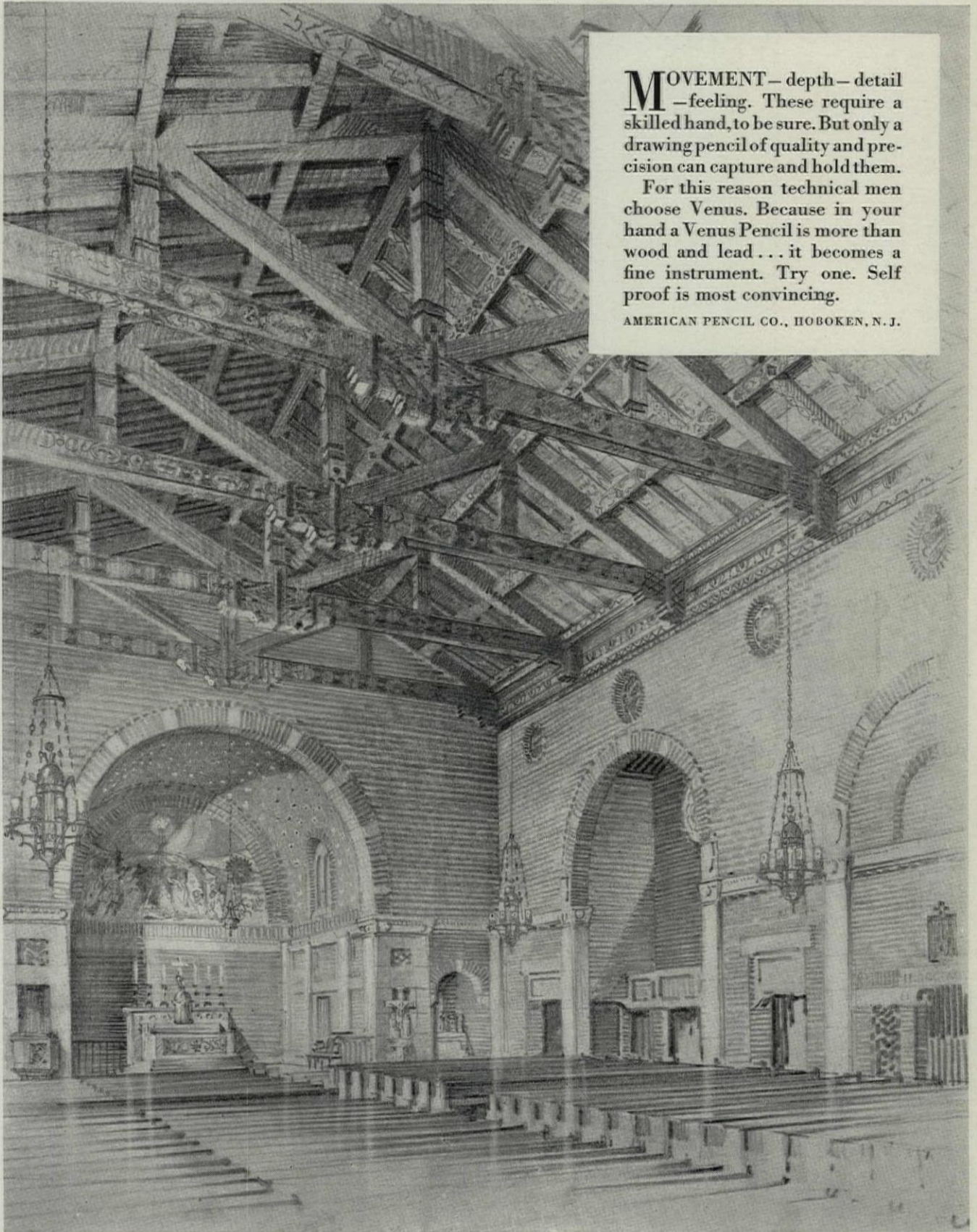
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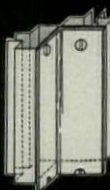
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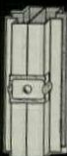
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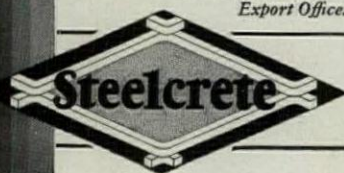
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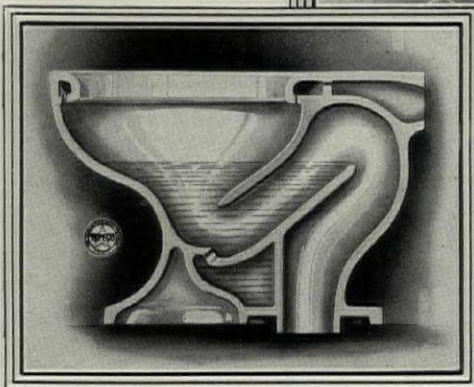
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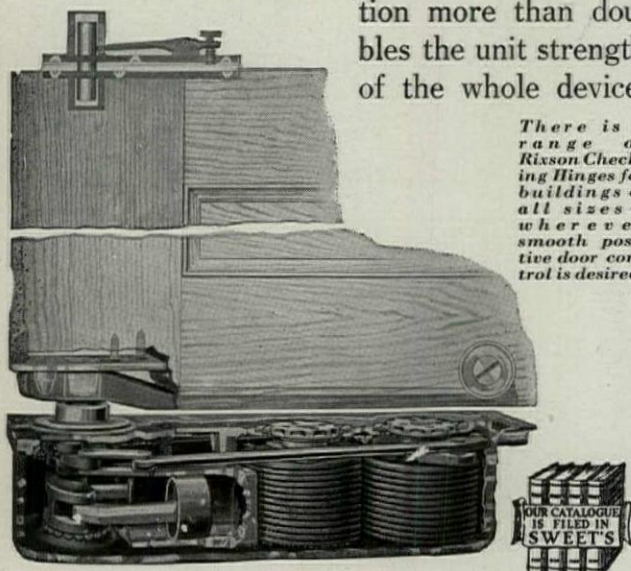
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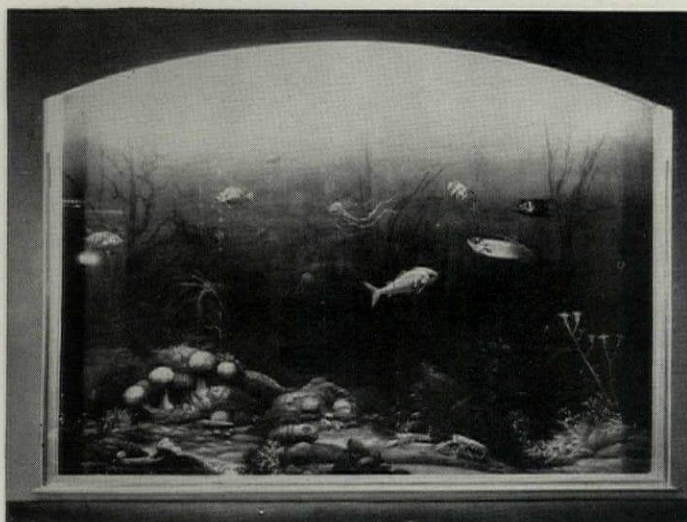


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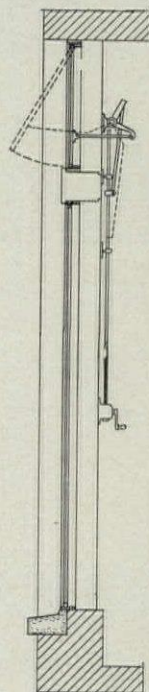


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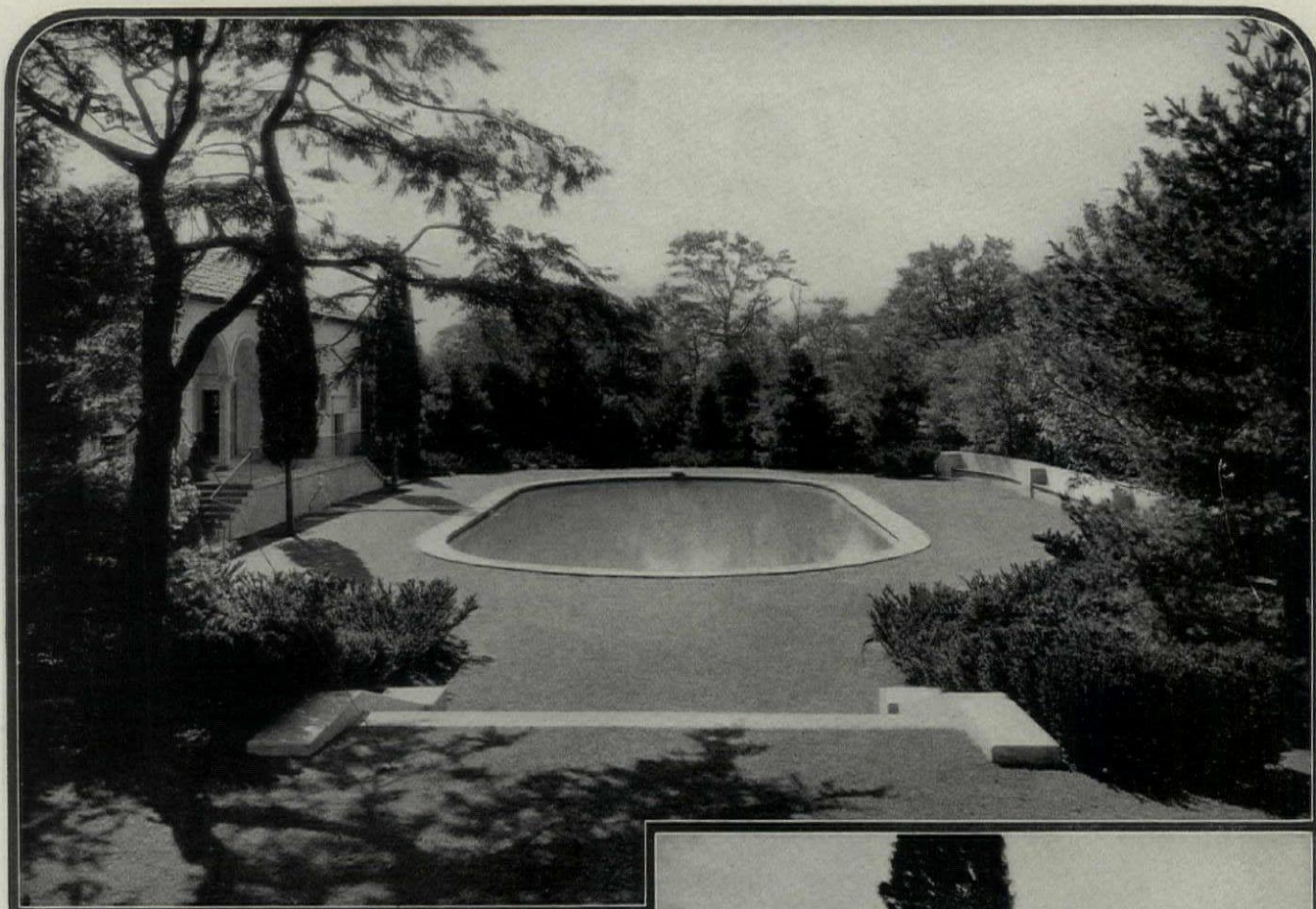
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Taking Account of Stock

As we begin the twelfth year of PENCIL POINTS (the first issue was published in June, 1920) we may perhaps be pardoned for looking back with a degree of pride over the years of its growth from a little sheet of twenty-four pages including advertisements to its present size. And not only have we increased in size but the PENCIL POINTS family of readers has grown, too, until today, wherever we go, we find architects, draftsmen, specification writers and students who, although we may never have met them in person before, seem like old friends. They tell us how they have watched us grow, how they have enjoyed and made use of the material we have published. As one architect put it, PENCIL POINTS has become the "family journal" of the architectural profession in this country—the common meeting point of its members of all ages, from the head of the firm down to the office boy, from the *patron* of the atelier down to the greenest *nouveau*. Naturally we are gratified, for we feel as though we have had some small part, through furnishing a medium for the interchange of ideas, in bringing about a closer relationship between architects, draftsmen, teachers, and students in all parts of the country—all of them essential to a great profession.

As we think about this thing and wonder upon the causes for our steady growth we cannot but feel that no small part of it is due to the feeling of friendliness for all that we have tried to cherish since we started the magazine and that we always expect to hold. And it is the reaction of our readers to this friendliness, their helpful cooperation, that has made us grow. To you, our readers, we owe in large part the success of the magazine and to you we are grateful for what you have contributed, not only in the way of drawings, articles, and other material for publication but in the form of ideas and suggestions for our improvement.

Now, what about the future? Napoleon at one time, after listening to one of his young officers tell what he had done to help win a certain battle, is said to have remarked, "Fine! But what are you going to do tomorrow?" It is what we are all going to accomplish tomorrow that concerns us rather than what we have already done. And with your help we are going to try to keep on growing in usefulness and service to the whole profession. We hardly need say that we are going to continue to publish articles designed to be as helpful as possible to each of the three major groups we reach—architects, draftsmen, and students. For the architect we will have material which will endeavor to help him in the securing of business and in the administration of his office. For the designer and draftsman we will have articles on design, the tech-

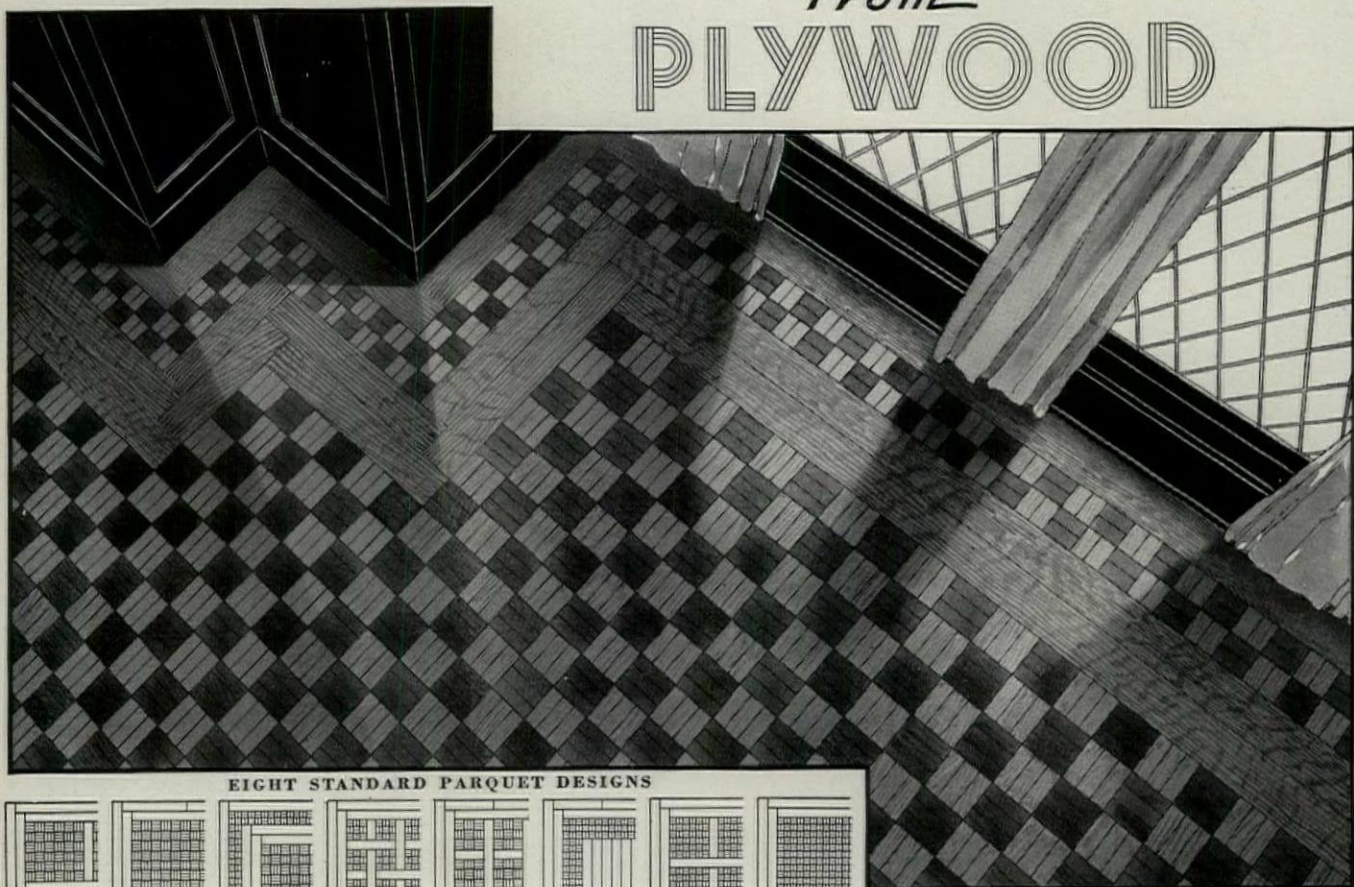
nique of all branches of draftsmanship, good practice in construction, the architectural uses of materials, and the writing of specifications. The student will be interested in much of this material also but in addition will get other things which will help him in his advancement—historical data to develop his background, news and results of competitions, travel information and the like. At the present time we have on hand, ready to print, enough articles to fill the issues for the balance of this year:—on the draftsmanship of such men as the late Harrison Clarke of Los Angeles, Thomas Ewing King of Detroit and Toledo, Jean Hebrard of the University of Pennsylvania, Ernest W. Watson of Brooklyn, New York, and others; on the problems arising in small house design and construction; on estimating; on the problems of using various new materials or old materials in new ways. We have continuations of the series by Professor Harbeson, Ernest Irving Freese, Philip G. Knobloch, and Francis S. Swales. We have illustrated articles on such diverse miscellaneous subjects as the Pueblo architecture of the southwest, on old Quebec as a sketching ground, on drawing from life. We have good construction details from modern buildings. In fact, we have useful and interesting material on a wide variety of subjects. But we want you to help us by letting us know what you want most. Ideas submitted now will assist in mapping out plans for future issues.

Tell us what you like and what you don't like. We don't pretend to know it all and value sincere criticism that will help us become better. PENCIL POINTS, as we have often said before, is *your* magazine. We want you to feel that you have a big part in forming its policies and setting its course.

Write us about these things or, better still, if you find yourself in the vicinity of our office in New York, come in and talk them over. Hundreds of subscribers come in to see us each year. Sometimes we can help them in some way with their problems, sometimes they come in to help us, sometimes they just come in to get acquainted, but whatever the reason for their visits we are glad to see them and exchange ideas. We try never to be too busy to sit down with a man and refresh our own point of view about things by comparing it with his. It is by doing this that we can keep constantly in mind the realization that our readers are first of all human beings, interested in the human side of their architectural activities as much as they are in the coldly technical details. Perhaps that is why PENCIL POINTS, we are often told, has a human touch and why it will always, with your help, continue to be more than merely a technical professional journal.

PARQUET FLOORS

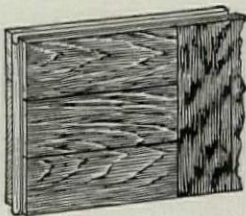
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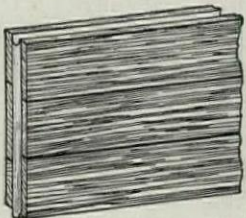
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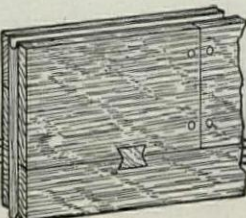
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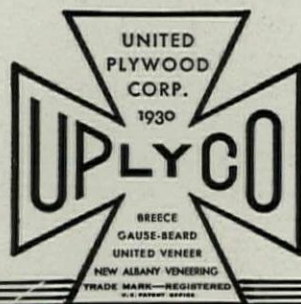
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Ralph Reinhold, *President*, L. F. Nellis, *Vice-President*, William V. Montgomery, *Secretary*

This Month and Next

The symposium on better cooperation between architect and material man, announced in April, grew to such large proportions that it has crowded out two articles which were scheduled for the June issue but which now will have to wait until July. Not only that, but we were forced to omit the usual four plates which constitute a regular feature of PENCIL POINTS. We believe, however, that the subject discussed for twenty-four pages by manufacturers and architects from all parts of the country is a really vital one which warrants plenty of space, and that both parties can profit by a careful study of all the ideas therein expressed. Many good constructive suggestions for improvements on present methods have been made by both sides. Anything that will enable the architect and the producer of building materials to work together more effectively with less lost time and motion will improve the situation in the entire building industry and benefit all concerned. Read what the contributors to this symposium have to say and then sit down and write us your ideas. Right now, while most architectural offices are, regretably, not busy, is a good time to thrash this whole question out so that with the return of better times things will move more smoothly and efficiently. Let's go to it and see if we can't improve things.

John Harbeson, whose series "Design in Modern Architecture" has been running at intervals since January of last year, resumes next month with a discussion of trends in modern architectural sculpture. The illustrations will be examples of the work of leading sculptors of all countries—men who have grasped the essential relationship between architecture and sculpture which makes them, in truth, "allied arts." There is need, and always will be, despite the cries of the functionalists, for good architectural sculpture which can be used to enhance the beauty of well designed buildings. Professor Harbeson points out the things that make the two arts work in harmony with each other.

A group of eight pencil sketches by R. Harmer Smith, made with a thought to pictorial composition, will be included next month and will be appreciated by those who admire good craftsmanship in drawing. They will all be reproduced at the exact original size so that the artist's technique may be easily studied.

Other features will include Part 17 of Freese's Geometry series, the third lecture by William Ward Watkin, Louis Jallade's talk before the Junior League of the New York Society of Architects, and color plates of Stockholm's City Hall.

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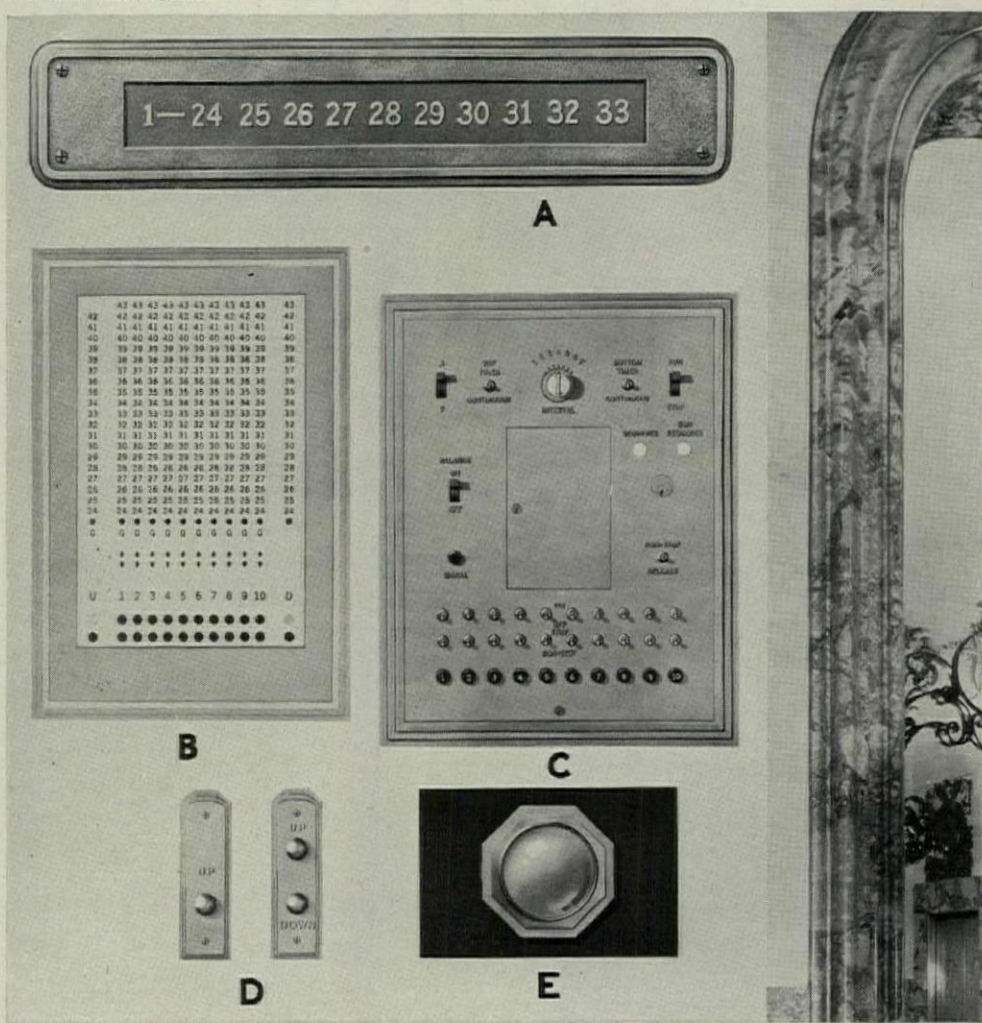
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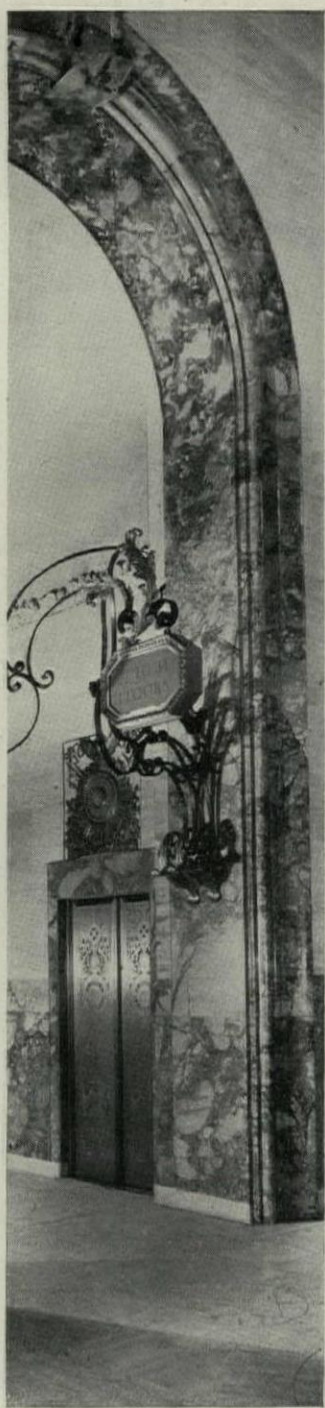
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PENCIL POINTS is indexed regularly in The Art Index

BELOW: Some signal devices by Otis. . . (A) Multi-light position indicator—shows position of elevator to passengers. . . (B) Starter's indicator panel—shows position and direction of all elevators to starter. . . (C) Starter's control panel—schedules all cars to meet traffic conditions. . . (D) Call buttons. . . (E) Hall lantern.

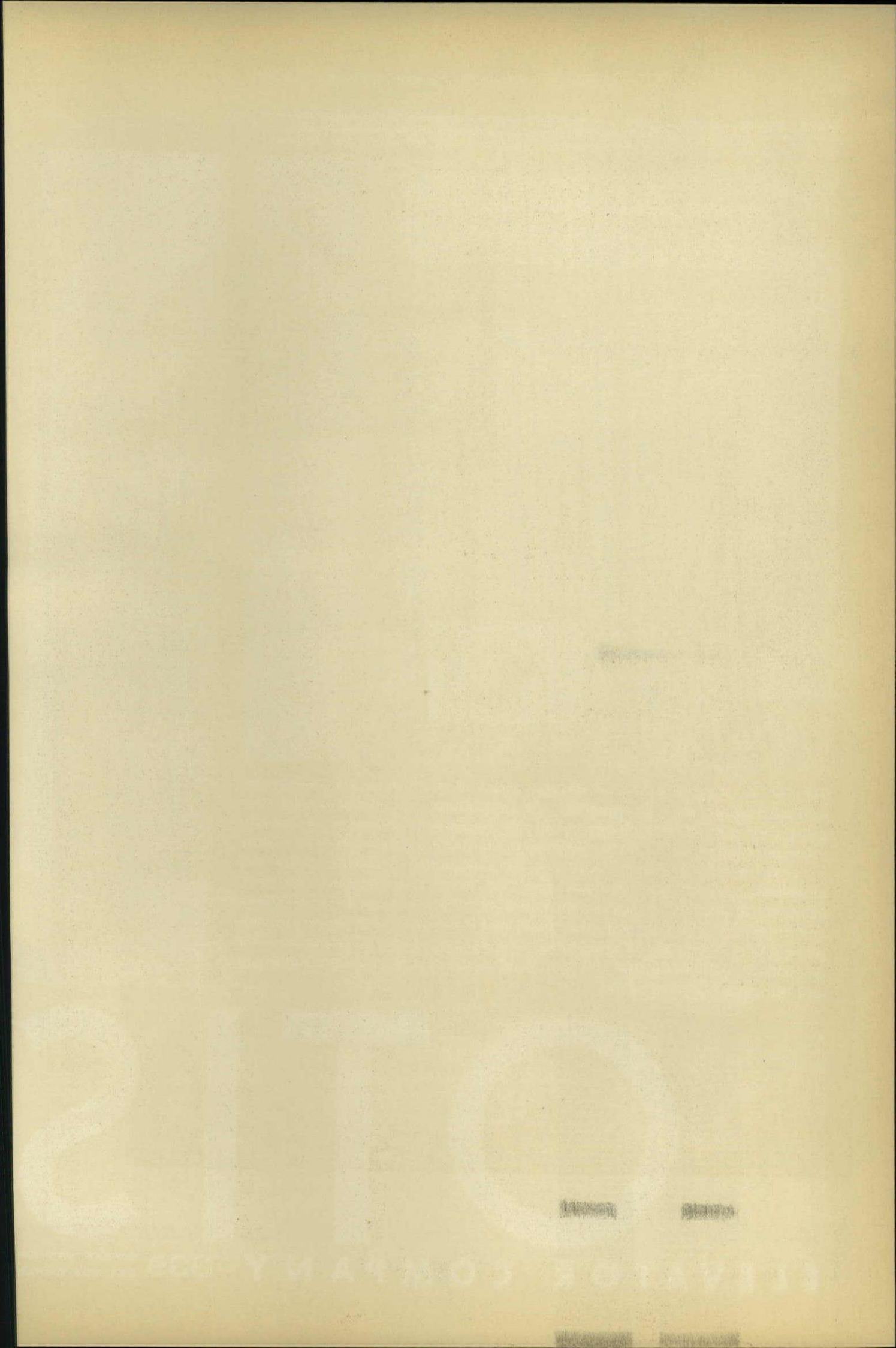


TO FILL its place properly, an elevator installation must be a smoothly coordinated *whole*, both in operation and appearance. . . Mechanically, Otis gains this end by manufacturing *all* the equipment necessary to an elevator installation, in each case following a master design conceived as a unit. . . Artistically, a similar unity can be maintained, following either the architect's or Otis' basic designs. For Otis shops and foundries are fully equipped to produce special ornamental fixtures in any desired metals, alloys and finishes. . . The signal devices illustrated above give some idea of the way this works out in details of equipment. . . Such flexibility of manufacture is particularly valuable to the architect, both in the designing of new buildings and the modernization of old.



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FROM A LITHOGRAPH BY EUGENE ISABEY
Courtesy of E. Weyhe, New York

PENCIL POINTS
June, 1931

PENCIL POINTS

Volume XII

June, 1931

Number 6

The Pursuit of the Elusive Client

Some Practical Suggestions for Building a Prospect List

By Royal Barry Wills

Editor's Note:—The author of this article is a Boston architect who has applied a rare common sense to the problem of developing business in the field to which he decided to devote himself at the outset of his architectural career—namely, the design of residences. He here offers to the young architect, just starting out for himself, the results of his experience in building up his practice. Of course it will be recognized that the methods outlined will not of themselves bring success. The man who uses them must first of all have the ability and character which will make for good and thorough work and give satisfaction to each successive client. With that as a starter, however, Mr. Wills' suggestions will be found to work out admirably in obtaining leads for new business.

The young architect starting out to build up a practice of his own encounters no small number of obstacles, chief among which is the compilation of a list of prospective clients. The number of prospects that a young architect gets depends on the number of sources from which he assiduously collects names. In short, the number of names collected depends on the amount of well-planned, hard work expended. No doubt all of us would like to have a prospect list handed to us, but it must be literally pulled out by the roots. Architects of a generation ago sat at their desks and waited for clients to come in. This method would not be successful today. To get the work, the architect must reach the prospect before he has been sold a house or other building built without the benefit of architectural service. This is, perhaps, rank materialism, but "you cannot do good work unless you get some work to do." Therefore, the first thing for an architect to do, who is starting out for himself, is to build up his list of prospects. Arduous as the task may seem, the modern architect has access to several means of compiling such a list.

Let us assume that the architect has a well grounded education, is endowed with a certain amount of ability, originality, and ambition, together with a facility for sketching and a fair knowledge of literary composition. Thus prepared, he may embark upon his campaign.

Architecture must be sold just as are shoes and suspension bridges, and prospects must be obtained by much the same procedure as is followed in other businesses. Let us consider, in particular, the young architect who is entering the field of residential work, since the greater number of architects are first attracted to houses.

To make a start, then, on collecting names of prospects, the young practitioner must formally introduce himself to the public which he expects to serve. He must first issue announcements that he is establishing

a practice of his own. Such an announcement should take the form of a personal card nicely engraved and should be sent to all of his friends and to those who are likely to become business acquaintances.

After thus making the announcement, a study of the building pages of the local newspapers should be made, so that the architect may become thoroughly acquainted with the various aspects of the business. The next step is for him to prepare a few sketches in a medium which will be conspicuous on a printed page. Black and white pen or brush drawing is the best medium. Then he should secure an introduction to the building editor of the paper read by the most desirable class of people in the town or city, and present the sketch to him in person. The building editors are glad to publish good sketches, for they may help to attract quantities of advertisements, and advertising is the life of the newspapers. These sketches will take time and effort, but a good sketch, accompanied by a short description and statement that the editor will gladly answer questions concerning the plans, will give extensive publicity to the architect. In a paper having a circulation of 100,000 he should receive ten to fifty inquiries from one edition of the paper. Here is already an excellent list of prospects among whom there should be a future client.

Again, through the newspaper, is offered another opportunity to secure names. The architect might persuade the paper to offer, free of charge, a pamphlet which he could write describing the services rendered by architects. Such a pamphlet might incur a slight expense, but the architect would be rewarded by numerous requests for the pamphlet which should contain valuable information for the layman. It is surprising to record the number of people who write for such material and at the same time give information as to the type of structure they expect to build.

The general publicity which the architect has now

received from newspapers enables him to cultivate other sources for his prospect list. Having already gained some recognition, it would be well for him to arrange a series of exhibitions. These exhibitions may be composed of published or unpublished sketches with accompanying plans. The work displayed should, by all means, be chosen from examples of the best efforts of the architect. These exhibitions must be held where they will be seen to the best advantage and by the largest number of people. Some of the best locations for such exhibits are architects' exhibit windows, newspaper show windows, high-grade department store windows, and windows of publishers of building reports. Art clubs, libraries, and so forth, are purposely omitted as undesirable places for exhibitions of this sort, because they do not reach the prospect. Five hundred men of means will pass a show window in a good location to one who would visit an exhibit in an art club. A good exhibit in one window for one week should bring in between five and ten prospects. In a city of 500,000 the same exhibit may be used three or four times in different locations, but, naturally, in subsequent showings the returns diminish.

With the foregoing three sources for prospects, another one immediately offers itself. By this time the friends of the architect begin to appreciate his talent and to realize that he is becoming known to the public and is succeeding. They in turn offer themselves as prospects and recommend him favorably. During the campaign the business builder has, of course, kept a careful record of all prospects mentioned by friends, as well as those reached through any other channels.

What with preparing sketches and short articles for the newspapers and answering correspondence in regard to the pamphlets, one ought to be kept fairly busy. However, do not overlook any possible means of securing publicity. The following suggestions offer additional sources for building up a prospect list.

Among the most important items to be considered are architectural competitions. Although they take time, much thought, and some expense, the resulting publicity is worth the effort expended, if a prize or mention is won. Prospective builders are interested in a house which has won a prize. That house must have particular merit and, besides, it proves that the architect has an especial gift for designing correct and attractive houses. Interested people will go to see a prize house and will write to the architect for further details and suggestions concerning the type of house which they expect to build. Often, too, just out of curiosity they will call upon the architect himself. Among the names of these interested people there will undoubtedly be one or two future clients.

Magazines will publish the prize-winning designs, as well as some of those which did not meet the full requirements of the judges. And so, even if the first competitive attempt does not win a prize, the design may be published, thereby winning more publicity; or else it may be reserved for exhibition purposes.

The erection of an exhibition house is another good way to secure publicity. It is necessary, however, that

the architect be alert and on the job if he wants to get the best results. He is essentially the centre of attraction, for the house becomes an expression of his work. Visitors at the house are interested in the merits of the house and in the designer's ability to adapt a house to the needs and wishes of the general public.

The person in charge of the exhibition house should require each visitor to sign his name and address in a registration book. This will serve as an exact record of all those interested in the house and of those who contemplate building. It is well for the architect to spend as much time as possible at the exhibition house, for personal contacts are of more value than contacts by letter. In addition to keeping the registration book, the architect may check many a name by noting the automobile registration number of a man whom he has perhaps met personally in the house.

Still another source for leads is to be found in building material salesmen whose job it is to follow up every prospective building for the installation of their product. These salesmen constantly hear of new work and often can pass on to the friendly architect the names of prospective home builders.

Notices of land sales listed on the real estate pages of newspapers are also valuable. Every man who buys land is a good prospect, for sooner or later he will build on that land.

Building reports, too, are a fair source, although they are more often better for large commercial work rather than for residences.

Even owners of old property are good prospects for alteration jobs, and should not be overlooked. All owners of out-of-date property must eventually bring it up to date in order to increase its value. If the architect can secure a prospect of this kind, it will give him a good opportunity to show his ingenuity and originality. A successful alteration will serve as good publicity and may even more emphatically demonstrate the architect's skill than new work.

Leads from real estate brokers are also helpful. An architect can often help a broker make a sale by submitting a sketch of a proposed house or by making suggestions of various kinds. The name of the prospective builder is thereby made available as a prospect for architectural services.

After obtaining and filing a list from the above sources, a letter and possibly a follow-up letter should be written to each prospect. This letter might outline the architect's qualifications and request an interview. Also the pamphlet on architects' services may be enclosed. Replies are generally received from 25% to 50% of the prospects, and those who do not reply may be followed up with a telephone call.

While the foregoing stresses mainly the problem of the young architect starting in with residential construction, the same methods as a whole may be used by those embarking in other fields.

The ideas outlined in this article will work. They have worked in many cases; and any young architect who has sufficient perseverance to spend his spare time pursuing them will have a reasonable measure of success.



FROM A DRYPOINT BY SAMUEL CHAMBERLAIN
LA CHARITÉ-SUR-LOIRE

Architects and Building Material Pro

Ways of Securing More Intelligent Cooperation Between Those

There are in the neighborhood of eight thousand offices in the United States maintained by practicing architects. There are about thirty-five hundred producers of building materials of all classes doing a national business and about as many more important firms offering their products over more restricted areas.

So we have on one side of the fence, so to speak, eight thousand architectural firms who must select the various materials and items of equipment going into their buildings from this army of approximately seven thousand producers. It can be seen at a glance that millions of contacts between these two great armies are necessary each year. The architect and the important men in his organization need, and in the conduct of their work must secure, a tremendous amount of information about the various products offered for their consideration. The producers must maintain contact with the architects' offices if their goods are to be bought and used.

Now how is this tremendous business being handled today? The plain fact of the matter is that there isn't any standard practice. It is pretty much a catch-as-catch-can proposition. And it is undoubtedly true that the present methods, or rather lack of methods, breed a good deal of irritation, misunderstanding, and even hard feeling on both sides. The architect complains that he is hounded to death by the inopportune and even unintelligent calls of representatives and salesmen and these same representatives and salesmen retaliate by saying that they do not get a square deal from the architects. It should be noted that there are many exceptions to this general state of affairs. Some manufacturers work with the architects in the way the architects like to be worked with, and some architects' offices are so organized as to handle the calls of sales representatives and promotion men in a manner entirely satisfactory to the producers. All we need in order to clarify and improve the present situation tremendously is to get more architects and more producers to handle their affairs as they are now being handled by a minority.

Let us first take the architect's office. If it be large, one or more individuals should be designated to interview salesmen; these men should make every effort to give an adequate and courteous hearing to those who call upon them. It is bad business from every point of view to treat the manufacturers' representatives as though they were natural enemies whose calls are unwelcome. Many architects have told me that some of the most useful ideas they get have been brought to them by manufacturers' representatives. It may never be possible for the architect or his assistants delegated for such duties to give as much time as the

producers' representatives would like to take. But it only takes two minutes to shake hands with a man, tell him that there are no opportunities for the use of his material, if that be the case at the moment, and assure him that an opportunity will be given for him to tell his story when the particular type of material he is representing is under consideration. Or a time can be appointed for a more extended interview at some time more convenient to the architect if he happens to be engaged at the moment. A curt "turn down" from a telephone operator is seldom necessary.

Now let us look to the case of the producer for a moment. In the first place the producer should employ as representatives to call upon the architects only men who are qualified to do this extremely important liaison work. A large part of the impatience manifested by architects is due to the fact that the representatives who call upon him are often not fully informed concerning the products they are trying to sell. These representatives should use a lot more common sense than they do in some cases. When they see that a man is busy they should get their business over with as expeditiously as possible or call at another time. Many of them seem to feel that when they get into an architect's office they should stay there the rest of the day. Any representative calling upon an architect should gather up his samples and his brief case as soon as his business is concluded and walk out before the man he is interviewing is sorry he ever came in.

The words "cooperation" and "service" have been worked to death but there is still room, and always will be, for the manufacturer's representative who really renders service and who really wants to cooperate and knows how to do so. I know manufacturers' representatives who are welcome wherever and whenever they call. They know their business and they also have an understanding and an appreciation of the business and circumstances of the architect. They tell the truth about their products and don't endeavor to have them specified unless they will give good service under the conditions prevailing. They will work with the architect and with the drafting-room intelligently and patiently so that the best results in the finished building may be secured. They are never thrown out of an office but are always given the glad hand.

Now, if there be a lot of lost motion and waste of time and money in the intercourse of these two great groups we are considering, who pays for it? The answer is obvious and inescapable. The building public pays for it. And in such times as we are going through today every effort should be made to reduce to a minimum all unnecessary items of cost. In the light of this situation it is time for a little self-examina-

ducers Discuss Their Mutual Problems

Who Market Materials and the Offices Where They are Specified

tion on the part of all of us. Let every architect's office provide, insofar as may be, suitable channels for handling the calls of manufacturers' representatives, and let the manufacturers see to it that their own sales forces are properly constituted and instructed. High-pressure methods are old style and should be abandoned. The proverbial tactics of the old-time insurance solicitors have no place in the modern contacts which should

exist between producers and architects. The letters and articles which follow are published in an endeavor to clear up this situation, or at least to start the clearing-up process. The readers of PENCIL POINTS are invited to express their opinions on this whole subject for subsequent publication. Let everyone approach the matter in a spirit of helpfulness and a great deal of real good will be accomplished.—*Ralph W. Reinhold.*



ROBERT D. KOHN,

*President of the American Institute of Architects,
Starts off the Symposium*

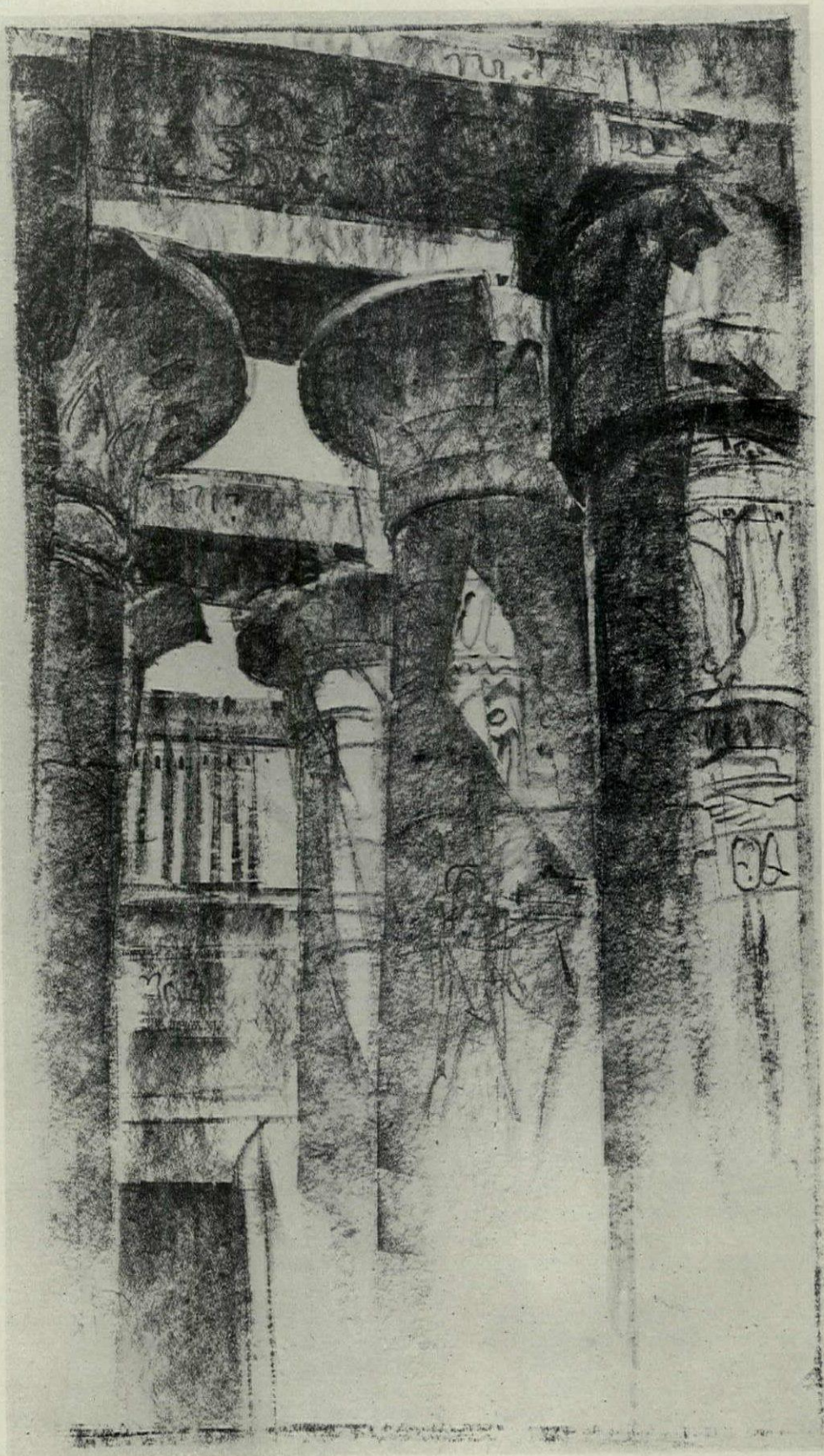
Which is Continued on Pages 435 et seq. by Other Architects and Producers.

"In this whole question of intelligent cooperation between the producers and salesmen of building materials, the architects, and the public, the one hopeful sign is the fact that people are beginning to recognize that there is a question. The architectural journals are all stirred up about it. Something intelligent is bound to result.

"We have really been studying the subject for a long time. The Institute's Structural Service Committee and the Producers' Council have been co-operating in this field for quite a while. There is no doubt that progress has been made in establishing a better understanding of what the problem really is. Now that papers like PENCIL POINTS take the matter up the subject will get the right kind of publicity. Something constructive will really be started when the publicity is effective enough to penetrate all the recesses of the building world, the architects' offices, the

builders' supply yards and the manufacturers' production shops.

"As a matter of fact, the manufacturer knows a lot of things about his material which he wants to tell to the architect. Sometimes, however, the architect knows something about that material that the manufacturer does not know. At any rate, he knows some places where that material will not work and ought not to be used. If they can get these two sets of information together in some way, we will be on our way towards the ideal. Then the good products will only be recommended for the places where they are good. We will get rid of a whole lot of things that are being pushed for uses for which they are not adapted. We will know more about the way to use the right thing in the right way. And at the very beginning of the solution of this problem—is publicity. More power to PENCIL POINTS."



FROM A LITHOGRAPH BY JOHN PRITCHARD MORGAN
KARNAK—CALYX CAPITALS—SIZE OF ORIGINAL, 8" x 14"

Georges Szabo

A Ferronnier of the Old School

By W. Francklyn Paris

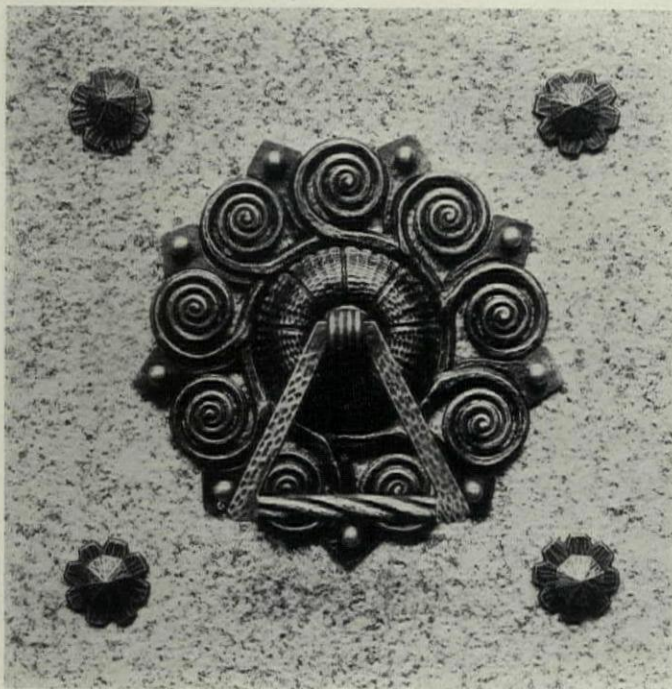
Ever since the discovery of the properties possessed by iron, man has worked and played with it, first bending it to his needs, and later to the voicing of his artistic inspirations. From the beating out of the first iron spike to the forging of the delicate tracery of the gates of Nancy is a long step, but it is a logical progression made possible by new technical ability on the part of the ironworker and new processes in the manufacture of iron. No *ferronnier* of today can be said to have more ability than Jean Lamour, the genius who hammered out the Nancy gates, but we have more technical facilities and improved processes than had the smiths of the seventeenth and eighteenth centuries and, thanks to these, hitherto impossible wonders are now being worked in refractory iron rendered docile by science.

The ultra-conservative look with scorn upon these new facilities. They don't want *ferronnerie* to be made easy. It is like rejecting the modern loom in favor of

the old spinning wheel. The liberal school of *ferronniers*, however, move with the times and see in torch-welding and other modern methods the only way in which to give artistic expression to the stupendous period which we are traversing.

The mandarins of the art remain faithful to the traditions of the past and to the technical practices of the artists of generations dead and gone. In the past, the practice was to work the metal at the forge with hammer and anvil; no other procedure was tolerated. Brazing, or welding, or soldering with copper was deemed unenduring and was barred by the smiths as a "trick." The conservative faction of today looks upon welding by the blowtorch and acetylene gas process with

the same contempt as the old smiths looked upon brazing or soldering by hand. They consider that it robs the smith of all effort and they draw a parallel between it and reinforced concrete, which they claim is a bastardized stone absolutely devoid of beauty. To

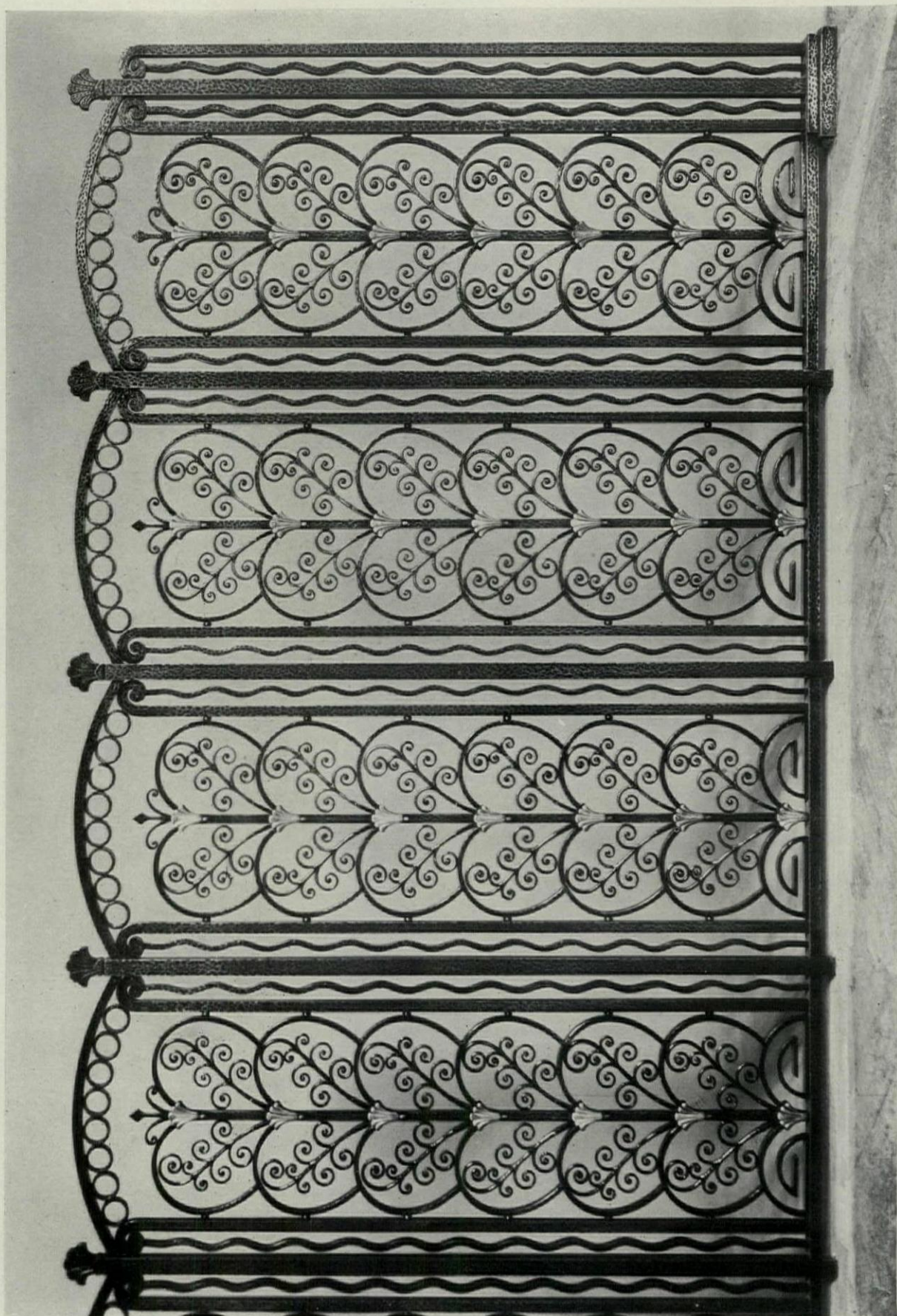


WROUGHT IRON KNOCKER BY GEORGES SZABO

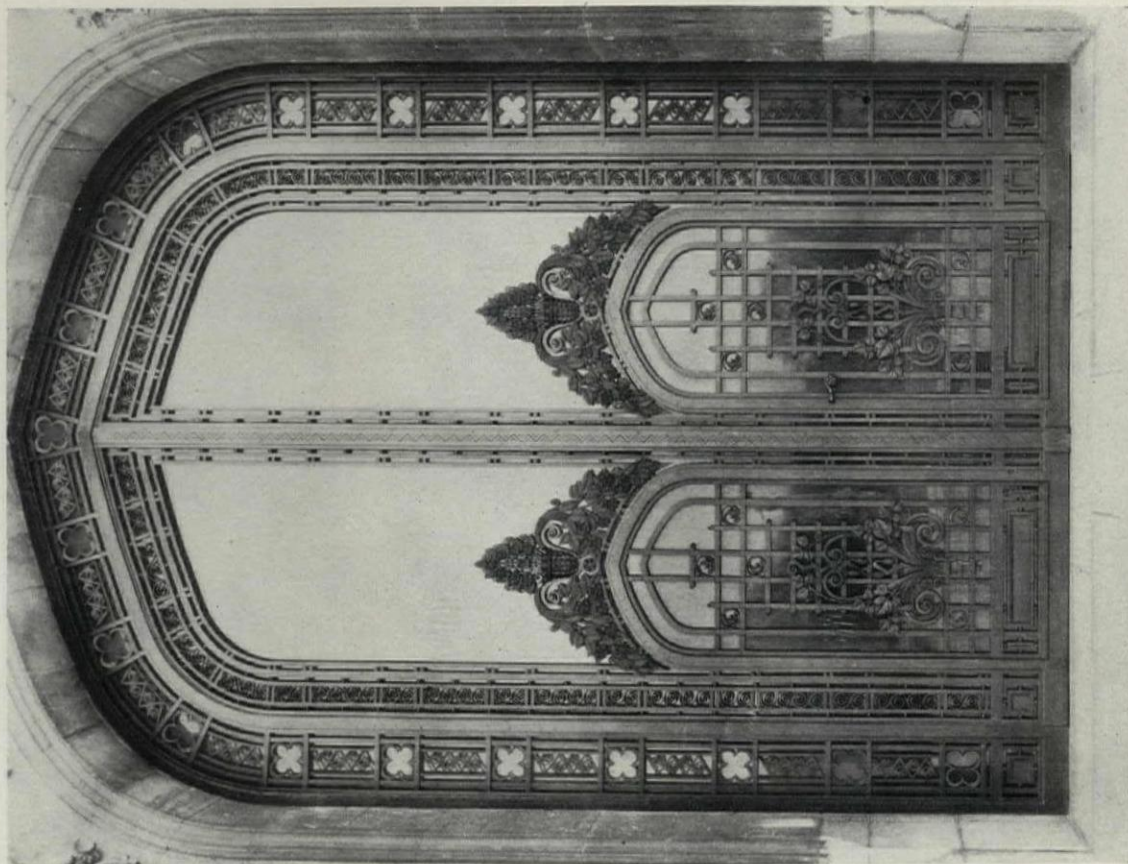
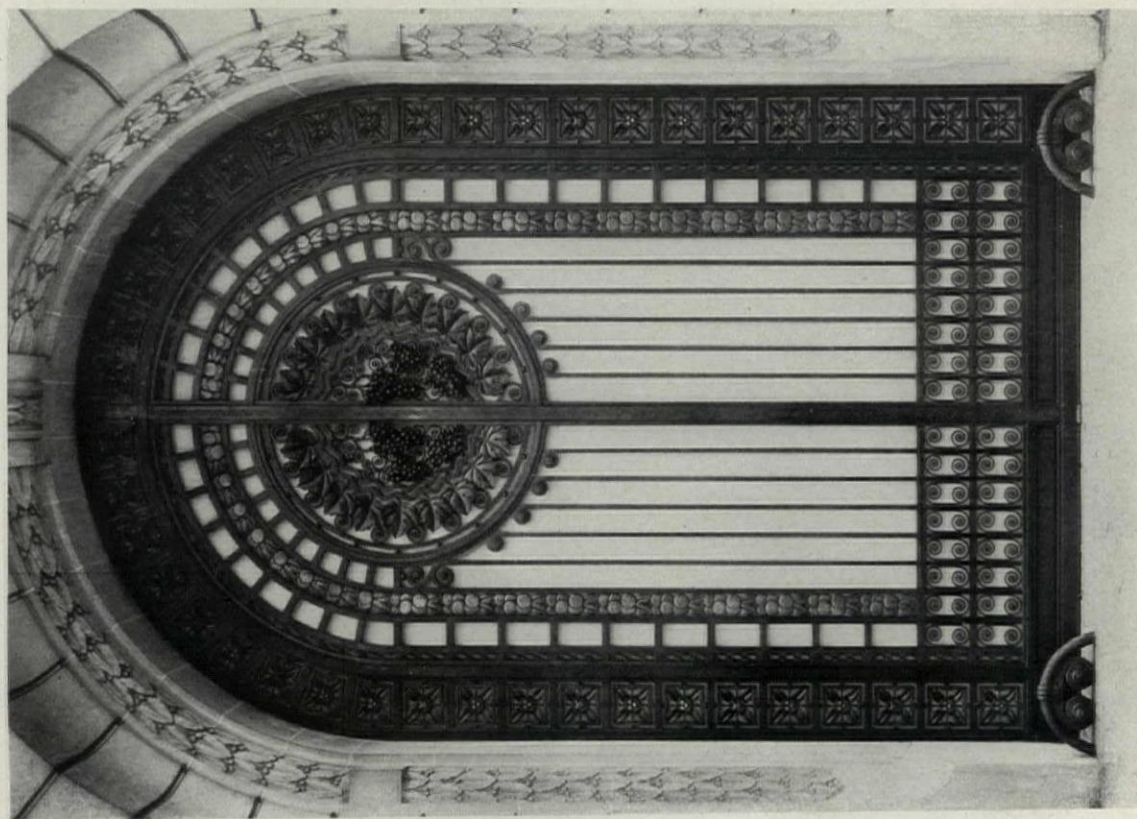


DECORATIVE METAL ALTAR RAIL BY GEORGES SZABO

PENCIL POINTS FOR JUNE, 1931



DECORATIVE METAL GRILLE BY GEORGES SZABO FOR THE SALLE DES FÊTES, 15^e ARRONDISSEMENT, PARIS



ENTRANCE GRILLES IN WROUGHT IRON BY GEORGES SZABO

AT THE LEFT, FOR THE GRANDE DISTILLERIE, PARIS—AT THE RIGHT, FOR THE HÔTEL DE VILLE, CALAIS



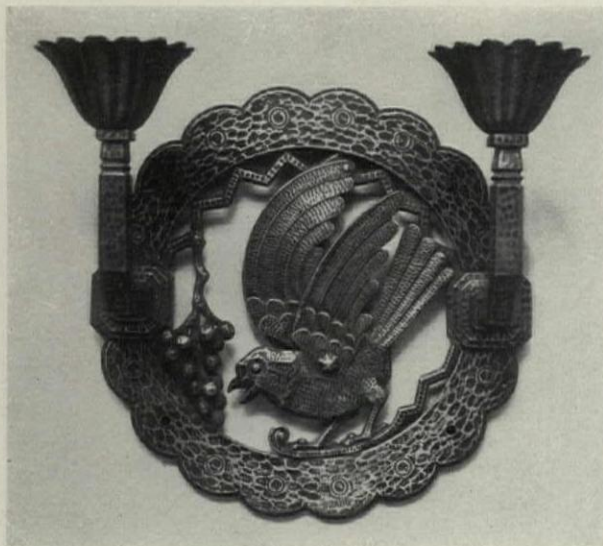
STAIR RAIL FOR HÔTEL DE VILLE, CALAIS, BY GEORGES SZABO

GEORGES SZABO—A FERRONNIER OF THE OLD SCHOOL

them, wrought iron that is without the "complexion" acquired through hammering is entirely lacking in style.

In examining a work of art one likes to follow the cerebral labor of the artist, to discern the motives which have dictated the choices and exclusions made, to discover the stratagems of the magician. The emotion which we feel at sight of a beautiful composition is increased through the keen pleasure we derive from seeing through the secret of its intimate fashioning.

Among the many talented French *ferronniers* who are outspoken in their condemnation of "*ferronnerie* made easy" is Georges Szabo, who sees in the facilitated technique a corrupting process and a sign of an approaching decadence. He will admit that the general public can not tell apart the welded from the forged piece and he has, though reluctantly, reduced the laborious *tours de force* which he loved to incorporate in his work and which any ordinary workman may now easily imitate with the blowpipe. His grilles, his lanterns, his railings generally derive the motifs of their decoration from plant life. Leaves and tendrils, with bell-like flowers, wander up and down his hanging lights. His monumental clock for the Paris



LIGHTING FIXTURE IN WROUGHT IRON

newspaper, *Le Temps*, is ornamented with wheat stalks and field flowers, and occasionally he introduces birds in his composition, as in the well-known grille for the Angoulême Hotel, where a file of ravens is strung out to form a frieze.

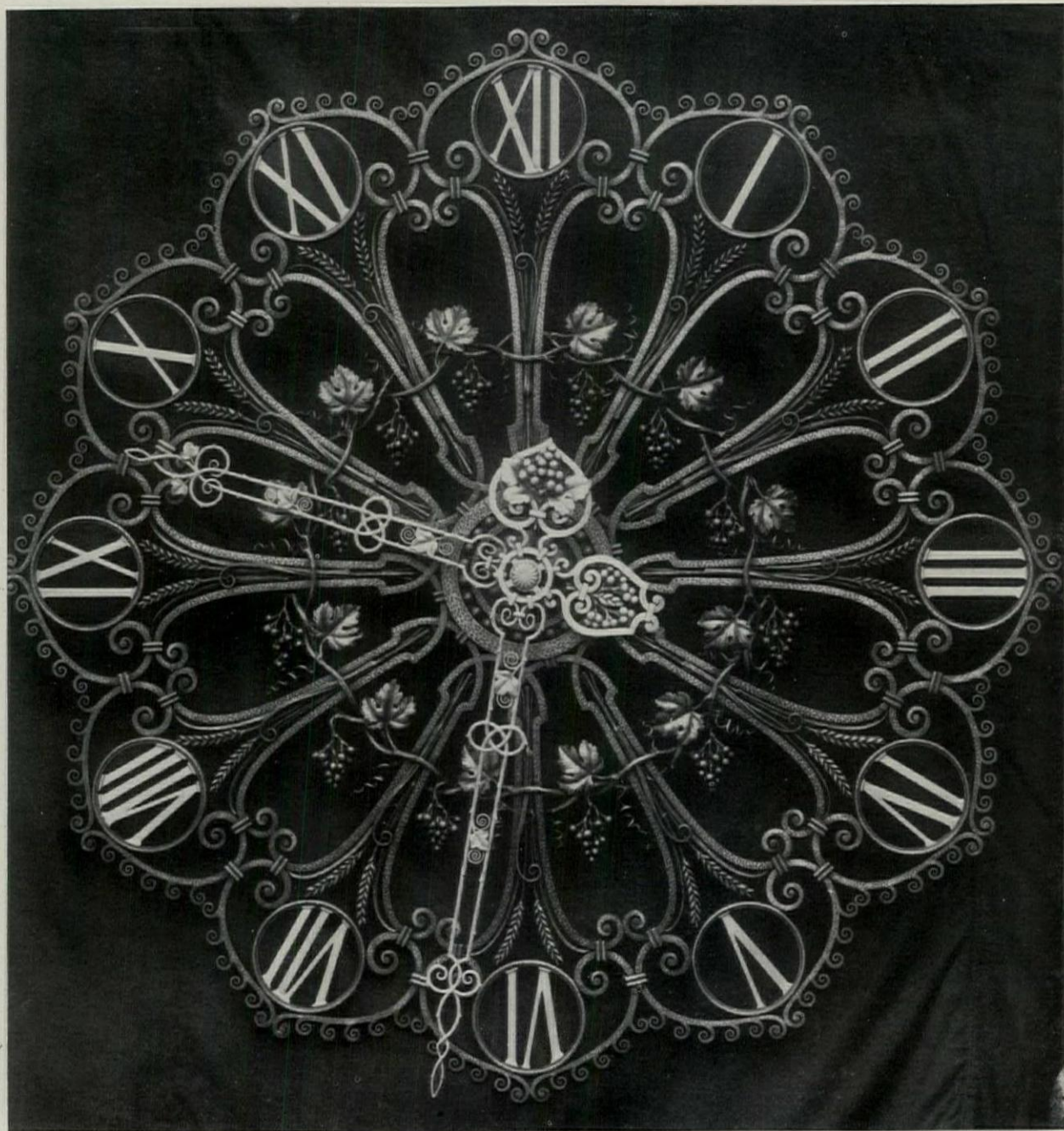
If, in the assembling, the welder has the better of the smith, in modeling the man with the hammer regains his superiority. The massive piece, constituting as it does a real piece of sculpture, defies the skill of the welder. Szabo now works with that idea in mind. Here

the artisan has the better of the mechanic, the engineer gives way before the artist.

Szabo admits the use of machine welding in industry but denies it a place in the domain of art. He finds it natural that a manufacturer, from motives of economy, utilizes blowpipe welding in preference to forging, but he refuses to consider as a work of art wrought-iron thus mechanically soldered. Every detail of forged iron, he holds, shows an intention, possesses a physiognomy, a movement, a personality. The same piece welded would lose everything save its design. Szabo feels that decorative value does not compensate for loss of the beauty of execution. He holds with Lamour, *serrurier* of King Stanislaus, that forged



GATE FOR COUR DES MÉTIERS, PARIS EXPOSITION OF 1925, BY GEORGES SZABO

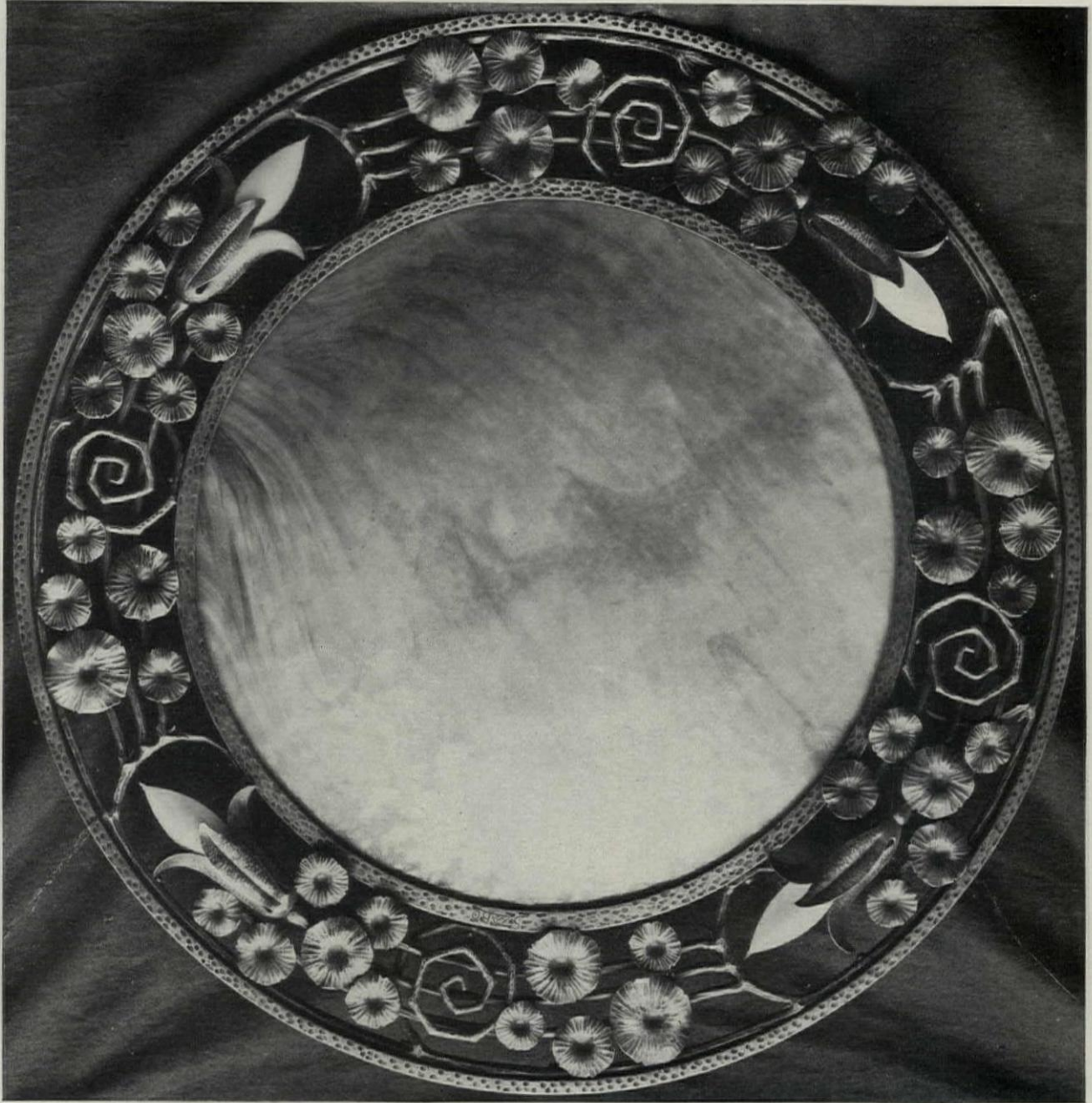


ORNAMENTAL CLOCK IN WROUGHT METAL FOR THE BANQUE DE L'UNION PARISIENNE
DESIGNED AND EXECUTED BY GEORGES SZABO

iron is replete with beauty, delicacy, and majesty. That it is susceptible of assuming every form, having "the energy of painting and sculpture, the daring of architecture, and, in addition, solidity and permanency." Whatever comes out of the smith's hands remains enduringly, a monument.

The photographs which illustrate this article show what results may be obtained by the putting into practice of the theories of this master *feronnier*. In the church rail for the Charrien Church, as well as in the rail for the *Cour des Métiers*, exhibited at the Paris exhibition of 1925, there are elements introduced which are sculptural and architectural as well. In all of Szabo's work there is to be noted a sound archi-

tectural basis. His stair-rail for the *Hôtel de Ville* of Calais is perfect in this respect. Even in his smaller compositions, designed for lighting fixtures, both these elements, the architectural and the sculptural, are to be observed. His sense of proportion and perfect balance is exemplified in the beautiful gate and doorway fashioned by him for the *Grande Distillerie* of Paris. In another gate, that for the *Hôtel de Ville* at Calais, he accepts the aid of glass in his decoration. In his lighter mood we have his grille for the *Salle des Fêtes* of the mayoralty of the 15th *arrondissement* of Paris and the small show-case grille, designed for a curio cabinet. He is more massive in the door of the Ravens, designed for a private residence in Paris and in the

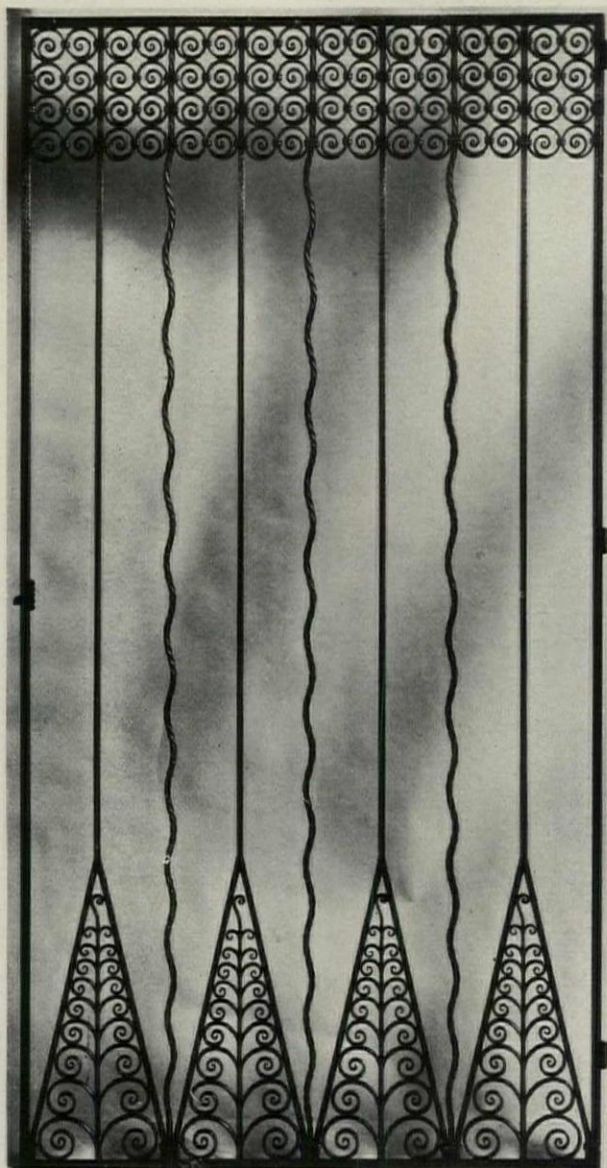


LIGHTING FIXTURE BY GEORGES SZABO

clock dial executed for the Banque de l'Union Parisienne. In everything he does however he is careful to avoid the effect of smoothness; his metal has a "complexion," a rugged surface made of many hammer blows, and he does not hesitate to use rivets when they can be introduced logically.

Naturally his output is smaller than that of Brandt or Subes or the other French *ferronniers* of the liberal school who are equipped to turn out work according to the modern formula of utilizing every labor-saving device available, but his work is more personal, more perfect in detail, less photographic. A lathe cannot have much individuality and it can be operated by any ordinary workman or mechanic. No "touch" is needed to shave a bar of steel down to a measured exact thickness when machinery is used, and a child can do it; but to achieve this result, only less exact,

less smooth, less perfect, by hand, calls for a seeing eye and an artist touch. It is this less exact, less smooth, less perfect finish in Szabo's work that gives it value in the eyes of amateurs of wrought iron who value "unique" specimens. A grille, a stair-rail, a lamp by Szabo will remain an original. It can never be copied "exactly." If we study the detail ornament of the stair-rail for the Hôtel de Ville, Calais, reproduced herewith, it will be apparent that each spiral, each ring or rondel, is separately wrought and clamped. There is a variety not only in size, but in finish and this same panel, created with pneumatic hammer, stamping machine, alternating saw, lathe, and electric drill, and soldered by blowtorch welding would not produce the "handmade" effect which the artist has attained through irregularity and "complexion" or "*patine*" as the French term it.



A SMALL GRILLE BY GEORGES SZABO
DESIGNED FOR A CURIO CABINET

We live in a mechanical age, however, and speed is a factor of growing importance in our lives. The demand for laboriously wrought iron work exclusively forged is being replaced by a desire for polished metal expeditiously turned out at reduced cost. Perfection of handicraft is an ideal worth following and the pride which certain technicians feel in the superiority of their individual workmanship is a pardonable and perhaps justified sentiment, but virtuosity does not make a work of art, and conception does.

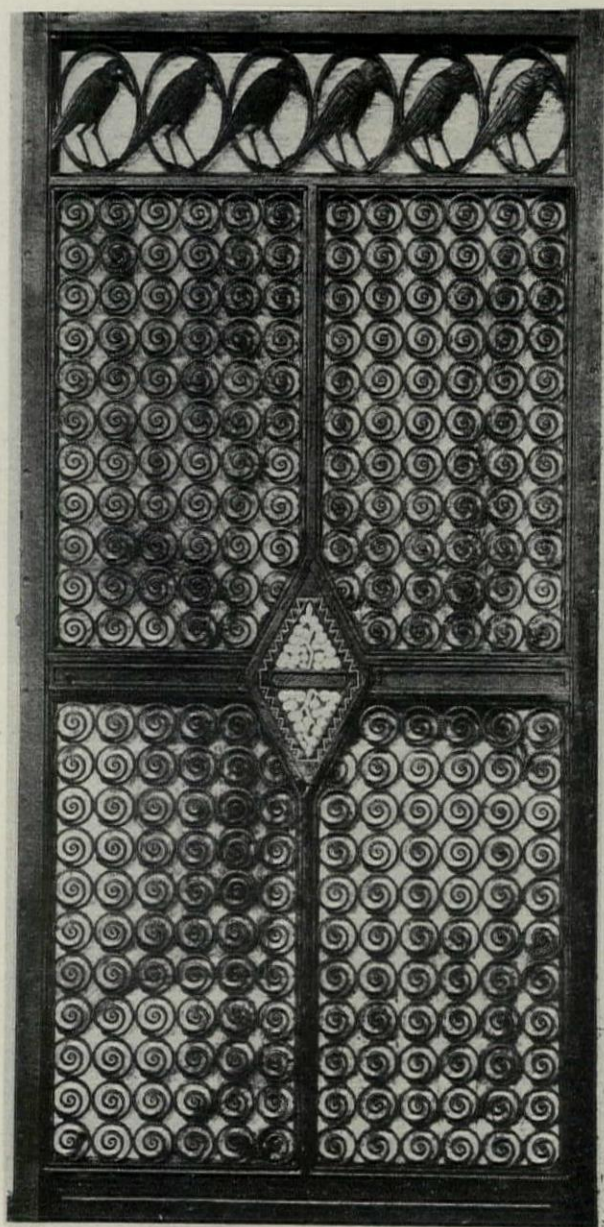
A work of art is that which addresses itself to the mind. If it is possible to obtain easily the result sought, why waste one's self in laborious and costly efforts? Art is effect, no matter how produced. It is a spiritual principle which is distinct from technical perfection. It does not reside in successful materialization, but in the design. Art is the idea; craftsmanship is the medium of expression.

When the artist and the craftsman are united in one man, as they are in the person of Georges Szabo, the

element of time and the element of cost lose some of their importance, and yet, it is because of the nullifying of these two deterring factors through the utilization of new inventions of science that wrought iron has gained the popularity and rejuvenescence which it now enjoys.

Must we weep because art is no longer the manifestation of personal virtuosity, or rejoice because it has been made easier? The intellect of the day is concerned with practical affairs, with conquests over space and time. Printing, from an artistic point of view, is not an advance over the calligraphy of the anonymous monks who illuminated the old missals and psalters, and photography may not compare with etching. In the same sense modern ironmongery may be deficient in certain æsthetic values present only in iron wrought entirely by hand, but printing and photography and the acetylene torch have served to spread wider both the knowledge and the appreciation of the arts.

Nolle prosequi.



GRILLE FOR A PRIVATE RESIDENCE

Impressions of Modern Architecture

2—The New Manner in France and Northern Europe

By William Ward Watkin

Editor's Note:—This is the second of a series of three lectures delivered by Professor Watkin last year at Rice Institute, Houston, Texas. The first appeared last month. We recommend to all designers that they read the whole three lectures carefully for we feel that they furnish a sane and sound basis for the approach to the modern design problem. The illustrations are from black and white drawings by Claude E. Hooton. The lectures are published here by permission of the Rice Institute authorities.

In our survey of the search by architects for a more direct manner of expression in design, we sought to recall those restive spirits of the past century who had as their vision the search for truth in architecture. Their approach to such truth had been a return to romantic design, a return to mediæval precedent, but their efforts had finally culminated in a pitiful period of romantic makeshift. With the coming of the new powers of steel and reinforced concrete, with mechanical and electrical forces, the past half century has seen the battle of restive spirits centered in the call for realism, and their efforts directed against the established supremacy of the advocates of classic tradition.

In this battle the advocates of classic form and beauty were more established than ever at the time of the opening of the World War; only here and there were the modernists of Europe holding attention in new reinforced concrete forms of direct, simple manner, and these principally as adapted to industry. In general, the romantic movement and the realistic movement had been supported by a restive minority. That minority had found difficulty in attaching to its cause men of proven architectural genius. With the coming of peace, the momentum of the established order was so diminished by long idleness that new conditions were more apparent, new solutions received more readily by a public now more open to conviction.

Many old orders had changed, and with the resumption of work in architecture, the new movement was for the first time generously supported by genius and ability.

"From this time," says Lurcat, "we go forward toward an architecture which shall be the exact expression of our age."

Of the work of the modernists in France, Belgium, Holland, and the countries of Northern Europe, there was given an excellent opportunity for comparison in the Paris Exposition of Decorative Arts in 1925, not through the form which the buildings of these several countries displayed on the grounds of the exposition, but by means of the very complete architectural exhibits submitted by the architects of these countries. A conservative judgment upon the relative merit of the beauty attained in the new forms gave the convincing impression that the greater interest lay among those exhibits from Holland and Finland.

In 1925 the modern work displayed by the French exhibit lacked the simpleness and directness of the work of the north. The French work was strongly reminiscent of the *Art Nouveau*, and seemed possessed of some of the "Red" seething, the aftermath of war. Examples relating to problems of restoration of villages were convincing answers of the impossibility of seeking the charm of the past in the material of the present when economy was the guide. There was no new note of an inspiring nature in them, nor did they possess the beauty of the old.

On the other hand, the work from the northern countries showed distinct architectural qualities in buildings of simple brick work, carefully studied as to the proportions of the masses in the buildings, and frequently quite beautiful. The northern countries, however, retain many of the characteristics peculiar to their early architecture in forms which were of entirely local acceptance.

This decided difference in the position of modernism in architectural design abroad was of simple historic explanation. For the northern countries, the universal character of a Renaissance tradition had never prevailed as completely as it did in France. For several generations architects of Holland, Denmark, and Sweden had been planning buildings of brick, in which the forms of the Renaissance played little part. In cities of the north, a sufficient volume of relatively modern brick buildings prevailed as a background for the newer buildings whose design and dimension were now made possible by modern materials of steel and concrete. The new buildings therefore appeared in conformity to the environment in which they were placed. The manner, also, in which these brick buildings were expressed had been maturing more gradually, more pleasantly. The apprenticeship in the modern manner was more advanced. However, historic tradition of the peculiar roofs of the north, resulting from an early architecture of wood, possessed certain highly imaginative but peculiar forms. The submergence of these forms had never been within the range of the Renaissance, and their submergence was not yet entirely within the range of modernism. Therefore, the northern work, while fascinating, was truly national in influence and character.

The aftermath of the World War was the most direct of all causes leading to the acceptance of the new

manner. The long inactivity of the leading architects of France during the war, and during the years immediately following the war, had broken down the established security of their position. The modernists, striving for recognition before the war, were at the front when work was resumed. New forces, social, economic and political, in the wake of the war, gave reason for change; and the greatest of these reasons, in my opinion, was the demand for economy. Unable to continue the costly costume of the past with economy, the modernist stepped forward to hasten its discard. My impression is that this urgent insistence by the modernist upon the meeting of the economic demands of France with the discard of the classic tradition has led him to attribute, beyond justifiable reason, a certain machinelike character to this modern age. It is clear that the very best reason behind his calling for the overthrow of all the courtly manner of the past lay in the sincerity with which he attempted to solve the modern problem under the most exacting and rigid routine of economy. The seriousness of his acceptance of so changed a condition, and the daring to face it frankly, knowing well the difficulties a new and simpler architecture must face in immediate contrast with the splendid monuments of the past, demand our respect.

If we examine the attitude of the leaders of French modernism, we are impressed by an exaggerated complaint and criticism on their part of all preceding French architecture since the Middle Ages. I cannot personally find justification for so elaborate a criticism of the immediate past in France; though, like all other countries in which Renaissance forms had long continuity, decline was apparent and dullness was frequently evident. I feel rather the echo of a despair that such golden opportunities had carried so little logic. Of the modernists, I find M. André Lurcat to be very clear in his philosophy of a new architecture. I also find him to be a most truthful exponent of the law of economy which constitutes the condition under which the modern French architect must work. From such law, he derives, as an architect should derive, a basic principle for his architecture. For him the true and eternal law of economy directs all modern French work, and he sees in this, because of the simple materials and simple form, a great opportunity to develop into beauty. He emphasizes this principle, that it is always dangerous in architecture to pass wilfully beyond economy; meaning very clearly that there is greater beauty to be found in simple material, simple manner, and exquisite proportion. "From the beginning to the end of our work, the law of economy is respected."

While we of America have found no similar clear-cut requirement to direct our architectural efforts since the close of the war, we are not by training or example likely to accept without question the exaltation of economy.

The glories of the richness of classical building as well as the costly beauties of the later Middle Ages linger too clearly in our thoughts of what a splendid architecture should achieve. But in justice to the prob-

lems of France, we can appreciate the artist's spirit which exalts the necessary manner of today as an opportunity for beauty.

I feel the impressions we should record after a survey of the better modern buildings abroad would be to recognize that conservative standards are gaining ground and that the work is moving toward a real quality and beauty. There has been so much of modernism, so many buildings built, within the past few years abroad, with such a wide confusion as to their form and to their decoration, that one can easily find plenty of examples which are distinctly bad. I am not prepared to say that as yet one may find a large minority of the examples to be good. We have never reached the utopia in recent generations where this could be said of our classical tradition either. We must choose the good as the evidence of what the movement promises, even as from the past it has been our habit to select the good for example. The French critics are openly asserting that the new work possesses the defects to be expected in a new movement.

By a general practice of present-day Germany, France, and Holland, many new buildings are material for publication in the form of architectural monograph. Quickly after the buildings are built, their contribution to the knowledge of modern form and modern solution is made available, and this is promoting the unity of the modern movement to a very considerable degree. There is evidence of unity to a degree which is new and of a renewed vitality of architectural alertness.

The more violent modernists of France take a position beyond economy, and demand that every form relating to the modern house or modern building be examined solely as to its reason. They seriously attack a great many accepted forms as being totally useless. Such attack has more justification abroad, where the prevailing housing conditions reflect much less modern comfort than in America. Still, even though there be evidence of exaggeration, there is also considerable good sense which we would do well to examine. We, with our modern conveniences, still have the usefulness of our homes, as well as their beauty, dulled by much that is unnecessary. It is really interesting to get such a vision as Le Corbusier gives, if I may take the liberty of combining certain pertinent statements of his toward this picture. I quote:

"Architecture is stifled by custom."

"Peace has set the problem of reconstruction in the north of France, but we are totally disarmed and do not know how to build in the modern way. Why do we have enormous useless roofs on pretty suburban homes? Why the scanty windows with the little panes? Why the elaborate bookcases? Why the enormous chandeliers, the mantelpieces, the damask wall papers with their motley design?"

"Daylight hardly enters your homes. Your windows are difficult to open. There are no ventilators for changing the air such as we have in any dining car. The existing plan of the dwelling house takes no account of man and is conceived as a furniture store."

He states further: "The standard of furniture is in

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its full flood of experiment among the manufacturers of office furniture and trunks. We have only to follow this path; and all the humbug talked about the unique objects, the 'precious piece' rings false and shows a lack of understanding of the needs of the present day. The chair is a machine for sitting in," and still further, "the house is a machine for living in."

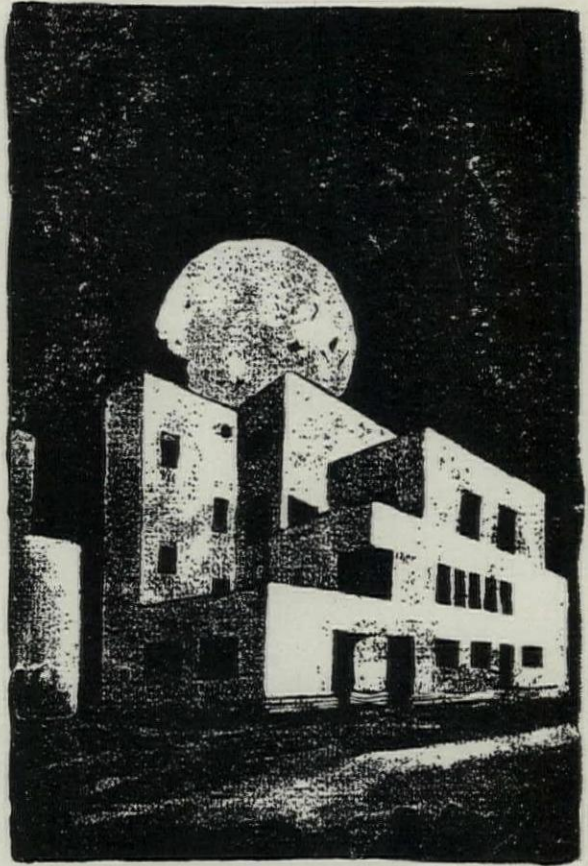
For the Parisian who dwelt in semidarkness, amid plaster-paneled rooms, richly corniced, stupidly formal for modern living, and where furnishings accumulated to dull one to stupor, this doctrine, while radical, was invigorating. To its development as a practical philosophy the French modernist is committed. If to its sanitary preaching the doctrine of economy is added we have a picture of the advance of the new manner.

Let us look at this problem of economy from the point of view of the young architect of France, immediately after the war. It is quite evident that in the face of meagre means, problems in scale with the history of Paris were unlikely to reappear for more than a generation. The opportunities afforded were to be mainly those of small housing requirements and of remodeling existing buildings. The young architect must see in these his only probable chance to distinguish himself. It was clearly evident that any meagre attempt at the costly forms of the past would immediately reflect inferiority. The situation clearly drives the young architect into an intense study of construction and the application of structural forms in a unique way within the range of economy. Sound, logical solutions in which maximum comforts accompany minimum costs are certain to be popular.

We should not consider the occasional, exuberant remodeling of shop fronts as characteristic of French modern work, but rather the manner in which new buildings have been designed. The work of Tony Garnier, immediately prior to the war, gave us designs for industrial housing in concrete that possessed good arrangement and appearance. The forms of the French tradition were modified to suit concrete, but they were retained. There was no deliberate withdrawal of all architectural detail. One could feel something more than the most rigid requirements had been allowed to influence the design. In this respect, tradition was regulating design.

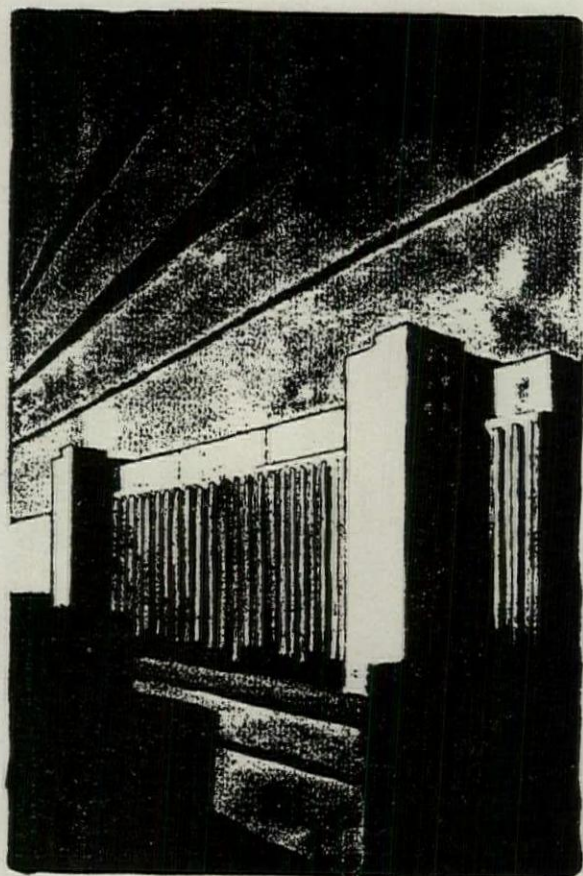
Since the war a quite different character of house has appeared through France, and has been carried generally into examples in Belgium, Czecho-Slovakia, and, except for the use of brick in place of concrete, in Holland and Germany. These designs are distinctly barren of detail. They are geometric compositions following a very sensible analysis of the size, shape, and lighting most desirable for the rooms contained in them. The living machine has been more scientifically provided for. Such houses are scarcely pretty. They must go much further in study for beauty before we are ready to accept them with great enthusiasm.

Considering the problem of the young architect, let us see what this housing problem has meant to him. Take, for example, the work of Rob Mallet-Stevens, who by his work since the war has become a very popular architect of Paris. On a limited area, formerly



APARTMENT, PARIS—MALLET-STEVENS, ARCHITECT

a small garden, he placed four buildings, including his studio and office, grouping them on a new and narrow street, rue Mallet-Stevens. Every line has the extreme simpleness of the material, the plainness of unbroken stucco surface and the convincing evidence of extreme economy, sheet metal doors and industrial iron window frames, standards of low cost but lasting type. This group of buildings corresponds in expense to what in America we should call the cheap, jerry-built apartment. Every conceivable economy has been exercised. Work representing the same amount of expenditure has been done a thousand times in American cities since the World War without deserving an atom of architectural interest. It is the form which is given to Mallet-Stevens' work; the new and different grouping of masses, the pleasant orderly arrangement and lighting of rooms, and the convincing statement of a new character, that has brought his name very promptly to attention in Europe and even to the very general attention of the American architect. The group of four buildings as a whole is really very pleasant. As a departure from the bizarre pre-war French apartments of like cost, it is decidedly good; no more horrible dwellings of formal pattern conceived in red and yellow brick. The new manner by the arrangement of rooms, and by the ease with which they can be moderately and attractively furnished and decorated, helped to establish the popularity which he has secured. These buildings were built in 1927, and today he is constantly engaged with work of larger and more important character. This larger work retains the same



ELECTRICAL BUILDING, BERLIN, BY HANS HERTLEIN

elements of composition but with less directness. His work at the Casino at St. Jean-de-Luz seems less architectural, it is more pageantry. There is more confusion and less form.

Along quite similar lines the new domestic type is being carried on by Lurcat, Le Corbusier, and Moreux in France, Gropius and Haesler in Germany, Hoste and Bourgeois in Belgium, Stam in Holland, and Sartoris in Italy.

Were such examples merely unique rather than fairly consistent in recent domestic design abroad, we should feel that they were certain to be but the temporary expression of a period of intense economy. They represent, however, an improved condition of living, more pleasant spaces, more air, more light, less elaborate furnishing, vastly simpler decoration. With these improved conditions they have developed a popularity which would lead us to believe further and more beautiful development of similar forms will likely prevail; forms, let us hope, as free from decoration, yet more graceful in mass and proportion.

While on the subject of housing, let me mention briefly housing types of Holland. Some of the most interesting that I have seen are in Amsterdam. In Amsterdam an extensive development of workmen's apartments occurred immediately following the war. The architecture in Holland is of brick. The color is pleasant. The forms appear less severe than in France, but the nature of their softening is less logical. Between such designs of 1922 and the more recent

developments out in the new section of Amsterdam near the stadium, a new beauty has developed tremendously. There is a quality in the newer apartments which is quite as real as that of any mediæval city. They are of simple brick work with scarcely a trace of stone, with pleasant color value, with charming freedom in geometric massing, and are arranged around courts so that all façades become fronts and they are quite as beautiful from the courts as from the boulevards. There are no rear doors, nor garages, and the impression they give is of quite the most ideal housing of economical character that one can imagine. A new city of tremendous interest and charm has been created within the past three years. Here, as in Finland, the extent of the new manner, its thoroughness in producing a completely architectural conception is amazing. There is a sustained beauty amid the simplicity, and it is carried out without a single annoying conflicting element in the panorama it presents. It is a picture far beyond our confusion, a picture which places the modernist among our true social philosophers and restores architecture to the niche among the liberal arts which it occupied in the days of the building of Chartres.

Holland does not continue the broad horizontals of its earlier work as they are being continued in Germany. The characteristic modern German apartment is a study in broad horizontals, while the characteristic tall German building is a study in continued verticals. We are not likely to find much pleasure in the German types, yet if we think of these styles in comparison with the petty scale and ugliness of certain sections of our own country, where housing of like economy was formerly attempted, a multiple repetition of tiny houses exactly alike, we are rather in favor of these more modern buildings, with their better scale and splendid simplicity. Francis Keally, whose facile pencil is so constantly seeking new forms, finds the sweep of German horizontals inspiring and accepts them with enthusiasm.

However, let us pass from the economies of housing, to the recent evidences of buildings of greater mass and more complex form. The evidences in pre-war Europe of a somewhat modern nature, which were best known to us, probably were after the type of the Wertheim store in Berlin. In it is clearly represented the general influence of the adaptation of modified mediæval forms to a steel design. The detail does not convince us that it is fortunate and suggests a period of the past without accomplishing beauty. Such was German modernism of 1904. The same character of work occurs at Duesseldorf, influenced by the design at Berlin and built in 1908, but has dropped the mediæval detail for a certain modification of classical detail and some frankly new and rather simple forms. Or if we pass to Holland, at The Hague, we have a similar shop with a still more pronounced scene of modernism. The translation into glass is more definite and the historic forms more completely eliminated. All of these examples date before the war and each of them possesses to a considerable degree useless ornamentation

which, in comparison with recent forms, is all the more noticeable.

The very recent work is emphasized in the new Electrical Building in Berlin, by Hans Hertlein, in which the distinct merit of the new work is apparent. This new colossus is marvelously impressive; it suggests the spirit of Louis Sullivan attaining a new triumph. For Germany, the prevailing material, like that of Holland, is brick, and in brick, with a wilful avoiding of stone, some very impressive effects have been secured. The brick work in texture approaches that of northern Italy in the eleventh and twelfth centuries, but the bigness of modern masses is understood, and the small-scale relief of brick ornament entirely omitted as unfitting.

Among the more meritorious of German works is the Exposition group and Planetarium, at Duesseldorf, built in 1926 by Dr. William Kreis. The court of the exposition is a composition in continued beautiful horizontals flanking either side of a court for an impressive length. This terminates with the tremendous pile of the Planetarium raised on an enormous terrace. A brick arcade of utmost severity, but of tremendous dimension, surrounds the building. Certainly in these forms the peculiarities of the modern show a tendency toward subservience to control within conservative design.

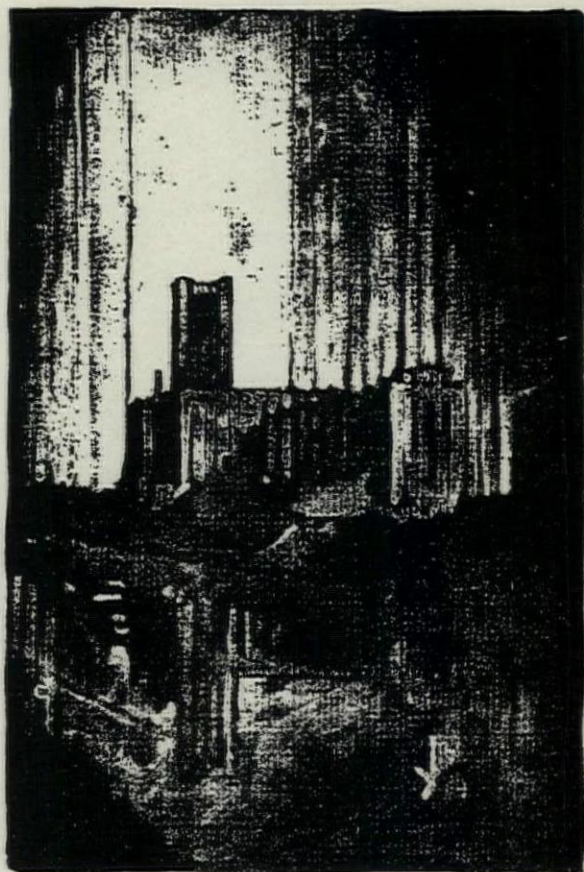
One of the most attractive buildings that one finds in northern Germany is the office building of the steel corporation at Duesseldorf, expressed in the plainest, simplest brick work throughout, with rigid economy in materials, and yet a very delightful composition. Grouped around a court, the building is a fascinating example of the skill with which the simplest use of continued verticals can create an architectural quality. The front of the court is open, except for beautiful iron gates on either side and a charming three-story control building placed at the front center. The relation in scale, between the small building and the tall building surrounding it, is delightful.

At Nuremberg, a warehouse by Fahrenkamp, a building of purely commercial character, emphasizes the trend of the most recent years. It achieves a still further crystalline nature which brings to the imagination the beauty toward which the true modern may aspire.

We are given to catalogue German modernism by the intriguing geometry of Peter Behrens' court of the dyeworks at Hoechst, or by the clumsy wall treatments of the apartment hotels of Hamburg. A change, most difficult to understand, has been evidenced in the work of the past two years. We can feel that in the unity of the movement Germany, too, is wiping away the unessentials. Possibly economy is truly corrective, the high cost of useless and of clumsy form may be dawning upon all; at any rate, a sweeping house-cleaning seems to have benefited German architecture.

Still, cults and extremists remain, and among the manufacturing establishments we find their disciples.

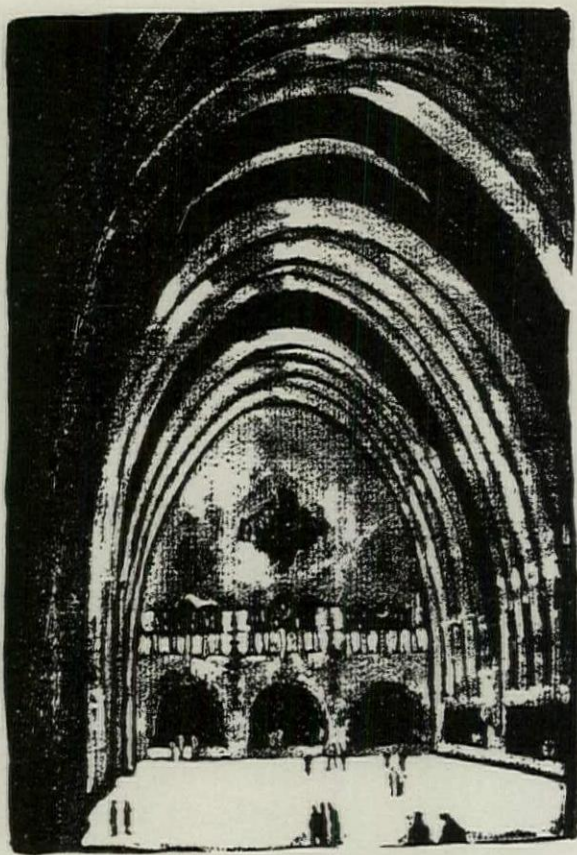
The apostle of industrial building and its relation to



BOOKBINDING PLANT, BERLIN, BY EUGENE SCHMOLL

architecture in Germany is Erich Mendelsohn. He, like Mallet-Stevens in France, enjoys a great popularity. His solutions of an industrial and commercial nature are more daring. His theory is that these plants can be expressed in an architectural manner in which the function of the plant distinctly forms the building. In justice to his designs, which for the most part appear very ugly to us, they represent some of the most exquisitely studied-out solutions of plan arrangement that are to be found anywhere in modern architecture. With consummate skill the machinelike problem of industry and of vast commercial establishments is worked out and the building takes its shape from the modified and changing activities of different sections and floors. Mendelsohn was the architect for the new Einstein Tower at Potsdam, which in itself is a wonderfully brilliant bit of planning expressed in a most unattractive form.

It is, however, in designs most characteristic of Mendelsohn that the continued horizontals occur, repeating story after story, terminating against a final vast brick abutment. Industrial plants may thus appear less monotonous and, as we see them, may become giant gargoyles with individuality. Further, and more daring, he encloses his buildings entirely with glass and sheet iron or bronze, eliminating masonry entirely except simple, unbroken brick walls that terminate his design. Designs of this character, while novel and showing the enterprise of the modernist, are not suggestive to us of civic beauty, and if Germany were to



POST OFFICE, UTRECHT, BY J. CROUWEL

follow this practice entirely, we could safely disregard its modern work. Iron may be quite suitable in combination with glass for useful buildings for commerce and trade, but architecture justly deserves a greater dignity in its buildings which are to have lasting purpose.

Passing to Holland, the outstanding design of the past two years is undoubtedly the stadium at Amsterdam. The stadium is in simple massive brick walls, unadorned except at the entrances where an elaborate and skillful composition, largely vertical but with cleverly handled horizontals, constitutes one of the most fascinating studies in geometric form to be found in any northern work. The Amsterdam stadium was the work of Jan Wils and was completed in 1928. It is less conservative than some of the German work, but it is more definitely possessed of an artistic and imaginative quality, forcefully stated by entirely new and unusual composition. The design, when seen from the vast parking concourse in front of the principal entrance, is one of crystalline freshness and delightful color.

It is very difficult in so short a space even to touch the elements of structure as they affect European design, and much that relates to it has been necessarily omitted, yet from structure the modernist takes his form. I can refer only to two favored forms, each very logical and very economical, which they are using. The first is the simple cantilever. This is the principle used in the broad projected shadows of the apartment groups of the Germans, with their clustered bands of

windows, unbroken bands of shadow made by the projection of the concrete floor slab of the building outward from the outside columns for a modest distance. Sometimes this forms an upper balcony, more often it is skirted by a simple concrete beam and closed in by a continuous horizontal bank of windows.

The forms which have developed from the cantilever construction probably are the most annoying to the American, probably the most offensive to our taste, because we are not yet prepared to look at the design in elements of structure as the modernist looks at it. To the modernist the logic of structure is all that is necessary to complete the understanding of design. A simple cantilever is a perfectly natural element of structure in the use of reinforced concrete. It is possible to overhang the sidewalk with the successive upper stories, to create broad shadows, to gain more room, and to do so with perfect economy. Wherever the cantilever is used, there occurs the horizontal element of design emphasized to the extreme. The aesthetics that we understand are satisfied best when the continuity of vertical support is clearly expressed. Such building is more restful, more satisfying. The denial of vertical support, as far as the eye is concerned, depending on the intelligence to realize the logical nature of the design, is not sufficient for us. We are unaccustomed to it and prefer the evidence of continued vertical support.

The second development is the parabolic arch in reinforced concrete. Considering it in contrast to classic tradition, its continuity, as against the round arch resting on the pier or capital, is suggestive of strength and grace. The apparent power of the new arch, springing from the floor and rising to great height without any interruption, is a distinct architectural contribution. It was used by Maigrot in his market house of Reims, with clean-cut accuracy and definite architectural quality. It has been used since in great aeroplane hangars, in great railway concourses, and in industrial establishments, with more modest cost for the enclosing of a vast amount of space. Freed from internal supports, such great spaces appear more interesting than the column-supported flat roof, or the truss-supported roofs of our practice.

The adaptation of the parabolic arch to purely architectural form in monumental buildings we find to better advantage in the interior of the post office at Utrecht, Holland, by J. Crouwel, architect. It has newness, directness, expressiveness—all of the qualities the modern would like to have and yet a beauty quite comparable with the material advantages of economy. This is the expressive beauty of the new arch; an arch that is resilient, the interplay of great forces of both tension and compression, in which reinforced concrete differs so completely from the quality of stone.

The parabola has also been the basis of design for the interiors of the better modern churches. From the few examples that I have seen, I am delighted with the extent to which the church shows progress in modern design. The German exteriors still are

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clumsy, overdecorated, overformed, but the interiors are amazingly simple and dignified. The German churches of Professor Böhm do not yet quite reach forms which are completely appealing to us, but they do reflect a positively definite character. If we keep in mind the driving economy of modern Europe, we may translate that requirement into terms of design for ourselves. We must recognize, when we come to churches, what that economy has meant in our own architecture. America practiced silly economy in church architecture for several generations past. The results are flimsy, poor makeshifts as compared with the splendor of mediæval architecture. Pre-war work abroad had the same disquieting evidence of pettiness and lack of dignity as compared with the Middle Ages or with the greater works of the Renaissance. The modernist has caught the sound, solid, enduring nature of the mediæval church. Stone in its lacelike detail is impossible. Simple poured concrete is an honest, lasting, and inexpensive material, and with it in his finer solutions, he attempts to apply no surface decoration of a bygone time. He has expressed the same structural directness that was characteristic of the great churches of the twelfth century, in which, without exception, throughout all western Europe the mediæval church represented power, vast dignity, and sincerity of structure which gave to the individual a spirit of contemplation and consolation amid impressive quiet. So we must give credit to these modernists for telling some splendid truths again in new material in the interiors of their churches. They have reached with simplest means qualities that seemed lost to all recent church building. By their very solidness and clearness they have done what even with stone we could not do, recover the spirit of the church without spoiling it with mediæval detail.

As for the exteriors, the Germans have yet to offer a solution that does not deny the dignity of the interior. On the other hand, there is in Denmark, the recent Grundtvig's Church at Copenhagen, by P. V. Klint, which reaches a skill, simpleness, and rhythm of composition which we enjoy. Like churches of the north, its entrances lack the grand scale of the French, and this practical protection from the cold weakens the design in beauty. In Stockholm, St. Engelbrekt's and St. Hogalid's have vastly cleaner and more dignified exteriors in brick work with graceful towers. They bring anew the mediæval fineness of lofty interiors expressed in such simpleness as to enhance the splendor such height affords.

The outstanding examples of the modern manner, by which the north has become known to American architects, have been Ragnar Ostberg's City Hall at Stockholm and Eliel Saarinen's railroad terminal at Helsingfors. The first of these, in composition, reminds us of the Lombard period, of twelfth century Italy, and with beautiful color and workmanship, with most picturesque position, the work seems romantic to an excessive degree. The second, the Helsingfors terminal, is more novel, its forms more vigorous, its material and color beautiful, yet as should be expected in the initial efforts of a new manner, there is a



NEU-ULM CHURCH, BY DOMENIC BÖHM

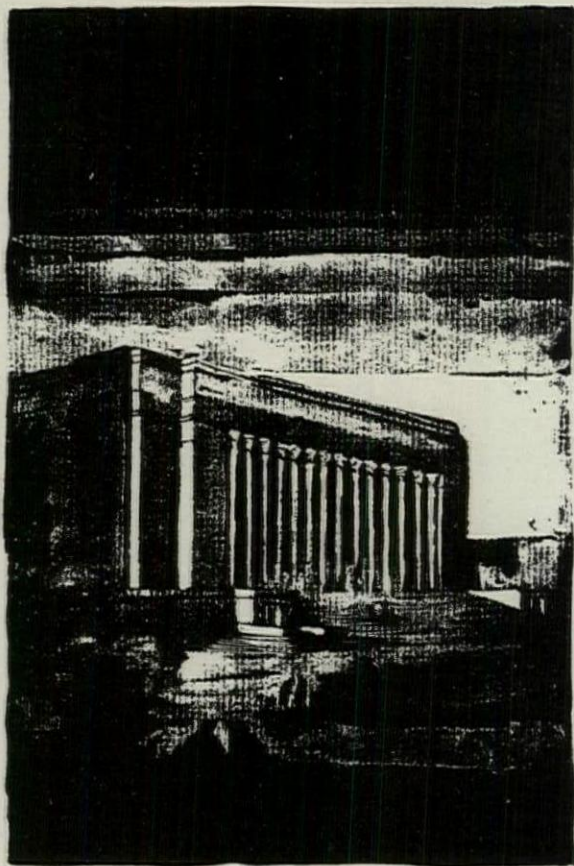
mingling of the unusual masses with newer forms which merge none too well.

Much more recently, the Concert Hall in Stockholm returns to a saner beauty which combines the skill of modern knowledge of material with gracefulness of form.

In Helsingfors, J. S. Siren is completing his House of Parliament in a manner proving the modernist seeks beauty as his aim. The stunts of the terminal station of fifteen years earlier have given way under this later artist to as impressive a composition in balance and refinement as recent generations can offer. The formal manner which his subject suggests is fully expressed, yet in every respect its design and detail meet the demands of the new manner. This work conforms to American ideals of the better modern, as suggested in the refreshing designs upon classic pattern recently coming from the office of Paul Cret. To Siren's design, however, there is a vast scale and majestic cleanness and directness we have not yet witnessed in America; our important public work cautiously clings to the apron strings of our own enfeebled tradition.

Finally, if we are to form our impressions of the modern movement abroad with a sense of fairness, we must look rather to their aims for the future, than to the work which in so short a time they have been able to complete under such adverse conditions.

In this respect, the future vision of the Finnish



PARLIAMENT, HELSINGFORS, BY J. S. SIREN

capital is a wonderful one; from 1915, before its national independence had become a fact, it was planning the extremely difficult problem of the recovery of water-surrounded areas sufficient for the extension of the city in its growth. Through studies by Saarinen, published in 1915, and again in 1918, and with a well-organized department carrying these to further plan-studies in more recent years, a general plan has been so far determined that today the city of the future is being developed in a series of architectural models, under the direction of Oiva Kallio, to so thorough an extent that not alone the height of buildings, but their general mass and form, are being so determined that conflict and confusion can be completely avoided. Streets and their intersections are also exquisitely modeled in such a manner that they fix the vision of the future as a reality upon the public mind.

Where in America, with our cities growing far more rapidly than in Finland, is such thorough safeguard of creative vision being stored up for the protection and guidance of our future?

With the emergence of the creative imagination from the complacent acceptance of the hackneyed manner of pre-war days arises the determination of the modernist to build to meet new conditions, sanely, in the remedial manner of science, and to plan far enough ahead so that a new beauty, which can avoid confusion, may become possible.

If we return to Paris for the French modernist vision, we have a complementary picture. For Paris,

the housing problem is the major problem, and next to this is the problem of traffic, for like all great metropolises, this is ever increasingly difficult.

There is probably no more exquisite story of the relation of the modern to the historic, than can be found in Albert Guérard's "Future of Paris," recently published in French. His plea is distinctly for the preservation of the historic beauty of that city. For him, Paris possesses an exquisite and sensitive scale, continued and preserved through centuries, so uniform in quality, so distinguished in the gray tones that prevail throughout, that to introduce into the historic centers of that city the elements of modernism would be blasphemy. However, with a free mind, he suggests, and the French projects of vast scale conform with his views, that Paris is ever new and that there is room for infinite imagination in the new manner, providing it be used in new sections at a distance from the historic boulevards and monuments.

Projects are actually being studied and developed for vast housing groups along the east bank of the Seine several miles out from the center of the city. Of such projects is one, by André Ventre, which represents the problem of a street for traffic devoid of pedestrians; a street for pedestrians at a much higher level devoid of vehicles; and a successive progress from garage space underneath the buildings at the street level, to loft buildings for the lower stories, offices for the upper stories, and finally on the avenues of pedestrians, dwellings and apartments with large open spaces for amusements, cafés, and theatres.



APARTMENT PROJECT, PARIS, BY HENRI SAVAGE

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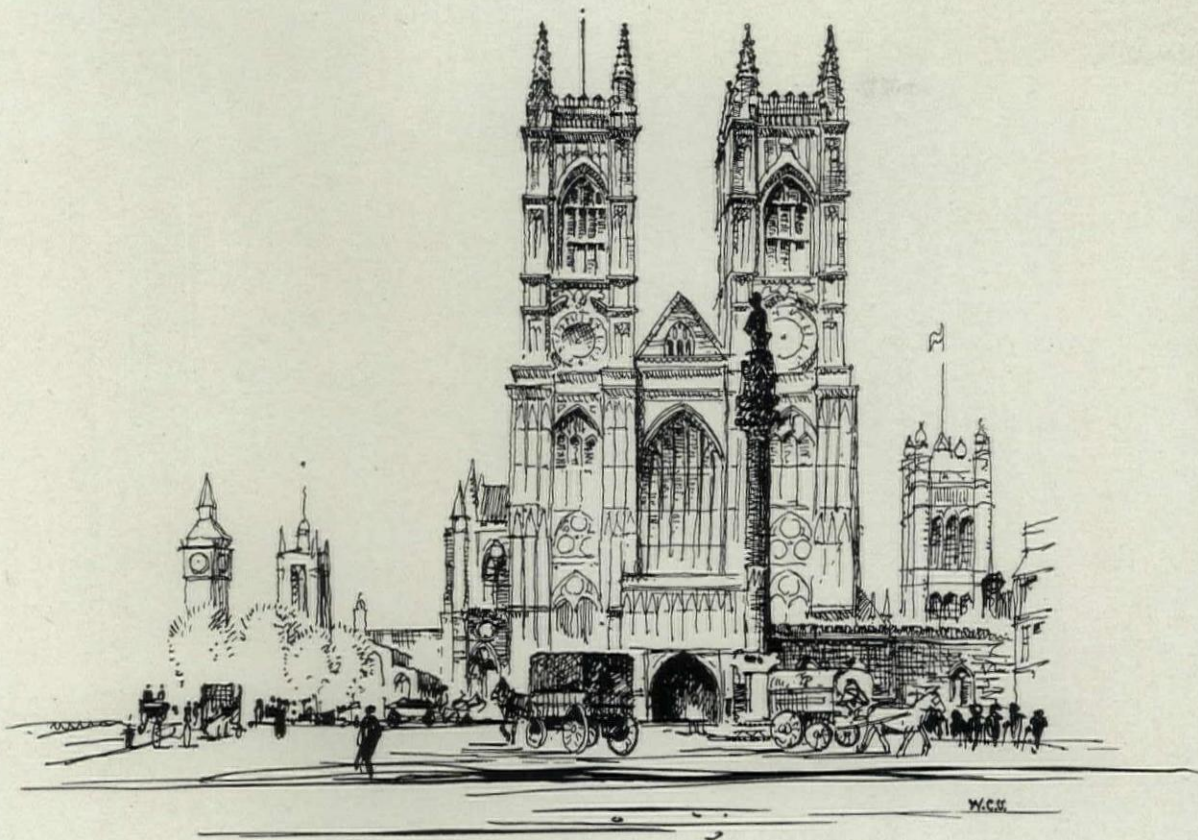
Or again, such a project as that of Henri Savage, also for the same section of the city: Savage proposes that the base of the buildings shall likewise be used for automobiles. He piles up an almost mythical city, in which single group, of colossal size, some three thousand apartments are to be contained, with shops, promenades, theatres, churches, and practically all of the city conveniences for a vast population; a vast populated pyramid with amazing possibilities of beauty and comfort. While these projects do not determine the exact design of the future, they show a new and wider vision of the problems of the future for architecture.

My impression of the modern, as it is advancing abroad, is that it is moving away from any elaborate, fantastic detail. It is not kindred to the *Art Nouveau*. It possesses solidity rather than giddiness. It is moving along the lines of economy of space, economy of structure and toward a conservative architectural solution, yet embracing ever more gigantic problems. More and more its forms come to lose their crudeness and to approach beauty. Only here and there distinct beauty

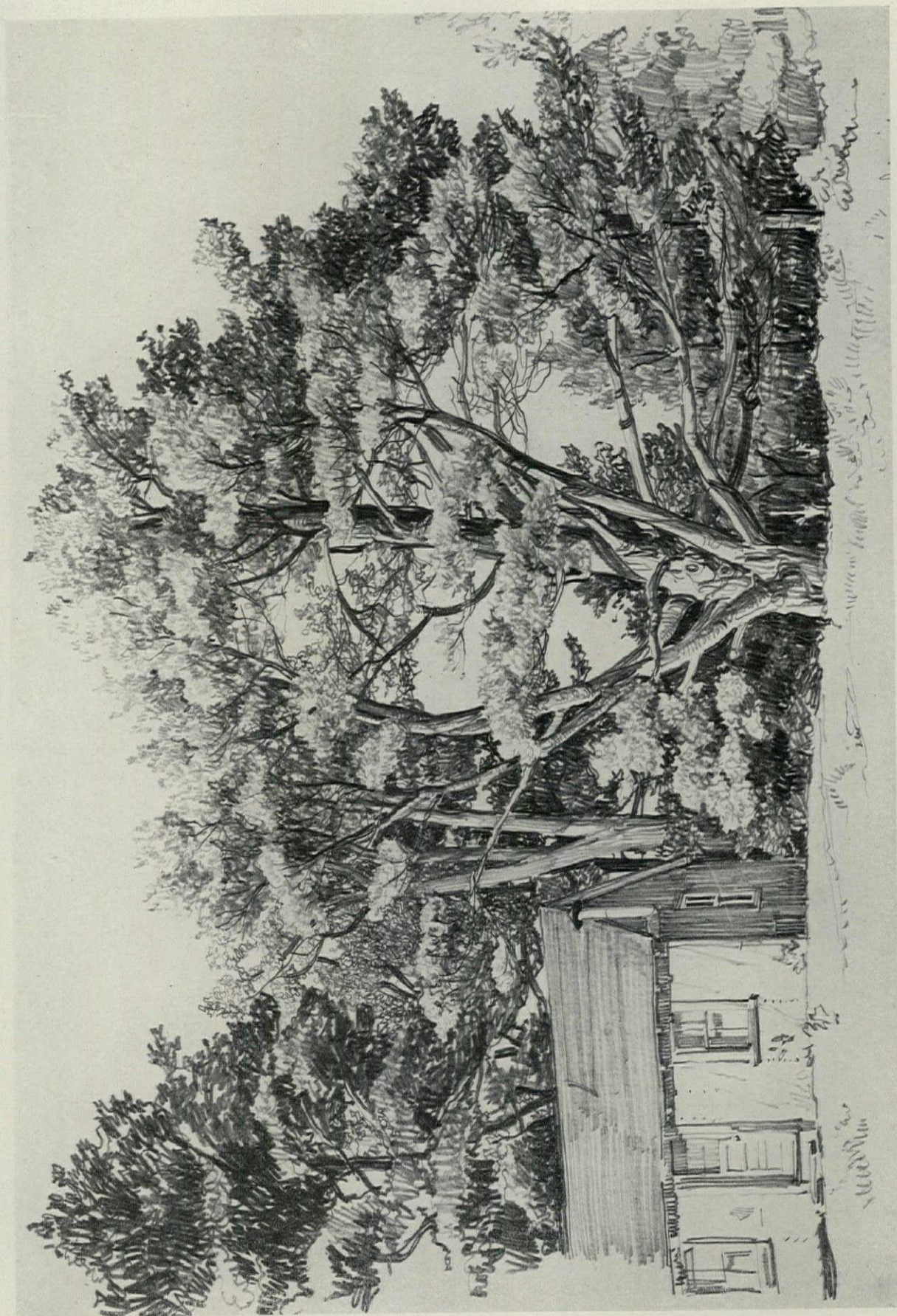
has already been attained. The impression is still deeper than this. It is possessed of an intensity which is driving it forward to test its power to solve the new requirements of a new age.

While post-war economy gave foreign modernists their opportunity to demand new forms of simple geometric nature, they are also applying these new forms to totally new solutions of architectural problems and with a more serious study of space, comfort, and machinelike coördination.

I still must hold that the work of the modernist has a long and difficult way before it. The greater dignity of the finer things of classic tradition is not to be forsaken altogether. Toward equal beauty the new manner must move slowly. It is, however, equally my impression that the modern movement in Europe is supported by the changes of modern times which have called it into being, that therefore we should consider it neither as a fancy nor a fad, to be short-lived, but rather as a true expression of the new age, deeply and probably lastingly changed, in all countries, and that this new expression is being evolved by men of great talent and ability in architecture.

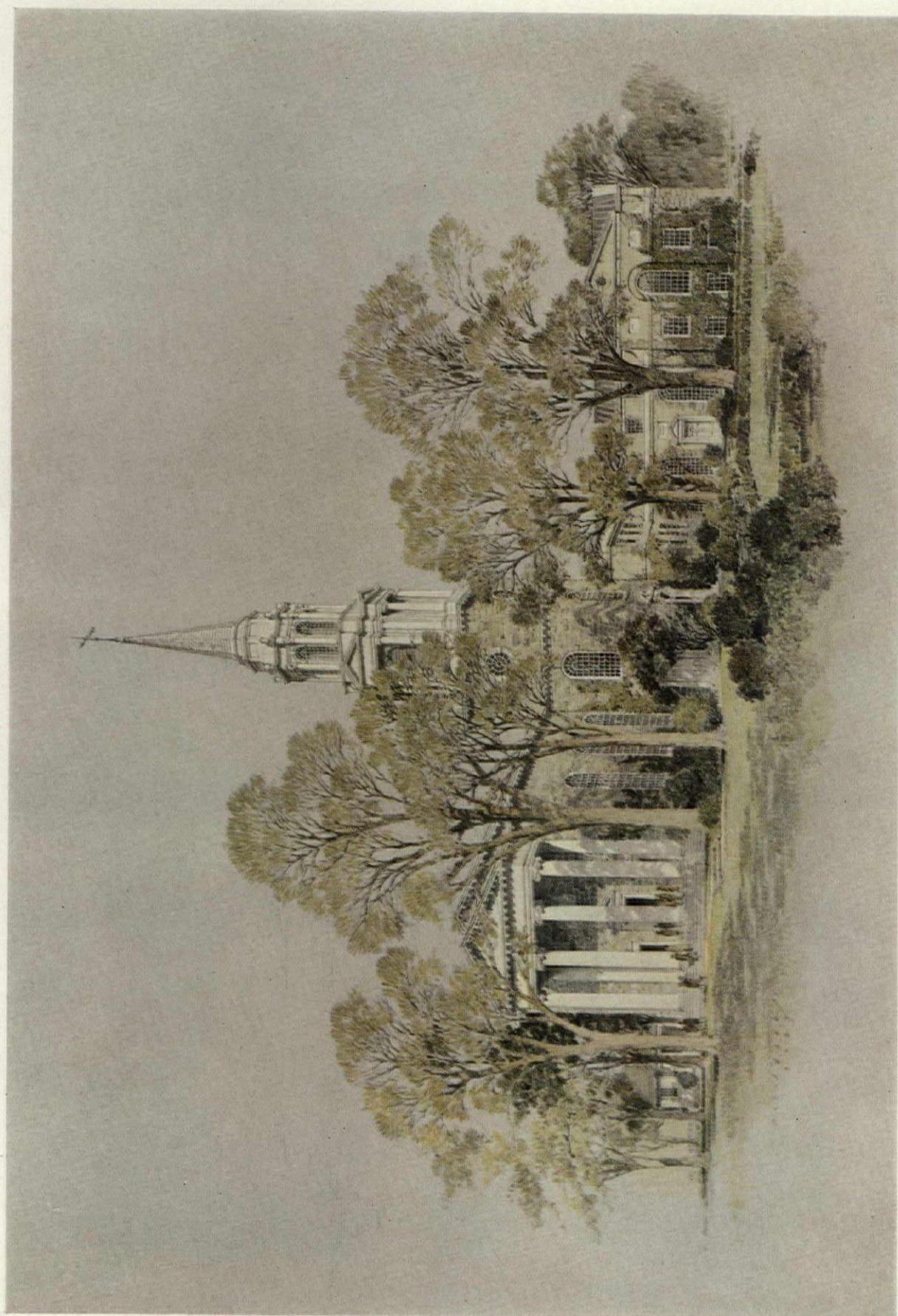


PEN AND INK DRAWING BY WILLIAM C. ULRICH
"WESTMINSTER ABBEY"



FROM A TREE STUDY BY EDGAR I. WILLIAMS

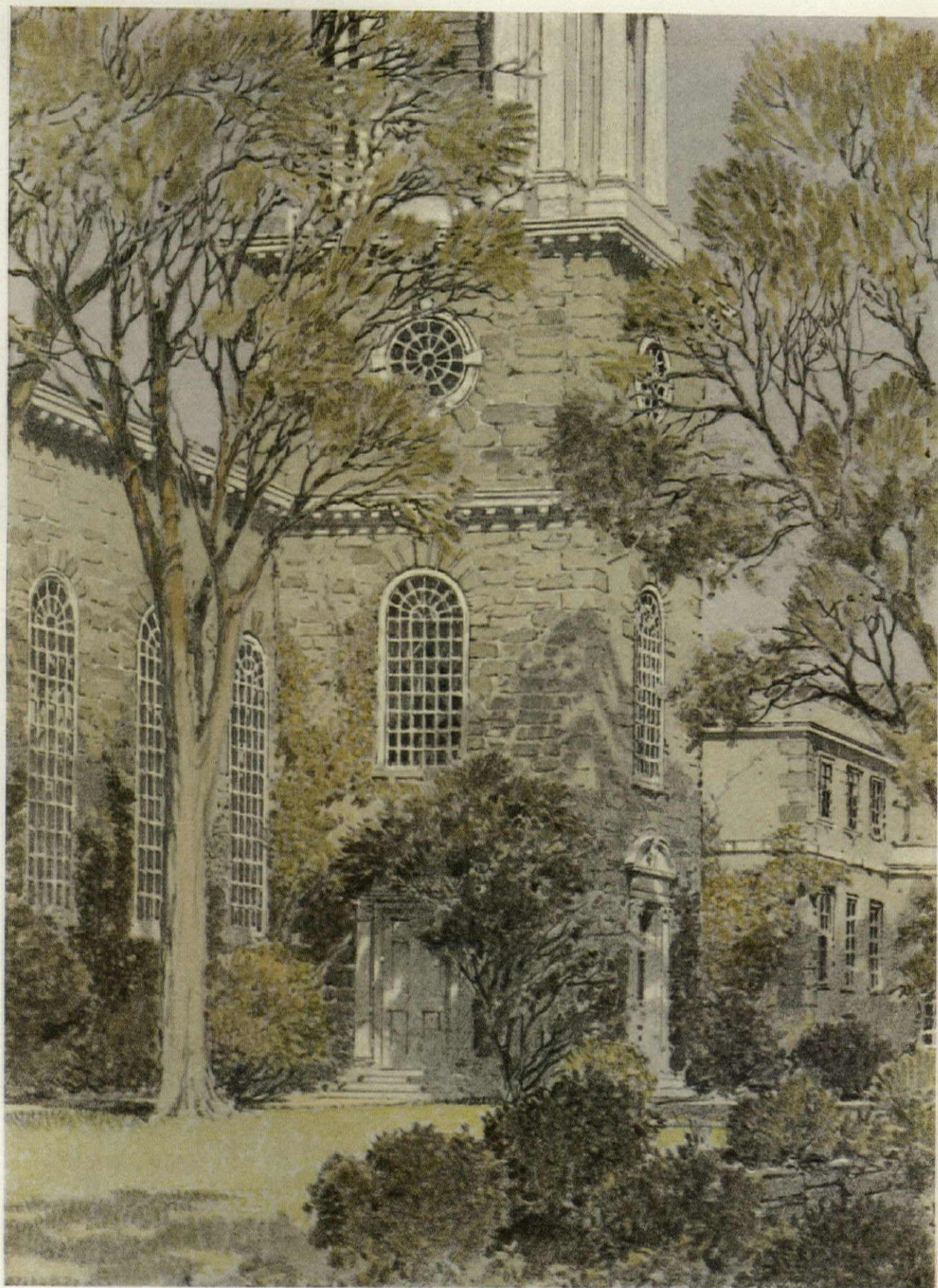
The architectural draftsman who frequently draws trees from nature will never be at a loss when called upon to show foliage in a rendering



PRESBYTERIAN CHURCH, NEW ROCHELLE, NEW YORK—OFFICE OF JOHN RUSSELL POPE, ARCHITECTS
FROM A RENDERING IN PENCIL AND WATER COLOR BY OTTO R. EGGERS

PENCIL POINTS SERIES of COLOR PLATES

It is our great pleasure to reproduce this month a color rendering by Otto R. Eggers, made several years ago, but none the less of intense interest to all architectural draftsmen. The original drawing, which measured 30" x 21", was made with pencil on tracing paper, mounted, and rendered with water color, some transparent and some opaque. The detail at exact original size shown on the other color plate gives, perhaps, an idea of the technique better than could be conveyed by words. The composition of the sheet, as is usual with Mr. Eggers, is masterly.



DETAIL OF DRAWING BY OTTO R. EGGERS, REPRODUCED AT EXACT ORIGINAL SIZE
PRESBYTERIAN CHURCH, NEW ROCHELLE—OFFICE OF JOHN RUSSELL POPE, ARCHITECTS

PENCIL POINTS
(June, 1931)

PENCIL POINTS SERIES
of
COLOR PLATES

A portion of a color drawing by Otto R. Eggers, reproduced at exact original size, should prove informative to the many enthusiastic admirers of his work. The rendering was made complete with pencil and then rendered lightly with transparent color and some gouache, the opaque color being principally on the woodwork and stone, the transparent on the sky, trees, and grass.

Architects and Producers Discuss Their Mutual Problems

A Symposium Continued from Page 411

RAYMOND
M.
HOOD,
*Past
President
of the
Architectural
League
of New York,
Says:*



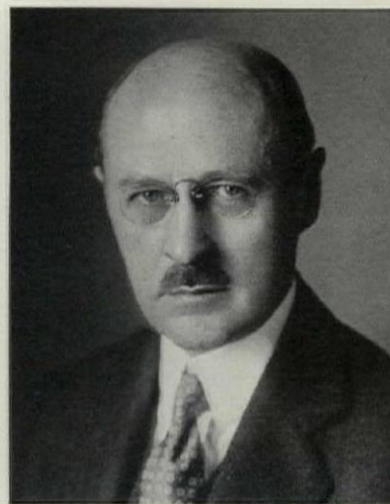
"It is as difficult for an architect to criticise the sales method of a manufacturer, as it is for a manufacturer to criticise an architect's way of doing business.

"I do know, however, that there is a great deal of annoyance in an architect's office that originates, mostly, from people who apply the 'glad hand' method and from those who are merely salesmen. Unfortunately, there is such a large proportion of men, who try to break into an office, who are of this sort, that the serious man, who knows his business and whom the architect would be glad to see, has an uphill road.

"There is one other point. Every salesman seems to think that he must get to the architect personally. If an architect saw all the men who refuse to talk with anyone but himself, he would have no time to do his work. Further, it has been my experience that an architect's mind is influenced and made up for him by the men in his organization and not by the high-powered salesman who gets hold of him for an hour.

"There is usually a proper man to see in every architect's organization, about everything. The reason they are there is to gather information and pass it on to the architect, and as they are specialists in their line and have no axe to grind other than the owners' and architect's interests, the architect is bound to have confidence in their judgment. And this last applies most to the so-called 'artistic products.' A designer, for example, is much more apt to make headway with the architect if he has sold himself to the architect's favorite designer, than if he had insisted on pinning the architect down to a personal interview."

CHARLES
T.
INGHAM
*of
Ingham &
Boyd,
Pittsburgh
Architects,
Says:*



"In these days when so much attention is being given to the use of new materials in the building industry as well as to new developments in the use of materials that have long been standard, an added responsibility confronts the architect. He must be properly informed regarding the characteristics of these new materials and methods of construction before he can use them intelligently in the buildings he designs. This information the manufacturers are desirous of placing before him.

"How to bring the products of the manufacturer most effectively to the attention of the architect without waste of time and money is a problem that interests both parties. Enormous sums are spent in the preparation and distribution of catalogues and circulars of information, in advertising, and in direct personal contact of manufacturers' representatives with architects. It is not within my ability to appraise the relative values of these methods. Such comments as I have to make will be limited to the last-named procedure.

"Many architects recognize the calls of manufacturers' agents as part of the daily routine of the office and make proper provision for their reception. Others seem to plan their offices with the deliberate purpose of leaving no opportunity for the opening of a sample case. These two types of office arrangement might indicate opposite views as to the value of personal contact between the architect and the producer but it is my opinion that they represent an economic difference between the office doing a large volume of work which can afford to devote office space and the time of an employee to this purpose and the small office which

considers time and space so used as unproductive and therefore a liability.

"When one considers the number and the nature of the calls that daily cut into the architect's time it is not surprising that the manufacturer's representative frequently finds him impatient and irritable and concludes there must be something lacking in his sales appeal. Maybe there is. Let us consider some of the types of agents who are entrusted with the delicate task of interrupting a man's work and making him like it.

"At the foot of the list I would place the man who bobs up every time the construction reports announce that the architect has a job and continues his calls at regular intervals thereafter. He extends the glad hand on every occasion, repeats his ancient jokes, gossips about other architects, has nothing to add to what you already know about his product and has only one interest—to have his product specified exclusively on every job. Such a representative becomes a pest and may cause a personal dislike to extend to the product he represents.

"Then there is the young man just learning the game. Haltingly he recites the story he has committed to memory. His talk lacks conviction and the architect, instead of listening, is trying to devise a way to excuse himself without offending this well-meaning but inexperienced young man.

"Utterly useless is the man who proudly displays his samples but upon being questioned shows an unbelievable lack of technical knowledge of the product. Upon leaving he requests the architect's card or an envelope in order that he may prove to his employer that he succeeded in 'crashing the gate.'

"There is also the experienced salesman who, on a former occasion, convinced you that the product he represented was superior to that you had been specifying. To your surprise you find he now represents the company whose product you forsook and you know he will again take you over. You hate him for his ability.

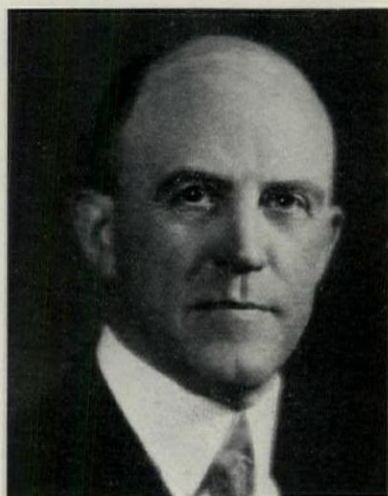
"But why go on enumerating the many well known types. The manufacturer can probably match them with an equal number of amusing types of architects. The question is, what can be done to improve the relations between architect and manufacturer's representative? They can be mutually helpful if the lost motion and waste of time is eliminated.

"The architect's time is his stock in trade and if any of it is to be wasted he reserves that right to himself with a mental reservation in favor of his client. Therefore the personal contact between producer and architect should be as conservative of time as possible.

"The manufacturer's representative should, and many of them do, realize that what interests one architect may not interest another, or at least not in the same degree. It may be his job to interest all architects, willy-nilly. If he is a discerning person he will know when he is approaching the limit of the architect's patience and will desist before incurring his displeasure.

On a future visit he may find the architect more interested.

"Finally, if the representative has a quality product that is applicable to the work the architect is doing; if he has a technical knowledge of his product, including its limitations; if he has the ability to present his case concisely and to recognize signs of distress if and when they appear; if these conditions obtain, much lost motion and waste of time may be avoided, some of the grief will be taken out of the practice of architecture and as the present clouds of depression roll by the architect and the producer may 'live happily ever after.'"



WILLIAM
LESLIE
WELTON,
Architect,
of
Birmingham,
Alabama,
Says:

"I shall not attempt to tell the producer how to run his business but permit me a few words concerning the salesman.

"It is a pleasure to admit, right at the start, that the higher type of manufacturer's representative is a most valuable contact for the architect. He is a fine gentleman, gracious of manner, intelligent, well informed, considerate and very much worth while, and any architect who won't, or doesn't, give him a fair break to get his story over is stultified, callow, and not worth his salt.

"I suppose what you wish us to tell about is the pest. Unfortunately we still have a few of them left. Some of these fellows approach the type, now fast disappearing, of the old-line insurance man who does his stuff in the office to office campaign, braying out his wares with auger-minded persistency.

"Here, in the south, we have to take the vanguard of undergraduates in salesmanship. Boys who are a little difficult, not having been in the producers' school long enough to know quite what it is all about. They are always young and can be detected the minute they come in as they begin by saying they are doing missionary work as though the south is peopled by savages. Savages there be, without doubt, even to gutturals and barking but, at that, they stack up pretty well with the type of representative referred to.

"Then there is the *ipse dixit* type: he with the

angular mind. He cannot understand why we old-timers will not cast aside materials, used with complete satisfaction for years, and take on his new and wholly untried product. Indeed it is incredible to him that we are unwilling to experiment with our client's money. And should we so experiment, with disastrous results, the only satisfaction we get is the reply: 'Oh, we have now abandoned that material and have something new and better.'

"Another salesman, the fatuous youth, is worth comment. These boop-a-doop boys don't even know where their stuff has been used, what it costs either laid down or put on, or much of anything at all about it—but—they 'will write and find out' and by the time they find out all interest in the matter is lost.

"Another variety is the follow-up man, who calls because his boss has informed him by blue copy letter carbon that letter request has been made for certain information or for samples. Correspondence has completely covered all information desired but still this bird has to come in and consume time with repetitious conversation over subject matter long since filed away in the dead file.

"The robot salesman deserves a word, as his stunt is to make periodic calls on the architect. His line is that he wishes to make your acquaintance or to renew an old one, both of which are untrue. We don't even remember him or his product, but we must listen to the same old stereotyped sales talk which usually ends by a request for a letterhead, supposedly for the purpose of sending it back to the home office to prove that he called on you.

"When it is realized that forty or more trades enter into every building operation and each one is represented by hundreds of manufacturers, it will be agreed, I think, that architects are due plenty of commiseration. The wonder is that their weakened sales resistance doesn't break down sooner than it does under this high-pressure salesmanship of the above-mentioned varieties of sales representatives.

"But we should not forget to mention the one redeeming *genus homo*, who relieves the minutiae of detail talk with the latest Scotch story—a relief that goes a long way to assuage the long-suffering over-counter experience.

"Seriously, though, I am a firm believer in contacts with the higher type of salesman. New ideas are imparted and valuable information obtained from these men, and I go so far as to insist that my associates meet these gentlemen as a very necessary part of their education.

"Doubtless, the now highly improved and modernized catalogue service goes a long way to replace the fly-by-night road men, but an experience of thirty years with them over the counter convinces me that up to the present time, at least, they give a service not well covered in any other manner."

RALPH
COOLIDGE
HENRY
of
*Henry &
Richmond,
Boston
Architects,
Says:*



"I have found it generally true that manufacturers' representatives are qualified both in personality and in information to fairly present their materials and methods. There are, of course, regrettable exceptions.

"We always endeavor to give salesmen a reasonable opportunity to tell their stories. Men differ as to the time consumed in so doing and, as time is usually of vital importance, salesmen should respect it and confine themselves to what architects consider essentials.

"Speaking for a moment in generalities, for the sake of leading to certain specific conclusions, there will always be, in the nature of the case, honest differences of opinion among salesmen and architects regarding the most desirable structural methods or the most appropriate materials for solving any architectural problem.

"Although architects desire to keep an open-minded attitude toward all innovations, lest some really progressive and perhaps revolutionary idea escape them, both prudence and good judgment insist that novelties be proven for worth before adoption. This proof lies either in the satisfactory experience of competent judges or in demonstrations of inherent merit from laboratory or other sources that are both reliable and disinterested. No architect of sound judgment will experiment at the expense of his client's interest.

"Specifically, therefore, a prudent salesman should have letters commending his proposal from architects of high standing in the profession or he should be prepared to leave with the architect clearly written records of tests from laboratories recognized as competent and disinterested, where the dominant characteristics of the material or method in question have been tested and compared with established alternates in the same general field. He needs nothing further. He should not expect that an architect will not generously discount sales talk actuated by the immediate special interest and sales talk derogatory to legitimate competitors in the same field.

"Again, I have heard of instances of copyright or patent infringement being deliberately concealed in the interest of sales. Such methods are certain to have

consequences that are unfavorable in the ultimate and inevitable reaction.

"I am at a loss, also, to understand why salesmen should not quote architects actual rather than fictitious prices on units of cost. They must know that architects will soon learn the truth of the matter which has only an imaginary value as a so-called 'trade secret.' They soon learn how to arrange their lists of men who are frank and open in the matter of costs as well as their lists of those who are not.

"In a word, manufacturers and their representatives should realize that the architects are always trying to help them by every legitimate means. They can well afford to take architects quite fully into their confidence. They can ill-afford to do otherwise since the reputable architect cannot have any other motive than to secure the best quality possible within the available means.

"If the above is a criterion, and I believe it can scarcely be disputed, salesmen will be reluctant to adopt agencies for inferior products. They will thereby save themselves and their prospective purchasers disappointments that are expensive and disillusioning to the building industry in general. They will realize that building is essentially a collaborative enterprise with innumerable ramifications compelling honest team work for rewarding success."



LANCELOT
SUKERT,
*of Detroit,
Past
President
of the
Michigan
Society
of Architects,
Says:*

"There is a crying need for a closer and more intelligent cooperation between those who produce and sell building materials, on the one hand, and the architects, specification writers, and draftsmen who consider the use of these products in buildings, on the other hand.

"Permit me to reply to the questions given in your letter of March 26th.

"(a) There is a great variety of types among the men selected by manufacturers to represent them by calling on architects. The highest and best type of representative is the salesman who has been schooled in architecture. The lowest type is the man who is sent out by a manufacturing concern to 'contact'

architects for the purpose of gaining experience. Between these two extremes there is a wide variety ranging from the very polished salesman to the most uncouth. The architect does not respect the opinions offered by representatives who have less knowledge of the product than has the architect himself. This subject is so broad that an entire issue of your excellent magazine could be devoted to the various kinds of pests who call upon architects.

"(b) We have a notice outside our office door and also in our reception room which reads:—'We would appreciate sales representatives confining their visits to the forenoons of Tuesdays and Saturdays.' All of the trade publications which list the names, addresses and phone numbers of local architects for the use of manufacturers' sales representatives carry after the name of our firm the words 'Tuesday and Saturday mornings only.' Unfortunately this custom of setting aside two mornings a week for the reception of sales representatives does not seem to be general. We believe it should be universal. It is a distinct aid to a salesman to know that there is a definite time when he can call upon an architect and receive his uninterrupted attention. We appreciate that we must be familiar with the good and bad qualities of every product offered in the building field. We are not only willing, but anxious to learn. We are particularly interested in improvements, new materials and their uses, as well as methods which will facilitate construction. For this reason we set aside a total of one day out of the five and one half working days of each week for receiving sales representatives. Despite this fact, we find that salesmen do not generally respect our arrangement. Rather than take the trouble to come back upon one of the mornings set aside for giving them undivided attention, many risk our displeasure by attempting to force their way in when we are busily occupied with other matters. Of course there are a great many who confine themselves to our arrangement. Naturally, they receive better attention.

"(c) We suggest that manufacturers select men who are, first of all, courteous, well educated, and gentlemanly. They should then be thoroughly schooled concerning their product. Producers should impress upon salesmen that the architect does not wish to be sold, but prefers to buy—to select, as it were. Architects resent high-pressure salesmanship.

"(d) Many producers' representatives make no calls upon an architect until it has been reported that his office is preparing plans for a building upon which it is probable that the producer's materials may be used. The sales representative then rushes into the architect's office and has to wait in line to obtain a hurried, oft-interrupted interview, which is unfair both to the architect and to the producer. In many instances the salesman calls at a time when most of the materials entering into the building have been definitely decided upon. It is not unusual for salesmen to wait until after the plans and specifications have been issued for bidding. In either case the architect finds himself

faced with the involved process of changing the documents if he should wish to utilize the materials offered. Most offices look with disfavor upon any attempt upon the part of a producer to have his materials substituted for those already specified. Manufacturers should be made to understand that the worst possible time for 'selling' is *after* a decision has already been made, because this not only entails selling the product but also *unselling* that product which has already been selected, and nothing can do a salesman so much harm in the opinion of the architect as to 'knock' another manufacturer's materials or methods.

"(e) The worst possible method is for the salesman (whether or not turned down by the architect) to go over the architect's head directly to the owner, for, by so doing, he incurs the architect's everlasting animosity. The reasons for this are obvious.

"(f) We know a few sales representatives who make it their business to become the personal friends of architects and to gain consideration for their product through the fact that they have established in the architect's mind a respect for their knowledge of materials of the type which they represent. This type of salesman is an asset since he is often called upon to give information concerning materials in his field and he usually does so without bias and without overstressing the advantages of his own particular product.

"(g) The purely 'contact man' who has been ordered to call on each architect at least once a month is put down as an out and out nuisance, particularly when he excuses his interruption of the architect's time by saying: 'I was in the building and thought I would just drop in and see if you have any use for Doe's valves!' The 'contact' man is the worst of all pests!

"Most architects could write a book on this subject. I frankly believe that if I were starting out to visit architects for the purpose of selling a product I would first attempt to obtain the attention of one of the larger practitioners and, if I could catch him at a leisure moment, I would not only ask him what he considered to be the best method of approaching architects in general, but would, if possible, ask him to tell me of the idiosyncrasies, likes and dislikes of the various architects with whom he is closely acquainted, particularly those who are doing the class of work upon which it is most likely the product will be used.

"A salesman representing a producer and wishing to make friends of the various architects in his district can not expect to be well thought of by architects if he employs a contractor to design and build his own house. In the Detroit district we have a roofing subcontractor, a stained-glass manufacturer and a salesman of fine fencing materials, all of whom gain their livelihood through the medium of the architects and all of whom have recently built homes for themselves from plans prepared by contractors. Architects are most sensitive to this sort of thing, discuss it openly at meetings of their organizations and some of them are certain to let it warp their judgment against the material or service sold by these people."

W. K.
GLEN,
*Advertising
Manager
of the
Crane
Company,
Says:*



"The premise which you have set up requires most delicate treatment and my comments are strictly personal and are to be construed as coming from a free lance. These reflections are the result of many years of experience in selling, advertising, and association with architects, directly and indirectly.

"I have been in touch with the activities of all of the major producers of plumbing and heating materials for many years and believe that they have made every helpful gesture to the architects that they can conceive of. These great manufacturers keep the architects fully informed of the latest advances made in plumbing and heating devices, furnish them with engineering data, maintain exhibits at great expense for the architects and their clients, spend hundreds of thousands of dollars every year in general magazines, pointing out the advisability of always obtaining architectural counsel when one contemplates building, and maintain forces of architectural salesmen which are offering their personal services to the architects.

"I believe all architects feel that they are entitled to the cooperation which is being rendered them, and they are right; but I do believe a greater indication of appreciation could be shown, and to the advantage of their clients. Again, it is my belief that the producers do not expect extravagant consideration for these services, beyond the point where the individual architect accepts the superiority, for one reason or another, of nationally advertised merchandise and service over unknown.

"As near as can be estimated, 3% appears to cover the architects who insist upon their specifications being followed. The 97%, in the final analysis, seem to accept the judgment of the contractor and permit him to use what he alleges is the equal of the material the architect has specified. In a distressing number of cases the client pays for many years for this apathy. With all due respect to the contractor, when he is permitted to use his own judgment he is seldom strong enough to close his eyes to an additional profit which he can make by the substitution of inferior materials, and the final effect is obvious.

"The manufacturer does not know, except in a relatively few instances, just what service the architect

would like to have. He accepts the services which are offered but has few comments to make, in regard to his satisfaction or the contrary. The manufacturers are very eager to be told of how they can improve their service, and I sincerely hope that this symposium will bring out some constructive ideas.

"With reference to architectural salesmen, I believe that the manufacturers in general try to have their most experienced men call on the architects, as these salesmen must be thoroughly acquainted with their own products, must have an acceptable personality, and more or less technical education. Salesmen covering this field must be made, and it is only rarely that a manufacturer can pick up a man, who has not been educated in his own plant or office, whom he can use immediately.

"It is difficult for me to confess the regard I have always had for the architectural profession. Until recently, when politics began to play a disturbing part in architectural decisions, I have felt a respect approaching reverence for the men who could create architectural beauty, comfort, and sound investments out of things made of stone, timber, steel, and by-products.

"I have always considered the architect's profession a sacred vocation. I probably have more than the average idealism but the power which they can wield, the beauty and character which they can create, the responsibility which they carry when an individual or an association places untold wealth in their hands to invest, establishes them in my mind on a plane occupied by no other group of men. In recent years, however, it appears that these men who have God-given abilities are falling off the pedestals on which I, and many others, have placed them and are very human and becoming politically-minded. It may be that the present era, which is money-mad, has in its pathway of destruction included the architects. Whatever the cause, the effect is iconoclastic and infectious.

"I realize, of course, that in all great building operations very frequently politics do play an important part; but I still believe that there is no justifiable reason why quality, which is only insurance, should not be the main consideration in construction work.

"I am quite sure that the responsible manufacturers of this country would welcome the assistance and support which the architect can offer them by insisting upon his specifications being followed, and that the results should be encouraging to all parties concerned, the consumer in particular."

J. A. MURREY,

*Architect, Secretary of the Architects' League
of Hollywood, Says:*

"The individual's thought of the personal I comes first to practically all of us: The Contractor, Manufacturer, Material man, Specialty man, Salesman or Architect. The Architect, no doubt, feels that his time and office are often abused, by the spasmodic coming in of members of the craft and solicitors, without any specific purpose than to let the Architect know

that they are still in existence. These trips in and out of the office, not by one but by many in a day, require many hours of time of the Architect, unless his organization is large enough to afford a Host.

"But, seriously, for the Architect to be disturbed during his time in the office, with the problems and development of any project, an interruption will create the loss of considerable time before it may again become something tangible in the scheme of development. There is no doubt in the minds of most Architects that through the representatives of the manufacturers, novelty and specialty men, new commodities and forms of construction have added to the progressive steps in the general development of the present-day structure and has been of the utmost assistance to the Architect in creating a better community development through beauty, labor-saving devices, and cost maintenance to the Owner, which we must admit is real progress in the Building Arts and Crafts.

"Now—how may we save this wasted time, and let it produce profits? If the manufacturer, his salesman, and the contractor, together with his tradesmen, were to adopt a more businesslike manner of approach to the Architect, by being as brief as possible in his solicitation, and call upon the Architect during hours set aside by him for the purpose of interviews. All Architects should set aside this time. I am positive a better feeling of cooperation would exist between the Architect and the manufacturer or his representative.

"In the Southern California District, there is published a Directory of Architects, giving the firm name, members of same, chief draftsman, specification writer, type of work or buildings designed in the office, and hours and days in the week, when members of the building trades and specialties representatives will be interviewed. This procedure is and can be accomplished, so far as the local salesman or representative is concerned, but what of the manufacturer's traveling solicitor? A suggestion that the Architects in all locations have a list placed on file with the local Public Library whereby any and all persons may obtain the address and hours when they may be interviewed. In this manner it shall be universally accepted by the manufacturers that their contact man may receive this information, in any Community he may be covering.

"Another form of time saving is the report service, taking care of the local situation. This service should have only authentic information relating to the commodities to be included in the project in hand to be sent to manufacturers, material houses, specialties, etc., as are required, and the Contractors and subcontractors. This information should come from the architect's office, and be approved for publication by the owner thereof, whereby legitimate information of value to individual manufacturer, material, and specialty houses, etc., will show that the type of construction of a certain classification of building requires his product, and, if not shown through the Report Service, this time may be saved to devote to projects that may be made more remunerative, thus holding cost per installation and overhead for all interested in the building industry to a minimum basis."



JAMES
O.
BETELLE
of
*Guilbert
& Betelle,
Architects,
Newark, N. J.,*
Says:

"We must realize that conditions have changed from what they were in years past and we are now concerned with the relations between the architect, the builder, and the subcontractor and the material man, as they exist today. The architect is today, in effect, a clearing house for all information in connection with building construction, as he has been in the past. Of all concerned he is in the best position to demand quality in material and construction. The relation between the producer of building materials and the architect cannot be too close or too cordial. This discussion assumes that we are all striving to produce a building of quality both in design and construction. A speculative enterprise which is being built to be sold as quickly as possible is something outside of the purpose of this discussion, as price alone is the important factor and quality is not considered in speculative work.

"The contact between the architect and the producer is something more than mere salesmanship and is now developing into something that is semiprofessional in character. This makes the producer's representative a consultant as well as a salesman. He is, therefore, not only selling his product, but he is in effect putting at the disposal of the architect the organization of the producer to the end that the owner obtains the proper material for a given purpose. It is, therefore, necessary that only the finest type of man should be employed to represent the producer. He should call upon the architect only sufficiently to keep his company's product in the field. This type of representative will not waste his own or the architect's time and will only call upon the architect's office when requested, or when he has something really new or worth while to present. This method of handling the visits to an architect's office is dignified and permits the producer's representative to cover several times as much territory as the representative who makes promiscuous calls about nothing in particular and wastes his own as well as the architect's time.

"Those who are most intimately connected with the production of a building consist primarily of the following: the owner, the architect, the general contractor, the subcontractor, and the producer. The modern general contractor, for reasons which we are all

familiar with, is interested almost entirely in price; quality receives comparatively little valuation. As price is a dominant factor to the general contractor, the subcontractor finds he must meet price competition, and the producer of a quality article finds that he is also forced to meet price competition and his quality line suffers accordingly.

"There is no one connected with the production of a building better able to understand, or in a better position to insist upon and obtain, quality than the architect. Price and quality are inseparable and for this reason the architect's position will become relatively more important as price competition and standardization force the architect more and more to be the judge of quality. By the right of the contract between the owner and the contractor, and through the medium of his plans and specifications, the architect can become the sole judge of quality, and he can back up his judgment, if necessary, by the legal machinery of the country.

"The first means by which quality can be obtained is for the architect and the producer to cooperate. The architect presents the problem and the producer, acting in the capacity of the consultant, presents the solution, and the product is specified. If the producer agrees not to sell any material to the contractor other than that specified, it strengthens the hand of the architect, as the prospective purchaser soon finds out that he cannot purchase material that is not of the quality specified. This simple procedure gives the architect control of the quality of the materials.

"The producer can also assist the architect in checking up on the reliability, etc., of subcontractors. The producer has his credit department and his sales organization and his general business connections, which he utilizes daily in checking up the various subcontractors to whom he sells materials. It is, therefore, a very simple matter for an architect, before he approves a subcontractor, to check him up through the producer to establish his financial standing, the class of work he has been doing, where he buys his materials, the kind of materials he uses, the number of men he has in his employ, and his general trade standing. When this information is obtained the architect has definite data upon which to base his approval or disapproval of the proposed subcontractor. We have found that we generally have to do nothing more than present to the general contractor the information we have obtained through the producer to have the name of the subcontractor withdrawn, if the information proves him to be unqualified for the work.

"This method of establishing quality, first, through specifying the proper material through the producer, and then reinforcing it through the approval of a qualified subcontractor, gives the architect very good control over the material, and workmanship, irrespective of the general contractor. It also allows the general contractor full play for his administrative, organizing, coordinating, and financial abilities. It is my belief that this method of handling the situation is in keeping with modern business tendencies. It not only gives the architect control of quality, but at the

same time works to the advantage of every legitimate interest in the building trades, from the owner to the manufacturer.

"We have so far discussed the relation of the architect, the producer of building materials, and his subcontractor, and said nothing about the general contractor, who has a very vital interest in the discussion. In fact we hear and read a great deal about the troubles of almost everyone in the building business except the general contractor. Why should we not give the general contractor a hearing and learn something about his problems and the difficulties he has to meet?"

"The general contractor, in the form in which he exists today, is a product of this day and generation. Unlike the master builders of the past, he oftentimes has no intimate knowledge of craftsmanship or building materials. In many cases he has gradually lost touch with craftsmanship and quality so that now administrative, distributive, financial, and similar activities have taken up practically all of his time. In other words, he has developed into a broker and financier, rather than an actual builder, and he oftentimes subcontracts the entire work.

"In many cases, as much as the general contractor would like to consider quality, he is prevented from doing so due to the keen competition in price, and the fact that those who pay for the building consider price only and depend upon the architect to produce quality.

"We also hear a great deal of complaint from the subcontractors and material men over the way they are treated by the general contractor, and how some of the general contractors are willing to let anything go into a building provided the architect's approval is obtained and it will pass inspection, and providing the price is low enough. No doubt many of these complaints are true, but on the other hand, the general contractor also has his troubles, and he should be given a hearing. For instance, the subcontractors seldom send in their bids until the last moment, and then very often do not quote their lowest and best price. The general contractor has but little time to investigate and consider the various subbids and he has to make up his mind in a few hours' time what his price will be, and, naturally, later on has to go out and buy it for the amount he included in his proposal. This neglect on the part of the subcontractor in submitting bids leaves something to be said on behalf of the general contractor.

"One of the trends of the times, especially in public work, is to let the contracts in many separate parts. While the subcontractors may like this method, it is imposing more and more work and responsibility upon the architect, and if the architect has to coordinate all the subcontracts, be a judge of quality and materials, and properly supervise the work, he has but little time left to carry out his principal function as the designer and architect of the building, and nothing left from his fee as profit.

"In my opinion, the general contractor does not want to do the architect's work, as some large building corporations are attempting to do. Neither does

the architect desire to do the general contractor's work in letting and looking after all the subcontracts. It, therefore, seems fitting that this discussion regarding the relations between the producer and the architect should go a little further and include the general contractor and how relations with him and his relation to others may be improved.

"The business of architecture is complicated enough as it now stands, and the taking on of any part of the general contractor's burden is to be discouraged. If buildings of high quality in design, construction and materials are to be produced in the proper way and with the least trouble for all parties concerned, we still need the architect, the general contractor, the subcontractor, and the producer of building materials. Each of these factors, working for the best interests of the building trades in their own line, will turn out a building of which all parties concerned can be proud. As matters now stand the various elements are becoming mixed up and their functions overlapping, and in some cases one is trying to take unfair advantage of the other. A greater understanding will come about with frank discussion, but the general contractor must be invited to take part in the discussion and in the final solution of the problem."



C. R. EGE,
Manager,
Advertising
and
Publications
Bureau,
Portland
Cement
Association,
Says:

"A rumor goes down the street that 'Jones is going to build,' and almost before Jones himself has decided whether it's going to be an office building or a multiple dwelling, his architect's reception room begins to fill with salesmen. One of our structural engineers reported counting 32 salesmen waiting in an architect's reception room one day—just because a rumor had gone 'down the street.' Probably most of these men merely wanted information—and the architect's office boy or switchboard operator could have supplied as much information as the architect himself possessed at the moment. Certainly few of the waiting salesmen knew definitely that their materials or services had any appropriate place in the proposed building.

"At least that architect must have had a capacious reception room. In fact most of the larger architectural offices have wonderful facilities for receiving

callers—otherwise 'the line forms on the right' and might extend clear down the corridor to the elevator.

"Obviously much time is wasted. If a complete cure for the trouble does not exist, perhaps the situation can be improved. We have given the subject some study, and feel that the burden of achieving improvement rests upon the manufacturers and salesmen.

"Seeing' sales representatives is a hard job for anyone who has to buy for others. The really able and experienced salesman knows this, and is an expert at saving the buyer's time and patience. The report comes to me from several architects that they find most of the building material salesmen to be authorities on their own lines, and well qualified to represent their firms. Some estimates place the proportion of these qualified salesmen at 75 per cent of the total. The other 25 per cent are responsible for most of the wasted time and effort. Evidently it is up to the manufacturers and dealers to clean house.

"Here are some of the qualifications a salesman must have if he gains a welcome in the architects' offices:

"He must be capable of understanding the architect's responsibility to his client, and have complete sympathy with the professional viewpoint.

"He must know his product thoroughly—its possibilities, adaptabilities, and limitations.

"He must know competitive materials, so that he may present the merits of his own effectively and without 'knocking' his competitor's.

"He must have a sense of the 'fitness' of things, so that he will not waste the buyer's time by trying to sell a product for some inappropriate use.

"A representative who has these qualifications can go into totally strange territory, and soon make himself welcome in the architects' offices. No small part of this welcome will be due to his personality and knowledge of the business.

"If a manufacturer cannot employ representatives of the calibre described, he will do much better to rely entirely upon catalogs and circulars which he can have prepared by experts. Unqualified representatives are merely dollar-wasters.

"When the manufacturer has employed qualified representatives, he should rely upon their judgment as to when and how they should 'see' architects and buyers. 'The Home Office' is responsible for much wasted time and expense. Many a telegram has read 'Contact Jones' architect at once regarding our stuff for new building Stop Be sure explain fully who we are and that our years of experience qualify us to recommend etc. etc.'

"Some salesmen feel they must 'window-dress' their reports to 'The House' with—'I saw architect for Jones' building in person and he promised consideration.' If the architect got rid of the caller in less than half an hour, with the promise of 'consideration,' he was either lucky or skillful.

"In the larger architectural offices there is usually a reception room attendant—a boy, a man, or a switchboard operator. Contrary to the impressions of some salesmen, this attendant is usually hired for his or her intelligence. Sometimes he owes his job to his skill in protecting his boss from bores or time-wasters. The good salesman never wears a high hat—he is not above according complete respect and courtesy to the reception room attendant and in return gets favors beyond price. Many calls are made merely to obtain information, and the reception room attendant can furnish this, or get it. The salesman who can see no one but a member of the firm will have to do a lot of dollar-wasting waiting.

"There are, or have been, too many salesmen, particularly of the 'specialties.' This results in high selling cost, annoyance, and wasted time. This is in process of being corrected by economic conditions. The process is painful but will result in a lot of improvements. There are many items that can be—and will be—represented by one salesman instead of by one salesman for each item.

"Many manufacturers make the mistake of not keeping their sales representatives on the road during periods when business is dull. The best time to sell is when the architect and his staff have time to study materials. When the office is crowded with work, and jobs must be rushed, it is not to be expected that salesmen will be given much consideration. But if the representative has previously presented the merits of his material or service—and impressed the architect with his knowledge of it—he is very apt to be called in to help fit the material to a particular job, and no manufacturer can ask more!

"In turn, we have a suggestion to offer the architects. Specified hours for receiving sales representatives help a lot, and might be more generally used. For the larger offices, a bulletin list of staff members to whom are assigned specified subjects or projects would help to save time. It is possible that something might be done toward bulletining (in the reception room) jobs on which the office is working—as a means of satisfying the 'rumor chasers.' The most important thing the manufacturer can ask is that the architect maintain an open mind toward materials and services. I make bold to say this because many an architect has said to us 'I wish I had known about this before!'—and that wish has not been peculiar to architects.

"I repeat the conviction that the burden of improvement of contacts between architects and sales representatives rests most heavily on the manufacturers. Let them clear out that 25 per cent—or whatever the proportion may be—of poorly qualified representatives, and I am confident they will have improved contacts with the architects, and better sales."



CARL E.
PAULSEN,
*Architect,
of
Archison,
Kansas,
Says:*

"The fundamental fact that all building material salesmen should realize is that the architect occupies a high position of trust in handling his client's money. The architect is therefore never justified in experimenting with that money and only materials and devices of proven merit should ever enter into the construction of a building. The argument is often advanced, by some salesmen, that the building product under consideration constitutes the most for the money, but it alone should bear little weight. The material or device that is best adapted to the particular case, regardless of price within limits, should be selected.

"The architects are, perhaps, reputed to be quite conservative or even reactionary, but such a reputation is hardly justifiable. The methods of high-pressure salesmen are ordinarily not successful and such salesmen are regarded with some suspicion. The proper approach for a salesman calling upon an architect is to give a simple and concise explanation of the product which he is selling. The salesman might suggest that the architect inspect recently completed buildings in which his product was installed. The facts presented by a salesman should be brief, free from exaggeration, and he should be able to answer definite questions about his product. The glib salesman, with his ready-made speech and repartee, is quickly disposed of. The architect's time is valuable and the salesman should realize that hundreds of different products enter into the construction of a building.

"The sales engineer is a serious evil in the building industry and by sales engineer is meant the representative of a firm who graciously offers his services as an engineer free of cost. The mute understanding, however, is that his product will be mentioned in the specifications, if not specified outright. The obliging sales engineer can not design without favoring his firm's product, since to be impartial in such a case is humanly impossible or is unexpected. The sales engineer is acting under a strong economic urge and many designs prepared under such a condition have proven inadequate.

"The price first quoted on a product should stand and no offer should be made to undersell a competitive product. The quotation that can be reduced was too

high in the first place and should receive no further consideration.

"The salesman should never knock his competitors and in no case misquote an architect. He should never go over an architect's head to the client. The architect's judgment has been paid for by the client and such action can only create prejudice."

A. C. ESCHWEILER, JR.,
*of Eschweiler & Eschweiler,
Milwaukee Architects, Says:*

"A discussion of the closer and more intelligent cooperation between the producers of building materials and the architects seems to me very timely just now. I think it safe to say that during the past decade a greater variety of new building materials has come to the fore than in the preceding fifty years. These new materials and new methods of construction, added to the constantly increasing complexity of construction, have taxed the powers of assimilation of the modern architect to the limit.

"Any improvement which can be made in the method of bringing these new developments to the attention of the architect will be of great value both to the profession and to the manufacturer.

"The most popular and, theoretically at least, the most effective method of approach is the personal call of the manufacturer's representative. Of these we have many kinds and types and I would give here some points in their technique which have impressed me most favorably or otherwise.

"I enjoy and profit by a visit with a salesman who:

"1. Calls me on the telephone and makes a definite appointment at a convenient time, conserving his own time by eliminating any waiting in the outer office and preparing me in advance as to what he wishes to discuss, to the end that I can grasp his message in less time than if he had come upon me unawares;

"2. Has thoroughly mastered his subject and is prepared to answer intelligently any technical or practical questions as to the design, manufacture and application of his material;

"3. Has prepared a concise and coherent dissertation on his product, explaining its advantages and limitations, its cost and record of service;

"4. Is prepared to leave with me a folder illustrating his product, of standard A.I.A. file size, and containing details and suggested specification form rather than a series of photographs of recent buildings;

"5. Calls on me only when he has some new development or suggested use of his product to propound;

"6. Does not ask for 'only five minutes' and protracts his talk to a half-hour or more.

"7. Does not crowd me into a corner and attempt to convince me of the value of his product by the rapidity of his speech and the strength of his breath.

"All of the finer points of salesmanship will undoubtedly influence many people toward the use of good products, but I venture to say that the salesman

who has followed the seven points outlined above in his calls at this office has been rewarded by finding his material mentioned in our specifications whenever occasion for its use arises."



M. A.
SMITH,
Manager
Sound Control
Sales,
U. S.
Gypsum
Company,
Says:

"It seems rather delicate for a manufacturer to tell architects how to run their businesses, but we assume that each architect in this symposium will endeavor to point out to the manufacturer how his efforts to secure his share of the five billion dollars or more of purchasing power that is controlled by American architects may be most fruitful.

"There is no denying the fact that the architect needs the manufacturer as badly as the manufacturer needs the architect. There seems to be a decided difference in opinion, however, as to where and how the manufacturer should acquaint the architect with the utility of his product. The manufacturer is constantly on the *qui vive* to so produce and design his product that through sheer utility in all of its aspects it will be desired to the exclusion of the materials and devices of his competitor. When he knows that he has such a product—he rushes forth with a fanfare of trumpets to besiege the architectural fort.

"An economist would expect the architect to receive such a well meant attack with open arms and thanksgiving, but we manufacturers do not find it so.

"In its place we discover a succession of trenches which in some offices seem as impregnable as the Hindenburg line; there's the information girl, the first line in the defense. The batteries which she commands include: 'he's out,' 'nothing new on that job,' 'only in the preliminary stage,' 'are you mentioned in the "spec"?', 'have you been requested to figure?', 'have you an appointment?', 'is he expecting you?', 'no, you can't see him, he only sees solicitors between 10:15 and 10:25 on Saturday mornings—'phone him for an appointment.' The light artillery of a good salesman reduces trench No. 1 with little difficulty. He may have to throw a few hand grenades in his attack on the second line. Handling the besmoked gentle-

man who greets him across the reception room counter or who, with an air of studied indifference, peers out at him through a jail-like grille, is sometimes a real test. The first effort in the skirmish at this point in the battle seems usually to take something of the following form: 'Oh, but we always use Jones' material—it gives us complete satisfaction and we are not interested in a change.' But even he falls before a light sprinkling of gas from the trench mortars and the attacking army is introduced to the assistant specification writer. Eureka! He's in! 'No, my boy,' he says, 'too busy, see me Tuesday.' 'Sorry, but I'm due in Oshkosh Tuesday.' 'Well then what is it' (irritatedly) and the light brigade charges up the hill.

"After the smoke of battle is over and the artillery is stilled, the specification writer himself, at the adjacent desk, who has had one ear cocked on the proceedings all the time, decides to listen. He falls. The attacking army retreats with that prize of prizes, a specification.

"In a few of the large offices in the larger cities such a defense program would be considered crude and inefficient. In fact, the sharpshooter at the switchboard, with years of training, has more notches in the stock of her Springfield than Richard Dix has in his Colt. The militant salesman makes but little progress in some offices (usually the most desirable) in the large cities, in spite of the fact that here the manufacturer deploys his shock troops. After a year or so of exceptional marksmanship and the exhaustion of all the attack plans of his own and the Sales Manager's repertoire he commits that error of errors—he appeals to the owner. Of course, no manufacturer has ever 'countenanced such tactics,' but sometimes his last effort of the saluting and about-to-die shock troops works—usually it works both ways. The material is used in the building and after the proved excellence of the product overshadows the unethical sales procedure, the manufacturer has established himself as a purveyor of useful materials that must be reckoned with and he finds that his later ideas, devices, and products are respectfully, even expectantly, received.

"After about twenty years of it I don't see how we could change the proceedings to advantage. If it were easier, a lot of sales managers would be selling apples on the street corners. There are a few there now and I fear more than a few salesmen, and I am sure that there would be a lot of poor buildings.

"To assail the defense that surrounds the specification treasury is no job for a timid manufacturer; only those who really have something, backed by a complete confidence in the product and a real sense of responsibility for results, have the temerity and staying power to achieve the goal. I rather like the resistance. Honest products may be delayed in reaching or may be even denied to a few clients; but the excellence of our architecture, with the wealth of comfort-producing accessories which are not found in the structures of other continents, seems to prove the wisdom of the system. Many manufacturers successfully constitute themselves, with the architect's entire approval, as consulting engineers and act in that capacity with as much

grace and with as much regard for the ethics of both the engineering and architectural professions as the most trusted consultants with the highest per diem compensation. Most of the older manufacturers have long since discovered that if they do not so conduct themselves and that if their sales representatives and architectural service men do not so conduct themselves that they can't long exist, much less make dividends for their stockholders. Many of these manufacturers spend millions of dollars annually in research work and tests in their own and established laboratories in an endeavor to anticipate the needs of the architect, to constantly improve products, and to invent the new ones that are the delight of building owners and tenants.

"The inaccessibility of the architect to the manufacturer seems matched and offset and undoubtedly caused by the clumsy, time wasting, uninformed salesman who is trying to 'put one over' rather than to honestly help. It seems to me to be a 50-50 deal—and isn't that what it should be?"



WALTER A.
McDOUGALL,
*Secretary
of the
Illinois
Society
of
Architects,
Says:*

"My telephone rang. I lifted the instrument and putting the receiver to my ear said, 'Good-by, I'm glad you came in.' A friendly voice in the phone said, 'You're a damn liar, you know you were glad to get rid of him.' Alas, too true, he was a pest. It is hard sometimes for the young lady at the door to discriminate—some of the salesmen have such a prosperous appearance, they are mistaken for possible clients. Of course we like to see all men well dressed, but if the salesman with a real message is neat and clean, he is just as acceptable as the man with finer clothes. The salesman must have a real message and the architect must have the need, or see a possible need, otherwise the time of both is wasted.

"Some salesmen are too sensitive, some are not the least bit sensitive to the fact that their product has no interest to the architect and he must be told to go. These men are sometimes oversold on their own product and, having a limited experience in the building business, think their product can be used everywhere.

"Then there is the man with so much expe-

rience that, without solicitation, he tells me what I should do. He is a pest.

"And the man who does not know his stuff.

"Why should an architect take time to talk to these men?

"Any salesman or manufacturer with good judgment shrinks from becoming a pest. He therefore introduces his subject to the architect and thereafter lets the architect know where he can be found and that he is ready at all times to be of service. Among the many salesmen who call, the architect will make a few real friends. Such friends do not intrude unduly upon the architect's time, that is why they remain friends.

"What does the architect want? If a sales representative could see the architect going through his morning's mail, he would learn to cut his talk to the essentials. Ninety-eight per cent of the morning's mail goes into the open file (wastebasket). Some men will not open an envelope if they think it contains an advertisement. This is bad practice; checks have been known to be thrown out in this manner. The mail usually contains large folders, long sales letters, small booklets, all shapes and sizes. There are a few pieces worth saving. These are of standard A.I.A. size and bear information that can be put in the drafting room file where they can be found again. The fact that they can be readily found again is very important. Standard A.I.A. size and index should be used on all data. When they are found, they must tell the draftsman what he wants to know in a simple straightforward manner.

"Adult education has been the theme of recent years; what we learned at school twenty, ten, or even five years ago is somewhat changed by present-day practices and present-day methods. These advancements are so rapid that by the time they find their way into textbooks, the new methods are in general use and if the architect waits for the textbook, he is behind the times.

"Our clients insist on Neuvo Boiler which they know is the best because they have read the advertisement in the popular magazines. Mr. Architect, up to the minute, knows that the Bunko Boiler is far superior and can be had cheaper. The manufacturer's salesman is constantly bringing to our offices advanced methods, new materials and new devices. He is usually capable of giving us the facts regarding these new items which go to make up a building, and if we will listen to him, we will have the facts at our command while our clients have a mere surface knowledge.

"In addition to the new materials and methods, there are the old tried and true, stone, marble, steel, and many others, and each has its variations and its individuals crying for business. Each of these must tell the architect occasionally that he is still alive and ready to serve.

"Try as he may, no architect is self-sufficient. He knows that most sales representatives are true Samaritans, although they seem at times to be pests. He could not carry on without them any more than he could build without labor on the job."



GEORGE
P. LITTLE,
*Manager
of the
Acoustical
Department
of
The Celotex Co.,
Says:*

"As a building material salesman I was brought up in the old school that taught among other fundamentals, 'Never go over an architect's head to the owner.' No longer is this a rule. It is commonly agreed today among salesmen that the way to make sure of an order is to go to the owner and sell him.

"This practice, I think, is unfortunate. I do not believe architects like having a salesman bother their owners, and I question whether the owners like being bothered. Certainly the manufacturer finds his sales cost tremendously increased when he must sell the owner (often a building committee) in addition to his efforts with the architect and contractor.

"What is the cause? I am inclined to think it runs back to the old 'or equal' clause. Fair competition in most items of building construction is surely possible today. When architects do not stand on their specifications, or leave them open with an 'or equal' clause, some outside competitor, anxious for the business, gains the contractor's ear with a low price, and here is where, oftentimes, the real trouble starts. An architect may prefer one of the materials which he has specified but, I have been told, on most jobs as they progress the architect sees ways to make small improvements over the original plans and specifications, and if these improvements are to be amicably arranged with the general contractor the architect must maintain a 'give and take' policy with him.

"When a manufacturer whose product has been specified sees two or three nice jobs go by for reasons of this kind, he decides to contact the owner on the next one in the hope of making his sale that way.

"Why should not an architect give salesmen time before writing job specifications to present their story, and in writing his specifications close them to certain specified brands, providing acceptable competition in each case. Competition should be on the basis of equivalent standards. The mention of three or four materials with but one property or factor in common, leaving the choice open to the lowest priced material, is a practice similar to unbalanced bids in contracting. In such cases the specification is weak and might as

well have been limited to the inferior or lowest priced material at the start.

"While we are looking toward Utopia, let me go a step further and suggest that architects, under this plan, require from all bidding contractors a list of subcontractors' bids incorporated in the general bid for a job, and let the architect see to it that, under fair competition, the low bidder gets the work. The architect can submit a list of subcontractors or should limit the acceptance of substitutes to a thirty-day period from the award of a general contract. If the contractor does not present a request for a change in that length of time, let the original specification remain unaltered. This will prevent jockeying of bids and beating down of the prices of subcontractors by delay or holding up award and threatening to bring in some unauthorized material at the last moment when the job is ready to proceed.

"We should then have subcontractors and material men doing their close estimating and pencil sharpening at the time it will do the owner the most good, and a tremendous amount of waste motion will be eliminated up and down the line with benefit to all.

"On such a basis, I believe the manufacturers specified would agree to stay away from an owner and confine their efforts to the architect and general contractor.

"If a general contractor cannot use substitution possibilities and 'or equal' clauses to take care of job changes the architect may want to make as the work progresses, is it impossible for an architect to require every bidding contractor to carry a certain stipulated allowance on each job out of which any necessary changes or adjustments can be cared for? I do not think such a procedure would cost building owners any more, and I believe they would get better buildings."

RICHARD E. BISHOP,

*Secretary of the Indiana Society of Architects,
of Bishop, Knowlton & Carson,
Architects and Engineers, of Indianapolis,
Says:*

"First, I must admit that I have no particular grievance against the material representatives as a class. I have found as a rule that they are well behaved gentlemen who often, strange as it may seem, know more than I do about the product they are selling. Occasionally they seem overzealous and sometimes somewhat uninformed, but I think we should not be too hard on these lads for such human frailties. It seems to me that I have heard it whispered that certain of our own flock occasionally break some of the Ten Commandments, to say nothing of the fact that others in good standing, technically, have lapses in memory when it comes to the A.I.A. Code of Ethics.

"However, you have asked for constructive ideas,

not platitudes, and in the realm of actual experience I feel that I have had a very interesting experience during the last three years in connection with the Architects' Building Material Exhibit at Indianapolis, which has an important bearing upon your subject. This Material Exhibit is different from most of such exhibits that I know of in two important ways, which seem to make it particularly attractive to material representatives. This difference lies in the fact that the Exhibit is a corporation, *not* for profit. At least, the owners of the stock do not participate in any profits and all of the stock is owned by individual architects who represent practically every architectural office in the city. If and when the Exhibit should show a profit, such profit can be used only for expanding the work of the exhibit or for activities in the interest of the Building Industry in general, that would help stimulate the sale of good building materials.

"This exhibit has been in existence now for several years but has been particularly successful during the last two years since having moved to its present location in the Architects' and Builders' Building, where it occupies a ground floor office and showroom, as well as most of the second floor where the principal exhibit is housed.

"Most of the leading material dealers of Indianapolis lease display space in this exhibit room. Many nationally advertised concerns have quite fine exhibits. We are told by our manager, Mr. Hall, that there are a good many other such firms who want space, but on account of present business conditions are waiting (we all hope) a short time for building to move forward at a more rapid tempo. At any rate the exhibit has survived and continued to grow in a modest way, through the past difficult period. It seems safe now to predict that it will continue to prosper.

"The principal advantages to the material man are:

"1. A large or small space at minimum cost to him.

"2. An exhibit constantly before the eyes of the Architect and prospective building owner.

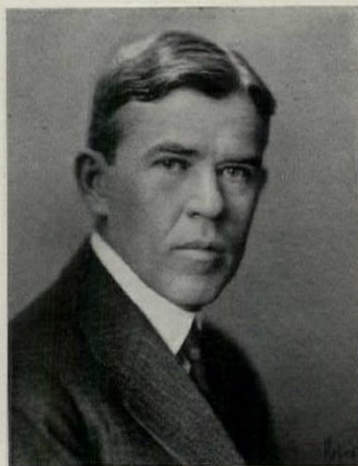
"3. Many people will go to an Exhibit where salesmen are not in charge where they may inspect without fear of obligating themselves.

"The principal advantages to the Architect are:

"1. Saves time for an owner and architect to inspect several kinds of samples in one place.

"2. Brings to architects the newest ideas of exhibitors. This helps the architect to keep up with late developments and notice many new improvements that might otherwise pass him by.

"In addition to the above, one of the Exhibit rooms is used as a meeting place, where luncheons, lectures, etc., can be held. Organizations that are connected with the Building Industry use this space without charge."



N. MAX
DUNNING,
Architect,
of
Chicago,
Says:

"You have asked me to comment on a vital subject and one so broad in its scope and with so many ramifications that it is going to be difficult to 'compress' even an opinion within the brief compass of an article submitted in a general symposium.

"Any constructive suggestion for a better method of cooperation between the producer of materials and the architect immediately brings up the question of how a common method can best serve both the city Architect, with an adequate organization and the facility for calling in technical experts on any subject at a moment's notice, and the small-town Architect, who must first of all conserve his personal time, and who has none of these facilities for direct information.

"In the practice of the Profession of Architecture, of course, the small-town Architects greatly outnumber the others, and I believe the aggregate volume of their work is also much greater.

"It seems to me, therefore, that the first answer to the problem is Advertising. Advertising that avoids misleading or exaggerated claims, but that sets forth in a straightforward manner all of the information and technical data that an Architect needs to know to specify a product for its appropriate use. Advertising that is supplemented by authoritative statements as to performance under scientific and usage tests.

"The common ground on which both the Producer and the Architect stands is that in this day of almost revolutionary progress in the production of new materials, methods and devices for buildings, the alert Architect, anxious to give his Client the best of service, is just as anxious to know of these developments as the Producer is to have him know.

"On the other hand, because of the ever increasing complexity of the modern building, the number of things about which the Architect must have knowledge becomes staggering, and the method of contact that will best conserve his time is the one that in a broad way will accomplish the best results.

"Advertising has the advantage of always being able to enter the Architect's office 'without appointment' and can be read and studied out of office hours.

"Advertising can never completely take the place of

personal contact. I believe that one of the errors in the present situation is that Producers have been too prone to select as their representatives high-pressure salesmen, rather than highly trained technical men, thoroughly acquainted with all of the advantages and disadvantages of the product they represent, and of its proper and improper uses. Nothing can injure the Producer or the Architect more than the improper use of, let us say, a perfectly good material.

"This destroys the Client's confidence in the Architect and the Architect's confidence in the product. Sales representatives should be men, of course, with pleasing personalities, tactful in not imposing unnecessarily on the Architect's time, and should be imbued with the idea of giving Service rather than with the idea of quantity sales. Their objective should be to build up a relationship of confidence based on the reliability and helpfulness of the information they give, so that instead of having to make routine calls upon the Architect, the Architect, whenever he has a problem, will call on them.

"I know my case is no different from many others in that whenever we have a perplexing problem of a technical nature to solve, we call in Sales Representatives whom we can trust, and we know that they will give us the benefit of their experiences, whether it means the use of their product or some other. That is my idea of real Salesmanship, and I believe that as Industry is becoming more professionally minded we are approaching the time when that kind of salesmanship will prevail, and when it does most of our problems of cooperation will be solved."



W. F.
LOCKHARDT,
*Secretary
and Director,
National
Terra Cotta
Society,
Says:*

"The practice of architecture today, in the last analysis, is actually a working partnership between designer and manufacturer, regardless of whether or not we choose to so recognize it. Modern architecture, which demands that structural materials carry hitherto undreamed-of loads, and which depends in part for its effects on products which a short time ago did not exist, or on new and novel uses of the older materials,

would be impossible without the closest association of producer and user.

"It is true that in many instances architects and manufacturers have worked shoulder to shoulder to push forward the frontiers of architectural achievement with notable harmony and success. But unfortunately it is equally true that in countless other architectural offices the manufacturer, in the person of his salesman, is borne with only as one of the unavoidable unpleasantnesses attaching to practice of architecture, such as, say, the roof which most inopportunately leaks just as the client moves in. The salesman who senses this attitude inevitably reflects his resentment elsewhere; a vicious circle is thus established which gets both parties nowhere very rapidly.

"The elements of the problem are comparatively simple, but a really satisfactory solution is not so easily attained; it will probably be found to be more a matter of time and mutual education than anything else.

"The architect's side of the problem may be stated briefly: He has only a limited amount of time to devote to that part of his work which relates to acquiring information about the materials he uses. He cannot afford to waste any part of that small allotment of time, and is therefore rightfully impatient of half-baked and inadequately prepared salesmen. At the same time, he *must* learn about new materials as they are developed, and keep abreast of improvements in existing materials, or his work will suffer.

"He cannot depend solely on printed matter, which can never entirely take the place of word of mouth information. He cannot know as much about the various technicalities of any one material as the manufacturer thereof, yet he can, and often does, have a far better perception of that material's possibilities in relation to his own needs. He therefore requires from the manufacturer sympathetic cooperation in technical matters; while the manufacturer, in turn, needs fully as much the vision of the architect, if his product is to realize all its potentialities.

"The manufacturer's problems are no less pressing. He must sell his product to stay in business; to do it he *must* reach the architect. If he does not keep his material before the architect, by personal sales effort in addition to his advertising, competitive products, more aggressively merchandized, will supplant his own. Salesmen's calls, however much they may cost the manufacturer, and however much they may interfere with the office routine of the architect, are unavoidable apparently for some time to come.

"Now let us see what happens when we put the two problems together. Obviously, nothing could be more inconvenient for the architect than the salesman's appearance on the scene just when the former needs all his faculties for the best solution of the problem which the design of a new structure constitutes. Consideration of some products can be put off to less pressing times with no unfairness. Mechanical details, interior finish, etc., are examples. On the other hand, for one group of products—the architectural materials in which the building will be clad—it is of vital im-

portance that they be brought to the architect's attention at just exactly this stage of the proceedings, before he has decided how the exterior design will be handled.

"It is never the most satisfactory procedure when an exterior, designed with one material in mind, is translated into another material, even though the latter be more economical or better adapted to the purpose of the building, by taking alternate bids afterward. Consideration must be given in the design to the nature and characteristics of the material to be used, if best results are to be obtained for owner, architect, and manufacturer. Such salesmen's calls, even at this most inopportune moment, cannot and perhaps should not be avoided.

"In working toward the goal of a mutually better relationship, it would seem as though the manufacturers were setting the pace, even if only in a spirit of self-preservation. Answering the architects' demand for better-trained salesmen, more men are being put into the field all the time who combine technical command of their product with a sound knowledge of its relation to the structure in which it is used. This usually grows from personal experience in building construction in its practical forms. While such men may be, and often are, engineers, a constantly growing number of men with architectural training and experience is to be found. These men can answer questions without having to recommence, parrot-like, a set sales talk; they know the principles of architectural design and are prepared to assist the architect intelligently.

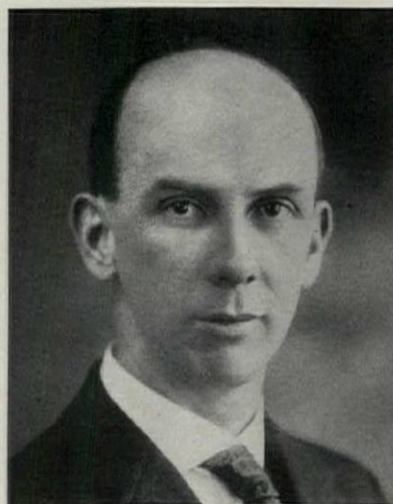
"This effort on the manufacturers' part is often nullified by the attitude of the architect, who has failed to think of the other fellow's side of the case. If salesmen have to be seen (and they do) what can be done to expedite the process and make it more pleasant for all concerned? If time and organization are limited, definite hours may be set for interviewing salesmen. It should be remembered that such a rule must always be administered with some discretion; many callers will have no way of knowing of it in advance, may have come long distances at considerable expense, and possibly have a message of importance.

"The determination of whether the caller has anything of interest to the architect should not be left with the office boy or the telephone girl. Nor are they always satisfactory emissaries to carry to the sanction the whys and wherefores of a call. Let the architect picture himself calling on a prospective client, and having to send in his message under similar circumstances, so that it reaches the client in this form—'Say, there's a guy outside what wants youse to let him design your new shack. Naw, I don't know who he is! Sure, I'll tell him you're not interested.' Not entirely satisfactory.

"The manufacturer's representative, as a matter of good business, should have access to some one with authority to hear him; if necessary, within the limits of certain prescribed hours, as mentioned before. But in any event, the person who does the interviewing, if not a member of the firm, should have authority to

speak for it to outsiders; and within the office should have equal authority to speak and be heard. It is a waste of time all around to have interviewing done by draftsmen who cannot speak for the firm, and who do not have a standing in the organization which will permit them to recommend to or discuss with the principals any product or method which in their judgment has merit.

"In some offices salesmen are referred to the specification writer. On matters relating to design this procedure could be improved. Many other points might be raised, but the important thing, in the writer's opinion, is a recognition of the interdependence of architect and manufacturer. The salesman has the same right to sell his products that the architect has to sell his services, and, in the architect's office, is entitled to the same consideration that the latter expects from those on whom he calls."



ROSSEL
EDWARD
MITCHELL,
Architect,
of
Washington,
D. C.,
Says:

"How can producers and architects cooperate better?" is the substance of a pertinent question posed by PENCIL POINTS. The enormous complexity of the modern building industry, together with its almost complete decentralization, leads to much waste of time, energy, and materials. Architects wish to keep abreast of the times, yet cannot afford to fritter away valuable days in useless interviews. Producers desire to increase their markets and achieve a place in the sun; they want to place their data before the purchaser in an attractive, helpful, and permanent way. Neither architects nor producers are very well satisfied with present methods. The architect often feels harassed and obliged to defend himself from intrusion. The producers' representatives often feel they have not been given either a fair show or courteous treatment. How can better cooperation be achieved?

"In the first place, 'cooperating' with a lot of people means simply, 'I'll do the operating, you do the co-ing!'

"Consider, for a moment, just what the 'ideal' architect's office should embrace in the way of space and equipment, in order to meet the needs of manufacturers' salesmen, demonstrators, special represen-

tatives, and for filing and storing catalogues, booklets, brochures, handbooks, samples, monographs, lithographs, photographs, and so forth *ad infinitum*.

"For the courteous and hospitable reception of producers' representatives in the flesh, there should be provided a comfortably furnished reception room not less than fifteen by twenty feet. A longer room would be better, so that competing salesmen who arrive simultaneously may not have to endure the humiliation of sitting alongside of or staring at each other. This room should be 'done' in knotty wood paneling, as emblematic of the numberless difficulties constantly facing those reckless individuals who engage in the strenuous game of building.

"Adjoining the reception room there should be a much larger room for samples and demonstrations, also files of printed matter. This room should and would rapidly become equipped with about fifteen samples of brickwork, eighteen varieties of terra cotta, twenty-five kinds of marble, twenty of stone, forty of floor tile, one hundred wood finishing samples, a dozen makes of metal lath, thirty examples of insulation, ten kinds of roofing slate and a similar number of roofing tiles, seventeen full size samples of steel sash, fifty-seven varieties of window glass, three dozen shades of linoleum, forty patterns of rubber tiling—the rest of the list would fill this entire issue of PENCIL POINTS to bursting, not to mention the confines of this article.

"For the interviewing of the manufacturers' representatives and the classification of the information and data with which the 'sales engineer' is expectantly pregnant, there should be on hand at all hours of the day a genteel personage, with the education of an architect, the understanding of a philosopher, the manners of a diplomat and the patience of Job. He should be supplied with a clerical assistant to check, index, and file the material samples, printed matter, etc., which rolls into an architect's office like a river, and clutters up the mail in an everflowing stream.

"Now the rub is, the only architects who are able to set up and maintain such space and equipment are those highly successful and superiorly talented individuals who have married wealthy wives.

"The producers also have responsibilities. Their spokesmen should be well educated men, preferably architects who have learned better than to try and practice, and have gone in for work in which they can make a living. They should be stylishly tailored, as that makes an architect feel that he must be important. They should put up at the hotels specializing in first-class cuisine, and from thence invite the architect over for lunch. (Think how nice a few free hotel lunches would come in right now!) After a swell feed, to the tune of alluring music enjoyed from a deep-cushioned chair, your architect should be ready to listen to any sort of patter, from police-dog ceiling clips to modernistic designs in boiler tubes.

"Here's another bright idea. The producers might quite profitably, for themselves, make it a regular

monthly event to invite all the architects of each city to a banquet in the best local hotels. By so doing they would give the profession publicity both substantial and refined, also let 'the man in the street' know that there is such a thing as an architect, and that he must be *somebody*, too! rather than a realtor's bellboy or an exterior decorator. At these banquets the producers would exhibit their wares and explain their improvements. As a sure-fire inducement to insure the architects' attendance, all producers collaborating would agree not to send representatives, either in the flesh or per Uncle Sam, to the architects' offices during the ensuing month, or until the architect failed to show up at the monthly feed. In that case the bombardment would be renewed with unprecedented fury.

"Again the rub is, the probable number of manufacturers who would be willing to adopt this idealistic method of cooperation is, sad to relate, about one in a million.

"Getting down therefore to the brass cuspidor of realism, we find several factors making it difficult for an architect to give the kind of cooperation to manufacturers and their representatives that he would like to. Some of these are:

"Salesmen who wish to interest him in devices for which he has no immediate or proposed use; he is therefore reluctant to take time to look, for if he does he will probably forget the essential points before he has occasion to use them.

"Salesmen who are ignorant of, or instructed not to give, worth while information as to costs. They expect an architect to blindly accept their viewpoint as to the desirability of specifying an article, but if he wants to figure out just how it will affect his client, and the maximum cost he is up against, he is politely shuffled over to a jobber or a retailer, who regard him as a pretty good joke because he does not buy directly from them.

"Now the exhibition of a device or material is often of real value, but of not nearly so great a value as it is if compared visually with similar devices, so that the respective merits and demerits of each may be studied. Printed matter does not tell half the story sometimes, no matter how well illustrated. Take steel sash for instance. There is absolutely no way for an architect to determine the relative merits of the various makes unless he may see them at full size, side by side. Hardware, screening, hinges, fasteners, joints, sections, alignment, shades, frames, welding, finishing, glazing—all these details must be seen and examined before they may be understood, and a fair basis of comparison reached, including costs.

"What, then, may be done to make the seller's approach to the purchaser more effective? How can the three channels of salesmanship—printer's ink, personal calls, and exhibition of goods—be made to lead more surely to successful distribution, without waste?

"There is a method, untried as far as I know, that I believe will go a long way toward solving the situation.

"The manufacturers and vendors of building materials and devices throughout the United States should, through some central organization, install in every city in the United States a centrally located permanent exhibit of building materials and devices of all kinds. These exhibits would grade in size from one large room in a busy small town to an entire building in large cities.

"These exhibits would not partake of the nature of stock rooms, but would be arranged, where possible, to display the goods in actual operation, or set up as they would be in a building.

"An exhibit of this kind would serve many purposes. It would interest not merely architects, but builders, subcontractors, realtors and the great body of the public interested in building from one angle or another. The sales representatives would work very much more effectively, for the reason that the public would come to them, instead of vice versa. The exhibits would be constantly changing, so that interest would not flag. Advertising of local factory representatives would constantly refer to the Building Materials Exhibit, and this would be mightily reinforced by the national advertising of manufacturers, which would constantly direct the public to the local exhibits.

"In a word, as the modern catalogue system has practically solved the printed matter problem, by concentrating the information within the folds of a few volumes, instead of the cavernous depths of innumerable filing cases, so the permanent local Building Materials Exhibit would eliminate costly individual exhibits scattered here and there. It would make it possible for an architect and his client to see what he wants when he wants it. It would be extremely economical to the manufacturers, compared with present wasteful overlapping methods, and lift a great burden of unnecessary calls and lost motion off of architects, specification writers, and purchasers."

W. L. CLAFFEY,

*Secretary-Treasurer, Oak Flooring
Manufacturers' Association, Says:*

(NOTE—This article by Mr. Claffey, while not as broad in its application as we could wish, nevertheless contains certain suggestions which may be interesting and valuable to architects and specification writers, and we are therefore including it for this purpose in our Symposium.—EDITOR.)

"The Oak Flooring Manufacturers' Association has for over twenty years endeavored to cooperate fully with members of the architectural profession to enable them to make the fullest use of oak flooring. Exact sizes, grades, etc., have long been standardized by over 95% of the manufacturers, and to speak freely from our point of view, if the specification writer would abandon obsolete terms, or those applying to pine or some other lumber item and would follow the sizes and names for grades of oak flooring as established by this Association for the past twenty years, much

misunderstanding or misinterpretation of specifications could be avoided.

"We are free to say this also applies to the contractor or lumber salesman who contact the architect. We do all we can to educate them, but they, as also the architect, must handle a large and varied amount of construction items, and definite knowledge of the details regarding oak flooring appears sometimes to be considered as of no importance. But if specifications would follow standard names and terms with definite knowledge as to the specific uses for the several grades and sizes, the opportunity for substitution and confusion which sometimes comes up between architect, contractor, and owner would be largely eliminated.

"Information as to grades and names has been published widely by this Association, but too often it is overlooked, or the specific information that we are always ready to furnish is not asked for until friction has occurred that could have been readily avoided by obtaining the proper knowledge in advance.

"This applies as well to specifications involving sub-floors, for a very large proportion of later trouble with floors originates here, and in *Sweet's Index* and *Stevens' Master Specifications* we have endeavored to cover this important detail. We have further data covering this subject which is available upon request, as there is also for laying, nailing, and finishing.

"The care of oak flooring at the job and prior to delivery is an important detail that is too often overlooked, and insistence by the architect for proper care and proper handling would go far toward insuring later satisfaction.

"The question of the proper finish for the specific use of an oak floor is too often passed by in favor of a uniform specification for all wood flooring. There is always something better than an average filler-shellac-varnish finish left to the sometimes unwise judgment or caprice of the floor contractor or painter. And as all oak floors are not subject to the same conditions of traffic wear and tear, it should be evident that a finish should be specified that is consistent with conditions involved. Such information we are always desirous of passing on to the specification writer if we can but be given the opportunity.

"It may not be amiss to mention the recent changes in the grade names of oak flooring. This did not in any way involve any change in the grades as such—it was simply a restoration of the former names for the several grades that were previously in use for many years.

"In general, it will pay large dividends in oak flooring satisfaction between manufacturer, architect, contractor, and owner, if this construction item, even if considered of minor importance, could be more carefully studied. It is a part of any job that is always in sight and its repercussions are apt to be louder than other items that appear of more importance. Therefore we say, that correct information translated into specifications will save much time and expense for the architects and their associates, as well as for the manufacturers, the dealers, and the contractors."

F. R. WASHBURN,

*Specification Writer for Holabird & Root,
Architects, Chicago, Says:*

"I depend a great deal upon the representatives of the various producers of building materials for information.

"Probably the average representative of building material products will compare very favorably with salesmen in other lines and in many cases they are men with a college training, either technical or general. However, their qualifications for their particular work may well be in question. As I see it, the fault generally is a lack of knowledge on the part of the salesman regarding his material. He does not seem to know the viewpoint of the Architect regarding building materials.

"Generally, we like to know the material that the product is made of and how it is made. We must know what it is going to cost in place in the building and we must have some knowledge on which to base our judgment regarding its durability, either from the record of the product over a considerable period or from laboratory tests.

"I believe the Architect is entirely reasonable in expecting that the salesman who asks for an interview be equipped to answer all of these questions and generally he is not—and then comes the evil of misrepresentation.

"The average salesman takes in too much territory in the claims he makes for his material. With some of them there seems to be no limit. Their extravagant statements often are born of enthusiasm, which cannot stand the test of argument or investigation, with a result that we cannot have much respect for the material or the judgment of the representative. The Architect should not be expected to spend his time or money in field investigation, except where the information cannot be brought to his office. The manufacturer should have tests made of his material by a reliable testing laboratory and these tests should be complete and convincing.

"Last but not least, the salesman should realize that the time the Architect can give to salesmen is limited and he should present his subject in a brief and concise manner and not waste the time of the Architect in running down competitors.

"An intelligent and experienced salesman can often be of considerable assistance to an Architect, not only regarding his own particular product, but often due to a wide knowledge of building materials and processes he can advise from a disinterested viewpoint.

"I have no particular time for receiving salesmen. I try to interview all who come and if I cannot see them, due to lack of time, there is always another day."



L. B. LENT,
*Chief
Engineer,
Common Brick
Manufacturers'
Association,
Says:*

"The relation between the architect and the representative of a building material has naturally been one of particular interest to our association. We have, in fact, given this matter much thought and study.

"No architect can be expected to give information or help to a salesman without getting something in return, at least not for long. There must be an exchange of values of some kind. And when this obtains, there is no difficulty in establishing the proper and mutually desirable relationship. Our field engineers, I think it is fair to say, call more often on architects with help for them than they do to seek information or help from architects.

"Modern research has developed much helpful information and data which could well guide the design of all kinds of structures and produce satisfactory performance in brickwork. No one, better than the architect, knows that such performance is not always satisfactory, but it is a fact that proper design often has as much to do with desirable results as does the selection of the materials and the execution of the work.

"Our district offices throughout the country are looked upon by the architects in their vicinity as service stations for architects and others having to do with the design and erection of all kinds of brick structures. Many of our men in district offices rarely make an unsolicited call on architects. This is as it should be. Having been on both sides of the fence, so to speak, I believe that the architectural profession would profit greatly by making some provision for properly receiving representatives of the material industries, for the result is quite sure to be as much in their favor as otherwise.

"After all, the whole situation is a matter of mutual acquaintance and respect between the architect and the representative, be he engineer or fellow architect or plain salesman. When respect and confidence are lacking, an interview is practically useless.

"Just how and when a busy architect should receive and interview salesmen, or other people, is for each architectural office to determine. This sort of thing can hardly be standardized. But it should be done."



KENYON
STEVENSON,

*Director of
Advertising,
Floor*

*Department,
Armstrong
Cork Co.,*

Says:

"As a manufacturer of insulation and resilient floor products, our salesmen (mostly all college trained and many of whom are graduate engineers) maintain close and friendly contact with architects' offices all over the country. Almost without exception we find the men we call on glad to hear about new products or new uses for old products and to discuss the application of our materials to jobs on their boards.

"Satisfactory relations between manufacturer and architect, we believe, depend primarily on mutual understanding and a recognition of the other fellow's point of view. Briefly, if we may be so presumptuous, we suggest the following platforms:

FOR THE MANUFACTURER

"1. Use advertising in the professional magazines to acquaint architects with the general nature and quality of his products.

"2. Employ only intelligent, high-grade men to call on architects.

"3. See that his men know their products and are familiar with all conditions surrounding their use.

"4. Send representatives to call on architects only when they have definite information to impart or to discuss specific jobs.

FOR THE ARCHITECT

"1. Follow the advertising in his magazines to be well informed on building material products.

"2. Be liberal with information about work contemplated or in progress.

"3. Give any reputable manufacturer an opportunity to present new facts about his products.

"4. Insist definitely upon the maintenance of quality in products specified and used.

"This final point just referred to is in our opinion worth a paragraph more. In this day of driving down prices to meet intense competition, the public, the building industry, and the profession of architecture itself must depend upon the architect as never before for preservation of high standards. Frequently contractors and suppliers are all too ready to sacrifice quality for lower and lower costs. Even owners are often easily persuaded that they can get by with products "just as good" furnished at shaded prices.

"Under circumstances like these, therefore, those

who are interested in keeping standards high, including the manufacturer who refuses to cut quality to meet intense price competition, should find in the architect a valuable ally and dependable friend."

CLYDE A. PAIGE,

*Specification Writer for Robert H. Orr,
Architect, Los Angeles, Says:*

"My qualifications to enter this carousal consist of a modest 20-years' experience, from office boy to combination position of office manager and specification writer, specializing in Interior Decoration and absorbing acoustical treatment sales talks. It has been my fortunate experience to be exposed to illuminating lectures of manufacturers' representatives for the last six years, every Tuesday and Friday, hours 1-5 P. M., every hour in between on other days, and over the telephone whenever the lines could be cleared. I feel that my hours of 'solo flight' in the above matter justify my being permitted to harangue in this mêlée.

"Before getting hard on the subject, I desire at this point to pay my respects to the gentlemen who have, without thought of immediate gain, painstakingly talked, lectured, shown laboratory tests, quoted from the Bible and Shakespeare, exhibited cumbersome samples, drawn unreadable sketches, blown out the fuses in the office in demonstrations, handed me their cold perspiring hands, offered cigars, and used numerous other legitimate agencies to enlighten me in the possibilities of using the 1,000,000-odd types of materials now manufactured for the purpose of carrying out President Hoover's campaign pledge of better living standards for the American people individually and collectively. Truthfully, I admire the above-mentioned men, they have prevented me from becoming stale on the subject of materials and their potentialities. They have, through means and words, unsuspected by themselves, warned me of bad practice and wasteful methods that I have been guilty of in my part of the 'Building Racket.'

"However, at the end of each week, during my period of reflection over past events in the office, I sometimes wonder what the deuce all this sales palaver is about, especially after listening to and looking over myriads of sales data which has been presented in a manner showing a lack of correlated comprehension of building functioning and with a dearth of comparative installation costs data. I shall not go into detail concerning my pet peeves relative to inopportune 'phone calls for the purpose of clearing up year-old job reports in 'Dead' Jobs, and annoying conversation due to re-hashed trade journal articles, nor do I resent being shown all the sales pictures of wonderful buildings designed by the great offices which make our office look so mediocre in comparison—it's all a part of the game as practiced at present.

"Further reflections bring to mind the numerous cases in which salesmen have been chilled and thwarted in their attempts to contact the office for their sales promotion duties, by means fair and foul, as practiced

by our office and the thousands of other offices throughout 'the land of the free and the home of the brave.'

"With the above-mentioned conditions existing it is impossible to have the proper cooperation between manufacturer and the artistic fabricator of building materials, the architect, and this is very detrimental to all parties concerned, including clients, for whom buildings are erected.

"If I may be so bold as to presume that I could in any way suggest any cure for the above ailments, the following assumptions would be my prescription, for instance:

"IF I WERE A MANUFACTURER of Building Materials, I would court the attention of the architectural profession to the utmost by sending into the offices of said profession, for sales contact purposes, only representatives having had æsthetic and practical architectural experience as draftsmen in architectural offices, of such extent that they could use at least the elementary terms used to describe the relation between the products they were endeavoring to sell and the adjacent parts of the building into which said products were to be incorporated. I would engage this type of men because they can be had in any number, and with sympathetic sales managers to train them in the art of sales promotion, they could be developed in salesmanship to a degree far superior to the present type. As a manufacturer I would compile in condensed form, letter-file size, all data concerning my products translated into the language of the architectural profession, even to the extent of publishing special literature for said purpose, and said literature would contain ample detailed drawings for visual presentation accompanied by brief specifications. I would so mark my products that a simple system of number designation would identify same as to size, capacity, type, color, or similar descriptive information that would eliminate the volume of words commonly required for such purposes. I would give considerable thought and ample space in presenting my product or products in Sweet's Catalog (The Architect's Bible) on building materials, and use mailing card references to the effect that my products were listed in said Catalog instead of mailing out pounds of literature that is daily thrown into the waste basket.

"If I were the REPRESENTATIVE of a manufacturer of building materials I would know every detail concerning the manufacture, installation, local installation costs, limitations, and possibilities of new usages of the product I was selling or representing to all the profession. The ability to make a clear detailed sketch of any part of my product, and its usage, would be an essential part of my sales talk. The bothersome display of endless sheets of 'TESTING LABORATORY CHARTS' and reports (we are wise as to how they are sometimes made), without request from the interviewed party, would be cautiously done by me. I would never use the telephone, except on interview days, for the purpose of just clearing out my files on job report lists. I would contact the key man in each office to see relative to the presentation of my materials, and know at what hours he received material

salesmen and stick strictly to same. It makes a very favorable impression even on 'DUMB DORA' (the girl in the reception room). It would be an unbroken habit of mine to be supplied with my own estimating sheets, or scratch paper, and especially my own scale, so that when requested to step into the take-off room, I would not have to borrow same from the chief draftsman or other draftsmen. (Salesmen little realize how this affects their standing in the office.) It would be a point with me always to have some interesting picture, sketch, sample (not too large), or bit of news to spring outside of saying 'What's New,' with the party I was interviewing, especially if my calls were mostly for the purpose of general contact. Time would be the essence of the interview, and to get into and out of the office of the architect with the least loss of time to the architect would be a hobby with me.

"If I were an ARCHITECT, I would strive to have established in my territory (City, County, or State), uniform daily material representatives' interviewing hours—such, let us say, as 11:30 to 12:00 A. M. and 4:00 to 5:00 P. M. (The morning period for the purpose of accepting luncheon engagements at the manufacturer's expense, this is mercenary, but practical during depression times?)

"I would insist that the announcement of all building projects be controlled in such manner that only 'HOT OR ACTIVE' projects would be reported in Trade Journals, and make it a misdemeanor for any said paper to 'RE-HASH' reports of projects without the consent of the Architect involved.

"I would sponsor the establishment of a 'Checking Bureau' in my territory (City, County, or State) whose function would consist of determining the relative merits of all building materials being exploited therein, in order to check all false claims and misleading data disseminated on the part of the producers and their representatives. The expenses of maintaining such a Bureau should be shared by all the licensed practitioners of the profession operating in the territory involved. This bureau should have a staff composed of one (1) each, Architect, Structural Engineer, Mechanical Engineer, Interior Decorator, General Contractor, and a staff secretary. The staff secretary would be the only full-time employee, and would have data on file to which ready reference could be made by any member of the profession belonging to the above-mentioned organization, it being assumed that all licensed architectural firms would compose the organization as a whole. It would be the duty of all such practitioners to report to the above-mentioned staff, for research or investigation, any unsatisfactory results or practices obtaining from products used by the same, and also to RATE, at set intervals, products that had given satisfactory results.

"The entire staff would be expected to meet one full day each month for duties outlined above, and should be compensated commensurate with services rendered. The appointment of all members to the staff should be entirely in the hands of the architects above referred to. I suggest this checking bureau with the idea of eliminating producers' gossip concerning the compari-

son of their products with those of competing firms to lighten the embarrassment suffered by the Architects due to being swept off their feet by spellbinders of the material salesman group.

"The above wild ideas are offered for what they may be worth, and in all sincerity, looking forward to a better relation and more cooperation between the two greatest factors of the building business, producer and artistic fabricator, manufacturer and architect."

RICHARD E.
BISHOP,
President
A. C. Horn
Company,
Long Island
City, N. Y.,
Says:



"The only 'billboard' permitted to an architect, today, is his completed edifice. If that building is strikingly clever, more jobs will come into the office. It costs money, clients' money, to get those clever points across.

"The budget is always limited. Something must be sacrificed. How strong must be the temptation to leave out those items which the owner will never appreciate anyway, and no one will ever see. Copper nails in the roof—hard lead in the gutters—integral waterproofing in the foundations—the chances are they won't be required—the money is badly needed to execute that clever entrance effect—'shall we pass them up?'"

"It is mainly the visible results which help sell the next job for the architect. What a nice balance he must maintain between desire for 'show' and desire for maintenance service, long after his name is forgotten.

"And that to my mind is why architecture is a profession rather than a cold-blooded business for selfish gains. The integrity of the structure depends upon the integrity of the architect. Spending the clients' money for their own good and even sometimes against their protest is made doubly hard when the temptation exists to divert those funds into a detail which will create a lasting advertisement for the architect.

"As manufacturers of waterproofings and floor treatments of every type for all manner of buildings, we have stood behind the scenes for many years. We have watched that eternal struggle between desire for effect and desire for a tight, dry building. Some architects cannot resist taking a chance that the building will not leak. They omit waterproofings entirely, save

the money and frankly sometimes they get away with it. Deep is their woe though when the basement happens to fill up and the elevators stop—or when the brickwork leaks and the interior decorations are damaged—or the parapets or window caulking let go.

"Then again, other architects provide their alibi for such disasters and salve their consciences by specifying waterproofings in foundations and brickwork, caulking in windows and parapets, treatments on cement floors—but in a manner which shows that they do not know what it is all about. They have listened to glib salesmen, they write in trick names and feel that the subject is cared for adequately so far as they are concerned. One name specified may be that of an old, established manufacturer of solid financial worth, whose investments in plants and trade-marks necessitate highest quality of material—the next name may be that of some little fellow who has been in business a few months, whose office is in his hat but whose tongue is most nimble.

"It goes without saying that the irresponsible man takes the job at any price, guarantees anything and everything, since he has nothing to lose. Whereas the reliable manufacturer, who has a fine financial rating, must support a legitimate overhead and conduct his business upon fair profits and proper guarantees.

"Then when trouble develops, the architect finds out that the salesman was a fraud, which automatically puts the architect in the same class. For it is a recognized fact today that the real selling forces of the manufacturers of building materials are the architects themselves. Architects do not buy—they sell. They must accept in good faith the statements of manufacturers. They must hazard their finest asset, reputation, in selling suggestions to their clients. High-pressure salesmanship, extravagant claims used as a cloak for high prices or uncertainty—spell trouble and downfall for the architect.

"The successful manufacturer, in apprising his own salesmen of the merits of their goods, does not resort to meaningless chatter. The salient points are imparted in a pithy schedule. Limitations of products are stressed as much as merit, if necessary. Why should the manufacturer not do the same towards that still larger group of his salesmen—the architects.

"We feel that the architect, particularly in these days of many salesmen and little business, is harassed to death by callers. Unintelligent 'visits' from manufacturers' representatives do more harm than good. Firstly they waste the salesmen's time and money. Secondly, such 'visits' instill in the architects' minds such a sense of boredom and barrenness that when business does pick up—the architect shuns a meeting as being purely social and a waste of time.

"Then again, the present 'breathing spell' has drawn attention to a glaringly weak spot in architectural offices and in manufacturers' policies. Architects are cleaning house—they are finding a tremendous area of valuable equipment and floor space cluttered with a conglomeration of printed matter. The manufacturers mailed in that data, it looked too pretty and costly to toss in the basket—so it was given a home in

the files. Now not even the office boy knows where, how or why. The energetic chief starts to houseclean. Literally millions of dollars of catalogues have been sent to the city dumps in the past few months.

"In our own case, we have lost faith in the elaborate 'A.I.A.' files. They either are not kept up or have become so cumbersome and obsolete as to be of little value to either architect or manufacturer. We have gone heavily into *Sweet's Catalogue*, for example, filing a complete digest of our entire line. The ponderous, uninteresting manner of presentation has been abandoned. The innovation of a 'Speed Spec,' the inclusion of schedulers as to what waterproofings or what floors to use—regardless of whether or not we manufacture such a material—have been done to help the architect, not sell him. For a long time to come we are through with elaborate circulars.

"In national advertising we have become equally drastic. We are shunning 'high-hat remoteness,' pictorial works of art. Since the entire building industry is back to a 'shirt-sleeve' era, our message is being broadcast simply, honestly and with service, not boasting, as the motif.

"We are the largest and perhaps the leaders in our particular industry, have been for some thirty-five years. Since our securities are publicly listed it is known that our sales volume is down approximately twenty per cent over our peak. In trimming our business to meet the times, we are concentrating upon those products which promote economy for the building industry—economy of first cost and of maintenance.

"In trimming our expenditures to meet our budgets we are using those publications which reach the real worker while he is at work. We are not ashamed to admit that we are practicing economies—woe betide the organization or the man who is not. We do not disparage the methods or expenditures we have had in the past. They achieved for us a high degree of success.

"The A. C. Horn Company is beginning to enjoy a healthy comeback towards our 1929 peak. Our policies are: plain honest statements of fact and of limitation, if one exists—prices lowered commensurate with revised overheads and raw material markets—money spent in service to those appreciated salesmen of ours—the architects.

"And that money is not going into paying 'chair-warmer order beggars.' If the architect has no work—we cannot afford to just visit. If he has work—we know that he cannot afford visitors. When he sends for us, we are on the job to solve his waterproofing or cement floor problem with a time-tested answer. In the meantime we are using a prominent publication as the lighthouse whose beam ever points to our permanently and properly filed complete catalogue.

"My modest and respectful suggestion to the architect is that he delete from his organization any pose of an expert—that he discard the high hat and frankly assume the role of the manufacturer's salesman.

"In that position he is impregnable. He can demand concise facts of merit and limitation. He can, without offence, dismiss or send for the various salesmen. They become co-workers and should be made to understand the proper relationship. In slack times, the tutoring of architects by sales engineers is most desirable for all concerned. In busy times it is folly to hamper the man who must start the building project.

"A strange statement of fact is that a material man seldom hires an architect for his own building work. A grievous error, as he usually finds out. If I may be permitted frankness without censure, I believe this is because the salesman type sees the wrong picture and fails to appreciate the real worth.

"When you see architects specifying 'cold water paint or enamel,' 'copper or galvanized iron' or whatever the comparison may be which betrays a lack of knowledge of fundamental worth—the salesman in that particular industry begins to feel that the architect is only guessing, that he cannot separate gold from dross.

"When such a thing happens—as it does constantly—it is because the manufacturer has considered the architect as a buyer and not as his salesman. Properly trained representatives know what yardstick to use in measuring quality. Touting an article because it was used in some prominent building is foolish in training a man, compared with the value of informing him of the few rudimentary essentials which ensure quality.

"For example—integral waterproofings—'a minimum of 14% ammonia stearate.' That immediately establishes a price level for comparisons, cuts out trade-names, gives a broad field of competition and coincides with the recommendations of the standard authorities. Take window caulking—'gray in color and having no linseed oil content.' Simple, eliminates the pitfalls of coal tar and disastrous putties. Take metallic floor hardener, 'oil-free with no adulterants or admixtures.' Take waterproofing guarantees 'the financial rating of the manufacturer shall be attached to the request for approval.'

"Frankly, I have built without architects and I have built with them. For purely selfish, financial reasons I would not consider financing a structure without a capable architect. His mistakes of the past are my protection of the future. His urge for beauty and harmony are my insurance of saleability. It costs real money to flounder around and add those items which even a trained contractor forgets. To my mind, architects are not paid a fee—they are simply paid a share of the actual money they save on the job—the balance of such savings I pocket.

"My advice to the manufacturer is: consider the architect as a co-worker—not as a prospect. Train him in the fundamentals—not in the peculiar attributes of your particular product. Then if your quality is right—your price fair—be willing to battle it out with your legitimate and equally reliable competitors—and may the best man win."

The Architectural Annex of the New Bureau of Agricultural Engineering

By Waldon Fawcett

Remote though the connection may appear at first glance, there is, in reality, a depth of significance for architects in the creation on July 1, 1931, of a Bureau of Agricultural Engineering as an administrative unit of the Federal Government. Contact for the architectural profession will come through the operations of a division devoted to rural architecture as a subsection of the institution, as henceforth dignified. More especially, however, and more immediately, will the interest of architects be challenged by certain plans for architectural "missionary work" which have awaited the creation of the organization to start work with the fiscal year, 1932.

To appreciate the capabilities of this new contributor to the cause of architectural development and architectural appreciation on the part of the lay public, it may be worth while to glance hastily at the background of the unfolding scene. A Bureau of Agricultural Engineering is by no means a new conception in the service set-up of the United States Department of Agriculture. For some years past, a subsidiary, devoted to rural engineering, has functioned as a part of the United States Office of Public Roads. Here, however, the work lacked identity in the title of the institution and was overshadowed by the sheer magnitude of the ambitious highway improvement responsibilities of an automotive age. The architectural work—a wheel within the wheel of subordinate status—obtained even less recognition for varied constructive work that was figuratively planting architectural seed in virgin soil.

For years in succession, the Congress of the United States was persistently petitioned to serve the cause of power farming and encourage higher standards of housing on the farms by detaching the Agricultural Engineering Institution from its old affiliation and setting it up as a separate entity. Only this past year was the persuasion effective. Not only did the national legislature approve the independence of the Bureau of Agricultural Engineering but the appropriations were increased so that, in the first twelve months of its existence, the new institution will have available an expense allowance of upward of half a million dollars, a large proportion of which will be devoted to investigations and research work.

Elevation of this Federal clearing house for engineering and architectural information to the level of a bureau coordinate with the other major units of the Agricultural Department has been desired for purposes of prestige which will have an unsuspected reaction upon architecture. To an ever-increasing extent the Federal Department of Agriculture is reinforcing its research and experimental work by means of active cooperation with the State agricultural colleges and the agricultural experiment stations maintained by the several States. In this relationship, the Federal Department is logically assuming a position of leadership and is giving direction to the entire consolidated effort. This is true, or should be true, of agricultural engineering no less than of other endeavor. But lack of a specific bureau devoted to this subject has cost

Uncle Sam, sentimentally, in his standing with the States.

In the concrete as well as in the abstract does this phase of the development approach the cause of architectural uplift. As will be detailed later, one of the most ambitious of all the cherished plans for complete cooperation between Washington and the States visualizes a loose merger of the agencies serving rural architecture. Most of the States of the Union already conduct architectural plan services of one kind or another. Now, with the Federal Government boasting a plan plant befitting its station and formally accredited in the Federal directory it is believed possible to gradually knit together facilities of rural architectural plan supply that will surpass the total of existing resources and at the same time avoid wasteful duplication.

Inasmuch as the Bureau of Agricultural Engineering distributes plans free to farmers who apply for them through their county agents or direct, selfish curiosity might prompt the question how the elevation and extension of this work is to benefit the everyday member of the architectural profession. A shortsighted answer might be composed in terms of the additional employment that will be provided for both senior and junior architects as the Federal and State Governments enlarge their "plan services" and as additional political divisions (perhaps including the urban as well as the rural) allot money for this form of architectural first aid. In the larger aspect, however, the answer to the above question must be made in terms of the beneficial influence in behalf of a proper appreciation and valuation of architecture as a factor in rural life.

It is probably only too true that, by and large, the architectural profession has not shown much interest in developing farm structures. Tradition has it that the small scattered units on the farms do not prove profitable from a professional standpoint. And, naturally, the majority of architects have not seen the necessity nor the warrant for specific training in the design of farm buildings. Set over against this reluctance on the part of a large share of the architectural profession has been a chilling indifference on the part of the rank and file of the farmers. As a class the farmers have not employed professional architectural service because they have not been educated to an appreciation of the importance of scientific design. Nor have the majority of farmers been convinced by practical demonstration of the value and advantage of professional architectural assistance.

On whichever side rests most of the blame for the mutual lack of understanding, the time is ripe for the forces of architecture to discover and explore the rural field. There are several separate and distinct signs which betoken the advent of a new era. Merely the normal percentage of annual replacement, on an investment of farm buildings estimated in the United States to aggregate \$11,750,000,000, should involve potential architectural demands well worthy of consideration in proportion as the rural population is increasingly educated in architectural taste and discrimination. But this obligatory, utilitarian replacement is the least of the factors to be counted upon

ANNEX OF THE NEW BUREAU OF AGRICULTURAL ENGINEERING

for revolutionary influence within the next few years.

Much more to the point as forecasting rich opportunity for architecture is the circumstance that during the years of agricultural depression there has been a tendency to allow farm buildings to deteriorate and to postpone needed construction that was not imperative. Of sheer necessity, building responsibilities of exceptional magnitude will confront American farmers as they emerge from the period of trial and self-denial. But added to that compulsion is the insistence of radically new conditions that are transforming the policies and practices of agricultural industry. Power farming has taken possession of the field, bringing with it an equipment of tractors, trucks, combines, and other machinery too valuable to be left unhusbed or inadequately sheltered as were the farm tools of yesteryear. As though that were not enough, the spirit of cooperation in production and marketing has swept the countryside, developing requirements in joint or community packing plants, storage houses, etc., worthy an architect's mettle.

Finally, as yet another element making for an architectural awakening in rural America we have the graduation of the more prosperous classes of rural population to higher standards of living. This began some years back with the rural invasion of modern heating plants and the boon of "water in the house." It has been accentuated by the electrification of farm homes. Modern comforts and conveniences were thought of at first only in terms of installation in old farm buildings. Gradually, though, has come consciousness that, on the farm as elsewhere, modern improvements deserve an architectural setting in keeping. To quicken and emphasize that trend all the more has come the transfusion of urban blood. The gentleman farmer, so-called, has been, for years past, progressively taking over slices of picturesque farm land, bringing with him his concept of the country house as distinguished from the traditional rural homestead. Latterly, the business recession has served to turn farmward an exodus of city dwellers who, though less affluent than the play-farmers, nevertheless come to the rural environment with sophisticated expectations of architecture and housing.

The new Federal Bureau will have performed a constructive service for architecture if it does no more than lead the agricultural population away from a lack of standardization of housing requirements. This very lack has been responsible, in no mean degree, for such shortcomings as have heretofore existed in rural architecture. To begin with, of course, there has been too little appreciation of the importance of farm buildings as factors in agricultural production, as well as fundamentals of satisfaction in the agricultural mode of life. But, even more disastrous, has been the absence of such standardization as would be feasible. Farming America has made use of a wide variety of plans for the same type of structure and there has been little research on farm building problems such as would afford guidance to the layman.

To indicate the extent of the free-for-all in the making of rural architectural plans it may be noted that the Bureau of Agricultural Engineering has in stock, to send upon demand, hundreds of different plans covering farm dwellings, barns, hog houses, poultry houses, community buildings, garages, common storage houses and every imaginable type of structure. But the several State Governments (or some four-fifths of the States) place at the disposal of the farmers an aggregate of more than 2600 plans covering the same specialized range of architecture. With this glimpse of architectural chaos it will be understood why the heads of the new Bureau—Director McCrory, Senior Architect M. C. Betts, and their associates—are so keen to develop

a coordination of national and state plan services that will serve selective purposes. And why the Federal institution has backed so energetically the Survey of Farm Structures which has just been completed under the direction of the Advisory Council on Research in Farm Structures and its Report by Mr. Henry Giese will shortly be published.

But for all that this get-together spirit in plan service and architectural research has flamed with the creation of the full-fledged Bureau of Agricultural Engineering, it is recognized by the Bureau heads that standardization in rural architecture can go just so far. The problems of farm structures are seldom strictly local in any narrow sense. But, on the other hand, it is impracticable, save perhaps in the case of certain types of farm dwellings, to think of the requirements of rural architecture in country-wide geographical terms. If climatic conditions, provincial prejudices, and preferences, did not preclude the transcontinental vision, architecturally speaking, the dictates of agricultural commodities would prove controlling.

The larger proportion of farm buildings are utilitarian in that they are designed for the storage or processing of farm crops and the shelter of stock and equipment that play a part in agricultural production. Farm structures will vary in response to commodity characteristics. Storage houses must accommodate themselves in design to the requirements of apples, potatoes, corn, or what not. Granting all this, the Federal officials feel that farm architecture, although it cannot be national in the literal sense, may be regional. Agricultural America is broadly zoned in terms of the "wheat belt," etc. That will give cue to the district-standardization of the new rural architecture.

That this may not be left to mere theory, the Federal staff has already taken steps to encourage an initial experiment wherein cooperating agencies in the group of hog-raising states, with Iowa as the pivot, will get together in the determination to select from all available plans the soundest design in hog structures and to bring about universal adoption of the endorsed plans within the area. The same method will be followed in the case of other groups of states which concentrate respectively upon the production of commodities that necessitate particular types of buildings for their accommodation.

One of the consequences of the new Federal program of architectural uplift, and the state cooperation which it seeks to engender, should be to dispel the delusion that cheapness is the sole objective in farm architecture and buildings. Officials say that there has never been the blind deference to low first-cost that has sometimes been ascribed to rural owners and builders. But insofar as such weakness did exist it is now in a fair way to be cured. All the forces of Federal propaganda will be employed to convert farmers to the faith that true economy lies in the erection of buildings sound in design and construction and intelligently adapted to the purpose for which destined.

If, as the optimists believe, the result of the enlarged architectural activities of the new Bureau of Agricultural Engineering will be to stimulate a demand for individualistic architectural service on the farms, the architectural profession may be assured that its members will enjoy the reward. The Government Bureau has not and will not comply with requests for plans drawn to order. Its free distribution is restricted to stock plans for conventional structures. The Federal plans are good enough to save the farmers from the amateur efforts that blotted the past. But just good enough, perhaps, to instill in the farmer who can afford it an ambition for plans, professionally prepared in deference to his building site, his personal needs, and the preferred materials of construction.

"FREESE'S CORNER"

Ernest Irving Freese has instituted himself as "a clearing house of knotty drafting room problems . . . and stands ready to offer a solution of any such problems, either involving geometry or mathematics, that appear to have any practical value to a draftsman." One such inquiry a month will be answered but the problem submitted shall have, or shall find, actual practical application in one way or another to drafting room work.

Address your problem to Freese's Corner, PENCIL POINTS, 419 Fourth Avenue, New York.

A CORRECTION

Lloyd A. Steffgen of Pasadena, California, is the author of the PENCIL POINTS SMALL HOUSE COMPETITION design published in the February issue, on page 123, which we erroneously credited to John B. Anthony and John Foster.

PRATT ARCHITECTURAL CLUB

The sixth annual dinner of the Pratt Architectural Club will always stand out in the memory of the more than sixty club members who were present as a memorable event. It was held at the Fraternity Club Building in New York on the night of May 14th, and a very enjoyable evening was brought to a climax by a talk from Harvey Wiley Corbett, F.A.I.A.

At the election of officers during the evening, the following were chosen for the ensuing year: President, Clar-

ence Chrocheron, '09; First Vice-Pres., James C. Magee, '15; Second Vice-Pres., Clarence M. Nutting, '25; Secretary, Irving M. Simon, '19; Asst. Secretary, Morris Gardner, '26; Treasurer, A. Henry Johnson, '26; Asst. Treas., Charles Dehm, '29; Board of Governors: Henry D. Thrush, '08, Harrison Wilson, '09, Samuel Malkind, '15, and Geo. F. Axt, '16.

In the face of trying times the club has kept itself going smoothly along, meeting each Tuesday at the Fraternity Club for luncheon. It may be a time of depression, but we all have to eat, and what is less pleasant when you are disheartened than to eat all alone. You do not have to talk about the hard times when you are one of a congenial group, but try and forget it when munching your ham sandwich all by yourself.

With three hundred steadfast members, and bright prospects for a private clubroom next fall, we look to the future with enthusiasm. All Pratt men are invited to join with us.

PRIZES AWARDED IN BRIDGE DESIGN COMPETITION

For the most aesthetic design of a bridge in steel, the American Institute of Steel Construction has awarded five prizes totaling \$1,200. The prize winners were selected from some 150 students of engineering and of architecture in the various colleges and universities of the United States and Canada.

The first prize of \$500 for the best design by a student of architecture went to R. F. Weber of Atelier Adams Nelson, Chicago. The second prize of \$250 was awarded to Glenn E. Crippen, of Iowa State College, and the third prize of \$100 went to Lester W. Casey of Iowa State College.

The jury decided to withhold the first prize to the group who contested for the best design by an engineering student. The second prize in this group for \$250 was awarded to Jeremiah C. Iandolo, of the University of Pennsylvania, and the third prize of \$100 went to Covert Robertson, of the University of Michigan.

The jury making the selection consisted of Dr. Ralph Modjeski, Consulting Engineer; Dr. Shortridge Hardesty, Consulting Engineer; H. H. Murdock, Architect; Clinton Mackenzie, Architect, and F. E. Schmitt, Editor of *Engineering News-Record*.

This is the third annual competition held by the Institute on bridge designing by students.

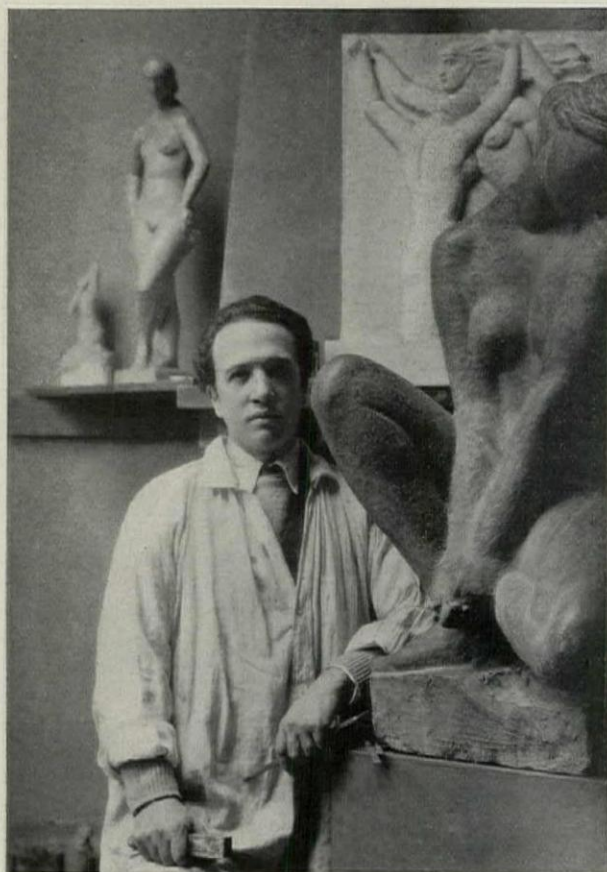
ROME PRIZE IN ARCHITECTURE AWARDED

The Rome Prize in Architecture for 1931 has been awarded to Henry Dustin Mirick of the University of Pennsylvania. Honorable Mention went to Clyde A. Stoady of Carnegie Institute of Technology. The three other competitors in the final competition were Jefferson Roy Carroll, Jr., University of Pennsylvania, Frederick J. B. Sevald, Jr., University of Michigan, and Thomas Cooper Van Antwerp, University of Pennsylvania. There were 88 competitors in the preliminary competition from which the five finalists above were chosen.

The subject of the final competition was *An Officers' Club*.

THE PROBLEM

In the Capital of an important Island Territory in the Tropics, the United States Government maintains a considerable military and naval staff in addition to that required for administrative purposes. In order to ameliorate the conditions of social life among the Americans thus maintained on the Island, to bring about better coopera-



ORONZIO MALDARELLI, SCULPTOR

Mr. Maldarelli, whose work has appeared in PENCIL POINTS from time to time, has recently been awarded a Guggenheim Scholarship. He plans to sail in the fall and will visit France and Italy.

tion between the officials of the different establishments and indirectly to increase the prestige of the Government, the building of an elaborate Officers' Club has been proposed.

The city lies upon the southern shore of a large harbor, where conditions for bathing and boating are excellent. The climate, except in the heat of mid-day, is so agreeable that outdoor dining and dancing form an unusually important role in the social life. Tropical plants and flowers, which thrive luxuriantly, and an abundant supply of water facilitate the development of gardens with pools and fountains to afford the members a refreshing retreat from the heat of the city. An opportunity to hear the lecturers, musicians and small theatrical companies occasionally visiting the Island is much appreciated by the residents. The proposed Officers' Club, which is the subject of this competition, should provide a dignified and comfortable setting for the great variety of social and athletic activities which may be enjoyed by the American official residents under these conditions.

A site for the project has been selected extending 1000' along the waterfront in the residential section of the city. It is bounded upon the east and west by the property lines of adjoining estates and upon the south by a 100' boulevard parallel with the waterfront, forming a plot 500' in depth measured between the coast line at mean sea level and the boulevard. The boulevard upon the south side is intersected at right angles by three 60' streets 360' on centers, the projected axes of the middle street coinciding with the Central, North and South axis of the plot. From the line of the boulevard to within 100' of the coast line the property is practically flat at an elevation of 27'. It there breaks with an abrupt rocky declivity down an elevation of 10', from which it shelves off in a sandy beach to the water. Elevations are measured from mean sea level. The average tide is 6'.

The plot should be developed to include: one or more piers for the landing of small boats; bathing beach; terraces and shaded areas for the outdoor life; outdoor swimming pool with an area not less than 5000 sq. ft.; eight tennis courts; gardens; parking space for at least 200 cars.

The Clubhouse should contain: main club lounge, 6000 sq. ft.; two small lounges, 1000 sq. ft. each; library, 2000 sq. ft.; ballroom, 5000 sq. ft.; dining room, 4000 sq. ft. with kitchens, pantries, etc., so arranged that the dining terraces also may be conveniently served; two small dining rooms for private parties, 1000 sq. ft. each; small theatre seating 400 persons with complete stage, dressing rooms, etc.; locker rooms for 400 men and 200 women so located as to provide easy accessibility to outdoor athletic facilities; coat rooms and retiring rooms for ladies and gentlemen; offices for the staff, 800 sq. ft.; provisions for all usual and necessary service requirements in addition to those mentioned. (Certain of these requirements may be allocated to a basement or a second story, at the discretion of the designer.)

The winner will receive \$1550 a year for a term of two years beginning October 1st, 1931, and an allowance of \$500 for transportation to and from Rome, with free residence and studio at the Academy. The estimated value of each fellowship is about \$5000.

The Jury of Award was composed of William Mitchell Kendall, Chester H. Aldrich, Louis Ayres, Charles A. Platt, and James K. Smith.

Henry Mirick's winning design is shown on pages 462 and 463 and the design by Clyde Stoodly on pages 464 and 465.



HENRY DUSTIN MIRICK

Henry Dustin Mirick, winner of the Rome Prize in Architecture, was born on August 6, 1905, in Washington, D. C. He prepared for college at the Friends' School of that city and entered Princeton in the fall of 1923. While there he was a member of the Varsity track team and was captain of the Cross Country team in his senior year. He was also a member of the Quadrangle Club.

After graduation, being uncertain as to what profession he was best adapted, he made a try of Forestry at the Yale Summer School. The work was not congenial so he enrolled that fall (1927) in the Architectural School of the University of Pennsylvania. He graduated three years later with the degree of B. Arch. and is now studying for his Master's degree. At the end of his first year he joined St. Anthony Hall. He is a member of the Architectural Society and of Tau Sigma Delta, Honorary Fraternity in Architecture.

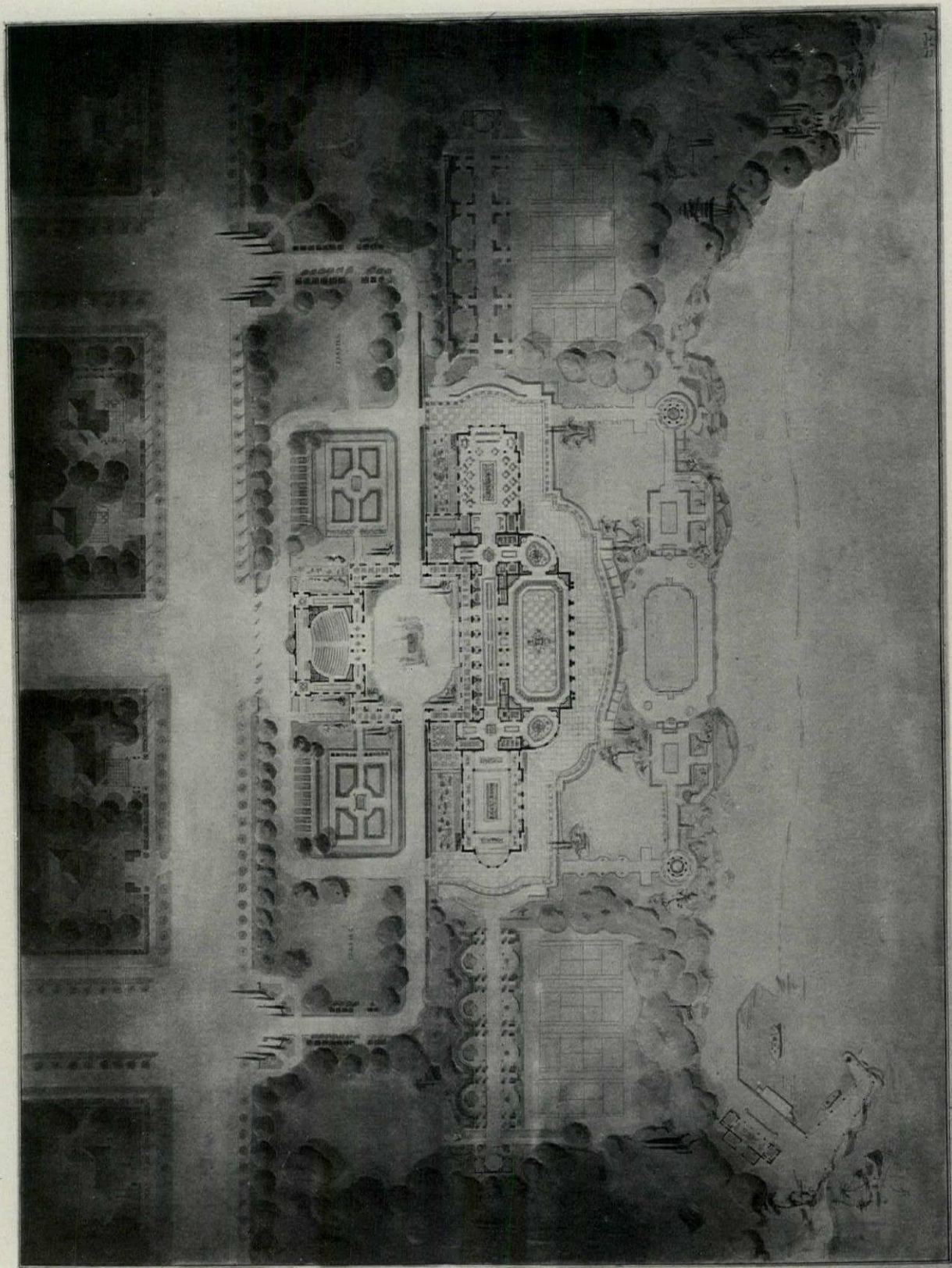
In Washington he has worked in the summer for the firm of Smith & Edwards. This is the first time he has competed in the Rome Prize Competition.

Mr. Mirick feels that his success in the competition was made possible by the excellent training in architecture at the University of Pennsylvania and to the fine background in history and the fine arts gained at Princeton University.

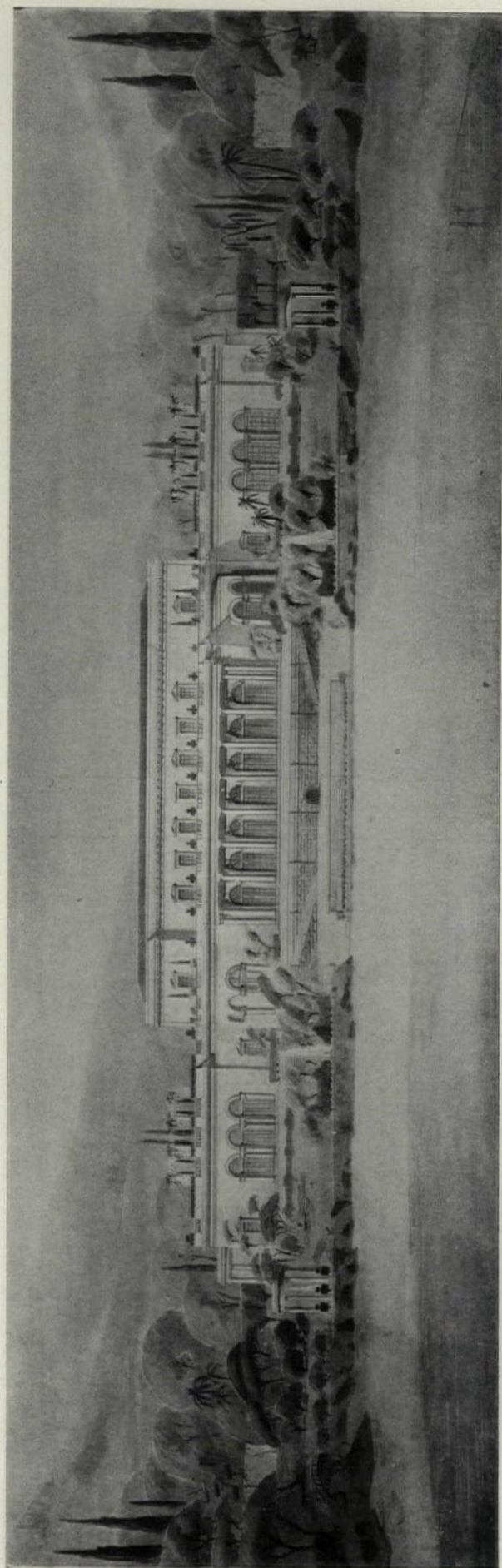
He is especially indebted to the inspiring criticism of Harry Sternfeld in whose atelier he has been for the past two years. Mr. Sternfeld has constantly held up the very highest ideals of the profession and has been untiring in his efforts to point out the real fundamentals of good architecture. Reichardt, last year's winner of the Rome Prize, was also a member of Mr. Sternfeld's atelier and Mr. Mirick is looking forward eagerly to meeting him in Rome.

Mr. Mirick also feels indebted to Mr. Parker for his courses in construction and to Mr. Dawson for his help in drawing and water color all through his course at Pennsylvania.

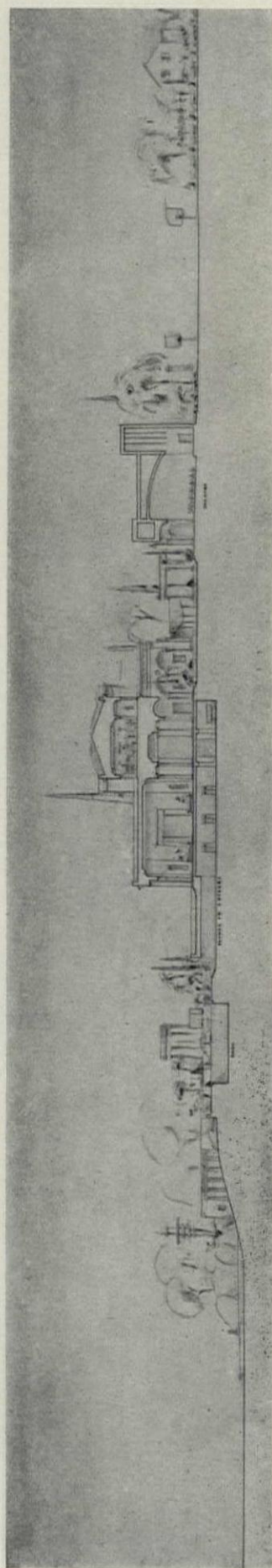
PENCIL POINTS FOR JUNE, 1931



PLAN OF THE WINNING DESIGN FOR "AN OFFICERS' CLUB," BY HENRY DUSTIN MIRICK
COMPETITION FOR THE ROME PRIZE IN ARCHITECTURE, 1931



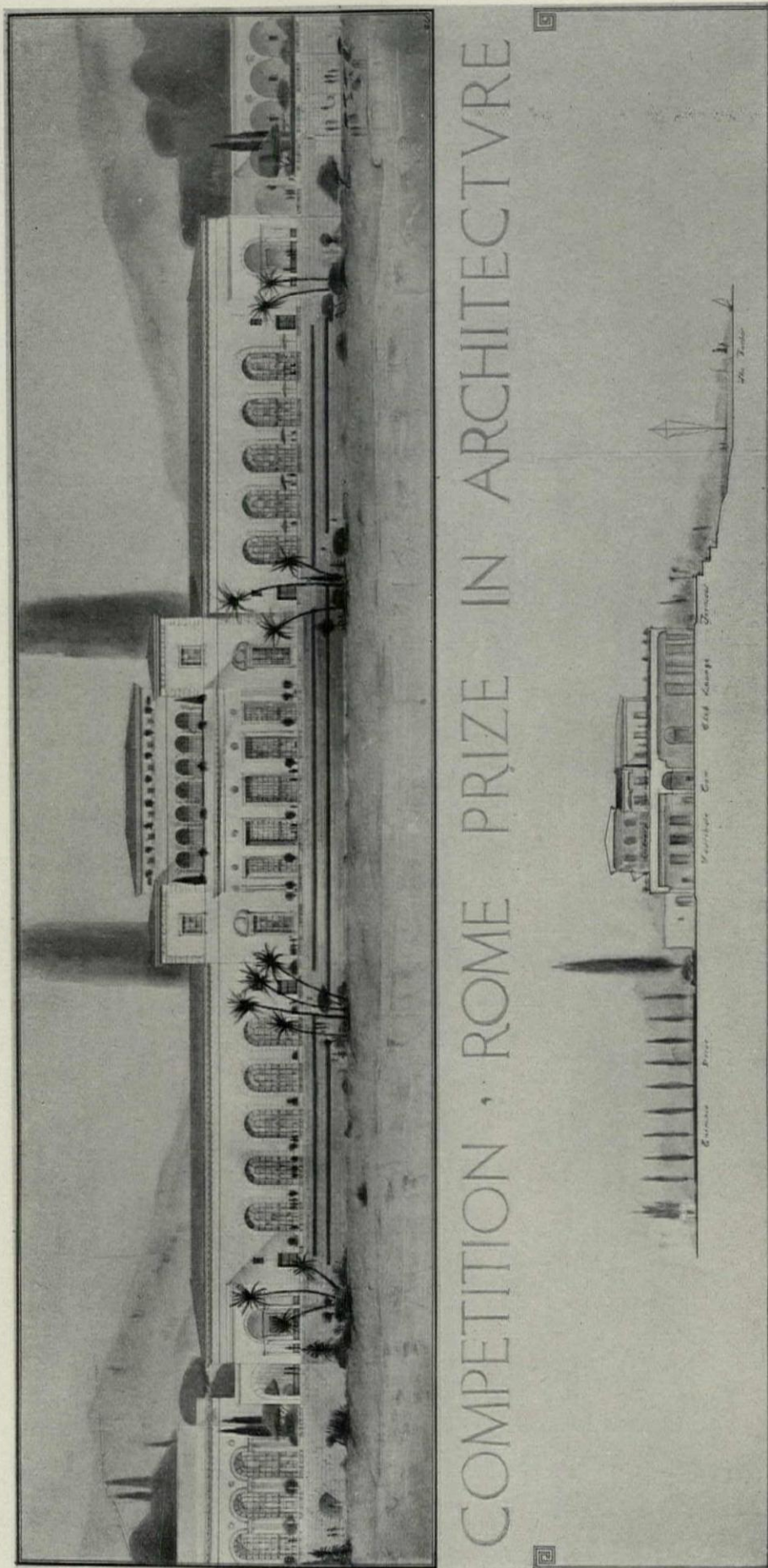
ELEVATION



SECTION

THE WINNING DESIGN FOR "AN OFFICERS' CLUB," BY HENRY DUSTIN MIRICK
COMPETITION FOR THE ROME PRIZE IN ARCHITECTURE, 1931

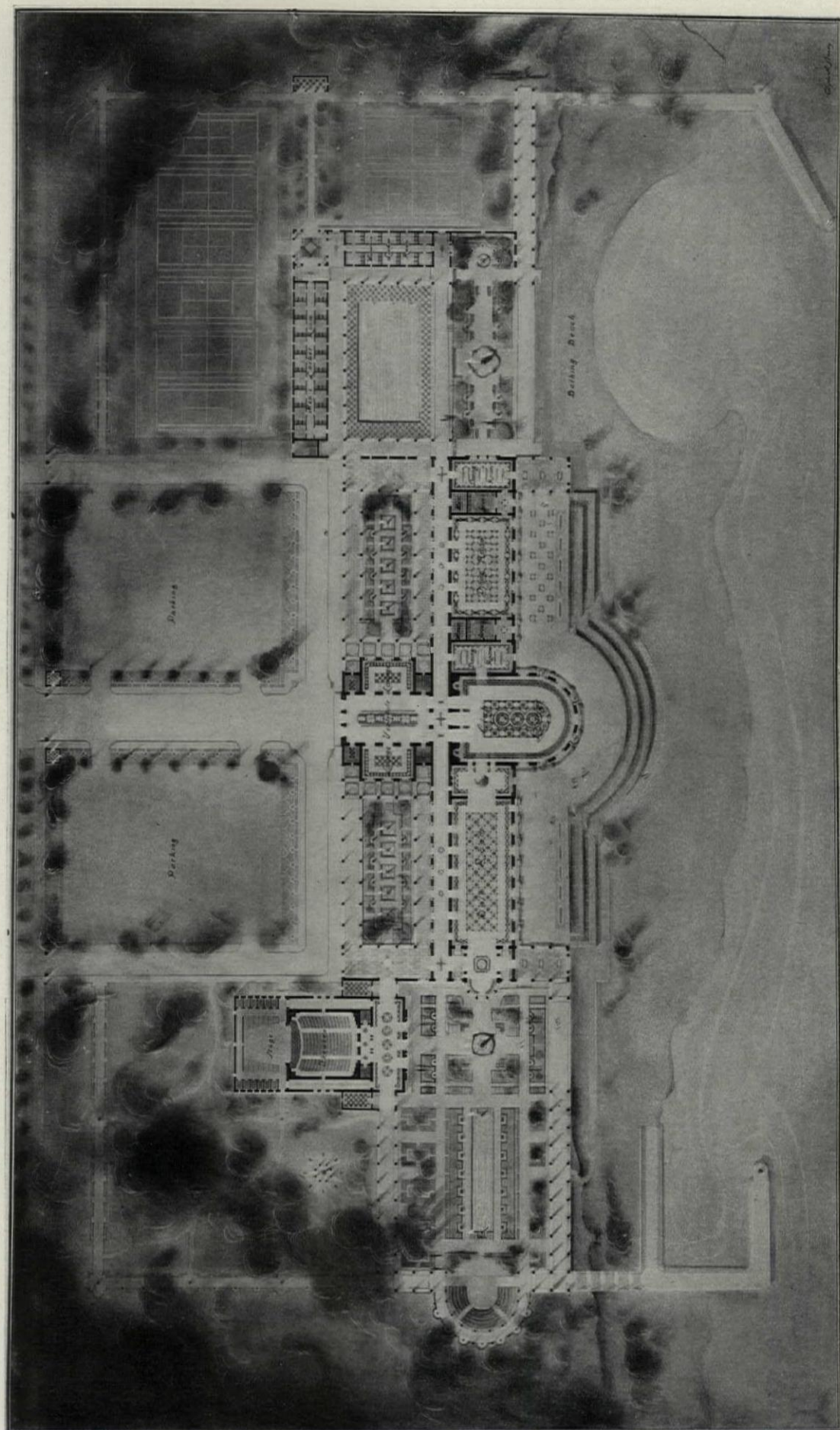
PENCIL POINTS FOR JUNE, 1931



COMPETITION · ROME PRIZE IN ARCHITECTURE

HONORABLE MENTION DESIGN FOR "AN OFFICERS' CLUB," BY CLYDE A. STOODY
 COMPETITION FOR THE ROME PRIZE IN ARCHITECTURE, 1931

PENCIL POINTS FOR JUNE, 1931



PLAN OF HONORABLE MENTION DESIGN FOR "AN OFFICERS' CLUB," BY CLYDE A. STOODY
 COMPETITION FOR THE ROME PRIZE IN ARCHITECTURE, 1931

A. W. Brown Scholarship Competition

The Problem and Report of the Jury

The 1931 Competition for the A. W. Brown Traveling Scholarship, established by Ludowici-Celadon Company, was judged at White Sulphur Springs, West Virginia, on April 23rd, 24th, and 25th by a jury of five architects.

THE PROBLEM

The problem is the design of *A Private School for Boys*. It is assumed that an educator, interested in the training of boys and with definite ideas as to the cultural value of intimate contact between young students and masters as well as of emphasizing the study of the humanities and sciences rather than professional or manual training, has obtained the financial support of a group of men, making possible the erection and endowment of a school for this purpose. The enrollment at the school will at all times be limited to eighty boys, ranging in age from 12 to 18 years; while the staff will be composed of a headmaster and twelve instructors or masters. These masters will not only teach the various subjects of the regular curriculum but certain ones will direct the athletic games and gymnasium work while others will give the individual instruction in music or art as may be required.

It is assumed that a large acreage has been obtained about sixty

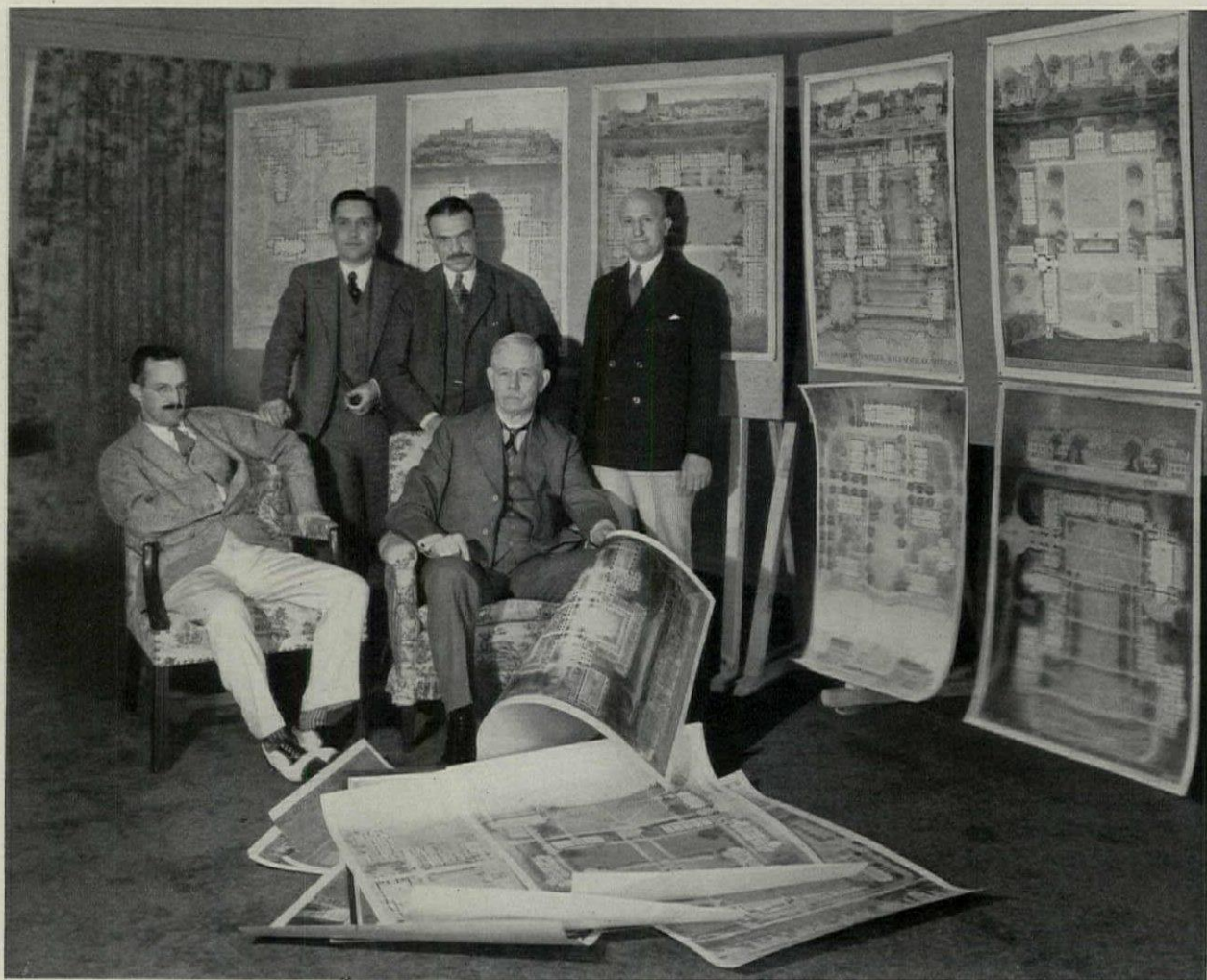
miles from an important city and that on this plot there is an admirable building-site, bordering on a lake, rising slightly away from the shore and with a twenty-foot drop to the water for a considerable distance along the shore. The approach to this site, due to various conditions, must be from the West and along the lake; from this point the roadway shall be continued to the buildings as the competitor may wish. The Plot Plan shows the general site and the approximate levels of the ground; the buildings shall all be within an area 400 feet long and 350 feet deep, except that the athletic field and any development of the lake front may be outside these limits.

The BUILDINGS to be designed and their requirements are:—

THE ADMINISTRATION BUILDING: to contain four or five Offices for the Administration and a Chapel or Auditorium where services and meetings may be held, to seat 200 persons—a gallery may be provided to accommodate some of these.

THE DINING HALL: to accommodate 80 boys at one sitting, with a raised portion at one end for seating the masters and any guests; to have adequate coat rooms and a vestibule; to have serving pantries. The Kitchen may be shown on the same floor level as the Dining Hall or it may be assumed as being in the basement with dumb-waiters to the pantries.

CLASSROOMS: there shall be ten Classrooms and four Lab-



JURY OF AWARD FOR THE A. W. BROWN SCHOLARSHIP COMPETITION FOR 1931

STANDING—M. E. BOYER, CHARLOTTE, N. C.; OLIVER REAGAN, NEW YORK; JAMES O. BETELLE, NEWARK
SEATED—PHILIP SMALL, CLEVELAND, AND J. K. POND, CHICAGO

oratories, divided between two buildings or all in one. Class-rooms shall be approximately 320 sq. ft. in area and shall all be on the ground floors with the Laboratories on the floors above.

THE GYMNASIUM: to have approximately 3000 sq. ft. floor area, including locker and shower rooms and toilets on same level. Swimming pool will be below the actual Gymnasium. At one end of the gymnasium a small stage should be provided so that theatrical performances may be given there.

DORMITORIES: to be divided between four or six buildings, each to accommodate both boys and masters. The boys' rooms will be on the second and third floors, every two boys having a suite of two small bedrooms and a study, each study to have a fireplace; bathing and toilet facilities will be grouped in one location on each of these floors.

The first floor of each building shall have: (a) a Common or Living Room; (b) a commodious Library to serve also as a Study Room; (c) suites, each having a small Sitting Room, a Bedroom and a Bath—two or three suites for the masters and one for guests in each building.

It is assumed that the Headmaster's House, the Infirmary, the Power and Heating Plant, the Service Quarters and other out-buildings, such as Garages, will be built on a portion of the property removed from the buildings mentioned above and will not be shown except that a service drive leading to them should be indicated. An Athletic Field, Tennis Courts, etc., may be shown or their relation to the Gymnasium may be indicated by a walk, noted as leading to the Field.

The Plan shall not only show the grouping of the buildings but there shall also be indicated the arrangement of the first-floor requirements in each building, except that one-half of the Dormitory Buildings shall have the second-floor plan indicated while the other two or three shall show the first floor. The buildings may be entirely separated or they may be joined by colonnades or arcades, as the designer may wish.

The choice of materials and type of architecture are left entirely to each competitor, although attention is called to the fact that such a small school as this should have a distinctly domestic scale and character. The committee also desires to call specific attention to the fact that, while the donors of the scholarship are manufacturers of roofing tiles, the use of tile roofs in the design is not in any way to be considered essential or necessary, and that the jury will not show any preference, in making their judgment, to designs in which such roofs have been shown.

There were one hundred and forty-five designs submitted by architects and draftsmen from various sections of the country.

The Scholarship or first prize of two thousand dollars was awarded to J. Davidson Stephen of New York City. Second prize of two hundred and fifty dollars was given to Livingstone H. Elder of New York City; third prize of one hundred and fifty dollars to Clifford J. Pillow of New York City; and fourth prize to John T. Jacobsen of Seattle, Washington. Honorable mention was given to Frederick E. Emmons, Jr., of Elizabeth, New Jersey, and mentions to James J. Connors, Jr., of New York City; Kenneth A. W. Backstrom of Bronxville, New York; John J. Rowland of New York City; Willis N. Mills of New York City; Robert S. Hutchins of New York City, and Leslie F. Ayres of Indianapolis, Indiana. The design of John J. Storey received commendation but was placed "Hors Concours" for failing to place the classrooms in buildings as called for in the programme.

As required by the programme the A.I.A. Committee in charge of the scholarship has investigated the personal qualifications of the competitor whose design was placed first and has confirmed the award of the scholarship to him.

THE JURY REPORT

"Be not the first by whom the new is tried
Nor yet the last to lay the old aside."

A fairly conservative motto adopted evidently by the far greater number of the one hundred and forty-five contestants in the A. W. Brown Traveling Scholarship Competition.

The problem was the design of *A Private School for Boys* between the ages of twelve and eighteen, inclusive. The teaching of the humanities and sciences rather than



J. DAVIDSON STEPHEN

the technicalities were to be emphasized. The school was to be located at a distance of about sixty miles from an important city on a plot of ground which, though somewhat circumscribed (400 feet bordering a lake and extending 350 feet inland), yet was in proximity to an athletic field which was part of the plant. The school ground must of necessity be entered at the southwest corner of the property at a curve in the shore of the lake.

These imposed conditions would seem to demand that the building be of a domestic rather than a formal character and that the "monumental" should be avoided in the development of the campus landscape. There should

(Continued on page 477)

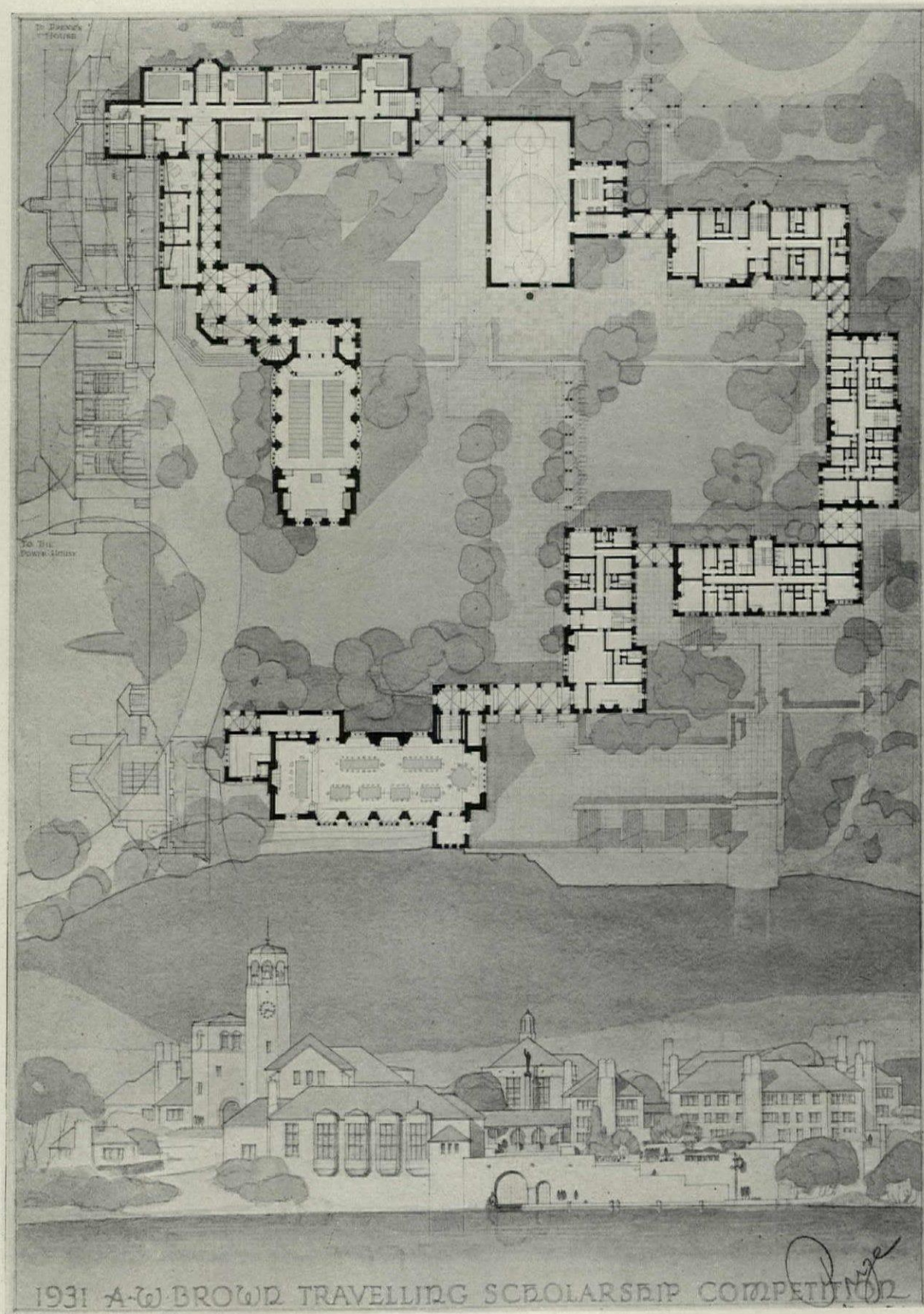
J. DAVIDSON STEPHEN

J. Davidson Stephen, winner of the A. W. Brown Traveling Scholarship for 1931, was born on April 2nd, 1900, in Louisville, Kentucky. He moved to St. Louis, Missouri, in 1904. His first contact with architecture was in 1917 while attending Soldan High School where he was studying under Roy Sheldon Camillius Price. Mr. Stephen writes:

"I want to thank Roy Price for his enthusiasm, Louis La Beaume for his observations on art, etc., Guy Study for his very thorough training, William De Forrest Crowell for his tolerance of me, and his intolerance of tradition, Preston J. Bradshaw for his encouraging 'send-off' when I came to New York in 1925.

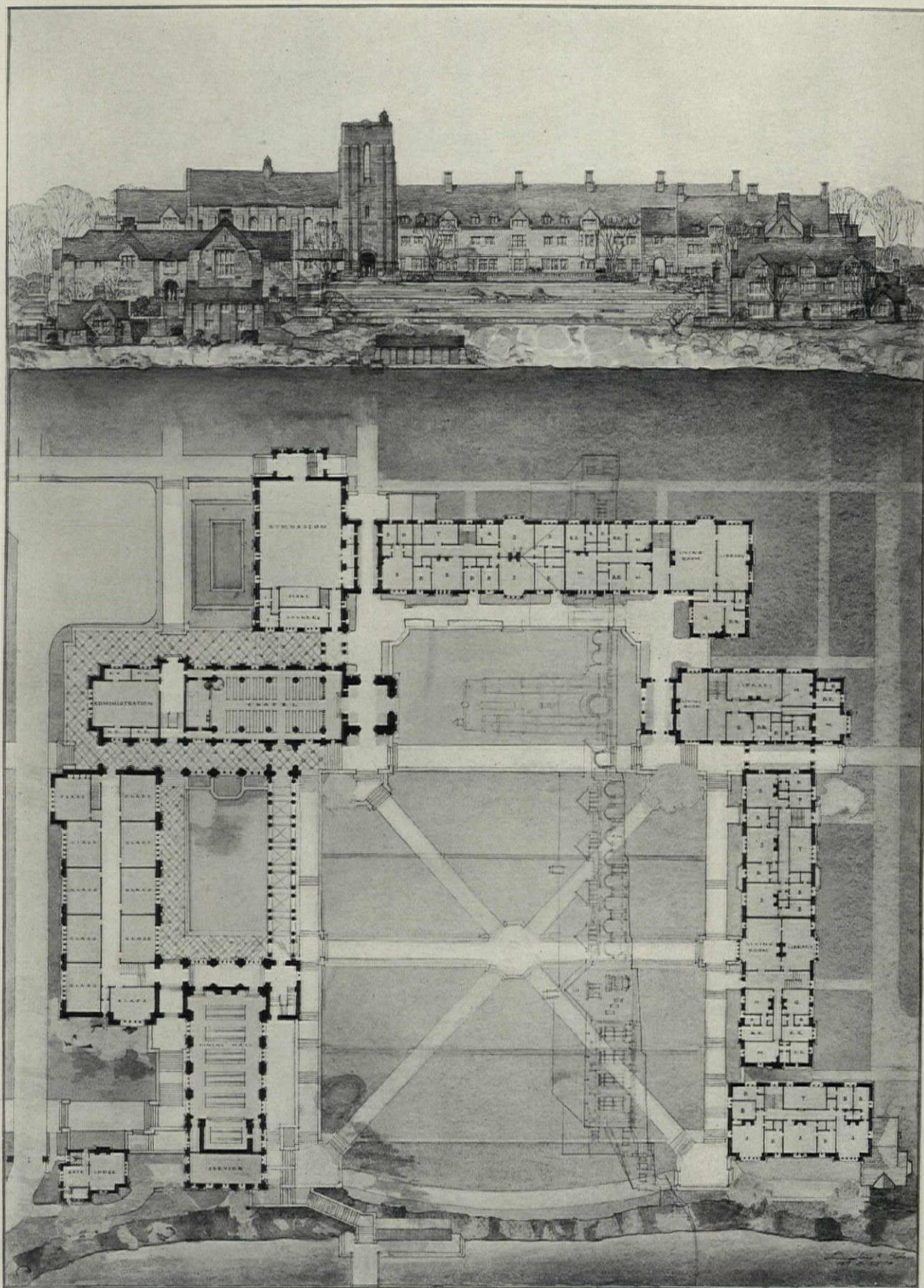
"I want also to thank Chester B. Price for his assistance in my getting a job with Voorhees, Gmelin, and Walker, and particularly Ralph T. Walker in whose office these last five years have been the most inspiring of all my experience and the greatest contributing influence to any architectural thought I may have developed."

PENCIL POINTS FOR JUNE, 1931



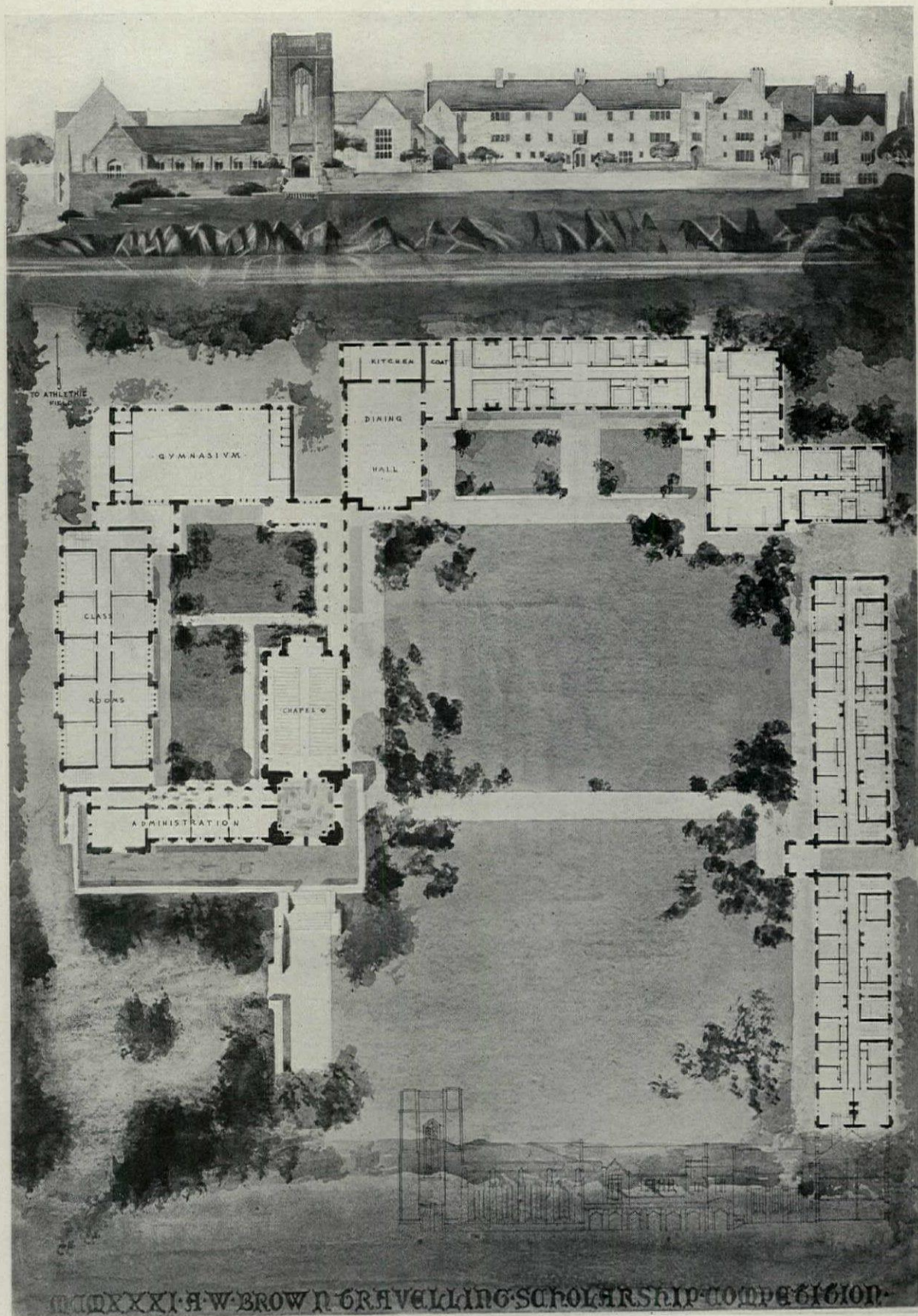
WINNING DESIGN FOR "A PRIVATE SCHOOL FOR BOYS," BY J. DAVIDSON STEPHEN

A. W. BROWN TRAVELING SCHOLARSHIP COMPETITION FOR 1931



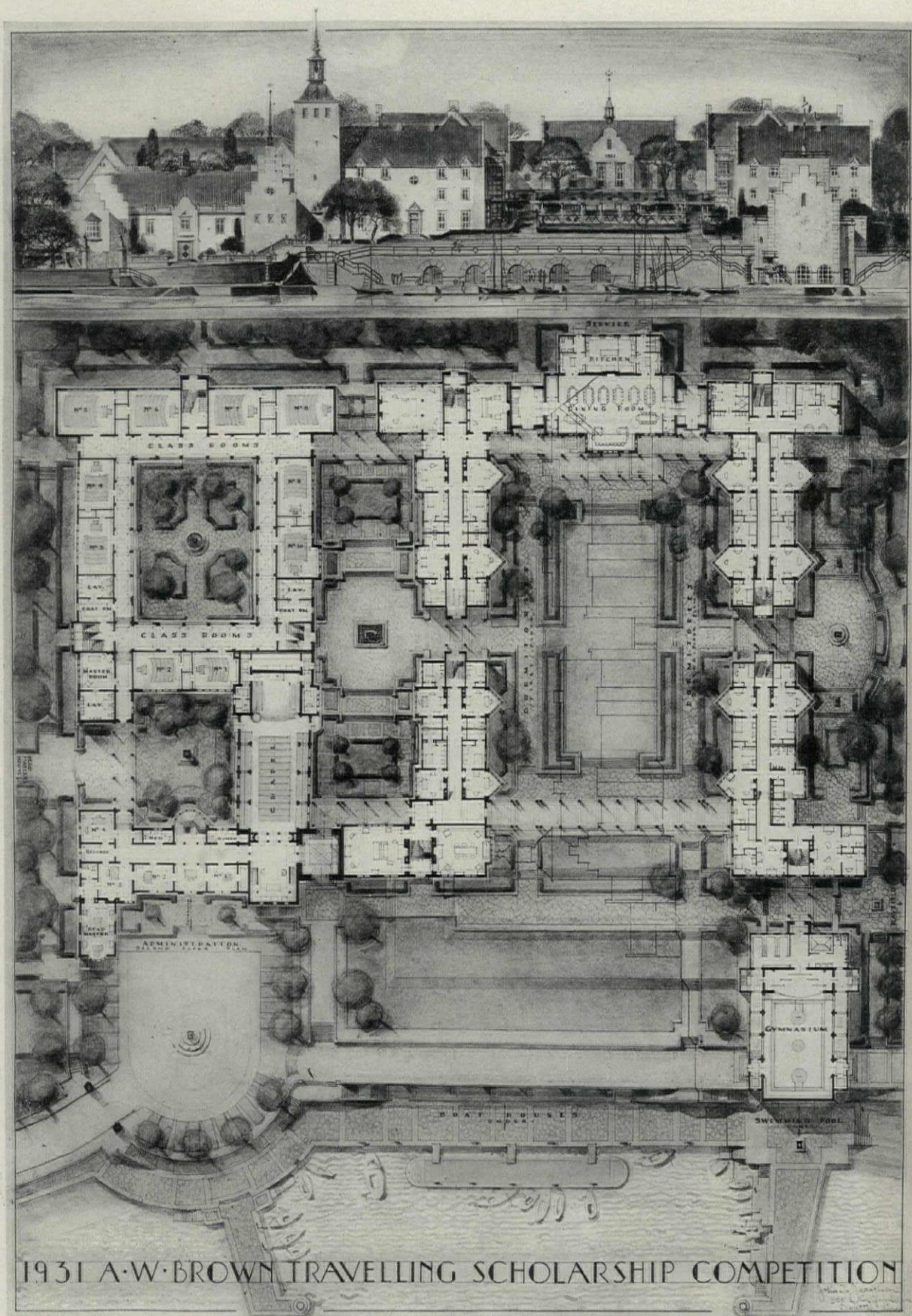
SECOND PRIZE DESIGN FOR "A PRIVATE SCHOOL FOR BOYS," BY LIVINGSTONE H. ELDER
A. W. BROWN TRAVELING SCHOLARSHIP COMPETITION FOR 1931

PENCIL POINTS FOR JUNE, 1931



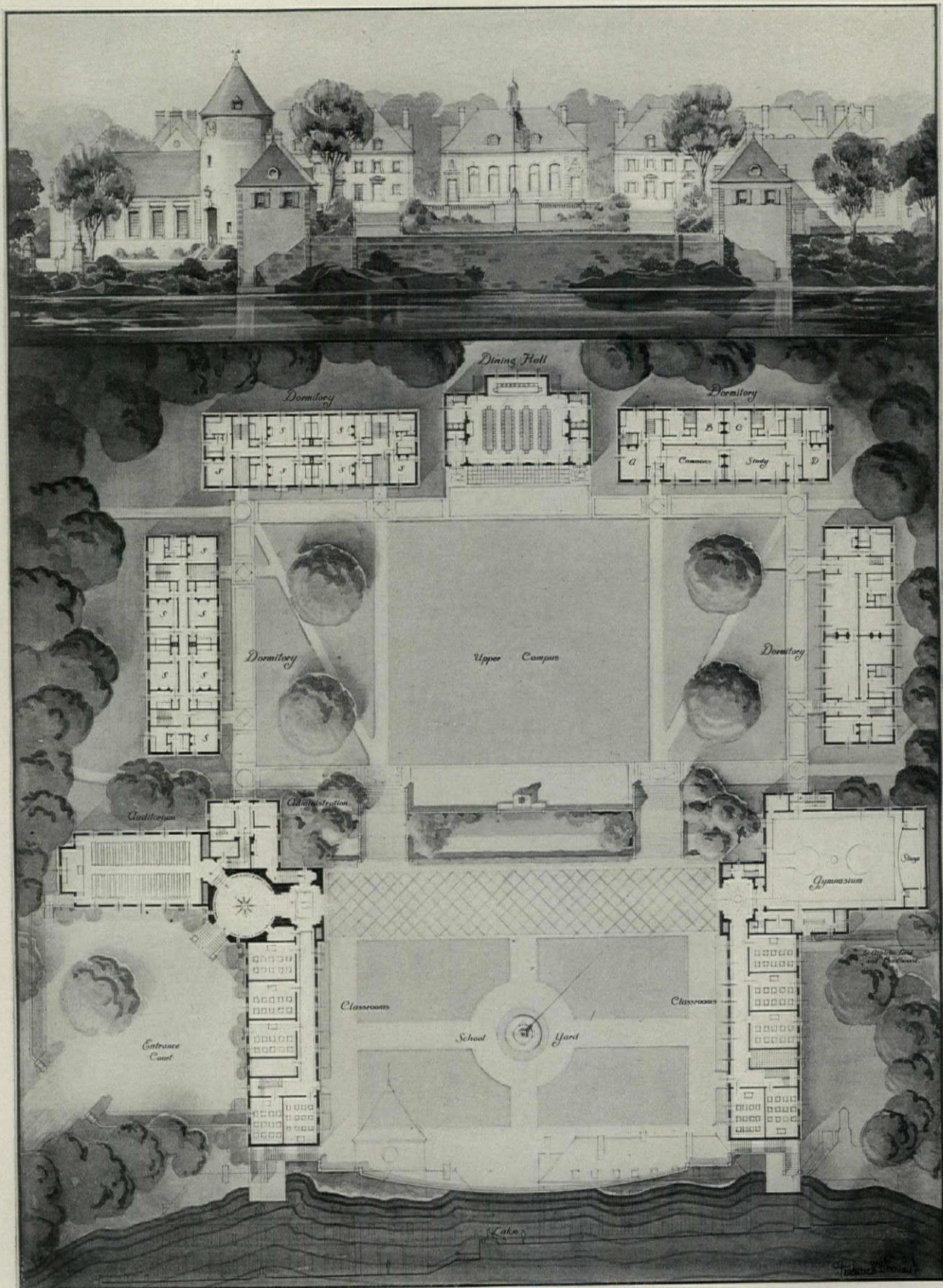
THIRD PRIZE DESIGN FOR "A PRIVATE SCHOOL FOR BOYS," BY CLIFFORD J. PILLOW
A. W. BROWN TRAVELING SCHOLARSHIP COMPETITION FOR 1931

PENCIL POINTS FOR JUNE, 1931



FOURTH PRIZE DESIGN FOR "A PRIVATE SCHOOL FOR BOYS," BY JOHN T. JACOBSEN

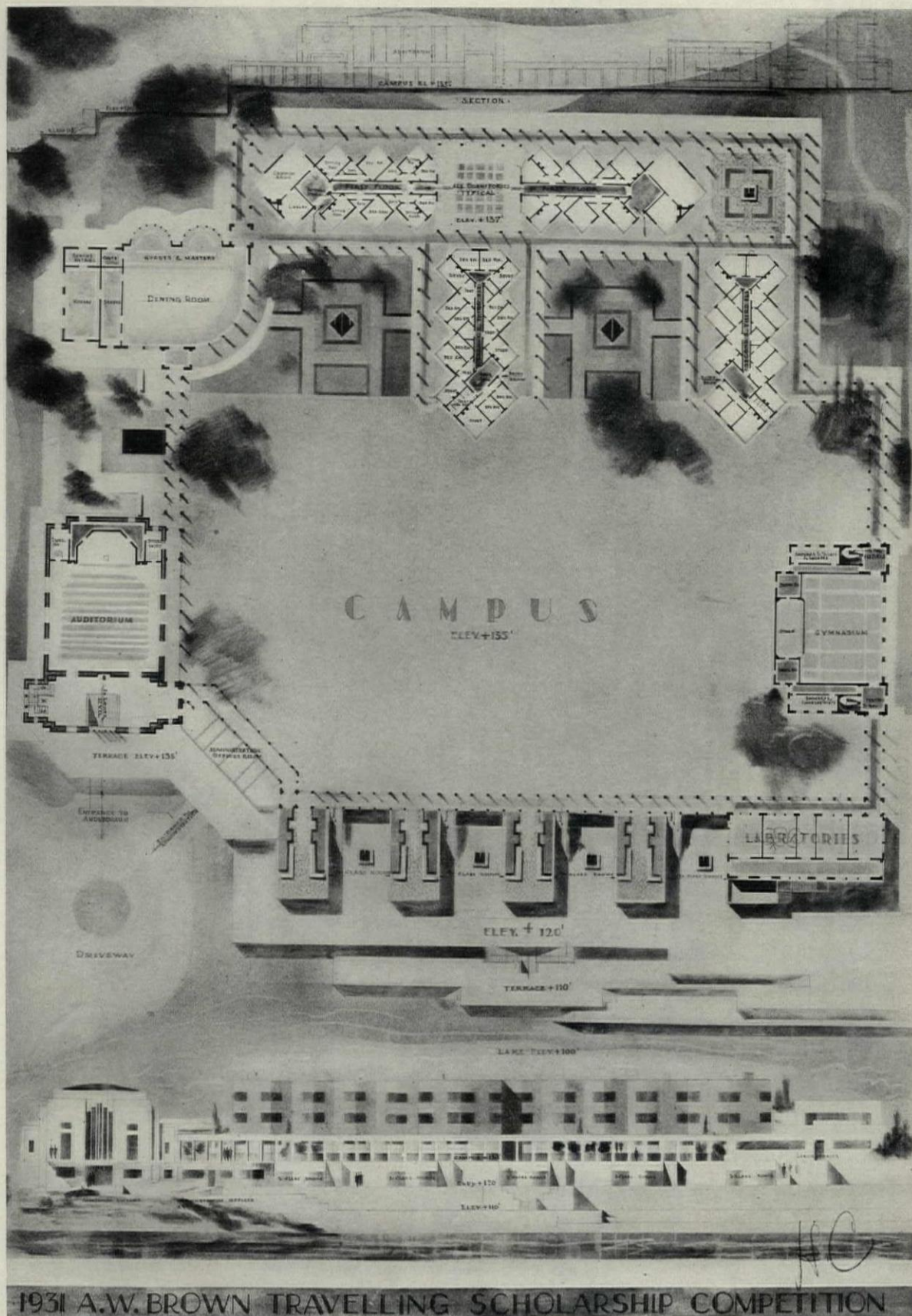
A. W. BROWN TRAVELING SCHOLARSHIP COMPETITION FOR 1931



FIRST HONORABLE MENTION, DESIGN FOR "A PRIVATE SCHOOL FOR BOYS," BY FREDERICK E. EMMONS, JR.

A. W. BROWN TRAVELING SCHOLARSHIP COMPETITION FOR 1931

PENCIL POINTS FOR JUNE, 1931



1931 A.W. BROWN TRAVELLING SCHOLARSHIP COMPETITION

DESIGN PLACED "HORS CONCOURS," BY JOHN J. STOREY
 A. W. BROWN TRAVELING SCHOLARSHIP COMPETITION FOR 1931
 (See Comments of the Jury on page 70, Advertising Section)

HERE AND THERE AND THIS AND THAT



This department conducts four competitions each month. A prize of \$10.00 is awarded in each class as follows: Class 1, sketches or drawings in any medium; Class 2, poetry; Class 3, cartoons; Class 4, miscellaneous items not coming under the above headings. Everyone is eligible to enter material in any of these four divisions. Good Wrinkle Section: a prize of \$10.00 is awarded for any suggestion as to how work in the drafting room may be facilitated. No matter how simple the scheme, if you have found it of help in making your work easier, send it in. Competitions close the fifteenth of each month so that contributions for a forthcoming issue must be received by the twelfth of the month preceding the publication date in order to be eligible for that month's competitions. Material received after the closing date is entered in the following month's competition.

The publishers reserve the right to publish any of the material, other than the prize winners, at any time, unless specifically requested not to do so by the contributor.

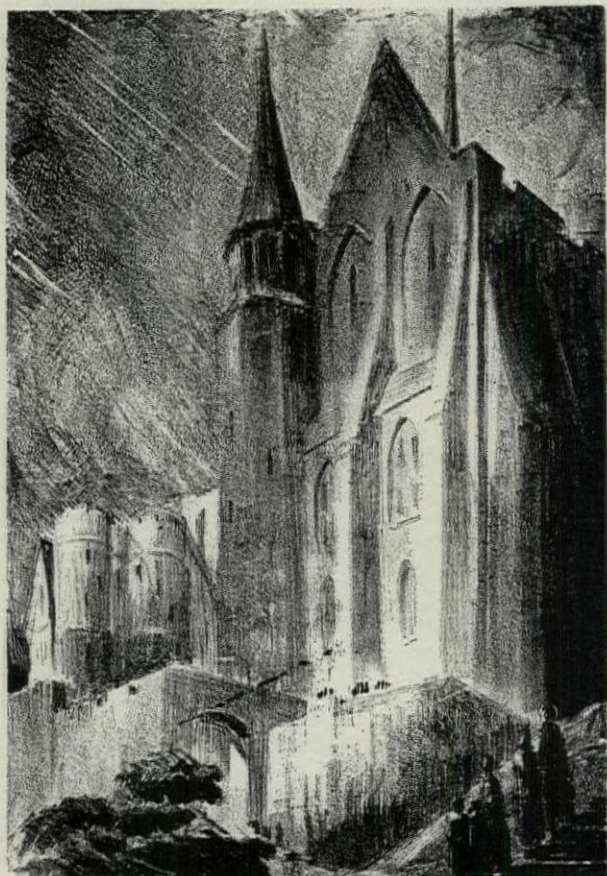
THIS MONTH the prizes have been awarded as follows:

- Class I—Joseph B. Wertz, New York.
- Class II—Iain R. Morrison, Victoria, B. C.
- Class III—L. W. Watrous, New York.
- Class IV—W. W. Beach, Chicago, Ill.

The first prize this month, the lithograph below, was made by Joseph B. Wertz who has recently returned from Europe as holder of the Le Brun Scholarship for 1930.

We regret that we have not been allowed more space for our department this month. Any number of portraits of our contributors have been received and we don't like to keep you waiting. We have been promised more space for future issues, so send in your picture now!

The Good Wrinkle Prize goes begging this month. Hasn't anyone a brilliant idea? We don't like to see the prize go to waste.



LITHOGRAPH BY JOSEPH B. WERTZ
 "Mont St. Michel"
 (PRIZE—Class One—May Competition)

"A TALKIE CARTOON"

By Iain R. Morrison, Victoria, B. C., Canada
 (PRIZE—Class Two—May Competition)



Last month in "Here and There" appeared
 A message that mine soul hath cheered.
 And re that message, E.L.C.

I fain would pen these words to thee.

Contributors you state quite clearly
 Should not alone send poems merely,
 But further give the lads a laugh
 By sending too a photograph.

I see behind this idea running
 The subtle brain of one most cunning,
 For in the March issue you know
 You had no bright cartoons to show.

Now as a lad of Scottish birth
 This scheme I give? for what it's worth.
 I send this snap and poem too
 As entries for class three and two.

My chances thus will greater be,
 So please remember, E.L.C.,
 If on both counts I meet success
 Send twenty bucks to my address.

THE SKETCH at the right is from the cover of a small folder sent out by Priscilla Nash Gaffney to announce her arrival in this world. Walter M. Gaffney, her daddy, made the drawing which shows her home in Hyannis, Mass.



We want to thank our cartoonists for their generous response to our call for help in Class III. Keep up the good work!

HERE AND THERE AND THIS AND THAT

From The Sioux City Daily Tribune, Feb. 21, 1902:
SHELDON HAS HIS JOKE

*Accused Murderer has not Lost His Sense of Humor.
W. W. Beach Tells How He Twitted the Architects
Struggling at Orange City for Court House Job.*

"In the contest at Orange City for the Sioux County Court House job, architects were present from all over the west and the town people were keenly interested in them and their movements," relates W. W. Beach, the successful contestant, as he hurriedly downed a sandwich. "Of course, things were red hot and it kept us architects busy. Local people looked on with flattering interest, and when we sat down in the hotel for dinner I was not surprised to have the man who passed the salt take that opportunity to open a conversation.

"'Architect?' he asked.

"'Yes, are you?'

"'No.'

"'What is your business—contractor?'

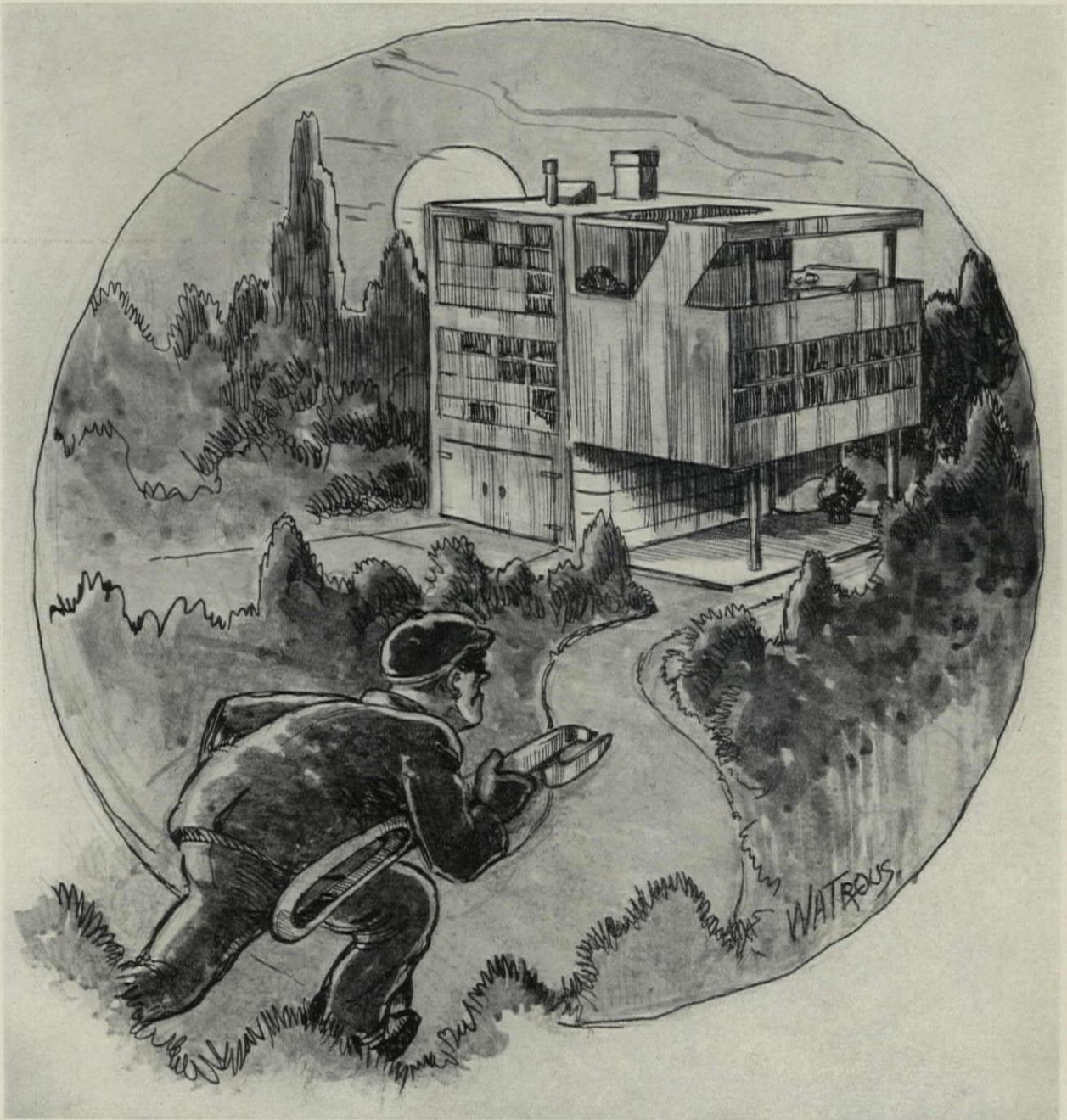
"'Neither contractor nor architect. No, sir, nothing that bad. My name is Sheldon. I'm here under indictment for murder.'"

(You see, architects *can* get publicity, if they go after it.)

Edward F. Schneider of Philadelphia sends along a wrinkle.

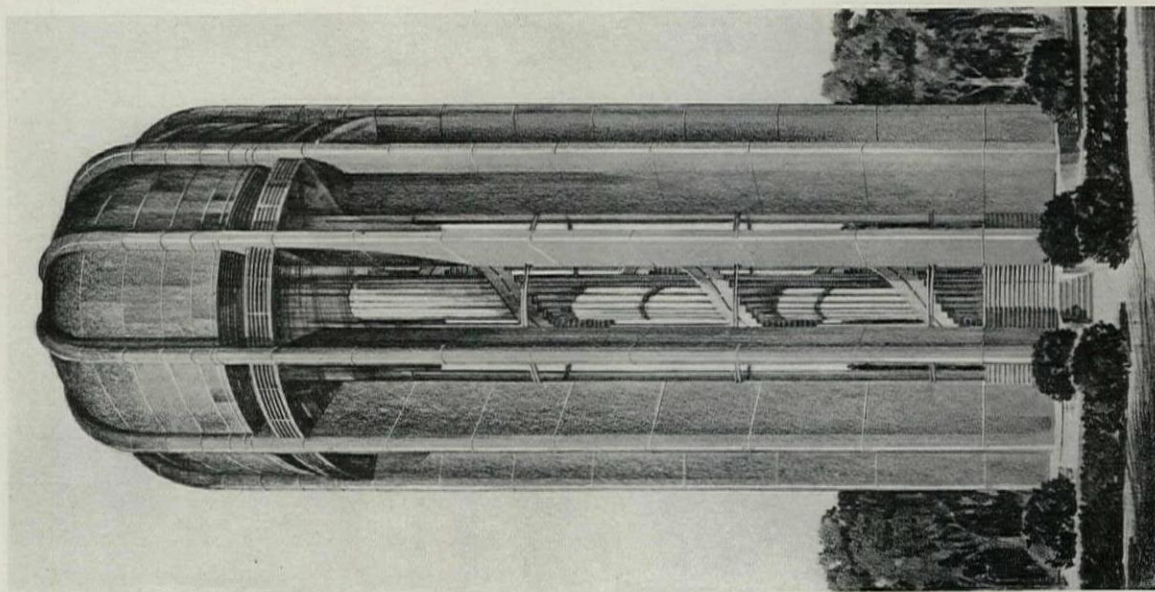
"Sometimes when blue prints are returned for corrections or additions, the marks are made on the prints in red crayons, or red marking pencils. This makes them very hard to read, especially when the blue prints are light or faded.

"Lines and marks on prints in this condition are easily read by simply looking through a piece of red glass. This makes the red marking stand out very plainly."

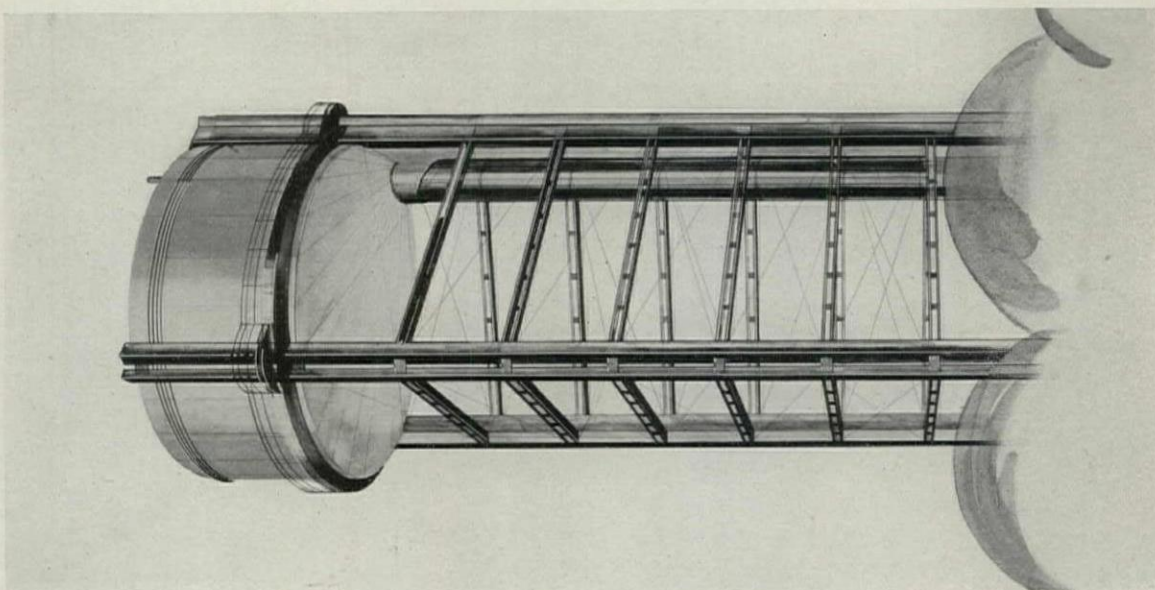


"Future House to Be of Metal"—*News Item.* A suggestion for the up-to-date burglar by L. W. Watrous.

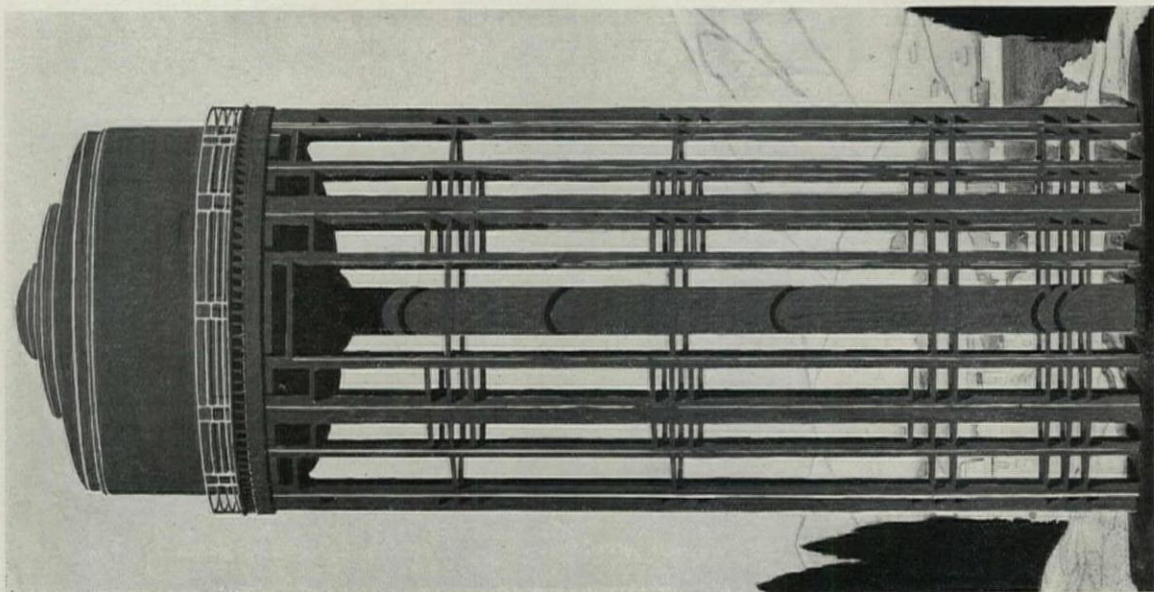
(PRIZE—Class Three—May Competition)



FIRST PRIZE, EUGENE VOITA



SECOND PRIZE, F. D. CHAPMAN AND C. M. GOLDMAN



THIRD PRIZE, HOWARD W. VADER

PRIZE WINNING DESIGNS IN THE COMPETITION SPONSORED BY THE CHICAGO BRIDGE AND IRON WORKS FOR ELEVATED WATER TANKS



EUGENE VOITA

Eugene Voita, the first prize winner in the competition for an elevated steel water tank, was born in Chicago on February 23, 1904. He is a graduate of the Architectural Department of Armour Institute of Technology, Class of 1925, is a *Diplômé* of the Fontainebleau School of Fine Arts, Department of Architecture, 1929, and is now Instructor in charge of the Evening School of the Department of Architecture, Armour Institute of Technology. Mr. Voita has been in the employ of Howard Major, Palm Beach, Florida; Coolidge & Hodgdon; Chester Walcott; and Conner & O'Connor of Chicago. He feels extremely grateful to Mr. George Connor of the latter firm for his kind and helpful criticism which has been an inspiration to him.

AWARDS IN WATER TANK COMPETITION

The International Competition, sponsored by the Chicago Bridge & Iron Works, of Chicago, George T. Horton, President, to develop an æsthetic improvement in the character of elevated water tanks, was brought to a conclusion Monday, April 20th, at a final meeting of the judges, at which time the following awards were made: 1st prize of \$2,000, Eugene Voita, Chicago, Illinois; 2nd prize of \$1,000, F. D. Chapman and C. M. Goldman, Associated, Evanston, Illinois; 3rd prize of \$500, Howard W. Vader, 333 No. Michigan Avenue, Chicago, Illinois. Honorable mentions, carrying a prize of \$100 each, were awarded to the following: Donald A. Blake, Chicago, Illinois; Geo. A. Hossack, Chicago, Illinois; Ossip Klarwein and Fritz Hoger, Hamburg, Germany; Mary Ann E. Crawford, Chicago, Illinois; Samuel E. Homsey, Cambridge, Massachusetts.

The Jury of Award consisted of R. W. Zimmerman, Architect, Chairman, Howard L. Cheney, President of Chicago Chapter, A.I.A., and George T. Horton.

The competition, the program for which was published in PENCIL POINTS for September, 1930, was conducted by Albert M. Saxe, Architect, as professional adviser. There were 691 applications to participate, resulting in 152 final presentations of drawings, so unusual and diversified in their scope that it is thought that this contest will result in a veritable renaissance of elevated tank design, which will be felt throughout the entire country.

The first three prize designs are shown opposite.

TECH ARCHITECTURAL CLUB

The Tech Architectural Club of Chicago Technical College again reports a most successful year of social and educational activities for the students of the department.

The club, organized in 1923 under Mr. Weigler and carried on by Mr. Hedrick, has grown successfully since its beginning. Besides its other activities the club publishes, each year, an annual of the architectural work of the students. One of the efforts of the club is to obtain prominent men from the profession to speak to the students on some phase of Architecture. These talks are usually given at a banquet where the touch of intimate friendship prevails. Among the speakers who have honored the club the past season are: Charles Morgan, architect and delineator; Harry B. Wheelock, architect, F.A.I.A.; Emery Stanford Hall, architect and Chairman State Board of Examiners; John W. Hocke, architect; Stanley Howe, architect; and Wm. T. Hooper, architect.

The last banquet of the year was given Thursday, April 30, in the form of an installation banquet for the officers of the coming year. Mr. Hooper, architect, gave a very interesting talk on *Thomas Jefferson, The Architect*. A very enjoyable time was had by all and the club feels that it can well expect another successful year. A photograph of the members is shown on the following page.

A. W. BROWN SCHOLARSHIP COMPETITION

(Continued from page 467)

be a freedom in the life of growing boys which should not be circumscribed by the formalities of park or "square" design to which they may well adapt their life in the heart of a great city; the breath of wide spaces should be in the nostrils and the swing of free movement in the limbs. All this seemed not to be sensed by many of the competitors, including some whose solutions otherwise ranked high.

That growing boys need sunlight—and that any but a "dark-room" needs direct sunlight in it at some time during the day—seemed to be sensed by but comparatively few of the competitors. All but two or three schemes presented erred in this matter; in these two or three the axes ran at forty-five degrees to the meridian, thus insuring direct sunlight in each of the rooms on sunlit days. The only one of these to have anything which approached an effective general arrangement ruined first impressions—which are apt to be lasting—by presenting to one viewing the school for the first time an uninteresting broadside rather than attractive glimpses into courts or "quads" or into architecturally handled reëntrant angles. But as to sunlight; an astonishing number of competitors faced the schoolrooms to the North, stringing them out along corridors which alone could drink in the sunlight.

Very few of the competitors took advantage of an opportunity for producing one of the most attractive effects possible in groups bordering upon a sheet of water, that of

(Continued on page 70, Advertising Section)

PENCIL POINTS FOR JUNE, 1931



MEMBERS OF THE TECH ARCHITECTURAL CLUB OF CHICAGO TECHNICAL COLLEGE
(See text on preceding page)



ELDORADO PENCIL TALKS

In a close-up like this, detail is important. This is best expressed by a strong light and shadow treatment.

But the vine seen through the gate is rendered in rather flat mass for the sake of silhouette interest.

This drawing was made with soft Eldorado Pencils (BB & 5B) upon a kid finished Bristol. A tortillon stump was employed here and there to rub the tone slightly.

Ernest Watson

IN his depiction of this lovely ivy-covered arch, Ernest Watson reveals one of the many facets of use to which Eldorado, "the master drawing pencil," can be put. Follow his sketches and talks every month in *Pencil Points*. For opacity of line, for responsiveness, for uniformity, for correctness of grading, its leads make Eldorado "the master drawing pencil." Architects, write for samples to Eldorado Sales Department, 167-J, Joseph Dixon Crucible Company, Jersey City, New Jersey.

WHYS AND WHEREFORES OF THE SPECIFICATION

(Continued from page 481, Editorial Section)

intricate and special details for trim, mouldings, and paneling are used. For the average small residence this heading may be omitted. If the architect has complete and thoroughly practical details, it isn't necessary to include this heading.

WORKMANSHIP—ROUGH CARPENTRY

Joists, beams, girders, and rafters shall be set with their crowning edge upwards and, where bearing on masonry walls, shall be splayed not less than three (3") inches in their depth, with bearings of not less than four (4") inches. Each tier of joists bearing on walls shall be tied to masonry walls at intervals not exceeding four (4') feet by metal anchors, furnished and installed by this Contractor, not less than 1/4 of an inch by 1 1/4 inch cross section and at least twenty-four (24") inches long securely spiked near the bottom of the joists and provided with split and upset ends or other approved means for building into masonry. Joists parallel to masonry walls shall be provided with similar anchors at intervals not exceeding six (6') feet, engaging three (3) joists. Upset and "T" ends on anchors shall develop the full strength of the anchor strap.

Framing in all cases shall be kept at least two (2") inches clear of all fireplace breasts, hearths, chimneys, and flues.

Where studding, forming bearing partitions or walls, occurs over sills, girders or plates, they shall extend down to these and be securely spiked to bearings. Joists carrying parallel bearing partitions shall be doubled under them. Bearing partitions at right angles to joists shall rest on doubled plates. Nonbearing partitions may rest on single plates, laid over subfloors. All stud bearing partitions and walls shall have doubled caps and cross bridging of same material as studs, at intervals not exceeding six (6') feet in height securely nailed with at least two nails at each end.

In general, studs shall be doubled at all corners and angles, and sides and heads of openings. Truss over all openings wider than three (3') feet, and over all openings in bearing partitions.

Where framing out is necessary, both header and tail beams shall be supported with approved wrought iron joist hangers or stirrups furnished and installed by this Contractor. Where more than two joists frame into a header, both trimmers and headers shall be doubled in size. See Figure 3.

BRIDGING

Bridge between all joists at intervals of not less than eight (8') feet with a double row of cross bridging. Material for bridging shall be of spruce not less than 1-1/16" x 2 5/8" and shall be nailed with two 8d nails at each bearing.

Bridging is a method of adding rigidity to floors by preventing any lateral movement and lessening vibration of the floor joists. Bridging should be cut to fit snugly and securely nailed. The omission of a row of bridging should not be permitted. See Figure 4.

ROOF SHEATHING

Roof sheathing shall consist of 7/8" x 5 3/4" No. 2 Yellow Pine or Fir either T & G or ship-lap, dressed to an even thickness not less than 25/32" thick, driven tightly together, breaking joints at least every twenty-four (24") inches and nailed with two nails at every bearing.

TO BE CONTINUED IN JULY ISSUE

A. W. BROWN SCHOLARSHIP COMPETITION

(Continued from page 477, Editorial Section)

walls rising sheer and reflecting themselves in their varying moods of light and shade upon the surface beneath. Only two of the prize winners, those placed first and fourth, sensed the possibilities inhering in this situation and took advantage of it. In both of these advantage also is taken of the peculiar position of the entrance in affording the visitor diagonal glimpses into the campus beyond well-marked administrative units which should, and in cases do, furnish a key to the general plan. The tower, marking the combined chapel and administration units, is effective from the approach in all but one of the premiated designs. In that one (placed second) it would be effective only from the campus.

It was felt by the jury that simplicity should dominate the greater plan of the campus as well as the details of landscape design. This has been accomplished in the first and second of the premiated designs, in an extremely poetic and forceful manner in the design placed first and to a considerable extent in that placed third. The campus in the design placed fourth seems crowded; but the breadth of treatment at the water front as well as the thorough articulation of the plan, together with numerous attractive details of the schoolroom and dormitory units, warrants placing this contribution among the premiated. The domestic quality of this design puts it above its next two more highly placed companions which would seem to embody too fully a sophisticated collegiate atmosphere to make them most suitable to the housing of "prep" students. Very little study of the drawings will serve to convince the social student that as for simplicity, sincerity and general feeling of self-restraint—matters of value to the growing boy—the design placed first justifies its exalted position. Undoubtedly the design placed second possesses great charm and has a warmth not too common in this type of college building. The elevation of the design placed third is as cold in its masses as its companion piece is warm.

An application of the principles set down, at least by implication, in the foregoing paragraphs, will indicate why certain designs were placed in the honorable mention class which accompanies the premiated. One other design remains to be commented upon, that marked "hors concours," and presented in a thoroughly *moderne* manner. It possesses merits which place it above its modernly expressed companions. The dormitories are ingeniously planned and could be extremely attractive. The general scheme is good, or would be if the school unit were properly developed. The author himself probably had no clear conception of the function of class and school rooms and their interrelationship. No plan of this important feature is indicated and the strain upon the mentality of the jury would have been too severe to permit it to supply in complete harmony the missing parts. However, it was a good "try" and showed courage and thought.

No mountain peaks of design rose out of the almost dead level of prairie established by the one hundred and forty-five designs presented. But there were undulations the upper movements of which could be surveyed and these appear in the premiated or mentioned designs.

Jury of Award { JAMES O. BETELLE, Newark
M. E. BOYER, JR., Charlotte, N. C.
I. K. POND, Chicago
OLIVER REAGAN, New York
PHILIP L. SMALL, Cleveland



AETNA LIFE
INSURANCE BUILDING
Hartford, Connecticut

Architect: James Gamble Rogers,
Heating and Ventilating Engineer:
Meyer, Strong & Jones, Inc., General
Contractor: Geo. A. Fuller Co., Heat-
ing Contractor: Gillis & Geoghegan.

Planned for Generations to come

Founded, as every insurance company is, on the idea of providing for the future, the great Aetna Life and affiliated companies have given a noble embodiment to this idea in the building which is henceforth to be their home. With all that is most modern and most practical, the building has a very evident character of the institutional, the monumental, and the permanent.

Quite suitably, and recognizing, no doubt, that what has no past is "pretty sure of having no future", the



Colonial architecture dominates the main entrance of Aetna's beautiful new home.

designers have harked back to early traditions in this country. The result is a fine example of the American Colonial style, said to be the largest building of that style in existence, for any purpose.

The choice of NATIONAL Pipe for a major use in so fine a project, so conceived and so designed, adds to the long record of testimony as to the character of—

America's Standard Wrought Pipe

NATIONAL TUBE COMPANY

Subsidiary of United  States Steel Corporation

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NATIONAL PIPE

Publications on Materials & Equipment

Of Interest to Architect, Draftsman and Specification Writer

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.

Screened Casements by Lupton.—A.I.A. File No. 16-e-1. Attractive publication, just issued, announces and describes in detail a new type of casement window equipped with all-aluminum screens and special hardware for use in residences and apartment buildings. Detail drawings, specifications, sizes. 12 pp. 8½ x 11. David Lupton's Sons Co., Allegheny Ave. and Tulip St., Philadelphia, Pa.

Knight-Ware Acid Proof Laboratory Equipment.—A.I.A. File No. 29-b-81. Useful new reference manual for architects and engineers covering this complete line of laboratory sinks, waste and drainage pipes and fittings, ventilating pipes and fittings, roof caps, etc., for use in educational, hospital and commercial laboratories. Dimension drawings and tables, installation data. Indexed. 48 pp. 8½ x 11. Maurice A. Knight, Akron, Ohio.

Gas Automatic Air Conditioning System.—A.I.A. File No. 30-b. Illustrated catalog with complete data covering the construction and operation of this type of heating and air conditioning system designed for all sizes of residences and for smaller size buildings. Ratings, dimensions, specifications. 8 pp. 8½ x 11. The Fox Furnace Co., Elyria, Ohio.

Published by the same firm, "Custom Made Climate with the Gas Automatic Air Conditioning System." Brochure presenting a detailed description of this modern air conditioning system and its advantages, as well as an explanation of how it functions. 16 pp. 8½ x 11.

Bayley Guard Windows.—A.I.A. File No. 16-c. New bulletin illustrates and describes in detail the constructional features of this type of guard window especially designed for use in prisons, reformatories and similar institutions. Included are illustrations of representative installations. 4 pp. 8½ x 11. The Wm. Bayley Co., Springfield, Ohio.

The Window Muffler.—Attractive looseleaf brochure with descriptive data, photographic plates and detail drawings covering this device designed to prevent street noise from entering open windows and suitable for use in hospitals, hotels, schools, office buildings. Standard filing size. F. E. Berry, Jr., & Co., Inc., 182 Tremont St., Boston, Mass.

Flying Beyond the Twilight Zone.—A.I.A. File No. 31-f-26. New illustrated publication presents a discussion of modern principles and practice in airway and airport lighting. Included are descriptions of a wide range of lighting equipment, airway map and perspective of a landing field showing location of equipment. 20 pp. 8½ x 11. Westinghouse Lamp Co., 150 Broadway, New York, N. Y.

Wade Plumbing Specialties.—A.I.A. File No. 29-c. Catalog D illustrates and describes a comprehensive line of plumbing specialties, including back water valve drainage fittings, grease traps and interceptors, cast iron basins, drains, cast iron rings and covers, miscellaneous fittings, etc. Dimension drawings and tables, prices. Indexed. 66 pp. 8½ x 11. Wade Iron Sanitary Mfg. Co., 717 South Canal St., Chicago, Ill.

Steelex Floor Lath for Concrete and Gypsum Floors and Roof Slabs.—A.I.A. File No. 4-e-25. New data book prepared especially for architects and engineers gives practical, up-to-date information about the advantages and uses of Steelex floor lath as a combined reinforcement and form for concrete over steel joints. Engineering data, tables, specifications. 24 pp. Standard filing size. National Steel Fabric Co., Union Trust Bldg., Pittsburgh, Pa.

Creating Beautiful Homes with Mosaic Tile.—New brochure with series of color plates and photographs showing the decorative possibilities of Mosaic floor and wall tiles for various rooms of the home. 20 pp. 8½ x 11. The Mosaic Tile Co., Zanesville, Ohio.

Marcrome Pre-Cast Concrete Marble.—Looseleaf catalog gives complete information covering the manufacture and uses of this material suitable for stairs, floors and walls in schools, hospitals, office buildings, civic and fraternal edifices. Specifications, typical installations, blue print details. 44 pp. Standard filing size. Concrete Marble Co., 5300 McKissock, St. Louis, Mo.

A New Material for Interiors.—Publication C-1916, just issued, describes the applications of and shows in actual colors the appearance of designs of Micarta used for wall paneling, desk and table tops, counter tops, partitions, etc. 16 pp. Westinghouse Electric & Mfg. Co., Trafford-Micarta Works, East Pittsburgh, Pa.

Stanley Hardware for School Wardrobes.—A.I.A. File No. 28-b-33. New document with descriptive and specification data and blue print details covering this type of school wardrobe hardware. 8 pp. 8½ x 11. The Stanley Works, New Britain, Conn.

Published by the same firm, "Stanley Heavy Duty Sash Pulley." A.I.A. File No. 27-a-1. Descriptive and specification folder devoted to the 2½ in. sash pulley especially suitable for office buildings, public buildings, schools, hospitals, apartment houses, etc. 4 pp. 8½ x 11.

Benjamin-Starrett Panelboards and Steel Cabinets for Light and Power.—Catalog No. S-6 lists and illustrates a full line of panelboards suited to meet all the diversified requirements of electric lighting distribution. Special power and lighting distribution panelboards, cabinets and switchboards are also shown. 72 pp. 8½ x 11. Benjamin Electric Mfg. Co., Des Plaines, Ill.

Viking Elevator Enclosures.—Useful reference document for architects and draftsmen contains brief descriptive information and numerous detail sheets covering this line of steel elevator enclosures. 24 pp. 8½ x 11. Viking Metal Products Corp., Ridgway, Pa.

Milcor Expansion Cornice Lath.—Illustrated folder announcing and describing this new type of expansion cornice lath, a metal cornice with expanded metal wings to which plaster is applied, and suitable for all types of buildings. Milcor Steel Co., Milwaukee, Wis.

General Bronze Portfolio of Distinctive Metal Work.—Portfolio with collection of photographs showing examples of windows, doors, entrances, grilles, railings, check desks, tablets and statuary executed in aluminum, bronze, nickel and iron. Standard filing size. General Bronze Corp., 480 Hancock St., Long Island City, N. Y.

A New Line of Kitchen Equipment.—New catalog listing and illustrating type CX and BM kitchen equipment, including urns, urn stands, steam tables, kitchen tables, sinks and drainboards, water coolers and accessories. 10 pp. 8½ x 11. The John Van Range Co., Cincinnati, Ohio.

Published by the same firm, "Small Wares." A new catalog of the necessities in small equipment for the modern kitchen and bakery, lunch room and cafeteria, with illustrations and prices. Indexed. 64 pp. 8½ x 11.

Oriental Exterior Stucco.—Illustrated folder with useful data on the subject of good stucco practice together with directions for mixing and applying oriental stucco. 6 pp. 8½ x 11. United States Gypsum Co., 300 West Adams St., Chicago, Ill.

Sturtevant Unit Ventilators.—A.I.A. File No. 30-d-11. Catalog No. 377, just issued, illustrates and describes in detail the construction and operation of a new flexible unit ventilator suitable for use in schools, clubhouses, public buildings, hospitals, churches, homes, and offices. Specifications, capacity tables, diagrams and other useful data for architects and engineers on the subject of unit heating. 48 pp. 8½ x 11. B. F. Sturtevant Co., Hyde Park, Boston, Mass.

Published by the same firm, "The New Sturtevant Propeller Fan." A.I.A. File No. 30-d-1. Bulletin 385 presents complete information covering this new line of propeller fans, together with specifications and dimensions. 10 pp. 8½ x 11.

Kane Quality Roll Screens.—A.I.A. File No. 35-p-1. Standard filing size folder with descriptive data, specifications and numerous installation and construction detail sheets covering this line of roll screens. Kane Manufacturing Co., Kane, Pa.

Xyloid Fireplaces.—Bulletin showing a variety of designs of Xyloid mantels accompanied by dimension drawings and instructions for setting. 6 pp. Detroit Decorative Supply Co., 4240 14th Ave., Detroit, Mich.

Tidewater Red Cypress Specification Data.—A.I.A. File No. 19. Handbook prepared especially for architects, engineers and builders contains a discussion of the qualities, grades, uses, and relation of grades to uses, together with information as to weight, strength, painting and finishing of Tidewater red cypress (coast type) as used in building construction. Specifications and tables. 24 pp. 8½ x 11. Southern Cypress Manufacturers Assn., 1223 Barnett National Bank Bldg., Jacksonville, Fla.

(Continued on page 82)

They are saying great
things about this

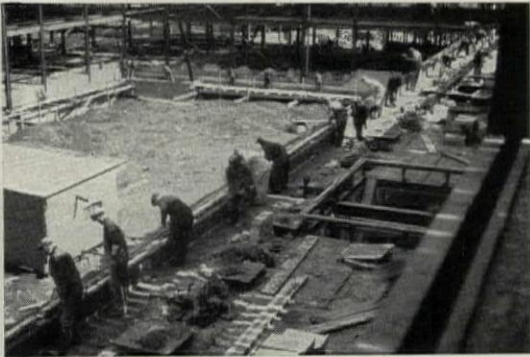
New

CARNEY CEMENT



Read the comments of W. E. O'Neil Construction Company

"We are glad to report that we are highly pleased with the results obtained with the new waterproof Carney Cement on the Lane Technical High School job. Our expectations were exceeded in every respect. The mortar works very smoothly under the trowel, mixed with three parts sand and sets rapidly and strongly in the wall, which is noticeably free from efflorescence. The light gray natural color also gives a pleasing contrast with the variegated red face brick.



"We have checked our mortar costs on this project and find that they are quite satisfactory, both as regards yardage and labor of preparation and use. We are mixing the Carney Cement without preliminary aging or soaking, with two 1/4 yard concrete mixers, at each of which two men are easily keeping 100 bricklayers supplied with mortar.

"As this job involves approximately ten million brick and tile, several mortar materials were carefully investigated and tested before placing the contract. The results emphatically justify the selection of Carney Cement for this the largest school building in the world under one roof."

Signed: W. E. O'NEIL, Pres.

THE CARNEY CEMENT COMPANY

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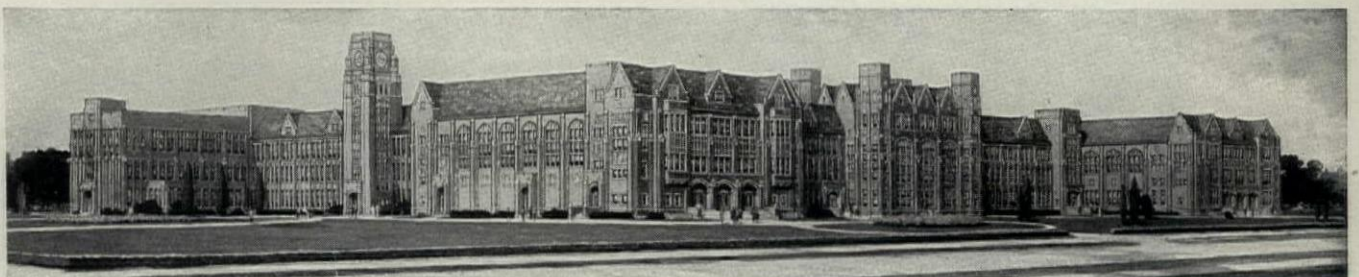
MINNEAPOLIS

Mills: Mankato and Carney, Minn.

Cement Makers Since 1883

The ALBERT G. LANE
TECHNICAL HIGH SCHOOL
Chicago
PAUL GERHARDT, Architect

CARNEY CEMENT
for Brick and Tile Mortar



A Free Employment Service for Readers of Pencil Points

Replies to box numbers should be addressed care of PENCIL POINTS, 419 Fourth Avenue, New York, N. Y.

Position Wanted: Architectural draftsman, capable designer, finished working drawings, details, also very fine rendering on preliminary studies. Good worker and of genial personality. Box No. 600, care of PENCIL POINTS.

Position Wanted: Young man, single, age 25, university graduate in architecture, junior member of the A.I.A., desires opening in reputable architect's office, preferably in New York City, Northern New Jersey or Tarrytown, N. Y. First class experience in small up-state A.I.A. office doing general work continuously for past two years since graduation. Salary about \$60.00 per week. Box No. 601, care of PENCIL POINTS.

Position Wanted: Architectural designer and draftsman. Can also do structural design. Desires position in an office where there is a future. Can handle job from sketches to completion. College graduate, 7 years' experience designing, rendering, drafting for homes, apartments, commercial buildings and industrial buildings. Any location, preferably central states. Box No. 602, care of PENCIL POINTS.

Position Wanted: Architectural designer-draftsman, age 26, nine years' practical experience on fine residences, theatres, hospitals, office buildings, hotels, schools, alterations, etc. Designing and carrying work through to completion including scale and full size details, designing steel and reinforced concrete, making perspective renderings and supervising at job. Educated at Harvard. Box No. 603, care of PENCIL POINTS.

Position Wanted: Architectural designer, experienced, quick sketches, perspectives in color, plans, details by fixed charge or on time basis. Box No. 604, care of PENCIL POINTS.

Position Wanted: Draftsman experienced in heating and ventilating for large public school buildings would like to make connection with architect or engineer. Box No. 605, care of PENCIL POINTS.

Position Wanted: Architectural designer and draftsman, graduate in architecture University of Pennsylvania and Ecole des Beaux Arts, Paris. Five years' experience with well known New York and Chicago firms. References. Box No. 606, care of PENCIL POINTS.

Position Wanted: Licensed Architect desires position of responsibility with well established firm of architects handling work of a higher type and general nature. Experience covers a period of eighteen years on residence, commercial, church and school work, etc. Especially capable at superintendence; high grade specification writer; thoroughly versed in gravity heating and in plumbing layouts; speedy and accurate draftsman and good detailer. Experienced in soliciting work and conferring with clients. I can assure loyal and efficient service. Married, sober, reliable and possessed of a pleasing personality. Best of references. Salary \$75.00 per week to start on. Can handle correspondence and contracts. Southern or Southwestern location preferred. Address Box No. 607, care of PENCIL POINTS.

Position Wanted: Ideal man for smaller office, versatile experienced draftsman, university graduate, registered architect. Location near New York City is desired. Salary secondary. Box No. 608, care of PENCIL POINTS.

Position Wanted: Secretary and stenographer thoroughly experienced in architect's office, specification writing, also legal and accounting experience. Five and a half years with last employer. References. Box No. 609, care of PENCIL POINTS.

Position Wanted: Estimator on A-1 general plaster contracts desires connection with one or two individuals, financially connected in this class of work, or will consider position with a first class firm doing this class of work on a commission basis. Box No. 610, care of PENCIL POINTS.

Free Lance Work Wanted: Architect at Cleveland, Ohio, would like to secure some perspective and rendering work. Work will be accepted anywhere in the State of Ohio. Box No. 611, care of PENCIL POINTS.

Position Wanted: Architectural draftsman, graduate of College of Architecture, University of Michigan. Four years' drafting experience prior to attending university and one year thereafter. Major in design, detailing, perspectives, rendering and general work. Desirous of locating in New York City, but will accept work elsewhere. Past experience mostly on residences and schools. Single and with best references as to capabilities, moral character and social standing. Box No. 612, care of PENCIL POINTS.

Position Wanted: Young man, 24 years of age, seven years' experience on schools, Y. M. C. A. buildings, apartment houses and country houses. Will go out of town. Also capable of superintending construction. Jos. J. Fredericks, 82 Fuller Place, Irvington, N. J.

Position Wanted: Young man, 21, ambitious, desires position as office boy or helper in architect's office or drafting room. Attending technical trade school at night. Willing to start at bottom. Frank Zappone, 2423 Cambreling Ave., Bronx, N. Y. C.

Position Wanted: Young man, 18 years old, with knowledge of architectural drawing. Attending night school. Salary no object. Would like position in architect's office. Michael Solto, 48 East 103rd Street, New York, N. Y.

Position Wanted: Young man, 24, desires position with landscape architect or contractor. Three years' training at Penn State College. Samples of work and references on request. Graham Bowie, 1513 W. Tioga Street, Philadelphia, Pa.

Position Wanted: Student of architecture at New York University desires position during June, July, and August in architect's office. Needs practical experience during summer months for degree credit. Willing to work for very small salary. Julius Vekassy, Jr., 25037 45th Street, Long Island City, N. Y.

Position Wanted: Boy, 16, graduate of Industrial High School and now attending night school at Cooper Union. Has had architectural and building department experience. Wishes position as Junior draftsman and office boy. Domenic Ditrano, 325 East 120th St., New York, N. Y.

Position Wanted: Young man wants a position as junior draftsman. Prefer architect's office. Willing to start as a blueprint tracer. Can also do pencil and ink drawing. Have completed one school. Will start night school. Aim is advancement. Harry Shapiro, 570 Gates Avenue, New York, N. Y.

Position Wanted: Draftsman, 9 years' general drafting experience. Capable making sketches, working drawings, scale and full size detailing, structural steel plans and details. Knowledge of plumbing, heating and electrical layouts. Checking all shop drawings, estimates and following of correspondence. Salary \$75. per week. Stephen Bednar, 313 Munson Avenue, McKees Rocks, Pa. (Pittsburgh vicinity).

Position Wanted: Mr. Architect: Can you use in your organization an architectural draftsman whose training and experience qualifies him to take complete charge of an architectural office? Drafting, specification writing, superintending, checking, and concrete and steel designing. Adrian F. Scovil, 1483 Lee Place, Apt. 8, Detroit, Michigan.

Position Wanted: Architectural student, 18 years old, would like position with architect in Chicago. Have completed one-year course at Chicago Technical College, and also had two years at the Crane Technical High School. Neat letterer and tracer. Willing to start at the bottom. Carl Y. Falzone, 915 So. Winchester Ave., Chicago, Ill.

Free Lance Work Wanted: Will create original designs and scale models for interiors, showrooms and displays. Charles Friedman, 1030 Carroll St. Brooklyn, N. Y.

Beaux-Arts trained men will take care of your designing and drafting—perspectives, renderings, working drawings, detailing. Novart Atelier, 125 West 45th Street, New York, N. Y. Telephone, Bryant 9-8093.

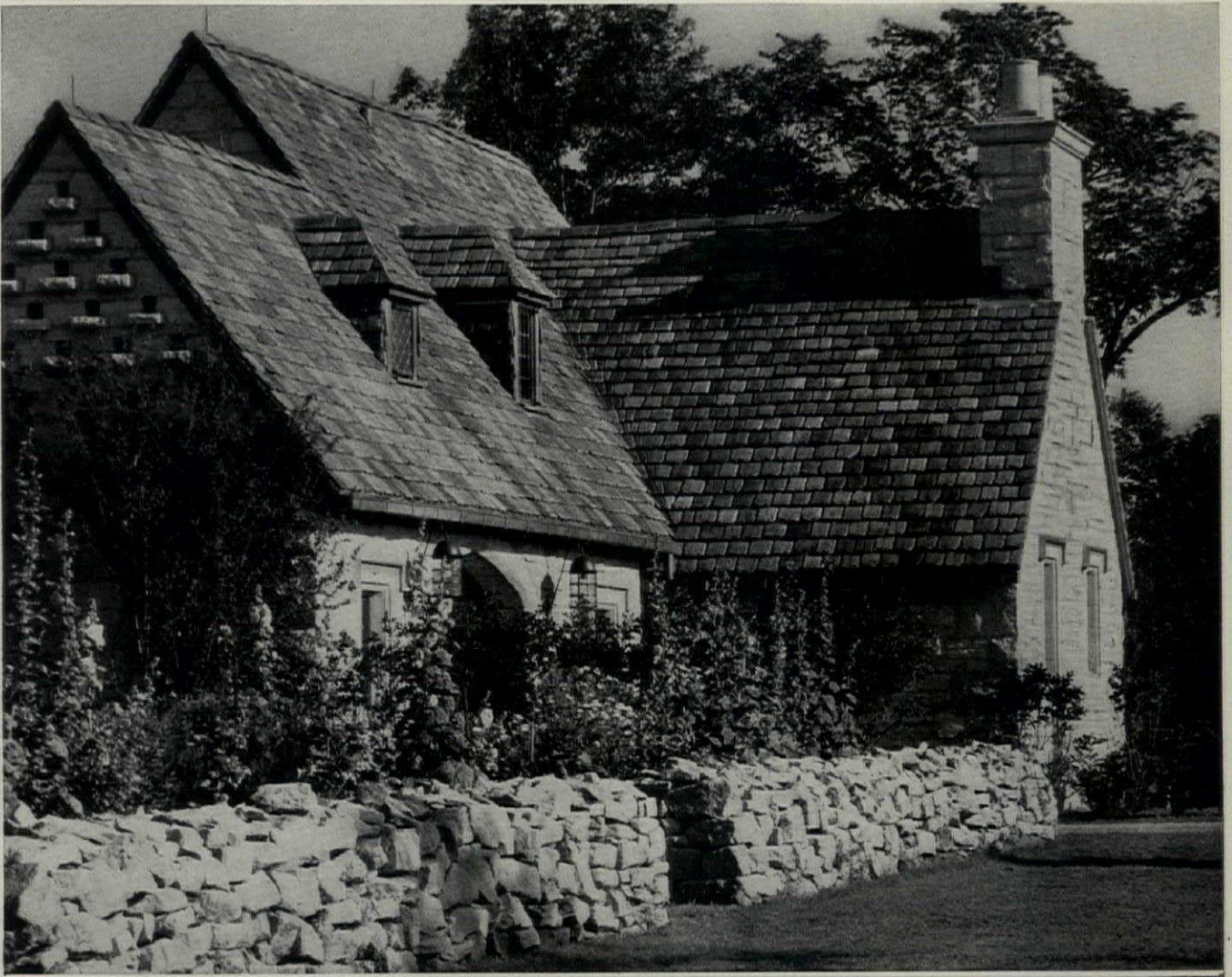
Position Wanted: Eight years' practical experience on apartments, hotels, loft and office buildings for four well known architectural firms. Antonio La Giglia, 108 East 108th Street, New York, N. Y.

Position Wanted: Young man, 23 years of age, three terms of architectural drawing at Mechanics Institute, Rochester, N. Y. Would like to get into architect's office as an apprentice or helper. Samples sent upon request. Roy Hill, 29 Benedict Place, Rochester, N. Y.

Position Wanted: Graduate architect wishes to become associated with established architect in Washington, D. C., or vicinity. Good designer and delineator, can handle work from start to completion. Box No. 613, care of PENCIL POINTS.

Position Wanted: Architectural draftsman, seven years' experience in New York City on buildings of all types. Can handle job from sketches to final working drawings. Box No. 616, care of PENCIL POINTS.

(Other items on page 76, Advertising Section)



Residence of H. M. Seaman, River Road, Milwaukee
Fitzhugh Scott, Architect

The Pattern of Ludowici Shingle Tile used on the roof of this Cotswold stone house, was originally developed for the Harkness Memorial at Yale University. Tile is the adaptable roofing material, versatile in its beauty and lasting in protection. There is a pattern and color of Ludowici Tile to grace whatever type of building you may design. We shall be glad to send a representative to you or mail our illustrated catalogue. Please consult our pages in Sweet's.

LUDOWICI TILE Made by **LUDOWICI-CELADON COMPANY**

NEW YORK: 565 FIFTH AVE. • CHICAGO: 104 SO. MICHIGAN AVE. • WASHINGTON: 738 FIFTEENTH ST., N. W.

A Free Employment Service for Readers of Pencil Points

Replies to box numbers should be addressed care of PENCIL POINTS, 419 Fourth Avenue, New York, N. Y.

Position Wanted: Architectural draftsman, design and general working drawings, 25 years' practical experience of general practice with all types of building. Will accept position anywhere. Salary moderate. Box No. 614, care of PENCIL POINTS.

Position Wanted: Middle-aged man wishes position in architect's office or with construction firm. Graduate of Mechanics Institute. Willing to start at low salary and able to do a variety of duties. Box No. 615, care of PENCIL POINTS.

Position Wanted: Architectural draftsman, 28 years of age, 11 years' experience on buildings of all types. Have worked for some of the most well known architects. Drawings and letters by appointment. Married. Salary open. Box No. 617, care of PENCIL POINTS.

Position Wanted: What have you to offer a man who has had his own office and has east, west, south and north experience and can handle every position in either the office or field? Age 39. Married. Will go anywhere. Salary secondary. Box No. 618, care of PENCIL POINTS.

Position Wanted: Designer, draftsman, age 26, nine years' practical experience on fine residences, theatres, schools, hospitals, country clubs, alterations, etc. Experience has involved designing and carrying work through to completion, including working drawings, details, steel and reinforced concrete, perspective renderings and supervision. Graduated from Harvard Architectural School. Available June first. Box No. 619, care of PENCIL POINTS.

Position Wanted: Architectural designer with extensive experience in prominent offices. Qualified by training and ability for composition in plan and elevation. Long familiar with the styles and their application to monumental, ecclesiastical, residential and commercial structures. Graduate of accredited school. Competent on working drawings, making and rendering perspectives and preliminary sketches. No preference in location. Box No. 620, care of PENCIL POINTS.

Position Wanted: College-trained man, 18 years' experience in prominent New York offices and own practice. Training and personality fit him for position where executive ability is desirable. Squad chief last three years on large projects costing twenty million dollars. Box No. 621, care of PENCIL POINTS.

Position Wanted: Architect, designer and draftsman, over 20 years' experience, capable and thorough man. Can handle large as well as small projects from start to finish. Box No. 622, care of PENCIL POINTS.

Position Wanted: Engineer, with 15 years' specialized building construction experience as structural engineer, architect's superintendent, estimator and contractor's manager on steel skeleton, reinforced concrete and heavy timber-framed industrial, commercial and monumental buildings, seeks association with reputable architect. Licensed, graduate C.E., M.A.S.C.E. American, single, age 35. Box No. 623, care of PENCIL POINTS.

Position Wanted: One year at an Architectural Institute, Chicago, had 18 months' practical experience, drawing complete plans for residences and homes, also laying out heating plants for same. Previously worked as a switchboard operator. In great need of employment and will do any sort of work at present. Walter F. Krol, 2901 So. Throop Street, Chicago, Ill.

Position Wanted: Architectural designer and illustrator wants advertising work in black and white or color. Also renderings. Box No. 625, care of PENCIL POINTS.

Position Wanted: With architect or contractor as superintendent of construction. Twenty-five years' experience in all classes of public and private buildings. Good organizer, estimator and can handle subcontractors and material men. Have a record of getting work finished on time. Box No. 626, care of PENCIL POINTS.

Position Wanted: Architectural draftsman, specification writer, superintendent of construction, capable of taking complete charge of jobs. Twelve years' experience. Architect or contractor. New York or vicinity preferred. Box No. 627, care of PENCIL POINTS.

Position Wanted: Architectural draftsman, superintendent, college graduate of accredited middle western university. 35. Married. Seven years of varied experience on all types of buildings, detailing, working drawings, can carry projects through to completion. Three years field experience. Prefer to locate in middle west. Can furnish best references. Box No. 628, care of PENCIL POINTS.

Wanted: Architects and structural engineers who would like to join old established architectural firm as associates. Parties willing to locate in Cincinnati, Ohio. Must be technical graduates, active and of 8 to 10 years' practice in the profession, of good address and have some means to participate in the business. Apply: Architect, 508 Union Street, Avondale, Cincinnati, Ohio.

Position Wanted: Architect's superintendent with drafting and checking experience, fully conversant with mechanical work in connection with building. Charles L. Herckes, 237 Harrison Avenue, Jersey City, N. J.

Position Wanted: Assistant architect and draftsman, 16 years' experience in architectural work, specializing in front elevations, sections, decoration, general details and full size details. Victor D. Jahan, 1976-60th Street, Brooklyn, N. Y.

Position Wanted: Architectural draftsman, married, long experience. Structural steel and complete working drawings. Fireproof and nonfireproof buildings. Desires position with architect or builder. Moderate salary. Chas. Smith, 1495 Carroll Street, Brooklyn, N. Y.

Position Wanted: Willing to do any kind of work in architect's office. Married. J. Marcus Pinsker, 127 Linden Avenue, Edgewood, Pittsburgh, Pa.

Delineation: Architect specializes in finished renderings and rough sketches. Work includes exteriors, interiors, furnishings and landscape. Mediums: pencil, crayon, water color, tempera, colored pastels, charcoal, ink. Volunteer 5-2489.

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

Of PENCIL POINTS published monthly at Stamford, Conn., for April 1, 1931.

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

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

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, The Pencil Points Press, Inc., 419 Fourth Avenue, New York City.

Editor, R. F. Whitehead, 419 Fourth Avenue, New York City.

Managing Editor, None.

Business Manager, W. V. Montgomery, 419 Fourth Avenue, New York City.

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

The Pencil Points Press, Inc., 419 Fourth Avenue, New York City.

Ralph Reinhold, 419 Fourth Avenue, New York City.

L. F. Nellis, 419 Fourth Avenue, New York City.

W. V. Montgomery, 419 Fourth Avenue, New York City.

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

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

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

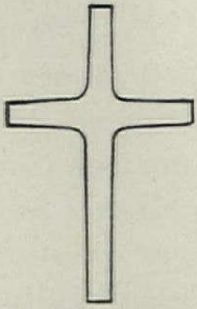
W. V. MONTGOMERY,
Business Manager.

Sworn to and subscribed before me this twelfth day of March, 1931.

CURVILLE C. ROBINSON,

Notary Public.

(My commission expires March 30, 1932.)



Permitting rare structural strength and weight and easy application to needs for exquisite line and form in windows. Inside, outside or double pane glazing.



At last† Sash that's counterpart to good building† It brings freedom from the common fault of progressive corrosion† Low upkeep in meeting railroad, seaboard, packing house and similar special heavy duty conditions† Extraordinary strength and rigidity with maximum apertures† Learn more about it† Request folder PP†

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Terminal Grain Elevator, Houston, Texas, Chief Engineer J. S. Metcalf, Chicago, Ill. Contractor Falwell Engineering Co., Chicago, Ill.



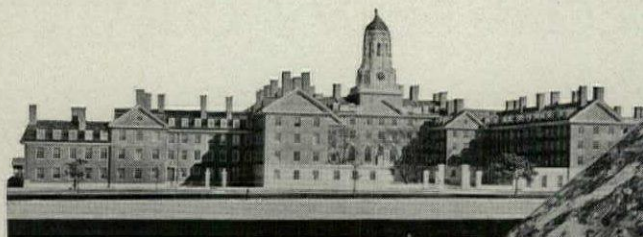
MESKER BROS. IRON CO., ST. LOUIS, MO.
Originators & Developers of Wrought Iron Window Sash

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The eyes of the educational world are on the new Harvard Houses. In their dining halls and in more than eight hundred tutors' and students' rooms, Stedman Reinforced Rubber Floors have been chosen for their built-in beauty, long life, low maintenance costs, silence and comfort. Stedman Floors may be laid equally well in new or existing buildings. Send for architectural catalogue, with charts in full color.

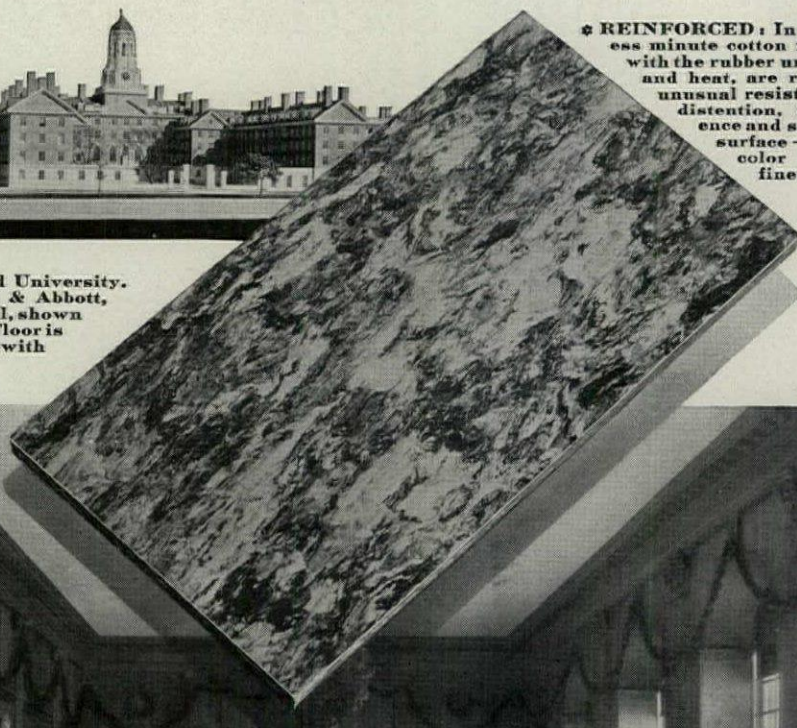
STEDMAN RUBBER FLOORING COMPANY • South Braintree, Mass.

Stedman Reinforced* Rubber Tile



Dunster House at Harvard University. Coolidge, Shepley, Bulfinch & Abbott, Architects. In the Dining Hall, shown below, the Stedman Rubber Floor is laid in rectangles of O.S. Red with interliners of Plain White.

* REINFORCED: In the Stedman Process minute cotton filaments, uniting with the rubber under high pressure and heat, are responsible for its unusual resistance to wear and distention, its lasting resilience and smooth impervious surface — characterized by color veinings of great fineness and beauty.



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WIRE FABRIC

Where Beauty Demands Permanence

The great buildings of today—monuments of beauty and efficiency—demand permanence of construction to preserve them throughout the ages. The best assurance of this is the short span concrete floor arch reinforced with Wire Fabric. Where such procedure is followed, American Steel & Wire Company Wire Fabric, because of its proved strength and uniformity, is generally specified as standard. Information, including engineering data on Wire Fabric for concrete reinforcement, will be furnished on request.

ELKS TEMPLE LOS ANGELES

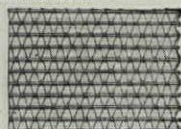
Architects—Curlett & Beelman
Structural Engineer—Oliver G.
Bowen

Contractors—Scofield Engineering
Construction Co.

FURNISHED IN ROLLS OR SHEETS



Electric Weld



Triangle Mesh



1831



1931

AMERICAN STEEL & WIRE COMPANY

208 South La Salle Street, Chicago

SUBSIDIARY OF UNITED



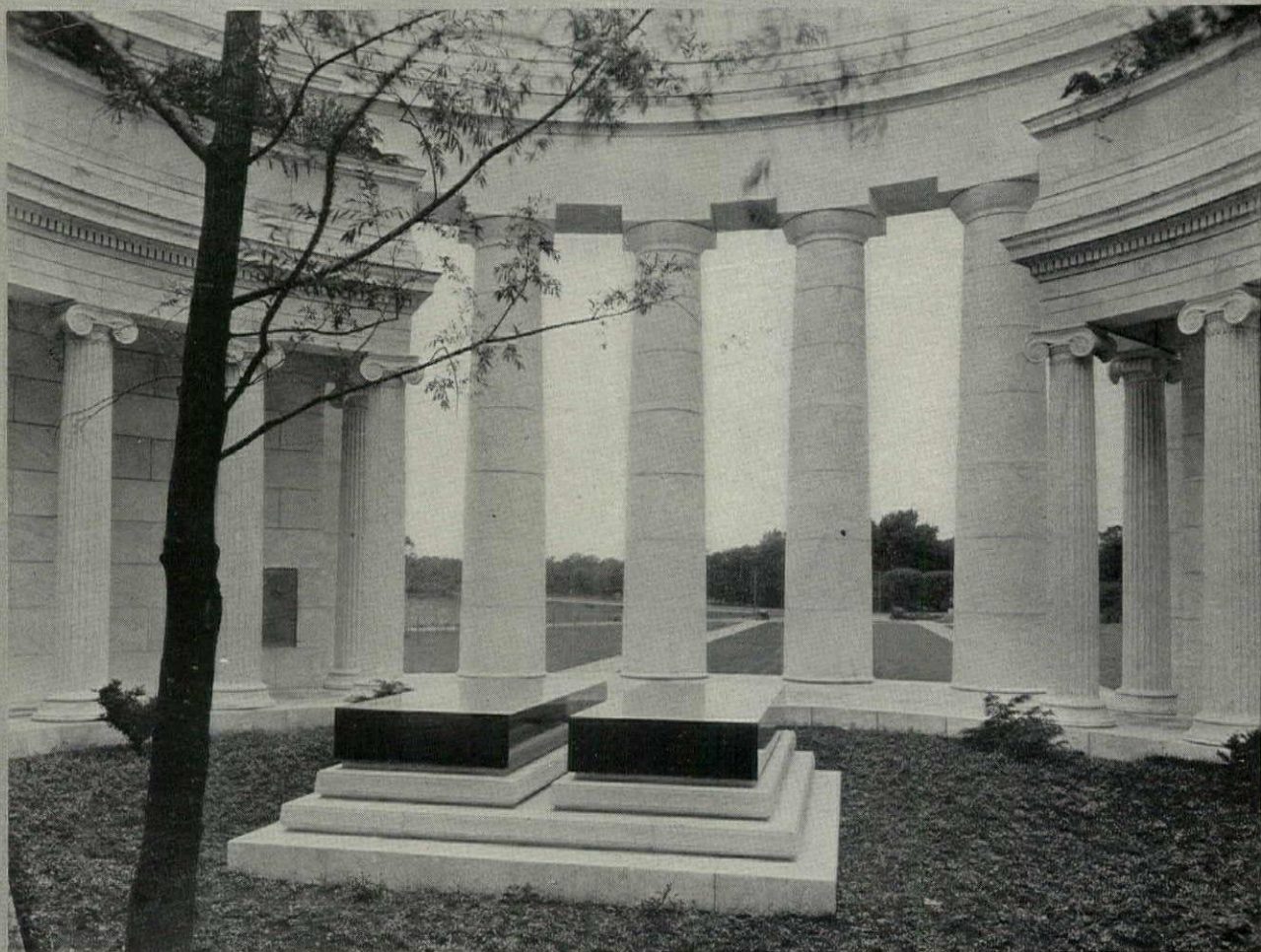
STATES STEEL CORPORATION

And All Principal Cities

Pacific Coast Distributors: Columbia Steel Company, Russ Building, San Francisco

Export Distributors: United States Steel Products Company, New York

GEORGIA MARBLE



THE WARREN G. HARDING MEMORIAL

Henry Hornbostel and Eric Fisher Wood, Archts., E. P. Mellon, Professional Adviser

Dedicated in June by President Hoover

This superb monument of marble at Marion, Ohio, a memorial to the late President Harding, will be dedicated on June 16, 1931 by President Hoover.

National monuments, such as this, are built to stand for all time. For this reason, only the most durable materials were even considered for this structure. The requirements were strict, and the tests to which each material was subjected were severe. Georgia Marble stood out as the wisest choice—considered both for durability and beauty.

THE GEORGIA MARBLE COMPANY · TATE · GEORGIA

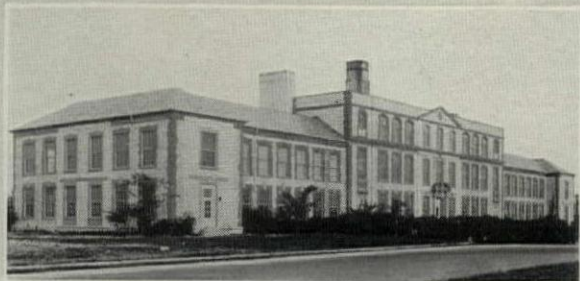
1328 Broadway
NEW YORK

814 Bona Allen Bldg.
ATLANTA

648 Builders' Bldg.
CHICAGO

622 Construction Industries Bldg.
DALLAS

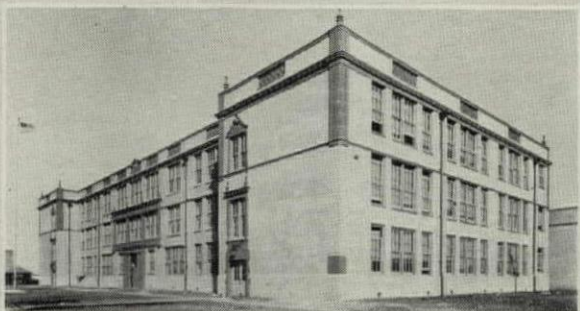
1200 Keith Bldg.
CLEVELAND



Upper Arlington School, Upper Arlington, Ohio
Architect: Miller & Reeves
Contractor: D. W. McGrath & Sons



Larchmont School, Norfolk, Virginia
Architect: Carlow-Brown & Fitzgibbons
Contractor: Miller Engineering Corp.



Phillis Wheatley High School, Houston, Texas
Architect: Harry D. Payne
Contractor: Bace Construction Co.



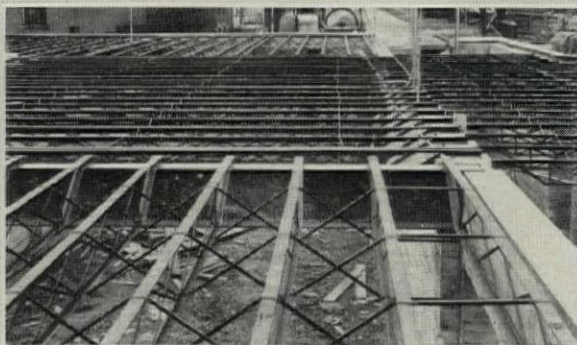
Precious Blood School, Fort Wayne, Indiana
Architect: Pohlmeier & Pohlmeier
Contractor: Wm. P. Schenkel

KALMANTRUSS JOISTS INSURE RIGID, FIREPROOF FLOORS FOR SCHOOLS

Throughout the country, a remarkably large number of school buildings are using Kalmantruss Steel Joists and Rigid Bridging in floor and roofs.

Such general acceptance of this construction for schools is convincing proof of its outstanding merit.

The advantages are many. Floors are rigid, noiseless and fireproof. Complete elimination of formwork, faster erection and continuous operations regardless of weather, make this the most economical fireproof floor and roof construction in use.



Observe the regular spacing of Kalmantruss Joists and the strong bracing with Rigid Bridging

Rolled from a single piece of steel, the Kalmantruss Joist assures absolute safety at all times. Kalmantruss Rigid Bridging forms a substantial cross bracing which acts both in tension and compression to distribute unequal floor loads. It insures correct spacing of joists and stiffens the entire floor construction.

The above buildings are representative of the many schools constructed with Kalmantruss Steel Joists and Rigid Bridging — also ideally suited for hospitals, homes, apartments and all other light occupancy buildings.

KALMAN STEEL COMPANY

ALBANY • ATLANTA • BALTIMORE • BOSTON • BUFFALO • CHICAGO • CLEVELAND • COLUMBUS • DALLAS • DAYTON
 DETROIT • HOUSTON • MILWAUKEE • MINNEAPOLIS • NEWARK • NEW HAVEN • NEW YORK • NILES • PHILADELPHIA
 PITTSBURGH • ST. LOUIS • ST. PAUL • SYRACUSE • WASHINGTON, D. C. • YOUNGSTOWN • EXPORT OFFICE, NEW YORK

Genasco Roofs!



Bonded by The United States Fidelity and Guaranty Company, Baltimore

Ten years—fifteen years—twenty years—a Genasco Trinidad Bonded Roof is guaranteed for a definite period of years, depending upon the type of construction. And the guarantee is backed by a surety bond issued by The United States Fidelity and Guaranty Company of Baltimore.

Genasco Trinidad Bonded Roofings, made with alternate layers of Trinidad Lake Roofing Asphalt—nature's own waterproofer—and layers of Genasco all-rag felt, now include the following:

Genasco Trinidad 20-year Bonded Roofing with slag, crushed stone or gravel surfacing. Class A Underwriters' Laboratories Classification—guaranteed twenty years by The United States Fidelity and Guaranty Company, Baltimore, Maryland.

Genasco Trinidad 15-year Bonded Roofing with slag, crushed stone or gravel surfacing. Class A Underwriters' Laboratories Classification—guaranteed fifteen years by The United States Fidelity and Guaranty Company, Baltimore, Maryland.

Genasco Trinidad 10-year Bonded Roofing with smooth surface. Guaranteed ten years by The United States Fidelity and Guaranty Company, Baltimore, Maryland.

Our Engineering Department will be glad to work with you on any of your roofing problems—will be glad to give you their opinion as to the best type of roof for any type of building.

THE BARBER ASPHALT COMPANY
Philadelphia

New York Chicago St. Louis Kansas City San Francisco

Genasco

Reg. U. S. Pat. Off.

**TRINIDAD
BONDED ROOFING**



Reg. U. S. Pat. Off.

PUBLICATIONS

OF INTEREST TO THE SPECIFICATION WRITER

(Continued from page 72)

Kawneer Store Fronts, Windows, Doors, Architectural Bronze.—A.I.A. File No. 26-b-1. Catalog N. New filing folder with series of illustrated bulletins giving descriptive information, specifications, construction details, etc., covering store fronts, windows, doors and other architectural bronze products. Standard filing size. The Kawneer Co., Niles, Mich.

Metalwood Plastic Ornamentation.—New brochure showing designs of a comprehensive variety of ornaments, reproductions of wood carvings produced by the Metalwood process. Sample of material in form of ornament is attached to cover of brochure. Indexed. Price list. 16 pp. $8\frac{1}{2} \times 11$. Metalwood Manufacturing Co., Plastics and Moulded Products Dept., 3362 Wight St., Detroit, Mich.

Westinghouse Vertical Parking Machine.—Special publication 1917 illustrates and describes the construction and operation of the recently developed Westinghouse vertical parking machine, designed to utilize vertical space with a minimum ground coverage for parking automobiles and suitable for erection within or adjacent to office buildings, department stores, hotels, factories and apartment buildings. 8 pp. $8\frac{1}{2} \times 11$. Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

Published by the same firm, "Westinghouse Nofuse Load Centers." New illustrated publication No. 1913 describes the construction and operation of Nofuse load centers, groups of small circuit-breakers, or Flipons, used for the protection of branch circuits in homes, buildings, garages, small schools, farms, stores, factories, etc. Application data, tables, etc. 8 pp. $8\frac{1}{2} \times 11$.

Gohi-Pure Iron Copper Alloy.—A.I.A. File No. 12-a-31. Useful reference manual for architects and specification writers dealing with the subject of Gohi-pure iron copper alloy. Included are descriptive information, specifications, notes and detail drawings covering a wide variety of applications. Sample of the metal accompanies manual. 20 pp. Standard filing size. The Newport Rolling Mill Co., Newport, Ky.

Muller Duo-Purpose Lighting Fixtures.—Folder illustrating and describing this new line of lighting fixtures in complete detail, and outlining its uses and applications. 4 pp. $8\frac{1}{2} \times 11$. Ivanhoe Division of The Miller Co., Meriden, Conn.

Franklin Vitrified Pottery Lighting Fixtures.—A.I.A. File No. 31-f-23. New catalog lists and illustrates a complete line of vitrified pottery lighting fixtures suitable for many uses, including a number of units especially adapted for hospital installations. Specifications, color chart, prices. 12 pp. $8\frac{1}{2} \times 11$. Franklin Pottery, Inc., Landsdale, Pa.

The New American Elevating Garage Door.—Bulletin No. 2 illustrates and describes in detail the construction, operation and installation of a new type of garage door operating entirely on the gravity principle. Installation instructions and details. 12 pp. $8\frac{1}{2} \times 11$. American Sash & Door Co., 16th & Bellefontaine Sts., Kansas City, Mo.

Calicel Acoustical Tile.—A.I.A. File No. 39-b. New bulletin with descriptive and specification data covering this type of acoustical tile suitable for use in schools, hospitals, theatres, offices, factories, stores, etc. 8 pp. $8\frac{1}{2} \times 11$. Calicel Products, Inc., Hammond, Ind.

Doherty-Brehm Humidifying and Air Conditioning System for Large Homes.—A.I.A. File No. 30-f-1. New handbook for architects presents complete data covering the construction and operation of this type of air conditioning system for the modern home. Specification, dimensions, typical layout. 14 pp. $8\frac{1}{2} \times 11$. Doherty-Brehm Co., 333 No. Michigan Ave., Chicago, Ill.

Cabot's Creosote Stained Shingles.—New catalog illustrated in colors presents complete data covering this line of creosote stained shingles and shakes and creosote shingle and wood stains. Tabular matter. 16 pp. $8\frac{1}{2} \times 11$. Samuel Cabot, Inc., 141 Milk St., Boston, Mass.

Modern Heating Standards.—Convenient pocket size document, just issued, contains a simple presentation of modern heating practice. Included is brief descriptive data covering the Dunham differential vacuum heating system. 28 pp. C. A. Dunham Co., 450 East Ohio St., Chicago, Ill.

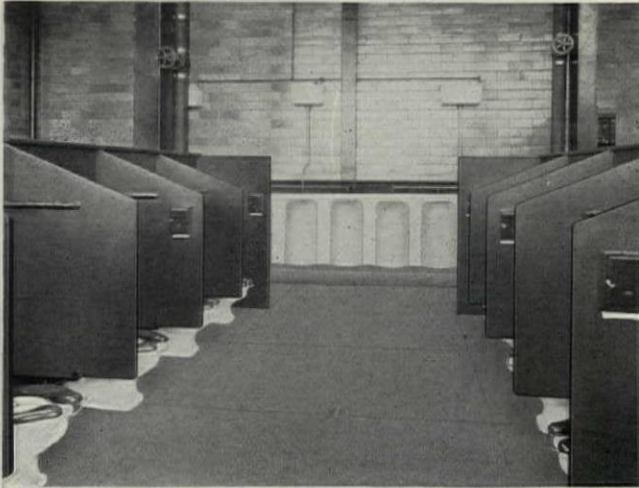
Hope's Leadwork for the Garden.—Catalog No. 200. Handsome brochure, just issued, illustrates a series of lead ornaments suitable for garden decoration. 38 pp. Standard filing size. Henry Hope & Sons, 101 Park Ave., New York, N. Y.

Fireplaces in Corastone.—Attractive brochure showing many designs of mantels executed in Corastone, accompanied by dimension drawings and prices. 40 pp. Detroit Decorative Supply Co., 4240—14th Ave., Detroit, Mich.

Marsh Decorative Switch Plates.—Filing folder with collection of interesting designs of decorative switch plates adaptable for various styles of residence and apartment house interiors. Standard filing size. James R. Marsh & Co., Essex Fells, N. J.



... It's easy to do the unusual
when your specification reads "Pyramid" Slate



Toilet room, Connelly Trade School, designed by Architect Edward B. Lee, Pittsburgh

WHEN COST is a factor and you are looking for the unusual, refer to your chapters on Slate. It is easy to do the unusual when your specification reads "Pyramid" Slate. You will find many short-cuts in these interesting and helpful booklets that will solve your problem of installing solid, well built and sanitary toilet partitions . . . Slate is absolutely non-absorbent. Unlike competitive materials it will not rust and corrode, and when once installed never requires attention. Because of its solid, close grain, and non-absorptive qualities, stains that would mar an ordinary installation will have no effect on slate . . . Special chapters for the architect, prepared by an architect, containing concise data, specifications and detailed drawings, will gladly be sent you on request. Write for your copies today . . .



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NEW— a Portfolio of Modern Grille Designs



EACH year there is a constantly increasing demand for punched grilles. This has been brought about by the extensive use of air conditioning and ventilating systems, as well as recessed radiation. In addition, Architects have evidenced a demand for new and original grille designs which can be executed in white metals. It is realized that few, if any, of the old designs should be used in these bright metal grilles.

To provide ourselves with just such material we sponsored a grille design contest which has brought us the ideas of brilliant designers from all parts of the country. With the winning designs as a foundation our skillful designers have adapted them to practical use.

Prize Winning Designs

We are pleased to offer to Architects a Portfolio of these prize winning designs with adaptations available for immediate use. These new designs will be of great assistance to the Architect when planning wall surfaces in the modern manner.

Sent without
charge

This Portfolio of Modern Grille Designs will be sent to reputable Architects who write us on their firm stationery.



The HARRINGTON & KING Perforating Co.

New York Office, 114 Liberty Street
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Von Duprin

Self-Releasing Fire and Panic Exit Latches

For Your Own Children

If you were planning a school building which was to house your own children, you would unhesitatingly specify the genuine Type "B" Von Duprin devices—and you would insist upon getting them.

*Sweet's, Pages
C3892-C3896*

You would demand absolute certainty that those children were going to have the full protection of Von Duprin reliability, Von Duprin sureness of operation under emergency demands.

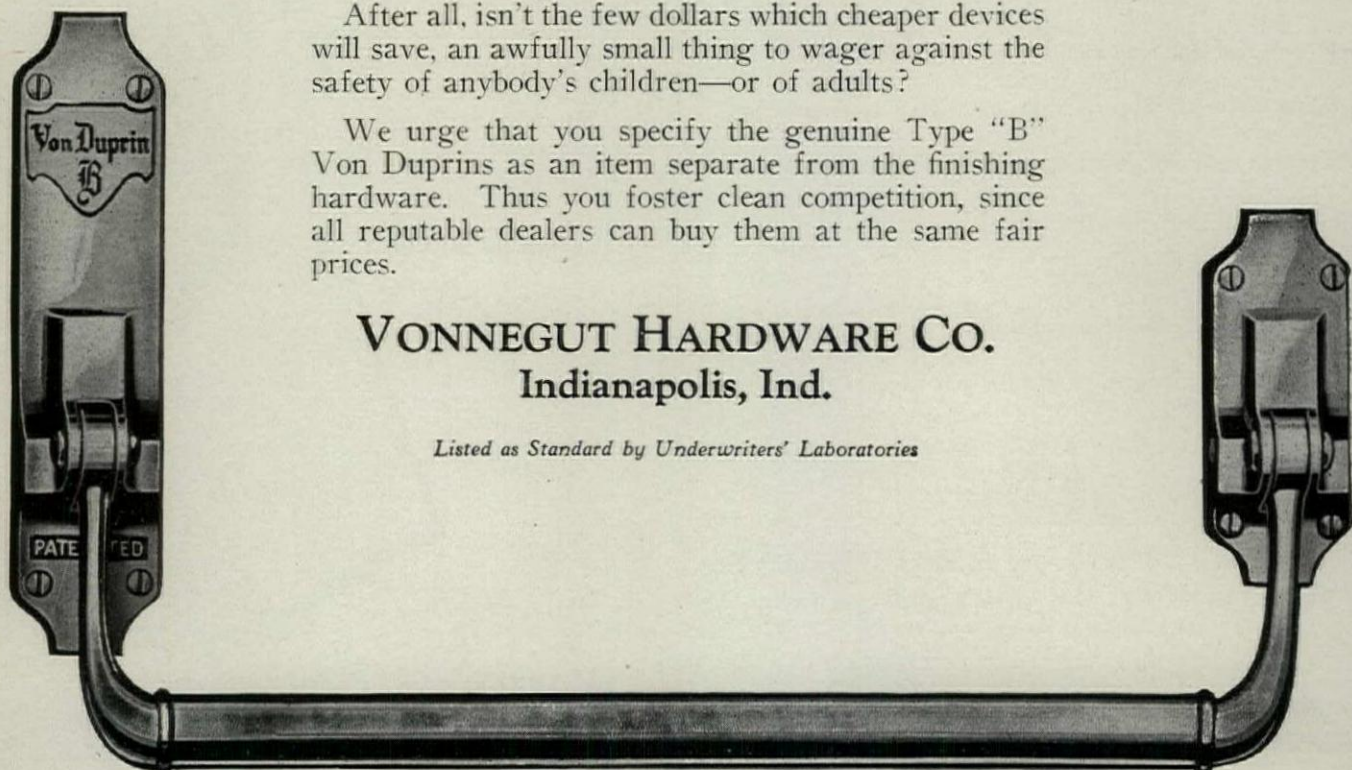
Yet, in all fairness, isn't it almost as important to insist upon these unquestionably reliable devices for the protection of other children as for your own? Isn't it the decent thing to demand them for the sake of other parents who are perhaps as fond of their children as you are of yours?

After all, isn't the few dollars which cheaper devices will save, an awfully small thing to wager against the safety of anybody's children—or of adults?

We urge that you specify the genuine Type "B" Von Duprins as an item separate from the finishing hardware. Thus you foster clean competition, since all reputable dealers can buy them at the same fair prices.

VONNEGUT HARDWARE CO.
Indianapolis, Ind.

Listed as Standard by Underwriters' Laboratories



Does the room need *Extra color depth?*

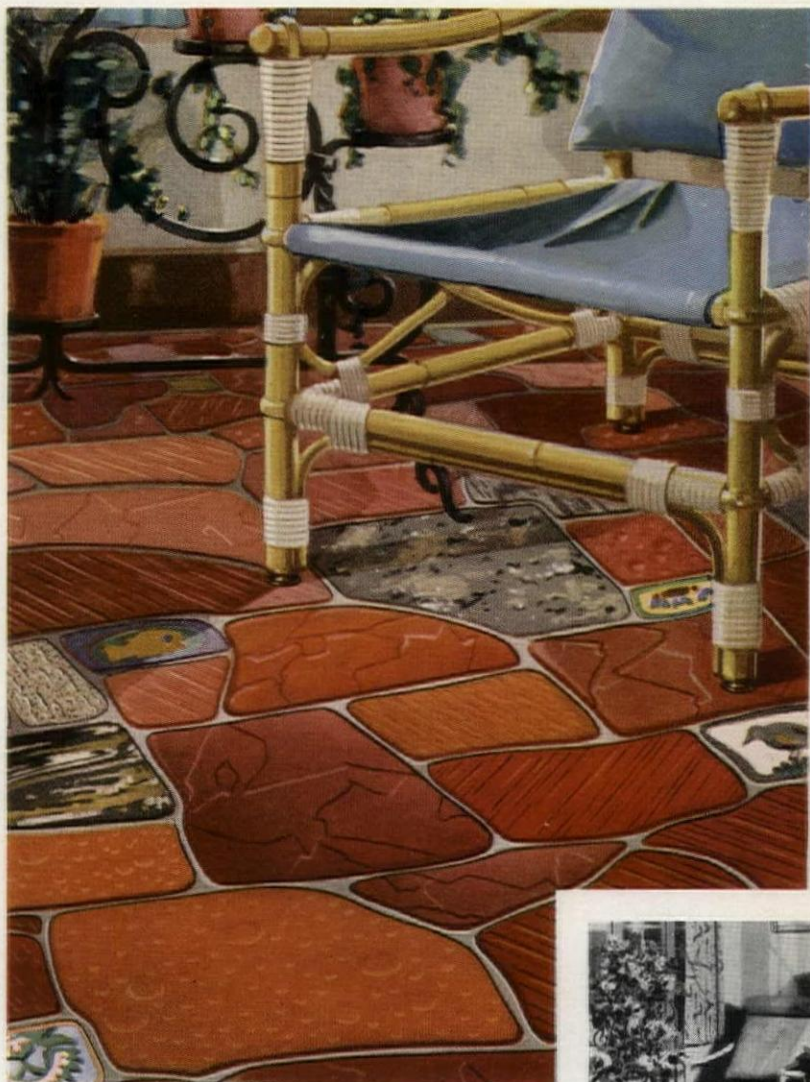
*One architect
captured it with
this floor of
Embossed Linoleum*

THE next time you plan a colorful room, see how well linoleum fits into the scheme. It forms the ideal background to set off the room's furnishings, whether modern or period. And often the feeling of the room depends on the floor treatment.

Consider, too, the new *textured* surfaces of Armstrong's Embossed Linoleum. These patterns, one of which is shown here, offer texture you can both see and feel. In addition, the interliners between panels are indented. Here is color with a richness and depth that no other floor can give. The play of lamplight or sunlight on these surfaces reveals shades and tones that make the floor almost alive with color.

Clients also appreciate the more practical advantages of Armstrong's Linoleum Floors. They like the quick way in which linoleum is cemented permanently in place over linoleum lining felt. The easy cleaning of the Accolac-Process (lacquer-sealed) surface pleases. Then, too, maintenance costs are remarkably low.

When you are planning floors, you'll



Color and texture like that of an old stone floor—yet with the warmth and comfort of linoleum's resilience—that's the floor of Armstrong's Embossed Linoleum. This pattern is Embossed Inlaid De Luxe No. 16003

be interested in the many helpful suggestions in our new file-size specification book. If you wish, we will gladly send you colorplates and samples of linoleum. And you'll find us in Sweet's. Armstrong Cork Company, Floor Division, Lancaster, Pa. (Makers of cork products since 1860)



Design No. 16000. Embossed Inlaid, the only linoleum with a texture you can see and feel, is made by Armstrong.

Armstrong's
A
Product



*Armstrong's Linoleum Floors
for every room in the house*

PLAIN • INLAID • EMBOSSED • JASPE • PRINTED • ARMSTRONG'S LINOTILE and CORK TILE

Where Service is the By-Word



BARCLAY-VESEY EXCHANGE
New York Telephone Co., New York City
Architects, McKenzie, Voorhees & Gmelin



OHIO BELL TELEPHONE CO. BLDG.
Cleveland, Ohio
Architects, Hubbell & Benes Co.



SOUTHWESTERN
BELL TELEPHONE BUILDING
St. Louis, Missouri
Architects, Mauran, Russell & Crowell

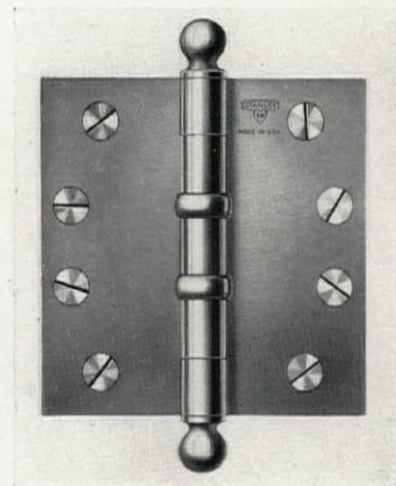
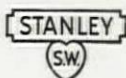
Stanley Ball Bearing Butts Are Used

THIS imposing group of telephone buildings, dedicated to the service of better communication, are equipped throughout with Stanley Ball Bearing Butts.

These buildings are representative of many of the modern structures which rely on Stanley Ball Bearing Butts to render continuous smooth and trouble-free service.

Stanley Ball Bearings eliminate wear on the joints and thus insure against door closer or lock trouble. For extreme low maintenance cost specify Stanley Ball Bearing Butts.

THE STANLEY WORKS
New Britain, Conn.



How to secure QUICK HEATING in Churches

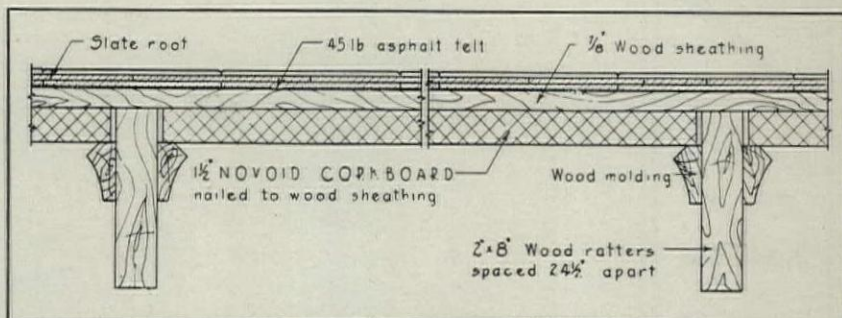
*Novoid Corkboard
on under side of
roof decks reduces
heating time . . .
saves fuel . . . gives
acoustical control*

QUICK, economical heating of churches and other intermittently used buildings is not quite so difficult when a warm blanket of Novoid Corkboard prevents the rapid loss of heat through the roof. A single layer of $1\frac{1}{2}$ " Novoid on the *under side* of the roof deck in the Church of the Immaculate Conception assures comfortable temperatures even when the auditorium must be used on short notice.

And, in addition, the resilient, sound-absorbing slabs of Novoid give perfect acoustical control. The soft, natural brown color readily lends itself to interior decoration of this type.

*Close, even structure not affected
by moisture*

Novoid will stop roof condensation, but should rain or other moisture reach the cork, the cellular structure will not "blot" it up. There is no capillary action as with fibrous materials . . . no voids to collect moisture. For large and



small granules of cork are combined by a special manufacturing process to give Novoid a close-grained structure.

Novoid will not buckle, warp or rot out. Send for a sample and examine it yourself . . . see why Novoid promises longer life, why you should specify it. Address Cork Import Corporation, 345 West 40th St., New York City.

24\"/>

Novoid Corkboard Insulation

The close-structured corkboard

INTERNATIONAL CASEMENTS

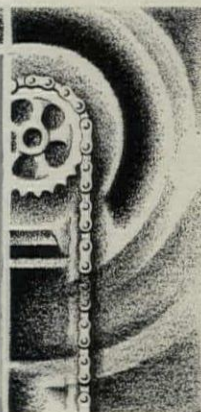
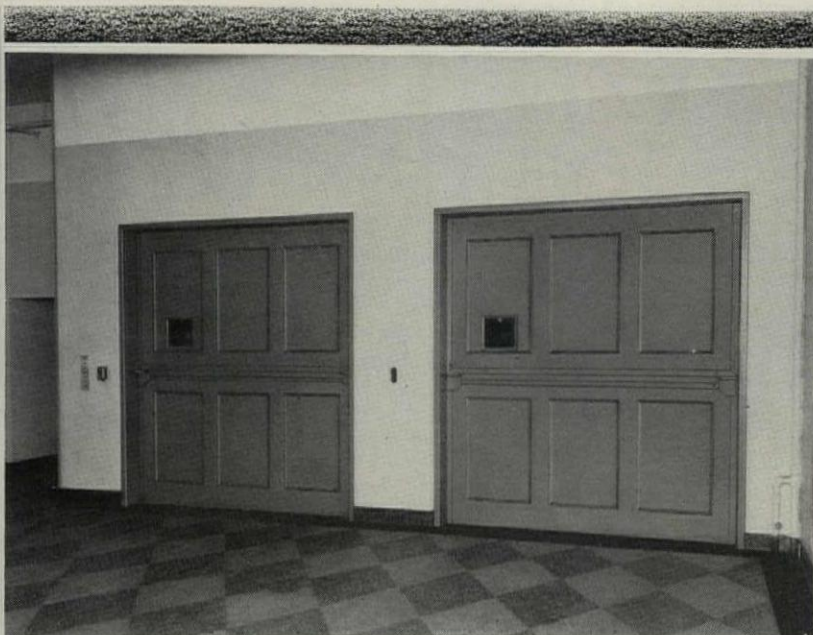


Residence, Sterlington, N. Y.

John Russell Pope, Architect

INTERNATIONAL CASEMENTS—both Custom-built and Cotswold—now are available equipped with screens. Special hardware permits the casement to be opened and closed without disturbing the screen which, however, may be detached instantly to operate awnings or clean the glass.

INTERNATIONAL CASEMENT CO. INC.
JAMESTOWN, NEW YORK



KNOWLEDGE - - *The Result of Investigation*

Daniels and Fisher
Dept. Store Garage,
Denver, Colo.

Architects,
W. E. & A. A. Fisher
Elevator Contractor,
Otis Elevator Co.

Good judgment in specifying and purchasing a product is associated with a careful investigation of its merits. SECO Uni-Motored Freight Elevator Doors are being specified by leading architects more and more every day. They have investigated—critically—and among other things, have learned the dependable value of SECO Uni-Motored Freight Elevator Doors . . . Balanced action—noiseless, quick and positive operation—even counterbalancing—truckability—lubricated ball-bearing sheaves—adjustable anti-friction shoes—single motor operation.

The Daniels & Fisher Department Store Garage, illustrated above is merely another instance where the choice of SECO Elevator Doors was based on careful point-by-point investigation and comparison. . . . Write today for complete catalog or have our nearest representative tell you all about them.

SECURITY FIRE DOOR CO. 3044 Lambdin Ave., ST. LOUIS

OFFICES IN NEW YORK . . . BOSTON . . . PHILADELPHIA . . . CHICAGO
SAN FRANCISCO . . . LOS ANGELES . . . DETROIT AND OTHER PRINCIPAL CITIES

SECURITY **UNI-MOTORED**
FREIGHT ELEVATOR DOORS

Make good freight elevators more efficient

YOU CAN *BLEND*

LIQUID GRANITE GLOSS

AND DULL FOR ANY

DESIRED SHEEN

ANY desired degree of luster from a velvety sheen to diamond-like brilliance is possible when you specify Berry Brothers' Liquid Granite Varnish for natural floors and woodwork. This is the million step-test floor varnish—made by secret formula of the finest ingredients obtainable. Rubbing is not necessary to achieve beautiful effects because Liquid Granite Gloss and Dull can be blended for the sheen you prefer.

Liquid Granite is a tough, elastic varnish—unequalled for long-life and good looks. It can be washed again and again—never turns white. Rigorous tests conducted by the Detroit Testing Laboratory plus performance records established throughout more than 72 years of manufacturing prove Liquid Granite's amazing resistance to wear.

In addition to Gloss and Dull—Liquid Granite is made Quick-Drying to meet the modern demand for speed. Let our architectural department give you all the facts about this finish and others in the Berry Brothers' line.

BERRY BROTHERS INC.

VARNISHES • ENAMELS • LACQUERS • PAINTS

DETROIT, MICH. • • WALKERVILLE, ONT.

FACTORY BRANCHES

Brooklyn

Chicago

Cincinnati

Boston

Philadelphia

San Francisco

St. Louis

**PLATE
SEVEN**

**THE
MODERNISTIC
MOVEMENT**

BOTH the exterior and interior of the Moore Store, San Francisco, are modern in treatment. The interior vestibule, which is illustrated on this page, is distinctly modernistic. It was finished in Black and Gold. Yule Colorado marble was used for the exterior. The architect of the building was Albert F. Roller, with Bliss & Fairweather as associate architects.

VERMONT MARBLE COMPANY
PROCTOR, VERMONT

Branches in the larger cities

See Sweet's Catalog for Specifications and Other Data

VERMONT MARBLE

NOW

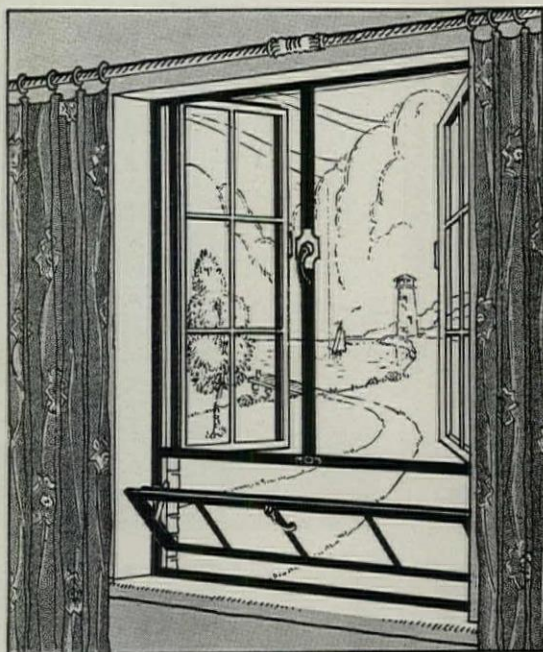
Bedroom Windows for Healthful Ventilation **IN ANY WEATHER**



Minimum fresh air ventilation without drafts, for cold or stormy weather.

Now Fenestra Casements introduce the built-in windguard at the sill. Opened for minimum fresh air ventilation, this windguard tilts in at the top. Air currents are deflected upward toward the ceiling, over the heads of occupants of the room.

For maximum ventilation the entire window—double swing leaves and windguard—may be opened wide. Swing leaves may be set according to wind direction, to baffle breezes, and prevent direct drafts.



Maximum fresh air ventilation for sultry, mid-summer weather.

When desired, Fenestra Casements are provided with Fenestra bronze-mesh screens, located inside the swing leaves, and outside the sill windguard, respectively.

Local Fenestra engineers will give you detailed information without obligation.

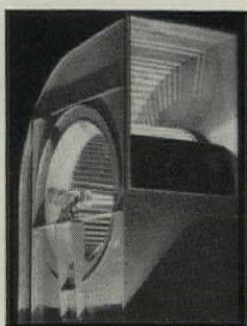
DETROIT STEEL PRODUCTS COMPANY
2286 East Grand Boulevard • Detroit, Michigan

For complete Fenestra Catalog, see Volume A, SWEET'S ARCHITECTURAL CATALOGS

Fenestra

Casements with the New Built-In Windguards

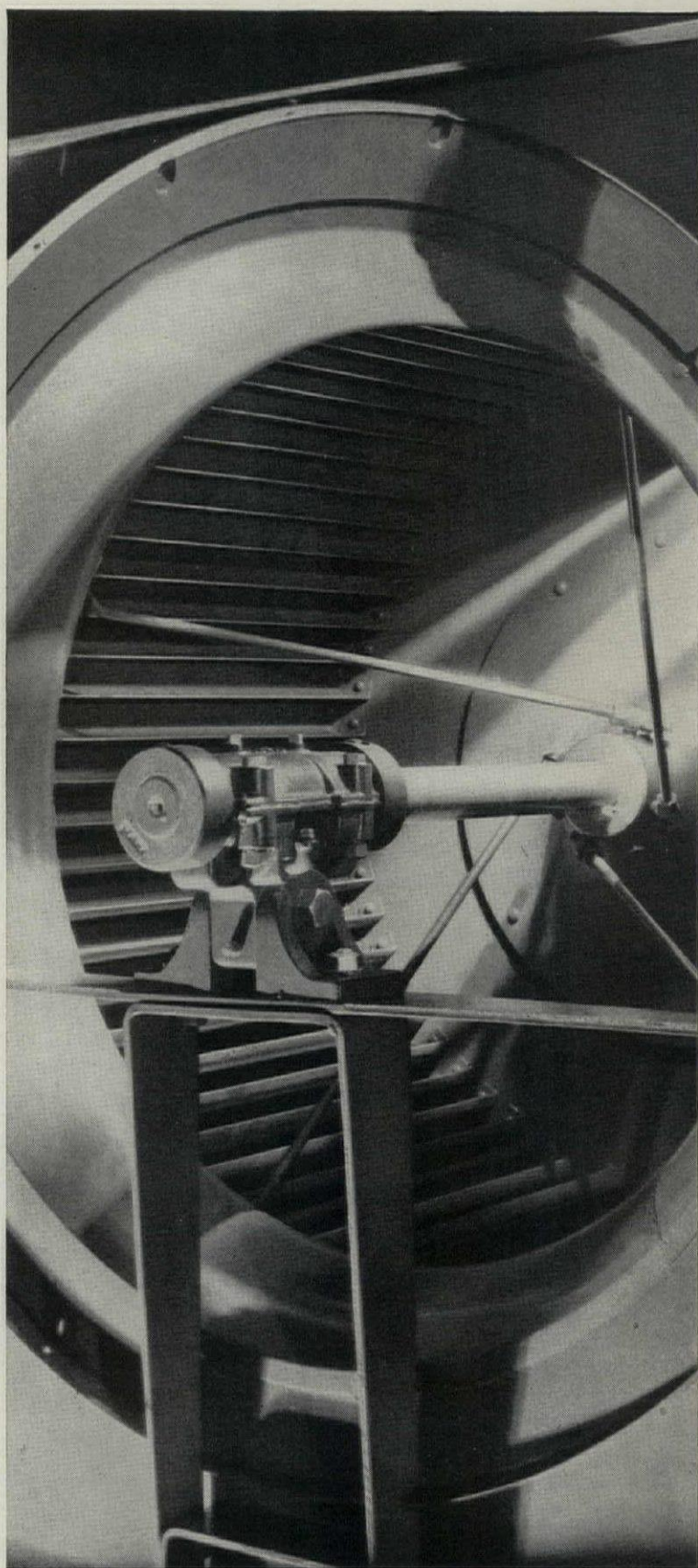
SIROCCO . . . STANDARD OF THE WORLD



THE new "Series 30" Sirocco Fan . . . product of over 50 years' experience . . . delivers more air per revolution than any other fan of the same size. It is quiet in operation . . . highly efficient . . . long lived . . . trouble-free. For complete information and data on the application of Sirocco Fans for ventilating, heating, and mechanical draft, call the nearest American Blower Branch Office, or write direct to the factory.

(1137)

*Close-up view of
Inlet of "Series
30" Sirocco Fan*



AMERICAN BLOWER CORPORATION, DETROIT, MICH.
CANADIAN SIROCCO CO., LIMITED, WINDSOR, ONT.
BRANCH OFFICES IN ALL PRINCIPAL CITIES

American Blower
VENTILATING, HEATING, AIR CONDITIONING, DRYING, MECHANICAL DRAFT
MANUFACTURERS OF ALL TYPES OF AIR HANDLING EQUIPMENT SINCE 1881

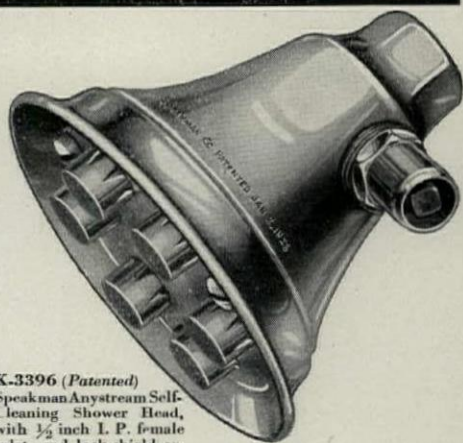
Speakman Announces Several New Types of Showers and Shower Heads for Institutional, School, Club and Residential Installation . . .



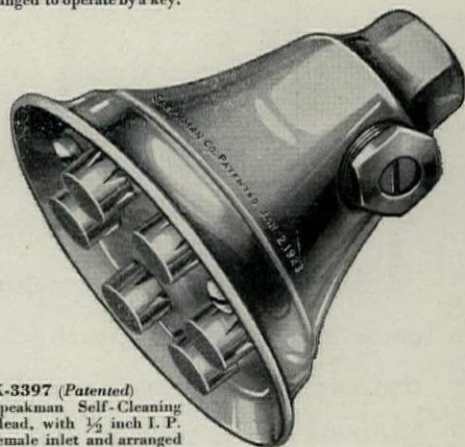
K-3395
Speakman Anystream Self-Cleaning Shower Head (Pat. Jan. 2, 1923). Lever operated. For residences, hotels and general installation.

All heads have the patented Anystream Self-Cleaning principle. Can be used with Speakman and all other types and makes of showers.

They can never stop up!



K-3396 (Patented)
Speakman Anystream Self-Cleaning Shower Head, with $\frac{1}{2}$ inch I. P. female inlet, and lock-shield arranged to operate by a key.



K-3397 (Patented)
Speakman Self-Cleaning Shower Head, with $\frac{1}{2}$ inch I. P. female inlet and arranged to be operated with a screwdriver.

KEY AND SCREWDRIVER OPERATED HEADS for hotels, public and semi-public places.

WALL TYPE HEADS for hospitals and institutions.

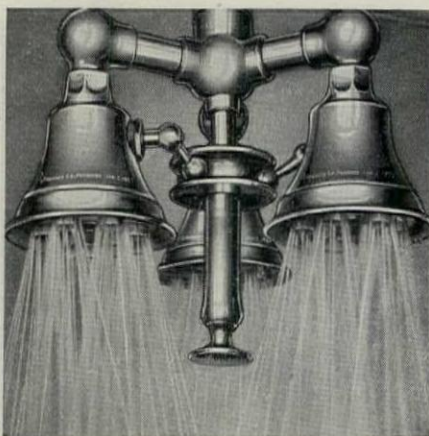
CLUSTER HEADS for golf, country and athletic clubs.

All of these new showers and shower heads are illustrated and described fully in a 16-page bulletin which will be sent to architects. It will be particularly useful to specification writers and engineers, being complete with roughing-in; also contains suggestions on shower piping layouts.

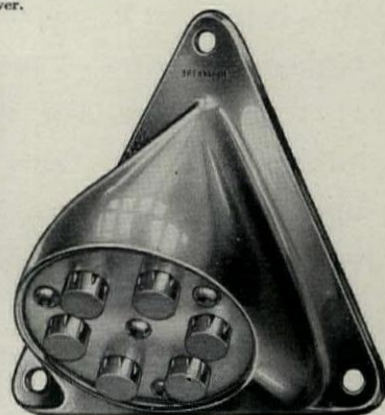
SPEAKMAN COMPANY
Wilmington Delaware



Every architectural office should have at least one copy of this 16-page bulletin on regular and special types of showers; also shows new kinds of shower heads for all kinds of installations.

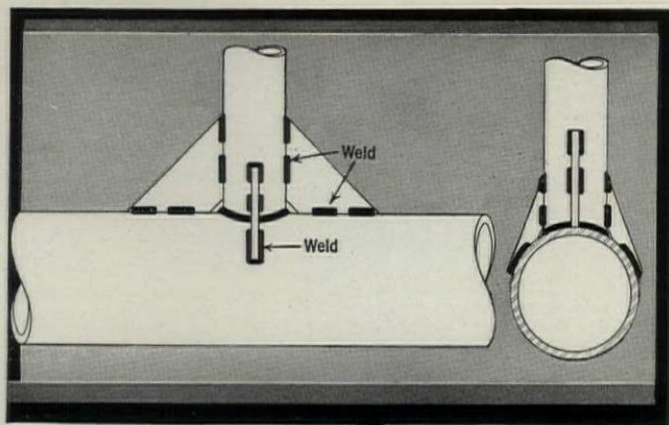


K-3416
Speakman Anystream Self-Cleaning Unit Control Triple-Cluster Shower Head (patented). For use where a large amount of water is desired.



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Speakman Anystream Self-Cleaning Wall Type Shower Head with $\frac{1}{2}$ inch I. P. female inlet in center of back and arranged to operate by a $\frac{5}{16}$ inch hexagon wrench. For hospitals and institutions.

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DESIGN STANDARDS FOR OXWELDING PIPING

Any welded piping system, even in its most complicated form, is a combination of a few fundamental welding design details.

BRACED BRANCH CONNECTIONS

Explanation of design:

When tees and branch fittings are subjected to severe bending stresses, they may be reinforced in order to strengthen the joint to meet special service requirements. Bracing plates cut to fit the intersections of the pipes can be welded to the header and branch as illustrated.

Uses:

Such designs of braced branch connections may be used for high pressures, particularly for very high or very low temperature services, where unprovided for expansion and contraction or unforeseen conditions may throw high or unknown bending stresses into the connections or where piping is subject to pulsations. Under these conditions Y's should always be reinforced, especially where the angle of intersection is less than 75 deg.

Specifications:

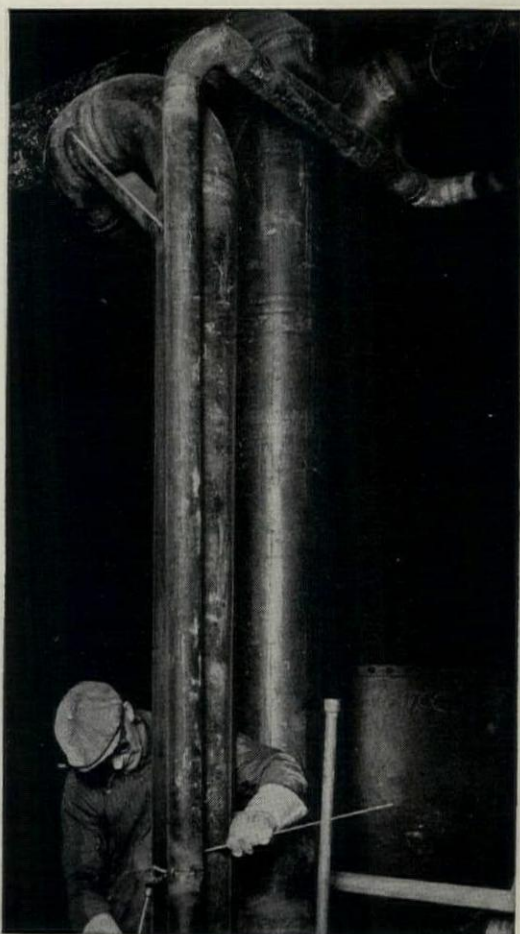
When braced branch connections are specified, the following features are included in the specifications:

1. The bracing shall be fabricated in such a way as to rigidly tie the branch and header together in order to reinforce the connecting pipes thoroughly and prevent deflection at the joint.
2. When the plate or similar reinforcement is used, welding shall preferably be omitted over the weld joining branch and header.
3. When sleeve reinforcements are used, features to be included in the specifications for sleeve welding are the same as in the base of the Butt Weld with Welded Split Sleeve given on page 18, "Design Standards for Oxwelded Piping."
4. The weld shall be of sound metal free from laps, gas pockets, slag inclusions or other defects.

The above is excerpted from a handbook on fundamental designs, titled, "Design Standards for Oxwelded Steel and Wrought Iron Piping," published by The Linde Air Products Company.

You should have a copy of this handbook. It is yours for the asking.

OXWELDING FACILITATES CONSTRUCTION



OXWELDING materially speeds up the installation of piping. When bends, valves and special fittings have been located, no consideration need be given to the exact lengths of connecting pipe. The ease of cutting and welding in the required piping, during construction, simplifies design and avoids error. If equipment does not conform to drawings, or if last minute changes are made, the job is not thrown out of routine.

These and other inherent advantages of oxwelding—permanent tightness, increased efficiency and economy—are evidenced by the growing acceptance of this method of pipe jointing.

Under Procedure Control, welded piping construction may be undertaken with the same confidence in a satisfactory result as older methods, and with further assurance of increased economy and serviceability.



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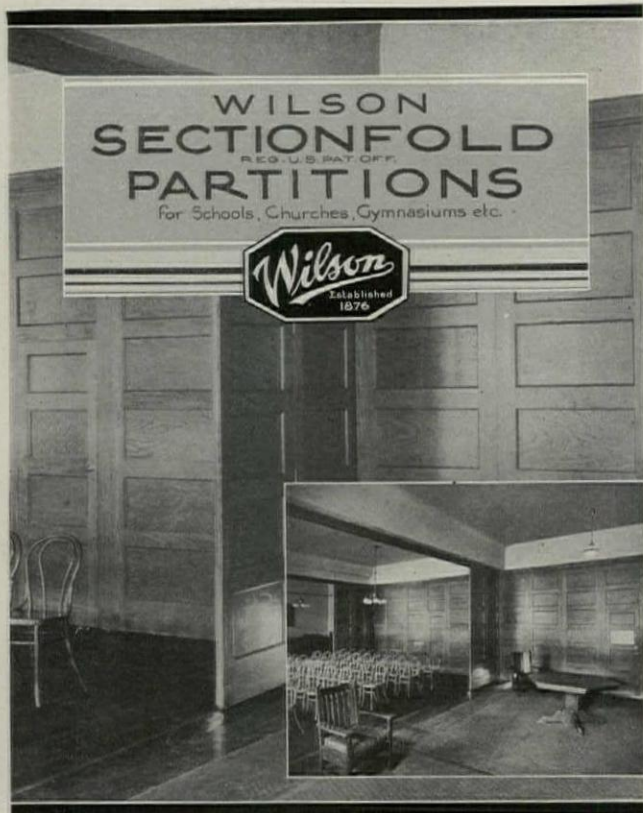
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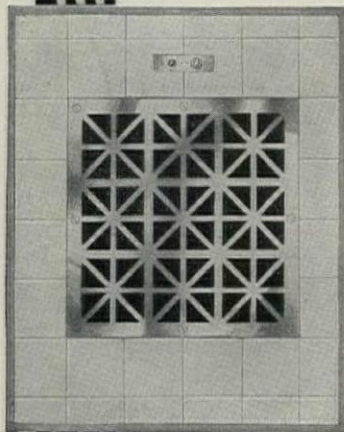
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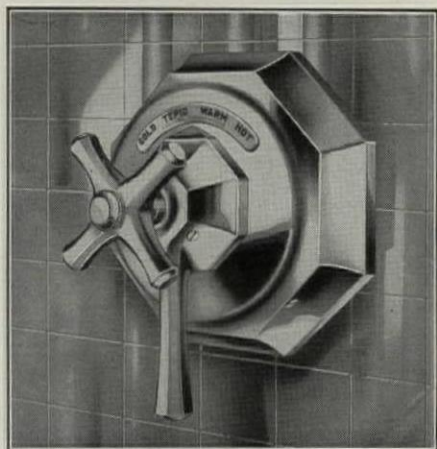
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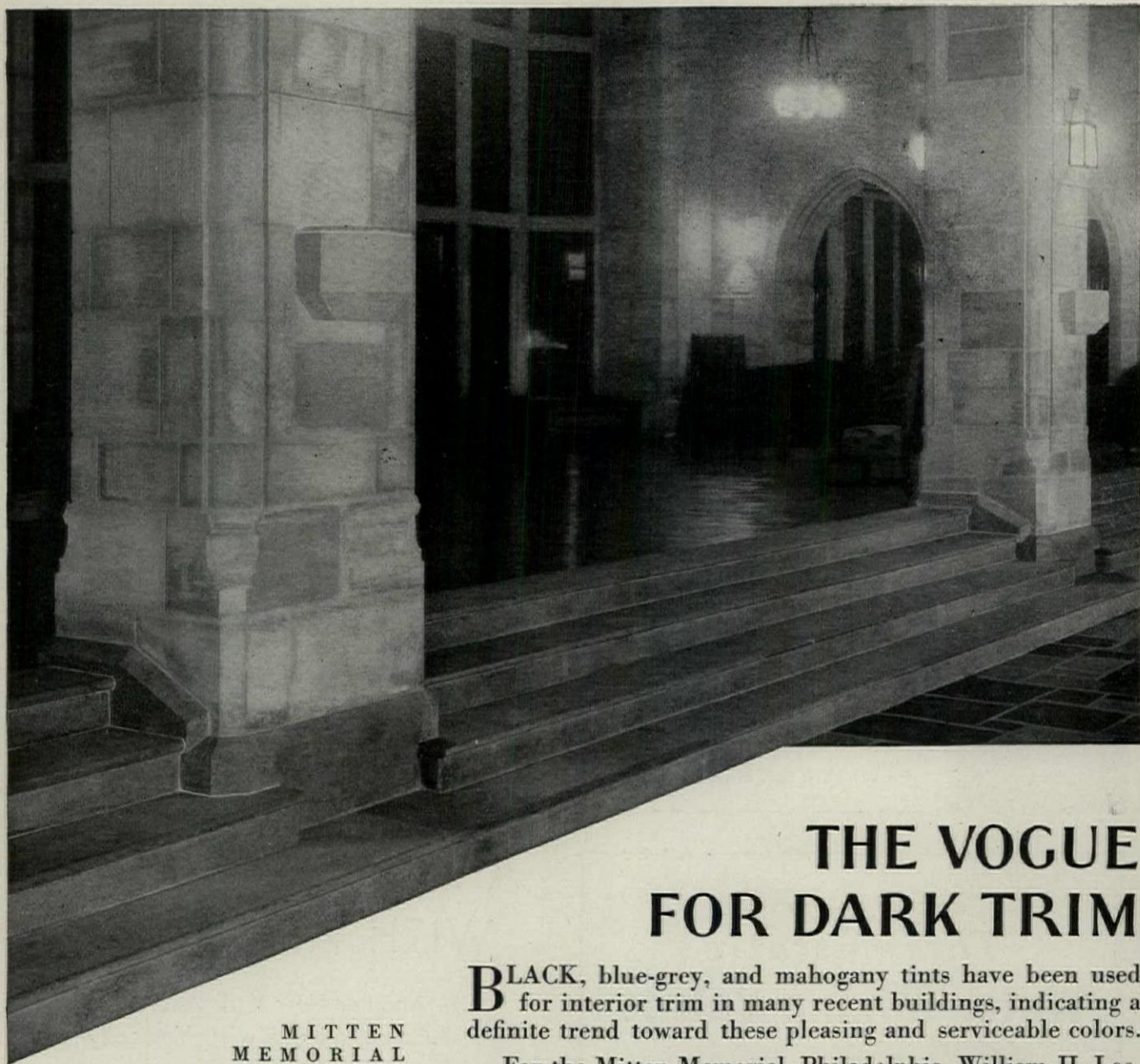


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BBLACK, blue-grey, and mahogany tints have been used for interior trim in many recent buildings, indicating a definite trend toward these pleasing and serviceable colors.

For the Mitten Memorial, Philadelphia, William H. Lee, *Architect*, selected Alberene Stone for the treads and trim leading from the main lounge of the building to the various levels surrounding it. The soft blue-grey of the Alberene blends beautifully with the tones of the variegated stone floor and the limestone columns. The ensemble is pleasing and in character with the building.

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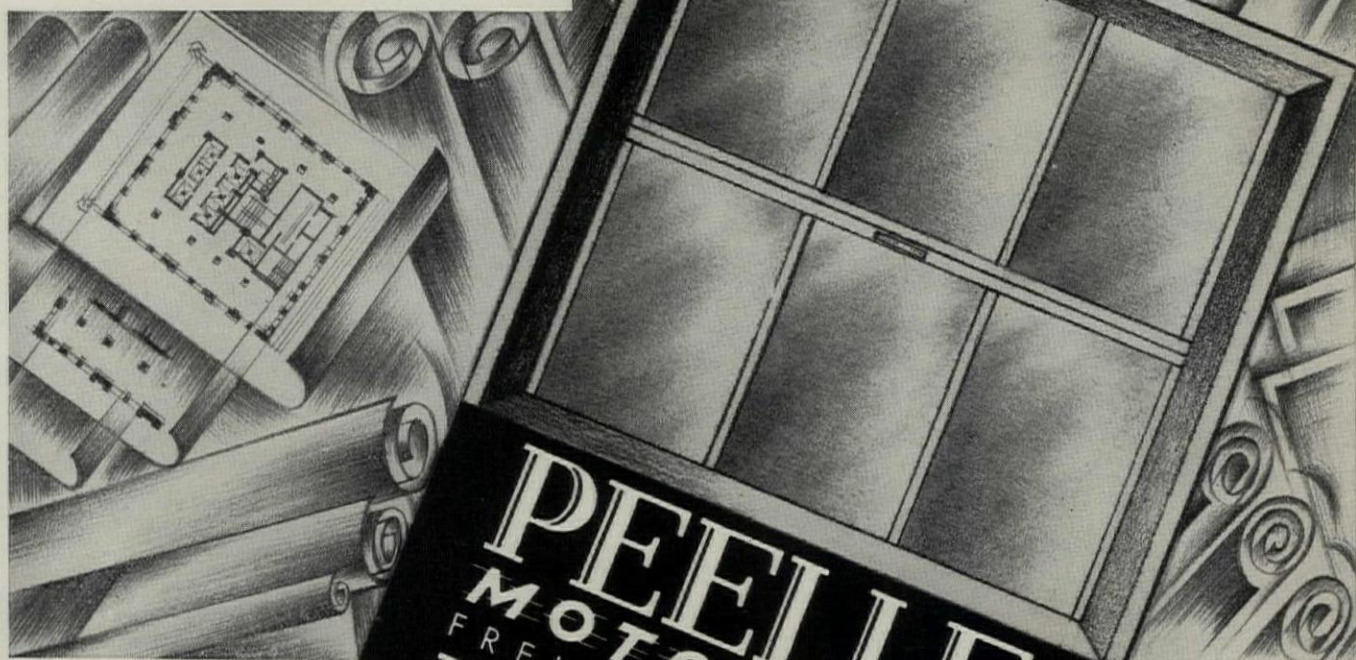
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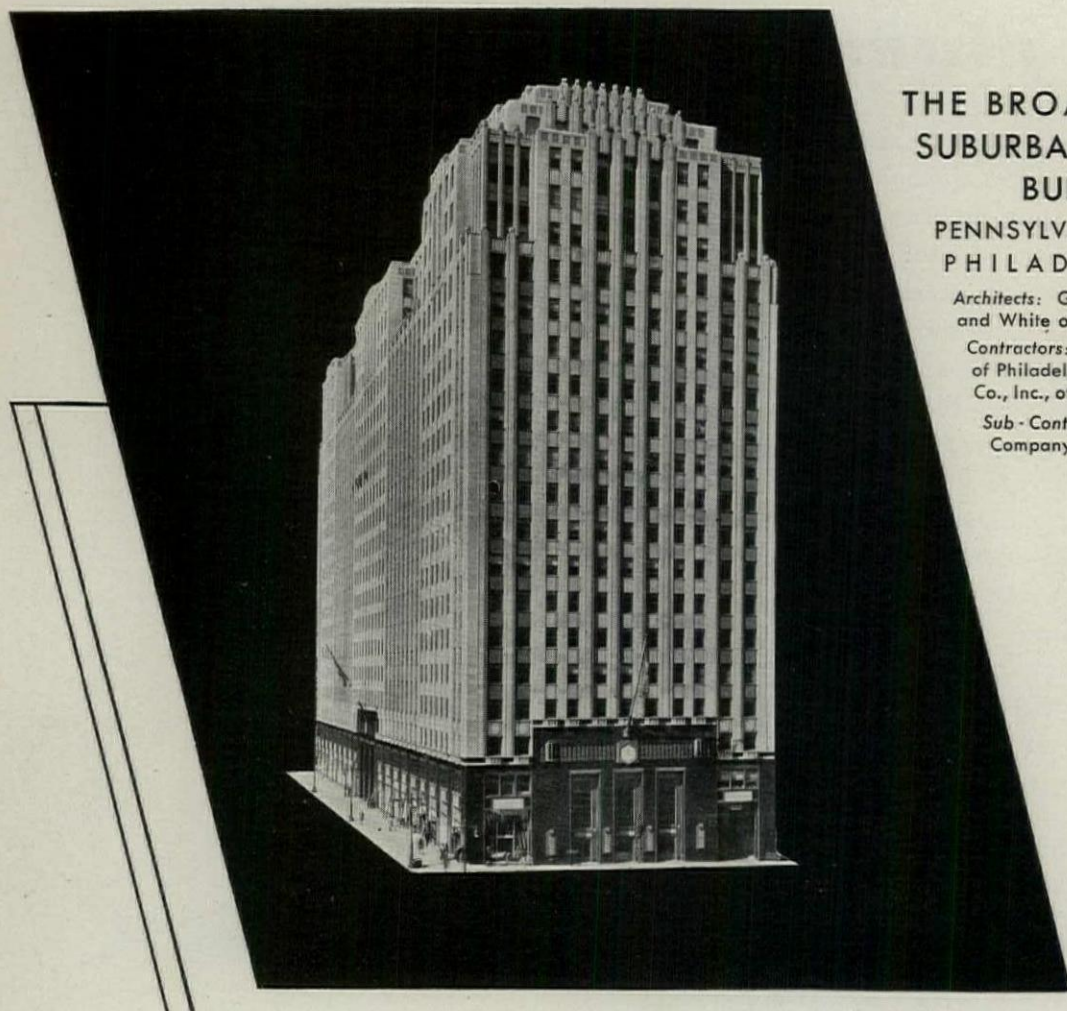
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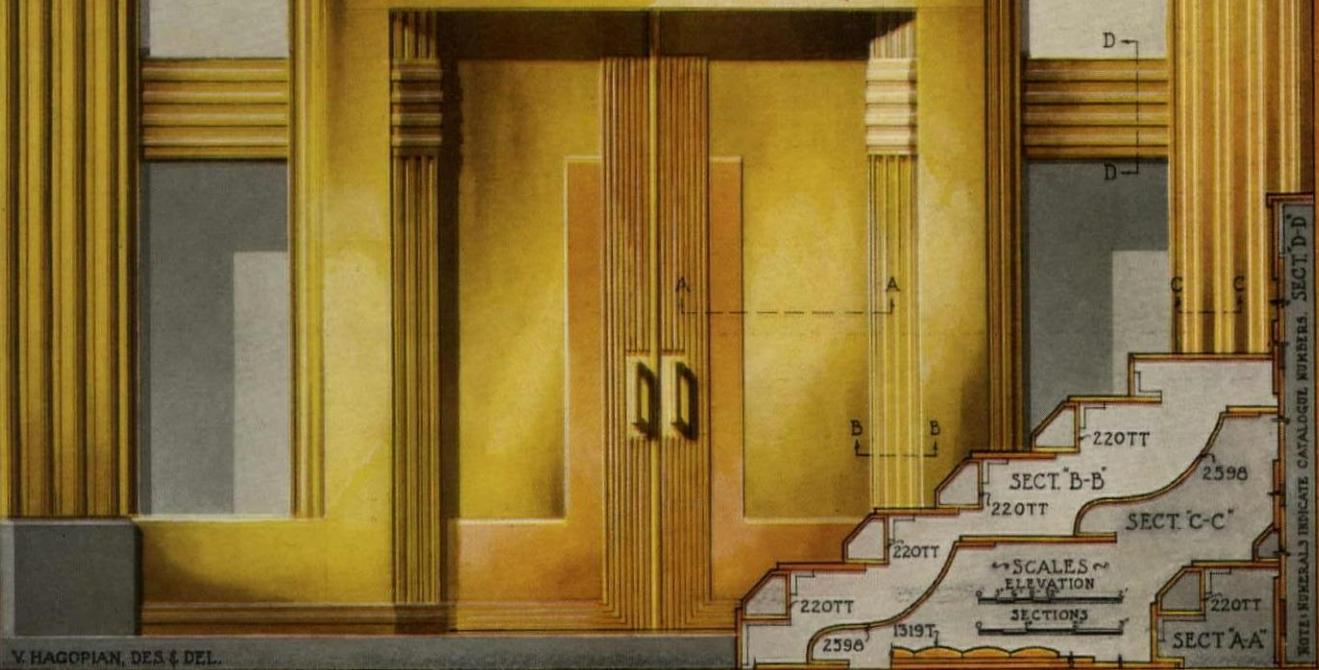
ARCHITECTURAL DRAWN SHAPES

PLATE 28

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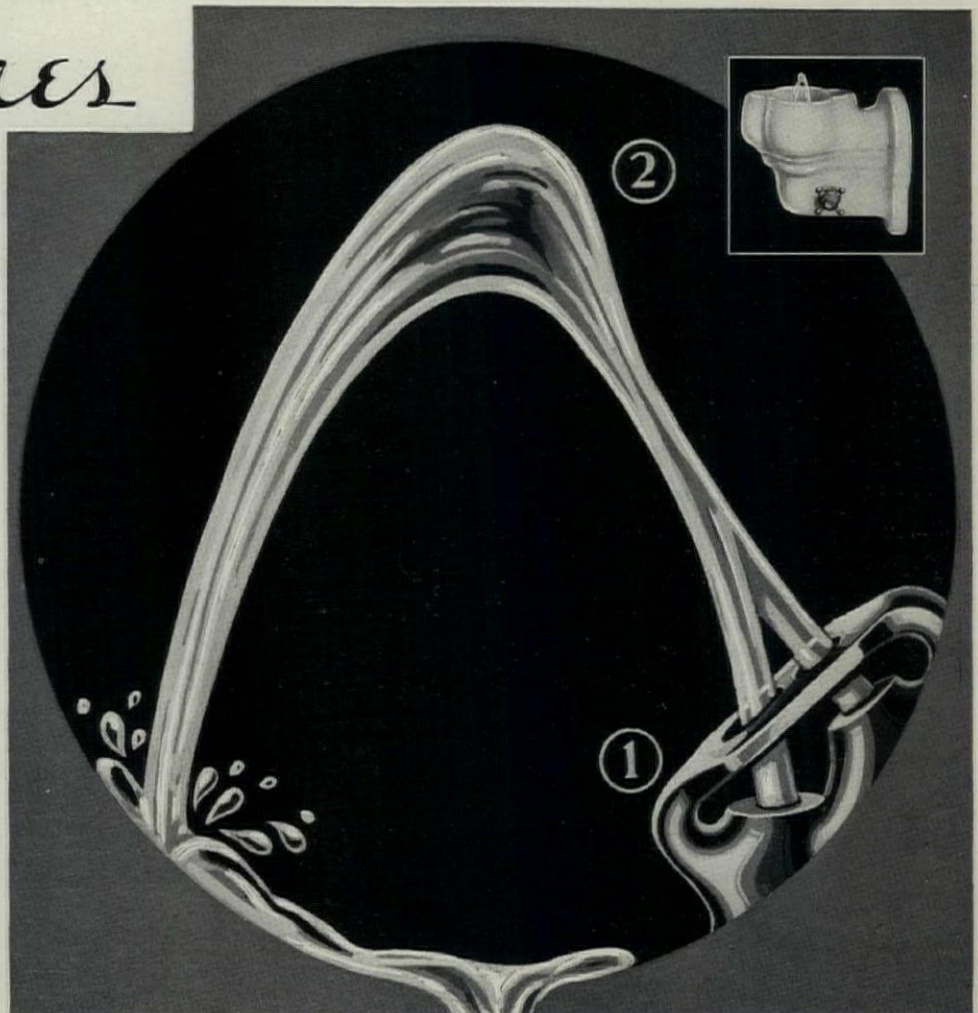
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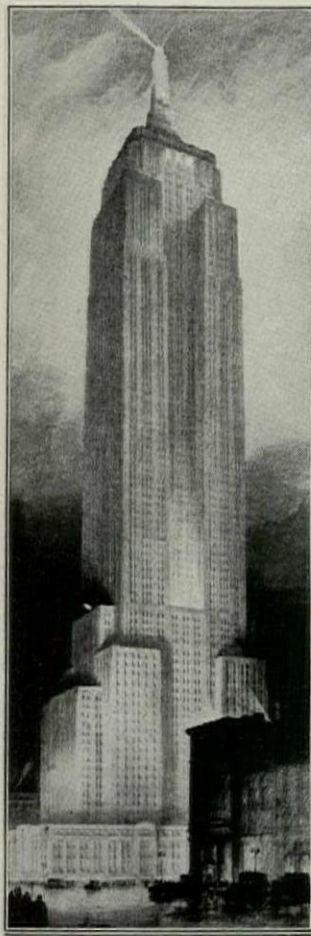
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Gentlemen:-

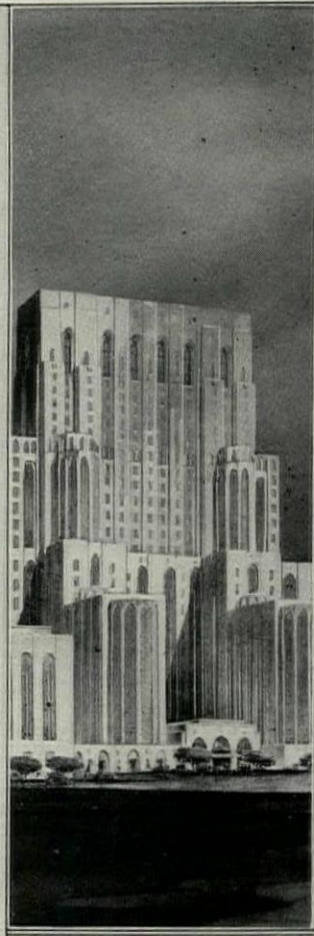
Recently I have completed some tests on Cheney Interlocking Wall Flashing. These experiments showed definitely that the mortar does make a positive mechanical bond with this type of flashing.

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These figures are conservative, as you must bear in mind this panel was only 42 inches long and lacked the stiffening of adjacent sections of the wall and of cross walls at the ends. The slippage tendency of the wind gives an additional factor of safety.

Very sincerely,
F. O. Anderegg
F. O. ANDEREGG



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Architects: Shreve, Lamb and
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Contractors: Starrett Bros., Inc.

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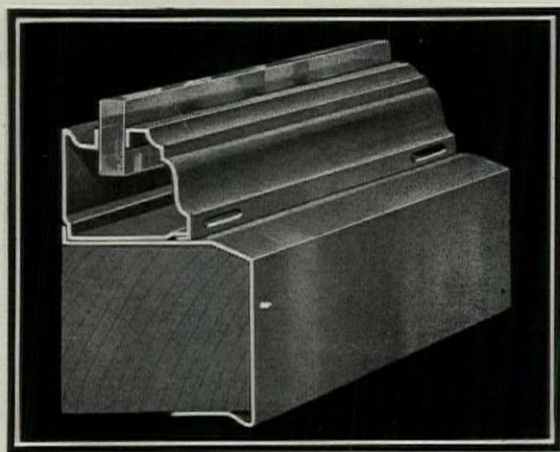
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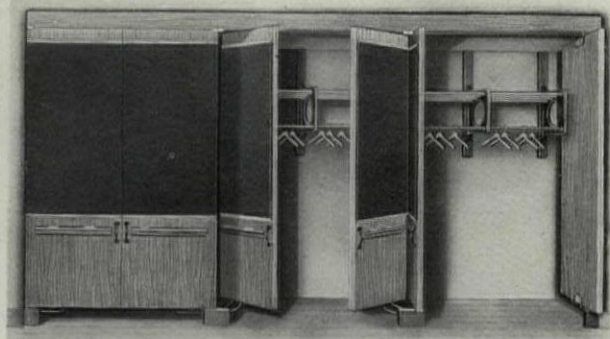
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without jambs or trim

THE wardrobe illustrated is made for plaster ends, backs and ceilings. No jambs nor trim required; only doors, fillet, hinges and interior of racks and garment hangers completing the installation.

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Catalog "K," of A. I. A. file size, with specifications and price list, fully illustrates many types of school wardrobes.

W. L. EVANS

Washington, Indiana, U. S. A.

VANISHING DOOR WARDROBES

MODERN ARCHITECTS Specify Modern Shades



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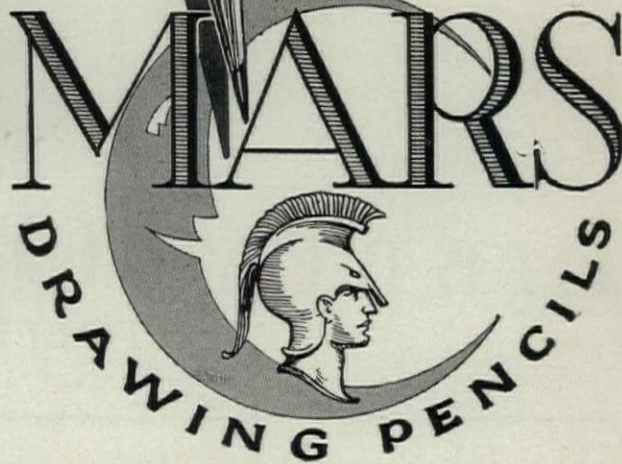
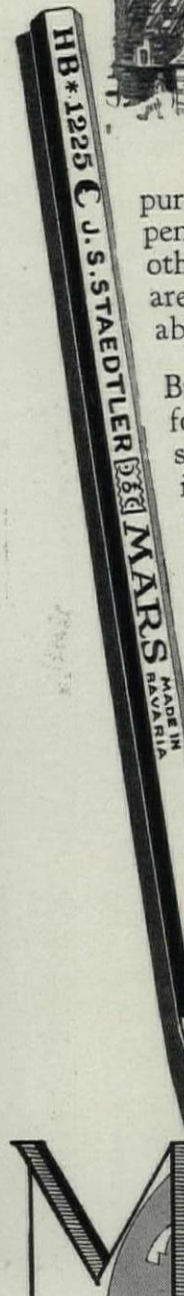
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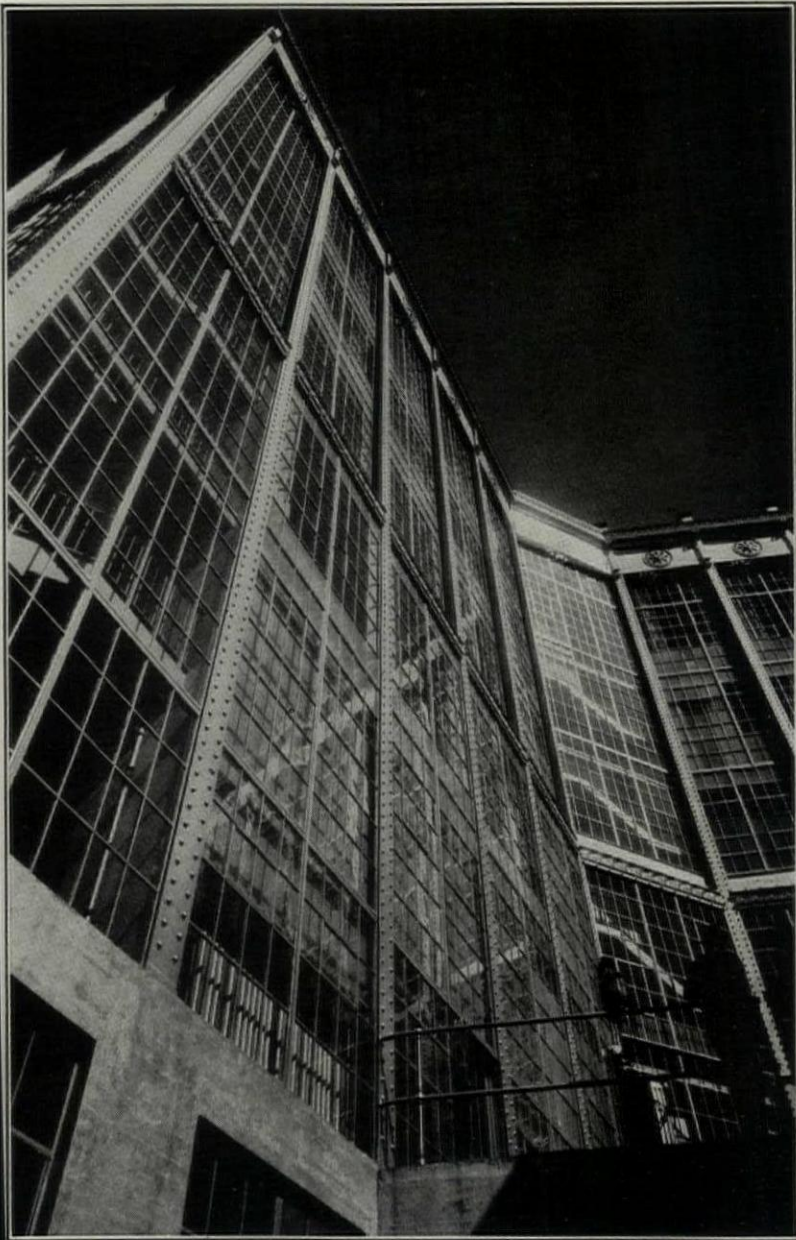


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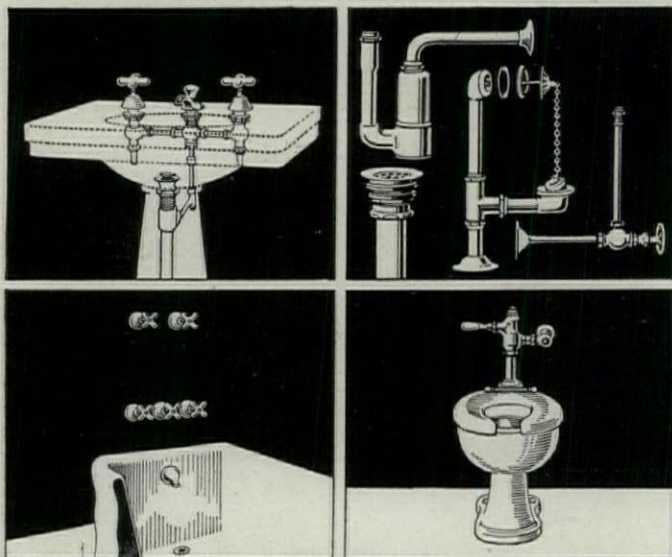
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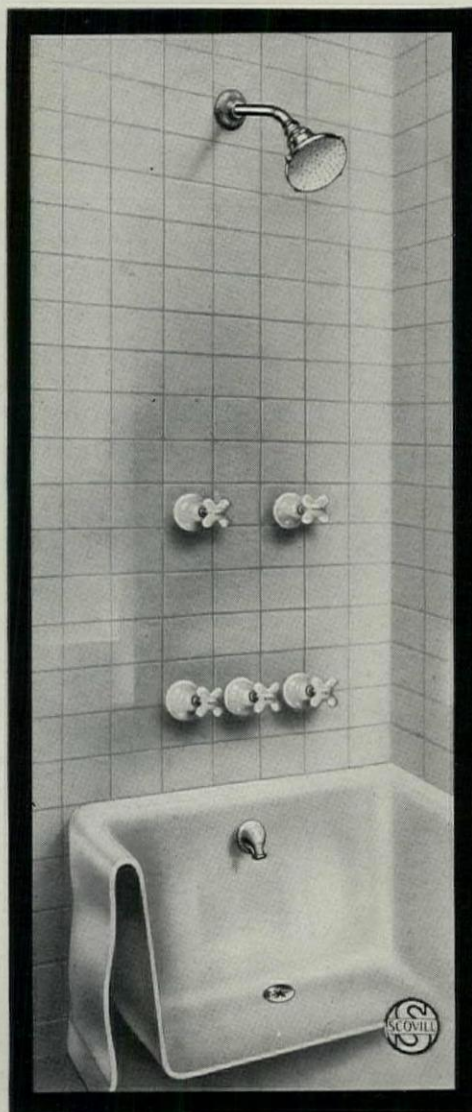
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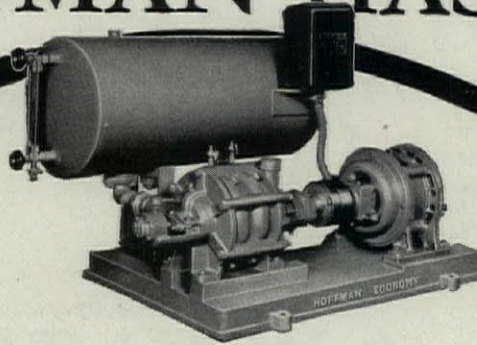
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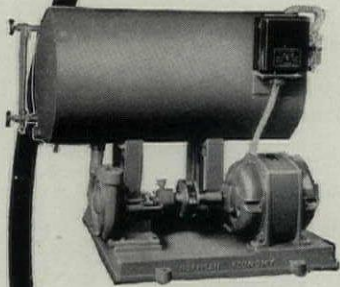


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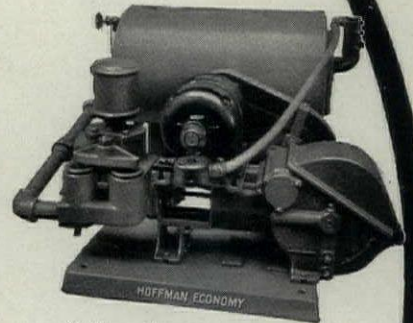
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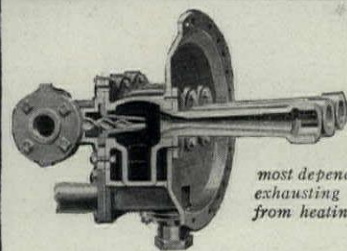
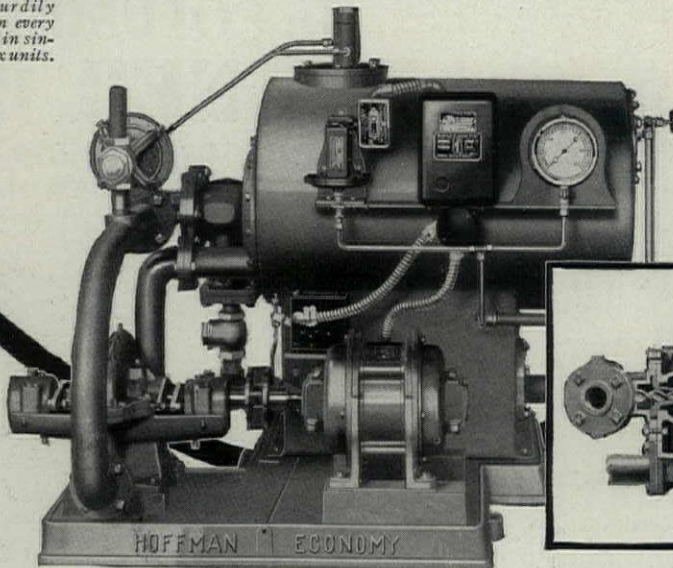


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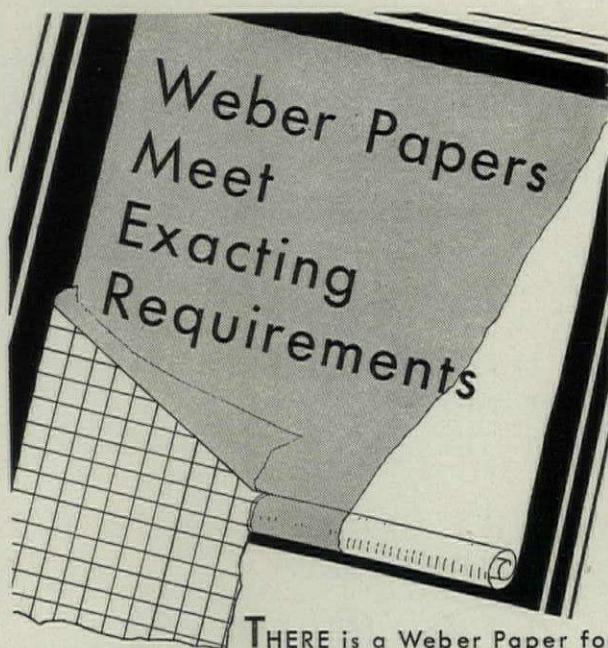
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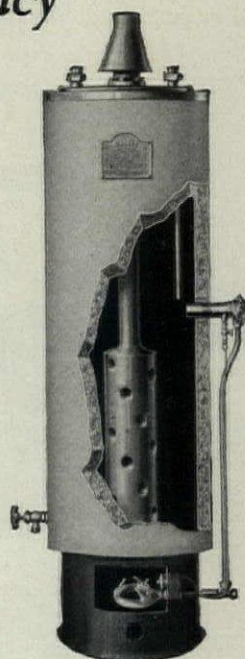
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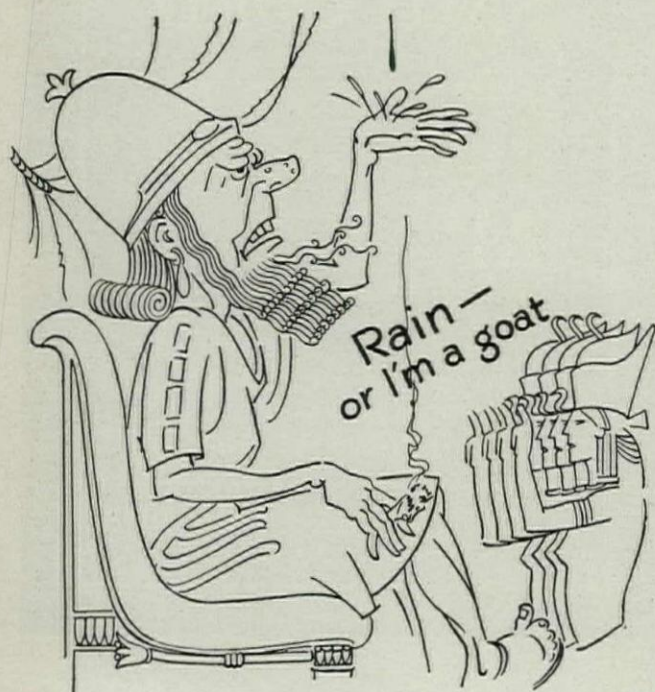
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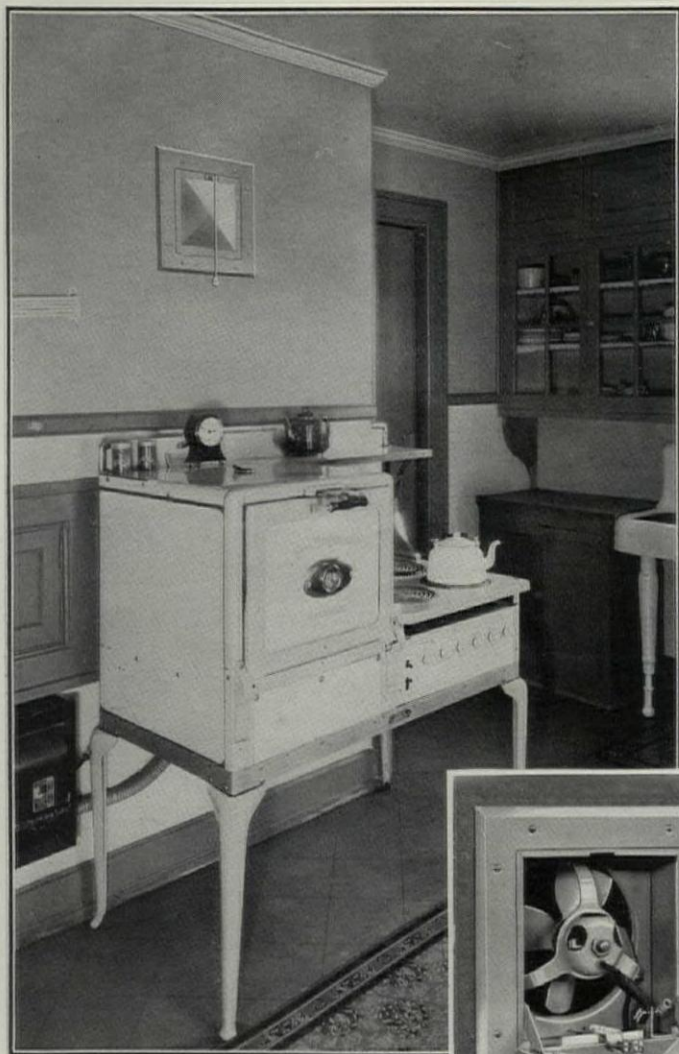
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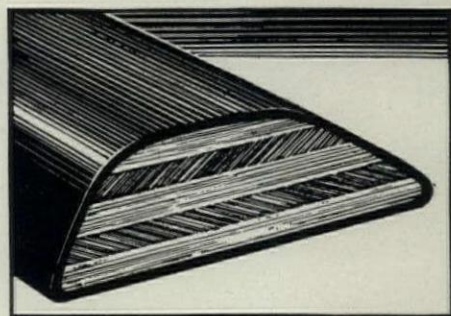
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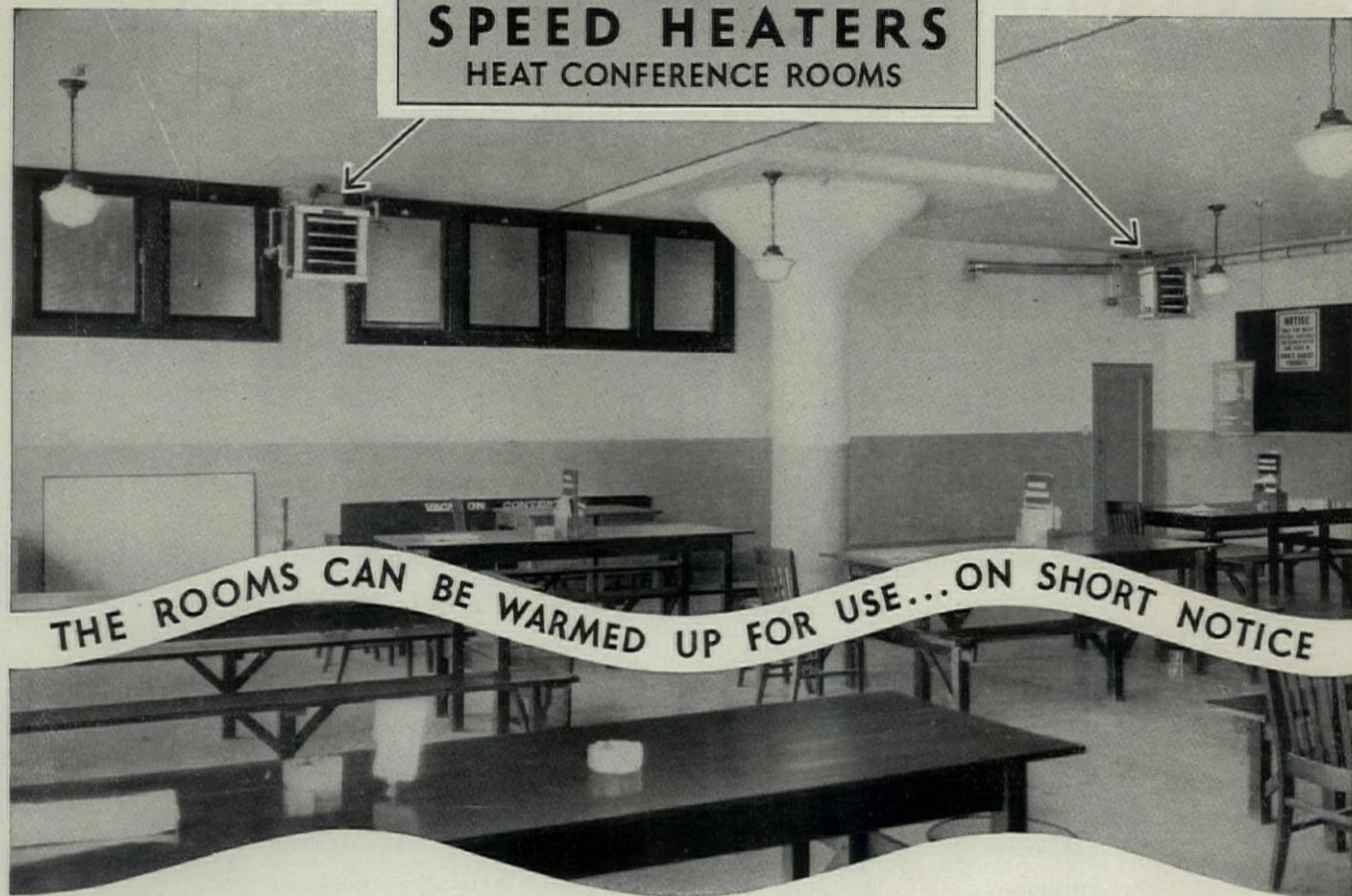
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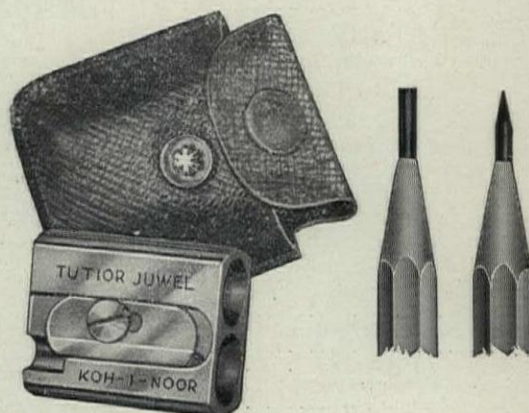
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There are two blades. One cuts away the wood exposing as much lead as desired. The other blade points the lead.



The TUTOR JUWEL is made of brass. The fine steel blades are adjustable and renewable. Each sharpener is put up in a leather case.

A sample sharpener will be sent upon receipt of 50 cents. Extra Blades, 15 cents a pair.

KOH-I-NOOR PENCIL CO., INC.
34 EAST 23RD ST. NEW YORK, N. Y.

WITH AND FOR OUR ADVERTISERS

ADVERTISING OFFICE, 419 FOURTH AVE., NEW YORK, N. Y., PHILIP H. HUBBARD, *Advertising Manager*
 District Offices: 1050 Straus Building, Chicago; 953 Leader Building, Cleveland; 381 Bush St., San Francisco.

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Announcement is made by the Thermax Corporation, Chicago, Ill., of the introduction to the building industry of Thermax, a fireproofing insulation board for use in the walls, partitions, ceilings and roof decks of all types of buildings. This material has been manufactured and used throughout Europe under the name of Heraklith and is now being made in the United States in accordance with American building standards and specifications. Thermax is made of treated wood and minerals and has lightness and structural strength, besides being odorless and verminproof. It can also be used as a lath plaster or stucco base, partition block or roof slab, and is easily sawed or nailed. Thermax is produced in three thicknesses, 1 in., 2 in., 3 in., all 20 in. wide and 64 in. long.

The J. G. Wilson Corporation, Norfolk, Va., announces that it has developed an overhead door, known as the Sectionfold door, for use on private residential garages and all commercial buildings where light is an important factor. The principle of operation involves using enclosed helical oil tempered springs, giving a uniform lift to both sides of the door. There is also an adjusting wheel conveniently located on the exterior face of the pressed steel jacket through which the operator may put additional tension upon this spring. Through this means of adjustment the owner may so adjust his door that it will raise practically automatically with the releasing of the lock.

Evidencing its faith in the upswing of the general business curve—and in the resulting renewed activity in the home and apartment building field—the Silent Automatic Corporation, of Detroit, has launched a greatly enlarged advertising program, directed both to the general public and to builders and architects.

The Yeomans Brothers Company, Chicago, announces the appointment of the following three new representatives:—Andriot Davidson Co., 1307 Starks Bldg., 4th and Walnut Sts., Louisville, Ky.; Johns Equipment Co., 1st National Bank Bldg., Fort Wayne, Ind.; H. A. Grossman Co., 3221 Olive St., St. Louis.

To improve steel casement window installation, and to save time in erection, the Detroit Steel Products Company announces that Fenestra steel casements are now available with redwood "Surrounds" already fitted and securely attached with copper coated screws in a bed of mastic. Installation of this new window assembly is said to require only the time of setting the unit in place and plumbing it. Cutting and fitting of trim on the job are eliminated. Building paper extends over leg of Surround, to make a snug-tight installation. In masonry walls, the Surround gives the mason a "liner" for laying up brick or stone quickly and neatly. Slots are provided in the backs of the Surrounds to receive and to accurately locate plaster grounds.

The Milcor Steel Co., Milwaukee, Wis., announces that it has added an entirely new product to its expansion building material lines. It is Milcor expansion cornice lath, a metal cornice with expanded metal wings to which plaster is applied as in expansion casing. The metal cornice is lead-coated and will receive and hold a paint job to harmonize with walls and ceilings. Lengths of expansion cornice lath fit together perfectly. A precise joint is secured by depressing the one end of the metal cornice the exact thickness of the metal so that another length fits compactly in the depressed portion. Inside and outside mitres with expanded metal wings have been designed for true-fitting corners. These mitres are formed at the factory and have invisible connecting joints which fit perfectly with lengths of the expansion cornice lath.

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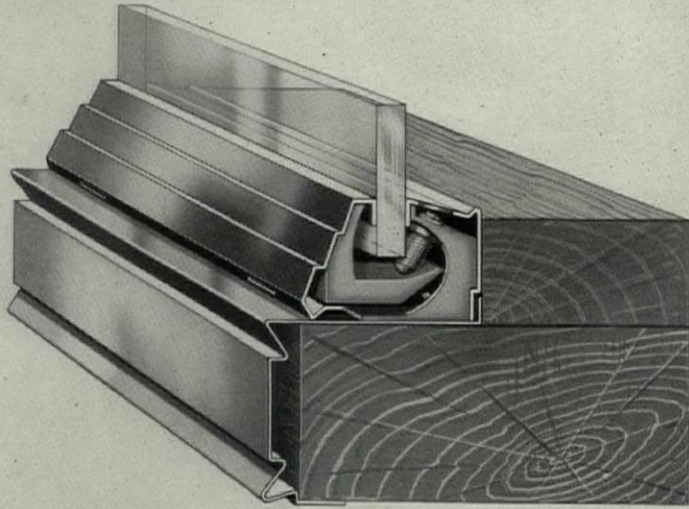
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A NEW NOTE FOR THE MODERN STORE FRONT

—by ZOURI



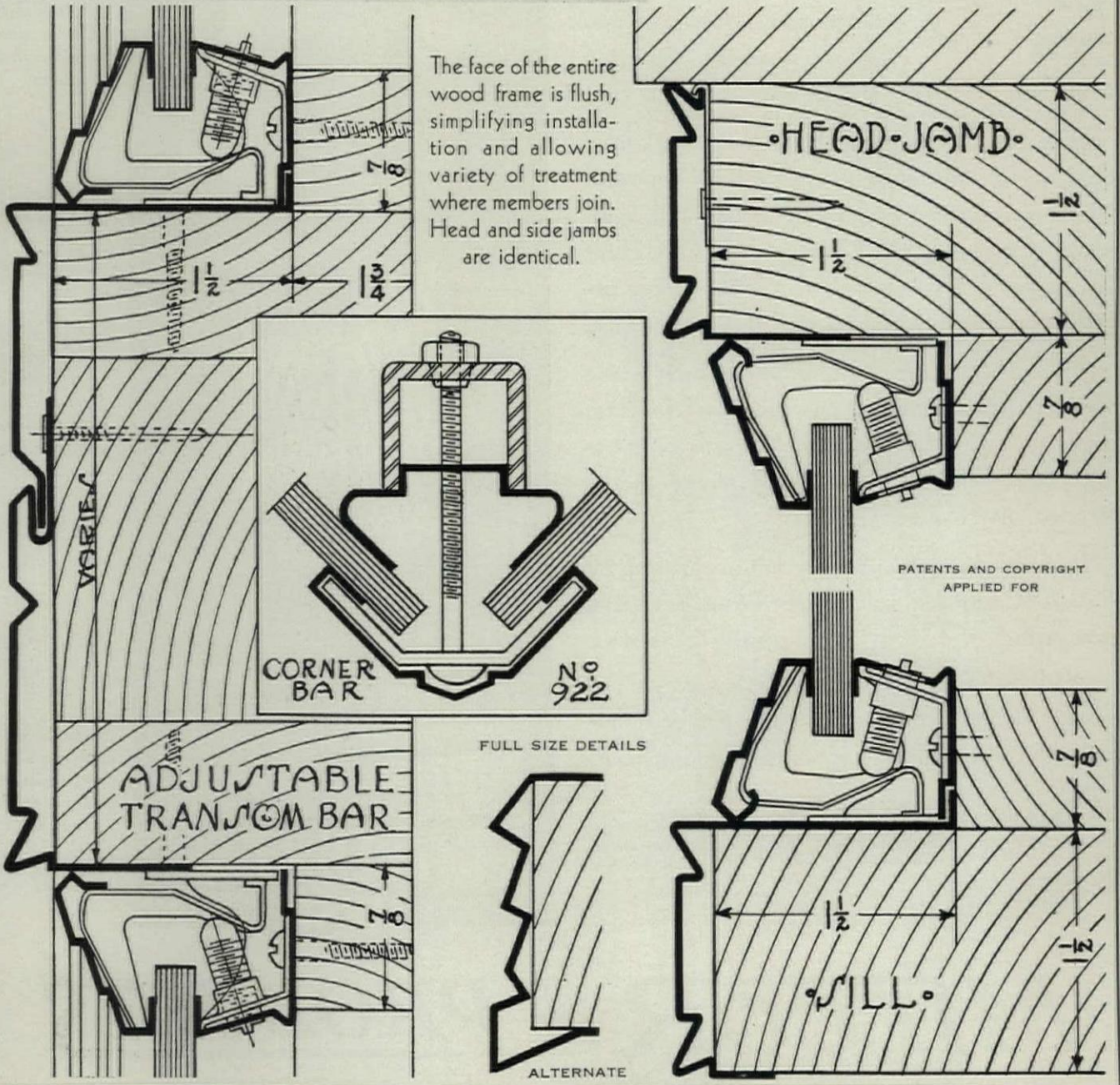
Modern in contour - Designed to meet present day trends - Easily installed - Embodies time-tested Zouri safety Key-Set principle - A distinct contribution to modern store front construction, both in beauty and adaptability - Formed in Bronze or Aluminum Alloy. Complete information gladly forwarded.

The Zouri Company

GENERAL OFFICES, CHICAGO HEIGHTS, ILLINOIS

ASSOCIATED COMPANIES

INTERNATIONAL MODERN BRONZE STORE FRONT COMPANY STANDARD STORE FRONT CONSTRUCTION CO. INTERNATIONAL STORE FRONT COMPANY DISTRIBUTION



This business of SERVICE



Progress demands change . . . and in the development of better products for building construction, *Milcor* is a pioneer . . . always seeking a

better way of serving the industry.

The use of expansion metal wings on corner bead and metal casing is a *Milcor* development. More recently the expansion cornice lath, with wings of expanded metal, was created. In Kuehn's Specialmesh, *Milcor* perfected a small mesh ribbed lath more rigid than any of equal weight.

The *Milcor* men who serve architects are specialists in sheet metal and fire proof building products. They are equipped to give complete information and to render such service as the architect may require.

Facilities for quick delivery are maintained by *Milcor*. Complete stocks are carried at points from which the entire country may be served.

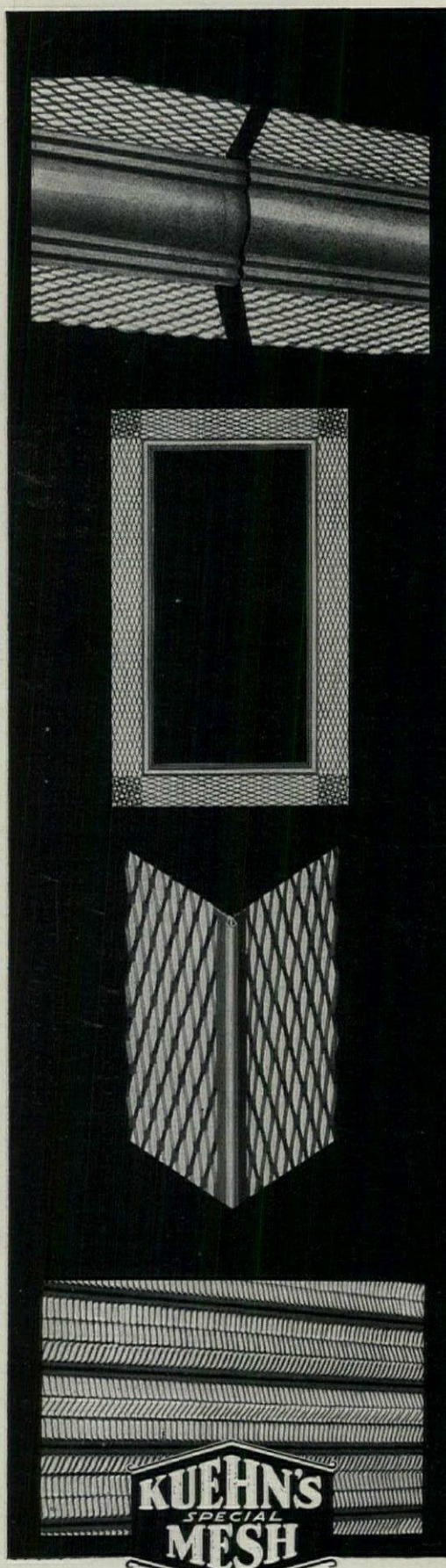
And last, but not least, *Milcor* has yet to put on the market a product that has not been put to every conceivable test *before* its announcement.

MILCOR STEEL COMPANY

MILWAUKEE, WIS., 4103 W. Burnham St.
Chicago, Ill. Kansas City, Mo.

CANTON, OHIO
LaCrosse, Wis.

Sales Offices: New York, at 418 Pershing Square Building; Boston, Mass., at 136 Federal Street; Atlanta, Ga., at 207 Bona Allen Building; Minneapolis, Minn., at 642 Builders Exchange Building; Little Rock, Ark., at 104 W. Markham Street



Milcor Expansion Cornice Lath . . . fits perfectly on the job.

Milcor Expansion Casing . . . the ideal trim around windows and doors.

Milcor Expansion Corner Bead . . . the plaster is keyed right up to the bead.

Kuehn's Specialmesh . . . more rigid than others of equal weight.

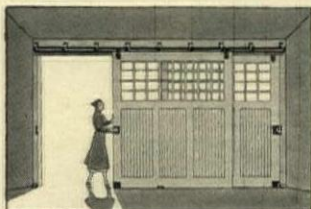
MILCOR



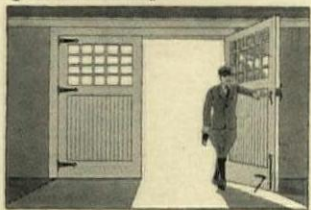
PRODUCTS

Save with Steel

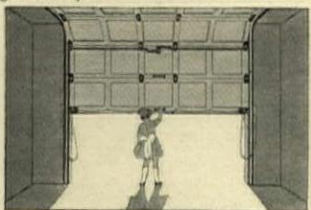
All garage door problems solved by R-W equipment



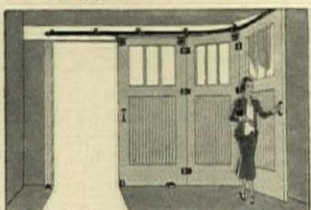
R-W parallel sliding doors.



R-W "Swingtite" doorway equipment (hinge doors).



R-W "OneR-Way" doors, with unique features not possessed by other equipment of this type.



R-W "SlidaSide" (around the corner) garage doors.

Whatever type of garage doors you want, R-W can supply them . . . from common hinge doors and parallel sliding doors to overhead doors and doors that slide around the corner.

The most useful and, therefore, the most popular type of door for private and public garages is Slidetite, illustrated above. Slidetite doors fold inward and slide to either side or both sides of any opening up to 30 foot width, leaving no center posts or other obstruction. The utility of R-W Slidetite equipment is based upon its flexibility . . . suited to wide or narrow openings . . . may be operated electrically or by hand. Other features include ease of operation, silence, speed, freedom from repair or maintenance expense. Slidetite engineering insures freedom from weather annoyances. Melting snow cannot drop from overhead . . . no springs or weights to get out of order. A complete R-W installation, including the doors and hardware, is guaranteed to provide economy and lasting satisfaction.

R-W door hardware, the largest and most complete line in the world, solves any and every doorway problem you'll ever meet. All types of installations are shown in catalog. Send for it.

Richards-Wilcox Mfg. Co.

"A HANGER FOR ANY DOOR THAT SLIDES"
AURORA, ILLINOIS, U.S.A.

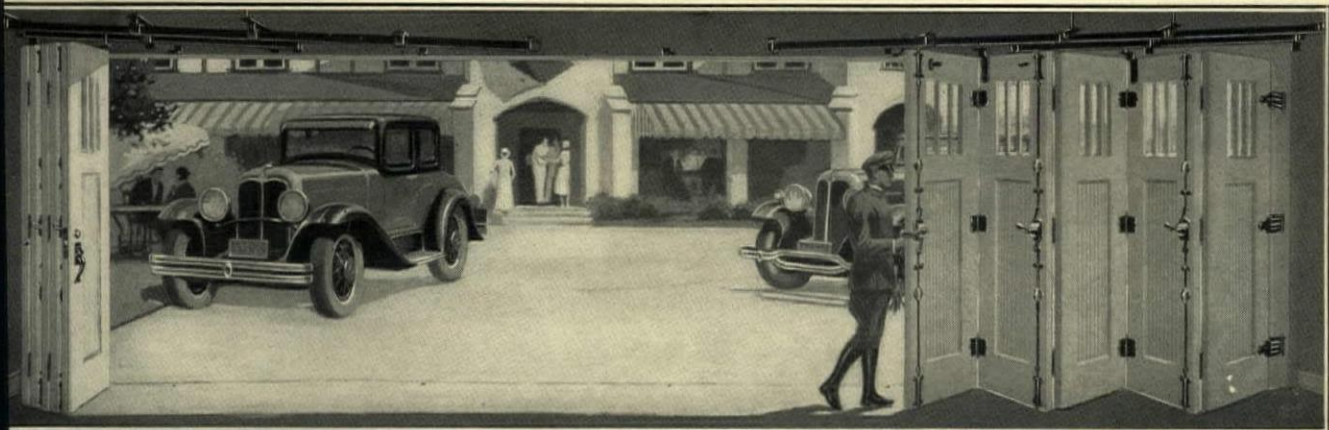
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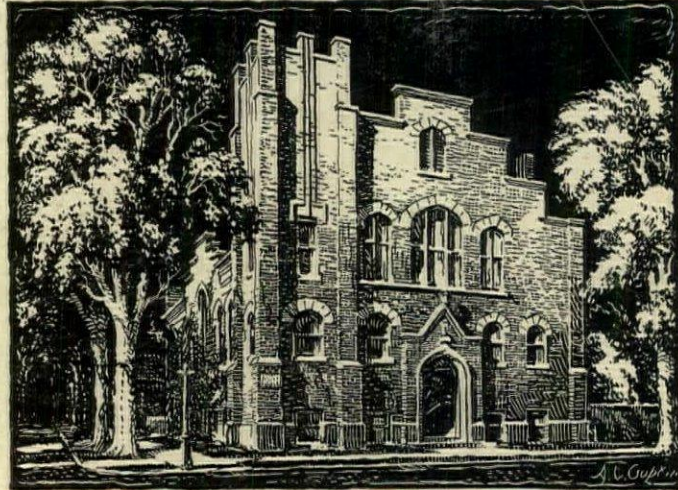


Slidetite

R-W "Slidetite" doors can be operated easily in any weather by man, woman or child . . . no hazardous center posts in wide openings. (Electrically operated for commercial or private garages, if desired.)



UNOBSTRUCTED 30-FOOT OPENING



Swedish Mission Church of
Grand Crossing, Chicago, Ill.
Rev. O. W. Carlson, Pastor

24 Years of Continuous Service From One Burnham Boiler

IN 1907 a Burnham Boiler was installed to heat the Swedish Mission Church of Grand Crossing, Chicago.

24 years of continuous operation. Church services are held every day in the week.

The church structure is a large one. Yet less than twenty tons of coal suffice to heat the entire building.

A second Burnham Boiler will shortly be placed beside this sturdy veteran, when projected church enlargements are completed. Let us tell you the particulars of how to have this lastingly satisfactory heating, with minimum fuel costs. There is no obligation entailed.



Burnham Boiler Corporation

IRVINGTON NEW YORK

Representatives in all principal cities of the United States and Canada