

# PENCIL POINTS

Volume VII

FEBRUARY, 1926

Number 2

## IN WHICH WE ASK SOME QUESTIONS

IT IS ALL RIGHT FOR US to read the pleasant letters we receive from our subscribers telling us how good the previous issue was (and we have been getting many such lately) but if we permit ourselves to be guided solely by such communications we may suffer a slight swelling of the head and overlook some potentially important features of our work.

PENCIL POINTS may be likened to a three-ringed circus,—the three important divisions of our audience, numerically considered, being those who maintain offices for the practice of architecture, those employed in such offices, and those who today are engaged in the study of architecture. Our main business as we see it is to serve primarily the middle group, the men in the drafting rooms, whatever their particular work in the office may be. This is our very reason for existence and while we have every reason to feel gratified with the growth of our subscription list and with the many encouraging letters we receive, we sometimes wonder if we are doing all of the important things which in our capacity as publishers of a journal for the drafting room we should do; or whether we are overlooking any important subjects which might properly be treated in forthcoming issues of the paper.

So we are asking some questions. Do you as a reader of PENCIL POINTS get from its pages everything you want? Considered from your own standpoint what would you like to see published during the coming year? Have you in mind any problems which you would like to see answered or treated in an article? Would you like to see the journal deal more with "practical" subjects and if so, of what particular kind? Do you subscribe for PENCIL POINTS primarily because you would like to secure from its pages material which you can use in your daily tasks, or do you look to it largely for inspiration by having presented to you the drawings, sketches, renderings and other material produced by men of outstanding ability in their various lines?

Does any part of PENCIL POINTS as at present published fail to interest you and if so, why? Don't be tender of our feelings in answering this question as the only desire we have is to publish the most interesting and valuable journal possible for our field,

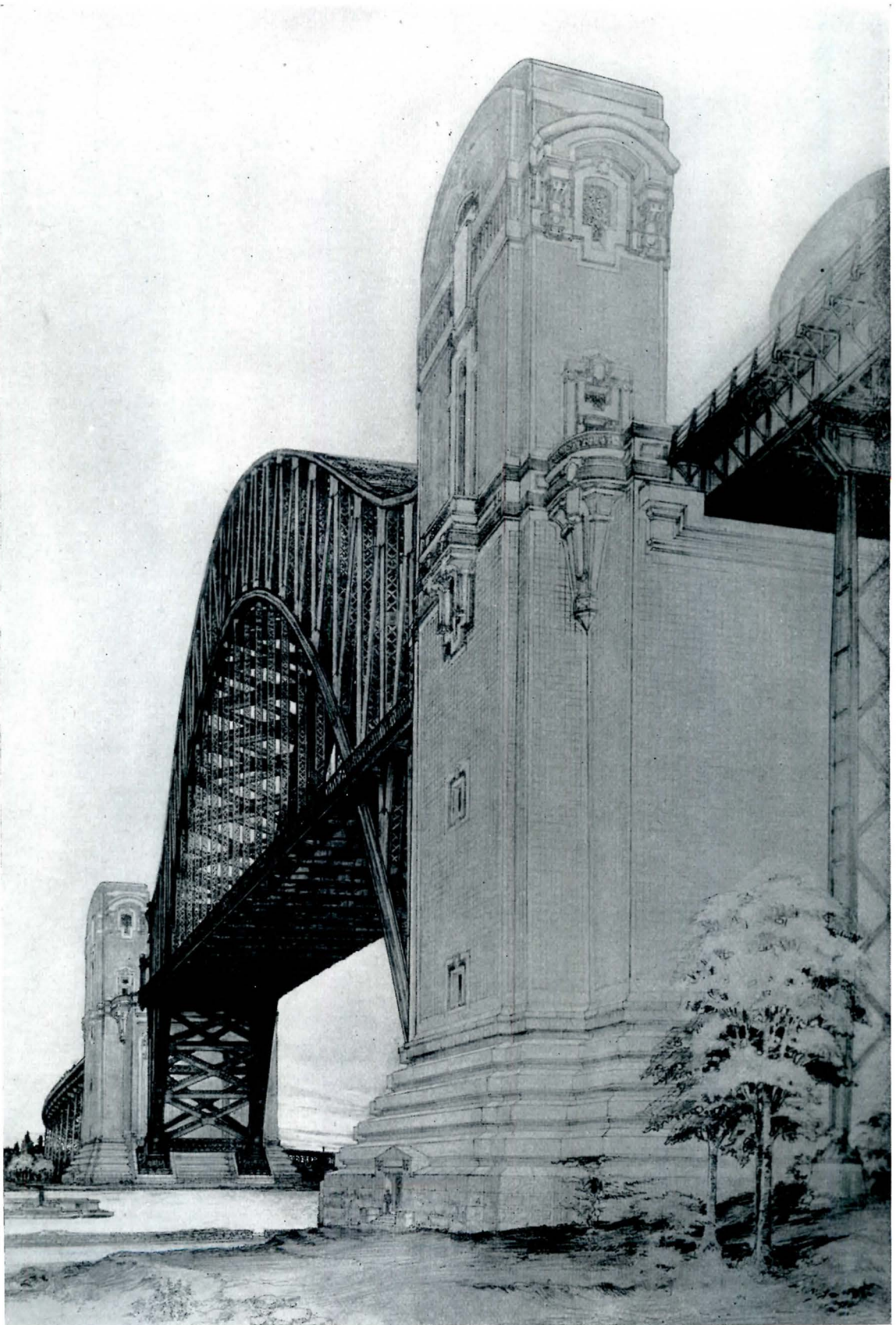
and if we are using space today to present material which you don't find interesting we want to know it. It is of course impossible that every article in every issue shall appeal one hundred per cent to every one of our more than fourteen thousand readers; but if in any respect we are failing to hit the bull's eye with any one of our subscribers such information is of great importance and value to us.

The series of reproductions of color renderings commenced in our January number is scheduled to continue throughout the present year. Do you regard these color plates as a valuable addition to the paper and if so have you in mind the work of any particular individuals which you would like to have us consider for reproduction? We have already arranged for most of the plates for this year but shall be glad to know the preferences of our readers if they will be kind enough to tell us what they are.

Just a word addressed particularly to those of our readers located outside of the United States. We are just as anxious to consider for publication sketches, drawings and articles from men in other parts of the world as we are from those in our own country. Our designers and draftsmen would like to see what their brothers in the profession are doing and their contributions are welcome at all times and will be given the most careful consideration, and used if available.

So we are putting it up to you to help us make PENCIL POINTS a more serviceable journal than it is today. We have perhaps been moving too fast during the past five or six years to have gotten into a groove or rut and we hope always to retain the greatest flexibility and the broadest outlook. We are not thinking along cut and dried lines and if we should ever reach the point where we cease to make a constant and vigilant search for better things we would feel like shutting up shop and taking a long vacation.

We said in our first editorial that it would be our purpose to edit this paper *with* our readers rather than *for* them and we feel the same way about it now. Many valuable suggestions have come to us in the past and are still coming. We want you all to know that the latch string is out and that we are not only willing but anxious to have you keep us in touch with your needs and points of view.



DRAWING BY HENRY HORNBOSTEL OF HELL GATE BRIDGE OVER THE EAST RIVER

# MASTER DRAFTSMEN

## XVII—HENRY HORBOSTEL

By Francis S. Swales

With this installment Mr. Swales resumes the authorship of the series published under the heading "Master Draftsmen," the chapters on Mr. Charles Z. Klauder and Mr. Thomas Hastings having been prepared by a member of the PENCIL POINTS' staff. Mr. Swales has in preparation several more articles in this series which will appear during 1926.—Editor.

WHEN, AT THE AGE OF SEVENTEEN, young Henry Hornbostel graduated from the Brooklyn High School, his father, who had noted his son's love of gay neckwear, resolved to put him in the silk business. Into it he went, and there—it must have been!—he acquired from a supply of material really intended for chorus girls' garters, the gorgeous ties that have been part of his picture ever since. "All dolled up" for the rest of his life, he concluded he did not like the silk business.

The principal at the high school had observed that the youngster could draw and advised his father to send him to Columbia University to take the course in architecture, and there he went. He became an industrious student and graduated at the head of his class in 1891.

During his vacations he found employment as a draftsman in the office of DeLemos and Cordes (well remembered as the architects of Washington Bridge over the Harlem River); and as a superintendent of construction of buildings on Welfare Island designed by Dickson & Withers. In this latter capacity he had opportunities to see humanity at its worst, and to receive impressions of a kind which, if not pleasant, were not such as to drive an intelligent young man to drink. Towards the end of his course at Columbia he entered the office of Wood and Palmer where he remained some time working as a draftsman.

Among his classmates at Columbia was Lloyd Warren, who became his friend and urged him to study at Paris before settling down to business. Warren undertook to pay the expenses of Hornbostel's training at the *Ecole des Beaux Arts* and finally persuaded him to go.

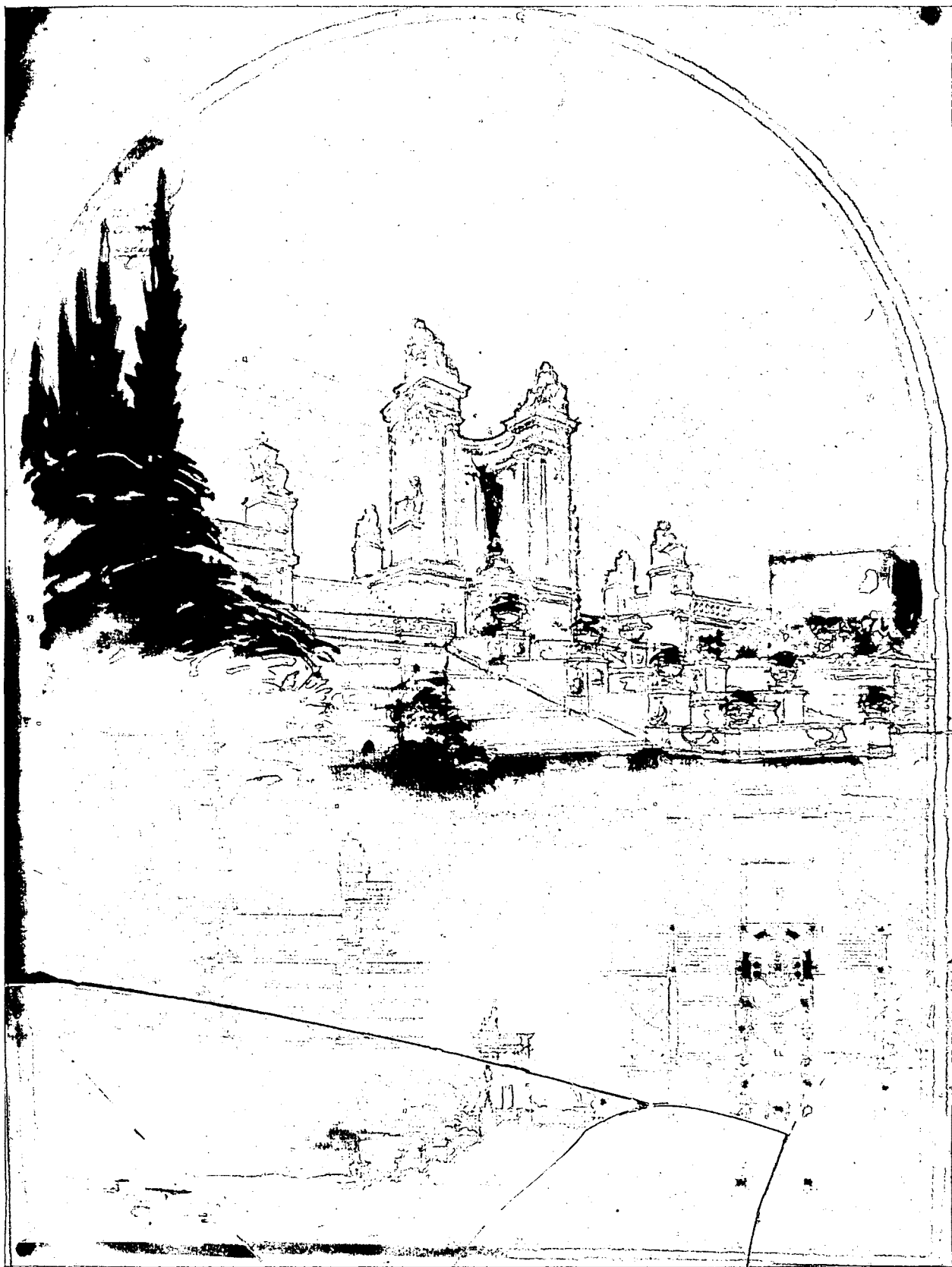
Arrived at Paris he entered the Atelier Ginain and became known as "*le premier Americain*"—(though Carrère, Professor Boring and Brockway had preceded him)—as being "the first" after a number of years since the last had departed. Soon after completing the second class at the *Ecole*, Hornbostel began to acquire a reputation in the offices of Parisian architects as "*l'homme perspectif*," by reason of his introduction of perspective sketches in the presentation of his *esquisse* problems in the first class of the school. Like others in this country he had been attracted to the idea by the clever sketches of Otto Reith which were appearing in the architectural journals during the early nineties. Hornbostel's reputation as a perspective draftsman caused him to be employed by several of the leading French architects of the time. Girault, Blavette and others called upon him to make such drawings of their *projets* for the Paris Exposition of 1900. Meantime he won the *Prix d'Emulation* at the *Ecole* for his work in the first class and found an opportunity to enter the lists in a competition instituted by Mr. Ed-



HENRY HORBOSTEL

ward Boit for a memorial, a columbarium, to his daughter. Hornbostel's design won among several submitted by Americans at Paris at a time when American talent at Paris was at, or near, its zenith. The design was executed in black brick and white marble set in a bed of yellow flowers. Naturally he showed his design to his *patron*, Ginain, who looked it over and said, "*Oui, Hornbostel, j'aime beaucoup—les fleurs jaunes!*"

Desire to obtain an intimate knowledge of materials led him to take up odd jobs at Paris with sculptors, painters and other artist-workmen, among them the sculptor Paul Bartlett and Carrias—



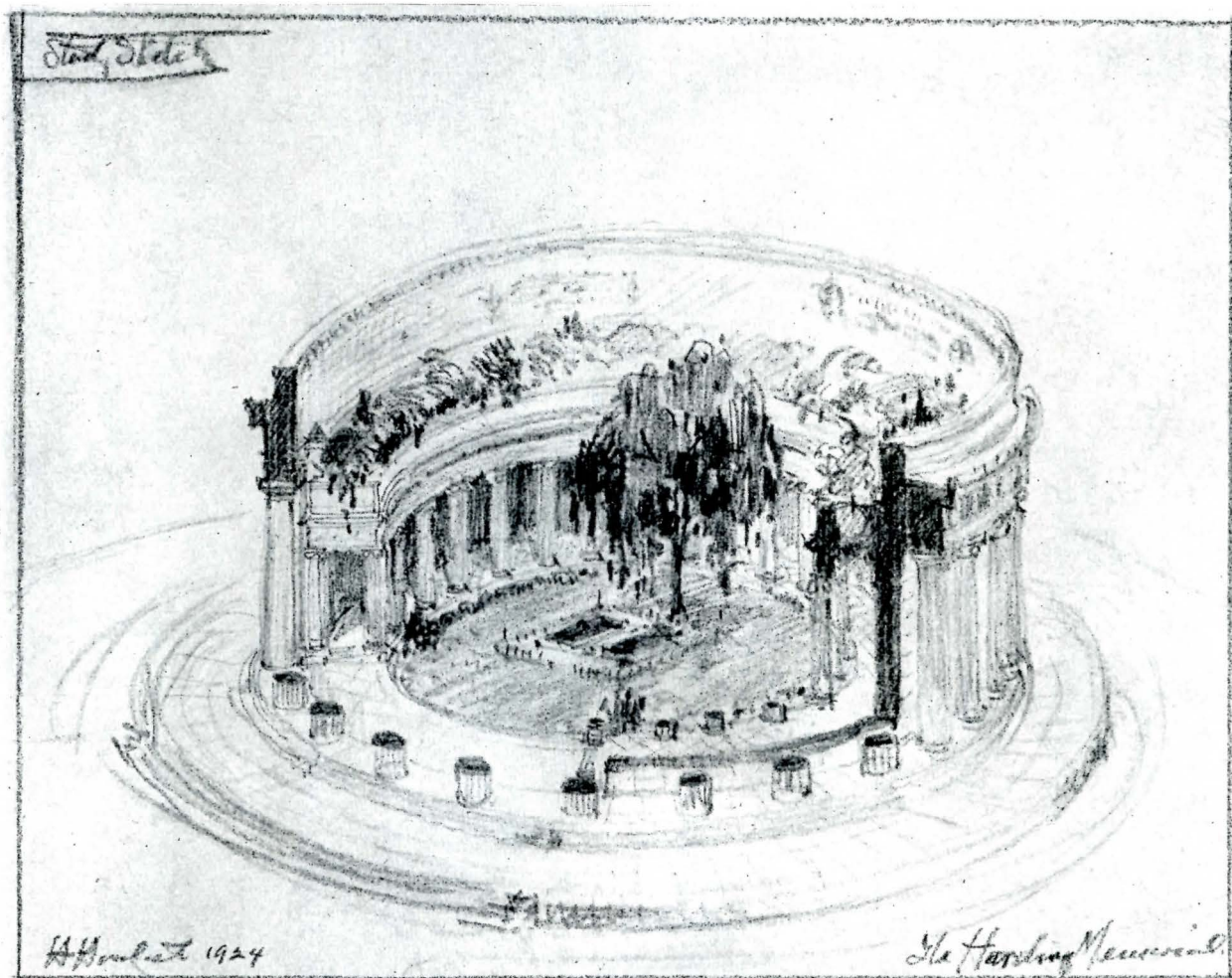
ESQUISSE—ECOLE DES BEAUX ARTS

BY HENRY HORNOSTEL

the latter worked a great deal with baked clay, to which he imparted a wonderful finish—with the Swedish painter Zorn, on etching; and in a foundry where DuBois' *Jeanne d'Arc* was cast in one piece by the *cire perdue* process.

In 1897, Hornbostel returned to this country and started work again at perspectives and renderings. He produced some spirited drawings for West Point for Stanford White; and a bridge

National recognition as an architect came when the association of Howells, Stokes & Hornbostel won second prize, and first place among the American competitors, in the competition for the group plan of buildings for the University of California. His work since that time, as a member of the firm originally of Wood, Palmer & Hornbostel (and its later variants, Palmer & Hornbostel, and Palmer, Hornbostel & Jones)

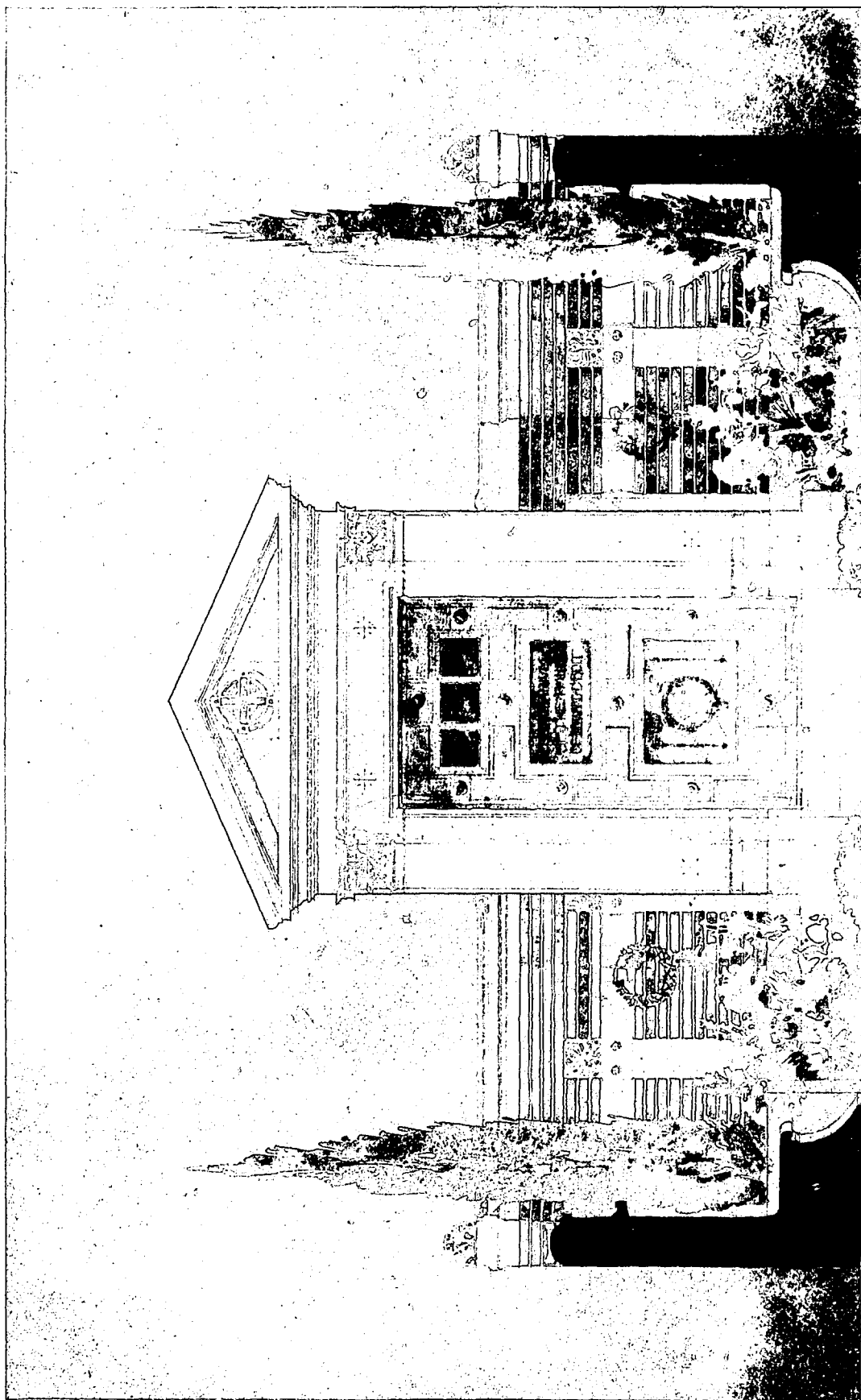


SKETCH STUDY BY HENRY HORBOSTEL FOR THE HARDING MEMORIAL

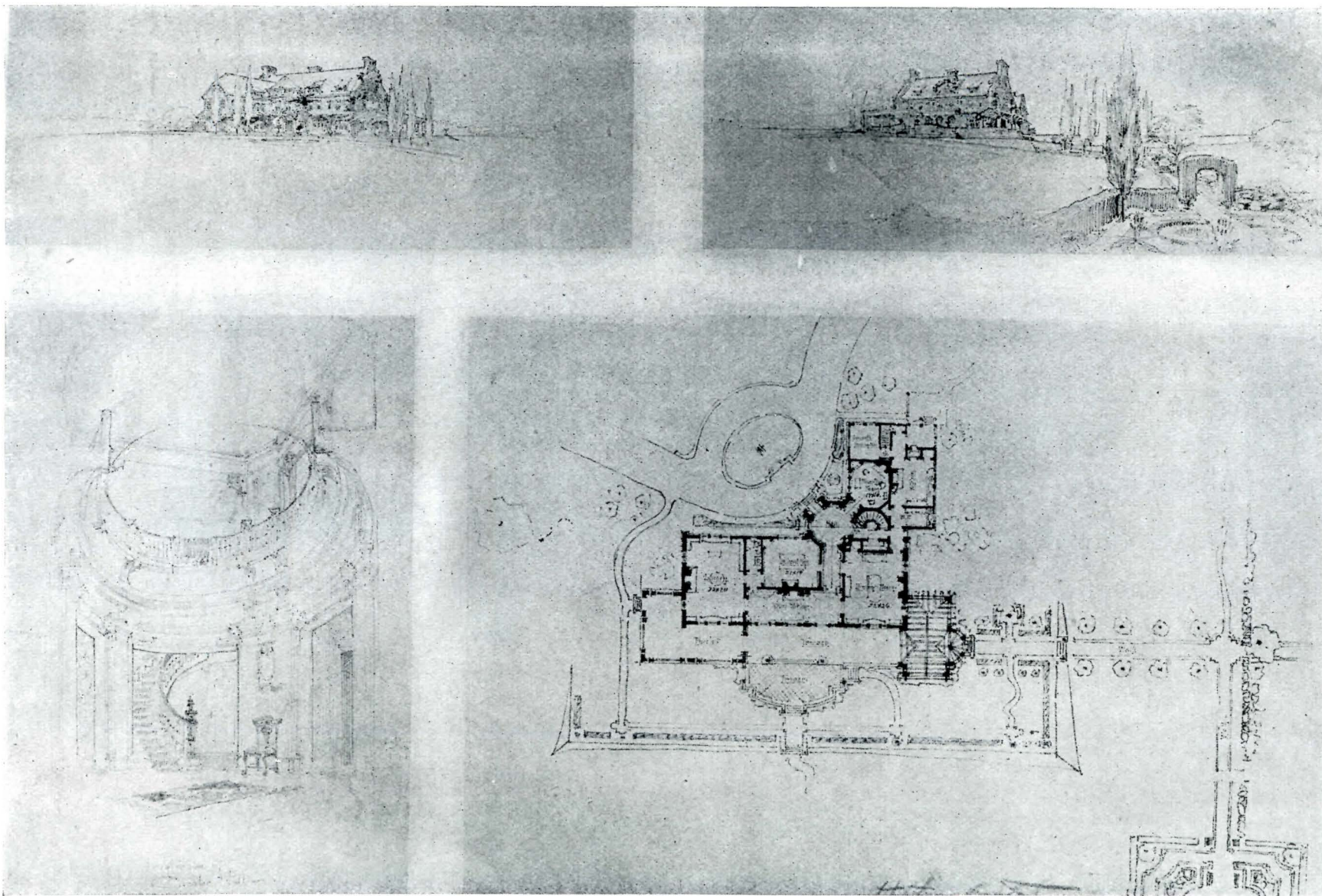
at the Buffalo Exposition for Carrère & Hastings, and made presentation drawings for George B. Post, Ingle and Almirall and other leading architects of the time. He also produced the architectural designs for three of the great bridges over the East River and presented them in fifteen big pencil drawings remarkable in imaginative quality and for the clever indication of the structural ironwork.

In open competitions (which were the vogue two to three decades ago, and by means of which most of the best known talent of today was first discovered) his work was soon noted.

and in independent practice which he has carried on since the War, has never failed to gain attention from architects and draftsmen. The number of very important competitions he has won has brought him a popular reputation such as is achieved by very few. His grasp of "the big things" of architectural design and his vigorous way of composing them have made him a factor always to be reckoned with in any competition he has entered. This has been true especially in the cases of the very large and complicated problems. To him details are mere details: even though one such detail may be a number of



PRIZE WINNING DESIGN SUBMITTED IN A COMPETITION FOR A COLUMBARIUM  
BY HENRY HORNOSTEL



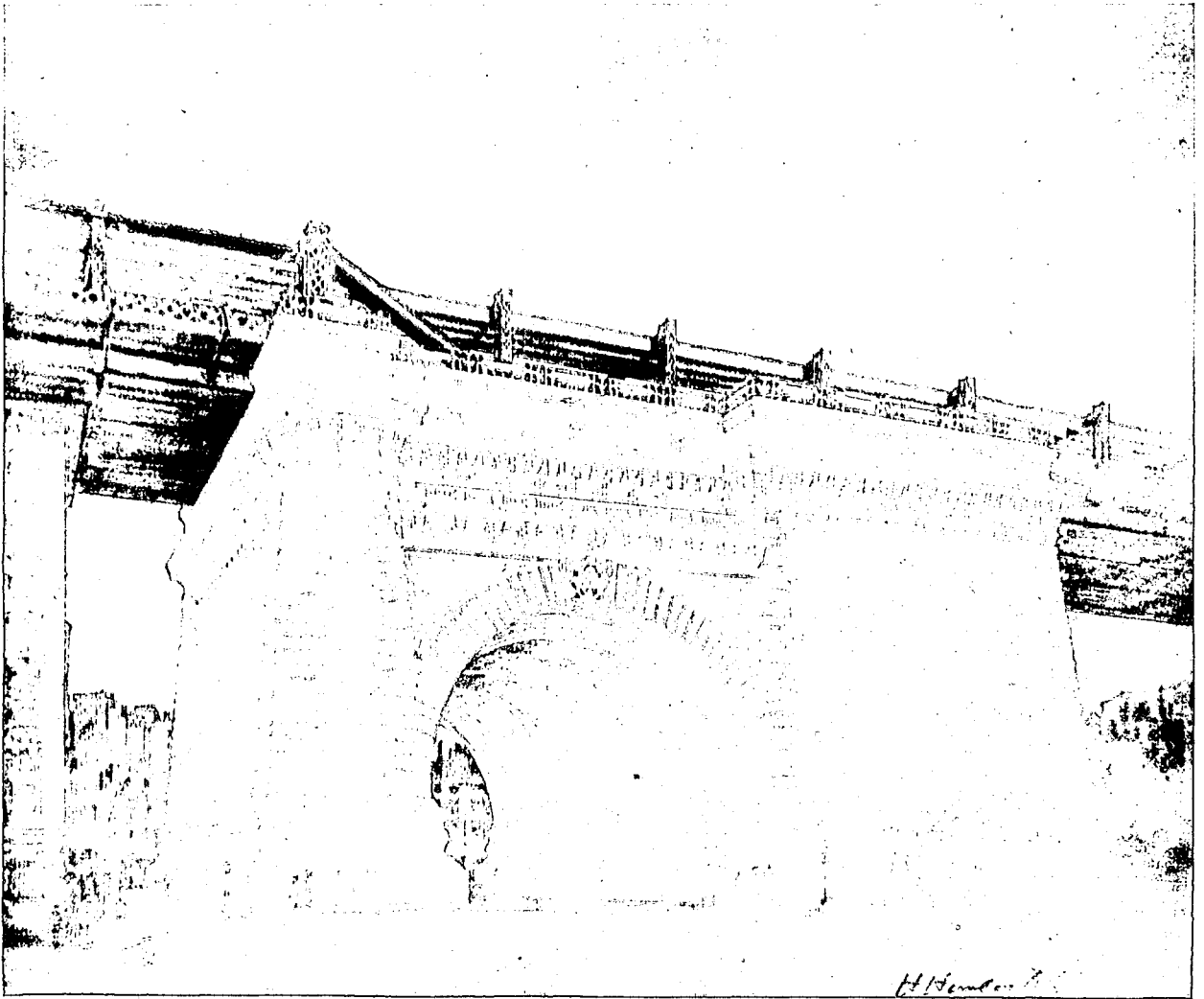
SKETCHES BY HENRY HORNBOSTEL FOR HOUSE FOR W. W. CASWELL, ESQ., MAMARONECK, N. Y.

## PENCIL POINTS

buildings of considerable size. He presents his ideas in drawings executed with commanding skill—which of themselves are designs with the same characteristics as his architectural designs—the essential things strongly to the fore and the details held subdued in masses. The style of his drawing shows the rapid transmutation of mind to matter—turning thought to fact in swift,

signed upon leaving for St. Louis to become chief architect of the exposition in 1902. He continued efficiently the good work that Masqueray had begun of developing the talents of younger men and several of his pupils have forged to the front rank of the younger architects of today.

In 1907 Mr. Hornbostel and Mr. Lloyd Warren made a trip to Yucatan; spent two months of ex-



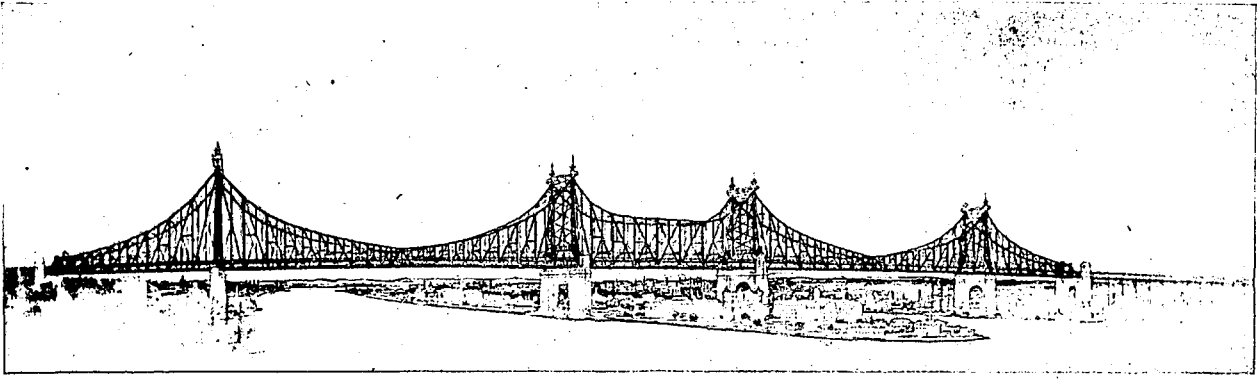
ANCHORAGE—QUEENSBOROUGH BRIDGE OVER EAST RIVER AT 59TH STREET, NEW YORK.

DRAWING BY HENRY HORNBOSTEL, ARCHITECT

sure strokes of the pencil or brush—a lucid unhesitating style of expression—an indifference to subtle things, but never to the effective, forceful and original, nor to the short-cut to accomplish it. His methods were no sooner observed than copied. He had only just returned to the United States, fresh from his Paris training, when younger men gathered together to solicit his patronage of an atelier in New York. Some of the more eager students followed him before he accepted the invitation of the pupils of Masqueray to take up the atelier which the latter re-

ploring the remains of the ancient architecture of that country, previously unknown, and brought back the first photographs of work that have since been much visited and published.

During the War, Mr. Hornbostel entered the U. S. Army overseas, was commissioned Major and served as First Assistant Gas Officer of the 36th Division. He had active charge of the Chemical Warfare of the Division and became a well-known figure, with the sobriquet of "The Gas Nut." As with many of the officers who found themselves undertaking things entirely



STUDY FOR QUEENSBOROUGH BRIDGE, NEW YORK, N. Y.

BY HENRY HORNBOSTEL, ARCHITECT.

new to them, Hornbostel found himself advancing as a professional soldier by accident. Some stories that preceded his return give the touch of humor to be expected. One was the demand to shave off his golden beard; coupled with the threat to quit the army if the order became effective. Another was of being examined as to his military information. He was asked, "Who is the Commander-in-Chief of the Army?"—he was not the only officer in doubt as to that point, but gave the high school answer: "The President of the United States." "Right," said the examiner, and added, "You seem surprised." "I am," said Hornbostel.

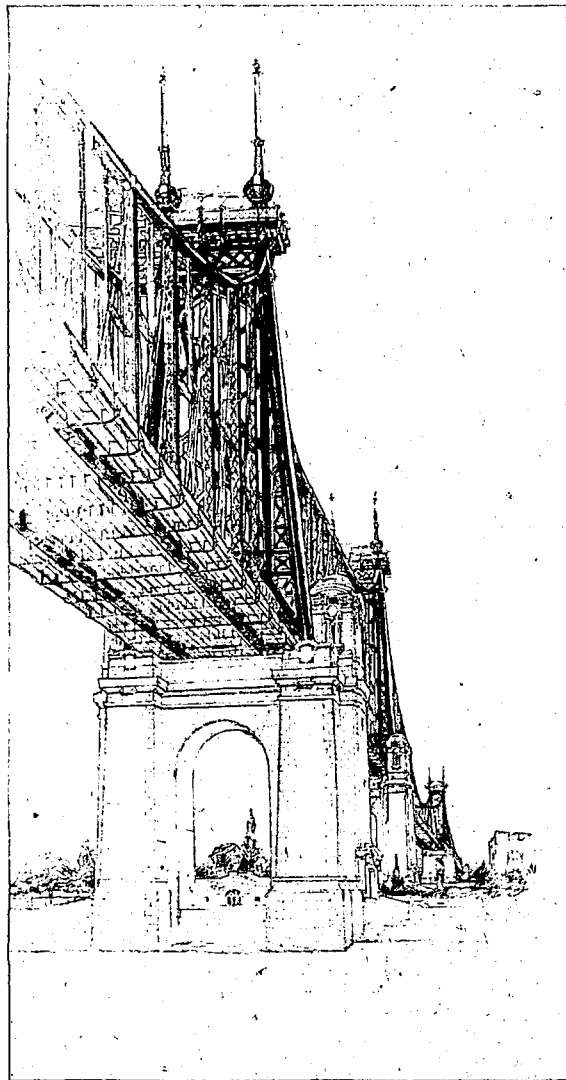
Since the War Mr. Hornbostel has made his headquarters at Pittsburgh, carrying forward a great deal of large and interesting work, gained through reputation. As with most successful architects three distinct periods may be noted in his career: the first, as a student, and draftsman; second, that when most of his work came as the result of competition; and third, that which comes mainly from repu-

tation gained during the two earlier periods.

It is worth noting that he still draws with the same old enthusiasm and skill, as shown by the illustrations of the field sketch made during the War shown on page 92 and of the sketch for the Harding Memorial made only a few months ago. The latter, and the drawings of the Candler house, (see page 90) afford models of free technique. To make a copy of such drawing would be helpfully corrective to anyone who finds his own style of drawing mechanical, or burdened with too much method.

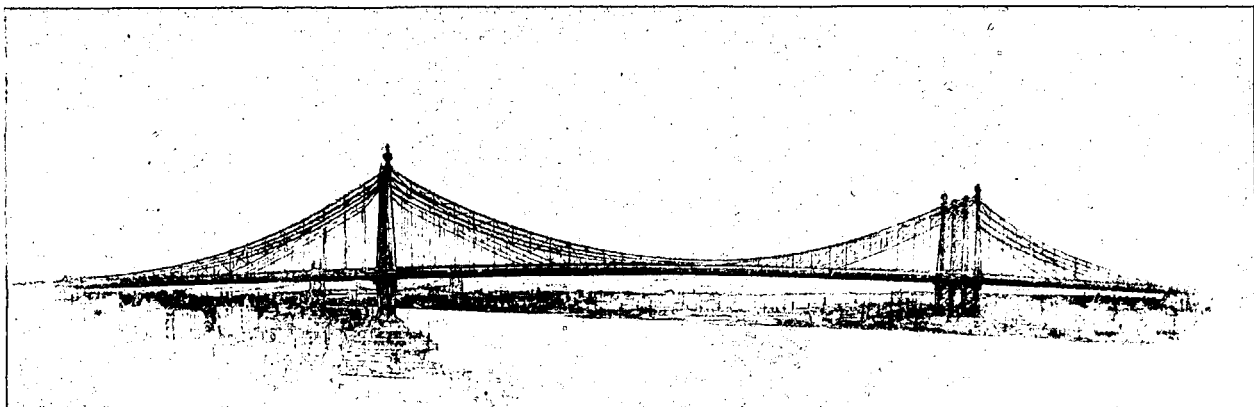
As a draftsman Hornbostel's influence has been all in the direction of the free, quick expression of the imagination.

His medium, as instanced by most of the illustrations accompanying this article, is usually pencil. The colored crayon is used frequently to give the hues when color has a part of importance to play. But Hornbostel is essentially an architect and a draftsman—one does not observe much of the feeling of a painter or of the



STUDY FOR PIER—QUEENSBOROUGH BRIDGE

HENRY HORNBOSTEL, ARCHITECT



STUDY FOR WILLIAMSBURG BRIDGE, NEW YORK, N. Y.

BY HENRY HORNBOSTEL, ARCHITECT

sculptor in his indication, but a great deal of the character that one finds in the master builders of the Roman aqueducts or the stone bridges of France. If it were not a near defamatory libel to call an architect an "engineer," and if I could count upon the reader as thinking of the Eddystone or Rennie type of engineering—which is an excellent kind of big architecture—I should state that I regard the drawings of Hornbostel as the best expression of engineering feeling that I know.

In such drawings as that of the steel towers of Queensborough Bridge, with the section showing the arrangement of the decks below, one becomes interested in the planning and construction while accepting the beauty of form as a matter of course. And as to the really marvelous indication of distance through to the other end of the bridge and the soaring effect of the tower reaching into infinite space, that is noted only after getting past the "punch in the eye" which the insistent, important arrangement of

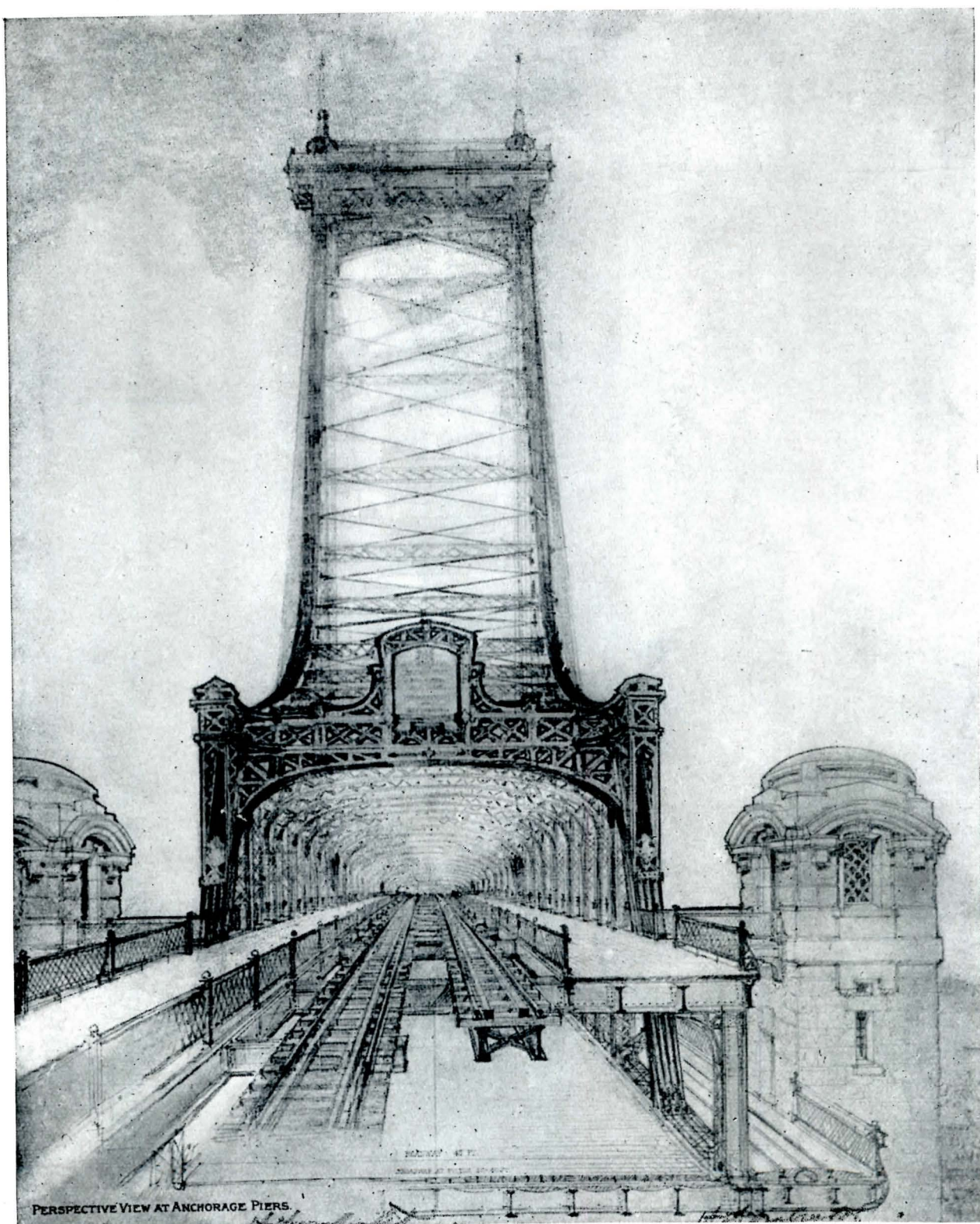
the construction hands out to the observer. The same quality is to the fore in the drawing of

the anchorage of the same bridge, though here, and in the one-time projected tower to the old court house at Pittsburgh, we have the touch of color values and dramatic composition of a Canaletto or a Piranesi. But no one who ever used the title of engineer could have given the impression of fine architecture to structural steel work such as Hornbostel has shown in the sharp perspective of the illustration of the Hell Gate Bridge, and no painter could have imparted to the illustration of a design—something which existed only in imagination at the time—the sense of gigantic strength of the truss work, reaching out a mile beyond the central span and shown in a couple of spots on the drawing each about the size of a postage stamp. A good photograph of the finished structure would fail to give half the definition of the detail of the outrigging girders or the latticed



STUDY FOR PIER—WILLIAMSBURG BRIDGE

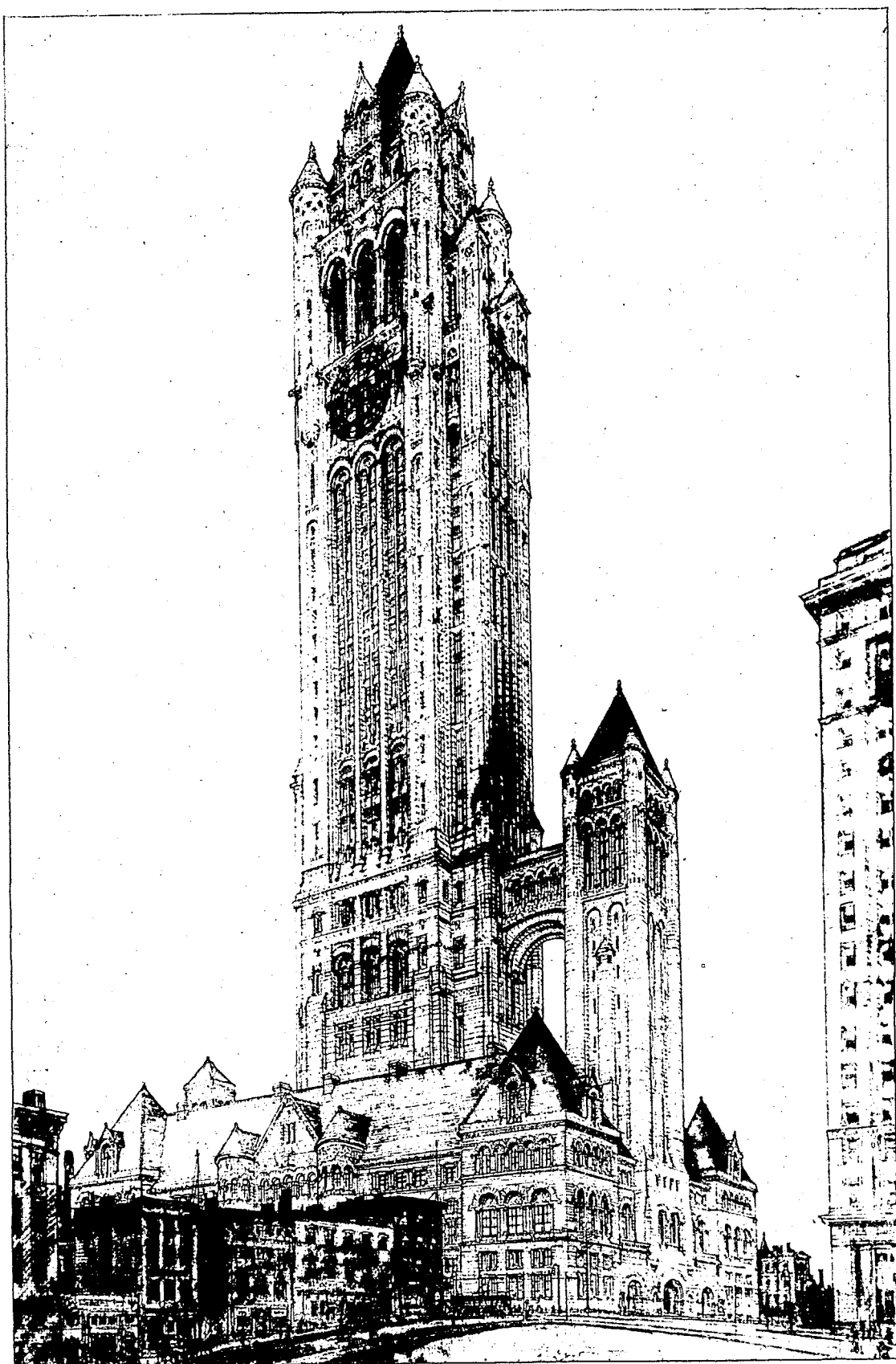
HENRY HORNBOSTEL, ARCHITECT



PERSPECTIVE VIEW AT ANCHORAGE PIERS—QUEENSBOROUGH BRIDGE, NEW YORK  
DRAWING BY HENRY HORBOSTEL, ARCHITECT

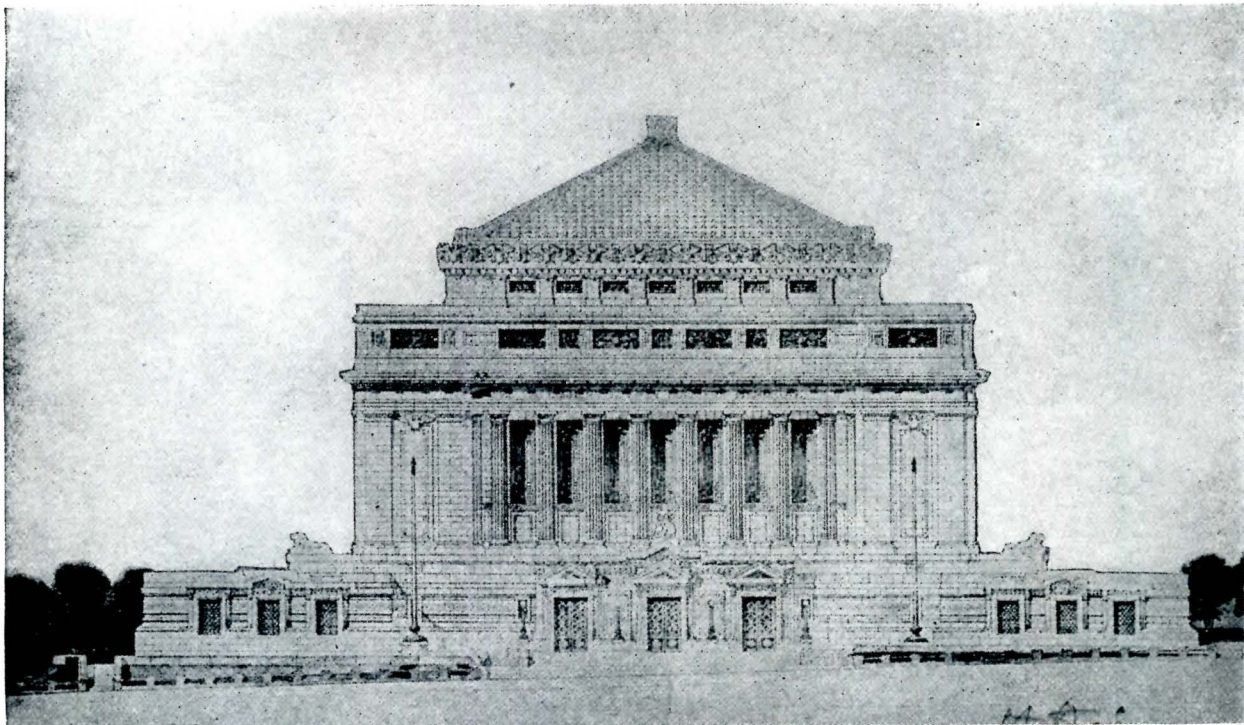


DRAWING BY HENRY HORNBOSTEL OF THE HELL GATE BRIDGE OVER EAST RIVER, NEW YORK



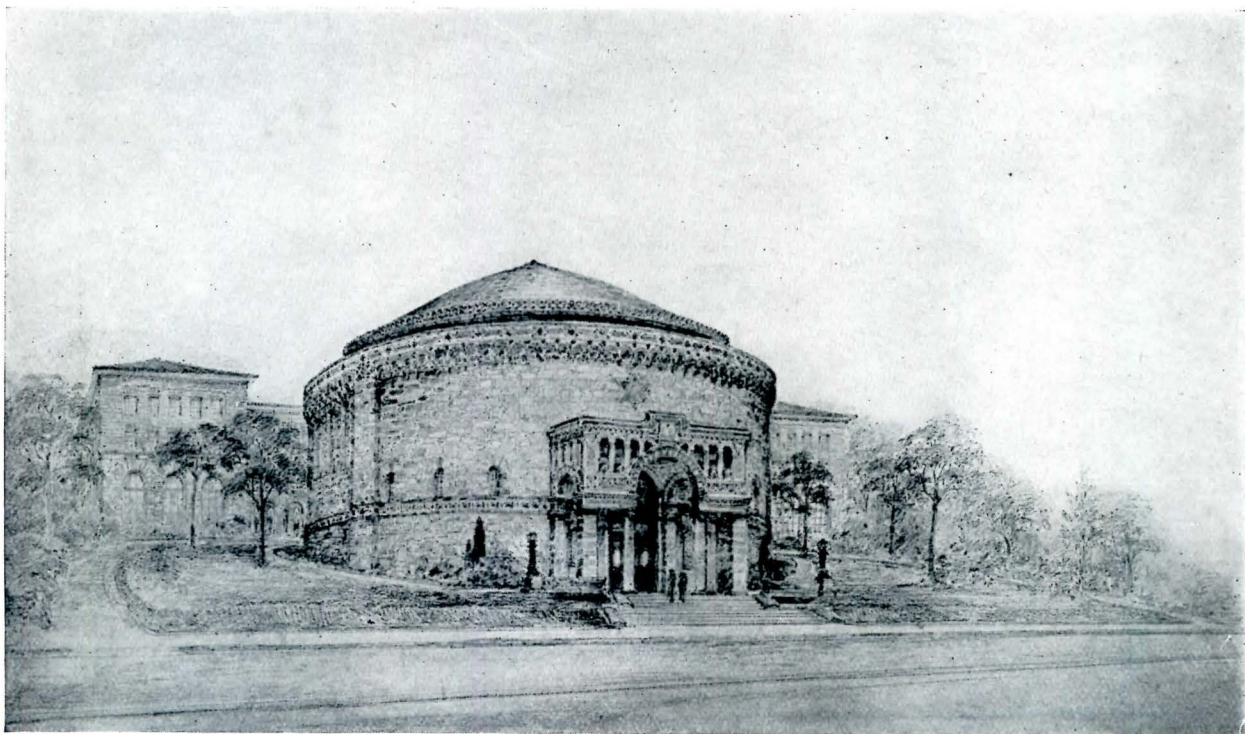
STUDY BY HENRY HORNBOSTEL FOR TOWER TO COURT HOUSE, PITTSBURGH, PA.

PENCIL POINTS



SOLDIERS' AND SAILORS' MEMORIAL HALL, PITTSBURGH, PA.

RENDERING BY HENRY HORNBOSTEL

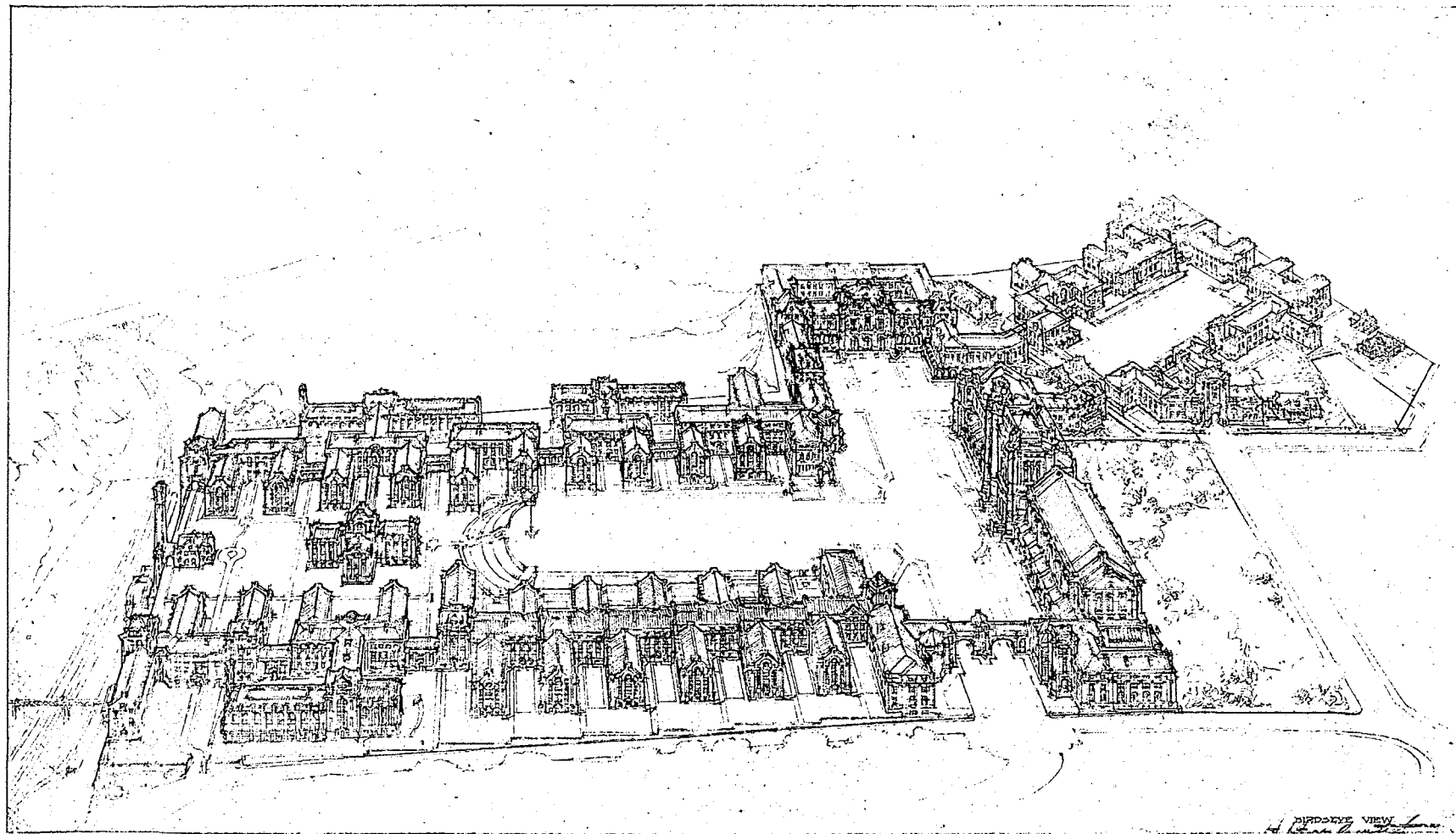


B'NAI ISRAEL SYNAGOGUE AND COMMUNITY CENTER

DRAWING BY HENRY HORNBOSTEL

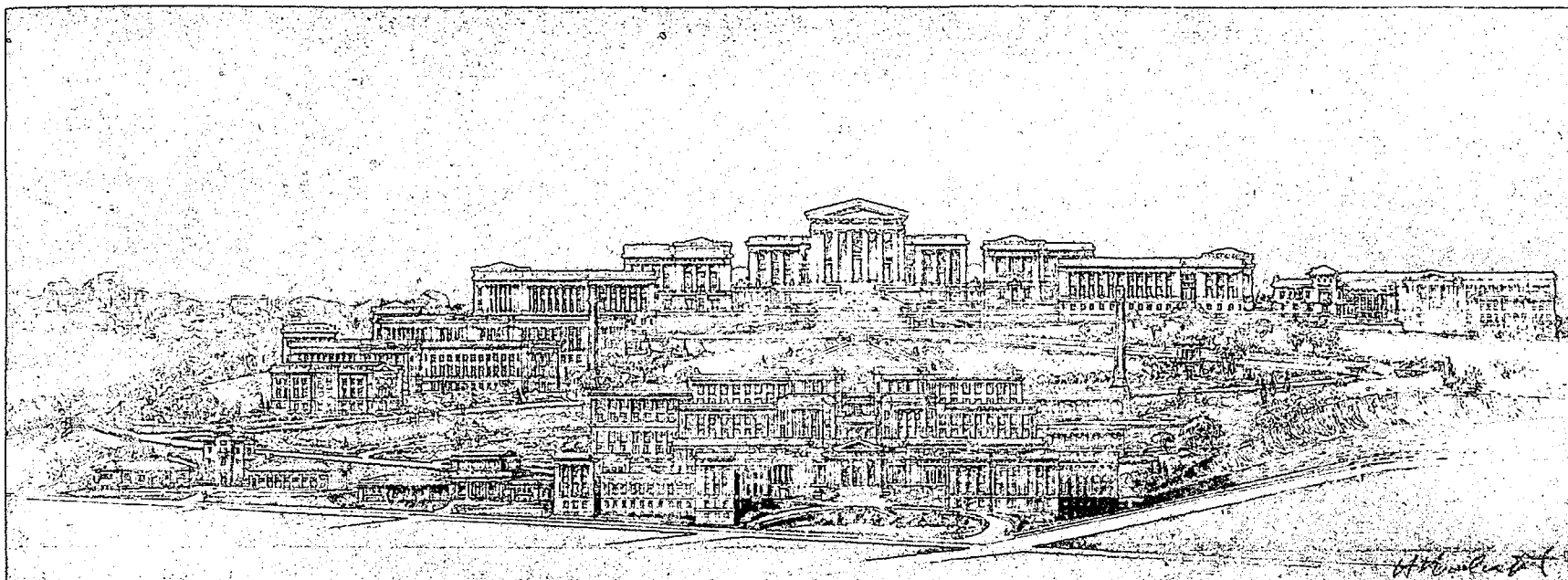


DRAWING BY HENRY HORNPOSTEL OF ST. FRANCIS COLLEGE

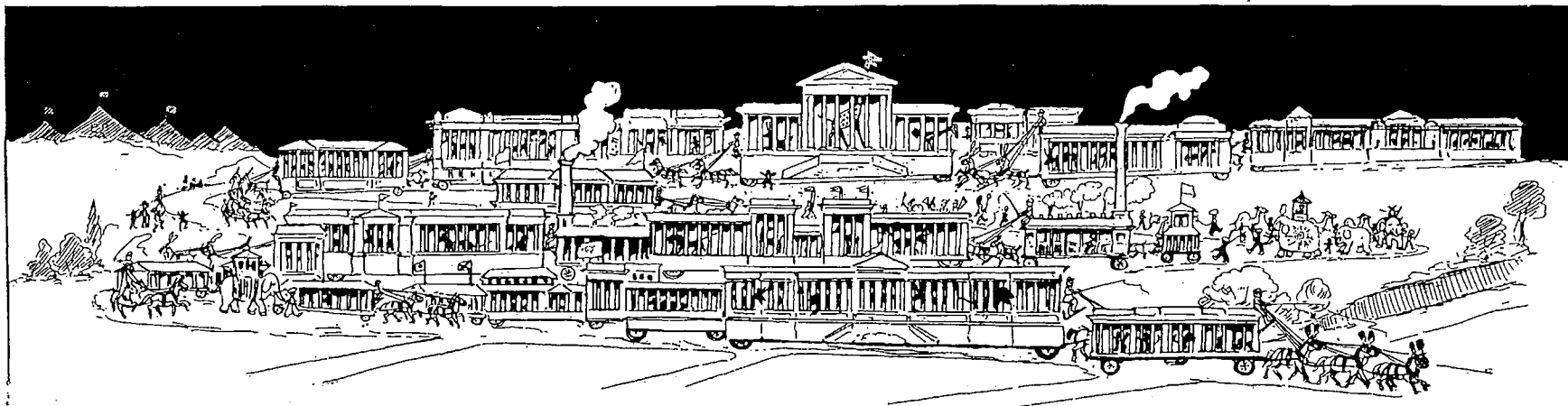


BIRDSEYE VIEW—CARNEGIE INSTITUTE OF TECHNOLOGY, PITTSBURGH, PA.

DRAWING BY HENRY HORNBOSTEL

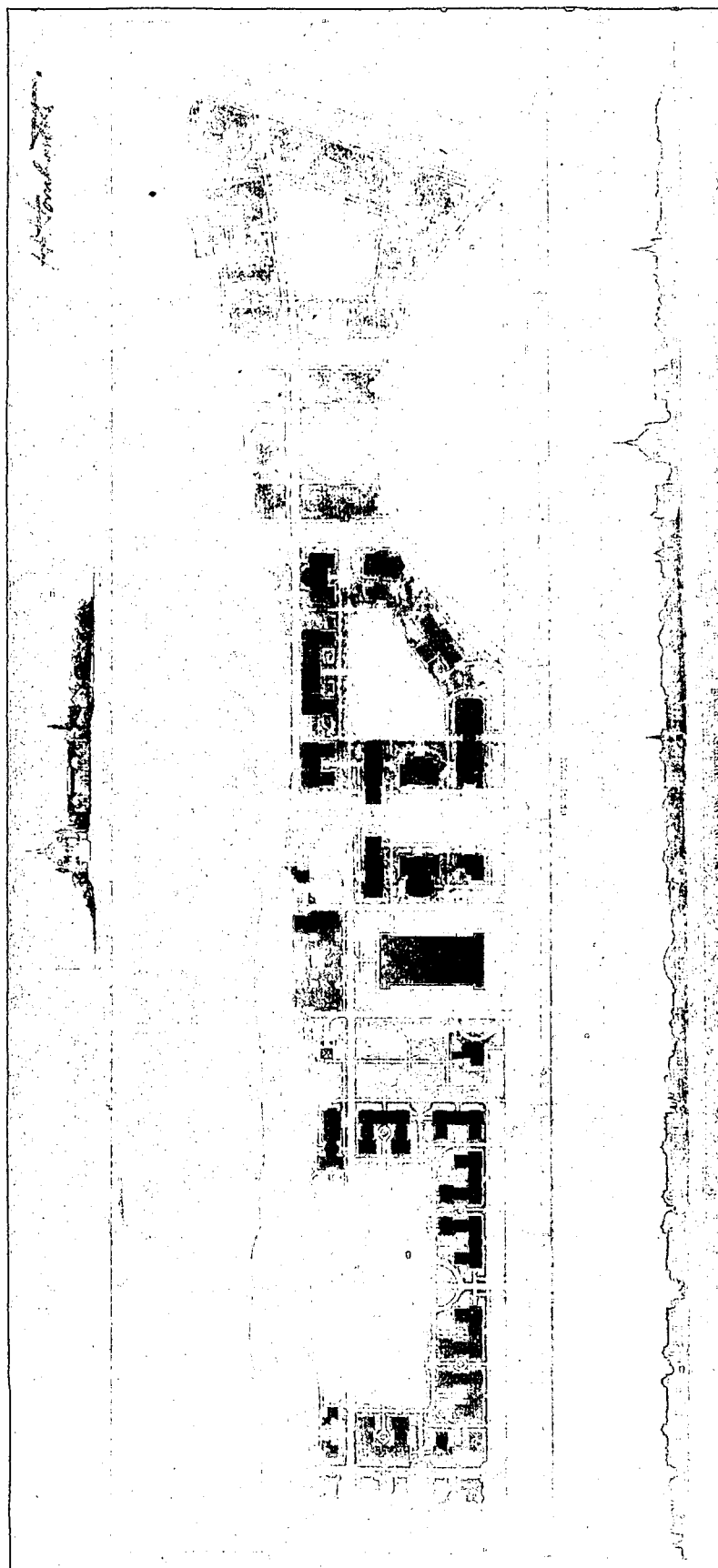


DRAWING BY HENRY HORNBOSTEL FOR THE WESTERN UNIVERSITY OF PENNSYLVANIA, PITTSBURGH, PA.

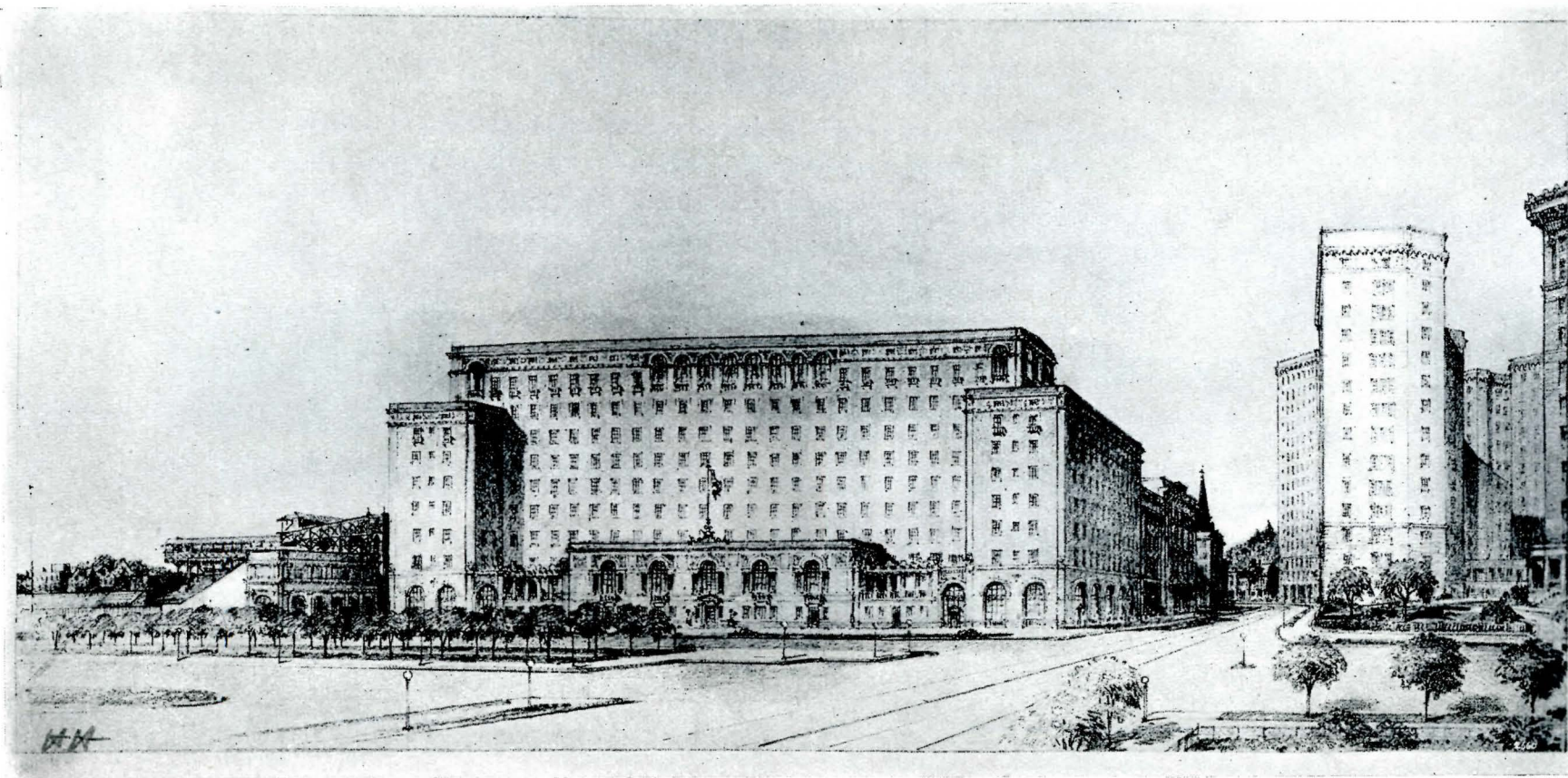


"BARNUM AND BEAUZAR'S" GREAT ARCHITECTURAL CIRCUS PARADE

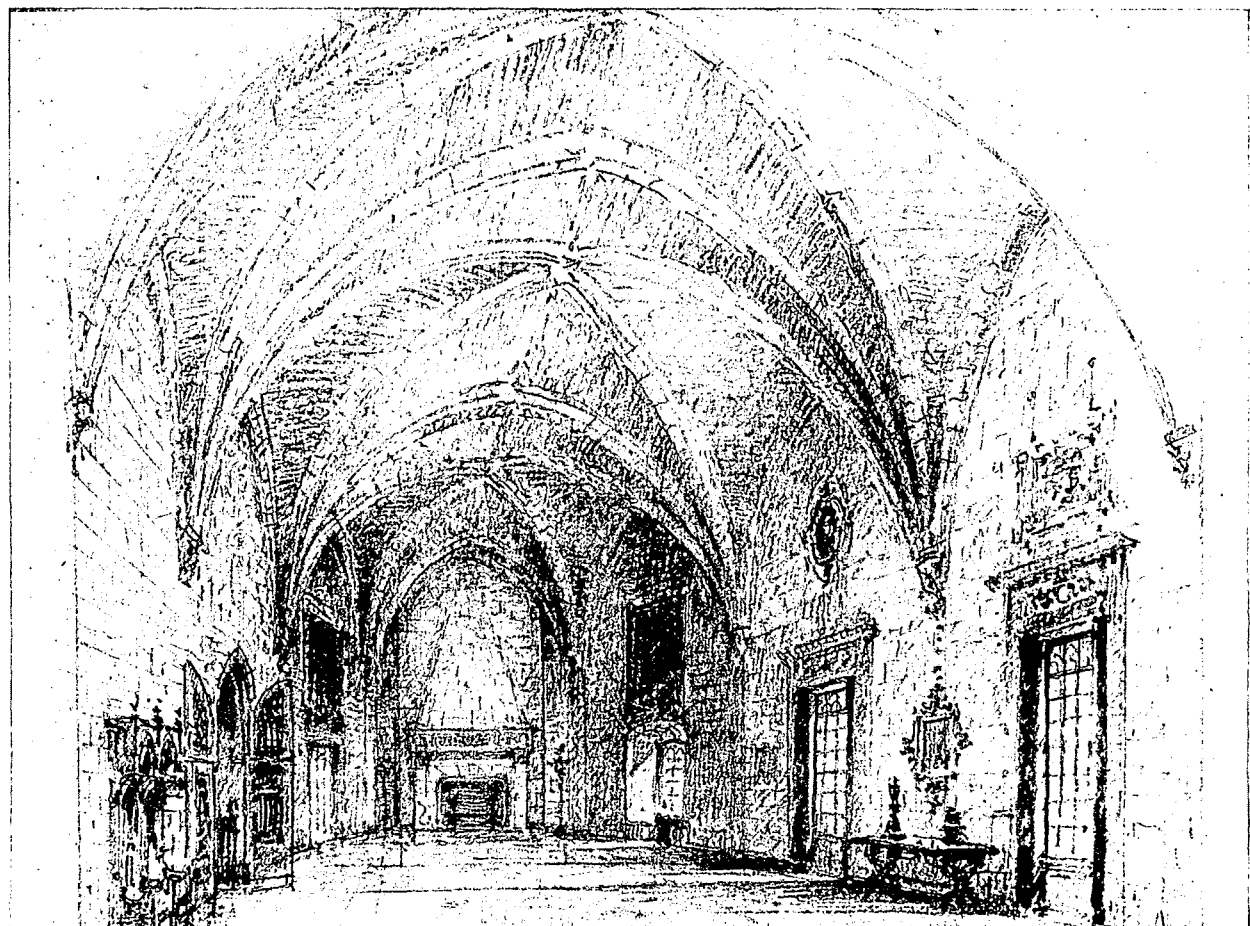
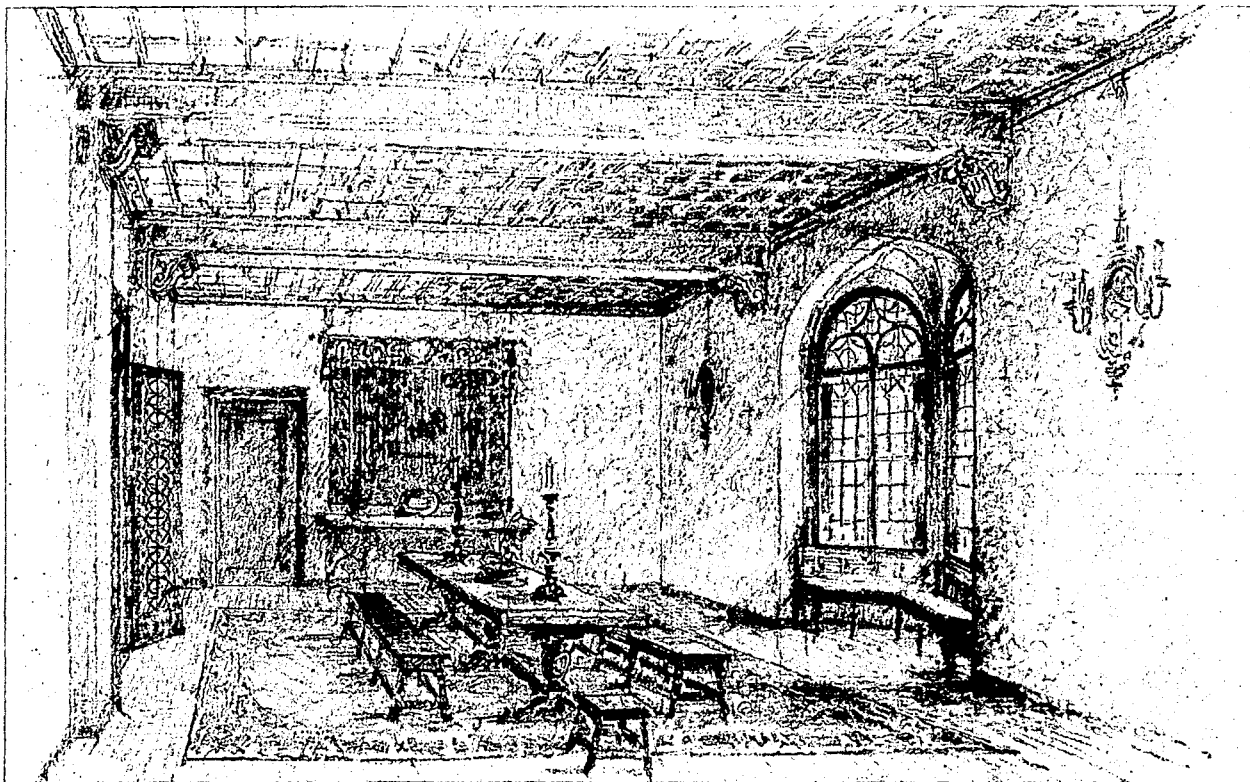
CARTOON BY THE LATE STEWART BARNEY AFTER MR. HORNBOSTEL'S DESIGN FOR THE WESTERN UNIVERSITY OF PENNSYLVANIA



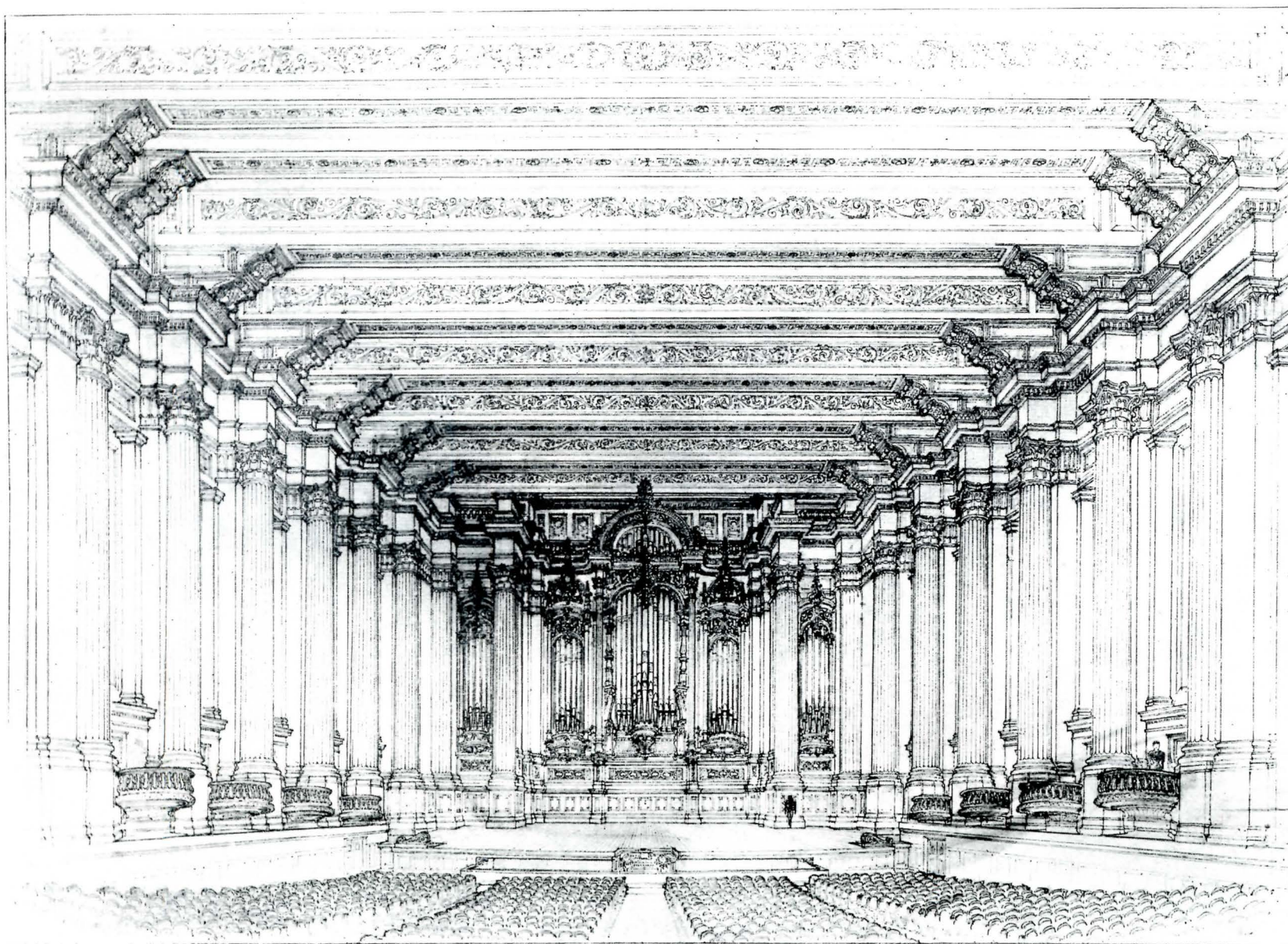
DRAWING BY HENRY HORNDOSTEL SUBMITTED IN THE NORTHWESTERN UNIVERSITY COMPETITION



STUDY FOR A HOTEL AT PITTSBURGH, PENNSYLVANIA  
BY HENRY HORNBOSTEL, ARCHITECT

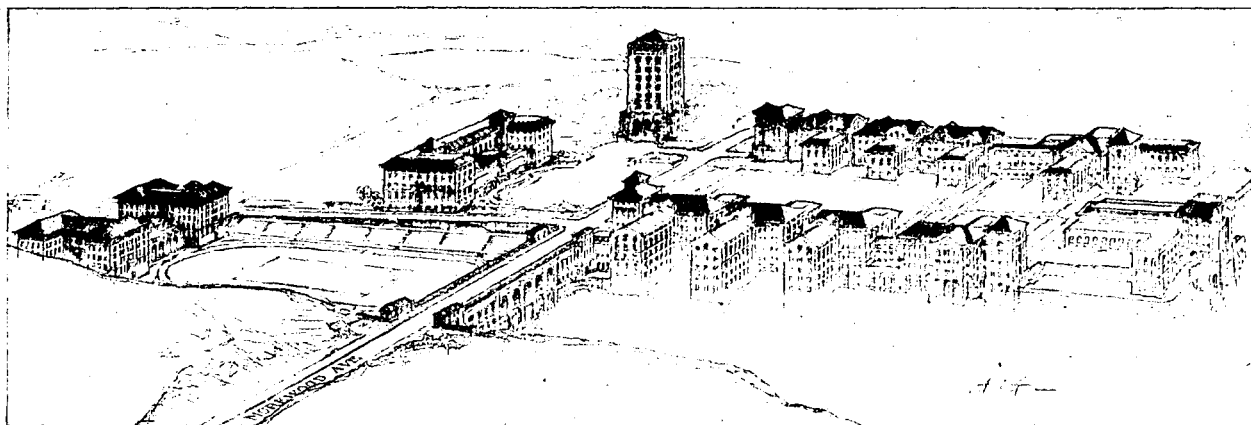


SKETCH STUDIES OF TWO INTERIORS BY HENRY HORNPOSTEL



DRAWING BY HENRY HORNBOSTEL FOR PROPOSED ALTERATION OF A MUSIC HALL

# PENCIL POINTS

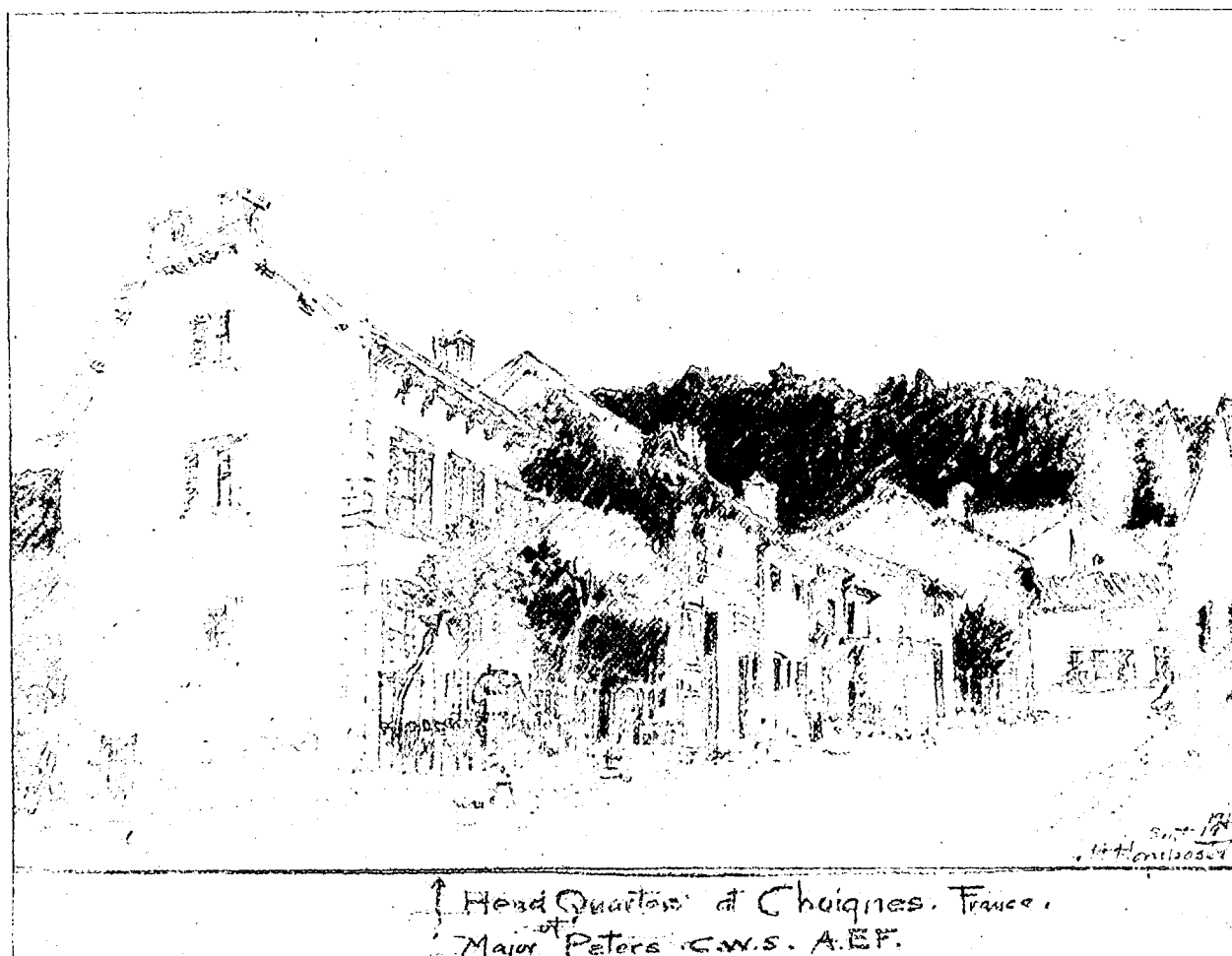


DRAWING BY HENRY HORNBOSTEL FOR CARNEGIE INSTITUTE OF TECHNOLOGY, PITTSBURGH

ties between the deck of the main span and the arched truss. And how well and firmly the great black steel legs and feet of the truss seem to stand upon the farther abutment and the slight horizontal turn to the upper chord explains the need of the vertical component of thrust given by the masonry of the tower. One knows that the delineator had a thorough knowledge of the

science of mechanics and statics and imagination which, in the portrayal of his subject, searches well into the mystery of other men's conception of beauty.

In looking at almost any of Hornbostel's drawings one feels that he looks out over a large space, or into infinite distance, and towards an attractive horizon.



SKETCH MADE IN FRANCE DURING THE WAR BY HENRY HORNBOSTEL

# DRAFTING ROOM PRACTICE

## PART III—ALTERATION WORK\*

*By Harold D. Way*

BECAUSE OF THE INTEREST SHOWN in the use of photography as an aid in the drafting room, more detailed information and suggestions, we believe, may be generally welcome to those who do not make photography their hobby and so are not familiar with the processes and possibilities of this art.

While useful also in enlarging from small to larger scale, to which reference has already been made, digression is justified at this point because it is especially useful in alteration work.

As an adjunct, even when drawings of the present building are available, it simplifies the work to have a photograph taken from the station point required for study in perspective. This should be taken if possible, with a lens with as long a focal length as possible, at least with such as is found on the Graflex or usual hand camera. A wide angle lens has the advantage of a bigger field but distorts. It is an essential for interiors because of the necessity for photographing at short range and for this the Graflex is not suitable. The enlargements are made on bromide paper which can be selected with a smooth or rough surface to suit one's needs.

In cases in which it is desired to make studies on tracing paper, it will often be a saving in time to ink or pencil in the important details, then bleach the print. The pencil or ink drawing will then be easily visible on a light background, the strain on the eyes being considerably less than would be occasioned by the photograph. The print is not the most pleasing surface to work on and the making of a finished drawing on the print is not recommended. As a method of study, however, there is none more valuable, unless it be the model, than a pencil or pen and ink sketch made over the photograph.

In case it is desired to bleach the image on the print without waiting for a photographer, it is easily done in the drafting room, with the aid of a tray or sink. The bleaching material may be obtained at the larger stores but the writer has used the bleaching powder that comes with the sepia toning tubes. This can be procured at most stores. The bleaching powder is packed in one half of the glass tube and the powder for toning is placed at the other, both clearly marked. Care must be used not to rub the surface of the wet print as the drawing in ink or pencil is easily removed. If no tray is available, the print may be laid flat in an enameled sink and the bleaching solution poured on, not sponged.

The care as to chemical cleanliness that is required for sepia toning or for other photographic work is not required here. No special pains need be taken to free the print from the fixing bath. It is washed afterward and when dry dampened slightly on the back with a sponge and pressed under a light weight.

If perfect bleaching is required it would be better to have the work done by a photographer. The print can often be made large enough for study of additions directly on the photographic print, and ink erasures in pen and ink studies made by sponging off portions with a wet sponge.

Following the requests for a listing of danger signs or a checking list we have prepared such a list for alteration jobs. It would be useless to attempt completeness, but many items included here will suggest others. Furthermore, the list must of necessity be augmented from experience.

An example of this is that of a building in which the walls had every earmark of being solid brick walls. The owner was sure they were, the thickness tallied perfectly for eight, twelve and sixteen inch brick walls with furring and plaster. Imagine the surprise when these were proven to be brick filled between studs with four inch brick veneer and furred on the inside with wood to give the substantial appearance to the walls.

Such experiences set one to thinking and make for caution. Going to the job for a survey of conditions depending entirely upon extemporaneous thinking for everything would appear to be unbusinesslike and certainly not worthy of the profession. Why send the office boy or junior draftsman to the job to make a survey of conditions and not even prompt him as to what is required of him? It is in the attempt to help solve this difficult problem that the checking list is offered.

Drafting room practice and specification writing are as difficult to separate in a discussion of the problem as they are in the architect's office. They both call for practically the same extent of information about existing work. It is obvious but cannot be emphasized too strongly that following the draftsman's common remark, of, "Oh, that will be taken care of in the Spec," the chances are, that in spite of good specification writers, it will more certainly be taken care of if a note is made at the moment the question arises. This is the drafting room responsibility.

It is important in saving on duplication of work that the draftsman who goes out on the job to take measurements and make notes comes back with accurate specification data. An illustration of this is the varnish on trim. A certain specification called for the removal of the old varnish and the wood, washed with sal soda, bleached and put in perfect condition for an acid stain that was specified under materials. Now as we know, an acid stain will not "take" unless the varnish is completely removed and all filler gotten out of the wood. A perfect job was obtained in this instance but at considerable expense. The complete specification covering this problem

(\* Part II published in October, 1925)

saved the owner an extra claimed by the contractor amounting to 45% of the amount of the painting contract.

Another item that should be covered is to require a visit to the site by the bidders. This is not only for the architect's protection but, as is evident upon reflection, it is to the advantage of the owner in the end as well as to the contractor that the estimator should be apprised of the actual conditions.

It is the old story of giving instruction—what is clear to the boss is not always understood the same way by the person instructed. A late captain of industry understood this well when he said that when an employee misinterpreted his instructions he considered himself at fault and not the one who is usually blamed in such a case.

The owner is usually required to furnish the survey, including data on sewers and water, gas and electrical service. It is the architect's business to tell the owner specifically, however, all the detailed information that he needs and in many instances to supply the missing data himself.

The engineering sections are included in abbreviated form because sometimes on smaller jobs and in some localities the engineer is not available. At times the architect is requested to obtain the data and in all cases he should have first hand, general information as to all phases of the subject.

Furthermore, the list contains many items which may not necessarily apply to the making of a survey of conditions at the site but are not to be lost sight of in the preparation of drawings and specifications.

## CHECKING LIST FOR AN ALTERATION JOB

NOTE: Asterisk indicates items to be checked at job

### SURVEY

SURVEY furnished by owner at early stage.

RESTRICTIONS.

GRADES and lines of curbs.

GRADES and lines of sidewalks.

BUILDING and property lines.

WIDTH of streets.

GRADES every ? feet.

CONTOURS in addition to grades if required.

LOT numbers.

LOCATION of buildings.

ELEVATION of floors ..... of buildings.

LOCATION, kind and caliper (4 ft. above grade) of trees.

LOCATION of wells.

LEVEL of water in wells.

LOCATION of street signs.

LOCATION of street lamps.

LOCATION of fire alarm stations.

LOCATION and level of exposed rock.

#### SEWER DATA,

LOCATION

SIZE

STORM and sanitary combined.

STORM and sanitary separate.

SANITARY only.

ELEVATIONS of top of manhole and flow line.

DIRECTION of flow.

#### WATER SUPPLY,

LOCATION of main or mains.

SIZE of mains.

LOCATION of hydrants

#### GAS SUPPLY,

LOCATION of main.

SIZE of mains.

#### ELECTRICAL SERVICE,

LOCATION of electric light poles.

LOCATION of transformers.

### PRELIMINARY AND GENERAL INFORMATION

LOOK UP drawings of existing building.

\*LOOK UP drawings filed in Building Department.

\*ARE PLANS required to be filed in Building Department.

\*COPIES of state laws and regulations.

\*COPIES of local laws and regulations.

\*LOCATION of building with respect to cartage.

\*PHOTOGRAPHS of building and site.

\*GENERAL condition of trees.

\*WHAT TREES should be saved if possible.

\*WHAT TREES is the owner most anxious to save.

\*WHAT TREES should be boxed.

\*DISPOSAL of excavated material.

\*MATERIALS reserved by the owner.

\*EARTH fill available.

\*CUBIC yard price, for earth fill.

\*QUALITY of workmanship available with local labor.

\*QUALITY of local mill work.

\*UNIT prices of materials.

\*RELATIVE unit prices of materials.

LOCAL materials available

\*Sandstone

\*Limestone

\*Marble

\*Slate

\*Rough lumber

\*Finish lumber

\*Finished flooring

Et cetera.

\*STORAGE of salvaged materials.

\*OWNERSHIP of old materials not used.

PROTECTION of work not altered.

\*PREVALENCE of water or dampness.

\*WATER supply for building purposes.

\*USE of material on site.

UNIT prices for extra work.

LUMP sum prices, net.

LUMP sum prices plus percentage or lump sum.

## CHECKING LIST FOR AN ALTERATION JOB

### PROTECTION of Public.

- \*USE of building by owner during alteration.
- \*USE of owner's telephone by contractor.
- \*TEMPORARY office for builder.
- \*NEED for watchman.

### PROTECTION of Furniture and Equipment.

- \*STORAGE of furniture and equipment.

## GENERAL CONTRACTOR'S WORK

- CUTTING AND PATCHING in old work for trades.
- CUTTING without permission.
- CUTTING endangering stability of structure.
- PROTECTION of unaltered portion of building.
- PROTECTION of adjoining property.
- REMOVAL of rubbish.

### BORINGS:

- By owner or contractor
- To what depth
- Wash
- Dry

### SOIL TESTS.

### TEST PILES.

### PUMPING.

- \*ARE temporary sanitary conveniences required.
- FORMS for concrete work.
- \*IS temporary elevator required.
- \*PAYMENT for electric current.
- \*PAYMENT for water.
- \*PAYMENT for gas.
- \*PAYMENT for telephone.
- \*PAYMENT for temporary heat.
- \*SHEDS for builder's use.
- TEMPORARY sidewalks.
- PERMITS for vaults in street.
- PERMITS obtained by whom.
- BOND for construction of vaults.
- ENCLOSED passage way.
- SCAFFOLDING.
- TEMPORARY fences.
- LAYING out building.
- \*USE of building by owner during alteration.
- \*ORDER of making alterations in different portions of building.
- PROTECTION of public on premises.
- \*PROTECTION of furniture.
- \*STORAGE of furniture.
- \*PROTECTION of equipment.
- \*CONTINUOUS use of equipment during alteration.
- \*DATA as to depth of foundations of adjoining property.

## WRECKING, CLEARING & EXCAVATION

- WRECKING.
- SPRINKLING.
- \*OWNERSHIP of materials.
- \*REMOVAL of materials.
- \*MOVING buildings.
- PROTECTING adjoining work.
- PROTECTION of sewer, water and gas lines.
- MOVING sewer, water and gas lines.

### \*REMOVING old foundations.

### \*REMOVING trees and stumps.

### SHORING on site.

### \*SHORING of adjoining property.

### \*UNDERPINNING walls of old building.

### \*UNDERPINNING on adjoining property.

### UNIT price for extra earth excavation.

### UNIT price for rock excavation.

### EXCAVATION.

### TO permit of waterproofing.

### PIPE trenches.

### \*TO make accessible old walls requiring repair.

### \*BOILER foundations.

### \*MECHANICAL equipment foundations.

### \*WELLS.

### \*CISTERNS.

### \*WALKS and roadways.

### \*ELECTRICAL conduits.

### \*PUMPING.

### \*REMOVAL of sod.

### \*REMOVAL of top soil.

### \*DISPOSAL of excavated material.

### BACK filling.

### \*FILLING old wells or cisterns.

### \*FILLING old excavations.

### \*DRAINAGE of land adequate.

### \*DRAINAGE around walls.

### TILE or broken stone drain.

### \*SPRINGS.

### \*GRADING.

### \*ADDITIONAL material for grading.

### SODDING.

## MASONRY

### FOUNDATIONS,

### \*SETTLEMENT in old buildings.

### \*ARE old footings carried below frost line.

### UNDERPINNING required.

### UNDERPINNING on adjoining property.

### \*LOCAL practice for type of construction.

### \*KIND of piling used.

### KIND of piling required.

### EXTRA foundations, unit price.

### \*MATERIAL of present footings.

### \*INCREASED footings in old work.

### CONCRETE.

### \*CONDITION of old work.

### \*REPAIRING of old work.

### \*CONCRETE work to be removed.

### FORMS.

### OILING or treatment of surfaces of forms.

### CHAMFERING of edges.

### \*QUALITY of sand available.

### \*KIND of aggregate available.

### \*WATER free from acid, salts and minerals.

### \*BONDING with old work.

### EXPANSION joints.

### CONTINUOUS pouring.

### PROTECTION of work.

### UNDERPINNING.

### ANCHORS.

### BUILDING in anchors, hangers, etc.

### \*FINISH of exposed surface to match old work.

## PENCIL POINTS

### CONCRETE (*Continued*)

- \*MANHOLES.
- CRADLES for tanks.
- \*PIPE trenches.
- \*CASING for sump tanks, oil separators, etc.
- \*TRAP pits, size, location.
- \*RETAINING walls.
- \*FLOOR construction, thickness.
- \*BEAMS and girders, location and dimensions.
- \*CINDER concrete fill.
- \*FILL between wood beams.
- \*WEARING surface of floors.
- \*WALKS, state of repair.
- \*WALKS, location and dimensions.
- \*WALKS, proper pitch.
- \*CURB, state of repair.
- \*CURB, dimensions.

### REINFORCED CONCRETE.

- \*NOTE as to reinforced concrete work to be removed.
- SPICES, anchoring to old work.
- TYPES of reinforcement.
- FOR finish see "Concrete."

### BRICK WORK.

- \*CONDITION of common brick walls.
- \*PATCHING required.
- \*CONDITION of face brick.
- \*KIND of face brick, make.
- \*SPALLED surfaces.
- PRESERVATIVES.
- \*REMOVING old paint from face brick.
- \*CLEANING of brickwork.
- \*MATCHING old brick.
- \*SIZE of face brick.
- \*MORTAR joint, state of repair.
- \*KIND of joint used.
- \*THICKNESS of joint.
- \*DIMENSION of courses.
- \*COLOR of mortar.
- \*BOND and pattern of face brick.
- \*DIMENSIONS of flues.
- \*LINING of flues and condition.
- \*DIMENSIONS of fireplaces.
- \*FIREPLACE dampers.
- \*FIRE brick lining.
- \*ASH drops.
- \*ASH pits.
- \*CLEAN-OUT door.
- \*ARE brick walls solid or veneered.
- \*FILLING between studs.
- FIRE stops.
- \*FIRE walls.
- BONDING new with old work.
- ANCHORS.
- \*CHASES in old work.
- CHASES in new work.
- CHASES to comply with law.
- BEARING plates.
- \*BONDING of piers.
- \*BRICK sills, pointing.
- GLAZED brick.
- \*EXTENDING chimneys and vents on adjacent property.

### \*CLEANING.

- \*REMOVING of paint.
- \*SAND blasting.
- CHIPPING for stucco.

### RUBBLE STONE MASONRY.

- \*CONDITION of stone work.
- \*USE of local stone.
- \*CHARACTER of bond.
- \*SPALLING.
- \*REBUILDING necessary.
- \*BONDING through wall.
- BONDING new with old work.
- \*TYPE of joint.

### CUT STONE MASONRY.

- PROTECTING old work.
- \*CONDITION of old work.
- \*REPOINTING necessary.
- \*SIZE of joint.
- \*TYPE of joint.
- \*KINDS of stone in old work.
- \*COLOR of stone in old work.
- \*STONE obtained from what quarry.
- STONE to match old work.
- \*REPLACING stone in old work.
- \*INSET pieces in old work only.
- \*FINISH on old work.
- NEW finish to match old work.
- \*SPALLING.
- \*PRESERVATIVES.
- CORNER stone, disturbing of.
- CLAMPS.
- THICKNESS of old stone work.
- BONDING and anchoring new with old work.
- \*KIND of stone coursing.
- \*CARVING to match old work.
- CARVING to conform to models.
- CUTTING on premises required for patching.
- PROVISION for lighting outlets.
- \*POINTING of parapets.
- \*CRACKED lintels.
- \*CRACKED sills.
- \*CRACKED coping, chimney caps, et cetera.
- RESETTING of special ornamental features.
- RESETTING of stone ashlar.
- RESETTING of belt courses and cornices.
- \*FLAGGING, matching, resetting.
- \*CURBING, piecing out, resetting.
- \*STEPS, matching, resetting.
- \*SPECIAL garden features, notes on.
- \*CLEANING.
- \*SAND blasting.
- \*EXTENDING of chimneys and vents on adjacent property.

### CAST STONE.

- \*GENERAL condition of.
- \*COLOR.
- \*TEXTURE.
- \*NEW work to match old work.
- REINFORCEMENT.

### ARCHITECTURAL TERRA COTTA.

- \*CONDITION of old work.
- PROTECTION of old work.
- \*WORK to be replaced.
- DETAIL of new work to match old.

## CHECKING LIST FOR AN ALTERATION JOB

COLOR texture and finish of new work to match old.

RESETTING of old work.

\*REPOINTING.

NEW work to be modeled.

### BLOCK CONSTRUCTION.

\*HOLLOW tile partitions, location, thickness.

\*HOLLOW tile floor construction.

\*HOLLOW tile furring.

\*HOLLOW tile fireproofing.

\*VAULTING.

HOLLOW tile cement filled for special loads.

CHASES in hollow tile.

\*CONCRETE block, data on.

\*CINDER concrete block, data on.

### PAVING.

\*STATE of repair.

\*KIND of material.

\*PITCH to drains.

\*RESETTING.

MATCHING new with old work.

### MARBLE AND SLATE WORK.

\*KIND of marble.

\*KIND of slate.

\*FINISH.

NEW work to match old work.

\*REPLACING.

RESETTING.

### TILE AND MOSAIC WORK.

\*KIND of tile.

\*COLOR.

\*SIZE.

\*FINISH.

\*REPLACING broken tile.

\*DETAIL of cap.

\*ROUNDED corners.

\*COLOR of mortar.

\*BUILT-IN accessories.

### MASON'S IRON WORK.

IRON work set by mason.

SEE "Miscellaneous Iron."

## WATERPROOFING

\*METHODS of waterproofing used in old work.

\*WATER level.

\*AGE of waterproofing of old work.

\*PRESENCE of leaks.

\*PRESENCE of dampness.

SUB soil drainage.

JOINING of new and old work.

WATERPROOFING pipes through old walls.

WATERPROOFING toilet room floors.

\*DRY surface.

SMOOTH surface, refer to "Masonry."

WATERPROOFING on independent walls.

\*KIND of protection used in old work, refer to "Masonry" for alterations.

MASTIC joint pointing between new and old work.

DAMP-PROOFING paints and compounds.

WATERPROOFING paints and compounds.

INTEGRAL waterproofing.

BUILT-UP waterproofing.

## LATHING AND PLASTER

### FURRING.

\*KIND of furring.

METHOD of hanging.

EXPANSION bolts.

FURRING for moulded and ornamental work.

\*FURRING for ducts, to be removed.

\*FURRING for chases, to be removed.

NEW furring for ducts, in old work.

NEW furring for chases, in old work.

\*FURRED ceilings removed.

NEW furred ceilings.

\*INDICATIONS of rust—investigation.

\*OBTAIN information regarding old construction.

### LATHING.

\*KIND of lath.

\*INDICATION of rust—investigation.

\*WOOD lath showing through plaster.

\*METAL beads.

METAL lath for boiler room ceiling, etc.

\*REMOVAL of old work.

\*LATHING for tile wainscot.

### PLASTER WORK.

\*KINDS of plaster in old work.

\*EXAMINATION and note as to amount of patching required.

UNIT price for patching.

\*EXTENT of work.

\*FINISH of new to match old work.

\*REPAIRING discolored work.

PLASTERING behind wood wainscots.

PLASTERING behind wood base.

### STUCCO.

\*GENERAL conditions of work.

\*COLOR.

\*TEXTURE.

NEW work to match old work.

\*REPAIRS to old work.

PRESERVATIVES required.

DAMP-PROOFING.

## STRUCTURAL STEEL

CUTTING and patching required by other trades.

CUTTING and patching required of other trades.

\*INDICATIONS of seepage of water—investigation for rust.

CONNECTIONS of new with old work.

FIELD connections to present work.

RIVETING.

BOLTING.

DRILLING old work.

PAINTING of old work exposed.

STRAIGHTENING material, splice plates.

MEASUREMENTS at job for new work.

INSPECTION by engineer.

## MISCELLANEOUS STEEL AND IRON

\*CONDITION of old work.

\*REPAIRS required.

CLEANING and painting of old work.

\*LOOSE lintels, cutting, resetting.

## PENCIL POINTS

### MISCELLANEOUS STEEL AND IRON (*Continued*)

- BUCKS, cutting.
- SHELF angles.
- \*IRON ladders.
- \*IRON stairs.
- \*FIRE escapes.
- ANCHORS for use in other trades.
- \*COAL chutes.
- \*MANHOLE covers.
- \*SIDEWALK vault doors.
- SLEEVES.
- \*PIPE rail.
- \*SUPPORTS for flood lights, et cetera.
- \*ASH hoist.
- TANKS.
- \*USE.
- \*THICKNESS of metal.
- \*DIMENSIONS.
- GRATINGS.
- \*SIZE.
- \*WEIGHT of metal.

### ORNAMENTAL BRONZE AND IRON WORK

- \*STATE of repair.
- \*REPAIRS required.
- \*HARDWARE required.
- \*MATERIAL.
- NEW work to match old work.
- RESETTING.
- CUTTING.
- CLEANING.
- PAINTING.
- COLOR of bronze.
- FINISH of bronze.
- CUTTING and patching required of other trades.
- CUTTING and patching required by other trades.

### SHEET METAL AND ROOFING

- \*KINDS of metal.
- DANGER of electrolysis.
- \*INFLUENCE of weather conditions on materials.
- \*TYPE of roof best suited to local conditions.
- PAINTING before erection.
- AWNINGS.
- \*DATA.
- \*STATE of repair.
- CEILINGS.
- \*NOTES on existing work.
- FLASHINGS.
- \*SUFFICIENT height for climatic conditions.
- \*STATE of repair.
- \*KINDS of metal.
- FLASHING around pipes.
- CONNECTION to roof covering.
- DIMENSIONS of standing flashing.
- DIMENSIONS of cap flashing.
- FLASHING under window sills.
- \*LEAKS at existing windows.
- FLASHING against adjacent buildings.
- GUTTERS.
- \*TYPES of gutters, detail.
- \*STATE of repair.
- \*PITCH of gutters.
- \*KINDS of metal.
- \*LOCATION.

### LEADERS.

- \*TYPES of leaders.
- \*LOCATION.
- \*SIZE.
- \*METHOD and detail of fastening.
- \*CONNECTION to drain pipe.
- \*CAST IRON shoe at bottom for surface drainage.
- \*LOCATION of leader heads.
- \*DETAIL of leader heads.

### LEADER BOXES.

- \*LOCATION.
- \*SIZE.
- \*GRATING or baskets.

### SCUTTLE.

- \*LOCATION.
- \*DIMENSIONS.

### SKYLIGHTS.

- \*TYPES of skylights.
- \*LOCATION.
- \*STATE of repair.
- \*LEADERS and gutters.
- \*TYPE of frame work.
- \*VENTILATING sash.
- \*OPERATING device for sash.
- \*ACCESS door or sash.
- \*LOUVRES.
- \*DAMPERS for louvres.
- \*GLAZING.
- \*BEDDING of glass.
- \*WIRE screen over skylights.
- \*CONDITION of screen.

### VENTILATORS.

- \*TYPE.
- \*SIZE.
- \*MATERIAL.
- \*LOCATION.
- \*STATE of repair.

### ORNAMENTAL WORK.

- \*KIND of metal.
- \*DETAIL.
- \*ELECTROLYSIS.
- \*STATE of repair.
- REINFORCEMENT.
- \*CORNICES.
- \*BELT courses.
- \*MARQUISE.
- \*FINIALS and crestings.

### ROOFING.

- \*MINIMUM pitch for different types depending upon climatic conditions.
- \*TYPE of roof boarding.
- \*BATTENS.
- \*CANVAS roofing, state of repair.
- \*METAL roofing, state of repair.
- \*METAL roofing, type of seam.
- \*KIND of metal.
- \*COMPOSITION roofing, state of repair.
- \*COMPOSITION roofing, when laid.
- \*TILE roofing, state of repair.
- \*TILE roofing, type, brand, detail.
- \*TILE roofing, valleys, ridges, hips.
- \*SLATE roofing, state of repair.
- \*SLATE roofing; color, quarry.
- \*SLATE roofing, thickness, edges.

(TO BE CONTINUED IN THE MARCH ISSUE)



STOKESAY CASTLE

JAMES MACGREGOR

PEN AND INK SKETCH OF STOKESAY CASTLE BY JAMES MACGREGOR

PLATE V

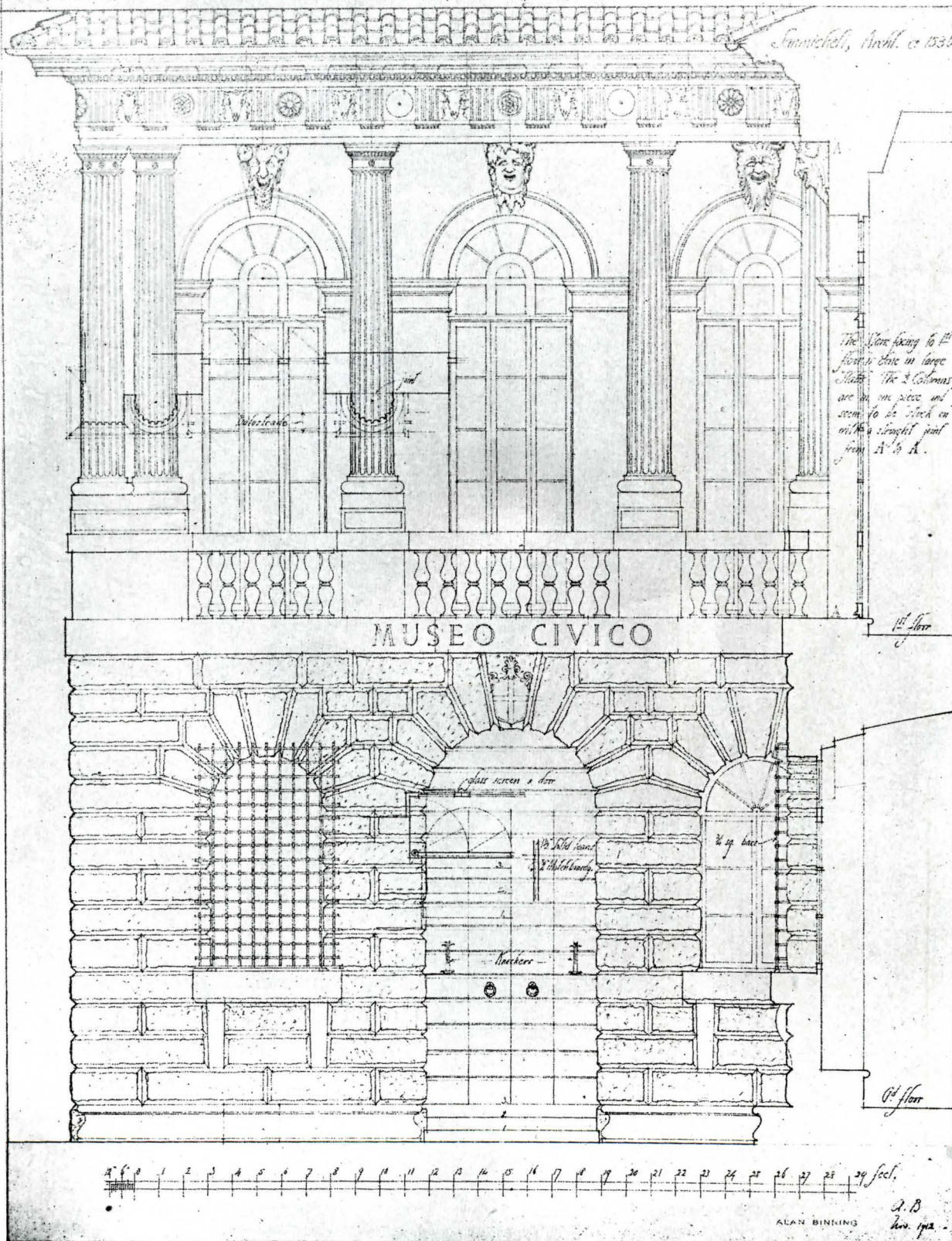
VOLUME VII

NUMBER 2

*A pen and ink sketch by James Macgregor of Stokesay Castle, Shropshire, England, built A. D. 1115. This plate is included in the first quarterly part of "The Architectural Association Sketch Book," published in London in 1913.*

THE PALAZZO POMPEI, VERONA. *Detail.*

Amnicelli, Arch. c. 1539



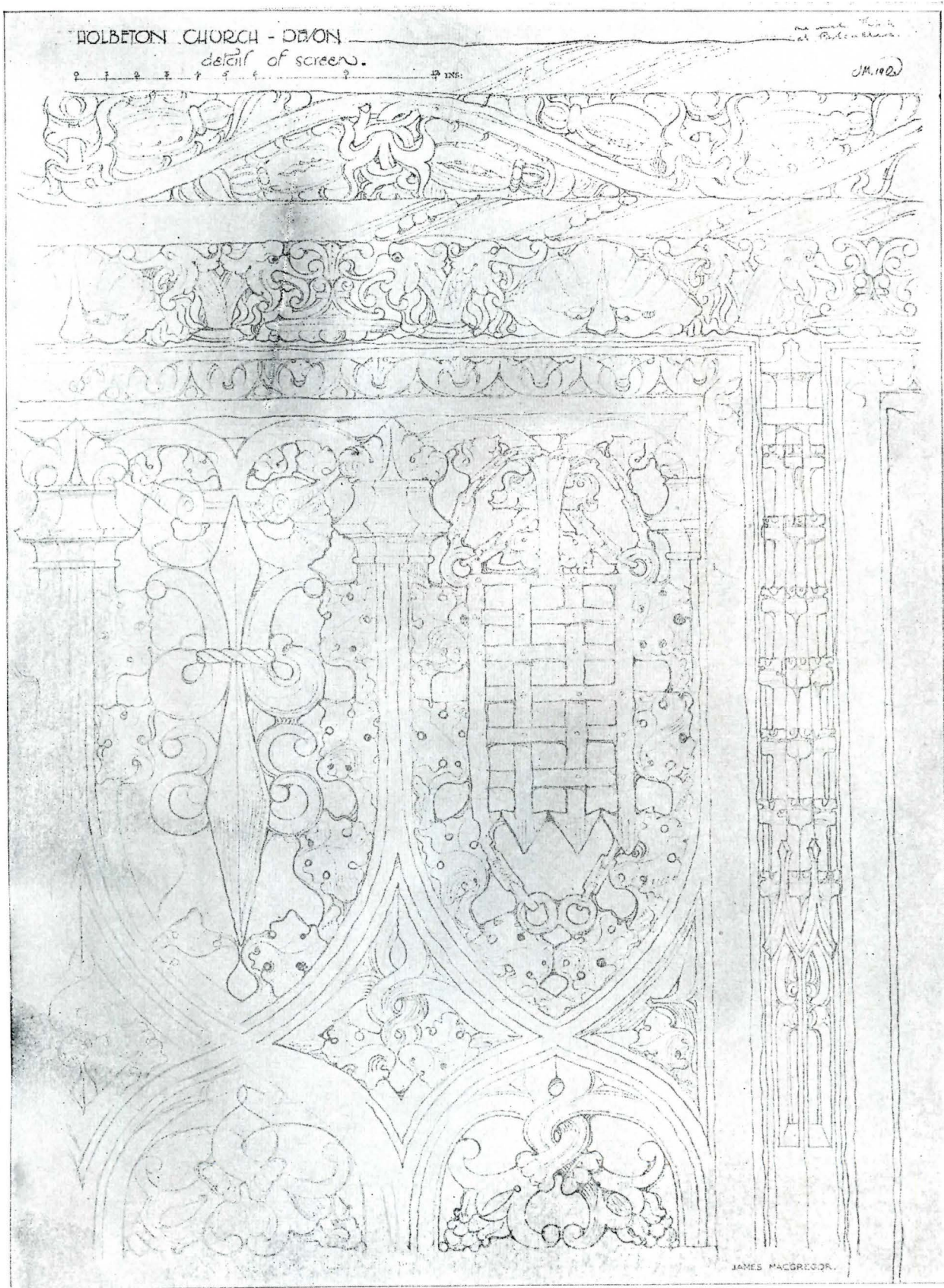
MEASURED DRAWING OF THE PALAZZO POMPEI, VERONA, BY ALAN BINNING

PLATE VI

VOLUME VII

NUMBER 2

*A detail of the elevation of The Palazzo Pompei in Verona, Italy; Sanmicheli, Architect, (circa 1530). Measured and drawn in pencil by Alan Binning. This plate is included in the first quarterly part of "The Architectural Association Sketch Book," published in London in 1913.*



MEASURED DRAWING OF SCREEN, HOLBERTON CHURCH, DEVONSHIRE, BY JAMES MACGREGOR

PLATE VII

VOLUME VII

NUMBER 2

*A detail of the Screen, Holberton Church, Devonshire, England, built during the 15th Century. Measured and drawn in pencil by James Macgregor. This plate is included in the first quarterly part of "The Architectural Association Sketch Book," published in London in 1913.*



"Achievement"—Figure in Frieze of Knickerbocker Memorial, Troy, N. Y. A. A. Weinman, Sculptor

## THE FORTY-FIRST ANNUAL EXHIBITION OF THE ARCHITECTURAL LEAGUE OF NEW YORK

HELD AT THE AMERICAN FINE ARTS SOCIETY BUILDING  
JANUARY 31<sup>st</sup> TO FEBRUARY 28 (INCLUSIVE) 1926

PREPARATIONS FOR THE forty-first Annual Exhibition of THE ARCHITECTURAL LEAGUE of New York in the Fine Arts Building, 215 West 57th Street, were well advanced when this issue of PENCIL POINTS went to press, and we are fortunate in being able to show a few of the individual exhibits on the following pages.

It will be remembered that last year's exhibition was held in conjunction with that of The American Institute of Architects at the Exposition of Architecture and the Allied Arts in the Grand Central Palace, and was a radical departure from the usual custom of holding the exhibition as an annual League affair in its own quarters. The annual exhibitions have furnished for many years an interesting record of architectural development in this country, comprising not only works of architecture, but also of the allied arts. They have served to emphasize the close relationship between the architect and members of the related professions. This year's exhibition presents many features which make an appeal to architect, sculptor, mural painter, craftsman and layman alike, and is sufficiently varied in interest to have a popular appeal. The exhibits consist of drawings and models of proposed and executed work in structural, decorative and landscape architecture; sketches and finished examples of decorative painting; sketches, models and finished examples of decorative and monumental sculpture; drawings, models

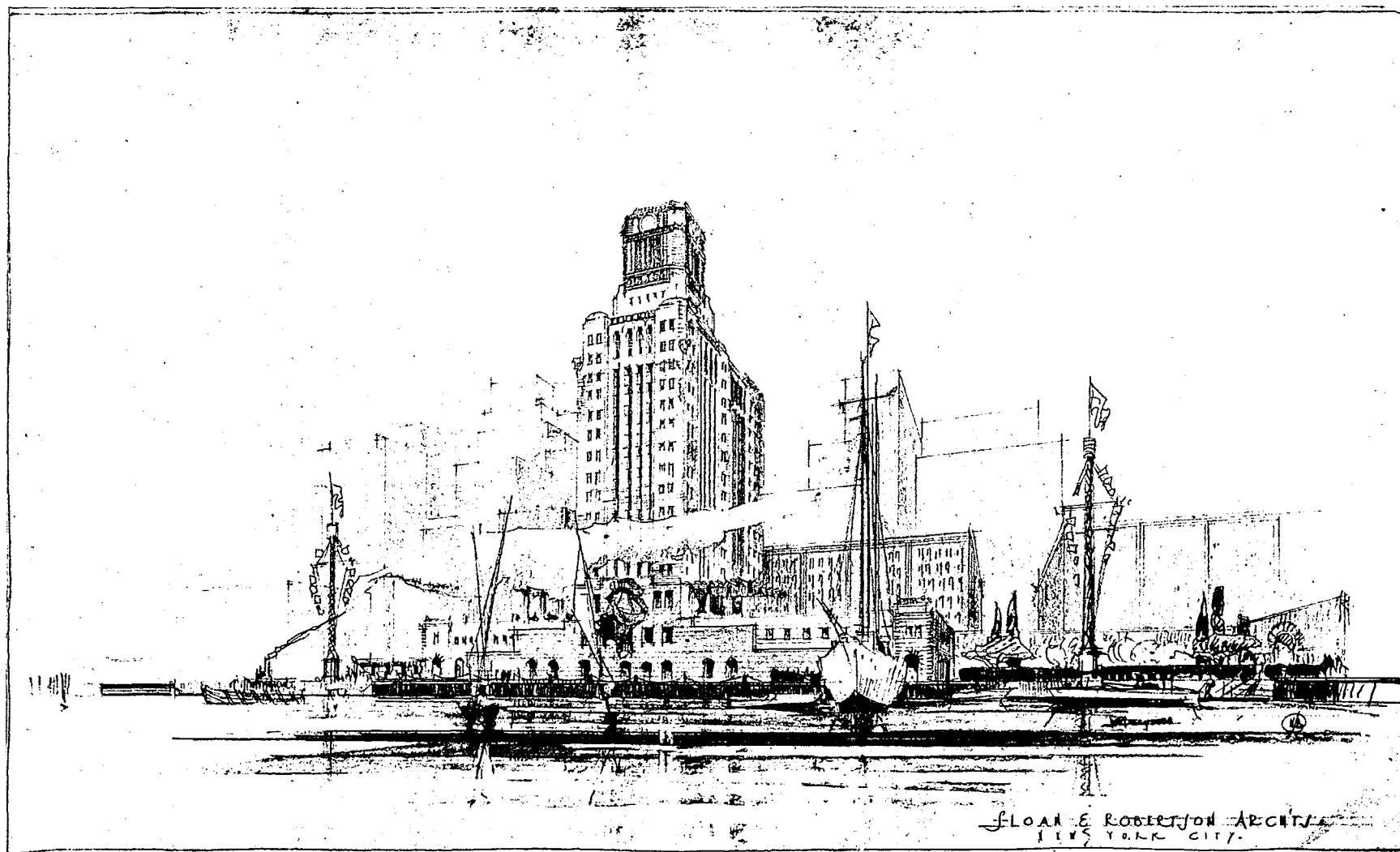
and executed work in the decorative arts; and photographs of executed work in all of the above branches.

Medals of honor are offered in architecture, decorative painting, sculpture, landscape architecture, and design and craftsmanship in native industrial art.

An added attraction of this year's League Exhibition is the work which has been brought over from the *Exposition Internationale des Arts Decoratifs et Industriels Modernes*, recently held in Paris through the courtesy of the *Association Française*, an association founded under the auspices and patronage of the Minister of Foreign Affairs and the Minister of Public Instruction and of the Fine Arts. The exhibition embraces more than five hundred selected works of the best French architects and decorators and is characteristic of the Paris Exposition which was considered by many to have struck a new and radical note.

The French exhibits consist of drawings and photographs, largely devoted to interior decoration. The subjects range in variety from colonial villas in Algiers to Parisian pavilions. M. Bernard Haubold, architect-in-chief of the French Government and member of the Society of Modern Architects, shows studies for different types of rural habitations in the devastated regions of France and types of furniture suited to these houses. M. Jauines has contributed the beautiful tapestries from the Salon of

(Continued on page 129)



EAST RIVER TERMINUS FOR MONTAUK, L. I., DEVELOPMENT—SLOAN & ROBERTSON, ARCHITECTS

*Exhibit at the 41st Annual Exhibition of The Architectural League of New York*



HAVANA HEADQUARTERS OF THE NATIONAL CITY BANK OF NEW YORK, WALKER & GILLETTE, ARCHITECTS  
*Exhibit at the 41st Annual Exhibition of The Architectural League of New York*



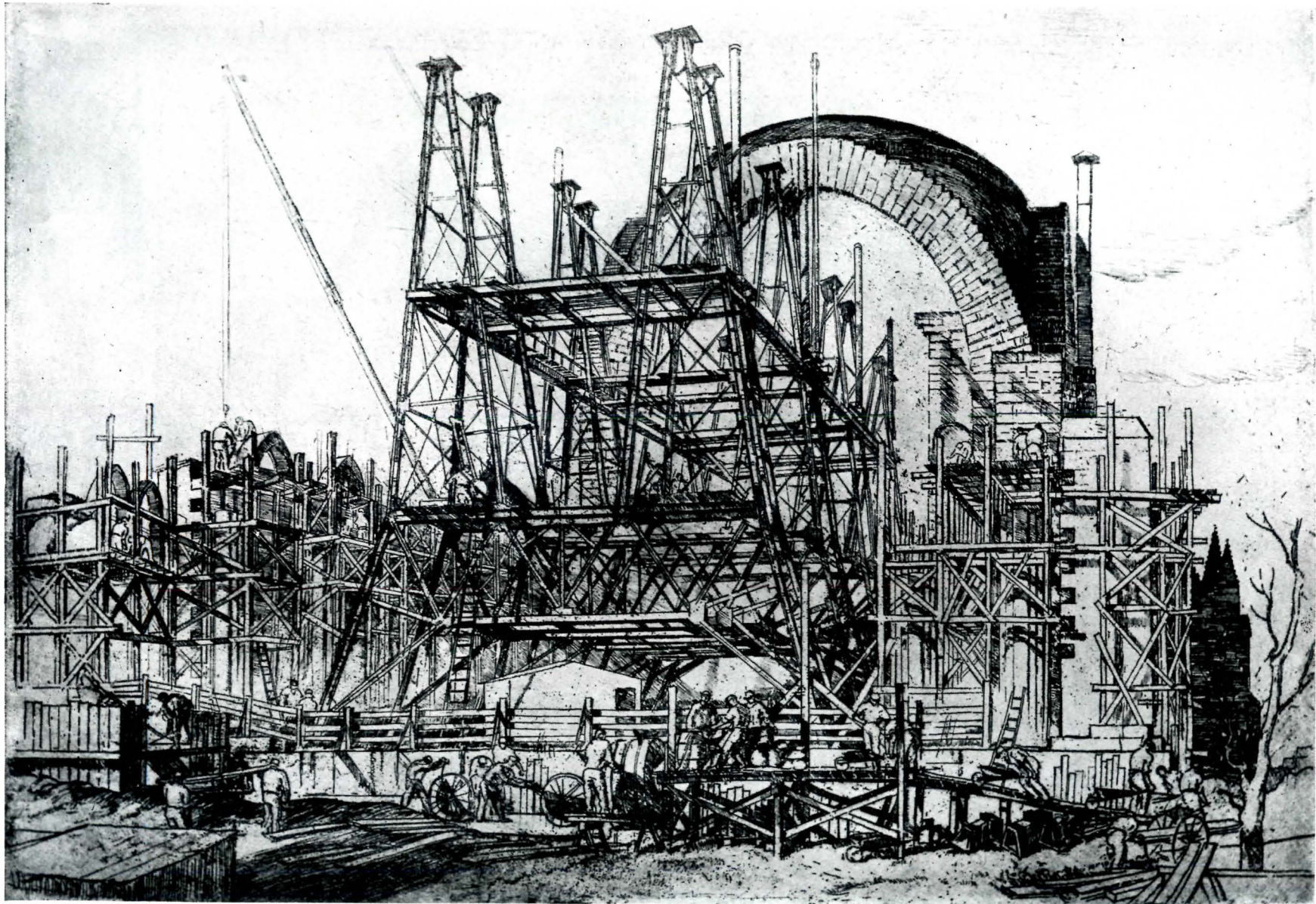
PANELS OF REREDOS IN ST. MARTIN'S CHURCH, PROVIDENCE, R. I.

BERTRAM GROSVENOR GOODHUE, ARCHITECT—HILDRETH MEIRE, ARTIST.



"RENAISSANCE"

GROUP BY LAWRENCE F. STEVENS, FELLOW IN SCULPTURE, AMERICAN ACADEMY IN ROME  
*Exhibit at the 41st Annual Exhibition of The Architectural League of New York*



Size of Plate 20" x 28"

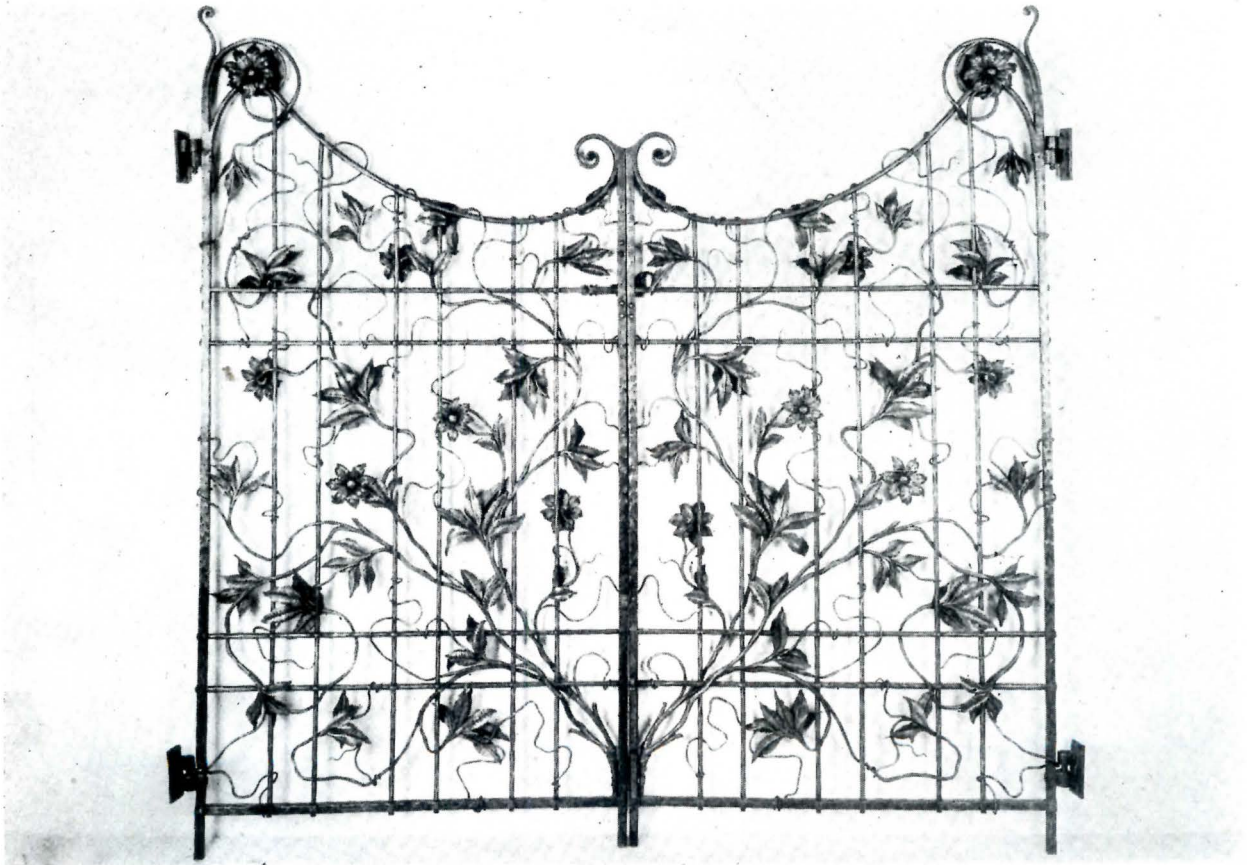
"BUILDING A CATHEDRAL" (ST. JOHN THE DIVINE). ETCHING BY ARTHUR COVEY  
 Exhibit at the 41st Annual Exhibition of The Architectural League of New York



CLUB HOUSE—PASA BONITA DEVELOPMENT AT PUNTA GORDA, FLORIDA—KENNETH M. MURCHISON, ARCHITECT  
*Exhibit at the 41st Annual Exhibition of The Architectural League of New York*



"DUSK"—OVERMANTEL DESIGN BY CHARLES LIVINGSTON BULL



ORNAMENTAL GATE DESIGNED BY S. DE KOSENKA

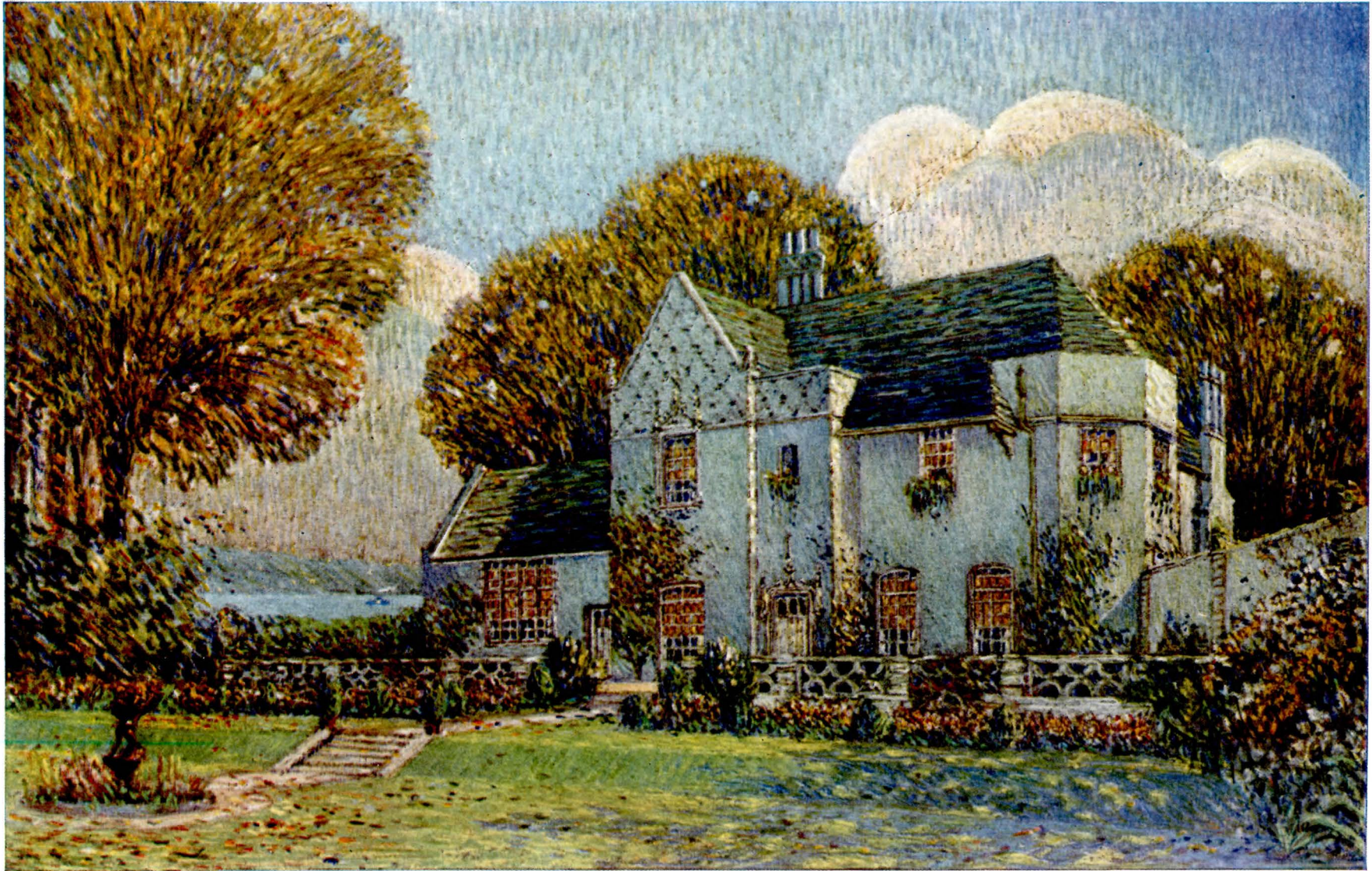
PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR



RENDERING BY BIRCH BURDETTE LONG

*Size of Original 16½" x 24¼"*

*The Cathedral Church of Saint Cecilia, Albi, France*



SKETCH BY FRANCIS KEALLY FOR ALTERATION TO VICTORIAN HOUSE AT SPARKHILL, N. Y.

*Size of Original in Mat 28" x 18"*

*Aymar Embury II, Architect.*

PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR

# THE CONTRACT SET OF WORKING DRAWINGS FOR A SMALL SIX ROOM HOUSE

*Walter J. Thies, Designer & Draftsman*

THE PROBLEMS ENCOUNTERED in designing the modern small house and the necessary working drawings for its erection involve a larger expenditure of time and efforts for the remuneration received than perhaps any other type of building. The medium cost house, however, constitutes the larger portion of the practice of the average architect throughout the country, and in most cases it is work which one cannot afford to refuse.

This type of practice requires the exercise of good judgment to make the right kind of drawings for the purpose. The cost of the house does not bear the right relation to the cost to the architect in time and money for the preparation of the drawings and, in order to obtain a profit from this class of work, it is necessary to determine just how many or how few drawings it is absolutely necessary to furnish in or-

der to give the contractor exactly the information he needs to make an intelligent and accurate estimate and to build from.

The ideal set of contract working drawings for a small house is that which is condensed and yet so clear and readable that it is necessary only to hand it over to the builder and tell him to build the house.

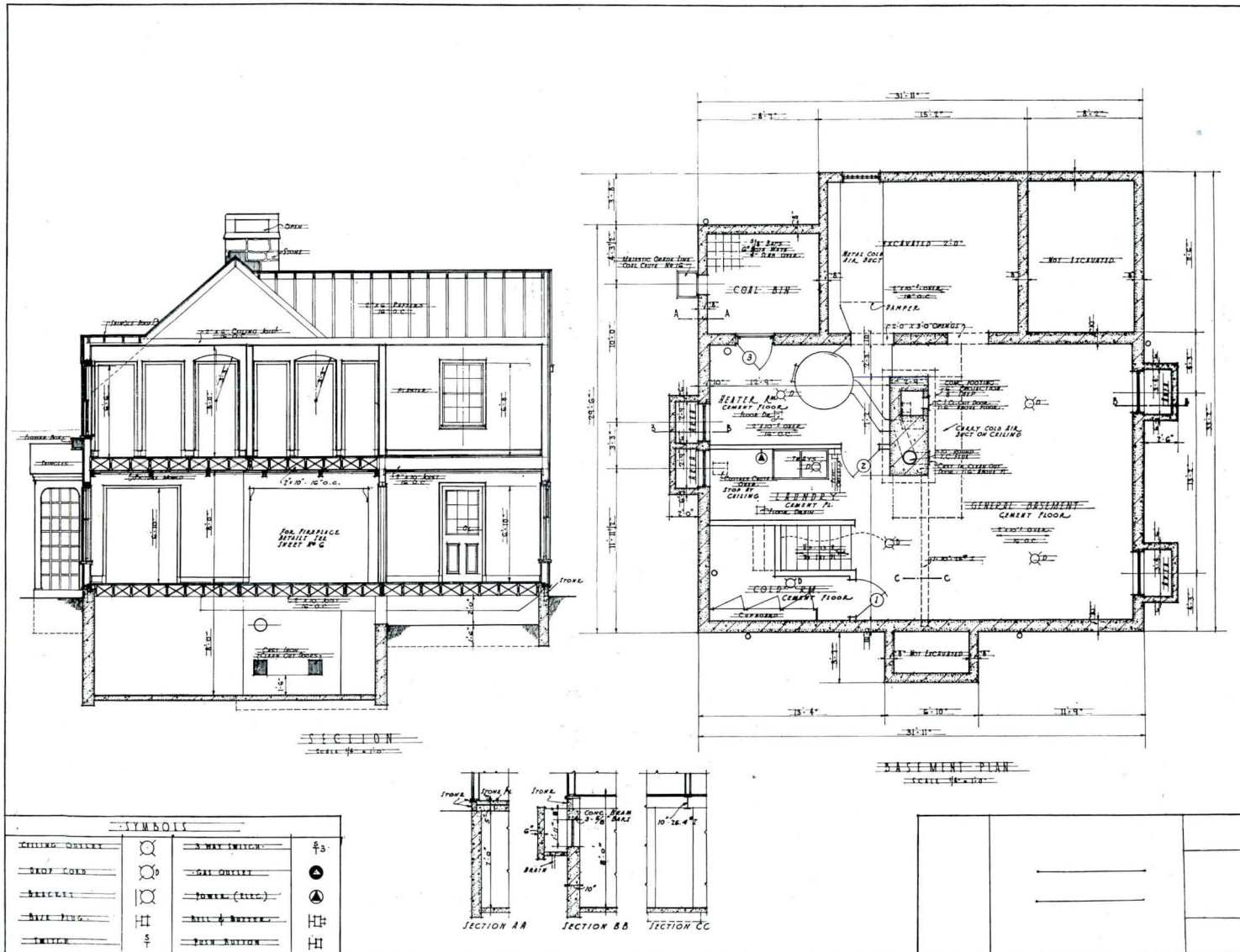
A set of working drawings for the six room house illustrated below is shown on the following pages. A study of these drawings will show that it is possible to get the "personal touch" of the draftsman plus most complete, clear and easily read information which is of practical value for the builder, and to do it with only six sheets of drawings.

This set of working drawings was traced in ink on cloth. A uniform size of 18" x 24" was established for all the sheets by placing the first and sec-



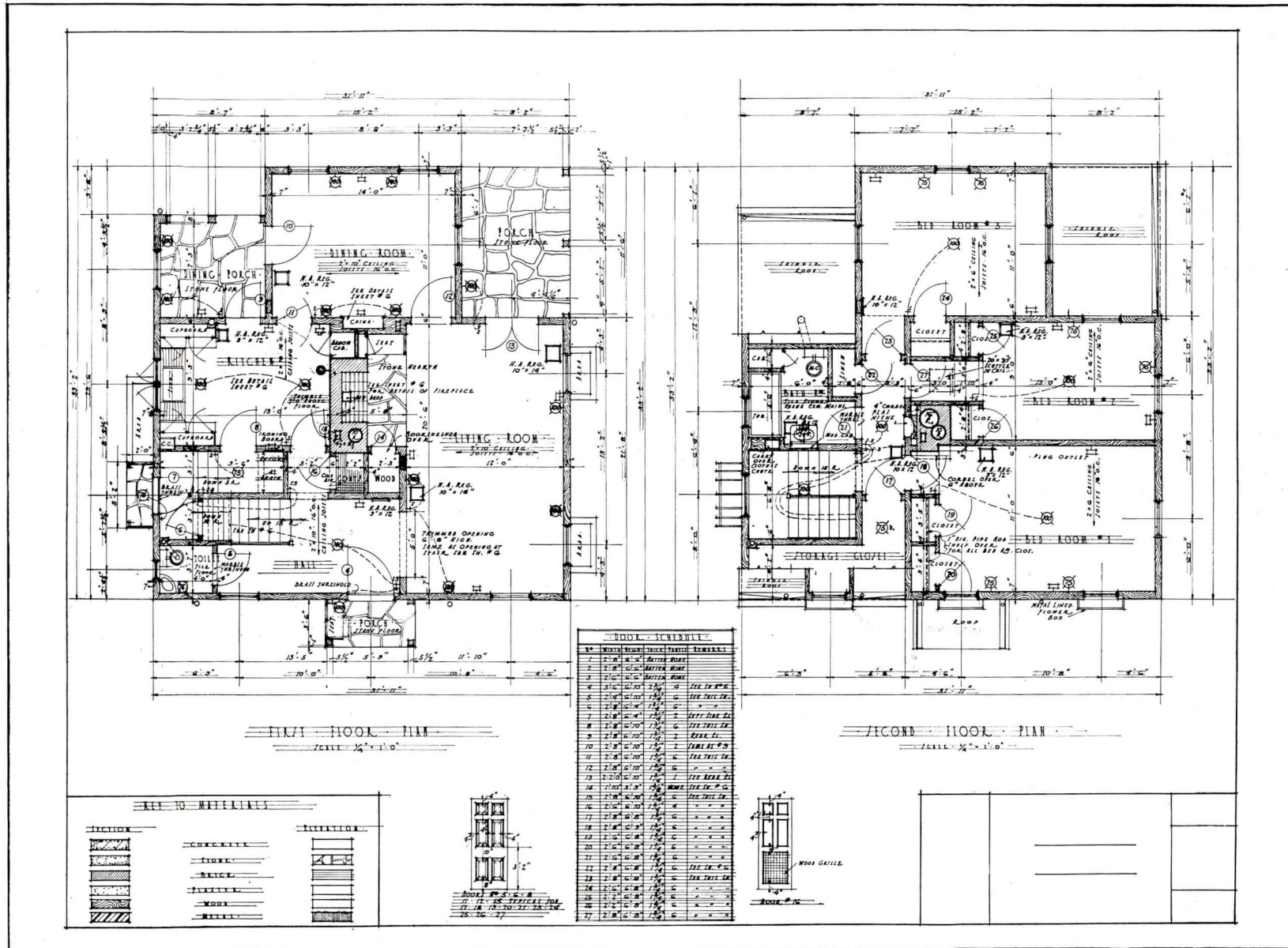
PEN & INK PERSPECTIVE OF SMALL HOUSE DESIGNED BY WALTER J. THIES

# PENCIL POINTS

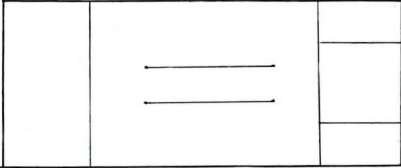


SHEET ONE—WORKING DRAWINGS FOR A SMALL HOUSE—Walter J. Thies, Designer & Draftsman.

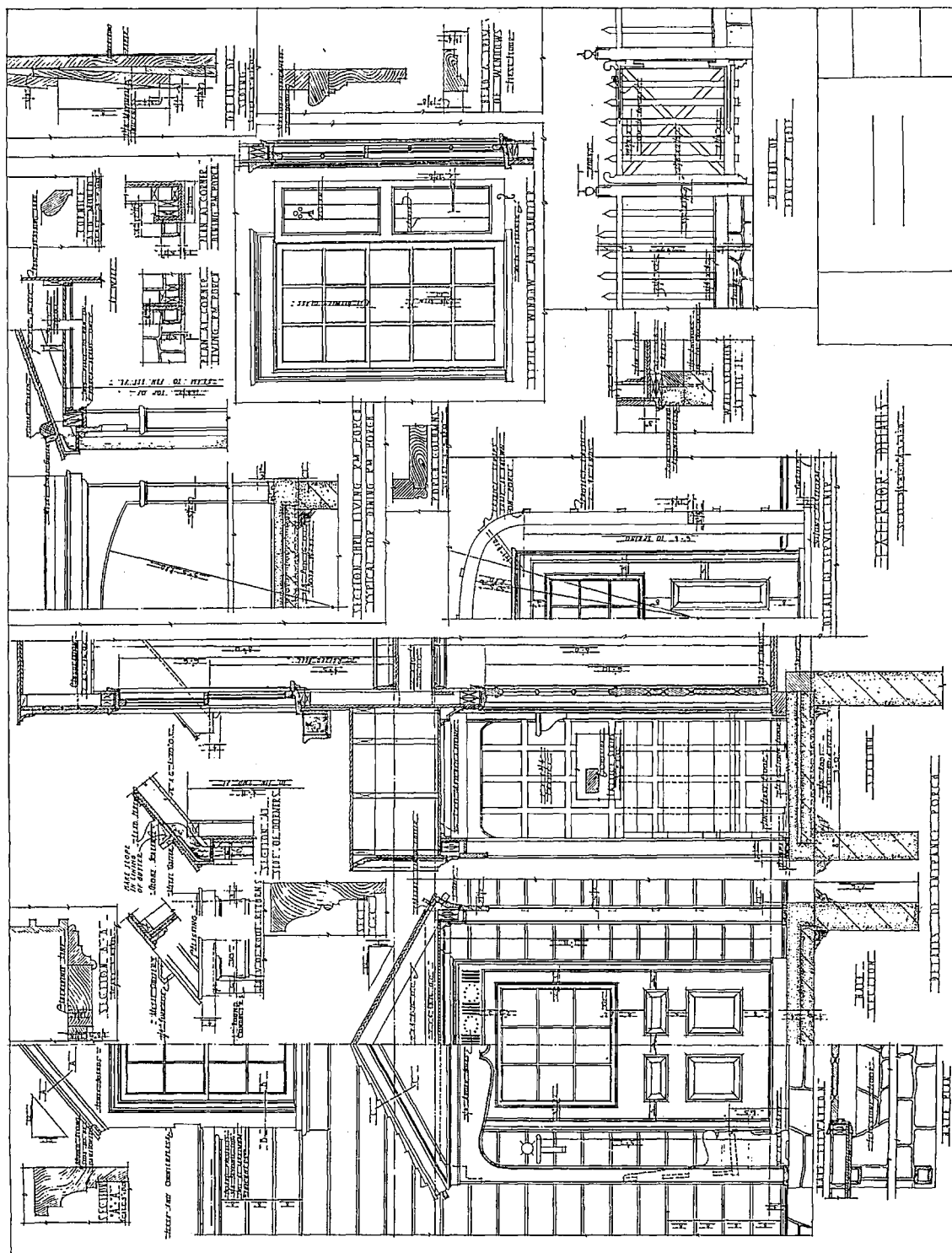
# THE CONTRACT SET OF WORKING DRAWINGS



SHEET TWO—WORKING DRAWINGS FOR A SMALL HOUSE—Walter J. Thies, Designer & Draftsman.







## [ 119 ]



ond floor plans, drawn at  $\frac{1}{4}$  inch scale, on one sheet and allowing for border lines, binding edge and space for the title and then taking one dimension of the sheet, that of a standard width of tracing cloth. The two floor plans on one sheet established a size which was adequate for the  $\frac{3}{4}$  inch scale drawings.

The drawings were not put on cloth until the work was thoroughly studied and everything essential drawn in pencil on stretched manila paper. The indications of material were drawn on the cloth only.

Every step in the process of making the cloth original was dictated by the effect it would have in the print. The print is what the contractor gets and the print is what the house is built by. The use of pure black ink for the silhouette representing the plaster thickness and the outside walls makes a strong black line on the cloth and the corresponding heavy white line on the print helping to clear up the plan and section for easy reading. Diluted ink in various thickness of line has been used for the indication of material in plan and section.

The names of the rooms, figures and notes have been lettered on the drawings in a compact and unaffected manner so that they are legible and clear. A vast amount of necessary information may be given if the arrangement of the data is well thought out. In the drawings we are considering the door swings, direction and size of ceiling joists, soil pipes, registers, floor and base plugs, ceiling and bracket outlets, switches, etc., together with many clearly worded notes are included in a very small area. The dimension lines are not confused with the wiring nor do the notes interfere with the readability of the plans. There have been no unnecessary repetitions in the notes. Each door has been given a number and the width, height, thickness and design shown by a "Door Schedule" on Sheet Two. The glass sizes are given on the elevations for the window panes so that the mill man can work out his sash from stock sizes of material and maintain the scale of the design.

Intelligent estimates can be procured only when complete information regarding the details are in-

cluded in the contract drawings. The practice of including the three quarter inch scale drawings of the main exterior and interior features with full size detail of typical trim gives confidence to the contractors and mills in estimating, and results in lower estimates than could be obtained where the information is less complete.

These drawings give clearly the essential information that is wanted by the builder and in such a way that even the most poorly trained mechanic can understand the intent of the designer.

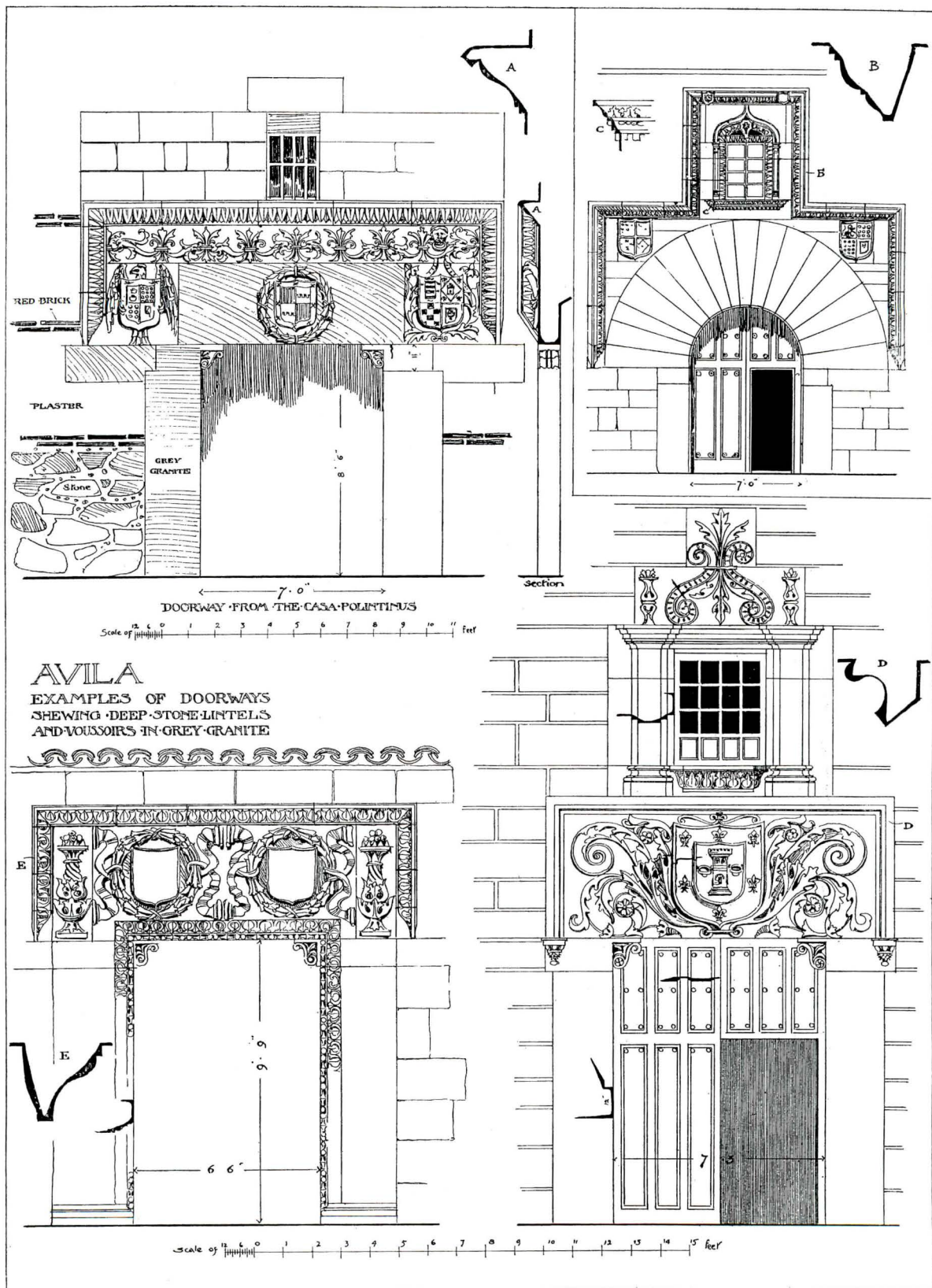
Details of construction vary in different localities so there are bound to be differences of opinion as to the best practice in construction for the small house. This also affects the method of figuring the drawings. The draftsman making these plans cannot be criticized for giving too many figures. He has worked from finished dimensions instead of from rough to rough and he has figured from center to center of openings on the outside and inside. The drawings scale with the figures.

The use of a "key of materials" for both section and elevation is a time saver in the long run, especially if it is necessary to issue many sets of blue prints to owner and contractors.

The  $\frac{3}{4}$ -inch details shown on Sheets Five and Six were studied in full on tracing paper and later arranged logically on the sheet, tracing only that portion which would give the builder what he needed.

This set of contract working drawings show what is possible in condensing the work without losing clearness and to detail fully the complete house on six sheets of drawings which are intelligible to owner and contractor alike.

One of the best rules to follow in making any set of working drawings is the old and obvious one, but one that is often violated—"Never leave out anything that is necessary, but never show anything to complicate the drawing—anything that does not bear direct relation to the prime object of the documents—the building."



RENAISSANCE ARCHITECTURE AND ORNAMENT IN SPAIN

A PLATE FROM THE WORK BY ANDREW N. PRENTICE

PLATE VIII

VOLUME VII

NUMBER 2

*These examples of doorways are to be found in the ancient city of Avila, Spain. The material is gray granite, of which many of the northern cities of Spain are built, and in breaking away from the usual classical forms the local architect shows he understood the material he was using. Inside all these entrances is a large square vestibule peculiar to Spanish houses. One of the doorways forms an entrance to the Casa de Polentinos, approached from a street at the back of the house. The large deep lintels in one piece are a noticeable feature. There are many other specimens in Avila and Salamanca of the round arched doorway similar to the example shown on the top of the right hand corner of the plate.*

# PENCIL POINTS

REG. U. S. PAT. OFF.

Published Monthly by

## THE PENCIL POINTS PRESS, Inc.

RALPH REINHOLD, President

F. W. ROBINSON, Treasurer

EDWARD G. NELLIS, Vice-President and Secretary

Publication Office—Stamford, Conn.

Editorial and Advertising Offices — 19 East 24th Street, New York

RUSSELL F. WHITEHEAD, Editor

E. L. CLEAVER, Associate Editor

W. V. MONTGOMERY, Business Manager

RAY D. FINEL, Advertising Manager

Copyright, 1925, by The Pencil Points Press, Inc.

BY SUBSCRIPTION, \$2.00 per year. Payable in advance: To the United States and Possessions, Argentina, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Republic of Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, El Salvador, Spain and Colonies (Balearic Islands, Canary Islands and Spanish possessions on the north coast of Africa), and Uruguay. Single copies 25 cents.

TO CANADA By Subscription, \$2.50 per year. Single Copies, 25 Cents, Canada or U. S. Funds.

TO FOREIGN COUNTRIES, exclusive of those mentioned above, but in the Postal Union, by subscription, post paid \$3.00 per year. Remittances to be by International or Express Money Order or by Draft on a bank in the U. S., payable in United States Funds.

Subscribers are requested to state Profession.

Instructions for change of address should give both old and new address.

## FEBRUARY, 1926

### THE BEAUX ARTS BALL

THE BEAUX ARTS BALL "A Fête in the Gardens of Versailles," was held at the Hotel Astor, New York, on the night of January 29th. We print herewith a description of the affair:

The Ball Room of the Astor was for one night transformed by enchantment into the semblance of one of the *bosquets* of the Park of Versailles, that royal garden which Le Notre created for his great master, Louis XIV.

At the principal entrance was a grille through which one observed an alley of verdure with a terminal statue at its extremity. To the right of this alley was the north ball room, skillfully done over with painted scenery to represent the Hameau of Marie Antoinette, a chronological anachronism permissible in such imaginative creations as this. To the left of the alley was the entrance to the grand ball room. Here in the centre was a fountain with a jet thirty-five feet in height flanked by great marble vases between which were flights of steps up to the level of the fountain basin and to the level of the stage beyond. From the stage level one ascended a second flight of stairs leading up to the royal loge, or tribune, at the level of the balcony where the King and his Court received the homage of the dignitaries and viewed the spectacles arranged in their honor. Above the royal loge was a great baldaquin surmounted by a crown from which depended curtains of red and gold damask with a central panel forming the background of the throne in blue and silver and the white lilies of France. The railing of the tribune was decorated with the royal coats of arms, interspersed with the familiar interlaced initials of the King, all carried out in the red and gold dominant relieved with blue and silver. The balustrades of the stairway were done in the same manner, and a sumptuous carpet covered the stage and steps. Completely around the ball room was a hedge concealing a raised terrace upon which tables were placed for the accommodation of the guests. Soft green curtains as backdrops, and blue lights in the ceilings lent an air of shadowy mystery to these spaces as well as to the balcony loges above, which were treated in the same manner.

The columns at the sides and ends of the ball room and the arched ceiling were hung with drapes of soft green netting-like material to simulate the overhanging foliage of the famous chestnut trees of the *bosquets* of Versailles. Hundreds of spherical yellow lanterns were cunningly concealed amidst the foliage and soft blue moonlight filtered down from above to complete the picture. The fountain, the stairs of approach, the stage, and tribune were lighted with the degree of brilliancy required for the dramatic portion of the entertainment. Leaving this scene of mystery

and splendor one passed under the royal tribune to the south ball room, which was treated in similar fashion to the grand ball room but on a more intimate scale. Verdure arched recesses along the walls constituted the system of the design with tables in each and with the blue lighting as described for the grand ball room. At intervals were clipped masses of foliage serving as backdrops for sculptured figures on fountains. The ceiling was draped and festooned in green net and the yellow lanterns completed the picture. Added to this conception was the pageant of costumes which, animated by the music of the period, created a scene of new and magical beauty.

It was the birthday of the King, Louis XIV, *Le Roi Soleil*, and the great nobles of France, and princes and ambassadors from the Courts of Europe came to pay him honor.

In one of the *bosquets* of the Park of Versailles a sumptuous tribune in the imperial colors of red and gold was erected for the occasion, with a stage for the tableaux and dances which were presented for the King's entertainment and that of his guests. The stage and tribune were approached by a great stairway, which the various dignitaries, to whom the King gave audience, ascended. Flanking the stairs were the Guards of Honor bearing the great silken standards, emblems of the King's victorious armies.

The Heralds announced the arrival of the King and his Court.

In a stately procession the royal personages approached and ascended the great stairs to the tribune. The King in his robes of state, surrounded by his guard of honor and attended by his chamberlains, led the way. His Queen, Maria Teresa, with her ladies in waiting, followed him, and she in turn was followed by the Princes and Princesses of the blood, the Grand Dauphin, Monsieur; the Duke and Duchess of Orleans, Monsieur and Madame Mademoiselle; the young Duke and Duchess of Burgundy. Following them came the King's favorites in the order of their succession, Mademoiselle de la Vallière, Madame de Montespan, Mademoiselle de Fontanges and Madame de Maintenon.

The King and his Court proceeded to their places in the royal tribune, presenting a scene of the utmost splendour. Upon the enthronement of the King and the Queen, other nobles and dignitaries of the period, in a long procession, ascended the stair to the tribune to express their homage and fidelity to him on this great occasion. They passed in front of the King and Queen to the right and to the left and returned to the loges reserved for them to witness the continuance of the spectacle. Among them were the great Cardinals de Borillon and de Rohan, his minister Colbert, his great Captain Louis de Bourbon, Prince of Condé, the great literary men of his reign, Corneille, Moliere, Racine, his architects, Le Van, Le Notre, Mansart, the painters Lebrun and Puget, the sculptor Coysevox and his son Coustou, all of whom so signally contributed to the glory of his reign.

Upon the conclusion of this procession the King gave the signal for the reception of the Ambassadors from foreign Courts who sought his powerful alliance. The heralds announced the arrival of the Embassy from Genoa, the Doge Lescaro and his senators, Lomelino, Garebardo, Du-vazzo, and Selvago. They brought gifts to the King in the person of a beautiful slave bound with links of heavy gold. This audience concluded, followed the reception of the three Ambassadors from Siam with four Siamese noblemen in their train bearing precious gifts of ivory and gold.

The African King of Arda and his suite were next presented to the King. They brought with them gifts of emeralds and a black dwarf for the Queen.

Finally came the Ambassador from the Court of Persia, Mehemet Riza Bog, with gifts of magnificent greyhounds which he presented to the King.

The King signified the termination of the audiences and directed that the Court be entertained by the performance of the ballet on the stage before him. To the music of strings and flutes the members of the royal ballet appeared and stately Pavanes and Minuets of the period were succeeded by interludes of pantomime with a final apotheosis reflecting the glories of his reign, in which the entire corps de ballet participated.

The King rose, indicating the termination of the spectacle, and the entire Court retired in a recessional which was the signal for the formal opening of the Ball.

HOWARD GREENLEY,

JAMES M. HEWLETT,

Committee on Production and Decorations.



LOUIS CHAPPELL NEWHALL

LOUIS CHAPPELL NEWHALL died suddenly on December 26th, 1925, following an operation for appendicitis.

Mr. Newhall was widely known, and his death will be deeply deplored. His personality and zestful interests won him many friends, but that which endeared him most to all was his keen interest in the young men of his profession and his constant desire to be of service to them. It was in this spirit that he gave the Boston Architectural Club its present form, and he succeeded in creating an institution which, by reason of its social activities and educational opportunities, touches at some point the professional life of every architect and draftsman in Boston. It is perhaps the means by which he has best expressed himself.

Mr. Newhall was born in Malden, Mass., on April 17, 1869. He was graduated from the Malden High School, and for a short time studied at Tufts College for the ministry, but finally entered the Massachusetts Institute of Technology as a student of architecture. After leaving school he worked for some years in the offices of J. Merrill Brown, J. William Beal, and A. H. Bowditch, in Boston, until he won the Rotch Travelling Scholarship in 1898. He was the fifteenth holder of this scholarship, and his appreciation of its benefits was a great influence in his later life. In 1901, soon after his return from Europe, he formed a partnership with Albert H. Blevins under the firm name of Newhall & Blevins, with offices at 9 Park Street. This firm has been an active one and has done much public and private work in Boston and vicinity.

Mr. Newhall became President of the Boston Architectural Club in 1905 and continued in that office until 1915, and from that time until his death was Treasurer of the Club. It was during these twenty years of service that his influence and ideas were paramount. He established the Club in its present quarters, inaugurated its system of classes, and watched over its finances. He was also a very active member of many committees of the Boston Society of Architects, especially those which have to do with education and the conduct of the Rotch Travelling Scholarship. He was a Fellow of the American Institute of Architects, and for many years was the representative in Boston of the Society of Beaux Arts Architects.

## THE NEW YORK ARCHITECTURAL CLUB, INC.

OUR CLUB HAS ACQUIRED A HOME. That is to say, we are presuming and hoping that when this appears in print the deal will have been completed. At this writing, preliminary negotiations have been entered into, and advanced to the point that, barring the possibility of the eleventh hour obstacle, that usually always hovers over all business transactions, makes us feel confident that the matter is as good as clinched.

As we mentioned in the January number, the Board of Directors appointed a committee to locate and establish an atelier in the Grand Central Zone, to accommodate not over 50 students, as the first step in the club's program of activities. The committee has been very fortunate in having been able to find a large loft in the very heart of the desired location, consisting of 4,000 square feet, adjacent to the now famous Bowery Bank Bldg., directly opposite the Commodore Hotel, and diagonally opposite the Grand Central Station. In preliminary sketch plan it has been decided to provide comfortable working space for an atelier of 35 to 40 students, a life model class for about 20 students, library and reception room, club lounge, a meeting room that can also be used for dances, etc.

It is a modest beginning, we will admit, but it is on a sound basis, and what is vastly more important is that it provides the club with headquarters to work from. Besides, there is no reason why the great oaks from little acorns proverb should not hold in this instance. As a matter of fact, things are shaping out surprisingly close along the program mapped out by the club. We have not by any means given up the idea of going into it on the large scale previously outlined. The scope and ambitions of the club to be fairly in keeping with the requirements of the prospective membership will necessarily make it quite a large project. The membership at present is around the 600 mark, and the Board of Directors is considering the closing of charter membership enrollments without initiation fee in the very near future, and the placing of an initiation fee of between \$10 and \$25 on each new club membership application from then on. Therefore it behooves all those who have been deferring and lagging behind to send in their applications without delay. It will save them money to do so.

The atelier, as we have stated before, will be run in conjunction with the Beaux Arts Institute of Design, in the usual way, under the patronage of one of the best architects in the city, who's name will probably be announced in the next magazine issue. The atelier membership is only about three-quarters filled at present writing as the committee has found it advisable to use discrimination in the acceptance of applicants. It is possible that there may still be some vacancies when this is issued, so that those who had figured on joining had better get in touch with the writer at once on this matter.

### *Architectural Bowling League Division*

The Architectural Bowling League is now about three-quarters of the way through the schedule for five-man teams, and going stronger than ever, and the "dopesters" are already laying wagers as to the winners. However, the competition is very keen, and the unusual happens so often in this fascinating game, that no sooner a forecast is ventured by someone, along comes a team with a surprise party up their sleeve and upsets all the dope. All of which makes it more interesting. Rex Read of the Cass Gilbert team had a high individual score of 221 for so long that it looked as if it would stand till the end, but along came King of the Guilbert & Betelle office the other night and rolled 232. However, it is our opinion that before the tournament is over someone will roll up a score of about 270.

The Architects Samples Corporation of this city has donated a very handsome silver cup about 24 inches high, which will be known as the Architects' Samples Corporation, Individual Championship Trophy. Each year the winner's name will be engraved on it, and the winner presented with

a large silver tray. The trophy itself will be given to the one who wins it three times irrespective of sequence. We hope to have a picture of it in the next issue, together with the other trophies and medals.

Thursday, January 14, was again "Ladies' Night" at the alleys, and about forty members of the fair sex lent class to the occasion. The ladies had a very pleasant evening, bowling on the three alleys reserved exclusively for their pleasure for the evening.

The annual ball of the Bowling League will be held on Wednesday evening, March 10th, in the Palm Garden, 58th St. and Lexington Avenue, and a very large gathering is expected, judging by the advance sale of tickets. But we have plenty of tickets left, and the hall can easily accommodate 5,000 people.

HENRY SASCH, Secretary,  
c/o Donn Barber,  
101 Park Avenue, N. Y. City.

#### THE AMERICAN ACADEMY IN ROME

FROM A LETTER RECENTLY received by C. Grant La Farge, Secretary of the American Academy in Rome, from Frank P. Fairbanks, Professor in Charge, School of Fine Arts, we quote the following:

"The residential facilities of the Academy are now full. Seven visiting architects are working in the drafting space provided by us for such scholarship holders.

"Our own men are all busy and there is a fine atmosphere of fellowship throughout the Academy.

"George Fraser, first year architect, is hoping to obtain permission from Prof. Bartocchini, Director of the National Museum in Tripoli, to make a restoration of a "terme" in Leptis Magna, in collaboration with Charles A. Robinson of the Classical School. If Fraser and Robinson can obtain this grant to work on this famous bath, they will go down to Africa after the collaboration competition and stay at the site until the complete material is obtained for a presentation of the reconstruction.

"Michael Mueller, the first year painter, has completed the preliminary cartoons for a composition of two figures and Walker Hancock, first year sculptor, is finally established in his own studio. Hancock had to accommodate himself to sculptor Stevens' departure from the Academy, which took place about the middle of the month. The casting of Stevens' final group occupies considerable time, while the packing of it for shipment to New York only added to the delay in vacating the studio.

"Finley and Bradford, second and third year painters, are busy, the former with a figure composition which promises to have a fine decorative feeling. Camden, second year sculptor, has a relief and a life sized figure in progress. He has finished a head in marble, modelled another for stone and composed a group, at one half scale, of a mother and child. Alvin Meyer, senior sculptor, is hard at work on his Greek well head.

"Douglas, second year architect has completed all his drawings for his restoration of the Temple of Dougga and made a beautiful rendering of a garden wall of the Knights of Malta.

"Deam, senior architect, is finishing the drawing of a fountain in the Piazza Mastai. He hopes to obtain the rare privilege of measuring the Villa Lante at Bagnaia.

"Newton, landscape architect, has just finished a planting layout of the garden theatre at the Villa Glori, La Lizza, Siena, to accompany his plan made last year. He is working on a planting plan of the Villa Medici at Fiesole."

#### LECTURES FOR UNIVERSITY OF FLORIDA

Special lectures by prominent architects will be provided by the Florida Chapter of the American Institute of Architects, at their expense, as a gift to the new School of Architecture at the University of Florida.

At a meeting in Jacksonville the Florida Chapter voted unanimously to set aside a portion of its funds for the purpose of defraying the expense of bringing to Gainesville men high in the profession. The students in architecture will thereby have the opportunity of hearing and meeting the men who are directing the architectural development of Florida today and who will be the employers of the men now enrolled in the architectural courses.

This act of the Florida Chapter is additional evidence of the support that the profession is giving to the new School of Architecture.



BURT LESLIE FENNER

BURT LESLIE FENNER died suddenly on January 24th, at his home, Croton-on-Hudson, N. Y. For the past twenty years he had been a member of the firm of McKim, Mead & White, Architects.

Mr. Fenner was born in Rochester, N. Y., September 5, 1869, the son of Edward B. and Margaret Virginia Fenner. He was educated at the University of Rochester and in 1911 received an honorary degree of Master of Arts from that University. He also studied at the Massachusetts Institute of Technology before starting as a draftsman in the offices of McKim, Mead & White, in 1891.

The high standing of Mr. Fenner among his associates is evidenced by his having been chosen President of the Apprenticeship Commission, created by the New York Building Congress in 1922; President of the New York Chapter of the American Institute of Architects; chairman of the committee appointed in 1922 by the Chapter and the Building Trades Employers' Association to deal with the difficult questions arising between architects and builders, and general manager of the United States Housing Corporation during the critical building situation of war times.

Mr. Fenner was a Fellow of the Brooklyn Institute of Arts and Sciences and of the American Institute of Architects. He also belonged to the American Federation of Arts, the Century Association, the University Club, the Psi Upsilon fraternity, the Sleepy Hollow Country Club, and the Cosmos Club of Washington.

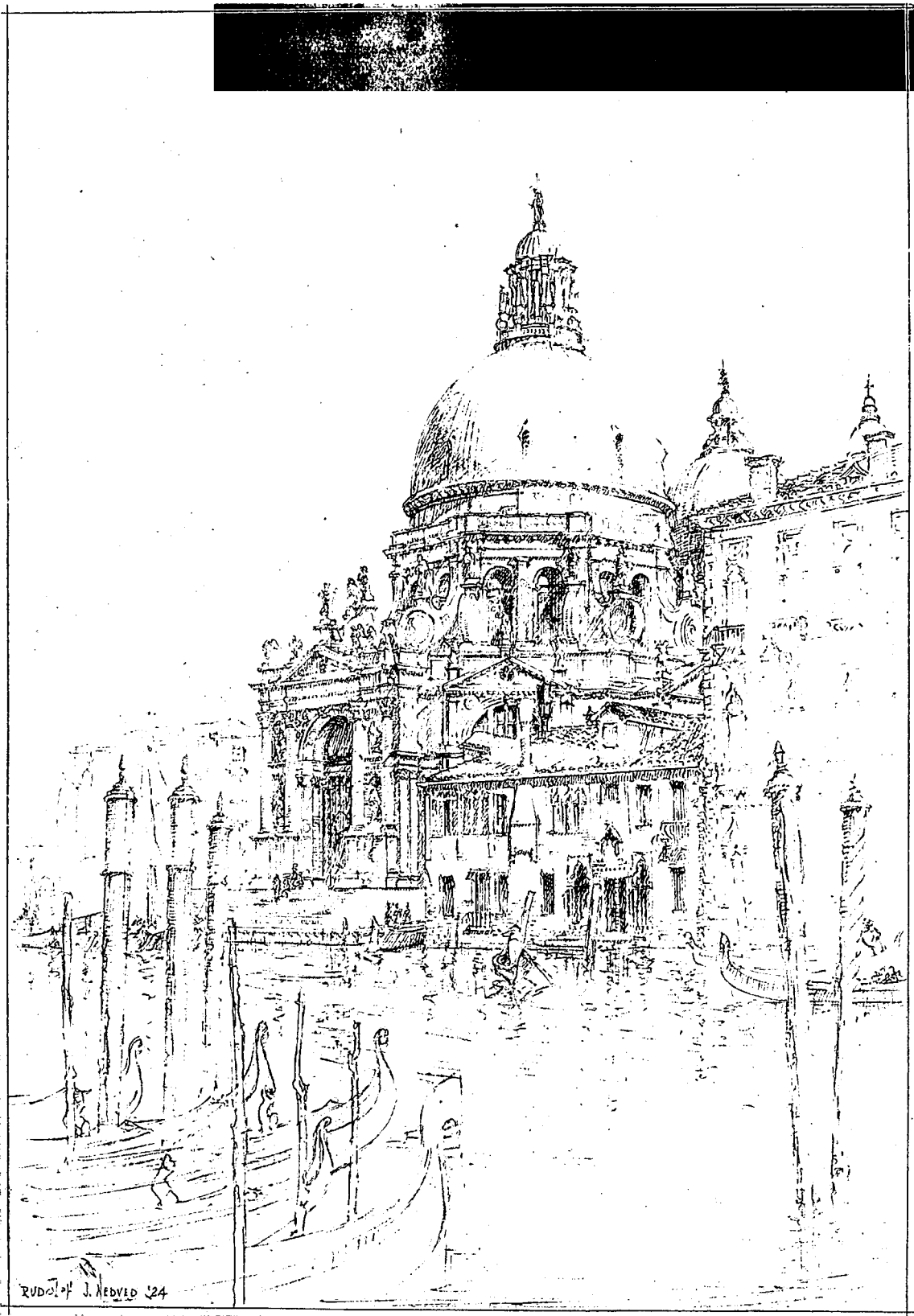
#### LECTURE ON TUDOR ARCHITECTURE

AN ILLUSTRATED LECTURE on "Tudor Architecture" will be given to a number of Chapters of the American Institute of Architects by Mr. Sydney E. Castle, R. I. B. A.

Mr. Castle, who is familiar to American architects through his pencil and pen and ink sketches, will illustrate his lecture with about sixty lantern slides, and will have with him, for inspection by his audiences, a sketch book of details covering panelling, plaster, fire-places, chimneys, doors, etc. In many instances, his talk will be followed by a general discussion.

The lecture will be given under the auspices of the Producers' Research Council, affiliated with the American Institute of Architects, as a part of their educational program. Arrangements have been made to give the lecture in Cleveland, St. Louis, Minneapolis, St. Paul, Indianapolis, Chicago, Atlanta and Philadelphia.

Definite arrangements have not as yet been completed, but it is very likely that the lecture will also be given in Boston, Knoxville, Tenn., and New York.



PENCIL SKETCH BY RUDOLPH J. NEDVED  
SANTA MARIA DELLA SALUTE FROM THE TRAGHETTO



PENCIL DRAWING BY J. A. FERNANDEZ  
CHURCH AT LISIEUX

## THE INDIANAPOLIS ARCHITECTURAL CLUB

THE ANNUAL MEETING AND BANQUET at the Hoosier Athletic Club December 8, marked the close of a successful year for the Indianapolis Architectural Club. The *mêlée* was well attended and a good time was had by all. After the demi-tasse was served, the president called for a business session which developed into a lively one. Committee reports were read, discussed, and mostly accepted. The election of officers for the coming year was held and the following were elected:

President—Howard Hartman  
Vice President—Orval E. Williamson  
Secretary—Oliver Hackmeyer  
Treasurer—Roy Carson

Committees appointed to carry on the good work done this year are:

Current Work Committee—Macy Thompson, chairman, Ed. Clemens, Virgil Hoagland, Harold Schoen.

Membership Committee—Orval Williamson, chairman, George Wright, Wilbur Green.

Exhibition Committee—Clyde Stoughton, chairman, Herbert Stanley, Ed. James, Ed. Pierre.

Entertainment Committee—Sam Becker, chairman, Dwight Lytel, Harold Spitznagel.

Publicity Committee—Ed. Pierre, chairman, Lois McCrary.

Beaux Arts Committee—Ed. James, chairman, Orval Williamson, Dick Bishop, George Wright.

After the election, Ed. Clemens, the club's premier humorist, was called upon and he responded with a few jovial recitations. The meeting dispersed shortly afterward.

A distinctive feature of the club is the Tuesday luncheon meeting. Short talks on various subjects are presented to the members after lunch by competent speakers who know their topics.

Trips to several establishments of those connected with the profession have been made and have proved to be quite instructive as well as interesting.

The club's affiliation with the Inter-Club Council has been a means of keeping in close touch with current events and has enabled it to have a voice in promoting civic affairs.

Extensive plans are being made for future projects that the club hopes will gain for it a place of prominence in the activities of the welfare of the city. The degree of genuine enthusiasm that each member has shown for all the branches of the club promises well for a successful and profitable year to come.

## ATELIER RECTAGON OF BUFFALO

"SOMETIME BACK WE BOASTED that our Atelier was second to none and now we beg to be allowed to present our proof.

"The Atelier held its Christmas party Dec. 21, 1925, which was in itself a great success. The Atelier Rectagon syncopators appeared for the first time as one of the many surprises to the organization at large. The orchestra is composed of Roy McMurray, Anthony J. Nisita, Elmer McHenry, John Sloan and Joseph Siebert.

"Santa brought a real surprise, however; when he announced a generous subscription for a fund, establishing an annual tour of Europe for two members of the Atelier. In contrast to other traveling scholarships, this is a reward, not of merit in design but for interest and efforts displayed in promoting the real Atelier spirit (not plural). A candidate must complete at least one of the three problems scheduled on the Beaux Arts calendar and subsequently be elected by a vote of the candidates eligible for the scholarship. Each elector must present his vote in writing together with a reason for his selection. The candidate who has worked most zealously for the interests of the Atelier will be given greatest preference.

"We're there are we not? We are going to stay too. We have been encouraged further also by Edw. B. Green, Jr., of the firm of Edw. B. Green and Sons, consenting to act as patron and fill the vacancy caused by Mr. Frank Spangenberg's resignation at a very crucial point in our history."

## DETROIT ARCHITECTURAL BOWLING LEAGUE

THE DETROIT ARCHITECTURAL BOWLING LEAGUE has passed the half way mark for the season and has received no challenges, threats, or invitations from any other architectural league. We will soon be compelled, with all becoming modesty, to claim the title of "World's Champions."

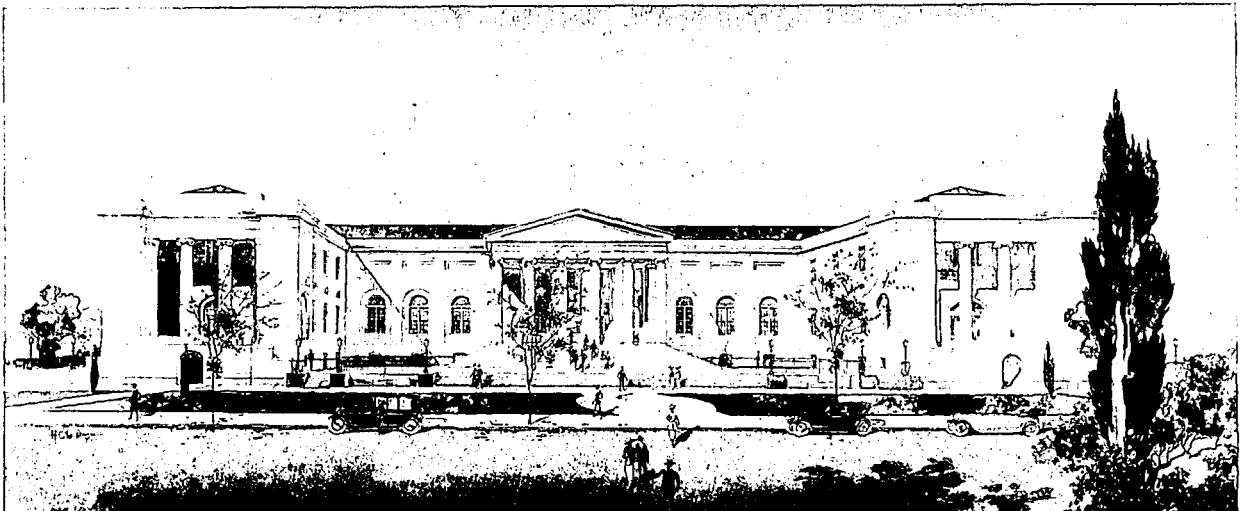
Our match-maker, J. P. Bassler, 800 Washington Blvd. Bldg., reports that he has had no mail since the first of the month (*any* month, in fact).

The team standings on January 18th were:

Team	W	L	Pct.
1 Janke, Venman & Krecke .....	29	16	.644
2 Albert Kahn .....	29	16	.644
3 Malcomson & Higginbotham .....	28	17	.622
4 Smith, Hinchman & Co. ....	28	17	.622
5 Geo. D. Mason & Co. ....	24	21	.533
6 McGrath, Dohmen & Page .....	23	22	.511
7 Donaldson & Meier .....	22	23	.489
8 Weston & Ellington .....	18	27	.400
9 Van Leyen, Schilling & K. ....	14	31	.311
10 Simmers & Waalkes .....	10	35	.222

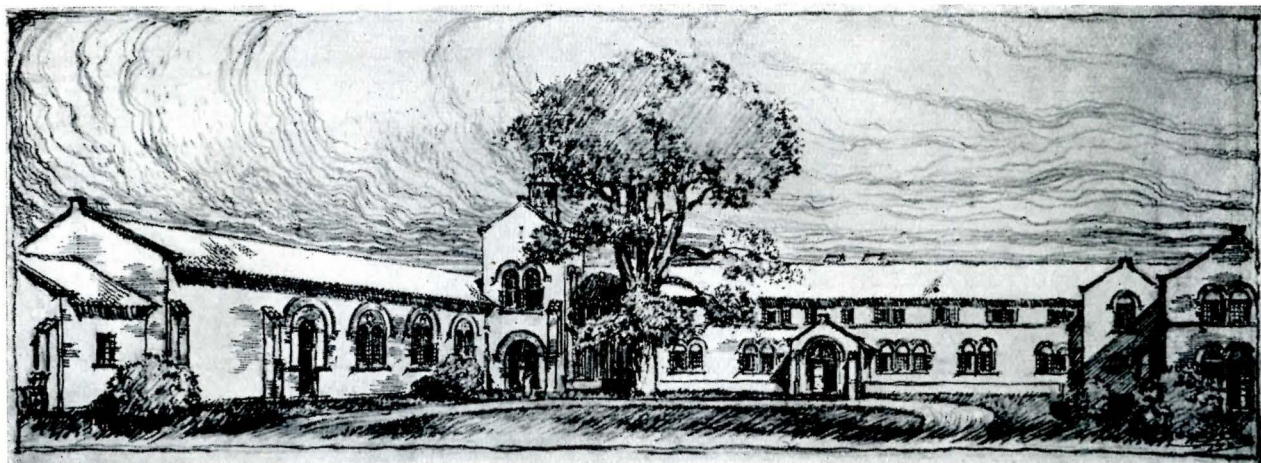
## High Scores

Jolson—228-224, Collett—201, McLaughlin—220, McArthy—201, Richardson—213, Janke—208.



WATER COLOR RENDERING BY HARRY C. WILKINSON OF OLD COURT HOUSE, WASHINGTON, D. C.

Frank Pearson, Architect



SKETCH BY WILSON EYRE FOR SCHOOL AND DORMITORY BUILDINGS FOR THE AUGUSTINIAN FATHERS, STATEN ISLAND.

## EXHIBITION OF THE ARCHITECTURAL LEAGUE OF NEW YORK

(Continued from page 105)

Honor at the Exposition of the Decorative Modern Arts of 1925. The selections were made so that the work shown might be of genuine interest to the American observer.

With the addition of the Paris exhibits to the American works, the forty-first exhibition of The Architectural League shows two drastically different trends in modern designs. The impetus given architecture by the Architectural and Allied Arts Exposition last year has stimulated a great interest in this year's exhibition. League members are represented by some handsome exhibits. Mr. Klauder's drawings of the Temple of Learning at Pittsburgh, (some of which were illustrated in the November issue of PENCIL POINTS); the National City Bank of Havana, by Walker and Gillette, (shown on page 107); the series of fine drawings by Hugh Ferriss and Birch Burdette Long for the reconstruction of King Solomon's Temple, (see the November, 1925, issue of PENCIL POINTS); the Arlington Bridge at Washington; new photographs of John Mead Howells' and Raymond Hood's Chicago Tribune Building, together with photographs and drawings of schools, public buildings, factories and skyscrapers, churches, country houses and other edifices contemplated or in the course of construction in all parts of the United States are among the exhibits. The American Academy in Rome has contributed some excellent material—one exhibit being the group, "Renaissance," by Lawrence Stevens, shown on page 109 of this issue.

## PRIZES AWARDED IN LEHIGH PORTLAND CEMENT HOME COMPETITION

THE LEHIGH PORTLAND CEMENT HOME COMPETITION was divided into two classes: Class A, a six room two story house with one or two baths and cellar (Plans limited to 26,000 cubic feet). Class B, a five room bungalow with one bath and cellar (Plans limited to 20,000 cubic feet). The following prizes were awarded:

Grand prize, \$1,000, first prize in Class A, \$500 and honorary mention in Class B, \$50, awarded to Angus McD. McSweeney, San Francisco, Calif.

Other prizes in Class A were awarded as follows: second prize, \$300 to H. A. Surman, Detroit, Mich., third prize, \$200 to Emil Backstrom & Herbert Magoon, New York; fourth prize, \$100 to Francis Keally, New York; ten honorary mention prizes of \$50 each to Rufus A. Sherman, Upper Darby, Pa.; Charles Crombie, Detroit, Mich.; William E. Willner, New York; Shirley C. Horsley, Philadelphia, Pa.; William Rankin, New York; Amedeo Leone, Detroit, Mich.; Louis C. Rosenberg and Oliver Reagan, New York; E. M. Eskil, Sacramento, Calif.; John J. Reagan and Dan. W. Murphy, New York, and O. H. McCord, San Rafael, Calif.

Prizes in Class B were awarded as follows: First prize, \$500 to John Floyd Yewell and Harry Starr, New York; second prize, \$300 to Walter L. Moody, Santa Monica, Calif.; third prize, \$200 to Frederick H. Reimers, Oakland, Calif.; fourth prize, \$100 to James H. Holden and Harold A. Rich, Boston, Mass.; nine additional honorary mention

prizes of \$50 each to James D. Wickenden, Berkeley, Calif.; Carl C. Tallman, Auburn, N. Y.; G. Dewey Swan, New York; Fred E. Pond, Santa Cruz, Calif.; Harry L. Wagner, Kansas, Mo.; Sara Leenhouts and George F. Spinti, III, Milwaukee, Wis.; William B. Millward, Portland, Me.; William Rankin, New York; J. Pendlebury, New York.

The first and second prize designs in Class A and the first prize design in Class B will be built as demonstration "model" houses financed by the Lehigh Portland Cement Company and under the supervision of Home Owners Service Institute. Ground will be broken this week in New York and Chicago for the building of the two houses from the first prize design, Class A. The second prize, Class A, is to be built in Kansas City. The second prize house, Class A, is under construction in Birmingham, Alabama.

## PERSONALS

HARRY B. BRAINERD, ARCHITECT, has opened an office for the general practice of architecture and town, city and regional planning in association with Richard Haviland Smythe, with offices at 681 Fifth Avenue, New York.

ANTHONY J. DEPACE, ARCHITECT, has removed his offices to 6 East 46th St., New York, N. Y.

GODFREY E. LARSON, ARCHITECT, has removed his offices to 5154 N. Clark Street, Chicago, Ill.

RALPH M. HERR, ARCHITECT, has removed his offices to the Miners' Bank Bldg., Wilkes-Barre, Pa.

JACOB ESPEDAHL AND KAARE S. ESPEDAHL have formed a partnership under the firm name of Espedahl & Espedahl, Nelson Bldg., Daytona Beach, Fla.

WATERS & WILKES, ARCHITECTS, have dissolved their partnership. Mackenzie Waters will continue the practice of architecture at the same address, 96 Bloor Street, West, Toronto, Ontario.

LEANDER McCORD, ARCHITECT, has removed his office to 530 Sibley Bldg., 328 Main Street, East, Rochester, N. Y.

J. DE BRUYN KOPS, ARCHITECT, has moved to 724 Collins Ave., Miami Beach, Florida.

HORACE A. HENSON, ARCHITECT, has opened an office for the practice of architecture in the Capitol Theatre Building, St. Petersburg, Fla.

G. ADOLPH JOHNSON, ARCHITECT, has removed his office to the Duprey Building, 16 Norwich St., Worcester, Mass.

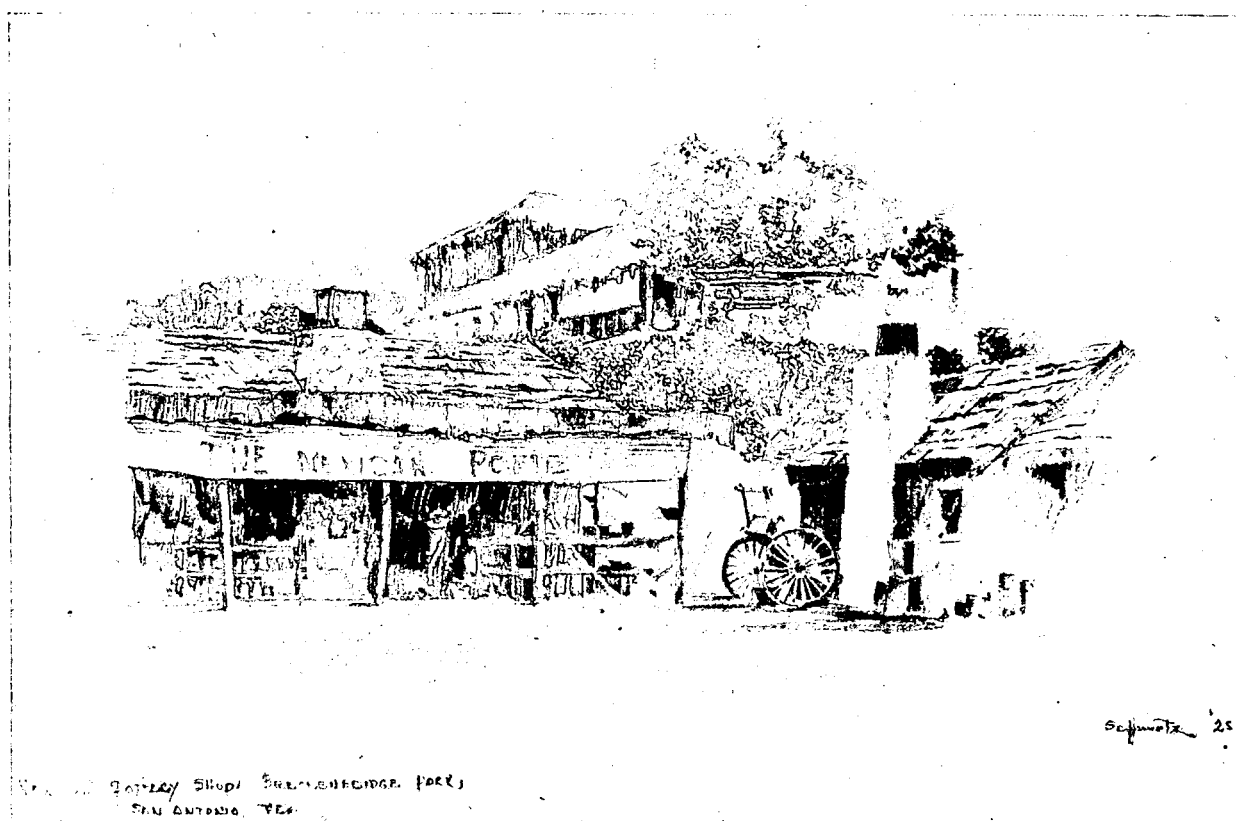
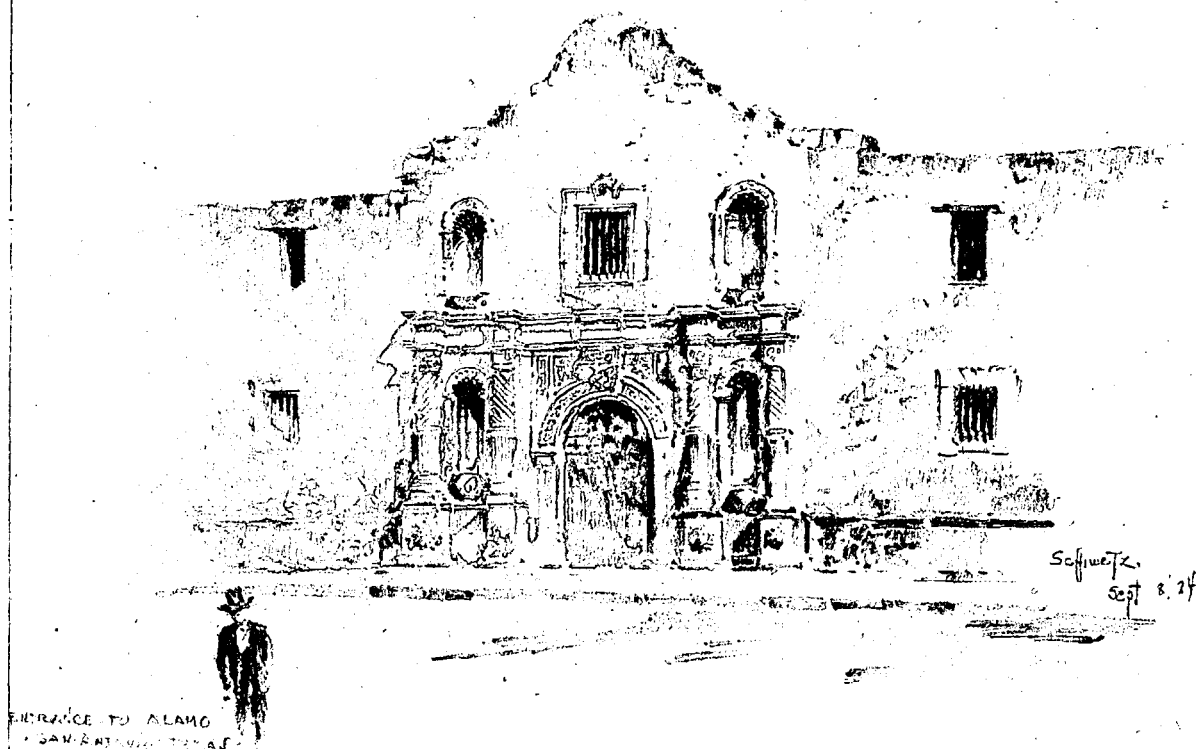
GEORGE FULTON, JR., ARCHITECT, has opened an office at 122 East 41st Street, New York.

KIESWETTER & HAMBURGER, ARCHITECTS, have dissolved their partnership. P. L. Kieswetter has opened an office at 186 Joralemon St., Brooklyn, N. Y.

ROY G. PRATT, ARCHITECT, has removed his offices to 1314 Franklin Trust Building, Philadelphia, Pa.

L. KENT MOATZ, ARCHITECT, has opened his new offices at 712 Union Trust Bldg., Cleveland, Ohio.

PENCIL POINTS



SKETCHES MADE AT SAN ANTONIO, TEXAS, BY E. M. SCFFIWETZ  
(PRIZE—Class One—January Competition)

# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

SOME OF THE READERS of this department do not quite understand the precise terms of our stupendous monthly competitions for fame and ten dollar bills, so we again present the specifications, which are as follows: There is a brand new competition each month which closes on the fifteenth. All material received between the fifteenth of January and the fifteenth of February will be considered for the prizes which will be announced in the March issue.

Ten dollar prizes are offered as follows: Class 1, Sketches: any medium, any size, any subject. Etchings are eligible if treated in the manner of a sketch. Class 2, Verse: it may be serious or gay and pertaining to architecture and anything else under the sun. Class 3, Cartoons and Caricatures. Class 4, any contributions not falling in any one of the three classes above. They may be jokes, witticisms, designs for book plates, or any other type of contribution whatsoever suitable for publication in this department.

The publishers reserve the right to publish any contribution deemed worthy even though it may not win a prize, and they also reserve the right not to award prizes in any class if no contributions are received, which, in the judgment of the Editor, are of sufficient merit to warrant publication.

The prizes in the competition ending January 15th have been awarded in Class 1 to E. M. Scfiwetz, two of whose sketches are reproduced in this issue. In Class 2 to Hugo H. Zimmermann. The award in Class 3 goes to Maurice J. Glick. And in Class 4 to Clarence E. Hersh.

Even though no prize was awarded to Mr. C. F. Kimber we wish to compliment him upon the five very charming etchings submitted, two of which are reproduced in this issue.



ETCHING BY C. F. KIMBER, COLCHESTER, ENGLAND



ETCHING BY C. F. KIMBER, COLCHESTER, ENGLAND

CERTAINLY LOTS OF STRANGE THINGS happen in architects' offices and here is an account of one of the strangest. Mr. Angelo Hewetson of Alameda, Calif., sent us a subscription for PENCIL POINTS on a blank through which a bullet had passed accompanied by the following letter which tells its own story. "Dear Sirs: I must really apologize for the condition of the subscription blank which I am returning.

The fact of the matter is that one of our clients took leave of his senses and shot three of us in our office. I was the most badly damaged (excluding the marksman who is still very low) but I was able to come home last Sunday after being in the hospital 18 days. You will see by the blank that my special bullet went through it before going through me. I find PENCIL POINTS a thoroughly delightful magazine and was delighted to get my December number on Wednesday. With every good wish for Christmas and the New Year."

The clients of California, or some of them at least, must be very wild and dangerous and we print this as a warning to all architects to keep some heavy piece of furniture between themselves and their clients when they (the clients) become infuriated to the shooting point. Perhaps it is best to give way in small matters rather than let proceedings reach such a hectic stage. Evidently the lives of all architects should be heavily insured. This is a tip to the enterprising insurance solicitors in all parts of the country.

IT PAYS TO ADVERTISE! For a while we did not get any poetry around here at all. So we complained bitterly about this in our January issue and what is the result? Plenty of poetry, as might be expected!

No serious contenders for the crown of Mr. Shakespeare have appeared, but who knows what may happen at almost any moment? Maybe someone now reading these lines will become inspired to do an epic of the drafting-room which will ring down through the ages and make its author as famous as Will Shakespeare or Will Rogers, or any of the other well-known Wills. But verse for this department need be neither serious nor grand. Any kind of skitty ditty will do if it has an amusing or pungent idea wrapped up in it somewhere and has approximately the right number of feet, etc. Lots of things that cannot be expressed in a drawing can be done in rhyme and while we have no notion of turning this department into a poet's corner we are quite sure that there is lots of latent talent among our readers which should be uncovered for the amusement of us all.

THE TRIBUNE TOWER  
(PRIZE—Class Two—January Competition)

Oh Tower of my delight,  
Soar upward into realms of light,  
And kiss the clouds.

Geyser of fretted stone,  
You rose in wondrous monotone,  
In equipoise serene.

Oft in the misty night,  
You stand in ghostly white,  
And touch the rain.

You meet the storm's embrace,  
In bridal veil of crystal lace,  
And crowned with snow.

Pillar of graven stone,  
Your mighty song alone,  
Can sway men's hearts.

You be the lodestar of our dreams,  
Whose clear effulgent beams,  
Shall pierce the night.

You mark our path to duty,  
And light the road to beauty,  
Which leads to God.

H. H. Zimmermann

HERMAPHRODITE

(To the Shelton Hotel, New York)

A warrior by day, triumphant,  
bearing against the unseen stars  
his bandit crest:  
At night a countess  
nonchalantly wearing  
the captured constellations on her breast.

Elisabeth Coit

MINUTE THAT SEEMS A YEAR WITH APOLOGIES TO GLUYAS WILLIAMS



WAITING FOR THE BOSS TO PASS  
HIS VERDICT ON YOUR 'SUPREME'  
EFFORT IN DESIGN.

M.J. Glicker, 1925

CARTOON BY MAURICE J. GLICKEN  
(PRIZE—Class Three—January Competition)

WONDER WHAT AN ARCHITECT THINKS ABOUT

—BY BRIGGS



CARTOON STARTED BY BRIGGS AND COMPLETED BY  
STUART WHITNEY, CLARKSBURG, VA.

THE ENGINEER

When the front elevation is finished  
And the sketch plans are ready to boot  
When the client with eyeful and earful  
Has at last authorized you to shoot,  
When your brain child of pencil and paper  
Has a chance to become steel and stone  
Then you send for this blighter, this anger exciter  
Who turns your glad smile to a groan.

When you say you've allowed eighteen inches  
For the thickness of floor over all  
He will answer at once, "Well you must be a dunce  
And I am surprised at your gall.  
It will take at least forty inch girders,"  
Says this slide-rule and calculus hound,  
"You can't hang a building on sky hooks  
You must keep its feet on the ground."

"I will need twenty inches for columns  
Where you have allowed me but eight."  
You can see by this time, there's a reason for crime  
And why people write hymns of hate.  
So he ruins the best of your planning  
But you don't see his real cloven hoof  
'Til he cuts down the headroom in every damn bedroom  
And changes the slope of the roof.

But be calm in the face of his insults,  
Withhold your mad impulse to smite.  
Look into the matter and you'll find this chatter  
Comes somewhere near being dead right.  
After all this is but an example  
Of how on this earth we are bound  
Though we hitch to a star, to be sure that we are  
Keeping our feet on the ground.

George McNaughton

HARDUP

I want that ten dollars,  
Please send it on quick,  
For some shirts, socks and collars,  
I want that ten dollars.  
While an inner self hollers  
This should just do the trick.  
I want that ten dollars,  
Please send it on quick.

Murray P. Corse



HARRY B. TOUR HAS THE RIGHT IDEA—HE SENT HIS  
RENEWAL RIGHT BACK

### SONNET TO A YOUNG ARCHITECT

Rail not at grey, dull days with pen and rule,  
When heavy hand doth smudge the wavering line,  
And Vision melts down in diffuse design:  
No Genius is too high to sit at school.

We others see our towers pulverize,  
And drift, like smoke, away. To few 'tis given  
To see their dreams come true this side of Heaven,  
But thou shalt dream—and bid thy dream arise!

Throw wide thy heart, then! Coin thy very soul  
And fling its gold, in turrets 'gainst the sky!  
To thee, above all men, the gods give dole  
Of fair fulfillment! Thou canst justify  
To gods and men thy dreaming—and thy goal  
Is to *dream true* where we but prophesy!

Helen A. Dooley

### AT SIASCONET

(From the sketch by J. Crawford Byers in the  
*December Pencil Points*)

The cottages that sit so still  
And look across the bay,  
Were once the homes of fisherfolk  
And once were new, they say;  
But now the wand of artist, Time,  
Has charmed them silver gray.

So suited to this shore, it seems,  
They grew up from the soil,  
Or else were formed by silver mists  
And not by human toil;  
Time used harsh weather by the sea  
Their somberness to foil.

With each young year there opens life,  
That winter duly closes,  
For Time keeps youth within his heart,  
Although so stern he poses;  
Lo, June finds silvered walls and roofs  
A-bloom with rambling roses!

Evantha Caldwell

WANTED: A copy of the *Architectural Review*, issue of October, 1918—The Hospital number. Communicate with J. Wynne Thomas, Bodnant, Lostock Park, Bolton, Lancs, England.

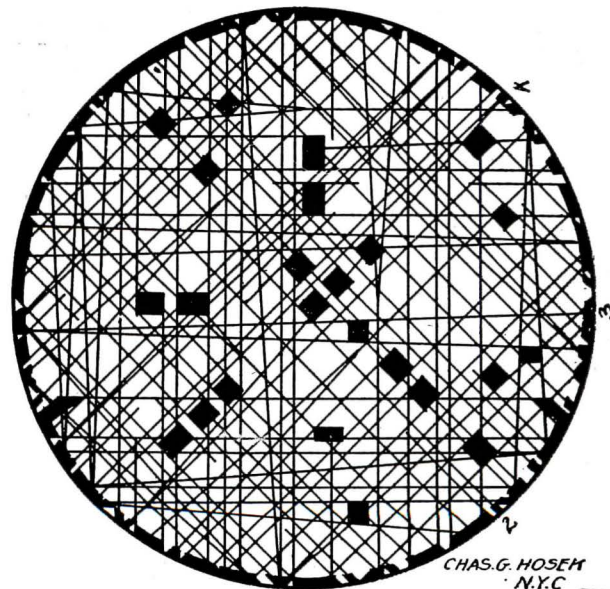
### WRECKEM AND LEAVEM ARCHITECTS

*Specialists in Chain Store Work  
New York and Elsewhere*

PLANS AND ESTIMATES FURNISHED for new buildings and alterations to buildings (whether existing or not) anywhere, at any time, on five minutes notice; with or without data. Special attention paid to telegraphic requests. Name and address of parties requiring information not necessary. Location of proposed (or existing) building not necessary but we prefer to know whether on land or in water. Without this information cannot guarantee estimates within one half of one per cent. Dimensions of building entirely unnecessary but we require time of day when property was last seen and state of weather at the time in order to attain the greatest accuracy. Requests by radio received through Station N-U-T.

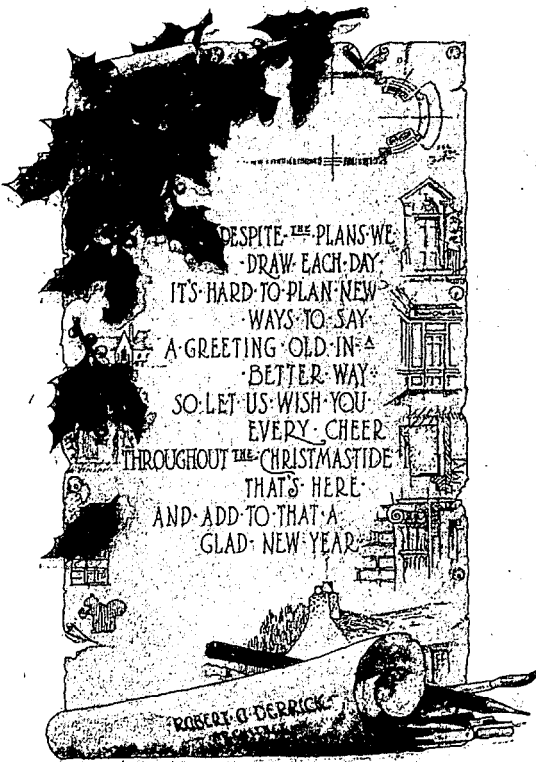
When complete working drawings, specifications and bids are required for alterations the same day request is made, it is an advantage (but not essential) for us to be informed whether building to be altered exists or not and whether a church, residence or garage. This is necessary only when drawings are to be made in ink and is due to the great advance in the price of ink erasers. An extra charge is made when blue prints are used in place of building paper and roofing felt. If plumbing plans are required, we should be informed of the approximate distance from the Mississippi River and the Great Lakes; within 500 miles will be sufficiently accurate. When supervision is required, please give address of nearest bootlegger and price of hot dogs.

TO READERS OF  
"PENCIL POINTS"  
HERE THERE  
EVERYWHERE



1925 - 1926

THIS IS THE WAY CHAS. G. HOSEK WISHES US ALL A  
MERRY XMAS AND A HAPPY NEW YEAR



CHRISTMAS CARD FOR ROBERT O. DERRICK  
DESIGNED BY W. R. WINEGAR

GOOD FEELING AND GENUINE CAMARADERIE in every architect's office is a grand thing for all concerned, and everything which can be done to foster pleasant relations is more than worth the doing. Here is a letter received from Mr. B. V. Gamber of the office of Robert O. Derrick, of Detroit, telling of a little competition held in that shop, together with a reproduction of the winning design. There are many opportunities throughout the year for things of this sort and no such opportunity should be overlooked either by employer or employee.

Dear Sir:

As we are assured of your interest and co-operation, we are taking this opportunity to inform you of a little instance of the pleasure derived in promoting the spirit of good fellowship and friendly competition among the members of an architect's organization.

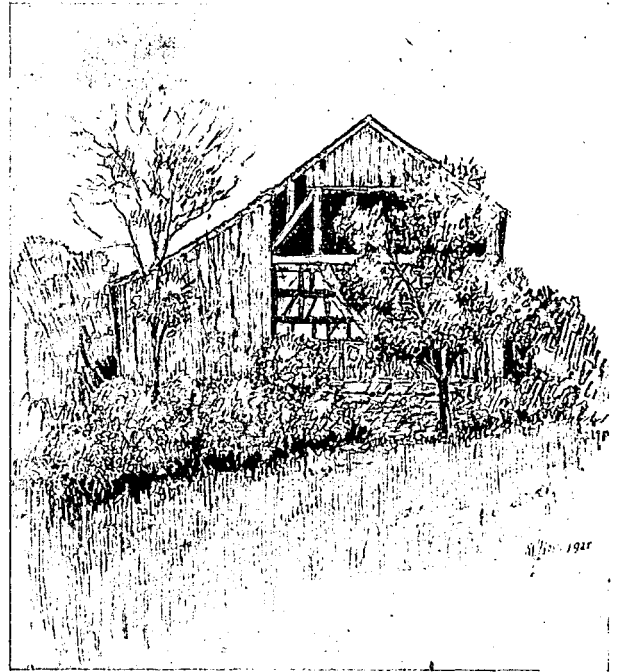
Heretofore this office availed itself of the services of one of its designers to produce a Christmas card, which is always sent to Clients, Contractors and other friends. This year it was decided to hold a competition open to all members of the staff, including the office boys. A program, very general in its terms, was posted and the fun began.

A jury composed of Mr. Derrick, another Architect, and an interior decorator viewed the eight designs submitted. As all of the entries were very good, it was quite hard for them to decide, but the winning design was finally chosen. A very complete report of the findings of the jury was written and then the name of the successful competitor was learned, and to him was awarded the first prize—the magnificent sum of Ten Dollars. Two mentions first and second were also given. The winner was Mr. W. R. Winegar.

A great deal of interest was shown in this competition. Several designs testified to the great amount of work which was done to produce them. The result was a much more attractive card than those formerly produced.

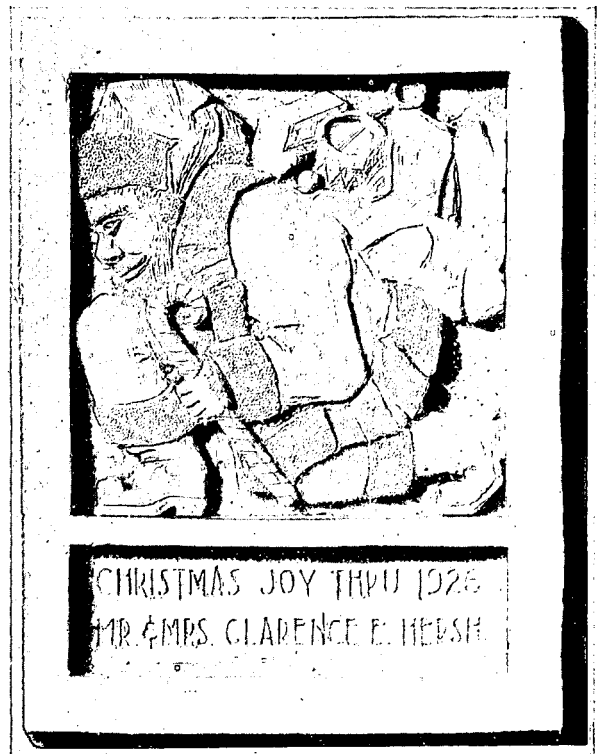
We are enclosing a copy of the card and we hope that you will publish it if you can find space for it. The suggestion is made that other offices might also derive benefit from such competitions.

Yours very cordially,  
B. V. GAMBER,



CRAYON AND PENCIL SKETCH BY R. ALEX. WILLSON

CLARENCE E. HERSH, of Allentown, Pa., sent us a greeting card, reproduced below, that is original in both design and the method of production. The result was obtained by developing the idea in sketch form, then modeling it in clay and photographing the model in its natural wet clay color. This was done with the aid of a strong spot light, to accentuate the shadows. The negative was then printed on double weight, semi-matte photographic paper. The envelopes are hand made of a gray cover paper with water color stippled on while the envelopes were placed one upon another. The cost of these cards was about ten dollars per hundred.



CHRISTMAS CARD MADE BY CLARENCE E. HERSH  
(PRIZE—Class Four—January Competition)

# THE SPECIFICATION DESK

*A Department for the Specification Writer*

## SPECIFICATIONS

By W. W. BEACH

### LATHING AND PLASTERING, PART XVI

PART XV OF THESE GENERAL CONTRACT SPECIFICATIONS for a Consolidated District School building in the January issue of PENCIL POINTS comprised Division K, Carpentry. Next in order is Plastering, with which is generally included Lathing and, since we began making our buildings more nearly fire-proof, the Furring that goes naturally with Lath.

In this latter connection, it must be borne in mind, if one be operating in sections controlled by labor unions, that they have set very positive lines, deciding where "Furring" ceases and "Structural Steel" begins. But, inasmuch as all such lines are exceedingly broken and wavering, it is necessary for the poor, befuddled architect to make the effort to post himself on the practice maintaining in the vicinity in which his projected building is located, and to keep himself posted thereafter.

In this specification, we are assuming that the lather may handle furring members as large as 2" channels and bars and may bolt same to structural members as required.

It will be noted that these specifications are being written without the mention of any proprietary materials as standards. That is being left to the advertising columns though, in private practice, the author does not hesitate to mention names in his specifications, if he deems the best interest of the building in question to be served thereby. Nor does he deny competitors of makers so named their "day in court."

It is fairly sage to assume that the material is yet to be made which cannot at some time expect to be equalled or excelled by another. It would therefore appear to be the duty of the architect to stop, look and listen when such claims are forced upon his attention rather than to take the attitude that he knows it all, "there isn't any more."

That this means giving time to salesmen and publicity experts which the architect would much prefer to devote to duties apparently more pressing, certainly more attractive and remunerative, is where the shoe pinches. But, one who presumes to write a specification issues a challenge to the effect that he not only knows what he is saying but also what it's all about. He *must* keep himself informed.

Hence the "or equal" clause.

Reverting to Plastering, the young architect soon discovers, by virtue of his experience in superintending, that this craft can cause him more worry than any other, unless it be Painting. These two are in a class by themselves when it comes to producing gray hairs on the head of the owner's trusted detective.

No other trade can do so much preliminary work wrong without being caught at it. No other trade is so lightly bound by the contract and so accustomed to proceed according to its own lights and habits, quite regardless of what the specifications may say on the subject.

In very truth, the writer has oft been tempted to curtail the specifications on these two subjects to their greatest possible brevity thus:

"Plastering (or Painting) shall be done in best manner, of proper materials, as directed by the Architect."

Why say more, when one can't possibly hope to get more?

But, of course, such a specification would offer too wide a latitude in public work, put out for competitive bids, hence we proceed with

#### DIVISION L. LATHING AND PLASTERING

*Note.* The Contract and General Conditions of these Specifications, including the Supplementary General Conditions, govern all parts of the work and are parts of and apply in full force to these Specifications for

Lathing and Plastering. The Contractor shall refer there to as forming integral parts of his contract.

#### ARTICLE 1. *Work Included.*

(A) THE ITEMS under this Division include:

- (1) ALL STEEL FURRING AND STUDDING.
- (2) ALL METAL LATH.
- (3) ALL CORNER BEAD.
- (4) ALL PLASTERING.
- (5) ALL CEMENT WAINSCOT and other cement plastering.
- (6) ALL OTHER WORK herein set forth or a necessary part of the foregoing.

#### ARTICLE 2. *General Description.*

*Note.* Under the headings in this article, there is given, for convenience of Contractors, a brief mention, not necessarily complete, of the work included in this Division, full description of which will be found in the following Specifications, beginning with Art. 3.

(A) STEEL FURRING and cross-furring shall be provided for all suspended ceilings, including entire area over upper story and for furred spaces over lockers and other places wherever required. Steel furring strips shall be provided for inside of all outside plastered walls, except where tile blocks are specified for the purpose. Furring shall be built out to form pipe chases, where so indicated. No metal furring may be substituted where structural tile furring is called for.

(B) STEEL STUDDING shall be provided for all solid plaster partitions, including enclosures between skylights and ceiling-lights.

(C) CORNER-BEADS shall be provided for all exposed metal corners, except those of radius larger than 1".

(D) BASE-SCREED MOLD shall be provided for all concrete base where same occurs below plastered surfaces.

(E) METAL LATH shall be provided for all plastered surfaces, except where structural tile is called for or on inside walls where plaster is intended to be applied directly to concrete or masonry.

(F) CEMENT PLASTER shall be applied to all surfaces, where called for, either Portland or Keene's cement, as case may be. Both sides of all tile walls forming enclosures of air-intakes or other passages for fresh or hot air shall be plastered with Portland cement mortar. Keene's cement shall be used for all wainscotings where called for on drawings and also for walls and ceilings of lantern room, locker rooms, bath rooms and helps' toilet rooms.

(G) HARD WALL PLASTER, either lime mortar or approved proprietary brand, shall be applied to all walls, partitions, ceilings and soffits thruout finished portions of building, except where cement plaster is called for. Plaster shall be applied in 3 coats to lathed surfaces and 2 coats to concrete and masonry surfaces. Plaster shall have sand or rough-cast finish, as called for, in accordance with approved sample, on walls of assembly hall, gymnasiums and the vestibules thereto. Ceilings of air ducts and fan rooms in basement shall be furred and have two coats of plaster. Finish coat thruout building shall have a smooth, hard, white, troweled surface, except in basement and where otherwise stated.

(H) ORNAMENTAL PLASTER shall be provided wherever shown or called for, including panels, grilles, coves, run-molds, furred beams and other members indicated. All such work shall have smooth white finish, unless otherwise stipulated.

## PENCIL POINTS

(I) POINTING. The Plasterer shall calk and point with cement mortar around inside of frames of all outside openings, between wood and masonry, in order to make wind and weather-proof, independent of plastering and outside calking.

### MATERIALS

#### ARTICLE 3. *Furring, Lath and Corner Bead.*

(A) STEEL FURRING members shall be 2" x 3/16" steel channels on 1" x 3/16" (or equivalent) steel hangers.

(B) CROSS FURRING shall be 1" steel angles, channels or tees, as approved. When supporting members are not over 3' 0" o. c., furring members may be 3/4" channels or 3/8" rounds, or may be approved ribs engaged on metal lath.

(C) WALL FURRING shall be No. 22 gage galv. corrugated iron strips, or 1" steel channels independent of lathing, or approved furring strips of special make, either independent or engaged to the lath. These latter shall have not less than 7/8" projection, and be spaced about 4" o. c.

(D) STUDDING for 2" solid plaster partitions shall be 3/4" steel channels, weighing .53 lb. per foot. For heavy suspended furring over lockers, etc., 2" channels shall be used, weighing 2 lbs. per foot.

(E) METAL LATH shall be painted expanded metal or welded wire mesh, of approved make, and of such gage as to weigh not less than 3.5 lbs. per sq. yd. for ceilings and furring and not less than 3 lbs. per sq. yd. for partitions. All lath shall be of a pattern that permits plaster to pass thru and so clinch on back as to entirely embed the lath and protect from corrosion.

(F) CORNER BEAD shall be of approved design and make, with at least 2" flanges, and sufficiently heavy to keep its shape until applied.

(G) BASE-SCREED shall be of approved design, No. 26 galv. iron, weighing 200 lbs. per 1,000 ft., provided with necessary clips for proper attachment, and with approved cast bull-nose angles.

#### ARTICLE 4. *Plaster and Cement.*

(A) IN GENERAL. All plaster materials shall be fresh and of approved make, adapted to the specific purpose for which used. All proprietary materials shall be brought on premises in original containers, plainly marked with the Maker's name and brand.

(B) PLASTER PARIS shall be superfine quality, of approved make, without other retardant than specified.

(C) KEENE'S CEMENT shall be the "regular" product, of approved domestic make.

(D) PORTLAND CEMENT shall be of approved make and brand, as specified for concrete work.

(E) LIME shall be best quality, pure lump-lime, screened and not less than 2 weeks old when used. Hydrated lime of approved brand may be used.

(F) SAND shall be clean, medium coarse, bank sand, except for finish coat for which white beach sand shall be used.

(G) HAIR shall be long, well-whipped cattle or goat hair, free from grease or other impurities.

(H) FIBER shall be approved long vegetable fiber.

(I) DAMPPROOFING for insulating outside walls back of plaster shall be approved plaster-bond paint.

(J) SAMPLES OF MATERIALS AND MODELS of ornamental work shall be provided by Contractor as specified in Division A, Art. 4. Diagrams of ornamental and stone-coursed work shall also be submitted when required.

### WORKMANSHIP

#### ARTICLE 5. *Furring and Lathing.*

(A) IN GENERAL, the Contractor shall provide and accurately and rigidly anchor in place all metal furring, forms, anchors, ties and lathing necessary to properly complete the plastering, all as described in Art. 3. Unless otherwise shown or specified, the furring, lathing and plastering shall return into all jambs and soffits of all openings in plastered rooms and shall also extend behind all blackboards on outside walls.

(B) SUSPENDED FURRING shall be installed for all ceilings, balcony soffits, including false ceilings enclosing ducts, plaster beams and ornamental work thruout the building. Furring shall consist of 2" steel channels, spaced not more than 4' 0" o. c., attached to soffits of beams on approved clips or anchored in floor or roof construction in approved manner. Mason or Concrete Worker will build in anchors and clips as placed and secured in forms by Plasterer.

(C) CROSS-FURRING shall be 1 1/4" o. c., run at right angles

to furring and shall be wired or clipped in approved manner at each intersection. It shall lie in perfectly level plane to receive lathing. Furring under concrete joists in first story and basement ceilings shall consist of 3/8" rods wired close to bottoms of joists. For attachment to concrete joists, this Contractor shall install necessary galv. wire clips of approved pattern, 1 1/4" o. c. in bottoms of forms, before concrete is poured.

(D) FURRING ON OUTSIDE WALLS. All outside masonry and concrete walls (except where tile block furring is called for) and underside of all inclined roofs and stairways in plastered rooms above basement shall be furred. Furring shall extend on inside walls, which are continuations of such outside walls, to nearest angle. Furring shall be set vertically 7-5/6" o. c. in gymnasium and 1 1/4" o. c. elsewhere, and so placed as to hold the lath 1" out from face of wall. Each furring member shall be securely attached to plugs in wall not over 3' 0" o. c. and shall be blocked out to afford perfect planes for lathing. Mason will build in plugs from instructions given him by Plasterer.

(E) STUDDING shall be spaced 1 1/4" o. c. for all 2" solid plaster partitions, where called for, and for furring around piping and over lockers. Studs shall be perfectly true and plumb and of proper length to be rigidly attached top and bottom. They shall be fitted with spacers to hold in proper position and shall be so maintained until covered with plaster.

(F) METAL LATH shall be applied to all surfaces that are to be plastered, other than concrete, masonry or gypsum block and also over all joints back of plastering between two different surfaces, extending at least 6" on same and rigidly attached. Metal lath shall be bent to form lintels, beams, cornices and stair soffits, following contours and dimensions of finished plastering. All lath shall be drawn tight over studding, and lapping 1/2" or more at sides and 2" or more at ends (only over supports) and laced together and to the supports every 6" with at least 2 loops of No. 16 gage soft galv. wire, except that lath may be secured to patent studs by means of the bent prongs on same, not over 6" apart. Ends of wire shall be well twisted and bent up beyond outer plane of lath. In partitions, lower sheets of lath shall overlap those above. All lathing shall be left in perfect condition to receive plaster, level, true and rigid.

(G) GROUNDS, BUCKS AND NAILERS for the attachment of items furnished by the various trades will be provided as specified under other Divisions. Lather shall do all necessary cutting and patching of his work to accommodate same, and for piping and other mechanical installations. Grounds will be 5/8" thick on masonry walls and, on walls furred by lather, 3/8" thicker than furring.

#### ARTICLE 6. *Corner-Bead and Base-Screed.*

(A) CORNER-BEAD shall be provided for all external vertical corners, including jambs of all openings having plaster finish, (except where bull-nose corners of large radius are shown) extending entire height of corners.

(B) BASE-SCREED shall be installed for all concrete base (as specified in Art. 3, Par. G) at proper height, in perfect alignment and secured with special clips at intervals directed by Maker. Screeds shall be put on as soon as possible after walls are in place so as to cause no delay to Concrete Workers installing base.

(C) INSPECTION. Corner-bead and base-screed shall be inspected both before and after application and none will be accepted which is even slightly bent or shows evidence of having been straightened. To this end, all corner-bead and base-screed shall be brought to job in boxes or crates and carefully protected until used.

(D) APPLICATION. All corner-bead and base-screed shall be correctly applied to serve as screeds to give proper thickness and perfect planes to plastering and shall be rigidly secured in place.

#### ARTICLE 7. *Preparation of Surfaces for Plastering.*

(A) INSPECTION OF LATHING. Just before beginning plastering, the Contractor shall inspect and test all grounds, furring, bucks, corner-bead, conduit work, piping and other members that are to be concealed, shall notify the proper parties to correct apparent defects and shall not start plastering until the Superintendent has been duly notified and has given his consent. Such consent will not relieve the Contractor from responsibility for all concealed work affecting plastering and for the rigidity and accuracy of all lathing. Structures for 2" partitions shall be temporarily braced on one side before first coat of plaster is applied.

(B) DAMPPROOFING. All exterior walls requiring plaster-

## PENCIL POINTS

ing and which are not furred shall be given a thoro coat of plaster-bond paint before first coat of plaster is applied. This paint coat shall be carefully inspected and any imperfect spots retouched so that there may be no contact between plaster and bare wall.

(C) CONCRETE SURFACES, requiring plastering, shall first be treated with muriatic acid diluted 1 to 10, which shall remain 24 hours, then be washed off with clean water. On surfaces thus treated shall be applied a scratch coat of especially prepared approved "bonding cement" or a bonding mortar gaged with first quality finishing lime or Keene's cement. The application of the regular brown mortar on bond coat shall be made before the latter has begun to set.

(D) ALL MASONRY SURFACES, other than above specified shall be thoroly cleaned and soaked the day before first coat of plaster is applied and shall again be wet an hour before plastering is begun.

(E) ALL GYPSUM BLOCK SURFACES shall be cleaned and moderately dampened before plastering.

### ARTICLE 8. *Preparation of Plaster.*

(A) MATERIALS for plastering are specified in Art. 4. Portland and Keene's cement shall be used wherever called for. All other plastering shall be approved "patent" plaster or shall be lime mortar, at the option of the Contractor. All materials shall be fresh and mixed with clean water in clean boxes.

(B) PROPRIETARY PLASTERS, including patent plaster, bonding cement and Keene's cement shall be mixed in strict accordance with Maker's directions, copies of which shall first be filed with the Superintendent by the Contractor.

(C) LIME MORTAR. All tempering of mortar shall be done outside of building and mortar deposited on special platform, not dumped on rough floors. The Contractor will be held responsible for all water damage. All lime shall be well slaked, screened thru a sieve and thoroly mixed with a sufficient quantity of sand and hair (or fiber) in proper proportions to make solid plaster. All lime shall be well tempered and guaranteed not to pop.

### ARTICLE 9. *Application of Plaster.*

(A) PARTS TO BE PLASTERED. All walls, partitions, columns, ceilings and soffits thruout building shall be plastered, except as stated in Art. 2, or where brick or marble wainscot are specified, and back of blackboards on partition walls. All tile partitions in basement shall be plastered both sides with a single coat of cement plaster, see Art. 13, Par. B. All lathing shall be plastered, including both sides of stud partitions. All plaster shall extend full between grounds and shall extend behind all wood base to floor, but not behind other base. It shall also extend back of pipe chases on all outside walls. Plastering of second story ceiling shall be continuous over pipe spaces, so as to entirely close same, except for passage of pipes and ducts. Ceiling shall fit closely around these.

(B) POINTING. All cracks between frames and masonry in all openings in exterior walls shall be carefully pointed as specified in Par. I of Art. 2.

(C) TWO-COAT WORK. All unfurred brick, concrete, tile, and gypsum-block walls, columns and ceilings that are to be plastered shall have two coats. Suspended ceilings in basement shall also have two coats.

(D) THREE-COAT WORK shall be applied to all lathed surfaces, except on suspended ceilings in basement where finish coat will be omitted.

(E) ALL EXPOSED BEAMS AND GIRDERS in slab construction and all furred beams and cornice members shall be straightened in the plastering so that all planes, lines and angles of same shall be absolutely plumb, level and true, smooth and perfect.

### ARTICLE 10. *Lime Mortar.*

(A) FIRST COAT on lathed work shall be a scratch-coat, well troweled on, to embed both surfaces of all lath. Exposed surface shall be double-scratched and thoroly dry and hard before second coat is applied. First-coat on other work shall be same as second-coat on lath.

(B) SECOND COAT on lathed work shall be a good brown-coat, well rodged and floated to make all surfaces perfect planes, and all angles and arrises sharp, square, plumb, and true. The brown-coat shall be tested with long straight-edges in the presence of the Superintendent before finishing coat is applied and all imperfect work corrected to his satisfaction before proceeding. Brown-coat shall be properly dampened just before application of last coat.

(C) HARD-FINISH shall be composed of lime-putty, plaster-paris and white sand in correct proportion, brought full up to all grounds, thoroly brushed and troweled to smooth, even, true, hard surfaces, free from tool or brush marks, imperfect joinings or other defects, all perfectly white and guaranteed not to crack, pop, chip or show other imperfections of material or workmanship.

(D) FINISH BACK OF BURLAP AND CANVAS shall be a skim-coat, troweled to a smooth, even surface ready to receive the burlap or canvas.

(E) SAND AND ROUGH-CAST FINISH shall be applied for final coat where called for; surfaces so indicated to be scored in imitation of stone jointing.

(F) SAMPLES of finished plaster surfaces shall be submitted for approval well in advance of time work is to be done. Sample of sand finish shall show joint-scoring.

### ARTICLE 11. *Patent Plaster.*

(A) SCRATCH-COAT shall be same as specified in Art. 10, Par. A, preceding.

(B) BROWN-COAT shall be applied to scratch-coat as soon as firm and hard but before it is dry, and shall also be applied directly to all concrete and masonry surfaces which are to be plastered. Brown-coat shall be sufficient to fill between grounds and shall be brought to a straight, even surface with rod and darby, ready for finish coat. Darby shall be used lightly and water sparingly.

(C) WHITE-TROWEL FINISH shall be mixed and applied in accordance with Maker's directions, troweled perfectly smooth and shall finish white and free from defects of any description.

(D) OTHER FINISHES. Skim-coat shall be applied back of burlap and canvas, as specified in Par. D of Art. 10. Sand-finish and rough-cast shall be in accordance with approved samples, as specified in Art. 10.

### ARTICLE 12. *Ornamental Plaster.*

(A) COVES shall be constructed at ceiling angles, continuous with other plastering in all rooms where called for and of radius indicated.

(B) MATERIALS for run-molds and ornamental work shall be plaster-paris with small amount of lime-putty and fiber in the mix, to work smoothly.

(C) RUN-MOLDS shall be properly constructed, where called for, with approved steel forms, of profile detailed. All shall be in perfect alignment, all members smooth and arrises sharp and free from chips, cracks or other defects.

(D) ALL ORNAMENT shall be in strict conformity with details and approved models, all lines and surfaces true and straight. Pieces joined to form continuous design shall have end-joints so well made as to be practically invisible.

### ARTICLE 13. *Cement Plaster.*

(A) KEENE'S CEMENT shall be mixed with slaked lump lime or hydrated lime, in strict accordance with Maker's specifications, and shall be applied, one coat on concrete surfaces, 2 coats on brick, tile and gypsum-block walls and 3 coats on lath, also as directed by Makers. Finish coat shall have smooth, hard surface, without admixture of lime.

(B) PORTLAND CEMENT plaster on basement partitions shall be 1:3 mix, in one coat,  $\frac{1}{4}$ " thick, hard-troweled to an even finish.

### ARTICLE 14. *Patching and Guaranty.*

(A) ALL CUTTING AND PATCHING of plaster for this and other Trades shall be done solely under this Division by expert Mechanics and in such manner as will give the appearance of a properly finished job, free from patches.

(B) PATCHING COSTS. This Contractor shall bear all expense of plaster-patching and replacement, including cost of making good other work damaged because of same, provided that such patching or replacement has been made necessary thru fault of this Contractor, or his Employees or Sub-Contractors, or materials provided by him or them. Damages by others shall be assessed against them without recourse to the Owner.

(C) REJECTIONS. If the Architect elect to do so, he may judge the work of this Division solely by the finished surfaces and may, at their completion, reject in their entirety any that, in his judgment, are not in accordance with the specifications. In the event of such rejection, he will also determine whether the Contractor shall remove all or part of the plastering from such surfaces and replace with proper materials, correctly applied; or whether, due to delays or other reasons, the Contractor shall suffer the deduction of a certain sum from his contract price, to be determined by

the Architect, as set forth in Par. D or Art. 16 of the General Conditions.

(D) GUARANTY. The Contractor, in undertaking this contract, hereby guarantees all work provided under same to be and remain in proper condition for a term of two years from date of acceptance of said work and he hereby agrees and pledges himself to replace free of charge to the Owner during said period any and all plastering which may have loosened, scaled off, popped, or shown defects of any other kind whatsoever, which defects may be, in the judgment of the Architect, due to the use of improper materials or faulty workmanship and not to shrinkage or settlement of other building construction.

*Author's note:* Whether or not one should exact a one or two year guaranty on plastering, or none at all, is an open question. A guaranty is only an apology or alternative for uncertain supervision and can well be dispensed with when the Owner is paying for full superintendence. It is then up to the Owner to decide whether he wishes to pay the Architect to properly look after the work or pay the Contractor something above his ordinary price to insure himself against the chance of being called back to the job months after it was crossed off his books.

This would practically limit guarantees to one on the roof and, perhaps to certain other items which the Contractor may be permitted to substitute for something specified.

There is also the question as to whether or not a guaranty should be supported by a bond. Architects who strive to hold down the costs of their buildings are naturally averse to adding to same the overhead represented by a surety company's premium. Ordinarily it is as easy to exact from a contractor as from his surety; and the latter generally

employs better legal talent. The writer has witnessed the failure and receivership of one surety company, some of whose bonded contractors are still doing business.

The subject of costs of plaster-patching is one that should be handled carefully, with due regard, not only to fairness to all concerned, but to local customs maintaining. This is true also of replacement of broken glass. On large jobs, running through lengthy construction periods, it may be advisable for the Architect to pro-rate all such costs as cannot be directly assessed against those responsible. This is especially true when either plastering or glazing, or both, are let independently.

In such case, the last sentence of Par. B of Art. 14 should be omitted and the following additional paragraph introduced in the specification:

"(C) PRO-RATED COSTS. All plaster repairs will be done by this Contractor and all charges intended to be assessed against others carefully kept by him. These will be checked daily by the Superintendent and later apportioned by the Architect in accordance with his knowledge and judgment. Those which cannot be charged directly against Parties responsible for the damage will be fairly prorated against all Contractors having workmen in the building at time damage occurred. This Contractor hereby agrees to suffer a deduction from his contract price of all such direct or pro-rated charges so assessed against him. The Architect does not undertake to divide such charges among the various Sub-contractors, but only among those having direct contracts with the Owner."

It is then necessary to introduce reciprocal clauses in all other specifications, in order that all other direct contractors may be duly bound as above intended.

## PUBLICATIONS OF INTEREST TO THE 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.*

**Hot Water—Instantly, Electrically!**—Leaflet illustrating and describing instantaneous electric water heater for the home, office and factory. Instant Electric Water Heater Co., Bridgeport, Conn.

**Acousti-Celotex.**—Folder describing this product for churches and public buildings. List of installations. The Celotex Co., Acoustical Division, 645 No. Michigan Ave., Chicago, Ill.

**Alpha Aids.**—No. 44 of this series presents among other things a cement cistern. Plans, cross sections and details are presented. Alpha Portland Cement Co., Easton, Pa.

**Con-Texts on Concrete.**—Treatise on the subject of surfacing concrete with Textured Con-Tex Concrete. Interesting data and illustrations, also points of importance to be remembered when specifying Con-tex. 20 pp. 8½ x 11. Concrete Surface Corp., 342 Madison Ave., New York.

**Hand Book on Gas Ranges.**—Illustrates and describes a wide variety of gas ranges for all uses, tables of dimensions, capacity tables, diagram showing gas demand for various floors of a typical hotel, installations. 32 pp. 9 x 11½. American Stove Co., 829 Chouteau Ave., St. Louis, Mo.

**Denzar Lighting Units.**—Catalog D-8 fully describes and shows application of this modern type of lighting unit suitable for many types of buildings. 41 pp. 5½ x 11½. Beardslee Chandler Mfg. Co., 216 So. Jefferson St., Chicago, Ill.

*Published by the same firm, Distinctive Designs for Home Lighting, and Beardslee Talks, helpful and interesting little booklets.*

**Bayonne Roof and Deck Cloth.**—Looseleaf binder containing samples of Bayonne roof and deck cloth, price list and instructions for laying. John Boyle & Co., 112 Duane St., New York City.

**Minwax Flat Finish.**—A. I. A. Classification File No. 25-c-11. Color card and specifications with twelve panels in full colors covering flat finish for wood floors and trim. Minwax Co., 10 East Huron St., Chicago, Ill.

**Tangdust Air Filter.**—Bulletin, A. I. A. File No. 30-d-3 illustrating and describing this new type of air filter. Specifications. The Cooling Tower Co., Inc., 15 John Street, New York City.

**Luminite Cement.**—Folder describing this product for use in general building, highways, industrial plants, railroads, traction companies, river and harbor improvements, municipal, county and state work, public utilities, etc. The Atlas Luminite Cement Co., 25 Broadway, New York.

**Water Filtration for All Purpose.**—Bulletin No. 194 illustrates and describes Scaife Gravity and Pressure Filters. Contains illustrations, typical layouts, cross sections, tables of dimensions, blue print specification form and typical layout of swimming pool circulating and re-filtering system with Scaife filters and auxiliary equipment for complete installation. 8½ x 11. 32 pp. Wm. B. Scaife & Sons Co., Oakmont, Pa.

**What is Ahead, More or Less Building.**—Upson Building Survey No. 15 contains much interesting data, charts, practical tests, etc. 16 pp. 8½ x 11. The Upson Co., Lockport, N. Y.

**The Liberty Ventilator.**—Folder illustrating and describing this type of ventilator, table of capacity data, base diagrams. The John Call Co., 122 North Franklin St., Philadelphia, Pa.

**How Windows Can Make Better Homes.**—Booklet C-135 is attractively illustrated in color and contains interesting data on the subject of windows. David Lupton's Sons Co., Allegheny Ave. & Tulip St., Philadelphia, Pa.

**Paint Products.**—Folder containing color chart and full information concerning technical paints and water-proofoers manufactured by the Klein Mfg. Co., Cleveland, Ohio.

**Ars Ecclesiastica.**—Brochure showing a large number of examples of wood carving as applied to church furniture and embellishment. 48 plates 8½ x 11. American Seating Co., 14 East Jackson Blvd., Chicago, Ill.

**Window Glass Specifications.**—Document prepared in cooperation with the U. S. Bureau of Standards. Grades and qualities of glass. Definitions of terms used. 8½ x 11. American Window Glass Co., Farmers Bank Bldg., Pittsburgh, Pa.

**Fences, Gates and Railings.**—Manual No. 60 containing complete specifications, scale drawings, details and dimensions, and much other useful data on the subject. Standard filing size and form 8½ x 11. 94 pp. Anchor Post Iron Works, 9 East 38th Street, New York City.

**Andersen Window Frames.**—Illustrated booklet with drawings covering design and construction of window frames. 24 pp. 8 x 11. Andersen Lumber Co., Dept. L-1, Bayport, Minn.

**Best Bros. Keene's Cement.**—Booklet on the subject of this material containing much information, together with specifications covering all kinds of plastering, both plain and ornamental, artificial marble, etc. 24 pp. The Best Bros. Keene's Cement Co., 1040 West 2nd St., Medicine Lodge, Kansas.

**Ankyra.**—Booklet showing application of this type of anchor in building construction. Sectional drawings showing details of application. 32 pp. Ankyra Mfg. Co., 149 Berkley St., Philadelphia, Pa.

**Betzco Equipment.**—Equipment for the modern kitchen and bathroom. Kitchen units, bathroom cabinets, broom closets, etc. Frank S. Betz Co., Dept. PP, Hammond, Indiana.

**Wall and Ceiling Handbook.**—Data on wall and ceiling construction for the residence. 16 pp. 5½ x 7¼. Bostwick Steel Lath Co., Niles, Ohio.

**Just Inside Your Threshold.**—Artistic booklet dealing with floor design, patterns and containing much useful data on widths, thickness and other matters dealing with correct flooring practice. 24 pp. E. L. Bruce Co., Memphis, Tenn.

**Whale-Bone-It.**—Catalog E describing and showing construction of this modern accessory for the well appointed building. 16 pp. 9 x 12. The Brunswick-Balke-Collender Co., 623 South Wabash Ave., Chicago, Ill.

**Byers Pipe.**—Loose-leaf portfolio containing collection of bulletins covering complete technical data on the subject. 150 pp. 8½ x 11. A. M. Byers Co., 235 Water St., Pittsburgh, Pa.

**The Book of Beds.**—Illustrated booklet on concealed beds of all types. Floor plans showing installations. Carefully indexed. 8½ x 11. Concealed Bed Corporation, Dept. 403, 58 E. Washington St., Chicago, Ill.

**Solid Steel Reversible Windows.**—Illustrated booklet No. 1-24 covering equipment for office buildings, schools, hospitals, and other structures. Sectional drawings and details. 20 pp. 9 x 12. Crittall Casement Window Co., 10969 Hearn Ave., Detroit, Mich.

**Dahlstrom Standard Construction.**—Illustrated booklet covering metal doors and trim, elevator enclosures, partitions, conduco-base, etc. Sectional drawings and specifications. 30 pp. Standard filing size. Dahlstrom Metallic Door Co., Jamestown, N. Y.

**Book of Fireplaces.**—3rd Edition.—Very attractive and practical book covering fireplace construction, flues, etc. as well as presenting designs of the fireplaces themselves. 24 pp. 8½ x 11. The Donley Brothers Co., 13933 Miles Ave., Cleveland, Ohio.

**Pumps for Buildings.**—Catalog No. H-301 covers subject indicated for the information of architects, engineers and specification writers. All suitable types of pumps are described together with their capacities for all building uses. 48 pp. 8½ x 11. Fairbanks, Morse & Co., 900 S. Wabash Ave., Chicago, Ill.

**GF Fireproofing Handbook.**—8th Edition. As its name implies this work covers a wide range of fireproofing materials, their uses and application. Specifications, detail drawings, tables, types of construction, etc. 72 pp. 8½ x 11. The General Fireproofing Building Products Co., Youngstown, Ohio., Dept. LJ

*Published by the same firm, The Waterproofing Handbook, 6th Edition. Companion volume to the above covering all phases of waterproofing, technical paints, wood preservation, etc. 72 pp. 8½ x 11.*

**G & G Atlas Systems.**—Catalog No. 1755 A. I. A. File No. 35-h-21 illustrates and describes Atlas Pneumatic Tube System and supplies with details as to saving in floor space, personnel, power and maintenance and time. 8 pp. Gillis & Geoghegan, 548 West Broadway, New York.

**The Evanston Sound-Proof Door.**—Data sheets covering sound-proof doors, folding partitions and other similar equipment. Standard filing size. Irving Hamlin, 1504 Lincoln St., Evanston, Ill.

**Lock-Joint Wood Columns.**—Catalog No. 47 illustrates and describes fully this type of column. Contains instructions for ordering, sections of columns and pilasters, tables, specifications, also many illustrations of buildings where these columns have been used. 7½ x 10. 46 pp. Hartmann-Sanders Co., 2155 Elston Ave., Chicago, Ill.

*Published by the same firm, New Catalog X-51 of Colonial Entrances.*

**Vapor Details.**—Bulletin No. 21 contains Vapor System Details together with standards for computing radiation and boiler sizes, cross sections, tables of sizes, capacities and dimensions, typical elevation, typical boiler room assembly, basement piping plan, etc. Much useful data. Illinois Engineering Co. N. W. Cor. 21st & Racine Ave., Chicago, Ill.

**A Matter of Health and Comfort.**—Booklet No. 2331 on the subject of modern screening against insects. 16 pp. 5 x 8. New Jersey Wire Cloth Co., Trenton, N. J.

**Pressteel Lumber Manual.**—Handbook of information on metal lumber for a variety of uses. Tables, dimensions, detail drawings, data on walls, partitions, roofs, floors, etc. 56 pp. 6 x 9. Northwestern Expanded Metal Co., 407 Dearborn St., Chicago, Ill.

**Glass Lined Laundry Chutes.**—Booklet completely illustrating and describing this type of equipment for the hospital, hotel, club house and fine residence. Drawings and other data. 14 pp. The Pfaunder Co., Rochester, N. Y.

**Raymond Concrete Piles.**—Handbook on the subject with illustrations, details, drawings and much useful data. 60 pp. 8½ x 11. Raymond Concrete Pile Co., 90 West St., New York City.

**Sanymetal Partitions.**—Illustrated booklet describing this type of equipment for offices, factories, toilet rooms, etc. 7½ x 10½. Sanymetal Products Co., 980 E. 64th St., Cleveland, Ohio.

**Exterior Lighting Fixtures.**—Catalog 4-H, profusely illustrated, showing full range of exterior lighting fixtures for all requirements. Hundreds of designs. 96 pp. 8½ x 11. Smyser-Royer Co., Philadelphia, Pa.

**Drain Specifications and Drawings.**—Portfolio containing 15 full page detail drawings covering drainage for factories, area floors, roof gutters, garage floors, hospital floors, etc. Standard filing size. 8½ x 11. Josam Mfg. Co., 4910 Euclid Ave., Cleveland, Ohio.

**The Linoleum Data Book.**—A. I. A. Classification 28-i-1. Looseleaf portfolio containing specifications for linoleum floors, together with inserts showing colors and other useful data. Standard filing size 8½ x 11. Congoleum-Nairn, Inc., 1421 Chestnut St., Philadelphia, Pa.

**Tudor Stone Roofs.**—Brochure presenting details of attractive roofs done in slate with suitable text. Also data on terrace floors and garden walks. 36 pp. Rising & Nelson Slate Co., West Pawlet, Vt.

**Quality Plumbing Fixtures.**—Catalog K. Handsome catalog showing complete line of bathroom fixtures and specialties and kitchen sinks. Profusely illustrated with color plates, details, roughing-in measurement, cross sections and specifications. 242 pp. 8 x 11. Buchram binding. A valuable addition to any architect's library. Thomas Maddock's Sons Co., Trenton, N. J.

**Specification Manual of Plain and Reinforced Concrete.**—Coded specifications with index covering all types of concrete construction. Limited edition. Price \$1.00 per copy. Portland Cement Association 111 W. Washington St., Chicago, Ill.

**Period Adaptations for Modern Floors.**—A study of the architectural and decorative values of floor treatments exemplified in rooms of period interest with notes on designing and installing of modern floors. Contains many illustrations, color plates, specifications, data installations and details. Handsome Brochure. 60 pp. 8½ x 11¼. U. S. Rubber Co., 57th St. and Broadway, New York, N. Y.

**Colored Concrete Buildings.**—Treatise on the subject by Hazel H. Adler. Lehigh Portland Cement Co., Allentown, Pa.

**Fenestra Casements.**—Booklet announcing new Fenestra line. Detail drawings, interiors, drawings, covering screening and shading, etc. 20 pp. 8½ x 11. Detroit Steel Products Co., Detroit, Mich.

**Nonpareil Corkboard Insulation.**—Handbook on the subject covering cold storage, warehouses and a large variety of buildings where insulation is important. Drawings, diagrams and much engineering data. 150 pp. 6 x 9. Armstrong Cork and Insulation Co., Pittsburgh, Pa.

**Greenhouse Studies.**—Series of renderings by Vahan Hagopian which includes plans elevations, sections and structural features of all types of glass enclosures, solar bathing rooms, glass enclosed swimming pools, aviaries, and children's glassed-over play houses, as well as green houses of various types. A suitable binder will be furnished with first mailing. Lord & Burnham Co., 30 East 42nd St., New York City.

**Drinking Fountains.**—Booklet illustrating and describing various types suitable for all uses. 16 pp. 8 x 10. D. A. Ebinger Sanitary Mfg. Co., Columbus, Ohio.

**The Regulation of Temperature and Humidity.**—Complete catalog, handbook and specification guide, showing in detail the entire line of Johnson Temperature Controlling Devices for all types of buildings. 74 pp. 8½ x 11. Johnson Service Co., Milwaukee, Wis.

**The Kernerator.**—Covers disposal of rubbish and other waste in the residence and apartment building. 40 pp. 6 x 9. The Kerner Incinerator Co., 1003 Chestnut St., Milwaukee, Wis.

**Water Mixing Valves.**—Illustrated handbook showing thermostatic water mixing valves for showers and a variety of other uses. Diagrams and complete specification data. 32 pp. 7½ x 10½. Leonard Rooke Co., Providence, R. I.

**Lithoprints, What They Are, How They Are Made, How They Are Used and What They Cost.**—Loose-leaf portfolio with samples. Useful in every drafting room. Standard filing size. Lithoprints Co. of New York, 41 Warren St., New York City.

**Major Flood Light Unit.**—Bulletin No. 5. Describes the construction and adaptability of the Major Unit for efficient Flood lighting in theatres, show windows, mills, etc. List prices and dimensions. Major Equipment Co., Inc., 360 N. Michigan Blvd., Chicago, Ill.

**Color in Architecture.**—Brochure with 12 full page color plates after original color renderings by Rudolph De Ghetto. Also many other engravings illustrating the text, which is by Mr. F. S. Laurence. A valuable addition to the architect's library. 60 pp. 9 x 12. National Terra Cotta Society, 19 West 44th St., New York City.

**The Stockade System.**—Booklet setting forth complete data on a new building material and a new building system. Four color pages and detail drawings, and complete story of application especially for buildings four stories or less in height. Standard filing size 8½ x 11. 24 pp. Stockade Building System, Inc., 103 Park Ave., New York City.

**Jacob's Parallel Straightedge.**—Leaflet describing a new and valuable article for the drafting room. Keuffel & Esser Co., Adams & Third Sts., Hoboken, N. J.

**Membrane Waterproofing.**—A. I. A. Classification 7-a-1. Document covering subject with drawings, photographs, specifications, tables of test values, etc. Standard filing size. 8½ x 11. 26 pp. Minwax Co., Inc., 270 Madison Avenue, New York City—327 S. La Salle St., Chicago, Ill.

**Reinforced Rubber Flooring.**—A. I. A. File No. 23c. Looseleaf portfolio for architects containing illustrations of all types of installations, detail drawings, specification, 12 reproductions in full colors and much other data. Standard filing size 8½ x 11. Stedman Products Co., South Braintree, Mass.

## The ELDORADO SKETCH CLUB



SKETCHING WITH "THE MASTER DRAWING PENCIL"

ON FRIDAY evenings a small group of architects meet in New York around a great table and make pencil sketches far into the night. Ernest W. Watson, the author of these Eldorado Pages for the Joseph Dixon Crucible Company, has been the enthusiastic conductor of this little club for the past three years. It is his pet hobby. He says, "Only those who love to sketch can appreciate how much good, in fun and progress, comes to us all on these Friday evenings."



ERNEST W. WATSON

is probably pre-eminent among teachers of lead pencil drawing in America. For years he has been a prominent member of the faculty of Pratt Institute. As an expert renderer of architectural subjects, his work is known and admired by leading architects all over the country.

be accepted. Mr. Watson's method of teaching assures the same progress to non-resident members as to the resident members. For Mr. Watson does not teach by talking. He demonstrates how it should be done by making sketches for each student. Sometimes corrections are made on students' drawings; usually quick sketches are made to illustrate methods of composing and to demonstrate technical points. Few words are necessary to a complete criticism.

From the many letters which we have received from ambitious readers of *Pencil Points*, it is certain that a large company of pencil enthusiasts would like to draw up their chairs around this sketch club table and share the inspiration and instruction which these favored few enjoy.

Well, here's the opportunity. The Joseph Dixon Crucible Company has appointed Mr. Watson Director of The Eldorado Sketch Club. A limited number of non-resident members will

This is an unusual opportunity and those accepted for membership will profit greatly from the instruction offered. Of course, the membership cannot be large when you consider the character of the work and the fact that Mr. Watson will personally criticize the sketches of every member. If you wish to join The Eldorado Sketch Club, please write us immediately so you can receive detailed information and application blank. Joseph Dixon Crucible Co., Pencil Dept. 167-J, Jersey City, N. J.