

DRAFTSMANSHIP

RIGHT NOW, in view of a degree of activity in the architectural field that in all probability is only the beginning of a long busy period, it seems to us that one of the most important matters is that of getting designs properly put onto paper in the shortest possible time with the least labor and the minimum of lost motion. This calls for the improvement of drafting room practice.

Now, we believe that a great deal of benefit can be derived from an exchange of methods, ideas and experiences on this subject between architects and draftsmen through the medium of PENCIL POINTS. We, therefore, invite you to write about anything you think will be helpful along this line, and we are going to publish a number of articles on various phases of this subject.

It is a broad matter. It begins with office organization, modelling of the make up of the drafting room staff on such a plan that the work will progress smoothly, by the proper deputizing of authority and the placing of responsibility all along the line. It includes the proper filing and handling of the documents required for reference during the designing, and it includes, among other things, draftsmanship in its broadest aspect and in its special divisions as well.

We believe that it is this last matter, draftsmanship, upon which the most helpful material can be presented—the actual doing of the work. There are short, time-saving ways of doing the things that must be done in the course of the regular work of every architectural drafting room—ways that get the results. The man who knows these ways gets through the work more easily, with less worry, and does it with speed.

Then, too, there is much more pleasure in doing any work in a highly efficient way. Relief from drudgery gives one an opportunity to enjoy the work, and if the men in the drafting rooms throughout the country did not have a love for architecture and for drafting, they would not be there, they would be devoting their time to some other work. The importance of draftsmanship needs more general recognition, we feel. The work of the draftsman is one of the biggest factors in the practice of architecture. Every seemingly unimportant part of it is essential to the translation of an idea into a building.

While architectural drawing is not an end in itself, but a means to an end, pride in one's skill and the pleasure that comes with the mastery of the craft are as worthy and desirable today as they were in the days of the great draftsmen of the past. The joy in the act of drawing that many men of today feel would, if acquired by those who do not now possess it, turn what is now drudgery into pleasure. To the man who has never experienced

satisfaction from the feel of his pencil on the paper this may seem untrue, but even the right bite of the pen on the cloth in making a tracing gives a certain satisfaction to the man whose hand is trained to its work. Now, let us hear from you, just an informal letter offering a suggestion or describing a method of working.

ARCHITECTURE OR TRADE

A PROBLEM that, in one form or another, faces many men who have a love for architecture, or for one of the other fine arts, is the subject of the Harvard prize play which is now having a highly successful run at the Belmont Theatre, New York City. Quite aside from the special interest it holds for architects, draftsmen and students, it is a very clever and entertaining production, well presented.

Whether to pursue the study and practice of architecture at great sacrifice or to put aside his aspirations and take a business opportunity that will give him a competence from the start is the problem that confronts the young man in this play.

Practically the same problem faced the young man's father something over a score of years earlier. His great desire was to be a painter, but he entered the advertising department of a soap factory. He has succeeded rather well, but he is not happy. As he begins to age, the sense of loss through not having followed his natural inclination towards art expression becomes more keen and the desire to paint becomes more tormenting. How it works out, whether the son, in the light of his father's experience makes the same choice, is too long a story to tell here, and, anyway, we do not want to lessen the enjoyment of those who may go to see the play.

THE FONTAINEBLEAU SCHOOL

MANY students from all parts of the country have already enrolled for the course in architecture to be given during the summer at the Fontainebleau School of the Fine Arts. This school will be in the Palace of Fontainebleau, France, and will be conducted under the patronage of the French government. Mr. Lloyd Warren completed the arrangements for this school last summer and since his death his work has been carried on by his brother Mr. Whitney Warren. The headquarters of the American Committee for the Summer School of Architecture and Painting at Fontainebleau are in the National Arts Club Studios, 119 East 19th Street, New York City, where information and admission blanks may be had.

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*Water Color by Jules Guerin. Christ Church, Alexandria, Va.
See the Article Beginning on the Opposite Page.*

THE USE OF COLOR IN ARCHITECTURE

BY JULES GUERIN

In this article Mr. Guerin tells in a direct and informal way how he works out his schemes of color in architecture, both exterior and interior. As Director of Color for the San Francisco Exposition, he not only set a new standard in this particular for great expositions, but also awakened an appreciation of color as an element in architecture, and his interior work in the Hotel Pennsylvania, New York, his mural paintings and the Guerin prints have broadened his influence.—Ed.

MOST of the old buildings that we find so delightful would be far from pleasing if their colors were different. For instance, Christ Church at Alexandria, which is the subject of the drawing reproduced on the opposite page, owes much of its charm to its coloring. The bricks of which it is built were made from a clay that during the process of burning takes on a delicate pink bloom, lending a tenderness quite in keeping with the refinement of Colonial detail. With this color the creamy white paint of the wooden portions harmonizes admirably. Imagine this building made from the kind of bricks that have a hard blackish glaze, or imagine the woodwork painted any other color than white, toning towards cream or buff, and it will be quite apparent that no other coloring would have been right.

An example of unfortunate color is St. Paul's Chapel in New York. The exterior woodwork, which should have been of white shading toward buff or ivory, is, instead, a dirty drab. Not far from this chapel is the old New York City Hall which is very lovely in the soft tones of its marble walls and we have reason to be glad that the proposal to have the exterior of this building cleaned by sand blasting some few years ago was defeated. If this exterior had been cleaned, its color would have been an unpleasant, staring white for a time, then, since the old surface had been removed, the marble would have caught the dirt easily, and under present-day conditions instead of ever regaining its beautiful color it would undoubtedly have blackened.

An inspiring example is the care exercised by the architects in the matter of color and texture in the additions to the White House, made some few years ago by the firm of McKim, Mead & White. Although the fact is not generally known, the White House was originally brown in color, having been built from a brown sandstone obtained at a quarry in Virginia. When the White House was burned by the British during their occupation of Washington the flames leaping from the windows chipped the stone. It seems to have been considered more economical to paint the building rather than to restore it. So the Executive Mansion became the White House; a brown sandstone building painted white. When the firm of McKim, Mead & White undertook the work of building the extensions along the lines of those comprised in the original design of the building they realized that it would be necessary to build the additions of the same material as the original building if the same texture were to be obtained, and texture influences

the apparent color of a surface. Therefore, stone from the same quarry was used and then painted white.

A key to the solution of the problem of designing the color scheme for a building or a group of buildings can often be found in the colors of the landscape which is to form the setting, and the landscape setting must be taken into consideration in any case. In designing the color scheme for the San Francisco Exposition, I regarded the exposition as a great painting on a canvas three miles long; in the foreground yellow sand, in the middle distance the exposition stretching from right to left across the picture, the buildings lined against the ultramarine sea, and in the distance the hills of Marin County across the water.

As a basis for the color scheme I chose a tawny buff color and this was the color in which all of the stucco was made and the cast parts moulded. Upon this basis were added the other colors—reds, greens, yellows and gold—all toned in to harmonize. I used to get up on a hill a half mile back and look at my picture to see whether there was anything wrong, just as one would do with any painting on a canvas. If, for instance, a dome that was green did not look right I would have to change it to some other color, say, gold, in order to complement something in the distance.

One of the colors which I introduced was the green of growing vines; thousands and thousands of vines were planted and kept in readiness. When the work of painting a building had been finished the landscape gardener came along and set these vines in the ground and trained them to grow up the walls. My idea in this was to tie the buildings to the ground so that there would not be a harsh line of demarcation between the buildings and the grass. The vines spread over the walls and in a week became part of the scheme.

As I said before, I started by adopting a tawny color as the basis for my color scheme of the exposition, toning the whole thing, as a painter will tone a canvas. In addition to giving a good basic tone for my color scheme this did away with the white which would have been very disagreeable to visitors to the exposition on account of the great strength of the California sunlight. No smoked glasses were needed by the visitors; even the roads were brought into the picture by being topped with a tawny colored sand of about the color of travertine, but somewhat darker in tone than the buildings. If the exposition had been built of white stuff no one could have looked at it. In order to demon-

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strate this fact I had an area of wall 65 ft. x 100 ft. on the back of the Manufacturers' Building plastered with pure white stucco of the same color and texture as the staff which formerly had been used in expositions; the result was positively blinding, and my use of tons of ochre was justified on practical as well as artistic

grounds. The colors were all reduced with white, and those at great heights were stronger than those lower down in order that they might "carry." The whole exposition had an oriental effect in the play of color as well as in the character of its domes.

I have a great disbelief in white. For instance, on the canvas upon which I am now working in my atelier, a decoration two hundred and twenty-four feet long, the basic color is about the color of the marble of the architecture in which the decoration will be placed, and it is a long way from white—a tender, warm, buff, gray. In my opinion white or black should not be used in any painting because immediately you introduce them you ex-

haust your black and white values. Paint in red, blue, yellow should be handled in the same way that a general handles his army, one should not exhaust color resources, but should always have a reserve force, as a good general always has.

In this decoration upon which I am now working there is what

will appear to be white, that is, there are flags in which white is one of the colors. How far it is from white may readily be seen by holding a piece of white paper along side the "white" in my canvas, for it is a rather light tint of buff. Still, when it is mounted in place in juxtaposition with the color of the marble and with the other colors of the decoration there will be no question that this was intended for white.

I spoiled a lot of perfectly good painters during the work on the exposition for I destroyed their ideal of what constituted good workmanship and taught them to apply color to the travertine surface of the stucco without carrying the color into the

(Continued on page 43)



*Dining Room in the Hotel Pennsylvania, New York City.
McKim, Mead & White, Architects.*



Detail of Ceiling of Dining Room in The Hotel Pennsylvania, New York City.

ZONING AND THE ENVELOPE OF THE BUILDING

BY HARVEY W. CORBETT

THE provision in the zoning law which calls for the stepping back of buildings, has forced the designer to approach his problem from a new angle in every case where this provision applies. Before this law went into effect the architect was accustomed to taking into account the required floor space, the character of the building desired, characteristics of the piece of property upon which the building was to be erected, the limit of cost, practical requirements of plan, etc., and then he would begin work upon the plan arrangement. Following this, he would make a study in section for the story heights, number of stories, etc., clothing this general scheme in elevations which would give his architectural fancy such opportunity to display itself as the available funds and the owner would permit. Once you conceded fire-proof construction there were almost no mandatory limitations; the area of the property, the cost and structural limitations as to height were the main factors to be taken into consideration. There were few restrictions as to the form the building should take, but for economic reasons it usually took the form of a packing box.

Now the moment the zoning law appeared, owners and architects in general realized that here were restrictions, here were new limitations to what they could do. At first glance it did not appear just how these restrictions would operate to change the form of the building, but it was evident that the space from the property line up was no longer free—the law cut into it.

It became clear that it would not be logical for the architect to proceed as he had done in the past, starting with the plan, then passing to the sections and elevations, only to find himself in conflict with these restrictions and forced to start all over again. Furthermore, the moment the law put these

restrictions on the use of property, the reaction of the owners in general was to want the most they could get under the law. As a result, the owner not infrequently comes to the architect with the intention of getting all the law allows him. He may say to the architect even before he tells him the

purpose the building is to be used for, "How much bulk of building can I get?" If the owner had asked such a question before this law came into effect the architect would probably have answered him by asking another question, "How much money have you?" Now owners realize that the law has placed certain restrictions on building that limit and determine the maximum bulk. The architect may be presented with this problem even before he knows what kind of building he is to design or the purpose it is to serve. He may have to start his problem by working out the form or the peculiar mass to which the law will limit the building on a certain piece of property or, as we are pleased to call it, "the envelope of the building."

For the purpose of illustrating this method of procedure a set of

four drawings, showing the envelope of the building for a full city block under the zoning law, together with the progressive steps in the development of a building within this envelope, is shown in connection with this article. These four drawings were developed by Helmle & Corbett, and prepared under their direction by Mr. Hugh Ferriss. In Figure 1 is seen the envelope representing the maximum bulk and its form under the zoning law. So soon as one starts to design a building within this envelope one is confronted by the fact that a building, no matter for what purpose, must be provided with light. To conform to the fact that daylight does not penetrate in sufficient intensity for practical use more than two or three times the floor

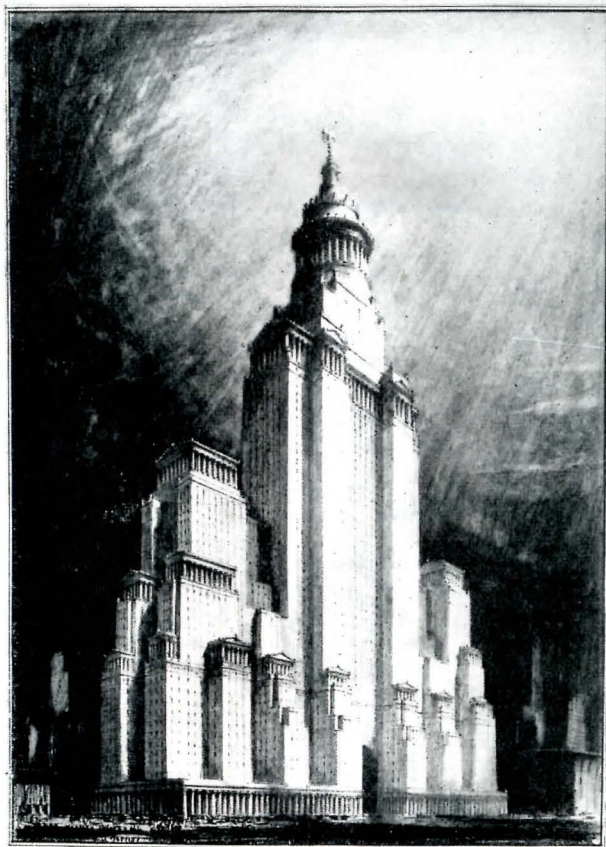


Figure 5. Final Stage, a Possible Development Within the Envelope.

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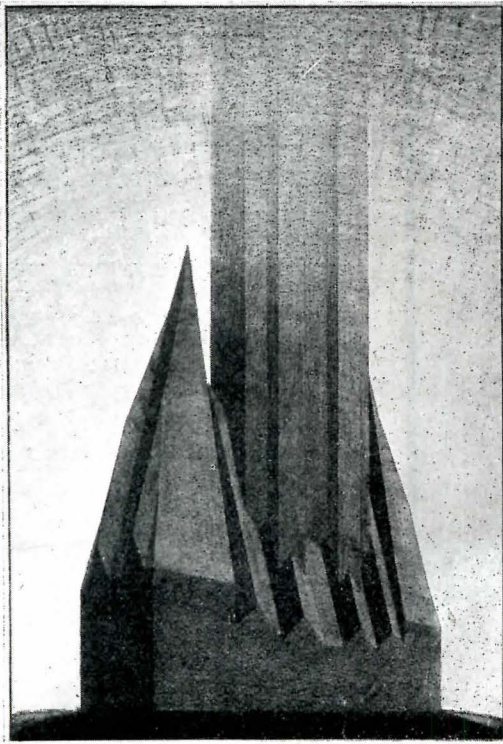


Figure 1.

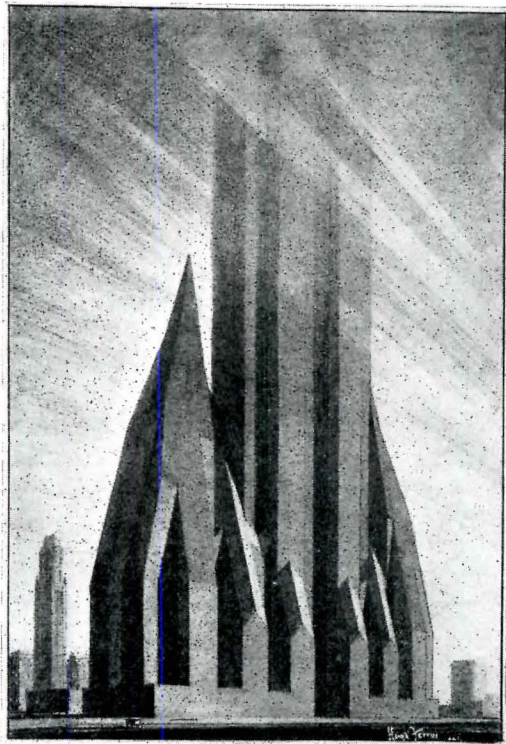


Figure 2.

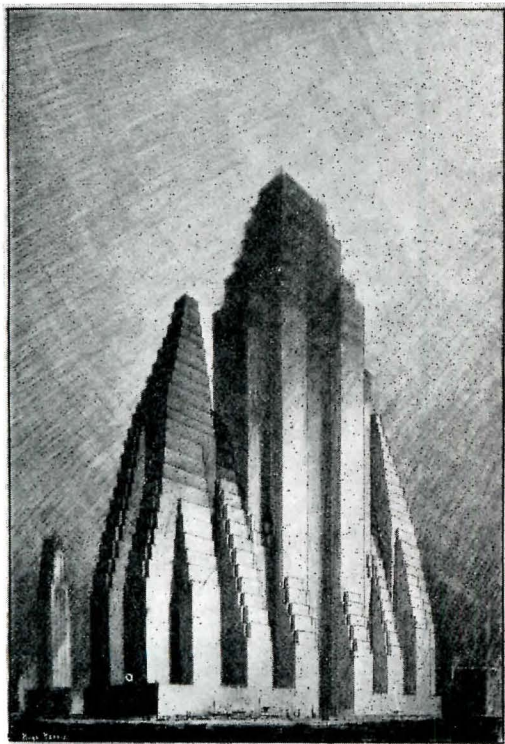


Figure 3.

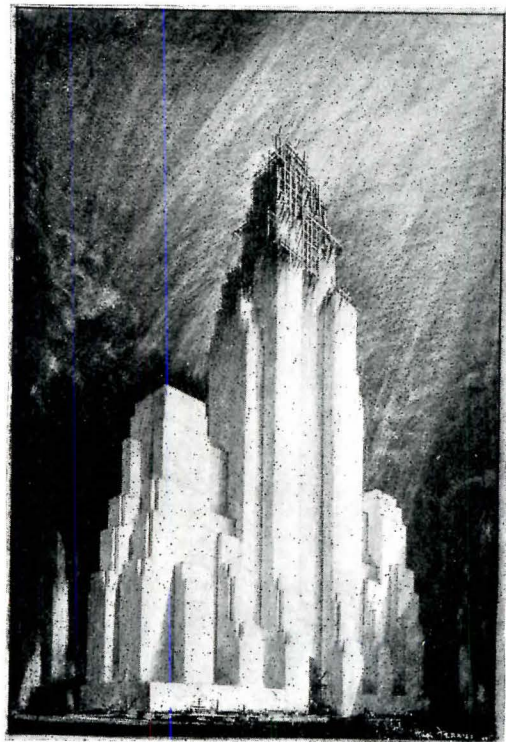
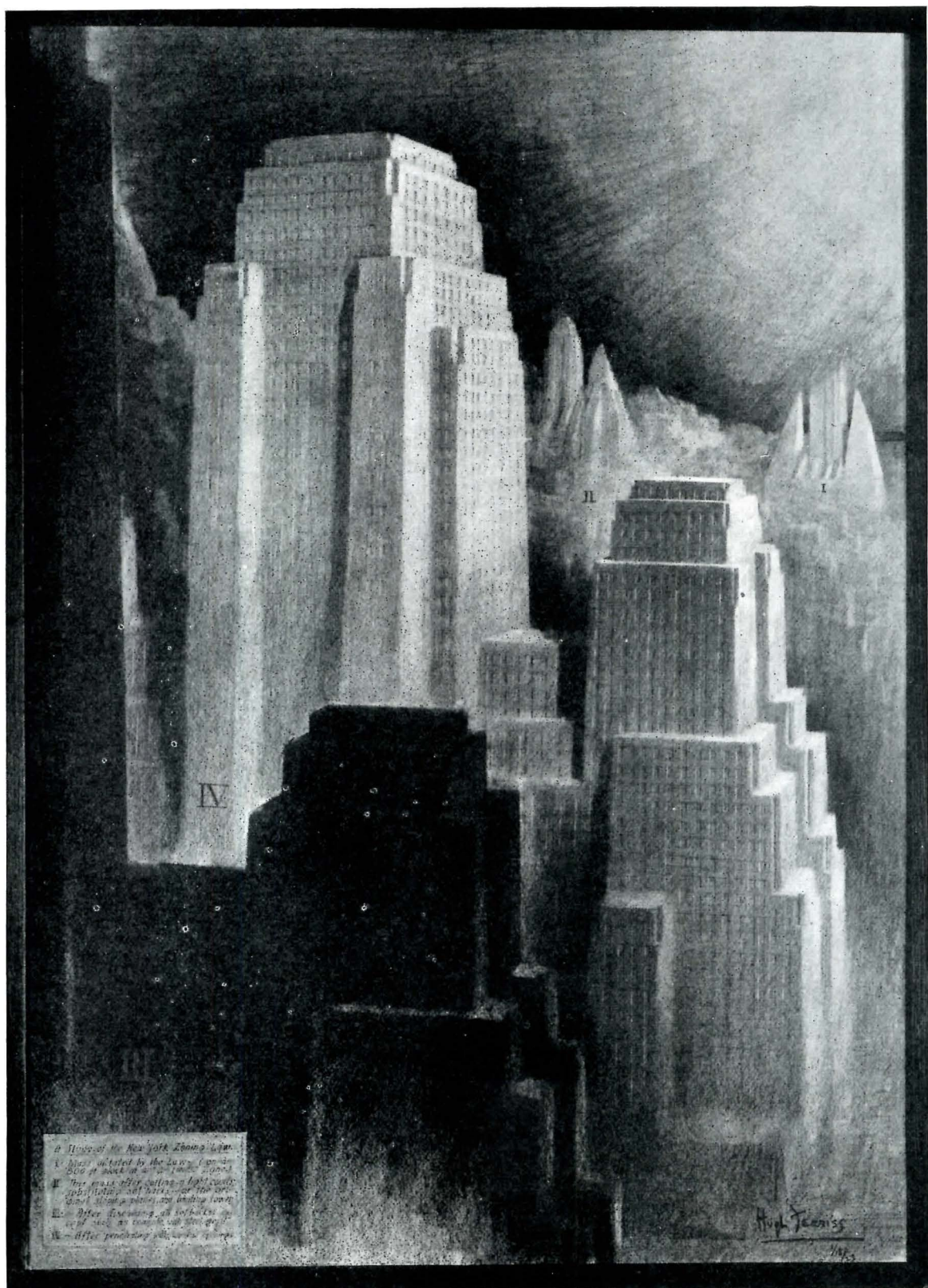


Figure 4.

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A Study of the New York Zoning Law. Drawing by Hugh Ferriss.

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height, the architect must provide either an interior or an exterior court. If he uses an interior court he takes the very heart out of his possible building for the slope of the step backs applies on the court side as well as on the street side, but to a greater extent. So it becomes necessary to cut the court from the outside, as one does not want to lose the advantage of indefinite height over 25 per cent. of the lot area which is allowed by the zoning law. The best advantage can be taken of this area by cutting the courts from outside instead of inside. This gives the shape shown in Figure 2.

Having arrived at the envelope represented in Figure 2 we find that it is a shape of rather unusual characteristics; vertical part of the distance, sloping the rest of the way, and with a tower which would be the ideal of Biblical days, actually reaching to the heavens, a veritable Tower of Babel. For practical reasons we begin to straighten up these sloping walls and for structural reasons we cut off the tower at a height that is possible. Having done this we find that we have the form shown in Figure 3.

Figure 3 is structurally very impracticable; step backs every two stories are not good and the area in a point like the one at the left would not be worth while, for the space would cost more than the owner could get for it. We therefore make our step backs at those points where a proper balance between the available floor area and economical construction meet. Of course, there is actually more space in Figure 3 than in Figure 4, but the cost of the additional space would make it not worth building.

We have in Figure 4 the possible structural bulk which can be lighted by daylight and that contains all the floor space worth enclosing. With this as the basis of our problem we may proceed to fit into it the requirements of the particular building we are to design. So it is apparent that our method of approach is practically reversed and we start where, in the old days we were not supposed to start (but often did start) with the facade first and the plan afterward.

Figure 5 shows Figure 4 architecturally "trimmed" and it happens that we have chosen a solution along modernized classic lines. An equally interesting solution might be had with Gothic inspiration, or, if one chose, one might leave the whole thing untouched, depending for effect entirely upon the pleasure to be derived from contemplating the masses of these forms. The design shown in Figure 5 represents merely the last stage in the development of the problem of getting all the law allows under the zoning law on an entire New York City block and it is not presented as a design for a proposed building.

On page 17 is shown a drawing in which Mr. Hugh Ferriss has presented the four stages of development within the envelope. The first and second stages are represented in the distance, a portion of the third development is shown in the foreground, while in the centre is seen the development of the building in its fourth stage. With the

simple addition of window openings, the masses shown in the fourth stage, devoid of all architectural trimmings, stand forth in a way to emphasize the dominating characteristics of the form of a building under the set back provision of the zoning law.

THE AMERICAN ACADEMY IN ROME.

FROM a letter recently received by C. Grant LaFarge, Secretary of The American Academy in Rome from Gorham P. Stevens, Director, we quote the following:

"Prof. Frank delivered the opening lecture at the first meeting of the British and American Archaeological Society. Subject, *The Foundation of Rome*. This lecture is always quite an affair. Senator Lanciani was present, Dr. Ashby, Mrs. Strong, and many other archaeologists. The Chancellor of our Embassy presided. Prof. Frank's lecture was well received.

"Prof. Henry A. Sanders, a former Director of the Classical School, has been in town looking up palaeographical material in connection with certain new portions of the Bible which have come to light recently. Prof. Frank induced him to give us a talk about his work, which was tremendously interesting.

"Prof. Guido Calza, Director of the Excavations at Ostia, has delivered the first of our Italian lectures. Subject, *The Commercial Policy of Rome*.

"Active preparations are in progress for the Greek trip, which is scheduled for the month of April. As there is a good deal of smallpox and typhoid in Greece due to the refugees from Asia Minor, Constantinople and Thrace, we are requiring everyone to be inoculated against these diseases. There will probably be between twenty and thirty in the party, and both Prof. Frank and Prof. Van Buren are going. Mrs. Stevens has a small class in modern Greek.

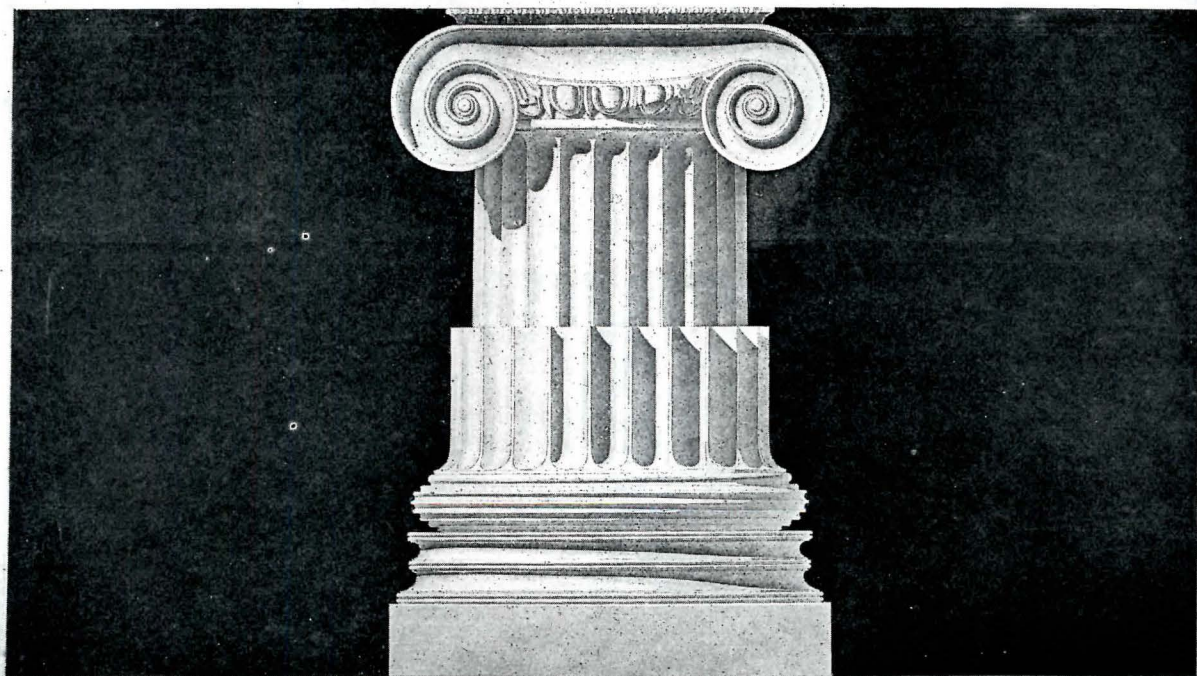
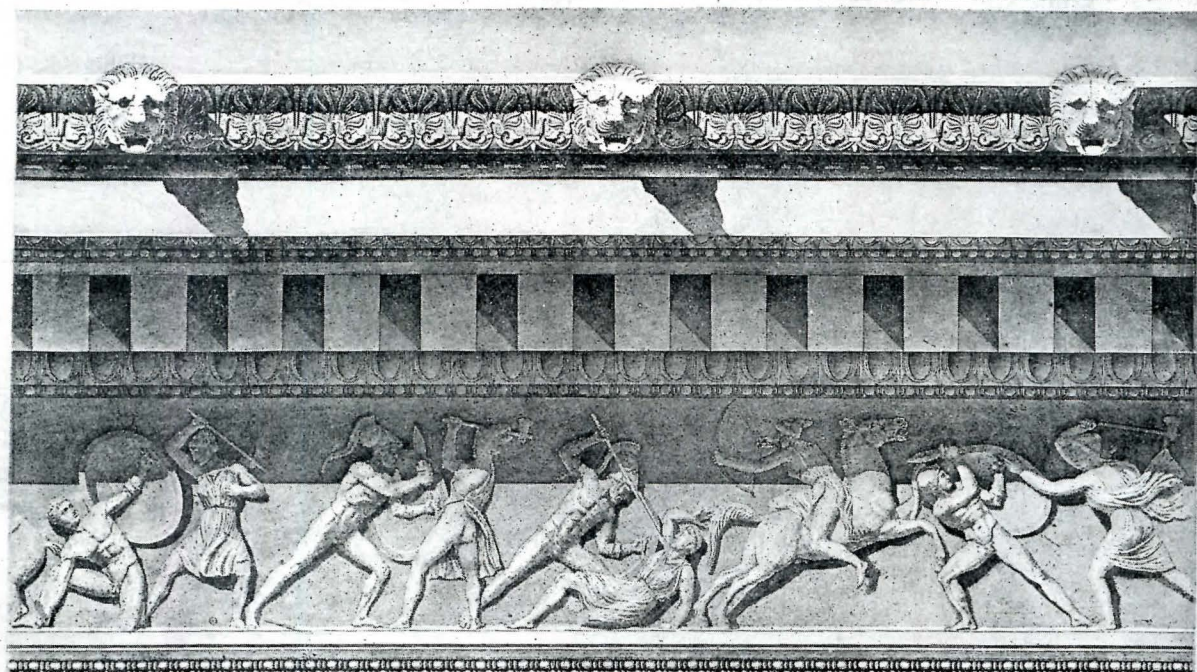
"We are already beginning to plan for our Spring exhibition and concert. We hope to hire an awning to go over the courtyard and to give the concert there: perhaps the orchestra will be as large as sixty pieces, if Mr. Lamond can find the money for it. We hope to have Their Majesties present, and Mr. and Mrs. Mead to receive them.

"The Ward-Thrasher Memorial is advancing. The upper portion is to be a fresco, and the lower an inscription and marble seat. Mr. Faulkner has his cartoon at full size, and the wall has been prepared for actual work.

"Mrs. Jordan, for many years Dean of the women students at Ann Arbor, has shown great interest in providing more ample living quarters for our women students. I have been over the question both with her and with Mr. Mead, and certain urgent recommendations have been sent to your Board.

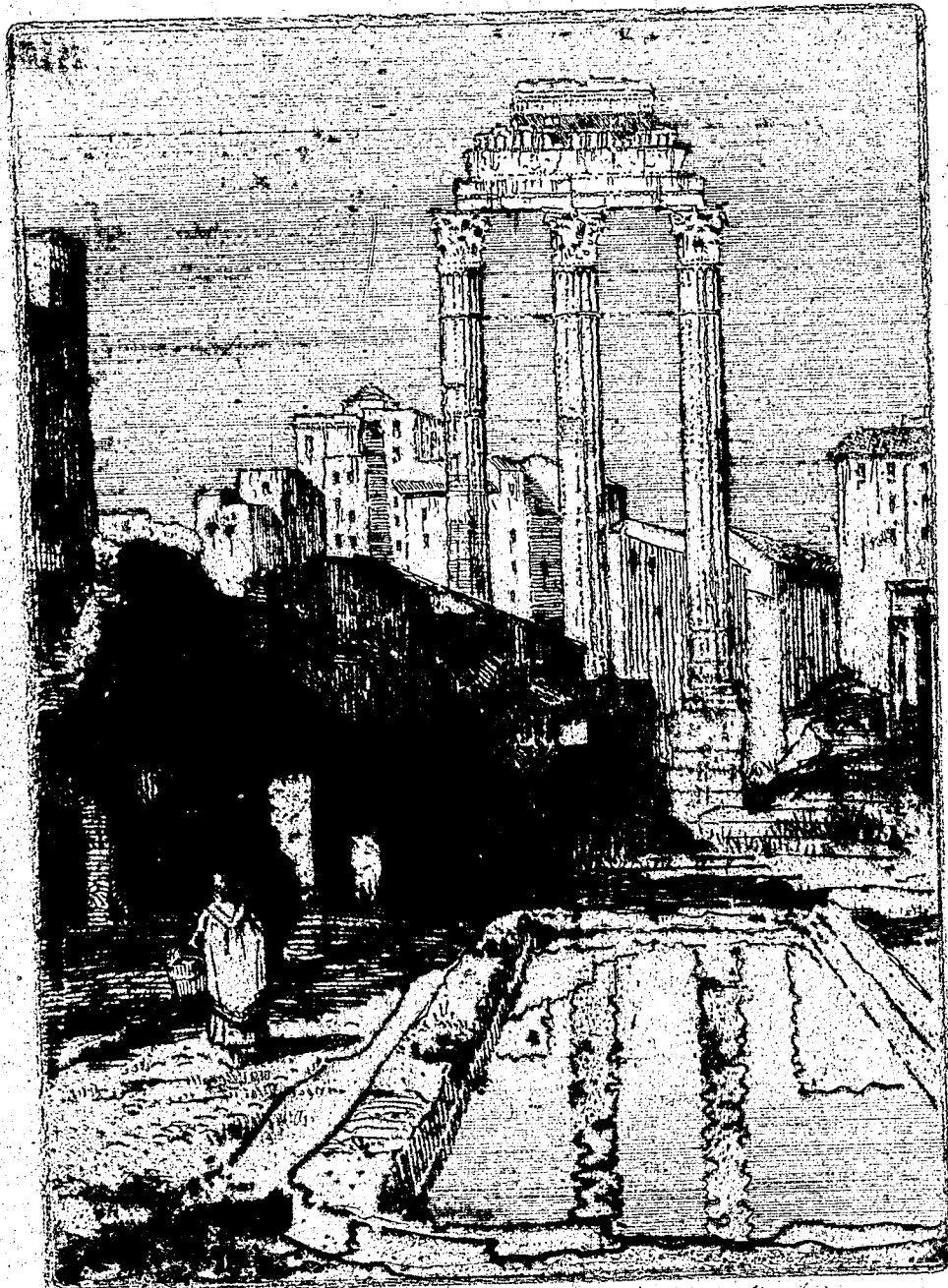
"Mr. Charles Graham of 107 Via Torino, Rome, has presented the Academy with four beautiful suits of Japanese armor and twenty-three fine Jap-

(Continued on page 43)



DETAIL OF MAUSOLEUM AT HALICARNASSUS
FROM D'ESPOUY'S "FRAGMENTS D'ARCHITECTURE ANTIQUE"

On the other side of this sheet is shown a detail of the restoration of the Temple at Halicarnassus which was presented in the March issue. This is an interesting restoration and an admirable example of rendering.



Castor & Pollux Rome

G. C. Styles 1932

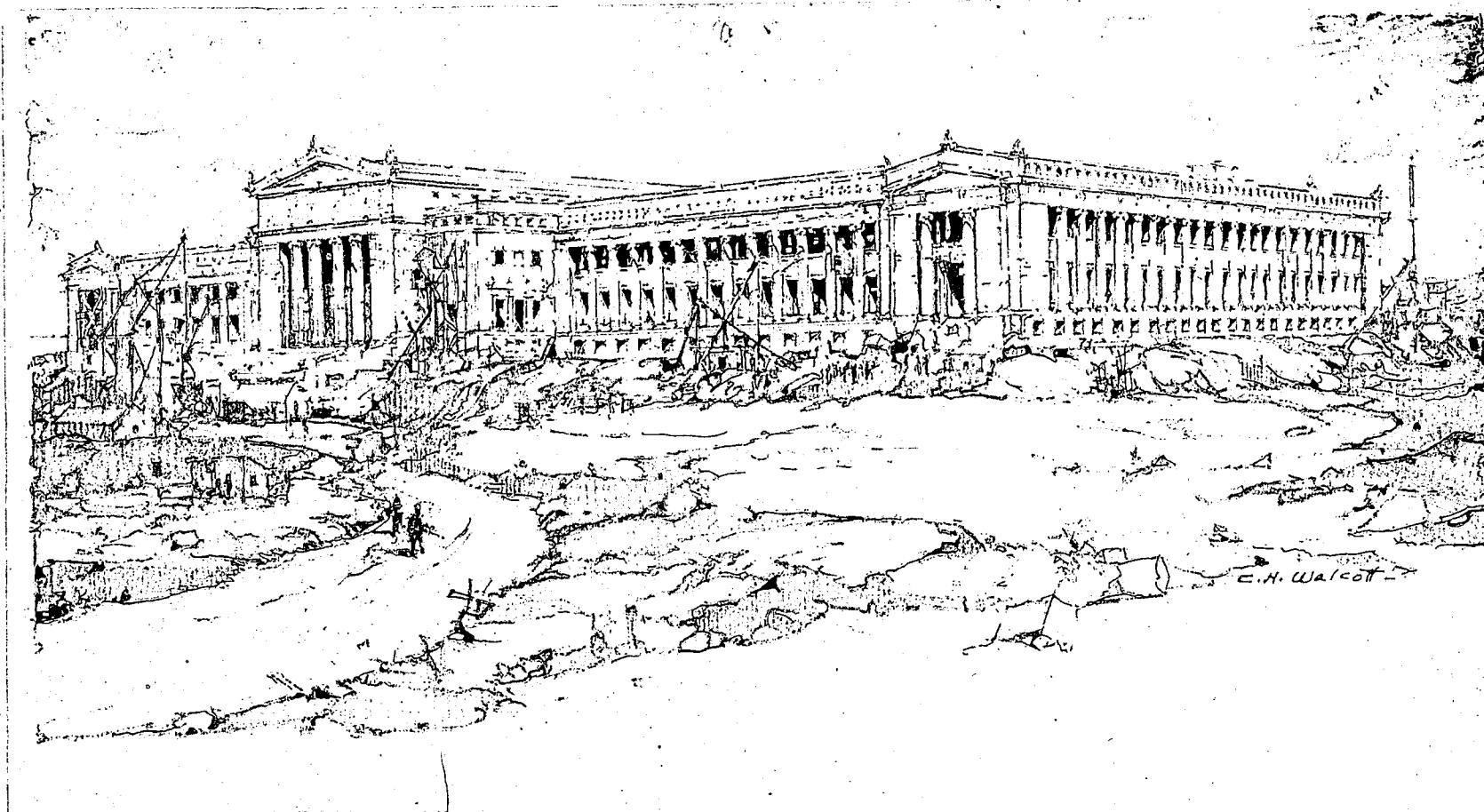
TEMPLE OF CASTOR AND POLLUX, ROME
ETCHING BY G. C. STYLES

An especially good etching of an architectural subject is the one reproduced on the other side of this sheet. Mr. Styles is a member of the staff of Bertram Grosvenor Goodhue. Another of Mr. Styles's etchings was reproduced on the cover of the March issue of this journal.

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PLATE XV



THE FIELD MUSEUM, CHICAGO, SKETCH BY CHESTER H. WALCOTT

The sketch of the Field Museum, Chicago, reproduced on the other side of this page shows a very effective use of pencil and pen-and-ink in combination. Mr. Walcott has done many interesting sketches and other examples of his work will be presented in early issues.



PENCIL STUDIES BY KENYON COX

Children are generally recognized as difficult subjects for the draftsman to represent successfully and this fact lends additional value to the two studies in pencil by Kenyon Cox, shown on the opposite side of this sheet. This drawing, like the others by this artist shown in this journal during the past few months, is reproduced here through the courtesy of Mrs. Cox.

THE STUDY OF ARCHITECTURAL DESIGN

WITH SPECIAL REFERENCE TO THE PROGRAM OF THE BEAUX-ARTS INSTITUTE
OF DESIGN

THE MEASURED DRAWING

BY JOHN F. HARBESON

In this series of articles, which began in January, 1921, Mr. Harbeson is explaining the method of working and how to get the greatest benefit in following the program of The Beaux-Arts Institute of Design. It is not intended as a substitute for personal instruction and criticism. The "Analytique" was treated in issues for February to September, 1921, the Class B Plan Problem and the Archaeology Problem in later issues.—Ed.

SINCE the beginning of the Renaissance in Italy, when Brunelleschi, Bramante, and the others down to Michael Angelo made drawings of the classic remains in Rome, the "measured drawing" has had a fascination for the real "student" of architecture. Many measured drawings have been made primarily for publication as records for the use of designers. All our familiar "documents" are measured drawings. Letarouilly's, "Edifices de Rome Moderne," Cesar Daly's "Motifs Historiques," Pfnor, Garner and Stratton, and all the other well known names, including the many volumes of Piranesi's engravings of classic and Renaissance Rome, are compilations of such measured drawings. From time to time later investigators checked up and revised some of these measurements. A recent Fellow in architecture of the American Academy in Rome found such an error in the plan of the Villa Gamberaia as laid out by Percier and Fontaine. When measurements are undertaken for publication purposes and a large field must be covered, as is frequently the case, it is assumed that two sides of a form are alike, and a more careful measurement may

show a distinct variation (as in this case).

A measured drawing is required by the Beaux-Arts Institute course and by the Ecole des Beaux-Arts in Paris also, not as reference material, but because it is an excellent training in the study of profiles and of execution, of ornament, of surface textures. It is a connecting link between design, creation and execution, and it is by executed work that architectural ability is finally judged, not by drawings. Indeed, when the most clever men at the Ecole have won the "Prix de Rome"—have reached

the apex of student achievement, they are sent to Rome to make "measured drawings" of the architecture of past ages. It is these measured drawings that were published in the work and that we are accustomed to speak of as "D'Espouy." Of this work many examples have been given here, all of them of the classic school. The Grand Prix men study fragments of other work, of the French and Italian Renaissance for instance, and of the middle ages: Figures 1 and 2 are examples of Italian Renaissance Work. Figure 1 is of a very beautiful piece of architectural sculpture, and is in itself a beautiful piece of work—note the ability



Figure 5. Fountain, Piazza San Pietro, Rome. Drawn by William J. Hough, Courtesy American Academy in Rome.



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Figure 1. Tomb in the Church of S. Domenico, Bologna. Drawn by M. Chedanne.
 From D'Espouy's "Fragments D'Architecture de la Renaissance."

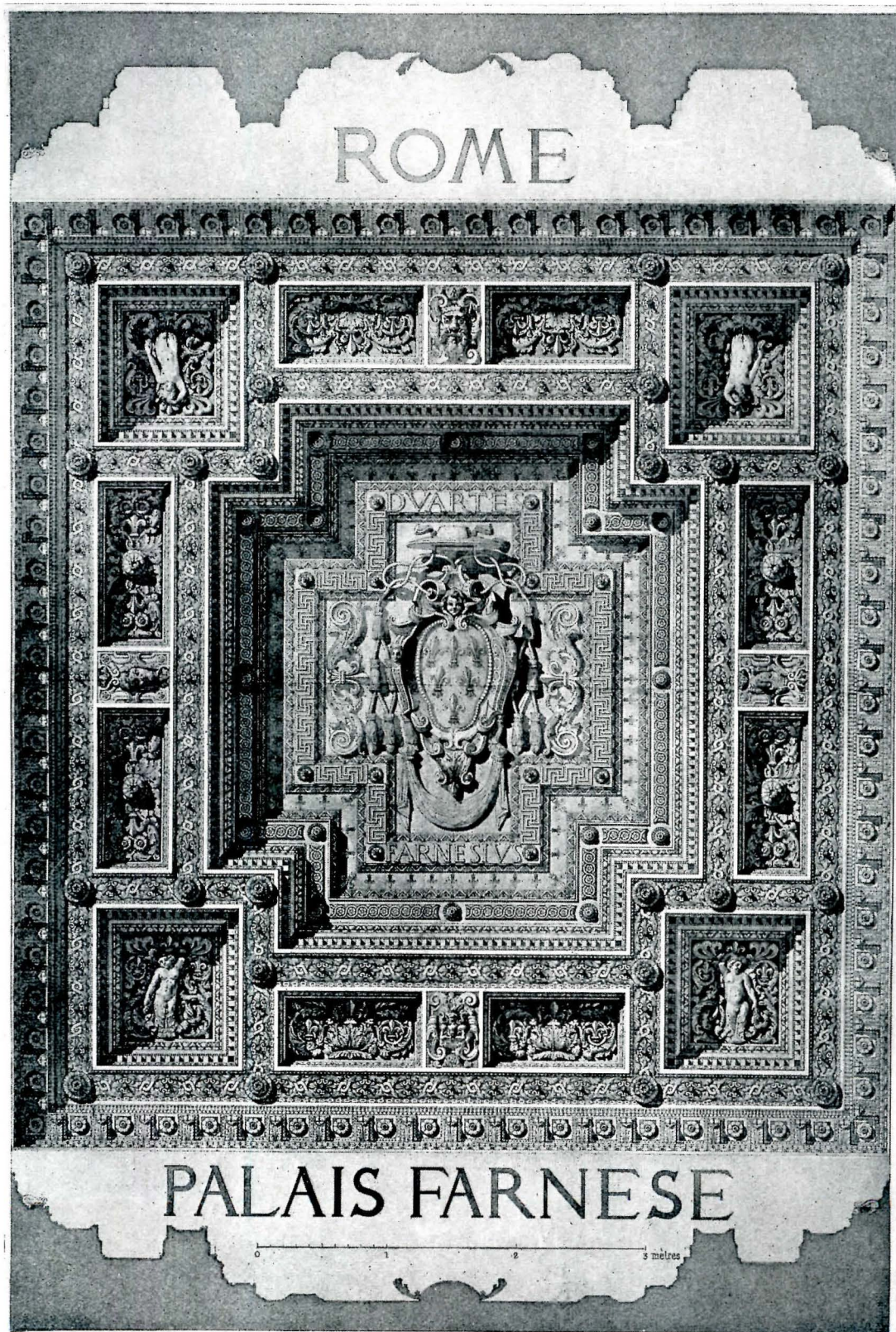


Figure 2. Ceiling in Farnese Palace, Rome. Drawn by Victor Laloux.
From D'Espouy's "Fragments D'Architecture de la Renaissance."

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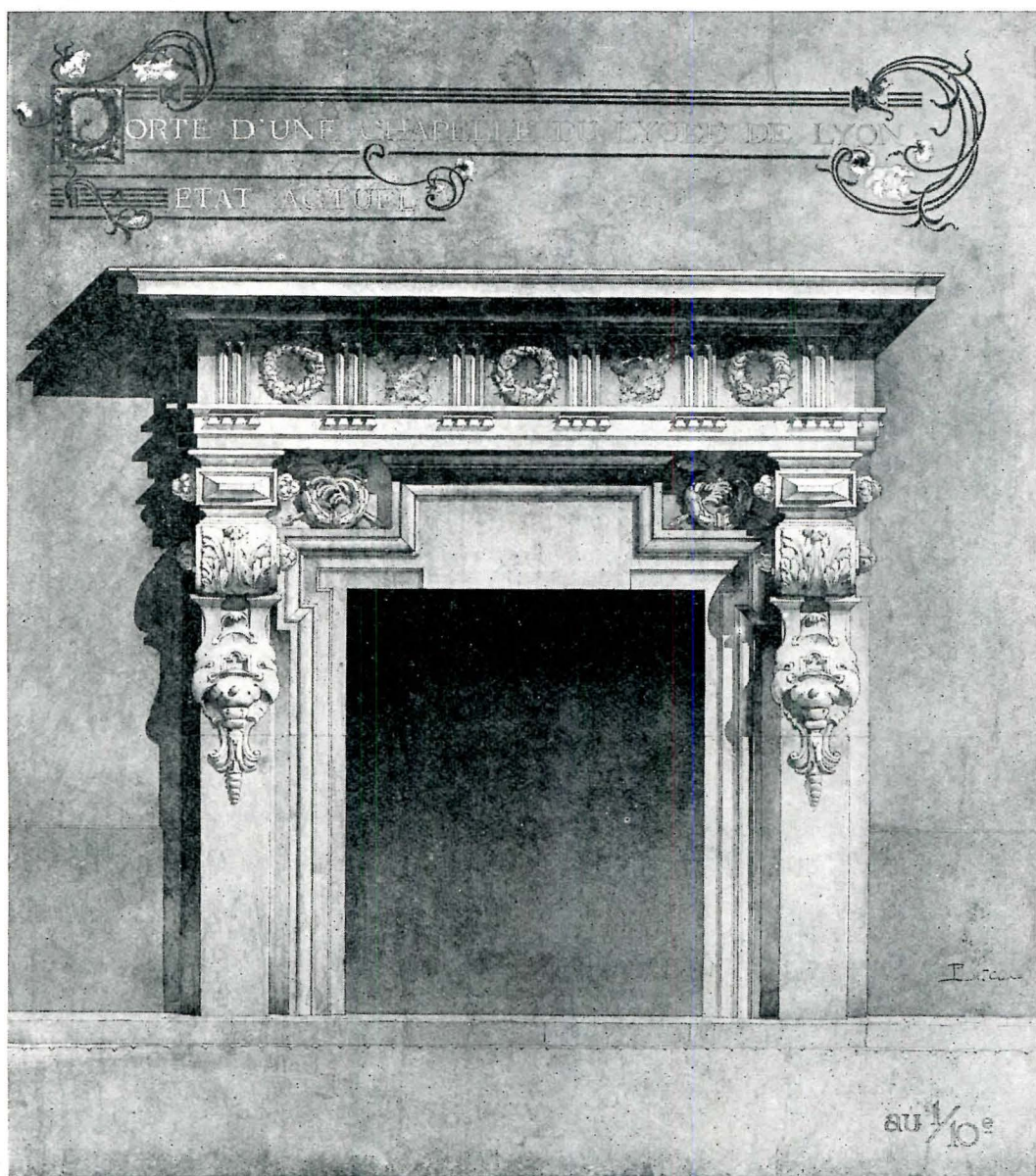


Figure 3. Doorway, Lycée de Lyon.
Drawn by Paul P. Cret.

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with which the sculptural forms are modelled, and all the conventional system of shadows and washes—the careful picking out of high light, half tone and shadows.

Figure 2 is quite different—a flat ceiling in the Farnese Palace at Rome by the late Victor Laloux, who was later "Patron" of one of the well known ateliers at the Ecole des Beaux Arts;—it is simpler in rendering, but very complicated in drawing. It is again a masterpiece of presentation.

A measured drawing is required also at the Ecole. One such, by Paul Cret, the doorway of the Lycée de Lyon, is shown in Figure 3. Note again the careful rendering—especially the modelling of the sculptural forms by the skillful division into high-light, half-tone and shadow, and the rendering within the shadows by the use of reflected light and back shadows. Note how the planes take their place forward or backward, simply by the value of the wash or tone. Here, as in most of the D'Espouy plates, the mouldings are rendered by dividing these mouldings by a series of parallel lines, and rendering by washes of graduated tones as explained in the chapter on rendering the "Analytique" (Sept. 1921 PENCIL POINTS). In this instance the lines are fairly close together and the washes are very carefully put in so that the lines disappear in the reproduction at a reduced scale.

The men at our own Academy in Rome now make measured drawings in the same way. The Ponte Rotto, Figure 4, by Wm. J. Hough, fellow 1914-1917, was a bridge built by Pope Gregory XIII in

the Sixteenth Century. The presentation is inspired by the engravings of the time of Piranesi. The fountain of the Piazza San Pietro, Figure 5, by the same author, shows a very clever representation of water. Unfortunately a black and white reproduction does not show the variations in color of such a rendering: the student should look for drawings of this character at the architectural exhibitions and study the use made of color in modelling, and note changes in local color due to shadow, reflected light, etc.

A student from this country is fortunate when he has the opportunity to take measurements abroad for his measured drawings. There is such a profusion of usable material there that our own younger country seems bare indeed. Perhaps one of the best measured drawings made in this country was that made by Douglas D. Ellington (later winner of the Paris prize in 1912) from measurements made on a European trip in 1910 (Figure 6). This is not only a good measured drawing—it is a masterpiece in presentation. The technique is an "archeo" in itself, studied as it was from Piranesi's engravings of Roman fragments, though Ellington first made a modelling by a series of light washes of a bluish gray water color.

One seeing the crisp lines of the presentation is apt to forget that a number of studies must be made before hand, not only of the composition of the sheet and the arrangement of tone values, but also of the modelling of the different fragments. In this case such studies were made first in charcoal

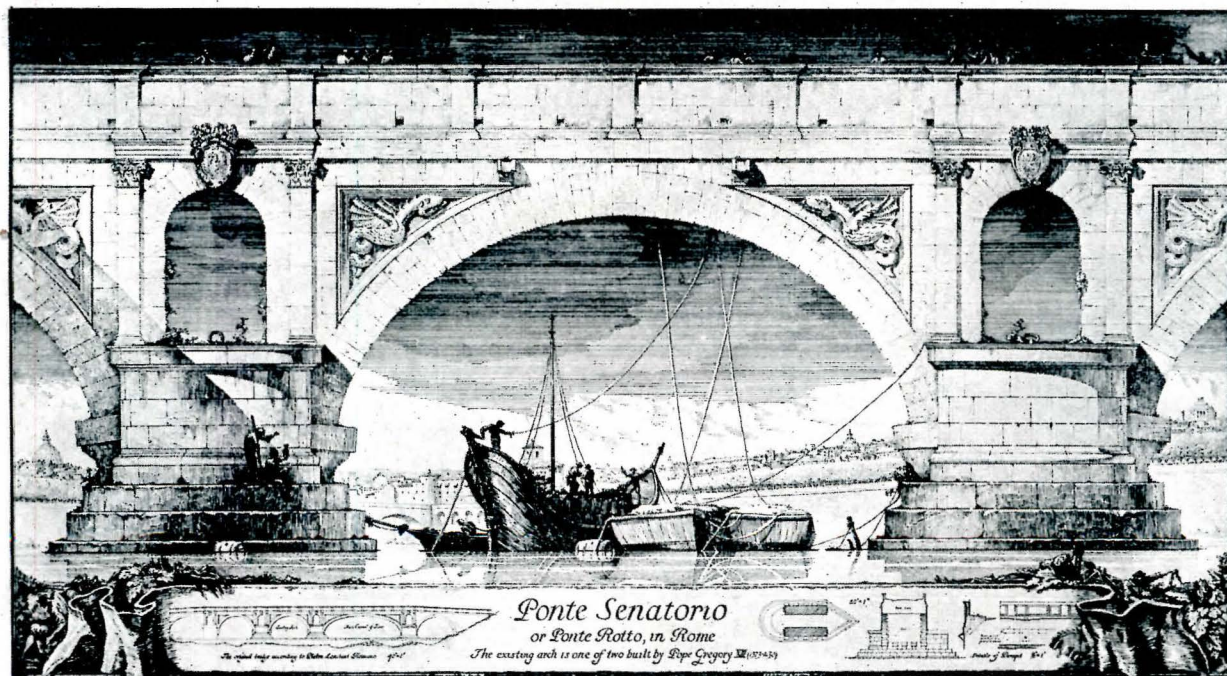


Figure 4. Ponte Rotto, Rome. Drawn by Wm. J. Hough. Reproduced Through the Courtesy of The American Academy in Rome.

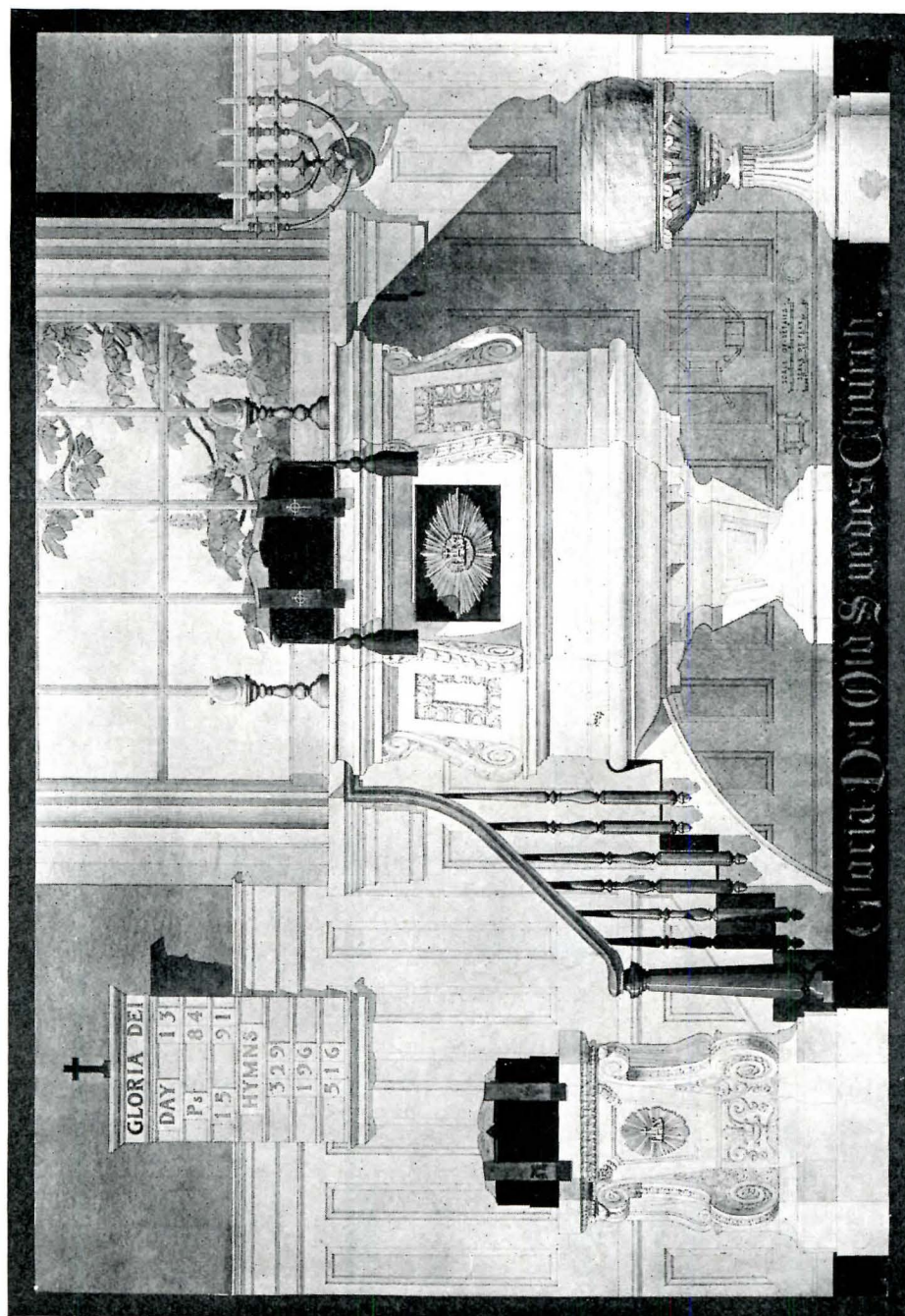
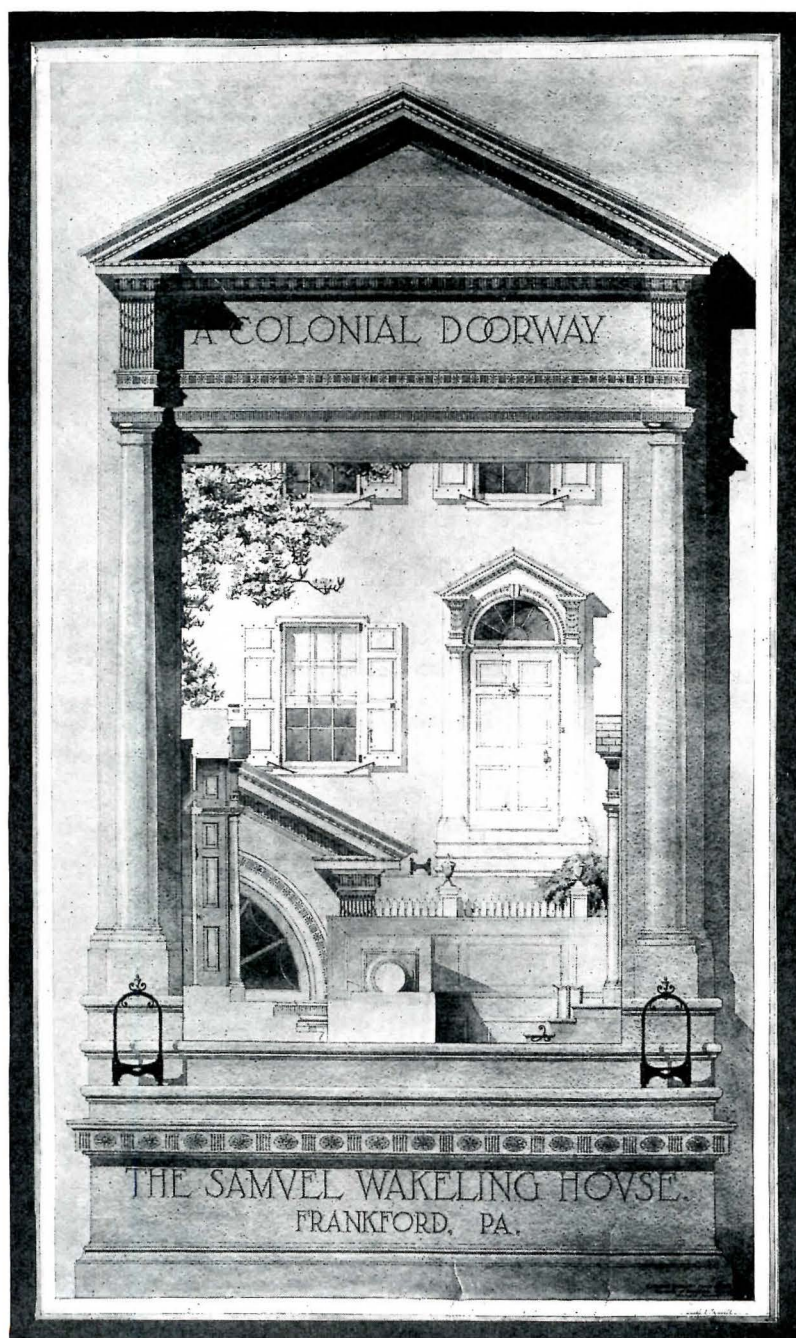


Figure 9. Pulpit in Old Swedes Church, Philadelphia.
Drawn by Lawrence C. Licht.



*Figure 7. Entrance, Wakeling House, Frankford.
Drawn by Bradford Tazewell.*

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and then with a 6-B pencil, which approximated the pen-and-ink technique to be later followed. A reproduction can hardly do justice to this technique—the drawing was made on an antiquarian sheet and considerable is lost in reduction.

But it is possible to find many interesting subjects in this country, new as it is compared to Europe. We have, of course, much Colonial work in the East and South, which furnishes both exteriors such as the Portico of the Wakeling House, Frankford, Figure 7, and interiors as the panelling of the State Parlor of Stenton, Germantown,—the home of William Penn's first Lieutenant Governor, Figure 8, and the pulpit of Old Swede's Church, Philadelphia, Figure 9.

Some work of the classic revival—the period about 1830—is available for material, including some very interesting tomb monuments. In the West and in Florida there is some architecture of very early date—the old Spanish Mission Churches. There are also some exotic things in this country: in museums, such as the Metropolitan in New York, will be found a complete Egyptian Tomb—a Turkish doorway, and complete rooms from the Tyrol, the Low Countries, etc.

The other large museums of the country have similar available objects. In Philadelphia there is in Fairmount Park a Japanese Temple Gate and a Hindu Temple; in the University Museum an Aztec Wall—and so on. If one is sufficiently interested, a subject can easily be found.

Having chosen the subject it is well to remember that measurements are useless unless they are complete. Everything must be measured, and accurately, otherwise such work is a waste of time.



Figure 8. State Parlor, Stenton, Germantown, Pa.
Drawn by Gerald K. Geerlings.

the same profile at several different points on the moulding to allow for inequalities in execution.

For ornament or sculpture, studies should be made in charcoal and measurements taken of important points, very much as sculpture is "pointed" up to a larger scale.

Photographs are of great use and as many as possible should be taken of the subject in every direction—especially if it is in a foreign country or in an inaccessible place, so that there will be a chance to check up on any errors or omissions. Photographs are very helpful in rendering, they

show the "modelling" of surfaces in a very convincing way. Figure 10 shows a photograph taken for such a purpose, with the shadows at almost the conventional angle though the source of light is at the right instead of the left as usually.

Indeed at the Villa Medici when the men who have won the Grand Prix de Rome are making the careful renderings we are familiar with as "D'Espouy" plates, they take a cast of a cap, for instance, out into the garden, turn it until the sun is in the proper direction for the conventional architectural rendering, and then mark—directly on the cast—the trace of the shadows on the object.

As such a great amount of time is given
(Contin. on p. 50)

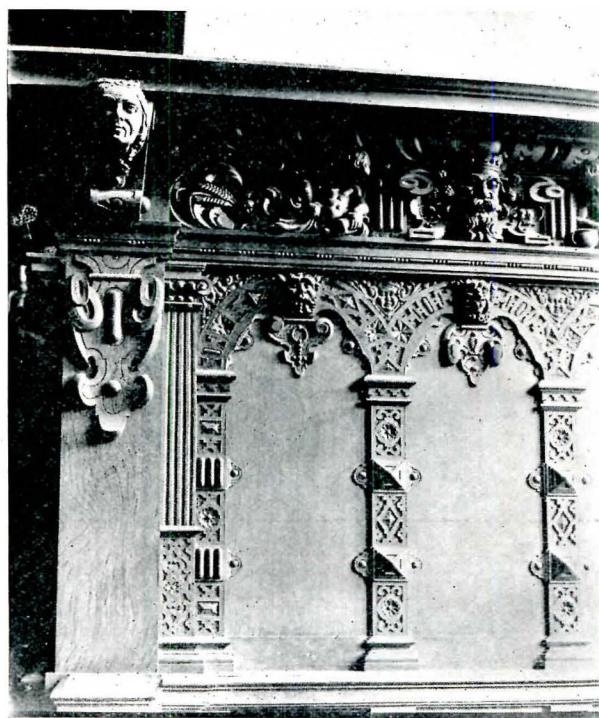


Figure 10. Photograph of Detail of Renaissance Panelling.

PENCIL POINTS

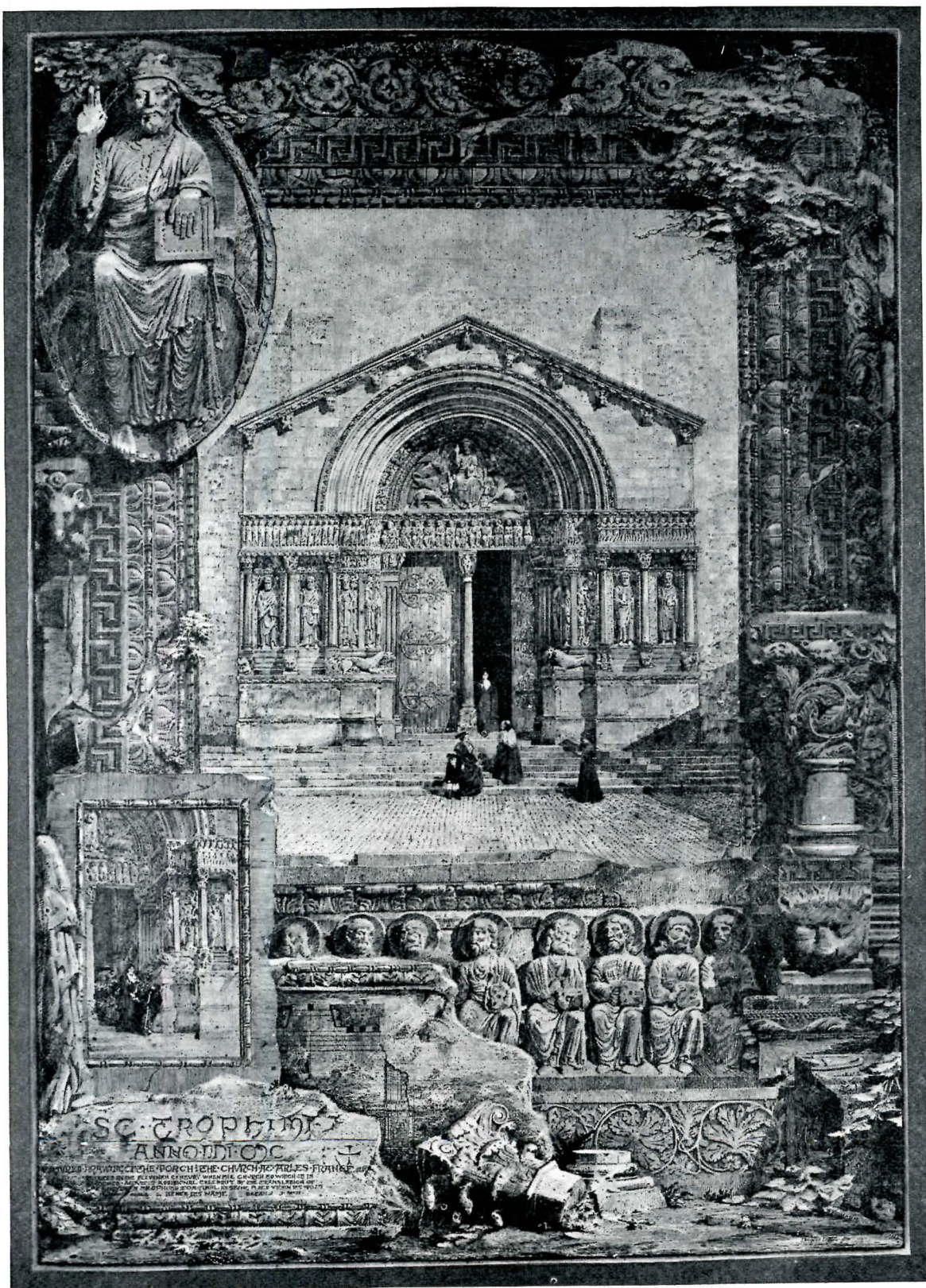
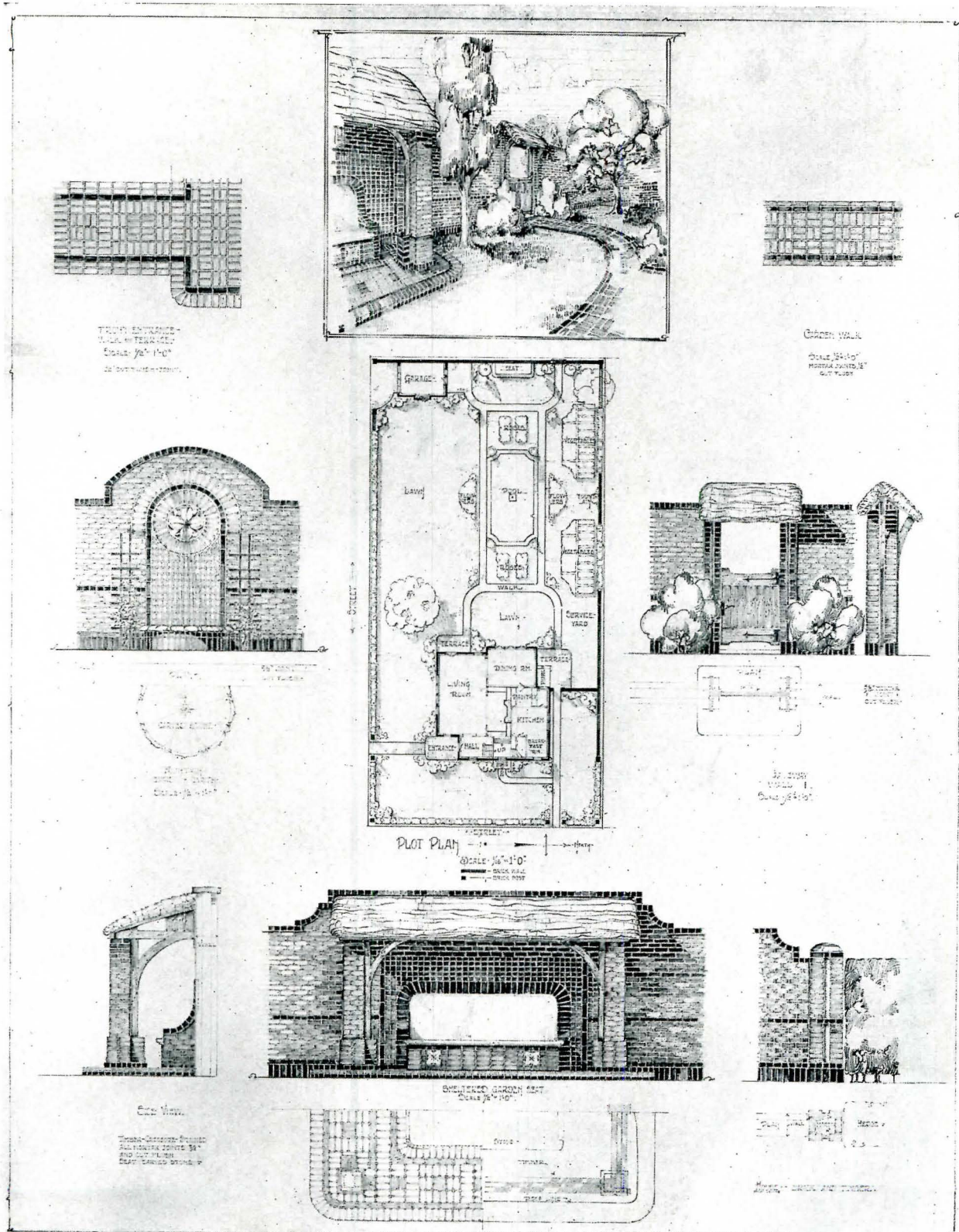


Figure 6. Doorway of Church of S. Trophime at Arles, France. Drawn by Douglas D. Ellington.

PENCIL POINTS



Design by Mrs. Ruth L. Gerth, of Minneapolis, Minn., Who Won the First Prize of Five Hundred Dollars in The American Face Brick Association's Competition for Designs for Garden Architecture in Face Brick. See text on the opposite page.

THE GARDEN ARCHITECTURE COMPETITION

Report of the Awards for the Best Designs for Architectural Features in Face Brick Work for the Grounds or Garden of a Residence

THE Competition for the prizes offered by the American Face Brick Association for the Best Designs in Face Brick Work for the Garden closed February 5 and was judged in Chicago February 23. The prizes aggregating more than Fifteen Hundred Dollars were awarded by a Jury of five prominent architects from different sections of the country. The competition was conducted by PENCIL POINTS for the donors of the prizes.

The designs which won the first and second prizes are shown here in general and in detail, the whole drawing being reproduced at small scale to show the sheet arrangement and to give an idea of all the features presented, while certain details are shown at larger scale in order that the rendering and design features may be seen more clearly. The third and fourth prize sheets are also shown. A portrait of Mrs. Ruth L. Gerth, winner of the First Prize, and a biographical account are published on page 47 of this issue. The report of the jury is as follows:

Report of the Jury

The jury of awards, which met in the office of Alfred Granger, Chicago, Friday, February 23, 1923, was made up of the following architects: Alfred Granger, Chicago, Chairman; Russell F. Whitehead, New York; Frederick W. Garber, Cincinnati; Edward Stotz, Pittsburgh; George A. Chapman, Minneapolis.

Of the designs submitted, a considerable number had to be eliminated from the judgment because of the failure of the contestants to meet one or more of the mandatory conditions of the program. Some competitors failed to include plans of the various features which were called for both in plan and elevation. Others failed to designate on the drawing the exact width and kind of mortar joints to be used. Various other failures to observe the conditions, caused the elimination of still other entries. The jury regretted the necessity of eliminating these drawings from the judgment because of the carelessness of the competitors in failing to meet the plainly stated requirements of the program.

The remaining drawings were numbered to correspond with the sealed envelopes containing the names of the competitors and the jury proceeded to place the drawings in the order of their merit.

The first prize, Five Hundred Dollars, was awarded to drawing No. 36, submitted by Mrs. Ruth L. Gerth, of Minneapolis, Minn. This design showed an unusual grasp of the requirements of the program. The characteristics of the design were markedly domestic and well adapted to a lot

of the size stated, 100 x 200 feet. The author showed an excellent appreciation of the value of space in a property of this size and her treatment of brick was commendably simple and quite original in handling.

The second prize, Three Hundred Dollars, was awarded to No. 17, submitted by Louis C. Rosenberg of New York. This design was also of unusual merit and was a close contestant for first place, in the minds of the jury.

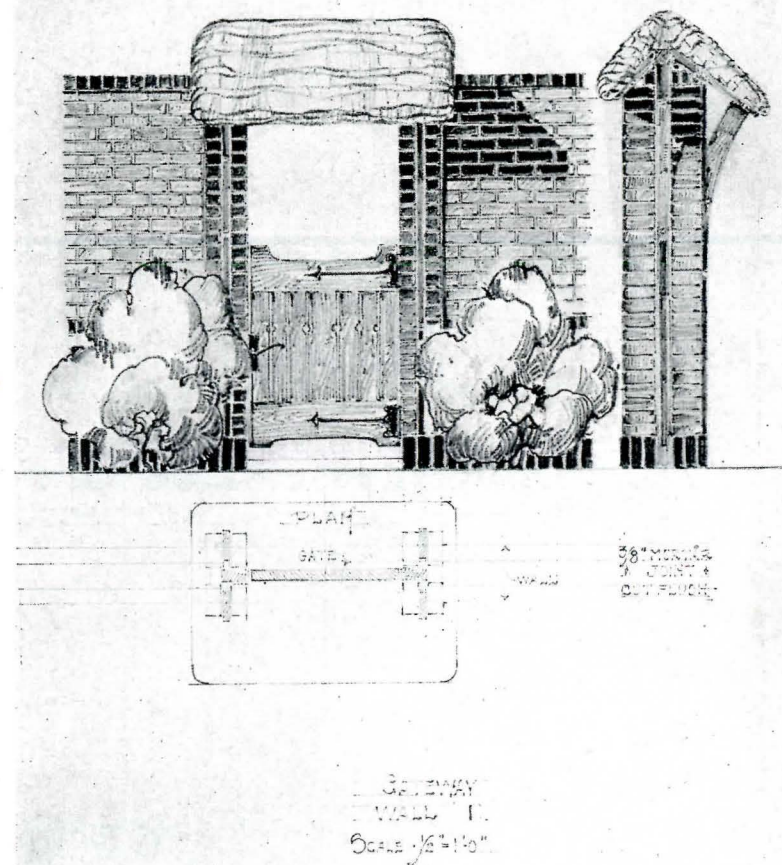
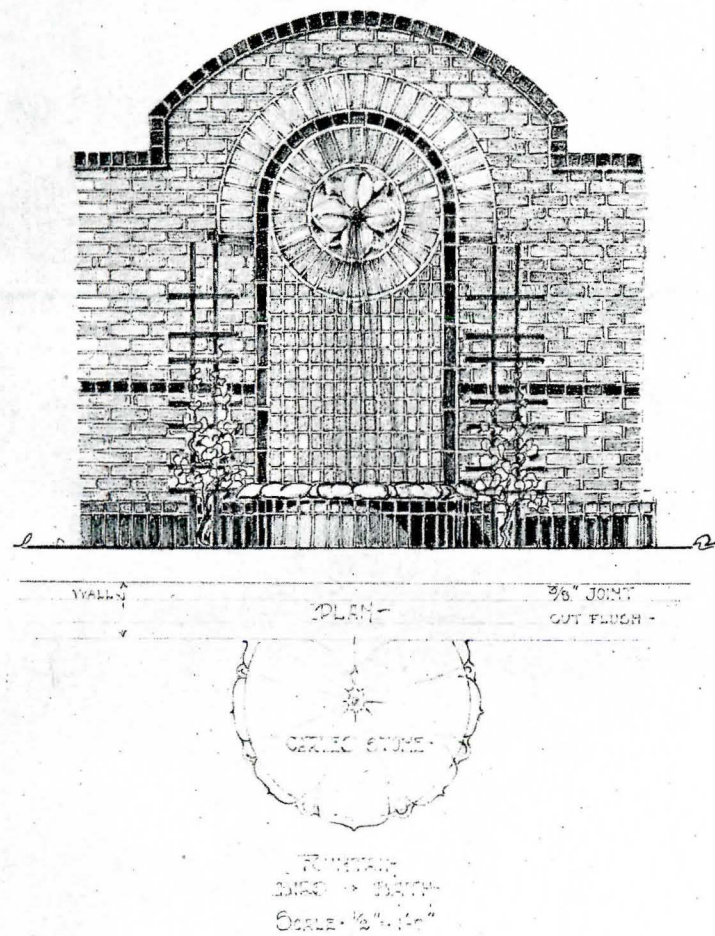
The third prize, One Hundred-Fifty Dollars, was awarded to design No. 31, submitted by A. Alex. Willson of Pittsburgh, Pa. The fourth prize, One Hundred Dollars, went to drawing No. 34 submitted by Leslie W. Devereux of New York. The designs to which third and fourth prizes were awarded, while possessing merit and showing evidences of careful study, were not regarded by the jury as being in the same class with the designs that won the first and second prizes.

The ten Fifty Dollar prizes were awarded to the following: B. L. Ryan, San Francisco, Cal.; George K. Jackson, Philadelphia, Pa.; Everett D. Woods, Memphis, Tenn.; E. C. Stiles, Oalsmont, Pa.; William Blackwell, Toronto, Ont., Canada; Peter Koetz, Washington, D. C.; M. Vaughn Woodard, Red Oak, Iowa; James C. Green, Stamford, Conn.; Leo C. Brumm, Yosemite, Cal.; Will. H. Creaser, Detroit, Mich.

While a majority of the designs submitted indicated study and thought on the part of the competitors the jury could not but feel somewhat disappointed with the quality of the entries in general. In the opinion of the jurors many of the competitors failed entirely to grasp the essential requirements of the program. Many of them failed to appreciate the fact that the layout for the garden and grounds on a plot of the size indicated should be essentially domestic in its conception and adapted to the requirements and means of an owner who wished to build an attractive home of moderate size rather than an ambitious establishment. In point of rendering the jury felt that the competitors had shown far greater ability than in the quality of design.

The jury feels that the American Face Brick Association, who instituted this competition, and the publishers of PENCIL POINTS, who conducted it, have done much through this means to encourage the study of a subject which should be of great interest to architects, landscape architects and draftsmen and believes that similar competitions should enlist the enthusiastic support of the best men throughout the country.

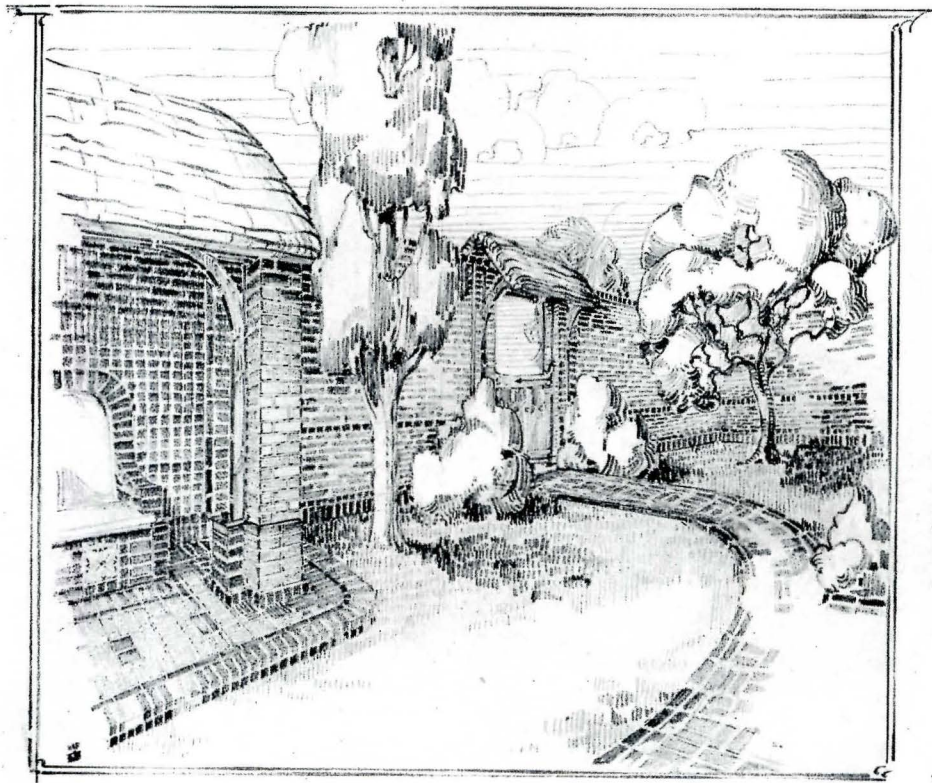
ALFRED GRANGER, *Chairman.*



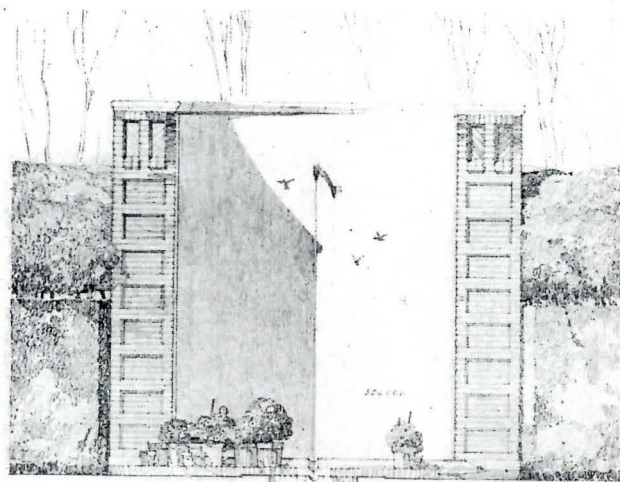
PENCIL POINTS

Details of Designs by Mrs. Ruth L. Gerth, Winner of the First Prize in the American Face Brick Association's Competition for Designs for Garden Architecture.

PENCIL POINTS



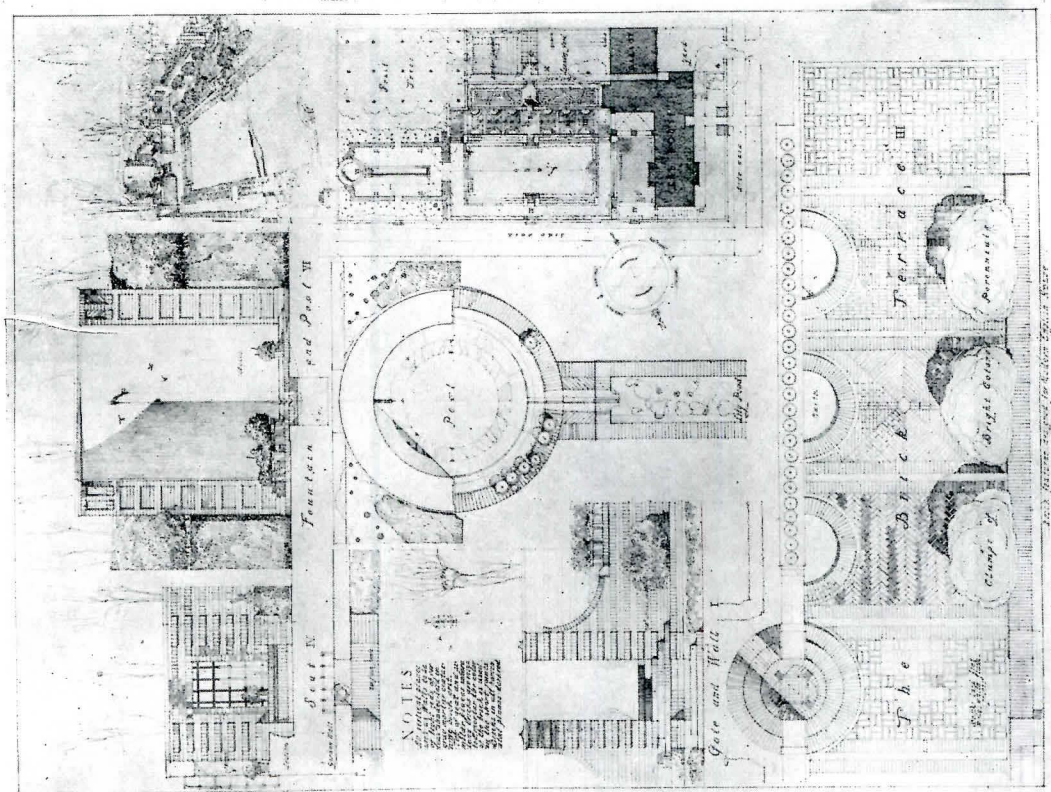
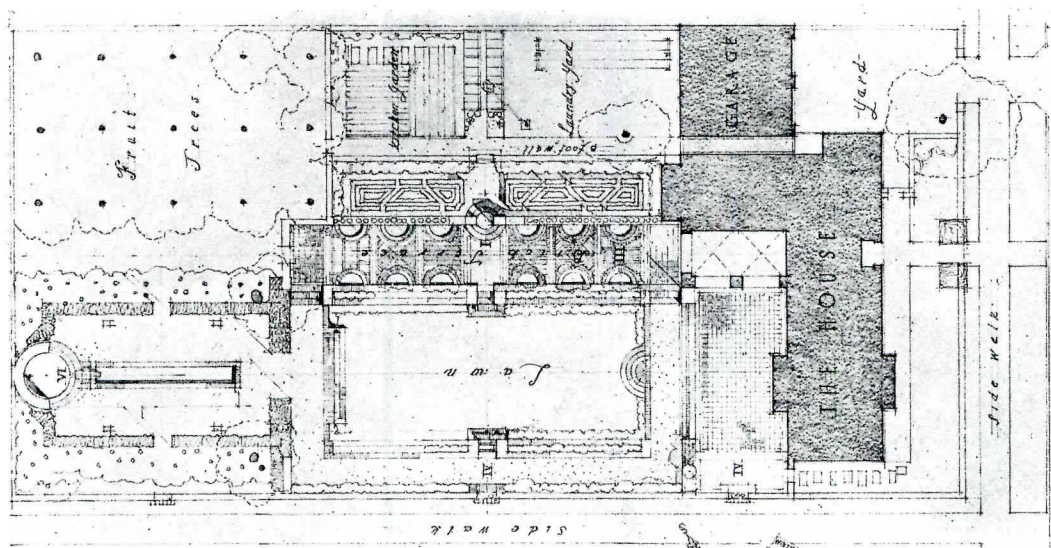
*Perspective from Mrs. Gerth's
First Prize Drawing.*



Fountain and Pool VI

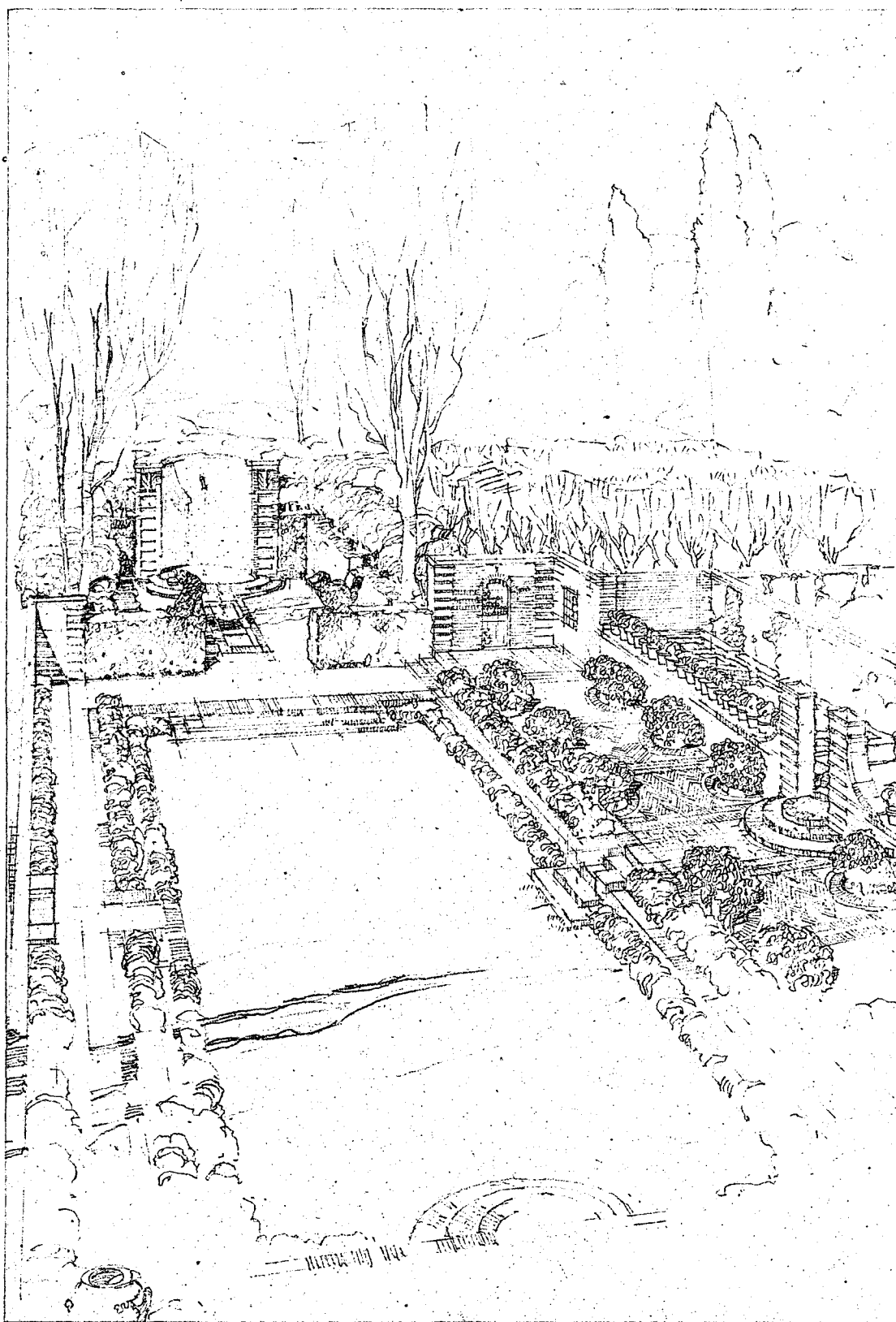
*Detail by Louis R. Rosenberg. Winner of the
Second Prize.*

PENCIL POINTS

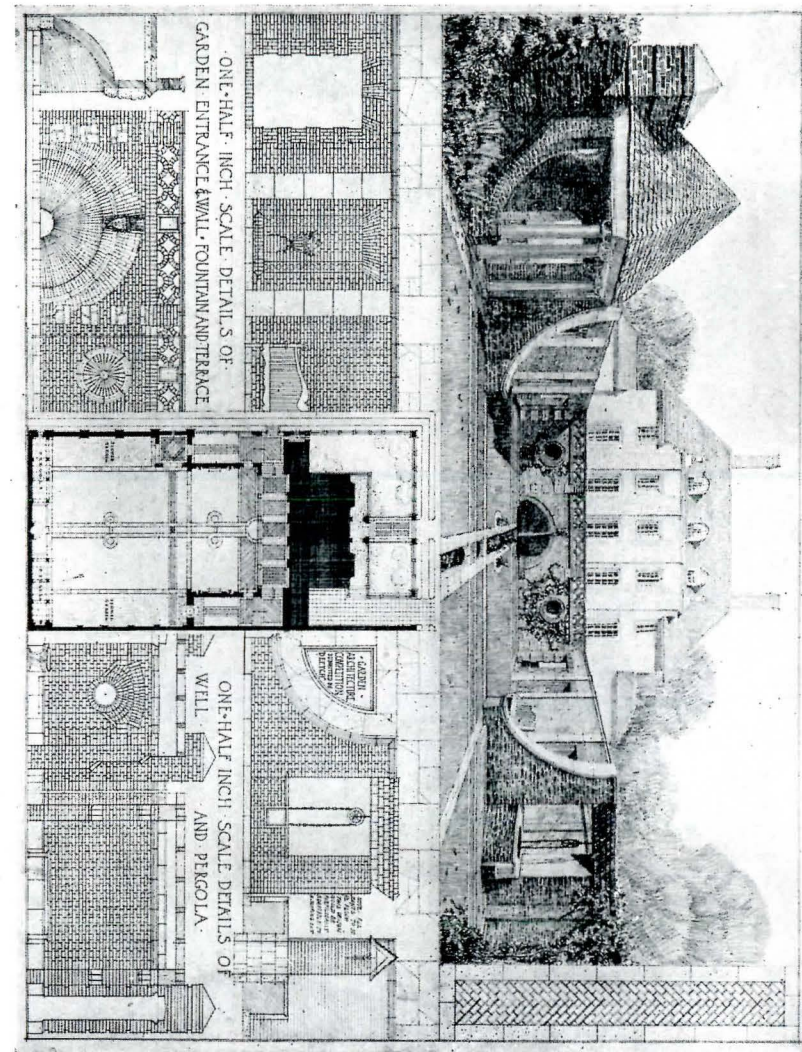
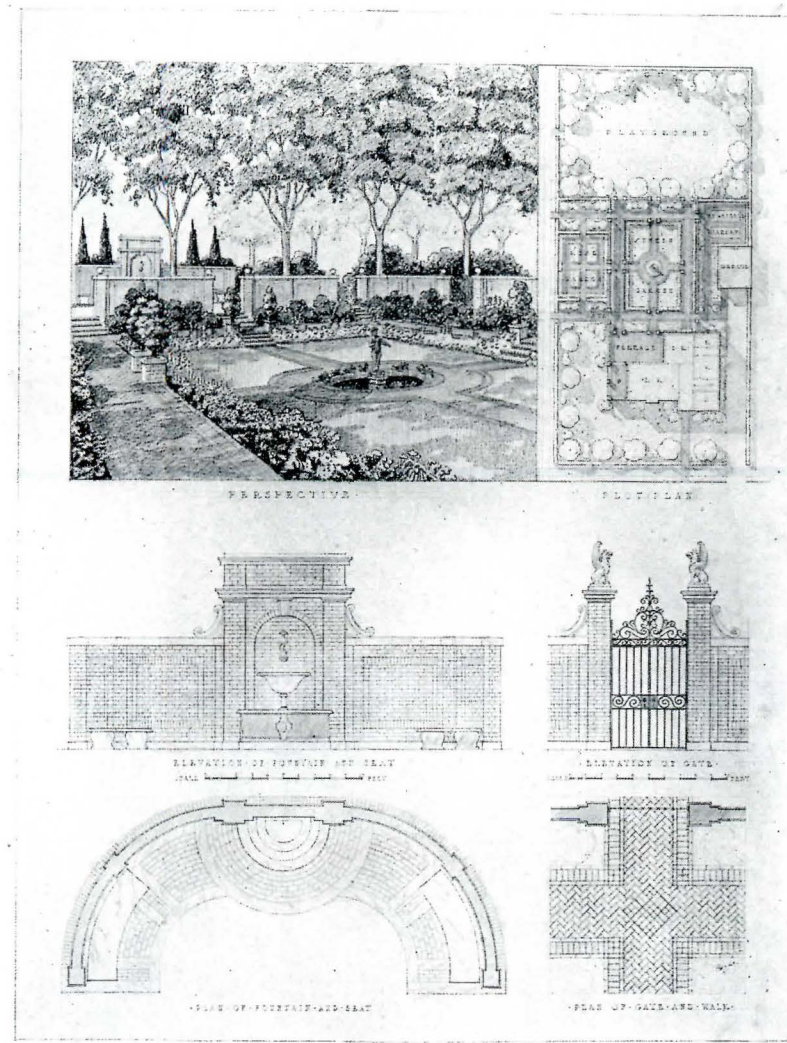


Design by Louis C. Rosenberg, New York City, Who Won the Second Prize of Three Hundred Dollars in the American Face Brick Association's Competition for Garden Architecture. Plan Shown Above at Larger Scale.

PENCIL POINTS



Perspective from the Sheet of Drawings by Louis C. Rosenberg, Winner of Second Prize in the American Face Brick Association's Competition for Garden Architecture.



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Third and Fourth Prize Designs in the American Face Brick Association's Competition for Garden Architecture, Submitted by R. Alexander Willson, Pittsburgh, Pa., and Leslie W. Devereux, Respectively. The Third Prize Design is shown at the Top of the Page, the Fourth Prize Design Below.

PENCIL POINTS

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AWARDS IN HOSPITAL DESIGN COMPETITION.

THE first prize in the international competition recently conducted by *The Modern Hospital* magazine for the plans of a small general hospital was won by Butler & Rodman, Architects, New York City. Three awards, of \$500, \$300 and \$200 each, and two honorable mentions were given.

Second and third places in the contest were won by John Roth of Atascadero, Cal., and Ernst Hoedtke of Cambridge, Mass., respectively. Selection was made from fifty-one sets of plans submitted from various parts of the United States, and from Canada and England as well. Judgment was based on economy in construction and operation, integrity of the designs, health values and flexibility.

Cervin & Horn, architects, Rock Island, Ill., were given first honorable mention in the competition, the other honorable mention going to Lemuel Cross Dillenbach of the School of Architecture, University of Illinois.

The jury of award, composed of Dr. S. S. Goldwater of New York, Asa S. Bacon of Chicago, Clarence H. Johnston of St. Paul, William Buck Stratton of Detroit, and Miss Adelaide M. Lewis of Kewanee, Ill., met in Chicago in March to study the plans.

Announcement of the awards will be made in the April issue of *The Modern Hospital*, and in the succeeding number will appear the prize plans with the interpretations of the judges. Subsequent publication, with critical comments, will be made of fifteen or twenty others of the more interesting designs for their educational value.

Charles Butler, of the firm that was awarded first place, is a graduate of Columbia University and of the Ecole des Beaux Arts in Paris. He is a Fellow of the American Institute of Architects; Chevalier of the Legion of Honor of France; Officer of St. Sava, Serbia; and President of the New York Chapter of the American Institute of Architects. He and his firm have planned a number of important hospitals in New York, at other points in the eastern part of the country, and abroad as well.

ATELIER WYNKOOP-SEYMOUR.

FOLLOWING the death of John Wynkoop in December the Atelier Wynkoop was for a time without a patron. In January, A. D. Seymour consented to become patron of the Atelier which has been named the Atelier Wynkoop-Seymour. The officers of the Atelier are as follows: H. B. Marsh, Massier; Mr. Herrick, Sous-Massier; John Clauss, Librarian.

PHILADELPHIA ARCHITECTURAL EXHIBITION.

THE Twenty-sixth Architectural Exhibition of The Philadelphia Chapter of the American Institute of Architects and the T-Square Club of Philadelphia will be held at The Galleries of the Art Alliance, 1823 Walnut Street, Philadelphia, Pa., May 12-27, 1923. Exhibits will consist of drawings, models, and photographs of proposed or executed work of structural, decorative and landscape architecture; academic drawings; sketches and paintings of decorative subjects. Sculpture and paintings not architectural in character will not be exhibited.

The Exhibition Board consists of the following: Ellery K. Taylor, A. I. A., Chairman; John Craig Janney, Secretary; Roy Banwell, Treasurer; Thomas Edward Ash, A. I. A.; Sigmund J. Laschenski; W. H. Livingston, and R. J. Wadsworth, A. I. A. Ex Officio; Charles Z. Klauder, F. A. I. A., and H. L. Duhring, A. I. A.

THE USE OF COLOR IN ARCHITECTURE.

(Continued from page 14)

of the stucco without carrying the color into the fissures, streaking and washing to tone down the work until it had the soft effect of age. For instance, there were Spanish doorways sixty-five feet high that, when the scaffolding was carried away, looked as though they had been there for three hundred years or more; they held color in the recesses of the ornament where the weather would not have reached and removed it. There were capitals seven feet or so square, cast in the tawny buff color of the exposition with reds and blues and other colors, applied lightly in some places and with greater strength in others, the colors were stuck in the recesses and wiped off of the portions in relief. Compare the effect of such a capital with one cast entirely in white and left without color and you have a striking example of the value of color in giving a sense of richness, texture and quality to architectural detail.

The color used in architecture becomes stronger as one travels from England into the Orient. In England one seldom sees columns of beautiful colored marble. In Italy one does see them, and in Spain there is much color, particularly in such buildings as the Alhambra and other Saracenic buildings. In northern Africa, Turkey, Greece and Egypt, always there is color and sunshine, vibrant and ever changing.

In using color in interiors the conditions are naturally quite different from those met with out of doors. The lighting and the proportions of the rooms are among the more important things that have to be taken into account. In the dining room of the Hotel Pennsylvania, illustrations of which appear on page 14, part of the problem was to produce as great a sense of height as possible in a room the actual height of which was limited by practical considerations. Consequently, the color scheme is lighter than is traditionally employed in this style and the aim was to give to the coloring a tenderness and bloom that would produce a sense of texture and an appearance of age. The colors throughout were carefully studied and toned down to produce this effect.

AMERICAN ACADEMY IN ROME

(Continued from page 18)

anese helmets, and two Saracenic shields and a Saracenic helmet. Prof. Curtis is planning an exhibition of this armor in the museum.

"We have had three visits of interest. Mrs. A. Ross Hill, wife of the American Red Cross Commissioner to Greece and a Trustee of Vassar, was greatly interested in what the Academy is doing. The famous English painter and etcher Mr. Cameron, a Trustee of the British School, went over the building and asked all sorts of questions. Finally we have had a visit from a dozen "Civics" (this is what Dr. Ashby calls them), sent put by England to study conditions in Italy."

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FETE CHARRETTE.

THE student body of the Harvard School of Architecture and the Department of Architecture of the Massachusetts Institute of Technology, having agreed to collaborate annually in the production of a costume ball modeled in a general way on the ball given annually by the Ecole des Beaux Arts, Paris, held the first of the series of parties, the "Fête Charrette," on the evening of February 22. This year the Harvard School of Architecture, through its student organization, The Pen and Brush Club, had charge of the party, the Architectural Department of "Tech" rendering valuable assistance. The plan is that each of these schools shall take the responsibility for the party, in alternate years. The aim is to give to these parties the air of having been produced by one school with two ateliers.

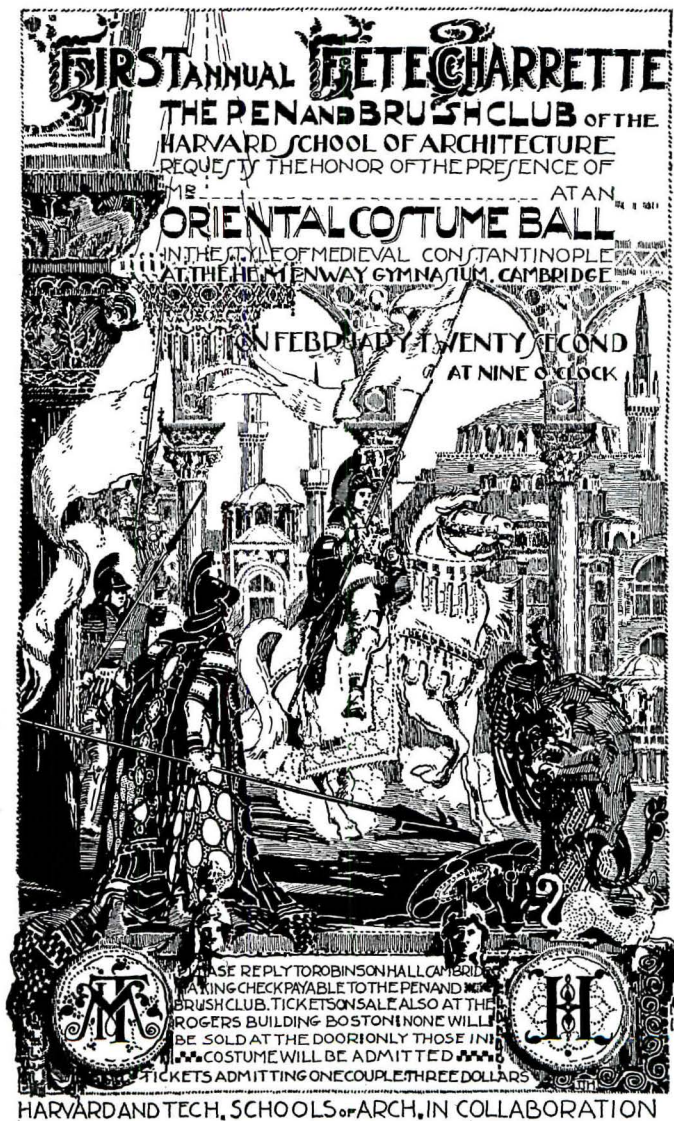
Professor J. J. Haffner of Harvard who, by the way, is a member of the Legion of Honor, and a holder of the Grand Prix de Rome, designed a very charming invitation in pen and ink, thereby immediately setting a dazzlingly high standard to which the rest of the preparations for the party must needs rise. In it was announced the style in which the ball was to be done, being that of Mediaeval Constantinople. This style was adopted for the first of the series of parties chiefly because it was thought wise in an enterprise, the idea of which was so comparatively new to this country, not to limit the scope of the individual imagination to any very exact period; and as Mediaeval Constantinople was the constant meeting place of the whole of the civilized world, both Occidental and Oriental, it was agreed that, outside of the setting, any costume that might conceivably have been seen in the streets of Byzantium, between the time of the Emperor Constantine and the beginning of the Sixteenth Century would be considered as coming within the scope of the idea of this party.

A general dance committee was appointed, each member of which was to be the chairman of one of the various sub-committees for entertainment, finance, decorations, costumes and publicity, so that in some capacity or other every member of the Harvard School became personally responsible for the success of the enterprise, beyond his assumed financial responsibility with its necessary sale of tickets. Tech very generously volunteered to produce a dramatic interlude, the exact nature of which was to be kept secret until the very night of the party, together with various other features in the manner of vaudeville and tableaux vivants, as well as to contribute toward the decoration of the hall and to attend to their own mailing of invitations and making of posters for local display. The making of the decorations necessary to transform a rather bare hall into a glittering representation of the vanished glories of the capitol of the Eastern Roman Empire was, of course, the most difficult part of the undertaking; and it is with pardonable pride that the school feels it achieved a very creditable result, inasmuch as the "atmosphere" of the settings was wholly adequate to the requirements, and distinctly novel in effect, having been achieved largely through the medium of lighting effects, the apparatus for which, together with a large part of the purely scenic properties, were generously loaned by the famous Harvard 47 Workshop of Professor G. P. Baker, one of the plays of which, by the way, is now enjoying a highly successful run on Broadway.

Little by little the work of preparation proceeded; first the compiling of an invitation list, and the sending of invitations, and the production of over a dozen posters, then the securing of the music, excellently supplied by the

Technology Jazz Orchestra, and the engaging of a caterer and selection of supper menus, then the making of the decorations—scene painting, drapery designing, lamp manufacture, and all the infinite little odds and ends that count so much in the final ensemble, then the rehearsing of the various vaudeville numbers, and finally, and perhaps the most important of all, the making of the costumes.

Came the night of the ball. As each guest entered the long hall hung with what appeared to be sumptuous draperies and priceless Oriental rugs he or she stood for a moment involuntarily spellbound. The floor was a magnificent whirlpool of color, picked out in places by rainbow spot-lights that brought forth flashes of gold and precious gems. The costumes were superb. This was no commonplace masquerade in cheesecloth and charcoal, but a stunning panorama of silk, satin, and cloth-of-gold. Everyone had entered into the spirit of the original idea of the party, and it was easier than not to imagine that these gorgeous people were all participants in the magnificent intrigues of the corrupt Byzantine Court. At



Invitation for the Recent Fete Charrette of the Harvard School of Architecture and the Department of Architecture of M. I. T.

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the far end of the hall, in a blaze of light, was a most convincing stage-setting of Arab inspiration, before which, from time to time appeared the fantastically attired entertainers who had been recruited from the ranks of both schools.

The ball was officially opened with a joyful pageant symbolizing the friendly union of the rival schools of Harvard and Tech, which was most effectively carried out, leaving no one in doubt as to the permanently friendly relations between these two great institutions. There followed intervals of dancing and vaudeville entertainments, culminating in the performance given by Tech. On the programs it was announced as "Two Tanks' Farewell Party, Or Why the Tomb Was in Disorder"; and when it was over everyone admitted that as a spontaneous conception of classic burlesque the show was a triumph, well deserving the highest praise. Then came the grand march, with the awarding of prizes for beauty and originality of historical thought in the costumes, and then the supper, which was not elaborate, but altogether satisfying. The closing feature of a party that from every point of view, including the financial, was an emphatic success, was a glorious battle of confetti and colored streamers so that when the crowd reluctantly departed, there were many who felt that after all it was not such a privilege as is commonly thought to be a citizen of the twentieth century if Mediaeval Constantinople had as many charms to offer as had its revival in this the first annual Fête Charrette.

ST. LOUIS ARCHITECTURAL CLUB

FRIDAY, February 9th, 1923, marked the opening of a new era for the architects in St. Louis with the City's favorable vote on an eighty-seven million dollar bond issue. The opportunity will surely be met as enthusiastically as was the World's Fair project twenty years ago, and will challenge the membership of the St. Louis Architectural Club to assume leadership in civic affairs when the Supervisory Committee is ready for actual work on the items concerning city beautification.

There are six projects for which the Committee will undoubtedly ask the local chapter of the American Institute of Architects to conduct competitions. The total sum voted for these six items is nineteen million, two hundred and fifty thousand dollars and provides for a new Courthouse, Municipal Auditorium, World War Memorial Building with its surrounding plaza, an Aquarium, new Public Market Houses, and also a plaza to occupy four city blocks facing the Union Station.

The very gratifying outcome of the election (twenty items out of a total of twenty-one having received the necessary two-thirds majority) is the result of many years' work on the part of a group of St. Louisans, several of whom are practising architects. As a matter of fact the agitation in this city for civic improvements of a physical character began with the Architectural Club as long ago as 1900. Reviewing the Club's Yearbook of that date it will be found that drawings were published then by our members suggesting a civic center between Twelfth and Fourteenth Streets from Market to Olive Street, as has now been finally agreed upon, and another improvement suggested at that time was a comprehensive plan of streets and boulevards. This, too, will become a reality in the near future. Other needs pointed out in the Year Book for 1900 were new Public Market Houses and a new City Hospital.

With St. Louis starting so ambitious a civic program and Missouri's magnificent new Capitol at Jefferson City now completed, it seems fitting that the national convention of The American Federation of Arts is to be held here during the latter part of May, this year.

A FEATURE of the New York "Own Your Home" Exhibition at the 71st Regiment Armory, Lexington Ave. and 25th Street, will be "The House that Bob Built," constructed on the floor of the exhibition and designed to incorporate the latest ideas in small house planning and equipment.



F. RAY LEIMKUEHLER

F. RAY LEIMKUEHLER, President of the St. Louis Architectural Club for the present year, was born in St. Louis in 1895. He received his training at Washington University, where he obtained a Bachelor's degree in Architecture in 1917, also winning the St. Louis Architectural Club membership prize for the most meritorious work during his senior year at school.

Having enlisted in the Field Artillery during the war, he went overseas and spent fourteen months in France, during ten months of which he was at the front. For four months he was numbered among the American Expedition Force students at the Ecole des Beaux Arts in Paris, Ateliers Laloux and Gromort.

Upon his return to this country, he entered the office of Denison & Hiron of New York City. In 1919 he returned to Washington University and obtained a Master's degree the following year, and was placed among the first ten in the preliminary competition for the "Academy in Rome" prize.

Mr. Leimkuehler held the office of Secretary for the Architectural Club for two terms, and in 1920-21 he was elected National President of the Scarab Society. He has been engaged as instructor for several years, both in public and high schools, and was appointed instructor at Washington University during the year 1921-22.

He has been connected with several architects' offices in Missouri and acquired most valuable experience in the office of Willima B. Ittner. Recently he has been appointed job captain in the office of A. B. Groves of St. Louis.

T-SQUARE CLUB OF PHILADELPHIA.

THE feature of the meeting of the T-Square Club, Philadelphia, for March 7, was a presentation of motion pictures of the "Evacuation of Smyrna," with a talk by William A. Lloyd, an Australian who has been for twenty-seven years a resident in the Near East as a newspaper correspondent for the Liverpool Courier.

For the meeting on March 21, arrangements have been made for a talk by Arthur I. Meigs, of Mellor, Meigs & Howe, Architects, on the subject, "Gardens and Photography." The current exhibition at the Club is a very fine collection of etchings by Frank Brangwyn.

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TRIBUTE TO SIR CHRISTOPHER WREN

THE Architectural League of New York recently paid a graceful tribute to one of the world's greatest architects, Sir Christopher Wren, upon the two hundredth anniversary of his death. The League, learning that the Royal Institute of British Architects were to have a special delegation hang a wreath upon the tomb of Sir Christopher Wren in St. Paul's Cathedral, arranged with Ambassador Harvey to have a representative from the Embassy carry a wreath at the time of the R. I. B. A. pilgrimage. Mr. Ian McAllister, Secretary of the R. I. B. A. has expressed his pleasure at this tribute from America as a delightful and unexpected addition to their program.

To commemorate this event simultaneously with the ceremony in London, Howard Greenley, President of the Architectural League of New York, assisted by members of the Executive Committee, hung a wreath under a portrait of Sir Christopher Wren in the Annual Exhibition of the League.

Below we quote the address made by Mr. Greenley on this occasion:

"The thirty-eighth Exhibition of the Architectural League is strengthened and embellished by a comprehensive exhibit of the work of notable contemporaneous English Architects officially shown for the first time in this country through the courtesy and interest of Paul Waterhouse, Esquire, the President of the Royal Institute of British Architects, seconded by the untiring efforts of our esteemed member, Mr. Alfred C. Bosson.

"This exhibition takes on further significance through the fact that simultaneously in England and here in America we are offering to Sir Christopher Wren, perhaps the most notable of all English architects, the honors of bi-centenary remembrance. His lofty expression of the value and importance of architecture may be summed up in his own words. 'Architecture has its political use, public buildings being the ornament of a country. It

establishes a nation, draws people and commerce, makes the people love their native country, which passion is the original in all great actions of a common-wealth.'

"With his history you are all well acquainted. Born on October 20th, 1632, his early education was acquired at Westminster School and afterward at Oxford. Until he was thirty years old he displayed no distinct tendency toward the art of architecture, confining himself to matters of science to which he made valuable contribution. After the great fire of London in 1666, he developed a comprehensive plan for the rebuilding of the city, which in point of design can be said to be some two hundred years in advance of his time. His masterpiece is unquestionably the Metropolitan Cathedral of St. Paul in London originally begun upon the lines of Inigo Jones of which great master he was the pupil. To show the prodigious quality of his work in his capacity of Surveyor General of the King's works, a position he held for forty-nine years, reference should be made to the Churches of London of which he reconstructed over fifty on their Mediaeval sites in the Renaissance manner, with special attention to St. Mary le Bow in Cheapside, Saint Brides in Fleet Street and Saint Martin's in Ludgate Hill, whose towers and steeples are of surpassing beauty. Of equal importance is the new wing at Hampton Court Palace the Greenwich Hospital, Kensington Palace, Marlborough House and the Library at Trinity College, Cambridge.

"Perhaps one reason for his success can be attributed to the extremely able body of fellow craftsmen he gathered around him, a subject of unusual significance to the members of the League in the principle of its own composition, such names as Strong, his master mason; Jennings, his master carpenter; Cibber and Grinling Gibbons, his sculptors and carvers, and Jean Tijou, his iron worker, and the craftsmen that worked under him.

"The last five years of his life, until his death in February, 1723, were somewhat clouded by the neglect he suffered at the hands of his official patrons. Nevertheless he has left us a memory as imperishable as the monuments he conceived and executed.

"The architecture of Christopher Wren in England represents the soul of a man of whom England should ever be proud, an architect, sprung from and nourished by herself and worthy to be placed in the first rank of men of genius of all time..

"And so, with entire consciousness of the honor of representing you, the Architectural League of New York, in this memorial ceremony which we are conducting here today and which will be also performed at the ceremonial in the Cathedral of Saint Paul in London by his Excellency the American Ambassador, I place this tribute from American architects of today at the feet of the great architect of yesterday whose name and whose work are an inspiration for all ages—Sir Christopher Wren."

CHICAGO WOMAN'S DRAFTING CLUB

A DRAFTING club composed entirely of women was organized a year ago in Chicago under the name of the Chicago Woman's Drafting Club. The president, Miss E. A. Martini, is the only licensed woman architect in the city. The members are actively engaged as "draftsmen" in architectural, mechanical and structural lines. Meetings are held once a month, each member in turn having charge of the program and giving a talk concerning her particular line of work.

The club would like to get in touch with other women's clubs in regard to the work they are doing with the hope of exchanging helpful ideas. Address all communications to the secretary, Miss Florence Wright, 71 E. Elm Street, Chicago, Illinois.



SIR CHRISTOPHER WREN.

Courtesy of The Architectural League of New York

THE Architects' Costume Ball of the State College of Pennsylvania was held Saturday, March 10, at the A. D. S. House. The cover of dance program which we have received shows a very effective design in red and black on orange paper, the head of a picturesque Spaniard with typical hat and inevitable cigarette. The design is in the flat tones of a block print.

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MEYER AND HOLLER'S ANNUAL DINNER AND DANCE

THE First Annual Dinner and Dance of the office of Meyer and Holler, Architects, Los Angeles, Cal., was held on the evening of Feb. 20, at the Palais Royale.

The entertainment of the evening was carried through most successfully and showed clearly the spirit of good will that exists throughout the organization. The program is especially well gotten up, including a very attractive cover design printed in brown and applied to the cover. The program itself is of harmonizing buff paper printed in brown.

PERSONALS.

L. T. BENGSTON is practicing architecture at Room 510 Travelers Building, Richmond, Va., the partnership of Benton & Bengston, architects, having been dissolved.

SCOTT QUINTIN, Architect, is now located at 219 West Main Street, Alhambra, Cal.

GOOD & WAGNER, Architects, have removed their offices to the Mohawk Building, 209½ Water Street, Akron, Ohio.

WALTER C. SHARP AND W. BROWN FOWLER are now associates in the firm of Herbert M. Greene Company, Architects and Engineers, Dallas, Texas. The firm name remains unchanged.

HUGH A. SPRAGUE, who was for several years associated with Robert B. Cridland, Landscape Architect, 1000 Bailey Building, Philadelphia, Pa., has opened an office as Landscape Architect and Engineer at 2939 Clifton Street, Indianapolis, Ind.

FITCH H. HASKELL, Architect, has removed to 65 North Raymond Avenue, Pasadena, (Tel. F. O. 3290), where he will practice in association with Cyril Bennett, Architect.

GEORGE BAIN CUMMINGS, Architect, has removed his offices to 520 Security Mutual Building, Binghamton, N. Y.

PASQUALE M. TORRACA has been selected as instructor in architectural design in the Department of Architecture at The Pennsylvania State College. Mr. Torraca is a graduate of the University of Pennsylvania.

JAMES P. BAUGH has opened an office for the practice of architecture at 403-404 First State Bank Building, Waco, Texas. This is the office formerly occupied by Birch D. Easterwood, Architect, for whom Mr. Baugh has been chief draftsman for the past eight years.

GEORGE B. BANGS, Architect, has opened an office at Hollywood, Florida.

LLOYD RALLY, Architect, has opened an office at 1019 Wright & Callender Bldg., Fourth and Hill Streets, Los Angeles, California.

THE SCARAB SKETCH EXHIBIT

THERE is on the road, and showing at the present time at Armour Institute, an exhibition of sketches of the work of students in the Scarab Architectural Fraternity. This exhibit is the representative work in sketching of the students in the Colleges and Universities in which Scarab has temples. The sketches, presented in any medium, are collected annually by the temples in turn and a traveling exhibit scheduled to include all the temple schools. The plan was devised to stimulate and inspire students in sketching during their vacation periods and judging by the quality of the work submitted, the idea has met with success.

Scarab has also held a competition, the winner of which is to receive fifty dollars in cash and a medal of the society. The preliminary to this competition was held last month in each school where Scarab is represented and the winner in each received a medal. The three best drawings from each temple will be sent to the convention city and there judged by leading architects of that city during the days of the Convention. The artist of the winning design of this judgment is to receive the final prize. The convention will be held this year at Armour Institute, Chicago, April 6-7.



RUTH L. GERTH

RUTH L. GERTH, winner of the First Prize of Five Hundred Dollars in the American Face Brick Association's Competition for the Best Designs for Face Brick Work for the Grounds or Garden of a Residence, is associated with Wm. H. Gerth, working together as consultants and designers in decorative art. She studied architectural drafting in Omaha, took the required course at the Art Institute, Chicago, both day and night classes, then specialized in design and color in the night classes. In the third year of school Mrs. Gerth outlined her own course in design, studying in the Art Institute Library, in place of night classes.

Mrs. Gerth's work has been shown in the following exhibitions: Applied Arts Exhibition, at the Art Institute of Chicago, 1918; Chicago Architectural Exhibition, Art Institute, Chicago, 1920; St. Paul Architectural Exhibition, St. Paul, Minn., 1922.

Mrs. Gerth has done much designing for decorative materials, furniture and lighting fixtures, etc., including designs for special furniture, drapery materials, color schemes, etc., hundreds of fixtures for various Chicago manufacturers, also book plates, greeting cards, etc., and in collaboration with Mr. Gerth, war medals, service pins and war workers' pins.

Lecturing is one of Mrs. Gerth's activities for she gave fourteen talks at the Minnesota State Fair in 1922; and a series of talks for the College Woman's Club, State Home Economics Association, Woman's Community Council and League of Women Voters.

Recently she has designed sets of patterns for metal stampings for a firm in Providence, R. I.; lighting fixtures for several eastern manufacturers and for several large high schools. She has just been commissioned to design and supervise the lighting installation of a new two and one-half million dollar university library building, and she won first and second prizes in the recent Cloister Clock Competition.

THE Convention of the Western Arts Association will be held in St. Louis in May, with the Chase Hotel as headquarters. This hotel is in one of the beautiful residential sections of the city and diagonally across from Forest Park. The Art Museum is in Forest Park, also the Jefferson Memorial, which houses collections and exhibits of the Missouri Historical Society.

THE SPECIFICATION DESK

A Department for Specification Writers

The contributions printed below were received in response to the suggestion published in the January number that the papers in that issue be discussed with a view to bringing out any additional ideas bearing on the specification problem. It is hoped that all who are interested in the preparation of specifications will feel free to submit their ideas for publication in subsequent issues of PENCIL POINTS.

SPECIFICATIONS FOR CRITICISM.

ACTING on the suggestion of one of our readers, Mr. M. N. Nirdlinger, of Nirdlinger and Marlier, Pittsburgh, we have secured a set of architect's specifications for a brick and hollow tile residence and we print below the first part of this set of specifications in order that they may be criticized by our readers. The object in doing this is to provide material for a discussion that will be helpful to all who have to do with the preparation of specifications by showing up the weak points in this set of specifications.

You are invited to join in and help rip up these specifications. We are withholding the name of the architect from whom we borrowed these specifications and he has entered into the spirit of the thing so you may feel at liberty to criticize them as severely as you like. We hope that you will also present many suggestions for improvement. The good resulting from this discussion will be in proportion to the number of men who join in with criticisms and suggestions, so we ask that you do not depend on the other fellow doing it but write us yourself, then the thing will be a success. Here is a good sized portion of the specifications—let's go!

SPECIFICATIONS

OF

Workmanship and materials to be used in the erection and completion of a brick residence and garage

FOR

.....

ON

A certain piece of property located

AT

.....

CITY

In accordance with the accompanying plans, etc., and under the supervision of

....., ARCHITECTS

CITY

INDEX TO MAIN SPECIFICATIONS

GENERAL CONDITIONS, pages 1 to 5
EXCAVATION, pages 5 and 6
CONCRETE FOOTINGS AND RUBBLE STONE WORK, pages 6 and 7
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DRAWINGS:

Consist of survey sheet, cellar, first, second, attic and roof plans; front, rear and side elevations, and sections on which are figured height of stories, size of joist, etc., and preliminary detail sheet setting forth portions of the more important work.

The drawings, together with all figures and writing thereon, shall constitute part of these specifications.

GENERAL CONDITIONS:

PART 1.

The following specifications are intended to embrace all labor and materials necessary in the erection and completion of the buildings herewith described. The contractor is to give his personal attention, superintendence and direction to the work, keeping also a competent superintendent constantly on the work from the time excavation is started until completion of contract, including the contracts of all sub-contractors. Contractor's superintendent will superintend all work and give instructions. The superintendent is to be subject to the approval of the architect.

Contractor's superintendent must check up materials and workmanship of all the different sub-contractors and be able to give the necessary reports to architect on demand.

PART 2.

Before work under this contract is started, the contractor shall provide on property (location to be given by the architect) an outside privy for the use of the workmen. On completion of the buildings, privy must be removed from the grounds and hole to be well tamped and filled with clean earth. The privy to be in keeping with the City Laws.

PART 3.

The contractor is to provide all labor, materials, carriage transportation, apparatus, machinery, tackle, centering and scaffolding necessary for the complete and substantial execution of everything described, shown or reasonably implied on the drawings or in these specifications.

PART 4.

The drawings and specifications are intended to cooperate and agree, and anything mentioned in these specifications, though not shown on the plans in particular, or shown on the plans and omitted in these specifications, is to be considered as mentioned in both, and must be executed in a thorough and workmanlike manner, satisfactory to the architect and owner.

PART 5.

The contractor is to take no advantage of any manifest omission or discrepancy that may be found to exist between the plans and specifications, and in all differences and disagreements as to sizes, materials and work-

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manship, the decision of the architect upon his own plans and specifications is final and binding on the contractor. The contractor must count all the work, etc., as per the plans and specifications as architect will insist on his complying with them.

PART 6.

Discrepancies, if any, must be reported immediately to the architect for his revision or correction; the architect will supply details for such work as hereinafter specified, and as occasion necessitates. All details must be carried out in a careful manner, as the contractor will be held responsible for them and will have to make corrections at his expense.

Figured measurements on plans to be taken in preference to the measurements of scale and when no figures or details are given, use the scale, calculating from figures given.

PART 7.

Particular care must be taken by the contractor of materials and finished work as the buildings progress which must be thoroughly protected and covered up from injury or defacement during the execution and until the completion of his work or contract, and he must make good any defect, settlement or shrinkage in the work arising from neglect, defective or improper materials or workmanship which may arise before the final completion of the buildings.

PART 8.

All work and materials shall be subject to the approval of the architect who shall have the right to approve, condemn and inspect all work and materials at any or all times, and all condemned or rejected work and materials not in accordance with the plans and specifications shall immediately be torn down and removed from the buildings and grounds within twenty-four (24) hours after condemnation, and replaced with the kind that does conform with the plans and specifications; the architect's decision regarding the above is final and binding on all parties and cannot be appealed.

PART 9.

All payments made on the work during the progress of buildings on account of this contract, or of extra work, shall in no case be considered as an acceptance of the work executed, but the contractor shall be liable to all the conditions of the contract, until the work is finally completed and accepted.

All extra work, including percentage work, on the above buildings, to be governed by all the conditions of these specifications.

PART 10.

The contractor shall provide proper and sufficient safeguard and protection against the occurrence of any accident, injury, damages or injury to any person or property during the progress of the work and up to the final acceptance by architect, and shall alone be responsible. Contractors shall take out and pay for all permits, including building, water, for gas and electric and telephone lines into building for sewer connections, to occupy streets, etc., according to the City Laws, Gas & Electric Companies' rules as their interests appear and in all cases, are to pay for same, and each sub-contractor is to pay for the water he uses during the progress of the buildings.

The contractor will see that lights are put on the materials extending beyond the property line, and he is also to keep pavements and streets clear according to the City Laws. Each contractor upon the work, shall be required to use the best mechanical judgment in its execution, whether it is or not particularly mentioned in these specifications or carried out on the details, certain things follow naturally in well constructed buildings that must be considered.

The general and sub-contractors will make thorough inspection of property, pavements, curbing and street before submitting estimate and before actual work is started as the general and sub-contractors will be responsible for any damage done to property, pavements, curbing and street during the construction of buildings.

PART 11.

The owner and architect and architect's agents have the right to enter the buildings at all times, and the privilege to make changes they deem advisable. *The contractor must demand written orders for such changes or same will not be considered on final payment of buildings.* Such changes that are made will in no way invalidate the contract, but will be deducted from or added to balance of the contract, as the case may be.

PART 12.

The architect has the right to discharge any workmen on the buildings without question.

PART 13.

The buildings are to be insured by the owner.

PART 14.

When the buildings are finished they are to be broom cleaned and all rubbish, etc., removed by the contractors. Each contractor is to make good any work damaged by him to the work of the other contractors during the progress of the work, and they are to leave the buildings in a finished and clean condition.

PART 15.

All drawings, blue prints and specifications are the property of the architect, and shall be kept constantly at the buildings during the progress of the work and at completion of the buildings shall be returned to the architect before the final payment is made. All mill details, plans, etc., are included in the above.

PART 16.

The owner reserves the right to reject any or all bids. The names of all sub-contractors are subject to the approval of the architect and owner and a complete list must be submitted to the architect before the signing of the contract. The changing of sub-contractors after the signing of contract will not be permitted.

NOTE:

The following specifications are for the residence. Contractors will find garage specifications attached to the back of these specifications but it must be understood that the construction of garage will be governed by all the above general conditions.

EXCAVATION:

Excavation to be made under building for cellar when completed 7'-2" in the clear from finished cellar floor to underside of joists at wall lines with an average fall to bell traps of 1" to 5'-0". All excavation to be made at least 6" larger on all sides than figured sizes given on drawings.

Excavate extra depth all around and at inside walls, chimneys, piers, etc., for footings which will have a 6" projection on the outside for main walls and on all sides for chimneys, piers, posts, etc.

Do all excavating, per drawings, for terrace foundations, areas, etc. Necessary excavation for front terrace to be in a separate estimate.

(Plumbing contractors will do their own excavating for pipe trenches.)

Concrete floor in cellar will be 4" thick. (The stone contractor will fill in between walls and banks as walls are being built but not until after they are pointed and inspected and approved by architect.) *All earth taken out of excavation to be left on property where directed by architect.* Final grading, leveling and sodding of property will be let under separate contracts.

This contractor will see that the spaces under unexcavated portions of porches are filled up to finished grade line before porch floors are installed so no low places will exist at the enclosed portions of building. Such top soil as exists where excavations occur shall be placed in a pile at rear of property for future use in connection with landscape work.

This contractor will submit a separate estimate for extra excavation according to the above specification quoted by the cubic yard.

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CONCRETE FOOTINGS AND RUBBLE STONE WORK:

NOTE:

This, the stone contractor, will include the filling in around all foundation walls up to finished grade line. Said fill to be put in place after exterior of stone walls are pointed and approved by architect. The fill must be clean earth, well tamped and soaked as it is put in place.

All walls, piers, posts, etc., are to start on concrete footings of thickness and size shown on drawings. Said footings to be true in line and surface. Concrete for said footings to be made up of either A—, A—, V—, L—, or U— P— cement, sharp, clean river sand and clean washed medium size gravel (whichever brand of cement is adopted same shall be used throughout the work as no mixing of brands will be permitted).

Proportions for the above footings to be 1, 3 and 5, well mixed dry on clean platforms, then moistened and again mixed at which time it shall be put in place and well tamped.

All walls, piers, etc., above footings, unless otherwise shown on the drawings, or hereinafter specified otherwise, to be built of good quality of B— C— or local sand stone, which must be of good size and laid up with good bonds, well bedded in mortar as hereinafter specified. Through headers to be used freely, and only such spalls will be permitted as are absolutely necessary. No filling in of walls will be tolerated. All walls to be pointed on both sides in a neat and careful manner. Leave all openings and recesses as shown on drawings and as required by the different trades.

All walls except where chimney abutments are shown and where brick veneer is shown on face of foundation stone walls shall be 18" thick. Walls to be carried up straight and plumb and leveled off as shown. Walls to be laid to a line. Chimney abutments that are built in with main walls are to be built up same height. Inside cellar window sills to receive 1" cement finishing coat 45 degrees trowelled to a smooth and even surface.

Cellar chimneys, piers, etc., free from outside walls will be built of brick from the top of footings. This contractor will furnish his own scaffolding. This contractor will give an extra price for rubble stone work quoted by the perch and for extra concrete work quoted by the yard.

MORTAR FOR RUBBLE STONE WORK:

Mortar for rubble stone work to be made up of best grade S— lump lime which shall be properly slacked at least seven (7) days before being used on the work and properly mixed in rich proportions with sharp river sand and tempered with one sack of the cement used by this contractor for his concrete work to a cubic yard of mortar. The above mortar to be mixed in beds.

CUT STONE WORK:

All work shown on drawings and where especially indicated such as the several door sills, bell blocks, basement window sills, etc., shall be worked from clean No. 1 quality C— blue sand stone with rubbed surface. The stone to be of uniform color, sound and free from defects and laid on its natural bed. The stone work to be of sizes shown and in all cases to work with brick courses. Bell blocks, where shown, shall be drilled for wires. Door sills will have wash cut on same. Above cut stone work shall be protected up to completion of building at which time it shall be thoroughly cleaned and pointed with mortar similar to that specified for face brick work.

BRICK AND HOLLOW TILE WORK:

All the walls to be of thickness as shown on the several drawings, including such work as shown brick in cellar. Above work to be built in form and arrangement as shown, with good hard burnt brick. All rough walls

shall be built with one (1) row of headers every sixth course.

(To Be Continued)

THE STUDY OF ARCHITECTURAL DESIGN

(Continued from Page 34)

for the measured drawing—all of the season, or even all of the next season, if one has his subject reapproved at the beginning of the new (Academic) year—much is expected in the way of presentation. Something more than for a usual problem is expected in the way of composition of the sheet.

This does not mean that more articles must be grouped together, though a complete presentation as in fig. 7 may be very satisfying,—but simply a greater effort at composing well what one has decided to use, whether it be simple or complex—it may be only one drawing—as in fig. 3 or fig. 5. It is then a question of determining where on the sheet the drawing shall go. Where details are shown, the relation of these to each other and to the central drawing must be studied as for the analytique, but carried further, because of the greater time at one's disposal, as already said.

Note in fig. 8 how the furniture is added to "make a composition" of an otherwise uninteresting piece of panelling, and how the pieces of china in the cupboard give a needed point of interest.

It goes without saying that the drawing must be carefully—neatly done, and that any lettering used as a part of the composition must be studied in its spacing, and in its relation to the rest of drawing; such attributes as the china just spoken of, costumes of figures, etc., should be of the period, and may be found in books or museums; and finally the rendering must be good, as there is no excuse for carelessness when time is practically unlimited. In fig. 9 for instance, you will see the same modelling of the moulding, by means of washes within parallel lines, as in the French plates, and yet this drawing gives the appearance of great simplicity of presentation. Make studies of the presentation first in charcoal until the values are satisfactory and then make a study in color before starting the rendering of the drawing itself.

A LETTER FROM THOMAS W. LUDLOW, A. I. A.

IT GIVES me pleasure to endorse your campaign for better specifications, commenced in the Special Specification Number of PENCIL POINTS, issued in January, and also to note that you propose to publish a specification for a small brick and tile residence *in toto*, with notations for its betterment.

Your magazine is primarily the one in which this campaign should be conducted, as it reaches better than any other publication, the architectural student and younger draftsmen. Men who in ten years will be commencing their own practice, with no other knowledge of specification writing and use of materials than that imperfectly gathered from the specification writers in the offices where they have worked, who are too busy to give instruction to their juniors when writing specifications, and when not so occupied the question never arises. Therefore when the young architect is confronted with writing his first specifications, he will copy without modification all sections that are not fully understood, from a specification for a similar type of structure to the one in hand, without having seen the plans which it was intended to supplement and having no knowledge of the special conditions that governed the site. The result is a confusion of clauses that discredits the writer both in the eyes of his client and those of the contractor.

About twenty years ago I won a scholarship that permitted me to study in Europe. I thought that I had attained the goal—a design man. The awakening was still before me. Shortly after returning I began to pick up a practice, and then for the first time did the co-ordination of specifications, use of materials and design dawn upon me as the major principle underlying all architecture. My utter ignorance of the first two sub-

PENCIL POINTS

jects was appalling. Through months of hard work, I became competent to write specifications from which contractors can submit intelligent and reasonable bids, and later construct the building without extras.

My difficulties in this all important subject have been shared by scores of others, and in writing this word, I am lending support to a movement which will assist younger men to shorten the long road of experience, through the advice and help of their elders.

A LETTER ON SPECIFICATION WRITING.

FROM a member of the staff of a specification department of one of our large eastern municipalities we print the following extracts:

The writer desires to express his appreciation of the interest which you have aroused in the important field of specification writing. It is hoped that you will keep this up until some practical improvement is realized.

Having had many years of experience in working from specifications, probably some of your readers would be interested in this viewpoint.

It is noticed that one of your writers gives as one of the main requirements "flexibility." This may be valuable to the architect but is the greatest nuisance to the owner, contractor, superintendent, inspector, foreman and workmen. It is the cause of most of the delays and unnecessary expense connected with any structure. The owner does not know what to expect for his money; the contractor does not know what to figure on; the superintendent does not know what to demand; and the workmen do not know what to do until the architect is called up and time is given for him to make up his mind, and then the definite specification is given by telephone and often work has to be done over owing to misunderstanding. The popular clauses "as required," "to the satisfaction of the architect," "good and sufficient," "in a workmanlike manner" all through the specification make it profitable for the contractor to keep a box of good cigars in the drawer under the plan table. * * *

We would appreciate it if architects would make up their minds when they turn out specifications and drawings, and make everything definite at that time, instead of later when the work is ready to be done.

We will appreciate it if the architect will not specify things which he knows will not be done, or if done would cause unnecessary expense, such as, "Common brick shall be of even color and shall not be dumped from carts or wheelbarrows." "All cement shall be furnished in barrels," and the like.

We would appreciate it if specifications were not made up of so much stuff which make them so bulky that it takes so much time to read them. By this is meant all matter which is perfectly clear on the plans and long wordy sentences. For example, in one article in a certain specification there is repeated nine times, "No. 11 wire (diameter, .1205 inches)." This gage is Washburn & Moen, Am. Steel and Wire Co., and Roebling, while Birmingham or Stub's iron wire is only .0005 less. It would seem that "No. 11" or simply "1/8 wire" would do as well. We know that diameter is meant and that inches is meant.

Another popular fad is expressing all dimensions and quantities in both words and figures. This is not done on drawings where the figures are made by hand and in crowded places and there is a possibility of their being mistaken. This is a heritage from the days of the goose-quill pen. Figures made with the typewriter or printed are unmistakable and there is no more reason for repeating them than there would be for repeating everything else.

We would be thankful for an index in alphabetical order. The "order of the work" is only imaginary. In estimating and in doing the work, it is nearly all started and carried on together.

We would appreciate having the work of different sub-contractors on separate sheets, so that they could be given out for estimates and for work independently.

PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER.

Any publication mentioned under this heading will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing the publication. When writing for any of these items please mention PENCIL POINTS.

Architectural Detail Folio.—Loose-leaf folio containing 26 plates of detail drawings showing various types of elevator door hangers and other hardware for use in connection with elevator doors. A valuable adjunct to any working library. Size of plates 11 1/2 x 16. Size of portfolio 8 1/2 x 11. Richards-Wilcox Mfg. Co., Y-21, Aurora, Ill.

Detail Manual.—Hand book with detail drawings devoted to screening, storm door hardware, blind hardware, garage hardware, bolts and butts. Carefully compiled, and valuable reference work. Loose-leaf, 118 pp. 7 1/2 x 10 1/4. Ask for "Manual P. T." The Stanley Works, New Britain, Conn.

Homes of Comfort.—Suggestions for appropriate bath room fixtures for the home. Fully illustrated with engravings and diagrams showing ideal layouts for bath rooms. Specialties and fittings. 118 pp. 5 1/2 x 8 1/2. Crane Co., 836 South Michigan Ave., Chicago, Ill.

Plumbing Suggestions for Schools and Other Educational Institutions.—Illustrated booklet showing full line of equipment suitable for uses indicated. 74 pp. 5 1/2 x 8 1/2. Crane Co., 836 South Michigan Ave., Chicago, Ill.

Plumbing Suggestions for Hotels.—Illustrated booklet showing full line of equipment suitable for hotel installation. Diagrams. 60 pp. 5 1/2 x 8 1/2. Crane Co., 836 South Michigan Ave., Chicago, Ill.

Solving Your Painting Problems.—Illustrated booklet containing specifications for both inside and outside work. 44 pp. 8 1/2 x 11. Hockaday Co., 1823 Carroll Ave., Chicago, Ill.

"White" Door Beds and Space Saving Devices.—A booklet for architects illustrating various types of space saving devices. Detail drawings and plans. 24 pp. 8 1/2 x 11. Albert Pick & Co., 208 W. Randolph St., Chicago, Ill.

The Story of Shearduct.—Brochure illustrated with full page pencil drawings of buildings by prominent architects in which Shearduct has been used. Specifications and six pages of sectional drawings. Tables or dimensions, etc., 40 pp. 8 1/2 x 11. National Metal Molding Co., Pittsburgh, Pa.

Floors and Roofs of Reinforced Gypsum.—Data Sheet covering this subject written by Virgil G. Marani. Gypsum Industries Association, 111 W. Washington St., Chicago, Ill.

The following papers by the same author are now also ready for distribution. Fallacious Deductions Possible Upon Existing Evidence of Sound Tests, The Question of Corrosion, Gypsum Plaster Affords Fire Protection, Suggested Provisions for Building Codes.

Specifications for Face Brick Work.—Skeleton specification sheet covering various types of brick work. American Face Brick Association, 130 No. Wells St., Chicago, Ill.

The Operation of Boilers.—Booklet showing construction and operation of various types of Kewanee Boilers. Diagrams, tables, etc., 24 pp. 6 x 9. Kewanee Boiler Co., Kewanee, Ill.

Zeolite Water Softener.—Bulletin 509 A. I. A. Standard File 29 D 32. Data on the chemistry of water softening with notes on construction and operation of Zeolite Softener. 8 1/2 x 11. Graver Corp., East Chicago, Ind.

The Gospel of Fresh Air.—Booklet on the subject of ventilation equipment suitable for various types of buildings. Technical data. 24 pp. 4 x 9. Ohio Body and Blower Co., Cleveland, Ohio.

Portland Cement Stucco.—Illustrated booklet showing various types of finishes, typical construction details, etc., 16 pp. 8 1/2 x 11. Portland Cement Association, Conway Bldg., Chicago, Ill.

Also published by the Portland Cement Association and now ready for distribution, Concrete School Houses, Concrete Commercial Garages, Concrete Hotel, Apartment and Office Buildings and Concrete Mercantile and Industrial Buildings of Concrete.

Atlantic Terra Cotta.—Monthly brochure No. 10 showing examples of 12th Century Lombard Romanesque. Eight full page plates. 8 1/2 x 11. Atlantic Terra Cotta Co., 350 Madison Ave., New York City.

The Bond that Guarantees the Wall.—Illustrated Brochure showing advantages and uses of Carney's cement for mortar. 24 pp. 8 1/2 x 11. The Carney Co., Mankato, Minn.

The Right Angle.—Monthly magazine, the March issue of which deals with theatre construction. Several pages of detail drawings. 16 pp. 8 1/2 x 11. The General Fireproofing Company, Youngstown, Ohio.

What an Architect Discovered about Integral Waterproofing.—A paper by Mr. Samuel R. T. Very, architect, discussing the subject indicated. Also giving results of certain recently conducted tests. 8 pp. 8 1/2 x 11. The Truscon Laboratories, Detroit, Mich.

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Advertisements covering "draftsmen wanted" and "positions wanted" will be printed in this column free of charge. Such advertisements will be printed in one issue only and limited to thirty-five words. On subsequent insertions of the same advertisement a charge of 5 cents a word will be made.

Architects requiring the services of draftsmen, and draftsmen desiring positions, are invited to communicate with this office stating full particulars as to position, qualifications, salary, etc. In addition to printing these wants in PENCIL POINTS they will be posted on THE BULLETIN BOARD in our office.

Draftsmen in New York and vicinity desiring positions are invited to call and inspect THE BULLETIN BOARD and also post notices offering their services.

Information regarding positions will be forwarded, on request, to draftsmen and architects residing in other cities.

In undertaking this service we accept no responsibility other than transmitting the information in the manner above stated.

There is no charge for this service.

To avoid confusion we request immediate notification when the position is filled or obtained.

THE PENCIL POINTS PRESS, Inc.,

Phone Madison Square 5940, Dept. E.

19 East 24th St., New York

AFTERNOON, EVENING, or HOLIDAY WORK WANTED in New York architectural office. Have had six years' general office experience and one year's study of architectural drafting and building estimating at the Mechanics' Trade Institute. Louis Caputi, 27½ Morton St., New York City. Phone Spring 6561.

FORMER JUNIOR PARTNER in well known firm, having been in government work, desires new connection. Twenty-five years designer, specification writer, detailer, and supervision of work of highest class. Highest references. Box 72, PENCIL POINTS.

JUNIOR DRAFTSMAN is seeking position with reliable architect in New York City. One year experience on small private houses. Student of Columbia Evening Course. Box 73, PENCIL POINTS.

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OPPORTUNITY AND NOT A JOB WANTED: Place with architect doing mostly country house work. Have had eight years' experience and am capable. Box 76 Pencil Points.

POSITION WANTED: An A-1 Senior Architectural Draftsman and Designer, age 38, thoroughly experienced and technically trained, desires position with reliable concern with opportunity of becoming identified with firm. Can take charge of jobs. Box 79, Pencil Points, 19 East 24th St., New York City.

POSITION WANTED: as building material estimator by technical college graduate, 22 years old. Prefer to locate in Middle West or South. Would expect \$35 weekly. Box 80, Pencil Points, 19 East 24th St., New York City.

OPPORTUNITY WANTED with growing organization, in Boston, Pittsburgh, New York. Can manage drafting or entire office and show profits, produce specifications, working drawings, sketches of high quality, detail and supervise any branch of construction. Want good salary. Address Box 77 Pencil Points.

WANTED: OVERTIME WORK, vicinity of New York City—evenings, Saturday afternoons or holidays, by designer who has had twelve years' experience in sketching, perspectives, and designing. Box 81, care Pencil Points, 19 East 24th St., New York City.

POSITION DESIRED WITH FIRM DOING COUNTRY HOUSES by junior draftsman—22 years old. Have had two years at Cooper Union Night School and am attending Columbia Night School. Have been one year in office that specializes in school design and am still employed there. Box 82, Pencil Points.

WANTED: Senior architectural draftsman, capable of developing plans from a rough sketch. A permanent job for the right man. State experience, wages wanted, and when could report, and other particulars. J. C. Fulton & Son, Architects, Uniontown, Penna.

WE HAVE OPENINGS for several good men. Can use young designer as assistant to head designer. Also men with experience on working drawings. Prefer those who want to settle permanently and become part of our organization. Magaziner, Eberhard and Harris, 603 Chestnut Street, Philadelphia, Pa.

DRAFTSMAN WANTED: At once—an A-1 Architectural Draftsman. Good salary. Steady employment. State salary expected and other details. Address, A. F. Lindsay, Sikeston, Mo.

WESTERN POSITIONS—Several openings for well qualified architectural draftsmen in Colorado and adjoining states. Write Business-Men's Clearing House, Denver, Colo.

DRAFTSMAN WANTED: For Office in North Carolina doing large work. Please state experience and salary required. Box 78, Pencil Points, 19 East 24th St., New York City.

DRAFTSMEN WANTED: Mowbray & Uffinger, Inc., Architects, 221 West 57th Street, New York City, require the services of several good draftsmen on bank and office buildings. Permanent positions are assured to competent men. They would also like to get in touch with a good specification writer. Inquire for Mr. Muller.

W. G. CLARKSON & COMPANY, Architects, First Natl. Bank Bldg., Fort Worth, Texas, want to get into communication with competent experienced architectural draftsman, a good designer of sufficient experience to take charge of activities in drafting room of an active, rapidly growing general architectural office. Must be thoroughly qualified educationally.

WANTED: JUNIOR DRAFTSMAN. Permanent position in established architect's office for energetic young man. Ample opportunity for advancement. State all particulars. Malcolm B. Harding, Architect, Westfield, Mass.

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WANTED: Architectural Draftsman able to make working plans from sketches under general direction of head draftsman. Position permanent. Good opportunity for advancement. Write stating age, experience, salary, and send specimens of work, general drawings and details. Wm. W. Slack & Son, 144 East State St., Trenton, N.J.