



A NATIONAL DRAFTING ROOM REGISTRY

THERE never has been a central point or bureau in this country at which the interests of draftsmen identified with the building industry could focus. We propose to establish and maintain such a bureau that will serve as a clearing house for all manner of information. It will, we believe, greatly facilitate communication between architects and draftsmen, and will also enable members of the drafting fraternity to reach their friends and acquaintances quickly in those cases where, because of numerous shifts from office to office and from one part of the country to another, they have temporarily lost track of each other. Letters addressed to us will be forwarded promptly. We have been called upon during the past year many times to locate individuals and have usually been able to forward letters by means of our subscription records.

The free employment bureau which we established a few months ago has proven to be very popular, both with architects and others seeking men of certain qualifications to do their work, as well as with the draftsmen seeking positions. We have been able in very many instances to bring the work and the worker together to the satisfaction and profit of both parties.

On page 72 of this issue of PENCIL POINTS will be found an invitation to all draftsmen, superintendents of construction, and specification writers identified with the building industries of America to register at this office. What we want now is a complete registry which will not only enable us to locate every man, but which will at the same time enable us, at least roughly, to classify the entire body of American draftsmen with respect to their training, experience and abilities. The form of registration card, which will be sent on application, provides briefly for the essential data regarding each registrant, and it is hoped that each card will be filled out carefully and, so far as may be, completely. No obligation or expense is incurred by those registering. Those who do not subscribe for PENCIL POINTS are just as welcome as those who do. If the registry is to serve its purpose, it is of course essential that we be promptly notified of changes either in address or status.

We hope that all those eligible to register will enter into the spirit of the movement in such a way as to make it a complete success. Draftsmen in architects' offices, designers, superintendents of con-

struction, and specification writers, architects not maintaining their own offices but employed by others, engineers and draftsmen in the employ of contractors or manufacturing firms identified with the building industry are eligible. Notify your friends who may not read this announcement and urge them to send for registry cards. Let's all get behind this idea and push it through with all possible speed.

In making this survey of our field, we have in mind the further thought that in various parts of the country local architectural clubs, including in their membership both architects and draftsmen, may with advantage be formed. Many of these groups are already in existence and are accomplishing much along both professional and social lines. A free interchange of ideas is possible in an atmosphere entirely different from that existing in the office, where things are proceeding at high pressure, and where there is little opportunity for the discussion of those problems and interests common to all. We have received many inquiries concerning the best methods for forming and conducting architectural clubs and we believe that when our registration is completed, we will have in hand definite data which will serve as a basis for the formation of additional units.

There has been unfolded to us during the past three years ample evidence that the younger architects as a group are vitally interested in all matters pertaining to self-improvement and it has been our pleasure in the pages of PENCIL POINTS to place at the disposal of men in one part of the country the ideas and methods of practical men located elsewhere. We believe that the work we have so far accomplished has, to a certain measureable extent, raised the standards of draftsmanship and general efficiency. In so far as we have been successful in this endeavor, we feel that we have rendered a genuine and valuable service to architects as well as to the draftsmen and others who work with and for them. However, we are not at all satisfied with what we have been able to accomplish along these lines, and we want to get in touch more directly with every individual in the field whose future in any way depends upon his ability and effort,—and that is true of all of us.

As the next move, therefore, in establishing an intimate and personal touch with every man in the field as outlined on page 72, we regard the National Registry as an essential step.

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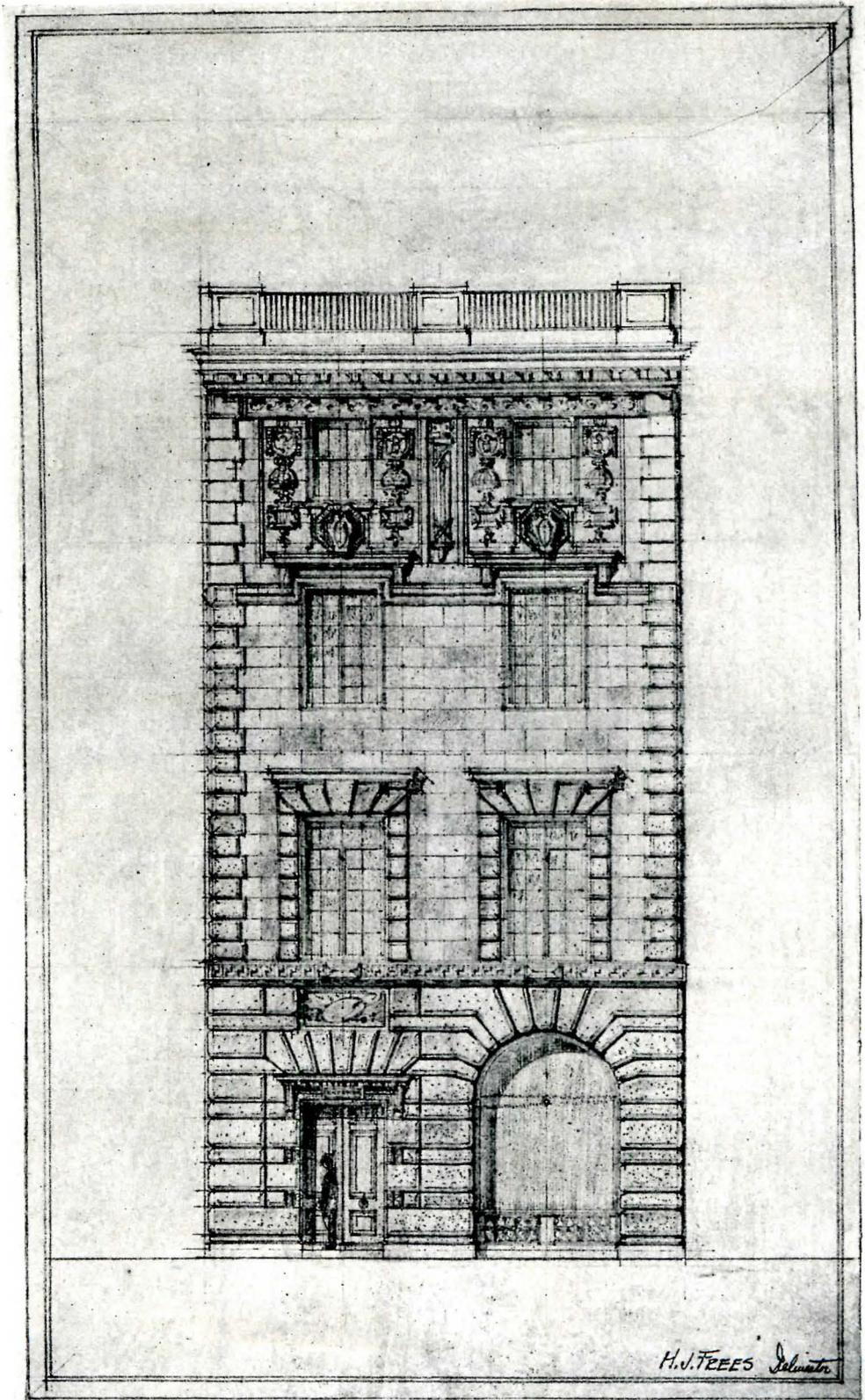


Figure 2. Designer's Study of Façade for Building for M. Knoedler & Co.,
New York City. Carrère & Hastings, Shreve, Lamb & Blake, Architects.

THE MAKING OF WORKING DRAWINGS

PART V, THE DEVELOPMENT OF WORKING DRAWINGS FROM DESIGN STUDIES AND SKETCHES.

BY JOHN C. BREIBY

This is the fifth of a series of articles in which Mr. Breiby of the staff of Carrère & Hastings is giving a description of methods of making working drawings. In the May issue, he discussed the small-scale drawings. In the June issue he took up scale details. Full-size details were treated in the July issue, and in the August issue Mr. Breiby discussed Shop drawings, etc.—ED.

THE will, the imagination, the power to reason and the power to feel emotions, are attributes of all men. Very few, if any, are endowed with an equal power and perfect balance of these four gifts. The will dominates some; the imagination others; again, reason will take the lead, or feeling may be uppermost. Organized society is governed by the collective attributes of individuals. These gifts are coequal in necessity to mankind. While all of these attributes are of equal importance, they are not of like character, and are exercised in different ways, though arranged in distinct order. First the will, to rule; secondly the imagination, for creative power; thirdly reason, for analytical work; and lastly feeling, or the heart governed by conscience. This thought may also be expressed in a somewhat different form, and perhaps with a different shade of meaning as follows: The will to do; the imagination to foresee; the reason for doing; and the feeling in which it is done.

Architecture should be the result of the perfect unity of these four gifts, the functions of which may be classified as follows: The imagination of the designer; the analysis or reasoning required for the working out of the many problems; the feeling of right or wrong, with reference to the execution of the work, or relationship of owner, architect and contractor; and the will or rule to decide what action is to be taken in making final decisions governing the work.

The practice of architecture is not the work of one man, even though a particular office is operated by the architect alone, without a drafting force or clerical staff. As has been stated before, the architect must rely upon the assistance from skilled workers engaged on the building, or in the fabrication of materials to be used in the construction thereof. A large percentage of architectural work is, of course, conducted by offices where the architect is designer, draftsman, specification writer and superintendent, and the result is often good; nevertheless, a balance of characteristics must be evident for the proper result. Larger offices have carefully composed organizations, in which each member of the organization has a particular task to perform. In such offices, the dominant attribute is readily observed, and the individual will generally be given, or find, the work to do, which his special gift most calls for.

In the history of man, outstanding figures and personalities are called to mind, shining like guiding stars or beacon lights, to light the way, and perhaps shape the destinies of individuals or collective mankind. In the history of architecture, such guiding stars have indeed shown the full value and shaped the destiny of architectural design and structure. The names of the foremost architects of the different ages are all well known.

The environments, modes of living, governments of nations and peoples, have all had their effect in forming particular habits and desires, and these habits and desires are directly expressed in all forms of art. Art, as expressed during the Tudor Period—however charming in its boldness (even to brusqueness)—would have been entirely inappropriate for the court customs and attire prevailing during the reign of Louis XIV of France. Likewise in these days of modernism, architecture and in fact all fine arts, to a great degree, express the commercialism which is so prevalent today.

This is a rather bold statement perhaps, though true. The thought of cost is ever present, space must be saved. Most architects must struggle to give the client as much as is possible, with the least expenditure. Architects very often forgive themselves by saying, "good enough, for I gave them the most for their money." "Good enough," is no excuse. This feeling of "good enough" for the money expended will inevitably result in disillusionments. There is so little good architecture in comparison with poor architecture, that it is, and should be, the solemn duty of every architect to strictly uphold the ethics of the profession, and to render the client what is best for the money. Many districts and communities are absolutely ruined beyond redemption by unscrupulous builders or promoters. Slapped-up houses are erected; factories are built without thought of line or refinement. Water fronts of cities are not considered with any thought of combining utility with beauty; even the water is polluted to a point of absolute unhealthiness. Fortunately city planners, engineers and architects are endeavoring to remedy these conditions, and their work will undoubtedly bring forth good fruit, in time to come.

All the above mentioned faults are directly due to the modern way of living and conducting business. It must be said, however, that the way of

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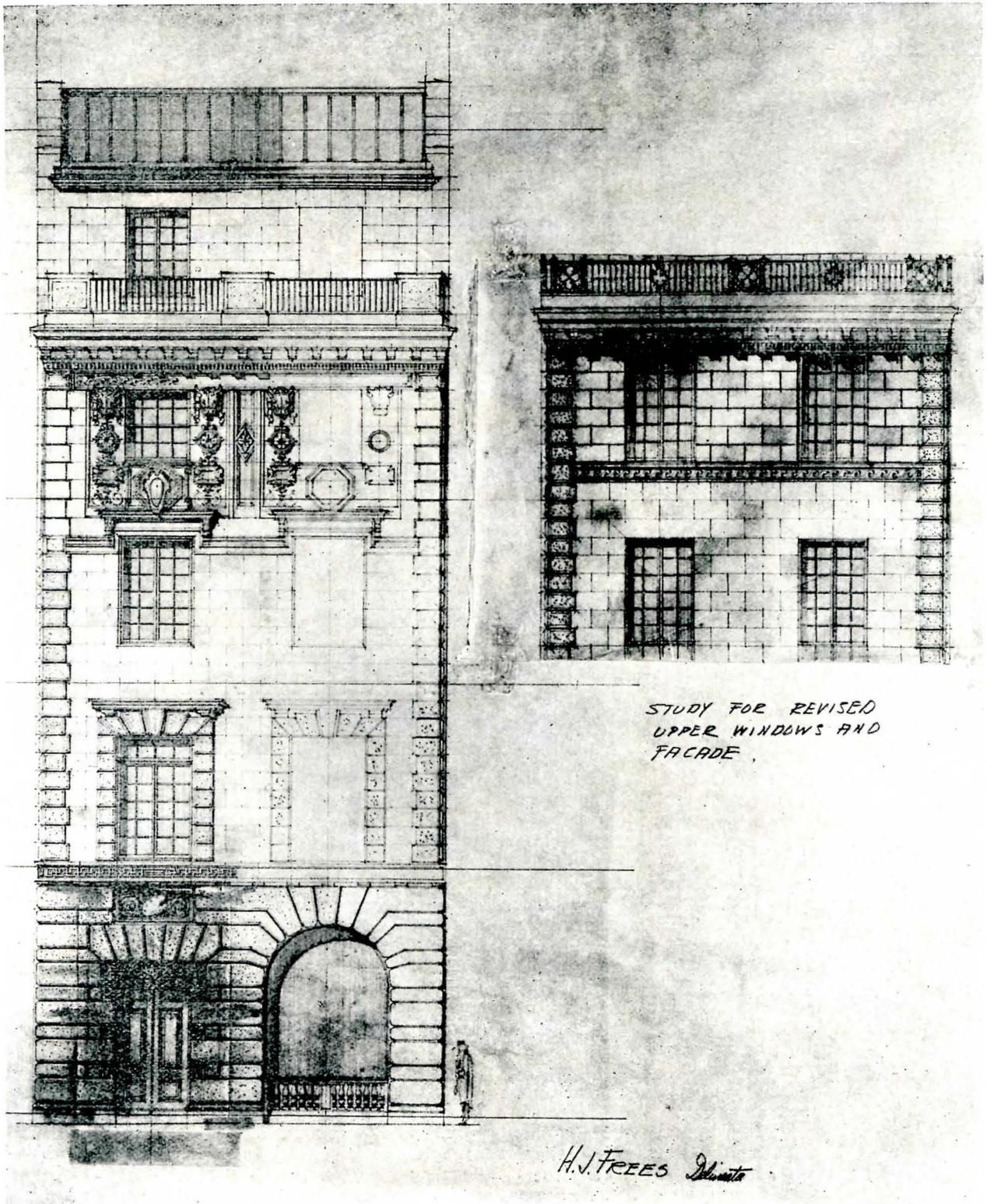


Figure 2. Development Study, at One-quarter Inch Scale, of Façade of Building for M. Knoedler & Co., New York City. Carrère & Hastings, Shreve, Lamb & Blake, Architects.

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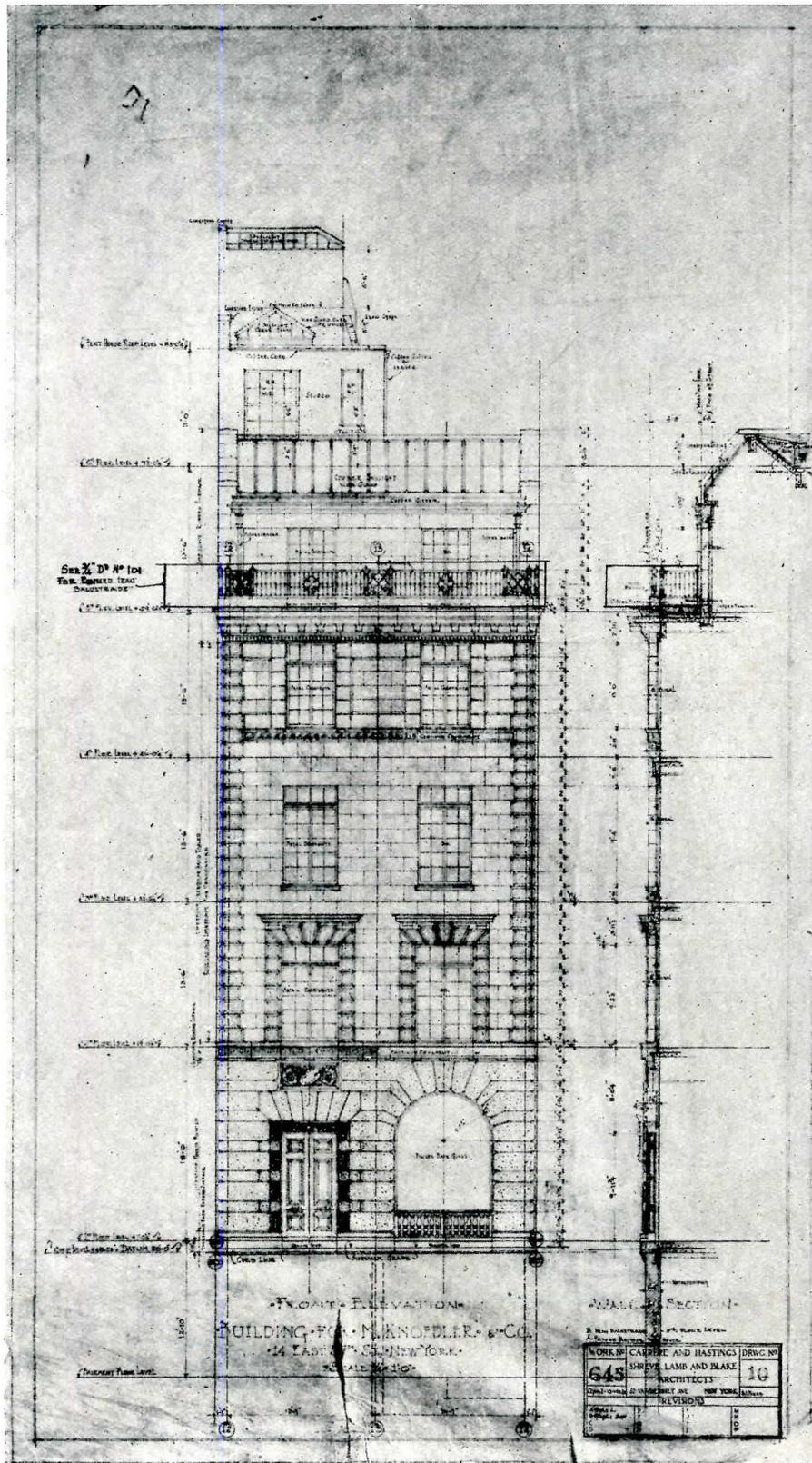


Figure 3. Working Drawing Fully Developed from Studies Shown in Figure 1 and Figure 2. Façade of Building for M. Knodler & Co., New York City. Carrère & Hastings, Shreve, Blake & Lamb, Architects.

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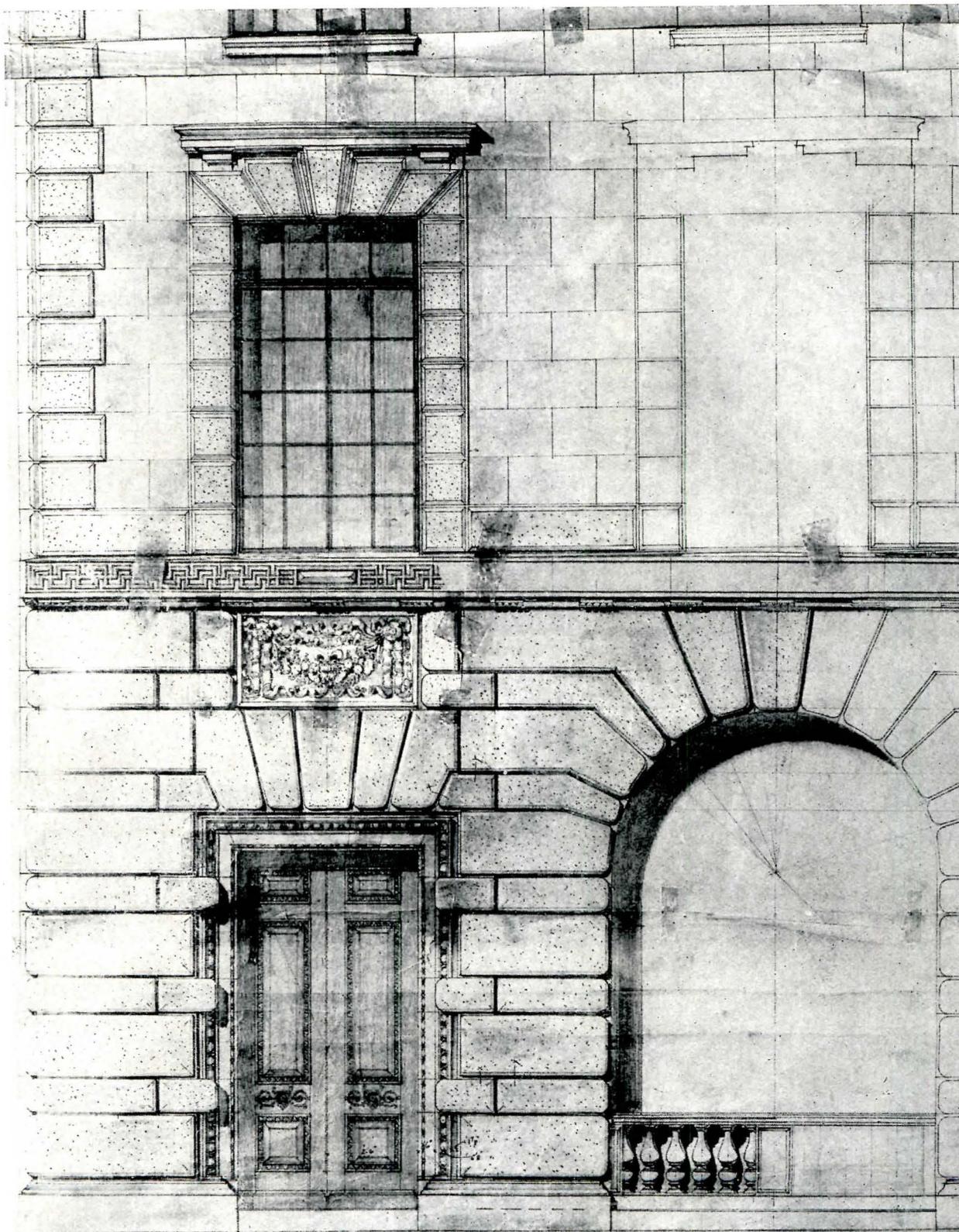


Figure 4. Portion of Study Drawing at Three-quarter Inch Scale. Building for M. Knoedler & Co., New York City. Carrère & Hastings, Shreve, Lamb & Blake, Architects.

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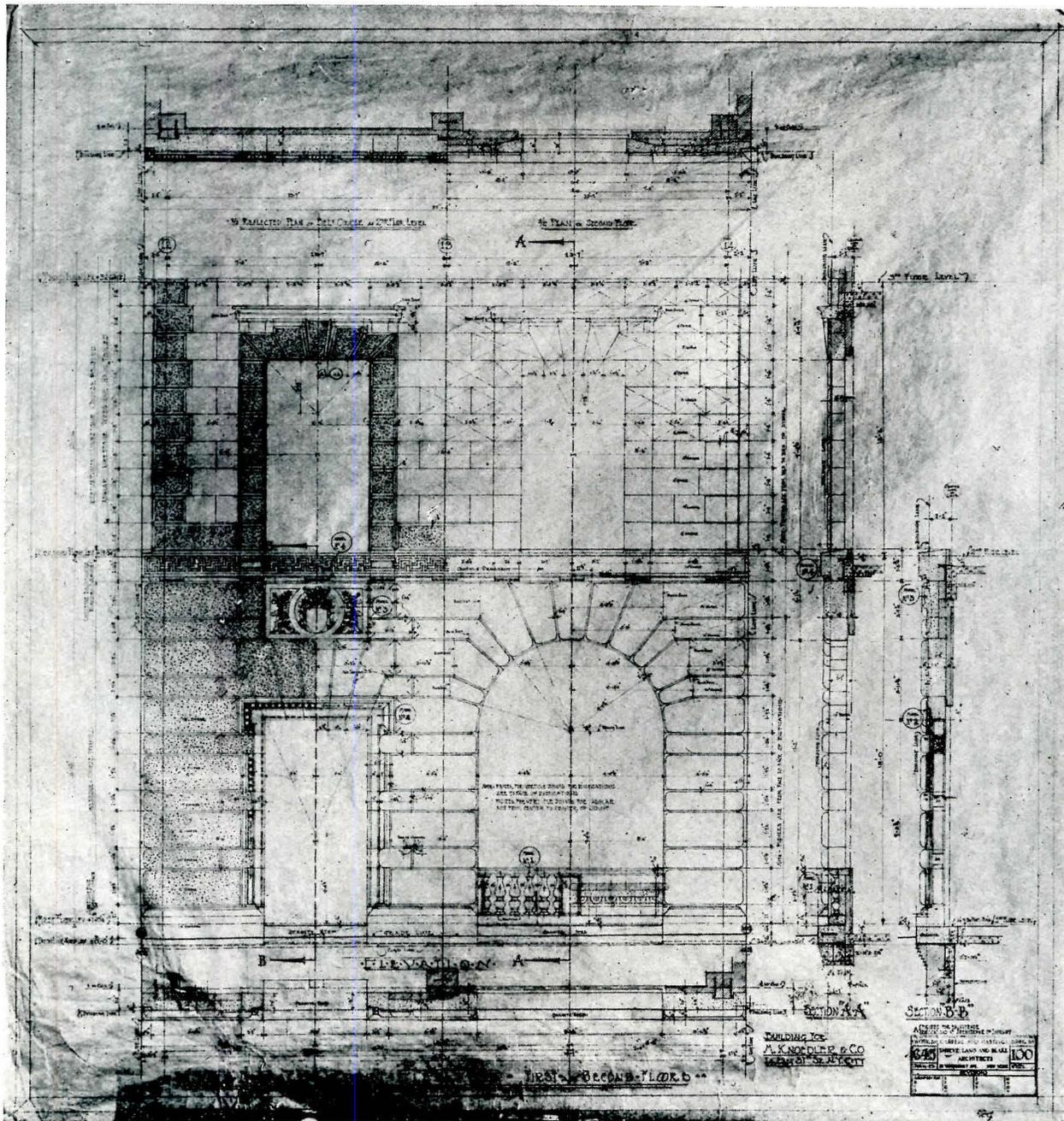
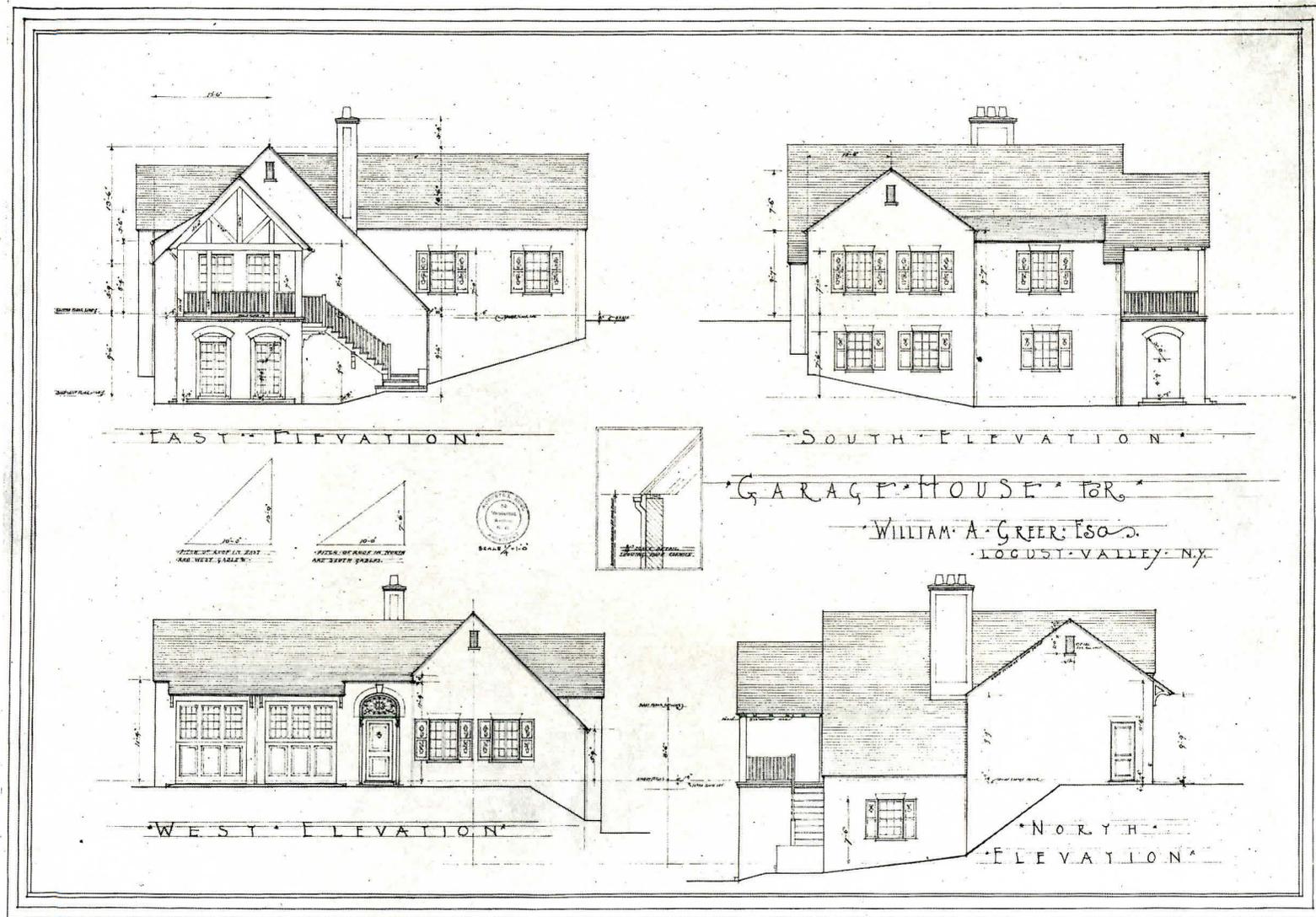


Figure 5. Working Drawing at Three-quarter Inch Scale, Developed from the Study Shown in Figure 4. Portion of Façade of Building for M. Knoedler & Co., New York City. Carrère & Hastings, Shreve, Lamb & Blake, Architects.



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Figure 7. Working Drawings Developed from the Studies Shown in Figure 6. Garage-House for William A. Greer, Esq., Locust Valley, N. Y. Auguste L. Noel, Architect.

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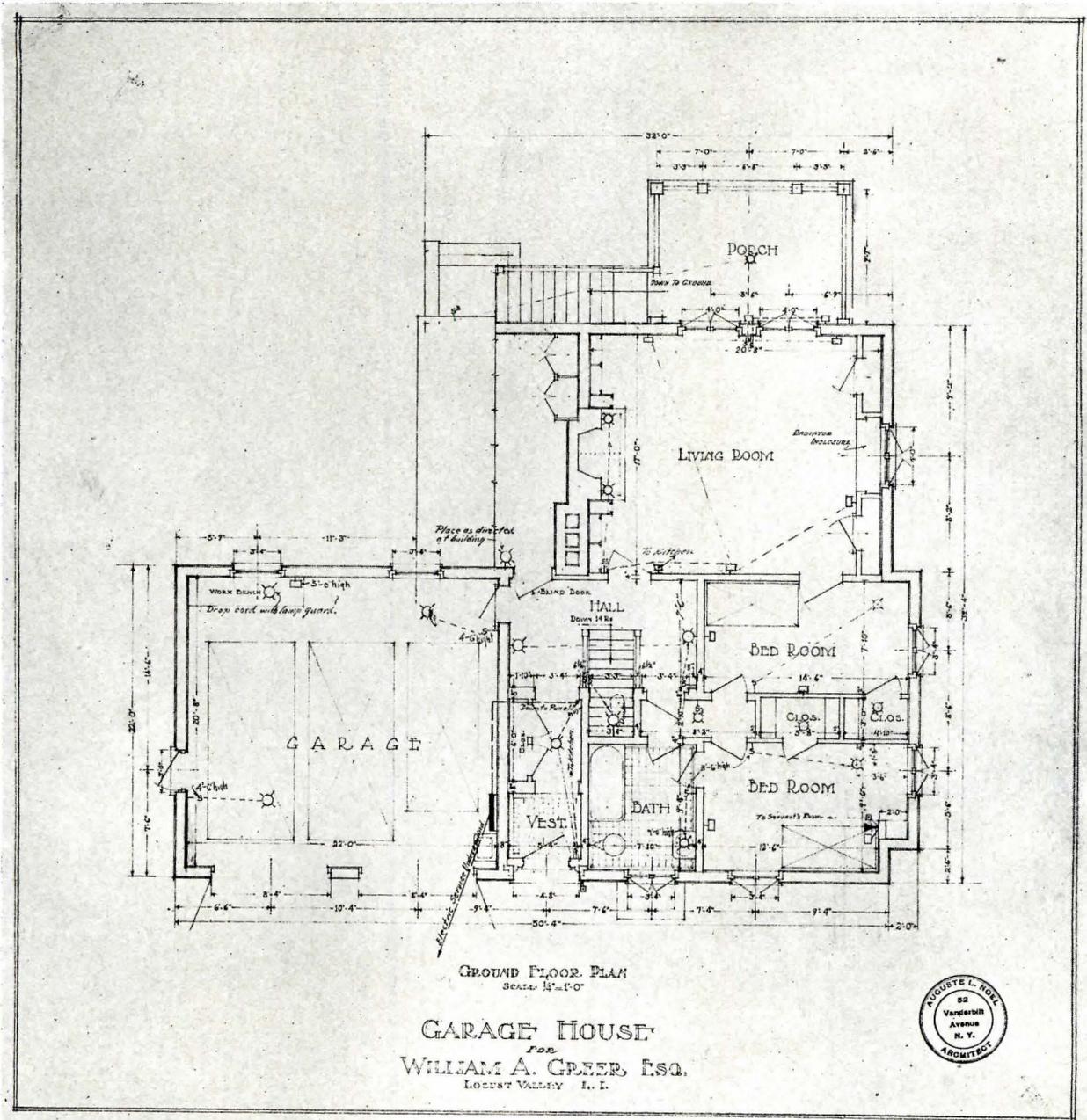


Figure 8. Working Drawing, Ground Floor Plan Developed from the Studies Shown in Figure 6. Garage-House for William A. Greer, Esq., Locust Valley, N. Y. Auguste L. Noel, Architect.

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overcoming the condition of the poor has always been a very serious problem in times past, and still is at this time. Is it not the duty of the various civic governments to work in accord with the architects and engineers to better such conditions, and thereby eliminate the unhealthy and unsightly districts in our otherwise more or less beautiful cities?

Good architecture can, and often does, meet the requirements of modernism and commercialism. As a rule owners make large demands in results for the money they desire to spend. Special study must be given to such demands. With the many types of construction and good materials to be had, usually the problems can be met. Simple lines, proper location of openings, texture of materials, etc., can be worked out into beautiful results. At times, the introduction of an elaborate and expensive feature will destroy the effect desired, when the design calls for simplicity. The best Colonial work executed in this country owes its beauty largely to simplicity itself.

In the foregoing remarks, regarding commercialism, modernism, unsightliness, etc., no criticism is intended, the intention is merely to call to mind the conditions to be met and remedied.

The serious practice of architecture is a comparatively young profession in this country, and we must take into consideration the struggles the nation has undergone, until it finally arose and became a power. Early migration of the poorer classes from foreign nations, and their struggle for existence here, has had its effect in retarding the beautifying of cities and communities. From the period when the Colonists and their immediate descendants erected buildings with the inspiration—and even importation of materials—from their mother country, comparatively few good buildings were erected, until the latter part of the past century, when a rebirth of good architecture came about. Architecture as a profession in the old world has, of course, been long established, and the wonderful buildings resulting have for ages made the old world a Mecca for students seeking that which is beautiful and good. Examples of good architecture in Europe have always been the traditional inspiration for good work. Many interruptions in the progress of architecture have occurred in the old world during periods of wars, unrest, etc. Remember, however, that perhaps one period of retardance in architecture in Europe, would equal the entire civilized period of the New World.

The history of architecture is most necessary to be considered by the architect, for it bears so much upon the work in which he is engaged.

The outline regarding the life of organized architectural practice in this country, and the comparison with architecture as an old-standing profession in the old world, was given above merely to show how this country has had to arrive at quick results due to the rapid growth of its population. Dwellings and buildings were necessarily erected without much thought to design, and commercialism resulted.

The thoughts of the true artist are not commer-

cial. He should, however, in return for his work, receive sufficient remuneration to enable him to develop and study his life work in all fairness to himself, and to those by whom he is engaged. A contented mind will always bring forth the best.

In the first paragraphs of this article, mention was made of four attributes of man, and may it be said here that the attribute of imagination, which perhaps may be regarded as the mainspring of design—too often crowds the other two attributes out of their due consideration, despite the fact that the functioning of the other gifts is necessary for complete co-ordination and realization of any work.

The work of the designer must always be carried on by the operation of the reasoning powers—with the thought of fairness—all under the dominance of will and in justice to all considerations.

This installment treats especially of the building up or development of working drawings from the designers' sketches. In the first paragraph of the first article on "The Making of Working Drawings," published in the May issue of PENCIL POINTS, the writer pointed out that working drawings are prepared or developed from the designers' sketches or presentation drawings. This installment treats of this period of development and shows what preliminary steps are necessary to the development of the design sketches, with the final working drawings in view. This involves analyzing the design and carrying forward the operation until the desired result is obtained in the form of working drawings.

Design sketches are usually prepared at a scale of from 1/32 in. to 1/8 in. to the foot. On drawings of this scale, it is impossible to indicate the sizes of stones, detail of ornament, etc. In fact, any detailed indication for practical use cannot be shown. The thickness of a pencil line on a small sketch would count as inches in execution.

Many draftsmen prefer to make development drawings, using light tinted color. This is very good to obtain color values, and if shadows are lightly cast, will also greatly help to determine the depth of window reveals, projection of cornices, etc. It is always best to study in a free way, using rather soft pencils, no hard-line drawing can be as effective. Studies made free-hand, without T-square or triangle also render the design in an imaginative way, and much inspiration and an opportunity to study sizes of stones, values of mouldings, etc., can thus be obtained.

Before any development drawings are made, it is most necessary to lay out, preferably in ink, building lines, floor levels and any exact information obtainable. Colored ink is generally used in this layout. Use this sheet, then, as a guide sheet, and trace sketches over this.

The drawings of two particular buildings have been selected to illustrate this article. Figure 1 shows the designer's study of a façade of an important city building. This drawing is a study in pencil of the general ensemble and the principal requirements of the façade were determined thereon. It will be seen that it would be absolutely impossible to indicate any precise detail upon it. While

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the drawing is made to accurate scale, the thickness of window sash, members of the cornice and other mouldings cannot be accurately shown for final execution.

Figure 2 shows a $\frac{1}{4}$ -in. scale developed study of the façade indicated by Figure 1. Before this drawing was developed, floor heights had been determined, the property lines known. This drawing was sketched over the layout drawing showing actual conditions available, and was studied in a free way, shadows were cast, etc. The exact sizes and spacing of windows were determined, the forming of the quoins established, and general depth of channels and reveals decided upon. An alternate treatment of the upper portion of the façade was restudied and this portion was simplified. This revised study of the façade was finally decided upon and was incorporated in the final working drawing, illustrated by Figure 3. This restudy of the upper portion was not for the sake of saving the expense of stone carving. It must be admitted that the design was improved by this restudy.

It will also be seen that the door treatment was restudied with better results. Compare drawing as indicated by Figure 2, with that as illustrated by Figure 1. It will be admitted that the developed drawing shows improved design. After such final results are obtained in design, a feeling of pleasure and satisfaction is recognized. The studies are now ready to be drawn in the form of working drawings.

Figure 3 shows the working drawing of elevation, illustrated by Figure 1 and Figure 2. This drawing is a typical working drawing developed from the design and development studies. Refinement has been introduced, figures indicated, and the finished floor above concrete slabs shown. This elevation with the plans and specifications will give all the necessary information from which estimates can be obtained and contracts signed. Care should be taken that, on all indications made on the working drawings, not any of the design is lost. In fact, more detailed indication of ornament, etc., can be shown. Sizes and scale of motifs must strictly be followed from the development sketches. This building was designed and the work is now under execution. It is not an expression of commercialism, although it is comparatively simplified in construction, economical materials are used.

The design as expressed by Figure 1, Figure 2 and Figure 3, calls for the need of larger scale drawings and the next step in development of the design is shown by Figure 4, being a $\frac{3}{4}$ -in. scale study drawing of the lower part of the same façade. This is rather a free study and allows play for the thoughts of the draftsman. The shadows are cast also to study reveals, etc. It will be noted on the reproduction that this drawing is really made up of parts of various studies pasted together.

A remark made in one of the former articles of this series stated, that, if necessary to restudy design, it would be better to step back to a smaller scale for ensemble effect. This is true, but the sketches illustrated herewith are not studies for redesign, but are examination drawings of detailed parts. Surfaces of walls, ornament, depth of

reveals, and members of cornices, etc., can best be brought out and shown in this manner. These examination drawings facilitate the making of the larger scale working drawings, and bring out in all their fullness the scale of balusters, archstones, and give a closer detail of ornament. A word of warning must be spoken, however, do not overdo or make development drawings too elaborate. Many designers and draftsmen like very much to study ornamental full-size details by shade and shadow indications. Unless this is very rapidly drawn or suggested, time is lost, for this is the work of the modeler.

Figure 5 shows the $\frac{3}{4}$ -in. scale working drawing developed from the study indicated by Figure 4. This is a true and valuable $\frac{3}{4}$ -in. scale working drawing of the lower portion of the main façade. All practical conditions have been incorporated. All stone work has been figured, finished floor above steel, stone work located in reference to steel, exact shapes and thickness of stones indicated, all of which makes a complete explanatory drawing.

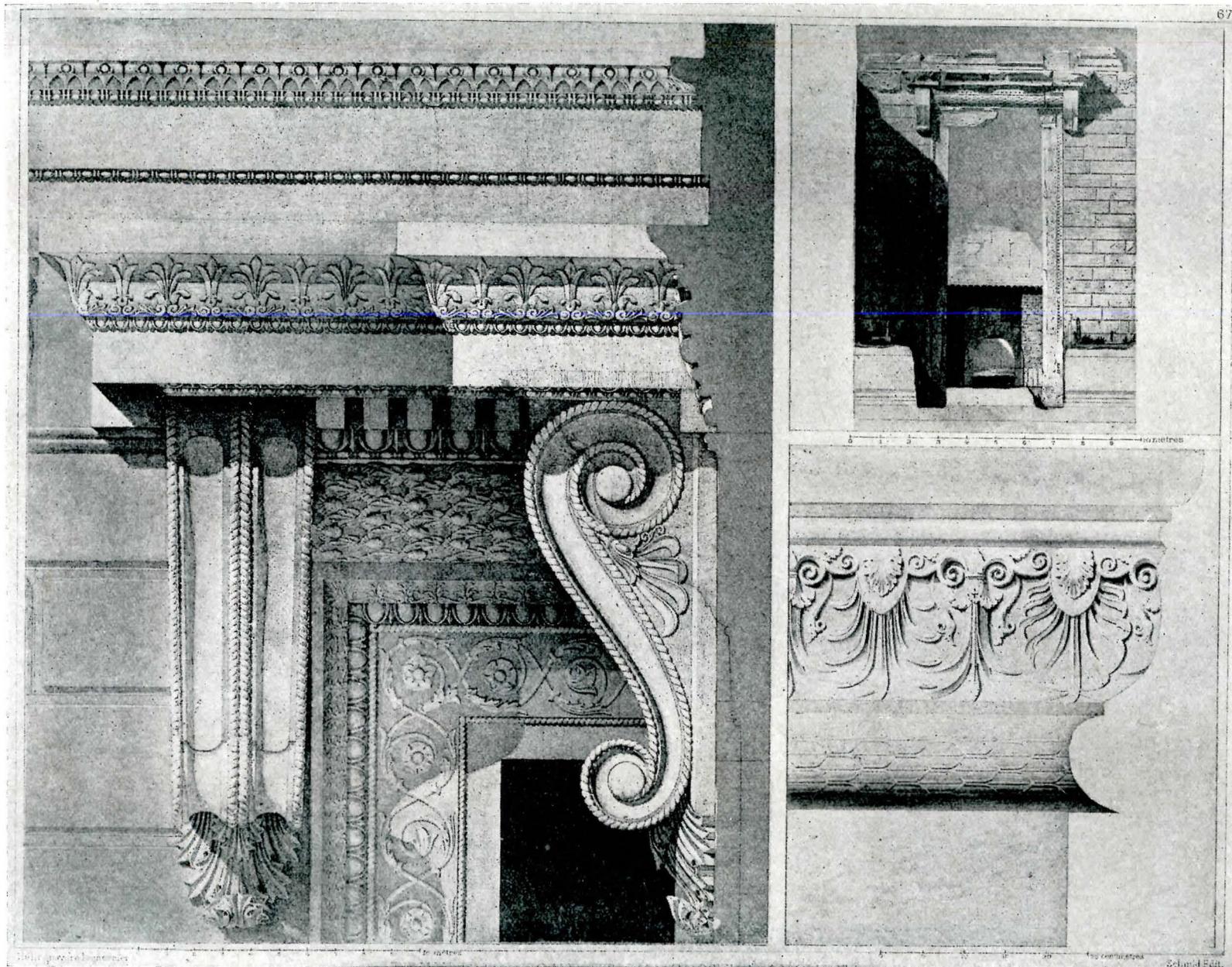
Figure 6 illustrates a sheet of sketch drawings, showing plans and elevations of a garage-house. This drawing was especially selected, first, to show how the entire problem was studied, grouping the plans and elevations on the same study sheet; secondly, how difficult problems can be worked out without much elaboration. Drawings or sketches of this kind can be worked out in a sketchy way with color and make very pleasing and readable presentation drawings to show to the client.

Note how the contours of the grade have been indicated around the building, and the various floor levels determined in accordance therewith. The plans are studied with careful thought. This drawing was not especially prepared as a show drawing. What little indication of grades, trees, etc., is shown, expresses, however, the architect's intent and the character of the conception very well. It may be remarked that the layman seems to admire "busy" looking sheets of drawings. It may also be said that any intelligent contractor can give a fairly accurate cost of erection, etc., from a sketch of this kind. This is also a great help in the preparation of the later working drawings.

Figure 7 illustrates the finally studied and finished elevation working drawing of the same garage-house. It can readily be noted how continued study has improved the general design. Oftentimes particular desires of the client will naturally affect the final design, and such changes suggested by the client must be taken into consideration by the architect. Observe how final grading has been determined. A charming outside stair has been added on the east elevation. The further study of window spacing has resulted in a great improvement.

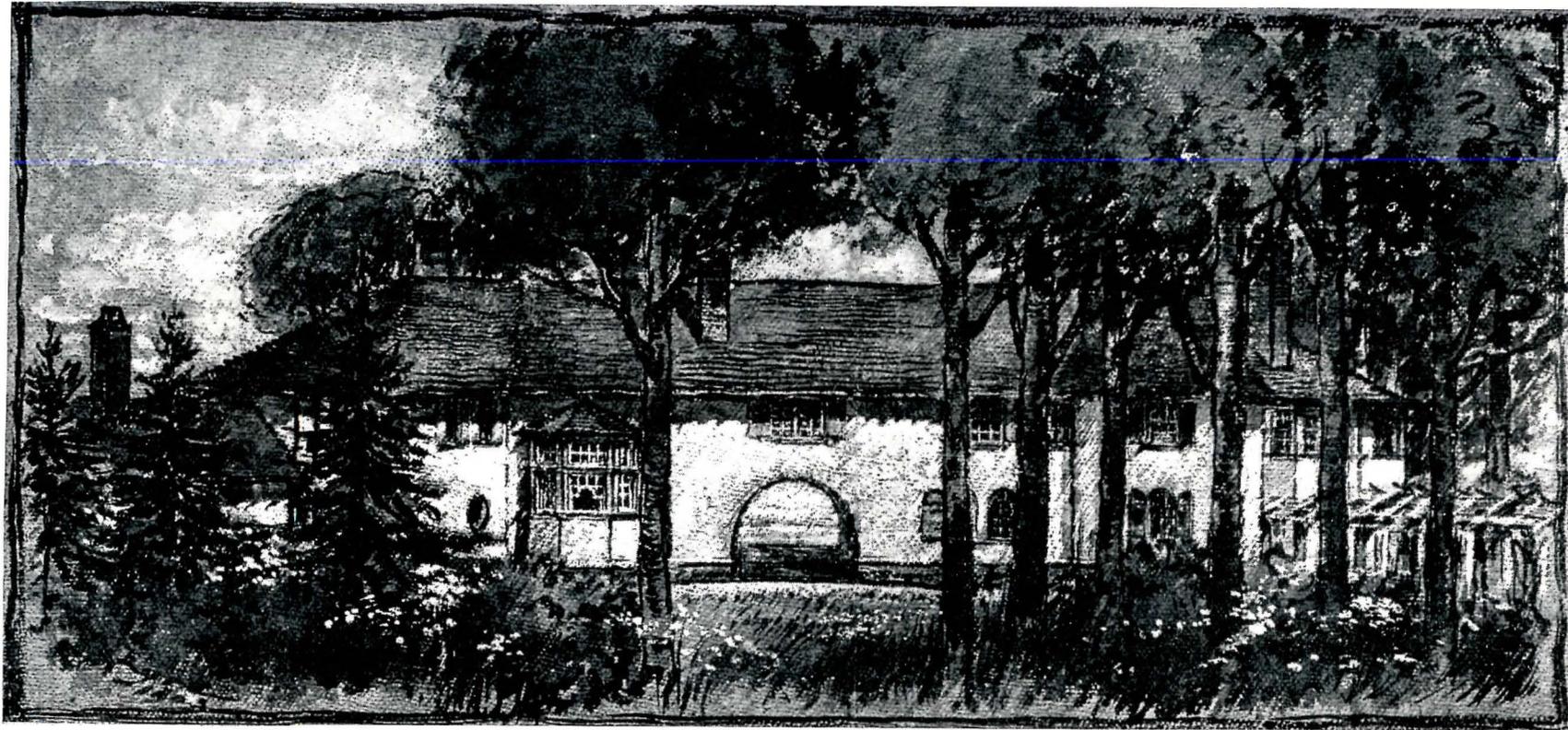
Figure 8 illustrates the ground floor plan of the garage-house. This drawing is the final working drawing of the ground floor plan. It is the result of study from the sketch plan, indicated by Figure 6. The drawing retains the same general arrangement though more careful study and the definite

(Continued on page 55)



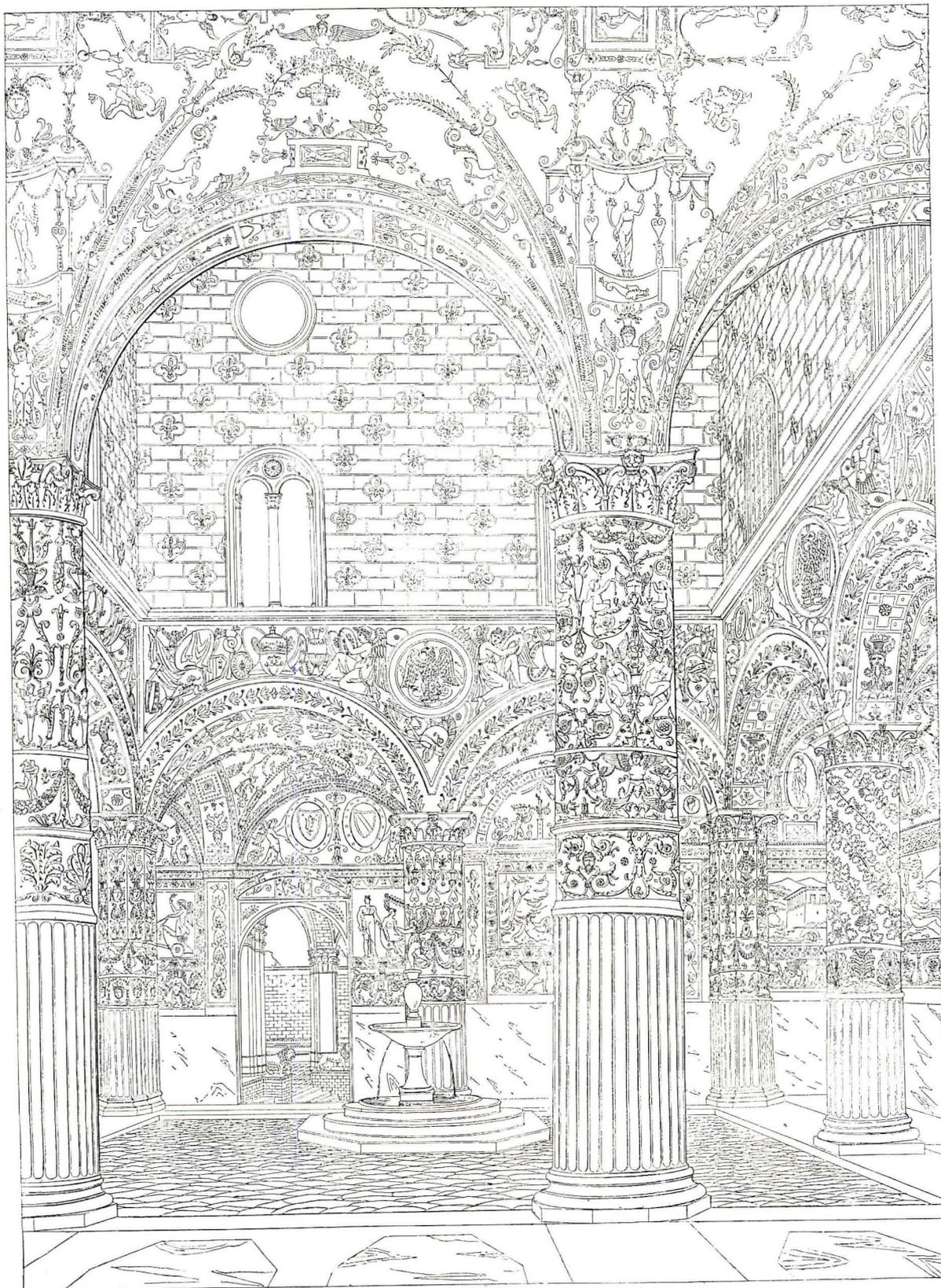
DETAIL OF THE TEMPLE OF AUGUSTUS AND ROME
FROM H. D'ESPOUY'S "FRAGMENTS D'ARCHITECTURE ANTIQUE"

The Temple of Rome and Augustus, details of which are shown in the plate reproduced on the other side of this sheet, was erected as a tribute to Rome and to the Emperor Augustus in the year 763 of Rome or A. D. 9. This plate is one of the one hundred selected plates from D'Espouy's "Fragments D'Architecture Antique" which the publishers of PENCIL POINTS are reprinting in book form.



WATER-COLOR DRAWING BY WILSON EYRE

A very interesting and effective presentation study for a residence is shown on the other side of this sheet. This drawing by Wilson Eyre is notable for the freedom and mastery with which it is drawn with brush strokes in brown on a brownish paper of rough texture and colored with transparent water color and with gouache.



VUE INTERIEURE DE LA COUR DU VIEUX PALAIS, A FLORENCE.

COURT OF THE "OLD PALACE," FLORENCE, FROM "ARCHITECTURE TOSCANE"

The Palazzo Vecchio, or "Old Palace," the court of which is shown in the engraving on the other side of this sheet, was begun in 1298 by Arnolfo di Lapo. Michelozzo Michelozzi restored it in 1450, replacing the old brick columns of the court with stone. These columns were richly decorated with ornament in white stucco on a gold background and the porticos were ornamented with colored arabesques by Marco Marchetti or Marco Marcucci de Faenza in 1565. This engraving is from the reprint of "Architecture Toscane," just published by the publishers of PENCIL POINTS.



MURAL PAINTING BY ARTHUR CRISP. "THE PERSIAN LOVE BOAT."
CLOVER GARDENS, NEW YORK CITY

The mural painting by Arthur Crisp which is reproduced on the opposite side of this sheet is one of the features of the beautiful scheme of decoration Mr. Crisp conceived and carried out at Clover Gardens, New York City. This is one of three large mural panels, which are painted after the usual manner of mural paintings, while the other wall surfaces are effectively decorated with somewhat conventionalized designs executed with the aid of key stencils, as described in the article beginning on page 41.

THE USE OF KEY STENCILS IN MURAL DECORATION

BY ARTHUR CRISP

STENCILS of the usual type are unsatisfactory because of the difficulty in securing sufficiently accurate register where more than one stencil plate is used, for instance, where a design is to be stencilled in two or more colors and the stencil plate for each color must register or match the others or the colors will overlap in some places and fail to cover in others. This difficulty increases with the size of the stencil and for a decoration eight feet by ten feet it is serious. The use of key stencils obviates this difficulty and gives much of the free-hand character to the result.

By a key stencil I mean a stencil that puts in the outline only, with perhaps a bit of shading here and there, the various colors of the design being painted in free-hand within the areas bounded by the stencilled lines. By making the stencils in the way I shall describe presently there are no "ties" and the stencilled outline looks very much as though drawn with a brush, as a matter of fact it is drawn with a brush in making the stencil.

Perhaps the best way to describe this method is to tell exactly how I used it in the decoration of Clover Gardens. The problem was to transform an entire floor of the Grand Central Palace into a place in which people of the best class would want to spend the evening in dancing. There was an acre of floor and a ceiling thirteen feet high, and the place had to be made attractive, given an atmosphere. One of the means adopted for doing this consisted in enriching the greater part of the wall surface with decorations painted with the aid of key stencils.

The chief wall decorations consist of three large mural paintings which form the centres of interest. These were painted in the usual way, without stencils. One of these murals "The Persian Love Boat" is shown as a plate page in this number. The other murals are "The Abduction of Columbine" and "The Return of Columbine."

In passing it may be said that since any decoration on the ceiling would have made it look even lower than it was, only the simplest ceiling treatment was used. The entire ceiling was first silvered with aluminum powder. It was then stippled in orange. The orange stippling gave the exposed silver a bluish appearance and the play of colors is effective. The stippling was done with window washing brushes from which the handles had been sawn off. The immediate result was that the ceiling seemed about two feet higher.

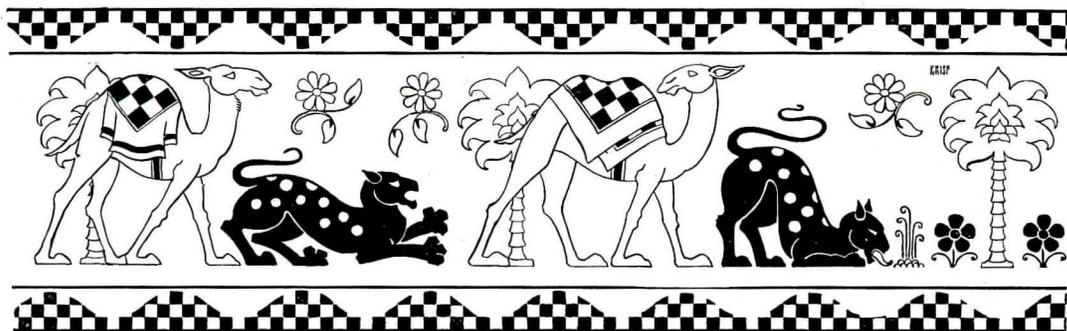
On the broad expanse of floor are many square piers that are part of the structure. Their appearance of clumsiness was relieved by treating them with mirrors. To break up the stiffness of this arrangement and to remove the last suggestion of a big bare room with a low ceiling, twisted columns in antique gilt were set on the floor in the form of a large quatrefoil.

Now, to get back to the matter of the key stencils. The first step was the making of the designs, carrying an outline around all parts. Four of the panel designs for key stencils are shown on page 42. Next, lantern slides were made of these designs and they were projected and drawn upon the cloth of which the stencils were to be made.

This cloth, a "cotton voile" (cheesecloth will do) is stretched on a frame and filled with a coat of pipe clay. The excess must be scraped off. The cloth should not be pulled in putting it on the stretcher, the shrinkage will make it tight when the coat of pipe clay is applied. When the pipe clay filler is dry the outlines are painted in with glue, containing a little glycerine and some coloring matter, in this case I used a dull red.

When the glue is dry a coat of spar varnish is applied to the side of the cloth the glue is on. The varnish penetrates the pipe clay and binds it, ex-

(Continued on page 53)



Decorative Band by Arthur Crisp, for Clover Gardens, New York City.



Spanish Group



Persian Group



Bulgarian Group



Russian Group



Designs for Panel Decorations by Arthur Crisp for Clover Gardens, New York City

See Text on Page 41

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THE TECHNIQUE OF RENDERING, PART II.

BY FRANCIS S. SWALES

In the serial article of which this is the second installment Mr. Swales explains practical methods of rendering. These methods, though based on what may be regarded as standard practice include variants that have been found effective in actual work. In preparing this article Mr. Swales has drawn freely upon the fund of experience he has gained in his architectural work.—ED.

IT MAY be well to say at this point that all pencils, inks, instruments and paper are not the same. There is a great difference between the various makes as all draftsmen soon become aware. Several well-advertised drawing pencils vary so much in hardness, or "grading," in the same pencil that to describe them by the letters representing grading means nothing. At one moment too much graphite strokes a soft crumbly line; at the next, a particle of hard clay scratches the surface of the paper. A good rendering implies a good line drawing and to be certain that the pencil will neither "grease" nor scratch the paper, knowledge of the standard of the grading of the pencil, and of how far different gradings may be depended upon is necessary. Taking the HB as the standard "medium" pencil and comparing several different makes, it will be found that the quality of line produced varies with each manufacturer; and in many makes the grading seems to have no standard. But good pencils differently graded are now produced by at least one or two American manufacturers, and it helps in making effective drawings to observe the kind of line which different gradings of the same make of pencil will produce under the touch of the individual draftsman. Prepared India ink varies in thickness and in the ease with which it will flow from the pen and in the qualities which give a soft, "velvety" line or one that shines like patent leather. Some can be diluted with water and a few drops of ammonia to give a line almost exactly like a good firm pencil line.

Generally, lines in the foreground of an elevation require to be heavier or darker than those in the plane of the building, while in the background they should be lighter. The effect can be obtained by the use of a harder grade of pencil in drawing the background than for the building, and a softer grade for the foreground. Many draftsmen work naturally with an almost constant pressure, varying it only with a great deal of effort. To them the use of three grades of pencils serves as a substitute for a natural inclination on the part of others to use but one grade, and to vary the effect of line by a difference of pressure on the pencil point. The most effective line drawings made preparatory to graded wash drawings are those in which the line itself is graded from dark at one end to light at the other. This trick is performed with the ruling pen by turning the screw regulating the width of line while the line is being drawn. The pen must have a point or edge that is sympathetic to personal touch—the line must be felt by the guiding finger. Study the outline of the building and of the pedestals and statues and the right side of columns in the drawing by Mr. Albert Ross, Figure 10, which is produced by varying the pressure in a rapid stroke of the pencil or pen. I have seen drawings by Mr. Ross which appeared to be made with a 3B or 4B pencil on cold-pressed paper which were marvels of crisp, clean draftsmanship with the line work beautifully graded, creating an impression of bright sunlight striking the building and of great spontaneity of indication in the drawing. In

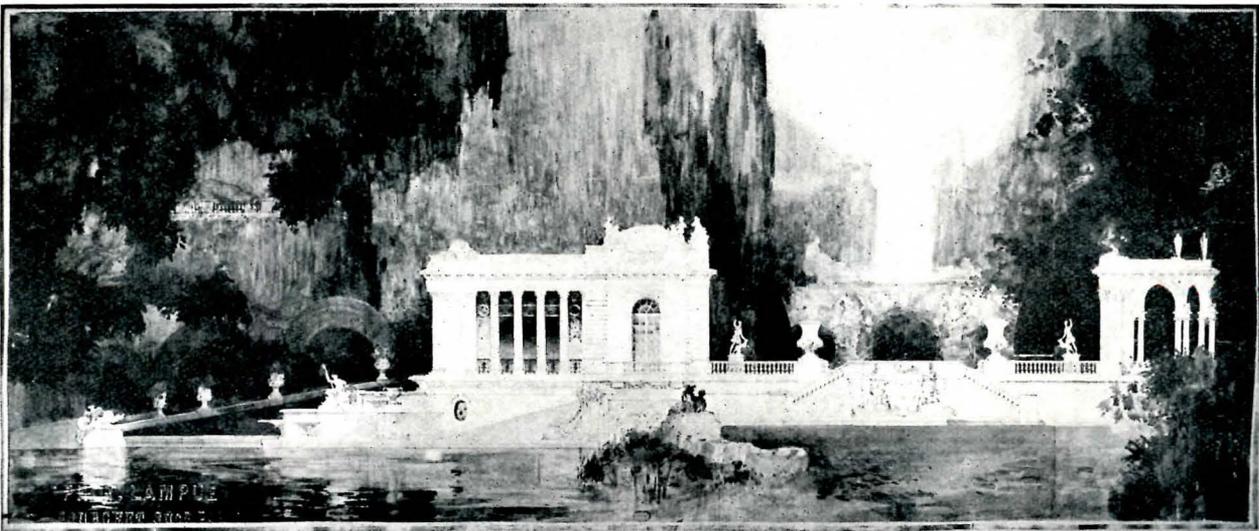


Figure 14. Design for a Lakeside Pavilion. Georges Lefort, Architect.

PENCIL POINTS

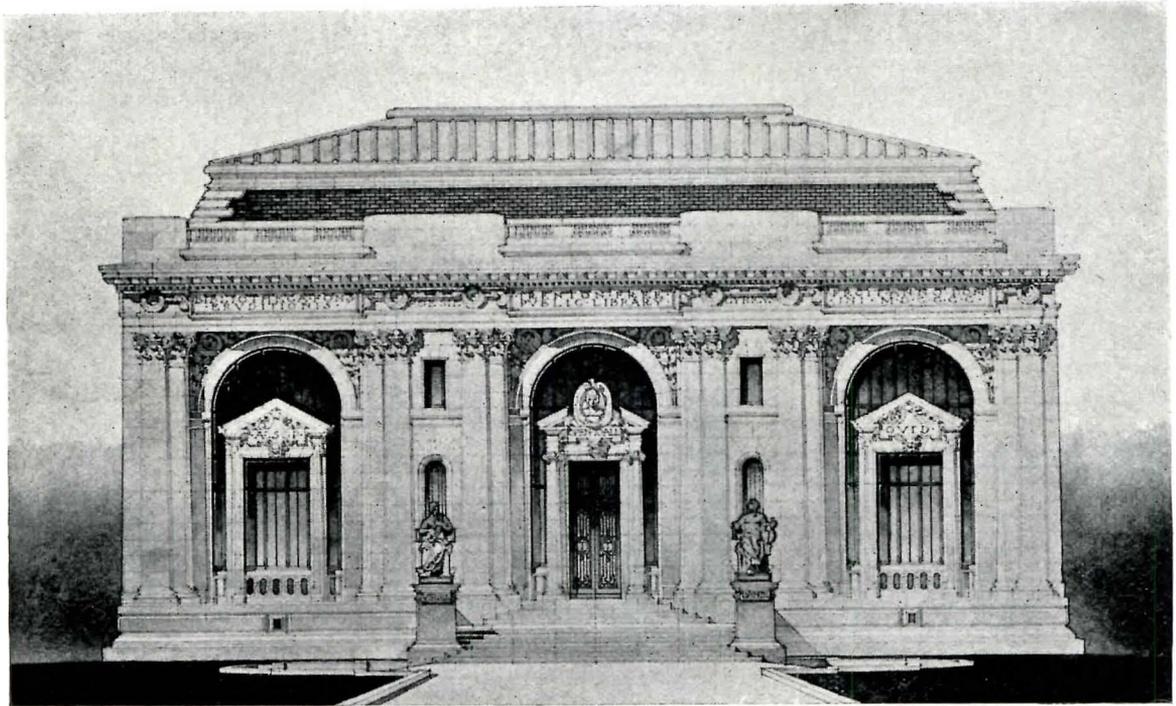


Figure 10. Competition Design for Library. Ackerman & Ross, Architects.

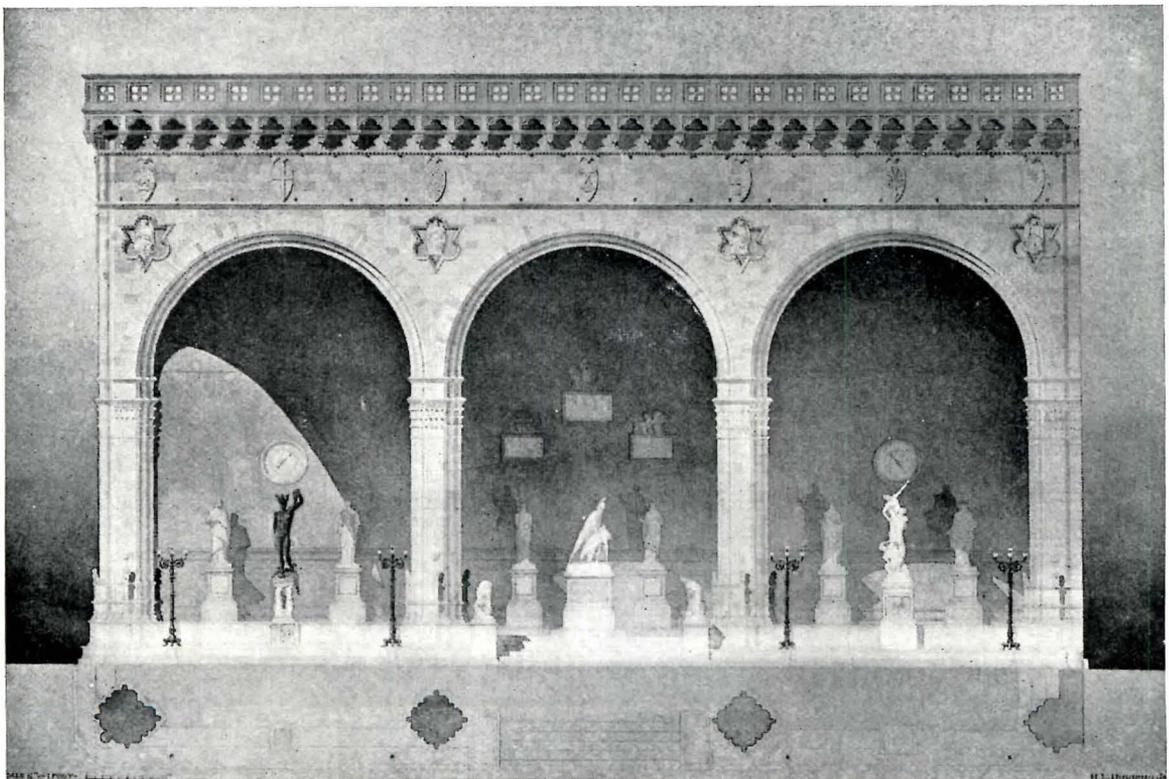


Figure 11. Measured Drawing of the Loggia dei Lanzi, Florence, by H. L. Duhring.

PENCIL POINTS

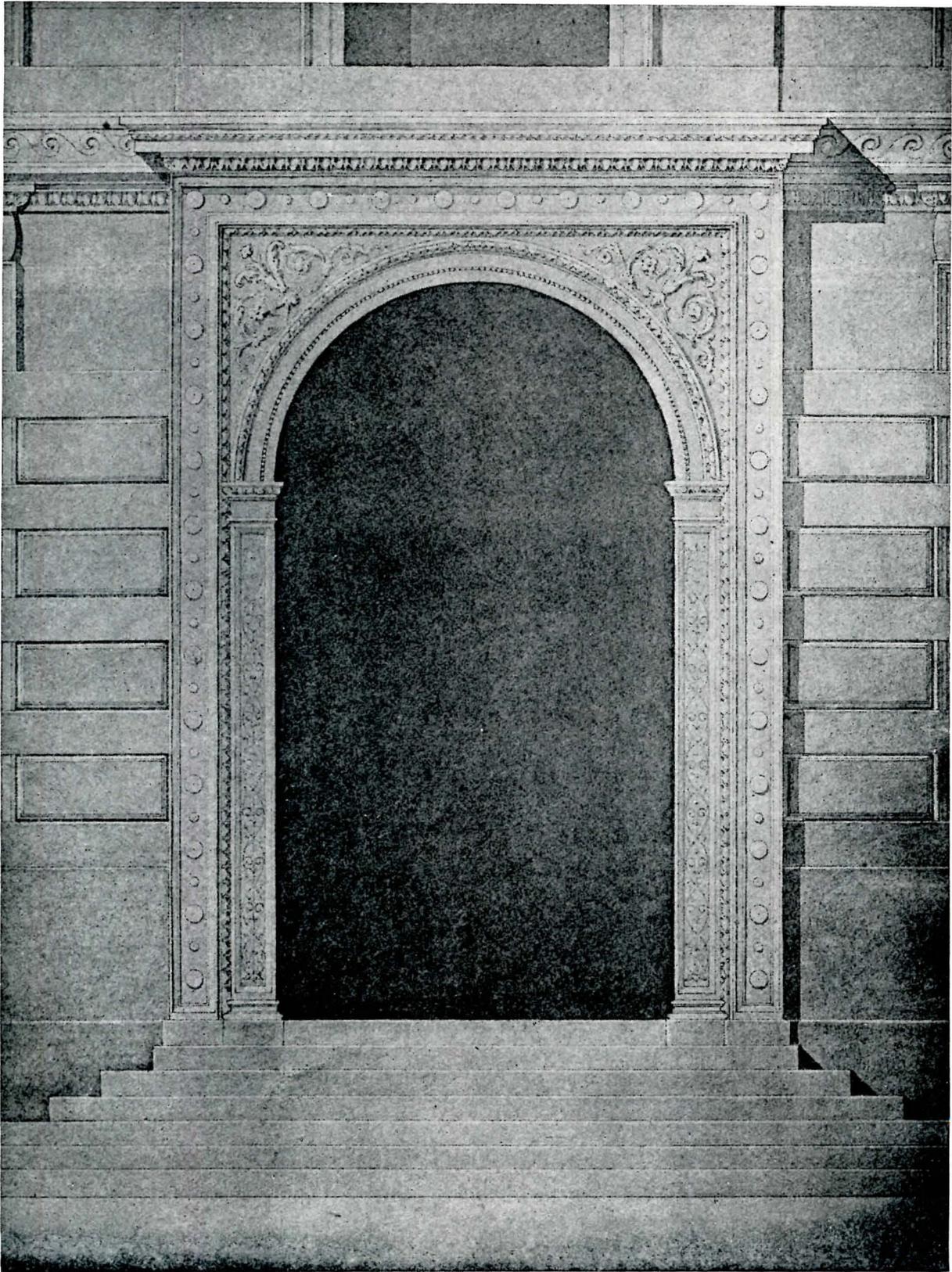


Figure 12. Doorway. Babb, Cook & Willard, Architects. Drawn by Paul Gmelin.

PENCIL POINTS

studying this drawing by Mr. Ross note the white lines between the shadows cast upon the glass by the reveals of the arches and the window frames and along the right hand side of the parts of the sash bars which are within these shadows, also along the under side of the mouldings of the arches which are within the shadows cast by the lower edge of the entablature and by the surfaces of the columns. These lines are "reflected lights." In the first case—the line between the shadow and the window frame—it is a "trick," or convention, to preserve the true effect of the connection of frame and sash bars as they would appear in viewing the building. In the case of the sash bars and the mouldings the reflected lights would be actualities, since the light reflected by the ground would be again reflected back upon the bevelled or moulded surfaces which are turned towards the ground. The direct conventional lighting is supposed to follow the angle of the diagonal of a cube. The base of the cube is assumed to be the ground line and one face to be parallel to the face of the building represented. The rays of light striking the ground are reflected; that is, they travel on, making the same angle with reference to the ground and face of cube or building, but striking in an upward sense, from the lower, near, right hand corner of the cube to the far left hand corner. The rays travelling on thus, cause reflected lights within the shadows and reflected shadows also within the shadows, but in the sense of the opposite diagonal of the cube. See Figure 11. Note that the rays of direct and reflected lights are in the same plane as regards the elevation (determined by a line of 45 degrees downward from left to right, and reflected along the same line, upward from right to left) while they are at right angles to each other with reference to the

"plan." In descriptive geometry the "elevation" is called a "vertical plane" and the "plan" is called a horizontal plane.

Study of the subject of shades and shadows is essential to conventional rendering and useful in making free renderings and sketches. This subject is simply and fully covered in Henry McGoodwin's book, "Architectural Shades and Shadows," which, until it is thoroughly mastered, should be a part of every good draftsman's equipment, like his T-square and ruling pen.

Of the paper generally used in making renderings there are different weights, varying with the size of sheet, and three different surfaces. The surfaces are known as "cold pressed," which is best for wash drawings; "hot pressed" suitable particularly for fine pencil, or ink, line drawings; and "rough" or "water-color" which is best for sketches in color. Colors which settle unevenly or in "speckles" or "pebbings," such as French and Cerulean blues, vermilion and burnt sienna, smalt, etc., flow best on the rough surfaces, while those which settle evenly such as Payne's gray, indigo, aureolin yellow and carmine, especially as simple tints, show to advantage on the smooth surface of the hot pressed papers. Surface is mainly, therefore, a matter of personal choice of effect desired in the drawing. Weight is a matter of more importance. For nearly all kinds of rendering but particularly for wash-drawings only the heaviest weight should be used. It is obtainable, as a rule, only in the largest size of sheets, "Antiquarian" which can be cut to smaller sizes. The heavy quality may be stretched on a drawing board or mounted on pulpboard or other lightweight mounting board or on a well made stretcher. Most architects have the habit of stretching the paper on

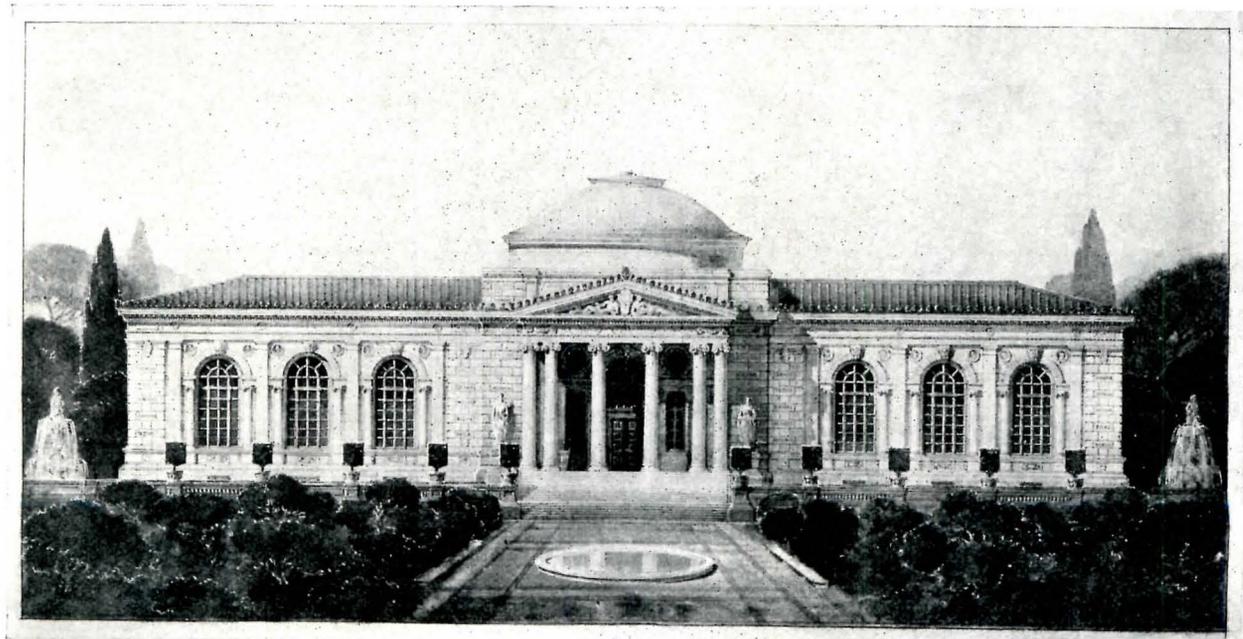


Figure 13. Competition Design for a Library, Francis S. Swales.

PENCIL POINTS

the drawing board by wetting the paper and pulling and pasting down the edges; but the writer has found the card or stretcher with the drawing paper "floated on"—that is, pasted down all over the sheet—much more convenient, especially for large wash drawings. Small sheets cut from the heavy paper may be made into blocks and will withstand many washes carrying a great deal of water without buckling. The greatest advantage of the heavy quality is that the body gives firmness to the texture of the surface. With the lighter weights the texture is partly lost by stretching, the surface is also more subject to small defects of manufacture which may be a serious damage to a fine drawing.

If the paper is mounted on a well made stretcher the usual difficulties with drawing boards are avoided. The stretcher frame should be especially made with braced and squared corners and good, straight edges, covered with properly stretched muslin tacked every two or three inches to the frame, then with a strong smooth surfaced heavy detail paper floated onto the muslin. The drawing paper is floated upon the detail paper, with thinned out drawing board paste after the latter has dried. This kind of mounting solves many minor troubles in the making of very large drawings, especially those which exceed the "antiquarian" size and require the splicing of sheets. The deckle-edge of the paper must be cut off to true edges and "square" corners and mounted with the edges parallel to those of the stretcher frame.

The advantages of the card or stretcher mounting are that the lightness of the mount permits the sheet to be tipped in any direction with the left hand, while the right is manipulating a large wash; the drawing does not have to be taken up, which involves the danger of splitting off corners, or occasionally the whole width of the sheet in cases of tightly stretched paper stuck along the edges to the drawing board; and it does not have to be remounted with the attendant risks of damage by tearing, splitting a splice, or by drops of water or daubs of paste. Good right-line work requires the use of a T-square an inch or so shorter than the length of the drawing board or strainer with a perfectly straight, true edge, for the horizontal lines; and triangles with a perfect 90 degree angle and with the vertical edge a little longer than the longest vertical line in the drawing. The best material for both is mahogany with edges of ebony which does not warp, shrink or swell, and holds tenaciously to the small screws with which the head of the T-square is fastened to the blade. The upper edge of the blade of the T-square should be at the middle of the length of the head (which is necessary for use in making perspectives). The blade of a square, thirty-six inches or more in length, should be beveled as regards its width on its lower side, varying from four or five inches at the head to only two or three inches at its outer, or right hand, end; and beveled as regards thickness at its upper, or working edge, from about $\frac{3}{16}$ inch thickness of blade to $\frac{3}{32}$ inch thickness of working edge. The head of the T-square should be about $\frac{3}{8}$ inch thick. At least five good brass screws,

with wide heads and sharp threads, placed well apart, are necessary to secure firm junction between head and plate to prevent any tendency to rotation between the two.

The beautiful, purely architectural drawing by Mr. Gemelin (Figure 12) illustrates the use of "shade lines"—lines defining edges casting shadows, and lines of "high light"—which receive the light upon their arrises, and simple treatment of graded washes to make clear the general modelling of a simple subject. The study and copying of a drawing such as this is good practice for the beginner.

The use of the "white" line—or high light—which should be left untouched by the wash in making a good finished drawing—is illustrated in Figure 13. (The original old drawing from which this figure is made, was touched up with Chinese white to draw attention to the points at which high lights were left, and the shade lines were strengthened to show in the small reproduction. This drawing, and also Figure 14, are of a kind generally used in competition designing and are of a class which is neither purely academic nor can be considered as free rendering. Conventional drawing of the architectural work is combined with more or less "conventionally-free" treatment of naturalistic surroundings.

(To Be Continued.)

THE COPPER DRAGON OF THE CHURCH OF ST. MARY-LE-BOW

THE copper dragon of the Church of St. Mary-le-Bow is now three hundred fifty years old. It was set up in 1573, during the reign of "Good Queen Bess," and from its lofty perch, 221 feet above the sidewalk, has looked down upon many historic events. Aside from its age and the historic interest that attaches to this old copper dragon there is an even stronger interest due to the present revival of the use of the weathercock on our larger buildings. The Cross of St. George is emblazoned upon the wing of the dragon. The dragon is made of sheet copper and is eight feet six inches long.

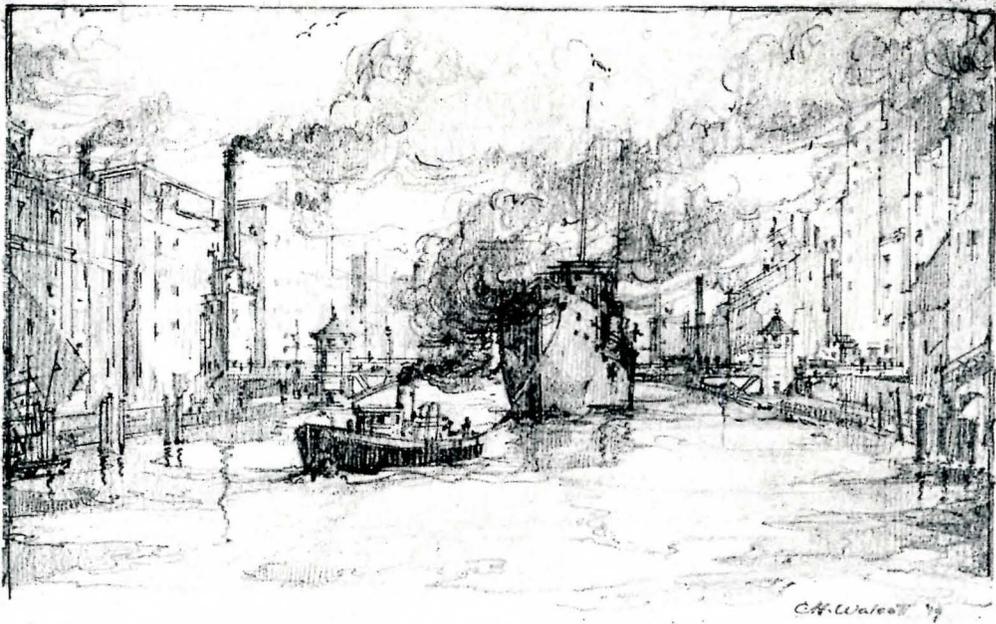




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*Pencil Rendering by H. B. Cody. Residence for Mr. Ben. R. Meyer, Beverly Hills, Cal.
Johnson, Kaufman & Coate, Architects.*

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Pencil Sketch by C. H. Walcott, Chicago, Ill.



Pencil Sketch by I. Howland Jones, Boston, Mass.

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ARCHITECTURAL DEVELOPMENT IN ROGERS. BY WILLIAM EMERSON.

Reprinted from "The Tech."

THE real problem before the Department of Architecture is how to equip its students so that they may ultimately meet the constantly broadening demands upon architects and engineers.

It is much easier to state this problem than to solve it. Even assuming that the Department knew exactly what steps to take to accomplish such an end, many physical difficulties at once present themselves. Perhaps the first and greatest of these is the question of time.

We are under the necessity of condensing our teaching effort to a period of four years—a sufficient period for such students as come to us with a college education, but a dangerously inadequate period within which to give a student coming directly from high school both a general and a professional education.

Demands of Architects' Offices.

The need to use the years at our disposal upon the essentials is thus obvious, and the successive changes that have been made in the curriculum during the last three years have all been directed towards this end. Taking up these changes seriatim, the first was an attempt to better qualify our students to meet reasonable demands from architects' offices immediately upon graduation. The practising architect naturally wants competent draftsmen in his office, but is prone to forget that such a product is the result of years of training—training to which the years at school can be applied only in part, as their purpose is to equip a man destined to be an architect and only incidentally a draftsman. In consequence, the school graduate lacks the knowledge of office procedure, of technical details, etc., that the man brought up in an office readily acquires.

In order that our students, therefore, might be of practically immediate use in an office on graduation, we have supplemented our winter course in Office Practice by a required summer course in this same subject. The time is handled and the work distributed as in an office—jobs in actual process of execution in or near Boston being followed step by step through the early stage of preliminary sketches, working drawings, details, specifications and contracts to the construction work—time sheets and responsibilities of clerk of the works or superintendent.

More Hours for Architecture.

Following the same direction and acutely conscious of the value of our fleeting minutes, we have so revised our course schedule that the prospective architect may begin his professional subjects in his freshman year—thus utilizing the full four years on Design and Drawing, and not crowding such vital subjects into the last three years. To procure time for these new freshman courses a careful elimination of all subjects not essential to the modern architect's needs was imperative. Freshman Physics and Sophomore Mathematics admittedly gave the Option I student preparation for which there was no practical application later in his professional work. These subjects have, therefore, been entirely omitted, and a consequent revision of Applied Mechanics results in the completion of Constructive Design by the end of the Junior year, leaving the Senior year free for new courses in Landscape Design, Town Planning, Architectural Humanities, and the Theory of Architecture, which, together with Modelling, fill the available hours.

This thorough overhauling of the schedule was accomplished in consultation with Professors W. H. Lawrence, E. B. Wilson, H. W. Tyler, and C. F. Fuller, after a unanimous expression of approval from twenty of the most prominent alumni.

The changes above alluded to have applied directly to the Option I students but the process of revision resulted in a clarification and differentiation of the aims of the two Options to the end that the schedule of each is more effectively designed to meet its purpose, and to place more clearly before the public the qualifications of the students who win our degree.

Rogers' Student Movement.

Other steps that the department believes have greatly helped towards the development of our students on lines that will prove useful in their later years even if not quite so directly as those referred to above, are, primarily, the creation of a vigorous department spirit. This spirit tends to cultivate self-reliance, readiness to assume responsibility, and an eagerness to co-operate with the teachers. It has found expression in the formation of a student council, the creation of the honor system, and has won recognition from the alumni in the activities of an Advisory Council, deeply interested in and keenly alive to Department needs. These needs, together with all Department activities, are now made known to graduates through a Bulletin, of which one copy is published each term; a thoroughly useful element in preparing a welcome for our yearly graduates among those who have already received positions of prominence.

In order to give our students the fullest possible benefit of their location in such a centre as Boston we have arranged active co-operation with the Harvard School of Architecture and the Boston Architectural Club where-by the work in Design of all three institutions is compared in conjunctive judgments throughout the year. Our design work is further sent to New York for judgment alongside that of all the schools of the country under the auspices of the Beaux-Arts Institute of Design.

Men Sent to New York.

One other step to familiarize the student with the more complex problems that he may meet in the future has been taken in sending those with the best records in the Senior Class of both Options to New York City for a chance to study the great building operations under construction there.

A recent movement of far reaching significance was first undertaken this year in co-operation with the Boston Society of Architects in offering cash prizes, open to undergraduates and former students of the past five years at Harvard, Technology, and the Club so as to encourage recent students to continue their study at the Schools and so that the undergraduates may benefit from contact with older and more experienced men.

In these many ways the work initiated by Professor William R. Ware, fostered by Professors Letang, Despradelle and Chandler, supported during the lean years of the war by the devotion of Professors Gardner and Lawrence, is being continued.

PENCIL POINTS



LEE ROMBOTIS

LEE ROMBOTIS, who has just won the Paris Prize of the Society of Beaux-Arts Architects, was born in St. Louis in 1899. After graduation from High School in Los Angeles he worked four years in the offices of Pierpont and Walter Davis, and of Meyer & Holler. Mr. Rombotis did problems of the Beaux-Arts Institute of Design in the atelier of the Los Angeles Architectural Club under the supervision of the patron, Fitch Haskell. Last year Mr. Rombotis took a special course at the University of Pennsylvania. Mr. Rombotis feels that the instruction and guidance he received from Paul Cret has been of special value to him. He will leave for Paris the latter part of September.

PRELIMINARY EDUCATION

BELOW we print an excellent letter which is being sent out by Carl F. Gould of Bebb & Gould, architects, and Professor in Charge of the Department of Architecture of the University of Washington, Seattle; in response to the many requests he has received for advice as to the essentials of an education for boys in grade and high schools who expect later to take up the study of architecture:

"Your letter of March 12th received, asking me what I think is the best definite plan to follow for the study of architecture. There are two fundamental traits requisite for a man who hopes to be successful in the field of architecture. He must, primarily, have an artistic angle toward life; and, secondly, he must have a good keen mind and be a thinker relating to matters concerning construction.

"In the first case, you should take every opportunity to draw. There are three general ways for drawing which will be of advantage to you. First, freehand drawing, in which you should acquire skill in being able to represent a physical fact set before you with accuracy and precision as to its mass, its outline, its shades and shadows. In this work, usually, a symmetrical object is advisable—a telephone, a vase, geometrical forms such as pyramids, cylinders, cubes, etc. I would advise carrying

in your pocket a sketch book and at every opportunity make sketches of doorways, windows, gables, cornices, modillions, etc.

"Secondly, to make imaginative drawings is important. Think upon what should be an ideal bedroom plan, an ideal bathroom, an ideal dog kennel, chicken coop, boat house, etc., and make sketches in your sketch book representing varieties in plan as well as in perspective elevation of the ideas that come to you. In this process do a lot of thinking and not as much drawing, and use your drawing as a basis for developing your further thinking.

"The third method for drawing is to look at something—the outline of a building, a boat, a cornice detail—and without looking at it again remember what you have seen and see how accurately you can reproduce it from memory. This exercise is very important and a good test of your capacity for eventually becoming an architect.

"I would advise you to subscribe to PENCIL POINTS, and read every article. I would advise that you visit the art department of the Seattle public library, look over the current art and architectural magazines; visit buildings in process of construction, obtain a copy of the plans for such buildings and study same.

"Now as to the work you would take in school, I would say that a general education would be necessary, the more of it the better, but in particular take courses in history, know something about your classics; you should be able to read Latin or Greek, particularly Virgil; some of the modern languages, particularly French, and learn to speak it. You should take courses given in drawing, especially those that take up freehand and color work, and decorative composition. From the point of view of construction—geometry, plane and solid, is very necessary. Of course, arithmetic and algebra are fundamental, and a short course in physics and chemistry is very desirable.

"I would advise getting acquainted with an architect or a draftsman in an architect's office, especially those architects who are members of the American Institute of Architects. Every city has its local Chapter. Unless you aim high in undertaking the profession, there are too many in it and you had better become a carpenter or a stone mason. In your summer vacations, it would be a good idea to work on buildings in course of construction, and in any capacity, taking every opportunity to familiarize yourself with the plans of the building on which you are working. In this way you may find yourself very useful to the contractor and helpful after a summer's experience in laying out work. If there are surveyors on the job, obtain a little experience in running a surveyor's instrument.

"When the proper time comes a certain amount of knowledge of office management is necessary, the filing of plans, tracing full-size details, and bookkeeping might be of use in helping you to obtain your first job in an architect's office.

"All of those phases requisite to become an architect who can properly serve his community may seem at first reading beyond the capacity of an individual. However, if one works slowly and persistently toward such an ideal, there is no doubt but he may obtain success. It is not beyond the capacity of a man who cherishes a sincere desire to make the structures in his community not only of more sound construction but more beautiful in aspect.

"After leaving your elementary instruction there are several schools of architecture in this country such as the University of Washington's Department of Architecture. Both Boston Tech and the University of Pennsylvania are schools which we most highly recommend; and there is now a summer school in Fontainebleau, France, for American Architect Students, for which I am now endeavoring to obtain a scholarship for some senior student at the University of Washington.

"I wish you all success.

Very truly yours

CARL F. GOULD,

Firm of Bebb & Gould.

Professor in Charge of Dept. of Architecture, University of Seattle, Washington.

"P. S.—I neglected to mention the importance of modeling and descriptive geometry."

PENCIL POINTS

AMERICAN ACADEMY IN ROME

FROM a letter received by Grant C. La Farge, Secretary of the American Academy in Rome from Frank P. Fairbanks, Acting Director, we quote the following items of news:

This is the month when the exodus for travel begins at the Academy and the time when the contemporary National Academies in Rome hold their annual exhibitions. The Italian government held recently an exhibition of its prize men's work in the Campidoglio. Both the French Academy and the British School were strong in draftsmanship, especially the latter where an evident influence of Augustus John seemed to prevail. The French Academy showed painting and sculpture mostly. Only two architectural drawings were hung. The French never seem to send any technical fumlbers to Rome. They apparently prefer men with a good solid groundwork of ability to handle the tools of their craft rather than to place their confidence in painters of promise or taste, unfortified with the grammar of their trade. The British students are in several cases very remarkable in their figure indications, especially their first year probationer. They have a system that might be adopted to advantage by the American Academy of sending a man out to Rome for a year and awarding him two additional years if he proves by his accomplishments worthy of the honor.

On the 3rd of June Mr. Edwin H. Blashfield arrived in Rome for a more leisurely visit than heretofore. He has seen the work of most of the men and given very generously of his encouragement and counsel. The Fellows gave a dinner in his honor on the 18th just before he left for a trip to a number of hill towns that were new to him.

The Academy made its annual visit to the Villa Albani at the beginning of the month, when Prof. Amelung talked on the sculpture collection at some length. Week-end excursions to the Villa Catena, Nemi, Albani, Tivoli and other interesting sites have become a habit with some of the men. Prof. Faulkner, Prof. Curtis, and Lascari participating quite regularly.

Prof. Showerman, Prof. Van Buren and Prof. Curtis are travelling, the former in Dalmatia, the latter two are away for the rest of the Summer. Prof. Van Buren is in England and Prof. Curtis touring Switzerland, Germany, Belgium and France.

Prof. Faulkner is well advanced with his part of the Memorial for Thrasher and Ward, having almost completed the fresco in the west aisle of the cortile. He starts at sunrise and stays with his work through most of the day in order to take advantage of the wet plaster.

Mr. Walter Damrosch has been in Rome for a week or more and has quite thoroughly gone over, with Professor Lamond, the work of the Music Department. He is to produce Hanson's Symphonic poem, "North and West," in New York next season.

J. K. Smith, our senior architect, is taking a few days to visit some hill towns. He has been keeping a group of drawings going on the Villa Catena, some full size details of notes made during his travels, besides color studies and renderings of other subjects. He has found it necessary to have one or more assistants in his duties all the time.

Hafner, second year architect, has concluded his article on the restoration of the Basilica of Constantine, which he has worked on in cooperation with Miss Franklin, Classical Fellow, and it is now ready for the press.

Henri Marceau, first year architect, has at last "sold" his ideas on the restoration of the Temple of Concord to his collaborating archaeologists, Prof. Frank, and Dr. Robert, Visiting Classical Student, so that he has been able to carry forward his drawings considerably. He is to travel for two months and then render his drawings in September, when he returns.

Cecere, third year sculptor, has finished all of his required work and is now developing a low relief in marble.

Amateis, second year sculptor, has nearly finished his Renaissance Madonna and Child in its architectural setting, and is carrying on a single figure in the round, to

replace his figure of last year, which is unsatisfactory to him.

Stevens, first year sculptor, is developing his required figure—a standing symbolical figure of youth and energy.

Ciampaglia, third year painter, has his required work well in hand and is working on a new composition of a decorative group of three figures.

Schwarz, second year painter, in much better health than for some time, has just returned from a few weeks of travel in the north of Italy.

Floegel, first year painter, has his first year composition ready for his canvas and has been copying two of the Muses by Spagno in the Museum of the Conservatore on the Capitoline.

Leo Sowerby and Randall Thompson, composers, have both left Rome for the Summer, each to travel for six months.

ARTHUR F. DEAM

ARTHUR F. DEAM who has been awarded the Rome Prize in architecture was born in Springfield, Ohio, in 1895. He attended Wittenberg College one year (1912-13), entered Ohio State University in 1914 as an Architectural Engineering student, and later transferred to the architectural course.

Mr. Deam enlisted in the Navy in 1917, was in the service seventeen months and was discharged with deck officer's rank, ensign. He worked in New York City, 1919 and 1920, designing suburban houses and selling Westchester and Long Island real estate. He returned to Columbus, Ohio, in January, 1921, and graduated in June, 1921, as Bachelor of Architecture. Mr. Deam was employed for a year and a half by Howard Dwight Smith in a general architectural practice, including plans for Ohio Stadium and Columbus School's.

Mr. Deam entered Columbia University in September, 1922, and graduated this year with the degree of Bachelor of Architecture. During the school year he was employed in the offices of Helmle & Corbett.



A. F. Deam

PENCIL POINTS

THE USE OF KEY STENCILS IN MURAL DECORATION

(Continued from page 41)

cepting where the glue is. The varnish is allowed to stand a few minutes then the surface is well wiped with a cloth. The varnish sinks into the pipe clay but wipes off clean from the outlines in glue. Cheesecloth is good to use in wiping the varnish.

When the varnish has dried until it is solid, the glue is washed out with hot water and a cloth, from both sides. All of the pipe clay must be washed out of the mesh of the fabric where the outlines are or paint won't go through when one comes to use the stencil. When dry the stencil will be ready.

The canvas upon which the outline is to be stencilled is laid on the floor, and the stencil placed on top of it. The paint should be in a pan and should be scrubbed through the stencil with a scrubbing brush. The paint should be water color such as is used by painters in decorating walls. Oil paint mixed with poppy seed oil will work but tends to clog. Oil paint mixed with linseed oil will not work with stencils of this kind.

The stencil is then lifted off and the paint allowed to dry. In the case of the decorations at Clover Gardens, the canvas was given a coat of varnish after the stencilling to bind the outlines, then the colors were painted in in oil paint.

SAN FRANCISCO ARCHITECTURAL CLUB

FROM a letter received from the San Francisco Architectural Club we print the following items: Supervisor Jas. B. McSheehy will address the Club at its meeting of August 1st on the progress made and the work recently completed at Hetch Hetchy by the City of San Francisco, and the consequent advantages to the residents of this City. Hetch Hetchy is where the now famous O'Shaunnessy Dam, one of the world's largest, has recently been dedicated. The completion of this dam has formed a lake some twenty miles in length by three to four miles in width where before existed only a mountain gorge through which flowed the Tuolumne River. The waters thus stored will be used as a never-ceasing contribution to our present power, light, and water needs, and those of San Francisco's generations to come. An address by one so familiar with his subject as Supervisor McSheehy is eagerly looked forward to by the members.

The annual prizes given by the Club for Atelier work were awarded on July 20th. Harry Langley was the recipient of the prize for the *Projet*, and Lowell E. Bowen for the *Analytique*. The jury making the awards was composed of Edward Fricke, Ernest E. Weihe, Edward Flanders, Henry Howard, and John B. McCool. This annual prize by the Club has been very effective in creating greater interest and incentive in the class to put their best efforts into their work, and has also helped in keeping the class number up to its present standard.

At the Directors' Meeting held on July 26th, it was decided to give a banquet on September 28th to commemorate the 21st Anniversary of the founding of the Club. While plans are yet in process of formulation, it is proposed that all Charter Members of the Club who can attend shall be the Honored Guests of the evening, and presented with a certificate entitling them to Life Membership. The Entertainment Committee, headed by Wilton Smith, are now working out the final details, and announcement thereof will be made in due time.

Lawrence H. Keyser was elected Treasurer for the ensuing year at the last business meeting, taking over the duties of the office so efficiently handled by John A. Peterson during the past two years. Upon his retirement, Mr. Peterson was given a warm vote of thanks by the Club for his good work in its behalf. Although no longer an officer, "Pete" will not soon be able to break himself of his habit of working for the interests of the Club. He is

so constituted that his good habits grow stronger with the passage of time.

William Rowe and J. B. McCool were elected at the same meeting to fill the places in the Board of Directors vacated by the retirement of Directors Lloyd Cole and Harold W. Weeks. The retiring Directors were likewise commended for their good services while members of the Board.

The Officers of the Club for the coming year are as follows: President, Mark T. Jorgensen; Vice-President, Edgar B. Hurt; Secretary, Carl R. Schmidts; Treasurer, Lawrence H. Keyser; Directors, Felix Raynaud, William Rowe, and John B. McCool.

A plan is under way to form a Free-hand Drawing Class among Club Members, and John H. Geering has been appointed as the Committee to work out the necessary details. A goodly number of signatures have already been obtained to the list of those desiring to participate.

The Paraffine Companies, Inc., have extended a very cordial invitation to the club members to pay a visit to their factories at Emeryville, where they now have one of the most modern and complete roofing plants. The date has not yet been decided upon, but will be shortly after the Club Meeting of August first.

AWARDS IN PARIS PRIZE COMPETITION

THE Committee of the Society of Beaux-Arts Architects for the Paris Prize, of which H. Oothout Milliken is Chairman, have announced the following awards: Placed First and First Medal, Lee Rombotis, University of Pennsylvania, Philadelphia, Pa.; Placed Second and First Medal, Harry K. Bieg, Armour Institute of Technology, Chicago, Ill.; Placed Third and Second Medal, I. Jerry Loeb, Armour Institute of Technology, Chicago, Ill.; Hors Concours, H. Banks Thomas, Sr., Atelier Hiron, New York City; Hors Concours, Rudolph De Ghetto, Atelier Hiron, New York City.

The judgment took place July 17. The subject was, "An Office and Reception Building for the President of the United States."

The Jury of Awards consisted of the following: James Gamble Rogers, Raymond M. Hood, Joseph Howland Hunt, John M. Howells, J. Otis Post, Whitney Warren, Benjamin W. Morris, Henry Bacon, Charles A. Platt, M. B. Medary of Philadelphia, Benno Jansson of Pittsburgh, G. A. Lansburgh of San Francisco, and H. Oothout Milliken, Chairman.

REMODELLING HOTELS

THE issue of *Hotel Management* for August contains a very interesting installment of a serial article that is appearing in that magazine under the title, "Will It Pay Me to Remodel?" The August installment relates to the renovation of the exterior of old hotels to give them an attractive appearance to the public. This article is by Robert D. Blackman, of the Hotel San Remo, New York City, and it describes Mr. Blackman's experiences in renovating and remodelling the outside of the San Remo. It also shows, as an example of renovating, the Hotel Lenroy, a small hotel which has been made over and, it is reported, is now feeding four thousand business people every day. This business development is undoubtedly due largely to the attractive treatment of the exterior.

This article and others giving the hotel man's viewpoint and the results of practical experience in operating hotels are well worth reading for they help the architect to a successful solution of hotel problems, and suggest possibilities in the remodelling of hotels throughout the country, that need only to be brought up to date in order to attract a profitable business. *Hotel Management* is published by The Ahrens Publishing Company, Inc., 342 Madison Avenue, New York City.

PENCIL POINTS

CRAFTSMANSHIP AND ARTISTRY

SOME interesting questions on a matter directly affecting the carrying out of architectural work of merit are raised in a letter recently sent out as the result of conferences on Industrial or Applied Arts in America which were called by the Newark Museum Association and held last winter in the Public Library of Newark, N. J., of which John Cotton Dana is director.

From this circular letter of inquiry we quote the following:

"Skilful hands and originating minds have been coming to this country for nearly 300 years. For the purposes of this inquiry, 'skilful hands' here means trained craftsmen and 'originating minds' means designers of form and decoration, who are, in no small degree, inventors.

"Our open door of opportunity has led many thousands of these artists and craftsmen to come to us.

"Yet we are told now, after centuries of immigration, that we sadly need in work of scores of kinds, from brick and terra cotta making to the designing of shoes, the skilful hands and originating minds which once came to us so abundantly.

"The chief reasons for this are two: Our country is not now as inviting to the trained worker and the studious artist as it once was, so the one-time stream of these workers and artists has almost ceased to flow; and, as those who came have grown old and died, their places have not been taken by a native product, for the reason that the American boy drifts inevitably into more profitable things than craftsmanship and artistry.

"And this leads to a question, whose answer as here given is one of the immediate incentives for this letter:

"Why do American boys turn from craftsmanship and artistry? Because neither pays well. By 'pay' is meant here not only a fair living wage; but also, and most particularly, that general recognition, that unspoken title of honor, by which alone can be adequately paid those who are born to excel in fine work of hand and brain, done with tools, or with brush and pencil.

"And the inquiry which this letter carries to organizations, individuals, shops, stores, etc., is this: Have you in your community any groups of persons, organized for whatsoever purpose, for social pleasure, for self-education, for the city's improvement, for religious development, or what not,—any organization which may be willing to say publicly that they wish to honor men of high skill of hand or good power of design?

"Have you in your city organizations which would, in your opinion, make such a declaration if it were suggested to them that they do so? * * * * *

"We believe that the buying public can be moved to look with unbiased eyes on the products of American factories and to take pleasure and pride in the fact that those products are from skilled hands and artists' brains of men and women who have been taught in our own schools, and trained in our own studios and shops.

Anyone who wishes to express an interest in this movement or any organization that wishes to endorse the principle for which it stands should address Margaret Coult, Newark Museum Association, Newark, N. J.

WILLIAM HOLABIRD

WILLIAM HOLABIRD, senior member of the firm of Holabird & Roche, died at his home, 1500 Oak Avenue, Evanston, Illinois, at noon on July 19th, after a long period of illness.

The death of Mr. Holabird marks the passing of another one of the great pioneer builders of Chicago's history. He ranked among the foremost architects of the country and was recognized as a pioneer in the designing of buildings of skeleton type which have revolutionized the building industry, not only in Chicago, but throughout the world. It is said that the Tacoma Building, Madison

and LaSalle Streets, was the first building of this type constructed in this country. The Chicago Temple Building at Clark and Washington Streets, is the last of this type designed under Mr. Holabird's direction, both buildings being in Chicago.

Mr. Holabird seems to have been the first to use the sub-basement space in Chicago. The Chicago Tribune Building, at the corner of Madison and Dearborn Streets, is said to have been the first building in Chicago to utilize this basement space.

Mr. Holabird was born in New York State, September 11, 1854. After graduating from the high school in St. Paul, Minnesota, he entered West Point in 1873, and remained there two years. Coming to Chicago, he entered the office of W. L. B. Jenney and remained there a number of years before organizing the firm of Holabird & Roche.

Mr. Holabird was a member of the University, Chicago, Union-League, Mid-Day, City and Glenview Golf Clubs. He was also a member of the Loyal Legion and was a Knight Templar in the Evanston Commandery.

The firm has to its credit a long list of great public and mercantile structures designed under the direction of Mr. Holabird. Among many others are the University Club, Cook County Building and City Hall, McCormick Building and other office buildings, Hotel LaSalle, Sherman House and other hotels all of Chicago; Grant Park and University of Illinois Stadium.

Mr. Holabird is survived by his widow, Mrs. Marie Augur Holabird, his son, Colonel John A. Holabird, his daughters, Mrs. William Cruikshank and Mrs. John D. Towne.

The funeral was held from his late home, Saturday at 10:30 A. M., July 21st, and interment was at Graceland Cemetery, Chicago.

WILLIAM HENRY KEENAN

WILLIAM HENRY KEENAN, President of the National Slate Association, died July 20. It was Mr. Keenan who offered the resolution on April 20, 1922, that made The National Slate Association a practical possibility and during the time he served as President he worked earnestly with the others in the industry for the development of a stronger "industry consciousness" and for co-operation for the extension of service to the public and the good of the slate industry. Mr. Keenan was highly esteemed by his business associates, as is shown by their choice of him as head of their newly-formed association and by their approval of the constructive work in which he took the lead from the time of his election to the office of President of the Association until his death.

Mr. Keenan was born in Rutland County, Vermont, and had an understanding of the viewpoint of the two major producing sections of the industry. He had been actively engaged in every branch of the slate industry.

Mr. Keenan had apparently almost recovered from an appendicitis operation when he succumbed to an acute heart attack. The funeral was held at the home of Philip Keenan in Bangor, Maine, July 24, Mr. Keenan's fifty-sixth birthday.

PERSONALS

HAROLD THORP CARSWELL, of Walker and Carswell, Architects, has opened an office at Room 1101, Jefferson Building, 1015 Chestnut Street, Philadelphia.

G. E. McDONALD, SR., G. E. McDONALD, JR., AND CHAS. T. McDONALD have formed a firm under the name of McDonald, McDonald & McDonald, Architects and Engineers, with offices at 902 Denton Building, Cincinnati, Ohio, and 67 East Eighth Avenue, Columbus, Ohio.

ARTHUR T. REMICK, Architect, has removed his offices to 47 West 43rd Street, New York.

PENCIL POINTS

CROSS REFERENCES

WE HAVE received a letter from A. M. Allen, Balboa, Canal Zone, from which we print the following extracts:

"I was much interested in the articles on specification writing; read nearly every one of them. * * * I was somewhat surprised that none of the writers seemed to emphasize the value of cross references in specification writing.

"My experience has been that cross references on all subjects that affect more than one branch of the specifications are not only of valuable assistance to the superintendent carrying out the work but greatly reduce the chances for dispute as to the true intent and meaning of the specifications, thus cutting down the chances for claims for extras.

"I should like to know what some of the specification writers in the big offices think on this subject."

THE ENGINEERS AND ARCHITECTS CLUB OF LOUISVILLE, KY.

AT OUR request the Secretary of the Engineers and Architects Club of Louisville, Ky., Mr. George W. Hubley, has supplied us with the following information and news about the Club:

"The Engineers and Architects Club of Louisville was organized in 1891, its purpose being 'the professional improvement of its members, the encouragement of social intercourse among engineers and architects, and the advancement of Engineering and Architecture in all their branches.'

"The Club has the distinction of being the oldest of its kind in the State, being one of the few in the country in which engineers and architects are affiliated. The membership is divided into active, associate, junior and non-resident members. The roster for 1923 has a total of 250 names on it.

"The annual meeting of the Engineers and Architects Club is always held in January. Regular monthly meetings are held every third Tuesday excepting the months of July and August.

"Due to the activity of the Papers and Entertainment Committee the Club has been fortunate in having subjects of vital interest presented during the past few months. In February, Major General Wm. Sibert explained the technical details of the City of Louisville's plan for the utilization of the Ohio River Falls for power development. General Sibert's talk was the first specific report made of the plans formulated and contained figures of the engineering project.

"In March the Possibilities of Grade Elimination as Applied to the Louisville & Nashville Railroad was dis-

cussed. The principal speaker was W. H. Courtenay, Chief Engineer of the L. & N. R. R. Mr. Courtenay discussed the cost, the time, and other difficulties which would have to be overcome before grade crossings could be eliminated. The Civic Section of the March meeting was handled by E. A. Jonas, prominent newspaper man, whose subject was City Planning. Wit and humor predominated in Mr. Jonas' talk.

"The programs for the April and May meetings offered subjects of consequence to both the architect and engineer. On June 19th the Engineers and Architects Club held its last meeting until September."

THE MAKING OF WORKING DRAWINGS

(Continued from page 32)

arrival at final results are seen. The plan is carefully figured, electric outlets shown, and many other definite indications noted. It is well-presented drawing, especially for a house of the smaller size.

If drawings for smaller work, as illustrated by Figure 6, Figure 7 and Figure 8 were studied and developed in a similar way, the best designs would be the result, with the least amount of drafting labor and cost. Very little intermediate study from the first studies to the finished working drawings is necessary, to accomplish good results. Of course, a great deal depends upon conditions involved.

Dare it be said that if more of our ordinary dwellings, especially of the smaller type, were studied in this way, better results would be had, and not merely "a somewhere to live," but individual homes would be obtained.

Rows and rows of cheap buildings are erected by speculators and others, with no thought of design. Cheap prints are bought for a song, and many buildings erected from the same prints. So called standard houses are plentiful in the market, and advertised under the names of "Bide A Wee," etc., costing \$12,000 or upwards, "to be bought at your own terms," etc. Glowing and glittering "Moving Picture Houses" spring up over night, shrieking with giddiness, and not much better than the side shows of the circus.

In most cities, the building rules prevent dangerous construction and the larger cities have perhaps a larger proportion of well trained architects whose work is good.

Let not the words regarding carelessly designed and cheaply erected buildings throughout the country be misunderstood. They are not intended in a critical way, but as a plea that everyone engaged in the art and science of building construction use the gifts with which he is endowed, to unite in beautifying our buildings.

We are proud of our Nation.

Therefore let the Nation be proud of our work.



*Pen-and-Ink Rendering by F. Patterson of a Design for a Country House
William Patterson, Architect*

THE SPECIFICATION DESK

A Department for Specification Writers

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 are printing this set of specifications in order that they may be criticised by our readers. Last month we printed the fifth installment and in this issue we continue. 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 criticise 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 another portion of the specifications—let's have your criticism.

PAINTING AND GLAZING:

(Continued)

This contractor is to submit samples of finished woods to the architect for him to make selection of colors, of stains, fillers, paints, etc., as the case may be, and get approval of color, etc., in writing before proceeding with the work.

The various rooms, halls and interior finish will be finished according to their respective classification as set forth on drawings and in those specifications giving the different finishes for the different rooms.

All exterior pine woodwork to receive one prime coat and two after coats, making three coats in all of ——— pure lead and pure linseed oil paints applied separately, allowing each coat to thoroughly dry before the additional coat is put on (Exterior of exterior doors to receive four coats with a good proportion of R—— enamel in last coat.)

Tin, galvanized iron and other metal work will receive one coat of the above paint on top of the priming and second coat that will be put on by the metal contractor.

PORCH CEILINGS:

Ceiling of side entrance and kitchen porch shall receive one coat of water stain, lightly rubbed with sandpaper, then apply two coats of ——— "A" varnish.

STAINED BIRCH WOODWORK:

All birch woodwork that is stained mahogany will first receive one coat of acid stain, sanded lightly when dry, then apply one coat of mahogany paste filler, one coat of shellac lightly sandpapered and two coats of ——— "A" varnish, the first coat being rubbed with hair cloth and the finishing coat rubbed to an egg shell gloss.

POPLAR PAINTED WOODWORK AT FIRST AND SECOND STORIES:

Poplar painted woodwork as above mentioned shall receive one prime coat of oil and turpentine in equal proportions, then one coat of white shellac which will be lightly sandpapered, then four coats of white lead and zinc, reducing the white lead in each additional coat, then apply one coat of R—— enamel of desired tint, and a final coat of above Co.'s dull gloss enamel. The above

work to be left in a dull gloss finish free from runs and brush marks.

CYPRESS STAINED WOODWORK:

Cypress stained woodwork will be burnt and scratched, then apply one coat of stain of desired shade which will be lightly rubbed, then apply one coat of white lead which shall be allowed to dry for fifteen minutes after which it will be wiped off the surface, then allow it to dry twenty-four hours, then apply one coat of wax rubbing same to a dull gloss.

YELLOW PINE WOODWORK:

Yellow pine woodwork at kitchen, pantry and cold room shall receive one coat of shellac, one coat of ——— "A" varnish and two coats of ——— spar varnish rubbed between coats, the last coat being left in a high gloss. Yellow pine woodwork in attic and back stair hall shall receive one coat of Dutch brown water stain, one coat of shellac and one coat of dull varnish. Yellow pine woodwork at servants' stairways to receive one coat of Dutch brown water stain, one coat of shellac and two coats of ——— "A" varnish left in a high gloss.

MANTELS:

Living room and den mantels will be finished similar to other woodwork in the above rooms. Dining room and all bed room mantels will be furnished and installed at the building under a separate contract. Said mantel will have prime coat only and they shall be finished by the contractor similar to the rooms in which they occur.

BASEMENT WOODWORK:

Basement woodwork shall receive two coats of oil paint of color as directed.

CLOSETS, ETC.:

Closets will be finished similar to the rooms off of which they occur.

MEDICINE CLOSETS:

Interior of medicine closets in second story bath rooms to be finished similar to other woodwork.

BRANDS OF PAINT, FILLERS, ETC.:

All paints to be made up of best colors, ——— white leads, linseed oils, etc. Fillers to be ——— paste filler. Stains and varnishes to be ——— make. Enamels, to be ——— make. No substitution will be allowed.

GLAZING:

All basement sash to be glazed with moss obscure glass, the rough side of glass being on the outside. All sash at first and second stories and the entire attic shall be glazed with AADS American glass. All interior doors and exterior doors where glass is shown or marked shall be glazed with AADS American glass. Transoms to be glazed similar to the doors over which they occur. Where obscure glass is called for on drawings count on moss pattern. Such cupboard doors where glass panels are marked on drawings to be glazed with AADS American glass. This contractor will furnish best commercial quality mirrors in medicine closet doors and at such bed room doors as marked on plans, said mirrors will be held in place with wood moulds. This contractor will refer to drawings and door specifications so as to ascertain where wood moulds are used to hold glass in place. All the above glass except where wood moulds are called for to be well bedded, tacked and back puttied in place and left whole upon completion of the building.

It is the intention for this contractor to furnish all glass required in the building excepting where leaded glass is called for.