

## GOOD PRACTICE IN CONSTRUCTION

ON THIS page last month we printed an appreciation of a book on the æsthetic side of architecture, now we want to tell our readers the inside story of the making of a book on a quite different side of architectural work—"Good Practice in Construction" by Philip G. Knobloch.

For the past year and a little more, Mr. Knobloch, with the co-operation of a group of architects and specialists on materials and methods, has been working on a set of plates of details of construction with the purpose of producing a set of drawings representative of good practice in present-day building construction.

That the method of preparing this work seems to be unique, is a matter of importance, only because this method was developed as the logical procedure, —not a following of the customary formula, but a simple, direct attack upon the problem.

It seemed clear that if a book was to represent good present-day practice, the material should be drawn from the files of architects' drawings of buildings that have been actually constructed in the last few years.

It seemed equally clear that to be of the widest usefulness the plates should not represent the peculiarities due to the special conditions present in the case of any one building.

Accordingly a number of architects were asked to give the needed assistance, including some of the most important firms in the country, and Mr. Knobloch set to work selecting drawings to form the basis of his work. With these in hand, his next step was to combine features from the work of different offices wherever this would produce a detail that would be more sound, economical, workmanlike or better in any other way. The shop drawings, which had been borrowed when ever available, were also made to contribute their share in many cases. All this brought into play Mr. Knobloch's knowledge and judgment gained through his experience on the job, as well as in the drafting room.

When the sheets had been drawn in pencil the work of criticism began. Men who because of their long connection with some one class of material or type of construction were especially well equipped to spot anything not in accord with the best practice in their own field were called upon to examine the drawings and make criticisms and suggestions. These criticisms were weighed, one against another,

harmonized and made use of by Mr. Knobloch in perfecting the details shown.

In order that a fresh eye and mind might go over the whole set of plates, Mr. Knobloch next submitted them for thorough examination to a colleague of unusually wide experience and keenness.

Finally, after the drawings were inked in ready to be engraved, they were turned over to Mr. Thomas Hastings, who had taken a lively interest in the project throughout. Under his personal direction the complete set was examined by the best qualified men of the staff of Carrere and Hastings. Mr. Hastings, enthusiastic about the work and, as always, ready to do anything possible to advance architectural education and practice, then consented to write a preface to Mr. Knobloch's book.

The plates are now being engraved, the printing will soon begin and in a few weeks this, the second volume of THE PENCIL POINTS LIBRARY, will be on the market. That it will be equal in value in its own way to Mr. Guphill's successful book, which was the first of the set to be issued, we are sure.

It will contain fifty-two plates, 9 x 12 in., comprising between two and three hundred subjects covering a wide range of building practice. One of the plates is printed on page 37 of this issue. The plates will be printed on heavy paper on a gray tone background, and there will be a complete index for ready reference. We believe that its usefulness will give this work a place in every drafting room.

## TRAVELLING EXHIBITION.

THE exhibition of sketches selected from among those submitted in the Birch Burdette Long Sketch Competition for 1922 will be sent on the road as a travelling exhibition shortly after the showing at the rooms of the Architectural League of New York. A large number of requests have already been received from architectural clubs and educational institutions in various parts of the country for the loan of this travelling exhibition. As the schedule has not been completely made up, applications can still be considered. Last year's travelling exhibition went from coast to coast. After leaving the Architectural League of New York, it went to the Massachusetts Institute of Technology, Boston, closed with an exhibition at the San Francisco Architectural Club about six months later.



PENCIL POINTS



*Pencil Sketch by Louis C. Rosenberg, New York City. Winner of the First Prize in The Birch Burdette Long Sketch Competition for 1922.*

# THE BIRCH BURDETTE LONG SKETCH COMPETITION FOR 1922

**T**HE jury of award for the Birch Burdette Long Sketch Competition for 1922, conducted by PENCIL POINTS, met on November 13th at the rooms of the Architectural League of New York, in the Fine Arts Building, New York City, and awarded the prizes, aggregating \$250, donated by Mr. Birch Burdette Long. The members of the Jury of Award were as follows: Mr. Cass Gilbert, Mr. Alexander Trowbridge, Mr. Raymond M. Hood, Mr. Birch Burdette Long and Mr. Eugene Clute.

Hundreds of sketches were received from all parts of this country, from Canada, and from several foreign countries. There were even some from Shanghai, China. The general grade of entries this year was notably higher than in last year's competition.

In this issue are reproduced sketches by the winners of the first, second, third and fourth prizes, and by the winners of the six prizes of the fifth grade as well. As a number of these sketches are either in water color or contain touches of color, and as they have had to be shown at reduced size, an imperfect idea of them is unavoidably conveyed in some instances. Many of the sketches awarded prizes were not well adapted to reproduction.

An exhibition of sketches selected from among those entered in this competition opened for one week at the rooms of the Architectural League of New York, on the evening of Thursday, November 23. This exhibition will be sent on the road as a travelling exhibition, as was done last year.

## Report of the Jury

The jury takes this opportunity to congratulate PENCIL POINTS upon the admirable showing made in this competition. Two hundred and eighty-one drawings were submitted by one hundred and sixteen competitors. A great majority of these drawings are of special merit, both from the standpoint of the program and as architectural renderings, keeping in mind always that the announced purpose of this competition is to stimulate an interest in sketching, more particularly among draftsmen and students. The subjects are of the most varied character. The competitors are from five different countries, including China, Scotland, England and Italy, and from various parts of the United States.

The jury has found the usual difficulty in comparing drawings of different size and method of rendering, but has endeavored to adhere very closely to the evident intention of the program and of the donor of the prizes.

The jury notes with particular interest the very high excellence shown by those who have chosen to render their drawings in pencil. The rare and colorful qualities and the admirable draftsmanship dis-

played in this medium are in some instances worthy of high commendation.

It is encouraging to note the entrance into this competition of comparatively inexperienced draftsmen and illustrators, both men and women. We feel that this spirit of endeavor should be encouraged, and in many cases the jury has found evidences of artistic impulse and conception in the choice of subjects and in the expression of that choice, even where there is a serious lack of technical excellence, and it feels that such competitors should be encouraged to continue, for they will undoubtedly, with more experience, achieve excellent results.

The jury bears in mind that this is a competition of sketches from the object, not formal drawings, but such drawings or sketches as are made with the free-hand and a seeing eye.

It has given weight to those drawings which appear to show a sense of value in perspective and in the expression of the planes of the picture as well as values more expressly called for in the program. The ability to see accurately, to grasp the salient points of the subject, to catch the spirit of architectural sketching and illustration, and at the same time make a good pictorial composition, has been regarded as of great importance. While expressing this view the jury wishes it understood that the judgment is not alone rendered upon these qualities, but upon the apparent appreciation of the subject rendered in some cases without accent. The evidence of sincerity and truthfulness in rendering is also a consideration. The avoidance of the tricks and mannerisms and the affectations of some of the more experienced and notable illustrative artists that are so often used without being assimilated by the comparatively inexperienced is to be commended wherever found.

The jury again calls attention to the value of the pencil as a medium of expression of form, color, light and shade, and particularly of perspective. Pencil illustrating at its best requires sheer draftsmanship and is never successful without a mastery of perspective. The translation of color value and texture by tones and gradations through the medium of the pencil can be successfully carried very far, but the most effective drawings are often those which have been made in the simplest fashion. The free, sure line always counts. In sketching, the eye should seize upon the subject with the instantaneous vision of the camera and record it almost as quickly, but in a selective manner, giving proper emphasis to the outstanding features and subordinating the unimportant details—conveying the impression rather than endeavoring to state all the facts.

While in the foregoing we have dwelt at some length upon the use of the pencil as a medium, the

*(Continued on page 43)*



## PENCIL POINTS

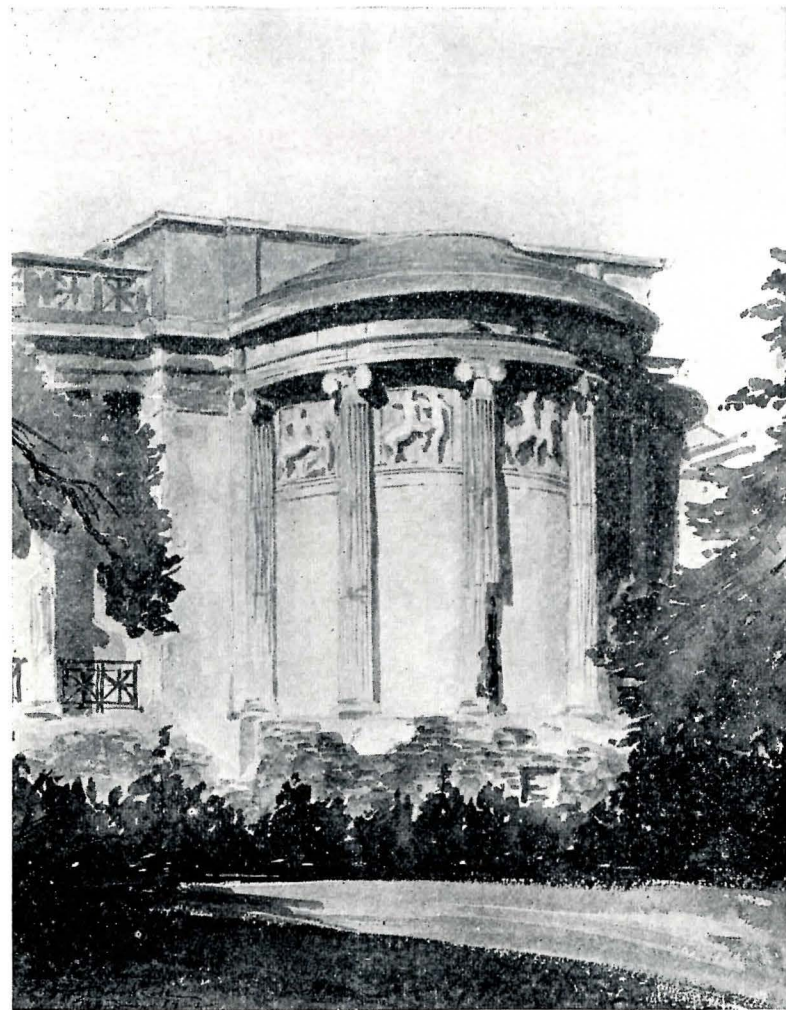


*Pencil Sketch by Lionel H. Pries, San Francisco, Cal. Winner of the Second Prize in the Birch Burdette Long Sketch Competition for 1922.*





*Water-Color Sketch by J. E. Jackson, Abington, Pa.,  
Winner of the Third Prize.*



*Water-Color Sketch by Mr. Keck,  
Winner of the Fourth Prize.*





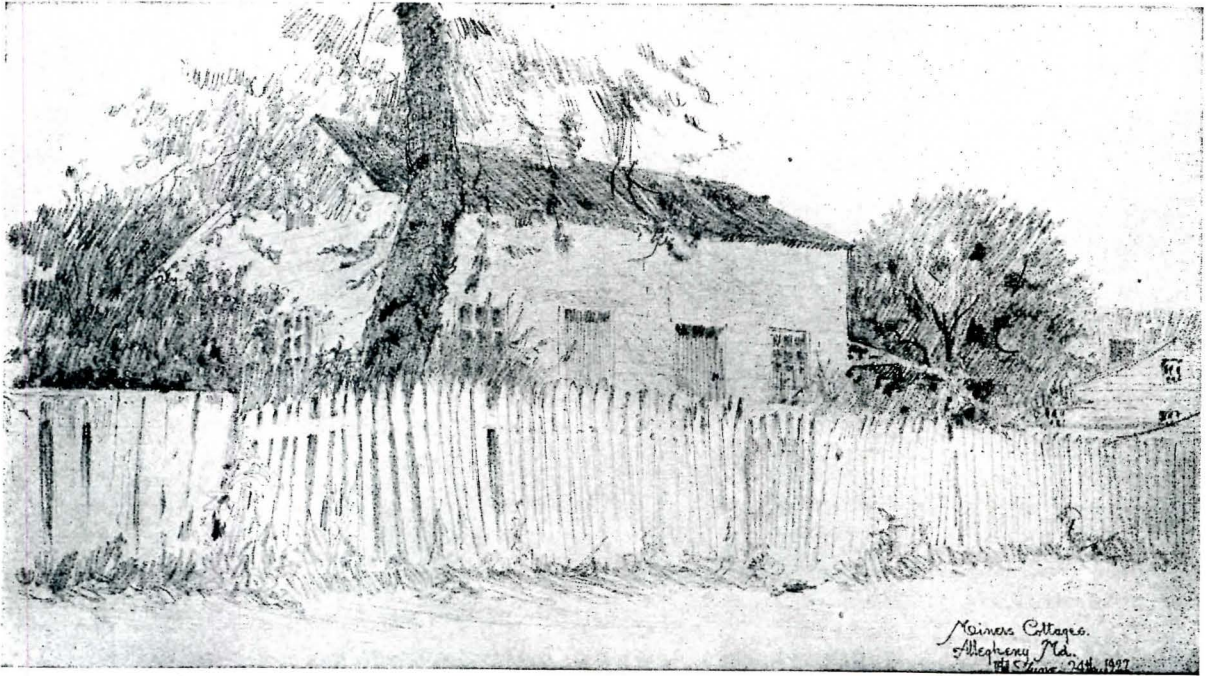
*Pencil Sketch by John Craig Janney, Philadelphia, Pa.,  
Winner of a Prize of the Fifth Grade.*



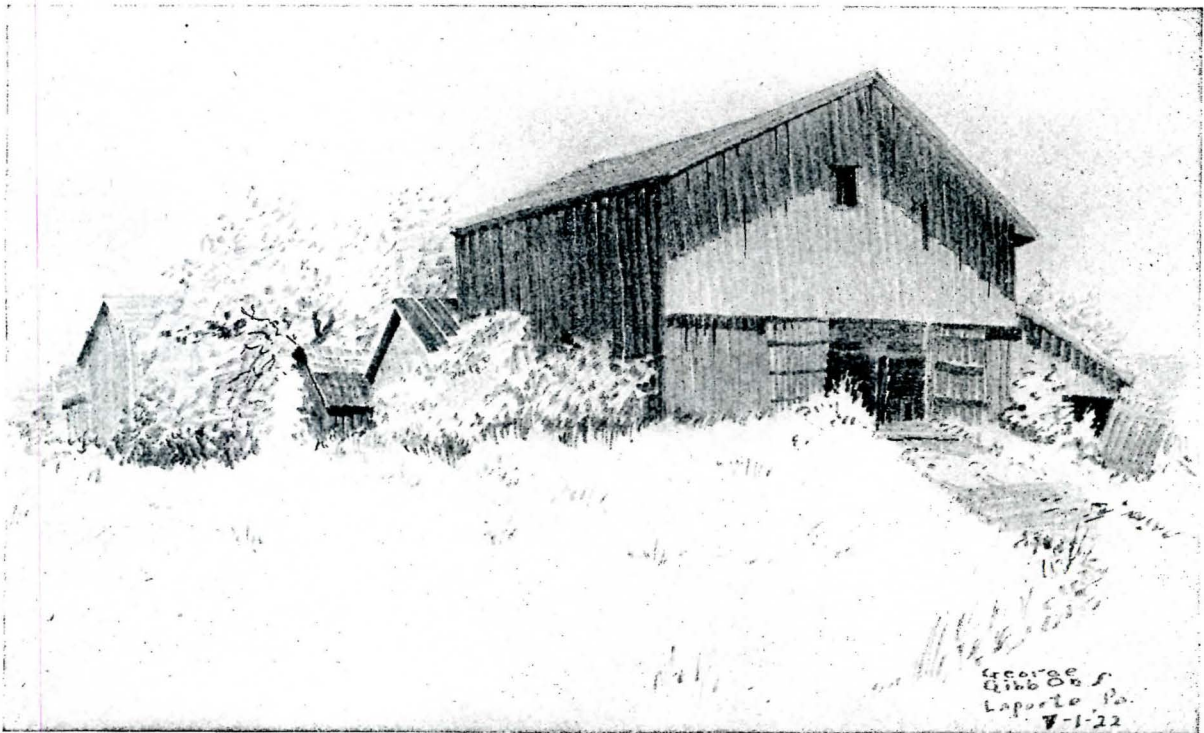
*Pencil Sketch by E. Maxwell Fry, Liverpool, England,  
Winner of a Prize of the Fifth Grade.*



## PENCIL POINTS

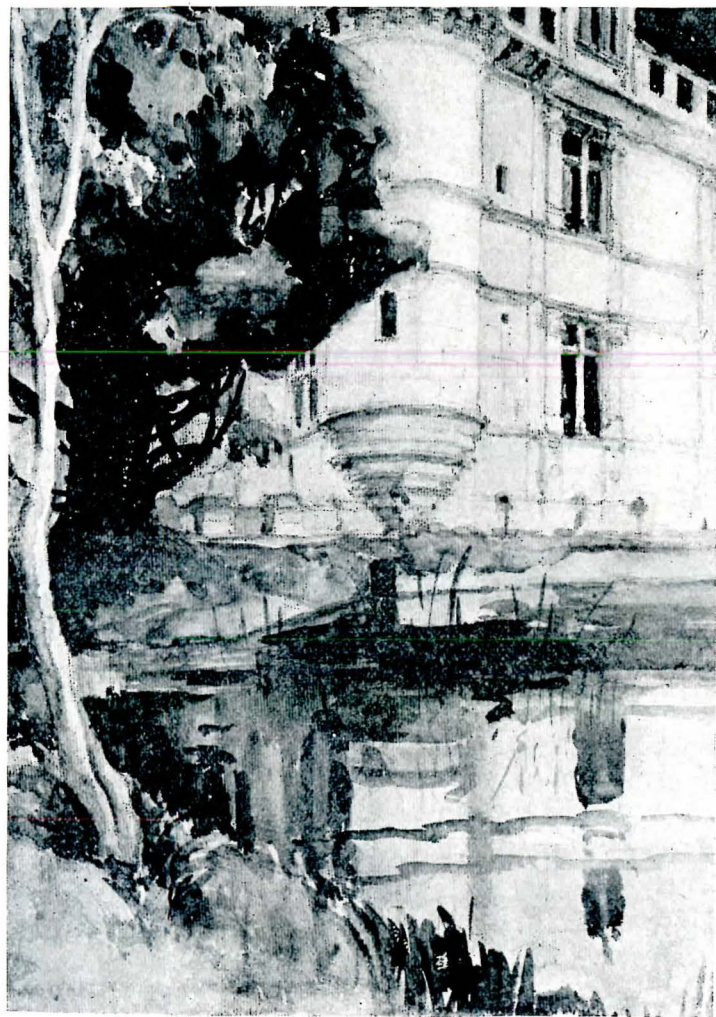


*Pencil Sketch by Edward J. Weber, Pittsburgh, Pa., Winner of a Prize of the Fifth Grade.*

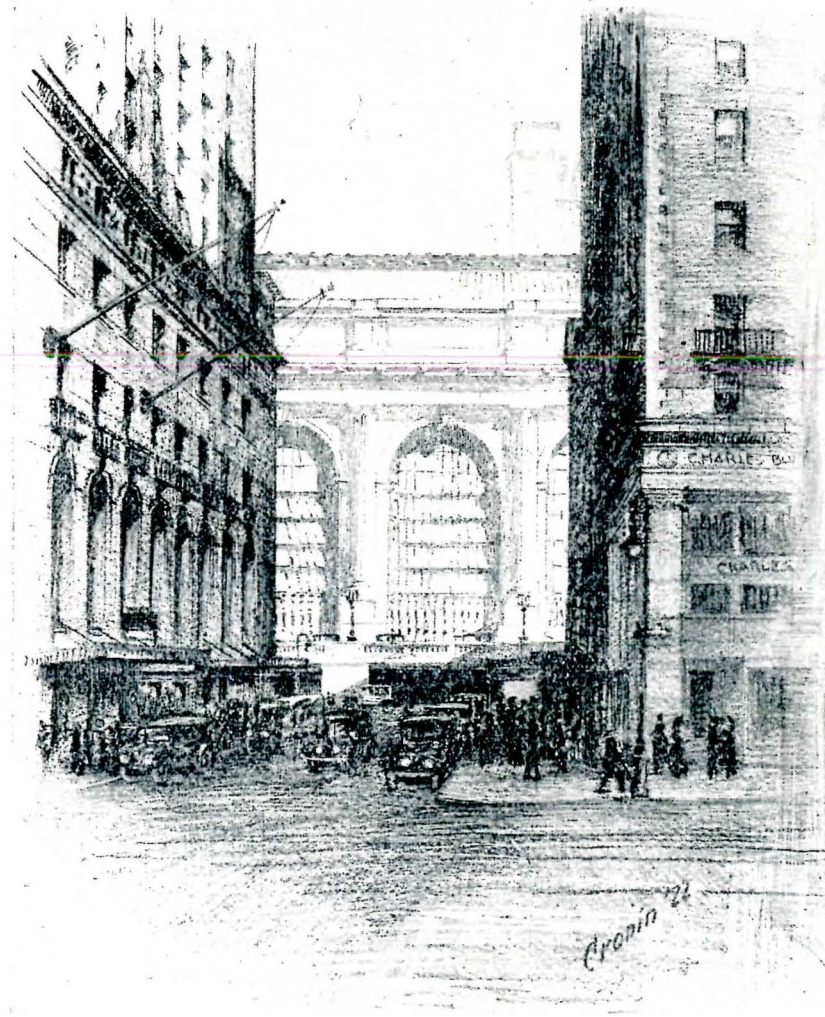


*Pencil Sketch by George A. Gibbons, Philadelphia, Pa., Winner of a Prize of the Fifth Grade.*



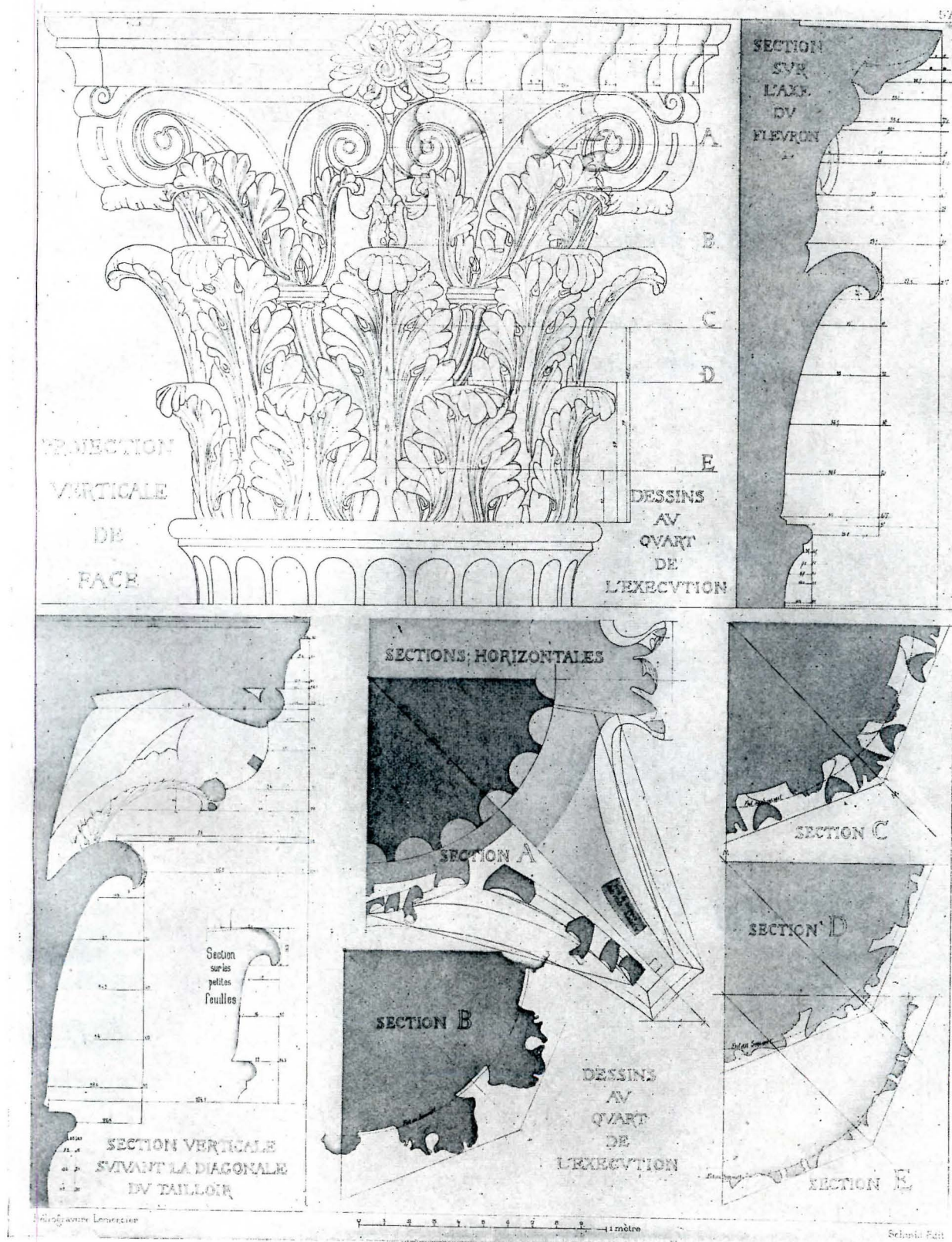


*Water Color Sketch by G. G. Gilkison, Pittsburgh, Pa.,  
Winner of a Prize of the Fifth Grade.*



*Pencil Sketch by J. T. Cronin, New York City,  
Winner of a Prize of the Fifth Grade.*





DETAIL OF TEMPLE OF MARS THE AVENGER, ROME  
FROM D'ESPOUY'S "FRAGMENTS D'ARCHITECTURE ANTIQUE"



*On the other side of this sheet is reproduced a plate of measured drawings of a capital from the Temple of Mars the Avenger, Rome. A rendered elevation of this capital and a rendering in perspective have been shown in this journal recently, making a complete presentation of an unusually interesting bit of detail.*



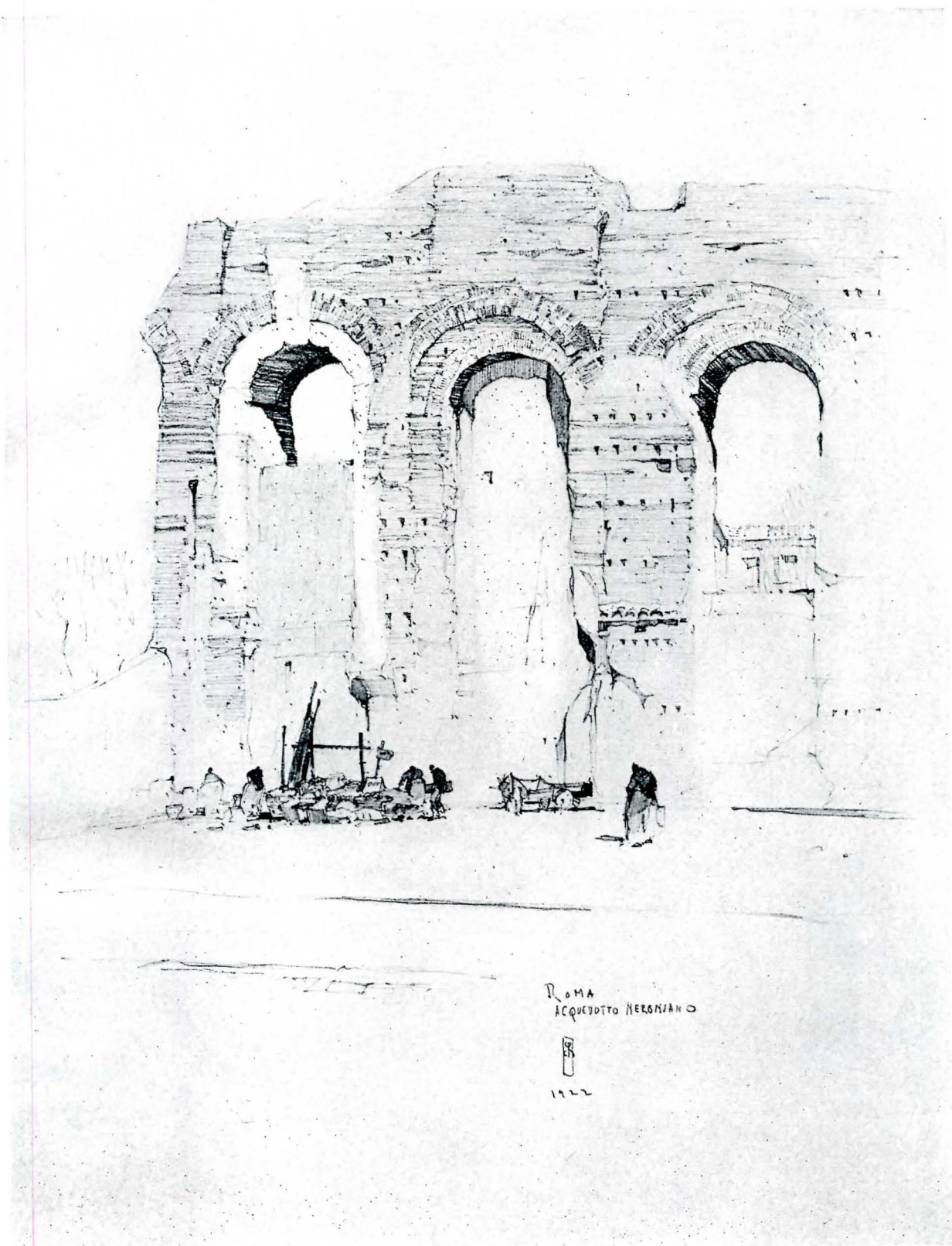


PENCIL SKETCH, BY KENNETH CONANT. CATHEDRAL AT SEGOVIA, SPAIN.



*The pencil sketch shown on the other side of this sheet is one of a very interesting series of sketches made by Mr. Conant while he was abroad last year. They are admirable examples of pencil technique as well as excellent representations of architectural subjects. They are drawn with an unusual perception of architectural values.*



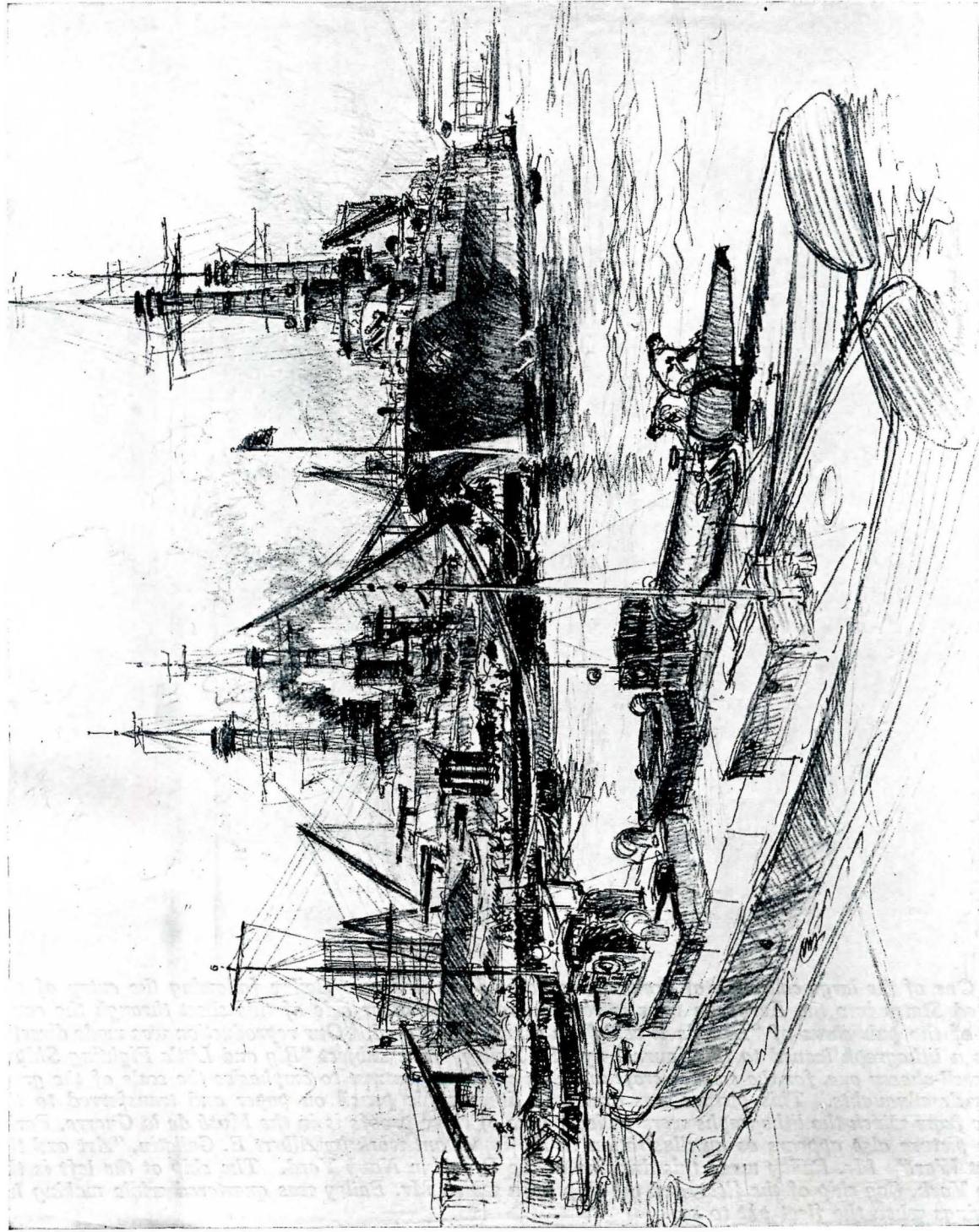


PENCIL DRAWING BY LOUIS C. ROSENBERG



*The sketch reproduced on the other side of this sheet is one of three submitted by Louis C. Rosenberg, winner of the first prize in the Birch Burdette Long Sketch Competition for 1922. It is notable for the mastery with which the impressive scale of the great arches has been conveyed and the figures indicated, as well as for many other qualities that give it distinction.*





Reproduced through the Courtesy of The Leslie-Judge Co.

"BIG AND LITTLE FIGHTING SHIPS" BY VERNON HOWE BAILEY



One of the large collection of drawings made by Vernon Howe Bailey following the entry of the United States into the European War is reproduced on the other side of this sheet through the courtesy of the publishers of "Leslie's Weekly" in which it appeared. Our reproduction was made directly from a lithograph loaned to this journal by Mr. Bailey. The subject "Big and Little Fighting Ships" is a well-chosen one, for the smaller craft make an excellent contrast to emphasize the scale of the great super-dreadnoughts. This picture was drawn in lithographic pencil on paper and transferred to the stone from which the lithographs were pulled. One of these proofs is in the *Musé de la Guerre*, Paris. This picture also appears as an illustration in the important work by Albert E. Gallatin, "Art and the Great War." Mr. Bailey made this drawing at the Brooklyn Navy Yard. The ship at the left is the *New York*, flag ship of the fleet, and the ship upon which Mr. Bailey was quartered while making his drawings when the fleet put to sea.



## ARCHITECTURAL DETAIL PART XIX

BY JOHN VREDENBURGH VAN PELT

*This is the nineteenth instalment of an article in which Mr. John Vredenburg Van Pelt, formerly Professor in Charge of the College of Architecture, Cornell University, Architecte Diplômé par le Gouvernement Français, and author of "Essentials of Composition," will discuss the designing of good architectural detail and point out the means by which the ability to produce good detail can be developed. Reproductions of detail drawings from some of the best architectural offices will accompany this article and the publication of this series of drawings will be continued after this discussion of the subject has been completed—making a valuable feature of this journal indefinitely.*

THE method usually adopted in making a study of ornamental detail is primarily historical.

The characteristics and peculiarities of Egyptian, Greek, Roman, Romanesque, Gothic and Renaissance are emphasized in turn without special attention to the particular material in which these characteristics and peculiarities were expressed. From time to time an able treatise has developed the exhaustive study of a material. Of such are Munz's "La Tapisserie" and Day's "Windows." Authoritative as these works are they perform a task that cannot be comprehensive because their scope precludes comparison of the qualities of expression in different materials. It seems to me that our own present study of detail may be more profitable if we depart from the beaten track and successively study each material, examining what the past has to offer primarily to impress upon our minds the possibilities and the limitations that are co-existent in each. This should help us to develop our power in the creation of new designs. We may miss much that would be valuable were we aspirants to the title of archaeologist, historian of art, or expert in the authenticity of old furniture and paintings; but it should help us to do better work as architects and designers and that, I take it, is the aim of the readers of PENCIL POINTS.

Wood was undoubtedly the material in which some of the very earliest essays in art were attempted by the human race. True, no examples are left of much that may have had great beauty. Wood is too perishable. Even such a late art as that of Greece sets us guessing at the manner in which the roofs were timbered and it is not credible that a civiliza-

tion that decorated its stone with wonderful sculptures and brilliant colors left its woodwork bare. Mediæval Europe (we may pass over the remains of Egyptian woodwork) is the first really profitable field of study, but from the middle ages to the present wood is the material that has rendered more general and universal service than any other.

Before examining special examples it is important that we look back at our fundamental laws and define clearly in our minds the elements essential to good woodwork. The outstanding peculiarity of wood is its fibrous quality. It is tough across the grain but splits with it. It may be had in long pieces but not in great widths. It does not shrink and expand much in the direction of the fibres, but does change its size laterally with every variation of the humidity of the atmosphere. It is not a very costly material, is readily carved and mouldings may

be made sharp and clear, especially in the direction of the fibres, although not as fine and durably sharp as in the finer metals. It may be finished in a great variety of colors and serves admirably as the backing of gilt and enamels.

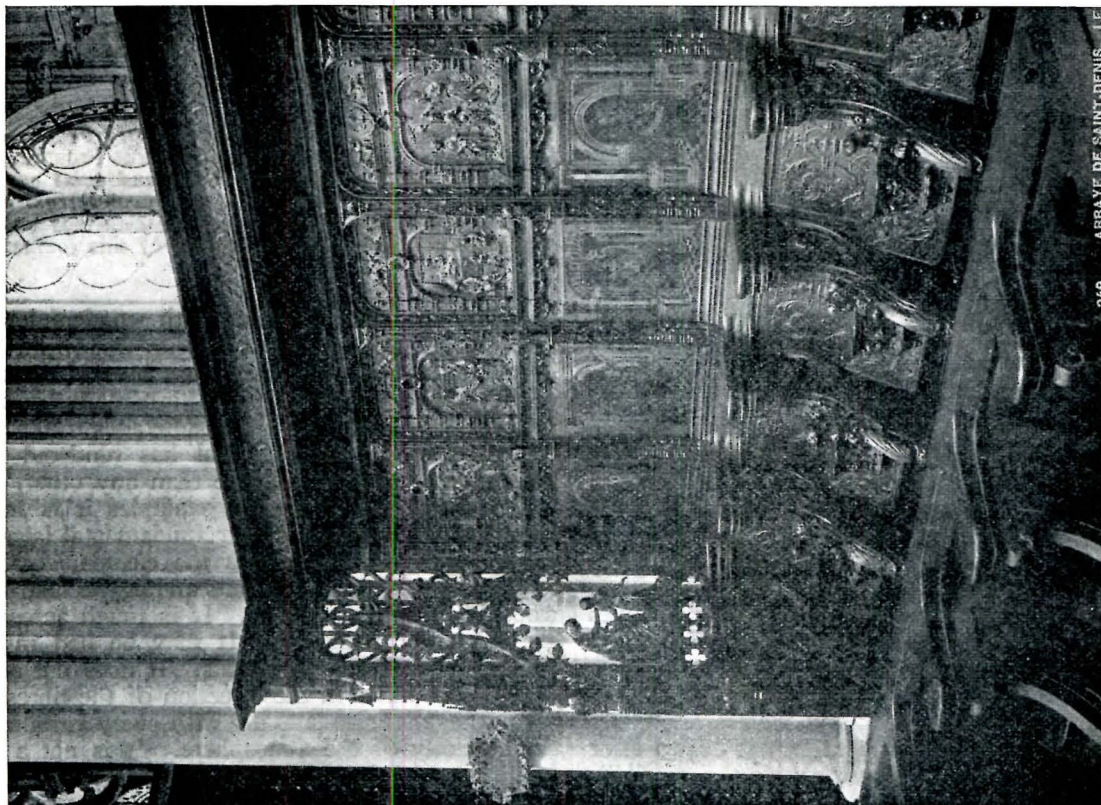
What may we derive from the foregoing? Evidently that woodwork acting, or suggesting that it acts structurally, should be in straight pieces. Purely instructional and decorative woodwork may be curved within the limits of a reasonable board or timber width or within the limits of a possible assemblage of different pieces. The tendency to shrink and expand laterally introduces another element in the proper assembling of different pieces of wood. Designs should be so made that joints will be covered. The scale of



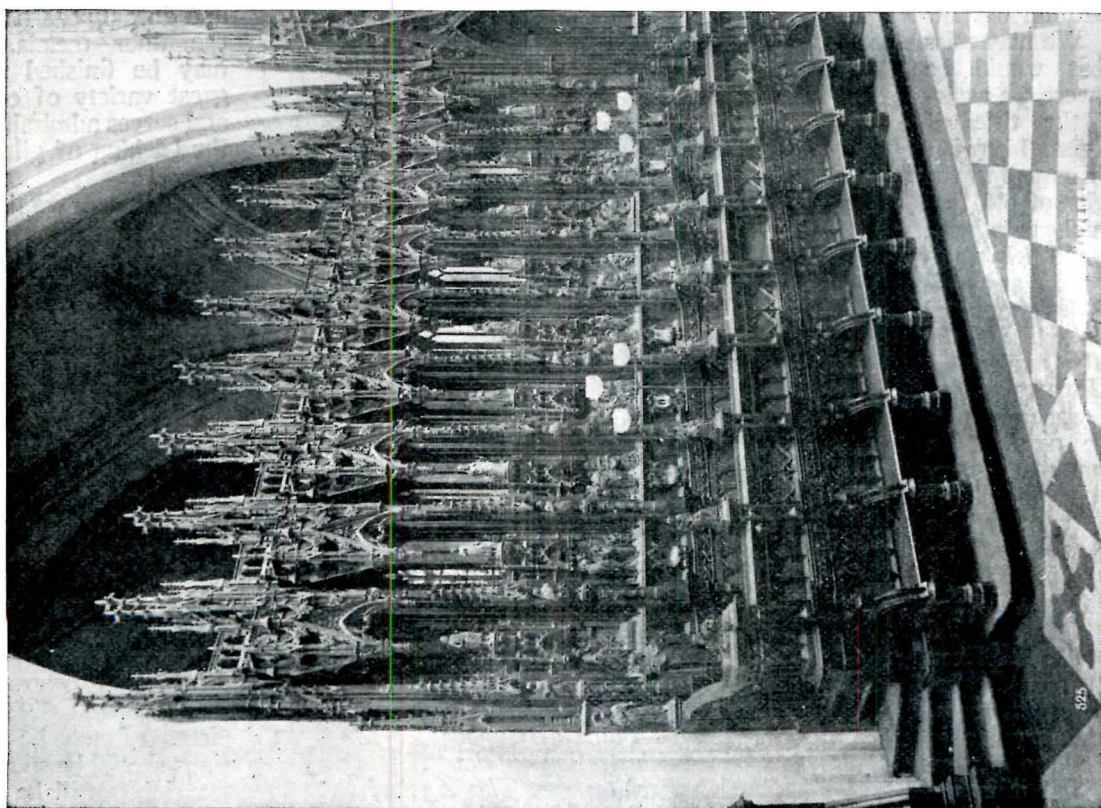
Old Oak Linenfold Panel of Cupboard Door from  
Portion of an Illustration in the "History of  
English Architecture, The Age of  
Oak," by Macquoid.



# PENCIL POINTS



*Portion of the Choir Stalls, Saint Denis.*



*Portion of Choir Stalls, Antwerp Cathedral.*



## PENCIL POINTS

wood design ought to be much finer than that of stone but not as fine as that of ivory or chased bronze. While it would be unreasonable to make a design for stone that would require cutting away the majority of the face of the block in order to leave a small projecting point, in wood this is less bad as the removal of this large volume does not entail waste of expensive material nor does it require undue labor. Indeed pieces of carved wood may be mounted upon a background although this is usually less satisfying, and the subtlety of the effects less beautiful than if the whole be carved out of a solid piece.

How does the woodwork of our fathers comply with all of this?

On page 26 we have a wonderful piece of Gothic carving, part of the choir stalls of Antwerp Cathedral. Notice the solidity and strength of the seats themselves, made to withstand the attacks of restless choir-boys' heels and the heavy corpulence of older choristers. Behind

and above these there is a fretwork of the most beautiful carving terminating in a series of crests, pinnacles and finials of fairy-like delicacy. Still, permeating the whole of this wonderfully intricate design one feels the strength of the framework rising through the interior in a series of moulded shafts that give to the beholder a sense of security and unconscious repose. Do not leave this astounding bit of work without examining and appraising the beauty of line and proportion and the delicacy of the detail of the small figures. Notice how the composition of each figure varies and contrasts with that of its neighbor. While it could hardly be applicable today to anything outside of church or collegiate work, the fine feeling for nicely balanced proportions and for a logical suiting of the kind of woodwork to its special uses and position cannot fail to be helpful to the thoughtful student.

Less well designed and consequently less beautiful, nevertheless of marked interest, are the early Renaissance choir stalls of St. Denis' (page 26). While the delicacy of the Antwerp carving proclaims itself wood, the St. Denis design might almost be for marble. Still it is good woodcarving and the varying motives of the panels are of great interest. It is interesting to notice how non-observance of the law of contrast has marred the effect. The series of carved subjects take up a height equal to that occupied by the inlaid subjects below them. From this two horizontal bands result. They are differ-

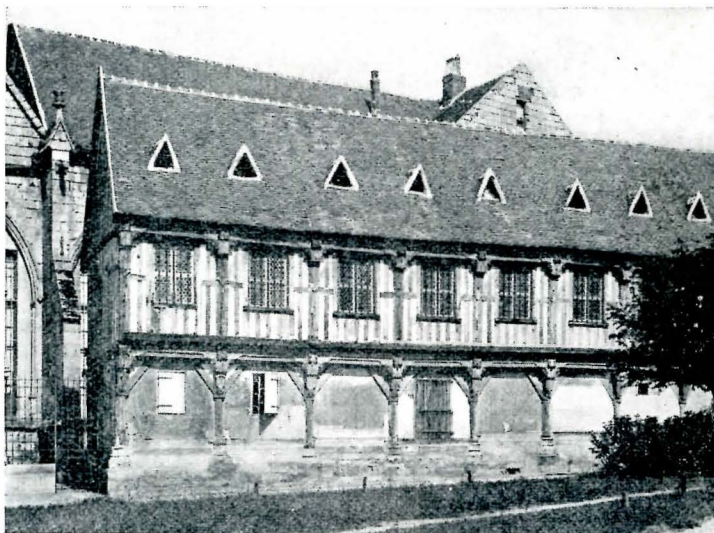
ent in kind and effect, the upper vibrating with highlights and dark spots while the lower is flat, yet they do not contrast in size. Neither dominates and the horizontal dividing moulding cuts the screen unpleasantly in two. Another faulty repetition exists in the lack of contrast in perspective between the height of the entablature and the height of the cove. This is relieved somewhat by the brackets of this cove, but they are not marked enough to be effective and carry up the lines of the pilasters. Do not turn from this illustration without having examined

the lovely carving of the stall backs and frieze. One of the chief charms of this composition lies in the careful modulation between the brilliant panels, seat partitions and seats, the subtle and more uniform frieze and backs and the open work of the transition screen at the end.

In contrast with the two preceding examples is the linenfold panel on page 25. It is from a cupboard door, but is characteristic of an enormous

stretch of English wall panelling and very beautiful panelling, too. In such work it is important that the lateral dimensions of the panels be not excessive. Otherwise crackings and splittings are sure to follow and although the carving may soon look antique, it can never look like good craftsmanship. In passing, it is worth while to observe that linenfold work is more beautiful when the folds are equal repetitions or when they contrast definitely. The very flatness of this or perfectly plain paneling makes an excellent foil for a brilliant piece of carved work. A good modern example is the illustration on page 30 of a room in the Parge House of which Frederick Sterner is the architect. There is really very little carving here, yet it counts for its full value. The string of the stairs and the major, especially the lower part of the newel, are in low relief, rather flat in effect. The little figure and the upper part of the newel contrast with this. Thus three notes are struck, that of the perfectly flat panels, that of the low relief carving, and finally the high relief figure and finial. The iron work of this room is well worth a little study. It makes one regret the electric switch and wish that that too had been of wrought iron. Doubtless the moral to be drawn is that it is unsafe to neglect even the most insignificant details of a design.

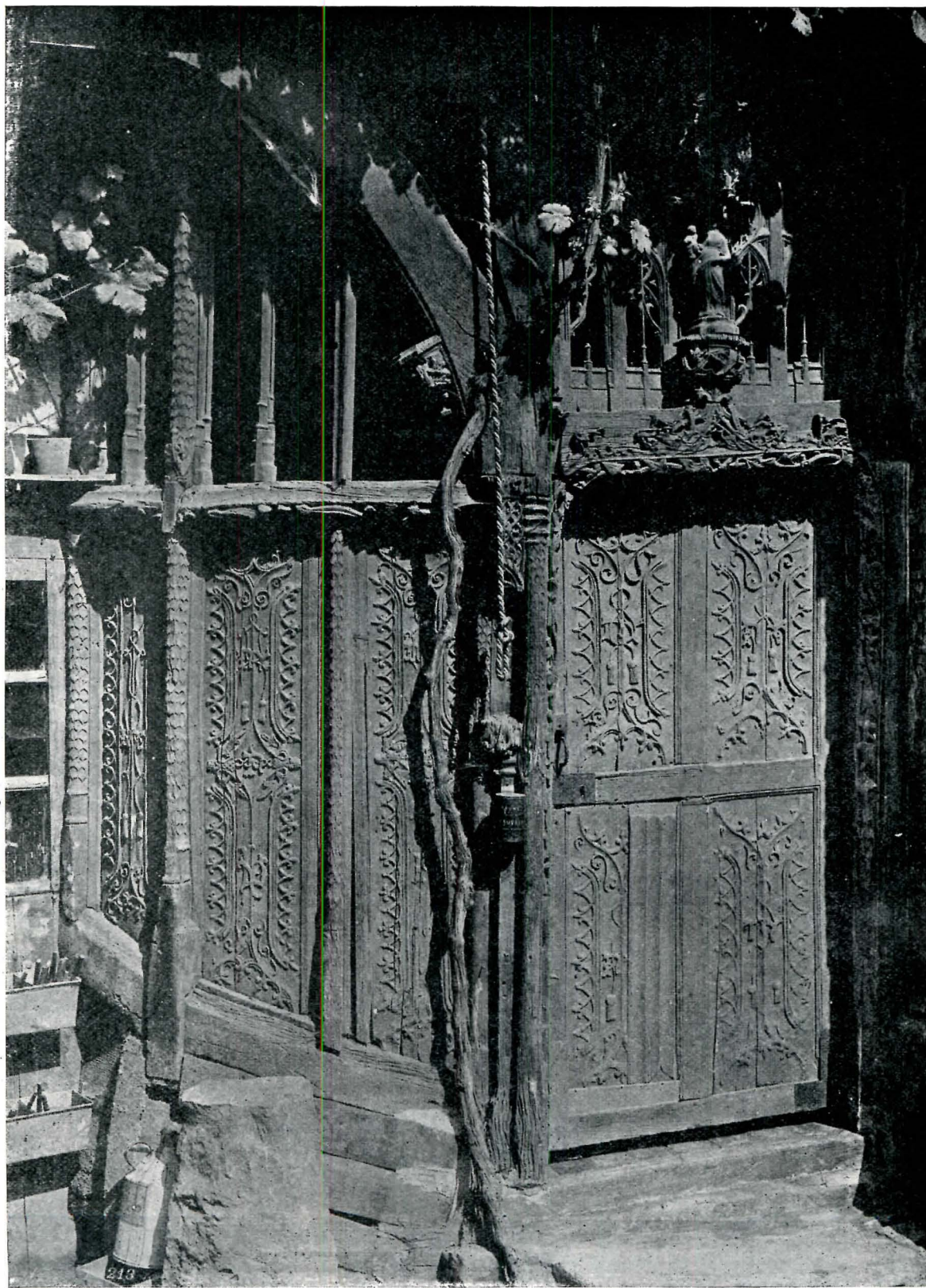
Another kind of woodwork is that which has a structural as well as a decorative reason for its existence. On pages 28 and 29 are two views of



*House at Noyon, in Northern France.*



PENCIL POINTS



*Detail of Exterior of the Maison de Francois I, Abbeville.*



## PENCIL POINTS

of the Maison de Francois I at Abbeville an excellent bit of early French Renaissance. The timbering in the courtyard is logical and at the same time designed so as to present interesting, well-balanced contrasts. Notice that in some places the plaster is recessed nearly an inch. The brackets and knees have voiced their own sentences. On the left the cutting away of the wood has been sufficiently restrained to keep the corbels within the proper limits of strength offered by the relation between a lateral offset in a piece of timber and the length of the unsevered fibres remaining in the planes of the offset. On the other hand, the curved or arched supports over the smaller door and window necessitated too great an offset for the length of the remaining fibres with the result that both of these knees are cracked. It is for this reason that designers who have a more clearly logical faith, refuse to make curved structural elements. The curved or arched form belongs to stone. On account of the suggestion of earlier examples of architecture, or on account of its pure beauty of line the wooden structural arch was introduced. There are many of them in England. We must acknowledge, however,

that it is not reasonable to cut away the good fibres from a strut or other piece of timber at the very point where they are needed and such carpentry is almost sure to result in cracked beams that later on require strengthening.

The detail of the Abbeville house shows the useless and useful parts of the curved timber. The upper corner is merely fastened onto the rest and the cracking of the lower end has thrown the thrust unreasonably high and has forced over the head of the door. In spite of this the detail, indeed the whole courtyard, is a very lovely piece of work. Once more notice the contrast between the flatter, more repetitious quality of the panels and the brilliant high relief spots over the door, the statue and canopy. Unfortunately, the figure that stood on the left hand jamb is gone. As in the St. Denis choir stalls another degree in the sequence of effects is obtained by the open work of the tracery. In that, curves abound, but they are purely decorative and have no structural duties to perform.

A very sane and reasonable use of wood timbers is shown on page 27, a house at Noyon in Northern

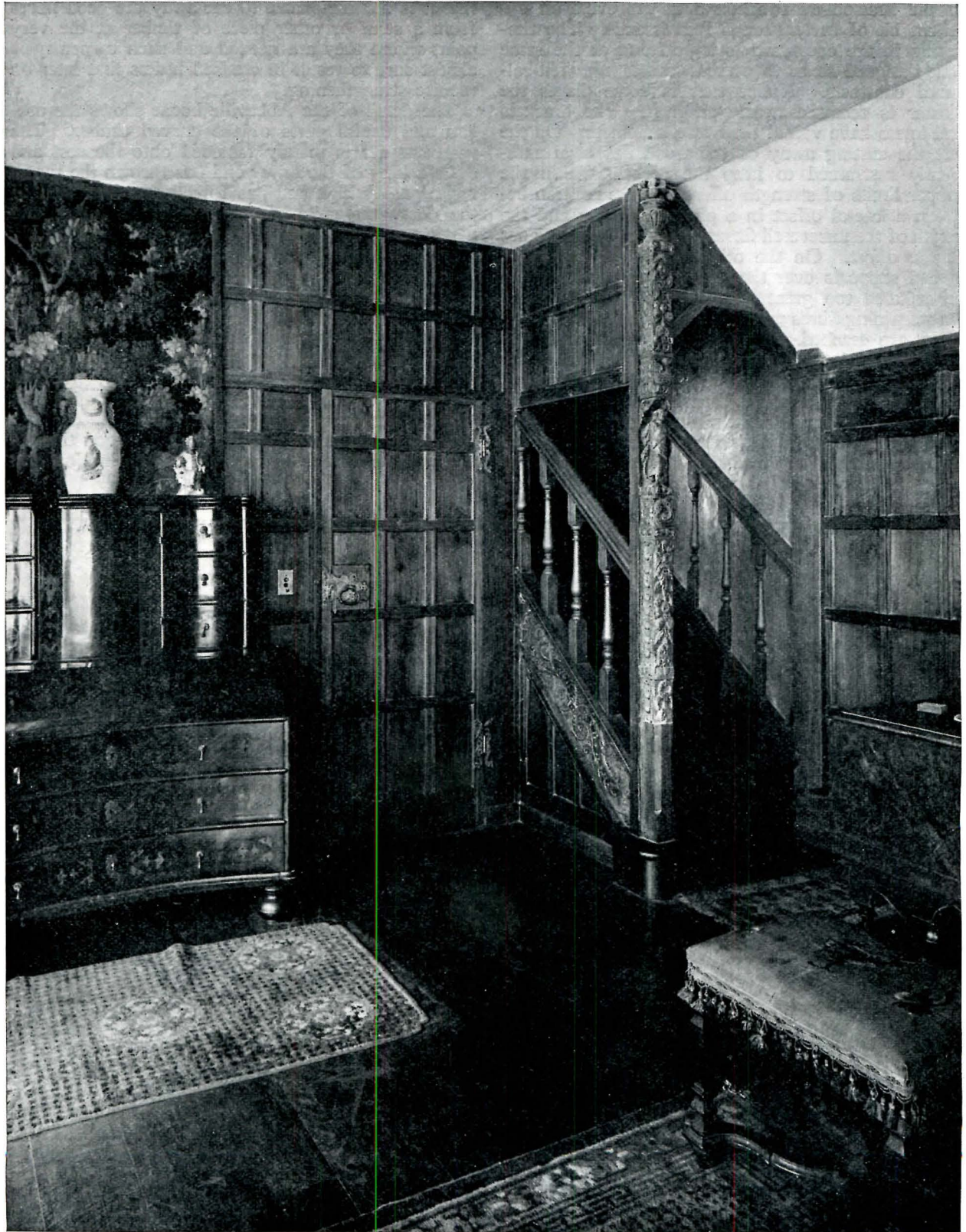
*(Continued on page 43)*



*Portion of the Maison de Francois I, Abbeville.*



PENCIL POINTS



*Detail in Parge House, Home of Frederick Sterner, Architect.*



# THE STUDY OF ARCHITECTURAL DESIGN

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

## CLASS B. PLAN PROBLEM. PART XII.

### *Rendering*

BY JOHN F. HARBESON

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

**I**N RENDERING the analytique a "monotone" is required; for the class "B" plan problems there is no such stipulation, so a color rendering is permissible. For many of the problems a monotone rendering is most suitable—for a formal problem in which the scale of the plan and elevation leaves little of the area of the mount for setting,—but for others, such as the "Dairy Farm" of Figure 174 (October), or the "Spring House" of Figure 99 (October, 1921), or the "Small Private Museum" of Figure 113 (December, 1921), a rendering in color may be more appropriate—more suitable to the character of the program.

There is another reason for doing some of one's "B" Class rendering in color and that is to prepare for later work—for archaeology projects, for class "A" work, especially for the decorative problems, and for the prize problems and sketch problems. For these one has to learn how to handle color ultimately, so it is well to begin early, for in this, as in many other things, one learns most by one's own experience and by the amount of practice one has. It is better to spoil a class "B" problem—to learn something about rendering color, than to make a *first trial* of color on a well studied class "A" problem, if that is the alternative. If one has a few examples of good renderings about—if not originals, then reproductions in color of some color renderings (there have been many such published, in the magazines and catalogues of exhibitions), his first attempt need not be a failure, especially if the student can see where his rendering is not a great success and with a sponge and water sop out these parts and work over them again.

I need hardly say that a good rendering—whether in monotone or color—requires time, the first rendering with a new medium especially; for most men a color rendering requires more time than one in monotone for obvious reasons. The schedule disposing of the time

given for a problem, as outlined in Chapter 2, on the Order Problem (March, 1921) and again referred to in the early chapters of the Class "B" plan problem, should be made out with this in mind, allowing the rendering of at least one drawing, the one in which rendering plays the biggest part in the presentation, to be started a full week before the date the problem is due. This is usually the elevation, but may be the plan. If this drawing is ready for rendering, inked in, cleaned down and shadows cast, on the Saturday afternoon a week before the date of "rendu," then that afternoon and the Sunday and the succeeding Saturday afternoon and Sunday may be used; all with daylight and for a color rendering daylight is essential for good color effects, especially in regard to yellows of all kinds, or other colors mixed with yellows. The evenings of this week may be used for finishing the other drawings, ready for rendering, and for the mechanical portions of rendering, the ruling pen shadows, accents, back shadows, etc.

These remarks apply more especially to the atelier man, he who works in an office from nine to five and has no daylight for his atelier work except Saturday afternoon and Sunday. The man in a college or technical school is more fortunate in this matter. He can start to render his first drawing on the Thursday afternoon preceding the rendu and have ample time to make a good finish. In this, as in every other branch of the pursuit of knowledge, the knowledge comes largely with experience, from actual

experience, and of course the man who habitually leaves but one day to render is not apt to become proficient.

We must always keep in mind that the main purpose of architectural rendering is not to make a pretty picture, but to make a conventional drawing intelligible, to interpret it. When rendering is applied to geometrical drawings (i.e., plans, sections and elevations)

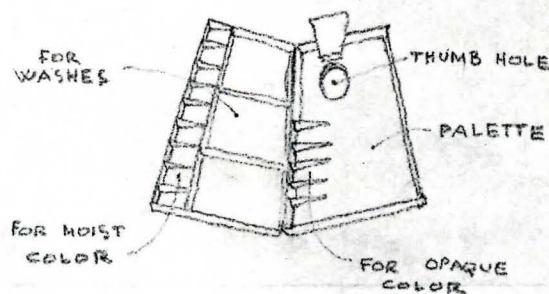


Figure 183. Water Color Box.



# PENCIL POINTS

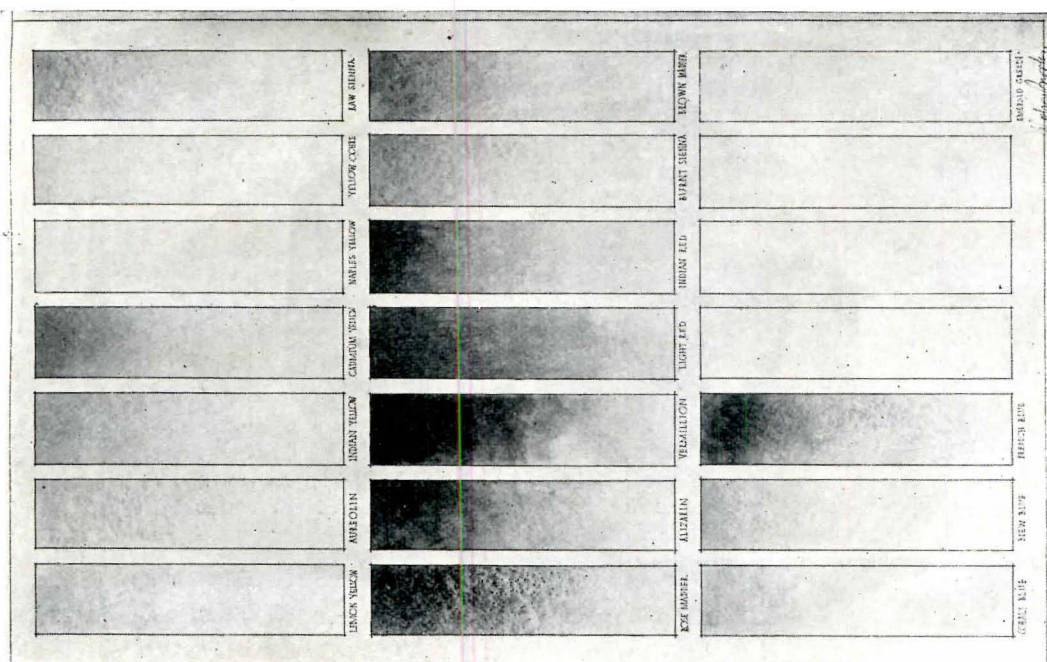


Figure 184. Graded Washes of Water Color.

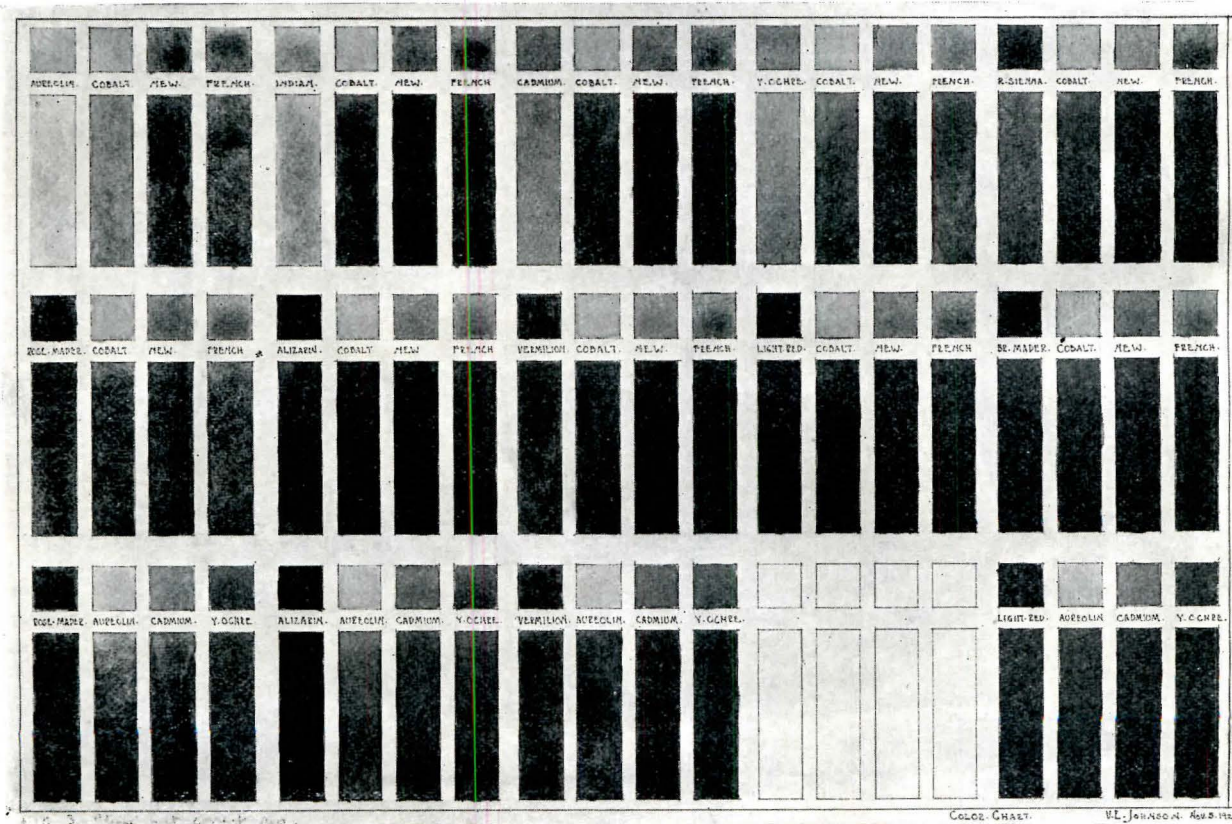


Figure 185. Superposed Washes of Water Color.



## PENCIL POINTS

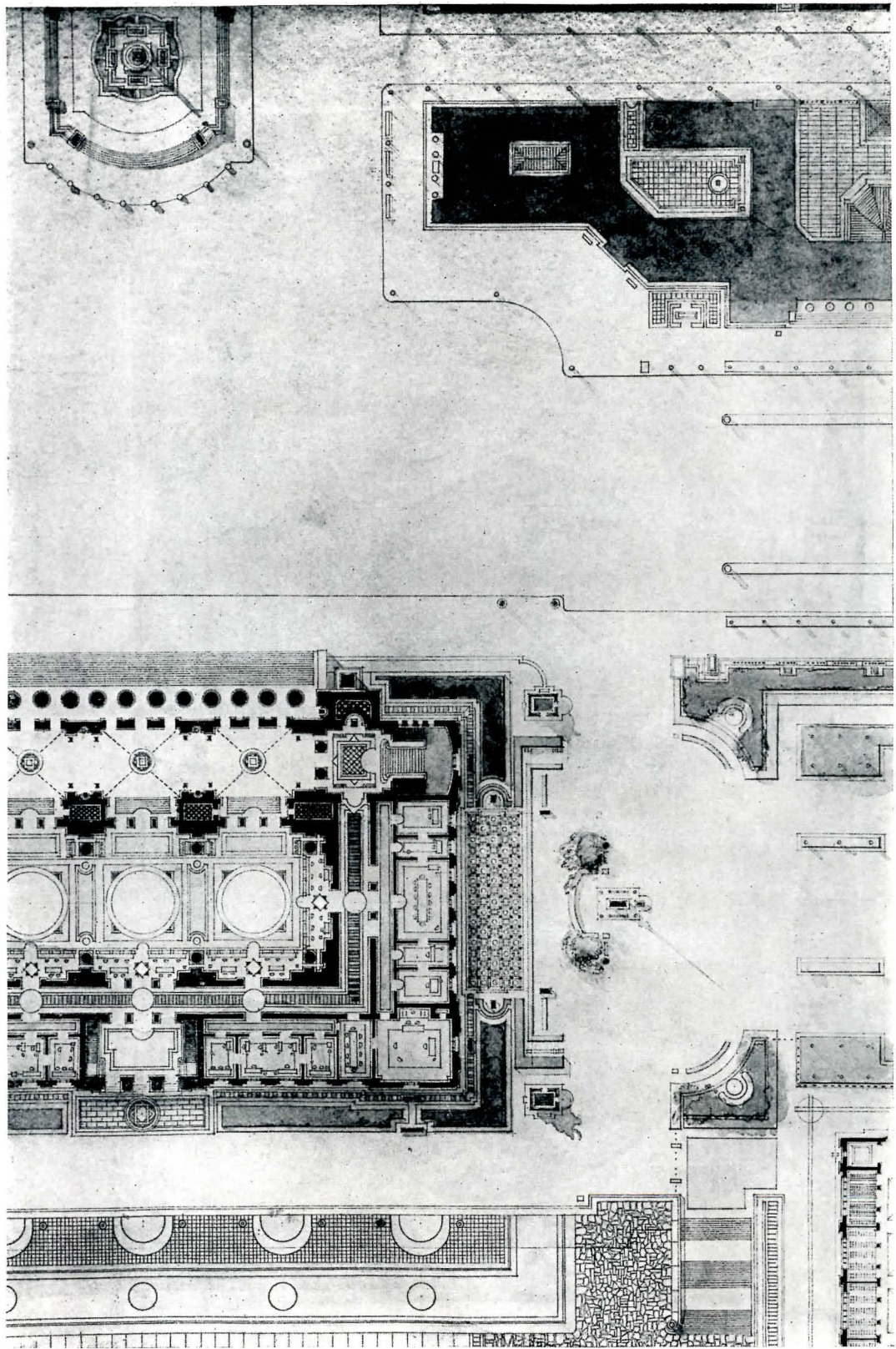


Figure 187. Portion of a Plan for a Custom House, by John F. Harbeson.



## PENCIL POINTS



*Figure 186. Portion of an Elevation by John F. Harbeson, Second Prize, Friends of Young Artists Competition, 1915.*



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it must partake of the conventionality of these drawings.

As we said before, the first condition of a good rendering is that it be applied to a good drawing. This means not only the elevation (or plan) itself; the entourage must be well drawn. In general, geometrical drawings do not require a great deal in the way of accessories or surroundings, and if the trees, mountains, perspective foregrounds are not *studied and carefully drawn*, it would be better to have a simple graded wash. When trees, etc., are used they should be drawn nearly geometrically, so as not to conflict with the lines of the façade and they must be drawn carefully, studied first in charcoal to get an idea of their value in relation to the façade, then drawn on the final drawing with the same care as the architectural features.

Shadows must be neatly drawn and appear accurate. In many small scale drawings the main shadows are approximately correct but the small ones are grossly exaggerated, so that the projections tend to a dull uniformity, when all refinement in mouldings is based on a variety in projection. With the drawing finished, and shadows cast, we are now ready for the rendering proper.

First as to pigments:\* there are many colors manufactured. Of these some are very beautiful, but fade in time or react chemically when mixed with other pigments, causing a change in color. The following list of pigments gives a palette that will cover all needs, and is made of lasting colors:

	Lemon Yellow—(greenish yellow)	
	*Aureolin—(pure yellow)	
YELLOWS	*Indian Yellow	
	Cadmium Yellow, pale	(Successively redder yellows)
	Naples Yellow	
	Yellow Ochre	
	*Raw Sienna	
	*Burnt Sienna	
	Indian Red	(Reds successively less yellow)
REDS	*Light Red	
	Vermilion	
	*Alizarin Crimson	(red)
	Pink Madder	
	*Brown Madder—(bluish red)	
	*French Blue—(reddish blue)	
	New Blue	
BLUES	*Cobalt Blue—(pure blue)	
	Prussian Blue (greenish blues)	
	Cerulean Blue	
	Emerald Green	
	*Ivory Black	
	*Chinese White	

It will be noted that these colors are arranged in color sequence, and they may be so arranged in the color box, so that one comes in time to run instinctively along the line of colors until reaching the

*Note.—In this connection the student will find interesting the chapter on "The Properties of Pigments" in H. Van Buren Magonigle's "Architectural Rendering in Wash."*

exact tint needed in a mixture. This is quite a complete palette; one can get along entirely satisfactorily in rendering with those of the list marked with an asterisk, for from the pigments so marked any color can be mixed if one knows his pigments.

The box best suited for the architect's work, rendering and outdoor sketching, is a French box made by Chapron, Coqueling in Paris, and shown in Figure 183. I consider this box the best because the colors are bought and the reserve supply kept in tubes so that the colors are always soft and usable and the reserve does not "dry out"; the colors as squeezed out are in triangular compartments, so that the brush may get at the color from the end where there is no wall to wear it out; and also, these boxes are convenient to hold, having a hole for the thumb, are convenient to carry and convenient to use, with pans on one side for mixing small washes (for big ones saucers or glasses are used) and a palette on the other side for mixing accents and small tones. The two halves are hinged to fold on each other when not in use.

As there are not enough compartments on one side for all the colors in the palette suggested, it is convenient to put the more opaque colors, the colors with a heavy body, over in the compartment on the palette side, as they are seldom used in washes, most often in small tones or accents. Thus there would be placed on that side lemon, cadmium and Naples yellow, Indian red and vermilion, cerulean blue and emerald green. The ivory black need not be put in the box at all. A small bit may be squeezed on the palette when it is needed in rendering for it is never used for out-door sketching and as Chinese White is quite useless when it has dried, it too is left out of the box and a bit squeezed on the palette when needed.

Having these colors, it is well to get acquainted with them. This can best be done by taking a day or two between two problems and making two sheets of washes, the first as in Figure 184, laying off a number of rectangles and then running in each a wash of one of the pigments, graded from dark at the top down to light at the bottom, by adding more and more water, preferably in the sequence of the list of colors given above. In Figure 184 there are no washes of Prussian blue, cerulean blue or ivory black, but it would be well to include these on the sheet. After making such a sheet, compare it with the one reproduced in Figure 188 to realize how blues always photograph, and reproduce, much lighter than their true color and yellows much blacker.

Then lay out another sheet as in Figure 185. In the first group of four squares and four rectangles lay a wash of aureolin, a heavy flat wash in the square and in the rectangles a wash graded from dark at the top to light at the bottom. Leave the first square and rectangle in that way and over the second put washes of cobalt blue, over the third of new blue, over the fourth of French blue. In each case put a flat dark wash over the yellow in the square and in the rectangle a wash graded from dark at the top to light at the bottom. (In the



## PENCIL POINTS

figure only flat washes were used; graded washes are of much greater value, however.) In the second group of four spaces put similar washes of Indian yellow, in the next of yellow ochre, and in the last to the right of raw Sienna. Now in each group, as in the first, run washes of cobalt, new and French blue successively, over each second, third and fourth square and rectangle. Then start on the second line with the reds, put washes of rose madder, alizarin, vermillion, light red and brown madder and again put the superposed washes of cobalt, new and French blue. In the third line try the combination of reds and yellows, putting washes of the reds as before and then running washes of aureolin where the cobalt was run in the second line, cadmium in place of new blue, and yellow ochre in place of French blue.

In this way you will try the combination of your yellows, reds and blues; in all your work it will be better to get the color you want by mixing two pigments, not more, and with this palette that can be done and you will very quickly get an idea of what tone any two colors will give when mixed in any proportion. In this way you will be able to avoid dull browns and "dead" colors.

With such a knowledge of color you may now try a color rendering and I would repeat what I said when speaking of rendering the analytique (August, 1921). (a) Proceed in an orderly process, carrying all parts of the drawing at the same stage of completion in successive steps. (b) Run all the big washes first and gradually work down through the smaller, though big washes may still be used from

time to time to "pull the rendering together" if it is disjointed. (c) Keep neat edges to all washes. (d) Put a tone on each part of the drawing at the start, shadows, foregrounds, the various planes of the building, roof, sky, and do not expect to get the exact value or color in the first wash. (e) All washes, all tones are best graded, whether shadows, planes of the building, roofs, foregrounds. (f) Model all rounded surfaces; remember to differentiate high light and half tones as well as shadows. (g) Focus the rendering at the principal plane; in the monotone rendering this was done by means of washes of varying depth, all of one color. In the color rendering, surfaces of the same color become more blue as they are further away (because of the action of the atmosphere) and are warmer in color as they are nearer; but in a color rendering, as in a

monotone, the contrast between surfaces in light and the same surfaces in shadow, is greatest on the principal plane, the plane of "focus," and this contrast becomes less marked as planes recede from or come forward of this plane. (h) Do not forget the "reflected" shadows (even in a small scale drawing) or the ruling pen shadows. See Figure 186. The use of ruling pen rendering and rendering by small tones in a color rendering in plan is shown in Figure 187. (i) Study effects as they occur in nature, on buildings and in the landscape. Study renderings, the actual renderings wherever possible, but also reproductions. Figure 188 is a very clever one; there are many even in student work worthy of study. And finally, render as much as you can; on your own prob-

(Con. on p. 43)

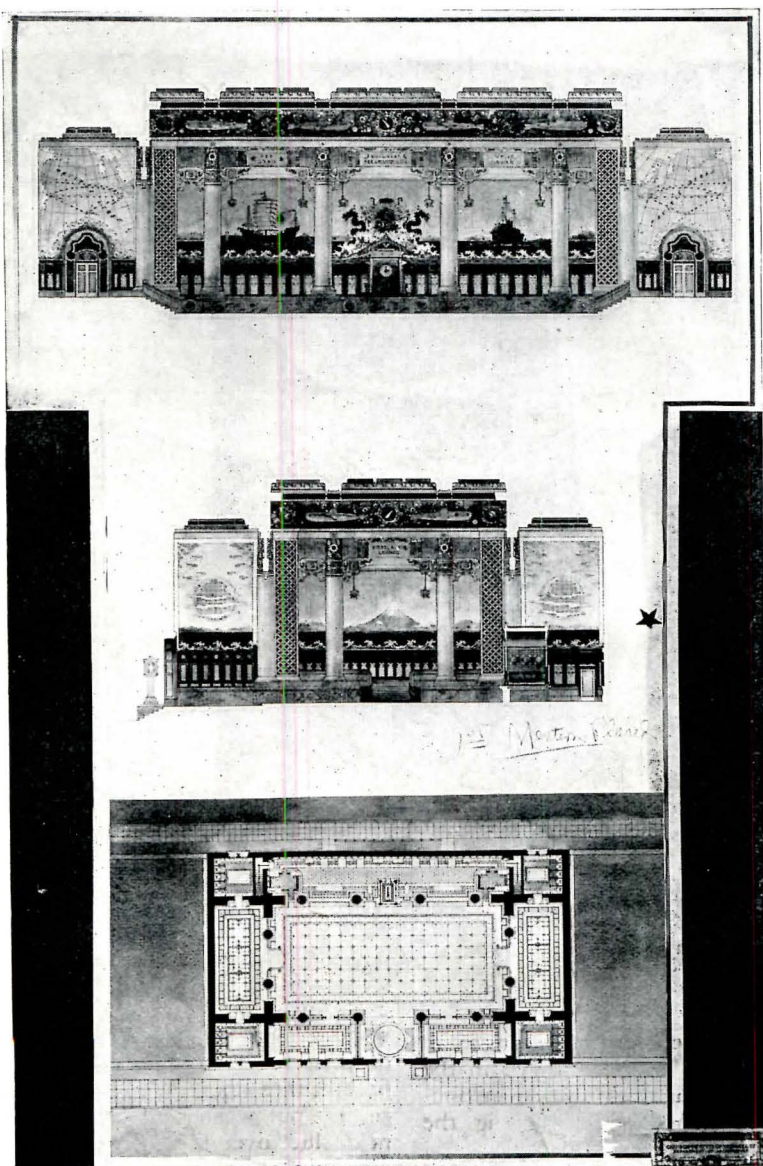
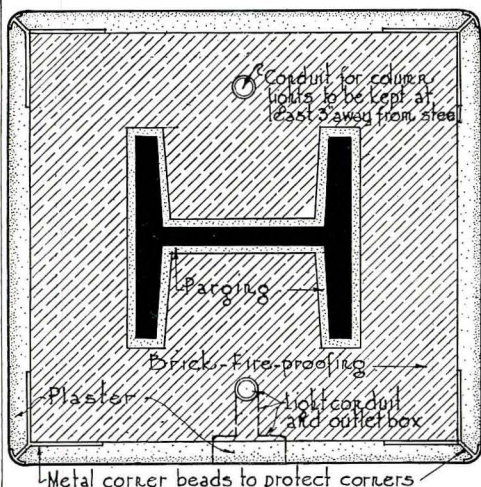


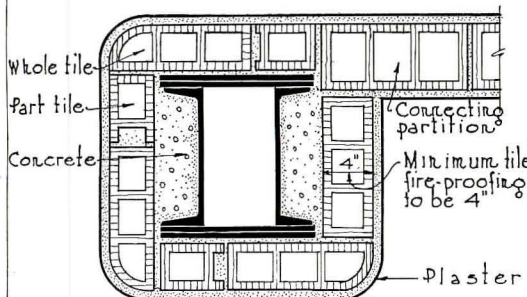
Figure 188. *A Steam Ship Office, C. E. Silling, Carnegie Institute of Technology.*



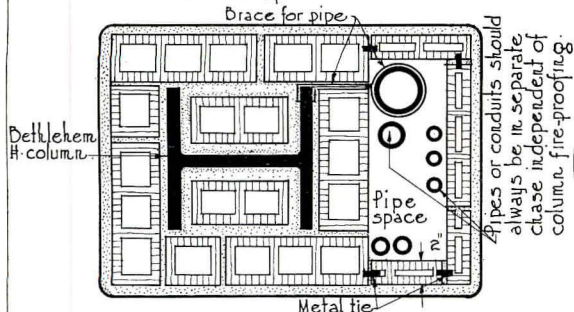
# PENCIL POINTS



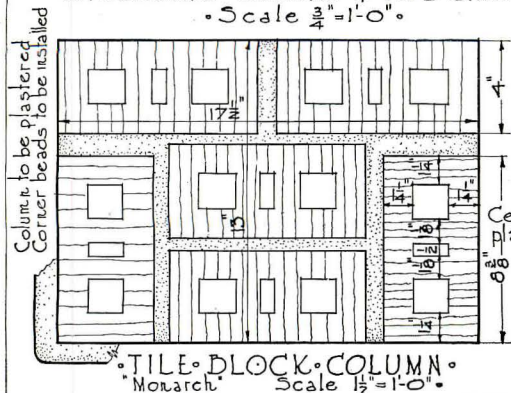
H-COLUMN ENCLOSED WITH BRICK  
Scale  $\frac{1}{2}$ " = 1'-0"



STEEL COLUMN ENCLOSED WITH HOLLOW TILE ROUNDED CORNER  
Scale  $\frac{3}{4}$ " = 1'-0"



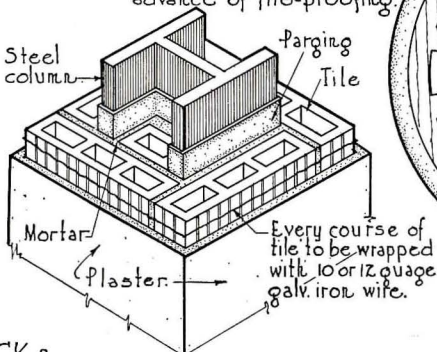
HOLLOW TILE (REGULAR SHAPES) ENCLOSING COLUMN & PIPE CHASE  
Scale  $\frac{3}{4}$ " = 1'-0"



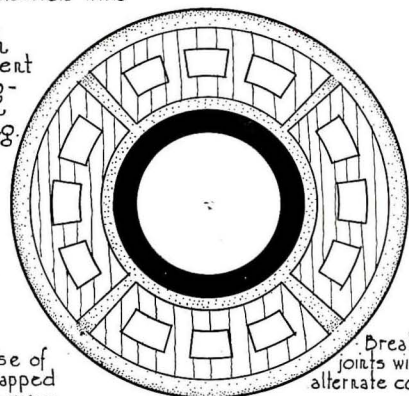
TILE BLOCK COLUMN  
Scale  $\frac{1}{2}$ " = 1'-0"

Building code to be consulted in conjunction with fire-proofing details.

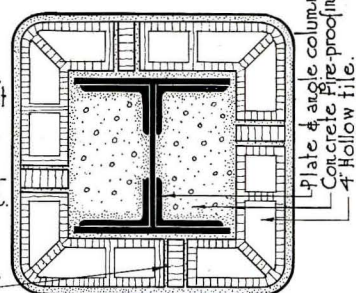
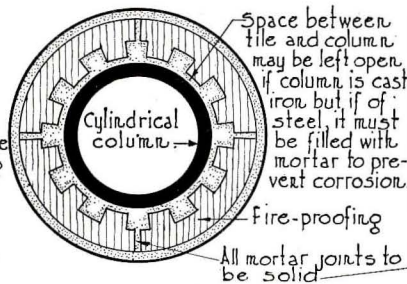
Parge all columns with coat of cement to prevent corrosion of steel. Parging to be applied 2'-0" in advance of fire-proofing.



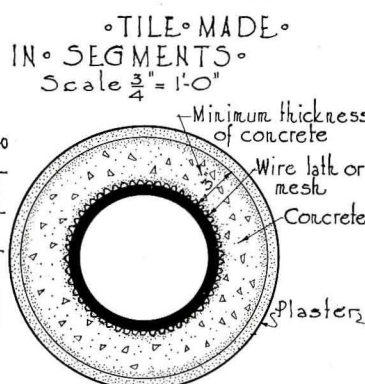
COLUMN FIRE-PROOFING



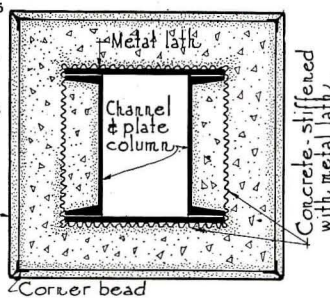
SEGMENTAL HOLLOW TILE COLUMN FIRE-PROOFING  
Scale  $\frac{1}{2}$ " = 1'-0"



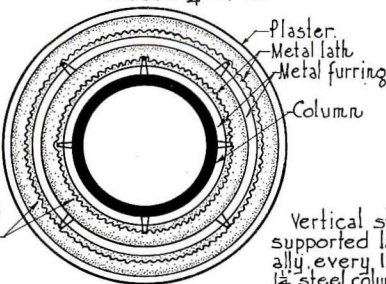
HOLLOW TILE CORNERS SLIGHTLY ROUNDED  
Scale  $\frac{3}{4}$ " = 1'-0"



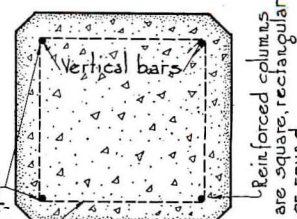
CONCRETE ENCLOSURE  
Scale  $\frac{3}{4}$ " = 1'-0"



CONCRETE ENCLOSURE  
Scale  $\frac{3}{4}$ " = 1'-0"



COLUMN WITH DOUBLE COAT OF CEMENT PLASTER  
Scale  $\frac{3}{4}$ " = 1'-0"



REINFORCED CONCRETE COLUMN  
Scale  $\frac{3}{4}$ " = 1'-0"



# PENCIL POINTS

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## THE 100 PER CENT. CLUB.

A NUMBER of architects' offices have advised us that every member of the staff is a subscriber to PENCIL POINTS, and we are sure that there are many other 100 per cent. offices. If yours is one, let us know and take your place in the 100 Per Cent. Club. Some offices lack only a few subscriptions of making the grade. If yours is one of these, won't you boost for PENCIL POINTS and make your office eligible. Now, all together.

## JOHN STEWARDSON SCHOLARSHIP AWARDED.

OTTO M. OLSEN, a post graduate student at Carnegie Institute of Technology, Pittsburgh, has been awarded the John Stewardson Memorial Scholarship in Architecture, for 1922. In winning this coveted prize for young architects in Pennsylvania, Carnegie Tech. students have won the scholarship for two consecutive years, and three times in the last five years. H. L. Rubin won it in 1917 and Russell F. Simpson was the holder last year. Of the seven highest ranking applicants, Carnegie Tech. was represented by three.

The scholarship, valued at one thousand dollars, is a memorial established on the basis of a fund donated by John Stewardson, noted architect of Philadelphia, who died 23 years ago. Candidates are restricted to architects, 22 to 30 years of age, who have completed at least one year's office experience and two years in an approved school of architecture, and must have studied or practised architecture in the State of Pennsylvania for the period of at least one year immediately preceding the scholarship award. The scholarship includes a year's travel in Italy, France, Greece, and Spain.

## PERSONALS.

HENRY CALDER THORNE, Registered Architect, has opened an office at 139 East State Street, Sage Block, Ithaca, N. Y., for the general practice of architecture and landscaping.

NOEL CHAMBERLIN has opened an office at 137 East 46th Street, New York City, for the practice of landscape architecture.

THE H. H. WINNER COMPANY, Bank Architects and Engineers, have removed their offices to more suitable quarters, third floor of the Sharon Building, 55 New Montgomery Street, San Francisco, Cal.

I. V. VAN DUZER, Architect, has removed his office from Cazenovia, N. Y., to Room 202, O. C. S. Bank Building, Syracuse, N. Y.

CHAS. C. CORNFELDT, 462 Woodrow Blvd., Toledo, Ohio, has opened an office for the practice of architecture.



LOUIS C. ROSENBERG.

LOUIS C. ROSENBERG, winner of the first prize in the Birch Burdette Long Sketch Competition for 1922, was born in Portland, Oregon, and received his early schooling there.

He began architectural study in the office of P. Chappelle Browne, Portland, Oregon, and later entered the office of Ellis F. Lawrence, to whom he feels largely indebted for whatever success he has gained. Under the direction of Mr. Browne he studied the Beaux-Arts problems in the atelier of the Portland Architectural Club for three years. He then went to the Massachusetts Institute of Technology as a special student for two years, 1912-13 and 1913-14. In 1914 he was awarded the travelling fellowship, but could not go abroad at that time on account of the war. In 1915 he worked in the office of Edward T. Foulkes, San Francisco, and of Proudfoot, Bird & Rawson, Des Moines, Iowa. He kept up the Beaux-Arts work and received first place in the Lezt Prize twice and second place in the Warren Prize in 1916. From 1916 until the fall of 1917 he was assistant to Dean Ellis F. Lawrence at the University of Oregon, in the School of Architecture.

He entered the army and went overseas with the 40th Engineers, Camouflage Section. In 1919-20 he returned to the University of Oregon.

In June, 1920, he sailed for Europe to use the fellowship awarded to him in 1914 at the Massachusetts Institute of Technology. The first year Mr. Rosenberg did mainly architectural research work, such as making measured drawings. The second year he devoted entirely to sketching and etching, spending most of the time in and around Rome, where he studied in the Academy. From the beginning of his studies in Europe Mr. Rosenberg was greatly interested by the picturesque character of his surroundings. The suggestions for interesting compositions, the beauty of the textures, the picturesque people all made so strong an appeal to him that he found sketching much more interesting than architectural drawing.

He returned to New York in August, 1922, and entered the office of York & Sawyer, where he is still employed.



## PENCIL POINTS

### PRIZE COMPETITION FOR DESIGNS FOR FACE BRICKWORK FOR THE GARDEN.

**P**RIZES aggregating \$1,550 are offered by the American Face Brick Association for the best designs for architectural features of face brick suitable for the grounds or gardens connected with residences, the competition to be conducted by the publishers of PENCIL POINTS.

The purpose is to stimulate a wider interest in the designing of such features and to secure designs that will afford helpful suggestions for the use of this material.

The prizes offered are: First prize \$500, second prize \$300, third prize \$150, fourth prize \$100, and ten prizes of \$50 each.

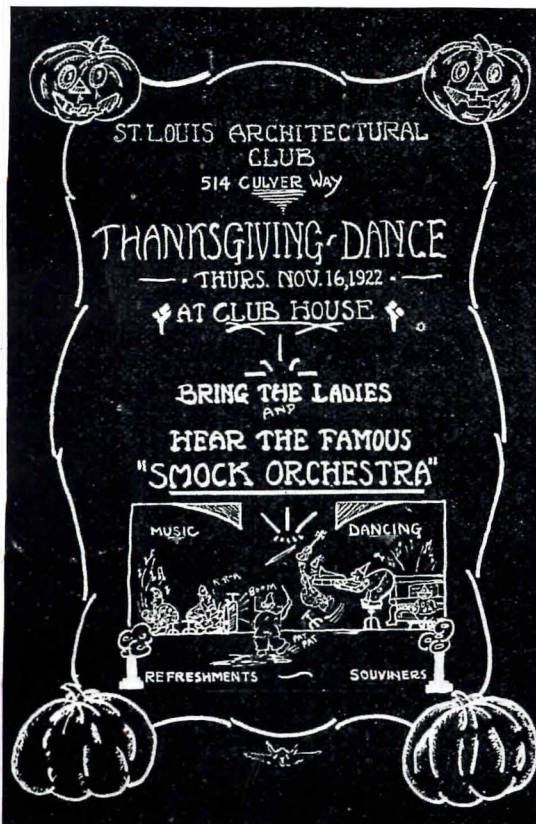
The Jury of Award will consist of five architects representing different sections of the country. The judgment will be held in Chicago. The competition is open to all architects, architectural draftsmen, architectural students, and all others desiring to compete.

All drawings for entry in the competition must be received at the office of The Pencil Points Press, Inc., in New York, before noon, February 5, 1923. Full particulars of program will be found on another page of this issue, or will be sent upon request.

### ONE HUNDRED DOLLARS FOR A LETTERHEAD DESIGN.

**T**HE Sumter Brick Works of Sumter, South Carolina, manufacturers of Airedale Brick, have announced that they will pay one hundred dollars for the best design of a letterhead. Full information can be secured by addressing Mr. Irving Ryttenberg, President, Sumter Brick Works, Sumter, South Carolina.

*Below is reproduced an attractive little announcement issued by the St. Louis Architectural Club for its Thanksgiving Dance. This announcement is a blue print about 8¼ x 9¾ in.*



WALTER C. SHARP.

**W**ALTER C. SHARP, President of the Dallas Architectural Club during the present or third year of that organization's life, was born in Madison, Tenn., in 1884. He is the son of the late Robert Sharp, F. A. I. A., of Nashville, in whose office he received his early training in architectural work. After a preliminary education in the public schools of Nashville, he attended the University of Pennsylvania, finishing in 1909. He later worked in the office of Grosvenor Atterbury, during which time he was a member of the Atelier Donn Barber.

Returning to Nashville, Mr. Sharp joined the office of Dougherty & Gardener. In 1919 he went to Texas, entering the office of the Herbert M. Greene Company, Architects, Dallas, where he has been since that time in the capacity of chief draftsman. Aside from his work in architectural offices, Mr. Sharp gained valuable experience in the building industry through his employment in the offices of several building material and contracting firms in Nashville, as well as through his work during the war as a supervisor of construction at the "Old Hickory Powder Plant."

Mr. Sharp is a charter member of the Dallas Architectural Club and his election to the executive office followed his efficient work, as the club treasurer during the past year.

### COMPETITION FOR THE HOUSE BEAUTIFUL COVERS.

**T**WO prizes, one of \$500 and one of \$250, will be awarded to the successful contestants in a competition for covers for *The House Beautiful* magazine. The competition will close February 10, 1923. Other particulars of the conditions to be observed may be found in the November or December issues of *The House Beautiful*, or may be had upon application to the Competition Committee, 8 Arlington Street, Boston, Mass.





# QUERIES

*In this department PENCIL POINTS will endeavor to answer questions of general interest pertaining to Architecture and allied arts, giving the best available information from authoritative sources. We desire that you feel free at all times to make use of this service, inviting your co-operation in making the department both interesting and valuable. Should you desire an answer by mail, enclose stamp for reply. Address queries to The Editor, PENCIL POINTS, 19 East 24th Street, New York City.*

**Questions**—I am a student in a school of design, and am learning poster work and commercial art. As I have considerable lettering to do, will you kindly give me the name of a book on lettering that would be useful to a student like myself? E. E. S. **Answer**—We believe that you will find the following books helpful to you: "Alphabets Old and New," by Louis F. Day, \$3.00; "The Alphabet," by Frederic W. Goudy, \$6.00; and "The Elements of Lettering," by Frederic W. Goudy, \$5.00. The book by Louis F. Day mentioned contains a great variety of alphabets. The "Elements of Lettering" is a manual for the art student and craftsman and is intended to present clearly and simply the fundamentals and essentials of our familiar letter forms, not so much how to draw them as to consider what they are—to view them in their essential aspect.

**Question**—Can you tell me of some good treatise on the architecture peculiar to the different periods? I know of so many elaborate works on the subject, but what is wanted is something that will give a few fundamentals the average salesman of lighting fixtures can grasp, and thereby make it possible for him to more clearly comprehend the idea the architect has in mind when he comes in contact with him. A very deep presentation of the subject would discourage the average salesman, unless he had had some training in this line, but if there is something simple that would hold his interest for a sufficient length of time to read it through, I believe it would be an immense help to him, and I should like to know about it. P. W. T. **Answer**—The most directly applicable book for the purpose you have in mind is in our opinion, "Period Furnishings," by C. R. Clifford. It is very fully illustrated, concise and interesting, it gives in a simple, clear way, an understanding of the differences between the furnishings of the different periods and the reasons as well as the earmarks. It is published by Clifford & Lawton, 373 Fourth Avenue, New York City. Old edition \$6.00 postpaid. New edition, 1922, \$7.50 postpaid. For a general understanding of the periods of architectural development from the earliest times we suggest the simple treatment of the subject in "Architectural Styles," by Rosengarten, \$2.50. Published by Charles Scribner's Sons, New York City.

## THE BIRCH BURDETTE LONG SKETCH COMPETITION FOR 1922.

(Continued from page 11)

jury has given just as careful consideration for the prizes to the sketches in other mediums, and wishes to recommend and encourage the use of all mediums—water color, oil, wash, lithographic pencil, pen-and-ink, etching, and any other mediums that may be found available, and more particularly the broad and simple indication of subjects in water color, trying not for striking effects of technique, but endeavoring to convey a sense of the subject with the least effort, so that at a little distance the general impression is that of a complete statement without undue labor.

The art of sketching is of invaluable assistance to the architect for the purpose of recording what he sees, for the purpose of stimulating his observation and for the purpose of recording his thought and conveying it to others. Sketching accomplishes these purposes where a labored drawing may not do so. Reference to the works of the old masters conveys this lesson constantly. The impressive preliminary sketches made by Michael Angelo, Leonardo da Vinci, Perruzzi, San Gallo, Bramante, and others, recording what they have seen or what they wish to express, are of vital interest, no less than the great completed works of these masters. In the sketch one feels the personality of the individual. The impression is recorded with full force undiminished by mechanical difficulties and the labor of producing a finished drawing, the result being greater brilliancy, a greater forcefulness than would otherwise be possible. While this jury recognizes the absolute necessity for thoroughly studied and carefully made drawings, and believes that such drawing is essential to the finest final development of the art, it is felt that, nevertheless, the forceful graphic sketch conveys the essence of thought and strikes, as it were, an electric spark that fires the imagination and carries an elemental force from which the carefully worked out and studied drawing may derive its ultimate merit.

The committee reports its recommendations as follows: First Prize (\$100) awarded to Louis C. Rosenberg, of New York; Second Prize (\$50) awarded to Lionel H. Pries, of San Francisco, Cal.; Third Prize (\$25) awarded to J. E. Jackson, of Abington, Pa.; Fourth Prize (\$15) awarded to Keck (Initials unknown).

Six prizes of ten dollars each were awarded as follows: To George A. Gibbons, of Philadelphia, Pa.; to J. T. Cronin, of New York City; to E. Maxwell Fry, of Liverpool, England; to G. G. Gilkison, of Pittsburgh, Pa.; to John Craig Janney, of Germantown, Philadelphia, Pa., and to Edward J. Weber, of Pittsburgh, Pa.

The following men received Honorable Mention: Louis C. Schlalos, of Los Angeles, Cal.; Edward H. Wigham, of Philadelphia, Pa.; Gerald K. Geerlings, of New York City; Meade A. Spencer, of New York City; Wilson R. Stewart, of Rochester, N. Y.; J. Louis Schillinger, of Birmingham, Ala.; Hugh Perrin, of Brookline, Mass., and Robert A. Lockwood, of Chicago, Ill.

The committee expresses its appreciation of the great service to the profession which has been rendered by Mr. Birch Burdette Long in establishing these prizes and believe that the influence of these competitions has already been most beneficial to the profession and especially to the younger men. The jury expresses its appreciation of the work of PENCIL POINTS in conducting these competitions.

## ANNUAL DINNER OF YORK & SAWYER'S OFFICE.

THE annual dinner of the office of York & Sawyer will be held at Delmonico's, Fifth Avenue and Forty-fourth Street, New York, on the evening of December 21. This will be the third occasion of the kind.



# THE SPECIFICATION DESK

## A Department for Specification Writers

### MISCELLANEOUS ITEMS OF CONSTRUCTION

#### PART IX.

By OTTO GAERTNER.

*In this series of notes Mr. Gaertner of the staff of McKim, Mead & White, Architects, will treat of a number of the minor matters of construction that are troublesome unless the architect happens to have met a similar problem previously—matters of a more or less special nature.—Ed.*

**Garages (Continued)**—In late years a new type of garage that has found much favor is one that is unique in that it has its area divided into two or more units or sections, so arranged that the floor levels in one section are staggered with those in the next. Such a type is well adapted to buildings of more than one story in height and exceeding fifty feet by one hundred feet in area. Its patented system of staggered floor levels has been used to overcome many special conditions of site and construction. For instance, such a system is often advantageously used where an addition is made to an existing garage or to a building that is being converted into a garage, by staggering the floors in the new section with those in the existing building.

The floor levels are connected by means of ramps which may be either straight, curved, or having a right angle turn, as may be best suited to the conditions met in the plan and as will sacrifice the least amount of floor area or car storage space in their installation. The ramps connect the aisles of one unit with those of the next, and since they rise only one-half of a story at a time, only a short ramp is necessary to reach from one level to the next. This short ramp can more easily be provided for in the plan than the usual longer ramp. Such a ramp having a satisfactory grade is usually found to be only slightly longer than the space needed for two vehicles.

The ramps should be placed on the centre, unlighted portions of the floor area, leaving the outer, well-lighted spaces for the more important working spaces or automobile storage. This has the added advantage, in case of necessity, of using the entire spaces on either side of a ramp, inclusive of the main aisles, for car storage space without interfering with the inter-floor traffic. Such a condition is especially desirable in garages where all the cars will leave at about the same time in the order in which they are freed; for instance, in a delivery truck garage connected with food and merchandise distributing companies. And if desirable, only the space to one side of the ramp need be so used while the other may be used in the customary way with a wide access aisle between the rows of stored cars. Of course, this storage feature holds good regardless of whether the staggered floor system is used or not.

But to dwell further on the staggered floor system, a few further advantages may be cited. On account of the short ramps it is well adapted to small buildings, most public and commercial garages being large enough to accommodate them. With the length of a ramp as already mentioned, and its width, including curbs and walls, about the same as the width required by two cars, the storage space for eight cars is sacrificed for the ramp and twice that much for two ramps to provide a traffic way for one entire story height. But a single elevator with its approach would require about the same amount of space as is needed to store six cars, and in an elevator garage additional space is needed for stairs and if there are two main aisles, additional space is needed for a connecting passage way between them. Therefore, with the ramp doing double duty as passageway between aisles and as traffic way for vehicles and people, the stairs and elevator may be omitted and about the same amount of car storage space is sacrificed in the staggered floor scheme as in the elevator scheme and often less. There is no question about the saving over a garage with two elevators.

The staggered floor system also has the advantage of having a fire-wall between the sections so that automatic, self-closing fire doors placed on the face of the fire wall will retard the fire even if the ramps are not enclosed with walls. In the ordinary building, the ramps are generally enclosed by walls and the fire doors occur at the ends of the ramps. Such ramps do not permit chauffeurs to see the surrounding floor spaces, making driving dangerous and difficult, whereas the unenclosed ramps give complete visibility and insure maximum safety to the cars, building and employees.

### PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER.

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

**Bank Buildings**, Vol. 4 of the Indiana Limestone Library, Series B.—Profusely illustrated brochure with plates in sepia illustrating various types of bank buildings from all parts of the country. Descriptive text. Notes on design of bank buildings, equipment and facilities. 64 pp. 8½ x 11 in. Indiana Limestone Quarrymen's Assn., Box 784, Bedford, Indiana.

**Mantelpiece Designs**—Six plates in pen and ink showing six types of mantelpieces with surroundings done in Indiana Limestone. 8½ x 11 in. Indiana Limestone Quarrymen's Assn., Box 784, Bedford, Indiana.

**Fuel Lifts**—A service booklet for the specification writer describing in diagrams and text a type of equipment designed to bring fuel to the fireplace with a minimum of labor and without scattering dirt through the house. Sedgwick Machine Works, 158 West 15th St., New York City.

**"Sterling" Transits and Levels**—Booklet illustrating engineering field equipment, drafting room furniture and drawing materials, price list. 32 pp. 4½ x 7. Warren-Knight Co., 136 N. 12th St., Philadelphia, Pa.

**Havemeyer Forms**—Bulletin illustrating removable metal forms for joist construction, illustrated, detail drawings and dimensions. 8 pp. 8 x 10½ in. Concrete Steel Co., 42 Broadway, New York City.

**Elevator Door Efficiency**—Illustrated catalog showing various types of elevator doors, detail drawings, specifications, safety appliances, etc. 48 pp. 8 x 10½ in. The Peelle Co., Brooklyn, N. Y.

**Celotex Insulating Lumber**—Uses, sectional drawings, specifications and sample. 44 pp. 8½ x 12 in. The Celotex Co., Chicago, Ill.

**American Gypsum Blocks**—Illustrated booklet showing methods of manufacture and application of this material. Sectional drawings. Specifications. 32 pp. 8½ x 11 in. American Cement Plaster Co., St. Louis, Mo.

**Pump Specifications**—Outline specifications covering house pumps, pneumatic water systems, return line vacuum pumps, sewage ejectors, etc. Handy pocket size. 12 pp. Chicago Pump Co., 2300 Wolfram St., Chicago, Ill.

**The Wood Eternal**—No. 1 of the Pocket Cypress Library. Descriptions of grades and uses. 3¼ x 5½ in. 48 pp. Southern Cypress Mfrs. Assn., New Orleans, La.

**Power Plant Equipment**—Catalog 44B—Illustrated catalog of Hydromatic steam traps, air traps, exhaust heads, centrifugal separators, steam separators, horizontal oil separators, hydromatic valves, all service feed water heaters, rotary ball-bearing ventilators. Data and dimensions. 7½ x 10½ in. 32 pp. Also Ventilation Data Card. The Ohio Body and Blower Co., Cleveland, Ohio.

**The New Curtis Adapter**—Catalog 3000. Engineering data showing sizes of this specialty and uses in solving lighting problems. 8 x 10½ in. National X-Ray Reflector Co., 235 W. Jackson Blvd., Chicago, Ill.

**Sheet Metal Bulletin**—Leaflet announcing the manufacture of a number of items of expanded metal specialties in zinc and copper. Data on corrosion. Illustrations in color. Specification data. 6 pp. 8½ x 11 in. Milwaukee Corrugating Co., 36th Avenue and Burnham St., Milwaukee, Wis.

**Atlantic Terra Cotta**—No. 7 of the series illustrating details of Luca della Robbia. 16 pp. 8½ x 11 in. Atlantic Terra Cotta Co., 350 Madison Ave., New York City.

**How to Get Best Results from Gypsum Plaster**—Booklet telling how to prevent and remedy Gypsum Plaster troubles. 32 pp. 3¼ x 7 in. United States Gypsum Co., 205 W. Monroe St., Chicago, Ill.





# PENCIL POINTS



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## PENCIL POINTS

### ARCHITECTURAL DETAIL, PART XIX.

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France. This interesting piece of architecture dates from the Fifteenth Century. Here the diagonal supports are straight struts instead of imitation arches and they stand as firm today as when they were built some five centuries ago. There is a nice contrast in the spaces defined by the horizontal braces of the second story and the shadows resulting from the projection of the second story and roof sills give warmth and interest to the design. The carved girder ends, corbels and escutcheons, are varied and the shadows they cast intensify the pleasing effect of the whole.

### THE STUDY OF ARCHITECTURAL DESIGN.

(Continued from page 36)

your own problems—do the sketch problems—help the men doing the analytique, "nigger" for the class "A" men. Men who play football, baseball or chess, or a musical instrument, and play well, practice incessantly; the same is true of men who render well.

This concludes the series of articles on the Class B Plan Problem. Succeeding articles will take up the study of the archaeology and measured drawing projects and the Class B. Sketch Problems.

### PRACTICAL EDUCATIONAL ACTIVITIES.

THERE is a practical character to the activities of the Committee on Education of the Washington State Chapter of the American Institute of Architects as detailed in the committee report published in a recent issue of the *Monthly Bulletin* of the Chapter. A few of these activities are as follows: A beginning has been made in the development of a Museum of Materials, which now consists of samples of mouldings, tile, metal corner beads, metal lath, and some other building materials used in small house construction. The Manual Training Department of the schools has cut the moulding into short lengths, mounted and labeled it. It is understood that each school has some of this material.

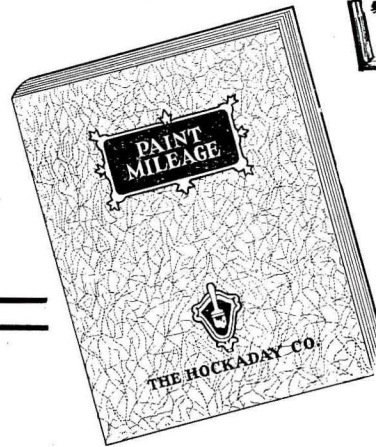
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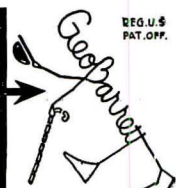
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