PENCIL POINTS

An Illustrated Monthly JOURNAL for the DRAFTING ROOM Edited by Russell F. Whitehead

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THE NEW BINDING FOR PENCIL POINTS

As you probably noticed when you picked up this issue we have abandoned the wire-stitched binding which we have used for so long in favor of a sewed binding which is usually employed for expensive books.

It has been our thought from the beginning that Pencil Points should always be bound in such a way as to open up flat on the drafting board and remain in that position without effort on the part of the user. Since both the editorial and advertising sections of Pencil Points have increased in size the wire staple binding usually employed in periodicals has become less and less satisfactory to our readers but we were reluctant to abandon it unless we could find an alternative system of binding which would be better.

The sewed binding used for the first time in this issue is an improvement in this respect as compared with the method we have previously employed and moreover we are able to control the uniformity of the margins by using a sewed binding so that the many who desire to bind Pencil Points in permanent form will get a better book than has formerly been possible.

Just a word about our advertising section: the growth of Pencil Points in this respect has been consistent and rapid and has kept pace with the steady growth of our circulation. There has been another element in our progress which has been most gratifying to us, namely, the increasing recognition on the part of manufacturers of the important part played by architectural draftsmen as well as architects in the selection of materials for use in buildings. We think it may truly be

said that in the pre-Pencil Points days the great army of architectural draftsmen was almost totally disregarded in the advertising plans of manufacturers generally.

In the old days the advertising section of any architectural journal was regarded by the subscriber not as a valuable service but as a nuisance. The advertisements themselves in but a comparatively few cases carried any message either helpful or valuable to the reader. Manufacturers were prone to say simply that their product was the best—and they did it in big type. Fortunately that situation has been considerably changed and manufacturers generally now recognize the importance of conveying accurate, precise and reliable information.

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Advertising space in PENCIL Points has not been sold by the use of "high-pressure" methods. It has been our policy to advise manufacturers to publish in our pages details which will be helpful in the drafting room, illustrations which will convey useful information to the man who needs it, specification forms presented in such fashion as to assist in the preparation of the contract documents, complete information regarding new things and their application to various types of buildings. In other words we are as genuinely concerned that the advertisements we publish shall be valuable to our readers as we are that our editorial section shall assist them in everyday practice.

Our new binding, which is of course more expensive than the old, is offered to our readers as another progressive step in our development and we trust it may have your full approval.

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THE ARCHITECTS OF HOLLYWOOD REPORT ON COST AND PROFIT

The architects' league of hollywood has now completed the analysis of the results of its questionnaire, "The Architect's Cost and Profit," sent to eight thousand architects in the United States in an effort to secure data on the costs of producing plans for various types of buildings together with figures on office overhead.

We have received from Hollywood a manuscript of one hundred and five typewritten pages containing the results of the investigation and we do not hesitate to say that those fellows out there in Hollywood have done a service of inestimable value to the entire profession. The material, which is of vital interest to every architect and draftsman, will be printed in three parts in the May, June, and July issues of Pencil Points.

The material not only indicates all of the items comprising the architect's overhead but it shows the various methods of adding overhead to the drafting cost and thus ascertaining the actual cost of any particular job. There are also a large number of tabulations showing how much it actually costs to make drawings for almost every type of building. These tabulations will be tremendously valuable to an architect as an aid in convincing a client of the necessity of paying an adequate fee. They also help to prove that fee cutting is not so much an ethical error as a serious economic mistake.

Both architect and draftsman must realize that the putting of architectural practice on a sound business basis, founded on accurate knowledge of direct and overhead costs, must inevitably react to the financial advantage of both. The results of the Hollywood questionnaire furnish the architect with a powerful weapon to help him to secure adequate fees for his work. The prosperity of the office for which a draftsman is working controls to a large extent the ability of the architect to pay him, in turn, adequately for his services. On the other hand an architect who is working for inadequate compensation is unable to give the draftsman the raise he deserves and expects.

We therefore recommend to both architect and draftsman that they read and digest this important report upon which our friends from Hollywood have unselfishly spent so much time and labor. Be sure you get your May, June, and July issues of Pencil Points!

PENCIL POINTS

Volume X

April, 1929

Number 4

PRELIMINARY STUDIES FOR THE CHICAGO WORLD'S FAIR

THE ARCHITECTURAL COMMISSION, in general charge of the design of the 1933 Chicago World's Fair project, has completed a number of preliminary studies which are presented on the following pages. The members of the commission—Harvey Wiley Corbett, Arthur Brown, Jr., Paul P. Cret, Raymond M. Hood, Ralph T. Walker, Edward H. Bennett, Hubert Burnham and John A. Holabird—after preliminary meetings during which the ideas of each were made known to all, prepared the suggested designs shown here, independent of each other. They then met again and, after a careful study of the

designs submitted, agreed on a parti which will be followed in their subsequent studies. This parti is shown on this page.

In order to understand the several designs presented, certain fundamental ideas, adopted early in the discussion, must be clearly understood.

The fair is to be held along the lake front, partly on the mainland and partly on a group of man-made islands which will extend north and south for a distance of about 50 city blocks. The north end of the exposition will be almost in the heart of the city, with the dominating

science building located just south of Twenty-third Street, an east and west thoroughfare. The land area for development, lying north of Thirty-ninth Street, contains about 815 acres while the lagoon adds almost 200 acres to the total. The 287 acres of Grant Park to the north may also be utilized.

To avoid the fatigue which has been experienced in the past by visitors to other expositions, and which might be expected to be greater here in this larger area (the 1893 fair comprised 636 acres), the architects decided to adopt a system of moving sidewalks extending throughout the scheme. Also, since the land is practically at water level, they decided upon a network of canals passing through and between the buildings so that noiseless electric launches can be added to the transportation facilities designed to reduce foot-weariness.

In other expositions the reluctance of the public to visit floors higher than the ground has led to making the exhibition halls large in area and all on the one level. To secure monumental effects, however, the exteriors of the buildings were made much higher than necessary and much space under the roofs was wasted. In this exposition it was early decided to reduce the ground area and to employ several floors in each building, using fireproof construction. To lower congestion at entrances, visitors will be transported by escalators to the upper levels immediately on their arrival. Principal entrances to buildings will therefore be on the roofs and the crowds entering a building will circulate through it from the top down. This will

enhance the value of upper floor exhibition space.

It was agreed that, in order to eliminate any shut-in feeling which might be experienced by visitors to floors below the roof level, each story should project out beyond the story above it, forming a system of terraces in each building. On these terraces circulation will be aided by more moving sidewalks and by escalators leading from one level to another.

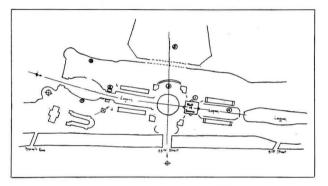
All these moving sidewalks and escalators are being designed as important parts of the entire structure, not to be tacked on to a system of buildings com-

plete in themselves, but integral with the whole. The sketch by Ralph Walker on page 224 shows this clearly.

With the same thought of designing the whole completely, the arrangements for lighting the exposition are being provided for from the beginning. The tremendous progress of the art of using artificial light for flood-lighting made in recent years will undoubtedly be taken advantage of to the fullest possible extent so that the exposition at night will be one huge system of "permanent fireworks" controlled so as to achieve a tremendous dynamic effect.

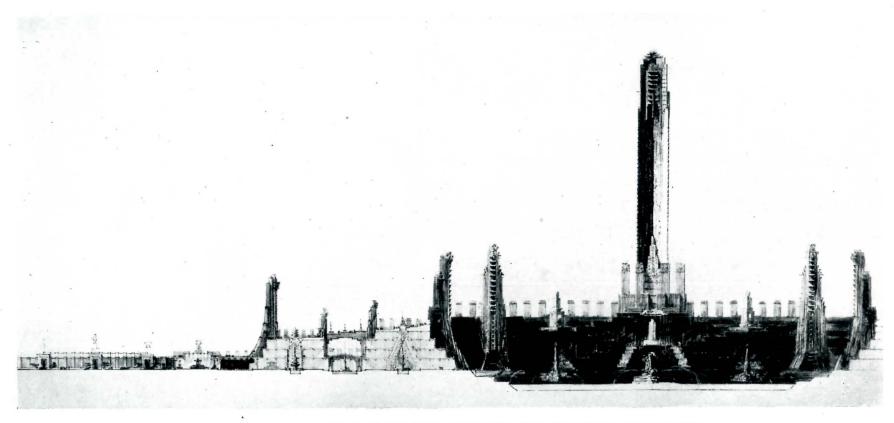
The fact that many thousands of people will view the fair from the air is influencing the designers to consider the purely æsthetic aspect of the plan to a larger degree than heretofore. It will have to be composed as a giant piece of jewelry.

All these factors have vital bearing on the design of the exposition and the drawings shown here, to be understood, should be examined with them in mind.



"THE ACCEPTED PARTI"

Combining the more important elements of the several schemes shown hereafter. 1. The Hall of Science, to dominate the composition; 2. The Water Portal; 3. The 23rd Street axis; 4. The south lagoon; 5. The proposed airport; 6. Site of Horticultural Building; 7. Site of Festival Hall.

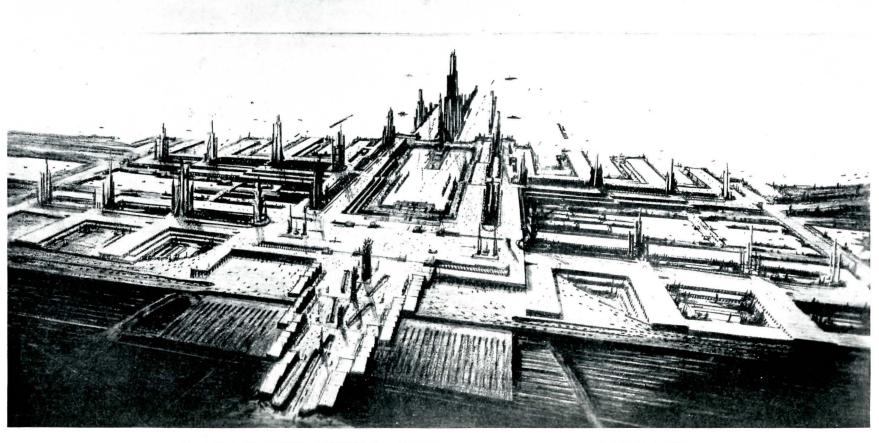


PROPOSED EXPOSITION GROUNDS FOR CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION

SECTION OF STUDY BY HARVEY WILEY CORBETT INDICATING TREATMENT OF VERTICALS AND SHOWING CANAL PASSING THROUGH MAJOR BUILDING

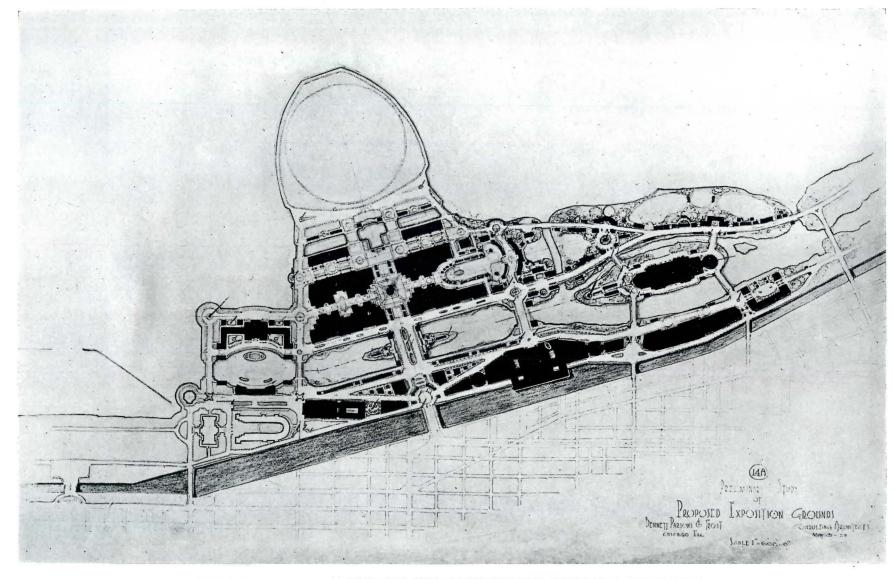
This drawing shows the intention to have the buildings consist of several stories. Moving sidewalks at the roof level will transport visitors to all parts of the exposition without fatiguing them while canals at the water level will provide opportunity for electrically operated passenger boats to circulate freely from building to building.

The water of the canals will be kept in circulation by many large fountains which are in evidence in the drawing.



PROPOSED EXPOSITION GROUNDS FOR CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION SUGGESTION BY HARVEY W. CORBETT OF TERRACES AND ROOF PLAZA WITH VERTICAL ORNAMENTATION

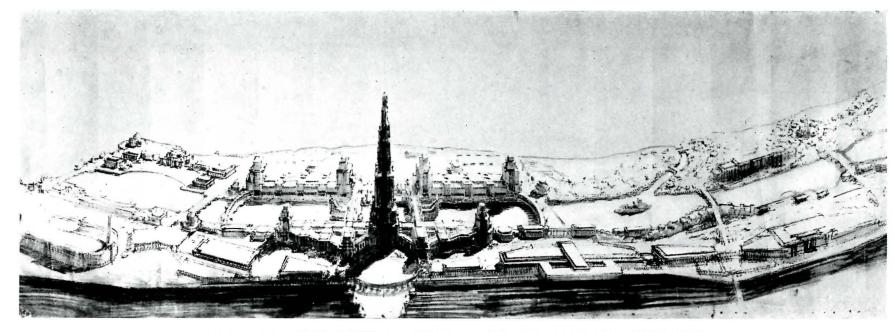
This drawing clearly shows how the exposition will be made up of multi-storied buildings rather than being all on one level as in previous expositions. Each story will project out beyond the story above it, giving rise to a system of terraces. By this means, persons visiting the lower floors will not be shut in but will enjoy a feeling of openness on all sides. The public, upon entering the exposition, will first be conducted to the roof by means of escalators and can then circulate all about on moving sidewalks. The lower floors of any building will thus be approached from above. Canals at the water level will provide supplementary circulation.



PROPOSED EXPOSITION GROUNDS FOR CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION

EARLY STUDY BY EDWARD BENNETT WITH MAJOR BUILDINGS EAST OF LAGOON AND TRANSVERSE AXIS AT 23RD STREET

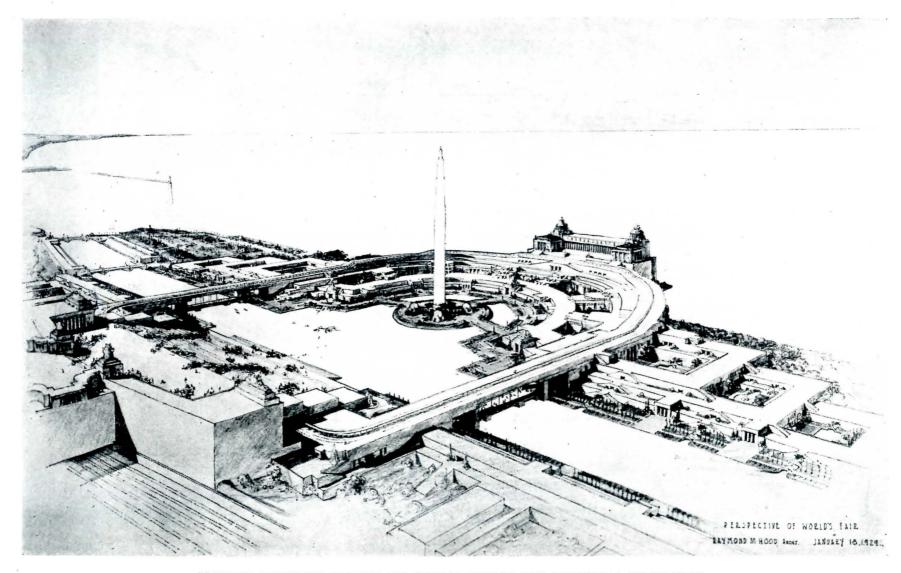
A more conventional plan, prepared early in the development of the scheme. This study was later dropped by Mr. Bennett in favor of the arrangement shown on the facing page.



PROPOSED EXPOSITION GROUNDS FOR CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION

LATER ARRANGEMENT BY EDWARD BENNETT WITH DOMINANT AT HEAD OF 23RD STREET AXIS

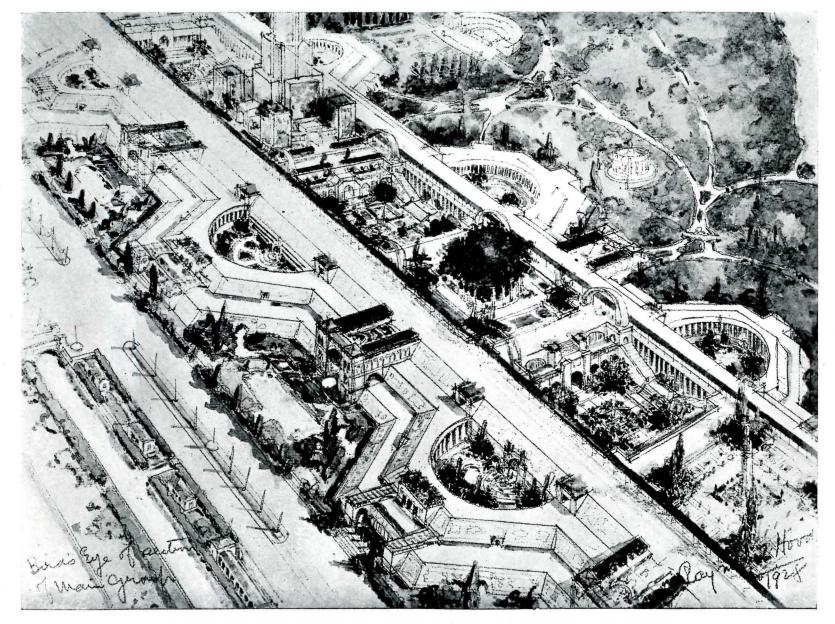
In this scheme Mr. Bennett has tied the main group of buildings together so that the public can circulate freely throughout by means of the system of moving sidewalks on the upper level. This is a much more dynamic arrangement than that shown by the earlier plan opposite.



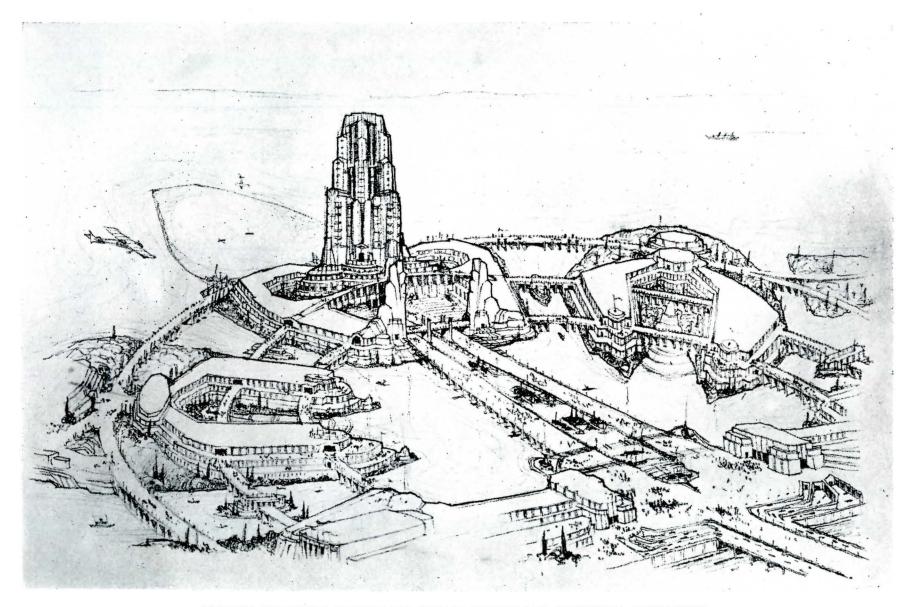
PROPOSED EXPOSITION GROUNDS FOR CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION

PERSPECTIVE OF AMPHITHEATRE WITH COLUMN AS DOMINANT AND ARRANGEMENT OF MOVING SIDEWALKS, BY RAYMOND M. HOOD

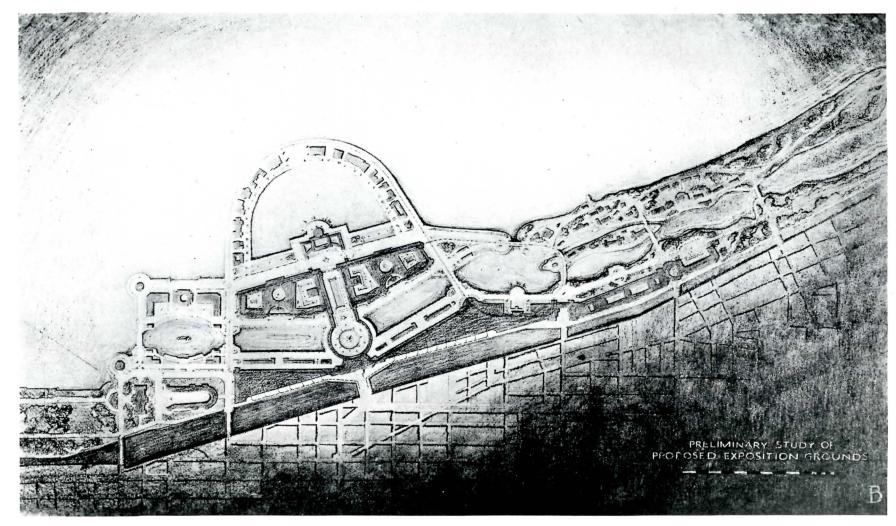
Note that the entire composition is tied together by the system of moving sidewalks which are made an integral part of the total structure.



PROPOSED EXPOSITION GROUNDS FOR CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION
RAYMOND M. HOOD'S SUGGESTED ARRANGEMENT OF BUILDINGS IN BLOCK-PLAN WITH MOVING SIDEWALKS, PROVIDING FOR INDEFINITE EXPANSION



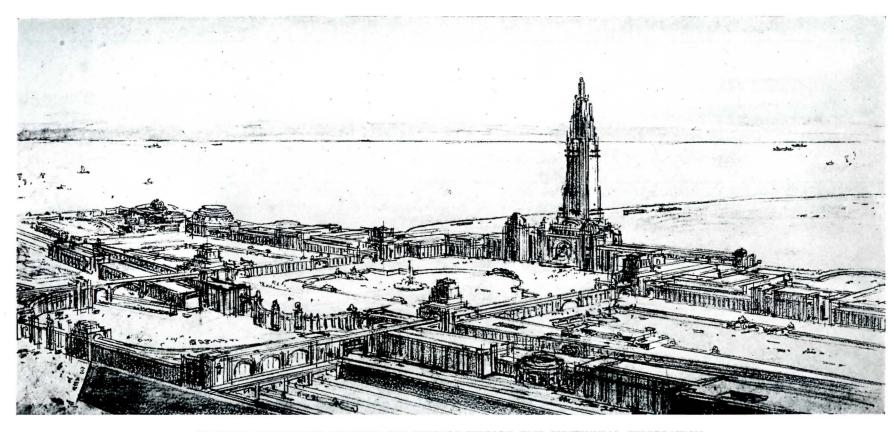
PROPOSED EXPOSITION GROUNDS FOR CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION A STUDY OF TERRACES AND MOVING SIDEWALKS IN AN AMPHITHEATRE PLAN BY RALPH T. WALKER



PROPOSED EXPOSITION GROUNDS FOR CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION

A COMBINATION OF A BLOCK BUILDING PLAN AND AN AMPHITHEATRE PLAN BY PAUL P. CRET

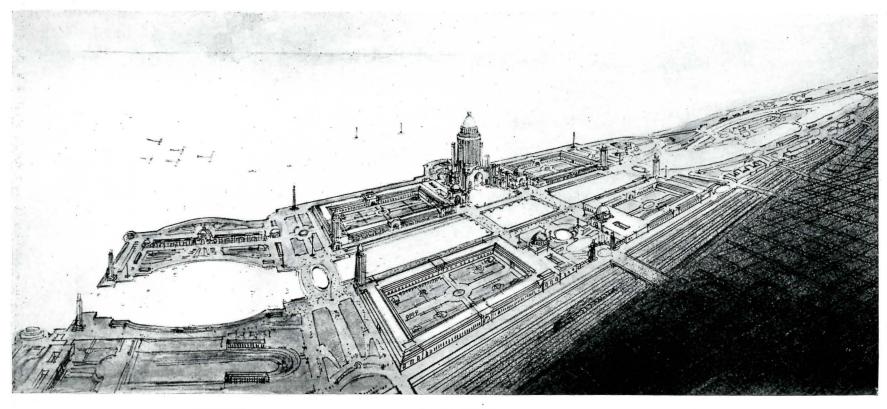
This is a well thought out plan with the principal group closely tied together in a form suggestive of an airplane.



PROPOSED EXPOSITION GROUNDS FOR CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION

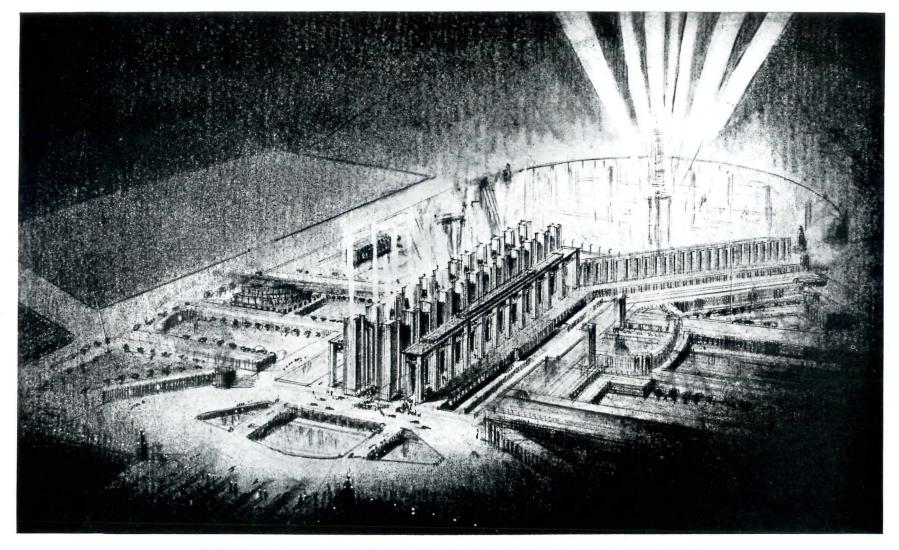
GROUP CENTERED ON 23RD STREET AXIS WITH SUGGESTED ARRANGEMENT OF MOVING SIDEWALKS BY HUBERT BURNHAM

Here the entire group, although spread over a great area, is well knit together by the elevated moving sidewalks which will undoubtedly be one of the outstanding new features to distinguish this exposition from all other previous ones. The terraced buildings, such as are shown on some of the other architects' studies, are not so much in evidence here.



PROPOSED EXPOSITION GROUNDS FOR CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION PERSPECTIVE PLAN BY ARTHUR BROWN WITH DOMINANT AT FOOT OF 23RD STREET AXIS

This drawing shows one of the early suggestions which is more static than some of the later studies. The buildings are not so evidently tied together by the system of moving sidewalks as in other designs shown on these pages. There is nevertheless a very great sense of dignity to the arrangement.



PROPOSED EXPOSITION GROUNDS FOR CHICAGO WORLD'S FAIR CENTENNIAL CELEBRATION

SUGGESTION BY JOHN A. HOLABIRD OF A HALL OF SCIENCE AS A DOMINANT LOCATED AT THE NORTH END OF THE LAGOON

This conception indicates that light will be used freely in achieving more spectacular effects than have ever been attained before in expositions. The architectural

forms are, of course, simply suggestions to be worked out in detail later.

OUR ALIEN ARABICS

A DISCUSSION CONCERNING NUMERALS

By Robert L. Cook and Egon Weiss

EDITOR'S NOTE:—The series of articles on Lettering, by Egon Weiss, which have been appearing in Pencil Points has excited a good deal of interest among our readers, and one of them, the author of this article, has brought up an important point for discussion. In order to present both sides of the question we have given Mr. Weiss an opportunity to reply to Mr. Cook's argument and we leave it to our readers to decide for themselves which one is right. The material by Mr. Weiss is, as usual, copyrighted in his name. We begin with Mr. Cook's article.

THAT THE LETTER FORMS which ancient Rome developed from the Greek and which were refined in the period of the Renaissance are still employed in our best works of design and architecture after more than two thousand years of usage is conclusive evidence of their perfection. In philosophic mood we may wonder how the Roman numerical system could have functioned in even the simplest of mathematical problems: MDMXXIX minus MDCCCLX equals LXIX appears rather more difficult to arrive at than trigonometry or calculus. That, however, was a problem which confronted the Romans and need not bother us. On the other hand, their cumbersome system of notation left us of the latter days with a problem quite as serious, though of another sort. We inherited a most perfect alphabet from Rome and then adopted an entirely foreign set of numerical characters from Arabia. Eight of these characters are quite unlike any of the letter forms of ancient Rome, or the various Uncials, Gothics, Blackletters, etc., subsequently developed. Except for the one and the naught, the Arabic characters are hardly less incongruous to modern letters than an Ionic column to a Gothic cathedral.

As commonly used in book and newspaper make-up, in conjunction with "lower case" or minuscule type, these Arabic characters seem less out of place—due in part, no doubt, to our having become accustomed to the combination and in part to the fact that the minuscule, with its cursive freedom of style, its ascenders and descenders, savors more of the general characteristics of the Arabic numerals. But when used in a formal or monumental inscription composed of "upper case" or majuscule letter forms, the Arabic digits seem, simply, not to belong.

That this opinion is shared by many becomes apparent as we observe designers and architects taking frequent refuge in the use of Roman numerals, especially in the inscription of dates. This evasion is hardly to be encouraged, since inscriptions are intended to be read and the majority of literate persons are limited in their understanding of Roman numerals to the characters which appear on the face of the clock.

In one of his interesting contributions appearing in the August number of Pencil Points, Mr. Egon Weiss displays a set of Arabic characters which are

typical of what has come to be generally accepted by letterists and designers as appropriate for use with antique, Roman letter forms. In some respects his characters are better than many others, but, even so, they violate the elementary rules which govern the correct detailing of Roman letters.

Logically, we may first consider the "1"; since it and the "0" are the only characters which are Latin by nature, why not retain the "1" as "I"? Not a few type fonts do so retain it.

The "2" violates two elementary rules: the tapering of the back and the heavy horizontal base bar. The Romans employed two light verticals in the "N" and one in the "M," but they never employed a heavy horizontal bar in any character.

The upper bar of the "3" is likewise erroneously heavy and the second stroke, descending from right to left, would seem to fall under the rule which governs the similar stroke of the "Z," which is heavy (albeit an exception to the general rule). The tapering termination of the "swash" or tail appears weak and is without Roman authority, unless one quoted the "Q"—and that stands for question. A serif-like termination is suggested as appearing more orderly and academic.

Mr. Weiss happily discards the horrid, heavy horizontal in the figure "4" although it finds occasional favor by a few accomplished artists.

Following the common practice, the "5" displays an unlawfully heavy horizontal followed by a needlessly sloping light bar, which by law should be heavy and by preference vertical. Its lower extremity has been observed in the discussion of the "3."

The "6" and "9" frequently are, and of right ought to be, invertible and might well be terminated in more orderly fashion with a serif.

The "7" seems properly to be amenable to the rule of "3" and "Z"—while the left-hand stroke of the "A" might easily justify the serif termination, affording a more substantial base.

The ways of doing a figure "8" are almost without number: it is often detailed with the "S" as a basis by merely continuing the free ends of that letter. Again it appears as a somewhat refined script character after the manner in which we wrote it on our slates. Neither really seems to embody classic style to the

PENCIL POINTS

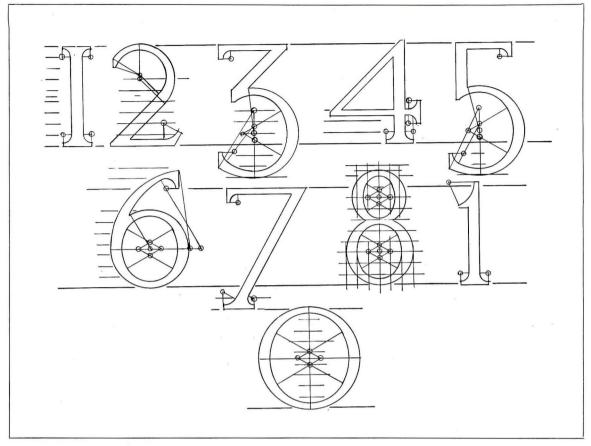


FIGURE 1—NUMERALS BY ROBERT L. COOK FOR USE WITH ROMAN LETTERS

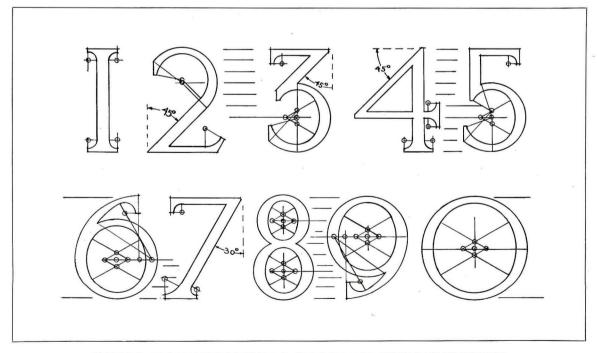


FIGURE 2—NUMERALS BY ROBERT L. COOK FOR USE WITH ROMAN LETTERS

extent that did those figure eights which we used to cut on the ice with our skates, which were nothing more or less than two circles—only for the sake of balance the lower circle may be somewhat larger and the shading made to follow the rule for the "O." And that brings us to the last of the Arabics: an orthodox circular "O." No doubt Mr. Weiss had some reason for using the elliptical form, but it would needs be a potent one to be convincing, except that one were cramped for space.

The accompanying drawings make no pretense to perfection of form in the several characters shown—no study or effort having been expended in this direction. Their proportions are admittedly crude, their purpose being merely to illustrate and to demonstrate constructional elements which are hoped to be more consistent with Classic forms than are the digits of present-day usage.

Figure 1 adheres to the practice of extending the "3," "5," "7," and "9" below and the "6" and "8" above the guide lines. Light horizontals are indicated in all characters where horizontals occur and serif terminations substituted for the swash in the "3," "5," "6," "7," and "9."

But when we come to think of it is there any good reason for the extension of the "3," "5," "6," "7," "8," and "9" beyond the lines within which we are able to confine the twenty-six letters of the alphabet, except the "Q"? Are not the forms, themselves, alien enough without making them doubly conspicuous by protrusion?

Figure 2 is modestly offered as a suggestion of forms which are confined within the same limits as the alphabet with which they are intended to be used. It is submitted that such forms would produce a more restful composition than the forms which we commonly use, and which, like Topsy, seem to have "jes' growed" upon us.—ROBERT L. COOK

In reply to the above, Mr. Weiss contributes the following:

A VERY INTERESTING and ingenious theory on the design of numerals has been presented in the foregoing article by Mr. Robert L. Cook, in which he criticises a set of numerals designed to illustrate an article on Roman Alphabets in the August 1928 issue of PENCIL POINTS. While gladly accepting this criticism, it would be well, in self-defense, to mention that I made no attempt to cover all the ground on the subject in the August article although I did intend to present what was, in my judgment, the best practice. I therefore designed numerals that are constructed on a theory foreign to the rules of Roman shading, but, as far as is known, accepted as the best by designers all over the world. I had, however, full knowledge about Mr. Cook's theory at the time the article was under preparation since I possess a book in which Mr. FIGURE 1—SHADING DIAGRAM BY EGON WEISS Showing position of pen and resultant shading.

Cook presented a set of numerals similar to those shown with his article in this issue.

The problem confronting the designer here is not nearly as simple as it appears. There are a number of questions that the careful designer must weigh, one against the other, before he makes a decision. First of all, are the proposed changes improving legibility and beauty—the chief principle in design? Second, are the changes consistent with the shape of the numerals, or are the shapes of the numerals such that they lack Roman character and are better not adapted to a foreign style? Third, is there any serious offense in combining numerals with letters constructed upon different elementary strokes (provided the same chief characteristic is retained in both), or is this variation creating interest in the design? Fourth, are Arabic numerals the product of the same historical age as the Roman letters, a product of the same tools, materials, and practice of that time? And does their organic beauty, which is a part of their originality, suffer from inorganic, or artificial, changes through adaptation to a foreign style or not? These are only a few of the questions the designer must answer before he attempts to create a new design in a field of such importance as Lettering.

To illustrate the problems which confront the designer the writer will discuss some of the questions as follows:

(1) Why have the numerals illustrated in the August issue been chosen by the writer? He has chosen those numerals because he believes that they

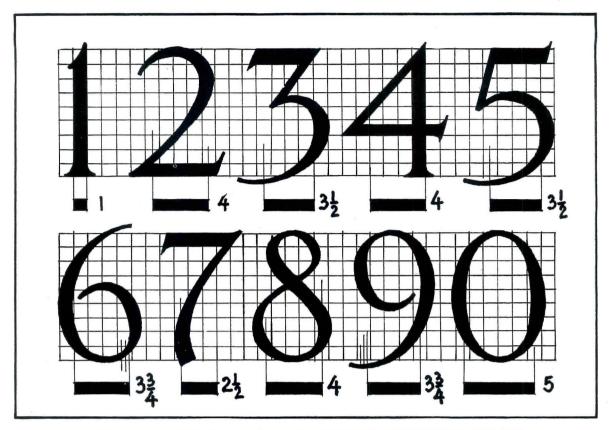


FIGURE 2—ARABIC NUMERALS BY EGON WEISS WITH CONVENTIONAL SHADING

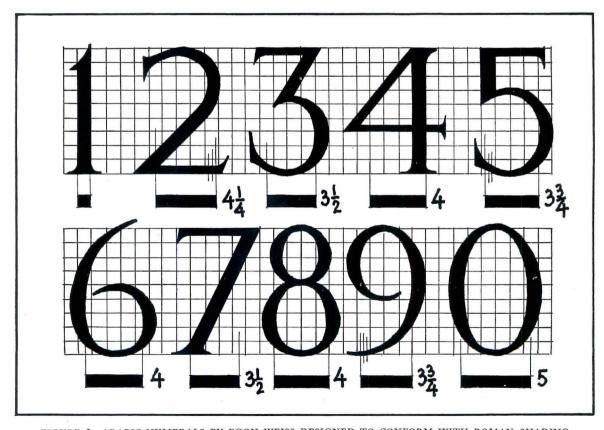


FIGURE 3—ARABIC NUMERALS BY EGON WEISS DESIGNED TO CONFORM WITH ROMAN SHADING

are used in this shading universally, have historical background, and are used by the best designers in conjunction with Roman letters.

(2) What is the history of the numerals? Until the fifteenth century Roman letters were used to represent numbers, the "1" was represented by "I," the "5" by "V," the "10" by "X" and so on. Arabic numerals were introduced in Europe as early as the twelfth century but were not adopted generally until the fifteenth century.

(3) Are Arabic numerals as used today the same as their Arabic parent numerals? No; only the "1," "9," and "0" can claim direct oriental parentage.

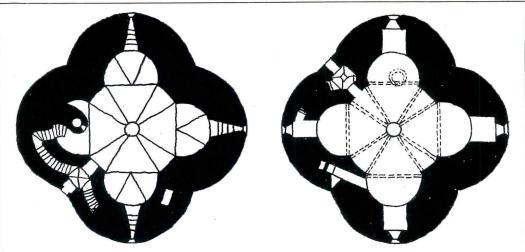
- (4) What was the original position of the pen in writing Roman letters? Roman letters were originally written with a broad-nibbed reed pen held almost directly upright at a right angle to the writing surface.
- (5) What was the original position of the pen in writing numerals? Numerals were written with a broad pen tilted about 45°.
- (6) What is a common feature of both the Roman letters and the Arabic numerals? Alternating thin and thick strokes.
- (7) What is the main difference between Roman letters and Arabic numerals and what is the cause of it? In Roman letters the horizontal bars are thin, in Arabic numerals they are heavy. This is caused by the difference in the position of the pen with reference to the writing surface as explained in answers to (4) and (5). See Figure 1.
- (8) Does legibility gain by the substitution of the "I" for "1" and the round "O" for the elliptical naught? No; there should always be different characters for different meanings. The writer has expressed his opinion in connection with the discussion of the use of the V in place of the U on Roman inscriptions, in the August 1928 issue of PENCIL POINTS. As legibility is one of the most important factors in designing, separate characters should be maintained for the "I" and the "1," the "O" and the naught. This has been suggested in the numerals presented in the August issue. The distinction between the "O" and the naught, of course, is slight, the outline of the "O" being a full circle and the outline of the naught being an ellipse.
- (9) Is the Roman shading of the Arabic numerals consistent with their shapes? No; Arabic numerals, with the exception of the "1" and "0," and perhaps, in part only, the "4," "7," and "8," are distinctly foreign in the design of their shapes to Roman letters. For example, let us imagine a Roman "2," "3," "6," and "9." Perhaps the "2" could be replaced by a "Z," as we actually find in some examples done in the sixteenth century, the difference being that the shading is opposite to that of the Roman "Z" (see Day's Alphabets, Old and New). The "3" could be thought of as a part of the Roman character "B" by omitting the first heavy stroke and

adding the serifs on the free ends at the left. The "3" is certainly foreign to Roman characters by its mere position for, with the exception of the "J" which, however, is a much later development, no letter in the Roman alphabet is open to the left. A similar position is taken by the "2," "7," and "9." The "9" as a Roman character would probably resemble a reversed "P." Likewise the "6" could be thought of as an inverted "P." The writer believes that it would require the changes outlined above to make numerals look Roman. Mere reversing of thin and thick strokes and occasional addition of serifs will not make Arabic numerals match Roman letters.

(10) Is there any serious offense in combining numerals with letters constructed upon different elementary strokes, or does this variation of design create interest? The variation between Roman letters and Arabic numerals consists only in a different application of the thin and thick strokes. As long as this characteristic is maintained the variation is consistent and, therefore, should present a welcome means of creating interest.

The heights of the numerals are often shown to vary. The writer agrees with Mr. Cook in preferring numerals of uniform height. The numerals pictured on page 486 of the August issue of Pencil Points were designed extending above and below guide lines, merely as a comparative illustration to the numerals shown on page 482 of the same issue. In concluding it may be well to mention that all strokes of the modern Arabic numerals can be explained by the position of the pen at 45° to the writing surface (see Figure 1). The horizontal element in the "4" is intended to be slightly thicker than the inclined stroke, but not as heavy as the down stroke to avoid crossing of two heavy lines. Personally, the writer prefers a tapering swash line for the "6" and "9" This is often done on Roman (without serif). letters; for example, the swash line of the "Q" and "R." The "6" and "9" are not shown invertible in the set of numerals under discussion for the sake of stability, the swash of the "9" being longer than that of the "6."

The writer is at the present time preparing a book on Lettering, intended primarily for architects and designers. Such a book must not be governed merely by personal opinions and experiences. Perhaps, there are a good many designers who feel about our "alien Arabics" as Mr. Cook does and for that reason the writer has designed a set of numerals constructed on the principles of Roman elementary strokes; while the Arabic outlines are maintained, the rhythm of the strokes is changed as suggested by Mr. Cook (see Figure 3). The writer invites readers of Pencil Points to give him their opinions and criticisms regarding the designing of numerals, and will welcome any communications on the subject of Lettering.—Egon Weiss



A typical quatrefoil plan donjon or keep of the Middle Ages in France. This type plan was adopted because it was stronger than the square or rectangular type. The above shows the first and second story plans. (After Viollet-le-Duc.)

THE RICKER MANUSCRIPT TRANSLATIONS, IX

VIOLLET, LE, DUC'S "RATIONAL DICTIONARY OF FRENCH ARCHITECTURE FROM THE ELEVENTH TO THE SIXTEENTH CENTURY," VOLUME V

By Thomas E. O'Donnell

IN THE FIFTH Volume of the Ricker Translations of Viollet-le-Duc's Dictionary, one hundred and six subjects are covered. There is a great diversity

of subjects and, in general, the discussions are short. As in the other volumes, the original by Viollet-le-Duc contains several hundred finely engraved illustrations. The student of mediæval architecture, of The Arts, or of history will find a wealth of interesting and valuable material in this volume.

The volume opens with a discussion of the use of the canopy, an ornamental projection on the exteriors or interiors of buildings which the mediæval builders delighted in using as crowning coverings for statues. The artists did not consider it proper to place a figure of a saint or a celebrated personage against a

wall unless the head was protected from the rain and other elements by means of a small canopy, which was built as an integral part of the structure. This prac-

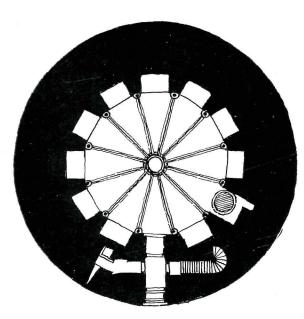
tice continued throughout a long period, and many beautiful examples were created. These canopies, with their little statues, give added charm to many of the great churches and cathedrals of Europe, and still exist to inspire present-day architects.

The second subject discussed in this volume is floor pavements. Although the mediæval builders knew of the Roman methods of marble pavements and mosaic floors, yet these seemed to be too costly for them. The earliest known types of floor pavements used in the Middle Ages were composed of large slabs of stone, carefully joined

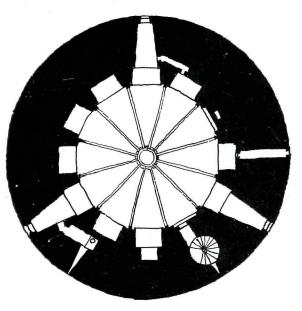


A typical decorated floor slab of the Middle Ages. It consists of a design engraved or incised upon a white slab of stone and the incisions filled in with colored cements. A method borrowed from the Byzantines. (After Viollet-le-Duc.)

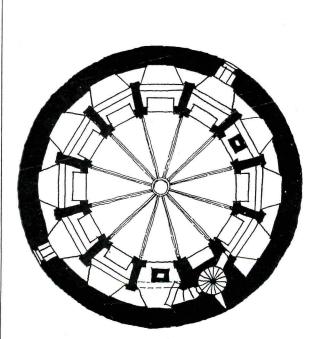
THE RICKER MANUSCRIPT TRANSLATIONS, IX



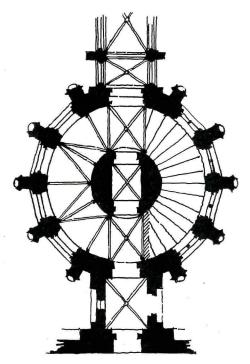
The first story plan of the famous Donjon of Coucy. Said to have been the strongest and finest example of military architecture of the Middle Ages. (After Viollet-le-Duc.)



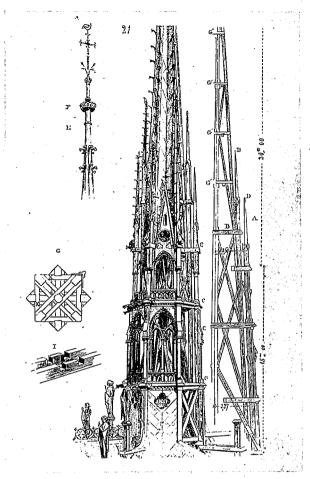
Second story plan of the Donjon of Coucy. The circular type plan was the latest developed and proved to be the strongest ever devised. The interior of this Donjon was vaulted. (After Viollet-le-Duc.)



The third story plan of the Donjon of Coucy. This floor was used for the living quarters of the mediæval lord and his family in case the castle was besieged. (Viollet-le-Duc.)



Plan of a stairway, of the spiral type, in the Old Louvre, Paris. Destroyed at the time of reconstruction. Typical of some of the larger and more elaborate spiral stairways of its period. (Viollet-le-Duc.)



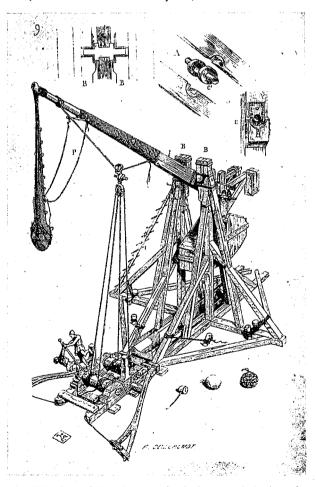
Detail showing the method of constructing the carpentry work of the flesche spire on Notre Dame, Paris. Framed entirely of oak and covered with sheet lead. The ornaments are of hammered lead. (Viollet-le-Duc.)

and laid in simple pattern. Later they learned to ornament these in the manner employed by the Byzantines, of using inserts of colored cement or other material in slabs of limestone. Upon plain smooth slabs of stone they engraved or chiseled designs, which were afterwards filled in with lead or other plastic material. Cements colored black, green, red, brown, blue, etc. were frequently used. A resinous black cement was a commonly used material? Usually each slab of stone was covered by a complete design; larger designs were obtained by placing specially designed tiles in various patterns. Often these floor slabs were dressed, engraved, filled, and polished in the workshop before setting. Some very beautiful designs were made, often of a memorial character and given by patrons to the church just as in later times memorial windows were given in memory of a departed relative or friend. Although the finest pavements of this period were to be found in the churches and cathedrals, yet they were also used in the great halls of castles, palaces of bishops, and city halls. The builders of the time seem to have fully

understood the importance of colorful pavements as a means of decorating the interiors of edifices.

The most unusual and in some respects the most interesting article in this volume of the *Dictionary* is that on the *donjon* or *keep* of the Middle Ages. The chief interest and fascination comes from the many ingenious arrangements within these old structures whereby the feudal lord attempted to protect himself. The keep was a masterpiece of foresight, the most picturesque military architecture ever conceived and the most striking expression of the life of the feudal period in France.

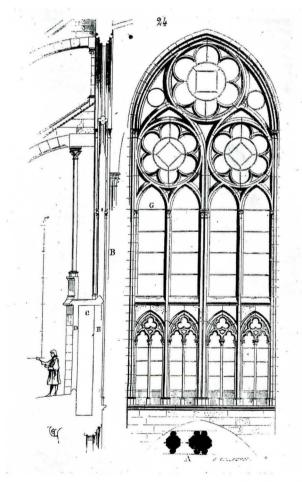
The old Roman system of construction was used in building the keep, namely, a very thick wall of concrete—mortar and stone—faced with cut stone. The earliest keeps were square or rectangular in plan, but when methods of warfare changed and heavy battering rams came into use, the corners of these proved to be weak points, the result being that these structures were built with rounded corners. An early type was the keep of lobed or quatrefoil plan. Still later, from the XIII century on, massive walls built



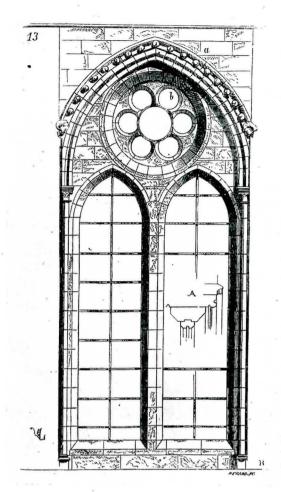
An "Engine of War," typical of those used during the Middle Ages for attacking or defending fortifications. Devices of this type were in use up to the time of the introduction of gunpowder. (Viollet-le-Duc.)

on a circular plan were adopted for the donjon, the finest example of which is the Donjon of Coucy. It was about one hundred feet in diameter and approximately one hundred and eighty feet high, and although the upper portion is partially destroyed it is still considered the most beautiful military structure in the world.

Viollet-le-Duc was a recognized authority on the subject of the methods of construction used during the mediæval period and in his article on the scaffold he gives us many interesting and informative sidelights on the system of construction wherever scaffolding was used. When we learn what simple methods they used, and how effective they were in accomplishing the desired ends, it is surprising and causes us to have an even greater appreciation of the great architectural monuments. The carpenters and mechanics of the time were certainly ingenious master builders. Viollet-le-Duc illustrates and explains some of the methods they used in preparing working scaffolds and various mechanical devices which made possible the building of the towering walls and spires of the great cathedrals and churches of France.



A later and more fully developed window of the French Gothic. Typical clerestory window. Tracery much lighter than in example above at right.



From Viollet-le-Duc's article on Windows. This shows one of the more developed types of the early French Gothic. Tracery very heavy.

Another architectural feature discussed in a very interesting manner by Viollet-le-Duc, in this volume, is the watch-tower or turret, those daring and fascinating architectural motives which came directly from the defensive character of the structures of the Middle Ages. During the earlier period little wooden cells were constructed on the upper parts of buildings for sheltering the soldiers on guard. In later periods these were built of the same material as the structure itself and incorporated into the walls of the structure. The builders had learned to make the most of this practical requirement and developed them into true architectural embellishments which were worthy of being made beautiful as well as useful.

An article that throws additional light upon the methods of construction of the Middle Ages is that on engines of construction, which is the term used in the Ricker Translation to describe all those devices used in connection with building construction for the preparation and handling of materials used in building operations. The builders of the time seemed to have been well versed in the most important principles of mechanics and knew how to apply them to simple

but efficient devices for accomplishing their work. Following the article on engines of construction there is a more comprehensive one, and in some respects a more interesting one, on engines of war. Perhaps no one type of machine is so ancient as those used in military activities of mankind. Throughout the ages man has expended his greatest efforts in the construction of the implements of war. Viollet-le-Duc begins his discourse by sketching briefly the devel-

opment of war machines from the earliest times down to the Middle Ages and then traces the development of the larger and more powerful machines of that period. He classifies these into three general groups; machines for (a) attack, (b) attack and defense, and (c) for defense only. He describes many of these picturesque machines as to their construction, operation, their motive power, and their effectiveness. The ingenuity of the men of the Middle Ages is well displayed in these devices. Viollet-le-Duc also traces the changes which came as a result of the use of gunpowder, and how the cannon gradually replaced the earlier type of war machine. It is interesting to note, however, that gunpowder was not at first used in the new device, the cannon, but was simply used in the place of springs and similar power devices in the old type of war machines. In time they learned to make a crude

cannon, which ejected stones, bricks, or buckets filled with Greek Fire. The first cannons were made of staves of cast iron or copper held together, at intervals, by means of tight fitting iron rings. It is also interesting to observe that the earliest cannons were of a "breech-loading" type.

This volume contains a very good article on French stairways of the Middle Ages, both exterior and interior types. Many of these fine old stairways still exist today, and some are of a monumental character. Perhaps the most interesting ones described and shown are those built on an octagonal or circular plan which, in the translation, are called the screw or spiral type. The various materials and the methods of construction used are explained and illustrated in detail. By the end of the XIII century architects had become very skillful in the geometry of stair designing and build-

ing and seemed to delight in making complex and spectacular winding stairs.

The most extended article in the entire fifth volume is that on windows, in which Viollet-le-Duc discusses in an authoritative manner the complete development of the various types of windows used during the Middle Ages, especially those developed in the Romanesque and Gothic cathedrals and churches. He begins his account by a brief survey of windows used in the early churches of the VIII to the XI centuries and carries the development on down through the ages to the time of the marvelous creation of the Gothic period. The designer of churches in the Romanesque or Gothic style will find here authentic and detailed information concerning the French work of these periods and a fine analytical discussion of the

best examples which exist in France today.

Perspective view of the famous old stairway in the Old Louvre, Paris. From a restoration drawing by Viollet-le-Duc.

There are nearly a hundred other articles in this fifth volume, many of which would be of interest to the student of architecture. Those reviewed here have been selected because of their special appeal and are intended to bring to the student some idea of the wealth of material available to him in Viollet-le-Duc's Rational Dictionary, as revealed through the Ricker Translations.

THE TALKING DOLLAR

By Charles Kyson

Consultant Architect, The Meline Bond and Mortgage Co., Los Angeles, California

WHEN THE CERTIFIED architects of a community plan only 3.0% of the buildings upon which a great building and loan corporation loans money, it is certainly high time for the architects to start doing some fast thinking!

In my capacity of Consulting Architect for the above corporation I was greatly disappointed to see how many plans passed through my office accompanied by building loan applications which had never seen an architect's office. This led to the making of a check of these plans and only 3.0% of them were prepared by certified architects!

When the matter was presented to the officials of this corporation they decided to work actively to help in raising the economic, practical, and artistic standard of the buildings upon which they made building loans. The architectural profession can well afford to feel this can mean much to those communities in which this corporation operates.

When a great bond and mortgage company decides to assist in raising the architectural and constructional standards of our cities, then we can feel that good architecture has at least won a powerful ally. Personally, however, I am in a position to say that this farseeing institution has rather a long way to travel because in the short time I have acted in the capacity of their Consulting Architect, the problems facing them have become revealed to me and I am going to pass them on to you of the architectural profession, in the hope that you will take the time to give some friendly thought in our behalf as well as yourselves.

Now, here's the problem which faces us. can we raise the architectural and constructional standard of the buildings upon which we loan We have two courses open to us. One is to pursue the easy way—the line of least resistance and accept things more or less as they are-insisting on a little better class of construction, perhaps, and letting it go at that. Our second course is to arouse the architects to the necessity of helping themselves and thereby helping us. Our company has a large organization and a big overhead. In consequence it has to do a great volume of business in the making of building loans to maintain itself. Now, obviously, if we laid down the policy of limiting our building loans to structures planned by certified architects, we would last about as long as the icy igloo of the Esquimaux transplanted to the Sahara Desert—we would silently melt away.

Now, melting away doesn't arouse very much enthusiasm on the part of our stockholders or the Board of Directors. In consequence, we are obliged to loan money on any set of plans and specifications which are at all decently prepared from a structural point of view, regardless of whether they have any architectural merit or not and also regardless of whether they are prepared by an architect or merely a builder who has taken a course in blue-print reading in some correspondence school.

And heed ye, Oh my architect friends! The well designed and studied plans and specifications are not always prepared by architects. Many builders and construction companies are achieving high architectural standards. We are not prepared to prophesy as to whether the architectural future of America is to be in the hands of the architect, the builder, or the construction company. All we can say at the present moment is that in our company 97% of the building plans upon which we loan money are prepared by builders. I can further state that, under this system, architectural and beautiful results are being achieved only in the rarest of instances. There are very few plans which pass through our office possessing architectural merit, but our hands are tied. We have to pass favorably upon them, much as we dislike to do The officials of our company recognize this to be a far from desirable state of affairs but what are We have no desire to pose as would-be patron saints of the art of architecture-no one individual or corporation has the lung or pen power sufficient to achieve any such distinction. It is a pleasure, however, to do our bit to help the public to a better understanding of the services of the trained architect.

It seems to us that a militant desire for salvation must come from within the architectural profession. At best we can but tell of the changing drift of the wind and record the menace of its chill-we can even hang out a friendly storm signal—but the will to do, the initiative and courage to face the gathering storm will have to be inherent in the stout hearts of the valiant mariners of the profession. They alone have the motive of self-interest to bring about what seems to us some much needed reform or changes in the building industry. If they are afflicted with a lethargy of thought, then no outside agency can be of much assistance. But in referring again to that three per cent.-my, but it hurts! It is too painfully significant to be ignored! It must be accepted as prima facie evidence that it is rather up to the practitioners of the world's oldest art to get busy and make some kind of commotion in their own behalf. Otherwise, it seems to us, the independently practicing architect is destined to become a species as rare as a 1915 Ford.

But it does seem sad and unthinkable to contemplate, that a group of individuals as vital to the for-

warding of our civilization as the architects should play a declining part in it. Certainly, the building public is willing and eager to do its part. This is evidenced by a growing standard of architectural taste. If you have any doubt of this, look back over the files of some of the architectural magazines of twenty years ago and compare them with the architectural output of today. While this may be a comforting experience to the individual architect, he can ill afford to sit back complacently and let the sweep of the invading tide carry him where it will—its direction may be forward for the tide but backward for the architect!

Public taste is being educated by many magazines devoted to a popular treatment of architectural subjects—and yes, by the movies as well! It is difficult to say to what extent this latter agency affects the architectural and decorative sense of the public but The president of a large mail it is very great. order house made the statement that within a period of ten years the demand of the American people for furniture and decorations had changed radically for the better and he attributed this change to the motion picture. In any event, great, resistless, rapidly-moving forces are at work, moulding tastes and public opinion. From an architectural standpoint they can be forces of creation or destruction, depending upon their guidance.

The question in the mind of a dispassionate observer might easily be, is the architectural profession living up to its great responsibilities and are the individual architects doing their part to help mould public opinion along the right lines? Also, are they taking the surest, quickest, most effective means to do it? In calmly reviewing the figures showing the appalling amount of construction work which is done entirely outside architects' offices, it seems rather up to the profession of architecture to do something about it and do it quick.

Referring again to the fact that only 3.0% of the plans which are submitted to our company for building loans are prepared by architects, this might be easily met by the criticism that a very large percentage of these buildings are only small houses and in consequence are not worth the time or the attention of the architect. It is well, however, not to lose sight of the fact that many of the builders and owners of small houses rise to larger fields of constructional activities and the standards, habits and practices of their small-house days are carried into larger building endeavors. Under this system the architectural profession has left no impression in the minds of these people that the architect is at all necessary, and so in their larger work he is not employed. Then, too, the architectural taste of the public is greatly influenced by the artistry or its lack as seen in the small It is worth the time and thought of the architectural profession to determine some method by which it can be of assistance to the builder of the small home—to assist him somehow and so impress upon him the value of trained architectural service.

We would like to do our part in raising the architectural and constructional standards of our community. We regard it as not only a pleasure but as good business to do so. We clearly recognize that good architecture is good advertising, that pleasing and artistic buildings help to attract people to our city and add to its reputation. Frankly, we are not in business entirely for our health. In addition to giving a friendly boost to the cause of good architecture we enjoy golf and find that it also has its stimulating and recreational features. However, we pride ourselves on having the good sense and vision to realize that good architecture pays, that it increases property values-makes properties more rentable and more salable and consequently a better risk from a loan standpoint.

By the way of friendly and constructive criticism, it seems to us that the architectural profession has a problem of advertising and publicity on its hands and that an intelligent, consistent and continuous advertising and publicity campaign over a period of years would do much to win back the lost ground. Apparently some of the gentlemen of the profession differ with this point of view and consider it to be unethical and beneath the code of ethics and professional dignity. These gentlemen may be right and, then again, they may not. We have seen other professions and businesses turn aside from the timeworn paths of tradition and by accepting and facing conditions as they are, they have advanced the standing and repute of their profession to a truly remarkable degree. Advertising and publicity for them have won the fruits of prosperity and repute. It seems equally possible to accomplish this in the profession of architecture. Whether this is practical or possible we cannot with surety prophesy and so with the Spaniard we eloquently shrug our shoulders and say, "¿Quien sabe?" "Who knows?"

The chaff and wheat of human opinion are cast into the hopper of the mills of the gods. The wheels grind relentlessly on, the mistaken chaff of human opinion, under the ceaselessly milling stones, is ground to the fineness of dust and so is blown into its native nothingness, while the wholesome grains of wisdom are milled to a golden flour which sustains man in his steps onward and upward. The right to live—to progress—demands its price in clarity and logic of thought. It is perhaps fortunate that all within the profession of architecture do not agree with the inflexible pronouncements which have gone forth against the modern and accepted methods of advertising and publicity whereby a worthy cause can be put to the sensible judgment of public opinion.

The stubborn old Gods of the Things that Are have a habit of surveying man and his which sical

THE TALKING DOLLAR

vagaries—his mistakes—with a grim, relentless humor. Fortunately, these old deities do not always exact the vital pound of flesh, but do remove the cuticle of us erring humans, and not so painlessly at that!

And sadly-reluctantly, we continue our installment payments on our unhappy mistakes until the inexorable correction is made. The architectural practitioners who meticulously adhere to the timeworn code of ethics that permits 97% of the business to go on and pass their doors are to be congratulated on a fixety of conviction and a blind optimism that truly borders on the sublime. Fortunately, the great majority of architects are awakening. They do not possess such rigidity of thought and, late though they may be, they are turning at last with a resolute conviction that something must be done—and that at once! No longer can they fail to heed the murmuring menace of figures like the threatening flash and rumble of distant guns on a lowering, murky horizon. They see the dark sweep of the invading

force surging forward with a fierce eagerness and the wave is crested with the ominous glitter of the bayonets of fact.

Has a dull, deadening inertia—a canker of cynical fatalism—eaten away the courage to be and to do, to fight the good fight in a worthy cause? Or will the right prevail—will the profession of architecture militantly rise to its great responsibilities—and sweep forward with the battle cry of "All for one and one for all," and place its star of destiny far forward in the purple heavens of accomplishment? The silvery throats of the bugles are throbbingly, insistently blaring forth their final call to action. Will those valiant qualities of mind and heart at last prevail—will that thrilling heritage of their fighting pioneer ancestry come to sustain them in this final and desperate fight for existence?

How we wish we could give a positive answer! And yet we can only, with regrettable uncertainty, shrug our shoulders and, with the Spaniard, eloquently murmur "¿Quien sabe?"



DECORATIVE PANEL BY ROBERTO TERRACINI, SCULPTOR
MADE FOR POGATSCHNIG AND MONTALCINI, ARCHITECTS

Reproduced from "L'Architettura Italiana"

ON MAKING RESIDENCE MODELS

By Edward R. Tauch, Jr.

SO MUCH HAS BEEN written on the value of architectural models, both as an aid in the study of the design and as an aid in selling the scheme to the client, that I will forego similar discussion and assume that the reader already realizes the value of the model and is chiefly interested in the actual mechanics of its construction. There are no spectacular short cuts in model-making recorded below; rather, a detailed account of a practicable method taking little for granted, perhaps guilty of too often getting into words of one syllable in the explanations.

The model illustrated is of a fairly complicated hillside house for Grampian Hills, Williamsport, Pennsylvania. I shall endeavor to explain its evolution hoping that the method may be of help and adaptable to your individual problem. The materials mentioned by their trade names are not in any sense peremptory, nor necessarily the most workable, but in this case they have proven satisfactory and convenient.

Three draftsmen working together is ideal; one to work on the plan or base while the other two do the elevations. Several working together not only tends to develop an *esprit de corps* but rushes the work so that it is completed before it begins to get monotonous.

The first consideration is that of scale. Quarterinch scale has everything in its favor for the usual problem. It produces a model large enough to make a good showing, allows for a thorough development of detail, and, above all, is the customary scale of the working drawings. Charged with great enthusiasm, backed with a goodly reserve of patience, we begin work. (These qualities are essential; if you have doubts you had better stop right here.)

The Plan: Draw up an accurate skeleton plot plan on detail paper at quarter scale. This will determine the size of the base, which is made out of a piece of strong insulating board (in the case illustrated, Thermo-sote). On this base draw the contour lines necessary as guides in building up the various levels of an irregular site. This building-up may be done with layers of the insulating board glued and nailed together and to the base or with blocks of wood. For our hillside house the surface of the base board was taken as the street and garage court level A (figure 2); level B was built up to the elevation of the garden and formed the foundation for the house. A few more layers made level C. Then blocks were secured in the rear to support an inclined piece of Upson Board which became the sloping lawn D. Where there is a rounded terrace something more pliable will have to be used to get a smooth curve. However, because the texture of its surface when painted is so like a smooth lawn (in good scale), it is advisable to use $Upson\ Board$ wherever possible for finished grass surfaces. The paths, location of house,



FIGURE 1

walls, trees, etc., are now all carefully drawn on and the base is ready for the paint.

Use medium green show card color and apply generously over all grass areas. When it has dried, (oh, shades of college rendering!) sponge it thoroughly so the texture of the board will count. Paint in the paths and drives with tan or gray washes and indicate flagstones, brick or tile with polychromos. Before taking up the shrubbery and trees and final dressing up let us turn to

The Elevations: Strathmore 3-ply Bristol Board is remarkably good in that it is tough, does not split or crack, has an excellent surface for rendering, is suffi-

ciently rigid, and can be conveniently cut with scissors.

Draw up the elevations in as few sections as possible—a folded corner is infinitely neater than one that has been glued. Figure 1 shows one of the sections of the model illustrated. Note the space left over the cornice lines so that the overhang of the roof does not hide the cornice when the model is assembled. The only tabs are generous ones at the bottom and top of the sections. (Those shown on the corbels in figure 1 are a special case—they were not folded and glued but were stuck through slits in the wall to hold the corbels in place.) As a rule projections and

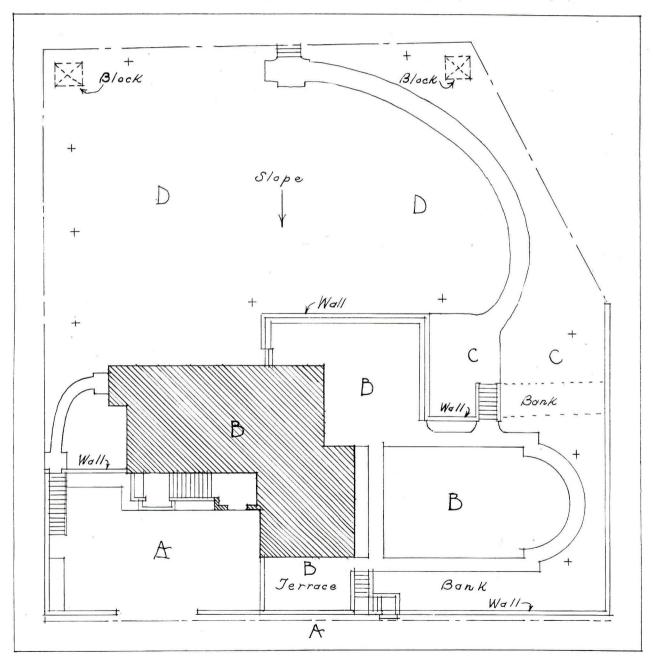


FIGURE 2

reveals are satisfactorily indicated by rendered shadows, so, except where they affect the profile of the house, it is advisable to avoid unnecessary cutting.

When the elevations are completely drawn with all doors, windows, blinds, etc., indicated in pencil, run a warm neutral wash over them to soften the glaring whiteness of the paper. Render with polychromos and apply them freely. The tendency is to render too lightly. Renderings which fairly scream from the flat sheet—purple shadows and slates and rose colored bricks—appear quite conservative when assembled.

The roof is drawn with no tabs. Do not cut into it for dormers or chimneys; it is neater to glue them on later. The rendering of the roof is important because it is such a conspicuous part of the model. After a warm dark wash of the desired shade has dried, render it well with polychromos, picking out and spotting groups of shingles with brighter colors. Exaggerate the values but be true to scale. The horizontal shingle-shadows are drawn with a soft pencil.

Now for the folding and assembling. After cutting out the sections with sharp scissors, cut with a dull knife and straight-edge along every line that is to be a fold—on the rendered side. This cut should be only deep enough to go through the surface of the paper. It is on the rendered side to insure good, square, clean corners. Make all folds with the aid of a straight-edge. Use transparent book-mending tape inside at all joints. It is tough, durable, and quickdrying and makes a far neater and stronger corner than tabs and glue. The tabs at the bottom are bent inside, spread with glue, and securely thumb-tacked to the base. Those on top are bent in and the individual roof sections are glued to them. The roof sections have no tabs; they are fastened to each other with book-mending tape.

Add dormers, hoods over doors or windows, railings, outside walls, lamps, and other accessories which lend interest and help the scale. Convincing iron

railings may be made from black pins; lamps may be whittled out of wood, tricked up with a pen and colors and suspended from brackets made of wire or thin hairpins. Tea houses, pergolas, garden umbrellas, and furniture are simple to make and add a great deal—but be careful to keep them in scale.

In the meantime the landscape is shaping up. Neglect the conventional sponge—whatever way it is painted or sliced it is still a sponge to the layman. It takes a tremendous imagination for even an enthusiastic architect to see trees and shrubs in it—especially at quarter scale. For trees we used ruscus which is obtainable at many florist shops. It may be sprayed any shade. I believe this to be an improvement on sponges but since our model was finished I have discovered something which seems to have greater possibilities—dried gypsophila, commonly called "baby's breath." The scale is excellent for both trees and shrubs and it will take color well. A so-called "airfern," obtainable at dime stores, is of fine texture and does well for shrubbery (note foreground in photograph of model). Notion stores often have miniature automobiles at a scale as near quarter inch as is possible to determine. Since representation of lifelike human figures is so difficult, these little cars are a life-saver.

The materials used in the model illustrated amounted to less than five dollars so the expense is principally a matter of the time involved. Following is an itemized account of the materials used:—

Thermo-sote	\$.80
Upson Board	.64
Cardboard	
Strathmore Bristol Board	.50
Pins, glue, tape	.40
Ruscus	
Air-fern, flowers	
Color	.25
Toy autos	.30

\$4.69



PHOTOGRAPH OF MODEL-C. C. TALLMAN, ARCHITECT

WHAT'S IN A NAME?

By Percy Cashmore

ONE OFTEN HEARS it asked why architects do not sign their buildings. All other artists—writers, painters, sculptors, poets, musicians, movie producers, and advertising men—sign their wares, not without, occasionally, a blare of trumpets. Yet the poor architect, as far as the public is concerned, struts his stuff unseen; veiled in the mists of obscurity.

The ready answer is, of course: what does the public care? But there are a few in the public but not altogether, perhaps, of the public who care a good deal, if only for the purpose of more surely aiming their invectives. As H. L. Mencken pointed out recently, there ought to be a law compelling the authors of certain structures to sign them in order to give the public a chance. Some men, it seems, get off too easily. Yet, again, there are some who, by their inherent modesty, deprive themselves of considerable well intentioned praise.

But there is another side to the question. This matter of authorship only comes up when there is a discussion of the merits, or demerits, of a creative product—a work of art. Now in many senses a building is, indubitably, a work of art, i. e., a creative product. But it is not so easy in this case to pin the credit or blame upon a single individual. When an author knits his brow, dips his pen, and the critical sachems pronounce the result a masterpiece we have not the slightest doubt upon whom to bestow the berries. It is not likely the printer shares much of the honor; and the proof reader—ye gods! whoever heard of a proof reader? And so without a single dissension we raise our voices to proclaim the genius: hats off, gentlemen!

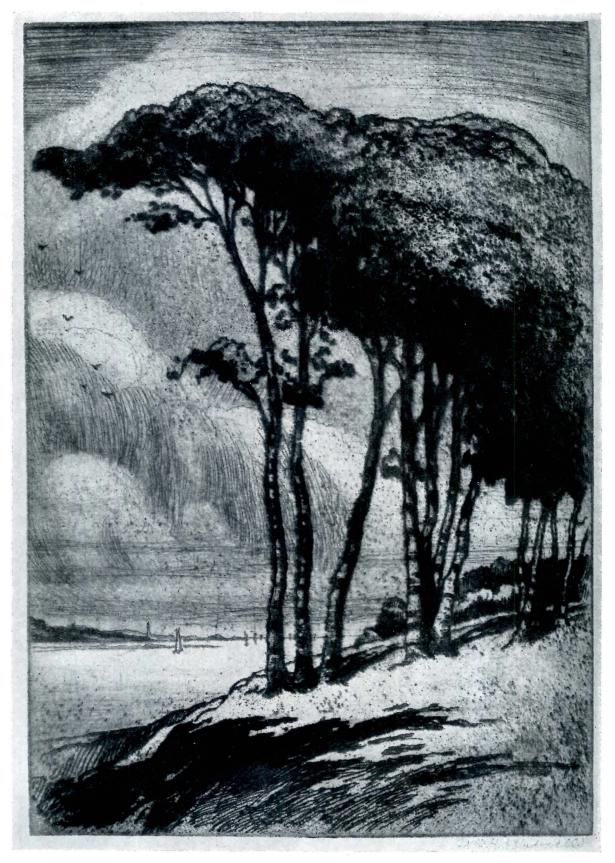
But coming back to architecture. Here we have a product that depends for its effect upon a concomitance of men, materials, and circumstances. In short, it is not judged very often upon its merits as conceived, as an idea, but by its effect when finished. Between this thing—the building—and a novel, for instance, there is, if not all the difference in the world, at least a good deal of it. To begin with, no draftsman need be told who the author of a building is because the chances are if he had had a typical floor plan to do he would have determined the position of the elevators, hence the pent-house; the windows, hence the elevation; the columns, hence the foundations; and so on, ad lib. Any foreman plumber on a job will talk about the building he is doing. And we all know how much the general contractor assumes for his share of the glory. The

designer in any office, somewhat justly, perhaps, but nevertheless, inevitably, gathers the primroses to himself. The squad boss shifts a modest foot when the structure is praised in his hearing. The office boy remembers how he had to work overtime to get the blue prints bound the night the plans went out. The modeler remembers where he got the idea for those well-spoken-of spots of ornament. The stone cutter (who, on the scaffold, wished that times were different—the way they were in Michelangelo's day, when talent was recognized—but never mind, a prophet in his own country-) never passes the building without a warm nod of approval at those exquisitely carved spots of ornament, without which-God help the building, that's all. The superintendent (but here we must tread warily, for to couple this man's name with some of the others breathes sedition), well how could the thing be possible withoutbut why argue with fools? And so it goes. If two thousand men worked on the building then there will be nineteen hundred to whom we are indebted for the excellence of the thing (the other hundred don't speak English yet).

How, under these circumstances, can we curtly ascribe authorship? It obviously wouldn't do to have a roll of honor slung in the elevator hall; it's sometimes hard enough, as it is, to find a place for the directory board. And then, someone might question who "Tony Mansuetta, Hod Carrier" was and what "creative" part he played. It wouldn't do. Yet, on the other hand, if you dig the name of the architectural firm into the corner stone (whichever one that is) what will it mean? All that the members of an architectural firm do, except have lunch at the Colony Club (again, as every draftsman knows), is to break into the drafting room once a week and just upset everything. A draftsman the author knows tells a story that begins: "Do you know we worked like hell on those plans. Had 'em all inked in; three-quarters an' everything-an' along comes " But perhaps you know it; it's an old one.

So, perhaps, there is a guiding force, a subtle wisdom, a charitable grace, indeed, which quietly advises those who could from putting their names upon their structures. For after all if posterity likes a building it will, perhaps, go to the trouble of finding out who really did, or is supposed to have done, the thing; if it doesn't like it there seems to be no particular advantage in having it scowl at the architects' descendants just to satisfy a few curious and really disinterested people who now raise the point—of why architects don't sign their buildings.

PENCIL POINTS



FROM AN ETCHING BY WILLIAM H. I. HUDSWELL "THE RECEDING STORM"

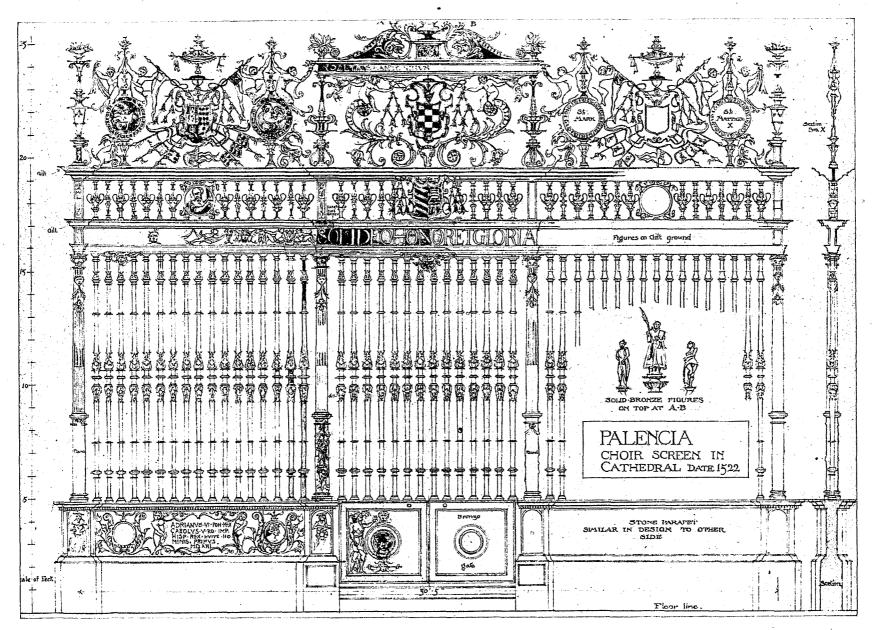
PLATE XIII

Volume X

Number 4

"This handsome metal screen is not only remarkable for the beauty of its detail, but also for the good preservation of the original colouring. It is of the best period and, according to the inscription carved on the plinth, was erected in the year 1522, probably by Cardinal Ximenes as his coat of arms appears in the centre of the cresting, on either side of which are trophies surrounding circular plaques containing the symbols of the four Evangelists. The principal pillars are circular and are wrought with beautiful reliefs. The central gates of the screen contain bronze panels wrought with lions' heads, and figures of Roman soldiers."

A. N. PRENTICE



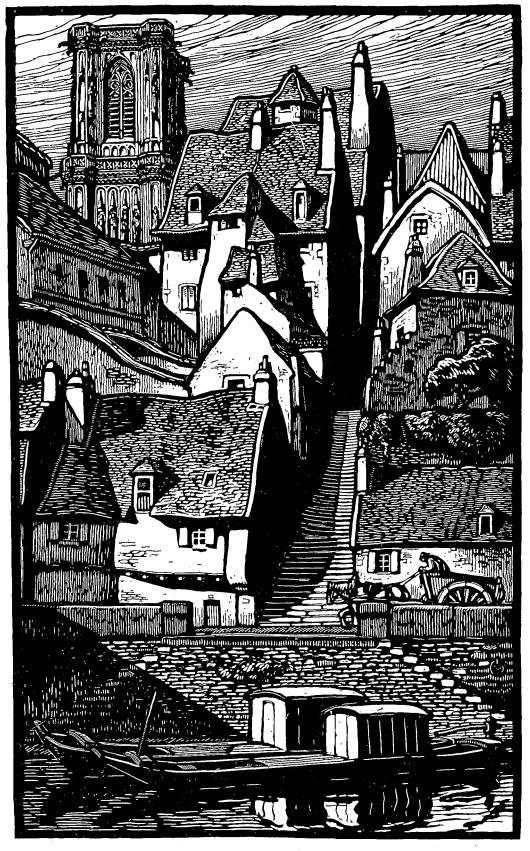
RENAISSANCE ARCHITECTURE AND ORNAMENT IN SPAIN
A PLATE FROM THE WORK BY ANDREW N. PRENTICE

PLATE XIV

VOLUME X

Number 4

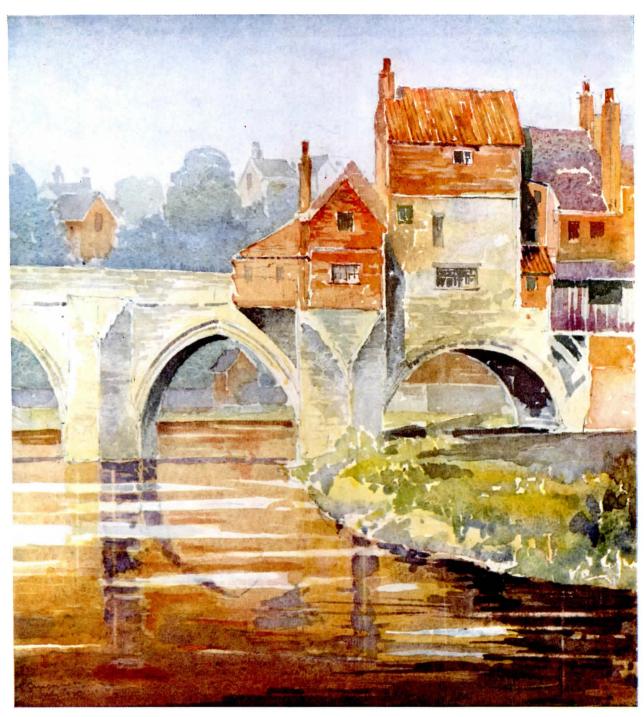
This extremely effective woodcut by an eminent French artist gives a good idea of the picturesque setting of the town of Nevers which is noted for its interesting roofs. Francis Keally, through whose courtesy we are enabled to present this plate, suggests that the town is well worth including in the itinerary of the traveling architect or student, even if only for the sake of studying roof arrangements and design. The original print measured $10\frac{1}{2}$ " x 17".



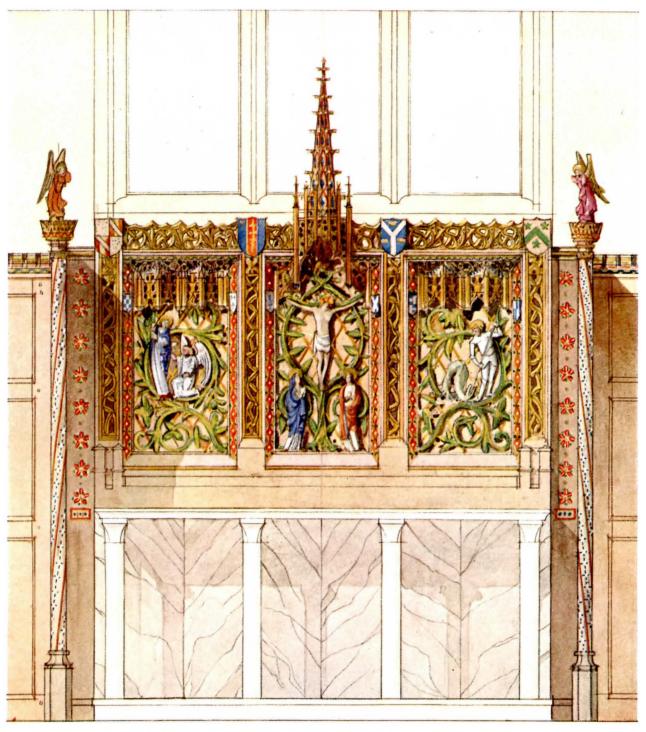
FROM A WOODCUT BY F. CHALANDRE
A VIEW IN NEVERS, FRANCE

PENCIL POINTS SERIES of COLOR PLATES

This water color drawing by Wendell P. Lawson was made during a sketching trip abroad and is interesting both for the harmonious use of color and for the composition. The original measured 9½" x 10¼" or practically square, yet though this shape is generally considered difficult to compose well, the artist has here succeeded in making a most satisfactory picture. The drawing was made on a medium rough water color paper entirely with transparent colors.



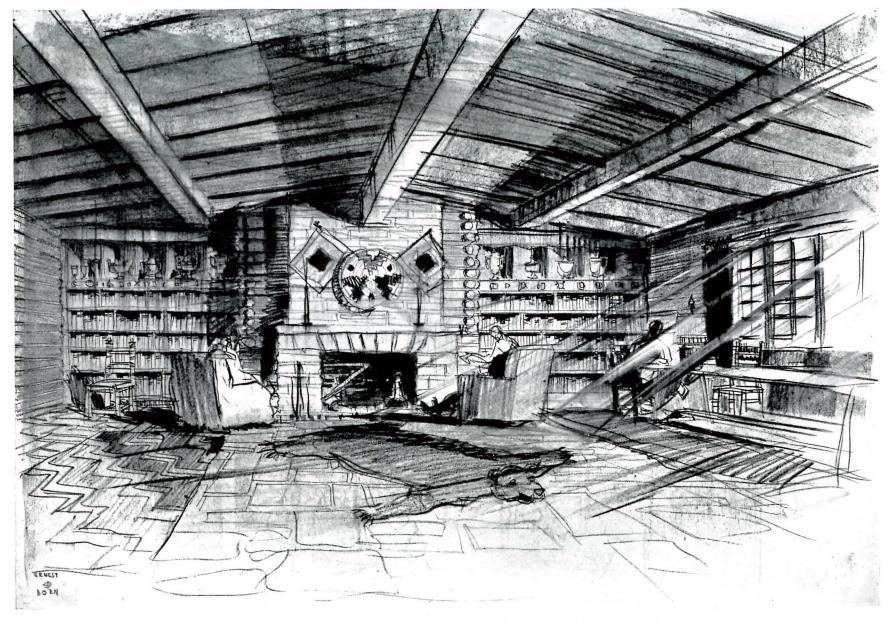
OLD CHANTRY CHAPEL, ELVET BRIDGE, DURHAM, ENGLAND FROM A WATER COLOR BY WENDELL P. LAWSON



PROPOSED ALTAR AND REREDOS, ST. MICHAEL'S CHURCH, MILTON, MASS.—CRAM AND FERGUSON, ARCHITECTS FROM A WATER COLOR RENDERING BY ALEXANDER E. HOYLE

PENCIL POINTS SERIES of COLOR PLATES

This careful study for an altar and reredos from the office of Cram and Ferguson should be of interest to all architects and draftsmen who do church work. The portion of the drawing we have reproduced here measured 11" x 12½" and was drawn on a smooth illustrator's board. It was laid out very carefully in pencil and the color was applied with water colors, both transparent and opaque. Studies of this kind are necessary to give an idea of the rich color composition involved in such pieces of church furniture.



PERSPECTIVE STUDY IN CHARCOAL BY ERNEST BORN FOR BOY SCOUT ROOM
YOUNG MEN'S HEBREW ASSOCIATION BUILDING—NECARSULMER AND LEHLBACH, AND GEHRON, ROSS, AND ALLEY, ASSOCIATED ARCHITECTS

PLATE XV

VOLUME X

NUMBER 4

This plate shows a very effective, rapidly executed, interior perspective sketch made to sell an idea to the client. It was done on tracing paper over a preliminary layout made by eye and the whole thing, including the layout, was done in a very short time. Afterwards it was floated onto a piece of illustrator's board and touched up with charcoal. It measures 23¾" x 17" in the original.



Photo by The Dorr Service

FIGURE OF CHRIST BY THOMAS HUDSON JONES
IN ST. MATTHEW'S CHURCH, WASHINGTON, D. C.

PLATE XVI

 $V_{\text{OLUME }}X$

Number 4

This beautiful gilded bronze figure of Christ was done as a memorial to Isabel Coleman May and is placed in St. Matthew's Church, Washington, D. C., La Farge, Warren, and Clark, Architects. It stands about five feet six inches in height. The sculptor will be remembered as being associated with Lorimer Rich, Architect, in producing the winning design in the recent competition for the completion of the Unknown Soldier's Tomb.

NEW YORK STATE ARCHITECTS AID SAFETY IN BUILDING

To protect the public against the alleged perils of living or working in buildings erected from "illegal" plans, the New York State architects' registration law is being invoked, according to Allen E. Beals, who states in a recent issue of *Dow Service Daily Building Reports* that the Long Island Society of Architects has filed with the Attorney General's office the names of fifty alleged offenders, following a conviction in February, which was said to be the first obtained under the law, enacted fourteen years ago.

The initial case involved the prosecution on Long Island of a draftsman who had been charged by Dr. Christine E. Peterson, an inspector for the State Department of Education, and Dr. James Sullivan, Assistant Commissioner of Higher and Professional Education, with having used illegally the title of architect. Deputy Attorney General George V. Fleckinstein acted as prosecutor.

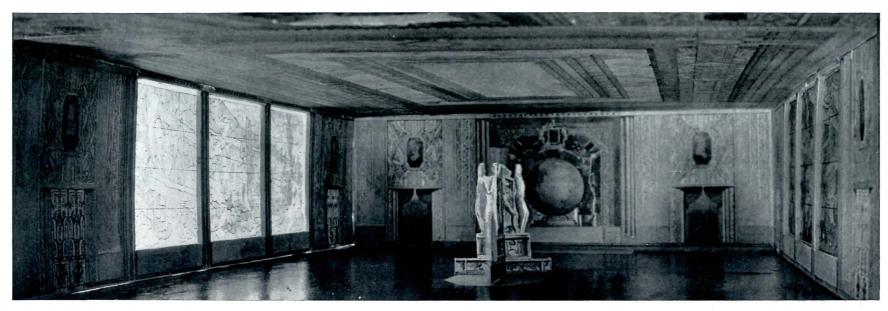
"James F. Bly of the Brooklyn architectural firm of Bly & Hamann and president of the Long Island Society of Architects said there are literally hundreds of such practitioners in this city and that organized architects believe, now that the first conviction has been obtained and funds are available with which to enforce the law, that the profession will cooperate with the State in its willingness to prevent the illegal practice of architecture with the same vigor that it prevents the illegal practice of medicine," Mr. Beals writes.

"The State's prime interest in upholding the law, with its power to maintain architecture and engineering on a strictly professional rating, is found in a legal opinion given to the Long Island Society of Architects to the effect that owners of real property who contemplate building can be held liable under the law for any damage to life or limb resulting from failure of all or any part of a building, if such owners fail to employ a competent architect who is registered under the laws of the State of New York. In other words, it now is incumbent upon the State to see to it that the man seeking professional advice concerning the house he lives in or expects others to live or work in is entitled to the same protection that the State gives a sick man against quacks and illegal practitioners.

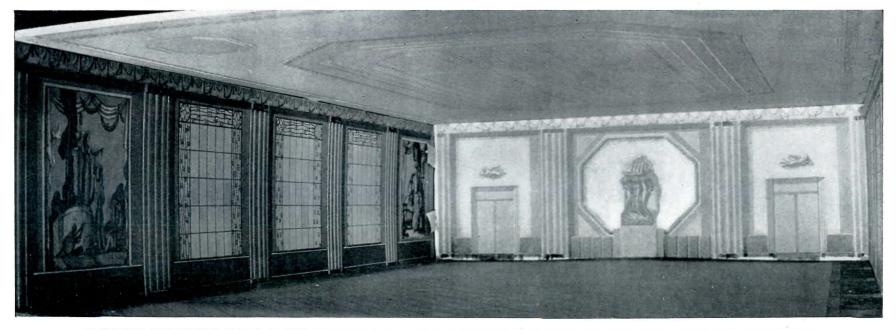
"In line with this action, publishers of the *Dow Service Daily Building Reports* have been requested to list as architects of contemplated new building or alteration projects only those whose names appear on the official list of registered architects as issued by the State Board of Examiners and Registration of Architects, State Education Department, Albany."



FROM A PENCIL SKETCH MADE IN NEW YORK BY F. V. CARPENTER



FIRST MEDAL PLACED WON BY YALE SCHOOL OF FINE ARTS; A. F. EUSTON, ARCHITECT, C. E. CLARK, PAINTER, W. F. MOSMAN, SCULPTOR



FIRST MEDAL WON BY YALE SCHOOL OF FINE ARTS; R. T. FARRELLY, ARCHITECT, J. N. MAHONEY, JR., PAINTER, C. F. FARRINGTON, SCULPTOR
MODELS OF DESIGNS FOR A SALON ON A TRANS-ATLANTIC LINER

COLLABORATIVE COMPETITION OF THE ALUMNIA ASSOCIATION OF THE AMERICAN ACADEMY, IN BOME

COLLABORATIVE COMPETITION OF THE ALUMNI ASSOCIATION OF THE AMERICAN ACADEMY IN ROME

In order to encourage the participation by students of painting, sculpture and architecture in collaborative problems, The Alumni Association of the American Academy in Rome sponsors each year a competition which is open to any group of students in schools of art or ateliers, or to anyone employed in offices or studios. The problem presented this year called for the treatment of A Salon on a trans-Atlantic liner.

THE PROBLEM

A British steamship company is building a trans-Atlantic liner. It is to be the largest ship afloat and has been completed except for the interiors. A space sixty by ninety feet by twenty feet high without columns or supports has been allowed for a salon on the central axis of the ship between two funnels. The long sides are lighted by outside light. At both ends of the room a door on either side of the funnel leads, in the one case, to an entrance hall and, in the other, to smoking and card rooms. A space not more than ten feet deep and twenty-five feet wide may be afforded, projecting into the funnel spaces, should the authors wish to avail themselves of it. A great chart is to dominate one end of the room. It is to have a mechanically operated position-indicator showing the ship's progress. The principal sculptural elements may be placed anywhere, at the ends, sides, or center, it being kept in mind that in the last case too much interference with the dance floor would be objectionable. No place for orchestras need be provided. Fountains and allegorical figures are welcome if the authors wish to use them in their general composition, but the use of portrait-statues does not appeal to the owners. The owners are interested only in the ability of the collaborators to make them a fine room and not in any exhibition of skill with regard to marine engineering.

The owners suggest that they would like this salon enriched with mural decorations and sculpture, but they have no preconceived convictions as to subject matter. The presentation of this room shall take the form of a model consisting of four drawings with the ceiling and floor attached to one or more parts; or of four drawings and a separate ceiling and floor; or of four drawings and a ceiling and floor attached in one unit. In any case, an intelligent arrangement should be made to permit examination by the jury. Presentation shall be at the scale of one-quarter inch to the foot and it is suggested that mounted Whatman paper be used.

Five schools were represented in the competition: Yale School of Fine Arts, thirty-two teams collaborating, received 1st Medal Placed, 1st Medal, several 2nd Medals, and 1st and 2nd Mentions; Columbia University, Department of Architecture, collaborating with the National Academy, entered six teams which received 1st Mention and several 2nd Mentions; Cornell University, six teams

collaborating, received 2nd Medal, two 1st Mentions and several 2nd Mentions; two teams from Armour Institute of Technology in collaboration with the Art Institute of Chicago received, respectively, 1st Mention and 2nd Mention; Carnegie Institute of Technology, one team collaborating, received 1st Mention.

The Jury of Award consisted of Charles A. Platt, Wm. Mitchell Kendall, James K. Smith, Thomas H. Ellet, Paul Manship, Berthold Nebel, Barry Faulkner and Ezra Winter.

First Medal Placed, reproduced opposite, went to the Yale team composed of Andrew Francis Euston, Architect, Charles E. Clark, Painter, and Warren F. Mosman, Sculptor. The Jury was delighted with this collaboration. "It is most consistent, and shows a combination of the three Arts distinctly gratifying to the Jury. The coloring in its richness and restraint is particularly good. The authors are to be commended on the fact that the floor, walls and ceiling are well related. The use of the globe in the decoration is a very good idea. The fountain is an interesting composition."

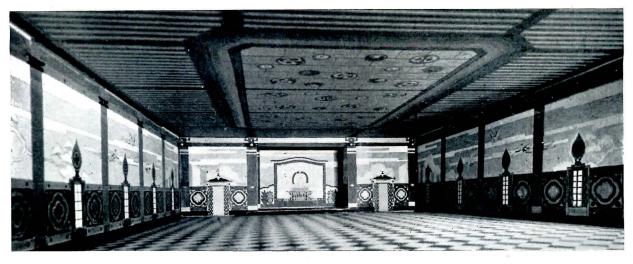
First Medal also went to Yale, to the team composed of Raymond T. Farrelly, Architect, Clifford Frederick Farrington, Sculptor, and James N. Mahoney, Jr., Painter. The Jury commenting on this design said that the architecture was in good scale. "The Jury was delighted with the general disposition of spaces on all walls. simple repetition of good forms gives a commendable ensemble; corners are well turned. Architecturally the design of the ceiling is the least successful element of the room. Without the skylight, which is unnecessary, the room would have been distinctly more effective. The color of the side walls is excellent in its boldness and simplicity. The artist expresses adequately a clear, well conceived, and effective idea. The paintings are good in scale and color. A contrasting color treatment of the floor and ceiling would have enhanced the quality of the side The side panels and map are most effective. The sculpture, while not especially interesting, indicates a proper scale relationship to the ensemble. It is not sufficiently developed, however, to show its possibilities."

Second Medal went to Cornell University to the team composed of Takayoshi Yoda, Architect, and Kate Hall, Painter.

This problem was highly commended by the Jury as being exceedingly competent. The subdivisions are pleasant. The floor and ceiling show intelligent study and distinct ability. It is regretted that there is no sculpture.

The painter member of the Jury says: "A workmanlike and well conceived and executed model. The color divisions are bold and consistent and the color is good. The floor and the ornamental red gold and black are well handled. The panels are too monotonous and more invention in the design should have been used. The model itself is unusually well and simply made."

The sculpture is well indicated by the architect. This model is reproduced on the following page.



SECOND MEDAL WON BY CORNELL UNIVERSITY; TAKAYOSHI YODA, ARCHITECT, KATE HALL, PAINTER

COLLABORATIVE COMPETITION OF THE ALUMNI ASSOCIATION OF THE AMERICAN ACADEMY IN ROME

(See text on preceding page)

THE ARCHITECTS LEAGUE OF NORTHERN NEW JERSEY

This month rounds out the completion of the first year of the existence of this organization and it is very gratifying to look back over our accomplishments. We now have thirty-three dues paid members and applications are being received at the rate of several each month. The men of this territory have become well acquainted with one another and a fine feeling of mutual understanding of one another's problems and fellowship exists, based on a foundation of willing and sincere cooperation. The entire membership is individually active in the work and welfare of the League and there is no silent or dead material on the list.

Many committees have been formed and are active in the various matters of interest to the profession. Considerable has been accomplished on behalf of the Architects' Registration Law and its enforcement. matters which have had attention are the matter of Fees, Business Practice, Code of Ethics, Requirement of Plans by Registered Architects by Local Building Departments and a Proposed Uniform Building Code for various municipalities. Considerable publicity has been obtained shedding light on undesirable construction practices and the resultant evil effects concerning the public welfare as well as all concerned. It is hoped that the cooperation of loaning institutions will be secured to prevent the construction of cheap, shoddy housing which rapidly depreciates and develops into slum districts. Likewise, a campaign of publicity and advertising is to be conducted as to the advantages, desirability and need of the employment of qualified architects on construction work.

The League has also endorsed the proposed revision of the Lien Laws and the various programs for parks throughout northern New Jersey. It is also actively interested in Zoning Regulations and other municipal and legislative enactments in the interest of matters within the scope of the profession.

At present a Year Book is being compiled which will be issued in the near future and will contain matters of interest and examples of recent architectural work in this territory.

The League meets on the second Wednesday of each month at the Elm Chateau, 285 State Street, Hackensack,

N. J. At these meetings a delicious chicken and waffle dinner, at \$1.00, is served at seven P. M. Anyone interested in the work of the organization is invited to attend any of these meetings. There are three classes of membership—Active, Associate and Junior. The Initiation Fee is \$10.00 and dues are \$20.00 per annum for the first named class of membership and \$10.00 for the other two.

For further information address the Secretary, Harry Lucht, 432 Palisade Avenue, Cliffside Park, N. J.

A LETTER FROM ROBERT T. HANDREN

1825 Riverside Drive, New York City, February 3rd, 1929.

The Pencil Points Press, GENTLEMEN:

I have come to the conclusion, after "stewing" over it for several weeks, that it would be well to offer as a comparison a method of mounting tracings with that one which was given by Mr. Schell Lewis in the January issue of Pencil Points. This is not intended as a criticism of his excellent article but rather as a simpler, more practical (in my opinion) arrangement of handling the subject. This method has been proved by the mounting of every variety of drawing from that of a "Colonial Clear White" tissue to a heavy blue print.

The materials to be desired are:

One angle (say about a 6" 45 degree either wood or celluloid—most offices will have some old one lying around either warped or out of align).

A mason jar of paste. While no doubt Higgins' Paste is satisfactory, Mr. Lewis gives the reason why it is not favored by me—its slowness in diluting. I have found that Days' Paste in the larger size can is very acceptable on account of its cheapness, ease in diluting, and stick-to-it-ness. The paste should be mixed rather thickly—of a consistency so that it drips rather slowly from the brush.

A sponge—not a cloth sponge but a real honest-to-goodness one. (Mr. Woolworth sells some for ten cents that are the berries.) A brush. Any brush regardless of its cost will be unsatisfactory if not taken care of. Buy a brush in Woolworth's (again!) for ten cents. Clean and dry it after every job and it will be more than

suitable for the work. A brush about an inch and a half wide will do the trick nicely.

Mounting board. I have found several to answer the purpose. Two of them are: a gray back mounting board (white front) and a pebble surface board. The latter has a white front and an ivory-tinted back. I think that if the drawing is not to be worked on afterwards with fine pencil technique the pebble surface board will be found to give a pleasing texture to the surface of the drawing. Of course, if the drawing mounted is a plan the pencil can be used to poché the walls without any trouble. Color can also be applied easily in tints. Washes will take to the board as well as can be expected from the type of paper used. After having fixed the size of the drawing to be mounted cut the board allowing for stretching of the paper. Allow the board to be about an inch or so larger than the drawing will be when stretched. This will prevent the paste on the back of the drawing from adhering to the newspapers when in the press.

Smoothing paper. Get out a roll of "Colonial" tissue and cut three sheets for each mounting, allowing about an inch and a half over the size of the board so the paste will not get onto the angle when smoothing the mount.

Newspapers. Lay about two sheets of newspaper flat on a board for each drawing to be mounted, allowing enough paper so there will be about three inches beyond the furthest edge of the drawing to be mounted.

To proceed with mounting. Lay the newspapers flat on the board or table and put the drawing face down on them. Take the sponge and with it full of water either throw it on the back or make a bunch of Union Jack patterns across the paper. Either way will be satisfactory, just make sure that the back is evenly covered with water, sponging up any excess puddles. Next apply the thick paste you have already mixed over the entire surface, putting it on as evenly as possible. Wet the side of the mounting board to be used and drop it down on the paste-covered back of the drawing. Press over the back of the board so the drawing will adhere to the surface and then flop over the board. Lift up the drawing and pull slightly so that all wrinkles are eliminated and then let it drop back onto the board. Put a sheet of the thin tissue on the face and use the angle to "squeegee" out the uneven surface by working from the center out, pressing lightly so that the paste will not be entirely squeezed off the drawing! Take off the used piece of thin paper and replace with another to keep the drawing clean. If the newspapers have been made so wet or covered with paste that their use would harm the clean sheet you have just put on remove the upper sheet or sheets and you will have clean, dry sheets of newspaper to work with. Turn the board with the drawing face down and wet the back in the same manner as you did the front. Apply the paste and drop the third sheet of thin paper on the board and just smooth over with the angle. This will keep the board from warping.

Put the completed mount between another set of newspapers and put a drawing board on top of it with a heavy weight to keep it down. We seem to prefer water bottles (perhaps because the office force seems to respect the vast amount of water contained therein and act accordingly!)

This method, as one can readily see, enables the operator to have the paper under his control at all times. Due to the fact that the wet surfaces of both the paper and

board are used to dilute the paste a firmer cohesion is obtained.

The use of a glass while quite practical for one drawing would be more of a nuisance than a help when several mountings are contemplated. A glass, anyway, does seem to be in the way between mountings, doesn't it? Now, newspapers can be had at most offices, I think, if there are any of our Big Problem settlers in the force who really at times should write into the "Voice of the People." Do not labor under the delusion that the newsprint will come off while that masterpiece of yours is in such a terrible, quivery state of affairs. It won't! Please note that by newsprint I am not referring to the comic section sheets. That will come off. Newspapers have the advantage that when wet they can be thrown away and new ones substituted in a second by having them in a pile.

Very truly yours,

ROBERT T. HANDREN.



SHOP BUILDING DESIGNED BY L. M. THOMPSON RENDERING IN WATER COLOR BY MANLY N. CUTTER



GUY LOWELL MEMORIAL COMPETITION FOR 1929—DESIGN BY PAUL F. NOCKA, PLACED FIRST "A TEA HOUSE IN CONNECTION WITH AN OPEN AIR SWIMMING POOL AND GARDEN"

GUY LOWELL MEMORIAL SCHOLARSHIP AWARDED

THE GUY LOWELL MEMORIAL COMPETITION was judged Wednesday night, February 20th, by a jury composed of Professor William Emerson, Allen Cox, Neils Larson, James Ford Clapp, and H. P. Richmond. The winning design, out of thirty-seven submitted, was made by Paul Frank Nocka, a student at Massachusetts Institute of Technology, whose home is in Cincinnati, Ohio. The winning of this Competition entitles him to \$1,000 for six months abroad in travel and study as may be determined by the committee in charge. The second place, or alternate, was awarded to Walter C. Wurdeman, whose home is in Milwaukee, Wisconsin.

The winning drawings are shown on pages 260 and 262. The subject of the competition was A Tea House in Connection with an Open Air Swimming Pool and Garden.

THE PROGRAM

As one of the facilities to be enjoyed by members of a country club, but not connected with the club, is an outdoor swimming pool with related conveniences in the form of dressing rooms, toilets, tea room and terrace.

The composition of these elements together with a garden, so studied as to make the best possible use of the natural advantages of an uneven piece of land partially wooded, is the purpose of this program.

The area available shall not exceed 120,000

square feet.

There is a difference of 15 feet in level between the low point of the garden and the floor level of the tea house.

The dressing rooms, beside necessary toilets and showers, shall provide small dressing cubicles for thirty men and twenty women.

REQUIRED: All drawings to be handed in on a sheet of white paper cut to 26" x 38".

Plan, section and elevation.
Section taken at right angles to required elevation.

All drawings are to be at the scale of 1/16" to 1'-0".

The purpose of each room must be distinctly marked.

This is the second year this Competition has been held, which is given in memory of Guy Lowell, a distinguished architect who believed in the importance of foreign study and travel as part of an architect's training.

ROTCH TRAVELLING SCHOLARSHIP - ANNOUNCED

Preliminary examinations for the Rotch Travelling Scholarship will be held this year on Monday and Tuesday, April 8 and 9. Candidates must be citizens of the United States and under thirty years of age on May 1 of the year when they present themselves and have had experience in professional work during two years in Massachusetts in the employ of a practicing architect resident in Massachusetts, or with one year in an office and three years in a Massachusetts architectural school approved by the Scholarship Committee. For further information, apply to C. H. Blackall, secretary, 31 West Street, Boston, Mass.



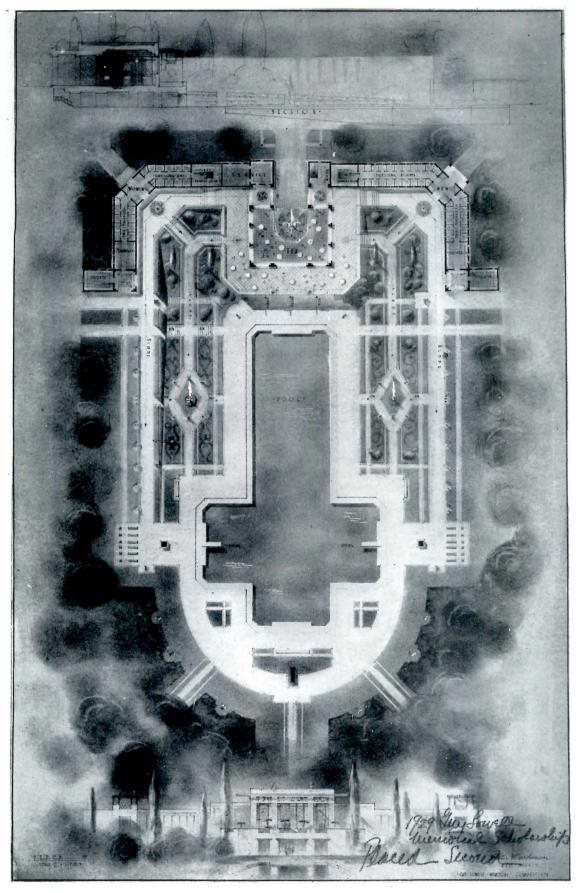
PAUL F. NOCKA

PAUL F. NOCKA, winner of the Guy Lowell Memorial Competition for 1929, is a graduate of the University of Cincinnati, where he received his degree of Bachelor of Architecture in 1927. His course was so arranged at the University that his time was divided over a period of five years between his school work and office experience. Immediately after his graduation Mr. Nocka went on a summer sketching tour through Europe, returning in the fall to enter the Massachusetts Institute of Technology as a graduate student. He was placed second in the Guy Lowell Memorial Competition last year and spent the summer in Boston working in the office of E. T. P. Graham, Architect, specializing in church work.

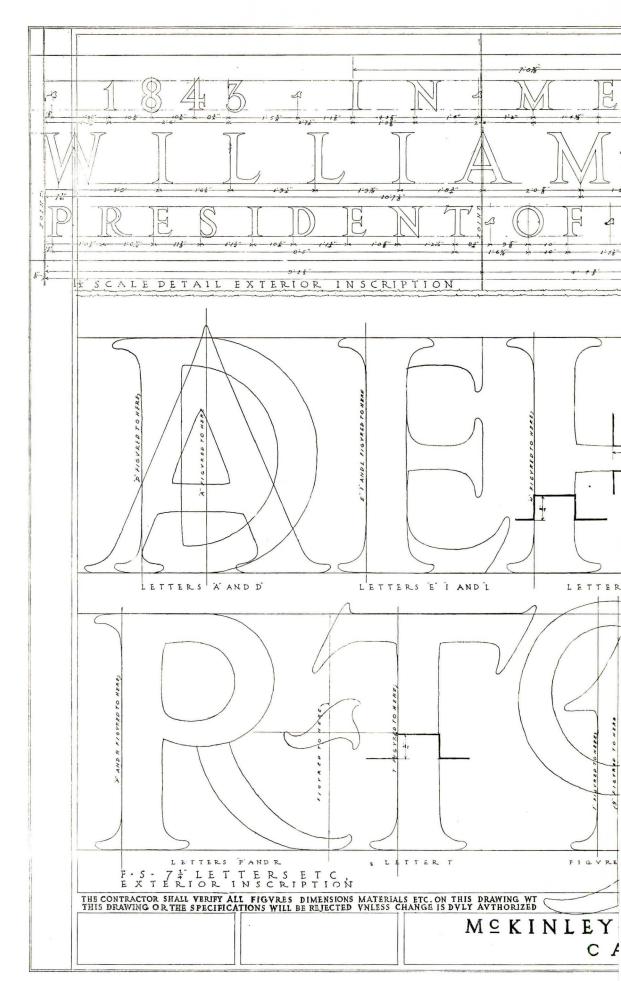
Mr. Nocka is now twenty-four years old and is a candidate for the degree of Master of Architecture at Massachusetts Institute of Technology this June. He plans to sail for Italy in the fall, staying there during the winter months and travelling through northern Europe in the spring of 1930.

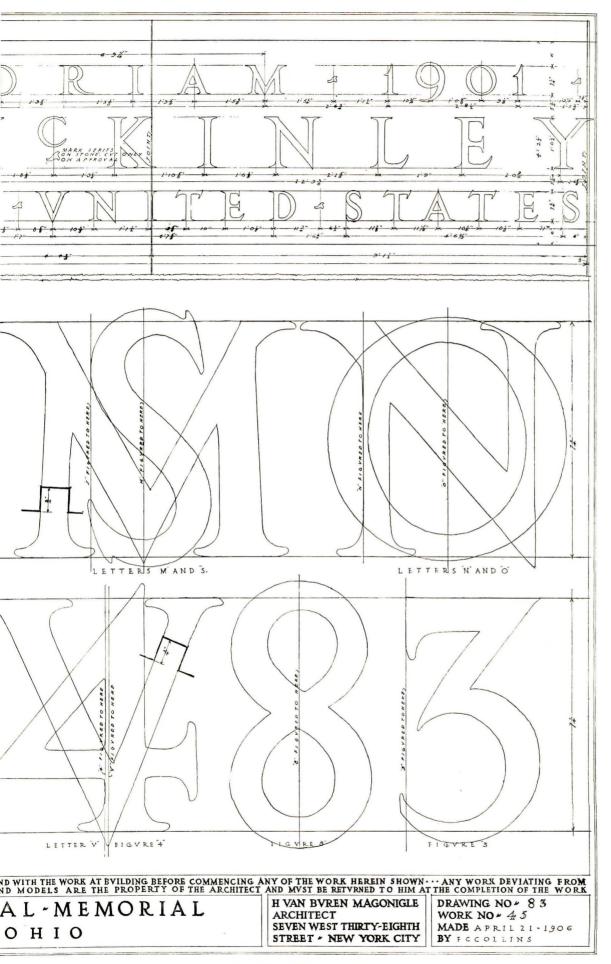
- THE SPECIAL INSERT

This month the special insert on cameo paper, after page 270, shows a drawing by Frank C. Collins made in the office of H. Van Buren Magonigle, long noted for its high standard of draftsmanship. The particular subject shown is of interest not only as a fine piece of lettering but as a beautiful and sensitive piece of drawing in line and as a well laid out sheet. It is reproduced at exactly one-third its original size. Another of these drawings will be presented next month.



GUY LOWELL MEMORIAL COMPETITION FOR 1929—DESIGN BY WALTER C. WURDEMAN, PLACED SECOND "A TEA HOUSE IN CONNECTION WITH AN OPEN AIR SWIMMING POOL AND GARDEN" (See text on page 261)





CLASSICISM IN AMERICA

By Edgar R. Thayer

In discussions of what is called style in building, the question is often asked whether inherited Classic tradition in form and detail should be disregarded in modern American architecture. Opinions on this question are variously expressed, both in the utterances and in the tangible work of those concerned. The answer seems generally to have been that tradition in form and detail should be cast aside no sooner than it has ceased to be applicable to conditions or ceased to have meaning. Neither a slavish clinging to Classic tradition nor a hasty throwing aside of that which has been inherited, in favor of that which may not yet have been reached, can be expected to lead to the best attainment.

When the style of any previous period has represented centuries of development, and when it is not possible to point to any specific example which does not show the influence of earlier work, it is certain that no building which ever has held its place as a work of art has been entirely unique in design, construction and detail. The principle of evolution as represented in any one of the Classic orders or in any given style is sufficient illustration of the gradual process which may be expected to lead to a future style in architecture. The art of the future will inevitably be derived from the art of the present. No style is likely to be created entirely by any one group in any one day. Styles are developed by groups of artists, and continuity is essential to real growth.

The development of American architecture has suffered from a lack of continuity in the XIX Century. The temptation to seek inspiration from a wide variety of sources, a rapid succession of greatly diversified influences and rapid changes in social and economic conditions have interrupted and hindered a logical growth. The work of more recent years in this country practically illustrates a new beginning. There has been a tendency to go back, as a starting point, to a time previous to the interruption of normal development in style. With that as a basis, the progress already made has resulted in some of the finest work that this country has produced. And in spite of a great deal that is commonplace in design, especially in small dwellings and apartments, an example of conspicuously bad taste is not often seen in the work of today. It would be interesting to know what might have resulted from an uninterrupted development in this country.

Aside from the usually emphasized causes of the Renaissance movement in Europe, it is rather natural that that movement should have been a return to that which embodied, as the architecture of Rome, a combination of the accustomed arch and vault method of construction with the ancient method of post and lintel. A complete return to this earlier method of construction was less to be expected, and would doubtless have been less productive than the course that was followed in a combination of these two general principles. Those students and historians who deplore the Renaissance and maintain that architectural development should have continued without recourse to the work of antiquity express a reasonable regret. A continuance in the course followed through the Middle Ages might have produced totally different results from what might yet be produced through an attempt to carry on from the style of the XV Century. Accepting the Renaissance and accepting the Renaissance tradition as the early heritage of this country, that tradition would seem appropriate, not only in the early work of the country, but in modern work with its new methods and new materials. In modern work, however, and especially in very high buildings, Gothic forms have also lent themselves to new conditions with singular success.

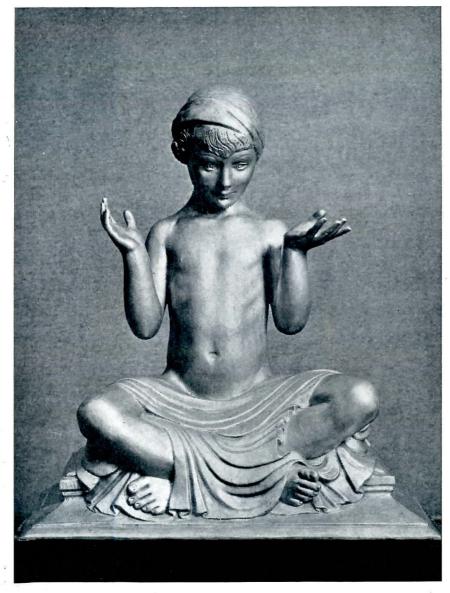
The building which is a direct copy of one of antiquity is appropriate only when similar conditions are to be satisfied; and only in rare instances would the Greek temple satisfy any modern requirements in a building. principal value of an exact replica, in any case, is that of an archaeological study. It may be placed before those who would have no opportunity to view the original. But an old method of expression may be thoroughly adaptable to that which is vitally new. That which is entirely new in purpose may be expressed in terms of familiar and traditional forms, modified as necessity arises and as good taste dictates. Through selection and adaptation have forms and styles been evolved, and so may they be expected to evolve in the future. Copying is not progressing, nor is an iconoclastic or very radical and conscious departure from tradition destined to lead to the goal that

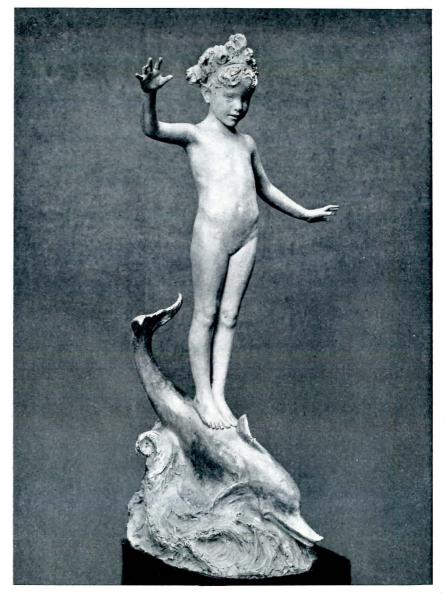
The more nearly the modern building approaches one of the past in form and purpose, the more justifiable is a close adherence to tradition. If the church or cathedral of today closely resembles one of the Middle Ages, is it not because the functions of the building itself are little changed? An advance in learning and in theological teaching does not imply that the essential requirements of the building in its physical aspects have greatly changed.

In the very high buildings which have presented the greatest of present-day problems in composition, are to be found the happiest departures from the traditions of form in masonry. The problems in composition suddenly imposed by great frameworks of steel and reinforced concrete are being best solved through a new handling of voids and solids, group and mass. No single factor has played a stronger part in the modification and improvement in the design of these tall buildings than zoning laws which have required set-backs in the upper stories. These piles seen from a sufficient distance present a picture hitherto unrealized; and again, a purely practical consideration has been the basis of inestimable gain in architectural effect.

But since the steel frame has made masonry do the impossible, so to speak, this in turn may demand a compromise in effect between that which is actually accomplished and that which would be the result where masonry is still limited by the static principles governing it. Should the mere curtain walls appear to the eye only as they are, or should an attempt be made to produce the effect of a self-supporting wall of masonry? It would seem that the higher the building is carried beyond what would be practicable in masonry construction, the less appropriate become the forms hitherto associated with an architecture of stone and brick. The building of moderate height may still be appropriately treated in the manner in which it might be treated were it not for the employment of the steel frame simply as a means of reducing the thickness that would otherwise be necessary in the walls. One of the instances in which the eye is not satisfied is that of the wide opening with glass below, a wall above, and at the same time, an architrave treated as a flat arch of impossible

(Continued on page 265)





BIRD FOUNTAIN FIGURE BY JANET SCUDDER, A.N.A. SEA SPRITE BY BESSIE POTTER VONNOH, N.A. SCULPTURES IN THE ONE HUNDRED AND FOURTH ANNUAL EXHIBITION OF THE NATIONAL ACADEMY OF DESIGN

ARCHITECTURE VERSUS ELECTRIC SIGNS

By P. Schuyler Van Bloem

ARCHITECTURE is as old as man. Signs are old also, as old as we can trace man's progress back through the ages. Signs were the first forms of written expression of the ancients; yet all through the ages it is interesting to note that each has grown side by side, yet in few ways has Architecture deigned to notice formally the existence of signs.

Architecture has endeavored to express itself without resort to signs. Witness the mute identification of post offices, public buildings, capitols, banks, schools. Does one not recognize each by their characteristic design, plan and grouping of architectural motives? Yet, nowhere does one find signs, except modest carved stone or bronze tablets identifying the use and purpose of the structure—until recently.

In the meantime, while Architecture went through its succession of transitions, signs have also developed in their own way to keep up with the needs of its stages of civilization. The ancients used simple stones, iron and bronze symbols. The oven indicated the bakeshop. The figure of the god indicated the temple. The shield (or crest) indicated the rank, style or honor of the Lord or Conqueror.

In medieval days we have the tavern signs in wood and wrought iron, the mortar and pestle of the druggist or chemist, the horseshoe of the smithy, the shield of the armorer and the three balls of the money lender.

In later years we have the more diverse subdivision of these various trades: The chemist branched into bloodletting—the doctor—and even the oculist is an outgrowth of the sign of the pestle and mortar.

Architecture today is being forced into a recognition of the necessity of the humble sign. Much as an architect may desire to omit these very necessary appurtenances from consideration in the design of his structure, he cannot do so without frankly confessing either his disregard for providing for the modern sign, or his sincere desire or hope that no sign will be used on his masterpiece.

The complexities of modern life demand unequivocally consideration of signs for use by the modern Architect. Office, store, bank buildings must be identified by more than architectural expression of use. They must not only say "Bank," but under the pressure of competitive conditions today they must also say—"First National Bank," or whatever the name of the bank is. Not only is the architect called upon to indicate this additional identification, but in many cases he is expected to carry out this advertising—for advertising it is—in a manner that will make that bank be noticed, favorably, in preference to another bank which may be directly opposite.

Thus the architect of today must provide a place in Modern Architecture for signs—sinkages to take recessed signs, friezes of entablatures to take lettering, panelled pilasters or spandrels; even roof and marquis structures must be designed to accommodate the lowly sign—that is, of course, if Architecture is to recognize signs.

If, however, Architecture is to continue to ignore the demand that signs shall be included in the general scheme, then the responsibility of much that is objectionable in present-day signs is to be laid at the door of present-day architects. As the demand for signs is a commercial necessity, then so will objectionable signs be plastered in every conceivable noticeable location, causing eyesores and

effacing all, or, at least, some of the otherwise handsome Architecture underneath them.

It is an interesting theory to consider that if signs had been taken into the bosom of Architecture in early days, that present-day legislation against objectionable projecting signs would not have been necessary. Architects would have replaced the present crudity of design with simple architectural rhythm and contour—they would have made signs a part of the Architecture. Instead, we have signs virtually the stepchild of Architecture.

Who can deny that theatre signs and sign treatment are not architecturally an abomination? Who can point to a theatre marquis sign that is not an atrocity and a public nuisance? Architecture would have and will solve this just as it has successfully solved other problems connected with other stepchildren of Architecture. Sculpture has ever gone hand in hand with architectural composition. When plumbing and heating became necessities, Architects incorporated their external and visible indications in their plan and scheme of design. Hideous stoves and radiators were relegated to out-of-the-way nooks and corners. The modern elevator hatchway no longer consists of a draughty fire hazard of open work iron grills. The engine and boiler rooms even turned from dirty holes in the ground into gleaming rooms of polished brass and automatic machinery.

Electrical signs will, also, under the hand of the modern architect, find their proper place and form and, instead of monstrosities from the shops of graduated carpenters, electricians and tinsmiths, electric signs will become beautiful, harmoniously ornamented panels worked into the worthy Architecture symbolic of America.

SPACE AVAILABLE FOR ARCHITECTS

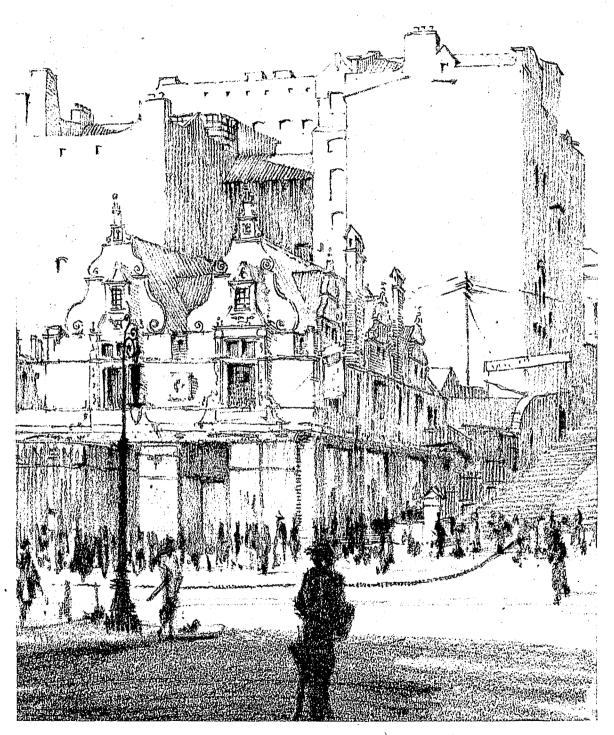
THE FOUR-STORY BUILDING at 211 East 45th Street, New York, formerly occupied by Kanne & Bessant, Inc., manufacturers of lighting fixtures, is now available for leasing in whole or by floors, to architectural firms. There are over seven thousand feet of floor space, all well lighted. The building is in the Grand Central Zone, handy to all transit facilities, interested parties should correspond with Mr. Enes of Kanne & Bessant, Inc., 460 West 34th Street, New York City.

CLASSICISM IN AMERICA

(Continued from page 263)

span and insufficient abutment. Here tradition may well be abandoned, as it often is, in the apparent structural treatment of the span.

An attempt to produce illusions is contrary to the spirit of architectural design in its serious aspects, and has not led to any permanently accepted standards. The modification of forms to suit conditions may be expected to lead to an accomplishment of our own. Although the time when there may be no recognizable survival of inherited forms now used is scarcely conceivable, it is to be expected that our gradual modification of them may lead to an architecture which is our own to the same extent as that of any other country in any previous period in history.



PENCIL AND LIGHT WASH DRAWING BY OLIVER BEDFORD
A CORNER OF SANEHIEHALL ST., GLASGOW

NUMERICAL INDEX OF FOLIOS OF MAGAZINE PLATES AND ARTICLES

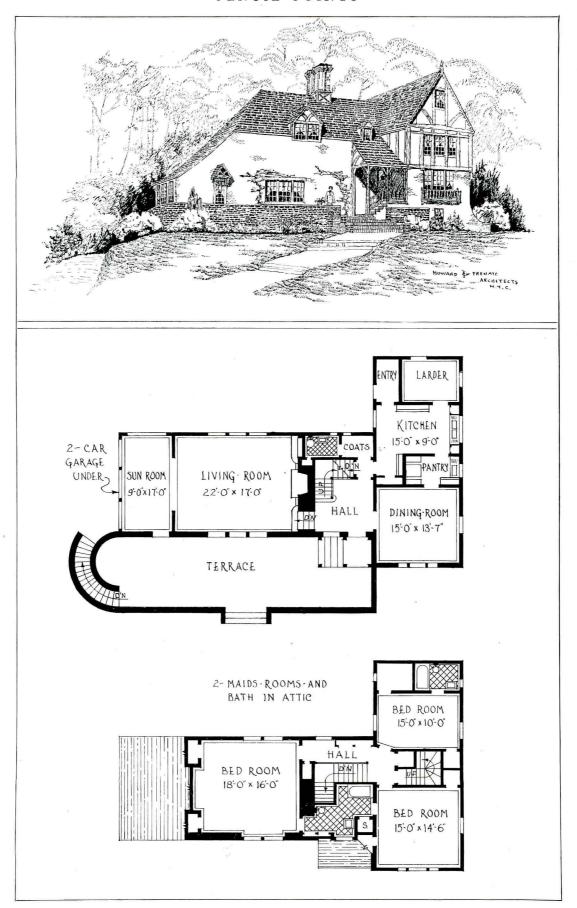
Editor's Note:—Charles D. Strong, Architect, of Denver, Colorado, has sent us his method for filing architectural plates and articles based on the Desvey Decimal System used in libraries. Mr. Strong has a separate folder for each subject. When the plates are filed the number of the folder in which they are placed is noted in ink in the upper right-hand corner. In referring to any particular subject the entire folder is removed from the file.

We shall be glad to receive letters from our readers giving any suggestions or criticisms in regard to this system.

			D
710.	Landscape Architecture	.2	Byzantine
711.	Public Parks	.3	Mohammedan, Saracenic, Moorish, Persian,
712.			Turkish Indian
713.		.4	Romanesque
714.	Fountains, Ships	.41	Scotch, Irish
. 1	Bridges	.42	English, Saxon, Norman
.2	Dams	.43	German, Austrian
715.		.44	French Provençal, Norman Angevin
716.		.45	Italian, Sicilian Norman
717.	Gardens (Arbors, Summer Houses, Seats, Out-	.46	Spanish, Portuguese
	looks, Garden Walls, Steps, Pergolas, Vases,	.47	Danish, Swedish, Norwegian
	Lattice Work)	.48	Belgian, Dutch
718.	Monuments	.49	Minor Countries
.1	Mausoleums, Receiving Vaults	723.5	Gothic
.2	Memorial Tablets	.51	Scotch, Irish
.3	War Memorials, Statuary	.52	English, Norman
719.	Cemeteries	.53	Germany, Austria
.1	Cemetery Buildings	.54	France
.2	Mortuaries	.55	Italy
720.	Architectural Practice	.56	
.1	Architectural Design	.57	Spain, Portugal
.11	Beaux Arts Drawings	.58	Denmark, Sweden, Norway
.2	Architectural Books		Belgium, Holland
.3	Competitions	.59	Minor Countries
		.6	
.4 .41	Rendering, Master Draftsmen Pencil	.7	
	The second secon	.8	
.42	Pen and Ink	.9	
.43	Water Color	724.	Modern
.44	Charcoal	.1	Renaissance
.5	Architectural Practice, Financing, etc.	.11	England
.6	Wrought Iron Work, Locks, Keys, etc.	.12	Germany, Austria
.7	Brickwork, Tile, Stone, Polychromy, Stained	.13	France
	Glass, etc.	.14	Italy
.71	Architectural Monograph on Tiles	.15	Spain, Portugal
.8	Drafting Room Practice	.16	Belgium, Holland
.81	Perspective	.17	Denmark, Sweden, Norway
.82	Working Drawings	.18	Switzerland
.83	Full Size Details	.19	Central and South America
.84	Shop Drawings	.2	
.85	Superintendence	.3	
.86	Alphabets	724.4	Modern Architecture
.9	Furniture, Lighting Fixtures	.41	England
721.		.42	Germany, Austria
722.	Ancient and Oriental Architecture	.43	France
. 1	Chinese, Japanese	.44	Italy
.2	Egyptian	.45	Spain, Portugal
.3	Phoenecian, Tyrian, Jewish, Carthagenian,	.46	Belgium, Holland
	Cypriote	.47	Denmark, Sweden, Norway
.4	Indian (Asiatic)	.48	Minor Countries
.5	Chaldean, Assyrian, Babylonian, Ancient Persian,	.49	Spanish America
	Sasanian	.5	-F
.6	Pelasgian, Etruscan	.6	Mexico
.7	Roman	.7	Spanish Mission
.8	Grecian	.8	Spanish Mission
.9	Aztec, Peruvian, Mayan, Yucatan	.9	Colonial
723.	Medieval Architecture	.91	Residence
.1	Early Christian	.92	Church
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PENCIL POINTS

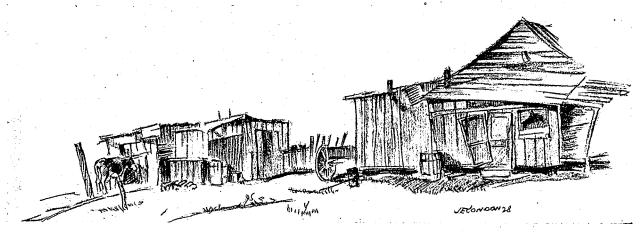
.93	Public Buildings	725.3	Transportation and Storage
725.	Public Buildings	.31	Union Stations, R. R.
.1	Administration, Governmental	.311	Aviation Landing Fields
.11		.312	
	Capitols	.313	CONTROL OF THE PROPERTY OF THE
.111	National	.32	
.112	State		R. R. Freight Stations
.113	Houses of Parliament	.321	Aviation Freight Stations
.114	International Buildings	.322	Auto Bus Line Freight Stations
.12	Administrative	.323	Street Car Freight Stations
.121	Ministries of War, State, etc.	.33	R. R. Shops, Round Houses, Car Houses, Tanks,
.122	Mints		Stores
.123	Legation Buildings	.331	Street Car Barns
.124	State Office Buildings	.332	Airdromes
.13	City Halls, Town Halls	.34	Dock Buildings, Wharfs and Boat Houses
.131	Municipal Buildings, Piers, etc.	.35	Warehouses, Cold Storage and Deposit
.14	Custom Houses, Bonded Warehouses, Excise	.36	Grain Elevators
.11	Offices	.37	Grain Enerators
.15		.38	Private Garages
	Court Houses, Record Offices	.381	
.16	Post Offices		Storage Garages
.17	Official Residences, Palaces	725.4	Manufactories
.18	Protective—Military	.41	Bakeries
.181	Barracks	.42	Auto Factories
.182	Armories	.43	Aeroplane Factories
.183	Arsenals	.44	
.184	Police Barracks	.45	
.185	Police Stations	.46	
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.191	Fire Stations	.48	
.192	Waterworks, Pumping Stations, Power Houses	.49	
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	Stores, Wholesale and Retail		General Hospitals, Large
.211	Shops B '11'	.511	Nurses' Homes
.212	Store and Office Building	.52	General Hospitals, Small
.213	Store and Apartment Building	.53	Government Hospitals
.214	Store and Hotel Building	.54	Maternity Hospitals
.22	Office Buildings	.55	Tubercular Hospitals
.221	Insurance Buildings	.56	Contagious Hospitals
.222	Public Service Buildings	.561	Surgical Hospitals
.223	Professional Buildings	.562	Children's Hospitals
.224	Architectural Offices	.57	Asylums, Insane
.225	Manufacturing Office Buildings	.571	Idiotic, Inebriate
.226	Fraternal Office Buildings	.572	Blind
.227		.573	Deaf and Dumb
.228		.58	Homes, Poorhouses
.229		.581	Old People's Homes
.23	Printing Establishments	.582	Orphans' Homes, Foundling
.231	Newspaper Offices	.583	Charities, Neighborhood Houses
.24	Banks, Miscellaneous	.59	Soldiers' Homes
.241	Safe Deposit	725.6	Prisons and Reformatories
.242	Savings		
.243	Large Banks	.61	Penitentiaries
.244	Small Banks	.62	Jails, Cell Houses
.245		.63	State Prisons
	Banks and Office Buildings	.64	Reformatories for Adults, Reform Schools
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.262	Abbatoirs	.74	Swimming Pools
.27		.75	Buildings for Watering Places
.28	Auto Sales Room	.76	Public Comfort Stations
.281	Auto Service Stations, Filling Stations	.761	Buildings for Parks, Zoos, etc.
.29		.77	Civic Centers
•41		. / /	Offic Centers



RESIDENCE FOR J. D. TOPPING, ESQ., AT WEST ORANGE, N. J. HOWARD AND FRENAYE, ARCHITECTS

PENCIL POINTS

.78	City Planning	.51	Renaissance
.79	,	.52	Colonial
.8	Recreation	.53	Romanesque
.81	Community Buildings	.54	Spanish
.811	Municipal Auditoriums	,55	Gothic
.812	Memorial Auditoriums	.56	Classic
.813	Musical Conservatories	.57	
	Convention Halks	.58	
.82	Theatres	.59	4
	Opera Houses	.6	Christian Science
	Motion Picture Theatres	· .7	Monasteries
	Motion Picture Sets	.71	Convents
.823	Vaudeville Theatres	.72	Abbeys
.83	Amphitheatres, Stadiums	.8	Cemetery Chapels
.84	Bowling Alleys, Billiard Saloons, Pool Halls	.9	Y. M. C. A., Y. M. H. A., Salvation Army
.85	Gymnasiums, Turn Halls, Indoor Tennis Courts	.91	Y. W. C. A.
.86	Skating Rinks, Bicycle Rinks	727.	Educational and Scientific
.87	Boat Houses		
.88	Riding Halls and Schools	.1 .11	Schools, Kindergartens
.89			Primary _
	Shooting Galleries	.12	Rural
.9	Other Public Buildings	.13	Grammar
.91	Exhibition Halls	.14	High Schools
.92	Exposition Buildings	.15	Private
.93	Fair Buildings	.16	Parochial
.94	Amusement Parks	.17	Trade Schools
.95	Institutes	.18	
.96	Local Halls	.19	
.97	Dance Halls	.2	Academies, Seminaries, Boarding Schools
.98		.3	Colleges
.99		.31	Universities
726.	Ecclesiastical and Religious	.32	Normal Schools
.1	Temples, Mosques, Synagogues	.4	Professional and Technical Schools
.2	Chapels	.5	Laboratories, Physical
.3	Sunday School Buildings	.51	Chemical
.31	Church Houses	.52	Biological
.32	Parish Houses	.53	Zoological
.33	Administration Buildings	.54	Botanic Gardens
726.4	Churches, Institutional, Miscellaneous	.55	Observatories, Planetariums
.41	Classic	.56	Film Laboratories •
.42	Renaissance	.6	Museums, Herbariums, Art Galleries
.43	Colonial	.7	Radio Broadcasting Studios
.44	Romanesque	.71	Art Studios
.45	Spanish	.72	Private Studios
.46	Gothic	.73	Photographic Studios
.47	Church and Office Building	727.74	Art Schools
.48	Church and Apartment Building	.8	Libraries
.49	Church and Hotel	9	Historical Societies, Learned Societies
.5	Churches, Liturgical, Miscellaneous	(Ca	ontinued on page 180, Advertising Section)



PENCIL DRAWING BY J. EMMETT CONDON, OF MEMPHIS, TENNESSEE ONE OF THE CHARACTERISTIC NEGRO DWELLINGS NEAR MEMPHIS, TENNESSEE



This department conducts four competitions each month. A prize of \$10.00 is awarded in each class as follows: Class 1, sketches or drawings in any medium; Class 2, poetry; Class 3, cartoons; Class 4, miscellaneous items not coming under the above headings. Everyone is eligible to enter material in any of these four divisions. Competitions close the fifteenth of each month so that contributions for a forthcoming issue must be received by the twelfth of the month preceding the publication date in order to be eligible for that month's competition. Material received after the closing date is entered in the following month's competition.

THE PRIZES IN our monthly competitions have been awarded as follows:

I-John Welker of New York

Class II—Robert Stacy-Judd of Los Angeles

Class III—Ramsay W. Duncan of New York

Class IV-J. Ray Corwin of Saint Paul, Minn.

Next month we are hoping to have facts available which will enable us to present something new to HERE AND THERE readers. It is another competition, but what a competition!

REPORT OF THE JURY OF AWARD COMPETITION FOR "A BACHELOR'S RETREAT"

THE JURY OF AWARD met on March 16th to examine over fifty entries submitted in the Competition for A Bachelor's Retreat. After four long and heated sessions the first prize was awarded to Onnie Mankki, of Pittsburgh, Pennsylvania. The second prize went to Henry A. Billsten, of Chicago, Ill., and third prize was won by John F. Kausal, also of Chicago. These winning drawings are shown on pages 274 through 276. The Jury was particularly impressed with Mr. Mankki's elevation and considered the workroom exceptionally well placed. (We'd like to see this "retreat" built and hope that some PENCIL POINTER will have ambitions in this direction.) Mr. Billsten's design appealed to the Jury very strongly through its simplicity both of exterior and interior arrangement. The third prize design, in the opinion of the Jury, derives its merit from the plan arrangement, as the elevation impressed the Jury as being rather commonplace. It was most gratifying to the sponsors of the competition to have so many entries submitted and this opportunity is taken to thank each and every competitor who gave of his time and thought to the solution of this great social problem. The bachelors of the world owe a rising vote of thanks to you who have helped solve the problem of how to be comfortable and at peace with the world though single.

A prize of \$50.00 will be awarded to Mr. Mankki;

Mr. Billsten will receive \$25.00; and Mr. Kausal, \$15.00.



PENCIL AND WASH DRAWING BY MARTIN GAMBEE, OF YONKERS, NEW YORK "A Deserted House in Connecticut"



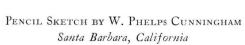
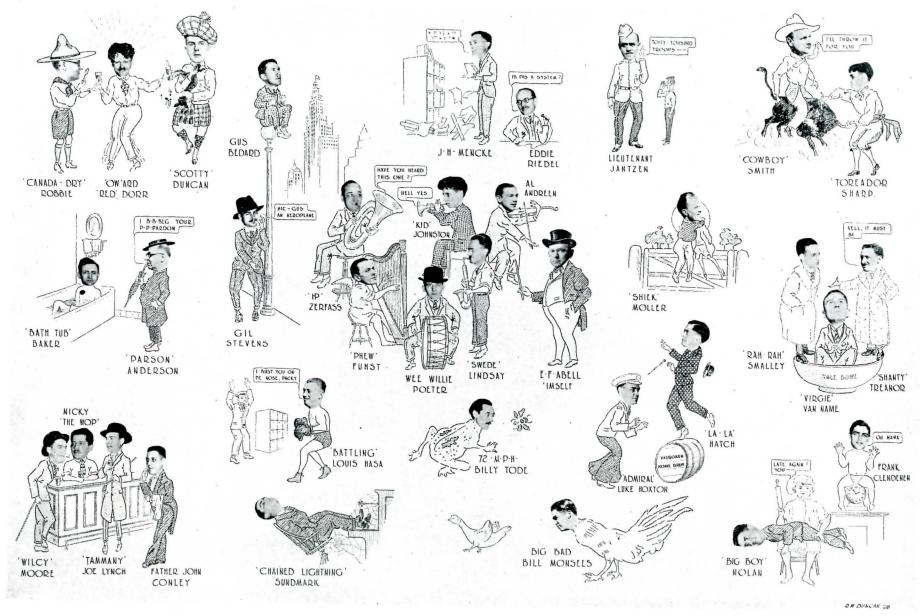
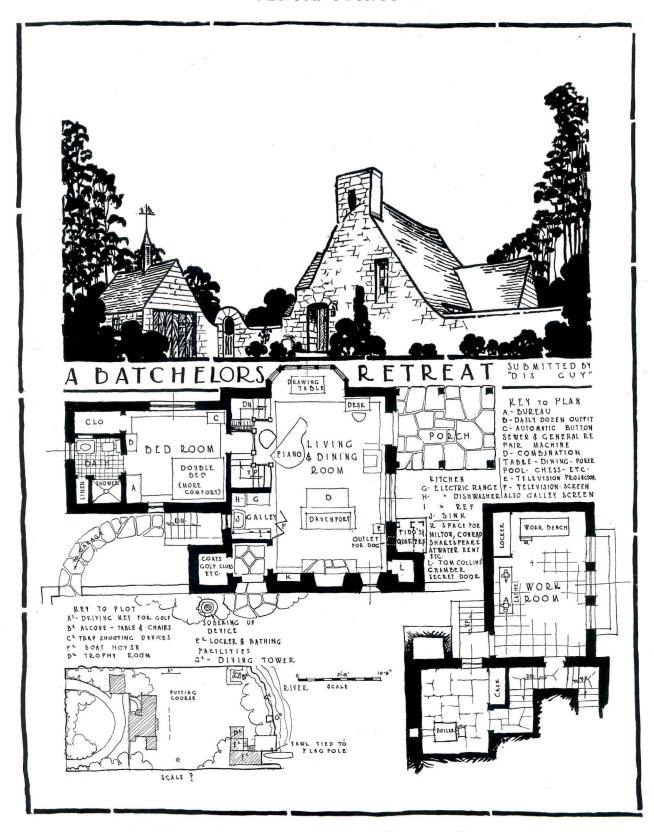




FIGURE STUDY BY JOHN WELKER (PRIZE—Class One—March Competition)



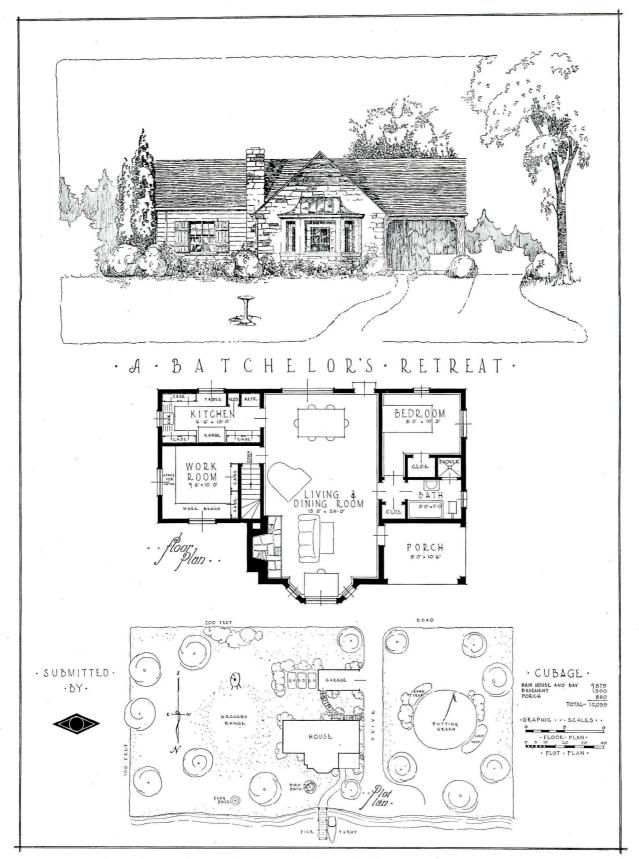
CARTOON OF THE OFFICE FORCE OF E. F. ABELL, CONSULTING ARCHITECT, DRAWN BY RAMSAY W. DUNCAN (PRIZE—Class Three—March Competition)



Prize Winning Design by Onnie Mankki, of Pittsburgh, Pennsylvania

Competition for "A Bachelor's Retreat"

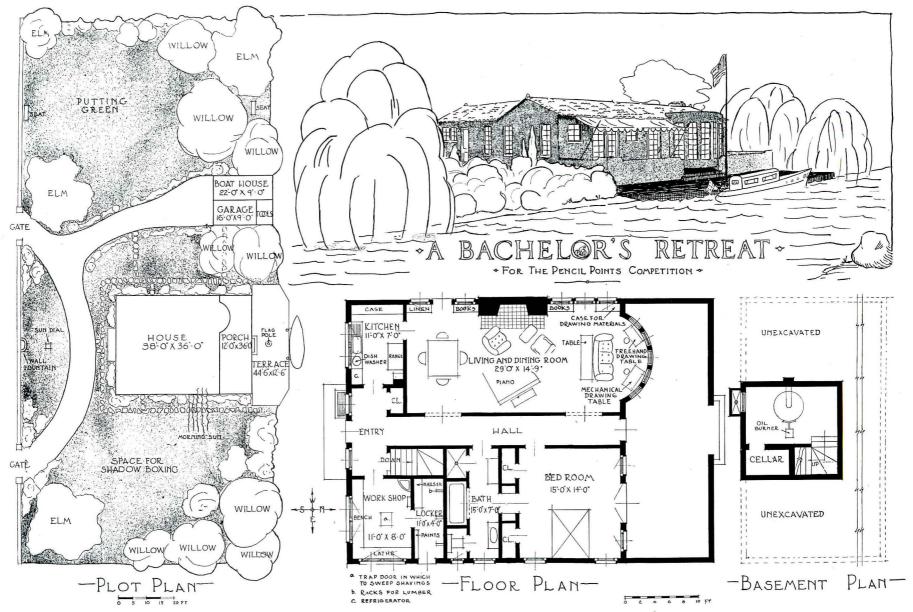
(See Jury Report on Page 271)



Design Placed Second, Submitted by Henry A. Billsten, of Chicago, Illinois

Competition for "A Bachelor's Retreat"

(See Jury Report on Page 271)



Design Placed Third, Submitted by John F. Kausal, of Chicago, Illinois

Competition for "A Bachelor's Retreat"

(See Jury Report on Page 271)

THE DRAWING at the right by J. Ray Corwin was the winning design for a bookplate in a competition in the office of Ellerbe & Company, Architects, of St. Paul, Minnesota. Mr. Corwin's design won him a prize of \$20.00 for its suitability, originality of idea, and execution.

THE MAYA RACE

By Robert B. Stacy-Judd

(PRIZE-Class Two-March Competition)

Dedicated to T. A. Willard, to whom I am indebted for his wonderful assistance in my study of the works of the ancient Mayas.

Tragedy, and the Mind of Time combined

To usher, from apparent realms of space,

A people, wise in lore, tradition intertwined

With skill in Arts and Peace . . . The Maya race.

No scribe has blazoned scrolls that we may learn

From whence they came, or source of power which willed,

Or what stupendous grief that made them turn To Yucatan, an Empire to rebuild.

What cataclysm drenched their eyes with tears.

What losses must have been their wage of toil. What shattered hopes and dreams encouraged fears

When they were cast adrift to seek new soil.

And yet, forlorn, without a dreg of hope,

Driven, desperate, dreams all turned to dust.

Starving, suffering, powerless to cope

They gave the Supreme Being simple trust.

And by this faith, well tried throughout past years They gathered of their remnant shattered band

And, probably, o'er waters fraught with fears, Conquered, in their quest for safer land.

Intelligence supreme was theirs, long ere

The dread events which sealed their country's doom.

Of this we are assured by what is there

In Yucatan, from Copan to Tuluum.

Time soothed their grief and urged great minds to build

Pyramids, and temples, and palaces to store Replicas of their arts, which now but filled

Their memories, and fostered dreams of yore.

So, glorious, as the sun from out the night

Rose monuments, by architects unknown, But brilliant in triumph of their right

To create history—in living stone.

Though ruins now, we prove their works compare With all the Classic Orders, and longevity

In Fame shall crown the loving care

Which joyous labor freely gave posterity.



DESIGN FOR A BOOKPLATE BY J. RAY CORWIN (PRIZE—Class Four—March Competition)

Mr. T. VAN GUNTEN of Van Gunten & Van Gunten, Architects of Chicago, was recently visited by a calamity as witness the following letter:

PENCIL POINTS

Gentlemen:

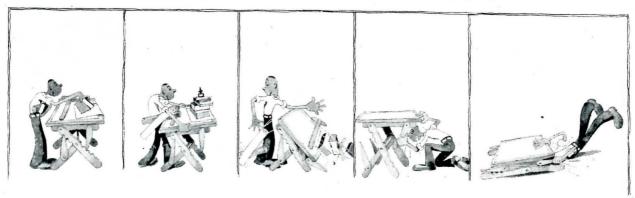
Your last issue of the Pencil Points was unfortunately laying in my car which fortunately enough was stolen.

While the theft of my car is an offense easily forgiven, yet the fact that your March issue went with it is a serious loss and we hereby make a request for another number of this issue in order that our files may be complete.

Thanking you in advance I remain,

Yours very truly,

(signed) T. VAN GUNTEN.



Moving the Adjustable Drawing Table by J. H. Bell, of Birmingham, Ala.



THE ORGANIZATION OF ELLERBE AND COMPANY, ARCHITECTS, OF SAINT PAUL, MINNESOTA

1—Reinhart Teige, 2—John W. Dawson, 3—Carl H. Staege, 4—Dave Cederlind, 5—N. D. Adams, 6—Raymond E. Roubal, 7—Edward B. Lewis, 8—Alfred H. Schroeder, 9—George C. Darrell, 10—Richard C. Reinecke, 11—Arthur G. Schulz, 12—J. Ray Corwin, 13—Perrin L. Bomberg, 14—Ben L. Anderson, 15—Clyde Lighter, 16—Robert Linwick, 17—Wm. J. Witherspoon.



THE DRAFTSMAN'S LIBRARY

Practical Color Simplified, by William J. Miskella; 109 pages, 6" x 9"; price \$3.50; published by the Finishing Research Laboratories, Inc., Chicago, Illinois.

Although this little book was not designed primarily for architectural draftsmen it can conceivably be of a good deal of use to the draftsman who uses color, either in his drawings or in his architecture. The several chapter headings, Color Choosing, Color Harmony, Color Matching, Colored Lighting, Color Designation, Color Pigments, and Color Testing, give some indication of the ground covered. The chapter on pigments alone makes the book of help to the draftsman for it tells the facts about every pigment he is likely to encounter—its chemistry, its particular applications, its degree of permanence, and other characteristics which might influence its use in a given case.

The Builder's Jewel and Treasury, by Batty and Thomas Langley; 112 plate pages, $4\frac{1}{2}"$ x $5\frac{1}{2}"$; price ten shillings sixpence; published by John Tiranti & Company, London.

This little volume contains reprints of two famous architectural pocketbooks originally published in about 1740. The original works were undoubtedly among the most important reference works available to architects and builders of the Georgian period. The complete titles, "The Builder's Jewel or the Youth's Instructor and Workman's Remembrancer," and "The Treasury of Designs or the Art of Drawing and Working the Ornamental Parts of Architecture," have the flavor of the times. It is an interesting book to possess for its historical value and even though the draftsman of today will probably not use it much to crib from, he can learn something of elegance and proportion by a careful study of the plates.

Steel Square Pocket Book, by Dwight L. Stoddard; 174 pages, 33/4" x 53/4"; price \$1.00; published by the Scientific Book Corporation, New York.

The average architectural draftsman is probably only vaguely aware of the tremendous range of geometrical problems which confront the practical building carpenter and which are solved by him with the sole aid of the simple steel square. This little book, which was originally published 25 years ago, is now out in its fourth edition, revised and enlarged. The draftsman who wishes to know more about the practical side of building can learn a great deal from its pages.

The steel square is not formidable in appearance yet there is much more in it than meets the casual eye. With it the carpenter can lay out, accurately, polygons of any number of sides, circles, ellipses, and other curves; can mark up his timbers for cutting to fit properly in any type of roof framing from the simplest to the most complex; and can make many computations for which the draftsman ordinarily turns to his slide rule. It will do no architect or draftsman any harm to study this book and find out by what means the carpenter takes the dimensions furnished to him by the architect's scale drawings and transfers them to the elements of the structure at full size.

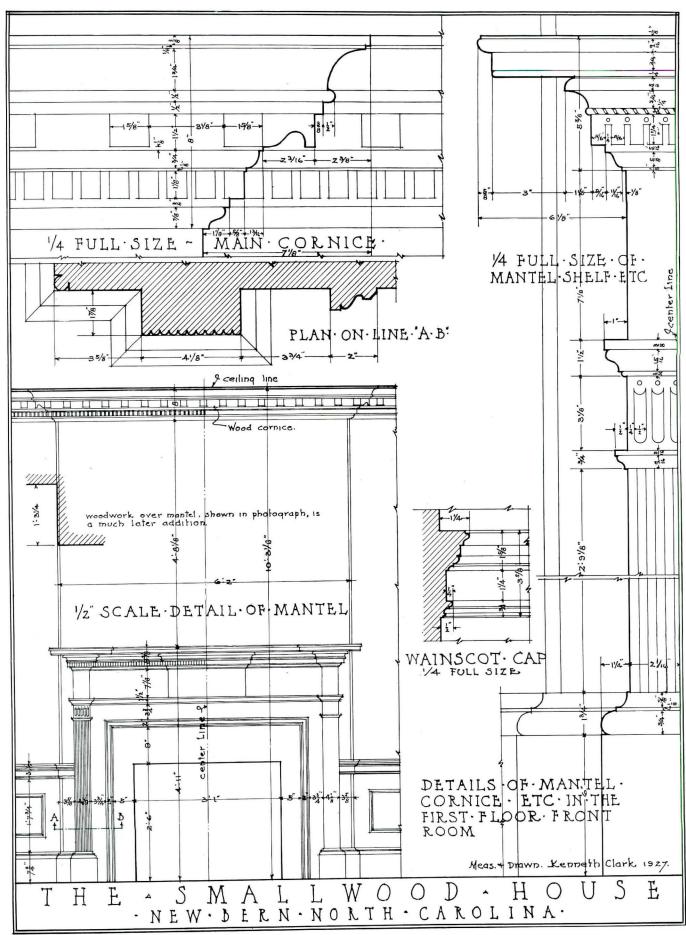
Metal Crafts in Architecture, by Gerald K. Geerlings; 198 pages, $8\frac{1}{2}$ " x $11\frac{3}{4}$ "; price \$7.50; published by Charles Scribner's Sons, New York.

Mr. Geerlings' valuable articles on wrought iron, published in Pencil. Points during 1926 and 1927, give some indication of the thoroughness with which he might be expected to treat the related subject of architectural metal work other than wrought iron. He has not failed, in this book, to continue his high standard of performance and has produced the only work so far available which approaches the question of metal work from the architect's point of view.

In addition to the many well selected photographs of bronze, brass, cast iron, copper, tin, lead, and zinc ornament as used in the past and in current practice, he has presented a most informative text describing the technique of craftsmanship for each metal. The practical points the designer needs to know about the characteristics of each metal both as affecting design and subsequent protection from chemical action are all clearly stated. The author spent a great deal of time in research to gather his information from the most authoritative sources available, visiting the best equipped shops and interviewing men of long experience in each trade. The result is that the information contained in the book is absolutely reliable and covers all the essentials for architectural consumption. The architect or draftsman thus has handed to him in compact form the fruits of the combined experience of all the men who cooperated with the author and it is safe to say that the resulting book is capable of saving the user many times its cost by enabling him to use his metals intelligently and with full knowledge of their limitations.

Villa Madama, Rome, by W. E. Greenwood; 29 plates (18 in full color) and 76 text pages with bibliography and index, 93/4" x 12"; price \$20.00; published by William Helburn, Inc., New York.

A complete and scholarly reconstruction of the famous Villa Madama is now made available in this volume to the many architects and draftsmen who have visited it in Rome and admired its beautiful color decorations. The color plates which illustrate the work show all these famous decorations in their full glory and will, no doubt, largely supplant as references the color notes taken down by countless students of architecture and painting through these many years. Giulio Romano, Giovanni da Udine, Giovanni Penni, and others of the famous school led by Raphael put all their skill into making this lovely palace of Cardinal Giulio de' Medici on the slope of Monte Mario "a thing of beauty and a joy forever." author of this book has taken what we have left today of the villa, in its semi-ruined state, and has made it his hobby to endeavor to reconstruct the decorations as they were originally intended to be and to investigate their history. The results of his exacting task should be of use to all who are engaged in the practice of decorative



MEASURED DRAWING BY KENNETH CLARK—FROM THE GEORGE F. LINDSAY COLLECTION



THE SPECIFICATION DESK

A Department for the Specification Writer

SPECIFICATIONS FOR THE OWNER

By E. A. Long

Editor's Note:—The author of this article graduated from Stanford University in 1924. Before entering college he had first-hand experience in construction and carpentry, and later was engaged in construction work. For the last four years he has been preparing electrical and mechanical specifications for a large Public Utility Company in the west.

THE ARTICLES WHICH have appeared in this section from time to time have covered in a very complete and excellent manner the general preparation of specifications and any one who has followed them and heeded their advice should certainly write specifications which are essentially

useful and complete. It is therefore not the purpose of this discussion to attempt to suggest comprehensive rules for the preparation of specifications but rather to discuss certain points which are of particular importance to the owner of a proposed building and which unfortunately are sometimes not thoroughly considered from his point of view. Among these points are the method of specifying materials, the completeness and accuracy of the specifications, and the requirements for insurance, bonds, and guarantees.

Method of Specifying Materials. When the average owner engages an architect to design and superintend the construction of a building for him he usually has in mind either a very definite type of building and wants it for the lowest possible sum of money or else he has a very definite sum of money to spend and wants the very best building he can get for

that sum. In either case he wants the most that he can get for his money and, since he is paying the architect to get it for him, he is entitled to it.

In addition, if the owner himself is in business, especially a competitive business in which he sells to a wide variety of customers as many large corporations with extensive public contracts do, sound business principles forbid that he exclude any customer, possible customer, or friend from competing for his work unless he knows definitely that their merchandise is not suitable for the work.

In general, therefore, the owner is very definitely interested in the specification of materials and his position must be carefully and intelligently considered by the specification writer:

The methods of specifying materials have been dis-

cussed at such great length pro and con that most specification writers have formed decided opinions on the subject and few are being converted at present either one way or the other. The question is therefore raised with a certain amount of apprehension. The verbatim use of the "or equal" clause has undoubtedly been pretty generally discarded and rightly so for although it served a specific purpose the problems it introduced wasted much time and effort and perhaps more than overbalanced its good effects. The "or equal" put every bidder on the offensive as the sponsor of a substitute brand and the architect had to assume the defensive to exclude undesirable substitutes.

The other extreme is that of specifying one material only or perhaps two which are acceptable. Although this method is used by many of the larger architectural firms with the excuse that

E. A. Long

it saves time by eliminating interviews with material salesmen after the specifications are completed, it is, in the majority of cases, almost as inexcusable. It is granted that in certain isolated instances there is one material only which can be used and then of course it must be demanded outright. In most work, however, there are several known articles which are suitable and by limiting the acceptable materials to one or two, the architect not only forces the owner to pay more for a given product but also frequently loses an opportunity to obtain a more

suitable one which has just been placed on the market.

On work of magnitude where only the larger contracting firms bid, the proposals as a rule are not greatly influenced by the limitation of acceptable materials. This is due to the fact that in general each of the larger firms has accounts with several jobbers and is thus able to obtain practically any product at the standard trade price.

This, however, is not always true in the case of lesser work where the smaller contracting firms bid. A contractor of this type is frequently set up in business by a jobbing house which carries his overdue account for long periods simply to use him as an outlet for its lines of Also, a small contractor having set out independently frequently finds himself under obligations to a jobber who likewise carries his account rather than bankrupt him and lose the outlet for goods. In either of these cases the smaller contractor can compete under specifications which narrowly limit acceptable materials, only if his particular middleman handles the required line. If he does not, the contractor must obtain the materials from a competing jobber and is usually forced to pay a premium. This may either take the form of a higher price due to his account being too small and risky to warrant his obtaining the full discount or else he is forced to pay cash which often necessitates a loan at a comparatively high rate of interest.

It will be argued that on any given job at least one of the contractors will have an account with the middleman who handles the fortunate material and he, at least, can obtain the material at the standard trade price and can submit his proposal without having to add a premium. This is true, but a system of this kind does not result in fair competition, for in fair competition all contestants must have an equal opportunity and there must be no favoritism or advantages other than those physical advantages which a contractor may have by reason of location, idle equipment or the like.

The architect who persists in issuing extremely limited material specifications is usually so engrossed in the design of buildings that he is not interested in smaller contractors and economic theories on competitive systems of bidding and does not care particularly about them. However, if he is properly to safeguard the owner's interests he must consider these points and prepare his specifications accordingly. If he does not protect the owner's interests the latter, if he is an extensive builder, will seek an architect who will give him not only excellence of design and utility but the greatest value for his money.

What should be sought then in the specification of materials is a method which is specific enough to eliminate insofar as possible interviews and explanations to dealers whose materials are not of a standard suitable for the work, but which at the same time is broad enough to include materials which are less well known than the leaders in their line but are nevertheless acceptable. The method which has stood the test of time in at least one busy office is illustrated by the following example.

Under the GENERAL CONDITIONS, which are printed, the following paragraph appears:

MATERIALS AND WORKMANSHIP
"The materials shall be suitable for the work
and the best of their respective kinds, and shall
be subject to the approval of the architect.
Articles or materials may be substituted for those
specified only with the consent of the architect.
The methods used by the contractor shall be such
as will produce satisfactory work and in accordance with the best American practice."

Under the *Specific Conditions* each material is specified as in the following case where wire is taken as an example, trade names normally being mentioned:

"All wire shall be , , or approved equal."

In some cases it is expressly stated that the mention of the trade names is intended to set the standard only and that any material of equal worth is acceptable provided however that the architect must be the judge of its quality. With this method in use the contractor knows immediately the standards of the materials he must furnish, for, whether or not he can convince the architect of the value of alternate materials, he can always furnish the materials which are mentioned in the specifications without further approval. Likewise the architect knows that he will get suitable materials, for the materials he has named are known to be satisfactory and no others can be used without his approval. A further convenience of this system, which is particularly desirable on a rush job, is that it permits the signing of the contract before all material decisions are made.

Completeness and Accuracy. The owner is interested in the completeness and accuracy of specifications because the extent to which they are complete and accurate determines largely the number of extras and thus the cost of the work and also the amount of protection which he will be afforded under the contract. He wants to know before the contract is signed how much the work will cost and the stream of extras which result from inaccurate and ambiguous specifications naturally irritate him. In unusual cases there is one part of a job which cannot be designed until some other parts are constructed and then an extra does not necessarily mean that the cost is excessive. Such cases, however, are not common and extras usually mean either that changes in design are being made or that the contractor is taking advantage of weak specifications to increase his profit, in either event at the owner's expense.

The owner is entitled to the maximum protection under the contract which he signs with the contractor and it is the duty of the architect to see that he gets it. This is especially pertinent since the average owner is much less experienced in construction contracts than either contractor or architect and must have some qualified agent to protect his interests.

The architect who habitually obtains proposals from only a few selected contractors frequently falls into the habit of writing extremely brief specifications because he knows that such bidders will know what he wants whether the specifications cover the work or not. Needless to say it is easier and more convenient for an architect to let contractors with whom he is familiar do his work but it is almost impossible to get true competition in this manner since strange contractors must make certain allowances to cover the questionable points and undoubtedly cannot submit their best figures.

Insurance Requirements. Insurance protection is becoming increasingly important and at the same time the various kinds of protection which are available are becoming so numerous that it is practically necessary to consult an insurance counsellor to determine what can be justified and what can not. It is therefore extremely important that the architect keep in touch with developments in insurance practices. He should make sure that each of his clients has sufficient protection without the cost being exorbitant, for fundamentally the owner pays for the protection which he gets whether it is inadequate

(Continued on page 286)



A SETTING FOR "THE LOST CAPE"

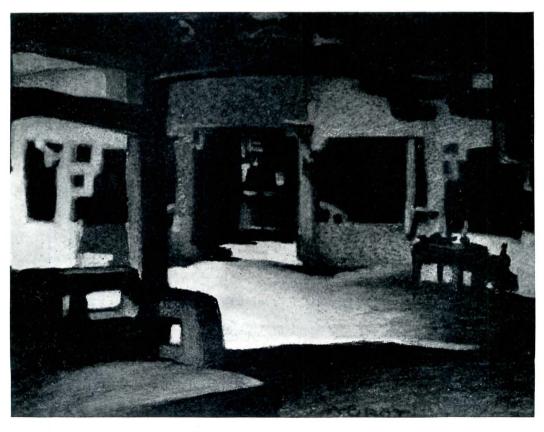


THE SET SHOWN ABOVE, VIEWED FROM ANOTHER ANGLE CHARCOAL DRAWINGS BY ANTON GROT FOR MOTION PICTURE SETS

PENCIL POINTS



A SETTING FOR DE MILLE'S "MIDNIGHT MADNESS"



A SCENE FROM "NIGHT BIRD," A FIRST NATIONAL PRODUCTION CHARCOAL DRAWINGS BY ANTON GROT FOR MOTION PICTURE SETS



SERVICE DEPARTMENTS

THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale, or desiring to purchase books, drawing instruments and other property pertaining directly to the profession or business in which most of us are engaged. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed under this heading free of charge.

QUERIES AND ANSWERS. In this department we shall undertake to answer to the best of our ability all questions from our subscribers concerning the problems of the drafting room, broadly considered. Questions of design, construction, or anything else which may arise in the daily work of an architect or a draftsman, are solicited. Where such questions are of broad interest, the answers will be published in the paper. Others will be answered promptly by letter.

FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions. Such notices will also be posted on the job bulletin board at our main office, which is accessible to all. Owing to the very large number of advertisements submitted for publication under this heading we are asking those desiring to use this service to make their advertisements as short as possible, in no case to exceed forty words.

Notices submitted for publication in these Service Departments must reach us before the twelfth of each month if they are to be inserted in the next issue. Address all communications to 419 Fourth Avenue, New York, N. Y.

THE MART

Little Tree Farms, Framingham Centre, Mass., would like to secure a second-hand blue-print machine to print plans 42 inches wide.

Paul L. Smoot, Box 353, Dupo, Illinois, has for sale the following copies of Pencil Points: November, December, 1921, full year's issue for 1922, 1923, 1924, and 1925; total 50 copies.

Andre Halasz, 69 West 55th Street, New York, N. Y., has for sale the following: Rules for Drawing the Several Parts of Architecture, by James Gibbs; L'Architecture Privée Au XIXme Siecle Sous Napoleon III, by Cesar Daly; L'Architecture Privée Au XIXme Siecle Sous Napoleon III, Deuxieme Series, by Cesar Daly; Motifs Historiques, by Cesar Daly; Die Architektur Des Klassischen Altertums Und Der Renaissance, by J. Buhlmann; Paris Moderne, by Norman Fils; Colonial Architecture and Furniture, by E. E. Soderholz; Denkmaler Deutscher Renaissance, by K. E. O. Fritsch; Edifices de Rome Moderne, by P. Letarouilly.

Louis G. Dittoe, Architect, 1106-7 Ingalls Building, Cincinnati, Ohio, has for sale the following copies of Pencil Points: issues beginning with June, 1920, up to and including October, 1924.

R. Arnold, 280 Madison Avenue, New York City, wants copies of January and February, 1926, Pencil Points.

Walter K. Smith, Jr., Box 112, Waynesboro, Virginia, would like to secure the following copies of Pencil Points: January, February, March, April, May, 1928.

Reginald Price, 62 Cavan Road, Clubmoor, West Derby, Liverpool, England, would like to secure the following copies of Pencil Points: August, September, November, December, 1923; February, March, April, August, 1924; September, 1925.

PERSONALS

HERMAN J. EKLUND, ARCHITECT, has opened an office at 121 Seventh Street, Gateway Building, Rockford, Illinois. Jos. Carl Moresi has opened an office for the practice of architecture at Fort Collins, Colorado.

BARK & DJORUP of 1351 Broadway, New York City, have dissolved partnership. Erhard Djorup will continue to practice at 1345 Chisholm Street, Bronx, N. Y.

Werking & Son have changed the firm name to Werking, Werking & Fallon, 306-9 American Trust and Savings Bank Building, Richmond, Indiana.

THE ASSOCIATES OF A. L. PILLSBURY have changed their firm name to Lundeen, Hooton, Roozen & Schaeffer, Peoples Bank Buildings, Bloomington, Illinois.

OEHME & NIPPELL have changed their firm name to Holborn, Nippell & Wheeler, West Building, West Bay Street, Jacksonville, Florida.

IVAR O. WANDALL AND MAURICE J. McErlain announce the opening of their office for the practice of architecture at 321 S. Main Street, South Bend, Indiana.

J. B. Wolstein, formerly head draftsman in the office of R. G. Hanford, Architect, Columbus, Ohio, is now associated with Mark D. Feinknopf Company, Inc., Engineers and Constructors, 150 E. Broad Street, Columbus, Ohio. WILL P. V. BURTON please send his address to Pencil Points? We have an inquiry for him.

FREE EMPLOYMENT SERVICE

(Other items on pages 178 and 180, Advertising Section)

Wanted: High grade senior draftsman, capable of first class rendering, to take charge from preliminary sketches to completed working drawings and details. Exceptional opportunity for right man to locate permanently with possibilities of interest in firm. Box No. 287, care of Pencil Points.

Position Wanted: Stenographer-secretary, long experience in architectural work desires position in New York office. Box No. 284, care of Pencil Points.

or excessive. Where the scope of the insurance is not definitely specified, the choosing of the policies is left to the contractor who often furnishes inadequate protection

and jeopardizes the owner.

Recently there has been a tendency toward the use of joint insurance in which the owner is named jointly with the contractor as the insured. In Public Liability and Property Damage policies this is often an excellent plan for when an action is brought against a contractor for damages the owner is usually sued jointly since he frequently has the more tangible assets. If the insurance policy clearly sets forth the relationship between owner and contractor, naming them jointly, the owner is as fully covered by the policy as the contractor. However, since Public Liability policies normally do not cover injuries to the employees of the insured and since Property Damage does not cover damage to the property of the insured, where the owner has employees or equipment adjacent to the site the joint mention is not advisable. In such cases, as where additions are being made to existing buildings, the owner, in order to be protected against a joint suit, must have a separate Contingent Liability policy in which he is the sole insured.

In Workman's Compensation policies it is not advisable for the owner to be named jointly since such mention would not benefit him and it might be construed by a court to mean that the contractor is merely the agent of the owner. In this event the owner would also be considered the joint employer of the contractor's men and would be liable for damages done by one of them to a

third party.

Bond Requirements. The surety bonds which are commonly used in connection with construction work have been developed mainly for the benefit of the owner so the architect should be familiar with the various types and when advisable give the owner the security which they offer. The maintenance bond which is coming into more frequent use will be discussed in the following section under Guarantees.

The type of bond which is perhaps the most common is that which protects the owner in case mechanics' liens are filed against the work. It is becoming more and more customary to require such a bond from contractors and the results seem to justify the requirement. This is especially true when dealing with smaller contractors who operate on narrow margins. It will frequently be found that they use money obtained from work in progress to pay obligations incurred on previous work. This of course places the present owner in an extremely dangerous position for in most States mechanics or material men on the current work may file claims against the building itself for nonpayment by the contractor and these constitute direct liens on it. The 25% payment which it is customary to withhold from progress payments is seldom ample to satisfy such liens and the owner then must pay twice for the same work and attempt to recover from the contractor. This type of bond may also be enlarged to cover the performance of the work included in the contract as well as give protection against liens. This affords the owner additional security, for if the contractor is unable for any reason to complete the contract the Surety Company will take it over and fully discharge its obligations.

The cost of a bond to give protection against these contingencies is such a small proportion of the cost of a job that where there is any question regarding the contractor's financial status or ability it is advisable to have one. The contractor's attitude toward it is often an excellent check on his financial condition. If he objects very

strenuously it is a fair indication that he has difficulty in obtaining bonds from reputable Surety Companies and that is the more reason why one should be demanded.

It is seldom advisable to consult material supply firms when looking into a contractor's financial condition, as many Surety Companies have found out to their sorrow, for the material men's reports are often misleading. They may be willing to extend a contractor much more credit than is advisable simply to keep him going because they hope in this way that he will be able to make payments on back bills and eventually square his account.

A contractor who has sufficient funds available will sometimes offer the owner a certified check for some percentage of the contract price, usually 50%, as a substitute for a bond. There are several reasons why this is ordinarily less desirable than a bond. The owner would undoubtedly be somewhat embarrassed at tying up this amount of the contractor's money. In addition, should it be necessary to use any part of the money to pay off liens or complete the work, the owner would be burdened with a considerable amount of detail which he normally would not be equipped to handle. He would also be responsible for all disbursements and might be forced to defend a suit for misuse of the contractor's funds. A further point in favor of the bond is that responsibility to a third party in addition to the owner frequently has a bracing effect on the contractor which is most desirable.

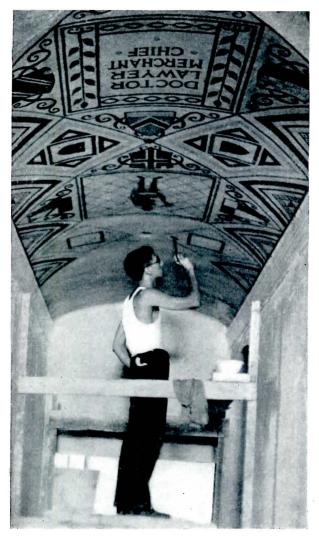
In most cases then the owner should have protection against liens and non-performance and in general it will be found that this protection is best given by a surety bond. The architect who does not carefully consider the conditions which may arise in connection with the work is too frequently persuaded to omit the bond requirement by the contractor who does not want to furnish one and the owner who is not familiar with construction work and feels that the expense is not justifiable. It is therefore the duty of the architect to be well fortified on these points in order that the owner's interests may be given every possible protection and that he himself may not be subject to later criticism. It is particularly important that this phase of the work be fully covered in the specifications in order that the contractor may be informed as to the requirements.

Guarantees. The architect is often willing to consider his obligation and that of the contractor fulfilled when the building is erected and accepted as complete. In many trades, however, particularly those having to do with mechanical and electrical equipment it is difficult and impossible to inspect and test thoroughly enough to insure that the materials and workmanship are up to a satisfactory standard. In this case it is necessary to extend the responsibility of the contractor beyond the acceptance of the building and require the furnishing of guarantees. These should be fully enumerated in the specifications and in general should include the replacing of defective materials or workmanship for a given period after the work is accepted, usually one year. They should also provide that if defects do develop, the faulty work shall be replaced by the contractor at his expense and in addition that he shall bear the expense of repairing any damage which is caused by the failure of his work.

When dealing with larger contractors the guarantee, which is usually a part of the contract due to its having been included in the specifications, is adequate protection for the owner. Such a guarantee from a smaller and less reliable firm, however, is often of doubtful value. When it is not readily apparent that the contractor is extremely

(Continued on page 90, Advertising Section)





HUNTER GRIFFITH AT WORK ON A FRESCOED CEILING

Nalle Building, Austin, Texas

George Louis Walling, Architect

FRESCO PAINTING IS BEING REVIVED IN TEXAS

Through the efforts of George Louis Walling, architect of Austin, the art of fresco painting is being revived in Texas. Several years ago Mr. Walling became acquainted with Hunter Griffith, a fellow student at the American School of Fine Arts in Fontainebleau, where Mr. Griffith studied fresco painting with Baudouin, the greatest teacher of the art in the world, and with his assistant, Robert La Montagne Saint-Hubert. Later, Mr. Griffith studied with Baudouin at the Beaux Arts in Paris.

Mr. Griffith is shown mounted on the scaffold, among his bowls and brushes, stripped to the waist for comfort during the heat of the day.

The ceiling upon which he is shown working is for a narrow corridor in the Nalle Building at Austin. The decoration, designed to increase its apparent size, consists of heraldic figures and emblems tied together with conventional scrolls, patterns, and arabesques. As the building is to be let for offices of all sorts, the shields bear the doggerel: Rich Man, Poor Man, Beggar Man, Thief, Doctor, Lawyer, Merchant, Chief.

STANDARD SPECIFICATION OUTLINE FOR BUILDING CONSTRUCTION

AN INTERESTING document bearing the above title has just been published by the Associated Building Employers of Michigan, ratified by Michigan Society of Architects, Grand Rapids Chapter, American Institute of Architects, Michigan Chapter, Associated General Contractors, Associated Building Employers of Michigan, General Builders' Association, Detroit, and Detroit Chapter Associated General Contractors.

This document is the result of several years' work by a committee, the personnel of which is as follows: Fred S. Robinson, Robinson & Campau, Architects, Grand Rapids, Fred Beckbissinger, Architect, Saginaw, Leon R. Snyder, H. V. Snyder & Son, General Contractors, Battle Creek, Clifford Phillips, Owen-Ames-Kimball Co., General Contractors, Grand Rapids.

Copies of this Specification Outline may be secured by addressing Frank L. Dykema, Secretary, Associated Building Employers of Michigan, 404 Grand Rapids National Bank Building, Grand Rapids, Michigan.

SPECIFICATIONS FOR THE OWNER

(Continued from page 286, Editorial Section)

dependable and well established, a maintenance bond should be required to cover the guarantees. This also should be fully outlined in the specifications in order that the contractor may know exactly what he must furnish in this connection. Provision should also be made for a deduction to be allowed the owner if the bond is not deemed necessary by reason of the contractor's stability.

Conclusion. As stated in the Introduction it has not been the purpose of this discussion to outline a comprehensive method for the preparation of specifications. The aim has rather been to direct the attention of architects and specification writers to certain features which are frequently somewhat neglected in order that these individuals may consider them more carefully and by tempering the suggestions with their own best judgment issue better specifications. While these items have been considered chiefly from the standpoint of the owner and while the attempt has been made to point out methods of protecting him and giving him increased value for his money, it is unbelievable that the architect could give the owner better service without in some measure benefiting himself and his profession.



LE BEGUINAGE, BRUGES—PENCIL SKETCH BY CLINTON F. LOYD, OF BRONXVILLE, N. Y.