

PENCIL POINTS

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THE CHARCOAL DRAWINGS OF FRANCIS KEALLY

By Rayne Adams

THE MORALIST WHO invented the adage, "Hew to the line . . ." must have been much at ease in Zion. I am sure that he was not troubled by the philosophic doubt. The æsthetic appeal could not have been of consuming interest to him. The difficulty which confronts the analyst resides in the question: "*Is there any line to hew to?*" It is this troublesome thought which blasts all our generalizations. Yet, in our inevitable excursions in that continent of desire and unfulfillment known as beauty, where certainties become shadows and shadows become reality, we do and always shall give ourselves to making generalizations. Some will o' the wisp beckons to us continually,—leading us to believe that there is, or may be, some fixed principle by which we may live and by which we may, if not heroically, at least peacefully, die.

* * * * *

The old witch of the wood whom I met in early childhood still leads me, and if the mystery of her woods is less fearsome than it was, the strangeness of the pilgrimage becomes ever greater. Taken from

"The Fairy Book of Queen Titania," this woodcut has remained as one of the lasting impressions which ink and paper have brought to me. I have never lost

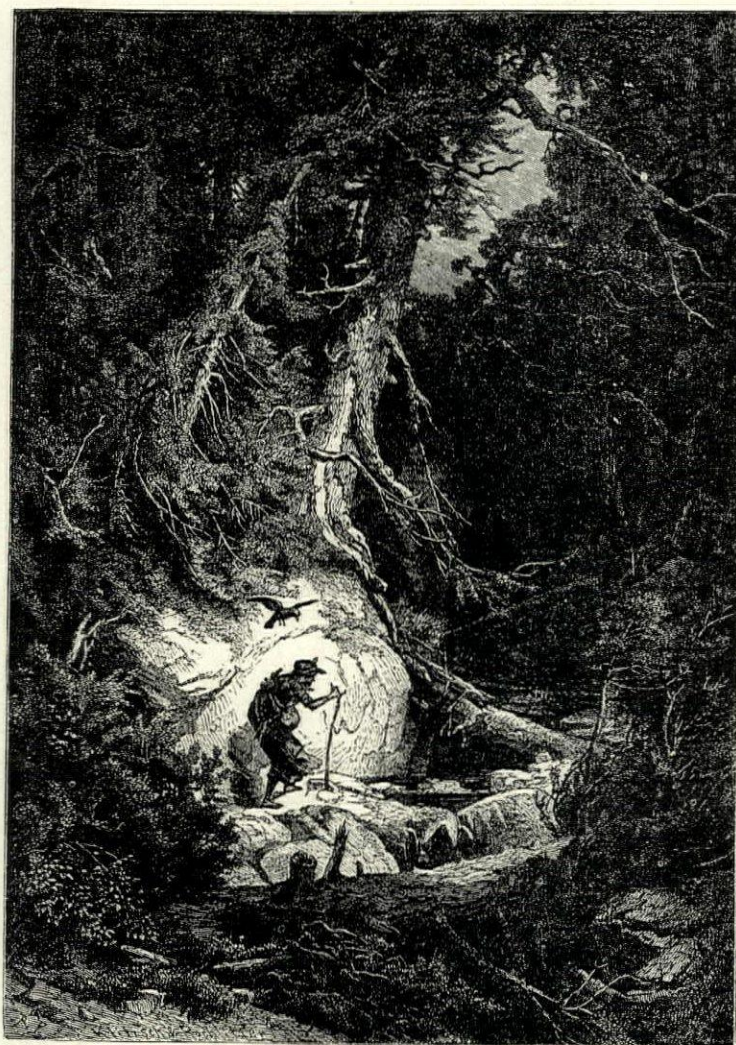
entirely the belief that in the depths of those dark woods was concealed the Secret of Certitude. I wonder what she would say in answer to the simple question: Should our art find its expression symbolically or realistically? Perhaps she would say, "Both," and

Well, what matter does it make what she would say? We shall never penetrate very far into her woods,—any of us.

* * * * *

Whether or not the school of drawing which tells us to draw what we see,—so far as the medium will permit,—or whether the other school which tells us to take any liberty with Nature which will give a pleasing effect, is the proper one to uphold, need not trouble us too

much. The wise will find the answer in the pre-adamite postulate, "*De gustibus*" For those of us who take pleasure in having recalled or suggested certain visions out of the past, drawings which give us the same peculiar sense of reality, as it came



"THE WITCH OF THE GLEN"—OLD WOODCUT

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YORK CATHEDRAL — CRAYON DRAWING BY FRANCIS KEALLY

Size of original, 13¾" x 18¾"

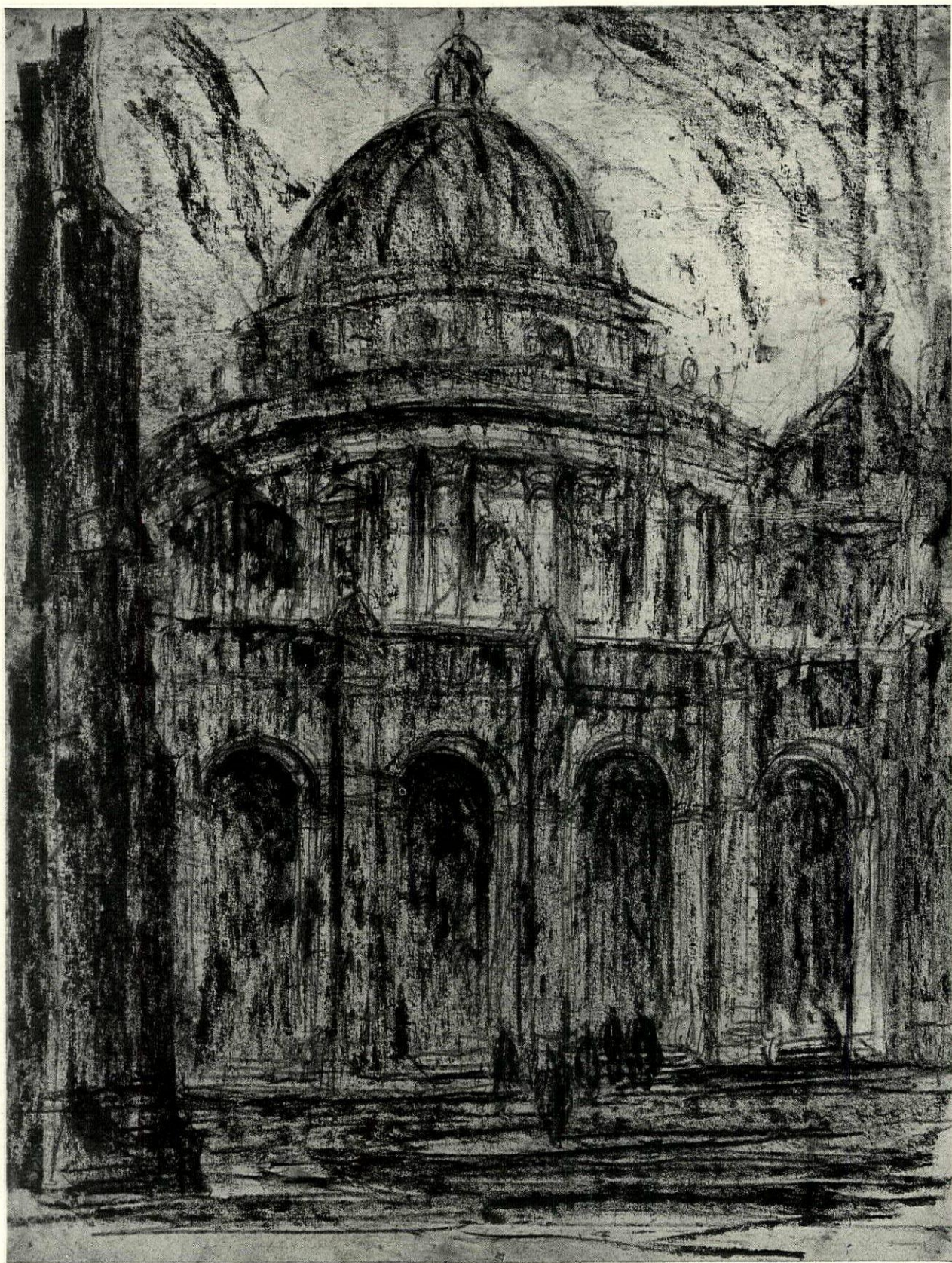
THE CHARCOAL DRAWINGS OF FRANCIS KEALLY



SMALL CHURCH AT OXFORD — CHARCOAL DRAWING BY FRANCIS KEALLY

Size of original, 16" x 21"

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LIBRARY AT OXFORD—CONTI CRAYON DRAWING BY FRANCIS KEALLY

THIS DRAWING WAS MADE IN THE RAIN WHICH ACCOUNTS FOR THE CURIOUS ATMOSPHERIC EFFECT

Size of original, 16" x 20 $\frac{3}{4}$ "

to us, must make a direct and sympathetic appeal. Perhaps you, too, recall some poignant memory of the ancient, gray town of Oxford, overhung with clouds charged with rain, and perhaps the sense of reality in Mr. Keally's charcoal drawings will be significant to you, as it is to me, bringing back vividly some mood of sadness or appeasement for which the gray walls and grayer skies of the old town made the background.

* * * * *

Look, for example, at the drawing of the church at Oxford; with what fidelity is the impression given of an ancient architecture maintaining itself against chance and fate, year after year. The crumbling walls and mouldings of the Oxford buildings acknowledge to the beholder the signs of obvious defeat and death, victims of the ineluctable work of wind and water. The sense of rain and wind runs through all of Keally's drawings of English subjects. That showing the dome of Magdalen college was, indeed, actually made in the rain, with the rain falling on the paper. Not that this heroic method of drawing need be commended, but the peculiar effect produced by the rain on the carbon particles is worthy of notice. The impression I have gathered from Keally's English subjects is one akin to that of bafflement,—seeing the efforts of man, expressed in architecture, somehow maintaining an existence in a world where no buildings ought, if the world were ordered by pity, to be. There is a haunting, wind-blown quality about them which is a rebuke alike to our security and our egotism.

It is interesting to note that Keally's inspiration to work in charcoal,—or rather to express architectural subjects in the painter's manner, in charcoal, came from the drawings of the late F. Hopkinson Smith,—a man of astonishing versatility, for he was at once an engineer, a man of letters, and a painter. As a painter he had the merit of showing a due regard for the motifs and meanings of architectural design, and, without being an architect, he has left us many sketches and drawings which, due attention being given to the architecture, give us, through the painter's method, a breadth of vision so often lacking in the sketches made by architects or architectural draftsmen. And this breadth of treatment came, perhaps, from one thing more than another,—from his habit of drawing with charcoal,—freely and without concern for detail. He used charcoal, I believe, always in blocking out the masses for his water colors, just as many other painters do, and its use gave him the means of putting down his masses quickly and justly.

It was the painter's method of using charcoal as applied to the representation of architectural subjects which fired Keally's imagination. And his self-expression in the medium is strong and colorful. Of course there are those who may look upon the drawings shown in connection with this article.—

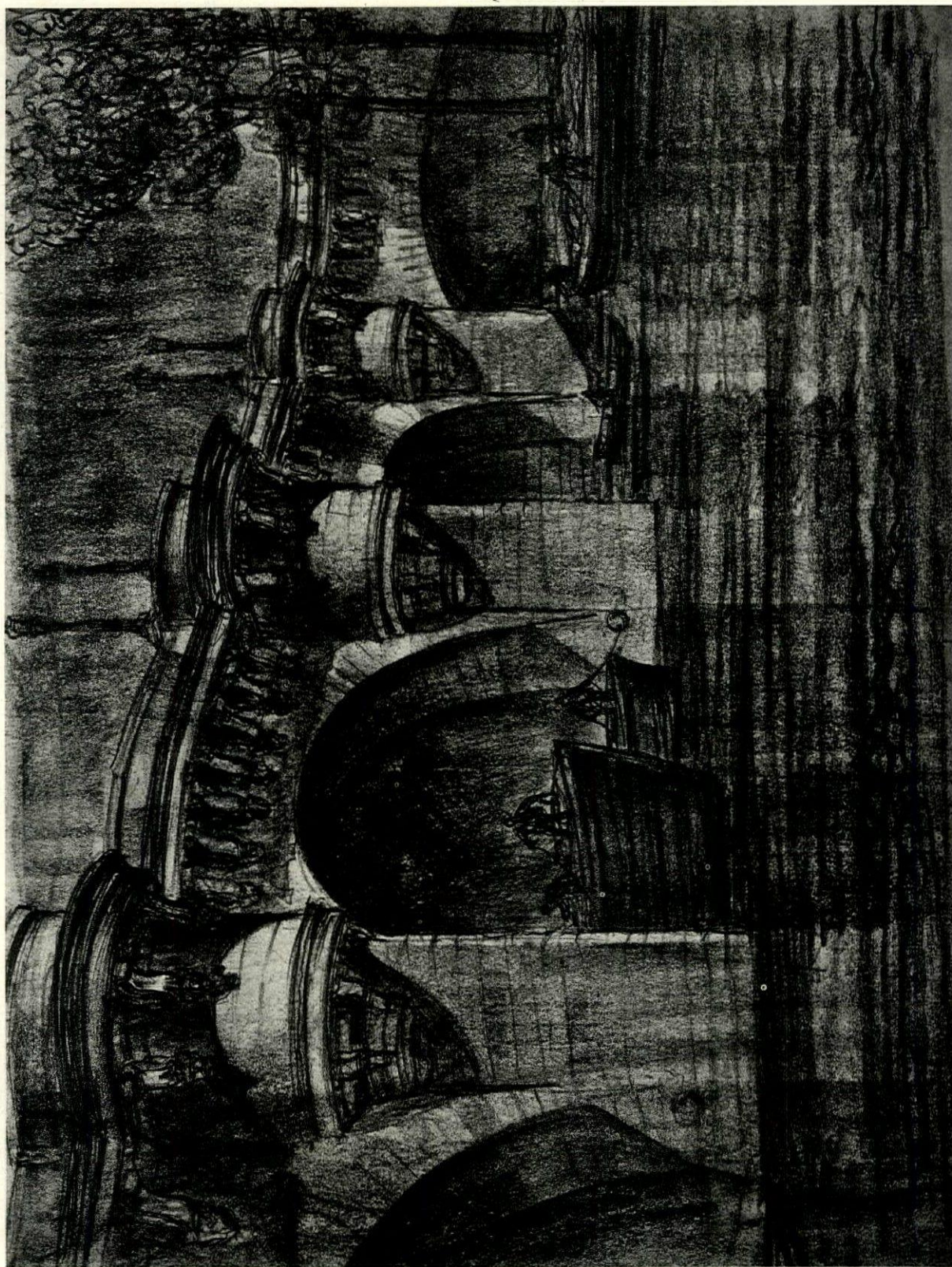
especially such a one as that showing the Baths of Caracalla,—and exclaim, "Why, of course!—Piranesi." And why not Piranesi? To put one's work under the ægis of a certain master,—to search for the intangible and metaphorical blood-ties which relate our temperament to some one more worthy than ourselves, spells not plagiarism nor feebleness but rather solidarity and good sense,—provided, of course, that one's feelings are genuine and not shot through with affectation. Even Spinoza was influenced by Bruno; even Darwin walked in Lamarck's garden; even Ingersoll's prose owes part of its poetry to Shakespeare.

In Piranesi's marvels of *chiaroscuro* we are reminded continually of the *weight* of things. The tactile values are made manifest by a skill which has never been surpassed. And Keally, in his drawing of the Baths of Caracalla, has caught much of the master's spirit. I do not mean to commend at the expense of the critical sense, yet it seems to me that his "Baths," even subject as the drawing must be to its two-dimensional limitations, are somehow builded foursquare to all the winds that blow. His arches have somewhat of the tranquillity of eternity about them; they are in ruin, as so much of man's achievements, built and unbuilt, are in ruin,—but their ruin is free from any sense of melancholy, and they are full of the suggestion of that mystery which envelops some mighty thing, which, though now dead, was once alive. The secret of this suggestiveness lies largely perhaps in the massing of the black values,—and the medium has contributed its full share in the gaining of the result. The great concatenation which gave us the soiled window through which Dickens, as Mr. James says, observed the world of humanity, gave us also the sunlight. Yet we have moods when we tire of the sunlight and in these moods the deep shadows bring solace. In Piranesi's great visions of black shadow there is a certain refuge, and these shadows, like the bass in the Beethoven symphonies, serve to give us strength to pound upon the unsteady pegs and stakes which hold our tents from being rattled away by the winds of nothingness.

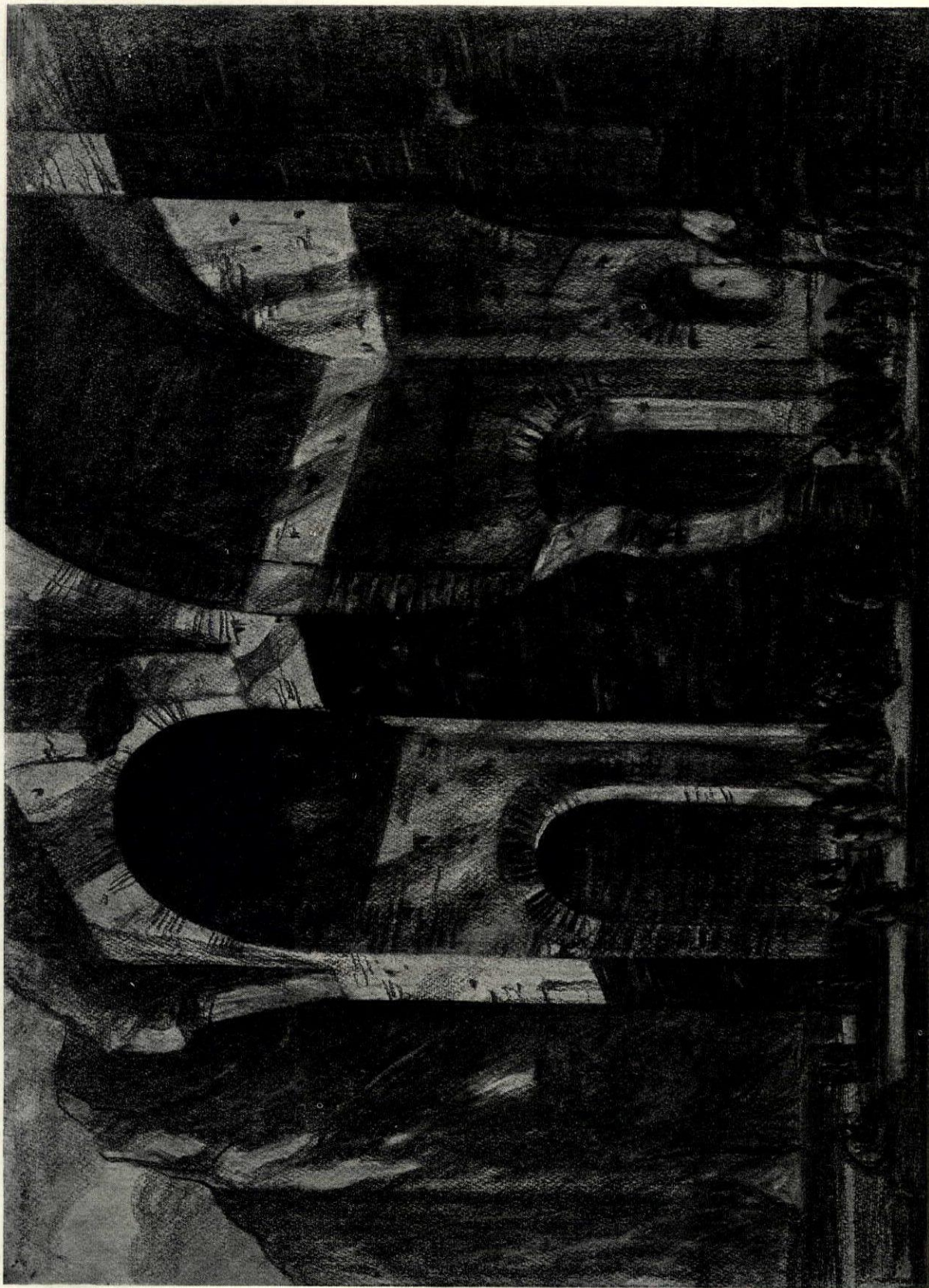
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Mr. John Sloan has claimed that charcoal was the most sensitive medium that the painter commands. In the hands of a master this sensitiveness is evident. It is a long drive from the days of our modern masters of charcoal to the age of prehistoric man, yet doubtless the Pyreanean cave man who painted with lamp-black,—which, after all, is a form of charcoal,—first drew with a burnt stick. And the sensitiveness shown by the cave drawings of bison is, I imagine, a guarantee that even in the hands of the cave man charcoal must have shown its excellent qualities.

There is one thing which this savage did which was right; he drew, apparently, what he had to draw without too much finesse; the limitations of his burnt



THE PONT NEUF, PARIS — FROM A CHARCOAL DRAWING BY FRANCIS KEALLY
Size of original, 21" x 16 1/4"



BATHS AT CARACALLA, ROME — FROM A CHARCOAL DRAWING BY FRANCIS KEALLY

Size of original, 24½" x 18½"



FOUNTAIN IN PIAZZA SAN PIETRO, ROME—CHARCOAL DRAWING BY FRANCIS KEALLY
Size of original, 17 $\frac{1}{4}$ " x 23 $\frac{3}{4}$ "

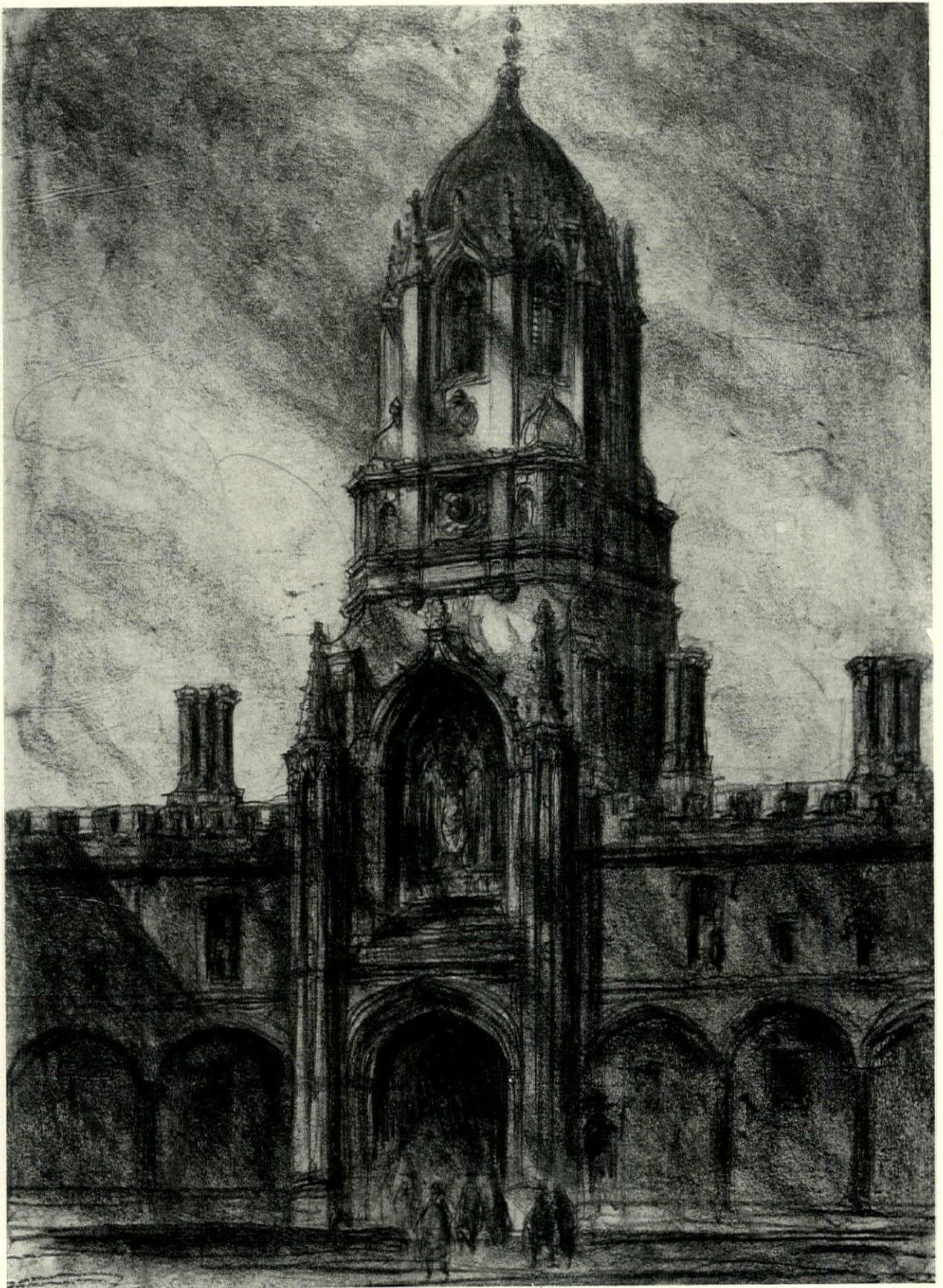
THE CHARCOAL DRAWINGS OF FRANCIS KEALLY



ST. PETER'S DOME, ROME — CHARCOAL DRAWING BY FRANCIS KEALLY

Size of original, 18½" x 24½"

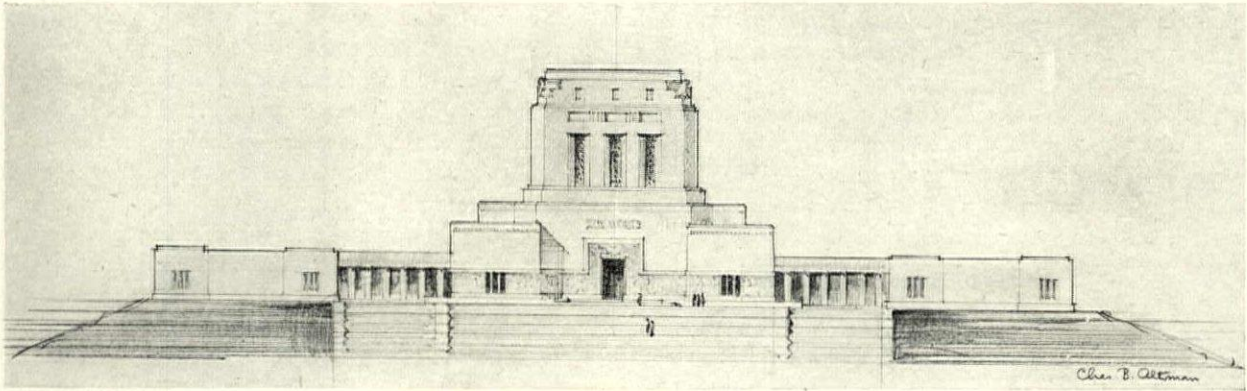
PENCIL POINTS



BIG TOM TOWER, OXFORD — CRAYON DRAWING BY FRANCIS KEALLY

Size of original, 15 $\frac{1}{4}$ " x 20 $\frac{1}{2}$ "

THE CHARCOAL DRAWINGS OF FRANCIS KEALLY



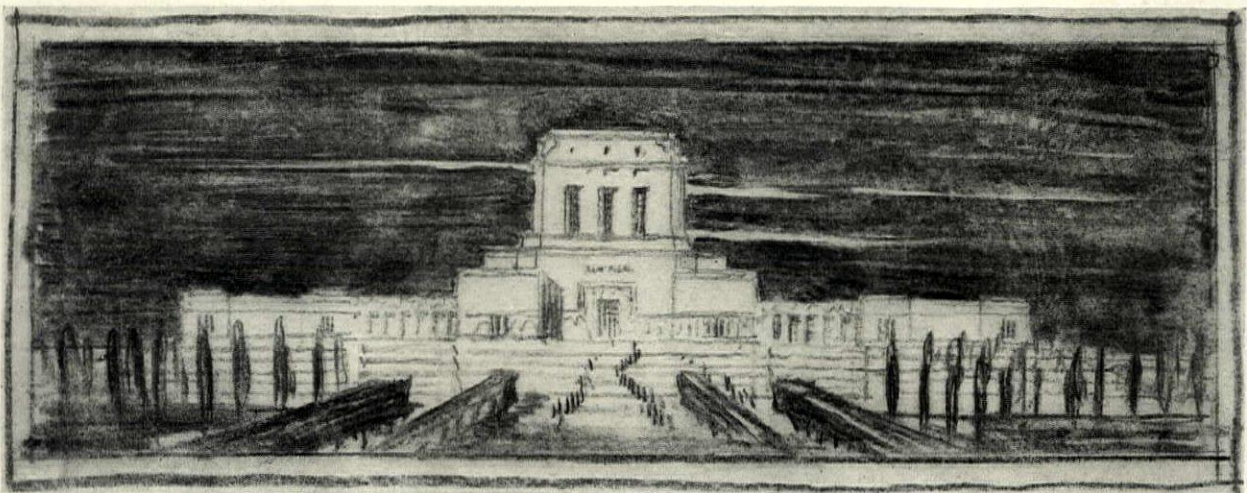
(A) PENCIL DESIGN STUDY BY CHARLES B. ALTMAN, ONE OF MR. KEALLY'S PUPILS

stick were great. Moreover he wasn't too much troubled, in all probability, as to whether his stick was sharpened,—though it could not have been long before he began to fall a prey to sophistication. He was a student, even as we are students today,—only he had not had time to be corrupted by a certain inbred timidity which has evolved from hundreds of years dominated by "good taste." Moreover, since the invention of pencils, it has been increasingly possible for the student to think and draw in terms of line,—and not enough in terms of light and shade. And this brings us to the consideration of an interesting sidelight to Keally's use of charcoal.

As a member of the instructing staff in the architectural school at Columbia University, Keally has had ample opportunity of testing the value of charcoal in his student classes in architectural design. His criticisms of their *esquisses* and *projets* are invariably made in charcoal. With his thought on *what* he is trying to convey by his criticism rather than on the *way* of expressing it, he uses the charcoal stick broadly, and with relatively few rapid and decisive strokes is able to convey quickly the essence of his criticism. By the use of charcoal in this way he is able to show

the student how to search out the dominant interest in his composition and how to express it in his rendering. By the use of this medium in his criticisms he finds that it is almost impossible for the student to fail to get whatsoever there may be by way of suggestion in the criticism. He has gone further in his teaching methods; he has succeeded in making his students enjoy working with charcoal,—that is, in using it in the making of their sketches and studies. Its value so used is of course considerable, since, used broadly, it prevents the student from being lured into a consideration of detail,—a misfortune which, in the early stages of training, so serves to clog the student's mind with unessentials.

The two sketches presented herewith (this page) show in an interesting way how Keally uses charcoal in his instruction work. The first sketch (A) was made by a student, in pencil; it is, obviously, *thin*. The other sketch (B) shows how, by using the charcoal broadside, the surface of the paper was quickly covered, a conception of unity given to the composition, and a sense of substantiality made evident. Of course, similar effects and results might have been gained by using another medium, but with none other,



(B) RAPID CHARCOAL STUDY MADE DURING A CRITICISM BY MR. KEALLY
DONE ON TRACING PAPER OVER STUDENT SKETCH SHOWN AT TOP OF THIS PAGE

doubtless, so rapidly and so forcefully as with charcoal.

To this claim,—and to the claim that it is proper first to teach the student mass effects, there is the philosophical rebuttal. This rebuttal is always in place, no matter how great may be the apparent measure of veracity in any statement. It will be said that it is all very well to emulate Victor Hugo's powerful and startling black values which give his Rhine sketches their almost unearthly intensity,—but it will be held that one must learn to crawl before he walks. One must acquire a vocabulary before he can make a

sentence; he must know what is a Doric capital before he can take liberties with its depiction.

This is an old world, and I fancy that there are some disputes which began with it. The question as to which came first, the hen or the egg, is not older, perhaps, than the question as to whether we should draw emotionally or intellectually. The question is still open. But at any rate Keally is presenting an argument for one side of the discussion, and, if the interest shown by his students may be taken as a criterion, charcoal is having its day in court.



STREET IN OLD BRUGES—LITHOGRAPH CRAYON SKETCH BY WALTER R. RHODES, PAINTER

MOTION PICTURE THEATRE DESIGN PROBLEMS

By E. C. Murphy

THE MAN AWAY BACK in the last seat at the side in the last row in the balcony must have a good view and the "standee" at the rear of the orchestra floor must be able to see to a height of twenty feet above the stage level, measured on the curtain line. People throughout the house must be able to look clear over the heads of those in the fourth row in front of them, that is about the limit one can see well between heads. The rail at the front of the balcony must not interfere with the view from any of the balcony seats. These and other requirements that are derived from experience are the basis of practice in laying out the sight-lines for motion picture theatres.

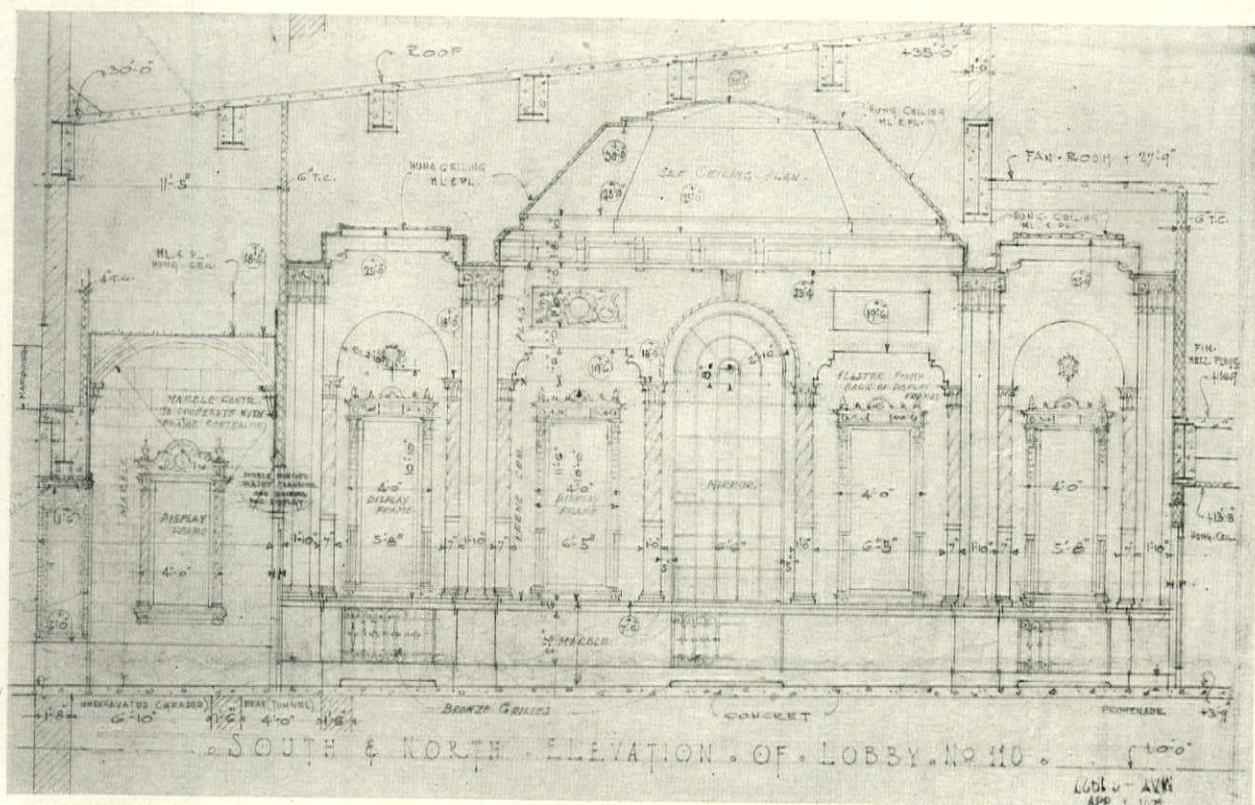
In addition to a good view of the picture screen it is necessary very often to ensure a good view of the stage and of the orchestra space and organ console. Very many motion picture theatres now offer presentations that appear on a stage and many feature the orchestra and the organ. This means, that patrons must be able to see not only down to the stage level but some distance below it.

Sight-lines occasion more concern on the part of owners and architects than any other factor in motion picture theatre design. The owner who is anxious to

have a successful house is usually keenly alive to the value of proper sight-lines. There are other factors, of course, that affect the popularity of the house. Ventilation, heating, cooling, and lighting are important, for instance. Attractiveness of appearance is not to be forgotten. Economy in construction and operation must be kept in mind, if the patronage is to yield a maximum profit on the investment.

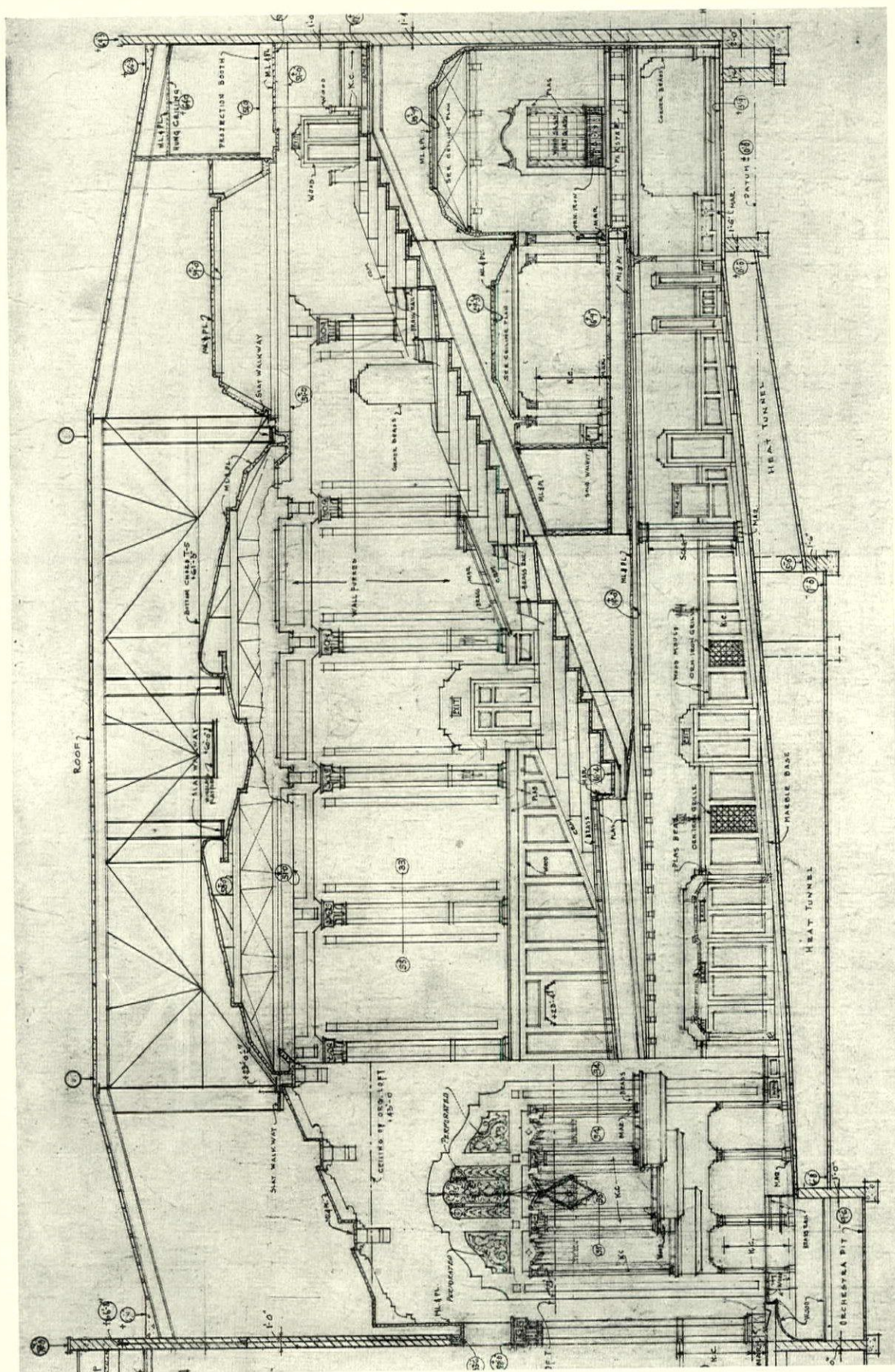
In presenting some of the more important data on this subject it seems best to make use of a practical example; therefore, a number of working drawings for a motion picture theatre that has been recently completed are shown here.

By examining the plan of the orchestra floor in conjunction with the longitudinal section, the combination cross-section, and the balcony plan, the way in which the proper sight-lines from all parts of the house have been secured can be seen. It is better to study the sight-lines of an actual building for the purpose of understanding the principles in accordance with which such lines are established, than to study a diagram in which attempts at generalization are made that are often misleading. The stage level is taken as the datum from which all levels are measured, whether above or below. The curtain line is the line from

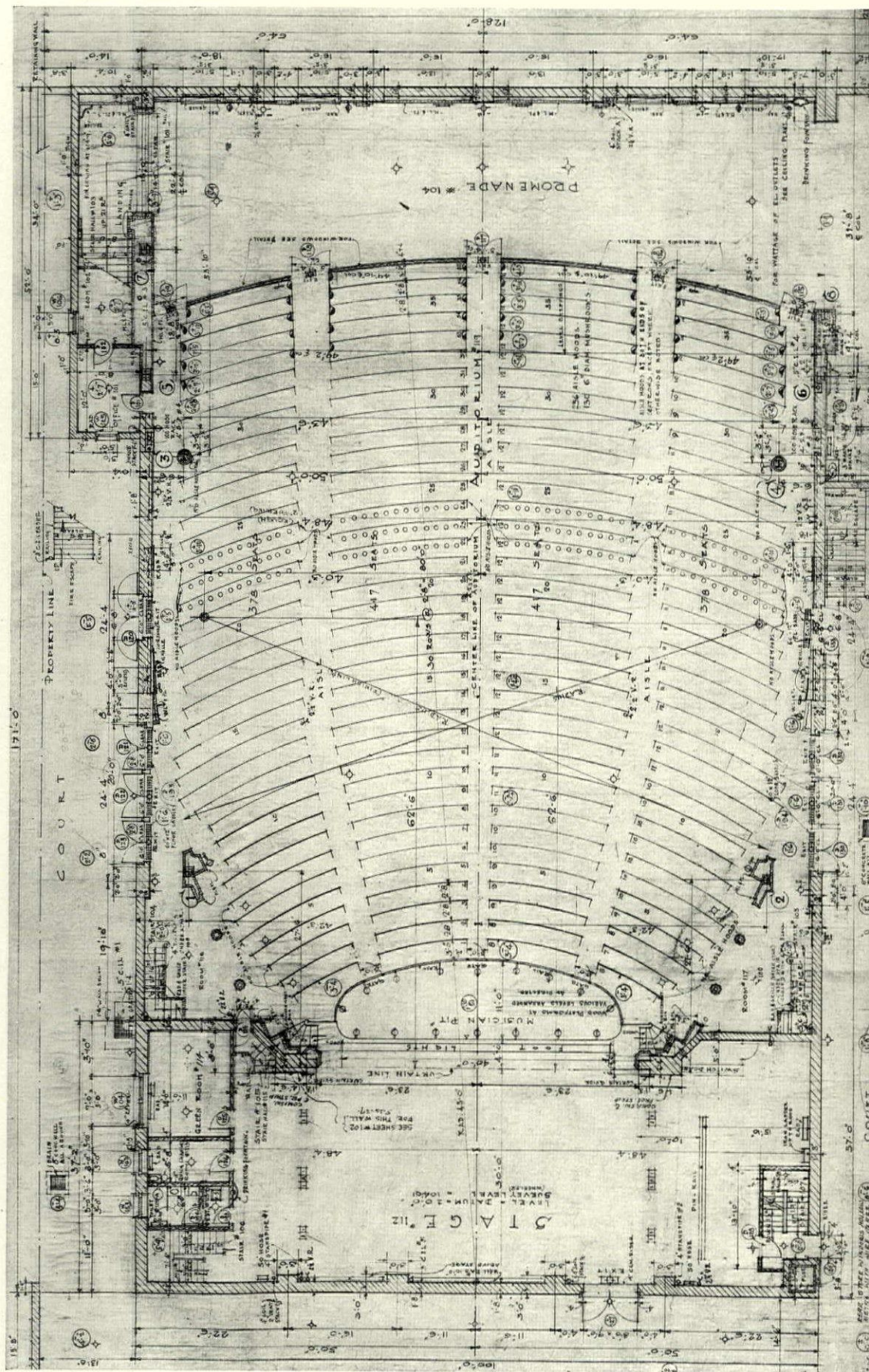


SECTION THROUGH LOBBY—MOTION PICTURE THEATRE AT YONKERS, NEW YORK

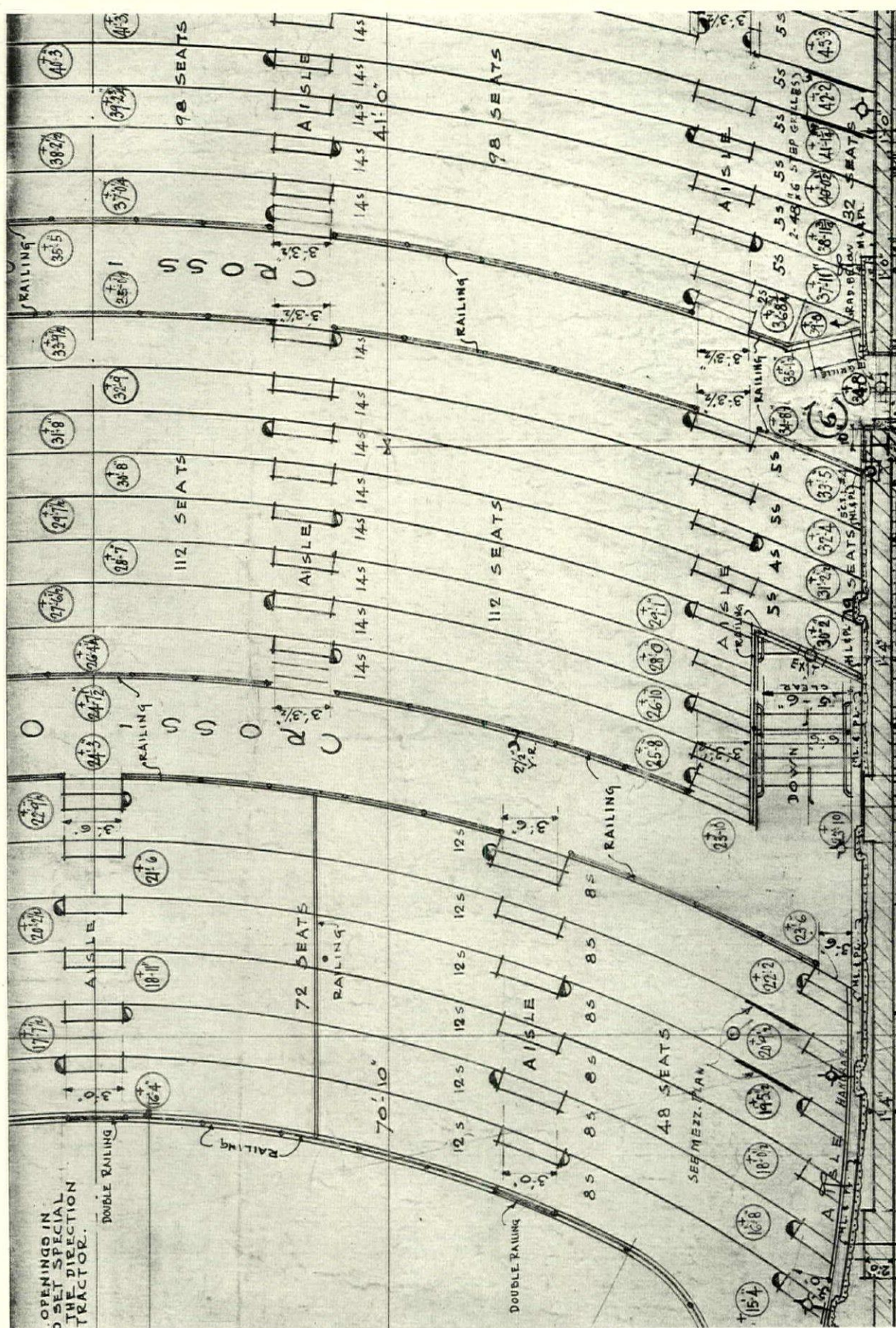
EUGENE DE ROSA AND MILTON H. MC GUIRE, ARCHITECTS ASSOCIATED



SECTION THROUGH AUDITORIUM—MOTION PICTURE THEATRE AT YONKERS, NEW YORK



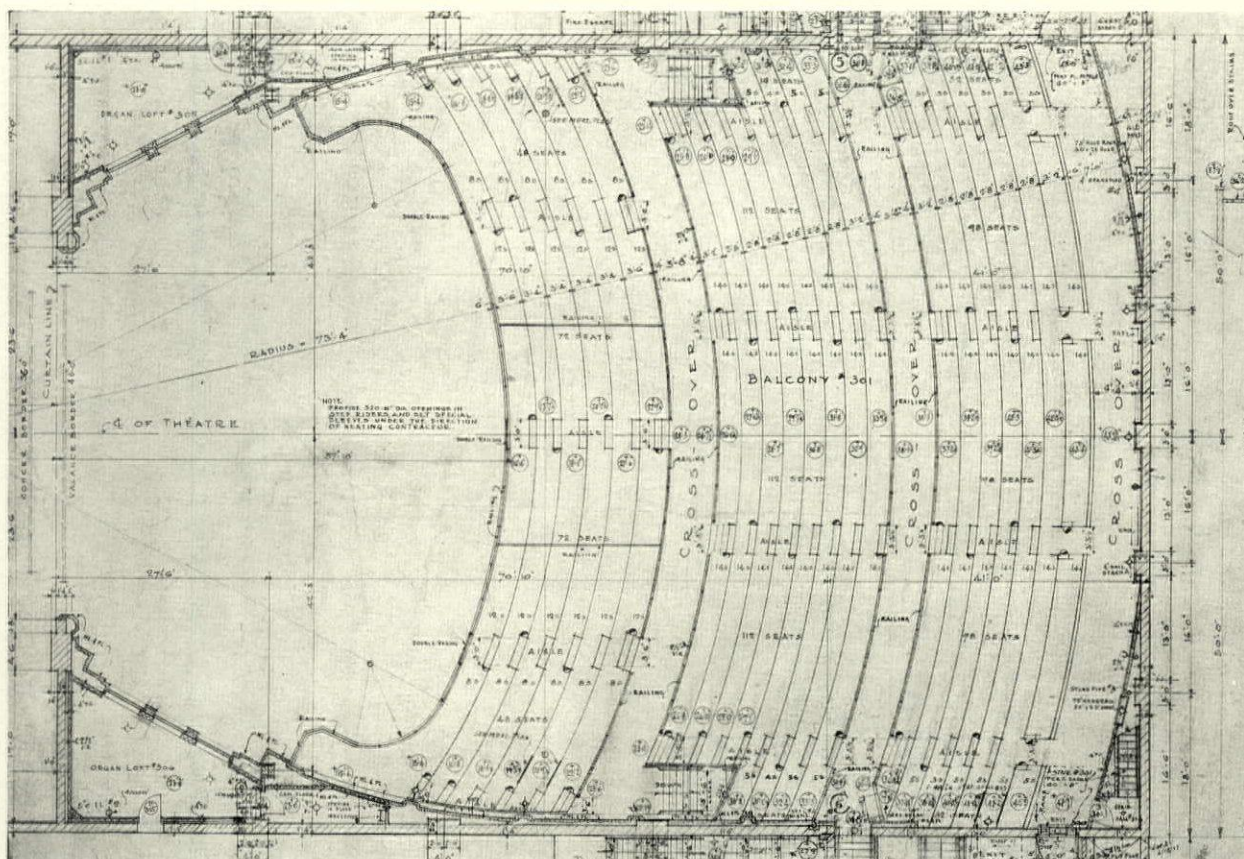
PLAN OF STAGE AND ORCHESTRA FLOOR—MOTION PICTURE THEATRE AT YONKERS, NEW YORK
EUGENE DE ROSA AND MILTON H. MC GUIRE, ARCHITECTS ASSOCIATED



DETAIL OF BALCONY PLAN SHOWING INDICATION OF GRADES FOR EACH ROW OF SEATS

MOTION PICTURE THEATRE AT YONKERS, NEW YORK—EUGENE DE ROSA AND MILTON H. MC GUIRE, ARCHITECTS ASSOCIATED

MOTION PICTURE THEATRE DESIGN PROBLEMS



PLAN OF BALCONY FLOOR—MOTION PICTURE THEATRE AT YONKERS, NEW YORK

EUGENE DE ROSA AND MILTON H. MC GUIRE, ARCHITECTS ASSOCIATED

which all of the horizontal measurements are taken.

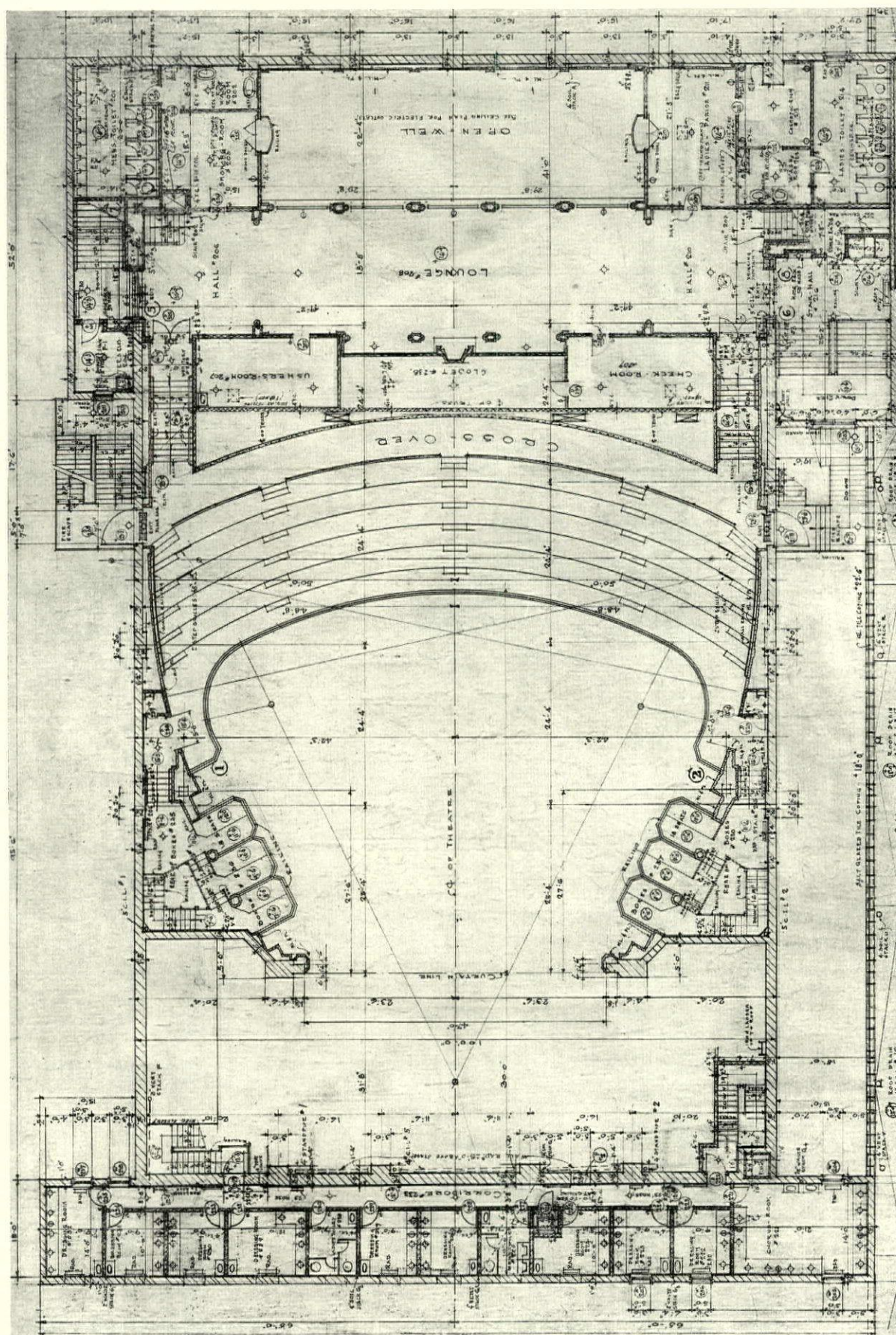
In the theatre we are considering the picture screen is twenty feet square and is hung six feet back of the curtain line. It is stretched on a tubular steel frame, and raised and lowered on the cables by which it is hung. The orchestra platform and the organ console are mounted on electric lifts and the organist comes into view playing in a spot light. The stage is designed for presentations. These facts were taken into account in laying out the sight-lines.

On the longitudinal section it will be found that the first row of seats is eighteen feet from the curtain line and that the floor of the auditorium at the first row of seats is minus 3'-4" (3'-4" below the stage level). It will be found that at the eighth row the floor level is minus 2'-2 1/4", or 13 3/4 inches higher. Since there are seven seats between these points this is a rise of a trifle less than 2 inches to the row. It will be found that at the sixteenth row the floor level is minus 1'-4 1/4", showing a sharper rise. From the sixteenth to the twenty-fourth row the rise is still more steep, about 3 inches to the row. When the pitch of the floor makes the aisles too steep for comfort or safety (1 foot in 12 feet is the maximum permitted), steps must be introduced, as has been done in this case back of the thirtieth row of seats.

A line drawn from a point five feet above the floor back of the rail at the rear of the orchestra seats, the point of sight of a typical standee, and just clearing the under side of the front edge of the balcony strikes the curtain line somewhat over twenty feet above datum, insuring a satisfactory view. The patrons in the last row of the orchestra seats have no occasion for complaint since they can see more than the standee back of them. The pitch of the floor takes care of the lower sight-line from the last row of the orchestra seats and from all the rows in front of it down to the very first, giving every seat-holder a view below stage level. This is required on account of the importance attached to the orchestra and the organ.

Sight-lines drawn from the seat at the extreme right or extreme left in the last row of balcony seats and just clearing the side of the proscenium opening show that the occupants of these seats are able to see about two-thirds of the width of the stage at the curtain line, and that they can see the orchestra and the audience. The seats which occupy the worst position in the house provide satisfactory views.

By reference to the balcony plan and to the cross-section it will be seen that the balcony floor is lower at the sides than in the center. How much difference there is may be seen by comparing the figures at dif-



MEZZANINE FLOOR PLAN SHOWING LOCATION OF DRESSING ROOMS AND PUBLIC LOUNGE ROOMS
MOTION PICTURE THEATRE AT YONKERS, NEW YORK—EUGENE DE ROSA AND MILTON H. MC GUIRE, ARCHITECTS ASSOCIATED

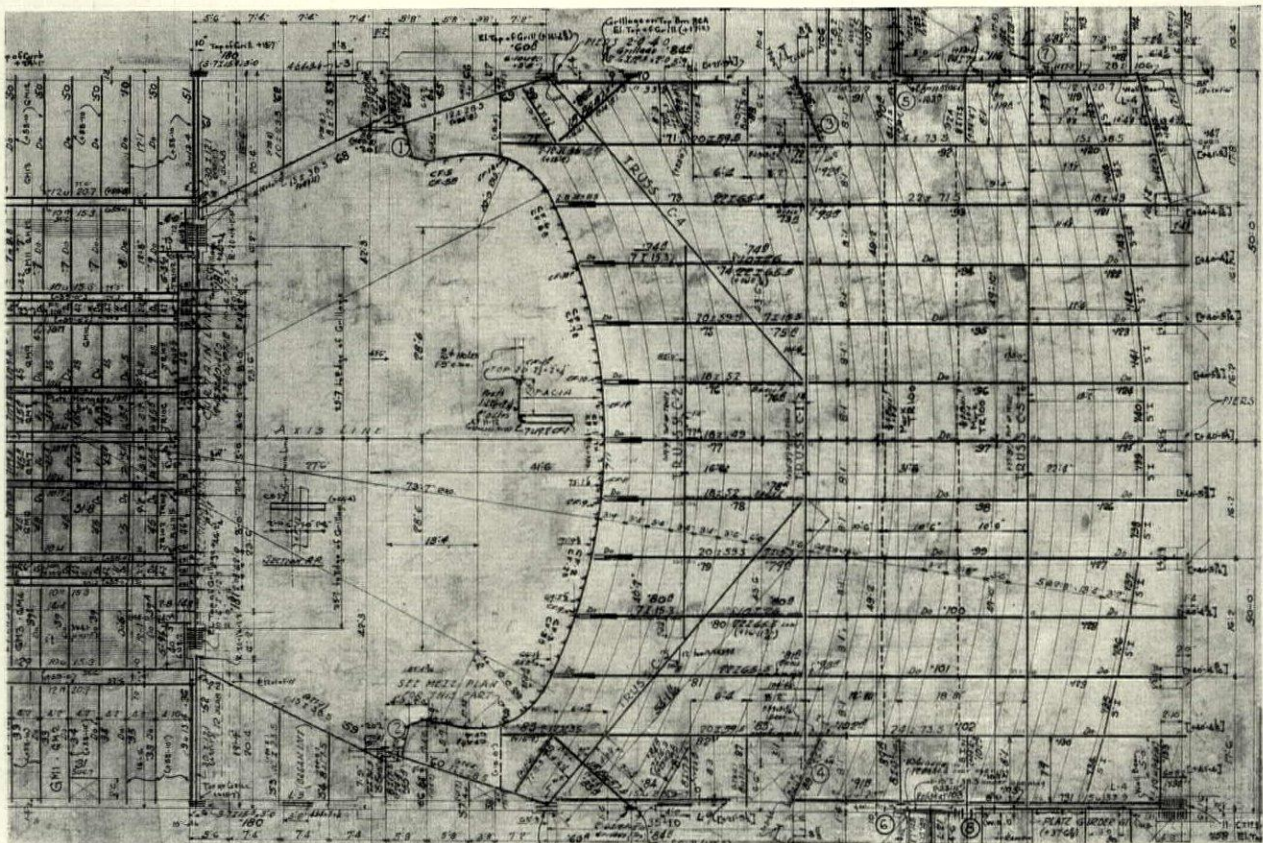
ferent points in the balcony plan. At the side in front, for instance, the height is given as 15'-4", in the center at the front it is 16'-4", measurements being from datum, the stage level. Towards the back this difference decreases until the floor of the balcony is practically level at the back. This drop towards the sides is necessary to prevent the heads of those in front from interfering with the view from the seats farther back. The reason is that the sight-lines are shorter and steeper from the seats at the sides towards the front. The amount of this drop is best determined by drawing sight-lines from various points in the balcony and establishing such levels as will give unobstructed sight-lines.

Though the sight-lines from seats very far at the sides in the front part of the orchestra floor may take in everything the occupants may care to see, these seats will be worthless if the view of the screen is so oblique that the picture is not seen well because of the foreshortening. For this reason no seats should be placed in these areas. If a 45° triangle is used in drawing lines from the center of the motion picture screen to the side walls of the theatre triangular areas in the front corners of the auditorium will be formed by these lines, and according to a rule frequently used no seats should be placed in these floor areas for the reason stated above. But this usually takes in some

seats that are too far at the side to be entirely satisfactory. Often the lines from the center of the screen should be drawn at such an angle that the unoccupied corner areas will be larger than this. It is so in the plan of the theatre used here as an example.

All the way through the establishing of the levels needed to give proper sight-lines is a matter of applying the methods given above and of making adjustments based on the designer's judgment. The ability to do this successfully comes largely from practice.

While the lighting is largely a matter of ordinary detail there are some special features. For instance, it is necessary to provide access to the lights in the center of the ceiling and around the sides so that lamps may be changed. The transverse section and the attic plan reproduced here show how this is accomplished in this theatre. A narrow walkway is provided all around and there are openings every three feet through which a man can reach to change the lamps. The openings are closed by metal slides. In the center is a small circular floor from which the center lights can be reached. A narrow walkway gives access to this platform. Another point in connection with the lighting is that no lights should be so placed that they will shine into the eyes of the patrons in an annoying way. This needs to be watched particularly at the sides under the balcony.



STEEL PLAN FOR BALCONY, MOTION PICTURE THEATRE AT YONKERS, NEW YORK
DE ROSA AND MC GUIRE, ARCHITECTS ASSOCIATED—WEINBERGER AND WEISHOFF, ENGINEERS

MOTION PICTURE THEATRE DESIGN PROBLEMS

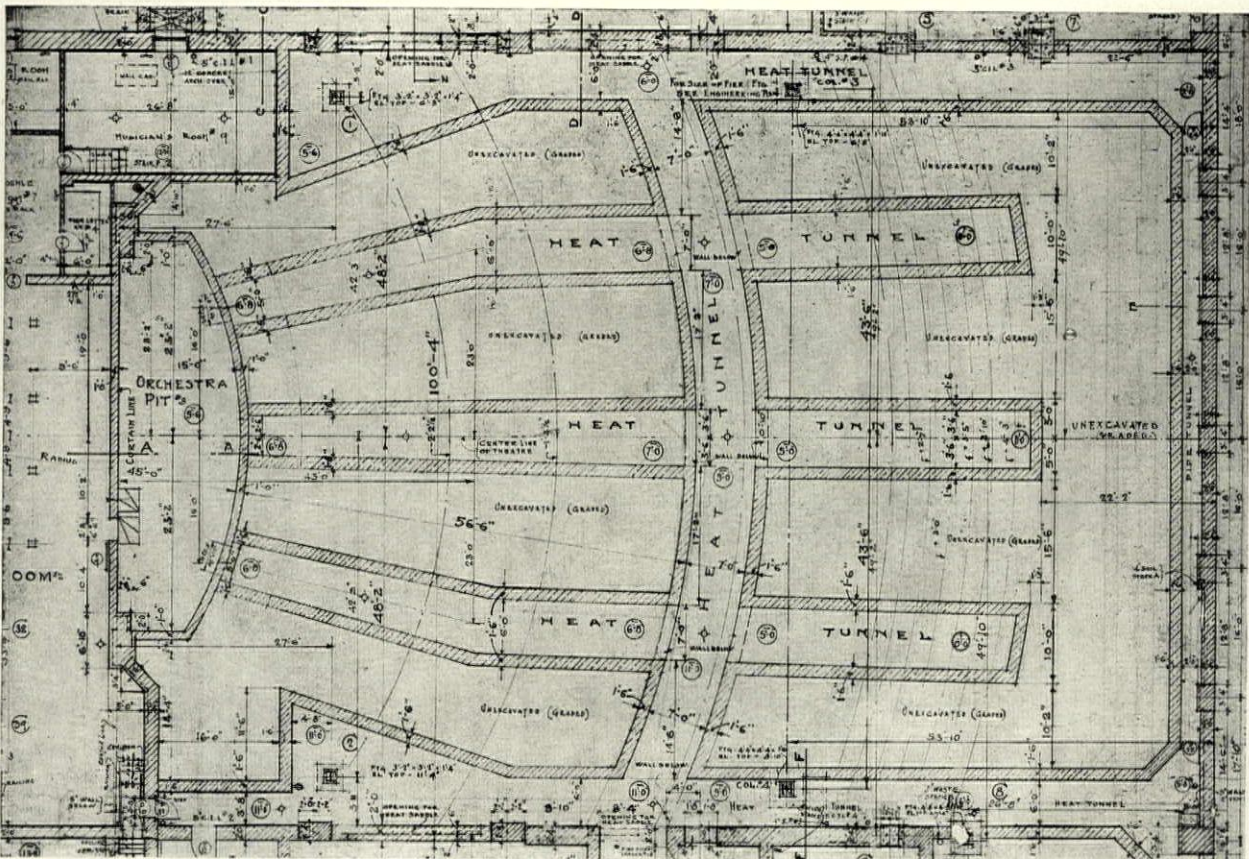
In ventilating, heating and cooling a theatre auditorium, it is the usual practice to introduce heated air in winter through heat tunnels under the orchestra floor by means of aisle hoods placed under the seats along the aisles and "mushrooms" under the seats along the line of the transverse tunnel that feeds the other tunnels. These tunnels are decreased in depth away from the point at which the heated air enters. They are covered with floor slabs of cinder concrete. The concrete floor between tunnels is laid directly upon the earth. The arrangement is shown clearly in the basement plan reproduced below. It is the practice to recirculate the air exhausted by the ventilating fans during the months when heat is needed, adding a percentage of fresh outdoor air that is varied according to the conditions, in order that the air may be always fresh enough to be agreeable to the patrons.

In summer it is the common practice to introduce air that has been passed through a spray of refrigerated water that cools it and reduces its humidity by condensation. This spray, incidentally, washes the air. The cooled air is delivered in the upper part of the theatre and commonly exhausted through the tunnels that serve to supply its heated air in winter.

Much of the data concerning the design of theatres is in the building code and fire underwriters regu-

lations which must be conformed to. Such matters as the construction of the projection booth, the cut-offs required to separate the stage from the theatre as a protection against fire, the provisions of exits and standpipes are fully covered by the regulations. To attempt to go into them here would be useless.

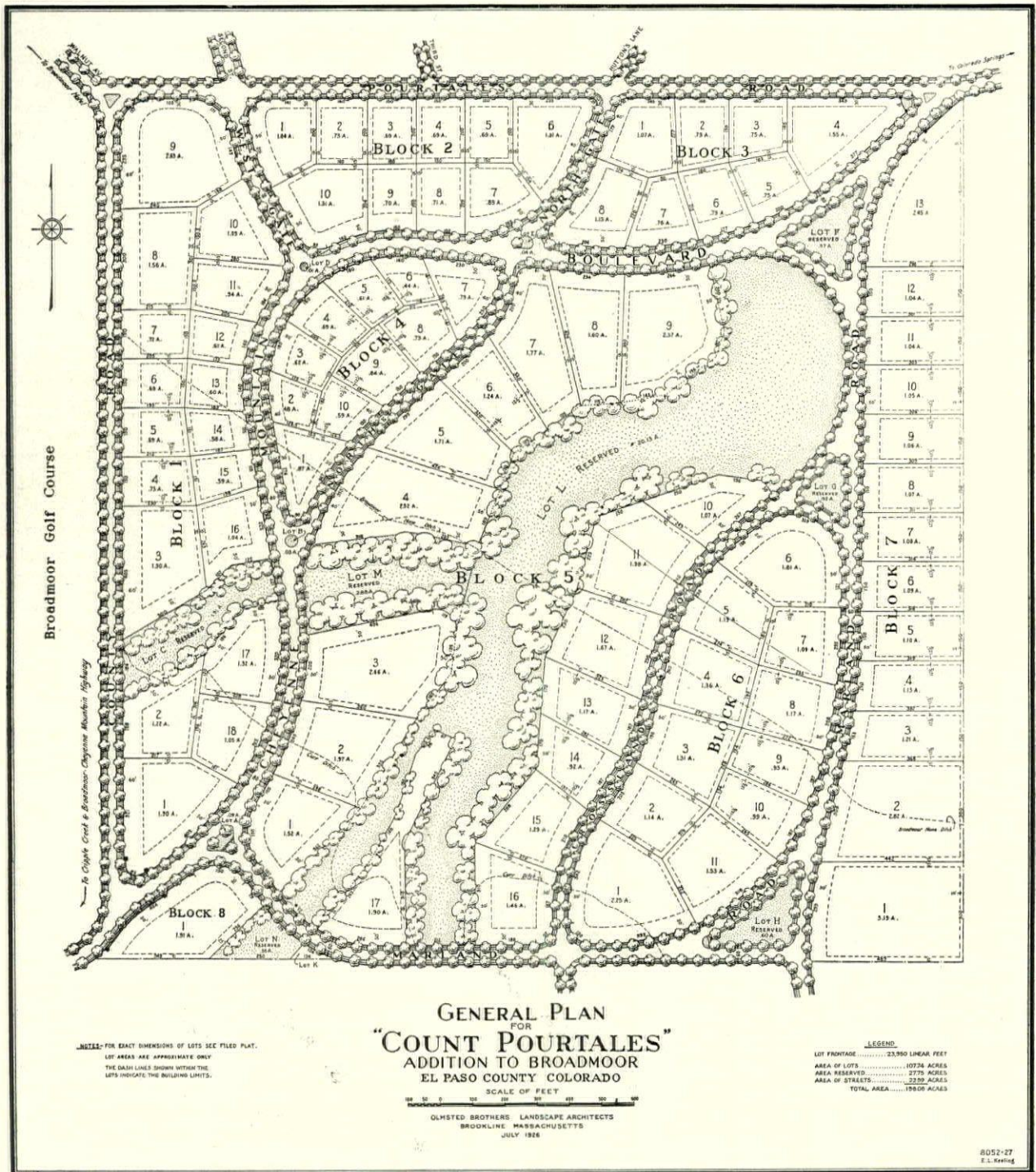
A word may perhaps be said about the special steel framing required in theatre work. The balcony plan on page 635 shows a good typical example. It will be seen that truss C-1 carries the ends of trusses C-3 and C-4 which in turn carry truss C-2. In this way the use of posts is avoided in the auditorium and the steel is kept as light as possible, both for the sake of securing the minimum depth in the balcony floor and of economy in construction. It will be noted that truss C-1 does not extend to the wall of the building but stops short to permit access to the vomitories at each side. It is carried on columns. The multiplicity of levels required in a theatre, principally to take care of the sight-lines, calls for complicated detailing of the steel and for great accuracy in its fabrication. The important parts of the steel work, such as trusses, are, therefore, often assembled by bolting them together at the plant of the fabricators, in order that any needed corrections may be made. They are then marked, taken apart and shipped to the ground.



PORTION OF BASEMENT PLAN SHOWING HEATING AND VENTILATING TUNNELS

MOTION PICTURE THEATRE AT YONKERS, NEW YORK—DE ROSA AND MC GUIRE, ARCHITECTS ASSOCIATED

PENCIL POINTS



GENERAL PLAN FOR "COUNT POURTALES" ADDITION TO BROADMOOR

OLMSTED BROTHERS, LANDSCAPE ARCHITECTS

(See text opposite)



SKETCH OF LANDSCAPE TREATMENT—FERRUCCIO VITALE AND ALFRED GEIFFERT, JR., LANDSCAPE ARCHITECTS

DRAFTING FOR LANDSCAPE WORK, PART IV

By Eugene Clute

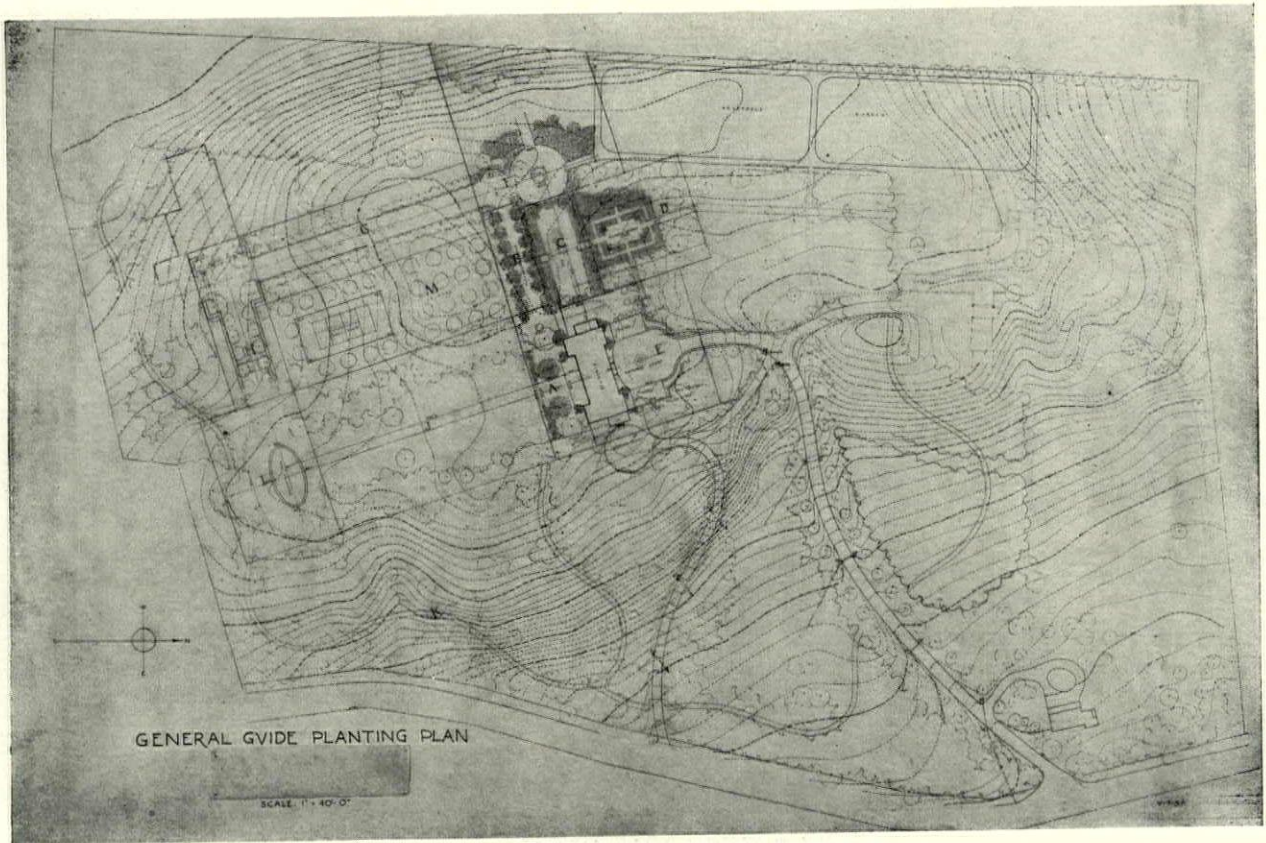
THE DEVELOPMENT of real estate sections in which the property is divided into residential building plots of good size and irregular shape along winding roadways calls for the treatment of the whole property as a consistent landscape improvement, and for the consideration of each plot as a property complete in itself,—a building site with grounds that lend themselves to pleasing treatment as individual properties while they remain harmonious parts of the general scheme. Such an improvement is represented by the illustration on the page opposite. The planting is usually confined to the roadways and the improvement of the plots left to the purchasers. In planning an improvement of this kind the drafting room procedure is similar to that in the treatment of a large private estate, but each plot must be studied as a building site, it must afford a good location for a house, a location upon which the house when built will appear to advantage from the roadway, and from neighboring plots, while it is the main feature of the landscape treatment of the plot upon which it is located. The complexity of the study involved in harmonizing these various requirements is apparent and there is a clear necessity for the making of very numerous grading sections, and other drawings that

serve only as a means of studying the problem and are of a temporary nature as well as of the working drawings to which these studies lead up. A careful and thoughtful examination of the plan of this improvement will reveal much of interest that it is unnecessary to point out in detail here.

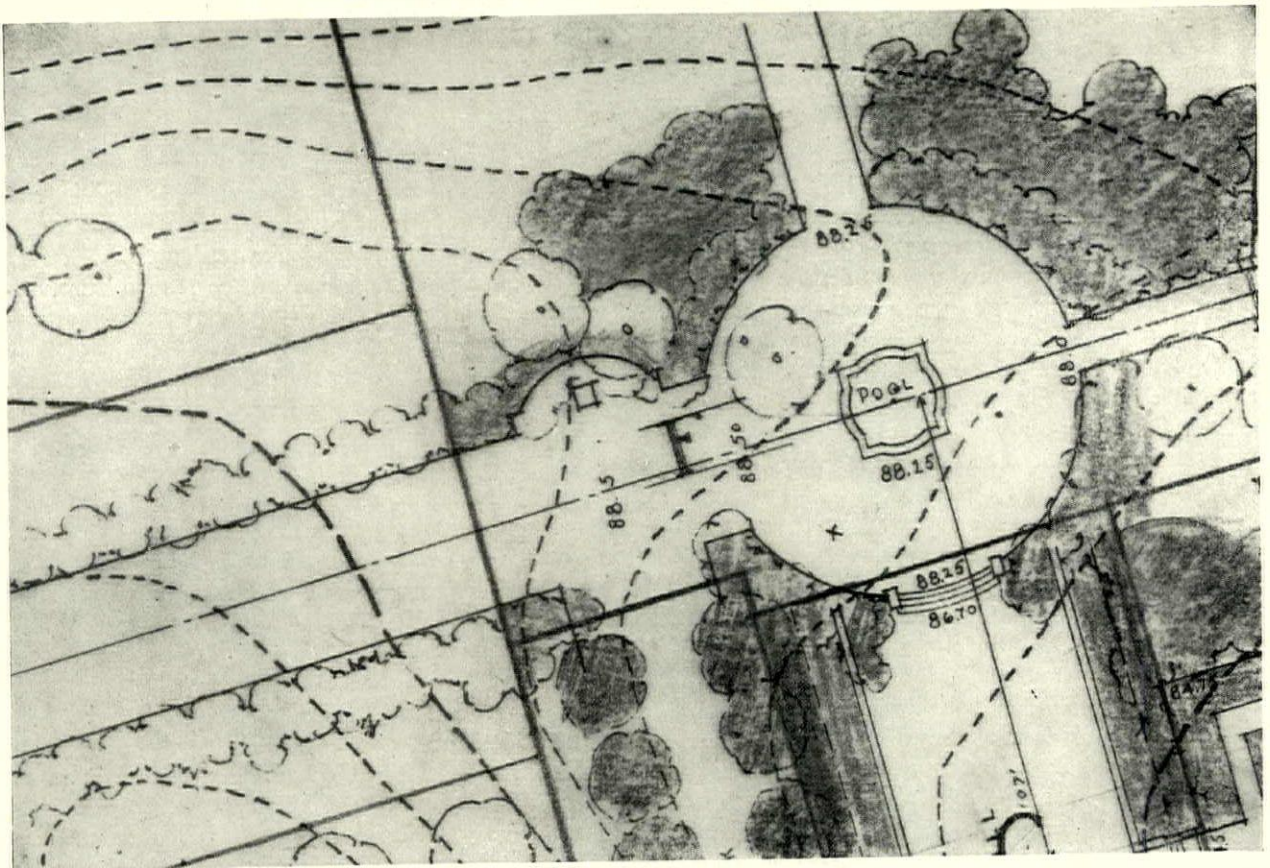
Planting is, of course, peculiar to landscape work, of which it constitutes so large a part. From the standpoint of draftsmanship, which is the standpoint of this article, the manner of representing planting is the only matter of concern. What varieties of trees and shrubs and what perennials to use in certain places and why they should be so used does not concern us here. But it is highly important that whatever material is to be used shall be indicated in such a way that the right variety will be supplied and that it will be placed as desired. This is accomplished by means of planting plans and by means of the sketches of proposed treatments already mentioned in connection with their use as a means of studying the design and as a means of presenting the design to the client, it is in their third aspect that these sketches will be considered here. But, let us take up the matter of planting plans a little further, first.

As was stated at the beginning of this article, in the

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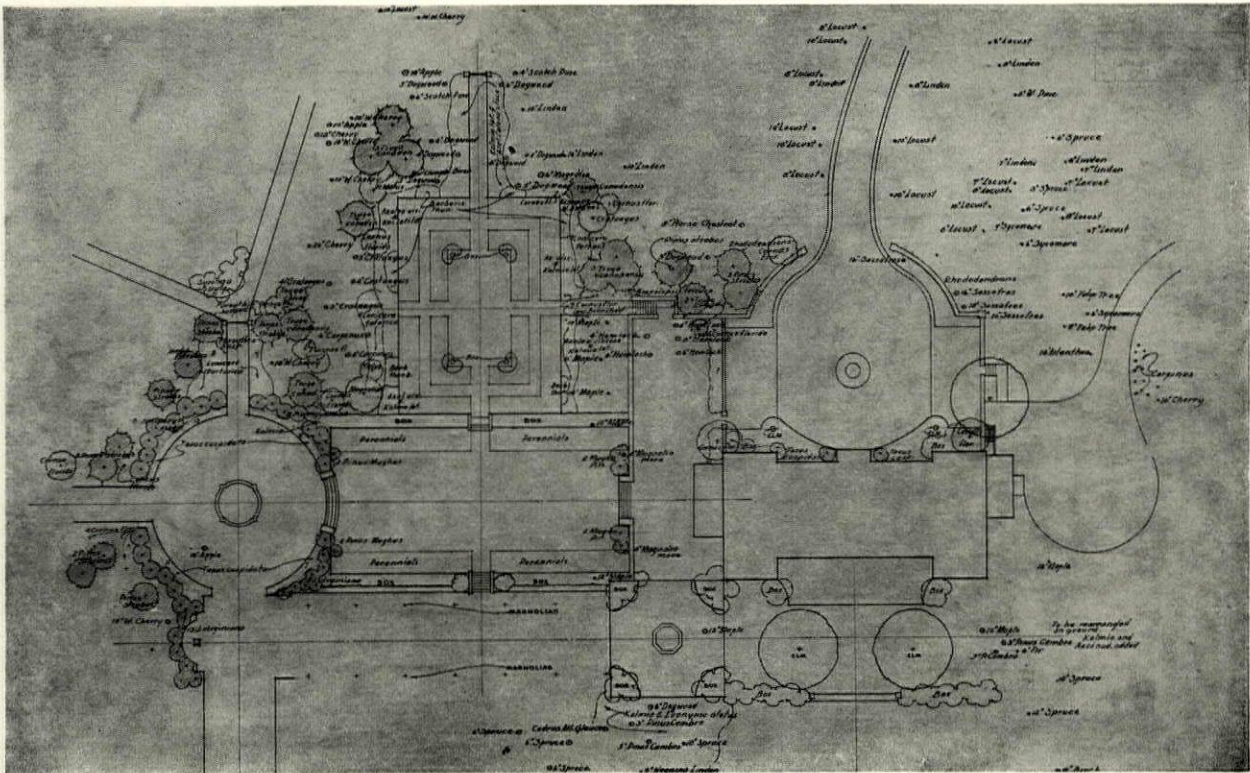


GENERAL GUIDE PLANTING PLAN FOR AN ESTATE

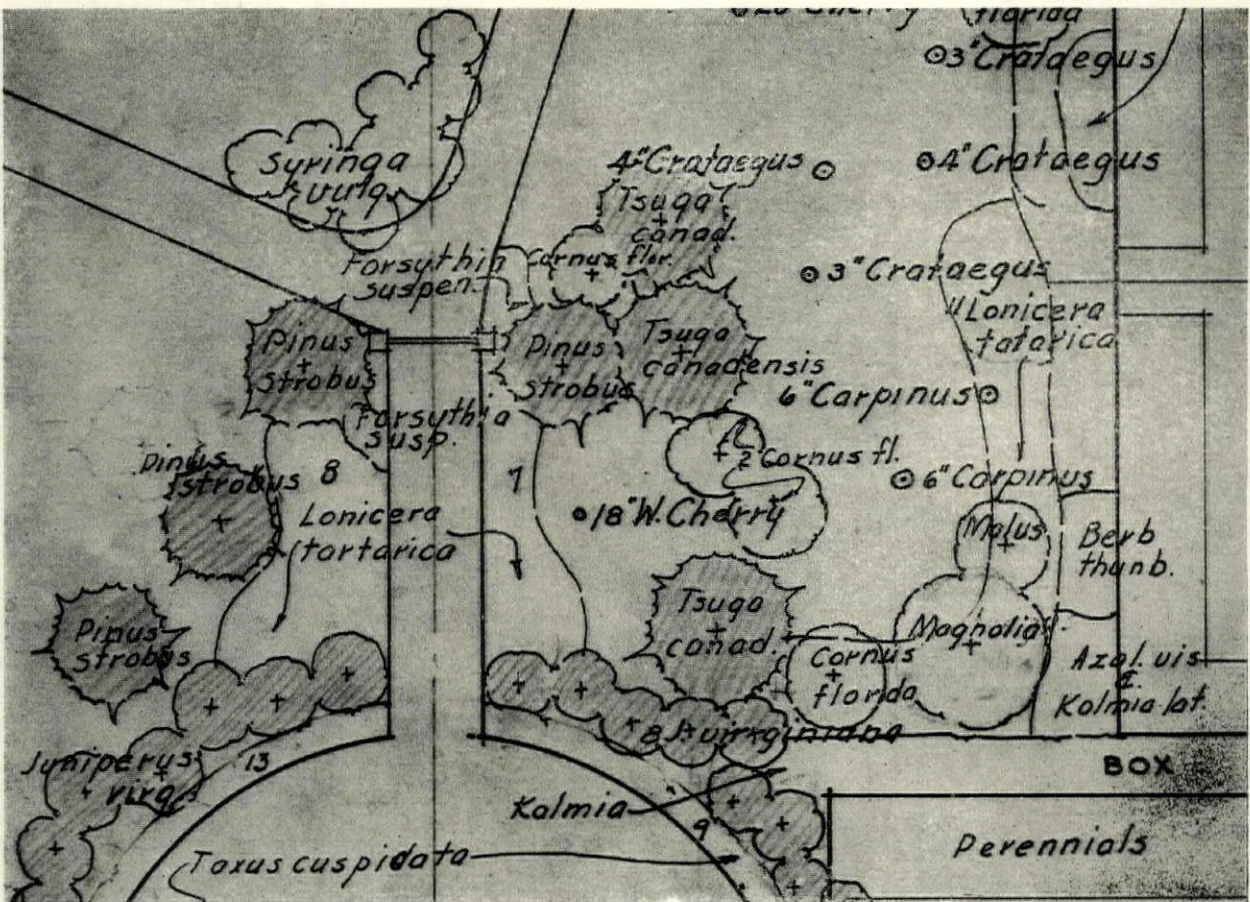


DETAIL OF PLAN SHOWN ABOVE, REPRODUCED AT EXACT ORIGINAL SIZE
FERRUCCIO VITALE AND ALFRED GEIFFERT, JR., LANDSCAPE ARCHITECTS

DRAFTING FOR LANDSCAPE WORK, IV

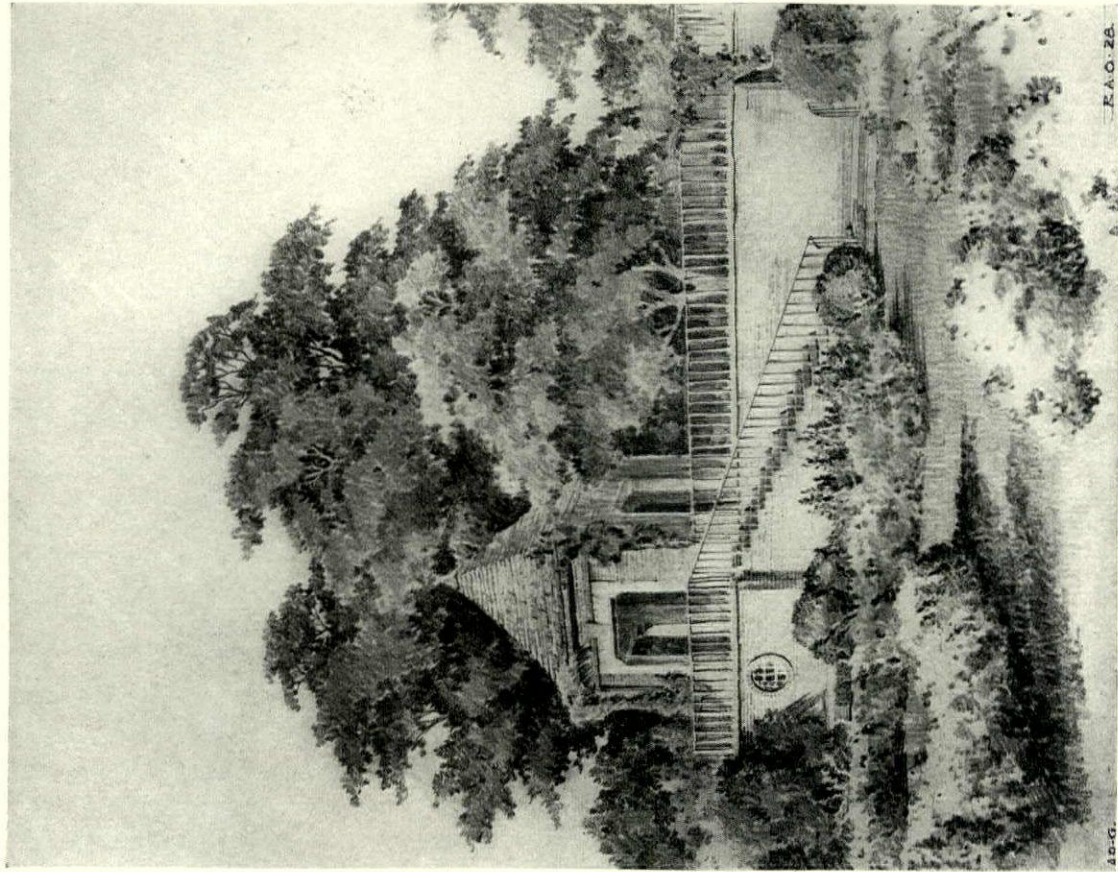
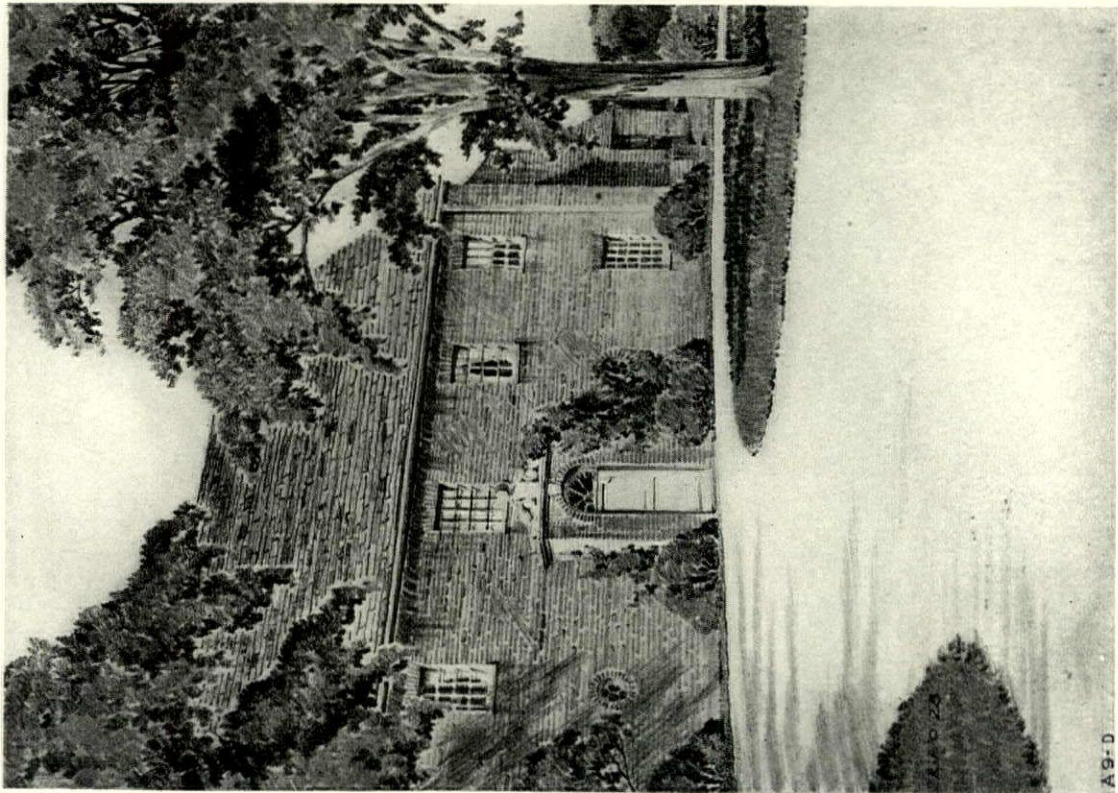


DETAIL PLANTING PLAN FOR AREA AROUND HOUSE

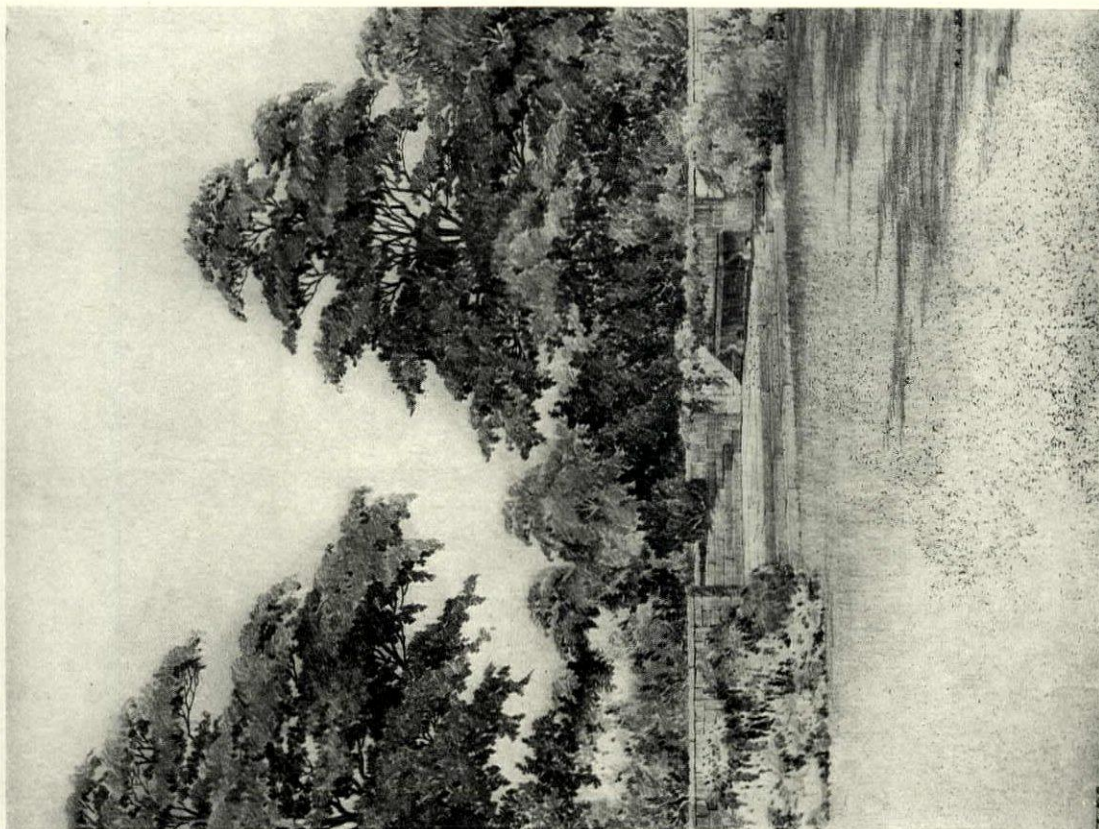
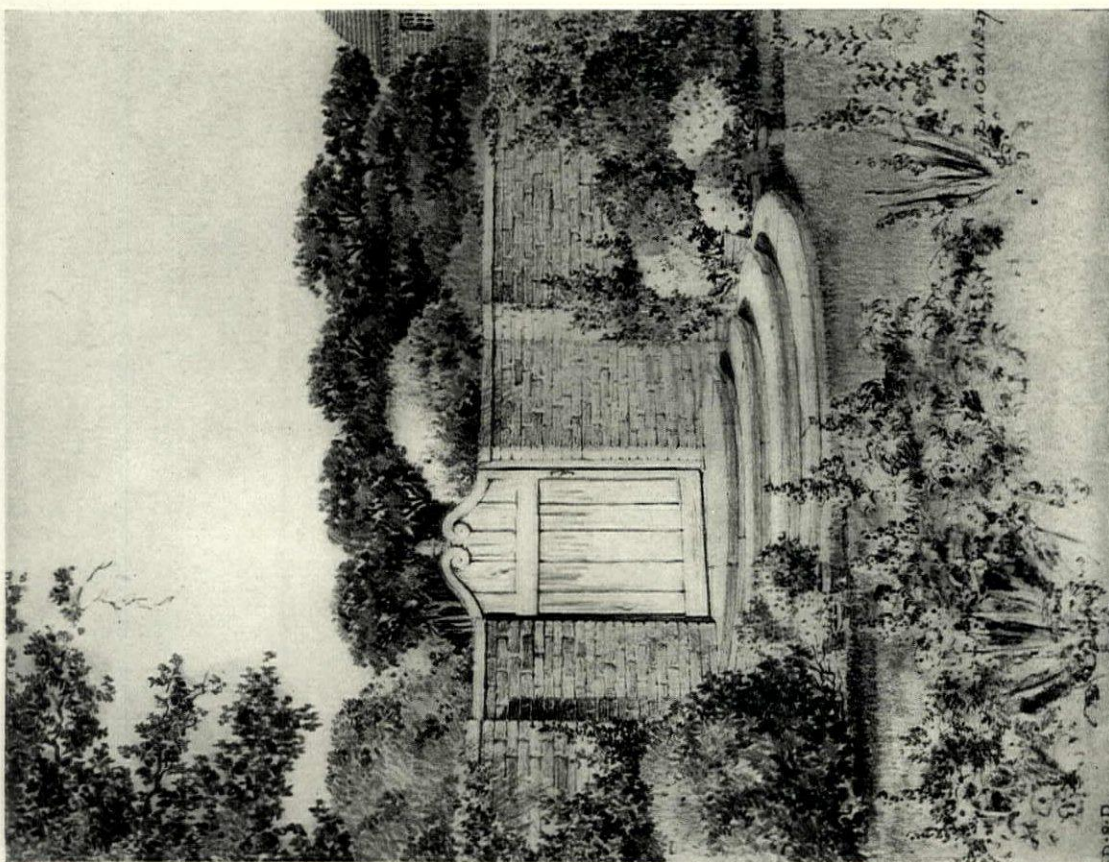


DETAIL OF PLAN SHOWN ABOVE, REPRODUCED AT EXACT ORIGINAL SIZE

FERRUCCIO VITALE AND ALFRED GIEFFERT, JR., LANDSCAPE ARCHITECTS

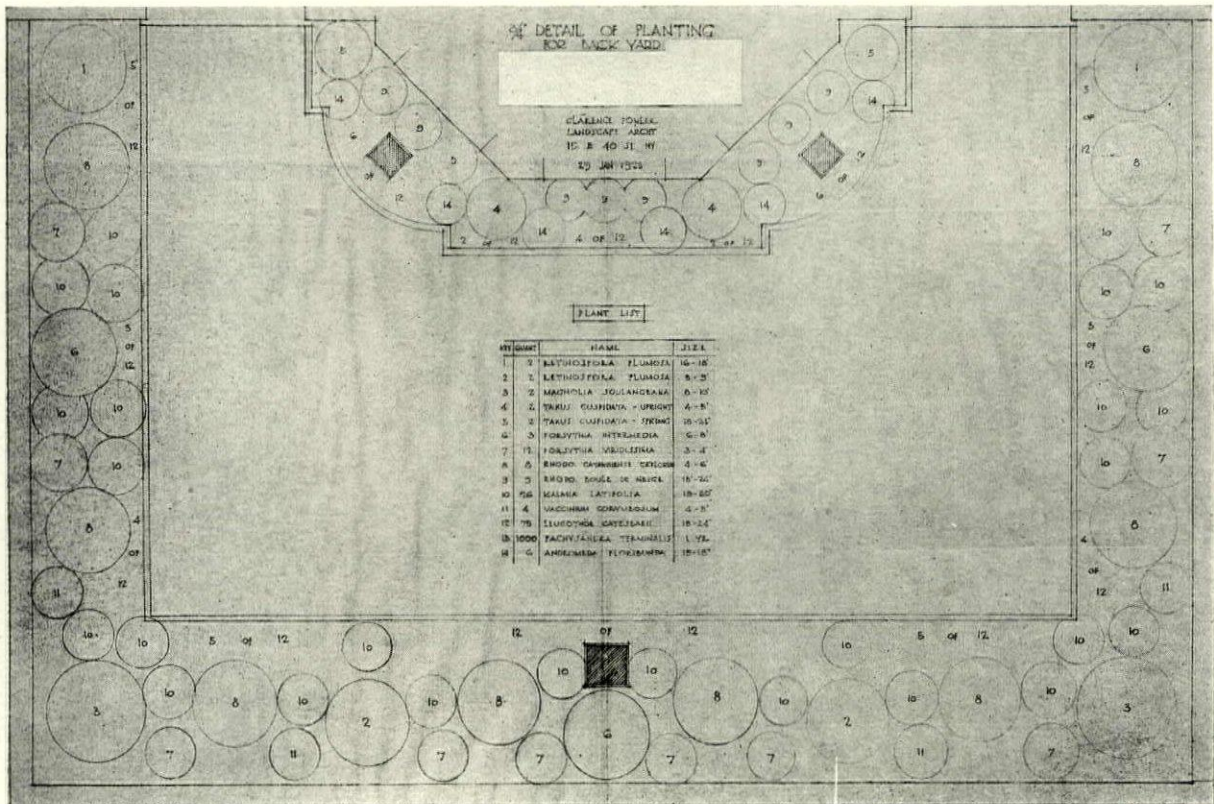


PENCIL SKETCHES SHOWING LANDSCAPE TREATMENTS—FERRUCCIO VITALE AND ALFRED GEIFFERT, JR., LANDSCAPE ARCHITECTS

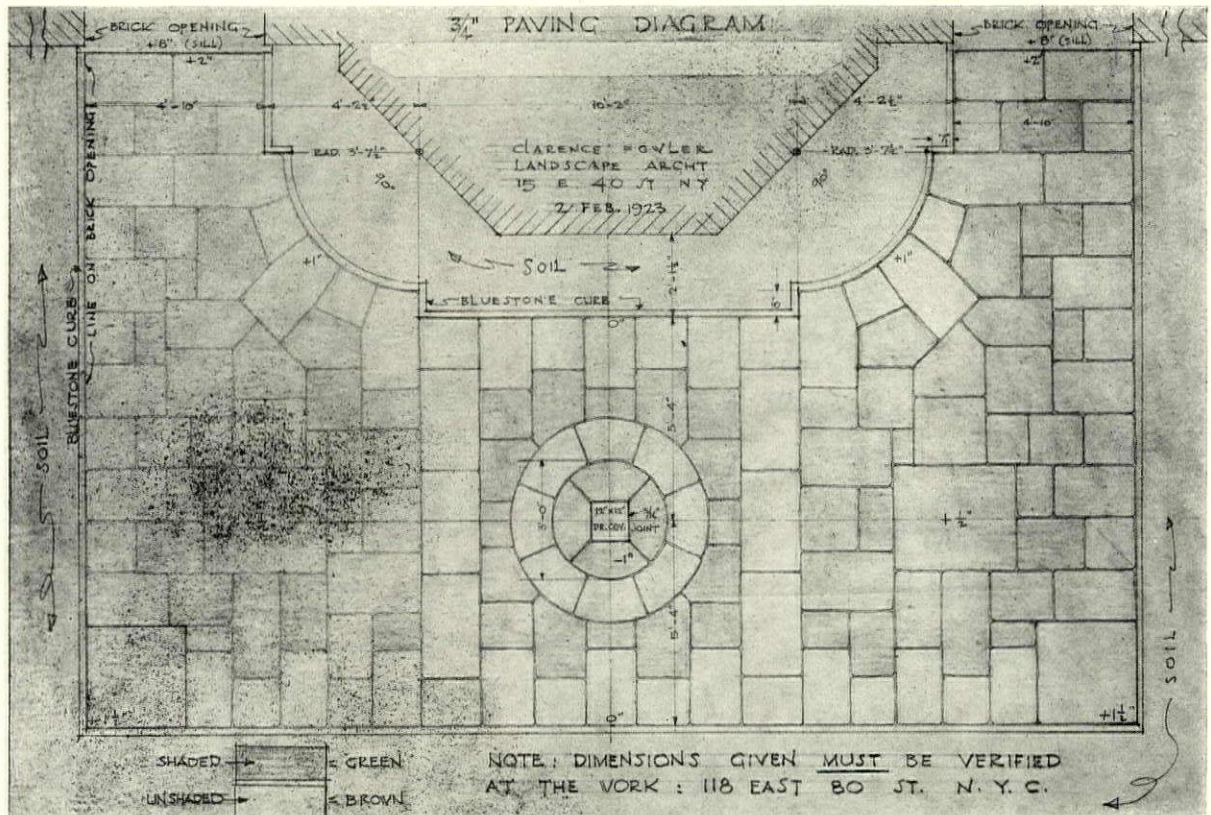


PENCIL SKETCHES SHOWING LANDSCAPE TREATMENTS—FERRUCCIO VITALE AND ALFRED GEIFFERT, JR., LANDSCAPE ARCHITECTS

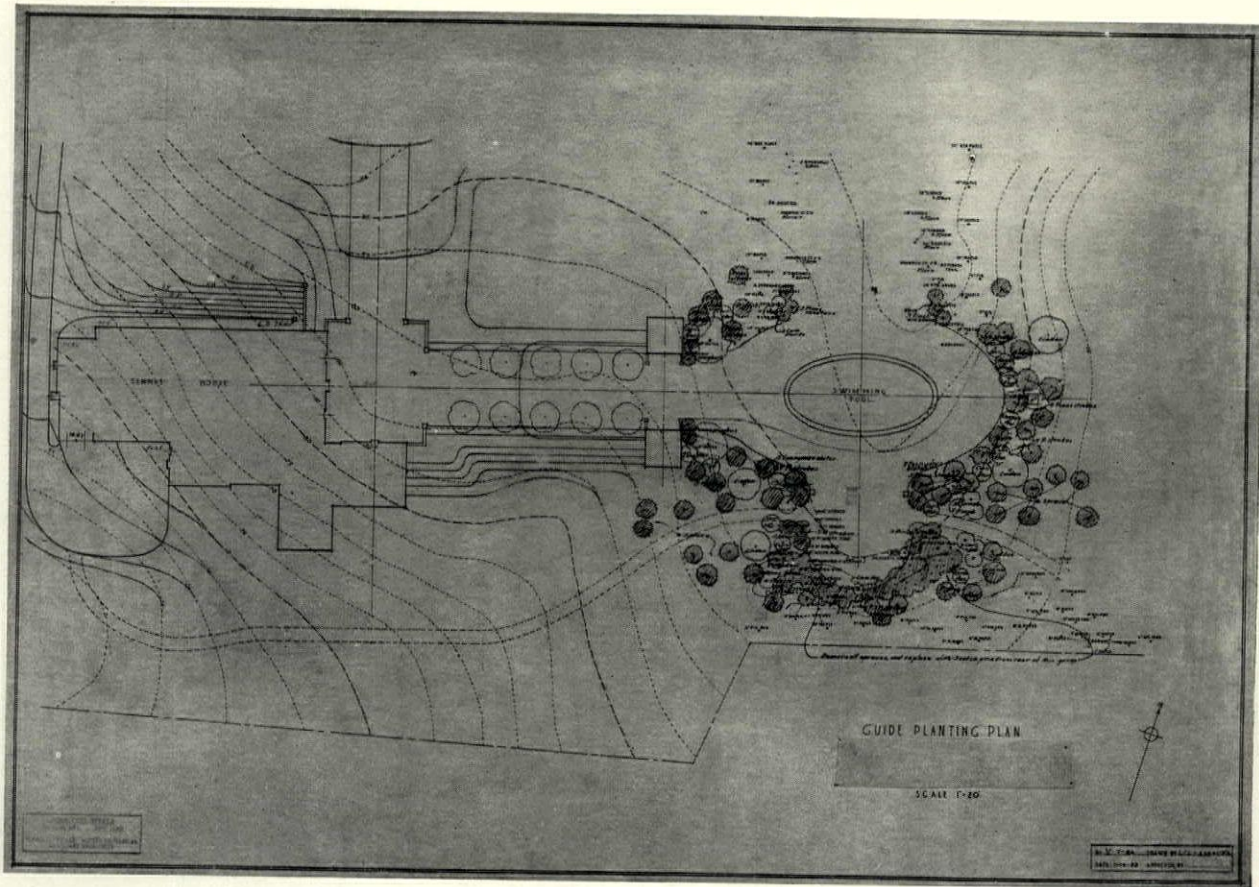
PENCIL POINT'S



DETAIL OF PLANTING FOR CITY YARD
CLARENCE FOWLER, LANDSCAPE ARCHT



DETAIL OF PAVING FOR CITY YARD TREATMENT SHOWN ABOVE
CLARENCE FOWLER, LANDSCAPE ARCHT



DETAIL GUIDE PLANTING PLAN FOR PORTION OF PROPERTY SHOWN ON PAGE 638

FERRUCCIO VITALE AND ALFRED GEIFFERT, JR., LANDSCAPE ARCHITECTS

May issue, the survey should note the location and the size and kind of each tree existing on the property. This is the starting point in the planting,—the existing material. The introduction of new material in combination with existing trees in the planning of proposed treatments is represented on the planting plans and in the sketches. Trees that it is decided should be removed are marked on the general plan of the proposed improvements, sometimes an "X" mark on top of the circle or dot that represents the tree is used to indicate that the tree is to be cut down, sometimes the word "cut" is written beside it. Occasionally a tree is to be removed from one part of the grounds to another in which case the fact is noted on the general plan.

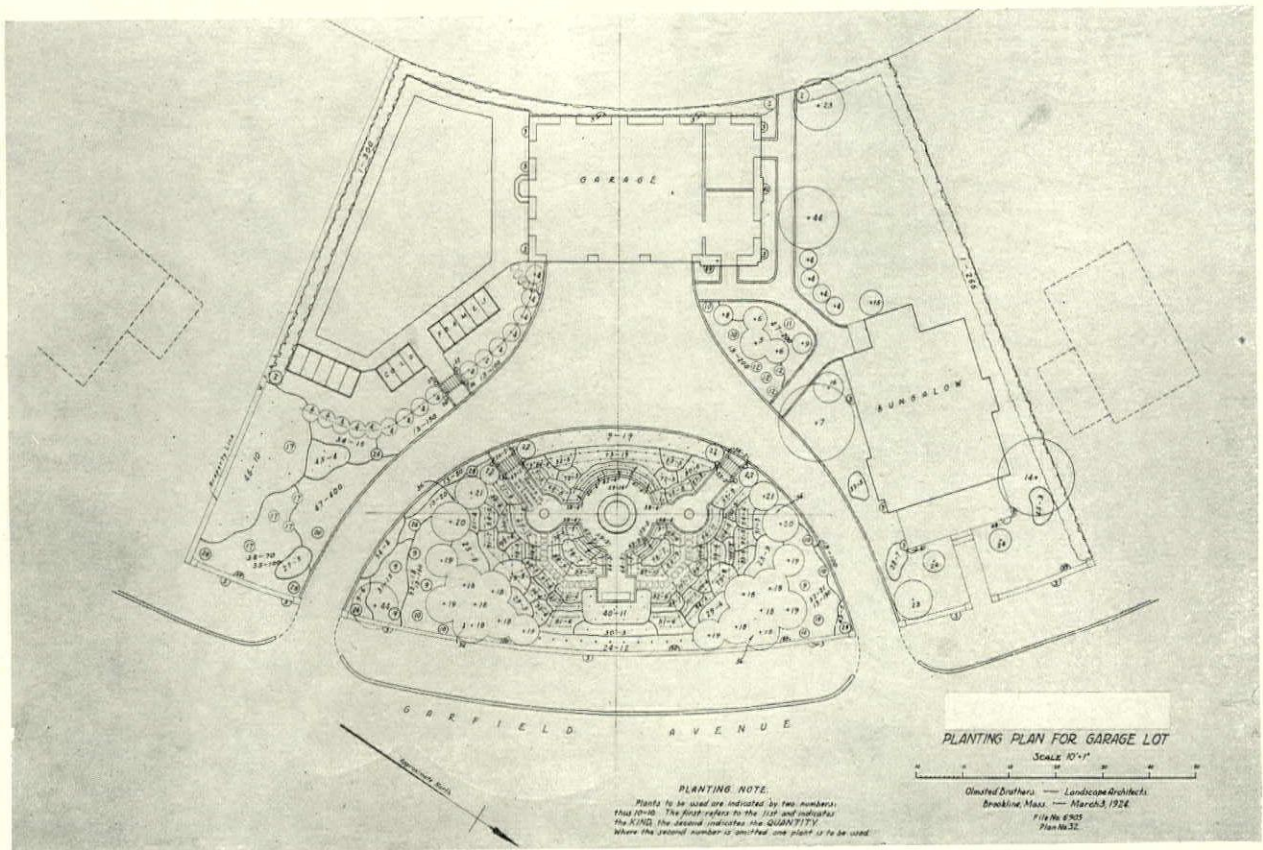
The existing trees, the contour of the ground, and the features planned are taken as the basis of the general planting plan upon which the planting is shown in simplified indication. The planting plans for the different parts of the scheme of the whole property are then made,—the planting plan for the area about the house, the planting plan for the flower garden, etc.

On these plans the location and shape of the space that the various plants and shrubs are to occupy are indicated and the names of the plants, together with other needed information, are written in. Some-

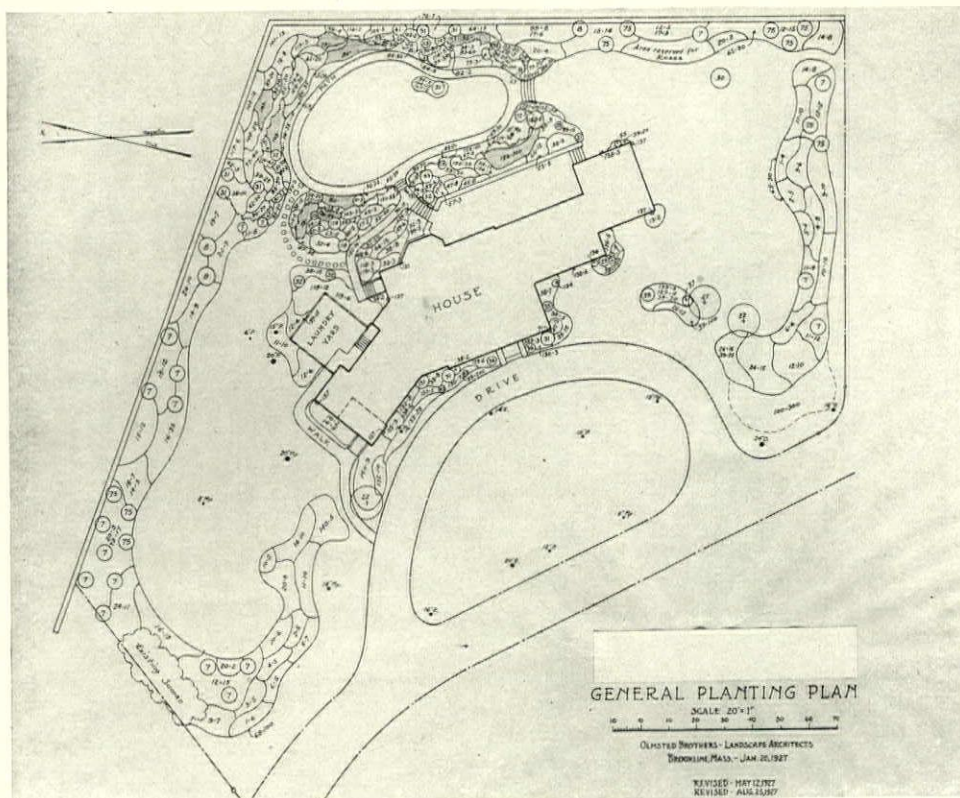
times a number is marked in the space, referring to a list that accompanies the plan. The manner of indication on planting plans and the general type of presentation employed in making such plans are shown by the examples illustrated herewith. Certain firms have made a practice of issuing photographs of the sketches to their trained assistants in the field as a guide in selecting the proper shape and sizes of trees to be used in making the landscape composition desired. The trees are then supplied to the contractor who puts them in their proper places under the supervision of the landscape architect's representative.

In the case of trees, particularly, the shape of the individual specimen is of importance. If the sketch shows a symmetrical tree of a certain variety, a symmetrical tree is wanted and must be supplied. If, on the other hand, a tree that is not symmetrical is shown, a tree of that particular irregular form must be found and planted in the place indicated. Often the trees wanted are very irregular in form and the whole countryside for many miles around may be scoured for trees that meet the specifications. Sometimes the owner of the property keeps a sharp lookout for trees as he drives about the country and when he sees one that corresponds in kind, shape and size

PENCIL POINTS



PLANTING PLAN FOR A GARAGE LOT
OLMSTED BROTHERS, LANDSCAPE ARCHITECTS



GENERAL PLANTING PLAN FOR A COUNTRY PLACE
OLMSTED BROTHERS, LANDSCAPE ARCHITECTS

A pencil sketch of a garden scene. In the center, a person stands among various plants, including tall, conical evergreens and rounded shrubs. The scene is framed by a simple horizontal line representing a fence or path. The drawing is done in a loose, expressive style.

[illegible]

[647]

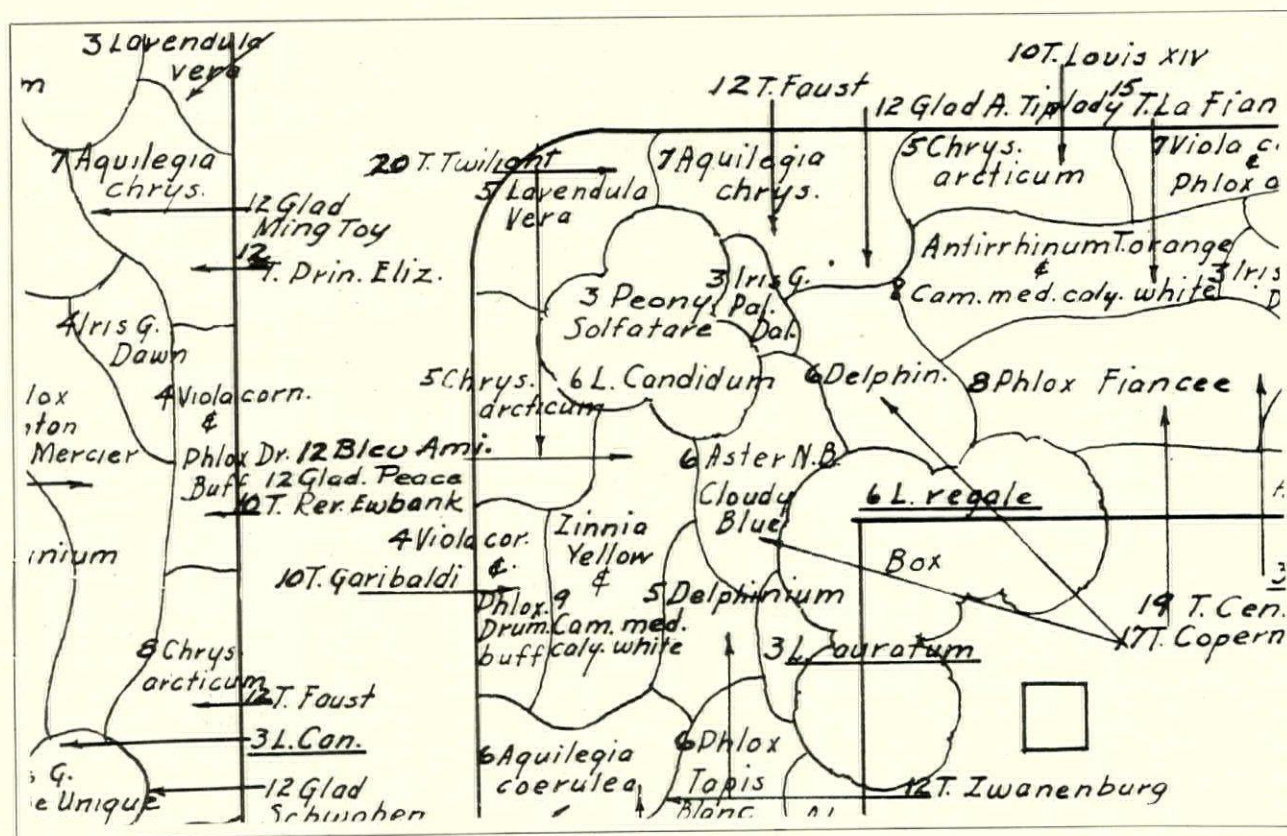
with a sketched tree in a proposed treatment for his place he notes it or perhaps purchases it and has it removed to his property. That is the exceptional case, however, for almost always the people who supply trees for planting are depended upon to locate the required material and it is a surprising fact that they are usually able to bring forward promptly even the trees of most unusual shape called for by the sketches. Some of these men have an amazing acquaintance with available material.

Often the trees of a group are varied in height quite carefully as a matter of design, one tree, for instance, will be 21 ft. high, another 20 ft., and another 18 ft., and the trees when put in place must measure correctly. The designer insures the permanence of his composition by selecting trees whose normal growth will preserve the outline originally designed. If matured trees are used, the rate of growth is so slow that no disturbance of the composition need be feared.

The successful removal of large trees is accomplished as a regular thing nowadays. Though every one knows in a general way how this is done it is more or less of a mystery unless one happens to have seen the operation. Briefly described the method is as follows: a trench is dug around the tree at a sufficient

distance to leave a large mass of the spreading roots attached to the trunk. This trench is dug carefully with forks so that the roots are laid bare but not cut. The roots are then carefully cut in such a way that no important roots are severed so close to the trunk as to endanger the life of the tree. A specially formed canvas with rope binding, so shaped as to fit snugly around the ball of earth that adheres to the roots of the tree is adjusted in place. A specially constructed motor truck is driven up with its back end close to the tree which is then tipped over until its trunk lies in a horizontal position on the truck and the ball of earth and roots in its canvas cover clears the ground. The tree is simply carried to its new location on the truck, set up in place and properly tended until it becomes well established.

It is not only in the case of trees that special character is required in the material that enters into the planting. If a lilac bush is called for one of the shape shown in the sketch is demanded, and in the case of all of the planting material the specifications are quite exact. If it were not so the resulting treatments would bear no resemblance to the sketches and if trees and shrubs of symmetrical form were used entirely the effect would lack much of the character that is essential to a satisfactory scheme of landscape improvement.



PORTION OF A GARDEN PLANTING PLAN REPRODUCED AT EXACT ORIGINAL SIZE

FERRUCCIO VITALE AND ALFRED GIEFFERT, JR., LANDSCAPE ARCHITECTS

COST ACCOUNTING FOR ARCHITECTS, PART IV

TIME COST ANALYSIS

By Lloyd M. Hendrick, Jr.

DIRECT AND INDIRECT costs account for the largest part of the outlay of money required for running an office; they will undoubtedly amount to at least seventy-five per cent of the total and in most offices probably a considerably greater proportion. The importance of careful accounting and accurate cost analysis as applied to these classes of costs cannot be overstressed, for here profits are most likely to be made or lost.

We have seen that Direct costs are those expenditures which, without any roundabout course, pay for the production of drawings and the execution of the work, and that these are generally salaries paid to draftsmen, specification writers, superintendents, etc. It has been pointed out, however, that the salaries of the foregoing may occasionally be Indirect charges, and in this respect fall into the same category as the wages of others such as stenographers, office boys, and the directing head of the office. Draftsmen and those of the Direct class may be compared to the steam engine which actually does the work, but which must be surrounded by pumps, condensers, boilers, fuel, and attendants, comparable to the clerical and administrative assistants, supplies and equipment which constitute the Indirect forces necessary to operate an office. In respect to persons employed within the office a significant fact appears in the circumstance that no material evidence will ordinarily be existent for the bookkeeper of the work done by them, in contrast to the bills or statements rendered by outsiders for services or materials supplied. This deficiency is overcome by the time card.

The first function of the time card, therefore, is to inform the bookkeeper each week to whom wages are due, and the amount. On this score there should be universal agreement as to its necessity. Its next function is to show the distribution of the employee's time, and here the practices of offices begin to differ, laxity appears, and the difficulties of time keeping come to the surface. The application of time keeping to some is apt to be regarded as unnecessary; and some of those upon whom it is imposed will cuss it as a nuisance. The necessity of knowing what jobs a draftsman worked on and how much time was spent on each should be obvious and require no argument. It is also just as necessary to have it recorded that a stenographer spent four days of last week typing the specifications of the Greendale Country Club as it is to be safe in the knowledge that for a considerable period previous she had been doing only routine work. Her time is a Direct cost against that job and should be recorded as such just as much as that of any drafts-

man. Those who doubt the logic of this must answer the question as to whether it is not worth while to know what a weekly pay roll of say \$2,000 is going out for. In other words, the job of cost analysis as applied to salaries starts with accurate and complete time keeping, and the office manager can in no direction show greater efficiency than to insist continuously on the careful observance of this precept.

The time card, therefore, is an indispensable cog in cost keeping and nobody should be allowed to fail in the important duty of making a regular report of his activities. It would be an unusual office where everybody, whether his or her station be high or low, did not from time to time spend extended periods upon some particular commission, and a failure to report this properly would vitiate the whole cost record for that job, and if a cost record is not right it is no good. For the administrative head of the office to countenance slipshod practices in this regard is to stigmatize him as a very shortsighted business man. For supplies and services of all sorts originating outside of the office the bookkeeper has a bill, statement, or other evidence of the transaction; for the large sum of money paid for salaries within the office, a total exceeding all other expenses, she has no evidence but the time card. It may then be fairly asked, why should the record of employees' time be any less accurate than the bill from the blue-printer, for example?

There is another phase of the matter which may be properly touched upon. Some offices charge the client on a cost plus basis but the great majority follow the percentage system. For these,—the great majority, it may be repeated—there exists absolutely no link or prearranged relationship between the size of the fee, say six per cent, and the costs of earning that fee. It is only that general experience has shown that an architect could (or should) make a profit at the prevailing scale of rates, though murmurs are now being heard that the scale should be raised. It is a curious commentary upon the profession that whereas nearly everything we require in our daily lives, such as food, shelter, and utilities of all sorts, is paid for upon a cost plus basis we are content to pay out money for drafting and operating costs while hoping, with the innocence of children, that the fee will cover the expenses and leave something over. This being the case, it is evident that without competent records of cost, particularly the time card, the practicing architect is entirely at sea. It has been known to happen more than once that \$11,000, for example, have been paid out to put through a commission bringing in \$10,000;

PENCIL POINTS

and in such a case the architect has no recourse but to pocket the loss and profit by the experience. No words beyond *spurlos versenkt* are needed to describe the situation such a man would eventually be in if, not knowing his costs on that job, he continued to repeat the performance.

The form and arrangement of the time card is a highly important matter that will receive special treatment, but it may be said at this point that a careful distinction will be shown on it between Contingent, Direct, and Indirect time charges. Let us recall that in Part III Contingent charges as a group were subdivided into Contingent Expense and Selling Expense, the latter being entered in a special column in both the journal and the cash book; also Indirect charges for bookkeeping purposes took on the name Office Expense. It is now suggested that on the books all Direct costs be called Client Expense, this being a term that tells its own story—expense which you are put to directly to serve the client. This gives us four expense accounts that cover all possible activities of every one in an office, and with salaries so classified it now becomes possible to enter them on the books and compute total costs. Summarizing at this point, it now appears that all expenditures of every kind may be entered in the books under the following accounts; and notwithstanding the brevity of the list, show all costs properly divided and in sufficient detail for all except those enthusiastic for statistics:

PROPERTY (Capital expenditures)
 CONTINGENT EXPENSE } (Contingent
 SELLING EXPENSE } charges)
 OFFICE EXPENSE (Indirect charges)
 CLIENT EXPENSE (Direct charges)

The mechanics of making the bookkeeping entries of costs arising from salaries are simple. Time charges by or for the Selling Department will be set down as such on the time cards and the bookkeeper, when paying salaries, simply makes her cash credit

entries covering this much of the work in the Selling Expense column of the cash book; and the amounts there noted should correspond exactly with the amounts called for under the same heading on the time cards. Contingent Expense is taken off the time cards and entered in a similar manner, though in the general column rather than a special one. A similar procedure is followed for Office Expense but in this case a special column is necessary in both the journal and cash book. Into this column will go all items of Office Expense, those of a miscellaneous character as well as those originating from salaries.

If we look ahead toward one of the objects of a cost system, i.e. to know how much each job costs, it will be realized that a way must be provided for apportioning the proper share of Office Expense (Indirect Costs) to each commission. The first step toward rendering this easy of accomplishment is the segregation of such costs which is effected by the special column, mentioned in the preceding paragraph, at the top of which might be printed just the word INDIRECT. The monthly total of this column in the journal and cash book is not posted to the ledger for that has already been done according to individual entries; but it stands simply as a lump sum to be split up properly among the various current jobs. Client Expense is taken off the time cards and that portion of salaries thereby accounted for is entered on the credit side of the cash book simply as Client Expense. There is no object and nothing to be gained by here introducing the client's name or otherwise identifying the job for which the salary was expended because, as it has been pointed out, under the percentage system of fixing the fee the architect is not, unfortunately, charging the client on a basis that has any relation to the amount of time spent on the job.

Figure 1 is a time card arranged to accommodate itself to the foregoing bookkeeping procedure and to provide the data in convenient form for cost analysis. On it "time" is divided into four parts, the three

· DAILY TIME CARD ·														
SMITH & SMITH ARCHITECTS														
NAME _____														
DATE _____ 19__														
RATE PER HR. _____														
EMPLOYMENT				· CLIENT EXPENSE ·										
OFFICE EXPENSE	CONTINGENT EXPENSE	SELLING EXPENSE	GIVE JOB NAME OR OTHERWISE IDENTIFY USE OF TIME.	SPC'FNS		DRAFT'G		MISCEL		TOTAL HRS	DRAFT'G. SUPERV'N		SUPERIN- TENDING	
				HRS	AMT.	HRS	AMT.	HRS	AMT.		HRS	AMT.	HRS	AMT.
TOTALS														

FIGURE 1

COST ACCOUNTING FOR ARCHITECTS

<div> <div>DAILY TIME CARD</div> <div>SMITH & SMITH ARCHITECTS</div> <div>DATE.....19.....</div> </div>																			
NAME.....										RATE PER HR. 									
OFFICE EXPENSE			CONT'G'T EXPENSE		SELLING EXPENSE		CLIENT EXPENSE												
CLERICAL	ADMIN. & STENO	MISC.	DRAFT'G	MISC.	DRAFT'G	MISC.	EMPLOYMENT			CONF'NCE		MAN'G'MT		MISCEL		SUPER		T.D'G	
							GIVE JOB NAME OR OTHERWISE IDENTIFY USE OF TIME.			HRS	AMT.	HRS	AMT.	HRS	AMT.	HRS	TRAVEL		HRS
TOTALS																			

FIGURE 2

columns at the left and the group at the right. These four time divisions, Office Expense, Contingent Expense, Selling Expense, and Client Expense, conforming to the divisions into which all costs have been separated, provide here for the notation of any and every kind of time expenditure that might be made by anyone in the office. "Client Expense," for the sake of simplicity and for use in a small office, is subdivided into the fewest number of subheadings possible and still give a reasonably clear picture of detailed costs. The first three columns, "Miscellaneous," "Drafting," and "Specifications," stand for activities which are assumed to be under the direction of the Chief Draftsman; the fourth column is for the Chief Draftsman himself; and the last column—for the superintendent—provides for the work of one assumed to be responsible only to the head of the office. This sort of subdivision must be made because the Chief Draftsman's time, while a Direct cost, is generally spread over the various jobs in such small units that it would be impossible for him to make a detailed record of it, and yet a way must be provided for prorating his time over Miscellaneous, Drafting, and Specifications, the work done under his direction. The manner in which this is finally accomplished appears on the Monthly Cost Record, a document which will be described later.

In practice this time card would be used as follows. The employee (and the head of the office, also) fills in the date and his name and on the lines under "Employment" gives the job names he works on, or such other notations as stenography, switchboard, bookkeeping, miscellaneous office, conference, absent, office management, material men, etc., terms chosen to show clearly how he was occupied through the day. He would then put down the time for each of the above to the nearest half hour, entering this in the proper "hours" column at the right under Client Expense, or at the left in one of the three columns there. Putting the time entry in the proper column is highly important for upon it depends the truthfulness

of the cost picture so built up. If the specification writer spends two hours investigating the merits of a new insulating material he may be spending his time wisely but it should not under ordinary circumstances be made a Direct cost on current work; it should be entered as two hours under Office Expense. If a stenographer is taken from her usual duties to send out two hundred letters of greeting to visiting A.I.A. members her time for that work should be entered under Contingent Expense, for the reason that it had nothing to do even indirectly with the normal function of the office, the design and execution of architectural work. If the Chief Draftsman's supervision of work on the boards is interrupted by an hour and a half spent ironing out a mistake the contractor has made in the framing of the third floor of Paradise Hotel, that time should be entered under Miscellaneous, a Direct charge against that job. Numerous other examples might be given of time spent in similarly irregular ways but it must already be clear that great care must be exercised in making entries on the time cards. If three men, each receiving \$1.50 per hour, fail to charge three hours against a certain commission when they should have done so, the cost picture is distorted at least to the extent of \$27.00, and this sort of thing can quickly become a serious matter. It should be the duty, therefore, of the Chief Draftsman, the Office Manager, or the cost clerk to scrutinize the filling in of time cards, and to guide the personnel of the office correctly in this act. Having given the employment and time, no more is required of the employees, all other entries being made by the bookkeeper or cost clerk.

When the latter in the morning takes up the time cards for the previous day her first act is to fill in the "rate per hour" box, which may be copied from a memo previously made up for the purpose. She then computes and enters the proper sums in the "amount" columns, following which all columns are totaled at the bottom. It may be pointed out as a significant matter that under the first three columns we have

4

In the time card illustrated by Figure 1, it will be observed that the work of carrying out a commission is divided into five parts. Frequently it is desired to know the cost of carrying out a job in more detail, particularly to get a better picture according to the different stages of the work; and some

They are identical in principle and arrangement with the first one given, but expanded to meet the above-mentioned conditions. The separation into two cards has been done along the lines of dividing the men who work in the drafting room under the Chief Draftsman, and those not in the drafting room and working under other direction or independently. Generally speaking, those in the drafting room will usually be engaged on active jobs and will ordinarily use the time card of Figure 3 which becomes entirely a Client Expense record. Should any man have non-drafting room assignments or work not a Direct expense he would make his entry for his time on the card of Figure 2, used regularly also by others than the draftsmen and occupied as shown by the columnar indication on that card. The subdivisions of employment or parts of office work as shown on these two cards are suggestive of a separation that would easily make available for detailed study the cost of practically every major operation in an office. It is not expected, however, that the subdivisions given would meet the particular cost study needs of every office, partly because of differences in size and partly because one architect might lay greater emphasis on some things than another. In Figure 3, for example, Structural, Electrical, Heating and Ventilating, and Plumbing might be displaced by a single column headed Engineering; or, on the other hand, one might wish to add columns for Concrete Design, Framing, Shop Drawings, Mechanical, etc. Additions to the extent just indicated would suggest putting all these on a separate card. In this case, the single card of Figure 1 would have increased to three cards and could go even further if the size of the office justified it. This illustrates that the system is flexible with respect to both size and preference of the office, with no sacrifice of the accounting principles involved.

FIGURE 3

PENCIL POINTS SERIES of COLOR PLATES

This drawing was made on a sheet of illustrator's board $21\frac{1}{2}$ " x $14\frac{1}{2}$ ". Opaque water color was applied with a sponge for the most part, although certain features, such as the urn and fountain and the trunk of the tree at the left, were done with brushes. By using the sponge lightly dabbed on the surface of the drawing, the color is deposited with an effect of stippling. When several colors are applied in close juxtaposition, the result has a vibration and depth that would be impossible to attain by the use of simple washes. This method of working enables an effective result to be obtained in a very short time.



SKETCH TO SHOW LANDSCAPE TREATMENT

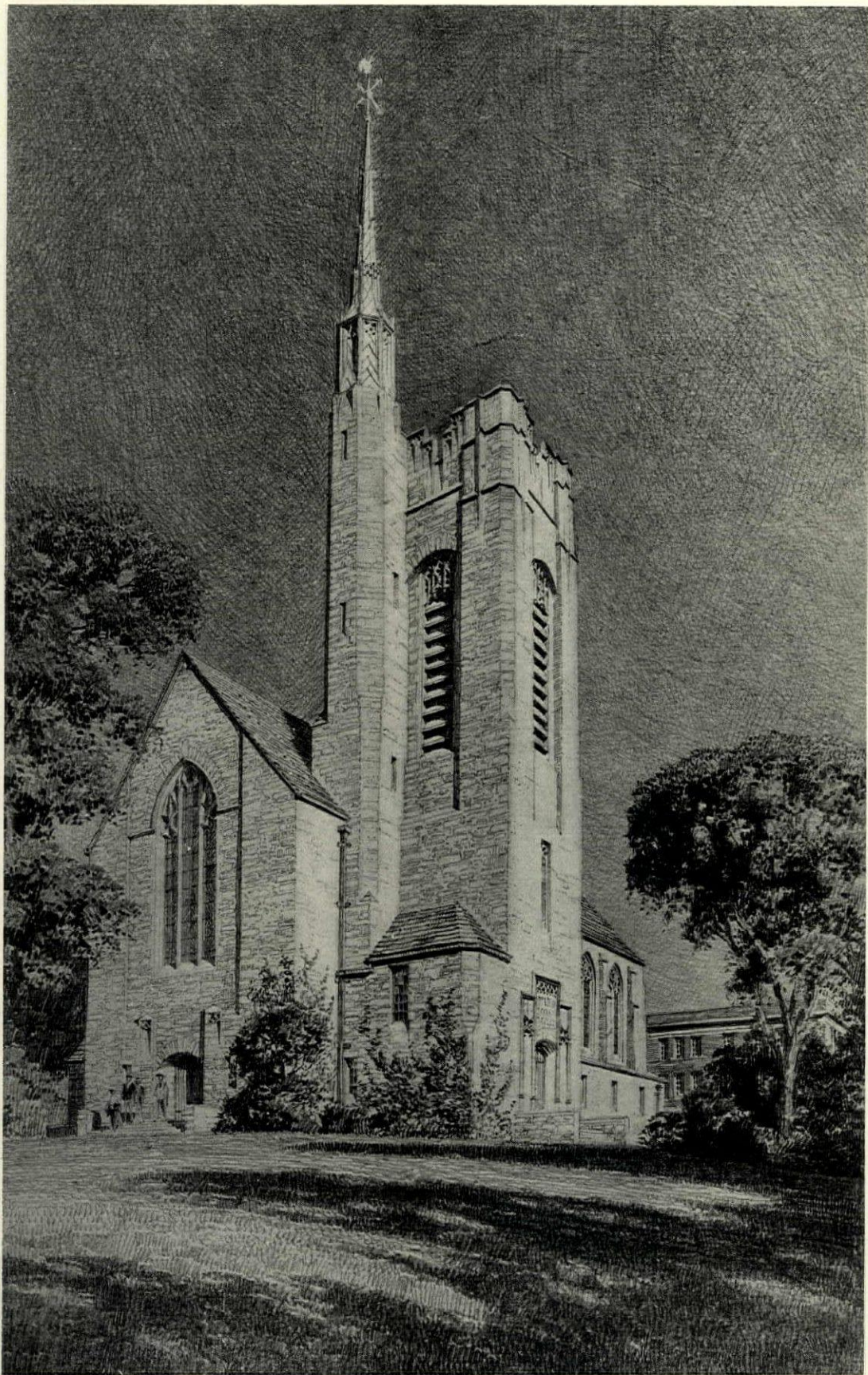
RENDERING IN OPAQUE WATER COLOR BY H. RAYMOND BISHOP



SKETCH OF A GARDEN, FERRUCCIO VITALE AND ALFRED GEIFFERT, JR., LANDSCAPE ARCHITECTS
RENDERING IN PASTEL BY MISS L. C. HUNTER

PENCIL POINTS SERIES of COLOR PLATES

This pastel drawing shows a type of sketch which may be advantageously employed to show a client the effect that will be obtained by a certain planting arrangement. The medium of pastel is particularly well adapted to this sort of subject, for by its use the whole range of colors may be applied directly to the paper without the necessity of mixing pigments. This particular drawing was made on a sheet of light cream paper 12" x 16" in size. The technique employed is very evident from the reproduction. The pastel was left in place just as it came from the crayon with no rubbing.



PENCIL RENDERING BY JAMES PERRY WILSON

CHAPEL FOR ST. LAWRENCE UNIVERSITY, CANTON, N. Y.—B. G. GOODHUE ASSOCIATES, ARCHITECTS

PENCIL POINTS

PLATE XXXVII

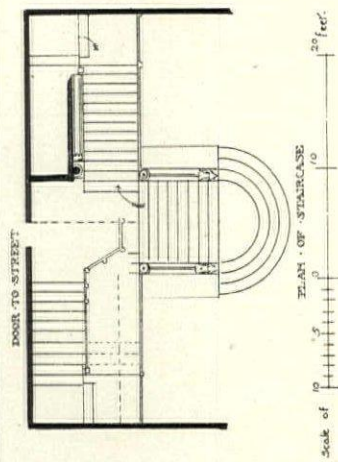
VOLUME IX

NUMBER 10

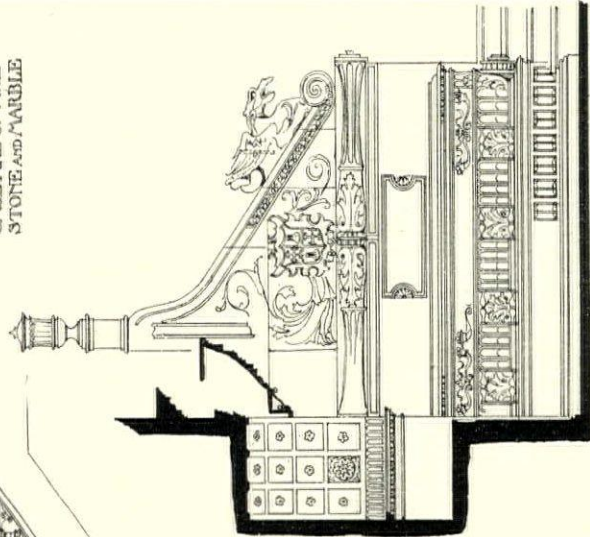
An attractive pencil rendering of an unusual church from the office of the Bertram G. Goodhue Associates, now Mayers, Murray, and Phillip, forms the subject of this plate.

BURGOS

PART-ELEVATION OF
STAIRCASE IN THE
NORTH-TRANSEPT OF
CATHEDRAL



THE BALUSTRADE
IS OF WROUGHT
IRON-PAINTED AND
GILT. THE OTHER
PORTIONS OF STAIR
CASE ARE OF FINE
STONE AND MARBLE



NOTE
THE DESIGN
OF THIS STAIR
CASE IS THE
SAME ON BOTH
TH-SIDES --
THE BALUSTRA
DE IS ADAPTED
ON LEFT-SIDE
IN ORDER TO
SHOW-DETAIL
OF STEPS

Scale of 0 10 20 30 feet

RENAISSANCE ARCHITECTURE AND ORNAMENT IN SPAIN

A PLATE FROM THE WORK BY ANDREW N. PRENTICE

PENCIL POINTS

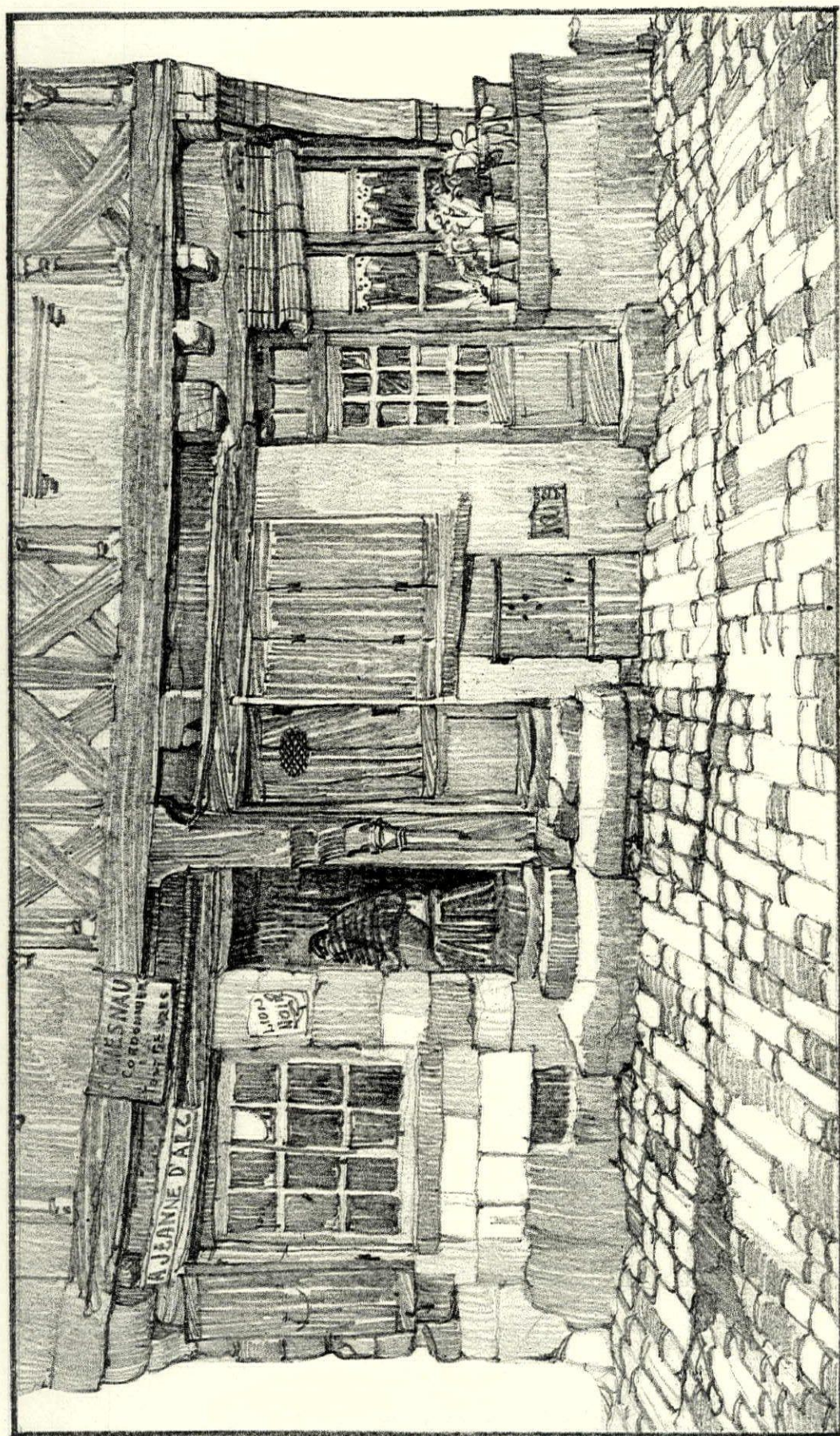
PLATE XXXVIII

VOLUME IX

NUMBER 10

"This unique staircase, designed by the celebrated Diego de Siloe in 1519-22, connects the transept with the street level, which is twenty-six feet above the floor of the Cathedral, through a doorway called the Puerta Alta. The wrought-iron balustrade, by Cristobel Andino, is painted and gilded, the background being a dark greeny-blue, and the scroll work, with its figures of cherubs and busts, is also in gold and colors. The stonework of the staircase is carefully jointed, as shown on the left-hand side of the plate. The carvings are very delicate and in low relief. The only marble portions are inside the central archway."

A. N. PRENTICE



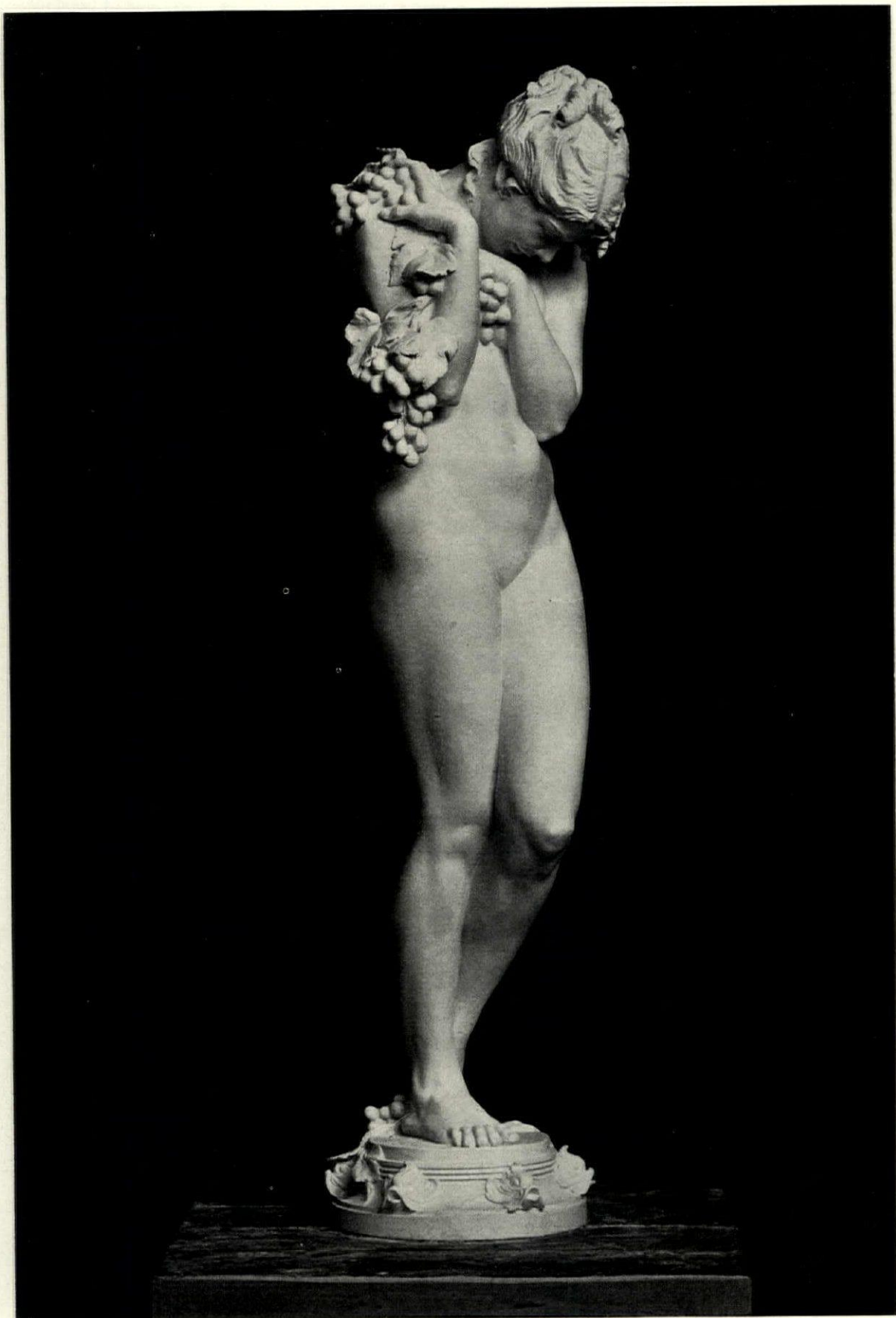
LITHOGRAPHIC PENCIL DRAWING BY LEROY E. KIEFER
A COBBLER'S SHOP, CHINON, FRANCE

PLATE XXXIX

VOLUME IX

NUMBER 10

This plate shows a lithographic pencil drawing made by Leroy E. Kiefer while traveling as holder of the George G. Booth Traveling Fellowship of the University of Michigan.



"SWEET GRAPES," FIGURE FOR A GARDEN FOUNTAIN
HARRIET FRISHMUTH, SCULPTOR

PENCIL POINTS

PLATE XL

VOLUME IX

NUMBER 10

This delightful garden fountain was made by Miss Frishmuth for the estate of Mr. Fisher in Detroit, Michigan. The water flows over the figure from the grapes as though they were being squeezed by the hands, and the conventionalized fishes' heads around the base spout water. The sculpture, which will be cast in bronze, is 4' 6" high.



W H I T T L I N G S

WILLIAM T. WARREN,

Birmingham, Ala., architect, after declaring to his local Civitan Club that American architecture is far in advance of that of Europe, goes on to say:

"This fact is admitted both in Europe and America. Someone might go back and mention Greek or other architecture of a bygone day, and try to show that this is wrong, but I am referring to present-day architecture, when we have to figure on modern zoning laws, heating and water supply problems, having to build in such a manner as to obtain all available space, for convenience, efficiency, and at the same time build for beauty. It is in such problems as these that America is far in advance of Europe."

ELIEL SAARINEN,

Famous Finnish architect, on the eve of his departure on a trip abroad, voices a few thoughts inspired by New York's sky line:

"New York is a great city gone wrong architecturally. To improve New York one would have to start tearing down, but I won't say what I would tear down first for fear of hurting somebody's feelings. The hotels around Grand Central are admirable buildings, especially the Shelton. As plain, unrelated buildings they achieve their effect by simplicity. . . .

"I hope the time is soon coming when American cities will quit imitating New York by building skyscrapers and will spread themselves out over the surrounding country. The trouble with all big cities is that people try to live in certain sections. It is especially true in this country, for the American spirit is to crowd together. That is bad for the people physically and for the city artistically."

WILLIAM A. BORING,

Director of the School of Architecture at Columbia University, in his annual report to President Butler of that institution, proposes New York as a center of Occidental art:

"Is it not a logical and sound conclusion that the art center of the Western world is New York City?"

"Here is found the greatest mart for the sale of paintings, sculpture and all objects of art; here are found the richest museums, the greatest exhibitors and the most interesting auctions of pictures. Here also are the National Academy, the Art Students League, and the Beaux Arts Institute of Design, where designs in architecture from students in every part of the United States are brought together for exhibition and judgment.

"Should there not be here also the greatest school of art, an all embracing and far-reaching school for the teaching of all the arts with the best equipment and under the guidance of our ablest masters?"

"The most striking expression of art in America is our architecture. This speaks of strength, of passion for organization, of desire for convenience, and of aspiration for bigness and extraordinary height. Despite its hard businesslike aspect, our architecture already shows a certain romantic tendency which makes its appeal to the man in the street."

ELY JACQUES KAHN,

Of Buchman and Kahn, Architects, New York, explains how the modern architect undertakes a design:

"He faces it as a problem, to be worked out in a logical way. He does not say 'I am going to design a copy of the Palace of Versailles, twenty stories tall,' or 'This building will follow the classic Greek style.'"

"He first considers all phases of the problem facing him: the purpose of the structure; the legal restrictions, if any—including zoning laws, in the metropolitan cities; the atmospheric conditions; and any other factors which might affect the building in any way.

"Then he works out his design in the manner that will best solve each phase of the problem. Naturally he makes the building as attractive as possible. He is able to achieve real beauty, because there is nothing strained or purposeless about it."

R. W. ALGER,

Atlanta architect, speaking recently before the Georgia chapter of the Associated General Contractors of America, emphasizes the architect's responsibility to the public:

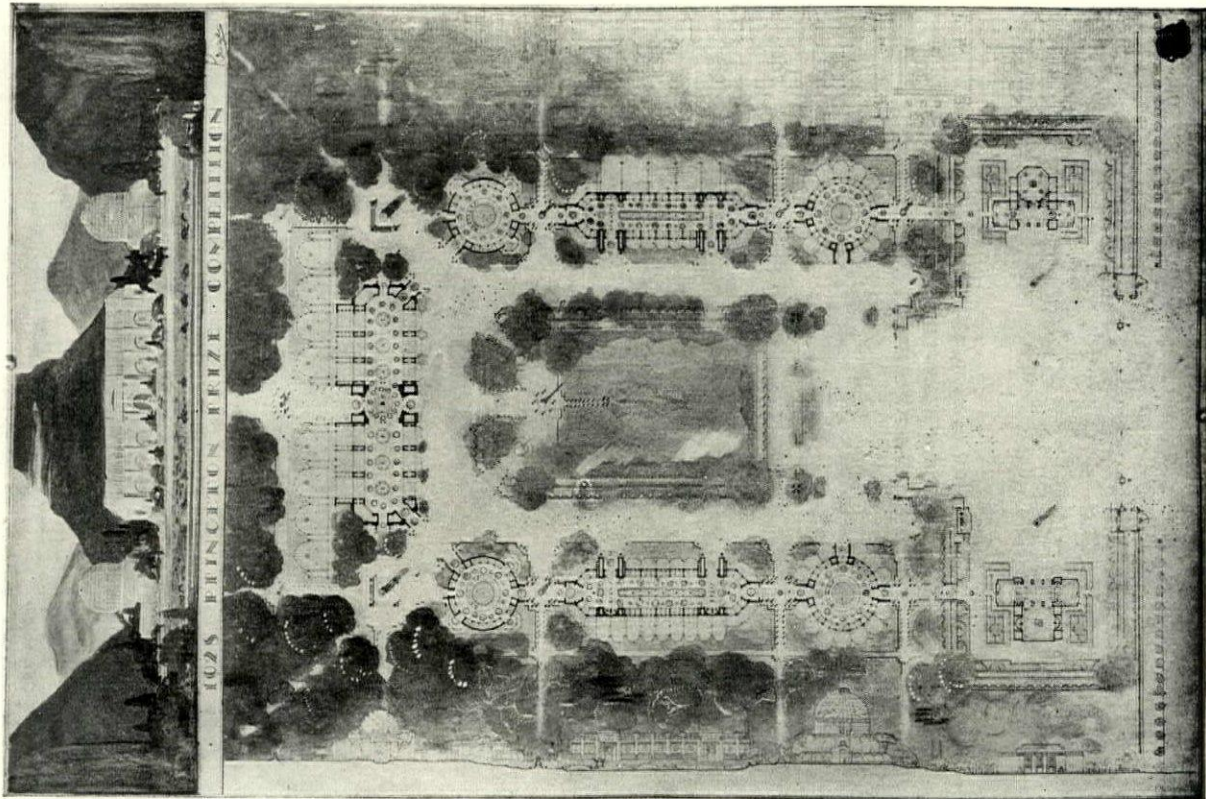
"There is another responsibility which is generally lost sight of but which looms large in the eyes of the trained architect. That is his responsibility to the public. A building is something that cannot be sidestepped. Everyone sees it in passing. It has a definite and positive bearing on the life and thought of the whole community. If one loves music, one can go where it is to be heard or not, as one pleases. If one enjoys paintings there always is available an art exhibit. But if one lives in an ugly city it is almost always necessary to remain in it whether one likes it or not."

PROF. L. H. PROVINE,

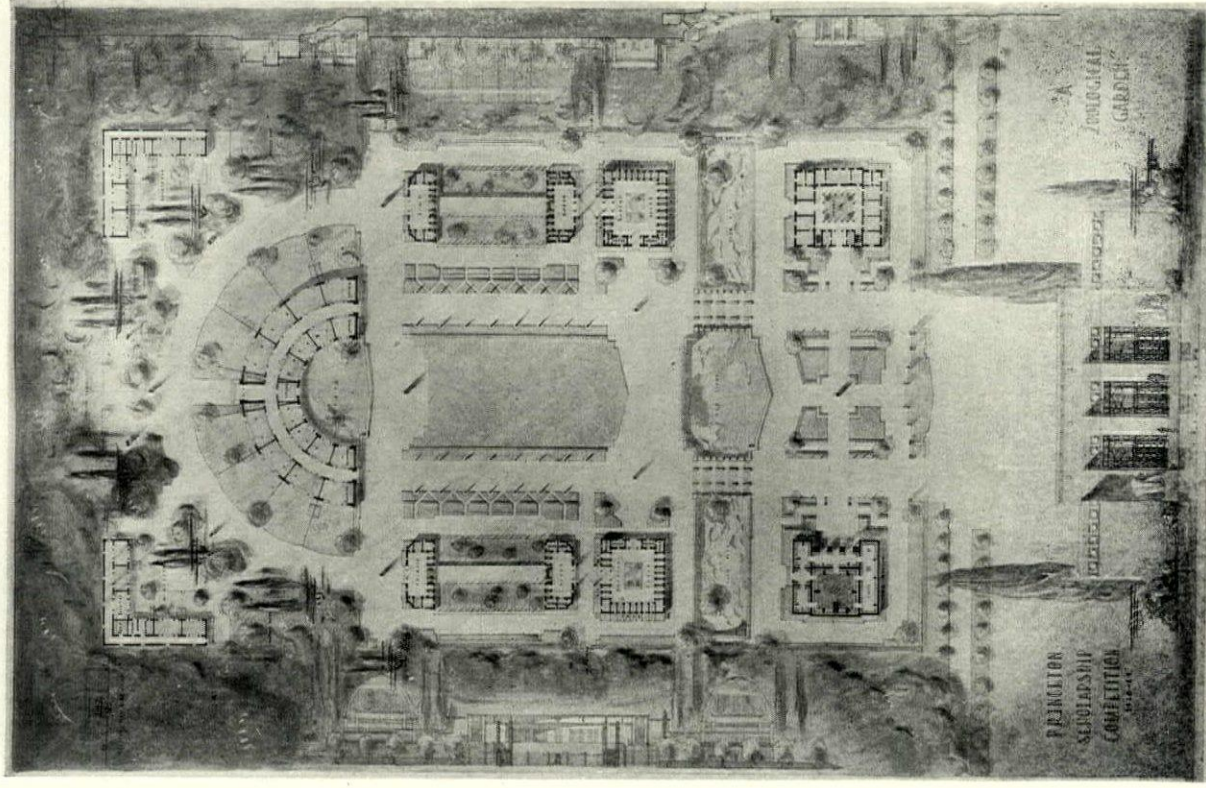
Head of the Department of Architecture of the University of Illinois predicts the future effect of air travel on our architecture:

"With the increase in the use of airplanes by private individuals for business and pleasure, by corporations for the transportation of light deliveries, and the mail and express trains, something must be done to facilitate their landing almost at will. The tops of buildings are the logical place in crowded cities for the landing stages, because, in this day of great speed, distance from the landing field to the center of the business district must be cut as much as possible. Therefore, it would seem that the tops of buildings that today are just so much waste space must be utilized for this purpose.

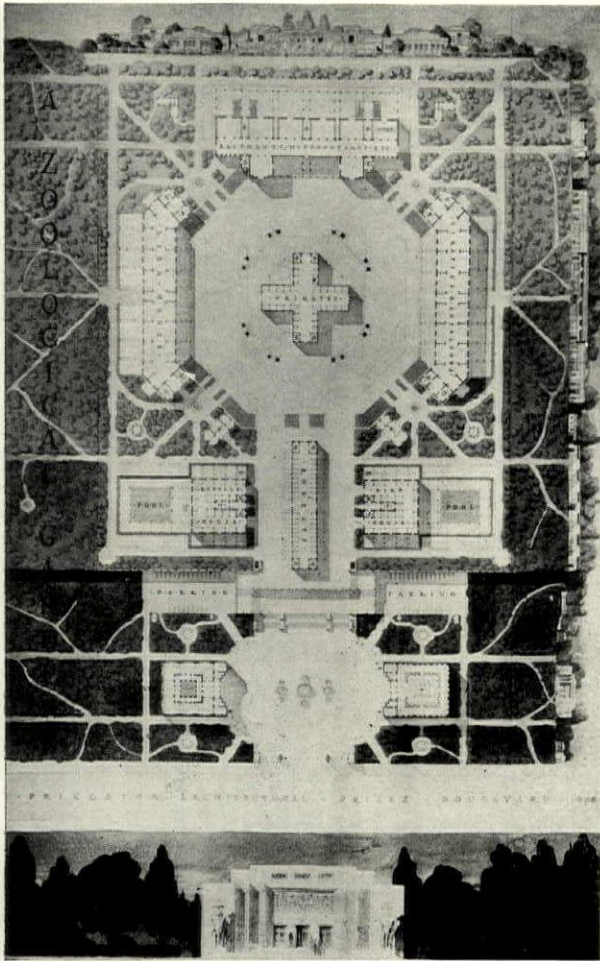
"The cost of building landing fields on the tops of buildings will not be great. A certain amount of zoning in the downtown sections will secure a certain amount of uniformity in the height of buildings so that their tops will be of the same level. With a stretch of roof height of even elevation, the cost of building a landing field would not be great. The construction of the buildings to hold up the field would not be expensive, nor would the building footings need be materially increased in size."



PRIZE DESIGN BY JAMES E. AGERBROAD
 PRINCETON ARCHITECTURAL PRIZE COMPETITION, 1928-1929—A GROUP OF BUILDINGS IN A ZOOLOGICAL GARDEN



PRIZE DESIGN BY WADE B. RUBOTTOM
 PRINCETON ARCHITECTURAL PRIZE COMPETITION, 1928-1929—A GROUP OF BUILDINGS IN A ZOOLOGICAL GARDEN



A ZOOLOGICAL GARDEN

HONORABLE MENTION DESIGN BY ALAN C. DAVOLL

Princeton Architectural Prize Competition

THE PRINCETON ARCHITECTURAL PRIZES

THE PRINCETON ARCHITECTURAL Prizes for the year 1928-1929 were won by James E. Agenbroad and Wade B. Rubottom, and honorable mentions were awarded to Alan C. Davoll of New York and Frank P. Rhinehart of Cleveland. Drawings for the two prize winners and Mr. Davoll's mention design are reproduced here.

The subject for the competition was "A Group of Buildings for a Zoological Garden" and the jury consisted of Messrs. A. M. Githens, George Howe, George S. Koyl, George Licht, Sherley W. Morgan, E. Baldwin Smith, and Jean Labatut.

The program called for the concentration of a group of buildings now scattered throughout a large city park so that they would be made more accessible both for scientific research and for public education and amusement.

Upon a plot measuring 550' x 900', adjacent to an important thoroughfare on one of the short sides, there were to be provided an administration building, a museum, a bird house, a lion house, a reptile house, a primates house, one or more rodent houses, and buildings for giraffes, antelopes, elephants, and hippopotami.

The Princeton Prizes are offered annually to draftsmen who have been employed in architects' offices for not less than three years. They are valued at \$800.00 each, in

addition to free tuition in the School of Architecture at Princeton University.

The only restrictions are that candidates for the prizes shall be unmarried male American citizens, not less than twenty-one nor more than thirty years of age at the time of entrance into the school.

The awards are made as a result of the competition in architectural design participated in by applicants who have satisfied the authorities as to their personal qualifications.

CHURCH BUILDING COMPETITION

THE CHRISTIAN HERALD has announced its First Protestant Church Building Competition. Prizes totaling \$1,200 will be offered. The churches must have been built since July 1, 1926 and may be of any style and of any material. The competition closes December 1, 1928. A complete announcement will be sent to interested architects on application to *Bureau of Church Planning*, Christian Herald, 419 Fourth Avenue, New York, N. Y.

LOS ANGELES ARCHITECTURAL CLUB NEWS

THE AUGUST MEETING of the Los Angeles Architectural Club equaled in interest the standard of the Club's monthly programs. The two speakers of the evening who brought subjects of unusual value before the members were W. G. Blossom, Field Sup't of Education of the Southern California Edison Co., and Wallace Waterfall, Chief Acoustical Engineer of the Celotex Co.

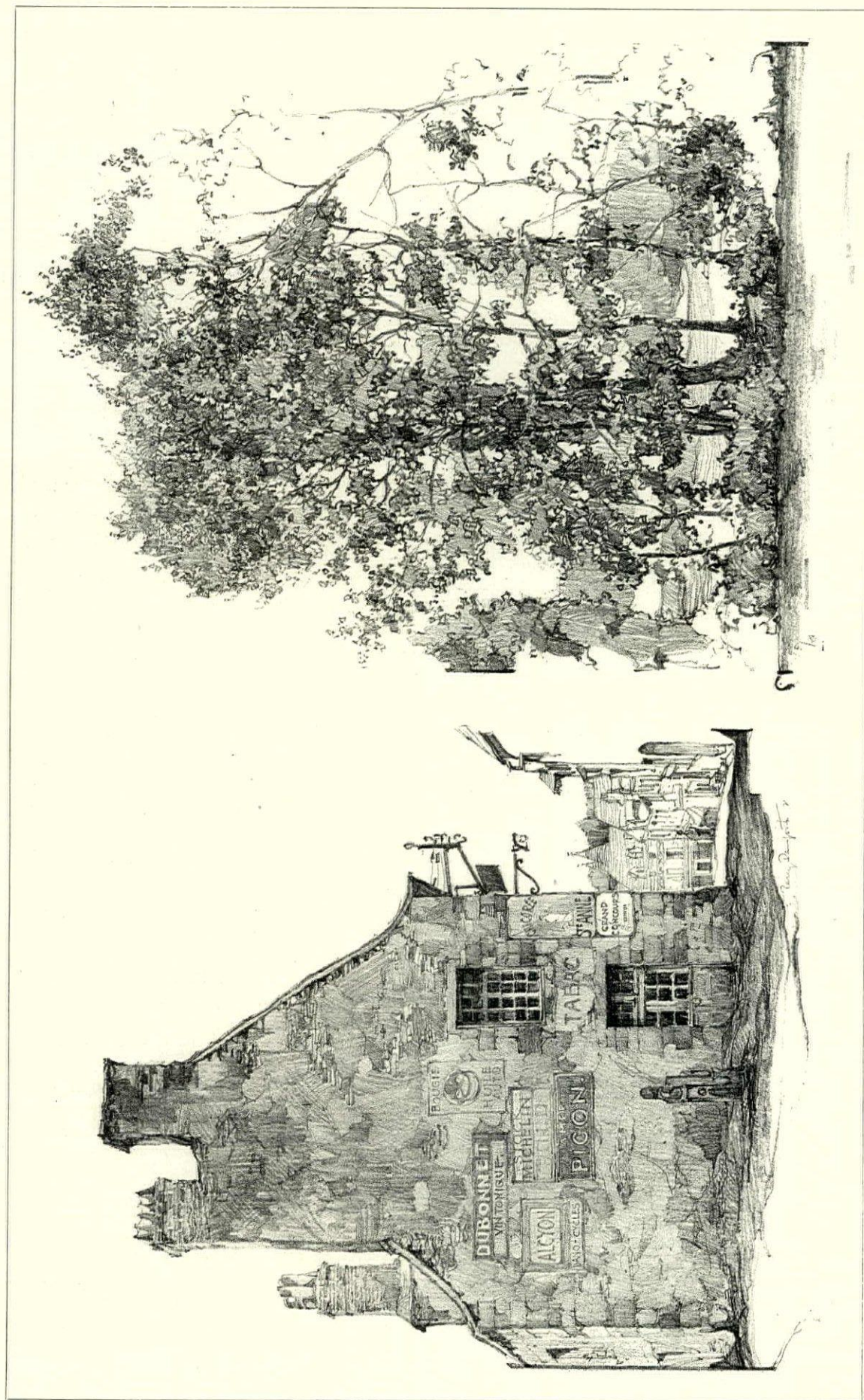
The first talk consisted of a description of the beginnings of the electrical industry, and the early development of steam and hydroelectric operations, along with a sketch of the Big Creek Project, which involves construction work entailing a total expenditure of \$375,000,000. Two reels of motion pictures depicting the activities of the Company in the High Sierras added to the general interest of this lecture.

The second speaker discussed the subject of Acoustics. He went into the subject of sound insulation and acoustics, both as to detail in new structures and correction in rooms already built. Demonstrations of the instruments used in this work were particularly enlightening.

The most delightful of recent Club affairs was the housewarming given by A. B. Heinsbergen at his new decorating studio on Beverly Blvd. Unusually attractive menus designed after the style of specifications made charming mementos of the occasion. Vaudeville acts from the Pantages circuit followed the delicious dinner.

Recently a Small Home Plan Bureau was established on the ground floor of the Architects' Bldg., under the supervision of the Los Angeles Architectural Club. Its aim is to furnish the modest home builder, who cannot afford the services of an architect, with plans for a house that will be at once beautiful and practical. By this means it hopes to raise the standard of architectural design in the community and to that end its plans are first approved by a committee of the Los Angeles Architectural Club.

Already in appreciation of the significance of its aim, the Builders' Exchange has turned over its collection of small house plans to be handled by the Bureau. In time the Bureau hopes to become an active architectural clinic where the small home builder can bring his building problems and have them solved so effectively that houses of bad design will disappear.



TWO LITHOGRAPH PENCIL SKETCHES BY PERCY DANFORTH—OLD HOUSE AND TREES AT JOSSELIN, BRITTANY

THE HOUSE BEAUTIFUL COVER COMPETITION

THE HOUSE BEAUTIFUL magazine announces its Seventh Annual Cover Competition and Exhibition in which the following prizes are to be awarded: First Prize—\$500; Second Prize—\$250; Special Student Prize—\$200 and a certificate of merit. In addition to these prizes it is the intention to purchase a number of other designs at \$200 each.

A copy of the conditions may be obtained from the Cover Competition Committee, *The House Beautiful*, 8 Arlington Street, Boston, Mass.

LETTERS OF AN ARCHITECT TO HIS NEPHEW

EDITOR'S NOTE:—*This is the fourteenth of a series of letters by William Rice Pearsall, Architect, of New York, addressed to young draftsmen and students about to take up the study of architecture. Mr. Pearsall, who may be addressed at 527 Fifth Avenue, New York, has expressed his willingness to answer any questions which may be addressed to him by our readers.*

September 10th, 1928

DEAR GEORGE:

This summer we have read considerably, or have had the opportunity to do so, regarding the Olympic Games. A large number of contestants represented various nations but we find that no one was entered unless he was a champion in his own field of sports. No one was trying for honors outside of his own specialty.

What has all that to do with Architecture?—well, it was a letter I recently received and from which I quote below, that prompted the thought.

"My education has been (only so far as) completing the grammar grades, three years of evening study at the Boston Architects' Club (now Analytique class) and some other evening and correspondence courses in electrical drafting, strength of materials, and mechanical drafting. I also had six months mechanical drafting (ending in architectural) at a vocational school, but as I thought my instructors were inefficient I left before completing my studies in algebra." The writer is now studying a Beaux Arts Course.

This letter has been answered personally but I quote the above extract to illustrate what I find to be an erroneous opinion of the meaning of the Architects' Work—the idea that the Architect must know everything.

The architect should have some knowledge of the various trades whose work goes in to complete the construction of any type of building, small or large, but he cannot have expert detailed knowledge of all the multitudinous details of each trade. The progress of any construction, therefore, is advanced and the cost lessened by coordination in proper sequence of the entire proposition from its first study in sketch form to completion.

Such coordination can only be successful through confidence on the part of each specialized expert in the directing head and in his fellow experts. Again there is brought into play the exercise of thoughtfulness for the other fellow—elimination of selfishness, jealousy, and distrust and the substitution for them of *service* to its fullest extent.

In the Architect's office the work must of necessity be divided. Each part is just as important as the other part. The draftsman, as a unit in the organization, has a part in the whole and should perform it to the best of his ability, concentrating on the development of the drawings and specifications, supplying details complete in the required form for the various trades, and giving sufficient

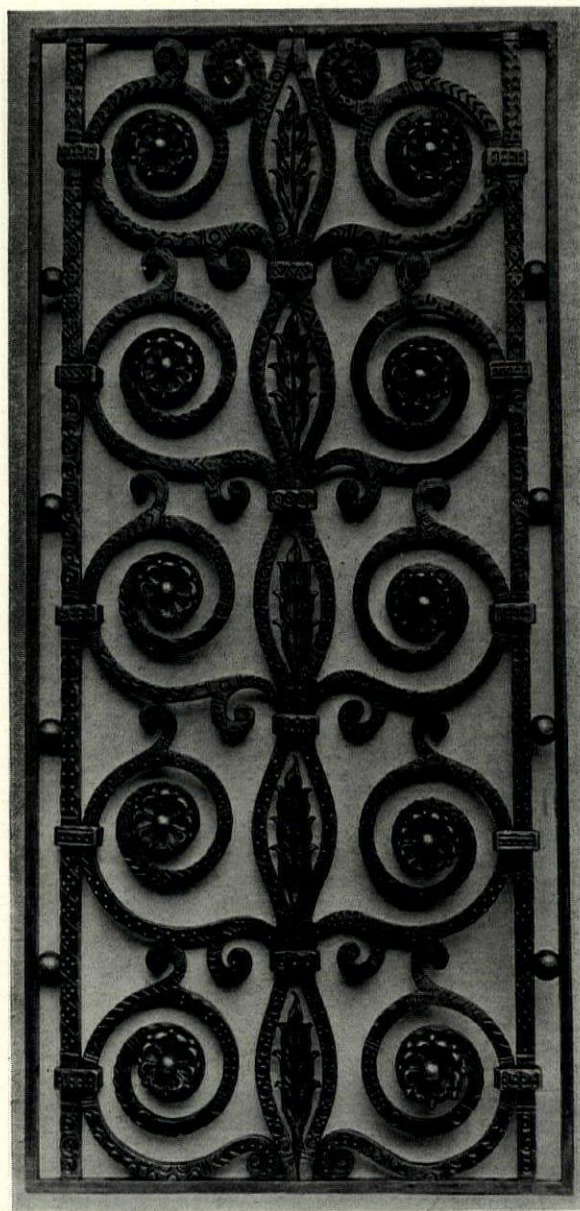
information regarding the adjoining work to allow for unimpeded progress in the shop and at the building for each individual part. The parts must all fit together properly.

We might more readily understand what is required of the draftsman if we think of a building as a picture or as a mechanical puzzle which can be solved only by study and intensive thought, directed so as to insure that each part is made so that when brought to the building it can be installed without cutting out previously erected work and causing expense and delay.

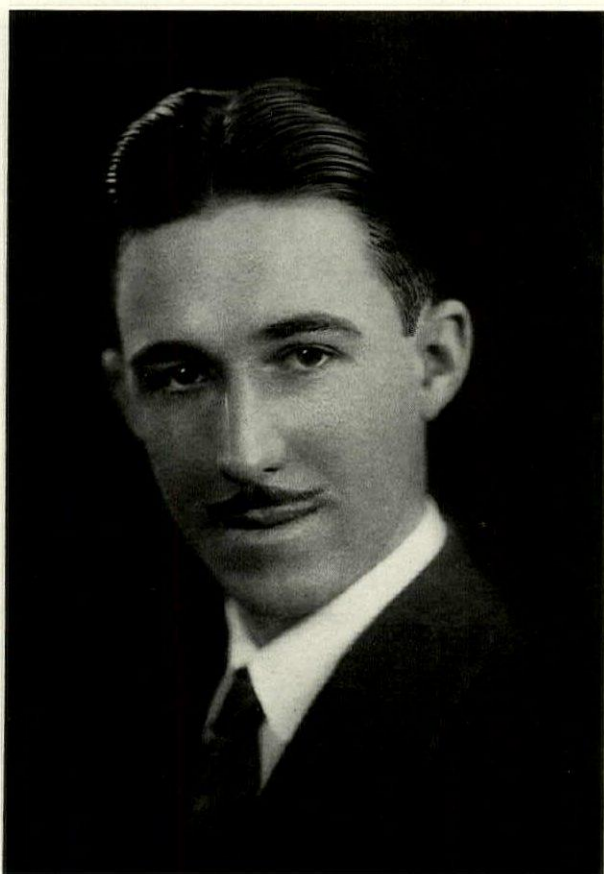
The student of Architecture will soon realize that he must decide whether he is gifted in the design or on the executive or construction side of the work, especially if he wants to have a part in the preparation of drawings and data for the efficient development of large projects including the building or buildings and their required surroundings.

Sincerely yours,

YOUR UNCLE.



WROUGHT IRON GRILLE
DESIGNED BY WALTER A. DE SAGER



JAMES MURRELL BENNETT

JAMES MURRELL BENNETT, winner of the Steedman Scholarship for 1928, was born in 1904, in Dallas, Texas. He received the B.A. degree from Southern Methodist University of Dallas at the age of eighteen, the youngest student on record at that institution to have received this degree. He began the study of architecture in the office of Herbert M. Greene, architect, of Dallas. In 1924 he entered the School of Architecture of Washington University in St. Louis, from which he graduated in June 1927 with final honors. He has worked during the last two years in the office of LaBeaume & Klein, architects, St. Louis, Mo.

The Steedman Fellowship carries an award of \$1500, and was established three years ago by George F. Steedman of St. Louis, and Mrs. Alexander Weddell of Mexico City, in memory of James Harrison Steedman, M.E., graduate of Washington University in 1889. During the war, while serving as assistant engineer on the United States steamship Oklahoma, Steedman refused to quit his post, although he knew he was suffering from a malady curable only by rest, and he died at the age of 50.

The fellowship is open on equal terms to all graduates in architecture of recognized architectural schools of the United States, and entitles the winner to spend one year abroad in travel and study.

The present award was determined by two competitions, the first for the best design for *An Artists' Guild*, and the second for the best design of *A Conservatory of Music*. On the basis of designs submitted the Jury, consisting of William Crowell, Samuel Allen, both of St. Louis, and A. N. Rebori of Chicago, selected from among seven competitors the work of Bennett as most worthy of recognition. His winning drawings are shown opposite.

NEW YORK ARCHITECTURAL CLUB TENNIS TOURNAMENT

THE FINALS of the 1928 Tennis Tournament of the New York Architectural Club were held on the estate of William Adams Delano at Syosset on Saturday, September 8th. Approximately seventy people in the architectural profession came out to enjoy Mr. Delano's hospitality.

Mr. George B. Kayser of James Gamble Rogers defeated Mr. Denholm D. McKie of Kenneth M. Murchison's office in a four set match 6-2, 2-6, 7-5, 6-3. Mr. McKie played an aggressive game but Mr. Kayser's steady stroking won out.

Mr. Kayser has won the William Adams Delano trophy three consecutive times and now has permanent possession of the cup.

Mr. A. V. Ferro of Post & McCord defeated Mr. J. Garry, of Thomas W. Lamb in a three set match 6-2, 4-6, 6-3 for the consolation cup.

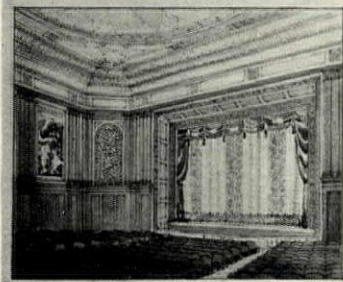
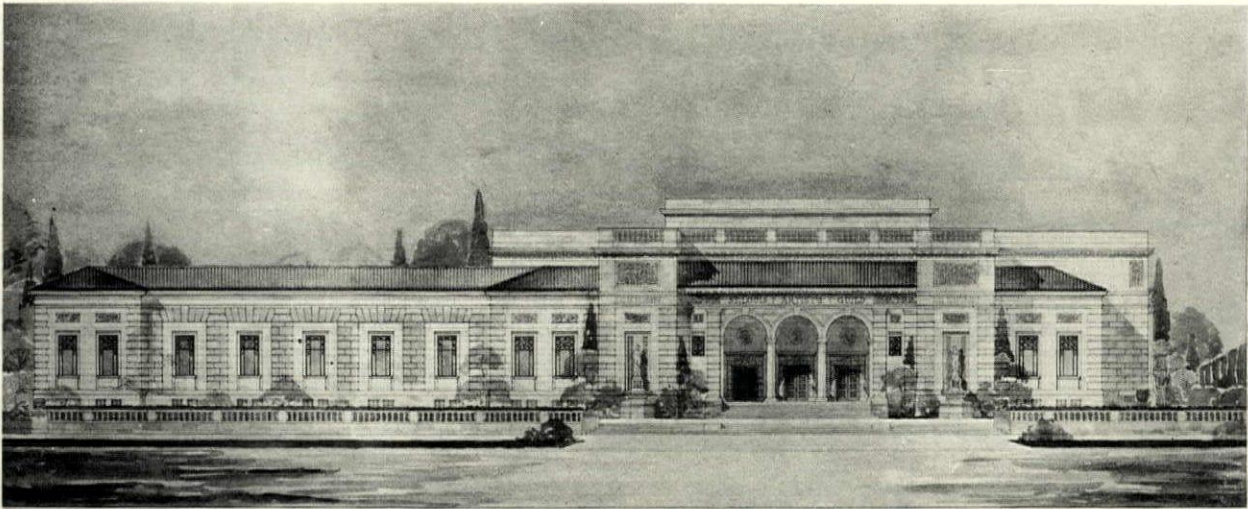
Mr. Kayser of James Gamble Rogers and Mr. McBurney of Peabody Wilson & Brown defeated Mr. J. Folger of Halsey McCormack & Helmer and Mr. H. M. Barone of Delano & Aldrich in the doubles tournament in fast straight sets 6-2, 6-2.

NEW YORK ARCHITECTURAL CLUB BASEBALL LEAGUE

Final Standing of the Teams, September 1928

Board of Education	Won 8	Lost 0	1.000
10 Lamb		7	
11 Schwartz & Gross		4	
18 Guilbert & Betelle		11	
12 Starrett & Van Vleck		4	
9 Cass Gilbert (default)		0	
13 Lamb		1	
5 Starrett & Van Vleck		0	
9 Warren & Wetmore		0	
		(default)	
Starrett & Van Vleck	Won 5	Lost 2	.715
16 Schwartz & Gross		0	
12 Warren & Wetmore		10	
2 Lamb		0	
18 Guilbert & Betelle		0	
9 Guilbert & Betelle		0	
		(default)	
Thomas Lamb	Won 3	Lost 3	.500
16 Cass Gilbert		15	
25 Schwartz & Gross		12	
6 Warren & Wetmore		4	
Warren & Wetmore	Won 2	Lost 3	.400
13 York & Sawyer		1	
7 Guilbert & Betelle		4	
Guilbert & Betelle	Won 3	Lost 5	.375
21 York & Sawyer		7	
5 Schwartz & Gross		3	
9 Cass Gilbert (default)		0	
York & Sawyer	Won 1	Lost 3	.225
13 Schwartz & Gross		1	
Cass Gilbert	Won 1	Lost 3	.225
3 Guilbert & Bettle		0	
Schwartz & Gross	Lost 4		.000

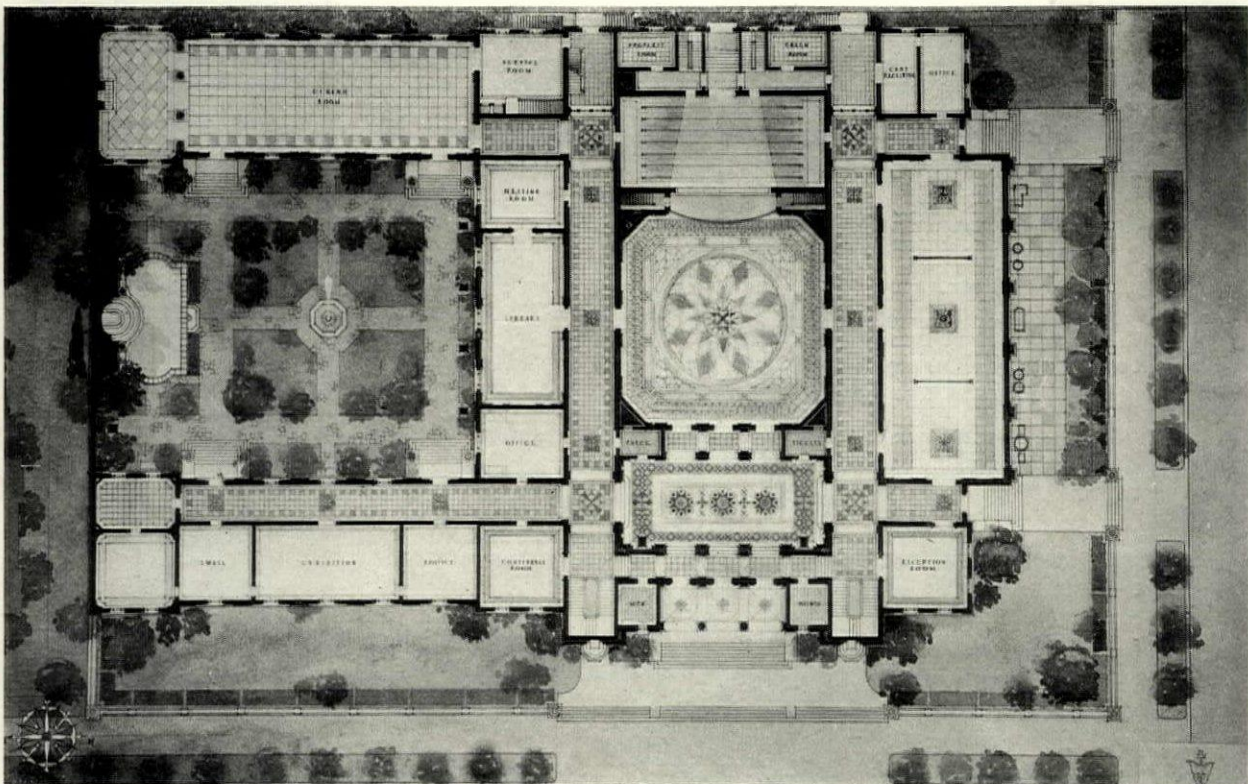
PENCIL POINTS



COMPETITION FOR THE
JAMES HARRISON STEEDMAN
FELLOWSHIP
IN ARCHITECTURE
MCMXXVIII

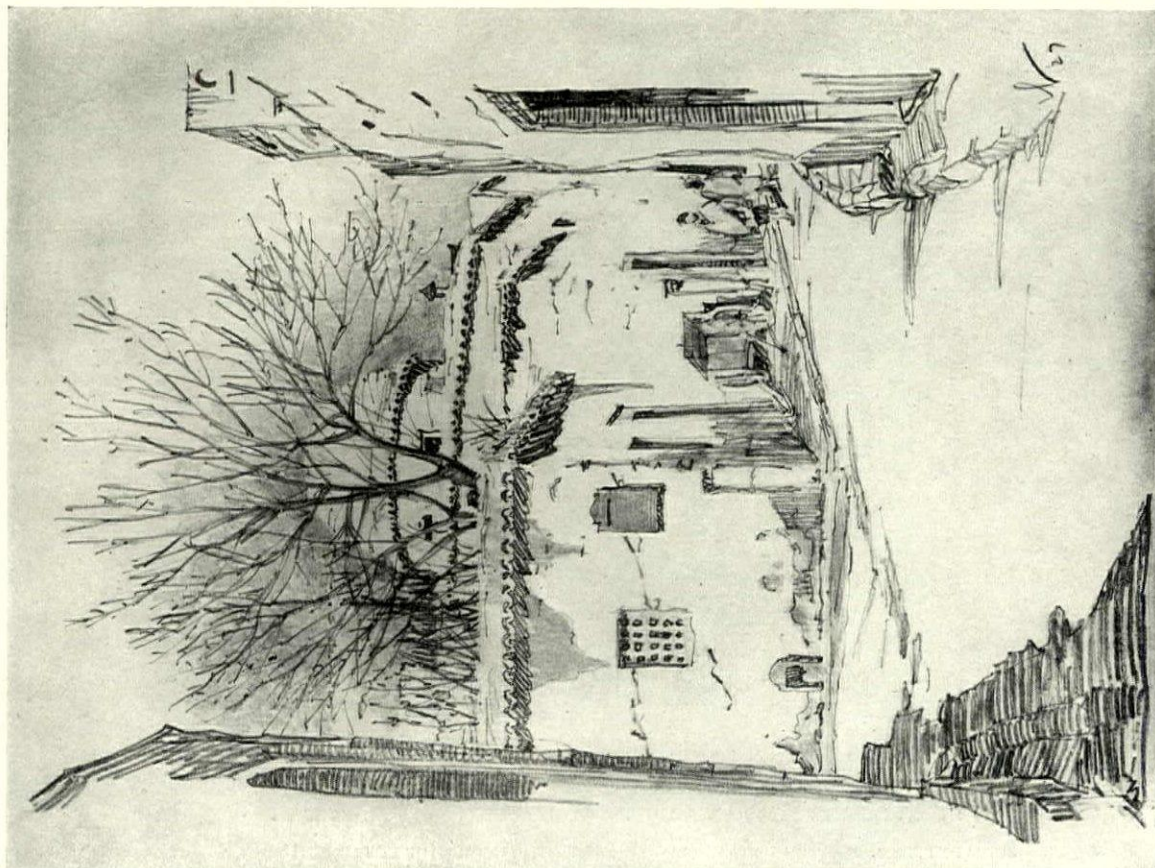


ELEVATION AND PERSPECTIVES

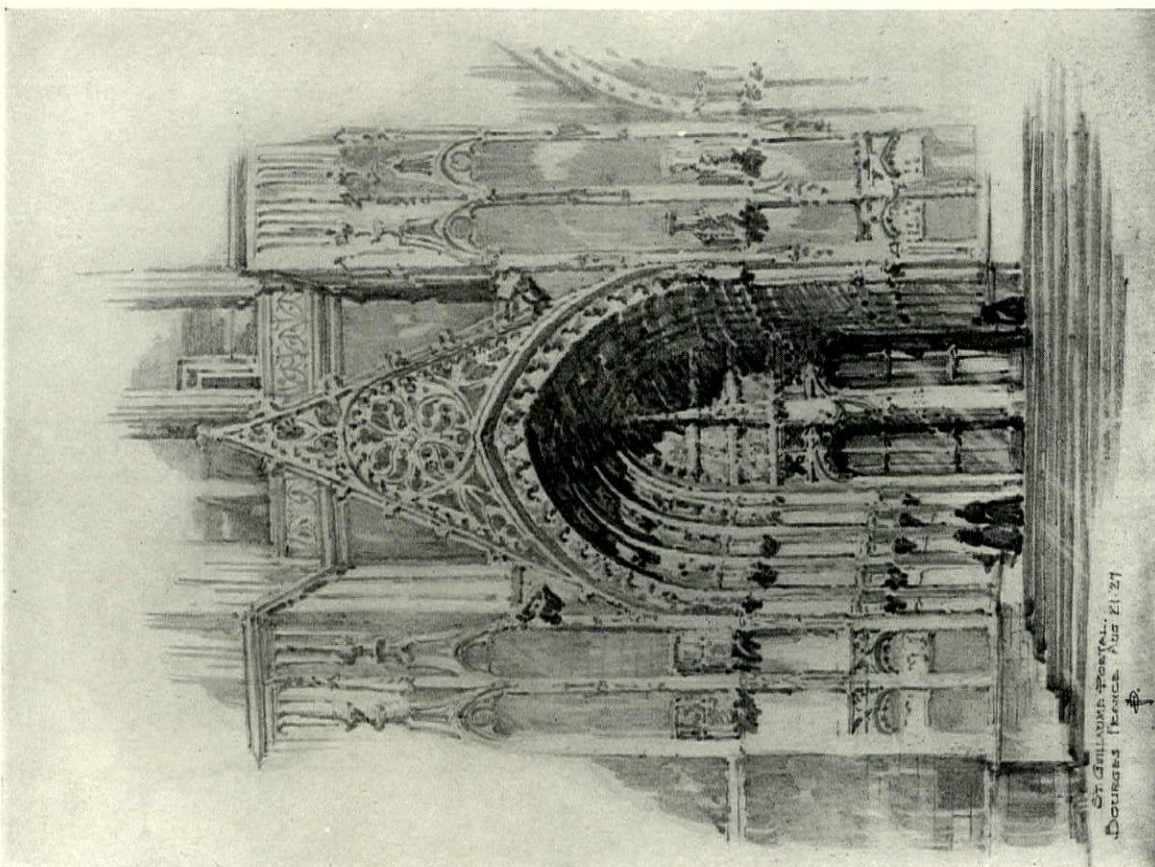


PLAN

WINNING DESIGN FOR "AN ARTISTS' GUILD," BY JAMES M. BENNETT
COMPETITION FOR THE STEEDMAN FELLOWSHIP IN ARCHITECTURE, 1928
(See text opposite)



PENCIL SKETCH BY SAMUEL G. WIENER
STREET SCENE IN TUNIS, NORTH AFRICA



PENCIL SKETCH BY JOHN E. DINWIDDIE
PORTAL OF ST. GUILLAUME AT BOURGES

DETROIT ARCHITECTURAL BOWLING LEAGUE

ON SEPTEMBER 21st we started our seventh season, again bowling on the Recreation alleys. Our team line-up is the same as for the past two years, viz: Donaldson & Meier; Janke, Venman & Krecke; Albert Kahn, Inc.; Louis Kamper, Inc.; Malcomson & Higginbotham; McGrath & Dohmen; Frank H. Nygren; Smith, Hinchman & Grylls; Van Leyen, Schilling & Keough; Weston & Ellington.

Our matchmaker this year is F. F. McCormick, 550 Twelfth Street, Detroit. Any suggestions from New York, Cleveland, or what have you to offer, will receive his immediate attention.

Who will be the first?

A NEW CHRISTMAS LABEL



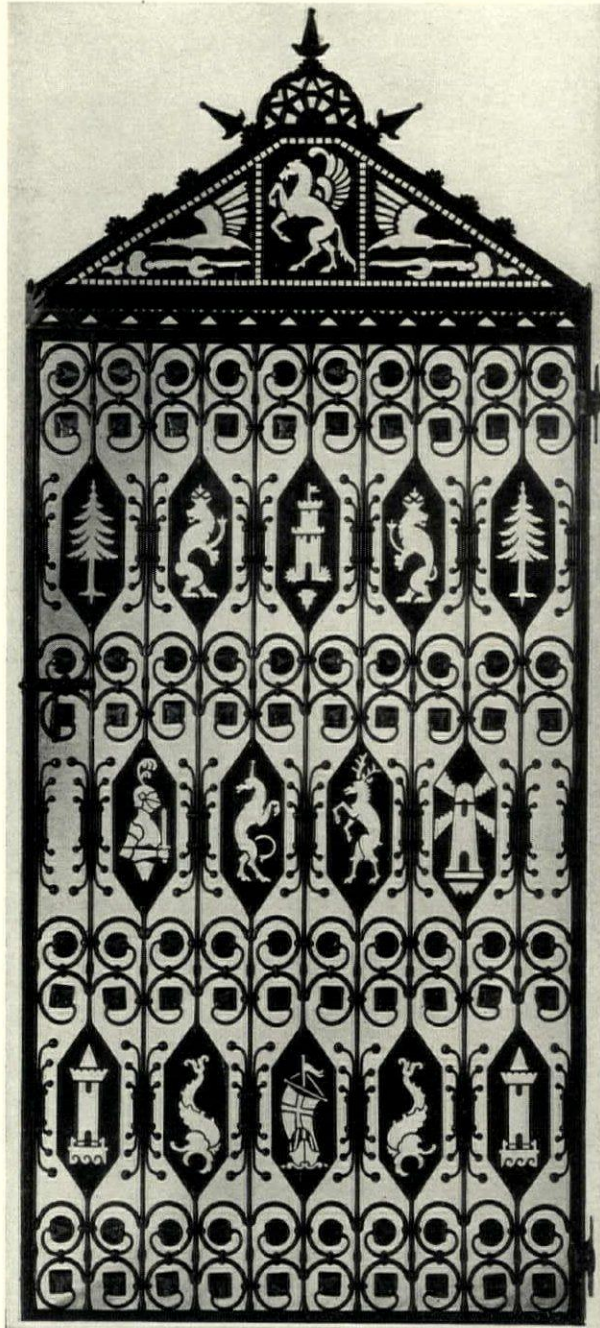
THE SLOGANS *Shop Early and Mail Early*, which have been so heartily endorsed in past years by the Retail Associations and the Post Office Department, have been adopted by the American Society for the Control of Cancer in the new label which it is this year offering for the first time for sale as a means of increasing the funds available for the work of cancer control. To these have been added another catchy phrase, *Let's put away till Christmas Day*, and the three together form an attractive label which makes a strong appeal, entirely apart from the purpose to which the proceeds from its sale are to be put. This purpose, as every one should now be aware, is the spreading of what the Society calls its Message of Hope: Cancer *is* curable when taken in time. Thousands of persons alive and well today attest to this fact, while thousands of others bear unhappy witness to the truth of the other saying: Delays are dangerous.

Cancer is the one great cause of death that in recent years has shown an increase in occurrence, not a decrease. While the death-rates from most of the other dreaded diseases have fallen, that from cancer has risen. The number of cases occurring annually can only be guessed at, since cancer is not a reportable disease, but it is known that during 1927 it caused approximately 110,000 deaths throughout the United States. What this means in suffering to the patients and to their families can not even be estimated, but viewed entirely from the economic side it has been determined that the money loss from these 110,000 deaths is practically eight hundred millions of dollars! Compared to this enormous annual loss, the small sum asked by the American Society for the Control of Cancer to enable it to carry on its educational work, through which many of these lives might have been saved, seems paltry indeed. The request is merely that you buy one or two dollars worth of these cheerful Christmas labels, which will brighten your Christmas packages. Perhaps by so doing you may make it possible for life-saving information to be placed in the hands of some one near and dear to you. In such a work no one can ask, "Who is my brother?" All are brethren who are in need of help.

Labels can be obtained from the New York City Committee of the Society at 34 East 75th Street.

IMPORTANT CHANGE IN N. Y. BUILDING CODE

THE BOARD OF ALDERMEN of the City of New York has adopted an amendment to Chapter 5 of the Code of Ordinances known as the Building Code, by increasing the working stress in structural steel. By this action the builders of New York City are insured a saving of approximately \$6,000,000.00 a year on current contracts for new structures. The amendment is known as "Introductory No. 140." It was based upon a standard specification of steel construction recommended by the American Institute of Steel Construction, Inc. The old building code permitted a basic working stress of 16,000 pounds per square inch. Under the amendment the basic working stress may be increased to 18,000 pounds per square inch.



WROUGHT IRON GRILLE DOOR BY OSCAR B. BACH

FOR MR. LLOYD FRANK, PORTLAND, OREGON

Herman Brookman, Architect

THE COLUMBUS MEMORIAL COMPETITION

MORE THAN ELEVEN hundred architects in fifty-six countries are receiving copies of the book containing the conditions of the architectural competition for the Columbus Memorial Lighthouse, which will be erected on the coast of the Dominican Republic. The Permanent Committee of the Governing Board of the Pan American Union at Washington, entrusted with the carrying out of the project, has fixed September 1st as the date on which the competition will begin. The project to honor the memory of the Discoverer by the erection of a lighthouse in the Dominican Republic has been agitated for many years, the campaign finally culminating in the adoption of a resolution at the Fifth Pan American Conference at Santiago, Chile, in 1923, recommending that the lighthouse be erected through the cooperation of the Governments and people of America, and any others who may so desire. It is in pursuance of this resolution that the Governing Board of the Pan American Union has taken the measures which have resulted in the present architectural competition.

The world-wide character of the competition and the plan to erect the monument through the cooperation of all the nations of the world, gives to the undertaking a real international significance. As stated in the Foreword of the book, "the great historical figure and his stupendous achievement which are to be commemorated, are already definitely situated in their historical perspective, and in their contemplation the competing architects will find the inspirational elements to evoke a full realization of their significance in the evolution of world civilization. To find the perfect symbol which will worthily represent the man and the deed to be commemorated, the artist must seek a universal viewpoint—his vision must include the five centuries of world history in which the discovery of America is the most transcendental fact. He must adjust his conception to the ample proportion of the picture of that historical epoch, in which stand forth in high relief the Renaissance, the civilization of the Spain of Isabella, the three American civilizations, native, colonial and modern, the transference of the classic routes of commerce from the inland Mediterranean to the limitless Atlantic and Pacific, and the influence of the New World in the ideological, economic and political orientation of western civilization."

The program and rules which are now being distributed by the Pan American Union state that the architectural competition will be divided into two stages, the first of which will be open to all architects without distinction of nationality, and will continue from September 1st to April 1, 1929. An International Jury of three, which will be selected by the competing architects, will select the ten designs possessing the greatest merit, the authors of which will each receive \$2,000. These winners will then re-compete for the final award. In the second competition \$10,000 will be paid to the author whose design is placed first, who will be declared the architect of the Lighthouse; \$7,500 to the author of the design placed second; \$5,000 to the design placed third; \$2,500 to the design placed fourth and \$1,000 to each of the other six competitors.

In the first stage of the competition the architects will be surrounded with a minimum of restrictions, the competitor being allowed the utmost freedom to express himself. The only mandatory requirements are that the memorial shall stand on a mound, or terrace or terraces, about forty feet high, in order that its base may be visible over the tree tops from every direction; that the structure shall contain a chapel large enough to receive the Colum-

bus Monument now in the Cathedral at Santo Domingo; that a museum be provided either as part of the chapel, or elsewhere, to contain such appropriate relics as may become available over a long term of years; that it shall support at least one great lantern. It is further suggested that the total height of the monument should not exceed six hundred feet; and that it be constructed on a properly protected structural steel frame, of reinforced concrete.

In addition, the competitors are requested to indicate a comprehensive development of the 2500-acre tract which will be set aside for the monument and adjacent park, providing for an official and residential center and for an airport measuring at least 2,000 x 3,000 feet and with a runway about a mile long, indicating a mooring-mast, hangars, repair shops, etc.

SAN FRANCISCO ARCHITECTURAL CLUB

A MONTHLY business meeting of the San Francisco Architectural Club was held September 5th, 1928 at 8:00 P. M., President Lawrence Keyser presiding. While August is ordinarily a quiet month in the club's affairs enough activity had been going on to lend interest to the meeting.

The question of obtaining a permanent place of abode for the club, not necessarily to involve owning a building, came up for discussion again and a committee was appointed to study the situation and see what could be done. Messrs. Monk, Renaud, Williams, and C. J. Sly, the originator of the idea, are now intrusted with the responsibility of solving the question.

The problem of where, why, and how to found a scholarship has been assigned to Messrs. Burnett, Jansen, and Nordin for its solution. They are to see that the work done toward this end in the past is not entirely lost and will strive also to find a means of increasing the fund so that it will eventually serve the purpose for which it was started.

Mr. Cole of the Gladding McBean Company invited the club members to a week-end trip and party at the Lincoln plant of the concern, and this affair took place on September 21st to 23rd. The club members met at the Sacramento River Boat at 6:30 P. M., Friday evening, and dinner was served on the boat. After an all-night trip on the river, automobiles from the Lincoln plant met the members Saturday morning as they left the boat and convoyed them thirty miles up the valley to the plant. Swimming and sports relieved the tension of the heat of the valley and after dinner the machines took the members back to the 6:30 boat which arrived in San Francisco Sunday morning.

Ira has planned a theatre party to take place October 9th at Alcazar and will give out the details at the next meeting. So hold your breath and wait. It will be worth it.

The atelier season will open September 28th and those interested are urged to get going on the first *projet* of the season. Scholarships are valuable and are available to those willing to work for them. The club has a reputation for walking off with a number of the most desirable ones and there should be no break in that process. So start early and get in trim for the big ones that will be coming along before long.

Rome Blas, holder of two scholarships, has written a humorous letter to the boys of his travels in Spain and Italy and promises to give the atelier the benefit of his travels when he arrives home. Harry Langley has taken a two months' sojourn to Utah for the National Park service. From there he may go to Reno.

THE PENCIL POINTS FILING SYSTEM

THE OUTLINE of the PENCIL POINTS Filing System, published in the August issue, has attracted several letters from Architects who are interested in the problem of filing architectural plates, photographs, and so on in such a way that they will be easy to find when they are needed. We are anxious, however, to have more critical comments so that we can, with their aid, make this system as nearly perfect as possible. Please, therefore, let us have your suggestions for modifications or improvements.

Leon F. Urbain, Architect, of Chicago writes as follows:

"I have looked over your filing system for architectural plates, which has just come to my desk, and as you are inviting criticism I am herewith offering a few of the suggestions that have come to my mind as I have looked this system over.

"Your subdivisions up to and including 'K' seem to be quite well thought out but, to my mind, your subdivision 'Details' under letter 'L' is entirely inadequate. A further objection which I would make on this subdivision is that it is entirely out of tune with the rest of the system. You make quite a point of the decimal subdivision possibilities which in all the other subdivisions is possible, but when you come to apply it to your 'L' subdivision it no longer works. I personally believe that this subdivision is very weak and would require a great deal more study than has actually been put on it. There is no reason that I can see for starting out with L-1 Wrought Iron, L-2 Bronze, and not continue with the other materials such as stone, glass, etc. There is a great deal closer relation between wrought iron and bronze than there is between wrought iron and stone. The first two could be combined but the latter two could not.

"Where would you file, in this file, 'gates and fences' for instance, supposing that they were not wrought iron or bronze?

"Where would you file spandrel sections?

"Where would you file such ornaments as cartouches, belt courses, wood carving?

"I believe that instead of using letters for subdivisions that the Dewey decimal index number could be used similar to the method that has been employed by the A.I.A. for the classification of catalogs. This would give you a much longer and more flexible divisional possibility and all of the subdivisions could be uniform and on a decimal basis.

"I think that you are to be congratulated for your initiative in tackling this problem. It is one that should have been tackled a long time ago by somebody because the large majority of architects' offices are today in just the condition that you outlined in your preface. There has never been to my knowledge a real classification system for architectural plates outside of the special systems employed by various architects, systems which have been made up by their own office.

"We employ in our office the A.I.A. system of catalog filing and we have found it very efficient and very complete. A similar system for architectural plates would be of very material help and I hope that you continue with this matter and push it to a successful completion."

It is precisely this sort of criticism that we are after and that is going to make it possible to perfect the system. It is quite true that the subdivision of group "L" needs further study to make it cover all the details which are likely to require filing under separate heads. Perhaps there should be inserted, immediately after Wrought Iron and Bronze, headings for Stone, Wood, and other materials. These would take care of Mr. Urbain's question

regarding the filing of cartouches, belt courses, and wood-carving provided they would not be appropriately taken care of by L-4, Exterior Walls, L-8, Interior Walls, and P, Interior Decoration and Furnishings. Spandrel Sections might well be placed under N, Details of Construction. Gates and Fences might be given a special heading under Details if they could not be placed with the building to which they belonged or under Q, Landscape Features.

In regard to the use of decimals for sub-divisions, that is exactly what is called for by the instructions in the fourth paragraph of the outline of the system as published on page 527 of the August issue of PENCIL POINTS. We adopted letters instead of figures for the *main* headings to avoid possible confusion, but each user of the system may subdivide the *sub*-headings by decimals as needed.

When we have received a number of criticisms and suggestions about the system we expect to make them the basis for whatever revision is found desirable. We will then publish the final form it takes and, if there is sufficient interest, we will manufacture and offer for sale at fair prices the necessary forms and folders.

Flint and Broad, Architects, of Dallas, Texas, tell us:

"We have revised the filing system for architectural plates in our office in accordance with the system shown in the August issue of PENCIL POINTS, with some slight deviations which it seems to us are better for our particular use, and might possibly be so for others.

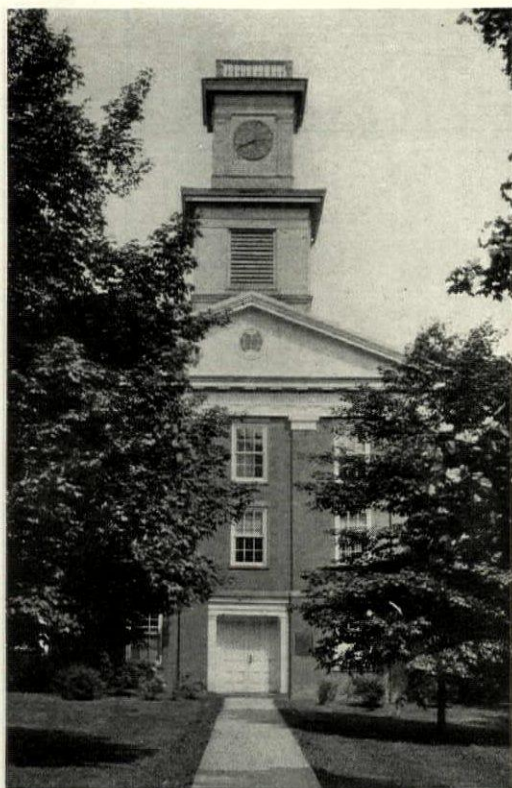
"We are inclosing a copy of our index for your information. You will note that your heading M, Measured Drawings, we have changed to heading M, Period Plates. This represents a class of plates, which could not well be filed under any of the classes of buildings, which you have outlined, and which might be applicable to various types. Our Measured Drawings you will see we have put in subheadings under the various classifications outlined. We believe this to be better, as it brings those of a particular class to the place in the file where they would be wanted for that particular kind of work."



DRAWING BY HAROLD FIELD KELLOGG

PUBLIC SERVICE BUILDING, BOSTON, UNDER CONSTRUCTION

[672]



CHAPEL AT WESTERN RESERVE COLLEGE

SOME OLD BUILDINGS IN THE WESTERN RESERVE

By Charles Dewey

THOSE OF ARCHITECTURAL predilections who have contracted the good old American habit of sight-seeing may gain some inspiration in a part of northern Ohio colloquially called the Western Reserve. It is a section containing some interesting old buildings, of which a few of the finest are located in the little village of Hudson.

The Western Reserve, in which Hudson was one of the earliest settlements, was originally a tract of land held jointly by Connecticut and Virginia, who ceded it to the United States in 1800. Virginia and Connecticut played a significant part in the development of northern Ohio. Much of their culture, as manifested in architecture, furniture, and utensils, was transported to their western estate, and evidences of it still remain in several spots.

All of the very old buildings standing in Hudson today were a part of, or an annex to, the old Western Reserve College. At its origin the College was conceived to be theological in purpose, and so drew Yale graduates from the East to form the majority of its faculty. These men were thoroughly saturated with Colonial culture, and quite naturally used Yale prototypes for the first four buildings which were constructed; the Chapel, and North, Middle, and South Colleges.

The Chapel, according to the inscription on a bronze plate at its entrance, was dedicated in 1836. A snapshot of its front elevation is reproduced here. The wooden architrave and frieze, shown in the measured drawing, are discontinued on the side and rear elevations, and segmental brick arches take their place.

The Chapel auditorium occupies all of the second and third stories. Its floor is carried by two rows of square piers in the first story, which line with pilasters on the

front and side elevations. Access to the auditorium is gained by stairways at either side of the front entrance. The stair balustrade is quite graceful, and is shown in the sheet of details opposite.

It is a curious fact that the walls of the building have a batter of about one inch in ten feet. The batter is also a curved line, scarcely discernible at the base, but quite obvious at the cornice. In fact, it seems to be a plain example of entasis. The walls of North College exhibit the same construction.

During the year 1838 the little one-story Loomis Observatory was built. The brick wall above the base of three stone courses is laid in Flemish bond. The windows have nine lights in the upper sash, and six in the lower. The sash might appropriately be called double-pegged, rather than double-hung.

Just a few steps from the Chapel there stands a house built in 1830 which has been the dwelling of a long line of Western Reserve College faculty members. Its charming interior contains the fireplace shown in the measured drawing. The woodwork was entirely fashioned by hand. The mouldings are quite graceful—especially the base of the twin columns, while the reed ornament on the columns and in the torus moulding is very delicately done.

Several other interesting old buildings remain in Hudson and nearby. For example, there is an old stone house with an entrance which seems to be derived from a distyle-in-antis temple façade combined with the south door of the Erechtheum. And, leaving Hudson, an occasional old building is found here and there about the countryside, or tucked away in a little village.

PASADENA ARCHITECTURAL CLUB

ONE OF THE MAJOR activities of the Pasadena Architectural Club is the recent development of a life class. The need for freehand drawing as an aid to architectural designing and detailing, and the development of an artistic sense was realized by a few of the club members who were attending other life classes. It became apparent that these benefits could be made available to many more of the club members if a club class was started, with fees low enough to be attractive to all. Mr. Robert Stanton offered the use of his studio and the first class was held on June 13th.

Classes have been held weekly since that date and a total of twenty-five men have appeared, with an average attendance of fifteen at each class. Refreshments have been served by Mrs. Stanton, whose kindly services as hostess have contributed largely to the success of the class. A very congenial studio atmosphere has been created resulting in a marked enthusiasm for the work. Some of the members have taken up pastel drawing as well as charcoal. Others have begun modeling in clay under the guidance of Mr. Manuelli.

Criticism of the drawings has been very generously given by Alson Clark, noted Southern California artist, and by E. Roscoe Schrader, Dean of Otis Art Institute, for which the club is very grateful.

Orrin F. Stone, committeeman in charge of education, has appointed Mark W. Ellsworth to head the life class. Mr. Stone is planning many other interesting activities of an educational nature, such as an atelier for the study of architectural design, and classes in architectural rendering.

Classes are held every Thursday night from 7:30 to 10:30. The class is not limited to members of the Architectural Club, and interested outsiders are urged to get in touch with either Mr. Stone or Mr. Ellsworth at the office of Wallace Neff, Architect.

HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

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 fifteenth 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 EDITORS and proprietors of this department have been taking it easy this month—"a much needed rest," they call it—so the compilation has been in the hands of our old friend Salvador Gloop, who kindly took time off from his arduous professional activities as a photographer of eclipses to help patch things together. By the time this issue appears he will be well on his way to a distant part of Anatolia, so that any complaints about his editorial activities here will, we are afraid, have to go unrectified. In awarding the prizes for this month's competitions he had a free hand and nobly responded by showing no favoritism to competitors from any locality, even passing over entries from his native town of Aberystwyth to bestow the coveted pasteboard checks on denizens of some of our more exclusive American and Canadian cities as follows:

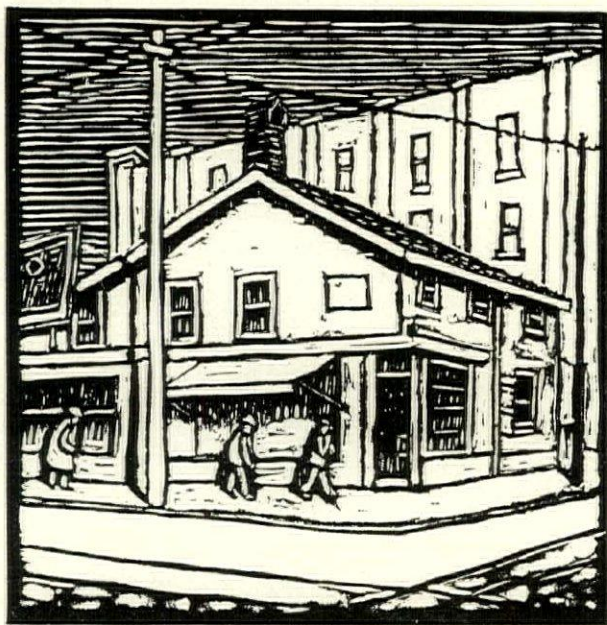
Class I—Paul J. Wiesler of St. Louis.

Class II—Lila French of Minneapolis.

Class III—W. Honack of Chicago.

Class IV—W. F. G. Godfrey of Toronto.

Mr. Gloop, who was escorted to the pier by a throng of installment collectors, gave them the following statement as he ran up the gangplank: "You can't have everything, but you can have quite a lot if you win the latest HandTandTandT competition (see page 676). Not even the Editors know what the prizes will be but they will be appropriate for house-party use, so you can expect anything from a ten-quart hip-flask to a suit of mauve silk pajamas."



"OLD BOOK STORE"—BLOCK PRINT BY W. F. G. GODFREY

(PRIZE—Class Four—September Competition)



PENCIL SKETCH BY PAUL J. WIESLER

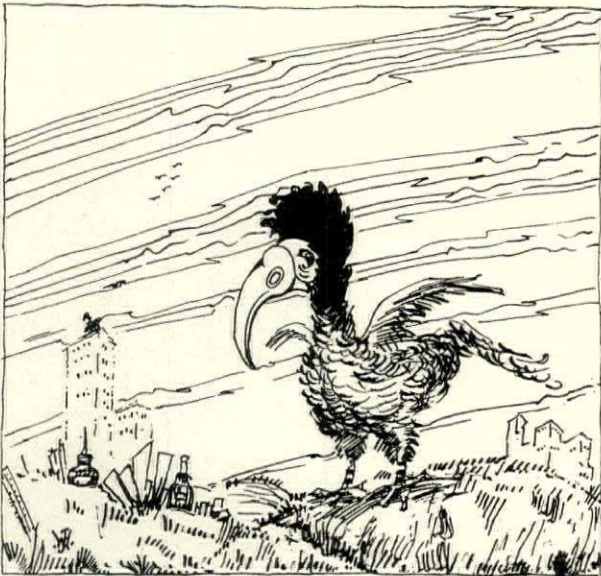
(PRIZE—Class One—September Competition)

THE PLAN

(PRIZE—Class Two—September Competition)

By Lila French

Deep in thoughtful reverie,
Nervous, jerky hands;
Hair a-ruffle; smock awry;
Paint in smears and bands.
Tracing paper on the floor,
Blueprints in a mess;
Ink spilled down the cupboard door;
Trousers out of press.
Everything turned upside down,
Every one looks blue;
What has happened to the Boss?
What's he going to do?
Explanations come at last,
And on the drafting-board
Is laid the finished sketch and plan
Of—a Built-in Ironing-Board.



CARTOON AND TEXT BY W. J. HONACK
(PRIZE—Class Three—September Competition)

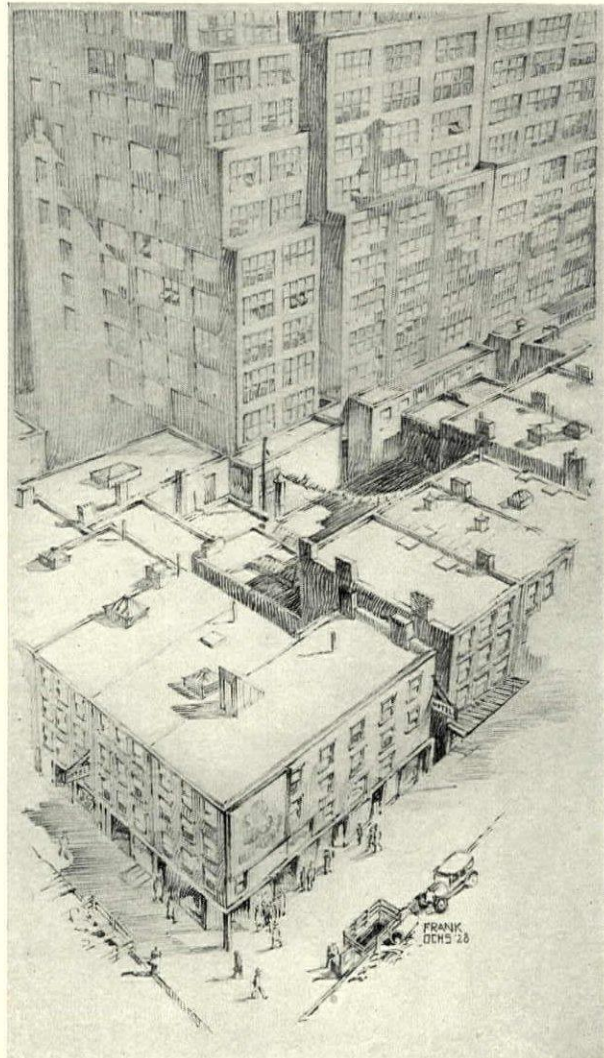
BIRDS I HAVE QUIZZED

The Arch-itoddle (Rulus Stratedge)

A BIRD (not shy) found all over the North American Continent, half right, half wrong. Is to be found nearest large cities. Works day and night, feeds on blue-prints, absorbs India ink, and roosts on drafting tables.

In early stage is quite tame, later is apt to become unruly, listless, from contact with clients whose pet views of architecture are more than a trifle lopsided. Has a curved beak and nests in tall buildings, it early develops a gentle pliant disposition from eating art-gum and chewing kneaded-rubber erasers; absorbs small tender blotters as this is considered quite a delicacy. Is very gentle till aroused and then can only be stilled by one or more rich clients.

Believes that there is safety in numbers and will try to peck them off of every ruler. This species increases yearly.



"FROM MY OFFICE WINDOW"

PENCIL SKETCH ON CAMEO PAPER BY FRANK OCHS

The unusual point of view chosen makes this sketch particularly interesting as an example of perspective.

THE FIVE AGES OF CONSTRUCTION

Reprinted from The New York World's "Conning Tower"

'Swunnaful how them shovels eats dirt, ain't it? See her bust right through that wall? One them things cert'n'y throws a lot o' men out o' work, don't it? I kin remember when this proppity could 'a been bought for almost nothin'. Wonner if he's gonna be able to pick up that big fellow. By gosh, he done it! 'Swunnaful, ain't it?

* * * *

Wonner how far them foundations go down. Must take a lot o' cement to fill up them holes, huh? You said it! My gran'father could o' bought some o' this proppity when you could get it for \$10 a acre. Wonner them foundations hold all that weight ain't it? Them cement mixers must throw a lot o' men out of work, huh? See how they pour the cement through them pipes? 'Swunnaful, ain't it?

* * * *

Close that window, Miss Smith; the racket's enough to drive you crazy. Gaw's sake, George, how do you ever get any work done with those damned riveters goin'. My notes show it's the way I got it, Mr. Hen-

derson; mebbe those hammers were goin' so's I couldn't hear—those fellows climb around like a lot of monkeys, don't they? My brother owned some of that ground thirty years ago; if he'd only held on to it he wouldn't have to worry none now. Look at that fellow ridin' that derrick! 'Swunnaful, ain't it?

* * * *

'Swunnaful how they start puttin' on the bricks in the middle of the buildin', ain't it? You wouldn't think them bricks would hold, the way they slap 'em on, would you? Them elevators throws a lot of hod-carriers out of employment, don't they? My aunt owned this proppity when it was worth about a dollar a foot; wish she'd held on to it. Well, what do you know about that? I was here yestiddy and they was on'y up to the sixth floor. 'Swunnaful, ain't it?

* * * *

Ever see anything like it; no sonner'n they get 'em up than they start tearin' 'em down again! 'Swunnaful, ain't it?

JOSEPH FULLING FISHMAN

FIASCO

By Meredith McCullough

Lars Porsenna, the Finn ship owner, by the nine gods he swore

That he upon Park Avenue a flat would rent no more.
By Nordic gods he swore it, and named a certain day
On which to talk to architects, to find what he must pay
To build a mansion worthy of a baron of the sea.

He was much intrigued by sketches—(as long as they were free).

The architects they came in droves, from north, east, west,
and south,

Like gulls upon a great ship's wake, fair watering at the mouth.

Some came in sedan limousines, with footman and chauffeur,

With atmosphere sophisticate, *en mode de grand seigneur*.
A few arrived in rusty flivvers. Several came in hacks.

Hot foot for old Lars' office, they one and all made tracks.

Each sang his own especial tune, and pulled out all the stops,

With paintings, drawings, rendered plans, and all the other props.

A-slaming his competitors as deftly as he could,
While trying to make the old man say "This fellow must be good."

Old Lars put on his poker face. He carefully took their names,

Then gave the job, lock, stock, and barrel, to shyster Artful James.

To look at James, you'd not have thought that he was worth a sou.

Unpressed, untidy, linen-frayed, and most unshined of shoe.

Throughout the year he always wore a dented cast-iron hat.
He never trimmed his sawtooth beard. He was inclined to fat.

And since he had a lot of work it seemed a paradox
That he had no provision made for holding up his socks.

James made the "contract documents" in fourteen hours time.

As information those who bid said they weren't worth a dime.

Imagination only could tell them what to do:

Trusting to bluff and extras to see the project through.
The work was let. The concrete was overfull of sand.

The mortar wouldn't set. The bricks came right out in your hand.

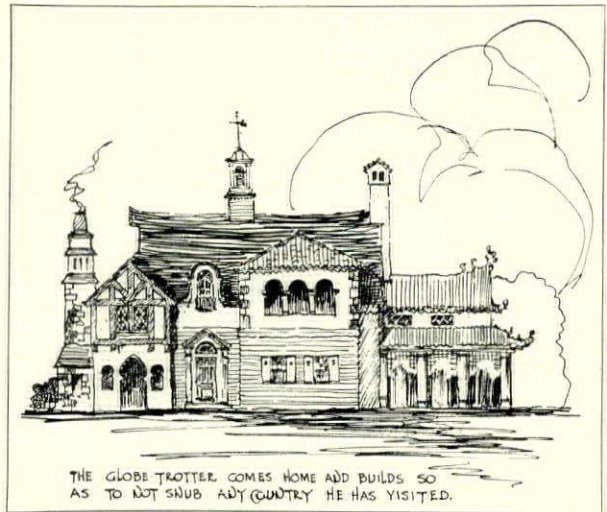
The mitres opened, panels, warped, showed white at every mould.

The Norseman's berserk anger was quite fearful to behold.

He wouldn't pay a single bill, he was so hot and riled.

Things were in such an awful state the contractors all filed.

And when Porsenna's lawyer came to total up the liens
He wore out all the figures on two calculating machines.



FANTASY BY H. C. KNEBEL OF NEW YORK

COMPETITION FOR A HOUSE PARTY BUNGALOW

THE TWO MOST RECENT competitions conducted by this department, those for a *Built-In Ash Tray* and for a *Suburban Love Nest* or "Snuggery," have raised such widespread interest that we are encouraged to offer and do offer herewith a third competition for a *House Party Bungalow* which shall be designed and planned properly to house and accommodate the modern house party.

The house party originally, as we understand it, an English institution, years ago jumped across the ocean and became prevalent on Long Island and has now spread throughout the length and breadth of our land. House parties are now being thrown in large numbers and at all seasons of the year in all parts of the country, with the possible exception of that area described as the Great American Desert.

But the thing is not being done right! People try to give house parties in all kinds of houses not designed with reference to the special requirements called for with the unfortunate result that many a house party which might, if properly housed, turn out to be a conspicuous success results in a terrible flop.

So the Editors of this Department deem it to be their duty at least to make an attempt to remedy this unfortunate situation by offering a competition which shall in measure at least bring to the problem the best architectural thought in the country so that it may enjoy the support and extensive study which it so richly deserves.

PROBLEM: A suitable structure on one floor (stairs are frequently a nuisance) to accommodate a man and his wife (host and hostess) three other married couples, one bachelor and two spinsters.

PLOT: 150' x 150', located either at the seashore, in the mountains, or anywhere else. Suitable provision should be made for all manner of outdoor and indoor sports, always bearing in mind that it may rain or snow during the progress of the event rendering the tennis courts, golf course and swimming pool temporarily unavailable. Porches, verandas and other adequate spaces for substitute pastimes should be considered. A cooling plant is desirable but not mandatory. Circulation should be considered. How to get from one place to another with speed and a minimum of difficulty are matters of great importance.

(Continued on page 677)

THESE CHILDREN NEED HOMES

The readers of PENCIL POINTS will recall that from time to time we have published the pictures and stories of children who are being cared for by the State Charities Aid Association of New York City. Several children have found desirable homes as a result of this activity on our part and so we are showing the pictures of four more children now available for adoption. Let it be explained that legal adoption is not necessary if those making a place for the children in their homes prefer not to take this step.



ROBERT

ROBERT is a brown-haired boy of eleven years with a twinkle in his eye and an animated expression. He is American, Protestant. Robert might be called a typical American Boy. He is independent, makes friends easily, is honest and fond of outdoor sports. He is responsive and full of "pep." Robert likes school and does well in his lessons.

HAROLD is a sturdy, well-proportioned boy with fair hair and blue eyes. He is Protestant and of German parentage. He has been in a boys' camp and is very tanned and healthy looking. Harold is neat and intelligent and has special mechanical ability. He likes boys his own age and has a happy, cheerful expression.



HAROLD

HELEN is a rather serious little blue-eyed girl, born of Protestant, American parents. She is twelve years old. She is a tidy little girl and would love to have a home of her own.

ANNETTE is only six years old, but she is very bright and when her lively nature gets the better of her, can be appealed to by reasoning. She is a sensitive child with a radiant smile and attractive dark eyes. Annette is Catholic. She is a very interesting little girl.



HELEN



ANNETTE

Complete information regarding these children, and lots of others, can be secured by addressing *Miss Sophie Van S. Theis, State Charities Aid Association, 22nd Street and 4th Avenue, New York, N. Y.*

COMPETITION FOR A HOUSE-PARTY BUNGALOW (CONTINUED)

DRAWINGS REQUIRED: Plot plan, locating bungalow and any other features deemed by the competitor to be essential. Elevation of bungalow with floor plan. Drawings must be either in pen and ink or pencil, all colors are barred. White paper should be used. Drawings may be made to any scale and submitted on a sheet of any size.

BASIS OF JUDGMENT: *First:* Superiority of the building for the purpose, taking fully into consideration the practical requirements of the building.

Second: The expression in the design of the joyous and carefree objectives sought in the conduct of a house party. As we understand it the idea is to have a good time no matter how hard you have to work at it.

Third: Superiority of draftsmanship.

Originality and a clever solution will count more with the jury than technical excellence of the drawings, but other things being equal the better drawings will be given preference.

ENTRANCE FEE: None.

PRIZES: Suitable to the event and to be selected by the jury.

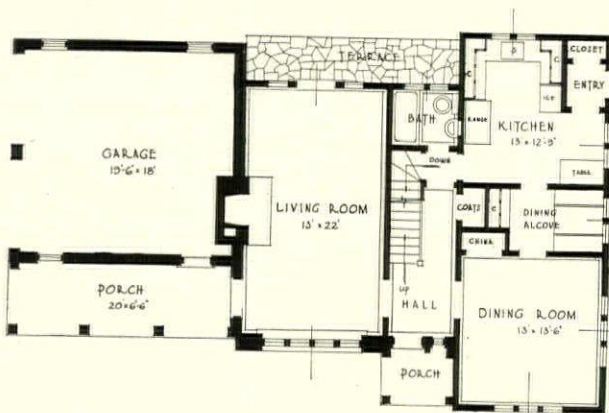
JURY: The editors of this department.

DATE FOR SUBMITTING DRAWINGS: Drawings to be considered in this competition must be received at this office not later than 5 P. M. Eastern Standard Time, Thursday, November 15, 1928. All the prize winners will be announced in this department in the issue for December.

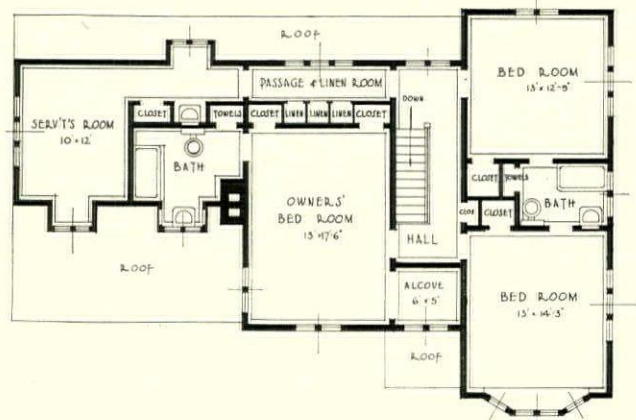
PENCIL POINTS



PENCIL RENDERING BY DAVID ABRAHAMS



First Floor Plan



Second Floor Plan

DESIGN FOR A RESIDENCE IN STONE AND STUCCO

DAVID ABRAHAMS, ARCHITECT, BOSTON, MASS.



THE SPECIFICATION DESK

A Department for the Specification Writer

THE PREPARATION OF SPECIFICATIONS

By Charles D. White

LOCKWOOD GREENE ENGINEERS, INC.

EDITOR'S NOTE:—Mr. White has for a number of years been a Specification Writer and Office Manager in the organization of Lockwood Greene Engineers, Inc., of Boston, after an apprenticeship as an Architectural Draftsman, seven years at the head of his own office, and experience in the offices of several Boston Architects who were specialists in their class of work.



CHARLES D. WHITE

THE SUBJECT OF Specification Writing has been so thoroughly covered by the splendid and enlightening articles that have been appearing in PENCIL POINTS by men of position and experience in this field, it would seem that little more of interest on the subject could be added. To the fund of information already printed, the writer can only add some results of his own experience gained in the endeavor to produce, as rapidly and easily

as possible, specifications which would stand the test of actual use and obtain the results desired without extras and without undue friction.

Based on a varied experience in the preparation of specifications and their actual use on the work, the writer is convinced that there is no easy road to the preparation of successful specifications and that there is more to it than the mere assembling of certain phrases and sections which appear to serve the purpose required.

To prepare proper and practicable specifications requires experience in the field, a knowledge of materials, their proper use and respective costs, as well as of drafting methods and legal complications. A constant study of new materials and methods of doing work must be made. The study and comparison of specifications prepared by others is of great value in broadening the knowledge of the specification writer and preventing the paralysis of dry rot and antiquated methods.

The use of simple, clear and concise English, the logical arrangement of the sections, and the paragraphs in the sections to follow the usual procedure of the work are well established requirements.

To this end, the use of a Standard Specification has firmly established its undeniable value.

Time and experience have proven beyond all arguments the need of and the benefits to be derived from a well developed Standard, not to be issued in part or in whole

for any particular work, but to serve as a record of information and procedure.

By its use the clearest, most complete and logical manner of expressing requirements of the contract may be easily and readily incorporated in the specifications for any particular job.

A Standard Specification to be issued as such does not give practical results and will not efficiently function. A specification standard constantly maintained up to date, corrected and amplified by the results in the field, used as a model of wording and procedure is invaluable.

Through all the various methods of preparing and maintaining such a standard specification the writer has passed, leaving a trail of old cards, file boxes and other debris in his wake. The first scheme was the card system in file boxes which proved to be cumbersome, not easily portable, and was soon discarded.

Then came the beautiful and still fondly loved set of loose leaf binders with 3" flat backs holding 5" x 8" sheets. This was a masterpiece. A paragraph to a page, compact, and easy to carry home for night work. As a reference method pure and simple it is yet without an equal.

The intention was, like the card system, to assemble the proper sheets in a job binder, writing new sheets for particular items and then giving the completed binder to the typist from which to make the final specification.

Up to this point the system was a knockout. The fly in the ointment was small but sufficient to throw this system into the discard. It cost more to return the standard sheets to their proper places than it did to prepare the specification, the same flaw that junked the card system.

The next step in the evolution of Standards was in the use of letter size sheets in loose leaf ring binders. This system has now been in use for several years, has met the test of preparing many specifications of varied nature, and bids fair to survive to a ripe old age.

A set of Standard Documents has been built up in this manner, based not only on the writer's experience but added to and improved by every available source of information, particularly by the study of the best specifications which have been available.

These standards are being constantly revised as better methods or clearer descriptions are written, with the purpose always in mind to be as brief as consistent with good

practice, to avoid constant repetitions of the same word or phrase, and avoid any ambiguity or leave excuses for argument.

Notwithstanding the opinions expressed in print by several specification writers of high standing, this system of the use of standards is of great value. It is true that it is not the perfect solution of the problem, and has possibilities of trouble if not used with knowledge and discretion, but such is the case with the chisels of the carver, and yet no one would argue that tools should be dull because occasionally a clumsy workman cuts himself with a sharp chisel.

It is as one of the working tools of the profession that the standards are to be used and as such that they have proven their value.

If one were to write an article on the effect of religion on English Architecture, Wells' history would obviously not be copied bodily.

As a brief example of the value of these recorded standards: In preparing a set of specifications which included the use of artificial leather it was suggested that the leather be specified as "a durable and acceptable" product. Investigation proved that four of the leading manufacturers of this product were each making from six to ten grades, any of which would have met the above specifications.

These leathers were grouped in columns with the corresponding qualities of each manufacturer on the same horizontal line and a selection made of four similar brands as near in price as possible and the resulting four were listed in the specification as being acceptable.

The result of this use of time was made a paragraph in the standards and is available at all times. It is the value of this source of recorded experience in a set of standards that has proven beyond doubt the continual usefulness of such a system.

The idea that any set of standards could be printed in bulk and then assembled as a complete specification is a great mistake and could never be practicable, even for an office specializing in one class of work.

A set of these standards is maintained for the use of the Construction Manager, who has charge of all construction, and the Resident Engineers on the various jobs.

Based on his contact with the job, the contractors and the Resident Engineers, revisions and additions are constantly being made. To the co-operation of the Construction Manager in this method is due in a large measure the proven value of this means of recorded experience and the absence of arguments and friction on the jobs.

Further than this the various sections of the standards have been submitted to the best of contractors in their particular line for corrections and suggestions, a service which has gladly been rendered and which has resulted in specifications which are in keeping with standard practice and the use of proper and usual methods.

The standards are typed on thin paper carbon backed for blue printing, punched and kept in loose leaf binders under tabbed indexes. Frequently sections or pages are blue printed to be used in making up a specification, but they are never issued in their regular form as a specification.

In the arrangement of the sections the method of the A.I.A. is used. Each section is divided into two parts. The first part contains the usual General Condition Clause, Work to be Done, etc. and the description of the Materials and Workmanship under that section. The second part contains the special items which are to be included under the contract in that section. By this division the larger

part of a specification can be prepared in the early stages and the second part built up as the drawings are completed and final decisions made.

In the actual preparation of a specification the writer is still of the opinion that the method which, for lack of a better term, is called "cut and patch" is the leader in the actual results obtained. This does not mean that a late hour scribbling over an old specification given to a typist to copy is the proper and successful method. It does mean, however, that by this method material of known value already prepared can be utilized to expedite the preparation of a specification, conserving the time of the specification writer and allowing the typing to proceed in an orderly manner.

It is to be expected that as careful attention will be given to the preparation of the material and to checking the same by this method as in any other and there is no need of matter being left in which has no bearing on the work.

A specification writer's idea of perfect bliss would be the opportunity to write a set of documents after the drawings are completed, and final decisions made, starting at the beginning and writing a complete specification with ample time for checking and revision.

This is still a dream and has never happened. It is the necessity for keeping the specifications running along with the drawings and having them ready to issue at the same time that has proven the real value of this cut and patch system. The one great point in the production of specifications is to get the typing done at odd times and avoid the wearying drag at the finish.

To attempt to write in longhand any considerable portion of a specification is not efficiency. To dictate any considerable portion is as wasteful, for it occupies two people's time. If time were of no great moment, this might be ideal, but the pressure of work in offices today is such that the shortest methods consistent with accurate results are necessary.

When a project has advanced to the point where the general scheme is settled, the writer commences to prepare the specifications by the use of a letter size loose leaf ring binder.

Into this binder goes first a set of index tabbed leaves arranged according to the various sections of the specification.

From an old specification of a similar nature the pages are removed and as many of them as can be adapted to the new specification are punched and put in their proper arrangement in the binder. As our specifications are usually put out on a reproducing machine these old specifications are ideal to correct or write on with pen or black pencil.

Starting with the usual documents each page is carefully checked, corrected to apply to the work, and unrelated paragraphs marked out. In some cases pages from the standards are blue printed and inserted in the binder and changed where necessary to apply to the job in hand. Where required new sheets are written or typed on plain paper and added, or paragraphs from old sheets are pasted on the blank pages, in many cases with blank spaces left in which additional matter is written. As much of the specification as possible is built up in this manner at an early date.

The first part of each section—the part having to do with quality of materials and workmanship—is carried through first. Where many of the items to be furnished under each section are known, these are included and are

added to as soon as decisions are made. Gradually each section is built up in this rough and ready but very effective manner.

It will be found that many sheets can be at once typewritten on thin paper carbon backed for blue printing and the reproducing master sheet made at the same time. These are punched and placed in the binder, both thin sheet and master sheet, replacing the sheets from which they were copied.

In some cases the pages are typed on the thin paper to get them into an orderly shape and permit corrections or revisions. The contents of the binder gradually changes from the patched up sheets to the finished sheets. The important point being to keep the typing progressing easily and to get the bulk of it out of the way before the final drive. It is surprising how easily a specification can be built up by the use of this apparently crude and frequently sneered at method. The writer was a charter member of the Sneerers' Club.

The material in the binder is always in order and lends itself to checking and revision, not only by the specification writer, but by the Job Captain or by others interested. Cross references from one section to another are easily made and the co-ordination of the various sections readily maintained.

In the process of making the actual specifications to be issued to bidders the writer is using a simple system developed by necessity, which works to advantage. If a specification writer can devote his entire time to that one occupation, perhaps there would be no need of short cuts, but the average writer has to do this particular work as a part of his duties, and anything that can help or shorten the effort is of value.

1—A set of ordinary letter-size correspondence tabbed folders marked with the Title or Section letter and page number is made for each page of the documents and placed in proper order in a file drawer. The writer has a permanent set which is used for all jobs unless more than one job is being carried along at the same time.

2—A Schedule Sheet with a list of the sheets in the specifications with columns for Section, Page, Typed, Reproduced, is made and placed in the front of the specification binder:

SPECIFICATIONS FOR (SUBJECT)

	Section	Page	Typed	Reproduced
Contents Page		1	✓	
Instructions to Bidders		1	✓ (Date Lacking)	
		2	✓	✓
		3		
General Conditions	A	1	✓	

3—As soon as any page is complete and corrected, it is typed on thin paper and the duplicating master sheet. These are punched and placed in the binder and a check mark made in the proper place in the "Typed" column. The sheets which by the nature of their contents will not be subject to change can at once be put through the reproducing machine, a check mark made in the "Reproduced" column, and the completed sheets placed in the proper folder.

The use of the Schedule Sheet is obvious for it shows at a glance the exact state of the specification work, just which sheets are complete, which are to be typed, etc.

Many sheets can be typed in their final form omitting only a date or an amount and held in the binder until the information is obtained for it is much easier to insert

a date at the last hour than it is to type the entire sheet.

The dominant idea, let us repeat, is to get the typing and the duplicating done gradually and as soon as possible for there is always drive enough at the finish.

The various pages of the documents are at last completed, the typewritten carbon backed copy is in the binder and the prepared sheets are in their respective folders in the file drawer.

By leaving the completed sheets in their folders until the last moment possible, it is very easy in case a late decision is made to re-write the page, discard the superseded sheets, and place the corrected sheets in the folder. This is much quicker than inserting the sheet in twenty-five sets or more already gathered.

On the completion of the final sheets and with the knowledge that the specifications are correct and that no more changes are to be made, the sheets are taken from their folders by sections and gathered, then the gathered sections are assembled into the complete sets and bound, and the specification writer shakes his head and says, "That's that!" or something not so mild, and wakes up that night remembering most of the things he has left out.

If the nature of the work is such that at least twenty-five copies will be needed, the duplicating will be found more economical than blue prints, and makes a better appearing document which is easy to read.

Printed flexible cloth covers add much to the appearance and durability of the specifications and actually cost little more than typewritten paper cover stock, which is usually torn off on its first trip. Cloth covers, including stock, printing and binding, average thirty-five to forty cents only per cover.

The carbon backed thin copy made at the time the master sheet for duplicating is made is placed in a binder, serves as office record copy and in case of necessity additional blue print copies are made from them.

Before the specifications are in their final form, the Job Captain should take time to go over them very thoroughly. Not only will he discover discrepancies and omissions due to his intimate knowledge of every detail, detail which the specification writer might have overlooked, but it is worth while to have some one read them cold, for the idea as expressed may be clear to the writer but not so clear to the reader.

As an instance—one paragraph in a large contract, by the misuse of a comma and an adjective required the contractor to furnish only inferior and imperfect stock, a small item perhaps but good specifications are made up of many small items carefully written.

On one of our large commissions it happened that the Resident Engineer appointed for the work was in the office during the month preceding the issuing of the documents for bids. He was given a set of plans in their current condition and a blue print set of the specifications which were nearly completed and told to build the building from the ground up in his mind.

Never was a month spent to better advantage, as the construction period proved. He was constantly in contact with draftsmen preparing last details, criticizing the specifications, requesting additional clauses to save arguments later. Not only did the drawings and specifications show the result of this co-ordination, but the Engineer entered on his work when construction started with every detail of the work clear in his mind in a manner never attained by poring over the documents after the work is started.

Tricky points of construction, obscure looking details had been discussed during the time in the office and when

these points came up on the job, they were quickly and satisfactorily settled without correspondence with the office.

This scheme is not often possible, but is quoted to emphasize the fact that specification writing is more than a one-man job and that too much thought and cold-blooded checking cannot be given to it.

Schedules—A great saver of office time in the long run is the use of Room Finish Schedules, Door Schedules, etc., as the cost of a job to the office does not cease with the completion of the contract drawings. In no way can so much information be incorporated as by the use of Schedules preferably on the drawings themselves.

Contrary to the usual opinion the specifications are not in constant use on the job. Ask a foreman for the specifications and if he finds them at all it will be in a nail keg or some similar place. The drawings are of necessity used by everyone on the job. For this reason Schedules should be on drawings and not in specifications. These arguments hold good for the use of Schedules as a time saver in the drafting room as well as in the field.

Much time is consumed in the Architects' office during the progress of the job poring over various sections of the specifications to find what materials are to be used in various places. A carefully thought out schedule on the actual drawings is much better than a list of the same in the specifications.

A change in a Schedule on the drawings means only the one erasure. Listed in the specifications it may mean rewriting pages in several sections, and if the changes occur, as they so frequently do, at the last harassed moment, the specifications are all too frequently contradictory.

The "Or Equal" Clause—The use of the "or equal" clause has been entirely abandoned in practice by the writer. In many cases a material is specified "flat." In

some cases a list of materials that will be accepted is given based on knowledge of quality and costs.

The following clause is used in all specifications:

"**ALTERNATE BIDS.** Every item mentioned in the following specifications is intended to represent the materials that will be demanded.

The Contractor must submit a bid covering every item that is specified, and should he wish to suggest any substitute that he considers equal in value and efficiency with the one specified, he shall state what the item suggested is, and what the difference in cost is, if any.

If the substitutions of material (equally good) are offered at the time the bids are submitted they will be considered; and in the event of the Owner wishing to accept the substitute, arrangements will be made for the change before a contract is entered into.

If no items are suggested as substitutes at the time the bids are submitted, then no deviations will be allowed from the materials specified."

With this clause in the documents, the bidder must base his bid on the items made, yet he has the privilege of proposing some other material with the difference in cost if any. At the time of closing the contract these points are definitely settled.

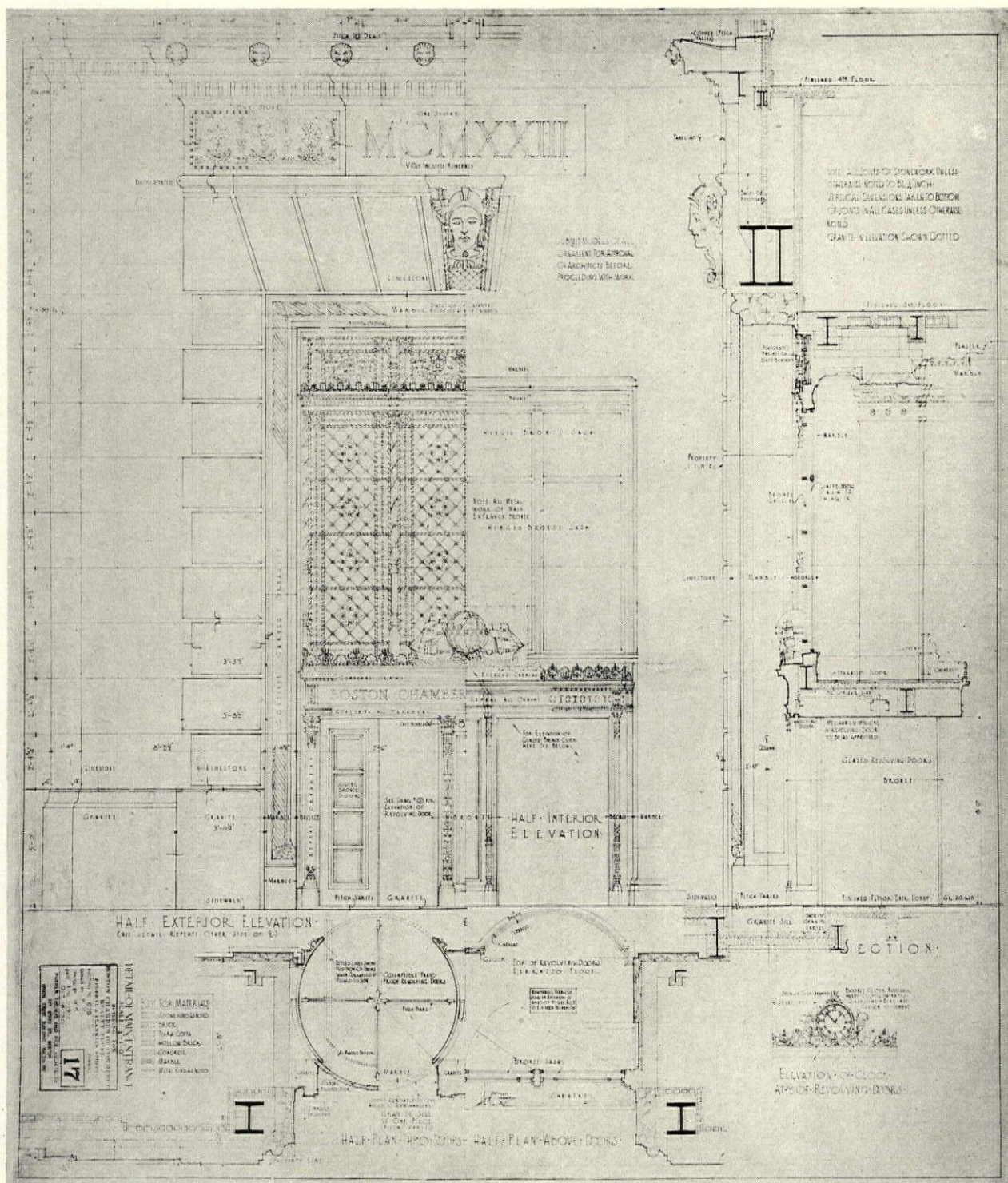
Subsequent to the signing of the contract, no changes from materials specified are considered. This procedure alone has saved hours of time listening to salesmen's arguments and requests to allow the use of their material to be substituted. In no case should approvals of materials be given to material men, but should only be given to the contractor *in writing* on his written request for the same. Before a specification is completed ample opportunity is given to material and equipment men to advocate the use of their products. After the contract is signed no time is spent in this way.



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PARKER, THOMAS AND RICE, ARCHITECTS



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 fifteenth 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

E. Rattery, 119 Newell Ave., Pawtucket, R. I., has for sale copies of **PENCIL POINTS** at 50 cents apiece, or the set for \$6.00. The set is like new, if not satisfied the money will be refunded. February, April, May, June, July, August and September, 1926. October and December, 1927. January, February, March, April and May 1928.

R. T. Carlson, 1200 2nd Ave. So., Minneapolis, Minn., has for sale the following copies of **PENCIL POINTS**. January, February, March, April, May, June, September, October and November, 1927. July, August and December, 1926. January, February, March and April, 1928.

Edward C. Remson, 155 East 42nd St., New York, N. Y., would like to secure copies of **PENCIL POINTS** for January and February, 1926.

Joseph C. Goddeyne, Crapo Block, Bay City, Mich., wants unbound copies of **PENCIL POINTS** from No. 1, Vol. 1 to and including March, 1928. Will consider other reference books and magazines.

R. S. Wallace, 222 West Adams Street, Chicago, Ill., would like to obtain a copy of the original (enlarged) edition of *Gothic Architecture* by A. & A. W. Pugin.

Ernest O. Brostrom, Reliance Bldg., Tenth & McGee Streets, Kansas City, Mo., has for sale a useful table of stair risers compiled for use in his own office. These may be obtained for 25 cents a copy.

PERSONALS

PHILIP CANCELLIER, Architectural Draftsman, 392 Oliver Place, Bronx, N. Y., would like to receive manufacturers' samples and catalogues.

J. DE FOREST GRIFFIN, ARCHITECT, has moved to c/o Bebe Daniels Corporation, 222 No. Western Avenue, Los Angeles, Calif., and desires to receive manufacturers' samples and catalogues.

R. W. BOCKHORST, Senior Student of Architecture, 4822a St. Louis Ave., St. Louis, Mo., would appreciate manufacturers' samples and catalogues.

PHILIP COLAVITO, JR., Architectural Draftsman, 2627 W. Grace St., Richmond, Va., is starting an A.I.A. file and would like to receive manufacturers' samples and catalogues.

CARL RUSSELL, Architectural Draftsman, 946 Starks Bldg., Louisville, Ky., is starting an A.I.A. file and is desirous of obtaining manufacturers' samples and catalogues.

G. VAN MALTSBERGER, Architectural Draftsman, 1919 W. Craig Place, San Antonio, Texas, would appreciate manufacturers' samples and catalogues.

ANDREW J. SUNDSTROM, Architectural Draftsman and student, P. O. Box 70, Clementon, N. J., is starting an A.I.A. file and would appreciate manufacturers' samples and catalogues.

WILLIAM Z. BANE, Architectural Draftsman, 926 Hamilton St., Allentown, Pa., is starting an A.I.A. file and would like to receive manufacturers' samples and catalogues.

JOSEPH W. HART, ARCHITECT, has opened an office for the practice of architecture at 136 Jackson Building, Nashville, Tenn.

GENE H. UTTERBACK, Engineer, Architectural Draftsman and student, 457 Transportation Bldg., Indianapolis, Ind., intends to open his own office in Indianapolis in the near future and would like to receive A.I.A. File matter, manufacturers' catalogues and samples.

RALPH C. FLEWELLING, ARCHITECT, has moved to Suite 7-9, Beverly Arcade Bldg., 450 No. Beverly Drive, Beverly Hills, Calif.

ADELINE F. PRATT, Architectural Student, 252 W. 11th St., New York, N. Y., would like to receive manufacturers' samples and catalogues.

CHARLES D. STRONG, ARCHITECT, has moved to 2150 Curtis St., Denver, Colo.

ARTHUR Y. SMITH, architectural designer, 914 Edgewood Avenue, Birmingham, Mich., is starting an A.I.A. file and would like to receive manufacturers' samples and catalogues.

PERSONALS (Continued)

C. G. EMERY, architectural draftsman, 51 Concord Street, Malden, Mass., would like to receive manufacturers' samples and catalogues.

WALTER H. FRICK has opened an office for the practice of Architectural Engineering at 824 Rebecca Avenue, Wilkesburg, Pa., and would like to receive manufacturers' samples and catalogues, for his A.I.A. file.

CHAUNCEY K. WU, a senior student in the School of Architecture intends to practice architecture in China after he has graduated. He would like to receive manufacturers' samples and catalogues, especially on building materials, at 101 Princeton Ave., Swarthmore, Pa.

LEONARD ANDERSON, architectural student, 306 Sixth St., Devils Lake, N. D., is starting an A.I.A. file and would like to receive manufacturers' samples and catalogues.

U. H. HARTER, structural and architectural engineer, 817 Kodak Drive, Los Angeles, Calif., would like to receive manufacturers' samples and catalogues.

E. P. ALISCH, architectural draftsman, c/o Canton Steel Ceiling Co., 497-501 West Street, New York, N. Y., is starting an A.I.A. file and would like to receive manufacturers' samples and catalogues.

ALBERT R. MARTIN, ARCHITECT, has moved to 664 No. Michigan Ave., Chicago, Ill., and would like to receive manufacturers' samples and catalogues.

ARCHITECTURAL BOOK PUBLISHING Co., Publishers of Architectural and Art Industrial Books, has moved to 108 West 46th St., New York, N. Y.

WM. E. LAVELLE, Seatoun, Wellington, New Zealand, would like to receive manufacturers' samples and catalogues.

V. H. RUCKER, architectural draftsman, 1267 Page Street, San Francisco, Calif., is starting an A.I.A. file and would like to receive manufacturers' samples and catalogues.

EDW. W. HAMBERGER, architectural draftsman, Kimberly, Nevada, would like to receive manufacturers' samples and catalogues.

MORTIMER CASSILETH, ARCHITECT AND ENGINEER, has just opened an office at 16 Court Street, Brooklyn, New York, and would like to receive manufacturers' samples and catalogues.

DAVID GORMAN, ARCHITECT, has opened an office at 8880 Burnette Ave., Detroit, Mich., and would like to receive manufacturers' samples and catalogues.

JOSEPH PRUSSIANO, architectural student and draftsman, 29 Brunswick St., Jersey City, N. J., would like to receive manufacturers' samples and catalogues.

FREE EMPLOYMENT SERVICE

(Other items on pages 128 and 135 Advertising Section)

DRAFTSMEN who have had experience in Architect's offices find our service (founded 1893) very satisfactory in locating suitable positions. No advance charge, reasonable service fee depending on position. New vacancies coming in continually. Address Architectural Department, The Engineering Agency, 53 W. Jackson Blvd., Chicago, Ill. (Adv.)

POSITION WANTED: Draftsman four years' experience, capable of completing plans of small institutional public or private buildings from rough sketches. Desires permanent position, vicinity of Washington, D. C. Salary \$40.00 per week. Box No. 400, care of PENCIL POINTS.

POSITION WANTED: Young Man, 20, High School Graduate, desires position as Junior Draftsman or Tracer. Some experience. Box No. 402, care of PENCIL POINTS.

POSITION WANTED: Junior draftsman and Architectural student desires night work at home on tracings, lettering and full sizes. Three years' experience. Box No. 401, care of PENCIL POINTS.

POSITION WANTED: Architectural student is seeking position as draftsman. Box No. 403, care of PENCIL POINTS.

POSITION WANTED: Architectural Draftsman—Registered Architect. Competent to handle work from sketches to completion. 20 years' experience on all classes of work, mostly theatres, schools, and office buildings. Will be open for position after Sept. 10th. Box No. 404, care of PENCIL POINTS.

POSITION WANTED: Architectural Engineer—Registered Prof. in Eng. in Penna. 15 years' experience in architects' and engineers' offices on all classes of buildings. Designer of re-inforced concrete and steel. Excellent checker. Box No. 405, care of PENCIL POINTS.

POSITION WANTED: Architectural Engineer-draftsman, hard faithful worker, capable, college graduate, 8 years' office and field experience, general planning, working drawings, design reinforced concrete and structural steel, neat, accurate. Desire to locate with busy office in the East or New York City. Box No. 406, care of PENCIL POINTS.

POSITION WANTED: By young woman with 3 years' experience as architectural designer and draftsman. Quick tracer, expert letterer. Perspectives in pen, pencil and color. Some experience in patent and machine drawing. Small office in Arkansas, Oklahoma or Missouri preferred. Box No. 407, care of PENCIL POINTS.

POSITION WANTED: Architect of training and broad experience in all phases of architectural practice, capable designer and executive seeking a connection with an architect doing quality work and willing to offer progressive opportunity leading to part interest. Box No. 408, care of PENCIL POINTS.

POSITION WANTED: Mature young man 21 years of age. High School graduate and has been attending Columbia University School of Architecture (Extension). Has six months' experience with a prominent Architect. Salary secondary to position. Box No. 409, care of PENCIL POINTS.

POSITION WANTED: Thoroughly experienced senior draftsman, 14 years' experience in New York offices, and 11 years outside on first class work, wishes to connect with architect requiring capable office manager or would invest for partnership with established architect. Southern California or Southwest preferred. P. O. Box No. 2462, Los Angeles, Calif.

A REGISTERED ARCHITECT in Illinois, 34 years of age, college graduate, with about 12 years' experience in the best offices in New York and Chicago would like to correspond with an architect in Chicago or vicinity with object of forming partnership. Box No. 410, care of PENCIL POINTS.

POSITION WANTED: Draftsman, specializing on bank work would like position in middle west. Box No. 411, care of PENCIL POINTS.

POSITION WANTED: Senior draftsman with 11 years' experience on office buildings and banks wants work in New York City. Salary commensurate with ability. Married. Box No. 412, care of PENCIL POINTS.

WANTED: Young man experienced in small house design, must have a least three years' experience and be able to take full charge of small house designs. Good opportunity for the right man. In reply, state fully qualifications. Box No. 414, care of PENCIL POINTS.

(Other items on pages 128 and 135, Advertising Section)

PUBLICATIONS

OF INTEREST TO THE SPECIFICATION WRITER

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.

Baker Self-Contained Units.—Bulletin No. 300. Catalog of modern refrigerating machines of various types. Sizes to meet different requirements. 28 pages. Standard filing size. Baker Ice Machine Company, Inc., Omaha, Nebr.

Clow Gasteam Vented Heating System.—A.I.A. File No. 29-f-4. Standard file folder containing complete information on the Clow Gasteam Vented Heating System. Engineering data, drawings, layouts, installations, instructions, specifications. 25 pages. Standard filing size. James B. Clow & Sons, Chicago, Ill.

Standard Specifications for Finishing Lime Plaster.—Bulletin No. 400. Standard file folder giving complete specifications for all types of plaster coats. Standard filing size. The National Mortar and Supply Co., Pittsburgh, Pa.

A Folder of Architectural and Decorative Ornaments Achieved with Zenitherm.—A.I.A. File No. 23-g-2. Illustrated data folder showing decorative effects which may be achieved in this material. Standard filing size. Zenitherm Co., Inc., Newark, N. J.

Todhunter Brochures.

A—Early English Mantels.—Illustrating many beautiful mantels of different types. 20 pages. Todhunter, Inc., 119 East 57th St., New York, N. Y.

B—Colonial Hardware.—Devoted to early American wrought iron hardware. 12 pages. Todhunter, Inc., 119 East 57th St., New York, N. Y.

C—Lighting Fixtures.—A collection of interesting fixtures in wrought iron and brass. 24 pages. Todhunter, Inc., 119 East 57th St., New York, N. Y.

D—Early American and English Lights.—Covering pewter, glass, wrought iron and other reproductions of authentic early fixtures. 12 pages. Todhunter, Inc., 119 East 57th St., New York, N. Y.

E—Lanterns.—Devoted to hand wrought lanterns suitable for a wide variety of uses. 20 pages. Todhunter, Inc., 119 East 57th St., New York, N. Y.

F—Weathervanes.—A collection of interesting weathervanes, both ancient and modern. 16 pages. Todhunter, Inc., 119 East 57th St., New York, N. Y.

Ornamental Iron Settees, Chairs, etc.—Catalog and price list showing many articles suitable for gardens and for use in parks, recreation grounds, etc. J. W. Fiske Iron Works, 78 Park Place, New York, N. Y.

Natco Face Tile for the Up-to-Date Farm.—Data sheet showing application of this product to farm buildings generally, silos, etc. Standard filing size. National Fireproofing Co., Fulton Bldg., Pittsburgh, Pa.

Lighting of Theatres and Auditoriums.—Bulletin L.D.-145-A. Illustrated treatise on this subject, with much valuable data for the architect and specification writer. Edison Lamp Works of the General Electric Co., Harrison, N. J.

Steel Strengthened Stucco.—Catalog and treatise on stucco surfacing, showing many different textures, including Travertine. Specifications, and recommendations on design and construction, coloring, etc. Technical construction details. Standard filing size. 32 pages. Northwestern Expanded Metal Co., 407 So. Dearborn St., Chicago, Ill.

Modified Unit Heaters.—A.I.A. File No. 30-D-11. Specification folders with drawings, diagrams, and numerous illustrations describing this type of equipment, with tables, layouts, charts and other information for the specification writer. Standard filing size. Massachusetts Blower Division, The Bishop and Babcock Sales Co., 4901 Hamilton Ave N. E., Cleveland, Ohio.

Windowways to Modern Apartment Design.—Folder illustrating casements as applied to the Tudor City Apartments located in New York City. Standard filing size. Detroit Steel Products Co., Detroit, Mich.

American Fence and American Steel Gates.—Catalog showing complete line of fences and gates for country estates, poultry farms, paddocks, etc. 40 pages. American Steel & Wire Company, 30 Church St., New York City.

Enduring Beauty in Your Home Through Ceramic Tiles.—New illustrated brochure showing many applications of tile in modern architecture. Covers not only residences but suggests applications to other types of buildings. 24 pages. Standard filing size. Associated Tile Manufacturers, 420 Lexington Ave., New York City.

Design and Control of Concrete Mixtures.—A treatise on concrete mixtures for the economical production of concrete of proper strength and durability. 36 pages. Standard filing size. Portland Cement Association, 33 West Grand Ave., Chicago, Ill.

The Key to Firesafe Homes.—A.I.A. File No. 4-i-3. Presents 5 full page detailed drawings showing three standard types of concrete residence floor construction, namely, solid slab, rib floor, and tile and joist floor. Suitable coverings for floors including hard woods, linoleums, terrazzo, ceramic or concrete art marble, etc., are illustrated. 24 pages. Standard filing size. Portland Cement Association, 33 West Grand Ave., Chicago, Ill.

Concrete Improvements Around the Home.—Illustrated brochure devoted to such things as sidewalks, driveways, steps, porch floors, garden walls, septic tanks, garden benches, and lots of other things. 50 pages. Portland Cement Association, 33 West Grand Ave., Chicago, Ill.

Portfolio of Pencil Drawings of Lighting Fixtures.—15 large sheets with binder, faithfully reproducing in photogravure well executed pencil drawings of attractive lighting fixtures suitable for use in many types of buildings. Edward N. Riddle Co., Toledo, Ohio.

Celite for Concrete.—A.I.A. File No. 3-b. New bulletin indicating the properties and uses of this material and its wide application in modern concrete construction. Standard filing size. Celite Products Co., 1320 S. Hope St., Los Angeles, Calif.

Anti-Corrosive Metal.—5th Edition. New publication dealing with copper-bearing steel. Tests, notes about electrolysis, etc. Standard filing size. American Sheet and Tin Plate Company, Frick Bldg., Pittsburgh, Pa.

Rockbestos—The Asbestos Covered Wire.—Data sheet on subject indicated. Specifications and complete data. Standard filing size. Rockbestos Products Corp., New Haven, Conn.

The Steel Servidor.—Data sheet on this modern type of equipment for hotels, clubhouses, etc. Drawings showing construction, specifications, etc. Standard filing size. The Servidor Company, 101 Park Ave., New York, N. Y.

Linoleum Floors.—Standard file folder with numerous illustrations and many color plates, covering the entire subject with specifications, etc. 50 pages. Standard filing size. W. & J. Sloane, 572 Fifth Ave., New York, N. Y.

Tx-Crete for One-Operation Texturing.—New publication dealing with one-operation texturing. A handbook on an interesting subject. 30 pages. Standard filing size. A. C. Horn Co., Horn Bldg., Long Island City, N. Y.

The Invisible Air Valve.—Data sheet showing this new device at full size with complete description and all information necessary for the preparation of specifications. American Radiator Co., 40 West 40th St., New York, N. Y.

Dixie Metal Products.—Data folder showing the complete Dixie line of medicine cabinets, of all types. Standard filing size. Dixie Metal Products Co., Inc., 101 Park Ave., New York, N. Y.

Klieg News.—Bulletin No. 3. This document is devoted to the Electro-Magnetic Operation of color frames on Klieg Spotlights. It is of particular value to those interested in this subject. Klieg Bros. Universal Electric Stage Lighting Co., Inc., 321 West 50th St., New York, N. Y.

Hazard Electric Building Wire.—A.I.A. File No. 31-c. Really a handbook on the subject of house wiring. Specifications, tabular matter and condensed information. 28 pages. Standard filing size. Hazard Insulated Wire Works, Wilkes-Barre, Pa.

Safety, Durability, and Economy for Roofs, Walls, and Chimneys.—Catalog of burnt clay specialties, with drawings and much other useful information for draftsmen and specification writers. 48 pages. W. S. Dickey Clay Mfg. Co., Birmingham, Ala.

Westinghouse Commercial Cooking Equipment.—A.I.A. 31-g-4. Catalog No. 280 covers subject indicated completely with notes on cost of operation, etc. All who request this document will also be furnished with Specification Form 14219, done in looseleaf form, with cover. 32 pages. Standard filing size. Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

Excelso Indirect Water Heaters.—A.I.A. File No. 29-d. Technical folder with illustrations and drawings covering completely this type of water heating equipment. Standard filing size. Excelso Products Corporation, 65 Clyde Ave., Buffalo, N. Y.

(Other items on page 135, Advertising Section)