

PENCIL POINTS

An Illustrated Monthly JOURNAL for the
DRAFTING ROOM Edited by RUSSELL F. WHITEHEAD

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MORE CONSTRUCTION DETAILS

A PAIR OF BOOKS of which we are very proud are Philip G. Knobloch's two volumes on "Good Practice in Construction." Presented to the architectural public a few years ago, they met with instantly favorable response. Since their publication we have found them in steady demand by architects and draftsmen everywhere. Most of our readers either possess them for themselves or have them readily available and they are constantly being consulted in everyday work in the drafting room.

It will therefore be of interest to all to know that Mr. Knobloch will, at some time during this year, undertake to prepare a new series of plates on construction. These, when they are completed, will appear in PENCIL POINTS, probably at the rate of two each month.

At the moment the problem is to decide upon the subject of these plates—and here is where the draftsmen of America can help us. We have a number of things already in mind, questions that have given difficulties to many draftsmen, knotty problems that have cost much time and trouble to solve. Had satisfactory solutions been available, worked out in accordance with good practice, we are sure that they would have saved much tearing of hair and gnashing of teeth.

The subjects that we already have in mind for some of these

plates, however, represent only a small part of the number of problems that could be worked up to the advantage of the entire profession. You, our readers, know that better than anyone else, for you are meeting with such problems constantly in your daily work. Whether the things that have bothered you be few or many, you are now invited to let us know about them so that Mr. Knobloch can select the subjects which are most likely to do the greatest good to the profession in general.

In using the two volumes already published you have undoubtedly wished that other subjects had been covered. Now is your chance to have the solution of some pet difficulty put into shape for reference by yourself and by all other architects and draftsmen. Do not wait for someone else to send in the suggestion for you but sit down now and make sure that your own desires are brought to Mr. Knobloch's attention. This work is being undertaken for your benefit and we are anxious that it shall be of the greatest possible use to every drafting room in the country.

It was through the hearty cooperation of the architectural profession that Mr. Knobloch was enabled to make his first two volumes so useful. It will be through similar cooperation that the proposed new series can be of greatest value.

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PENCIL SKETCH BY EDWARD M. SCHIWETZ
"CONGREGATIONAL CHURCH, NORWALK, CONNECTICUT"

PENCIL POINTS

Volume X

February, 1929

Number 2

A SKETCHER FROM TEXAS

NOTES ON SOME DRAWINGS BY EDWARD M. SCHIWETZ

By Kenneth Reid

IN THE MIND of the average Easterner the word Texas is associated with cattle and cactus, with rodeos and rattlesnakes, with mesas and mesquite. The thought conjures up visions of great open spaces peopled with Mexicans, Indians, and cowboys in all the colorful and picturesque trappings to familiarity with which we have been educated by viewing the west through the eye of the movie camera. But never, or at least hardly ever, do we think of the Lone Star State as a center for the development of art and artists. And yet it has produced a number of persons of considerable attainment in painting, music, literature, and architecture.

The subject of this article, Edward M. Schiwetz, is entirely a product of the great state above mentioned for until about four months ago he had never been outside of Texas except for a few brief excursions across the Rio Grande into Mexico. In Cuero, a town of between three and four thousand inhabitants, he was born and received his early schooling. Later he took a course in Architecture at Texas Agricultural and Mechanical College where he completed the design work leading to a Master's degree in Architecture. The degree he did not get, however, because of a slight deficiency in an engineering subject.

Upon completing his work at Texas A. and M., Schiwetz sought a job in an architect's office and tramped the streets of Dallas for months in a fruit-

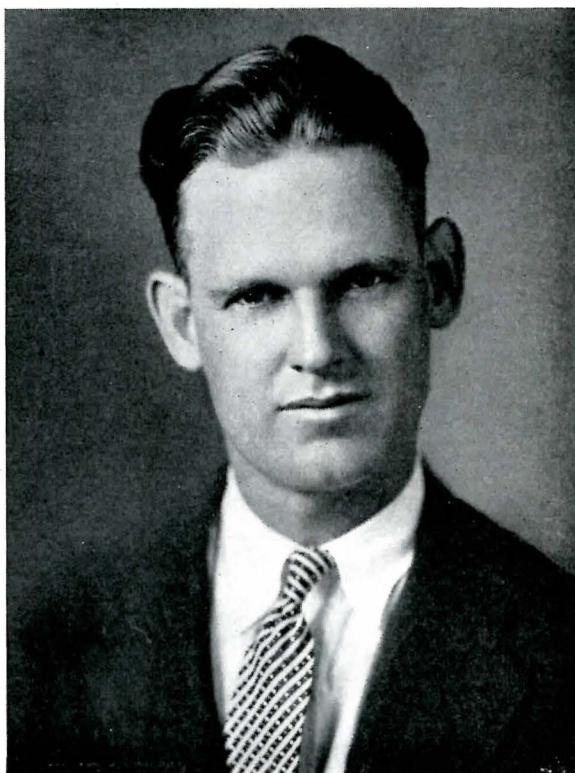
less search for work of the sort he wanted, work which would permit him to make use of his sketching and rendering ability and to improve it. Meanwhile he kept himself going by making drawings for advertising. Eventually he found what he wanted in the

office of Thompson and Swain in Dallas where he remained for about two years. At the end of that time he left Dallas and went to Houston where he engaged in free-lance rendering and advertising art. He kept this up for about a year and a half, interrupting his routine occasionally with sketching trips to San Antonio and other places.

In September, 1928, having accumulated through work at rendering and advertising art sufficient capital to permit him to pursue his studies further, he and his wife set out in his car for New York, sketching on the way, with the intention of studying etching in the metropolis. He is now enrolled as a student at the Art Student's League.

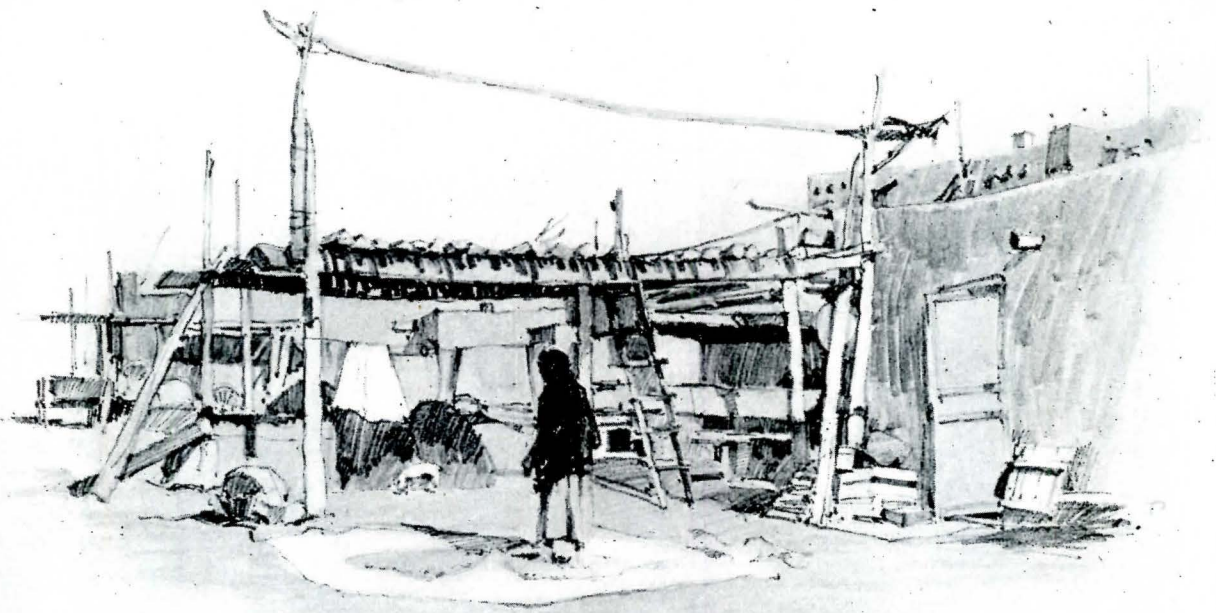
From early youth he had a strong desire to draw, and, unlike many who have a similar desire, but less persistence, he followed his urge at every opportunity, gradually acquiring more and more facility and sureness. The sketches shown here are evidence of the present state of his development and although, as none realizes better than he, there is a long hard road ahead before he can reach his goal and become a successful etcher, they give great promise of future skill.

As do many other young architectural draftsmen



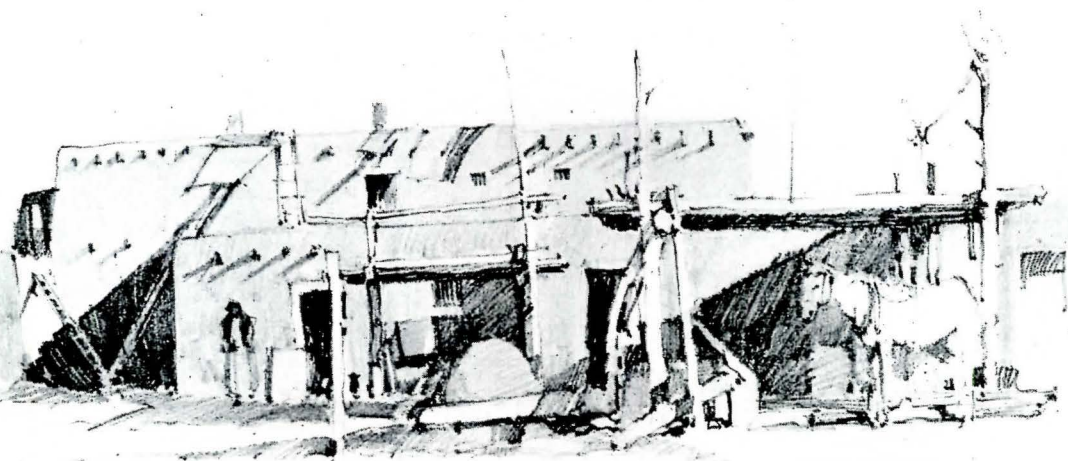
EDWARD M. SCHIWETZ

PENCIL POINTS



Taos Pueblo
Taos, N.M.

Edw. M. Schiwetz
Sept. 1907

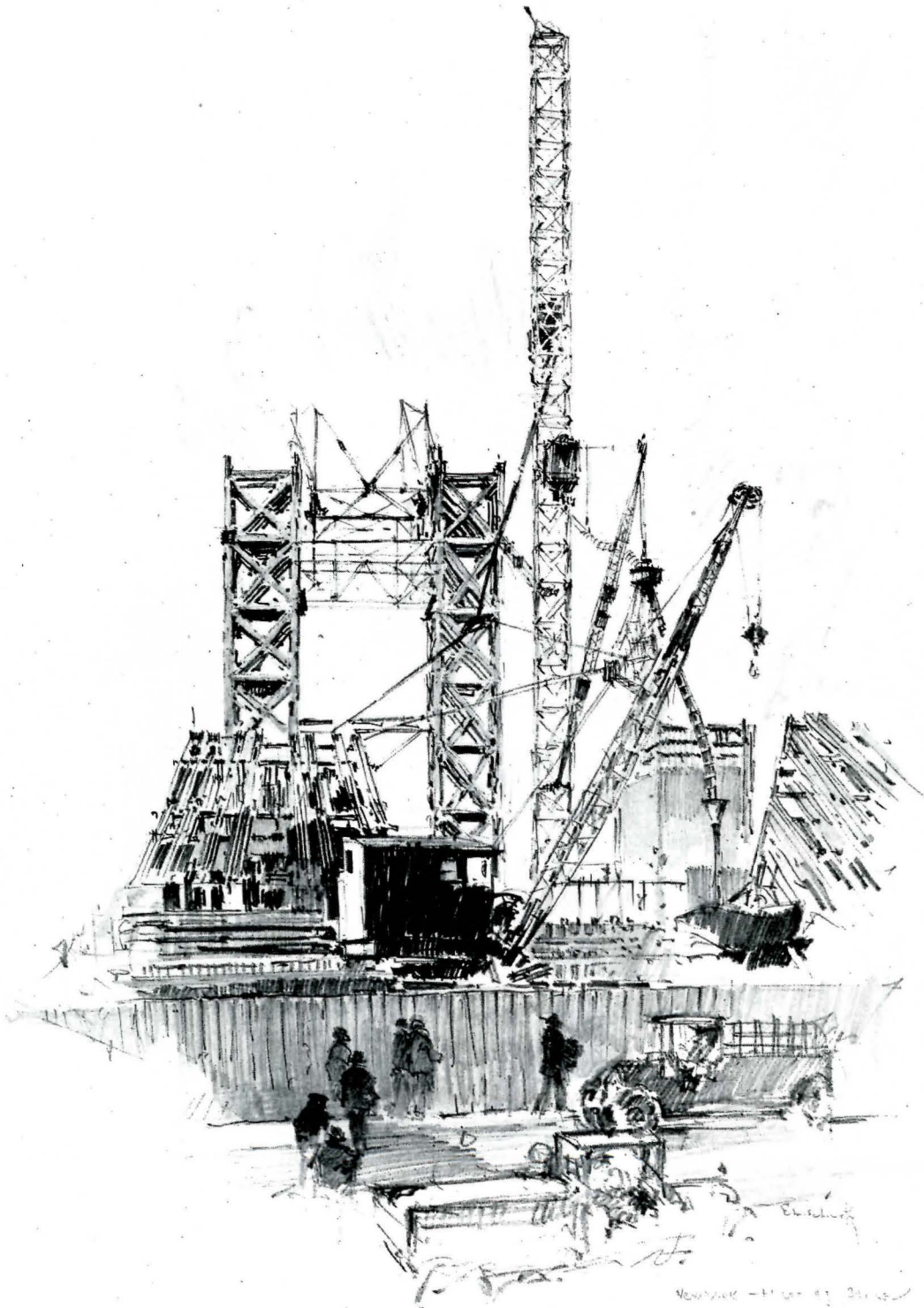


Taos Pueblo
Taos, N.M.

Edw. M. Schiwetz
Sept. 1907

TWO PENCIL SKETCHES BY EDWARD M. SCHIWETZ
PUEBLO INDIAN DWELLINGS AT TAOS, NEW MEXICO

A SKETCHER FROM TEXAS



PENCIL SKETCH ON CAMEO PAPER BY EDWARD M. SCHIWETZ

HUDSON RIVER BRIDGE UNDER CONSTRUCTION



*St Peter's Church
Philadelphia
Pa*

PENCIL SKETCH ON CAMEO PAPER BY EDWARD M. SCHIWETZ
"SAINT PETER'S CHURCH, PHILADELPHIA"

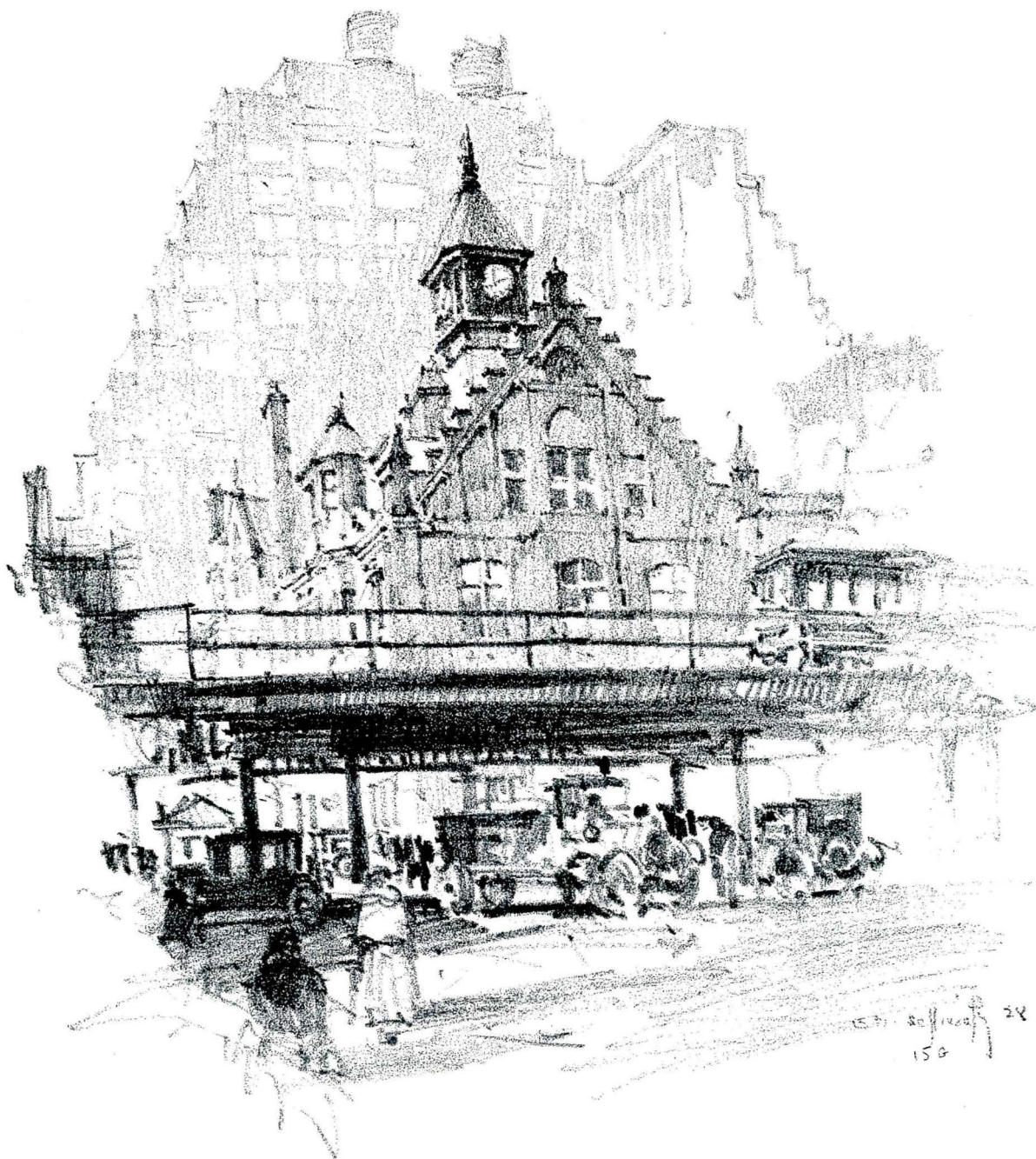
A SKETCHER FROM TEXAS



LITHOGRAPHIC PENCIL SKETCH ON CAMEO PAPER BY EDWARD M. SCHIWETZ

"BROAD STREET, PHILADELPHIA"

PENCIL POINTS



2ND AVE AT 44TH ST.
NEW YORK CITY

LITHOGRAPHIC PENCIL SKETCH BY EDWARD M. SCHIWETZ
"SECOND AVENUE AT FORTY-FOURTH STREET, NEW YORK"

A SKETCHER FROM TEXAS



CARBON PENCIL SKETCH BY EDWARD M. SCHIWETZ

"IN THE MEXICAN QUARTER, SAN ANTONIO, TEXAS"

he admired and studied the work of Otto Eggers, Joseph Pennell, Samuel Chamberlain, Louis Rosenberg, Ernest Watson, and others who have used the pencil extensively in delineating architecture. To these men the development of his technique owes something, though his own personal touch shows clearly in each drawing and marks it with an individual charm.

Some technical notes concerning Schiwetz's methods of working may be of interest to those who indulge in sketching. In the group of drawings shown here, which were selected from among at least a hundred worthy ones, are included some done with graphite pencil, some with carbon pencil, and some with lithographic pencil, all three of which he uses about equally. For a drawing surface he employs kid-finish Bristol board or cameo paper most commonly, though when the subject seems to demand it he uses other papers. In working with graphite pencils he uses four grades of hardness on a single drawing—7H, HB or F, 2B, and 4B. In this way he can use about an equal pressure throughout the sketch and yet, with a firm line, get his different values correctly. The pencils, particularly the harder grades, are kept carefully sharpened to chisel points which give the broad clean strokes so much a part of his technique.

In seeking subjects for sketching, Schiwetz follows the practice recommended by many sketchers of making a preliminary scouting expedition, either on foot or in some vehicle. In this way he can make notes of promising subjects as he proceeds about a town or city. Later, when conditions are right for sketching, he can return to the best places, leaving the less desirable ones for possible future attention. By this system many precious minutes of good daylight can be saved and the attention can be concentrated on the best available sketching material.

In traveling across the country in his automobile, stopping in various towns on the way, Schiwetz found it quite convenient to sketch from the driver's seat. By resting the sketch pad on the wheel he secured a good steady support at a comfortable height for drawing, and at the same time was thoroughly protected from the annoyance, encountered by every outdoor artist, of having a miscellaneous collection of idle amateur critics at his back making distracting comments on the progress of the sketch. This wrinkle, which has undoubtedly occurred to others, is nevertheless worth calling to the attention of students traveling in Europe—at least to those who are fortunate enough to do their traveling by machine.

Now let us turn to a consideration of the sketches

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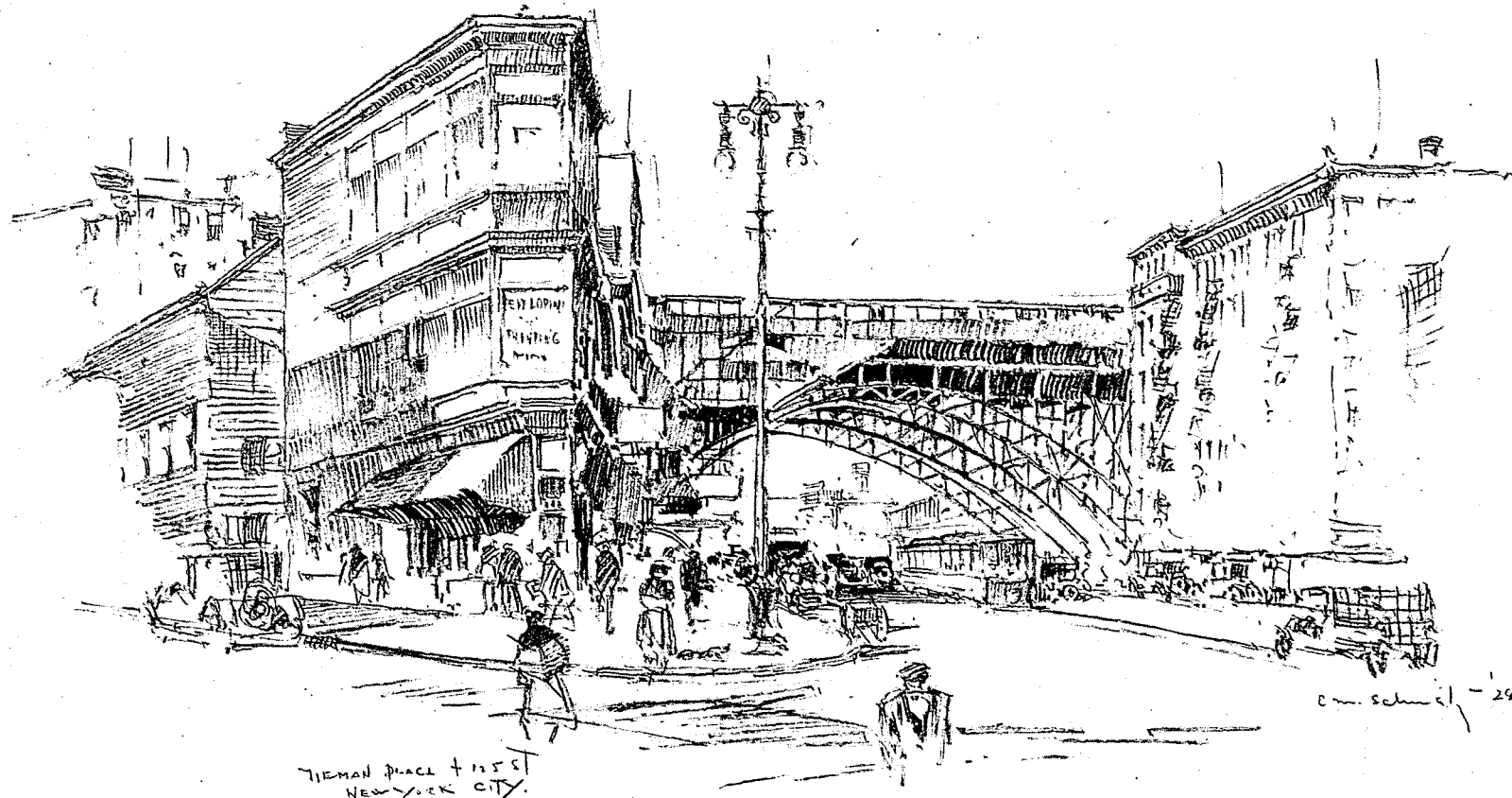


PENCIL SKETCH ON CAMEO PAPER BY EDWARD M. SCHIWETZ
"PORTAL TO MISSION CONCEPCION, SAN ANTONIO, TEXAS"

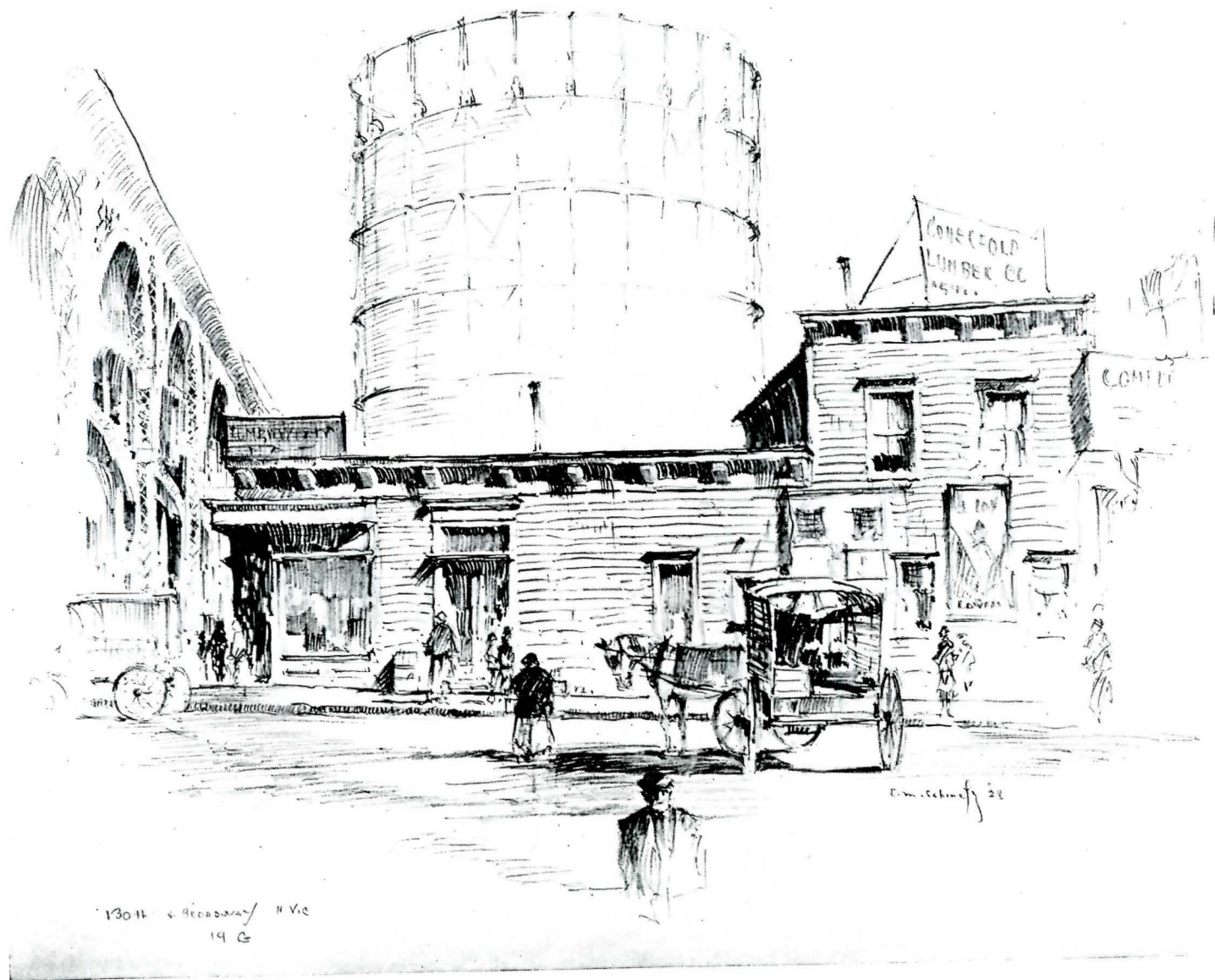
A SKETCHER FROM TEXAS



PENCIL SKETCH BY EDWARD M. SCHIWETZ
"KITCHEN GARDEN, MOUNT VERNON, VIRGINIA"



PENCIL SKETCH ON CAMEO PAPER BY EDWARD M. SCHIWETZ
 "TIEMAN PLACE AND 125TH STREET, NEW YORK"



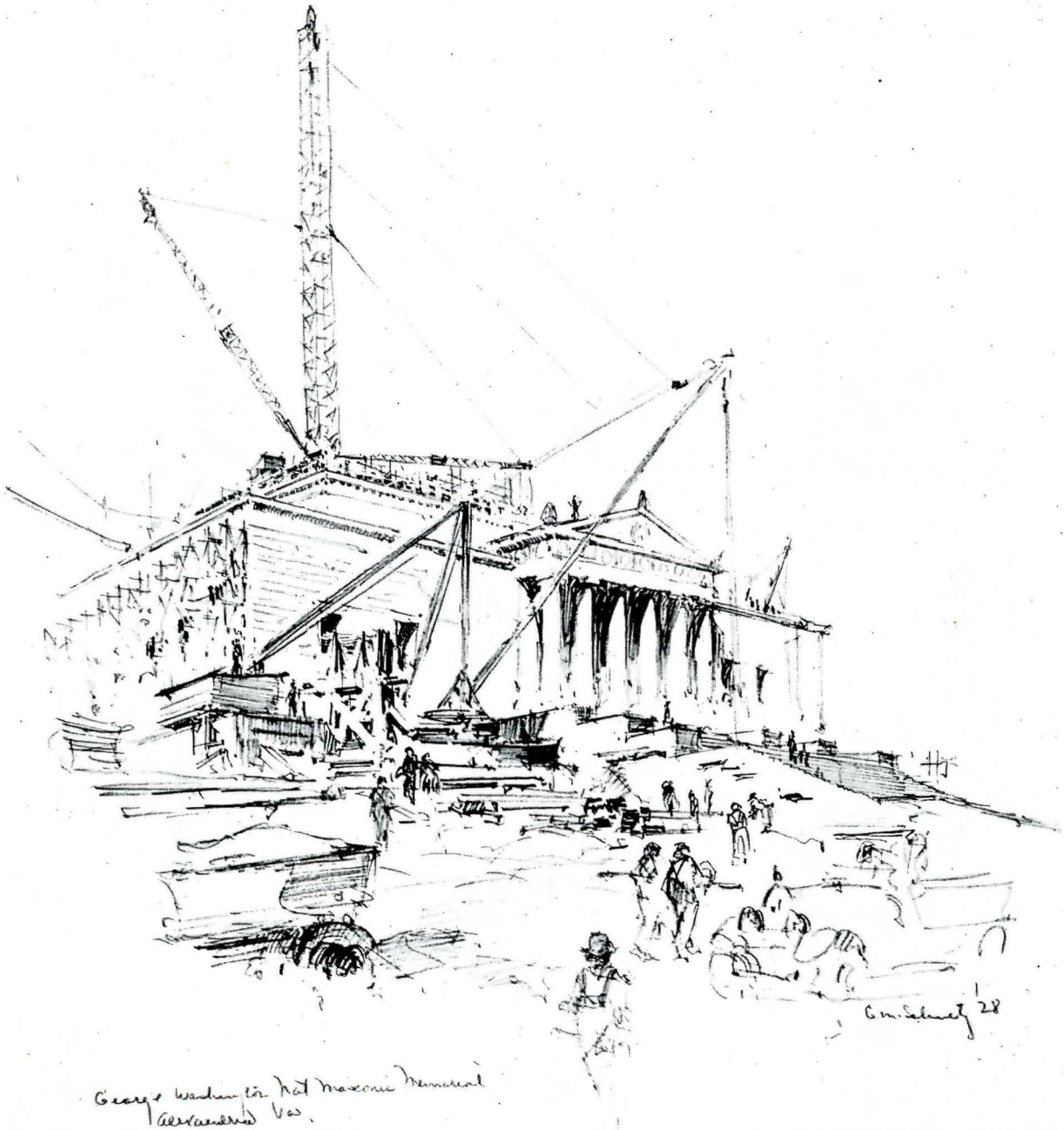
PENCIL SKETCH ON CAMEO PAPER BY EDWARD M. SCHIWETZ
 "130TH STREET AND BROADWAY, NEW YORK"

PENCIL POINTS



PENCIL SKETCHES BY EDWARD M. SCHIWETZ
A HOUSE IN OLD SAN ANTONIO (ABOVE) AND A TOY SHOP IN HOUSTON (BELOW)

A SKETCHER FROM TEXAS



George Washington Nat Masonic Memorial
Alexandria Va.

C. M. Schiwetz 28

CARBON PENCIL SKETCH ON CAMEO PAPER BY EDWARD M. SCHIWETZ
GEORGE WASHINGTON NATIONAL MASONIC MEMORIAL UNDER CONSTRUCTION AT ALEXANDRIA, VIRGINIA

PENCIL POINTS

illustrated here. Almost without exception they have a unity which comes from emphasis on a very definite center of interest. Each of them is vignetted skillfully so that its boundaries fade naturally and unobtrusively into the surrounding paper. The student of sketching can, in fact, learn a great deal to his advantage by studying the way in which this vignetting has been done in these sketches. Schiwetz seems to be one of those to whom the securing of a pleasing vignette comes natural but it is an art that can be learned through observation and self-criticism.

Another thing which makes these sketches good is that they are built up of only about three or four values—a good dark, a medium gray, a light gray and the color of the paper. Getting the subject down with a few principal values in correct relationship with each other is a large part of the battle in making a

good sketch. Perhaps this effect is obtained partly unconsciously here due to the employment of the four grades of pencil, but the artist has beyond doubt trained his eye to see these value relationships clearly.

Were we given to moralizing we might attempt to draw some conclusion from the career of this young draftsman so far as it has gone. We would point out that he formed a purpose even before he got out of school and then stuck to that purpose. We would point out that through working at the kind of work he wanted to do he has not only found pleasure in his work but has thrown all his enthusiasm into it with the result that he is doing a good job.

But let us forgo such preachments and accept the sketches for what they are—just good sketches made by a pleasant young fellow who is on the way to something bigger and better by and by.



CARBON PENCIL SKETCH BY EDWARD M. SCHIWETZ

"SOUTH OF SAN ANTONIO"

PERSPECTIVE PROJECTION

A SIMPLE AND EXACT METHOD OF MAKING PERSPECTIVE DRAWINGS

By Ernest Irving Freese

PART II—CURVED LINE FIGURES

EDITOR'S NOTE:—This second installment of a series of articles continues the discussion begun in the January 1929 issue. Both text and illustrations are copyrighted by the author and all rights are reserved.

BEFORE PROCEEDING TO the perspective projection of circles it will first be instructive and expedient to indulge in a little applied geometry, both as regards the graphical determination of the tangent-points of circles and the graphical construction of ellipses.

In the circle shown in Figure 6, let it be required to find the tangent-points *A* and *B* of the lines drawn from any given point *S*. First draw the line *SC* passing through the center of the circle. Bisect *SC* in the point *U*, either directly by measurement or graphically as follows: With a radius somewhat greater than half of *SC*, describe arcs from the points *S* and *C*, respectively, intersecting in the points *R* and *T*, as shown in dotted lines in the figure. Then the point *U*, where a straight-edge connecting *R* and *T* crosses the line *SC*, will divide the line into two parts. In either case, with center at *U*, and radius equal to *UC*, cut the circle in the points *A* and *B*, which are the required tangent-points of the two lines *SA* and *SB*, respectively, drawn from the given point *S*, occurring anywhere outside the circle.

Now let this circle be imagined as lying in a horizontal plane, and let the point *S* represent the position of the eye of the observer. Then the lines *SA* and *SB* become the limiting lines of sight and, for that reason, the chord *AB*, projected into the perspective, will become the longest *diameter* of the visual ellipse. On the other hand, if the chord *AB* were parallel with the picture-plane, then this chord would become the longest *axis* of the visual ellipse. Both cases will be shown later in the perspective projection of circles.

Any straight line passing through the center of an ellipse, and meeting the circumference at both ends, is a *diameter*. And if the tangents at the extremities of a diameter are perpendicular to it, then the diameter becomes an *axis*. An ellipse can have any number of diameters, but only two axes, and these two axes must necessarily be perpendicular to each other.

The longer axis is termed the "transverse axis," and the shorter, the "conjugate axis," as is indicated in Figure 7, at "A."

When the axes of an ellipse are known, or can be determined, the ellipse can readily be constructed by either of the methods illustrated in Figure 7. For small ellipses, the "trammel" method, shown at "A," is the more wieldy, while, for larger ones, the "string - and - pencil" method, shown at "B" may be preferable and more convenient. In either case, let the line *AB* represent the transverse axis, and the line *DE* the conjugate axis, crossing each other at right-angles at the center *F*. Now, at "A," with center *F*, and radius *FD* or *FE* (half the conjugate axis), cut the transverse axis in the point

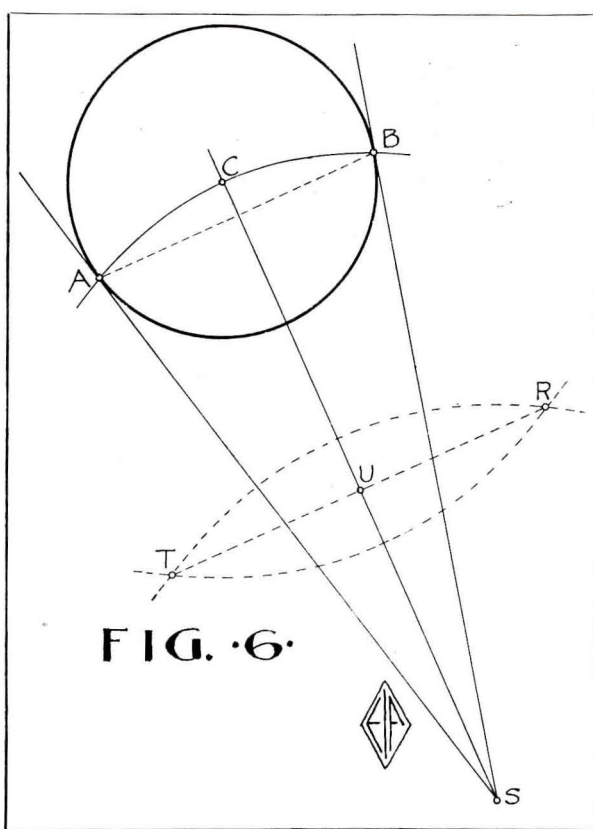


FIG. 6.

Z. Lay a strip of paper, or "trammel," along *AB* and transfer the points *A*, *Z*, and *F* to the corresponding points *a*, *z*, and *f* on the trammel. Then, with the trammel-point *a* always in contact with the axis *DE*, and the trammel-point *z* always in contact with the axis *AB*, the trammel-point *f* will locate any number of points through which the ellipse can be drawn. Or, again, as shown at "B," with center at *D* or *E* and radius equal to *FA* or *FB* (half the transverse axis), describe an arc cutting the axis *AB* in the points *O* and *Q*, as shown. These points are the

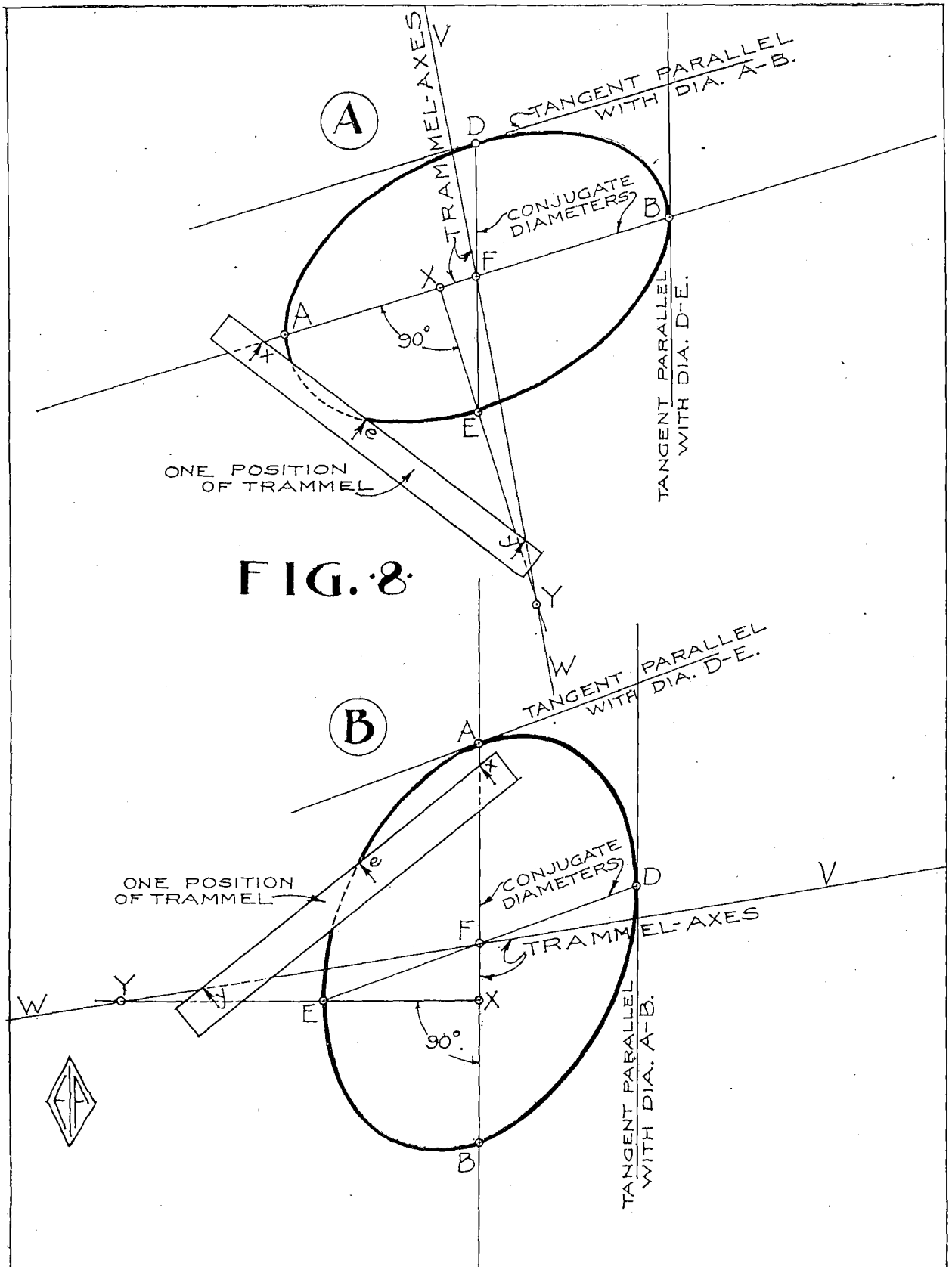


FIGURE 8—PERSPECTIVE PROJECTION

"foci," or focal-points, of the ellipse. Now place a pin at each of the points D , O , and Q . Stretch a strong thread around the outside of these three pins and tie it together to form the triangle DOQ . Remove the pin at D and replace it with a sharp pencil-point. Move the pencil either to right or left, keeping the thread taut, and the pencil-point will trace the required ellipse.

When the *axes* of an ellipse are unknown, or can not easily be pre-determined, the ellipse can still be constructed by first locating any pair of *conjugate diameters*. And since, as will be shown later, the conjugate diameters of any visual ellipse are easily and quickly determinable, it behooves the draftsman to become familiar with the method of construction illustrated in Figure 8.

Any two diameters of an ellipse are "conjugate" when each of the two is parallel to the tangent at the extremity of the other. The axes of an ellipse are only a special case of conjugate diameters, for, ordinarily, *conjugate diameters are not perpendicular to each other*, but, rather, they cross at any angle other than a right-angle, as depicted in the figure. At both "A" and "B," in Figure 8, the diameters AB and DE are *conjugate*, for the tangent at D or E is parallel with the diameter AB , and the tangent at A or B is parallel with the diameter DE . To construct the ellipse from these given conjugate diameters, proceed as follows:—Draw the line XY through E at right-angles to the major conjugate diameter AB . Make EY equal to AF (half of major conjugate diameter). Draw the extended line VW through the point Y and the center F . Then the lines AB , extended, and VW are *trammel-axes*. Lay a paper "trammel" along XY and transfer the points X , E , and Y , to the corresponding points x , e , and y , on the trammel. Then, with the trammel-point x always in contact with the extended diameter AB , and the trammel-point y always in contact with the line VW , the trammel-point e will locate any number of points through which the required ellipse can be drawn.

With any pair of conjugate diameters given, it is also possible to locate the "pin points" by means of which the ellipse can be drawn with a "string and pencil." This, however, will seldom be advisable except, perhaps, in the case of very large ellipses.

But the construction will nevertheless be shown at the finish of this Part, mainly as an instructive and interesting problem in graphics. With the knowledge acquired by the working out of the problems presented in Figures 6, 7, and 8, the draftsman is fully prepared to proceed immediately to the perspective projection of horizontal and vertical circles, for, except in two particular instances, these visual projections will always be true *geometric ellipses* of which either the *axes* or the *conjugate diameters* can readily be pre-determined.

The two instances in which the perspective of a full circle is *not* an ellipse are, first, when the circle is in such a position that its visual appearance is merely a *straight line*, and, second, when its visual appearance is still a *circle*.

The first instance requires no explanation, for the straight line is simply an "edge view" of the circle. The second instance is illustrated in Figure 9 which shows that any *vertical* circle occurring in a plane that parallels the picture-plane, will remain a circle in perspective. This is simply a special case of "parallel" perspective which has heretofore been explained in Part I. In the plan "A" the circle becomes a straight line, as it also does in the elevation at "C" at right-angles to the picture-plane. Hence, the line of sight to the center C , in both plan and elevation, intersects the picture-plane at a point midway between the two other

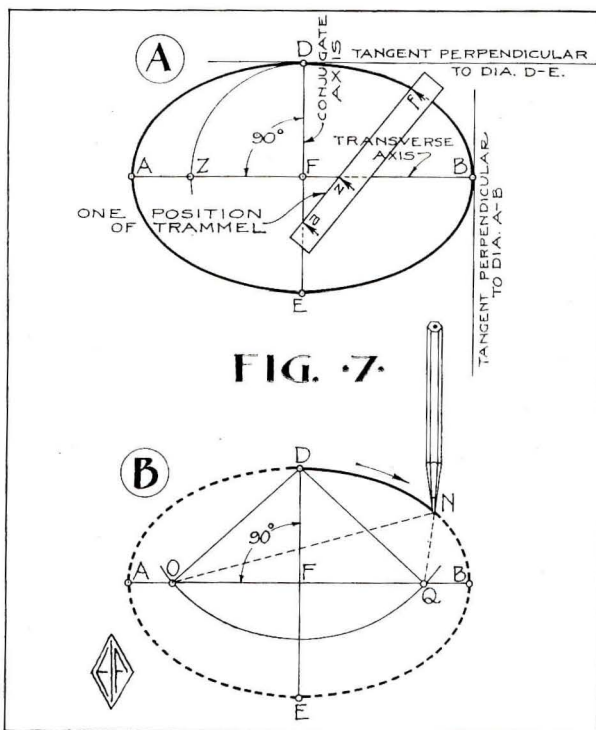


FIG. 7.

lines of sight that extend to the extremities of the two diameters. And, since the two diameters of a circle are of equal length, it follows that the projected points, a , d , b , and e , in the perspective, are equi-distant from the projected center c . In the same manner it can be shown that any other point on the perspective circumference is at this same distance from the center c . In this instance, then, the perspective projection is bound to remain a *circle*, and it can be drawn with the compass with center at c and radius cd . The true elevation at "B" is shown merely for the sake of comparison with its perspective projection at "D." The perspective circle is smaller in size than the objective circle because the latter occurs some distance back of the picture-plane. (In the second instance there is one condition, and one only, under which the perspective projection of a horizontal circle will appear also as a circle. This condition is of so rare an occurrence as

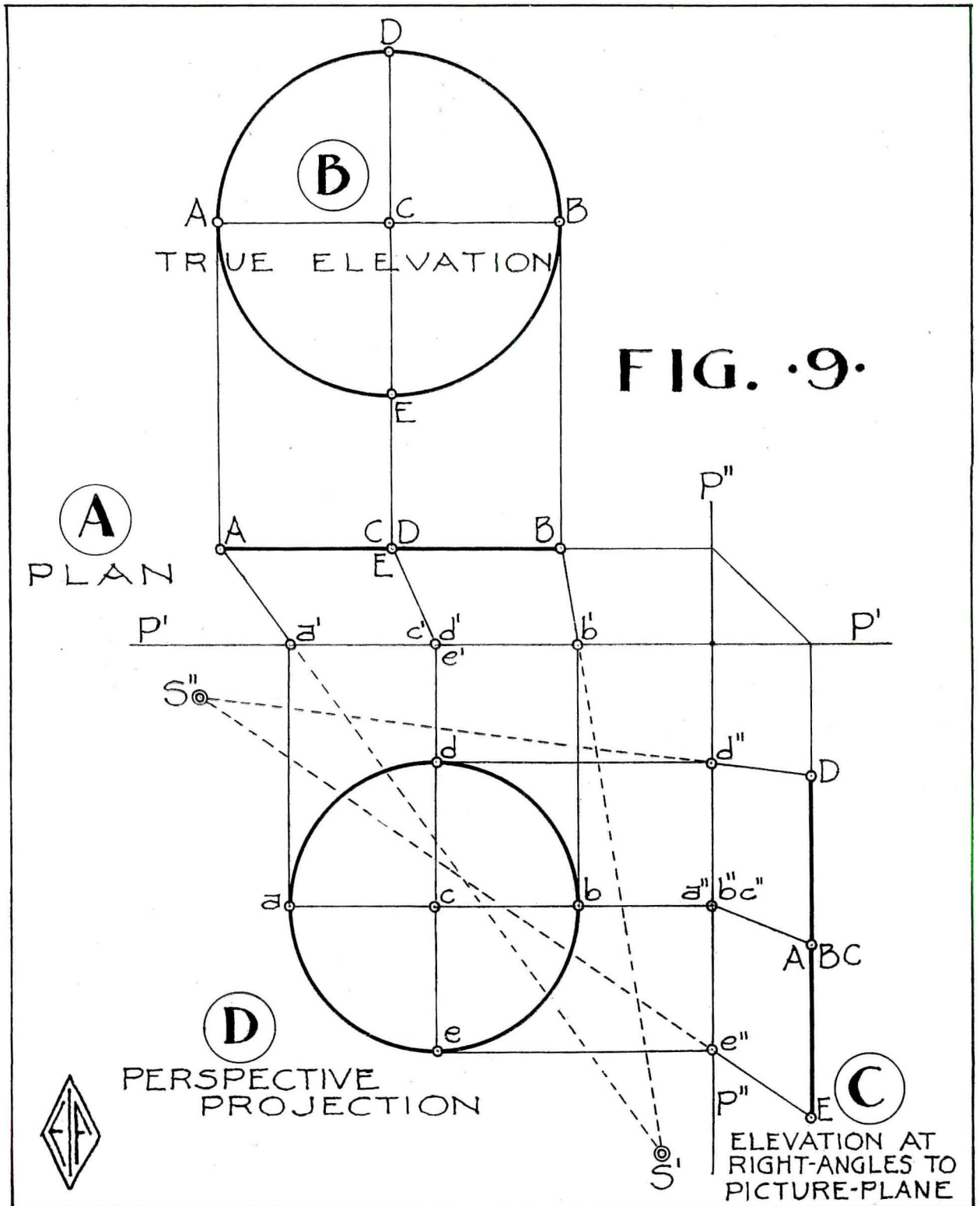


FIGURE 9—PERSPECTIVE PROJECTION

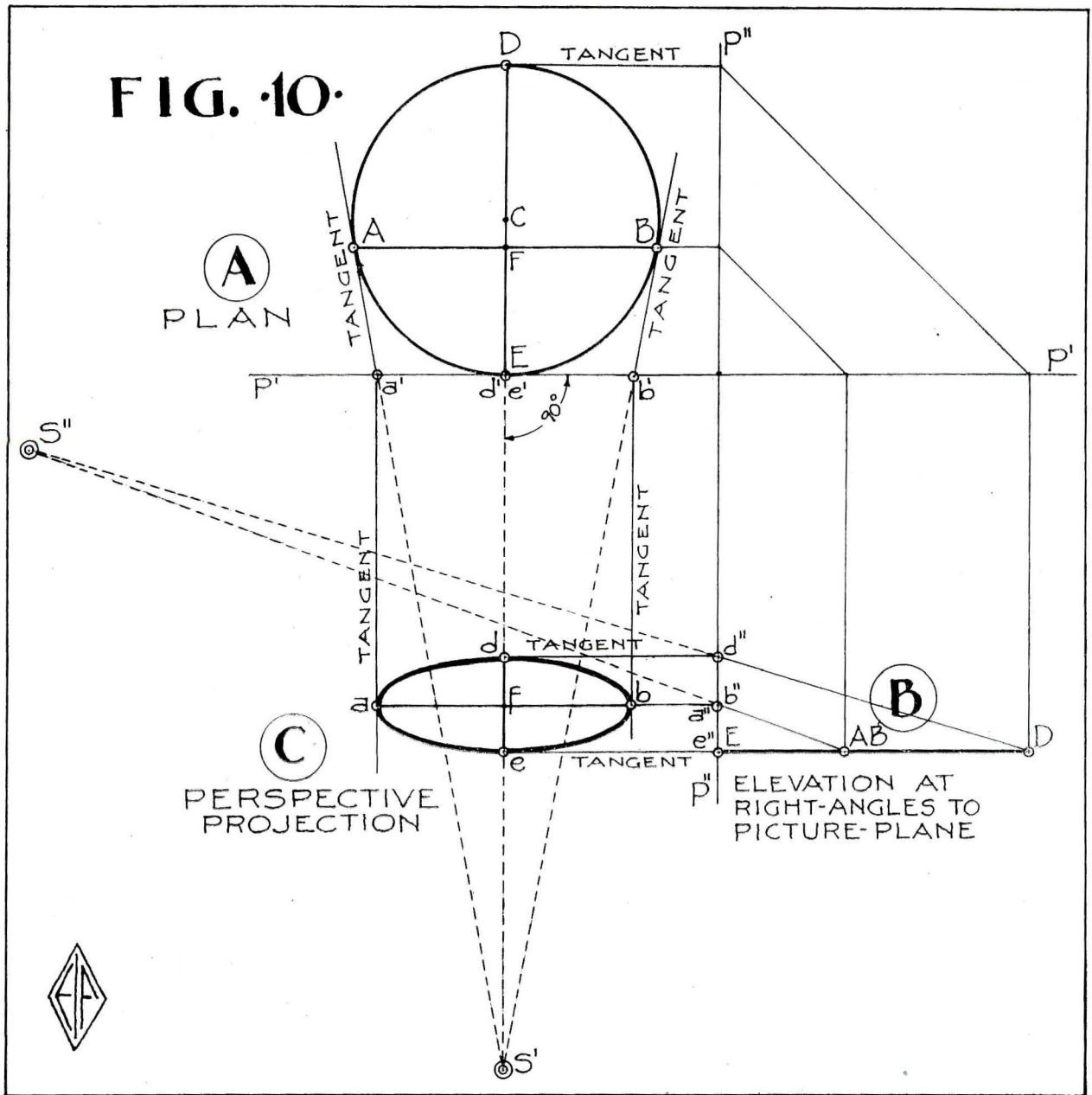


FIGURE 10—PERSPECTIVE PROJECTION

to be practically negligible, but for the sake of completeness it will be illustrated at the finish of this part.)

In all instances, except the two noted above, the visual appearance of a full circle is a *true geometrical ellipse*.

In Figure 10, at "A," "B," and "C," are shown the successive steps in the construction of the perspective when the objective circle lies in a horizontal plane, and the center line of sight, $S'C$, in *plan*, intersecting the picture-plane, $P'P'$, at an angle of 90 degrees, as shown. The points of tangency, A and B , are found as hereinbefore shown in Figure 6. In this case, with the sight-line $S'C$ at 90 degrees to the

line $P'P'$, the chord AB will *parallel* the line $P'P'$. This chord will then appear in perspective as the *horizontal* diameter, ab , of the visual ellipse. Moreover, the objective diameter, DE , being coincident with a line of sight, will appear in the perspective as the *vertical* diameter, de , of the visual ellipse. Therefore, in this particular case, these two projected diameters, being at right-angles to each other, and the tangents at their extremities being at right-angles to them, must then be the true geometric *axes* of the visual ellipse. Hence, with these axes, ab and de , now determined, the ellipse can be accurately drawn by employing either of the two methods illustrated in Figure 7, heretofore.

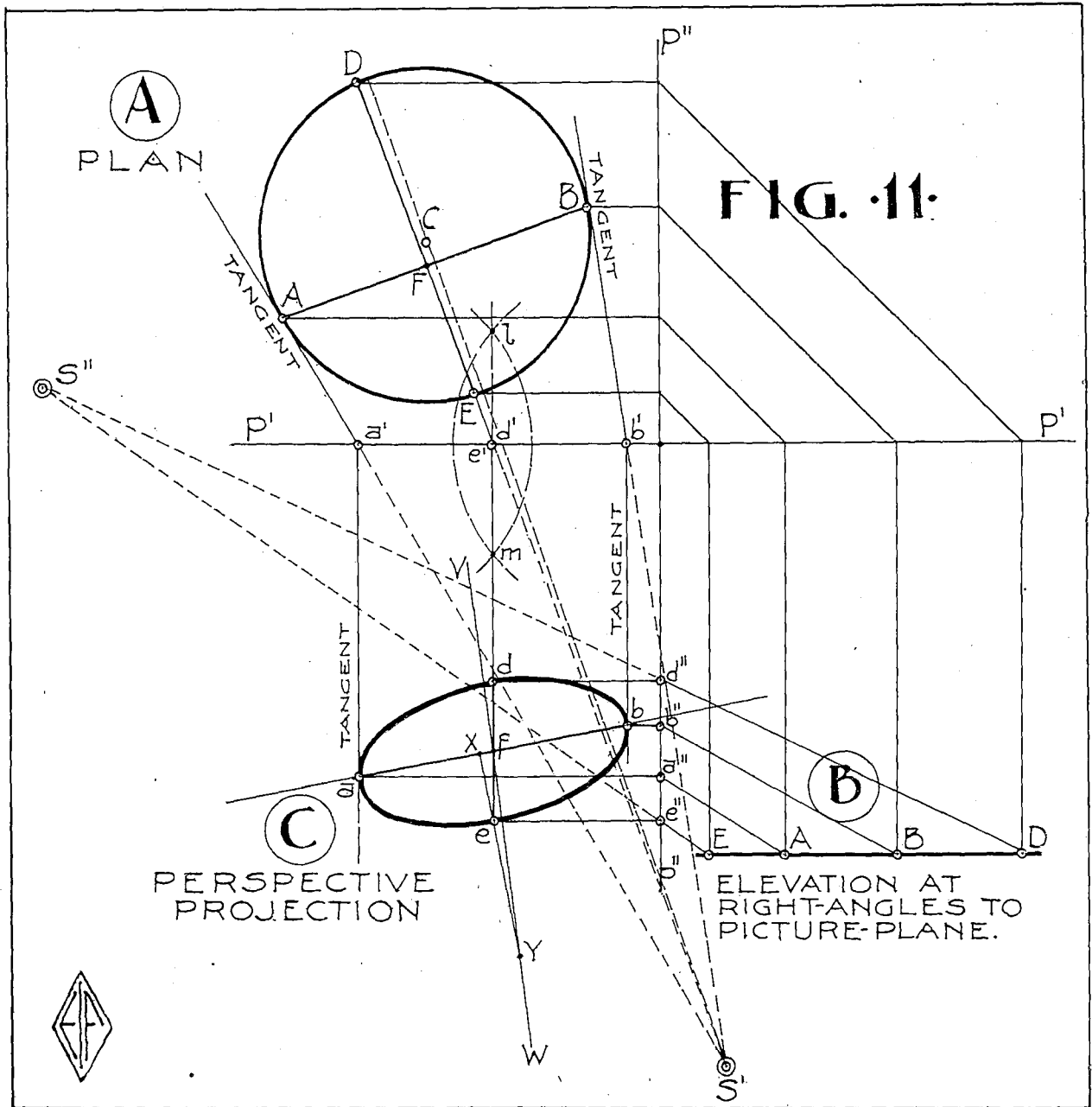


FIGURE 11—PERSPECTIVE PROJECTION

In Figure 11, the objective circle also lies in a horizontal plane, but, in this case, the center line of sight, $S'C$, in *plan*, intersects the picture-plane, $P'P'$, at an *oblique* angle instead of at 90 degrees. Here, then, the chord AB , connecting the points of tangency in the plan, will also make an oblique angle with the line $P'P'$ and, therefore, will appear in perspective as the *inclined* diameter, ab , of the visual ellipse. The problem then resolves itself into the finding of the diameter that is *conjugate* to the diameter ab . This is easy, for the required diameter must parallel the tangent at a or b and also bisect the given diameter ab . Hence, the required diameter is a *vertical line* oc-

curring midway between the tangents at a and b , or, which is the same thing, between the points a' and b' on the line $P'P'$. Therefore, bisect the line $a'b'$ either by measurement, or graphically as shown. Through the resultant point of bisection draw a line of sight from the point S' and extend it to cut the plan of the circle in the points E and D . Now, the chord DE , projected into the perspective, will appear as the required *conjugate* diameter de . Hence, with both conjugate diameters, ab and de , now determined, the ellipse can be easily drawn by employing the method illustrated at "A," in Figure 8, heretofore.

In Figure 12 is given a problem which the drafts-

PERSPECTIVE PROJECTION

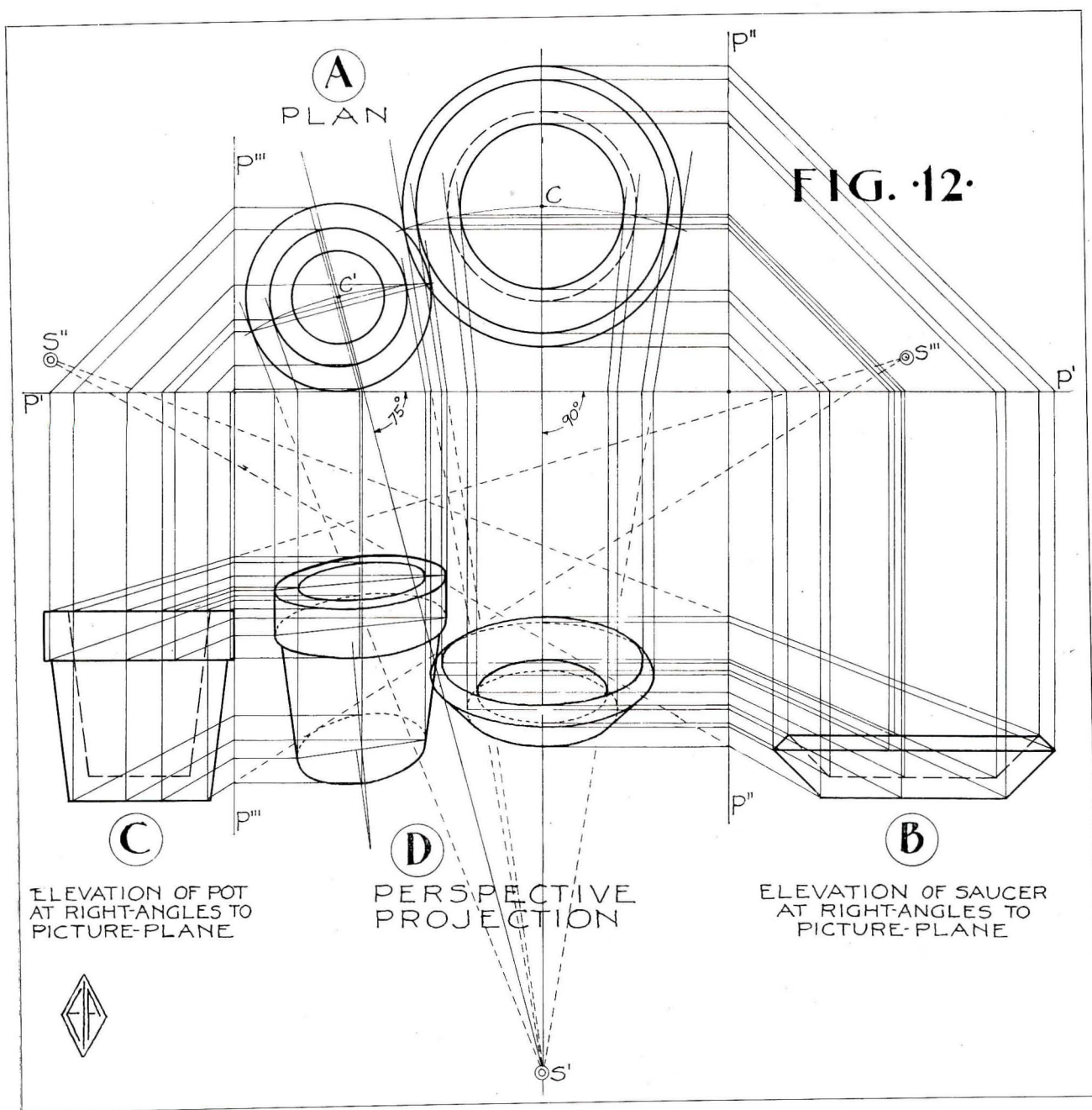


FIGURE 12—PERSPECTIVE PROJECTION

man himself should carefully work out at considerably larger scale. This problem is merely an embodiment of the principles of perspective projection set forth in Part I, together with the two cases of horizontal circles illustrated in Figures 10 and 11, above. All of the construction lines are shown in the figure so as to enable the draftsman to trace out the entire process from the plan at "A" to the finished perspective at "D." Actually, however, the greater part of the construction lines need not be drawn, as the student has already discovered if he has worked out the problems presented in Part I. In this particular problem, the elevation of the saucer, at right-angles

to the picture-plane, is placed at "B" on the right, while the corresponding elevation of the pot is placed at "C" on the left. This is done to avoid the apparent confusion of crossing lines that would otherwise exist if the two objects were combined in one elevation. In doing so the very important point to be kept in mind is this:—Always locate the object, picture-plane, and station-point, in the same relative positions with each other in *elevation*, as they are in *plan*. Then project the perspective either from the right or left, as the case may be. In the plan at "A" the center line of sight, $S'C$, of the *saucer*, intersects the line $P'P''$ at 90 degrees, while the center line of

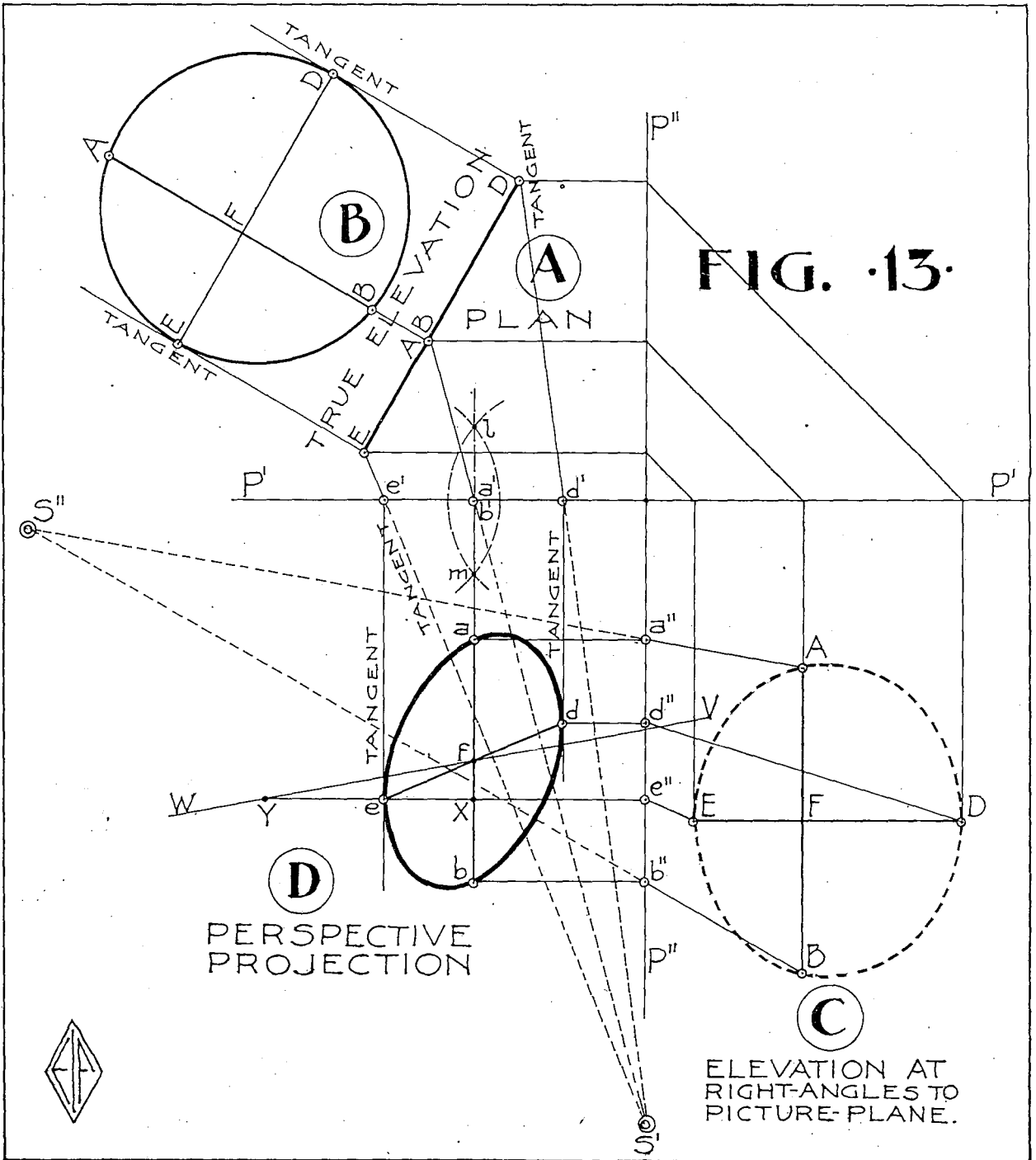


FIGURE 13—PERSPECTIVE PROJECTION

sight, $S'C'$, of the *pot*, intersects the line $P'P'$ at an angle of 75 degrees, as is shown in the figure. Hence, the *axes* of the saucer's visual ellipses are found as indicated in Figure 10, while the *conjugate diameters* of the pot's visual ellipses are found according to the method shown in Figure 11. The draftsman should work out many similar problems involving the two cases of *horizontal* circles here illustrated, before proceeding to the perspective projection of *vertical*

circles shown in the following figure on this page.

In Figure 9 it was shown that the perspective projection of any vertical circle lying in a plane paralleling the picture-plane, would remain a *circle*. However, if this circle were revolved in its vertical plane so as to make an oblique angle with the picture-plane, then the circle would be thrown into "oblique" perspective, and its visual appearance would be a *geometric ellipse*, as is shown at "D," in Figure 13.

Hence, to construct this visual ellipse it is only necessary to pre-determine its *conjugate diameters*. This is readily done as follows:

In the plan at "A," Figure 13, draw the straight line ED , representing the plan-view of the vertical circle at its true inclination to the picture-plane $P'P'$. Draw the tangent visual rays, ES' and DS' , intersecting the line $P'P'$ in the points e' and d' , as shown. Bisect the line $e'd'$ and through the point of bisection draw a visual ray, or sight-line, from S' and extend it to meet the line ED , in plan, at the point AB . Now, project the line ED into the true geometric elevation at "B" where it is seen to be the horizontal diameter ED . Then, project the point AB into the true elevation where it becomes the vertical chord AB . These two lines, the diameter ED , and the chord AB , projected into perspective, will there become the conjugate diameters ed and ab of the visual ellipse, intersecting in the true geometric center at f . The line ab is the major conjugate diameter, and the line ed the minor conjugate diameter. Hence, the ellipse can now be easily drawn as heretofore shown in Figure 8 at "B." In passing, it may be well to note that in the elevation "C," Figure 13, the ellipse, representing the elevation of the circle at right-angles to the picture-plane, need not be drawn. But it is shown dotted in the figure for the sake of clearness. The draftsman who has followed the process of perspective projection herein explained will understand that it is only necessary to locate the points A , B , D , and E , in this elevation, from which the diameters of the visual ellipse are projected, as shown.

Figure 14, an old Mission gateway, is given mainly as a problem in the perspective projection of vertical circles making an oblique angle with the picture-plane, although the plan of the step is a horizontal circle whose center line of sight $S'C$ makes an angle of 90 degrees with the picture-plane $P'P'$, as is shown. Hence, the visual ellipses representing the perspective appearance of the step can be constructed in accordance with either of the methods shown in Figure 7, after the *axes* are determined as per Figure 10. On the other hand, the partial vertical ellipses depicting the visual appearance of the archway, curved buttresses, etc., can be drawn by the method shown in Figure 8, at "B," after first having located their *conjugate diameters* in the manner depicted in Figure 13.

Now, as has been intimated above, an instructive and interesting graphical construction will be presented whereby the *axes* of an ellipse can be found when any pair of *conjugate diameters* are known. Thus, by knowing the *axes*, the ellipse can be drawn with "string and pencil" as illustrated in Figure 7 at "B."

PROBLEM:—Given the *conjugate diameters*, to find the *axes*.

SOLUTION:—(See "A," Figure 15.)

Let the given conjugate diameters be HK and JM , with center at F .

Now, any ellipse can be conceived as the shadow of a circle, cast upon a flat plane. Hence, let GL , drawn through J , parallel to HK , represent the ground-line, or line where the shadow-plane intersects the vertical plane of the circle that casts the shadow.

Erect Jm perpendicular to GL and make Jf equal to HF .

From center f , and radius fJ , describe a circle.

Draw the diameter hk parallel with GL .

Now, the shadow of this circle is the ellipse whose given conjugate diameters are HK and JM , for the shadow of the diameter hk , of the circle, is the diameter HK of the ellipse, and the shadow of the diameter Jm , of the circle, is the diameter JM of the ellipse, as is clearly proven by the dotted parallel rays of light connecting the corresponding points of the ellipse and circle.

Next, with center at F , and radius FH , cut the circle in the points n and p , as shown. Then, from the point n , draw a line passing through p and cutting the line GL at c .

Now, since the line np bisects the light-ray fF , the point c becomes the center of the circle described through the points f and F , and cutting the line GL in the diametrical points g and i .

Draw the line la through the center f of the circle.

Draw the line lA through the center F of the ellipse.

Draw the line ge through the center f of the circle.

Draw the line gE through the center F of the ellipse.

It is now plainly evident that the shadow of the diameter ab , of the circle, is the diameter AB of the ellipse, and that the shadow of the diameter de , of the circle, is the diameter DE of the ellipse.

Moreover, the corresponding angles R and r must be right-angles, since the two triangles lgF and lgf are inscribed in one circle upon the common diameter lg .

Therefore, the diameters AB and DE , of the ellipse, being at right-angles to each other, are the required *axes*.

Finally, with the *axes* now determined, the "pin points" can be located, and the ellipse drawn with a "string and pencil," as has hereinbefore been shown in Figure 7.

At "B," in Figure 15, is shown the single instance (which has hereinbefore been noted) in which the perspective projection of a *horizontal* circle appears as a circle instead of an ellipse; the exact condition which renders this possible being that the line of sight from the eye to the center of the circle must intersect the picture-plane at an angle of 45 degrees in *elevation* and at 90 degrees in *plan*, as indicated. Under this condition, and this one only, the vertical and horizontal projections of the circle will be of the

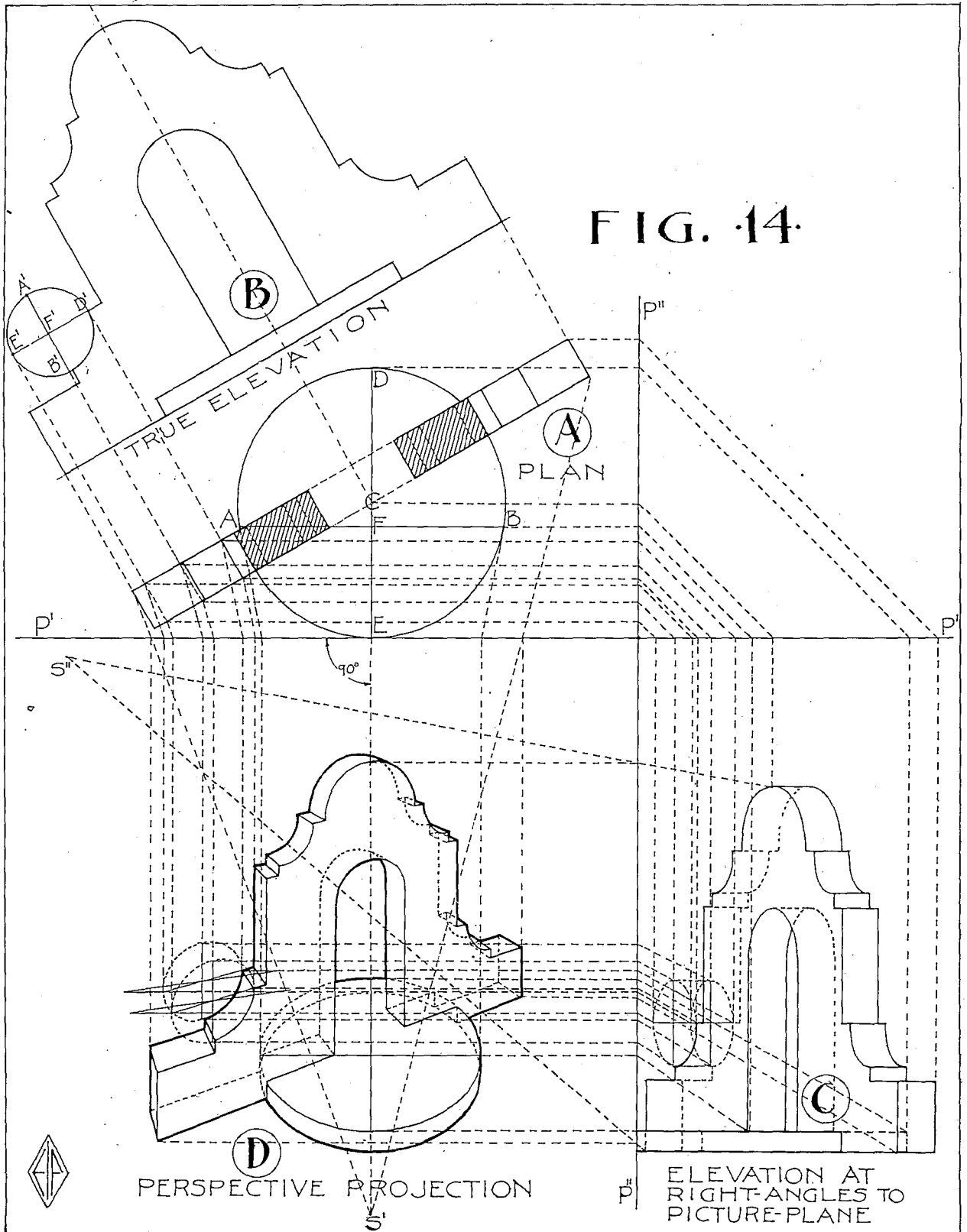


FIGURE 14—PERSPECTIVE PROJECTION

PERSPECTIVE PROJECTION

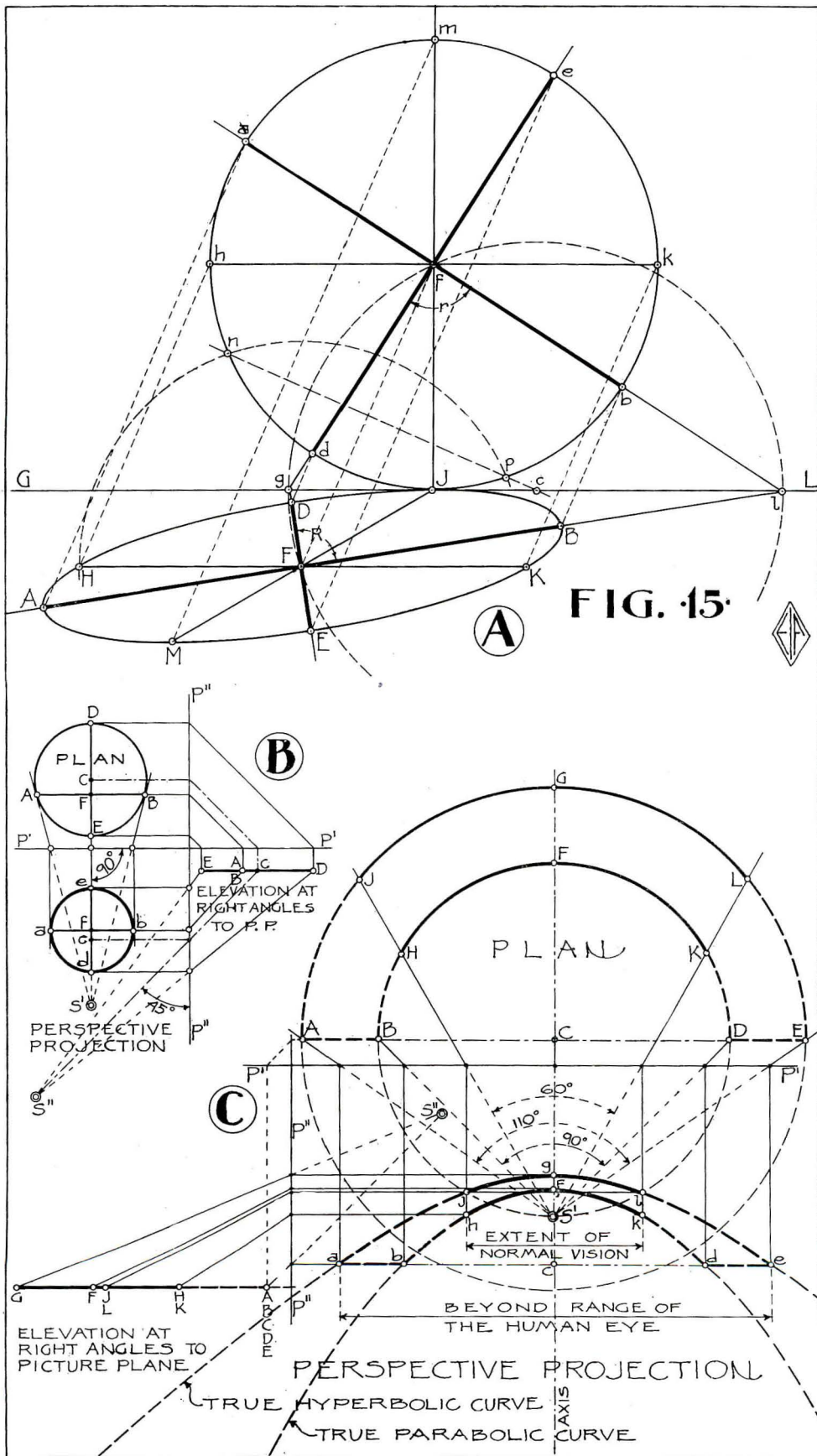


FIGURE 15—PERSPECTIVE PROJECTION

same extent, that is to say, the chord AB and the diameter ED will, in the perspective, appear as the two equal rectangular diameters ab and ed respectively. Hence, the perspective projection can be drawn with the compass at the perspective center f , and with radius fa . It is to be noted, however, that the center f of the perspective projection is not the projected center point of the actual circle shown in plan, but is the point where the chord AB crosses the diameter ED , as shown. By comparing this diagram with Figure 10, the student will see that the two constructions are identical, yet one yields a circle and the other an ellipse. The difference is due solely to the difference in the point of view. In the case illustrated at "B," Figure 15, the circle lies above the level of the eye and the perspective projection of it is therefore a view of its under side. If it had been placed below the level of the eye at the same angle as it now lies above it, the results would have been the same, that is, the perspective projection would have been a circle of the same size as shown, but the face showing would have been the upper side. For instance, in Figure 14, the center line of sight of the circular tread makes an angle of 90 degrees to the picture plane in *plan*. Wherefore, if the center line of sight, in *elevation*, had made an angle of 45 degrees with the picture-plane, the perspective projection of the upper face of this step would have been a true circle instead of an ellipse.

In all the preceding examples illustrating the visual appearance of circles, the station-point has been taken from *without* the circle. There are a few instances, however, in which the station-point might either occur *within* the circle or *on* it. Cases in point would be, (a) the perspective of a circus ring or circular race track either from within the circle or on the edge of it, (b) the perspective of a circular arena or amphitheatre either from within or on the boundary, (c) the perspective of a circular room either from within the circular area or on its circumference. In no case, however, would these perspectives be the perspectives of *full* circles, for the human eye cannot subtend so great an angle of vision as to "take in" the full circumference of a circle when the point of view is either within the circle or on the circumference. In all these cases, the perspectives will be the perspectives of *portions* of circles only, and, moreover, these portions will not appear as portions of ellipses but as portions of *parabolas* if the station point is *on* the circle, and as portions of *hyperbolas* if the station point is *within* the circle. Both the parabola and the hyperbola are curves of infinite extent, that is, they are not "closed" curves like ellipses. Hence, unlike the ellipse, neither of them could under any circumstances represent the perspective appearance of a full circle. It is unnecessary for the student of perspective projection to become acquainted with the proper-

ties of these mathematical curves . . . the parabola and hyperbola . . . nor with methods of drawing them, for, by following out the natural process of perspective projection under the special conditions here noted, these curves will of necessity be the only result, and the student can even forget their names so long as he remembers that they cannot be drawn by the methods heretofore given for drawing ellipses. Now refer to Figure 15 again.

At "C," in Figure 15, is shown the perspective projection of, say, a circus ring or circular room. The station-point S' , in plan, is fixed *within* the outer circle and *on* the inner circle. Hence, all conditions that could occur in practice are represented. Now, merely to give the student a clear idea of the perspective appearances of the two circles under the conditions given, the resultant perspective curves have been projected far beyond the limits of human vision. As a matter of fact, the eye would take cognizance of but a small fraction of same. It would be impossible for the human eye to comprehend even *half* the ring for, as noted on the drawing, a visual angle of 110 degrees would have to be subtended. Moreover, not half of the inner circle alone could be clearly seen from the station-point on the ring for, also as noted, the angle of vision would have to be 90 degrees, a right angle, which is not possible. The visual angle of 60 degrees, within which is contained the solidly-drawn portions of the ring, is the maximum extent of clear normal human vision, hence, to appear "natural," the perspective projection of the ring, or of any similar case, should be limited to the portion occurring between lines of sight encompassing a range of 60 degrees, as indicated in the figure by the lines of sight $S'I$ and $S'L$. By locating a few points on the portions of the curves coming within the range of vision, and then projecting these points into the perspective, the visual representations of these portions can be drawn through the points so located. As a matter of fact, an exceedingly close approximation both to the hyperbolic and parabolic arcs jgl and hfk can, in most cases, be drawn with the compass from centers on the axis found by prolonging thereto the bisectors of the chords fg and hf .

In concluding this Part on Curved-Line Figures, it may be well to remind the student that any curve whatsoever, whether regular or irregular, may be put into perspective by considering the curve as a series of points, any distance apart, and then projecting these points from their respective plan and elevation positions into perspective. A smooth line, drawn free-hand or with the French curve, through the points thus projected, is bound to be the perspective of the objective curve.

In Part III, the direct and expeditious application of the properties inherent in "picture-plane lines," the "diagonal line," and the "triangle" will be explained and illustrated.

MODERN ART IN OUR SCHOOLS

By Edgar I. Williams

EDITOR'S NOTE: *The author of this brief, thoughtful article is a New York architect who is an Associate in the School of Architecture at Columbia University. His remarks are well worth reading carefully and thinking about.*

NOT VERY LONG ago a very eminent scientist said to me as we were discussing art, "I cannot imagine anything more discouraging than being a sculptor. Think of practicing an art that has made no progress in the last two thousand years." While it brought to my mind in rebuttal visions of the great works of the Renaissance and such marvellous human achievements as the Gothic sculpture of Chartres, I could not but see his point—a point that applies equally to architecture.

If we accept certain standards and measure progress by those standards he was right. If, however, we question the word progress and again make our standard a perhaps more vague thing—such, for example, as the expression of an age or of an emotion—the whole statement falls to pieces.

There undoubtedly have been times in the history of civilization when the individual as well as the mass consciousness has been turned away from art, both as such and in its manifestations; but conversely there have been times when civilization and culture have developed so that art has flourished.

The forms art has taken have come about through some impulse or other, but undeniably there was always more than that: there was a *demand*.

Today there is an awakened consciousness in America for art and a demand for expression. It is seen in every phase of productive work whether it be music, commercial art, painting, sculpture, or architecture. Architecture is the art that concerns us here.

One manifestation is the work of students in the architectural schools. It is a force that one cannot deny, for it exists. Whether it is just youth, whether it is founded on reason, or whether it is just the weakest of all forces—a contemptible desire to follow what one supposes is "the thing to do" and a mere desire for attention—is a matter time will tell. As one looks over the work of students gathered together at such exhibitions as held by the Beaux-Arts Institute of Design one is struck by a new note in the designs.

The old orders have almost entirely disappeared and in their places we see queer violent forms that are for the most part not original but have each had their impulse—I do not use the word "inspiration" advisedly—from some chance selection of prototype such as an Aztec temple, a Chinese pagoda, an Egyptian tomb, a Persian ruin, or perhaps something done in modern Germany, Holland, Czecho-Slovakia, or France.

It is all in line with modern science, which is

experimental rather than reasoned, but whether or not either or both of these approaches plays a part in artistic productiveness, practically all the designs lack a native American tradition of style.

What is our native tradition of style? From a nationalistic point of view it is conglomerate. In New England it would of course be Colonial; in California, Spanish; in parts of Pennsylvania it would be Dutch, and so on. These traditions have been followed not only in their localities, but done to the *nth* degree and mixed in such an insane way that we find certain parts of our country spotted, as with a disease, with misshapen boxes called houses having recognizable mouldings, windows, or surfaces connoting any and all the above styles. We shall never come to a time when all who build will be master builders and all who plan will be architects in the full sense of the word. That should not be food for discouragement, but anything that will help to bring out the folly of such activity should add to our architectural progress.

What have most of these works missed? They have missed the real traditions they are supposed to follow, but have caught only the insignificant parts of architectural expression—the ornamentation. What then are the important qualities that make architectural styles differ one from another? First, last, and always is construction. This involves, of course, the grouping of those voids firstly and solids secondly necessary to fulfill the utilitarian requirements of the problem.

The Greek style of the column, lintel, and wall made for certain shapes. All parts were functional. The Roman style of arches, domes, and walls brought other shapes, and so also with the Gothic style. But, first and foremost, all parts were functional. Carry the analysis to the Italian Renaissance, and, although much of beauty of some of the buildings would be lost if we stripped the applied pilasters and ornament from the façades, yet we find that climate, sunlight, and the political situation of the times gave plans and shapes that are functional.

The point I am getting at is so trite and yet so often lost. It is not the mere incrustation of ornamental parts that makes a style, but the structural shape that is of primary importance.

That, however, is not entirely all, for one could push a theory to an absurd point. For example, it can be proved that an office building without windows would, from an efficiency point of view, be better than one with windows. More perfect ventilation, better light, lack of distraction from work, better

heating, etc., would be accomplished. There is, however, something else that is demanded. It is the human desire for a kind of satisfaction of the mind or heart, or whatever you want to call it, that comes from contact with the sky or nature or the touch of man in the realm of æsthetics rather than logic.

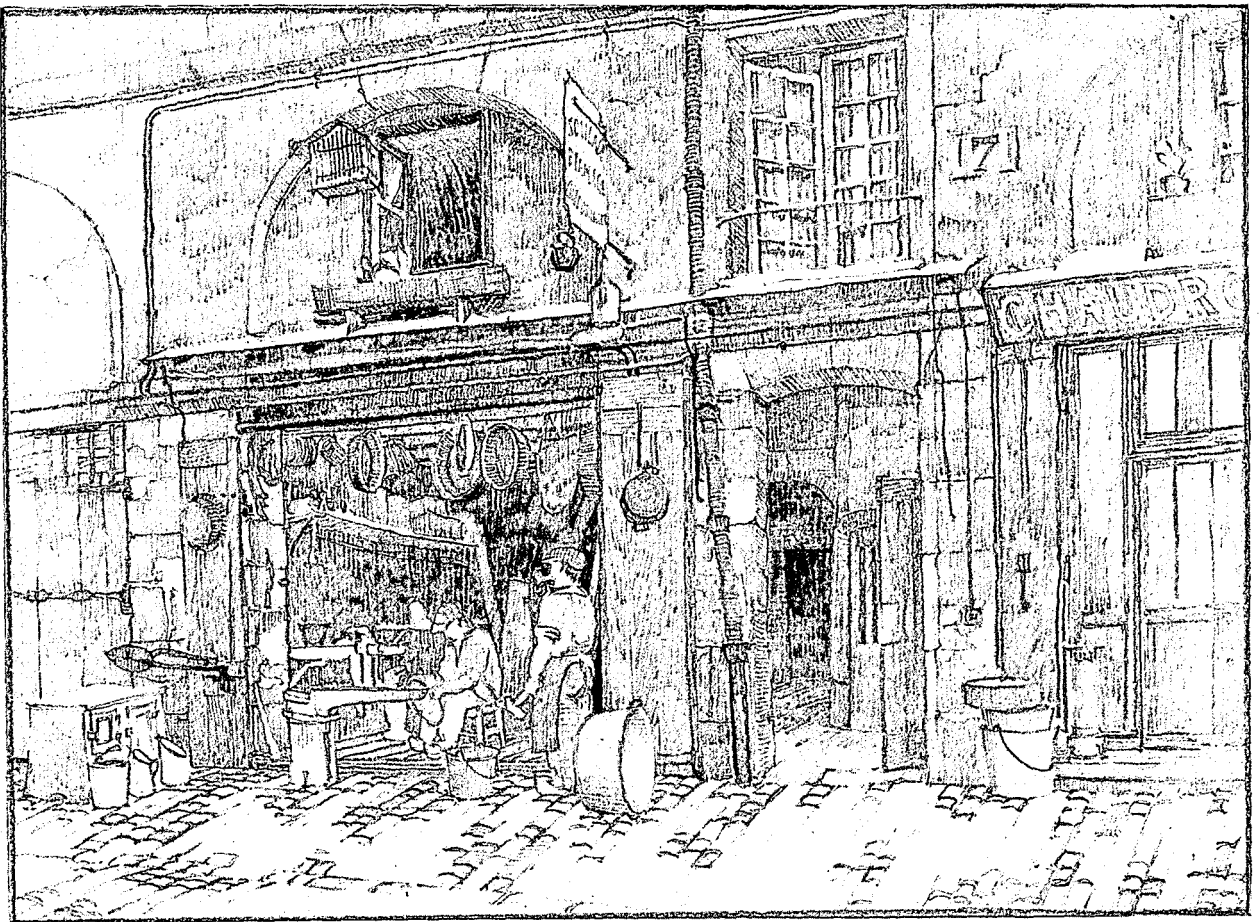
This human expression may take the form of representing thoughts of conquest, martial glory, religious aspiration, nature, or, in a highly developed sense, pure form. While this part of architectural design has generally been considered the thumb mark of style, it is a secondary adjunct. Nevertheless, and I expect many would disagree with me, it is only in the development of this, the truly æsthetic side of architecture, that we complete the expression of our individual selves and nations and times.

No school can teach that force which makes man creative. I question even that a school can bring it

out except possibly by supplying a mere order of work that allows its play.

I do not pretend to suggest a method to follow, nor do I condemn the tendency of the work in our schools. Quite the contrary, while I feel it is mostly without foundation, while it is almost all bad, and while I question the motives behind it, I acknowledge that behind it is an inspiring force. There are reasons for its being there, but I will not discuss them here.

What I appeal for is that action be accompanied, or rather that it emanate from, thought and not from caprice, and that a man question himself very carefully as to his own true desires and likes rather than follow a nebulous hearsay of "the thing to do." Only by that method can a man enjoy the one quality of value in any form of art which is creation, and in creation is the only possibility of giving meaning to the word progress.



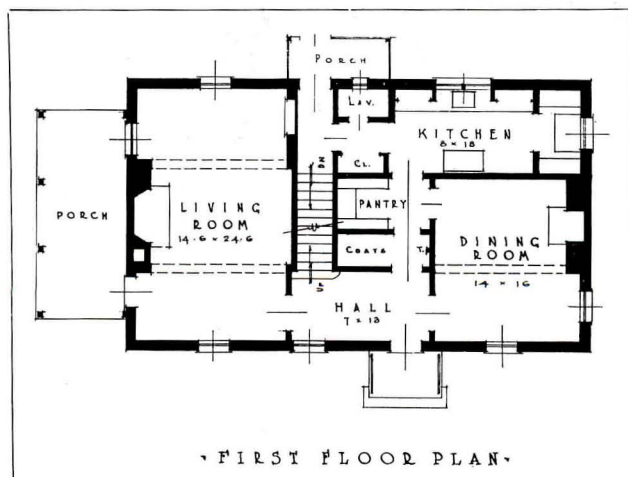
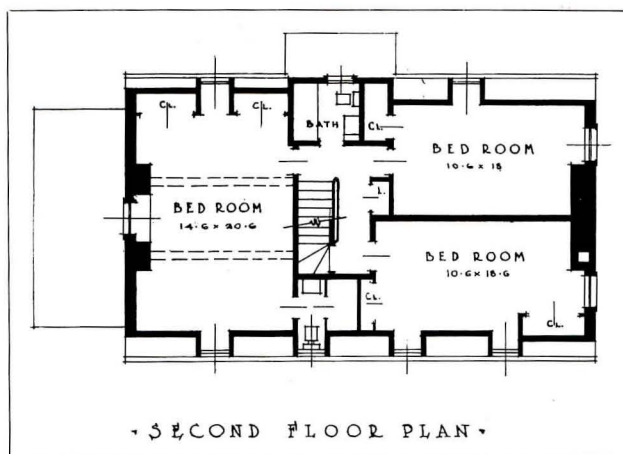
LITHOGRAPHIC PENCIL SKETCH BY LEROY E. KIEFER

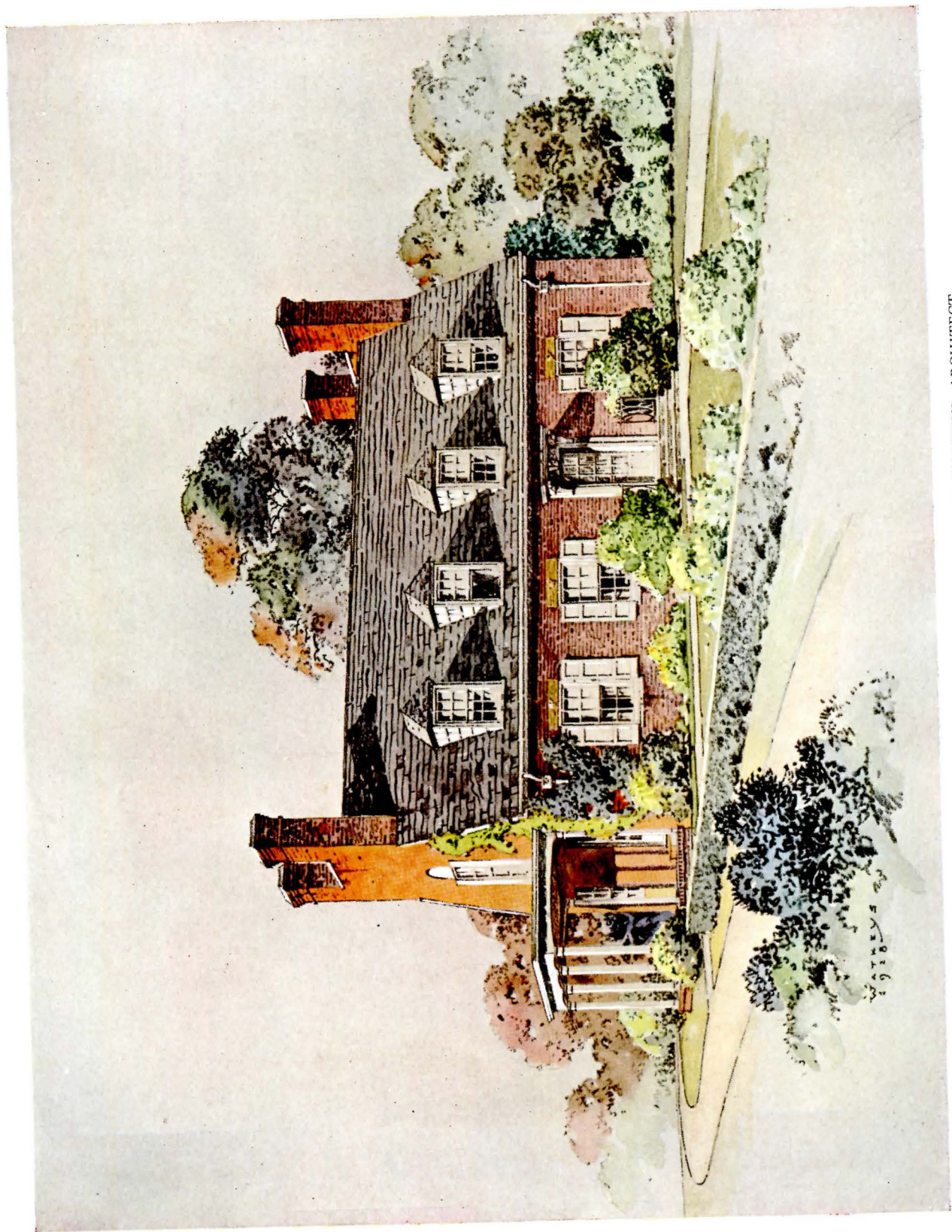
TINSMITH'S SHOP, PARIS

PENCIL POINTS SERIES OF COLOR PLATES

This effective drawing of a small house was made on grey illustrator's board in pencil and rendered with transparent water colors and with touches of Gouache for highlights. Such renderings can be made rapidly and with economy of effort, yet when well done, they are very effective for showing the client what his house is going to look like. The effect depends largely on the massing of the foliage and upon the skill with which the picture is vignetted into the surrounding cardboard.

This example measured in the original $15\frac{1}{4}" \times 11\frac{1}{2}"$. Plans for the house are given below.





RESIDENCE FOR THEODORE LEONHARD, ESQ.—PAUL WATKEYS, ARCHITECT
FROM A RENDERING IN PENCIL AND WATER COLOR BY PAUL WATKEYS

GOTHIC ALPHABETS

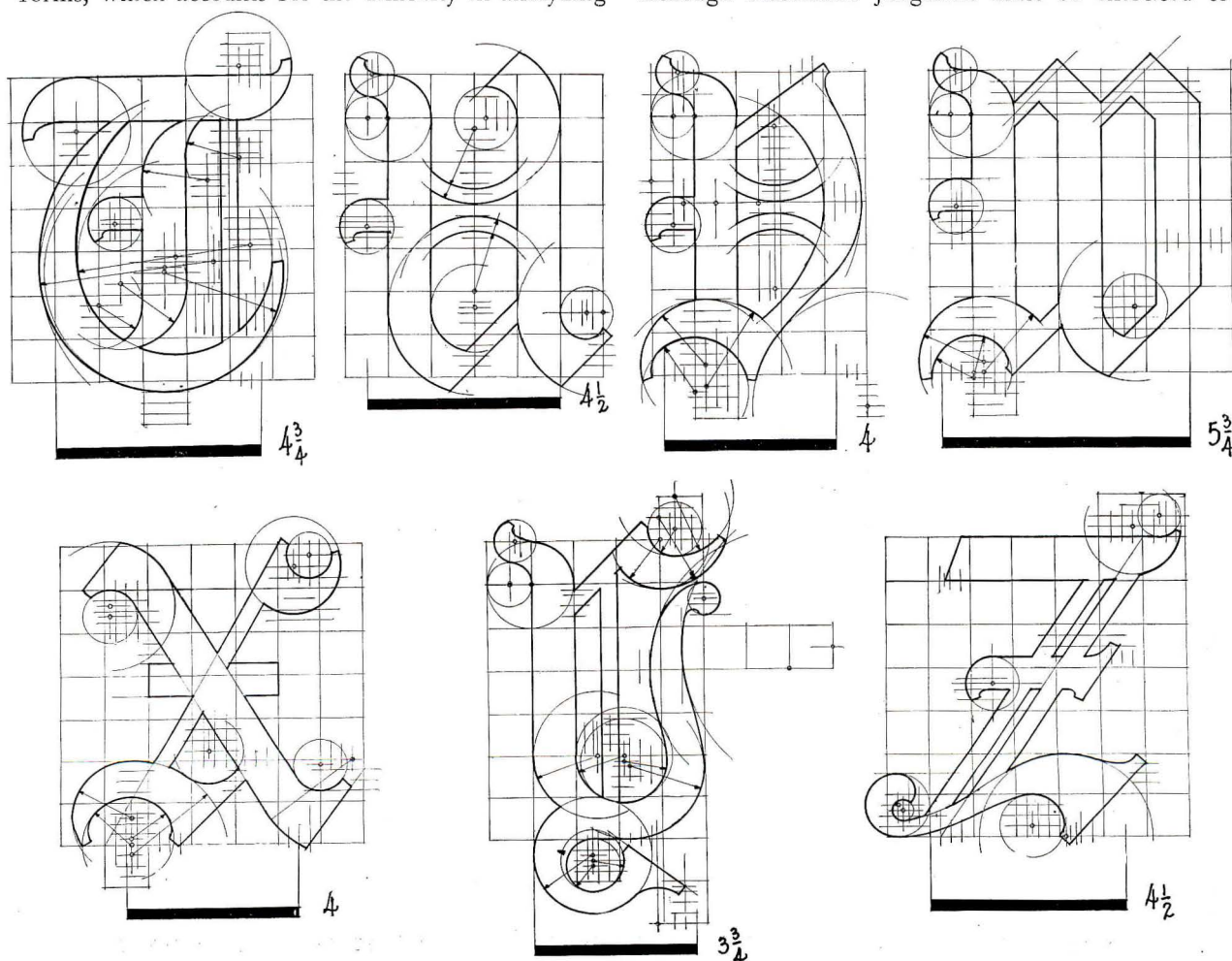
By Egon Weiss

(EDITOR'S NOTE:—This article, with its illustrations, is copyrighted 1929 by the author. All rights reserved.)

IN HISTORIC ORDER the next alphabet after the Uncial for discussion is the Gothic. Early forms of this type of letter follow the roundness of the Uncial forerunner; however, parchment was expensive and saving space became an important factor in the development. The letters were condensed, spaces between letters and words were reduced to a minimum, ascenders and descenders were shortened to permit crowding of lines until finally the black dominated over the white and a style of lettering evolved that is now known as "Blackletter," a letter that as a printing type was gradually displaced by the more dignified and more legible Roman, but still survives in the German popular text of today. Like the Uncial parent letter the Gothic Blackletter has never reached such development as to obtain authoritative forms, which accounts for the difficulty in analyzing

the various letter forms though such an analysis was comparatively simple for the perfected Roman. (See "Roman Alphabets" Issue of August 1928, PENCIL POINTS.) With regard to the development of the Blackletter as a Gothic letter it is thus understood that the Blackletter always is a Gothic letter but a Gothic letter must not necessarily be a black letter.

As blackness is one of the main characteristics of Gothic lettering it is obvious that close spacing of both letters and lines of letters is of utmost importance to obtain color harmony. The beauty of composition and the character of the design is not merely obtained by perfect blackness of the individual letter but must be supported by close spacing which gives the whole inscription panel a general black appearance. It is therefore often said: "The more black the better!" although reasonable judgment must be exercised to



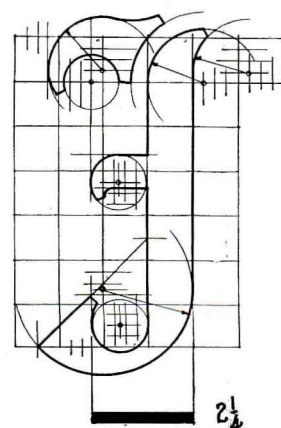
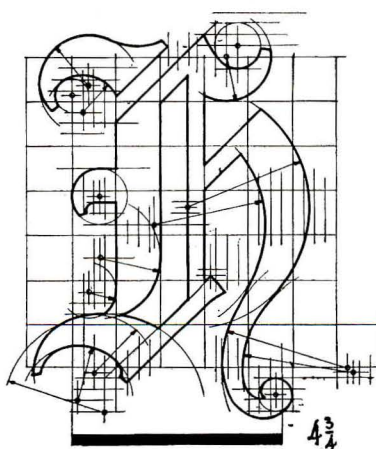
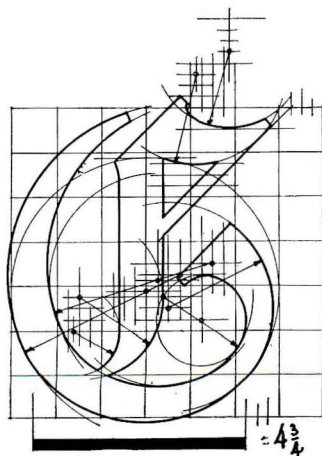
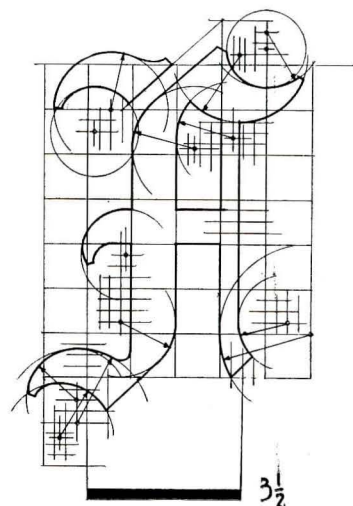
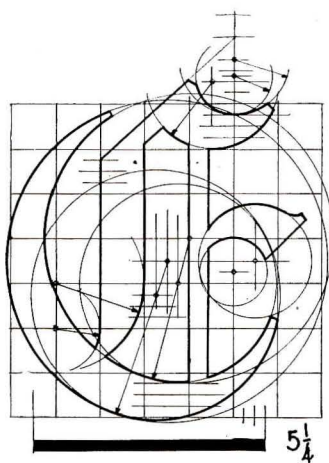
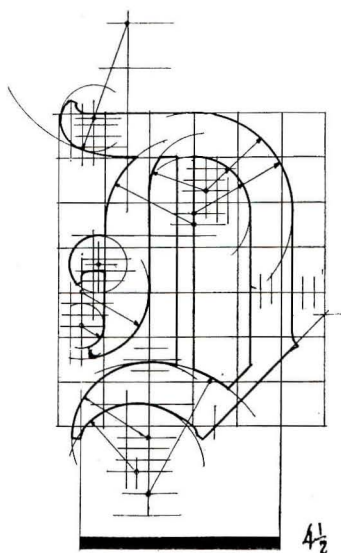
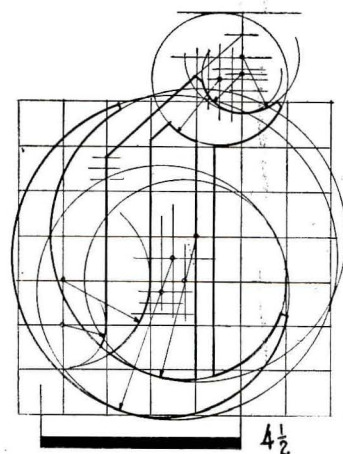
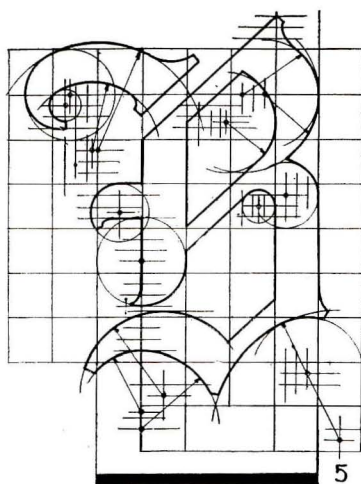
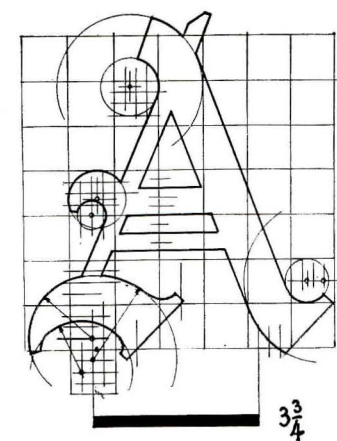
OLD ENGLISH LETTERS WITH CONSTRUCTION AND NET VALUES BY EGON WEISS

Adapted from an alphabet in "Lettering in Marble," published by the Vermont Marble Company



FIGURE 1—AN OLD ENGLISH ALPHABET WRITTEN WITH A BROAD-NIBBED PEN BY EGON WEISS

GOTHIC ALPHABETS



PORTION OF OLD ENGLISH ALPHABET WITH NET VALUES FOR SPACING BY EGON WEISS
Adapted from an alphabet in "Lettering in Marble," published by the Vermont Marble Company

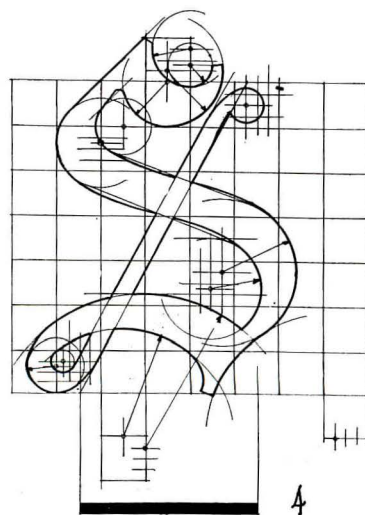
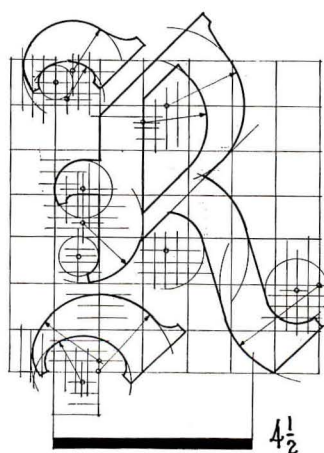
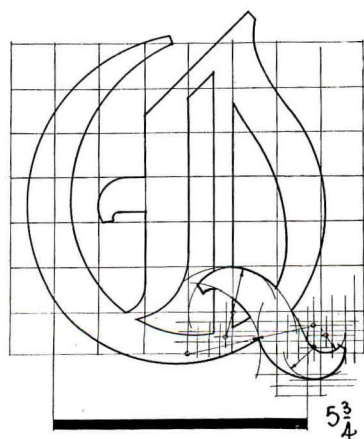
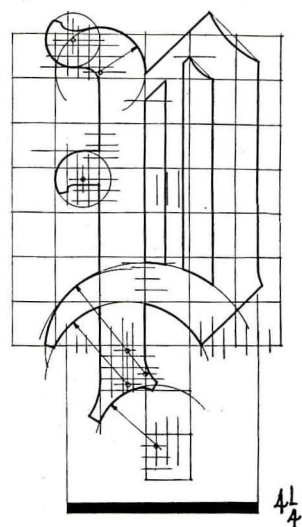
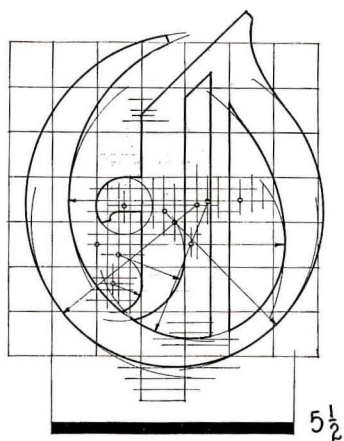
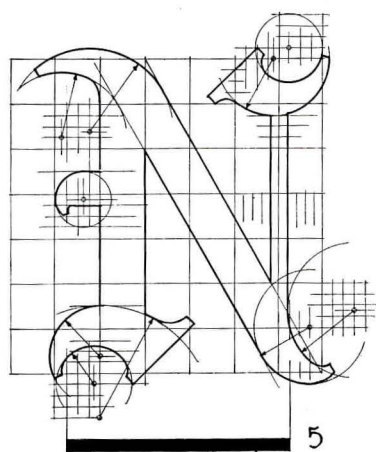
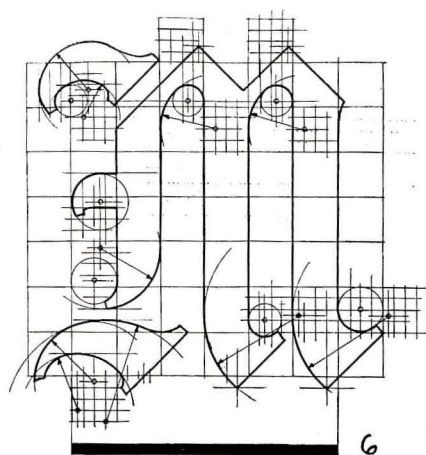
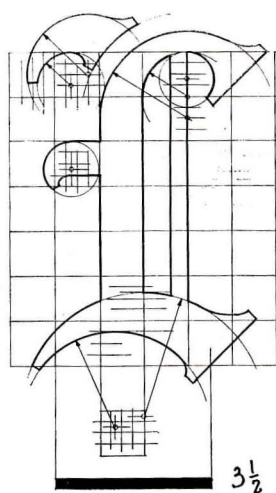
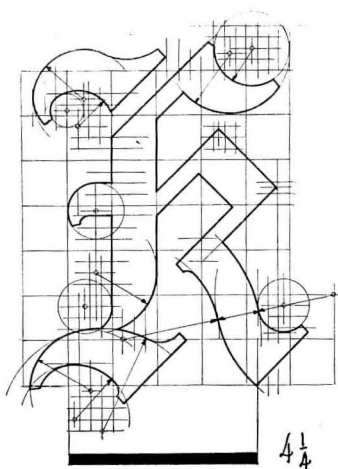
A B C D E F G
 H I J K L M N O
 P Q R S T U V
 W X Y Z w x y
 Westminster
 Abbey
 a b c d e f g h i j k l o p q r s t u v

FIGURE 2—ENGLISH GOTHIC FROM WESTMINSTER ABBEY

German Gothic
 A B C D E F G
 H I J K L M N O P
 Q R S T U V W
 X Y Z b d f g i l p q
 r u v w x y z
 1 2 3 4 5 6 7 8 9 0

FIGURE 3—THE POPULAR GERMAN GOTHIC ALPHABET

GOTHIC ALPHABETS



PORTION OF OLD ENGLISH ALPHABET WITH NET VALUES FOR SPACING BY EGON WEISS
 Adapted from an alphabet in "Lettering in Marble," published by the Vermont Marble Company

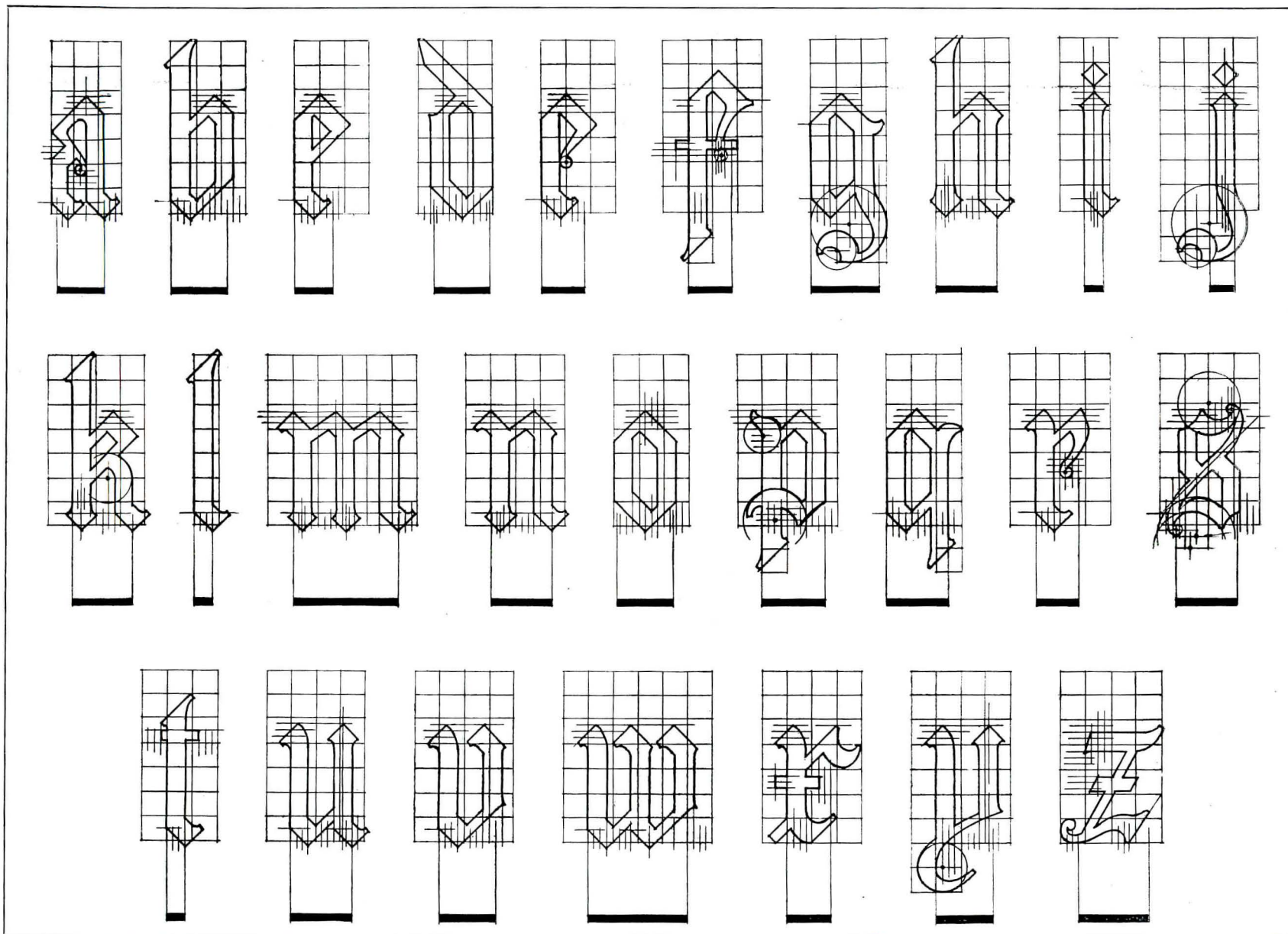


FIGURE 4—CONSTRUCTION FOR LOWER-CASE GOTHIC LETTERS WITH NET VALUES BY EGON WEISS



FIGURE 5—NUMERALS FOR USE WITH GOTHIC LETTERS AND A FREE GOTHIC LOWER-CASE ALPHABET



Courtesy Federal Terra Cotta Company

FIGURE 6

preserve legibility which, as a matter of fact, is the one outstanding weakness of the blackletter due to a repetition of similar forms for different letter meanings. Gothic lettering in design offers perhaps more freedom in individual letter execution than any other type of lettering. The same letter may be varied, even though used in the same word, if it will serve to obtain more "color," and flourishes are often used to fill awkward holes of white. However, this liberty in treatment may not be interpreted to mean that one word may be spaced with more white between letters than another merely to fill up a line, a thing that is often done with Roman letters; on the contrary, the amount of white, reduced to a reasonable minimum, approximately the same as the white between two perpendicular strokes of a lower-case letter, must be kept the same as much as possible.

The use of Capital letters should be confined to one, or two-word inscriptions. The designer must never forget that the general reading public is not trained for reading Gothic text and long inscriptions consisting solely of "Caps" will often puzzle persons who believe themselves to be quite familiar with blackletters. It is therefore much better design to use lower-case letters both with Uncial and Blackletter Capitals for panels with long descriptions.

Gothic letters in design are primarily to be used for ecclesiastical and other serious work. It would be a poor policy to use it merely for fanciness if this particular style is not called for by the rest of the design.

The best known type of Blackletter as far as the

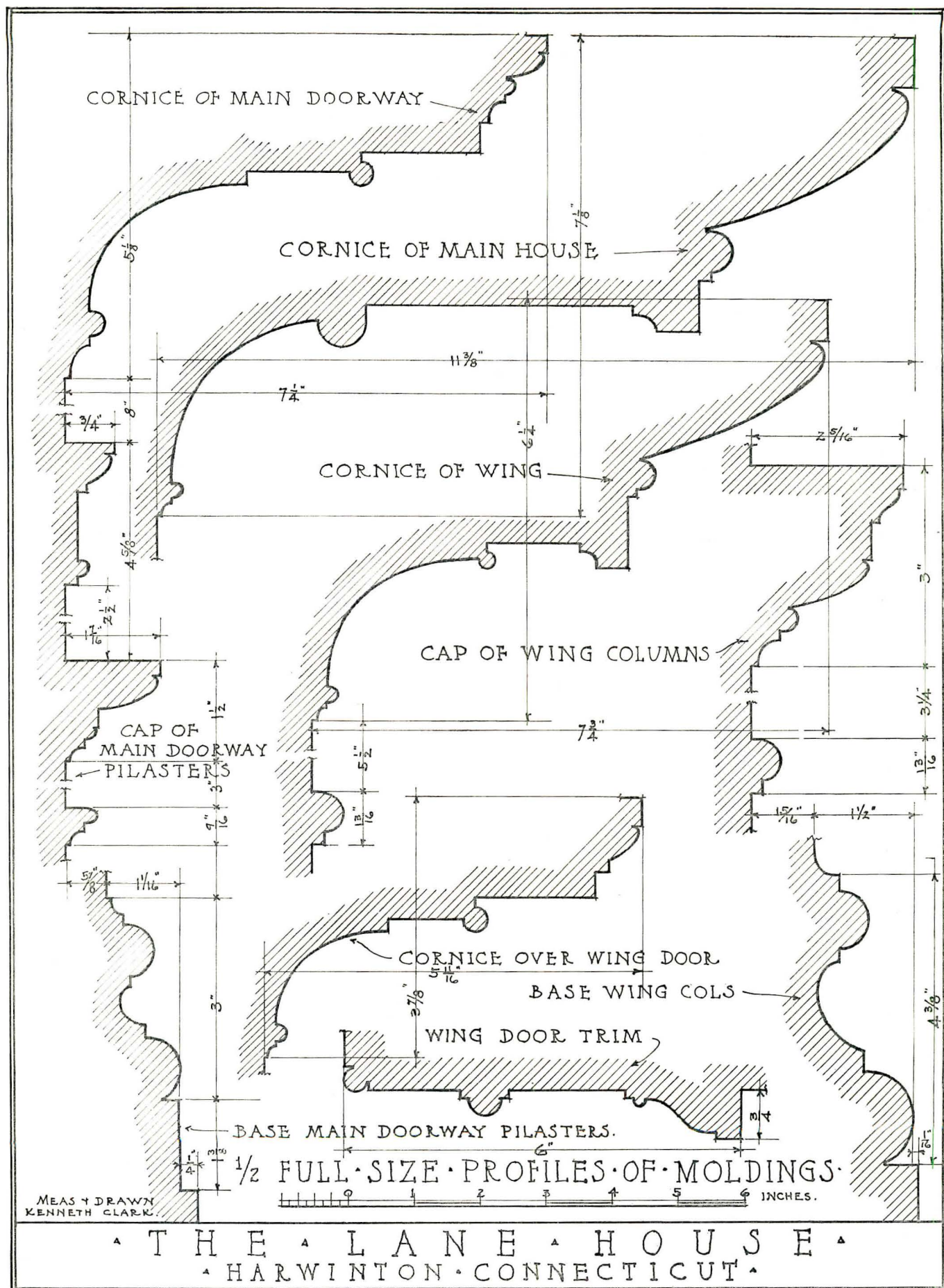
general reader is concerned is perhaps the Old English. A method of construction for Old English letters is included with this article. The design has been adapted chiefly from "Lettering in Marble" published by the Vermont Marble Company. Again we have added Neutral lines for spacing guides (See "An Original Method for Spacing Letters," February 1928, PENCIL POINTS) although we believe that spacing Blackletters offers hardly any difficulty due to the freedom of treatment permissible with this style of letters as explained in a previous paragraph. In Figure 1 we have shown an Old English alphabet written with a broad-nibbed pen such as a Round Writing or Speedball pen. This type of Old English can easily be adopted for execution in material by adding a little weight to the hairlines. Figure 2 illustrates a type of English Gothic that may well be adopted for ecclesiastical work; it is taken from Westminster Abbey. Figure 3 shows a Blackletter that today is used more extensively than any other type of Blackletter: the German Gothic, the German popular type.

A construction for lower-case letters for use with either Uncial or Gothic Capitals is given in Figure 4 with numerals illustrated at the top of Figure 5. The lower-case letters of Figure 5 are constructed more along the lines of the lower-case letters shown in Figure 2. The proportions are the same as for the alphabet detailed in Figure 4 and should, therefore, offer no more difficulty in construction. Figures 6 and 7 are shop photographs of name-panels illustrating the use of Blackletters in Terra Cotta.

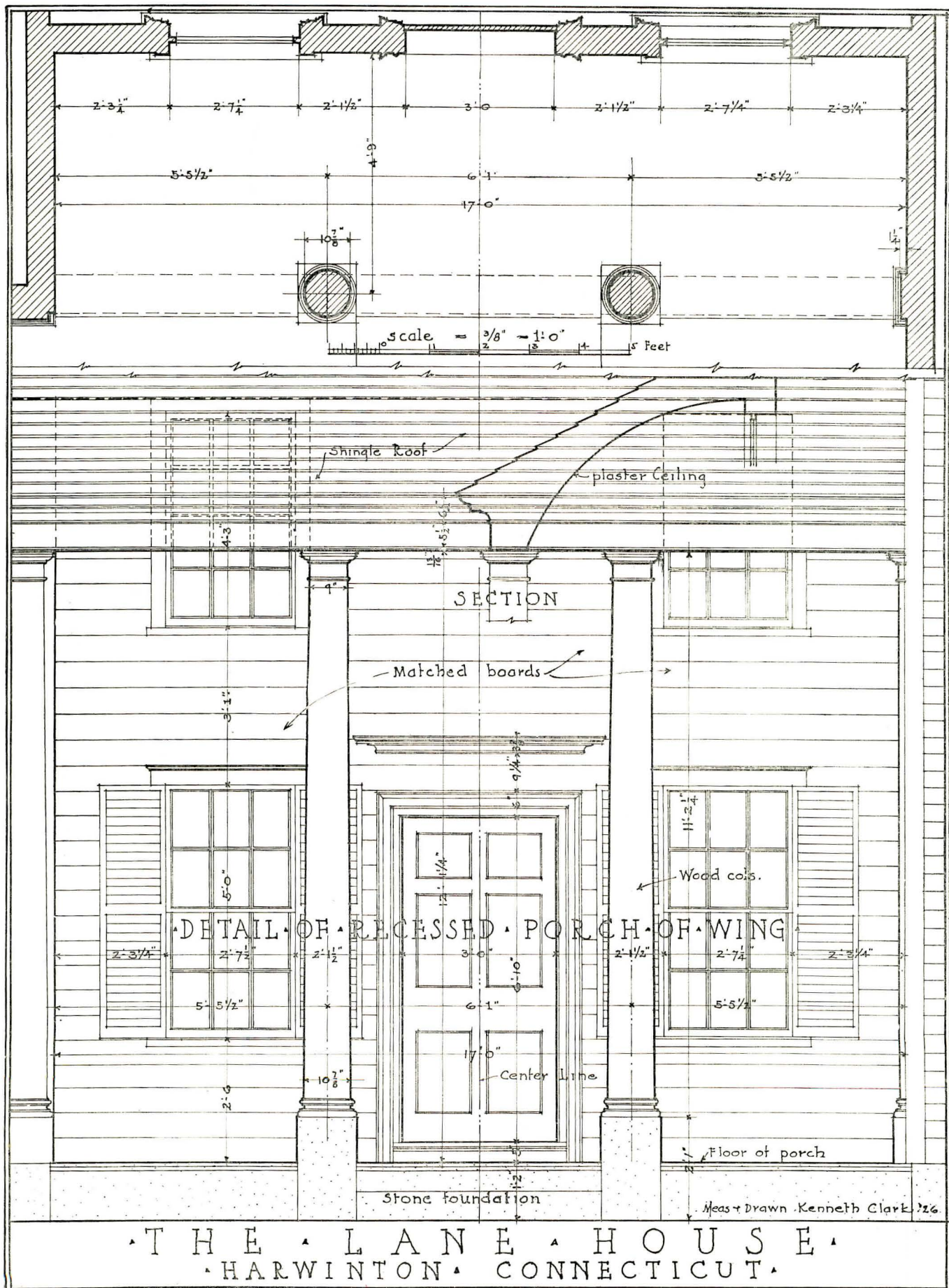


Courtesy Atlantic Terra Cotta Company

FIGURE 7



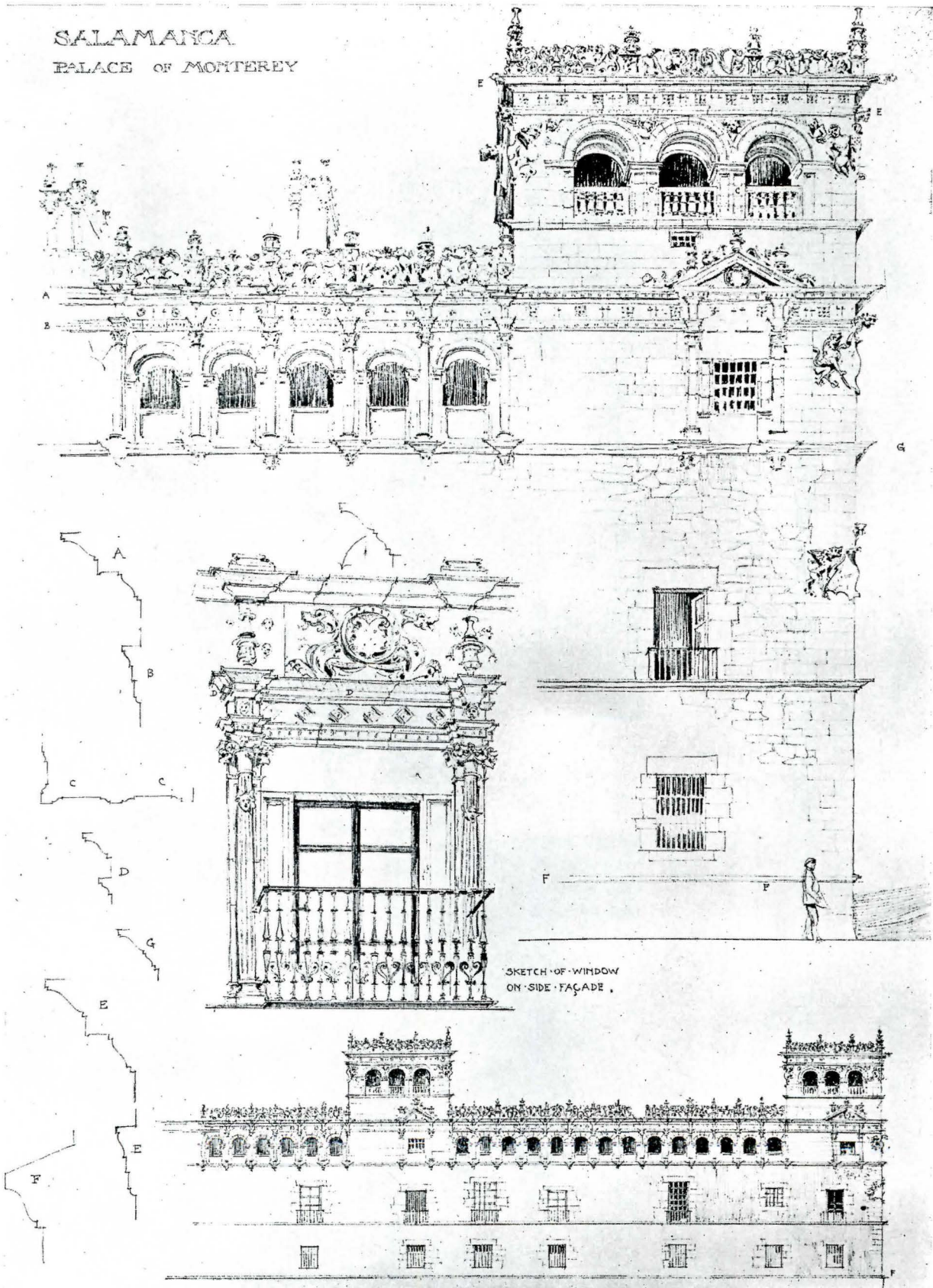
MEASURED DRAWING BY KENNETH CLARK—FROM THE GEORGE F. LINDSAY COLLECTION



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

PENCIL POINTS

SALAMANCA
PALACE OF MONTEREY



RENAISSANCE ARCHITECTURE AND ORNAMENT IN SPAIN

A PLATE FROM THE WORK BY ANDREW N. PRENTICE

PLATE V

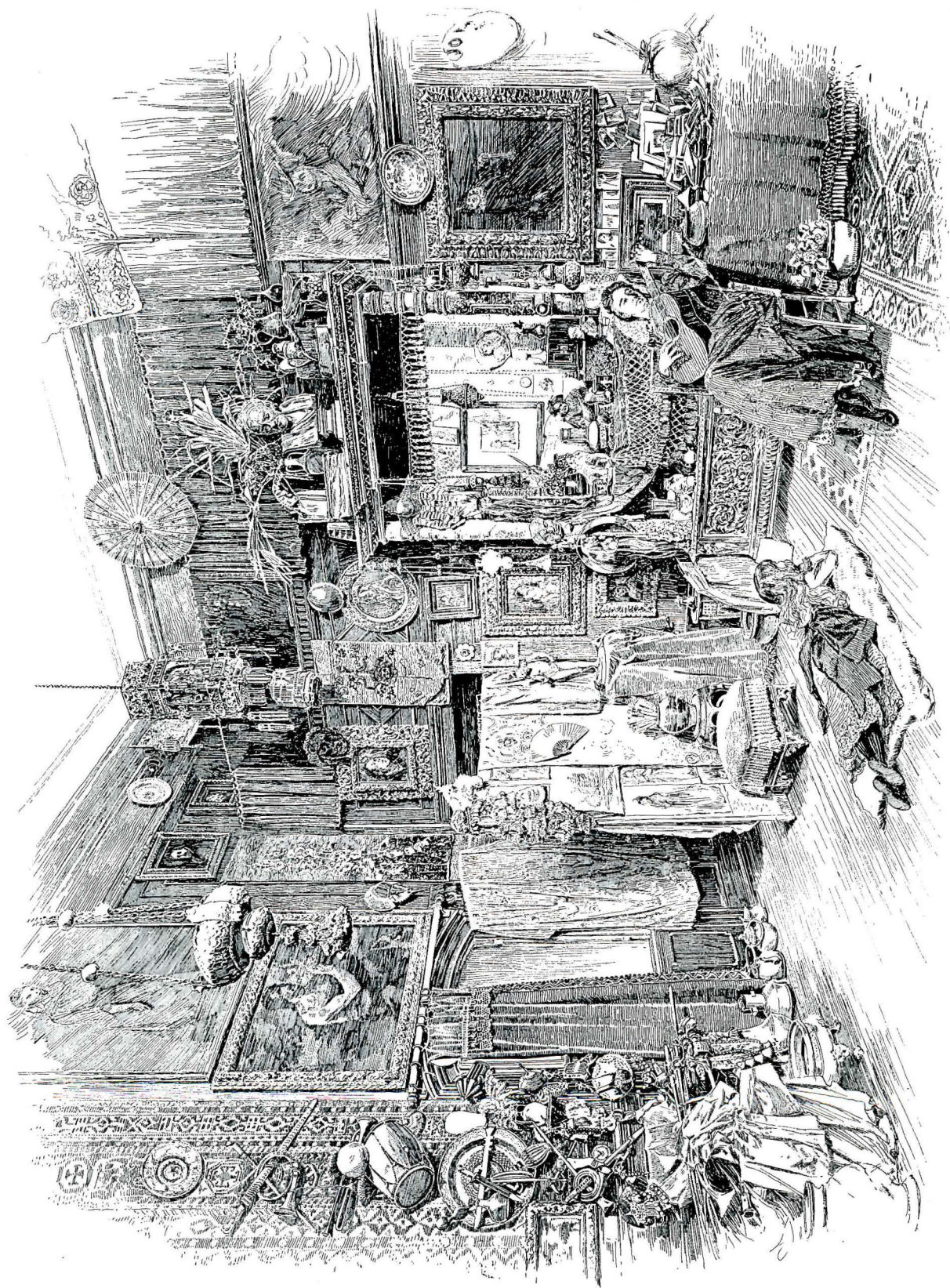
VOLUME X

NUMBER 2

"Regarding the history of this very grand palace little is known. The date, judging from the character of the work, is probably about 1530, and as many of the shields bear the arms of Cardinal Fonseca, in the form of five stars, it is possible that the palace was originally built by the great primate, from designs by his architect Alonso de Covarrubias, who also designed the Colegio Irlandes in Salamanca. The title of Condé de Monterey was created in the year 1626 in favour of Don Baltasar de Zuniga, who no doubt at one time inhabited this palace, and from him the palace derived its name.

"The open loggia on the top story was doubtless built for the ladies of the house to take exercise there when the streets were unsafe. The ornamental stone 'antepecho' is a feature similar in design to the Santiago example. Built of a warm-coloured stone the palace has a very striking appearance in the strong sunlight. The interior is uninteresting, its enrichments having been destroyed during the French war."

A. N. PRENTICE.



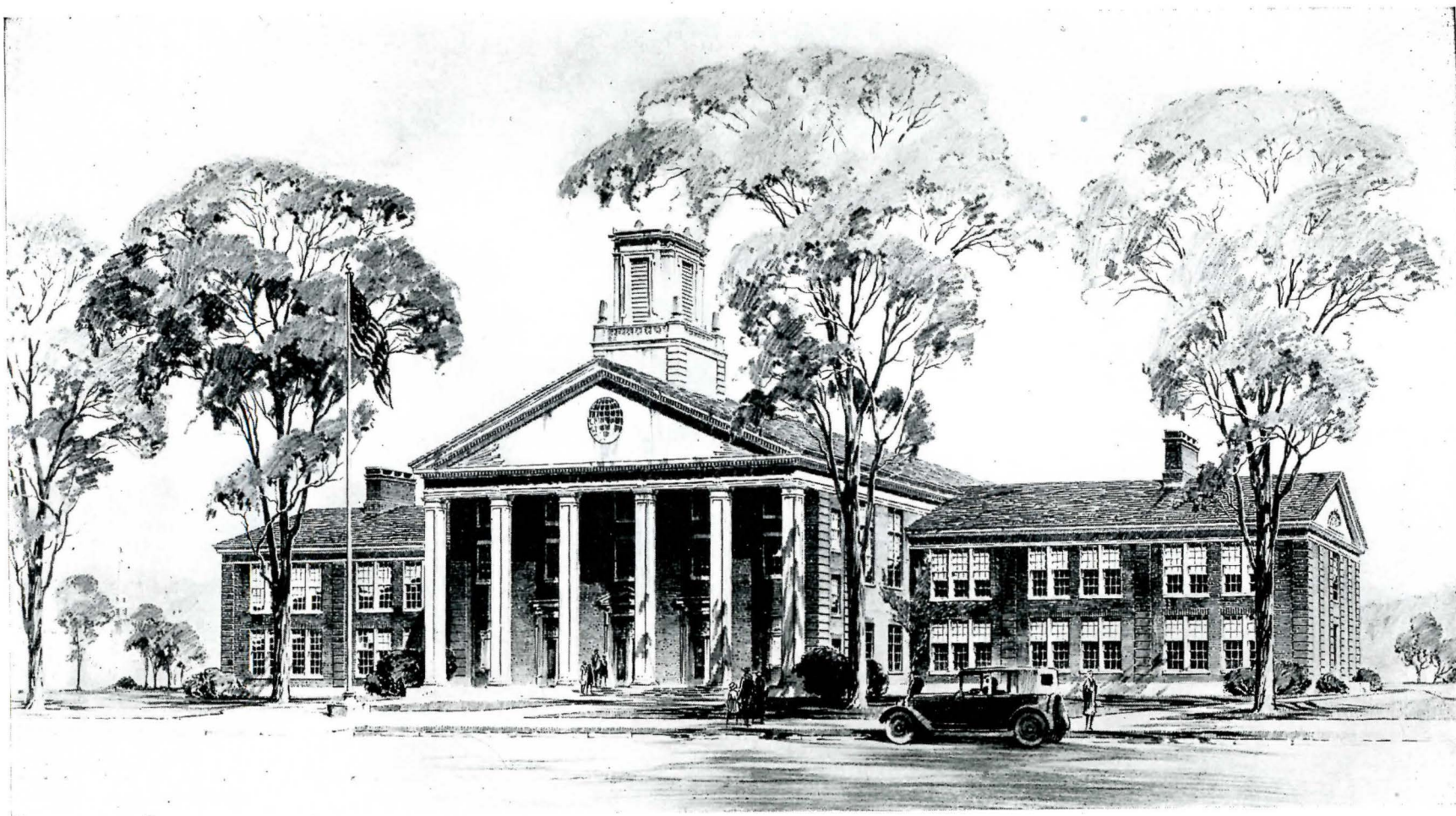
IN THE STUDIO OF WILLIAM M. CHASE
FROM A PEN AND INK DRAWING BY HUGHSON HAWLEY

PLATE VI

VOLUME X

NUMBER 2

This pen-and-ink drawing by Hughson Hawley, whose work was the subject of an article in our December 1928 issue, is interesting for several reasons. The student of pen technique will find something to admire in the expression of many different textures while the student of Americana will see a record of one phase of the development of interior decoration in this country. It is particularly interesting to know that in this studio, located in an old building on West Tenth Street, New York, the celebrated American painter, William M. Chase, did many of his widely known canvases.



FROM A PENCIL RENDERING BY SCHELL LEWIS
HIGH SCHOOL AT ADDISON, NEW YORK—PALMER ROGERS, ARCHITECT

PLATE VII

VOLUME X

NUMBER 2

This rendering by Schell Lewis was drawn on tracing paper over a perspective layout, fixed, and mounted on illustrator's board by the method described by him in the January 1929 issue of PENCIL POINTS.



SCULPTURE BY LEO FRIEDLANDER FOR AMERICAN BANK AND TRUST BUILDING, PHILADELPHIA

DAVIS, DUNLAP AND BARNEY, ARCHITECTS

PENCIL POINTS

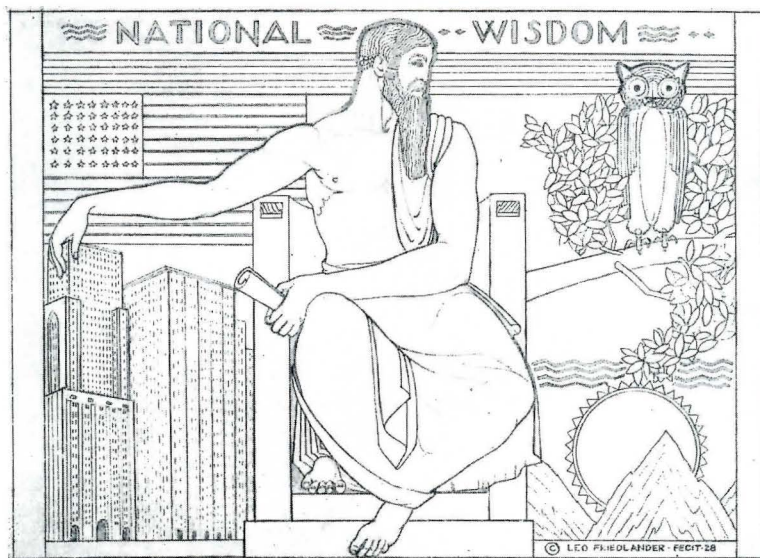


PLATE VIII

VOLUME X

NUMBER 2

The above drawing is the sculptor's preliminary study for the finished design shown on the other side of this sheet. It is one of two panels placed over side entrances of the building and measures approximately eight feet wide.



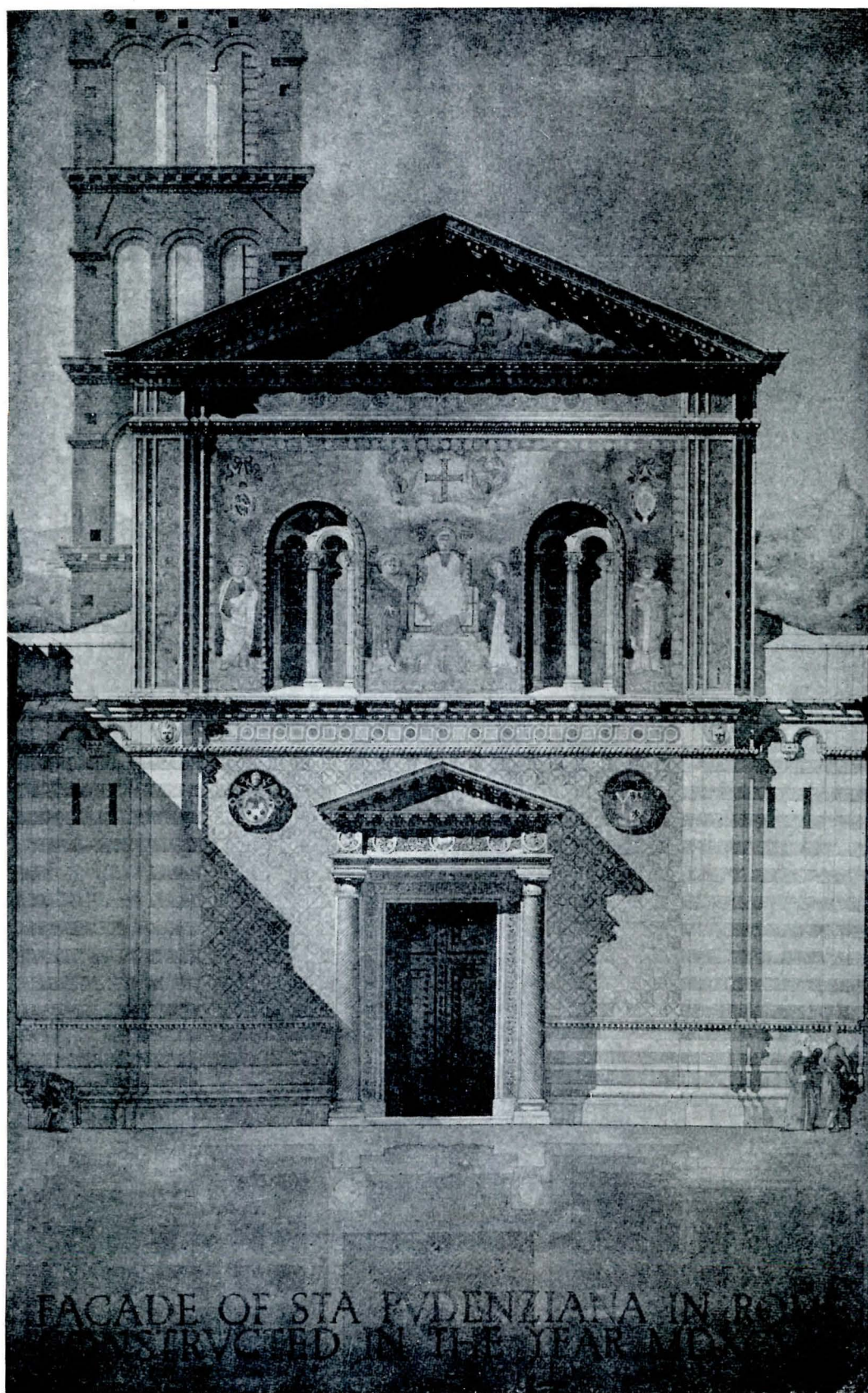
DETAIL OF FAÇADE OF CHURCH OF SANTA PUDENZIANA, ROME
FROM A WATER COLOR RENDERING BY E. WARREN HOAK

PENCIL POINTS SERIES of COLOR PLATES

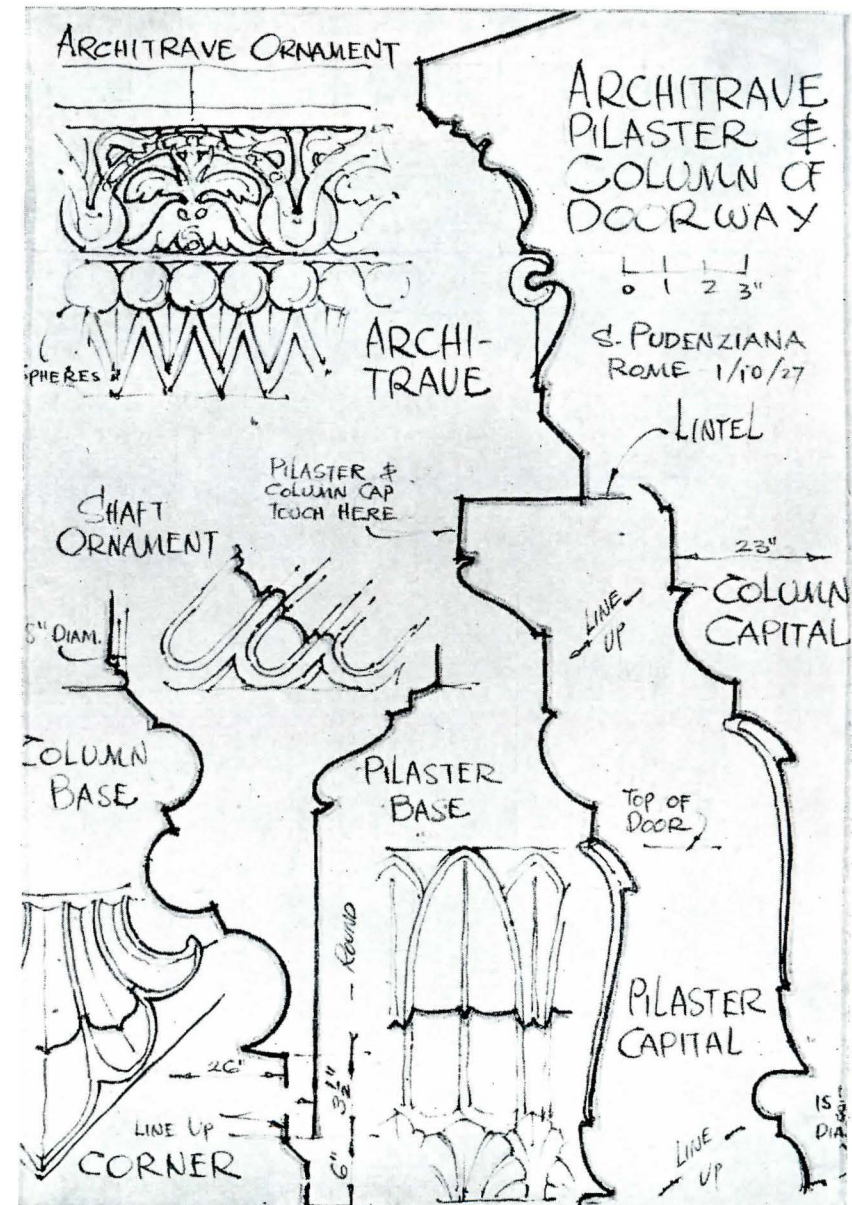
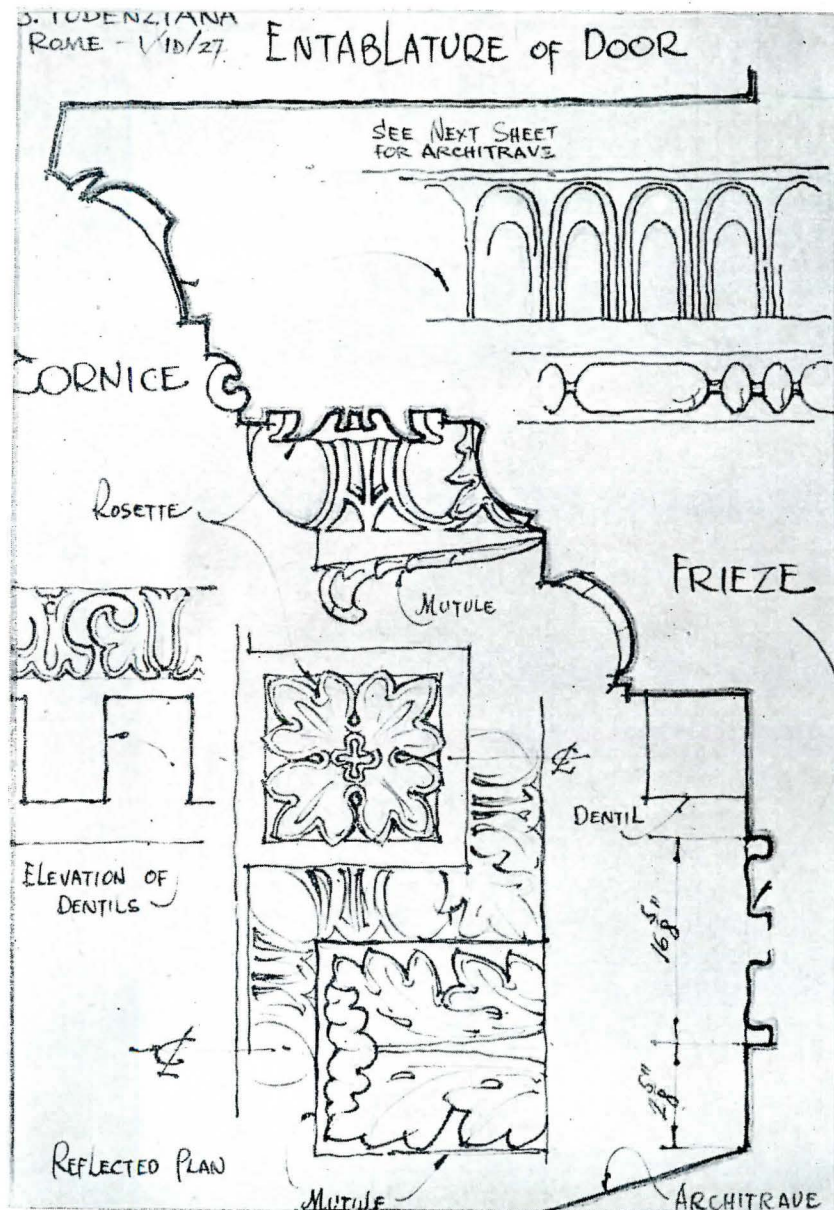
On this plate we have reproduced a portion of a rendering which we have shown elsewhere in this issue in black and white. The entire rendering measured $26\frac{1}{2}$ " x $42\frac{1}{2}$ " and the portion we have reproduced here in color is at about half the scale of the original.

The problem in rendering this subject was to reproduce the painted portions on the façade faithfully in their color and brilliancy and at the same time not to be carried away by them to the sacrifice of the architectural design and sculptured ornament. Consequently, the shadows were under-painted with washes of India ink and then color was applied as a stain, built up to value, and sponged. Accents of fresh color were finally applied to bring the architecture forward.

The rendering was made at the American Academy in Rome under the direction of Mr. Frank P. Fairbanks.

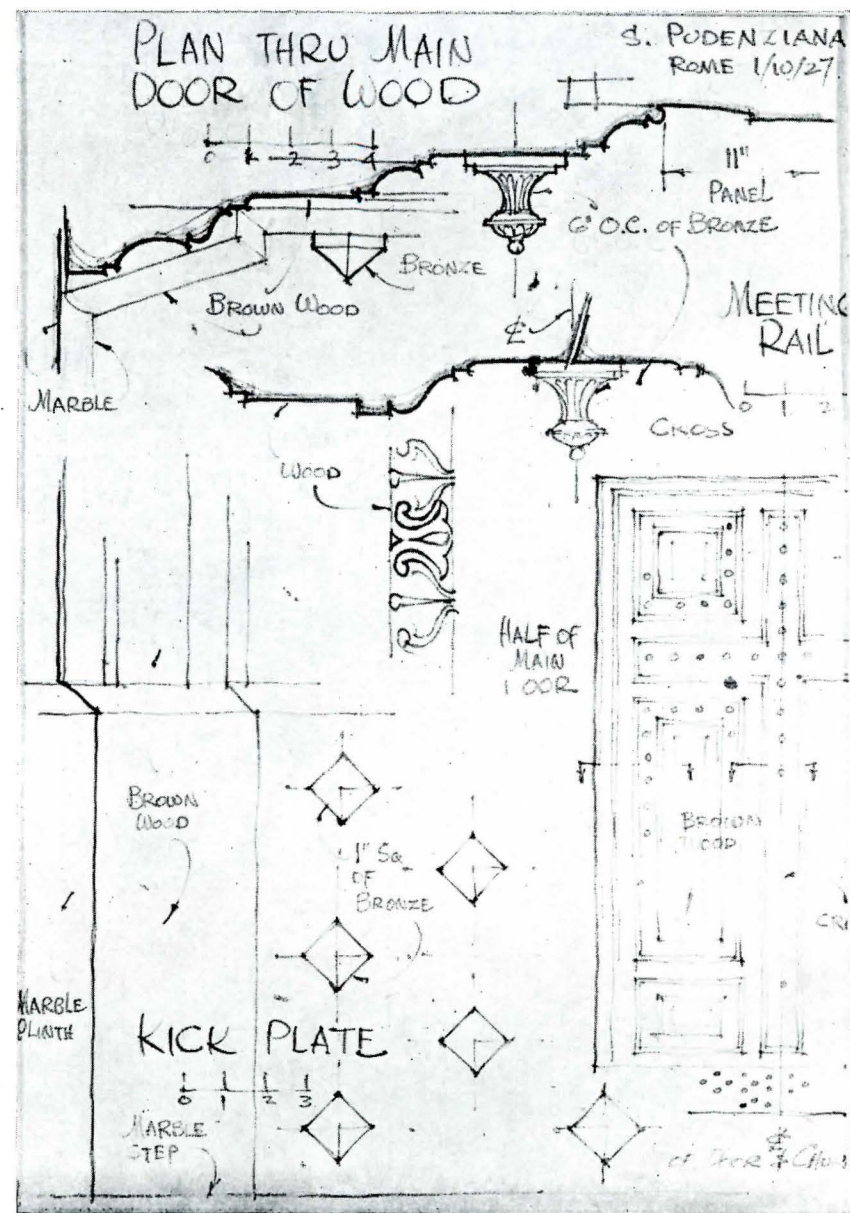
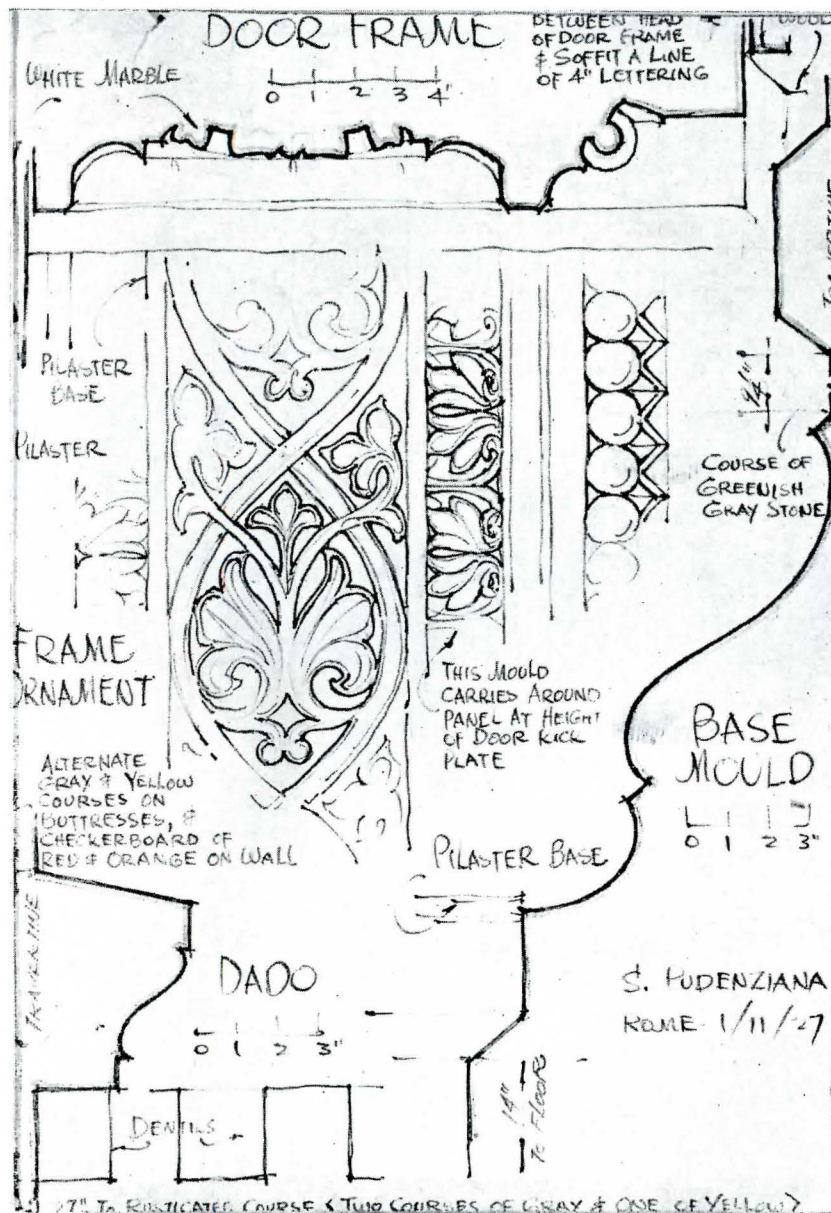


RENDERING BY E. WARREN HOAK—SANTA PUDENZIANA, ROME
MADE FROM MEASUREMENTS TAKEN IN THE FIELD—SEE DETAIL ON COLOR PLATE, THIS ISSUE



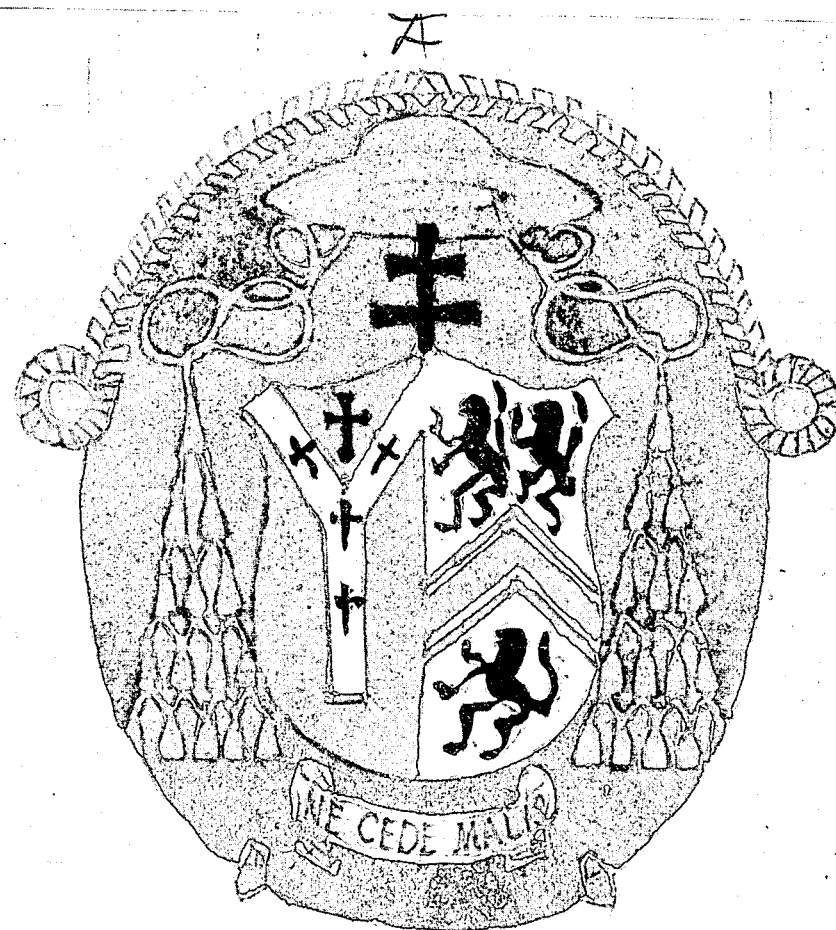
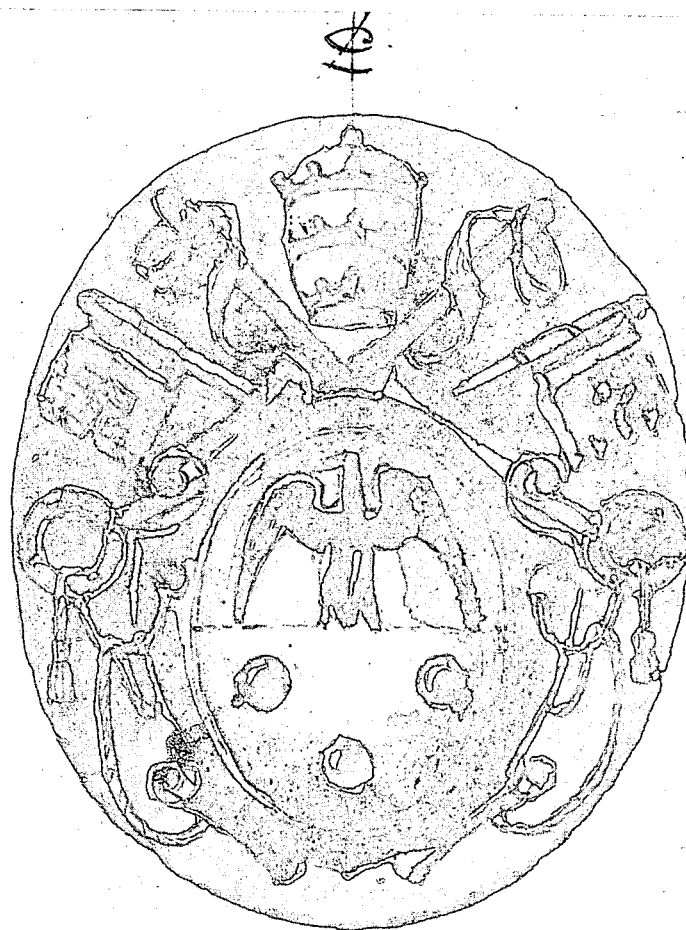
FIELD NOTES BY E. WARREN HOAK—DETAILS OF DOORWAY, SANTA PUDENZIANA, ROME

SEE RENDERING OF FAÇADE ON PAGE 119 AND DETAIL ON COLOR PLATE IN THIS ISSUE



FIELD NOTES BY E. WARREN HOAK—DETAILS OF DOORWAY, SANTA PUDENZIANA, ROME

SEE RENDERING OF FAÇADE ON PAGE 119 AND DETAIL ON COLOR PLATE IN THIS ISSUE



PAINTED METAL SHIELDS

HOAK

DETAILS OF SHIELDS FROM FAÇADE OF SANTA PUDENZIANA, ROME

MEASURED AND DRAWN BY E. WARREN HOAK

See rendering on page 119 and color plate in this issue

RELATING TO COST AND PROFIT

THE ARCHITECTS' LEAGUE OF HOLLYWOOD SERVES THE PROFESSION

ACTUATED BY A keen desire to render a service to their fellow architects, the members of the Architects' League of Hollywood are starting a most worthwhile work which could well be copied by other architectural organizations throughout the United States. They have formed a committee to assemble and tabulate the costs of various types of buildings erected in Southern California. They propose to use the data in the following manner:

Members of the League will send in the cost of various buildings, reducing these to a cost per square foot and a cost per cubic foot. Each building will have a brief description as to its general specifications. The League then proposes to have these printed at periodic intervals and sent to the various architects comprising the League and to any others who may be interested. It will probably make a nominal charge for these to cover the actual expense of having them printed. It is not easy to get authentic cost data on various types of buildings and the Architects' League of Hollywood feels that the architect assumes an ethical and business obligation to guide his client correctly in giving him reliable preliminary figures on his building.

The fact that architects are not always as careful as they should be in giving out preliminary cost data gets many of them into serious difficulties and has been a reflection on the practice of the profession in general. It is a keen pleasure for an architect to have his clients tell their friends that in addition to planning well arranged and practical buildings, which are artistic in their appearance, that the architect has the ability to handle his business obligations with effectiveness and efficiency.

There is no question but that the members of the League in attempting this work will be performing a service of immeasurable benefit to their brother architects in this local field. It is refreshing indeed to see a group of men within the profession who are so progressively minded—who think and see clearly and concentrate their activities upon important and effective things. In no sense of the word do we decry the worthy efforts of various architectural organizations to develop the profession along artistic lines. In this age such a work is necessary and worthwhile, particularly when the architectural taste of the public is becoming more discriminating and its demands more exacting. This has come about through the commendable activities of so many popular magazines which devote themselves to the advancement of the arts of architecture and of interior decoration. But at the same time, it seems to us, inasmuch as the major por-

tion of an architect's time is devoted to administrative problems along a line of pure business routine, that architects should develop themselves to meet these vital and practical demands of their profession as well as that one calling for a more purely artistic endeavor.

The Architects' League of Hollywood promises to have in our hands shortly the manuscript giving the results of the questionnaire which they sent to 8,000 architects throughout the United States, requesting their opinion of what constituted the production cost of adequate architectural service—how much plans and specifications should cost for various types of buildings. This subject is arousing a tremendous interest among the architects throughout the United States and the compilation of this data has been a monumental task. The publication of this invaluable cost data will unquestionably be of great financial value to every architect who procures and studies it.

One architect, we are informed, wrote to the League that the cost data embodied in their booklet, "The Architect's Cost and Profit," would have been of tremendous financial value to him had he possessed it twenty years ago when he started his practice. He said in substance: "If then I had the knowledge of how to figure my overhead, which is so clearly set forth in this wonderful booklet, I would, without question, have been worth \$150,000 more than I am today." This is fairly typical of the expressions of gratitude that have been received by the League.

The report giving the tabulated results of this exceedingly interesting Questionnaire will appear serially in the pages of PENCIL POINTS, beginning before the middle of this year. This will be one of the most complete and authoritative works on the subject of the Cost and Profit of an architect's office that has yet been published.

The Architects' League of Hollywood has gone about this in a very businesslike manner. It has retained a firm of Cost Accountants to check this cost data and to guide the work from an accounting standpoint, and the publication of this report promises to be one of the most valuable documents ever placed in the hands of the architects of the United States. It covers every phase of overhead and cost finding for the architect in a thorough and authoritative manner.

While the League advocates that the architect get more for his work, at the same time it advocates that he render greater service in return. The closed hand never receives. It is the open handed gesture of the extended friendly hand that gives as well as receives. This is equally true of a correct attitude of mind as well. "Freely ye have received, freely give."

THE 1933 WORLD'S FAIR

By Charles S. Peterson, Vice-President Chicago World's Fair Trustees

Reprinted from "Treads and Risers," Published by the Architectural Sketch Club of Chicago

THE YOUNGER ARCHITECTS of Chicago may see open before them in 1929 very much the same kind of an opportunity as that which opened before their predecessors in 1891. The city is making ready for a striking demonstration of architectural leadership. How well it justified its opportunity at the World's Columbian Exposition every architect knows.

For this latter enterprise, two important decisions have been made five years before the gates of the Exposition are to open. The first is the choice of a Commission on Architectural Management. The second is a decision by that Commission that the new Exposition should reflect the progress made in architecture and construction since 1893.

President Rufus C. Dawes and his associates of the Board of Trustees began the preparation of the celebration of the Chicago Centennial with an agreement that with regard to the ground planning, architecture, landscaping, illumination and intra-mural transportation they would undertake not to fall below the achievements of the World's Columbian Exposition. This decision subordinated every element in choosing the designers for the new Exposition save the single one of finding the most capable men available without regard to residence.

The president, on the advice of trained associates, sought the counsel of two architects whose eminence and freedom from prejudice recommended them strongly. They were invited to bring to Chicago lists of about 50 practitioners available for appointment to a Commission of Architects. The president procured from other well informed sources independent lists of a like character. A representative of the Board of Trustees met with the two architects invited for consultation and these several lists were compared.

Each of them contained about fifty names, and upon examination it was discovered that some thirty names appeared on practically all the lists. The others were thereupon eliminated, and in weighing the thirty names the Conference took account of three factors in particular: (1) The eminence of each architect as a designer; (2) The merit of his designing as tested by buildings which had stood long enough to be deliberately judged; (3) The ability of the architect to cooperate with other men.

Five were chosen by this process: Raymond M. Hood of New York, Paul P. Cret of Philadelphia, Harvey W. Corbett of New York, Arthur Brown, Jr., of San Francisco, and Ralph T. Walker of New York.

These five men were then asked how large, in their judgment, the Commission should be and whether or not they wished to associate with themselves any of the architects of Chicago. Fixing the number of Commissioners as not more than nine, they engaged in a mail ballot for Chicago representatives, and while many names were considered, and many were set aside with manifest reluctance, the choice fell unanimously on Edward H. Bennett, John A. Holabird, and Hubert Burnham.

The Trustees were explicit in stating that membership

of the commission neither designated the Commissioners to be designers nor disbarred them from being designers. They were to be a board of architectural managers to fix the general character of the Exposition grounds architecturally and to choose the architects who shall design the grounds and buildings in fulfillment of that decision.

The resolution which provided for this commission particularly specified that the fact of a man's residence and citizenship would have no bearing in determining his availability. In other words, the Commission was free to find the best designers around the world.

An early vote was taken to give to the Centennial the advantage of Mr. Bennett's skill as a city planner and a maker of ground plans for expositions. This was regarded as a particularly happy selection in view of the fact that this architect is the consultant for the Chicago City Plan.

The second decision had to do with the architectural character of the grounds and buildings, and was phrased in these words:

"The architecture of the buildings and of the grounds of the Exposition of 1933 will illustrate in definite form the development of the art of architecture since the great Fair of 1893, not only in America, but in the world at large. New elements of construction, products of modern invention and science, will be factors in the architectural composition. Artificial light, the tremendous progress of which has astonished all designers in recent years, will become an inherent component of the architectural composition. The extraordinary opportunities of the site to use water as an intrinsic element of the composition will be developed to the maximum.

"The architecture of the world is undergoing a great change. It has shown those signs that indicate the birth of a great fresh impulse. The architects of the Chicago World's Fair Centennial Celebration of 1933 intend that the buildings of the Fair shall express the beauty of form and detail of both the national and the international aspects of this new creative movement."

The number of architects employed in a World's Fair ordinarily is somewhere between seventy-five and one hundred. These men are designers and many of them are chosen by other governments to do the buildings of such governments; many are chosen to do special work for the Trade Associations or Concessionaires or exhibits that are separately housed. The great buildings are done usually by perhaps a score of designers.

The records of other World's Fairs, including that of Chicago in 1893, indicate that in the development of the project certain younger architects have emerged to an invisible prominence. It is a remarkable fact that the Fine Arts Building in Jackson Park, and that now standing in San Francisco, as well as one of the larger buildings in St. Louis and three at the Buffalo Exposition of 1901,



were the work of men not chosen to be designers and employed either as subordinates in the Bureaus of Architecture of the Expositions or as subordinates in the offices of men formally appointed designers.

In many hours of discussion and the writing of many letters, the conference of the Commissioners for the new Exposition has related largely to general problems. Shall all the buildings be fireproof? How many can be permanent? What organization shall be set up to afford cooperation between the Board of Construction, the illuminating engineers, the landscape men and the architects? How can the Architects Commission work out in building materials the reflection of architectural progress since 1893?

Aviation promises greatly to affect designing for 1933. How near can an airport be without filling the air with buzz and hum? On the assumption that possibly a million visitors will look down upon the Exposition from above, it has been agreed that special attention must be given to the appearance of the buildings from the air.

As is now generally known, the site is that land which reaches from the Chicago River to 39th Street on the Lake Front, together with such islands as may be constructed from the beginning which has been made near the Field Museum. This is more than abundant space. Probably thirteen hundred acres will be available, counting the enclosed water spaces in the form of lagoons or canals. No Exposition has undertaken to employ more than 800 acres. It may be said, more than that, that no Exposition has ever had such alluring opportunity in the form of land and water space.

The tendency among the members of the Commission has been rather to prevent the spread of the Exposition over vast stretches of land and water, than to plan for size as mere bigness. A phrase which is often used in their talk and correspondence is "foot weariness." It has been proposed to provide for the displays of the Exposition on more than one floor of the buildings; to use the roofs for gardens and restaurants, and to give a carnival quality to the scene by providing a taxi service within the grounds by a varied and brightly colored assortment of water craft.

No other Exposition seems to have had so much time. That in Chicago in 1893, for an illustration, had to be designed and erected in twenty-one months. Already the planning for the Centennial is about as far along as ordinarily it would be two years or less before the gates are open. In a word, Chicago has about an extra two years. The Trustees and the Architectural Commissioners accept this leeway as a challenge to create a product that shall favorably affect designing throughout America.

A. W. BROWN TRAVELLING SCHOLARSHIP COMPETITION

ANNOUNCEMENT IS MADE of the second annual competition for the selection of a beneficiary for the A. W. Brown Travelling Scholarship, this competition to be held under the direction of a committee of the American Institute of Architects. Programmes will be mailed to approved applicants about March 1st, 1929, drawings to be delivered on April 1st, 1929.

This scholarship is the gift of Ludowici-Celadon Company and is a memorial to the late A. W. Brown, who was for many years president of that company and a leader in the manufacture of roofing tile.

The value of the scholarship is Two Thousand Dollars, to be used towards defraying the expenses of a year of travel and study in Europe by a worthy and deserving architect or architectural draftsman. Travelling expenses between the winner's place of residence and the port of New York will be paid in addition to this amount.

An award of Two Hundred and Fifty Dollars will be made to the person whose design is placed second in the competition; One Hundred and Fifty Dollars to the person whose design is placed third; and One Hundred Dollars to the person whose design is placed fourth.

Under the terms of the gift the selection of the beneficiary of this scholarship is to be made by means of a competition to be held under the direction of a committee of the American Institute of Architects, the drawings to be judged by a jury of from three to five practicing architects chosen by that committee. The general requirements of the problem given for the competition will be similar to those of the Class A problems issued by the Beaux-Arts Institute of Design. In making the award of the scholarship the committee will give due consideration to the personal qualifications of the competitors as well as to the excellence of the designs as judged by the jury.

It is also stipulated by the donors that the competition shall be open to any architect or architectural draftsman who is a citizen and resident of the United States; who has never been the beneficiary of any other European scholarship; who has passed his twenty-second but has not passed his thirty-second birthday on May 1st, 1929; and who has been in active practice or employed in the offices of practicing architects for at least six years, or, if a

THE ILLUSTRATIONS ON THIS
PAGE ARE SCULPTURAL GRO-
TESQUES FROM THE STUDENT
UNION BUILDING OF THE UNI-
VERSITY OF SOUTHERN
CALIFORNIA

JOHN PARKINSON AND DONALD B.
PARKINSON, ARCHITECTS



graduate of an architectural school, at least two years since graduation.

The beneficiary will be required to complete, during his European study, at least two envois, which shall consist of measured drawings of buildings on which burnt clay has been used for roofing. Other than this there will be no restrictions as to the type of architecture that shall be studied or the type of work that shall be done, except as the committee may deem it necessary to advise from time to time in order that the intention of the establishment of the scholarship may be achieved.

Those wishing to compete should write for application blanks to the secretary of the committee, Wm. Dewey Foster, 25 West 45th Street, New York.

Scholarship Committee:

J. MONROE HEWLETT

CHARLES BUTLER

WM. DEWEY FOSTER, *Secretary.*



PIER TERMINAL FOR EPWORTH EUCLID METHODIST
EPISCOPAL CHURCH, CLEVELAND, OHIO

LEO FRIEDLANDER, SCULPTOR; GOODHUE ASSOCIATES,
ARCHITECTS

COMPETITION FOR TWO SCHOLARSHIPS

TWO SCHOLARSHIPS of four hundred dollars each are offered in the academic year 1929-30 for special students in the third or the fourth year of the course in Architecture at the Massachusetts Institute of Technology. They will be awarded as the result of a competition in design under the direction of the Committee on Design in the Department of Architecture.

The competition is open to citizens of the United States of good character, who are between twenty-one and twenty-eight years of age, and who have had at least three years of office experience.

The competition will be held from May 18 to May 27.

Competitors are allowed to prepare their drawings wherever conditions conform to the requirements of the Committee, but these drawings must be sent to Boston for judgment.

Applications should be received on or before April 15, addressed to Professor William Emerson, 491 Boylston Street, Boston, Massachusetts.

CORRECTIONS

WE REGRET that through an oversight the name of Boris Riaboff, Architect, was left out of the captions, on pages 53, 54, and 55 of the January issue, as an associate of Harry Sternfeld, Architect, and Gaetano Cecere, Sculptor, in the Competition for the Completion of the Tomb of the Unknown Soldier.

In Mr. Sternfeld's words, "Mr. Riaboff's contribution to the collaboration was quite as important as that of Mr. Cecere and myself."

OUR ATTENTION has been called to an error in the caption under the photograph shown in the advertisement of The Georgia Marble Company on page 121 of the advertising section in our January issue. The photograph shows the Ochs Memorial Temple of Chattanooga, Tennessee, and we are informed by the office of Adolph Ochs of *The New York Times* that the credit line should have read: Henry B. Herts, Architect; Bearden and Crutchfield, Associated Architects.

TOUR THROUGH ITALY PLANNED

THOSE who are contemplating a visit to Italy for pleasure or for cultural purposes, will be interested to know that an exceptional opportunity is now being offered them. Under the direction of Professor Paul Valenti of the Department of Architecture, Washington University, St. Louis, Mo., a trip has been arranged to meet the needs of those who wish to escape inconveniences of the ordinary commercial tour.

Authorized by the Italian Government, which will cooperate to the end that American visitors may profit in the highest degree, this trip presents the greatest possible advantages, both from a standpoint of education and economy, with no sacrifice of comfort and convenience.

The party will leave New York on June 22nd, returning September 16th. For complete information write to Professor Valenti at the address given above.

1929 TO BE BANNER YEAR IN BUILDING

APPROXIMATELY \$8,500,000,000 will be expended for new construction and for repairs and replacements in the building field during 1929, according to statistics just compiled by the Copper and Brass Research Association in its annual building survey. This large total exceeds by about half a billion dollars the building expenditures of 1928 and establishes a new record for all time. A complete copy of this survey may be secured by applying to the Copper and Brass Research Association, 25 Broadway, New York.

LOS ANGELES ARCHITECTURAL CLUB

ROGER NOBEL BURNHAM was appointed to make the awards to the winners in the small house competition, who were the guests at the December meeting of the Los Angeles Architectural Club. The contest was conducted for students in the Department of Architecture at Polytechnic High School, by the Small Home Plan Bureau, under the supervision of the Club.

William Horneck and Roy Djerf won the first prizes with a charming three-room house. These prizes were one year's membership in the Los Angeles Architectural Club. Andrew Conze, who placed second, was awarded a year's subscription to *The Architectural Digest*. Jack Lipman, third prize winner, received a subscription to *The Architect and Engineer* for one year. And Harlan Sater won fourth prize with a year's subscription to *California Home Owner*. First Mention went to Andrew Conze, Second to Elsworth Phillips, and Third to Jack Henry. The prizes for all of these were a year's subscription to *Pacific Coast Architect*.

A jury composed of George P. Hales and Kemper Nomland from the Los Angeles Architectural Club, Roy Parkes from the Pasadena Architectural Club, Charles Kyson from the Architects' League of Hollywood, and C. A. Faithfull, head of the Department of Architecture at Polytechnic High School, judged the one hundred and sixty entries.

In addition to the entries that received either awards or mentions seventeen more were chosen by the judges to augment the collection of the Small Home Plan Bureau, where the working drawings will be sold, the returns to go to the students.

Aside from the display of these prize winning drawings, the Greeting Cards, submitted in competition by Club members, were also exhibited. The judges were H. Scott Gerity, Robert Lockwood and H. Roy Kelley. First prize was awarded to Donald Worster, and second prize to Graham Latta.

EXHIBITION AT UNIVERSITY OF MICHIGAN

AN INTERESTING exhibition showing the use of concrete was recently held at the College of Architecture of the University of Michigan. All known uses were illustrated by photographs, showing the wide application concrete has received in this country and abroad. The purpose of the exhibition was to bring out the value of this material in the architectural and art field and to show what forms, appropriate and otherwise, have grown out of its use. European countries were well represented by illustrations of reinforced concrete in building interiors and exteriors, in sculpture, and in objects for the garden and the street. Bridge construction in all countries was well presented, and in many of these structures the most direct relation between functional and beautiful form was shown. Qualitatively a wide range of church interiors was included in the way of photographs and drawings. Color and texture effects were also included.

THE PRINCETON ARCHITECTURAL PRIZES

1929-1930

TWO COMPETITIVE prizes of Eight Hundred Dollars each, in the School of Architecture, Princeton University, are announced for the year 1929-1930. The prizes will be awarded to the winners of a competition in design to be held from 9:00 a. m., May 20, 1929, to 9:00 a. m., May 31, 1929.

The purpose of these prizes is to place at the disposal of experienced draftsmen of unusual ability, who desire to complete their professional training by contact with the academic side of architecture, the advantages found in the School of Architecture, the Department of Art and Archaeology, and the Graduate School, of Princeton University. The winners are exempt from tuition fees.

The candidates shall be unmarried male citizens, not less than twenty-one nor more than thirty years of age on September 1, 1929, and shall have been employed as draftsmen in architects' offices for not less than three years.

Applications to compete for the prizes must be filed on or before April 17, 1929.

For application blanks, and regulations governing the competition and award, address *The Director*, The School of Architecture, Princeton University, Princeton, N. J.

COMPETITION FOR TOMORROW'S DOOR

THE WHEELER OSGOOD Company is offering \$900 in prizes for the design of a door for tomorrow's home and for a door for tomorrow's commercial building. The designs must be for interior doors and of a nature fitted to the use of Philippine Laminex; the door trim is considered part of the design.

Prizes will be awarded as follows: \$500.00 for the clearest concept of tomorrow's door design (winner of this prize not eligible for additional award in the following competition); \$150.00 for the best new door design for a home; \$50.00 for the second best door design for a home; \$150.00 for the best new door design for a commercial building; and \$50.00 for the second best door design for a commercial building.

The competition closes April 30th, 1929. For descriptive literature and complete information write to The Wheeler Osgood Company, Tacoma, Washington.

CHICAGO ARCHITECTURAL SKETCH CLUB

WE ARE NOW almost in mid-year and it seems a proper time to give a sketchy account of our doings since the beginning of the current season in September.

The Atelier is going full blast. Our patrons, Mr. Adams and Mr. Booton, are kept so busy that there seems to be a necessity for a third patron. There is an average of forty problems submitted to New York for judgment on the "Class B" problems. Aside from its own work the Atelier has worked out an educational program of its own which has benefited all of the architectural organizations so far this year. The first activity on the program was an exhibition of student drawings from the *Ecole* in Paris. The exhibition was followed by a lecture on October 11th by Mr. Meyer, Prix-de-Rome Sculptor. The subject of Mr. Meyer's talk was *Sculpture and Its Relation to Architecture*. The next Atelier activity will take place in the form of a "stag party" but at present the boys are getting ready to compete for the Annual Traveling Scholarship.

Our next report will be issued after our Annual Meeting in May, and we wish to take this opportunity of inviting members of all the other architectural organizations to visit the Club's headquarters whenever they are in Chicago.

EDWARD PALMER YORK

1865—1928

EDWARD PALMER YORK, senior member of the firm of York & Sawyer, Architects, died on December 30th, in New York. He was born in Wellsville, New York, 1865. He studied architecture at Cornell and later in the office of McKim, Mead & White, where for some eight years he worked for Stanford White, carrying through such distinguished houses as that of the late Governor Morton on Fifth Avenue, since torn down.

York started practice in 1908, on winning a competition for the Rockefeller Recitation Hall at Vassar College. In 1898 he formed the firm of York & Sawyer, and during his thirty years of practice had many important buildings in personal charge. Among them were the Bowery Savings Bank on 42nd Street, the Fifth Avenue Hospital, and the law group of buildings given by Mr. W. W. Cook to the University at Ann Arbor. The Central Savings Bank at 73rd Street and Broadway, just completed, is his work. Recently he designed the engineering group to be built for his old university—Cornell. And he was looking forward with the greatest interest to the construction of the new building for the Department of Commerce in Washington, recently approved by Mr. Hoover, for which his firm had just finished the contract drawings.

York was a member of the Century, St. Nicholas and Union League Clubs. His interest was keen in the Sons of the Revolution, the Opera Club, and the Historical Society of which he was not only architect of the building but a life member. He had a home in Princeton and lived at Stonington, Connecticut, in summer.

His business judgment, his understanding of character, was such that he never had misunderstandings with partners or clients, and contractors feeling his absolute justice, fairness and sympathy in the thousand difficulties which arise on a modern building gave him a degree of cooperation and strove for a quality of workmanship which has almost vanished since the War.

Quiet, retiring, and modest, he was a man of studious but catholic tastes. Archaeology interested him enormously and he intended to see Egypt and Mesopotamia next year. He was a member of the Numismatic Society and could always produce from pocket or drawer a coin of more than usual beauty in design, execution or patine.

The ninth generation of his family to live in Stonington, Connecticut, he was instrumental in regaining for the town the disused lighthouse which he restored and adapted to its present use as a historical museum and which he helped to furnish with relics of whaling and seafaring days.

Mr. York leaves a widow, Muriel, daughter of Chas. J.

Gould of Tarrytown, a son, Edward P. York, Jr., and two daughters, Clarinda and June.

He is not only a loss to his family, his partners and profession, and to his friends, but to a host of acquaintances, fellow club members, and to members of the building trades, all of whom will miss his cheerful humor, his unfailing sympathy and helpfulness and his refreshing point of view, always original, freshly presented in a form and language never anticipated. The country has had few architects who have contributed as much to the community.

At the time of his death he had just completed the Euthenics Building at Vassar College, given by Mrs. Minnie C. Blodgett, and was to have assisted at the opening ceremonies on January 14th.

A TRIBUTE

After a friendship with "Ned" York covering a long period of years I find myself wishing to put some record of it on paper. We often strive in such ways to recapture the past, and we succeed insofar as we cause it to shed once more its cherished glow upon us.

I am sure that all those who knew him will agree that he radiated the spirit of sincerity. He was utterly foreign to cant and deceit. He was foreign also to boastfulness, though he achieved a great success in his chosen profession. The very great reputation of the firm of York and Sawyer never turned his head. He spoke of the remarkable work of himself and his associates with modesty and naturalness. There was no suggestion of arrogance, no assumption of authority, in his speech, nor, I am sure, in his mind.

I remember how with unaffected pleasure but no excess of elation he showed me on Thanksgiving Eve a series of striking Gothic designs which he had submitted that day to a university official. I was impressed by their charm and wished that it had fallen to my lot to share in the production of such beauty.

In the creation of long-enduring loveliness there is a peculiar satisfaction. This satisfaction is denied to most of us, but not to the architect of harmonious buildings in brick and stone. "Si momentum requiris, circumspecte"—"if you seek his monument, look around you" is inscribed upon the tomb of Sir Christopher Wren in St. Paul's Cathedral. And so we may say of our dear friend who is gone and his fellow-craftsmen who survive to mourn his going.

His part in the complex work of his architectural organization it is not the task of a layman to judge, but we shall probably not be far wrong if we ascribe to him the invaluable role of counsellor and critic rather than that of laborious draftsmen. His experience and judgment stood



EDWARD PALMER YORK

(This photograph, the only one available, was taken in 1913)

him in constant good stead. He had a strong sense of values both in business and in technique. He had buttressed his collegiate and early professional studies with persistent reading of the best kind. Good books were his habitual companions, especially those having to do with architecture and its cultural background.

He had, moreover, the faculty of securing the confidence of those with whom he established professional relations. His native honesty shone out for them to see. He was shrewd without narrowness, prudent but liberal, practical yet true to a lofty code of ideals. He gave open-handedly to public causes and to private needs. He was loyal to his friends and devoted to his family. He permitted himself an occasional brief lapse into whimsical irony, which he seemed to use as a protection against his own most generous impulses, but which only served to endear him more deeply to his understanding friends.

In recent years it had come to be the custom of a little group of these friends to gather for an hour or two every Sunday afternoon in summer at his Stonington home. Within sight of the sapphire ocean, fable and banter, philosophy and religious speculation, good will and good fellowship held sway. Into his own later thinking had crept a new mellowness, a larger graciousness and a firmer faith in the survival of the human spirit beyond the bounds of space and time. Now the familiar circle is broken by his absence, but the memory of its pure affection and unalloyed happiness remains.—H. R. P.

THE NEW CONNECTICUT ARCHITECTURAL LEAGUE, INC.

AT A SPECIAL meeting of the members of The Architectural Club of New Haven, Inc., held January 10th, it was unanimously voted to convert the Club into a state association and to change the name to The Connecticut Architectural League, Inc. (Succeeding The Architectural Club of New Haven).

For several years past the non-resident active membership has rapidly increased until for some time the out-of-town members, nearly all of them practicing architects, have numbered considerably more than the resident members. In appreciation of the success of the activities of The Architectural Club it has been persistently urged by the non-resident members that this work be extended to include the other cities of the state. Early last fall a special committee was appointed, of which Lorenzo Hamilton, architect of Meriden, was chairman, to consider the proposed change. The committee made a very careful survey of the subject and it was because of its report that the action mentioned in the foregoing was taken.

It is proposed to hold meetings of the society in the various cities of Connecticut on a schedule yet to be arranged, the first to be held in Hartford early in February. An effort will be made to enroll all the architects of the State.

In accordance with the purpose of the present association the annual architectural exhibition will this year be held in Hartford as well as in New Haven. The committee has already arranged for the use of The Old State House, Hartford, for the purpose of the League show. This building designed by Bulfinch and recently restored by means of contributions made by the citizens of the City of Hartford, and under the direction of Philip A. Mason, Building Inspector of the City of Hartford, a graduate architect, is one of the most important architectural

shrines of Connecticut. It is located on Main Street in the very heart of the city's business center and is in every respect an ideal place in which to hold an architectural exhibition.

The League has had a law drafted providing for the registration of architects in Connecticut which will be introduced at the present session of the General Assembly. The work of preparing for the proposed legislation has been done by a special committee of which Major George H. Gray is the chairman. The drafting of the law was done by a committee of which H. Story Granger is the chairman. The proposed law has the support of practically all of the members of the architectural profession of the State, the leading master builders, and of the heads of the building departments of the leading cities of Connecticut.

THUMB TACK CLUB ATELIER OF DETROIT

THE ATELIER of the Thumb Tack Club of Detroit feels that, even though it is sometimes considered a lack of good taste, it has some reason to do a little boasting, both for its advancement in educational enterprise and its success in exhibition work.

Since the atelier moved into its new quarters last fall there has been a decided interest shown in the educational advantages that it has to offer. The Beaux-Arts work has been kept to a high standard under the very able patronage of Al Leone and Bob Hubel, and on January 12th several of the members took the first preliminary of the Paris Prize. A recent innovation is the life class that is now being held once a week, and in which most of the members are enrolled.

It is probable that very little need be said regarding the success of the Thumb Tack Club's architectural exhibition that was held during the month of December at the Detroit Institute of Arts. At the present time the largest percentage of officers and active members of the club are also members of the atelier, so it is only natural to assume that much of the credit is due to the members of the atelier for the time and energy that they expended, as well as for the Beaux-Arts work that was submitted to form an interesting part of the exhibition.

Even in our present boasting spirit we feel safe in saying that the Thumb Tack Club and its atelier can well be classed with the best organizations of the kind in the country.

CAMPBELL WINDOW ATHLETIC CLUB

THE CAMPBELL WINDOW ATHLETIC CLUB, composed of the male employees of the Campbell Metal Window Corporation, wishes to communicate with any office in regard to the booking of Basketball games. The average weight of this team is 150 lbs. Please address Harold R. Stroh, Secretary, Room 1607, Pershing Square Building, New York.

"WHY" COMPETITION JUDGMENT POSTPONED

OWING TO THE ILLNESS of the donor of the prize in the WHY COMPETITION the judgment has had to be postponed. However, we hope to be able to publish the result in the March issue of PENCIL POINTS.

HERE AND THERE AND THIS AND THAT

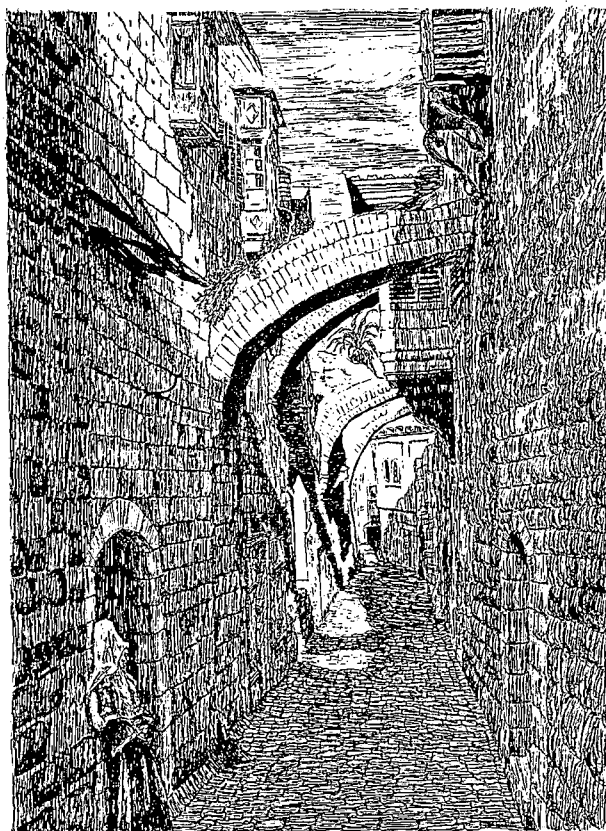
CONDUCTED BY RWR

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 PRIZES this month have been awarded as follows:

- Class I—M. McMogul
- Class II—G. Scott Gleason
- Class III—Guy E. Hecklinger
- Class IV—Jacques Simard

Mr. Paul H. Harbach's delightful Christmas card was selected to receive a special prize of \$10.00, after much deliberation on the part of the Jury; it is reproduced on page 132—a jade green paper speckled with silver and printed in dark blue. Our only regret is that we are not able to show more of the many beautiful greeting cards that were sent to PENCIL POINTS and we want to thank each and every one who remembered us in this way. If even half of the good wishes sent to us for 1929 come true, we'll consider ourselves more than fortunate. And it certainly makes us feel good to know that we have so many friends in the world!

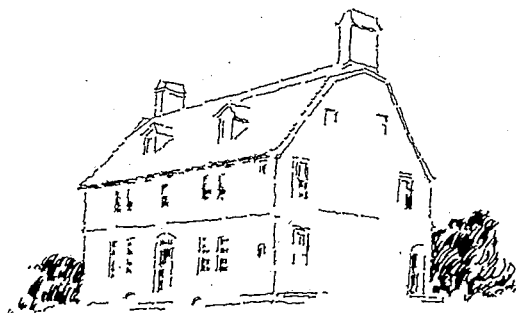


A DIRECT PEN-AND-INK SKETCH BY M. McMOGUL
(PRIZE—Class One—January Competition)

THE GAMBREL ROOF

By G. Scott Gleason

(PRIZE—Class Two—January Competition)



The Craddock House (1634) or "The Fort"
On Riverside Ave. The Old Ship Street — Medford.

Perched on the hill-top, defying time
Was a quaint house, three-storied,
Of black, unpainted wood,
With a gambrel roof and dormer windows.

* * *

This roof has been immortalized by Oliver Wendell Holmes in his "Autocrat at the Breakfast Table" as follows:

"Know old Cambridge? Hope you do.
Born there? Don't say so! I was too
(Born in a house with a gambrel roof)
Gambrel! Gambrel! Let me beg
You'll look at a horse's hinder leg,
First great angle above the hoof,
That's the gambrel; hence gambrel roof.
Nicest place that ever was seen,
Colleges red and commons green."

ITS TECHNICAL DEFINITION AND DERIVATION

A roof that is so called from its resemblance to the horse's hind-leg. A roof-slope which is broken by an obtuse angle like that of an animal's gambrel or hock. Sometimes with the long, sloping roof lines of Massachusetts, often with the quaint "gambrel" of Rhode Island. In the French language it is derived from the word "jambe" meaning leg. Also it bears an interesting likeness in such expressions as, "The afternoon fauns 'gamboled' (literally, kicked up their hind legs) this April afternoon."

Please turn to page 132 and read the program for the NEW COMPETITION being conducted by HERE AND THERE AND THIS AND THAT.

FAMOUS ARCHITECTURAL ^{FOLK AND OBJECTS} OF FACT & FABLE

Compiled with not much seriousness for architectural ^{Boys and Girls}

LIXIVIII

by
Guy E. Hecklinger

1928



AT THE LEFT MY DEARS ARE TWO SEXLESS CREATURES WHO FOREVER STAND AT BUILDING CORNERS AND IN DOORWAYS OF ANY GOOD OFFICE SKETCH. DON'T THEY LOOK AS IF JUST HAVING RIZ FROM THE DEAD? NOTICE TOO--THEY ARE JUST 5'-9" TALL--- ALWAYS.



BEHOOLD CHILDREN--A SCALE MAKER. TO BE FOUND ON ANY HIGH CLASS L'NVOI OF A FOREIGN SCHOLARSHIP HOLDER. HE MAY BE HIRED--COSTUME--SIX FOOT POLE AND ALL--AT ANY COOKS AGENCY IN EUROPE ASIA AND/OR AFRICA. ALL FOR A COUPLE OF SOUS A DAY.



COLONIAL BELLE FOUND IN ANY VILLAGE-TOWN OR HAMLET THAT BOASTS OF A COLONIAL MANSION. SWELL TO PUT ON MEASURED DRAWINGS. SHE IS FOUND ALWAYS ENTERING OR LEAVING THE HOUSE. COSTUME FURNISHED--USUALLY GRANNY'S WEDDING OUTFIT.



DARLINGS, THIS IS AN ARCHITECTURAL AUTOMOBUBBLE. ALWAYS IN GROUPS DARTING HTHER AND THITHER, UP AND DOWN RENDERED STREETS WITH NO REGARD FOR TRAFFIC LAWS JUST MISSING FOLK BY A PEN STROKE. HOW DO YOU SUPPOSE THOSE TWO GENTS AT THE CURB WILL EVER BE ABLE TO GET INTO THE AUTOMOBUBBLE? ANSWER QUICKLY!!!



EVERY GOOD PEN AND INK RENDERING--BOYS AND GIRLS MUST HAVE THESE ARCHITECTURAL BIRDIES SOMEWHERE ON IT--USUALLY IN THE SKY. SPECIES UNKNOWN. ALWAYS FLY IN GROUPS OF THREE. SO LETS YOU AND ME CALL THEM PAPA MAMA AND BABY ARCHITECTURAL BIRDIES.



FOR TO BE A KNOCKOUT-LADS AND LASSIES--EVERY RENDERING SHOULD HAVE ONE OF THESE TREES. IT IS NATURES GREATEST TREE. IT IS CALLED A HIDE TREE. IT HIDES DOORWAYS THAT LOOK FUNNY. IT HIDES TEN OR TWENTY WINDOWS ONE GETS TIRED OF RENDERING. SIZE?--SUIT YOURSELF!!



GOODNESS ME--DUMBBELLS--HERE IS THE MAKING OF MANY A DOORWAY. IT IS THE BALL TREE. PUT ONE EACH SIDE OF THE DOOR! NO NURSERY CARRIES THESE IN STOCK. WHEN THE JOB IS FINISHED THEY ARE REPLACED BY TWO MILK BOTTLES AND A GERANIUM.



HAVENT YOU SEEN THIS PLANT BEFORE--KIDS? SURE! IN THE LOWER LEFT-HAND CORNER OF EVERY "SMALL-HOUSE COMPETITION" DRAWING. ALWAYS LARGE--ALWAYS IN BLOOM. FOR SEEDS--WRITE YOUR CONGRESSMAN. IF YOU WANT THEM FOR RIGHT HAND CORNER--SAY SO IN YOUR LETTER.

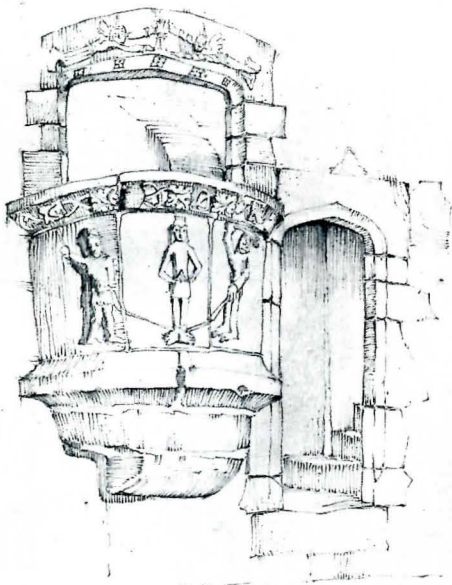


INDEED DOLTS--HERE IS A QUEER ONE. IT IS A WEATHERVANE. ALWAYS ON ONE FACADE OF A COUNTRY HOUSE. INSTEAD OF AN ARROW YOU MAY SEE A SHIP--OR MAN ON HORSE CHASING DOGS. QUEER IN THIS WAY--NO MATTER WHICH WAY WIND BLOWS--SMOKE BLOWS OTHER WAY. WHY? DONT ASK!! ONE OR OTHER NEEDS FIXING!



JUST LOOK AT THIS--NIT-WITS. IT IS AN INSCRIPTION OVER A DOOR WAY. WHAT DOES THE INSCRIPTION SAY? IF YOU EVER FIND OUT DONT TELL. LETS REALLY PUT ONE UP ON OUR NEXT LIBRARY OR HALL. THEN WATCH TOWN PAPER'S MAIL BAG OR LETTER COLUMN!!! WOULD IT NOT BE FUN?

THE ABOVE WINS THE PRIZE IN CLASS III FOR GUY E. HECKLINGER, OF BALTIMORE, MARYLAND



PENCIL SKETCH BY H. S. HUGHES

Anglo-Saxon pulpit at Newton-Nottage, W. Porthewall, South Wales, which tradition relates was rescued from the sea, after the great tidal wave in the reign of King John, which buried the old city of Kenfig now in the Bristol Channel, so that the people, upon finding this, built it into their village church. The stairs going up to the right go to the Rood Loft. The church it stands in is the only church in the British Isles which has a door in the east side of the tower.

A NEW HERE AND THERE COMPETITION

"A BACHELOR'S RETREAT"

The subject of the program for our next competition has been decided upon and we think it's pretty good. Of course, it is not too serious and has great possibilities for all sorts of variations, but there is no question that the fundamental requirements may be adapted to fill the needs of that vast army of bachelors throughout the country. They must have some secluded spot to do their stuff! Let's have your solution of the problem!

The program has been arranged by Mr. Clinton F. De Witt of Oconto, Wisconsin. All the necessities are clearly expressed and it is left to the individual competitor to work out the unusual in his detail and luxuries that the present-day bachelor demands.

The competition is open to everyone—no restrictions of any kind. Drawings must be made in black ink on any color paper that the designer fancies.

Competition closes March 15th at 5 P. M., when all entries must be delivered to R. W. R. at 419 Fourth Avenue, New York. Competitor must use a device on all drawings and a plain envelope bearing this device, in which shall be enclosed the name and address of the competitor, shall accompany the drawings.

Location: A lot 100' x 200' on the South Bank of a very beautiful river—wooded banks, mostly willow and

elm trees. (Deep Water—one mile to open water.)

Requirements of house: Not to exceed 12,000 cubic feet.

One comfortable bedroom;

One bath with shower;

Plenty of closet space;

Combination living-dining room;

Small galley or kitchen, compact as a yacht's galley;

A work-room to contain:

work-bench, small wood-turning lathe,

locker for lumber and paint,

A bay window facing the river that will accommodate an outfit for both mechanical and freehand drawing and sketching, and a comfortable davenport for other sports.

A porch on the river side of the house;

A cellar only large enough for an oil-burner, and to furnish shelf space for supplies, etc.;

Fireplace in the living room;

Living room must be large enough to accommodate a grand piano (6' 5").

Garage: Detached, large enough for one car.

It is assumed that the owner has a small cabin yawl which will be kept tied at a landing on the river bank. A flagpole should be provided.

Drawings required: Perspective rendering.

Floor plans.

Plot plan.

These drawings must be at a scale sufficiently large to show clearly when reduced and any lettering appearing on the drawings should be made with this in mind.

Prizes: Three handsome prizes to be selected by the Jury will be awarded and the winning designs will be published in the April issue of PENCIL POINTS.



MADE BY PAUL H. HARBACH OF BUFFALO, NEW YORK

(Awarded a Special Prize—See page 130)



"THE CONSTITUTION,"

EXECUTED BY HARRY AND ETHEL WADDELL

A NEW NOTE IN DECORATION

THE PICTURE of the *Constitution*, shown above, is one of a series of ships executed by Harry and Ethel Waddell combining the work of the sculptor with that of the painter.

The design is modeled either in high or low relief, as desired, with a plastic material which hardens like stone and of a technique to blend with any of the popular wall finishes.

These panels can be done directly on the wall or finished in the studio and imbedded in the wall while the plastering is in progress. A variety of subjects are treated in this manner, including birds, flowers and classical subjects suitable for overmantels, wall panels, and so on. Each subject is treated individually to suit the size and character of the setting and color scheme of the room.

This work is not to be compared with tinted or painted bas relief or sculptured paintings.

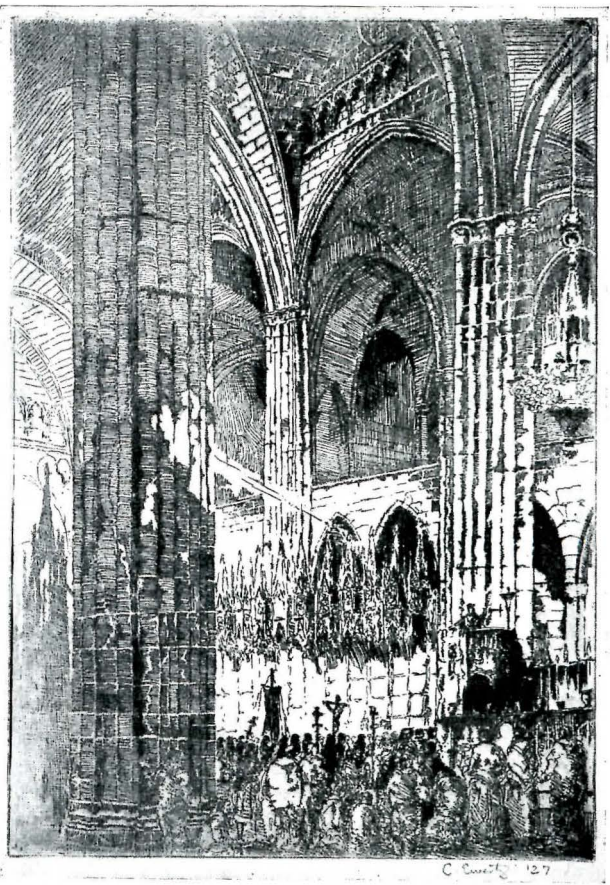
"ADVENTURE," A XVTH CENTURY CARAVEL

(PRIZE—Class Four—January Competition)

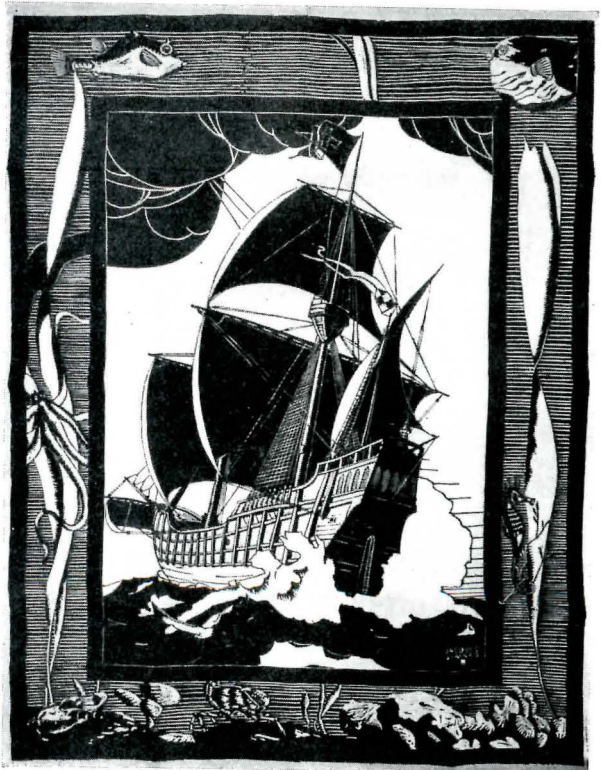
THE DESIGN for the wall hanging by Jacques Simard, reproduced at the right, was first drawn with a soft chalk directly on a piece of battleship linoleum about $\frac{1}{4}$ " thick. The design was then carved with the ordinary gouges used for wood cutting. When completed the cut was made type high by nailing it to a five-ply board $\frac{3}{4}$ " thick. This board had to be sandpapered to obtain a maximum thickness of $\frac{31}{32}$ of an inch.

The cut was printed on silk which was glued on cardboard and fed in the ordinary way to the press. The silk on which the hanging is printed is sufficiently transparent so that when the hanging is on the wall some of the color of the surface which it covers shows through and the whole decoration blends with the surroundings.

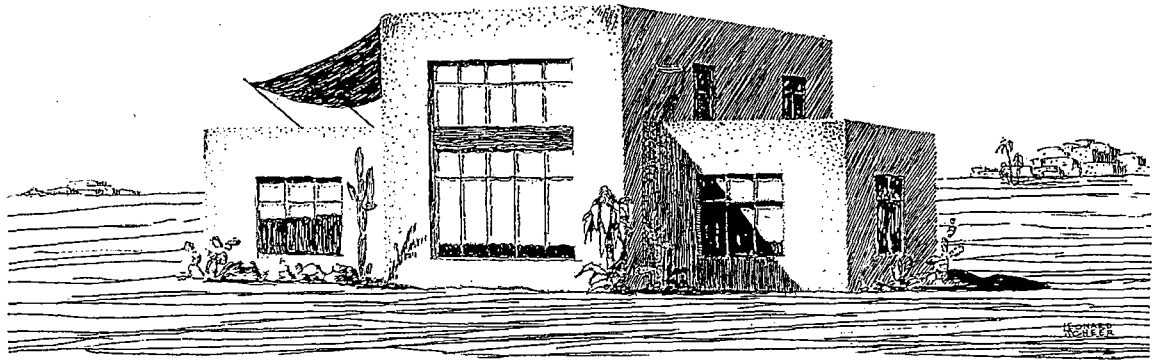
The original from which our reproduction was made was printed in black on a rosy red silk and would make a very gay and attractive spot of color in any one's home.



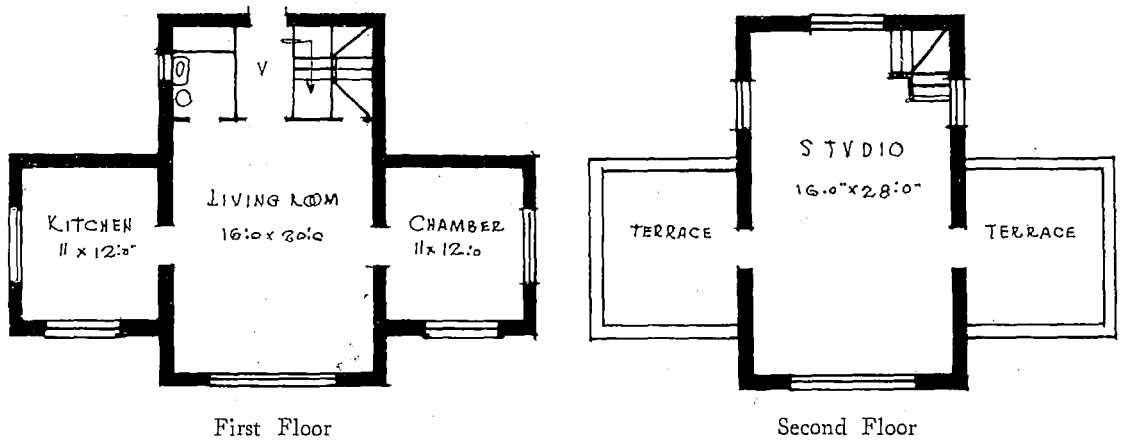
LOOKING ACROSS THE NAVE, BARCELONA CATHEDRAL—
ETCHING BY CLEMENT G. EWERTZ OF ELIZABETH, N. J.



"ADVENTURE," A WALL HANGING
BY JACQUES SIMARD, OF BOSTON
(See text opposite)



Pen-and-Ink Perspective by Leonard Scheer



STUDIO BUILDING FOR MARC PEREC, ESQ., AT NEW BRUNSWICK, N. J.

LEONARD SCHEER, ARCHITECT



THE SPECIFICATION DESK

A Department for the Specification Writer

HINTS FOR YOUNG ARCHITECTS ON SPECIFICATION WRITING

By Thomas W. Ludlow

EDITOR'S NOTE:—Mr. Ludlow is a member of the firm of Ludlow & Schwab, Architects of Pittsburgh. He graduated from Columbia University in 1903 and later studied at the Ecole des Beaux Arts and the Sorbonne in Paris from 1906-1908. He was an Instructor of Architecture at Columbia University from 1908-1910, and from 1910-1919 he was an Assistant and Associate Professor at McGill University in Montreal, where at this time he opened an office for the practice of Architecture. In 1920 he moved to Pittsburgh and formed the partnership of Ludlow & Schwab. He is a member of the American Institute of Architects and a Licentiate of the Royal Institute of British Architects.

EARLY IN MY professional career I subscribed to an oath to assist, whenever occasion should arise, those who were following my footsteps across the threshold to an architectural livelihood. It is, in part, a fulfillment of this obligation that the following remarks are penned, with the hope that some of the observations and experiences will tend to lighten the burden of those who are entering upon the field of specification writing.

At the very beginning, it is well to understand clearly that a specification is written to fulfill two major purposes: first—to elaborate on and interpret the drawings to all those who may have occasion to use them; second—to serve as a basis on which the equity of both Contractor and Owner, as principals in a contract, is apportioned in a Court of Law, should a dispute require such action. Both of these purposes lend themselves to many ramifications, depending upon the intelligence and willingness of those who are called upon to interpret the meaning written therein. To insure against misinterpretations, clear, concise and definite wording must be employed, wording that can be understood to mean only what was in the writer's mind, and not what the reader thinks should have been there.

The architect as the agent of the Owner is entrusted with the expenditure of the latter's money in payment for the work that is shown on the drawings and described in the specifications. He must impartially judge the quality

of workmanship and materials and on certifying payments must do so only with a full knowledge that the contract is being faithfully executed. The issuing of certificates is perhaps the most serious of the many responsibilities that an architect has to face, and to make it less arduous a clear specification is essential.

A clear specification is a document that describes fully what is to be done, in the fewest possible number of direct words and clauses, in a manner that will allow one meaning only, whether at the job or before a jury; the intent is not hidden in meaningless words phrased so as to sound very knowing.

A clear specification must fully cover everything that is to be built into a structure. Nothing must be left to the imagination of the contractor. For example, in a recently written school specification there was an article that called for all bookcases and other special cases to be as detailed. The bids were too high and were rejected by the School Board, which ordered certain revisions in, and omissions from, the original documents. Among these was the omission of the bookcases. An Addenda to the specifications was prepared and under the heading, *Scope of the Work*, the omission of the bookcases was especially noted; but later in the body of the Addenda there was a paragraph striking out from the original specifications the whole article *Bookcases and Special Cases*—which appeared perfectly innocent until after the Contract had been awarded—at



THOMAS W. LUDLOW

which time the Contractor claimed an extra for the "counter" in the public office on the grounds that it was a special case and had been taken out of the contract by the omission of the above referred to Article. In this example, there is a contradiction in the specification that permits the Contractor to place his own interpretation upon the Architect's meaning, and here as in all others to his financial betterment. The architect did not for a moment intend to leave out the counter in question, nor did the School Board wish it omitted, and the Contractor undoubtedly so understood the documents, but he seized the opportunity of a loosely written Article to demand an extra.

All clauses in a clear specification are mandatory and the words "The Contractor *may, should, will or can*" must never be used, as they imply that the contractor is permitted to use his own judgment. The interpretation of a specification on the job is solely one for the architect who is endeavoring to have the owner's wishes, as expressed in the contract documents, translated into the building. To accomplish this with the least friction, clauses must be written that give the contractor no option; such as "The Contractor must" or "The Contractor shall."

Another pitfall that customarily casts a shadow over the clearness of a specification is the "or equal" clause. The architect, fully convinced that he is acting with fairness towards the owner, the contractor, and the material men, and at the same time encouraging competition in bidding, specifies a nationally known product of unquestionable quality which he follows immediately by an apparently inoffensive and harmless "or equal," but he neglects entirely to state who is to be the judge of the quality of the "or equal." The contractor will purchase and install in every case an inferior article at less cost to himself while the Owner will pay for the superior article named in the specifications. The architect who is weak enough to use the phrase "or equal" is immediately permitting the control of the selection of materials, including those specifically requested by the Owner, to pass from his hands to those of the Contractor. If a certain make of nationally known specialty is wanted, there should be no hesitation in specifying it. Such specialties are made by corporations whose activities extend far afield and who sell their commodities at a fixed price, whether competition is called for or not.

If, however, it is thought desirable that there should be competition, then the architect must satisfy himself as to whether any other manufacturers make a specialty that is the proved equal to the one desired and made by Company "A." He will then write in his specifications that specialties made by either of Companies "A," "B" or "C" shall be used. This procedure still keeps the control of the selection of materials in the hands of the architect, provided he does not weaken and permit the use of a specialty made by Company "D" which the Contractor tells him "is just as good and the manufacturer will make immediate delivery."

If the specification writer is so minded that he must write "or equal" let him qualify this pernicious clause in the following manner: "Or equal approved in writing by the architect before the material is ordered (or "at the time the contract is signed") otherwise the make of material specified shall be insisted upon without recourse of any kind." This still leaves the architect in control of the selection of materials, but gives him more time to investigate the merits of the products contemplated.

In a recent job, there was specified for the roof of a large country house, slate from a certain quarry, chosen

for color, with no substitution permitted. The roofing sub-contractor never having worked under this architect substituted slate quarried elsewhere. It was good material though darker than that wanted, and if permission had been asked and samples submitted before the order was placed the change undoubtedly would have been approved. He failed to do this and a carload of slate was condemned and replaced by the specified material. The General Contractor and his subs learned in this case that the architect knew the meaning of the specifications and that substitutions would not be tolerated; the job was thereafter completed with no further arguments respecting the kind or quality of materials.

Another recent example where the Contractor attempted substitutions for the materials specified was in an office building in which the white pine to be used for the door and window frames was designated by the Latin-Pinus Strobus. The Architect in inspecting the frames before installation condemned several units because of excessive knots and sap wood. The Contractor argued and refused to accept the architect's condemnation and a botanical analysis of the wood followed, which proved that Western White Pine had been used and all frames were forthwith condemned. Had the architect retracted, he would have lost control and the contractor would have felt free to use any materials that he saw fit, regardless of the specifications, to the completion of the job. Stress has been laid in the last few paragraphs on the "or equal" clause and those clauses whereby the architect assumes the responsibility for the selection and quality of all materials to be used, as these constitute the fundamentals of a clear, concise specification and must always be before the writer in the press of present day specification writing.

A quarter of a century ago the specification writer, as a rule, did not begin his labors until after the working drawings were finished. . Sitting down with these documents he would compose his specifications in accordance with the simplified practice then followed. In the lapse of twenty-five to thirty years the above procedure has become impossible—building has become infinitely more complex, materials and specialties are legion, and time is ever pressing down on the tried draftsman and specification writer. The documents must be finished by a certain day, specifications are written from incomplete blueprints and draftsmen's notes—and to get a good specification under these conditions presupposes a thorough knowledge of how a building is put together, which knowledge can only be obtained as clerk of works for at least a year on a big job, and the making of sheet after sheet of $\frac{3}{4}$ "-scale and full-sized details. Many specification writers depend too much on a specification for a similar type of building. These documents are all right to follow for form and general clauses, but as each building is different from every other building, so the specification for every building must of necessity be different from all others, and the following of a specification already written too closely will lead the copyist into pitfalls that can only be avoided by a knowledge of building acquired in the manner noted above.

The arrangement of a specification is of great importance and whatever form is adopted should be adhered to; first because through familiarity the architect can turn readily to any clause that may require explanation and secondly the contractors and sub-contractors can quote better prices from documents issued in a known form than from those whose make-up is uncertain and may contain a "nigger in the wood pile." My specifications are arranged as nearly

as possible by trades as they occur in the construction of a building, beginning with excavation and ending with painting and glazing in the simpler types of building and weatherstripping, window shades and like subjects in the larger operations. Each sub-division or trade is started with an article to which the caption *Scope of Work* is given, which enumerates as nearly as possible all work and materials to be furnished by the trade in question. In no other place in the specifications is mention made of this trade, unless a cross reference is written in. *Scope of Work* is followed by a clause entitled *Work Not Included*, which states all work customarily done by the trade in question, but for reasons peculiar to the job are omitted. These two articles are of the greatest value in preventing misunderstandings as they clearly set forth at the beginning of a trade the exact amount of work that the architect expects to be done, and what follows tells how it is to be done and the quality of materials to be used. Each trade is begun on a new page. This has two distinct advantages: 1—It allows for inserts in their proper place of any clauses that were omitted before typing; 2—It is sometimes found advisable to award the work under separate contracts, after a bid on a general contract has been received, thus permitting the specifications to be broken up by trades without re-typing.

The mechanical specifications, electrical, plumbing, heating and ventilating follow the general in small operations and as separate contracts for large buildings.

In the Pittsburgh District, good Contractors like the General Conditions published by the American Institute of Architects on the grounds that they are familiar with the provisions set forth therein and they are thus saved the time of studying them for allowances to be made in their proposals. These have, therefore, been adopted as standard and form a part of all of my specifications. They have their limitations, as naturally they must have when written to cover all operations in every part of the country, so I have found it necessary to elaborate them by several pages of *Special Conditions* that vary with each operation and describe the peculiar conditions which apply to it alone. An example of *Special Conditions*, taken at random from the specifications lying on my desk, is here given to explain more fully why it has been found necessary to elaborate on the printed General Conditions of the A.I.A. These Special Conditions are from the specifications for a Large Country House, situated in the Mountains of Western Pennsylvania, with the greater part of the haul from the railroad station over wagon trails that are almost impassable after heavy rains because of mud.

SPECIAL CONDITIONS

LOCATION OF PROPERTY:

Article 45. The property on which this home will be built is a level table-land at the edge of the woods facing a cleared field, in Ligonier Township, Westmoreland County, Penna., one mile southeast of the Village of Rector, adjoining the properties of, and about six miles from the Ligonier Railroad Station. Detailed instructions as to location may be obtained in the Village of Rector by inquiring for the farm of, and the Farmer in charge will indicate to the bidders the site on which the house will be built.

SITE:

Article 46. The site, as above stated, is at the edge of the woods facing a cleared field on the north bank of a small ravine, in which there is a brook. The site is cleared and the house will be roughly staked out. The Contractor will assume responsibility for the correct staking-out of

the house as hereinafter specified. Water is piped from a spring in the mountains to the site, assuring an ample supply for building purposes.

STONE:

Article 47. The house will be built of field stone, of which there is an abundant quantity both on and adjoining the site and in the ravine above referred to.

The Contractor will be responsible for gathering and hauling the stone as needed for use.

STONE CRUSHER:

Article 48. As the gravel and sand available in the neighborhood are of poor quality, it is suggested that the Contractor might find it more economical to install a stone crusher on the site, in order to crush all gravel and sand needed in this work from the field stone, instead of hauling same from Ligonier.

OFFICE:

Article 49. The General Contractor shall erect a temporary office that will be suitable to transact all business in connection with the building operations, for the use of the Architects, the Contractor, and all sub-contractors.

PRIVY:

Article 50. This Contractor is to erect a privy at a convenient point in the woods and away from the ravine, shall keep same clean and in a sanitary condition at all times, and shall remove it only on order of the Architects.

TEMPORARY HEAT:

Article 51. Should temporary heat be required during the course of construction, the Owner will permit the use of the hot air furnace and fireplaces for this purpose and will supply the necessary fuel. The fuel furnished by the Owner will be coal only; the use of wood for temporary heat will not be permitted. The Contractor, however, will bind himself to make good any damage suffered by any of the equipment so used, and will leave same in a clean and perfect condition to the satisfaction of the Architects. This applies both to fireplaces and furnace and, further, the boiler must be in such condition that the heating sub-contractor will issue his guarantee.

COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK:

Article 52. The Contractor will be required to commence work under this Contract within ten (10) days from the date of the agreement, to prosecute the said work with faithfulness and energy, and to complete it by Saturday, December 15, 1928.

The time allowed in these specifications for the completion of the Contract to be entered into is considered sufficient for such completion by a Contractor having the necessary plant, capital and experience, unless unforeseeable conditions supervene.

PLASTER PATCHING:

Article 53. The Contractor shall arrange with the Plasterer to repair all plaster damaged by any trade, mechanical trades included, where such damage occurs in the installation or erection of work, which, by its location or character, can not be done before the Plastering is executed. All other damage to plaster work shall be paid for by the party or parties responsible for the damage, without addition to the contract price. If this can not be determined, it shall be paid for by the General Contractor.

WATCHMAN:

Article 54. The General Contractor shall maintain a reliable Watchman in the building from the time the plastering is finished until the completion of the Con-

PENCIL POINTS

tract, during all hours when workmen are not regularly employed therein, including nights, Sundays and Holidays.

WORKMEN:

Article 55. Should the Contractor desire to establish a camp for the workmen during the course of building operations, he must first obtain the permission of the Architects in writing to do so. The Architects will also designate the place where the camp will be built, and if built, both the interior of the camp and the ground surrounding it must be kept in a clean and sanitary condition at all times, and subject to the Architects' supervision, as a part of this work. On completion of the Contract, the camp shall be removed and all rubbish, debris, etc., cleared away.

FIRE HAZARD:

Article 56. The location of this house presents an extremely dangerous fire hazard, and all mechanics working in or about the building must be especially warned against building fires, throwing lighted cigarettes or cigar stubs or hot pipe ashes into any undergrowth, grass, shavings, or any other substance liable to set fire either to the house or woods, and the General Contractor will be held strictly responsible for the enforcement of this provision, and should a fire originate through neglect to follow these provisions, the General Contractor upon signing the Contract freely agrees that the Owner shall be fully reimbursed for any loss incurred from insurance monies collected before distribution of the remainder is made under the provisions of Article 29 of the General Conditions. This Article is an elaboration of Article 31 of the General Conditions.

PROTECTION OF TREES:

Article 57. Protect by boards the trunks of all trees or other planting which are liable to injury or damage of any kind during building operations, or as directed by the Architects.

CUTTING OF TREES:

Article 58. No trees or saplings of any description shall be cut or trimmed without first obtaining the consent of the Owner. The site on which the house is to be built is now cleared of all planting, and before the commencement of the work the Owner and Architects will consult with the Contractor to ascertain the additional space that he requires for his building operations, and should it be necessary to cut down any further planting, permission for same will be asked and granted at this time, and no subsequent cutting of trees will be permitted without the consent above noted.

The Special Conditions are followed before the descriptive specifications are commenced by a heading captioned "Standard Materials" in which the quality of the water, sand, gravel, cement, lime and all other materials that are common to several trades are fully described to avoid repetition later in the body of the specification where a cross reference to Standard Materials only is made.

My standard specifications are always started with "Instructions to Bidders" and a specimen from the same documents quoted above follows:

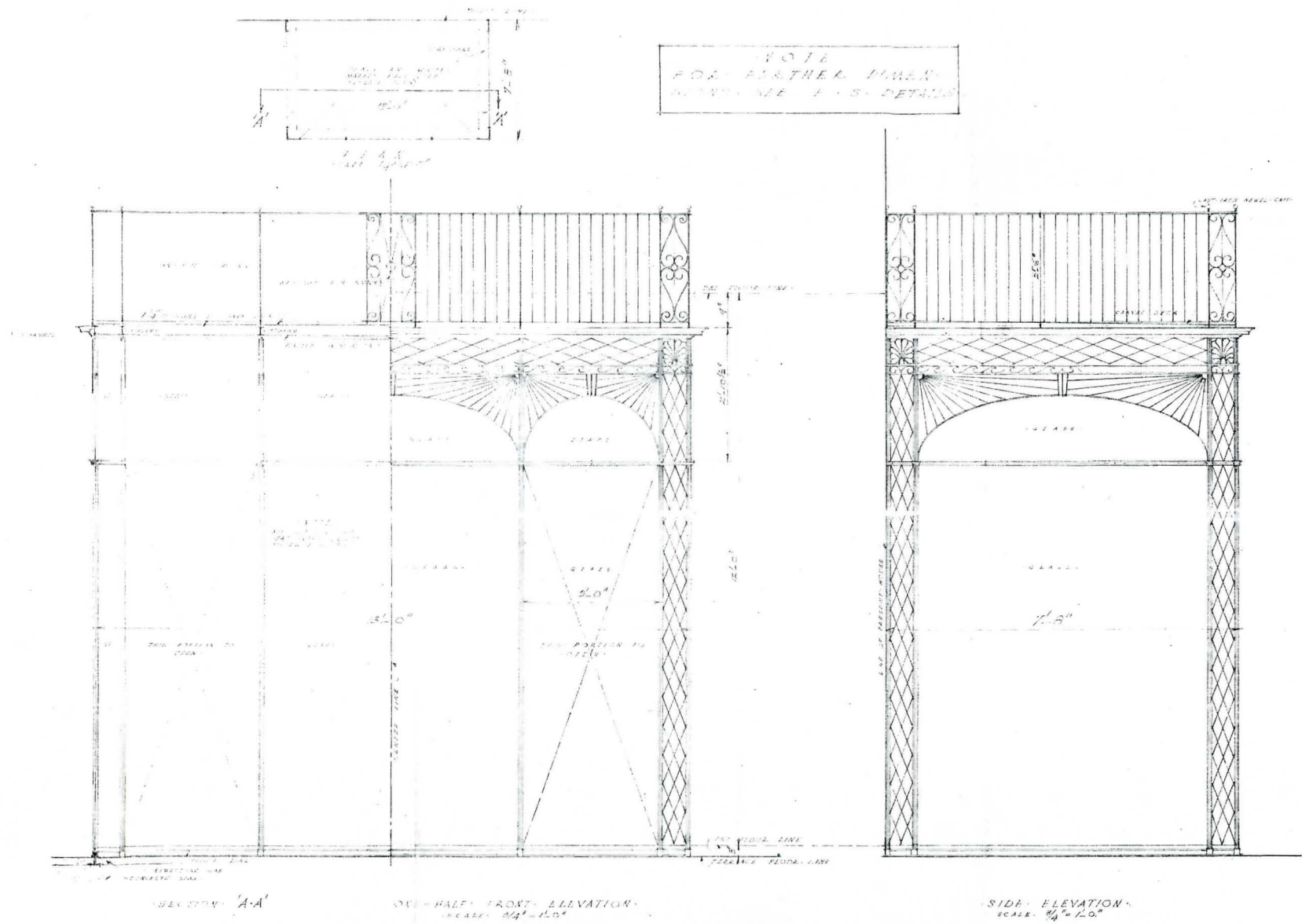
INSTRUCTIONS TO BIDDERS

- A. Proposals are due at the office of the Architects at 10:00 A. M., Daylight Saving Time, on Monday, June 18, 1928.
- B. Plans and specifications shall be returned to the Architects, with Proposal, at the time specified.

- C. Address proposals to the Architects, and deliver them to the Architects in envelope marked "Proposal" and bearing the title of the work, and the name of the Bidder.
- D. Should a bidder find discrepancies in or omissions from the drawings and specifications, or be in doubt as to their meaning, he shall notify the Architects, who will issue Bulletins of Instructions to all Bidders.
- E. A Bulletin of Instruction, if necessary, shall be issued on Tuesday, June 12, 1928, and will be sent to all Bidders.
- F. Before submitting proposals, bidders should carefully examine the drawings and specifications, visit the site of the work, and inform themselves as to existing conditions and limitations, and the proposal shall cover all items shown on the drawings and contemplated by the specifications. Bulletins issued during the time of Bidding shall be covered in the Proposal, and on awarding the contract, they shall become a part thereof.
- G. Bids are to include the cost of all hauling, drayage, transportation of men, supplies, and everything else necessary to fully complete this house, as no claims for Extras on account of any of the above items will be allowed as the work progresses.
- H. The Owner reserves the right to accept any, or to reject any or all bids submitted.
- I. Each bidder shall indicate in his proposal the date on which he estimates that the work will be completed in accordance with the quality and standard of the work contemplated on the drawings and specifications, as the Owner will take this into consideration in awarding the contract.
- J. The competency and responsibility of the proposed sub-contractors will be considered in making the award.
- K. The following work shown on the drawings or necessary for the completion of this house shall not be included in any contract based on these specifications:
 - 1. Driveway, Foot Paths, Finished Grading, Landscape Work and Seeding.
 - 2. Refrigerator.
 - 3. Kitchen Stove.
 - 4. Linoleum Floors.
 - 5. Bathroom Accessories.
- L. The Architects reserve the right to change the design of any Architectural Details shown on the Contract Documents without additional cost, provided that there is no increase in the amount of material or workmanship. These details are an indication of the kind wanted and are subject to modification on the large scale drawings to be furnished as the work progresses.
- M. The Contractor in submitting proposals shall include the following unit costs as a basis of payment for extra or omitted work:

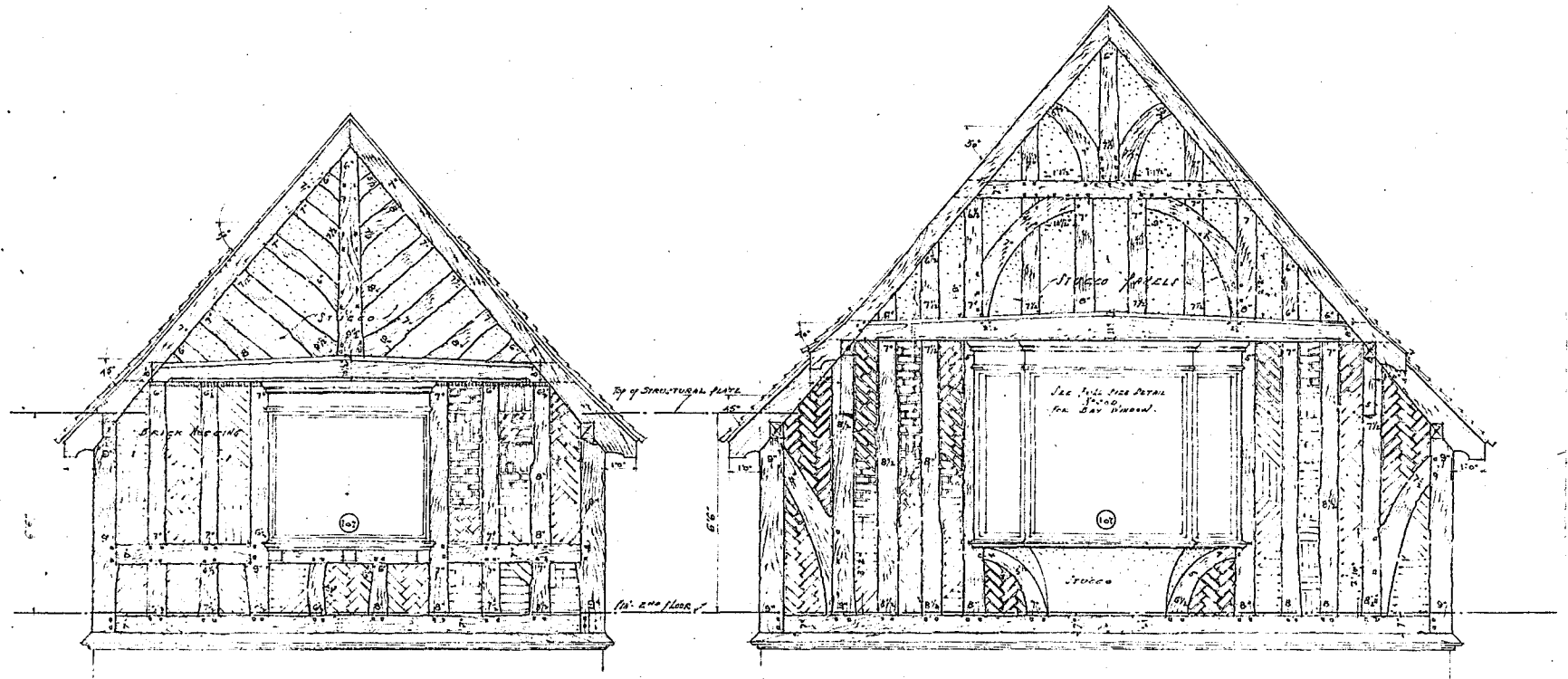
Excavation—Plain	{ Added
	{ Omitted
“ —Soft Rock or Shale ...	{ Added
	{ Omitted
“ —Hard Rock and Blasting	{ Added
	{ Omitted
Mass Concrete per Cubic Yard	{ Added
	{ Omitted

(Continued on page 143)



DETAILS OF CONSTRUCTION—WROUGHT IRON PORCH ON ADDITION TO RESIDENCE OF MR. RICHARD ROWLAND AT RYE, N. Y.

DWIGHT JAMES BAUM, ARCHITECT



DETAILS OF CONSTRUCTION—HALF-TIMBER GABLES OF FRONT ELEVATION, RESIDENCE FOR MR. ARTHUR HAMMERSTEIN, WHITESTONE LANDING, L. I.

DWIGHT JAMES BAUM, ARCHITECT



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

Ernest J. Kuhn, 212 Rebecca Place, Peoria, Illinois, has for sale *Perspective Rendering in Color and Pen and Ink*; also *Special Interior Theatre Designs of Latest Style*.

Sten Anderson, 3247 "Q" Street, Lincoln, Nebraska, has for sale *The White Pine Series of Architectural Monographs* on Colonial Architecture: Vol. I to Vol. XI No. 1, total of 57 Numbers (none missing). List value \$32.50; price for quick sale \$16.00 delivered.

L. E. Burckard, 746 North Orange Drive, Los Angeles, California, has for sale a complete file of PENCIL POINTS from the first issue, Volume One, Number One, to date. This includes the December issue of 1928.

J. Arthur Herbert, 347 Fifth Avenue, New York, has for sale back numbers of PENCIL POINTS, including the earliest issues, among them Volume One, Number One.

George Nelson, 1457 Melville Place, Chicago, Illinois, has for sale the first fifty-six issues of *The White Pine Series of Architectural Monographs*, which completes the first ten volumes of the series, all in very good shape.

Fred Lange, 10 S. 18th Street, Philadelphia, Pa., has for sale the following Architectural books in excellent condition: *The Monograph of the Work of Charles A. Platt* (one original volume); *Smaller Italian Villas and Farmhouses* (two original volumes); *Tanner's English Woodwork* (one volume); *Letarouilly's Vatican* (one volume); *English Renaissance Woodwork 1660-1730* (one volume); *The Georgian Period, Ware* (6 volumes); *The Work of Dwight James Baum* (one volume); *Neubauten der Stadt Berlin*, Hoffman (twelve volumes); *Monograph of the Work of McKim, Mead & White* (nineteen volumes).

PERSONALS

WM. P. SHAW, Construction Dept., Scott Stores, Inc., 426 Randolph Street, Chicago, Illinois, would like to receive architectural catalogues, specifications and samples that may be helpful in construction work.

BENJAMIN SKOLNICK, architectural student, 1245 So. Avers Avenue, Chicago, Illinois, would like to receive manufacturers' samples and catalogues.

TERRY ANDERSON, architectural student, Iowa State College, De Soto, Iowa, would like to receive manufacturers' samples, art supply samples and catalogues.

THORNTON M. ABELL, architectural draftsman, 3026 Royal Street, Los Angeles, Calif., is starting an A.I.A. file and would like to receive manufacturers' samples and catalogues.

W. A. WHITFIELD, 601 North 15th Street, Lincoln, Nebraska, is desirous of corresponding with some young architectural draftsman or student residing in South America.

CURTIS F. BIVENS, architectural draftsman and student, P. O. Box 1592, Southern Pines, N. C., is starting an A.I.A. file and would like to receive manufacturers' samples and catalogues.

JOHN F. DENIFF, ARCHITECT, 9433-226th Street, Queens Village, L. I., N. Y., is desirous of receiving manufacturers' samples and catalogues to complete his files.

E. F. BEST, architectural draftsman, 3563-89th Street, Jackson Heights, L. I., N. Y., would like to receive manufacturers' samples and catalogues for his A.I.A. file.

GRAVEN & MAYGER, ARCHITECTS, 100 North LaSalle Street, Chicago, Illinois, would like to receive manufacturers' samples and catalogues.

PAUL W. HOFFERBERT, ARCHITECT AND ENGINEER, of Florence, Alabama, has opened another office at 215 Etowah Trust Building, Gadsden, Alabama, and would like to receive manufacturers' samples and catalogues.

JOHN C. WELCH, 67 N. 11th Street, Newark, N. J., would like to receive manufacturers' samples and catalogues.

CONRAD & CUMMINGS, ARCHITECTS, announce the removal of their office from 507 Phelps Building to 328 Security Mutual Building, Binghamton, New York.

PERSONALS (Continued)

SAMUEL ROBERT NIRENSTEIN AND RICHARD BANKS THOMAS of New York, have formed a partnership for the general practice of architecture, with offices in the Salmon Tower Building, 11 W. 42nd Street, New York.

HOWARD GREENLEY, ARCHITECT, formerly of 129 E. 54th Street, New York, has virtually retired from active practice in architecture and requests manufacturers to remove his name from their mailing list.

E. ARMITAGE SEAMAN, architectural student and draftsman, 115 E. New Street, Lancaster, Pa., is starting an A.I.A. file and would like to receive manufacturers' samples and catalogues.

SHANLEY, WILLSON & HUGENIN, ARCHITECTS, Administration Building, 111 N. Montana Street, Butte, Montana, would like to receive manufacturers' samples and catalogues.

M. C. PARKER, ARCHITECT, Room 15, First National Bank Building, Roswell, N. M., would like to receive manufacturers' samples and catalogues.

R. P. HUMINSKY, architectural student, 2923 Michigan Avenue, Chicago, Illinois, is starting an A.I.A. file and would like to receive manufacturers' samples and catalogues.

A. WM. LEE, architectural student, 672 Eastern Parkway, Brooklyn, N. Y., would like to receive manufacturers' samples and catalogues for his A.I.A. file.

HENRY CAPUANO, architectural student, 38 Pembroke Avenue, Providence, R. I., would like to receive manufacturers' samples and catalogues.

GOLDWIN GOLDSMITH, B. Hall, University of Texas, Austin, Texas, requests that those having his name on mailing lists taken from the A.I.A. Annuary change the address to that given herewith.

ROBERT E. PASSARELLI, 23 Lodge Street, New York, N. Y., is starting an A.I.A. file and would like to receive manufacturers' samples and catalogues.

ERNEST G. SOUTHEY, formerly of 983 Broad Street, has changed his address to 955 Main Street, City National Bank and Trust Company Bldg., Bridgeport, Conn.

VAN F. PRUITT AND LOUIS A. BROWN, JR., have formed a partnership under the firm name of Pruitt & Brown, with offices at 342 Madison Avenue, New York, N. Y.

VINCENT A. FITZGERALD, architectural student, 443 River Avenue, Providence, R. I., would like to receive manufacturers' samples and catalogues.

CARL E. SEGERBERG AND MICHAEL J. HOFFMANN, ARCHITECTS, have formed a partnership under the firm name of Segerberg & Hoffmann, with offices at Washington Building, 438 Main Street, Middletown, Conn.

FREE EMPLOYMENT SERVICE

(Other items on pages 152, 154, and 156, Advertising Section)

POSITION WANTED: Highly experienced architectural draftsman versed in practical design and general drafting, office, field and specification work. All types of buildings. Engineering experience. Designer of modern practical airports for large cities. Box No. 111, care of PENCIL POINTS.

POSITION WANTED: Stenographer-secretary, thoroughly familiar with architectural work, desires position in New York architect's office. References. Box No. 112, care of PENCIL POINTS.

POSITION WANTED: Designer and all-round architectural man seeks connection with established architect who can offer prospect of interest in business. Thirty-three years old, college graduate, thorough experience in well known offices. Box No. 105, care of PENCIL POINTS.

POSITION WANTED: Stone draftsman, experienced hard worker, wishes position anywhere outside of New York with preference small town in West or South. Good references. Box No. 106, care of PENCIL POINTS.

POSITION WANTED: Registered engineer now in private practice, 12 years' experience in design and supervision of mechanical equipment of buildings, also some architectural experience, desires permanent connection with established engineering or architectural office in responsible engineering or executive capacity. Age 36. Married. Box No. 107, care of PENCIL POINTS.

POSITION WANTED: Architectural draftsman with 4 years' experience, High School and 2 years' university training, desires permanent position with Chicago architect. M. K. Hansen, 2845 McLean Ave., Chicago, Ill.

POSITION WANTED: Residence draftsman good on details. Married; 26 years old, 8 years' experience. One and a half years at Columbia University Extension. Will go anywhere. W. G. Morris, 56 E. 8th Ave., Columbus, Ohio.

POSITION WANTED: Architectural designer with 9 years' experience in designing, detailing, and planning churches, hotels, apartments, residences and commercial interiors, desires permanent position. Age 30. Box No. 108, care of PENCIL POINTS.

POSITION WANTED: Evening student in architecture at New York University desires position in architect's office as beginner. Knowledge of elements of architecture. Minimum salary accepted. Box No. 109, care of PENCIL POINTS.

POSITION WANTED: Designer, now located in New York City, 16 years' experience as designer and chief draftsman, university graduate; specialized on residential buildings, churches, commercial and school work. Box No. 110, care of PENCIL POINTS.

ARCHITECTURAL DRAFTSMEN WANTED: The Board of Water Commissioners of the City of Detroit, has vacant two positions for Senior Architectural Draftsmen, and two positions for Principal Architectural Draftsmen, in its Engineering Force.

These positions have to do with the architectural design of power and filtration plants and pumping stations, which work is about to be started.

The minimum induction salary for Senior Architectural Draftsman is \$2,640.00 per year; and for Principal Architectural Draftsman \$3,600.00 per year.

Successful applicants must be full citizens of the United States, and must have had a high grade of architectural experience, particularly in pumping stations; boiler houses; generator plants; filtration buildings, or other public buildings of a similar nature.

The Detroit Civil Service Commission will hold non-assembled competitive examination of applicants meeting the prerequisites for these positions on April 1st, 1929. Applications must be filed on or before March 25th, 1929, and must be accompanied by a detailed employment, experience and educational record.

Further detailed information furnished on request by the Detroit Civil Service Commission, 15th Floor, Water Board Building, Detroit, Michigan.

HINTS FOR YOUNG ARCHITECTS ON SPECIFICATION WRITING

(Continued from page 138)

5" Glazed Terra Cotta Pipe	{ Added
	{ Omitted
4" Glazed Terra Cotta Pipe	{ Added
	{ Omitted
4" Agricultural Tile	{ Added
	{ Omitted

These explain to all bidders the conditions that they must fulfill if their bids are to be considered and they save the architect the writing of many letters and telephone conversations during the time of bidding. They also save the architect embarrassment when he later is confronted with conflicting verbal instructions given different bidders.

One more caution to the beginners in the field of specification writing and that is never write any of the so called "Murder Clauses" which make the Contractor responsible for everything that the architect thinks is necessary whether it is shown on the drawings and described in the specifications, or not shown or described at all. These clauses will not hold in any Court and sooner or later will get their author into trouble. The best policy to follow if anything essential has been omitted on the drawings and not mentioned in the specifications is for the Architect to acknowledge frankly his omission to the owner and ask for an extra, which nine cases out of ten will be allowed and in the tenth case the architect will pay for the necessary work or materials (he must never ask the Contractor to do so) and charge same to experience, then on all future work he will issue plans and specifications only after they have been carefully checked for omissions.

A BOILER AND RADIATOR SALESMAN LOOKS AT THE ARCHITECT

EDITOR'S NOTE:—*This article was written by a salesman for one of the large manufacturers of boilers and radiators. In case any of our readers is interested in knowing who the writer is, we will be glad to furnish his name and the name of his company upon request.*

EVERY ONCE in a while someone breaks out into print about that strange creature, the architect, yet could the general unprinted (but not necessarily unprintable) remarks concerning our architect friends be assembled and reviewed, I am sure we would still find the opinion strongly expressed that the architect is a creature different from his fellow man and that he must be approached and followed up in a different sales manner than other prospects for the use of one's material.

For six years I called on architects, and my work with them comprised one of the happiest periods of my life.

We all have our own theories about the Salesman-Architect relationship. I have mine. Perhaps they are a little different. I am sure they are reasonable. I know they were successful. Competition is stiff in this boiler and radiator game. Needless to say, all the architects in my territory were closely and carefully worked.

When I was put on the job I was new to the boiler game and new to calling on architects. But I had accumulated all the usual stories and facts about the great difficulties ahead of me. I was told to do this with So-and-So and not to do this with Blank-and-Blank.

So, full of doubt mingled with hope, I started out. Slightly afraid or awed? Yes. Did I make mistakes? I certainly did. But gradually a helpful light dawned

upon me. Why not forget all about past theories on how to hold your own with these T-Square demons? Why not just try to use common sense? I tried to do that and my troubles were greatly lessened.

I believe the first sensible thing to do is to put yourself in the shoes of the architect. If you do that you will realize why he is such a hard fellow to see. Stop and consider the time he must take from his work to talk to you on your calls. And not only you but the hundreds of other fellows calling on him. He is in business to plan and design buildings. His reward comes in doing that job well. His time is valuable. Besides that, he is not the purchaser. He is the adviser, the umpire, if you will. Why, then, should he listen to you? There is one reason why! Ever stop to think what that is? He (eternal optimist) stops his money-returning work to listen to you in the hope that by listening to you he will receive information that is helpful and usable, information which will enable him to render better service to his clients.

Bear in mind I am speaking of the salesman who calls regularly on the same architects. Can't you see how silly it is to drop in an architect's office and say, "Well, what's new?" How does the architect know what is new to you? How do you know that he wants to tell you "what's new"? More often he doesn't.

There are plenty of ways of finding out what jobs are coming out of an architect's office without begging him for the information.

If you want your material specified, go ready to show why it should be mentioned. Go at the right time. Again view your product from his eyes. Don't give him sales talk. He hears that all day. He can probably give you from memory more sales jabber than you can at your best. Give him facts: usable facts. If you believe that your article has decided advantages not equaled by your competition, go after the architect for all your might for a flat specification. But if your product is one of several that could be used for the job, use common sense and be satisfied to be mentioned in the specifications. And then sell your goods to the contractor. If an architect sees that you are reasonable, he will be. But be unreasonable with him and you will learn what beautiful returns your actions will net you.

I would have you believe that I was successful in my work with architects. If from a condition of an occasional specification to almost universal mention satisfies you, then accept the above statement for the moment, at least. And yet I could safely wager that not over half of them knew me by name. They knew me all right—when I popped in. They knew the XYZ Boiler man was there. Why didn't they know me better? Maybe because I didn't stay there long enough.

Now I can hear loud cries of "poor salesmanship." Cries of "didn't get in with the architects good enough for them to even know his name," etc. And yet I got what I was after. And I was always welcome. Why? Perhaps because I didn't stay too long when I called. When I opened an architect's door I had a definite purpose in that call. I wanted to be specified on the Blank job. I asked him to do so and left. If the conditions of the job were such that I could suggest an idea, I did so. I am inclined to believe the reaction on friend architect's mind was "Here's that XYZ man. Guess I'll see what he has to say. I know he won't stay long."

From what I have said before, you must know that I

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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.

Ambluco Non-Slip Interior Blue Stone Products.—A.I.A. File No. 22-H. New and comprehensive catalog fully describing Ambluco non-slip products for stair treads, landings, door saddles, floor joinder strips, swimming pool coping and interior flooring. Valuable reference document. Profusely illustrated, suggested specifications and drawings. Standard filing size. American Blue Stone Co., 101 Park Ave., New York, N. Y.

Steelcrete Frame Bar Window Guards.—A.I.A. File No. 14-b-4. Catalog No. 126. Describes and illustrates numerous types of window and door guards for public buildings, factories and homes; also skylight guards. Specifications. Standard filing size. Consolidated Expanded Metal Companies, Wheeling, West Virginia.

Paine Miracle Doors.—Attractive brochure devoted to subject indicated. Many excellent color illustrations showing doors in various woods in combination with floor and wall treatments. Specifications. Instructions for finishing woodwork. 60 pp. Standard filing size. Paine Lumber Co., Ltd., Oshkosh, Wis.

Timbrel Arch Construction.—New brochure giving brief history of Timbrel Tile Vault construction for building arches and domes, forming floors, ceilings and roofs for churches, auditoriums and monumental buildings. Describes development of Rumford tile and Akoustolith sound-absorbing stone used in connection with this type of construction. 12 pp. Standard filing size. R. Guastavino Co., 225 West 34th St., New York, N. Y.

Published by the same firm, "Akoustolith as Related to Architectural Acoustics." Treatise on the subject of architectural acoustics, together with complete information on Akoustolith. Specifications. 16 pp. Standard filing size.

"Akoustolith Sound Absorbing Plaster." Brochure describing development of Akoustolith plaster, its applications, uses, etc. Specifications and general information. 8 pp. Standard filing size.

Bostwick Truss-Loop Metal Lath.—A.I.A. File No. 20-b-1. New catalog describes and illustrates this product. Many design details and specifications for various types of metal lath construction as a plaster base. Complete construction information for architects and draftsmen. 16 pp. Standard filing size. The Bostwick Steel Lath Co., Niles, Ohio.

Published by the same firm, "Light Slab Construction." A.I.A. File No. 4-e-5-1. New catalog contains design data, details and valuable construction information on the use of Bostwick "Truss-Loop" Metal lath as a floor lath with pressed steel joists or metal lumber to secure a light floor construction. Report of transverse bending tests by Department of Civil Engineering, Columbia University, is presented. Specifications. 32 pp. Standard filing size.

Electrol All-Electric Oil Burners.—A.I.A. File No. 30-g-1. Devoted to a summary of the most approved practice in the application of automatic oil heating to the modern building. Describes and illustrates Electrol oil burner. Specifications. 24 pp. Standard filing size. Electrol, Incorporated, 170 Dorcas Street, St. Louis, Mo.

Esso Cal Pine.—A.I.A. File No. 19-A-22. Brochure, profusely illustrated, describing the possibilities of Esso Cal Pine for use in siding, sheathing, interior trim, sub-floors, lawn furniture and cabinet work. 32 pp. Standard filing size. Exchange Sawmills Sales Co., Kansas City, Mo.

Evans Vanishing Door.—A.I.A. File No. 28-b-33. Catalog K. New catalog fully describes and illustrates in colors numerous types of Evans vanishing door school wardrobes. Many detail drawings showing construction and installation. 48 pp. Standard filing size. W. L. Evans, Washington, Indiana.

Newmanco Bronze Store Fronts.—A.I.A. File No. 26-b-1. Portfolio of ten sheets showing full size details and scale elevations of several types of Newmanco bronze store fronts. Standard filing size. The Newman Mfg. Co., Cincinnati, Ohio.

Published by the same firm, "Newman Bronze and Brass Thresholds." Data sheet showing full size sections of thresholds, sills and nosings. Standard filing size.

"Beauty in Bronze." Brochure illustrates numerous types of bronze doors, tablets, railings and menorahs created especially for Hebrew organizations. 16 pp.

Swartwout Feed Water Regulation.—Bulletin S-20-A describes and illustrates this system thoroughly. Illustrations in color, charts and detail drawings. 32 pp. The Swartwout Co., 18511 Euclid Ave., Cleveland, Ohio.

Cowing Pressure Relieving Joint.—New catalog describes and illustrates the Cowing pressure relieving joint, which is used in the place of one mortar joint in each story height to prevent the breaking or spalling of stone or terra cotta. Detail drawings, specifications and charts. 16 pp. Standard filing size. Cowing Pressure Relieving Joint Co., 160 North Wells St., Chicago, Ill.

Maftex—The Thermal Insulating Board.—A.I.A. File No. 37-A-1. A practical and complete reference manual for architects and draftsmen on the use of Maftex for the insulation of buildings. Many illustrations, drawings and specifications. 64 pp. Standard filing size. MacAndrews & Forbes Co., 200 Fifth Ave., New York, N. Y.

Truscon Double-Hung Steel Windows, Model No. 28.—A.I.A. File No. 16-E. Catalog No. 138. New catalog contains specifications, drafting room standards and detail drawings, in addition to actual photographs of the Model No. 28 window and its salient features. 32 pp. Standard filing size. Truscon Steel Co., Youngstown, Ohio.

Published by the same firm, "Truscon Metal Lath Data Book." Handbook No. 415 covers the complete line of Truscon metal lath and related products, such as corner beads and metal trim. Contains complete tables of loads and properties for the entire line. Complete specifications. 92 pp.

The Shone System of Pneumatic Sewage Ejectors (Screenless).—A.I.A. File No. 29-c-1. Bulletin No. P-4400, superseding Bulletin No. P-4300, is devoted to subject indicated. Detail drawings, lists of sizes and tables of dimensions. 20 pp. Standard filing size. Yeomans Brothers Co., 1433 Dayton St., Chicago, Ill.

Roughing-In Dimensions.—Booklet contains 61 titled sectional drawings arranged numerically by series, showing roughing-in dimensions and measurements of Josam drains and traps and other Josam products. The various sizes and types are shown in table form in plate of each series. Josam Mfg. Co., 4908 Euclid Bldg., Cleveland, Ohio.

Carnegie Beam Sections.—A.I.A. File No. 13. This handbook cancels and supersedes one bearing the same title and published as first edition. Contains additions and modifications that have been found of advantage to users of Carnegie beam sections. 46 pp. Carnegie Steel Co., 434 Fifth Ave., Pittsburgh, Pa.

Atlantic Terra Cotta.—A.I.A. File No. 9. Monthly magazine for architects and draftsmen, the January 1929 issue deals particularly with skyscraper construction in the modern style featuring the polychrome terra cotta of the Union Trust Building of Detroit. Sixteen full page illustrations and brief descriptive text. Atlantic Terra Cotta Co., 19 West 44th St., New York, N. Y.

Fulton Pressure and Vacuum Regulators.—New bulletin No. P-100, contains much valuable information on the subject of automatic pressure control. Detailed descriptions are given of each instrument pictured together with range of operation, prices and shipping weights. Detailed drawings. 20 pp. Standard filing size. The Fulton Sylphon Co., Knoxville, Tenn.

Cemcoat.—Attractive booklet setting forth the advantages of Cemcoat as a wall coating, with instructions as to where and how it should be used. Reports of tests. Standard filing size. L. Sonneborn Sons, Inc., 114 Fifth Avenue, New York, N. Y.

The following new standard filing size data and specification folders have also been issued by L. Sonneborn Sons, Inc.

"Concrete and Terrazzo Surface Treatment." A.I.A. File No. 3-b-2-3-4. Covers Lapidolith, Sonneborn's Cement Filler and Dustproofer, Cemcoat and Fermo.

"Re-Surfacing of Floors." A.I.A. File No. 4-1-3. Covers Sonomend.

"Waterproofing and Dampproofing." A.I.A. a-1-2-3 and No. 7-b-2-21-22. Covers Hydrocide, Kaukit and Brick Filler and Waterproofer.

"Stain Proofing of Stone Work." A.I.A. File No. 8-e-2. Features Hydrocide No. 611.

"Painting Structural and Ornamental Steel and Iron." A.I.A. File No. 13-e-2. Relates to Amalie brand structural steel paints.

"Painting (Interiors and Exteriors)." A.I.A. File No. 25-b-22-23-24-26-27-29 and No. 25-c-11-21. Covers Cemcoat, Marvel-white, Sonotint, Stip-El-Art, P. & D. House Paints, Cemcoat Enamel and Ligniphol.

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