

"Monumental Drawing & Lettering: A Simple and Quick method of making Large Drawings from Small Photos," by Dan B. Haslam, in *Design Hints For Memorial Craftsman Magazine*, Vol. 2, No. 9, March 1926, pp. 10-11, 20-21.

Monumental Drawing and Lettering

A SIMPLE AND QUICK METHOD OF MAKING LARGE DRAWINGS FROM SMALL PHOTOS

By Dan B. Haslam

In keeping with the policy of *Design Hints* to divulge "tricks of the trade" in connection with drawing instruction we are illustrating in this article a quick method of making enlargements from small photos or drawings. The method as explained is most simple and one that will enable anyone to produce satisfactory results. Of course, one must have some drawing ability if lettering or ornamentation is to be shown in the enlargement but even such details if properly outlined in the form of squares or rectangles on the small drawing are easily handled by carrying lines from the established points on the outlined details to the proper position in the enlargement. This will be explained later in the article.

We will suppose that we have a small photograph of a monument as shown in Fig. 1 and marked Original, of which there is to be a large drawing made. The small photograph is first placed squarely on the drawing board and held in position with thumb tacks. It is absolutely necessary that the photo be placed squarely on the board. It must not tip either to the right or left.

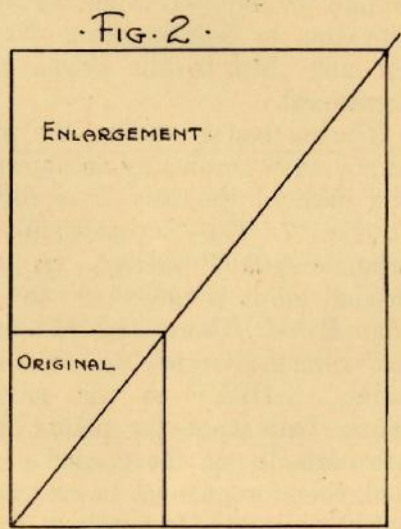
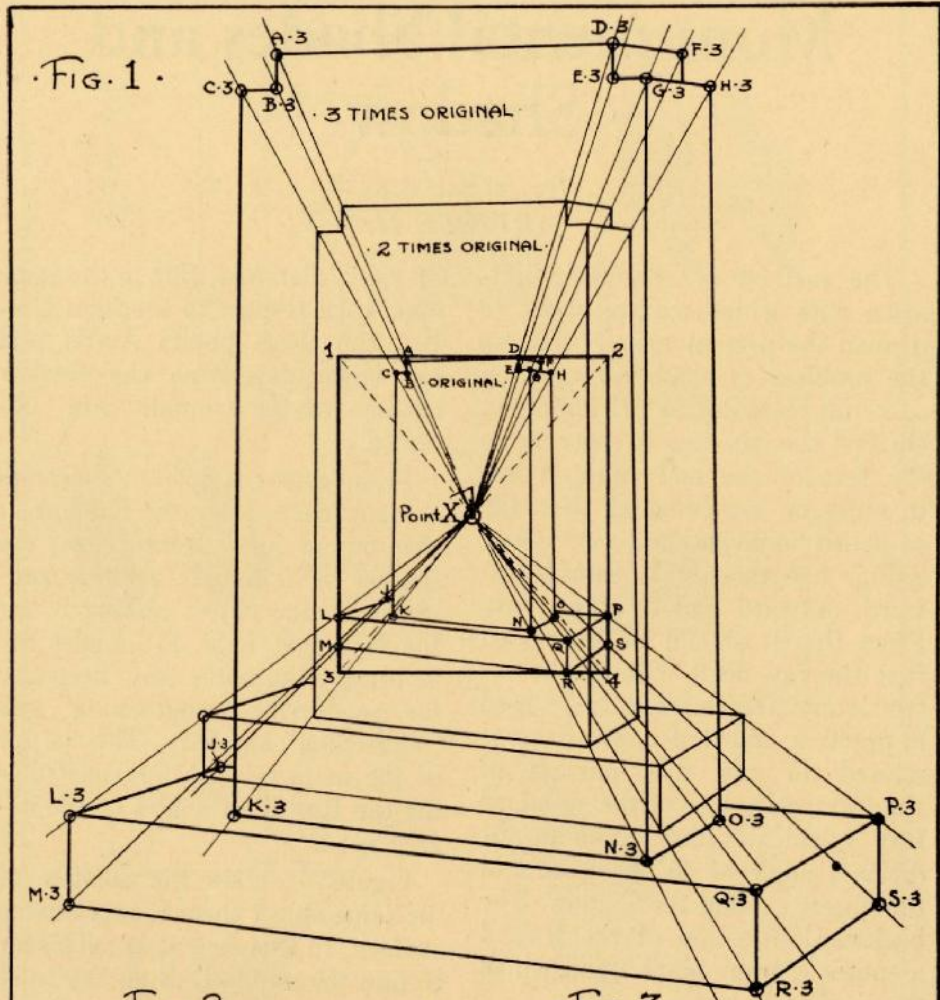
We must now find a point exactly in the center of the memorial from which all enlargement points are measured. So as to be sure of this center point we construct a rectangle around the memorial so

that its lines touch the extreme outside points of the memorial. In Fig. 1 it will be noted that the top line of the rectangle touches the Point D. on the memorial; the lower line, Point R; while the two verticals touch Points L and M on the left and P and S on the right or extreme outside lines of the base. The horizontal lines are made by using the T-square from the edge of drawing board and the vertical lines with the T-square and Triangle so that the rectangle will be true in form. We have indicated the corners of the rectangle by numbers, 1, 2, 3, and 4. Diagonal lines are then drawn from corners 1 to 4 and 2 to 3. Where these lines intersect a center point is established indicated by Point X in Fig. 1 on the original drawing. All measurements are made from this Point X and unless it is located in the *exact center* of the memorial as explained, it will be impossible to make a true enlargement of the original.

So that further procedure may be more clearly explained we have indicated each corner of the original drawing by letters A to S.

Now with the use of the triangle, rule or any instrument that will enable you to draw a straight line, direct lines from Point X to and beyond every corner in the original photo or drawing. The length

(Continued on page 20)



MONUMENTAL DRAWING AND LETTERING

(Continued from page 10)

of these lines is determined by the size desired for the enlarged copy. In our example we have enlarged the original two times and three times. A pin placed in the paper at Point X, so that straight edge may rest against it while drawing lines through the corners, will enable the draftsman to handle this part of the matter quickly and accurately. It is necessary that these lines be drawn accurately because all points for the enlarged copy are established on them from Point X. It will be noted that there are eighteen points on our original drawing, hence eighteen lines drawn through these points from X.

Points for the enlarged copy are all located with dividers. We presume that the student will know what is meant by the term dividers. These are drafting instruments like compasses except that there is a sharp metallic point in place of the pencil.

The desired size of the enlargement being about determined we start by first placing one point of the dividers in X and as we draw from the top down, the other point of the dividers in corner A of the original. If the enlarged copy is to be twice the size of the original a point is located on the line drawn from X through Corner A so that it will be twice the distance from X to A in the original. If the copy is to be three times the original this point will be located three times the distance from X to A in the original, and so on through the other corners. Be sure that all measurements are made from

Point X to the corners of the original before attempting to locate points on the lines through the corners for the enlarged copy.

An exact enlarged copy of the original is then obtained by drawing connecting lines between these established points for the enlargement.

Details of ornament unless square in form should be squarely outlined before an attempt is made to reproduce them in enlarged form. For example, if a wreath were shown at the top of the die in the original sketch it would be best to outline it in the form of a square or rectangle and then direct lines from X to and through the corners of the outline. The same form would be reproduced in the enlarged copy and details drawn in accordingly.

In making drawings to be reproduced by mechanical processes such as for half-tone plates, zinc-cuts, and etc., the proportions of the design are determined by the size of the printed surface, but the size of the drawing may be such as best suits the draftsman. If the drawing is to be reduced, and this is very often the case because it is usually easier to draw large rather than small, the draftsman must first decide on the amount of reduction. A reduction of height or width by one-third is the usual amount.

Fig. 2 illustrates a method used by the writer in all drawing for reproduction. A rectangle the size of the *finished* plate is first drawn in the lower left hand corner of the paper. Now draw a diagonal line from the lower left hand corner through the upper right hand corner of this panel, extending it be-

yond the small panel boundaries. By taking various points on the diagonal, panels of any height or width but still of the proper proportions may be obtained.

Fig. 3 illustrates a method of making an enlargement of a small photo by triangulation. Very light lines are drawn through the photo as shown by the panel in lower left hand corner. The area of this panel is enlarged as explained in Fig. 2 and necessary construction lines filled in the same as shown in the small panel. These lines should be made as lightly as is possible because they must be erased before the drawing is completed.

The beginner will experience some difficulty with work as shown in Fig. 3. So that he may not become discouraged it is advisable for him to try only the most simple subjects for awhile or until he becomes quite proficient in the art of freehand drawing. Remember at all times that it is better to draw a simple subject well than a difficult one poorly. Do not attempt to draw a mausoleum until you can draw a hickey marker and draw it well.

MONUMENTAL SHADES AND SHADOWS

(Continued from page 13)

casually in connection with the solution of a problem, would confuse rather than enlighten. In Fig. 7 the shadow points have been drawn from the proper line of tangency of the illuminating rays. The subject just mentioned in passing, will be treated fully in the third article of this series.

THE OBSERVER

(Continued from page 15)

he paid a commission of 20% on two fifths of his total volume of sales. It is to be borne in mind that with all obvious omissions and ridiculously low expense items for granted—in other words, giving the business the benefit of the doubt in the matter of costs in order to avoid staggering figures—the above profit is the result when the retail price was about two and one-half times the quarry cost. *No merchant can get rich on this procedure.*

A monument purchased for \$100.00 f. o. b. cars at quarry and sold for \$250.00 does not yield a profit of \$150.00 as is sometimes supposed. On the above basis with apparently low expense items figured, the profit would be only \$25.00. If all costs were figured on a fair basis this selling price would yield no profit at all. The proprietor would be compensated for his time and service but would have no actual profit for his risk in business. The logical selling price should be \$300.00 to yield a profit in the neighborhood of ten per cent.

Too often there is a tendency to figure only in terms of quarry cost as the whole cost on any sale. The items of expense above listed are not apparent and it is a difficult thing to distribute these items in proper proportion among individual sales. Until such time as a uniform cost system is worked out and adopted by the craft the safest thing to do is to recognize the fact that such items of cost do exist and prepare for them by using a high enough multiplier on the