

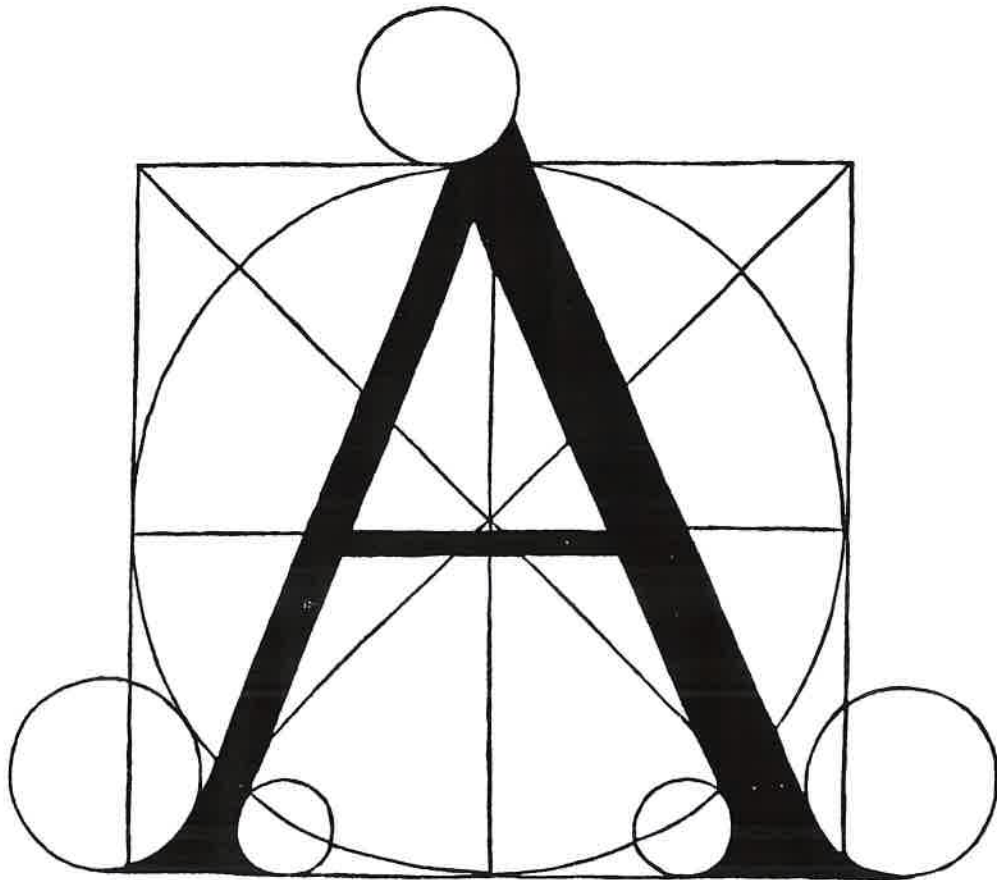
PACIOLI'S CLASSIC ROMAN ALPHABET

Stanley Morison

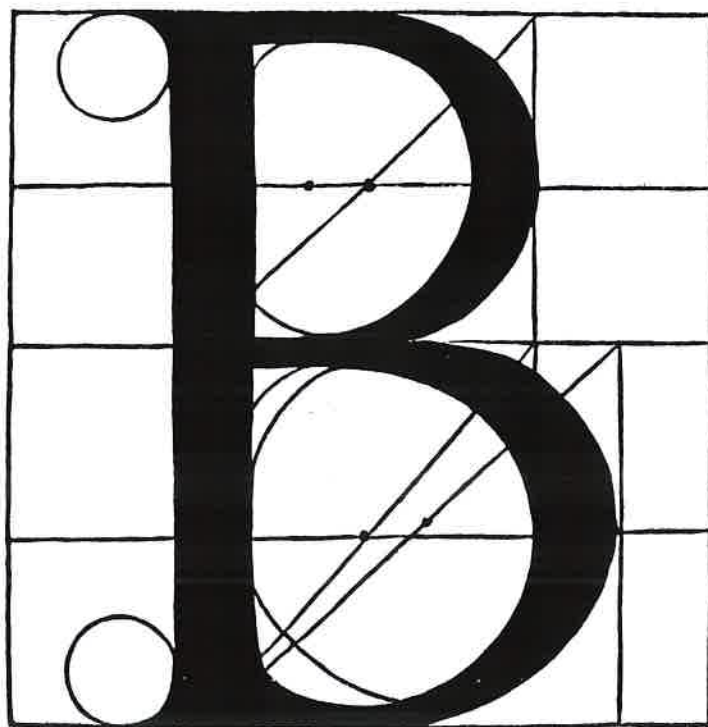


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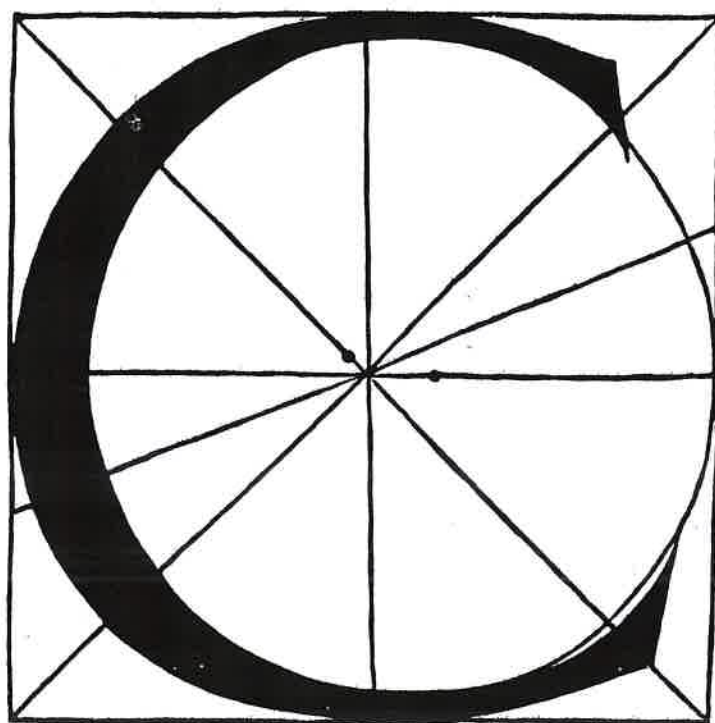
PACIOLI's ALPHABET



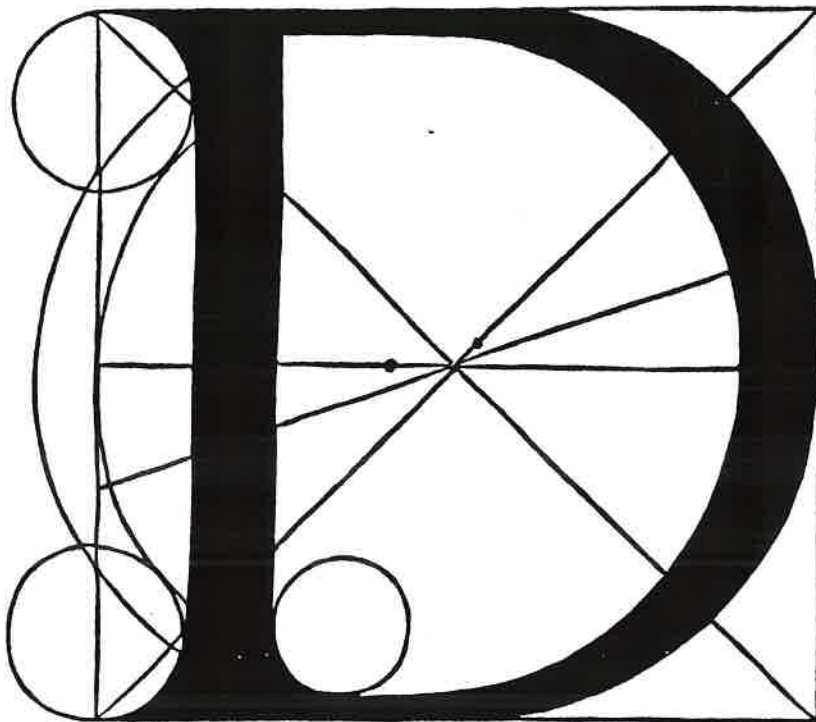
This letter is taken from the circle and square. The right limb must be one-ninth part as thick as the height. The left limb is to be half as thick as the thick one. The middle [cross-] limb is to be one-third of the thickness of the thick limb. Of the said letter, the middle limb—the breadth of the letter [between] each limb—lies a little lower than the junction [of the diagonals] as you see by the diameters indicated.



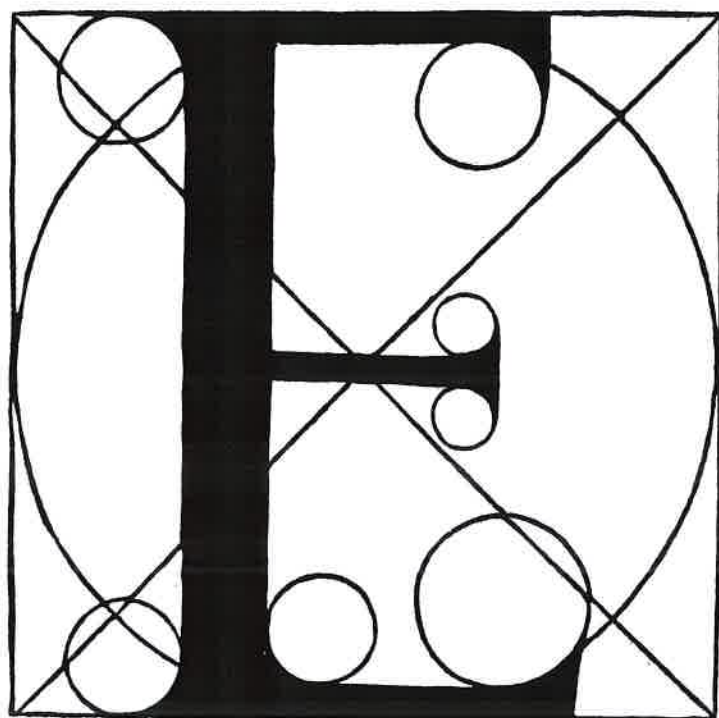
This letter is made of two circles together, of which the lower one is the larger ; namely, its diameter must be five-ninths of the total height, as is seen indicated in due proportion above.



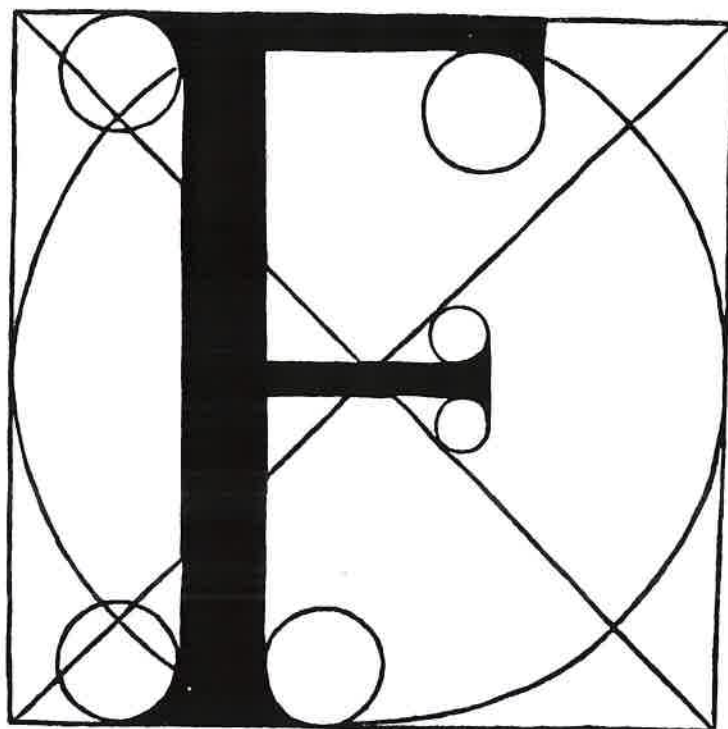
This letter is taken from the circle and its square, thickening the fourth part both outside and inside [curve of the circle]. The upper limb ends at the point of intersection of the diameter and circumference, the lower passes over the crossing about half a ninth near the corner of the square, as is shown in the figure, and it is made in the same way as O.



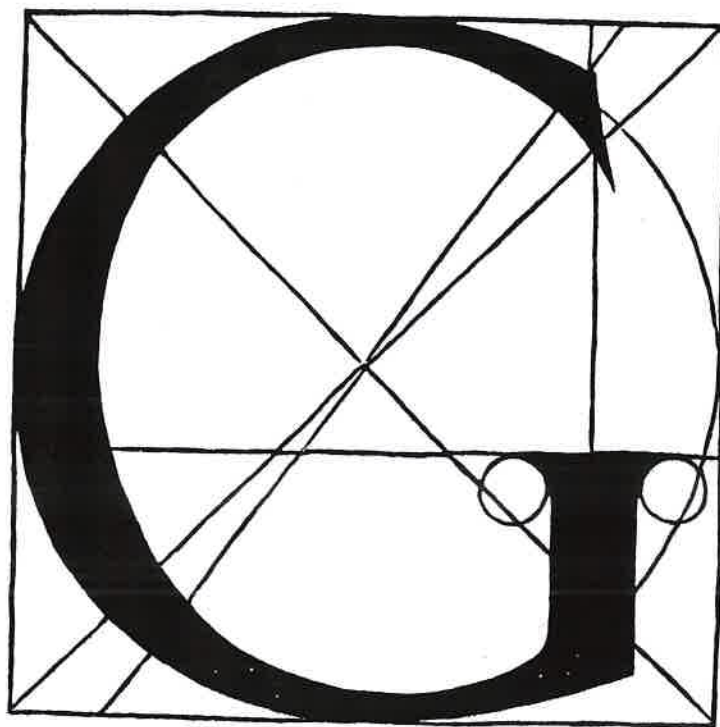
This letter is taken from the circle and a square. The straight limb must be one-ninth part thick between the crossings [of the circle and diagonals]. The body is thickened as in the other curves. The connecting portion at the top must be one-third as thick as the thick limb; that at the bottom a fourth more than a third.



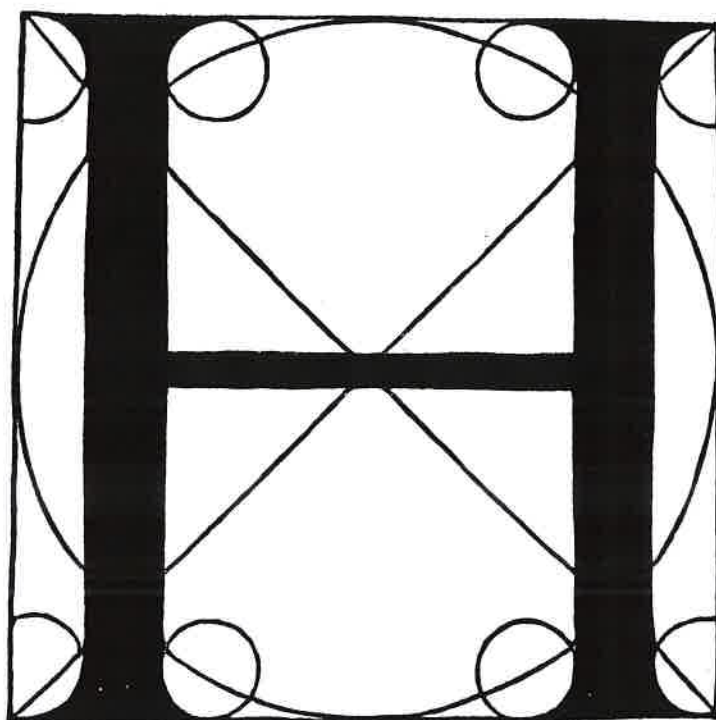
This letter is produced from the circle and its square. The thick limb must be one-ninth part. The upper limb must be one-half the thickness of the thick limb, the lower limb likewise; the middle limb the third part of the thick limb, like the middle [limb] of A, and the letter must be as wide as one-half the square, and so it will be most perfect.



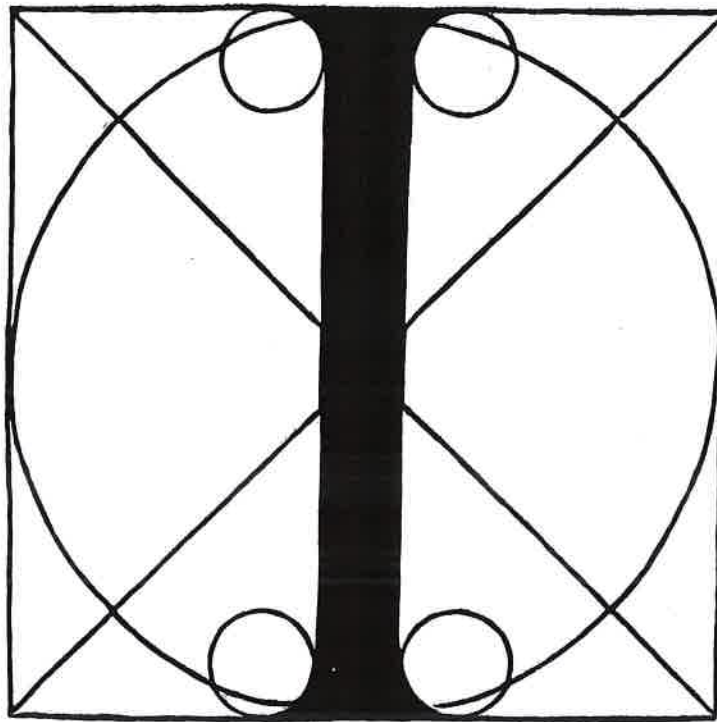
This letter is made like E, neither more nor less, save that F has no third limb; as you will find more fully set forth under E, with all its due proportions, so that this suffices for this letter.



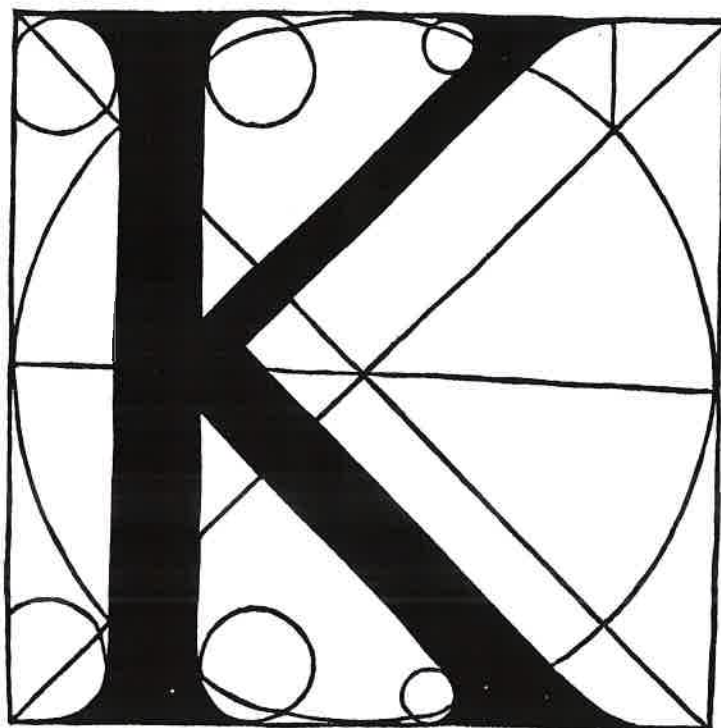
This letter G is made like C from its circle and square. The straight limb at the bottom must be one-third of the square in height, and its thickness one-ninth of the height of the square.



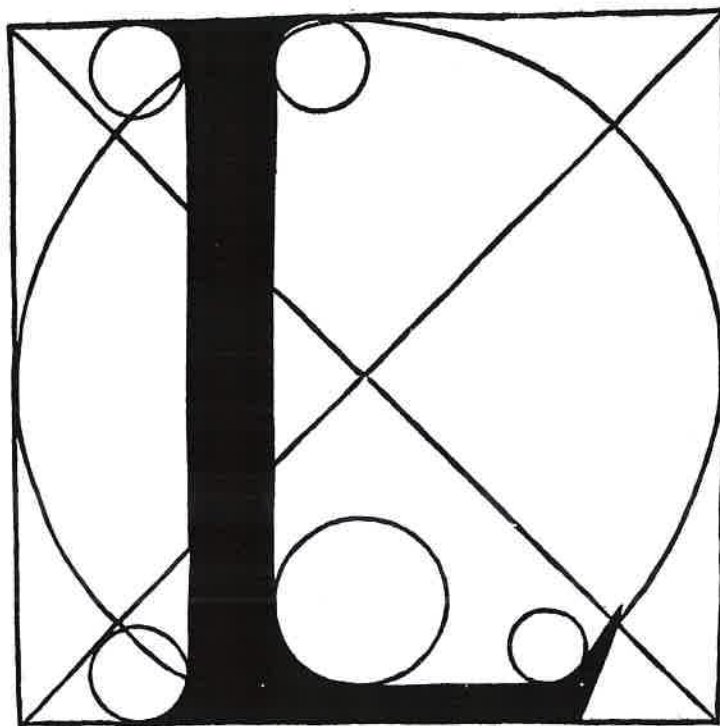
This letter is made from the circle and its square; the thick limbs are made through the crossing, that is, where the diameters of the circle and square intersect each other. The thickness of the said limbs must be one-ninth of the height; the middle limb is made through the diameter, its thickness being one-third of that of the thick limbs, like the crossbar of the A.



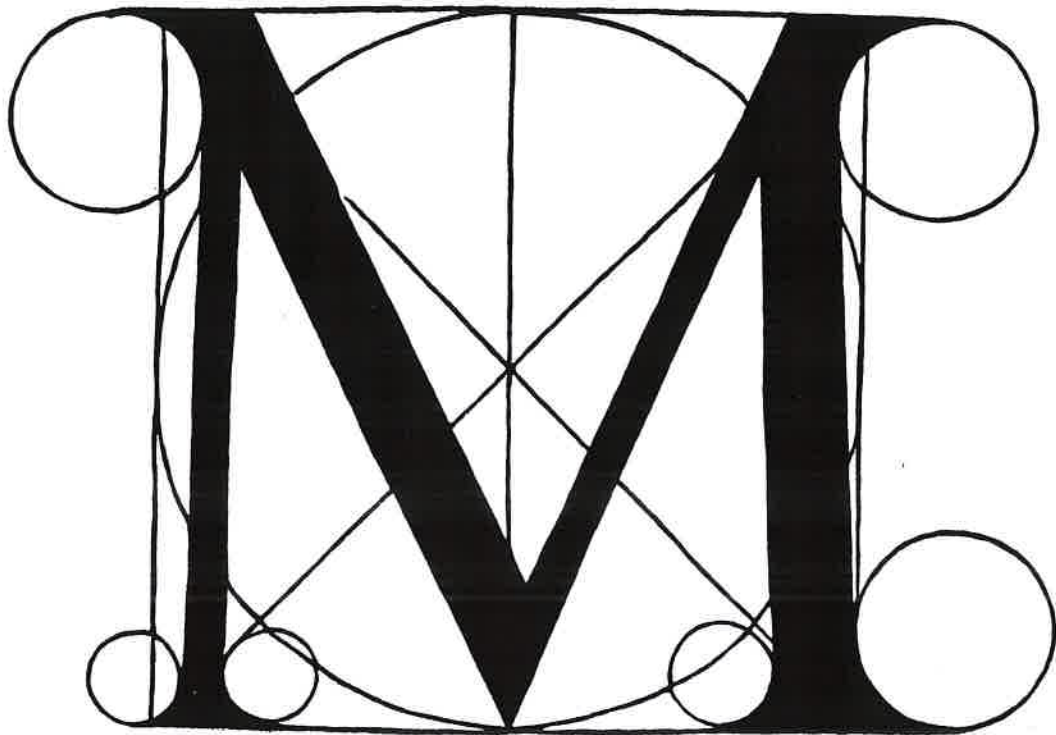
This letter is made from the circle and square, and its thickness must be one-ninth; so that it is easier to make than the others.



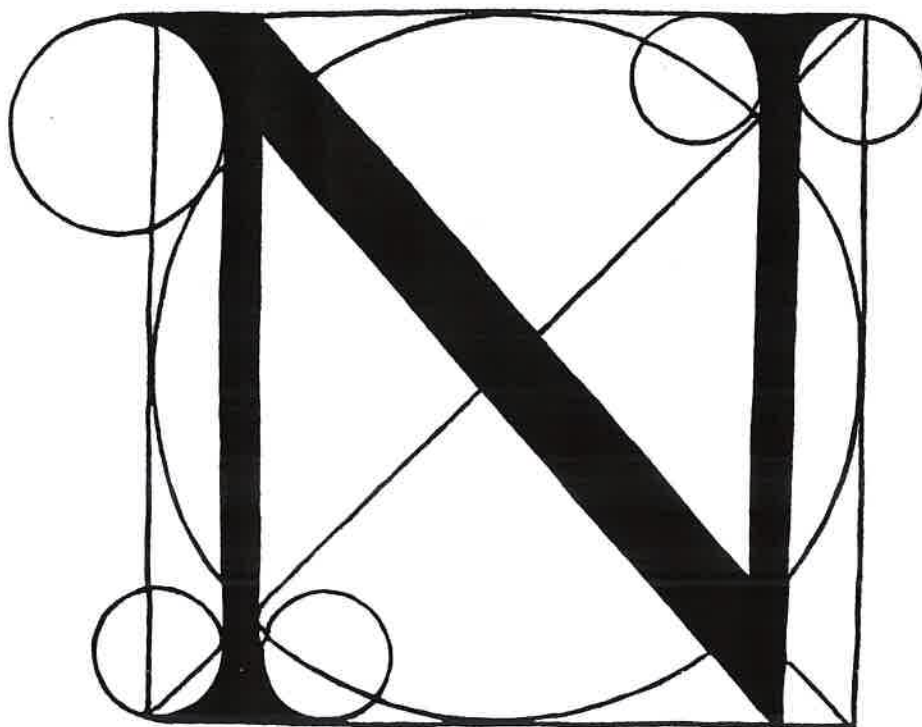
This letter is made from the circle and the square, drawing a line through the diameter of the square, on which line the two limbs are terminated and joined in the middle of the thick limb. The lower limb must be one-ninth in thickness like the other limbs; the upper limb one-half the thickness of the thick limb, as with the left limb of A. The lower limb must be long enough to reach the intersection [of the diagonals] and the circle, or more; the upper one ends short of the intersection.



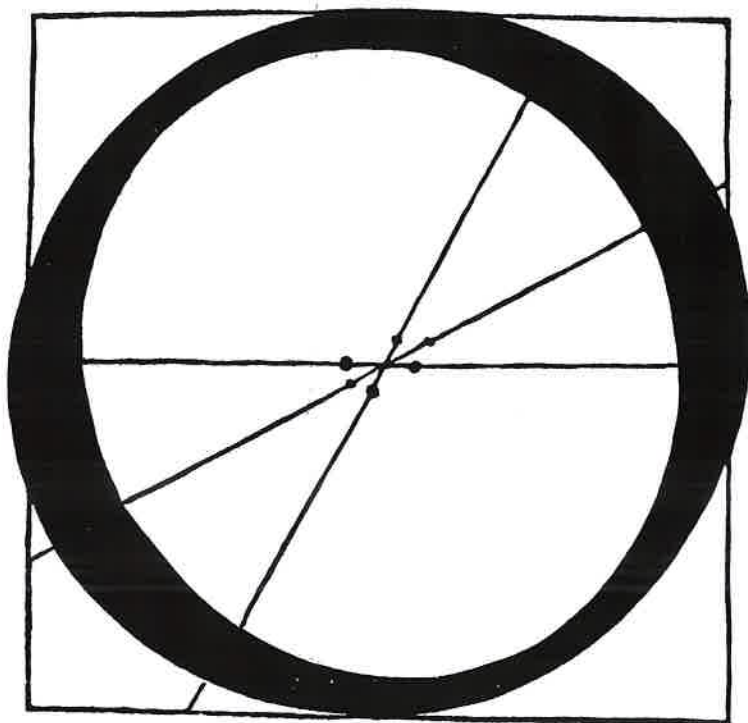
This letter is formed from the circle and square. Its thickness must be one-ninth of its height; its width the half of the square, with the roundings (*tondi*) inscribed above. The thin limb at the bottom must be half the thickness of the thick limb, as with E and F.



This letter is made from the circle and its square. The thin limbs must be half the thickness of the thick ones, like the left limb of A. The outer limbs must be slightly inside the square; the middle limbs between them and the intersection of the diameter, their width, both the thick and the thin, like those of the A, as you may see more clearly in the figure.

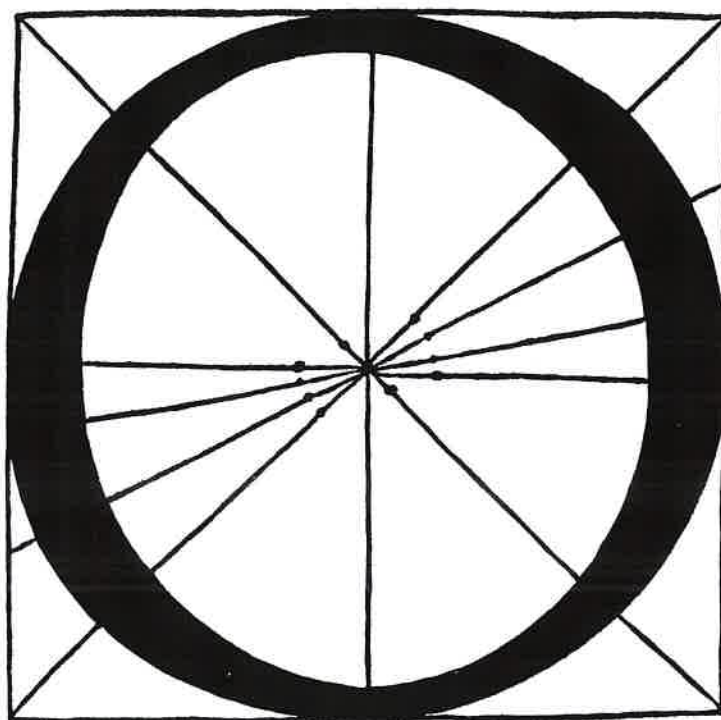


This letter is made from the circle and square. The first limb must fall beyond the intersection of the diagonals [and circle]. The middle limb must be one-ninth in thickness, taken diagonally. The third limb must fall outside the intersection. The first and third limbs must be half as thick as the thick limb, that is, one head [or one-ninth].

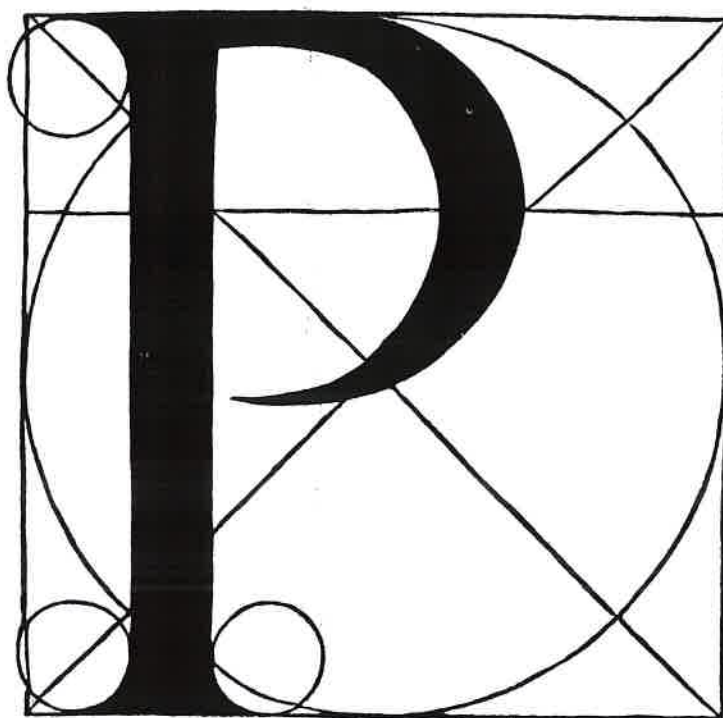


This O is most perfect.

[The second design for O, shown on page 57, gives a description which almost seems more satisfactory if transferred to this first O which Pacioli terms *perfectissimo*. The protuberances (*pancie*) are more conspicuously swung "one upwards, the other downwards" in the above. Hence it is possible that there was some confusion in the setting of the text. It would appear more reasonable to reverse the positions of these two designs, but I have retained the order of the original. Cf. the Q, pp. 60 and 61. S.M.]



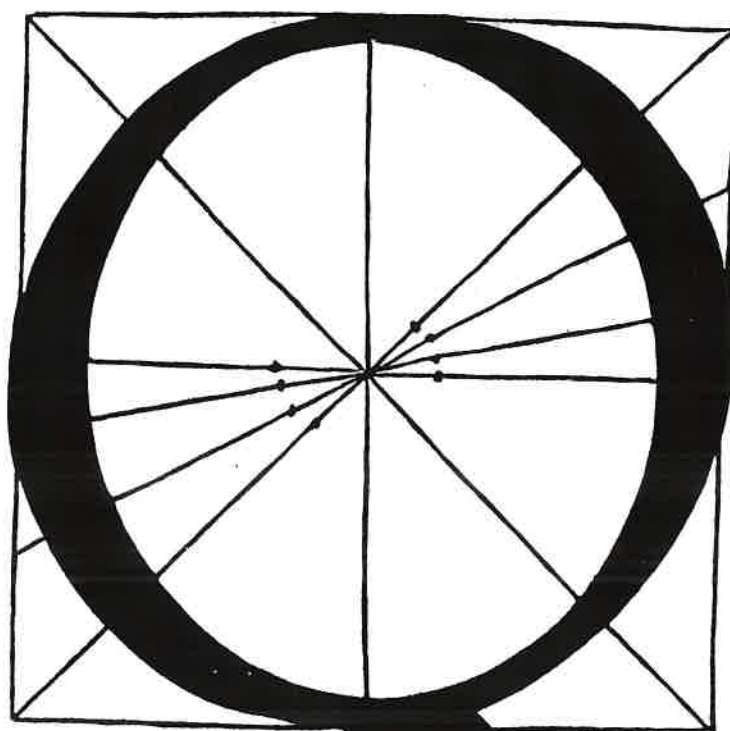
This letter is made from the circle and its square. It is divided into four parts, that is, crosswise by the four middle lines. Its body must be one-ninth thick, and its upper part must be half the thickness of the thick part. Its protuberances must lie one upwards, the other downwards; the thin parts of its body must be one-third of the protuberance. And seeing that there are two opinions about it, I have provided another which in my view is most perfect; and you can take which you like, and form from it, as you will find set out in its place.



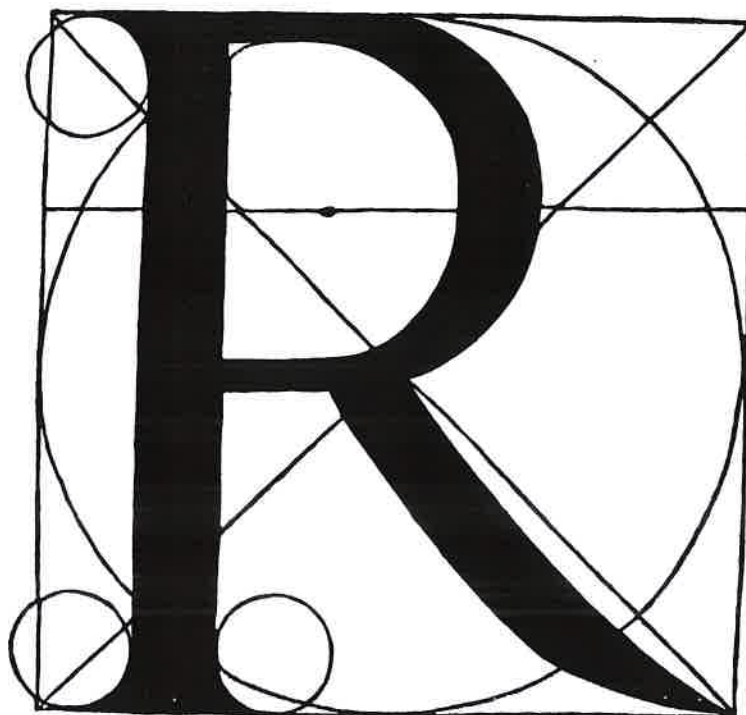
This letter is taken from the circle and its square. Its thick limb must be one-ninth in thickness. The shape of the round part must be as large as the lower part of B, and the thickness of the protuberance must be as great as the thick limb, and the said letter must begin at the crossing of the great circle, that is, the intersection of the diameter, and thus it will be most perfect.



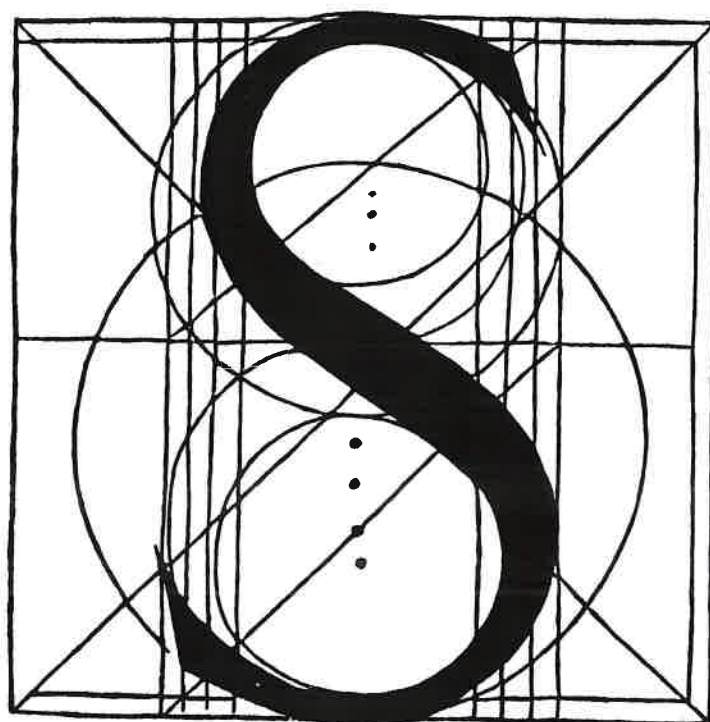
[The tail of the Q in the engraving ends nearly four heads or ninths below the square. Hence the design does not appear in the stated proportions. The tail of the Q in the engraving is longer than the side of the square. It will be noted that the Friar shows here the alternative O instead of the *perfectissimo*. Cf. pp. 55 and 57. S.M.]



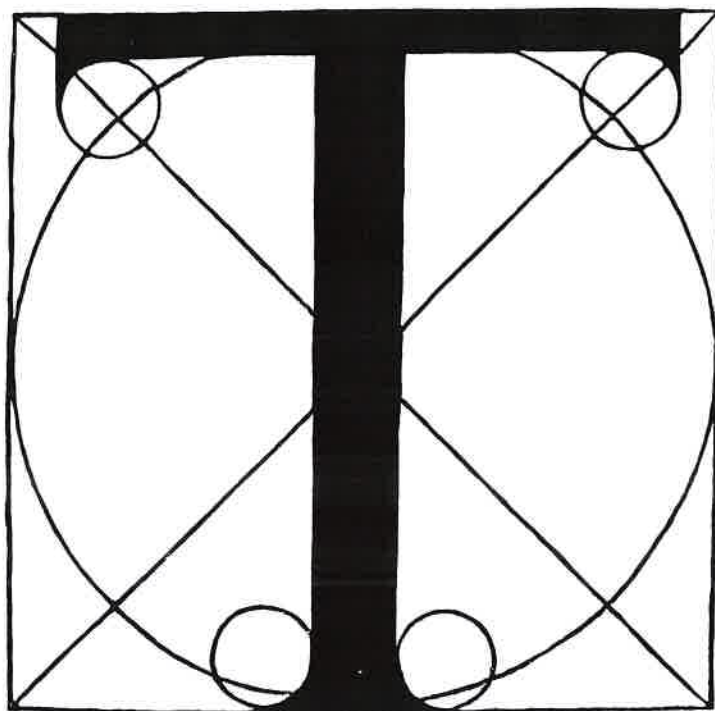
This letter, as I said above, is made from the O, its limb ending three heads of its height below the square, that is, three-ninths of the square, or the diameter of the circle, as here appears in due proportion, keeping the thick and thin protuberances opposite each other as was said in the case of O. Its tail is to be made nine heads long, that is, as long as the side of its square; and the head must be one-ninth of the height high at the point, following the curve of the pen with the lessening of its thickness.



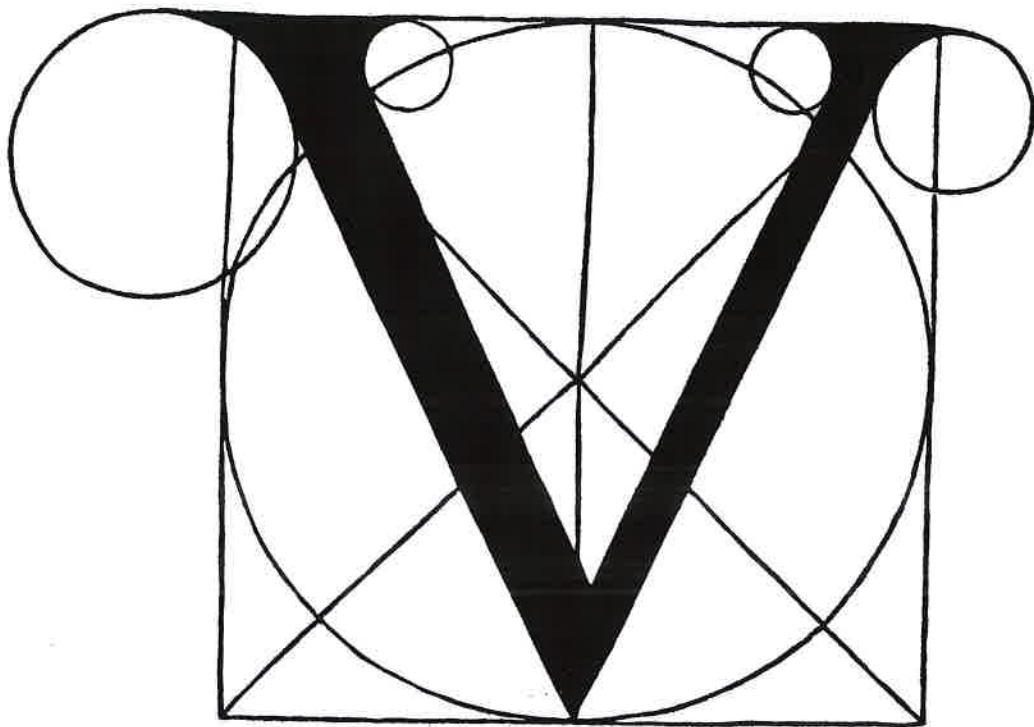
This letter is taken from B, its rounding extends to a half [thick] limb below the centre. The whole of this letter must be within the intersections except the curved limb, which must pass beyond the intersections to the corner of the square. The said curved leg is to be one-ninth thick, ending thinly in a point at the angle of the square after the manner of curved lines, as you see from the illustration.



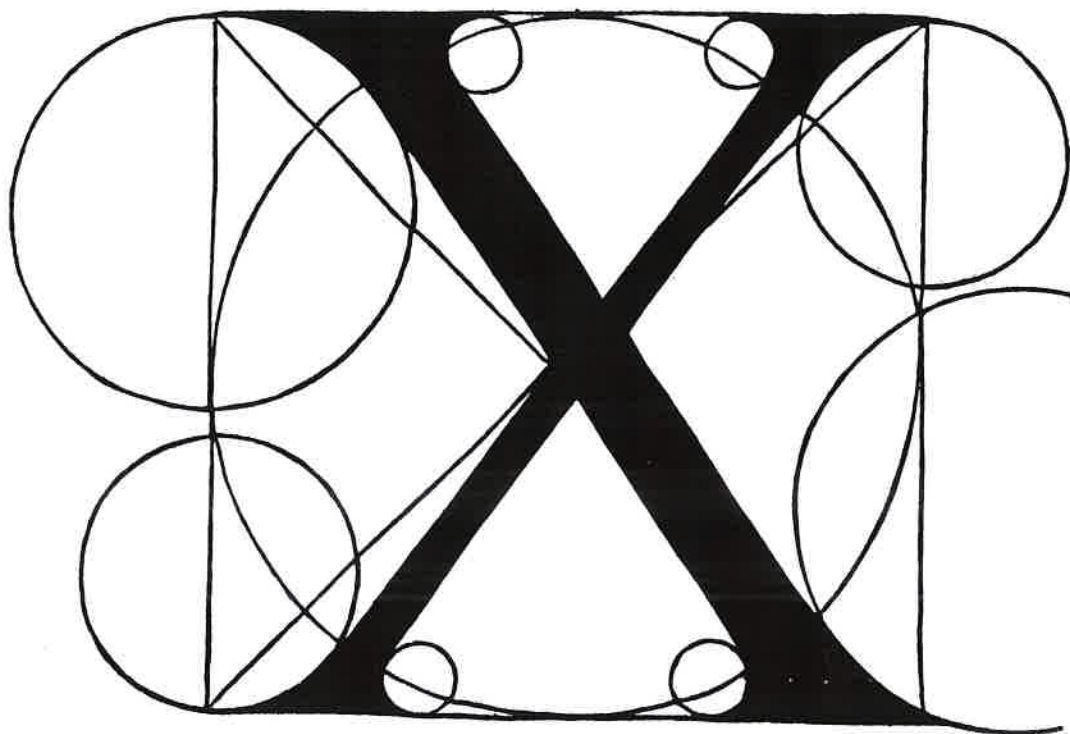
This letter is made from eight [the figure gives only six] circles, and this is its mode of formation, as you see in the figure. Finding their centres by means of their parallels, you will find that those below are one-third of one-ninth of the square greater than those above. The protuberance at the middle must be one-ninth of the height; the thin portions a third of the thickness, ending the heads with their ornament (*con sua gratia*).



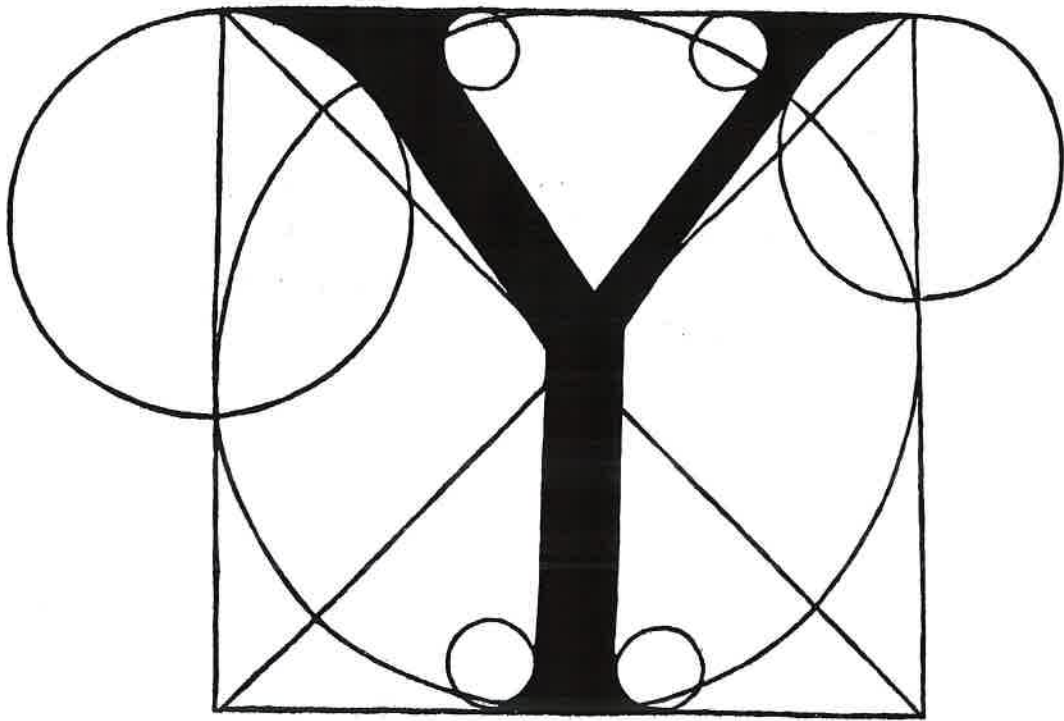
This letter is made from the circle and square. The thick limb must be made exactly as we said of I. The cross limb must be half as thick as the thick limb, as in the cases of E and F above, and must end half a head from the corner of the square on both sides, and thus it will be most pleasing to the eye.



This letter is made from the whole square. The left limb must be one-ninth [the height] of the square in thickness, taken diagonally, like the right limb of A and the cross limb of N, the right limb half the thick one taken diagonally, like the left limb of A, and it ends in a point at the base of the square at the end of the diameter of the circle.



This letter requires the whole square, its limbs crossing at the intersection of the diameters. And the one must be one-ninth of the height in thickness; the other half this [thickness], taken diagonally, its limbs ending with the requisite grace under the control of the small circles.



This letter makes use of the whole square; the right and left limbs must be thick in the same proportion as those of V, save that they end exactly above the intersection of the diameters, and thence their junction, produced downwards to the base of the square, is one-ninth of the square in thickness; the upper heads end with their own circles, as you see.

[The Y is the final letter in *De Divina Proportionē*. The Friar naturally ignores U and W but the omission of Z seems to be due to accident. Z is given by Moille, Dürer and Tory. S.M.]