

INTERCOMMUNICATION.

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F. H. : In answer to Jas. D., I submit herewith a method of describing the veneer he asks for. Let Fig. 1 be the plan of a door or window opening in a straight partition, the head or soffit A B C, D E F, being circular, and splaying equally with the jambs A D, and C E. To find the shape of the soffit or veneer, divide A B C into any number of parts; continue A D and C E to H; or H as a centre, draw A G and D J indefinitely; from A to G set off the parts divided around A B C; connect G H;

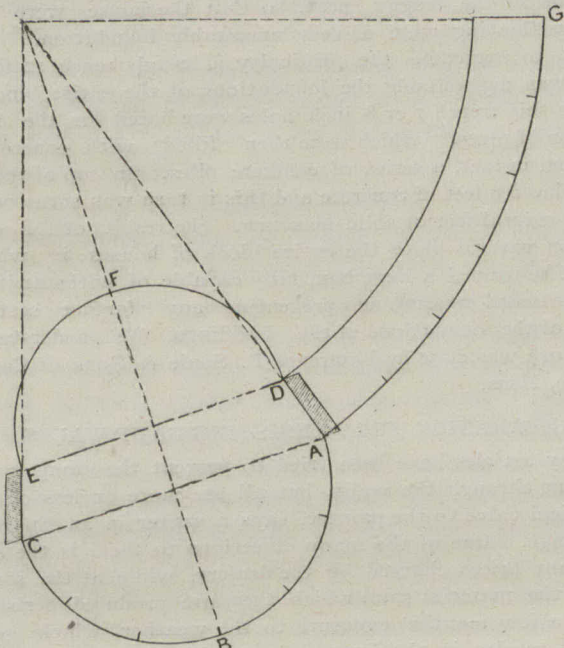


FIG. 1.—SPRAYED SOFFIT

then A G, D J will be the shape of the edges of the soffit. This is probably the simplest way known of getting the proper curvature for work of this kind. If the wall into which this door or window head is to go was circular, or a round tower wall, instead of flat, a number of new conditions would have to be met of a very complicated character, which this diagram and method, would not meet.

W. T. : Replying to P. McF., who, in your last issue asks if there is a correct method of laying off degrees with the steel square? I may say there are several methods one of which I enclose as shown at Fig. 2, and which I think is among the best. It will be seen by the diagram the relationship of certain divisions of the circle to different figures on the square is indicated. The divisions shew the degrees from 5 to 90 with the exact figures on the tongue necessary to produce the same. This diagram is also useful in roof work, as for example: if a pitch of 25 degrees is required, use 12 inches on the blade and 5 5/8 on the tongue. By reversing the conditions, 65 degrees will be established. Indeed, this scheme may be used for the solution of many problems in the construction of angles. With regard to laying out "braces" for that is what P. Mc F. means I suppose, I may quote from the "Steel Square and its Uses." If we examine the illustration, Fig. 3, we find a brace having a run on the girt of three feet, and a run on a post of four feet, which of course, is an unequal run. The positions of the square for laying the run off, are shown by the dotted lines. To get the length of brace and level of cut for this "run," we take nine inches on the tongue, and twelve inches on the blade, and the distance between the two figures—9 and 12—will give the length of "one foot run" as measured on the brace, and the line marked on the edge of the tongue, will give the top cut of the brace, while the line along the edge of the blade will give the cut or bevel of the brace fitting against the post. The operation is to be repeated four times as shown at Fig. 4. If we want a brace with a two foot run and a four

foot run, it must be evident that, as two is the half of four, so on the square take 12 inches on the tongue and 6 inches on the blade; apply four times and we have the length and the bevel of a brace for this run. For an

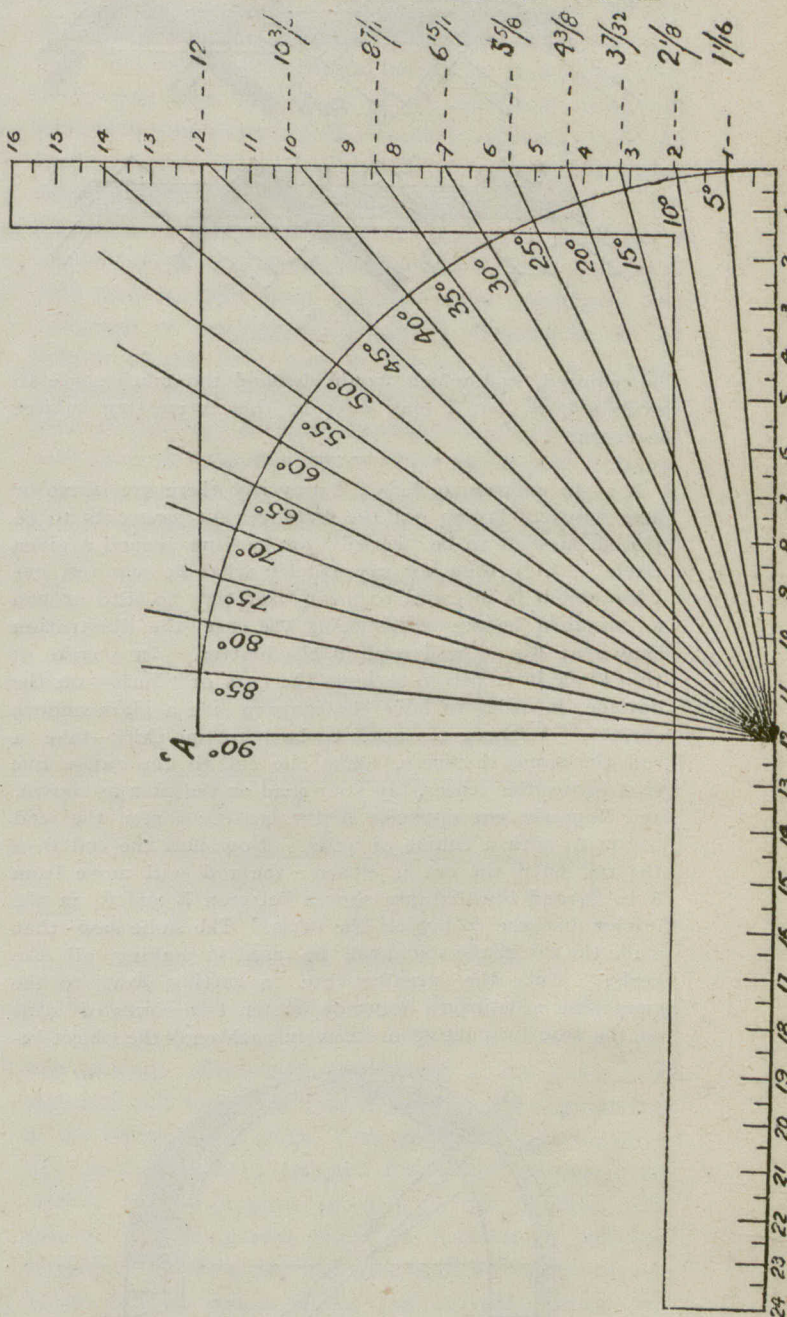


FIG. 2.—LAYING OFF DEGREES BY STEEL SQUARE

"even" or square run, we take 12 inches on the blade, and the same on the tongue, and apply as many times as there are feet in the run,—so, for a four ft. run as shown at Fig. 5, we apply the square four times as shown at Fig. 6. This explanation, will I think, satisfy P. Mc F., so

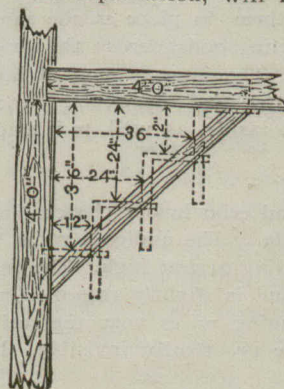


FIG. 5.

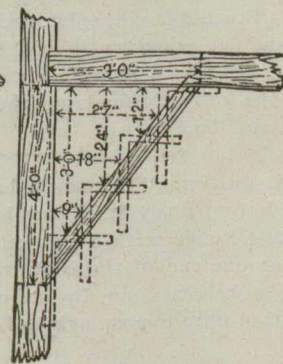


FIG. 3.

STEEL SQUARE PROBLEMS.

far as degrees and braces are concerned. With regard to cutting hip and valley rafters, they can all be cut on the ground by using the square and saw properly. For bevels and lengths of rafters, take 17 inches on the blade, and the pitch of the tongue, and you have the plumb cut on the