



Fig. 69—Plan and Elevation of a circular tower to be covered with weather boarding.

know the rule for ascertaining how much to take off the lower edges of siding on a length, say, of 6 feet.

From H. I. N., Atkinson, N. H.—In reply to the Brooklyn builder I submit a sketch, Fig. 69, representing plan and elevation of the circular tower, the siding of which must be worked with curved edges, as indicated at C. In order to find the radius and length of this curve the axial line  $e f$  is drawn through the center of the tower and extended to  $f$  indefinitely. The line  $h g$  is then drawn as a continuation of the direction of the slanting surface of the siding and carried out until it intersects the center, or axial, line,  $e f$ , at  $x$ . Now with  $x$  as a center and radii equal to  $x d$  and  $x h$  describe the arcs  $d m$  and  $h n$ , which will give the form and curvature necessary to secure the level lines on the top and bottom of the siding after it is bent around the tower in the position indicated by  $h k$ . If the correspondent will make a full size drawing on the floor or any place where he has room and follow the above directions he can cut the form  $d m n h$  from heavy paper, using it as a pattern. The curves can then be traced on each strip of siding and worked out with draw knife and plane. There are a number of ways of doing this work, but I think the plan here described is the easiest.

From E. F. C., Bremen, Ind.—The proper way to solve the problem of the Brooklyn builder is to draw a sectional elevation of the tower to some convenient scale, or if the slant height is known—that is, the height from the base of the tower to a point where the slant line would intersect with a line drawn through the center of the tower—then the distance from the point of intersection on the slant line to the base line would be the radius for striking the curve to which the boards for the courses should be cut. If the boards are exposed 4 inches to the