

PROBLEM 4.—Represent in perspective the position of a point 3' to the left, 5' from the picture plane and 7' from the ground. Spectator's eye is 4' from the ground, and 14' from the picture plane. Scale $\frac{1}{4}$. (Fig. 10.)

It will be noticed that the station point has been used thus far, only to show how the measuring points are obtained. They can be found by measuring on the horizontal line to the right and left of the centre of vision, the distance of the spectator from the picture plane. In the ensuing illustrations the station point will not be shown.

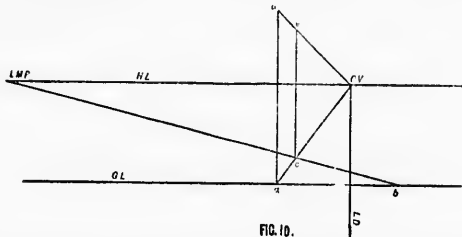


FIG. 10.

Measure 3' to the left of the line of direction to *a* and draw *a CV*. From *a* measure 5' to *b* and draw *b LMP*. From *a* draw a vertical line *ad*, 7' long and draw *d CV*. From *c* draw a vertical line to cut *d CV* in *e*. Then *e* will be the position of the point required.

PROBLEM 5.—Show the perspective appearance of a line in the ground plane, parallel to the picture plane. Its left hand end is 1' to the left and its right hand end is 4' to the right and 3' back. Position of spectator's eye 3' above the ground plane and 7' 6" from the picture plane. Scale $\frac{1}{3}$. (Fig. 11.)

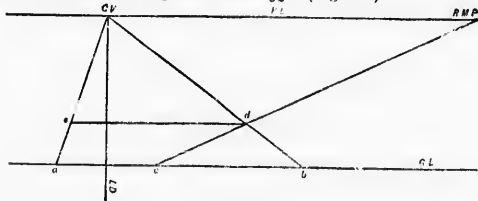


FIG. 11.

Find a point, *a*, on *GL* 1' to the left of *CV*, and another point, *b*, 4' to the right of *LD* and draw *a CV* and *b CV*. Then the left hand end of the line required will be in *a CV*, and its

right hand end will be in *b CV*. From *b* measure 3' to the left, to *c* and draw *c RMP* to cut *b CV* in *d*. Lines parallel to the picture plane are represented as they are, without any change of direction, and as the line in this case is in the ground plane, and hence horizontal, therefore if from *d* a horizontal line be drawn to cut *a CV* in *e*, it will be the representation of the line required.

As a straight line is the shortest distance between two points, if the perspective position of the extremities of any line can be found, the line joining them will be the perspective representation of the line required.

PROBLEM 6.—Represent in perspective a line 6' long, in the ground plane, perpendicular to the picture plane, its nearer end being 4' to the left and 2' beyond the picture plane. Height of eye 5'; distance from picture plane 10'; scale $\frac{1}{3}$. (Fig. 12.)

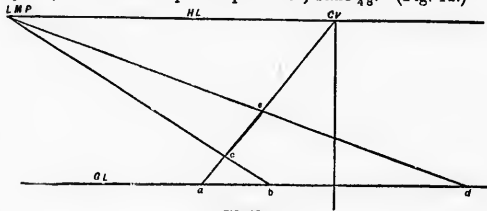


FIG. 12.

On *GL* find *a* 4' to the left of *LD* and join *a CV*. From *a* measure 2' to *b*, and from *b* measure 6' to *d* and join these points with *LMP* by lines cutting *a CV* in *c* and *e*. Then *ce* will be the line required.

PROBLEM 7.—Draw the perspective view of a line in the ground plane having one end 6' to the left and 2' from the picture plane, and the other end 4' to the left and 1' from the picture plane. Height 2'; distance 5'; scale $\frac{1}{4}$. (Fig. 13.)

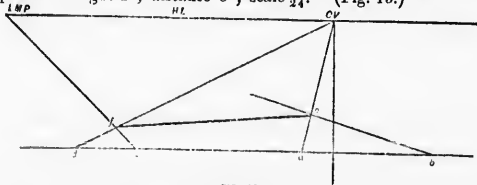


FIG. 13.

Find *a* 6' to the left and *d* 4' to the left and draw *a CV* and *d CV*. Measure 2' from *a* to *b* and 6' from *d* to *e* and join *b LMP* and *e LMP*. Then *ce* and *ef* will be the extremities of the line required.