W. A. MOORE.

ROLLING PERSPECTIVE RULE.

APPLICATION FILED SEPT. 4, 1919.

1,348,655.

Patented Aug. 3, 1920.

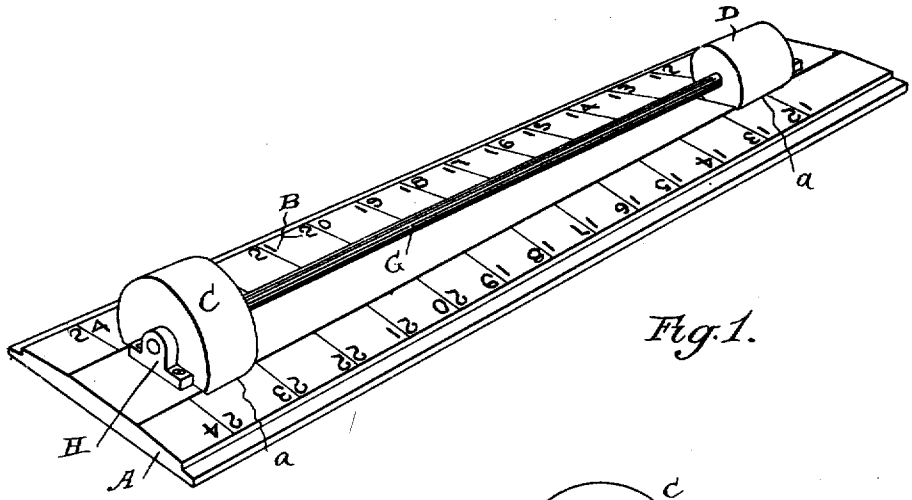


Fig. 1.

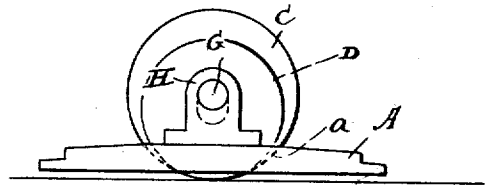


Fig. 2.

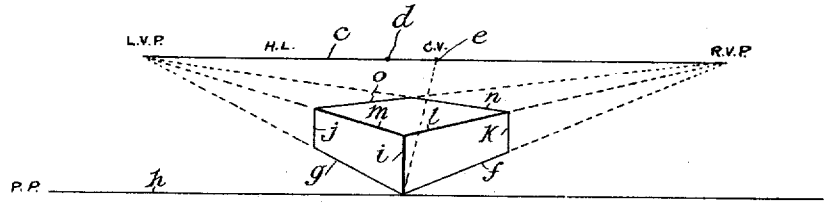


Fig. 3.

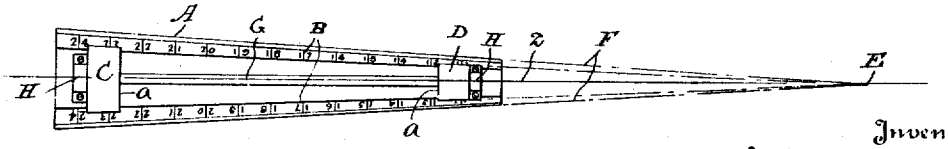


Fig. 4.

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ROLLING PERSPECTIVE-RULE.

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To all whom it may concern:

Be it known that I, WALTER ALBERT MOORE, of the town of Welland, county of Welland, Province of Ontario, Dominion of Canada, engineer, have invented certain new and useful Improvements in Rolling Perspective-Rules, of which the following is a specification.

My invention relates to improvements in rolling perspective rules, and the object of the invention is to provide a rule to be used in connection with the making of perspective drawings without necessarily having to locate the vanishing point or points, particularly when the vanishing point (or points) is beyond the surface on which the drawing is to be made, and in its broad conception the invention comprises a rule provided with a suitable scale, and a tapered roller journaled in said rule, the said rule and roller being so shaped that if lines be projected therebeyond at one end of the rule, the said lines will converge at one point, as hereinafter more particularly set forth.

Figure 1 is a perspective view of my rule in its preferred form. Fig. 2 is an elevation of the wider end of the rule. Fig. 3 is a diagrammatic view showing a figure in perspective drawn with the rule, and Fig. 4 is a plan view of the rule illustrated in Fig. 1, showing how lines projected beyond one end thereof from the sides of the rule and the sides of the roller converge at one point.

In the drawings, like characters of reference refer to the same parts.

In making drawings in perspective, it is quite frequently the practice to use special attachments, or to puncture the paper so as to locate the vanishing point or points. By dispensing with the said attachments, and the necessity of having to puncture the paper, I enable a drawing to be made in perspective very quickly, and without impairing the appearance of the paper.

A is the base of the rule made of wood or any other suitable material, and provided at both sides in its preferred form with a suitable scale B, which, in the present disclosure, represents inches. Lines projected beyond each side of the rule at the narrower end thereof in a line with the said sides will converge at one point, as shown clearly in Fig. 4. C and D are rollers each shaped like the frustum of a cone, and it will be seen clearly upon examining Fig. 4 that lines projected from the said rollers converge at the point E where the lines F converge, as before mentioned. The said rollers C and D are mounted on any suitable spindle G which is supported by any suitable brackets H, carried by the base A. Upon referring particularly to Fig. 2, it will be seen that the rollers C and D project through openings *a* formed in said rule and come in contact with the surface of the paper or other material on which the drawing is to be made.

To use the rule, the horizontal line *c* is drawn, and as shown in Fig. 3, this is the line on which the vanishing point (or points) is placed. With the rule in question, in reality it is only necessary to draw a portion of said horizontal line *c*. A point *d* is assumed on said horizontal line above the site of the proposed drawings in order to assume the position of the vanishing point or points. In the figure illustrated in perspective in Fig. 3, two vanishing points are used, namely the right vanishing point and the left vanishing point. If it is desired to make a drawing to the left of the center of vision *e* with the right and left vanishing points thirty-six (36) inches apart, it can be assumed that the point *d* is fifteen (15) inches from the left vision point, and twenty-one (21) inches from the right vision point. The center of vision *e* is placed centrally between the assumed right and left vanishing points. If the base A be placed with the smaller end pointed to the right, so that one edge thereof will be on the horizontal line *c*, with the numeral 21 over the point *d*, the rule can be swung down the desired distance, and the line *f* drawn. Then by placing the narrower end of the rule pointed to the left and with the proper edge of the rule on the horizontal line *c*, and with the numeral 15 over the point *d* and then after swinging the rule downwardly, the line *g* can be drawn. Where the lines *f* and *g* intersect, the line *h* can be drawn, if desired. The vertical line *i* is then drawn, and after establishing the length and breadth of the figure to be illustrated on the lines *f* and *g* in the usual way, the vertical lines *j* and *k* are then drawn. The lines *l* and *m*, *n* and *o*, are then drawn.

By one skilled in this art, it will, of course, be understood that the said rule can be used in making drawings whether they touch or are positioned in from the picture plane *h*, and it will also be under-

stood that the rule in question can be used in making perspective views of figures which have one vanishing only.

Any suitable scale or scales may be used on the rule A, and although I show the scale as starting from the numeral 12 and running up to the numeral 24, this is merely for illustrative purposes. In the form illustrated, the numeral 12 is assumed to be twelve (12) inches from the converging point E, Fig. 4.

By providing the two conical-shaped rollers C and D in place of one roller, (which of course may be used) I not only lighten the rule, but cheapen construction without impairment in utility.

It will, of course, be understood that my rule may be constructed with only one side provided with a scale and tapered in relation to the rollers C and D, as before set forth.

According to my preferred form of construction as illustrated, it will be understood that the converging point E is vertically above the longitudinal axis 2 of the rule.

What I claim is,

1. A rule of the class described comprising a tapered rotatable element; a suitable scale-provided base-member having a straight-edge inclined with respect to the axis of said tapered rotatable element, and means carried by said base-member and adapted to rotatably support said tapered element with part thereof extending below said base-member, the whole adapted to co-act as set forth.

2. A rule of the class described comprising two tapered rollers of different sizes mounted to rotate about a common axis carried by a suitable base-member, and designed to extend below the same; the said common axis; the said base-member, the same being provided with a suitable scale and having a straight-edge inclined with respect to said axis, the whole adapted to co-act as set forth.

3. A rule of the class described comprising two tapered rollers of different sizes; a spindle on which said rollers are rotatably mounted, and a suitable scale-provided base-member having a straight-edge inclined with respect to said spindle, and supporting said spindle, and further provided with an opening at each end thereof in which operate said rollers and through which openings the respective rollers project below said base-member, the whole adapted to co-act as set forth.

4. A rule of the class described comprising two tapered rollers of different sizes; a spindle on which said rollers are rotatably mounted, and a suitable base-member having a straight-edge inclined with respect to said spindle, and supporting said spindle, and further provided with a scale numbered from 12 to 24, inclusive, and further provided with an opening at each end thereof in which operate said rollers which project below said base-member, the whole adapted to co-act as set forth.

WALTER ALBERT MOORE.