No. 695,857. Patented Mar. 18, 1902.

O. H. BONNER.

ELLIPSOGRAPH.

(Application filed Mar. 30, 1901.)

(No Model.)

Fig. 1

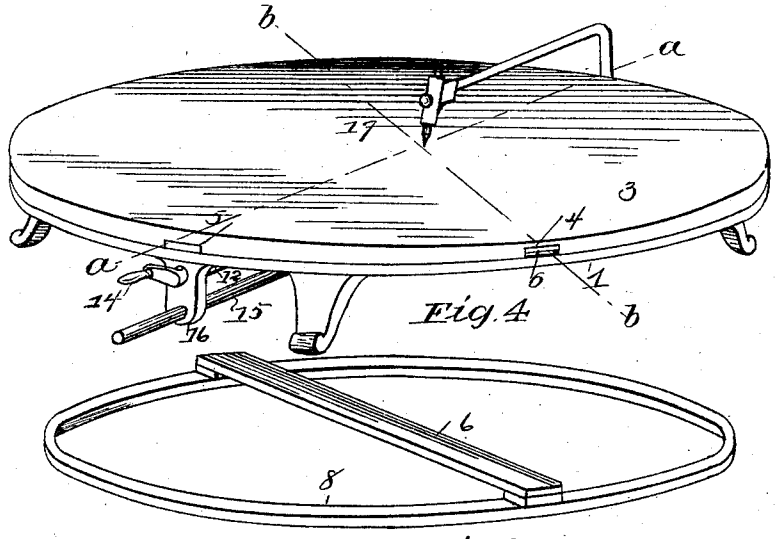


Fig. 4

Fig. 2.

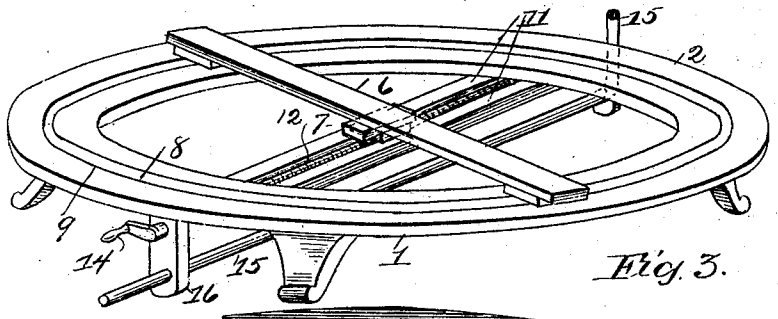


Fig. 3.

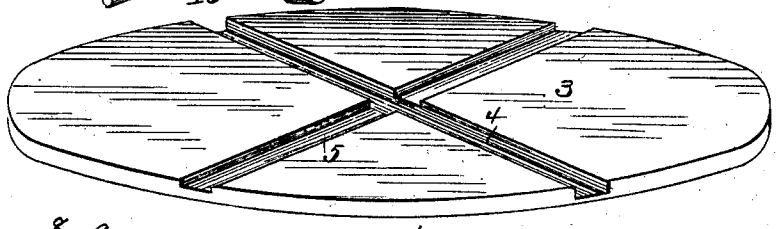


Fig. 5

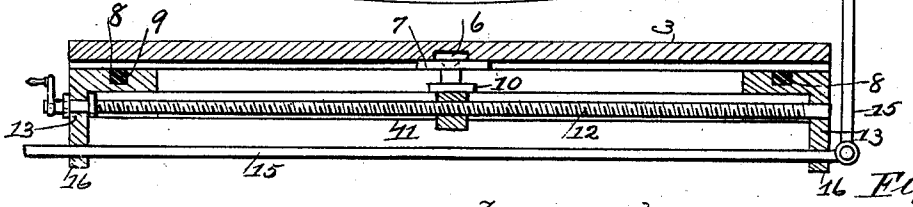
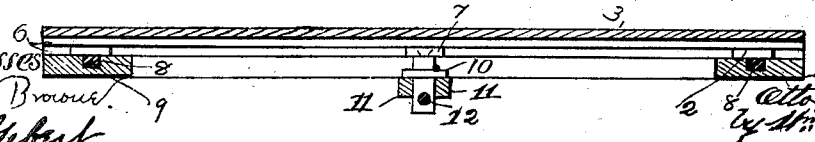


Fig. 6



Witnesses
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ELLIPSOGRAPH.

SPECIFICATION forming part of Letters Patent No. 695,857, dated March 18, 1902.

Application filed March 30, 1901. Serial No. 53,646. (No model.)

To all whom it may concern:

Be it known that I, OTTO H. BONNER, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, State of Ohio, have invented certain new and useful Improvements in Ellipsographs, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in ellipsographs; and the objects of the invention are to provide a simple and efficient device adapted to the general office use of photographers, engravers, draftsmen, &c., whereby an ellipse of any desired dimensions or a circular figure can be quickly and accurately delineated.

My invention consists in the combination of parts and construction of details, as hereinafter described, shown in the accompanying drawings, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the device. Fig. 2 is a perspective view of the same with the upper plate removed. Fig. 3 is a perspective of the lower face of upper plate, showing guide-slots. Fig. 4 is a plan view of upper guide-bar, showing the ring which maintains the same in its central position. Fig. 5 is a transverse section of the device on line *a a*, Fig. 1; and Fig. 6 is a transverse section of the same on line *b b*, Fig. 1.

In these views, 1 is a stand or frame provided with three legs to give it stability upon any surface.

2 is the circular platform upon which the upper plate 3 rests. Upon this upper plate is fastened the paper or mat upon which the ellipse is to be delineated. In the under side of this plate are placed the slots 4 and 5, centrally crossing at right angles, the slot 4 being twice as deep as the slot 5, and upon the platform below are shown the bars 6 and 7, adapted to move freely in said slots. The bar 6 is secured rigidly to a ring 8, which is inclosed in a circular groove 9 in the platform. The other bar 7 is free to slide longitudinally in the slot 5 to separate the central points of the bars to any distance required, and thus determine the width of the ellipse. This bar 7 is pivoted freely upon the head 10, which moves between diametrically-placed guides 11 across the platform and is moved longitudinally therein by means of a feed-screw 12, mounted in bearings 13 on either side of the platform and provided with a handle 14, by means of which to turn it.

In order to enable the bars 6 and 7 to pass one another, they are placed upon different planes, as shown, so that a very small width can be given the ellipse, or practically a linear figure can be produced.

Below the platform is seen the rod 15, which is mounted in the guides 16 and which curves upward and over the turn-table. To the inner extremity is secured the pencil or penholder 17, which rests upon the table. The length of the ellipse can be adjusted by sliding the rod 15 in or out of its guides, and it is hinged at 18, so that the pencil can rest firmly upon the table.

When all is in readiness and the paper is attached to the turn-table and the pencil-rod adjusted for the length of the ellipse, the table is simply whirled and the ellipse drawn at once without difficulty.

I claim—

1. In combination, a platform provided with a circular slot in its upper face, a ring in said slot, and diametrical bar thereon, diametrically-placed guides on said platform, a head adjustably movable thereon, a pivoted bar on said head, and an upper plate provided with slots crossing at right angles in its under face, in which said pivoted bar and diametrical bar are inserted, substantially as and for the purpose set forth.

2. In combination with a circular platform, diametrically-placed guides thereon, a sliding head in said guides, means for adjusting said head in said guides, a bar pivoted thereon, a circular groove on said platform, a ring in said groove, a diametrically-placed bar rigidly secured to said ring at a higher level than said pivoted bar, an upper plate, diametrical grooves, one deeper than the other in said plate, in which said bars are adapted to move, and an adjustable pencil-bar, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OTTO H. BONNER.

Witnesses:

CARL E. BONNER,

GEO. O. WILLET.