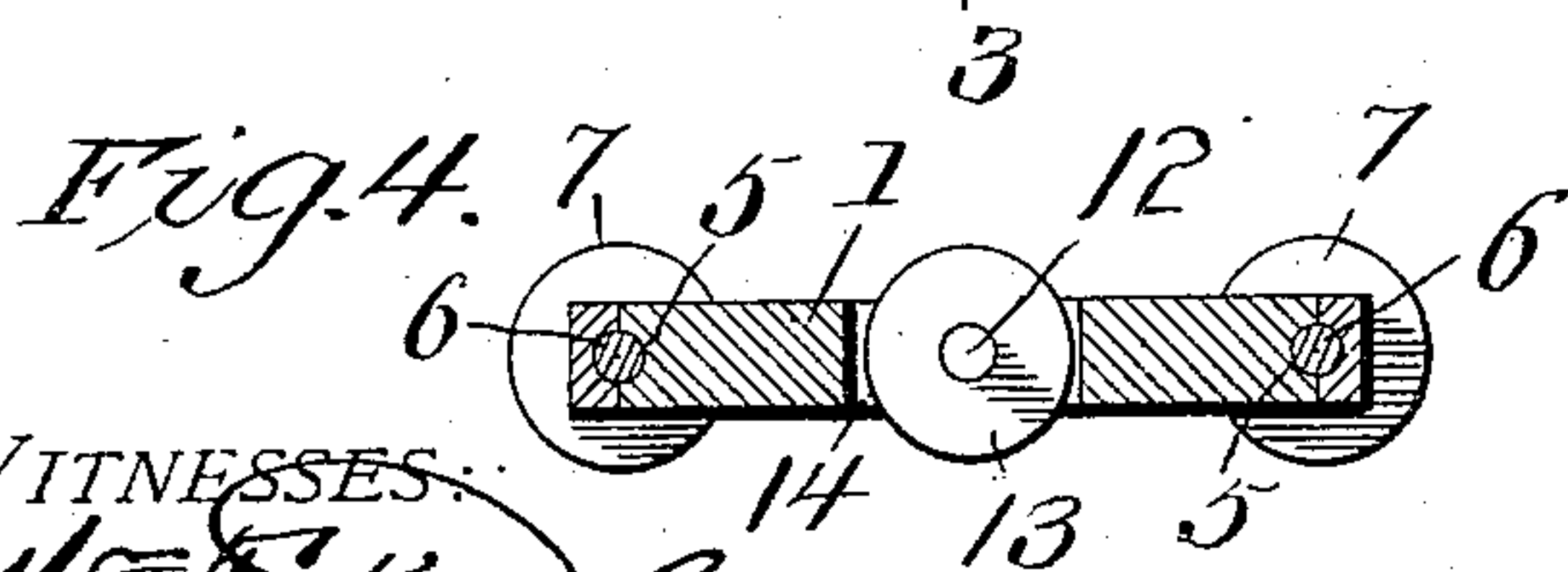
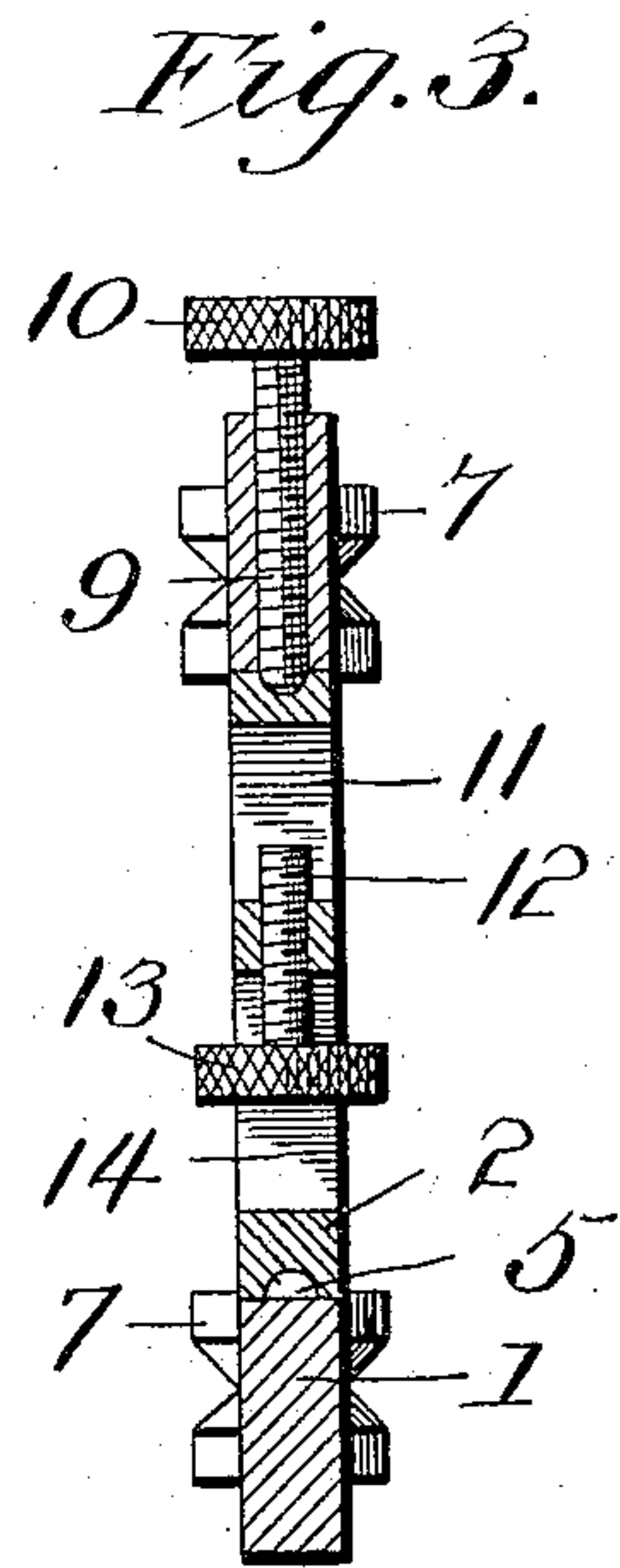
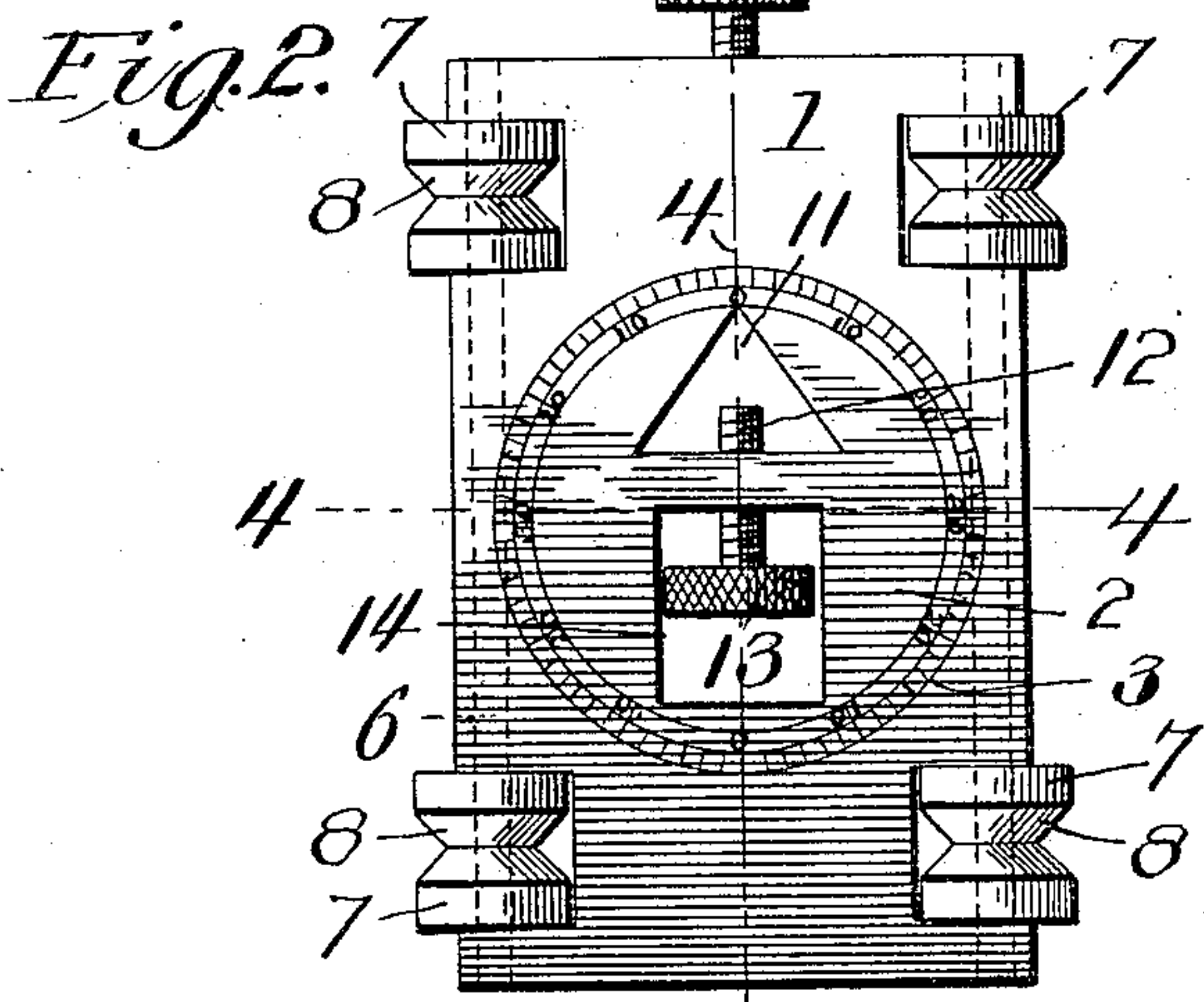
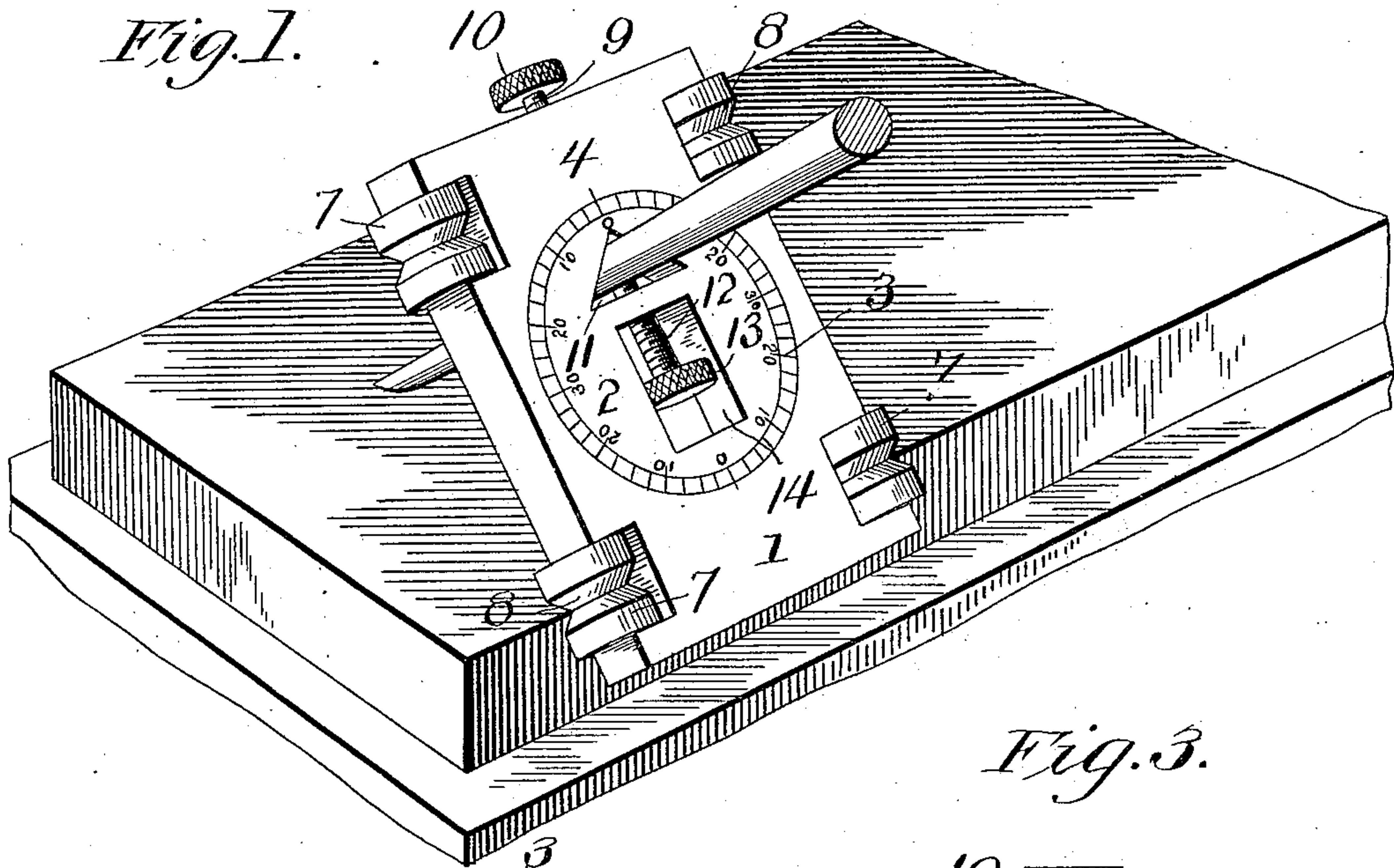


No. 870,365.

PATENTED NOV. 5, 1907.

R. L. HIGHT.
GRAVER SHARPENER.
APPLICATION FILED MAR. 11, 1907.



WITNESSES:
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UNITED STATES PATENT OFFICE.

ROBERT L. HIGHT, OF DECATUR, ILLINOIS.

GRAVER-SHARPENER.

No. 870,365.

Specification of Letters Patent.

Patented Nov. 5, 1907.

Application filed March 11, 1907. Serial No. 361,813.

To all whom it may concern:

Be it known that I, ROBERT L. HIGHT, a citizen of the United States, residing at Decatur, in the county of Macon, State of Illinois, have invented certain new and useful Improvements in Graver-Sharpener, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a graver sharpener, and particularly to a supporting block by which the tool is held at the proper angle upon the stone or sharpening surface over which it is moved.

The invention has for an object to provide a construction adapted to travel upon the side edge of the sharpening surface so as to effect the abrading action upon the cutting face of the tool transversely to the length of its face.

A further object of the invention is to provide an adjustable mounting within the block to receive the tool by which it may be held at any desired angle, this angle to be positively determined by the graduations upon this member.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawing:—Figure 1 is a perspective showing the application of the invention; Fig. 2 is a plan of the device; Fig. 3 is a section on the line 3—3, Fig. 2, and Fig. 4 is a section on the line 4—4, Fig. 2.

Like numerals refer to like parts in the several views of the drawing.

The numeral 1 designates the body or bed within which the circular holder 2 is mounted for rotation and provided with the series of graduation 3 at its periphery to cooperate with the graduations 4 upon the bed 1. This holder is retained in position by means of a groove 5 upon the periphery thereof through which the pivoting rods 6 at opposite sides of the body extend. Each of these rods is provided with rollers 7 which are recessed or grooved, as shown at 8 in order to secure a bearing on the edge of the stone or abrading surface over which the tool is moved. They are duplicated at opposite ends of the bed so that the sharpener may be disposed in an inclined position, as shown in Fig. 1 and either end travel on the edge of the stone by the use of one set of rollers or may be used in a position with its side parallel with the face of the abrading surface with the flat face of the rollers in contact therewith when such is desirable. The adjustable holder is retained in position by means of the screw 9 extending from one end of the bed and into contact therewith, said screw being provided with an operating head 10. The graver or tool to be sharpened

is centered in the adjustable holder by means of the triangular aperture 11 which is provided at its base with a clamping screw 12 the head 13 of which is disposed in a recess 14 in the holder. By this means the tool to be sharpened is forced into the apex of the angle and thus centered at the zero mark on the adjustable holder.

This invention is particularly designed for use in sharpening jewelers' gravers and is intended to effect an abrading action crosswise of the ground face thereof. Previously in sharpening these tools it has been customary to run them over the stone endwise from the point backward which marks show upon the article engraved as the cutting face of the tool is marred or injured in this sharpening action. By mounting the sharpener to travel on the edge of the stone and carrying the cutting face of the tool so as to leave the marks thereon transverse of the cutting face the tool when used will leave a perfectly smooth cut. It will be obvious that by means of the adjustable holder the tool may be set at any angle relative to a vertical line and this angle positively determined so that the abrading action may be effected to secure the preferred bevel or angle of the point of the graver.

Having described my invention and set forth its merits, what I claim and desire to secure by Letters Patent is:—

1. In a graver sharpener, a bed plate, a tool holder thereon, and grooved bearing rollers disposed at one end thereof with their axes parallel to the side of the plate.

2. In a graver sharpener, a bed plate, a rotatable tool holder thereon, parallel bearing rollers disposed at one end thereof, and means to retain the holder in adjusted position.

3. In a graver sharpener, a bed plate provided with a grooved bearing roller at one end to engage an edge of an abrading surface at one side, and a graduated holder rotatably mounted in said plate to cooperate with a graduation thereon.

4. In a graver sharpener, a bed plate provided with a holder rotatably mounted in said plate and provided with graduations thereon, and a bearing roller carried by the plate to effect a travel thereof transversely of the axis of the holder.

5. In a graver sharpener, a bed plate, a graduated holding disk mounted therein flush with the opposite faces of the plate for rotary adjustment and provided with an angular tool aperture therein, and a clamping screw mounted on the disk at the base of said aperture.

6. In a graver sharpener, a bed plate, a circular graduated holder having a grooved periphery mounted therein for rotary adjustment and provided with an angular tool aperture therein, a clamping screw at said aperture, and a locking screw threaded through said plate to engage the periphery of said holder.

7. In a graver sharpener, a bed plate, a circular graduated holder mounted therein for rotary adjustment and

provided with a triangular tool aperture therein, a clamping screw at the base of said aperture, a locking screw mounted on the bed to engage said holder, grooved bearing rollers disposed at the opposite ends of said plate, and
5 longitudinally extending pivots for said rollers extending through the grooved periphery of said holder.

8. In a graver sharpener, a bed plate, a tool holder flush with the opposite faces thereof and having a grooved periphery rotatably adjustable in said plate, and a retaining
10 rod carried by the plate to enter said groove.

9. In a graver sharpener, a bed plate, means for retaining a tool therein, and bearing rollers at one end of said plate having their axes parallel to the sides of the plate.

In testimony whereof, I affix my signature in presence of two witnesses.

ROBERT L. HIGHT.

Witnesses:

JOHN H. CULVER,

CARL W. SMITH.