J. Adt,

Centering Anvil,

No. 39,193. Patented July 7, 1863.

Fig: 3

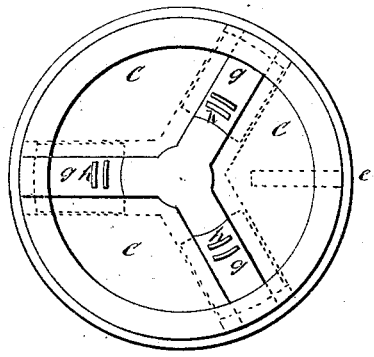


Fig: 2

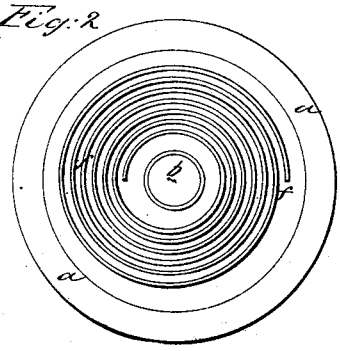
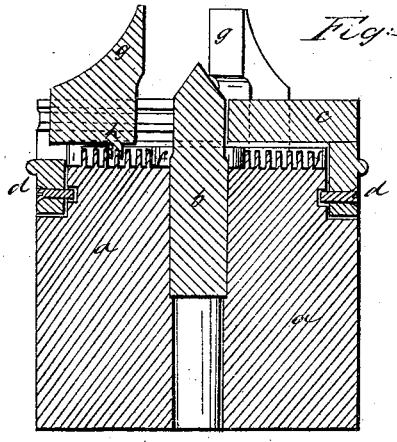


Fig: 1



Witnesses.

Chas. W. Gillette

John. W. Paul

Inventor.

John Adt.

UNITED STATES PATENT OFFICE.

JOHN ADT, OF WATERBURY, CONNECTICUT, ASSIGNOR TO HIMSELF AND ELISHA TURNER, OF SAME PLACE.

IMPROVEMENT IN CENTERING-ANVILS.

Specification forming part of Letters Patent No. **39,193**, dated July 7, 1863.

To all whom it may concern:

Be it known that I, JOHN ADT, of Waterbury, in the county of New Haven and State of Connecticut, have invented, made, and applied to use a certain new and Improved Centering-Anvil; and I do hereby declare the following to be a full, clear, and exact description of my said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a vertical section of my centering anvil. Fig. 2 is a plan of the same with the cap removed, and Fig. 3 is an inverted plan of the cap.

Similar marks of reference denote the same parts.

Before placing a bar or shaft in a turning-lathe, it is necessary that holes be formed at the ends of such bar or shaft to take the centers of the lathe, and unless such holes are accurately central the shaft is not easily turned. Various devices have heretofore been made for forming such center-holes, but because the same are costly the centers have usually been measured and indented with a center-punch. This consumes considerable time, and is not accurate.

The nature of my said invention consists in a center-punch set in an anvil, combined with a cap and centering-clamps that are brought up by a scroll on the end of the anvil, so as to seize and hold central a shaft or bar while being driven upon said center-punch to form the central hole in such shaft or bar. This device is compact and easily applied to the centering of any shaft or bar, and saves considerable time in determining the position of said center and indenting the same.

In the drawings, *a* is an anvil or block of metal, carrying the center-punch *b*, which is fitted so that it may be removed for sharpening when necessary. Around the upper end of this anvil is a groove, and over the anvil is a circular cap, *c*, with a flange descending around the sides of this anvil, and screws *d d*, passing through said cap and entering the said groove, retain the cap to the anvil, but allow for its being rotated by a lever or bar introduced into a hole on one side of the cap, as at *e*. Upon the surface of the anvil *a* is a scroll, as shown at *f*, which scroll may be formed by a rib projecting above the surface, or by a groove turned or formed in the surface, and this scroll is to be accurately made by any usual or known means.

g g g are clamping blocks, set to slide in radial mortises in the cap *c*, and rising sufficiently above the surface of said cap and the center-punch *c* to seize and hold a shaft or bar to be centered, whether the same is large or small, within the capacity of the machine. Upon the under side of the clamping-blocks *g* are teeth, as at *h*, projecting down into the scroll *f*, so that when the cap *c* is rotated the said clamping-blocks will be drawn nearer to or moved farther from the center-punch *b*. In all cases the blocks are equidistant, so that any article placed between them will be centered by being driven upon the said center-punch.

If more convenient, the apparatus may be applied to the end of a shaft or bar, and be struck on the rear end by a hammer, so as to drive the center-punch into the bar, or the punch itself might be driven forward if said punch projected with a stem through the rear of the anvil.

What I claim, and desire to secure by Letters Patent, is—

The center-punch *b*, in combination with the cap *c*, blocks *g*, and scroll *f*, as and for the purposes specified.

In witness whereof I have hereunto set my signature this 23d day of May, 1863.

JOHN ADT.

Witnesses:

CHAS. M. GILLETTE,

JOHN W. PAUL.