W. W. WILCOX.

Improvement in Engravers' Vises.

No. 132,127. Patented Oct. 8, 1872.

Fig 1.

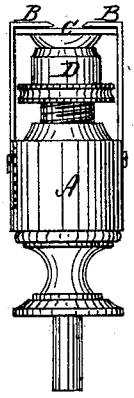


Fig 3



Fig 4

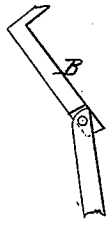


Fig 5

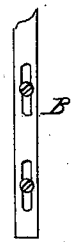
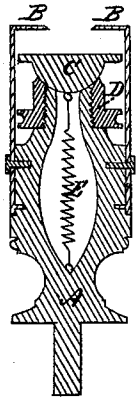


Fig 2



Witnesses,

Edward Jaggart

Niram A. Fletcher

Inventor.

W. W. Wilcox.

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

WESLEY W. WILCOX, OF GRAND RAPIDS, MICHIGAN.

IMPROVEMENT IN ENGRAVERS' VISES.

Specification forming part of Letters Patent No. **132,127**, dated October 8, 1872.

To all whom it may concern:

Be it known that I, WESLEY W. WILCOX, of the city of Grand Rapids, county of Kent and State of Michigan, have invented certain Improvements in Engravers' Blocks, of which the following is a specification:

My invention relates to engravers' vises for holding the article during the process of engraving; and my said invention consists in the combination of the table or plate upon which the article to be engraved is clamped, constructed to have a universal motion upon its seat, with clamping arms constructed to have a movement in unison with and to allow of the universal adjustment of the block-table, whereby the latter is rendered adjustable to all angles in every direction, which is highly advantageous in the manipulating of the engraver's instrument. My invention also consists in arranging the table having a hemispherical seat directly upon the adjustable neck or collar having a correspondingly-shaped socket, whereby the table is both supported and adjusted vertically to clamp the article, by one and the same device, the socketed seat thus obtaining a very compact, convenient, and economical arrangement with a firm vertical support for the table, which is very desirable in doing fine work.

In the drawing hereto attached, Figure I is a side view of my invention when constructed ready for use; Fig. II is a perpendicular sectional view of my invention, showing the internal arrangement of the parts; and Figs. III, IV, and V, are designed to show the different kinds of hooks which may be used and the method of attaching the hooks to the body of the block.

In Fig. I, A represents the body of the block-stand. This is constructed so as to fit into a foot in order to support it in a perpendicular position. B B are the hooks or clamps. In the Figs. I and II they are represented as being attached by means of screws, one on either side of the stand. They may be attached in any suitable and substantial manner. The hook B may be constructed in the form shown in Figs. I and II, or may be made so as to spring back, as shown in Fig. III; or if preferred, it may be made in the form of a jack-knife spring, as shown in Fig. IV. The hook may be rigidly and immovably attached to the stand, or it may be provided with slots, as shown in Fig. V, and thereby made adjustable perpendicularly upon the stand *a*. The stand *a* is provided with an aperture, as shown in Fig. II, and the upper portion of the stand is provided on its outer side with a screw-thread, as shown, and to it is fittted the collar D, constructed as shown in Fig. II. C represents a table or plate constructed with a flat smooth-plane upper surface and with the lower part in the form of a segment of a sphere, so as to fit into the upper end of the collar D, forming a socket-joint, thus rendering the plate C adjustable to any desirable angle by means of the socket-joint, and adjustable perpendicularly by means of the screw-collar D. The plate C is held in its place by means of the coiled spring E, as shown in Fig. II.

In using my invention the article to be engraven is placed upon the table C, and then the table is raised by means of the collar D until the article is brought in contact with the hooks B B, the hooks B B holding the upper surface horizontal while the table readily adjusts itself to the position of the lower surface of the article being engraven. Instead of using the socket-joint above described, the table C may be adjusted by means of an ordinary ball-and-socket joint, or may be placed upon a pivot; but I deem the method first above described the best.

My invention is principally designed to be used as an engraver's block, but the same device may be applied in combination with upright drills to advantage.

In Figs. III, IV, and V, I have shown the clamping-arms B, as adapted for yielding or conforming to the universal motion of the table, and in accomplishing this result the arms may either have a vertical movement by means of slots, or a lateral movement by springing, or by a knuckle-joint.

Having thus described my invention, what I claim to have invented and desire to secure by Letters Patent, is—

1. The combination of the table C, of an engraver's vise, capable of having a universal movement upon its seat D, with clamping-arms B, constructed to have a movement in unison with said table, as described.

2. The table C, of an engraver's vise, constructed with a hemispherical seat and arranged directly upon a socketed collar, D, which serves also for adjusting said table to clamp the article in place, as described.

WESLEY W. WILCOX.

Witnesses:

EDWARD TAGGART.

HIRAM A. FLETCHER.