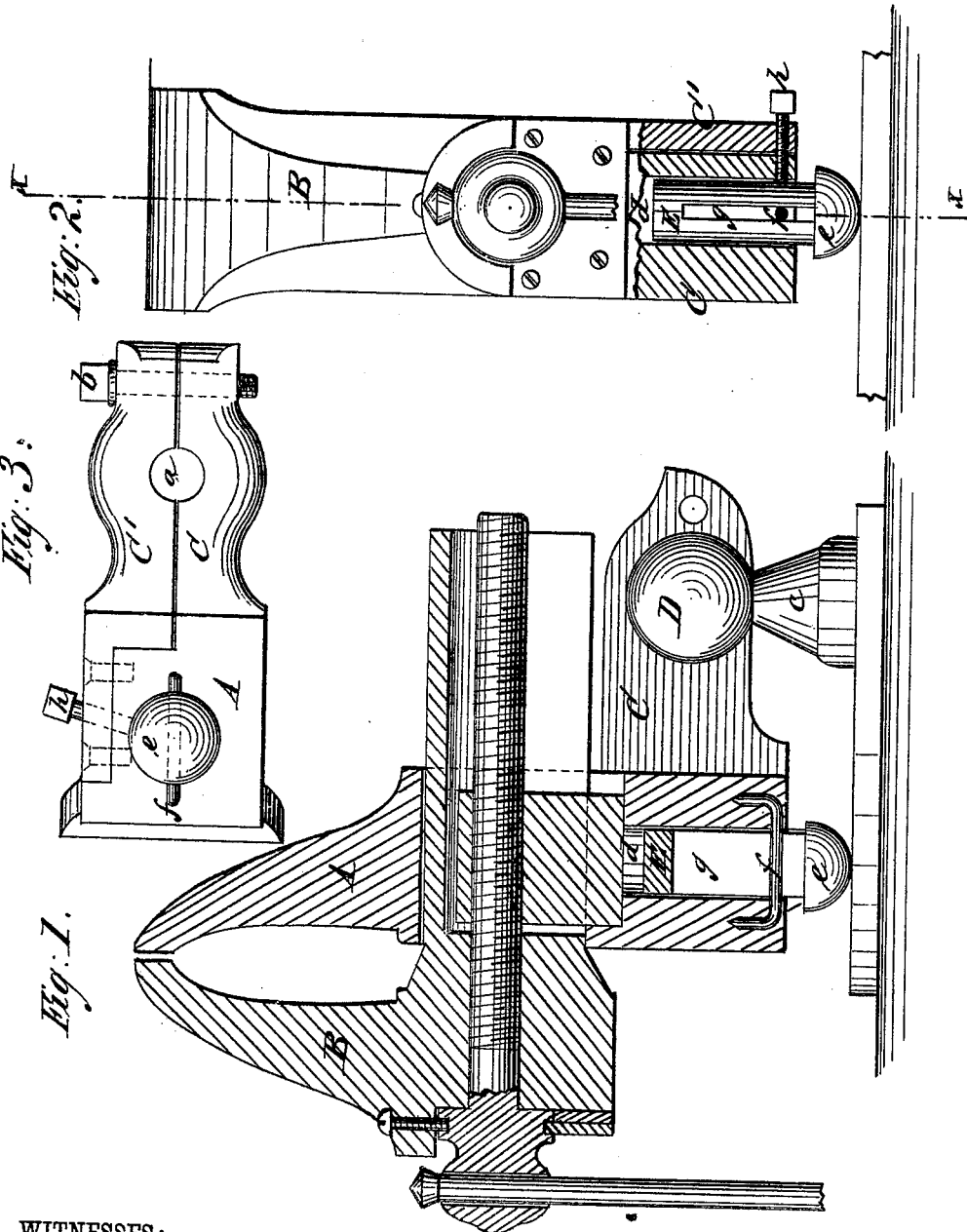


F. C. ZANETTI.
Vise.

No. 221,382.

Patented Nov. 4, 1879.



WITNESSES:

Achilles Schehl.
C. Sedgwick

INVENTOR:

F. C. Zanetti
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

FORTONATO C. ZANETTI, OF BRYAN, TEXAS.

IMPROVEMENT IN VISES.

Specification forming part of Letters Patent No. 221,382, dated November 4, 1879; application filed August 4, 1879.

To all whom it may concern:

Be it known that I, FORTONATO C. ZANETTI, of Bryan, in the county of Brazos and State of Texas, have invented a new and Improved Vise, of which the following is a specification.

My invention relates to the construction of an improved vise, the object whereof is to enable the vise to be set and secured in any desired position, and thus hold the work in a position convenient to the operator.

It consists in providing the clamping-jaws, which are secured to the lower end of the fixed jaw of the vise, with a spherical socket and adjusting-screw, to adapt the said jaws to embrace a ball on a standard attached to the bench, to form an adjustable ball-and-socket connection between the vise and bench.

It also consists in an adjustable support under the jaws, which sustains the vise when placed in a desired position in connection with the ball-and-socket joint.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of my improved vise on line *x x*. Fig. 2 is a sectional end elevation of the same, showing the support and its connections; and Fig. 3 is a bottom view of the fixed jaw, showing the jaws that clasp the ball.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A is the fixed jaw of the vise, and B is the movable one, the two being connected together by a screw running through a nut in the usual manner.

From the lower end of the fixed jaw of the vise projects out back, at right angles, a jaw, C, in which is made, half-way of its length, in its inside face, one half of the spherical socket for the reception of the ball. This jaw is designed to be made solid with the stationary jaw of the vise. C' is the other half of the clamping-jaw, connected with the vise-jaw by screws, (indicated in the drawings by dotted lines,) and containing the other half of the socket, so that when the two jaws are placed together they form a spherical socket, opening out through a round hole, *a*, for the neck of the ball. The ends of the jaws C C' are connected together

by a set-screw, *b*, for the purpose of loosening and tightening them. D is the ball, connected by a standard, *c*, with the table or bench. It is socketed in the jaws C C', which are clasped upon it, and through this connection the vise can be swung around a circle, thrown over at an angle horizontally, or moved up vertically, and secured in various positions to accommodate the workman.

In the lower end of the fixed jaw is a vertical socket, *d*, in which is placed a plug, E, with a head, *e*, the plug being held in the socket by a guard, *f*, passed through a longitudinal slot, *g*, made through it. A set-screw, *h*, passed through from the side, is adapted to bear against the plug and hold it when drawn out.

When the vise is set in any desired position this support is drawn out until it bears upon the bench or table, where it is secured by the set-screw, so that when the workman bears upon the vise it assists the joint in sustaining the weight and strain.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. As an improvement in vises, the clamping-jaws C C', connected with the lower end of the fixed jaw of the vise, having a spherical socket and adjusting-screw, *b*, in combination with the ball D on standard *c*, attached to the bench or table, whereby a ball-and-socket connection is made between the vise and table, for the purpose of allowing the vise to be set in various positions, substantially as described.

2. The plug E, held in socket *d* by guard *f*, passed through slot *g*, and provided with a set-screw, *h*, passed through the lower end of the jaw, so as to bear against the plug, in combination with the vise and the ball-and-socket connection or joint of the same, to furnish a support for the vise outside of the joint, substantially as described.

FORTONATO CLEMENTE ZANETTI.

Witnesses:

HAMMETT HARDY,
J. C. GILLESPIE.