

W. Allen,

Vise.

N^o 38,273.

Patented Apr. 28, 1863.

Fig. 1.

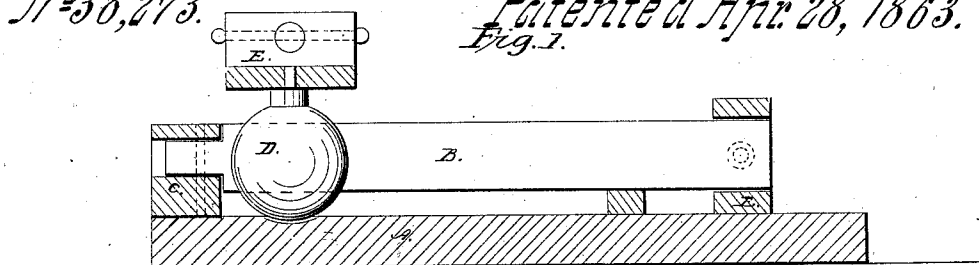
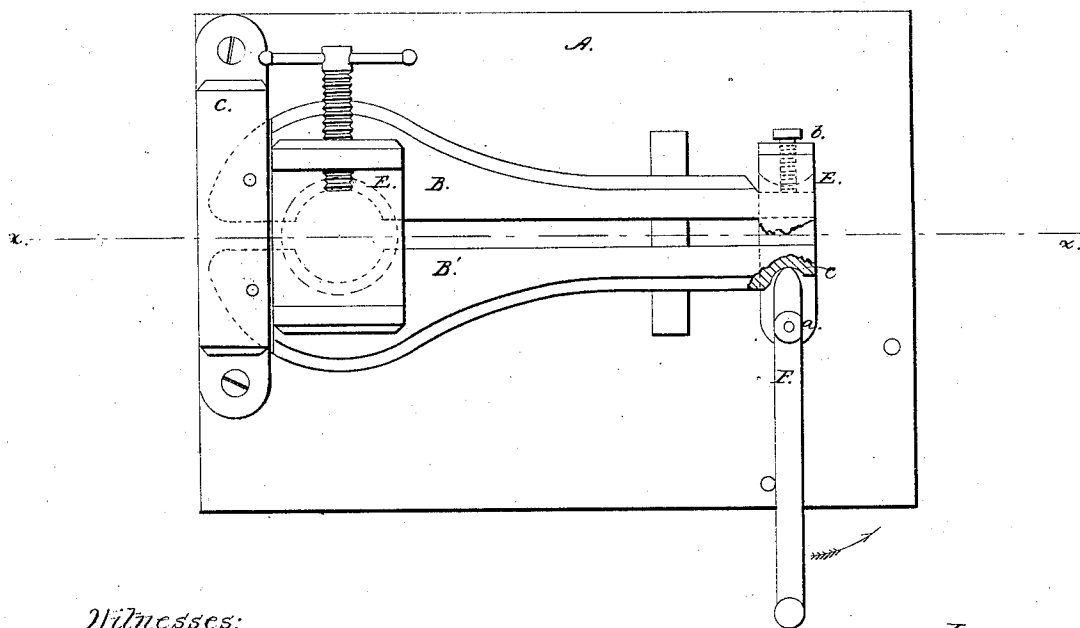


Fig. 2.



Witnesses:

*John Combs
Geo. Reed*

Inventor:

*Norman Allen
per Munn & Co.
Attorneys.*

UNITED STATES PATENT OFFICE.

NORMAN ALLEN, OF WEST MERIDEN, CONNECTICUT.

IMPROVEMENT IN VISES.

Specification forming part of Letters Patent No. **38,273**, dated April 28, 1863.

To all whom it may concern:

Be it known that I, NORMAN ALLEN, of West Meriden, in the county of New Haven and State of Connecticut, have invented a new and Improved Vise, which I term a "Universal Adjustable Vise;" and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *xx*, Fig. 2; Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to obtain a vise of simple construction, which will be capable of being adjusted and secured in various positions, so that different kinds of work may be held parallel or at an inclination in any direction, as circumstances may require.

The invention consists in attaching a vise of any proper or suitable construction to a ball or sphere which is fitted in a spherical socket formed in a clamp, the parts of which are held in proper position to secure the ball and vise at any desired point by means of a lever and clasp, as hereinafter described.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a bed-plate, on which two jaws, B B', are placed and pivoted at one end in a bar, C, the latter being firmly bolted to the bed-plate. These jaws have each a cavity made in their inner surfaces at opposite points to receive a ball or sphere, D, which projects a short distance above the upper surfaces of the jaws B B', and have a vise, E, attached to it. This vise may be constructed in any proper manner. The drawings show a screw-vise of the simplest construction. The portions of the jaws B B' which embrace the ball D are rather thicker than other parts of the jaws, in order that sufficient strength may be obtained.

On the outer, free, or disengaged ends of the jaws B B' there is fitted a clasp, E, of rectangular form and open at one end for the in-

sertion of a lever, F, the fulcrum-pin *a* of which passes vertically through the open end of the clasp. This lever F is pointed at its inner end, and projects but a short distance beyond its fulcrum-pin *a*. (See Fig. 2.) The closed end of the clasp has a screw, *b*, passing through it, and this screw fits in a recess in the outer side of the jaw B, while the inner pointed end of the lever F fits in a hole, *c*, in the outer side of the jaw B'. By this arrangement of the clasp and lever the two jaws B B' may be readily adjusted, so as to grasp firmly the ball D, and also to liberate it when desired. When the lever F is in the position shown in Fig. 2, the jaws B B' will firmly grasp the ball and hold it so that it cannot turn, and by moving said lever toward the right, as indicated by the arrow, the jaws will be liberated or loosened, so as to admit of the ball being turned in its socket.

The vise is sufficiently far above the ball to admit of being adjusted in as great an inclined position as may ever be desired, and the ball, of course, may be turned in any direction and the vise adjusted as the nature of the work may require, the lever F being moved so that the jaws B B' may grasp and hold the ball, when the vise is adjusted as required.

This implement will prove valuable for various kinds of work—such, for instance, as filing reamers, sinking dies, &c.—and the different adjustments of the vise which may be required during the prosecution of the work may be made with the greatest facility. All the parts may be of cast-iron, with the exception of the screw of the vise and the screw of the clasp.

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

The combination of the vise and universal joint, when the latter is provided with adjustable jaws or a clamp having a clasp and lever, or an equivalent fastening, applied to it, and all arranged to operate as and for the purpose specified.

NORMAN ALLEN.

Witnesses:

GEORGE W. SMITH,
H. C. BUTLER.