J. Fraser,

Vise.

No. 13,256. Patented July 17, 1855.

Fig: 1.

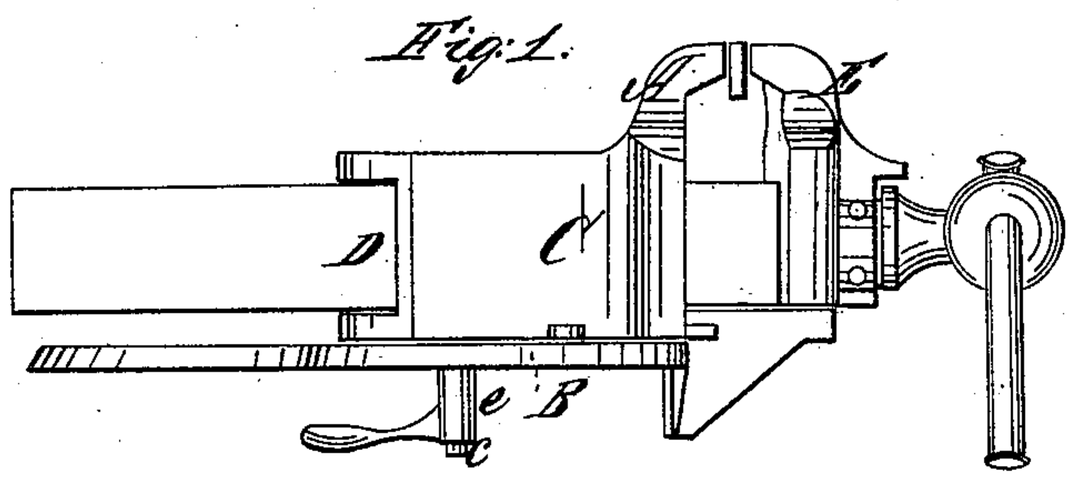


Fig: 2.

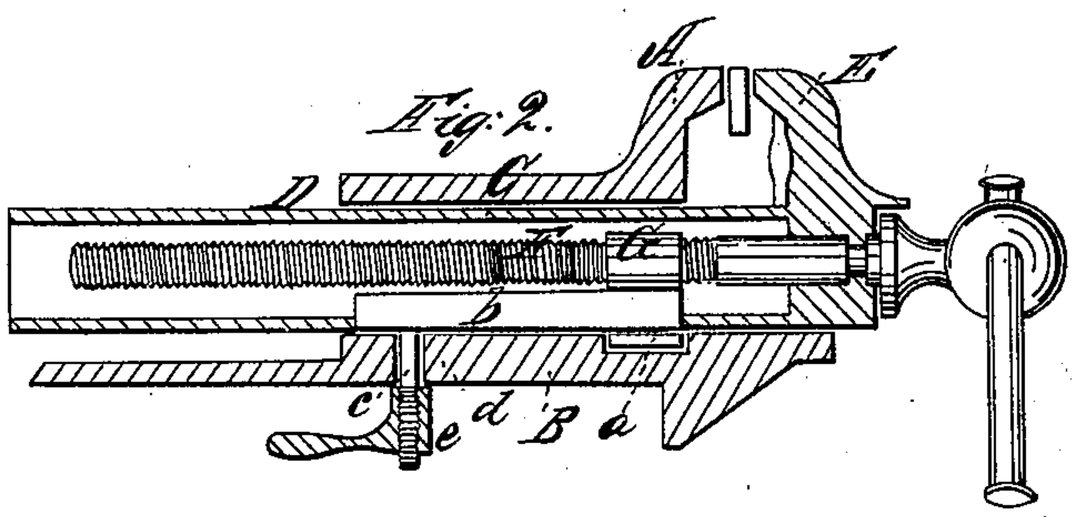
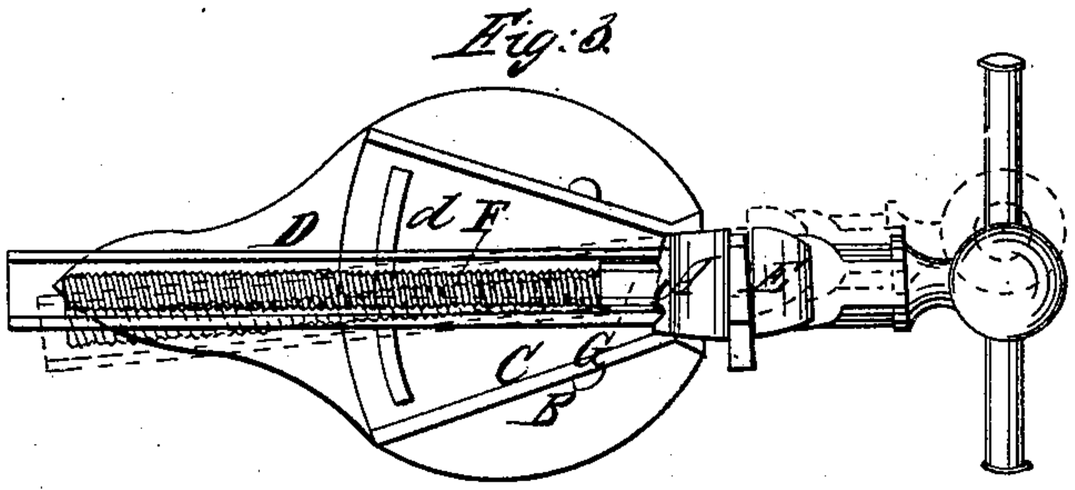


Fig: 3.



UNITED STATES PATENT OFFICE.

JOHN FRASER, OF NEW YORK, N. Y., ASSIGNOR TO LOGAN, VAIL & CO., OF NEW YORK, N. Y.

ADJUSTABLE VISE.

Specification of Letters Patent No. 13,256, dated July 17, 1855.

To all whom it may concern:

Be it known that I, JOHN FRASER, of the city, county, and State of New York, have invented a new and Improved 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 annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of my improved adjustable vise, Fig. 2, is a vertical, longitudinal section of the same, Fig. 3, is a plan or top view of the same, the upper part of the slide and stationary jaw box being removed.

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

This invention relates to a new and improved adjustable vise, and consists in having the screw of the movable jaw pass through a nut, which turns or rotates, so as to allow the face of the movable jaw to assume a position corresponding to the article to be held by the vise, however oblique or taper, the sides of said article may be.

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

A, represents the stationary jaw of the vise, the lower part of which is provided with a base or flanch, B, which is to be secured to the necessary bench or support. On the upper part of this base or flanch, and directly back of the jaw, A, there is a box C, having oblique sides, the front and back of the box being open for the purpose of allowing a rectangular hollow slide, D, to work through. On the outer end of the slide, D, the movable jaw, E, is secured, and, F, is a screw which passes through the movable jaw and fits within the slide, D, see Figs. 2 and 3.

G, is a nut which is attached to a pulley or pivot (*a*) which turns freely in the base or flanch, B, see Fig. 2. This nut is provided with an arm (*b*), at its lower part and has a small screw rod (*c*) at its outer end, which projects downward through a segment slot, (*d*) in the base or flanch, see Fig. 3. The screw rod (*c*) has a nut (*e*) upon it underneath the base, as shown in Figs. 1 and 2.

By the above construction it will be seen that the jaw, E, may be turned out of parallel with the jaw, A, in consequence of the screw, F, passing through the nut, G, which turns freely on the pulley or pivot (*a*) and consequently the jaw, E, when screwed up, will conform to the shape of the article, or rather to its side with which the jaw, E, is in contact, for instance, if the article is rectangular, the jaw, E, will be parallel with the jaw, A, but if its sides are oblique, or of taper form, the jaw, E, when pressed against it by the screw, will incline around to a corresponding position; see red lines, Fig. 3, and all taper or wedge-shaped articles may be as securely held by the jaws, as those of rectangular form. The nut (*e*) merely serves as a guide to the nut, G, and keeps it firm and steady, while turning. I am aware that adjustable vises, have been previously used, but the jaw only has been arranged, so as to turn, the screw remaining stationary, and consequently they operated very imperfectly, as the line of pressure, and the axis of the screw, were not in line.

I do not claim, therefore, an adjustable vise, irrespective of the construction herein shown, but

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

Having the screw, F, which passes through the movable jaw, E, pass through a nut, G, so arranged as to turn, and cause the screw and movable jaw to turn, when wedged or taper shaped articles are to be held, so that said jaw, E, will conform to the obliquity or taper form of the articles, and cause them to be securely grasped by the jaws.

JOHN FRASER.

Witnesses:
O. D. MUNN,
J. W. HAMILTON.