

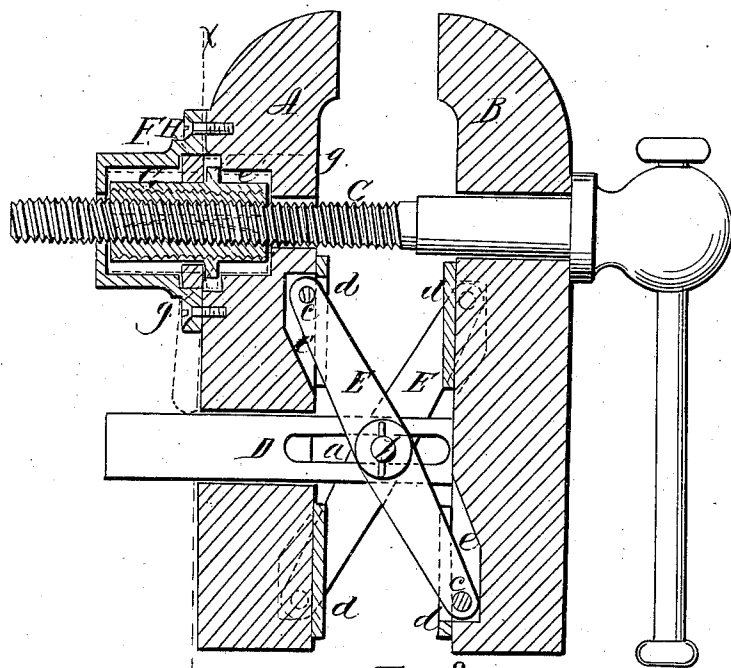
*R. W. Thickins,*

*Vise.*

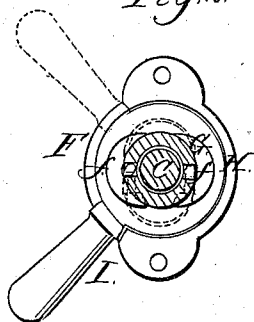
*N<sup>o</sup> 15,583.*

*Patented Aug. 19, 1856.*

*Fig. 1.*



*Fig. 2.*



# UNITED STATES PATENT OFFICE.

R. W. THICKINS, OF BRASHER IRON WORKS, NEW YORK.

## WISE.

Specification of Letters Patent No. 15,583, dated August 19, 1856.

To all whom it may concern:

Be it known that I, R. W. THICKINS, of Brasher Iron Works, in the county of St. Lawrence and State of New York, have invented a new and Improved 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 vertical section of my improvement, the plane of section being longitudinal with the screw. Fig. 2, is a transverse section of the screw and nut, (*x*), (*x*), Fig. 1, showing the plane of section.

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

My invention consists in the peculiar means employed for sustaining the movable jaw in a vertical position, so that it may be moved back and forth parallel with the stationary jaw.

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

A, Fig. 1, represents the stationary jaw of the vise, and B, is the movable jaw.

C, is a screw, which passes through the two jaws.

D, is a horizontal arm, which is attached to the inner side of the movable jaw B, said arm passing through a slot in the stationary jaw A. The arm D, has an oblong slot, (*a*), made through it. And E, E, are two levers or bars, through the centers of which a pin or bolt, (*b*), passes, said pin or bolt also passing through the slot, (*a*), in the arm D. The levers or bars E, E, cross each other, as shown clearly in Fig. 1, so that the upper end of one lever is connected with the stationary jaw A, and its lower end connected with the movable jaw B, and the upper end of the other lever, connected with the movable jaw, and its lower end with the stationary jaw. The ends of the levers or bars have pins, (*c*), passing through them, and these pins work behind slotted plates, (*d*), which are attached to the inner sides of the jaws, recesses (*e*), being made in the jaws to receive the pins, and the ends of the levers or bars. By means of the levers or bars E, E, and arm D, the movable jaw B, is sustained, or kept in a vertical or upright position, and will work back and forth parallel with the stationary jaw

A. The arm D, serves as a support for the levers or bars, and movable jaw, while the levers or bars keep the movable jaw parallel with the stationary jaw. To the back part of the stationary jaw A, there is attached a cap F, through which the screw C, passes. The cap is of elliptical form, and is fitted over an elliptical recess, (*e'*), in the back part of the jaw A.

G, is a nut, which is formed of two parts, and fitted within the cap F, and recess, (*e'*). The inner diameters of the cap F, and recess (*e'*), are just large enough to receive the nut, or but a trifle larger, as shown in Fig. 2, while the major diameters are considerably larger, so that the two parts of the nut are allowed to part or separate, in a vertical or perpendicular direction. Between the two parts of the nut G, springs, (*f*), are placed, said springs separating or keeping the two parts of the nut distended, when not otherwise acted upon. Each part of the nut has a rectangular ledge or plate, (*g*), formed on it, and these plates fit in corresponding shaped recesses, in the back of the jaw A. The plates prevent the nut from turning within the cap F, and recess (*e'*).

H, is a collar, which has an elliptical opening made through its center, said opening corresponding in size and form to the chamber or space within the cap F, and recess (*e'*). The collar H, is fitted on the nut G, and has a handle I, attached to it, said handle passing through a slot in the side of the cap, adjoining the jaw A.

By turning the collar H, so that its major diameter will be in line, or coincide with the major diameters of the cap F, and recess (*e'*), as shown in red, Fig. 2, the springs (*f*), will force apart or separate the two parts of the nut G, and the screw C, will consequently be freed from the nut, and the screw C, and jaw B, may be moved back and forth bodily, but when the collar H, is turned, so that its major diameter crosses the major diameters of the cap F, and recess (*e'*), the two parts of the nut G, will be forced together, and will grasp the screw C, as shown in black in Fig. 2. By this arrangement the screw C, may be connected with, and disconnected from the nut as desired, and the jaw B, may therefore be quickly adjusted, or moved in and out from the jaw A, the screw being connected with

the nut, when the jaw B, is brought in contact with the article to be grasped, or clamped by the jaws.

I do not claim the cross levers or bars E, E, separately, for they have been previously used, but having thus described my invention, what I claim, as new and desire to secure by Letters Patent, is—

The combination of the levers or bars E, E, and slotted arm D, arranged and applied to the jaws A, B, as shown, for the purpose specified.

R. W. THICKINS.

Witnesses:

JOHN THICKINS,  
ISAAC W. SKINNER, 2nd.