Cook & Fast,

Bench Vise.

No. 95,772. Patented Oct. 12. 1869.

Fig. 1.

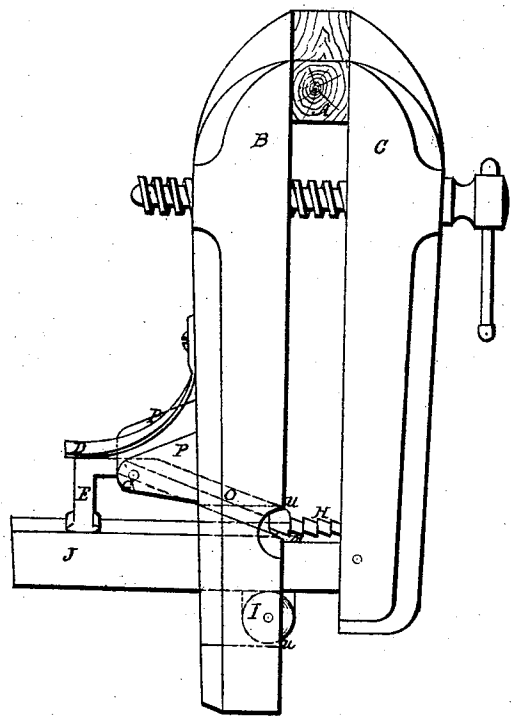


Fig. 2.

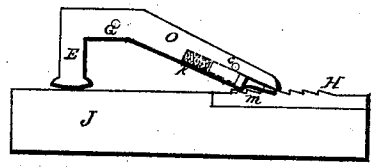


Fig. 3.



Fig. 4.



Fig. 5.



Witnesses.

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ROSWELL F. COOK AND JOHN FOBES POST, OF POTSDAM, NEW YORK; SAID COOK ASSIGNOR TO SAID POST.

Letters Patent No. 95,772, *dated October* 12, 1869.

IMPROVEMENT IN WOOD-VISE.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that we, ROSWELL F. COOK and JOHN FOBES POST, of Potsdam, in the county of St. Lawrence, and State of New York, have invented certain new and useful improvements in Wood-Vises; and do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of a vise, constructed according to our invention, showing it in condition for use.

Figure 2 is a side view of the pawl, removed from the vise, to expose the mechanism for preventing the point of the pawl from catching the point of the teeth of the ratchet when operating the vise.

Figure 3 exhibits a longitudinal section of the point of the pawl, with the sliding point and spring removed.

Figure 4 exhibits the sliding point of the pawl removed from the pawl.

Figure 5 exhibits the spring for holding the sliding point in its position in the pawl.

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

This invention consists in certain improved means of securing the lower portion of the movable jaw of such vise firmly, when an obstruction is placed between the upper portion of the jaws when the screw is being turned in. Also, in a certain mode of providing for the free movement of the movable jaw, by the operation of the screw, whether in or out, when no obstruction is placed between the upper portion of the jaws, keeping the jaws parallel.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

J is a sliding bar, securely fastened to the jaw C.

H is an iron ratchet, secured to the bar J, and also to the jaw C. The bar J passes through the jaw B in a slot, such slot extending from *u* to *a*.

I is an iron pulley, resting on its pin in the slot through which the bar J passes. The bar J rests on the pulley I.

P P are iron braces securely fastened to the jaw B.

O is an iron pawl that passes through the same slot with the bar J, and is secured to the braces P P, between which it passes, by the pin G. The pawl O extends by the pin G, turning down at right angle, forming the lever E.

D is a spring, secured to the jaw B, with its point resting on the lever E. The spring D, resting on and pressing hard on the lever E, forces it down, causing it to turn on the pin G, lifting the point of the pawl up, causing it to rest against the top of the slot through which it passes.

The sliding bar J is secured to the jaw C, and rests on the pulley or roller I, and is kept at right angle with the jaw B by the lever E. By this arrangement the jaw C will remain parallel with the jaw B.

The point of the pawl, resting against the top of the slot, arrests the downward motion of the lever E, allowing the bar J to move freely in and out.

By placing the obstruction A between the upper portion of the jaws, and turning the screw in, the lower portion of the jaw C will move in, carrying with it the bar J. By this movement the end of the bar J is forced up, and with it the lever E.

The lever E, with the pawl O, turning on the pin G, forces the point of the pawl O down into the ratchet, obstructing the inward movement of the jaw C, and securing it firmly.

m is a false or sliding-point of the pawl, the circular end of which is inserted into an opening in the pawl, as shown by letter *n* in fig. 3, and held in its place by the pin *c* passing through a slot or short plain surface on the side of the circular portion of the sliding point, as shown by letter *f*, fig. 4, allowing the slide to move in or out to correspond with the length of the teeth of the ratchet, and is also held in place by the spiral spring *k* that is also inserted in the opening *n*, back of the point *m*.

By this arrangement the point of the pawl is prevented from catching the point of the teeth of the ratchet. The sliding point acting as a cam, carries the point of the pawl over the point of the tooth that it would otherwise catch.

Claim.

The pawl O and lever E, being formed from the same piece of metal, and provided with point *m*, spring *k*, braces P, spring D, roller I, and ratchet H, when constructed, combined, and arranged to operate substantially as herein described.

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Witnesses:
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