

United States Patent Office.

PETER SHELLENBOCK, OF MIDDLETOWN, OHIO, ASSIGNOR TO HIMSELF
AND MILTON RALSTON, OF SAME PLACE.

Letters Patent No. 72,921, dated December 31, 1867.

IMPROVEMENT IN VISES.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, PETER SHELLENBOCK, of Middletown, in Butler county, Ohio, have invented a new and useful Improvement in Vises; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a perspective view of my improved vise.

Figure 2 represents the hand-lever, with its slot and detent.

To enable others to construct and use my invention, I will proceed to describe it, with reference to the drawings, which are made a part of this specification.

The oblong metal frame A serves as a support and guide for the jaws B, which embrace the side rails of frame A, by shoulders *b b*, above and below the frame A. The right-and-left screw-bolt C is journalled in the ends of the frame A, and one of its journals extends through the end of frame A, to receive a scalloped wheel, D, and the end of slotted lever E. Screw-bolt C passes through that part of each of the jaws B between the two rails of frame A, and these jaws are acted upon simultaneously, to cause them to approach or recede from each other by the revolutions of screw C, which works in the female screws in the jaws. The scalloped wheel D is keyed to the journal of screw C, and the journal extends out, passing through the slot of lever E, which is held thereon by nut H. The strong metal frame A serves as a way in which the jaws B travel. The jaws being provided with grooves, formed by shoulders *b b*, (those below the frame not seen in the drawings,) embrace the side frame-pieces A, and cause the jaws to move squarely towards each other or from each other; and when the clamping-faces take hold of any formed piece of metal or other material, there can be no lateral strain or twisting, as in the common vise. The frame A may be permanently secured to a bench, such as machinists or artisans generally use. The projecting portion of the journal of screw C is cylindrical, so that the orifice M, in lever E, will freely revolve thereon. The detent F, projecting from lever E, over the periphery of scalloped wheel D, is of nearly the same diameter as the segmental scallops in the wheel, and will freely enter either of these curved depressions in the periphery of wheel D. As the wheel D is keyed to the journal of the screw C, it will necessarily revolve with it, and the lever E is free to be moved around the journal when the detent F is not occupying one of the scallops of wheel D. Now, as the lever is capable of being adjusted upon the end of screw-bolt C so as to throw the detent F into or out of the scallops of wheel D, it will be understood that lever E may be brought into action, to open or close the jaws of the vise, at any desired position in relation to the bench, or to the person using the vise. This capability will often render the attendant superior advantage in leverage. He may with the greatest facility slide the lever upon the journal of the screw C, so as to throw the detent out of connection with the wheel D, and change the position of the lever so as to exert more power thereon, and insert the detent in another of the scallops of the wheel. This wheel may be provided with as many scallops or notches for the detent as may be found advantageous, and the lever may be provided with a light flexible spring, to retain the detent in the notch or scallop of the wheel until it is necessary to change the detent to another position. It will be readily seen that the use of the right-and-left screw C will cause the jaws to open and close with double the speed of the common vise, and by one half the number of revolutions of the hand-lever E.

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

1. The right-and-left screw C, in combination with frame A and jaws B, constructed, arranged, and operating in the manner and for the purpose substantially as described.
2. The lever E, with its slot M and detent F, in combination with scalloped wheel D and screw C, for operating the jaws B in the manner and for the purpose described.

In testimony whereof, I hereunto set my hand, this 21st day of June, 1866.

Witnesses:

H. P. K. PECK,
S. E. PECK.

PETER SHELLENBOCK.