T. B. Lamb,

Vise.

No. 28,382. Patented May 22, 1860.

Fig. 2.

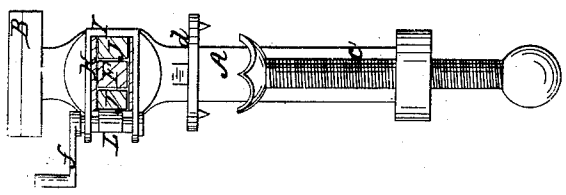


Fig. 1.

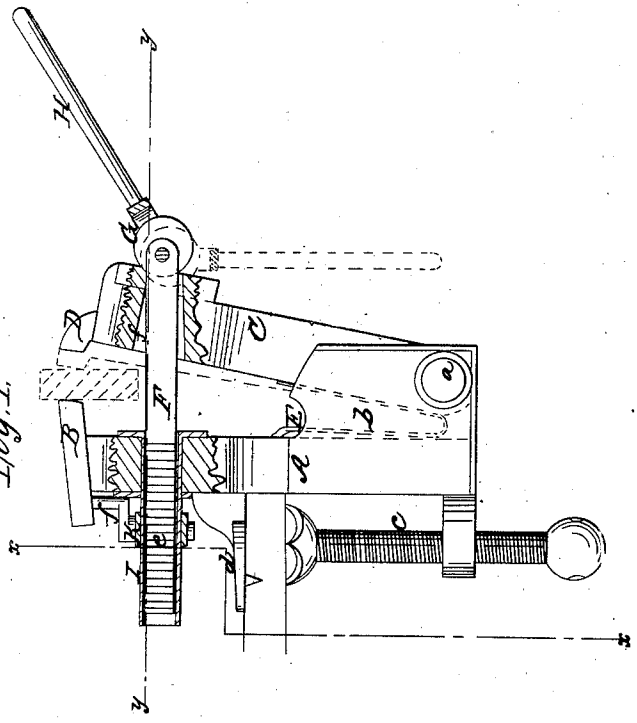
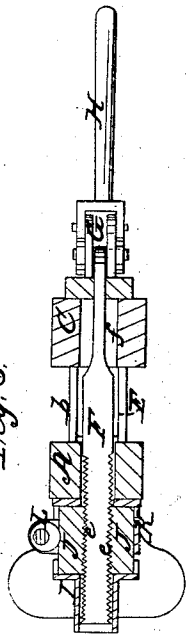


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

THOMAS B. LAMB, OF SUMMITT, MICHIGAN.

VISE.

Specification of Letters Patent No. 28,382, dated May 22, 1860.

To all whom it may concern:

Be it known that I, THOMAS B. LAMB, of Summitt, in the county of Washtenaw and State of Michigan, 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 side sectional view of my invention. Fig. 2, a transverse vertical section of the same taken in the line *x*, *x*, Fig. 1. Fig. 3, a horizontal section of the same taken in the line *y*, *y*, Fig. 1.

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

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

A, represents a stationary bar at the upper end of which is the stationary jaw B, of the vise, and C, is the movable bar at the upper end of which is the movable jaw D, the lower end of the bar C, is secured by a fulcrum bolt *a*, in a socket *b*, at the lower end of the bar A, and within the socket *b*, between the two bars A, C, a spring E, is placed said spring having a tendency to keep the bar C, and its jaw D, out from the bar A, and its jaw B, see Fig. 1.

The bar A, may be secured to a work bench by a screw *c*, and plate *d*, as shown in Figs. 1 and 2, or by other suitable means.

F, is a bar which passes horizontally through the bar A, and has a rack *e*, at each side of it. The bar F, also passes through the movable bar C, and has an eccentric G, at its end said eccentric having a lever H, attached to it, see Figs. 1 and 2. The hole *f*, in the movable bar C, that permits the rock-bar F, to pass through is of taper form as shown clearly in Fig. 1, to admit of the adjustable movement of the bar C.

To the back side of the stationary bar A, there is attached a socket I, in which there is placed two grippers J, J, one at each side of the bar F. These grippers are simply metal blocks having their inner sides serrated or toothed corresponding to the racks *e*, *e*, see Fig. 3. The grippers are allowed to slide laterally in the socket I, that is to say, in a direction transversely with the rack-bar F, and both grippers are encompassed by a metal strap K, in one end of which the axis of an eccentric L, bears against one gripper J, as shown clearly in Figs. 2 and 3. To the upper end of the axis of the eccentric L, a crank *f*, is attached.

The operation is as follows. The article to be held by the vise, shown in red Fig. 1, is placed against the stationary jaw B, and the operator merely shoves the movable jaw D, directly against it, the bar F passing along between the grippers J, J, and when the jaw D, is in contact with the article to be held, the crank *f*, is turned by the operator so that the eccentric L, and strap K, will move the grippers J, J, toward the rack-bar F, and cause the grippers to engage with and retain the bar F, in the position to which it was moved. The operator then depresses the lever H, and thereby actuates the eccentric G, which forces the jaw D, firmly against the article. Thus it will be seen, that when an article is to be secured in the vise, and the jaws of the same are much distended the movable jaw may be quickly adjusted to the work. This invention therefore possesses a great advantage over those vises, which are operated by a screw, for when the jaws are much distended considerable time is necessarily expended in adjusting the movable jaw to its work.

When the work or article grasped by the vise is to be removed, the operator turns the crank *f*, and thereby relieves the grippers J, J, of pressure against the racks *e*, *e*, of bar F, and the spring E, forces the bar C, and jaw D, back to their original position, the teeth of the racks *e*, being somewhat of ratchet shape to favor the free backward movement of bar F.

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

The combination of the grippers J, J, pressure eccentric L, and serrated bar F, with the socket I, and jaws B, D, as and for the purpose herein shown and described.

THOS. B. LAMB.

Witnesses:
CALVIN WHEELER,
IDA HAM.