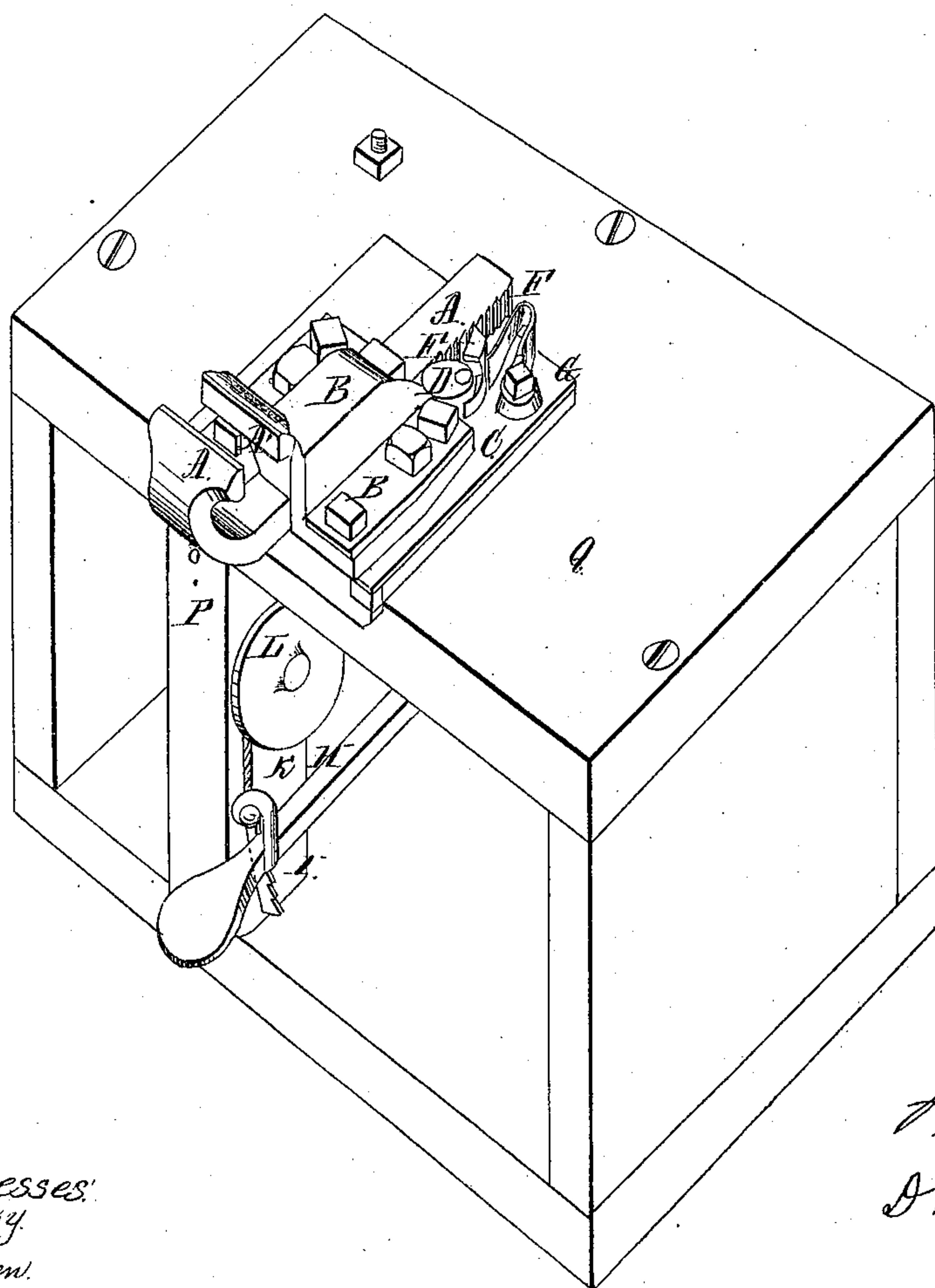
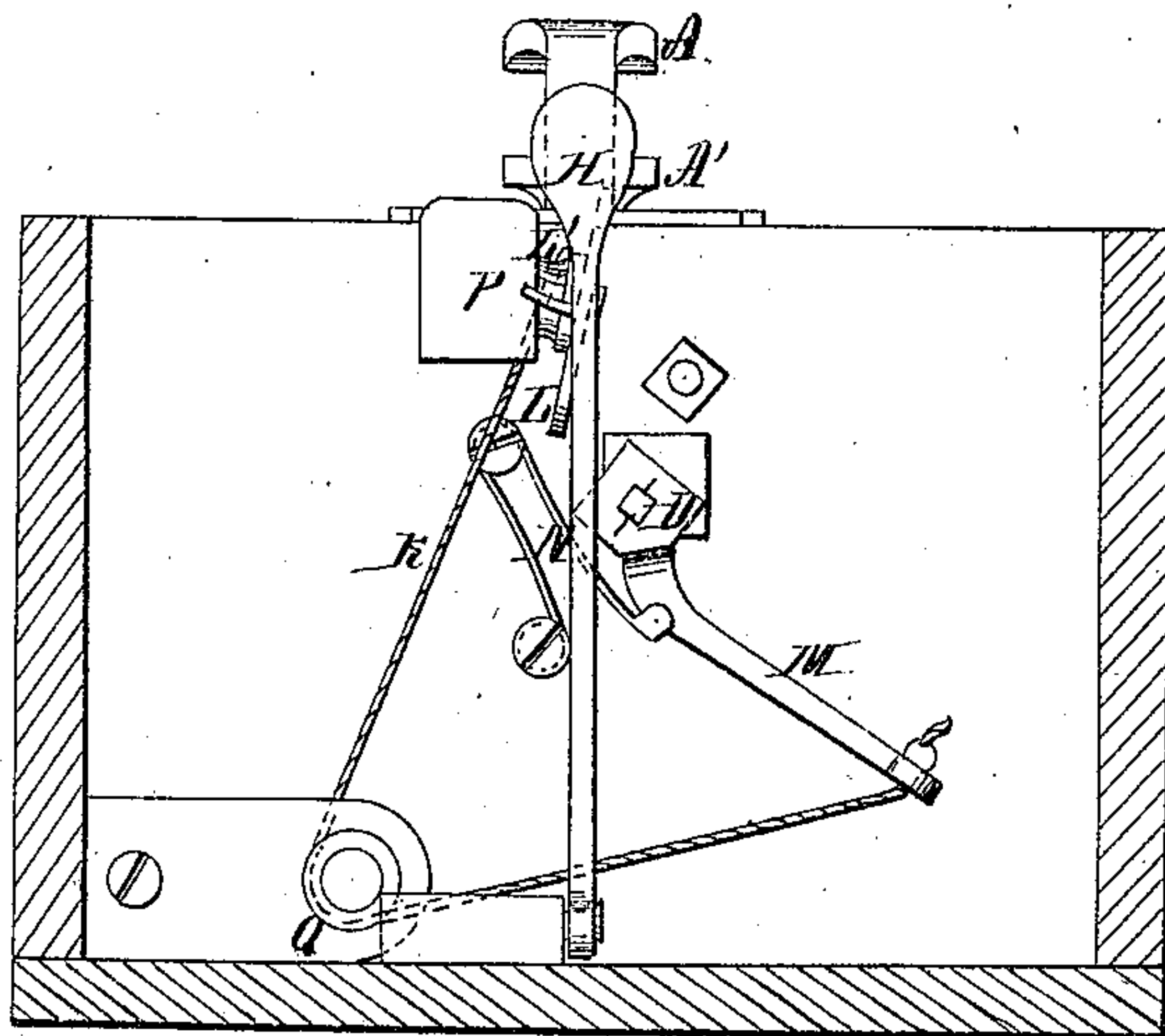


P. Crowl,

Vise.

N^o 55,200.

Patented May 29, 1866.



Witnesses:
C. M. Swaney.
C. W. Clausen.

Inventor:
Peter Crowl
By
D. W. Munnay
Attys.

UNITED STATES PATENT OFFICE.

PETER CROWL, OF BROWNSVILLE, PENNSYLVANIA, ASSIGNOR TO HIMSELF
AND H. H. FINLEY, OF SAME PLACE.

IMPROVED VISE.

Specification forming part of Letters Patent No. 55,200, dated May 29, 1866.

To all whom it may concern:

Be it known that I, PETER CROWL, of Brownsville, in the county of Fayette and State of Pennsylvania, have invented a new and useful Improvement in Vises; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being made to the annexed drawings, made part of this specification, in which—

Figure 1 is a perspective view of a vise attached to a bench, and Fig. 2 is a horizontal section of the same.

The same letters in the different figures refer to identical parts.

A and A' are the jaws of the vise, the stocks of which are so curved as that they lie horizontally. The jaw A' is permanently secured to the yoke B, which, passing over its stock, is bolted securely to a plate, C, attached to the bench D. Under the stock of the jaw A' passes that of the jaw A, which extends back across the plate C, as shown, and has rack-teeth cut in one side. This jaw A, while it fits snugly, plays freely back and forth.

Into the rack-teeth on the side of the stock of the jaw A plays the ratchet E, allowing the jaw A to be pressed by hand against the object to be secured, but preventing its relaxation. Against this ratchet presses the hair-spring F, attached by the bolt G to the plate C.

The ratchet is hinged by a pivot to the eccentric-dog D, the head of which rests upon the plate C, while its stem passes through this plate and through the bench, where it is firmly attached to the lever M, which plays below the bench horizontally, being actuated by a cord, K, passing around the pulley O, under the bench-top, and thence over the pulley L fastened to a post, P, passing from the bench-top to the floor.

The spring N (like the mainspring of a gun-lock) actuates the lever M in the opposite di-

rection from the rope. This spring must be stronger than the hair-spring, so that when the rope is relaxed it will not only force back the lever M, but also, by means of the eccentric-dog D, operating upon the ratchet E, lift the same out of gear with the rack, so as to permit the jaw to be withdrawn by hand when the object in the vise is to be removed.

The lower end of the rope K is attached to the treadle H, which is hinged to the back of the bench, and may be secured in any position by the teeth of the rack I.

L is a guard upon the outer edge of the pulley L' to prevent the displacement of the rope.

In operating with this vise the object to be secured is placed between the jaws. The jaw A is then pressed against it by hand. Then, if the object is solid, by pressing the foot upon the treadle, the ratchet E pressing with great force against the rack by means of the lever, the object is firmly secured, the treadle being held at whatever point this stress may be secured. Should the object yield to the pressure, by working the treadle up and down the jaws will be continuously compressed.

Having fully explained the construction and operation of my improved vise, what I claim as my invention, and seek to secure by Letters Patent, is—

In combination with the movable jaw A, having a rack upon the side of its stock, the ratchet E, dog D, lever M, and springs F and N, arranged and operating substantially in the manner and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PETER CROWL.

Witnesses:

JACOB LOMSTUTER,
JOSEPH N. BARTAN.