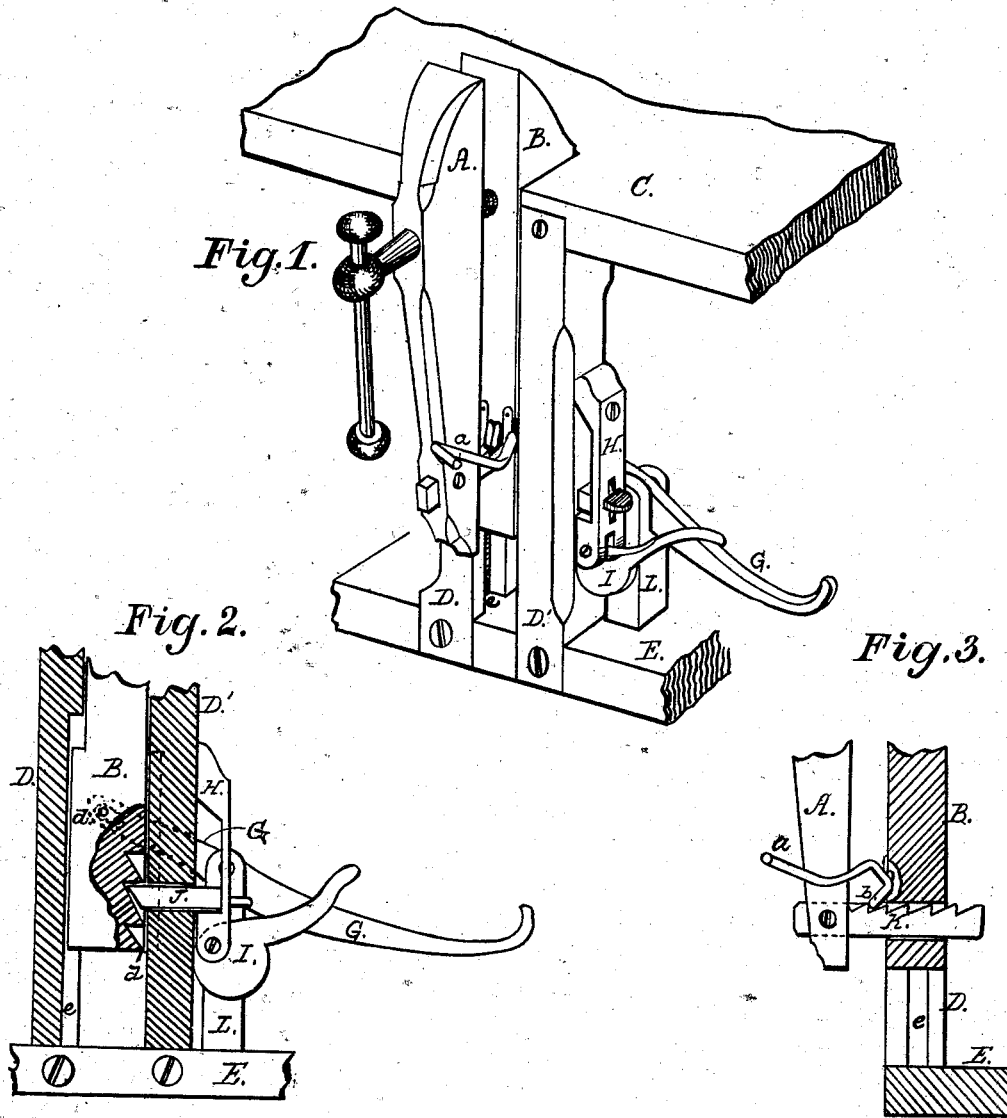


E. H. BROWER.

BENCH-VISE.

No. 192,147.

Patented June 19, 1877.



Witnesses:
Chas. Snow
Low. Bagge

Inventor:
Emmett H. Brower.
By *Parker H. Sweet, Jr.*
att'y

UNITED STATES PATENT OFFICE.

EMMETT H. BROWER, OF CARSON CITY, MICHIGAN.

IMPROVEMENT IN BENCH-VISES.

Specification forming part of Letters Patent No. **192,147**, dated June 19, 1877; application filed January 3, 1877.

To all whom it may concern:

Be it known that I, EMMETT H. BROWER, of Carson City, in the county of Montcalm and State of Michigan, have invented certain new and useful Improvements in Bench-Vises; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification:

Figure 1 represents a perspective view of my improved invention. Figs. 2 and 3 represent detail views in partial section.

Similar letters of reference occurring on the several figures indicate like parts.

My invention relates to improvements in carpenters' bench-vises; and it consists of a pivoted foot-lever, which, acting in connection with a spring-catch and ratchet, serves to raise or lower the vise above the level of the bench for the different purposes of carpentry, all as will be hereinafter more fully described, and pointed out in the claims.

Referring to the drawings, A B represent the two jaws of an ordinary carpenter's vise, the rear jaw B of which is provided with tongues *d* on each side, which are adapted to slide in the grooves *e* made in the posts D D', said posts being mortised to a bed-piece, E, and to the bench C, as shown in Fig. 1. For the purpose of keeping the jaws A B in a line parallel with each other, I secure one end of a ratchet-bar, K, to the lower part of the jaw A, while the other end passes through a slot in the lower part of the jaw B, and directly above the said slot is pivoted a foot-lever, *a*, provided with a lug, *b*, which is adapted to catch in the saw-tooth projections of the bar K, so as to keep the foot of the jaw A in a true vertical line with the top of the same, as shown in Figs. 1 and 3. To the rear of the post D' is arranged a smaller post, L, mortised to the bed-piece E, in which is pivoted a

foot-lever, G, one end of which is curved, so as to form a convenient seat for the foot, while the other end is pivoted to the rear lower part of the jaw B, for raising or lowering the jaws A B above or below the level of the bench C, as may be required for the different operations of carpentry. A spring, H, provided at its lower end with a cam-lever, I, and dog J, is secured to the side of the post D', the dog J operating through a slot in the said post, and engaging with a ratchet formed on one of the tongues *d* of the jaw B, to sustain the vise when in an elevated position.

In the operation of my invention the jaws A B are elevated by first pressing upon the cam-lever I, which operation draws back the dog J from the ratchet on the jaw B, when, by next pressing upon the foot-lever G, the jaws of the vise may be raised to the desired height, and the cam-lever I released, thereby springing the dog J into the saw-tooth projections and holding the vise in position. In lowering the said jaws it is necessary only to depress the cam-lever I, which operation withdraws the dog J from the ratchet, thereby allowing the vise to fall to the desired position.

Having thus described my invention, what I claim as new and useful is—

1. The combination of the foot-lever G, spring H, dog J, and cam-lever I with a carpenter's vise, the several parts being constructed and arranged to operate substantially as and for the purpose specified.

2. A carpenter's vise provided with the ratchet-bar K, dog *b*, and lever *a*, substantially as described, and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

EMMETT H. BROWER.

Witnesses:

JOHN B. TYLER,
OTTO LEE JOHNSON.