

E. H. BROWER.
Carpenter's Vise.

No. 205,239.

Patented June 25, 1878.

Fig. 1.

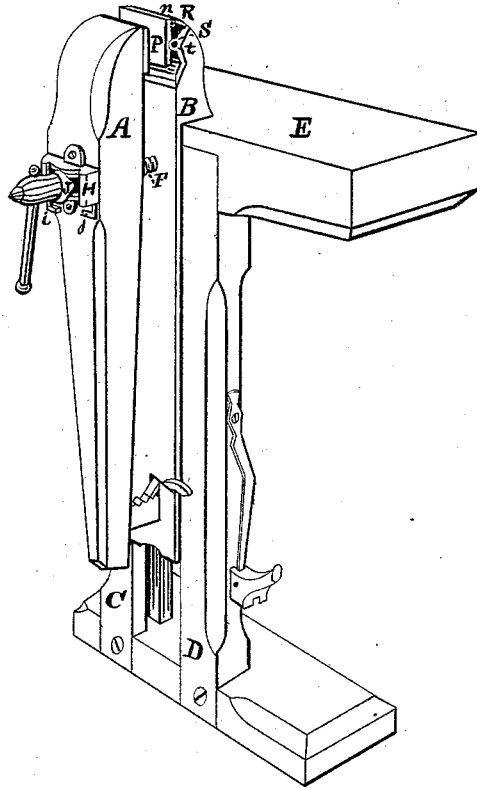


Fig. 2.

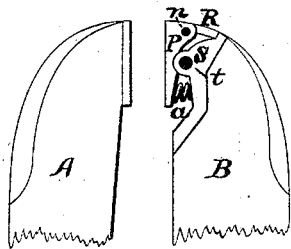


Fig. 3.

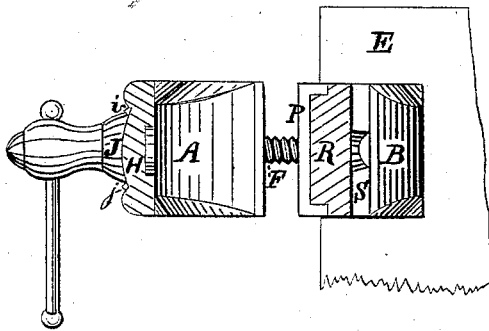


Fig. 4.

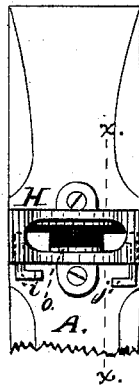
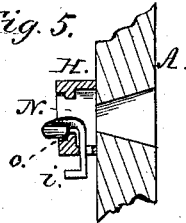


Fig. 5.



Witnesses:

Geo. A. Johnson.
Lewis Townsend

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Atty.

UNITED STATES PATENT OFFICE.

EMMETT H. BROWER, OF CARSON CITY, MICHIGAN.

IMPROVEMENT IN CARPENTERS' VISES.

Specification forming part of Letters Patent No. **205,239**, dated June 25, 1878; application filed November 27, 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 Carpenters' 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.

This invention comprises certain improvements on a carpenter's vise for which Letters Patent were granted to me under date of June 19, 1877.

The object of my invention is to hold firmly tapering as well as straight pieces within the jaws of the vise; and it consists in an adjustable face-plate, to be fitted to one or both jaws of the vise, and also in a bearing-plate and collar on the neck of the screw, said screw working in a tapering mortise in the loose jaw. Within the bearing-plate are hung two stops, which, by turning them out, rest upon the projections on the washer to hold the jaws parallel.

In the drawings, Figure 1 is a perspective view embodying my invention. Fig. 2 is a side elevation of the adjustable face-plate and upper ends of the jaws of the vise. Fig. 3 is a plan view. Fig. 4 is a front view of face-plate attached to the jaw of the vise; and Fig. 5 is a section of the plate containing the stops, said section being taken on the line *xx* of Fig. 4.

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

A and B represent the jaws of the vise; C and D, the posts in which the vise works. E is the bench, and F is the ordinary vise-screw, working in a stationary nut in a fixed jaw, and in a tapering mortise in the loose jaw of said vise. On the neck of the screw is a washer, J, which works on the bearing-plate H, which is provided with ears on the upper and under sides, through which it is screwed to the loose jaw. Said plate is rectangular in form, with a curved face, and has a central

slot or opening, N, cast through it, to allow of the passage of the screw F.

Within the slot N are hung two stops, *i* and *j*, projecting through the under side of the plate, and are worked by means of a short lever on the end of said stops. When straight pieces are held in the vise these stops are usually thrown out and held against projections on the side of the washer J by pulling the stops down upon the shoulder *o* in the slot; but when the loose jaw A is to hold tapering articles these stops are pushed up and fall back in the slot N, thereby enabling the screw F to play loosely in the same, and permit the loose jaw to adapt itself to the object to be clamped.

The adjustable face-plate is composed of a top plate, R, and side plate P, hinged together by a rod, *n*. The side plate is hinged in the center by a rod, *t*, to the bed-piece S, which is made, substantially as shown in Fig. 2 of the drawings, with a notch in the upper end for the top plate to catch into. The spring *a*, resting in a seat cast in the side plate P and bed-piece S, holds the plates in position. When a tapering piece is to be held perpendicular in the vise the top plate is lifted out of the notch, and the face-plate readily adjusts itself to the object to be clamped.

Having thus explained the nature of my invention, I claim as follows:

1. In a carpenter's vise, one or both jaws, provided with an adjustable face-plate composed of the bed-pieces S, side plate P, top plate R, and rods *n* and *t*, substantially as described.

2. In a carpenter's vise, the loose jaw A, provided with the plate H, having central slot N, shoulder *o*, and movable stops *i* and *j*, in combination with the projections on the washer J of the screw F, substantially as and for the purpose specified.

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

EMMETT H. BROWER.

Witnesses:

GEO. A. JOHNSON,
LEWIS TOWNSEND.