

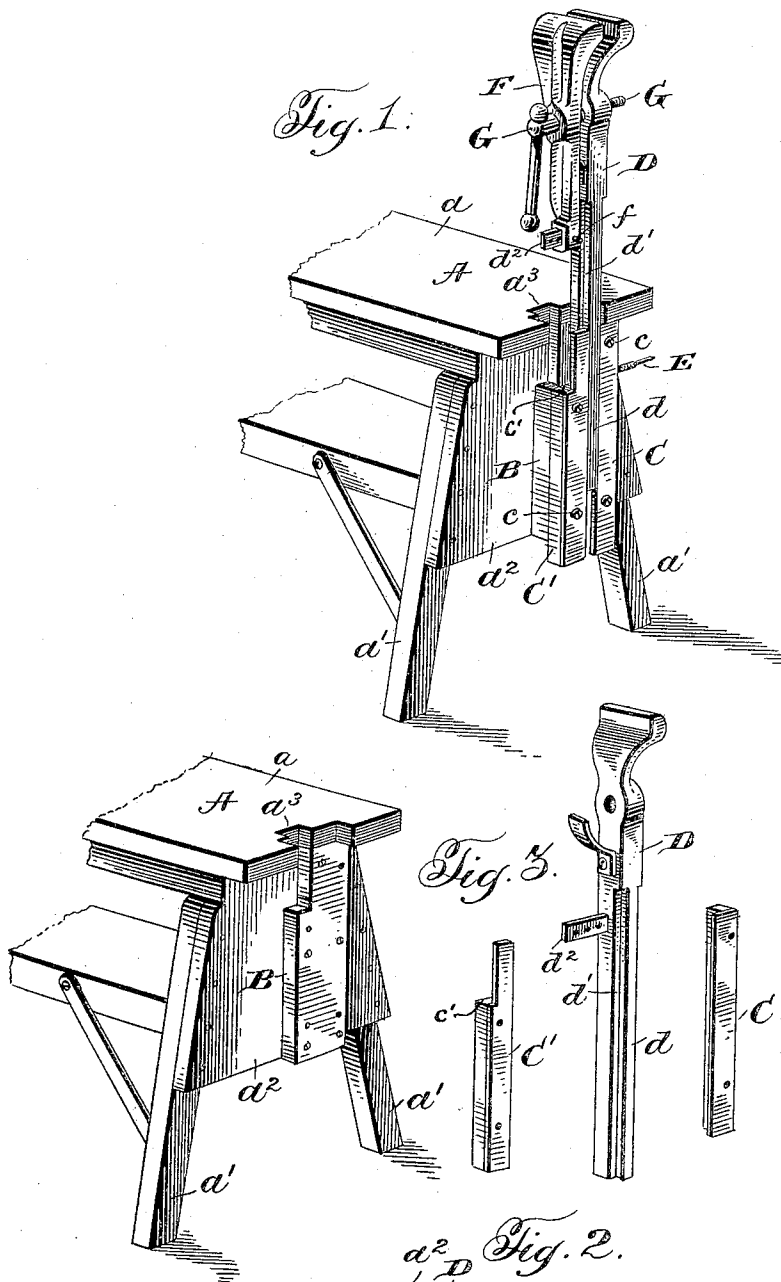
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PATENTED APR. 24, 1906.

F. M. GRAY.

WISE.

APPLICATION FILED JAN. 13, 1905.



UNITED STATES PATENT OFFICE.

FRANCIS M. GRAY, OF DECATUR, ILLINOIS.

WISE.

No. 818,535.

Specification of Letters Patent.

Patented April 24, 1906.

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To all whom it may concern:

Be it known that I, FRANCIS M. GRAY, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Vises, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improvement in vises, and more particularly to a vise the parts of which are adapted to be detachably secured to a fixed support, so that they may be readily removed and transported from place to place.

The invention further consists in a device of this character in which the vise is capable of a vertical adjustment relative to its support.

In the drawings, wherein a preferable embodiment of my invention is shown and wherein like letters of reference refer to similar parts in the several views, Figure 1 is a perspective view of a work-bench or trestle having my improved vise secured to the end thereof. Fig. 2 is a transverse section through the end of the bench and the vise-support, and Fig. 3 is a view showing the vise and its support with the parts separated.

Referring now more particularly to the drawings, A designates a work-bench or trestle of the usual construction having the top *a*, supporting-legs *a'*, and end pieces *a²*. The top *a* of the bench A extends beyond the end pieces *a²*, and in this extended portion at the end of the bench to which it is desired to attach the vise is provided the cut-out portion *a³*.

B designates a supporting-block secured to the end *a²* of the bench in any suitable manner, which is designed to receive the guides in which the vise is adjustably mounted.

C and C' designate a pair of guides which are adapted to be removably secured to the supporting-plate B and to receive the vise. The guides C and C' comprise elongated blocks of substantially the same length as the supporting-block B and face-plates secured to the front face of the blocks and projecting slightly beyond one edge thereof. Instead of making the guides of blocks having face-plates secured thereto they may be made of a single piece of material, if desired. The guides C and C' are removably secured to the supporting-plate B, with the projecting portions of their face-plates adjacent each other, by means of screws *c* passing therethrough and engaging with said supporting-plate.

The guide C when secured to the supporting-plate B abuts against the under side of the top of the bench A. The face-plate of the guide C' extends upwardly for substantially the same distance as the guide C, but does not abut against the under side of the top of the bench, as the same is cut away at this place to form the recessed portion *a³*, for a purpose to be hereinafter more particularly set forth. The upper portion of the block to which the face-plate is secured to form the guide C' is cut away for some distance, as at *c'*, for a purpose to be hereinafter set forth.

D designates one of the jaws of the vise, which is provided at its lower end with an elongated shank *d*. The shank *d* is formed of such a cross-section that it will fit snugly between the guides C and C' when the same are secured to the supporting-plate B. The shank *d* is provided along its forward edges with the longitudinally-disposed gains *d'*, into which the projecting portions of the face-plates of the guides C and C' are designed to fit when the shank is placed between said guides.

E designates a set-screw secured in the guide C and adapted to engage the shank *d* to hold the same in various positions of adjustment within said guides.

The shank *d* is provided on its inner side adjacent the lower end of the jaw D with the laterally-projecting arm *d²*.

F designates the movable jaw of the vise. The jaw F is provided with an aperture *f*, designed to loosely encircle the arm *d²*. The jaw F is pivotally connected to the jaw D by means of a pin *f* passing through aligned apertures in the end of said jaw and any one of a series of apertures in the arm *d²*. The jaws D and F are closed by means of the adjusting-screw G, which is loosely mounted in the jaw F and has its end in threaded engagement with the jaw D. The jaws are normally held in their open position by a leaf-spring, which has one of its ends secured to the inner side of the jaw D and its free end bent to bear against the inner side of the jaw F.

From the above description it will be seen that the vise can be adjusted to any desired position in the guides and that a greater range of adjustment is permitted by the recessed portion *a³* of the top of the bench and the cut-out portion *c'* of the guide C' than would be otherwise permitted, as with this construction the vise can be lowered until the arm *d²* abuts against the top portion of the guide C'.

It will also be seen that the guides C and C' can be readily detached from the supporting-plate B and the various parts of the vise can be separated and the entire device transported to any place where it is desired to use the same, as it is not essential that the guides be secured to a work-bench or trestle such as I have described, it being apparent that they might be attached to any suitable supporting-surface by means of the screws c.

In case the guides are made of a single piece of material the rear portion of the guide C' would be cut away to permit of the lowering movement of the jaw F.

I do not desire to limit myself to the precise form and construction shown in the drawings, as it is obvious that many minor changes might be made thereto without departing from the spirit of the invention.

What I claim, and desire to secure by Letters Patent, is—

1. In a device of the character described, a supporting-plate, a pair of guides secured thereto, a standard slidably secured between

said guides, the inner adjacent portions of said guides being extended to overlie said standard, a vise-jaw rigidly secured to the upper end of said standard, and a movable jaw secured to said first-mentioned jaw, the upper rear portion of the guide adjacent the movable jaw being provided with a cut-away portion, as and for the purposes set forth.

2. In a device of the character described, a supporting-plate, a guide secured thereto, a standard slidably secured in said guide, a vise-jaw rigidly secured to the upper end of said standard, and a movable jaw operatively associated with said first-mentioned jaw, the upper portion of the guide adjacent the movable jaw being provided with a cut-away portion as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANCIS M. GRAY.

Witnesses:

F. R. GOODE,
R. W. RUCKER.