

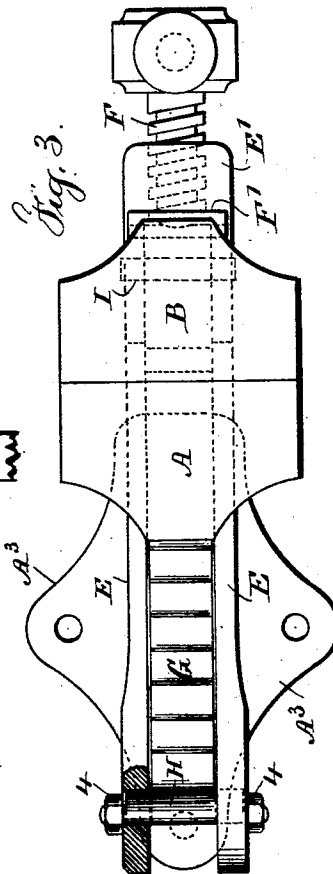
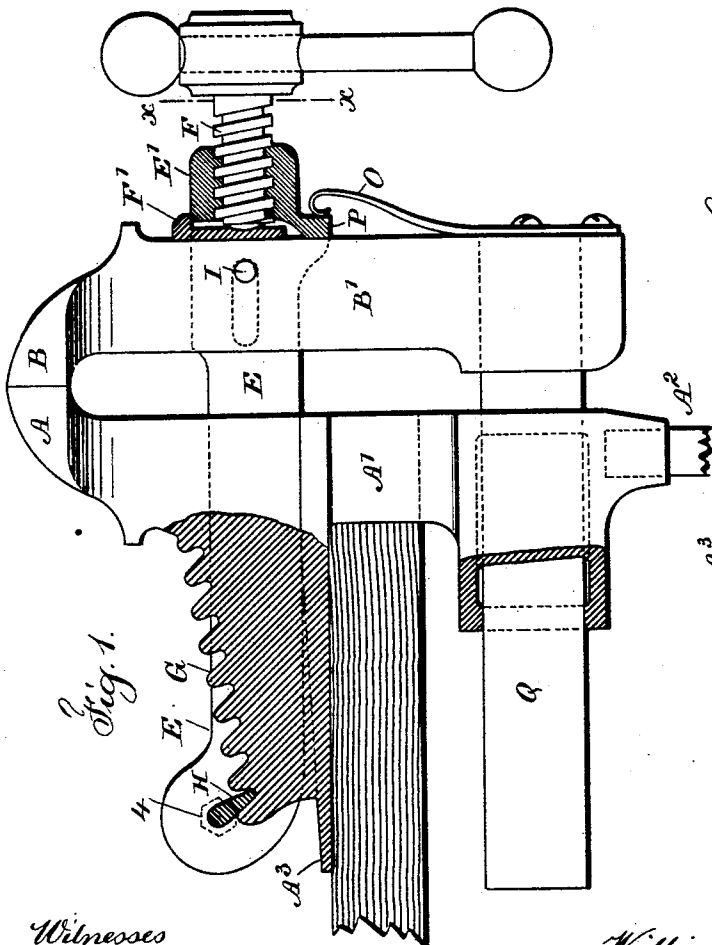
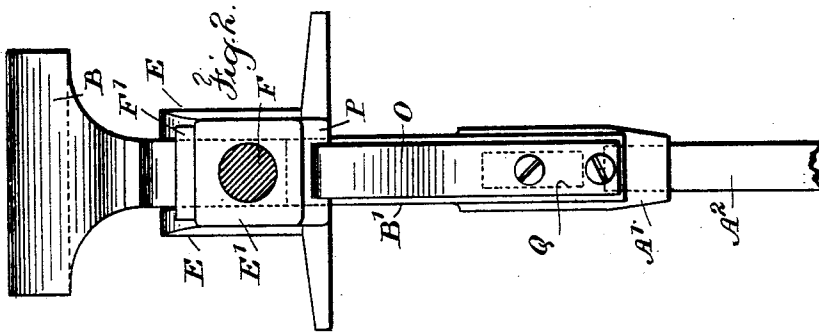
(No Model.)

2 Sheets—Sheet 1.

W. E. SNEDIKER.
VISE.

No. 586,370.

Patented July 13, 1897.



Witnesses

Chas. H. Smith
J. Staib

Inventor
William E. Snediker
per L. M. Penell & Son
Atys.

(No Model.)

2 Sheets—Sheet 2.

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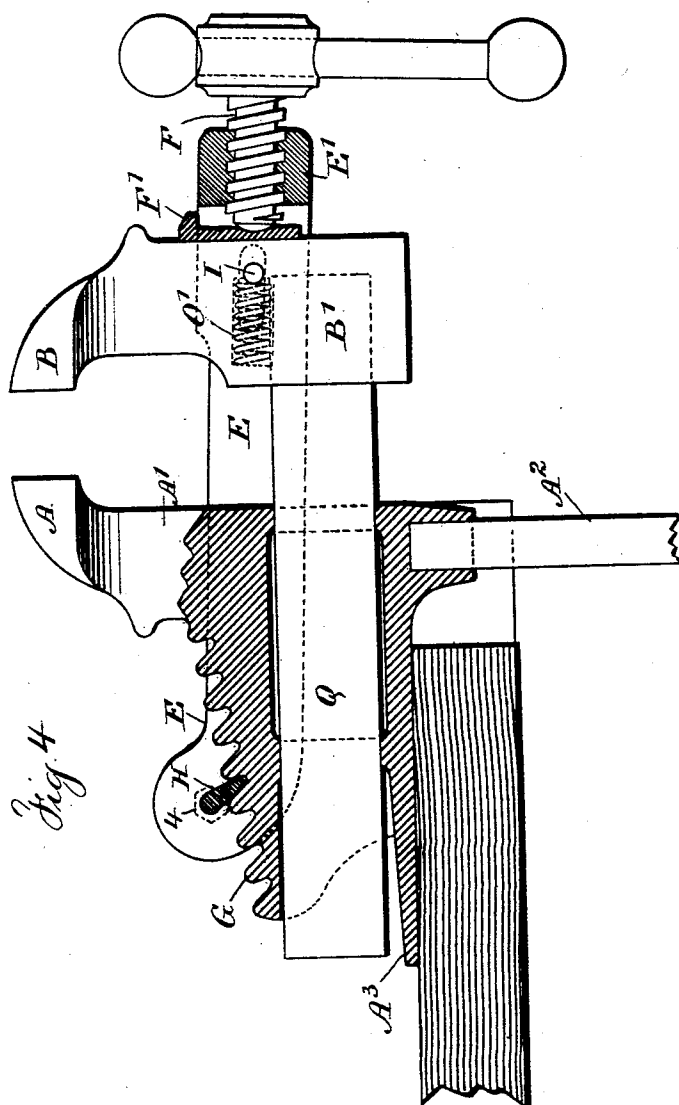


Fig. 4

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UNITED STATES PATENT OFFICE.

WILLIAM E. SNEDIKER, OF JERSEY CITY, NEW JERSEY.

WISE.

SPECIFICATION forming part of Letters Patent No. 586,370, dated July 13, 1897.

Application filed February 23, 1897. Serial No. 624,545. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. SNEDIKER, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented an Improvement in Vises, of which the following is a specification.

In my application, Serial No. 608,205, filed October 8, 1896, I have represented the stationary and moving jaws as having downwardly-extending jaw-levers that are pivoted together, and I have shown the cross-key as grooved at the end. I find that in some instances it is advisable to adapt the improvements set forth in said application to a vise in which the moving jaw is maintained parallel to the stationary jaw, and this I accomplish by providing upon the leg of the moving jaw a horizontal bar passing through a mortise upon the leg of the stationary jaw, the parts being cored in casting, so that the metal at the ends of the mortise alone has to be filed or otherwise finished for the passage of the horizontal guide-bar. I also apply a spring acting against the nut portion of the straps to press such nut portion toward the moving jaw as the clamping-screw is released, and the stepped incline is made with teeth that are rounded at the cross groove or channel between one tooth and the next, the end of the cross-key being adapted to fit into such cross-groove and take a proper bearing whether the straps are horizontal or whether they are at an upward inclination.

In the drawings, Figure 1 is a side view of the improvement with the cross-key and stepped incline in section and one of the straps broken off. Fig. 2 is a front elevation and section at line *xx*, Fig. 1; and Fig. 3, a plan view of the vise complete. Fig. 4 is a side view with the horizontal bar above the bench.

The jaws A and B are of any desired shape and character, and the jaw-legs A' B' extend down the desired distance, and it is advantageous to have a bar or post A² below the stationary jaw-leg. The base piece or plate A³ extends out from the stationary jaw-leg to the rear and is adapted to rest upon the bench, and the stepped incline G is made with teeth and the grooves between the teeth are rounded in their bottoms, so as to be adapted to receive the rounded bottom edge of the cross-

key H, and this cross-key H passes through the straps E and is held by nuts 4 at the outer ends of the cross-key, and this cross-key will take an even bearing against the teeth in consequence of the lower edge of such cross-key being rounding and fitting the rounding bottom surfaces of the grooves, whether the straps E are horizontal or at a greater or less inclination.

The nut portion E', that unites the straps E at their front ends, receives through it the screw F, that is adapted to act upon the moving jaw-leg B'. I however prefer to place a plate or key F' between the straps E and supported or suspended by a lip on the nut portion E', so that the screw acts at its inner end against this key or plate and that takes a flat bearing against the outer side of the moving jaw-leg. Hence wear upon this portion is lessened.

The pin I is represented as passing through a slot in one of the straps E into the jaw-leg, but such pin may be below the strap, if desired. In either instance the pin supports the outer ends of the straps and the screw F. To prevent the plate F' being loose or becoming misplaced, it is advantageous to press the nut portion E' toward the jaw-leg B', and with this object in view the spring O is applied upon the jaw-leg B' and acts against a projection or lip P below the nut E', and this spring O yields as the screw presses the jaw and jaw-leg backward in confining the article that is placed between the jaws.

The horizontal bar Q is fastened permanently in the lower part of the jaw-leg B', and it passes through a mortise in the jaw-leg A', and it is advantageous to provide a core that is larger than the bar Q, so that the metal of the jaw-leg A' will only require to be filed or otherwise dressed at the end portions of the mortise, so that these portions of the mortise support and guide the bar Q as it is moved backward and forward in opening or closing the jaws.

By these improvements I am enabled to employ the straps and clamping-screw and the stepped incline to a vise having parallel moving jaws.

When the horizontal bar Q is above the bench, as seen in Fig. 4, instead of being below the bench, the stepped incline will be di-

rectly above the mortise in the stationary jaw A, and the spring O' may be helical and introduced in the mortise adjacent to the pin I.

I claim as my invention—

5 1. The jaws A B and their jaw-legs A' B', in combination with the horizontal bar Q passing through a mortise in the jaw-leg A', the straps E passing at the sides of the jaw-legs and connected by the nut E', the screw
10 passing through said nut, the stepped incline at the rear of the stationary jaw and the cross-key between the rear portions of the straps and engaging the stepped incline, substantially as set forth.

15 2. The combination with the jaws and jaw legs or levers, of straps passing at the sides of the jaw legs or levers and a nut connecting such straps, a screw passing through the nut, a stepped incline at the rear of the stationary
20 jaw having teeth and intermediate cross-grooves with rounded bottoms, and a cross-key between the rear portions of the straps having a rounded lower edge fitting into the cross-grooves between the teeth, substantially
25 as set forth.

3. The combination with the stationary and

moving jaws and their legs or levers, of straps one at each side of the jaw legs or levers, a nut connecting the straps, a screw passing through the nut and a plate between the
30 straps and between the end of the screw and the movable jaw, and a projection at the upper end whereby such plate is suspended, substantially as set forth.

4. The combination with the stationary and
35 moving jaws and their legs or levers, of straps one at each side of the jaw legs or levers, a nut connecting the straps, a screw passing through the nut and a plate between the
40 straps and between the end of the screw and the movable jaw, and a projection at the upper end whereby such plate is suspended, and a spring acting to press the nut toward the leg or lever of the moving jaw, substantially
45 as set forth.

Signed by me this 18th day of February, 1897.

W. E. SNEDIKER.

Witnesses:

GEO. T. PINCKNEY,
E. E. POHLÉ.