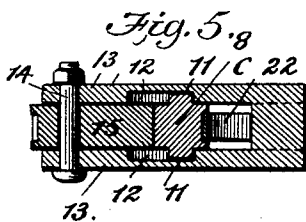
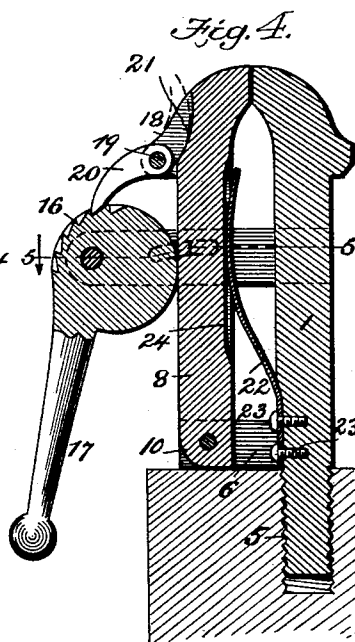
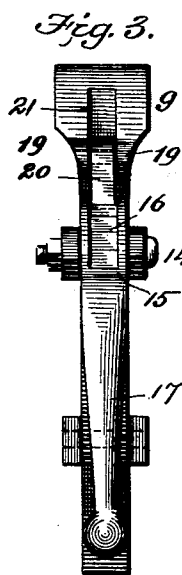
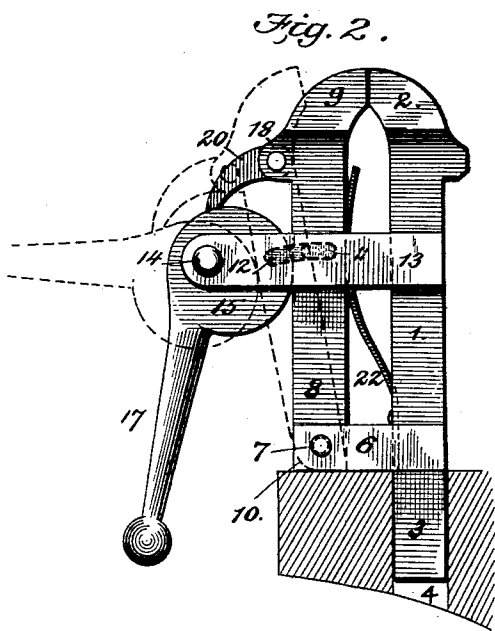
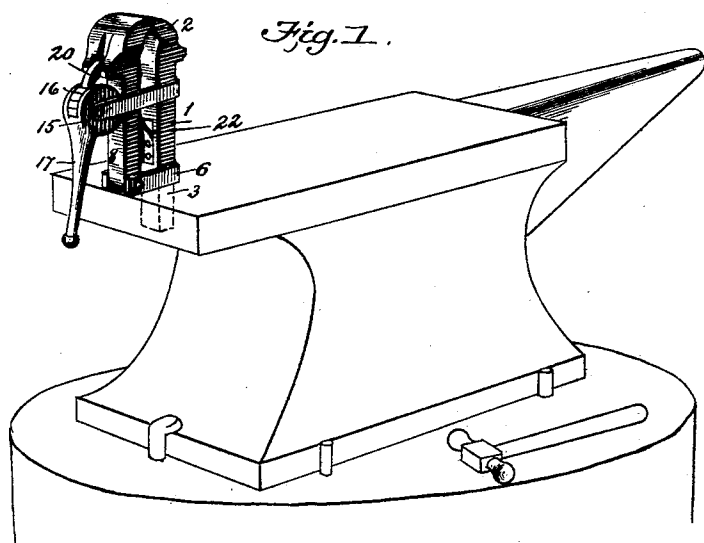


(No Model.)

W. B. HOLT.
VISE.

No. 586,359.

Patented July 13, 1897.



WITNESSES:
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UNITED STATES PATENT OFFICE,

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WISE.

SPECIFICATION forming part of Letters Patent No. 586,359, dated July 13, 1897.

Application filed April 5, 1897. Serial No. 630,827. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. HOLT, residing at Ayres, in the county of Saline and State of Missouri, have invented a new and Improved Vise, of which the following is a specification.

My invention has relation to a vise, the object being to provide a device of this character which will be durable in use, effective in its operation, and cheap to manufacture.

My invention consists in the peculiar combination and novel arrangements of parts first described in detail and then specifically pointed out in the claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of my device in position for use on an anvil. Fig. 2 is a side elevation of my vise. Fig. 3 is an end view thereof. Fig. 4 is a sectional elevation thereof, and Fig. 5 is a sectional view on the line 5 5 of Fig. 4.

Referring to the drawings by numeral, 1 indicates the rigid jaw of the vise, having the usual gripping portion 2 and extension 3, adapted to rest in the socket 4 in the end of the anvil. This extension may be smooth, or I may provide it with a number of screw-threads 5, as shown in Fig. 4, for the purpose of securing it in position.

A bar 6 is rigidly secured at one end to the fixed jaw 1, while to its other end 7 is pivotally secured the jaw 8 of the vise, the said jaw being provided with a gripping end 9 and having its lower end rounded, as at 10, for a purpose to be hereinafter set forth.

Ribs 11, integral with the pivotal jaw 8, are adapted to slide in a curved guideway 12 on the inner face of the bars 13, said bars being permanently secured at one end to the jaw 1 and having their outer ends projecting beyond the pivoted jaw and provided with a bearing for the reception of a pin 14, on which is journaled the cam 15, provided with a series of teeth 16, and an operating-handle 17, integral with the main portion of the cam.

While I have referred to the bars 6 and 13 as being rigidly secured to the fixed jaw, I desire it to be understood that they may be integral with the said jaw or cast with it without in the least departing from the spirit of my invention.

The head of the pivoted jaw 8 is provided with two integral projections 18, which are designed to serve as bearings for a pivot 19, on which a pawl 20 is journaled, the upper portion of the said jaw above the bearings being cut away or recessed, as at 21, for the purpose of receiving the pawl when not in use, such recess being so disposed with relation to the pivot 19 that when the pawl is thrown back it will fall by gravity into the said recess, as shown in dotted lines in Fig. 4.

A flat spring 22, rigidly attached by screws 23 to the fixed jaw 1, is so disposed that its free end rests in a cut-away channel 24 on the rear face of the jaw 8, thereby normally acting to press the said jaw 8 outward when the cam is not exerting its force.

When it is desired to insert an article between the gripping ends of the jaws of the vise, the said jaws are separated by elevating the pawl 20 from engagement with the teeth 16 of the cam and then raising the operating-handle 17, as shown in dotted lines in Fig. 2. Pressure upon the spring 22 having been removed, the said spring causes the jaw to open, as indicated in dotted lines.

It will be noted that both the opening and closing of the jaw 8 are facilitated by reason of its lower end being rounded, as shown at 10, while the ribs 11, working in the curved guideways 12, said guideways being a segment of a circle whose center is the center of the pivot 7, also assist in any arrangement of the jaw by making the same positive, and at the same time overcome any tendency on the part of the pivoted jaw 8 to wobble or rattle and also relieve undue strain on the pivot 7.

When it is desired to close the jaw 8, this object is accomplished by depressing the handle of the cam and thereby forcing the jaws together, as is apparent.

Having thus described my invention, what I claim is—

1. A vise comprising a rigid jaw, a jaw pivotally secured thereto, means for controlling the outward movement of the said jaw consisting of a spring secured to the rigid jaw and bearing against the pivoted jaw, and means for controlling the inward movement of the pivoted jaw consisting of a cam journaled in bars extending from the rigid jaw, said cam

being provided with a series of teeth, and a pawl secured to said pivoted jaw and adapted to engage the teeth of the cam.

2. A vise comprising a rigid jaw, bars secured thereto, a jaw pivoted in one set of the bars, and having ribs adapted to slide in guideways on the other set of bars, means for separating the pivoted jaw, and means for closing the said jaw, as set forth.

3. A vise comprising a rigid jaw, bars secured thereto, a jaw pivoted in one set of the bars and having ribs adapted to slide in guideways on the other set of bars, means for separating the pivoted jaw, and means for closing the said jaw, comprising a toothed cam, pivoted in the last-named set of bars.

4. A vise comprising a rigid jaw, bars secured thereto, a jaw pivoted in one set of the bars and having ribs adapted to slide in guideways in the other set of bars, means for separating the pivoted jaws, comprising a spring secured to the rigid jaw and resting against the pivoted jaw, and means for closing the said jaw, comprising a toothed cam pivoted in the last-named set of bars.

5. A vise comprising a rigid jaw, bars secured thereto, a jaw pivoted in one set of bars and having ribs adapted to slide in guideways in the other set of bars, means for separating the pivoted jaws comprising a spring secured

to the rigid jaw, and resting in a channel in the pivoted jaw, and means for closing the said jaw, comprising a toothed cam, provided with an operating-handle, said cam being pivoted in the last-named set of bars, and a pawl on the pivoted jaw, adapted to engage the teeth of the said cam.

6. A vise comprising a rigid jaw, provided with an extension adapted to fit in a socket, bars secured to said rigid jaw, a jaw pivotally secured to one set of bars, said jaw having its lower end rounded, ribs on said pivoted jaw, designed to slide in curved guideways formed in the other set of bars, bearings on said jaw in which a pawl is pivoted, a recess in the head of the said jaw for the reception of the pawl when not in use, means for separating the pivoted jaws, comprising a spring secured to the rigid jaw, and resting against the pivoted jaw, and means for closing the said jaw, comprising a toothed cam, provided with an operating-handle said cam being pivoted in the last-named set of bars, and adapted to be held in position against the pivoted jaw by the hereinbefore-mentioned pawl.

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Witnesses:

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B. F. HOLT.