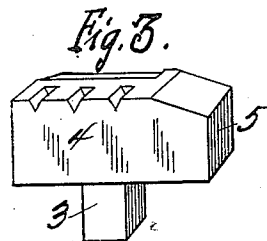
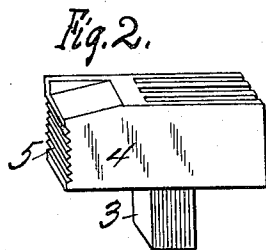
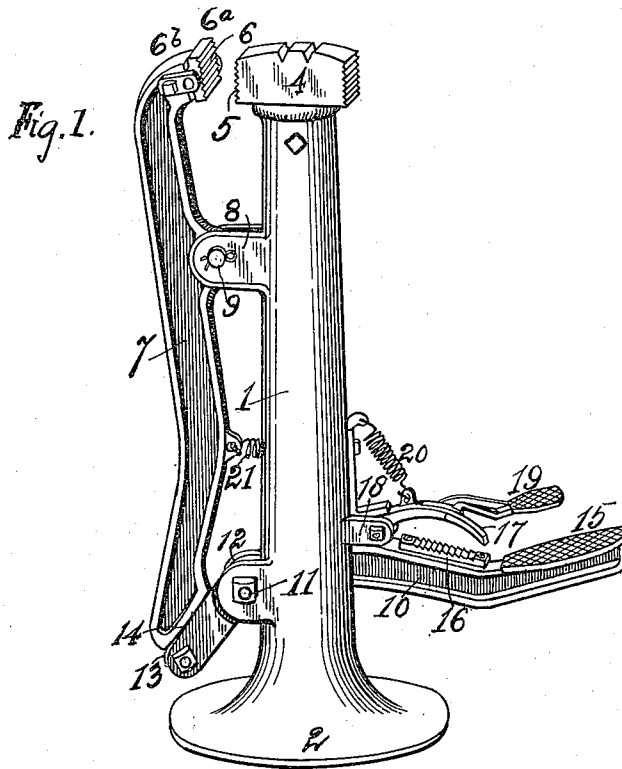


C. H. SHOEMAKER.
 VISE.
 APPLICATION FILED AUG. 29, 1913.

1,150,397.

Patented Aug. 17, 1915.



WITNESSES:
D. C. Walter
Chas. W. Mallett

INVENTOR:
Calvin H. Shoemaker,
By Arthur Hall, Atty.

UNITED STATES PATENT OFFICE.

CALVIN H. SHOEMAKER, OF FOSTORIA, OHIO, ASSIGNOR OF ONE-HALF TO J. A. McCAULEY, OF FOSTORIA, OHIO.

WISE.

1,150,397.

Specification of Letters Patent.

Patented Aug. 17, 1915.

Application filed August 29, 1913. Serial No. 787,253.

To all whom it may concern:

Be it known that I, CALVIN H. SHOEMAKER, a citizen of the United States, residing at Fostoria, in the county of Seneca and State of Ohio, have invented certain new and useful Improvements in Vises; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to an anvil and vise designed more particularly for the use of horse-shoers, and its object is to furnish a cheap, simple and effective mechanism adapted for the reception of interchangeable anvil-blocks, or tools, such—for instance—as drills, which blocks or tools severally, are adapted to cooperate with the vise.

My invention is further designed to furnish a means for powerfully and rapidly actuating the vise-jaw and means for locking the jaw in any clamping position to which it may be thrown.

I attain these objects by means of the devices, construction and arrangement of parts hereinafter described, and shown and illustrated in the accompanying drawings, in which,—

Figure 1, is a perspective view of my device ready for use; Figs. 2 and 3 are perspective views of detached anvil-blocks adapted for use in connection with my device, and Fig. 4 an enlarged detail of the pivoted jaw hereinafter referred to.

Like numerals of reference indicate like parts in the drawings.

In the drawings, 1 is a pedestal having an extended base 2 and having in its top a socket,—not shown,—adapted for the reception of shank 3 of anvil-block 4. These anvil-blocks are formed as may be most appropriate for the work to be performed. One of the vertical faces of the block should be corrugated transversely, as at 5, to correspond with a like corrugated face 6 upon the jaw-piece 6^a pivotally mounted as at 6^b upon the upper end of the arm or lever 7 and constituting one of the jaws of the vise. Upon one side of the pedestal is cast or secured a bifurcated lug 8 between the members of which the arm 7 is pivoted or fulcrumed, as

at 9. Through the lower part of the pedestal 1 is an opening through which extends a foot-lever 10, fulcrumed, as at 11, between lugs 12 cast upon or connected to the pedestal in a vertical plain with the lugs 8. One end of the lever 7 is bent downwardly and carries a roller 13 which contacts with and rolls beneath an inclined surface 14 formed at the lower end of the arm 7. At its opposite end the foot-lever 10 is provided with a foot-plate 15. The upper surface of the lever 10—next to the foot-plate—is provided with ratchet-teeth 16, arranged to be engaged by and to cooperate with a pawl 17 pivoted upon lugs 18 upon the pedestal 1. The pawl 17 carries a foot-plate 19 and is held in normally elevated position and out of engagement with the ratchet-teeth by means of a spring 20 connected, as shown, to the pedestal and to the pawl. The foot-plate 19 is located slightly above and in advance of the toe of the operator, so that both plates may be simultaneously operated and so that the pawl may be caused to engage the rack 16 at any point to which the lever 10 may be thrown. A spring 21 connected with the pedestal and with the lever 7 holds the lower end of the latter normally retracted, with the vise-jaws separated and with the foot-plate 15 elevated.

The operation of my device is as follows: The anvil-block, or other device having the shank 3 and cooperating with the jaw 6^a, being in place and operatively opposed to the jaw 6, a horse-shoe or other object may be clamped between the two faces 5—6 by the operator pressing downwardly upon the foot-plate 15, which causes the opposite end of the lever 10 to swing upwardly. Now the roller 13 traveling upon the surface 14 swings outwardly the lower end of the lever 7 causing the jaw 6 to approach the anvil-block and to powerfully grip between the two corrugated surfaces the object to be clamped in place. At this instant the foot-plate 19 is, by the toe of the operator, pressed downwardly causing the pawl 17 to move into engagement with the teeth 16 and to hold the parts against retreat from their clamping position. To release the work from the vise it is only necessary to apply additional pressure to the foot-plate 15 which releases the pawl 17. Now spring 21 draws the lower end of the arm 7 inwardly

toward the pedestal, and by such reverse movement swings the jaw 6* into open position and lifts the foot-piece 15 to its elevated position.

5 Having described my invention, what I claim and desire to secure by Letters Patent, is—

1. In a device of the described character, in combination, a pedestal having at its top
10 means for detachable engagement with an anvil-block, an anvil-block detachably secured upon the top of the pedestal and having one of its faces formed as a vise-jaw, a lever fulcrumed at one side of the pedestal,
15 a vise-jaw pivoted upon the top of said lever and opposed to the vise-jaw first mentioned, a foot-lever fulcrumed in the lower part of the pedestal and operatively connected with the lower end of the lever first
20 mentioned, a detent for the foot-lever and means for actuating the detent.

2. In a device of the described character, in combination, a pedestal, an anvil-block rigidly and removably mounted upon the
25 pedestal and having one of its faces formed as a vise-jaw, a lever fulcrumed upon the side of the pedestal, a vise-jaw opposed to the jaw first mentioned and pivotally connected with the upper end of said lever, a
30 foot-lever fulcrumed upon the lower part of the pedestal and operatively engaged with the lower part of the lever first mentioned and adapted to throw the vise-jaw of such lever into clamping position, a spring
35 connected with the pedestal and the first mentioned lever and arranged to hold the foot-piece of the foot-lever in normally elevated position and to hold the vise-jaws asunder and a spring controlled foot-pawl
40 adapted for engagement with said foot-lever.

3. A device of the described character comprising in its construction a pedestal having in its top a socket, an anvil-block
45 having a shank adapted for operative en-

gagement with such socket and having a face formed as a vise-jaw, a lever having at its upper end a vise-jaw in coöperative relation to the vise-jaw first mentioned and fulcrumed upon lugs projecting from the pedestal, a foot lever having at one end a foot-piece and at the other end a roller engaged with the lower arm of the first mentioned lever and fulcrumed upon the pedestal, said
50 foot-lever having also ratchet-teeth, a pawl pivoted upon the pedestal and adapted to engage but normally disengaged from the ratchet-teeth, a foot-piece for said pawl mounted close to said first mentioned foot-piece, and a spring secured to the pedestal
60 and connected with the first mentioned lever and arranged to hold the first mentioned foot-piece in elevated position and the vise-jaws in separated relation.

4. A device of the described character
65 comprising in its construction a pedestal having in its top a socket, an anvil-block having a shank adapted for operative engagement with such socket and having a face formed as a vise-jaw, a lever having
70 pivotally mounted at its upper end a vise-jaw in coöperative relation to the vise-jaw first mentioned and fulcrumed upon lugs projecting from the pedestal, a foot-lever having at one end a foot-piece and at the
75 other end a roller engaged with the lower arm of the first mentioned lever and fulcrumed upon the pedestal, said foot-lever having also ratchet-teeth, a pawl pivoted upon the pedestal and adapted to engage the
80 ratchet, means for the control of said ratchet, and means for holding the vise-jaws normally asunder.

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

CALVIN H. SHOEMAKER.

Witnesses:

A. J. RAYCRAFT,
C. A. GUERNSEY.