

No. 849,758.

PATENTED APR. 9, 1907.

J. C. TITUS.

WISE.

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Fig 13

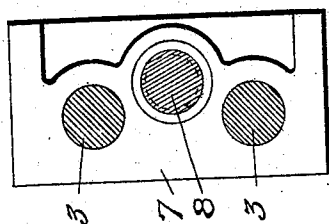


Fig 1

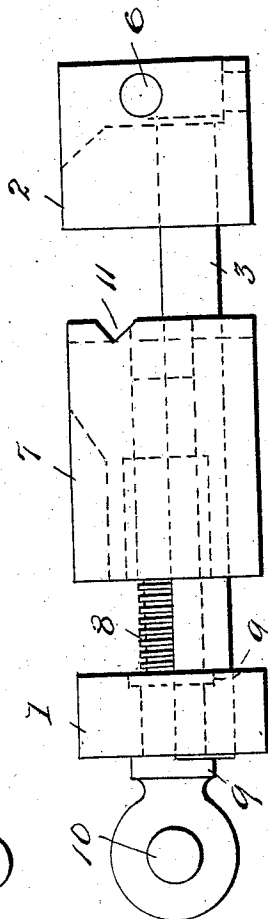
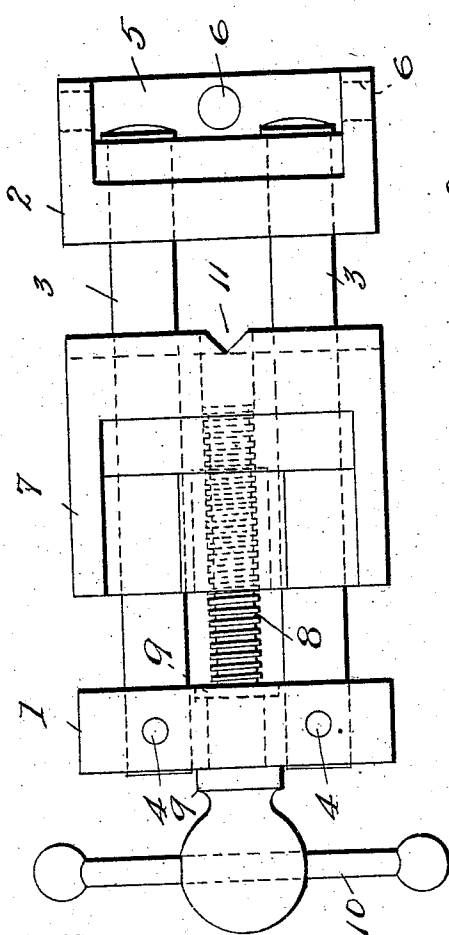


Fig 2

WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN C. TITUS, OF MARION, OHIO.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN C. TITUS, a citizen of the United States, residing at Marion, in the county of Marion and State of Ohio, have invented a certain new and Improved Vise, of which the following is a specification.

My invention relates to vises.

Vises made in accordance with my invention are adapted for a wide range of uses; but one especial object of the invention is to adapt the vise for use in connection with machine-tools, such as drill-presses.

In the accompanying drawings, which show one exemplification of my invention, Figure 1 is a plan view, Fig. 2 a side elevation, and Fig. 3 a rear view, of the rear block.

Reference-numeral 1 designates a front block, preferably of rectangular shape; 2, a rear block of similar shape; 3, rods, usually two, (although there may be one or more than two,) connecting the front and rear blocks. These rods may be secured to the blocks by means of pins 4, passing through the blocks and ends of the rods, as shown in the front block, and these pins may be driven or screwed in place, so as to be readily removable, or the rods may be secured by upsetting the ends or in any other suitable manner known to mechanics. 5 is a recess in the rear block; 6, bolt-holes in the rear block, one or more holes being drilled in each of two or more sides of the block.

In making the vise the front and rear blocks are faced up on a suitable machine, so that the bottom and sides of the blocks are perfectly true. The vise may then be used in connection with a machine-tool, such as a drill-press having a bed-plate, by clamping it to the bed by set-screws passing through the holes 6 either with the bottom down or on either the right or left side, or it may be secured in either position by any other suitable means. In whatever position it is placed on the bed-plate the work will be held accurately in relation to the drill.

7 is a sliding block or jaw provided with holes through which the rods 3 pass. This block is shaped to conform accurately with the shape of blocks 1 and 2; 8, a screw working in a suitable internally-threaded bore in movable jaw 7 and held in the front head 1

by suitable thrust members 9; 10, the usual handle for operating the screw, and 11 V-shaped intersecting grooves in either the movable head 7 or rear head 2.

It will be observed that the movable jaw 7 slides on and is guided accurately by the two stay-rods 3 and that the power of the screw is applied to it on a line central between the rods, so that disalignment of the jaw is practically absolutely prevented. The guide-rods at the same time serve as stays to connect the stationary heads. The V-shaped grooves 11 are cut at right angles and when the vise is in position on the bed of the drill-press afford means for holding round stock accurately in horizontal or vertical relation to the bed.

As viewed from either end the faces of all the blocks are accurately in line. Thus when the vise is clamped in position on a face-plate, for example, it has an accurate bearing-surface against the face-plate, not only on the bottom or either side of head 2, but on the corresponding sides of the other head 1 and sliding jaw 7. The vise thus rests very firmly in position and liability to improper movement while the work is being operated upon is reduced to a minimum. The vise may in other instances be put in use with the head 2 alone clamped to a face-plate and the other block projecting beyond it.

It will be apparent that the means for clamping the vise in place may be other than the holes and bolts applied to block 2. It may be secured to any suitable support by any other suitable devices applied either to head 2 or head 1, or both of them.

I claim as my invention—

In a portable vise, the combination of two blocks one of which constitutes a fixed jaw, two distance-rods connecting the blocks, a movable jaw running on said rods, and a screw engaging the movable jaw and having a bearing-seat in one of the blocks, the jaw and blocks having flat faces in planes at right angles to each other, and the corresponding faces of said jaw and blocks being all in the same plane.

JOHN C. TITUS.

Witnesses:

H. D. YOUNG,
GEO. F. ANDRES.