No. 781,285. PATENTED JAN. 31, 1905.

J. W. KINCAID.

DRILL PRESS VISE.

APPLICATION FILED JUNE 1, 1904.

Fig. 1.

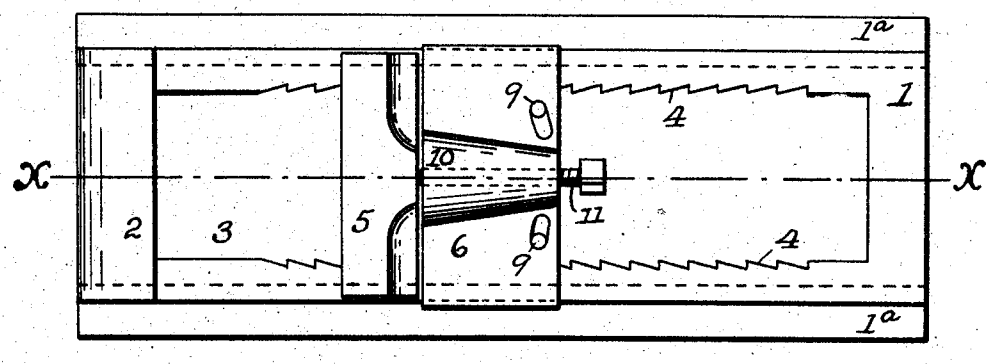


Fig. 2.

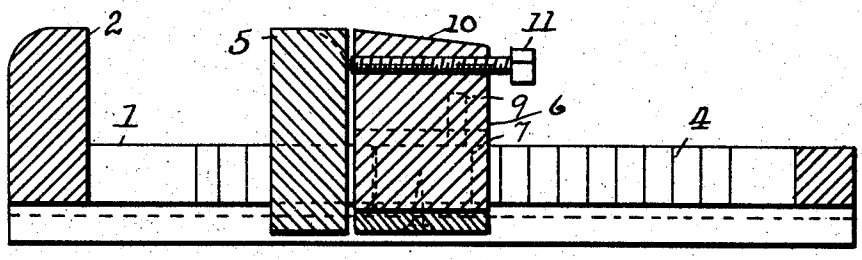
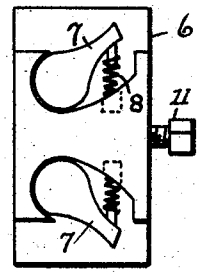


Fig. 3.



Witnesses
Florence Kelly
Katharine Kelly.

Joseph W Kincaid,
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By Attorney D. A. Kelly.

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No. 781,285. Patented January 31, 1905.

UNITED STATES PATENT OFFICE.

JOSEPH W. KINCAID, OF READING, PENNSYLVANIA.

DRILL-PRESS VISE.

SPECIFICATION forming part of Letters Patent No. 781,285, dated January 31, 1905.

Application filed June 1, 1904. Serial No. 210,670.

To all whom it may concern:

Be it known that I, JOSEPH W. KINCAID, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented new and useful Improvements in Drill-Press Vises, of which the following is a specification.

This invention relates to improvements in drill-press vises; and the object is to produce a device whereby an article to be operated on may be rigidly gripped and securely held and one in which all "play" may be readily taken up, thus insuring a solid and secure grip of the jaws on said article.

To this end my invention consists in the details of construction, as hereinafter more fully set forth in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my device. Fig. 2 is a longitudinal sectional view through X X of Fig. 1. Fig. 3 shows the under side of the pawl-block.

Referring more particularly to the drawings, the numeral 1 indicates the base, and this is formed with a flange 1ª along both sides, by means of which it may be secured in any suitable manner to the bed-plate of a drill-press or other machine in connection with which it is desired to use it. This base is provided with a smooth upper face and has an upright fixed jaw 2 at one end thereof, formed integral therewith, and also a rectangular central opening 3. Along the inner walls of this opening 3 I arrange ratchet-teeth 4.

The numeral 5 indicates a movable jaw adapted to slide upon the smooth surface of the base 1 and is formed with a depending reduced portion adapted to enter the opening 3 therein. Back of said movable jaw and also slidably arranged upon the base 1 is a block 6, also provided with a depending reduced portion entering the opening therein. This block is provided with two spring-actuated pawls 7, mounted in said reduced portion at its opposite sides, both of which are adapted to engage the teeth 4 on the walls of the opening 3 in the base 1. Springs 8 tend to keep these pawls normally in engagement with said teeth, and each of said pawls is formed with a vertical pin 9, extending upwardly through slots arranged in the block for that purpose. These pins extend for some distance above the base of the block 6 and serve as handles whereby the pawls may be released from engagement with the ratchet-teeth 4. To move the block, it is necessary to compress these pins 9—that is, to press each toward the longitudinal center—thus drawing the corresponding pawl out of engagement with the teeth 4 and permitting the block to be moved along the opening 3.

An upward extension 10 is formed on the block 6, and a set-screw 11 is located therein in such a manner that when the block has been pushed against the movable jaw 5 and the pawls engage the teeth nearest them the loose play or space remaining, which space must be overcome before a secure grip is produced by the jaws, is readily taken up by tightening this screw, the end of which bears against the rear of said jaw 5.

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

In a drill-press vise the combination with a base provided with a smooth upper face and a fixed jaw formed integral therewith, an opening in said base and a series of teeth on the side walls of said opening, a movable jaw sliding on the upper face of the base and having a depending reduced portion entering the opening, a block resting on the base, said block being also provided with a depending reduced portion entering the opening, spring-pressed pawls mounted in each of the side walls of the reduced portion of the block and adapted to engage the teeth, said pawls standing directly below the base of the block, upwardly-projecting pins carried by the pawls, said pins passing through slots in the block and extending some distance above the base thereof whereby said pawls may be released and a screw passing through the block and adapted to engage the movable jaw.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH W. KINCAID.

Witnesses:
ED. A. KELLY,
CATHARINE S. FEGELY.