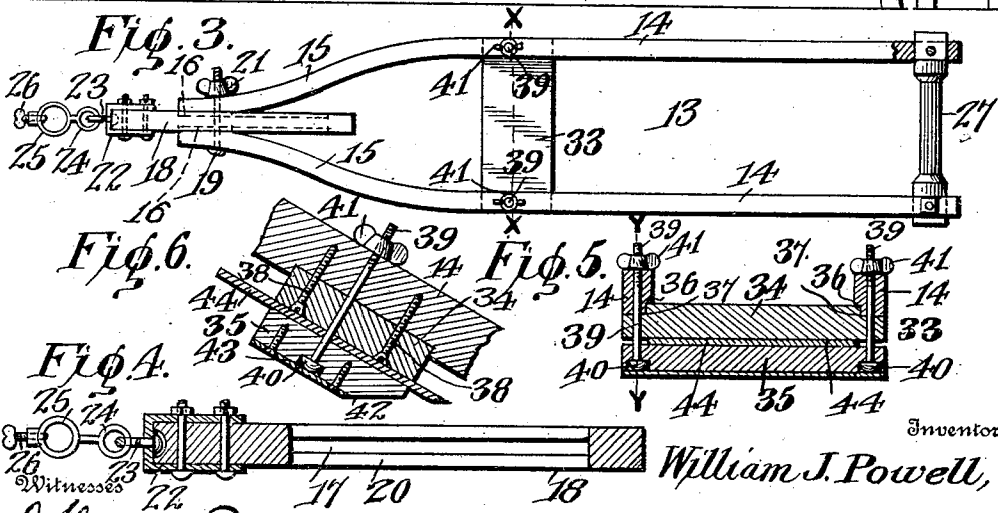
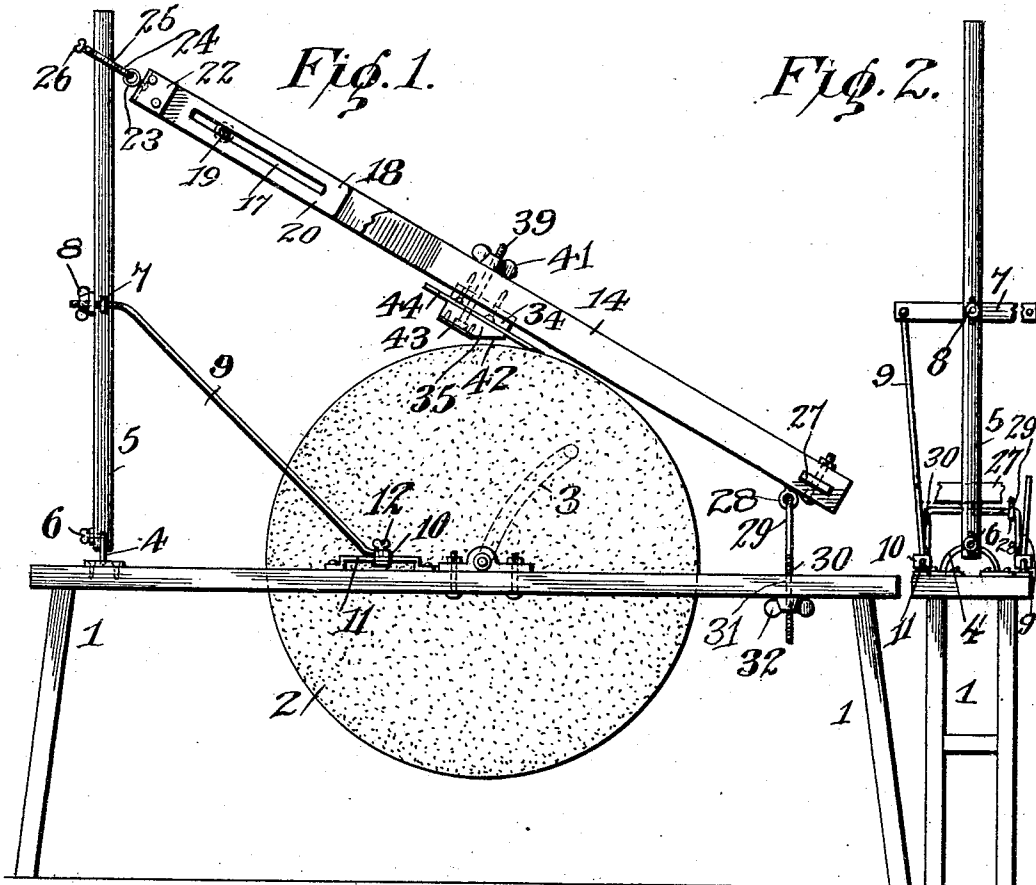


W. J. POWELL.
TOOL HOLDER.

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UNITED STATES PATENT OFFICE.

WILLIAM J. POWELL, OF COFFEYVILLE, KANSAS.

TOOL-HOLDER.

941,272.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM J. POWELL, a citizen of the United States of America, residing at Coffeyville, in the county of Montgomery and State of Kansas, have invented certain new and useful Improvements in Tool-Holders, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in devices for holding tools while the same are being sharpened, and has for its object to provide a device having peculiar means whereby it may be adjusted quickly and accurately with respect to the sharpening means.

Other objects and advantages of my invention will appear in the course of the following specification.

In the accompanying drawings: Figure 1 is a side elevation (with parts broken away) of my improved device for holding tools while the same are being sharpened, illustrating the manner in which it is mounted upon the frame of the sharpening means. Fig. 2 is a front end elevation of the same with some of the parts omitted. Fig. 3 is a top plan view of the tool support. Fig. 4 is a longitudinal, sectional view of the tongue piece employed in connection with the tool support. Fig. 5 is a cross section (enlarged) of the tool-holder on the line X—X of Fig. 3, and Fig. 6 is a section (enlarged) of the tool-holder on the line Y—Y of Fig. 5.

Referring to the drawings, which illustrate the preferred form of my invention, 1 designates a frame upon which is journaled grinding means 2 provided with an actuating handle 3. Suitably secured to the front end of the frame 1 is a semicircular bearing 4 upon which is movably mounted a standard or upright 5 which is secured in its adjusted positions by means of a set-screw 6. About the middle of the standard 5 is provided a slot in which is slidably mounted a cross piece 7, which is firmly held in position by means of a set-screw 8. To each end of the cross piece 7 is connected the upper end of one of the diagonal braces 9, which braces are connected at their lower ends to bearing blocks 10, mounted upon bearings 11, located on opposite sides of the grinding means 2. The bearing blocks 10 are each provided with a set-screw 12 in order that they may be secured in adjusted positions.

A bifurcated tool-support 13 comprises two strips 14, 14, with their forward ends 15, 15, convergently arranged to form a guide-way between them. The inner faces of the convergent ends 15, 15, at their extreme ends, are substantially parallel, and each is provided with a tongue or projection 16 adapted to enter a groove 17 formed in the corresponding side of a tongue-piece or slidable member 18. The grooves 17, 17, extend for a considerable portion of the length of the tongue-piece, but are abruptly terminated at their ends to form shoulders, which serve as stops to limit the longitudinal movement of the tongue-piece or slidable member 18. A bolt 19, passing through apertures in the ends 15, 15, and a slot 20 in the tongue-piece, is provided with a thumb-nut 21 upon its threaded end for clamping the tongue-piece in any desired position. Secured to the end of the tongue-piece 18 is a U-shaped member 22, which carries a swivel 23, which in turn engages a ring 24. The ring 24 is rigidly connected to a second ring 25, which is preferably larger than ring 24. The larger ring is designed to encircle the standard 5, and is adjustable thereon, being secured in adjusted positions by means of a thumb-screw 26. The lower ends of the side strips 14, 14, are connected together by means of a cross-piece 27 provided with a central cylindrical portion which serves as a grip or handle.

To the under sides of the lower ends of the side strips, at a point preferably beneath the handle, are secured, one on each side, suitable eyes 28, 28, in which is loosely confined a U-shaped member 29. The vertical ends or legs 30, 30, of the U-shaped member are threaded for a considerable portion of their length, and are adapted to pass through apertures 31, 31, in the platform of the frame 1. Thumb-nuts 32, 32, are threaded on the lower ends of the legs 30, 30, in order to hold the tool-support in its adjusted position.

Secured at a point, preferably, forward the center of the tool-support is a tool-holder or clamp 33, which comprises an upper clamping-member 34 and a lower clamping member 35. The lower sides of the strips 14, 14, are rabbeted at 36 to receive rabbeted portions 37 formed in the top face of the upper clamping member 34. As shown, the upper clamping member is secured in place by suitable fastening means 38. The lower

clamping member 35 is adjustably disposed with relation to the upper clamping member 34 by means of bolts 39, 39, the heads of which are confined in countersinks 40, 40, in the under side or face of the lower clamping member. The upper ends of the bolts 39, 39, project up through apertures in the upper clamping plate and the side strips 14, 14, of the tool support, and upon their threaded upper ends are secured thumb-nuts 41, 41, to hold the tool-holder in adjusted positions. The under face of the lower clamping member is beveled, as at 42, and back of this beveled portion is secured a metal wearing plate 43. I have shown a blade, as 44, secured in the tool-holder 33 in proper position to the grinding means.

The tool to be sharpened is secured in the tool-holder 33 and the handle 27 of the tool-support 13 is grasped with either hand, the swivel 23 and the bearing 4 and the other movable parts permitting of a great variety of adjustments by which the tool to be sharpened can be made to conform to the utmost degree to the plane surface, or side or bevel of the grinding means, so that the most difficult grinding will be rendered easy.

What I claim is:—

1. In an apparatus of the class described, a frame, grinding means journaled on said frame, a standard adjustably mounted on said frame, an adjustable brace connected to said standard, an adjustable tool-support, said tool support being adjustably mounted on said standard, a tool-holder carried by said tool-support, and a U-shaped member connected to the lower end of said tool-support, said U-shaped member being adapted to hold the tool-support in adjusted positions.

2. In an apparatus of the class described, a frame, grinding means journaled on said frame, a standard adjustably mounted on said frame, a cross-piece mounted on said standard, braces connected to said cross-piece, said braces being adjustably mounted on bearings, a tool-support adjustably mounted on said standard, a tool-holder carried by said tool-support, and means for holding said tool support in adjusted positions.

3. In an apparatus of the class described, a frame, a transversely arranged curved bearing mounted on said frame, a standard adjustably mounted on said curved bearing,

and a tool support mounted on said standard.

4. In an apparatus of the class described, a frame, a laterally adjustable standard, a longitudinally adjustable brace for said standard, and a tool support mounted on said standard.

5. In an apparatus of the class described, a frame, an adjustable standard mounted thereon, a longitudinal guide mounted on said frame, a brace adjustably mounted on said longitudinal guide and connected to said standard, and a tool support mounted on said standard.

6. In an apparatus of the class described, a frame, grinding means journaled on said frame, a standard, a tool support hinged to and adjustably mounted at one end on said standard, and an adjustable U-shaped support connected to the other end of said tool support and to said frame.

7. In an apparatus of the class described, a frame, grinding means journaled on said frame, a standard, a tool support adjustably mounted on said standard, and means for vertically adjusting said tool support.

8. In an apparatus of the class described, a frame, a bearing on said frame, a standard supported on said bearing, a swivel connection on the upper end of said standard, a slidable member connected to said swivel connection, a tool support having lugs provided with slots, means for adjustably connecting said tool support with said slidable member, and means for supporting the lower end of said tool support.

9. In an apparatus of the class described, a frame, an adjustable standard mounted thereon, a longitudinal bearing rod mounted on said frame, a brace adjustably mounted on said longitudinal bearing rod and connected to said standard, and a tool support mounted on said standard.

10. In an apparatus of the class described, a frame, a standard mounted on said frame, a cross-piece mounted on said standard, an adjustable brace connected to said cross-piece, and a tool support carried by said standard.

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

WILLIAM J. POWELL.

Witnesses:

PHILIP H. CARR,
JOSEPH P. ROSSITER.