M. AXLER.

SHARPENING DEVICE.

APPLICATION FILED JULY 15, 1918.

1,297,776. Patented Mar. 18, 1919.

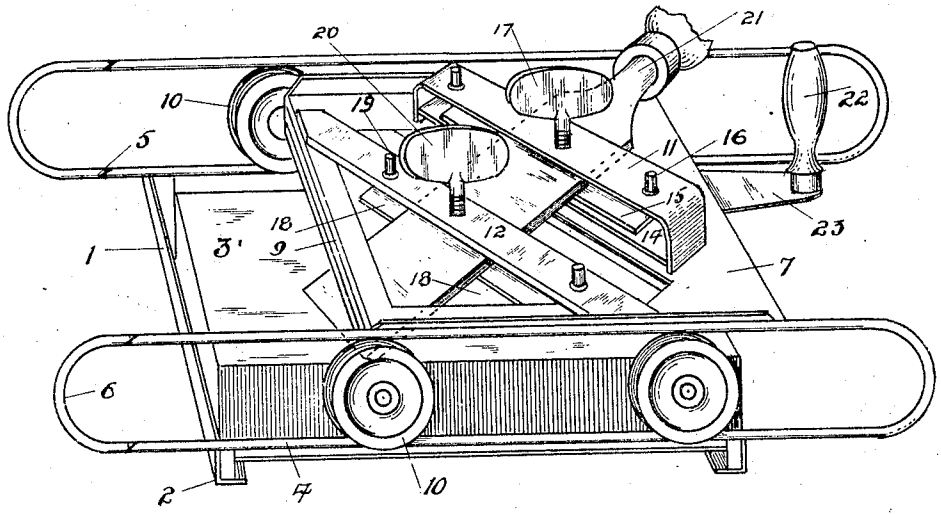


Fig. 1

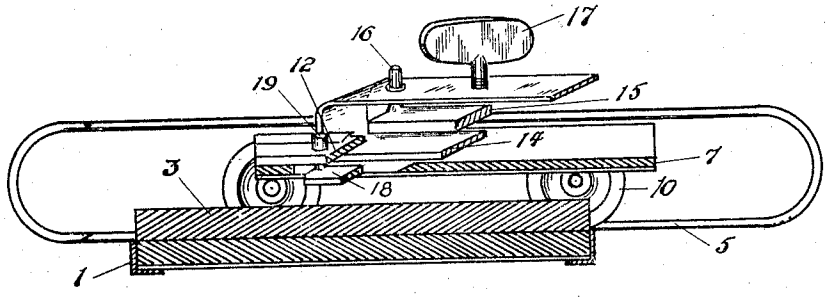


Fig. 2

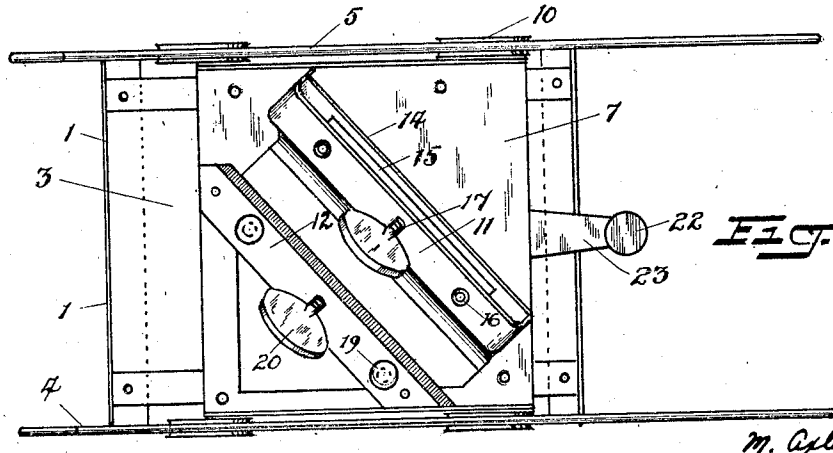


Fig. 3

M. Axler
Inventor

Two Witnesses
W. E. Hammond
C. W. Meredith

by C. J. Fettinton Haugh
Attorney

UNITED STATES PATENT OFFICE.

MEIER AXLER, OF TORONTO, ONTARIO, CANADA.

SHARPENING DEVICE.

1,297,776. Specification of Letters Patent. Patented Mar. 18, 1919.

Application filed July 15, 1918. Serial No. 245,089.

To all whom it may concern:

Be it known that I, MEIER AXLER, a subject of the King of Great Britain, and resident of 248 Royce ave., in the city of Toronto, county of York, Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Sharpening Devices, of which the following is a specification.

The invention relates to improvements in sharpening devices as described in the present specification and illustrated in the accompanying drawings that form a part of the same.

The invention consists essentially of the novel construction and arrangement of parts whereby a tool rigidly supported on a carriage is operated in a reciprocating movement over a sharpening compound.

The objects of the invention are to facilitate the sharpening of chisels, axes and other like articles, to insure an even cutting edge, to reduce to a minimum the time required in sharpening tools and generally to provide a sharpening device which will be inexpensive to manufacture, durable and efficient.

In the drawings Figure 1 is a perspective view of the device showing a tool in position thereon.

Fig. 2 is a sectional view through the longitudinal center of the device shown in Fig. 1.

Fig. 3 is a top view of the device.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, the base of the device consists of a shallow box 1 having its transverse end members 2 projecting outwardly slightly from the sides, said base being for the purpose of accommodating a block 3 of sharpening material.

4 and 5 are loop trackways supported one on each side of the base 1 by the projecting members 1, said trackways being considerably greater in length than the base 1 and forming guides for the wheels of the tool carriage.

One end of each of the trackways 4 and 5 is preferably provided with a detachable member 6 to facilitate the removal of the wheels of the tool carriage.

The tool carriage consists of a frame 7 having a central opening 8 and being provided with axles 9 at the front and rear thereof supporting wheels 10 adapted to run within the trackways 4 and 5.

The article to be sharpened is held to its position in the carriage by means of two vises 11 and 12 spaced a short distance apart and set at a substantially oblique angle across the frame 7 so that in operation the tool will be pushed along the sharpening stone at a corresponding angle.

The rear vise 11 consists of a substantially inverted U shaped bracket having its downwardly turned arms 13 secured to the frame 7, a strap 14 set on the frame 7 between the said arms and tilted forwardly slightly, a flat member 15 spaced from the strap 14 and tilted forwardly slightly and supported by means of pins 16 from the top of said vise, and a set screw 17 screwing downwardly through the said bracket and through the member 15 and adapted to force the tool against the strap 14.

The forward vise 12 is set considerably lower than the vise 11 and consists of a bracket extending across the opening in the frame or flooring, a strap 18 spaced from the under sides of said bracket by pins 19 therefrom and a set screw 20 screwing through said bracket and forcing the tool against said strap.

21 is a tool inserted in the vises 11 and 12 for sharpening.

22 is a handle connected by means of a bracket 23 to the base 1 to facilitate the operation of the tool carriage.

In the operation of the invention the tool is inserted downwardly between the members 14 and 15 of the vise 11 and between the members 12 and 18 until the edge to be sharpened engages the sharpening stone. The set screws 17 and 20 are then screwed down tightly so that the tool is firmly gripped to prevent movement and the tool carriage is then moved backwardly and forwardly between the ends of the trackways until the tool is sufficiently sharp.

When increased pressure on the stone is required as the tool becomes worn this may be accomplished by merely loosening the set screws and pushing the tool farther down and again tightening the said screws.

What I claim is:—

1. In a sharpening member, a base, a sharpening member supported on said base, loop trackways set on edge and secured one

along each side of said base and projecting therebeyond at each end thereof, a tool carriage mounted above said sharpening member and having its wheels operating within said trackways provided with a central opening, a tool vise in substantially oblique position above said opening adjacent to the rear end thereof and a tool vise supported in said opening in advance of the aforesaid vise.

2. In a sharpening device, a base, a sharpening member supported on said base, loop trackways set on edge and secured one along each side of said base and projecting therebeyond at each end thereof, one end of each of said trackways being detachable, a tool carriage mounted above said sharpening member and comprising a flooring having an opening therethrough, axles transversely arranged at the ends of said flooring, wheels mounted on said axles and operating within said trackways, a plurality of tool vises supported in oblique arrangement on said flooring and decreasing in height from the rearmost thereof and a handle rigidly secured to the rear end of said tool carriage for reciprocating said carriage.

3. In a sharpening device, a base, a sharpening member supported on said base, loop trackways secured one along each side of said base and projecting therebeyond, a tool carriage mounted on wheels operating within said trackways provided with an opening through said carriage, a tool vise comprising a substantially inverted U shaped bracket secured in oblique arrangement on said carriage adjacent to the rear end ther of, a strap connecting the arms of sai bracket adjacent to the flooring of said ca riage and tilted upwardly slightly from th rear thereof, a plate spaced from said stra and supported by pins from said bracket an tilted forwardly slightly and a set screw screwing through said bracket and said plate, a tool vise of substantially decreased height secured in advance of the aforesaid vise and a handle secured to said carriage for reciprocating same.

4. In a sharpening device, a base of substantially shallow box formation, a sharpening member supported on said base, wheel guides secured along each side of said base and projecting therebeyond, said wheel guides being in loop form, a tool carriage mounted above said sharpening member and having its wheels operating within said guides, said carriage being considerably shorter than said base and provided with a central opening, a tool vise mounted in oblique arrangement above the flooring of said carriage, a tool vise secured in oblique arrangement in advance of the aforesaid vise and being considerably lower than the first mentioned vise, and a handle secured to the rear of said carriage for reciprocating same.

Signed at Toronto, Ont., this 6th day of June, 1918.

MEIER AXLER.

Witnesses:
W. G. HAMMOND,
DOROTHY M. BROWN.

BEST AVAILABLE COP

BEST AVAILABLE COP