J. DITSON.

GUARD FOR VALVE HANDLES.

APPLICATION FILED NOV. 29, 1921.

1,425,949. Patented Aug. 15, 1922.

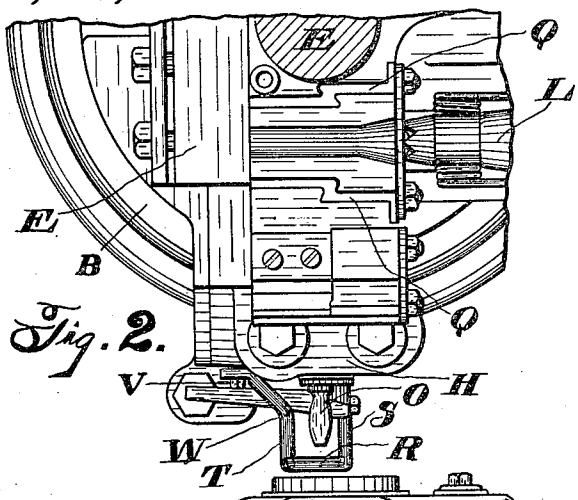


Fig. 2.

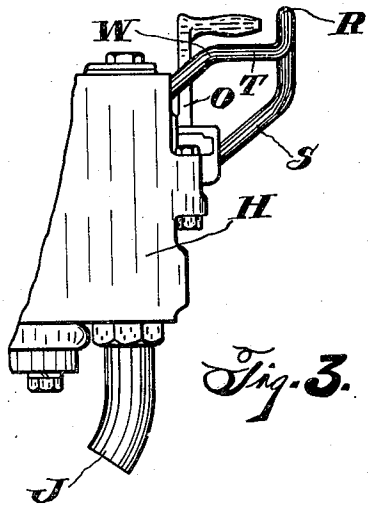


Fig. 3.

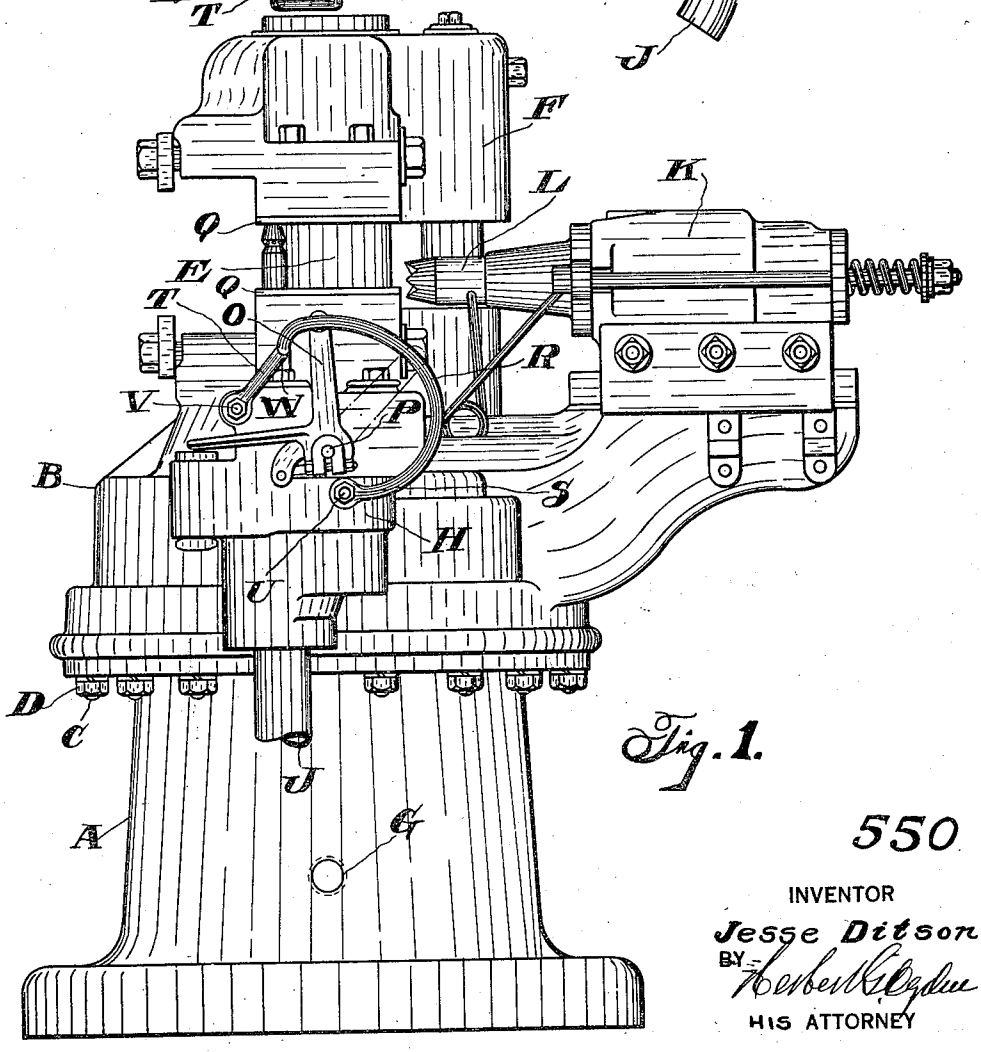


Fig. 1.

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GUARD FOR VALVE HANDLES.

1,425,949. Specification of Letters Patent. Patented Aug. 15, 1922.

Application filed November 29, 1921. Serial No. 518,736.

To all whom it may concern:

Be it known that I, JESSE DITSON, a citizen of the United States, and a resident of Littleton, county of Arapahoe, and State of Colorado, have invented a certain Guard for Valve Handles, of which the following is a specification accompanied by drawings.

This invention relates to guards for valve handles, but more particularly to a guard for the pivoted rocking handle of a throttle valve, such as used for instance for controlling the operations of a drill sharpener for forming and sharpening the bits and shanks of drill steels.

A drill sharpener of the type referred to is disclosed in my co-pending application, Serial No. 498,212, filed September 3, 1921, although the invention may be used with any type of valve or valve handle to which it is found applicable.

In a drill sharpener for instance, the dies are carried by two vise jaws, one of which is vertically movable, actuated by fluid pressure and controlled by a throttle valve, ordinarily having a pivoted rocking handle in upright position at one side of the frame of the machine. In carrying out the various operations of the machine, the body of the operator is apt to accidentally come in contact with the throttle handle and move it from neutral position, which might cause an accident.

The object of the present invention is to provide a simple, cheap and efficient guard for the throttle valve handle of a drill sharpener, or other machines of analogous type, so that the handle can not be accidentally moved and the operator may move about the machine or reach across from one side to the other without danger of starting the machine.

To these ends the invention comprising the guard is described and claimed in the accompanying drawings, in which—

Figure 1 is a side elevation of a drill sharpener, having my improved guard applied thereto, only so much of the operative parts of the machine being shown as will serve to illustrate the invention.

Figure 2 is a top plan view partly in horizontal section of a portion of the machine showing the guard in top plan view, and

Figure 3 is a detail side elevation of that portion of the machine to which the guard is applied, looking in a direction at right angles to the direction in which Figure 1 is taken.

Referring to the drawings, the machine comprises the base A having a main cylinder frame B suitably secured thereto as by means of the studs C and nuts D. A cross head rod E is movable vertically in the main cylinder frame B and carries a cross head F at its upper end. The piston (not shown), which operates the cross head F reciprocates within the main cylinder frame B and fluid pressure, for operating the machine is supplied at the inlet G and controlled by a suitable throttle valve in the valve chest H, having the exhaust outlet J. The controlling throttle valve which distributes the motive fluid to the main cylinder and also to the hammer cylinder K operating the dolly L, is actuated by the valve handle O suitably secured to the valve lever shaft P in turn operatively connected to the throttle valve. By rocking the hand lever O back and forth, the cross head F is raised and lowered and the drill steel sharpened or otherwise formed between the dies Q carried by the vise jaws.

The guard for the valve handle O may be constructed in any suitable manner for carrying out the objects of the invention, and in its preferred form comprises a piece of metal, which may be in the form of a rod of any suitable cross section, having a portion of bow shaped form to constitute the main body portion R of the guard, the ends S and T of the said guard piece being bent or turned to one side at angles to the plane of said bow shaped body portion R, forming bracket arms adapted to be connected to the frame of the machine on which the valve handle is mounted, and support the said body portion R at a distance from the frame while permitting the valve handle O to rock through a given arc in the space between the frame of the machine and the bow shaped body portion of the guard without striking or being interfered with by the bracket arms. A guard of the same shape could also be made from cast metal. In the present instance, the valve handle is intended to be rocked further in one direction, that is forwardly, than in the opposite rearward direction, as indicated by the dotted lines in Figure 1. The valve handle may be assumed to be in neutral position when substantially upright, but may be

rocked either backward or forward from the neutral position. In order to permit the motion of the handle desired, the ends or bracket arms of the guard are bent to one side of the bow shaped portion at different angles to the plane of said bow shaped body portion, and preferably at generally diverging angles as indicated particularly in Figure 3, so that the bracket arm S may conveniently be connected to the frame or valve chest at the point U below the point V at which the outer bracket arm is connected to the frame. Furthermore, in order to conveniently adjust the guard on the machine, one arm as the arm T is again bent intermediate its length at the point W.

The operator stands at the left hand side of the machine, as viewed in Figure 1, and operates the valve handle with his right hand, but in leaning forward or passing around the machine the guard obviously protects the valve handle and prevents the body, clothes or limbs of the operator, or articles or tools which he may be carrying, from accidentally displacing the valve handle and unintentionally starting the machine in operation.

I claim:

1. A guard for the pivoted rocking handle of a valve, comprising a piece of metal having a portion of bow shaped form to constitute the main body portion of the guard, the ends of the said guard piece being turned to one side at angles to the plane of the said bow shaped body portion forming bracket arms adapted to be connected to the frame of the machine on which the valve handle is mounted, and support the said body portion at a distance from the frame while permitting the valve handle to rock through a given arc between the frame of the machine and the bow shaped body portion of the guard without interference from the bracket arms.

2. A guard for the pivoted rocking handle of a valve, comprising a piece of metal having a portion of bow shaped form to constitute the main body portion of the guard, the ends of said guard piece being turned to one side at different angles to the plane of the said bow shaped body portion forming bracket arms adapted to be connected to the frame of the machine on which the valve handle is mounted, and support the said body portion at a distance from the frame while permitting the valve handle to rock through a given arc between the frame of the machine and the bow shaped body portion of the guard without interference from the bracket arms.

3. A guard for the pivoted rocking handle of a valve, comprising a piece of metal bent into bow shaped form to constitute the main body portion of the guard, the ends of said guard piece being bent to one side at generally diverging angles to the plane of said bow shaped body portion, forming bracket arms one of which is again bent intermediate its length, said bracket arms being adapted to be connected to the frame of the machine on which the valve handle is mounted, and support the said body portion at a distance from the frame while permitting the valve handle to rock through a given arc between the frame of the machine and the bow shaped body portion of the guard without interference from the bracket arms.

In testimony whereof I have signed this specification.

JESSE DITSON.