

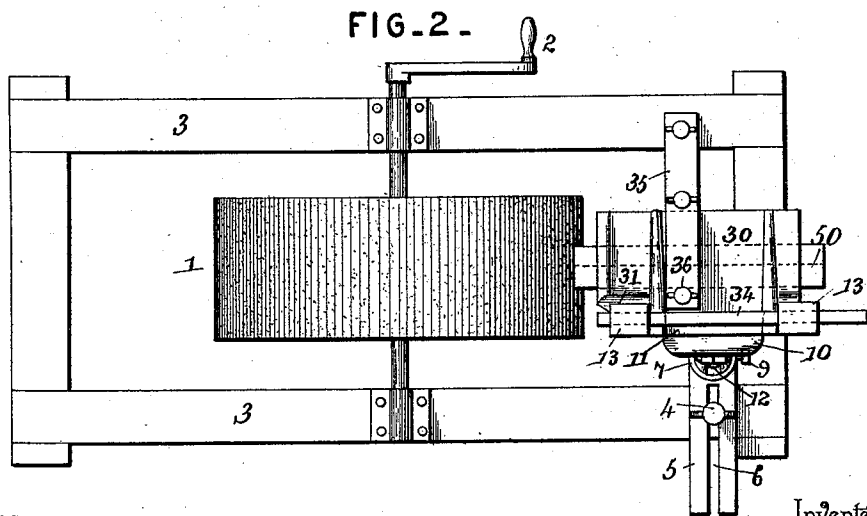
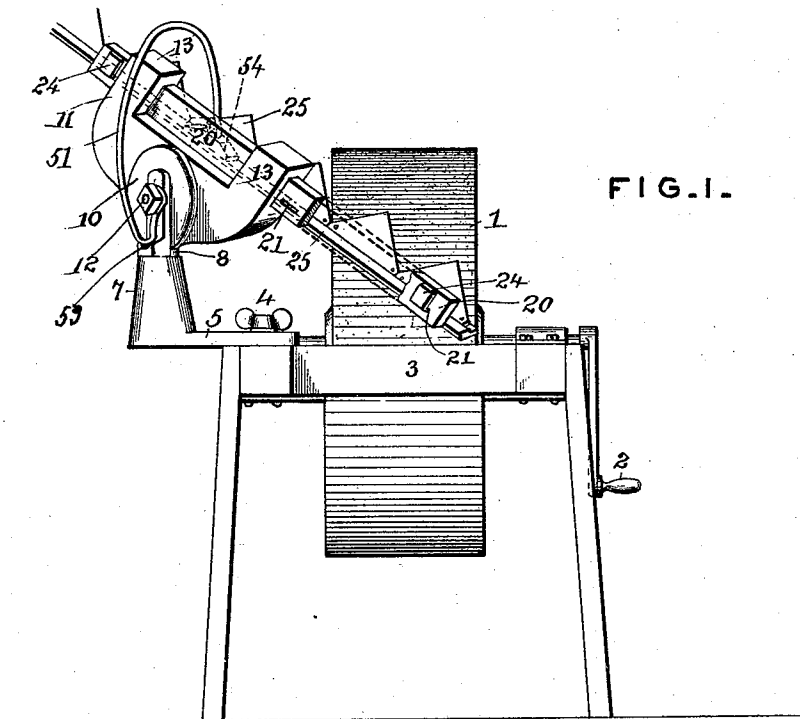
(No Model.)

2 Sheets—Sheet 1.

L. W. BUTLER.
TOOL OR REAPER KNIFE HOLDER.

No. 473,058.

Patented Apr. 19, 1892.



Witnesses

Jas. K. McArthur

N. J. Collamer

By *his* Attorneys,

Lafayette W. Butler

C. A. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

L. W. BUTLER.
TOOL OR REAPER KNIFE HOLDER.

No. 473,058.

Patented Apr. 19, 1892.

FIG. 3.

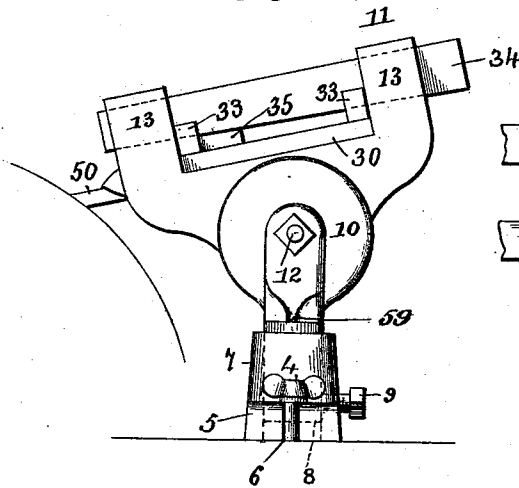


FIG. 4.

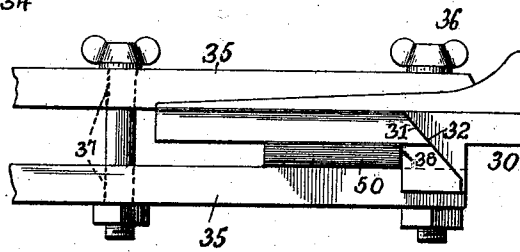


FIG. 5.

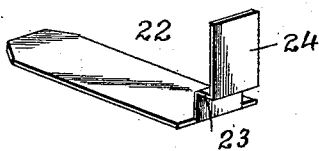
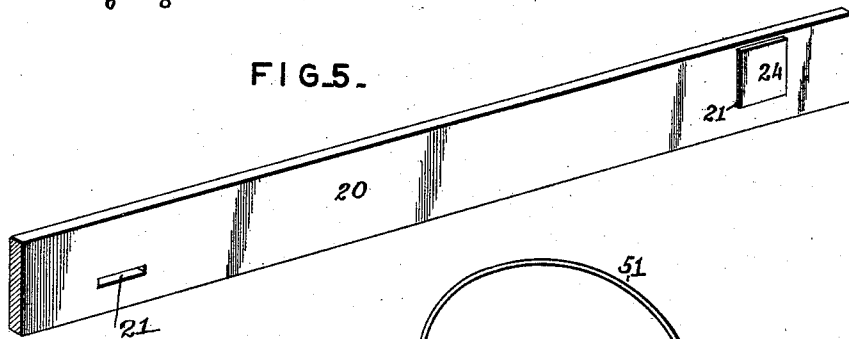
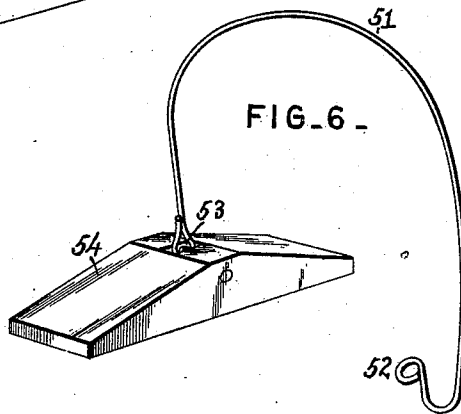


FIG. 6.



Witnesses

Jas. K. McLaughlin
M. Collamer

Inventor

Lafayette W. Butler

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

LAFAYETTE W. BUTLER, OF WILLIAMSBURG, IOWA.

TOOL OR REAPER-KNIFE HOLDER.

SPECIFICATION forming part of Letters Patent No. 473,058, dated April 19, 1892.

Application filed October 15, 1891. Serial No. 408,764. (No model.)

To all whom it may concern:

Be it known that I, LAFAYETTE W. BUTLER, a citizen of the United States, residing at Williamsburg, in the county of Iowa and State of Iowa, have invented a new and useful Tool or Reaper-Knife Holder, of which the following is a specification.

This invention relates to holders for edge-tools and reaper cutter-bars during the grinding of such tools or the knives of the cutter-bars; and the object of the same is to produce an improved holder of this character.

To this end the invention consists in a machine constructed substantially as hereinafter more fully described and claimed, and as illustrated in the drawings, wherein—

Figure 1 is a front elevation of this machine when used for holding a reaper cutter-bar, showing it mounted on the frame of a grindstone, which latter is in end elevation. Fig. 2 is a plan view of the grindstone-frame, the stone, and the holder, showing the latter as used for supporting an edge-tool. Fig. 3 is a left-side elevation of Fig. 2. Fig. 4 is a front edge elevation of the tool-holding clamp detached. Fig. 5 is a perspective detail of the bar for supporting the cutter-bar, showing one of the hooks therein and the other as being removed. Fig. 6 is a perspective detail of the presser-block and its spring.

In the said drawings, 1 designates the grindstone operated by a crank-handle 2 or by any other equivalent driving means and mounted in a frame 3. 4 is a screw taking into this frame at the left side of the stone and adjustably clamping upon said frame a base 5 through a slot 6, in which the screw passes. The front end of this base has a boss 7, adapted to receive a depending stud 8, which is journaled therein, and which may be held in adjusted position by a set-screw 9. The upper end of this stud has an enlarged, and preferably circular, head 10, flattened on one face, and against this face stands the body of a U-shaped bracket 11, a bolt or set-screw 12 passing through the head and body and holding them together, while permitting the bracket to be adjusted in a vertical plane. The turning of the stud within the boss permits an adjustment in a horizontal plane, and the sliding of the slotted base on the frame 3, when the screw 4 is loosened, permits the bodily

movement of the device with respect to the grindstone 1. In the upper ends of the bracket 11 are eyes 13, standing in alignment with each other, as shown.

When this device is to be used for holding the sickle-bar or cutter-bar of a reaper, a long bar 20 is passed through the eyes 13, in which it slides freely. The said bar is provided near its lower edge throughout its length with a series of holes 21, and in these holes is detachably inserted a pair of hooks, whose bodies 22 then project slightly upwardly, whose shanks have angles 23, standing in the holes, and whose rear ends 24 rise behind the bar 20, as best seen in Fig. 5. The cutter-bar 25 rests near its ends on the upturned bodies 22 of the two hooks which are inserted in the holes 21 of the bar at points near the ends of the cutter-bar, and the holder is so adjusted that the cutter-bar shall stand at the desired angle to the stone. The latter is then turned, and meanwhile the long bar 20 is slipped through the eyes 13, so as to bring the faces of the knives successively against the grinding-surface of the stone, whereby they are sharpened in a manner which will be clear.

When this device is to be used for holding an edge-tool, the tool-holding clamp shown in Fig. 4 is brought into play. The body of this clamp 30 is of a size to pass between the eyes 13, its corners 31 being beveled, so as to pass under similar corners 32 at the lower front sides of the eyes. On the top of the body are two lugs 33, standing just inside the eye, and 34 is a long wedge adapted to be passed through the eyes and over the lugs, so as to hold the body in proper position with reference to the bracket 11, as seen in Fig. 2.

35 are arms standing above and below the body of the clamp and extending across the same, being bolted thereto at their inner ends, as at 36, and having a number of perforations 37, through which may be passed another bolt or a set-screw for drawing the arms together. I should have said that on the under side of the clamp-body is a square shoulder 38, against which rests the side of the tool 50 when in place, and at this time the cutting-edge of the tool projects beyond the rear edge of the clamp-body exactly parallel with the face of the stone, as seen in Fig. 2,

and two narrow tool-blades may be ground at the same time, as there shown in dotted lines.

It often occurs, especially in the autumn or during harvest, that there are a great number of cutter-bars to be ground and but one man to do the work, and experience has taught me that one of the most tiresome things in such work is the pressure which it is necessary to constantly apply to bear the knives against the grinding-surface, and in order to avoid this labor I sometimes make use of the following device: 51 is a spring having an eye 52 at one end, which is preferably engaged under the head of the set screw or nut of the bolt 12, whose body curves upwardly over the bracket 11 and whose other end has an eye 53, which is mounted on a transverse pivot in the back of a presser-block 54, as seen in Fig. 6. Near its lower end the body of this spring preferably engages a notch 59 in the rear face of the head 10, which holds the spring and presser-block in operative position. In use this block bears against the upper side of the cutter-bar 25 or against the back of the clamp 30, thereby pressing the tool gently but firmly against the grinding-face of the stone 1. Hence the operator need only guide this improved holder with his left hand, while he manipulates the crank-handle 2 with his right hand, or if the stone be driven by power he has both hands free for use.

I do not confine myself to the precise details of construction, especially the location of the device on a grindstone-frame.

A little practice will teach the proper uses and illustrate the advantages of the various adjustments of the parts.

What is claimed as new is—

1. In a tool-holder, the combination, with the slotted base adjustably mounted on the grindstone-frame and having a vertical boss with a socket therein, a stud pivoted in said boss and having an upright circular head flattened on one face, and a set-screw through said boss against the stud, of a U-shaped bracket having eyes in its upper end and its body resting against said circular head, a set-screw through said head and the body of the bracket, and tool-holding devices, substantially as described, connected to the bracket by its eyes, substantially as and for the purpose set forth.

2. In a tool-holder, the combination, with a slotted base, a screw passing through the slot into the frame of the grindstone, a bracket swivelly and adjustably connected with and rising from said base, and tool-holding devices, substantially as described, carried by said bracket, of a spring connected at one

end to the bracket, over which latter its body bends, and having an eye in its other end, and a presser-block pivotally connected with said eye and bearing the tool normally against the grindstone, as and for the purpose set forth.

3. In a tool-holder, the combination, with a base adjustably mounted on a grindstone-frame, a stud swivelly connected with the base and having a head at its upper end flattened on one face and provided with a notch in its other face, a bracket, tool-holding devices, substantially as described, carried by said bracket, and a bolt through the body of the bracket and through said head, of a spring having eyes at its ends, one of which eyes is mounted on said bolt under its nut, the body of the spring extending thence through said notch and curving upwardly over the bracket, and a presser-block pivotally connected with the other eye and bearing the tool normally against the grindstone, as and for the purpose set forth.

4. In a tool-holder, the combination, with a base adjustably mounted on the frame of a grindstone and a bracket having separated and aligned eyes, its body being pivotally and swivelly connected with said base, of a long bar sliding through said eyes and having a series of holes therein and hooks detachably inserted in the holes of said bar, as and for the purpose set forth.

5. In a tool-holder, the combination, with a base adjustably mounted on the frame of a grindstone and a bracket having separated and aligned eyes, its body being pivotally and swivelly connected with said base, of a long bar sliding through said eyes and having a number of holes through its body, and two hooks, each comprising a body and a shank, standing at acute angles to each other, the latter being of a size to fit any of said holes and having double angles in their bodies, as and for the purpose hereinbefore set forth.

6. In a tool-holder, the combination, with a base adjustably mounted on the frame of a grindstone and a bracket having aligned eyes, its body being pivotally and swivelly connected with said base, of a long bar sliding through said eyes for carrying the device to be sharpened, as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

LAFAYETTE W. BUTLER.

Witnesses:

G. W. HUGHES,
W. W. LENKER.