

April 3, 1956

C. Z. McCUBBIN

2,740,241

TOOL HOLDERS

Filed Jan. 7, 1955

FIG. 1.

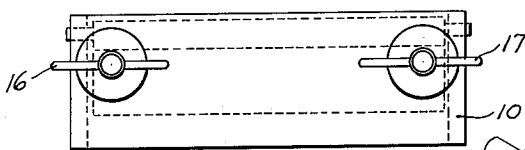


FIG. 2.

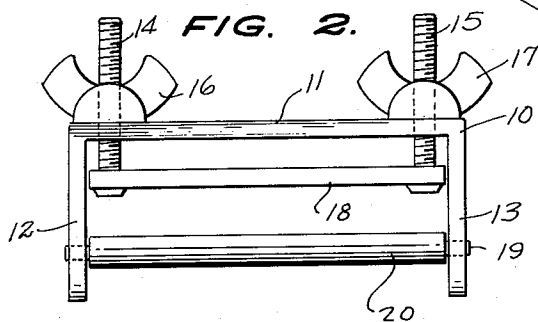


FIG. 7.

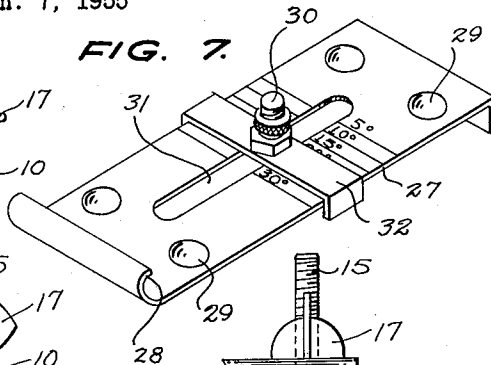


FIG. 3.

FIG. 4.

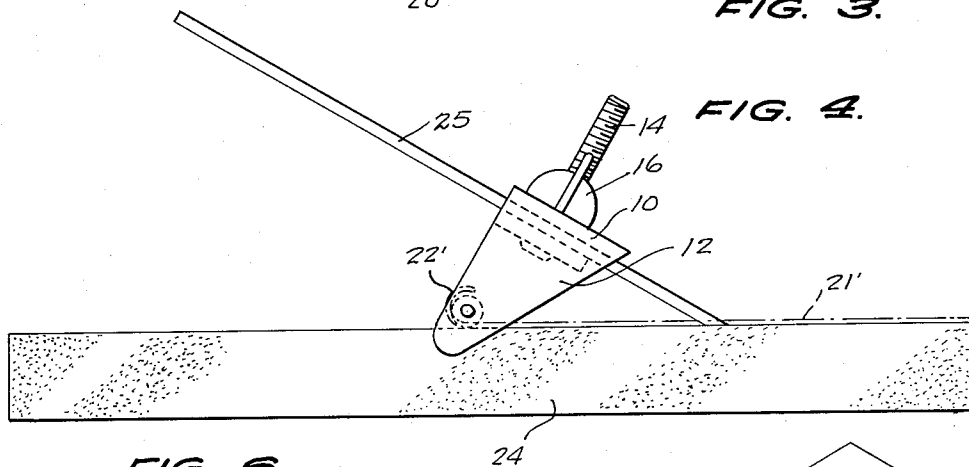


FIG. 6.

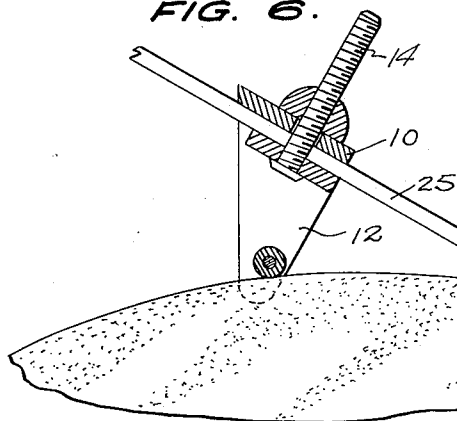
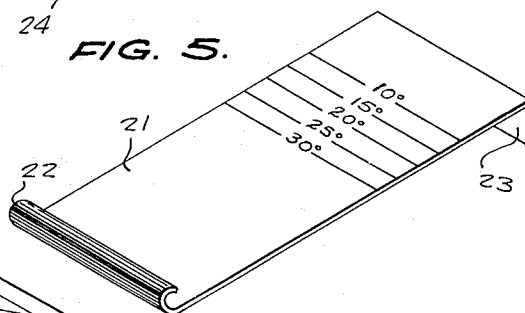


FIG. 5.



INVENTOR.
CRISTO Z. McCUBBIN,
BY

McMorrow, Berman & Davidson
ATTORNEYS.

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Cristo Z. McCubbin, Sacramento, Calif.

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3 Claims. (Cl. 51—221)

The present invention relates to reciprocating tool holders for holding blades while they are being sharpened on oilstones, grindstones, or the like.

The primary object of the present invention is to provide a sturdily constructed holding device for holding a blade, such as a plane blade, chisel, or the like, in position while moving it back and forth over the oilstone or holding it against the surface of a rotary grindstone.

Another object of the present invention is to provide a tool for holding a plane blade or other blade to be sharpened and one which is reversible to change the angle at which the blade is held relative to the oilstone to provide for greater clearance between the stone and the holder.

A further object of the present invention is to provide a tool holder for holding a blade which is to be sharpened against the surface of a stone which has guide means engaging the sides of the stone to prevent slippage of the tool holder sideways off of the stone.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in connection with the annexed drawings, in which:

Figure 1 is a top-plan view,

Figure 2 is a front view in elevation of the present invention,

Figure 3 is a side view in elevation of the present invention,

Figure 4 is a side view showing a plane blade in position and having one end in abutting relation on an oilstone,

Figure 5 is an isometric view of the gage means of the present invention,

Figure 6 is a side view partially in cross-section showing the tool holder of the present invention holding a plane blade against the surface of a round grindstone, and

Figure 7 is an isometric view of another embodiment of the gage means.

Referring in greater detail to the drawing in which like numerals indicate like parts through the several views, the invention is seen to consist of a U-shaped frame 10 formed from a piece of flat scrap metal having a flat bight 11 and depending tapering legs 12 and 13.

At each end of the bight 11 holes are provided which receive the bolts 14 and 15, and wing nuts 16 and 17 are threadedly received on each of the bolts 14 and 15, respectively. A flat plate 18 is carried by the ends of each of the bolts 14 and 15, between the legs 12 and 13 and disposed in face-to-face relation with respect to the bight of the frame and is moveable toward and away from the bight 11.

The shaft 19 is carried between each of the legs 12 and 13, and carries a roller 20 disposed in spaced side-to-side relation with respect to the plate 18 at a point spaced from the free ends of the legs 12 and 13.

Referring to Figures 4 and 5, a gage plate 21 is pro-

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vided having indicia on its upper face indicating the proper angle for each angle of bevel desired for a blade. The gage 21 has an upturned one end 22 which overlies the roller 20, as shown in dotted lines in Figure 4 and indicated by the reference numeral 22', there being an outwardly turned other end 23 to lie over the end of the sharpening stone indicated by the reference numeral 24. A blade 25 is shown positioned between the plate 18 and the bight 11 which forms a clamp for holding the blade at the desired angle with reference to the surface of the sharpening device which is a flat stone in Figure 4 and a rounded stone or grindstone indicated by the reference numeral 26 in Figure 6.

In Figure 6 the guide and holder of the present invention has been reversed from its position as shown in Figure 4, giving greater clearance between the blade 25 and the grindstone 26 than there is between the blade 25 and the stone 24 in the former figure.

As seen in each of Figures 4 and 6, the free ends of the legs 12 and 13 overlie the side edges of the sharpening stone and serve to keep the roller positioned upon the stone with the blade 25 in contact with the upper surface. After the blade has been adjusted within the clamp formed by the plate 18 and bight 11, the wing nuts 16 and 17 are tightened and the gage 21, shown in Figure 4 by dotted lines, and indicated by the reference numeral 21', is removed and the holder is moved back and forth across the top surface of the stone to sharpen the bevel edge at the one end of the blade 25. The legs 12 and 13 have the adjacent ones of the side edges on one side disposed at an angle of 90° relative to the confronting face of the bight 11 and on the other side disposed at an angle of less than 90° relative to the face of the bight 11.

The taper thus provided for the legs 12 and 13 permits the guide and tool holder to have its roller positioned to one side of a median line drawn through the center of the holder, permitting the holder to be used in either of the two positions indicated by Figure 4 and Figure 6.

In Figure 7 is seen a gage means of an improved type, in a second embodiment of the gage means of the first embodiment shown in Figure 5. A gage plate 27 having indicia on its upper face is provided with an upturned one end 28 to overlie the roller 20 while the blade 25 is positioned in the frame 10 according to the acute angle of incidence desired with the grindstone while sharpening.

The plate 27 is formed on its upper face with depressions 29 which form legs on the bottom face, permitting the sliding of the bolt 30 within the slot 31 in the plate 27. The head of the bolt 30 (not shown) projects below the plate and would prevent level positioning of the plate 27 on a stone or other support.

A U-shaped positioning bar 32 is carried by the bolt 30 for sliding movement on the top of the plate 27 and serves as a stop for ready positioning of the blade at the desired angle. Lock nuts 33 secure the bar 32 and bolt 30 in any selected position.

What is claimed is:

1. A guide and holder for a blade being sharpened comprising a U-shaped frame, a plate disposed between the legs of said frame in face-to-face relation with respect to the bight of said frame and connected to the bight for movement toward and away from the bight, said bight and said plate forming a clamp for releasably receiving a blade to be sharpened, and a roller arranged in parallel spaced relation with respect to the bight of said frame and having its ends rotatably supported in said legs at a point spaced from the free ends thereof, said roller being adapted to engage the surface of a

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sharpening device with the ends of said legs overlying the side edges of the device.

2. A guide and holder for a blade being sharpened comprising a U-shaped frame, a plate disposed between the legs of said frame in face-to-face relation with respect to the bight of said frame and connected to the bight for movement toward and away from the bight, said bight and said plate forming a clamp for releasably receiving a blade to be sharpened, a roller arranged in parallel spaced relation with respect to the bight of said frame and having its ends rotatably supported in said legs at the point spaced from the free ends thereof, said roller being adapted to engage the surface of a sharpening device with the ends of said legs overlying the side edges of the device, and locking means for securing said blade between said plate and said frame.

3. A guide and holder for a blade being sharpened comprising a U-shaped frame, a plate disposed between

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the legs of said frame in face-to-face relation with respect to the bight of said frame and connected to the bight for movement toward and away from said bight, said bight and said plates forming a clamp for releasably receiving a blade to be sharpened, a roller arranged in parallel spaced relation with respect to the bight of said frame and having its ends rotatably supported in said legs at a point spaced from the free ends thereof, said roller being adapted to engage the surface of a sharpening device with the ends of said legs overlying the side edges of the device, said legs having adjacent ones of their side edges disposed at an angle of 90° relative to the face of said frame and the other adjacent side edges disposed at an angle less than 90° relative to said face, and locking means for securing said blade between said plate and said frame.

No references cited.