April 28, 1936. F. W. BARR 2,038,628

FILE HOLDER AND GUIDE

Filed Jan. 3, 1935

Fig. 1.

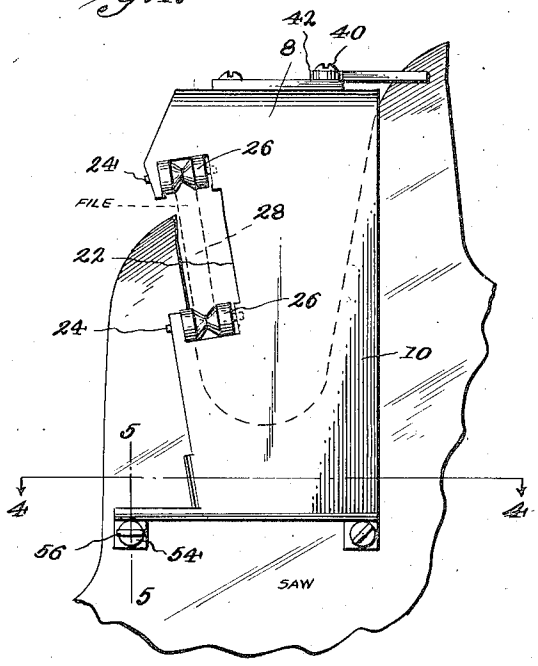


Fig. 2.

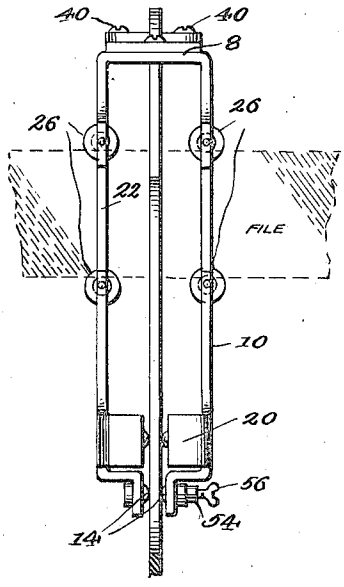


Fig. 3.

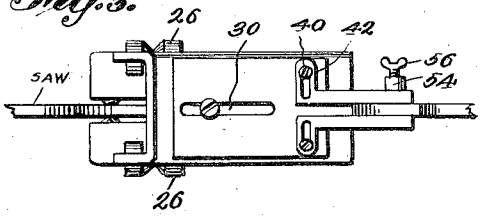


Fig. 4.

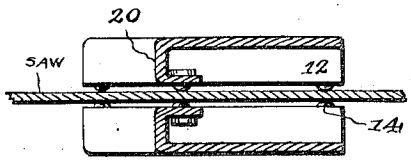


Fig. 5.

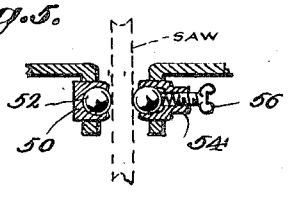


Fig. 6.

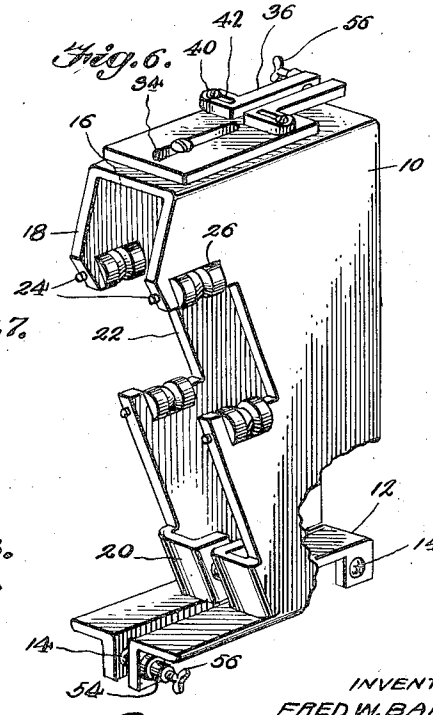
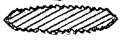


Fig. 7.



Fig. 8.



INVENTOR
FRED W. BARR

By J. Edw. Flaherty Attorney

Patented Apr. 28, 1936 2,038,628

UNITED STATES PATENT OFFICE

2,038,628

FILE HOLDER AND GUIDE

Fred W. Barr, Yahk, British Columbia, Canada

Application January 3, 1935, Serial No. 310

5 Claims. (Cl. 76—31)

The present invention relates to a file holder and guide especially adapted for use in connection with the sharpening of the teeth of saws.

One of the objects of the present invention is to provide a file holder and guide of the class described, which may be adjusted for use in connection with saws of different sizes.

A still further important object of the invention will be found to reside in the novel manner in which the file holder and guide is constructed to prevent slipping of the guide on the saw while in use.

A still further important object of the invention is to provide in combination with the guide, a novelly constructed file holder, which by virtue of its particular construction, will permit of the easy filing and consequent sharpening of the saw and at the same time hold the file in filing position.

Other important objects of the invention will become apparent during the course of the following description when taken in connection with the accompanying drawing, wherein similar reference numerals designate corresponding parts throughout the same,

Figure 1 is a front elevational view illustrating the position of the file holder and guide in position for sharpening the tooth of a circular saw,

Figure 2 is a front elevational view thereof,

Figure 3 is a top plan view,

Figure 4 is a horizontal sectional view of Figure 1, taken in line 4—4 thereof, locking in the direction of the arrows,

Figure 5 is a vertical sectional view of Figure 1, taken on line 5—5 thereof,

Figure 6 is a perspective view of the device,

Figure 7 is a vertical sectional view of one type of file designed to be used in the guide, and

Figure 8 is another file of the curved type.

In the drawing, wherein for the purpose of illustration there is shown a preferred embodiment of the invention, the reference numeral 8 generally designates the file holder and guard, which includes a substantially inverted U-shaped body portion 10 constructed of metal or any other suitable material, the free ends as illustrated in Figures 2 and 6, being bent laterally inwardly at 12 and downwardly at right angles thereto, defining spaced guides 14. The rear edges of the sides of the inverted U-shaped body 10 are straight, while the opposite front edges thereof are disposed at an acute angle with respect to the guide 14.

Adjacent the extended portion of the guide 14 on the body 10 there are provided similar integral guides 20. As clearly illustrated in Figures 1 and 6, the laterally extended bottom portion 12 and the guides 14 project beyond the front edges of the body 10. The front edges adjacent the bight portion 16 of the inverted U-shaped body 10 taper inwardly, as at 18.

As shown in Figure 6, in the sides of the body 10 adjacent the front edges thereof, are oppositely disposed centrally located U-shaped recesses 22. The upper and lower opposite sides of the recesses 22 are provided with slots in which there are pivotally mounted on the pins 24, guide rollers 26. Each roller 26 in the central portion thereof, is provided with substantially V-shaped grooves in which the V-shaped edges of the specially constructed file 28 is guided. It will thus be seen that the specially constructed files 28 having V-shaped edges which ride in the corresponding V-shaped grooves of the rollers, may be moved in reciprocating motion in the guide body 10.

In the top or bight portion of the body 10 there is provided a centrally disposed longitudinally extending groove 30. A rectangular shaped guide support having a similar centrally disposed longitudinally extending slot therein is adjustable on the upper portion through the medium of the adjusting screw 34.

Substantially L-shaped saw guides projecting beyond the rear edge of the bight portion or top 16 are secured to the rectangular shaped supports and adjustable thereon by means of the screws 40 in the slot 42.

As clearly illustrated in the drawing, the guides 14 are provided with spaced ball receiving sockets 50. Adjacent each end thereof within the ball receiving sockets 50 are ball bearings 52, one of the sockets 50 is provided with a screw threaded extension 54 in which there is screw threaded an adjusting nut 56 having a spring interposed between the ends thereof and the bearings. Similarly, the upper adjustable guides 36 are provided with ball retaining sockets and an adjusting screw 56. The guides 20 are each provided with bearing receiving sockets into which there is screwed ball bearings.

It will thus be seen in operation the inverted U-shaped guide is placed over the saw in the manner illustrated in Figure 1, the upper edge of the tooth abutting the upper edge of the bight portion 16 of the guide and the adjusting nuts 56 on the guides are adjusted so that the balls 52 closely embrace the sides of the saw firmly securing the guide in position for the file 28 to engage and contact the tooth as it is reciprocated across the tooth to effect a sharpening thereof. The guides 36 are adjustable for any thickness of saw and the guide may be moved

in a vertical position for sharpening the full length of the saw and by virtue of the adjustable screws **56** held in a firm position on the saw during the sharpening of the tooth thereof by the reciprocation of the file **28**.

Further, the novel construction of the file roller guides maintains the file during the reciprocating sharpening motion thereof in a predetermined plane.

In Figures 7 and 8 there are illustrated the different types of files which are designed to be used in connection with the file holder and guide. It will be observed that Figure 7 shows a file having flat serrated sides, the longitudinal edge portions being of substantial V-shape in cross-section for reciprocation in the V-shaped grooves in the guide rollers **26**. Figure 8 shows a file in which the longitudinal edges are constructed in the same manner, the upper and lower filing surfaces thereof being slightly curved to the end that the file instead of filing the tooth with a flat surface will hollow-ground the same.

While the file holder and guide and sharpener have been shown used for sharpening the teeth of a circular saw, it may, if so desired, be used in connection with the filing of any other type of saw with facility.

While there is shown for the purpose of illustration a preferred embodiment of the invention, it is to be understood that it is capable of various changes and modifications without departing from the spirit thereof and it is intended that only such limitations shall be imposed thereon as are indicated in the prior art or in the appended claims.

What is claimed is:

1. A file holder and guide of the class described; comprising an inverted U-shaped support having the free ends thereof bent inwardly defining spaced saw guides, the bight portion of said support being provided with a longitudinally extending spaced saw guide, the opposite sides of said support being recessed, and spaced file guide rollers disposed therein.

2. A file holder and guide of the class described; comprising an inverted U-shaped support having the free ends thereof bent inwardly defining spaced saw guides, the bight portion of said support being provided with a longitudinally extending spaced saw guide, the opposite sides of said support being recessed, and spaced file guide rollers therein having guide slots for the reciprocation of a file therein.

3. In a device of the class described, an inverted U-shaped support, the free ends thereof being bent laterally inwardly and downwardly at right angles thereto defining spaced guides, an adjustable guide on the bight portion of said support projecting from one edge thereof, the sides of said support adjacent one edge thereof being provided with U-shaped recesses, oppositely disposed roller bearings rotatably mounted in opposite sides thereof, said roller bearings being provided with centrally disposed V-shaped slots therein for the reception and reciprocation of a file.

4. In a device of the class described, an inverted U-shaped support, the free ends thereof being bent laterally inwardly and downwardly at right angles thereto defining spaced guides, an adjustable guide on the bight portion of said support projecting from one edge thereof, the sides of said support adjacent one edge thereof being provided with U-shaped recesses, oppositely disposed roller bearings rotatably mounted in opposite sides thereof, said roller bearings being provided with centrally disposed V-shaped slots therein for the reception and reciprocation of a file, said guides being provided with adjustable means therein for firmly securing said support on a saw.

5. In a device of the class described, an inverted U-shaped support, the free ends thereof being bent laterally inwardly and downwardly at right angles thereto defining spaced guides, an adjustable guide on the bight portion of said support projecting from one edge thereof, the sides of said support adjacent one edge thereof being provided with U-shaped recesses, oppositely disposed roller bearings rotatably mounted in opposite sides thereof, said roller bearings being provided with centrally disposed V-shaped slots therein for the reception and reciprocation of a file, spaced roller bearings in said guides projecting beyond the inner sides thereof, and means for adjusting the position of said rollers with respect to said guides.

FRED W. BARR.