May 7, 1946. Z. R. HOUGH 2,399,869

HACKSAW

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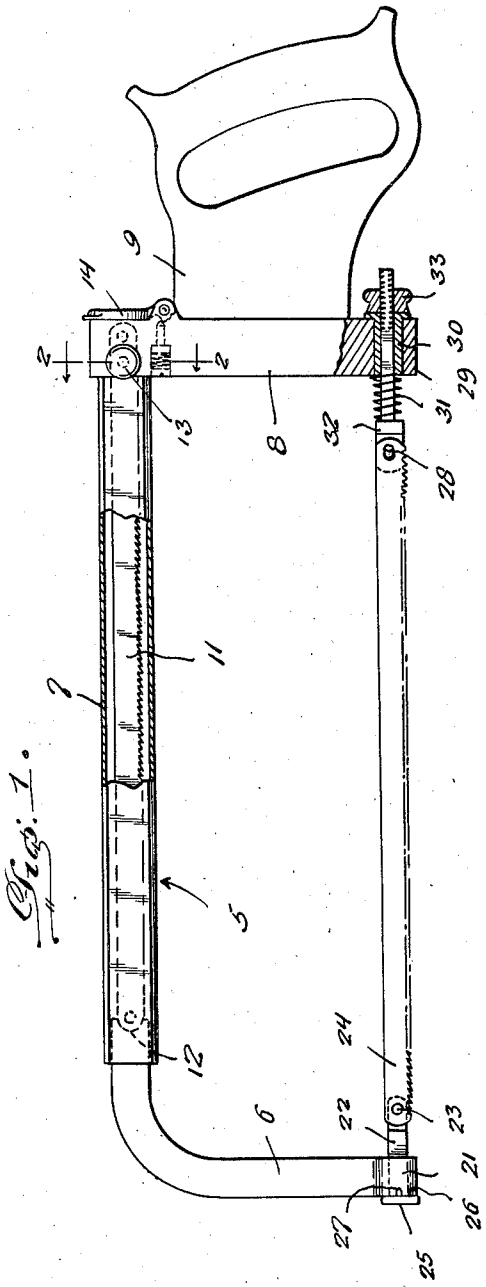


Fig. 1.

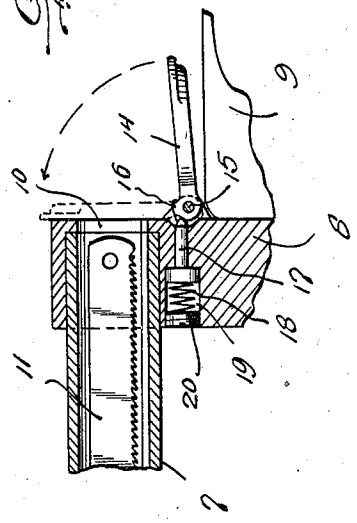


Fig. 3.

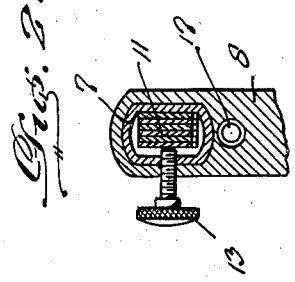


Fig. 2.

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HACK SAW

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Application March 23, 1944, Serial No. 527,785

1 Claim. (Cl. 145—33)

The present invention relates to new and useful improvements in hacksaws and has for its primary object to provide a hacksaw frame embodying means for selectively attaching the blade in cutting position thereto for adjustment of the blade at a desired angle.

A further important object of the invention is to provide a hacksaw frame embodying a tubular member in which an additional supply of blades may be conveniently mounted.

A further object is to provide a tool of this character of simple and practical construction, which is efficient and reliable in performance, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming part hereof, wherein like numerals refer to like parts throughout, and in which

Figure 1 is a side elevational view with parts broken away and shown in section.

Figure 2 is a fragmentary sectional view taken substantially on a line 2—2 of Figure 1, and

Figure 3 is an enlarged sectional view showing the rear end of the chamber for the extra blades and showing the door for closing the chamber.

Referring now to the drawing in detail wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention, the numeral 5 designates the substantially U-shaped hacksaw frame which includes a front section 6, top section 7 and rear section 8, the latter having the handle 9 attached thereto.

The front section 6 has its upper end curved rearwardly and fixedly received in the front end of the tubular top section 7. The rear end of the tubular top section 7 is recessed in the upper end of the rear section 8 and an opening 10 is formed in the rear section 8 communicating with the section 7 which thereby forms a chamber accessible through the opening 10 for accommodating an extra supply of blades 11.

The inserted end of the front section 6 is formed with a recess 12 shaped to comformably receive one end of the blade 11 and a set screw 13 is threaded through the side wall of the rear section 8 and through the rear end of the top section 7 to engage the sides of the blades 11 to thus support the blade with the teeth thereof out of engagement with the wall of the chamber formed in the section 7, as will be apparent from an inspection of Figures 1 and 2 of the drawing.

The opening 10 is closed by a door 14 pivoted as at 15 on the rear edge of the section 8 immediately above the handle 9, the pivoted edge of the door having a lug 16 thereon adapted for engagement at opposite sides of the lug by means of a detent 17 slidably mounted in an opening in the section 8 and projected into engagement with the lug 16 by a spring 18 held in position against the detent in a recess 19 by a plug 20.

As shown to advantage in Figure 3 of the drawing, when the door 14 is moved into an open position the detent 17 will engage one side of the lug 16 whereby to maintain the door in its open position as shown by the full line and when the door is moved into its closed position, as shown by the dotted line, the detent 17 will then engage the opposite edge of the lug 16 and thus maintain the door in closed position.

The lower end of the front section 6 is formed with a tubular bearing 21 in which a pin 22 is rotatably received, the rear end of the pin 22 having a lateral pin 23 thereon for engaging the usual opening in the front end of the saw blade 24. The front end of the pin 22 is formed with a head 25 adapted for bearing against the front edge of the section 6 of the frame and the front edge of the bearing 21 is formed with a plurality of notches 26 adapted for selectively receiving a lug 27 formed on the head 25 whereby to secure the blade 24 in a desired angularly adjusted position.

The rear end of the blade 24 is engaged by a lateral lug 28 on a screw 29 which is received in a bushing 30 journaled in the lower end of the rear frame section 8. The screw is slidably mounted in the bushing 30 and a coil spring 31 is mounted on the screw and bears against the head 32 at the front end of the screw with the rear end of the spring bearing against the bushing 30 to maintain the bushing in position in the frame. A nut 33 is threaded on the rear end of the screw 29 to release the same from the blade when desired and also to permit adjustment of the blade in the frame.

By releasing the nut 33 the screw 29 and blade 24 may be moved forwardly to disengage the lug 27 from the notches 26 and to turn the blade into a desired angular position.

It is believed the details of construction, operation and advantages of the device will be readily understood from the foregoing without further detailed explanation.

Having thus described the invention, what I claim is:

A hack saw comprising a frame including sides and a top, said top having a longitudinal chamber therein adapted for the reception of a hack saw blade, said chamber having an open end, closure means for said open end comprising a pivotally mounted door swingable on an axis transverse to the longitudinal axis of the chamber, an inwardly extending lug on said door adjacent the pivot point thereof, and a spring-pressed detent mounted in a recess in one of the sides of the frame adjacent said lug and adapted to bear against either one of two opposite sides of said lug to maintain said door in either open or closed position.

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