Oct. 26, 1943. F. G. ACOMB 2,332,545

MAGAZINE FRAME

Filed May 20, 1942

FIG. 1.

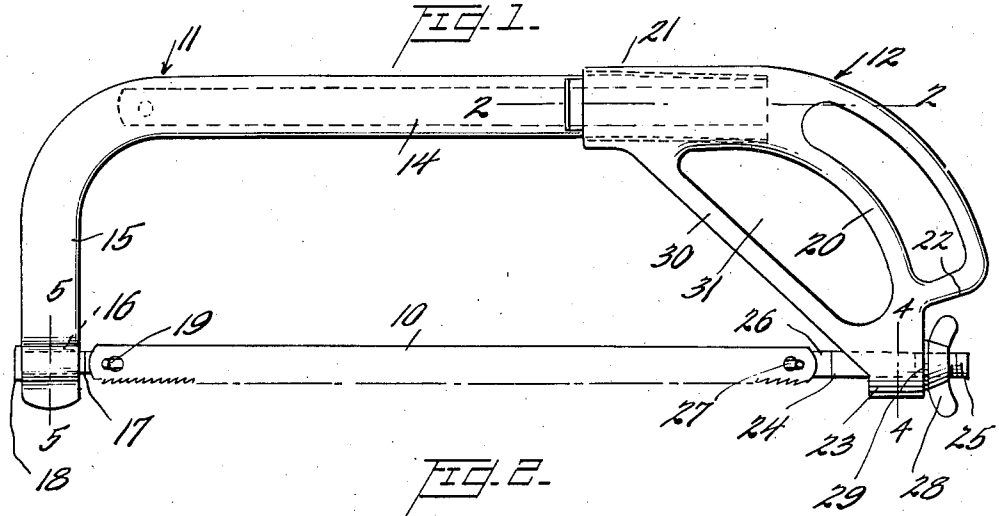


FIG. 2.

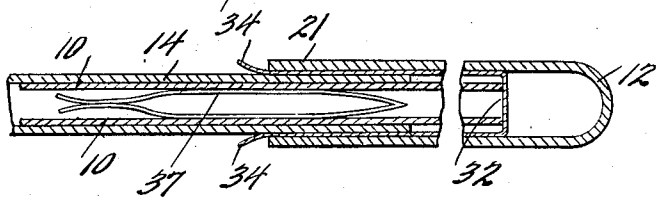


FIG. 3.

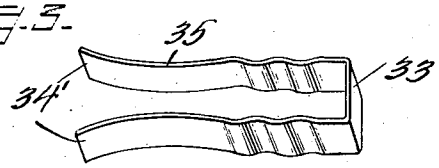


FIG. 4.

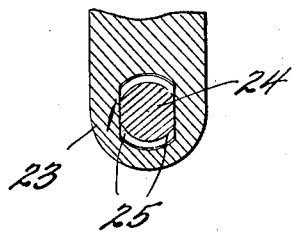


FIG. 5.

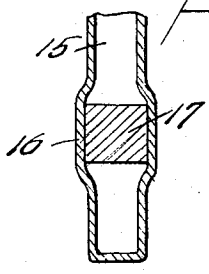
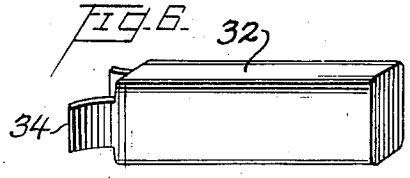


FIG. 6.



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MAGAZINE FRAME

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Application May 20, 1942, Serial No. 443,813

2 Claims. (Cl. 145—33)

This invention relates to magazine frames for tools using detachable blades and has for its principal object the provision of a hack saw frame with provision for the storage of additional blades and differs from previous saw frames in that the present device is simple and sturdy without need for frame adjustment, without locking devices, and free from pivoted accessories.

An important object of the invention is to provide a handle portion, preferably a one-piece member, suitable for use with any one of a set of different length tubular frames, so that the assembly can be stored in a restricted space, and in which such handle portion extends over the blade so as to permit the body weight or pressure to bear down upon the work with the least effort on the part of the user, and free from interference with the cutting edge of the blade.

A still further object of the invention is to provide a set of tubular frames, the resilient cap of each of which prevents loss of the spare blades and serves as a lining for the socket end of the handle portion thus permitting a more snug fit of the two parts of the magazine frame.

In the drawing:

Figure 1 is an elevation of the magazine frame.

Figure 2 is a section through the socket portion taken on line 2—2 of Fig. 1.

Figure 3 is a perspective of a cap.

Figures 4 and 5 are sections taken on lines 4—4 and 5—5 respectively of Figure 1.

Figure 6 is a perspective view of another form of the cap.

In addition to the cutting blade 10 the complete tool consists of a tubular frame 11 with its blade holding hook and a handle portion 12 carrying a second and adjustable blade holding hook. In addition to these necessary parts there are caps for each of the tubular frames, and an anti-rattle device but these are purely optional and form no part of the invention in its simplest state.

The tubular frame 11 includes a back 14 and an arm 15, the latter carrying near its free end in any manner a headed anchoring hook for the saw blade 10. As illustrated the tubular frame 11 is formed from rounded corner, rectangular stock opened at 16 to form a non-circular recess to receive a similarly shaped plunger 17 having a fairly large head 18 and the usual inclined pin 19. The plunger not only anchors the saw blade end but, because it cannot rotate, aids in keeping the blade straight in the frame when it is drawn taut. The plunger may be fast to the arm 15 or it may be slidable in its recess, the pin and the head forming the two stops to prevent loss of the plunger. The length of the back 14 depends upon the length of the saw blades used with the frame as the back is not adjustable in its receiving socket of the handle portion.

The handle portion is preferably of metal either of pressed sheet material or formed as a casting. The term "casting" as used in the specification and claims is to be understood as meaning the handle portion however made and whether of metal, plastic, or other material. The larger portion of this casting is the hollow handle 20 which preferably is bounded by concentric right angular arcs or other curves tangent to the top and bottom of the hollow socket portion 21 which receives the end of the back 14 of the tubular frame. The curve of the handle forms a stop for the tubular saw blade holding frame.

At the bottom of the handle 20 there is a shoulder 22 and below this is the anchoring lug 23 thru which there is a non-circular hole to slidingly receive the retaining rod 24 provided with square threads 25 so that this rod will not rotate in the lug. The rod 24 is flattened in the usual manner at 26 and carries an inclined pin 27 so that the saw blade may be made taut by turning the thumb nut 28 which engages the lug 23 either directly or through a washer 29 as sometimes used. The cross piece 30 is a compression member serving both as a strut and a guard and forming with the handle 20 a hand hole 31.

Referring to Figures 2, 3 and 6 an optional cap 32 or 33 may be provided for each of the several tubular frames which comprise an assembly, and this member may completely surround the end of the frame end as in Figure 2 or in Fig. 6 or it may be a simple U-shaped piece of flat spring steel as in Figure 3, snugly embracing the frame end to prevent loss of the spare blades. The cap also serves as a liner for the socket end 21 of the casting making it possible to have a more snug fit than if the frame end directly engaged the socket as is however the preferred form. The cap remains with the handle when the two portions of the magazine frame are separated to obtain an additional blade as the ends 34 or 34' of the caps are biased to spring apart, but cap 33 is biased as at 35 to engage the tubular frame midway between its own end and the end of the tubular frame so that it is retained on the back 14 when the reservoir frame is not in use; that is, when a different length tubular frame 11 is being used with the handle portion 12. In Figure 3 this biasing of the cap is much exaggerated as otherwise it would not be seen.

The optional anti-rattler 37 is a single piece of flat spring metal and is principally useful when only one or two blades are in the chamber or reservoir of the frame. It takes very little space as when the reservoir is full its two sides are in contact with each other.

What I claim is:

1. An integral end-piece for a magazine hack saw frame of the type in which a hack saw blade is secured between the free end of the frame and the bottom of the handle; said end-piece consisting of a curved hollow major portion forming the handle of the saw, an upper extension projecting from the handle and having a cavity therein communicating with the hollow space of the handle for receiving one end of the frame, a lower portion extending from the handle at right angles to the upper extension and having an opening to receive means for tightening the hack saw blade, and a reinforcing and protecting cross bar extending from one free end of the end-piece to the other for strengthening the handle and for protecting the hand of the user, the bar being positioned roughly at 45° to both the hack saw blade and the upper extension whereby the cross bar is substantially horizontal when sawing downward at a 45° angle.

2. In a hack saw support, a handle, a hollow frame having a loose fit with the handle, and a cap snugly fitting between the handle and the frame, slidable with respect to both, and having a free end exposed when the parts are assembled so that the free end may be manipulated to retain the cap either in the handle or on the frame when these parts are separated.

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