Nov. 18, 1924. 1,515,688

I. C. LOVE

FOLDING AX

Filed April 18, 1924

Fig. 1.

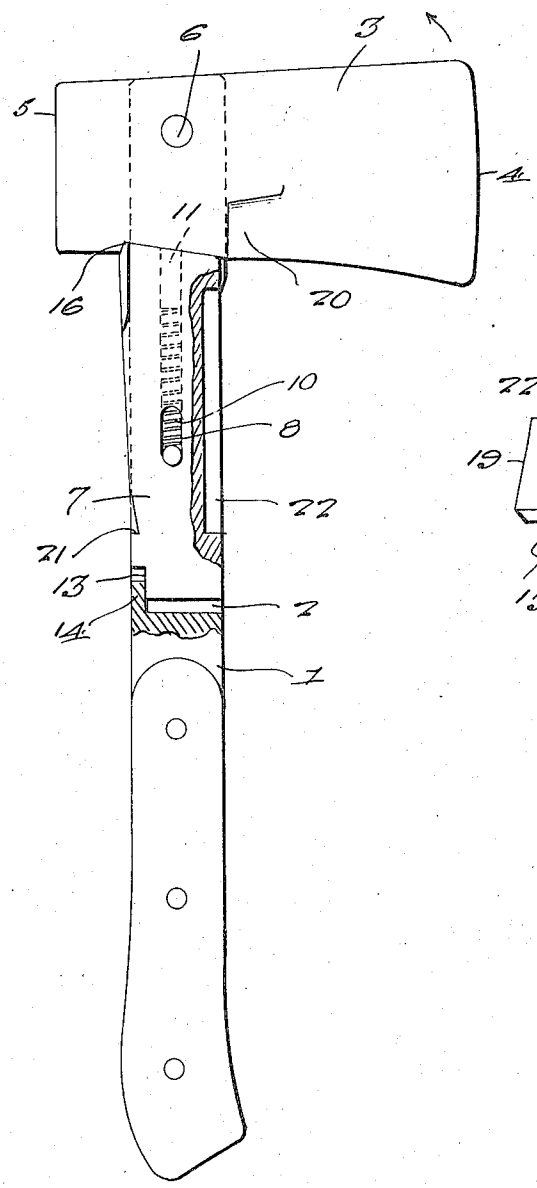
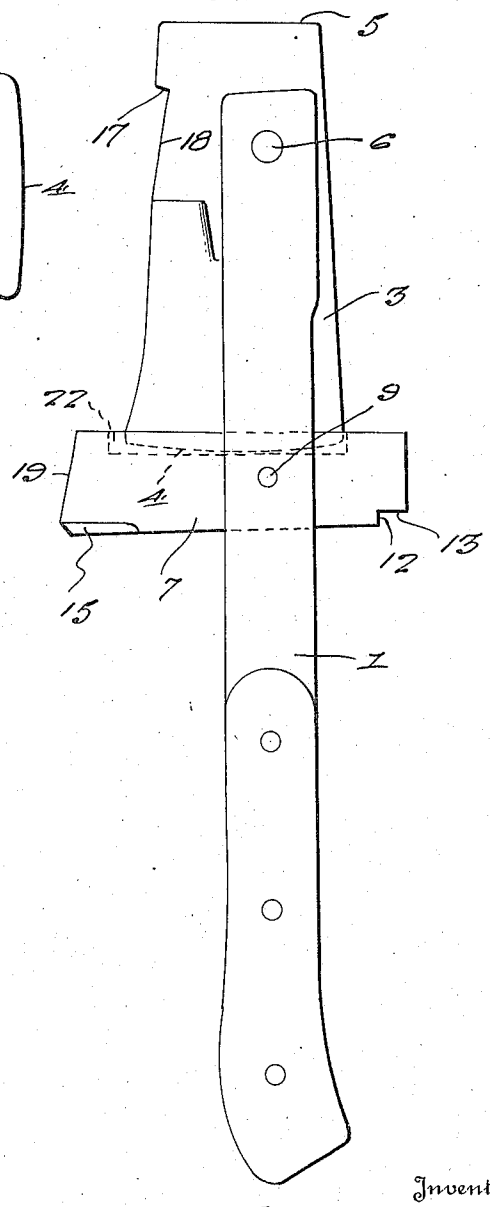


Fig. 2.



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UNITED STATES PATENT OFFICE.

IRA C. LOVE, OF REECE, KANSAS.

FOLDING AX.

Application filed April 18, 1924. Serial No. 707,460.

To all whom it may concern:

Be it known that I, IRA C. LOVE, a citizen of the United States, residing at Reece, in the county of Greenwood and State of Kansas, have invented certain new and useful Improvements in Folding Axes, of which the following is a specification.

This invention relates to new and useful improvements in axes of the folding type and has for its principal object to provide a simple and efficient means whereby the ax head may be supported in an operative or inoperative position.

One of the important objects of the present invention is to provide a folding ax of the above mentioned character, wherein the ax head may be readily and easily moved to operative position and held therein against accidental displacement, the locking means associated with the ax head and handle therefor being further provided with means for receiving the cutting edge of the blade of the ax head when the latter is in an inoperative position thus rendering the handling of the ax when not in use more safe.

A still further object of the invention is to provide a folding ax of the above mentioned character, which is of such a construction as to enable the ax head to be folded into an inoperative position whereby the ax may be conveniently carried around in a compact manner and without any danger of the same causing any injury to the person by the cutting edge of the ax blade.

A still further object is to provide a folding ax of the above mentioned character, which is simple in construction, inexpensive, strong and durable and furthermore adapted for the purposes for which it is designated.

Other objects and advantages of this invention will become apparent during the course of the following description.

In the accompanying drawing forming a part of this specification and in which like numerals designate like parts throughout the same,

Figure 1 is a side elevation of my improved ax showing the same in an operative position with parts shown in section, and

Figure 2 is a similar view showing the ax head in a folded position.

In the drawing wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 1 designates a handle, the upper portion of which is bifurcated as shown at 2 in the drawing. Adapted to be pivotally supported in the bifurcated end of the handle 1 is the ax head 3, the same being of the usual construction and provided with a cutting edge 4 on one end and the usual hammer head on the opposite end. The pivot means for the ax head is illustrated at 6 and the ax head is preferably pivoted between the upper bifurcated end of the handle adjacent the hammer head portion 5 thereof.

Pivotally and slidably supported in the intermediate portion of the bifurcated end of the handle 1 is the latch 7. The latch 7 is provided with a longitudinally extending slot 8 and the pivot pin 9 extends transversely through the bifurcated portions of the handle and through the slot 8 of the latch 7 whereby the latter is pivotally supported between the bifurcated ends of the handle. The purpose of the slot 8 is to provide a means for permitting the longitudinal sliding movement of the latch between the bifurcated portions of the handle and normally the pivot pin 9 rests in the bottom of the slot 8 through the medium of the coil spring 10 which is disposed in a suitable opening provided in the upper portion of the latch and a plug such as is shown at 11 holds the spring 10 in place between the pivot pin 9 and the bottom of the plug so that the spring will normally cause the latch to be disposed in the manner as shown in Figure 1.

The lower portion of the latch 7 is cut away at its side as shown at 12 to provide the shoulder 13 and the shoulder 13 is adapted to cooperate with a similar shoulder 14 formed on the adjacent side of the handle 1 and which extends into the lower portion of the bifurcation 2. The purpose of this construction is to provide a means whereby the latch 7 will be securely supported in position between the bifurcated portions of the handle and in engagement with the ax head so as to enable the ax to be properly used in the manners hereinafter to be more fully described. Provided on the upper portion of the latch 7 on the said side in which the cut away portion 12 is arranged to provide a shoulder 13 is the flanged portion 15 and the upper edge of which tapers as shown at 16 for engagement with the notch 17 formed in the bottom face of the ax head 3 adjacent the hammer head 5 thereof in the manner clearly illustrated. The flanged

portion 15 will engage the sides of the bifurcated ends of the handle and also prevent the inward movement of the latch when the ax is in an operative position.

The ax head 3 has its bottom face provided with the tapered cut away portion 18 adjacent the notch 17 and the same cooperates with the tapered upper edge 19 of the latch 7. The ax head 3 is further provided with a shoulder 20 which is arranged on each side of the same and the purpose of this shoulder is to provide a means for engagement with the opposite side of the bifurcated ends of the handle when the ax is in an operative position in the manner clearly illustrated in Figure 1.

The latch 7 is provided in one of its side faces with the notch 21 and the same provides a means for actuating the latch. The opposite side face of the latch is provided with a longitudinally extending groove or channel 22, the purpose of which will be hereinafter more fully described.

Normally the ax head when in an operative position is arranged as is shown in Figure 1 of the drawing and it will thus be seen that the tapered upper edge 19 of the latch is held in engagement with the tapered cut away portion 18 of the ax head by means of the coil spring 10 which normally holds the latch upwardly between the bifurcated ends of the handle and the flanges 16, shoulders 20 and the cooperating shoulders 13 and 14 will prevent any possibility of the ax head from accidentally folding up when in use.

When it is not desired to use the ax, the latch 7 is moved downwardly, it being understood that there is sufficient clearance between the lower end of the latch and the bottom of the bifurcation to permit the downward movement of the latch and as the latch moves downwardly, the spring is compressed and the upper end of the latch is brought out of engagement with the tapered cut away portion 18 in the notch 17 formed in the bottom of the ax head 3. The latch 7 is then swung outwardly into the direction of the arrow until the same is disposed in a substantially horizontal position in the manner shown in Figure 2. The ax head 3 is then swung on its pivot 6 between the bifurcated ends of the handle in the opposite direction of the arrow in such a manner as to cause the cutting edge 4 of the ax 3 to be received in the bifurcated portion of the handle and the same will fit in the longitudinally extending groove 22 formed in one of the sides of the latch, it being further understood that the groove 22 will be arranged in the latch 7 so as to completely encase the cutting edge of the blade of the ax head in the manner more clearly illustrated in Figure 2. When the ax head and latch are in the position shown in Figure 2, the ax may be conveniently and safely carried around without any danger of the person handling the ax coming in contact with the cutting edge thereof.

The simplicity of my device enables the same to be readily and easily placed in an operative or inoperative position as the case may be and the latch 7 will hold the ax head in either position against accidental displacement. Furthermore an arrangement of this character provides a device which may be manufactured at a very low cost and the parts further arranged as to be strong and durable.

While I have shown the preferred embodiment of my invention, it is to be understood that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention and the scope of the appended claims.

Having thus described my invention, what I claim is:—

1. A folding ax comprising a bifurcated handle, an ax head pivotally supported in the outer ends of the bifurcated portion of said handle, a latch pivotally and slidably supported in the bifurcated portion of the handle, resilient means for normally urging the latch into engagement with the ax head for holding the same in an operative position, means for limiting the swinging movement of the latch in one direction, means for limiting the swinging movement of the ax head in one direction, said latch being provided with a slot for receiving the cutting edge of the ax head when the ax head is in an inoperative position.

2. A folding ax comprising a bifurcated handle, an ax head pivotally supported in the outer end of the bifurcated portion of the handle, a latch slidably and pivotally supported in the bifurcated portion of the handle, means for normally urging the latch into engagement with the ax head for holding the same in an operative position, means for limiting the swinging movement of the latch and ax head in one direction, said latch adapted to be disposed in a substantially horizontal plane when in one position, said latch having a groove provided therein for receiving the cutting edge of the ax head when the same is disposed between the bifurcated ends of the handle when in an inoperative position.

3. A folding ax comprising a bifurcated handle, an ax head pivotally supported in the upper end of the bifurcated handle, a latch slidably and pivotally supported in the intermediate portion of the bifurcated end of the handle, a coil spring associated with the latch and the handle for normally urging the latch into engagement with the ax head for holding the latter in an operative position, means at the upper end of the

latch adapted for engagement with the bifurcated handle to limit the inward movement of the latch, additional means associated with the lower portion of the latch and adapted for engagement with the lower portion of the bifurcated end of the handle for limiting the outward movement of the latch when the ax head is in an operative position, said latch being adapted to be disposed in a substantially horizontal plane, and being further provided with a groove for receiving the cutting edge of the ax head when the same is disposed between the bifurcated ends of the handles when in an inoperative position.

In testimony whereof I affix my signature.

IRA C. LOVE.