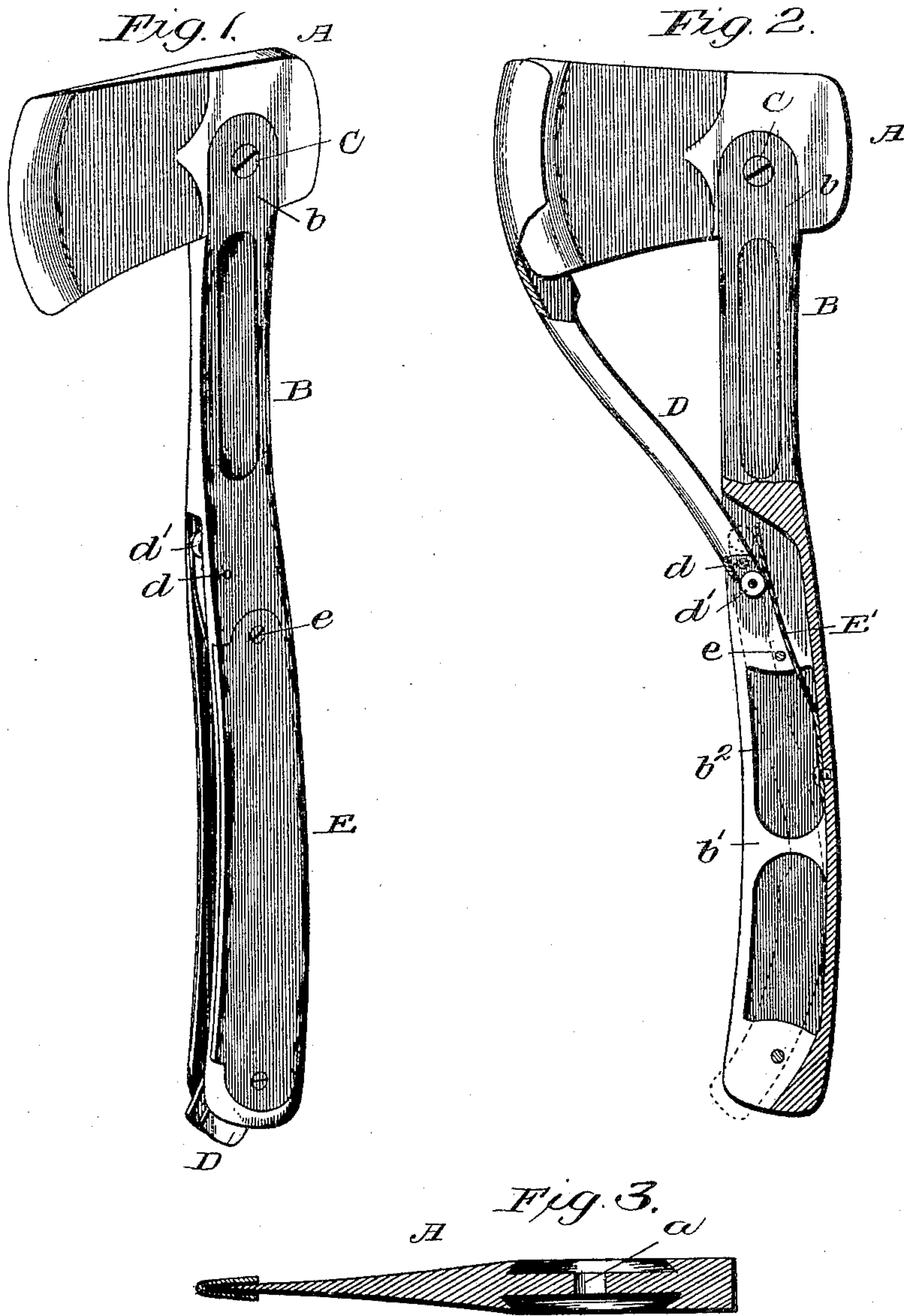


(No Model.)

W. L. MARBLE.
SAFETY GUARD FOR AXES.

No. 604,624.

Patented May 24, 1898.



WITNESSES:
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SAFETY-GUARD FOR AXES.

SPECIFICATION forming part of Letters Patent No. 604,624, dated May 24, 1898.

Application filed January 22, 1898. Serial No. 667,549. (No model.)

To all whom it may concern:

Be it known that I, WEBSTER L. MARBLE, a citizen of the United States, residing at Gladstone, in the county of Delta and State of Michigan, have invented certain new and useful Improvements in Safety-Guards for Axes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to axes; and its object is to provide a safety belt-ax for the use of lumbermen, hunters, campers, and the like. Such persons generally carry a hatchet or light ax stuck in the belt, and its uncovered edge is a constant source of danger, owing to the possibility of hitting it through inadvertence or accident. Several devices have been proposed for shielding the edge of an ax; but these are generally cumbersome and cannot be quickly taken off when it is wanted to use the ax. Moreover, being separate from the ax, they are liable to get mislaid or lost.

This invention consists in a shield or guard for the ax edge carried on an arm hinged to the ax-helve and capable of being instantly swung back out of the way when the ax is wanted, but always ready to be closed upon the ax-head when desired. The guard is preferably arranged to enter a slot or groove in the ax-helve when not in use, so as not to interfere with the convenient use of the ax. The ax-head is attached to the helve in a novel manner, permitting its removal when broken or worn.

In the drawings, Figure 1 is a perspective view of an ax equipped with my guard, which is shown closed into a groove in the helve. Fig. 2 is a side elevation, partly in section, showing the guard opened and in place upon the edge of the ax. Fig. 3 is a cross-section of the ax-head on line 3 3, Fig. 2. Fig. 4 is an end view of the helve.

In each side of the ax-head A is a slot or recess *a*, extending in from one edge parallel with the poll and having preferably undercut walls, as shown in Fig. 3. These recesses do

not extend entirely across the ax-head, but terminate at or near the center, leaving the head of the ax of full thickness and strength beyond their ends. The end of the metallic helve B is bifurcated, the arms of the fork having their edges *b* formed to fit the walls of the recesses *a*. A screw C passes through the arms of the fork and that portion of the head A which lies between them, and thus firmly secures them together; but the head can be easily removed when worn or broken.

Hinged to the handle portion of the helve is a guard D, consisting of a light bar of metal, vulcanized fiber, hard rubber, or the like. If of metal, it may be U-shaped in cross-section to give lightness without losing stiffness. The outer end of the guard is deeply grooved or otherwise shaped to fit upon and completely cover or envelop the edge of the ax, extending up a little way on the blade on each side. The guard can be turned back upon its hinge to permit the ax to be used.

It is preferred to have the guard close down into a groove in the handle when thus turned back. In the drawings the metal helve is shown as grooved or slotted out at *b'* on its under side for some distance from its butt-end. It is also preferred to recess it on its outside for the reception of side plates E, of wood, bone, rubber, or the like, which are held in place by screws or rivets *e*. The sides of the helve may also be slotted out, as shown at *b''*, for the sake of lightness.

The guard D is hinged in the groove *b'* at such a point that when open it will cover the ax edge and when closed it will lie snugly within the groove. It is preferred to let the guard project slightly from the butt-end of the handle, so that it can be readily taken hold of. A flat spring F is secured in the groove *b'*, with the free end pressing against the end of the guard, which projects somewhat beyond the hinge-pin *d*. The spring thus acts to hold the guard in both its open and its closed positions. A roller *d'* may be mounted in the end of the guard to bear against the spring.

The operation of the device is obvious. When the guard is closed within the handle, it is out of the way and does not interfere with the normal use of the ax and effectually

prevents the person carrying it from being accidentally cut. Being always attached to the ax, it cannot become mislaid. It is inexpensive and does not add materially to the weight of the ax.

Having thus described my invention, what I claim is--

1. An ax having a guard hinged to its helve on an axis transverse thereto and adapted to cover and inclose its edge, substantially as described.

2. An ax having a grooved helve, and a guard hinged to said helve and adapted to inclose the edge when open and to lie within the groove when closed, substantially as described.

3. An ax having a guard hinged to its helve about midway of the same, the length of said guard being about half that of the helve so as to inclose the edge when open and to lie

parallel with the butt of the helve when closed, substantially as described.

4. An ax having the handle portion of its helve grooved on the under side, a guard for the edge of the head hinged in said groove about midway of the helve, and a spring bearing against the end of the guard near the hinge-pin, substantially as described.

5. An ax having its helve grooved on the under side, a guard for the ax edge hinged in said groove, a roller mounted in the end of the guard near the hinge-pin, and a spring in the groove bearing against said roller, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WEBSTER L. MARBLE.

Witnesses:

WILLIAM A. FOSS,
RICHARD MERTZ.