(No Model.)

# M. O. HECKMAN.

## HATCHET.

No. 474,908. Patented May 17, 1892.

Fig. 1.

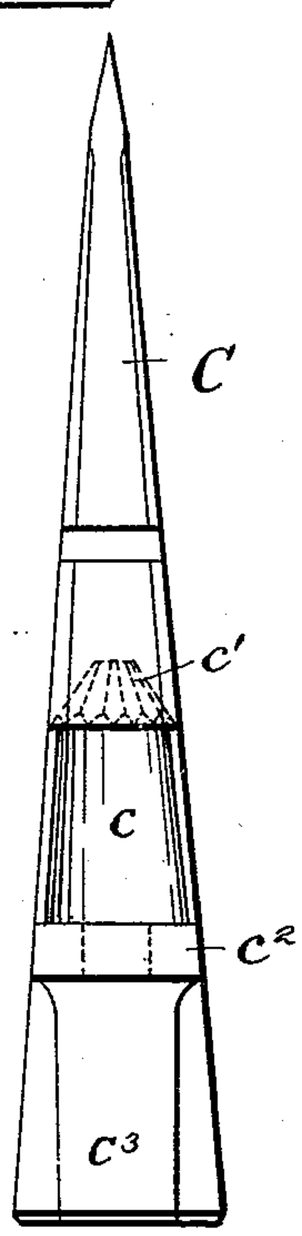



Fig. 2.

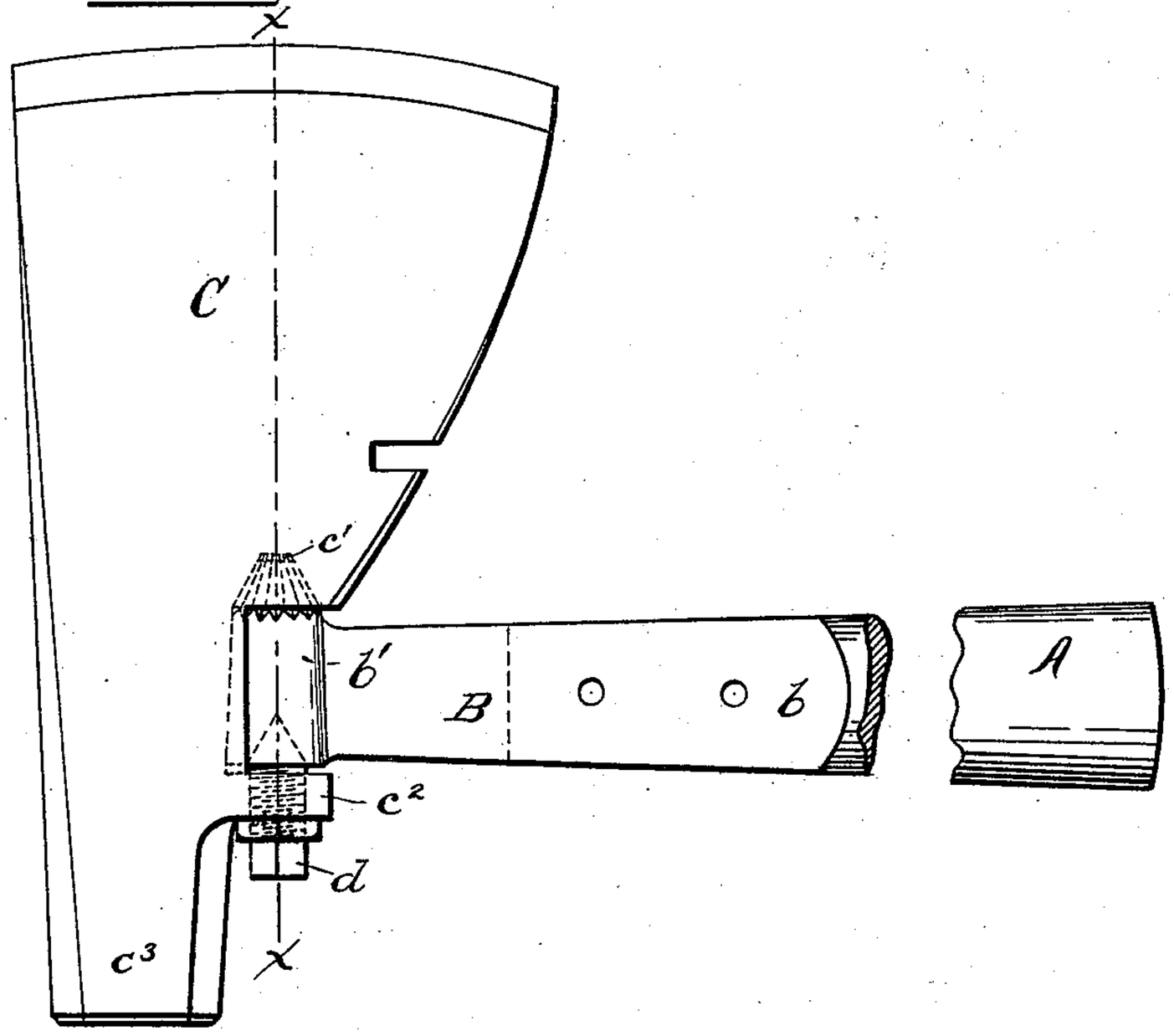



Fig. 3.

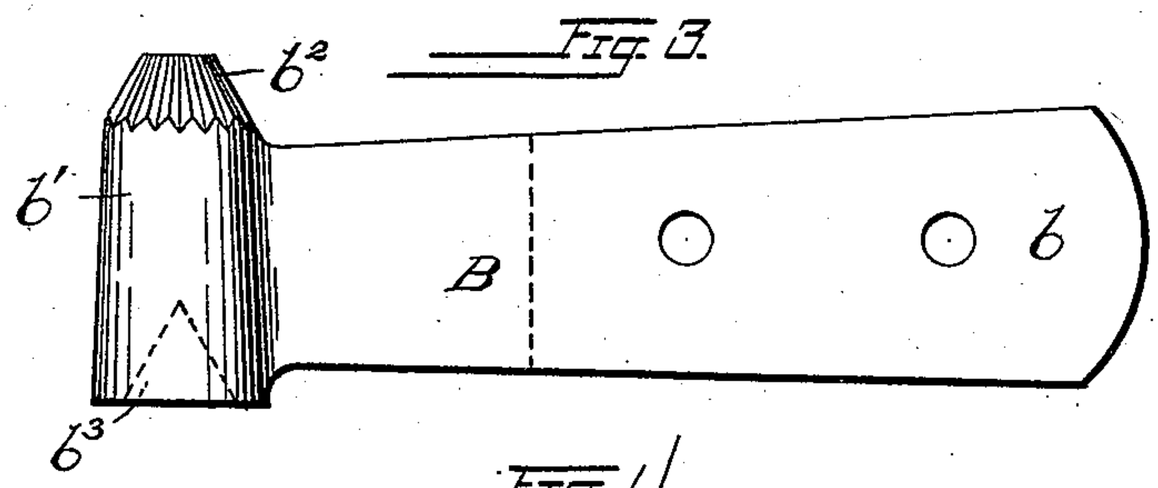
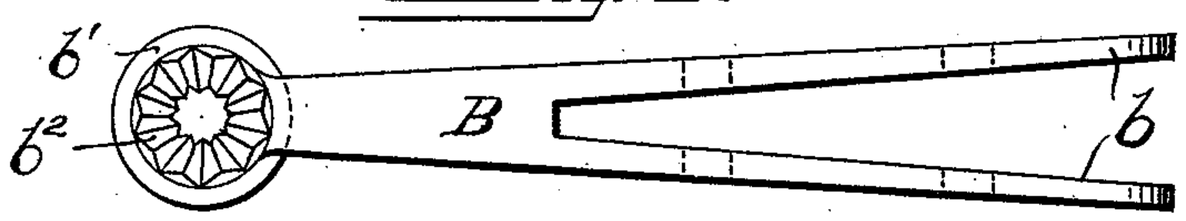



Fig. 4.




Witnesses
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# UNITED STATES PATENT OFFICE.

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## HATCHET.

SPECIFICATION forming part of Letters Patent No. 474,908, dated May 17, 1892.

Application filed September 7, 1891. Serial No. 404,982. (No model.)

*To all whom it may concern:*

Be it known that I, MILTON O. HECKMAN, a citizen of the United States, residing at Reading, in the county of Berks, State of Pennsylvania, have invented certain Improvements in Hatchets, of which the following is a specification.

My invention relates to an improved form of hatchet having means for adjustably securing the handle for the purpose of varying the angle of the cutting-edge.

My improved construction is hereinafter fully described in connection with the accompanying drawings, and the novel features are specifically pointed out in the claims.

Figure 1 is an edge view of the hatchet-head with the handle and fastening-screw removed. Fig. 2 is an elevation of a complete hatchet with the handle applied thereto. Figs. 3 and 4 are respectively an enlarged elevation and plan view of the metal portion of the handle.

The wooden portion A of the handle is shown secured to the metal portion B by means of screws or rivets passing through jaws *b*. An attaching end $b'$ is formed on the metal portion, of substantially cylindrical shape, with its axis at right angles to the handle. In the drawings this end is shown with its main body tapering slightly upward and terminating in a decidedly tapering or conical top $b^2$, the surface of which is provided with alternate ridges and depressions extending from the line of junction with the main body toward the apex.

The hatchet-head C is mainly of the ordinary form, in which the butt $c^3$ is forward of the center $x\,x$ of the cutting-blade. A socket *c* is formed in the inner edge of this head between the cutting-edge and the butt $c^3$ to receive the attaching end $b'$ of the handle, the conical top $b^2$ of which enters a corresponding vertical recess $c'$ in the head. A set-screw *d*, which is screw-threaded in a lug $c^2$, has its pointed end entered at $b^3$ in the base of the attaching end $b'$, which is pressed upward by the set-screw to produce a firm engagement of the conical top $b^2$ with the recess $c'$.

When the set-screw is screwed down entirely, there is sufficient space to permit the attaching end $b'$ of the handle to be entered in or removed from the socket *c*. When it is merely screwed down slightly, so as to release the engagement of the conical top $b^2$ in the recess $c'$, the handle may be turned on the center $x\,x$, passing through the center of the cutting-edge, so as to place it at any desired angle to said edge, and is then secured in such position by setting up the screw firmly. The tapering body of the attaching end $b'$ when thus pressed upward is brought in solid contact with the curved wall of the socket *c*, thus insuring a perfectly rigid attachment, which will be practically as satisfactory as a solid connection.

Having thus described my invention, I do not limit myself to the exact construction shown; but

What I claim is—

1. The combination, with the handle having an attaching end $b'$, with tapering serrated portion $b^2$, of the head C, formed with a recess *c* to receive said attaching end, a socket $c'$ for said serrated portion, and a set-screw to tighten said attaching end in the recess and socket, substantially as set forth.

2. The combination, with the handle having an attaching end $b'$, with tapering serrated portion $b^2$, of the head C, formed with a socketed recess $c\,c'$ for said end on line with the center of the cutting-edge and a butt $c^3$ out of center therewith, and the set-screw passing through a lug $c^2$ on said head for tightening the attachment, all substantially as set forth.

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

MILTON O. HECKMAN.

Witnesses:
W. G. STEWART,
ADAM L. OTTERBEIN.