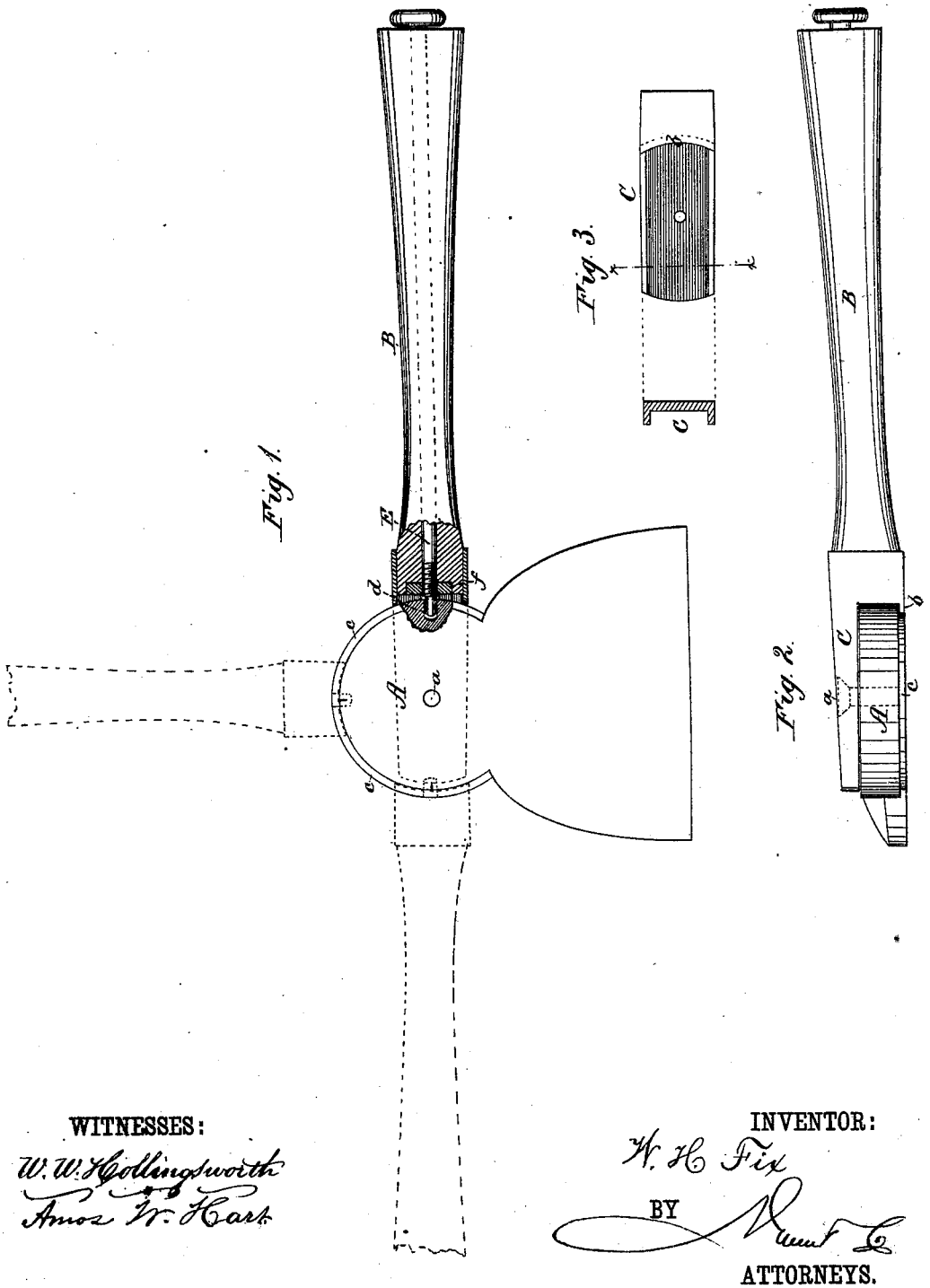
W. H. FIX.

Ax.

No. 213,646. Patented Mar. 25, 1879.



WITNESSES:

W. W. Hollingsworth

Amos W. Hart

INVENTOR:

W. H. Fix

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM H. FIX, OF MOFFATT'S CREEK, VIRGINIA.

IMPROVEMENT IN AXES.

Specification forming part of Letters Patent No. **213,646**, dated March 25, 1879; application filed January 7, 1879.

To all whom it may concern:

Be it known that I, WILLIAM H. FIX, of Moffatt's Creek, in the county of Augusta and State of Virginia, have invented a new and useful Improvement in Axes and Hatchets; and I do hereby declare that the following is a full, clear, and exact description of the same.

The object of my invention is to adapt a broadax, hand-ax, or hatchet for use by a right or left handed person, and also for use as a chisel, and to incidentally reduce the cost of manufacture of the same.

To this end, I pivot the poll or head of an ax to the handle, and provide a stop or locking device for holding it fixed in the various positions to which it may be adjusted on its pivot in the plane of the axis of the handle, all as hereinafter fully described, and as shown in accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of the ax, with part broken away to show the screw. Fig. 2 is a plan view. Fig. 3 is a side view of the sleeve, detached.

The poll or head A of the ax or hatchet is flat, and has a circular, or rather semicircular, outline. The same is attached to the handle B by means of a pivot-bolt, *a*, which is inserted through the center of the poll. The contiguous end of the handle is rabbeted or cut away to the depth of the thickness of the poll A, and the circular edge of the latter abuts the shoulder thus formed on the handle. Said end of the handle is incased or tightly fitted in a metal sheath, C, having a lip or flange, *b*, which overlaps the edge of the poll A, and thus serves as a device, supplementary to the pivot-bolt *a*, for securing the poll firmly to the handle.

In order that the sheath C may not project beyond the plane of the face of the ax, I provide the poll A with a shallow rabbet, *c*, which extends around its edge or the face side of the poll, and serves to receive the aforesaid lip or flange *b*.

It will be seen that the above construction adapts the ax proper to be turned on bolt *a* and set in various positions or angles relatively to the handle B. It may be adjusted with its blade or cutting-edge on either side of the handle, whereby the implement will be adapted for a right-handed or left-handed person; or the blade may be set with its cutting-edge at different angles to the handle, as shown in Fig. 1, so that the implement shall be adapted for use in various ways.

To hold the ax proper fixed in any adjustment, I employ a screw or spring-stop. The screw E, Fig. 1, is inserted through the handle and provided with a knob for turning it. Its inner end, *d*, passes through a thimble, *f*, fixed in the handle. The spring-stop may have a thumb-piece for retracting it. The inner end of the stop enters a socket in the poll A whenever the latter is properly adjusted to bring the same (socket and stop) into coincidence. Such coincidence is indicated by lines or other marks on the poll A and sheath C, Fig. 1.

I am aware ax-heads have been pivoted to their handles so as to rotate on their axis in a plane at right angles to the axis of the handles. This I do not claim.

What I claim is—

1. The combination, with the handle B, of an ax proper, whose flat poll is connected thereto by a transverse pivot, so that the ax may be adjusted in the plane of the axis of said handle, as and for the purpose specified.

2. The combination, with the rabbeted handle, of the pivoted ax proper, having a flat circular head, as shown and described.

3. The combination of the screw E with the longitudinally-perforated handle B and the ax proper, having its poll provided with sockets to receive the screw, all as shown and described.

4. The combination of the sheath C, having lip *b*, with the rabbeted handle B and the pivoted circular ax-poll, having an edge-groove, *c*, as shown and described.

WILLIAM H. FIX.

Witnesses:
MARIE D. CALLISON,
MOFFETT H. CRIST.