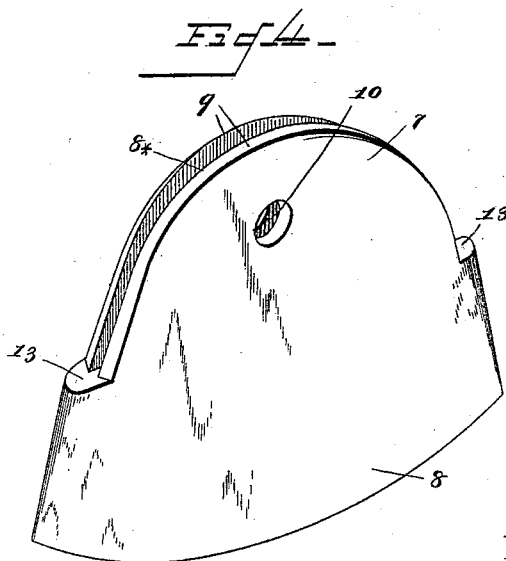
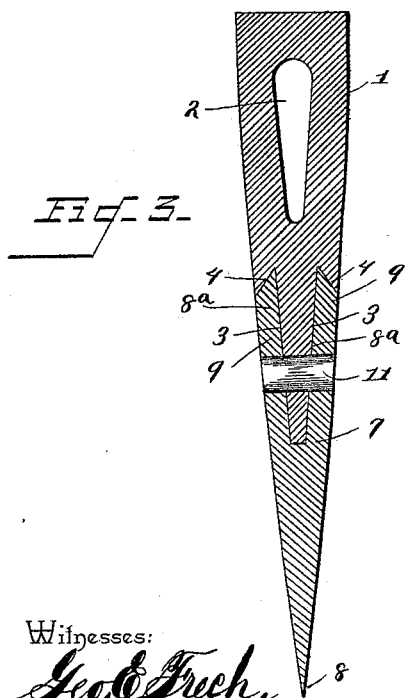
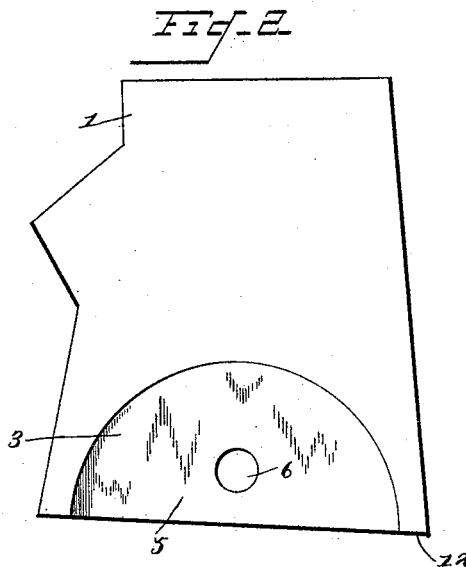
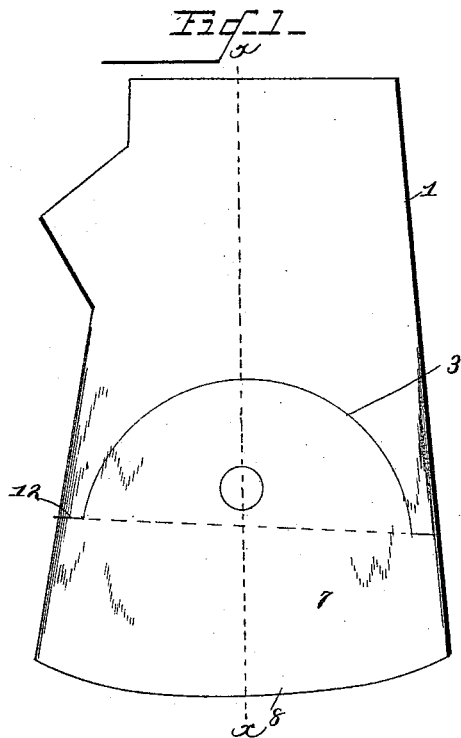


(No Model.)

J. M. HOLLADAY.
AX HEAD.

No. 419,523.

Patented Jan. 14, 1890.



Witnesses:

Geo. C. Frech,

W. S. Hall

By his Attorneys,

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Inventor

John M. Holladay.

UNITED STATES PATENT OFFICE.

JOHN M. HOLLADAY, OF HOLLADAY, VIRGINIA.

AX-HEAD.

SPECIFICATION forming part of Letters Patent No. 419,523, dated January 14, 1890.

Application filed August 24, 1889. Serial No. 321,828. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. HOLLADAY, a citizen of the United States, residing at Holladay, in the county of Spottsylvania and State of Virginia, have invented a new and useful Ax-Head, of which the following is a specification.

This invention has relation to improvements in ax-heads, and has for its main object the provision of a head having a seat and a removable reversible ax bit or blade, whereby an even wearing of the blade takes place, and different blades may be inserted in the same head for different work.

A further object of the invention is to so construct a seat and dispose the stock of the head and blade as to gain the greatest rigidity and strength and to adapt these parts for a ready manufacture by ordinary lathe-tools.

With these general objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of an ax-head provided with a reversible blade, all constructed in accordance with my invention. Fig. 2 is a similar view of the head, the blade removed. Fig. 3 is a section on the line $x\ x$ of Fig. 1; Fig. 4, a perspective of the removable bit.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents an ax-head, which may be cast, rolled, swaged, or forged, provided with the usual helve-receiving eye 2, and having its end squarely and transversely terminating. Each of the side faces at the edge of the head is provided with an inwardly extending and registering U-shaped recess 3, the walls of which are inwardly inclined or dovetailed, as at 4. By reason of the opposite recesses there is left intermediate each recess a portion of the stock of the head forming a web 5, which is provided with a perforation 6.

7 represents a removable bit having the forward cutting-edge 8 and its rear end curved to correspond with the recesses in the head, and also beveled to fit within the dovetailed walls thereof, and thus interlock therewith.

For the purpose of receiving the web of the head the rear end of the bit is bifurcated, as at 8*, and thus said bit, when its rear end is entered into the recesses of a head, embraces the web portion of the head, the bifurcation forming opposite wings or plates 9, which enter the recesses. An opening 10 is formed in each of the wings 9, said openings being in line with the similar opening in the web, and through the three aligning openings is inserted, preferably, a rivet 11, the head of which is countersunk within the bit, so as not to provide an obstruction in cutting. Shoulders 12 are formed at each upper and lower edge of the recesses in the head, which shoulders take into and abut against the ends of corresponding lugs 13 at the opposite terminals of the curved plates 9, so that any lateral strain is met with resistance not only by the interlocking recesses and wings, but also by the shoulders described, and I have thus provided an extremely rigid and immovable connection between the bit and head, and yet one which permits of a ready removal and reversal of the blade or the insertion of a substitute blade, as will be apparent.

Having described my invention, what I claim is—

1. The combination, with an ax-head terminating in a web and opposite semicircular dovetailed recesses, of a bit terminating in opposite divergent semicircular dovetailed plates adapted to enter the recesses and forming an intermediate space for the web of the head, and a securing-pin inserted through openings in the plates and web, substantially as specified.

2. The combination, with an ax-head having a central web and opposite curved recesses, of a removable reversible bit, the rear ends of which terminate in opposite curved divergent plates mounted in the recesses and having an intermediate opening for the reception of the web, perforations formed through the plates and web, and a removable rivet inserted in the openings, substantially as specified.

3. The combination, with an ax-head having a central web and laterally-opposite dovetailed semicircular recesses terminating in

shoulders, of a removable reversible bit, the rear end of which is bifurcated to receive a web and to form opposite semicircular bevel-edged plates for inserting in the recesses, 5 said plates terminating at their opposite ends in recesses having abutting ends for the reception of the shoulders of the head, openings formed in the plates and web, and a rivet inserted through the openings, substantially as specified. 10

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN M. HOLLADAY.

Witnesses:

JOHN HUNTER, Jr.,
B. B. PEYNUN.