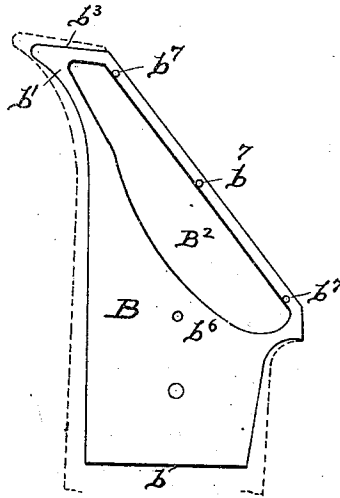
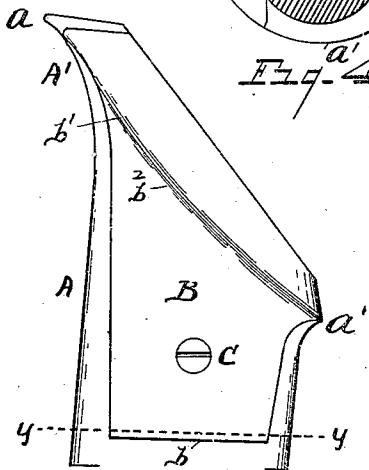
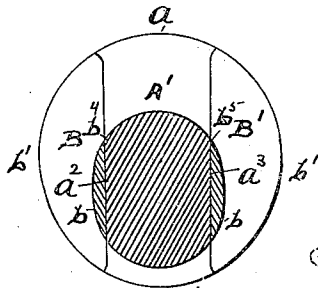
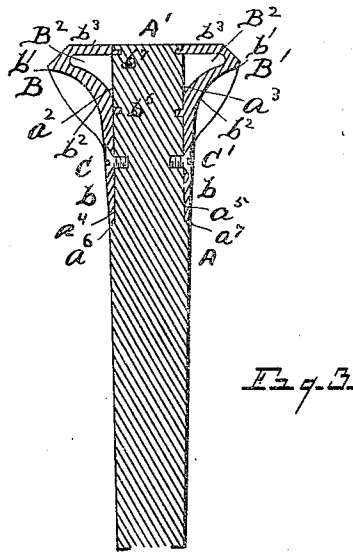
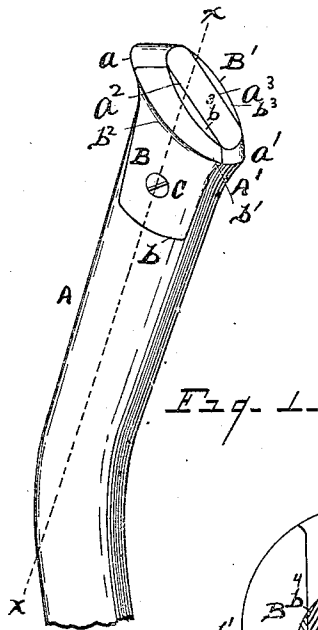


(No Model.)

A. FRENCH.
AX HELVE.

No. 511,768.

Patented Jan. 2, 1894.



Witnesses *Fig. 2.*

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UNITED STATES PATENT OFFICE.

ALONZO FRENCH, OF ROMEO, MICHIGAN.

AX-HELVE.

SPECIFICATION forming part of Letters Patent No. 511,768, dated January 2, 1894.

Application filed April 7, 1893. Serial No. 469,419. (No model.)

To all whom it may concern:

Be it known that I, ALONZO FRENCH, a citizen of the United States, residing at Romeo, county of Macomb, State of Michigan, have
5 invented a certain new and useful Improvement in Ax-Helves; and I 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
10 use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in ax-helves, and is designed to provide hand hold attachments to the butt of the helve, as hereinafter specified claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective. Fig. 2 is
20 a side view. Fig. 3 is a longitudinal cross section through the two attachments, on the line $x-x$ Fig. 1. Fig. 4 is a cross section on the line $y-y$ Fig. 2. Fig. 5 is a view of the inner face of one of the hand-hold attach-
25 ments.

The object of my invention is to cheapen the cost of constructing ax-helves, and also to save time and labor in their construction, thus producing an ax-helve both more eco-
30 nomically and of superior quality.

It is well understood that in the usual manner of constructing ax-helves, where the butt of the helve is made flaring on all sides to form the customary hand-hold, integral with
35 the helve, a stick of timber must be taken of sufficient dimensions to form the butt of the helve. The helve must then be dressed down, forward of the hand-hold at the butt, on all sides to suitable width and thickness, requiring much hand labor, and a great waste of
40 material, since, to form the hand-hold integral with the balance of the helve, the stick of timber must originally be at least twice the thickness of the completed helve, or more.

It is one object of my invention to render it unnecessary to use a piece of timber of greater thickness than the intermediate portion of the helve, which will ordinarily be not more than an inch, or so, in thickness, and to
50 form the required hand-hold at the butt of the helve by uniting thereto a hand-hold attachment on each side of the helve.

Accordingly A represents an ax-helve, which may be of any suitable form, except at the butt A'. The butt of the helve A, I form
55 with customary flares on the top and bottom, or on the upper and lower edges of the helve, as shown at " a " and " a' ." The two sides, however, or lateral faces of the butt, are not flared, but are made flat, as shown at " a^2 " and
60 " a^3 " and of no greater thickness than that of the body of the helve. To complete the hand-hold at the butt, and make the flare of circular form, I apply to each of the lateral faces " a^2 " and " a^3 ," of the butt of the helve A, hand-hold
65 attachments B and B', the two attachments being essentially duplicates, except that they are necessarily made as rights and lefts. Each of these attachments I prefer to construct with a forwardly projecting arm " b ," and a rear out-
70 wardly flaring shoulder " b' ," rounded down on the front portion of the shoulder to the surface of the arm, as shown at " b^2 ." The shoulder extends rearwardly flush to the rear edge of the helve A, and is formed preferably
75 with a plane face " b^3 ," on a plane with the rear end of the helve. From the outer edge of the plane face " b^3 ," the shoulder may be beveled forward, in arc-shape to correspond with the usual shape of the hand-hold when
80 formed integral with the body of the helve. This formation of the rear portion of the attachments B B' also affords opportunity for striking a blow upon the intermediate rear portion of the helve A to drive it into the ax-
85 head.

It will be seen that the two attachments B B' are spaced one from the other the thickness of the intermediate portion of the helve A. The faces of the helve A adjacent to the at-
90 tachments are preferably countersunk, as shown at " a^4 " and " a^5 " to receive the two hand-hold attachments. The forward edges of the attachments abut up against the shoulder " a^6 ," " a^7 " formed in countersinking the
95 helve. In dressing down the helve the lateral edges of the arms " b " are flush with the adjacent parts of the helve, as shown at " b^4 " and " b^5 ." Thus in cross section the outer faces of the arms " b " are arc-shaped, while
100 the inner faces, adjacent to the helve are flat. These hand-hold attachments B B' are fastened in place upon the helve A in any proper manner, as by screws C and C', for example.

The inner faces of the attachments may also be formed with spurs "b⁶," "b⁷" to project into the wood of the helve to aid in holding the parts in place, and prevent their working loose.

I would have it understood that I contemplate making the hand-hold attachments B B' of any suitable material. They may, for example, be made of metal, either cast or pressed into required form, and either solid, or formed with an interior hollow portion, as shown in the drawings in Figs. 3 and 5 at B².

It will readily be seen that ax-helves may be made, in this manner, out of timber of only the thickness of the intermediate part of the helve, so that, two handles or more may be thus made out of the same amount of timber, as has heretofore been required for one where the hand-hold has been an integral feature of the helve. This will obviously effect a great saving of timber. Moreover it will be seen that the helve can largely be cut out and formed thus by machinery, and a very considerable amount of hand labor be saved, thus economizing time and labor.

By being enabled to use sawed timber in the construction of the helves A, not only is labor saved in making the helves, but both sides thereof can be dressed in a planing machine. So also this construction provides for the construction of a more perfect hand-hold, as all parts may be made from accurate patterns. The butt of the completed helve is thus made strong and firm, the butt A' of the helve A extending between the two attachments flush to the rear of the shoulders "b'."

What I claim as my invention is—

1. The combination with a helve A constructed with flat lateral faces and flaring upper and lower edges at the butt thereof, of

hand-hold attachments engaged upon the lateral faces of the helve, said attachments each formed with a forwardly projecting arm "b," and an outwardly flaring shoulder "b'," substantially as described.

2. The combination with a helve A constructed with flat lateral faces and flaring upper and lower edges at the butt thereof, of hand-hold attachments engaged upon the lateral faces of the helve, said attachments each formed with a forwardly projecting arm "b," and an outwardly flaring shoulder "b'," the inner faces of said attachments being on a straight plane, and countersunk upon the helve, substantially as described.

3. The combination with a helve A constructed with flat lateral faces and flaring upper and lower edges at the butt thereof, of hand-hold attachments engaged upon the lateral faces of the helve, said attachments each formed with a forwardly projecting arm "b," and an outwardly flaring shoulder "b'," the butt of the helve A spacing the attachments one from the other, said butt and attachments being flush one with the other at the rear thereof, substantially as described.

4. The combination with a helve A, of hand-hold attachments engaged upon the lateral faces of the helve at the butt thereof, said attachments separated one from the other by the intervening helve, and each constructed with an outwardly flaring shoulder at the rear thereof, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

ALONZO FRENCH.

Witnesses:

N. S. WRIGHT,
JOHN F. MILLER.