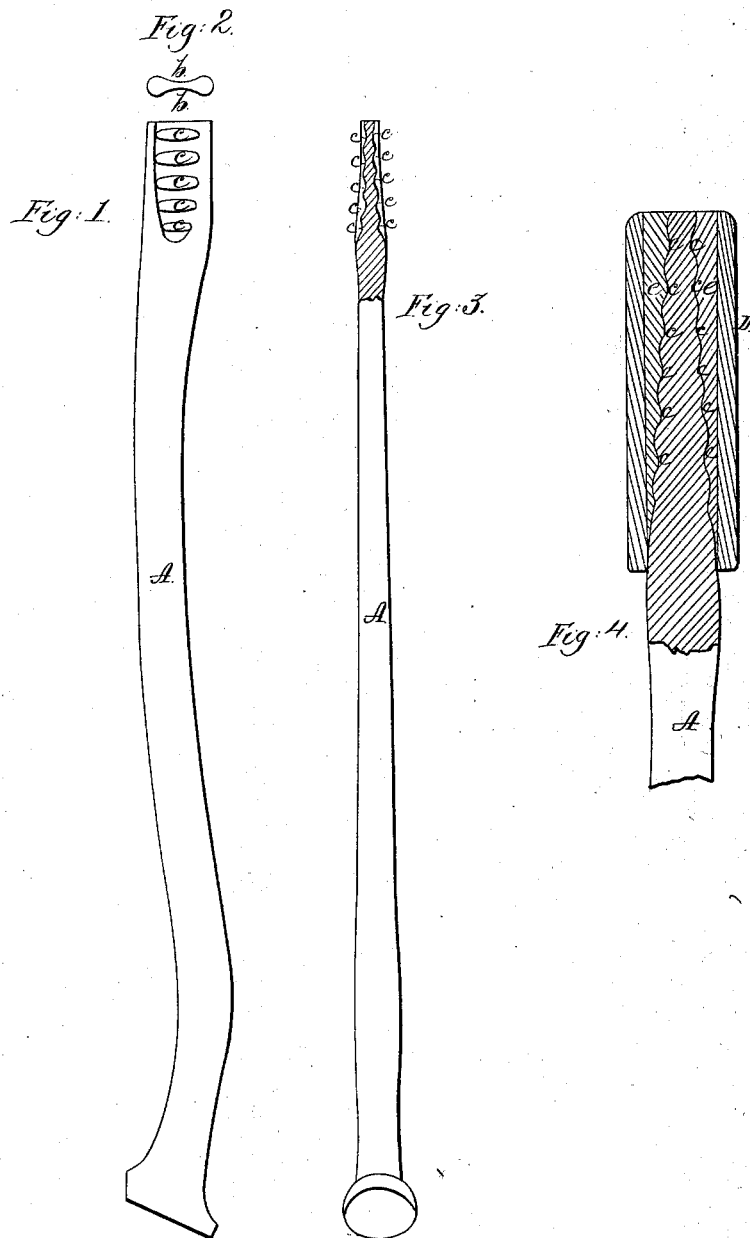


W. Morehouse,
Axe-Handle,
N^o 47,214, *Patented Apr. 11, 1865.*



Witnesses:
R. F. Campbell.
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UNITED STATES PATENT OFFICE.

WM. MOREHOUSE, OF BUFFALO, NEW YORK.

AX-HELVE.

Specification forming part of Letters Patent No. 47,211, dated April 11, 1865.

To all whom it may concern:

Be it known that I, WILLIAM MOREHOUSE, of the city of Buffalo, Erie county, and State of New York, have invented a new and improved helve or handle for axes and other implements having an eye for the insertion of a handle; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and letters of reference marked thereon, forming a part of this my specification, in which drawings—

Figure 1 is a side view of my improved ax-helve; Fig. 2, a cross section of the extreme end which enters the eye of the ax; Fig. 3, a longitudinal section of Fig. 1; and Fig. 4 a like section, showing the helve wedged within the ax.

The object of my invention is to so construct an ax-helve that it may, without injury, be readily and securely fastened by the ordinary soft-wood wedges in the "eye" of an ax, and yet be removable therefrom when the ax is worn out, but in such unimpaired condition that it may be in like manner as before used over and over again until the helve itself becomes worn out. To effect this I construct that portion of an ordinary helve, A, which is made to enter the eye of an ax, of a concave form, as indicated in Fig. 1, and designated in Fig. 2 at *b b*. Along this concavity *b*, which is made upon both sides of the helve, I cut out portions of the helve so as to form transverse sockets, as at *c*. These sockets may be more or less in number, according to the length of that portion of the helve which is intended to enter the eye of the implement to which the helve is to be fastened. These sockets are formed on both sides of the helve, along the concavity *b*. Thus formed the helve is inserted in the eye of the ax D, as indicated in Fig. 4, whereupon wedges *e e* are driven within the eye upon both sides of the helve, as represented. These wedges should be of seasoned soft wood, either pine or white-wood, the latter preferred. They should be shaped somewhat in the likeness of the aperture which they are intended to fill, and somewhat longer, so that when driven in the wood of which they are made will be considerably compressed between the sides of the helve and the eye of the ax. After the wedges *e* have

been driven, as described, the portions of the wedges which are left opposite to the sockets *c* will, by the tendency of the wood to resume its normal uncompressed condition, expand into the said sockets, but not sufficient, however, from this cause to fill them; but when thereafter the ax is used and exposed to the weather, the seasoned wooden wedges will, by gathering dampness, further expand or swell the wedge so as to completely fill said sockets and thus prevent the helve from being withdrawn from the eye by any ordinary act of use. As the diameter of the rear portion of the eye of an ax is made somewhat less than that of its forward portion, or else has its eye made in concave form, a very secure fastening is effected by my invention, after the helve is once properly inserted, and this without injury to the ax-helve, by splitting its end for the insertion of the wedges, as is usually the case, and which splitting oftentimes ruins the helve for use in more than one ax. Besides this, the end of the helve is sometimes, by reason of being cross-grained, so injured in splitting that it cannot even once be securely fastened to an ax.

By my improved helve these difficulties are obviated without any considerable expense over the construction of the ordinary helve, and when it is desirable to remove one from an ax, the helve can be driven out of the eye without injury to the hard wood, usually hickory, of which the helve is made, and so be used over again in a new ax, as before.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A helve or handle, A, constructed with sockets *c* therein, substantially as and for the purpose described.
2. A helve or handle, A, constructed with a concavity, *b*, therein, substantially as and for the purpose described.
3. So forming ax-helves and other handles that when fastened in the eyes of implements by wedges of wood the wedges will be allowed to expand and swell into recesses or sockets formed in the handles, substantially as and for the purpose described.

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Witnesses:

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