E. Martin,

Arrl Handle,

No. 3,014. Patented Mar. 21, 1843.

Fig 4.

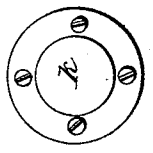


Fig 5.

Fig 3.

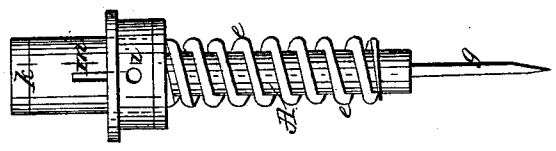


Fig 2.

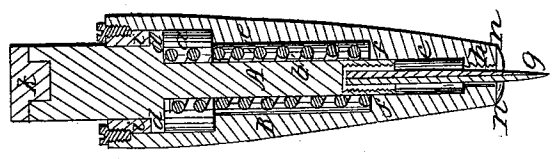
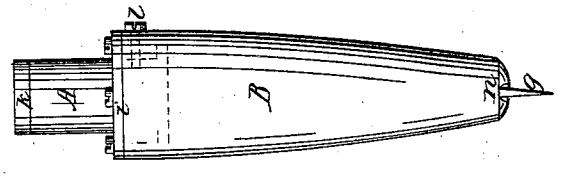


Fig 1.



UNITED STATES PATENT OFFICE.

EDWIN MARTIN, OF GRAFTON, MASSACHUSETTS.

IMPROVEMENT IN AWL-HAFTS.

Specification forming part of Letters Patent No. **3,014**, dated March 21, 1843.

To all whom it may concern:

Be it known that I, EDWIN MARTIN, of Grafton, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Awl-Hafts; and I do hereby declare that the following specification, taken in connection with the accompanying drawings thereof, constitutes a full and exact description of the same.

Figure 1 of the drawings above mentioned is an external view of the instrument. Fig. 2 is a central and vertical section of the same, taken in a plane supposed to be at right angles to that on which Fig. 1 is delineated. Fig. 3 represents the awl-holder and helical retracting-spring as removed from the interior of the exterior case or handle. Fig. 4 is a top view of the article, and Fig. 5 is a representation of the bottom or lower end.

The instrument, as represented in the drawings, consists of an awl-holder, A, Figs. 3, 4, which is fitted in the hollow handle B, so as to freely move up and down therein, or in a suitable chamber, *a b c*, formed in said handle, as seen in Fig. 2. By inspection of the figure it will be observed that there are three cylindrical divisions, *a b c*, in this chamber, a cylindrical guide or shoulder-piece, *d d*, surrounding the awl-holder moving in the upper division, *a*. The foot of the awl-holder is sustained by the lower compartment, *c*, which is of the same diameter as that of the lower part of the awl-holder. The central division, *b*, is of larger diameter than that of the lowest, *c*, or is of sufficient size to receive and permit the free action of a helical spring, *e e*, surrounding the shank of the awl-holder.

The lower end of the helical spring *e e* is supported on a shoulder, *f f*, Fig. 2, of the handle B, while the upper end thereof bears against the under side of the shoulder-piece or guide *d d*. The shank of the awl *g* is inserted in the lower end of the holder A, wherein it is confined by a screw or in any convenient manner, The awl passes through a circular aperture, *h*, Fig. 2, of the handle B and extends a short distance beyond the handle, as seen in Figs. 1 and 2. The upper part of the holder A slides freely through a head, *i i*, screwed into the top of the handle B, the top of the shoulder-piece *d d* abutting against the under side of the head *i i* when it is forced upward by the retroactive power of the spring *e e*. The top of the holder B, which receives the blows of the hammer, is protected by a piece of leather, *k*, suitably fixed thereon, as seen in the drawings, and the holder is prevented from turning around horizontally by a screw, *l*, Fig. 1, which passes through the handle B and enters a vertical groove, *m*, Fig. 3, cut in the side of the upper part of the awl-holder. The foot of the handle B is a segment of a sphere, or approaches in form to one, and it has a semicircular hollow or groove, *n n*, formed across it, as seen in Figs. 1, 2, and 5. The object of this peculiar form of the foot and the semicircular hollow is to prevent the holes previously formed in the sole by the awl from being closed up by the blows of the hammer upon the head of the awl-holder during the operation of forming the succeeding holes in the sole or in a piece of leather. The semicircular holder is placed over the line of the holes, and so that its sides *o o*, Fig. 5, shall rest on the leather on each side of the line of holes formed therein.

In using this tool the workman grasps it in his left hand, and having placed the point of the awl upon the leather sole strikes with his hammer upon the leather top *k* of the awl-holder, the said operation causing the awl to pierce the leather. This being accomplished, the awl is withdrawn therefrom by the retracting-power of the spring *e e*, whereas when a common awl is used in the ordinary manner much labor and time are requisite to withdraw the same by hand.

Having thus described my improvements, I shall claim—

1. The combination of the awl-holder A, helical spring *e e*, and external case or handle, B, the whole being constructed and operating substantially as above set forth.

2. Forming the foot of the handle or case B substantially as hereinbefore explained—that is to say, giving to the same the shape of a segment of a sphere and cutting a transverse semicircular groove, *n n*, in the same, for the objects above specified.

In testimony that the foregoing is a true description of my said invention and improvements I have hereto set my signature this 8th day of February, 1843.

EDWIN MARTIN.

Witnesses:

SAMUEL WOOD,

I. HENRY WOOD.