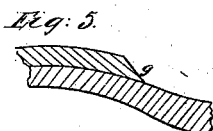
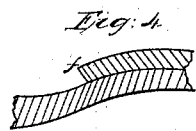
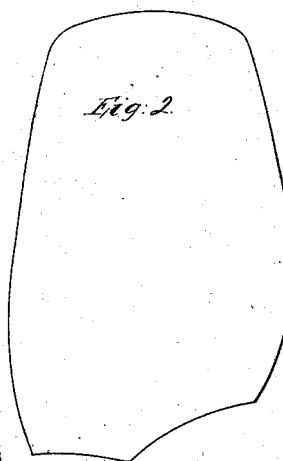
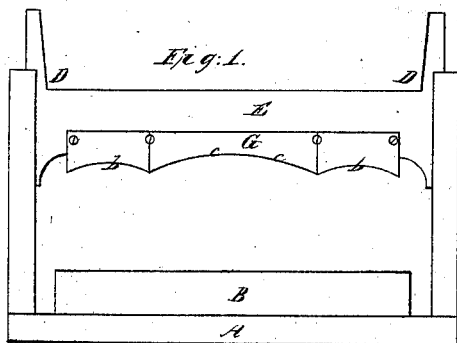
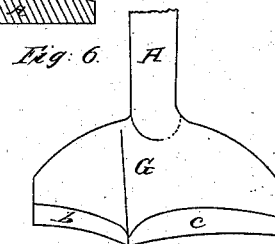
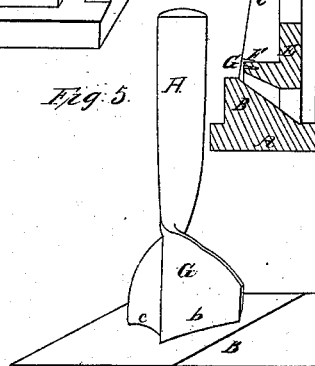
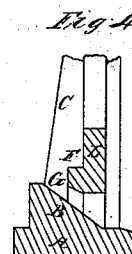
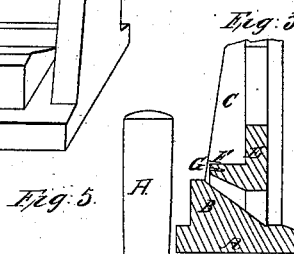
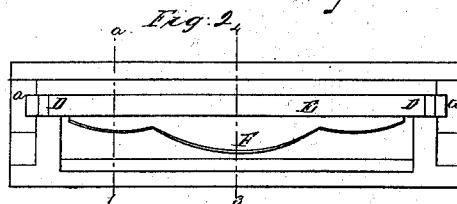
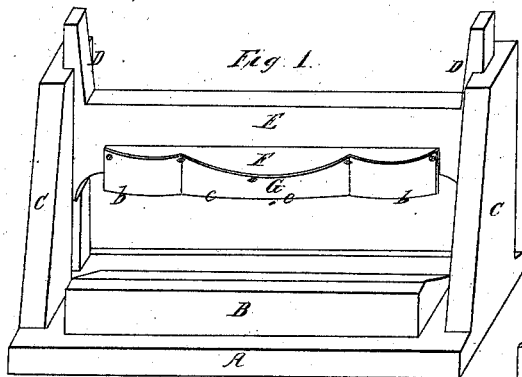


J. H. Walker, Shoe-Sole Cutter,

N^o 49,181.

Patented Aug. 1, 1865.



Witnesses:
H. C. Fuller
J. Henry Hill

Inventor:
J. H. Walker.

UNITED STATES PATENT OFFICE.

J. H. WALKER, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN CUTTING SOLES OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. 49,181, dated August 1, 1865.

To all whom it may concern:

Be it known that I, J. H. WALKER, of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in the Mode of Cutting and Beveling Tap-Soles for Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Sheet 1, Figure 1 represents a perspective view of a machine designed for cutting and beveling tap-soles, the knife being elevated. Fig. 2 represents a top or plan view of the same with knife down. Fig. 3 represents a section on line 1 and 2, Fig. 2. Fig. 4 represents a section on line 3 and 4, Fig. 2; and Figs. 5 and 6 represent a modification of the device when used by hand.

In Sheet 2 of the drawings, Fig. 1 represents a front view of the machine shown in Fig. 1, Sheet 1. Fig. 2 represents a bottom view of a tap-sole cut without a bevel. Fig. 3 represents a similar view of a tap-sole cut with a bevel. Fig. 4 represents a section of a sole cut like Fig. 2 as it appears when applied to a boot; and Fig. 5 represents a section of a sole as it appears when cut with a beveled edge, as indicated in Fig. 3.

In the drawings, A represents the base of the machine, upon which rests the inclined bed B. Guide-pieces C C are attached to the base A, and within grooves *a a* in the pieces C C works the knife-frame D. The lower part, F, of the cross-piece E of frame D projects out in a curved form, as fully indicated in Figs. 1 and 2 in Sheet 1 of the drawings.

To the front of the curved part F is fastened a double-curved knife, G, which has an irregular or curved edge, *b c*, as fully shown in Fig. 1, Sheet 1.

The operation is as follows: Frame D, with knife G, is raised and the sole slipped under the knife and allowed to rest upon the inclined bed B, when, as knife G descends, it bevels the tap-sole, as indicated in Fig. 3, Sheet 2. The part of the knife marked *b* cuts the narrow beveled part *d* and the part marked *c* the wide beveled part *e*. The knife in Fig. 1, Sheet 1, is designed for cutting or beveling two tap-soles at once—one for the right foot and the other for the left—the middle of the knife being made in the proper form to cut the wide beveled parts *e e* of two soles, while the ends *b b* cut the narrow beveled parts *d*.

The machine may be arranged to cut and bevel the ends of one or more soles, as may be desired; or the knife may be made with a handle, H, as indicated in Figs. 5 and 6, Sheet 1; in which case the operator could use a mallet to cut and bevel the soles.

The knife must have a double curve, as shown in the drawings, while its edge should be irregular, as shown at *b c* in Fig. 1, Sheet 2. In the use of the knife it must be arranged so as to cut upon an inclined bed, upon which the leather rests, or else must be applied to cut at an angle upon the leather, which rests upon a flat bed. In practical use I prefer the former plan.

If the rear end of tap-soles are cut square, as in Fig. 2, Sheet 2, when they are applied to the boot, the outer edge projects over, as seen at *f*, same figure. This is owing to the expansion of the grain side of the leather in the process of rolling, hammering, and applying the sole. There are great objections to soles thus applied, since the mud and dirt pack in back of the sole and cannot be scraped out without great care, and even then the sole is liable to be started up. Again, the sole cannot be beveled off by hand so as to make a neat appearance. Besides, if it could, it would take so much longer time it would add to the cost of the boot.

By my invention all of the above objections are obviated, since the beveling is made at the same time the rear end of the sole is cut or trimmed off, and when applied makes a neat job, while the bottom of the boot can be easily scraped without starting the sole.

The form of the sole, when applied, is shown at *g*, Fig. 5, Sheet 2.

It will thus be seen that by my invention a better and cheaper boot can be made.

Having described my improved mode of cutting and beveling tap-soles, what I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. Cutting and beveling the rear end of tap-soles at one and the same operation, substantially as set forth.

2. The use and employment of the double-curved knife with an irregular edge, *b c*, substantially as and for the purposes set forth.

J. H. WALKER,

Witnesses:

H. D. FULLER,
J. HENRY HILL.