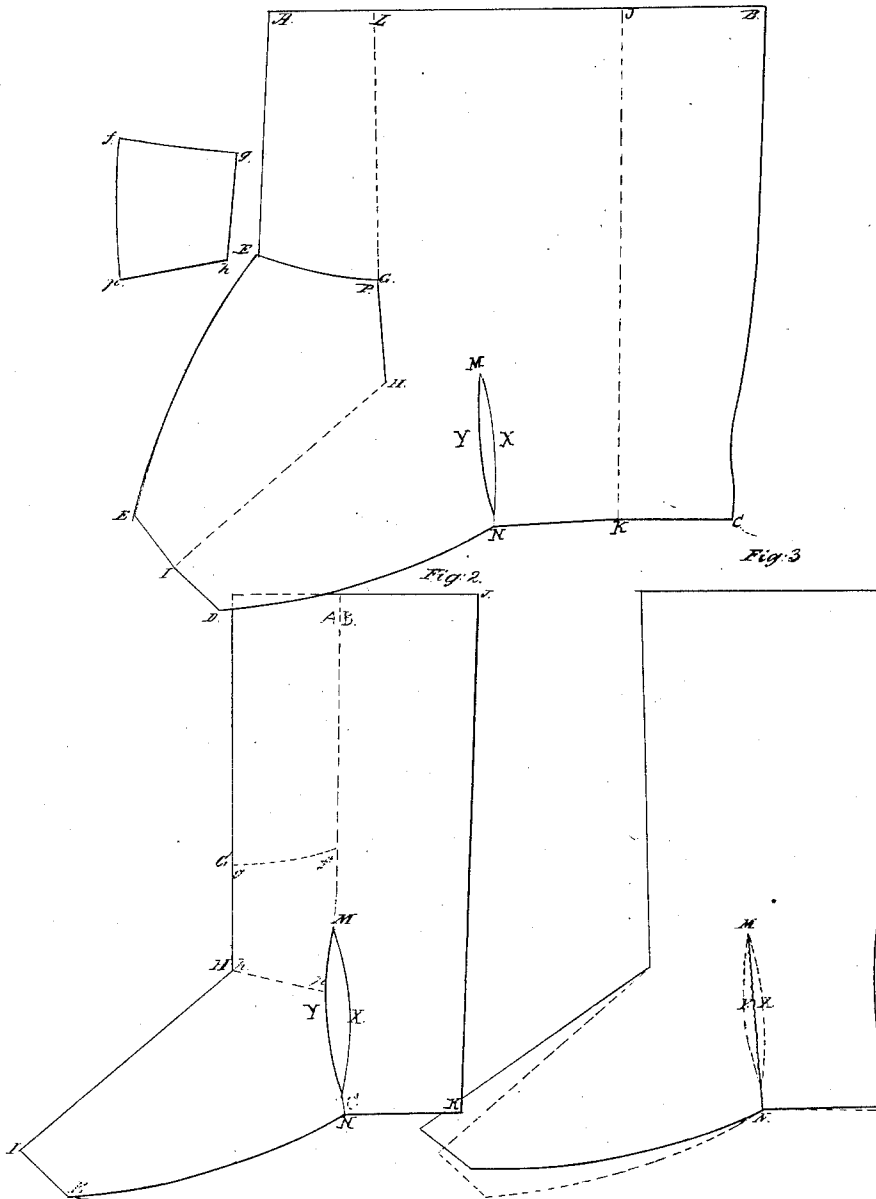


E. L. VERTREES.
CUTTING BOOTS.

No. 27,173.

Patented Feb. 14, 1860.

Fig. 1.



Witnesses:
E. J. Vertrees
John A. Hill

Inventor:
E. L. Vertrees

UNITED STATES PATENT OFFICE.

E. L. VERTREES, OF HOWEVALLEY, KENTUCKY.

MODE OF CUTTING BOOT-VAMPS.

Specification of Letters Patent No. 27,173, dated February 14, 1860.

To all whom it may concern:

Be it known that I, E. L. VERTREES, of HoweValley, in the county of Hardin and State of Kentucky, have invented a new and useful Improvement in Cutting the Vamps or Uppers of Boots, whereby in cutting the major portion in one piece without crimping a more beautiful and useful form is produced with less labor and material in its construction; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1, is a view of the form in which I prefer to cut the boot. Fig. 2, is a view of the boot when folded up, and Fig. 3, is the same when the seams are closed, the red lines indicating the position before sewing.

The major portion of my boot is in one piece. It is so cut and folded that only a small nearly square piece is required in the front of one side of the leg, to complete the entire upper, being in this respect very similar to the method of cutting patented by L. Duvalle, on the sixth of September, 1859. The novel feature in my boot is in the sides near the bottom and in the form given thereby to the heel and ankle.

The natural outline of the rear of the human leg and foot is not straight but is considerably hollowed at the ankle. This form must be imitated in a boot in order to obtain either beauty or utility, for were the back and heel of the boot made in a straight line, it would not only lack in gracefulness of form, but would be constantly slipping up and down at the heel while walking. The heel is extended in Duvalle's boot by the insertion of a triangular piece or gore, at one side, which is wider at the base than is the triangular opening made in the leather to receive it. The effect of this is to allow the heel to project beyond the line of the leg and ankle, that line being straight.

The nature of my invention consists in cutting out from the side of the foot and ankle, in lieu of the triangular opening above referred to, an opening pointed at each extremity, commencing with a point near the lower edge and extending upward to a point in or near the ankle, and in drawing together the sides of this opening so as to contract the leg at the ankle and by the use of a single seam, to produce a form of

boot identical with that in general use. A corresponding form should be given to the edges of the leather which are joined to produce the opposite side of the boot.

To enable others skilled in the art to make and use my improved boot I will proceed to describe its construction by the aid of the drawings.

I cut a piece of leather in the form A, B, C, N, D, E, F, shown in Fig. 1. At F, G, H, I cut through the leather in the form shown. I then cut out a hole having the form and position shown by M, X, N, Y, the line M, X, N, corresponding in shape with the lower portion of the line B, C, and the lower portion of M, Y, N, corresponding with the curved line F, G. The upper extremity of this opening is a little higher than H. I fold along the line H, I, the part I, E, F, G, H, folding under the part I, D, N, Y, H. Next, I fold the part L, A, F, G, along the line L, G, and the part J, B, C, K, along the line J, K, forming an approximation to the form and appearance of a complete boot vamp, but with a considerable space intervening between the edge G F and the edge H P as shown in dotted lines in Fig. 2. I then cut a corresponding piece of leather *f, g, h, p*, which I insert therein, and sew it firmly to its place. I then close the seam M, N, and the seam B, C, which, from their shape, contract the back at the point O, Fig. 3, giving the proper form to the boot. It is obvious that the length of my opening M, N, may be increased or diminished at pleasure as also may its breadth at the middle or any other point in its length, and that a corresponding change will thereby be produced in the form of the boot, so that I have complete control of the form, and may fit very accurately any one whose ankle or leg may be either of the usual form or in any wise peculiar.

My invention involves the production of but a single seam along the line M, N, whereas the attempts previously made to produce a similar effect have involved the production of two seams with a corresponding increase of labor. My invention also makes both sides of the boot alike at the bottom or where it is most in sight and most in use, and is equally applicable to the finest and to the coarsest of work.

The applying of a goring piece to the base of fine boots, as in Duvalle's patent

above referred to, involves a disadvantage on account of the fact that the seams in fastening a gore in such work must, as is well known to workers in fine leather, be overlapped instead of closed. This mode of seaming is so objectionable at the base of a boot that it is almost or quite impracticable, in the best class of work.

The graceful contour of the outline of the leg and heel and the single seam produced by my invention render the boots far superior in beauty to any heretofore produced from one piece of leather. The smaller quantity of stitching required economizes labor and diminishes the liability to rip. The closing, in lieu of overlapping, and the uniformity in the two sides are also advantages over Mr. Duvalle's. By extending the opening, M, up the side as far as the crimp the boot is prevented from becoming too wide at that point in consequence of any stretching in pulling the boot off and on.

In an ordinary crimped boot the crimping of the leather destroys its extensibility so far that it is not thereafter liable to stretch and become too wide at that point. Boots made of leather without crimping, as heretofore constructed, have been open to objection from the leather not being so

stretched. The closing of the seam M, N, in my improved boot so draws in the instep that the stretching of the leather will not cause the boot to become too wide at that point. The closing also raises the toe or pitches forward the leg of the boot so as to give a better form to the whole. This effect is roughly indicated by the dark or shaded part in Fig. 3, the red lines indicating the contour before the closing of the edges M, X, N, and M, Y, N, and the dark lines and shading showing the contour after such closing.

Having now fully described my improved mode of cutting boot vamps, what I claim as new therein and desire to secure by Letters Patent, is—

In combination with cutting a boot vamp without crimping, removing the pointed portion of the material M, X, N, Y, in the side of the ankle, and joining the edges so as to contract the back at O, and incline the leg forward, substantially as and so as to obtain the advantages herein set forth.

E. L. VERTREES.

Witnesses:

E. J. VERTREES,
JOHN H. HILL.