G. McKay.

Boots & Shoes.

No. 35165. Patented May 6. 1862

Fig. 2.

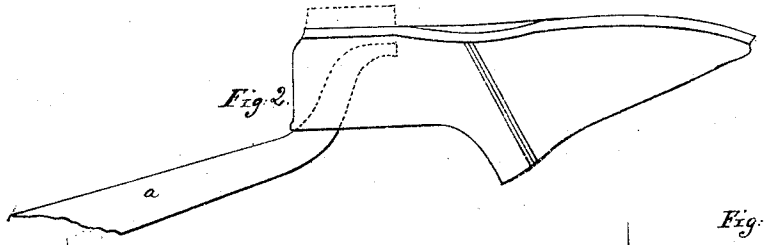


Fig. 1.

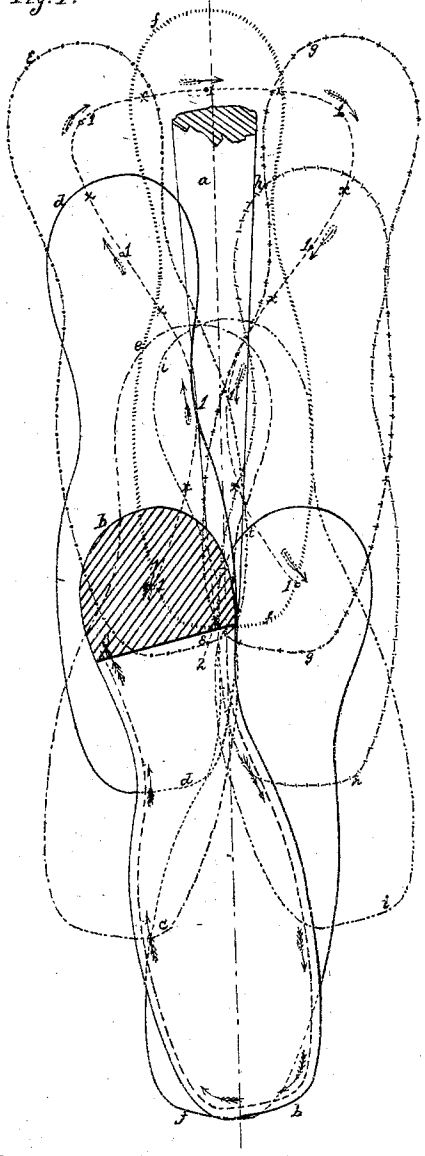
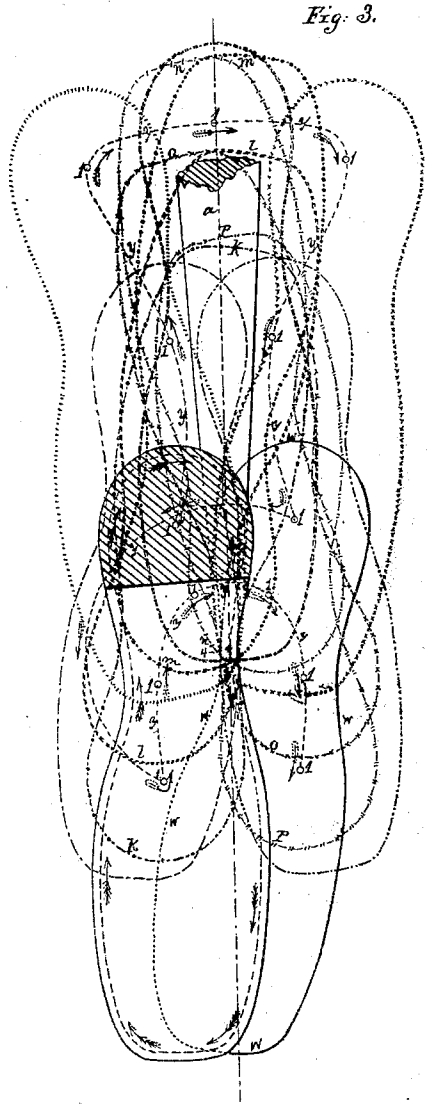


Fig. 3.



Witnesses:
J. Frank. Newman
J. B. Crosby

Inventor:
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UNITED STATES PATENT OFFICE.

GORDON McKAY, OF BOSTON, MASSACHUSETTS.

IMPROVED PROCESS OF SEWING THE SOLES OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **35,165**, dated May 6, 1862.

To all whom it may concern:

Be it known that I, GORDON McKAY, of the city of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Process or Method of Operating in the Sewing of Soles of and upon Boots and Shoes; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in to art to practice it.

My invention consists in a process or new and useful method of operating in the sewing of the soles of and upon boots and shoes under and in accordance with the United States Letters Patent granted to Lyman R. Blake, July 6, A. D. 1858, and August 14, A. D. 1860, and by which process or method the said sewing is greatly facilitated.

To describe my invention fully, I will first refer to the method or process practiced by the said Blake, and illustrated by the drawings or diagrams, Figures 1 and 2. In Diagram Fig. 1 the shoe, or rather the sole of the shoe, as made by said Blake, is shown in dotted and colored lines in different positions upon the horn *a*, the last being removed from the shoe before the horn is inserted preparatory to sewing, but with the point of the horn always presented toward the toe of the boot or shoe. The position shown by line *b* is that of the shoe when first placed upon the horn or arm for the commencement of the seam, and it will be observed that this position is such as to bring the commencement of the seam beneath the "lifts" of the heel of the shoe, the horn or arm being made substantially of the curvature shown in Fig. 2, and in the aforesaid patent of July 6, 1858, to clear the stiff counter of the shoe when thus resting upon the horn. The shoe is then made progressively to assume the positions shown by lines *c d e f g h i j* and intermediate points between at the distance apart of the length of the stitches, the last position being that shown by line *j*. In assuming these different positions the needle and feed may be turned, as described in the said Blake's British Patent No. 1,111, dated the 3d of May, A. D. 1859, so that in ending the seam at 3 which was begun at 2 the hook of the crochet-needle and the direction of the feed movement are opposite to what they were in beginning the seam. This change of the needle and feed movement relative to the shoe may be otherwise made by means which, as they are to be patented, will not be further alluded to herein. This process of Blake's answered where it was not a desideratum to carry the seam around the heel as well as the toe, the heel part of the sole being secured to the "upper" by pegs or nails.

In my process or new method of operating under the said Blake's inventions, I begin the seam on one side, at the shank part of the sole, as shown in Fig. 3 at 4, without making any effort to have this commencement come where the lifts of the heel would cover it, simply starting the seam where most convenient, and then I proceed, as I have described that Blake did, till the shoe assumes the position indicated by the line *w*, when I change the relative position of the shoe and horn, so that the end or point of the horn is presented toward the heel of the shoe, as shown by line *k*. The operation of sewing then proceeds without breaking the continuity of the seam till it meets its commencement at 4, because the needle descends, after the relative change of the shoe and horn is made, through the loop of thread drawn up by the needle before the said change was made, and then, after the change, draws up through said loop a new loop of the thread. After the relative change of the shoe and horn, as shown by line *k*, the positions which the shoe assumes upon the horn till the beginning and ending of the seam meet are shown by the lines *l m n o p*, and at intermediate points between the distance apart of the length of the stitches.

The gain by my method or process over that practiced by Blake is that it takes less time to sew around the heel than it does so to manipulate the shoe as to bring the beginning and ending of the seam sufficiently far to the rear to be covered by the lifts of the heel without my relative change of the horn and shoe, in which effort the counter is apt to be broken down, while in many shoes a heel is not needed, so that in these the ends of the seams are not covered by heel-lifts, and in other shoes the cut and style of uppers are such as will not admit of a beginning and ending by Blake's method or process so far to the rear as to come under the lifts of the heel. Besides all of this, a

boot or shoe sewed round the heel is stronger and better than where the whole security of the rear part of the sole depends on pegs or nails.

The manipulation of the shoe may be varied from that last described when the relative change in the position of the horn and shoe is made use of. For example, the seam may be commenced on the side of the sole opposite from 4, the point of the horn being toward the toe of the shoe, and the seam may then be formed toward the toe, around it, and along the other side of the sole to a convenient place in the shank—say at 4—where the relative change of shoe and horn is made, so that the end of the horn is toward the heel of the shoe; then the seam is continued round the heel to the beginning of the seam. Again, the shoe can be placed on the horn so that the end of this comes under the center of the toe in the line of the seam, which is then made around one corner of the toe, down one side of the sole to a convenient place at the shank, where the relative change of the horn and shoe is made, so that the end of the horn points toward the heel instead of toward the toe. The seam is then continued round the heel to a convenient place at the other side of the shank, where the aforesaid relative change is again made, so that the end of the horn points toward the toe. The seam is then continued along the side of the sole to and around the corner of the toe to the center thereof, and is terminated where it began. In forming the seam once round the sole, as last described, the relative change of the horn and shoe is twice made. Instead of beginning the seam at the center of the toe, it may be commenced at the center of the heel in the line of the seam, with the end of the horn toward the heel, the relative change of the shoe and horn being twice made—once on each side of the shank where convenient—when forming a seam entirely round the sole.

I claim—

The within-described process, in sewing the soles upon boots or shoes, of changing relatively the positions of the boot or shoe and the horn, substantially as described.

GORDON McKAY.

Witnesses:

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