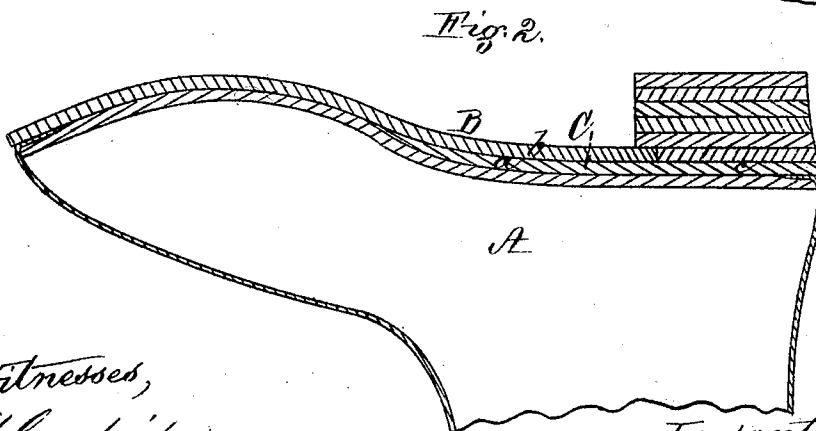
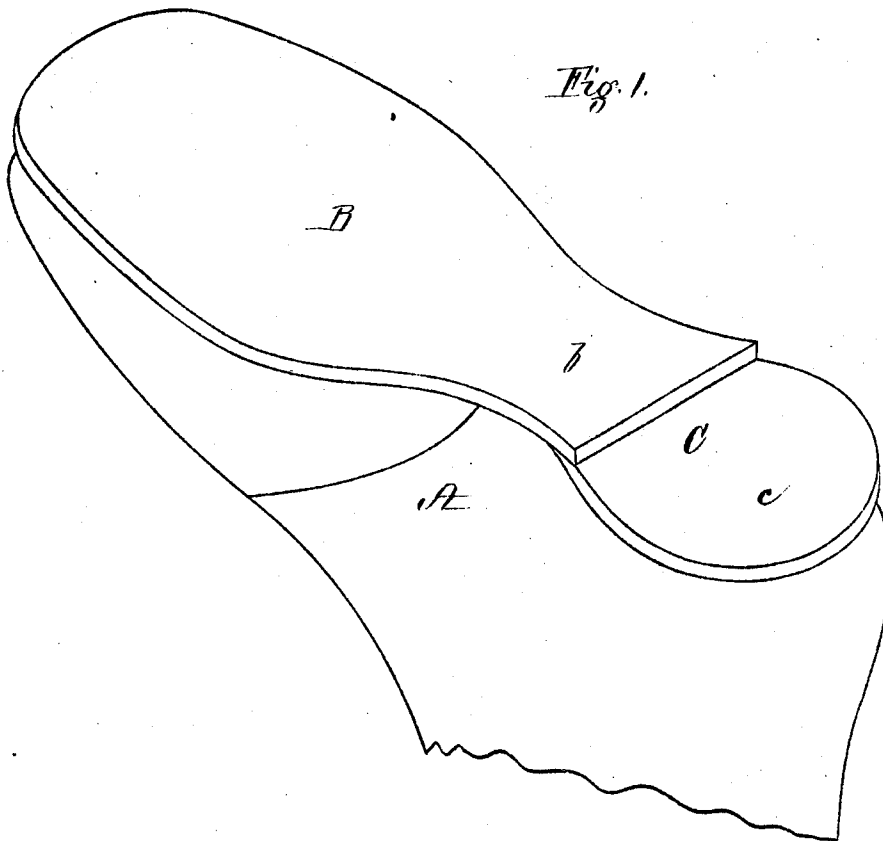


SAMUEL J. SHAW.

Manufacturing Boots and Shoes.

No. 123,736.

Patented Feb. 13, 1872.



Witnesses,  
W. J. Cambridge  
E. B. Whittier

Inventor  
Samuel J. Shaw  
Per his Attorneys  
Teschmacher & Stearns

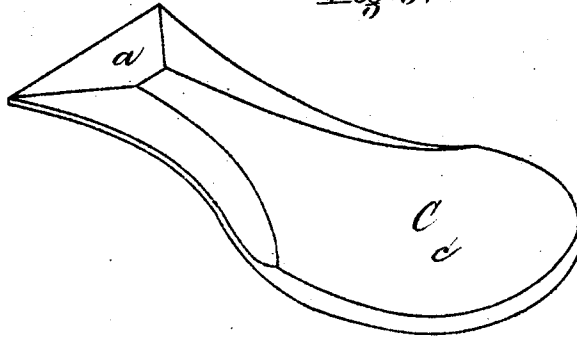
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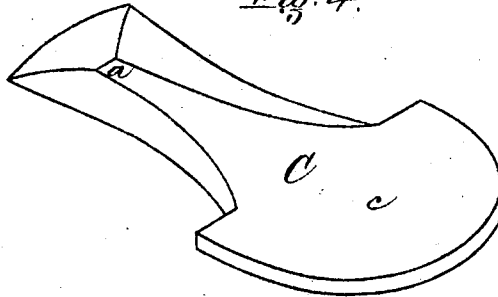
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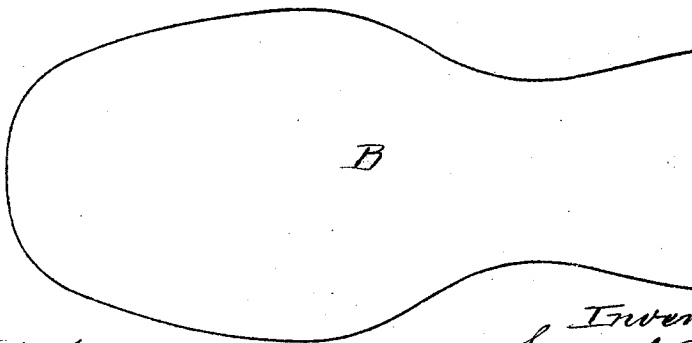
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



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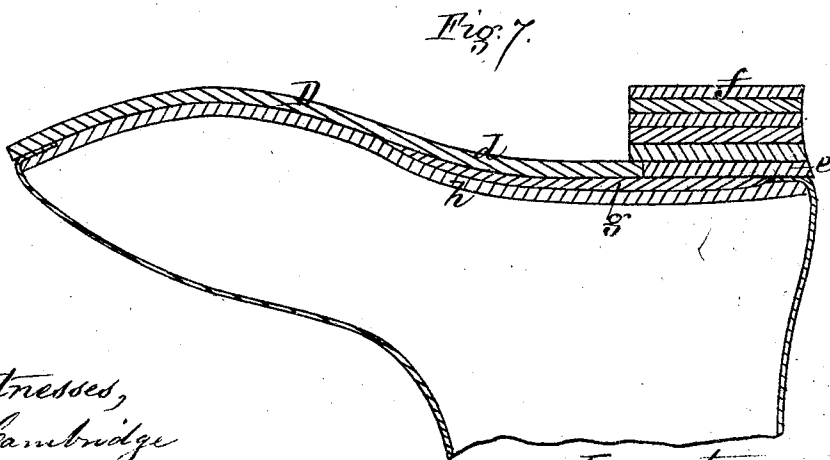
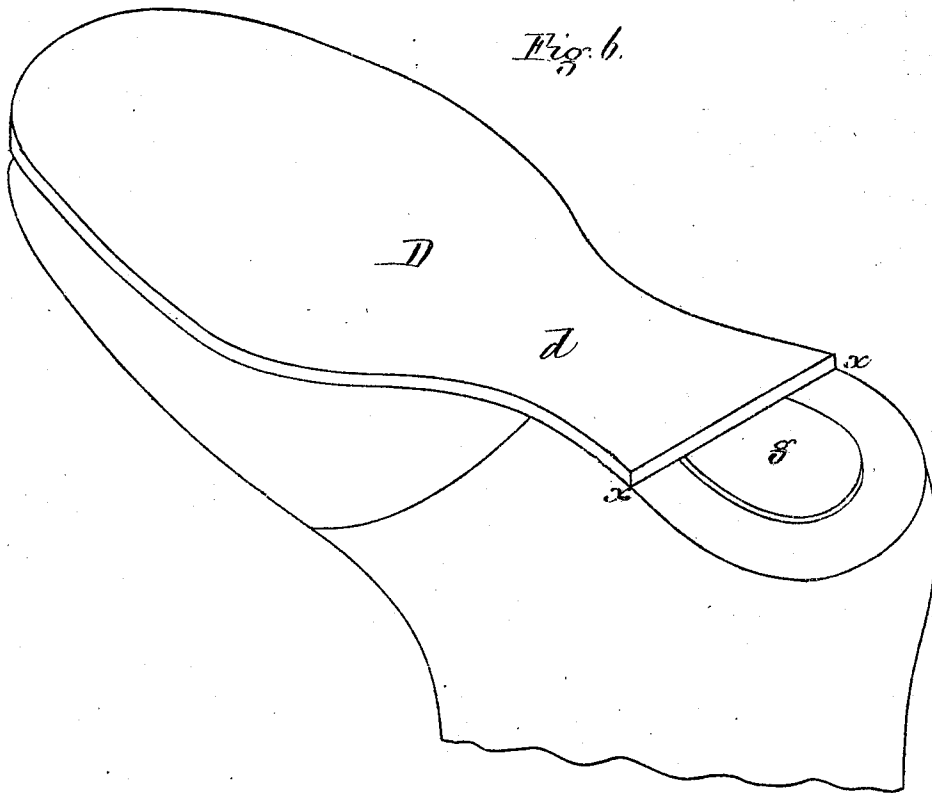
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## UNITED STATES PATENT OFFICE.

SAMUEL J. SHAW, OF MARLBOROUGH, MASSACHUSETTS.

## IMPROVEMENT IN THE MANUFACTURE OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. 123,736, dated February 13, 1872.

*To all whom it may concern:*

Be it known that I, SAMUEL J. SHAW, of Marlborough, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in the Manufacture of Boots and Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a perspective view of a shoe made in accordance with my invention, the heel being removed. Fig. 2 is a longitudinal section through the center of the same, the heel being in place. Fig. 3 is a perspective view of my combined "heel-lift" and "shank-piece." Fig. 4 is a perspective view of a "heel-lift" and "shank-piece" of a different form. Fig. 5 is a plan of the pattern of sole which I employ in connection with my combined "heel-lift" and "shank-piece." Fig. 6 is a modification of my invention. Fig. 7 is a longitudinal section through the same, with the heel portion of the outer sole and the heel in place.

The object of my invention is to provide a "heel-lift" and a "shank-piece" which shall extend under the heel and shank, to stiffen and strengthen the boot or shoe and prevent it from breaking down, as heretofore, this "shank-piece" being used where the outer sole is made in two pieces, or where the heel portion of the sole is omitted; and my invention also consists in the employment, in a boot or shoe having its outer sole made in two pieces, of a piece of leather or other suitable material placed between the inner and outer sole, and extending under the joint between the two portions of the outer sole, whereby the boot or shoe is materially strengthened at this joint and prevented from breaking down.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawing, A represents a shoe, the outer sole B of which is of the form shown, the heel portion being omitted. C is the "shank-piece," the forward portion *a* of which extends beneath the outer sole B, to shape or round and stiffen the shank portion *b* thereof, the rear portion *c* of the "shank-piece" being enlarged, and extending sufficiently far back to form the heel portion of the sole B. The

"shank-piece" is secured to the inner sole by pegs or otherwise, when the outer sole is applied, bent over to its proper shape, and secured in place; after which the heel is nailed on in the ordinary manner. The rear end of the sole B extends beneath the heel, and may be skived down so as to lie flush with the enlarged or heel portion *c* of the "shank-piece;" or this end of the sole may be left projecting above the portion *c*, as seen in Fig. 1, and the heel cut away to receive it.

It will be seen that my improved "shank-piece" not only forms the heel portion of the outer sole B, but also greatly stiffens and strengthens the boot or shoe at the point where it would otherwise be the weakest and most liable to break down if an outer sole of this description were employed.

Instead of making the "heel-piece" and "shank-piece" in one it is evident that the heel-piece may extend under the sole B only a short distance beyond the line *x x*, being fastened at both ends and the "shank-piece" being made separate. With this construction the boot or shoe will be strengthened, as before; but I prefer to make the heel-piece and shank-piece in one, as first described.

I do not confine myself to the exact form of shank-piece shown in Fig. 3, as it may be somewhat varied; for instance, it may be shaped as shown in Fig. 4; and in addition to its being made convex on the front portion of the upper side, as shown, it may be made hollow or concave on the rear portion of its under side to conform to the shape of the portion of the boot or shoe to which it is applied.

It is evident that my combined heel-lift and shank-piece may be used in a boot or shoe having its outer sole made in a single piece; for instance, it may be applied to a "spring-heel shoe" having no projecting heel, in which case it will serve to slightly raise the heel portion of the outer sole, as required.

In Figs. 6 and 7 is represented a modification of my invention, which I will now describe: D is the outer sole, made in two portions, *d e*, the joint between the two lying beneath the heel *f*. *g* is a piece of leather or other suitable material, which is placed between the inner sole *h* and outer sole D, and is securely fastened to the inner sole by pegs or otherwise. This piece *g* extends under the joint be

tween the two portions *d e* of the outer sole, and serves to strengthen the boot or shoe and prevent it from breaking down at this joint. The front portion of the piece *g* is convex on its upper side, and serves as a "shank-piece" to round and stiffen the shank portion of the outer sole *D*; but the piece *g* may extend only a short distance under the front portion *d* of the outer sole and be fastened at both ends, while the shank-piece may be made separate.

*Claim.*

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A heel-lift and shank-piece made of a single piece of leather or other suitable material, substantially as described.

2. I also claim a shank-piece, *C*, extending under the heel, to stiffen and strengthen the boot or shoe where the outer sole is made in two pieces, or where the heel portion is omitted, substantially as described.

3. I also claim, in a boot or shoe having its outer sole made in two or more pieces, a piece placed between the inner and outer soles directly under the joint, and extending under each portion of the outer sole, substantially as described.

Witness my hand this 5th day of December, A. D. 1871.

SAMUEL J. SHAW.

In presence of—

CLIFTON D. HUNTER,  
WILLIE A. OUTHANK.