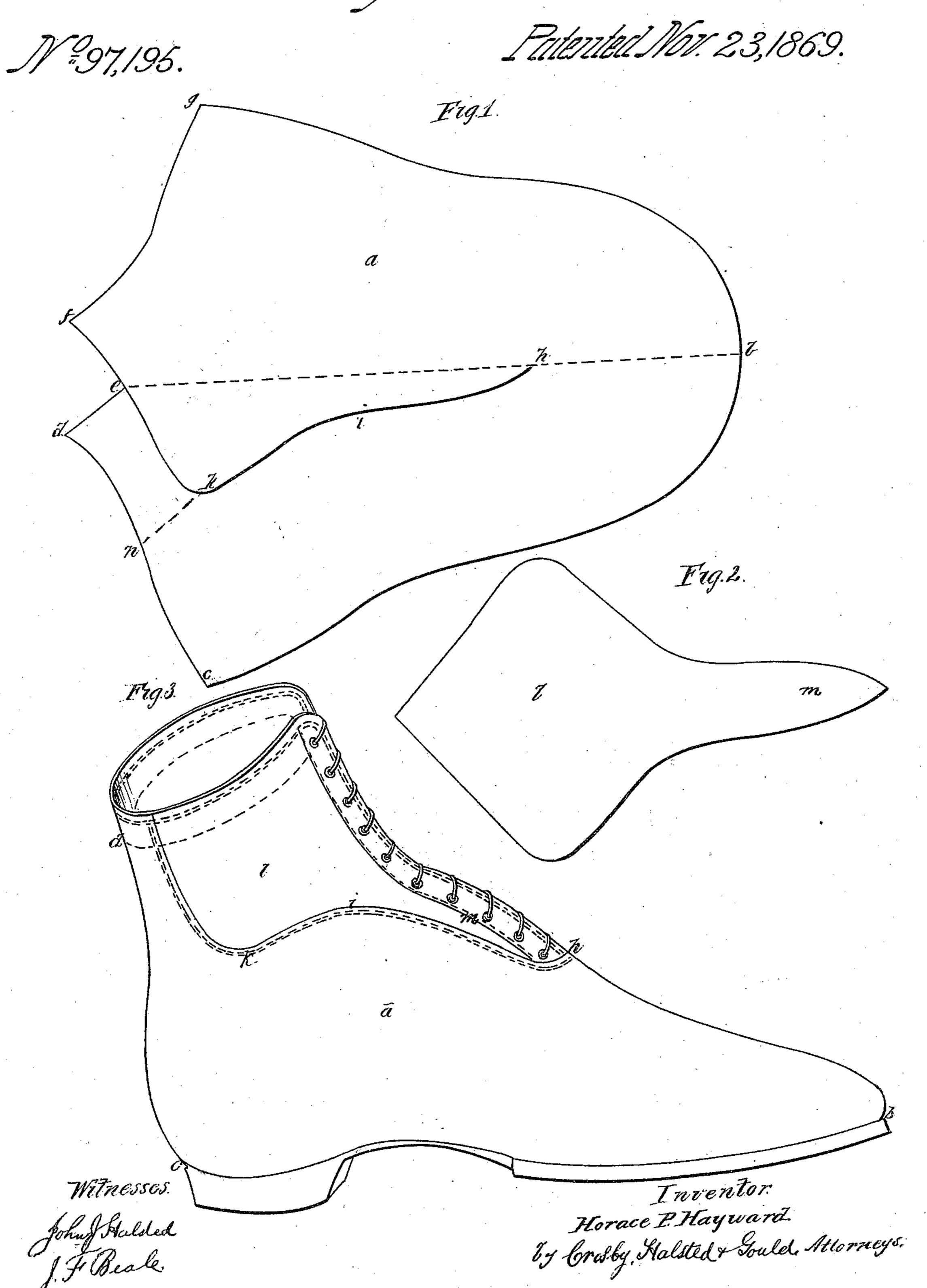
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## Anited States Patent Office.

HORACE P. HAYWARD, OF FITCHBURG, MASSACHUSETTS, ASSIGNOR TO HIMSELF, HENRY C. MAHURIN, IRA HOLT, LEVI SHERWIN, LUTHER J. BROWN, AND CHARLES N. WILSON, OF SAME PLACE.

Letters Patent No. 97,195, dated November 23, 1869.

## IMPROVEMENT IN MODE OF CUTTING SHOES.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, Horace P. Tayward, of Fitchburg, in the county of Worcester, and State of Massachusetts, have invented an Improvement in the Manufacture of 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 the art to practise it.

My invention relates to an improvement in the manufacture of that class of boots and shoes, in which the vamp or upper is formed of one principal piece of leather, there being a comparatively very small or sort of goring-piece inserted to complete the top of the leg on one side of the boot.

Heretofore, in cutting out such uppers, it has been customary to cut a straight slit in the front of the yamp, from the bottom of the lacing-slit up to the ankle. In lasting such an upper, it is impossible to draw the leather smoothly down upon the last, and consequently impossible to make a perfectly-fitting boot or shoe.

The object of my present improvement, is to remedy this defect, and I accomplish this by departing from the centre line of the upper at the bottom of the slit, making an acute-angled slit, as seen in the accompanying drawings at Figure 1. It is in this construction of a boot or shoe that my invention consists.

The drawings represent at fig. 1, the main piece of leather of the upper, cut out in accordance with my improvement, and at Figure 2, the insertion piece that is stitched to the leg to complete the upper

Figure 3 shows a boot embodying the improvement.

a denotes the upper, which being first cut from the skin in the form represented by the contour lines b c d e f g b, has then a slit cut, which, commencing on the centre line e b at the point h, which point denotes the bottom of the lacing-slit, departs from said straight line at an acute angle thereto, as shown at the intersection of the line h with the line e b.

As before observed, it has been customary to cut

the slit straight from the point h up to a point which comes upon the ankle, and this left a straight edge to be drawn over the cone of the last, with which edge it is impossible to bring the upper, so made in one piece, down snugly and closely to the irregular top surface of the last. But by running the slit angularly from its start, as seen at fig. 1, I can draw this upper edge over the face of the last, as indicated in the drawing of the boot at fig. 3, the gore-piece l being made with a long tongue, m, fitting into the opening made on one side by this slit, the main part of the piece finishing out the leg, as seen at fig. 3. Cut in this manner, the upper takes less stock, and makes a better and more saleable boot.

The improvement is applicable to many of the various styles of boots and shoes, such as high-top balmorals, strap shoes, Oxford ties, &c., and with all such boots and shoes, makes a very neat and symmetrical line at the top of the edge formed by so cutting the slit.

It will be observed that no part of the leather is cut out and wasted anywhere along the line h i k e, and also that the contour of the line h i, renders it unnecessary to cut away any portion of the piece to insure a graceful line.

To make a shoe with a higher ankle or leg than that shown at fig. 1, the cut, instead of running from k to e, may run from k to n, as shown by fine dotted lines in fig. 1, the essential feature in all cases being the angular cut at h.

I claim the main piece of a shoe-upper, cut in the manner shown in fig. 1, that is, the lacing-slit commencing at h in the centre line of the upper, and running at an angle thereto, substantially as described.

Also, a boot or shoe, having its upper formed of one main piece a, and the small goring-piece l, when the main piece is cut with the lacing-slit, commencing at h in the centre line of piece a, and running at an angle thereto, substantially as described.

HORACE P. HAYWARD.

Witnesses:

SILAS DEAN, H. C. MAHURIN.