



# UNITED STATES PATENT OFFICE.

GEORGE W. CHASE, OF NORTH ADAMS, MASSACHUSETTS.

## SHOE.

SPECIFICATION forming part of Letters Patent No. 622,444, dated April 4, 1899.

Application filed November 18, 1898. Serial No. 696,751. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. CHASE, of North Adams, county of Berkshire, State of Massachusetts, have invented an Improvement in Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This present invention is an improved shoe relating to that class of shoes in which preferably a whole upper or vamp is employed having a backstay formed integrally therewith.

My invention relates to the back formation of the shoe, and has for its object the provision of a strong, smooth, comfortable, neat, and attractive whole-back shoe.

The constructional details of my invention and various advantages thereof will be pointed out in the course of the following description, reference being had to the accompanying drawings, illustrative of a preferred embodiment of the shoe, and the invention will be more particularly defined in the appended claims.

In the drawings, Figure 1 shows in perspective a shoe embodying my invention. Figs. 2 to 4 are fragmentary details showing in elevation the various steps in the manufacture thereof. Fig. 5 is an enlarged cross-sectional view on the line 5 5, Fig. 3.

The general construction of this shoe A may be of any kind and style desired and will not therefore require further description. At the back, which will preferably be whole, about the counter  $a$ , I cut a backstay  $a'$  from the quarter of the shoe, this backstay being preferably cut on a bevel at its edges, as indicated at  $a^2$  and shown fully in Fig. 5. This backstay is herein shown as having opposite side edges  $a^3$ , nearly parallel, extending from adjacent the counter-line at the base  $a^4$  of the stay preferably to a point slightly short of the top edge of the shoe, the upper end of the stay having converging edges  $a^5$ . Having cut the stay-piece substantially as described, I cut out the material at either side thereof, as indicated at the curved edges  $a^6$ , Fig. 3, these curved edges being thereafter brought together, so as to give the proper curve and shape to the back, where, if desired, they may be stitched together by a zigzag-machine, so

that when the shoe is spread out they will be brought together, making a smooth surface upon which to stitch the backstay, as indicated at  $a^7$ , Fig. 4, although preferably these zigzag stitches  $a^7$  will not be employed, as under usual circumstances the vertical through-and-through stitches, hereinafter described, will be ample. The reinforcing stay-piece  $a'$ , having been cut obliquely at its edges, so as to produce bevel edges, does not need to be skived, but stitches down to the upper with perfect smoothness, and another most important feature of novelty of my present invention is found in the fact that as the parts are cut out, as already described, and occupy arcs of different radii the stay-piece will extend sufficiently beyond the whole from which it was cut to entirely cover and conceal the latter, as indicated by dotted lines, Fig. 4.

Cutting the edges on a bevel enables the material to stretch slightly, and this, taken in connection with the fact that the stay-piece comes on the inside of the curve, enough length is thereby secured to cause the stay to overlap the place from which it was cut.

A line of stitches  $a^8$  secures the stay to the upper along the periphery of the stay. Preferably the edges  $a^6$  are stitched to the stay by opposite vertical rows of stitches  $a^9$ , passing through and through the stay and abutted edges beneath the same.

The rows of stitches  $a^9$  may be made by a two-needle machine, although I prefer to make them as indicated in Fig. 1, where the line of stitches begins at  $a^{10}$  and continues up to the top of the V at  $a^{11}$ , crossing over to the opposite side, as indicated at  $a^{12}$ , and continuing up along the edge to the top of the incision, thence coming down the other side of the cut and again crossing at the V and ending on the opposite side of the base of the stay, as indicated at  $a^{13}$ . This manner of stitching gives great strength and also produces extreme smoothness on the inside of the stay, so that the heel-seam is flat and smooth and cannot hurt the foot of the wearer.

As there are no angles or puckering-places made in the leather in the process of manufacture the wearing features of the shoe are increased.

For greatest strength the construction is employed substantially as shown in Fig. 4,

this figure, however, it will be understood, showing the upper portion of the stay stripped back in order to reveal the constructional arrangement beneath the same; but, if desired, 5 as stated above, one or the other of the stitches  $a^7$   $a^9$  may be omitted.

While I have herein shown and prefer to employ the precise construction described, yet it will be understood I am not restricted 10 thereto, inasmuch as various changes and substitutions may be resorted to within the spirit and scope of my invention.

Having described my invention, what I claim as new, and desire to secure by Letters 15 Patent, is—

1. In a shoe, a back formation comprising a reinforcing stay-piece cut from the quarter and integral therewith at its base, all the edges of said stay-piece throughout their entire extent being beveled, and the adjacent 20 edges of the upper being brought together behind the stay-piece, and the stay-piece and upper being stitched together by through-and-through stitches, substantially as described.

25 2. A shoe having a stay-piece formed integrally with the upper, said stay-piece having its peripheral edges beveled, the upper being brought together behind the stay-piece, and the latter being stitched thereto along its 30 edges and having rows of stitches passing through and through the middle of the stay-piece and the contiguous edges of the upper behind said stay-piece, substantially as described.

3. A shoe having a stay-piece formed integrally with the upper, said stay-piece having its peripheral edges beveled, the upper being brought together behind the stay-piece, and the latter being stitched thereto along its edges and having rows of stitches passing 40 through and through the middle of the stay-piece and the contiguous edges of the upper behind said stay-piece, said contiguous edges of the upper being abutted and stitched together by zigzag stitches, substantially as described. 45

4. A shoe formed with a whole-cut back, said back having an integral stay-piece cut therefrom by opposite incisions meeting together at their upper ends and terminating 50 short of the top edge of the shoe, the edges of the upper adjacent said stay-piece being properly cut away and brought toward each other to secure the required curvature at the back of the shoe, and said stay-piece being 55 stretched over said brought-together edges, the upper end of the stay-piece being lapped beyond the upper end of the incision, and said stay-piece being peripherally stitched to the shoe-upper about the opening from which 60 it was cut, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEO. W. CHASE.

Witnesses:

HENRY B. ROBINSON,  
MOSES L. AMADON.