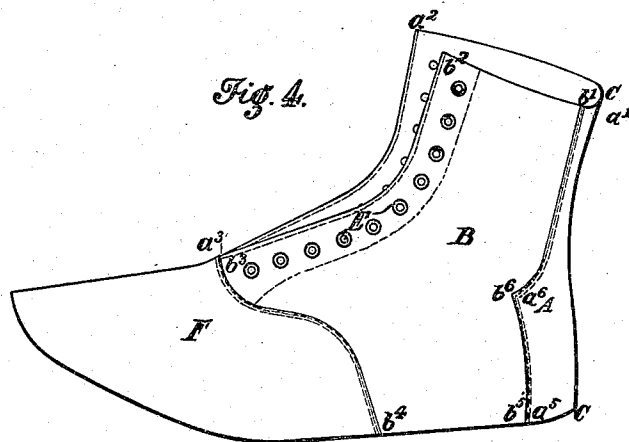
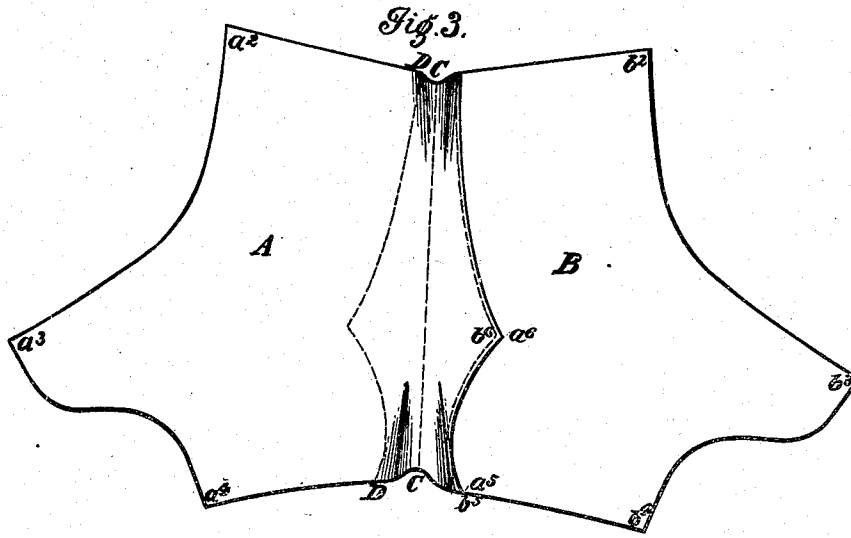




A. E. WHITELOW.  
UPPER FOR BOOTS OR SHOES.  
APPLICATION FILED OCT. 2, 1908.

937,493.

Patented Oct. 19, 1909.  
2 SHEETS—SHEET 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALBERT EDWARD WHITELAW, OF CLIFTON HILL, VICTORIA, AUSTRALIA.

UPPER FOR BOOTS OR SHOES.

937,493.

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed October 2, 1908. Serial No. 455,917.

To all whom it may concern:

Be it known that I, ALBERT EDWARD WHITELAW, a subject of the King of Great Britain, residing at 64 Dwyer street, Clifton Hill, in the State of Victoria, Commonwealth of Australia, manager, have invented certain new and useful Improvements in Uppers for Boots or Shoes, of which the following is a specification.

10 This invention relates to an upper seamless at the back of the shoe, whereby it has greater flexibility, strength and durability.

15 The object of this invention is to provide a shoe of this character in an economical manner without multiplying the parts or seams, without blocking and without extra labor or material.

20 The invention consists of an upper for a boot or shoe seamless at the center of the back of the shoe and comprising quarters united at their back edges by a single seam disposed at one side of said center, said quarters being of peculiar construction as hereinafter described and claimed.

25 Figure 1 of the accompanying drawings represents a plan view of detached quarters embodying this improvement. Fig. 2 represents a perspective view of the peculiar quarters united along their lower rear edges. Fig. 3 represents a plan view of said quarters completely united to form the back of the upper. Fig. 4 represents a perspective view of an upper showing one embodiment of this invention.

35 The same reference letters are used in all the figures in the designation of the same parts.

40 By reference to Fig. 1 it will be seen that of the two pieces or quarters constituting the back part of the upper one is larger than the other the former having an extension which passes around the back and A represents the larger piece and B the smaller piece. In these two pieces, with the exception of the back edges, the other edges are cut as heretofore, those at the top,  $a'-a^2$  and  $b'-b^2$ , correspond and form the top of the leg, the edges  $a^2-a^3$  and  $b^2-b^3$  form the lace opening, the edges  $a^3-a^4$  form the vamp seams which extend from the bottom of the lace opening to the waist, while the edges  $a^4-a^5$  and  $b^4-b^5$  pass around the heel where the upper is attached to the sole.

55 In cutting the edges along the back edge where the shape to be produced at the back is concave the larger piece A is cut with an

inward curve of less radius than the corresponding curve of the smaller piece B and conversely where the shape to be produced at the back is convex the smaller piece B is cut with an outward curve of less radius than the corresponding curve of the larger piece A. The extent of the deviation of these curves will give the extent of the concavity or convexity produced as the case may be. Thus in forming the convex curve at the heel the smaller piece B is cut from  $b^5-b^6$  with a curve of less radius than the curve  $a^5-a^6$  of the larger piece A. In forming the concave curve at the back of the ankle the edge of the larger piece A is cut from  $a^6$  to a point at about  $a^7$  with a curve of less radius than the curve  $b^6-b^7$  of the smaller piece B, the points  $a^7$  and  $b^7$  corresponding on the completed upper.

75 In forming the convex curve at the back high up the leg the smaller piece B would be cut with a curve of less radius than the curve of the larger piece A. In the upper formed as shown in Fig. 1 this fact is hardly appreciable as the back would be just commencing to converge into a convex curve. But it will be seen that both the pieces A and B from  $a^7$  to  $a^8$  and  $b^7$  to  $b^8$  respectively are cut in almost straight lines. Now in assembling the two pieces A and B together the larger piece A is stitched to the smaller piece B (or vice versa) one piece overlapping the other to the usual extent to form a seam, by making the edge  $a^5-a^6$  conform to the edge  $b^5-b^6$  as they pass through the machine as shown in Fig. 2. The stitching is continued by making the edge  $a^6-a^7$  conform to the edge  $b^6-b^7$  as shown in Fig. 3, the point  $a^7$  being made to conform to the point  $b^7$  and the difference between the distance from  $a^6$  to  $a^7$  and from  $b^6$  to  $b^7$  being equalized by stretching the larger part A as it passes through the machine. In the completed upper the dotted line  $c-c$  in the larger piece A (Figs. 1 and 2) represents the line of the back. When the upper is completed as described a row of stitches may be run from D-D in the larger piece A (Fig. 3) for ornamentation corresponding with the seam formed by joining the two pieces together and the upper thus presents the appearance of an upper with two corresponding seams equidistant from the center of the back, although having actually but a single seam on one side of said center.

The upper is finished off in the ordinary

way as shown in Fig. 4 the eyelets E and vamp F being attached as usual. An upper formed in this way according to my invention has no seam along the center of the back thus producing a stronger and more durable upper without having recourse to blocking to produce the necessary shape.

I claim:—

10 An upper for a boot or shoe seamless at the center of the back of the shoe and comprising quarters united at their back edges by a single seam disposed at one side of said center, one of said quarters having an extension at its rear part, said extended  
15 quarter having a concave curvature on the upper part of its rear edge and a convex curvature on the lower part thereof, the

smaller quarter having a convex curvature on the upper part of its rear edge and a convex curvature on the lower part thereof, 20 said upper curvature of said smaller quarter being of greater radius than said upper curvature of said extended quarter and said lower curvature of said extended quarter being of greater radius than said lower 25 curvature of said smaller quarter.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALBERT EDWARD WHITELOW.

Witnesses:

CLEMENT ALFRED HACK,  
EDGAR LEMUEL ROSMAN.