(No Model.)

C. S. PIERCE.

BOX TOE STIFFENER.

No. 574,448. Patented Jan. 5, 1897.

Fig. 1.

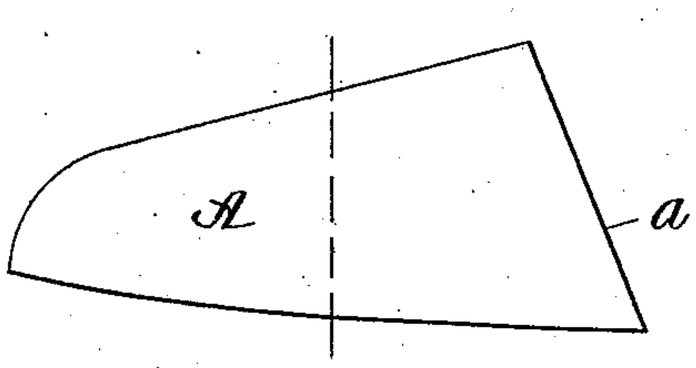


Fig. 2.

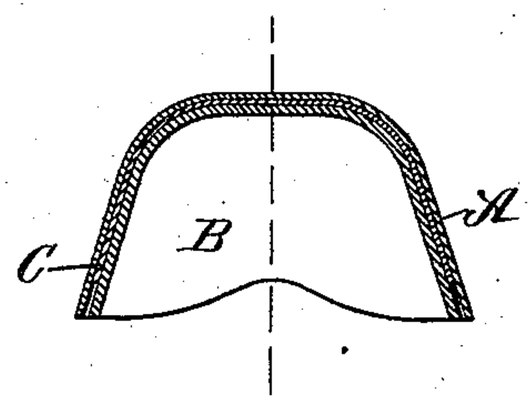


Fig. 3.

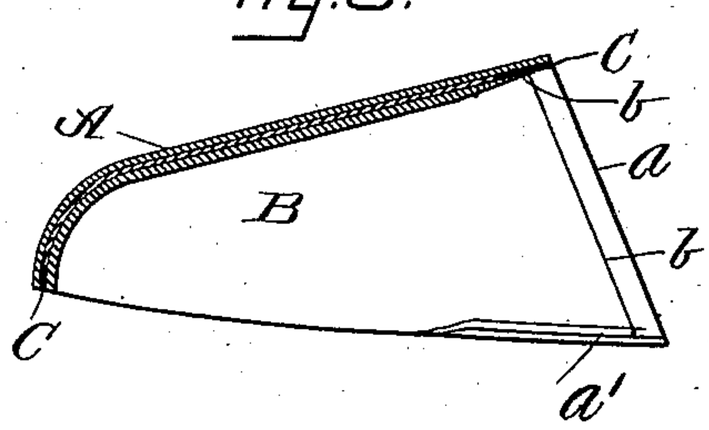
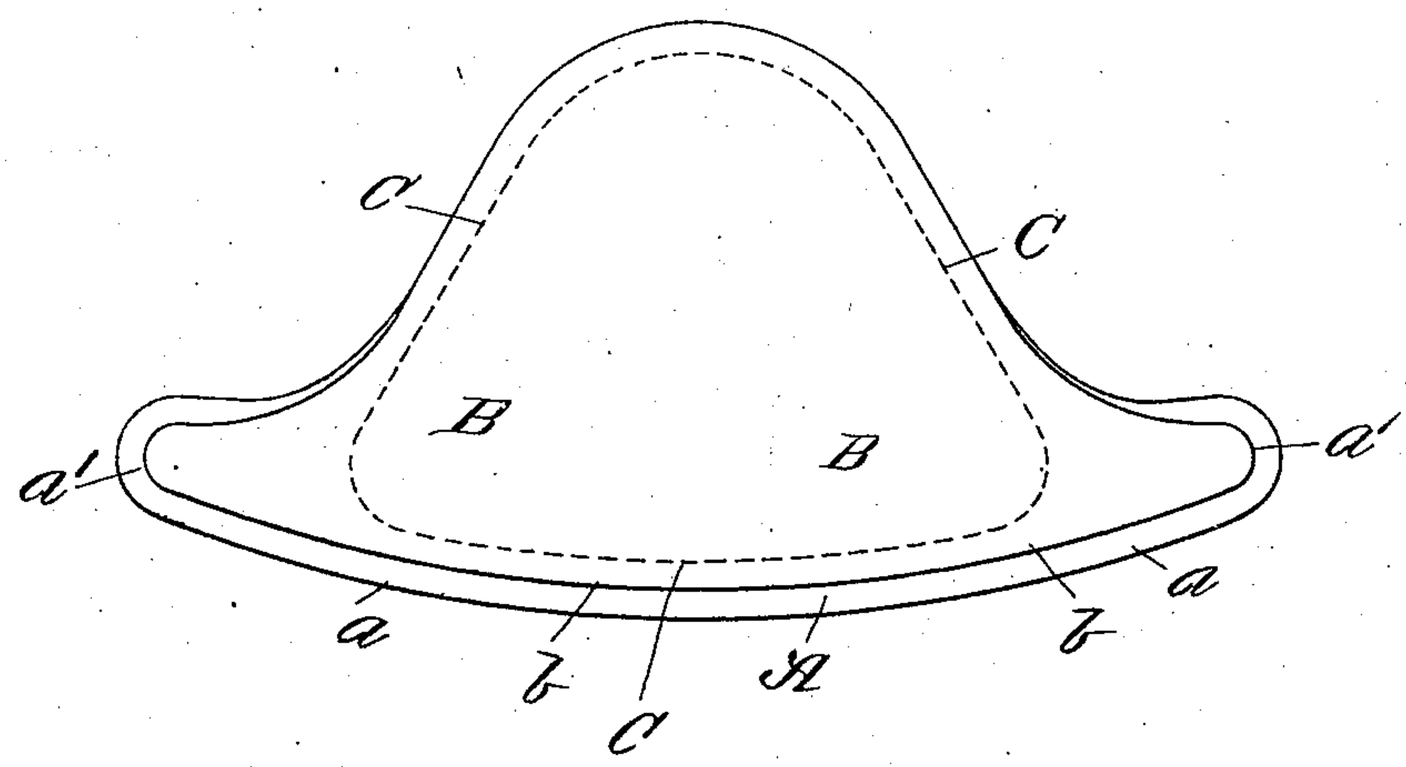


Fig. 4.



WITNESSES:

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CHARLES S. PIERCE, OF BROCKTON, MASSACHUSETTS.

BOX-TOE STIFFENER.

SPECIFICATION forming part of Letters Patent No. 574,448, dated January 5, 1897.

Application filed May 16, 1896. Serial No. 591,765. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. PIERCE, of Brockton, in the county of Plymouth and State of Massachusetts, have invented an Improved Box-Toe Stiffener, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of my improved stiffener. Fig. 2 is a cross-section, and Fig. 3 is a longitudinal section. Fig. 4 is a plan of the improved blank, leather side up, from which the stiffener is molded.

My invention is a box-toe stiffener of a peculiar construction and possessing certain practical advantages over any before known.

My improved stiffener is made up of an outer layer A of textile fabric, which is of a size and shape to form the outer surface of the completed article and also the inturned portions *a'* for the thread or other fastening means to unite the stiffener to the sole of the shoe; of an inner layer B of leather skived along its edge *b* and of substantially the same shape as the outer layer A, but so much shorter that the skived edge *b* of layer B will be parallel with the corresponding edge *a* of layer A, as shown in Fig. 4, and of an intermediate layer C of textile material which is of the same shape generally as the layers A and B, but of less area, as will be plain from the dotted lines of Fig. 4, as well as from Figs. 2 and 3. These three layers are connected together, as shown in Fig. 4, with glue or other cement, which will stiffen the textile fabric and closely unite the three layers, and before the cement hardens the compound blank thus formed is molded to the desired shape, as will be clear to all skilled in the art.

The main objects of my invention are, first, to obtain a perfect graduation of stiffness along the rear of the stiffener or that portion indicated by the lines *a* and *b* and the corresponding dotted line in Fig. 4; secondly, to prevent the glue or other cement used from coming into contact with the stocking of the wearer, and also to give greater smoothness to the inner surface of the stiffener. The leather layer B is in practice of sheepskin, as a thin leather is just as good if not preferable to a thicker and more expensive leather, for the textile-fabric layers stiffened by the cement used give the necessary stiffness and toughness, and the main function of the leather layer B is to give smoothness to the inner surface and shield the stocking from the cement used.

When the area of the layer C of textile fabric is properly graded with reference to the areas of the layers A and B, the glue may be applied to the layer C only, and the pressure in molding will cause a thin film of glue to get between the skived edge *b* of the leather B and that part of layer A in contact with that skived edge, thus causing the skived edge of layer B to adhere firmly to layer A without smearing that part of layer A between the edge *b* of layer B and edge *a* of layer A.

In practice I coat the inner surface of the layer A with glue, except a strip along the edge *a*, and also coat the inner surface of layer B with glue, except a strip along the edge *b*, and coat both surfaces of layer C with glue.

What I claim as my invention is—

The improved box-toe stiffener composed of the outer layer A, of textile fabric, the inner layer B of leather, and the intermediate layer C of textile fabric graded as described with relation to edge *b* of layer B, and with the edge *a* of layer A extending beyond the skived edge *b* of layer B; connected together and molded as and for the purposes specified.

CHARLES S. PIERCE.

Witnesses:
JOHN R. SNOW,
OLIVER R. MITCHELL.