March 20, 1928. 1,662,845

E. CASSANO

SHOE

Original Filed July 18, 1922 2 Sheets-Sheet 1

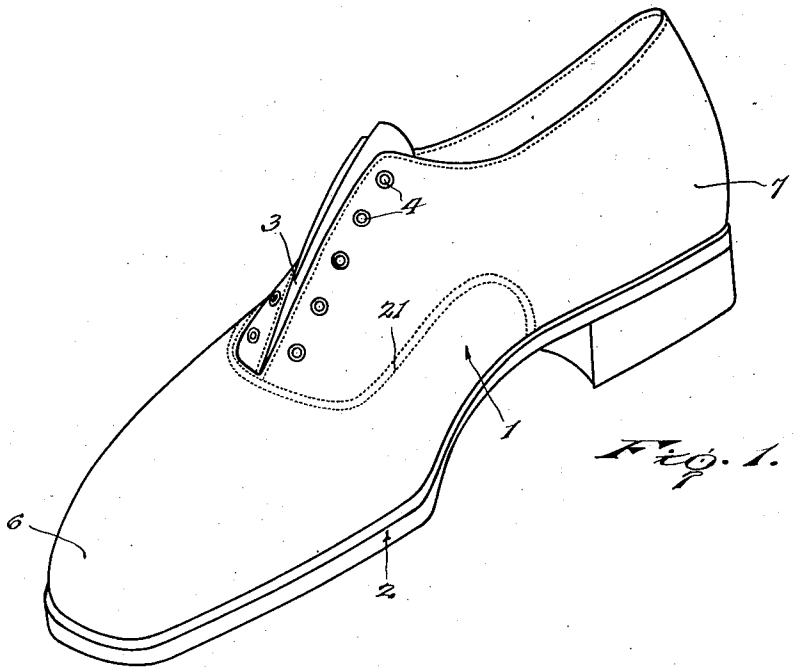


Fig. 1.

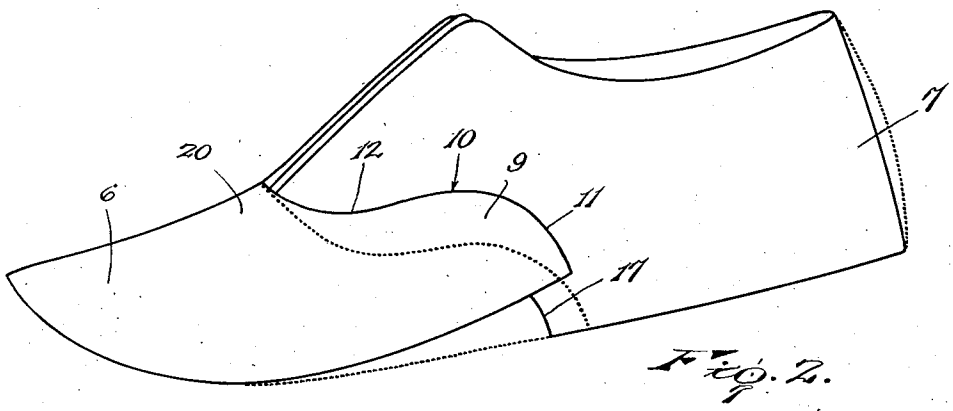


Fig. 2.

Firminio Cassano INVENTOR.

BY

Lacy & Lacy ATTORNEYS

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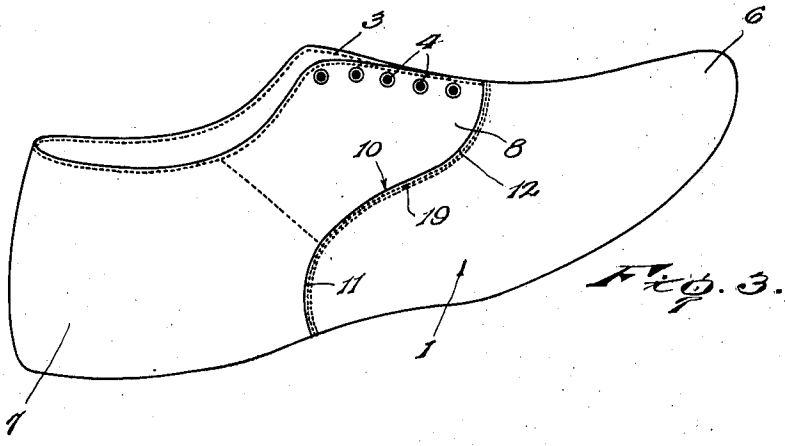


Fig. 3.

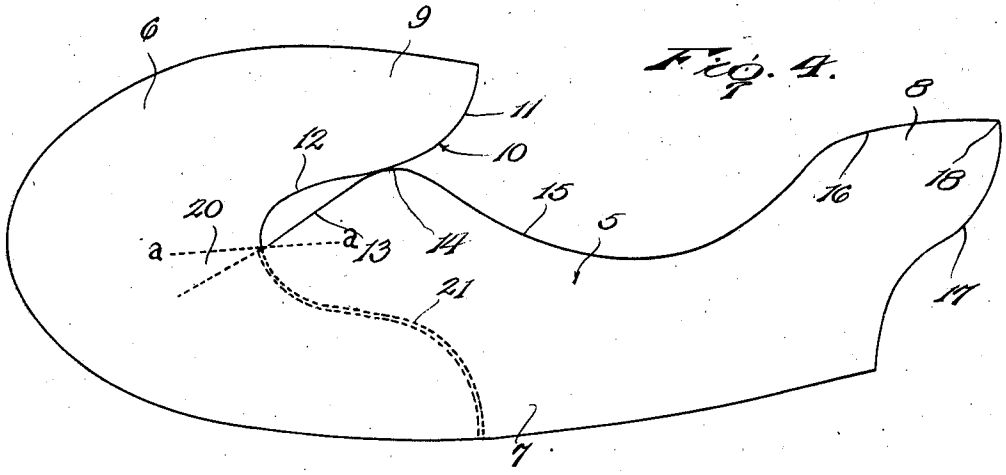


Fig. 4.

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Patented Mar. 20, 1928. 1,662,845

UNITED STATES PATENT OFFICE.

ERMINIO CASSANO, OF FRAMINGHAM, MASSACHUSETTS.

SHOE.

Application filed July 18, 1922, Serial No. 575,805. Renewed December 3, 1926.

This invention relates to improvements in footwear and more particularly to what is commonly known as a one piece shoe and in which article the entire upper is formed of one piece of leather.

Particularly my invention relates to forming the uppers of a low shoe with a minimum waste of material and in a manner to secure fullness at the toe and tightness at the upper portion of the heel without crimping or stretching, and will be best understood from the following description when read in light of the accompanying drawings, while the scope of my invention will be more particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a perspective view of a low shoe formed in accordance with the present invention;

Fig. 2 is a side elevation of the upper illustrating in full lines the arrangement of the same in a preparatory step in the manufacture of the shoe and in dotted lines illustrating the manner in which the fullness above referred to is produced;

Fig. 3 is a perspective view of the upper in the form it will assume prior to the lasting operation;

Fig. 4 is a plan view of the blank from which the upper is formed.

In the drawings the shoe upper is indicated in general by the reference numeral 1 and the sole by the reference numeral 2, the upper having the usual throat 3 provided at its opposite sides with the usual eyelets 4 for the passage of the shoe lace, or if desired the throat may be closed by buttons or any other suitable means. The upper is formed from a blank of the general contour shown in Fig. 4 of the drawings and this blank which is indicated in general by the numeral 5 comprises an end portion 6 designed to form the toe portion of the upper, an intermediate portion 7, and a second end portion indicated by the numeral 8. The toe portion 6 of the blank has its outer edge symmetrical with the median line *a*—*a* of said toe portion and comprises an extension 9 directed generally toward the opposite end of the blank, the outer edge of the extension being substantially continuous with the curvilinear edge of the body of the toe portion. The inner edge of the extension 9, indicated by the numeral 10, preferably is a reverse curve so that the proper fullness will be given to the side of the shoe and the stitching will be placed most effectively to take the strain to which it is subjected. The convex length of the curved edge 10 is indicated by the numeral 11 and the concave length by the numeral 12, the latter terminating at the median line of the toe portion of the blank for a purpose which will presently appear.

The intermediate portion 7 of the blank has a substantially straight edge 13 which forms one side of the front opening of said shoe and extends from the inner end of the concave length 12 of the edge 11 of the toe portion extension 9, substantially chordal to the said edge portion 12 and terminates near the neutral point of the edge 10, which is to say near the juncture of the portions 11 and 12. The outer end of the edge portion 13 is connected by a curved edge 14 contacting the neutral point of the reversely curved edge 10 to the edge 15 forming the top opening of the shoe, by which construction not only is the cutting of the blank facilitated but a saving in leather is effected. The end portion 8 of the blank has an upper edge 16 which forms one side of the front opening of the shoe when brought into registry with the edge 13. It will be noted that the edge 13 of the blank is at a greater angle to the lengthwise direction of the blank than the edge 16, the blank being cut so that the edge 16 is considerably above the median line of the toe portion of the shoe, both the edges 13 and 16 being inclined upwardly in the same direction relatively to the median line *a*—*a* of the toe portion of the blank.

The portion 8 has a reverse curve 17 of substantially the same shape and size as the curve 10 at the toe portion of the blank, the edge 16 being so positioned that when the edge 16 is brought into registry with the edge 13 the edge 17 will substantially assume the position indicated by the line 21 in Fig. 4 of the drawings. As is clearly apparent from the drawings the chord connecting the extreme ends of the curve 17 is at a greater angle to the length of the blank than the corresponding chord of the reverse curve 10.

Owing to the unsymmetrical relation of the edges 13 and 16, when the blank is folded to bring them into registry as indicated in Figs. 2 and 3 the portion of the blank intermediate the edges 13 and 16 must be twisted, which will cause the rearward portion of the shoe to assume the shape shown by Fig.

3 due to the fact that the portions of the blank adjacent the edge 15 are pulled together more than the corresponding portions along the bottom portion of the blank. This gives fullness to the bottom portion of the upper about the heel and makes a restricted opening at the top of the upper so as to curve the extreme rearward portion of the upper and cause it to fit the heel of the wearer.

It will be noted by the above described construction that the extension 9 of the toe portion overhangs that part of the blank having the edges 13, 14 and 15 so that considering the extreme vertical height of the blank as viewed in the drawings the blank is compact which results in a minimum waste of leather which is of importance in quantity production. It will also be noted that by forming the edge 10 and portion 14 in contact, or in other words forming the blank with the edge 10 as near as possible to the edge 14 to secure compactness also results in simplifying the cutting of the blank.

It will be noted that the edge 13 is at such angle to the median line *a*—*a* of the toe portion that the blank when folded will cause the edges 10 and 17 to be out of registry, as shown in Fig. 2, which is due to the fact that the toe portion of the blank tends to fold on a line which is a continuation of the edge 13. From this it follows that the edge 10 must be pulled down towards the edge 17 before the parts are stitched, and in consequence the part of the toe portion adjacent the apex of the front opening of the shoe where the edges 10 and 17 are substantially in registry is but little affected by this operation but which results in giving fullness to the point of the toe portion.

Having thus described the invention, what is claimed as new is:

1. A blank for a one piece upper of a low shoe comprising a toe portion with a reversely curved edge, said blank having a portion with an edge forming one side of the front opening of said shoe and intersecting said reversely curved edge at substantially the median line of said toe portion, said blank having a portion with an edge forming the other side of the front opening of said shoe, the last mentioned edge being above the median line of said toe portion and being unsymmetrical with and at a different angle to the length of the blank than the edge forming the first mentioned side of the front opening, said blank having a portion with a concave edge forming the top opening of said shoe and joined to said edges forming said front opening, and said blank having a convex edge opposite said concave edge.

2. A blank for a one piece upper of a low shoe comprising a toe portion with a reversely curved edge, said blank having a portion with an edge forming one side of the front opening of said shoe and intersecting said reversely curved edge at substantially the median line of said toe portion, said blank having a portion with an edge forming the other side of the front opening of said shoe, the last mentioned edge being above the median line of said toe portion and being unsymmetrical with and at a different angle to the length of the blank than the edge forming the first mentioned side of the front opening, said blank having a portion with a concave edge forming the top opening of said shoe and joined to said edges forming said front opening, said blank at its end opposite said toe portion having a reversely curved edge joined to said edge forming the last mentioned side of said front opening, and said blank having a convex edge opposite said concave edge.

3. A blank for a one piece upper of a low shoe comprising a toe portion with a reversely curved edge, said blank having a portion with an edge forming one side of the front opening of said shoe and intersecting said reversely curved edge at substantially the median line of said toe portion, said blank having a portion with an edge forming the other side of the front opening of said shoe, the last mentioned edge being above the median line of said toe portion and being unsymmetrical with and at a different angle to the length of the blank than the edge forming the first mentioned side of the front opening, said blank having a portion with a concave edge forming the top opening of said shoe and joined to said edges forming said front opening, said blank at its end opposite said toe portion having a reversely curved edge the chord of which is at a greater angle to the median line of said toe portion than the chord of said reversely curved edge at said toe portion, and said blank having a convex edge opposite said concave edge.

4. A blank for a one piece upper of a low shoe having the toe portion 6 with the reversely curved edge 10, the opposite portion of the blank being formed with the reversely curved edge 17, said blank having the edge 13 forming one side of the front opening of said shoe and the edge 16 forming the other side of the front opening, said edges being unsymmetrically arranged relatively to the blank and at different angles to the length of the blank, and said blank having the edge 15 forming the top opening of said shoe, the intersection of said edges 13 and 15 contacting the edge 10.

In testimony whereof I affix my signature.

ERMINIO CASSANO.