

March 15, 1927.

L. L. BEAN

1,620,712

INSIDE PROTECTING STAY FOR LEATHER TOP RUBBERS

Filed Jan. 28, 1926

2 Sheets-Sheet 1

Fig. 1.

Fig. 2.

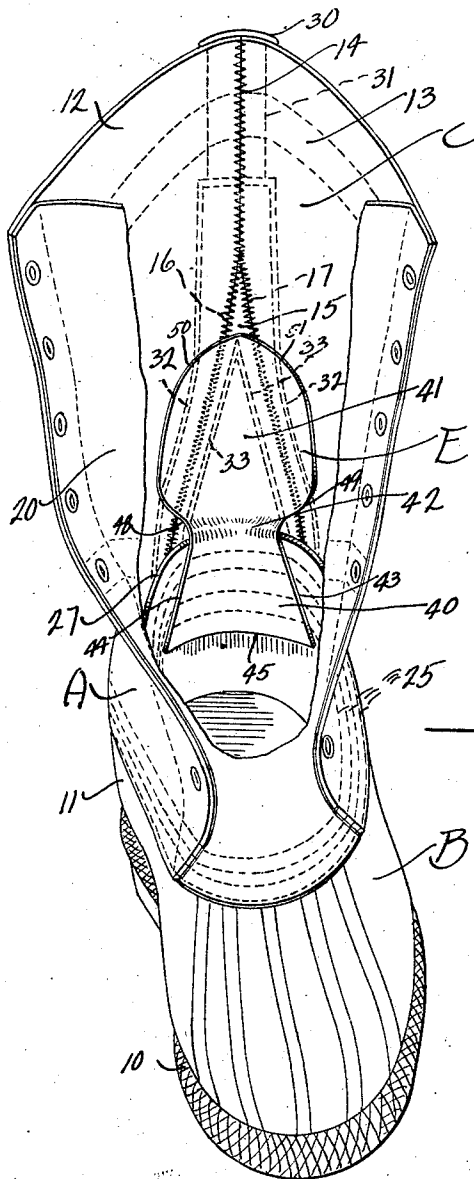
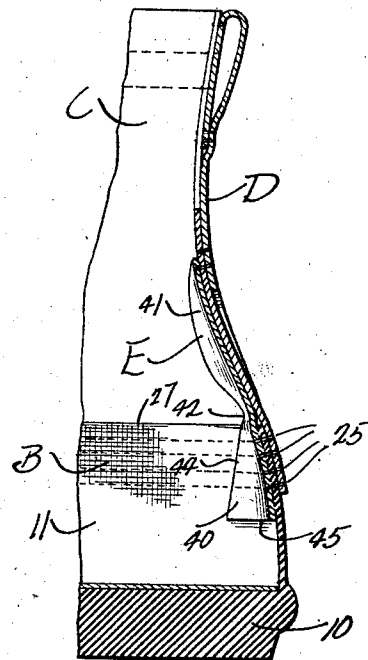
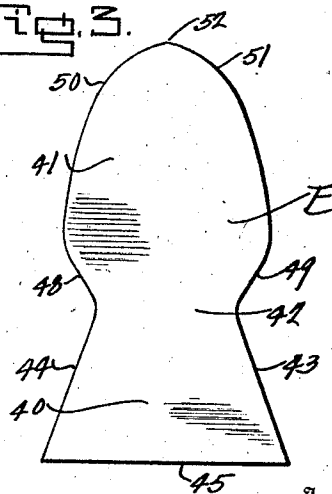


Fig. 3.



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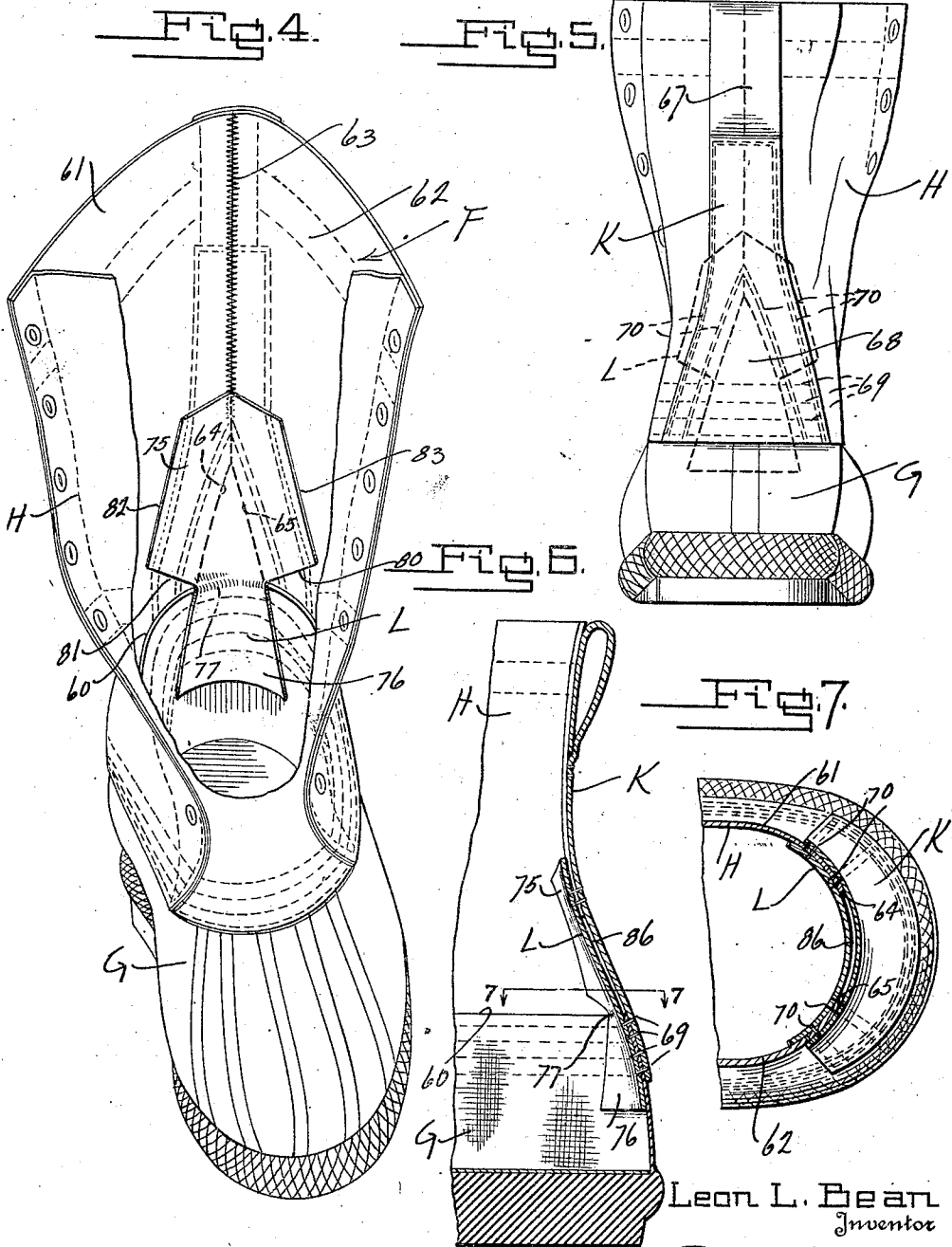
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INSIDE PROTECTING STAY FOR LEATHER TOP RUBBERS

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

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INSIDE PROTECTING STAY FOR LEATHER-TOP RUBBERS.

Application filed January 28, 1926. Serial No. 24,479.

This invention relates to improvements in shoe manufacturing.

The primary object of this invention is the provision of an improved stay construction for the type of shoe construction set forth in my Patent #1,365,080, and #1,373,399, granted respectively on January 11, 1921 and April 5, 1921.

A further object of this invention is the provision of an improved back stay construction for shoes of the type which includes an upper, exteriorly secured to a vamp; the improved back stay being used at the inside surfaces of the vamp and upper, at the joint thereof, to prevent damage to the back of the vamp incident to pulling of the shoes upon a person's feet; which will facilitate slipping on of the shoes; which provides reinforcement for the shoe; which protects the inside stitching of the insert of the shoe described in my Patent #1,365,080, above mentioned; and which may be very economically applied to the vamp and upper, with the conventional stitching employed on these parts, and without any extra stitching.

Other objects and advantages of this invention will be apparent during the course of the following detailed description.

In the accompanying drawing, forming a part of this specification, and wherein similar reference characters designate corresponding parts throughout the several views,

Figure 1 is a perspective view of a shoe, showing the inside surfaces of the vamp and upper, at the back of the shoe, with the improved back stay in relative position across the joint of the vamp and upper, at the back of the shoe.

Figure 2 is a vertical sectional view taken thru the back of the shoe, across the joint of the upper and vamp; the view being taken in a plane longitudinally of the shoe.

Figure 3 is a plan view of the improved back stay, showing its preferred formation.

Figure 4 is a perspective view of the inside of a shoe, of a modified nature, showing the application of the improved back stay thereto.

Figure 5 is a rear view of the shoe illustrated in Figure 4, showing the relation of the stay thereto.

Figure 6 is a vertical sectional view taken thru the rear of the shoe, showing the relation of inner and outer back stays.

Figure 7 is a sectional view taken on the line 7-7 of Figure 6.

In the drawing, wherein for the purpose of illustration are shown different embodiments of the invention, the letter A may generally designate the improved shoe, which includes the one piece rubber vamp and sole construction B, to which the upper C is appropriately attached as by stitching. The shoe at the outer surface of the back includes a back stay D, and at the inside surfaces includes a novel inner back stay E.

The shoe A is preferably a hunting shoe, and the vamp and sole construction B include the one piece rubber sole and heel structure 10, upon which the preferably rubber upstanding vamp 11 is peripherally formed to receive the foot of a wearer. The vamp 11 extends about the back of the shoe, in a seamless construction.

The upper C is preferably of leather, and includes the side pieces 12 and 13, which are stitched together at their rear edges by means of zig-zag stitching 14, at the upper portions of the said side pieces 12 and 13. A substantially triangular shaped rear insert 15 is used at the back of the shoe, below the vertical stitching 14; the rear edges of the side portions 12 and 13, below the edges which are stitched at 14, being divergent, and between which the triangular insert 15 fits flush therewith, with the apex thereof pointing upwardly, as illustrated in Figure 1, and the side edges of this triangular shaped insert 15 are stitched to the adjacent rear edges of the side pieces 12 and 13, by means of divergent rows of zig-zag stitching 16 and 17, which preferably extend down to the lower edge of the upper C.

At the front of the shoe the side pieces 12 and 13 may be connected by a flexible tongue flap 20 of any approved construction.

The side pieces 12 and 13; the insert 15; and the tongue flap 20, at their lower marginal portions overlap with the upper marginal portions of the vamp construction 11, for an overlap approximating one inch, more or less, and these overlapped portions of the vamp and upper construction are secured together by a plurality of rows of stitching 25 extending entirely about the shoe.

When the upper and vamp constructions are thus connected it is to be noted that the upper edge 27 of the vamp, provides an obstruction at the inside of the shoe. This

edge 27 is particularly objectionable at the back of the shoe immediately over the heel, since in pulling on the shoe the heel of the person is apt to catch on the edge 27 and tend to overturn the same, and obstruct the insertion of the foot. Very often this has a tendency to tear the stitching between the upper and vamp at the back of the shoe. The improved inside back stay E overcomes this objection by extending across the edge 27, at the joint between the vamp and upper, at the back of the shoe, and at the inside of the shoe, as illustrated in Figure 1.

Other objections to the type of shoe described, not employing the improved back stay E, have been found to include the wearing of the zig-zag stitching 16 and 17, due to slipping of the foot in the shoe, so that in time the same becomes severed and permits the loosening of the insert 15. It has also been found that the upper row of stitching 25 has to be carefully applied at the back of the shoe, at a certain space below the edge 27 of the vamp, else the vamp 11 at its upper edge became severed by reason of the upper row of stitching 25. Both of the above objections are eliminated with the use of the improved inner back stay E.

The back stay D at the outer side of the shoe A is of the character set forth in my Patent #1,365,080, above referred to, and includes the upper vertical portion 30 secured by stitching 31 to the upper sides 12 and 13; the said back stay D at its lower edge being divergent, and applied exteriorly over the line of zig-zag stitching 16 and 17 and stitched to the upper to cover said zig-zag stitching, as by stitching lines 32 and 33 at opposite sides of each of the lines of stitching 16 and 17, as illustrated in Figure 1 of the drawing. This back stay D thus effectively protects the zig-zag stitching 14, 16 and 17 at the exterior surface at the back of the shoe A.

Referring to the improved inside back stay E, the same is very economically constructed out of small waste pieces of stock, and to this end the same is relatively short, terminating considerably below the top of the upper construction, and above the heel construction, so that the same does not have to be constructed out of whole stock, in order to serve the useful purposes above outlined. This back stay E is preferably of leather, and includes the vamp overlapping portion 40 and the upper overlapped portion 41; the portions 40 and 41 being of course connected at a horizontal line which may be termed a neck portion 42 of the stay E, which is preferably the narrowest point between the ends of the stay E. From the neck portion 42, the vamp portion 40 of the stay E increases in width, the sides 43 and 44 diverging uniformly to the bottom horizontal line 45. From the neck portion 42

the upper overlapping portion 41 diverges at the side edges 48 and 49, to increase the width of the portion 41 above the neck 42, and upwardly of the maximum width of the portion 41, the same may slope at its edges 50 and 51, to the peak 52.

In the application of the inside back stay E, the portion 41 is disposed in overlying relation across the diverging zig-zag lines of stitching 16 and 17, and is secured to the upper by means of the lines of stitching 32 and 33, above the neck portion 42. The neck portion 42 lies over the edge 27 of the vamp B, at the back of the shoe, as is illustrated in Figure 1 of the drawing, and the portion 40 overlaps at the inside surface of the vamp B, and is secured thereto initially by means of an adhesive, such as cement, in order to hold the same in arcuate position, to enable its securing to the vamp by means of the conventional stitching 25. Due to the arcuation of the vamp and upper at the back of the shoe, it is important to have the neck portion 42 narrower than the overlying vamp and upper portions 40 and 41, in order to avoid creases and folds in the back stay upon its application. The upper portion 41 of the stay E is of course sufficiently wide to be caught by the stitching 32 and 33 which also secures the outer back stay D in place. It is noteworthy that the lower edge 45 of the stay E terminates considerably above the foot rest surface of the heel 10, and therefore no special stitching is required other than the stitching 25 to secure the same in position. Also, the stay E at its peak 52 extends only sufficiently along the upper construction, to insure protection to the zig-zag stitching 16 and 17, to prevent wear thereon.

The type of shoe F as illustrated in Figures 4 to 7 inclusive of the drawings includes a one piece rubber vamp and sole construction G, the same as the shoe A above described; and also includes an upper construction H having an outer back stay K therefor, and the inside novel protecting stay L.

The rubber vamp G is of the type described for the shoe A, and at the rear of the shoe, the same provides an edge 60, which offers some obstruction to the pulling of the shoe upon the foot of the wearer. The upper construction H includes the side pieces 61 and 62, which at the rear edges thereof are stitched together as by means of zig-zag stitching 63 for the major height of the upper construction above the top edge 60 of the vamp G. However, these rear edges of the pieces 61 and 62 do not meet adjacent the vamp G, but have edges 64 and 65 respectively which diverge from a point upwardly of the vamp towards the vamp G, as illustrated in Figure 4 of the drawings, thus normally leaving a space

between the facing edges 64 and 65 which will have to be closed either by means of a special insert as shown in the form of shoe A, or by means of the outer back stay K, which is arranged to cover the space between these edges of the upper pieces 61 and 62.

The outer back stay K includes a top portion 67 stitched in approved manner to the outer surfaces of the upper pieces 61 and 62, along the stitching 63 thereof. At the lower end the outer back stay 61 includes the portion 68 which gradually tapers at an increasing width from the upper portion 67, towards the vamp G, and the same extends in overlapping relation with the pieces 61 and 62 of the upper construction H, and extends across the space between the facing edges 64 and 65 in order to close said space. Of course, the stay K extends downwardly in overlapping relation with the upper part of the rubber vamp G, and together with the upper H is stitched to the vamp G by means of horizontal rows of stitching 69, as illustrated in Figure 5 of the drawings. The overlapping portions of the stay K with the upper pieces 61 and 62 are secured together by means of lines of stitching 70, as illustrated in the drawings.

With the type of shoe F as above described, it can readily be understood, that when not using the improved inner protecting piece L, the space between the edges 64 and 65 is exposed at the inside of the shoe, as is also the edge 60 of the vamp G, so that the wearer catches his or her heel against the edges 60, 64 and 65, damaging not only the stocking, but also the upper and vamp constructions at the rear thereof, and adding to the discomfort of the wearer.

The improved protecting stay L at the inside of the shoe F is of the same general formation as the stay E above described for the shoe A. It is formed of a single piece of leather, and includes the top portion 75 adapted to overlap and be stitched to the upper H, and the lower portion 76 adapted to be overlapped with and stitched at the inside of the vamp G. The portions 75 and 76 have a juncture neck 77, which may be the narrowest part of the protecting stay L and is adapted to overlie adjacent the vamp edge 60, at the rear of the vamp, to form a guard therefor. The portions 75 and 76 both taper in opposite directions from the juncture 77; the portion 76 tapering downwardly at an increasing width; and the portion 75 first tapering upwardly along lines 80 and 81, at an increasing width, and then tapering upwardly from the sides 82 and 83 at a decreasing width, to the top thereof. In place, the inner protecting stay L has the upper portion 75 thereof extending entirely across the space 86 between the edges 64 and 65 of the upper; the side por-

tions of the top portion 75 being secured to the upper edge by the lines of stitching 70 which are also utilized to secured the outer back stay K in place, as above mentioned. In similar manner the lower portion 76 of the inner protecting stay L is secured in place to the vamp G by means of the same horizontal lines of stitching 69 which secure the upper H to the vamp G.

From the foregoing description of the application of the improved stays E and L to the shoe A and F respectively, it can readily be understood that the same serve an important purpose, in protecting the parts of the shoes, as well as protecting hosiery of the wearer, and adding to the comfort of the wearer. The protecting stays E and L are adaptable in principle to various types of leather top rubbers, independent of the type of outer back stay used, since they serve a novel use in connection with leather top rubbers as above outlined.

Various changes in the shape, size, and arrangement of parts may be made to the form of invention herein shown and described, without departing from the spirit of the invention or the scope of the claims.

I claim:

1. In a shoe construction the combination of a shoe having a vamp, an upper secured to the vamp in exterior overlapping relation therewith, an inner protecting stay at the back of the shoe extending across the joint between the vamp and upper, and at its upper and lower ends terminating below the top edge of the upper and above the inside surface of the heel.

2. In a shoe construction the combination of a shoe including a vamp, an upper secured to the vamp in exterior overlapping relation therewith, and a relatively short inside back stay including portions stitched at opposite sides of the top edge of the vamp and including a neck extending across the top edge of the vamp in protecting relation therewith.

3. In a shoe construction the combination of a shoe including a vamp, an upper secured to the vamp in exterior overlapping relation therewith, and a relatively short inside back stay including portions stitched at opposite sides of the top edge of the vamp and including a neck extending across the top edge of the vamp in protecting relation therewith, said upper and lower portions of the back stay above and below the neck portions thereof being wider than the neck portion and attached by conventional stitching to the vamp and upper of the shoes.

4. In a shoe construction the combination of a vamp, an upper, means securing the upper on the vamp at the exterior of the vamp, said upper including side portions and at the rear thereof including a separate triangular shaped insert stitched to the side

portions of the upper by means of lines of stitching which diverge from the upper portion of the upper towards the heel of the shoe, an outer back stay stitched in protecting relation along said diverging lines of stitching, and an inner back stay extending across the joint between the vamp and upper and being secured to the vamp by means of the stitching which secures the vamp and upper together and being secured to the upper by the stitching which secures the outer back stay to the upper, said inner back stay having a width sufficient to extend across and overlie in protecting relation with the divergent lines of stitching above mentioned.

5. In a shoe construction the combination of a one piece rubber sole, heel and vamp construction, a leather upper construction including side pieces stitched at the vertical rear edge thereof above the vamp in a vertical line of stitching, said side pieces below the vertical line of stitching having divergent edges, an insert between the diver-

gent edges of the side pieces at the rear of the shoe, zig-zag lines of divergent stitching securing the insert to the sides of the upper, an outer back stay, lines of stitching securing the outer back stay over the zig-zag lines of stitching of the sides and insert of the upper at opposite sides of said stitching of the upper sides and insert, circuitous lines of stitching securing the lower margin portion of the upper in overlapped exterior relation upon the vamp, and a protecting stay including a reduced neck portion extending across the upper edge of the vamp at the back of the shoe, the protecting stay including an upper securing portion stitched in overlapping relation across the diverging stitching of the upper by means of the stitching which secures the outer back stay to the upper, the said protecting inner stay including a lower vamp portion secured by an adhesive and stitched to the inner side of the vamp at the rear thereof by the circuitous stitching above mentioned.

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