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MANUFACTURE OF BOOTS AND SHOES.

APPLICATION FILED MAY 24, 1910.

1,009,761. Patented Nov. 28, 1911.

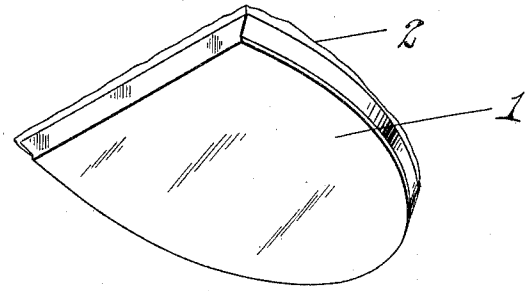

Fig. 1.

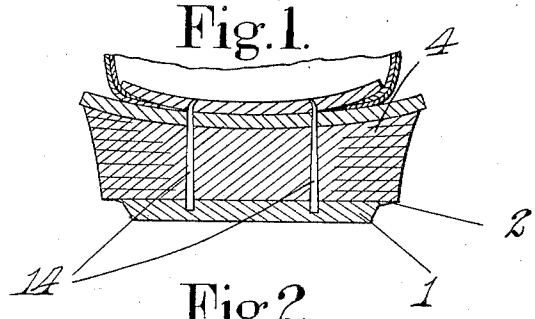

Fig. 2.

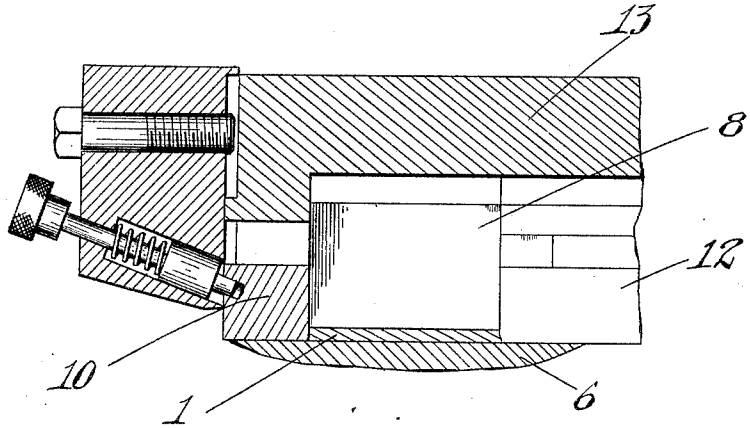

Fig. 3.

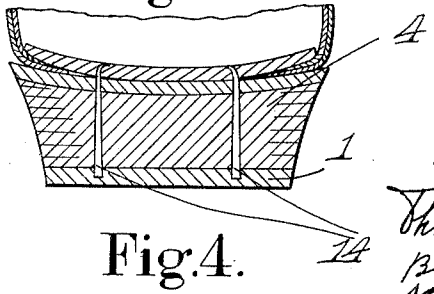

Fig. 4.

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MANUFACTURE OF BOOTS AND SHOES.

1,009,761. Specification of Letters Patent. Patented Nov. 28, 1911.

Application filed May 24, 1910. Serial No. 563,086.

To all whom it may concern:

Be it known that I THOMAS LUND, a citizen of the United States, residing at Beverly, in the county of Essex and State of Massachusetts, have invented certain Improvements in the Manufacture of Boots and Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings indicating like parts in the several figures.

This invention relates to a method of manufacture of boots or shoes and more particularly to a method of molding a top lift for the heel of a boot or shoe.

In attaching top lifts to heels it is important that the top lift be brought into close and even contact with the face of the heel and it is desirable that the top lift be so formed that the face which is to be brought into contact with the heel shall be free from such projections on its edges as would prevent close contact between the adjacent faces of the heel and top lift in the attaching operation.

Heretofore it has been the general practice to subject top lifts to pressure in molds in a machine of the general character illustrated in the United States Letters Patent No. 776,787, granted December 6, 1904, to S. D. Leland. According to the methods heretofore employed, a fin of more or less prominence is formed during the molding operation at the line or corner of the top lift where its flesh or inner side meets the peripheral surface or edge of the lift and this fin has always extended in a direction perpendicular to the flesh side, substantially as a continuation of the lateral edge surface.

In practice it is found to be impossible to prevent the formation of a fin while the molding operation is being carried out. The tendency to form a fin is likely to be further increased when, as frequently occurs, the top lift blank before the application of pressure has a ragged edge along its flesh side. Such a ragged edge may result from the use of a dull cutting die or an uneven cutting block when the top lift blank is died out, or from other causes, and in practice a substantial fin is often to be found upon a died out blank before it is molded. When the fin is formed in a direction substantially normal to the flesh side of the top lift the proper fitting of the top lift to the heel is likely to be interfered with since the face of the heel overlaps the edges of the top lift in the attaching operation and the fin may become interposed between the adjacent surfaces of the two parts which should be in contact. The top lift may thus be prevented from being pressed into close engagement with the heel and a crack may exist between the top lift and heel after the trimming operation. Furthermore, since the fin at one point in the periphery of the top lift may be more pronounced than at others, the faces of the top lift and heel may not be in parallelsism afted the top lift has been spanked on. The result is that the appearance and shape of the heel of the shoe are likely to be impaired and that there is danger that the top lift may be torn off from the shoe while it is being worn.

An object of the present invention accordingly consists in a method of molding a top lift which shall eliminate the difficulties above pointed out by disposing the fin in such a direction and in such a manner that its presence shall be entirely unobjectionable during the operation of attaching the top lift to the heel. In accordance with the present illustration of the invention, I mold the top lift in such a manner as to form the fin, which results from the molding operation, as substantially a continuation of the inner or flesh surface of the top lift. When the lift is subsequently attached to a heel, the fin lying in this direction is entirely unobjectionable and it is immaterial whether the fin be slight or substantial.

I may, and preferably do, carry out the method which constitutes the present invention with the aid of a mold in which the surface of a die engaging the flesh face of the top lift overlaps dies which engage the peripheral or edge surface of the lift so that the fin is formed as above described. Such a mold is described and claimed in Letters Patent No. 959,869, granted to me May 31, 1910.

It should be understood that the practice of my invention is not limited to the use of such a mold as that referred to, the present disclosure being merely illustrative of one manner of practicing the method which I at present prefer.

In another aspect the present invention consists in an improved method of completing the rough or unfinished heel of a boot or

shoe, comprising the following steps: A top lift is molded and the fin formed during the molding operation at the junction of the inner or flesh side of the lift with its edges is forced outside the line of intersection of such inner or flesh side and edges; the top lift is then attached to an untrimmed heel. By reason of the position in which the fin is disposed, as just described, any danger of the fin becoming interposed between the surfaces to be attached is eliminated and an intimate and even contact between top lift and heel is insured. The heel is now trimmed, the rough and superflous portion thereof being removed together with the fin projecting laterally of the top lift, so as to produce a smooth edge surface upon the heel.

In the drawings,—Figure 1 is a perspective view of a top lift produced by the method constituting the present invention; Fig. 2 shows the top lift of Fig. 1 applied to a heel; Fig. 3 is a vertical sectional view illustrating a mold which may be employed in the practice of the method; and Fig. 4 is a view similar to Fig. 2 showing the heel after it has been trimmed.

Referring to the drawings, the reference numeral 1 indicates a molded top lift produced by the method embodying the present invention. At the junction of the inner or flesh face of the top lift 1 with the peripheral surface or edge thereof is the fin 2 which is formed during the operation of molding the lift. As will be clearly apparent from Fig. 2, this fin projects from the top lift approximately in the plane of its inner face. Numeral 4 indicates a heel to which the top lift is shown as applied. As will be seen from Fig. 2, the fin 2 does not interfere with the close and even contact of the top lift with the heel.

The fin 2 formed during the molding operation may be disposed in the direction desired either during the molding operation or subsequently thereto. For example, the top lift may be molded with the fin extending substantially vertically and the fin subsequently may be flattened down either by hand or otherwise until it lies entirely outside the edge of the top lift. If the mold illustrated in Fig. 3 be employed in carrying out the method the disposition of the fin, as above stated, will be effected simultaneously with the molding operation. This mold is the same as that disclosed in my co-pending application heretofore referred to.

As illustrated in Fig. 3, the inner or flesh side of the top lift blank is engaged by a bed plate 6 and the outer or grain face is engaged by a presser 8. The side dies 12 and the breast die 10 are first moved inwardly toward each other to apply molding pressure to the edges of the blank 1; the mold is then moved upwardly and the block 13 carrying the presser 8 encounters a stationary part of the machine which holds it from further movement. The edges of the blank being confined by the side and breast dies and the grain side of the blank being confined by the now stationary presser 8, further upward movement is imparted to the bed plate 6, to apply molding pressure vertically to the blank. Since the bed plate 6 overlaps the side and breast dies, it will be seen that any fin formed upon the top lift at the line of contact of the side and breast dies with the bed plate will be forced to project in a direction parallel to the face of the bed plate and, consequently in the plane of the inner or flesh face of the top lift. The inner face or surface of the lift is thus maintained substantially continuous or unbroken, or, in other words, no fin which projects angularly from said face is formed during the molding operation. The fin will be entirely outside of the line of intersection of the edges and the inner face of the lift. The top lift having been molded and the fin, formed during the molding operation, having been disposed in such a direction as not to interfere with the attaching operation, the top lift as an article of manufacture is complete in itself and may be manufactured and sold separately in this form to shoe manufacturers or repairers for use in the manufacture or repair of boots or shoes.

When a heel upon the boot or shoe is to be completed and finished the top lift molded as above described is attached to the heel 4 in any desired manner, as, for example, by spanking it upon the projecting head ends of the nails 14 used for attaching the heel to the shoe, and the heel is then trimmed to conform to the outline of the peripheral surface of the top lift adjacent to the tread face thereof, as shown in Fig. 4. During the trimming operation a portion of the top lift above the peripheral surface just referred to is removed and consequently all trace of the fin 20 is removed so that the resultant heel is solid and smooth.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. The method of producing a top lift which consists in molding a top lift blank and forcing the fin, formed during the molding operation at the junction of the inner face and the edge of the lift, entirely outside the line of intersection of said inner face and edge.

2. The method of molding a top lift which consists in applying pressure to the flesh side of a top lift blank while confining the grain side and the edges of the blank and in such operation forcing outwardly, substantially in the plane of the flesh side, the fin formed during the molding operation at the junction of the edge and the flesh side of the top lift.

3. The method of molding a top lift which comprises applying pressure to the faces of a top lift blank while confining its edges and in such operation forcing outwardly, substantially in the plane of the flesh side, the fin formed during the molding operation at the junction of the edge and the flesh side of the top lift.

4. The method of producing a top lift which consists in applying pressure to the edges of a blank, then applying molding pressure to the inner and outer faces thereof, and forming the fin produced by said molding pressure at the junction of the edge and inner face of the blank as a continuation of said inner face.

5. The method in the manufacture of boots and shoes which comprises molding a top lift, forcing the fin, formed during the molding operation at the junction of the inner face and the edge of the lift, entirely outside the line of intersection of said inner face and edge, attaching said top lift to a heel, the surface of the heel to which the top lift is attached having a diameter greater than that of the lift, trimming the heel, and in the trimming operation removing said fin from the edge of the top lift.

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

THOMAS LUND.

Witnesses:
J. O. WRIGHT,
F. L. EDMANDS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."