Dec. 18, 1928. 1,695,967

H. LYON

WELT AND METHOD OF MAKING

Filed Aug. 14, 1924

Fig. 1

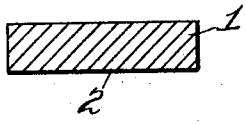
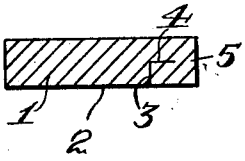


Fig. 2



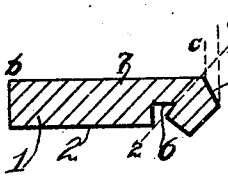


Fig. 3

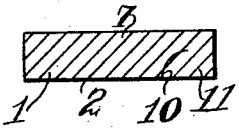


Fig. 4

Fig. 5

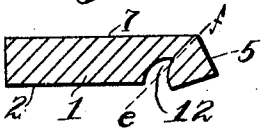
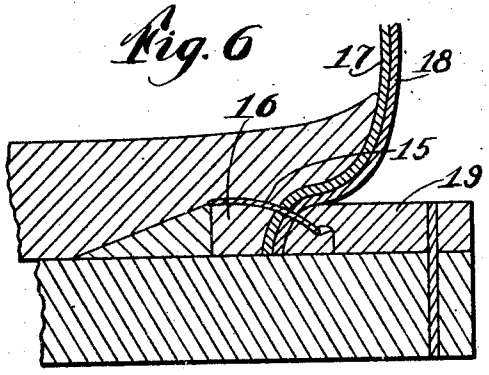


Fig. 6



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Attys

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UNITED STATES PATENT OFFICE.

HARRY LYON, OF BROCKTON, MASSACHUSETTS, ASSIGNOR TO JOHN A. BARBOUR, OF BROOKLINE, MASSACHUSETTS, AND PERLEY E. BARBOUR, OF QUINCY, MASSACHUSETTS, DOING BUSINESS AS A COPARTNERSHIP UNDER THE NAME AND STYLE OF BARBOUR WELTING COMPANY, OF BROCKTON, MASSACHUSETTS.

WELT AND METHOD OF MAKING.

Application filed August 14, 1924. Serial No. 731,932.

Heretofore welting has commonly been made of blank strip material of substantially rectangular cross section, a groove being cut longitudinally thereof on its lower or flesh face, when of leather, to receive the inseam stitches and the inner upper edge on the grain side of the leather being removed on a bevel. When in position in the shoe the inseam stitches emerge from the upper edge of the welt substantially at the margin of this beveled edge, or in other words, at the apex between the beveled edge and the grain face of the leather. The grooving and beveling operations remove stock from the strip, this stock being waste, and the blank strip must be of the full over-all width of the finished welting.

According to the present invention substantially the same cross sectional contour and over-all width for the completed welting is produced but without the necessity of actually removing material from the strip, causing waste, and without any condensing or other undesirable effect on the material where either the inseam or outseam stitches pass therethrough.

Due to the manner of making, the finished welt is of greater width than that of the blank and as there is no waste a narrower blank strip than heretofore used produces finished welting of the same effective width so that a material saving in stock is obtained.

For a more complete understanding of this invention reference may be had to the accompanying drawings in which

Figure 1 is a cross section of the blank strip.

Figure 2 is a view similar to Figure 1, but showing one manner of cutting the blank.

Figure 3 shows the cut blank bent to form the completed welting.

Figure 4 is a view similar to Figure 2, but showing a different way in which the blank may be cut.

Figure 5 shows the completed welting when the blank is cut as shown in Figure 4.

Figure 6 represents a cross section through a portion of a shoe showing the novel welting incorporated therein.

A blank strip substantially rectangular in cross section as shown at 1 in Figure 1 is cut inwardly from its lower face 2 as shown at 3 (Figure 2), where leather is employed this being the flesh face of the blank. This cut or incision from the flesh face extends substantially perpendicular to this face partly through the blank and from its inner end a cut is made substantially parallel to the top and bottom faces, as at 4, toward the adjacent edge 5 of the blank. This provides a portion of the blank extending throughout its length bounded by the incisions 3 and 4, a portion of the lower face 2 and the edge 5 which is partially severed from the main body of the blank. This portion is then bent backwardly and outwardly to open up the incisions 3 and 4 as shown in Figure 3. The edge 5 then takes an inclined position at an obtuse angle to the upper face of the strip as shown in this figure, and corresponds in position to the beveled portion at the inner edge of the usual welt on its upper or grain face, while the portions at opposite sides of the incisions 3 and 4 are separated sufficiently by said outward displacement of the partly severed portion of the stock to form a groove 6 having a bottom face of substantial width in which the inseam stitches may lie. It will be noted that the beveled face, formed by the edge 5 of the blank, originally presents a section of the material perpendicular to its upper and lower faces rather than a section inclined to this perpendicular as in the welting cut with waste as heretofore practiced.

This manner of cutting the welting provides a groove having a base of ample width for receiving and burying the inseam stitches and also affords sufficient room for the needle to pass without detrimental effect when the stitches are being made. The several stitches extend, as shown by the dotted line 2—2 in Figure 3, from the base of this groove 6 and emerge at the top face of the welt substantially at the apex between the side 5 and the upper face 7.

It will be noted that the blank from which grooved and beveled welting has heretofore been cut must be of sufficient width to include not only the uncut upper face but also the beveled portion, while in the present form the width of the blank is only that of the uncut upper face as from the point *b* to the point *c* of Figure 3, the dis-

tance from the point *c* to the point *d* representing an increase in the over-all width of the welting as constructed according to this invention, produced by the bending outwardly of the partially severed portion thereof. By this construction, therefore, it is seen that the over-all width of the finished welting is greater than the width of the blank from which it is made, while as heretofore constructed the two widths have been the same.

In place of the two rectangularly arranged incisions 3 and 4 a single incision 10 curved to substantially a quadrant may be substituted as shown in Figures 4 and 5. The lower portion of this incision is substantially perpendicular to the lower face 2 of the blank, while the inner edge of this incision is substantially parallel thereto, conforming in this respect to the remote edges of the incisions 3 and 4.

The portion 11 of the blank is thus partially severed by the incision 10 and it is then bent outwardly away from the remaining portion of the blank to form the groove 12 and the beveled edge 5. The inseam stitches lie in the groove 12 and extend in the general direction of the dotted line *e—f* emerging from the upper face of the welting at the apex between the inclined side 5 and the top face 7 in the same manner as in the form shown in Figure 3.

In Figure 6 is shown a section through a portion of a shoe showing a length of the finished welting incorporated therein, the inseam stitches 15 passing through the insole rib 16, the lining 17, the upper 18 and the welt 19 substantially in the same manner as when the welt having the stitch receiving groove and the beveled portion cut therefrom is employed. The welt, when on a shoe is indistinguishable from that heretofore used and represents a considerable saving in stock over that required by the former method of construction. Furthermore the material is not condensed or otherwise mistreated, where the stitches are passed therethrough, to cause interference in any way with the passage of the needle or the holding strength of the stitches.

Having thus described certain embodiments of this invention it should be evident to those skilled in the art that various modifications and changes may be made therein without departing from its spirit or scope as defined by the appended claims.

I claim:

1. Welting comprising a strip of substantially rectangular cross section incised without removal of material longitudinally in one face near its inner edge, the incision being substantially perpendicular to said one face adjacent thereto and remote from that face being substantially parallel thereto.

2. Welting comprising a strip of substantially rectangular cross section incised longitudinally from one face inwardly and then toward one edge, the portion thus partly severed from the blank being bent backwardly and outwardly from said face to form a stitch-receiving groove at the incision and a beveled adjacent edge.

3. Welting comprising a leather strip of substantially rectangular cross section incised longitudinally adjacent to one edge from the flesh side thereof and extending toward said edge to partially sever a portion from the strip, said partially severed portion being bent back from the flesh side to open the incision to form a stitch-receiving groove and to cause the outer edge of said portion previously substantially perpendicular to the sides of said strip to make an obtuse angle to the grain side of the strip and increase the over-all width of said strip.

4. The method of forming welting which comprises cutting and bending a blank strip of rectangular cross section to form a welt of greater width than said strip provided with a beveled edge and a stitch-receiving groove having a base of substantial width.

5. The method of forming welting which comprises cutting inwardly and laterally from the lower face of a blank strip of substantially rectangular cross section longitudinally thereof adjacent to one edge to partially sever a marginal portion and bending said marginal portion in a manner to open up the cut to form a stitch-receiving groove, to widen the strip, and to form a beveled edge.

6. Welting for boots and shoes comprising a strip of grain leather having, in its flesh side near its inner edge, a groove of requisite depth with a bottom face of substantial width for receiving stitching, and a bevel at the inner edge of the strip formed from an outward displacement of said inner edge and of the stock which originally lay down in said groove over said bottom face.

7. Welting for boots and shoes comprising a strip of grain leather having a longitudinal incision near its inner edge extending from the flesh side inwardly and then turning toward said inner edge to partly sever stock from the flesh side, said incision being opened to form a stitch-receiving groove by raising and permanently displacing outwardly the stock of the flesh side partly severed from the strip by said incision.

8. The method of making grooved and beveled welting for boots and shoes which includes longitudinally incising the flesh side of a substantially rectangular grain leather welt strip near its inner edge, said incision having a side portion substantially perpendicular to said flesh side and a base portion substantially parallel to said flesh side, and then lifting the partially severed mate-

rial to expose said base portion and pressing said material outwardly to force said inner edge toward the grain side and into a position oblique thereto.

9. The method of making grooved and beveled welting for boots and shoes which includes longitudinally incising the flesh side of a grain leather welt strip near its inner edge by a slit which extends inwardly from said flesh side and then turns toward said inner edge, and then opening said incision to form a stitch-receiving groove and displacing the marginal stock outwardly and toward the grain side to set said inner edge oblique to said grain side.

10. Welting comprising a strip of material having a beveled inner edge, consisting of the original inner edge of the strip, the bevel being determined by displacing material partially severed by a longitudinal cut entering the strip at right angles to its upper and lower surfaces and then, by a change of direction, turning toward said inner edge.

In testimony whereof I have affixed my signature.

HARRY LYON.