Aug. 1, 1950 E. R. OUIMET 2,517,347

WELT AND METHOD OF MAKING THE SAME

Filed May 24, 1947

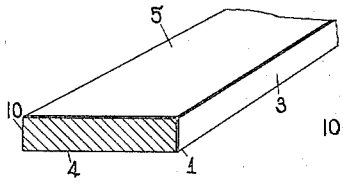


Fig. 1

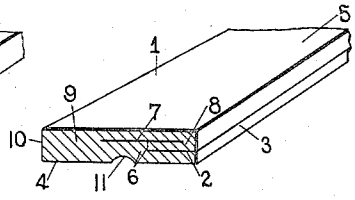


Fig. 2

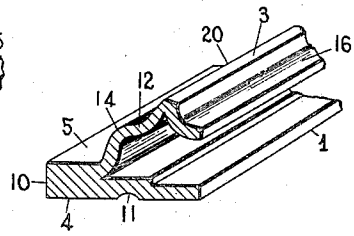


Fig. 3

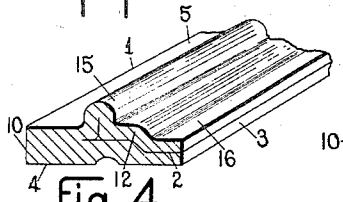


Fig. 4

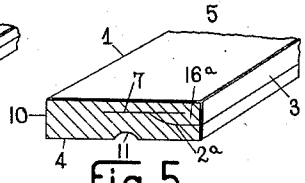


Fig. 5

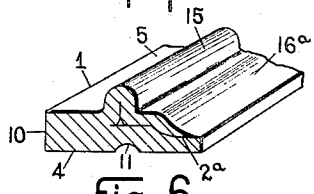


Fig. 6

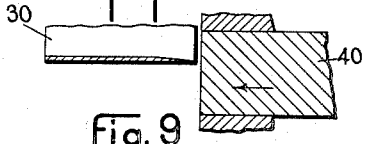


Fig. 9

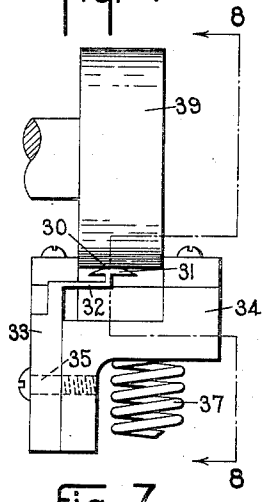


Fig. 7

Fig. 8

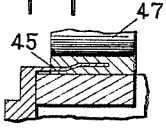


Fig. 11

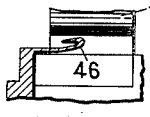


Fig. 12

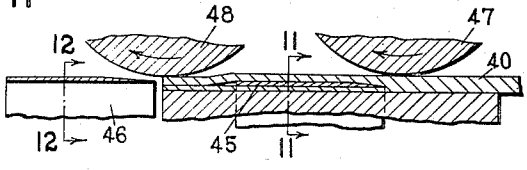


Fig. 10

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WELT AND METHOD OF MAKING THE SAME

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Application May 24, 1947, Serial No. 750,288

2 Claims. (Cl. 12—146)

1

This invention relates to welting of that type which includes a bead between its side edges on its upper face, the bead being arranged to engage the outer face of the shoe upper of the completed shoe.

One object of the invention is to provide a method for producing the bead from a flat blank without changing the over-all width of the welt from that of the blank.

A further object is to provide a method and construction whereby the top surface of the welt when cut from a leather strip presents the grain face of the leather outwardly of and completely over the bead surface and somewhat inwardly of the bead.

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

Figure 1 is a fragmentary perspective view of a blank from which the welt may be made.

Figures 2, 3 and 4 are similar views showing the successive steps in the formation of the completed welt from the blank of Figure 1.

Figures 5 and 6 are views similar to Figures 2 and 4, respectively, but showing a modification.

Figure 7 is a left hand end elevation of a portion of a machine for forming certain of the cuts shown in Figures 2 and 3.

Figure 8 is a sectional view on line 8—8 of Figure 7.

Figure 9 is a detail sectional view on line 9—9 of Figure 8.

Figure 10 is a fragmentary view similar to a portion of Figure 8, but showing another method of cutting the welt blank.

Figures 11 and 12 are detail sectional views on lines 11—11 and 12—12, respectively, of Figure 10.

Referring to the drawings, the welt may be cut and formed up from a substantially rectangular strip 1. The cuts may be as shown in Figure 2 in which the blank has a cut 2 extending inwardly from its inner edge 3 nearer to its lower face 4 than to its upper face 5 and at the inner end of this cut 2 there is an upwardly turned cut at 6 to meet a cut 7. This cut 7 is parallel to the upper and lower faces of the blank and is nearer to the upper face than the lower face and terminates short of the edges of the welt, leaving a relatively narrow uncut portion 8 between the inner edge of the cut 7 and the inner edge 3 of the blank, while a much wider uncut portion 9 is left between the outer edge of the cut 7 and the outer edge 10 of the blank. Also a groove 11 may be cut in the lower face of the blank between the upwardly turned portion 6 and

2

the outer edge 10. The part of the blank thus partly severed therefrom is then lifted up as shown in Figure 3, the portion 12 between the outer edge of the cut and the inner edge 3 of the blank being folded on itself, as at 14, to form a bead 15 shown in Figure 4.

The remainder of the partly severed portion comprising the lip portion 16 between the cuts 2 and 7 is opened up and together with the outer part of the portion 12 is brought down against the upper cut face of the blank and cemented thereto as shown in Figure 4, overlying the face of the blank outwardly of the bead and formed by a part of the cut 7, the cut 6 and the cut 2.

The resulting structure is a welt of the same over-all width as the blank, the material taken up by the bead 15 being compensated for by the additional length of cut portion formed by the portion 16 so that the partly severed layer is of sufficient length not only to form the bead 15, but also to overlie the cut faces beneath the cuts 2 and 7 the cut 7 above the cut 2 dividing the layer into a pair of laminations joined at the inner edge of the blank. Thus the overlying strip reaches substantially to the inner edge of the blank and there is no change in the overall width of the welt from the blank from which it is formed. When cut from a leather blank, the welt presents the grain face from its outer edge, over the entire bead and to the edge 20, so that only the grain face shows in the completed shoe.

In Figures 5 and 6 a slight modification is shown in which instead of employing a cut 6 to join the cuts 2 and 7 substantially perpendicular thereto, the cut 2a extending inwardly from the inner edge of the welt is curved upwardly until it intersects the cut 7, thus forming a gradual curve instead of the steep shoulder or step arrangement shown in Figure 4. The other operations are as before, the partly severed portion forming the bead 15 and the portion 16a between the cuts 7 and 2a forming the portion which overlies the face exposed by the cut 2a as shown in Figure 6.

In Figures 7 to 12 are shown mechanisms by which the cuts 2, 6 and 7 may be made. Referring to Figures 7, 8 and 9, all these cuts are shown as made by a single knife 30 having a somewhat T-shaped blade 31 provided with a lateral extension 32. This extension 32 forms the cut 2, while the remainder of the T-shaped blade forms the cuts 6 and 7. The portion 32 extends from a shank 33 which is secured to the upright side of a supporting table 34, as by screws 35. This table 34 is supported at one end on a pivot

36, and is held substantially horizontal as by a spring 37 positioned beneath it and supporting it from a stand 38. Above the table 34 is positioned a feed roll 39 which engages the top face of the welt blank 40, and by the rotation of which this welt blank is fed against the cutting edge of the knife 30, the table yielding as much as is necessary.

Where the cut 2*a*, shown in Figures 5 and 6, is to be employed, the corresponding portions of the knife 31 may be modified to similar contour.

In Figures 10 to 12, a different method of cutting is illustrated in which the cuts 2 and 6, and that portion of the cut 7 extending outwardly from the cut 6, are made by one knife 45 and the remaining portion of the cut 7, which extends toward the inner edges of the blank, is cut by a second knife 46. These knives 45 and 46, as shown in end elevation in Figures 11 and 12, respectively, are arranged to be operative on the welt blank in series, as shown in Figure 10, the welt 40 being held down in proper position to be fed properly to the knives 45 and 46, as by the feed rolls 47 and 48, which are arranged one after the other so that the welt is cut successively by the two knives, the final cuts being as illustrated in Figure 2, or, if desired, as in the modified construction of Figure 5.

This application is a continuation-in-part of my application Serial No. 637,394, filed December 27, 1945, for Welt and Method of Making the Same, now abandoned.

From the foregoing description of certain embodiments of this invention, it should be evident to those skilled in the art that various other changes and modifications might be made without departing from the spirit or scope of this invention.

I claim:

1. The method which comprises slitting a welt blank lengthwise by cuts one extending inwardly from one side edge between its upper and lower faces and being upwardly turned at its inner edge and intersecting a cut parallel to the upper and lower faces of the blank and terminating between its side edges, doubling on itself the partly severed portion adjacent to the outer end of said parallel cut to form an upwardly extending bead, and opening up and applying the remainder of said partly severed portion to overlie the top face of the remainder of said blank substantially to said one side edge.

2. The method which comprises slitting a welt blank lengthwise by cuts one extending inwardly from one side edge between its upper and lower faces and closer to its lower than to its upper face and being upwardly turned at its inner edge and intersecting a cut parallel to the upper and lower faces of the blank and terminating between its side edges and closer to its upper than to its lower face, doubling on itself the partly severed portion adjacent to the outer end of said parallel cut to form an upwardly extending bead, and opening up and applying the remainder of said partly severed portion to overlie the top face of the remainder of said blank substantially to said one side edge.

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