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REVERSE WELTING AND METHOD OF MAKING

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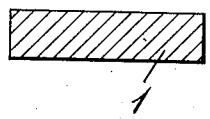


Fig. 1.

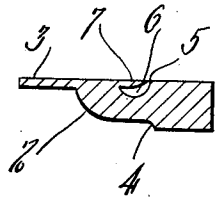


Fig. 2.

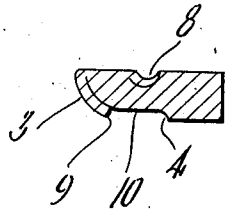


Fig. 3.

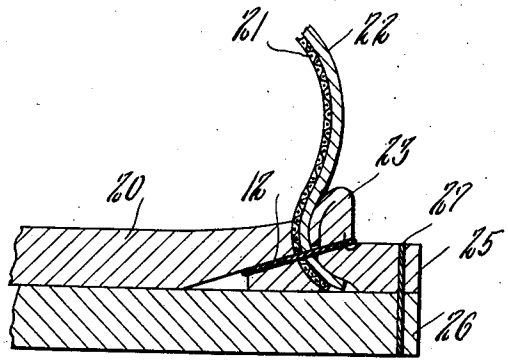


Fig. 4.

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UNITED STATES PATENT OFFICE.

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REVERSE WELTING AND METHOD OF MAKING.

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This invention relates to welting of that general type which is provided with a bead arranged to lie against the shoe upper in the crease between the upper and the sole, this bead being formed, according to the present invention, by bending the inner edge portion of the welt strip upwardly, this construction being called for convenience "reverse welting," in contra-distinction to the well known construction where the upper edge is bent downwardly to receive and be attached to the outer sole. As this action exposes the inner edge of the welt, provision is made according to this invention for so forming this portion of the strip when made of leather that it presents over the surface exposed when the welt is in use, grain surfacing material similar to that presented outwardly of the bead. Furthermore, the welt is so constructed that the stitch line at which the welt is fixed to the shoe forms a natural fold line so that the strip is fixed to the shoe in flat condition and when its outer edge is brought into a plane for attachment to the outer sole, this folding of the strip is effected.

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

Figure 1 is a cross section through the blank strip from which the welt is formed.

Figure 2 is a similar section showing the manner in which the blank strip is cut.

Figure 3 is a similar section showing portions of the cut strip folded to final position, the strip being then ready for attachment to a shoe.

Figure 4 is a fragmentary cross section through a shoe showing the welt in position therein.

Referring to these drawings, the blank from which the welt is made is substantially rectangular in cross section, as shown at 1 in Figure 1. A portion of one edge of the strip is then cut away as shown at 2 in Figure 2, leaving a thin layer 3, from the grain face of the strip when leather is used, extending beyond the surface left by the cut away portion which surface, however, is somewhat longer than the flap and terminates toward the opposite edge of the blank in a shoulder 4. Between this shoulder and the strip 3 an incision is made at 5 in the opposite face of the welt, and a portion of general segmental shape is cut therefrom, defining a rounded groove 6 over which extends a flap 7. This flap is then pressed downwardly against the base of the groove 6, as shown in Figure 3, and is fixed thereto, so as to form a somewhat smaller longitudinally extending groove 8 in the upper face of the welt, surfaced entirely by grain stock. The flap 3 is then bent downwardly against the surface formed by the cut away portion 2 and may be cemented in position thereon as shown in Figure 3, the edge of the flap as at 9 terminating somewhat short of the shoulder 4, leaving a recessed portion 10 in the lower face of the welt substantially opposite to the groove 8, this recessed portion and the groove thus defining a thin portion of the stock through which the inseam stitches 12 pass when the welt is in position on the shoe as shown in Figure 4 and also defining a weakened fold line for the welt. The welt in flat condition is attached to the inner sole 20 with the upper materials 21 and 22 interposed therebetween and lying in the recess 10 by the stitching 12 extending through the apex of the fold angle, the finished edge portion 23 of the flat welt strip surfaced by the flap 3 extending upwardly against the outer face of the upper materials at substantially right angles to the plane of the innersole.

After the welt has been stitched in position as just described its lower edge is bent outwardly, as shown in Figure 4, to form an outwardly directed flange portion 25 substantially in the plane of the innersole and to this flange portion the outer sole 26 is then attached by the out sole stitches 27. It will thus be seen that the longitudinally extending rib lying against the upper materials is formed by the inner edge of the welt strip upwardly turned, the welt being in flat condition when fed through the sewing machine in position to be attached by the inseam stitches to the innersole and upper material and that this bead presents over its entire exposed portion represented by side and edge faces the grain surface of the stock where leather is used, this surface being a continuation of that presented by the upper face of the welt outwardly of the bead.

Having thus described an embodiment of this invention, it should be evident to those skilled in the art that various changes and modifications might be made therein with-

out departing from its spirit or scope as defined by the appended claims.

I claim:

1. A welt having inner and outer marginal areas of unreduced thickness and a substantially central weakened longitudinal portion to receive attaching stitches and at which it is laterally folded to present upwardly and outwardly extending edges when in position in a shoe.

2. A leather welt constructed to be folded laterally when in position in a shoe, the inner edge portion lying in the crease against the shoe upper, said inner edge portion presenting over its side and edge faces a grain surface.

3. A leather welt having a stitch-receiving groove in its grain side presenting the grain surface.

4. A leather welt having a stitch-receiving groove in its grain side presenting the grain surface, said groove defining a thinned portion, the amount of thinning being substantially wholly of flesh material.

5. A leather reverse welt having a longitudinal stitch-receiving recess substantially centrally of its grain side defining also a fold line, and a grain covering layer about its inner edge.

6. A leather reverse welt having a central longitudinal weakened area defining a fold line, said weakened area on the grain side forming a stitch-receiving groove, and a grain covering in said groove and about the inner edge of the welt.

7. A shoe having a welt bent laterally to form an upstanding inner portion resting in the crease against the shoe upper and an outwardly extending outer portion to which the outer sole is attached, the inseam stitching of the shoe passing through said welt and lying within the angle formed by bending said inner and outer portions, said welt having a stitch-receiving groove in its upper face at the apex of said angle.

8. A shoe having a welt bent laterally to form an upstanding inner portion resting in the crease against the shoe upper and an outwardly extending outer portion to which the outer sole is attached, the inseam stitching of the shoe passing through said welt and lying within the angle formed by bending said inner and outer portions, said welt having a stich-receiving groove in its upper face at the apex of said angle, and also being recessed on its inner side opposite to said groove, the adjacent upper materials lying in said recess.

9. The method of forming a stitch-receiving groove which comprises cutting inwardly from one face of the stock and removing a strip of material from beneath said face through said cut to leave a surface flap extending over a channel formed by the removal of said strip from one side, and then pressing said flap to the base of said channel.

10. The method of forming a welt which comprises cutting away the stock from one edge portion of a blank strip to leave a thin layer forming a continuation of the surface portion of the remainder of said strip on one side and a depression on the opposite side, bending said thin layer over said cut away portion and into the depression whereby the adjacent edge of the strip is surfaced by said layer, and forming a stitch-receiving groove on the opposite face of said strip.

11. The method of forming a welt which comprises cutting away the stock from one edge portion of a blank strip to leave a thin layer forming a continuation of the surface portion of the remainder of said strip on one side and a depression on the opposite side, bending said thin layer over said cut away portion and into the depression whereby the adjacent edge of the strip is surfaced by said layer, and forming a stitch-receiving groove on the opposite face of said strip, said surface layer being of such length as to leave an unfilled portion of the depression substantially opposite to said groove, said groove and unfilled portion defining a fold line extending longitudinally of the welt.

12. The method of making welt shoes which comprises forming a longitudinal groove in that face of a welt strip to be exposed in the finished shoe, fixing said strip to an innersole and upper materials by an exposed line of stitching lying in said groove, bending up the lower edge portion of the welt along the groove into substantially the plane of the innersole, and attaching an outer sole thereto.

13. The method of making welt shoes which comprises feeding and attaching a welt strip to the margin of an innersole and interposed upper material while held in a plane substantially perpendicular to the plane of said innersole, bending the lower portion of the welt outwardly into substantially the plane of said innersole, and fixing the marginal portions of an outer sole thereto.

14. A leather reverse welt characterized by a body having a thin layer extending from its inner edge on the grain side and adapted to be folded to lie against said inner edge of the body and a stitch-receiving groove substantially centrally of its grain side.

15. A leather reverse welt characterized by a body having a longitudinal weakened area intermediate its edges to permit folding, and a grain surface covering its inner edge comprising a portion of the grain side of the welt body.

In testimony whereof I have affixed my signature.

HARRY LYON.