

March 6, 1934.

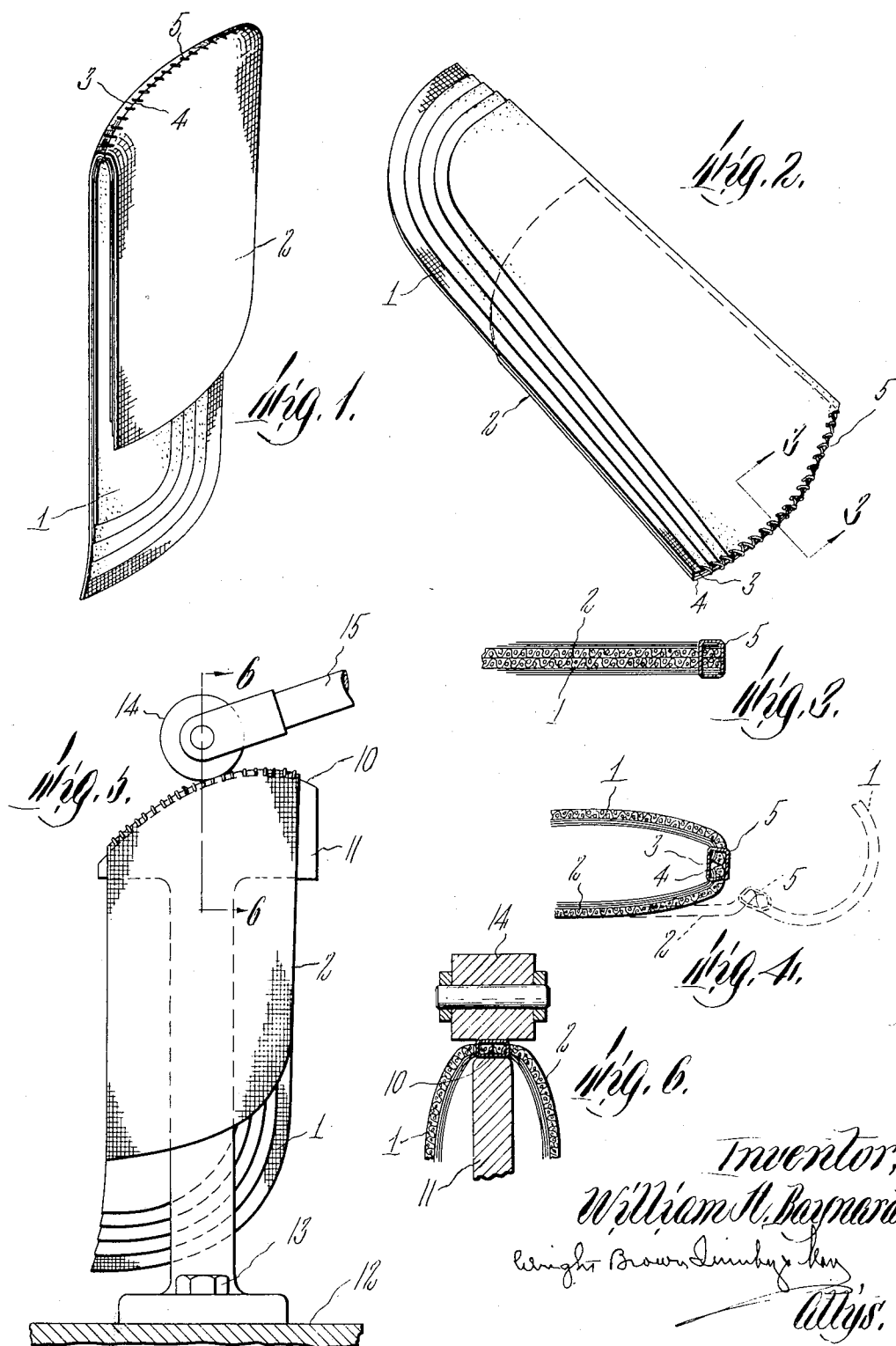
W. H. BAYNARD

1,949,525

SHOE COUNTER

Filed April 7, 1931

2 Sheets-Sheet 1



March 6, 1934.

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2 Sheets-Sheet 2

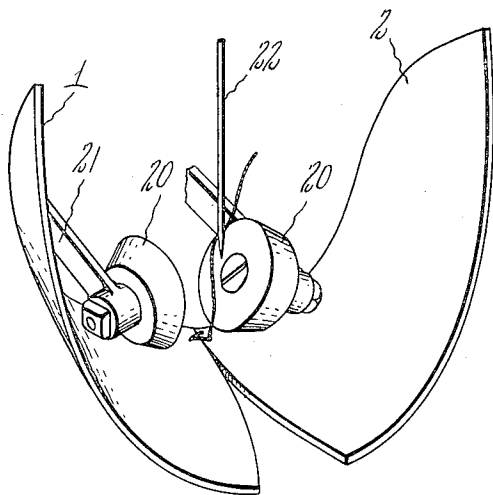


Fig. 7.

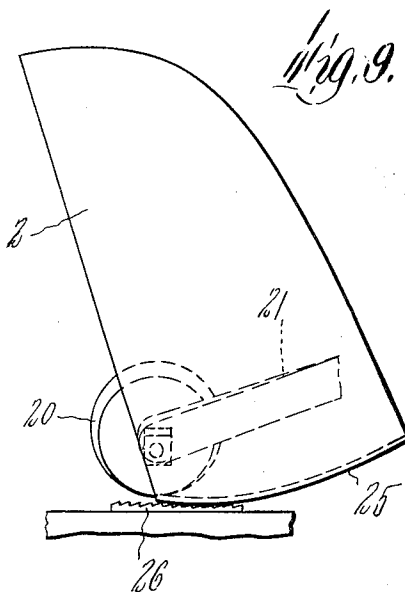


Fig. 9.

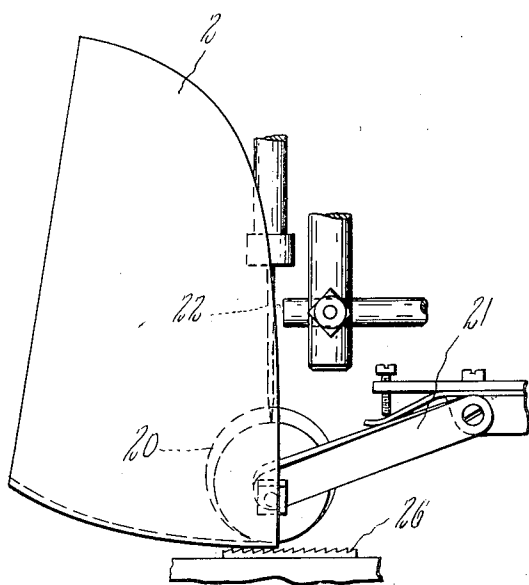


Fig. 8.

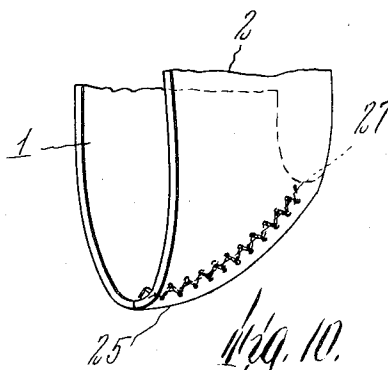


Fig. 10.

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UNITED STATES PATENT OFFICE

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SHOE COUNTER

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Application April 7, 1931, Serial No. 528,254

2 Claims. (Cl. 36-77)

This invention relates to counter portions of shoes and has for an object to produce such portions provided with stiffeners which it is not necessary to mold prior to assembly in the uppers.

5 Certain types of stiffeners such as those having woven fabric foundation do not have sufficient stretch for successfully molding to the desired contours for counters and those which are more suitable for molding are liable to produce in the molding operation bunching of the material, more particularly along the rear lower edge, and thinning of the material at other parts, which causes them to be unsatisfactory.

10 In accordance with the present invention the stiffener is made in two parts, each forming one side of the stiffener and each with a convex rear edge, these edges being united in a butt joint. In order to permit a relatively smooth outer face of the stiffener at the joint the two parts may be stitched together inside out along their rear edges by a zig-zag over-edge stitch. The parts being tempered, the stiffener is turned right side out with the rear edges of the parts brought into butting relation, thus exposing only unobjectionable laterally extending stitch lines across the joint on the outer face of the stiffener.

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

30 Figure 1 is a perspective showing one form of the stiffener ready for assembly in the shoe upper.

Figure 2 is a side elevation of the parts before the turning operation.

35 Figure 3 is a detail section on line 3-3 of Figure 2.

Figure 4 is a section similar to Figure 3, but showing the parts turned but with the adjacent edges not in final positions.

40 Figure 5 is an elevation showing a manner of bringing the edges of the parts into butting relation after the stiffener has been turned.

Figure 6 is a detail section on line 6-6 of Figure 5.

45 Figure 7 is a fragmentary perspective showing the stiffener parts being fixed together in a different manner.

Figure 8 is a side elevation of the same.

50 Figure 9 is a view similar to Figure 8 but showing the parts with the securing operation nearly completed.

Figure 10 is a fragmentary perspective showing the parts attached.

55 Referring to the drawings, a pair of members cut to the shape of opposite sides of the desired counter stiffener such as 1 and 2 and provided

with convex rear edges as at 3 and 4, respectively, are arranged in superposed relation inside out and stitched together along their rear convex edges as by a line of zigzag overseam stitches 5. The rear portion of the stiffener is then tempered, the particular means of doing this depending on the type of stiffening agent employed, and the stiffener parts are then turned right side out as shown in Figure 4, the edge portions 3 and 4 being brought into butting relation. This may be accomplished, as shown, for example, in Figures 5 and 6, by supporting the stiffener along the line of stitching 5 on the curved upper face 10 of a standard 11 secured to a work bench or other suitable support 12 as by bolts 13, and pressing the rear portion of the stiffener along the stitch line against this upper curved edge as by means of a pressure roller 14 which may be provided with a handle 15 which the operator may grasp. When this has been accomplished the stiffener may be tempered throughout, assembled in the upper of the shoe and lasting effected.

The pressure of the upper on the last during the lasting operation causes the counter stiffener, which is still in temper, to be conformed closely to the last contour so that when the stiffener is permitted to set it is in the desired shape. By forming the stiffener in this manner only the lateral or horizontal stitches produced by the overseaming operation are exposed on the outer face of the stiffener, these being so smooth and inconspicuous as to produce no detrimental effect in the shoe, the crossed stitches lying on the inside face. The adjacent edges of the stiffener parts being in butting relation, no undesirable thickening of the stiffener at its rear end is produced which might cause discomfort to the wearer. By uniting the parts along their curved rear edges the stiffener is given an initial configuration which permits it to be conformed to the last with little stretching and produces no troublesome bunching of the stiffening material at its lower edges or thinning of the material at any portions of the counter. It likewise makes possible the use of stiffeners having woven fabric foundations such as those made of one or more layers of cloth stiffened with cellulose esters or similar solvent-softened stiffening agents. This invention is, of course, also applicable to counters employing a thermoplastic or other stiffening agent.

In Figures 7 to 10 another method of securing the stiffener parts together with their rear edges in butting relation is illustrated. In this method no turning of the parts after the stitching op-

eration is necessary. The curved edges of the stiffener are arranged in butting relation at one end as shown in Figure 7, and they are stitched together starting at this point with zigzag 5 stitches. The sewing machine for effecting this stitching operation is shown as provided with a pair of work-engaging conical rollers 20 suitably mounted on arms 21 and spaced sufficiently to permit the passage of the laterally movable 10 needle 22 which descends alternately on opposite sides of the abutting edges of the stiffener parts in making its sewing strokes. As the stitching proceeds the abutting edges of the stiffener parts are brought together progressively 15 ly causing the rear portion of the stiffener to assume a curved contour at the line of stitching as shown at 25 in Figures 9 and 10. Figure 8 shows in side elevation the positions of the parts adjacent to the starting of the stitching operation, as the stitching progresses the stiffener 20 parts are rocked about their lower edges into the position shown in Figure 9. At 26 in Figures 8 and 9 is shown the feed plate by which the work is fed with relation to the needle. Such 25 stitching produces a line of zigzag stitches on the inner face of the stiffener shown at 27 in Figure 10 which secure the stiffener parts to each other in butting relation and right side out

so that no subsequent turning or pressing operation is necessary to complete the formation of the stiffener. On the outer face of the stiffener the stitch lines are similar to those shown in Figure 5.

As shown in Figures 1 to 6 the counter portions are made from superposed laminations some of which at least are of woven fabric, the whole being stiffened preferably with a cellulose ester though it should be understood that the invention is not limited to the use of such material and that various other modifications and changes might be made therein without departing from the spirit or scope of this invention as defined by the appended claims.

I claim:

1. A counter stiffener comprising two parts each having a convex rear edge, and means for joining said parts together with said rear edges in butt joint relation.

2. A counter stiffener comprising two parts each having a convex rear edge, said parts being joined together with said rear edges butted together by zigzag stitches, the cross portions of said stitches lying on the inside face of said stiffener.

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