July 26, 1949. A. F. WHITE 2,477,532

WELT AND METHOD OF MAKING THE SAME

Filed Jan. 23, 1946

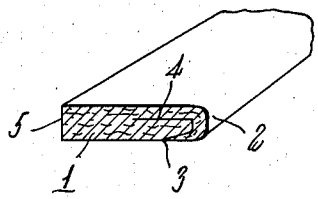


Fig. 1.

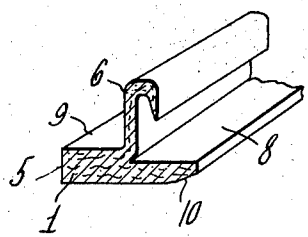


Fig. 2.

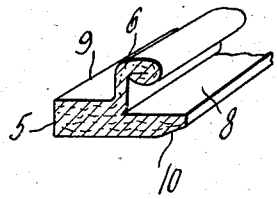


Fig. 3.

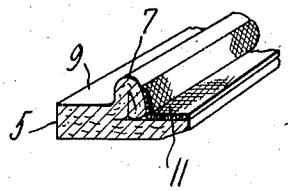


Fig. 4.

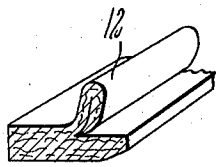


Fig. 5.

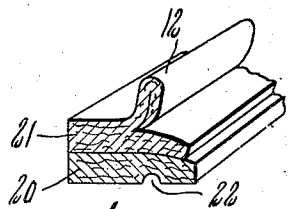


Fig. 6.

Inventor
Aubrey F. White
by Wright Brown Quinby & May
Attys.

Patented July 26, 1949 2,477,532

UNITED STATES PATENT OFFICE

2,477,532

WELT AND METHOD OF MAKING THE SAME

Aubrey F. White, Abington, Mass.

Application January 23, 1946, Serial No. 642,801

7 Claims. (Cl. 36—78)

1

In the White United States Letters Patent No. 2,328,937 there is disclosed a beaded welt in which a layer of stock is partly cut from a flat blank strip, starting from the under side, up and around the inner edge, and back from that edge near the upper surface of the blank toward the outer edge of the blank, the layer thus partly severed being folded to form at least a portion of a bead on the top face of the welt, the free edge of the layer being brought substantially even with the inner edge of the remainder of the blank. In order to form a bead of sufficient size, in this construction, it is usually desirable to reinforce the folded bead forming portion by a separate filler strip wrapped about by the folded portion, and this filler strip is an item of substantial expense.

One object of the present invention is to so modify the former construction that any necessity for the use of such a filler strip is avoided. This is done, in accordance with this invention, by utilizing substantially all of the partly severed strip to form the bead. This exposes the cut top face of the blank inwardly of the bead, but in any instance where this might cause undue weakening of this part of the welt through which the inseam stitches are passed, this cut surface may be overlaid by a narrow reinforcing strip such as a strip of cement coated fabric like that commonly employed to reinforce "Gem" innersoles.

A further object of the invention is to provide a construction of "double deck" welt by the use of two superposed similar blanks, the upper one only of which is modified to form 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 showing the method of cutting.

Figures 2, 3 and 4 are similar views showing successive steps in the formation of a finished welt strip.

Figure 5 is a view similar to Figure 4, but showing a modified construction.

Figure 6 is a view similar to Figure 5, but showing the welt of Figure 5 superposed and cemented on a grooved welt blank to form a "double deck" welt.

Referring to the drawings, a blank strip 1 of material such as leather, preferably having its inner edge rounded off as at 2, is cut inwardly, first from its lower face at 3, upwardly inclined toward the inner edge 2, and then upwardly substantially parallel to this edge and outwardly as at 4 toward the outer edge 5 of the blank, this

2

forming a layer partly severed from the blank strip and of substantially uniform maximum thickness from the outer edge of the cut 4 to and around the inner side edge 2 and tapering from the uniform thickness portion to its edge at 3. The layer 6 thus partly severed from the strip is brought upwardly and then folded on itself outwardly from the inner limit of severance, preferably as shown in Figures 2 and 3 in a series of convolutions so that finally substantially the entire width of the layer is coiled up to form a bead 7 extending upwardly from the top face of the strip between its side edges. The top face of this welt strip inwardly from the root of the bead is thus depressed below the level of the top face 9 outwardly of the bead and the inner edge portion of the welt is further thinned by the beveled portion 10 formed by the initial cut from the point 3.

In the case of a welt made from leather, the cut surface 8 is below the grain surface and in any case where it should be unduly weak for the reception of the inseam stitching, the welt may be reinforced as by the use of a reinforcing strip 11 preferably overlying the cut face 8 and cemented thereto and, if desired, also extending upwardly and cemented to the inner exterior face of the bead as shown in Figure 4 but preferably terminating below its top edge so that it will not show in the completed shoe, this being particularly important when fabric is employed as a reinforcing strip since if this showed it might detract from the appearance of the shoe. This reinforcing material may well be of the relatively inexpensive cement coated duck commonly used for reinforcing "Gem" innersoles. With this arrangement a very substantial bead is formed and the top face of the welt inwardly of the bead is somewhat lifted.

Instead of forming the bead by convoluting the layer, this layer may be doubled on itself outwardly of the inner limit of severance as shown in Figure 5 to form the complete bead 12 which may be higher than where the strip is convoluted. This welt construction lends itself admirably to the formation of the so called "double deck" welts in which two thicknesses of welt stock are exposed on the outer edge of the welt, thus giving the appearance in a shoe of the shoe having a mid-sole but without the stiffening of the shoe sole occasioned by the use of a mid-sole. This arrangement of "double deck" welting is shown in Figure 6, in which 20 indicates a blank strip similar to that from which the beaded welt is formed and having cemented against its top face a beaded welt 21, which as shown is of the type

illustrated in Figure 5. It will be noted that the formation of the bead decreases the width of the welt by the amount of the thickness of the layer which was cut to supply material out of which the bead could be formed. This narrows the welt over that of the original blank so that when the outer edges of the two strips are arranged in alinement, or flush, as shown in Figure 6, the inner edge of the upper member falls somewhat short of the inner edge of the lower member. This, however, forms a desirable contour for the inner edge of the "double deck" welt. The lower strip **20** may be grooved at **22** on its lower face for the reception of the inseam stitches as in usual practice, the stitches passing through both strips inwardly of the bead.

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

I claim:

1. A welt comprising a blank having a bead upstanding between its side edges, the portion of the blank inwardly of said bead being of less thickness than the portion of the blank outwardly of said bead, said bead consisting of a strip partly severed from the blank and bent on itself, said strip being of greater width than the top face of the blank inwardly of said bead and for the major portion of its width being of a substantially uniform and maximum thickness.

2. A welt comprising a blank having a bead upstanding between its side edges, the portion of the blank inwardly of said bead being of less thickness than the portion of the blank outwardly of said bead, said bead consisting of a layer partly severed from the blank and bent on itself, said layer being of greater width than the top face of said blank inwardly of said bead and for the major portion of its width being of substantially uniform maximum thickness and toward its inner edge tapered from its portion of substantially uniform thickness.

3. A welt comprising a blank having a bead upstanding between its side edges the portion of the blank inwardly of said bead being of less thickness than the portion of the blank outwardly of said bead, and a reinforcing strip cemented against the top face of the thinner portion of the blank and against the inner exterior face of said bead and terminating below the top of said bead on said inner face.

4. A welt comprising a blank having a layer partly severed from the surface of the inner portion of said blank and bent upon itself to form a bead including substantially all of the material of said layer and of a thickness substantially double that of said layer upstanding from its top face between its side edges, the portion of the blank inwardly of said bead being of less thickness than the portion of the blank outwardly of said bead.

5. The method of forming a welt, which comprises partly severing from a blank a layer starting on the lower face of said blank and extending upwardly with substantially uniform thickness along one side edge and laterally beneath its top face part way toward its outer edge, and folding said layer on itself inwardly from the outer limit of severance to form a bead extending upwardly from the top face of said strip and between its side edges, leaving the cut face beneath said layer exposed inwardly from the root of said bead to the inner edge of the blank.

6. The method of forming a welt, which comprises partly severing from a blank a layer starting on the lower face of said blank and extending upwardly with substantially uniform thickness along the inner side edge and laterally beneath its top face part way toward its outer edge, and folding said layer on itself inwardly from the outer limit of severance to form a bead extending upwardly from the top face of said blank and between its side edges, leaving the cut face beneath said layer exposed inwardly from the root of said bead to the inner edge of the blank, and cementing a reinforcing strip to said cut face.

7. The method of forming a welt, which comprises severing from a blank a layer starting on the lower face of said blank and extending upwardly with substantially uniform thickness along the inner side edge and laterally beneath its top face part way toward its outer edge, and folding said layer on itself inwardly from the outer limit of severance to form a bead extending upwardly from the top face of said blank and between its side edges, leaving the cut face beneath said layer exposed inwardly from the root of said bead to the inner edge of the blank, and cementing a reinforcing strip to said cut face and to the inner face of said bead terminating at its upper edge below the top of said bead.

AUBREY F. WHITE.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,086,877	White	Feb. 10, 1914
1,564,771	Fallon	Feb. 8, 1925
1,656,564	Lyon	Jan. 17, 1928
1,687,460	Lyon	Oct. 9, 1928
1,708,628	Lyon et al.	Apr. 9, 1929
1,787,864	Howard	Jan. 6, 1931
2,153,321	Vizard	Apr. 4, 1939
2,241,652	Vizard	May 13, 1941
2,251,178	Vizard	July 29, 1941
2,299,263	Vizard	Oct. 20, 1942
2,328,937	White	Sept. 7, 1943