June 11, 1935. L. F. PLUMMER 2,004,447

CALKING WELT

Original Filed Sept. 12, 1931

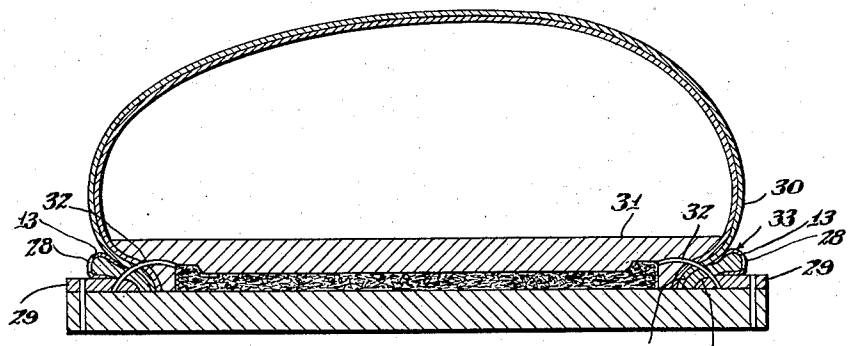


Fig. 1.

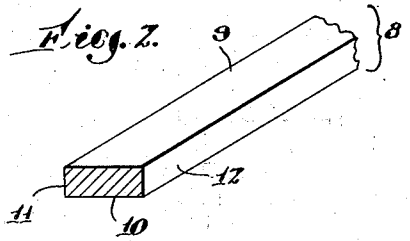


Fig. 2.

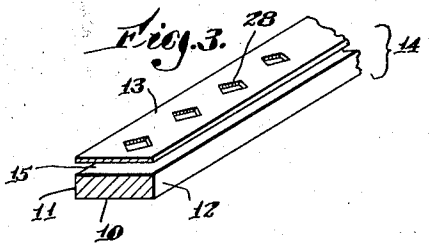


Fig. 3.

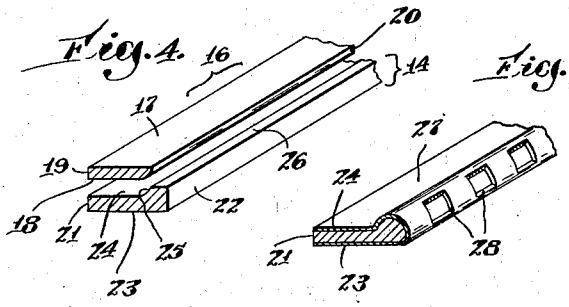


Fig. 4.

Fig. 7.

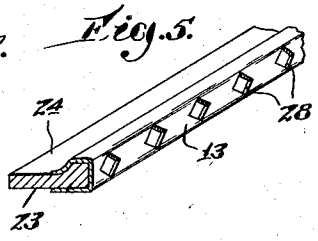


Fig. 5.

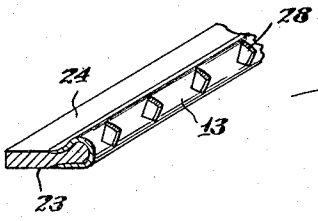


Fig. 6.

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CALKING WELT

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Application September 12, 1931, Serial No. 562,441
Renewed November 7, 1934

8 Claims. (Cl. 36—78)

The present invention relates to welting which is used in the manufacture of welt shoes, and more particularly, but not exclusively, to the art of making a calking welt which is secured, with the welt, to the upper and insole of a welt shoe by the inseam stitches, and which is used to calk the shoe crease formed between the upper and the welt to exclude dirt and moisture and to impart to the shoe a heavy and storm-proof appearance.

It has been proposed heretofore to use a calking welt of the type referred to in which the face thereof which is exposed to view in the finished shoe is a grain face presenting inherently an attractive appearance. But this exposed grain face constitutes an integral part of the calking welt and therefore this type of calking welt can be formed only from good leather thus precluding its use in many grades of welt shoes.

The principal object of the present invention is to produce a calking welt which may be manufactured economically and yet, when inserted into the crease formed between the upper and the welt of a welt shoe and secured, with the welt, to the upper and insole by the inseam stitches, will present to view a grain face.

To the accomplishment of this object and of others which will appear hereinafter, the various features of the present invention reside in certain constructions, arrangements of parts, step products, and methods of manufacture hereinafter described and then set forth broadly and in detail in the appended claims which possess advantages readily apparent to those skilled in the art.

The various features of the present invention will be understood readily by those skilled in the art from an inspection of the accompanying drawing illustrating the best forms of the calking welt at present devised, and the preferred methods of making them, in which,

Figure 1 is a sectional elevation of a welt shoe showing the improved calking welt located in the crease formed between the welt and the upper;

Fig. 2 is a detail view in perspective of a leather strip blank;

Fig. 3 is a detail view in perspective of the products of the first step in the preferred method of making calking welts;

Fig. 4 is a detail view in perspective of the products of the second step in the preferred method;

Fig. 5 is a detail view in perspective of the product produced by wrapping the thin cover layer about the intact edge face of the strip blank;

Fig. 6 is a detail view in perspective of the improved calking welt which is the product of the final step in the preferred method, and

Fig. 7 is a detail view in perspective of a modification.

My preferred improved method of making calking welts starts with a leather strip blank 8 (Fig. 2) which is substantially $\frac{1}{16}$th of an inch narrower than a standard strip of Goodyear Welt Shoe calk welting. The strip 8 is formed, as usual, into a continuous strip by scarfing together a number of separate pieces. The strip 8 is provided with a grain face 9, a flesh face 10 and two flesh edge faces 11 and 12.

The first step in the preferred improved method of making calking welts consists in removing bodily from the grain face 9 of the strip blank 8 a thin layer 13 (Fig. 3). This layer 13 is an all-grain slice severed from the grain surface 9. Stated in another way, the remaining strip blank 14 (Fig. 3) has a grain face 15.

The second step in the preferred improved method of making calking welts consists in removing a strip 16 (Fig. 4), narrower than the layer 13, bodily from the grain side of the strip blank 14 at one margin thereof. This strip 16 is provided with a grain face 17, a flesh face 18, an intact flesh edge face 19 and a beveled flesh edge face 20. The strip 16 is not waste but comprises substantially a finished welting for stitch-down shoes.

After the strip 16 has been removed, the remaining strip blank has a thin edge face 21, an intact edge face 22, a flesh face 23, a flesh face 24 terminating in a chamfered shoulder 25, and a grain face 26 extending between the shoulder 25 and the intact edge face 22.

The third step in the preferred improved method of making calking welts consists in wrapping the layer 13 (Fig. 3) about the intact edge face 22 of the remaining strip blank (Fig. 5), one free edge of the layer 13 overlapping upon the flesh face 23 and the other free edge covering the grain face 26 and the shoulder 25 and overlapping upon the flesh face 24. The layer 13, or cover strip, is secured in place on the underlying strip blank by some cement, preferably one having a naphtha dope base.

The fourth and final step in the preferred improved method consists in passing the step product, illustrated in Fig. 5, through a set of rolls (not shown) which imparts a curvature to the wrapped edge of the strip blank and sinks the free ends of the layer 13 into the flesh faces 23 and 24, respectively.

As well known to those skilled in this art, it

is often necessary or desirable to skive or split the tanned hide and thus reduce the thickness of the grain on the grain side thereof before cutting it into the pieces which, when scarfed together, form a continuous strip of Goodyear Welt Shoe welting. These skivings or splittings, removed from the grain side of the hide, may be cut into strips to form the layer 13 and these strips may be wrapped about the intact edge face 22 of the strip blank after the strip 16 has been removed therefrom. When the skiving or split strips are used for the cover strip 13 the strip blank 8 may be of very cheap leather, in fact so cheap that it would be impracticable to produce therefrom the grain layer 13 (Fig. 3). The skivings or splittings may be cut as wide as the layer 13 or into widths 27 sufficient to cover the intact edge face 22 and the flesh faces 23 and 24 (Fig. 7) flush with the edge face 21.

As the layer 13 is grain and the intact edge face 22 is flesh there is a color contrast between them. I propose to take advantage of this color contrast by providing the cover strips 13 and 27 with ornamental cut-outs, such as those shown at 28 (Figs. 3, 5, 6 and 7). When the perforated cover strips 13 and 27 are wrapped about the intact edge face 22 portions of its flesh surface are exposed to view through the perforations.

The calking welt, either plain or ornamented, as shown in Figs. 6 and 7, is assembled with a Goodyear Welt 29 (Fig. 1) in the welt sewing operation so that their inner ends are secured to the upper 30 and the insole 31 of a welt shoe by the inseam stitches 32. With this construction the crease between the welt 29 and the upper 30 is filled by a bead 33 comprising the inner strip blank and the outer covering layer 13 or 27. Thus the only face of the calking welt which is exposed to view in the finished shoe is a grain face which is inherently attractive in appearance, which is capable of receiving a high finish, and which may be ornamented in a pleasing manner independently of the perforations, which, of course, may be omitted if desired.

By starting with a strip blank 8 narrower by $\frac{1}{16}$th of an inch than a standard strip of Goodyear Welt Shoe calk welting and then building the strip back to the width of a standard strip of Goodyear Welt Shoe calk welting by applying the thin layer 13 or 27 to the intact edge face 22 a great saving in the cost of leather is possible.

Instead of forming the perforations 28 after the slice 13 has been removed from the strip blank 8 the perforations may be formed by an embossing tool which is driven into the grain face 9 of the strip blank 8 so as to cut the grain face 9 to a depth below the line of severance of the slice 13. Then when the slice is removed it will be provided with the perforations 28.

It will be clear to those skilled in this art, and with the general objects of the present invention in view, that changes may be made in the steps of the methods and in the details of structure, the described and illustrated embodiments thereof being intended as exploitations of the underlying essentials of the invention, the features whereof are definitely stated in their true scope in the claims herewith.

What is claimed as new, is:

1. That improvement in the art of making calk welts which consists in producing a thin grain-surfaced leather layer, rabbetting a relatively narrow strip from one face of a leather blank strip at one margin leaving the edge face at the opposite margin intact and wrapping the layer about the intact edge face.

2. That improvement in the art of making calk welts which consists in producing a thin all grain leather layer, removing a relatively narrow strip from the grain face of a leather blank strip leaving one edge face thereof intact and wrapping the layer about the intact edge face.

3. That improvement in the art of making calk welts which consists in removing from the grain side of a leather strip blank both a thin layer and a strip of greater thickness but less width, and wrapping the thin layer about the edge face of the strip blank adjacent the remaining grain face thereof.

4. That improvement in the art of making calk welts which consists in removing from the grain side of a leather strip blank a thin all grain layer, removing from the grain side of the remaining strip blank a strip of greater thickness but less width than the layer and wrapping the thin layer over the remaining grain face of the strip blank and about the edge face thereof adjacent the grain face.

5. That improvement in the art of making calk welts which consists in removing from the grain side of a leather strip blank both a thin layer and a strip of greater thickness but less width leaving one edge face of the blank thicker than the other, and wrapping the thin layer about the thicker edge face of the strip blank and molding the wrapped portion of the strip blank to impart a curvature thereto and sink the free ends of the layer into the opposite faces of the strip blank, respectively.

6. Calk welting and the like for shoes which comprises a strip blank of grain leather having a rabbet on the grain side at one margin and an intact flesh edge face at the opposite margin and a separate cover strip wrapped about the intact edge face.

7. Calk welting and the like for shoes which comprises a strip blank of grain leather having a rabbet on the grain side at one margin and an intact edge face at the opposite margin and a separate cover strip wrapped about the intact edge face, the wrapped edge face being molded to impart a curvature thereto.

8. Calk welting and the like for shoes which comprises a strip blank of grain leather having a rabbet on the grain side at one margin and an intact flesh edge face at the opposite margin and a separate cover strip wrapped about the intact edge face, the wrapped edge face being molded to impart a curvature thereto and sink the free ends of the cover strip into the opposite faces of the strip blank, respectively.

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