Aug. 20, 1935. W. C. VIZARD 2,011,960

METHOD OF MAKING WELTING

Filed Sept. 30, 1932

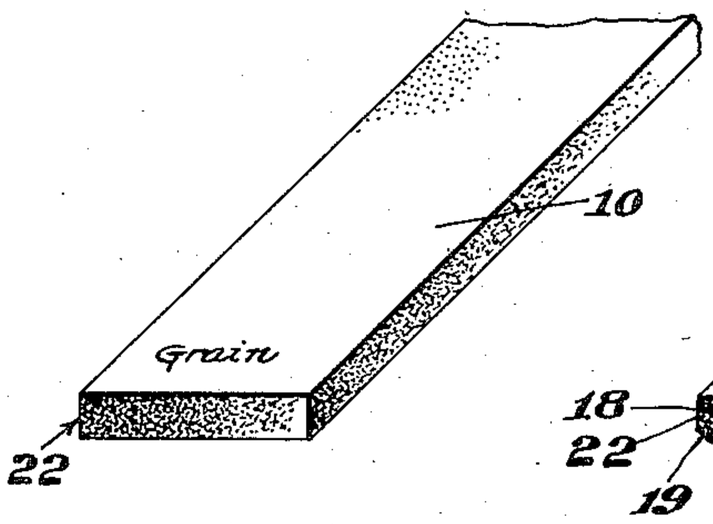

Fig. 1

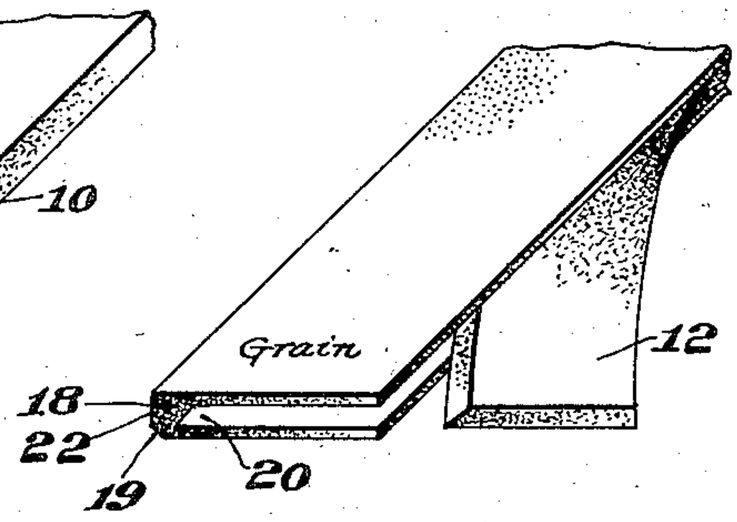

Fig. 2

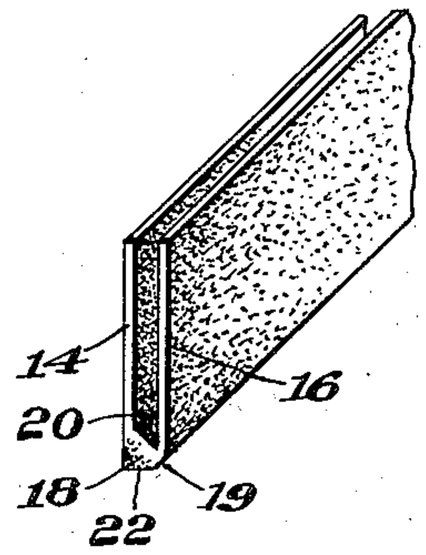

Fig. 3

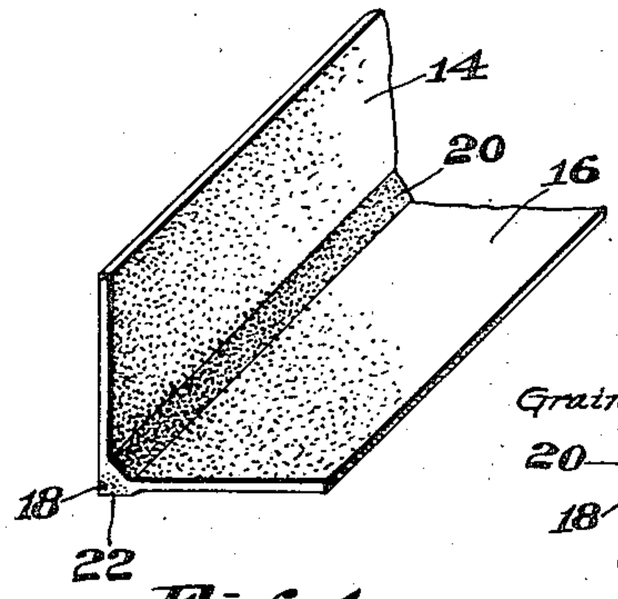

Fig. 4

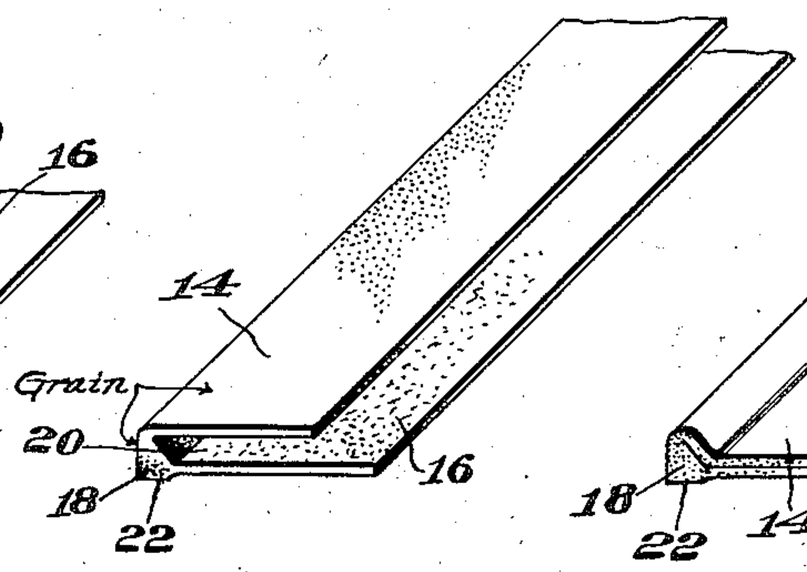

Fig. 5

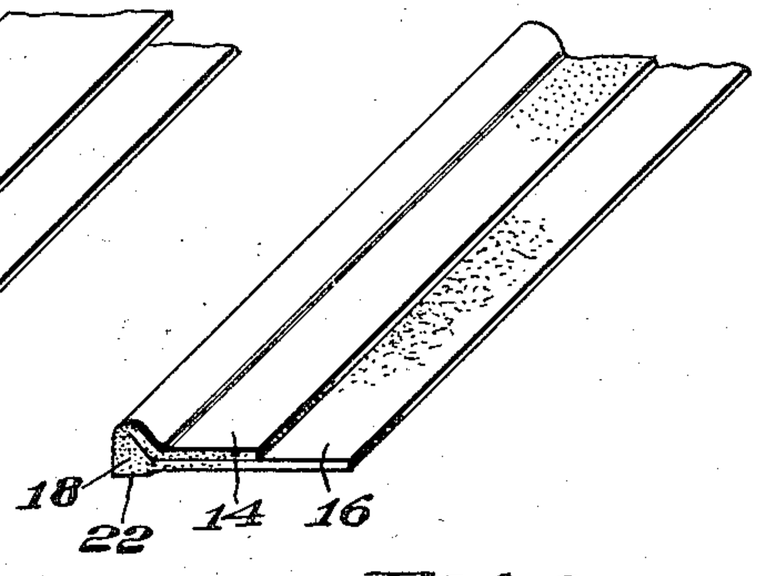

Fig. 6

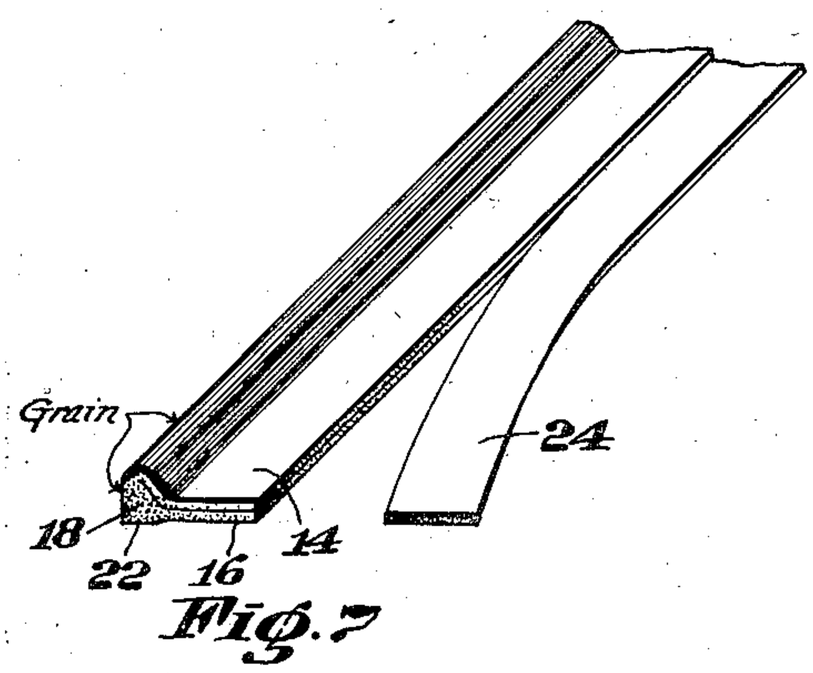

Fig. 7

INVENTOR

William C. Vizard

BY Warren G. Ogden

his ATTORNEY

Patented Aug. 20, 1935 2,011,960

UNITED STATES PATENT OFFICE

2,011,960

METHOD OF MAKING WELTING

William C. Vizard, Brockton, Mass., assignor, by mesne assignments, to Barbour Welting Company, Brockton, Mass., a copartnership composed of Perley E. Barbour, Walter G. Barbour, and Richard H. Barbour

Application September 30, 1932, Serial No. 635,570

6 Claims. (Cl. 12—146)

This invention relates to the manufacture of welting, particularly of beaded welting used as calking welt in Goodyear shoes, nailed shoes, mock welts and the like.

Calking welt comprises a body flange for receiving the stitching and an adjoining edge bead the combined width of which is $\frac{5}{16}$ inch in the most desirable commercial size. In the manufacture of types heretofore commercially available a strip $\frac{5}{8}$ inch wide has been required to produce a $\frac{5}{16}$ inch calking welt. Saving of stock is of great importance and any method by which standard calking welt can be made starting with a narrower strip of leather is eagerly sought for.

The object of this invention is to provide a method of making calking welt of standard width from a strip of leather only slightly wider, and to the accomplishment thereof the steps for practising the method will be described in detail in connection with accompanying drawing and the scope of the invention will be set forth in the appended claims.

In the drawing, all the figures being in perspective,

Figure 1 shows a strip of grain faced leather;

Figs. 2 and 3 show, respectively, the first preparatory cutting of the strip and the result thereof;

Figs. 4, 5 and 6 show the progressive forming up steps to produce a calking welt from the cut blank of Fig. 3, and

Fig. 7 shows the finished welt, molded and trimmed.

In practising the new method, as illustrated by the accompanying drawing, for the production of $\frac{5}{16}$ inch calking welt a strip **10** only $\frac{7}{16}$ inch wide need be used. This may be leather having a natural grain face or it may be a split having had grain applied to one face as by cementing thereto a grain ribbon obtained from finishing processes in the manufacture of other kinds of welting, or in other ways. In the following description and claims "grain faced" is inclusive of either a natural or an applied grain. The present method depends on the formation of a U-shaped blank from the grain faced strip before performing the forming up steps. Accordingly a segment **12** is cut from between the two faces of the strip **10** leaving a blank (Fig. 3) having a grain faced wing **14** and a flesh wing **16** connected at one edge by an uncut portion **18** of the original stock, this portion being the flesh remaining after removing the segment **12**. At the time the segment **12** is removed the flesh corner of the stock which becomes the wing connector **18** may be beveled as at **19** to facilitate forming up as presently explained. It will be observed that the cut for removing the segment **12** provides a chamfered inner edge. This leaves an oblique face **20** on the connector stock **18** which makes the flesh wing wider than the grain faced wing the purpose of which will be plain when the forming up of the blank is described. Those skilled in the art will recognize that the segment **12**, although composed of split leather, is of commercial value and is not waste.

Having the U-shaped blank, it is formed up into a calking welt as illustrated by Figs. 4 to 6. The wings **14** and **16** are opened about the joinder of the flesh wing **16** with the connector stock **18** as a hinge, this being the point where there is the least connector stock to resist bending, until the grain at the connected end at least, of the wing **14** stands at substantial right angles to the flesh wing **16**. This throws the original edge **22** of the strip **10** into general alignment with the bottom of the flesh wing **16** thus forming an extension thereof. It also turns the connector stock **18** to a position wherein its bevel **20** slopes upward and outward from the said flesh wing **16**. Cement may be applied to the inner faces of the two wings at any time after the wings have been opened sufficiently to be contacted by a cement roll or other applying device. Any satisfactory kind of enduring cement may be used. The grain faced wing **14** is now turned back toward the flesh wing **16**, the hinge being at the upper edge of the bevel **20**, and is pressed into contact with said bevel and with the cemented face of the flesh wing **16**. It will be observed that the bevel at **19** assists in turning the connector stock to a position where its edge **22** forms a part of the bottom of the welt, and that the oblique face **20** provides for a narrowed upper edge on the bead of the calking welt.

The final step is the pressing and molding to shape. In these operations the bead is rounded or otherwise shaped as desired and the pressure is sufficient to form a substantially flat bottom and to preserve the substantially square corner at the base of the bead. It is convenient, during this step, to remove the string **24** which is the excess width of the flesh wing after the forming up operations have been performed. An important advantage of this method of producing calking welt accrues from selecting a substantially triangular cross-section for the connector stock **18** which supplies the body stock for the edge bead. Heretofore the stock of the bead body has been of rectangular cross-section

and, due to variations in the character of the leather along the length of the blank, it has sometimes been difficult to finish the bead to the desired shape, that is, with a sloping or even concaved back for fitting to the shoe stock which it contacts. The oblique face **20**, which forms the rear face of the bead body, eliminates corners which must be molded down, provides an initial cross-section that approaches the final shape of the bead facilitating molding a narrow top edge, and presents a rear wall that may readily be shaped as desired.

The operations described, when performed, produce a calking welt having a firm and strong body for receiving stitches, a bead that is grain faced throughout its surface and a flesh bottom that will lie flat and cling to the underlying material of the shoe in which the welting is used.

Variations in the described steps used in the method of manufacture of the calking welt may be made without departing from the principles and scope of the invention as defined by the following claims.

Attention is called to applicant's co-pending application for calk sole welting and the like, Serial No. 533,993, filed April 30, 1931, in which will be found generic claims covering the calk welting herein disclosed and its method of manufacture. The claims of this application are confined to the novel method of making one-piece welting as disclosed herein and such equivalents as may be permitted by the prior art.

The nature and scope of the invention having been indicated and the preferred method of manufacture having been described, what is claimed as new, is:—

1. The method of making calking welt and the like which comprises removing a segment centrally from a strip of grain faced leather forming a U-shaped blank having a grain faced wing and a flesh wing connected at one edge by an uncut portion of the original stock, opening said wings about the line of joinder of the flesh wing to said connector stock, cementing their inner faces, turning the grain faced wing back upon said connector stock and upon said flesh wing forming an edge bead, and pressing and molding to shape.

2. The method of making calking welt according to claim 1 in which the said segment has a chamfered inner edge leaving an oblique face on said connector stock between the two wings.

3. The method of making calking welt according to claim 1 in which the said segment has a chamfered inner edge leaving an oblique face on said connector stock between the two wings, said face, when said wings are opened, sloping upwardly and outwardly from said flesh wing.

4. The method of making calking welt and the like which comprises removing a segment having an inner chamfered edge centrally from a strip of grain face leather forming a U-shaped blank having a grain faced wing, a flesh wing wider than the grain faced wing and connector stock at one edge that is the flesh of the original strip, opening said blank by turning substantially 90° on the line of joinder of said flesh wing and the connector stock, cementing said wings, then folding said grain faced wing down upon the beveled face of said connector stock and into contact with said flesh wing forming a grain faced beaded edge, and molding the welting to shape.

5. The method of making calking welt and the like which comprises making parallel slits in one edge and part way across a strip of grain faced leather and removing the flesh stock between said slits leaving two wings connected at one edge by the remaining flesh stock, cementing the inner faces of said wings, and then rolling said connector stock outward and wrapping a portion of one of said wings about said connector stock to make a bead and securing the remainder of said wing to the other wing to make a body adjoining said bead.

6. The method of making calking welt and the like which comprises removing a segment centrally from a strip of grain faced leather forming a U-shaped blank having a grain faced wing and a flesh wing connected at one edge by an uncut portion of the original stock, opening and cementing the inner faces of said wings, rolling said connector stock outward to lie at the end of said flesh wing and to turn its grain covered face at substantial right angles to said flesh wing, laying the grain faced wing against said connector stock and the flesh wing, and pressing and molding to shape.

WILLIAM C. VIZARD.