Nov. 9, 1937. W. BROWN 2,098,911

GOODYEAR WELT

Filed March 3, 1937

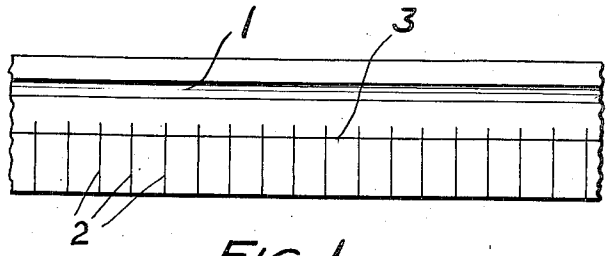


FIG. 1.

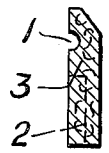


FIG. 2.

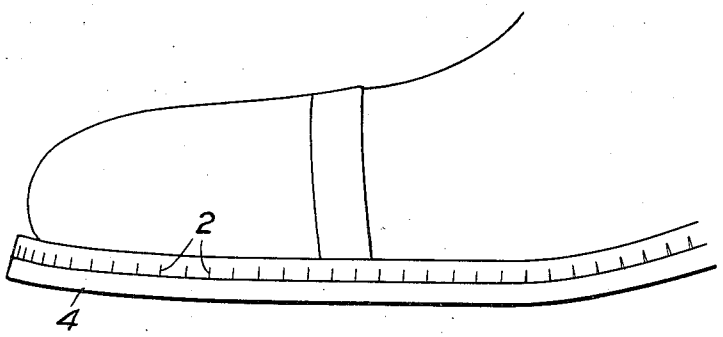


FIG. 3.

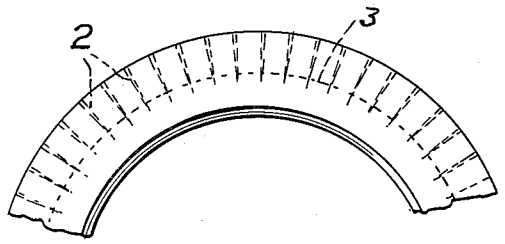


FIG. 4.

WITNESS:
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2,098,911

GOODYEAR WELT

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Application March 3, 1937, Serial No. 128,735

1 Claim. (Cl. 36—78)

In some, so-called, cemented or "Compo" shoes, Goodyear welts are attached to the uppers and to the insoles, if present, and the Goodyear welts are cemented to the outsoles with their flesh sides toward the outsoles. When the outsoles and welts are flexed lengthwise the cement between them is subjected to a shearing action. This shearing action, at least in part, may be explained as due to the fact that the inherent elasticity of the layer or film of cement in respect to, for example, the outsole is opposed by adherence to the flesh side of the welt. This shearing action is also present in cases where the outsole is sewn to the welts.

One object of the present invention is to reduce the fibrous density of the flesh side portion of the welt and therefore to permit it to freely follow the contraction and elongation of the layer or film of cement, when the outsole and welt are flexed without setting up a shearing strain or stress.

Another object of the invention is to improve the wearing quality of shoes having Goodyear welts and made by the cementing process, more particularly in respect to the maintenance of the union of the outsoles with the welts.

Another object of the invention is, by reducing the density of the flesh side portion of the welt, to better adapt the welt for general use, and to permit of the successful use of stock having a harder, closer or denser fibrous structure.

To these and other ends hereinafter set forth or appearing the invention generally stated consists in Goodyear welting having the fibrous density of its flesh side reduced where it is cemented to the outsole so that the opposition of the welt to the elongation and contraction of the layer or film of cement when the outsole is flexed is reduced and shearing stresses and strains are lessened and minimized. The invention also consists in fitting Goodyear welting for use in shoes made by the cementing process as well as in shoes made by the regular Goodyear process and other shoes, by slashing its flesh side between its stitch groove and the opposite edge with a series of spaced crosswise ranging slits extending inward from the edge and stopping short of the stitch groove with or without an undercut slash or series of slashes extending parallel with the stitch groove.

The invention also comprises the improvements to be presently described and finally claimed.

In the following description reference will be made to the accompanying drawing forming part hereof and in which:

Figure 1 is a view of the flesh side of a Goodyear welt embodying features of the invention.

Figure 2 is a cross sectional view of the same.

Figure 3 is a diagrammatic side view of a portion of a shoe having cemented to its outsole a Goodyear welt embodying features of the invention, and

Figure 4 is a top or plan view, diagrammatic in character, of a Goodyear welt embodying features of the invention.

Referring to Figure 1, there is illustrated a Goodyear welt of leather equipped with the usual stitch groove 1, and provided on its flesh side with a series of spaced crosswise ranging slashes 2, extending inward from its outside edge and stopping short of the stitch groove. It may be remarked that while these slashes appear quite prominently in the drawing they are scarcely visible in the welt itself. 3 is a slash ranging lengthwise of the welt and it is undercut toward the stitch groove 1. This undercut slash 3 intersects the slashes 2. There may be provided more than one slash 3.

The effect of the described slashes is to reduce the fibrous density of the stock of the welt where it is cemented to the outsole 4 as by a layer, film or the like of cement or other appropriate like material. The word slash is used herein in its trade sense, meaning gashes or cuts that do not extend clear through, but substantially into the body, for example they may extend about one third of the way through at their deepest parts.

When the parts are cemented together and the outsole is flexed the layer or film of cement is sufficiently elastic to elongate and contract while firmly adherent to the outsole. The fact that the portion of the welt to which the cement is adherent is of reduced fibrous density by reason of the described slashes permits it to come and go with the cement when the outsole is flexed so that shearing strains and stresses are avoided. The reduction of the fibrous density of the stock is also advantageous generally, since it improves hard, close fibre stock and makes it useful for Goodyear welts generally, and it imparts flexibility and workability.

It will be obvious to those skilled in the art to which the invention relates that modifications may be made in details of construction and arrangement without departing from the spirit of the invention which is not limited in respect to

such matters or otherwise than as the prior art and the appended claim may require.

I claim:

A unitary Goodyear welt adapted to be cemented to an outsole and provided on its flesh side with a series of spaced crosswise ranging slashes extending inward from its outside edge and stopping short of its stitch groove and provided to a uniform depth with a slash ranging lengthwise of the welt and undercut toward the stitch groove and intersecting the first mentioned slashes, and which reduces the fibrous density of the stock of the welt and opposes shearing at the cement.

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