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H. BINDER ET AL

3,070,909

WELT SHOE WITH VULCANIZED SOLE

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Fig. 1

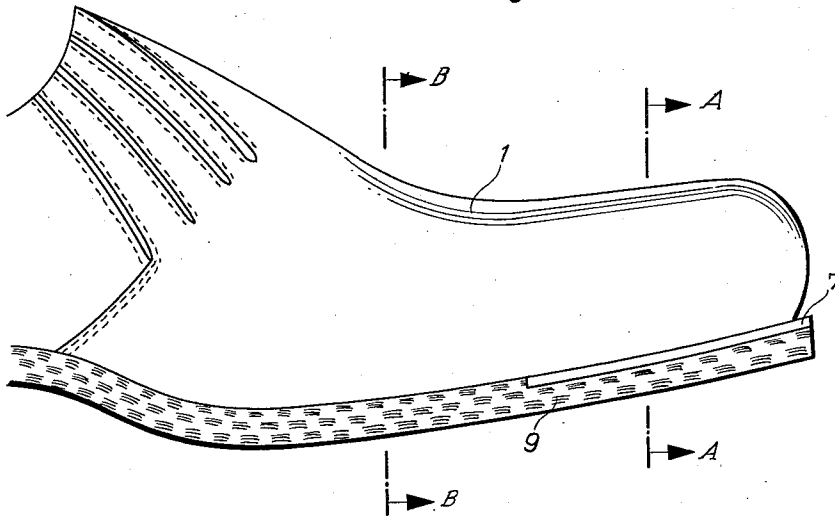


Fig. 2

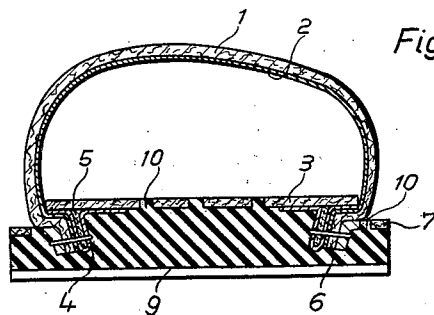
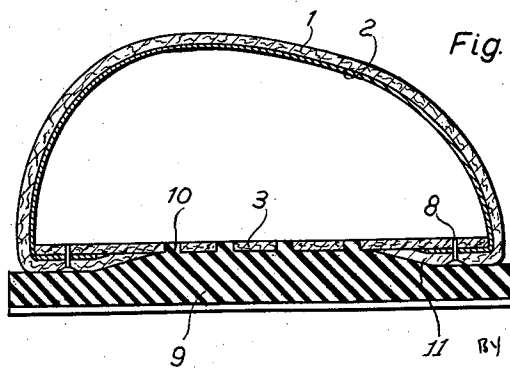


Fig. 3



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WELT SHOE WITH VULCANIZED SOLE

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2 Claims. (Cl. 36-14)

The present invention relates to improvements in articles of footwear with vulcanized soles, and to a method of manufacturing the same. A shoe of this general class is disclosed in our Patent No. 3,026,637 issued March 27, 1962. More particularly, the invention relates to improvements in shoes of Goodyear welt construction with a vulcanized outsole or intermediate sole.

An object of the invention is to provide a method of manufacturing a very cheap, flexible and durable shoe of the above outlined characteristics.

Another object of the invention is to provide a shoe of Goodyear welt construction wherein the welt extends only about the front part of the upper, and wherein the vulcanized sole is secured to the insole and to the welt in a novel way.

With the above objects in view, the invention resides in the provision of an article of footwear whose front portion is of the Goodyear welt construction and whose rear portion is provided with a so-called McKay connection between the insole and the edge portion of the upper. More particularly, the underside of the front portion of the insole is provided with an arcuate marginal stitch receiving rib which preferably comprises a lip of textile material glued to the underside of the insole and a reinforcing strip therewithin, and this rib is secured to the edge portion of the front part of the shoe upper by so-called inseam stitches. The remaining edge portion of the shoe upper, i.e. the edge portion of the rear part of the upper, is deflected beneath the rear portion of the insole and is secured thereto by tacks, by a suitable adhesive or by stitches. The shoe further comprises a comparatively short arcuate welt whose inner portion extends along that edge portion of the upper which is externally adjacent to the rib and is secured to the rib by the aforementioned inseam stitching. The outer portion of the welt projects beyond the outlines of the front part of the upper and is preferably formed with perforations which are filled by the material of the vulcanized sole to insure proper adherence of the sole to the welt. Similar perforations are provided in the insole so that the vulcanized sole is safely anchored in the insole.

The welt preferably consists of chrome leather.

In accordance with our method, the upper, the insole and the welt are assembled in the above described manner, and the sole is then vulcanized to the welt and to the insole so that the rib, the inner portion of the welt, and the edge portion of the front part of the upper are embedded in the material of the sole.

The novel features which are considered as characteristic for the invention are set forth in particular in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following detailed description of a specific embodiment when read in connection with the accompanying drawing, in which:

FIG. 1 is a fragmentary side elevational view of an article of footwear embodying the invention;

FIG. 2 is a transverse section taken along the line B—B of FIG. 1, as seen in the direction of arrows; and

FIG. 3 is a transverse section taken along the line A—A of FIG. 1, as seen in the direction of arrows.

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Referring now in greater detail to the drawing, there is shown an article of footwear in the form of a shoe of Goodyear welt construction which comprises an upper and consisting of an outer layer of vamp 1 and an inner layer of lining 2. As shown in FIG. 2, the front part of the upper 1, 2 comprises an edge portion 6 which is deflected beneath the underside of the insole 3 and extends along the outer side of an arcuate rib consisting of a textile lip 4 and a reinforcing strip 5 which latter is embedded in the doubled lip 4. The reinforcing strip 5 consists of pasteboard, artificial leather or a similar material. It will be noted that the rib 4, 5 extends downwardly from the underside of the front portion of the insole 3, and that the shoe further comprises a comparatively short welt 7 of chrome leather or the like which comprises an outer portion projecting beyond the outlines of the front part of the upper 1, 2, as well as an inner portion which extends along the edge portion 6 and surrounds the rib 4, 5. The inner portion of the welt 7, the edge portion 6, and the rib 4, 5 are connected by inseam stitches shown in FIG. 2.

The rear part of the upper 1, 2 comprises an edge portion 11 which is deflected beneath the rear portion of the insole 3 and is connected thereto by tacks 8, by suitable clamps, by an adhesive or the like. This connection 8 is known as a McKay connection.

The sole 9 is vulcanized to the underside of the insole 3 and to the underside of the welt 7, i.e. to the outer portion of the welt. As shown in FIGS. 2 and 3, the outer portion of the welt 7 and the insole 3 are formed with a plurality of perforations 10 which are filled with the material of the sole 9 so that the latter is safely anchored in the layers 3 and 7. It will be noted that the rib 4, 5, the edge portion 6, and the inner portion of the welt 7 are embedded in the material of the sole 9. This sole 9 may constitute an intermediate sole or the outsole of the article of footwear.

An important advantage of the improved shoe is that it is nearly as flexible as a shoe with a full-sized welt, and that it is more flexible than a shoe wherein the entire edge portion of the upper is tacked to the insole. In addition, the improved shoe is very durable and may be produced at a lower cost than a shoe with a full-sized welt since the use of a comparatively small welt 7 brings about considerable savings in labor and material.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic and specific aspects of this invention, and, therefore, such adaptations should and are intended to be comprehended within the meaning and range of equivalence of the following claims.

What is claimed as new and desired to be secured by Letters Patent is:

1. In a shoe of the Goodyear welt construction, in combination, an insole having an underside and comprising a rear portion and a front portion, said front portion comprising a marginal stitch receiving rib extending from said underside; an upper having a front part and a rear part, said front and rear parts having edge portions, the edge portion of said front part extending beneath said insole and along said rib and the edge portion of said rear part extending beneath the rear portion of said insole; a McKay connection between the edge portion of said rear part and the rear portion of said insole; a welt having an inner portion extending along the edge portion of said front part and an outer portion projecting beyond the outlines of the front part of said upper; inseam stitches connecting the inner portion of said welt with the edge portion of said front part and

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with said rib; and a vulcanized sole secured to said insole and to said welt, the inner portion of said welt, the edge portion of said front part and the rib of said insole extending into the material of said sole.

2. In a shoe of the Goodyear welt construction, in combination, an insole having an underside and formed with a plurality of perforations, said insole comprising a rear portion and a front portion, said front portion comprising a marginal stitch receiving rib extending from said underside; an upper having a front part and a rear part, said front and rear parts having edge portions, the edge portion of said front part extending beneath said insole and along said rib and the edge portion of said rear part extending beneath the rear portion of said insole; a McKay connection between the edge portion of said rear part and the rear portion of said insole; a welt having an inner portion extending along the edge portion of said front part and an outer portion projecting beyond the outlines of the front part of said upper, said outer portion formed with a plurality of perforations; in-seam stitches connecting the inner portion of said welt

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with the edge portion of said front part and with said rib; and a vulcanized sole secured to said insole and to said welt, the inner portion of said welt, the edge portion of said front part and the rib of said insole extending into the material of said sole, and the material of said sole filling the perforations of said insole and of said outer part whereby the sole is safely secured to said insole and to said welt.

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