June 26, 1928. 1,675,206

G. W. BELL

RUBBER SOLED FOOTWEAR

Filed April 14, 1927

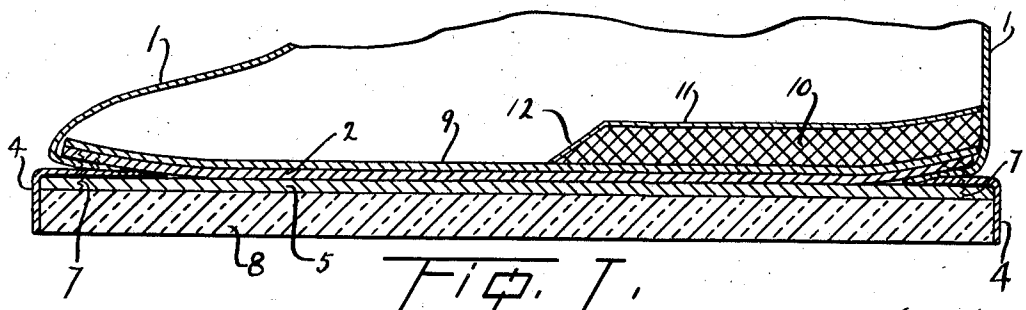


Fig. 1.



Fig. 3.

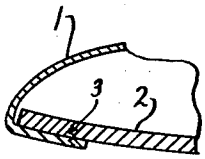


Fig. 2.

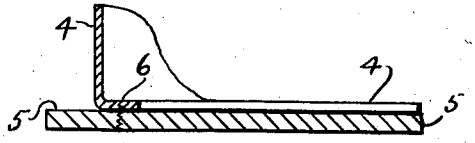


Fig. 4.

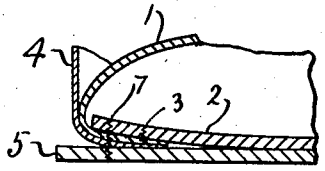


Fig. 5.

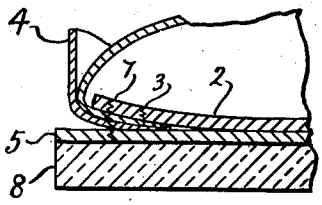


Fig. 6.

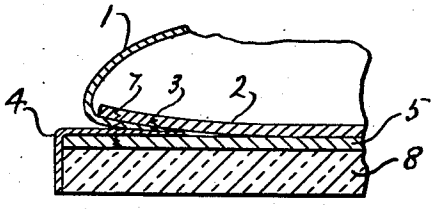


Fig. 7.

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Patented June 26, 1928. 1,675,206

UNITED STATES PATENT OFFICE.

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RUBBER-SOLED FOOTWEAR.

Application filed April 14, 1927, Serial No. 183,776, and in Canada February 18, 1927.

My invention relates to improvements in rubber soled footwear with more particular reference to shoes having crepe outer soles and the object of the invention is to improve the appearance of these shoes by obscuring the rather unsightly lateral edge of the outsole; a further object is to improve the durability of these shoes by providing a protective facing for the lateral edge of the outer sole whereby the tendency of this sole to break away at the edge and also to spread at the edge is prevented.

Other objects will appear in the course of the following specification.

My invention consists of rubber soled footwear, constructed as hereinafter more particularly described and illustrated in the accompanying drawings in which:—

Fig. 1 is a longitudinal section of the lower portion of a rubber soled shoe constructed in accordance with my invention.

Fig. 2 is a detached fragmentary longitudinal section of the toe portion showing the first step in the course of manufacture.

Fig. 3 is a transverse section through a middle sole used in my shoe showing a welt strip secured to the upper face thereof, the section being taken at the central portion of the length of the middle sole.

Fig. 4 is a fragmentary longitudinal section of the middle sole and welt strip shown in Fig. 3, showing the relative position of the welt strip at the heel and toe, where the gathering of the fullness at the turn causes the runner strip to stand upwardly from the middle sole.

Fig. 5 is a section taken similarly to Fig. 2 but shows the next step in the manufacture, in which the middle sole is attached to the upper and insole.

Fig. 6 is a section taken similarly to Figs. 2 and 5 showing the next step in which the outer sole has been secured to the middle sole.

Fig. 7 is a section taken similarly to Figs. 2 and 5 and 6 showing the final step in which the runner strip has been downturned and secured to the lateral edge of the outersole.

In the drawings, like characters of reference indicate corresponding parts in the various views.

In constructing a shoe in accordance to my invention the upper 1 is first secured to the insole 2 by lasting in the ordinary way and is secured thereto by the usual stitching 3. This step is illustrated in Fig. 2.

A welt strip 4 of flexible leather is then secured to middle sole 5.

This welt strip is made from a straight sided strip of flexible leather of uniform width throughout and is secured to the upper face of the middle sole 5 by a row of stitching 6.

The strip 4 extends entirely about the middle sole 5 and the fullness caused by the turn at the toe and heel is taken up in the seam at these points, so that over the central part of the length of the middle sole 5 the strip lies flat as shown in Fig. 3, while at the toe and heel it stands upwardly from the middle sole as shown in Fig. 4.

In the next step the middle sole 5 with the welt strip 4 attached thereto is attached to the upper and inner sole and may be secured thereto in any suitable manner, as by the ordinary McKay stitching 7.

Fig. 5 illustrates the position of the parts at the toe of the boot at the end of this step.

In the next step the rubber outer sole 8 is secured to the middle sole 5 in any suitable manner, as for instance by cementing. Fig. 6 illustrates the position of the parts at the toe at the completion of this step.

The outer face of the welt strip 4 and the lateral edges of the middle sole 5 and outer sole 8 are then coated with cementing solution and the welt strip 4 is downturned over the edge of the middle sole and outer sole and is firmly cemented thereto.

The position of the parts at the toe after the completion of this step is shown in Figs. 1 and 7.

By the manner in which the welt strip 4 is secured to the middle sole 5 so that the fullness at the turn of the toe and heel is taken up in the seam, when the runner strip is downturned over the middle sole and outer sole as described in the last step, this strip lies flat without crease against the lateral edge of the outer sole.

An examination of Figs. 1 and 7 will show that the runner strip 4 forms a protective facing about the lateral edge of the rubber outer sole 8, which facing entirely covers this lateral edge.

My construction is of particular value in the case of shoes having the outer sole of

crepe rubber since the rather unsightly lateral edge of the sole is completely hidden by the protective facing.

Further this protective facing prevents the lateral spreading of the sole and also it prevents the breaking away of the sole at the lower edge.

In the form illustrated, is shown an insole 9 having a sponge rubber heel 10 covered with sock lining 11. This heel is shaped at 12 to conform to the arch of the foot.

From the foregoing it will be apparent that I have devised an improved construction for rubber soled footwear whereby the objects of my invention have been attained.

Various modifications may be made in my invention without departing from the spirit thereof or the scope of the claims and therefore the exact forms shown are to be taken as illustrative only and not in a limiting sense and I desire that only such limitations shall be placed thereon as are imposed by the prior art or are specifically set forth in the appended claims.

What I claim as my invention is:

1. In a shoe of the character described the combination of a middle sole, a welt strip attached to the middle sole, an insole and an upper connected to the middle sole by stitching passing through the insole, upper, welt strip and middle sole, and an outer sole attached to the middle sole and welt strip.

2. In a shoe of the character described the combination of a middle sole, a welt strip attached to the middle sole, an insole and an upper connected to the middle sole by stitching passing through the insole, upper, welt strip and middle sole, and a rubber sole attached to the middle sole and welt strip.

3. The method of making a shoe comprising attaching a welt strip to the middle sole, stitching an insole and an upper to the middle sole and attaching an outer sole to the middle sole and welt strip.

4. The method of making a shoe comprising attaching a welt strip to the middle sole, stitching an insole and an upper to the middle sole and cementing an outer sole to the middle sole and welt strip.

5. The method of making a shoe comprising stitching a welt strip to a middle sole, stitching the upper and insole to the middle sole through the welt strip and cementing an outer sole to the inner sole and welt strip.

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