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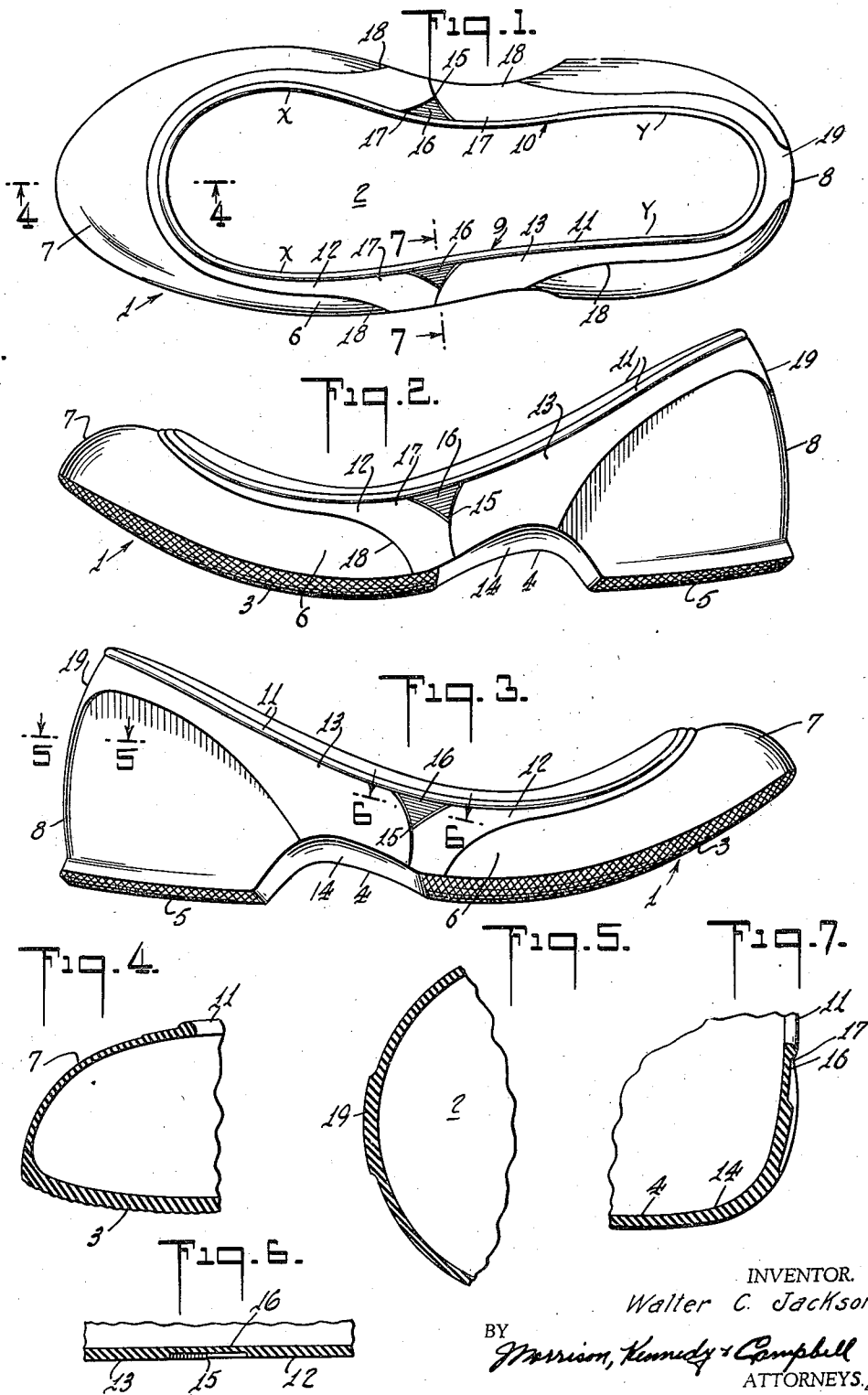
W. C. JACKSON

2,254,685

RUBBER OVERSHOE

Filed Nov. 9, 1939

2 Sheets-Sheet 1



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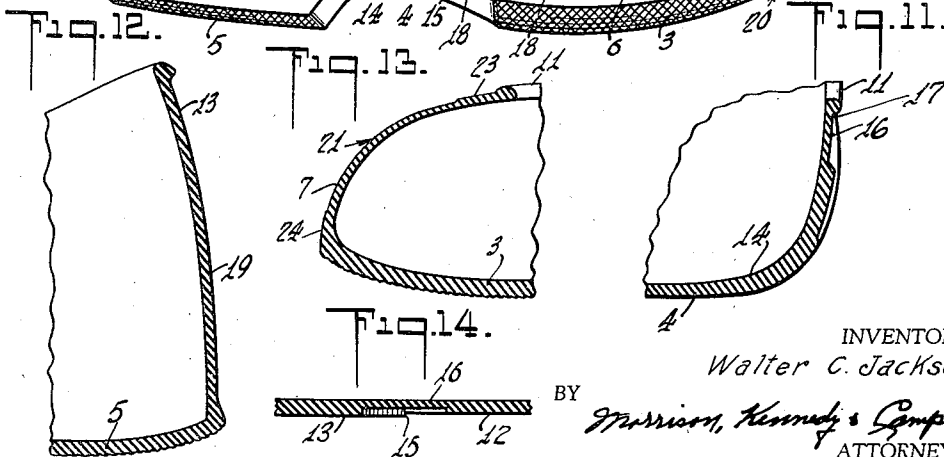
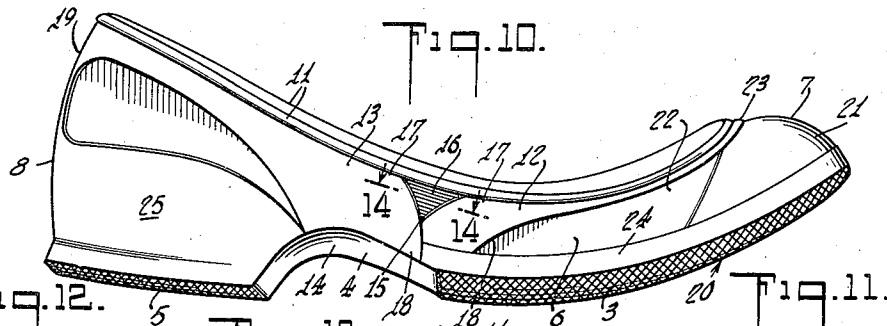
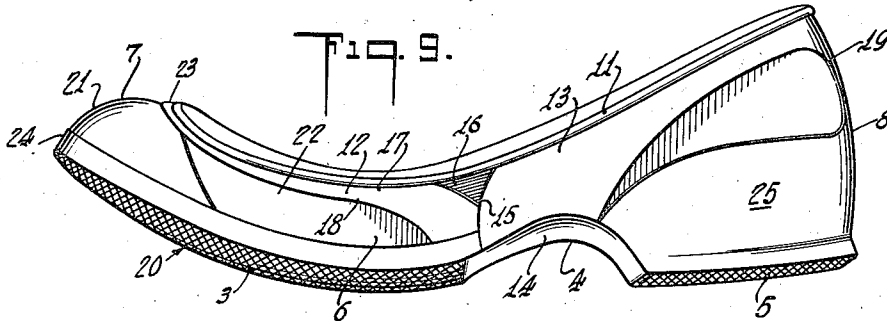
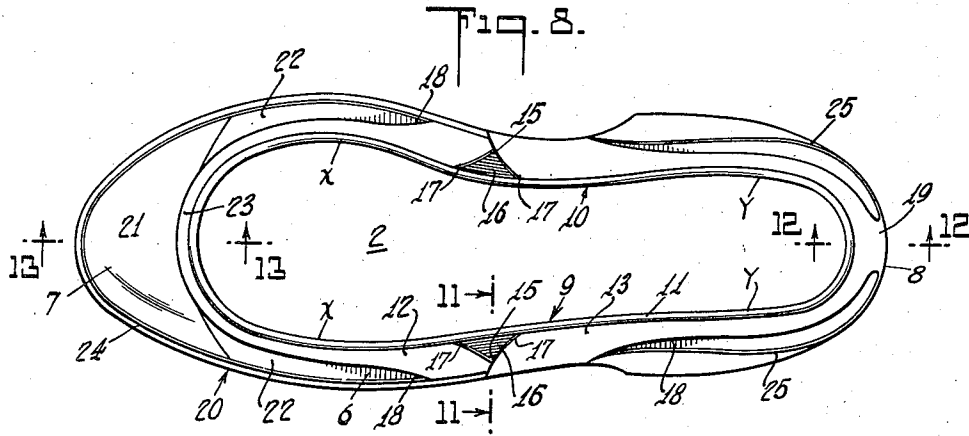
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UNITED STATES PATENT OFFICE

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RUBBER OVERSHOE

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7 Claims. (Cl. 36—7.3)

This invention relates to rubber overshoes commonly known as "rubbers," comprising a full sole having toe, shank and heel portions and an upper having toe, side and counter portions. Ordinarily, these overshoes are made of rubberized fabric or rubber reinforced by a fabric lining and, hence, are relatively inelastic, the fabric embedded in or associated with the rubber body limiting the stretchability of the overshoe, so that the latter is intended to fit a shoe of one definite size only. However, it has been proposed to make an overshoe entirely of rubber, or at least with an all-rubber upper, so as to enable an overshoe of one size to be stretched both lengthwise and sidewise to fit different sizes of inner shoes. This form of all-rubber overshoe has not proved to be completely satisfactory, for the reason that when the overshoe is stretched over the inner shoe, as it must be to be held in place, the side edges of the overshoe stretch in a straight line between the extreme lateral points of the toe and counter of the inner shoe, leaving an opening between the side walls of the overshoe and the sides of the inner shoe in the region of the shanks or arches. On the other hand, if the overshoe is of such size that the upper is not stretched enough to pull the sides thereof away from the inner shoe, the sides buckle outwardly away from the inner shoe when the latter bends as the weight is shifted from the heel to the toe in walking. The result in each instance is that the presence of the openings provides access to the interior of the overshoe and, hence, the overshoe fails to perform its intended function.

The object of the present invention is to overcome the foregoing and other objectionable features and provide a full-soled vulcanized, all-rubber elastic overshoe, or a full-soled overshoe with an elastic upper, formed so that the upper will maintain an intimate contact with the inner shoe at all times. To this end, and in its broader aspects, the invention contemplates the provision of tension means to hold the upper of the overshoe in engagement with the sides of the inner shoe at all times. More specifically, the tension means comprise thickened strip-like areas extending from opposite sides of the shank portion of the sole up along the sides and around the top edges of the toe and counter portions of the upper, the thickened areas being adapted to exert a greater tension in those regions of the upper when the overshoe is applied. The toe, shank and heel portions of the sole of the overshoe are of uniform thickness, except that the shank portion is thickened along its opposite

sides to form an anchorage for the ends of the tension strips. The ends of the tension strips are anchored in the thickened sides of the shank portion of the sole in overlapping relation and, in that relationship, extend up along the sides of the upper to a point short of the top edge thereof. At that point, the tension strips diverge and extend to the top edge of the upper, one of the tension strips running forwardly around the toe portion of the upper and the other rearwardly around the counter. A thickened strip-like area extends vertically throughout the full height of the counter at its rearmost portion, and serves to keep the counter from curling when the overshoe is applied to and removed from the inner shoe. Other portions of the upper are also thickened to give body, shape and wearing qualities to the upper, as will be pointed out in the detailed description to follow.

In the accompanying drawings, the invention has been shown merely by way of example and in preferred form, and obviously many variations and modifications may be made therein which will still be comprised within its spirit. It is to be understood, therefore, that the invention is not limited to any specific form or embodiment, except insofar as such limitations are specified in the appended claims.

Referring to the drawings:

Fig. 1 is a top plan view of an overshoe embodying the present invention;

Fig. 2 is a side elevation, looking toward the lower side of the overshoe as shown in Fig. 1;

Fig. 3 is a side elevation, looking toward the top side of the overshoe as shown in Fig. 1;

Fig. 4 is a vertical section taken on the line 4—4 of Fig. 1, looking in the direction of the arrows;

Fig. 5 is a transverse section taken on the line 5—5 of Fig. 3, looking in the direction of the arrows;

Fig. 6 is a longitudinal section taken on the line 6—6 of Fig. 3, looking in the direction of the arrows;

Fig. 7 is a vertical section taken on the line 7—7 of Fig. 1, looking in the direction of the arrows;

Fig. 8 is a top plan view of a modification of the overshoe shown in Figs. 1 to 7;

Fig. 9 is a side elevation, looking toward the lower side of the overshoe as shown in Fig. 8;

Fig. 10 is a side elevation, looking toward the top side of the overshoe as shown in Fig. 8;

Fig. 11 is a vertical section taken on the line

11—11 of Fig. 8, looking in the direction of the arrows;

Fig. 12 is a vertical section taken on the line 12—12 of Fig. 8, looking in the direction of the arrows;

Fig. 13 is a vertical section taken on the line 13—13 of Fig. 8, looking in the direction of the arrows; and

Fig. 14 is a longitudinal section taken on the line 14—14 of Fig. 10 looking in the direction of the arrows.

Referring to the embodiment of the invention shown in Figs. 1 to 7, the overshoe 1 comprises a full sole 2 having toe, shank and heel portions 3, 4 and 5, respectively, and an upper 6 comprising a toe portion 7 and a counter 8 connected by intermediate side portions 9 and 10. A bead 11 extends continuously around the top margin of the upper 6 and serves to prevent the upper from tearing when it is stretched.

The upper 6 of the overshoe 1 is provided with tension strips 12 and 13, formed by thickened portions of the upper 6 which extend from the opposite sides of the shank portion 4 up the sides 9 and 10 of the upper 6 and then diverge, the tension strip 12 running around the top edge of toe portion 7 and the tension strip 13 running around the top edge of the counter 8. The shank portion 4 is thickened at its opposite sides, as at 14 (Fig. 7), and these thickened areas serve as anchorages for the opposite ends of the tension strips 12 and 13. The ends of the tension strips 12 and 13 are anchored in the thickened sides 14 of the shank portion 4 in overlapping relation, the end of the tension strip 13 overlying the end of the tension strip 12, and the tension strips extend up along the opposite sides 9 and 10 of the upper 6 in their overlapping relationship, gradually diverging in fore and aft directions until they separate completely, as at 15, below the top margin of the upper 6. The tension strips 12 and 13 are not of uniform thickness, being tapered throughout from their upper edges 17, where they are thickest, to their lower edges 18.

The sides 9 and 10 of the upper 6 extend above the points of divergence 15 of the tension strips 12 and 13 and provide in those regions V-shaped sections 16 which are thinner than the tension strips, being substantially the same thickness as the body of the upper 6. At its rearmost portion, the counter 8 is formed with a thickened strip 19 extending vertically throughout the height of the counter and tapering from top to bottom, being thickest at the top. The strip 19 serves to prevent the counter 8 from curling when the overshoe 1 is applied to and removed from the inner shoe.

When the overshoe 1 is applied to an inner shoe, the sole 2 and upper 6 are both stretched to fit the inner shoe, and in their stretched condition conform snugly to the shape of the inner shoe. The tension strips 12 and 13, being thicker than the remainder of the upper 6, are placed under a greater tension and, for this reason, hug the sides of the inner shoe instead of being stretched out straight between the extreme lateral points, for example, the points X and Y (Fig. 1), of the toe portion 7 and counter 8, respectively, and cause the sides 9 and 10 of the upper 6 to be held in intimate contact with sides of the inner shoe. The thickened portions 14 of the shank portion 4 offer greater resistance to stretchability than the remaining portions of the sole 2 and, of course, the more the

thickened portions 14 are stretched and under tension, the more resistant they become to the pull of the tension strips 12 and 13. Although the tension strips 12 and 13 are anchored in the thickened portions 14 of the shank portions 4 in overlapping relation, nevertheless they act independently, and, being tapered from top to bottom, the tension increases throughout their widths from bottom to top. This has the effect of forcing them inward against the sides of the inner shoe along the line of increase in tension, insuring a snug fit with the sides of the inner shoe throughout their widths. The V-shaped sections 16 of the sides 9 and 10, which extend above the points of divergence 15 of the tension strips 12 and 13, are also held by the tension strips in engagement with the sides of the inner shoe. It is pointed out that the V-shaped sections 16 could be omitted if their presence were not desired to provide continuous side portions 9 and 10 of full height. However, it is important, when the V-shaped sections 16 are present, that they be thinner than the tension strips 12 and 13, because they cover those portions of the inner shoe which is frequently caused to bulge because of the presence of prominent bones in the arch of the foot. If the V-shaped sections 16 were not thinner than the tension strips 12 and 13, the sides of the overshoe in those regions would fail to conform to the bulge of the inner shoe and would leave openings on both sides of the bulge, but being thinner than the tension strips 12 and 13, the V-shaped sections 16 stretch to conform to the shape of the bulge on the inner shoe and allow the contiguous portions of the tension strips to fit in snugly against the sides of the inner shoe. The thickened vertical strip 19 at the back of the counter 8 holds the counter at its full height when the overshoe 1 is applied to the inner shoe, since without the strip 19 the top of the counter would have a tendency to curl inwardly.

In the modification shown in Figs. 8 to 14, the overshoe 20 embodies all of the elements described in connection with the overshoe 1 shown in Figs. 1 to 7. However, the overshoe 20 includes additional features which render it more rugged and give it a stylish, neat appearance.

The full sole 2 of the overshoe 20 is of uniform thickness throughout, with the exception of the thickened opposite sides 14 of the shank portion 4. The tension strips 12 and 13, as before, have their opposite ends anchored in the thickened sides 14 of the shank portion 4 in overlapping relation and extend up along the sides 9 and 10, diverging at 15 and the strip 12 going around the toe portion 7 of the upper and the strip 13 going around the counter 8. The toe portion 7 of the upper 6 is "capped," that is, it is formed thicker at its front 21 than at the opposite sides 22, yet not as thick as the portion 23 of the tension strip 12 which extends around the top edge of the toe portion 7 of the upper. The base of the toe portion 7 of the upper 6 is formed with a marginal portion 24, approximately the same height as the welt of an inner shoe, which is even thicker than the capped front 21 and extends entirely around the toe portion 7 of the upper 6 from one side of the shank portion 4 to the opposite side thereof. The capped front 21 of the toe portion 7 and the marginal strip 24 not only add a neat appearing design to the toe portion 7 of the over-

shoe 20, but they provide a greater thickness of material in those regions to withstand scuffing and other wear to which the toe portion of the overshoe may be subjected.

The counter 8 is formed at its base, between the opposite sides of the shank portion 4 and the vertical strip 19 at the rear of the counter, with thickened side portions 25, rising from the heel 5 throughout approximately one-half the height of the counter 8 and tapering so that they are thinnest at the top. The thickened counter portions 25 provide for greater wear in those regions of the counter, provide the counter 8 with an attractive design, and also aid the vertical strip 19 in preventing the counter 8 from curling when the overshoe is applied to and removed from the inner shoe.

The overshoes 1 and 20 are formed of vulcanized, elastic rubber, which adapts them to stretch so that one size of overshoe will fit several different sizes of inner shoes. Thus, three sizes of overshoes, designated as "small," "medium" and "large," for example, are all that are necessary to fit inner shoes ranging from size 6, having a broad toe, to size 11½, having a pointed toe. The "small" overshoe is stretchable to adapt it to fit inner shoes ranging from size 6, having a broad toe, to size 8½, having a pointed toe; the "medium" overshoe is adapted to fit inner shoes ranging from size 8, having a broad toe, to size 10½, having a pointed toe; and the "large" overshoe is adapted to fit inner shoes ranging from size 10, having a broad toe, to size 11½, having a pointed toe. Of course, it will be understood that the size ranges given are approximate, since variations in the over-all dimensions of inner shoes will be found as between shoes of different lasts. It is pointed out, too, that the overshoes 1 and 20 are made preferably of good rubber stock substantially the same as that used for pneumatic tire treads, in order that the uppers of the overshoes will withstand the stretching to which they will be subjected without tearing. In this connection, tearing of the uppers is further resisted by the formation of a bead 11 running continuously around the top margin of the upper 6, as already pointed out.

As already stated, the invention has been shown merely by way of example and in preferred form, and obviously many variations and modifications can be made therein which will still be comprised within its spirit. For example, it is proposed to embody the invention in molded, vulcanized rubber overshoes, but obviously the overshoes could be preformed and vulcanized, or made by any other suitable method. Furthermore, the invention is equally applicable to elastic rubber overshoes of different forms or styles, such, for example, as so-called storm rubbers which have a flap or tongue extending from the vamp of the toe portion up over the instep. Many other variations and modifications will occur to those skilled in the art and need not be set forth at this time. Having thus described my invention, what I claim is:

1. A low cut overshoe comprising a sole having toe, shank and heel portions, a continuous elastic upper having toe, side and counter portions,

and adapted to be stretched when the overshoe is applied, and elastic tension means anchored to the shank portion of the sole and extending therefrom up, and secured to, the side portions of the upper and along the top edges thereof and around the counter, as well as up, and secured to, the side portions and along the top edges thereof and around the toe, said elastic tension means being adapted to stretch when the overshoe is applied but causing the overshoe to offer greater resistance to stretch in the localized regions of the tension means.

2. A low cut all-rubber elastic overshoe comprising a sole having toe, shank and heel portions, an upper having toe, side and counter portions, the sole and upper each being stretchable lengthwise and sidewise, and elastic tension strips anchored to the opposite sides of the shank portions and extending therefrom up the side portions of the upper substantially to the top edges thereof, and diverging to extend one rearwardly around the top edge of the counter and one forwardly around the top edge of the toe, said elastic tension strips being adapted to stretch when the overshoe is applied but causing the overshoe to offer greater resistance to stretch in the localized regions of the tension strips.

3. A low cut all-rubber elastic overshoe adapted to be stretched as a whole when applied to the shoe and comprising a sole having toe, shank and heel portions, an upper having toe, side and counter portions, said upper being thickened around the top edges of the toe, counter and side portions and down the side portions to the shank portion of the sole to provide localized strip portions adapted to increase the tension in those regions when the overshoe is applied to the shoe.

4. An overshoe according to claim 3, wherein the shank portion thereof is thickened along its opposite sides to reduce the stretchability of the sole thereat and to provide anchorage for the tension strips.

5. An all-rubber elastic overshoe according to claim 3, wherein the thickened strip portions of the upper diverge at a point above the shank portion of the sole, leaving thinner side portions above them at the point of divergence.

6. An all-rubber elastic overshoe according to claim 3, wherein the thickened strip portions at the top edges of the upper taper in cross section being thickest at the top.

7. A low cut all-rubber elastic overshoe adapted to be stretched as a whole when applied to the shoe and comprising a sole having toe, shank and heel portions and an upper having toe, side and counter portions, said upper being thickened from the shank portion of the sole up the side portions of the upper above said shank portion and from the thickened side portions along the top of the upper rearwardly in the direction of the counter portion, as well as from the thickened side portions along the top of the upper forwardly in the direction of the toe portion, to provide localized thickened strip portions adapted to increase the tension in those regions when the overshoe is applied to the shoe.

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