

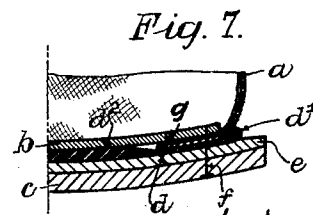
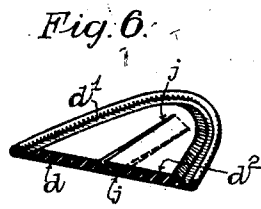
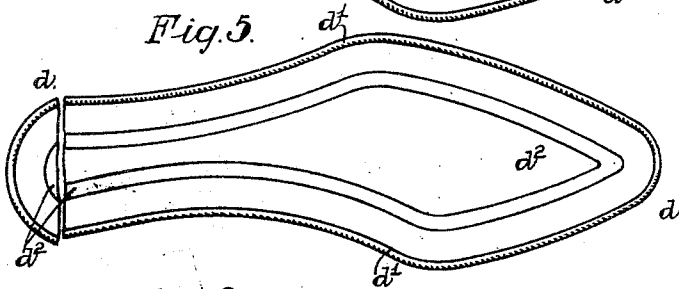
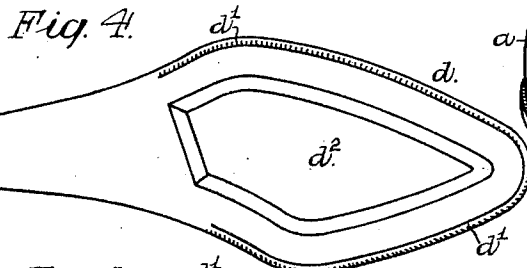
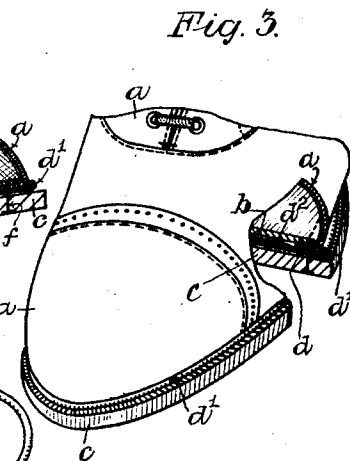
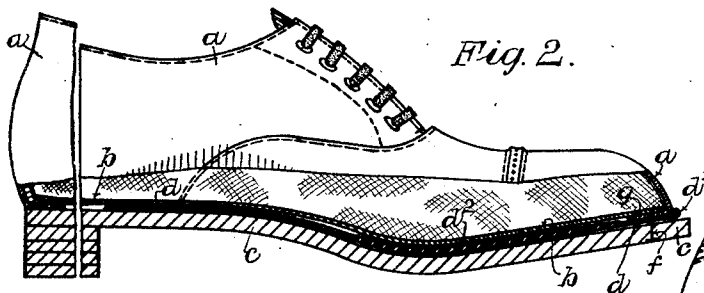
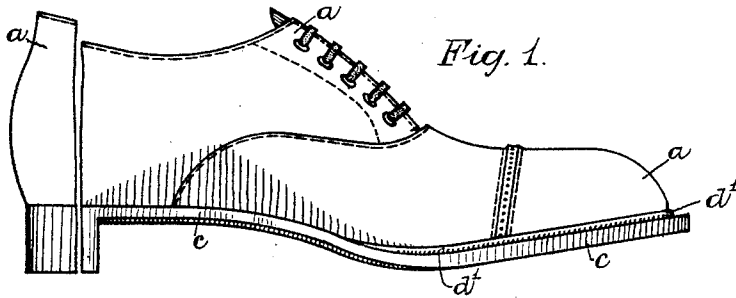
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A. BURTON ET AL

BOOT AND SHOE

Filed May 26, 1927



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UNITED STATES PATENT OFFICE.

ALFRED BURTON AND ALBERT CHARLES YORK, OF LEICESTER, ENGLAND.

BOOT AND SHOE.

Application filed May 26, 1927, Serial No. 194,739, and in Great Britain May 7, 1926.

This invention relates to boots and shoes of machine sewn and similar type, and has for its object an improvement in the construction thereof for the purpose of rendering such footwear waterproof by preventing or minimizing the access of damp or moisture to the foot of the wearer through the bottom of the boot or shoe and at the edge or feather where the upper is drawn and lasted over the insole.

According to this invention, there is disposed between the insole and the outer sole—or between the insole and the middle sole, if a middle sole be employed—a sheet of rubber or other suitable waterproof material (hereinafter, for convenience of reference, designated "filler") having a flanged or beaded edge which fits closely against the edge or feather of the upper and so that it is visible outside the boot or shoe.

In the application of our invention to a boot or shoe of the machine sewn, nailed, pegged or screwed type, a flanged or beaded filler is placed over the insole and the edges of the lasted upper after the lasting operation has been completed; said filler preferably varying in thickness so that the space between the insole and the edge of the lasted upper is filled up level for the reception of the outer sole, or middle sole, as the case may be.

Said flanged or beaded filler-edge may extend only round the fore part of the filler, or, where the filler is carried through to the heel, the flanged or beaded edge may extend completely round the filler.

When said flanged or beaded filler is constructed of rubber, this will preferably be of such nature as to ensure that the holes made by the sewing needle or awl will close tightly.

In some cases, perforations—remote from the flanged or beaded edge, and which may be filled with cork, or the like—may be provided in the filler for the purpose of ventilation: or a filler may be partially split to provide some ventilation, and also enable the filler to be adaptable to boots and shoes which may—within limits—vary in shape.

We will further describe our invention with the aid of the accompanying sheet of

explanatory drawings which illustrate, by way of examples only, two modes of carrying the invention into effect.

In said drawings:—

Fig. 1 is an elevation, and Fig. 2 a part-sectional elevation of a machine sewn shoe embodying our improvement; Fig. 3 is a perspective view of the shoe having a part broken away, and Fig. 4 is a plan of the flanged or beaded filler detached. Fig. 5 is a plan of a flanged or beaded filler of modified construction, and Fig. 6 is a reduced perspective view of a fragment of a filler according to a further modification. Fig. 7 is a half-transverse section of a machine sewn shoe of modified construction, and drawn to an enlarged scale as compared with the preceding views.

In the several views like characters of reference denote like or equivalent parts wherever they occur.

Referring first, more particularly, to Figs. 1 to 5, inclusive, *a* indicates the upper of the shoe, *b* the insole, and *c* the outer sole. Disposed between the insole *b* and outer sole *c* is a filler *d* of rubber provided with an integrally moulded bead or flange *d'*.

Said filler *d* is thickened at *d*² in order to fill up the customary space formed by the lasting of the upper.

In the manufacture of the shoe, said rubber filler is applied after the upper *a* has been pulled and lasted over the insole, and is prevented from displacement by means of tacks or a suitable adhesive: the flanged or beaded edge *d'*—which is visible outside the shoe—of the filler lies closely against the edge or feather of the lasted upper and forms a watertight joint at this part. The outer sole *c* is now placed in position and sewn in the usual manner.

The flanged or beaded filler illustrated in Figs. 1 to 4 extends along the waist of the shoe and terminates adjacent to the seat.

The modified filler illustrated in Fig. 5 is constructed to extend throughout the length of the shoe, so that its flanged or beaded edge *d'* entirely surrounds same.

The filler illustrated in Fig. 6 is partially split by an inclined cut, in the manner shown at *j*, to provide some ventilation, as

also to enable the filler to be adaptable to boots and shoes which may—within limits—vary in shape.

In the modification illustrated in Fig. 7, the shoe construction is similar to that already described except that a middle sole *e* is provided between the filler and the outer sole *c*.

f indicates the sewing which secures the outer sole *c*—or outer and middle soles *c*, *e*, respectively, as the case may be—filler *d*, upper *a*, and insole *b* together; and *g* denotes the tacks which secure upper *a* and insole *b* together.

As will be seen, a section taken transversely through the filler within the tread portion, presents the characteristic of a channel on its upper face, said channel extending from the bead *d'* to the portion *d''*, following the contour of the bead and being of substantially uniform width, with the depth of the channel such that the thickness of the channelled portion and that of the margin of the upper which extends therein substantially equals the thickness of the sheet between opposite side portions of the channel direction of length, this latter portion of the sheet being the portion *d''*, whether the arrangement be of the form of Fig. 4—in which the channel extends approximately from the shank portion of the sheet on one side of the shoe to the shank portion of the sheet on the other side of the shoe—or the form of Fig. 5 in which the channel is extended into the heel portion of the sheet.

This arrangement is of importance because of the fact that the margin of the upper does not increase the material thickness beneath the insole, so that the latter can extend in its normal manner throughout the width of the shoe and not provide any tendency of the formation of a raised portion around the edge of the insole during use, and at the same time permitting the insole to be of the usual type. Hence, the shoe equipped with the filler sheet has the comfort of the welt type of shoe—in which the margin of the upper does not materially underlie the insole—and at the same time pro-

vide for a machine sewed shoe in which the stitches extend through the inner and outer soles as well as through the upper, the stitching in the present invention also extending through the channelled portion of the sheet filler.

What we now claim as our invention, and desire to secure by Letters Patent is:—

1. A boot or shoe of machine sewn or like type, having an inner sole and another sole below it with the margin of the upper extending into interposed relation therebetween, a filler sheet of waterproof material disposed between said soles and underlying the interposed margin of the upper, said filler sheet having a channel to receive the inturned margin of the upper and also having its margin of bead form with the channel extending to said bead, said marginal bead closely fitting against the edge of the upper and being visible outside of the boot or shoe, and stitching extending through said soles, the margin of the upper and the channelled portion of the filler sheet.

2. A boot or shoe as in claim 1 characterized in that the channel is of substantially uniform width and has a depth such that the thickness of the channelled portion of the sheet and that of the margin of the upper substantially equals the thickness of the sheet between opposite side portions of the channel length.

3. A boot or shoe as in claim 1 characterized in that the channel is of substantially uniform width and has a depth such that the thickness of the channelled portion of the sheet and that of the margin of the upper substantially equals the thickness of the sheet between opposite side portions of the channel length, the channel extending approximately from the shank portion of the sheet at one side of the shoe to the shank portion of the sheet at the other side of the shoe.

In testimony whereof we affix our signatures.

ALFRED BURTON.
ALBERT CHARLES YORK.