

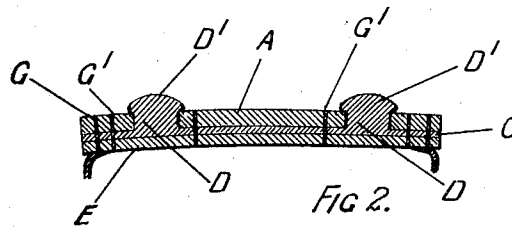
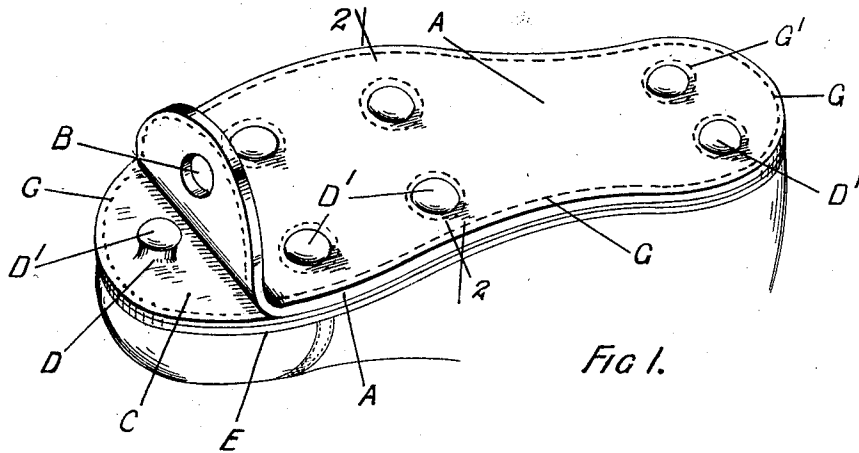
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BOOT OR SHOE

Filed Aug. 23, 1928



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UNITED STATES PATENT OFFICE

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BOOT OR SHOE

Application filed August 23, 1928, Serial No. 301,566, and in Australia June 25, 1928.

This invention relates to the type of boot having a leather outsole and fitted with studs to enable the wearer to obtain firm foothold on soft or slippery ground, such footwear being commonly used for sports such as golf, football and the like.

The studs now generally in use for the purpose set forth are usually attached to the outer surface of the sole by adhesive solution, pegs, screws or other mechanical means, and besides being hard and rigid and consequently uncomfortable to the wearer when walking on hard ground are liable to be torn away from the sole by the ordinary rough usage incidental to the playing of athletic games.

It is known to provide a boot or shoe, intermediate the normal inner and outer sole members, with an insertion sheet of rubber or the like carrying studs or lugs which project through apertures formed in the said outer sole. This arrangement prevents slipping, but in practice it is found, on account of the fact that the studs are a neat fit in the apertures, that the leather of the outer sole, particularly when wet, works down towards the heads of the studs thereby decreasing their effective length and allowing ingress of foreign matter between the outer sole member and the insertion piece which results in permanent distortion of the sole.

The object of the present invention is to prevent the relative displacement of the outer sole member and the rubber studs in a boot or shoe sole formed as above described.

With this object the invention consists of a sole in a boot or shoe with a rubber sheet, provided intermediate the normal inner and outer sole members, having a plurality of integral studs which project through apertures in the outer sole and which are provided with enlarged heads exterior of the latter to retain the relative disposition of the studs and the outer sole member.

The studs may be of any suitable shape, but preferably are of circular cross section with enlarged mushroom shaped heads.

The rubber sheet is preferably adhesively attached to the inner surface of the outer sole, while the stitching or other means by

which the sole as a whole is attached to the remainder of the boot or shoe structure or to the welt (according to the style of boot or shoe) passes through both the outer sole and the insertion piece.

The same construction may be applied to the heel of the boot or shoe, the top lift of the heel being formed with apertures, and the insertion piece carrying the studs placed between the top lift and the next lift.

To fully describe the invention reference is now made to the accompanying drawings which depict boot construction according to this invention, and in them

Fig. 1 is a perspective view of a sole of a heelless boot according to this invention, with the toe portion of the outer sole member turned back to clearly show a stud.

Fig. 2 is a cross-sectional elevation on the plane 2—2 of Fig. 1.

Similar reference numerals indicate corresponding parts (where appearing) in all the figures of the drawings.

The outer sole member A of the boot is provided with a plurality of circular apertures B, B disposed as required in the heel and sole portions.

A rubber insertion sheet C, conforming to the shape of sole member A, has formed integral with it a plurality of rubber studs D, D located to register with apertures B, B when the sole member A and the sheet are in the correct relative position. The studs D have a stem which is circular in cross-section and a neat fit in apertures B, B, and a mushroom head D¹ of larger diameter than the apertures.

Between the upper of the boot and sheet B is the usual inner sole member E.

In assembling the various elements the mushroom heads of the studs are forced through the apertures B, B of sole A, being compressed in the process and subsequently re-expanding to overlap the edges of the apertures as shown in Fig. 2, thus firmly gripping the leather of the sole about the apertures and preventing relative movement of the sole and the studs. The inner sole member E is then correctly disposed on the side of sheet C remote from sole member A and

the three elements are secured to the boot upper by stitching as at G in known manner. If desired additional stitching may be performed around each stud, as at G¹.

5 To insure a more complete bonding or adhesion of the three elements of the sole, any suitable adhesive may be employed.

What I claim and desire to secure by Letters Patent is:—

10 1. A boot sole comprising an outer sole member having a plurality of apertures formed in it, a rubber insertion sheet and a plurality of studs integral with said insertion sheet and projecting respectively through the
15 apertures in the outer sole member, said studs having heads overlying the material immediately surrounding the apertures.

2. In a boot sole of the type set forth, a rubber sheet and a plurality of studs formed
20 integrally therewith, each of said studs having a stem portion and a tread portion of greater size than the stem, for the purpose set forth.

3. A boot sole comprising an outer sole
25 member having a plurality of apertures formed in it, a rubber insertion sheet in contact with the inner surface of said member, and a plurality of studs integral with said insertion sheet, each of said studs having a
30 stem portion which is positioned within one of said apertures and a head portion which is larger than the stem portion and overlies the material immediately surrounding the aperture on the outer surface of said sole
35 member.

4. A boot sole according to claim 3 and including an inner sole member in contact with a rubber sheet on the surface thereof remote from the outer sole member.

40 Signed at Sydney, New South Wales, Australia, this thirteenth day of July, A. D. 1928.

ALEXANDER McQUEEN.

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