April 20, 1926. 1,581,783

H. BULLOCK

SHOE

Filed Nov. 25, 1924

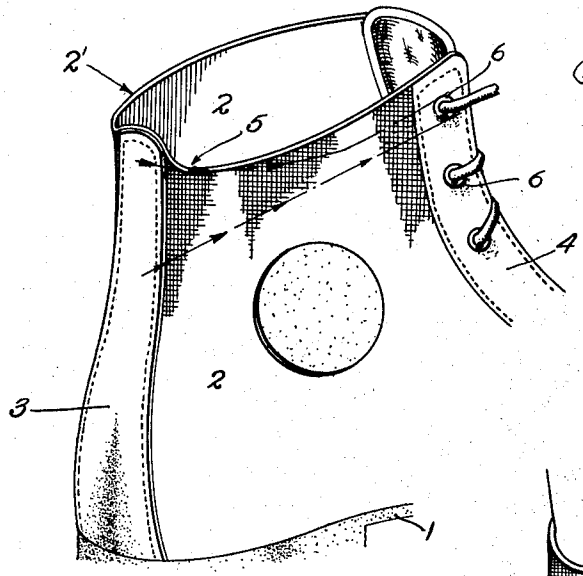


Fig. 1.

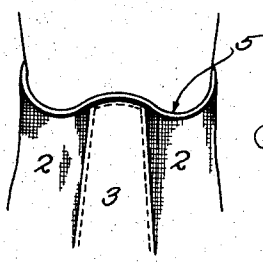


Fig. 3.

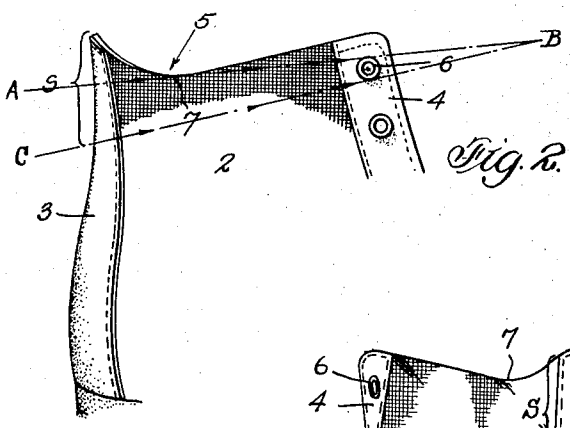
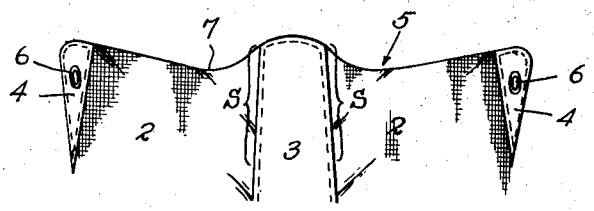


Fig. 2.

Fig. 4.



Inventor
Hugh Bullock

By Harry D. Nims and
Martin T. Fisher

Attorneys.

Patented Apr. 20, 1926. 1,581,783

UNITED STATES PATENT OFFICE.

HUGH BULLOCK, OF ANDOVER, MASSACHUSETTS, ASSIGNOR TO CONVERSE RUBBER SHOE CO., A CORPORATION OF MASSACHUSETTS.

SHOE.

Application filed November 25, 1924. Serial No. 752,215.

To all whom it may concern:

Be it known that I, HUGH BULLOCK, a citizen of the United States, residing at Andover, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Shoes, of which the following is a specification.

This invention relates to shoes, particularly to the type of shoe generally known as the ankle height shoe.

Difficulty has been experienced in the past by users of ankle height shoes, in that the rear part of the shoe rubs, chafes and sometimes cuts into the Achilles tendon. This difficulty has been encountered particularly by basket ball and tennis players, due to the excessive activity on the part of such players. Therefore, when the Achilles tendon becomes sore, the use of the ankle height shoe must be discontinued, notwithstanding the fact that the use of this type of shoe is otherwise very desirable.

The present inventor has overcome the above difficulties to a certain degree by the construction of the shoe covered by his copending application, Serial No. 716,822, filed May 29th, 1924.

An object of the present invention is to construct a shoe which will provide adequate and proper support for the ankle of the wearer, and at the same time overcome the difficulty, usually encountered by the wearer, due to the upper rear edge of the ankle height shoe rubbing, chafing or cutting the leg and the Achilles tendon at or above the ankle level.

Another object of the present invention is to construct a shoe which will provide adequate support for the ankle of the wearer, which will also allow the freedom necessary for active use by athletes, and which will at the same time, distribute the pressure upon the back of the ankle over a wide surface instead of concentrating the same upon a line at the upper edge of the back of the shoe.

A further object of the present invention is to construct an ankle height shoe with a hump at the rear upper part thereof, which hump serves to distribute the pull from the front eyelets over a wide area and avoids concentrating such pull at the upper rear edge of the shoe.

A further object of the invention is to provide a shoe having cut-out portions in the sides of the upper adjacent the back, which cut-out portions form the hump.

Other objects and advantages will be evident from the following detailed description when considered in connection with the accompanying drawings, wherein:

Figure 1 is a perspective view of a shoe embodying my invention;

Figure 2 is a side elevation of the shoe shown in Figure 1;

Figure 3 is a rear view of the shoe as used; and

Figure 4 is a rear view of the shoe with the sides extended.

Referring now to the drawings, the numeral 1 designates the sole of the shoe having attached thereto the sides pieces 2, which side pieces are joined at the back to provide the quarter or upper 2′. A back-stay 3 is positioned along the back seam of the upper 2′, and eyelet stays 4 are secured to the front edges of said upper.

The warp and woof threads of each side piece 2 are arranged substantially vertical and horizontal, as will be more clearly seen by reference to Figure 2. The top front edge of the upper 2′ is at about the same level as the top edge of the rear of the upper and the top of the back-stay 3, and each side piece 2 is provided with a cut-out portion 5 which dips below the level of the uppermost eyelet 6. Preferably, each cut-out portion 5 has its greatest depth at the point 7 adjacent the back-stay 3, whereby the upper edge of each side piece 2 is sharply inclined downwardly from the back-stay 3 to the point 7, and is then gradually inclined upwardly to the top of its eyelet stay 4. The downwardly inclined edges of the hump-forming portion extend part way round the Achilles tendon of the wearer. This construction, due to the fact that the cut-out portions 5 extend below the horizontal threads which are in a plane with the upper eyelet 6, results in an upward or bias pull being imposed substantially throughout the portion between lines A—B, B—C of Figure 2, and practically all pressure that is brought to bear against the back part of the ankle of the wearer is distributed over the back of the shoe adjacent this portion. This bias pull, for the reason that it is not directly perpendicular to theAchilles tendon, lessens the tendency of the excessive pressure being

brought to bear against said tendon. Furthermore, this bias pull is diagonal with respect to the warp and the woof threads of the side pieces 2, and results in a stretching action of the cloth due to such diagonal pull. In other words, when there is a strain along the portion between A—B, B—C, the cloth stretches and thereby takes up the strain that otherwise would act to apply pressure upon the Achilles tendon. As hereinbefore stated, the edge of the back-stay 3 and the top of the upper 2′ adjacent this stay, are substantially at the same level as the top edges of the eyelet stays 4 and the upper 2′ adjacent thereto, so that all pressure which is applied by the top edge of the back-stay must be, caused first by the bias pull which extends downwardly from the upper eyelet 6, and then by a bias pull which extends in an upward direction; the net result of which is that the total pull from the front eyelets is distributed over the area S, instead of being concentrated along the back upper edge of the shoe, which would result in a cutting action.

The invention is particularly applicable to that type of athletic shoe having a rubber sole and a canvas upper, where the top of the upper is a little above the ankle bone. The Achilles tendon is probably most exposed at about the level of the ankle bone, and the cut-out portions of the side pieces 2 are at about this level, although the level of said cut-out portions may be varied.

It should, however, be distinctly understood that the invention is not limited to athletic shoes, but is applicable to any other form of shoe for general wear, and that the width, depth and proportions of the cut-out portions, and the hump at the rear may be varied as desired.

The essence of the invention is a hump at the rear upper part of the shoe which serves to distribute the pull from the front eyelets over a fairly wide area, and so avoids concentrating such pull at the upper edge of the shoe.

While I have illustrated my invention in detail, it should be understood that the same may be carried out in various ways as expressed in the following claim.

What I claim is:

An ankle height shoe having an upper of woven material with substantially vertical and horizontal threads, a back-stay, front stays each provided with a series of fastening means, the top of the upper adjacent the front stays being in substantially the same horizontal plane as the top of the upper adjacent the rear stay, opposite sides of said upper being provided with cut-out portions which have their greatest depth extending below the horizontal threads of the woven material opposite the upper fastening means of the series, whereby a bias pull is applied upon a portion of the back-stay below the upper edge thereof.

In testimony whereof I affix my signature.

HUGH BULLOCK.