E. C. WALLACE.

HEEL FOR BOOTS AND SHOES.

APPLICATION FILED APR. 4, 1914.

1,130,356

Patented

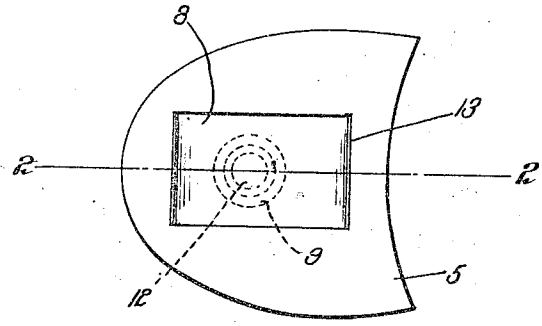


Fig. 1.

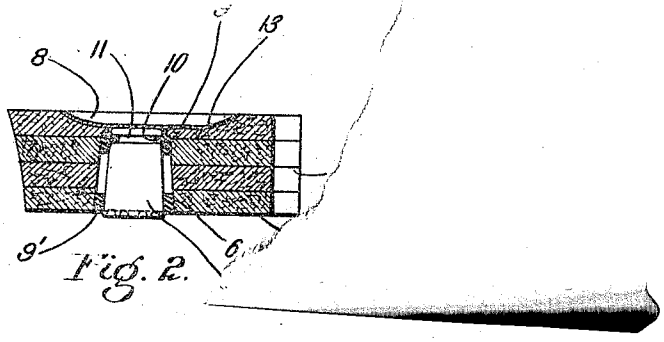


Fig. 2.

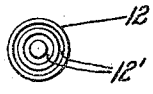


Fig. 3

Witnesses:
Leonard A. Powell.
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Inventor
Ernest C. Wallace
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UNITED STATES PATENT OFFICE.

ERNEST C. WALLACE, OF WOODFORDS, MAINE.

HEEL FOR BOOTS AND SHOES.

1,130,356. Specification of Letters Patent. Patented Mar. 2, 1915.

Application filed April 4, 1914. Serial No. 829,355.

To all whom it may concern:

Be it known that I, ERNEST C. WALLACE, a citizen of the United States, residing at Woodfords, in the county of Cumberland and State of Maine, have invented new and useful Improvements in Heels for Boots and Shoes, of which the following is a specification.

This invention relates to an improved heel for boots and shoes, the object of the invention being to provide a heel which will not slip and which will yield so as to take away any shocks or jars upon the body of the wearer, and also which will resist uneven wear or running over of the heel.

The foregoing results are attained by means of a plug with a spring forcing the plug toward the tread of the heel and by means of other details of construction particularly set forth in the following specification.

It is further the object of this invention to provide a spring-actuated plug in the heel of a boot or shoe, which plug can be removed when it is desired to replace the same by a new plug.

The invention consists in a heel of the construction hereinafter set forth and particularly pointed out in the claims.

Referring to the drawings: Figure 1 is a plan view of my improved heel. Fig. 2 is a sectional elevation taken on line 2—2 of Fig. 1. Fig. 3 is an end view of the plug.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 is the body portion of the heel, 6 is a recess or hole extending from the tread portion 7 of the heel to a recess 8 in the top of the heel. A sleeve 9 of resilient material, preferably rubber, is located in the recess 6, said recess 6 being located just back of the center of the heel, and said sleeve 9 being provided with an annular flange 10 which projects into an annular groove 11 provided in the plug 12. A collar 9′ is also provided which fits in the recess 6 and closely fits said plug 12. The plug 12, the sleeve 9 and the collar 9′ are preferably tapered so that when the plug 12 is forced upwardly into the sleeve 9 and collar 9′ it will form a tight fit therein and prevent any moisture from passing to the inside of the shoe.

The plug 12 is made of resilient material, such as rubber or leather, and projects at one end thereof beyond the tread surface 7 of the heel. The opposite end of said plug bears against a plate 13 of spring metal. This plate is located in the recess 8 and is held in place by the sole, in the completed shoe. Said plug is preferably provided with a series of annular corrugations 12′ on the end which contacts with the ground when in use, the purpose of these corrugations being to render the plug less liable to slip.

The operation of the device hereinbefore described is as follows: Normally the plug 12 projects slightly beyond the tread surface 7 of the heel and is held in this position by means of the spring 13. When, however, the weight of the wearer is brought to bear upon the plug 12, said plug moves upwardly slightly compressing the sleeve 9 and collar 9′ and acting against the pressure of the spring 13. When the weight of the wearer is removed from the plug 12 the same is forced downwardly by the reaction of the spring 13. The plug 12 is kept from accidentally falling out of the heel by the flange 10 which projects into the annular groove 11 in said plug, but the plug may be removed when desired for the purpose of replacing the same with a new plug by prying the same out of the sleeve 9, in which case the annular flange 10 will yield and come out of the groove 11, thus allowing the plug to be withdrawn from the sleeve 9, and collar 9′.

Having thus described my invention what I claim and desire by Letters Patent to secure is:

1. In combination, a heel having a recess, a plug located in said recess, one end of said plug normally projecting below the tread surface of said heel, a spring engaging said plug and arranged to force the same toward said tread surface, and yielding means fixed within said recess and engaging the periphery of said plug to prevent said plug from dropping out of said recess.

2. In combination, a heel having a recess, a plug located in said recess, one end of said plug normally projecting below the tread surface of said heel, a spring engaging said plug and arranged to force said plug toward said tread surface and means fixed within said recess and engaging the periphery of said plug arranged to prevent said plug from dropping out of said recess, and ar-

ranged to yield to allow said plug to be forced out of said recess.

3. In combination, a heel having a recess, a sleeve of resilient material fixed within said recess, a plug tightly fitting said sleeve and having an annular groove in its periphery, one end of said plug projecting normally below the tread surface of said heel, a spring engaging said plug and arranged to force said plug toward said tread surface, and a flange on said sleeve projecting into said groove, whereby said plug is prevented from dropping out of said sleeve, but may be forced out of said sleeve.

4. In combination, a heel having a recess, a plug located in said recess, one end of said plug normally projecting below the tread surface of said heel, a spring engaging said plug and arranged to force the same toward said tread surface, said heel having a recess provided in the top thereof, a plate of spring metal located in said last named recess and arranged to bear against the opposite end of said plug and yielding means fixed within said recess and arranged to prevent said plug from dropping out of said recess.

5. In combination, a heel having a recess, a sleeve of resilient material fixed within said recess, a tapered plug tightly fitting said sleeve and having an annular groove in its periphery, one end of said plug projecting normally below the tread surface of said heel and having a recess provided in the top thereof, a plate of spring metal located in said last-named recess and arranged to bear against the opposite end of said plug and an annular flange on said sleeve projecting into said annular groove of said plug, whereby said plug is prevented from dropping out of said sleeve but may be forced out of said sleeve.

6. In combination, a heel having a recess, a sleeve and a collar of resilient material, both fixed within said recess, a tapered plug tightly fitting said sleeve and collar and having an annular groove in its periphery, one end of said plug projecting normally below the tread surface of said heel, said heel having a recess provided in the top thereof a plate of spring metal located in said last named recess and arranged to bear against the opposite end of said plug and an annular flange on said sleeve projecting into said annular groove, whereby said plug may be prevented from dropping out of said sleeve but may be forced out of said sleeve.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ERNEST C. WALLACE.

Witnesses:
B. A. SPENCER,
HARRY R. COOLIDGE.