J. W. SMITH.

DETACHABLE HEEL.

APPLICATION FILED NOV. 20, 1912.

1,127,934. Patented Feb. 9, 1915.

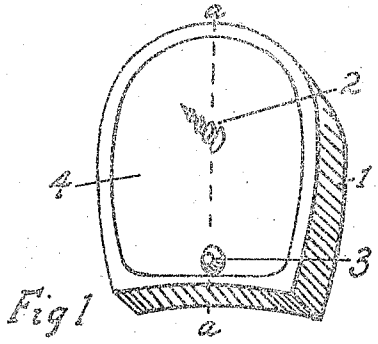


Fig 1

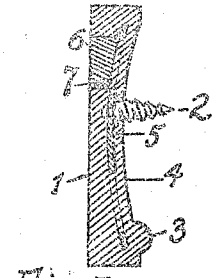


Fig. 3.

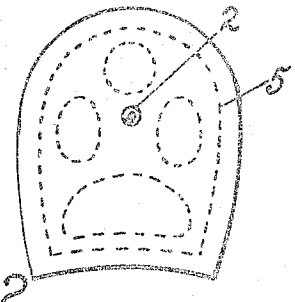


Fig 2

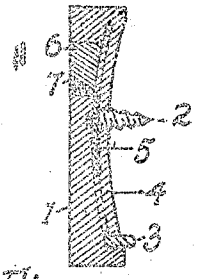


Fig. 4.

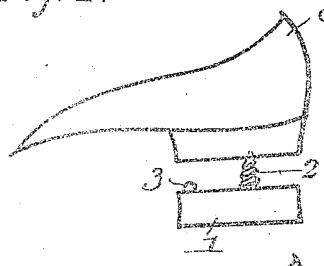


Fig 5

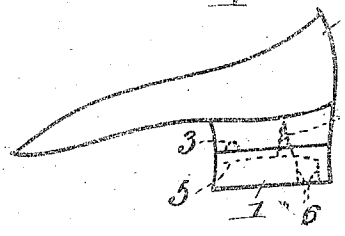


Fig. 6.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN WILLIAM SMITH, OF CHICAGO, ILLINOIS.

DETACHABLE HEEL.

1,127,934. Specification of Letters Patent. Patented Feb. 9, 1915.

Application filed November 20, 1912. Serial No. 732,562.

To all whom it may concern:

Be it known that I, JOHN WILLIAM SMITH, a subject of Great Britain, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Detachable Heel, of which the following is a specification.

My invention relates to improvements in a cushion or detachable heel to be applied to footwear, such as boots and shoes; and the objects of my invention are, first, to provide a resilient heel to be attached to boots and shoes; second, to construct the heel in such manner that it is easily, quickly and securely applied; third, means by which the heel is prevented from slipping on wet surfaces; fourth, means by which the wearing qualities of the heel are prolonged; and, fifth, means by which the detachable heels are inter-changeable from one shoe to the other. I attain these objects by the means illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a detachable heel embodying my invention, Fig. 2 is an outline view of the heel indicating an imbedded plate used in the construction, in dotted lines, Fig. 3 is a section taken on line *a*—*a* of Fig. 1, Fig. 4 is a view similar to that indicated in Fig. 3 except indicating a modified form of a lug used in the construction, Fig. 5 indicates the device at the beginning of its application to a shoe or the like, and Fig. 6 is a view indicating the heel in position on a shoe or the like.

Referring to the drawings, the body of the heel 1 is constructed of india rubber or an india rubber composition and having a flat lower or thread surface and a concave upper surface 4 which engages the shoe, or the like. The body 1 is provided with a perforated plate 5 imbedded therein. The perforations in plate 5 facilitate the union between plate 5 and body 1.

In one of the perforations of plate 5 is riveted or otherwise secured a screw 2 which extends upwardly and is adapted to engage a screw socket, not shown, in a shoe 8 or the like. A lug 3 is provided on the upper concave surface 4 of the body 1 and adapted to engage a suitable recess, not shown, in a shoe 8 or the like to prevent retrograde movement of screw 2 and the heel. A modified form of lug 3 is shown at 3′ in Fig. 4. In this construction the lug 3′ is extended into the body 1′ and riveted or otherwise secured to the plate 5 thereby giving a more rigid construction than that indicated in the preferred form.

Imbedded in the lower or tread side of the heel 1 is a friction material 6 adapted to facilitate adhesion of the heel on slippery surfaces. Said friction material 6 is provided with a plurality of metallic members 7 adapted to prolong its wearing qualities. The material 6 and member 7 however, form no part of this invention.

In operation, the body 1 is placed in position, such as indicated in Fig. 5 with the screw 2 engaging a suitable screw socket, not shown, in the shoe 8 and the screw applied to said screw socket in the usual manner. The resiliency of the heel permits its flexing enough to allow the top of the heel to be screwed tightly against the shoe and when in correct position the lug 3 will engage its proper socket, not shown, in the bottom of shoe 8 to prevent retrograde movement of the screw 2. The concave surface 4 on the upper side of heel 1 permits the device to be applied to the shoe with the plate 5 under a strain. This further facilitates friction between the heel and the shoe and in maintaining the lug 3 in its socket.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. In combination with a shoe, a heel body having a normally concave upper surface; a resilient plate imbedded in and substantially concentric with the upper surface of said heel body; and a screw imbedded in said heel body and rigidly secured to said plate, removably securing said heel body to said shoe and binding said flexible plate under compression, substantially as described.

2. In combination with a shoe having a screw engaging socket and a lug engaging socket, a heel body having a normally concave upper surface; a resilient plate imbedded in said body and substantially con-

centric with the upper surface of said heel body; a screw imbedded in said heel body, rigidly secured to said plate and engaging said screw socket, binding said heel body on said shoe and flexing said plate under compression; and a lug on said resilient plate, projecting from said heel body and engaging said lug socket and locking said screw and heel body against retrograde movement, substantially as described.

JOHN WILLIAM SMITH.

Witnesses:
FRITZ KLEIN,
HERBERT RAPLEY.