H. H. HAZELTINE.

DETACHABLE SHOE HEEL.

APPLICATION FILED MAY 13, 1911. RENEWED MAR. 1, 1913.

**1,066,812.** Patented July 8, 1913.

Fig. 1.

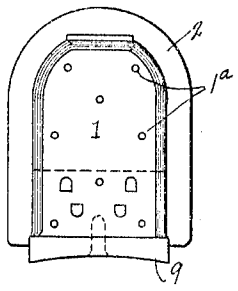



Fig. 3.

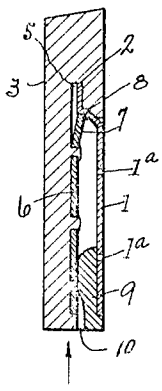



Fig. 2.

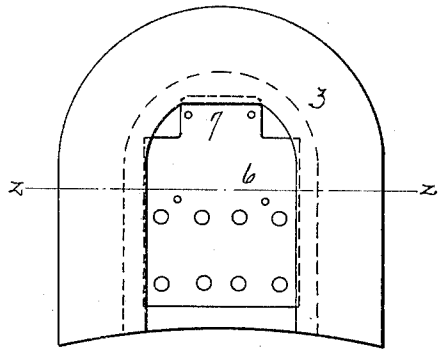



Fig. 6.

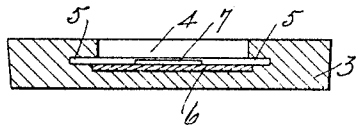



Fig. 5.

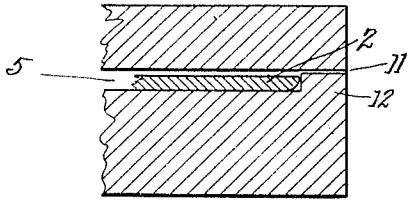
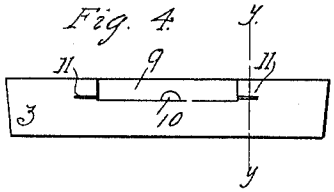



Fig. 4.




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# UNITED STATES PATENT OFFICE.

HARRY H. HAZELTINE, OF SEATTLE, WASHINGTON.

## DETACHABLE SHOE-HEEL.

1,066,812. Specification of Letters Patent. Patented July 8, 1913.

Application filed May 13, 1911, Serial No. 627,058. Renewed March 1, 1913. Serial No. 751,643.

*To all whom it may concern:*

Be it known that I, HARRY H. HAZELTINE, a citizen of the United States, and a resident of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Detachable Shoe-Heels, of which the following is a full, true, and exact specification, which will enable others skilled in the art to construct and use the same.

The principal object of this invention is to improve the construction shown and described in my application filed December 22, 1910, No. 598,867, whereby the locking tongue, shoulder and other internal parts of the device while at all times free of access for the purpose of locking and unlocking, are at the same time self-closing so as to absolutely prevent any accumulation of mud, dirt, etc., upon or around any of the moving parts.

A further object is to provide a construction which, due to the absence of any gaping seams, apertures, etc., when the parts are fitted together, presents as nearly as possible the general appearance of an ordinary shoe heel.

The above objects are of obvious importance and, so far as I am aware, have not previously been attained in the art.

I accomplish these objects by means of the novel construction and arrangements of the parts as will be more fully hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 is a plan view of the locking plate. Fig. 2 is a top plan view of the heel proper. Fig. 3 a central longitudinal sectional view of the heel with the locking plate in place. Fig. 4 an end elevation looking in the direction of the arrow in Fig. 3. Fig. 5 is an enlarged fragmentary sectional view upon the line Y—Y of the Fig. 4. Fig. 6 is a sectional view upon the line Z—Z of Fig. 2.

The locking plate 1 is cupped, as shown, having the apertures, $1^a$, through its upper surface, by means of which the plate may be nailed or otherwise secured to the shoe. The rear and side edges of the plate 1 are flattened and project laterally as at 2. In the lower portion 3 of the heel is the cavity 4, extending around the walls of which is the groove 5 and in which groove fit the laterally projecting edges 2 of the locking plate 1. Secured to the floor of the cavity 4 is the spring plate 6, having the upstanding tongue 7 adapted to be sprung downwardly by the forwardly projecting edge 2, as the plate 1 is being slipped into the cavity 4 and, when the former is fully in place, to spring up into the seat or offset 8 in the plate 1 whereby the latter is held against displacement with relation to the main body of the heel, which may be of rubber or other material. Secured to the forward end of the locking plate 1 is the block 9, of rubber or other resilient material, in the under surface of which is the cone shaped recess 10, which recess, it will be observed, extends only about half way across the under surface of the block 9, leaving the remaining portion of the under surface of the block 9 flush with and snugly fitting the floor of the cavity 4, by which it will be seen that when the parts are once fitted together as shown in Fig. 3, the operation of the spring tongue 7 is never interfered with by mud, dirt, etc., which might otherwise gain entrance through the opening 10.

To unlock the parts all that is necessary is to introduce a wire or other slender instrument into the opening 10 and thence between the under surface of the block 9 and floor of the cavity 4, until the end of the wire enters between the upper surface of the spring tongue 7 and the roof of its seat 8 which wedges the tongue 7 downwardly and out of its seat 8, allowing the plate 1 to be easily withdrawn from the body 3 of the heel. The yielding nature of the block 9 permits the easy entrance of the wire, and upon its withdrawal the rear portion of the block 9 closes down snugly upon the floor of the cavity 4 as will be understood. The forward portions 11 of the groove 5 are greatly reduced so that their upper and lower walls are normally substantially in contact with each other. In Figs. 4 and 5 the degree of reduction of the groove 5 is not so great as I prefer in actual practice, the upper and lower walls of the groove being shown as slightly apart in those figures for better illustration. It will be seen that when the parts are being slipped together the forward portion of the projection 2 forces the reduced portions 11 of the groove 5 apart until the parts are fully in position, when the reduced portions 11 are allowed to close as is clearly shown in Figs. 4 and 5. It will be understood that if the main body 3 of the heel be of leather or other

unyielding material, the lip 12 may be of rubber or other resilient material and secured to the main body 3 of the heel by cement or other suitable means. When the parts are fully in place it will be seen that not only is the entrance into the cavity 4 of mud, dirt, etc., prevented, but the appearance of the heel is substantially the same as that of an ordinary fixed heel. (Fig. 4).

I am fully aware that many changes will suggest themselves to others skilled in the art without departing from the spirit and scope of my invention and I do not therefore wish to be confined to the exact embodiment herein shown and described but

What I claim as new and desire to protect by Letters Patent of the United States is:

The combination of a detachable shoe heel having a cavity therein and a groove around the walls which surround the said cavity, with a locking plate having edges which are adapted to enter the said groove, holding means within the cavity in the said heel, and holding means upon the said plate which cooperates with the first mentioned holding means, and a resilient plug adapted to close the said cavity when the said locking plate is in place.

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