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SOLE PROTECTOR FOR BOOTS AND SHOES.

APPLICATION FILED NOV. 6, 1909.

995,245. Patented June 13, 1911.

Fig. 1

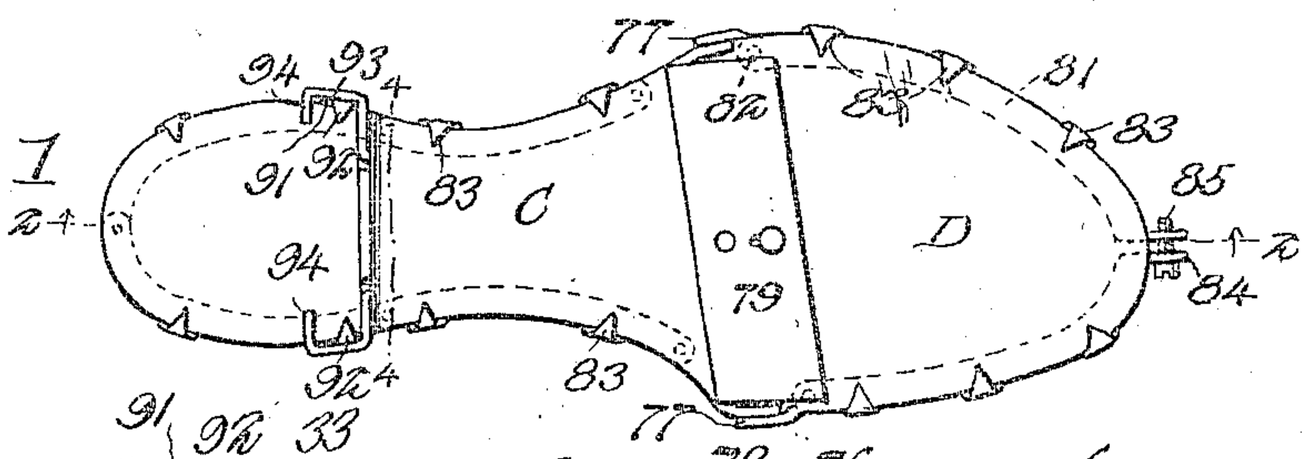


Fig. 2.

Fig. 3

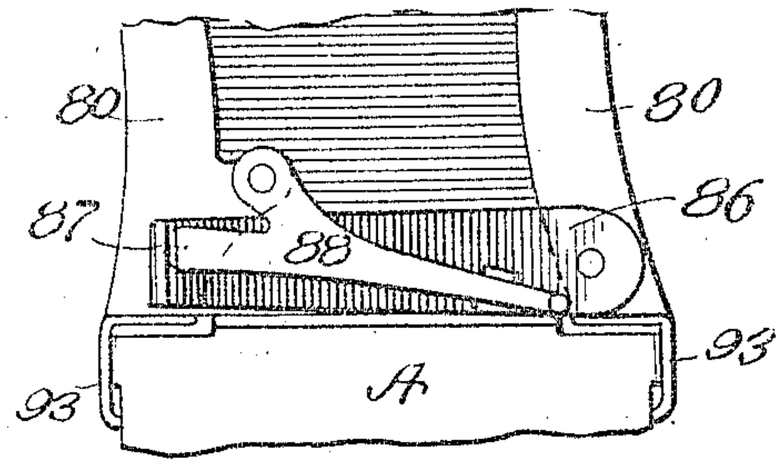


Fig. 4

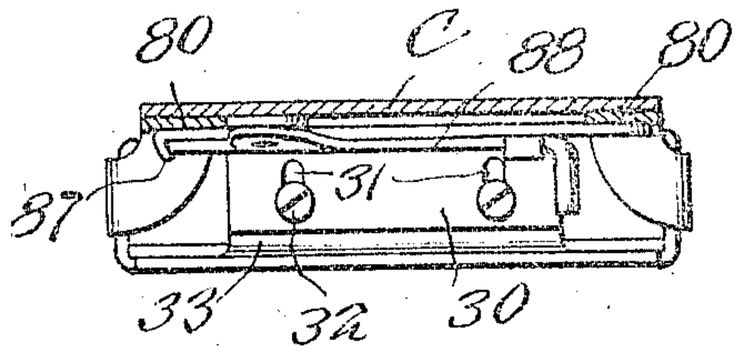


Fig. 5

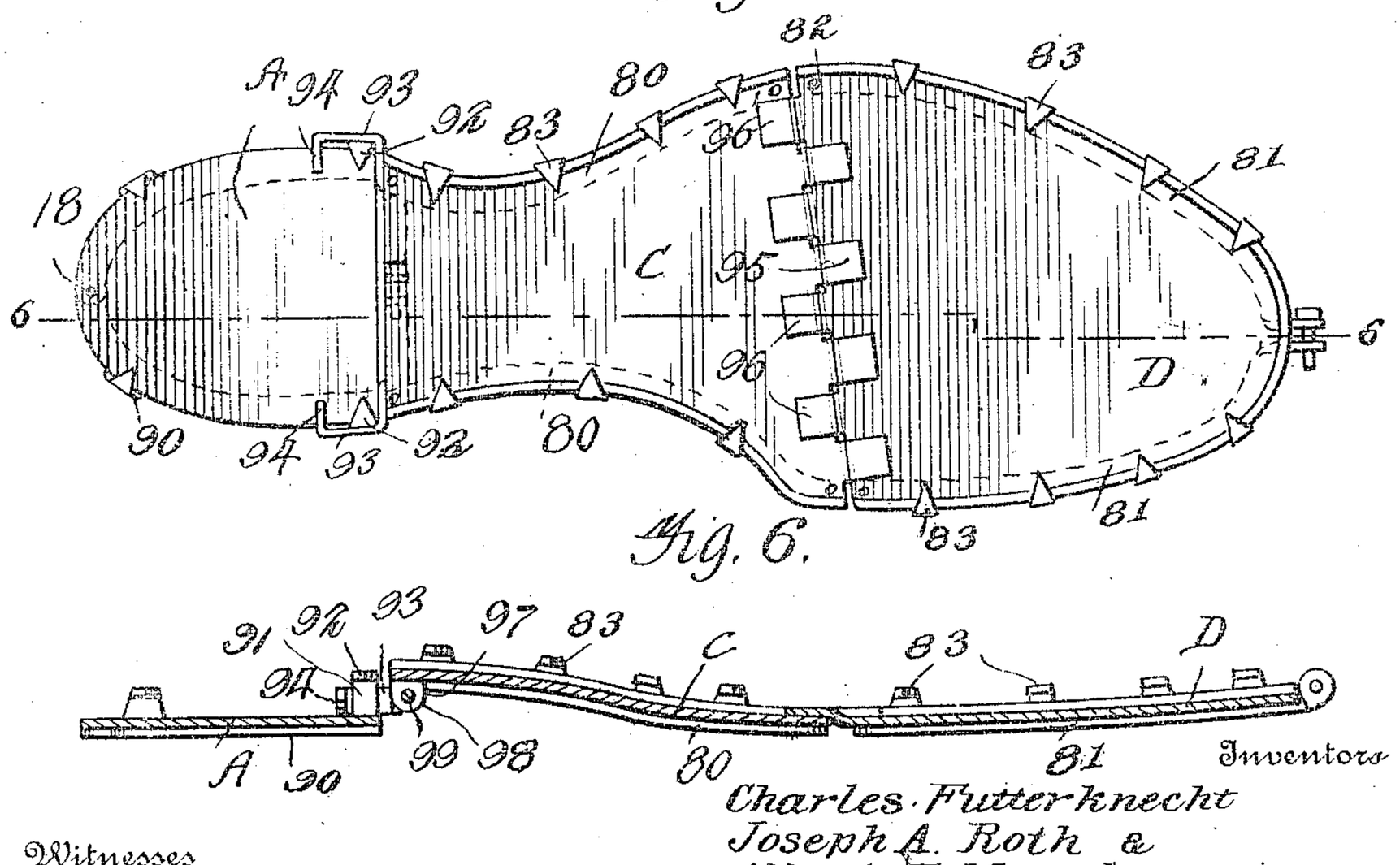
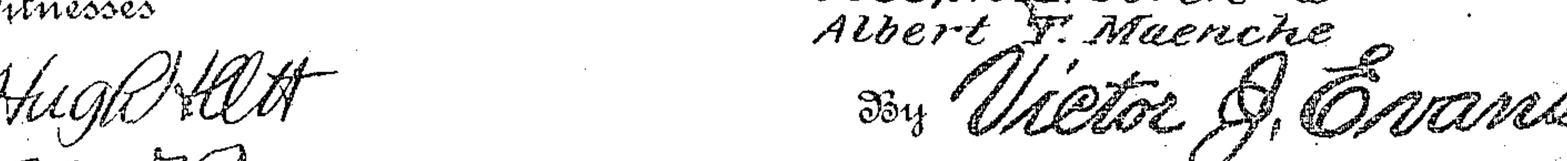


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

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SOLE-PROTECTOR FOR BOOTS AND SHOES.

995,245. Specification of Letters Patent. Patented June 13, 1911.

Application filed November 6, 1909. Serial No. 526,672.

To all whom it may concern:

Be it known that we, CHARLES FUTTERKNECHT and JOSEPH A. ROTH, citizens of the United States, residing at Mishawaka, in the county of St. Joseph and State of Indiana, and ALBERT T. MAENCHE, a citizen of the United States, residing at Waltham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Sole-Protectors for Boots and Shoes, of which the following is a specification.

This invention relates to sole protectors for boots and shoes and one object of the said invention is to construct a simple and efficient protecting device which may be readily applied to or detached from the soles of boots and shoes for the purpose of saving the same when exposed to rough wear and usage.

A further object of the invention is to simplify and improve the attachment means for a device of this character.

A further object of the invention is to simplify the construction of the protecting device and to render the same sufficiently flexible to yield to any normal movement of the foot in walking.

Still further objects of the invention are to simplify and improve the general construction and operation of a device of the character referred to.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention; it being however understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawings: Figure 1 is a top plan view of a device constructed in accordance with the invention. Fig. 2 is a longitudinal vertical sectional view of the same taken on the line 2—2 in Fig. 1. Fig. 3 is a detail bottom plan view of a portion of the device. Fig. 4 is a transverse sectional view taken on the line 4—4 in Fig. 1. Fig. 5 is a top plan view illustrating a modified form of the invention. Fig. 6 is a longitudinal vertical sectional view taken on the plane indicated by the line 6—6 in Fig. 5.

The device includes a heel plate A and a sole plate, which latter is composed of two separate parts or members, namely, a shank portion C and a ball portion D, said members C and D being provided at their side edges and adjacent to their meeting edges with upstanding lugs 76, 77 which are disposed in suitable alinement for the passage of hinge pins 78, whereby the said members C and D are flexibly connected together. The gap between the members C and D is covered by a flexible strip 79 which is suitably attached in such a manner as not to interfere with the relative movement of the parts. The plates or members C and D are each equipped with clamping members, designated respectively 80 and 81, said clamping members being hingedly connected with the plates C and D adjacent to the meeting edges of said plates by means of vertically disposed pins 82, whereby said clamping members are permitted to swing in approximately horizontal planes. The clamping members are each provided with sole engaging prongs or barbs 83. The clamping members connected with the plate D are provided adjacent to their front ends with forwardly extending upstanding lugs 84 for the reception of a connecting member, such as a screw or bolt 85, whereby they may be securely clamped together, with reference to the sole of a shoe or boot engaged thereby. As for the clamping members 80 connected with the plate C, one of said members is provided adjacent to its free end with a hingedly supported link 86 having a terminal flange 87; pivotally mounted adjacent to the free end of the other clamping member 80 is a suitably constructed cam lever 88 adapted to engage the flange 87 of the link 86 for the purpose of drawing the free ends of the clamping members 80 in the direction of each other to firmly engage the sole of the boot or shoe upon which the device is mounted.

The shank portion C of the sole member is provided adjacent to its rear edge with a downturned flange 30 having slots 31 for the passage of set screws 32 whereby it is adjustably connected with an upturned flange 33 at the forward edge of the heel

plate A; the latter may thus be conveniently adjusted to heels of various heights. The said heel plate is equipped with barbed clamping members 90 which are hingedly supported adjacent to the rear edge of the heel plate in such a manner as to be capable of swinging in an approximately horizontal plane adjacent to the underside of the plate A. Said clamping members 90 are provided adjacent to their front ends with upstanding lugs 91 having heel engaging barbs or prongs 92, and said upstanding lugs are adapted to be engaged by brackets 93 extending rearwardly from the clamping members 80 connected with the shank member C, said brackets 93 being provided with heel engaging prongs or barbs 94.

It is obvious that when a device constructed in conformity with the foregoing description is applied to the underside of a boot or shoe, and the heel clamps 90 and the toe clamps 81 have been placed in engagement with the heel and the forward portion of the sole, respectively, the subsequent tightening of the clamping devices 80 will cause the brackets 93 to engage the upstanding lugs 91 of the clamping members 90, thus preventing accidental disengagement of the latter from the heel and completing the attachment of the protecting device.

Under the modified construction illustrated in Figs. 5 and 6, the sole members C and D are equipped at their meeting edges with spaced interengaging tongues 95 and 96, each adapted to overlie the opposite plate member, thus establishing a flexible connection, but in such a manner, however, as to enable the parts or members to be readily separated. The members C and D are, under this construction, equipped with clamping members which are identical in form with those described with reference to Figs. 1 to 4, inclusive, and illustrated in said figures, and the said clamping members have been correspondingly designated by reference characters. In Figs. 5 and 6, however, the clamping members 80 connected with the plate C are provided adjacent to their free ends with inwardly extending brackets 97 having downwardly extending terminal apertured lugs 98 for the passage of a connecting member, such as a screw or bolt 99, whereby the clamping members 80 may be connected to engage the shank portion of the sole of the boot or shoe to which the device is applied, as well as the upstanding barbed lugs 91 of the heel plate A which is equipped with barbed clamping members 90, precisely like those illustrated in Figs. 1 to 4, inclusive. Under the construction illustrated in Figs. 5 and 6, however, the heel plate A is not directly connected with the shank member C of the sole member, but is entirely separate and detachable, and may be used separately.

The parts A, C and D may be manufactured of any suitable material, preferably sheet steel of sufficient thickness to afford the requisite protection and to enable the same to be formed and equipped as hereinbefore described.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains. The construction is simple and thoroughly effective for the purposes for which it is provided.

Having thus described the invention, what is claimed is—

1. A sole protector including a heel plate and a sole plate, the latter comprising a shank member and a ball member flexibly connected together; said heel plate being provided with heel engaging attaching means, said ball member being equipped with sole engaging clamping members, and said shank member being equipped with sole engaging clamp members having extended portions adapted to engage the heel engaging attaching means of the heel plate.

2. A sole protector including a heel plate and a sole plate, the latter comprising a shank member and a ball member flexibly connected together; said heel plate being provided with heel engaging attaching means, said ball member being equipped with sole engaging clamping members, and said shank member being equipped with sole engaging clamp members having extended portions adapted to engage the heel engaging attaching means of the heel plate, and means for connecting the free ends of the sole engaging clamping plates connected with the shank member of the sole plate including a link pivotally connected with one of said members and having a terminal flange, and a flange engaging cam lever pivotally connected with the other clamping member.

In testimony whereof we affix our signatures in the presence of two witnesses.

CHARLES FUTTERKNECHT.
JOSEPH A. ROTH.
ALBERT T. MAENCHE.

Witnesses as to Charles Futterknecht and Joseph A. Roth:

FRANK J. BICKEL,
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Witnesses as to Albert T. Maenche:

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