Aug. 8, 1967 R. G. EDWARDS ETAL 3,334,427

SPLASH AND INSTEP GUARD COMBINATION FOR BOOT-TYPE SHOE

Filed March 4, 1965

Fig. 1.

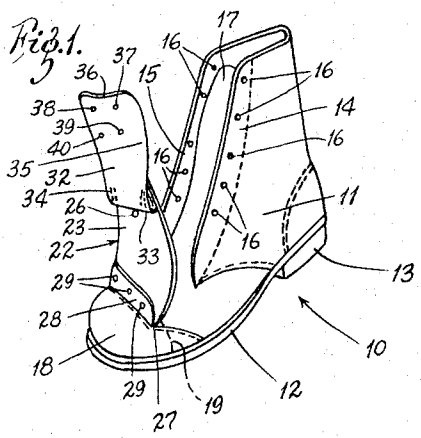


Fig. 2.

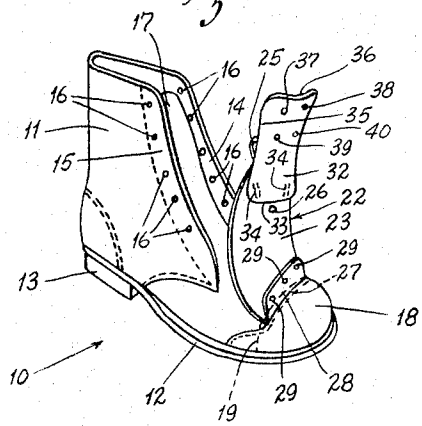


Fig. 3.

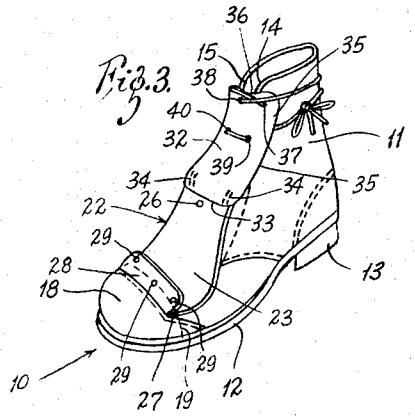


Fig. 4.

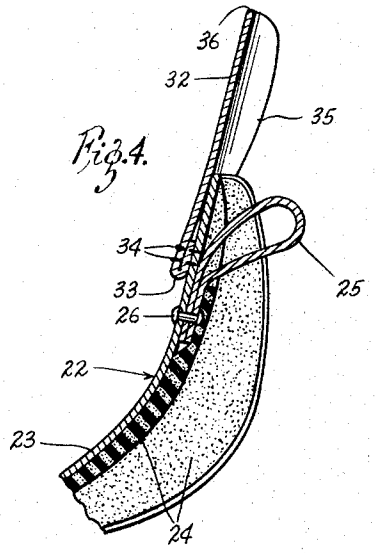
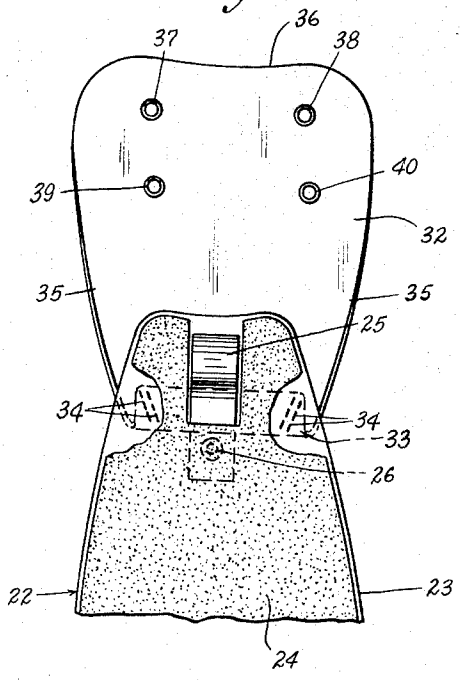


Fig. 5.



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United States Patent Office 3,334,427
Patented Aug. 8, 1967

3,334,427

SPLASH AND INSTEP GUARD COMBINATION FOR BOOT-TYPE SHOE

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Filed Mar. 4, 1965, Ser. No. 437,172
4 Claims. (Cl. 36—72)

This invention relates to a splash and instep guard combination for a boot-type safety shoe, and particularly to the provision of a splash guard for a boot having an instep guard which protects part of the front of the boot but leaves a portion toward the top of the boot unprotected.

The boot itself may be of any construction and the instep guard may be of any form. The assignee of this invention has developed a line of instep guards which are connected to the shoe in different kinds of side and/or front hinge arrangements. These guards are made with generally stiff and rigid bodies, usually faced on their undersurfaces with a yieldable cushioning pad. The function of the instep guards, which is to protect the instep portion of the foot against injury from the blows of heavy objects, is aptly served by the guards.

The kind of guard which has a front hinge connection to the rigid toe portion of the boot has the added advantage of protecting the area beneath the guard from being penetrated by wires and the like, and from being penetrated by hot molten metal splashing toward the boot from somewhere in front of the wearer. Preferably, this kind of front hinge arrangement comprises a continuous hinge extending across the full width of the guard at the lower front edge thereof. A hinge made of leather is best because its flexibility permits the hinge to be somewhat curved instead of absolutely straight as is required in a metal hinge or other kind of rigid hinge.

The instep guards extend across only the instep portions of the boots to which they are attached because it is only on these instep portions that protection is needed of the kind afforded by the rigid instep guards; also, the rigidity of the instep guard means that the upper end of the guard cannot extend too far past the instep portion of the foot if comfort is to be maintained in wearing the boot. The lower or forward end of the guard should overlie the rigid toe portion of the shoe.

With an instep guard of the right length, comfort can be maintained by a generally flexible connection between the upper end of the guard and the shoe. This is suitably achieved by a loop of flexible leather through which the laces pass.

The special feature of this invention is the incorporation of a flexible leather flap sewed or otherwise fastened across the width of the upper end of the rigid instep guard. The leather flap then extends upwardly to the top of the boot and is sufficiently wide to adequately cover the space between the quarter sides. Holes through the upper end of the flexible flap permits its attachment by the strings of the boot to the upper end of the boot. Thus, when the boot is on and the laces are strung and tied, there is protection across the entire height of the front of the boot against splashing molten metal. This protection is provided by the rigid toe, the wide front hinge that connects the instep guard to the toe, the wide connection of the splash guard, and the extension of the splash guard across the front of the boot from the top of the instep guard to the top of the boot.

The general object of this invention is to provide a splash guard which is permanently attached to a boot and which provides protection against splashing hot liquids such as molten metals, and which permits wearing of the boot with complete comfort undiminished by the

presence of the splash guard. Other objects are to provide a combination splash guard and instep guard for a boot to thereby give complete protection against injury from impact, as well as injury from splashing hot liquids.

Another object of the invention is to provide a boot as described which is very inexpensive to construct, and which has a long life.

Other objects and advantages will appear.

In the drawing:

FIGURE 1 is an isometric view of the boot with the instep guard and splash guard pivoted forwardly;

FIGURE 2 is an isometric view of the right side of the boot of FIGURE 1;

FIGURE 3 is an isometric view of the boot of FIGURE 1 but with the instep and splash guards pivoted against the front of the boot and tied in place;

FIGURE 4 is a fragmentary enlarged view in vertical section taken along a line through the central axis of the instep and splash guards; and

FIGURE 5 is a fragmentary enlarged rear elevation view of the instep and splash guards.

Referring now to the drawing, this boot **10** may be of any form or construction with an upper **11**, an outsole **12**, a heel **13**, and other conventional essential parts. As is usual, the sides **14** and **15** of the quarter are provided with eyelet holes **16** for receiving a string or lace and there is a tongue piece **17** extending between these sides **14** and **15** of the quarter, but unattached thereto, except perhaps at its lower end. In the preferable form of this invention, there is a toe guard **18** of steel or other rigid protecting material, the rear edge **19** of which is shown in dotted lines in the drawing.

An instep guard **22** is permanently attached to the boot **10**. The instep guard **22** has a rigid or stiff shell **23** of strong plastic or steel formed in a compound concavo-convex configuration to follow the contour of the instep portion of a foot. Preferably, there is a spongy pad **24** lining the under-surface of the shell **23** to add to the comfort of the wearer. At the upper end of the shell **23**, a leather loop **25** is fastened by a rivet **26**.

As already mentioned, the guard **22** may be fastened to the boot **10** by any suitable means, but preferably, the entire lower front edge **27** of the guard **22** is covered by a flexible front hinge **28** which is formed as a continuation of the leather covering the toe guard **18**. In this arrangement, two or three rivets **29** will adequately connect the hinge flap **28** to the shell **23** of the guard **22**.

As shown in FIGURE 3, the guard extends across the entire instep portion of the boot **10**, but it leaves a considerable length above the instep portion unprotected at the front of the boot. Splashing metal cannot penetrate the leather sides or back of the boot but can penetrate the portion of the boot directly in front between the sides **14** and **15** of the quarter or upper **11**. To give protection for this portion of the boot, a splash guard **32** is provided. This splash guard **32** is a piece of flexible leather having a doubled-over lower edge **33** extending across the full width of the instep guard **23** and stitched or otherwise fastened to the guard by sewing **34** or the like. The sides **35** of the splash guard **32** flare outwardly immediately above the lower edge **33** and the height of the splash guard is such that its upper edge **36** is about even with or above the upper edge of the boot **10**, as shown in FIGURE 3. Preferably, there are four holes **37**, **38**, **39** and **40** through the upper end of the splash guard **32** for lacing the splash guard to the boot to help in forming to the shape of the leg, and for variation of methods of lacing to the leg.

In use, the boot is unlaced and this permits the instep guard **22** and the splash guard **32** to pivot forwardly as shown in FIGURES 1 and 2. The boot can then be easily put onto a foot. Then the boot is laced until the eyelets

16 opposite the loop 25 are reached. The strings are passed through the loop 25 and then the boot is laced to the top but is not tied. The strings are passed through the holes 37, 38, 39 and 40 in the top of the splash guard 32 and are wrapped around the boot as shown in FIGURE 3. Then the strings are tied on the side of the boot as illustrated. The boot thus provides complete protection against splattering hot metal. There are no openings through which this metal can pass in the front of the boot. The flexible hinge 28 covers the area beneath the front of the instep guard 22. The attachment of the splash guard 32 so that it curls under where it is fastened by the stitches 34 provides complete protection across the upper portion of the instep guard 22 and above that across the front of the boot.

Various changes and modifications may be made within the purview of this invention as will be readily apparent to those skilled in the art. Such changes and modifications are within the scope and teaching of this invention as defined by the claims appended thereto.

What is claimed is:

1. A boot having a sole and an upper, the boot being adapted to be worn on a person's foot and having a portion enclosing the toe portion of the foot, a portion covering the instep portion of the foot, and a portion extending above the instep portion of the foot, a substantially rigid instep guard hinged to the boot and extending across the instep portion of the upper, the instep guard terminating at an upper edge corresponding in location substantially

with the location of the upper extreme of the instep portion of the boot, a flexible splash guard flap connected to the upper end of the instep guard and extending thereabove, and means to releasably connect the upper end of the splash guard flap to the boot.

2. The boot of claim 1 wherein the splash guard flap is leather and is stitched to the instep guard adjacent the upper edge thereof.

3. The boot of claim 1 wherein the means to connect the splash guard flap to the boot includes perforations through the splash guard flap through which the laces of the boot are adapted to extend.

4. The boot of claim 3 including a loop on the inner side of the instep guard adjacent the upper edge thereof through which the laces of the boot are adapted to extend to releasably connect the upper end of the instep guard to the boot.

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