E. W. HUNTER.

ICE BOOT FOR HORSES.

APPLICATION FILED JAN. 23, 1912.

1,034,801.

Patented Aug. 6, 1912.

2 SHEETS—SHEET 1.

FIG. 1.

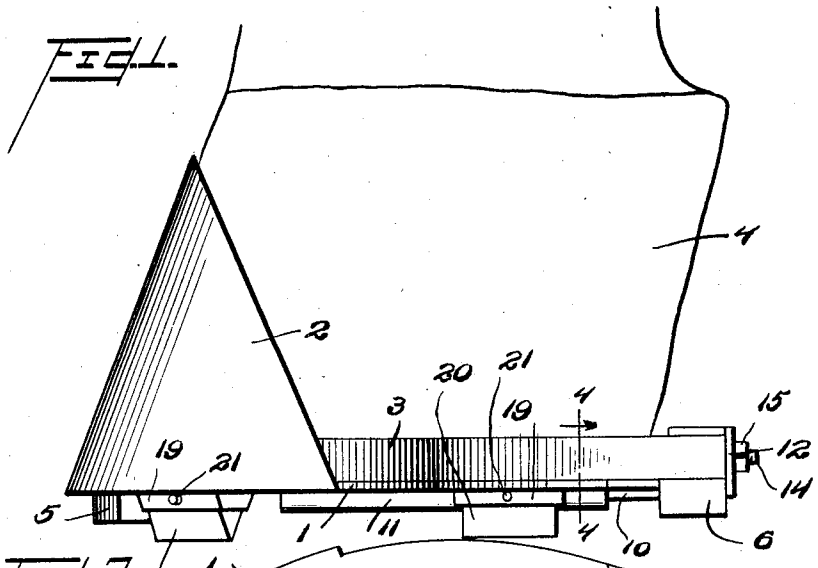


FIG. 2.

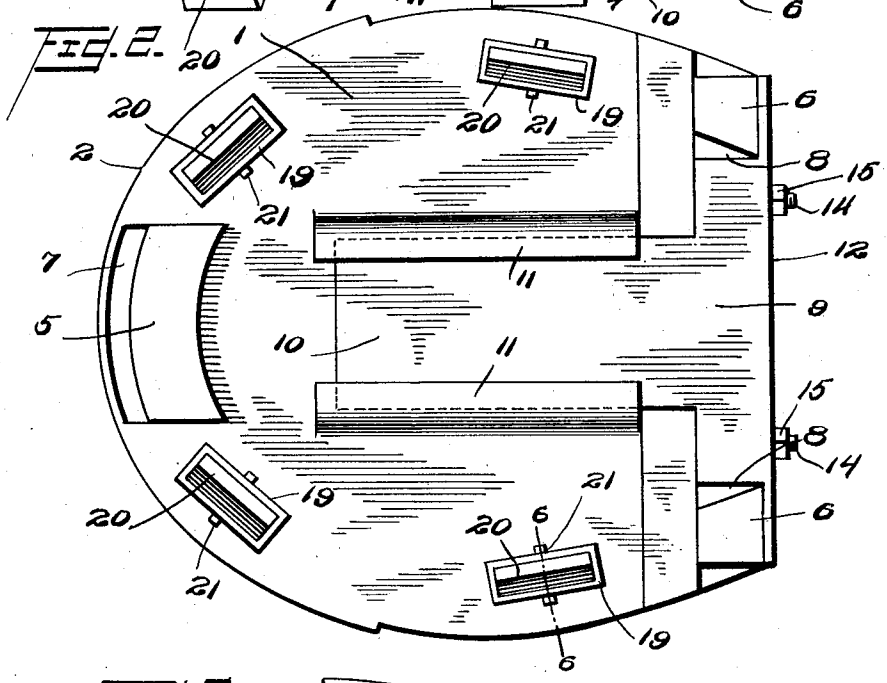
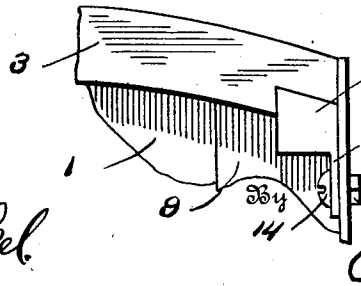


FIG. 3.



Witnesses

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2 SHEETS—SHEET 2.

FIG. 4.

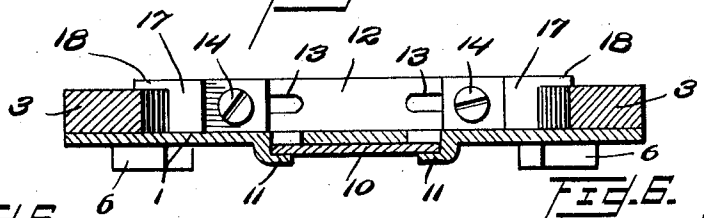


FIG. 5.

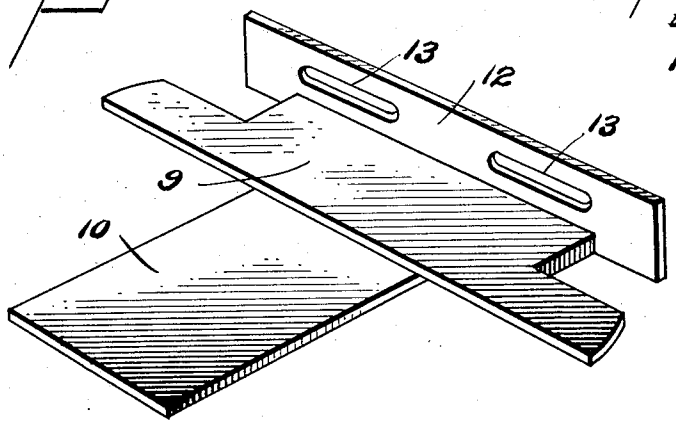


FIG. 6.

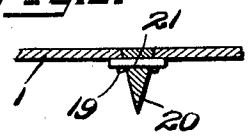


FIG. 7.

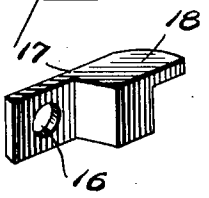


FIG. 8.

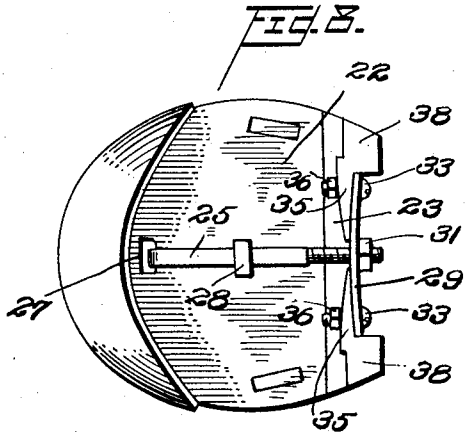


FIG. 9.

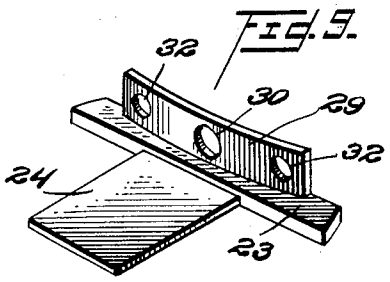


FIG. 10.

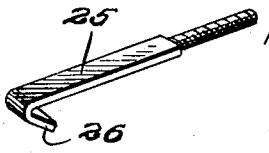
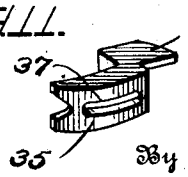


FIG. 11.



Witnesses

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UNITED STATES PATENT OFFICE.

ELLWOOD W. HUNTER, OF PHILADELPHIA, PENNSYLVANIA.

ICE-BOOT FOR HORSES.

1,034,801. Specification of Letters Patent. Patented Aug. 6, 1912.

Application filed January 23, 1912. Serial No. 672,894.

To all whom it may concern:

Be it known that I, ELLWOOD W. HUNTER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Ice-Boots for Horses, of which the following is a specification.

My invention relates to improvements in ice boots for horses, the object of the invention being to provide a device of this character which may be readily secured on the shoe and hoof, and which will prevent slipping on ice and slippery pavements.

A further object is to provide a boot having an improved arrangement of sectional base plate adapted to be secured to the shoe, and said plate provided with an improved construction and arrangement of calks which prevent slipping and which may be replaced when worn.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1, is a view in side elevation illustrating my improvements in position on a shoe having its own toe and heel calks. Fig. 2, is a bottom plan view of Fig. 1. Fig. 3, is a fragmentary top plan view of the construction shown in Figs. 1, and 2. Fig. 4, is a view in cross section on the line 4—4 of Fig. 1. Fig. 5, is a detail perspective view of the rear plate member. Fig. 6, is a view in section on the line 6—6 of Fig. 2. Fig. 7, is a detail perspective view of one of the blocks 17. Fig. 8, is a top plan view illustrating a modification. Fig. 9, is a detail perspective view of the rear plate section shown in Fig. 8. Fig. 10, is a perspective view of the bar 25, and Fig. 11, is a detail perspective view of one of the blocks 35.

1, represents a base plate which is heavy sheet metal, and is of the general shape of a horse shoe having a toe piece 2 adapted to engage over the toe of the shoe 3 and the hoof 4. When the shoe is provided with the ordinary toe calk 5 and heel calks 6, said plate 1 is made with an opening 7 to receive the toe calk 5, while the heel calks are projected through recesses 8 in the ends of a rear base plate section 9. This rear base plate section 9 is illustrated in perspective in Fig. 5, and is made with an integral tongue 10 adapted to slide into flanged guides 11 on plate 2. This permits the device to be adjusted to fit various sizes of shoes, and while it is shown on the smallest size of shoe, it may be extended to fit other sizes. Section 9, at its rear edge, is made with an upwardly projecting flange 12, having longitudinal slots 13 therein. Through these slots 13, bolts 14 are projected and are secured at various positions of adjustment in the slots by means of nuts 15. These bolts 14 project through openings 16 in blocks 17, one of which is illustrated in perspective in Fig. 7. These blocks 17 have outwardly projecting tongues 18 which are adapted to be projected over the upper surface of the shoe 3 at the heel thereof, and prevent any possibility of downward movement of the boot when once secured by the blocks.

Base plate 1, at suitable points, is provided with rectangular sleeves 19. These rectangular sleeves are formed by depressing the metal of the plate and they also constitute openings for calks 20. These calks 20 are wedge shape in cross section, and they are forced downwardly through the sleeves 19 and wedge tightly in said sleeves.

To prevent their accidental displacement, pins 21 are driven through the sleeves and through the calks as clearly shown in Fig. 6. When one of these calks is worn, or broken, it may be replaced by removing the pin 21, removing the broken calk, and inserting a new calk and pin.

In operation, to place the ice boot in position on a shoe, the nuts 15 are loosened and the blocks 17 moved toward each other, so as to permit the boot to be placed on the toe and heel calks of the horse shoe. This is accomplished by adjusting section 9 until the right size of boot is had, and then sliding the boot upwardly, so that the toe calk 5 projects through opening 7 and the heel calks 6 through recesses 8. When the boot is in place, blocks 17 are moved outwardly, so that the tongues 18 project over the upper surface of the shoe at the heel thereof, and when the nuts 15 are tightened, the boot will be securely held in position on a shoe.

In Figs. 8, 9, 10, and 11, I illustrate a modified form of my invention which is adapted for use in connection with shoes having no calks. In this modification, a base

plate 22 and a section 23 are provided, corresponding to plate 1 and section 9 of the preferred form, and this section 23 has a tongue 24 corresponding to tongue 10. To hold the sections together, a bar 25 is provided and has a hooked end 26 adapted to be projected through an opening 27 in plate 22, and is positioned through a guide 28 to prevent its lateral movement. Section 23 is made with a curved flange 29 having a central opening 30 to receive the screw-threaded end of bar 25, and a nut 31 is positioned on this threaded end of the bar against flange 29, and serves to tightly clamp the sections together in position on a shoe. This flange 29, at its ends, is made with openings 32 to receive bolts 33, and these bolts 33 are projected through slots 37 in blocks 35, and are clamped by nuts 36. The blocks 35 have the longitudinal slots 37 to permit them longitudinal adjustment so as to project, or not project, tongues 38 thereon, over the upper surface of the shoe.

Various other slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

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

1. A device of the character described, comprising a hoof supporting covering base consisting of a front base plate and a rear base plate section, which when together cover the entire area of the bottom of the hoof, a tongue on said rear plate section, guides on the base plate to receive said tongue, and movable devices on said rear plate section constructed to clamp the device on the heel of a horse shoe, substantially as described.

2. A device of the character described, comprising a base plate, a rear plate section, a tongue on said rear plate section, guides on the base plate to receive said tongue, an upwardly projecting flange on the rear plate section, blocks, means for securing the blocks at various adjustments longitudinally of said flange, and tongues on said blocks adapted to be positioned over the heel portions of a horse shoe, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELLWOOD W. HUNTER.

Witnesses:
CHAS. E. POTTS,
R. H. KRENKEL.