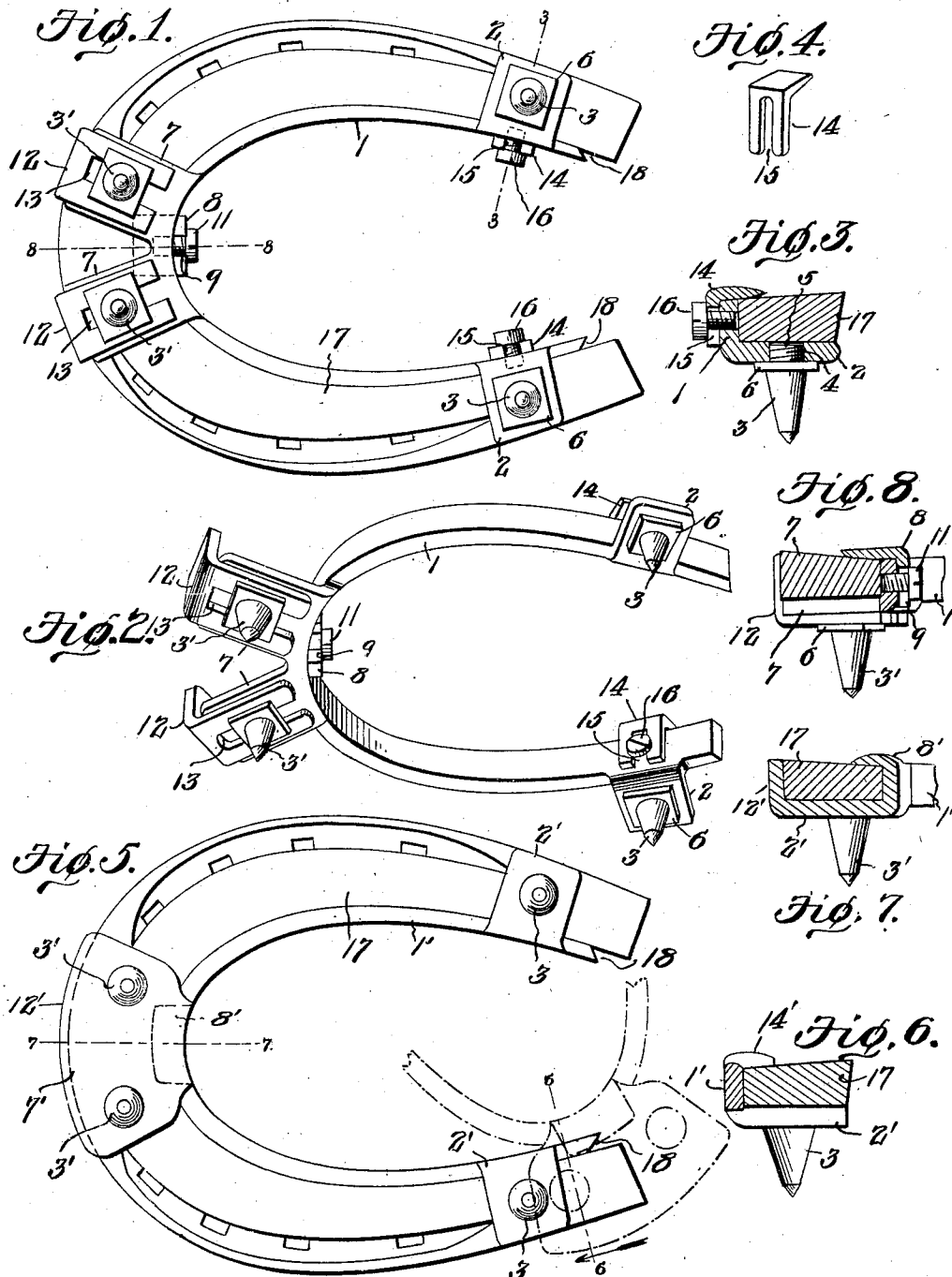


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T. W. SIMMONS.
HORSESHOE CALK.
APPLICATION FILED JAN. 11, 1906.



WITNESSES:

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TURNER W. SIMMONS, OF MARTINSVILLE, OHIO.

HORSESHOE-CALK.

No. 837,972.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, TURNER W. SIMMONS, a citizen of the United States, residing at Martinsville, in the county of Clinton and State of Ohio, have invented a new and useful Horseshoe-Calk, of which the following is a specification.

This invention relates to horseshoe-calks, and has for its object to embody the same in the nature of an attachment which may be conveniently applied to and removed from a horseshoe while the latter remains upon the horse's hoof. It is also proposed to have the heel and toe calks carried by the same attachment, so as to enable the simultaneous application and removal of both sets of calks.

Another object of the invention is to facilitate the application and removal of the attachment, while at the same time to effectually guard against accidental loosening and displacement thereof.

A still further object of the invention is to have the same adjustable, so as to fit shoes of different dimensions.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is an inverted plan view of the device of the present invention applied to a horseshoe. Fig. 2 is a perspective view of the device removed. Fig. 3 is a detail sectional view taken transversely through the attachment and one heel portion of the shoe. Fig. 4 is a detail perspective view of one of the adjustable clamps employed for attaching the device to a shoe. Fig. 5 is a plan view of a simplified form of the device applied to a horseshoe. Fig. 6 is a sectional view taken on the line 6 6 of Fig. 5. Fig. 7 is a detail sectional view on the line 7 7 of Fig. 5. Fig. 8 is a sectional view on the line 8 8 of Fig. 1.

Like characters of reference designate corresponding parts in all of the figures of the drawings.

Referring at first more particularly to Fig. 2 of the drawings, it will be seen that the present device includes a substantially U-

shaped body 1, which is preferably cut from cold steel in order that it may have the desired resiliency to snap the attachment upon a shoe, as will be hereinafter more fully described. Adjacent each free end of the body there is an integral ear 2, bent laterally outward from the under side of the body, and to the under side of this ear there is attached a heel-calk 3 of appropriate design. This calk may be threaded, riveted, or otherwise rigidly connected to the ear and may be conical, wedge-shaped, or of any approved configuration. When the calk is threaded to the ear, the latter is provided with a threaded opening 4 for the reception of the threaded shank 5 of the calk, there being a squared or other angularly-shaped boss or flange 6 surrounding the inner end of the shank for engagement by a wrench in applying the calk to the ear.

At the bowed end of the body there is a pair of outwardly-diverged ears 7, bent over from the lower side of the body and carrying toe-calks 3', each of which is secured to its ear 7 in the same manner as hereinbefore described for the heel-calks 3. While separate ears 7 have been shown at the toe of the attachment, it is of course apparent that a single ear of the desired width may be employed.

For the purpose of securing the attachment upon a horseshoe the toe of the attachment is provided with clamping means including an inverted substantially L-shaped clip or clamp member 8, having its upright shank member applied against the inner side of the toe of the body and provided with a longitudinal slot or bifurcation 9, the other arm 10 of the clip overhanging the top of the body and projecting beyond the same so as to overlap the inner edge of a horseshoe. A threaded fastening 11 passes through the slot 9 from the rear side of the clamp and engages a threaded opening in the body, whereby the clamp may be adjusted vertically, so as to accommodate the same to shoes of different thicknesses. It will here be explained that the member 8 is more of a clip than a clamp—that is to say, the clip is not adjusted and drawn down against the shoe after being applied thereto, but is set so as to hook over the shoe when applied thereto.

Operating in conjunction with the clip 8 and carried by each of the ears 7 is an angular and substantially L-shaped clamp member 12, having its longer horizontal member provided with a longitudinal slot or bifurcation 13. The slotted arm of this clamp

member is applied to the under side of the ear, with the shank of the calk 3' passing through the slot 13, whereby the clamp is adjustably connected to the ear through the medium of the toe-calk as a fastening element. The upstanding member of the clamp 12 is designed to engage across the front edge of the shoe, so as to clamp the latter between the toe portion of the body 1 and the clamp 12. The clamp 12 is adjustable for the purpose of setting the same to receive shoes of different widths between the clip 8 and the clamp.

At each heel-terminal of the body 1 there is a clamp or clip similar to the toe clamp or clip and consisting of a substantially L-shaped member 14, (best shown in Figs. 3 and 4 of the drawings,) the upright member of the clip being provided with a slot or bifurcation 15 and applied to the inner side of said heel portion, with its other member overlapping the top of the body and projecting externally beyond the same. A threaded fastening 16 passes through the slot 15 and engages a threaded opening in the body, whereby the clip is rigidly connected to the body and may be adjusted vertically. By preference the fastenings 11 and 16 are headed and have their heads provided with grooves or seats for the reception of a screw-driver to enable the convenient application and removal of the fastenings.

In applying the device to a horseshoe, a conventional form of which has been shown at 17, the attachment is placed transversely across the heel portion of the shoe, so as to receive one heel member thereof endwise between the toe-clips, as shown by dotted lines in Fig. 5 of the drawings, after which the device is manipulated to work the toe of the attachment along the adjacent member of the shoe until it embraces the toe of the shoe, with one side member of the body lying against the inner edge of the adjacent shoe member, its ear 2 lying against the under side of the shoe and its heel-clip 14 engaging over the top of the heel portion of the shoe, the other side member of the body lying beneath the shoe and outwardly beyond the inner edge of the other side member of the shoe. When the attachment has been thus far applied, that side member of the body which is not engaged with the shoe is forced inwardly and then laterally across the inner edge of the adjacent side member of the shoe until its heel-clip 14 snaps over the top of the shoe, whereupon the spring-body 1 will lie in snug engagement with the inner peripheral edge of the shoe, with its several clips overlapping the top of the shoe and holding the attachment firmly in place. The resiliency of the body is sufficient to prevent looseness of the attachment upon the shoe, wherefore there can be no creeping and displacement of the attachment.

The heel-clips are held in engagement with the shoe by the resiliency of the body 1, while the toe-clips remain in engagement with the shoe by reason of the fact that the inner and outer clips 8 and 12 are rigidly connected and cannot become displaced from the shoe until the attachment has been turned to work the toe thereof back to one of the narrow heel portions of the shoe, which is the only manner in which the device can be removed except by loosening the toe-calk 3', so as to release the clamp 12 or to release the clamp 8. Before the attachment can be turned to work the toe portion thereof back to one of the heels of the shoe it is of course necessary to spring the heels of the body out of engagement with the heels of the shoe, and to facilitate this operation each heel-terminal of the body is beveled upon its outer side, as shown at 18, to enable the introduction of a screw-driver bit or other implement between adjacent heel-terminals of the shoe and body for the purpose of prying the latter out of engagement with the shoe.

The embodiment of the invention as embraced in Figs. 1 to 4, inclusive, of the drawings, is intended to accommodate one attachment to shoes of different dimensions; but I also contemplate having the heel and toe clips integral, as shown in Figs. 5, 6, and 7 of the drawings, wherein the heel-clip 14' is bent over from the adjacent side member of the body and the inner toe-clip 8' is also bent over from the body. In this embodiment of the invention it is preferred to have the ear 7' at the toe of the body wide enough to accommodate two toe-calks, and the outer toe-clip 12' is bent up from the ear. By reason of the fact that the relatively wide ear 7' tends to stiffen the body and interfere with its resiliency, it is proposed to have the ear reduced as much as possible consistent with strength at its point of connection with the body, so as to interfere as little as possible with the resiliency of the body.

From the foregoing description it will be understood that the device of the present invention is exceedingly simple and effective for the purpose designed. The several elements are assembled to form a compact device which may be conveniently handled in applying and removing the same without requiring any change or alteration in horseshoes as now in general use.

Having thus described the invention, what is claimed is—

1. A device of the class described comprising a resilient body shaped to conform to and capable of being sprung into engagement with the inner periphery of a horseshoe, calks carried by the body and shoe-engaging clips carried by the body and adjustable thereon.

2. A device of the class described comprising a resilient body shaped to conform to

and capable of being sprung into engagement with the inner periphery of a horseshoe, calks carried by the body, and shoe-engaging clips carried by the body and adjustable vertically thereon.

3. A device of the class described comprising a resilient body shaped to conform to and capable of being sprung into engagement with the inner periphery of a horseshoe, calks carried by the body, heel-clips carried by the body, and inner and outer toe-clips, the outer toe-clip being adjustable toward and away from the inner toe-clip.

4. A device of the class described having a resilient body shaped to conform to and capable of being sprung into engagement with the inner periphery of a horseshoe, and substantially L-shaped shoe-engaging clips carried by and adjustable upon the body.

5. A device of the class described comprising a resilient body shaped to conform to and capable of being sprung into engagement

with the inner periphery of a horseshoe, calks carried by the body, inverted substantially L-shaped shoe-engaging clips, the upright arm on each foot being slotted, and a fastener passing through the slot and engaging the body to adjustably secure the clip thereto.

6. A device of the class described comprising a resilient body shaped to conform to and capable of being sprung into engagement with the inner periphery of a horseshoe, an ear projecting laterally from the body, a shoe engaging the clip adjustable upon the ear, and a calk carried by the ear and adjustably securing the clip thereto.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

TURNER W. SIMMONS.

Witnesses:

J. ROSS COLHOUN,
E. E. DOYLE.