No. 661,757. Patented Nov. 13, 1900.

# J. N. CLARKE.

## ICE CREEPER ATTACHMENT FOR HORSESHOES.

(Application filed Aug. 14, 1900.)

(No Model.)

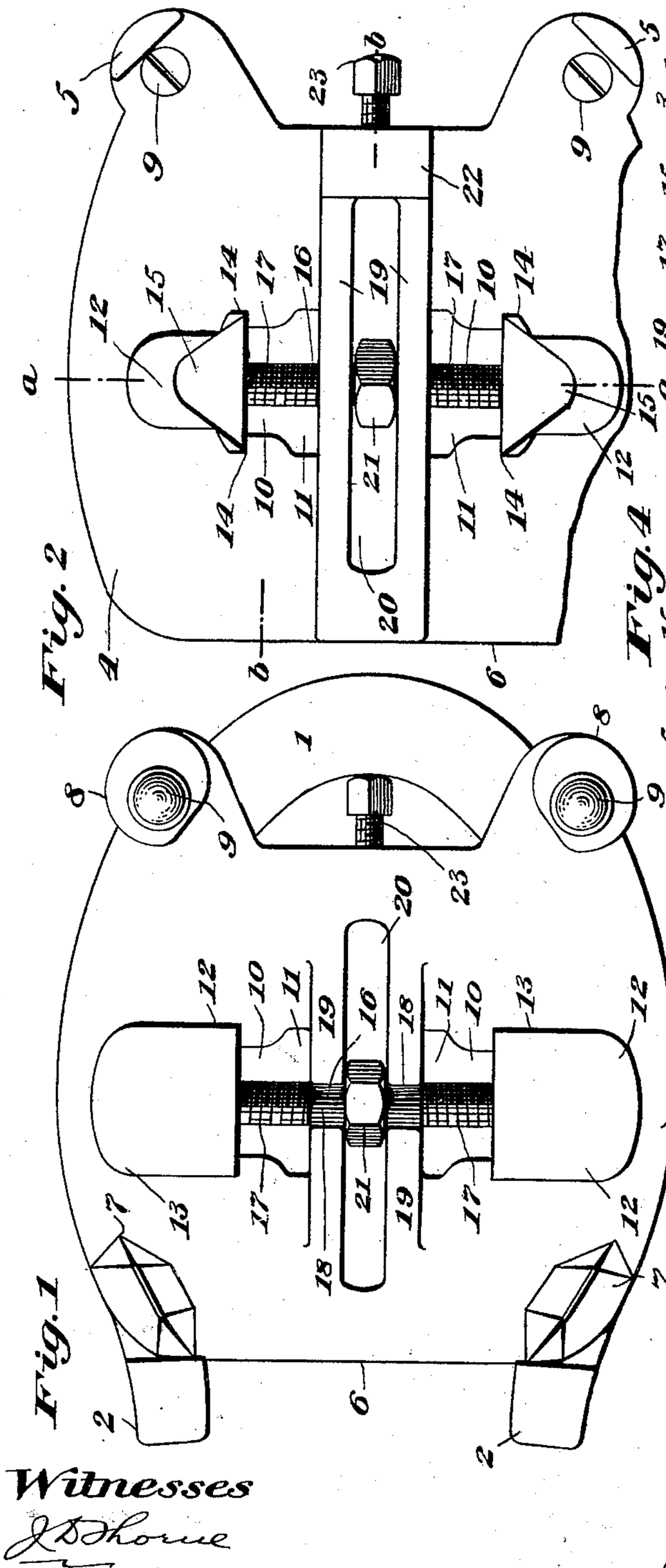

Fig. 1



Fig. 2

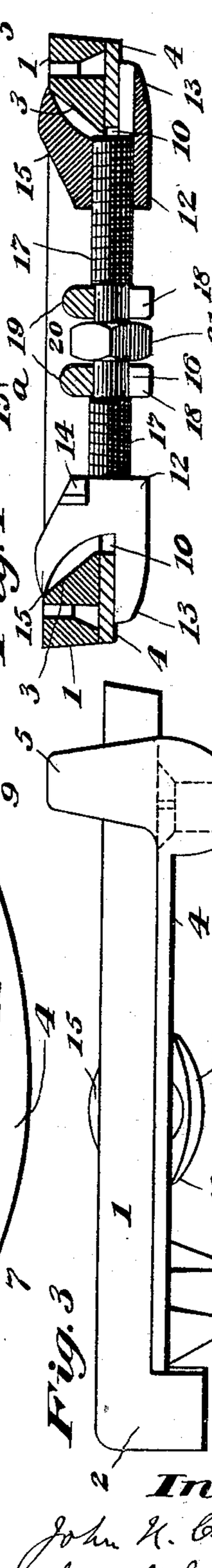

Fig. 4

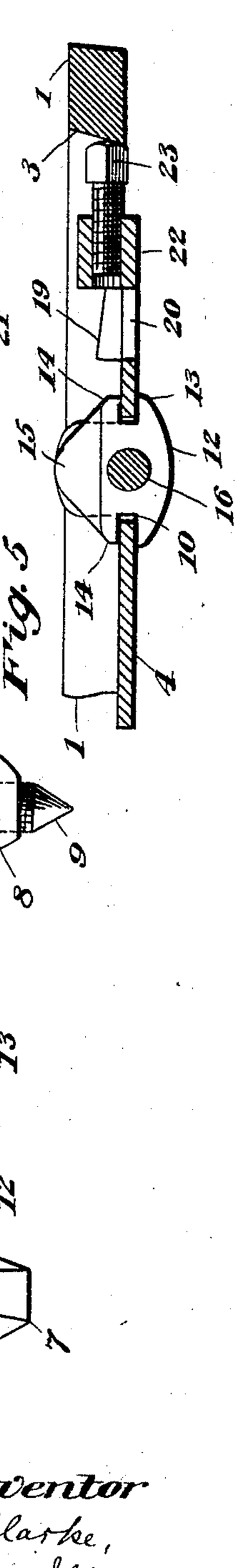

Fig. 5



Fig. 3

Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN N. CLARKE, OF EVANSVILLE, INDIANA.

## ICE-CREEPER ATTACHMENT FOR HORSESHOES.

SPECIFICATION forming part of Letters Patent No. 661,757, dated November 13, 1900.

Application filed August 14, 1900. Serial No. 26,903. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN N. CLARKE, a citizen of the United States of America, and a resident of Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Ice-Creeper Attachments for Horseshoes, of which the following is a specification.

This invention relates to certain improvements in removable ice-creeper attachments for horseshoes, and has for its object to provide a device of this nature adapted for ready and secure attachment to a horseshoe and formed with projecting calks, so as to insure a firm footing to the horse without requiring the shoes themselves to be removed and replaced, as is necessary when the horse is roughshod in the ordinary manner.

The invention consists in certain novel features of the construction, combination, and arrangement of the several parts of the improved ice-creeper attachment, whereby certain important advantages are attained, and the device is made simpler, cheaper, and otherwise better adapted and more convenient for use, all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

In the accompanying drawings, which serve to illustrate my invention, Figure 1 is an under side view showing an attachment constructed according to my invention applied to a horseshoe. Fig. 2 is a top view of the device detached from the horseshoe. Fig. 3 is a side elevation showing the improved attachment applied to a horseshoe. Fig. 4 is a cross-section taken through the improved attachment in the plane indicated by the line *a a* in Fig. 2. Fig. 5 is a cross-section taken through the device in the plane indicated by the line *b b* in Fig. 2.

In these views, 1 indicates a horseshoe, which may be of the ordinary or any kind, herein shown as provided with heel-calks 2 2 and provided along the inner side of its upper part with a beveled or inclined surface 3.

4 indicates the body portion of the improved attachment, made in the form of a flat metal plate, having at its forward part oppositely-arranged upturned projections 5 5 to extend up on opposite sides of the shoe 1 at the toe portion thereof, and having its rear edge 6 arranged to abut against the heel-calks 2 of the horseshoe, where such heel-calks are present.

The body portion 4 of the attachment carries calks arranged, as herein shown, to project below the heel-calks 2 of the shoe, and said calks of the attachment may be integral with the body 4, as shown at 7 in Fig. 1, or may be constructed, as shown at 8 in said figure, with screw-threaded pins or spurs 9, adapted to be removed and replaced when worn or broken. The pin 9 has an enlarged countersunk upper end, preventing it from being withdrawn downwardly.

The central portion of the body 4 has at its opposite sides guide-slots 10 10, alined with each other and extended transversely of the body, each opening or slot 10 having at its inner end a laterally-widened part 11 and being adapted to receive a slide-block 12, which is movable along the slot. Each slide-block 12 has on the under side of the plate or body portion 4 a part 13 of greater width than the slot 10 and has on the upper side of said body portion an overhanging or hook-shaped part 15, adapted to be engaged with and over the beveled or inclined surface 3 of the horseshoe, as clearly shown in Fig. 4, to hold the attachment securely in place upon the horseshoe. The hook-shaped or overhanging part 15 of each slide-block 12 is also provided with lateral arms or projections 14 at its opposite sides, said arms or projections being adapted by engagement with the top side of the body portion 4, at the sides of the slot 10 therein, to hold said slide-block against falling through the slot. The arms or projections 14 are adapted, however, to pass through the enlarged or widened portions 11 of the slots when the slide-blocks are moved over toward each other, and thereby it is rendered possible to readily remove and replace the slide-blocks whenever desired. The slide-blocks 12 have interiorly-screw-threaded openings with which are engaged the oppositely-screw-threaded end portions 17 of a shaft 16, held to turn at the central part of the body portion 4, where it is made in a reduced diameter by preference and is held in notches or recesses 18, produced in the under or lower sides of parallel ribs or thickened portions 19,

which are produced integrally on the body portion 4 between the guide-slots 10. The ribs 19 are spaced apart, as shown in Figs. 1, 2, and 4, to produce between them a slot 20, extended lengthwise in the center of the body and adapted to receive a polygonal head or enlargement 21 central on the shaft 16 and by means of which said shaft may be readily turned on application of a wrench or other tool. At the forward end of the slot 20 is formed a socket 22, in which is held a screw 23, the head of which is made rounded to adapt it for turning engagement with the inner face of the horseshoe 1, at the forward or toe portion thereof, in such a way that when said screw is turned to withdraw it from the socket 22 the body portion will be pressed rearward along the under side of the horseshoe, so as to cause the rear edge 6 of the said body to be engaged with the heel-calks 2 of the horseshoe, or in certain cases—as, for example, when the heel-calks 2 are not present—to clamp the toe portion of the shoe securely between the head of said screw 23 and the upturned projections 5 5 of the attachment.

In using the improved attachment the slide-blocks 12 are first moved toward each other by turning the screw-shaft 16 in one direction, after which the rear edge of the body portion 4 is applied against the heel-calks 2 of the horseshoe and the body 4 is laid flat against the under side of the shoe, as shown in Fig. 3. The screw 23 is then turned so as to bring its head in engagement with the inner face of the shoe, and thereby to press the rear edge 6 of the body firmly against the heel-calks 2, or in other cases to clamp the toe portion of the shoe between the head of the screw and the upturned projections 5 of the attachment. The shaft 16 is thereupon turned in an opposite direction, so as to cause the slide-blocks 12 to be moved away from each other and to bring their overhanging or hook-shaped portions 15 into engagement with the beveled or inclined surfaces 3 3 of the horseshoe. When desired, the slide-blocks 12 may also be readily removed from the body portion 4 by moving them so far toward each other that their arms 14 correspond with the expanded parts 11 of the guide-slots; but ordinarily said slide-blocks are securely held in place upon the body of the attachment and cannot be detached therefrom accidentally.

The improved attachment constructed as above described is not merely of a simple and inexpensive nature, but it is also adjustable to various forms and sizes of horseshoe, and being readily removable from as well as applicable to the horseshoe permits of quickly accommodating the horse to various conditions without necessitating changing of the shoes themselves. Moreover, the construction of the improved attachment is such as to offer not the least pressure upon the frog of the horse's hoof, and its under side presents a smooth appearance, so as not to afford lodgment for stones and the like. It will also be obvious from the above description that the device is capable of considerable modification without material departure from the principles and spirit of the invention, and for this reason I do not wish to be understood as limiting myself to the precise form and arrangement of the several parts of the improved attachment herein set forth.

Having thus described my invention, I claim—

1. In a device of the character described, the combination of a body portion having calks and provided with guide-slots each formed with an expanded part extended through the body portion, a slide-block insertible in the expanded portion of and movable along each guide-slot for engagement with a horseshoe, and a shaft held to turn on the body portion and having oppositely-screw-threaded end portions each engaged with one of said devices for moving the said devices in opposite directions, substantially as set forth.

2. In a device of the character described, the combination of a body portion having calks and provided with guide-slots having expanded portions, slide-blocks insertible in the expanded portions of the guide-slots and movable along the slots in position to engage a shoe, and means to move said slide-blocks, substantially as set forth.

3. In a device of the character described, the combination of a body portion having guide-slots and provided with ribs arranged between the slots and recessed on the under side of the body portion, slide-blocks movable along the guide-slots, a shaft having its central part held in the recesses of the ribs and its end portions oppositely screw-threaded and engaged with the slide-blocks, and an enlargement on the shaft between the ribs, substantially as set forth.

4. In a device of the character described, the combination of a body portion having calks and provided with guide-slots each having an expanded portion, slide-blocks each insertible in the expanded portion of and movable along one of the guide-slots for engagement with a horseshoe, and means to move the slide-blocks, each slide-block having lateral projections at top and bottom adapted for engagement, along the edges of its guide-slot, with the upper and lower surfaces of the body portion to hold said slide-block in position in its slot, substantially as set forth.

5. In a device of the character described, the combination of a body portion having calks and provided with devices for engagement with a horseshoe, a shaft held to turn and provided with a central enlargement and oppositely-screw-threaded end portions each engaged with one of said devices for moving the said devices in opposite directions, and ribs upon the body portion for engagement

upon opposite sides of the enlargement of the shaft to hold the shaft against endwise movement, substantially as set forth.

6. In a device of the character described, the combination of a body portion having means to engage a horseshoe, and a screw having threaded engagement with the forward part of the body portion and provided with a head adapted for turning engagement with the forward part of the horseshoe to press the body portion rearwardly to engage its devices with the horseshoe, substantially as set forth.

7. In a device of the character described, the combination of a body portion having calks, devices carried by the body portion and movable relatively to each other for engagement with opposite sides of a horseshoe to hold the body portion in place thereon, means to move said shoe-engaging devices relatively to each other, and a device carried on the body portion and movable for engagement with the forward part of the horseshoe, substantially as set forth.

Signed by me at Cincinnati, Ohio, this 19th day of July, 1900.

JOHN N. CLARKE.

Witnesses:
JOHN ELIAS JONES,
JOHN RANKIN.