(No Model.)

## E. P. ROGERS.

HORSESHOE.

No. 339,583.

Patented Apr. 6, 1886.

Fig. 1.

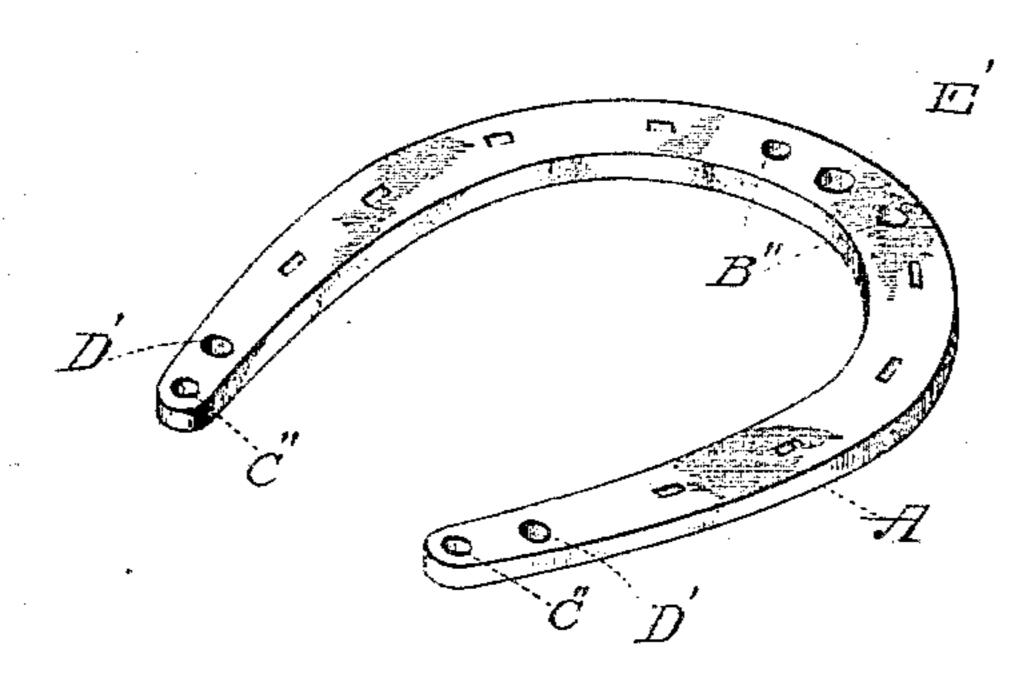


Fig. 2.

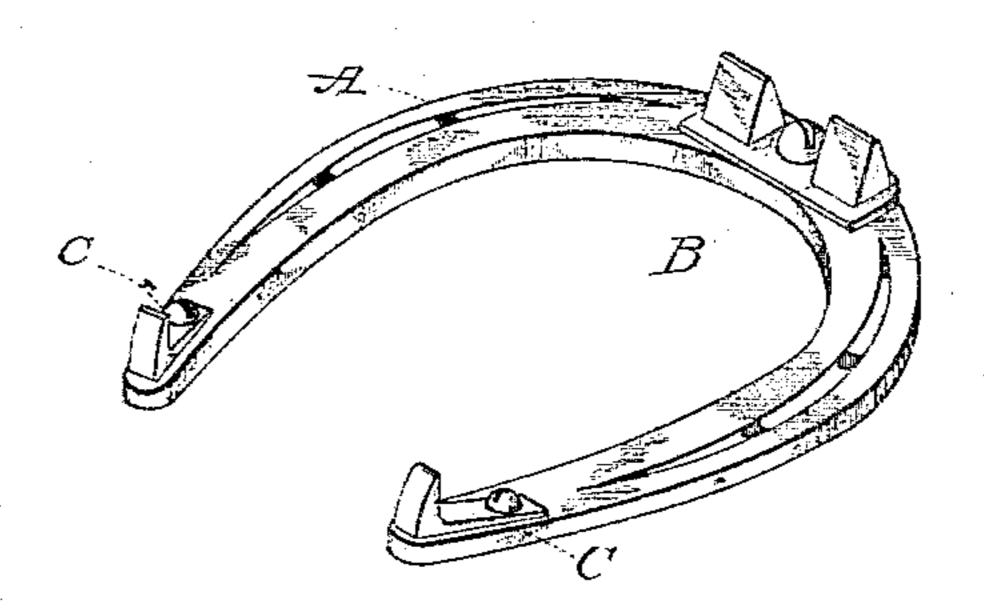


Fig. 3

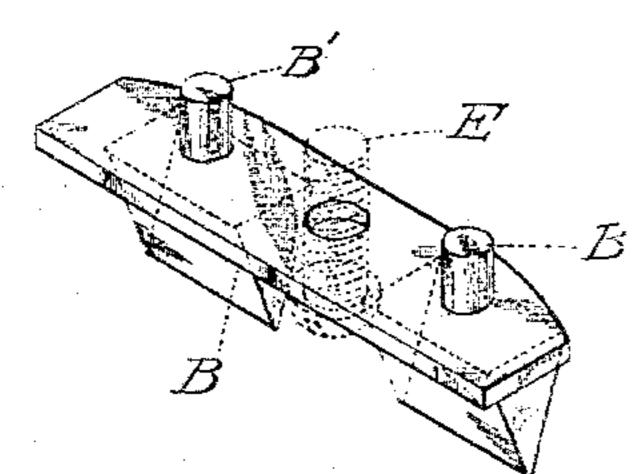
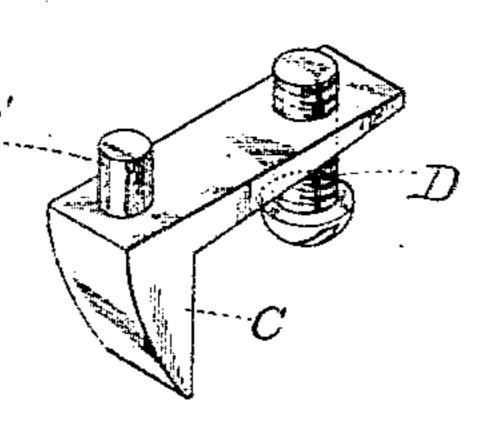


Fig. 4.



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## UNITED STATES PATENT OFFICE.

## EDMUND P. ROGERS, OF HYDE PARK, NEW YORK.

## HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 339,583, dated April 6, 1886.

Application filed February 28, 1885. Serial No. 157,418. (No model.)

To all whom it may concern:

Be it known that I, EDMUND P. ROGERS, a citizen of the United States, residing at Hyde Park, in the county of Dutchess and State of New York, have invented a new and useful Horseshoe; and the following is a clear and

exact description of it.

At present many horses are injured by calking themselves while standing in the stable, 10 owing to the fact that calks are made permanent parts of the shoe, not removable without removing the shoe. I produce a shoe from which the calks may be stripped in a moment and replaced as speedily without injuring the 15 calks or removing the shoe. The horse is allowed the comfort of standing on his flat foot in the stable, his hoofs and ankles protected from the unnatural strain of standing upon the sharp points, and he cannot cut or injure 20 himself or others by the sharp calks. Many horses while being treated for ailment require the removal of heel-calks or toe-calks in order to secure a desired position of the foot, which can be done in the stable without the time, 25 trouble, or expense of a blacksmith.

The nature and object of my invention is to produce a horseshoe from which the calks may all be removed and replaced by the groom in the stable without the removal of the shoe, and of such construction as to be strong, durable, reliable, light, and inexpensive. The calks can be removed and sharpened at any time, or new ones substituted for those worn or dulled. With a common file and vise the groom can sharpen the calks as occasion re-

quires.

My invention consists in the construction of a shoe and calks, the latter being adjustable, interchangeable, and of such simple and du-40 rable mechanism that without the removal of the shoe the horse may have calks or be free from them, at the option of the groom, in a moment's time. I attain these objects by constructing the horseshoe in the ordinary man-45 ner, without calks, and through each of the heels of the shoe I pass round or square dowelholes about one-fourth of an inch in diameter, and about three-fourths of an inch from each of these I put screw-holes, for the purpose 50 of holding the flange of the heel-calk to the shoe. I insert two round or square dowelholes in the toe of the shoe about one inch and

a half apart, of the same size as those above named, for the toe-calk dowels to enter, and between them and just out of their range I 55 place a screw-hole similar to those in the heels of the shoes, through which a screw holds the plate of the toe-calks in contact with the shoe. My calks have dowels directly under their points, which fit closely the holes in the shoe. 60 The toe-calks are double, made of steel, swaged or forged into the shape shown in the drawings, and are brazed into a plate of steel pierced for their reception, which is from two and onehalf to three inches long, and of about the width 65 of the shoe, and nearly as thick. These calks may be keyed upon the shoe instead of being fastened by a screw. Screws of length equal to the thickness of the shoe are placed in the threaded holes when the calks are removed, 70 to preserve and keep clean the threads of the socket.

I attain great strength in my toe-calks, as I make the entire plate a shoulder to hold the calk in position, and their peculiar construction avoids the breaking tendency in calks welded on the shoe, as the shoulder of the calk bears both against forward or backward motion.

I will now explain my invention with ref- 80 erence to the accompanying drawings, which form a part of this specification.

Figure 1 is a face view of the shoe, which is made slightly broader at the toe, to enable the holes to be placed in a triangular position, thereby securing great strength. Fig. 2 is a face view of the shoe with the calks in position ready for use. Fig. 3 is a view of the toecalks and screw. Fig. 4 is a view of the heel-calk with screw detached from the shoe.

A shows the shoe.

B shows the toe-calk and plate.

C shows the heel-calk.

D shows the screw or lug for fastening the heel-calk to the shoe.

E shows the key-hole in the lug, and E' its hole in the shoe; E', key to hold the lug.

B' shows the dowels for the toe-calks; B", their holes or sockets in the shoe.

D' shows the threaded holes for the heel- ic calks through the shoe.

D" shows the key for holding the lug in the heel-calk.

C' shows the dowel for the heel-calk.

C" shows holes in the heel of shoe for lugs

or dowels of heel-calks.

The operation of my shoe is so simple that it scarcely needs further explanation. When 5 the horse is taken to the stable, I remove the calks with a pair of pliers or socket-wrench or screw-driver by taking out the screws and replacing short ones in their places. When the calks are to be put on, these screws are 10 removed and the dowels of the calks inserted in their places and their screws or keys put in position.

The utility of my invention consists in the facility with which my calks are inserted or 15 removed, their strength and durability, the saving of expense, and the avoiding of all removals of the shoe, except for paring the hoof, the comfort to the horse of standing on his flat shoe, except on slippery roadways, no 20 calks being necessary, and the ability to remove at pleasure one or more of the calks and

not change the shoe.

The toe-calks are brazed into and fast upon the plate to prevent them from dropping out.

Having thus described my invention, what I 25 claim, and desire to obtain Letters Patent for, 1S--

- 1. The toe-calk B, composed of a plate and two calks fastened to it, the calks having dowels under their bearings, which extend 30 through the plate and shoe, and the plate provided with a screw-hole between the calks, as shown and described, and for the purposes set forth.
- 2. A horseshoe, in combination with the 35 removable toe-calk B, which toe-calk is composed of a plate and two calks fastened to it, the calks having dowels under their bearings, which extend through the plate and shoe, and the plate provided with a screw-hole between 10 the calks, as shown and described, and for the purposes set forth.

EDMUND P. ROGERS.

Witnesses:

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