D. A. SHAFFER.

REMOVABLE HORSESHOE CALK.

APPLICATION FILED SEPT. 25, 1908.

924,586. Patented June 8, 1909.

Fig. 2.

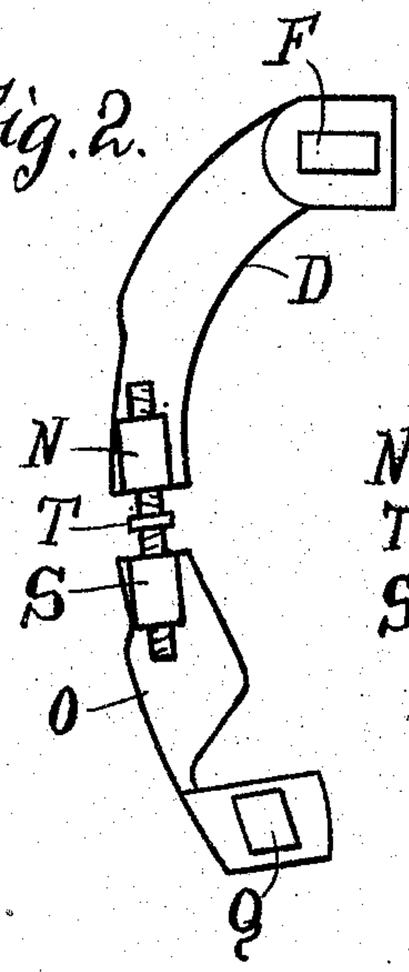


Fig. 1.

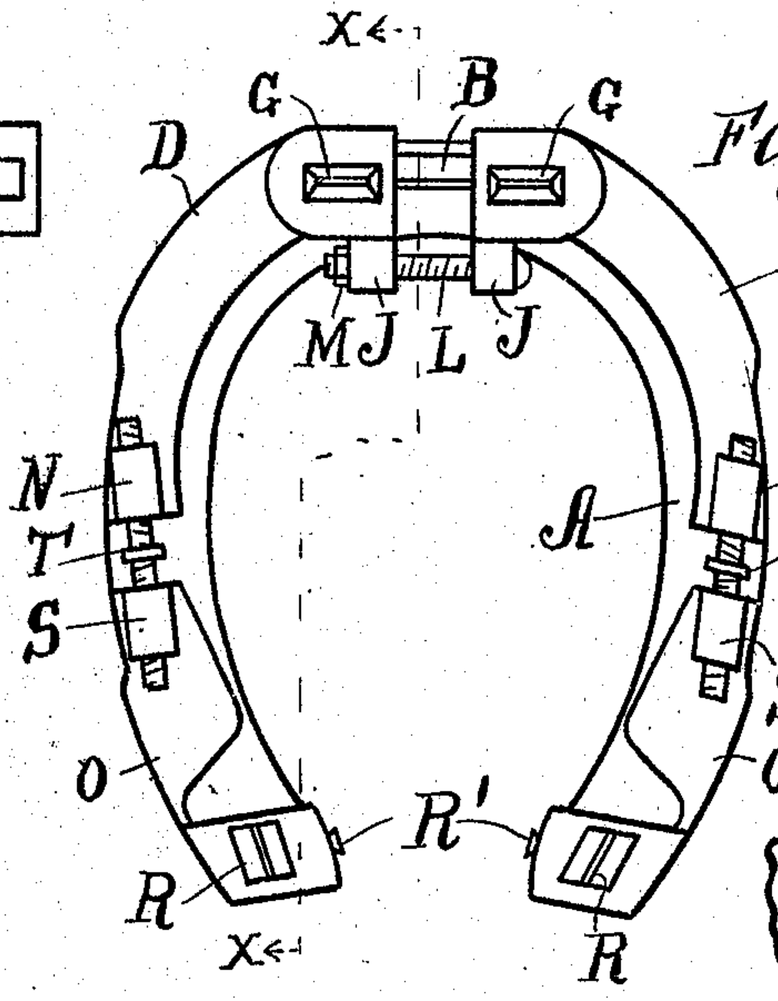


Fig. 5.

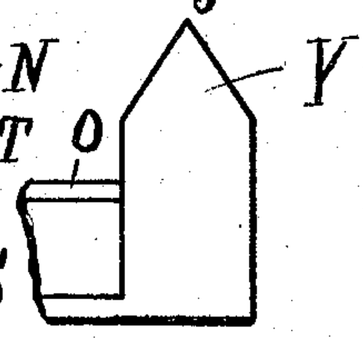


Fig. 6.

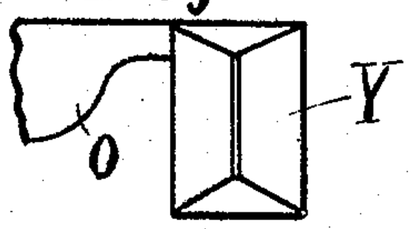


Fig. 7.

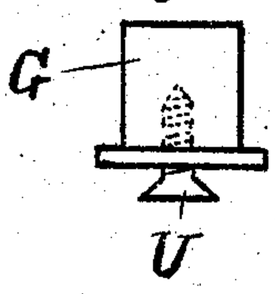


Fig. 3.

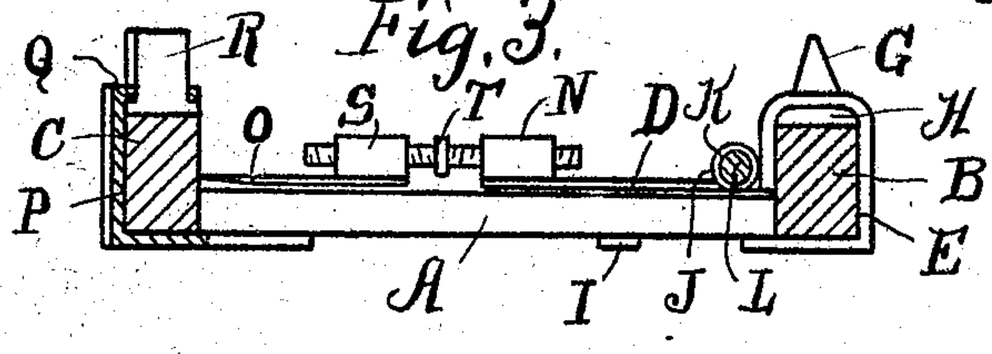
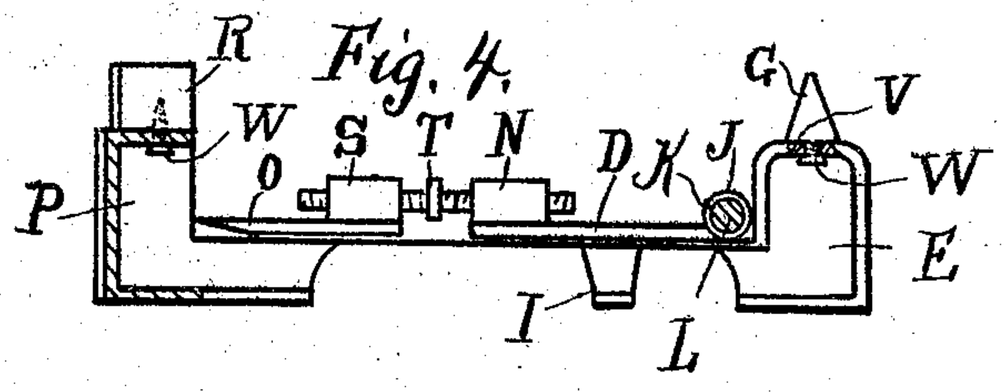


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

DAVID A. SHAFFER, OF HARRISBURG, PENNSYLVANIA.

REMOVABLE HORSESHOE-CALK.

No. 924,586. Specification of Letters Patent. Patented June 8, 1909.

Application filed September 25, 1908. Serial No. 454,747.

To all whom it may concern:

Be it known that I, DAVID A. SHAFFER, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented a certain new and useful Improvement in Removable Horseshoe-Calks, of which the following is a specification.

My invention relates to a new and useful improvement in removable horseshoe calks, and has for its object to provide an exceedingly simple and effective device of this character whereby the calks may be readily removed when so desired.

A further object of my invention is to provide a removable calk for horseshoes in which the calk when it has been worn down may be removed and a new one put in its place.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a bottom plan of the calk applied to a horseshoe. Fig. 2, a bottom plan of the plate to which the calks are applied. Fig. 3, a section at the line *x*—*x* of Fig. 1. Fig. 4, a similar view of a slightly modified form of my improvement, the calk being removed from the horseshoe. Fig. 5, a side elevation of a portion of a still further modified form of my invention. Fig. 6, a bottom plan view thereof, and Fig. 7, a side elevation of one of the calks proper, showing a means for adjustment applied thereto.

In carrying out my invention as here embodied, A represents a horseshoe of the ordinary form and construction, having a toe calk B and heel calks C formed therewith. The removable toe calks are carried upon the plates D, which have cavities formed with their forward ends, and in the bottom of these cavities are formed the apertures F for the reception of the toe calks G, said calks having a flange H formed around their upper ends so that when they are placed in the cavity and extend through the aperture the flange will prevent them from passing out of the cavity. The plates have upwardly extending projections I which lap over the upper edge of the horseshoe, thus assisting in holding the plates to said horseshoe.

Formed on the inside of the forward ends of the plate D are the lugs J, having an opening K passing through them. Through these lugs is passed a screw or bolt L, on the end of which is threaded a nut M, and the farther said nut is threaded on the bolt the tighter the forward ends of the plate D will be drawn together. On the upper face of the rear ends of these plates D are formed the threaded lugs N for the purpose to be hereinafter described.

O denotes the plates to which the heel calks are attached having the cavity P formed therewith, in the bottom of which is an aperture Q through which passes the heel calks R formed similar to the toe calks G, and if found necessary set screws R′ may be used to assist in holding the rear calks in place.

To the forward ends of the rear plates O are pivoted the threaded lugs S, and in order that the rear plates may be fastened and drawn up to the forward plates D, the turn buckles T having a right and left hand thread formed thereon are threaded into the threaded lugs N and S, and by turning the turn buckles T the plates will be drawn toward one another, which will securely hold them upon the shoe.

In practice, the forward plates D with the calks G therein are placed upon the shoe so that said calks rest upon the shoe calks B, which will prevent the calks G from falling into the cavity E, and the flange H will prevent the calks from leaving the cavity.

When the plates D are in place the rear plates O having the calks R are placed therein, the turn buckles T first being loosened are then swung around until they assume the position shown in Fig. 1, at which time the heel calk of the shoe will have entered the cavity P and the plates O may be swung from side to side because the lugs S are pivoted thereto. After these plates are in position the turn buckles T are tightened and the nut M threaded farther on the bolt L which will draw all the parts toward one another, tightening and securely holding them on the shoe, and by loosening the turn buckles and the nut M the plates and calks may be removed from the shoe.

As is sometimes the case the horseshoe might be used a while before the weather is

such that sharp calks are needed, in which case the heel and toe calks on the shoe may have been worn to a certain extent, it is then found desirable to place an adjusting screw U in the central portion of the top of the calks, and by threading them a suitable distance into said calks it will take up the space between the top of the calk and the bottom of the calks on the shoe, the head of the screw resting against the shoe calks.

In my modified form of improvement as shown in Fig. 4, I form in the bottom of the cavities E and P screw receiving openings V, through which is placed a screw W, said screw being threaded into the calks which hold the calks to the plates against the outside of the bottoms of the cavities.

In my modified form as shown in Figs. 5 and 6, I have formed the calks Y integral with the plates D and O, so that as they wear down the plates are removed from the shoe in order that the calks may be sharpened, and when they have worn completely away new plates must be substituted for the old ones.

Of course I do not wish to be limited to the exact details here shown as these may be varied within certain limits without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful, is—

1. In a removable calk, the combination of two forward plates having cavities formed with their forward ends in the bottom of which are formed apertures, detachable calks placed in said cavities extending through the apertures, rear plates having cavities formed with their rear ends; in the bottom of which are formed apertures, detachable calks placed in said cavities and extending through the apertures, lugs having openings formed therein formed on the inside of the forward end of the forward plates, other lugs having threads therein formed on the bottom surface of the rear ends of the forward plates, other lugs having threads therein pivoted to the forward ends of the rear plates, a bolt passing through the first named lugs, a nut threaded on said bolt for drawing the forward ends of the forward plates together and turn buckles having right and left hand threads thereon threaded into the other lugs for drawing the forward and rear plates toward one another thus tightening and fastening the plates to the shoe.

2. In a removable calk, the combination of a number of plates, means for securing said plates to a horseshoe, calks detachably secured to the plates and a screw threaded in the top of the calks for compensating for the wear upon the horseshoe, as shown and described.

3. The combination with a horseshoe having heel and toe calks of forward plates, having cavities formed in their forward ends, the bottoms of which have apertures formed therein, calks having flanges formed on the top thereof, said calks adapted to pass through the apertures and rest on the inside surface of the bottoms of the cavities and the tops of the calks rest against the toe calk formed with the shoe, rear plates having cavities formed with the rear ends thereof, the bottoms of which have apertures formed therein, calks placed in said cavities extending through the apertures, the top of which rests against the bottom of the heel calks of the shoe, means for adjusting the calks to compensate for the wear of the shoe calks, lugs having openings formed therein formed on the inside surface of the forward ends of the forward plates, a bolt passing through said lugs, a nut threaded thereon, threaded lugs formed with the rear ends of the forward plates, other threaded lugs pivoted to the forward ends of the rear plates and turn buckles having right and left hand threads formed thereon threaded into the threaded lugs.

4. In combination with a horseshoe, four plates having upwardly projecting extensions formed therewith adapted to extend over the top of the shoe calks secured to said plates, lugs formed with said plates and means attached to said lugs for securing the plates to the shoe, as shown and described.

In testimony whereof, I have hereunto affixed my signature in the presence of two subscribing witnesses.

DAVID A. SHAFFER.

Witnesses:

WILLIAM HOLLANDS,

F. R. HINLEGAS.