

J. W. SHOOK.
HORSESHOE.
APPLICATION FILED FEB. 25, 1911.

1,031,476.

Patented July 2, 1912.

Fig. 5.

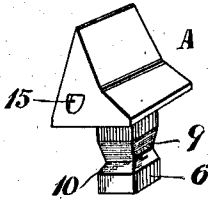


Fig. 6.

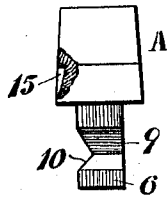


Fig. 7.

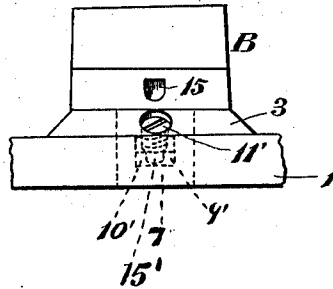


Fig. 2.

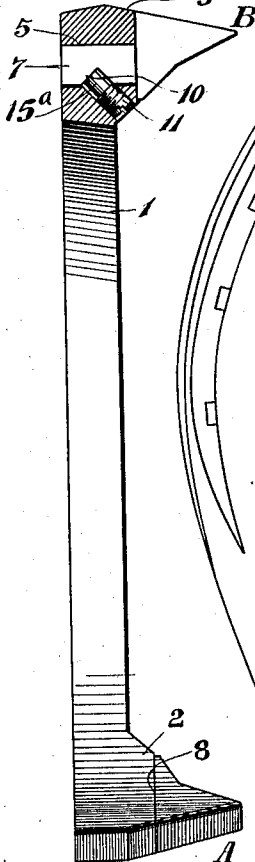


Fig. 1.

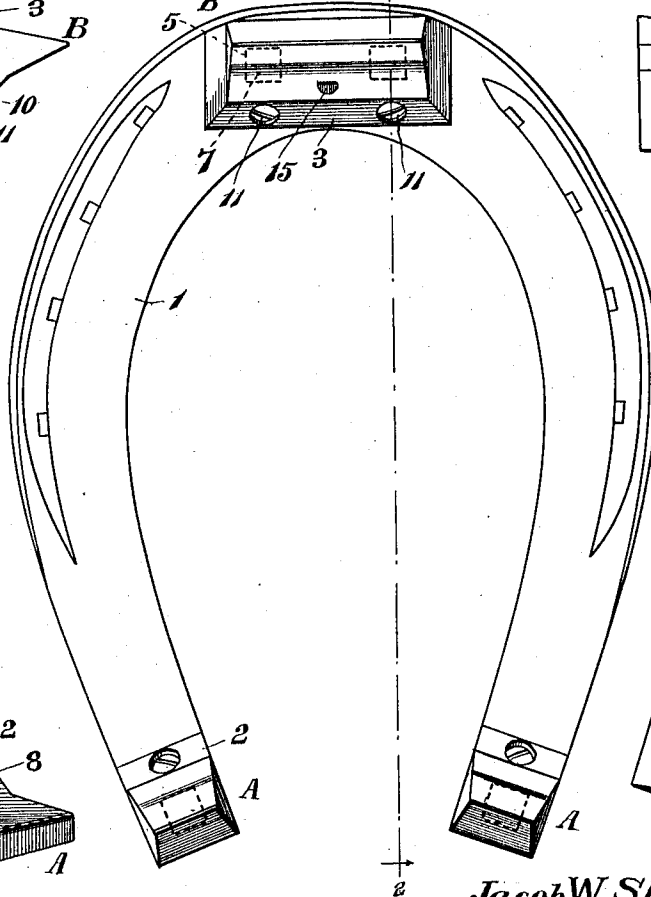


Fig. 3.

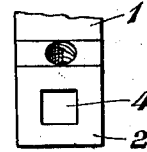
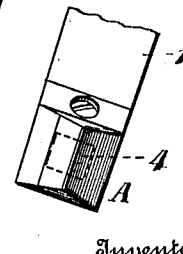


Fig. 4.



Jacob W. Shook

Witnesses

Thos. F. Knox,
Wm. Bagger

By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

JACOB W. SHOOK, OF MUNCY, PENNSYLVANIA.

HORSESHOE.

1,031,476.

Specification of Letters Patent.

Patented July 2, 1912.

Application filed February 25, 1911. Serial No. 610,754.

To all whom it may concern:

Be it known that I, JACOB W. SHOOK, a citizen of the United States, residing at Muncy, in the county of Lycoming and State of Pennsylvania, have invented new and useful Improvements in Horseshoes, of which the following is a specification.

This invention relates to horseshoes, and particularly to horseshoes which are provided with detachable calks to prevent slipping on smooth and slippery roads or pavements.

The particular object of the invention is to provide an improved construction whereby the calks may not only be securely fastened and held in position, but whereby the calks may be readily retightened when, for any reason, they have become loose, thereby adding to the safety of the device and increasing the life of the shoe and calks.

A further object of the invention is to provide a construction whereby the heel calks may be turned or reversed to present the engaging edges of the calks longitudinally or transversely of the shoe, as may be desired.

Still further objects of the invention are to simplify and improve the general construction and operation of the device.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claim.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claim may be resorted to when desired.

In the drawing—Figure 1 is a bottom plan view of a horseshoe constructed in accordance with the invention. Fig. 2 is a sectional view taken on the plane indicated by the line 2—2 in Fig. 1. Fig. 3 is a detail top plan view of the heel end of the shoe. Fig. 4 is a detail bottom plan of the heel end, showing the heel calk in a reversed position. Fig. 5 is a perspective detail view of one of the heel calks detached. Fig. 6 is a side view partly in section of the same. Fig. 7 is a detail view in elevation of the

toe of the shoe as seen from the rear, and showing a slight modification.

Corresponding parts in the several figures are denoted by like characters of reference.

The body 1 of the shoe, which may be drop-forged in the usual manner, is provided or formed with projections or bosses 2, 3 at the heel and toe to afford seats for the heel and toe calks, designated, respectively, A and B. The inner faces of the several bosses, that is to say, the front faces of the bosses 2 and the rear face of the boss 3 are formed obliquely to the under face of the shoe from which they project. The thickened portions of the body of the shoe where the bosses are located are provided with apertures 4 and 5 for the passage of the shanks or tangs 6 and 7 of the heel calks A and the toe calk B, respectively. The apertures 4 and the tangs 6, as well as the apertures 5 and the tangs 7, are made of equal cross sectional contour and area throughout to enable the base of each calk to be squarely and firmly seated upon the boss or projection of the shoe. The shanks 6 of the heel calks A are square in cross section, enabling said calks to be placed with their engaging edges 8 disposed transversely or longitudinally of the shoe, as may be desired, and as indicated, respectively, in Figs. 1 and 4 of the drawing. Two adjoining faces of the tang or shank 6 are provided with angular or V-shaped notches or recesses 9 forming shoulders or offsets 10, one of which is adapted to be engaged by the reduced engaging end 15^a of a fastening screw 11 which is inserted through the oblique face of the boss 2 upon which the heel calk is applied, the axis of the screw 11 being disposed at right angles to the face of the shoulder or offset 10, and the latter being preferably in approximate parallel relation to the oblique face of the boss 2. The heel calk may thus be safely retained in position when adjusted with its engaging edge either longitudinally or transversely of the shoe.

The toe calk is provided with a tang or with a plurality of tangs 7 similar to the tangs of the heel calks, except that, as said toe calk does not require to be reversed, only one face of said calk needs to be provided with a V-shaped or angular recess, here designated 9', whereby a shoulder or offset 10' is formed, such shoulder or offset being adapted to be engaged by the reduced

engaging end 15' of a fastening screw 11' inserted through the oblique face of the boss or projection 3.

Each of the several calks is provided with an obliquely disposed notch or recess 15 adapted to be engaged by a suitable tool, whereby the calk may be detached from the shoe when desired, the fastening screw having been previously loosened or detached. The notch 15 is formed in the rear face of the toe calk and in the rear or outer faces of the heel calks to enable said notches to be conveniently accessible.

From the foregoing description, taken in connection with the drawing hereto annexed, the operation and advantages of this invention will be readily understood.

The calks may be readily applied to or detached from the shoe. Should any of the calks become loosened by wear, a slight tightening of the fastening screw by means of an ordinary screw driver will drive the tang or shank in an inward direction, thereby firmly tightening the body of the calk upon the boss which constitutes the seat or base and holding it securely and free from rattling. In order that this may be properly accomplished it is obviously important that the tangs or shanks of the calks, as well as the receiving apertures for said tangs or shanks be of equal cross sectional contour and area throughout, because the bosses of the calks may then at all times be made to squarely engage the faces of the bosses or projections. The fastening screws are made

of a diameter not exceeding the diameters of the threaded bores wherein they operate, and they are made of proper length to enable the notched ends of said screws to be sunk in the shoe and thereby avoiding obstructing projections. The reduced engaging ends of the fastening screws will clear the lower faces or angles of the V-shaped or angular recesses in the tangs of the calks without obstructing the resetting or retightening of the calks when necessary.

Having thus described the invention what is claimed as new, is:—

A horse shoe having a boss with an obliquely disposed face and an aperture extending therethrough, said aperture being of equal contour and cross sectional area throughout, a calk having a shank engaging the aperture, said aperture being of equal contour and cross sectional area throughout, and said shank being provided with a V-shaped recess having inclined faces, and a fastening screw extending through the oblique face of the boss and engaging the upper inclined face of the V-shaped recess approximately at right angles to said face, said fastening screw having a reduced engaging end that clears the lower face of said V-shaped recess.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB W. SHOOK.

Witnesses:

WM. BAGGLE,
BENNETT S. JONES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."