

C. E. MARKOWSKI.  
HORSESHOE SAFETY DEVICE.  
APPLICATION FILED FEB. 5, 1910.

977,812.

Patented Dec. 6, 1910.

Fig. 1.

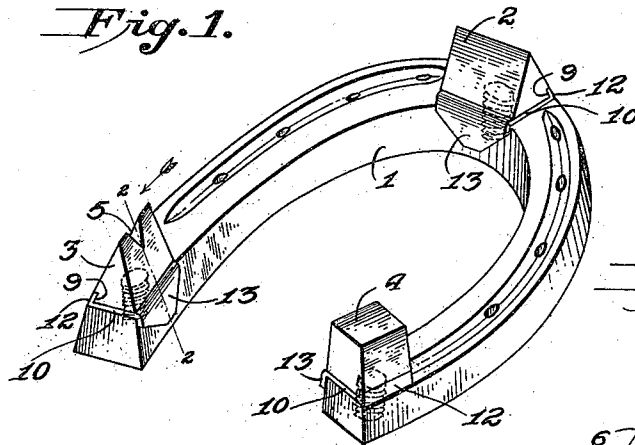


Fig. 3.

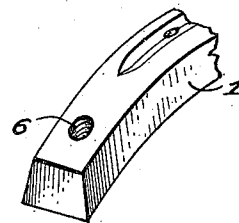


Fig. 2.

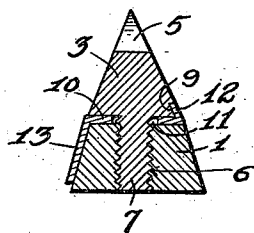


Fig. 6.

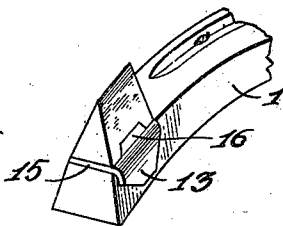


Fig. 5.

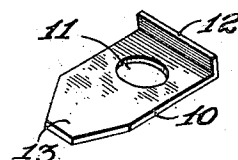


Fig. 4.

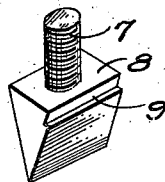


Fig. 7.

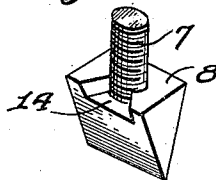
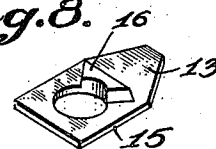


Fig. 8.



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# UNITED STATES PATENT OFFICE.

CONSTANTI E. MARKOWSKI, OF WASHINGTON, DISTRICT OF COLUMBIA.

HORSESHOE SAFETY DEVICE.

977,812.

Specification of Letters Patent.

Patented Dec. 6, 1910.

Application filed February 5, 1910. Serial No. 542,185.

*To all whom it may concern:*

Be it known that I, **CONSTANTI E. MARKOWSKI**, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Horseshoe Safety Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to horseshoes, and the principal object of the same is to provide novel calks therefor which may be rigidly locked to the body of the shoe, but can be manually released when necessary or desirable.

In carrying out the object of the invention generally stated above it will be understood, of course, that the essential features thereof are necessarily susceptible of changes in details and structural arrangements, certain practical embodiments of which are shown in the accompanying drawings, wherein:—

Figure 1 is a perspective view of a horse-shoe the calks of which are locked thereto in accordance with this invention. Fig. 2 is a sectional view taken on the line 2—2, Fig. 1. Fig. 3 is a detail perspective view of one heel of the horseshoe. Fig. 4 is a perspective view of a calk of the preferred embodiment of the invention. Fig. 5 is a perspective view of the locking plate employed in connection with the preferred form of the invention. Fig. 6 is a detail fragmentary perspective view of one heel of the shoe showing a modified calk and locking plate. Fig. 7 is a detail perspective view of the modified calk. Fig. 8 is a similar view of the modified locking plate.

Referring to the accompanying drawings by numerals, and particularly to Figs. 1, 2, 3, 4 and 5 thereof, it will be observed that the improved horseshoe comprises a body 1 equipped with the toe calk 2, and heel calks 3—4. Toe calk 2 and heel calk 3 have been shown as composed of a tapering body to provide a sharpened outer end, and in addition the sharpened end of heel calk 3 has been provided with a central notch 5. Said toe and heel calks 2—3 are of the anti-slip type. Heel calk 4 has its outer end flattened. This variety of types of calks has been shown to illustrate a few of the many types that may be employed, all of which are connected to the shoe in the same manner.

The heels of the shoe are each provided with

a threaded opening 6 and the toe is similarly provided with a threaded opening, said openings receiving the threaded shanks 7 of the calks. Each calk has a flat surface 8 from which the shank projects, and one side of said flat surface is cut-away to provide a seat 9.

A locking plate or washer 10 is interposed between the calk and the shoe body, said plate being provided with a central opening 11 through which the calk shank passes and a free end portion that is adapted to be bent at right angles to the body of the plate to provide a holding flange 12 that enters the seat 9 of the calk. The other end of said plate is adapted to be bent in an opposite direction to provide a flange 13 and overlaps one side of the body of the shoe.

In assembling the invention, the plate is placed over the shank of the calk with its holding flange 12 engaging the seat 2, and the calk is then firmly screwed to the shoe body. When in proper position, the body engaging flange 13 is bent over the inner side of the shoe body, thereby holding the calk from rotation. To release the calk, flange 13 is disengaged from the body after which the calk may be readily unscrewed from the body.

In Figs. 7 and 8, the calk is provided with a substantially V-shaped recess 14 to one side of its shank, and the locking plate 15 is provided with a similarly shaped lug 16 for interlocking engagement with said recess. Said lug partly surrounds the shank opening of the plate and has its inner surface curved to conform to the contour of said opening. In this form of the invention, the plate is placed over the shank and its lug interlocked with the recess after which one end of the plate is bent over the inner side of the shoe body, in the manner described in connection with the preferred form of the invention.

It will be seen from the foregoing that in both forms of the invention, the calks may be locked to the shoe body so that danger of the same becoming loose is obviated, yet the calks may readily be released when necessary by disengaging the flange 12 from the body of the shoe.

What I claim as my invention is:—

In combination with a horse shoe having a threaded opening; a calk having a body portion provided with a basal face having a threaded stem projecting therefrom and engaged in the opening in said shoe, said face

being rabbeted along the entire length of one edge, a locking plate held on said stem between said face and the horse shoe, a flange on said plate engaging in and completely  
5 filling said rabbet, said flange being held entirely in the rabbet, whereby the calk protects the flange from action by the ground and access is had to the ends of the flange,

and a second flange formed on said plate and engaging the side of the shoe.

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

CONSTANTI E. MARKOWSKI.

Witnesses:

EDWARD W. CADY,  
J. STEWART RICE.