

(No Model.)

F. E. McCARTHY.  
HORSESHOE.

No. 570,493.

Patented Nov. 3, 1896.

Fig. 9.

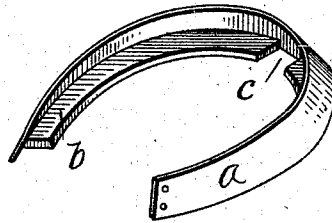


Fig. 1.

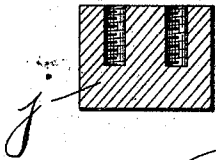


Fig. 2.

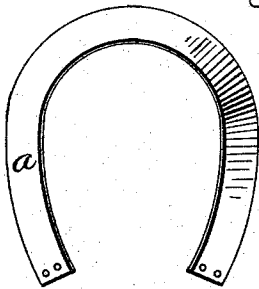


Fig. 3.

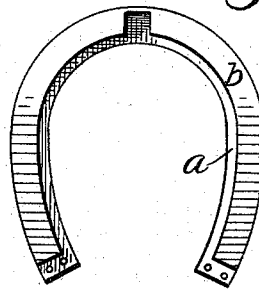


Fig. 4.

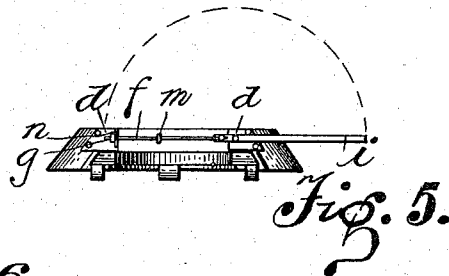
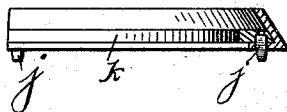


Fig. 5.

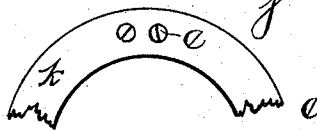


Fig. 6.

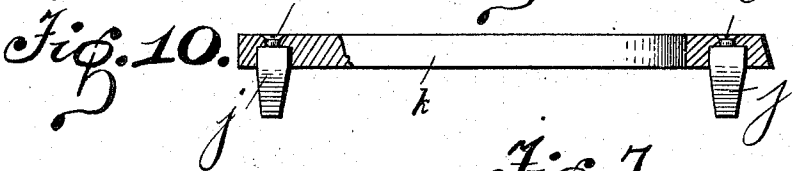


Fig. 10.

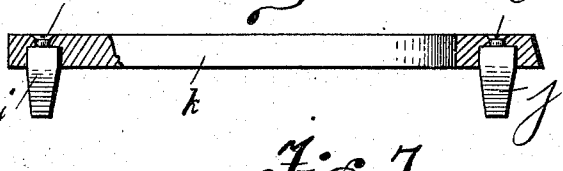


Fig. 7.

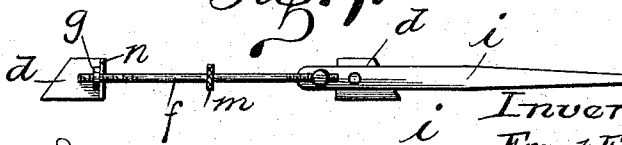


Fig. 8.

Witnesses:

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A. M. Wilson

Inventor:

Frank E. McCarthy

By

Henry L. Covert Atty.

# UNITED STATES PATENT OFFICE.

FRANK E. McCARTHY, OF ALLEGHENY, PENNSYLVANIA.

## HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 570,493, dated November 3, 1896.

Application filed February 29, 1896. Serial No. 581,315. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK E. McCARTHY, a citizen of the United States of America, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Horseshoes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in horseshoes, and has for its object the provision of new and novel means whereby the shoe may be attached to the foot without the use of nails.

15 The invention has for its further object to construct a horseshoe of the above-described class that will be extremely simple in its construction, strong, durable, effectual in its operation, and comparatively inexpensive to manufacture; furthermore, to construct a horseshoe as above described having removable calks and toes and that can be easily and quickly attached to and detached from the foot.

25 With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangements of parts to be hereinafter more specifically pointed out, and described in the claims.

30 In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like letters of reference indicate similar parts throughout the several views, in which—

35 Figure 1 is a perspective view of the band and supporting-plate of the shoe. Fig. 2 is a top plan view of the same. Fig. 3 is an underneath plan view of the band and supporting-plate. Fig. 4 is a longitudinal sectional view of the plate, showing the shoe in position. Fig. 5 is a rear view. Fig. 6 is a horizontal sectional view showing the manner of securing the calks. Fig. 7 is a plan view of the securing mechanism. Fig. 8 is an enlarged view of a portion of the same, partly in section. Fig. 9 is a vertical sectional view of one of the calks. Fig. 10 is a top plan view of a portion of the shoe.

45 In the drawings, *a* represents the spring-band, which is inclined inwardly and adapted to fit the hoof of the horse. At the base of

this band is provided an interior flange *b*, having a cut-away portion *c* to receive the toe. The spring-band extends at the heels sufficiently far past the flange to allow the heel-calks to fit in the same manner as the cut-away portion *c*, provided for the toe. Holes are provided in the ends of the spring-band for the reception of the rivets for securing the plates *d d* to the band. One of these plates is provided with an outwardly-extending flange adapted to receive a screw-threaded locking-bolt *f*, which is provided with a nut *g*. The other end of the locking-bolt engages in a bolt *h*, which is pivotally connected to the locking-lever *i*, said lever being pivotally connected to the plate *d*.

The calks *j j* are adapted to fit in recessed portions in the underneath side of the shoe *k*, and are retained in position by screws *e e*, inserted through the shoe from the top and engaging in screw-threaded holes in the calks. The holes through the shoe for these screws are recessed, so as to allow the top of the same to be flush with the top of the shoe. One end of the locking-bolt *f* is provided with a right-hand thread and the other with a left hand and near the center is provided a thumb-nut *m*, and a latch *n* is provided on the flange of the plate *d*, opposite the lever which engages the same when the shoe is locked and holds the lever in this position.

In practice the spring-bands will be made in different sizes in the same manner as is now the custom to make the shoes in the different sizes, and when it is desired to attach the shoes the shoe proper is placed within the band and rests on the supporting-flange, the toe engaging the cut-away portion *c* and the calks engaging the rear end of the flange *b*. The foot is then placed on the shoe, and the spring-band, being shaped similar to the hoof, will conform to the same to retain the shoe. The thumb-nut can then be turned with the thumb and fingers, drawing the two ends of the spring-band together, and when taut the operating-lever is operated and will engage in the latch on the opposite plate, which will force the two ends of the spring-band together and securely lock the shoe to the foot. By this construction the shoe may be detached from the horse while standing

in the stable at night or other times, thus resting the feet and preventing injury to the feet by a shoe being nailed on in an improper manner, very often resulting in lameness and perhaps permanent injury to the animal. The dispensing with the nails will also lessen the danger of injury to the horse, as serious injury has been occasioned by the nails protruding into the feet, and I further desire to call particular attention to the advantage obtained by my improved shoe in case of icy streets or roads, as should the calks and toes be used for the ordinary condition of the roads, the shoes can be readily detached from the hoof and the calks removed and pointed or sharpened ones substituted therefor.

It will be noted that various changes may be made in the details of construction of my improved horseshoe without departing from the general spirit of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a horseshoe, the combination of the spring-band shaped to conform with the hoof, and an inner flange at the base of said band forming a support for the shoe, cut-away portions in said flange to receive the calks and toes, plates secured to the ends of the spring-band and carrying an adjustable locking-rod having a right-hand thread on one end and a left-hand thread on the reverse end, and a

thumb-nut for adjusting, substantially as shown and described.

2. In a horseshoe, the combination of the spring-band and flange supporting the shoe proper, said shoe being provided with removable calks and toes secured therein by screws through the shoe, an adjustable locking-bolt supported at one end by a plate secured to one end of the band and at the other end connected to a bolt pivotally attached to a locking-lever, said lever being pivotally attached to the plate secured to the spring-band, substantially as shown and described.

3. In a horseshoe, the combination of the spring-band supporting-flange and shoe proper, said shoe proper having removable calks and toe, an adjustable locking-bar supported in a plate secured to the spring-band and provided with a catch, the other end of the locking-bar supported in a pivotally-attached bolt pivoted to the locking-lever, which is also pivoted to the plate secured to the end of the spring-band, all parts being arranged and operating substantially as shown and described.

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

FRANK E. MCCARTHY.

Witnesses:

ALFRED M. WILSON,  
H. E. SEIBERT.