

E. K. POWELL.  
HORSESHOE.

APPLICATION FILED OCT. 22, 1908.

912,614.

Patented Feb. 16, 1909.

Fig. 1

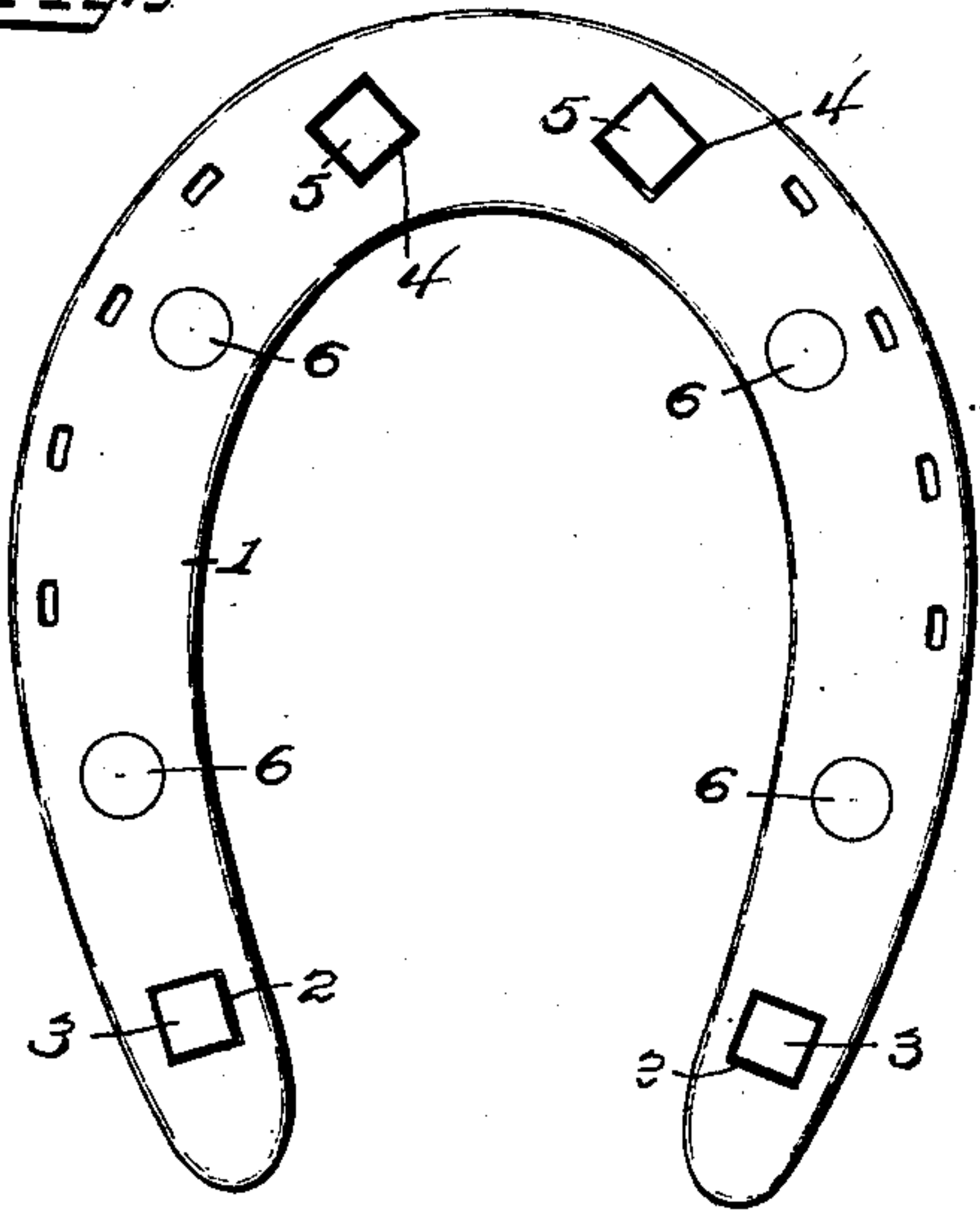


Fig. 2

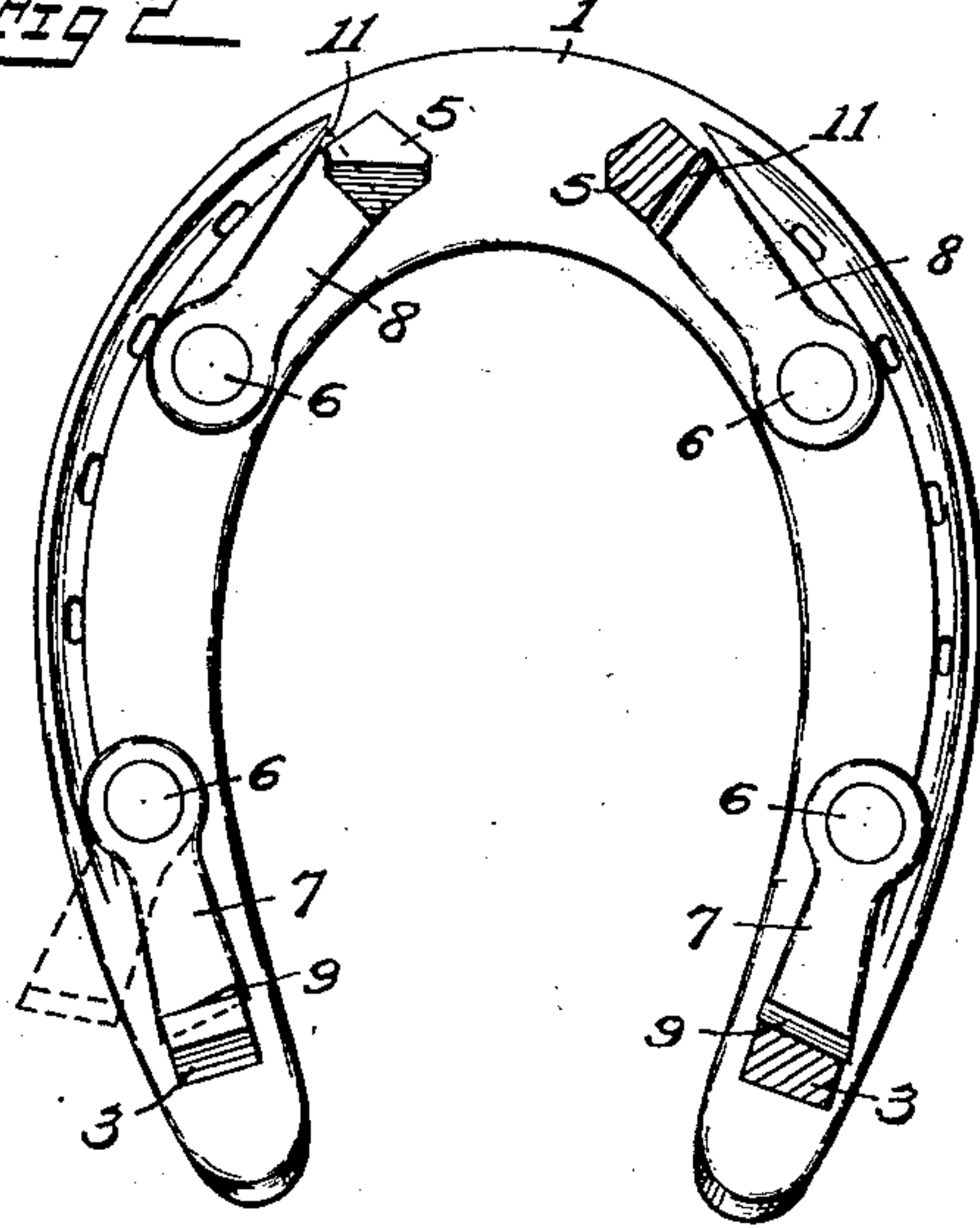


Fig. 3

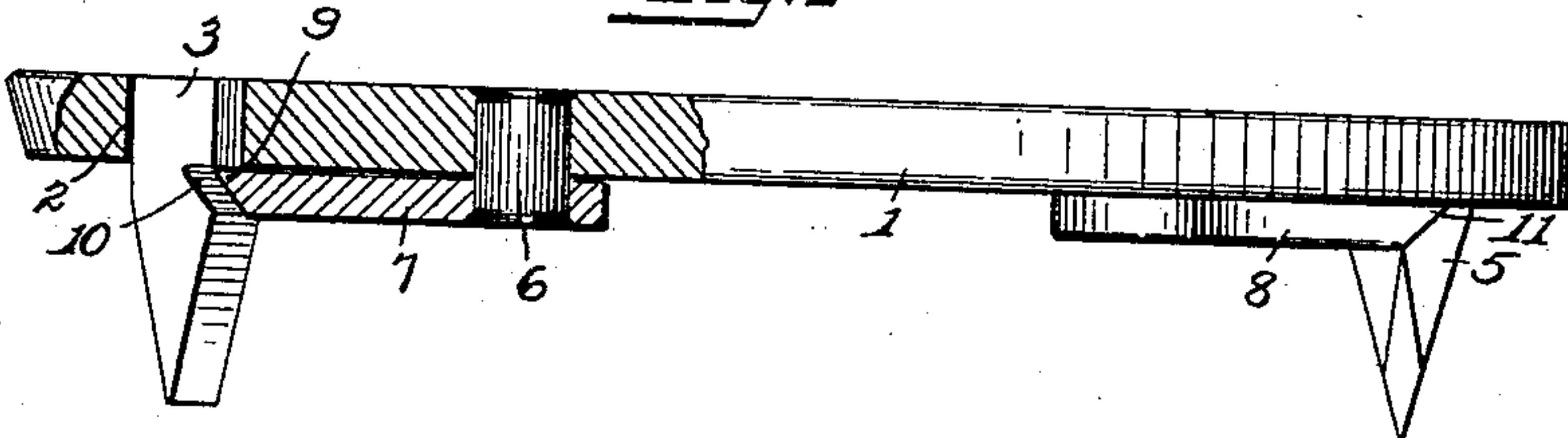


Fig. 4

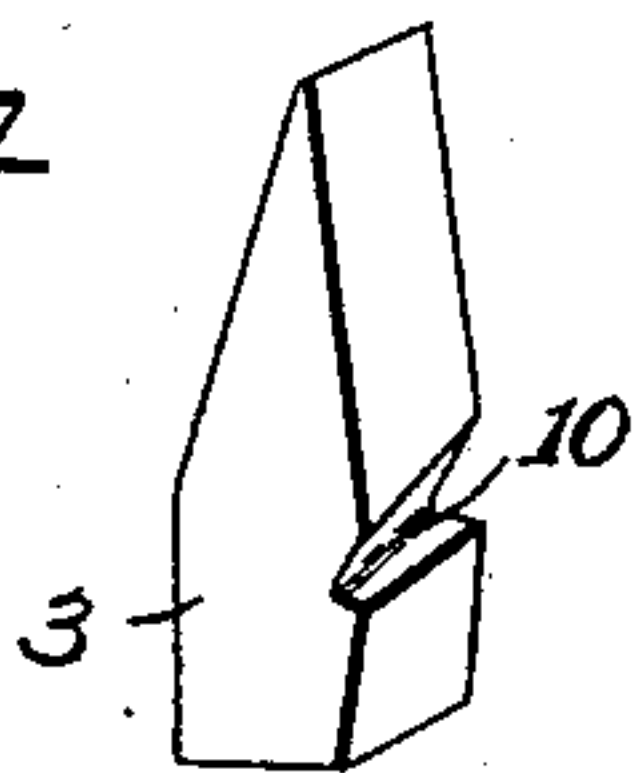


Fig. 5

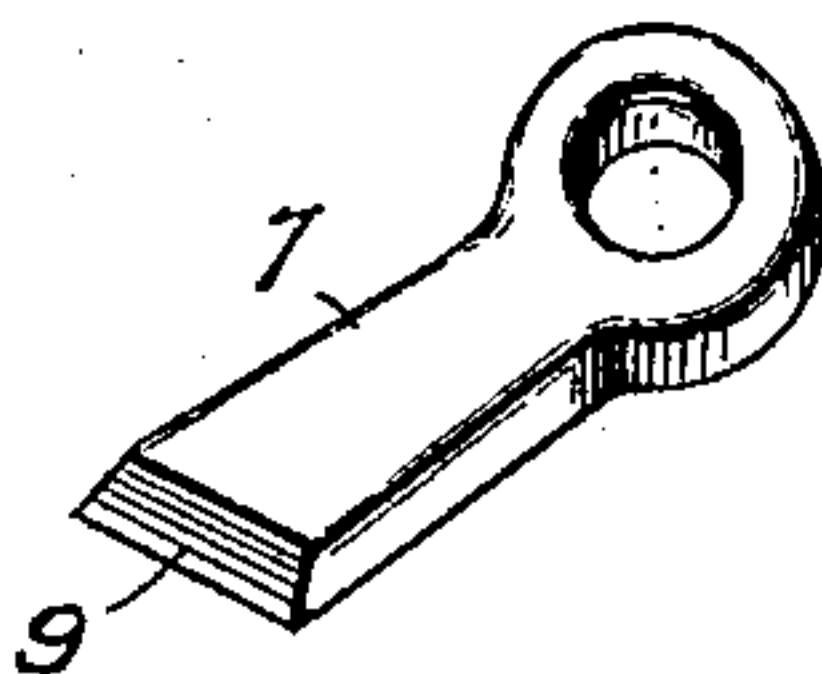
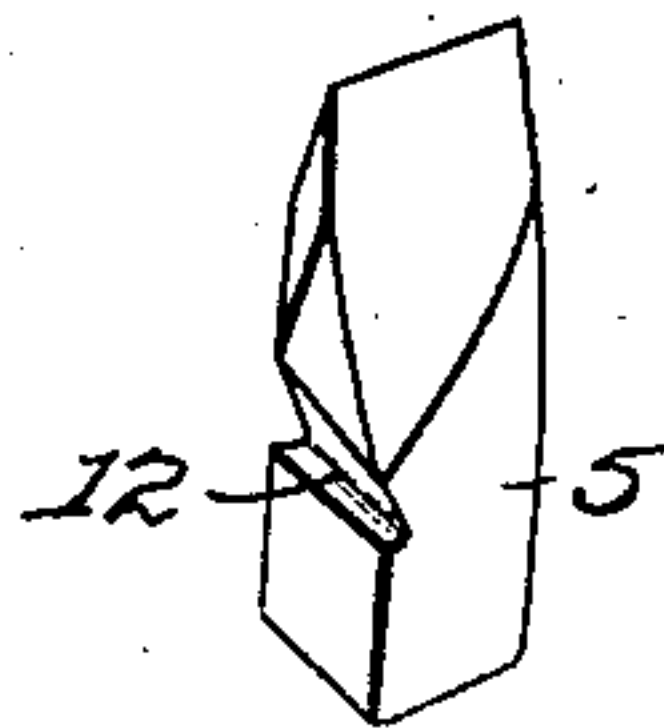


Fig. 6



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# UNITED STATES PATENT OFFICE.

ELMER K. POWELL, OF STEUBENVILLE, OHIO.

## HORSESHOE.

No. 912,614.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed October 22, 1908. Serial No. 458,922.

*To all whom it may concern:*

Be it known that I, ELMER K. POWELL, a citizen of the United States of America, and resident of Steubenville, county of Jefferson, and State of Ohio, have invented certain new and useful Improvements in Horse-shoes, of which the following is a specification.

This invention relates to improvements in horseshoes, and more particularly to that class of horseshoes having removable or detachable calks.

The object of the invention is to provide a horseshoe having removable calks and having means whereby the calks are effectually locked against displacement when in use and which readily admits of the removal and replacement of such calks when occasion requires.

A further object is to provide a horseshoe calk without threads and which may therefore be inserted in and removed from a shoe while on the horse's foot without subjecting the foot or leg of the animal to the twisting or wrenching which is consequent to the application and removal of such threaded calk.

With these and other objects in view, all of which will hereinafter be fully described, the invention finally consists in the particular construction, arrangement and combination of parts hereinafter referred to, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a top plan view of the shoe; Fig. 2 is an under side view of the same, the calks in the right side of the shoe being shown in horizontal section; Fig. 3 is a side or edge view of the invention, partly in section; Figs. 4 and 5 are perspective views, showing, respectively, the heel-calks and toe-calks; and Fig. 6 is a similar view of a locking-bar or latch.

Referring to said drawing, in which like reference characters designate like parts throughout the several views—1 indicates a horseshoe of ordinary form which is provided in the heel portion thereof with slightly tapered holes 2, preferably of rectangular form, adapted for the reception of heel-calks 3, and also having in the toe portion thereof holes 4, similar to the holes 2, for the reception of toe-calks 5. The calks have their body portions slightly tapered toward their butts for fitting snugly in the tapered holes

and of such size as to allow said butts to be driven upward to a point flush with the upper surface of the shoe, and no farther.

Pivoted against the under face of the shoe upon rivets 6 which are projected through the shoe are locking-bars or latches 7 and 8 which are respectively adapted for interlocking engagement with the heel-calks 3 and the toe-calks 5. The latches 7 are pivoted at a point substantially central of the body portion of the shoe in front of the heel-calks and each has its free end beveled to an edge on the under face, as shown at 9, said beveled edges being adapted to engage correspondingly-shaped notches or recesses 10 provided in the adjacent faces of the calks 3. The latches 8 are pivoted at a point substantially central of the body portion of the shoe in the rear and laterally of the toe-calks and each has its free end beveled to an edge, as shown at 11, the beveled edges being adapted to engage notches or recesses 12 provided in the adjacent faces of the calks 5.

It will be noted that the edge of the bevel of each latch extends obliquely to the center line of said latch, and that the notch or recess in each calk is inclined—that is, said notch is of greater depth at the outer end than at the inner end thereof. This construction renders possible the swinging of the latches into and out of engagement with the notches.

When the latches have been placed in interlocking engagement with the calks, the rivets 6 on which they are mounted are hammered or swaged down so as to effectually bind said latches against accidental movement or displacement. When, however, it is desired to disengage said latches so as to admit of the removal of the calks, the former may be driven or swung outward by striking the inner edges thereof with a hammer or similar tool.

The holes 2 and 4 are so disposed in the shoe that when the calks are mounted therein, the face of the latter which has the notch therein will face in the direction of the rivet on which the adjacent latch is pivoted—that is, will be presented directly to the end of the latch.

As is obvious, when the calks become dull or worn from use, they may, when removed, be again hammered down to a sharp edge and replaced in the shoe.

Having thus described my invention, what



I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a horseshoe, having tapered holes in the heel and toe portions thereof, of calks detachably mounted in said holes, said calks having plain tapered bodies fitting snugly in said holes and having notches in their sides, and latches pivotally mounted upon the shoe, each latch having its point beveled to an edge which extends obliquely to the center line of the latch, and the notch in each calk being of greater depth at its outer than at its inner end whereby, when the beveled edge of the latch is swung thereinto, a close engagement is secured along the entire length of said edge.

2. The combination with a horseshoe having tapered holes in the heel and toe portions thereof, of latches pivotally mount-

ed on said shoe, each of said latches having a beveled end the bevel of which extends in a direction at an oblique angle to the center line of the latch, and calks removably mounted in said holes, each calk having a notch in the side thereof adjacent to the beveled end of the corresponding latch, said notch being of greater depth at its outer than at its inner end and adapted for having the beveled end of said latch swung into engagement therewith so as to effect a wedging engagement for preventing retraction of the calk.

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

ELMER K. POWELL.

Witnesses:

ELMER E. MENDENHALL,  
R. G. PORTER.