E. K. POWELL.

HORSESHOE.

APPLICATION FILED JUNE 2, 1911.

1,019,358. Patented Mar. 5, 1912.

Fig. 1

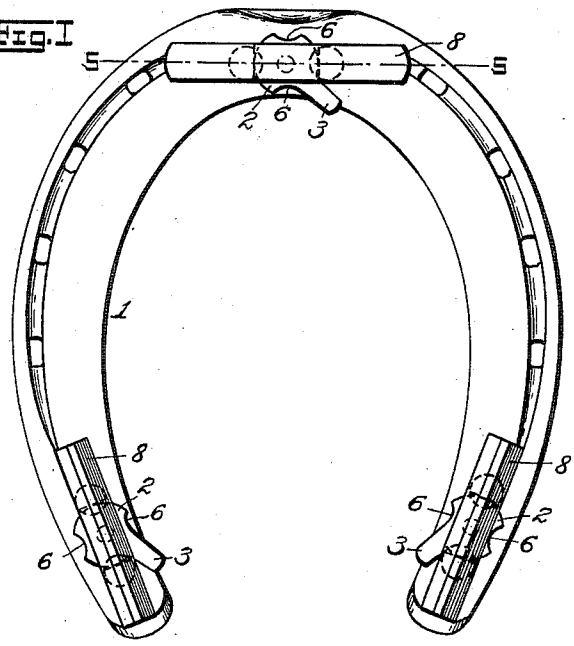


Fig. 2

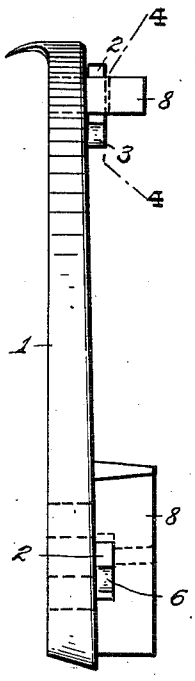


Fig. 3

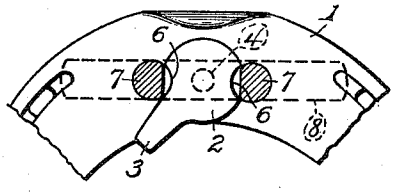


Fig. 4

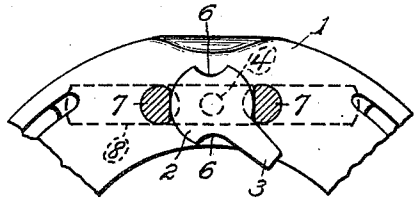


Fig. 5

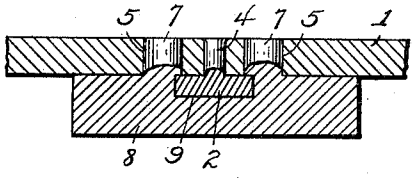


Fig. 6

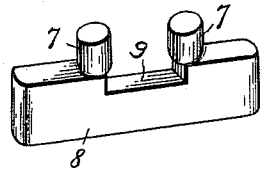
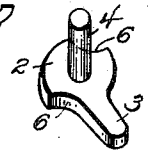


Fig. 7



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HORSESHOE.

1,019,358. Specification of Letters Patent. **Patented Mar. 5, 1912.**

Application filed June 2, 1911. Serial No. 630,925.

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 Horseshoes, of which the following is a specification.

This invention relates broadly to horseshoes, and specifically to a removable calk for horseshoes.

The primary object of the invention is to provide a detachable horseshoe-calk and securing means whereby said calk is rigidly maintained on the shoe against chance displacement.

A further object within the contemplation of the invention is to provide a calk and securing means therefor which is of extremely simple construction and which is consequently comparatively inexpensive to manufacture. And a still further object is to provide a device of the character mentioned which may be readily applied or removed by any person without removing the shoe from the horse's foot.

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

Figure 1 is a plan view of the under side of a horseshoe, showing the invention applied to the toe and heels thereof; Fig. 2 is an edge view of the same; Fig. 3 is a section on the line 4—4, Fig. 2, showing the locking lever in calk-receiving position; Fig. 4 is a similar view, showing the lever in locking position; Fig. 5 is a section on the line 5—5, Fig. 1; Fig. 6 is a detail perspective view of a calk; and—Fig. 7 is a similar view of the locking lever, detached.

Referring to said drawings, in which like designating characters distinguish like parts throughout the several views—1 indicates a horseshoe of a common type, on the under face of which and centrally of the toe portion is mounted a locking member comprising a substantially circular flat body, or disk, 2 and an arm 3 integral with and in the plane of said disk. A rivet or stud 4, preferably integral with the disk 2, is located centrally with respect to said disk and constitutes the means whereby said locking member is secured to the shoe, said stud being projected through the shoe and having its free end upset, as is clearly shown in Fig. 5.

Provided in the body of the shoe on each side of and at a spaced distance from the hole provided for the stud 4 is a hole 5, said stud-hole and the holes 5 being in alinement and in line with the direction of greatest length desired for the calk to be applied. The disk 2 has two recesses 6 provided in its peripheral edge at diametrically opposite points, said recesses, when the disk occupies one position, registering with adjacent portions of the holes 5 and conforming in size and contour to the registering portions of said holes. Thus, when said disk occupies such position, studs 7 formed on the upper face of a calk 8 are readily received in said holes, as is clearly shown in Fig. 3, said studs being of a size and form to neatly fit said holes.

Provided in the upper face of the calk 8 between the studs 7 is a substantially rectangular recess 9 whose depth corresponds substantially to the thickness of the disk 2 and whose length corresponds substantially to the diameter of said disk, the studs 7 being slightly undercut in the formation of said recess.

When the calk has been mounted on the shoe with the studs 7 in the holes 5, as shown in Fig. 3, the locking member is rotated on the stud 4 as an axis, the arm 3 being employed for effecting such rotation, to the position shown in Fig. 4, thus carrying portions of the peripheral edge of the disk into underlying relation with said studs 7, as is clearly illustrated in Figs. 4 and 5. Thus the calk is locked in place.

The rivet or stud 4 has its free end drawn down to cause the disk to bind closely upon the shoe. Consequently, a sharp blow, or a series of blows, applied to the arm 3 is required to move the locking member to locking position; and, having assumed such position, the possibility of chance retraction is remote. Further, since the calk may be released only when the locking member is completely retracted, or occupies a single one of infinite positions, the chance of the calk becoming released is extremely remote. One of the recesses 6 is preferably provided adjacent to one of the lateral edges of the arm 3 in order that the locking member may traverse substantially an angle of 90° in

moving from unlocking position to the extreme limit of locking position.

The device may be employed both upon the toe and heel portions of the shoe, as shown in Figs. 1 and 2, and the body of the calk may be of any desired form.

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 stud-receiving holes therein, of a calk seated on the under face of said shoe, said calk having studs fitted in said holes, and a substantially circular locking member pivotally mounted on said shoe between said holes, said member when in one position allowing insertion and removal of said studs and when in other positions interlocking with said studs.

2. The combination with a horseshoe having stud-receiving holes therein, of a calk seated on the under face of said shoe, said calk having studs fitted in said holes, and a substantially circular locking member pivotally mounted on said shoe between said holes, said calk having a recess formed therein in which said member is received, the ends of said recess extending partially beneath said studs, and said member having in its periphery recesses adapted to register with said holes when it occupies one position.

3. The combination with a horseshoe having stud-receiving holes therein, of a calk seated against the under face of said shoe, studs carried by said calk mounted in said holes, said calk having a recess in its upper face which partially undercuts said studs, and a disk pivoted on said shoe received in said recess and interlocking with said calk.

4. The combination with a horseshoe having stud-receiving holes therein, of a calk seated against the under face of said shoe, studs carried by said calk mounted in said holes, said calk having a recess in its upper face which partially undercuts said studs, and a disk having recesses therein mounted on said shoe and received in said recess in the calk in interlocking engagement with said studs.

5. The combination with a horseshoe having stud-receiving holes therein, of a circular disk pivoted to said shoe intermediate said holes, said disk having oppositely disposed recesses therein which register with adjacent portions of said holes when the disk occupies one position, a calk having a pair of studs adapted to seat in said holes and having therein a disk-receiving recess whose opposite ends undercut said studs, said disk being adapted to interlock with said calk when turned from the aforementioned position.

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

ELMER K. POWELL.

Witnesses:
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