No. 786,966. PATENTED APR. 11, 1905.

E. A. HENNESSY, A. H. ANDREWS & C. E. ROSS.

HORSESHOE.

APPLICATION FILED DEC. 4, 1903.

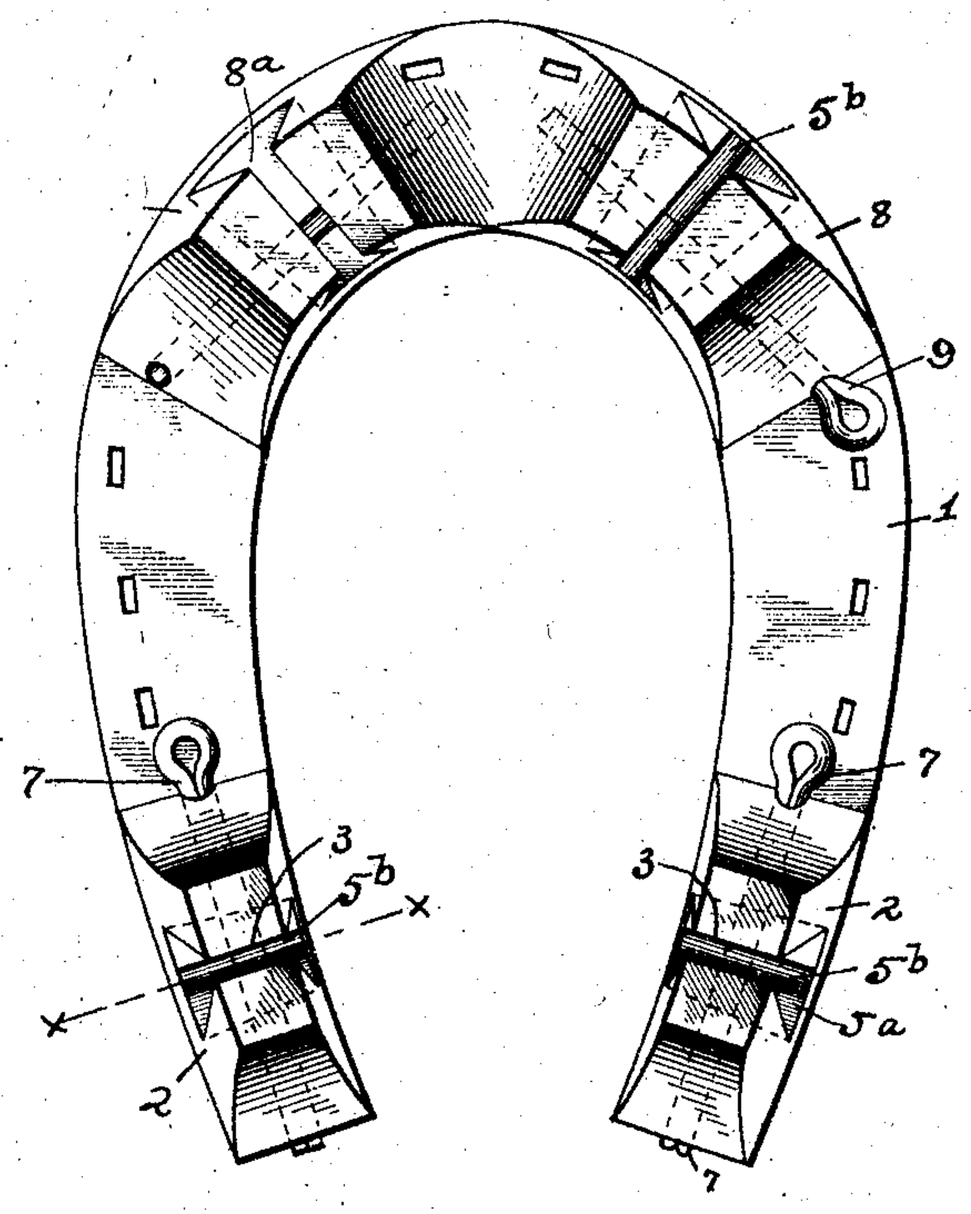

Fig. 1

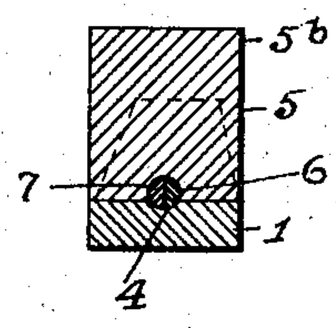

Fig. 2.

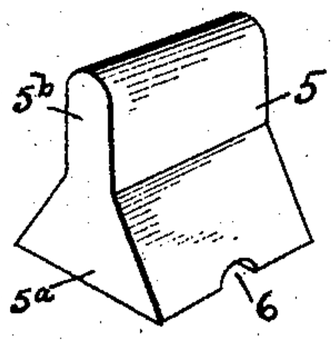

Fig. 3.

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UNITED STATES PATENT OFFICE.

EDWARD A. HENNESSY, ADELBERT H. ANDREWS, AND CHARLES E. ROSS, OF COLUMBUS, OHIO; SAID ROSS ASSIGNOR, BY MESNE ASSIGNMENTS, TO C. H. PUMPHREY AND J. F. PIXLEY, OF COLUMBUS, OHIO.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 786,966, dated April 11, 1905.

Application filed December 4, 1903. Serial No. 183,780.

To all whom it may concern:

Be it known that we, EDWARD A. HENNESSY, ADELBERT H. ANDREWS, and CHARLES E. ROSS, citizens of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Horseshoes, of which the following is a specification.

Our invention relates to the improvement of horseshoes and calks therefor; and the objects of our invention are to provide an improved construction of horseshoe and calk whereby the calks may be readily and conveniently connected with the shoe or disconnected therefrom, thus permitting of the sharpening of the calks and replacing of the same without removing the shoe, and to provide other improvements, the details of which will be more fully pointed out hereinafter. These objects we accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is an under side view of a horseshoe having our improved construction and for the sake of clearness in illustration omitting one of the toe-calks. Fig. 2 is a transverse section on line *x x* of Fig. 1, and Fig. 3 is a detail view in perspective of one of the calks.

Similar numerals refer to similar parts throughout the several views.

1 represents a horseshoe-body which at each of its heel ends is formed on its under side with a downwardly-extending lug or enlargement 2, which has formed transversely therein a flaring or dovetail recess 3, the latter tapering slightly toward one end. As shown in the drawings, the ends of the lugs 2 are inclined outwardly and downwardly to meet the body of the shoe, such inclinations being preferably slightly curved, as shown. Formed longitudinally through the base of each of the lugs 2 and partially within the body of the shoe is a pin-hole 4.

5 represents one of the detachable calks which are designed to be used in connection with our improved shoe, each of these calks comprising, as shown, a flaring base portion 5^a and a central projecting portion 5^b, which may be sharpened to any desirable degree. Each of the calks thus formed is provided on its under side with a transverse groove or recess 6. The calks thus formed are designed, as indicated in the drawings, to have their flaring base portions inserted into the flaring or dovetail recesses 3 of the shoe-lugs 2, while the portions 5^b project through the comparatively narrow lower side openings of said recesses. The calks are locked in these positions by the insertion of split keys 7 through the openings 4, said keys passing, as indicated in Fig. 2 of the drawings, partially within the key-grooves 6 and partially within the pin-openings 4, thus locking the calks in detachable connection with the lugs. At each side of the center of the toe of the shoe we provide downwardly-extending lugs 8, corresponding with the lugs 2 in form, and within the slightly-tapering dovetail recesses 8^a of which detachable calks corresponding with those prescribed for use at the heel are adapted to be held by split keys, which are indicated at 9, which correspond in construction and use with the keys 7. Owing to the fact that the calk-receiving recesses of the lugs 2 and 8 taper toward their inner ends and the further facts that the bodies of the calks are made slightly tapering, said calks will be prevented from being driven or working through the recesses.

From the construction described it will be understood that an improved construction of horseshoe is formed with integral means for detachably receiving calks and that the construction described affords a means for removing, sharpening, and reinserting the calks when necessary.

It will be observed that the construction shown and claimed provides for two toe-calks, one on each side of the center of the toe of the shoe, this construction being essential inasmuch as the employment of a recessed toe-calk at the point of the toe interferes greatly with the reshaping of a shoe to fit the hoof of a horse. In this connection it will be understood that the fitting of a shoe to a horse's

hoof often necessitates the shortening or lengthening of the shoe, and consequently the reshaping of the same at its toe-point, and in case a recessed calk is employed at said toe-point it is obvious that the recess thereof and the lug in which said recess is formed would be so distorted as to prevent the proper insertion of the calk therein.

Having now fully described our invention, what we claim, and desire to secure by Letters Patent, is—

In a horseshoe, the combination with a horseshoe-body having converging heel and toe lugs projecting from its under side and formed integral therewith, the toe-lugs being disposed on opposite sides of the center of the shoe, said lugs formed with flaring transverse recesses having key-receiving openings extending lengthwise of the lugs and intersecting said recesses, of calks having flaring base portions provided with key-engaging recesses and adapted to enter the correspondingly-shaped lug-recesses, and detachable keys adapted to be inserted through said lug-openings and engage the recesses of said calks, the calks projecting from opposite sides of the face of the lugs.

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In presence of—
A. L. PHELPS,
W. L. MORROW.