S. A. Moore

Horseshoe.

No. 48,827. Patented July 18, 1865.

Fig: 1.

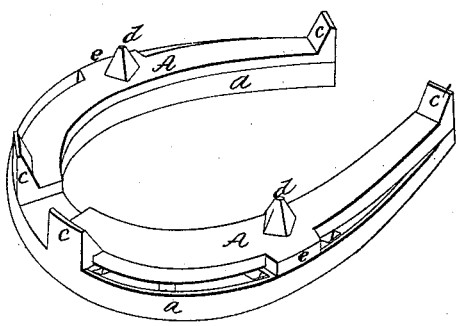


Fig: 2.

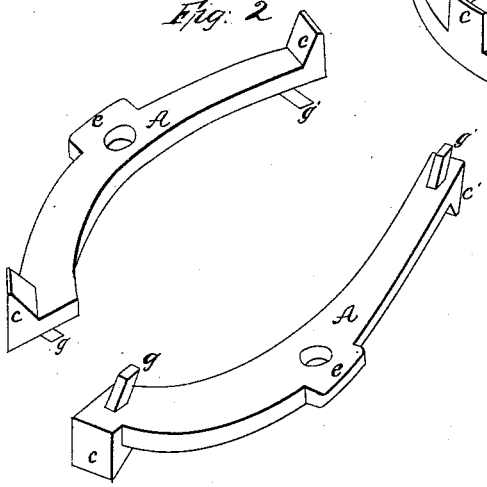


Fig: 3.

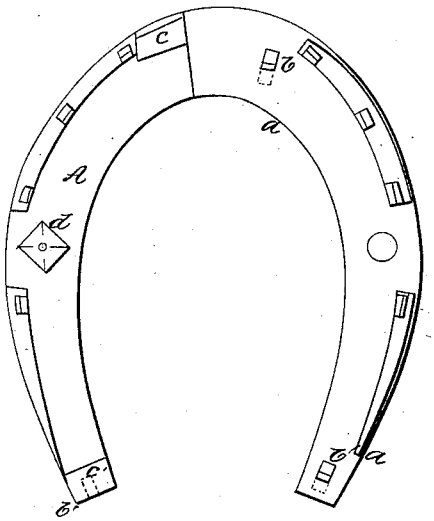
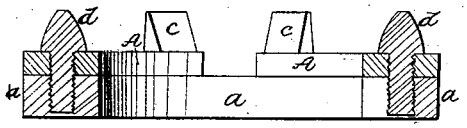


Fig: 4.



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UNITED STATES PATENT OFFICE.

S. A. MOORE, OF BLOOMFIELD, IOWA.

HORSESHOE.

Specification forming part of Letters Patent No. **48,827**, dated July 18, 1865.

To all whom it may concern:

Be it known that I, S. A. MOORE, of Bloomfield, in the county of Davis and State of Iowa, have invented a new and Improved Horseshoe; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the bottom of my shoe complete. Fig. 2 shows respectively a bottom and top view of the removable calked plates. Fig. 3 is a plan view of the bottom of the shoe with one of its calked plates removed. Fig. 4 is a cross-section through the shoe.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to certain improvements on that class of horseshoes in which provision is made for attaching or detaching the calks at pleasure, so that a horse can be rough or smooth shod, as circumstances require.

The object of my invention is to apply the heel and toe calks of a horseshoe to plates which are adapted to fit the bottom of the shoe, and which are secured rigidly thereto by means of locking-tenons and intermediate fastenings, which latter are so constructed that they also serve as calks, and are prevented from working loose in consequence of striking stones or other objects, all as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, *a* represents a horseshoe which is made of the ordinary form without calks—that is to say, it is made flat on both sides and punched at *b b' b b'*, so as to form holes which incline forward or toward the toe of the shoe.

The countersunk receptacles for the heads of the nails and the nail-holes may be made in the usual manner.

A A represent the calked plates, which are adapted to fit snugly in contact with the bottom of the shoe, and to extend from the heels to the toe of the shoe, as shown in Fig. 1. The plates A have calks *c c'* formed on their extremities, which calks may be made of any desirable shape, size, and strength. That portion of each plate A which connects the two calks *c c'* may be made somewhat narrower than the shoe in order to expose the grooves for the heads of the nails and to insure lightness; but at the points *e e*, I desire to make the plates A as wide as the shoe for the purpose of affording strength at those points through which holes are made to receive the shanks of the intermediate calks, *d d*, as shown in Fig. 4.

On the upper side of the plates A A are formed tenons *g g g' g'*, which incline backward or toward the heel of the shoe, and which are received by the corresponding holes, *b b'*, that are made through the shoe *a*, as before mentioned. In applying the calked plates to the shoe *a* the tenons *g g'* are entered into the holes *b b'* and the plates moved backward, which brings them up snugly against the shoe.

The shoe-nails may be inserted and the shoe secured to the foot before or after applying the calks. I prefer to apply the shoes to the feet before attaching the calks, and to make the plates on which these calks are formed sufficiently wide to completely or only partially cover the heads of the nails.

When the plates A A have been properly adjusted in place they are rigidly secured to the shoe by means of the calks *d d*, which are formed with screw-shanks that enter the female screws through the shoe. The heads of the male screws are of a pyramidal form with the angles slightly rounded. Thus formed the calks *d d* will not be liable to work loose in consequence of their coming in contact with hard substances. They also serve as intermediate supports for the shoe and afford the animal a firm tread.

If desirable, the plates A A may be made sufficiently short to fit between the calks of an old shoe in which the calks have become worn very much.

One advantage of my mode of securing the calked plates to the shoe is that the tenons prevent the plates from slipping backward and relieve the shanks of the calks *d d* from shocks which might break them. Blows upon the toe-calks will be received by the toe of the shoe, and the plates A A are prevented from moving backward under any circumstances, un-

less the tenons *g g'* should break, which is not likely to occur. In certain cases it may be found necessary to have the tenons *g g'* incline in opposite directions to each other for preventing either forward or backward thrust, and to assist the removable calks in holding the plates A A rigidly to the shoe.

By unscrewing the calks *d d* the plates A A can be removed from the shoe and their calks sharpened or repaired.

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

1. The auxiliary calked plates A A, constructed with inclined locking-tenons *g g'* and offsets *e e*, substanstially as described.

2. The construction of calk-plates A A with toe and heel calks and locking-tenons *g g'*, in combination with the calked-head screw-fastenings *d d*, substantially as described.

3. Securing plates having calks formed on them to horseshoes by means of inclined tenons *g g'* and intermediate screw-fastenings, *d d*, substantially as described.

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