

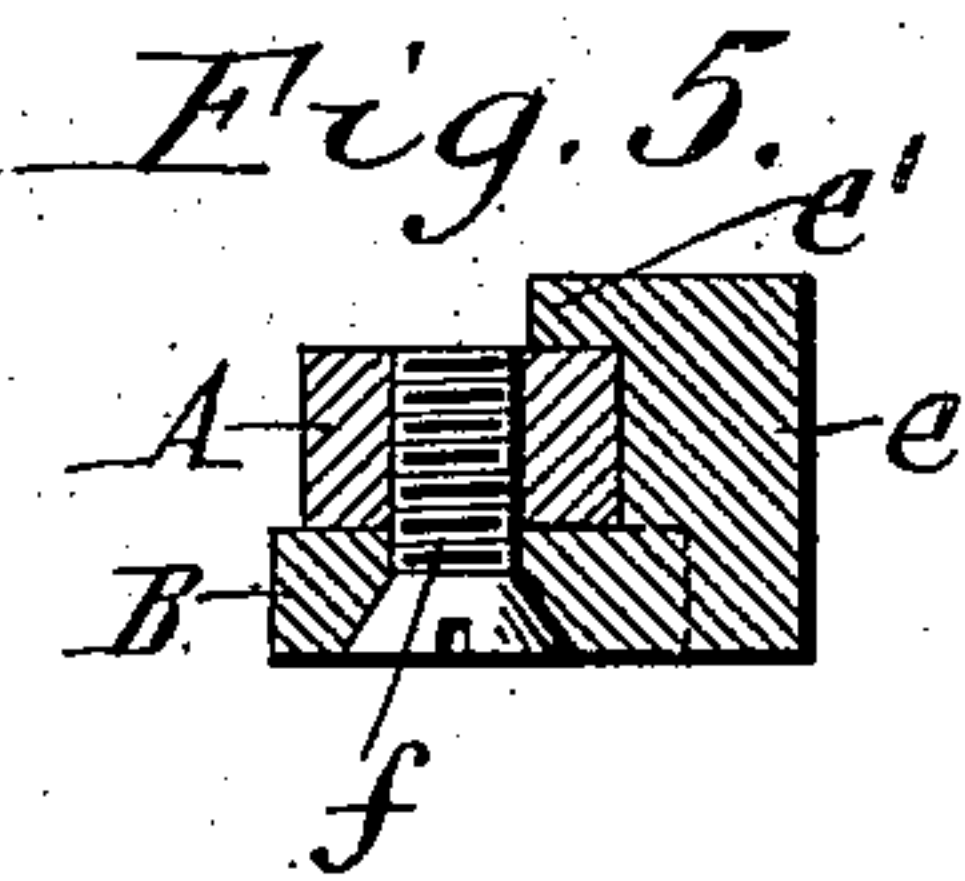
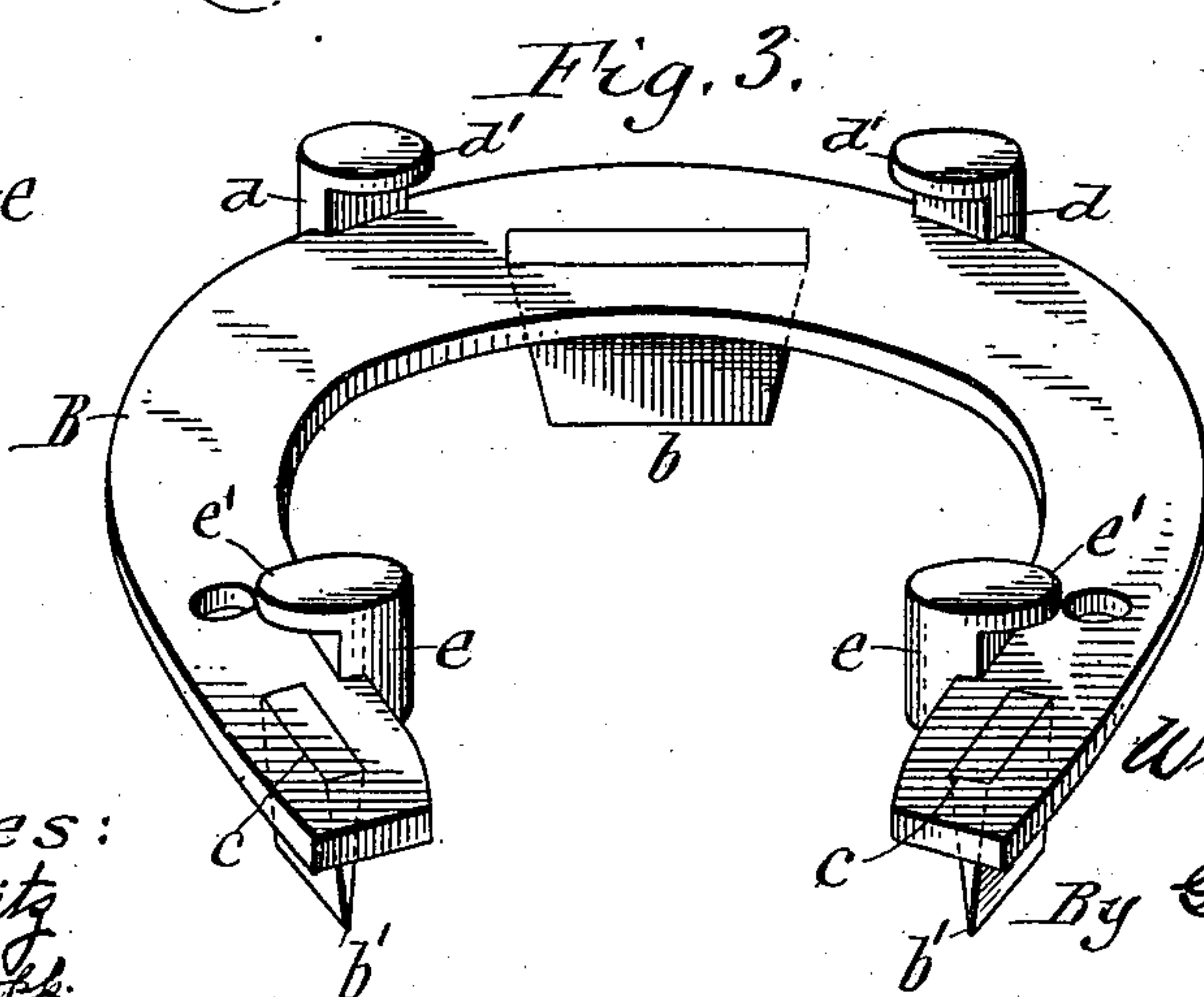
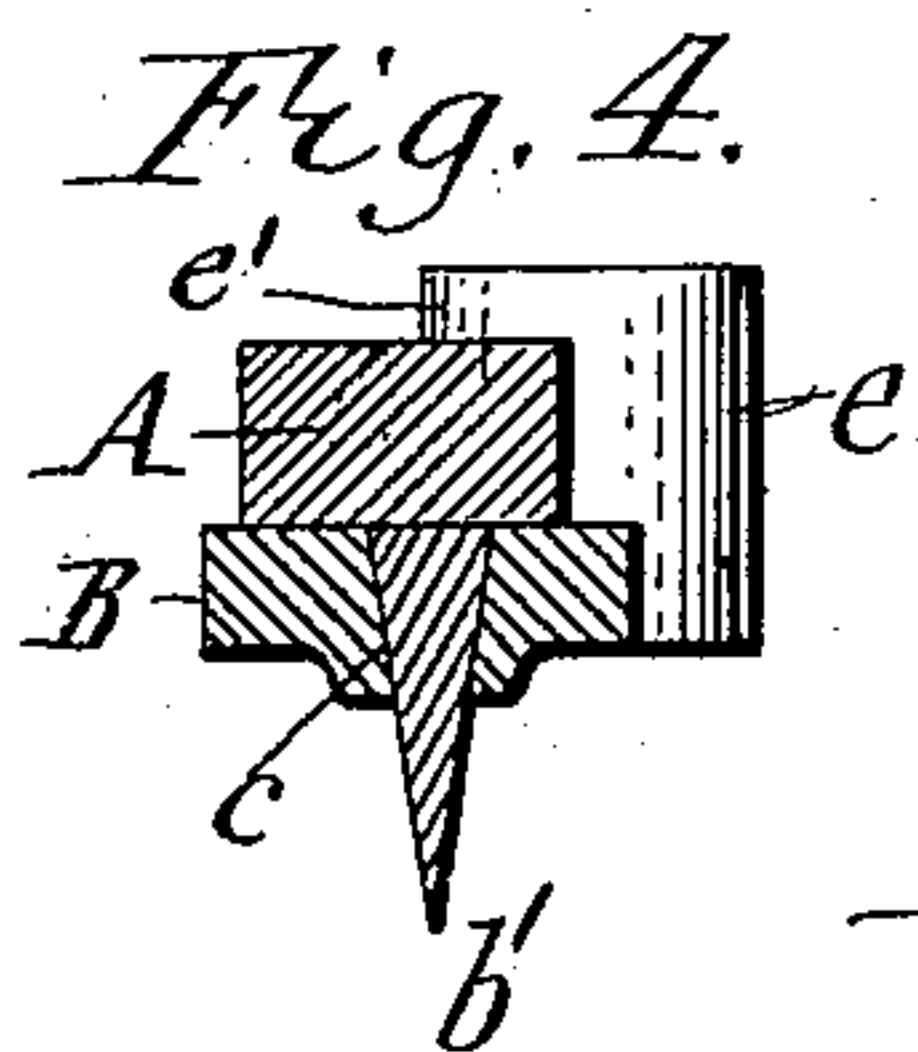
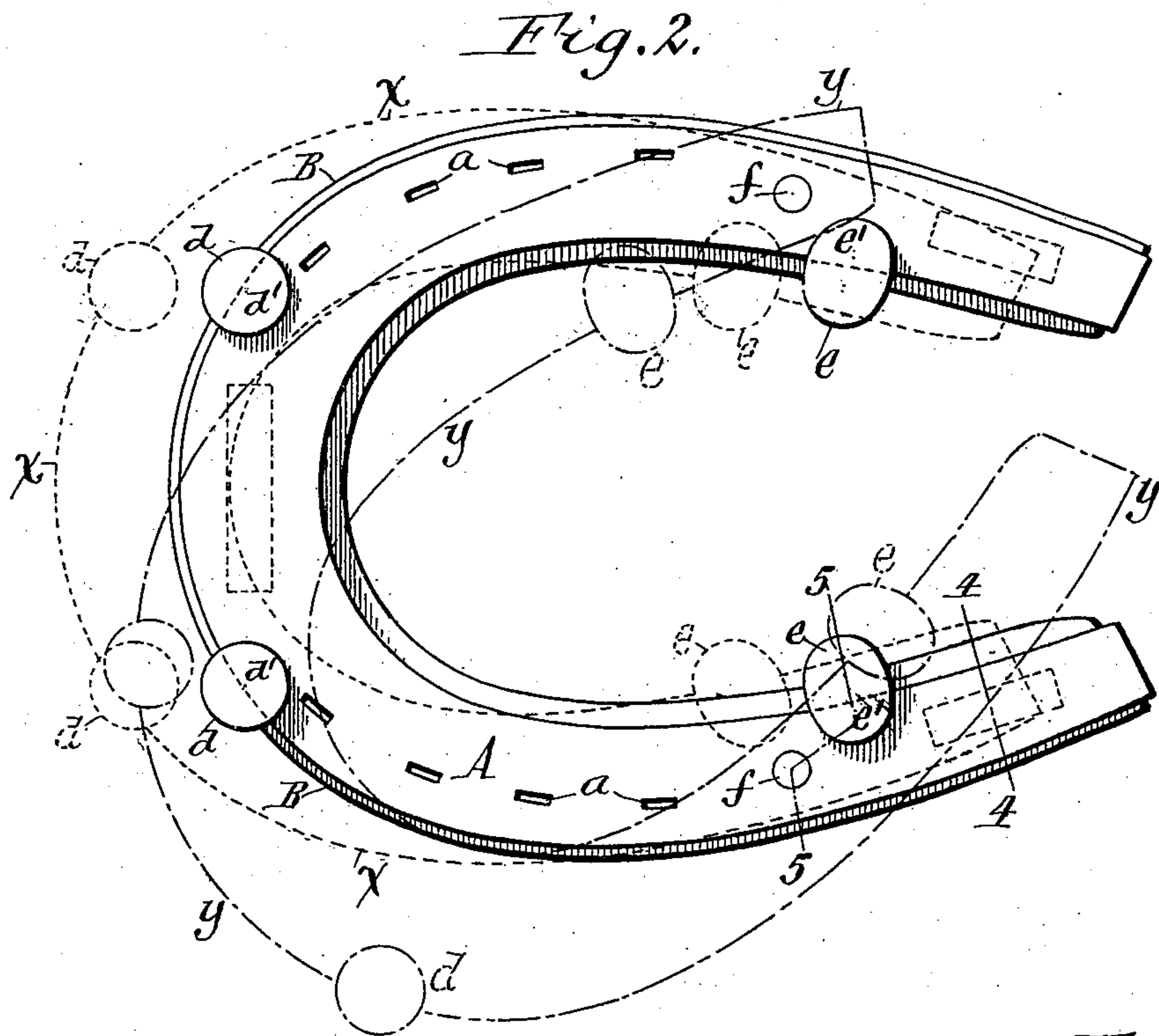
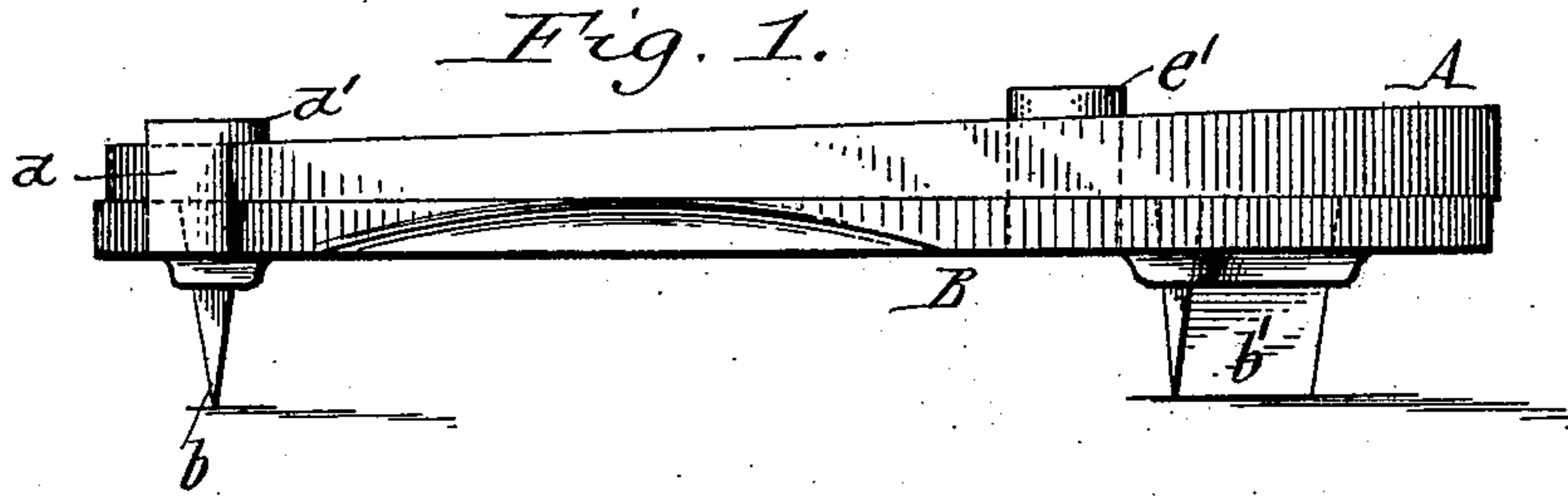
No. 689,433.

Patented Dec. 24, 1901.

W. THARBY.
HORSESHOE.

(Application filed Mar. 25, 1901.)

(No Model.)



Witnesses:
Frank H. Nibitz
Arthur H. Popp.

Wm. Tharby
Inventor
By Ceyer & Popp
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM THARBY, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF TO
GEORGE GOETZ, OF BUFFALO, NEW YORK.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 689,433, dated December 24, 1901.

Application filed March 25, 1901. Serial No. 52,786. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM THARBY, a citizen of the United States, residing at the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Horseshoes, of which the following is a specification.

This invention relates to the class of horseshoes which consist of an upper calkless plate or main shoe permanently secured to the horse's hoof and a lower or auxiliary shoe or plate detachably secured to the main shoe and provided with removable toe and heel calks, so that the calks can be readily removed and sharpened when necessary or renewed when worn out or sharp calks substituted for dull calks, or vice versa, as desired.

The object of my invention is to improve the fastenings by which the auxiliary shoe is interlocked with the main shoe with a view of simplifying their construction and securely attaching the auxiliary shoe to the main shoe and facilitating its removal therefrom for renewing or interchanging the calks.

In the accompanying drawings, Figure 1 is a side elevation of my improved horseshoe. Fig. 2 is a top plan view thereof. Fig. 3 is a perspective view of the removable or auxiliary shoe. Figs. 4 and 5 are cross-sections in lines 4-4 and 5-5, Fig. 2.

Like letters of reference refer to like parts in the several figures.

A is the upper or main shoe, which is permanently secured to the animal's hoof and provided with the usual nail-holes *a*. This shoe has no calks and is flat on its under side.

B is the lower or auxiliary shoe, removably secured to the under side of the main shoe A and having a toe-calk *b* and heel-calks *b'*. These calks are preferably detachable from the auxiliary shoe, but may be formed integral therewith. In the preferred construction shown in the drawings the calks are of dovetail form or tapered from their upper toward their lower ends, and the auxiliary shoe is provided with corresponding sockets *c*, which extend from top to bottom thereof and snugly fit the wide upper portions of the calks, so that when the calks are inserted in the sockets from the upper side of the auxiliary

shoe their upper ends are practically flush with the upper surface of said shoe, as shown in Figs. 3 and 4. As shown in these figures, the main shoe covers the upper ends of the calks and retains them in their sockets.

d d are upwardly-projecting lugs or hooks arranged at the outer edge of the toe portion of the auxiliary shoe, preferably on opposite sides of the toe-calk *b*, and each provided at its upper end with an inwardly or rearwardly extending lip *d'*, which overlaps the toe portion of the main shoe A, as shown in Figs. 1 and 2.

e e are upwardly-projecting lugs or hooks arranged at the inner edges of the heel portions of the auxiliary shoe and each provided at its upper end with an outwardly-extending lip *e'*, which overlaps the adjacent heel portion of the main shoe A, as shown in Figs. 2 and 5. When the auxiliary shoe is applied to the main shoe, the lugs *d* and *e* bear against the outer toe portion and the inner heel portions of the main shoe, holding the auxiliary shoe against rearward displacement on the main shoe and against lateral displacement in both directions, while the toe and heel lips *d'* and *e'* hold the lower shoe against the main shoe at four points, forming a strong and rigid connection.

The auxiliary shoe is locked against forward movement on the main shoe by vertical screws *f*, passing upwardly through holes in the heel portions of the two shoes, as shown in Figs. 2 and 5, or by any other suitable fastenings which permit the removal of the auxiliary shoe. The space between the lips *d'* and *e'* and the upper side of the auxiliary shoe is just wide enough to snugly receive the main shoe.

When it is desired to detach the auxiliary shoe for sharpening, renewing, or interchanging the calks, the fastening-screws *f* are first removed, the auxiliary shoe is then shifted forwardly on the main shoe until both of its toe-lips *d'* clear the toe of the main shoe, as shown by the dotted lines *x* in Fig. 2, and the auxiliary shoe is then turned laterally at a sufficient angle to the main shoe to allow both of its heel-lips *e'* to clear the inner edges of the legs of the main shoe, as shown by the

dot-and-dash lines *γ* in Fig. 2, thereby releasing the auxiliary shoe. To replace the latter, these movements are performed in the reverse order to that above described.

5 The toe and heel lugs *d e* are preferably formed integral with the auxiliary shoe, as shown.

By arranging the toe-lugs *d* on opposite sides of the central or toe portion of the auxiliary shoe, as shown, they are remote from the foremost edge of the shoe and not liable to be battered or broken by the impact of the toe of the shoe against the pavement. As these toe-lugs abut against the toe of the main shoe they form stops which effectually resist rearward displacement of the auxiliary shoe on the main shoe from the blows received by the toe of the shoe, thus largely relieving the fastening-screws *f* and preventing shearing or breakage of the same.

When the auxiliary shoe is removed, the flat calkless under side of the main shoe affords a solid footing for the animal when in the barn or pasture. By the use of my improved shoe the same may be provided with dull calks in summer and sharp calks in winter and the calks can at any time be readily removed and resharpened or renewed when worn out without requiring the renewal of the entire shoe.

I claim as my invention—

1. A horseshoe, comprising a main shoe, and a non-elastic auxiliary shoe, provided on its toe portion with an upwardly-projecting hook which faces rearwardly and embraces the toe portion of the main shoe, and at the inner edge of each of its heel portions with an upwardly-projecting hook which faces outwardly and embraces the adjacent heel portion of the main shoe, whereby the auxiliary shoe can be disengaged from the main shoe only by first shifting the same forwardly and then turning it laterally at an angle to the main shoe, and means for locking the auxil-

iary shoe against forward displacement on the main shoe, substantially as set forth. 45

2. An auxiliary non-elastic horseshoe, adapted to interlock with a main shoe, and provided on its toe portion with an upwardly-projecting lug having a rearwardly-facing lip constructed to embrace the toe portion of the main shoe, and at the inner edge of each of its heel portions with an upwardly-projecting lug having an outwardly-facing lip constructed to embrace the corresponding heel portion of a main shoe, substantially as set forth. 55

3. A horseshoe, comprising a main shoe, and a non-elastic auxiliary shoe having toe and heel calks and provided at the outer edge of its toe portion, on opposite sides of the toe-calk, with upwardly-projecting hooks which face rearwardly and embrace the toe portion of the main shoe, and provided at the inner edge of each of its heel portions with an upwardly-projecting hook which faces outwardly and embraces the adjacent heel portion of the main shoe, and means for locking the auxiliary shoe against forward displacement on the main shoe, substantially as set forth. 65 70

4. An auxiliary, non-elastic horseshoe having toe and heel calks, and provided at the outer edge of its toe portion, on opposite sides of its toe-calk, with upwardly-projecting lugs having rearwardly-facing lips which are constructed to embrace the toe portion of a main shoe, and at the inner edge of each of its heel portions with an upwardly-projecting lug having an outwardly-facing lip which is constructed to embrace the corresponding heel portion of a main shoe, substantially as set forth. 75 80

Witness my hand this 12th day of March, 1901.

WILLIAM THARBY.

Witnesses:

THEO. L. POPP,
CARL F. GEYER.