

No. 665,482.

Patented Jan. 8, 1901.

C. STALEY.
HORSESHOE CALK.

(Application filed Apr. 5, 1900.)

(No Model.)

Fig. 1.

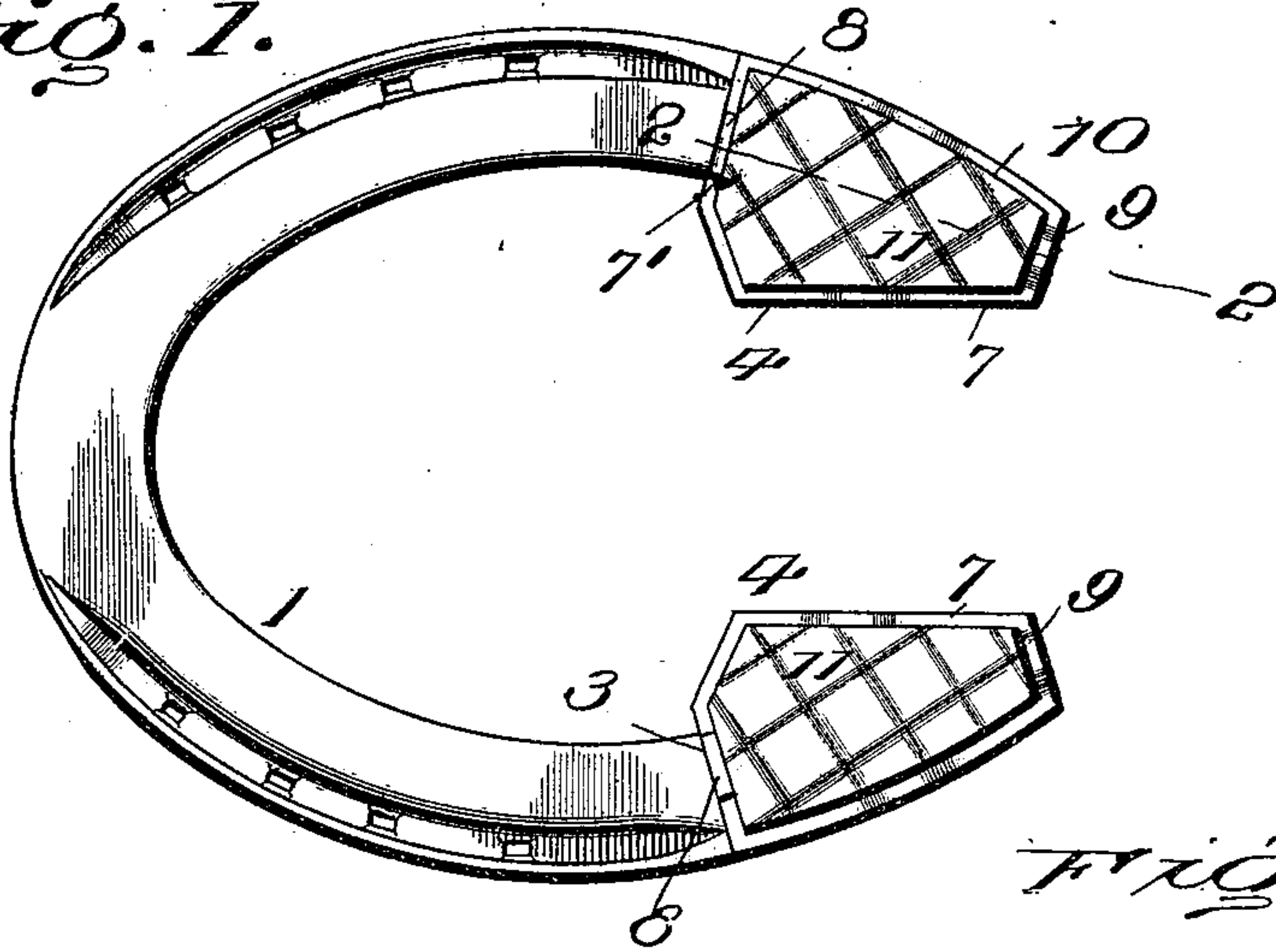


Fig. 2.

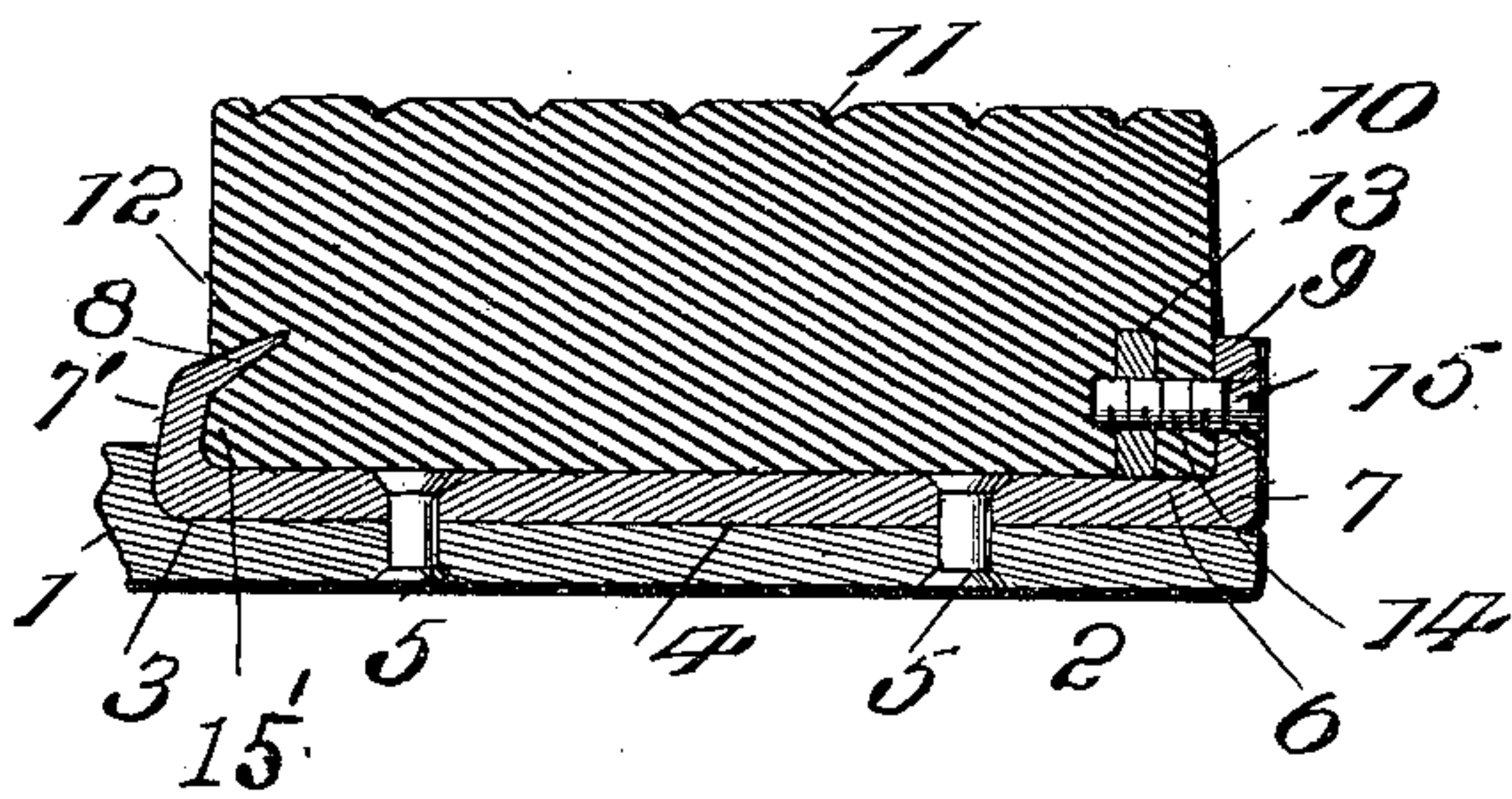
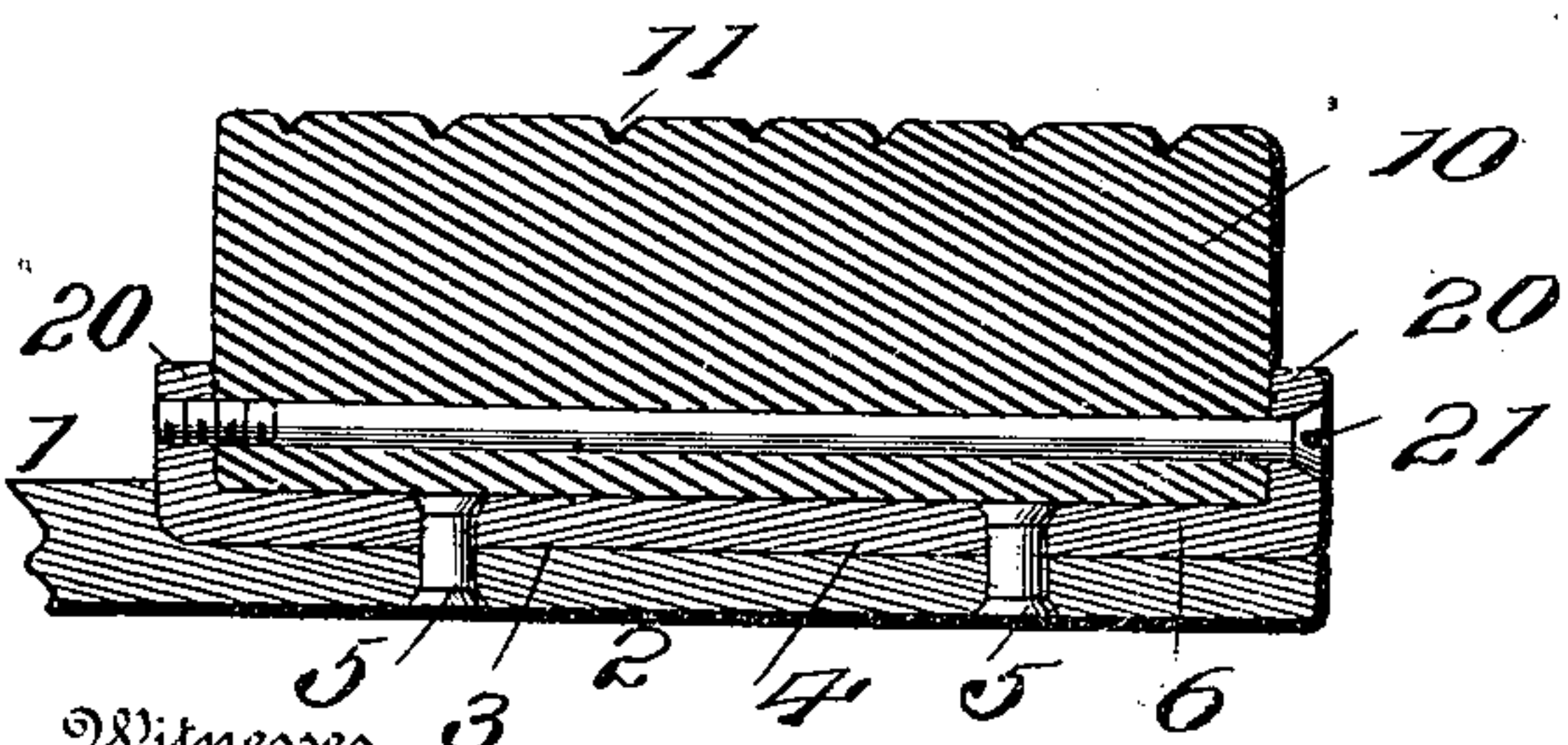


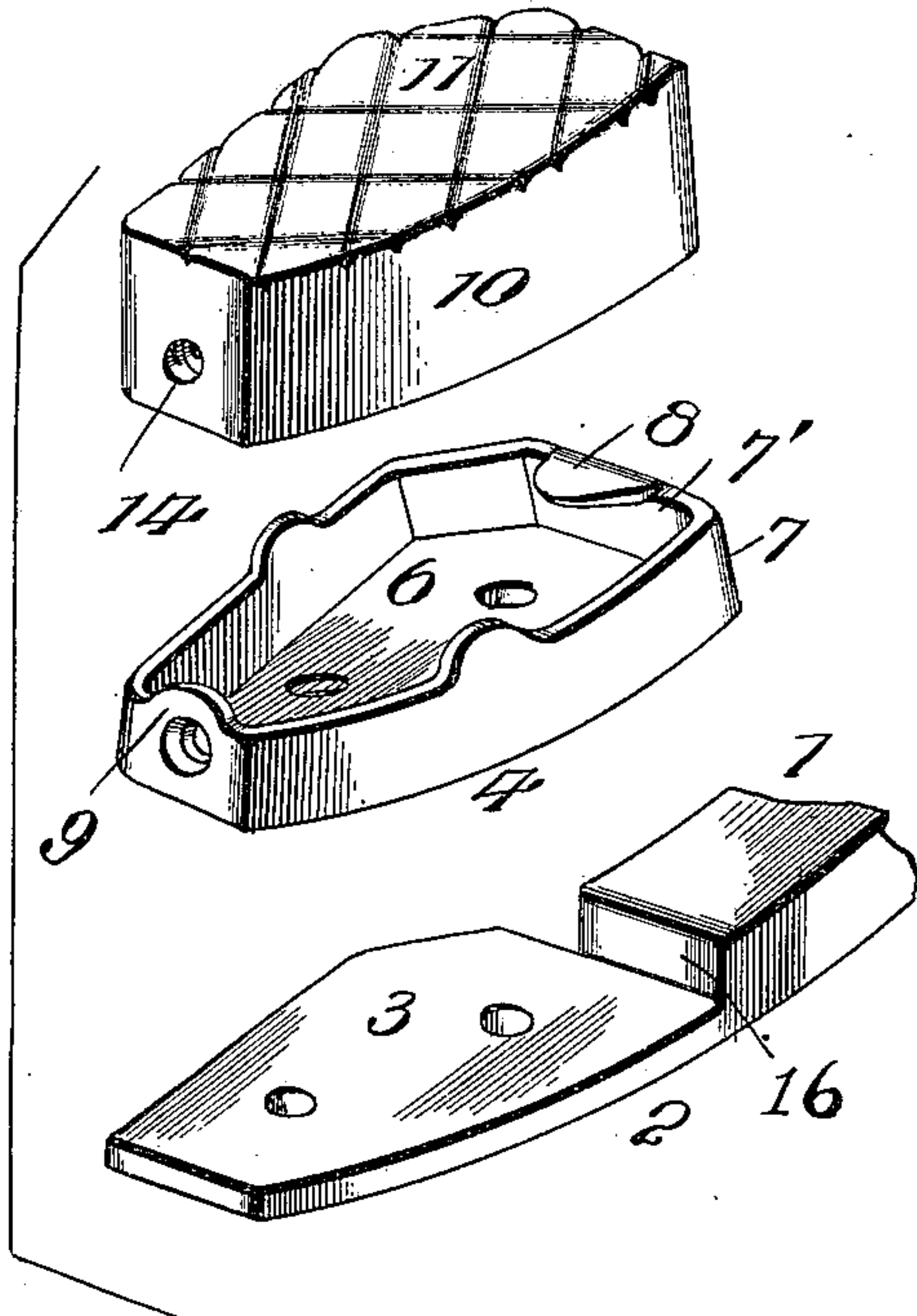
Fig. 4.



Witnesses

Walter Williams
Wm. J. Jacob

Fig. 3.



Inventor
Charles Staley

By Jno. Irvine

His Attorney

UNITED STATES PATENT OFFICE.

CHARLES STALEY, OF STERLING, ILLINOIS.

HORSESHOE-CALK.

SPECIFICATION forming part of Letters Patent No. 665,482, dated January 8, 1901.

Application filed April 5, 1900. Serial No. 11,694. (No model.)

To all whom it may concern:

Be it known that I, CHARLES STALEY, a citizen of the United States, residing at Sterling, in the county of Whiteside and State of Illinois, have invented new and useful Improvements in Heels for Horseshoes, of which the following is a specification.

This invention relates to improvements in flexible heels for horseshoes, and more especially to the manner of attaching the same to the shoe proper.

This invention has for one object to provide a flexible heel which can be readily attached to horseshoes now in use, together with the details of construction of the elements for fastening it to the metal shoe.

A further object of the invention is to provide a detachable cup or receptacle to a horseshoe to accommodate a flexible heel, so that if the shoe proper becomes worn out the cup can be used on other shoes of different makes and sizes.

A further object of the invention is to provide a cup or receptacle for holding the flexible heel portion, so that as the heel wears down a new one may be quickly and readily substituted.

Many other objects and advantages will be hereinafter referred to, and be particularly pointed out in the claims.

In the drawings, Figure 1 represents a bottom plan view of the horseshoe, showing my invention applied thereto. Fig. 2 is a longitudinal section of the same on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of the parts separated. Fig. 4 is a section showing a modified form of my improvement.

Referring to the drawings, 1 indicates a horseshoe of ordinary construction, having its heel portions 2 2 flattened to form seats 3. Fitted to the seats 3 are cups or receptacles 4, secured in position by rivets 5. Each cup or receptacle 4 consists of a base 6 and side flanges 7, the front portion 7' of the flange being rearwardly inclined to provide a dovetail and is extended to form a tongue or lip 8, and the rear portion has a perforated ear 9. Fitting within the cup 4 is a flexible heel 10, preferably of rubber, being considerably thicker than the depth of the flange 7, so as to extend out beyond the latter when the parts are assembled, and being further

provided on its outer wearing-surface with a roughened portion 11. In the front wall of the heel 10 is a depression 12, and in the opposite or rear end is a threaded nut 13, which is molded in the rubber, a perforation 14 registering with the threaded opening of the nut.

The parts having been described in detail, the manner of assembling is substantially as follows: A horseshoe is first fitted to the hoof of the animal, then the heel portions are flattened to form seats for the cups, and then the cups are put in place and securely and permanently riveted, this forming practically a part of the shoe, while the cups may be readily detached therefrom by knocking out the rivets. The cup having been rigidly placed, the front end of the flexible heel is pressed down against the inner side of the flange, so as to engage the notch 12 and tongue 8 and at the same time to form a dovetail 15' against the inclined portion 7' of the wall 7. The rear end of the heel is now pressed down into the cup, after which a screw 15 is passed through the opening in the ear 9 and through the perforation 14 into the threaded opening of the nut 13, and the shoe is ready for practical use.

By making the cup detachable, likewise the flexible heel held therein, I am enabled to apply my invention to any shoe now in use. Moreover, I fit each heel to correspond to the conditions of the shape, size, &c., of the hoof. As the heel wears down it is not necessary to take the shoe from the animal. In such cases the screw 15 is taken out, the flexible heel withdrawn from its respective cup, and another inserted in its stead, as before described.

By flattening the heel of the shoe, a shoulder 16 is formed, providing a rigid bearing surface for the cup, said shoulder coacting with the rivets to maintain the parts in a given relative position with each other. A further purpose of flattening the heel of the shoe is to enable me to provide a sufficient depth of flange 7 to properly hold the flexible heel.

In the modified form shown in Fig. 4 the same principle is involved, except so far as securing the rubber in position. The front and rear portions of the flange have like ears 20, and a screw or bar 21 passes from one to the other through the solid body of rubber.

My invention is extremely simple in construction, durable in character, and cheap to manufacture, it being quickly applied and avoiding the necessity of taking off or destroying the whole shoe when a heel is to be replaced.

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

10 1. The combination with a horseshoe, of cups detachably secured to the heel portions of said shoe, each of said cups consisting of a base and a surrounding flange, an inclined tongue projecting from said flange, and an opposing perforated ear formed with said flange, a flexible heel carried in the cup, and means for holding the flexible heel within the cup, substantially as and for the purpose set forth.

20 2. The combination with a horseshoe, having its heel portions flattened to form seats, cups riveted to said flattened portions of the heels, each of said cups consisting of a base and a surrounding flange, an inclined tongue projecting from said flange, and an opposing perforated ear formed with said flange, a flexible heel carried in the cup, and means for holding the flexible heel within the cup, substantially as and for the purpose set forth.

30 3. The combination with a horseshoe, of cups detachably secured to the heel portions of said shoe, each of said cups consisting of a base and a surrounding flange, a tongue projecting from said flange, and a perforated ear formed with said flange, a flexible heel carried in the cup, a metal nut embedded in said flexible heel, and a screw passing through the perforated ear of the flange and screwed into the nut, substantially as and for the purpose set forth.

40 4. The combination with a horseshoe, having its heel portions flattened to form seats, cups riveted to said flattened portions of the heels, each of said cups consisting of a base and a surrounding flange, a tongue projecting from said flange, and a perforated ear formed with said flange, a flexible heel carried in the cup, a metal nut embedded in said flexible heel, and a screw passing through the perforated ear of the flange and screwed into

the nut, substantially as and for the purpose set forth. 50

5. The combination with a horseshoe, of cups detachably secured to the heel portions of said shoe, each of said cups consisting of a base and a surrounding flange, a tongue projecting from said flange and a perforated ear formed with said flange, a flexible heel carried in the cup, a notch in the front wall of the flexible heel, said notch being engaged by the tongue projecting from the flange of the cup, a metal nut embedded in the flexible heel, and a screw passing through the perforated ear of the flange and screwed into the nut, substantially as and for the purpose set forth. 60 65

6. The combination with a horseshoe, of cups detachably secured to the heel portions of said shoe, each of said cups consisting of a base and a surrounding flange, the front portion of said flange being bent toward the rear of the heel to form a dovetail, an opposing perforated ear formed with said flange, a flexible heel carried in the cup, and means for holding the flexible heel under the bent dovetail portion of the flange and securing it within the cup, substantially as and for the purpose set forth. 70 75

7. The combination with a horseshoe, having its heel portions flattened, of cups detachably secured to the heel portions of said shoe, each of said cups consisting of a base and a surrounding flange, the front portion of said flange being bent at an incline toward the rear of the heel to form a dovetail, an opposing perforated ear formed with said flange, a flexible heel carried in the cup, and means for holding the flexible heel under the bent dovetail portion of the flange and securing it within the cup, substantially as and for the purpose set forth. 80 85 90

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES STALEY.

Witnesses:

R. L. HOPKINS,
H. E. SMALL.