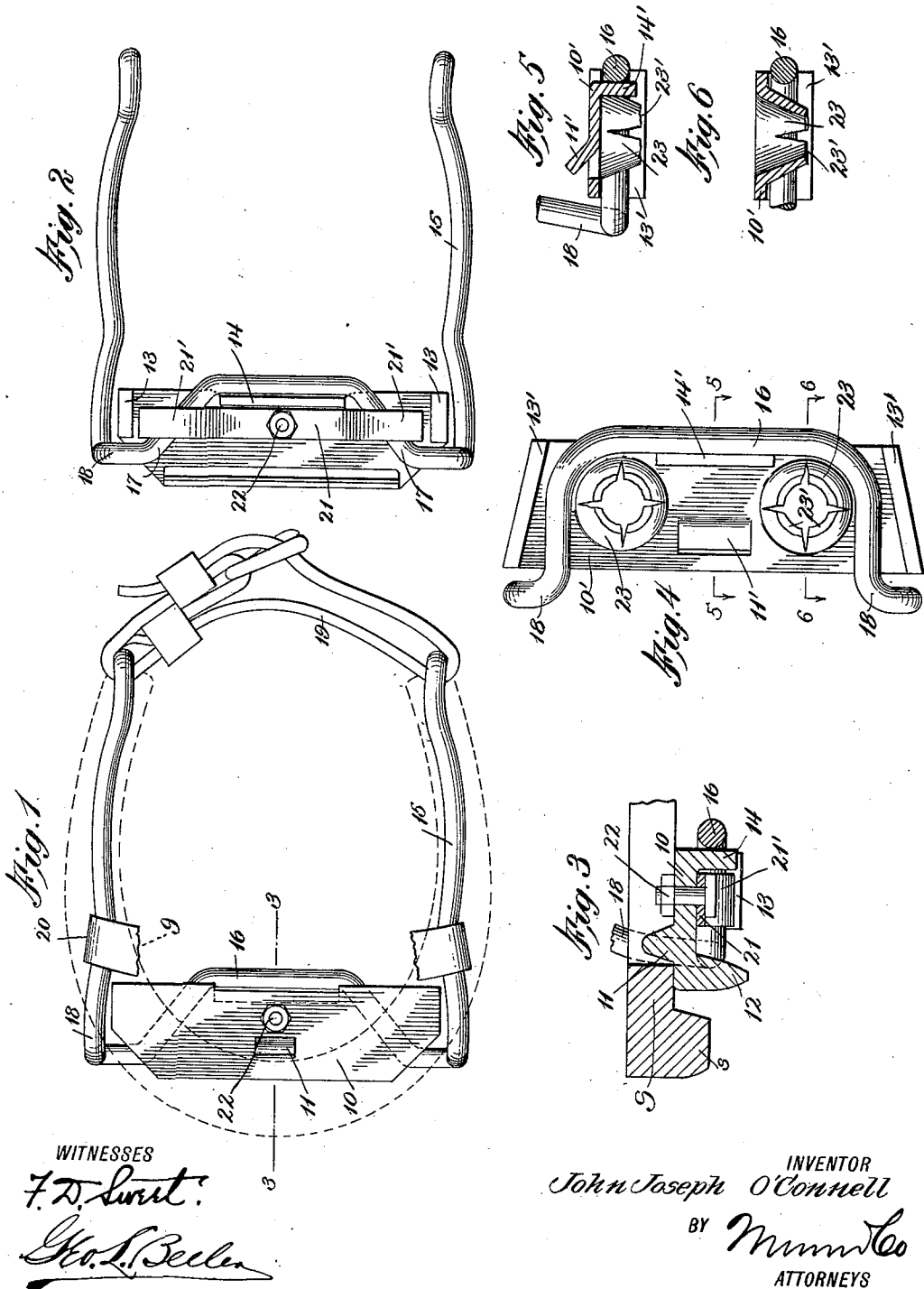


J. J. O'CONNELL.  
HORSE OVERSHOE.  
APPLICATION FILED MAY 21, 1913.

1,085,874.

Patented Feb. 3, 1914.



WITNESSES

*F. D. Sweet*

*G. L. Beeler*

INVENTOR

*John Joseph O'Connell*

BY *Munn & Co*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

JOHN JOSEPH O'CONNELL, OF RIDGEWOOD, NEW JERSEY.

HORSE-OVERSHOE.

1,085,874.

Specification of Letters Patent.

Patented Feb. 3, 1914.

Application filed May 21, 1913. Serial No. 768,972.

*To all whom it may concern:*

Be it known that I, JOHN JOSEPH O'CONNELL, a citizen of the United States, and a resident of Ridgewood, in the county of Bergen and State of New Jersey, have invented a new and Improved Horse-Overshoe, of which the following is a full, clear, and exact description.

This invention relates to farriery and has particular reference to overshoes or anti-slipping devices adapted to be readily detachably connected to horses' hoofs shod with ordinary horseshoes.

Among the objects of this invention, which in its broader aspects has reference to the devices shown and described in my previous application filed November 7, 1912, Serial No. 729,984, is to provide a special form of toe plate having peculiar properties with respect to strength and durability in connection with the anti-slipping merit thereof.

A further object of the invention is to devise a metallic toe plate made preferably of a single drop forging or stamped sheet metal and adapted to be secured temporarily to an ordinary horseshoe by any suitable form of yoke to which the plate may be permanently connected, if desired.

The foregoing and other objects of the invention will hereinafter be more fully described and claimed and illustrated in the drawings forming a part of this specification in which like characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a plan view of a preferred form of this invention showing in dotted lines its relation to an ordinary horseshoe; Fig. 2 is a bottom plan view of the same; Fig. 3 is a transverse sectional detail, on the line 3—3 of Fig. 1, including the usual shoe; Fig. 4 is a bottom plan view of a modified form of toe plate; and Figs. 5 and 6 are transverse sections on the lines 5—5 and 6—6, respectively, of Fig. 4.

The plate 10, shown in Figs. 1, 2 and 3, is substantially flat and solid and may, if preferred, be made as a drop forging. This plate is provided on its upper surface substantially at its center with a lug 11 adapted to bear against the rear edge of the toe portion of the shoe S to assist in keeping the plate in position, especially with respect to forward movement. At 12 is formed a calk of any suitable construction, shown herein as a substantially straight flange directed downwardly from the front edge of the

plate 10, and provided with any suitable form of gripping edge. I also form at each end of the plate a downwardly projecting calk 13 arranged at an angle to the axis of the calk 12. A lug 14 is formed preferably integrally with the rear edge of the plate 10 and extends downwardly therefrom preferably at the center and in the rear of the lug 11. As thus constructed and shown especially in Fig. 2, the plate 10 is substantially flat, forming spaces between each side calk 13 and the adjacent ends of the calk 12 and rear lug 14.

A yoke 15 substantially of the form shown in Figs. 1 and 2 is employed to secure the toe plate 10 in position with its upper surface against the under surface of the ordinary shoe and with its front edge against or in the rear of the toe calk 13, if the shoe S is so provided. Said yoke 15 includes a U-shaped intermediate portion having a central transverse cross bar 16 and a pair of legs 17. Said cross bar is adapted to hug snugly against the rear face of the lug 14, whereby the plate 10 is prevented from displacement rearwardly, and also prevented, in connection with the lug 11, from twisting. From the ends of the cross bar 16 the yoke branches forwardly in a horizontal plane in said pair of legs 17 leading from the spaces aforesaid between the side calks 13 and the calk 12 and lug 14, and said members are then directed outwardly and upwardly, embracing the outer edge of the shoe, as indicated at 18, and thence extend rearwardly around the sides of the hoof. A connecting device shown in the form of a hand operated strap 19 is employed to extend from one end of the yoke to the other and clamp the same in the rear of the hoof. Another strap 20 may extend across the front part of the hoof, as indicated in Fig. 1, the strap 20 serving to tighten the yoke and its plate in place after the strap 19 is secured. The cooperation between the central part of the yoke and the lug 14 insures against displacement of the plate laterally. The yoke may be made of any suitable material, preferably of a substantial quality of rod metal, and when so made of such strength as to serve its purpose to hold the plate in position when subjected to the roughest usage, it is still flexible enough to be applied to the hoof and there secured in the manner above indicated.

For all practical purposes no special means are required to secure the plate to the yoke,

and in practice a single set of yokes may be employed for the purpose of securing various types of plates to the shoes S. In other words, the plates may be provided with different shapes or characters of gripping calks, or when one set of plates become broken or worn out or damaged, another set may be substituted therefor. In some instances, however, it is found desirable to connect the plates to their yokes in such manner as to relieve the driver or operator from the trouble of assembling these parts when he is about to apply them to the horse's hoofs. To this end I employ a clamp 21 shown as made of flat metal and connected to the central part of the plate 10 by a removable fastener 22. This fastener secures the middle portion of the clamp snugly against the bottom of the plate 10, and the end portions thereof are bent downwardly so as to embrace and confine the diagonal members 17 of the yoke, as indicated at 21', Figs. 2 and 3. This clamp is not intended to sustain any of the traffic strain upon the horseshoe attachment, but is intended only to hold the yoke and plate together when they are detached from the shoe S.

That form of plate 10' illustrated in Figs. 4, and 5 and 6 may be made from sheet metal and stamped so as to provide an upwardly struck lug 11' corresponding to the lug 11 of the other form. This form of plate also is preferably provided with end calks 13' and a rear downwardly extending lug 14' serving the same purpose in connection with the cross bar 16 of the yoke as described above. In addition to the side calks 13', I may provide calks or gripping devices of other form, and as shown especially in Figs. 5 and 6, I strike downwardly through the sheet metal forming hollow open-ended members 23. These members may be of any suitable form in cross section, but as shown herein, they are preferably formed by a conical punch or tool, and the effect of this operation is to produce the type of calk having comparatively rough biting edges 23' which will remain substantially sharp throughout the life of the attachment; that is to say, even though the bottom edges of these calks wear off, the metal being comparatively thin will insure a substantial grip for the device in connection with icy or other slippery pavements. As shown in Fig. 4, these frusto-conical forms assist in maintaining the plate 10 from displacement in connection with the U-shaped part of the yoke as applied in the manner before described.

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

1. In a device of the class set forth, the

combination of a rigid plate having a plurality of gripping devices extending downwardly therefrom, said plate also having a downwardly projecting lug adjacent its rear edge, and means to secure said plate to the toe portion of an ordinary horseshoe, said securing means including a metallic yoke having its intermediate portion cooperating with said downwardly projecting lug, the yoke from said intermediate portion extending forwardly along the bottom of the plate between the outermost of said gripping devices and said lug and extending thence upwardly and rearwardly around the hoof.

2. In a horse overshoe, the combination of a rigid metallic plate having an upwardly projecting lug adapted to cooperate with the rear edge of the front part of a shoe, said plate having a plurality of downwardly projecting integral gripping devices, one of said devices being located at each end of the plate, and other of said gripping devices extending downwardly from the plate in spaced relation to those at the ends, and means to secure said plate in position beneath the toe portion of the shoe, said securing means including a yoke having a U-shaped intermediate portion arranged against the bottom of the plate in a horizontal plane, the legs of the U-portion lying just within the gripping members of the ends of the plate, means on the lower portion of the plate cooperating with said U-portion preventing rearward displacement of the plate, and means to secure the yoke around the hoof.

3. In a horse overshoe, the combination of a rigid plate having an upwardly projecting lug on its upper surface, a downwardly projecting lug on its bottom, and a plurality of downwardly projecting integral gripping devices, in combination with a yoke having a substantially horizontal intermediate portion engaging snugly in the rear of the downwardly projecting lug and extending thence forwardly across the bottom of the plate between certain of said gripping devices and extending thence upwardly and rearwardly around the hoof, and means to detachably connect the yoke to the hoof and maintain the plate against the front part of an ordinary shoe with said upwardly projecting lug engaging in the rear of the toe portion of said shoe.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN JOSEPH O'CONNELL.

Witnesses:

GEO. L. BEELER,  
PHILIP D. ROLLHAUS.