## P. W. ZELLER. AUXILIARY HORSESHOE. APPLICATION FILED DEC. 16, 1910.

Patented Apr. 11, 1911. 989,469. INVENTOR WITNESSES Paul W. Zeller N: Whiting... ATTORNEYS

## UNITED STATES PATENT OFFICE.

PAUL W. ZELLER, OF BUFFALO, NEW YORK.

989,469.

Patented Apr. 11, 1911. Specification of Letters Patent.

Application filed December 16, 1910. Serial No. 597,596.

To all whom it may concern:

Be it known that I, PAUL W. ZELLER, a citizen of the United States, and a resident of Buffalo, in the county of Erie and State 5 of New York, have invented a new and Improved Auxiliary Horseshoe, of which the following is a full, clear, and exact description.

This invention relates to a new and im-10 proved auxiliary horseshoe adapted to be

attached to a horse's hoof.

In the ordinary horseshoe, when it becomes worn, it is necessary to take the horse to the blacksmith and waste a considerable 15 amount of time in order to replace the worn shoes with new ones.

An object of my invention, therefore, is to provide a detachable auxiliary shoe which can be attached and detached in a remark-20 ably short space of time, and which still may be securely fastened to the horse's hoof, so that it cannot be accidentally disengaged, and so that the horse cannot kick it off.

A further object of this invention is to 25 provide a horseshoe with a resilient body portion having sharpened metallic projections embedded in the body portion, adapted to engage the ground, to prevent slipping.

These and further objects, together with 30 the construction and combination of parts, will be more fully described hereinafter and

particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this speci-35 fication, in which similar characters of reference indicate corresponding parts in all the views, and in which-

Figure 1 is a side view in elevation; Fig. 2 is a front view in elevation; Fig. 3 is a 40 horizontal section on the line 3-3 of Fig. 4; Fig. 4 is a vertical section on the line 4-4 of Fig. 3; and Fig. 5 is a detail perspective view of the plate having the antislip tabs thereon.

Referring more particularly to the separate parts of the invention as embodied in the form shown in the drawings, 1 indicates a horse's hoof, which in this invention may be provided with the ordinary, common 50 horseshoe 2, having well known forms of

calks 3. The invention is provided with a resilient body portion 4 of any suitable material,

such as rubber, preferably of such shape and 55 size as to fit between the calks 3 and to con-

form generally to the outline of the hoof. The body 4 is provided with diagonal slots or passages 5, through which extend flexible straps 6 of any suitable material, such as rawhide. These straps are provided at one 60 end with means for forming an obstruction of greater size than the thickness of the strap, which may be of any suitable character, such as that indicated in Figs. 1 and 3, by folding the strap a number of times and 65 securing the whole together in a bunch or enlargement 7 by means of rivets 8. The body portion 4 may be provided with a projecting lug 9, adapted to fit in between the rear calks 3, so as to prevent sidewise mo- 70 tion of the auxiliary shoe.

Cast in the body portion 4, there is provided a reinforcing metallic structure of any suitable character, such as a plate 10, which may be provided with a rear tab 11, 75 adapted to reinforce the lug 9. This plate 10 is provided with a plurality of anti-slip members 12, which project a slight distance beyond the lower surface of the body portion 4, so as to engage the ground and pre- 30 vent the larse from slipping. These antislip members 12 may be of any suitable character, and are shown in the form of triangular tabs 13 cut and bent out of the body of the plate 10, and extending sub- 85. stantially at right-angles thereto. It will be seen that the plate 10 is preferably circular, and that the tabs 13 are in the form of radially-arranged triangles. Each of the straps is provided adjacent the opposite end 90 to that at which the enlargements 7 are formed, with a plurality of openings 14, through which may extend prongs 15 on a double buckle 16. A loop collar 17 may be provided for securing over the ends of one 95 of the straps when secured to one of the buckles.

In the operation of the device, a pair of holes 18 are burned or cut in the horse's hoof 1, of sufficient size to permit the body 100 of the straps 6 to pass therethrough, and not large enough to permit the enlargements 7 to pass through. The straps are then inserted from the inside toward the outside, and pass diagonally through the 105 body portion 4. The body portion 4 of the auxiliary shoe is then placed on the bottom of the main shoe 2 between the calks. The straps 6 are then extended on opposite sides of the hoof, and buckled a considerable dis- 110 tance up on the front of the hoof, so as to securely fasten the auxiliary shoe to the hoof.

It will thus be seen that there is provided a simple and efficient auxiliary shoe, which cannot be kicked off or accidentally displaced, and which will be quite resilient, saving the horse's feet, and at the same time preventing him from slipping. The anti10 slip members 12, while seemingly thin, are embedded or cast in the rubber body portion 4, so that it will be impossible for them to bend or break.

While I have shown one embodiment of my invention, I do not wish to be limited to the specific details thereof, but desire to be protected in various changes, alterations and modifications which may come within the scope of the appended claims.

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

Patent:—

1. In a horseshoe, the combination with a resilient body portion having a plurality of slots extending therethrough, of straps extending through said slots, each of said straps having an enlargement on one end, adapted to prevent the passage of the strap through an opening substantially of the same cross-section as the strap, and a double buckle adapted to secure the ends of said straps together.

2. In a horseshoe, the combination with a resilient body portion having a plurality of diagonally-disposed slots therein, of straps extending through said slots, each of said straps being provided at one end with an enlargement of greater cross section than

the body of the straps, means for securing the ends of said straps together, and 40 a reinforcing disk embedded in said body portion, said reinforcing disk having a plurality of triangular tabs struck from the body thereof and extending at right-angles thereto so as to project beyond the surface 45 of said body portion to form anti-slip members.

3. In an overshoe adapted to be used on a horse's hoof already having an ordinary shoe thereon, the combination with a resilient body portion, of straps adapted to be secured between said hoof and said ordinary shoe, adjacent the toe of said hoof, said straps being secured to said body portion, and means for securing the opposite 55

ends of said straps together.

4. In an overshoe adapted to be used on a horse's hoof already having an ordinary shoe thereon, the combination with a resilient body portion, having a plurality of slots 60 therein extending therethrough, of straps adapted to extend through openings between said hoof and said ordinary shoe, and having enlargements on one end of each strap, adapted to secure the ends of said strap to 65 said hoof, said straps being also adapted to pass through said slots in said body portion, and means for securing the opposite ends of said straps together.

In testimony whereof I have signed my 70 name to this specification in the presence of

two subscribing witnesses.

PAUL W. ZELLER.

Witnesses:
Albert J. Fisher,
Chas. Zeller.