No. 861,033. PATENTED JULY 23, 1907.

R. E. L. HUMPHREYS.

HORSESHOE.

APPLICATION FILED MAY 22, 1907.

Fig. 1.

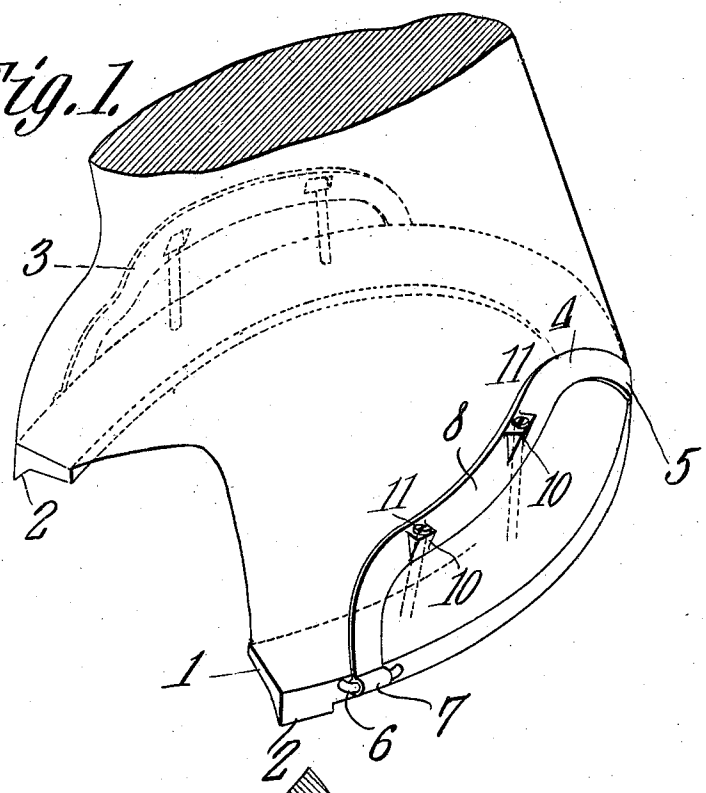
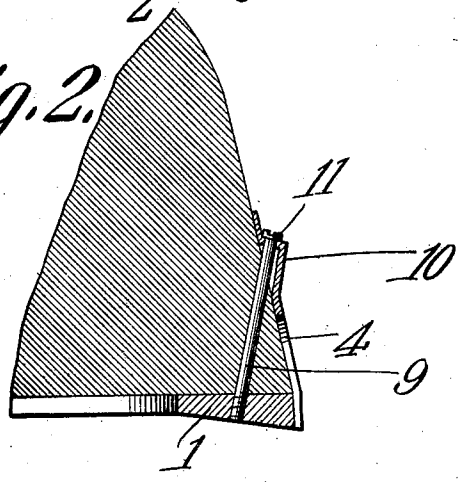


Fig. 2.



Robert E. L. Humphreys,
INVENTOR.

WITNESSES:

E. P. Stewart

C. A. Brittenum

By C. A. Snow & Co.
ATTORNEYS

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ROBERT E. LEE HUMPHREYS, OF GREENVILLE, WEST VIRGINIA.

HORSESHOE.

No. 861,033. Specification of Letters Patent. Patented July 23, 1907.

Application filed May 22, 1907. Serial No. 375,063.

To all whom it may concern:

Be it known that I, ROBERT E. LEE HUMPHREYS, a citizen of the United States, residing at Greenville, in the county of Monroe and State of West Virginia, have invented a new and useful Horseshoe, of which the following is a specification.

The present invention relates to improvements in horseshoes, and it has for its object to provide an improved device of this character that is capable of being firmly secured to the hoof without the use of nails that crack and otherwise injure the hoof by reason of the frequent replacing of shoes that have been worn or lost, and to provide such a device that is capable of accommodating itself to hoofs of different sizes and shapes, the device being so constructed that it may be easily applied and it may be manufactured cheaply; and being free from projections, it is not liable to catch on objects that would trip the horse.

To these and other ends, the invention comprises the various novel features of construction and combination and arrangement of parts, which will be hereinafter more fully described, and pointed out particularly in the appended claims.

In the accompanying drawings:—Figure 1 is a perspective view of a horseshoe constructed in accordance with the present invention, the horseshoe being shown applied to the hoof. Fig. 2 represents a section through one side of the shoe showing one of the securing devices.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

The horseshoe shown in the present embodiment of the invention comprises a body portion 1 which has the general outline similar to the ordinary horseshoe, that is to say, it is shaped to conform to the shape of the bottom of the hoof, and in the present instance it is relatively thick on the outer periphery, and tapers toward the inner edge of the shoe, as shown in Fig. 2, a pair of calks 2 being preferably provided at the heel of the shoe which serve to prevent slipping on smooth pavements.

The attaching devices for securing the shoe upon the hoof comprise, in the present instance, a pair of clamping members 3 and 4, which are arranged on opposite sides of the shoe and are adapted to coöperate with the opposite sides of the hoof, the members shown in the present instance being each composed of a strip or plate of sheet metal having one end secured rigidly by welding or other means, to the outer edge of the shoe at 5, while the opposite end of the strip has a hinge connection with the shoe that will permit a relative proximating or separating movement of the members that will enable them to accommodate themselves to hoofs of different sizes. Any suitable form of hinge connection may be employed, that shown in the present instance comprising a pintle 6 having its ends turning inwardly and suitably secured on the outer edge of the shoe, and the coöperating end of the strip is rolled, as at 7, to form a bearing to receive the pintle. The strip of each member has substantially the form of a loop, the ends thereof being attached to the shoe, as described, and the intermediate portion of the strip being so shaped as to conform to the curvature of the hoof in a horizontal plane and to the inclination of the sides in a vertical plane, the pivotal connection between one end of the strip and the shoe permitting variations in the inclination thereof, while the bowed portion 8 of the strip conforms substantially to the curvature of the hoof and permits the strip to lie in close relation to the hoof, thereby avoiding the formation of projections that might cause tripping of the horse.

The clamping members are held in coöperative relation with the hoof, in the present instance, by means of fastening screws 9, which extend through the strip and are threaded, or otherwise fastened, to the body of the shoe, the strip being provided, in the present instance, with offset portions 10 which form seats for the screw heads 11, the screws passing through apertures which are formed in the hoof in alinement with the apertures in the clamping members and the body portion of the shoe, tightening of the screws operating to draw the clamping members firmly into coöperative relation with the hoof at the sides, and at the same time drawing the body portion of the shoe into coöperative relation with the bottom of the hoof.

A horseshoe constructed in accordance with the present invention may be manufactured at a slight cost over the ordinary horseshoe, as it is unnecessary to provide the usual nail holes, and the clamping members are comparatively simple in construction, and as the screws may be applied from the upper side of the shoe, the operation of shoeing horses, when shoes embodying the present invention are employed, is less difficult to perform. Moreover, in employing shoes constructed in accordance with the present invention, it is possible to maintain the hoofs in better condition, for the reason that it is only necessary to provide a single set of holes in the hoof to receive the screws, and whenever it is necessary to replace a worn shoe, the screws may be replaced in the same holes.

What is claimed is:—

1. A horseshoe comprising a body portion adapted to cooperate with the bottom of a hoof, a pair of relatively adjustable members attached to the shoe and adapted to cooperate with the side of the hoof, and devices for connecting the adjustable members and the body portion of the shoe and operating to proximate the adjustable members to retain the body portion and the said members in coöperative relation with the hoof.

2. A horseshoe comprising a body portion adapted to cooperate with the bottom of the hoof, a pair of coöperatively arranged members attached to the shoe and adapted

to engage the opposite sides of the hoof, and devices connecting the respective members and the body portion for drawing the members toward one another and into cooperative relation with the hoof.

3. A horseshoe comprising a body portion adapted to cooperate with the bottom of the hoof, a pair of coöperatively arranged members composed of resilient material each having one end rigidly fixed to the body of the shoe and having its opposite end adjustably attached thereto for permitting a relative proximating and separating movement of the members in a plane substantially perpendicular to the plane of the body of the shoe, and devices cooperating with the said members for securing the body of the shoe in coöperative relation to the hoof.

4. A horseshoe comprising a body portion adapted to cooperate with the bottom of the hoof, a pair of coöperatively arranged members attached to the shoe and adapted to engage the opposite sides of the hoof, and screws extending between the said members and the body portion and adapted to extend through a portion of the hoof for drawing the said members toward one another to clamp the sides of the hoof.

5. A horseshoe comprising a body portion adapted to fit the bottom of the hoof, a pair of coöperatively arranged members adapted to engage the opposite sides of the hoof each embodying a resilient strip of substantially loop form having one end rigidly attached to the body portion of the shoe and provided with a hinge connection at its opposite end for permitting a pivotal movement of the members in a plane substantially perpendicular to the body of the shoe, and devices coöperating with the said members for securing the body portion of the shoe in coöperative relation to the hoof and for drawing the said members against the side thereof.

6. A horseshoe comprising a body portion adapted to cooperate with the bottom of the hoof, clamping members arranged to coöperate with the sides of the hoof each composed of a loop-shaped strip of flat material having its ends attached to the body portion of the shoe, and shaped to conform to the curvature and inclination of the hoof, and devices extending in a direction inwardly and downwardly through the said members and coöperating with the body portion of the shoe for retaining it in engagement with the hoof and for proximating the clamping members.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ROBERT E. LEE HUMPHREYS.

Witnesses:
B. A. OWEN,
P. D. HENSHAW.