(No Model.)

J. B. GRAVIS.

CUSHIONED HORSESHOE.

No. 591,252. Patented Oct. 5, 1897.

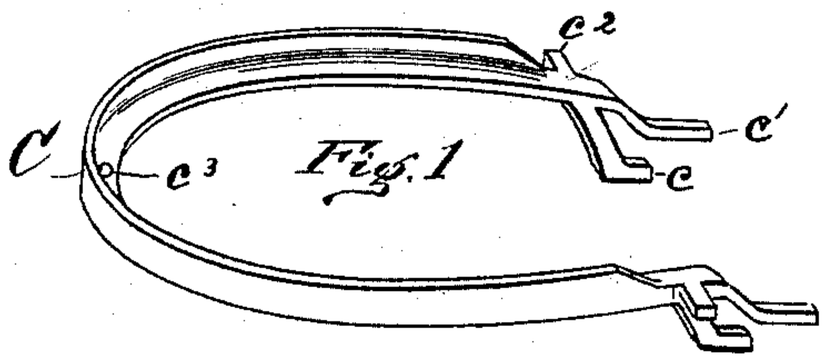

Fig. 1

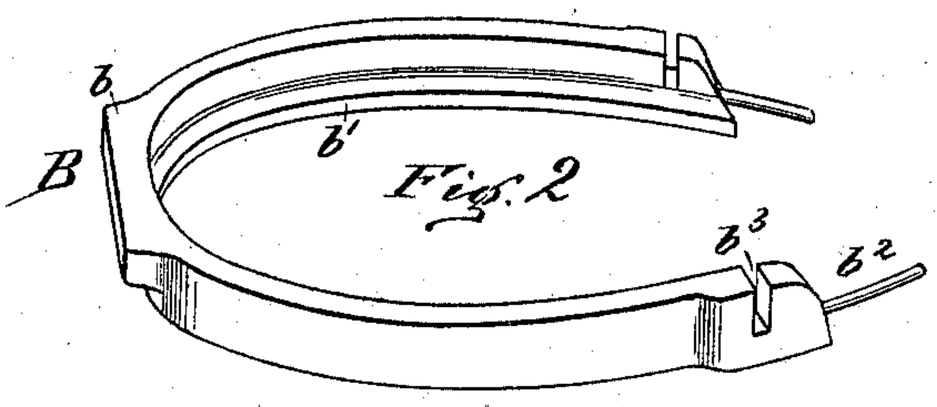

Fig. 2

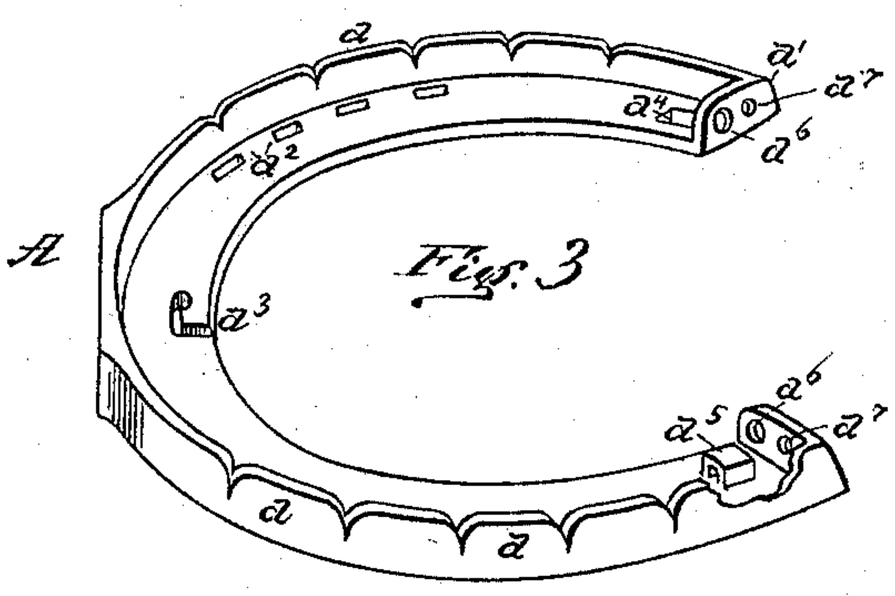

Fig. 3

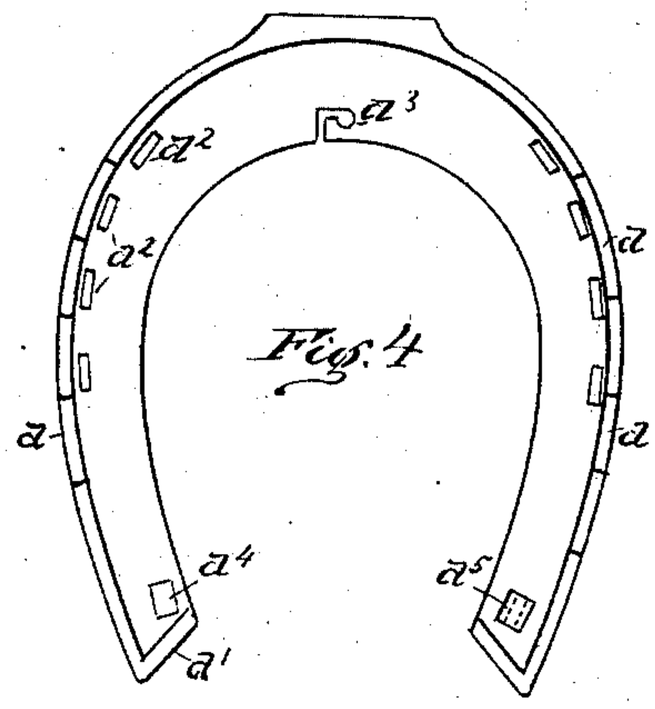

Fig. 4

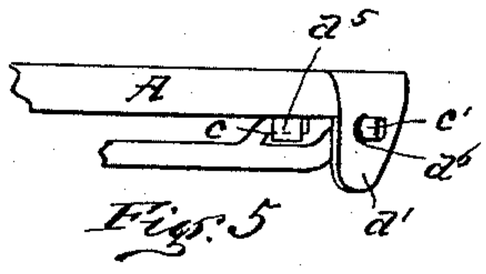

Fig. 5

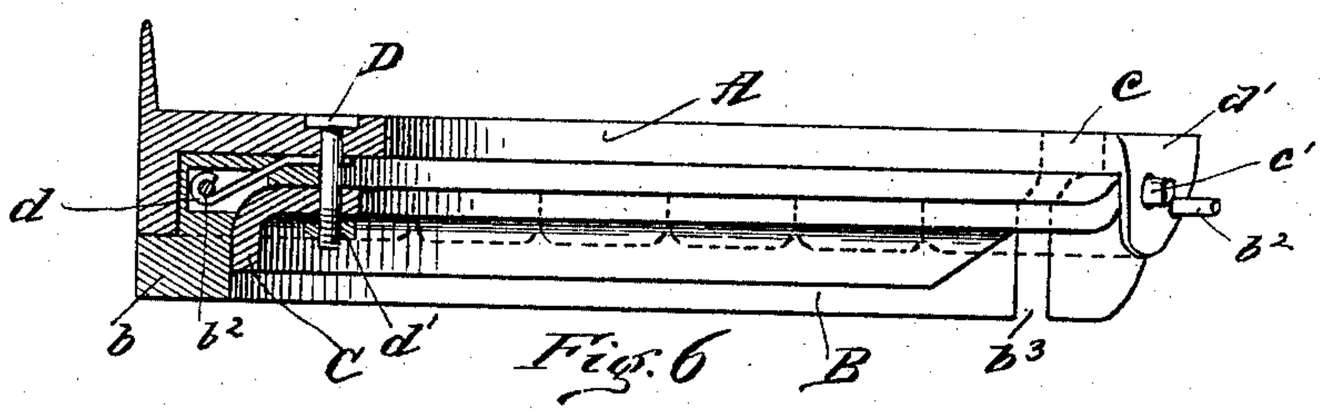

Fig. 6

WITNESSES

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CUSHIONED HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 591,252, dated October 5, 1897.

Application filed June 17, 1897. Serial No. 641,108. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. GRAVIS, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have invented a new and useful Improvement in Horseshoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to improvements in horseshoes; and it consists of certain features of construction and combination of parts by which a soft-rubber cushion is held in engagement with the horseshoe by means of a clamping-plate, and the same may be readily removed, when desired, for the purpose of renewing the rubber cushion, as will be hereinafter more fully described and claimed.

Figure 1 is a perspective view of the clamping-plate. Fig. 2 is a perspective view of the rubber cushion. Fig. 3 is a perspective view of the shoe. Fig. 4 is a plan view of the shoe. Fig. 5 is a detail perspective view showing one of the methods of engaging the clamping-plate to the shoe at the heel thereof. Fig. 6 is a sectional view through the toe or front of the shoe and showing the relative positions of the several parts.

In the accompanying drawings similar letters of reference refer to similar parts.

A represents a horseshoe having formed upon its outer edge clips a, terminating in raised portions a' at the heel and at right angles thereto. In the base of the shoe are provided the usual perforations a^2 for the passage of the nails, and in the center of the forward portion thereof, adjacent to the toe, there is provided an L-shaped slot a^3. Adjacent to the heel and on the right-hand side of the shoe there is provided a perforation a^4 for the purpose of engaging the projecting prong upon the retaining or locking plate, and upon the other or opposite side of the shoe there is provided a loop or staple a^5 for a like purpose. Either form may be used, or one may be used, as shown, on one side of the shoe and the other upon the other. Through the raised or closed portion of the heel there are provided upon either side two perforations a^6 and a^7 for the purpose of engaging the projecting prongs of the retaining-clamp and the stiffening-wire passing through and around the rubber cushion.

B represents a soft-rubber cushion adapted to conform to the shape of the inner portion of the shoe A and having a projecting toe b, which rests upon the metal toe of the shoe A, and an inwardly-projecting flange b', which is adapted to rest upon the bottom of the shoe. Passing entirely through the soft-rubber cushion B and extending from each heel thereof there is a stiffening-wire b^2, the projecting ends of which are adapted to engage with or pass through the holes a^7 in the heel of the shoe. Upon either heel of the rubber cushion there is countersunk a slot b^3, adapted to receive corresponding prongs or projections upon the clamping or retaining plate.

C is a light metal clamping or retaining plate adapted to conform in size and shape to the configuration of the inner portion of the soft-rubber cushion B and having formed upon its inner flanged portion and upon either heel thereof projecting lugs or tongues c c', adapted to engage with the shoe A, and a lug or tongue c^2, adapted to engage with the slot b^3 in the rubber cushion B. In the forward or toe portion of the locking-plate C there is provided a hole c^3, through which there is passed the retaining-bolt D. The retaining-bolt D is slipped into the L-shaped slot a^3 in the shoe A. The rubber cushion is then placed in position and a loop or hooked wire d engages the stiffening-wire b^2, which passes through the rubber cushion B. One end of the hooked wire d is then passed around the clamping or locking bolt. Plate C is placed in position and a retaining-nut d' is screwed upon the bolt, thus holding all parts in engagement.

In operation the shoe or base-plate A is first fitted to and nailed to the foot of the horse. The rubber cushion B is then placed in position, the extending ends of the stiffening-wire b^2 engaging with the openings a^7 in the heel of the shoe. The retaining or locking plate C is then placed in position, the respective prongs c, c', and c^2 thereof engaging with the shoe and the rubber cushion. The bolt D is then placed in position and the wire d engages the stiffening-wire b^2 therewith. The nut d' is then placed in position and se-

curely screwed down, holding and clamping the cushion B in position. In case it should be desired to remove the cushion B for any purpose of renewal or otherwise the nut is removed. The clamping or locking plate is then readily withdrawn and the rubber cushion is in position to be removed or adjusted, as may be desired.

I am aware that heretofore there have been metallic shoes adapted to be nailed to the foot of a horse and having clips or flanges and soft-rubber portions to engage therewith held in engagement with the shoe by means of screws; but such a construction has proved to be impractical because of the fact that the screws became disengaged by the continued use of the shoe; but my device overcomes all these difficulties, and, while providing a soft cushioned shoe having a metallic base or plate for engagement with the hoof, at the same time provides an easy means for renewing the rubber cushion and a safe means of holding it in position while in use.

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

1. An elastic-tread horseshoe comprising a metallic plate, having formed upon its outer edge clips terminating in vertical flanges at the heel, a rubber cushion seated therein, a clamping-plate having projecting lugs engaging the metallic plate, and a retaining-bolt, substantially as described and for the purpose set forth.

2. An elastic-tread horseshoe comprising a metallic plate having formed upon its outer edge clips terminating at the heel in vertical flanges at right angles thereto, a rubber cushion seated therein and carrying a stiffening-wire, the free ends of which engage the vertical projections at the heel, a clamping-plate having projecting lugs adapted to engage the metallic plate, and a retaining-bolt by means of which the metallic plate and clamping-plate are held in engagement, substantially as described and for the purpose set forth.

3. The combination in an elastic-tread horseshoe, of a metallic plate having formed upon its outer edge clips, closed heels at right angles thereto, a rubber cushion adapted to be seated therein, and a clamping-plate conforming thereto and having projecting flanges adapted to engage with the metallic plate, and a retaining-bolt by means of which the metallic plate and clamping-plate are held in engagement, substantially as described and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 14th day of June, A. D. 1897.

JOHN B. GRAVIS.

Witnesses:
CHAS. R. MILLER,
BURT A. MILLER.