No. 809,144. PATENTED JAN. 2, 1906.

J. SINGLETON.

HORSESHOE.

APPLICATION FILED MAR. 7, 1903.

2 SHEETS—SHEET 1.

FIG. 1

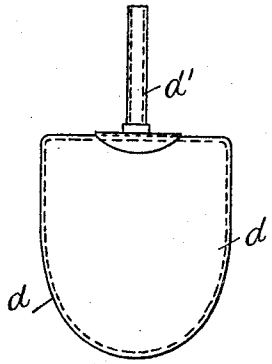


FIG. 2

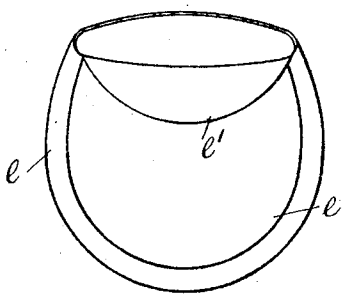


FIG. 3

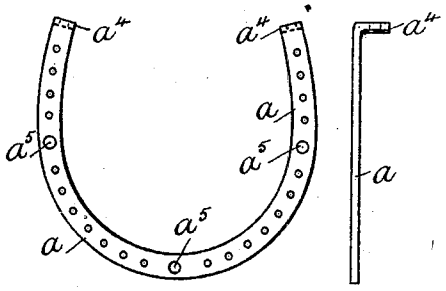


FIG. 4

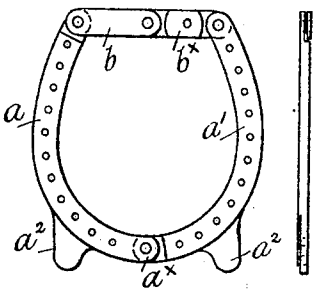
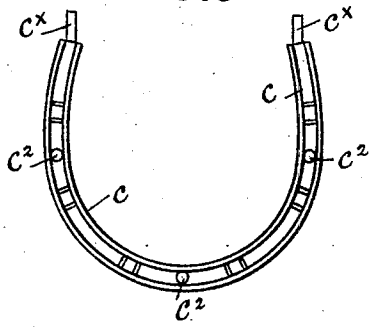


FIG. 5



WITNESSES:

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2 SHEETS—SHEET 2.

FIG. 7

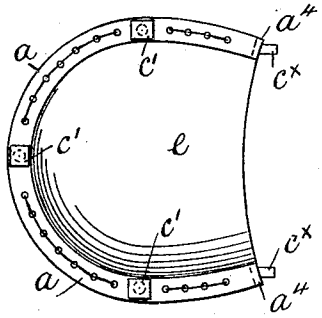


FIG. 9

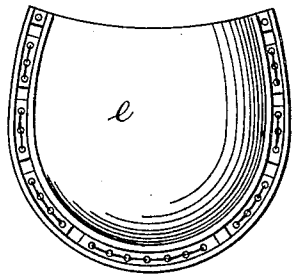


FIG. 8

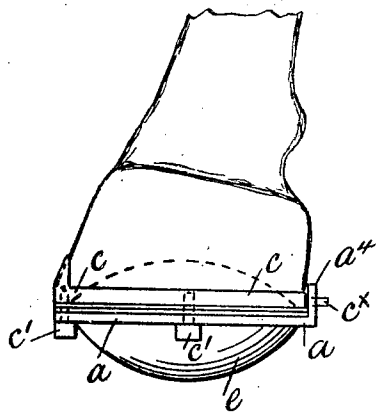
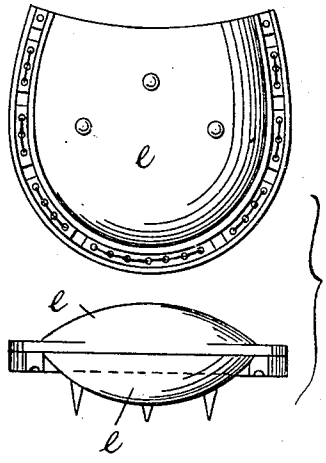


FIG. 6.



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UNITED STATES PATENT OFFICE.

JOHN SINGLETON, OF MANCHESTER, ENGLAND.

HORSESHOE.

No. 809,144. Specification of Letters Patent. Patented Jan. 2, 1906.

Application filed March 7, 1903. Serial No. 146,642.

To all whom it may concern:

Be it known that I, JOHN SINGLETON, a subject of the King of Great Britain and Ireland, residing at Clayton Bridge, Manchester, in the county of Lancaster, England, have invented new and useful Improvements in or Applicable to Horseshoes, of which the following is a specification.

This invention relates particularly to an improvement that is applicable to or that may be employed in combination with the shoes which are fixed on the hoofs of horses during the period they are running in a race or training for a race, but is alike applicable to or may be employed in combination with the shoes worn by carriage or other horses.

In the accompanying drawings, illustrating my said invention, and to which I hereinafter refer, Figure 1 is an india-rubber air-bag with tubular valve attached. Fig. 2 is an envelop or cover for the air-bag. Figs. 3 and 4 are metallic rims to either of which said cover may be attached when the pad is only required for temporary use. Fig. 5 is an ordinary metallic shoe with the ends pointed. Fig. 6 shows a non-slipping device which may be employed in combination with the pad. Figs. 7 and 8 show the aforesaid pad containing compressed air secured to a metallic rim, as shown in Fig. 3, and fixed to the shoe attached to the foot. In Fig. 9 a pad containing compressed air is shown secured permanently to an ordinary shoe.

In these views the same letters refer to like parts.

According to this invention I provide an air-proof india-rubber or other elastic pad whose contour or outline is in the form of a horseshoe, which can be inflated by means of any preferred form of valve so as to contain compressed air. I form said pad by means of an india-rubber bag, as *d*, Fig. 1, which may have either a tubular valve *d'*, as shown, or other preferred valve attached thereto. I insert this pad in a cover or envelop, as *e*, Fig. 2, formed of strong canvas, preferably covered with india-rubber on the wearing-surface. I stitch or otherwise secure the edges of this cover to a metallic rim, such as is shown in Figs. 3 and 4, by which the pad may be attached to the animal's foot without removing the shoe. Referring to Fig. 3, the ends a^4 of the rim *a* are bent up and a hole formed therein, and each end of the shoe *c*, Fig. 5, is filed down, so as to form pins $c^\times$, as shown, to insert in said holes. The front portion of the rim is fixed to the shoe by studs *c'*, which are passed through holes a^5 in the rim and inserted in correspondingly-placed holes c^2, tapped in the metallic shoe *c*, as shown in Figs. 7 and 8. In these views the pad inflated is shown affixed to the rim and said rim fixed to the metallic shoe that is nailed to the animal's foot, the pad with the rim being removable therefrom when the exercise or race is finished without removing the permanent shoe.

In the modification shown in Fig. 4 the metallic rim is formed in two parts *a* and *a'*, which are hinged at the toe portion $a^\times$ and connected at the heel by two narrow swivel-bars *b* $b^\times$, which when placed straight expand the heel portions of the rim, so as to fit firmly against the inner edge of an ordinary shoe. I form two or other preferred number of projections, as a^2, on the outer edge of the hinged rim, which are inserted in recesses or grooves cut in the inner surface of the metallic shoe, or said grooves may be cut in the hoof, so that when the rim is placed on the foot by being inserted between the shoe and the hoof and expanded by the aforesaid swivel-bars it is firmly retained therein. When the aforesaid pad is not required to be removed until worn out, it may be attached to the permanent shoe before said shoe is nailed to the animal's foot. If for the purpose of inflating the air-bag *d* a valve is employed, such as *d'*, attached thereto, (shown in Fig. 1,) the bag is first inserted in the cover and air pumped in through said valve, which is then firmly tied round near the neck, solutioned, and tested. It is then further tied in one or more places along the tube. Said tube is then bent onto the bag and the flap *e'* of the cover drawn over and solutioned down, so as to perfectly inclose the air-bag. An ordinary metallic valve may be employed in place of the valve *d'*, when preferred.

I claim as my invention—

1. A detachable hoof-pad, comprising a metal frame, a bag secured thereto, an inflatable rubber pad within the bag, and means for detachably securing it to a permanent metal shoe.

2. In combination with a permanent metal horseshoe, having pins projecting from the rear ends and stud-holes in the shoe, a hoof-

pad comprising a metal frame with turned-up ends, holes in said upturned ends adapted to fit over the pins of the shoe, studs projecting through the hoof-pad frame and fitting the stud-holes in the shoe, and an inflatable bag stitched to said frame.

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

JOHN SINGLETON.

Witnesses:
THOS. PRESCOTT,
JNO. HUGHES.