No. 737,845. PATENTED SEPT. 1, 1903.

E. H. JACKSON.

HORSESHOE.

APPLICATION FILED NOV. 29, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

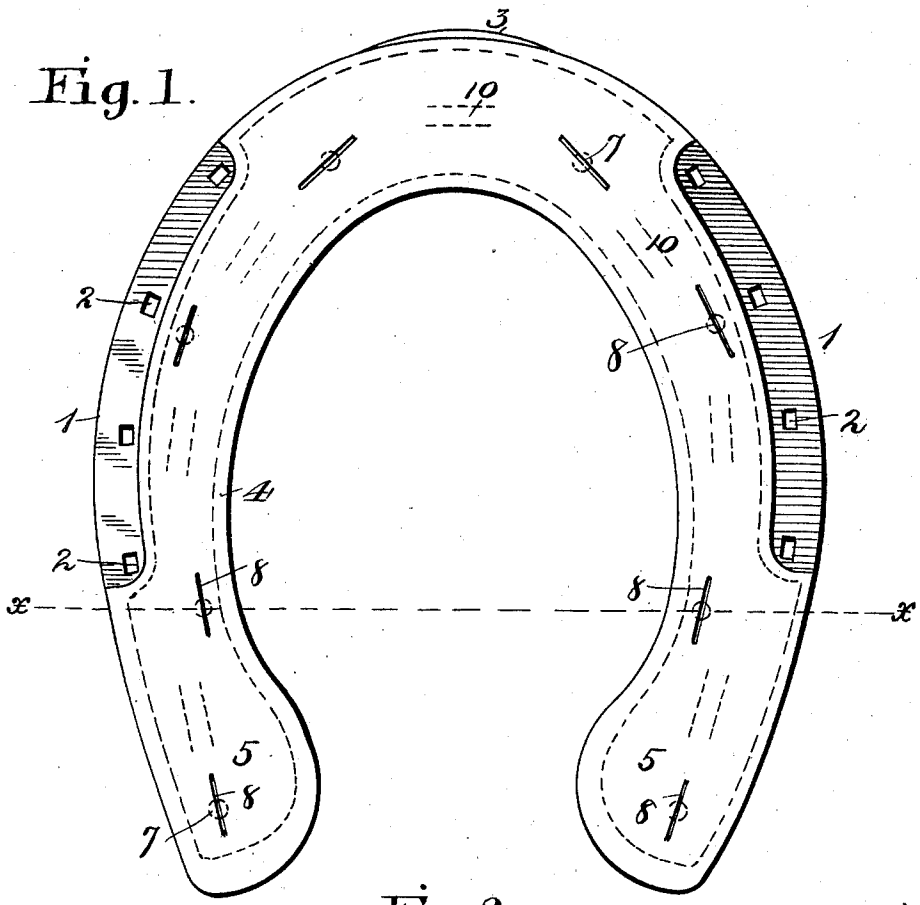
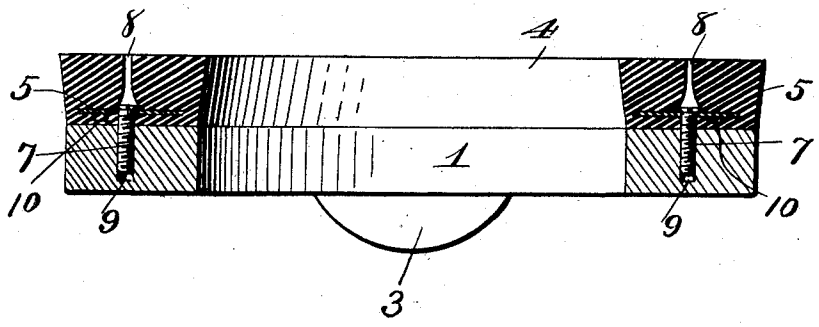


Fig. 2.



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No. 737,845. PATENTED SEPT. 1, 1903.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

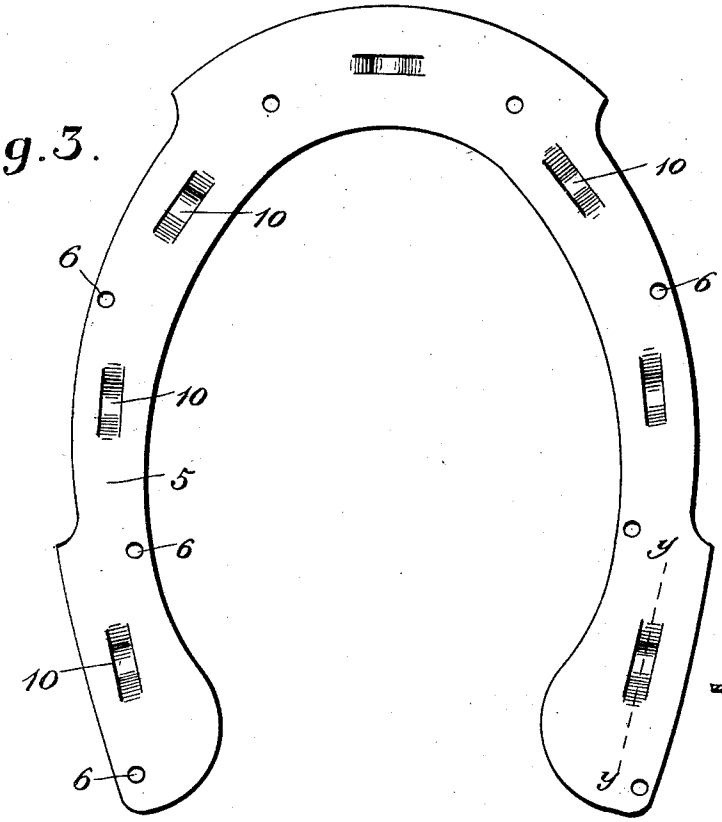


Fig. 4.

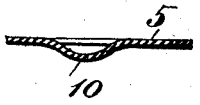


Fig. 5.

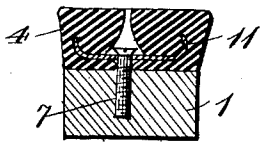


Fig. 6.

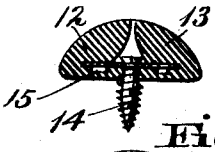
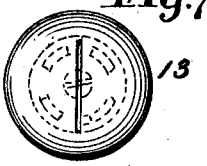


Fig. 7.



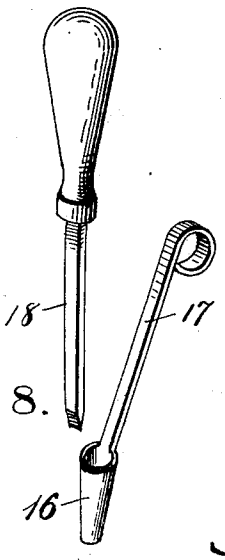


Fig. 8.

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No. 737,845. Patented September 1, 1903.

UNITED STATES PATENT OFFICE.

EPPA HUNTON JACKSON, OF COLVINRUN, VIRGINIA.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 737,845, dated September 1, 1903.

Application filed November 29, 1902. Serial No. 133,183. (No model.)

To all whom it may concern:

Be it known that I, EPPA HUNTON JACKSON, a citizen of the United States, residing at Colvinrun, in the county of Fairfax and State of Virginia, have invented certain new and useful Improvements in Horseshoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in horseshoes, and more particularly to a resilient cushioned horseshoe which will be found very desirable in protecting the animal's feet against blows and jars incident to driving a horse over a pavement or the like; and my invention consists of certain novel features of combination and construction of parts, the preferred form whereof will be hereinafter clearly set forth, and pointed out in the claims.

The prime object of my invention is to provide a shoe which shall possess a maximum degree of resiliency consistent with the use of a minimum amount of material.

A further object of my invention, among others, is to provide a cushion attachment which may be readily applied to use upon an ordinary horseshoe as now constructed by means of a slight modification of such shoe.

A further object of my invention is to provide means for reliably anchoring the cushion, formed of rubber or other preferred material, in position upon the horseshoe proper, whereby the cushion so disposed will remain until worn away by use or otherwise removed.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which are made a part of this application, and in which—

Figure 1 shows a plan view of the under side of my improved horseshoe ready for use. Fig. 2 shows a transverse section of Fig. 1 on line $x\ x$. Fig. 3 is a plan view of the outer side of the anchoring-plate employed to reinforce and hold the rubber cushion in place. Fig. 4 is a detail showing a longitudinal section of a portion of the plate illustrated in Fig. 3, the line of said section being indicated by dotted line $y\ y$ in Fig. 3. Fig. 5 shows a transverse section of the horseshoe and cushion, illustrating a slightly-varied form of construction for the anchoring-plate. Figs. 6 and 7 show, respectively, a central section and top plan view of my form of anchoring-plate applied to use upon a cushion-button, the position of the reinforcing metallic plate being indicated by dotted lines. Fig. 8 shows a device employed by me for more readily introducing the anchoring-screw employed to hold the rubber cushion in position upon the horseshoe or for anchoring the button in place.

For convenience in referring to the various details of my invention and coöperating accessories numerals will be employed, the same numeral applying to a similar part throughout the several views.

Referring to the numerals on the drawings, 1 indicates the horseshoe proper, formed of metal, as is common, and provided with a plurality of nail-apertures 2 for the purpose of anchoring the shoe in place upon the hoof of the animal. The shoe may be constructed of any preferred size and style deemed necessary for meeting all the requirements either for a shoe for heavy draft-horses or a driving-shoe, and the shoe may or may not be provided, as is common, with the toe-section 3, which extends upward in front of the hoof and is designed for assisting in holding the shoe in place. Upon the outer side of the shoe thus or otherwise constructed I dispose my improved cushion 4, as more clearly seen in Fig. 2, said cushion consisting, preferably, of rubber, though any suitable composition possessing a sufficient degree of resiliency may be employed. In order that the rubber cushion may possess a sufficient power to resist wear to a maximum extent, the rubber or equivalent employed to form such cushion may be thoroughly incorporated with fine particles of steel or iron borings or coarsely-pulverized emery. My cushion thus or otherwise formed is preferably shaped so as to cover the entire lower surface of the metallic portion or shoe proper, excepting the margin thereof on each side in which the nail-holes 2 are formed, thereby leaving said marginal portion ready for the reception of the nails, and thus enable the shoe to be readily anchored in place upon the hoof.

My improved cushion proper, 4, is anchored in position upon the metallic part of the shoe by means of the anchoring-plate 5, preferably formed of hardened steel of such shape as to conform to the general shape of the shoe proper, but of less width and length. Said anchoring-plate 5 is designed to be completely embedded within the resilient cushion 4 at the time the same is formed, inasmuch as said plate can be readily and perfectly inclosed when the cushion is molded ready for use. The anchoring-plate 5 is provided at proper intervals with a plurality of apertures 6, designed to receive suitable anchoring-screws or the equivalent 7, it being understood that properly-located apertures 8 are also to be formed in the cushion 5, so as to register with the position of the apertures 6 in the anchoring-plate. I prefer to slightly stagger the apertures 6, whereby the plate and the cushion within which it is embedded will be reliably secured when the anchoring-screws 7 are entered into position, it being understood that said anchoring-screws are designed to enter threaded apertures 9, provided in the metal portion or shoe proper. The apertures 8 may in some instances be replaced by a slit in the rubber, which will open to receive the head of the screw and will again close after the screw has been entered, and thereby prevent dirt or the like from entering. I prefer in some instances to also form the plate 5 with a plurality of struck-up portions or integral tongue-sections 10, which, as will be observed in Figs. 3 and 4, lie slightly above the plane of the plate proper and rest against the portion of rubber interposed between them and the shoe.

The reinforcing-plate, it will be understood, may be placed within the cushion 4 at any preferred point therein; but it is thought that best results will follow when said plate is disposed relatively near the shoe proper, thus leaving the major portion of the cushion to be worn away before the anchoring-plate is exposed. The edges of the anchoring-plate, as will be seen in Fig. 5, may in some instances be curved outward and downward, so as to provide a greater surface to engage the rubber cushion, said curved edges being indicated in Fig. 5 by the numeral 11.

It will be seen in Figs. 6 and 7 that the reinforcing-plate, as indicated by the numeral 12, may be round in outline and completely embedded within the body of the button 13. The said plate 12 is provided with a centrally-disposed aperture designed to receive the anchoring-screw 14, while the anchoring-plate itself may also be provided with a plurality of struck-up portions 15, if deemed desirable. The anchoring-screw 14 may be entered through a slit or a small aperture in the central portion of the button, it being understood that the slit or aperture, as the case may be, is to be made small in size, so that when the anchoring-screw is entered the head thereof will be hidden from view.

In order to facilitate the introduction of the anchoring-screw 7 or 14, the instruments illustrated in Fig. 8 may be employed, consisting of a tubular slightly-tapered socket portion 16, having an integral handle 17. It is obvious that the tubular section 16 may be readily entered within the slit or aperture in the cushion and the screw entered through said tubular portion and driven home by a suitable screw-driver 18, so that when the tubular portion is withdrawn the rubber will close around the head thereof and hide it from view. The appliance shown in Fig. 8 permits the anchoring-screw to be introduced into its operative position without permitting the screw-driver to damage the contiguous walls of the cushion. It will be understood that my improved horseshoe may be made any preferred size to meet all demands for such an appliance.

By the addition of my improved cushioning device the ordinary horseshoe now in common use can be readily changed into a perfect cushion-shoe, the only adaptations of the common shoe being that the threaded apertures 9 shall be provided therein at proper intervals to receive the anchoring-screws 7 when driven home through the openings 8 into engagement with the anchoring-plate 5.

Before my improved cushion is secured in its operative position it will be obvious that the contacting faces of the cushion and the metallic portion of the shoe may be covered with some adhesive material, as a proper kind of cement, and that when the anchoring-screws 7 are turned home in their respective seats and the cement has become dry the cushion will be readily and reliably anchored in its adjusted position, where it will remain until completely worn away and the anchoring-plate thereby exposed.

While I have described the preferred combination and construction of parts deemed necessary in materializing my invention, I wish to comprehend all substantial equivalents and substitutes which may be considered as fairly falling within the scope thereof.

Believing that the advantages and manner of using my improved cushioning device for horseshoes have thus been made clearly apparent further description is deemed unnecessary.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a shoe-body having suitable openings; an elastic tread having a metal plate embedded therein and having apertures to receive the fastening means for connecting the tread to the shoe and also having projections to engage the tread more firmly, and fasteners passing through the plate and engaging the shoe, substantially as specified and for the purpose set forth.

2. The combination with a shoe-body having screw-threaded apertures, of a soft tread having an apertured metal plate entirely embedded therein, said tread having slits lead-

ing to said aperture, said plate having integral bowed portions out of the plane of the plate and surrounded by the tread, and headed screws bearing on the plate and taking into apertures of the shoe-body, substantially as specified and for the purpose set forth.

3. A cushioning appliance for horseshoes, comprising a soft tread surrounding a plate having integral bowed portions with parts of the tread between said bowed portions and the plane of the plate, and means engaging the plate and adapted to secure the tread to the body of the horseshoe, substantially as set forth.

4. A cushioned horseshoe, comprising a metallic shoe proper, having a plurality of apertures, in combination with an anchoring-plate conforming to the shape of the shoe and having a plurality of openings adapted to register with said apertures and also having bowed portions throughout its extent; a yielding tread entirely enveloping said plate, and securing means extending through the plate into the apertures in the shoe, as and for the purpose set forth.

5. The combination with the shoe proper, of a cushion, and a plate conforming to the shoe, entirely embedded in the cushion and having its edges curved downward, and means to secure the plate to the shoe, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EPPA HUNTON JACKSON.

Witnesses:
W. T. FITZ GERALD,
W. E. ARTHUR BUDD.