No. 640,166. Patented Dec. 26, 1899.

J. PATRICK.

ELASTIC TREAD HORSESHOE.

(Application filed Feb. 23, 1899.)

(No Model.)

Fig. 1.

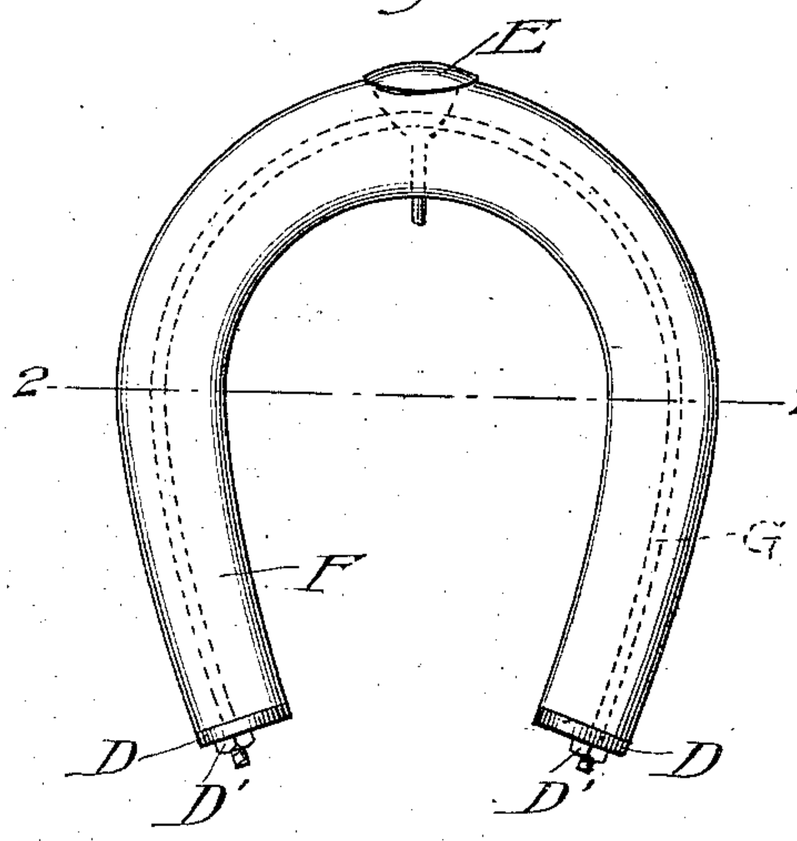


Fig. 2.

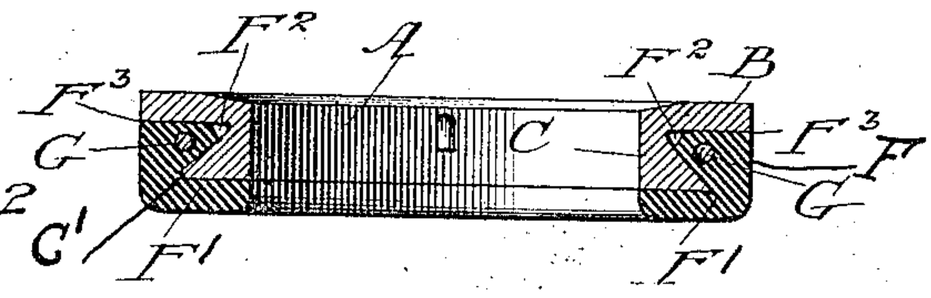


Fig. 3.

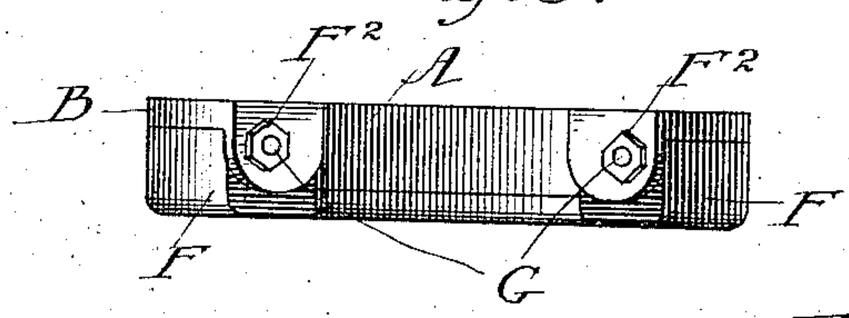


Fig. 4.

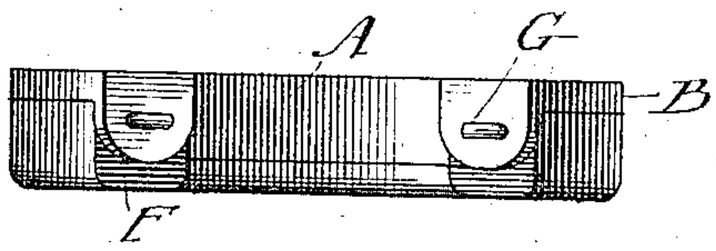


Fig. 5.

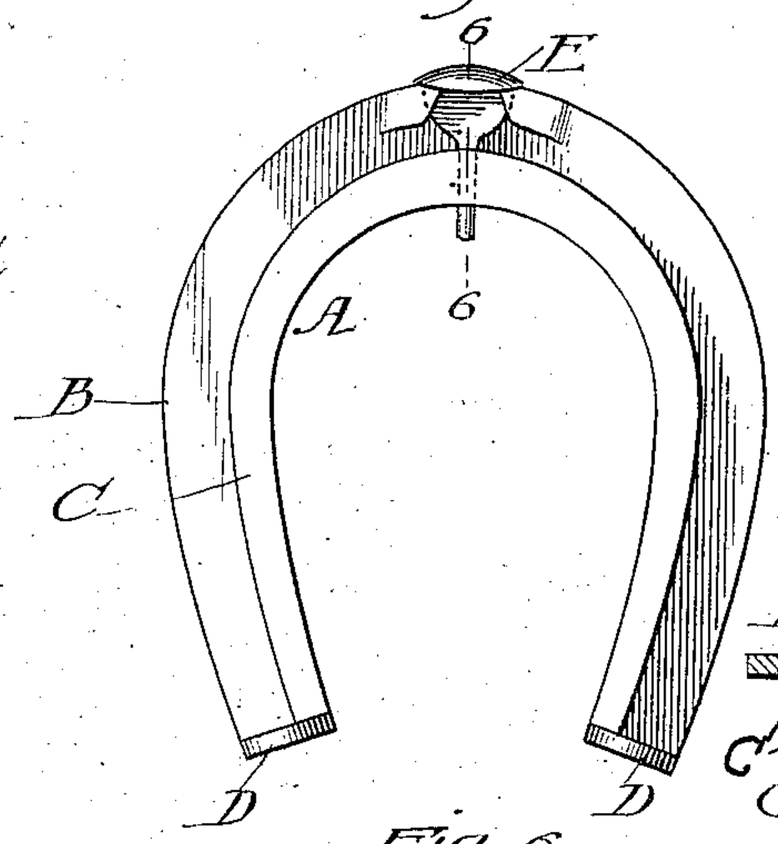


Fig. 7.

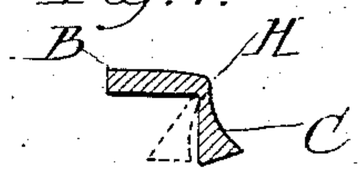


Fig. 8.

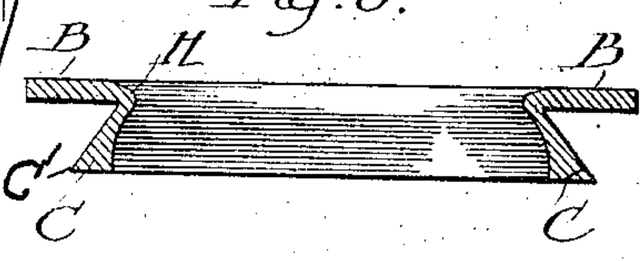
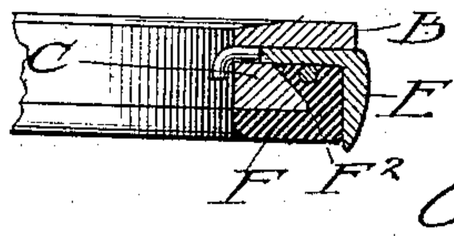


Fig. 6.



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JOHN PATRICK, OF CHICAGO, ILLINOIS.

ELASTIC-TREAD HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 640,166, dated December 26, 1899.

Application filed February 23, 1899. Serial No. 706,510. (No model.)

To all whom it may concern:

Be it known that I, JOHN PATRICK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Elastic-Tread Horseshoes, of which the following is a specification.

My invention relates to elastic-tread horseshoes, and has for its object to provide a new and improved horseshoe of this description.

My invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a view of a horseshoe embodying my invention as seen from beneath. Fig. 2 is a section on line 2 2, Fig. 1. Fig. 3 is an end view of the shoe. Fig. 4 is an end view showing a modification. Fig. 5 is a view similar to Fig. 1 with the elastic tread removed. Fig. 6 is a section on line 6 6, Fig. 5. Fig. 7 is a cross-section of a rolled strip from which my shoe may be formed. Fig. 8 is a section through a shoe formed from the rolled strip shown in Fig. 7.

Like letters refer to like parts throughout the several figures.

When elastic-tread horseshoes as usually constructed have been used, there has been great difficulty in attaching the elastic tread to the shoe and in fitting the shoe to the horse. It is customary to form grooves in the shoe, in which the elastic tread is placed, but this necessitates the casting of the shoe and prevents it from being shaped to fit the foot of the horse upon which it is to be used. This construction has many other objectionable features, among which is the difficulty of properly attaching the tread to the shoe. The construction herein shown obviates these and other difficulties usually attending the use of elastic-tread shoes.

Referring now to the accompanying drawings, I have shown a metallic shoe A, having the laterally-projecting part B and the inclined-downwardly-projecting part C, the two parts making an acute angle with each other, as shown. The ends D of the shoe are bent so as to project laterally, as shown, and each has a hole passing therethrough. The front of the shoe is preferably provided with a removable cork or toe-piece E, which may be constructed in any desired manner and attached to the shoe, so as to be held in a proper position. The tread F of elastic material is formed so as to fit into the angle between the parts B and C of the shoe and extends downwardly below the lower face of the part C, said tread F being also preferably provided with a laterally-projecting strip F′, which extends over the lower face of the part C. Extending through the tread F is an adjustable binding device G, adapted to be attached to the end pieces D of the shoe and tightened, so as to draw the tread tightly within the space between the parts B and C. This binding device may be of any suitable construction and preferably consists of a wire. In Figs. 1 and 3 I have shown the wire as provided with screw-threaded end portions, said end portions extending through the ends D of the shoe and provided with nuts D′, which when tightened draw the tread tightly between the parts B and C, so as to hold said tread in position. After the tread is attached to the shoe the toe-piece E may be placed in position. Instead of providing the binding device with threaded ends and nuts I may simply turn the ends over, as shown in Fig. 4. When this construction is used, the tread is placed in position and one end of the binding device bent over. The other end is then grasped by means of pliers or the like and pulled outwardly until the tread is in a proper position. The end is then bent over, as indicated, so as to hold the parts in their proper position. I prefer to cut away the inner upper corner of the tread, as shown at F^2, so that when the binding device is tightened the tread engages the edge C′ of the part C and is swung around, as it were, so as to force the edge F^3 tightly against the face of the laterally-projecting part B. It will be seen that when the parts are in position a portion of the tread is drawn inwardly above the projecting part C, so as to prevent the tread from becoming displaced. I also prefer to so locate the binding device that it will be within the angle formed by the parts B and C, thus insuring the proper holding of the parts in position and preventing the tread from being removed under strains by the stretching of the material.

It will thus be seen that when the shoe is made of the form herein shown it may be made of the metal from which horseshoes are

ordinarily made, so that it can be heated and varied in shape in the ordinary way to fit it to the foot of the horse. It will also be seen that the tread can be easily attached to the shoe and removed therefrom and when attached to the shoe will be firmly held in place. It will also be seen that the tread may be removed when it becomes worn and a new tread placed in position.

It is of course evident that the shoe may be made in any manner desired.

In Figs. 7 and 8 I have shown a construction for producing the shoe by a rolling process. In this construction a long strip of metal is rolled into shape, so as to form the laterally-projecting part B and the downwardly-projecting part C. The piece is rolled so as to be thinnest at the point H. The downwardly-projecting part C is then bent over to the position shown in dotted lines, Fig. 7, and the strip is bent around to form the shoe, as shown in Fig. 8. It will be seen that this is a simple and cheap manner of forming the shoe. The lower face of the part C is beveled, as shown, so that when bent over to the position shown in dotted lines it will be parallel with the laterally-projecting part B.

I claim—

1. An elastic-tread horseshoe, comprising a metallic shoe provided with a laterally-projecting part and an inclined downwardly-projecting part having a flattened lower face, an elastic tread adapted to engage said parts and provided with a laterally-projecting strip which extends over the lower face of said downwardly-projecting part, and a binding device for tightly forcing a portion of the tread into the angle formed by said laterally-projecting part and said inclined downwardly-projecting part.

2. An elastic-tread horseshoe, comprising a metallic shoe provided with a laterally-projecting part and an inclined downwardly-projecting part, an elastic tread adapted to engage said parts, and a binding device for tightly forcing a portion of the tread into the angle formed by said laterally-projecting part and said inclined downwardly-projecting part, the inner upper corner of the tread being removed, substantially as described.

3. An elastic-tread horseshoe, comprising a metallic shoe provided with a laterally-projecting part and an inclined downwardly-projecting part forming an acute angle with each other, an elastic tread adapted to engage said projecting parts, a binding device passing through the tread and connected with the ends of the horseshoe, said inclined downwardly-projecting part projecting past said binding device, so that the binding device is contained within the said acute angle, and means for tightening said binding device so as to force a portion of the tread into the acute angle between the two projecting parts.

4. An elastic-tread horseshoe, comprising a metallic shoe having a laterally-projecting part and an inclined downwardly-projecting part forming an acute angle with each other, an elastic tread engaging said projecting parts and having a groove therein into which said inclined downwardly-projecting part is received, said tread provided with a portion which extends into the space between said projecting parts, a wire passing through said tread and extending through the bent ends of the shoe, one end of said wire provided with threads and a nut, the other end adapted to be attached to the shoe, so that a portion of the tread may be forced into the angle between the said two projecting parts to fasten the tread in position.

5. An elastic-tread horseshoe, comprising a metallic shoe having a laterally-projecting part and an inclined downwardly-projecting part forming an acute angle with each other, an elastic tread engaging said projecting parts and having a portion which extends into the space between said projecting parts, a wire passing through said tread and extending through the upturned ends of the shoe, one end of said wire provided with threads and a nut, the other end adapted to be attached to the shoe, so that a portion of the tread may be forced into the angle between the said two projecting parts to fasten the tread in position, the inner upper corner of the tread being removed, substantially as described.

6. An elastic-tread horseshoe, comprising a metallic shoe having a laterally-projecting part and an inclined downwardly-projecting part forming an acute angle with each other, an elastic tread engaging said projecting parts and formed so that a portion of it projects into the angle between said parts, a laterally-projecting part on said tread which extends over the lower face of the inclined downwardly-projecting part, a binding device extending through said tread and adjustably connected with the shoe, so that it may be tightened to force a portion of the tread into the angle between the laterally-projecting part and the downwardly-projecting part, the inner upper corner of the tread being removed so that when the binding device is tightened the tread engages the edge of the inclined downwardly-projecting part so as to tightly force its face against the laterally-projecting part, substantially as described.

7. A horseshoe, comprising a strip of metal having one edge bent at an angle with the remaining portion of the strip, so as to form two projecting parts at an angle to each other, between which an elastic tread is adapted to be received, the strip bent around so as to form the horseshoe, said bent edge provided with a flattened face substantially parallel with the main portion of the strip.

8. A horseshoe, comprising a strip of metal having one edge bent at an angle with the remaining portion of the strip, so as to form two projecting parts at an angle to each other, between which an elastic tread is adapted to be received, said strip being formed thinnest along the line where the bend occurs, the ends

of the strip being bent around into proximity to each other so as to form a horseshoe.

9. An elastic-tread horseshoe, comprising a metallic shoe provided with a laterally-projecting part and an inclined downwardly-projecting part having a flattened lower face, an elastic tread adapted to engage said parts and provided with a laterally-projecting part which extends over the flattened lower face of the downwardly-projecting part, a binding device extending through said elastic tread and engaging the shoe so as to tightly force a portion of the tread into the angle formed by said laterally-projecting part and said inclined downwardly-projecting part, said binding device when in position being contained within the angle between said parts, substantially as described.

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