

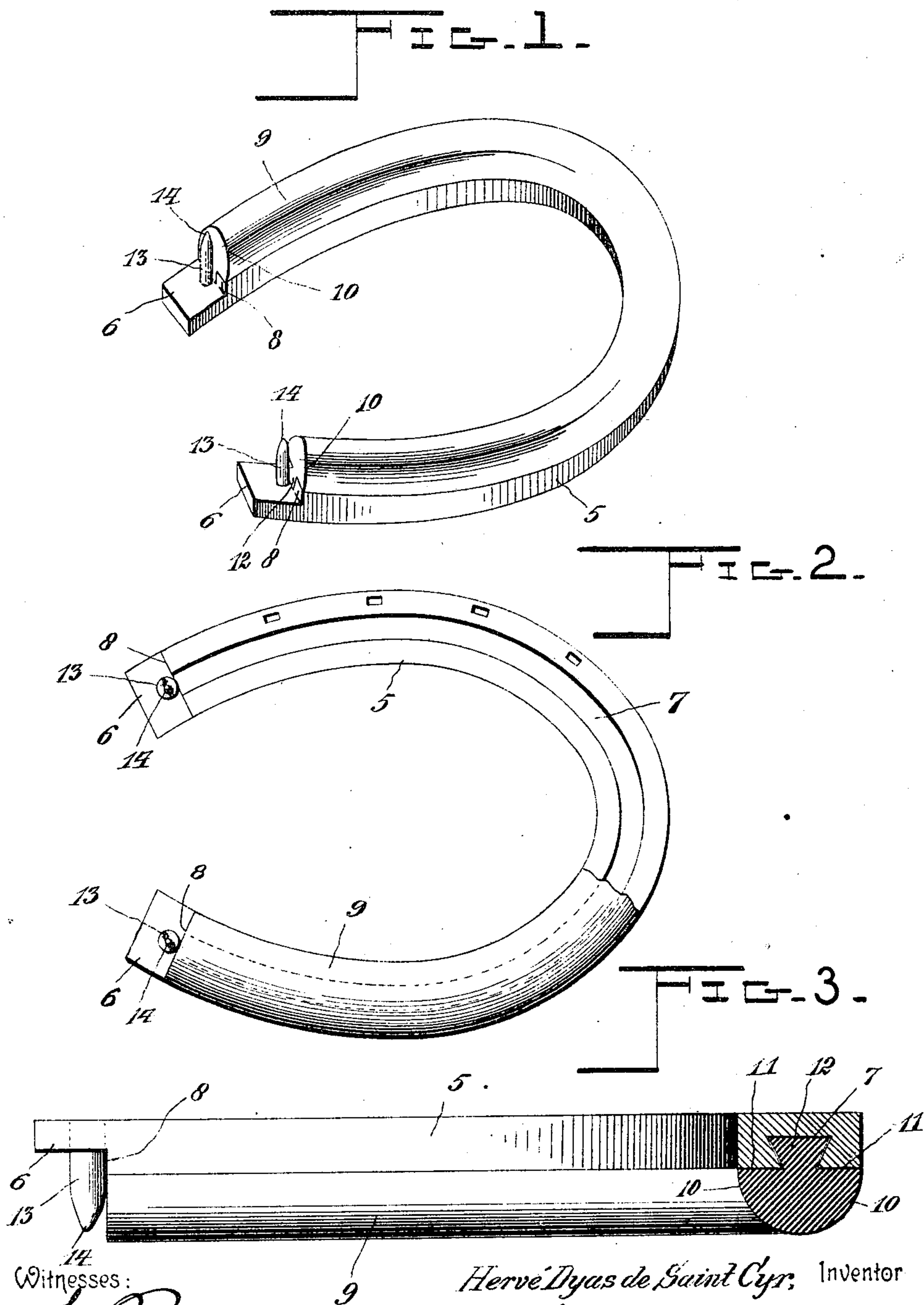
No. 670,209.

Patented Mar. 19, 1901.

H. D. DE SAINT CYR.
SOFT TREAD HORSESHOE.

(Application filed Aug. 20, 1900.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

HERVÉ DYAS DE SAINT CYR, OF MONTREAL, CANADA.

SOFT-TREAD HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 670,209, dated March 19, 1901.

Application filed August 20, 1900. Serial No. 27,366. (No model.)

To all whom it may concern:

Be it known that I, HERVÉ DYAS DE SAINT CYR, a subject of Her Majesty the Queen of Great Britain, residing in the city and district of Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Horseshoes; and I do hereby declare that the following is 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 improvements in horseshoes of that type which are provided with soft or elastic tread surfaces for the purpose of preventing the horse from slipping.

The object of the present invention is to provide an improved shoe of this type which will more effectually prevent a horse from slipping on icy pavements than the ordinary shoe. This end is attained by the combination of a cushion with a metallic shoe and the employment of metallic calks, which are attached to the shoe at the termini of the cushion. The active ends of these calks terminate within the plane of the exposed surface of the cushion, so that in the ordinary use of the shoe the cushion will take up the shock and jar by the horse in the act of running; but when the shoe slides on an icy surface the calks are brought into service by penetrating the ice, and thereby made to assist in preventing the animal from falling.

In the drawings hereto annexed and forming a part of this specification, Figure 1 is a perspective view of a soft-tread horseshoe embodying my improvements and showing the same in an inverted position. Fig. 2 is a plan view of the horseshoe in the position shown by Fig. 1 with a portion of the cushion broken away and illustrating the continuous groove in the metallic shoe. Fig. 3 is a sectional elevation taken longitudinally through the horseshoe and illustrating the same on an enlarged scale.

The same numerals of reference denote like parts in each figure of the drawings.

The horseshoe proper, 5, may be made of any suitable metal, although I prefer to manufacture it in a single piece of aluminium. The end portions of said horseshoe at the heel thereof are cut away on the under surface, as at 6, and said shoe is furthermore provided

with a continuous groove or channel 7, the latter being formed in the under surface of said shoe. The groove or channel opens at its ends through the vertical faces or shoulders 8, which are formed by the notches 6 at the heel portions of the shoe, and said groove 7 is continuous from one vertical face or shoulder 8 to the other. As shown by Fig. 3 of the drawings, the continuous groove or channel 7 is of dovetail form in cross-section, and the narrow open side of said groove or channel opens through the under surface of the shoe at the middle portion thereof all the way around.

The cushion or tread 9 may be made of any suitable material, preferably of vulcanized rubber, and its length is equal to that portion of the shoe in which the cross-sectionally-dovetailed groove is formed. The exposed or working surface 10 of this cushion is curved, as shown more clearly by Fig. 3; but the other face of said cushion is flat, as indicated at 11, the width of this flat face being equal to that face of the horseshoe in which the groove 7 is formed. This elastic tread or cushion 9 is furthermore formed with a tongue 12, which extends continuously throughout the length of said cushion and which projects a suitable distance beyond the flat face 11 of said cushion. The tongue is dovetail in cross-section to conform to the groove or channel 7 of the shoe, and said tongue extends from the middle portion of the flat surface 11 on the tread. This tread or cushion is fashioned to conform to the metallic shoe, so as to occupy a flush relation therewith, and the union between the shoe and the tread is effected by the engagement of the tongue 12 with the curved face of the shoe. The termini of the tread or cushion is flush with the shoulders 8 of said shoe, and the end portions of the tongue 12, as well as the under face of the cushion, are exposed through the shoulders of the metallic shoe.

13 indicates the metallic calks, which may be made of steel or any other material suitable for the purpose, each calk having a pointed or tapered end 14. The calks are fastened to the notched end portions 6 of the shoe in any suitable way, and an essential feature of my invention consists in locating these calks in such juxtaposition to the shoul-

ders 8 and to the termini of the dovetail groove 7 that said calks will engage with the terminal portions of the cushion 9, whereby the calks prevent the spread and endwise movement of the tread under abnormal conditions. The pointed ends 14 of the calks terminate within and above the active surfaces of the cushion, as shown more clearly by Fig. 3, so as to permit the cushion to remain in service under ordinary conditions; but when the shoe slides on an icy surface and said shoe assumes an inclined position, as when the horse is in the act of falling, the calks are adapted to engage with the slippery surface and enable the animal to maintain itself in an upright position.

I claim—

1. As a new article of manufacture, a soft-tread horseshoe comprising a channeled metallic shoe, a cushion having a tongue connection therewith, and separate pointed calks attached to the shoe in engagement with the terminal portions of the cushion, as and for the purposes set forth.

2. As a new article of manufacture, a soft-tread horseshoe comprising a channeled me-

tallic shoe, a cushion provided with a tongue and united thereby to said shoe, and the pointed calk-pins attached to the shoe at the heel portions thereof and in juxtaposition to the terminal portions of the cushion, the pointed ends of said calk-pins terminating within the active face of the cushion, as and for the purposes set forth.

3. As a new article of manufacture, a soft-tread horseshoe comprising a metallic shoe having the notched heel portions forming shoulders and also provided with the continuous dovetail channel which opens at its ends through said shoulders and the shoe, a cushion having a tongue and applied to the shoe for said tongue to fit the channel, and separate pointed calks fast with the notched heel portions of the shoe and disposed in contact with the terminal portions of the cushion, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

HERVÉ DYAS DE SAINT CYR.

Witnesses:

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