Dec. 17, 1935. A. V. ANDERSON ET AL 2,024,265

HORSESHOE

Filed Feb. 17, 1934

Fig. 1.

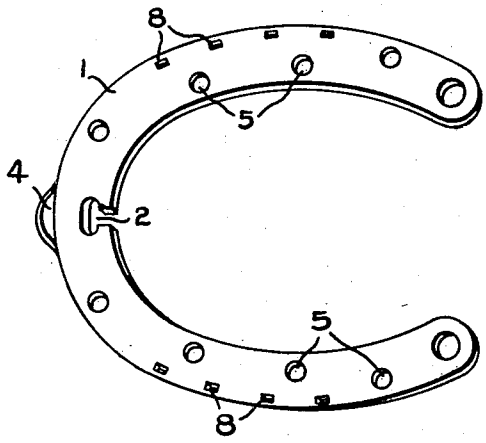


Fig. 4.

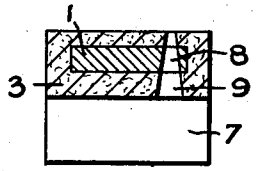


Fig. 2.

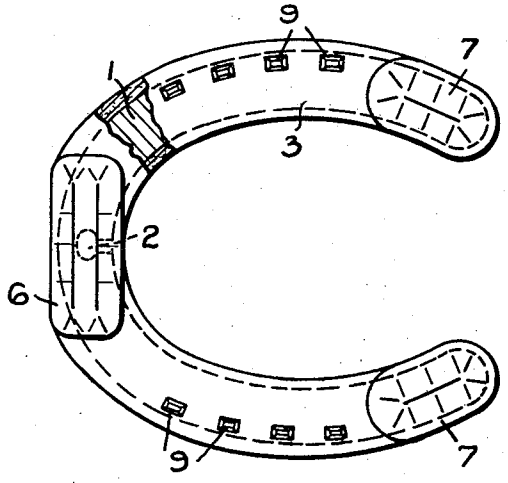
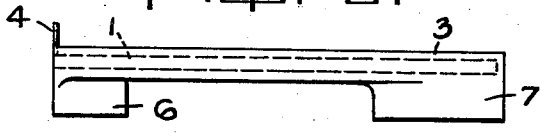


Fig. 3.



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UNITED STATES PATENT OFFICE

2,024,265

HORSESHOE

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Application February 17, 1934, Serial No. 711,768
In Canada June 24, 1933

4 Claims. (Cl. 168—4)

Our invention relates to improvements in horse shoes and the object of our invention is to provide a resilient shoe wherein a rubber shoe having a metal core is provided.

A further and particular object of our invention is to form the shoe core of comparatively thin sheet metal which can be bent so that the shoe can be adjusted in width, and to permit this adjustment of the shoe we form the metal core with a weakened portion at the toe end.

Our invention consists of a resilient shoe formed and arranged all as hereinafter more particularly described and illustrated in the accompanying drawing in which:—

Fig. 1 is a perspective view of the shoe core before rubber is molded therearound.

Fig. 2 is an inverted plan view of the shoe partially broken away to disclose the core.

Fig. 3 is a side elevational view of the shoe, and

Fig. 4 is a cross sectional view through the shoe, showing a nail hole passing through the rubber and core.

Like characters of reference indicate corresponding parts in the different views in the drawing.

The core of the shoe consists of a thin metal plate 1 in the form of a horse shoe and having a key-hole shaped slot 2 extending inwardly from the inner edge of the plate at the forward or toe portion thereof. The plate is molded within a rubber casing 3, such rubber casing completely surrounding the plate with the exception of the upwardly turned shoe tip 4 formed at the toe portion. The tip 4 is formed integrally with the plate and is thinned out and bent up substantially following standard practice in metal shoes.

In order to securely bond the rubber casing to the core, we form the plate with a number of orifices 5 through which the rubber passes when it is being molded and also preferably brass plate the core plate so that the rubber adheres tightly thereto.

The rubber casing is formed with the downwardly projecting toe and heel pieces 6 and 7 which correspond to calks.

For securing the shoe to the hoof, we provide the plate 1 with the usual spaced apart nail receiving orifices 8 and mold the rubber casing with corresponding orifices 9 so that the shoe is nailed to the horse's hoof in the usual manner.

If it is desired to either narrow or widen the shoe a certain degree in fitting, the ends of the shoe can be readily bent either inwardly or outwardly through the provision of the slot 2 which forms a weakened spot in the toe.

By molding the metal core of the shoe completely within the rubber casing we, as well as furnishing a resilient tread under the horse's hoof, also provide a resilient cushion between the hoof and the metal core, thus enabling the shoe as a whole to adapt itself to any irregularities in the sole of the hoof and at the same time provide a tight joint against the entry of foreign matter. Our type of shoe can be attached by any blacksmith without special knowledge, as is frequently necessary to properly attach other more complicated types of resilient shoes, the shoe being attached in exactly the same manner as the standard metal shoe with the exception that a drift is used for driving the heads of the nails home through the face of the rubber casing into contact with the core.

As the metal core of our shoe is completely encased in rubber, no metal comes in contact with the pavement, thus making the treading of the horse absolutely silent. This feature provides a shoe of particular value when fitted upon delivery wagon horses traversing city streets during the night and early hours of the morning.

Although we have shown and described a particular embodiment of our invention, it is to be understood that we can make such changes and alterations as we may from time to time deem necessary without departing from the spirit of our invention as set forth in the appended claims.

What we claim as our invention is:

1. In a horseshoe, the combination with a shoe-shaped metal core proper, of a shoe-shaped rubber encasement molded around the metal core proper so as to completely enclose the same in rubber and including integrally formed rubber toe and heel calks unreinforced by any metal from the metal core depending respectively from the lower surface of the toe and heel portions of the rubber encasement, said rubber encasement extending completely around the metal core proper constituting the sole means for securing the rubber calks to the metal core proper.

2. In a horse shoe, the combination with a shoe-shaped metal core proper, of a shoe-shaped rubber encasement extending around the metal core proper so as to completely enclose the same in rubber and including an integrally formed rubber calk unreinforced by any metal from the metal core depending from the lower surface of the rubber encasement, said rubber encasement extending completely around the metal core proper constituting the sole means for securing the rubber calks to the metal core proper.

3. In a horse shoe, the combination with a

shoe-shaped metal core proper having a plane lower surface, of a shoe-shaped rubber encasement molded around the metal core proper and including integrally formed rubber toe and heel calks unreinforced by any metal from the metal core depending respectively from the lower surface of the toe and heel portions of the rubber encasement, said rubber encasement extending completely around the metal core proper constituting the sole means for securing the rubber calks to the metal core proper.

4. In a horse shoe, the combination with a shoe-shaped metal core proper having a plane lower surface with nail receiving orifices therethrough, of a shoe-shaped rubber encasement molded around the metal core proper and having nail receiving orifices therethrough registering with the orifices in the metal core proper, and said rubber encasement including integrally formed rubber toe and heel calks depending respectively from the lower surface of the toe and heel portions of the encasement, said rubber encasement extending completely around the metal core proper constituting the sole means for securing the rubber calks to the metal core proper.

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