

No. 839,432.

PATENTED DEC. 25, 1906.

W. R. SMITH.
CUSHIONED HORSESHOE.
APPLICATION FILED MAY 5, 1906.

Fig. 1

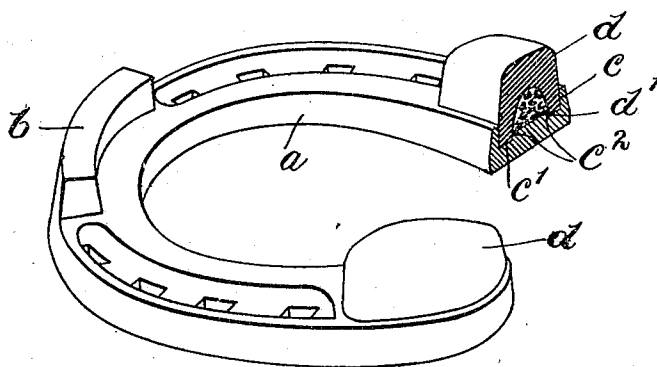
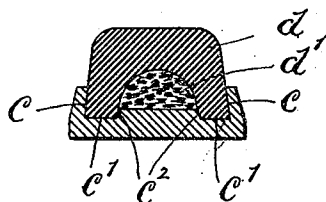


Fig. 2



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM R. SMITH, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF
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CUSHIONED HORSESHOE.

No. 839,432.

Specification of Letters Patent.

Patented Dec. 25, 1906.

Application filed May 5, 1906. Serial No. 315,343.

To all whom it may concern:

Be it known that I, WILLIAM R. SMITH, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Cushioned Horse-shoes, of which the following is a specifica-
tion.

This invention relates to horseshoes the tread portions of which are cushioned with rubber to relieve shocks and jars incidental to travel upon a hard pavement.

The invention has for its object to provide a shoe having a cushion which while composed entirely of compressible material, such as rubber or a rubber composition, shall have a relatively firm and wear-resisting outer portion and an inner portion of greater compressibility and resilience than the outer portion, to the end that the cushion may possess desirable qualities both as to resistance to wear and as to resilience.

To this end the invention consists in a horseshoe having a compressible elastic cushion having an outer or tread portion which is relatively hard and adapted to resist wear and an inner or core portion which is more compressible and resilient than the tread portion.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a perspective view of a horseshoe embodying my invention, a part of the shoe being shown in section. Fig. 2 represents a transverse section through one of the arms of the shoe. The same letters of reference indicate the same parts in both figures.

In the drawings, *a* represents the body portion of the horseshoe, the same being here shown as provided at the toe portion with a calk *b*, which is or may be integral with the body of the shoe. The side portions of the shoe at the heel ends are provided with cavities *c c*, the walls of which are preferably dovetailed in order that they may interlock with the compressible rubber cushions, hereinafter described.

In carrying out my invention I apply to the cavities *c c* compressible elastic cushions, each comprising an outer portion *d* and an inner portion *d'*. The outer portion *d* is formed of a relatively hard and at the same time compressible elastic material, such as vulcanized rubber, while the inner portion *d'*

is composed of compressible elastic material, the compressibility and elasticity of which is considerably greater than that of the outer portion. In practice the cushion is formed by assembling in an unvulcanized condition the two parts *d* and *d'*, the composition of said parts differing to such an extent that in the process of vulcanizing the outer part *d* will be rendered relatively hard, while the inner part *d'* will remain relatively compressible and will possess greater resilience than the outer part. The composition of the inner part may be such that when vulcanized it will be converted into the ordinary sponge-rubber of commerce, the outer part being much harder and possessing much greater density. The inner part *d'* and the edges of the outer part *d* are seated on the bottom of the cavity *c*. To prevent the side portions of the outer part from being displaced inwardly, owing to the lack of support against such inward displacement due to the increased compressibility of the inner part, I provide the bottoms of the cavities *c* with grooves *c'*, the inner edges of which form stops or abutments *c''*, engaging the sides of the outer portion *d* and preventing inward displacement of said sides.

I claim—

1. A horseshoe having a cavity in its under side and a compressible resilient cushion engaged with the walls of said cavity, said cushion comprising a relatively hard, wear-resisting outer portion, and a more compressible and resilient inner portion seated on the bottom of the cavity.

2. A horseshoe having a cavity in its under side and a compressible resilient cushion engaged with the walls of the cavity and comprising a relatively hard, wear-resisting outer portion, the sides of which are extended inwardly to the bottom of the cavity, and a more compressible and resilient inner portion located between said sides, the bottom of the cavity having shoulders which support the sides of the outer portion against inward displacement.

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

WILLIAM R. SMITH.

Witnesses:

IRA B. LITTLEFIELD,
M. F. BARCKLEY.