OTTO VON RUVILLE.

Horseshoe.

No. 205,221. **Patented June 25, 1878.**

Fig. I.

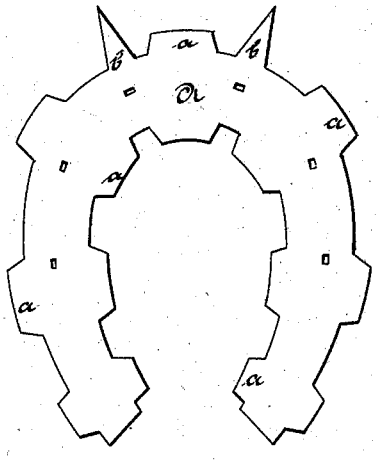


Fig. II.

Fig III.

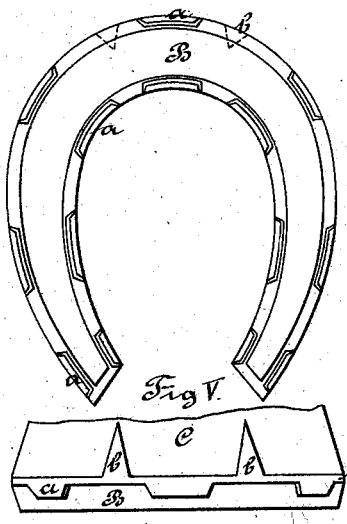


Fig IV.

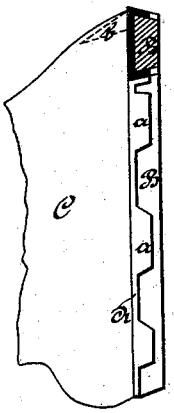
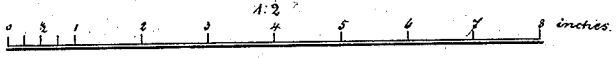


Fig V.



Witnesses
Martin Tanner,
W. Gardner

Inventor
Otto von Ruville
per A. Schiedting
Attorney

UNITED STATES PATENT OFFICE.

OTTO VON RUVILLE, OF BRUCHSAL, BADEN.

IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. **205,221**, dated June 25, 1878; application filed February 21, 1878.

To all whom it may concern:

Be it known that I, OTTO VON RUVILLE, of Bruchsal, Baden, have invented an Improved Horseshoe, of which the following is a specification:

The present invention relates to certain improvements in that class of horseshoes which are provided with an elastic bearing-surface of india-rubber or other suitable material, extending continuously around the bottom of the shoe.

The invention consists in a horseshoe formed of a metallic plate, which is provided with a series of lugs or tongues on its side edges for retaining an india-rubber cushion forming the bearing or tread surface of the shoe. The metallic plate is also provided with holes for the passage of the nails which secure the shoe to the hoof. This plate is first applied to the hoof, and then the india-rubber tread-surface is fitted thereon and retained in position by clinching or bending the lugs or tongues of the plate down upon the india-rubber.

In the accompanying drawing, forming part of this specification, Figure 1 is a face view of the metallic plate forming a portion of my shoe. Fig. 2 is a section of the same. Fig. 3 is a face view of a shoe with the rubber tread-surface in position. Figs. 4 and 5 show the shoe applied to the hoof.

The letter *a* denotes a plate of steel or other suitable metal, which is made of varying thicknesses, according to the use to which the shoe is to be subjected. It may be said, however, that the plate is made comparatively thin—that is, not so thick as in the horseshoes in general use.

The plate is formed with a series of tongues, ears, or projections, *a*, projecting from opposite sides thereof; and it also has two front spurs, *b*, which are turned up against the hoof, to serve as retaining-clips to prevent the shoe from moving on the hoof.

The plate, after having been properly fitted to the hoof, is secured thereto by nails driven through holes formed in said plate, as in ordinary horseshoes.

The tread-surface of the shoe is formed of a piece of india-rubber or other elastic material, and it is secured to the plate *a* by turning the tongues *d* at right angles to the plate, so as to retain the india-rubber between said tongues.

It will be perceived that said tongues, when properly turned down against the india-rubber tread-surface, can be clinched or brought together so as to firmly clasp the india-rubber between the same.

The india-rubber is applied to the metallic plate in a heated state, so that it will firmly adhere thereto.

Any projections or inequalities of the rubber can be removed by means of a hot iron, so as to give the proper finish to the shoe.

In order to prevent the slipping of the tool used for clinching or bending the tongues of the metallic plate, said tongues are provided with slight depressions.

The advantages of my invention may be briefly stated to be as follows, viz: The metallic plate can be made light, and thus be formed with tongues or ears for the purpose of retaining the india-rubber between said tongues. The rubber which projects beyond the ends of said tongues will wear off evenly, and cannot become loose, because the tongues are bent inwardly so as to become embedded in the rubber.

I am aware of the existence of a horseshoe consisting of a metallic foundation-plate and an india-rubber filling molded into the same, said filling being also secured by flanges formed on the plate. In this instance the shoe is a finished article, ready to be applied to the horse's hoof, and is secured to the latter by nails driven through the india-rubber and metallic plate.

My invention differs from the above, because the india-rubber tread-surface is applied to a thin metallic plate after the same has been properly fitted to a horse's hoof and secured to the latter by nails. By this means the shoe can be fitted to different-sized hoofs, and the india-rubber can be readily removed when worn, so as to enable a new filling or tread-surface to be applied. This change of the tread-surface can be easily effected, because the prongs or tongues on the metallic plate are sufficiently pliable or flexible to be readily pressed inwardly or clinched upon the rubber filling, or straightened when the latter is to

be removed. The nails which serve to secure the shoe to the hoof are in my invention not exposed to wear, and, being covered by the india-rubber tread-surface, the latter, as it wears off, will not leave the nails projecting from said tread-surface.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A horseshoe consisting of a plate of pliable metal, having tongues or lugs formed on its side edges, and an india-rubber or elastic tread-surface detachably retained between said lugs or tongues, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

VON RUVILLE.

Witnesses:
MARS WAGAR,
Mrs. ROSA MARKEN,
DAMION SCHÄFER.