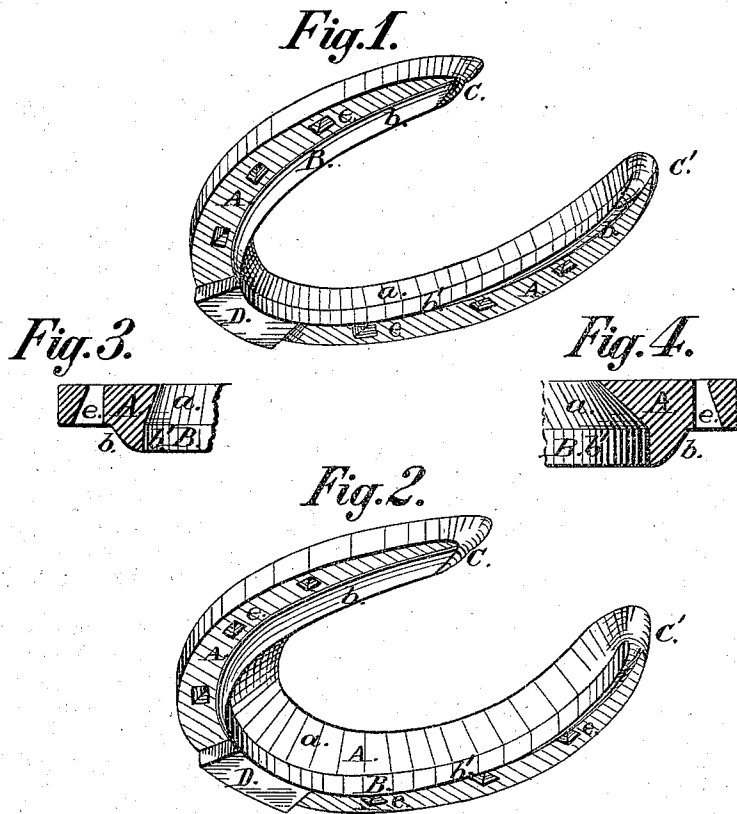


J. KIERNAN.
Horseshoes.

No. 150,583.

Patented May 5, 1874.



ATTEST.

Robert Burns.
H. T. Farmer.

INVENTOR.

John Kiernan
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UNITED STATES PATENT OFFICE.

JOHN KIERNAN, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. **150,583**, dated May 5, 1874; application filed February 20, 1874.

To all whom it may concern:

Be it known that I, JOHN KIERNAN, of St. Louis, in the county of St. Louis and State of Missouri, have invented a certain Improved Horseshoe, of which the following is a specification:

This invention consists in forming the main body of the shoe with a continuous calk, the outer side of which is convex, and at its inner side vertical to the body of the shoe, which body tapers from the calk inwardly. The said continuous calk is without lateral projections at the rear, and at the toe it is extended forward in the form of a flat toe-piece to the extreme forward edge or toe of the shoe.

Figures 1 and 2 are perspective views of the under side of hind and front shoes, respectively. Figs. 3 and 4 are, respectively, transverse sections of the same.

A is the main body of the shoe, having its inner side *a* flaring from the top outwardly. B is the continuous calk, forming part of the shoe. The outer side *b* of the calk is convex, and its inner side *b'* is made vertical, and extends up to meet the lower edge of the inclined or flaring edge *a* of the shoe. The rear ends C C' of the continuous calk B are rounded off, as shown, and the calk at the front of the shoe is enlarged to form a broad toe-piece, D. The calk B is placed some distance in from the outer edge of the shoe A, to allow the formation of nail-holes *e* in the outer part or flange E of the shoe. The nail-holes *e* are counter-

sunk from the outer and side edges, leaving the inner side vertical. (See Figs. 3 and 4.)

The advantages possessed by my improved shoe are, that they give an equal bearing to the horse's foot, and protect and support a concave or pumaced hoof; also, great durability is given to the shoe by the large toe-piece, which prevents the wear of the sharp calk, and which also prevents the animal from "knuckling." The continuous calk is so situated as to protect the wall of the horse's foot while traveling over any kind of ground, and the bearing being on the outside of each quarter it will tend to expand contracted hoofs; it also protects the frog by allowing it free expansion.

For winter use the toe-piece D would be beveled at the front and rear side, so as to form a sufficiently-sharp calk to prevent slipping, but yet have enough width of metal to resist wear.

I claim as my invention—

The horseshoe constructed as herein described, with a flat toe-piece, D, extending to the extreme front, and a continuous ridge, *b b'*, extending around the central part of the base, with a convex outer and straight inner face, and without lateral projections at the heel, all as specified.

JOHN KIERNAN.

Witnesses:

SAML. KNIGHT,
ROBERT BURNS.