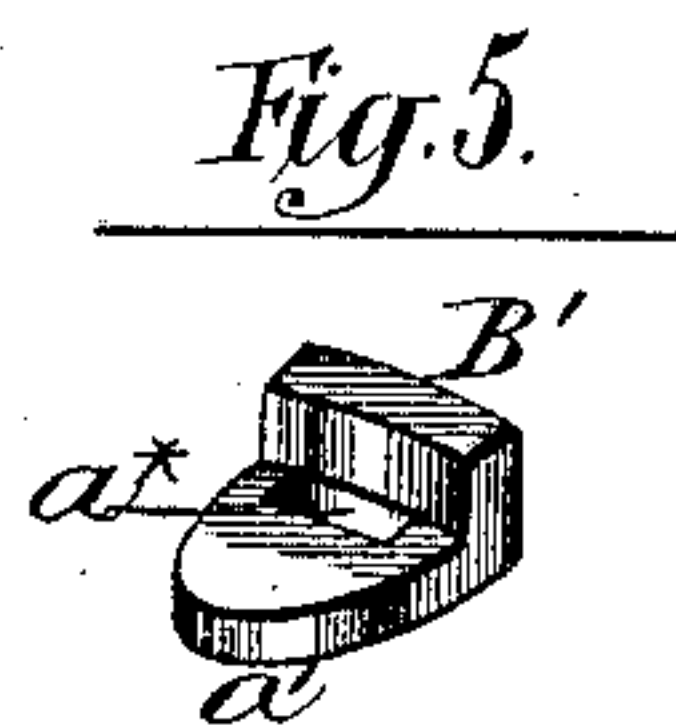
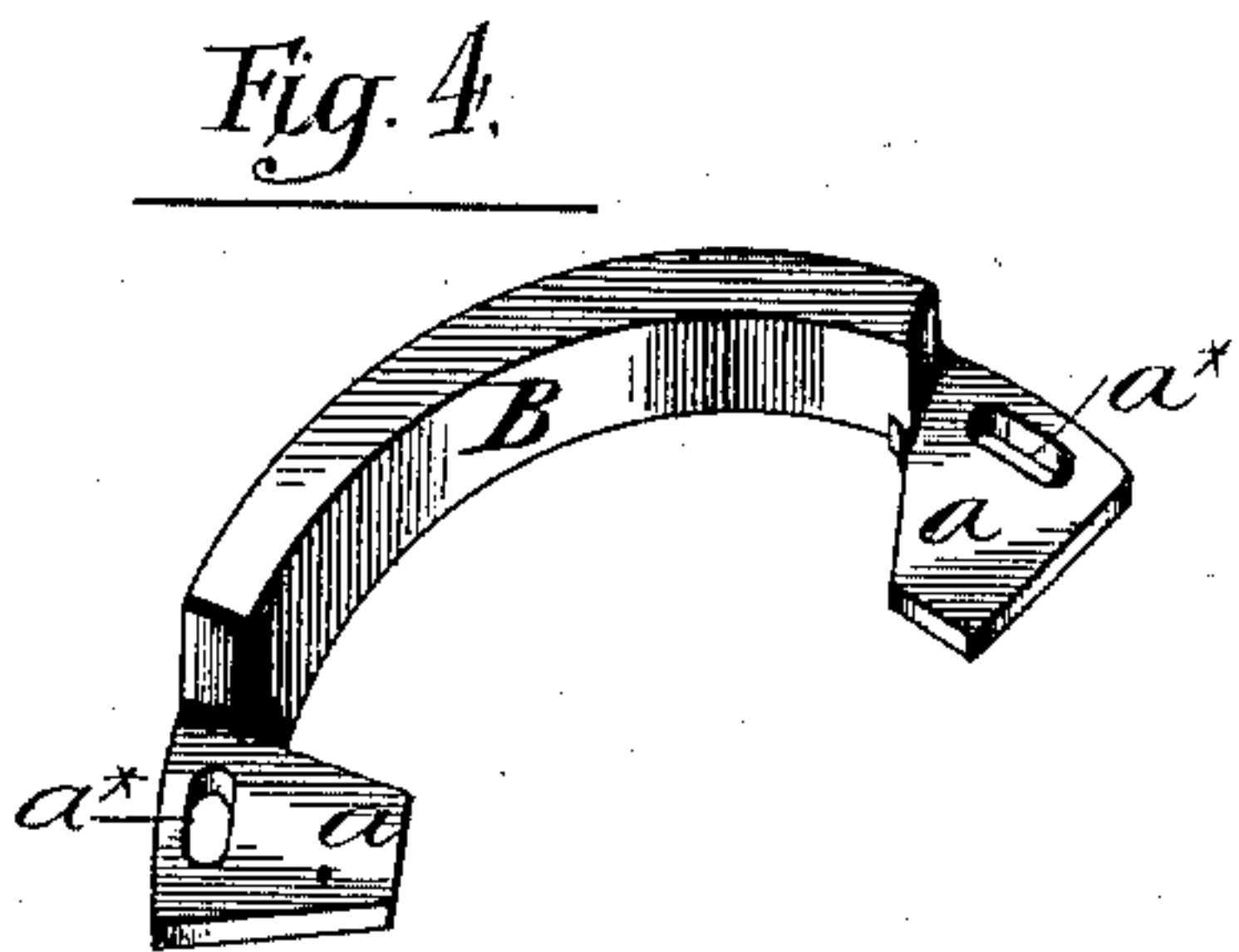
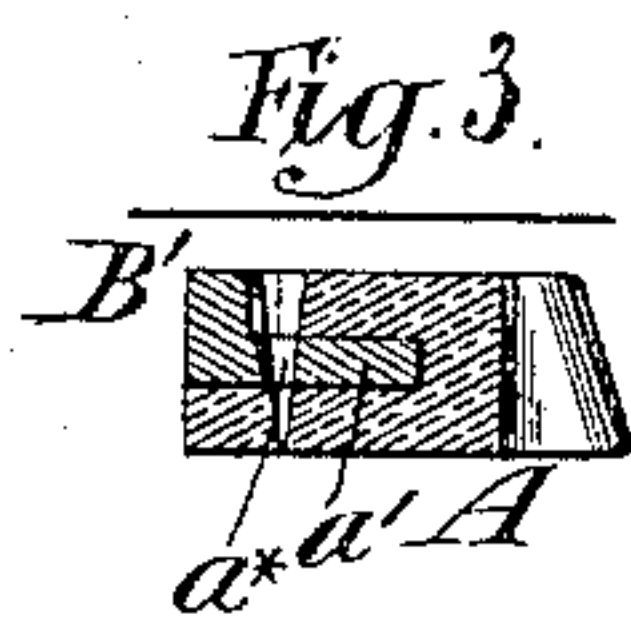
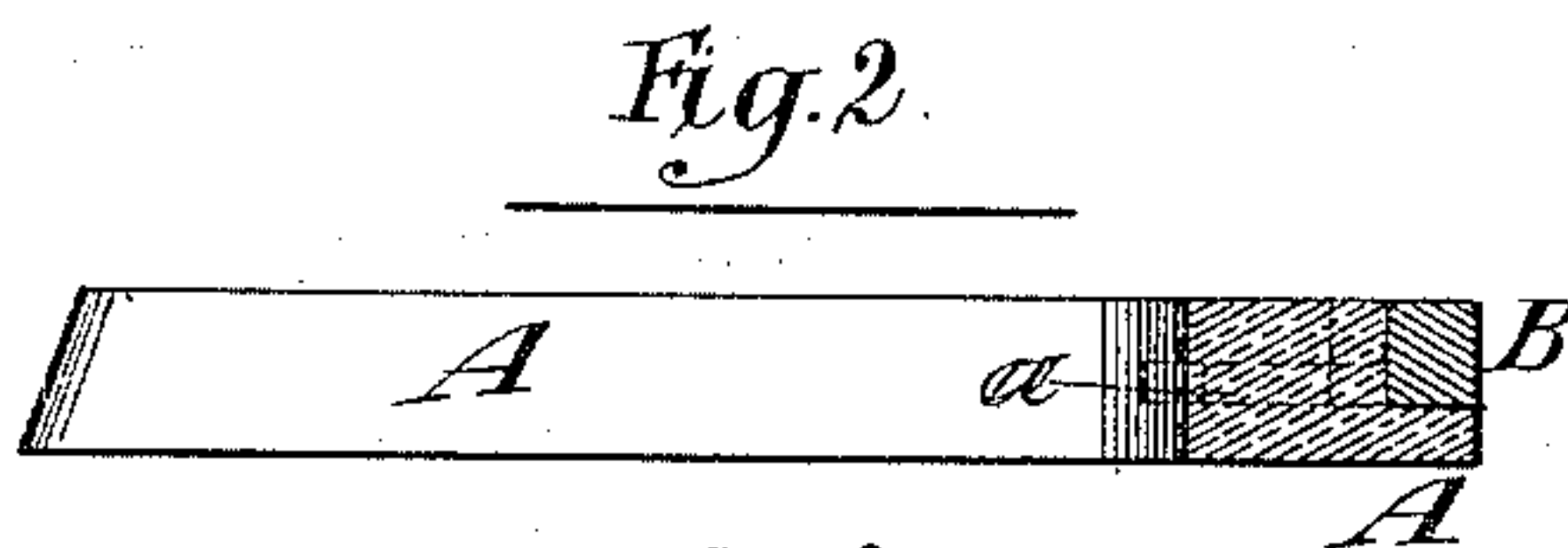
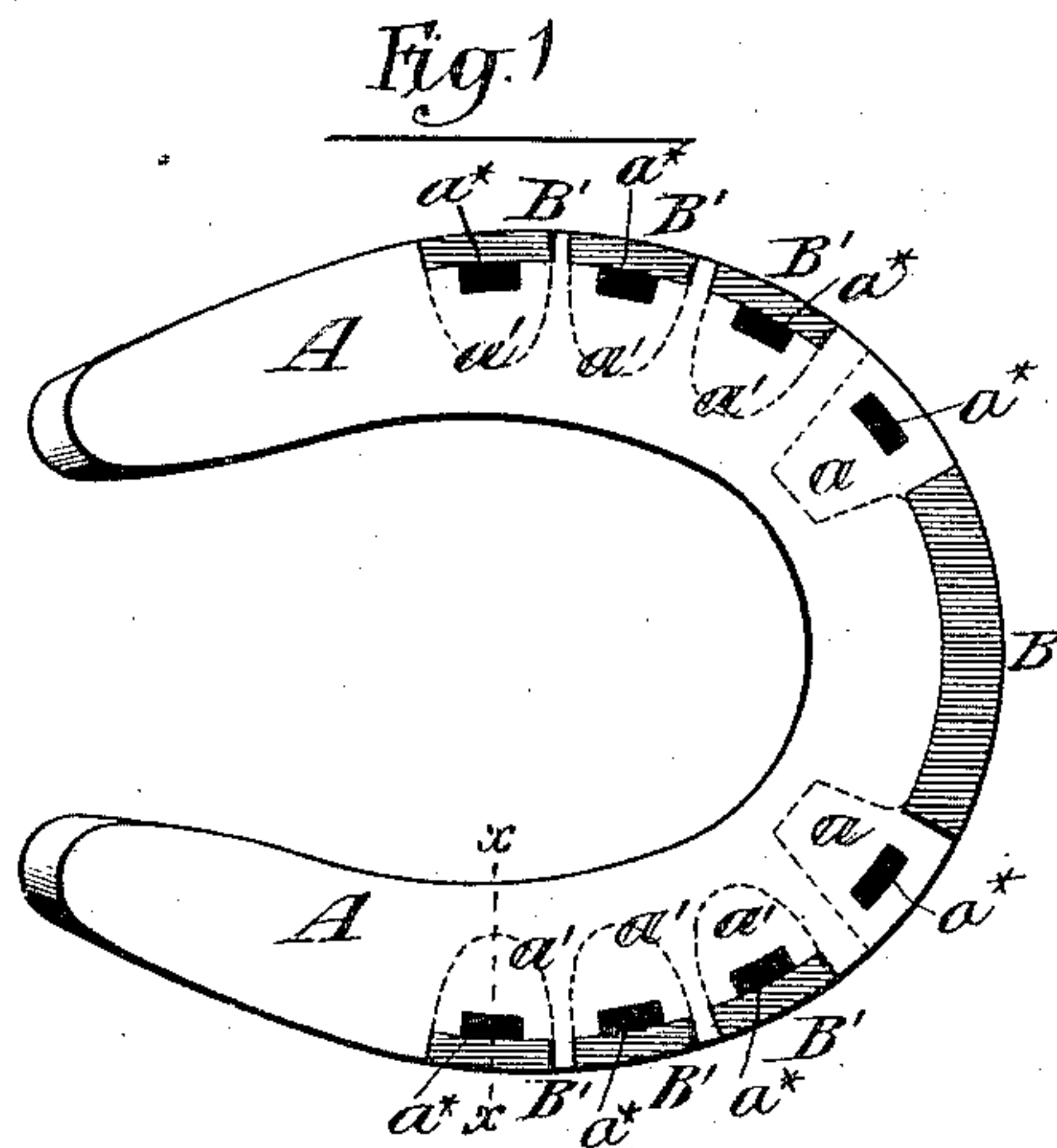


(No Model.)

J. JOHNSON.  
HORSESHOE.

No. 314,583.

Patented Mar. 31, 1885.



Witnesses:-

Louis M. Whitehead.

Matthew Pollock

Inventor:-

John Johnson  
by his Atty.  
Brown & Hall.

# UNITED STATES PATENT OFFICE.

JOHN JOHNSON, OF BROOKLYN, NEW YORK.

## HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 314,583, dated March 31, 1885.

Application filed May 1, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN JOHNSON, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Horseshoes, of which the following is a specification.

The object of my invention is to provide a horseshoe which shall have every advantage of a shoe made of india-rubber or other elastic or yielding material in allowing the hoof to expand and contract as by nature intended, and in avoiding any confining of the hoof which would prevent its natural growth, and at the same time to provide a shoe which is far more durable than any india-rubber or analogous shoe heretofore made.

The invention consists in a shoe composed of india-rubber or analogous elastic or yielding material, and having metal calk segments or pieces which form a portion of the shoe, and which are provided with flanges embedded in the material of which the shoe is composed, and receiving through them the nails for securing the shoe to the hoof.

In the accompanying drawings, Figure 1 represents an inverted plan of a shoe embodying my invention. Fig. 2 is a sectional view of the shoe, also in an inverted position. Fig. 3 is a sectional view of the shoe on the dotted line *x x*, Fig. 1. Fig. 4 is a perspective view of a toe-calk segment employed, and Fig. 5 is a similar view of a short calk-segment such as are used in the sides of the shoe.

Similar letters of reference designate corresponding parts in all the figures.

A designates the body of the shoe or the shoe proper, which is molded of india-rubber, gutta-percha, or other elastic or yielding material. The shoe here shown is provided with a metal toe-calk segment or piece, B, and with side-calk segments or pieces B', any number of which may be used. The calks B B' may be made of iron, steel, or other metal, and are provided with inwardly-extending flanges *a* *a'*, which are embedded in the material of

which the shoe is composed. As here shown, the toe-calk segment B is of considerable length, and has two flanges, *a*, extending from it, while the segments or pieces B' are shorter and have each a single flange, *a'*. In the flanges *a* *a'* are nail-holes *a\**, which receive the nails for securing the shoe to the hoof of the horse. Three side pieces, B', are shown on each side of the shoe; but there may be any number. Two, or even one only, on each side may be used. In the last case the side pieces will be sufficiently longer than those represented to extend along a sufficient portion of the side of the shoe. The depth of the calk-segments B B' is less than the thickness of the shoe proper, and the under surfaces of the segments form the wearing-surface of the shoe and prevent undue wear on the rubber, while the upper surface, or that side which comes against the hoof, is wholly of the elastic or yielding material of which the shoe is principally composed.

Although the calk-segments B B' are securely nailed to the hoof, they are entirely independent from each other, and are connected only by the elastic or yielding material of which the shoe is composed. They do not, therefore, confine the hoof and prevent natural expansion and contraction as does a shoe of rigid material.

What I claim as my invention, and desire to secure by Letters Patent, is—

A horseshoe composed of india-rubber or analogous elastic or yielding material, and having metal calk segments or pieces which form a portion of the bottom surface of the shoe, and which are provided with flanges embedded in the material of which the shoe is composed, and constructed to receive through them the nails whereby the shoe is secured, substantially as and for the purpose herein described.

JOHN JOHNSON.

Witnesses:

FRED. HAYNES,

EMIL SCHWARTZ.