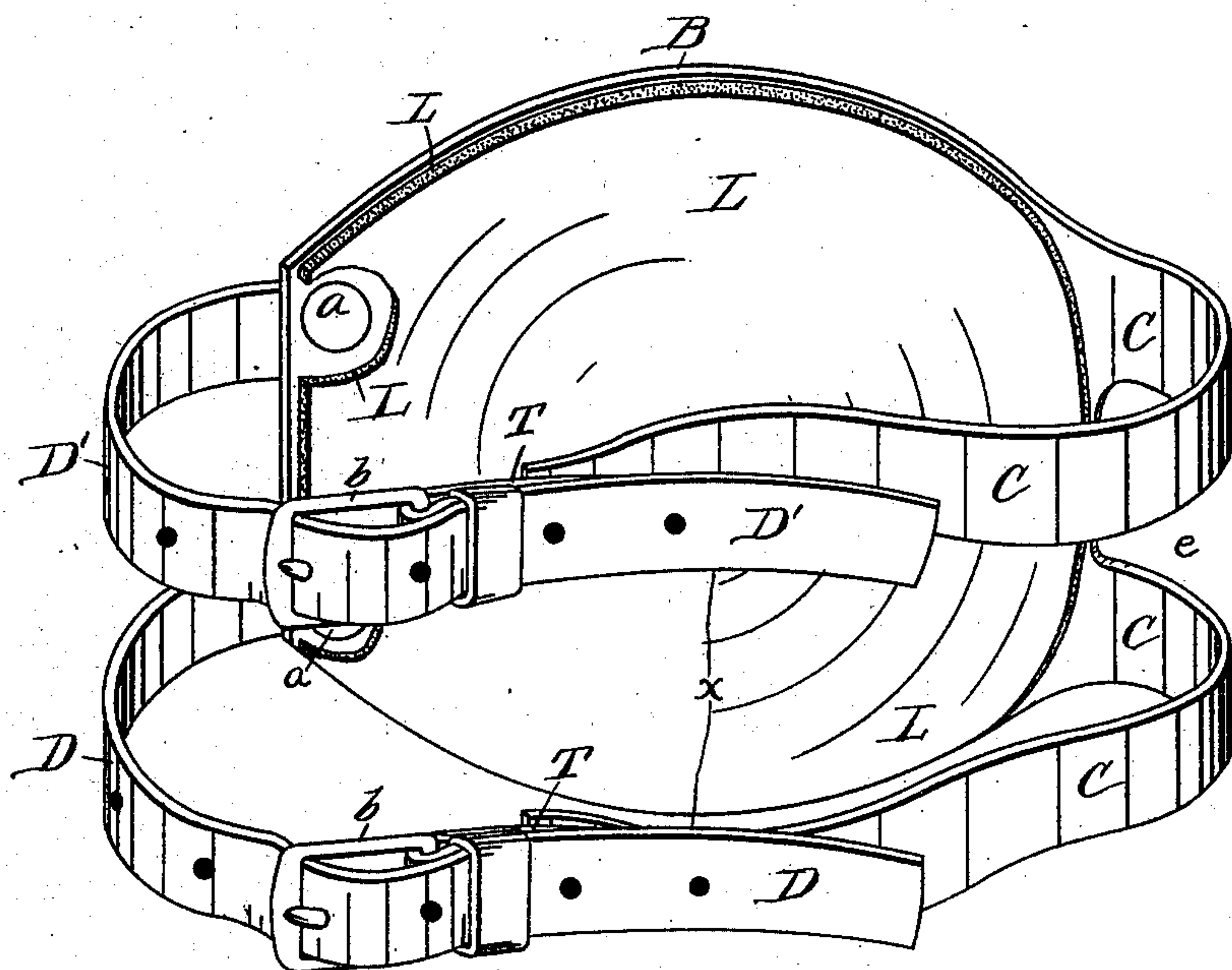
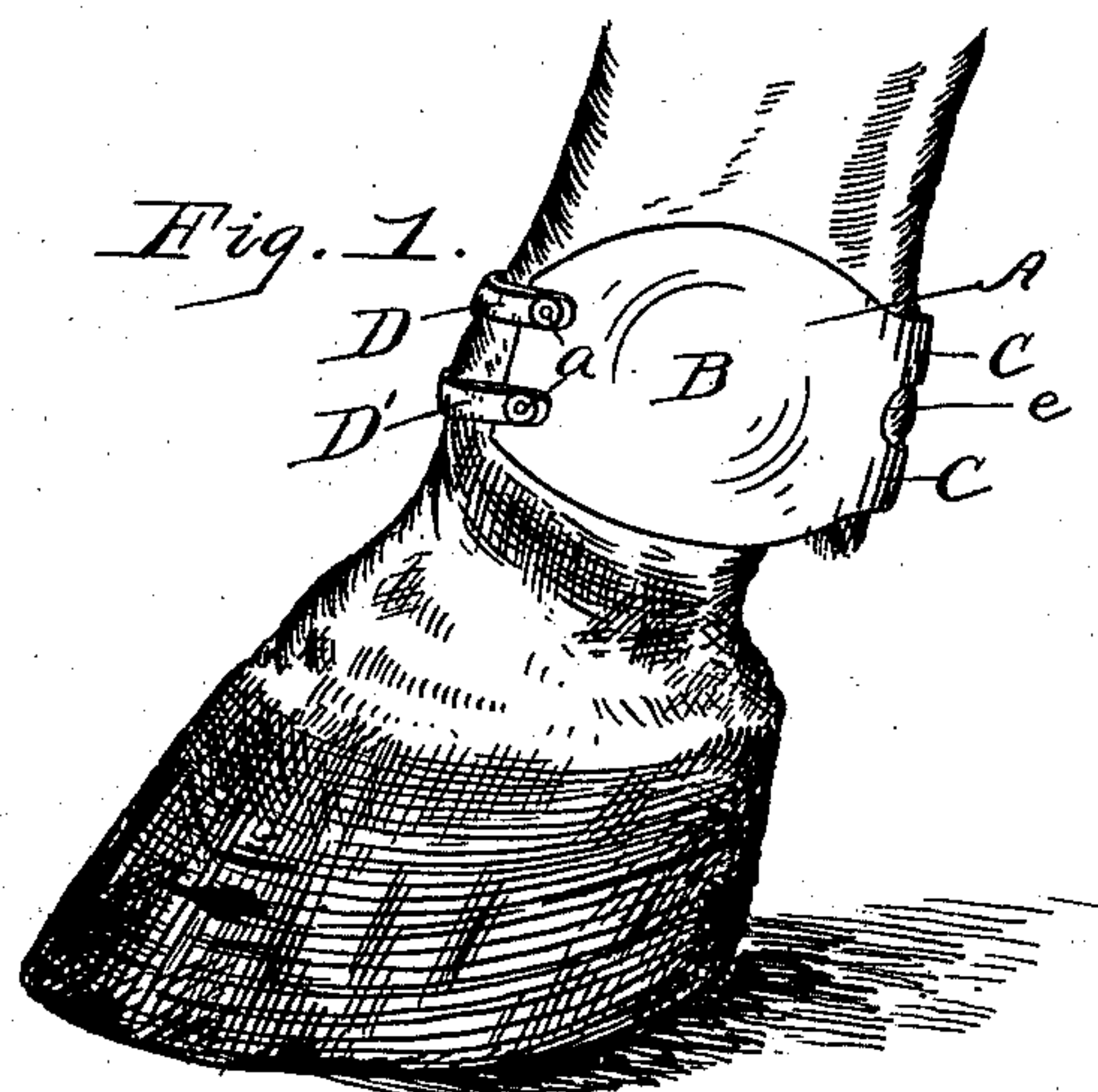


(No Model.)

J. J. RYAN.  
HORSE BOOT.

No. 402,109.

Patented Apr. 23, 1889.



*Fig. 2.*

*Attest.*

*C. W. Russell.*  
*Orson Abbott.*

*Inventor.*

*J. J. Ryan*  
*By Orson Abbott*



# UNITED STATES PATENT OFFICE.

JOHN J. RYAN, OF MIDLAND, MICHIGAN.

## HORSE-BOOT.

SPECIFICATION forming part of Letters Patent No. 402,109, dated April 23, 1889.

Application filed April 11, 1887. Renewed December 4, 1888. Serial No. 292,687. (No model.)

### *To all whom it may concern:*

Be it known that I, JOHN J. RYAN, of the city of Midland, Midland county, and State of Michigan, have invented certain new and useful Improvements in Metallic Interfering-Boots; and I hereby declare that the following is a full, clear, and exact description of the invention, and one that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

It is well known among horsemen that many, if not all, horses interfere when driven at a faster gait than their natural one. By "interfering" I mean striking their ankles or metacarpal bones with the shoe of the opposite foot; and the object of my invention is to provide a perfect protection to the ankles or that portion of the leg.

My invention relates to an improvement in metallic interfering boots or pads for horses, which improvement will be fully understood from the following description, when taken in connection with the annexed drawings, in which—

Figure 1 is a perspective view of my improved boot as applied to the right foot, or, rather, to the ankle, and shows how it covers it. Fig. 2 is a perspective view of my boot or pad, looking on its inside—that is, as if applied to the left foot, and the foot removed for the purpose of this view.

In the accompanying drawings like letters refer to like parts.

A is the boot or pad as a whole.

B is the metallic plate or cap that covers the ankle.

C C are metallic straps or bands, to which the buckles are attached.

D and D' are leather straps or billets.

L is a lining of felt, wool, or kersey cloth.

T is the buckle end, secured to the straps C and C by the rivet *a*.

*b* are buckles.

*e* is an opening between the metal straps C and C.

*x* is the point of opening between the straps C and C to admit the joint. (See Fig. 1.)

I purpose making these pads or boots from metal, either stamped or molded, but preferably stamped from spring-brass. The advantage of a metallic boot or pad is that it will always keep its proper position, as the disk portion can be cupped to fit around the ankle or metacarpal.

In practice the buckles are attached to the straps or bands C C by means of the rivet *a*. The leather straps are attached to the plate or boot B. By the same means the inner surface of the boot may be lined with some material such as felt or kersey cloth.

It will be observed from the above description that the boot B is concavo-convex, and that it has formed integral with it the flexible straps C C; also, that I rivet leather straps D D' to the boot, and that I rivet the buckles *b* to the metal straps.

Having thus fully described my present invention, what I claim, and desire to secure by Letters Patent of the United States, is—

The improved article of manufacture herein described as an entirety, consisting of a metal plate of concavo-convex form, having formed integral with it the two narrow spring-metal straps, having an opening, *e*, between them to admit the joint of the ankle, the buckles *b* at the ends of said straps, the leather straps D D', opposite said metal straps, and a suitable lining, L, upon the inner face of the concavo-convex plate, as specified.

In testimony that I claim the above as my invention I have hereunto set my hand, in presence of two witnesses, at the city of Midland, Michigan, this 26th day of March, 1887.

JOHN J. RYAN.

In presence of—

WM. D. GORDON,

IRA FALES.