

No. 826,958.

PATENTED JULY 24, 1906.

W. D. O'BRIEN.
HORSESHOE.

APPLICATION FILED DEC. 22, 1905.

FIG. 1.

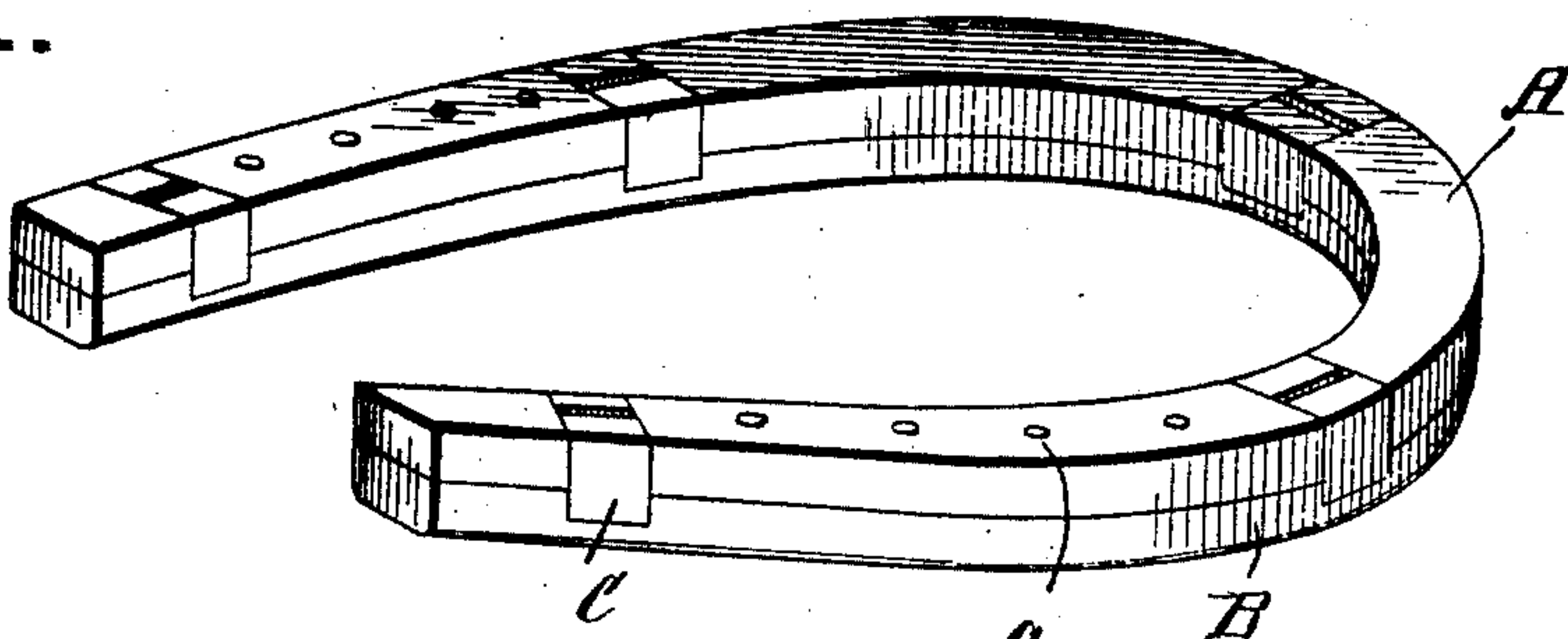


FIG. 2.

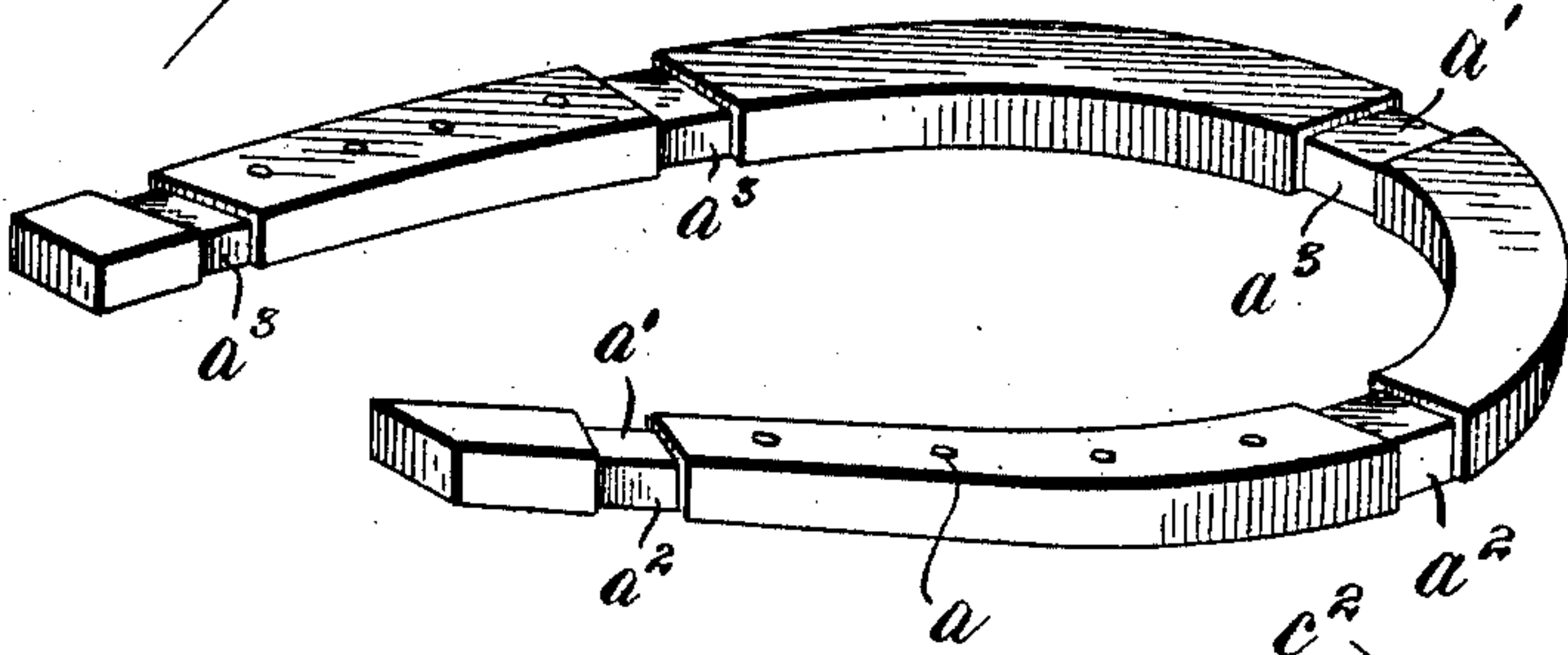


FIG. 3.

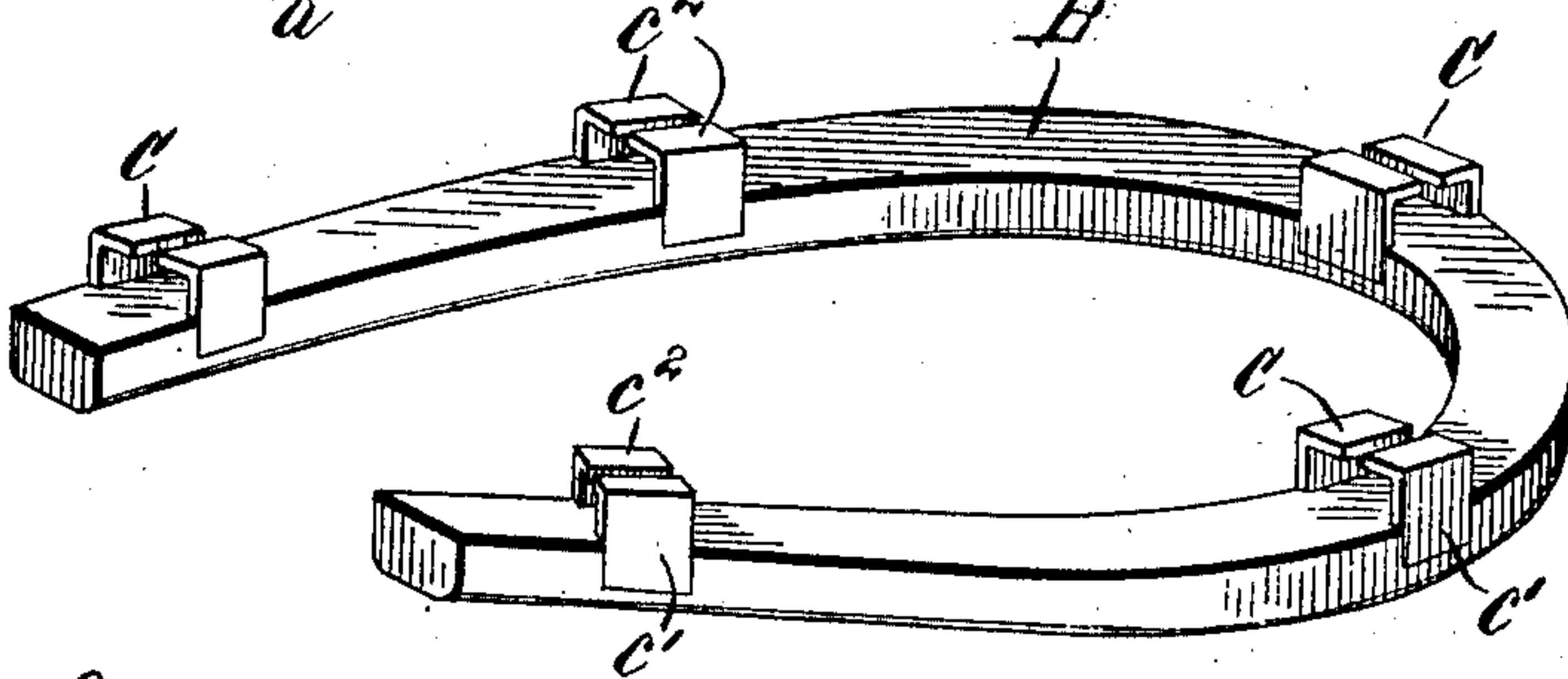


FIG. 4.

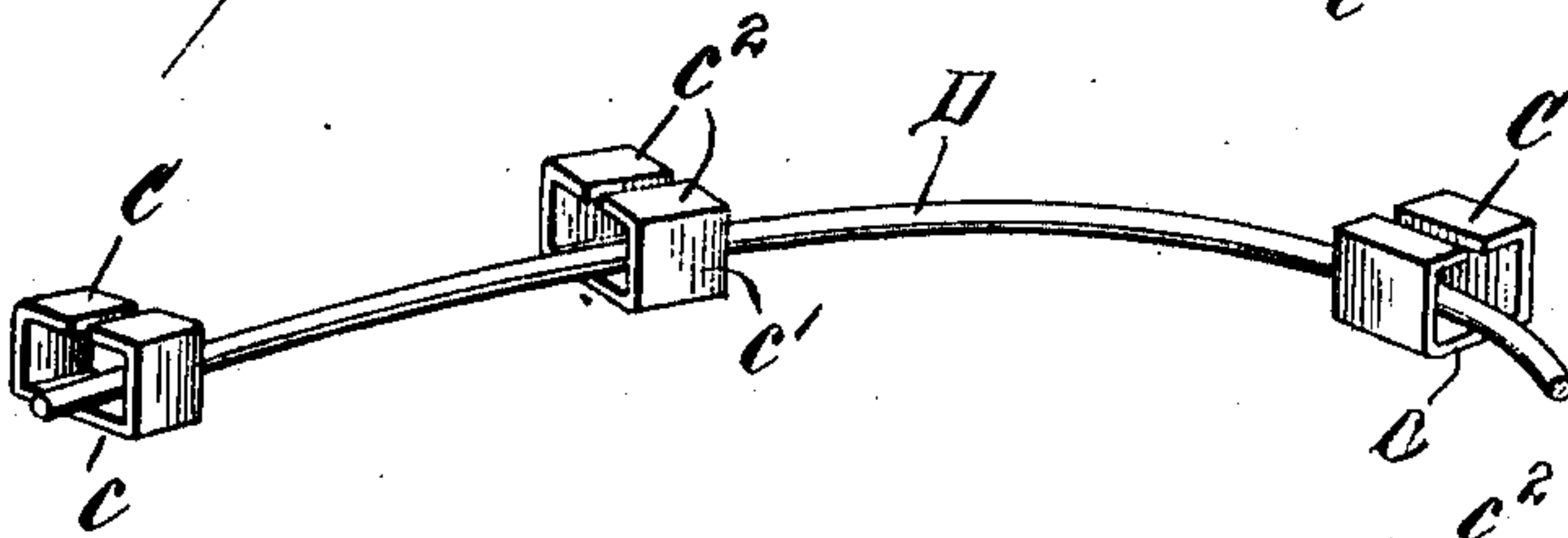


FIG. 5.

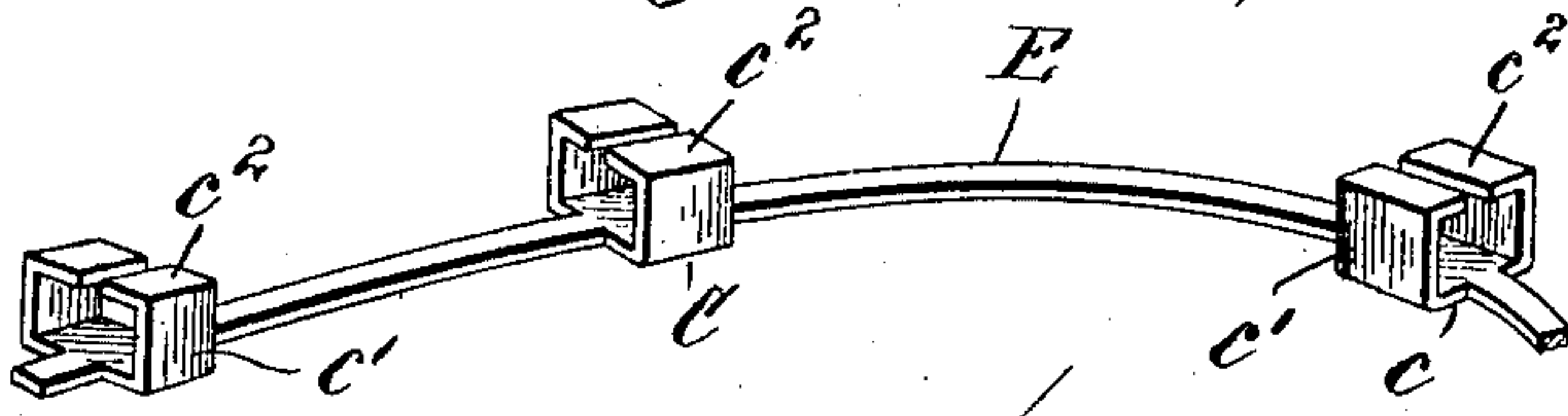


FIG. 6.

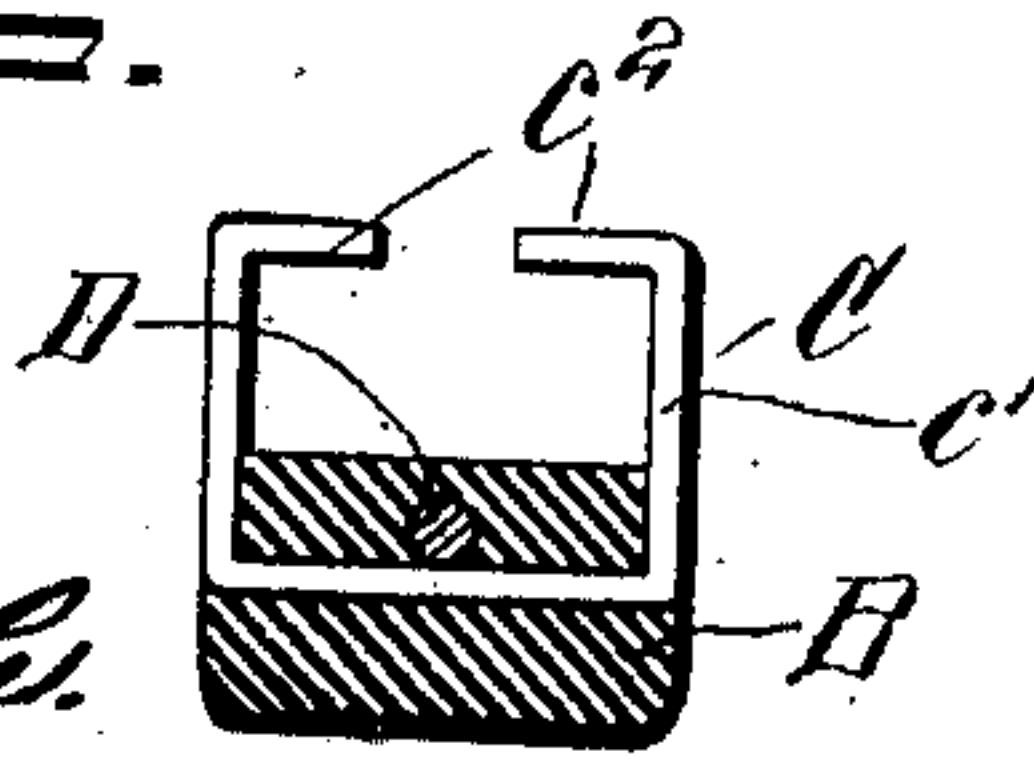
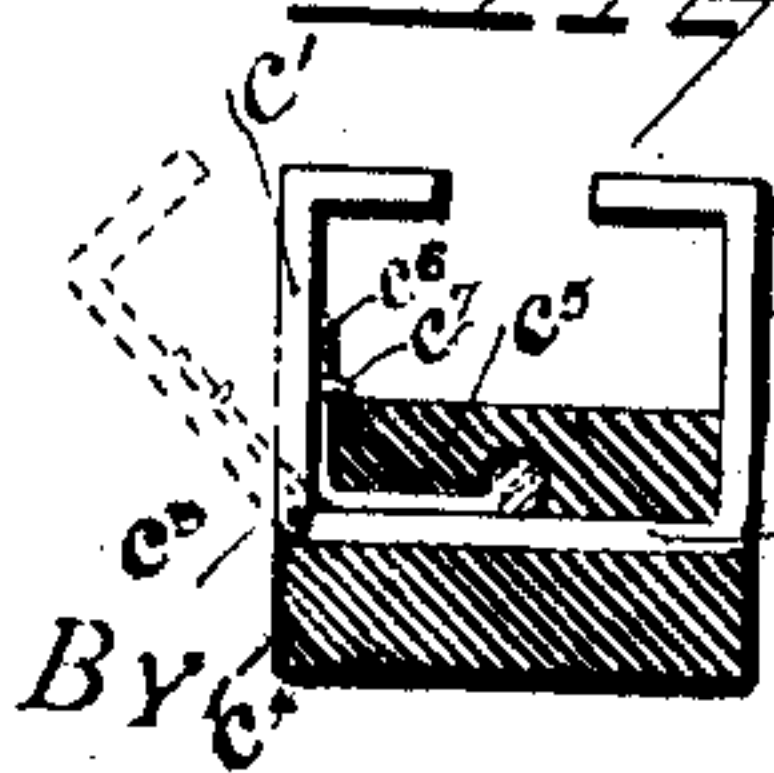


FIG. 7.



WITNESSES:

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HORSESHOE.

No. 826,958.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed December 22, 1905. Serial No. 292,993.

To all whom it may concern:

Be it known that I, WILLIAM D. O'BRIEN, a citizen of the United States, residing at Snow Shoe, in the county of Center and State of Pennsylvania, have invented certain new and useful Improvements in Horseshoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in horseshoes, and particularly to the type provided with a soft tread portion.

The particular object of my invention is to provide the soft tread portion with a series of fastening devices adapted to engage the iron shoe after it has been secured to the hoof, whereby the cushion may be securely held thereon, but may be readily removed when worn out.

A further object is to so construct the metal portion of the shoe that the fastening devices may be readily engaged therewith and prevented from accidental displacement. In the accomplishment of this latter object I preferably countersink the fastening devices in the metal shoe, with the result that there are no projecting portions to render their use objectionable or dangerous.

In order that my invention may be more thoroughly understood, I have illustrated the same in the accompanying drawings, and a full and exact description thereof is contained in the annexed specification.

In the accompanying drawings, Figure 1 is a perspective view of my improved shoe completed. Fig. 2 is a perspective view of the metal portion thereof. Fig. 3 is a perspective view of the soft tread portion or cushion. Fig. 4 is a perspective view of a series of fastening devices, showing the steel center employed. Fig. 5 is a vertical section through the cushion. Fig. 6 is a modification showing a slightly-different form of steel center or core. Fig. 7 is a view similar to Fig. 4, showing a slightly-modified form of clip.

In the several views like letters of reference designate similar parts of my improved device.

A in the drawings designates the metal shoe portion of ordinary form and provided with the nail-holes *a*.

a' designates a series of grooves in the upper face of the shoe A or in the side adapted

to lie next to the hoof, and *a²* and *a³* designate continuations of the grooves *a'* and are located in the outer and inner edges, respectively.

B is the soft-tread portion or cushion of suitable thickness and corresponds in shape and size to the metal portion A.

C C are the fastening devices, each comprising, preferably, a piece of spring-steel corresponding in width to the grooves *a'* and of sufficient length to be bent into a rectangular form having a portion *c* adapted to be secured in the cushion B, the upright portion *c'* *c'* adapted to engage the grooves *a²* and *a³* in the edges of the metal portion B and the portion *c²* *c²* adapted to engage the grooves *a'*.

The portions *c* of the spring-clips are secured in the cushion B in any desirable manner; but the cushion is preferably formed around the same.

D is a metal core of suitable shape and size extending through the cushion and passing over the portions *c* of the spring-clips C to prevent the cushion from being torn from them. In Fig. 6 I have shown a slight modification of the core, which in this instance is a strip of metal E, formed integral with the clip C.

In Fig. 7 I have illustrated a slightly-modified form of clip, which in this instance has one of the upright portions *c'* (preferably the outside one) hinged to the portion *c* at *c³*. In order to normally hold said hinged portion *c'* in a vertical position, I provide an angular leaf-spring *c⁴*, having a portion *c⁵* secured to the portion *c* and having the other portion *c⁶* working in a stirrup or guide *c⁷*, secured to the portion *c'*.

From the foregoing description the operation of my device is obvious and as follows: The metal shoe A is first secured to the hoof in the usual manner, forming transverse slots *a'* between the shoe and the hoof. The cushion is then secured to the shoe by springing the clips and inserting the portions *c²* *c²* thereof into the slots *a'*, whereupon the portions *c'* *c'* will fit into the grooves *a²* *a³*. With this construction there is no danger of the clips being accidentally disengaged from the shoe A, as the ends thereof are firmly held between the hoof and the shoe and there are no projecting edges to strike or catch upon stones or other irregularities in the road which would tend to loosen them, and consequently there is nothing to render their use dangerous to the animal wearing them.

It is obvious that when worn out the cushion may be readily disengaged from the metal portion by inserting a suitable instrument between the shoe and the clips to disengage the same, whereupon new cushions may be applied to the same metal portion indefinitely.

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

10 1. In a horseshoe, the combination with a shoe portion adapted to be secured to the hoof, of a soft tread portion provided with a series of spring-clips adapted to detachably engage said shoe portion, substantially as described.

15 2. In a horseshoe, the combination with a shoe portion adapted to be secured to the hoof and provided with a series of grooves, of a soft tread portion provided with a series of spring-clips adapted to engage said shoe portion and fit in said grooves, substantially as described.

25 3. In a horseshoe, the combination with a shoe portion adapted to be secured to the hoof and provided with grooves extending across its upper face and edges, of a soft tread portion, spring-clips secured to said soft-tread portion and provided with upwardly-extending portions adapted to fit into said grooves in the edges of said shoe portions and inwardly-projecting portions adapted to fit into said grooves in the upper face thereof, substantially as described.

30 4. In a horseshoe, the combination with a shoe portion adapted to be secured to the hoof, of a soft tread portion and spring-clips embedded in said soft tread portion and adapted to detachably engage said shoe portion, substantially as described.

35 5. In a horseshoe, the combination with a shoe portion adapted to be secured to the hoof, of a soft tread portion, spring-clips in said soft tread portion adapted to detach-

ably engage said shoe portion and a core for securing said clips in said soft tread portion, substantially as described. 45

6. In a horseshoe, the combination with a shoe portion adapted to be secured to the hoof, of a soft tread portion, spring-clips in said soft tread portion and adapted to detachably engage said shoe portion, and a core extending through said soft tread portion and engaging said clips, substantially as described. 50

7. In a horseshoe, the combination with a shoe portion, of a soft tread portion, and spring-clips having portions embedded in said soft tread portion and portions for engaging the edges and upper face of said shoe portion, substantially as described. 55

8. In a horseshoe, the combination with a shoe portion, of a soft tread portion, spring-clips having portions embedded in said soft tread portion and portions for engaging said shoe portion, and a core embedded in said soft tread portion and passing over said embedded portions of said clips, substantially as described. 60 65

9. In a horseshoe, the combination with a shoe portion provided with grooves extending across its upper face and edges, of a soft tread portion, spring-clips having portions embedded in said soft tread portion and portions for engaging the upper face and edges of said shoe portion and adapted to fit in said grooves and a core embedded in said soft-tread portion and passing over said embedded portions of said clips, substantially as described. 70 75

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM D. O'BRIEN.

Witnesses:

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O. J. HARM.