

No. 822,468.

PATENTED JUNE 5, 1906.

R. O'CONNELL.
HORSESHOE.

APPLICATION FILED APR. 2, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

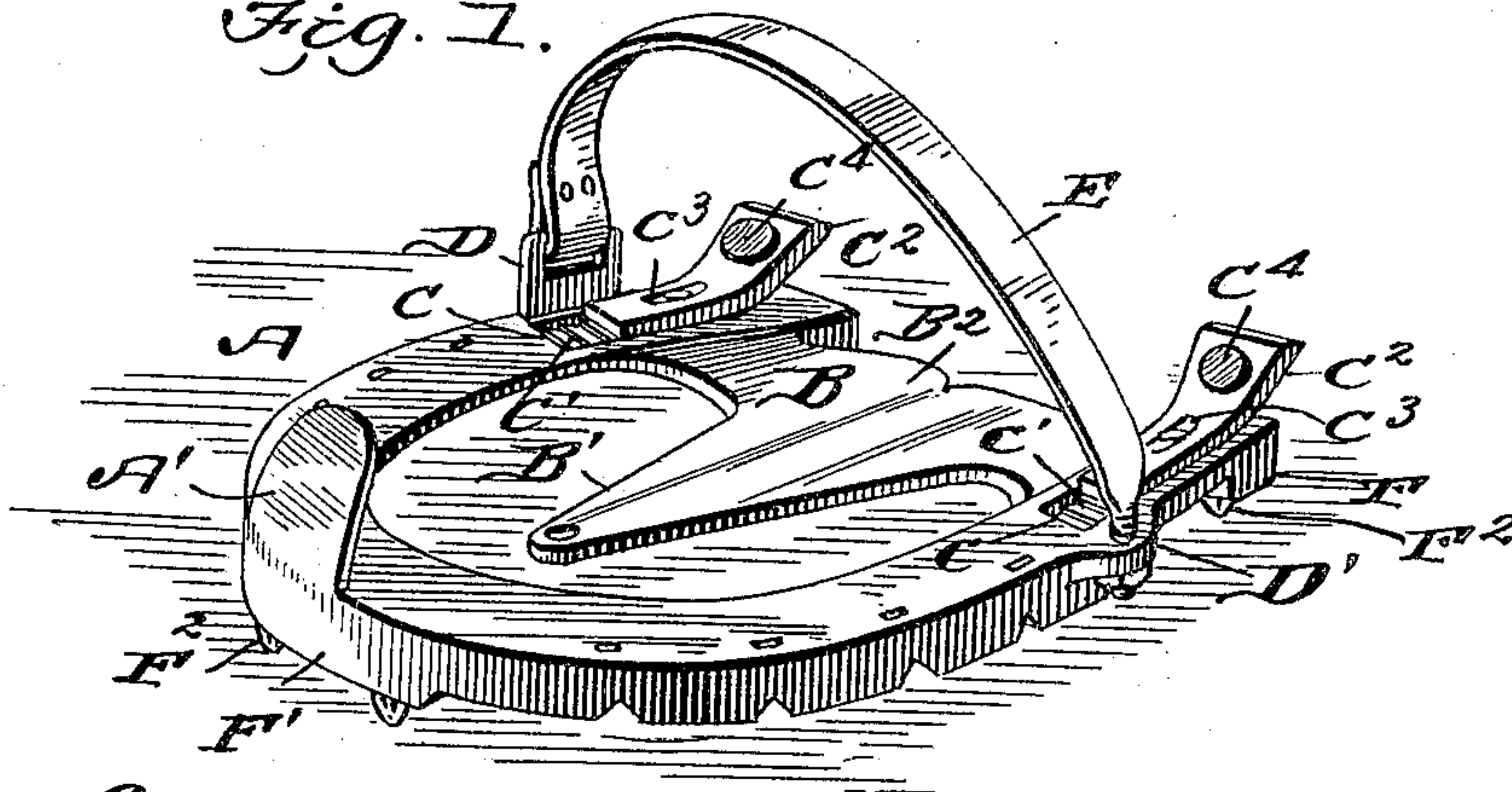


Fig. 2.

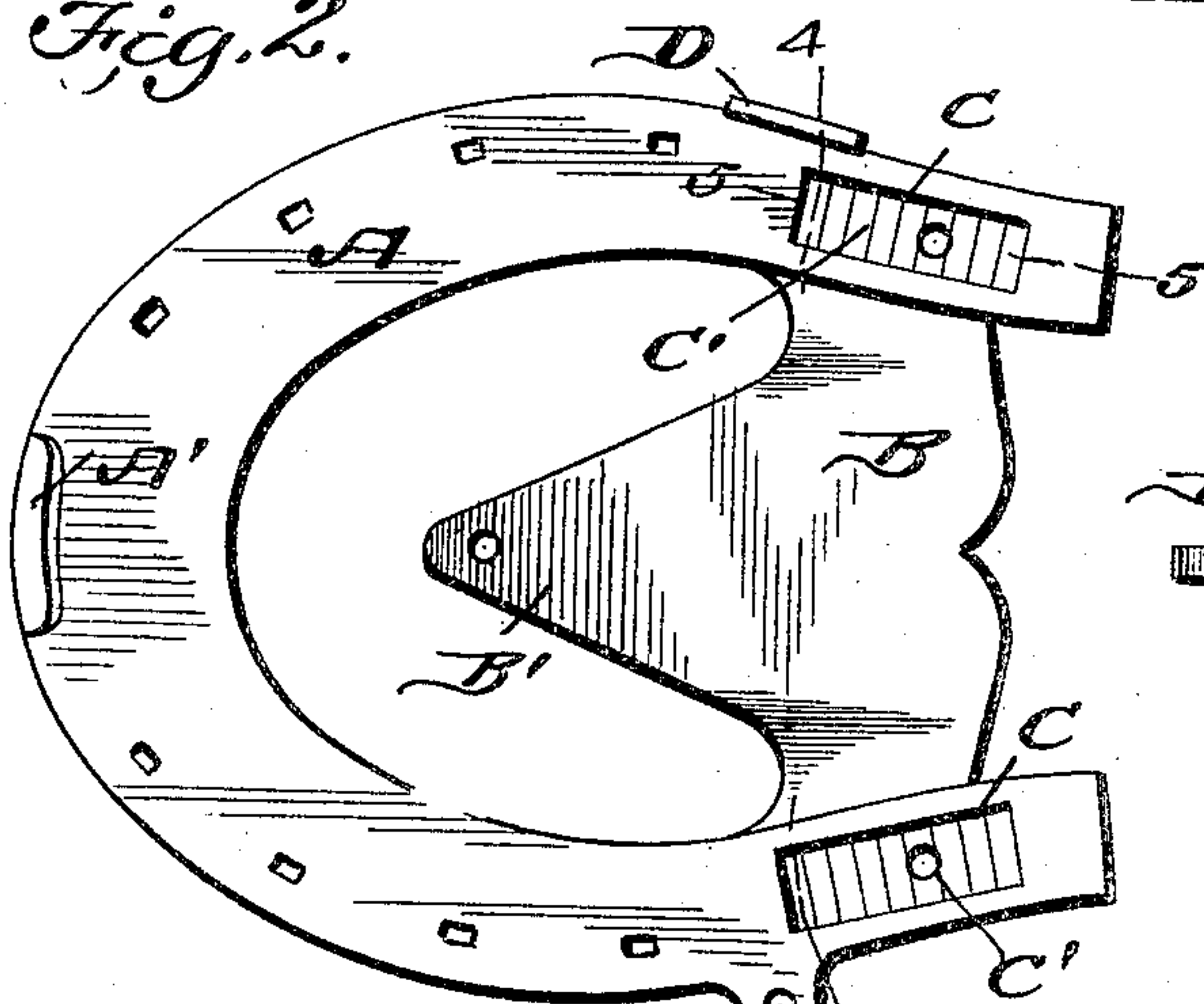


Fig. 3.

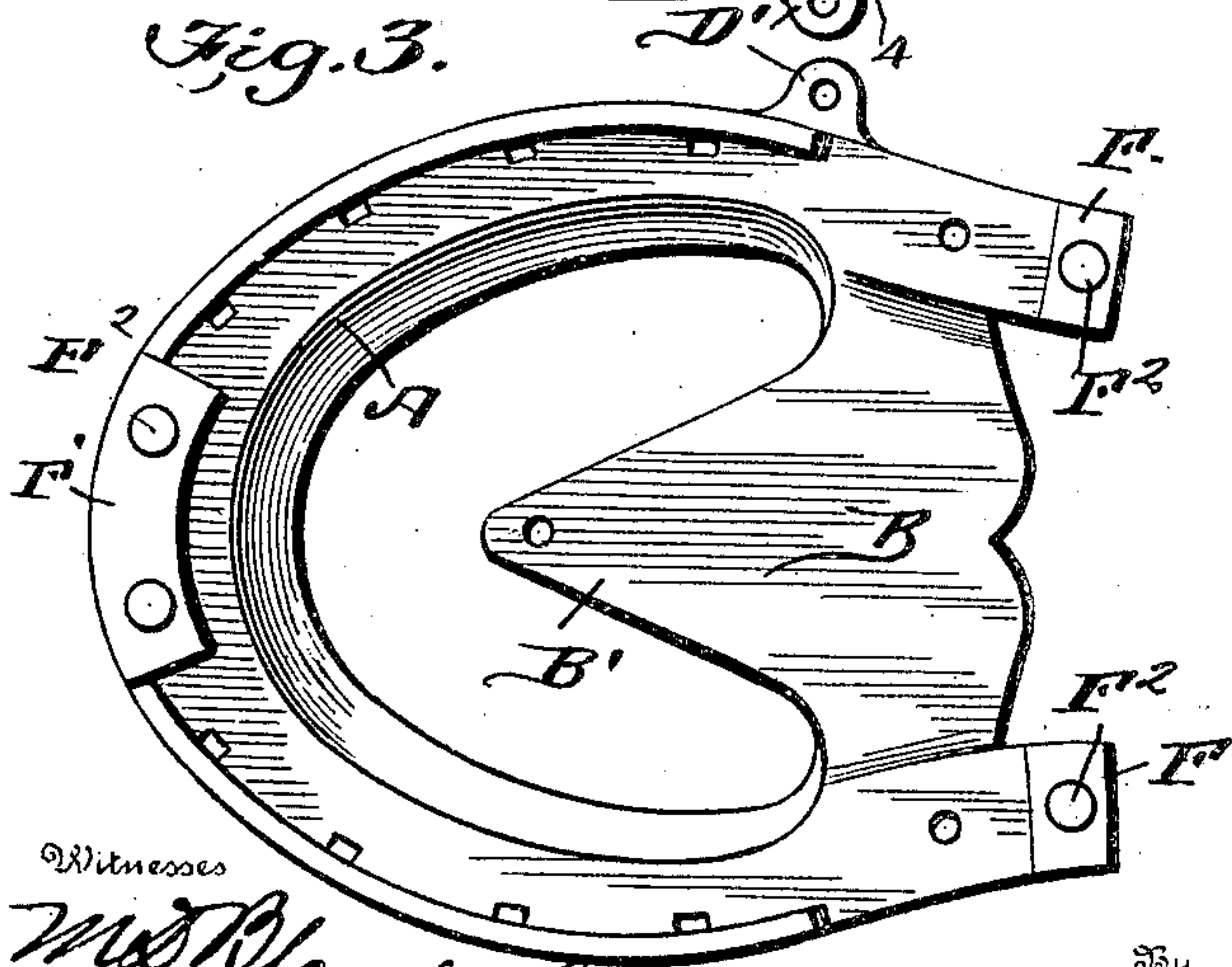


Fig. 4.

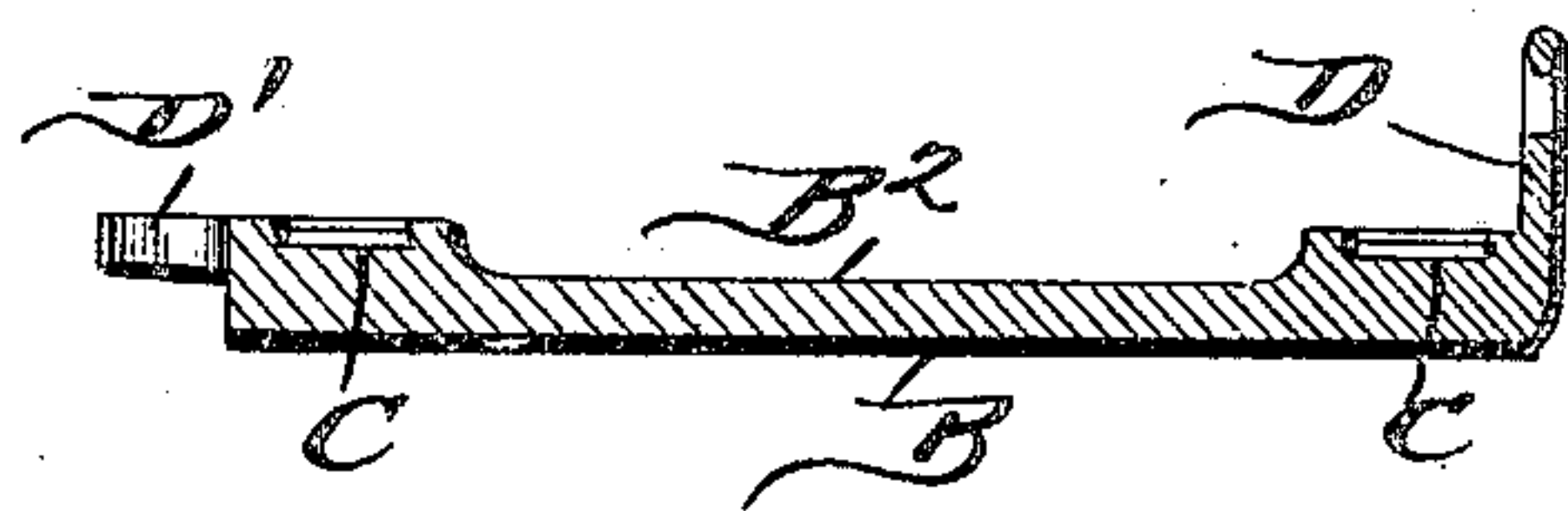


Fig. 5.

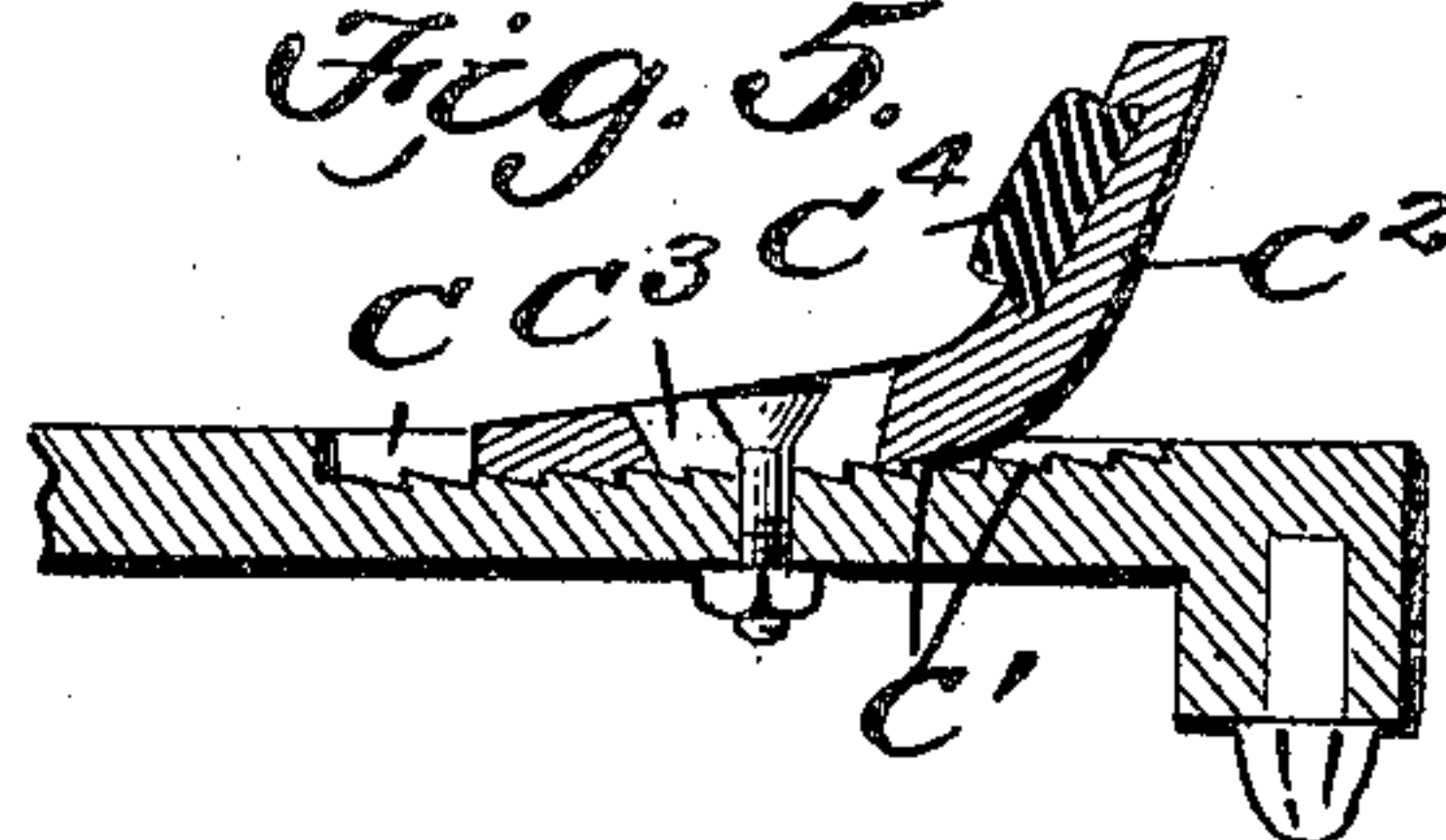
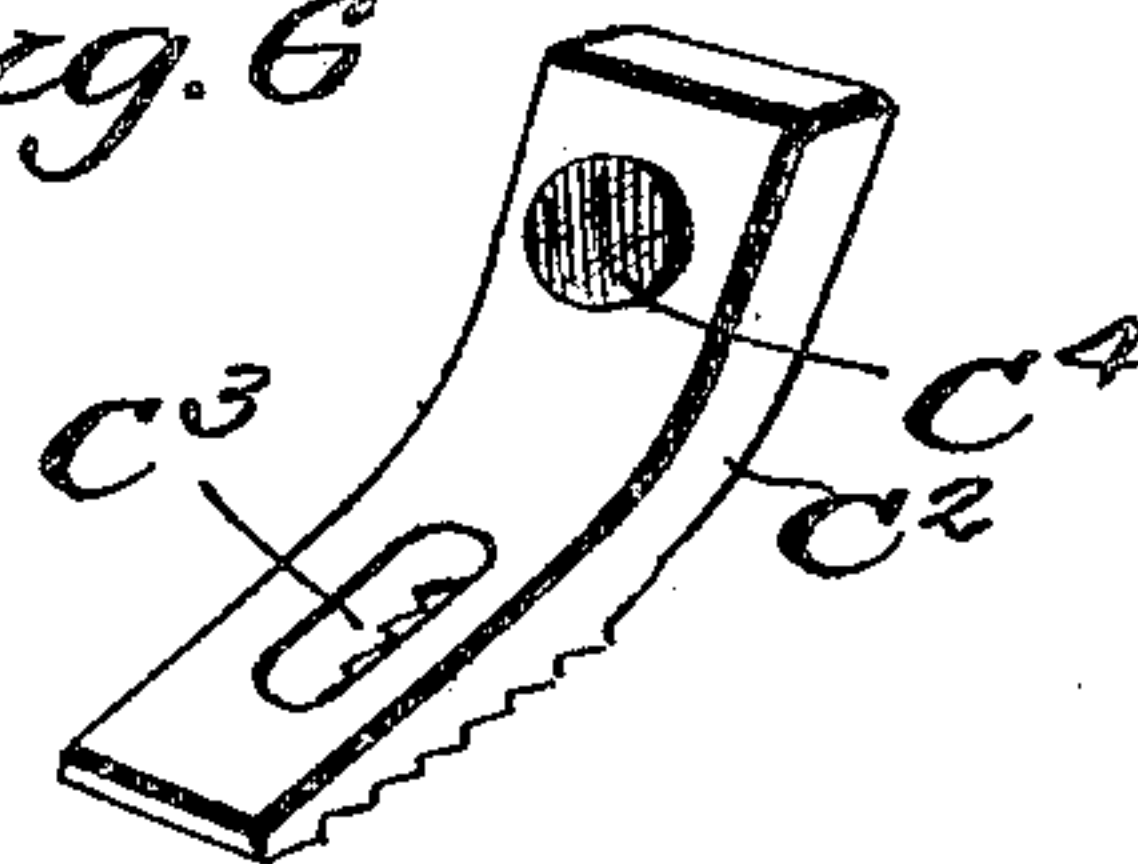


Fig. 6.



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2 SHEETS—SHEET 2.

Fig. 7.

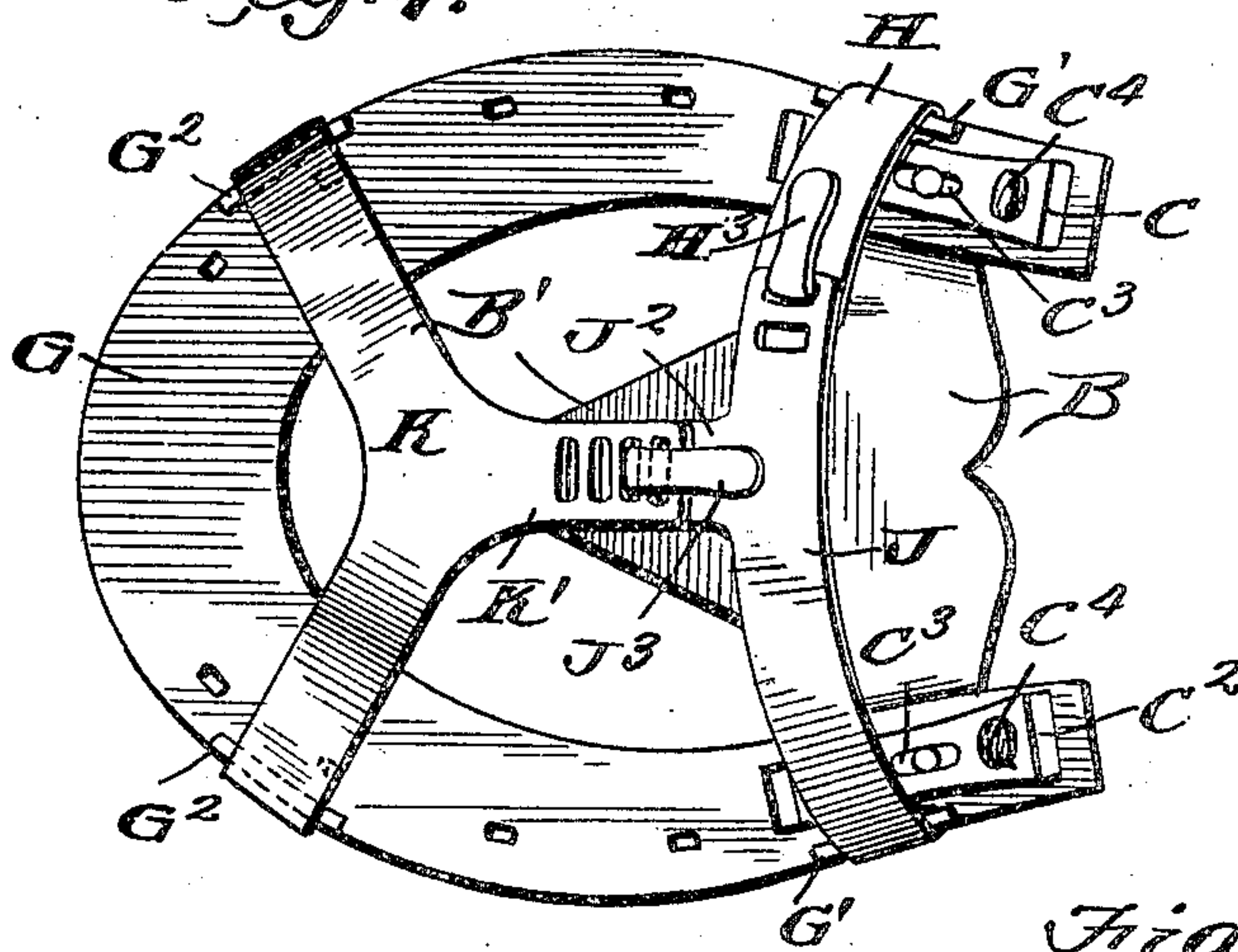


Fig. 8.

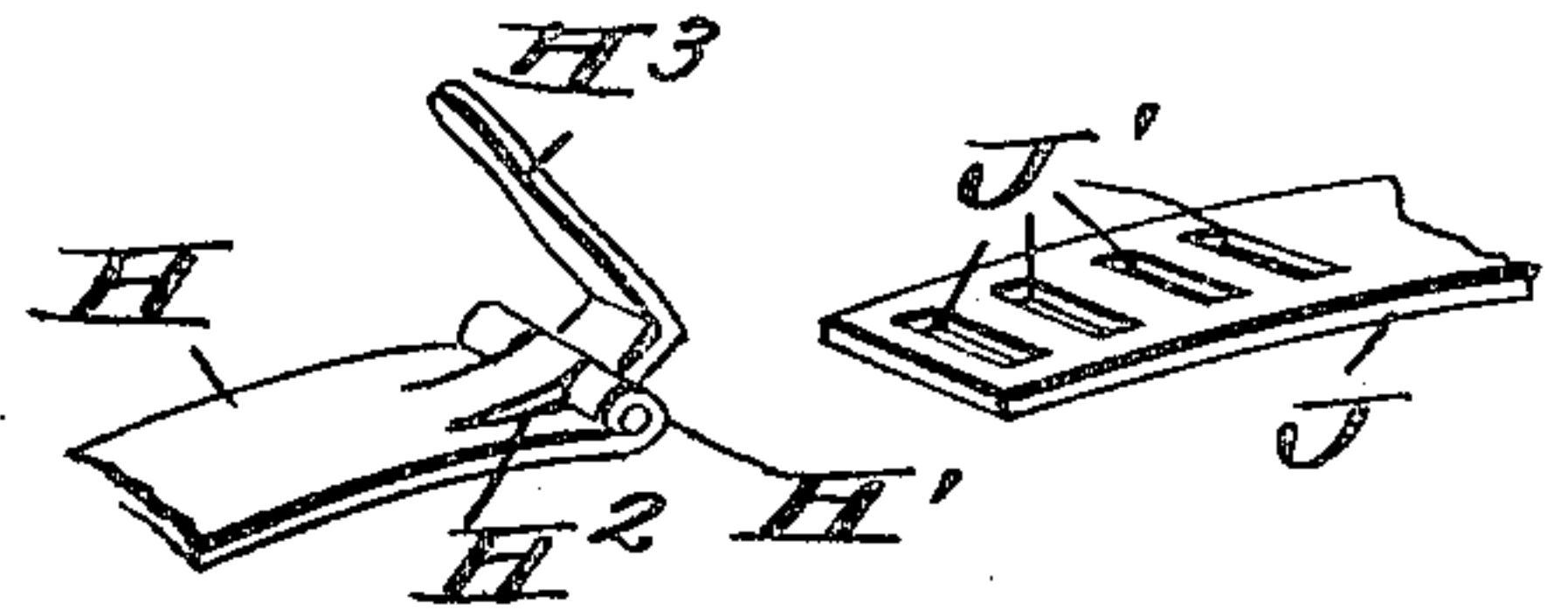


Fig. 9.

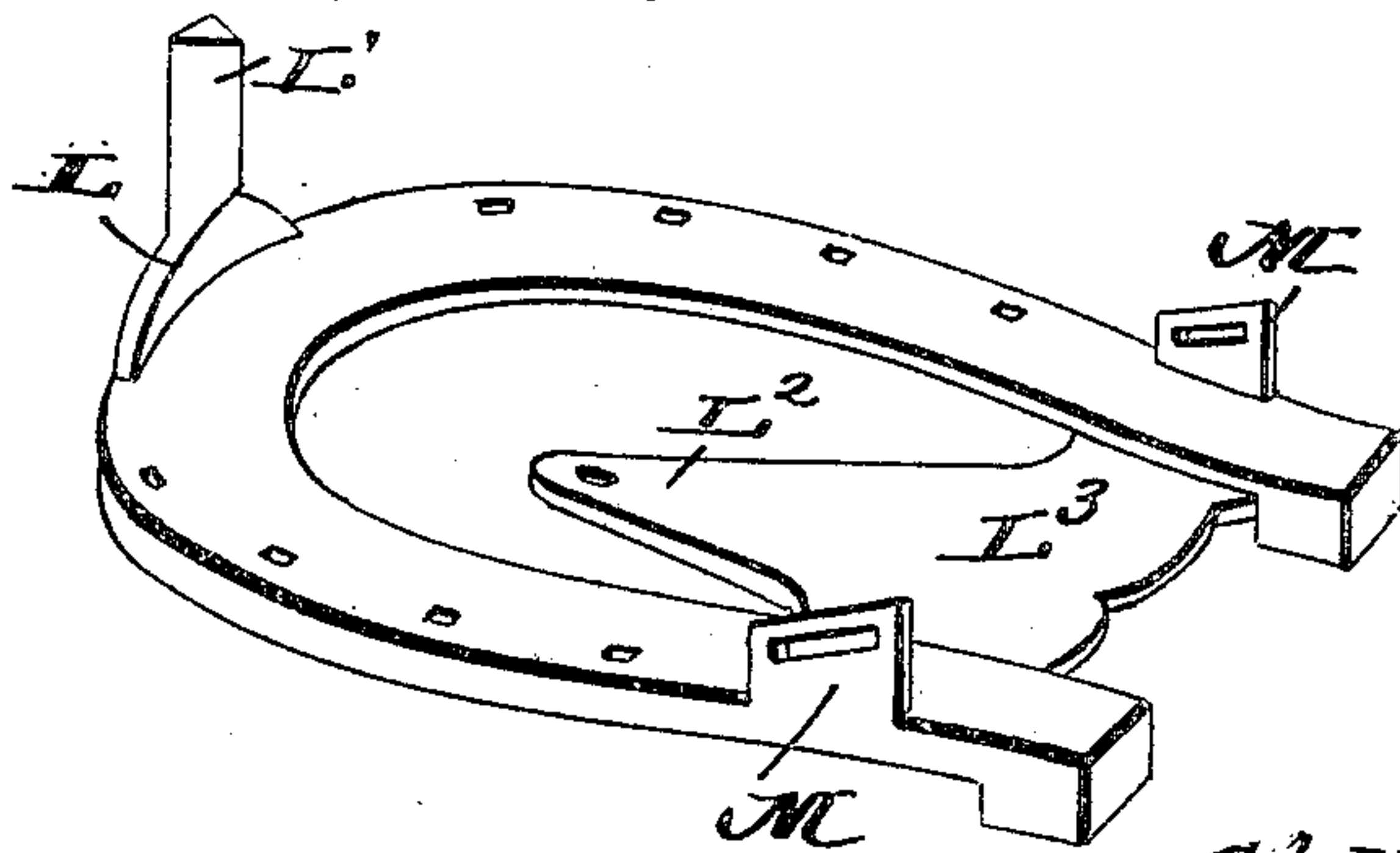


Fig. 10.

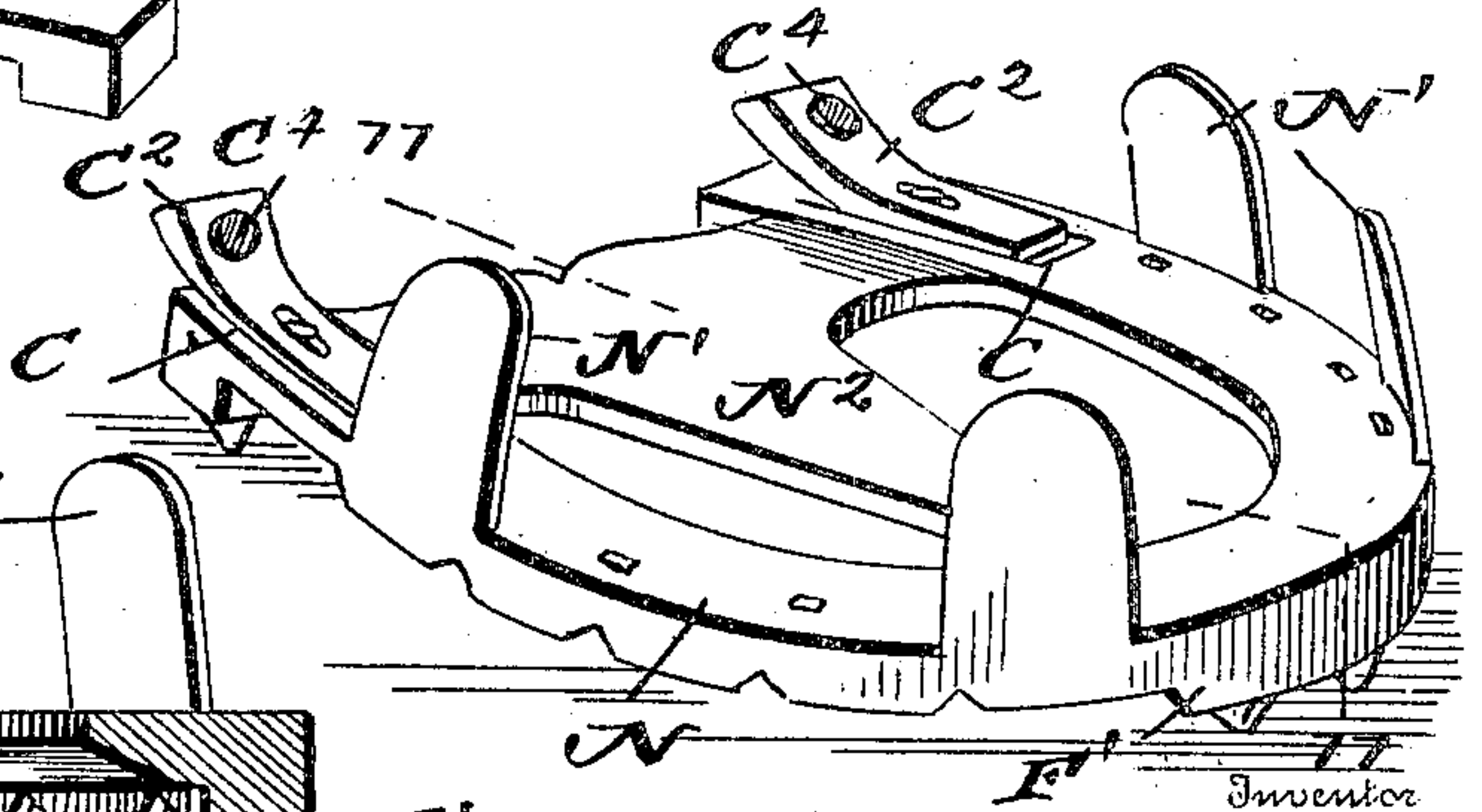
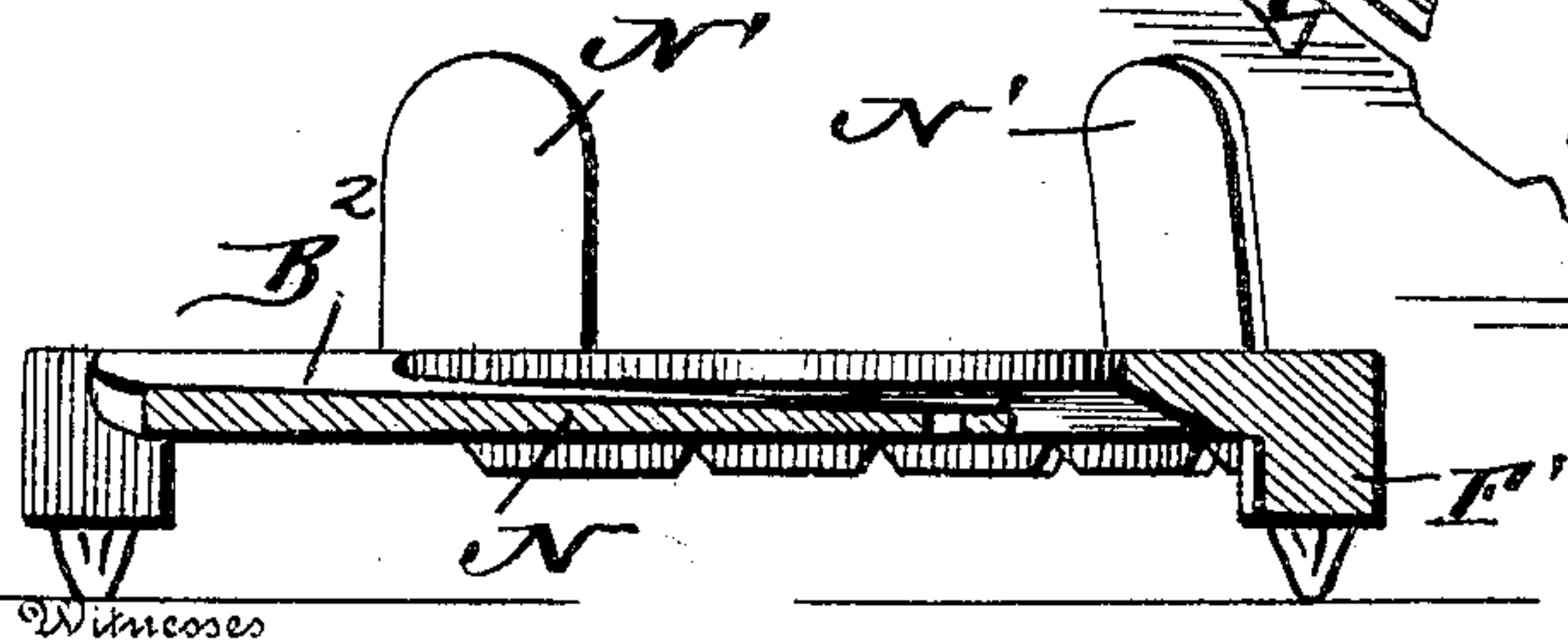


Fig. 11.



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UNITED STATES PATENT OFFICE.

RICHARD O'CONNELL, OF JOLIET, ILLINOIS.

HORSESHOE.

No. 822,468.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed April 2, 1904. Serial No. 201,298.

To all whom it may concern:

Be it known that I, RICHARD O'CONNELL, a citizen of the United States, residing at Joliet, in the county of Will and the State of Illinois, have invented a new and useful Improvement in a Horseshoe, of which the following is a specification.

My invention relates to a horseshoe adapted to be secured in position either with or without nails.

The objects of my invention are to construct a horseshoe which will relieve and remedy contracted feet, which will not place any pressure on corns, and will cure various ailments of the foot by means of a working frog-support to relieve the hoof of the horse of concussions by providing proper bearings for same by working the frog-support in the middle of the foot, thus preventing splints on the cannon-bone, to provide a readily-detachable shoe which can be applied in the morning and taken off at night, to provide a shoe that can be applied without the use of nails and where it would be impossible to employ nails.

My invention also consists in the following-described novel features of construction, which are particularly pointed out in the claims and shown in the drawings, in which—

Figure 1 is a perspective view of my improved shoe. Fig. 2 is a plan view of the shoe, the heel-clips being removed. Fig. 3 is an inverted plan view. Fig. 4 is a transverse section on the line 4 4 of Fig. 2. Fig. 5 is a detail section on the line 5 5 of Fig. 3. Fig. 6 is a perspective view of the heel-clip detached. Fig. 7 is a plan view of a modification. Fig. 8 is a perspective detail view of the clasp and buckle used in the form of shoe shown in Fig. 7, the clasp being detached from the buckle portion. Fig. 9 is a perspective view of a further modified form of a shoe. Fig. 10 is a slightly-modified form of the shoe shown in Fig. 1. Fig. 11 is a section on the line 11 11 of Fig. 10.

In the drawings, A represents the shoe proper of my preferred form, preferably of malleable iron, and having at its forward end the malleable-iron toe-clip A' formed integral with the shoe proper. Between the poles of the shoe a working frog-support B is formed extending in the shape of a web from one side member of the shoe to the other and having midway the side members of the shoe a forwardly and slightly downwardly extending point or projection, which I will term the

"tongue" of the frog-support and which is shown at B'. The upper face of the frog-support lies slightly below the plane of the upper face of the shoe proper and curves downwardly slightly on each side to a line extending from the apex of the tongue B' rearwardly and transversely to the frog, forming a slight trough B².

Adjacent the frog-support B the heels of the shoe A are longitudinally recessed, as shown at C, and the bottom of this recess is perforated and serrated, as shown at C'. Heel-clamps having their rear portions bent or curved upwardly have their forward portions serrated on the under side to correspond with the serrations C' in the recesses C, and the forward portions of the heel-clamps C² rest in the recesses C. A slot C³ is formed in this portion of each heel-clamp C², and a set-screw is adapted to work therethrough and through the perforation in the recess C, whereby the heel-clamp is adjustably locked in position. In the forward face of the upwardly-curved portion of each heel-clamp is formed a recess or socket in which is secured a rubber pad C⁴. On the outer edge of one of the side members of the shoe A is formed a vertically-extending lug D, horizontally slotted, and to this lug is hinged or otherwise pivotally connected a steel spring-band E, semi-circular in shape and terminating at the non-hinged end in a cylindrical threaded portion adapted to project through a perforated horizontally-extending lug D' on the side of the shoe opposite the lug D, and the band E is held in position by a nut working on the threaded portion and bearing on the under side of the lug D'. The band E arches over and bears upon the upper front portion of the hoof and serves to more securely lock the shoe in place.

Hardened-steel oil-tempered calks F and F' are provided at the heels and toe, respectively, and these calks are provided with sockets into which may be fitted the shanks of points F² when it is desired to rough shod the horse or the shanks of rubber pads may be inserted into these sockets when a noiseless shoe is desired.

It will be noted that the toe-clip A' is curved inwardly, and, further, that the heel-clamps are adjustable, so that they can be set or adjusted so as to vary their distance from the toe-clip.

In Fig. 7 I have shown practically the same shoe that is shown in Fig. 1, the toe-clip be-

ing omitted. This shoe G is provided with two vertical lugs on each side, two lugs G' being arranged adjacent the heels and two lugs G² on the sides of the toe portion. To one of the lugs G' is pivotally hinged a steel band H, the free end of which is rolled to form the loop or elongated eye H' and also longitudinally slotted, as shown at H². An angled pivoted tongue H³ is carried by this free end of the strip H. A steel spring-band J is pivotally hinged to the remaining lug G' and adjacent its free end is slotted, as shown at J', which slots are adapted to be engaged by the tongue H³, the whole forming a tongue-and-buckle connection.

A bifurcated spring-steel band K, or what may be termed a "three-point" band, has the point K' connected to a lug J², carried by the band J, by a tongue-and-buckle joint J³, similar to that described above, while the other points or ends of the band K are pivotally hinged to the lugs G², respectively.

In Fig. 9 I have shown a shoe in which the toe-clip L has a broad base concaved on its inner face and supporting a vertical prism-shaped portion L', one edge of the prism being in alinement with the tongue L² of the frog-support L³, and this support lies below the plane of the shoe proper. The portion L' serves as a toe-weight and can be used as such either with or without the use of the old-style toe-weight, and when used with the old form of weight the portion L' is hammered inwardly and the old-style weight fitted thereto. These old toe-weights are constructed with a prism-shaped recess upon their inner faces, and the portion L' is so shaped that these toe-weights may be applied to it when desired. Slotted lugs M are formed on the shoe, and to them are connected bands, (not shown,) such as are shown and described in connection with the shoe of Fig. 1.

In Fig. 10 I have shown a shoe N, having formed on its upper outer edges a plurality of clips, curved inwardly, as shown at N', and having a frog-support N² projecting forwardly, as shown in the sectional view in Fig. 11. In other respects this shoe resembles that shown at A in Fig. 1. All of the shoes are provided with nail-holes, so that nails may be employed to secure them in place in addition

to the bands when desired, and I also perforate the tip of the tongues of the frog-supports, and when it is desired to cover the frog-support with leather the leather can be fastened to the tongue by a rivet passing through this perforation.

The advantages of this shoe will be obvious to those skilled in the art to which it relates.

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

1. A horseshoe having a frog-support with a tongue portion projecting forwardly between the side members of the shoe, the heel portions of said side members being recessed, and adjustable heel-clamps adapted to fit in the said recesses.

2. A horseshoe comprising the shoe proper having the heel portions recessed, detachable heel-clamps adapted to fit in said recesses, means for adjustably locking the heel-clamps in position, and a frog-support connecting the side members adjacent the heel portions and having a forwardly-projecting tongue, the said frog-support having on its upper face a slight depression in alinement with the tongue.

3. A horseshoe having recessed heel portions, the bottom of each recess being serrated and perforated, heel-clamps each having an upwardly-extending rear portion and a forwardly-extending portion serrated on its under face and slotted, said portion being adapted to rest in one of the recesses, means for locking said clamps in an adjusted position, and a frog-support having a forwardly-projecting tongue, said frog-support being carried between the side members of the shoe and below the plane of the upper face of the said shoe.

4. A horseshoe having a frog-support formed between the heel portions and lying below the plane of the upper surface of the said shoe, and a forwardly-projecting tongue carried by the intermediate portion of the frog-support.

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