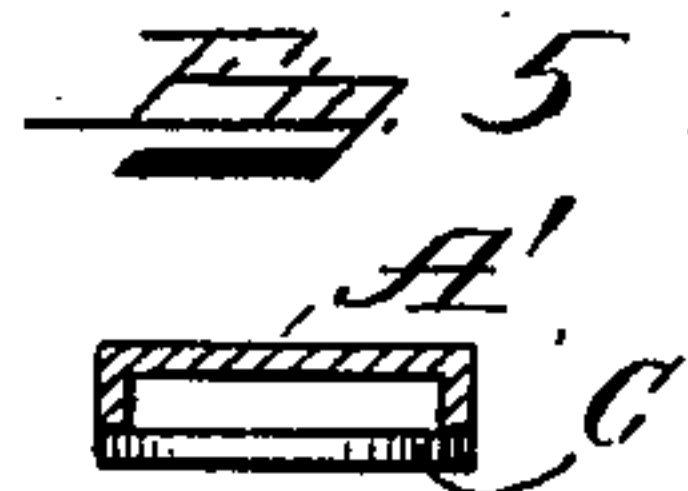
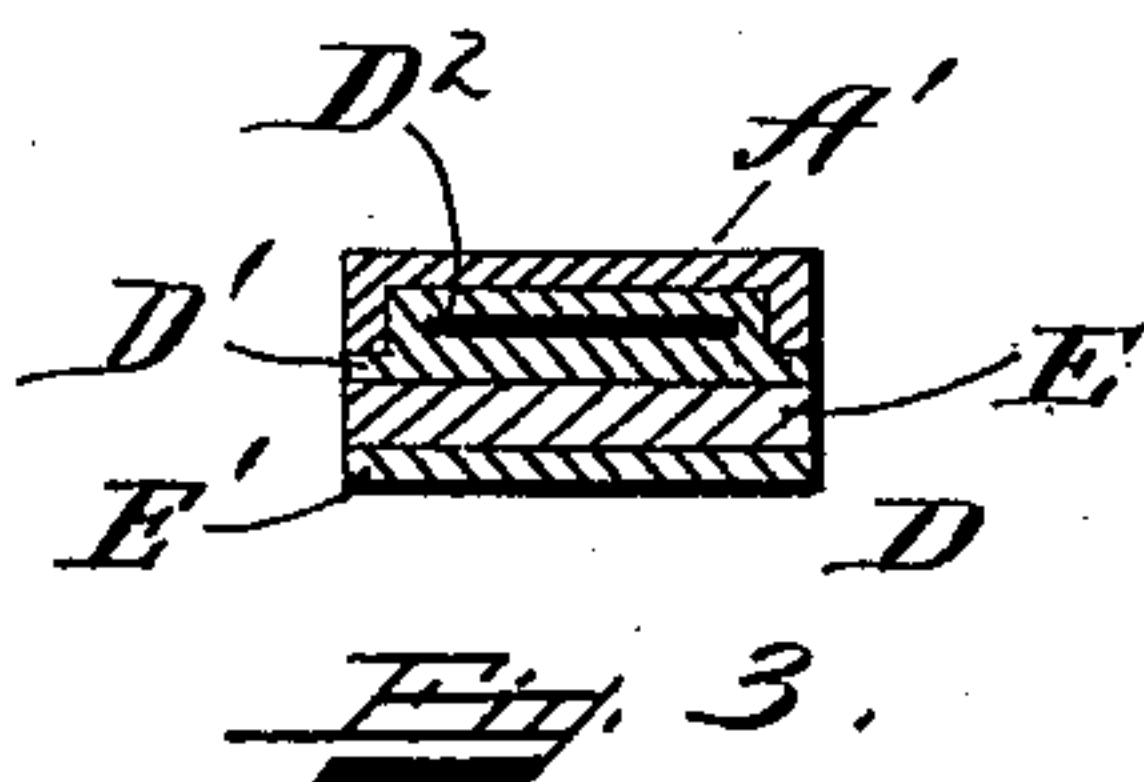
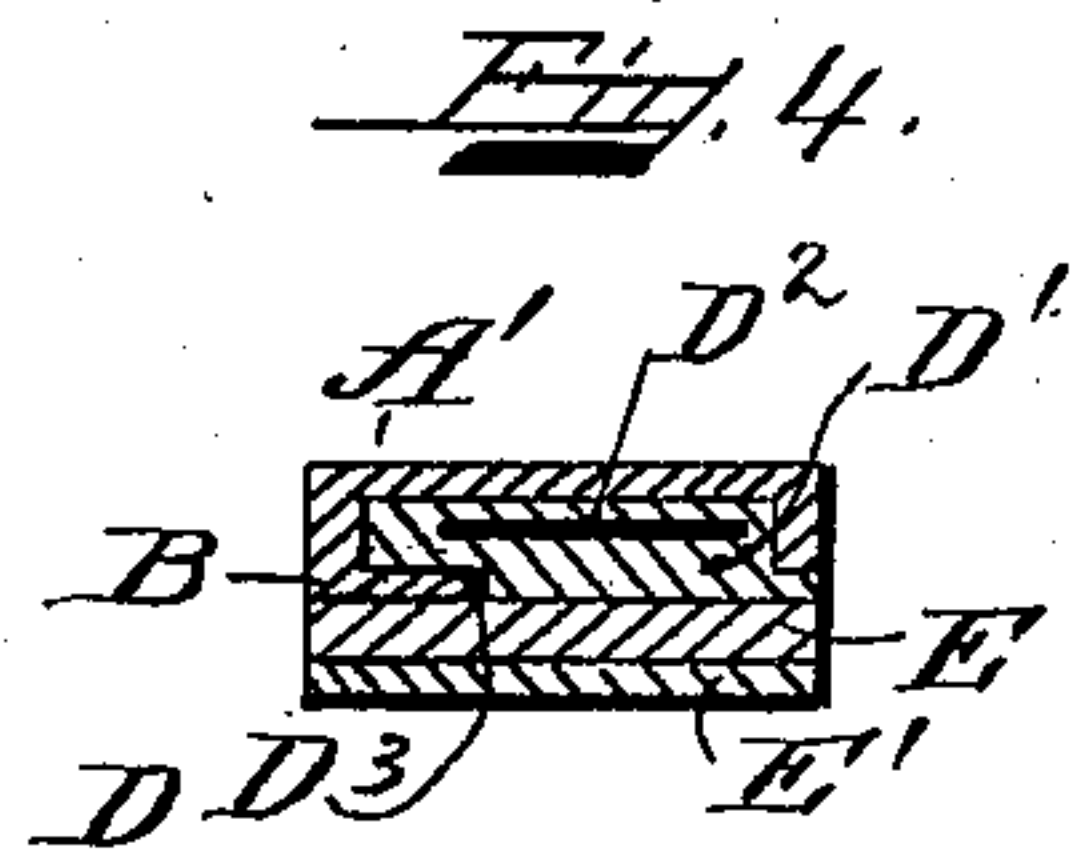
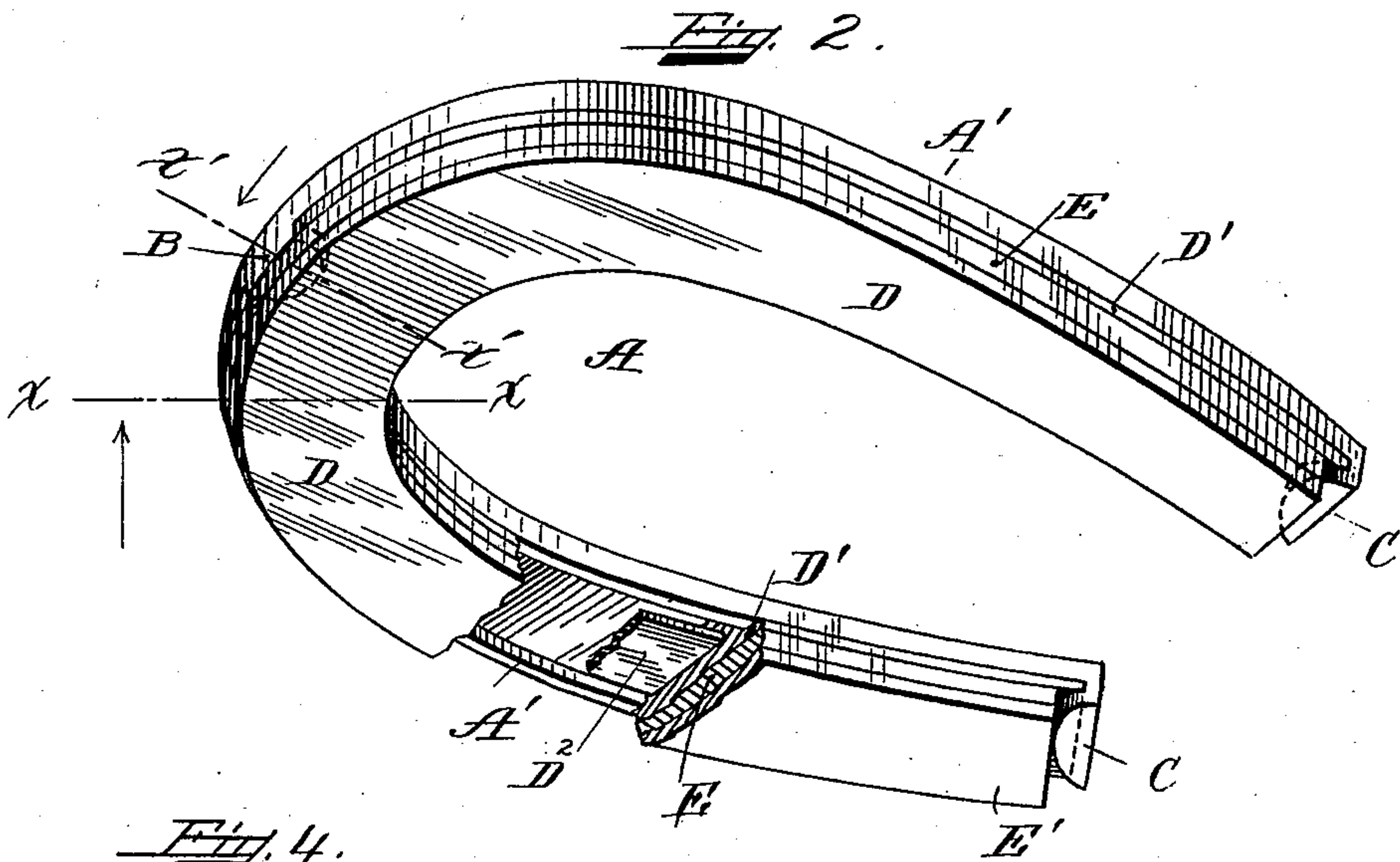
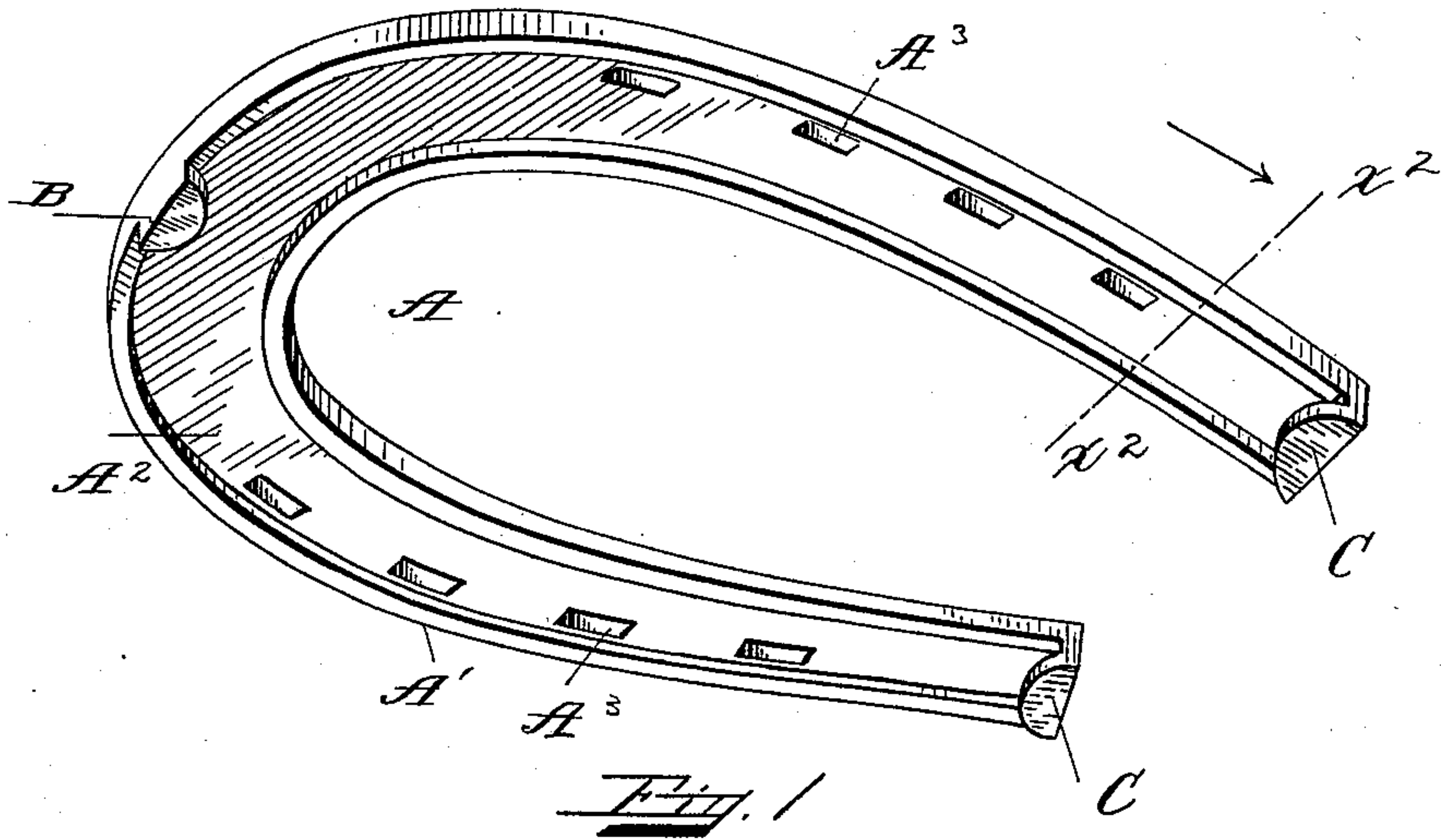


(No Model.)

P. KRUMSCHEID.
CUSHIONED HORSESHOE.

No. 602,387.

Patented Apr. 12, 1898.



Witnesses:
E. L. Harlow.
A. L. Messer.

Inventor:
Peter Krumcheid.
J. S. Rusk,
Att'y.

UNITED STATES PATENT OFFICE.

PETER KRUMSCHEID, OF BOSTON, MASSACHUSETTS.

CUSHIONED HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 602,387, dated April 12, 1898.

Application filed April 23, 1897. Renewed March 21, 1898. Serial No. 674,692. (No model.)

To all whom it may concern:

Be it known that I, PETER KRUMSCHEID, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Horseshoes, of which the following is a specification.

My invention relates to new and useful improvements in horseshoes; and it has for its object to construct a horseshoe of two sections, one, of metal, adapted to be attached to the hoof, and the other section removably attached to the metal section and of an elastic yielding substance, which when worn out or destroyed can be removed without disturbing the metal section and replaced by another section of like material and shape, and thus forms a detachable sole for the horseshoe.

My invention consists of certain novel features hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which illustrate a construction embodying my invention, Figure 1 is a perspective view of the skeleton frame of said horseshoe, taken from the under side and with the elastic or yielding section omitted. Fig. 2 is a perspective view of my improved horseshoe when completed and taken from the under side and partly broken away to show the interior construction. Fig. 3 is a cross-sectional view on the line $x\ x$, Fig. 2. Fig. 4 is a detail sectional view, taken at the front end of the horseshoe, on the line $x'\ x'$, Fig. 2. Fig. 5 is a cross-sectional view on the line $x^2\ x^2$ of Fig. 1 looking in the direction indicated by the arrow.

Like letters of reference refer to like parts throughout the several views.

My improved horseshoe A consists of a skeleton frame A', made of suitable metal to give strength, and is provided with a recess A² from one end of the horseshoe to the other on the under side and with holes A³, through which nails are driven to secure said metal frame A' to the hoof of the horse. Said frame A' is also provided with a suitable toe calk or flange B and heel calks or flanges C, which extend inwardly over the recess A² for a purpose hereinafter described. Within the recess A² there is adapted to be placed the removable section D, which forms a detachable sole and which, as shown in the drawings, consists, preferably, of a section D', of rub-

ber, inclosing a flat spring D², and on the top of said section D' there is secured by cement the rubber section E, and on the top of said rubber section E there is secured by cement another rubber section E'; but of course it will be readily understood that the section D could be constructed of one piece of rubber, in which the flat metal spring D² would be in the lower part, as shown in the drawings, and within the recess A², so as to be under the toe and heel calks or flanges B and C. These metal springs D² are stamped out of spring metal for the various sizes of horseshoes and, being of yielding material, can be sprung slightly to fit any desired size of horseshoe which varies from the standard sizes. These flat metal springs D² are covered with soft rubber, which is placed in molds and then cured under pressure, and, as shown, additional sections E and E' may be secured thereto by cement. After being prepared in this manner the ends of the section D are slipped under the calks or flanges C, and by slightly bending said section D to cause the spring D² and the rubber surrounding the same to yield the recess D³ in the front end of said section D' is sprung into the calk or flange B, so that the entire section or detachable sole D is firmly held in place. When said section D is worn out, it is only necessary to remove it from beneath the calks or flanges B and C and to snap in the recess A² a new section of elastic or yielding material similar to the section removed.

By this construction I have provided a horseshoe consisting of a metal frame attached to the hoof of the horse and a removable section forming a detachable sole, of elastic or yielding substance, which when worn out can easily be removed and replaced by a similar section without disturbing the metal section attached to the hoof of the horse.

I am aware that it is not new to construct a horseshoe of metal and rubber; but in all said horseshoes of which I am aware the rubber section has been non-removable from the metal section, and when the rubber has been worn out it has been necessary to remove the entire shoe and replace the same by a new shoe, whereas in my device it is unnecessary to remove the metal skeleton frame when the rubber section is worn out; but it is simply

necessary to remove the worn-out section and replace it by a new section.

The detachable sole D may be rubber vulcanized in layers, as shown, one or more of which layers may be harder than the others, or rubber may be used in combination with other materials—as leather, fiber, or fabrics—and, further, instead of the flat metal spring D² one or more wire springs may be used for the same purpose. If desired, additional inwardly-turned flanges may be used with the flanges B and C to hold the detachable sole D in its position within the skeleton frame A' of the horseshoe.

I do not limit myself to the arrangement and construction shown, as the same may be varied without departing from the spirit of my invention.

Having thus described the nature of my invention and set forth a construction embodying the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a horseshoe, a section adapted to be

attached to the hoof, a detachable section consisting of a spring and a yielding substance inclosing said spring and adapted to be sprung into place on the attached section, and means on the attached section for holding the detachable section in place.

2. In a horseshoe, a section adapted to be attached to the hoof and provided with a recess on its under side, a detachable section consisting of a spring and a yielding substance inclosing said spring and adapted to be sprung into place on the attached section in said recess, and inwardly-turned flanges on the attached section for holding the detachable section in place in said recess.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 21st day of April, A. D. 1897.

PETER KRUMSCHEID.

Witnesses:

A. L. MESSER,
E. L. HARLOW.