

No. 808,933.

PATENTED JAN. 2, 1906.

A. LANG.
RUBBER HORSESHOE.
APPLICATION FILED AUG. 13, 1905.

Fig. 1.

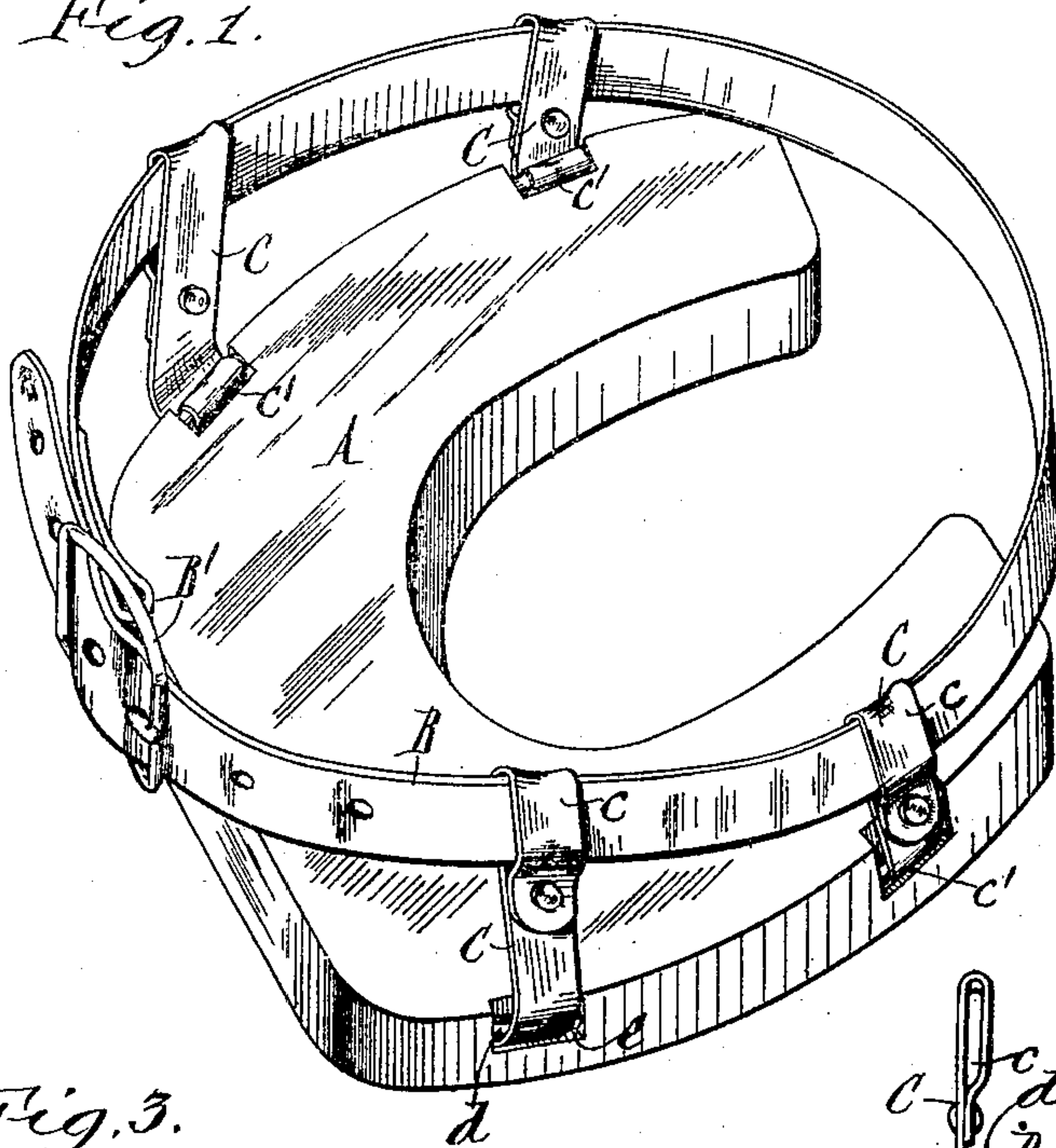


Fig. 3.

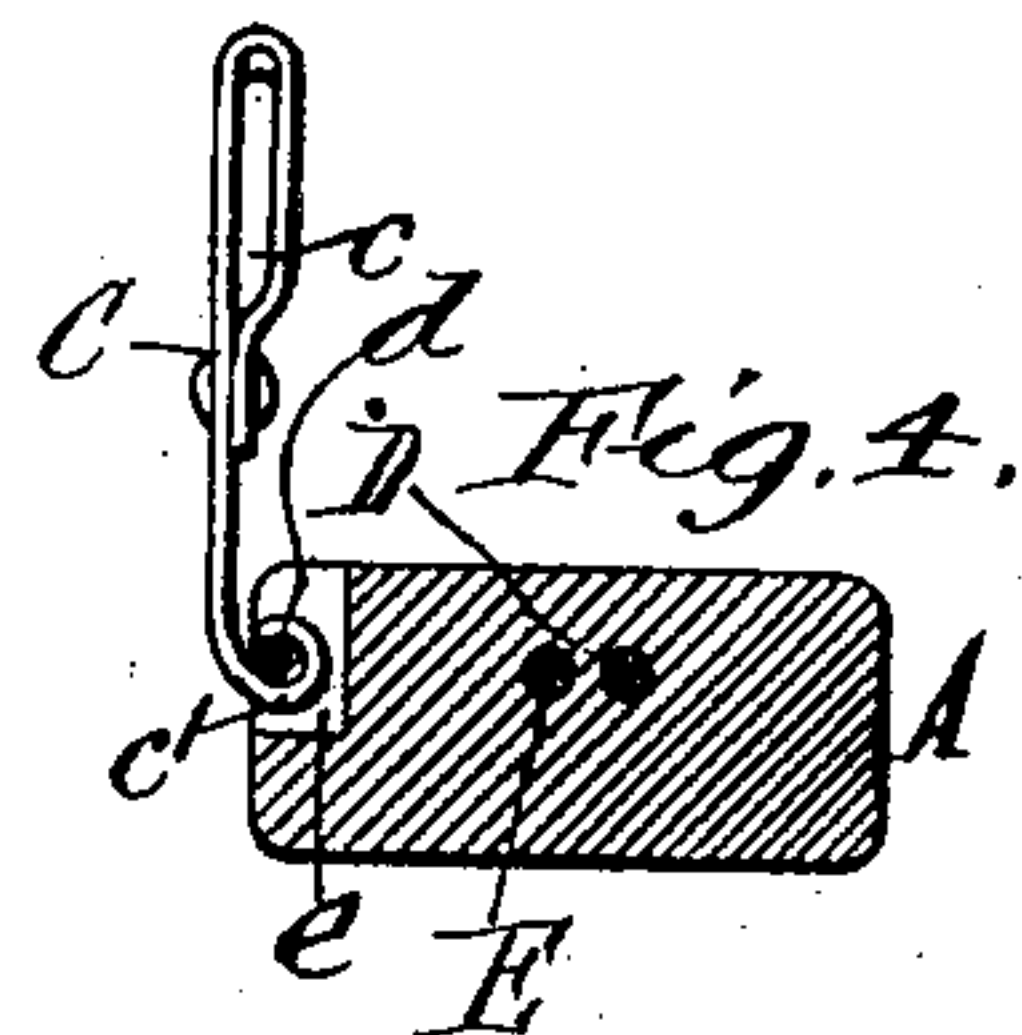
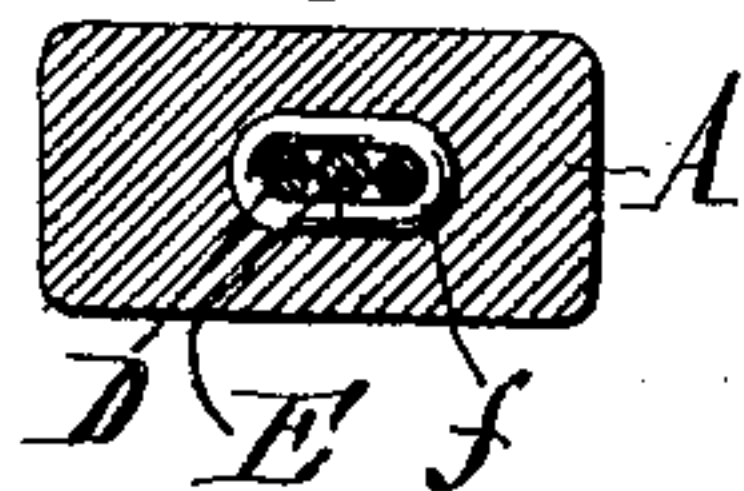
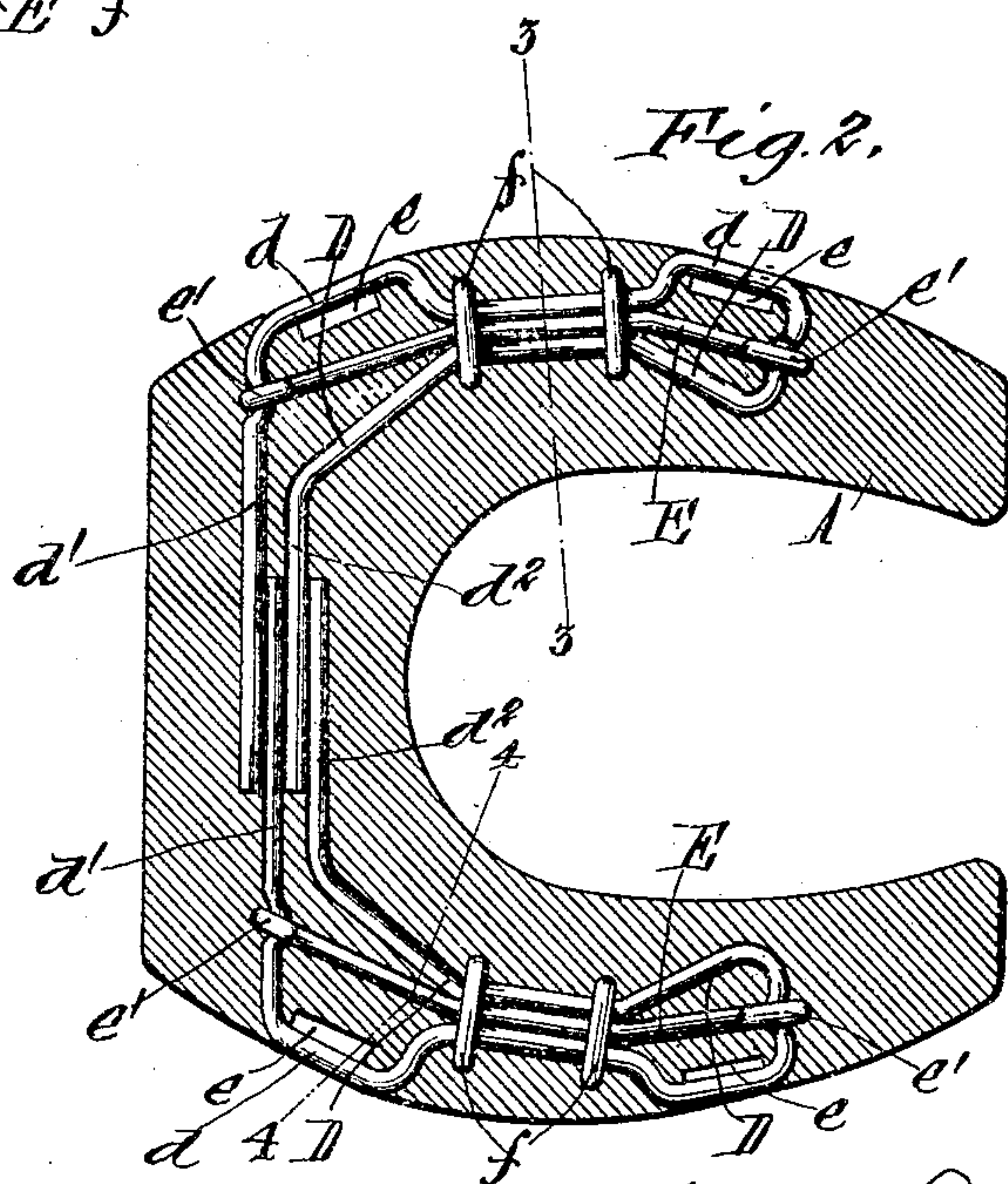


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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RUBBER HORSESHOE.

No. 808,933.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed August 16, 1905. Serial No. 274,355.

To all whom it may concern:

Be it known that I, ABRAM LANG, a citizen of the United States, residing at Eden, in the county of Erie and State of New York, have
5 invented a new and useful Improvement in Rubber Horseshoes, of which the following is a specification.

This invention relates more particularly to the class of non-slipping horseshoes consisting of a rubber tread or plate applied to the
10 under side of the usual iron shoe and provided with a strap for fastening the same to the horse's hoof.

Considerable difficulty has heretofore been
15 experienced in securing the fastenings of the strap to the tread or plate in such manner that they will not tear out under the severe strains and rough usage to which the shoe is subjected.

It is the principal object of my invention to provide the shoe with efficient means for
20 firmly and reliably anchoring such fastenings in its rubber tread-plate.

A further object is to so construct the anchoring devices that they are adjustable to
25 tread-plates of different sizes.

In the accompanying drawings, Figure 1 is a perspective view of the improved shoe. Fig.
30 2 is a horizontal section of the rubber tread-plate. Figs. 3 and 4 are transverse sections in lines 3-3 and 4-4, Fig. 2.

Similar letters of reference indicate corresponding parts throughout the several views.

A indicates the rubber tread-plate of the
35 shoe, which bears against the underside of the ordinary iron horseshoe and preferably has the general contour of the same, as shown.

B indicates the attaching-strap of the rubber plate, which is adapted to encircle the animal's
40 hoof and provided with a buckle B' or other suitable means for tightening it, this buckle being conveniently arranged at the front of the shoe. The strap B is connected with the rubber plate A by metallic clips C,
45 provided at their upper ends with loops c, through which the strap passes. The upper edges of these loops are inclined to follow the oblique position of the side portions of the strap B, and said edges are preferably convex or curved, as shown, to facilitate slippage
50 of the strap through the loops in tightening the same. The lower ends of the clips are provided with eyes c', by which they are swiveled to anchor-rods D, molded or embedded in the rubber plate A, so as to permit
55 the clips to swing laterally on the plate and

allow the attaching-strap to accommodate itself to the horse's hoof. The anchor-rods are arranged lengthwise and horizontally in the side portions of the rubber plate, and the
60 portions d thereof, to which the clips C are pivoted, extend across recesses e, formed in the lateral edges of the plate, these recesses being of the proper width and depth to receive the eyes c' of the clips. As shown in Fig. 2,
65 the portions d of the anchor-rods are preferably offset or bent outwardly beyond their remaining portions, so as to confine the clips against lateral displacement on the rods. These anchor-rods may be widely varied in
70 construction. They could be bent from a single length of comparatively heavy wire extending around the side and toe portions of the rubber plate; but they are preferably separate members and constructed as shown in
75 the drawings. From an inspection of Fig. 2 it is seen that each anchor-rod consists of a piece of wire doubled upon itself, with its looped end toward the adjacent heel of the plate A and the free portions d' d² of its
80 branches bent substantially at right angles to its side portions and embedded in the toe portion of the plate. The disconnected end portions d' d² of the two anchor rods are arranged side by side, so as to overlap each
85 other, the ends of one rod preferably alternating with those of the other, as shown. By this construction the two anchor-rods or members can be adjusted toward or from each other to fit rubber tread-plates of different
90 sizes, avoiding the necessity of constructing special rods for each size. This separate or disconnected construction of the two anchor rods also permits the same to spread more or less with the rubber plate in expanding the
95 same within reasonable limits to fit different-sized hoofs.

The lateral or longitudinal portions of the anchor-rods D are preferably reinforced by tie-rods E, arranged lengthwise between the
100 two members of the doubled rods and provided at their ends with eyes e', which embrace their looped rear ends and their transverse front branches d', the portions of the anchor-rods encircled by the eyes being in-
105 dented, as shown, to interlock the eyes therewith. The central or intermediate portions of these tie-rods and the adjacent portions of the anchor-rods lie against one another and are tied together by bands or clips f.
110

By the construction described the rods D have a comparatively large area and present

numerous bends, shoulders, or corrugations which firmly anchor the same in the rubber plate A and effectually resist withdrawal or tearing out of the rods under the strains to which they are subjected.

As shown in Fig. 1, the rear clips C are somewhat shorter than the front ones to give the side portions of the securing-strap B the necessary drop or inclination to allow the rear portion of the strap to bear against the lower rear side of the horse's foot.

The shoe shown in the drawings has two clips C at each side; but a greater or less number may be employed, if desired.

I claim as my invention—

1. A horseshoe, comprising a rubber tread-plate provided with recesses; an anchor-rod embedded in said plate and extending across said recesses, a strap adapted to engage the horse's hoof, and connecting members attached at their upper ends to said strap and at their lower ends to the portions of the anchor-rod arranged in said recesses, substantially as set forth.

2. A horseshoe, comprising a rubber tread-plate provided in its edge with recesses, an anchor-rod embedded in the plate and extending across said recesses, an attaching-strap adapted to embrace the horse's hoof, and clips having their lower ends arranged in said recesses and pivoted to said anchor-rod and provided at their upper ends with loops through which said strap passes, substantially as set forth.

3. A horseshoe, comprising a rubber tread-plate, separate anchor-rods embedded in said plate and arranged along opposite sides thereof, said rods being provided at their front ends with transverse branches embedded in the toe portion of the plate, an attaching device adapted to engage the horse's hoof, and means for connecting said attaching device with said anchor-rods, substantially as set forth.

4. A horseshoe, comprising a rubber plate provided with recesses, an anchor-rod embedded therein and composed of a piece of wire doubled upon itself and extending across said recesses, an attaching device adapted to embrace the horse's hoof, and clips connected at one end to said attaching device and at their opposite ends to the portions of said anchor-rod arranged in said recesses, substantially as set forth.

5. A horseshoe, comprising a rubber plate

provided with recesses, separate anchor-rods embedded lengthwise in said plate near opposite edges thereof and each composed of a piece of wire doubled upon itself and extending across said recesses, the free ends of said doubled wires being arranged transversely in the toe portion of the plate, an attaching-strap, and clips connecting said strap with the portions of the anchor-rods arranged in said recesses, substantially as set forth.

6. A horseshoe, comprising a rubber plate provided with recesses, an anchor-rod embedded therein and composed of a piece of wire doubled upon itself and extending across said recesses, a tie-rod extending lengthwise of the anchor-rod and engaging the end portions thereof, an attaching device adapted to embrace the horse's hoof, and clips connected at one end to said attaching device and at their opposite ends to the portions of said anchor-rod arranged in said recesses, substantially as set forth.

7. A horseshoe, comprising a rubber plate provided with recesses, separate anchor-rods embedded lengthwise in said plate near opposite edges thereof and each composed of a piece of wire doubled upon itself and extending across said recesses, a tie-rod arranged lengthwise between the members or branches of each anchor-rod and connecting the end portions thereof, an attaching-strap, and clips connecting said strap with the portions of the anchor-rods arranged in said recesses, substantially as set forth.

8. A horseshoe, comprising a rubber plate provided with recesses, separate anchor-rods embedded lengthwise in said plate near opposite edges thereof and each composed of a piece of wire doubled upon itself and extending across said recesses, a tie-rod arranged lengthwise between the members or branches of each anchor-rod and connecting the end portions thereof, a band surrounding the intermediate portions of the branches and the tie-rod of each anchor-rod, an attaching-strap, and clips connecting said strap with the portions of the anchor-rods arranged in said recesses, substantially as set forth.

Witness my hand this 10th day of August, 1905.

ABRAM LANG.

Witnesses:

C. F. GEYER,
E. M. GRAHAM.