

No. 719,693.

PATENTED FEB. 3, 1903.

A. J. PUHL.
CUSHION TREAD HORSESHOE.

APPLICATION FILED FEB. 24, 1902.

NO MODEL.

Fig. 1.

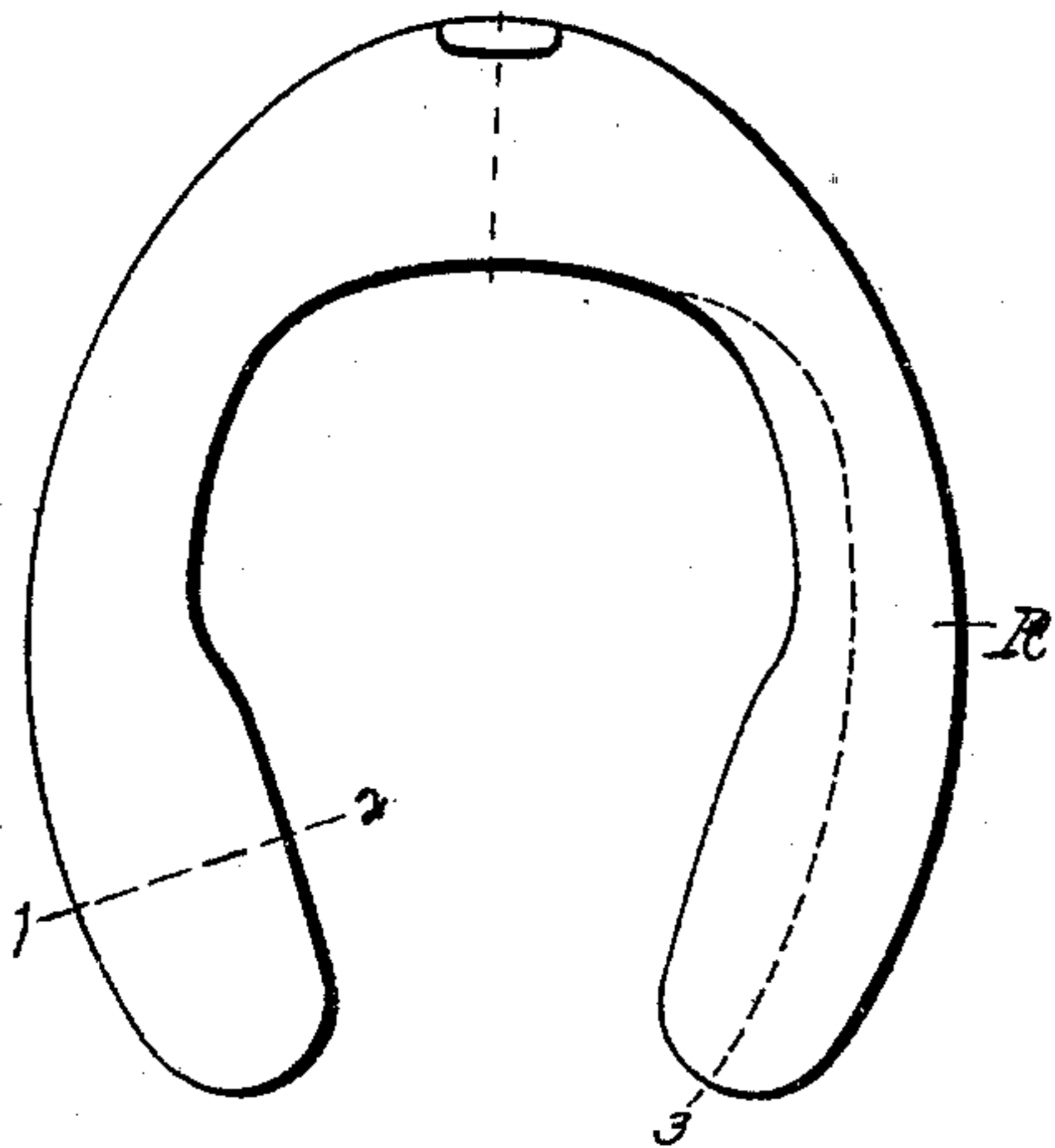


Fig. 2.

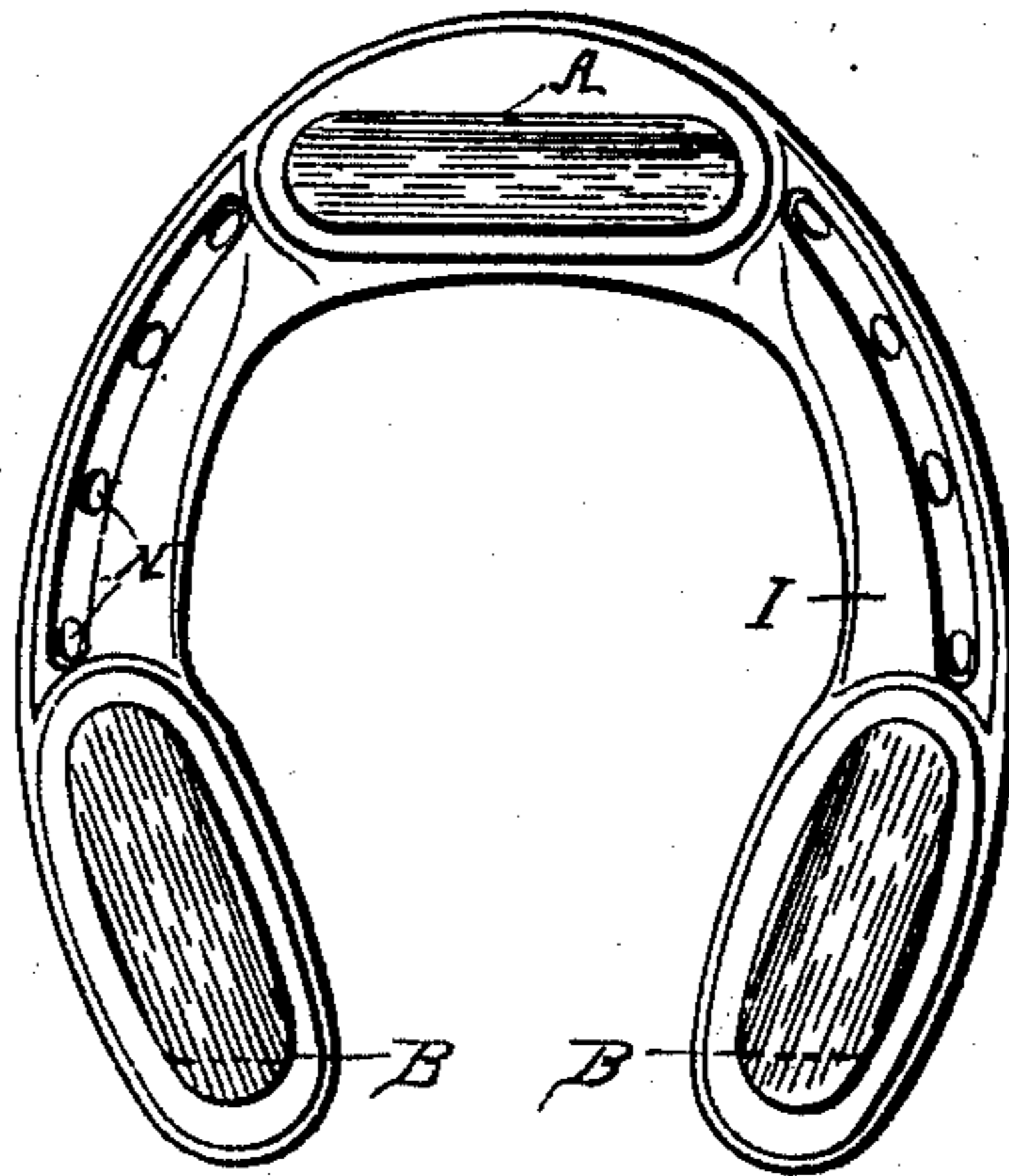


Fig. 3.

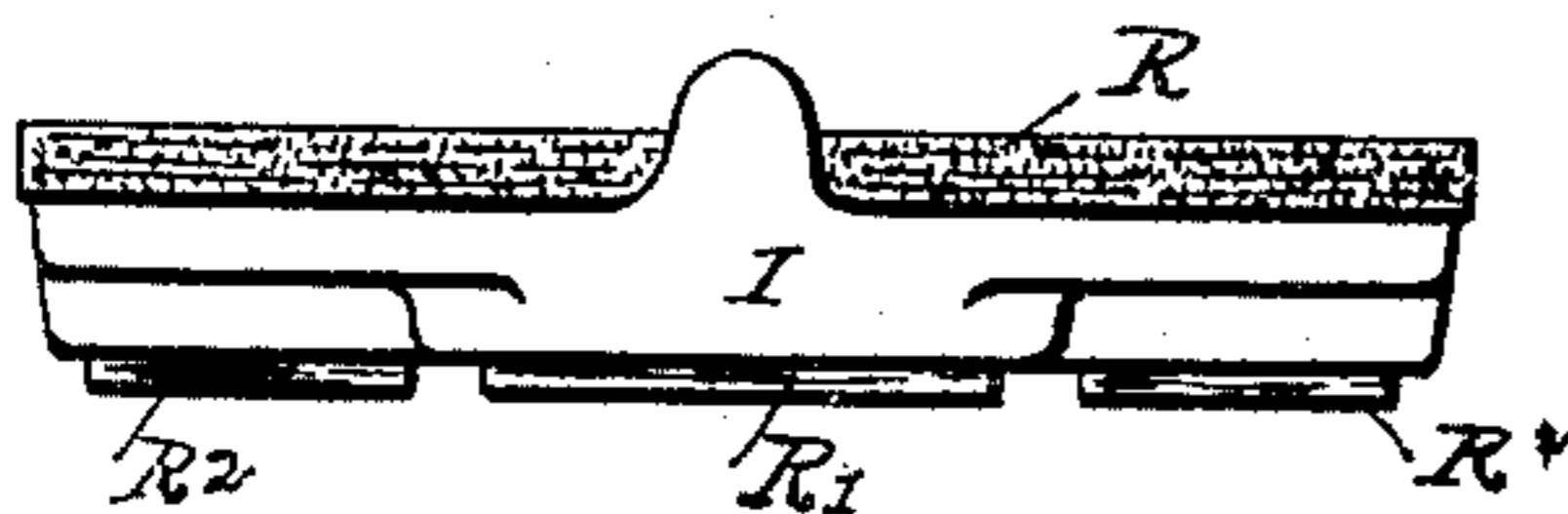


Fig. 4.

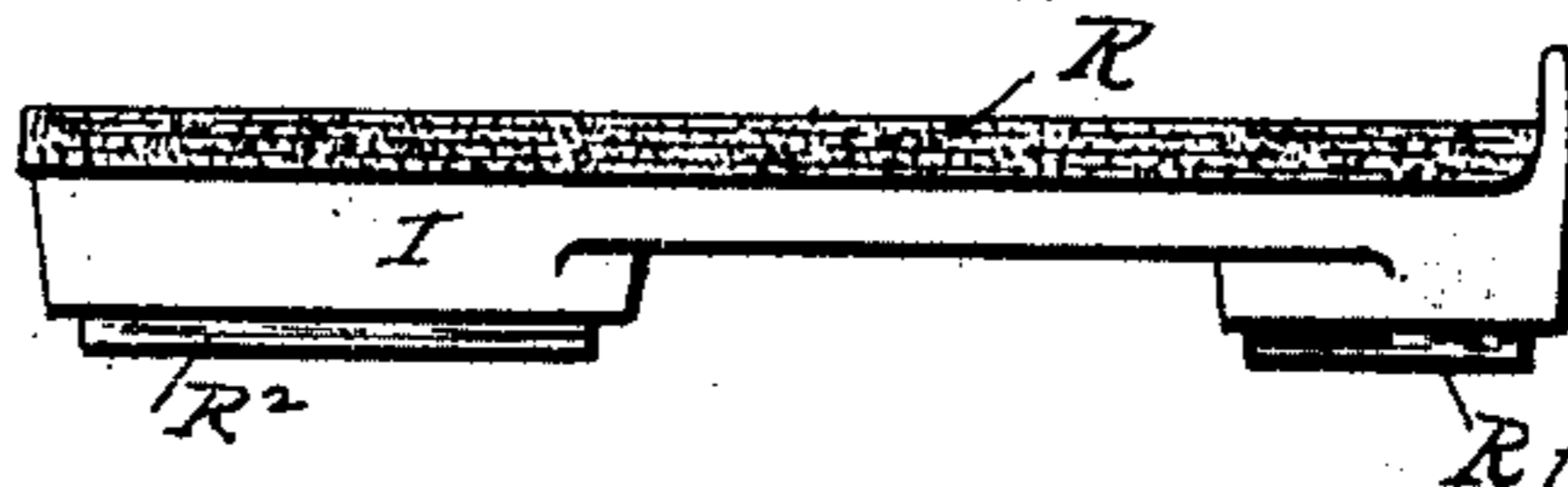


Fig. 5.

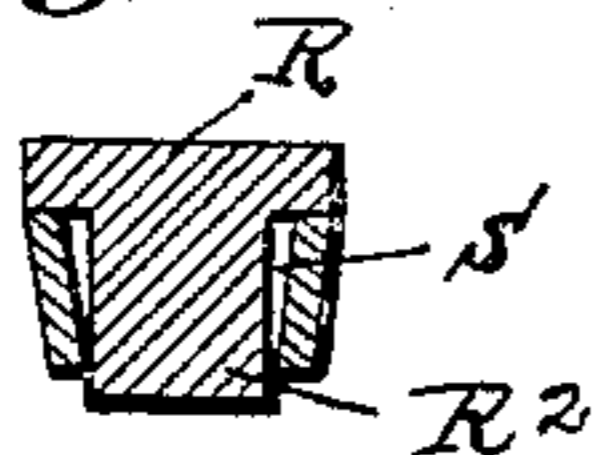


Fig. 7.

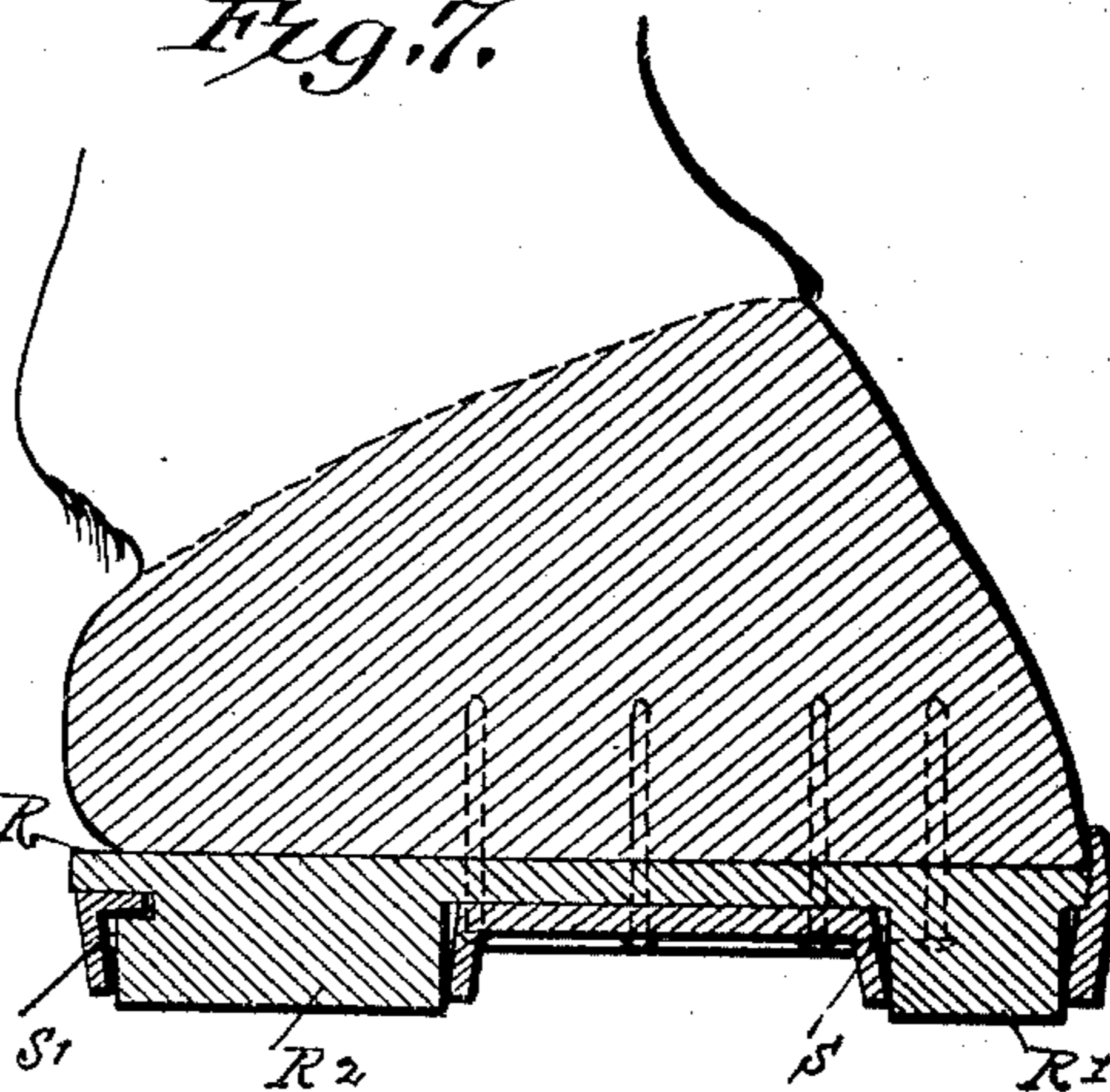
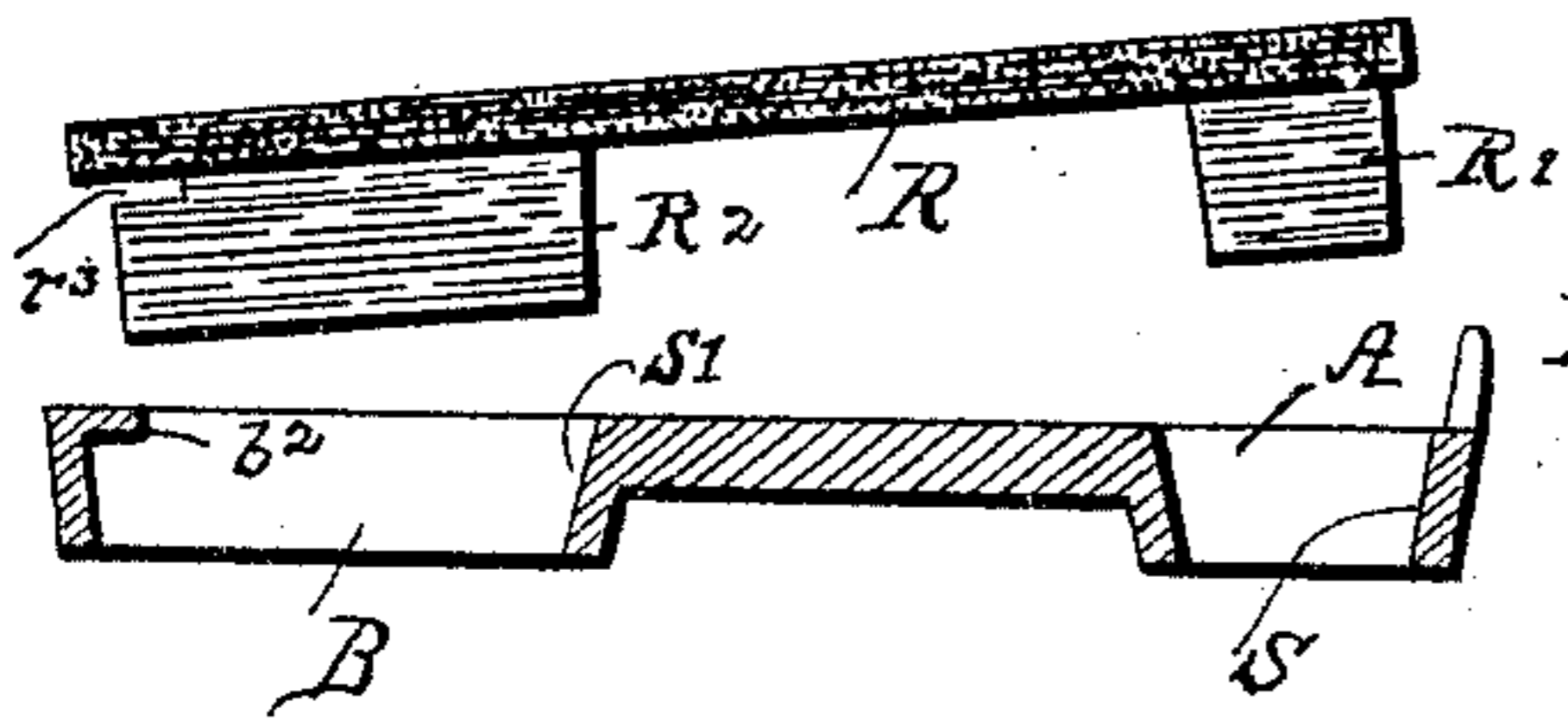


Fig. 6.



Witnesses:

L. G. Enow,
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Inventor,
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by J. Benjamin
Att'y.

UNITED STATES PATENT OFFICE.

ALBERT J. PUHL, OF JOLIET, ILLINOIS.

CUSHION-TREAD HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 719,693, dated February 3, 1903.

Application filed February 24, 1902. Serial No. 95,256. (No model.)

To all whom it may concern:

Be it known that I, ALBERT J. PUHL, a citizen of the United States, residing at Joliet, in the county of Will and State of Illinois, have
5 invented certain new and useful Improvements in Cushion-Tread Horseshoes, of which the following is a specification.

My invention relates to improvements in that class of horseshoes in which cushion and
10 non-slipping devices are provided in combination with a metal horseshoe of substantially the shape of the common and well-known steel or iron shoes.

The special objects of my invention are to
15 provide a shoe in which a durable and yielding pad is interposed between the upper face of the metal shoe and the animal's hoof, in which soft and non-slipping calks are placed at the toe and heels of the shoe and project
20 beyond the lower face of the latter, in which said pad and calks are attachable and held in place without the use of nails or other fastening devices separable from the shoe, and in which the calks may expand laterally, so
25 as to relieve them in a measure of the full force of the impact with the surface of the roadway and at the same time serve to more securely hold them in position in the sockets in which they are placed.

30 Referring to the accompanying drawings, which form a part of this application, it will be seen that I have illustrated my invention in several views, as follows:

Figure 1 is a top plan view of a shoe embodying my improvements. Fig. 2 is a bottom plan view of the same. Fig. 3 is a front elevation of the same. Fig. 4 is a side elevation of the same. Fig. 5 is a cross-section on the line 1 2 of Fig. 1. Fig. 6 is a cross-section on the line 3 4 of Fig. 1, but with the pad removed from the shoe; and Fig. 7 is a cross-section taken through a horse's hoof from toe to heel and through the shoe and pad, showing the relative positions of said parts.

45 Reference being had to the drawings in detail, I represents a metal horseshoe formed on the usual side lines or contour and provided with the customary nail-holes N. Through the forward portion or toe of the shoe extends
50 an opening A, the sides of which are beveled, as at S, so that the diameter of said opening is greater at the upper face of the shoe than

at the lower face. Through the heel portions of the shoe extend openings B B, elliptical in shape and with their sides beveled, as at S'. 55 It will be noted that the rear wall of the openings B does not extend without interruption or break to the upper face of the shoe, but is met by an overhanging ledge b^2 of the heel portion of the shoe, said ledge extending in- 60 wardly toward the center of the openings, as indicated by dotted lines in Fig. 2.

R represents a pad preferably formed from canvas and rubber and conforming in contour to the shape of the shoe. Secured to or 65 formed integrally with the pad are calks R^1 R^2 R^3 , the former located at the toe of the pad and the latter at the heel portions. These pads are elliptical in shape, somewhat smaller than the openings A B in the shoe; but the 70 sides of the calks are parallel, and their longitudinal and cross diameters are equal to the shortest diameters of the openings A and B, respectively. Near the rear end of the calks R^2 and just below the pad R said calks are 75 cut away, as at r^3 , sufficiently to receive the ledge b^2 when the parts are assembled. The vertical diameter of the calks is such that when in place the lower portion of same projects through the openings in the shoe and ex- 80 tends beyond the lower face of the latter, whereby they receive the impact of the contact of the horse's foot with the roadway.

The pad and calks are applied to the shoe by inserting the ledge b^2 in the opening r^3 , 85 then pressing the toe and heel calks into their appropriate openings A and B, respectively. When weight or pressure is applied to the shoe, the calks will expand laterally and occupy the space s provided between the 90 straight walls of the calks and the sloping or beveled walls of the openings or sockets A B, thus serving to bind the calks in place and increasing the resiliency or cushion effect of the construction shown. 95

By interposing a pad between the animal's foot and the upper face of the shoe I prevent to a greater or less extent the jar that the animal would otherwise receive, it being understood that while the calks receive and re- 100 sist the initial impact they do not entirely sustain the weight of the animal.

From the construction described it will be seen that as the cushion device is not per-

manently or fixedly attached to the shoe it does not interfere with the shaping of the latter to the horse's foot by heating and hammering in the usual manner. The pad with its calks is not assembled with the shoe until after the latter is ready to be applied to the animal's foot. It will also be seen that no nails, screws, or other means requiring the use of tools are required to attach the pad to the shoe.

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

1. In a horseshoe the combination of a metal shoe having toe-calk and heel-calk openings therethrough, said heel-calk openings having inwardly-projecting ledges or flanges, and an elastic pad provided with toe-calk and heel-calks extending through the corresponding openings in the shoe, said

heel-calks having portions cut therefrom to receive the projecting ledges or flanges of the shoe, substantially as set forth.

2. In a horseshoe, the combination of a metal shoe having toe-calk and heel-calk openings therethrough, said heel-calk openings having inwardly-projecting ledges or flanges at their rear edges and having inclined sides, and an elastic pad provided with toe-calk and heel-calks extending through the corresponding openings in the shoe, said heel-calks having portions cut therefrom to receive the projecting ledges or flanges of the shoe, substantially as set forth.

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

ALBERT J. PUHL.

Witnesses:

CHARLES B. CHEADLE,
LOUIS A. LIEBERMANN.