

No. 614,803.

Patented Nov. 22, 1898.

J. W. FORD.
SOFT TREAD HORSESHOE.

(Application filed Feb. 19, 1898.)

(No Model.)

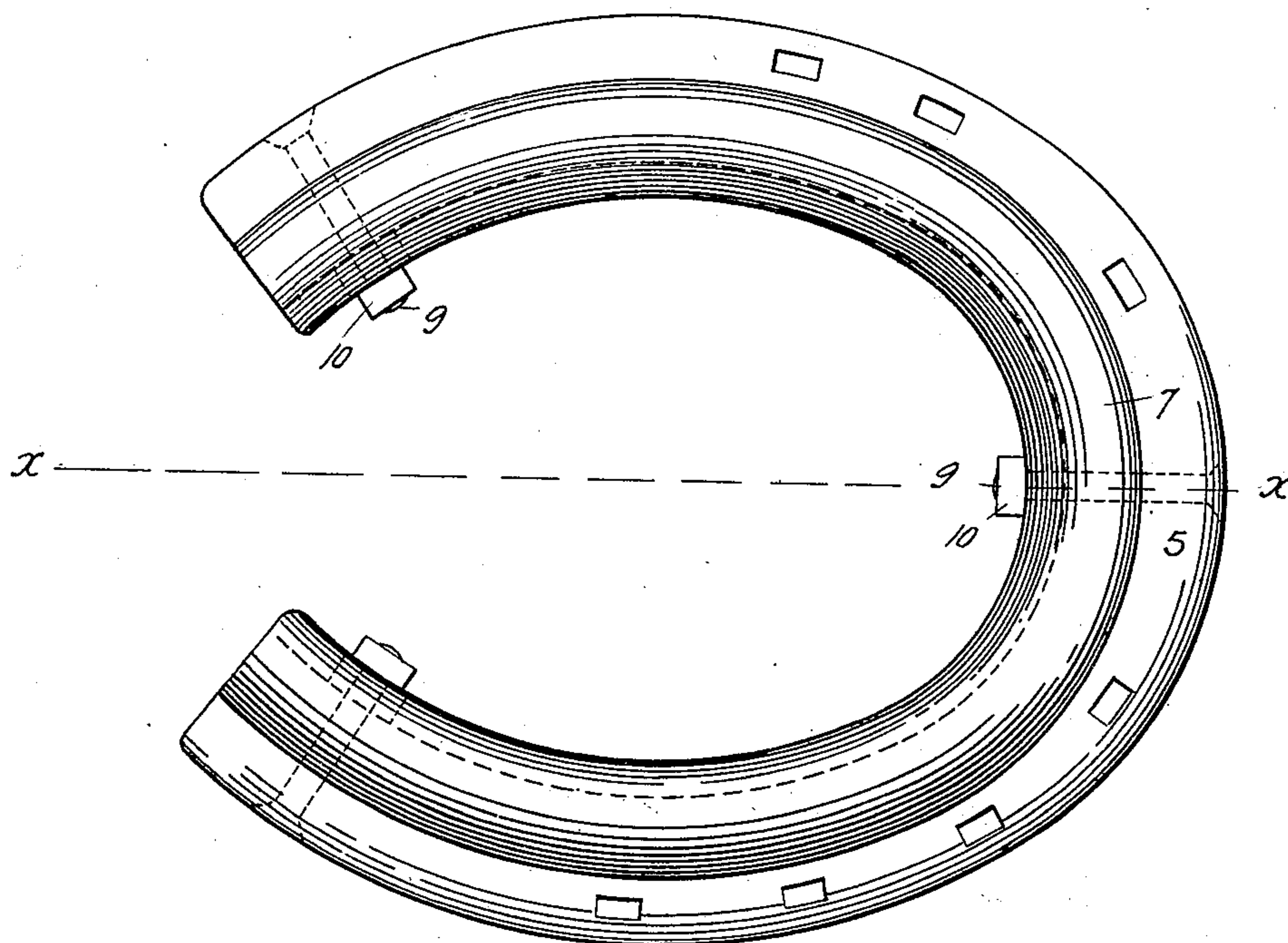


FIG. 1

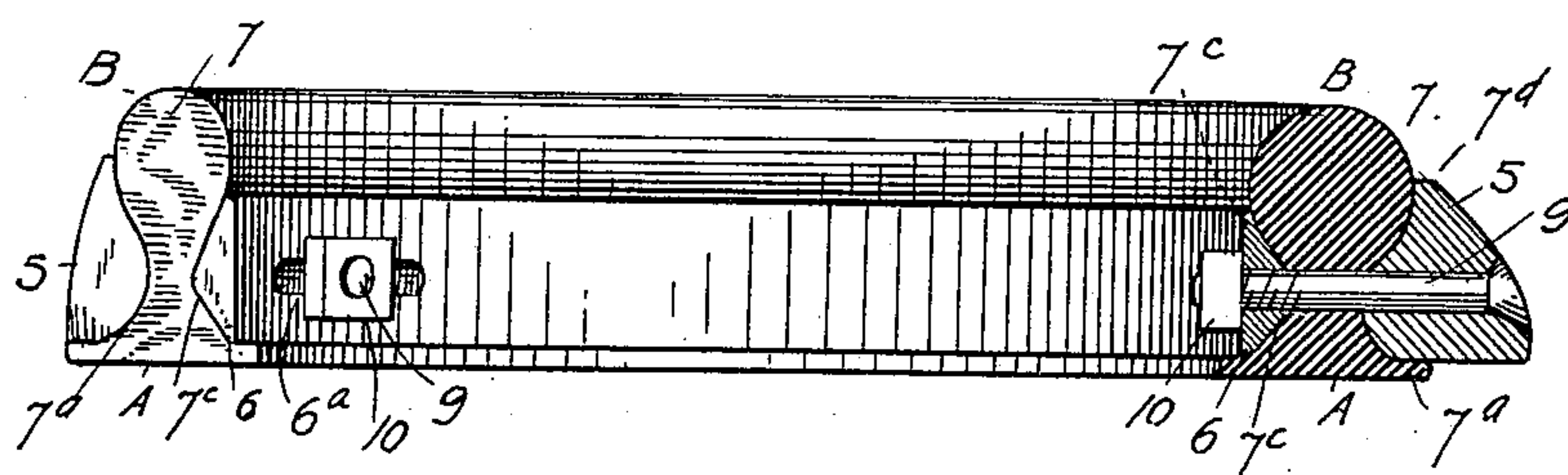


FIG. 2

Witnesses
C. J. Rolland
Edith Hineworth

By *his* Attorney

Inventor

John W. Ford

A. B. Allen

UNITED STATES PATENT OFFICE.

JOHN W. FORD, OF DENVER, COLORADO, ASSIGNOR OF THREE-FOURTHS TO
FREDERICK L. FISK, GEORGE B. LARIMER, AND FRANK H. LARIMER.

SOFT-TREAD HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 614,803, dated November 22, 1898.

Application filed February 19, 1898. Serial No. 670,940. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. FORD, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Horseshoes; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in horseshoes, my object being to provide a device of this class possessing an element adapted to yield to the pressure of the foot of the animal and which shall be simple in construction, economical in cost, reliable, durable, and thoroughly practicable in use; and to these ends the invention consists of the features hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a bottom view of my improved horseshoe. Fig. 2 is a section taken on the line $x x$, Fig. 1.

Similar reference characters indicating corresponding parts in both views let the numeral 5 designate the outer body portion of the horseshoe, which is composed of metal, and 6 the inner metal portion, consisting of a spring-band. Between these two metal parts of the shoe or between the said band and the body portion is interposed a cushion 7, composed of soft rubber or other suitable or equivalent yielding substance. Hence the shoe is composed of three parts—the outer body portion, the inner band portion, and the intermediate rubber portion—which the two metal parts embrace. The cushion part 7 extends beyond the metal portions on both sides. It is recessed or grooved on opposite sides, as shown at 7^a and 7^c, whereby its central portion is made considerably thinner than its upper and lower portions. The surface of the metal part 5, which engages the cushion 7, is formed of a shape adapted to fit into the

groove or recess formed in the adjacent side of the cushion part. The surface of the metal band 6, which engages the said cushion, is V-shaped to fit the adjacent groove in the cushion. The three parts 5, 6, and 7 are connected by bolts 9, whose heads are countersunk in the outer face of the part 5. These bolts pass through registering apertures formed in the three parts 5, 6, and 7, these apertures being so located that the bolt passes through the thinnest portion of the part 7 and the thickest portion of the parts 5 and 6. To the inner protruding threaded extremities of these bolts are applied fastening-nuts 10. When the bolts are in place and the nuts applied, the three parts of the shoe are locked securely together.

It is evident that when the shoe is in use the wear is all on the rubber portion thereof, since the rubber projects considerably beyond the metal parts, as shown. When the rubber cushion becomes worn out, it may be quickly and easily removed and a new cushion substituted by simply removing the fastening-nuts, taking out the worn rubber portion and placing another rubber part in position. Any other suitable fastening devices may be employed in the place of the bolts for connecting or fastening together the three parts of the shoe. Hence I do not limit the invention to the fastening devices shown in the drawings. The inner portion A of the rubber part 7 forms a cushion, which engages the hoof of the horse, while the outer portion B of the said cushion engages the surface upon which the animal stands. The said portion B projects sufficiently beyond the metal portions of the shoe to prevent the said metal parts from coming in contact with the pavement or other surface upon which the horse travels. This cushion feature of my improved shoe relieves the limbs of the horse from the injurious effects resulting from the concussion or jar incident to the use of metal shoes when traveling on pavements or other hard surfaces. Hence this feature has a tendency to prevent lameness and other injuries to which the limbs of the horse are susceptible. It also prevents the slipping to which horses shod with metal shoes are exceedingly liable

on smooth or paved streets. The rubber cushion also obviates the disagreeable noise incident to the use of metal shoes on pavements.

Before the spring-band 6 is applied to the shoe its extremities are considerably more separated than when it is in place upon the shoe. In other words, in applying the band to the shoe or putting it in place upon the rubber part 7 its extremities must be pressed inwardly in order to place the band in position. Hence the recoil of the spring-band has a tendency to hold the rubber tightly in place. The apertures in this band near the heel of the shoe are elongated to permit the adjustment of the band, whereby it may be made to fit rubber parts 7 of different thicknesses.

Having thus described my invention, what I claim is—

1. In a horseshoe, the combination of the body portion composed of metal, the rubber portion engaging the body portion, and the metal band also engaging the rubber portion on the opposite side from the body portion, the said parts being provided with registering apertures, the apertures in the metal

band near the heel of the shoe being elongated, and suitable bolts passed through the registering apertures of the three parts, their inner extremities being threaded to receive nuts whereby the bolts are held securely in place.

2. A horseshoe composed of a body portion 5, a rubber cushion 7, and a metal band 6, the said rubber portion being laterally grooved and the adjacent metal parts formed of a counterpart shape to fit the grooves of the rubber part, the rubber part projecting sufficiently beyond the metal parts both above and below to prevent the latter from coming in contact with the surface which the shoe engages, and also with the hoof of the horse, the three parts being provided with registering apertures, and horizontal bolts passed through the said apertures for holding the parts together.

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

JOHN W. FORD.

Witnesses:

G. J. ROLLANDET,
EDITH HIMSWORTH.