

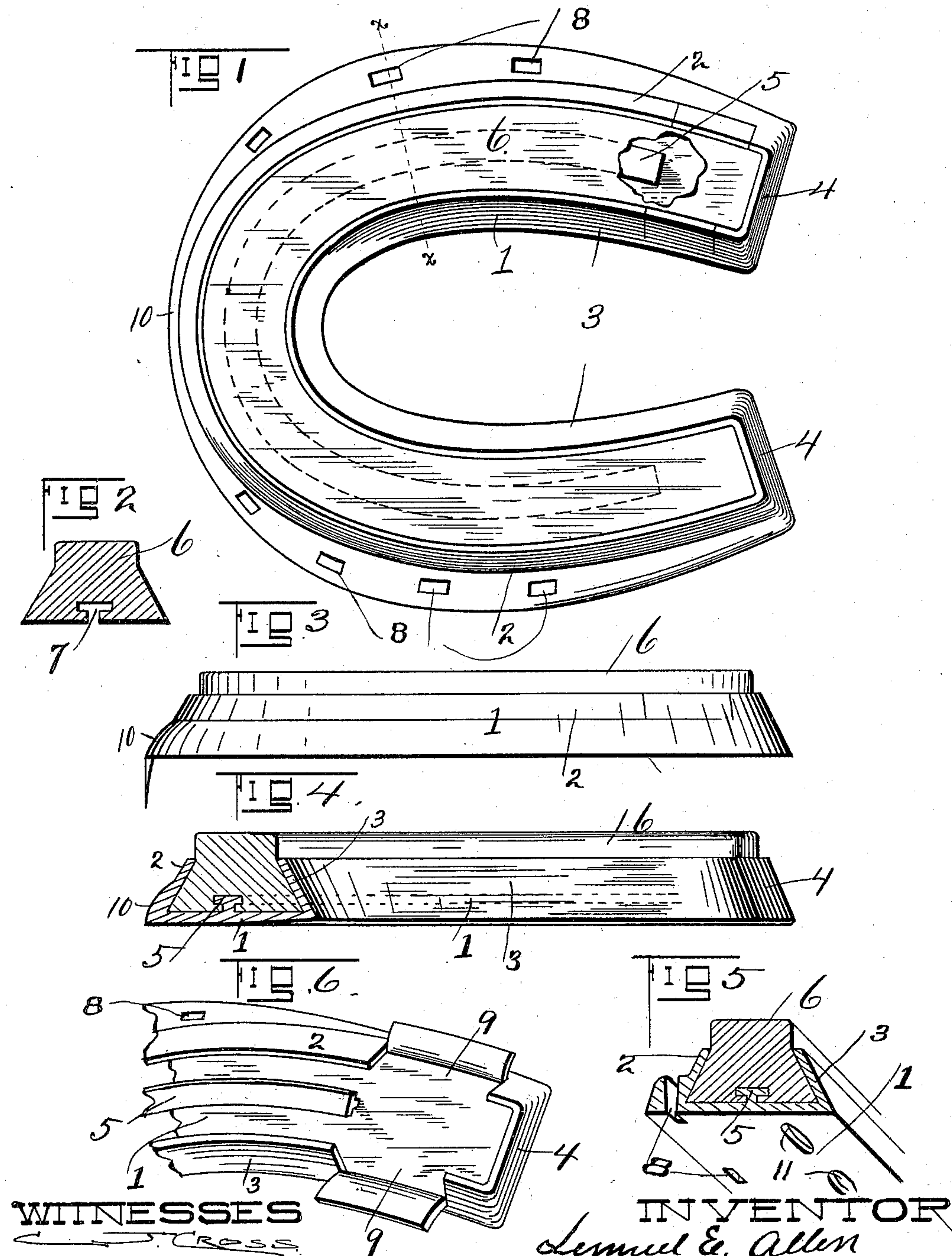
**No. 627,085.**

**Patented June 20, 1899.**

**L. E. ALLEN.**  
**SOFT TREAD HORSESHOE.**

(Application filed Nov. 17, 1898.)

(No Model.)



## WITNESSES

J. R. Bond.

INVENTOR

BY Samuel E. Allen  
F. W. Bond



# UNITED STATES PATENT OFFICE.

LEMUEL E. ALLEN, OF CANTON, OHIO, ASSIGNOR TO ANNA R. ALLEN AND  
WILLIAM J. POYSER, OF SAME PLACE.

## SOFT-TREAD HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 627,085, dated June 20, 1899.

Application filed November 17, 1898. Serial No. 696,655. (No model.)

*To all whom it may concern:*

Be it known that I, LEMUEL E. ALLEN, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Horseshoes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a view showing the bottom of the shoe and illustrating part of the tread broken away. Fig. 2 is a transverse section of the tread. Fig. 3 is a side elevation of the shoe. Fig. 4 is a view showing a portion of the shoe. Fig. 5 is a transverse section through line *xx*, Fig. 1. Fig. 6 is a view showing a portion of one of the heel ends of the shoe, showing the tread removed and the flanges cut and bent.

The present invention has relation to horseshoes known as "cushioned" or "soft-tread;" and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents the body of the shoe-body and is provided with the flanges 2 and 3, the flange 2 being located upon the outer side and the flange 3 upon the inner side of the body, said flanges being inclined toward each other, substantially as illustrated in the drawings. The flanges 2 and 3 are connected together at their heel ends by the flanges 4, which flanges are preferably formed integral with the flanges 2 and 3.

Upon the bottom or under side of the body 1 is located the rib 5, which rib may be a continuous one or it may be formed in sections or parts.

As shown, the rib 5 does not extend to the heel ends of the shoe proper; but I do not desire to be limited in this respect, but prefer to locate said rib as shown. As shown, the rib is T shape in cross-section; but it will be understood that the object and purpose of said rib, hereinafter described, can be carried

out without any particular reference to its form in cross-section, as its only object is to assist in holding the tread 6 in proper relative position and at the same time adding rigidity to the tread.

The tread 6 is preferably formed of rubber or like material, and the portion contained in the flanges 2 and 3 is formed of a shape and size to correspond with the shape and size of the space between the flanges 2 and 3.

The top or upper side of the tread 6 is provided with the groove 7, which groove corresponds in size and shape with the rib 5.

The body 1 is extended beyond the flange 2 for the purpose of providing a means for locating the nail-holes 8 upon the outside of said flange, and thereby provide a means for connecting the body 1 to the hoof of a horse without any reference to the tread 6.

At the toe end of the body 1 the flange 2 is located somewhat nearer the end than it is at the sides and can be so located by reason of the fact that no nail-holes are necessary at or near the toe portion of the shoe. In use the flanges 2 and 3 are cut, so that a portion of each of said flanges can be turned, as illustrated in Fig. 6, and when turned as illustrated the space 9 is formed and into which space one end of the tread 6 is inserted and the tread carried around the shoe, at the same time placing the rib 5 in the groove 7.

The portion of the flange 2 located at the toe end of the shoe proper is thickened, as illustrated at 10, Fig. 4, and is so formed for the purpose of better protecting the toe end of the shoe and at the same time providing a means for causing the vibrations to travel along a line below the top of the body 1, or, in other words, the vibrations will be removed from that part of the body through which the nails are passed and the tendency to loosen the nails by reason of the vibrations is very much reduced.

The vibrations above referred to are the ones caused principally by the striking of the toe end of the shoe against obstructions at the time the horse brings his foot in contact with the ground or pavement.

In Fig. 4 the top or upper portion of the body 1 or the plate portion of said body is shown beveled upon its inner side and is so



formed for the purpose of better removing gravel or other obstructions that may be lodged between the hoof of the horse and the body 1.

5 It will be understood that by providing the flange 3 and locating the same as illustrated in the drawings the inner sides thereof will be beveled and the space will be flaring, by which arrangement no balling of the shoe can  
10 take place, for the reason that no snow, ice, or other foreign substance can lodge or adhere to the shoe. The space above referred to is that between the sides of the inner flange.

In the drawings the flanges 4 are shown lo-  
15 cated at the heel ends of the shoe; but, if desired, these flanges may be dispensed with without departing from the nature of my invention, and the groove between the flanges 2 and 3 left open, and when left open the tread  
20 may be started in at the opened end.

For the purpose of providing proper ventilation the horseshoe-body 1 is provided with a series of apertures, such as 11, and they may be located substantially as shown in  
25 Fig. 5.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the body 1 provided with the flanges 2 and 3, the flanged retain- 30 ing-rib 5 located upon the body 1 and between the flanges 2 and 3, and the tread 6 located between the flanges 2 and 3 and provided with a groove corresponding in size and form with the rib 5, substantially as and for the 35 purpose set forth.

2. The combination of the body 1 provided with the flanges 2 and 3, said flanges connected together at their heel ends and provided with cut sections, the flanged retaining- 40 rib 5 located between the flanges 2 and 3, and the tread 6 provided with a groove to receive the retaining-rib, substantially as and for the purpose set forth.

In testimony that I claim the above I have 45 hereunto subscribed my name in the presence of two witnesses.

LEMUEL E. ALLEN.

Witnesses:

J. A. JEFFERS,

F. W. BOND.