

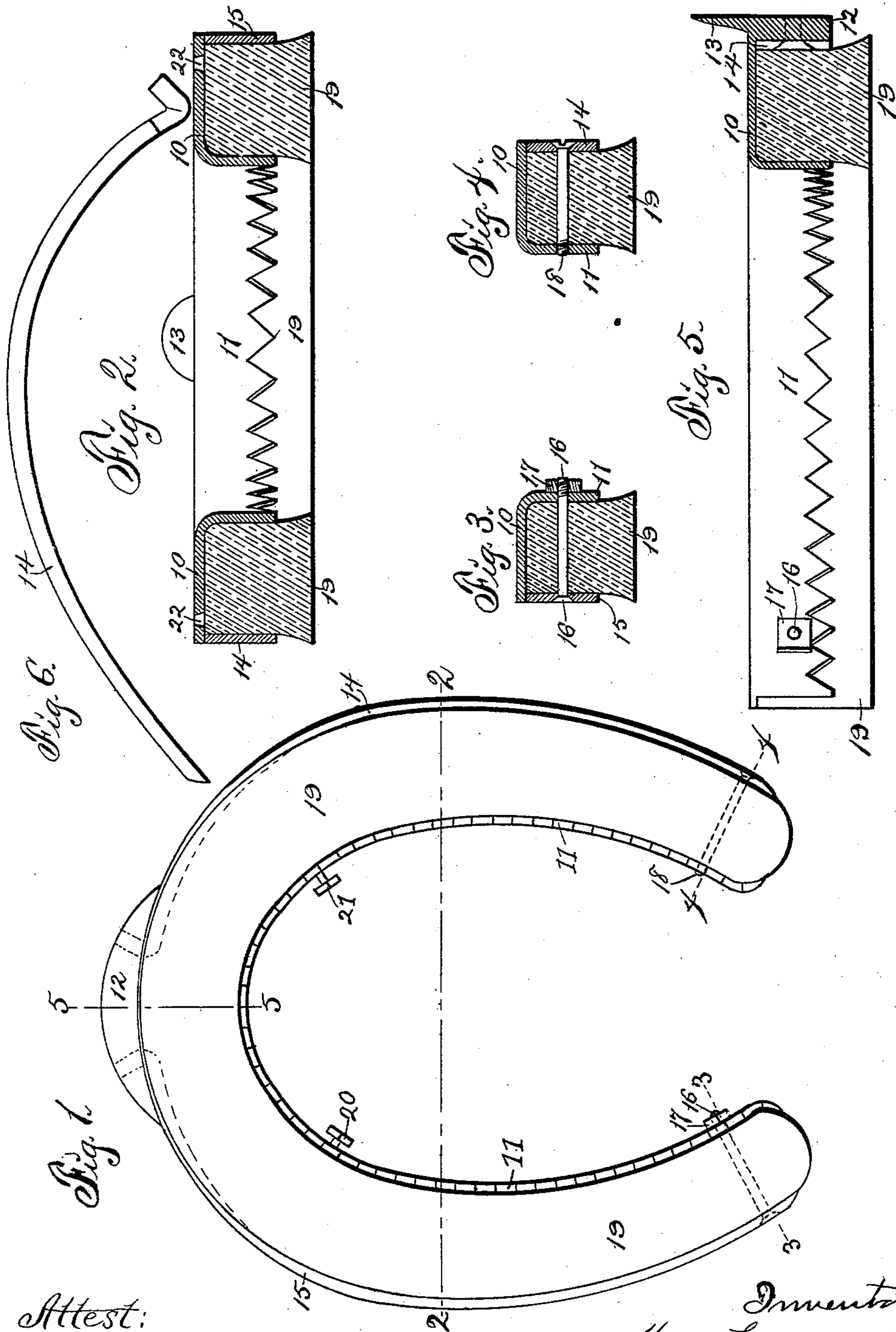
No. 632,786.

Patented Sept. 12, 1899.

H. LAGERQUIST.
SOFT TREAD HORSESHOE.

(Application filed Feb. 16, 1899.)

(No Model.)



Attest:

James B. Hodge, Jr.

W. Ellis,

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Henry Lagerquist,
By *[Signature]* Att'y

UNITED STATES PATENT OFFICE.

HENRY LAGERQUIST, OF DES MOINES, IOWA, ASSIGNOR OF ONE-HALF TO
CHARLES OLSON, OF SAME PLACE.

SOFT-TREAD HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 632,786, dated September 12, 1899.

Application filed February 16, 1899. Serial No. 705,738. (No model.)

To all whom it may concern:

Be it known that I, HENRY LAGERQUIST, a citizen of the United States of America, and a resident of Des Moines, Polk county, Iowa, have invented certain new and useful Improvements in Soft-Tread Horseshoes, of which the following is a specification.

The object of this invention is to provide an improved construction for horseshoes whereby a cushion-tread may be attached and retained, removably and replaceably, by convenient means.

My invention consists in the construction, arrangement, and combination of elements hereinafter set forth, pointed out in my claims, and illustrated by the accompanying drawings, in which—

Figure 1 is an inverted plan of the complete shoe, the dotted lines indicating the manner of attaching the confining-levers to the head of the shoe. Fig. 2 is a cross-section on the indicated line 2 2 of Fig. 1. Fig. 3 is a cross-section on the indicated line 3 3 of Fig. 1. Fig. 4 is a cross-section on the indicated line 4 4 of Fig. 1. Fig. 5 is a longitudinal section on the indicated line 5 5 of Fig. 1. Fig. 6 is a detail view of one of the confining-levers.

In the construction of the device as shown the numeral 10 designates a horseshoe-plate flat in cross-section and curved to the desired form. An internal flange 11 is formed on at right angles to and extends downwardly from the inner margin of the plate 10, and the lower margin of said flange is serrated or toothed to lighten the weight of the shoe and at the same time provide better means for engaging the cushion-tread therewith. A head-piece 12 is cast on the apex or forward extremity of the plate 10 and extends downwardly therefrom at right angles thereto and approximately parallel with the forward portion of the flange 11. The plate 10 and flange 11, head-piece 12, and ordinary toe-clip 13 preferably are made by casting and of the material commonly known as "malleable" iron. The head-piece 12 is formed with an aperture on each side of its center, and confining-levers 14 15 are provided and formed with studs on their forward ends, which studs

are so shaped and of such size as to be seated in said apertures and attach the confining-levers removably and replaceably to the head-piece. The confining-levers 14 15 are curved to approximately the same degree as the curvature of the side portions of the flange 11, and the rear end portions of the said levers are apertured transversely and countersunk in the apertures. Apertures are formed in the terminals of the flange 11 in registration with the apertures in the rear end portions of the confining-levers 14 15. A bolt 16 is mounted in the apertures in the lever 15 and flange 11 and extends transversely of the shoe-plate, the head of the bolt being countersunk in the aperture of the lever, flush with the outer face of said lever, and a nut 17 is mounted upon the inner end of the bolt and impinges against the inner face of the flange. A screw 18 is mounted in the apertures of the lever 14 and flange 11, the head of the screw being countersunk in and flush with the outer face of the lever, and the inner end of the screw is screw-threaded and seated in a screw-seat formed in the aperture of the flange. Screws or bolts may be used interchangeably, as desired; but I have illustrated both for the purpose of showing how each may best be applied. A strip, rod, or plate 19 of yielding elastic compressible resilient material, such as india-rubber and the several compositions thereof well known in this art, is mounted beneath the plate 10, parallel and in contact with the outer surface of the flange 11, and is retained by the embracement of the confining-levers 14 and 15, the bolt 16 and screw 18 traversing apertures in the end portions of said strip or rod. Set-screws 20 21 may be mounted in screw-seats formed in the flange 11 and impinged against or embedded in the rod or strip 19 near its central portion if it be found necessary to employ such set-screws as an auxiliary means for retaining the cushion-tread. The central portion of the flange 11 may be bent toward and impinged upon the inner face of the central portion of the cushion-tread to more firmly retain the tread in contact with the plate 10. The shoe-plate 10 is formed with nail-holes 22, two of which are shown in Fig. 2, whereby the plate

may be attached to a hoof prior to mounting on said plate the cushion-tread and confining-levers.

I claim as my invention—

5 1. A horseshoe comprising a plate formed with an internal downwardly - projecting flange, a head-piece formed on said plate in opposition to the flange, confining - levers removably and replaceably mounted on the
10 head-piece and a cushion tread-piece mounted on the plate between the confining-levers and flange.

2. A horseshoe comprising a plate, an internal marginal flange on said plate, a cushioned tread-piece mounted parallel with the
15 flange and confining-levers embracing the tread-piece and impinging the same to the flange.

3. A horseshoe comprising a flanged plate,
20 a boss or head-piece on said plate, a cushioned tread-piece beneath said plate, confining-levers removably and replaceably attached to the boss or head-piece and embracing the tread-piece, the flange, levers and tread-piece
25 being apertured in registration and bolts or screws mounted in the apertures and binding the levers to the tread-piece.

4. A horseshoe comprising a plate formed with an internal downwardly - projecting
30 flange, a head-piece formed on said plate in opposition to the flange, which head-piece is

formed with lateral holes, confining-levers curved in conformity with the side margins of the shoe-plate, studs on the forward ends of said confining-levers and seated in the
35 holes in the head-piece, the opposite terminal of each lever being transversely apertured, a cushion tread-piece mounted below the plate and between the flange and confining-levers, and means for clamping the levers to the
40 flange.

5. A horseshoe comprising the plate 10, the internal serrated marginal flange on said plate, the tread-piece beneath the plate, means for clamping the tread-piece to the flange
45 and set-screws in the flange impinging against the tread-piece.

6. A horseshoe comprising the flanged plate, the apertured head-piece on the toe portion of said plate, the confining-levers formed with
50 studs engaging in the apertures of the head-piece, bolts or screws connecting the rear terminals of the confining-levers to the flange of the plate and a cushioned tread-piece mounted between the levers and flange and con-
55 fined thereby.

Signed by me at Des Moines, Iowa, this 18th day of January, 1899.

HENRY LAGERQUIST.

Witnesses:

CHARLES OLSON,
S. C. SWEET.