

No. 772,050.

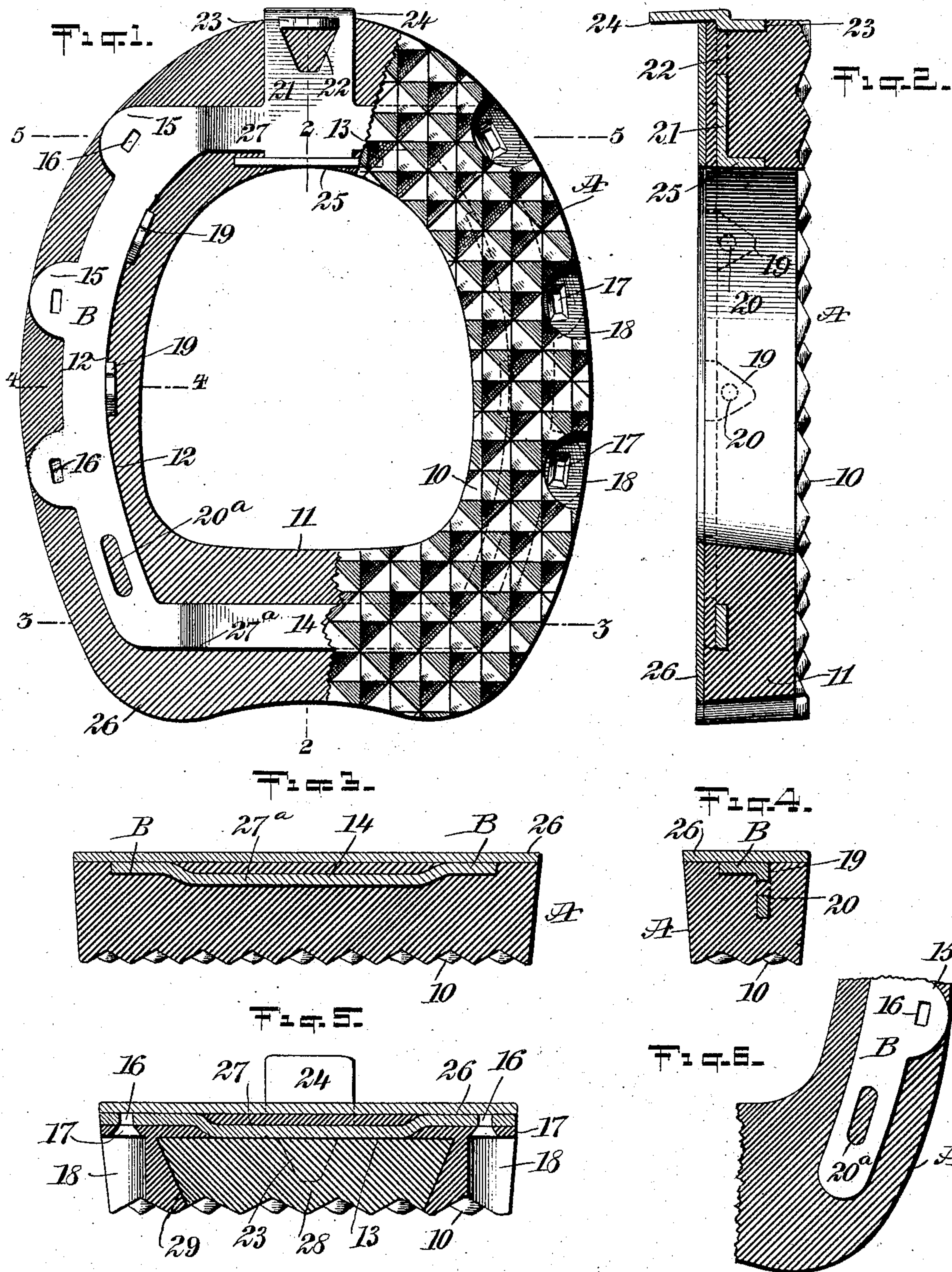
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HORSESHOE.

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NO MODEL.



WITNESSES:

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HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 772,050, dated October 11, 1904.

Application filed December 18, 1903. Serial No. 185,658. (No model.)

To all whom it may concern:

Be it known that we, FRANKLIN D. PALMER, of Poughkeepsie, in the county of Dutchess, and ALFRED H. ISHAM, of the city of New York, borough of Manhattan, in the county of New York, State of New York, both citizens of the United States, have invented a new and useful Improvement in Horseshoes, of which the following is a full, clear, and exact description.

The purpose of our invention is to provide a horseshoe having a rubber or elastic tread surface and a cushioned back, which shoe is adapted for ready attachment to a hoof and to so guard the toe portion of the shoe that the rubber or elastic section at such point will be protected from dislodgment and from creeping, which action frequently occurs in shoes of the class mentioned when the toe of the shoe is subjected to violent shock.

Another purpose of the invention is to strengthen the rubber section of the shoe by the application of a metal skeleton frame, made with or without a toe-clip, and apertured to register with recesses in the rubber section for the passage of nails, and, further, to so construct the metal frame that the rubber of the elastic tread-section will have firm engagement therewith and also to so construct the toe portion of the elastic tread-section of the shoe that a part thereof may be readily removed when unduly worn and replaced.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional bottom plan view of the improved shoe. Fig. 2 is a longitudinal section taken practically on the line 2 2 of Fig. 1. Fig. 3 is a transverse section taken substantially on the line 3 3 of Fig. 1. Fig. 4 is a detail transverse section taken on the line 4 4 of Fig. 1. Fig. 5 is a transverse section taken on the line 5 5 of Fig. 1 and illus-

trating the introduction of a detachable toe member for the rubber or elastic section of the shoe; and Fig. 6 is a partial bottom plan view of a side portion of the elastic section of the shoe, illustrating the application of a metal frame thereto, constructed without the heel-bar shown in Fig. 1.

A represents the elastic tread-section of the shoe, which section is preferably made of rubber, and its under face is preferably more or less roughened, as is shown at 10 in the drawings. This elastic tread-section A is fitted to the hoof, especially at the marginal portion thereof, and is of skeleton formation, and at the heel the sides are connected by a cross or heel bar 11, as is shown best in Fig. 1. The elastic tread-section A of the shoe is braced and strengthened by a metal frame B. This metal frame consists of side members 12, which follow the curvature of the side members of the elastic tread-section A, and an upper transverse toe cross-bar 13, connecting the forward ends of the side members 12. When the shoe is a bar-shoe, the frame B further consists of a heel-bar 14, connecting the said side members 12, as is also shown in Fig. 1. At the outer edge of each side member 12 of the strengthening-frame B lugs 15 are formed in any desired number, and in each lug 15 an opening 16 is made, which openings 16 register with openings 17 in the upper portion of the elastic tread-section A. The said openings 17 are in connection with recesses 18, made in the bottom of the said elastic tread-section at its side marginal portions, so that nails may be readily driven through the shoe into the hoof of the animal to be shod, which construction is fully shown in Figs. 1 and 5. At the inner edge of each side member of the frame B downwardly-extending lugs 19 are formed, having one or more openings 20 therein, the lugs 15 being at right angles to the lugs 19, as is shown in Fig. 1, and at desired points in the length, particularly of the side members 12 of the frame B, openings 20^a are produced, and also, preferably, the toe-bar 13 of the said frame B is downwardly offset, as is shown at 27 in Figs. 1 and 5, as is likewise the heel-bar 14

when employed, as is illustrated at 27^a in Figs. 1 and 3. This strengthening-frame B is concealed within the elastic tread-section A of the shoe, the said tread-section being molded or cast over the said frame B in any suitable or approved manner. Consequently the material of the elastic tread-section A will extend through the openings 20 in the lugs 19 and will extend above and below the toe and heel bars 13 and 14, as is shown in Figs. 3 and 5, enabling the said frame B to be placed conveniently near the upper surface of the elastic tread-section A and yet be perfectly concealed and protected.

In the construction of the frame B at the central portion of the toe-bar 13 an integral plate 21 is outwardly and horizontally projected, and this plate 21, which may be termed a "stay-plate," as it thoroughly transversely protects the toe portion of the elastic section A, is provided with an opening 22, shown in Figs. 1 and 2, and the material from the said opening 22 is bent downwardly and vertically to form a stop-plate 23. At the outer end of the stay-plate 21 an upwardly-extending toe-clip 24 is formed, adapted for engagement with the forward portion or toe of the hoof when the shoe is in place. At the rear longitudinal edge of the toe-bar 13 and opposite the stay-plate 21 a second stop-plate 25 is carried downward, being preferably much wider than the forward stop-plate 23, and the material of the elastic section A is held between the two stop-plates 23 and 25. Consequently should a horse stumble or the toe portion of the hoof violently strike the ground or other support there will be little liability of the elastic tread-section A being displaced from its position relative to the strengthening and concealed metal frame B.

It will be observed from the construction above described that we provide a shoe which is exceedingly simple, durable, and economic and which is especially well adapted for the purpose intended, as the shoe, while elastic, has all the stability of an ordinary or metal shoe. In order that this shoe may be worn with comfort by the animal, we preferably cover the upper surface of the shoe with a cushion material 26, such as leather, of suitable thickness, through which cushion material the nails can be readily driven.

Since the toe portion of the shoe is that portion which receives the most wear, we propose to so construct the toe-section of the improved shoe that the toe portion of the elastic tread-section can be readily removed and replaced, as is shown in Fig. 5, wherein it will be observed that a removable block 28 is located at the toe portion of the shoe inclined or dovetailed at its side and adapted to be slipped into

and closely fitted to a correspondingly-inclined recess 29 at the toe portion of the shoe.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A horseshoe consisting of an elastic tread-section, and a metal frame concealed within the said elastic tread-section, conforming substantially to the contour of the tread-section, the said frame being provided with apertured offsets, whereby when the tread-section is cast on the metal frame the said parts will be firmly united, and downwardly - extending stop-plates on the toe portion of the frame and between which the material of the elastic tread-section is held.

2. In a horseshoe, an elastic tread-section, a metal frame within the elastic tread-section, conforming substantially to the contour thereof, the side members of the frame being provided at their inner edges with downwardly-extending lugs having openings therein for anchoring the frame in the said tread-section, and a toe-clip extending from the toe portion of the said frame, as described.

3. In a horseshoe, an elastic tread-section, a metal frame within the elastic tread-section, conforming substantially to the contour thereof, means for anchoring the said frame in the said tread-section, a toe-clip extending from the toe portion of the said frame, and stop-plates extending likewise from the frame to an engagement with the front and rear edges of the toe portion of the elastic tread-section, as described.

4. In horseshoes, an elastic tread-section, a frame located within the tread-section, substantially conforming thereto, means for anchoring the frame to the said tread-section, the said frame being provided with openings to receive nails and the tread-section with corresponding openings, a stay-plate extending forwardly from the central toe portion of the frame to the outer toe-surface of the elastic tread-section, a toe-clip extending upwardly from the said stay-plate, and stop-plates extending downwardly from the stay-plate and from the rear part of the toe portion of the said frame, the said stop-plates being arranged to engage one with the outer surface of the elastic tread-section at the toe and the other at the inner edge of the elastic tread-section also at the same point, as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FRANKLIN D. PALMER.
ALFRED H. ISHAM.

Witnesses:

WILLIAM FUHRMANN,
ALFRED H. ISHAM, Jr.