

J. B. WHITE.
HORSESHOE PAD.

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903,422.

Patented Nov. 10, 1908.

Fig. 1.

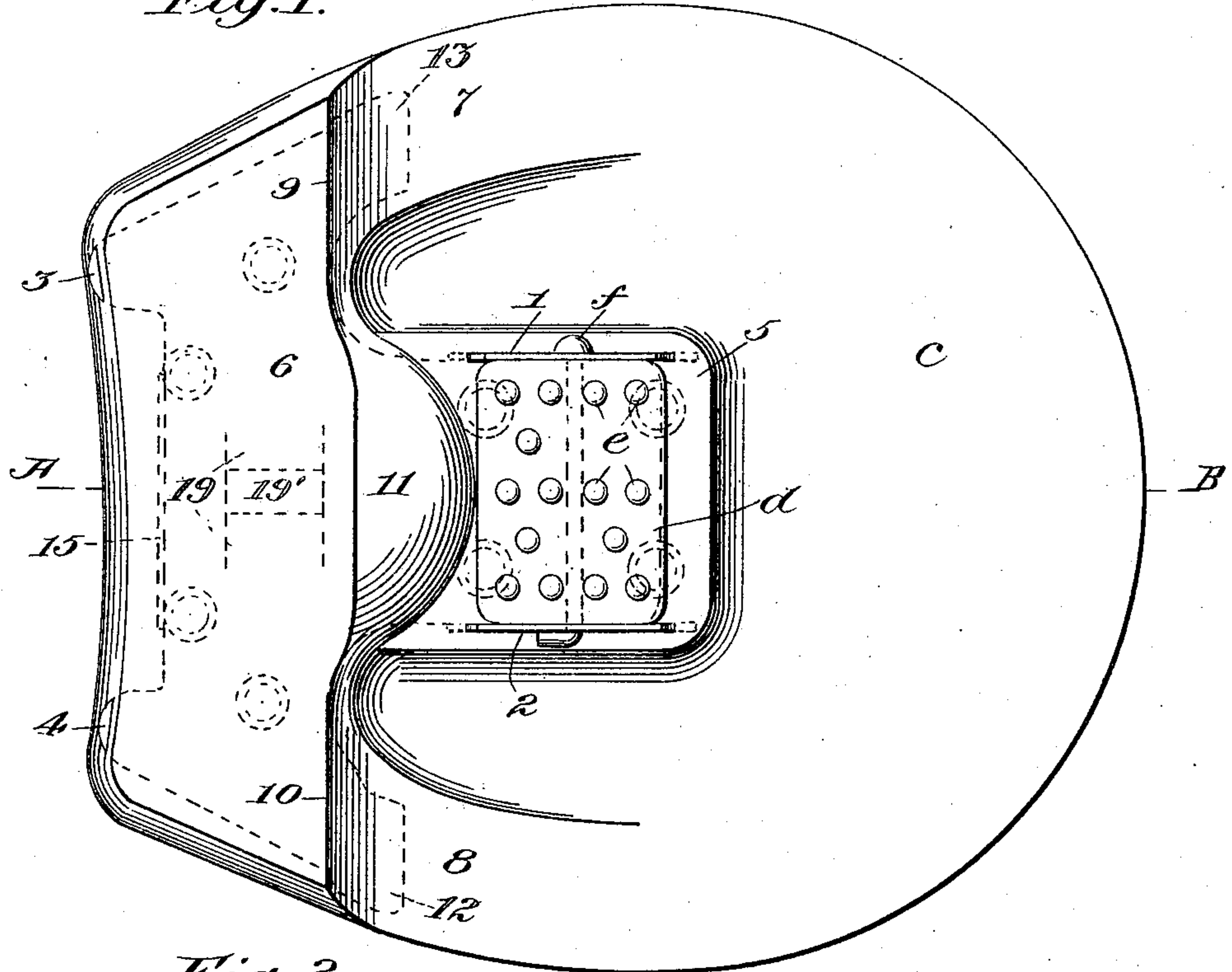


Fig. 2.



Fig. 3.

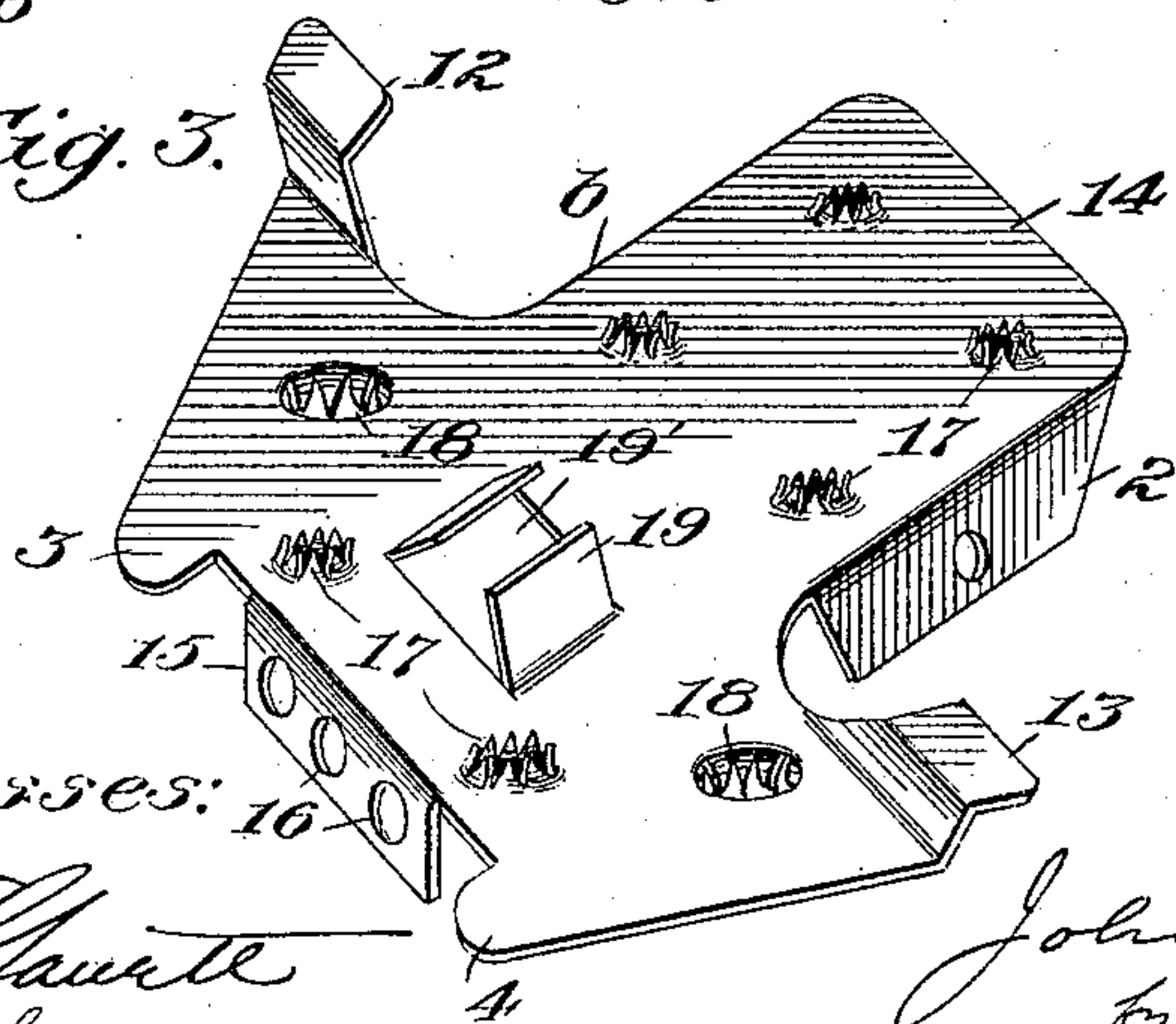
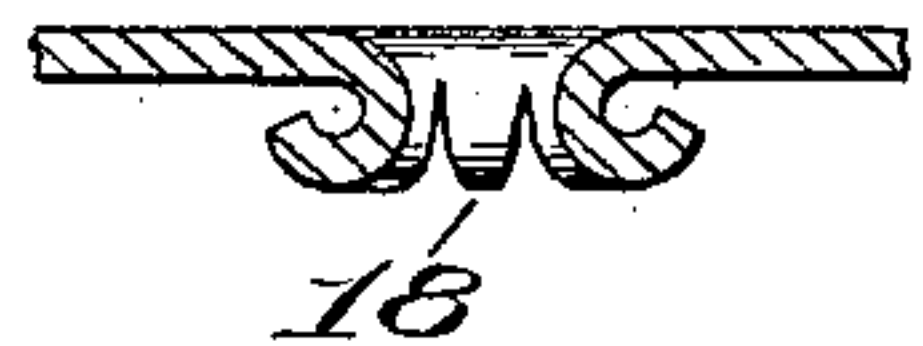


Fig. 4.



Witnesses: 16

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UNITED STATES PATENT OFFICE.

JOHN B. WHITE, OF BUFFALO, NEW YORK.

HORSESHOE-PAD.

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To all whom it may concern:

Be it known that I, JOHN B. WHITE, a citizen of the United States of America, and a resident of the city of Buffalo, in the State of New York, have invented a new and useful Improvement in Horseshoe-Pads, of which the following is a specification.

This invention relates to soft-tread heel pads for use in connection with the abbreviated horseshoes known as "tips"; and it consists in a novel stiffening device or reinforce, and in a horseshoe pad embodying the same, as hereinafter described and claimed.

The leading objects of the invention are to overcome or prevent what is termed "hinging" at the heels of the tip, and to anchor a metallic stiffening plate within a canvas-topped pad in the most effective manner.

Other objects will be set forth in the general description which follows:

A sheet of drawings accompanies this specification as part thereof.

Figure 1 is a face view of the improved pad, detached; Fig. 2 represents a section on the line A—B, Fig. 1; Fig. 3 is a perspective top or back view of the metallic reinforce or stiffening plate as it appears before its incorporation in the pad; and Fig. 4 is a fragmentary sectional detail view hereinafter described.

Like reference characters refer to like parts in all the figures.

In producing the improved pad, a canvas top piece, *a*, and a reinforce or stiffening plate, *b*, of sheet steel are placed within a suitable mold, and a suitably shaped elastic body, *c*, of "rubber" or its equivalent, is molded in contact with the canvas around the plate, so as to permanently unite the canvas and plate, and to inclose the latter excepting lip-shaped portions, 1 and 2, which protrude at the face or lower side of the pad as calking devices and mold contacts, and projections, 3 and 4, which extend through the heel end of the body *c* so as to form contacts with the mold and thus become exposed to view as in Figs. 1 and 2. A separately molded renewable calk, *d*, preferably of rubber, with metallic roughened spurs, *e*, embedded therein perpendicular to its tread, is fastened between said protruding portions 1 and 2 of the plate *b* by a transverse pin, *f*, headed at one end and clenched at the other, as in Fig. 1. Said plate portions 1 and 2, projecting into pockets within the mold, serve in connection with said projections 3 and 4 to locate the plate *b* with accuracy

within the mold so that it is central and substantially horizontal, and to prevent its accidental displacement therein.

The canvas top piece *a* and the elastic body *c* of the pad are preferably coextensive with the sole of the hoof, as indicated in Fig. 1, and the latter includes a central flat-surfaced prominence, 5, upon which the calk *d* is seated; a heel cushion, 6, as ample as may be required extending from side to side at the rear end of the pad, and, in front of this cushion, a pair of inclines 7 and 8 upon which the heel ends of the horseshoe tip are tightly seated by the shoer by bending down said heel ends so as to make a close lap at this point; shoulders, 9 and 10, against which the extremities of said heel ends of the horseshoe tip abut; and, preferably, a rounded support, 11, for the heel cushion 6, located immediately in front thereof.

The plate *b* includes, in addition to the portions 1, 2, 3 and 4 already described, a pair of side portions, 12 and 13, offset and projecting forward within said inclines 7 and 8 of the elastic body *c*, so as to be overlapped by the heel ends of the horseshoe tip but out of contact therewith. Another feature of the plate is a central forward projection, 14, adapted to extend beneath and to protect the frog, and to support said portions 1 and 2 of the plate *d*, which are conveniently bent downward from its lateral edges. Another feature of the plate is a stiffening and anchoring projection, 15, at its rear edge, extending downwardly within the heel cushion 6, and preferably and conveniently provided with one or more holes, 16, through which the rubber of the elastic body extends so as to preserve its continuity. Other features of the plate *b* are "ragged eyelets", 17 and 18, in sufficient number, projecting respectively upward and downward from the top and bottom of horizontal portions of said plate within the body *c* so as to tie the material of said body *c* to both sides of said plate and thus most effectively anchor the stiffening plate within the elastic body; and a last feature of the same is a central anchoring device which, as shown, is composed of a pair of inclined anchoring lips, 19, formed by metal bent up from within a central rectangular hole, 19', in the rear portion of the plate *b* and bent inwardly as additional means for preventing the separation of the rubber and metal at this point.

The upwardly and downwardly projecting

ragged eyelets, 17 and 18, as means for anchoring the material of the elastic pad body *c* to the inclosed metallic reinforce or stiffening plate *b*, are considered features of great practical importance after extensive experiments, and their efficiency may be materially increased by making them of the specific construction or form represented by Fig. 4. As shown in this figure the extremities of the prongs of each eyelet are preferably extended and recurved so as to be overhanging or reentrant, which adapts them to resist the separation of the elastic material vertically as well as laterally. One or more additional ragged eyelets may obviously take the place of said central anchoring lips, 19; other known means may be used to roughen the calk *d*; the heel cushion 6 may be roughened in like manner; the calk may be made wholly of metal; and other like modifications will suggest themselves to those skilled in the art.

Having thus described said improvement, I claim as my invention and desire to patent under this specification:

25 1. A horseshoe pad having, in combination, an elastic body of rubber or the like and a substantially horizontal metallic stiffening plate embedded within said body and constructed with side portions extended forwardly and offset to overlap the heel ends of a horseshoe tip and provided with upwardly and downwardly projecting ragged eyelets as means for anchoring the material of said body to said plate.

35 2. A horseshoe pad having, in combination, an elastic body of rubber or the like having a downwardly projecting transverse heel cushion extending from side to side at its heel end, and a metallic stiffening plate having a horizontal portion constructed with upwardly and downwardly projecting ragged eyelets as means for anchoring the material of said body to said plate and a downturned and perforated heel projection within said transverse heel cushion.

45 3. A horseshoe pad having, in combination, an elastic body of rubber or the like having a downwardly projecting transverse heel cushion extending from side to side at its heel end, and a metallic stiffening plate having a horizontal portion constructed with upwardly and downwardly projecting ragged eyelets as means for anchoring the material of said body to said plate, a downturned and perforated heel projection within said transverse heel cushion, and a central upwardly projecting anchoring device near the heel end of the plate.

60 4. A horseshoe pad having, in combination, an elastic body of rubber or the like having a downwardly projecting transverse heel cushion extending from side to side at its heel end, and a metallic stiffening plate having a horizontal portion constructed with upwardly and downwardly projecting ragged

eyelets as means for anchoring the material of said body to said plate, a downturned and perforated heel projection within said transverse heel cushion, and central upwardly and inwardly projecting lips integral with a horizontal portion of said plate near its heel end.

5. A horseshoe pad having, in combination, an elastic body of rubber or the like having a downwardly projecting transverse heel cushion extending from side to side at its heel end; and a metallic stiffening plate having a horizontal portion constructed with upwardly and downwardly projecting ragged eyelets as means for anchoring the material of said body to said plate; a downturned and perforated heel projection within said transverse heel cushion, and inclined anchoring lips bent upward from within the central hole in a horizontal portion of said plate near its heel end.

6. A horseshoe pad having, in combination, a molded elastic body of rubber or the like and a substantially horizontal metallic anchoring plate embedded within said body; said plate having a forwardly projecting frog protecting portion provided at its lateral edges with downwardly bent calking projections.

7. A horseshoe pad having, in combination, a molded elastic body of rubber or the like and a substantially horizontal metallic anchoring plate embedded within said body; said plate having a forwardly projecting frog protecting portion provided at its lateral edges with downwardly bent projections adapted to contact with the mold and to form calk attaching means.

8. A horseshoe pad having, in combination, a molded elastic body of rubber or the like and a substantially horizontal metallic anchoring plate embedded within said body; said plate having a forwardly projecting frog protecting portion provided at its lateral edges with downwardly bent projections adapted to contact with the mold and a pair of mold contacts at the rear edge of the plate.

9. A horseshoe pad having, in combination, an elastic body constructed with a downwardly projecting transverse heel cushion at its rear end and with a central calk seat in front of said cushion, a metallic stiffening plate embedded within said pad and constructed with a pair of downwardly projecting and protruding lips, and a renewable calk attached between said lips and contacting with said seat.

10. A horseshoe pad having, in combination, an elastic body constructed with a downwardly projecting transverse heel cushion at its rear end and with a central calk seat in front of said cushion, a metallic stiffening plate embedded within said pad and constructed with a pair of downwardly projecting and protruding lips, a renewable calk attached between said lips and contact-

ing with said seat, and a transverse locking pin extending through both lips and through said calk.

11. A horseshoe pad having, in combination, an elastic body constructed with a downwardly projecting transverse heel cushion at its rear end and with a central calk seat in front of said cushion, a metallic stiffening plate embedded within said pad and constructed with a pair of downwardly projecting and protruding lips, and a renewable elastic calk of rubber or the like attached between said lips and in contact with said seat

and provided on its under side with metallic roughening devices.

12. A horseshoe pad having, in combination, an elastic body of rubber or the like and a metallic stiffening plate embedded within said body and constructed with ragged eyelets having their prongs extended and re-curved so as to be overhanging or reëntrant, substantially as hereinbefore specified.

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Witnesses:

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