(No Model.)

J. E. BINGHAM.

HORSESHOE.

No. 346,351. Patented July 27, 1886.

Fig. 1

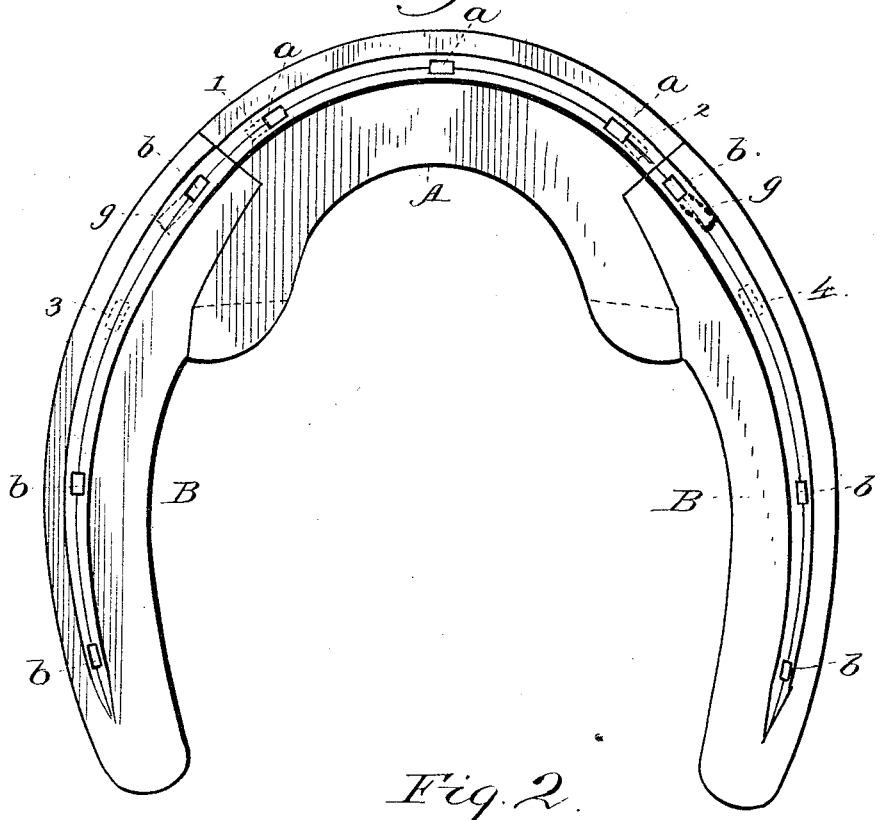
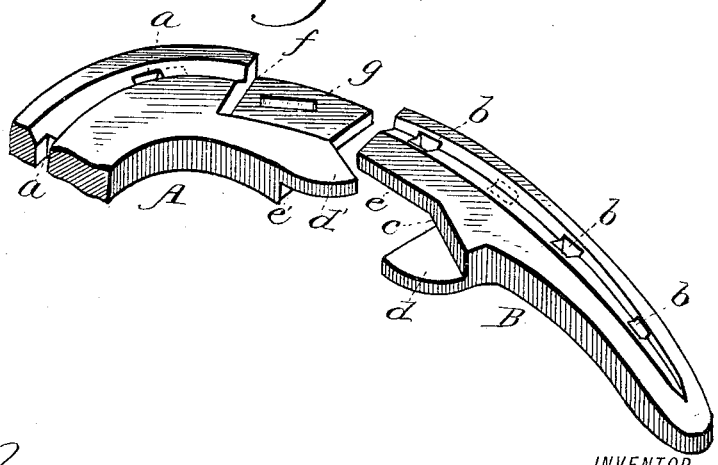


Fig. 2.



WITNESSES.

J. W. Reynolds

Alex. McClelland

INVENTOR

John E. Bingham

BY

Edward M. Bingham

ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN E. BINGHAM, OF WALLA WALLA, WASHINGTON TERRITORY.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 346,351, dated July 27, 1886.

Application filed February 9, 1886. Serial No. 191,337. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. BINGHAM, a citizen of the United States, residing at Walla Walla, in the county of Walla Walla and Territory of Washington, have invented a new and useful Horseshoe, of which the following is a specification.

This invention relates to certain new and useful improvements in horseshoes; and it consists, substantially, in the same as constructed and attached, and in such other details as will hereinafter be distinctly described, and pointed out in the claims.

The general objects of the invention are the same as have been clearly set forth in another application which I have filed, the same being Serial No. 191,056; but such objects are accomplished herein by the employment of a different construction of shoe, substantially as will hereinafter appear.

Referring to the accompanying drawings, Figure 1 represents a plan view of a horseshoe embodying the principles of my invention; and Fig. 2 is a perspective view of one of the side pieces and a portion of the toe-piece, by which the construction of the joint is more clearly indicated.

Reference being had to the several parts by the letters marked thereon, A represents the toe-piece, having nail-holes *a a a*, as shown, the said toe-piece being of any suitable form to suit the contour of the hoof.

B B represent the two side pieces which complete the formation of the shoe, the same being also provided with nail-holes, as indicated by the letter *b*. The inner end of each of these side pieces is cut away for a short distance and at a slight angle, as represented at *c*, while extending inwardly from the said side pieces is a tongue or projection, *d*. The under side of the said pieces B B, for a short distance from their inner ends, is cut away or slotted out, as will appear from an inspection of Fig. 2 at *e*, wherein a difference in the thickness is shown, and the object of which construction will appear from the description hereinafter given.

Each end of the toe-piece is mortised out, as indicated at *f*, while in the thinner portion thereof thus formed an elongated slot or nail-hole, *g*, is provided. These slots tend toward each other in the direction of the toe of the shoe, and are slightly oblique or inclined to the contour or edge of the shoe, as shown. The said toe-piece is also formed at its ends with a projection, *d'*, mortised or cut out from beneath, as shown at *e'*, and designed to exactly fit upon the projection *d* of the side pieces, thus forming a perfect joint.

The manner of joining the toe and side pieces is by so fitting them together as that the ends *e e* of the latter will be received into the mortises *f* of the former, thus bringing or causing the projections *d'* to overlap the lugs or tongues *d*. A nail being driven into the animal's hoof through the upper holes, *b*, of the side pieces and the slots *g* of the toe-piece will act to movably connect the parts, as will be apparent, the remaining holes, *a* and *b*, being for the reception of nails to secure the parts to the hoof. A rivet may be employed through the elongated hole *g* and the hole *b*, so as to movably connect the parts; but I prefer to employ a nail, as described, passing into the hoof in the usual manner.

From the foregoing description it will be seen that upon any forward extension of the animal's hoof from growth the toe-piece, by virtue of its movable connection with the side pieces and its attachment to the hoof at the toe, will be caused to adjust or accommodate itself to such extension. In like manner, when an extension of the hoof occurs by growth, either at the heels or sides, the side pieces will likewise adjust themselves. So, also, when the foot is brought into action, the side pieces will freely permit the hoof to expand and contract naturally at the heels.

Occasionally in practice I form other of the nail-holes in the shoe somewhat elongated, as I have shown by dotted lines might be done at the points marked 1 2 and 3 4. This has been found to possess the advantage of tending or aiding in allowing the freer action of the parts of the hoof, and in accommodating the shoe thereto, while at the same time maintaining the connection between the hoof and the shoe. It is also apparent the usefulness of the elongated hole is not necessarily dependent upon the special style of joint here shown, but that the same would operate the same in allowing the shoe to adjust itself

were there no joints or different joints employed. I prefer, however, to employ the joint herein illustrated.

The purpose of the lap-joint between the parts is to obviate any tendency to twist or turn when the animal is traveling over uneven surfaces, and the widening inwardly of the shoe at the joint is also to counteract any tendency of the side pieces to twist or turn.

I am aware that it is not new, broadly, to form a horseshoe of three or more pieces, which are so united as to permit of a movement thereof to conform to expansions of the heels; but in all former instances within my knowledge the constructions of joints employed do not permit of as perfect adjustment of the parts to both the extensions of the hoof at the toe and the expansions thereof at the sides and heels as is accomplished by my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a horseshoe, the combination of the toe-piece formed at each end with an enlarged or elongated nail hole or slot slightly oblique or inclined to the contour of the shoe, and two side pieces having each a nail-hole near its forward end which registers with the holes of the toe-piece, whereby a self-adjustment or conformity to longitudinal and lateral growth or expansion of the hoof is obtained, substantially as described.

2. In a horseshoe, the combination, with the toe-piece having nail-holes and formed at each end with a mortise, *f*, slot *g*, and tongue *d'*, of the side pieces cut out, as at *e*, and having tongue *d*, the said side pieces each having holes, one of which registers with the slot in the toe-piece, substantially as shown and described.

J. E. BINGHAM.

In presence of—
GEO. T. THOMPSON,
C. M. STEARNS.