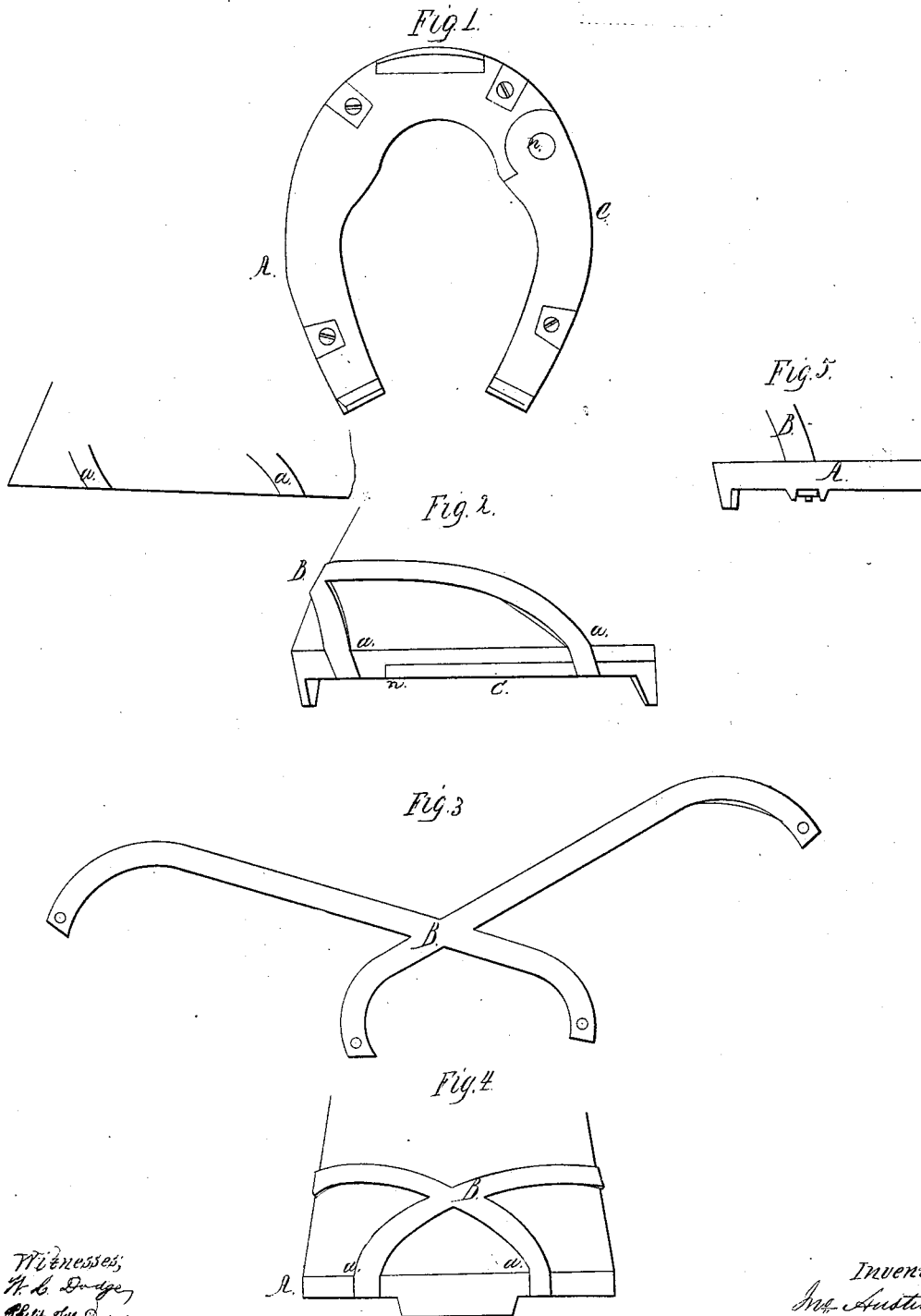


*J. Austin,*  
*Horseshoe.*

*N<sup>o</sup> 51,786.*

*Patented Jan. 2, 1866.*



*Witnesses;*  
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# UNITED STATES PATENT OFFICE.

JOHN AUSTIN, OF ROCKFORD, ILLINOIS.

## IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. 51,786, dated January 2, 1866.

*To all whom it may concern:*

Be it known that I, JOHN AUSTIN, of Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Securing Shoes to the Feet of Horses and similar animals; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification.

Figure 1 is a bottom-plan view of the shoe. Fig. 2 is a side view of the shoe attached. Fig. 3 is a view of the blank-strap as cut out to form the fastening, and Fig. 4 is a front view of the foot with the shoe attached.

The nature of my invention consists in securing the shoe to the foot of a horse or similar animal by means of metallic straps arranged in a novel manner.

It also consists in hinging a section of the shoe in a peculiar manner for the purpose of more readily applying my fastening.

To enable others skilled in the art to construct and use my improvements, I will proceed to describe them.

A represents a shoe constructed in the usual manner, except that on one side the shoe is split transversely, as shown in Fig. 2, the under portion, C, being pivoted at *n* so as to be moved outward at its rear end, as hereinafter explained.

B represents the bands or straps for fastening the shoe, and which may be cut out of iron or steel plate, or of any other suitable metal, in the form shown in Fig. 3; or, if preferred, the strips composing the band B may be cut separately and arranged to cross each other in the manner shown. This strap B is secured to the shoe permanently at three points, as at *a*, the remaining point being left loose until the shoe is placed on the animal's foot. The strap may be fastened to the shoe either by welding or screwing it thereto, it being so attached as not to project at the points of attachment, the shoe being recessed on its edge and also on its under side to receive the ends of the strap B. The front ends of the strap are secured to the shoe on each side of the toe, as shown in Fig. 4, passing from thence upward and backward, as shown in Figs. 2 and 4, the rear ends being curved downward and

united to the shoe on each side, near the heel, as shown. At each of the points *a* a notch is cut in the hoof of sufficient depth to receive the strap B and keep it from slipping sidewise on the animal's foot.

The strap being attached to the shoe, as described, at the three points, the shoe is placed on the foot of the animal, the loose end of the strap being sprung out sufficiently to permit the foot to be inserted, when the loose end of the strap is secured to the hinged section C, which may be swung outward for that purpose, and the latter, with the strap attached, is then drawn into its place, and is secured there by screwing the screw *n* into the solid portion of the shoe.

Instead of uniting the ends of the straps to the shoe in the manner shown it may be done by forging the end into a bolt and cutting a screw-thread thereon, then inserting it from above through a hole formed in the shoe at the proper point to receive it, and screwing a nut on under the shoe, this modification being shown in Fig. 5. By this means the shoe may at any time be tightened up without removing it or detaching any of the parts, by simply screwing up the nuts.

If found necessary by experience, the shoe may be formed with projections on each side of the nut to protect it from injury.

It is obvious that the hinged section may be dispensed with, if desired, and the strap drawn around tightly and secured to the shoe without it, the only object of the hinged portion being to more conveniently attach and draw the strap tightly to its place.

It will be observed that by using a strap of the peculiar form here shown, and having it rest in the notches or recesses cut in the hoof at *a*, the shoe will be secured to the foot in a most perfect manner. By having the strap straddle the toe or front portion of the hoof, as shown, it is far less liable to slip or move around on the foot, and when the strap rests in notches cut in the hoof at its lower edge it is impossible for it to slip or become displaced so long as the rear ends are kept secure. By giving to the rear ends of the strap the elliptical form shown, and having them rest in notches cut in the hoof at its lower edge, the shoe is held secure and prevented from being pulled off at the heel, and also from sliding or

twisting around on the foot. At the same time that these objects are thus accomplished in the most perfect manner the hoof is left perfectly free to expand at the rear when the weight of the animal rests upon it, and no nail or screw is driven into it. The notches at *a* are very shallow, not exceeding the thickness of the strap, which, if made of steel, may, of course, be very thin, and the notches need extend up but a short distance, just far enough to afford a firm hold for the strap.

By having the rear ends of the strap resting in the inclined groove, as shown, it will be seen that as the rear end of the strap is tightened up it tends to draw the shoe backward and upward at one and the same time, thus securing the shoe in a very perfect manner.

It will be obvious that so long as the straps remain tight and rest in the notches at the rear it will be impossible to pull the shoe off without tearing the hoof at those points.

By these means I am enabled to produce a shoe and fastening that can be applied at any time and place, without the aid of nails or screws that penetrate the hoof, and which, at the same, time leaves the foot of the animal free to expand and otherwise perform its natural functions.

If, by wear or otherwise, the shoe becomes loose, it can be readily tightened by removing it and slightly bending the straps edgewise, as indicated in red lines in Fig. 2, whereby the

lower edge of the strap is made to press more tightly upon the lower edge of the rear notches, and thus draw the shoe tight against the foot.

This method of securing horseshoes is specially adapted for army use, and also for trains traveling on the plains or in other remote regions. It is equally advantageous to the farmer or traveler, and indeed to all others using the horse or mule, as it can be applied at once without the delay incident to the usual method, where the animal has to be taken to a blacksmith-stop. By keeping a few extra shoes fitted to the animal's foot on hand much time and expense may thus be saved.

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

1. Securing a shoe to the animal's foot by means of the metal strap B, constructed in the form shown, and applied to the foot in such a manner as to rest in the recesses cut in the hoof, and secured to the shoe in the manner herein set forth.

2. A shoe having one side divided transversely and longitudinally, as shown in Fig. 2, and having the lower portion, C, pivoted to the main portion of the shoe, substantially as and for the purpose set forth.

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Witnesses:

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