

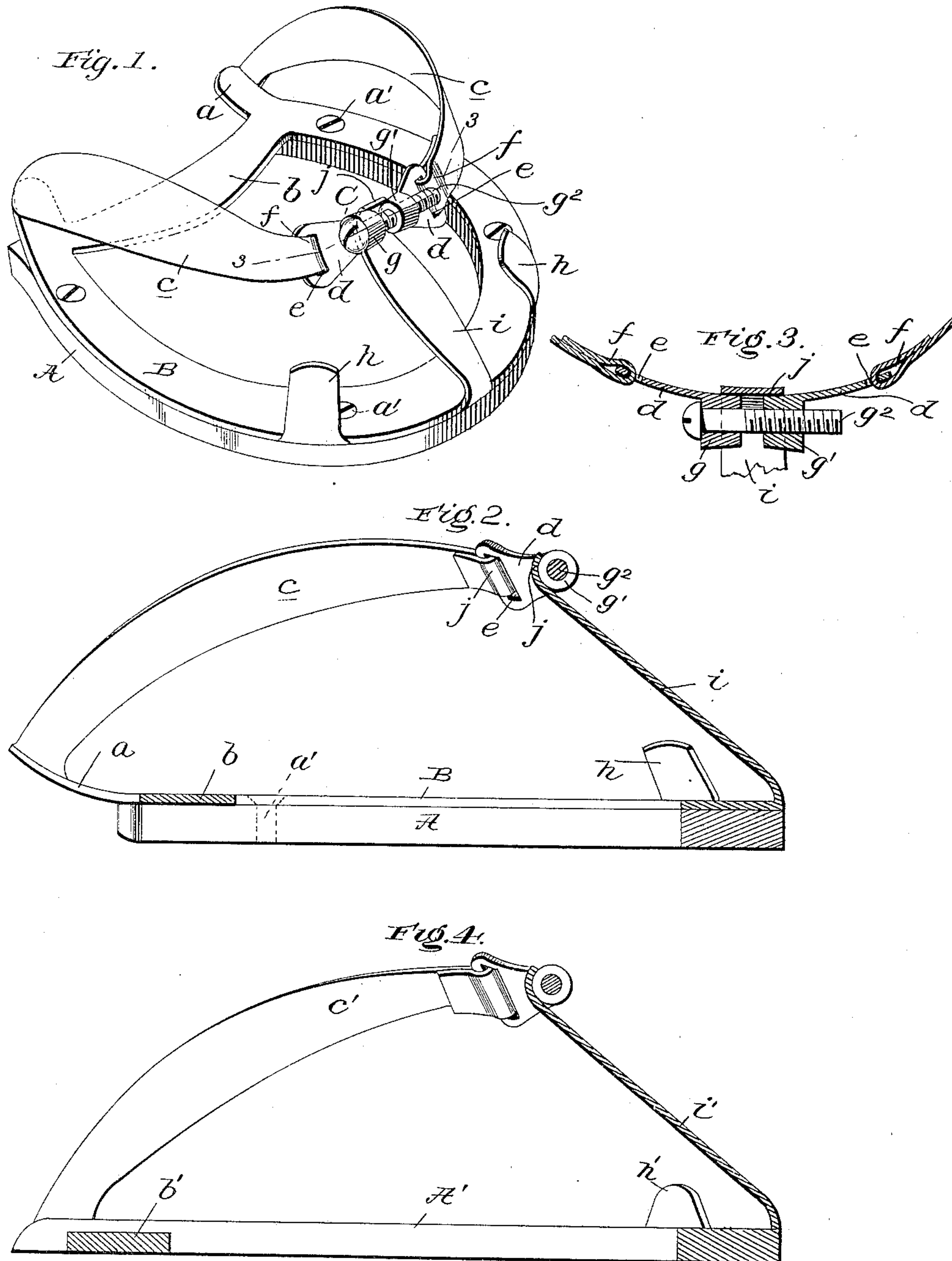
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Patented Aug. 28, 1900.

J. V. HUGHES.
NAILLESS HORSESHOE.

(Application filed May 24, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JOHN V. HUGHES, OF DALLAS, TEXAS.

NAILLESS HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 656,979, dated August 28, 1900.

Application filed May 24, 1900. Serial No. 17,869. (No model.)

To all whom it may concern:

Be it known that I, JOHN V. HUGHES, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented new and useful Improvements in Nailless Horseshoes, of which the following is a specification.

My invention relates to nailless horseshoes, and is designed more particularly as an improvement upon that type of nailless shoe which comprises metallic straps connected to opposite sides of the rear portion of a shoe or a plate attached thereto and adapted to embrace a horse's hoof, an adjustable connection between the forward ends of said straps for tightening the same upon the hoof, and arms connected to the forward portion of the shoe or plate, attached thereto at opposite sides of the longitudinal center thereof, and engaging the straps with a view of holding the forward portion of the shoe to the hoof.

It consists in the specific nailless shoe hereinafter described, and particularly pointed out in the claims appended, which is advantageous in that it is calculated to be more securely fastened upon a horse's hoof than those extant, and is also advantageous because of its strength and durability.

In the accompanying drawings, Figure 1 is a perspective view illustrating one embodiment of my invention. Fig. 2 is a longitudinal central section of the same on an enlarged scale. Fig. 3 is a detail section taken in the plane indicated by the broken line 3 3 of Fig. 1. Fig. 4 is a longitudinal central section illustrating another embodiment of my invention.

Referring by letter to the said drawings, and more particularly to Figs. 1 to 3 thereof, A is the body or shoe proper of my improved nailless horseshoe, and B is a plate arranged upon and detachably connected to said shoe proper by screws a' , this construction being preferable because it permits of the shoe proper being readily removed when worn or broken and replaced by a new shoe proper. The plate B is made of steel or iron and conforms in shape to the shoe proper. It has its rear ends extended beyond the rear ends of said shoe proper and curved upwardly, as indicated by a , for a purpose presently pointed out, and is provided at about the distance

shown in advance of its rear ends with a cross-bar b , which has for its purpose to effectually prevent spreading of the plate and the shoe proper attached thereto. The plate and shoe proper tend to spread in practice, especially when the latter is worn to a greater or less extent, and unless some means, such as the transverse bar b , is provided to preclude such spreading the shoe is soon rendered loose on a horse's hoof and liable to be cast off. The plate is also provided at its rear portion with integral outwardly-curved straps c , which are joined to the outer edges of its extended end portions a and extend upwardly and forwardly therefrom, so as to embrace the upper portion of a horse's hoof. The forward upper ends of these straps c are designed to rest at the upper portion of the front of the hoof and are adjustably connected by a coupling C. This coupling comprises sections d , which have eyes e at their outer ends to receive bights f of the straps c and apertured lugs g g' , of circular form in cross-section, at their inner ends, and a threaded bolt g^2 , which bears in the apertured lugs of the sections d and engages the threads of lug g' and is designed to adjustably connect said sections and tighten or loosen the straps c on the hoof, as desired.

On its forward portion and at opposite sides of its longitudinal center the plate B is provided with upwardly-reaching lug-flanges h , designed to engage a horse's hoof in the usual manner, while at the forward portion of its longitudinal center or its toe said plate is provided with an upwardly-reaching arm i , which has its upper end curved, as indicated by j , to enable it to snugly engage the inner sides of the lugs g g' of the coupling-sections d after the manner shown in Figs. 1 to 3.

In practice when it is desired to apply my improved shoe to a horse's hoof the bolt g^2 is turned out of the lug g' and the straps c are sprung outwardly, after which the shoe is placed on the hoof, so that the latter rests on the plate B and between the extended ends a and the straps c and outwardly-reaching arm i , and the upper curved end of said arm i rests at the inner sides of the lugs g g' . With this done the bolt g^2 is turned in the lug g'

sufficiently to tightly clamp the straps *c* and arm *i* against the hoof and securely fix the shoe thereto.

The toe portion of a horseshoe is subjected to more blows and wear than any other part thereof, and hence in a nailless horseshoe unless some special means is provided to hold the toe portion of the shoe snugly against the hoof the shoe is sure to become loose after a short period of use. The longitudinal central arm *i* of my improved shoe, in conjunction with the coupling *C* and straps *c*, ordinarily serves the purpose stated and insures the toe portion of the shoe being tightly held against the foot. The straps *c* extend from the base of the hoof at the rear thereof to the upper portion of the front of the hoof and are there connected. From this it follows that when the horse is traveling said straps serve to hold the rear portion of the plate *B* snugly against the hoof and assist the arm *i* in performing the same function with regard to the forward portion of the plate. Moreover, the said straps *c* embrace the hoof at a high point on the oval portion thereof and are thereby held against slipping. The upwardly-curved extended portions *a* of the plate *B* rest at the rear of the horse's hoof and preclude the same being drawn rearwardly out of engagement with the straps *c* and arm *i*. These rearwardly-extended portions *a* of the plate *B* may be made flat or straight when a horse's hoof is so shaped as to afford a secure hold for the straps *c*. I prefer, however, to curve them upwardly, as shown and described, as they assist materially in holding the shoe on the foot, especially when the hoof is curved but little at the side and does not afford a secure hold for the straps *c*.

In Fig. 4 of the drawings I have illustrated a modification in which the plate *B* is dispensed with, the straps *c'*, the lug-flanges *h'*, and the forward longitudinal central arm *i'* being formed integral with the shoe proper, *A'*, and the said shoe proper being provided with a rear transverse bar *b'* to preclude spreading thereof after the manner before described. In this modified construction the straps *c'* and the arm *i'* are constructed and arranged like the straps *c* and arm *i* (shown in Figs. 1 to 3) and serve in the manner before described to securely fasten the shoe proper to a horse's hoof.

Having thus described my invention, what I claim is—

1. A nailless horseshoe comprising a shoe proper, outwardly-curved straps connected to the shoe proper at points adjacent to the ends thereof and extending upwardly and forwardly therefrom, coupling-sections connected to the upper, forward ends of the

straps and having rounded lugs at their inner ends, a bolt bearing in the lugs of the said sections and adjustably and detachably connecting the same, and the longitudinal central arm connected to the toe or longitudinal central forward portion of the shoe proper and extending upwardly therefrom, and having the curved upper end adapted to engage the rounded lugs of the coupling-sections, substantially as and for the purpose set forth.

2. A nailless horseshoe comprising a shoe proper, a plate arranged on and detachably connected to the shoe proper, and having the integral, outwardly-curved straps extending upwardly and forwardly from the outer edges of its end portions and also having the integral, longitudinal central arm rising from its toe and terminating at its upper end in a curved portion, coupling-sections connected to the upper forward ends of the straps and having rounded lugs at their inner ends adapted to be engaged by the curved portion of the arm of the plate, and a bolt bearing in the lugs of the said sections and adjustably and detachably connecting the same, substantially as specified.

3. A nailless horseshoe comprising a shoe proper, a plate arranged on and detachably connected to the shoe proper and having its ends extended beyond and curved upwardly from the ends of the shoe proper and also having the integral cross-bar *b*, the integral, outwardly-curved straps extending upwardly and forwardly from the outer edges of its end portions, and the integral, longitudinal central arm rising from its toe and terminating at its upper end in a curved portion, and an adjustable and detachable connection interposed between the upper and forward ends of the straps and seated in the curved portion of the upwardly-extending arm, substantially as specified.

4. A nailless horseshoe comprising a shoe proper, outwardly-curved straps connected to the shoe proper at points adjacent to the ends thereof and extending upwardly and forwardly therefrom, a longitudinal central arm connected to and rising from the toe or longitudinal central forward portion of the shoe proper and terminating at its upper end in a curved portion, and an adjustable and detachable connection interposed between the forward and upper ends of the straps and seated in the curved portion of the arm, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JNO. V. HUGHES.

Witnesses:

JOS. H. BLACKWOOD,
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