J. H. PENHORWOOD.

HORSESHOE.

APPLICATION FILED JUNE 16, 1910.

970,946. Patented Sept. 20, 1910.

Fig. 1.

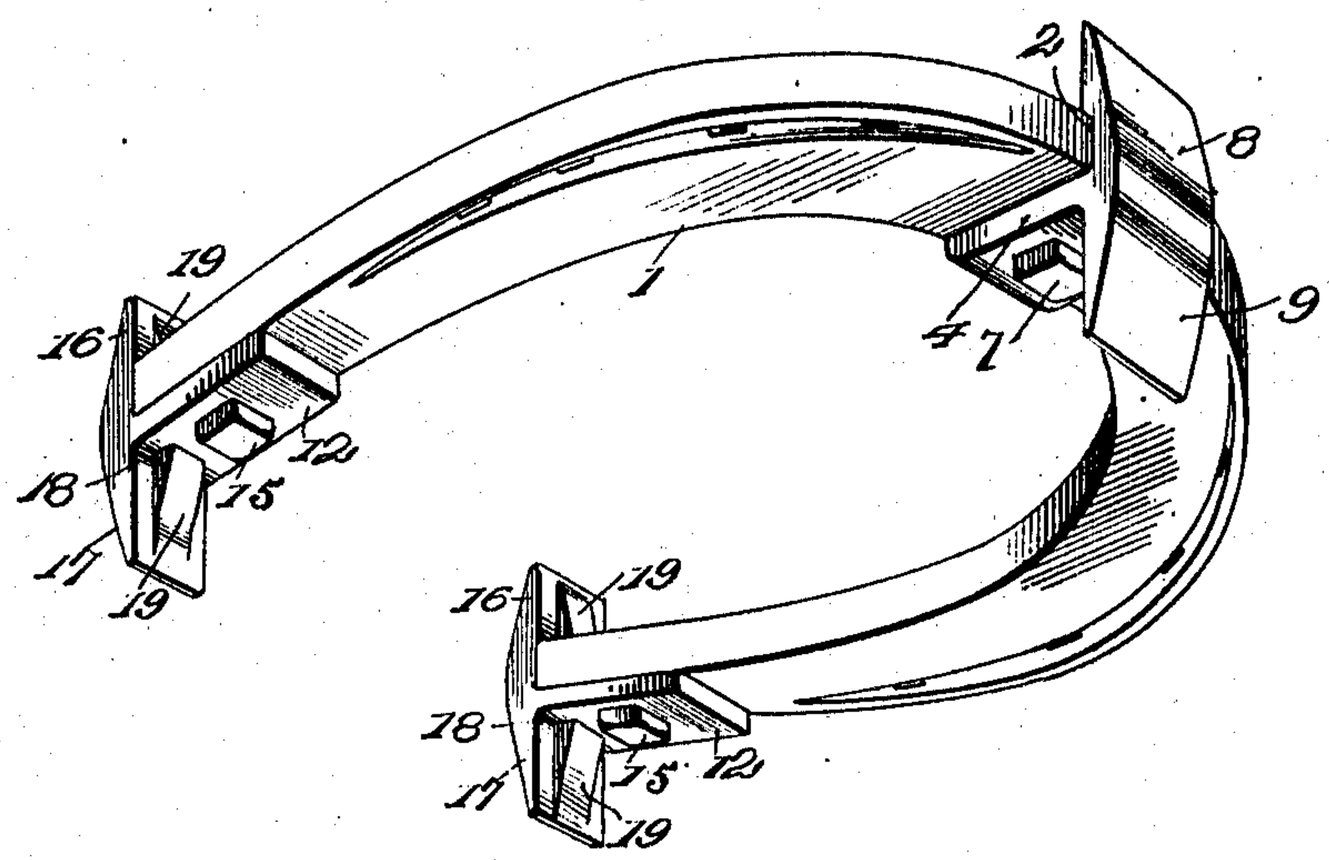


Fig. 2.

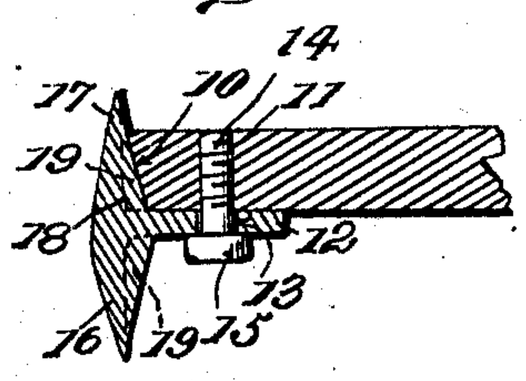


Fig. 3.

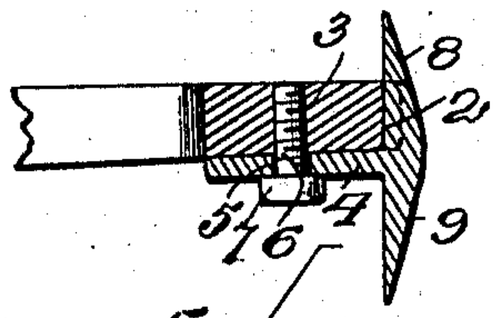


Fig. 4.

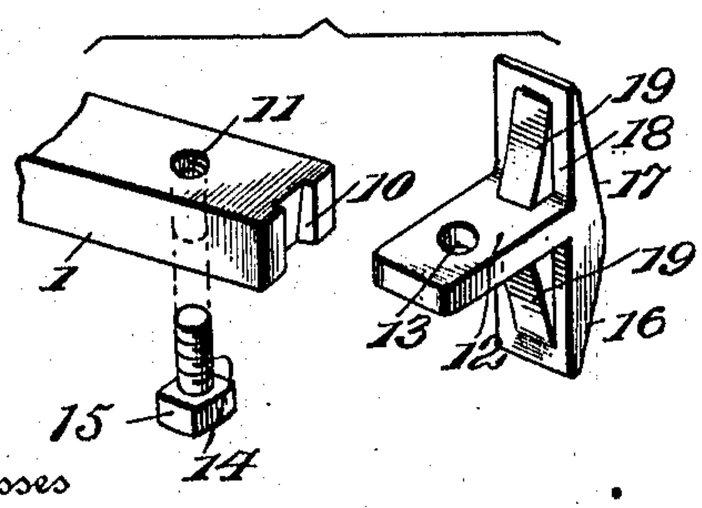
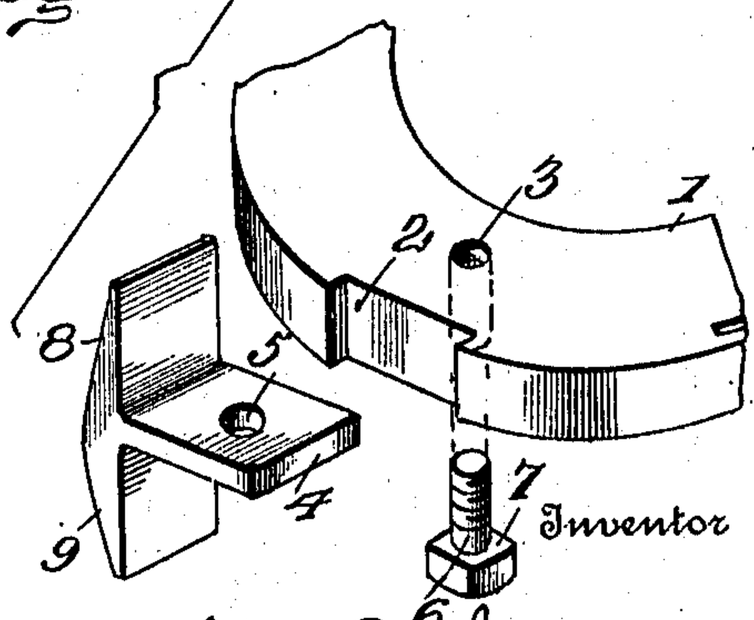


Fig. 5.



Witnesses

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HORSESHOE.

970,946. Specification of Letters Patent. **Patented Sept. 20, 1910.**

Application filed June 16, 1910. Serial No. 567,311.

To all whom it may concern:

Be it known that I, JOHN H. PENHORWOOD, a citizen of the United States, residing at Buckeye City, in the county of Knox and State of Ohio, have invented certain new and useful Improvements in Horseshoes, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements of horse shoes.

The object of my invention is, to provide a horse shoe in which the calks are readily attached or removed, and in which all sidewise movement of the calk is absolutely prevented.

Another object of my invention is, to provide a shoe of this character in which the calks are reversible, and whereby the cost of shoeing is greatly reduced.

A still further object of my invention is, to provide a more simple, cheap, and effective shoe to accomplish the above results.

In the accompanying drawings; Figure 1, is a perspective view of my improved shoe. Fig. 2 is a longitudinal sectional view of the heel portion of the shoe, showing the calk secured in position. Fig. 3, is a transverse sectional view of the front of the shoe taken through the calks. Fig. 4 is a perspective view of the rear portion of the shoe, showing the calk removed and in perspective view. Fig. 5 is a perspective view of the front portion of the shoe, showing the toe calk removed and, in perspective view.

Referring now to the drawings, 1 represents the shoe which is constructed in the same manner as the ordinary shoe having the usual nail openings for attaching it to the hoof. The forward end of the shoe is cut away as indicated at 2, and in the rear of said cutaway portion, is provided with a screw threaded opening 3. The toe calk is formed with a body portion 4 having an opening 5 corresponding to the opening 3 in the shoe. This opening 5 is not screw threaded, but passing through the same is a screw bolt 6 which is screw-threaded and is screwed into the opening 3 in the shoe. The head 7 of the bolt clamps the body portion 4 of the calk tightly against the lower face of the shoe. The outer end of the body portion on each side is provided with calks or spikes 8 and 9 which are of a width equal to the cutaway portion 2 of the shoe. One of the calks or spikes rests in the cutaway portion and holds the calk against any possible lateral movement while the bolt 6 firmly clamps the body portion against downward movement. The opposite calk carried by the body extends down and forms the tread of the shoe. When the calk is worn the bolt is removed and the other calk turned down so as to form the tread.

The heel of the shoe, is provided at its outer end with a slot 10 which gradually diminishes from its lower end to the upper end. The shoe on the inside of the groove is provided with a screw-threaded opening 11. The heel calk is provided with a body portion 12, which fits against the lower face of the shoe and is provided with an opening 13, corresponding to the opening 11, and arranged opposite thereto. Passing upward through the opening 13, in the body of the calk is a bolt 14, which is screwed into the opening 11, and the head 15, clamping the body 12, against the lower face of the shoe. The heads 15, of the heel bolts, and heads 7 of the toe bolts are made of angular form, whereby a wrench may be used for tightening or loosening the bolts when desired.

The body portion, 12 of the heel calks are provided on opposite sides with the spikes 16, and 17. The upper spike 17, extends across the end of the heel of the shoe, while the other spike 16, forms the head of the shoe. The inner faces 18, of the calks are provided with lugs 19, which also project partially, from the body portions 12, of the heel calks. These lugs gradually decrease from the body portion outwardly to correspond with the taper of the slot 10, in the end of the heel, and when the heel calks are applied, the lugs 19, snugly fit the slots 10. These lugs 19, and corresponding slots prevent any lateral movement of the heel calks while the bolts firmly hold the calks against downward movement. These heel calks are reversible in the same manner as the toe calks. The tapering lug and corresponding slot cause a binding or locking action between the shoe and the calk, as will be clearly seen.

What I claim is;—

1. A horseshoe comprising a body portion, a toe calk removably secured to the forward end of the body portion, the rear end of the body portion having vertical tapering grooves and heel calks having spikes extending from the upper and lower faces thereof,

one spike abutting against the rear walls of the heels of the shoe, and the other spike forming the tread, tapering lugs carried by the inner faces of the spikes and entering the tapering grooves in the heel and bolts passing through the calks and secured to the shoe and holding the calks on the lower face of the shoe.

2. A horseshoe comprising a body portion, a toe calk removably secured to the toe of the body portion, the rear ends of the body portion having grooves gradually tapering outwardly from the lower faces of the body portion, heel calks having spikes extending from the upper and lower faces thereof, one spike abutting against the rear of the wall of the shoe, the other spike forming the tread, tapering lugs carried by the inner faces of the spikes and entering the tapering grooves in the heels and bolts passing through the calks and screwed into the shoe to hold the calks on the lower faces of the shoe.

3. A horseshoe comprising a body portion, a toe-calk removably secured to the body portion, the rear end of the body portion having grooves gradually tapering outwardly from the lower face of the body portion, heel calks having spikes extending from the upper and lower faces thereof, one spike abutting the rear wall of the heel of the shoe and the other spike forming the tread, tapering lugs carried by the inner faces of the spikes and entering the tapering grooves of the heel, bolts passing through the calks and screwed into the shoe, the forward end of the body portion having a vertical groove, a toe-calk extending from the upper and lower faces thereof, one spike entering the groove and the other spike forming the tread, and bolts passing through the calks and screwed into the shoe, substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JOHN H. PENHORWOOD.

Witnesses:
H. S. WORKMAN,
A. A. GEITGEY.