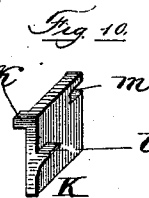
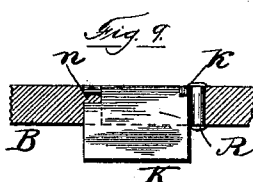
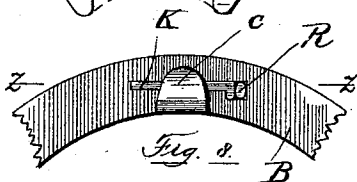
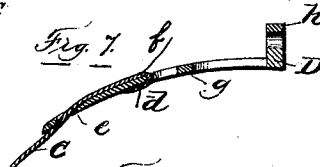
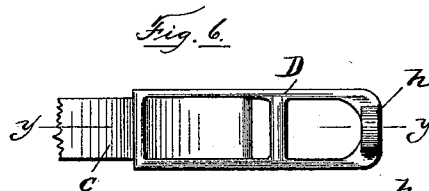
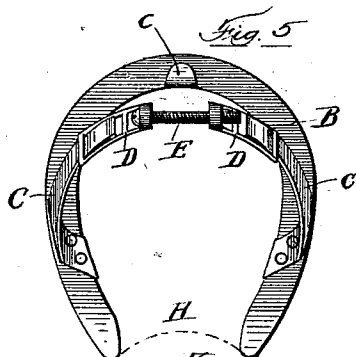
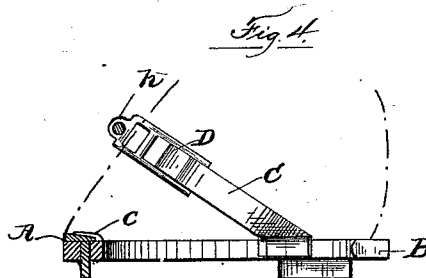
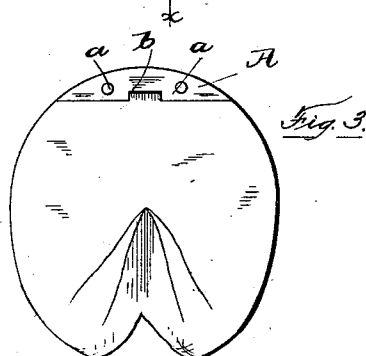
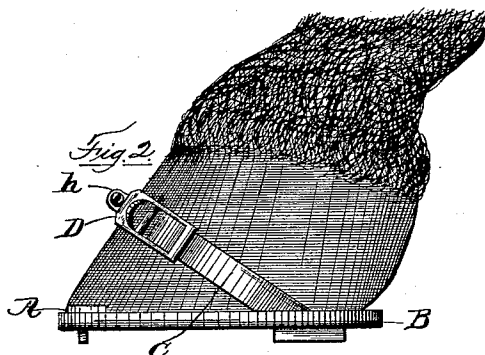
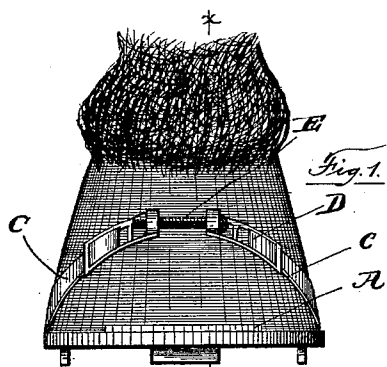


(No Model.)

A. W. SMITH.
HORSESHOE.

No. 517,176.

Patented Mar. 27, 1894.



Witnesses
Walter J. Bowen,
James J. Rappley,

Inventor
Aaron W. Smith
By his Attorney
Louis W. Southgate

UNITED STATES PATENT OFFICE.

AARON W. SMITH, OF WORCESTER, MASSACHUSETTS.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 517,176, dated March 27, 1894.

Application filed February 11, 1891. Serial No. 381,026. (No model.)

To all whom it may concern:

Be it known that I, AARON W. SMITH, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Horseshoes, of which the following is a specification.

The aim of this invention is to produce a horse-shoe which can be readily and quickly attached to the foot practically without the use of nails and also to improve the calk and the manner of applying the same to the shoe.

To this end the invention consists of the device described and claimed in this specification and illustrated in the accompanying drawings, in which—

Figure 1 is a front view of a horse's foot with my shoe applied thereto. Fig. 2 is a side elevation of the same. Fig. 3 is a plan of the same. Fig. 4 is a section of the same on line $x-x$ Fig. 1. Fig. 5 is a top view of the shoe detached from the foot. Figs. 6 and 7 are enlarged views of the adjusting piece on the strips, and Figs. 8, 9 and 10 are enlarged views showing the calk.

In detail, A represents a toe-plate, which is attached to the hoof by the two nails a, a . This plate A is set in the hoof so as to be flush with the bottom of the same and has a recess b cut in its rear edge. The hoof is chiseled away under the recess b so that the tongue c of the shoe B may be caught in the recess or rather under the toe-plate A. Riveted to the shoe B are the two strips C, C preferably made of brass ribbon. The front or free ends of these strips are bent over at d and are adapted to hook onto the pieces D. These pieces D have the holes e through which the strips pass and the hooks d may engage the piece D at f as shown in Fig. 7 or they may pass over the bar g on the piece D. Of course more than one bar g may be provided so that more than two adjustments are formed but in most cases I find one bar to be sufficient. On the ends of the pieces D are the projections h , one of which is screw-threaded to receive the clamping screw E.

The manner in which the shoe is applied is readily seen. The toe-plate is fastened to the hoof as described, then the tongue c of the shoe is inserted under the same and the strips are clamped together. By this means the

shoe is quickly applied to the foot and is rigidly held in place. Further the pieces D may be adjusted to any size of foot and all the forging that is necessary is to shape the shoe to the particular hoof. It will also be seen that the foot can expand and contract in action and that the same will have its natural movement. The shoe may be made in one flat piece so as to cover the entire foot and prevent balling of snow in winter.

The calk is shown in detail in Figs. 8, 9 and 10. The same consists of the piece K having the projections k and l on opposite sides of the same, one of which is arranged to bear above the shoe and the other, l , below the same. On the front end of the calk is the notch or groove m . The shoe is formed with a calk hole which has a lip n at the forward end of the same adapted to catch the slot m in the calk. This calk hole is of such a size that the calk will fit tightly in the same laterally, and the hole is enlarged at its rear end as shown, so that the projection k will freely go through the shoe, and the shoe is cut away in front of this enlargement so that the projection k on the calk will be flush with the shoe when the same is in place in the shoe. These projections hold the calk from any up or down movement after the same is put in place. Any desired number of calks may be used.

To apply the calk to the shoe the same is slid forward into place and then in back of the same is fastened the rivet or wedge R, which is headed over both above and below the shoe. Thus a cheap calk is provided which is quickly attached to the shoe. The hole in the shoe with the projection n is readily made with the proper swaging tools and the calks are made in quantities by automatic machinery.

A practical test has demonstrated the utility of my device. Modifications of the same may be made by a skilled mechanic without departing from the scope of my invention.

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

1. In a horse-shoe, the combination with a toe-plate A which is adapted to be set into the hoof so as to be flush with the bottom of the same, and is provided with a recess or ap-

erture *b*, and is secured in place by nails or screws passing through the holes *a*, and a shoe proper *B*, which has a projection *c*, which is adapted to fit into a recess or aperture cut in the hoof above the toe-plate *A*, and which is held against lateral movement by the recess *b*, the shoe proper being secured at its rear ends by means of flexible strips which are adapted to be carried up over the hoof, and to have their ends adjustably secured together, substantially as described.

2. The combination of a toe-plate *A* set into the hoof so as to be flush with the bottom of the same, of a shoe proper adapted to bear directly against the bottom of the hoof, and provided with a projection *c* adapted to fit into a recess cut in the hoof above the toe-plate *A*, and provided with flexible strips *C* having hooked ends to adjustably engage

the bars *g* of the clamping pieces *D*, which are constructed to have their ends secured together by the clamping screw *E*, substantially as described.

3. The combination of the shoe having the hole, the projection *n* in said hole, and the calk having the groove *m* adapted to said projection *n*, and the lips or projections *k* and *l*, one adapted to go above the shoe and the other below the same, and the rivet holding said calk in place, substantially as described.

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

AARON W. SMITH.

Witnesses:

JAMES J. RAFFERTY,
LOUIS W. SOUTHGATE.