E. L. TEVIS.
Horseshoe.

No. 198,824. Patented Jan. 1, 1878.

*Fig. 1.*

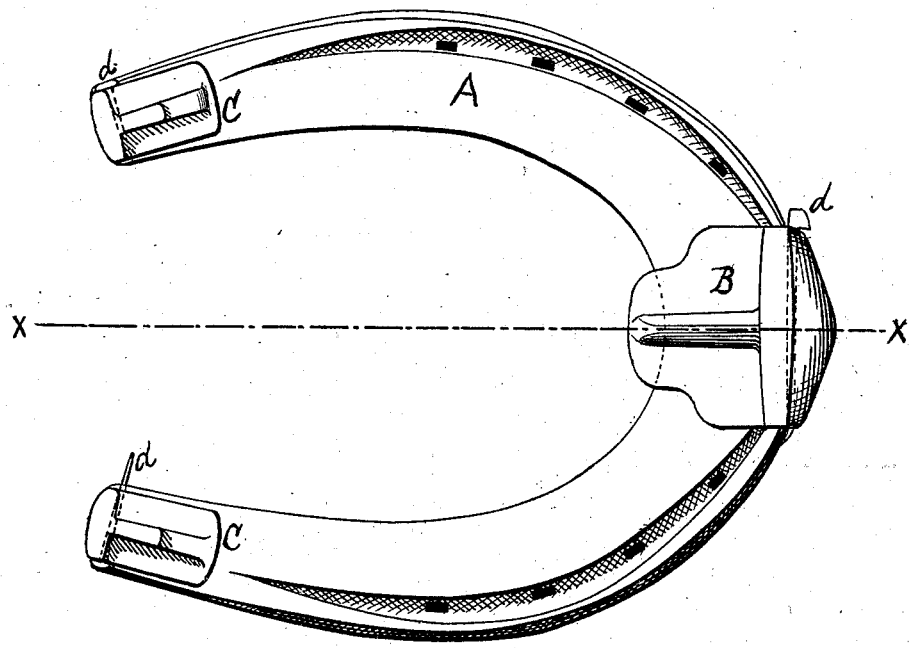



*Fig. 2.*

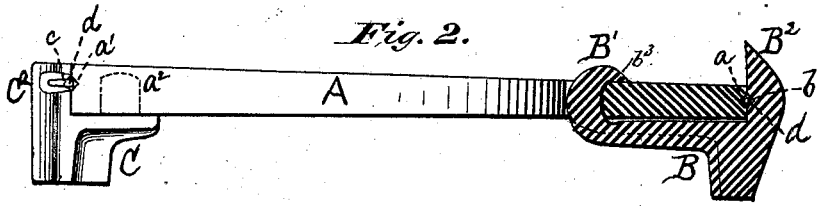



*Fig. 3.*

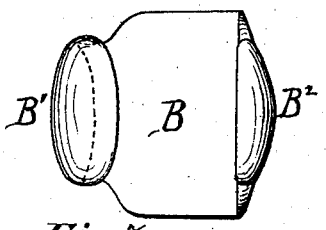
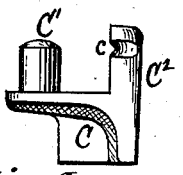
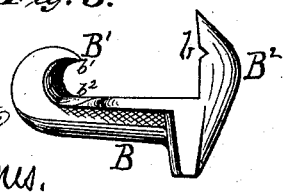
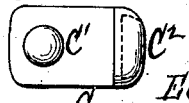



*Fig. 4.*




Witnesses:
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John R. Jones.

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Attorney.

# UNITED STATES PATENT OFFICE.

EDWIN L. TEVIS, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. **198,824**, dated January 1, 1878; application filed December 3, 1877.

*To all whom it may concern:*

Be it known that I, EDWIN L. TEVIS, of the city and county of Philadelphia and State of Pennsylvania, have invented certain Improvements in Horseshoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and the letters of reference marked thereon, making part of this specification, in which—

Figure 1 is a bottom-plan view. Fig. 2 is a longitudinal sectional view on the line *x x*, Fig. 1. Fig. 3 shows detached views of the toe-calk; Fig. 4, detached views of the heel-calks.

The nature of my invention consists in constructing the toe-calk with a curved flange at its rear section, which laps over and fits the inside arch of the shoe, and a face-plate, which will provide a close fit between its inside face and the front of the toe of the shoe, both the face-plate and shoe being provided with grooves, which register when brought together, the calk being held in position by means of a common shoe-nail or wedge, which is driven and rests in the grooves.

My invention further consists in constructing the heel-calks with a tenon, which fits in a mortise made in the shoe, and a face-plate, which fits closely to the face of the heels of the shoe. Both the face-plates and these calks are provided with grooves, which register when brought together, the calks being held in position by means of a common shoe-nail or wedge, which is driven and rests in the grooves.

The construction and operation of my invention are as follows:

A is the shoe, which is formed with a groove, *a*, at the toe, and grooves $a^1$ $a^1$ and mortises $a^2$ $a^2$ at the heels. B is the toe-calk, which is provided at its rear with a curved flange, $B^1$, and face-plate $B^2$, as clearly shown in Figs. 2 and 3. The curved flange $B^1$ fits the inside arch of the shoe, extending around and embracing the top of the same, while the face-plate $B^2$ closely fits the front of the toe of the shoe.

For convenience in readily attaching and removing the toe-calk, the flange $B^1$ is curved from the point $b^1$ to the point $b^2$, as shown in Figs. 2 and 3, the inside wall of the shoe being also curved to fit the same, as clearly shown in Fig. 2.

The face-plate $B^2$ is provided with a groove, *b*, which registers with the groove *a* when the calk is attached to the shoe, said calk being held in position by means of the nail *d*.

To attach the toe-calk, the flange $B^1$ is passed up around the inner wall of the shoe until the flat section $b^3$ of the flange rests on the upper face of the shoe. The face-plate $B^2$ is then pushed up, its inner face and the outer wall of the shoe forming a tight joint. The grooves *a b* having registered, the nail *d* is driven in and clinched, and the calk is securely fastened.

To remove the calk the nail is driven out, when the calk will partially fall by its own weight.

C C are the heel-calks, which are formed with tenons $C^1$ $C^1$ and face-plates $C^2$ $C^2$, as clearly shown in Fig. 4.

The face-plates $C^2$ $C^2$ closely fit the front of the heels of the shoe, and are provided with grooves *c c*. When the calks C C are attached to the shoe the tenons $C^1$ $C^1$ enter the mortises $a^2$ $a^2$, while the grooves $a^1$ $a^1$ register with the grooves *c c*, the calks being held in position by means of the nails *d d*.

To attach the calks, the tenons $C^1$ $C^1$ are inserted in the mortises $a^2$ $a^2$, and the face-plates $C^2$ $C^2$ are caused to form a tight joint with the front of the heels of the shoe. This causes the grooves $a^1$ $a^1$ and *c c* to register, when the nails *d d* are driven in and clinched.

To remove the calks the nails are driven out.

Both the toe-calk and the heel-calks are constructed out of one piece of metal.

These nails are held in position by their points being bent over or clinched, and can easily be removed by a hammer and ordinary nail-punch or nail.

I claim as new and desire to secure by Letters Patent of the United States—

1. A horseshoe, A, provided with a groove, *a*, the toe-calk B, constructed out of one piece

of metal, and provided with a curved flange, $B^1$, formed as shown, and face-plate $B^2$, the latter being provided with a groove, *b*, and nail *d*, the whole constructed, combined, and arranged to operate substantially as described.

2. A horseshoe, A, provided with grooves $a^1$ $a^1$ and mortises $a^2$ $a^2$, heel-calks C C, formed with a tenon, $C^1$, and face-plate $C^2$, the latter being provided with a groove, *c*, and nails *d*, the whole constructed, combined, and arranged to operate substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of November, 1877.

EDWIN LAWRENCE TEVIS.

Witnesses:

COLEMAN P. FISHER,

A. CHAS. MCCATTA.