J. K. ONEIL.

Horseshoe.

No. 221,347. Patented Nov. 4, 1879.

Fig. 1.

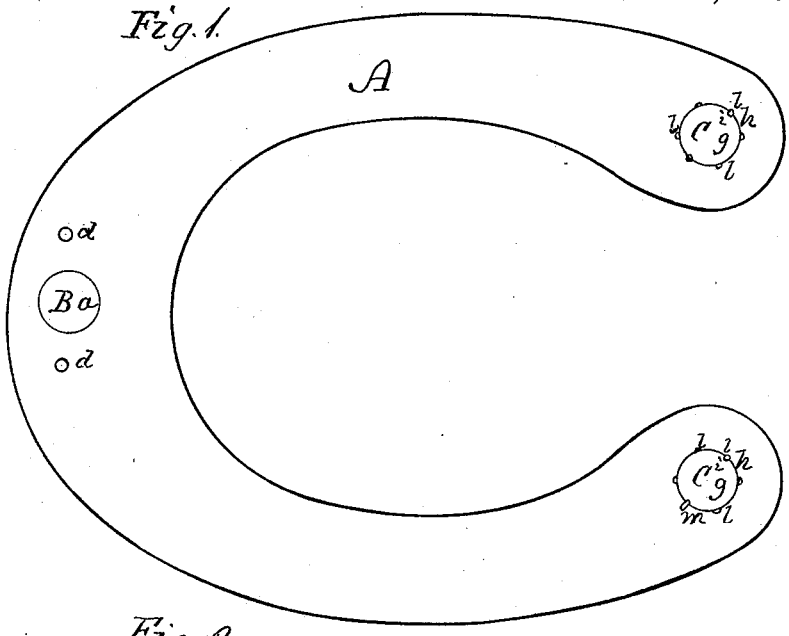


Fig. 2.

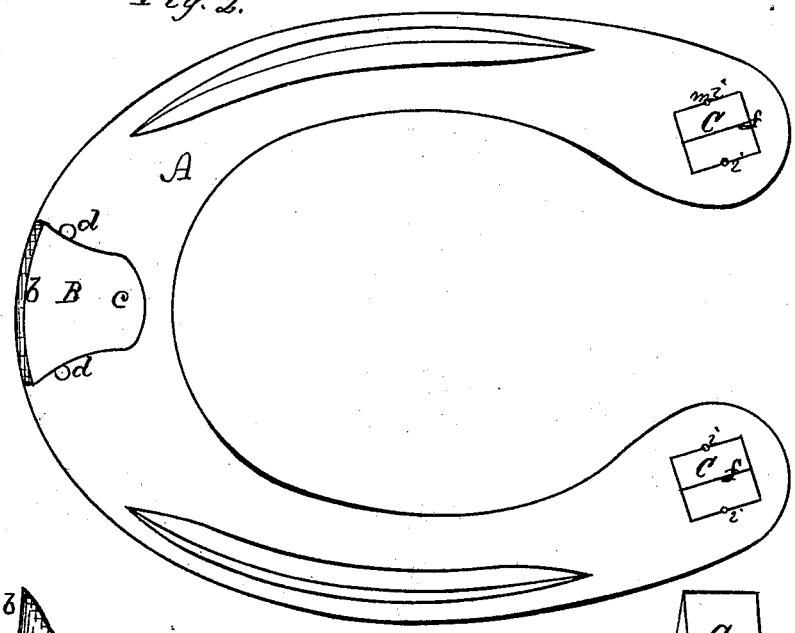


Fig. 3.

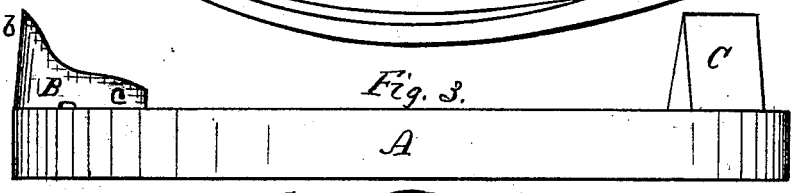
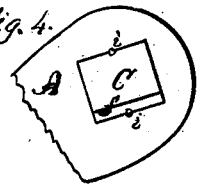


Fig. 4.



WITNESSES

J. C. Dey

Jamey Taylor

INVENTOR,

John K. Oneil,

By J. S. Brown,

his ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN K. ONEIL, OF HUDSON, NEW YORK.

IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. **221,347**, dated November 4, 1879; application filed June 18, 1879.

To all whom it may concern:

Be it known that I, JOHN K. ONEIL, of Hudson, in the county of Columbia and State of New York, have invented an Improved Horseshoe; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a top view of a horseshoe constructed with my improvements; Fig. 2, a view of the under side thereof; Fig. 3, a side view of the same; Fig. 4, a view showing a modification of the construction.

Like letters designate corresponding parts in all of the figures.

Let A represent the body of the horseshoe; B, the toe-calk, and C C the hind calks.

First, the toe-calk B is of peculiar construction, and it is secured in place by peculiar means. The calk is made separate from the body of the shoe, and it has a screw-shank, *a*, to screw into the shoe. The calk is made with a front blade or edge, *b*, and a rear boss or projection, *c*, narrower than the blade, as shown. In connection with the toe-calk, having the above-described form and construction, I make two nail-holes, *d d*, through the body A, close at the two sides of the boss *c*, and just behind the blade or edge *b*. After the calk has been screwed into the body of the shoe and the shoe applied to the horse's foot, nails are driven through the holes *d d* and through the horse's foot, and clinched, thereby not only assisting to secure the shoe to the horse's foot, but preventing the turning of the toe-calk in the body A of the shoe, and consequently from unscrewing.

Second, the heel-calks C C are peculiarly constructed, and peculiarly adjusted and secured in the body of the shoe. They are made sharp-edged, either across the middle, as seen at *f f* in Fig. 2, or having their edges at or near one side, as seen in Fig. 4. The latter form is used particularly for correcting or counteracting certain defects in the step or tread of some horses, in connection with the mode of securing and adjusting the calks in the shoe-body. This mode of securing and adjusting is as follows: Each calk has a screw-shank, *g*, fitting into a screw-socket, *h*, in the body of the shoe; and lengthwise of the screw-shank, and consequently across the screw-threads, a number of small grooves, *i i*, are formed; also, in the sides of the screw-socket *h* a number of similar grooves, *l l*, Fig. 1, are formed, likewise crossing the screw-threads thereof. Then, when the calk is screwed into place, one of the grooves *i i* in its shank is brought opposite to one of the grooves *l l* in the sides of the socket, and then a short piece of wire, *m*, Figs. 1 and 2, or its equivalent, is driven into the hole formed by the coincident grooves, thereby effectually preventing the calk from turning in the shoe-body or unscrewing therefrom. This piece of wire may be held from coming out either by bending over the ends thereof, as shown in the drawings, or by starting back the calk in its threads a little, thereby jamming the wire into the screw-threads, so as to crook or crimp it sufficiently to prevent its dropping out.

These adjusting-grooves not only enable me to tighten up the calks, if they work, or rather wear, loose, by turning forward till tightened, and then securing them by bringing other grooves into coincidence, but also to arrange the edges of the calks in any desired position to effect certain results. Thus, by adjusting the edges of both heel-calks obliquely, and nearly or exactly parallel in one direction, as shown for a right foot in Fig. 2, it will have the effect to direct the foot a little outward, and to prevent its interfering, In a similar manner, and by the use of either the central or side edged calks above described, any defect of the horse's tread may be corrected.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a horseshoe, a toe-calk, B, provided with a screw-shank, *a*, and rear boss or projection, *c*, in combination with the shoe-body A, provided with nail-holes *d d*, arranged at the sides of the boss *c*, substantially as and for the purpose herein specified.

2. In a horseshoe, a heel-calk, C, provided with a screw-shank, *g*, and one or more grooves or notches, *i i*, across the screw-threads, in combination with the body A, having a screw-socket, *h*, and grooves or notches *l l* across the screw-threads, and with a locking-wire, *m*, for locking the calk at different angles, substantially as herein specified.

The foregoing specification signed by me.

JOHN K. ONEIL.

Witnesses:

GILES H. O'NEIL,

JOHN D. VAN DEUSEN.