

L. C. CHASE.
HORSESHOES.

No. 185,296.

Patented Dec. 12, 1876.

Fig. 1.

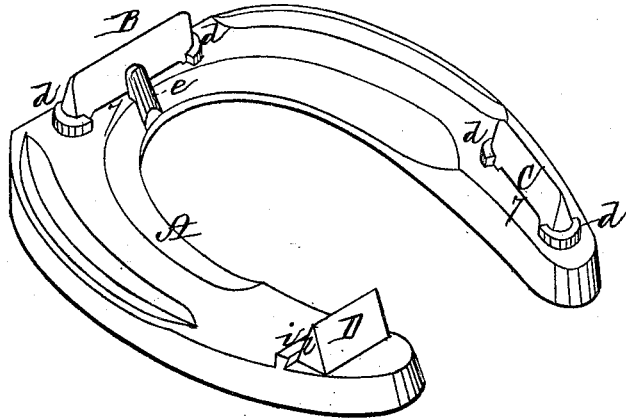


Fig. 2.

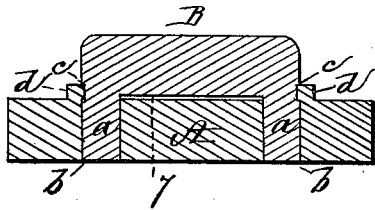


Fig. 3.

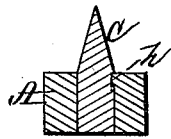


Fig. 4.

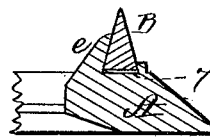


Fig. 5.

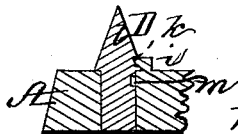
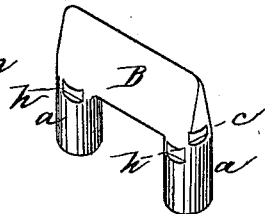


Fig. 6.



Witnesses,
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UNITED STATES PATENT OFFICE.

LUCIUS C. CHASE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. 185,296, dated December 12, 1876; application filed October 19, 1876.

To all whom it may concern:

Be it known that I, LUCIUS C. CHASE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Horseshoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of a horse-shoe having my improvements applied thereto; Figs. 2, 3, 4 and 5, sections through the same. Fig. 6 is a perspective view of one of the calks detached.

My present invention relates particularly to that class of horseshoes provided with calks, which may be readily removed and replaced while the shoe is on the foot; and consists in a method of securing the calk to the shoe by spreading or forcing the metal of the shoe into a recess formed in the calk, the depth of the recess and the amount of the metal forced therein not being so great as to prevent the removal of the calk by driving a wedge thereunder.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents a horse-shoe provided with a toe-calk, B, and two heel-calks, C D. The toe-calk B is longer than either of the heel-calks, and is provided with two studs or starts, *a*, which fit into corresponding holes *b* in the shoe. On the outside of each end of the calk is formed a recess, *c*, Fig. 6, into which is forced, by a hammer or other tool, a small portion of the metal of a curved or semicircular projection, *d*, formed in one and the same piece with the shoe, and extending around the end of the calk. (See Figs. 1 and 2.)

The depth of the recess *c* is only very slight, so as to receive an amount of the projection *d* only sufficient to insure the calk being held and retained in place when subjected to ordinary use, care being necessary not to have too much metal forced into a recess of such size as would preclude the removal of the

calk, when worn out or broken, to substitute a new one therefor.

The removal of a calk while the shoe is on the horse's foot may be readily effected by inserting a wedge between the calk and the shoe, an aperture, 7, for this purpose being formed by having the upper surface of the calk between two starts located a short distance from the flat portion of the shoe contiguous thereto.

e is a brace formed on the inner side of the toe of the shoe, in one and the same piece therewith, for re-enforcing or preventing the toe-calk from being accidentally bent, the inner surface of the calk bearing snugly against said brace.

In addition to the recesses *c c* in the calks, each start may be provided with a recess, *h*, of slight depth, formed a short distance from the recess *c*, by which means, if the projections *d* be destroyed by accident or wear, the metal of the flat portion of the shoe may be spread therein, (see Fig. 3,) in either case the spreading of the metal being performed in an extremely simple and expeditious manner by the employment of a hammer or other tool close at hand.

The heel-calk C is similar to the toe-calk B, though not so long, and not re-enforced by a brace, and is secured in place and removed in the same manner. The other heel-calk, D, is provided with but one start, and is prevented from turning by a rectangular projection or raised portion, *i*, of the shoe, a recess, *k*, in the inclined face *l* of the calk being formed for the reception of a small portion of the projection *i*, which is driven or spread therein, to secure the calk in place in a manner previously described, and, in the event of this projection *i* becoming worn away or destroyed, the flat portion of the shoe may be spread, as before explained, into a recess, *m*, formed in the start.

Instead of a semicircular projection around each end of the calks B C, a projection of other suitable form may be employed, and extend to any desired distance around the end or at the sides of the calk, and a couple of teats or projections may be substituted for a continu-

ous projection, *i*, without departing from the spirit of my invention.

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

A horseshoe-calk having a recess in it, in combination with a horseshoe having a portion of its metal forced into said recess to hold the calk, to prevent vertical withdrawal, substantially as set forth.

Witness my hand this 13th day of October,
A. D. 1876.

LUCIUS C. CHASE.

In presence of—

P. E. TESCHEMACHER,
N. W. STEARNS.