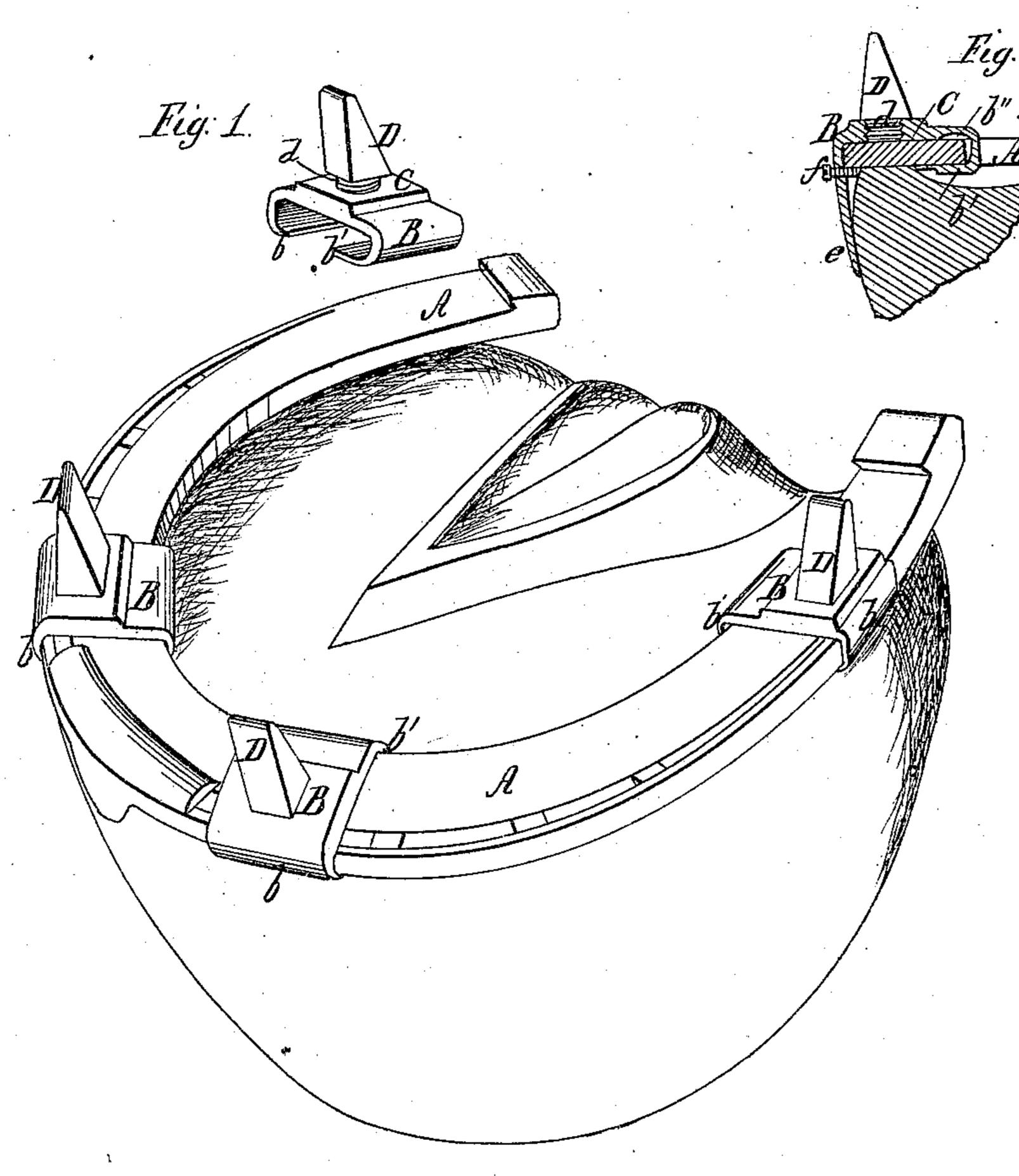
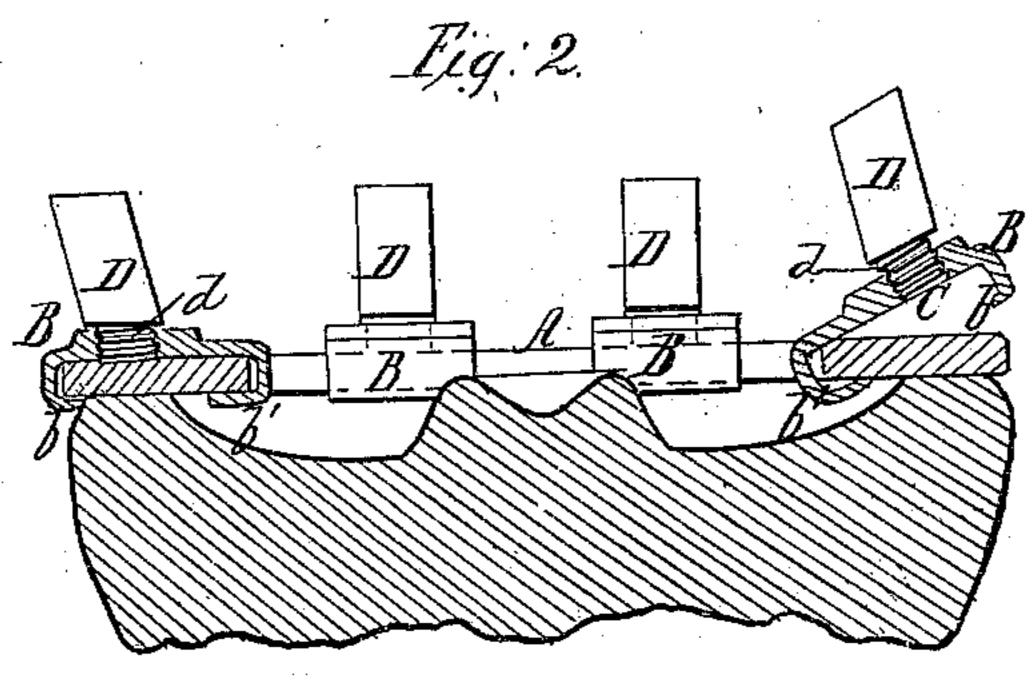
## E. Mille lettel. College for Horsestoes.

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Inventor;

Jan H. Loayman. Jan Hunght

E. Whitehead ms

## Anited States Patent Office.

## EDWARD WHITEHEAD, OF CINCINNATI, OHIO.

Letters Patent No. 93.654, dated August 10, 1869.

## IMPROVEMENT IN REMOVABLE CALKS FOR HORSESHOES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWARD WHITEHEAD, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Removable Calk for Horseshoes; and do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

This invention consists in providing the removable calks with screw-threaded stems or shanks, which are inserted in shiftable clips, having lips that are engaged over the top of the horseshoe proper, and by simply screwing said stem or shank home, so as to impinge against the bottom of the shoe, the clip and calk are maintained securely in position, so as to prevent any accidental displacement of the same.

In the accompanying drawings—

Figure 1 is a perspective view of a horseshoe, having my improved calks attached, the view showing the under side of the shoe, and having one of the calks detached;

Figure 2 is a transverse section of the shoe, showing a number of the calks in position, and one of them

in the act of being attached; and

Figure 3 is a vertical section of a modified form of my shiftable clip.

A represents a horseshoe of ordinary construction,

B are a number of shiftable clips, having lips b b', that are adapted to engage around the outer and inner edges of the shoe, and bear upon the top of the same, as shown in fig. 2.

The clips have screw-threaded apertures C, for the reception of the screw-threaded stems or shanks d, of

the removable calks D.

The clips that are to be attached near the toe of the shoe are somewhat longer than those which are to be applied near the heel of the same, so as to correspond with the width of the shoe at those parts.

The clips are attached to the shoe in the following manner:

They are first applied to the shoe near the heel of the same, in the canted position shown in fig. 2, so as to cause the lip b' to engage around the inner edge of the shoe. After this, the clip is brought down to a level position, and shifted along to its proper place upon the shoe, which act causes the lip b to engage around the outer edge of the shoe, and the calk being now screwed into the lip, so as to cause its shank to impinge against the bottom of the shoe, serves to maintain the parts securely in position.

In order to enable the clip to turn more freely upon the shoe when in its canted position, the under side of said clip may be recessed, as shown at b" in fig. 3, and for the heavier class of horses, may have an upward extension, e, provided with a set-screw, f, which, engaging over the shoe after the application and attachment of the clip, as above, holds the clip securely to

its place.

These calks should have somewhat of an outward flare, so as to give as broad a bearing-surface as possible upon the roadway.

These calks will not only prove serviceable in slippery weather, but they will also be useful when the horse is driven over wooden-paved streets.

I claim herein as new, and of my invention,

1. The shiftable and double-lipped clip B b b' C, when used in connection with the detachable and screw-threaded calk D d, substantially as herein described, and for the purpose set forth.

2. In combination with the elements of the preceding clause, the extended lip e and set-screw f, sub-

stantially as set forth.

In testimony of which invention, I hereunto set my

hand.
Witnesses: EDWARD WHITEHEAD.

GEO. H. KNIGHT, JAMES H. LAYMAN.