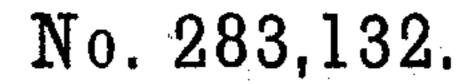
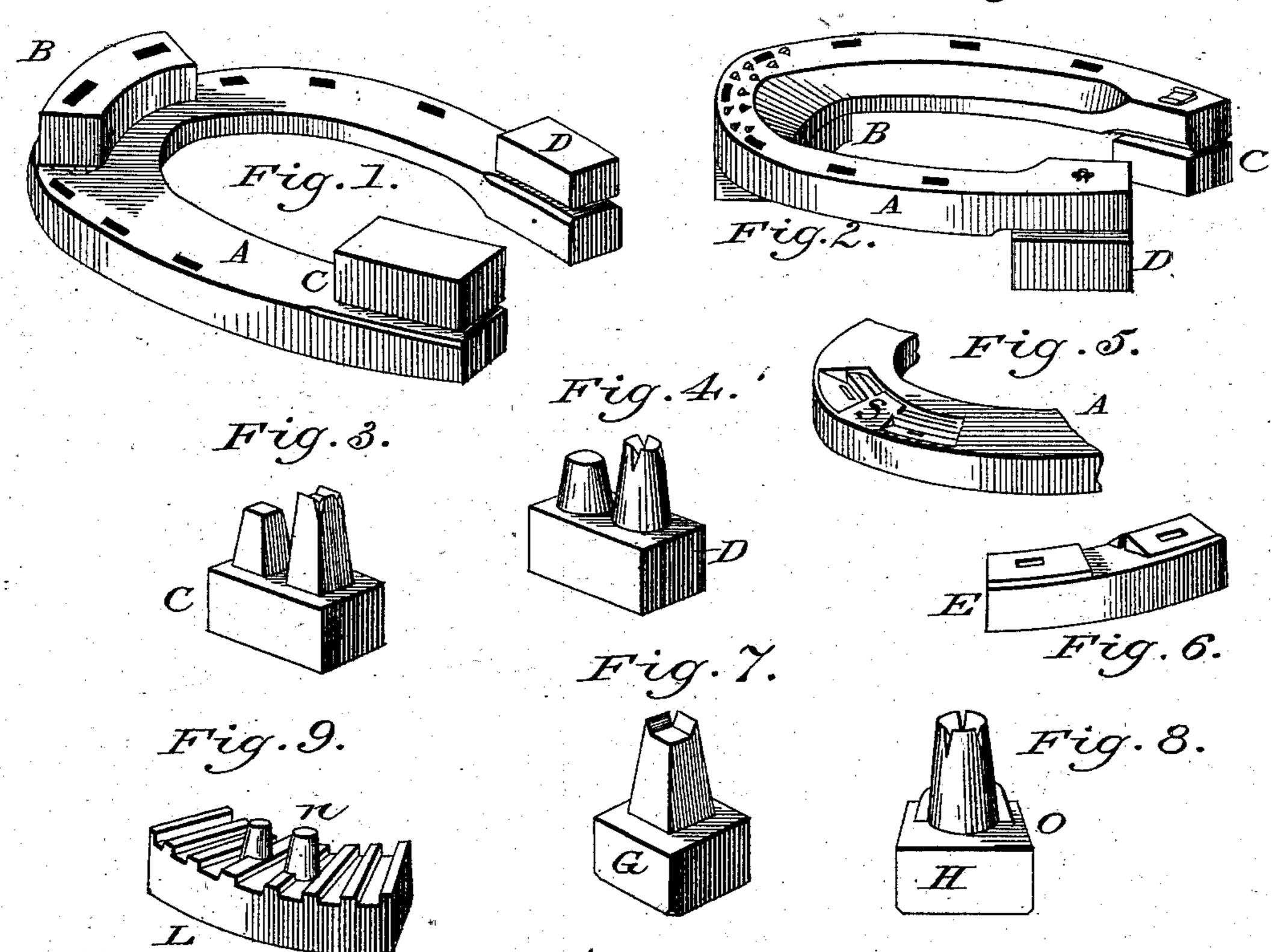
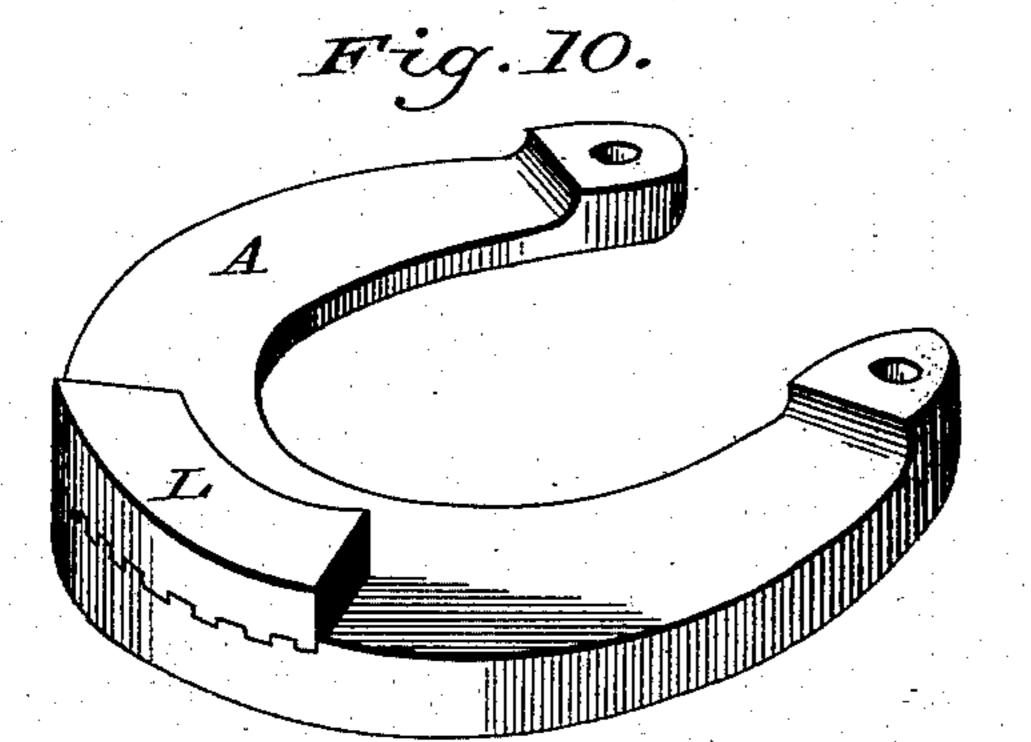
## J. J. MERVESP.

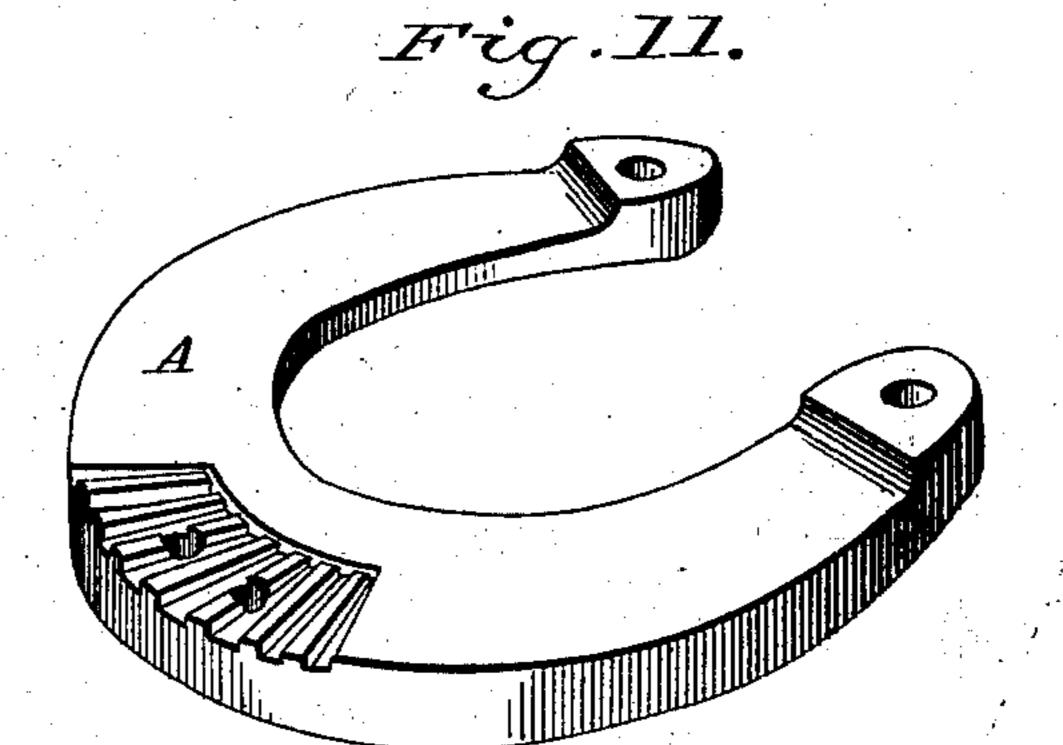
HORSESHOE.



Patented Aug. 14, 1883.







Witnesses: Arthur Mblark. Alfred L. Dunin,

Inventor.

## United States Patent Office.

JOHN J. MERVESP, OF NEW YORK, N. Y.

## HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 283,132, dated August 14, 1883. Application filed March 14, 1879.

To all whom it may concern:

the city, county, and State of New York, have invented a new and useful Improvement in 5 Horseshoes, of which the following is a specification.

The invention relates to horseshoes supplied with detachable calks.

Heretofore, when a detachable toe-calk was 10 worn too thin, the part of the shoe upon which it rested was also worn. The shoe was also worn when the toe-calk became accidentally detached therefrom. In either case it was impossible to attach another calk firmly to the 15 same shoe, as that part of it upon which the toe-calk rested was worn uneven.

The object of this invention is to provide a secure base for the toe-calk, to which, in the event of the toe of the shoe becoming worn 20 through accident or carelessness, another toecalk can be firmly fastened, as well as to facilitate the fastening of the heel-calks.

The invention consists in providing the shoe with one or more longitudinal grooves or re-25 cesses and the calk with corresponding ridges or projections to fit in said grooves, (shown in detail in Figures 5 and 6;) or the grooves in the shoe and projections on the calk may be made transversely, as shown in Figs. 9, 10, and 11.

It also consists in having the heel-calks made with one or more tapering shanks indented or countersunk at the end.

Fig. 1 is a perspective view of the shoe with the calks attached. Fig. 2 is a view of the 35 under side of the same. Figs. 3 and 4 are detached views of the heel-calks C D. Figs. 5 and 6 are detached views of the grooves and ridges in the shoe and toe-calk. Figs. 7 and 8 are modifications of the heel-calks shown in 40 Figs. 3 and 4. Fig. 9 is a detached view of the toe-calk L, shown in Fig. 10. Figs. 10 and 11 are perspective views of a modification of the shoe shown in Figs. 1 and 2.

After proving from experience that either 45 through accident or carelessness the part of the shoe where the toe-calk rested will become calk, in order to prevent this wear and to enable a second calk to be readily and rigidly

longitudinal grooves or recesses, as shown at Be it known that I, John J. Mervesp, of A, Fig. 5, and the calk with corresponding ridges or projections to fit the grooves in the shoe, as shown at E, Fig. 6.

The shoe shown in Figs. 10 and 11, in lieu 55 of having the grooves or recesses placed longitudinally, as in Figs. 1 and 2, have them placed transversely the toe-calk shown in Fig. 9, being provided with corresponding grooves and ridges to fit those in the shoe. The recesses 60 and ridges in both the shoe and calk may be limited to two or three large ones, or a greater number of smaller ones, and may extend either longitudinally or transversely; or the ridges and grooves on the same calk and shoe may be 65 half longitudinal, half transverse. When part of the ridges on the shoe become worn, in the event of the calk becoming accidentally detached or worn too much, another calk can be inserted in the shoe, the ridges of which will lie 70 level on the bottoms of the grooves in the shoe.

From this description it will readily be perceived that, whether the grooves and ridges are longitudinal, transverse, or a combination of both, they all effect the same purpose—viz., 75 they keep a level base on the shoe for the reception of another calk, and they help materially, in connection with the nails, to keep the calk more securely and rigidly attached to the shoe.

In Fig. 9 the calk is shown with two shanks, 80 rr; but for general use I prefer to dispense with the shanks. By referring to the drawings it will be seen that these calks have two holes in them which are in line with corresponding holes in the shoe, and are attached 85 to the latter by driving nails through these holes into the hoof and clinching them in the usual manner. To detach them it is only necessary to drive back the nails, when another calk can be fastened to the shoe. In order to 90 keep the shoe in position on the horse's hoof, the under side of it is provided with rasp-like teeth, or similarly roughened, as shown in Fig. 2.

The heel-calks for these shoes (shown at C 95 D, Figs. 1 and 2) are made with two tapering worn, consequently unfit to retain a second | shanks, either round or square, as shown in Fig. 3, or with one whole shank and half a shank, as shown in Fig. 4. The long shanks 50 attached, I make the shoe with one or more lare indented or countersunk, and slotted or cut 100

to form wings or spurs for the purpose of more easily fastening them to the heels of the shoe. The calk shown in Fig. 3 may have both shanks indented or countersunk, in order that both 5 may be riveted to the heel of the shoe when a horse is a specially hard wearer. The heelcalks attached to the shoe represented by Figs. 10 and 11 (detached views of which are shown in Figs. 7 and 8) are made with one 10 shank similar in all respects to the long shank of the calk shown in Figs. 3 and 4. All these heel-calks are fastened to the shoe by placing them in the tapering holes in the heel and holding a suitable tool under the end of the 15 shank and hammering the surface of them, or a suitable press may be used for that purpose. They are detached from the shoe by cutting off the wings on the end of the shank and punching them out or prying them out with a 20 tapering U-shaped tool. In the event of the under side of the holes for the heel-calks becoming enlarged, a steel washer may be placed on the end of the shank of the calk before it is fastened to the heel of the shoe, in order to 25 prolong the usefulness of the latter.

I claim as my invention—

1. A horseshoe having one or more longitudinal or transverse grooves, or a combination of longitudinal and transverse grooves, with a toe-calk having one or more ridges to 30 fit in said groove or grooves, and fastened to the shoe with the same nails which fasten the shoe to the hoof, substantially as shown and described.

2. A horseshoe having one or more longitudinal grooves, or longitudinal and transverse grooves, and a toe-calk having one or more ridges to fit in said grooves, with the shanks r r, substantially as shown and described.

3. A heel-calk with one or two tapering shanks, substantially as shown and described.

4. Heading down or clinching the end of the tang or shank of the heel-calk, after passing through the tapering hole in the heel of 45 the shoe, substantially as shown and described.

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Witnesses:

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