

No. 777,967.

PATENTED DEC. 20, 1904.

J. McC. LOPER.
HORSESHOE.

APPLICATION FILED FEB. 8, 1904.

NO MODEL.

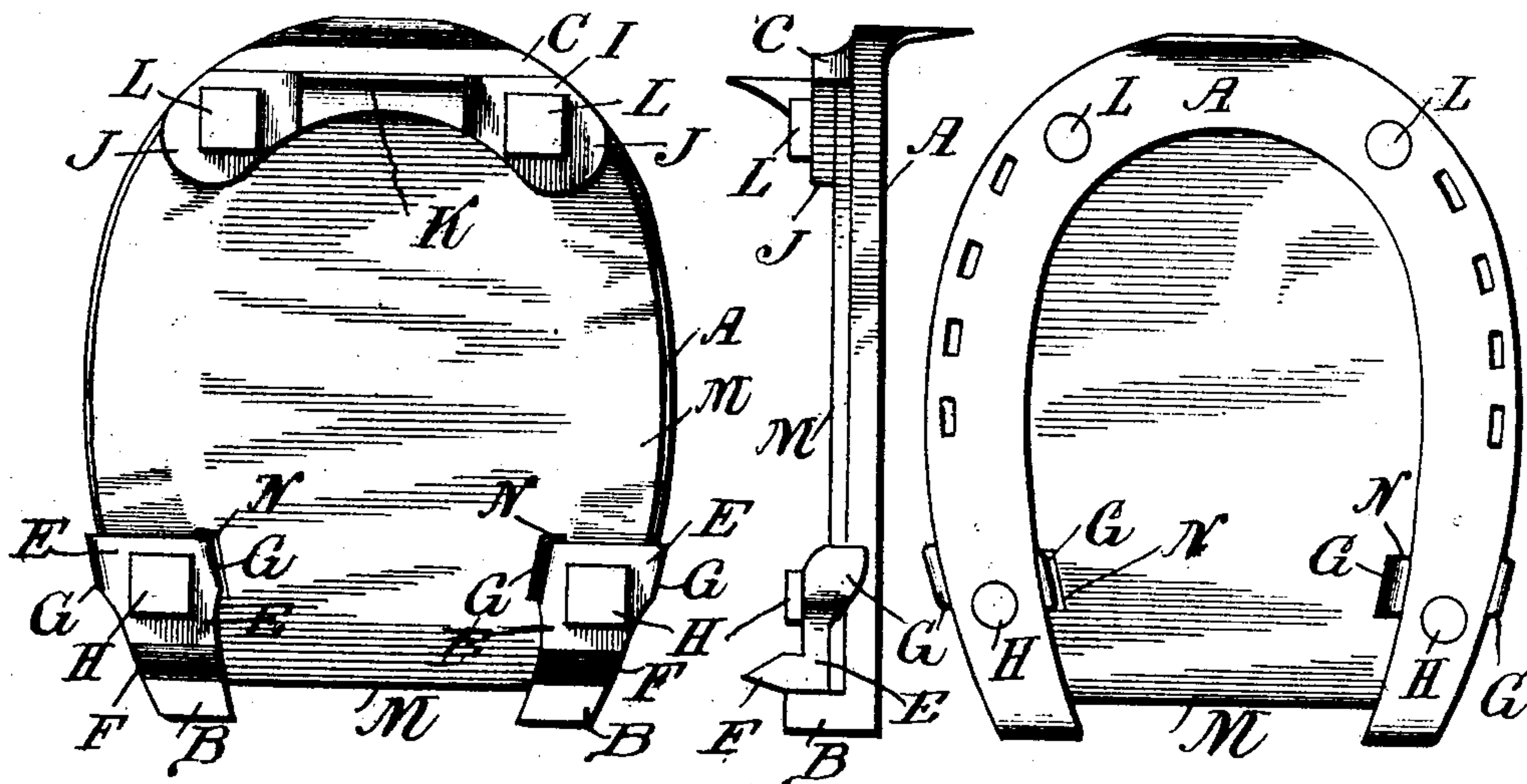


Fig. 1.

Fig. 2.

Fig. 3.

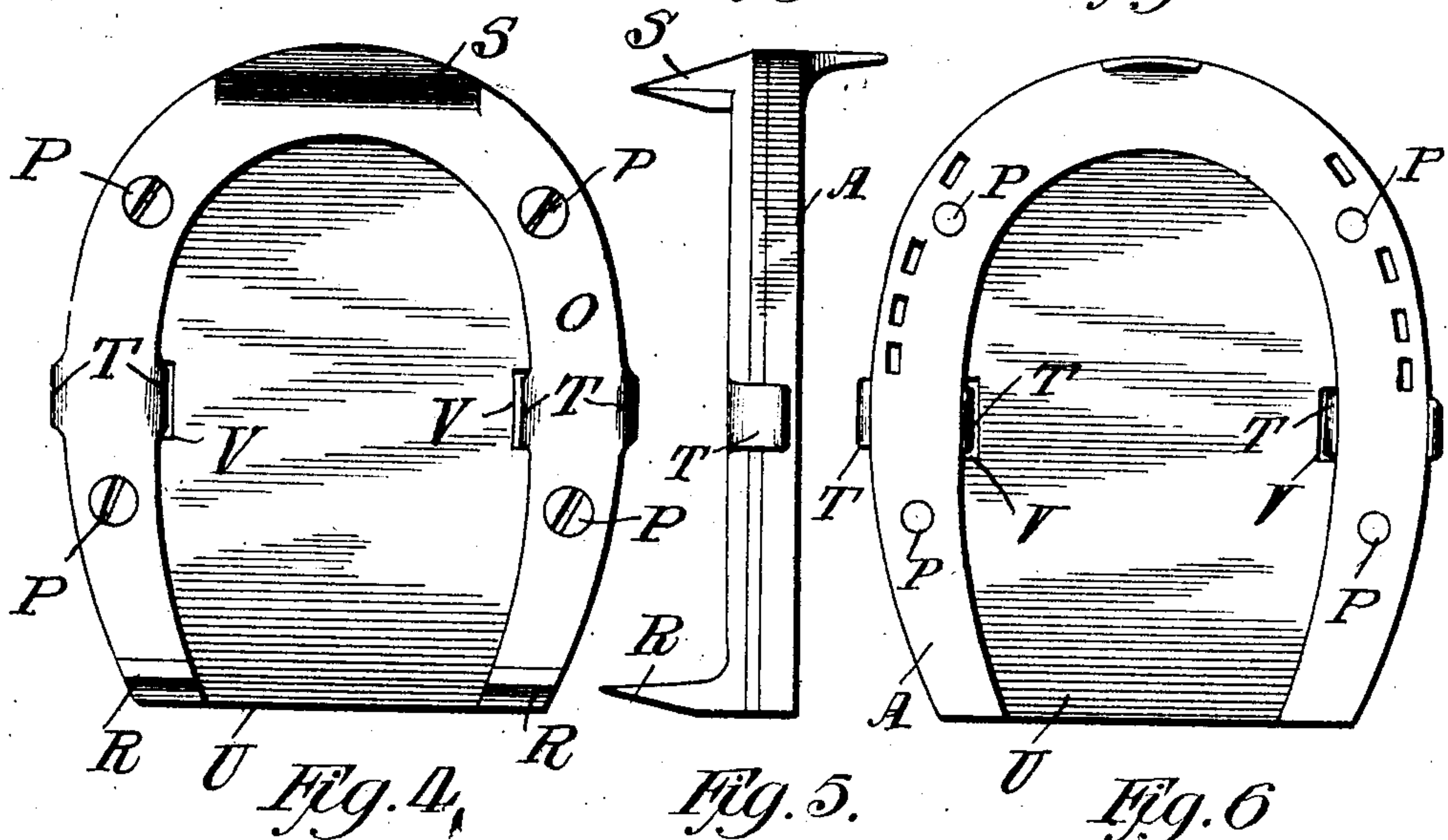


Fig. 4.

Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE.

JONATHAN McC. LOPER, OF PITTSBURG, PENNSYLVANIA.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 777,967, dated December 20, 1904.

Application filed February 8, 1904. Serial No. 192,516.

To all whom it may concern:

Be it known that I, JONATHAN McC. LOPER, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Horseshoes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to horseshoes, and relates in particular to horseshoes having removable calks.

The object of my invention is to provide means for applying to a shoe of the ordinary character either a supplementary shoe having 15 integral calks formed thereon or independent calks for the heel and point of the shoe.

My invention has for its further object the provision of means for protecting the foot of the horse from injury, said protective means being combined and operating in connection with the supplementary shoe or the independent calks above mentioned.

The invention consists in the combination, 25 with a shoe of the ordinary character, of attachable calks which are either formed on and of a single integral piece constituting the supplementary shoe or they may be independent pieces, each of which may be independently 30 attached to the shoe, said calks or supplementary shoe carrying said calks being provided with integral ears adapted to embrace the edges of the shoe and assist in connection with suitable screws in maintaining the calks 35 or the supplementary shoe in proper position.

My invention further consists in the combination, with a shoe having a supplementary shoe formed with integral calks or independent calks, of a plate of metal or other suitable 40 material conforming in outline to the contour of the shoe and interposed between the shoe and the supplementary shoe or the independent calks, as the case may be, and held in position by the devices which secure the supplementary shoe or independent calks to the ordinary shoe.

My invention further consists in the novel construction, combination, and arrangement of parts to be hereinafter described and claimed.

In the drawings, Figure 1 is a plan view 50 looking at the bottom of a horseshoe of the ordinary character having independent calks and a frog-protecting plate applied thereto. Fig. 2 is an edge view of the same. Fig. 3 is a top plan view of the shoe shown in Figs. 55 1 and 2. Fig. 4 is a bottom plan view showing a modified form of my improvement in which the attachable calks are formed integral with the supplementary shoe. Fig. 5 is an edge view of the device shown in Fig. 4, and 60 Fig. 6 is a top view of the same.

Referring first to Fig. 1, A designates a horseshoe of the ordinary character having flat calks B B at the heel and a flat calk C at the toe thereof. E E designate supplementary 65 calks which are formed with sharp projecting portions F F, the said calks being of slightly greater width than the width of the portion of the shoe A to which they are attached and provided with upwardly-turned 70 ears G G, which tightly embrace the sides of the shoe to which the calks are attached, being hammered into firm contact therewith after the calks are placed in position. Bolts H H pass through the calks and screw into 75 the shoe A and serve in connection with the upturned ears F to maintain the calks in rigid position on the shoe. Within the toe-calk C is arranged another supplementary calk, I, which has a straight upper edge that bears against 80 the calk C, and two curved ends J J, the inner edge of the calk I preferably conforming to the contour of the inside edge of the shoe A. The calk I is provided with an integral sharp-edged projecting part K and is secured 85 to the shoe by means of bolts L L, passing through the calk near its ends and screwing into the shoe A. A flat plate M, of metal or other suitable material, such as rubber or 90 leather, which is shaped to conform to the outline of the shoe A, is located between the bottom of the shoe and the calks E E and I, the said plate being formed with slots N N for the passage of the ears G G on the inner sides of the calks E E and the bolts H H and 95 L L passing through suitable holes in the said plate, the plate being thus firmly held in position against the bottom of the shoe A and

serving to prevent injury to the horse's foot or contact with the ice or snow on the roadway.

In the construction shown in Figs. 4, 5, and 6 I have substituted for the independent calks E E and I of Figs. 1, 2, and 3 a supplementary shoe O, which is secured to the bottom of the ordinary shoe by screws P P and which has calks R at the heel and a calk S at the toe formed integral with said supplementary shoe. The supplementary shoe, which, it is to be understood, is to be substantially the same in construction, mode of application, and operation of the calks E E and I, is formed with upturned ears T T, which conform to the upturned ears G of the calks E E and are similarly operated upon, being driven into firm contact with the body of the shoe proper after the supplementary shoe O has been placed in position thereon. A plate U, conforming in character to the plate M, is interposed between the shoe proper and the supplementary shoe O, and slots V V are formed in said plate for the passage of the inner ears T of the supplementary shoe.

The calks E E and I in the one instance or the supplementary shoe O in the other are, it will be noted, readily attachable to the shoe of the ordinary character, the only alteration

necessary in such ordinary shoe being to bore and thread holes for the reception of the bolts H and L or the screws P, as the case may be. It is to be noted, moreover, that the calks E E and I or the supplementary shoe, with its calks R and S, may be readily detached from the shoe proper and the points of the calks sharpened when necessary, or if entirely worn out the calks or the supplementary shoe may be replaced by new parts.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with a horseshoe having integral calks and screw-threaded holes adjacent to said calks, of removable calks having integral upturned ears on both edges, said removable calks abutting said integral calks, a plate fitting between the shoe and the calks and formed with slots to receive the ears on the inner edges of the calks and bolts passing through the removable calks and the plate and screwing into the holes in the shoe.

In testimony whereof I affix my signature in the presence of two witnesses.

JONATHAN McC. LOPER.

Witnesses:

H. C. EVERT,
E. E. POTTER.