

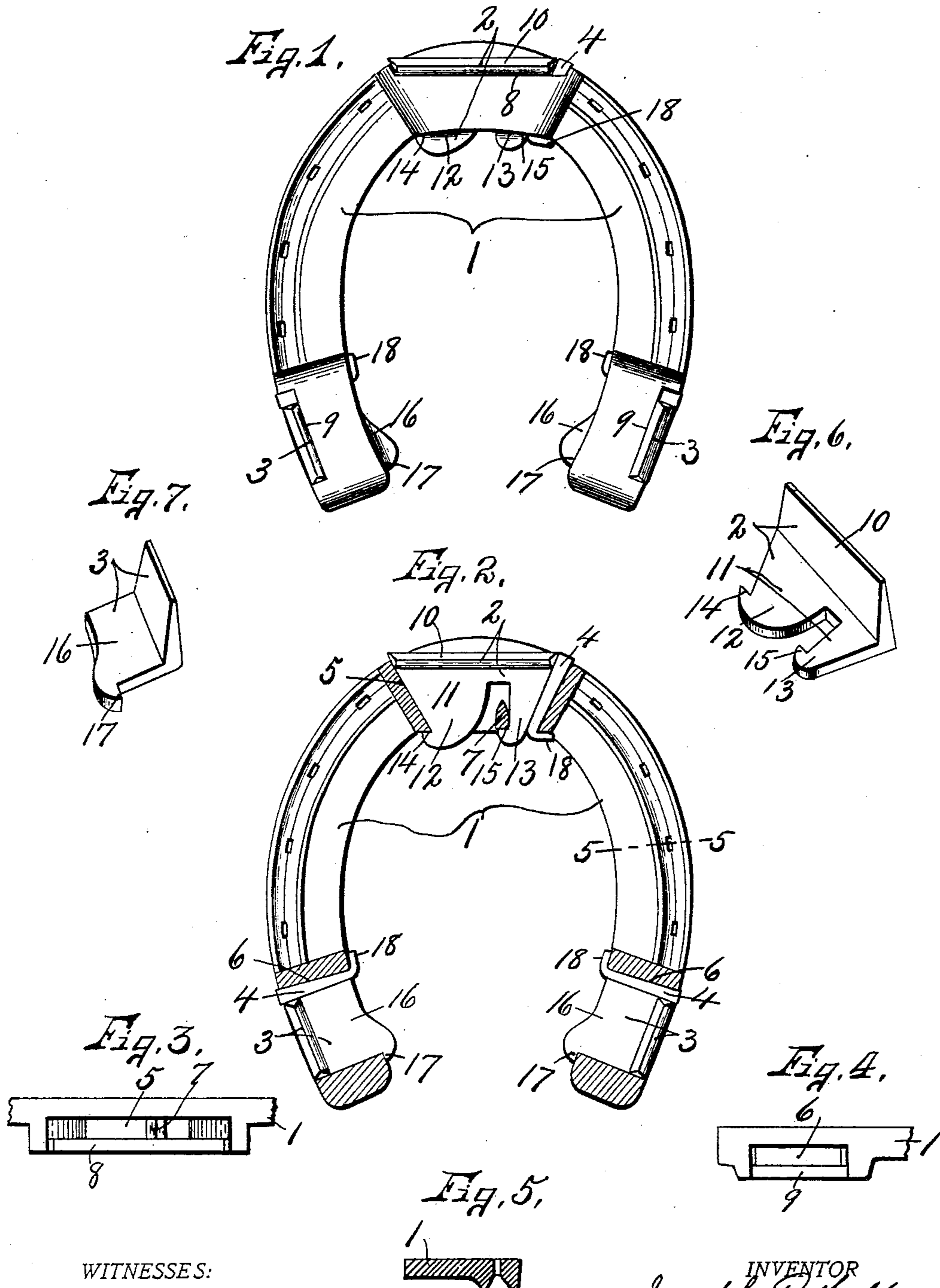
No. 745,844.

PATENTED DEC. 1, 1903.

J. R. HOLLAND.
HORSESHOE.

APPLICATION FILED AUG. 4, 1902.

NO MODEL.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 745,844, dated December 1, 1903.

Application filed August 4, 1902. Serial No. 118,377. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH R. HOLLAND, of Binghamton, in the county of Broome, in the State of New York, have invented new
5 and useful Improvements in Horseshoes, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in
10 horseshoes, and refers more particularly to detachable calks.

The object of my invention is to provide the horseshoe with toe and heel calks which may be readily removed and other new and
15 different styles of calks inserted in position when desired, the calks and their fastening means being so constructed that any one skilled or unskilled in the art of making and setting horseshoes may readily remove the
20 old calks and reinsert new ones without employing any special tools.

To this end the invention consists in the combination, construction, and arrangement of the parts of a horseshoe, as hereinafter fully
25 described, and pointed out in the claim.

Referring to the drawings, Figure 1 is an inverted plan of my improved horseshoe. Fig. 2 is a similar plan view, partly broken away, showing the manner of securing the
30 calks in position. Figs. 3 and 4 are respectively front and side elevations of portions of the shoe, showing particularly the recesses which receive the toe and heel calks, the calks being removed. Fig. 5 is a sectional
35 view taken on line 5 5, Fig. 2. Figs. 6 and 7 are perspective views, respectively, of the toe-calk and one of the heel-calks.

Similar reference characters indicate corresponding parts in all the views.

40 In the manufacture of horseshoes it is found to be desirable to manufacture the calks separate from the main body of the shoe and to construct the main body in such manner that the calks may be readily inserted or removed,
45 thereby obviating the necessity for permanently securing the calks in place and permitting the old calks to be removed when worn and new ones inserted, or to permit various styles of calks to be used, according to
50 the condition of the pavement. For instance, on icy pavements it is desired to use a sharp

calk, as illustrated in the drawings, while on snowy or soft pavements a dull or flat-faced calk is preferable. I therefore construct the horseshoes in such manner that the calks may
55 be readily and easily removed whenever it becomes necessary.

In the drawings I have shown a horseshoe consisting of a main body 1, toe and heel calks 2 and 3, and fastening members 4 for
60 locking the calks to the main body. This main body 1 consists of an open metal frame having front and rear recesses 5 and 6 for receiving the calks 2 and 3 and fastening members 4, the portions of the shoe provided with
65 these recesses being thickened or formed of greater depth than the rest of the shoe, said recesses being therefore provided with upper, lower, and end walls which serve to hold the calks in operative position. The front por-
70 tion of the shoe provided with the recesses for receiving the toe-calk is formed with a partition or tie-bar 7, interposed between the end walls of the recess and serving to unite and stiffen the intermediate portions of the
75 upper and lower walls of said recess. The front face of the lower wall of the recess 5 is formed with a cut-out 8, which receives the depending portion of the calk and firmly holds the same from lateral displacement when in
80 operative position, the outer side faces of the lower walls 6 being also formed with cut-outs 9, which serve to hold the heel-calks from end-wise movement.

The toe-calk 2 is provided with a depending
85 portion 10 and a rearwardly-extending bifurcated flange 11, the bifurcation of said flange dividing the same into rearwardly-extending arms 12 and 13. These arms 12 and 13 are
90 formed with lateral projecting shoulders 14 and 15, extending in the same direction from the free ends of the arms and engaging, respectively, the inner faces of one of the end walls of the recesses 5 and the tie-bar 7. This
95 recess is formed of slightly greater width than the width of the flange 11 for receiving the key 4 and permitting the toe-calk to be moved laterally out of engagement with the main body of the shoe, or rather of the rear faces of the end walls of the recess and tie-bar 7,
100 when it is desired to withdraw the toe-calk from operative position. This recess 5 and

also the lateral edges of the flange 11 are preferably tapering, so as to facilitate the insertion and removal of the calk and key, and when the calk is placed in operative position, as seen more clearly in Fig. 2, with the shoulders 14 and 15 interlocked with the rear faces of the tie-bar 7 and one of the end walls of the recess, the key 4 is then driven between the opposite end wall of the recess and adjacent end edge of the calk and is then bent or overturned outwardly against the inner face of the opposite end wall of the recess 5, whereupon the calk is firmly held in position, it being understood that the key is also made tapering, so as to be driven in tightly, and thereby more firmly secure the calk in position.

The heel-calks 3 are similar in construction to each other, although different styles of heel-calks may be used, if desired, the essential feature being that each is provided with an inwardly-projecting flange 16 and a shoulder 17, the recesses 6 being also slightly tapering, and the recesses are formed of greater length than the flanges for permitting the insertion of the keys 4 and also to allow sufficient endwise movement of the calks to disengage the shoulders 17 from the inner faces of the main body of the shoe.

The keys 4 for the heel-calks are similar to that described for the toe-calk, being tapered inwardly, and are driven between one end of the heel-calk and the adjacent wall of the recess and are bent over for forming shoulders 18, which engage the inner faces of the main body of the shoe. It is thus evident that when these calks and keys are placed in position, as seen in Fig. 2, they are both firmly locked to the main body of the shoe, and when

it is desired to remove one of the calks it is simply necessary to insert the inner end of the key and then drive the same outwardly, whereupon the calk may be moved endwise for the purpose of disengaging its shoulder, as 14, 15, or 17, from the main body of the shoe, and the calk may then be withdrawn outwardly and a new one inserted and fastened in the manner previously described.

The operation of my invention will now be readily understood upon reference to the foregoing description and the accompanying drawings, and it will be noted that some change may be made in the detail construction and arrangement without departing from the spirit thereof.

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

In a horseshoe the combination of a main body having an opening extending horizontally through its front portion, the lower wall extending entirely across the opening from side to side, a partition uniting the upper and lower walls of the opening, and a calk having a bifurcated flange inserted in the opening, the bifurcation receiving the partition and one of the arms formed by said bifurcation having a lateral shoulder engaged with the inner face of the partition to hold the calk from withdrawal.

In witness whereof I have hereunto set my hand this 23d day of May, 1902.

JOSEPH R. HOLLAND.

Witnesses:

PATRICK J. SEXTON,
THOMAS P. LYNCH.