

(No Model.)

E. A. HILLS.
HORSESHOE.

No. 480,924.

Patented Aug. 16, 1892.

Fig. 1.

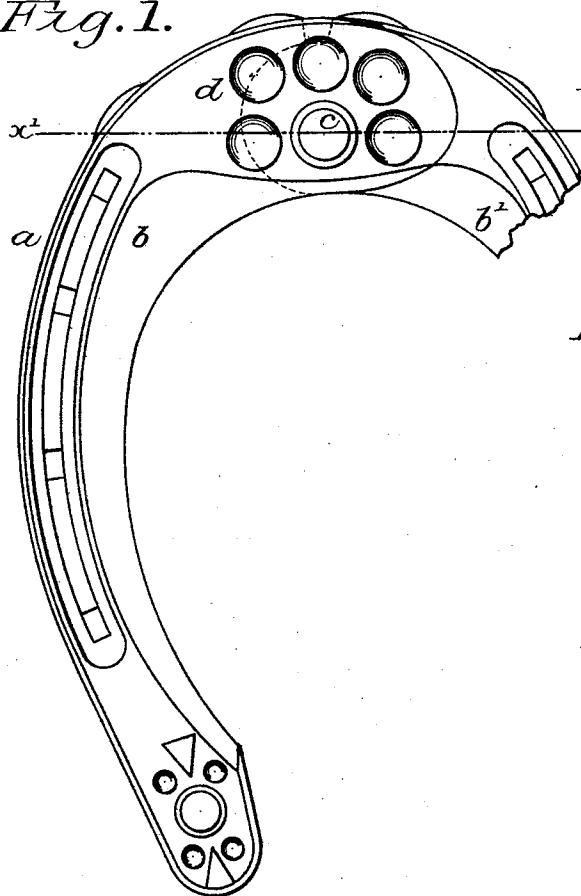


Fig. 3.



Fig. 5.

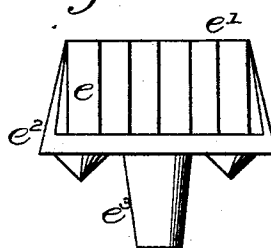


Fig. 4.

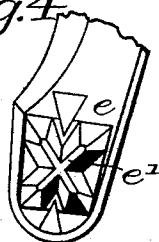
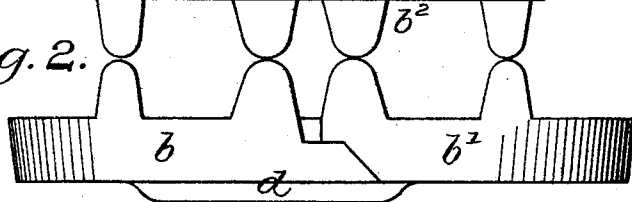


Fig. 6.



Fig. 2.



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HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 480,924, dated August 16, 1892.

Application filed October 17, 1889. Serial No. 327,356. (No model.)

To all whom it may concern:

Be it known that I, EDWIN A. HILLS, of Wethersfield, in the county of Hartford and State of Connecticut, have invented certain
5 new and useful Improvements in Horseshoes, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

The object of my invention is to provide a
10 horseshoe that is particularly adapted to the curing of interfering, and also one having a removable calk with an improved holding-face.

To this end my invention consists in the
15 details of the several parts making up the article as a whole and in their combination, as more particularly hereinafter described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a plan
20 view of part of a horseshoe embodying my invention. Fig. 2 is a front view of the same. Fig. 3 is a detail plan view, on enlarged scale, of a horseshoe-calk embodying my invention. Fig. 4 is a detail plan view of a modified form
25 of the calk, being shown on the end of one of the forks of the shoe. Fig. 5 is a detail view in elevation of my improved calk. Fig. 6 is a detail view in cross-section across the toe of the shoe on line $x'x'$ of Fig. 1.

30 In the accompanying drawings the letter a denotes the horseshoe as a whole; b and b' , the sections of the shoe, united at the toe by joint c . The two parts of the shoe are united by a pivot, so that the side parts of the shoe
35 are capable of a lateral movement toward and from each other, the extent of this motion being limited by the contact of shoulders formed at the joint on the opposite parts of the shoe.

A particular feature of my improvement
40 in the form of a shoe consists in providing the part or fork b with a weight d , that is formed integral with the shoe and more or less on one side of the central line passing through the shoe and corresponding to a vertical plane passing through the center of the
45 hoof of a horse on which the shoe is fastened. The side b' of the shoe is made lighter than the part b , thus producing a side-weight shoe with an integral toe-weight that when worn
50 by a horse causes him to move the foot in such manner as to prevent interfering.

The letter e denotes a removable calk hav-

ing a wearing-surface e' , formed by the angular disposition of the thin-edged body part of the calk, the surface for the toe-calk being
55 preferably formed as shown in Fig. 3, while the crosswise arrangement of the thin surface shown in Fig. 4 is preferred for the heel of the calk. The main advantage of this form of bearing-surface of the calk is that it
60 offers a very firm holding-surface to prevent slipping, and the peculiar construction of the calk enables the holding-power to be retained until the calk is worn down close to the base
65 e'' . Each calk has in addition to the wearing-surface a base or body part e'' and projecting stem e^3 , the latter being adapted to fit a socket c in the shoe, to which the calk is secured in any convenient manner, as by riveting it in place.
70

Between the bearing-faces of the calk and the shoe there is preferably provided a shoulder or projection extending from the one into the other, and this may be formed by a stud or like part projecting from the under side of
75 the calk into a recess made for its reception in the surface of the shoe, as shown in Fig. 5, or an angular projection may be formed on the shoe, which projects into an annular recess formed in the side of the calk, as shown
80 in Fig. 4.

The principal difficulty with a jointed shoe prior to my invention has been the weakness of the joint, the shoe giving away first at that point; but in my improved shoe the joint c is
85 formed by halving the two parts b b' together at the toe and forming on the bearing-surfaces a series of circular projections taking into corresponding sockets in the opposite part. The joint between the parts is formed
90 by an integral projection b'' on the part b , that extends through the part b' and forms a hollow rivet adapted to secure the two parts together. The rivet is formed hollow for the passage of the stem of a calk. In cases where
95 no calk is to be used this rivet may be made solid. The rivet opening in the part b' is formed nearer the end than is the rivet on the part b —that is, the rivet is not located midway of the joint, but is eccentric, the
100 longer projection being located on that part b that is on the under or wearing side of the shoe. The ends of the parts forming the joints are beveled and fit in corresponding

beveled sockets, this form of joint having been found to possess greater strength than where the ends are formed square with the bearing-surfaces of the shoe. The heel-calks are placed
 5 so that the wearing-edges that are thin and are arranged crosswise shall lie with one of the V-shaped openings turned backward, and thus afford a better grasp of the calk upon the ground.

10 I claim as my invention—

1. In combination with a sectional horseshoe provided with a calk-socket, a calk having a central stem fitting such socket, and cone-shaped projections on said calk fitting
 15 corresponding recesses in the surface of the shoe and the cone-shaped recesses, all substantially as described.

2. In combination, in a sectional horseshoe composed of two sections, an integral pivot
 20 located on one of the sections eccentrically thereof and taking into a socket on the other section, the two sections being halved together and having their meeting faces provided with intermeshing tongues and grooves,
 25 and an integral toe-weight located on the shoe adjacent to the pivot, all substantially as described.

3. In combination, in a sectional horseshoe, the two sections halved together and provided
 30 with pivot-holes and a renewable calk having

its wearing-face formed of a number of thin edges disposed at an angle with each other and provided with a projecting stem fitting the pivot-holes in the two sections and forming a pivot, all substantially as described. 35

4. In combination, in a sectional horseshoe the two sections of which are halved together and having their meeting faces provided with intermeshing tongues and grooves, the pivot-holes formed in each section in line with each
 40 other and a renewable calk having its wearing-face formed of a number of thin edges disposed at an angle with each other and having an integral stem adapted to fit the pivot-holes in each section of the shoe, thereby forming the pivot, all substantially as described. 45

5. In combination, in a sectional horseshoe halved together and having the meeting faces of the sections provided with intermeshing grooves and tongues, an integral hollow pivot
 50 of one of the sections taking into a corresponding pivot-hole in the opposite section, and a renewable calk provided with a projecting stem taking into the hole in the hollow pivot, whereby the calk is secured to the
 55 shoe, all substantially as described.

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