

(No Model.)

J. F. ATWOOD.

HORSESHOE.

No. 302,185.

Patented July 15, 1884.

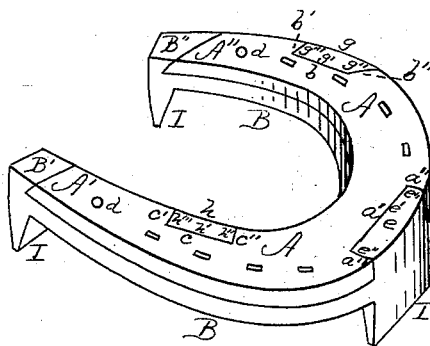


Fig. 1.

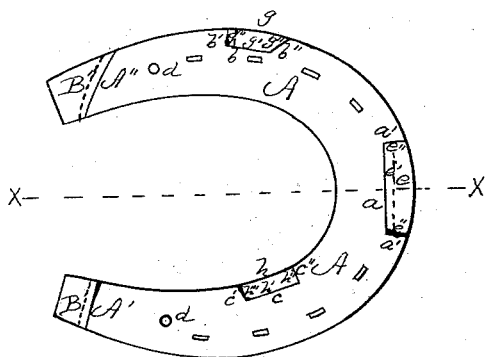


Fig. 2.

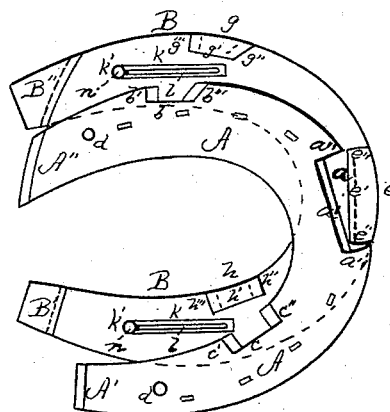


Fig. 3.

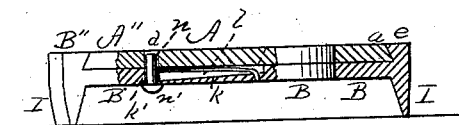


Fig. 4.

WITNESSES

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HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 302,185, dated July 15, 1884.

Application filed January 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. ATWOOD, of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Horseshoes, of which the following is a specification.

This invention relates to that class of horseshoes in which the shoes are double—*i. e.*, consisting of a permanent and detachable shoe—the object of such construction being to enable the detachable shoe to be readily and quickly removed and another put into its place.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a view in perspective of my improved horseshoe. Fig. 2 is a plan view of the upper surface. Fig. 3 is a plan view with the shoes in the act of being separated or put together. Fig. 4 is a vertical section on line *x*, Fig. 2, a portion being represented as broken out for the purpose of showing one of the springs, &c.

A represents the upper or permanent shoe, provided with the shortened and beveled heels *A'* and *A''*. The beveled end of the heel *A'* is preferably, but not necessarily, at about a right angle to the edges of the heel portion of the shoe. The heel *A''* is beveled on the line of a curve, as shown. The permanent shoe is also provided with a recess, whose long or rear edge, *a*, is beveled, as shown in Fig. 4, and whose ends or short edges *a'* are perpendicular (at right angles to the surface of the shoe A) and preferably cut upon a slight curve. A recess is provided next the outer edge of the shoe, between the toe-recess and the heel *A''*, whose long edge *b* is preferably perpendicular, whose edge *b'* is beveled, and is substantially at right angles with the edge *b*, and whose edge *b''* is beveled and is at an obtuse angle with the edge *b*. Opposite this recess is a recess whose long edge *c* is preferably perpendicular and whose short edges *c'* *c''* are beveled, as shown, and are nearly at right angles to the edge *c*.

d d are perforations, the object of which is below explained.

B is the detachable shoe or under one, provided with the raised heel-pieces *B'* and *B''*, of the exact shape to fit over the beveled heels *A'* *A''*, and toe-piece *e*, having the perpendicular ends *e'* and beveled side *e''*, so as to

fit into the toe-recess *a a'*, and also provided with the dovetails *g* and *h*, whose edges *g' g'' g'''* and *h' h'' h'''* are adapted to fit into the recesses *b b' b''* and *c c' c''*, respectively, and the ordinary calks, *i*.

The shoes are put together (the permanent shoe A having been first nailed to the horse's foot) by laying the detachable shoe B in the position shown in Fig. 3, and then swinging it laterally into coincidence with the permanent shoe. This would be impossible if the heel-piece *B'* were of the shape of the heel-piece *B'*, or if the edges *g''* and *b''* were at right angles with the outer edge of the shoe at that point; hence I make the edges *A''* and *b''* decidedly curved and the edges *a'* and *c'* slightly.

In order to prevent relative lateral (or horizontal) movement sidewise and to make them self-locking, I provide grooves *k*, ending in perforations *k'* in the detachable shoe B. Secured in these grooves, as shown in Figs. 3 and 4, are springs *l*, supporting bolts *n*, lying in the perforations *k'*. When the shoes are made coincident, the bolts *n* spring into the perforations *d* in the shoe A, and of course extend downward also into the perforations *k'* in the shoe B, thus effectually locking the shoes together.

Pressure downward upon the bolt is sufficient to unlock the shoes, which may then be quickly taken apart. The heads *n'* of the bolts *n* are made sufficiently large to cover the perforations *k'*, and thus keep out dirt, &c.

It will be readily seen that to remove a dull detachable shoe constructed as above described and apply a sharp one is a very simple and quick operation.

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

1. The combination of the permanent shoe A, provided with the curved beveled heel *A''*, and detachable shoe B, provided with the raised and beveled heel-piece *B''*, curved to correspond with the curvature of the heel *A''*, the said shoes being adapted to be rigidly secured together elsewhere, substantially as and for the purpose set forth.

2. The combination of the permanent shoe A and the detachable shoe B, the latter being provided with one or more dovetails upon its surface, said dovetails being curved at one end, and the former being provided with recesses

corresponding to and fitting over such dovetails, substantially as and for the purpose described.

3. The combination of the permanent shoe
5 A and the detachable shoe B, the latter being provided with one or more raised or upwardly-projecting pieces curved at one edge, and the former being provided with one or more recesses corresponding to and fitting such pieces,
10 substantially as and for the purpose specified.

4. The combination of the permanent shoe A, provided with the recess at the toe, beveled at *a* and curved and perpendicular at *a'*, and the detachable shoe B, provided with the toe-
15 piece *e*, beveled at *e'* and curved and perpendicular at *e''*, said shoes being provided with means for securing the heels together, substantially as and for the purpose set forth.

5. The combination of the permanent shoe
20 A, provided with the toe-recess *a a'* and the respectively straight and curved heels A' and

A'', and the detachable shoe B, provided with the toe-piece *e* and heel-pieces B' B'', substantially as and for the purpose described.

6. The combination of the permanent shoe 25 A, provided with the toe-recess *a a'*, the recesses *b b' b''* and *c c' c''*, and the heels A' A'', and the detachable shoe B, provided with the toe-piece *e*, heel-pieces B' B'', and dovetails *g h*, all substantially as and for the purpose set 30 forth.

7. The combination, with the permanent shoe A, provided with the perforations *d*, of the detachable shoe B, provided with the grooves *k*, perforations *k'*, springs *l*, and bolts 35 *n*, all substantially as and for the purpose specified.

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Witnesses:

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