(No Model.)

H. ATWELL.

HORSESHOE.

No. 589,804. Patented Sept. 14, 1897.

FIG. 1.

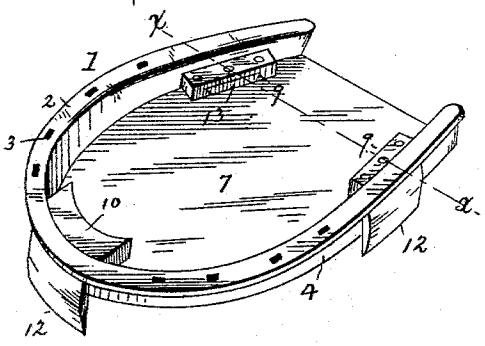


FIG. 2.

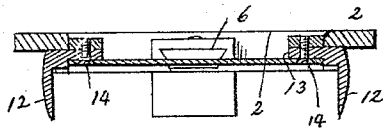


FIG. 3.

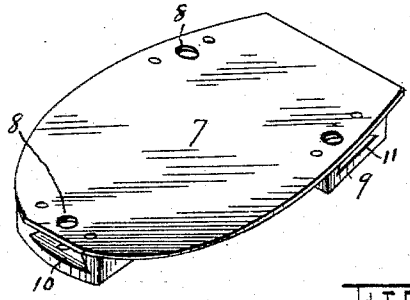


FIG. 4.

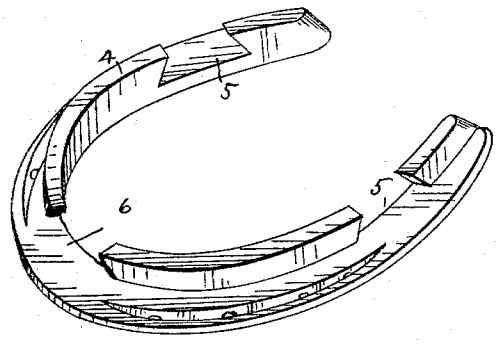
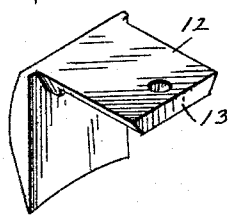


FIG. 5.



WITNESSES

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HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 589,804, dated September 14, 1897.

Application filed January 15, 1897. Serial No. 619,317. (No model.)

To all whom it may concern:

Be it known that I, HORACE ATWELL, a citizen of the United States, residing at West Bridgewater, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Horseshoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in horseshoes, the object of the same being to provide means for the attachment of calks thereto and means for preventing the "balling up" of the horses in snowy weather.

The invention consists of a horseshoe of the usual shape having a ledge upon the under side thereof along the line of the inner edge of said shoe provided with dovetailed recesses at points adjacent to the heel and toe, a flat plate adapted to fit within said shoe having screw-openings extending therethrough and lugs or projections upon its top surface provided with dovetailed recesses on their under sides which register with the recesses in said ledge, and removable calks having laterally-extending dovetailed tongues thereon which are adapted to fit within the registering slots in said ledge and lugs and be secured in place by means of screws.

The invention also consists in other details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings forming part of this specification, Figure 1 represents a perspective view of a horseshoe constructed according to my invention, showing the calks and plate in place. Fig. 2 is a vertical section on the line x x of Fig. 1, the said section being taken through the rear calks and the securing-screws therefor. Fig. 3 is a perspective view of the protecting-plate removed. Fig. 4 is a similar view of the shoe. Fig. 5 is a similar view of one of the calks.

Like reference-numerals indicate like parts in the different views.

The shoe 1 is formed with a flat upper surface 2 and is provided with the usual nail-openings 3 3 around the outer edge thereof. It also has formed upon its under side a depending ledge 4, which extends around the inner edge of said shoe. Said ledge is provided with two dovetailed recesses 5 5 at points adjacent to the heel of the shoe and with a similarly-shaped recess 6 at the toe. The plate 7, which is provided for the purpose of preventing the clogging of snow on the bottom of the horse's foot, bringing about what is known as "balling up," and for the purpose of permitting the packing of tar and oakum against the bottom of the foot, is located within the inner edges of the shoe slightly above the lower edge of the ledge 4 and has screw-openings 8 8 therein. It also has formed or secured upon its top surface lugs 9 9 and 10, each having a dovetailed groove 11, in which are recesses or pockets registering with the grooves 5 5 and 6, respectively. The calks 12 are formed with sharpened edges and have laterally-extending dovetailed tongues 13 thereon, which are adapted to fit within the registering recesses in said ledge and plate, thereby clamping the plate securely to the shoe. The said calks are themselves held in place by means of screws 14 14, which pass through openings in the plate 7, the tongue 13, and the lugs 9 and 10. When thus in place, they are held securely and cannot become accidentally removed. When they become worn, however, it is merely necessary, in order to disconnect the calks from the shoe, to remove the screws 14 14 and slip the tongues 13 out of the registering recesses referred to. When this is done, the plate 7 may also be disconnected from the shoe. All the parts are made readily separable, so that they may be renewed when worn, and it is not necessary to remove the shoe from the horse's foot until the hoof grows out over the shoe. The shoe itself is subjected to no substantial wear, all this being received by the calks 12.

My improved shoe with the calks atttached thereto is especially designed to be used in the winter time upon icy, sleety, or snowy pavements or roads. It may, however, if desired, be used in the summer time by the substitution of blunt calks for those heretofore described. I have also found that my shoe without the calks 12 is particularly adapted to be used for trotting or racing purposes, particularly upon a muddy track.

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

1. The combination with a horseshoe having a depending ledge upon the under side thereof provided with dovetailed recesses, of a plate located within the inner edges of said shoe having pockets formed therein opposite the said recesses, detachable calks having laterally-extending tongues thereon adapted to fit within said recesses and pockets, and means for securing said tongues to said plate, substantially as and for the purpose described.

2. The combination with a horseshoe having a depending ledge upon its under side provided with dovetailed recesses, of a plate fitting within said shoe, lugs upon the upper surface of said plate having dovetailed recesses therein registering with the recesses in said ledge, detachable calks having laterally-extending dovetailed tongues thereon adapted to fit within said registering recesses, and screws passing through said tongues and said lugs, substantially as and for the purpose described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HORACE ATWELL.

Witnesses:
BENJ. B. HOWARD,
CHAS. VON SPUG.