

J. H. TAYLOR.
HORSESHOE GALK.
APPLICATION FILED APR. 15, 1912.

1,054,054.

Patented Feb. 25, 1913.

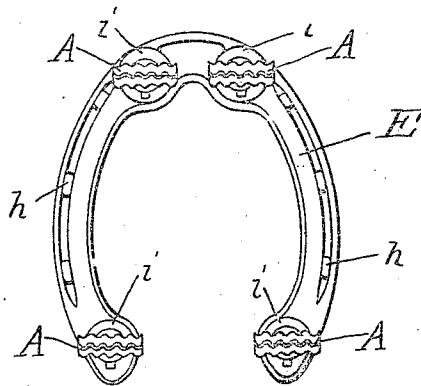


FIG. 1.

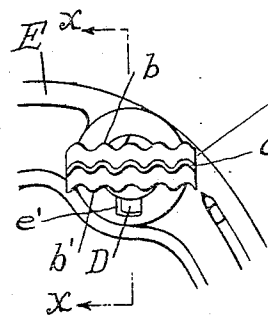


FIG. 2.

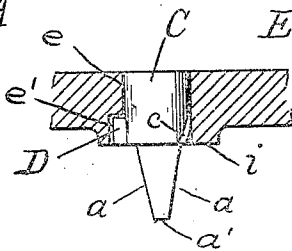


FIG. 3.

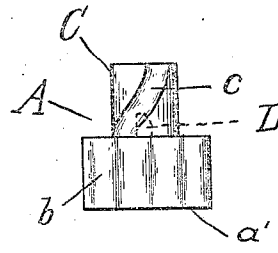


FIG. 4.

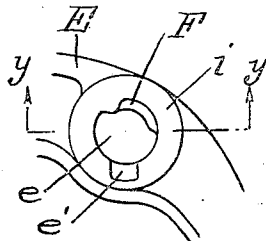


FIG. 5.

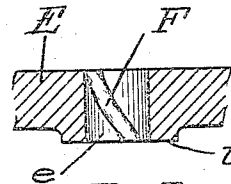


FIG. 6.

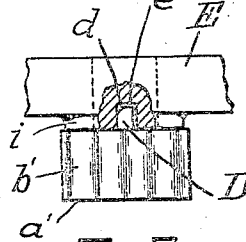


FIG. 7.

WITNESSES.

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JAMES H. TAYLOR, OF PAWTUCKET, RHODE ISLAND, ASSIGNOR OF ONE-HALF TO HUGH J. CARROLL, OF PAWTUCKET, RHODE ISLAND.

HORSESHOE-CALK.

1,054,054.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES H. TAYLOR, a subject of the King of Great Britain, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Horseshoe-Calks, of which the following is a specification.

My invention relates to horse-shoe calks, and has for its objects the ends commonly sought in this class of structures, but more particularly the prevention of any movement of the toe or point of the calk in a lateral, longitudinal, or other direction, to render the toe of the calk self-sharpening, to provide such a connection between the calk and shoe as to insure against both the removal and the rotation of the calk while in use, and to attain these results in a structure which is inexpensive to construct and easy to assemble.

To the above ends essentially my invention consists in such parts and combinations of parts as fall within the scope of the appended claims.

In the accompanying drawings which form a part of this specification, Figure 1 is a bottom plan view of a horse-shoe showing the calks attached thereto, Fig. 2, a similar enlarged view of one of the attached calks and a portion of the shoe adjacent thereto, Fig. 3, a section taken on line *x x* of Fig. 2, Fig. 4, a side elevation of a detached calk, Fig. 5, a bottom plan view of a portion of the shoe adjacent one of the openings with the calk removed, Fig. 6, a section on line *y y* of Fig. 5, and Fig. 7, a side elevation of an engaged calk with a portion of the shoe broken away. In Figs. 3 and 7 the lug and its cooperative cavity are exaggerated for the purposes of illustration.

Like reference characters indicate like parts throughout the views.

My calk may be applied to a shoe of any general or usual outline, and the calks may be employed optionally as either toe calks or heel calks, and may be of any preferred length. In the present and preferred construction, the calk comprises a body portion *A*, provided with generally tapering sides *a* converging in the direction of the lower or free end, as best seen in Fig. 3. The resultant narrow bearing surface *a'* upon the bottom extremity of the calk is of wavy outline due to the presence of corrugations *b*

and *b'* formed in staggered relation upon opposite sides of the body *A* and in staggered relation with each other. As suggested, the length of the body *A* may be whatever is desired, and any preferred means of attaching the body to a shoe may be employed. The present and preferred form of adjustment comprises a shank *C*, provided with a spiral groove *c* extending from the body *A* to the end of the shank. At a point substantially opposite to the groove, and also adjacent the body *A* upon the shank, is a lug *D* preferably provided with a rounded or cam surface *d*.

The portion of the shoe *E* in which the calk is desired to be inserted is provided with an opening *e*, and at the entrance of this opening upon the lower face of the shoe is a lateral cavity *e'*. A spirally disposed rib *F* extends along the wall of this opening from top to bottom and is adapted to register in the groove *c* in the calk shank when the latter is inserted into the shoe. When, during the insertion just referred to, the lug *D* approaches the bottom face of the shoe, its cam-faced lower portion in frictional contact with the wall formed by the cavity *e'* begins its entrance into the latter, and this entrance is completed by lightly tapping the bearing face *a'* of the calk. When the lug *D* is finally seated in the cavity *e'*, the engagement of the calk is complete, and any accidental movement of the calk is insured against by the spiral curvature of the groove and rib connection; and any rotary movement of the calk is still further prevented by the lug *D*.

The form of shoe herein shown is typical, and is provided with nail holes *h* and with slightly elevated portions *i* which form seats for the upper face of each of the calk bodies *A*, but it will be understood that these seats are not essential to my invention.

It will be observed that the oppositely disposed arrangement of the converging corrugations imparts to the calk a capacity for automatic or self-sharpening as the calk wears at the point, making the calk permanently sharp. Furthermore, the double corrugations, because of their wavy outline at the point of convergence of the inclined surfaces of the calk, furnish a resistance to the sliding of the calk upon the ground either forwardly or laterally, or in any other direction.

What I claim is,

1. A horseshoe provided with an opening therethrough and at the entrance to said opening upon the lower face of the shoe
5 with a lateral cavity and a spirally disposed rib extending along the wall of said opening in the direction of the length of the same, combined with a calk having a shank with a spiral groove disposed lengthwise of
10 said opening and a rigid lug extending in the direction of the length of the shank substantially opposite said groove for coöperation with said cavity.
2. A horseshoe provided with an opening therethrough and at the entrance to said opening upon the lower face of the shoe

with a lateral cavity and a spirally disposed rib extending along the wall of said opening in the direction of the length of the same, combined with a calk having a shank 20 with a spiral groove disposed lengthwise of said opening, and a rigid lug extending in the direction of the length of the shank substantially opposite said groove for coöperation with said cavity, said lug being provided with a cam surface. 25

In testimony whereof I have affixed my signature in presence of two witnesses.

JAMES H. TAYLOR.

Witnesses:

HORATIO E. BELLOWS,
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