

961,759.

Patented June 21, 1910.

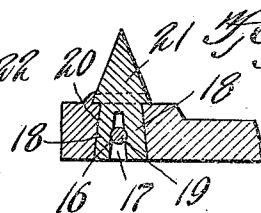
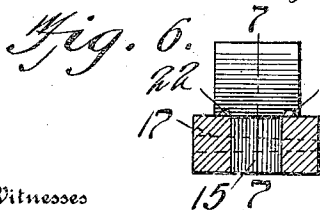
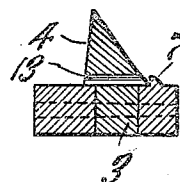
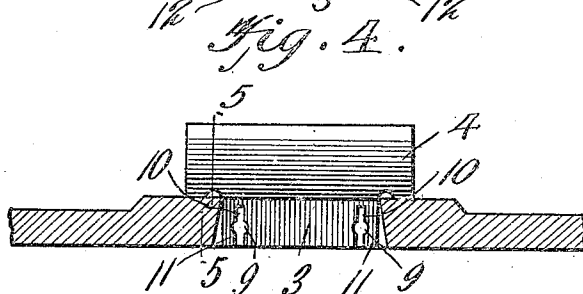
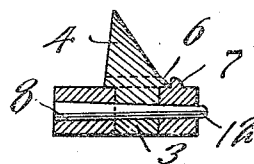
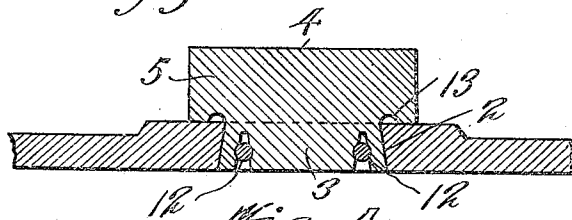


Fig. 7.

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UNITED STATES PATENT OFFICE.

CHARLES M. DELANY, OF POYNETTE, WISCONSIN.

HORSESHOE-CALK.

961,759.

Specification of Letters Patent. Patented June 21, 1910.

Application filed July 7, 1909. Serial No. 506,353.

To all whom it may concern:

Be it known that I, CHARLES M. DELANY, a citizen of the United States, residing at Poynette, in the county of Columbia and State of Wisconsin, have invented new and useful Improvements in Horseshoe-Calks, of which the following is a specification.

This invention relates to horseshoe calks, and has for an object to provide a calk that can be removably engaged with the shoe and which will be provided with a novel form of means for holding it in its operative position, but permitting the calk to be removed when worn to be replaced by a new calk at a minimum expense.

Other objects and advantages will be apparent as the nature of the invention is better set forth, and it will be understood that changes within the scope of the claim may be resorted to without departing from the spirit of the invention.

In the drawing, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a bottom plan view of a horseshoe showing the application of my invention thereto. Fig. 2 is a section taken on the line 2—2 of Fig. 1. Fig. 3 is a section taken on the line 3—3 of Fig. 1. Fig. 4 is a detail section taken through the toe portion of the shoe showing the toe calk in position prior to the engagement therewith of the shoe clamping key. Fig. 5 is a detail section taken on the line 5—5 of Fig. 4. Fig. 6 is a detail section taken through the heel end of the shoe showing one of the heel calks in its operative position. Fig. 7 is a section taken on the line 7—7 of Fig. 6.

In the drawing, I employ a shoe 1 of ordinary form and I form therein at the toe end a rectangular slot 2 which is preferably provided with downwardly and inwardly inclined or beveled walls as illustrated clearly in Fig. 2. The said slot 2 receives the shank 3 of a toe calk 4 having a substantially triangular tread portion or tooth 5 of greater width at its upper end than the shank 3 so as to provide oppositely extending shoulders 6 adapted to engage the bottom face of the shoe at the toe end thereof. The shoe 1 is provided with a stop rib 7 adapted to engage one of the longitudinal edges of the body portion 5 of the calk so as to relieve the said calk of strain when stress is applied thereto when the shoe is brought into contact with the surface of the ground. The

shoe 1 at the toe end thereof is provided with a pair of spaced wedge shaped horizontally disposed passages 8 and the shank 3 of the calk is provided with circular passages 9 adapted to aline with the passages 8. The shank 3 is provided with vertically disposed elongated slots 10 which intersect the passages 9 and communicate therewith and in connection with the passages 9 the said slots form at the ends of the shank 3 portions 11 which are normally disposed in spaced relation to the flared end walls of the slot 2 as shown in Fig. 4 of the drawing.

In order that the calk 4 can be securely held to the shoe 1 I provide wedge shaped locking keys 12 that are passed through the passages 8 and through the passages 9 formed in the shank 3 of the calk. Incident to the fact that the keys are of wedge form it will be appreciated that when they are driven into their respective or operative positions their engagement with the outer walls of the passages 9 will force the portions 11 outwardly and away from each other and into frictional engagement with the beveled end walls of the slot 2 thus forming an effective anchor that will prevent displacement of the calk from the shoe.

The bottom face of the body portion 2 of the calk is provided adjacent to the shank 3 with transversely disposed semi-circular recesses 13, the said recesses opening onto the side edges of the body portion 5 and being arranged to receive the pointed end of an instrument or tool so that when it is desired to remove the calk after the keys 12 have been extracted the tool inserted in the recesses 13 can be engaged with the body portion 5 and force the same upwardly to disengage the portions 11 from the walls of the slot 2. In order to prevent the keys 12 from working loose in the passages in which they are seated I bend their reduced ends approximately at right angles and against portions of the shoe as shown in Fig. 1.

The toe calks 14 employed by me are similar in construction to the heel calks and are each provided with a shank 15 having a passage 16 adapted to aline with similar passages 17 formed in the heel end of the shoe. The shank 15 is also provided with a slot 17 that intersects the passage 16 and forms with the said passage portions 18 similar to the portions 11. The passages 16 and 17 are arranged to receive a clamping key 19 of wedge form and similar in con-

struction to the keys 12 and the said key is
arranged when driven into its operative po-
sition to force the portions 18 into frictional
engagement with the inclined or beveled
5 walls of the slot 20. The surface engaging
portion 21 of the calk 14 is provided with
tool receiving recesses 22 similar to the re-
cesses 13. The portion 31 of the calk is
adapted to lie at one edge against a shoulder
10 23 similar to the shoulder 7 and employed
for the same purpose.

I claim:—

15 A horseshoe having a slot formed therein,
a calk having a shank removably mounted
in the slot, said shank having slots formed

therein adjacent to the ends of the shank,
and means removably engaged with the shoe
and adapted for frictional engagement with
the walls of the slots to force the end por-
tions of the shank into locking engagement 20
with the walls of the slots, the said calk hav-
ing its upper surface at points outwardly of
the said shank formed with recesses which
open directly onto the bottom of the shoe.

In testimony whereof I affix my signa- 25
ture in presence of two witnesses.

CHARLES M. DELANY.

Witnesses:

S. L. PHINNEY,
E. C. THIESSEN.