

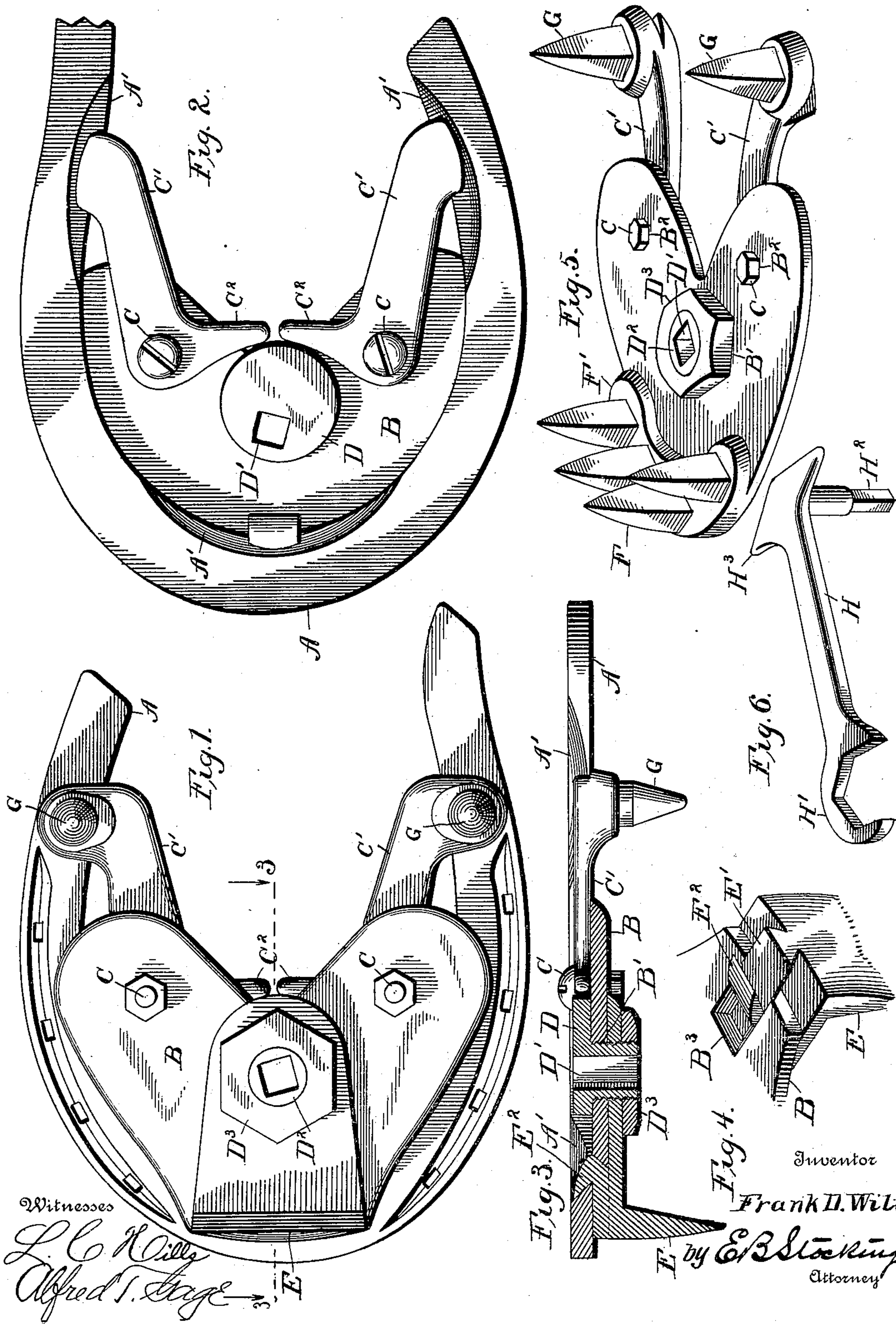
No. 626,743.

Patented June 13, 1899.

F. D. WILT.  
HORSESHOE CALK.

(Application filed Sept. 3, 1898.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

FRANK D. WILT, OF ALLENTOWN, PENNSYLVANIA.

## HORSESHOE-CALK.

SPECIFICATION forming part of Letters Patent No. 626,743, dated June 13, 1899.

Application filed September 3, 1898. Serial No. 690,162. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK D. WILT, a citizen of the United States, residing at Allentown, in the county of Lehigh, State of Pennsylvania, have invented certain new and useful Improvements in Horseshoe-Calks, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to removable calks for horseshoes, and particularly to a calk which can be secured in position by a single locking device.

15 The invention has for its object to provide a construction in which the heel-calks are movable and are thrown into and held in their locking position by a single device.

20 The invention has a further object to simplify and improve the construction of toe-calk whereby the same can be readily removed and replaced for the purpose of sharpening.

25 The invention has also for its object to improve the details of construction, as herein-after disclosed; and other and further objects of the invention will be apparent.

30 In the drawings, Figure 1 is a bottom plan of the calk applied to a horseshoe. Fig. 2 is a top plan view. Fig. 3 is a vertical section on the line 3 3 of Fig. 1. Fig. 4 is a detail perspective showing the toe-calk partly removed. Fig. 5 is a similar view of the modified construction of toe-calk applied to a plate, and Fig. 6 is a perspective of a tool particularly adapted for use in connection with this calk.

35 Like letters of reference indicate like parts throughout the several figures of the drawings.

40 The letter A designates a horseshoe of ordinary form and construction, which may be provided upon its upper surface, next the hoof to which it is applied, with beveled or reduced portions A'. The movable calks are carried upon a plate B, which plate is provided with a central aperture B' and with oppositely-located apertures B<sup>2</sup>, the latter being for the reception of pivoting-bolts C, which secure in position the angle-levers C'. These levers are suitably recessed at their outer ends to engage the shoe and at their inner ends are provided with arms C<sup>2</sup>, having curved faces next the toe of the shoe. These arms C<sup>2</sup> may be actuated to force the levers C' into contact

with the shoe by any suitable device bearing thereon—for instance, a cam D, which may be provided with an angular recess D' for the reception of a tool and with an exteriorly-threaded sleeve D<sup>2</sup>, which passes through the plate B and is adapted to receive a securing-nut D<sup>3</sup>. This cam when secured in position can be rotated by the insertion of an angular tool in the aperture D', and will thus act upon the arms C<sup>2</sup> of the angle-levers C' and force the outer ends of said levers into contact with the shoe.

Any suitable form of toe-calk may be used in connection with the invention; but I have illustrated in this case a desirable form and a modification thereof. In the preferred form the plate B may be provided with an angular aperture B<sup>3</sup> at its toe portion having beveled walls, as shown in Fig. 4. The toe-calk E is provided with a dovetailed flange E', adapted to fit the aperture B<sup>3</sup> and provided upon its upper surface with an engaging hook E<sup>2</sup>, adapted to receive the edge of the shoe at the toe portion thereof. The calk is also provided with an aperture through which the sleeve D<sup>2</sup> of the cam D passes, and the calk is thus clamped in position by the nut D<sup>3</sup>, applied to the sleeve. This mode of mounting the calk renders the same readily removable for the purpose of sharpening or replacement, and when in position the same is firmly held against any movement upon the plate or shoe.

In the modification shown in Fig. 5 the toe-calks F may be formed integral with the plate B or threaded into a flange F'. Either of the foregoing forms of toe-calks may be used without affecting the operation of the angle-levers, which carry the heel-calks G. These calks may be integral with the levers or threaded therein, if desired.

For the purpose of conveniently operating the several parts of the calks I have provided a novel tool H, which is formed at one end with a wrench H', adapted to engage the faces of the securing-nut D<sup>3</sup>, and at its opposite end with an angular key H<sup>2</sup> of suitable size to fit the angular recess D' in the cam D, and thus rotate the cam. Above the key H<sup>2</sup> a scraper or cleaner H<sup>3</sup> is provided, which can be used for the purpose of removing dirt or other substance from the parts of the calk when



the same become clogged. It will be seen that with the use of this single tool any person can readily apply the calk to the shoe or remove the same. After the cam has been  
 5 set by the use of the key H<sup>2</sup> the nut D<sup>3</sup> can be tightened by the wrench H' and the parts thus firmly locked in position.

It is obvious that numerous changes can be made in the construction of the several  
 10 calks and other details of the invention without affecting the spirit thereof as defined by the appended claims.

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

1. In a removable calk, the combination of a plate, levers pivoted thereto, arms extending at an angle to said levers at their pivoted ends, and a rotary device carried by said plate  
 20 for simultaneously engaging said arms; substantially as specified.

2. In a removable calk, the combination of a plate, levers pivoted thereto, arms extending at an angle to said levers at their pivoted  
 25 ends and a rotating device adapted to bear upon the arms extending from said levers; substantially as specified.

3. In a removable calk, the combination of a plate, levers pivoted thereto, and a rotating  
 30 cam located on said plate between said pivoted levers and adapted to engage each of said levers; substantially as specified.

4. In a removable calk, the combination of a plate, levers pivoted thereto, arms extending at an angle to said levers at their pivoted  
 35 ends, a unitary device adapted to bear upon the arms extending from said levers, a hook carried by the toe portion of said plate, and calks located upon the outer ends of said le-  
 40 vers; substantially as specified.

5. In a removable calk, the combination of a plate, angle-levers pivoted thereto, a rotating cam adapted to engage said angle-levers,

an exteriorly-threaded sleeve extending from said cam, and a nut threaded upon said sleeve; 45 substantially as specified.

6. In a removable calk, the combination of a plate, angle-levers pivoted thereto, a unitary rotating device adapted to engage said  
 50 angle-levers, a removable toe-calk, a sleeve extending from said device and through said plate and calk, and a nut threaded upon said sleeve; substantially as specified.

7. In a removable calk, the combination of a plate provided with attaching means and  
 55 having at its toe portion a recess, a calk provided with the dovetailed flange upon its upper surface and adapted to fit in said recess, and a hook formed upon said flange; substantially as specified. 60

8. In a removable calk, the combination of a plate provided with attaching means and having at its toe portion a recess, a calk provided with a dovetailed flange upon its upper  
 65 surface and adapted to fit in said recess, a hook formed upon said flange, an operating-cam provided with a sleeve having an angular aperture and passing through said plate and calk, and a nut threaded upon said  
 70 sleeve; substantially as specified.

9. The combination with a horseshoe having reduced portions at its toe and heel, of a plate provided with a hook to engage said toe  
 75 portion and with opposite pivoted levers adapted to engage said heel portions, arms extending at an angle to said levers at their pivoted ends and a rotary locking device adapted to engage said arms and simultaneously force said levers into engagement with  
 80 the shoe; substantially as specified.

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

FRANK D. WILT.

Witnesses:

CHESTER E. NORRIS,  
 EMERSON F. SCHOCK.