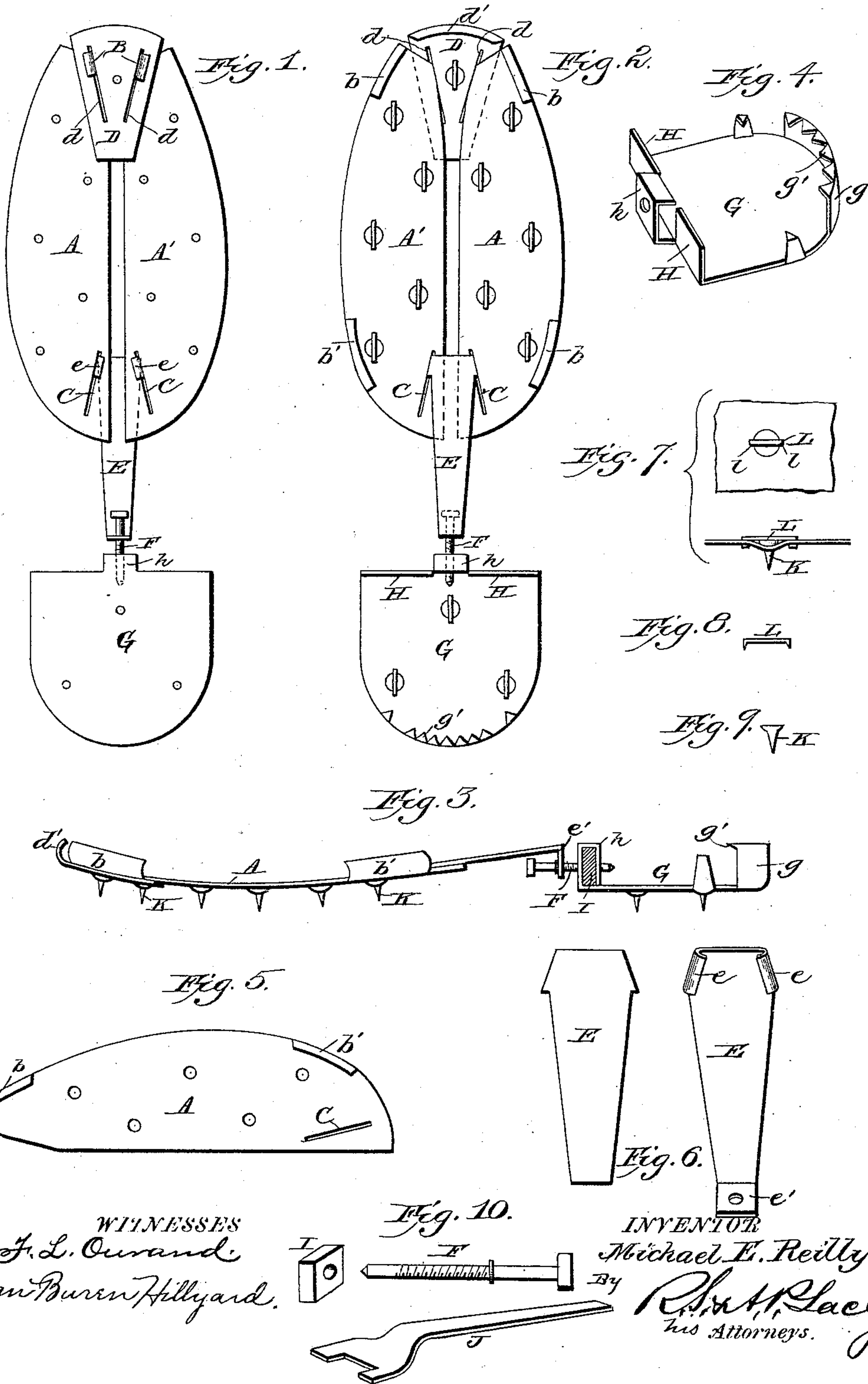


(No Model.)

M. E. REILLY.
DRIVING CALK.

No. 452,284.

Patented May 12, 1891.



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UNITED STATES PATENT OFFICE.

MICHAEL E. REILLY, OF MONTESANO, WASHINGTON.

DRIVING-CALK.

SPECIFICATION forming part of Letters Patent No. 452,284, dated May 12, 1891.

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To all whom it may concern:

Be it known that I, MICHAEL E. REILLY, a citizen of the United States, residing at Montesano, in the county of Chehalis and State of Washington, have invented certain new and useful Improvements in Lumbermen's Driving-Calks; 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.

This invention relates to protectors for lumbermen's boots and shoes, and has for its object to provide novel means for securing the protectors to the boots or shoes and for fastening the calks to the sole and heel plates of the protector, and which will admit of the ready removal of the protector from the boot or shoe and the calks from the said plates when required.

The improvement consists of the novel features, which will be hereinafter more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a bottom plan view of a protector embodying my invention. Fig. 2 is a top plan view of the protector. Fig. 3 is a side view of the protector. Fig. 4 is a perspective view of the heel-plate. Fig. 5 is a top plan view of one-half of the sole-plate. Fig. 6 is a top plan and an inverted perspective view, respectively, of the tension-plate which connects the sole-plates with the heel-plate. Fig. 7 is a top plan and a section of a portion of the sole plate, showing the manner of connecting the calk therewith. Fig. 8 is a side view of the calk-fastening. Fig. 9 is a side view of the calk. Fig. 10 shows the nut which is fitted to the heel-plate, the fastening-bolt, and the wrench for tightening the said bolt.

The sole-clamping plates A and A', rights and lefts, are each provided on their outer edges with upturned flanges b and b', which are curved inward to embrace the sole of the boot or shoe, and which are located near the front and the rear ends of the plates to obtain a grip on the sole of the shoe at different points. Each of the sole-plates A and A' is provided with a tongue B at its front end, which is bent down and recurved on the under side of the plate, and with an oblique slot C at its

rear end. The sole-plates are held together by the fastening-plates D and E, the plate D having diverging slots d d to receive the tongues B B, and the plate E having tongues e e, which pass through the slots C C. In order that the tongues may obtain a purchase on the edge of the respective slots throughout their entire length, they are made to incline correspondingly with the said slots. The slots d d in the fastening-plate D flare in an opposite direction to the slots C C in the plates A and A', so that a relative movement of the fastening-plates D and E from each other will draw the plates A and A' together and clamp them on the sole of the boot or shoe, and when advanced relatively toward each other the sole-plates A and A' will be separated and loosened from the boot or shoe. The plate D is provided with a flange d' at its front end to engage with the toe of the sole of the boot or shoe. The rear end e' of the plate E is bent up and is apertured to permit the passage of the bolt F.

The heel-plate G is provided at its rear with the vertical flange g, which is provided with the retaining-teeth g' to enter the heel of the boot or shoe and hold the plate in place, and at its inner or front end with the vertical flanges H H and box h, the latter being provided so receive the nut I, into which the bolt F screws, the latter being turned by a suitable instrument, as the wrench J.

The sole and heel plates, as well as the fastening-plates, if desired, are provided with calks K, which, as shown in Fig. 9, are headed and taper to a point. These calks pass through suitable openings in the plates, the edges of the openings being depressed to receive the heads of the calks, which come flush with the upper side of the plates. The staple-fastenings L extend over the heads of the calks and their ends pass through slots l l in the plates on diametrically-opposite sides of the calk-openings and are clinched on the opposite side of the plate, Fig. 7.

When the parts are assembled, the bolt F passes through the bent end e' of plate E and into the nut I. Obviously, when the protector is fitted to a boot or shoe and the bolt F is screwed up, the plate E is drawn toward the heel-plate and has a tendency to carry the plates A and A' with it, and the plate D,

being held in a fixed position relative to the shoe, by reason of the flange *d'* being fitted over the toe of the sole of the boot or shoe, the plates D and E are relatively separated
 5 and draw the sole-plates A and A' together and clamp them on the sole of the boot or shoe. The protector is disengaged from the boot or shoe by loosening the bolt F.

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

1. The combination, with the sole-plates having side flanges to engage with the sole of the boot or shoe, the fastening-plate D, hav-
 15 ing flange *d'* to engage with the toe of the said sole and having engagement with the sole-plates to draw them together, and the heel-plate having toothed flange *g*, of the plate E, having engagement with the sole-
 20 plates, and the bolt and nut for connecting plate E with the heel-plate, substantially as described, for the purpose specified.

2. The combination of the sole-plates A and A', having tongues B B and oblique slots C

C and having side retaining-flanges, the
 heel-plate having retaining-flange *g*, the
 fastening-plate D, having retaining-flange *d'*
 and having the oblique slots *d d* to receive
 the tongues B B, the plate E, having tongues
e e to enter the slots C C and having the bent
 end *e'*, and the bolt and nut for connecting
 the plate E with the heel-plate, substantially
 as set forth.

3. The combination, with the plate of a
 protector having openings, of headed calks
 thrust through the said openings, the heads
 of the calks coming flush with the upper side
 of the plate, and the staple-fastening ex-
 tended over the calk and having its ends
 passed through the plate and clinched, sub-
 40 stantially as described.

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

MICHAEL E. REILLY.

Witnesses:

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 JAMES B. KESTERSON.