

(No Model.)

C. R. GREEN.

COMBINED DETACHABLE ICE CREEPER AND HEEL PLATE.

No. 595,772.

Patented Dec. 21, 1897.

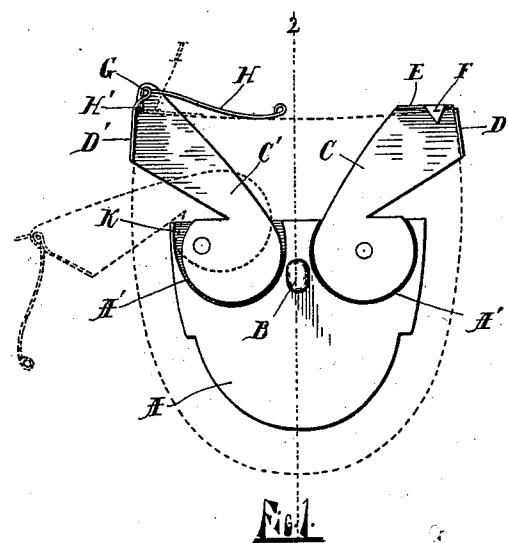


Fig. 1.

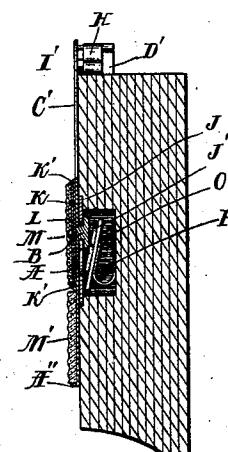


Fig. 2.

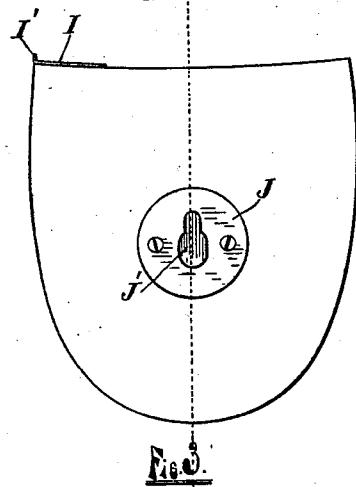


Fig. 3.

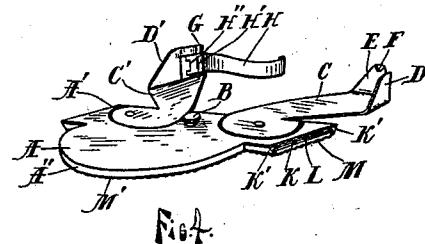


Fig. 4.

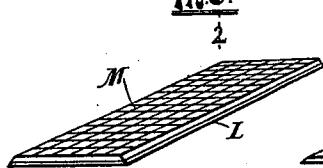


Fig. 5.

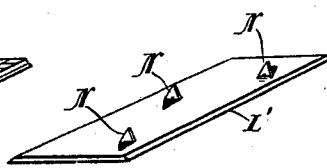


Fig. 6.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES R. GREEN, OF GRAND RAPIDS, MICHIGAN.

## COMBINED DETACHABLE ICE-CREEPER AND HEEL-PLATE.

SPECIFICATION forming part of Letters Patent No. 595,772, dated December 21, 1897.

Application filed March 8, 1897. Serial No. 626,397. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES R. GREEN, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in a Combined Detachable Heel-Plate and Ice-Creeper; 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 improvements in a combined detachable heel-plate and ice-creeper, and its object is to provide the same with certain new and useful features, hereinafter more fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a device embodying my invention; Fig. 2, a longitudinal vertical section of the same attached to a heel and shown on the line 2 2 of Figs. 2 and 3. Fig. 3 is a plan view of the under side of the heel, showing the attaching-plate; Fig. 4, a perspective of my device detached; Fig. 5, a detail of the rubber-faced slide, and Fig. 6 a detail of the ice-creeper slide.

Like letters refer to like parts in all of the figures.

30 A represents a plate of metal of substantially the outline of the heel of a shoe and somewhat smaller than the same, and having openings A', in which are the substantially circular heads of the arms C C', which are pivoted to a plate K, extending transversely across the forward side of the plate A and attached thereto. Said plate K is folded at the edges, forming dovetail ways K' K', in which are held removable plates L and L', one plate 40 being provided with a rough rubber face M or otherwise roughened and the other plate provided with spurs N. The rear portion of the plate A is flanged, as at A'', and within the shallow recess formed by this flange and the 45 rear way K' and projecting below the same is a roughened rubber plate M', cemented or otherwise secured in place.

To detachably secure this device to a shoe, I attach to the heel of said shoe and flush with the surface thereof a plate J, having an elongated opening J', adapted at the rear end to

admit the head of a stud B on the plate A and at the forward end made narrower to engage the inner side of the head of said stud and secure the same. Beneath the plate J is 55 a cavity in which is located a movable plate O to close the opening J' and held in place by a spring P. To hold the plate A from turning or moving backward, the arm C is provided with upturned flanges D E to engage the forward and outer sides of the heel near one angle and a spur F on the flange E to enter the heel and hold the outer end of the arm C in place, and the other arm C' is provided with a flange D' to engage the outer 60 side of the heel and has a forwardly-extended portion G, to which is pivoted a lever H, having an inwardly-extended portion H', having a notch H''. Said notch engages a strip of metal I, having an outwardly-turned end I' 70 attached to the heel of the shoe. Said strip I thus holds the lever from moving on the heel when locked, and the lever serves to strain the parts to place.

The operation of my device is obvious and 75 needs no further description.

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

1. As an article of manufacture, a heel-plate 80 having attached a rough rubber covering a portion of said plate, and detachable slides on the remainder of said plate, and means for detachably securing said plate to the heel of a shoe, substantially as described. 85

2. As an article of manufacture, a heel-plate having a downwardly-turned flange at the rear, transverse dovetail ways across the front, detachable plates, one having a rubber face and one having spurs, and held by said ways, 90 a rough rubber in the chamber formed by said flange and the rear way, and means for securing said plate to a shoe, substantially as described.

3. In a heel-plate, a plate of substantially 95 the outline of the heel of a shoe, having a downwardly-turned flange at the rear and openings in the front side, a transverse plate having folded dovetail edges and covering said openings, detachable slides held by said 100 folded edges, a rubber facing within said flange, rubber facing and spurs on said slides,

arms having heads pivoted in said openings, and flanges on said arms to engage the front and sides of a heel, and a stud on said plate, substantially as described.

5 4. In a heel-plate, a plate having a rubber facing at the rear, and openings at the front, arms pivoted in said openings, one of said arms having flanges and a spur to engage the heel of a shoe, the other of said arms having 10 a flange and a pivoted lever to engage the heel of a shoe, a plate covering said openings to which plate said arms are pivoted, and having folded edges forming channels, slides detachably held in said channels, and a stud 15 on said plate having a head adapted to engage a plate on the heel of the shoe, substantially as described.

5. In combination with a shoe, a plate attached to the heel and having an elongated 20 opening narrower at the forward end, a plate substantially of the outline of the heel, and having a stud to engage said opening, and openings in the forward side, a plate covering said openings and having folded edges, 25 slides detachably secured by said edges and having rubber faces and spurs, arms pivoted to said plate in said openings, a plate attached to the front of the heel having an upturned end, a lever pivoted to an arm having 30 a notch engaging said plate, a flange and

spur on the other arm and engaging the heel, substantially as described.

6. The combination of a shoe having an opening in the heel, a heel-plate having a stud having a head, means for securing said 35 plate in place on the heel, a plate having an elongated opening adapted at one end to admit the head of the stud and narrower at the other end, a movable plate to close said opening, and a spring to yieldably hold said plate 40 in place, substantially as described.

7. In combination, a shoe having a cavity in the heel, a plate having an elongated opening narrower at one end and covering said cavity, a heel-plate having a stud to engage 45 the said opening, arms pivoted to said plate, one of said arms having flanges and a spur to engage the heel and the other arm having a flange and a pivoted lever, said lever having a notched end, and a plate having an upturned end and attached to the heel and engaging the notch in the lever, substantially as described.

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

CHARLES R. GREEN.

Witnesses:

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JOHN N. PARKS.