

(No Model.)

C. J. LUNG.  
ICE CREEPER.

No. 382,432.

Patented May 8, 1888.

Fig. 1.

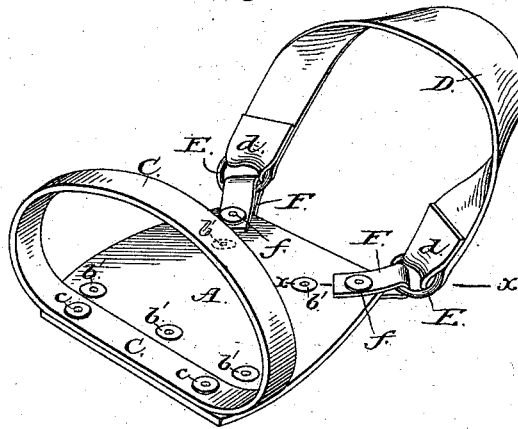


Fig. 2.

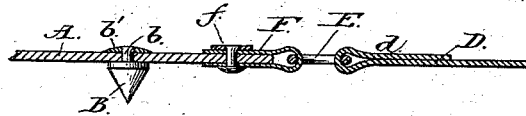
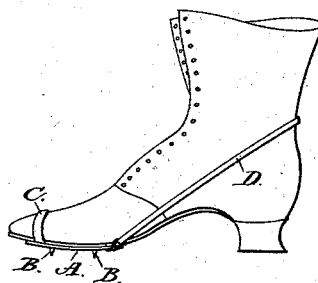


Fig. 3.



WITNESSES:

John A. Ellis.  
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# UNITED STATES PATENT OFFICE.

CHARLES J. LUNG, OF JAMESTOWN, NEW YORK.

## ICE-CREEPER.

SPECIFICATION forming part of Letters Patent No. 382,432, dated May 8, 1888.

Application filed August 5, 1887. Serial No. 246,191. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES J. LUNG, of Jamestown, in the county of Chautauqua and State of New York, have invented a new and  
5 Improved Ice-Creeper, of which the following is a full, clear, and exact description.

My invention relates to a device to be worn on the foot to prevent slipping on icy roads or pavements, and has for its object to provide a  
10 simple, inexpensive, and efficient device of this character which may be readily applied to and removed from the boot or shoe and without soiling the hands, and will not injure a rubber overshoe on which it may be worn,  
15 and which will not be affected by wetting, and is provided with an elastic heel-strap which cannot be worn by contact with the ground.

The invention consists in certain novel features of construction and combinations of parts  
20 of the ice-creeper, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate  
25 corresponding parts in all the figures.

Figure 1 is a perspective view of my improved ice creeper. Fig. 2 is an enlarged cross-section taken on the line *x x*, Fig. 1; and Fig. 3 is a side view of a shoe illustrating  
30 the manner of applying the creeper to the foot.

The ice-creeper is made with a galvanized metal plate, A, provided with spurs or teeth B, and with straps C and D, by which to apply and hold the device to a boot or shoe.

35 The spurs B are turned or forged from steel rods, and are each provided with a conical body portion which projects below the plate A, and with a stem or shank, *b*, which is passed through a hole in the plate, and the projecting  
40 end of the stem is then riveted down smoothly upon the plate, as shown at *b'* in the drawings, and so as not to injure a shoe or rubber overshoe to which the creeper may be applied. The use of the metal plate A allows this smooth  
45 riveting down of the spur-stems onto the top of the plate, and in this respect my invention has obvious advantages over a construction in which a leather plate having spurs is used, as the spurs must be secured to the leather plate  
50 by rivets and washers, which necessarily leave rough or sharp edges above the plate to

quickly wear holes in rubber overshoes. Other decided advantages of the galvanized metal plate A over a leather plate are that while the metal plate will not rust it will not  
55 be damaged and will not lose its shape by being wet, as a leather plate will, while the metal plate will yield sufficiently to allow the spurs B to accommodate themselves to any irregular ground surface when in use. As many spurs  
60 may be set in the plate A as desired. Five spurs are shown as indicated by their riveted parts *b'* in Fig. 1, while the shape of the spurs, which is clearly shown in Fig. 2 of the drawings, gives them great strength and durability. 65

The toe strap C of the creeper consists, preferably, of a rubber band, which is held by rivets *c c* to the forward edge of the plate A, and may be made of different sizes to accom-  
70 modate smaller or larger feet, or this strap C may be made of leather and be provided with a buckle, if preferred.

The heel or back strap D of the creeper is a pure rubber plate or band, which at opposite ends is connected to metal rings E E, preferably by looping the ends of the strap at *d d*,  
75 and these rings E E are held to the opposite rear corners of the plate A by means of metal clips F F, comprising bent plates overlapping both faces of the plate A and fastened thereto  
80 by smooth-headed rivets *f* clinched at the lower face of the plate. This method of connecting the back-strap D to the plate A has peculiar advantages, in that should the wearer of the ice-creeper tread on very irregular ground the  
85 rings E will swing or turn upward and will lift the ends of the strap D out of contact with the ground, thereby preventing quick wearing out of the strap, which would occur were the ends of the strap connected directly to the  
90 plate, in which case the strap would be worn and quickly cut off by contact with the surface of irregular ground, as will readily be understood.

In applying the ice-creeper to the foot the strap C will first be slipped over or upon the  
95 toe of the boot or shoe, and the strap D will then be stretched and passed up around and above the heel of the shoe, and will hold the creeper securely beneath the ball of the foot,  
100 as shown in Fig. 3 of the drawings.

Having thus described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

The herein-described ice creeper, consisting of the metallic plate A, provided with the  
5 spurs B, projecting from its under side, the toe-strap C, secured to the upper surface of the plate at the front edge thereof, the metal clips F, secured to the rear corners of the plate,

and the elastic heel or back strap D, provided at its ends with the rings E, through which the 10 clips pass and by means of which the band is secured to the plate, as specified.

CHARLES J. LUNG.

Witnesses:

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