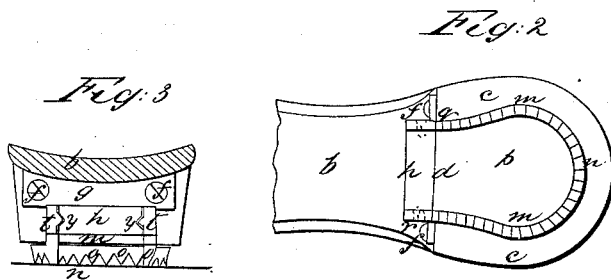
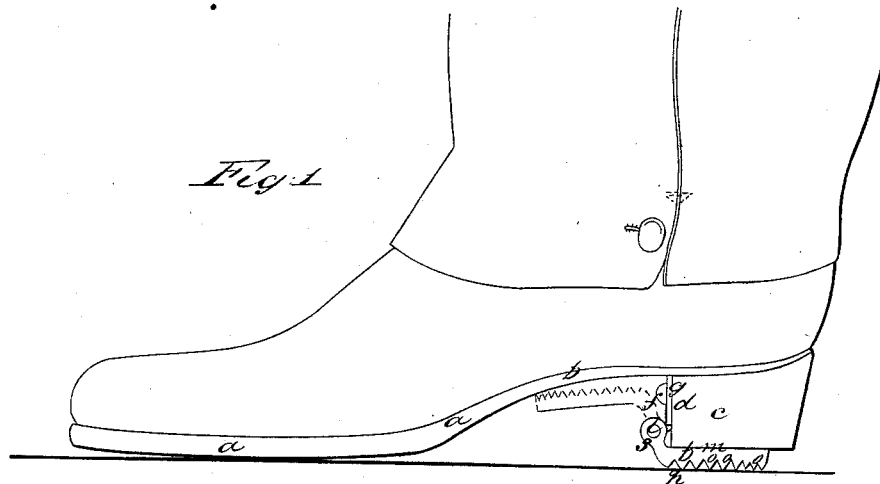


D. Green,
Ice Creepers,
N^o 50,353. Patented Oct. 10, 1865.



Witnesses
Wm. Freeman
Geo. Tusley

Inventor
D. Green
By [Signature]
Att'y

UNITED STATES PATENT OFFICE.

D. GREENE, OF TROY, NEW YORK.

IMPROVED ICE-CREEPER.

Specification forming part of Letters Patent No. 50,353, dated October 10, 1865.

To all whom it may concern:

Be it known that I, D. GREENE, of Troy, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in Ice-Creepers for Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The subject of my said invention is an ice-creeper adapted for attachment to the front of the boot-heel in such a manner as to avoid any unsightly or inconvenient projection backward or laterally beyond the heel; and the invention further consists in improved means of securing the toothed bar in position beneath the heel when wanted for use, or within the hollow of the boot, so as to be completely out of the way and out of sight when not in use.

The advantages of thus securing an ice-creeper to a boot or shoe are many, among which may be mentioned its convenience, as it can be conveniently worn on the boot, if desired, even when in the house, without injuring or defacing the floor or carpets of the same.

In the accompanying plate of drawings my improvement is illustrated, Figure 1 being a side view of the sole and heel of a boot or shoe with my improved ice-creeper applied; Fig. 2, a view of under side of heel and creeper; Fig. 3, a sectional view of sole, showing inner end of heel.

a a in the drawings represent the sole of a boot or shoe, *b* its shank, and *c* its heel. To inner and front end, *d*, of heel is fastened, by screws *f f*, a small metallic plate, *g*, having attached thereto or forming a part of the same; and in the direction of its length, a fixed shaft, *h*, with short pivots *l l* at each end.

m is the ice-creeper, made of a narrow strip of metal, with one edge, *n*, serrated or provided with a series of sharp teeth, *o o o*, &c., and bent by any proper means into the form of nearly a complete circle, as seen at *p* in Fig. 2, the width between its two ends *q* and *r* being equal, or nearly so, to the length of the fixed shaft *h* of the heel. In each end of the creeper is an aperture, *s*, by which they are placed upon the pivots of the fixed shaft, and upon each face of the creeper next in contact with the fixed shaft is a projecting tooth, *t*, corresponding to which in shape are notches *y y*, &c., at

points diametrically opposite to each other upon each end of said shaft *h*. The creeper, when placed upon the pivots of the fixed shaft, is firmly held thereon by the spring imparted to the same in bending it into the form described, but can be turned upon the pivots at pleasure.

When the creeper is in use it lies upon the treading-surface of the heel, as represented in Fig. 2, where it is held by the interlocking of its side teeth, *t t*, with the notches upon the outer portion of the fixed shaft; but, if not desired to use the same, it is swung around upon its pivots into the position represented by red lines in Fig. 1, under the shank, where, it is evident, it is entirely removed from the treading-surface of the boot, it being there firmly held by its side-teeth, *t t*, interlocking with the notches upon the inner side of the fixed shaft, the bent and spring form of the creeper in each case causing it to be tightly held in either of its said positions.

In lieu of forming the creeper in a circular shape, as described, it can be formed or bent into various other shapes, it being only necessary that such a form should be given to it as will cause it to have the elasticity and force of a spring, whereby it can lock itself in position upon the boot or shoe, substantially as described.

The locking-teeth, in lieu of being formed on the creeper, can be as well formed on the fixed shaft and the notches in the creeper.

It is evident that the creeper can be also attached to the heel so as to swing away from its treading-surface, in lieu of under the shank, as described, up against the counter, and also the creeper can be arranged upon the sole of the boot or shoe, as well as upon its heel, so as to swing in and under the shank; but I deem the arrangement hereinabove described the best and the most practical, as well as most convenient and advantageous.

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

The combination of the elastic serrated bow *m n* and attachments *g h l*, when constructed as shown and described, and adapted for application to a common boot without projecting horizontally beyond the area of the latter.

D. GREENE.

Witnesses:

J. T. FONDEN,
T. B. HEIMSTREET.