

O. A. CHILDS.
Ice-Creeper.

No. 202,930.

Patented April 30, 1878.

Fig. 1.

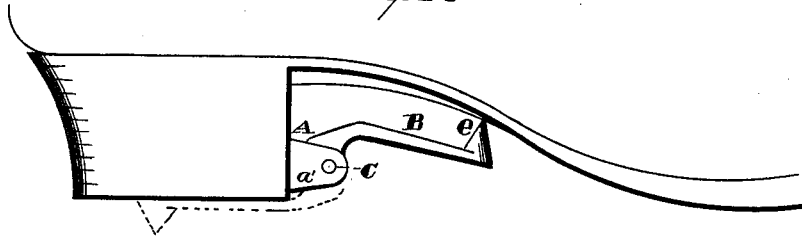


Fig. 2.

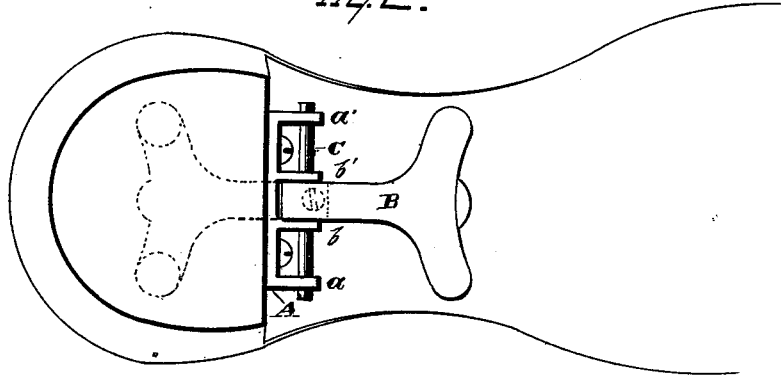


Fig. 3.

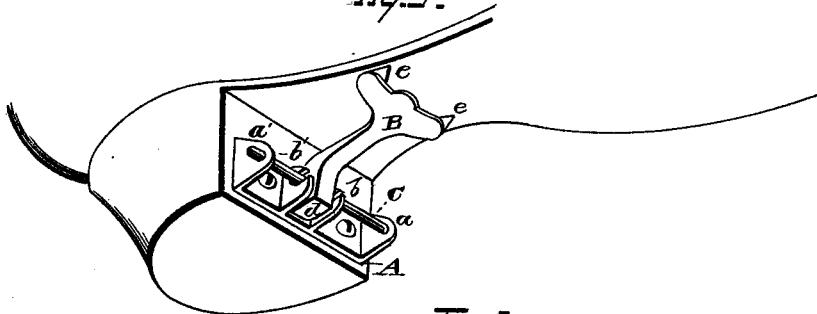
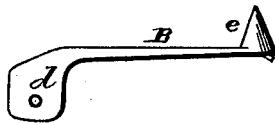


Fig. 4.



WITNESSES
E. J. Nottingham
A. W. Bright

INVENTOR
O. A. Childs
By *Fregeell and Fregeell*
ATTORNEYS

UNITED STATES PATENT OFFICE.

OSCAR A. CHILDS, OF CLEVELAND, OHIO.

IMPROVEMENT IN ICE-CREEPERS.

Specification forming part of Letters Patent No. **202,930**, dated April 30, 1878; application filed March 27, 1878.

To all whom it may concern:

Be it known that I, OSCAR A. CHILDS, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Ice-Creepers; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to ice-creepers, and more particularly to that class of ice-creepers that are attached to the inner edge of the heel, and have a swinging plate which turns forward and back, in one position serving as the creeper to prevent slipping, and in the other resting in the open space in the instep, by which it is out of the way in ordinary walking. The principle is already known in other devices.

My invention consists in an improvement in the spring by which the creeper is kept securely in the desired position, either open on the heel for use, or closed under the instep out of the way; also, in suitable guards on the plate attached to the heel, by which the swinging arm is prevented from lateral displacement.

In the drawings, Figure 1 is a side elevation of a shoe with my improvement attached. Fig. 2 is a bottom view, showing the creeper closed under the instep. Fig. 3 is a perspective view of the same. Fig. 4 is a detached view of the swinging arm.

A represents the front or stationary plate, attached to the inner edge of the heel in any suitable manner. B is the swinging part that forms the creeper proper. C is the journal upon which the creeper is moved forward and backward, and at the same time the spring by which the creeper is firmly held in the position desired—either opened on the heel for use, or closed under the instep out of the way. This spring and journal are preferably made of spring-steel wire, securely attached to the swinging arm B by passing through the head *d*, and there keyed by a screw or other suitable device.

The plate A is supplied with two lugs, *a* and *a'*, which form the bearings to the journal C, and in which the journal turns.

The guards *b* and *b'* are cast with the plate A. Their office is to prevent the lateral displacement of the swinging arm B.

It will be observed that there are but three essential parts to my device—the plate A, cast with the lugs *a* and *a'* and the guards *b* and *b'*, the swinging part B, with its head *d* and spurs *e*, and the spring C. The consequence is, that it is not only simple, and can be made at small expense, but is also durable.

In other creepers of this character, the tension necessary to keep the swinging portion B in position is made of sheet metal, cut to the width desired, or coiled springs. The former are exceedingly liable to break, on account of the thinness of the metal from which it is necessary for them to be cut, and when broken the creeper is entirely useless. The latter or coiled springs are liable to be filled with ice and snow, and thus rendered immovable and entirely useless.

In order that the creeper B may have the requisite tension to be held in place, either opened on the heel or closed under the instep, the head *d* of the swinging arm B is made with two opposite square faces, one of which bears against the plate A when the creeper is open or in use, and the other in the same position when the plate or arm B is closed under the instep.

The head *d* has an eccentric relation with the lugs *a* and *a'*, so that when the creeper is either open or shut, one of the square faces of the head *d* bears against the plate A, and the spring C against the lugs *a* and *a'*, thereby producing the necessary tension to hold the creeper in the position required.

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

1. In an ice-creeper, the combination, with a plate adapted to be secured to the heel of a boot or shoe, of a pivotal shaft having its ends journaled in lugs, and a swinging arm having an enlarged angular-faced end, which is rigidly secured to the central portion of said

pivotal shaft, whereby the swinging arm is retained in position by the resiliency of the pivotal shaft, substantially as set forth.

2. In an ice-creeper, the combination, with a plate provided with lugs *a a'* and open slotted guards *b b'*, of a pivotal shaft, C, having its ends journaled in lugs *a a'*, and swinging arm B, provided with an enlarged angular-faced end, which is rigidly secured to shaft C

between the guards *b b'*, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OSCAR A. CHILDS.

Witnesses:

JNO. CROWELL, Jr.,

W. E. DONNELLY.