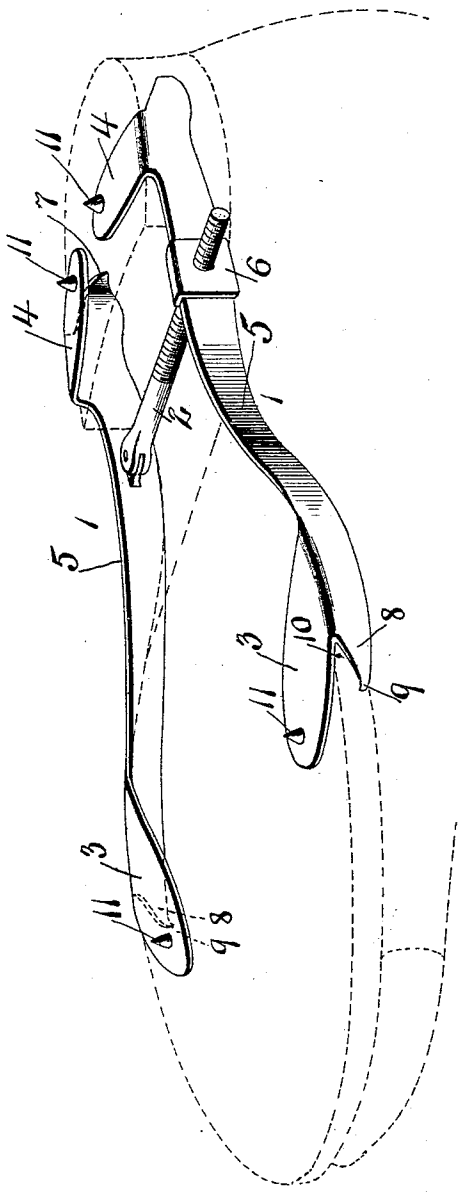
No. 620,582. Patented Mar. 7, 1899.

R. C. GOFF.

ICE CREEPER.

(Application filed Oct. 22, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

RICHARD C. GOFF, OF CHARLOTTETOWN, CANADA.

ICE-CREEPER.

SPECIFICATION forming part of Letters Patent No. 620,582, dated March 7, 1899.

Application filed October 22, 1898. Serial No. 694,291. (No model.)

To all whom it may concern:

Be it known that I, RICHARD C. GOFF, a subject of Her Majesty the Queen of Great Britain, residing at Charlottetown, Queens county, Province of Prince Edward Island, Canada, have invented certain new and useful Improvements in Ice-Creepers, (for which Letters Patent of the Dominion of Canada were granted November 8, 1898, No. 61,668, the application for which was duly filed October 14, 1898, Serial No. 83,339;) 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 ice-creepers.

The object of my invention is to provide a device of this character which can be readily adjusted to fit shoes of various widths, which can be readily attached and detached from the shoe, which will retain its position on the shoe with certainty, in which the ice-contacting points will be beneath both the heel portion and the tread portion of the shoe, which will be neat and attractive in appearance, durable in construction, containing a minimum number of parts, simple in operation, and which can be made at a low cost.

To these ends my invention consists in the improved construction and combination of parts hereinafter fully described, and particularly pointed out in the appended claims.

The drawing represents a perspective view showing my improved creeper as applied to a shoe, the shoe being shown in dotted lines to better enable a clearer view of the operating parts.

Similar numbers of reference indicate similar parts in the drawing.

There have been many varied constructions of ice-creepers, some of which have proven meritorious; but even these constructions have been found to be so complicated in their nature as to present their being successful for the purpose they were designed to be used.

In the present construction the number of parts is limited to three, arranged as shown in the drawing and consisting of the portions 1, arranged on opposite sides of the shoe, and the pivotally-mounted screw-threaded bolt 2, which connects the two portions 1. Each of the portions 1 is formed of a single piece of resilient material having its front end bent at an angle, as at 3, to the main portion, while the rear portion is provided with the angular portion 4, both angular portions being bent inwardly, but at different angles. The main portion is preferably curved inwardly, as at 5, and to one of the portions 1 is pivotally connected the bolt 2, said bolt being adapted to receive the opposite portion 1, having its main portion reinforced, as at 6, and screw-threaded, by means of which it can be adjusted on said bolt. The rear end of each of the portions 1 is bent inwardly, as at 7, and provided with sharpened points, which are adapted to engage with the heel of the shoe, while the front end 8 of each of said portions is provided with a similarly-formed engaging tooth 9, which is adapted to contact with the sole of the shoe, or in case of its being applied to a shoe with a thin sole the tooth passing above the sole and engaging with the portion of the shoe where the sole and upper are joined together, in the latter case the sole passing within a recess 10, formed between the tooth 9 and the inturned flange 3. Each of the inwardly-extending flange portions 3 and 4 is provided with downwardly-extending pointed teeth 11, which are adapted to contact with the ice.

When it is desired to place the creeper onto the shoe, the adjustable member of the creeper is rotated on the bolt 2 until the shoe-engaging portions of the creeper are of less width than the width of the sole of the shoe. The heel portion of the creeper is then placed in position on the heel and the front engaging portion of one of the members secured in its position against the sole of the shoe, after which the opposite member is sprung outwardly a sufficient distance to allow the tooth 9 to pass the edge of the sole, whereupon the sprung portion is released, the tooth engaging the sole of the shoe, when the creeper is in a position from which it cannot be accidentally removed without destroying the shoe. When it is desired to remove the creeper, it is only necessary to spring the forward end of one of the members outwardly a sufficient distance to allow the tooth 9 to pass from con-

tact with the edge of the sole, when the creeper will drop off and be freed from its operative position.

It will be apparent that by the use of the resilient members the creeper can be attached and detached with a minimum amount of labor and that the tendency of the members will be to hold the creeper in position, and if it should be found that the creeper is not held sufficiently in contact with the sole of the shoe it is only necessary to give the adjustable member a few turns on the bolt 2, when this fault will be remedied.

It will also be seen that by this construction the ice-contacting points are arranged at widely-distributed points on the bottom of the shoe, and by this arrangement any liability of the non-engagement of some of the teeth 11 will be prevented.

Another advantage of this construction is the fact that both the sole and the heel are kept out of contact with the ice-surface by reason of the inturned flanges 3 and 4, while the construction is such that no inconvenience will result by reason of the weight of the article.

While I have herein shown a preferred form of carrying my invention into effect, yet I do not limit myself to such preferred detail of construction, but claim the right to use any and all modifications thereof which will serve to carry into effect the objects to be attained by this invention in so far as such modifications and changes may fall within the spirit and scope of my said invention.

Having thus described my invention, what I claim as new is—

1. An ice-creeper, comprising two portions, each formed of a single piece of resilient material, said portions having at their opposite ends inturned flanges adapted to rest on the sole and heel of the shoe, each of said inturned flanges having ice-engaging teeth; and a bolt pivotally connected to one of said members and adjustably mounted in the opposite member, the adjustable member forming the nut for said bolt, whereby the distance between the members can be readily regulated, substantially as described.

2. An ice-creeper, comprising two portions each formed of a single piece of resilient material, each of said members having its ends provided with inwardly-bent tooth portions, and also having inwardly-extending flange portions, each of the latter being provided with ice-engaging teeth; and a bolt, pivotally connected to one of said members, and adjustably mounted in the opposite member, the adjustable member forming the nut for said bolt, whereby the distance between said members may be regulated, substantially as described.

3. An ice-creeper, comprising a plurality of members adjustably connected together, said members having shoe-engaging and ice-engaging portions, the disengagement of said members from the shoe being accomplished by the release of one of said shoe-engaging portions.

4. An ice-creeper, comprising a plurality of members adjustably and removably connected together, said members having shoe-engaging and ice-engaging portions, the disengagement of said members from the shoe being accomplished by the release of one of said shoe-engaging portions.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

RICHARD C. GOFF.

Witnesses:

JOHN T. MELLISH,

JOHN A. WEBSTER.