April 25, 1939. E. PRONDECKI 2,155,979

ICE CREEPER

Filed Feb. 3, 1938

Fig. 1.

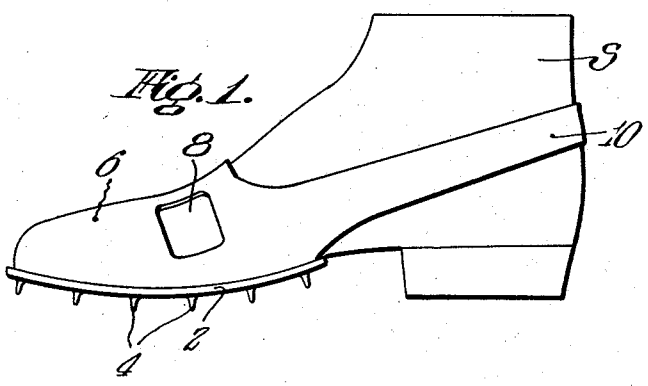


Fig. 2.

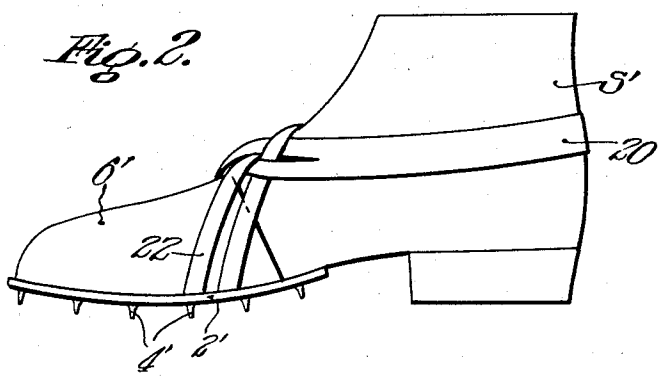
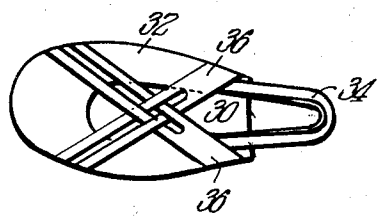


Fig. 3.



INVENTOR.
Edwin Prondecki.
BY
Walter C. Dom
ATTORNEY.

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Edwin Prondecki, Turners Falls, Mass.

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2 Claims. (Cl. 36—7.7)

This invention relates to improvements in ground-grippers and is directed more particularly to the provision of a novel device for fitting over the shoe and arranged to prevent one's slipping on the ground. As special features, the device may be used to facilitate walking on icy surfaces or it may be used to transform the shoe over which it fits into a golf-shoe or the like.

It is one of the principal objects of the invention to provide a ground-gripper which is so formed as to frictionally engage the shoe over which it fits and thereby obviates the need for bulky and expensive fastening straps or the like. As will appear the devices of this invention are simple in form so as to be economical to manufacture and easy to apply to the shoe.

Still another object of the invention is the provision of a ground gripper having means for yieldably engaging the shoe. As will be described this is preferably accomplished by the use of stretchable material.

Various other objects and advantages of the invention will become more apparent after a reading of the following description and reference will be had to the accompanying drawing, wherein:

Fig. 1 is a side elevational view showing the ground-gripper of the invention associated with a shoe;

Fig. 2 is a similar view showing a modified form of gripper; and

Fig. 3 is a plan view showing still another modified form of the device of the invention.

Referring now to the drawing more in detail the invention will be fully described.

A shoe is shown at S in Fig. 1 and it has the usual toe portion of a certain size and a heel portion. A sole part 2 of the device of the invention extends adjacent the outside of the forward sole of the shoe.

Preferably the part 2 is of such size as to extend from the forward end of the sole to the instep, as shown. The material of which part 2 is made may vary but preferably it has relative rigidity such as leather as contrasted with rubber.

Extending downwardly from the sole part 2 are cleats 4 which likewise may vary in form. That is, they may consist of spikes, nails or any other kind of calk adapted to engage the ground and prevent slipping. The particular form the parts 4 take or the particular manner in which they are secured to the sole part 2 is not important.

To the part 2 I secure a toe portion 6 which is adapted to fit over the toe part of the shoe with which it will be associated. The portion 6 is formed of some stretchable material, such as rubber, and it is of less size than the said toe part of the shoe.

Thus, it is necessary to stretch the part 6 in order to insert the foot and the same being elastic readily permits this. Also, the material being rubber-like, the part 6 frictionally engages the shoe when it has been allowed to assume its normal size so that it is firmly, yet releasably, held in place.

The area of the shoe which the part 6 can cover may vary so that the part 6 may be of different shapes. That is, the part 6 may extend up the front of the shoe a considerable distance or it may have cut-outs such as 8 for ornamental purposes, it only being necessary that the part frictionally engage enough of the shoe and in such a way that the shoe can be said to be elastically gripped between the sole 2 and part 6.

Extending rearwardly from opposite sides of the part 6 is a heel-engaging member 10. This is preferably integral with part 6 and therefore of the same elastic material.

In this way, the foot may be inserted in part 6 and the strap 10 stretched about the back of the shoe, as shown. Thus, the shoe is frictionally engaged at spaced points so as to require stretching again of the device to bring about its removal.

In Fig. 2 there is shown a modified form of the gripper of the invention associated with a shoe S'. A sole part 2' similar to the member 2 and bearing cleats 4' has a toe part 6' secured thereto.

The part 6' may be similar in all important respects to part 6. That is, it is similarly adapted to be stretched about the shoe and then released so as to be in frictional engagement therewith.

While I prefer to so form the sole and toe parts 2 and 6 and 2' and 6' that any heel-engaging means is really not necessary to the secure attachment of the device to a shoe, it is usually desirable that some kind of strap be employed to extend around the back of the shoe.

According to the modification in Fig. 2, a strap 20 is provided having its opposite ends split to form pairs of elements 22, as shown. The intermediate portion of the strap is adapted to extend adjacent the rear of the shoe and the elements 22 are interlaced as shown and secured to either the sole 2' or the part 6' or both.

In any event, the interlacing of the elements 22 permits relative movements of the opposite end portions of the strap so that the same may be readily adjusted to accommodate the shoe. The member 20 may be formed of various materials, such as fabric containing more or less of rubber, canvas, or the like but I find better results are had if the strap 20 is elastic like the part 6'.

In Fig. 3, I have shown a modification of the device shown in Fig. 2. A sole part 30 carrying depending spikes (not shown) has secured thereto a toe portion 32 of stretchable material. A heel-engaging strap 34 which is preferably likewise stretchable extends rearwardly from the toe part 32 and may be integral therewith.

A pair of straps 36 have their rear ends secured to the rear portion of either the parts 30 or 32 or both and they extend upwardly over the toe member with their forward ends secured to the forward portion of either the parts 30 or 32 or both. According to the preferred form, the straps 36 are slit as shown and the portions thus formed interlaced. The straps 36 may be of stretchable material or they may consist of some kind of fabric such as canvas.

While I have described the invention in great detail and with respect to the present preferred form thereof, it is not desired to be limited thereto since many changes and modifications may be made therein without departing from the spirit and scope of the invention.

What it is desired to claim and secure by Letters Patent of the United States is:

1. As a new article of manufacture, a device of the class described comprising in combination, a toe pocket member formed of stretchable sheet material and adapted to receive and frictionally engage the toe part of a shoe, said member being provided with a sole part and ground-gripping members depending downwardly therefrom, and a flexible strap member having interlaced end portions and an intermediate portion, the extremities of said end portions being attached to said toe pocket member and said intermediate portion providing a loop for encircling the ankle part of the shoe.

2. As a new article of manufacture a device of the class described comprising in combination, a toe pocket member formed from stretchable sheet material having an open mouth and adapted and arranged to receive and frictionally engage the toe part of a shoe, said member being provided with a sole part and ground gripping members depending downwardly therefrom, a separate flexible strap member having an intermediate body portion and opposite end portions provided with longitudinal slits extending inwardly from the ends thereof forming a plurality of separate end elements, the separate elements of one end portion being interlaced with separate elements of the other end portion and relatively movable and angularly disposed over the pocket adjacent the open mouth thereof at its upper side and extending downwardly over and movable relative to said pocket member adjacent the open mouth thereof with the extremities of the separate elements secured to said sole part forwardly of the mouth of said pockets, and the intermediate body portion of the loop between the interlaced elements arranged to encircle the ankle part of a shoe.

EDWIN PRONDECKI.