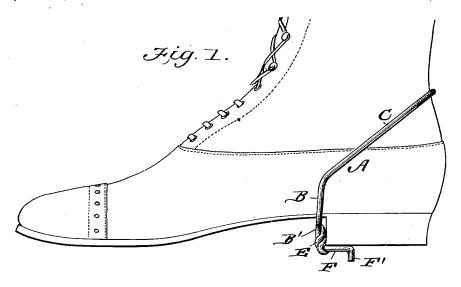
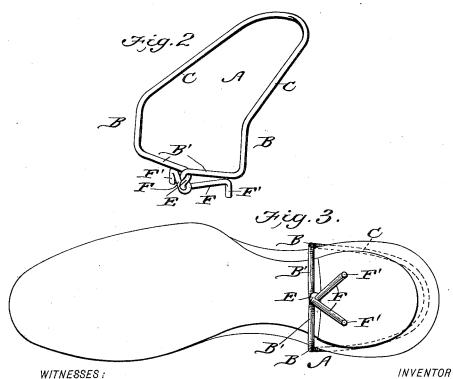
## R. C. SNOWDEN. ICE CREEPER.

(Application filed July 14, 1899.)

(No Model.)





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## UNITED STATES PATENT OFFICE.

ROBERT C. SNOWDEN, OF DUQUESNE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOHN S. YOUNGBLOOD, OF SAME PLACE.

## ICE-CREEPER.

SPECIFICATION forming part of Letters Patent No. 649,370, dated May 8, 1900.

Application filed July 14, 1899. Serial No. 723,786. (No model.)

To all whom it may concern:

Be it known that I, ROBERT C. SNOWDEN, a citizen of the United States, residing at Duquesne, in the county of Allegheny and State 5 of Pennsylvania, have invented a new and useful Improvement in Ice-Creepers, of which

the following is a specification.

My invention is an improvement in icecreepers seeking to provide a simple construc-10 tion which can be cheaply made, will be light and self-retaining in use, and will efficiently serve its purpose; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, 15 and pointed out in the claims.

In the drawings, Figure 1 is a side view of my invention as in use. Fig. 2 is a detail perpective view of the ice-creeper detached, and Fig. 3 is a bottom plan view of the creeper

20 as in use.

The ice-creeper is composed of a length of suitable wire, which is bent to form the spring-clamp adapted to clamp or embrace the ball of the heel and the spur or spurs for

25 biting into the ice or sleet.

The clamp A extends upwardly and rearwardly to properly embrace the ball of the heel, having its side bars formed with the upright portions B and the upwardly and rear-30 wardly inclined portions C, leading from the upper ends of the upright portions B and terminating at their upper meeting ends in a bow which fits around the rear of the foot. When applied to the foot, the lower ends of the up-35 right portions B lie about on the level of the under side of the instep or the hollow of the foot, and arms B'extend inwardly from such lower ends of the portions B to a point mid-way between said portions, where the wire is 40 twisted to form the shank E, which extends down to the bottom of the heel, the ends of the wire extending thence rearwardly, forming the diverging bars F, which lie below the heel and have their ends bent, forming the 45 spurs F', which project downward, as shown.

The creeper is made of spring-wire which possesses sufficient elasticity to permit it to be sprung in operation to the position for use shown in Fig. 1 and also adapts it to be self-50 retaining when in such position. The elasthereof to feet of different sizes, as well as the slight adjustment necessary to fit different sizes or heights of heel.

The inwardly-extending arms B' serve to 55 unite the portions supporting the spurs, so the latter cannot spread apart, the tension of the clamp by which it grips the foot being secured in a large measure by the band or angle between the upright portions B and the 60 inclined portions C of the side bars of the clamp.

The devices are light and can be readily carried in the pocket and conveniently ap-

plied for use when necessary.

The creeper may be formed of any suitable wire and may be enameled, nickeled, or otherwise finished to suit the taste of the purchaser.

The spurs are arranged to project vertically 70 downward when in use, and they will ordinarily operate to prevent slipping if flat or blunted; but where desired they may be beveled off or otherwise sharpened to suit.

When applied for use as shown in Fig. 1, 75 the creeper does not in any way affect the free movement of the foot and cannot become accidentally displaced.

Having thus described my invention, what I claim, and desire to secure by Letters Pat- 80

ent, is-

1. An ice-creeper composed of a length of wire bent forming the upwardly and rearwardly inclined spring clamping-loop adapted to embrace the ball of the heel, and the 85 spur or spurs, substantially as set forth.

2. An ice-creeper composed of a length of wire bent forming the heel-clamping loop, and the inwardly-extended arms at the lower end of said clamping-loop, such arms being 90 connected at their inner ends, and the spur or spurs, substantially as set forth.

3. An ice-creeper composed of a length of wire bent forming the heel-clamping loop whose side bars are formed with the upright 95 and the inclined portions adjoining each other, and the spur or spurs substantially as set forth.

4. An ice-creeper composed of a length of wire bent forming the clamping-loop and hav- 100 ing its ends extended forming spurs, the wire ticity of the clamp also permits the fitting | being twisted together forming a shank in

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5. The herein-described ice-creeper composed of a length of wire bent forming the heel-clamping loop whose side bars are composed of the upright and inclined portions whereby it fits and clamps the ball of the heel, the inwardly-extended arms, the depending twisted shank at the inner ends of

advance of the spurs, substantially as set | such arms, and the rearwardly-projecting difforth. | verging bars having the spurs substantially as set forth.

## ROBERT C. SNOWDEN.

Witnesses:

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