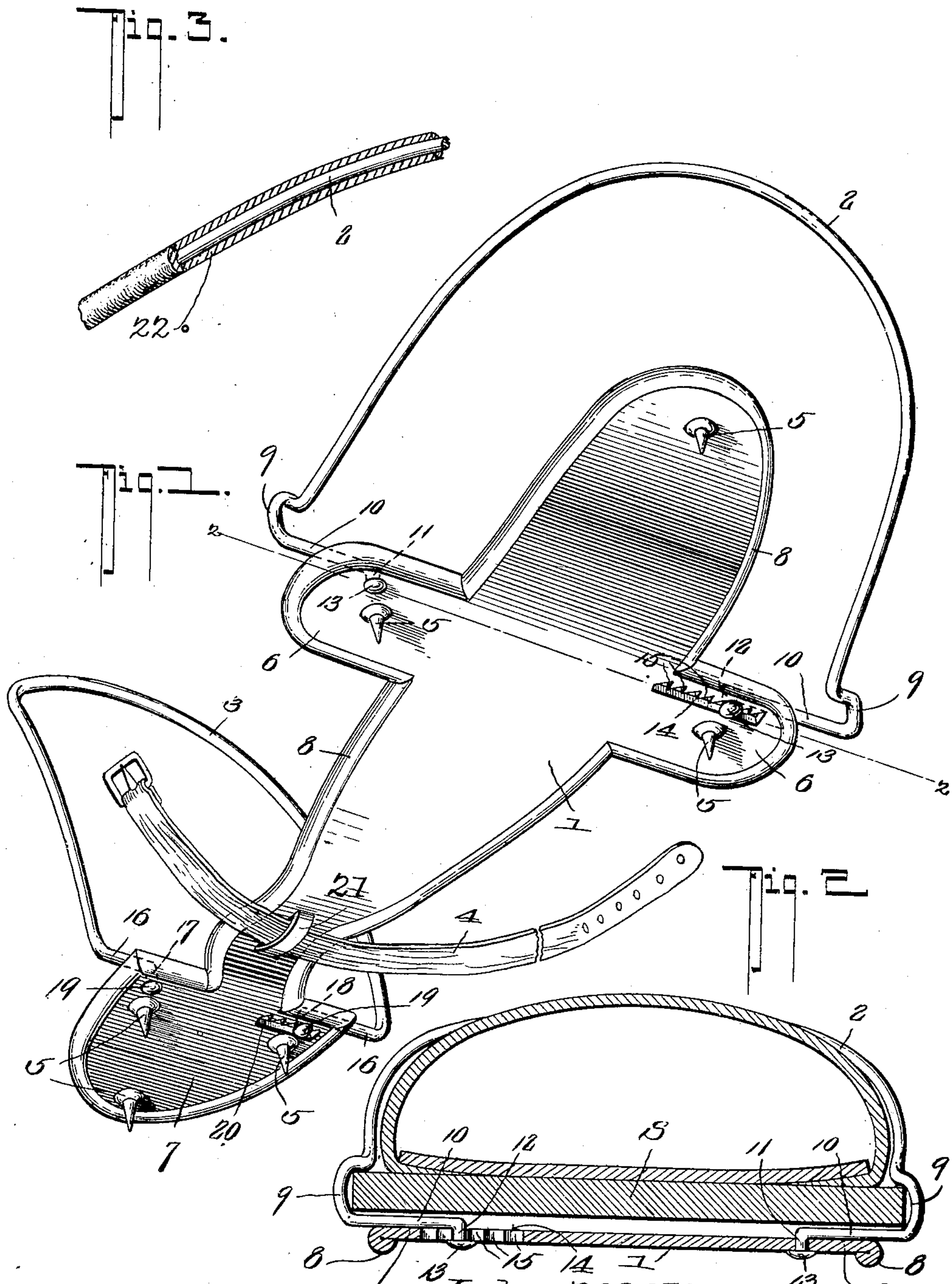


No. 810,484.

PATENTED JAN. 23, 1906.

J. McK. GRAY.
ICE CREEPER.

APPLICATION FILED JAN. 24, 1905.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN McKELVEY GRAY, OF PORT CARBON, PENNSYLVANIA.

ICE-CREEPER.

No. 810,484.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed January 24, 1905. Serial No. 242,562.

To all whom it may concern:

Be it known that I, JOHN McKELVEY GRAY, a citizen of the United States, residing at Port Carbon, in the county of Schuylkill and State of Pennsylvania, have invented a new and useful Ice-Creeper, of which the following is a specification.

This invention relates to ice-creeper.

The object of the invention is to provide a simply-constructed, highly-durable, and thoroughly-efficient form of ice-creeper which may readily be attached to and detached from the shoe of a wearer and which when in position will be positively held against accidental disconnection, while at the same time being perfectly comfortable to the wearer and adjustable to footwear of different sizes and kinds.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of an ice-creeper, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts, Figure 1 is a view in perspective of an ice-creeper constructed in accordance with the present invention viewed from the under side. Fig. 2 is a view in transverse section through a shoe, exhibiting a creeper applied thereto. Fig. 3 is a perspective detail view, partly in section, showing a slightly-modified form of clamp that may be employed in lieu of that shown in Figs. 1 and 2.

The creeper embodies a sole-plate 1, a pair of clamping loops or elements 2 and 3, a supplemental attaching element in the nature of a strap 4, and a plurality of calks or spurs 5. The sole-plate is constructed of any suitable material, preferably of sheet-steel or any other resilient metal, and is formed with side wings 6 and a heel-plate 7, all the parts being preferably integral and the edge or perimeter of the sole-plate as a whole being turned over or beaded upon itself, as at 8, to strengthen the structure and to prevent entanglement with objects. The sole-plate will, as a rule, be narrower than the sole of the shoe, this for the purpose of lightness, and the wings 6 will be of a width approximating that of the sole. The clamping-loops are constructed, preferably, of spring-wire and are adapted by exerting downward

spring-pressure upon the upper side of the foot of the wearer and back of the heel to hold the creeper positioned upon the shoe. The front or toe loop 2 is approximately semicircular throughout a greater portion of its length, is provided with two lateral shoulders 9, which are of a size, as shown in Fig. 2, to pass around the sole S of the shoe, and the terminals are bent inward approximately parallel with the sole-plate, as at 10, and thence bent downward at right angles to form attaching-lugs 11 and 12, the ends of which are upset or formed with heads 13 to keep the terminals combined with the sole-plate. The lug 11 is seated in an orifice in the sole-plate; but the lug 12 engages a transverse slot 14 in one of the wings 6, one wall of the slot being provided with serrations or teeth 15, with which the lug 12 interlocks, and thus holds it at any adjustment to which it may be moved, the provision of the locking-slot 14 rendering it possible to cause one size of ice-creeper to fit several sizes of shoes. The rear or heel loop 13 is also approximately semicircular in form, and its terminals 16 are bent inward parallel with the heel-plate and thence bent at right angles to form attaching-lugs 17 and 18, the ends of which are upset or formed with heads 19 to hold the terminals combined with the plate. This plate is provided with a notched locking-slot 20, similar to the slot 14 in the sole-plate, and is engaged by the lug 18 for the same purpose—that is to say, to permit of the heel-loop being adjusted to fit heels of different sizes. As an additional means of holding the creeper in position the instep portion of the sole-plate may be provided with a keeper 21, which is struck out of the metal of the plate and is adapted to be engaged by the strap 4. The same provision may be made with the toe portion of the plate, and as this will be obvious detailed illustration is deemed unnecessary.

In the form of toe and heel loop shown in Figs. 1 and 2 ordinary plain wire is employed; but, if preferred, the wire may be sheathed by rubber or any other suitable yielding material 22, as shown in Fig. 3.

It will be seen from the foregoing description that although the ice-creeper of this invention is exceedingly simple of construction it combines all of the requisites necessary for the production of a thoroughly effective device, and that, owing to the manner in

which the parts are assembled, liability of breakage or derangement in use is reduced to a minimum.

Having thus described the invention, what is claimed is—

1. An ice-creeper comprising a sole-plate, and resilient loops disposed at the toe and heel portions thereof, and having their terminals permanently secured to the plate.
- 10 2. An ice-creeper comprising a sole-plate and resilient loops disposed at the toe and heel portions thereof, and having their terminals permanently secured to the plate, one of the terminals of each of the loops being ad-
15 justable relatively to the plate.
3. An ice-creeper comprising a sole-plate provided with a toe and heel portion, and with notched slots, and resilient loops each having one of its terminals rigidly secured to
20 the plate, and its other terminal mounted for movement within one of the slots.
4. An ice-creeper comprising a sole-plate,

and attaching-loops disposed at the toe and heel portions thereof, the toe-loop being provided with lateral shoulders or offsets to en- 25
gage the sole of the shoe, and the terminals of the loops being permanently secured to the plate.

5. An ice-creeper comprising a sole-plate provided with lateral wings, and a heel-plate, 30
calks carried by the plate, wings, and heel-plate, and resilient loops disposed at the toe and the heel portions of the plate, each having one of its terminals rigidly combined with the plate, and the other terminal ad- 35
justably connected therewith.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN McKELVEY GRAY.

Witnesses:

P. W. POST,
W. E. WILSON