Jan. 3, 1950 E. ARIETI 2,493,563

CREEPER FOR USE ON ICY OR OTHER SLIPPERY SURFACES

Filed May 27, 1948

Fig. 1.

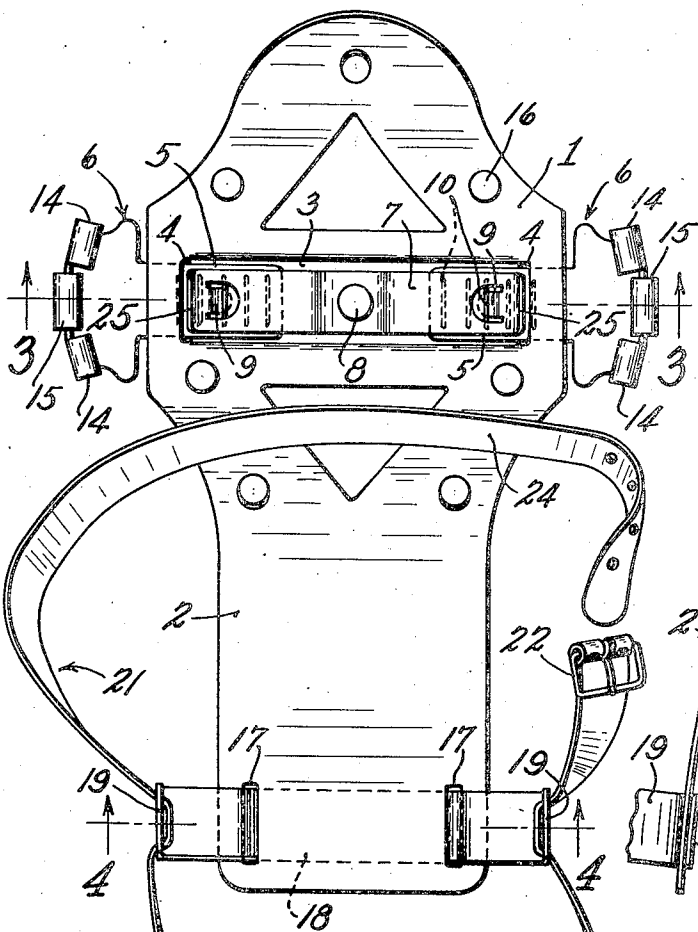


Fig. 2.

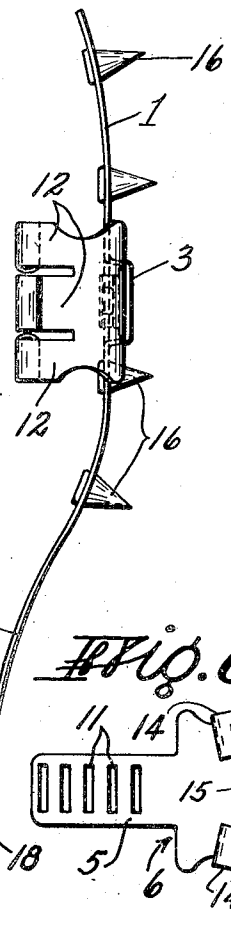


Fig. 6.

Fig. 3.

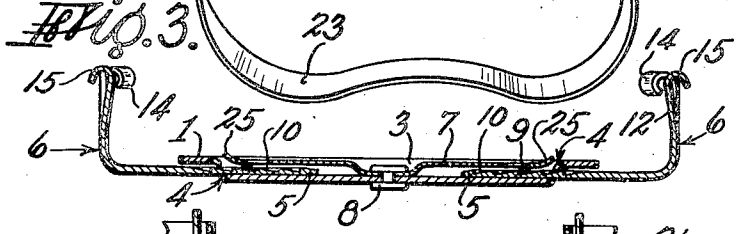


Fig. 5.

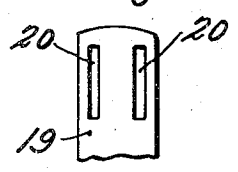
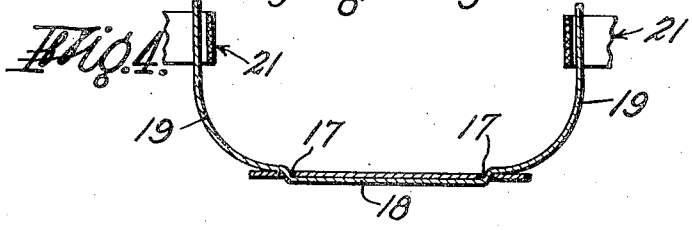


Fig. 4.



INVENTOR
EUGENE ARIETI
BY Clapin & Neal
ATTORNEYS

Patented Jan. 3, 1950

2,493,563

UNITED STATES PATENT OFFICE

2,493,563

CREEPER FOR USE ON ICY OR OTHER SLIPPERY SURFACES

Eugene Arieti, Springfield, Mass.

Application May 27, 1948, Serial No. 29,495

3 Claims. (Cl. 36—7.7)

1

This invention relates to an improved creeper for use on icy or other slippery surfaces.

The principal object of the invention is to provide an ice creeper which may be adjusted to shoes or boots of different width and which when so adjusted may be quickly and easily applied or removed from the shoe or boot.

Other and further objects residing in the detail of construction will be made apparent from the following specification and claims.

In the accompanying drawing,

Fig. 1 is a plan view of a creeper embodying the invention;

Fig. 2 is a fragmentary side elevational view of the structure shown in Fig. 1;

Fig. 3 is a sectional view substantially on line 3—3 of Fig. 1;

Fig. 4 is a sectional view substantially on line 4—4 of Fig. 1;

Fig. 5 is a fragmentary detail view of one of the strap brackets; and

Fig. 6 is a plan view of a modified form of clamp member.

Referring to the drawings, 1 designates a sole plate having a rearwardly extending portion 2 which, as shown in Fig. 2, is arched upwardly to conform generally with the instep portion of the shoe or boot to which it is attached.

The sole portion 1 is formed with a depression 3, the ends of the depression being provided with openings 4 through which the shank portions 5 of sole clamps, generally indicated at 6, extend for sliding movement over the floor of the depression 3.

An elongated spring retaining member 7 is secured centrally of the depression as by a rivet 8. The spring member 7 is formed adjacent its ends with downwardly bent tongues 9 which form spring pawls engaging closely spaced ratchet teeth 10 struck in the upper surface of the shanks 5 of the sole clamp. In the drawings the spacing of the teeth 10 has been exaggerated for the sake of clearness and in practice the ratchet teeth will preferably be as closely spaced as is practicable. Alternately in lieu of teeth 10 the shank of the clamps may be formed with slots 11, as shown in Fig. 6, in which the tongues may engage.

The outer ends of the clamp members 6 are formed with three upwardly extending spring fingers 12. The upper ends of the outer member 12 are bent over to form welt engaging hooks or beads 14 for holding the plate 1 snugly against the ball portion of the shoe or boot. The middle fingers 12 are bent slightly inwardly, as best

2

shown in Fig. 3 to frictionally engage the side of the sole, and terminate in outwardly bent ends 15 to which a toe strap may be attached if the construction of the shoe or boot does not afford a satisfactory or sufficient clamping engagement.

The clamp members 6 are so positioned that they will engage the sole slightly forward of the widest part of the sole.

The plate 1 is provided with a plurality of anti-slipping spikes 16.

The rear end of portion 2 which engages the shank adjacent the heel is formed with parallel slots 17 through which a metal strip 18 is threaded. The outer ends of strip 18 are bent upwardly to form strap brackets 19 which are slotted at 20 to receive a strap member 21, as shown in Fig. 1, and provided with a buckle 22.

In use the ball portion of the shoe or boot is initially positioned on plate 1 and clamp member 6 forced inwardly toward each other to bring the upper ends of fingers 12 into tight stressed engagement over and against the edge or welt of the sole just forwardly of the widest part, and the clamps will be retained in such position by the engagement of spring pawl members 9 in the ratchet teeth 10. The rear loop portion 23 of the strap is brought upwardly over the heel portion of the shoe or boot and the forward position 24 of the strap member is carried over the shank portion of the shoe or boot upper and the strap tightened.

The creeper is thus tightly attached in place. When it is desired to remove the creeper it is only necessary to release the strap and draw the shoe or boot rearwardly from between the clamp. The clamps retain their adjusted position due to the spring character of the member 7 so that the creeper may be replaced without further adjustment by again wedging the ball portion of the sole forwardly between the clamps and tightly buckling the straps.

When it is desired to adjust the creeper to a different size of sole, the shanks of the clamps may be released from the spring pawls 9 by inserting a knife blade or the like beneath the ends of member 7 and prying the ends upwardly, the ends preferably being bent slightly upwardly as at 25 to facilitate this operation.

What I claim is:

1. A creeper which comprises a spike carrying plate adapted to be positioned against the ball portion of the sole of a shoe, spring pawl members secured to said plate, clamp members engageable with the edges of the shoe sole and

having ratchet forming shank portions slidable between said plate and the pawl members and held by the latter against outward movement, a plate member extending rearwardly from the spike carrying plate beneath the shank portion of the shoe sole, strap supporting brackets carried by said plate member and extending upwardly at the sides of the shoe, and a strap carried by said brackets to releasably secure the creeper to the shoe.

2. A creeper which comprises a spike carrying plate adapted to be positioned against the ball portion of a shoe sole, said plate being formed with a transverse elongated recess, the ends of said recess opening beneath the plate, an elongated spring member fitting in said recess and secured at its center to the center of the recess, shoe engaging clamps having shank portions extending beneath the plate and through the open ends of the recess to position the shanks between the spring member and the bottom of the recess, spaced ratchet members carried by the shanks and downwardly extending pawl members struck from the spring member adjacent the ends thereof and engaging the ratchet members on the shank to normally prevent outward movement of the shanks while permitting their inward movement, said plate member having a rearward extension and a strap secured to the sides of said extension.

3. A creeper which comprises a spike carrying plate adapted to be positioned against the ball portion of the sole of a shoe, an elongated spring member extending transversely of the plate and secured at its center to the center of the plate, shoe engaging clamp members positioned at the sides of the plate and having shank portions extending inwardly between the end portions of the spring member and the plate, interlocking members carried by the shank portions of the clamp members and the overlying portions of the springs to releasably hold the clamp members in adjusted position relative to the plate, said plate having a rearward extension, and a strap secured to the sides of said extension.

EUGENE ARIETI.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,637,691	Ferad	Aug. 2, 1927