M. MARKOWICZ.

ICE CREEPER.

APPLICATION FILED MAR. 3, 1915.

1,141,353.

Patented June 1, 1915.

Fig. 1.

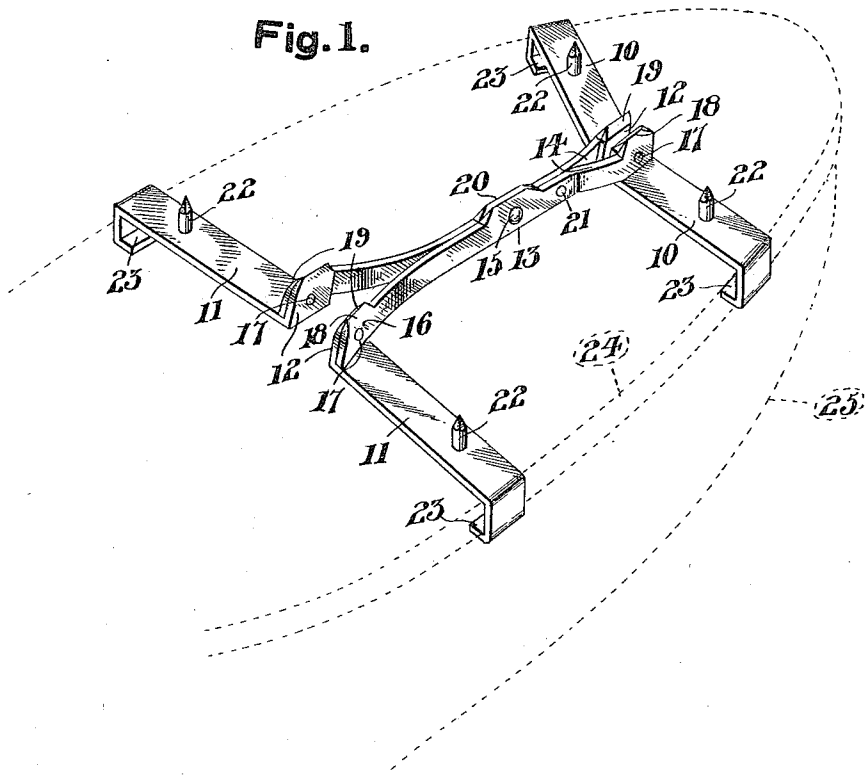


Fig. 2.

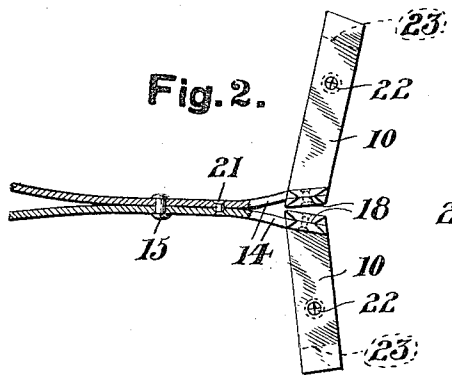
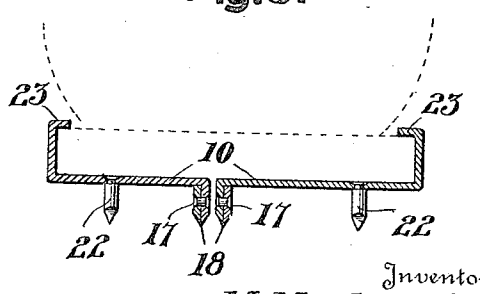


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

MARTIN MARKOWICZ, OF ERIE, PENNSYLVANIA.

ICE-CREEPER.

1,141,353. Specification of Letters Patent. Patented June 1, 1915.

Application filed March 3, 1915. Serial No. 11,905.

To all whom it may concern:

Be it known that I, MARTIN MARKOWICZ, a subject of the Emperor of Austria-Hungary, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Ice-Creepers, of which the following is a specification.

This invention relates to new and useful improvements in ice creepers.

The primary object of this invention is the provision of an ice creeper adapted for ready attachment to a shoe without the employment of any manually operable securing means but being readily sprung into place upon the sole of any sized shoe for positioning anti-slipping calks so as to protrude from the lower face of the sole for engagement with slippery surfaces over which the wearer is traveling.

A further object of the device is to provide a creeper that is cheap and easy to manufacture and which embodies calk carried resilient clamping arms adapted to be readily positioned for use upon a shoe for the purpose of preventing the wearer from slipping upon smooth surfaces such as ice and snow.

With these general objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the appended claim.

In the drawings forming a part of this application and in which like designating characters refer to corresponding parts throughout the several views:—Figure 1 is a perspective view of the device attached to a shoe sole, a portion of the supporting shoe being shown in dotted lines. Fig. 2 is a central longitudinal sectional view through one end portion of the device, and Fig. 3 is a transverse sectional view thereof, a portion of the shoe being shown in dotted lines.

Referring more in detail to the drawings, it will be noted that the entire device is in the form of a unitary structure and consists of a forward and a rear pair of similar resilient clamping arms 10 and 11 respectively, it being noted that the forward arms 10 are of slightly less length than the arms 11. The adjacent inner ends of each pair of the said arms is provided with an angularly extending sharpened lug 12.

A resilient connecting means 13 is provided for imparting the required clamping spring to the device and the same consists of similar spring strips 14 centrally secured together by means of a rivet 15 and having their opposite ends bent outwardly and provided with sharpened feet 16 which are seated upon the arms 10 and 11 in engagement with the outer faces of the lugs 12, the said feet being secured to the said lugs by means of rivets 17. The feet 16 have their lateral edges sharpened as at 18 which coincide with the sharpened edges 19 of the lugs and thereby together form a sharpened ground engaging edge at the inner spaced ends of each of the arms 10 and 11. The resilient connector 13 has each of its members 14 provided with central longitudinally positioned sharpened edges 20 lying adjacent the securing rivet 15 thereof while a further rivet 21 is secured between the said members 14 forwardly of the rivet 15 for the purpose of retaining the forward arms 10 closer together than the rear arms 11. Each of the said arms is provided with a projecting pointed calk 22 of substantially the same height as the aforementioned lugs and feet and are adapted to engage the roadbed when the wearer of the device is traveling thereover. Squared hooks 23 are provided upon the free ends of the arms 10 and 11 and the same are of proper size and form for fitting over the outer edge of the usual shoe sole, such as 24 of a shoe herein represented in dotted lines as 25.

The complete operation of the device will thus be apparent from this detailed description thereof, in that the creeper may be readily grasped and slipped upon the shoe sole and with the hooks 23 of the arms 10 and 11 resiliently engaging the outer edges of the sole, thus positioning the calks 22 and the sharp edges 18, 19 and 20 in a projecting manner upon the face of the sole and readily thrust into the ice and snow of the roadway in walking.

The device is readily detached by forcibly separating the arms 10 and 11 and slipping the device off of the sole, it being noted that the forward arms 10 are shorter than the arms 11 so as to more easily fit the tapered forward portion of the shoe sole.

It will thus be seen that the device is of simple construction and is formed unitary and may be readily carried in the pocket and attached and detached with respect to the shoe sole of the wearer.

While the form of the invention herein shown and described is what is believed to be the preferred embodiment thereof, it is nevertheless to be understood that minor changes may be made in the form, proportion and details of construction without departing from the spirit and scope of the invention as set forth in the appended claim.

What I claim as new is:—

An ice creeper comprising two pairs of outwardly projecting arms, one of said pairs of arms being shorter than the other pair of arms, sole engaging hooks at the opposite outer ends of the said arms extending upon one side of the device, sharpened lugs upon the inner spaced ends of the said arms projecting in opposite direction from the said hooks, projecting sharpened calks upon the same side of said arms as the said lugs, two resilient connectors centrally secured together and provided with terminating feet rigidly secured to the outer faces of the said lugs and having sharpened edges registering with the sharpened edges of the said lugs, the said connectors being provided with substantially centrally projecting sharpened ribs and restricting means adjacent the shorter pair of arms adapted for positioning such arms closer together than the longer pair of arms.

In testimony whereof I affix my signature in presence of two witnesses.

MARTIN MARKOWICZ.

Witnesses:

ANTONI PIETBUCH,

STUF GUTENY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."