

T. GUNSALUS.
ICE-CREEPERS.

No. 180,578.

Patented Aug. 1, 1876.

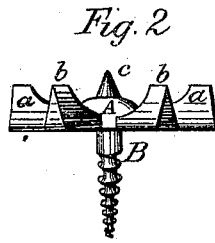
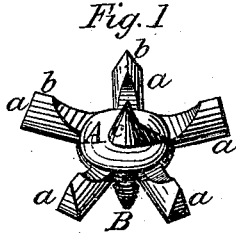


Fig. 4

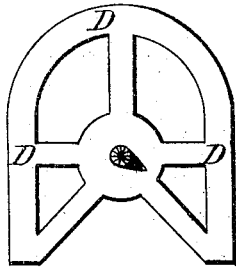
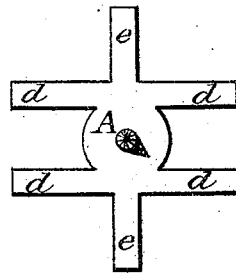


Fig. 3



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UNITED STATES PATENT OFFICE.

THOMAS GUNSALUS, OF WEST TROY, NEW YORK.

IMPROVEMENT IN ICE-CREEPERS.

Specification forming part of Letters Patent No. **180,578**, dated August 1, 1876; application filed January 4, 1876.

To all whom it may concern:

Be it known that I, THOMAS GUNSALUS, of West Troy, in the county of Albany and State of New York, have invented certain new and useful Improvements in Ice-Creepers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved ice-spur. Fig. 2 is a side view, and Figs. 3 and 4 are modifications of my invention.

Similar letters of reference indicate corresponding parts in all the figures.

The object of my invention is to construct a cheap, durable, and easily adjustable and detachable ice-spur or ice-creeper, for the purpose of preventing the wearer from slipping and falling upon icy and slippery pavements, &c. The construction of my improved ice-spur is hereinafter more fully described.

In the drawing, A is the body of the ice-spur, having a suitable number (three or more) of radial arms, *a*, concave on the under side, and terminating in knife-points, as shown at *b*. Body A has a downward-projecting spur, *c*, which projects beyond the knife-edges *b*, and the object of which is to enter the frozen ground first, thus affording a preliminary grasp, which is afterward strengthened by edges *b*. B is an ordinary metallic screw, forming part of, and extending upwardly from, body A. By this screw my improved ice-creeper may be secured to any ordinary boot or shoe.

The object in having the arms or knives *a* concave is, as will be readily seen, to allow the sharp edges or points *b* to enter more readily into the surface of the ice when used, thus preventing the possibility of slipping.

Instead of the radial arms *a*, it may sometimes be preferable to have only two arms extending from the body A, one on each side, and each of these arms having one or more

cross-pieces, both arms and cross-pieces being shaped like the arms *a* before mentioned.

An ice-creeper of this construction is shown in Fig. 3, where *d* are the arms, and *e* the cross-pieces.

In order to strengthen the arms *a*, a brace, D, as shown in Fig. 4, may be used without changing the nature of my invention.

The manner of using my improved ice-spur or ice-creeper will be readily understood from the foregoing description. It is by means of the screw D, attached to the heel of the boot or shoe, the wearer of which is then prevented from slipping and falling. When not in use it may be easily detached and carried in the pocket.

I am aware that ice-creepers have been constructed consisting of a solid body having downward-projecting spurs and an upward-projecting screw, for attaching them to the heels of boots or shoes; but these have been objectionable on account of the difficulty of removing them when it is not desired to use them. The arms *a* of my improved ice-creepers afford a ready grasp for the fingers when it is desired to unscrew them.

It will also be observed that my improved ice-creepers, on account of the spaces between arms *a*, are not so easily blocked up by snow and ice, and thus rendered inoperative and useless, as those consisting of a mere solid plate having downward-projecting spurs.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The ice-creeper herein described, consisting of body A, screw B, concave arms *a*, having sharp edges *b*, and central spur *c*, the latter projecting beyond the edges *b*, constructed and arranged substantially as and for the purpose shown and described.

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

THOMAS GUNSALUS.

Witnesses:

LUTHER G. PHILO,
HARRIET A. PHILO.