H. ANTES.
ICE-CREEPER.

No. 193,104. Patented July 17. 1877.

Fig. 1.

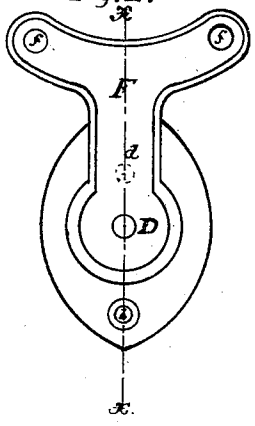


Fig. 2.

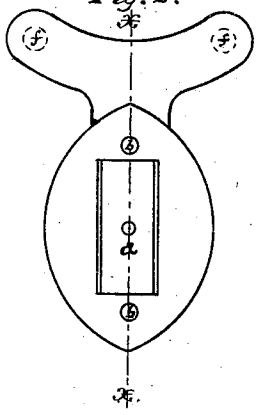


Fig. 3.

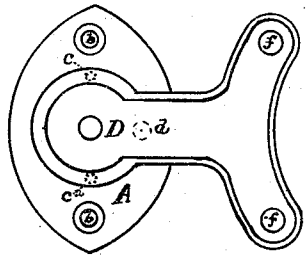
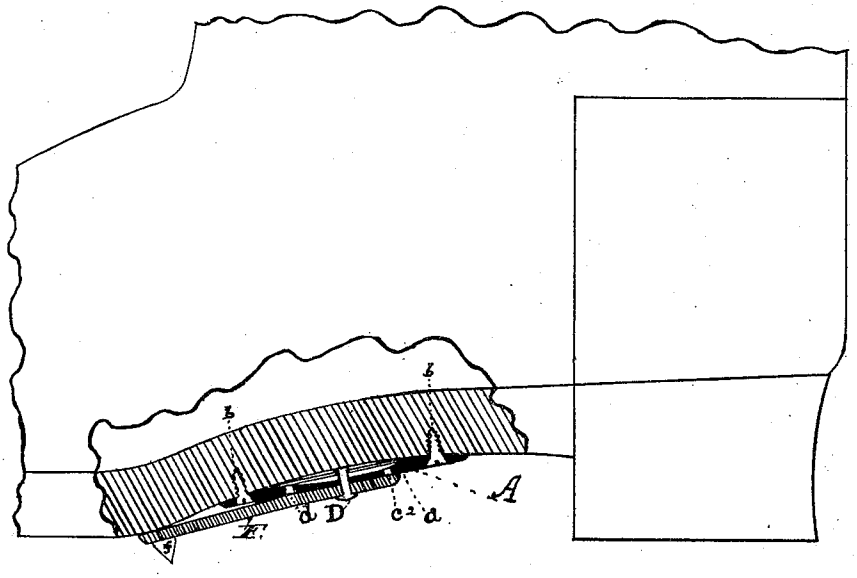


Fig. 4.



Witnesses
J. C. Kilgore
W. L. Buchanan

By

Inventor
Henry Antes
R. A. Voorhees
Attorney

N. PETERS PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HERY ANTES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM HENRY WEIDLING, OF SAME PLACE.

IMPROVEMENT IN ICE-CREEPERS.

Specification forming part of Letters Patent No. **193,104**, dated July 17, 1877; application filed January 27, 1877.

To all whom it may concern:

Be it known that I, HERY ANTES, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Ice-Creepers, which improvement is fully set forth in the following specification and accompanying drawing, in which—

Figures 1, 2, and 3 are plans of the ice-creeper, Fig. 1 being a view of its face or bearing surface; Fig. 3, another view of the same, showing the claw or foot of the creeper turned partly around in a horizontal plane upon a vertical axis; Fig. 2, a view of the inner surface or back of the plate for forming a joint with the sole of the boot or shoe; and Fig. 4, a side view of the creeper in longitudinal section through the lines *x x* of Figs. 1 and 2, showing the method of attaching the creeper to the sole of a shoe.

The object of this invention is to make a light, strong, and durable ice-creeper, which, after being permanently secured to the sole of the shoe in the hollow of the foot, can be readily thrown in and out of use, as occasion may require.

I am aware that hinged ice-creepers are not new, *per se*, such having been heretofore made to fold in a vertical plane upon a hinge-joint; but the creeper herein described and claimed turns upon a vertical pin or pivot, and in a horizontal plane, by which arrangement not only does it lie closer to the sole, thereby saving its points or pricks and other parts from liability to wear when not in service, but its spring, stud or steady-pin, and all holes are perfectly protected from grit and dirt, the spring being also protected from moisture by virtue of the tight joint between the leather of the sole and the plate to which the claw or foot of the creeper is pivoted.

In addition to these advantages, it is impossible for an ice-creeper to be made to fold in a vertical plane without a constant liability to drop down and trip the wearer while walking, by which tripping either the wearer, or the creeper, or the shoe, or all, may be injured. The strain brought upon the horizontal pivotal or hinge pin and its two bearings is much greater in the vertically-folding creeper than upon the single vertical pin or rivet of the horizontally-rotating claw of the ice-creeper forming the subject of this invention. The strength and durability of the pin and spring in this ice-creeper are thus greatly superior to any spring or pin that can be employed in a vertically-folding ice-creeper, and for simplicity, convenience, and trustworthiness combined it cannot be approached by any ice-creeper made to fold in a vertical plane.

In the drawing forming part of this specification, A is a metal plate recessed upon its inner face for the reception of a countersunk spring, *a*. The plate A is secured to the sole of the shoe by screws *b b*, or equivalent devices, and is provided with holes *c* c^2, the use of which will be hereinafter explained. Through the plate A and spring *a* is passed a rivet, D, having a head beneath the spring *a*, and another head on the face of the claw or foot F of the creeper, through which it passes, and for which it serves as a pivot or vertical axis. The claw F is shaped substantially as seen in the drawing, and is provided with a stud, *d*, upon its back, and with points or ice-pricks *f f* upon its face.

It can now be readily understood that when the claw F is in position, as seen in Fig. 4, its points *f f* are brought into service in preventing the shoe from slipping upon an icy surface; but when the position of the claw F is directly reversed, by turning it in a horizontal plane, so that the stud *d* is lifted out of the hole *c*, thereby compressing the spring *a*, and turned around until drawn by the pressure of the spring *a* into the hole c^2, the creeper will lie snugly within the hollow of the sole without inconveniencing the wearer of the shoe, until the claw F is again brought into service by revolving its points *f f* to the front, as before explained.

Having thus fully described this ice-creeper, and the advantages possessed by and constituting it a new and useful improvement, as of my invention, I claim—

1. In an ice-creeper, a base-plate, A, in combination with a spur-claw, F, provided with a pivot, D, and a locking device, and adapted to rotate horizontally in the plane of the sole

of a boot or shoe, all substantially as specified.

2. In an ice-creeper, in combination with the base-plate and spur-claw thereof, a spring, *a*, recessed in said plate, and so covered by said claw as to be protected from water, dirt, and other injurious matter, all substantially as specified.

3. In an ice-creeper, in combination with its base-plate and a spur-claw, horizontally adjustable thereon, a locking device so locking the said claw to the said plate as to retain the claw locked in different positions relatively to the plate, substantially as and for the purpose specified.

HERY ANTES.

Witnesses:
THOMAS A. PORTER,
P. R. VOORHEES.