(No Model.)

H. COTTRELL.

ICE CREEPER.

No. 286,687. Patented Oct. 16, 1883.

Fig 1.

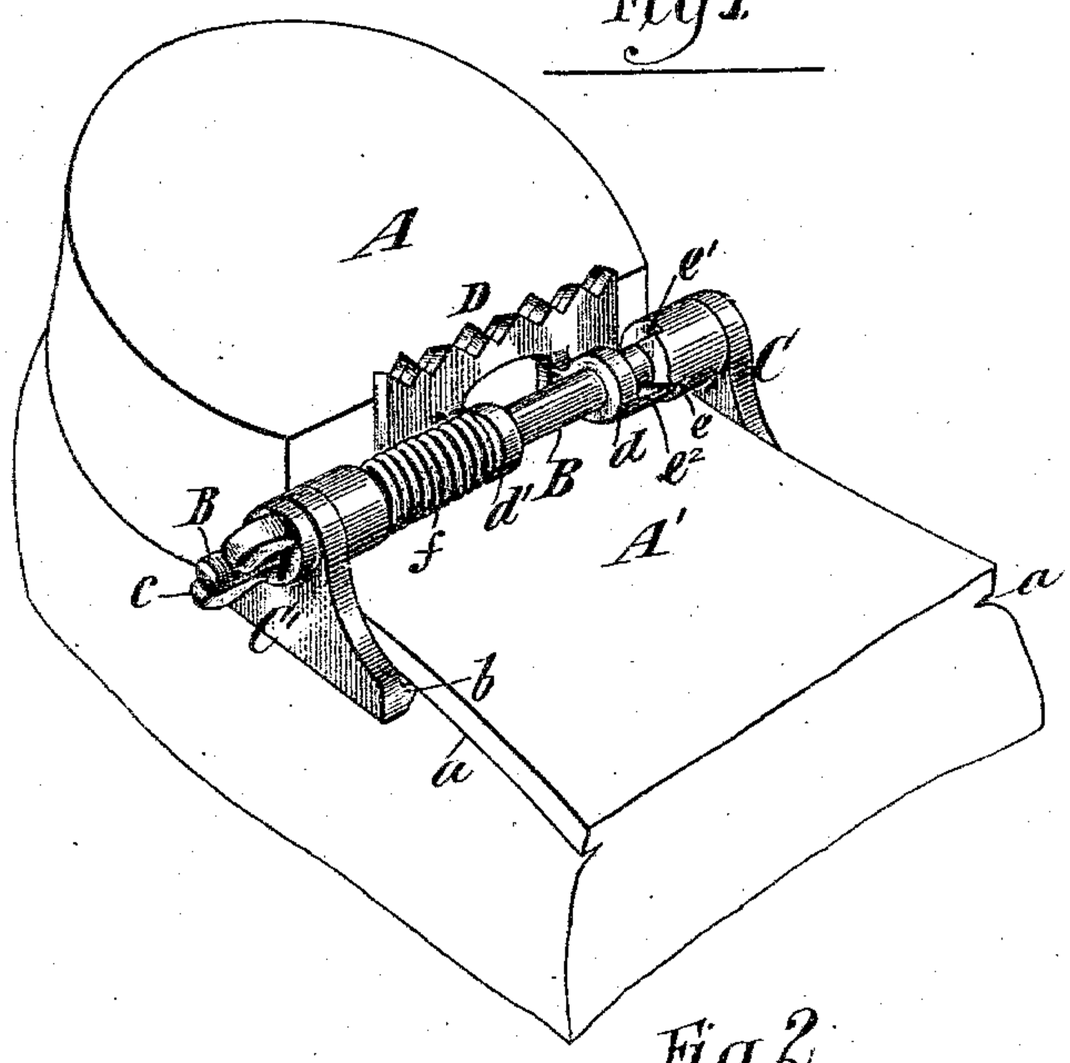

Fig. 2.

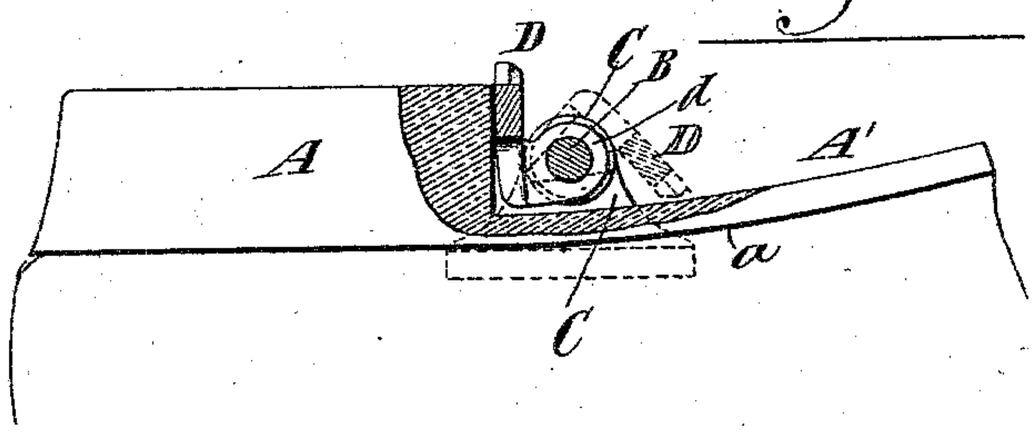

Fig 4.

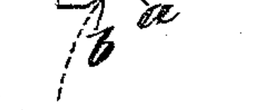

Fig. 3.

Witnesses:-
Fred Haynes
Louis M. Whitehead.

Inventor:
Herbert Cottrell
by his Attorneys
Brown & Brown

UNITED STATES PATENT OFFICE.

HERBERT COTTRELL, OF NEWARK, NEW JERSEY.

ICE-CREEPER.

SPECIFICATION forming part of Letters Patent No. 286,687, dated October 16, 1883.

Application filed July 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, HERBERT COTTRELL, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Ice-Creepers, of which the following is a specification.

My invention relates to an ice-creeper which comprises a shaft or spindle that may be secured to the boot so that it will extend across under the shank and in front of the heel, and an ice-dog pivoted or secured upon said shaft or spindle so that it may be turned into a position to project below the bottom of the heel, to be of service, or so that it may be turned up against the shank of the boot, where it will be above the bottom of the heel and out of the way.

The invention consists in a novel combination of parts, hereinafter described, and set forth in the claim.

In the accompanying drawings, Figure 1 is an inverted perspective view of part of a boot and my improved creeper secured thereto, the ice-dog being in position for use. Fig. 2 is a side view of the boot-heel and a transverse section of the creeper. Fig. 3 is a face view of one of the clamps, and Fig. 4 is an end view thereof and a part of the shank of the boot in dotted outline.

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

A designates the heel of the boot, A′ designates the shank of the sole, and *a* designates the crease between the sole and the upper.

B designates the shaft or spindle of the creeper, and C C′ designate the clamps at opposite ends thereof. The shaft or spindle may be secured fast in the clamp C and pass loosely through the clamp C′. Each clamp has an inwardly-projecting lip or rib, *b*, which engages with the crease *a* just forward of the heel, and by screwing up a nut, *c*, at one end of the shaft or spindle B, and which bears against the clamp C′, the clamps may be secured fast to the boot.

D designates the ice-dog, which consists of an angular piece, having eyes or bearers *d d′*, which can turn upon the shaft or spindle B so as to bring the ice-dog into the position shown in Fig. 1, or in the position shown in dotted lines in Fig. 2. In the first-mentioned position the ice-dog lies or bears directly against the front of the heel and projects below the bottom thereof, thus adapting it for use, its edge being toothed, serrated, or sharpened.

In this position the dog is very strongly supported against the front of the heel, and does not exert any great strain upon the clamps. When the dog is turned over into the position shown dotted in Fig. 2, it does not project below the bottom of the heel, and is out of use. In order to hold the ice-dog in either of these two positions, I form upon the clamp C two square shoulders, *e e′*, with which the edge e^2 of the angular ice-dog engages; and the ice-dog is kept in engagement with the shoulders by a spring, *f*, arranged between the eye or bearer *d′* and the clamp C′. The clamp affords a good broad bearing for the end of the spring. As shown in Fig. 1, the ice-dog D is locked by the shoulder *e*, and if it is desired to turn it, it must be first moved directly lengthwise of the shaft or spindle and against the force of the spring *f*, to disengage its edge e^2 from said shoulder, and when turned over it is moved by the spring into engagement with the shoulder *e′*. The form and manner of supporting the ice-dog when in use are such that there is very little strain upon the shaft or spindle and the clamps.

I do not claim, broadly, an ice-creeper secured by clamps to the crease of the boot between the sole and upper; nor do I claim, broadly, an ice-creeper having an ice-dog which is pivoted to a shaft or spindle, so that it may be turned down on the bottom of the heel for use, or turned over on the shank of the boot, so as to be out of use; neither do I claim, broadly, a lock for holding the dog against turning on the shaft or spindle, and a spring applied to the shaft or spindle for holding the dog in engagement with the lock.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the shaft or spindle B, the clamps C C′, the ice-dog D, provided with eyes or bearers *d d′*, one of which, *d*, locks into the clamp C, and having its edge toothed or sharpened, and the spring *f*, bearing at one end directly against the eye or bearer *d′*, and at the other end directly against the clamp C′, all substantially as described.

HERBERT COTTRELL.

Witnesses:
FREDK. HAYNES,
ED. L. MORAN.