E. D. AUSTIN.

Ice-Creeper.

No. 211,684. Patented Jan. 28, 1879.

Fig. 1.

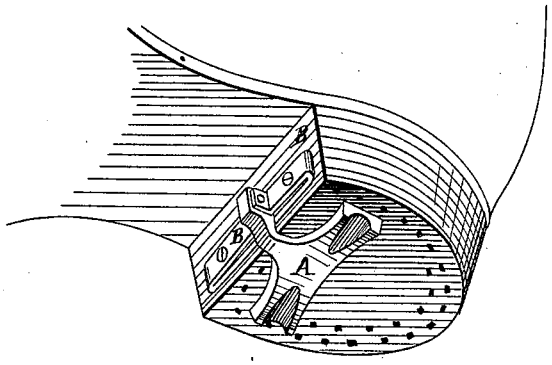


Fig. 3.

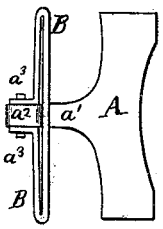


Fig. 2.

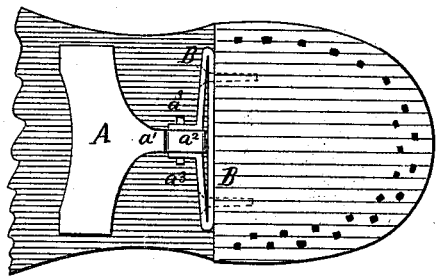


Fig. 4.

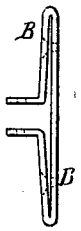


Fig. 5.

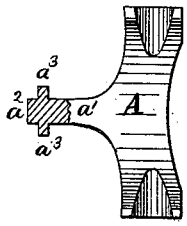
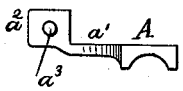


Fig. 6.



WITNESSES:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

EDWARD D. AUSTIN, OF ERIE, PENNSYLVANIA.

IMPROVEMENT IN ICE-CREEPERS.

Specification forming part of Letters Patent No. **211,684**, dated January 28, 1879; application filed November 19, 1878.

To all whom it may concern:

Be it known that I, EDWARD DOUGLAS AUSTIN, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Improvement in Ice-Creepers, of which the following is a specification:

Figure 1 is a perspective view of my improved ice-creeper, shown upon a boot-heel, and in position for use. Fig. 2 is a plan view of the same, shown as turned forward into the hollow of the sole. Fig. 3 is a plan view of the inner side of the creeper when in position for use. Fig. 4 is a detail view of the spring. Fig. 5 is a detail face view of the plate, part of the shank being broken away to show the construction. Fig. 6 is an end view of the plate.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved device for attachment to boot and shoe heels for walking upon icy pavements, and upon other icy and slippery places, which shall be simple in construction, inexpensive in manufacture, strong and durable, not being liable to break or get out of order, and which may be worn in the house without danger of cutting the carpet or other floor-covering.

The invention consists in the plate concaved longitudinally and transversely, and provided with a shank having upon its end a rectangular head, with pivots upon its sides, and the spring formed of a single strip of steel, having its end parts bent back upon itself, and its ends bent forward and perforated to receive the pivots of the shank-head, and having holes formed through it near its bends to receive the fastening-screws, to adapt the device to be attached to a boot or shoe heel, as hereinafter fully described.

A represents a plate, the inner side of which is made flat to fit snugly upon the face of the heel of a boot or shoe.

Upon the edge of the plate A is formed a shank, a^1, provided with an inwardly-projecting square head, a^2, with pivots a^3 projecting from its sides, which pivots a^3 may be cast solid with the said head a^2, or may be a small rod running through it.

The face of the plate A is concaved longitudinally and transversely with respect to the sole of the boot or shoe, forming transverse edges, which are forced into the ice in walking, and thus prevent the foot from slipping. The edges thus formed will not cut a carpet, so that the creeper can be worn into a house without its being necessary to turn it forward.

B is a spring, made of a single strip of steel, the end parts of which are bent back upon the middle part and extend along it nearly to its center, and its ends are then bent forward at right angles, and have holes formed through them to receive the pivots of the shank-head of the plate A, which pivots are then riveted or headed down upon the said ends, if found necessary.

The spring B is designed to be placed with its middle part against the forward or flat side of the heel, where it is secured in place by two screws passing through it near its bends and screwing into the said heel.

The elasticity of the spring B may be regulated by adjusting the said screws to give the said spring more or less play.

With this construction, the plate A, when not required for use, may be turned forward, so that it will rest against the sole in the hollow of the foot, its longitudinal concavity causing it to fit snugly against the said sole, and the tension of the spring B holding it securely in place.

With this construction, the elasticity of the spring B is only brought into use when turning the plate A forward and back, so that it may be used a long time without having its elasticity affected, and will thus be very durable.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The plate A, concaved longitudinally and transversely, and provided with a shank, a^1, having upon its end a rectangular head, a^2, with pivots a^3 upon its sides, and the spring B, formed of a single strip of steel, having its end parts bent back upon itself, and its ends bent forward and perforated to receive the pivots a^3 of the shank-head a^2, and having holes formed through it near its bends to receive the fastening-screws, to adapt the device to be attached to a boot or shoe heel, substantially as herein shown and described.

EDWARD DOUGLAS AUSTIN.

Witnesses:

JAS. P. CRAWFORD,

H. FARNSWORTH.