(No Model.)

T. S. HITCHCOCK.

ICE DOG.

No. 382,261. Patented May 1, 1888.

Fig. 1.

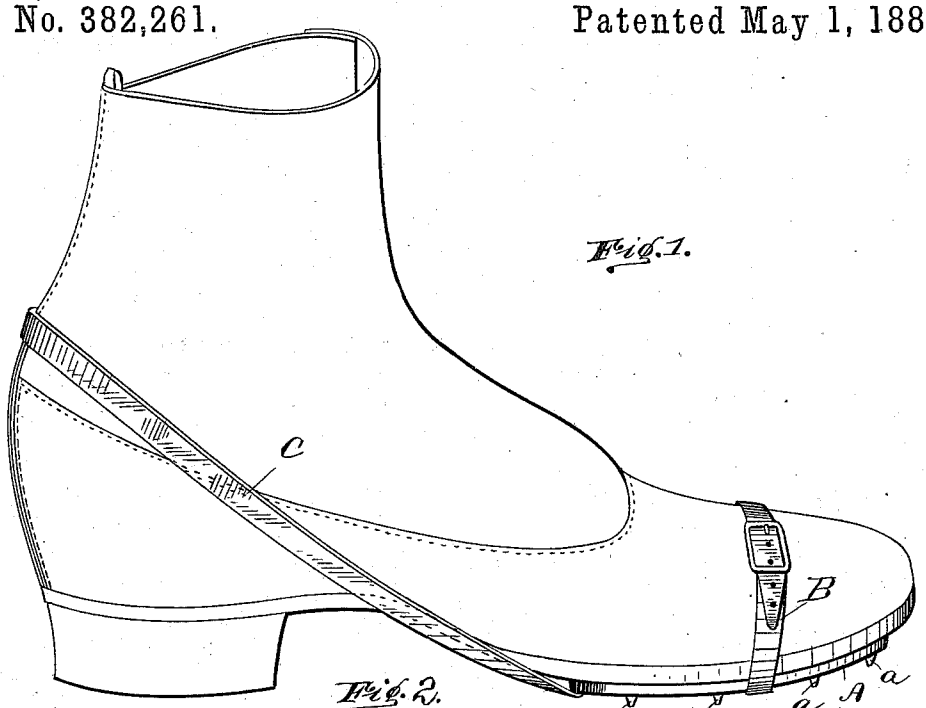


Fig. 2.

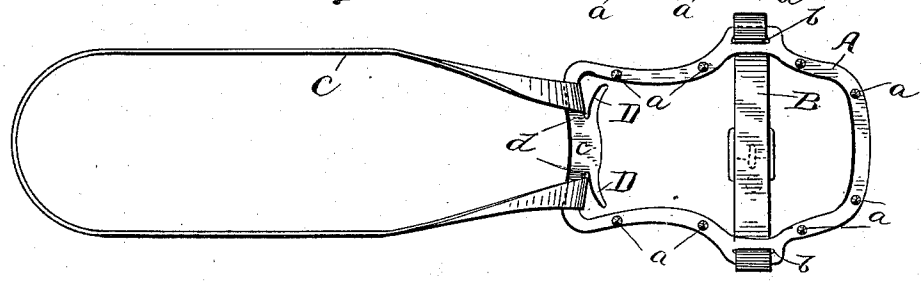
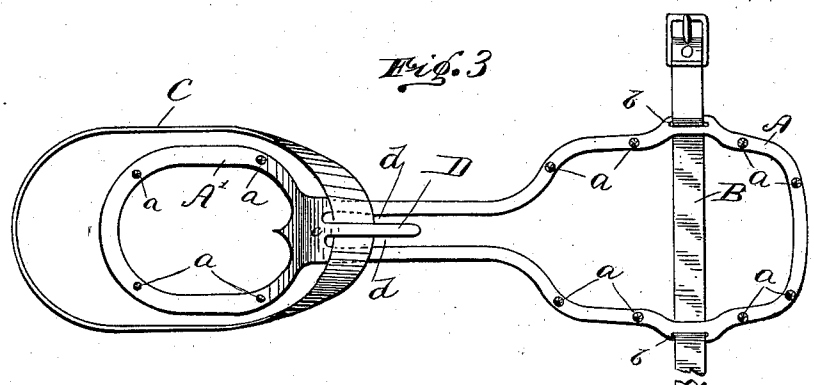


Fig. 3



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UNITED STATES PATENT OFFICE.

THERON S. HITCHCOCK, OF SENECA FALLS, NEW YORK, ASSIGNOR TO GEORGE A. WALLER, OF SAME PLACE.

ICE-DOG.

SPECIFICATION forming part of Letters Patent No. 382,261, dated May 1, 1888.

Application filed September 7, 1887. Serial No. 249,013. (No model.)

To all whom it may concern:

Be it known that I, THERON S. HITCHCOCK, of Seneca Falls, in the county of Seneca, in the State of New York, have invented new and useful Improvements in Ice-Dogs, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to that class of ice dogs or creepers which are applied to the boot or shoe of the pedestrian to prevent slipping upon icy sidewalks or thoroughfares; and the object of my invention is to provide an ice-dog of novel construction, and with fastening devices, so that it can be readily applied to a boot or shoe without fitting or cutting the boot or shoe, and as readily detached therefrom; and to this end the invention consists, essentially, in a metallic plate or frame provided with projecting points or studs, a toe-strap, and an elastic heel band or strap, substantially as will be hereinafter more specifically described, and set forth in the claim.

In specifying my invention reference is had to the accompanying drawings, forming a part of this specification, in which, like letters indicating corresponding parts in all the views—

Figure 1 illustrates my improved ice-dog attached to a shoe. Fig. 2 is a bottom plan of my improved ice-dog, illustrating the construction thereof and showing the manner of applying the elastic band or strap thereto; and Fig. 3 illustrates a modification in the construction of the ice-dog plate, adapting the same for heavy foot-wear.

I am aware that numerous ice-dogs have been made for attaching to boots or shoes of a pedestrian to prevent slipping upon icy sidewalks; but in all of the prior devices heretofore made for this purpose no means were provided for readily attaching or detaching the ice dog or creeper to and from the shoe without the shoe being especially fitted or cut to afford means for connecting the ice dog thereto; and, as heretofore stated, the object of my invention is to provide a device and attachment which can be readily applied without the cutting and fitting, as in the older ice-creepers, to a boot or shoe, which I accomplish by constructing a light and tasty frame of metal, preferably of the form illustrated in Fig. 2 of the drawings, in which A represents the frame, which is curved longitudinally to coincide with the general contour of the sole of the boot or shoe, and may be of any desired dimensions. This metal frame I preferably cast in one piece; but I do not restrict myself to such method of construction, since the frame may be struck up from sheet metal, and upon the under side thereof I provide projecting spurs or points *a a a*, which said spurs or points may be cast integral with the frame. I also provide in the frame slots *b b* and *d d* for the insertion of the fastening-strap B at the forward end of the plate A, and for the elastic band C, which secures the rear end of the plate to the foot, as best shown in Fig. 1 of the drawings.

It will be observed that the strap B is a simple leather strap provided with a buckle, and the same serves as a toe-strap, which is to be adjusted to the wearer's foot by securing the same over the shoe when the plate is applied to the ball of the foot, as best shown in Fig. 1.

At the rear end of the frame or plate A, I provide the slots *d d*, which are cut out, so as to permit the insertion of the heel-strap C in said slots *d d*, as best shown in Figs. 2 and 3 of the drawings. It will be observed that the bend of the elastic strap C bears against the rear bar, *c*, of the ice-dog plate or frame A, and that consequently the tendency of the elastic strap C is to draw the plate rearward and upward and securely confine the plate in position on the ball of the foot, while the toe-strap B holds the plate securely to the foot of the wearer and prevents the dog from slipping. The points *a a* are sufficiently sharp to penetrate the ice, and thus prevent the wearer from slipping.

It will be observed that the elastic band C is perfectly adjustable, and that by means thereof the device is secured to the foot of the wearer without any fitting or cutting of the shoe, and that after the toe-strap B has been adjusted to the shoe of the wearer the ice-dog may be slipped on without loosening the strap B from the buckle; hence the device is exceedingly convenient to apply and remove, and is very effective for the desired purpose.

My preferred form of the plate A is shown

at Fig. 2, and is intended to be applied to the ball of the shoe instead of to the heel, as ice-creepers are generally applied. Experience shows that it is preferable to apply a device of this character to the ball of the foot, since greater ease in walking is afforded thereby. I do not, however, restrict myself to the specific form of plate illustrated in Fig. 2, which, as stated, is my preferred form, since at Fig. 3 I have illustrated a modification in the form of a plate, which is very useful upon heavy foot-wear; and it consists simply in elongating the plate A by the addition of the heel-plate A′, connected together by being formed in one piece. In this form the slots *d d* come in the instep-piece just forward of the cross-bar *c*, which is between the sole-piece of the plate or frame A and the heel-piece A′. The elastic heel-strap C, which is endless, is applied in substantially the same way as in the plate illustrated in Fig. 2, as also is the toe-strap B.

Any ordinary straps or cords may be used to secure the plate to the shoe without departing from my invention, since the plate itself is of prime importance thereto.

The device is simple, compact, and durable, and presents a very effective ice-dog.

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

The herein-described ice-dog, consisting of a plate or frame, A, provided with the spurs or points *a a*, the slots *b b*, and the cut-out slots *d d* in the rear cross-bar, *c*, thereof, in combination with means for securing the same to the boot or shoe, substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 5th day of September, 1887.

THERON S. HITCHCOCK.

Witnesses:
FREDERICK H. GIBBS,
E. C. CANNON.