

# T. Hope, Skate Fastening.

N<sup>o</sup> 37072.

Patented Dec. 2, 1862.

Fig. 4.

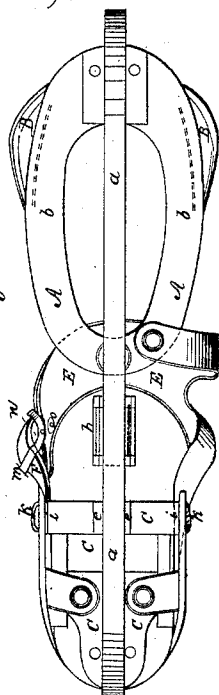


Fig. 3.

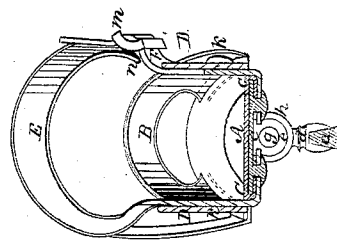
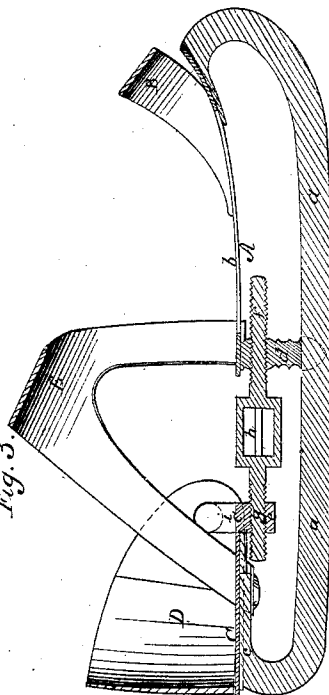


Fig. 6.

Fig. 1.

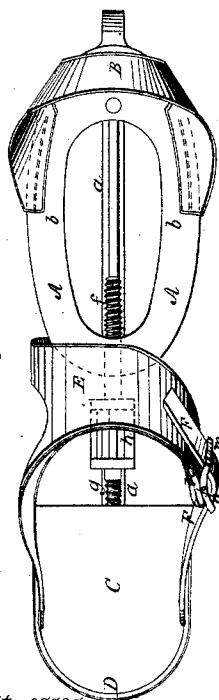


Fig. 2.

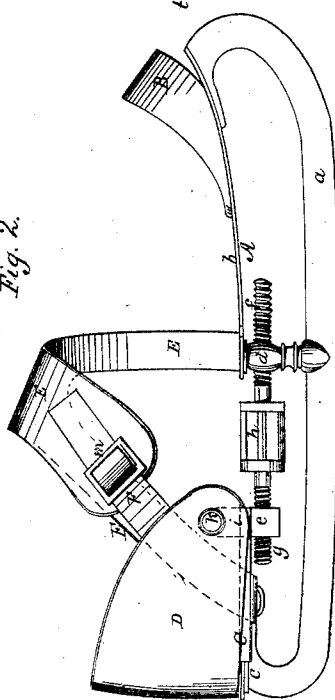
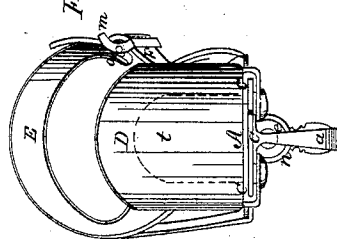


Fig. 5.



Inventor  
Thomas Hope

Witnesses  
H. R. Hale Jr.  
J. P. Bumpstone

# UNITED STATES PATENT OFFICE.

THOMAS HOPE, OF BOSTON, ASSIGNOR TO HIMSELF AND HENRY EDGARTON, OF SHIRLEY, MASSACHUSETTS.

## IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. 37,072, dated December 2, 1862.

*To all whom it may concern:*

Be it known that I, THOMAS HOPE, a citizen of the United States of America, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Skate-Fastening; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, in which—

Figure 1 is a top view, Fig. 2 a side elevation, Fig. 3 a longitudinal section, and Fig. 4 an under side view, of a skate provided with my invention. Fig. 5 is a rear end view, and Fig. 6 a transverse section, of it, the said section being taken through the rear fastening-buttions of the instep-straps.

The nature of my invention is found in an improved skate-fastening; the same consisting of a flexible or self-adjusting toe-loop, or the same and instep-straps, and an actuator, as constructed, arranged, and applied to the skate body or platform, substantially in manner as hereinafter specified; also, in the arrangement and combination of a metallic saddle or its equivalent with the flexible heel-strap.

In the drawings, A denotes the skate-body, consisting of the runner *a* and the forward and rear foot-rests, *b c*. The rear part of the forward foot-rest is supported by a post, *d*, which extends upward from the runner.

A flexible loop, B, is fastened near to its two ends to the forward foot-rest, and is formed so as to span or embrace or go around in contact with and rise above the toe of the sole of the boot or shoe of a person when wearing the skate. An inflexible or metallic toe-cap or hook has been used on a skate, in which case it had no power of self-adjustment or of fitting itself to the toe of the sole, whether such be square or round or pointed. So, a flexible loop arranged on a skate-platform has been carried across the toe of the upper-leather of a boot or shoe, when resting on such platform, the same being as shown in the United States Patent No. 25,295. The flexible loop B, by its arrangement, as shown in the drawings, performs one or more important functions, which the loop as arranged in the said patent cannot perform. The peculiar arrangement of the loop B is such as to prevent the

toe of the sole from extending through the loop, and it causes the loop not only to extend about and in contact with the entire edge of the toe of the sole, and thus serve as an abutment thereto, but to lap upon the upper a little and in manner to hold the toe part of the sole firmly down upon the foot-rest *b*, and still not so go over the toe of the upper as to pinch or bind the toe of the foot of the wearer of the skate. The form of the flexible toe-rest and its angular arrangement with respect to the part *b* render it self-adapting or capable of readily fitting itself to the toe of any sole, (whether such toe be round, square, or pointed,) when the sole is pressed forward into the loop. While the flexible toe-loop shown in the said patent would pinch and bind the toes of a person and impede the circulation of the blood therein, such will not be the case with the toe-loop B.

A heel plate or platform, C, (constituting part of what I term the "actuator,") rests and slides freely in a longitudinal direction on the heel-rest *c*, and is kept thereon by being lapped around its edges, as shown in the drawings. The said platform C is furnished with a projection, *e*, which extends downward from it, and is tapped with a female screw.

Two screws, *f g*, (being what are termed "right" and "left" screws,) screw respectively through the said projection *e* and the post *d*, and extend in opposite directions from an open wheel or lantern, *h*, the whole being arranged as shown in the drawings. The said screws *f g*, lantern *h*, platform C, and its projection *e* constitute what I call the "actuator." By revolving the lantern in one or the other direction transversely we shall rotate the two screws and produce a longitudinal movement of the platform C.

Furthermore, the platform C is furnished with two other projections, *i i*, which extend upward from opposite edges of it, and each is provided with a button, *k*. A flexible heel strap or loop, D, is buttoned on the said two buttons *k k*, and intended to go around the heel of the sole of the boot or shoe of a person while having the skate applied to it.

In the middle of the inner side of the said heel loop or strap D, and fastened to the straps by rivets, is a metallic saddle or stiffener,

which extends upward from the lower edge of the said heel-loop, and is intended to prevent the loop from bending and being drawn underneath the heel of a boot while the skate may be in use or may be in the act of being affixed to the boot or shoe.

A bifurcated instep-strap, E, is buttoned to both of the foot-rests *b c*, and at its upper end is furnished with a buckle, *m*, connected to it by a tongue or swivel, *n*, and a rivet or pin, *o*, which goes transversely through the swivel and strap. This connection of the buckle with the strap enables the former to adjust itself under the strain of the tongue-strap F without deranging the set or proper fitting of the said instep-strap.

The tongue-strap is buttoned to the rear foot-rest, *c*, and extends upward through the buckle. Before applying the skate to the boot of a person the instep-strap and its tongue-strap are to be unbuckled. Afterward the toe of the boot should be pressed into the toe-loop B and the skate brought firmly up against the sole, so as to cause the boot-heel to be within the loop D. This having been accomplished, the lantern is to be revolved so as to put the actuator in operation in a manner to cause the skate to move rearward on the boot. This will draw the heel and toe straps or loops firmly against the heel and toe of the boot and fasten the skate thereto. Next, the instep-straps may be passed up around and buckled together on the instep of the boot, and when so buckled any further draft on the heel-strap by the actuator will set the instep-straps as well as the toe-loop tighter on the foot.

I use a "lantern" or open wheel within the actuator, on account of the ease with which it may be revolved either by the finger of a person or by a stick or any other convenient lever inserted through the said lantern.

A great advantage of my invention over metallic fastenings applied to the sole either at its toe and heel or on its sides is that mine is self-adjusting to a sole, whatever may be its conformation of its toe or heel. Furthermore, as my heel and toe straps operate they do not draw or bind across or around the foot, so as to impede the circulation of the blood therein. They take a firmer or better hold of the boot than most metallic clamps or fastenings.

I do not claim the skate-fastening shown in the patent hereinbefore named, my invention resting on one of a similar character and containing one or more mechanical features by which it is made to operate with better effect and with more ease and less liability of injury to the wearer of the skate.

What, therefore, I claim is—

The actuator consisting of the right-and-left screw and lantern, when used in combination with the sliding heel-rest C, the stationary foot-rest *b*, loop B, and heel and instep straps D and F.

In testimony whereof I have hereunto set my signature.

THOMAS HOPE.

Witnesses:

R. H. EDDY,  
F. P. HALE, Jr.