

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. 197,008, dated November 13, 1877; application filed October 3, 1877.

To all whom it may concern:

Be it known that I, JOHANN PETER BECKER, Jr., of Remscheid, Germany, have invented certain new and useful Improvements in Lever-Adjustment for Skates; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to devices for securing the skate to the boot or shoe of the user, constituting a lever-adjustment for skates; and it consists in the lever-adjustment, as will be fully hereinafter described and claimed.

In the drawings, Figure 1 represents a side elevation of a skate embodying my invention; and Fig. 2 is a plan view, partly in section, of the same as seen from underneath the skate.

w is the foot-plate of the skate, secured to the rail *p* in any desirable manner. This foot-plate is provided with spurs or projections at its heel, of any number and well-known form, to catch into the heel of the boot or shoe. Located beneath this foot-plate are two plates, *a*, having slots *d* at an angle to the rail of the skate. Screws or rivets *e* pass through the slots *d*, and are secured in any suitable manner in the foot-plate *w*. The heads of these screws or rivets *e* serve to partially support the plates *a* in the various positions they occupy when the skate is used.

These plates are provided with clamps *a'*, which project above the foot-plate *w*, and serve to grasp the sole of the boot or shoe, and are connected together by means of a screw or rivet, *r*, which passes through a slot, *s*, in the foot-plate, and is capable of sliding lengthwise therein, its head resting upon the foot-plate. The screw or rivet *r* also connects one end of a spring-lever, *b*, to the plates *a*, so that they and it may turn upon said rivet or screw.

This spring-lever *b* is provided with a slide, *m*, which works in a slot, *o*, in an adjusting-piece, *c*, the projecting end of this slide being provided with a nut, *x*, by means of which

the lever and adjusting-piece *c* can be connected together and the latter adjusted.

The heel-clamp *u* is secured by a rivet passing through a slot, *v*, in the foot-plate, secured to the adjusting-piece *c*, said rivet being capable of movement lengthwise in said slot *v*.

The end of the lever *b* is provided with a convenient grasp for the fingers, and with a projection, *t*, which, when the lever is in position after the clamps have been closed upon the boot or shoe, springs into a corresponding recess in the under side of the foot-plate.

By means of the adjusting-piece *c* the clamps can be adjusted to the boot or shoe of the wearer by loosening the nut *x*, and moving it to the right or left over the slide *m*, the same as in the well known "Halifax skate."

When the skate is to be fastened to the boot or shoe of the user, the lever *b* is turned at an angle to the rail *p*, and pressed forward as far as possible, thus causing the plates *a* to move, and, by means of their angular slots *d*, to widen the distance between the clamps *a'*. The boot or shoe then being placed upon the foot-plate *w*, the lever *b* is turned toward the rail *p*, thus causing the adjusting-piece *c* to force the heel-clamp *u* backward against the heel, and the plates *a* forward, which, through their angular slots *d*, move their clamps *a'* inward against the edges of the sole, thus firmly clamping or securing the boot or shoe to the skate. The projection *t* then catches in its recess, and retains the lever *b* in position.

To remove the skate, the lever *b* is again turned at an angle to the rail *p*, when the plates *a* and their clamps *a'*, and the heel-clamp *u*, have the motions first described repeated, and thus release their hold upon the heel and sole of the boot or shoe.

It is obvious that these devices may be used with roller-skates as well as with those having rails.

By my invention devices for fastening the skate to the boot or shoe are provided, simple

in construction, easily operated, capable of securely fastening the skate, and of being manufactured cheaply and substantially.

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

The lever-adjustment for skates consisting of the plates *a*, slotted as described, and provided with clamps *a'*, with the lever *b*, slide

m, and adjusting-piece *c*, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHANN PETER BECKER, JR.

Witnesses:

BERNHARD SCHENK,

FRANZ HAGENBORN.