

G. KLOTZ.  
Skates.

No. 199,720.

Patented Jan. 29, 1878.

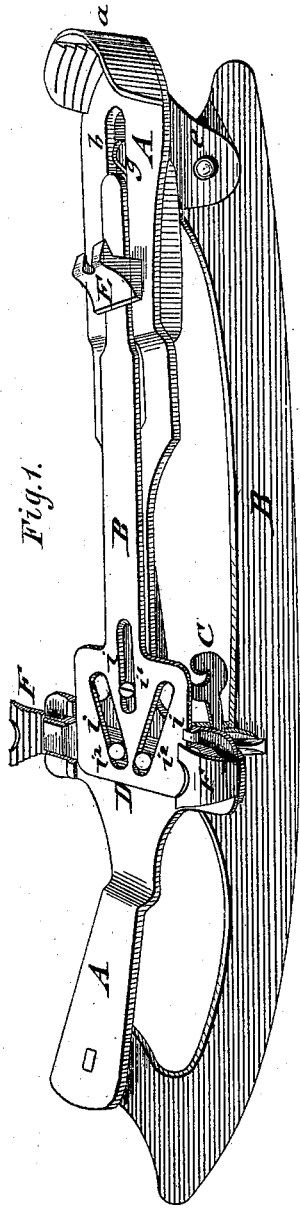


Fig. 1.

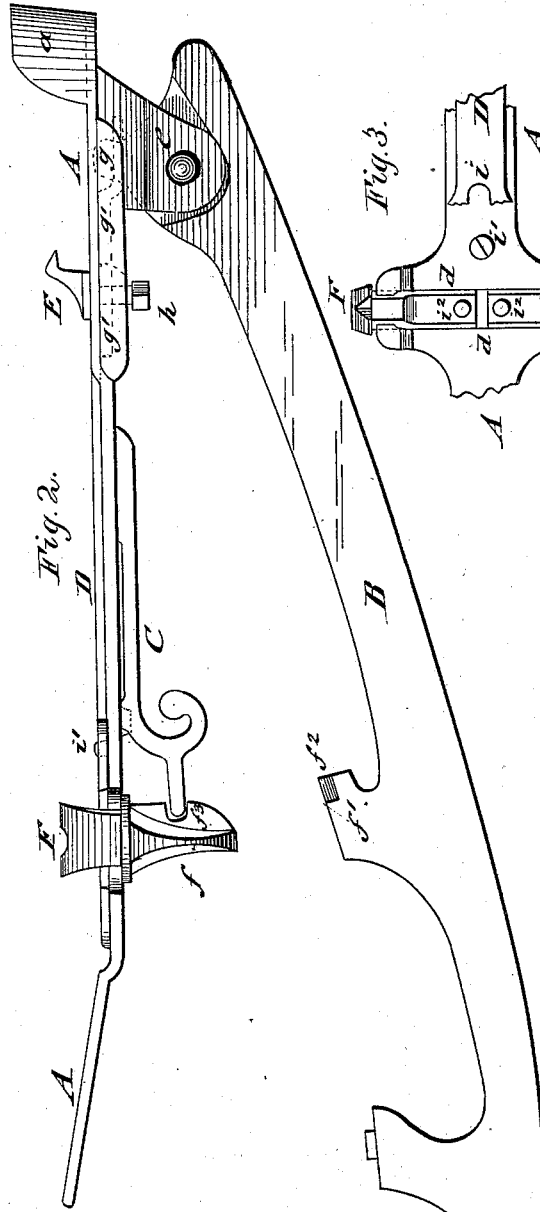


Fig. 2.

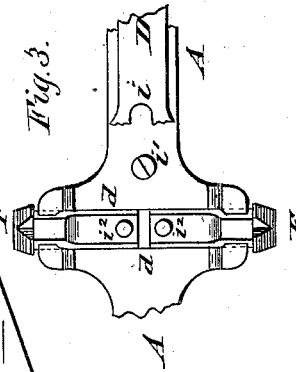


Fig. 3.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

GOTTFRIED KLOTZ, OF BÖHMISCH-KAMNITZ, AUSTRIA.

## IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. **199,720**, dated January 29, 1878; application filed December 21, 1877.

*To all whom it may concern:*

Be it known that I, GOTTFRIED KLOTZ, of Böhmisch-Kamnitz, in the Empire of Austria, have invented a new and Improved Skate, of which the following is a specification:

In the accompanying drawings, Figure 1 represents a perspective view of my improved skate; Fig. 2, a side view of the same in open position, ready to be attached to the foot; and Fig. 3 is a detail top view of the sole-plate, to show guide arrangement of sole-clamps.

Similar letters of reference indicate corresponding parts.

This invention has reference to an improved skate that may be quickly applied to the heel and sole of the boot or shoe, after having been once adjusted thereto, by the mere downward pressure of the foot on the raised sole-plate, so as to cause, by the leverage of the runner, the firm fastening of the heel and sole clamps to the shoe; and the invention consists in the construction and combination of parts, which will be hereinafter fully described, and then set forth in the claims.

Referring to the drawings, A represents the sole-plate, and B the runner, of my improved skate. The sole-plate A is provided with a notched heel-support, *a*, a longitudinal slot, *b*, in the heel part, and a lateral guide-groove, *d*, in the middle part of the sole-plate.

The runner B is pivoted below the heel part to a recessed post or ears, *e*, at the under side of the sole-plate, so as to swing into open position thereon, as shown in Fig. 2.

The sole-plate A is secured by a forked part, *f*, below the ball portion of the sole-plate to a raised part, *f*<sup>1</sup>, of the runner, and retained rigidly thereon by a strong laterally-swinging lock-spring, C, that passes along the inclined upper surface of a lug, *f*<sup>2</sup>, of part *f*<sup>1</sup>, and in lateral guide-recesses *f*<sup>3</sup> of the part *f*, below the lug *f*<sup>2</sup>. The recessed or slotted toe end of the sole-plate A also binds on a front lug of the runner, so as to form, when the connection of sole-plate and runner is made, three points at which they are united.

By pressing the lock-spring sidewise the sole-plate may be swung into raised position on the pivot of the runner. The runner B

connects, by an upwardly-extending lug, *g*, with a short slotted guide-piece, *g*' (indicated in dotted lines in Fig. 2,) which connects with a long guide-plate, D, and with the heel-clamp E by a clamp-screw, *h*, which may be screwed up by means of a key, so as to tightly connect these parts.

The long guide-plate D is provided at the wider front end with three slots, *i*—namely, a central and inclined converging side slot—of which the former passes along a guide-screw post, *i*<sup>1</sup>, while the latter engages pins *i*<sup>2</sup> of the laterally-sliding sole-clamps F, which are guided in the lateral groove *d* of the sole-plate.

The leverage of the runner, on swinging down the sole-plate, actuates simultaneously the heel and sole clamps, and fastens them to the shoe by the mere downward pressure on the sole-plate. The heel and sole clamps may be readily adjusted to any size of foot by loosening the clamp-screw *h*, and applying the sole-plate in raised position to the shoe, so that the heel and sole clamps may be readily moved up against the heel and sole. The clamp-screw is then tightened, while the skate is held open, and thereby the connection with the short runner-guide and long guide established.

When the skate is to be attached to the shoe, all that is required is to raise the sole-plate, place the foot thereon, and then press the sole-plate downward with the foot, so that the leverage of the runner will bind tightly the clamps on the heel and sole of the shoe, and cause, finally, the locking of sole-plate and runner by the lock-spring, and thereby the firm attachment of the skate to the shoe.

For detaching the skate, the lock-spring is pressed sidewise, the skate opened, and then removed from the foot by the simultaneous receding of the heel and sole clamps.

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

1. In a skate, the combination of a slotted and grooved sole-plate, having sliding and slotted guide-plates and clamp-screw, and adjustable heel and sole clamps, with the runner, pivoted to the heel part of the sole-plate, and

engaging the slotted rear guide-piece by a projecting lug, to operate the heel and sole clamps, substantially as set forth.

2. The combination, in a skate, of the sole-plate A, having longitudinally and laterally recessed post *f*, and lock-spring C, with pivoted runner B, having raised part *f*<sup>1</sup>, with lug *f*<sup>2</sup>, substantially as specified.

3. In a skate, the combination of the sole-

plate A, laterally-sliding sole-clamps F, sliding and slotted guide-plate D, and connecting guide-piece *g*', and adjustable heel-clamp E, with clamp-screw *h*, to adjust the clamps to any size of foot, substantially as set forth.

GOTTFRIED KLOTZ.

Witnesses:

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EDWARD GRANFER.