O. EDWARDS.

Skates.

No. 163,308. Patented May 18, 1875.

Fig. 1.

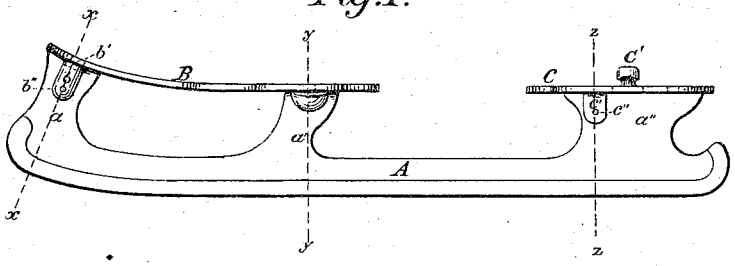


Fig. 2.

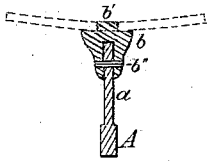


Fig. 4.

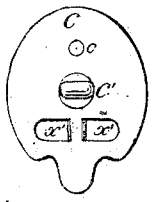


Fig. 3.

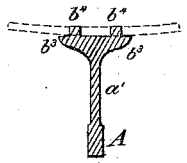


Fig. 5.

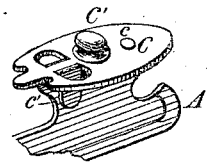


Fig. 6.

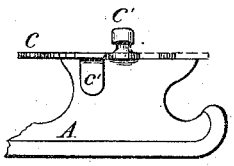
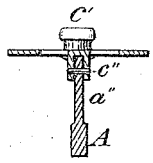


Fig. 7.



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UNITED STATES PATENT OFFICE.

OLIVER EDWARDS, OF FLORENCE, MASSACHUSETTS.

IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. **163,308**, dated May 18, 1875; application filed November 25, 1874.

To all whom it may concern:

Be it known that I, OLIVER EDWARDS, of Florence, in the county of Hampshire, in the State of Massachusetts, have made certain Improvements in Skates, of which the following is a specification:

The object of this invention is to produce a skate that will be cheap, durable, and strong; and it consists in the construction of the parts, as will be fully hereinafter described.

In the drawings, Figure 1 is a side view of the skate; Fig. 2, upright section on line *x x;* Fig. 3, upright section on line *y y;* Fig. 4, top view of heel-plate; Fig. 5, perspective of heel portion of skate; Fig. 6, side view of same, and Fig. 7 upright section through *z z.*

A represents the runner of the skate; *a*, the forward riser; *a'*, the center riser, and the two together form the support for the foot or toe plate. *a''* is the rear riser, and supports the heel-plate and heel-fastening. B is the foot or toe plate, and is secured to the riser *a* by means of a slotted bracket having a rivet at its center that passes through a hole in plate B, and to which the bracket is riveted fast by the rivet that is cast with the bracket. *b* is a slotted bracket, and receives the riser in its vertical slot. Each side of the slot they extend down far enough to receive a rivet, *b''*, which passes through the limbs of the bracket and through the body of the riser *a*. When the rivet *b''* is riveted down it secures the bracket to the riser *a* of the runner. The bracket *b* is formed, as seen in vertical section in Fig. 2, with the body part above the slot of strength sufficient to sustain the plate B when the bracket is riveted to it, and bears in a recess, $b^{\times}$, in the riser, as seen in dotted lines in Fig. 1, while on the top of this body part extends upward a rivet, *b'*, that goes into a hole through plate B, and by which the plate is firmly secured to the bracket. This bracket is cast with the rivet *b'* cast thereon, all in one piece. b^3 b^3 are brackets on the center riser *a'*, and can be slotted the same as bracket *b*, or cast with the runner, and have two rivets, b^4 b^4, extending upward from the upper face to go through the plate B, and secure the back part of plate B to the bracket b^3, as seen in Fig. 3.

C is the heel-plate secured to the rear riser *a''*, and forms the support for the heel, and has two pieces, *c'*, slit or punched down from openings *x'* to form, when bent down, the lips, forming the means to fasten the forward end of plate C to the riser *a''*, while the sides of lips *c'* toward each other are not cut from the plate, but remain a part of the plate and are bent down on each side of the riser to be riveted to the riser by rivet *c''*, as seen in Fig. 7. C' is the button by which the heel of the skate is attached to the boot-heel in the usual way. This button is cast with the runner and riser. *c* is a rivet cast with or a part of the riser *a''*, and extends upward, and goes through and rivets down upon plate C, and secures the rear part of the plate to the riser.

This construction of the runner without brackets gives greater facilities for the dressing and finishing up of the sides and top edge of the runners, as they can be ground to size without having any projecting surface to work around or interfere with the finishing. The brackets are also finished by themselves, which affords a much easier mode than where they are cast upon and with the runner, while the cutting and turning down the lips from the heel-plate, and riveting them to the riser, forms one of the strongest means of securing them without increasing the weight of the skate, but decreasing it to the amount of the weight of the brackets, where brackets are used.

Both toe and heel plates can be wholly secured in this way, by punching down lips upon each side of the risers, and have a light, strong, and safe skate by such construction, but I prefer a wider base for the support laterally of the plates B and C.

Having thus described my invention, what I claim is—

The lips *c'* formed from plate C, in combination with the rivet *c''*, as a means of securing the heel-plate to the riser *a''*, substantially as described.

OLIVER EDWARDS.

Witnesses:

CALVIN PORTER,

T. T. ECKERT, JR.