O. EDWARDS.

SKATES.

No. 170,943. Patented Dec. 14, 1875.

Fig. 1.

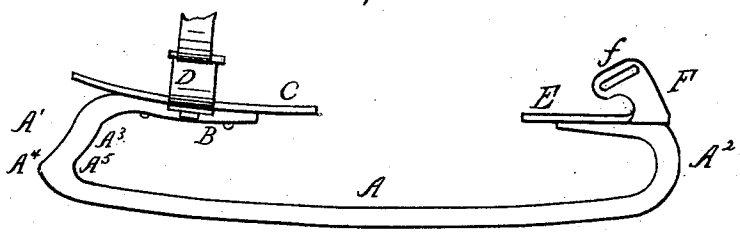
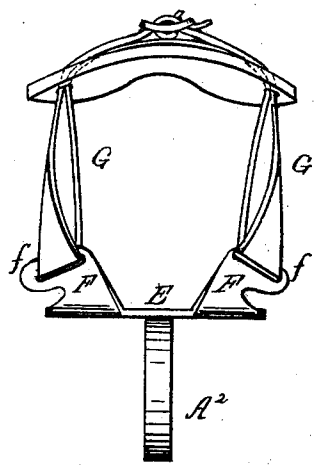


Fig. 2.



WITNESSES

E. F. Nottingham.

Wm. F. Brereton Jr.

INVENTOR

Oliver Edwards.

By Legget & Legget

Attorneys.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

OLIVER EDWARDS, OF FLORENCE, MASSACHUSETTS.

IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. **170,943**, dated December 14, 1875; application filed September 4, 1875.

To all whom it may concern:

Be it known that I, OLIVER EDWARDS, of Florence, in the county of Hampshire and State of Massachusetts, have invented certain new and useful Improvements in Skates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in skates; and consists in a novel construction of the heel-plate and formation of the front of the runner and support, as and for the purposes hereinafter more fully set forth.

In the drawings, Figure 1 is a side elevation of a skate constructed according to my invention, and Fig. 2 a rear view of same.

A is the runner, terminating at each end in bent and curved spring-risers A^1 A^2. B is the support for the sole-plate; C, the sole-plate secured to the support B, and D the adjustable clamps for securing the foot to the skate. The construction of the support B, sole-plate C, and clamp D is substantially the same as that shown in the patent granted me May 18, 1875, No. 163,307. The riser A^1 is also formed in the same manner, with a re-entering curve at A^3; and it and the support A^1 are so inclined, bent, and constructed that in "toe movements" the weight of the skater is brought over the part or riser A^1, thus making the pressure in a direct line through the support A^1, and relieving the spring from further pressure or tendency to break at the point of junction of the runner with the riser A^1 and support B. In order to still further strengthen the parts, I form the front of the runner into a point at A^4, and make it much thicker between the points A^4 A^5 than just above or below. E is the heel-plate, secured to the heel-riser A^2. This heel-plate is formed of a sheet-metal or cast plate, E, with two ears or studs, F F, struck up or formed thereon at the back for the support of the heel, and to attach the instep-strap G, by which the skate is secured to the foot. These ears F F are bent first upward, then outward, and inclined downward and toward the front of the skate, as shown, whereby the heel is relieved from pressure of the upper slotted ends of the ears, and the slots *f* are brought into a position parallel with the instep, as shown in Fig. 2, in such a manner that the strap G will, when in position, draw equally across its width upon the instep, and in a direct or straight line downward. The strap G passes through one of these slotted ears, then up over the instep through the other ear, and then back over the instep, where the ends are secured by buckling. By thus bending and forming the ears F it gives a fastening applicable to any heel, and the strap drawing direct from the instep, only a slight pressure is required to secure the skate in position.

The object of bending the ears forward and downward, as well as outward from the heel, as shown and described, is to bring the ears as near beneath the instep as possible, so that the strap draws almost directly downward, yet rigidly from the back or heel of the skate.

By the arrangement of the strap a double strap is secured, and the tension thereon is so slight that all danger of accident from breakage of straps is avoided, and the skate can be easily and quickly adjusted.

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

1. In a spring-skate, formed at its front with an inclined riser, A^1, and spring-support B, constructed and arranged to transmit the weight of the skater in executing toe movements from the spring B in a direct line through the riser A^1, the runner A, made with a projecting point, A^4, and of a greater width or thickness between the points A^4 A^5 at the junction of the riser with the runner, as and for the purposes described.

2. The heel-plate E, constructed at its extreme rear edge or portion with slotted struck-up ears F, placed at an angle to the direction of the runner, and inclined downward and forward, as shown in Fig. 2, with a slight curve outward at their top edge, substantially as described, whereby the heel is relieved from pressure of the upper slotted ends of the ears, and the slots thereof are brought

into a position parallel with the instep, in such a manner that the strap will, when in position, draw equally across its width upon the instep, and in an almost direct or straight line downward, yet rigidly from the back or heel of the skate, as described, and for the purposes specified.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of August, 1875.

OLIVER EDWARDS.

Witnesses:
CALVIN PORTER,
THOMAS PORTER.