



# United States Patent Office.

JOSEPH BOURKE, OF CURRAGHLEAGH, IRELAND.

*Letters Patent No. 82,201, dated September 15, 1868.*

## SKATE.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOSEPH BOURKE, of Curraghleagh, in the county of Mayo, in that part of the United Kingdom of Great Britain and Ireland, called Ireland, Esquire, have invented a new and useful Improvement in 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 drawings, which are made a part of this specification.

The subject of this invention is a skate in which the sole-clamp and heel-clamp are connected together, at any desired distance asunder, by means of a hook and a perforated plate, which adapts the skate for ready adjustment to suit feet of various sizes.

Figure 1 is a plan or top view of a skate illustrating my invention.

Figure 2 is a side elevation of the same, partially sectional.

Similar letters of reference indicate corresponding parts in the two figures.

In the drawings, A is the runner, which may have any desired form. B is the sole-plate, or the plate upon which the sole of the foot is supported, the same having a rigid downward-projecting shank, B', which, being divided from the bottom upward to a point near its top, embraces the runners, and is capable of sliding backward and forward, to change the position of the sole-plate longitudinally upon the runner. A guide-bar, *b*, riveted within the shank B', and fitted to slide within a slot, *a*, in the runner, confines said shank to a rectilinear path. The sole-plate B, whether circular, as represented, or of other suitable shape, is provided at its opposite sides with lips *b'* *b'*.

C is a connecting-piece or plate, having more or less elasticity, and an axial range of perforations, *c c c*. D' is a hooked rod, clinched or otherwise securely fastened to the heel-clamp D, and hooking into either of the holes *c*. The heel-clamp D is supported, in any position to which it may be moved, by the forward prolongation E<sup>1</sup> of the heel-plate E, which supports the heel when the skate is applied to the foot. The shank *d* of the heel-clamp D is tapped, to receive the screw F, which is mounted so as to rotate in the lugs G G. The collars *ff* prevent the screw F from moving longitudinally, so that, when the screw is rotated, by means of a key applied to its square head, *f'*, the clamp D, together with the sole-plate B and its appendages, is drawn backward, so as to tighten the skate upon the foot. The heel-clamp D is held constantly athwart the skate, and confined to a longitudinal motion, in consequence of its square shank *d* occupying the slot *e'* in the prolongation E<sup>1</sup> of the heel-plate E. The curved plate E<sup>2</sup>, rising from the rear edge of the heel-plate E, serves, conjunctively with the heel-clamp D, to secure the rear part of the skate to the foot, said plate E<sup>2</sup> embracing and hugging the back of the heel, while the clamp D bears against the front thereof. The plate E<sup>2</sup> has a horizontal spur, *e*, which, penetrating the heel at the back, prevents it from rising off the skate.

The heel-plate E, with its described appendages, is secured upon the runner by its riveted shank, E<sup>3</sup>, aided in this office by the lugs G G.

The operation will be readily understood. To prepare the skate for application to the foot, the perforated plate C is disengaged, by a downward pressure, from the hooked rod D'. The sole-plate B, with its appurtenances, is then slid forward sufficiently to admit the foot, the heel-clamp D having been properly adjusted to accommodate the heel. The foot being placed upon the skate, the hooked rod D' is connected with the plate C, such hole *c* being engaged as will insure the clamp D and sole-plate B coming to their tightening-positions or proper terminations of adjustment at the same time. The screw F being then rotated by a key applied to *f'*, the effect is to draw backward the sole-plate B till its lips *b'* firmly grasp the broad part of the sole, and at the same time to draw backward the clamp D till it firmly bears against the front of the heel, this action serving to effectively embed the spur into the back of the heel. The hooked form of the lips *b'* at top adapts them to firmly hold the sole down upon the plate B.

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

The combination of the perforated plate C and hooked rod D' with the movable sole-plate B, lips *b'* *b'*, and heel-plates E E<sup>2</sup>, all arranged to operate substantially as and for the purpose herein described.

JOSEPH BOURKE.

Witnesses:

O. KNIGHT,

F. G. HELLEN, of the City of Toronto, in the County of York, Canada, Student-at-Law.