

(No Model.)

J. FORBES.
SKATE.

No. 522,321.

Patented July 3, 1894.

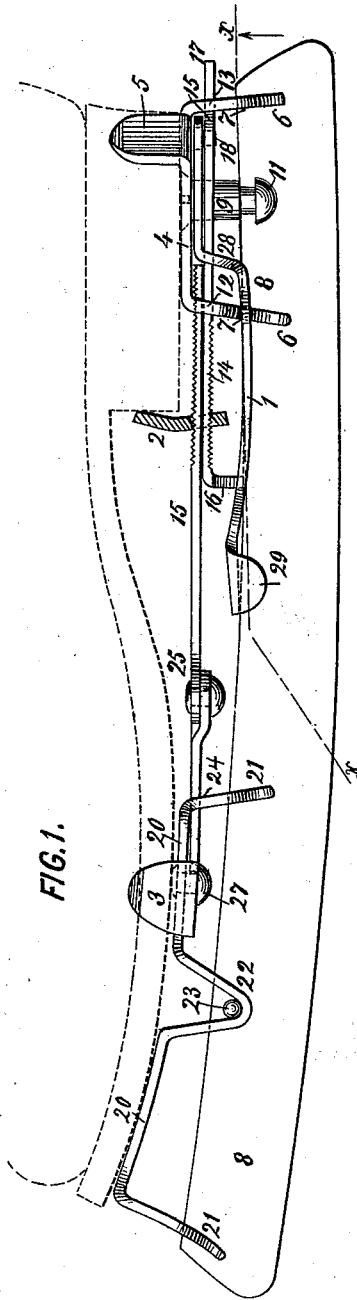


FIG. 1.

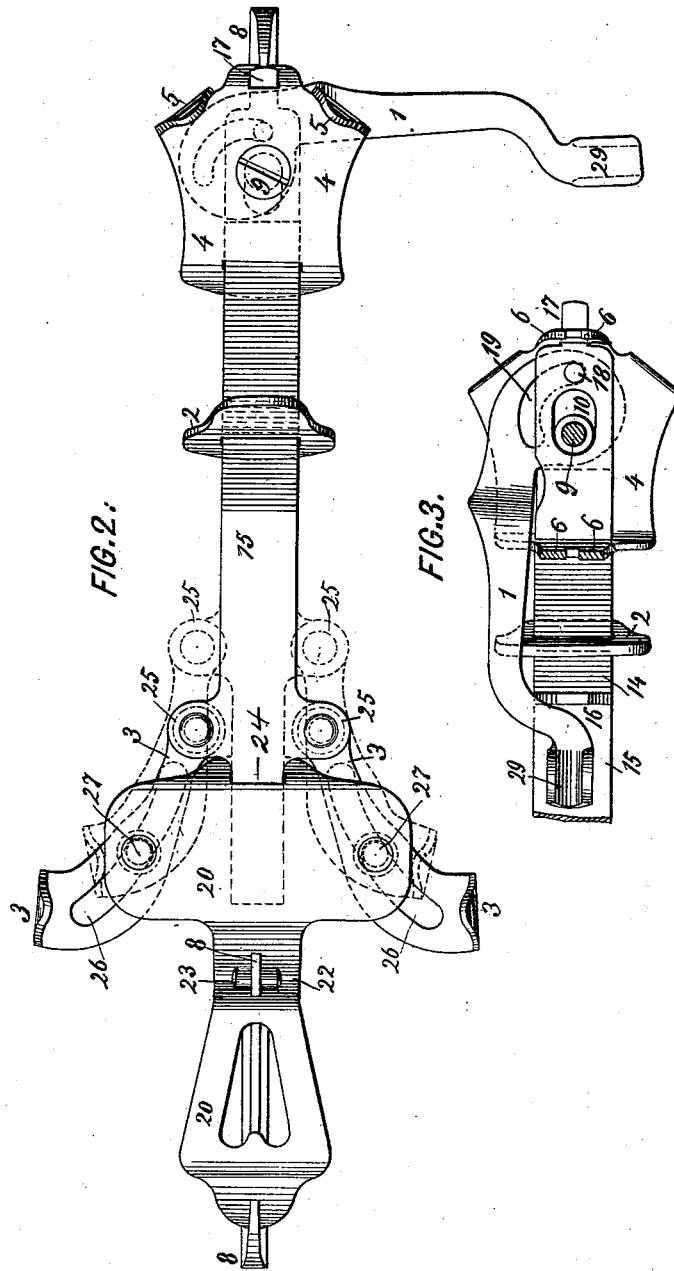


FIG. 2.

FIG. 3.

Witnesses:

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SKATE.

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To all whom it may concern:

Be it known that I, JOHN FORBES, a subject of the Queen of Great Britain, and a resident of Halifax, in the Province of Nova Scotia and Dominion of Canada, have invented certain new and useful Improvements in Skates, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

My improvements consist in the features and combinations hereinafter set forth.

In the drawings:—Figure 1, is a side view of a skate, in which my improvements are embodied, fastened to a boot or shoe. Fig. 2, is a plan view of the skate ready for application to a boot or shoe; the dotted lines showing a closed adjustment of the sole clamps. Fig. 3, is an inverted plan view of the rear parts of the skate.

My improved skate can be readily applied to boots or shoes with very great facility and without any previous manipulation of adjusting screws or keys or any such or kindred devices. The application of this skate is effected by simply placing the skate upon the sole of the boot and then closing against the sole, the sole clamps, and then with the heel lever opened wide, pushing the heel clamp against the breast of the boot heel and then closing the lever.

The cam slotted lever 1, is shown open in Fig. 2. When it is closed, the skate being applied to a boot or shoe, the heel pinching clamp or clasp 2 assumes the position as shown in Fig. 1 firmly securing the heel to the skate and the sole clamps 3, 3, assume a position as shown by the dotted lines Fig. 2 firmly securing the sole to the skate. This simultaneous automatic clamping of the sole and heel will be readily understood after reading the following description of the parts of my skate:

4, is the heel plate, having brackets or lugs, 5, 5, serving as a rear support for a boot heel. This heel plate 4 is secured to the runner of the skate by means of tongues or projections 6, 6, slitted at 7, 7, so as to receive the upper edge of the runner 8. These projections 6, 6, are formed by bending the heel plate downward.

A screw headed stud 9, is passed through the center of the heel plate 4, a separate opening in the cam slotted lever 1 and the slot 10

of the bar 14. The lower end 11 of this stud 9 is so shaped as to permit of its entering an opening in the runner of the skate and when so placed it is given a half turn which rigidly secures the heel plate to the runner. The heel plate and runner thus connected assist in giving rigidity and firmness to the whole skate.

The tongues or projections 6, 6, of the heel plate 4 are slotted at 12 and 13 to permit of the longitudinal movements of the bars 14 and 15 therein and serve as a support for both at 12 and for the bar 14 at 13, the bar 15 being superposed upon the bar 14, both of which bars are embraced by the heel pinching clamp or clasp 2, at any desired point which is determined by the size of the heel of the boot.

The bar 14 is bent downward as shown in Fig. 1 at 16 which downward projection slides along the upper edge of the runner when the bar 14 is actuated by the lever 1, serving to keep the clamp 2 in contact with the bars 14 and 15 and prevents its slipping off them. The under forward half of this bar 14 is serrated as shown in Fig. 3 but this is not necessary to the practical operation of my skate as the bar 14 may be made smooth; at 17 is shown the rear projection of the bar 14 capable of longitudinal movement on the tongue 6 through the slot 13. This bar 14 is slotted at 10 so that the stud 9 will not interfere with its longitudinal movement and it is prevented from any lateral movement by the stud 9 as well as the tongues or projections 6, 6, in which it rests.

In Fig. 3 at 18 is shown an upwardly projecting pin, rigidly secured to the bar 14, which engages with the cam slot in the lever 1. This lever 1 has a cam slot as shown at 19, Fig. 3, which moves the pin 18 rearward as it is closed and thereby actuates the bar 14 rearwardly which in turn, when the skate is applied to the boot, actuates rearwardly the bar 15 through the medium of the heel clamp or clasps.

The heel pinching clamp or clasp 2 is made as shown in Fig. 2 the upper portion thereof being slightly inclined toward the breast of the boot heel so as to give the best clamping properties. It is slotted on the bars 14 and 15, before the heel plate 4 is secured to the

runner as hereinbefore described, and has free longitudinal movement until it is in contact with the boot heel in one direction or the projection 16 of the bar 14 in the other direction. My construction of skate provides for any size of heel and width of sole without the aid of serrations, pawls, pinching screws, adjustment holes and pins, or other devices requiring a previous special setting.

- 10 The sole plate 20 is suitably shaped at its ends to admit of being bent downward to form tongues 21, 21, which as in the case of the heel plate projections are so slitted as to receive the upper edge of the runner. It is also bent downward near its middle part so as to form a loop 22 or double bracket, which is slitted, and the runner being at this point provided with a hole and a pin 23, it is by this means secured to the runner or detached therefrom, as may be required. This gives a slight elasticity to the face of the skate.

- The forward end of the bar 15 is passed through a slot 24 in the rear tongue 21 of the sole plate 20 and is capable of longitudinal movement therein; the rear upper surface of this bar is shown serrated, but this is not necessary to the practical operation of my skate.

- The sole clamps 3, 3 are loosely jointed at their rear ends to lugs 25, 25, of the bar 15 and are so slotted at 26, 26, as to be capable of inward and outward movement, being supported by rivets 27, 27, firmly secured to the face of the sole plate 20.

- The cam slotted lever 1, moving on the stud 9 is bent at 28 so as to sit in close to the runner; at the end 29 it is bent to a clasp form and being first slightly raised is thus locked on to the runner, as shown in Fig. 1.

- The action of the parts described when the skate is applied to a boot or shoe is as follows: The boot heel being set as far back as possible in the heel plate 4, and the sole within the

sole clamps 3, 3, the sole clamps are pressed in close to the boot sole, which action moves rearwardly the bar 15; the heel clamp or clasp 2, is moved up to and pressed firmly against the breast of the boot heel and the lever 1 being open to its widest extent as shown in Fig. 2 is closed in so as to assume the position shown in Fig. 1. The closing in of this lever 1 moves rearwardly the bar 14 which, through the medium of the heel clamp 2, at the same time moves rearward the bar 15, carrying the sole clamps 3, 3; the clamp 2 will become engaged against the breast of the boot heel and by this action be bent forward and by being bent forward will clamp upon and secure together the bars 14 and 15. By being thus cramped upon the bars 14 and 15 it is carried still farther back to the rear against the heel and firmly holds it at the same time the sole clamps are clamping the boot sole.

I claim—

In a skate, a sole plate, a heel plate, a lever below the heel plate and provided with a cam slot, a pair of sole clamps provided with slots, a pair of pins fastened to the sole plate, one passing through each sole clamp, a connecting bar pivotally attached to the sole clamp, a sliding bar slotted at one end, having a stop at the other end, a pin inserted in the sliding bar and entering the cam slot in the lever, a pinching heel clamp through which each pass and are locked together, a skate runner having a socket, and a pin passing through the heel plate, through the cam lever, and through the slot in the sliding bar, and removably secured in the socket in the runner, substantially as set forth.

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Witnesses:

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