J. Forbes,

Skate,

No. 69,649. Patented Oct. 8, 1867.

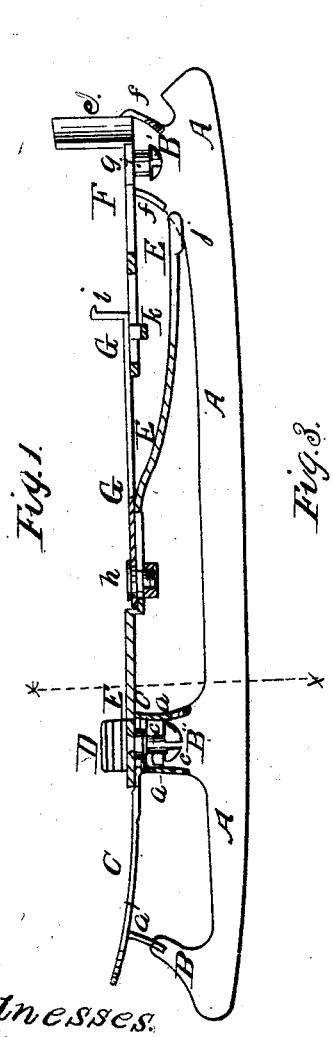

Fig. 1.

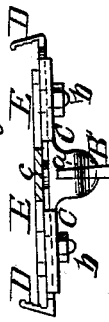

Fig. 3.

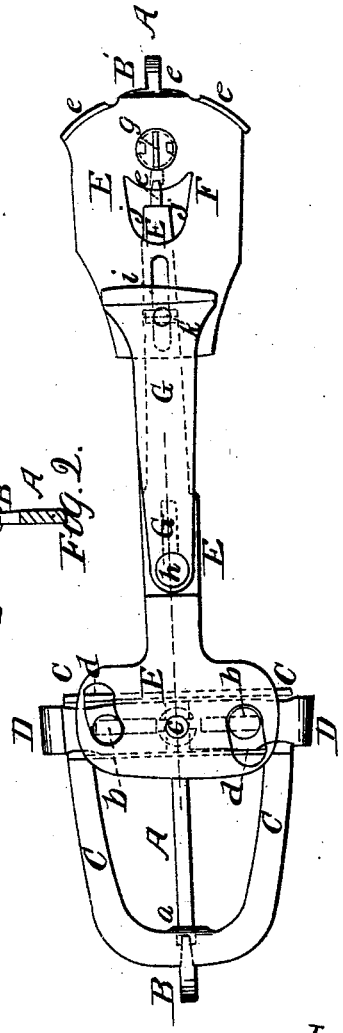

Fig. 2.

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United States Patent Office.

JOHN FORBES, OF NEW YORK, N. Y.

Letters Patent No. 69,649, *dated October* 8, 1867.

IMPROVED 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, JOHN FORBES, of the city, county, and State of New York, have invented a new and useful Improvement in Skates; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a side elevation, partly in section, of my improved skate.

Figure 2 is a plan or top view of the same.

Figure 3 is a vertical transverse section of the same, the plane of section being indicated by the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to certain improvements on the skate for which I made application for a patent on or about the 15th day of July, 1866.

The object of this invention is to so construct and connect the different portions, plates, &c., that the same can be easily taken apart for cleaning and other purposes.

The invention consists in forming the drops for securing the foot-rest to the runner on the said foot-rest by punching and bending.

It also consists in arranging the buttons, by which the foot-rest is attached to the runner, T-shaped, or in providing the same with slotted heads, so that by turning them one quarter round they can be taken off the runner.

The invention finally consists in so attaching the side lugs, fitted upon the box in the front portion of the skate, that the said lugs, when clamped, cannot move laterally, but can turn on their pivots, whereby greater elasticity of the fastening is obtained.

A represents the runner of the skate, which may be constructed in any suitable form. B, B′, and B″ are posts or standards secured to or formed on the runner; the post B being at its front, B′ near its rear end, and B″ between the two, B and B′, nearer to the former, as shown in fig. 1. Upon the post B and B″ is secured a horizontal sheet-metal plate, C, which is shaped similar to a horse-shoe, open in the centre, (see fig. 2.) It is secured by means of drops *a a*, which are bent down and form parts of the plate, and which fit over the posts B and B″, as shown. These drops *a* may be slotted so as to fit over the posts B B″, in the manner shown in fig. 3, or they, as well as the posts, may be slotted, as at *a′*, fig. 1. The drops are fitted thus loosely upon the posts and retain the plate C in position, but allowing the same to be removed whenever desired. In the rear part of the plate C is formed, by bent-up edges, a sort of a horizontal transverse channel, in which two sheet-metal jaws D D are placed and allowed to slide freely. These jaws are made of right-angular form, their horizontal parts being fitted in the channel on C, and the inner sides of their vertical parts are serrated, so that they may clamp the sides of the sole of a boot or shoe. The jaws D have each an oblong slot in their horizontal parts, and similar slots are made in the channel in C for bolts *b* to pass through, said bolts serving as guides for the jaws, and the bolts and oblong slots admitting of the jaws being adjusted laterally, according to the width of the sole. E represents a plate, which is secured by a button, *c*, to the post B″, said button passing through a hole provided in the plate C. In the post B″ is provided a T-shaped slot for holding the button. The latter has a head at its lower end, in which are two slots opposite to each other, so that when these slots are in line with the runner the button may be moved down through the narrow part of the recess in B″. When, then, the head arrives in the broader part of the slot, the button, or rather the plate E, to which it is firmly secured, is turned so that the head comes under the shoulder of the slot in B″, and thus all the parts E, D, and C, are held down to the runner, and can be removed by drawing out the plate E with its button C, when the drops *a* will no more secure the plate C to the runner. In the plate E are two curved slots *d d*, one in advance and the other in rear of the centre transverse line of the channel in C, and heads, which are on the bolts *b*, fit into these slots *d*. Thus by turning the plate E the bolts *b* will be moved simultaneously outward, and with them the jaws D, and so the sole can be released from the pressure of the jaws. These jaws are, when adjusted, and when the nuts on the bolts *b* are drawn tight, not laterally movable, but they can turn on the bolts *b*. F is the heel-plate, made of sheet metal, and provided with jaws *e e* formed near its rear edge. It has also drops *f f*

formed similar as the drops *a* are formed on C; said drops *f* fitting upon the post B′, as shown. A button, *g*, of similar construction as the button *c*, fitting into a T-shaped recess in B′, but turning loose in F, secures the latter to B′. G is a plate, which is secured by a bolt, *h*, to the plate E, in which an oblong slot for the reception of this bolt is provided. The rear end of the plate G has a flat button, K, at its under side, fitting through a slot in the heel-plate F. A jaw, *i*, is formed on the rear end of the plate G to bite against the front edge of the heel. The extreme rear of the plate E is formed in shape of a spring, which has two lugs *j j* at its side by which it is held upon the runner. By raising the end of this spring from the runner the plate E can be turned around the bolt *h* to one side, thereby spreading the jaws D and drawing the plate G forward, so as to also release the jaw *i*.

To take this skate apart the bolt *h* must first be taken out, then the plate G can be turned so that the flat button K can be raised out of the slot; thereby G is released. By then turning the button *g*, so that the slots in its head are in line with the runner, the heel-plate F can be taken off. The plate E can also be taken off, as soon as the bolts *h* and *b* are removed, by turning it so that the slots in the head of the button *c* come in line with the runner. The plate C can then also be taken off and the jaws D be removed from it. All the parts are then separated, and can be easily repaired or cleaned, and as easily re-attached to the runner.

What I claim as new, and desire to secure by Letters Patent, is—

1. Forming the drops *a* and *f* on the toe and heel-plates respectively, by punching and bending, so that they are part of the said plates, as set forth.

2. The manner of securing the heel and toe-plates to the posts on the runner, by means of slot-headed buttons *c* and *g* fitting into T-shaped slots in the said posts, as described.

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Witnesses:

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