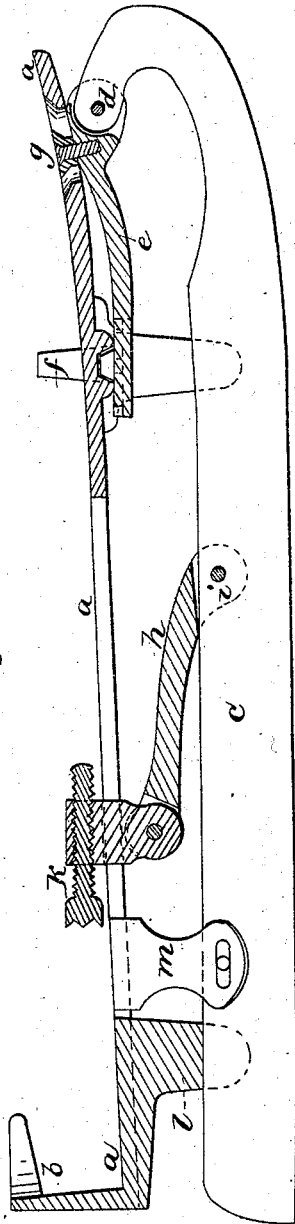


E. Murray,
Skate,

No. 47,682,

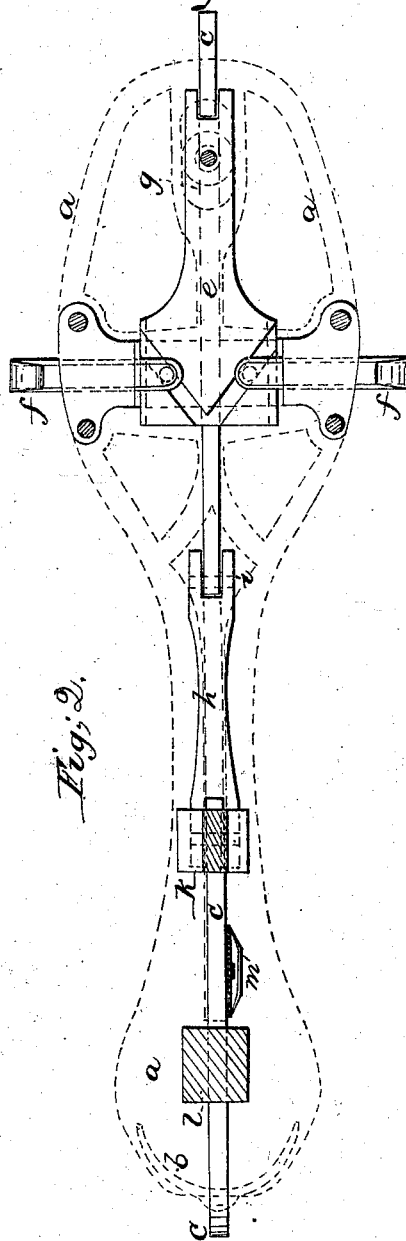
Patented May 9, 1865.

Fig. 1.



Witnesses;
Thos. Lee Carroll
Chas. H. Smith

Fig. 2.



Inventor;
Edgar Murray

UNITED STATES PATENT OFFICE.

EDGAR MURRAY, OF NEW YORK, N. Y., ASSIGNOR TO FREDERICK WUESTHOFF, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. 47,682, dated May 9, 1865.

To all whom it may concern:

Be it known that I, EDGAR MURRAY, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Skates; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a longitudinal section of my improved skate, and Fig. 2 is a plan of the runner and clamps, the sole-plate of the skate being shown in red lines.

Similar marks of reference denote the same parts.

Skates have heretofore been made with a movable or hinged runner, acting to bind the skate to the boot-sole when said runner is pressed toward the foot.

The nature of my said invention consists in a movable runner, combined with a link and adjustable heel-screw, and with a sliding cam-plate that operates clamps that act upon the sides of the boot-sole to secure the same. Thus the one movement of the runner effectually secures the skate to the foot or entirely relieves the same.

In the drawings, *a* is the sole-plate, of any desired size or shape. *b* is the heel-clip, formed at the back end of the plate *a* to receive the boot-heel. *c* is the runner, hinged at *d* to the sliding plate *e*, that is formed with cam-grooves, taking pins upon the sliding clamps *f f*, that grasp the sides of the boot-sole, and

g is a screw or rivet, sliding in a slot at the front portion of the plate *a*, to guide and support the forward end of the slide-plate *e*.

h is a link, jointed at *i* to the runner *c* and extending through a slot in sole plate *a*, where it terminates as a nut, receiving the heel-screw *k*.

l is a stud on the under side of *a*, into a notch in which the runner passes and is supported, and *m* is a spring-latch, taking a pin on the side of the runner *c*, and holding the same in position when pressed toward the sole-plate.

It will now be seen that the screw *k* is to be adjusted so as to leave the proper distance between its end and the heel-clip *b* for the reception of the boot-heel and its secure clamping, and the act of compressing the heel by the pressing of the runner toward the sole-plate causes the runner to force the plate *e* forward and by its cam-grooves draw the clamps *f f* tightly against the sides of the boot-sole to secure the skate firmly to the boot.

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

The combination of the movable runner *c*, link *h*, and heel screw *k*, with the sliding plate *e* and clamps *f f*, taking the sides of the sole of the boot, as specified.

In witness whereof I have hereunto set my signature this 24th day of March, A. D 1865.

EDGAR MURRAY.

Witnesses:

THOS. GEO. HAROLD,
CHAS. H. SMITH.