

L. S. INGRAHAM.

Skates.

No. 162,174.

Patented April 20, 1875.

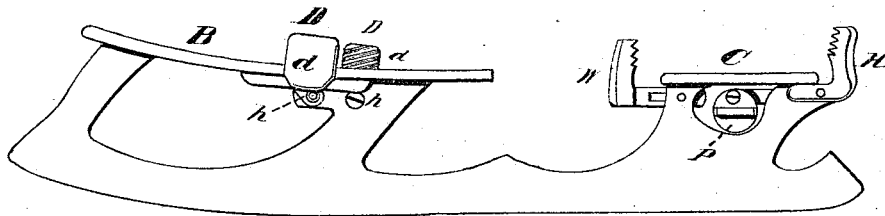


Fig. I.

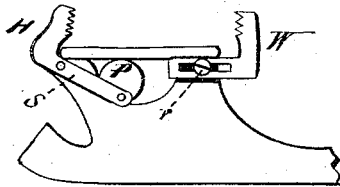


Fig. II.

Witnesses
C. L. Beach
J. S. Briggs

Inventor
L. S. Ingraham
by his attorney
R. T. Hyde

UNITED STATES PATENT OFFICE.

LEWIS S. INGRAHAM, OF FLORENCE, MASSACHUSETTS.

IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. **162,174**, dated April 20, 1875; application filed December 1, 1874.

To all whom it may concern:

Be it known that I, LEWIS S. INGRAHAM, of Florence, Massachusetts, have invented an Improvement in Skates, of which the following is a specification:

My invention has for its object the construction of a simple, strong, and easily-adjustable skate-fastening.

In the drawings, Figure I is a side view of a skate having my improvements. Fig. II is a portion of the reverse of Fig. I.

Hinged to the runner, immediately in rear of the heel-plate C, is the clamp H, an arm, S, from which is hinged to the cam-eccentric P, recessed within the runner beneath the heel-plate. This part P is formed upon its side to be readily grasped by a handle or wrench. In front of the heel-plate, and adjustable upon the runner by the screw *r*, as seen in Fig. II, is the clamp W, the jaw of which bears against the inside or front part of the heel of the boot.

In use, the front clamps D D are adjusted to the width of the sole, so that the sole would be capable of being forced a slight distance within them. The clamp W is adjusted so that the heel shall be brought against it when the sole is wedged between the clamps D D, (or may be brought against the heel afterward.)

When the foot is placed upon the skate, the cam P is turned by means of a handle or

wrench, and its surface bearing upon the plate C above it, throws forward the jaw of the clamp H, the clamp in its movement carrying with it the boot, the sole of which is wedged between the clamps D D, and the heel of which is firmly held between the clamps H and W, and this is accomplished when the cam-eccentric P has been turned until upon a center, as shown in Fig. II, to securely lock the clamp H, which in its turn holds the boot to the skate.

When it is desired to release the boot, the cam P is returned to its former position, bearing against the runner beneath it in turning, to open the jaw H.

To render additionally secure the locking of the clamp H, to prevent the possibility of a jar starting the eccentric from its center, the arm S or the heel-plate C may be made to spring a little, to permit the eccentric to reach a center, and the eccentric may be slightly flattened, to be held by this spring from starting when once on a center.

What I claim is—

The hinged heel-clamp H, operated by the eccentric P, hinged thereto, and recessed within the blade, as shown and described.

LEWIS S. INGRAHAM.

Witnesses:

A. M. MOORE,
M. L. INGRAHAM.