(No Model.) 2 Sheets—Sheet 1.

W. L. PARMALEE.

SKATE.

No. 419,550. Patented Jan. 14, 1890.

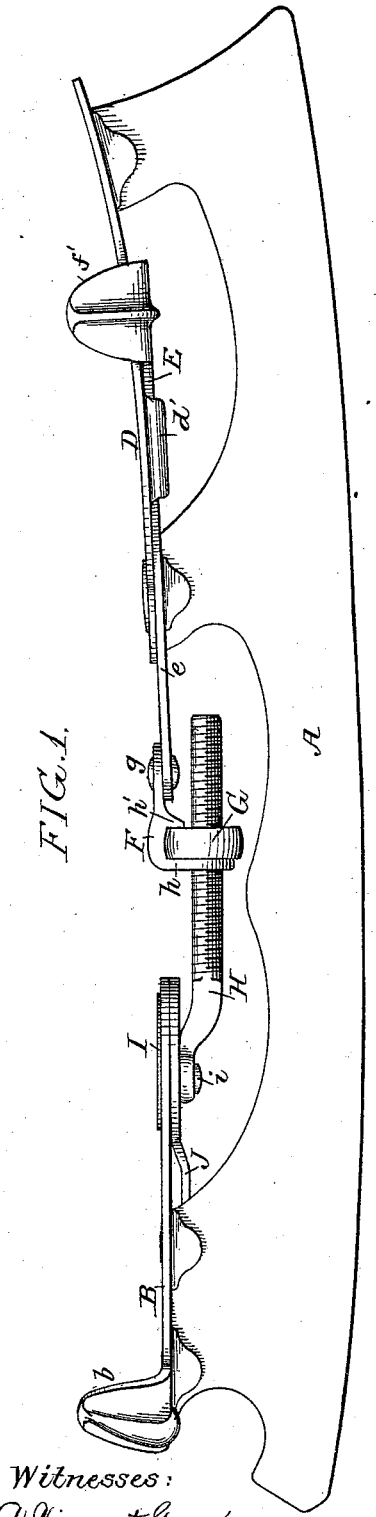


FIG. 1.

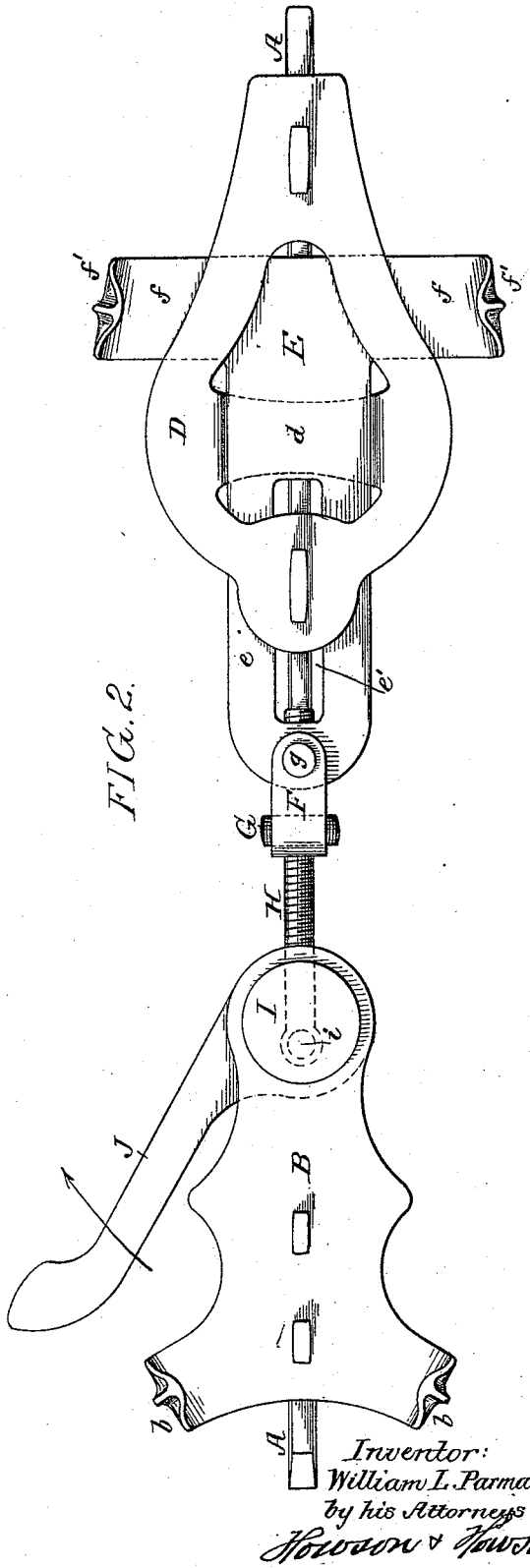


FIG. 2.

Witnesses:
A. Vincent Groupe.
John J. Geary

Inventor:
William L. Parmalee
by his Attorneys
Howson & Howson

(No Model.) 2 Sheets—Sheet 2.

W. L. PARMALEE.

SKATE.

No. 419,550. Patented Jan. 14, 1890.

FIG. 4.

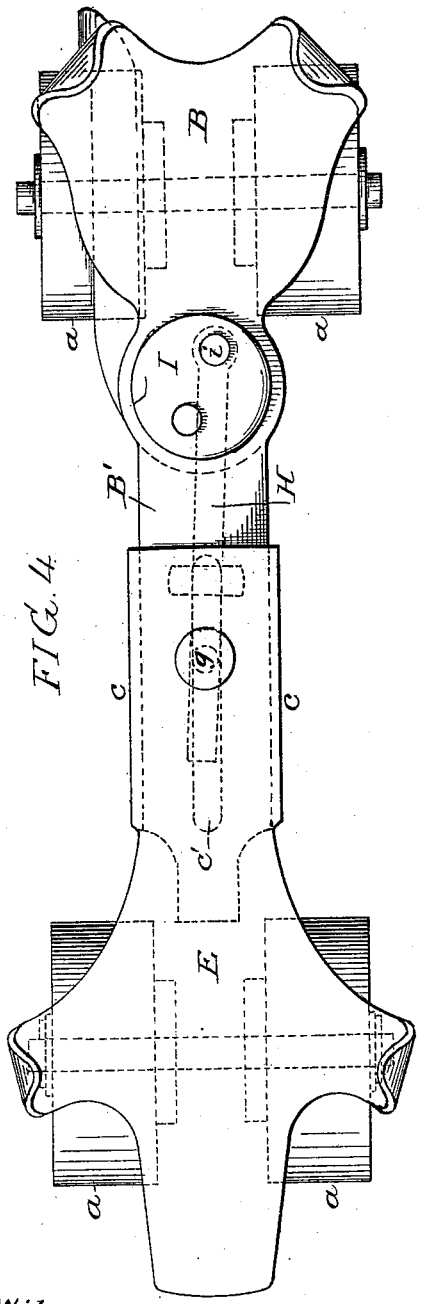
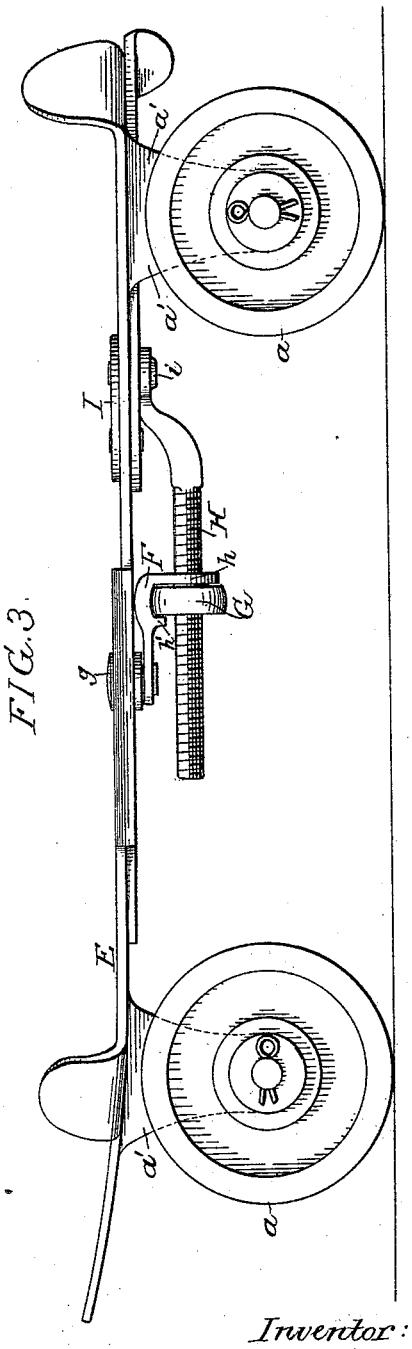


FIG. 3.



Witnesses:
A. Vincent Groupe.
John J. Geary

Inventor:
William L. Parmalee
by his Attorneys
Howson & Howson

UNITED STATES PATENT OFFICE.

WILLIAM L. PARMALEE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO ALFRED C. REX, OF SAME PLACE.

SKATE.

SPECIFICATION forming part of Letters Patent No. 419,550, dated January 14, 1890.

Application filed May 18, 1889. Serial No. 311,249. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. PARMALEE, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Skates, of which the following is a specification.

The object of my invention is to construct an ice or roller skate that can be adjusted to different-sized shoes, and after adjustment can be clamped longitudinally, substantially as hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of my improved clamping mechanism attached to an ice-skate. Fig. 2 is a plan view of Fig. 1. Fig. 3 is a side view of my improved clamping mechanism forming part of a roller-skate, and Fig. 4 is a plan view of Fig. 3.

Referring to Figs. 1 and 2, A is the runner of the skate and B is the heel-plate, secured to the runner in the present instance by riveting.

D is the sole-plate, secured also to the runner, and is merely a guide for the clamp-frame E, which is made in the form of a T, as shown, having a longitudinal arm *e* and transverse arms *f f*, provided with upright extensions *f'*, beveled, as shown, by preference, to the line of the sole of the shoe. The heel-plate B also has projections *b b* at the rear to receive the heel of the shoe.

The frame E is guided in the sole-plate D, the portion *d'* of the sole-plate being sunken below the balance of the plate, and the frame E slides between the sunken portion and the top of the sole-plate. The arm *e* of the frame has a slot *e'* to allow for the passage of an extension of the runner, which is secured to the plate D. Pivoted at *g* to the end of the arm *e* of the frame E is a block F, having an extension *h* and a lip *h'*. Through an orifice in the lip *h* passes a screw-rod H, and confined between the lip *h'* and H is a nut G, adapted to the threads on the screw-rod.

Inserted in the heel-plate B is a disk I, to which is secured a lever J. One end of the screw-rod is pivoted to the disk and lever by a pin *i*, which is to one side of the center of the disk I, forming a lever, so that on moving the lever J in the direction of its arrow, Fig. 2, the sole-clamp will be moved away from the heel-clamp, and by moving it in the opposite direction, as shown by the arrow, the sole-clamp will be moved toward the heel-clamp, and if the shoe is in position the clamps will be firmly clamped to the sole.

The lever J and its disk are for the sole purpose of clamping the skate to the sole of the shoe, while the adjustment of the nut on the screw-rod is for the purpose of altering the size of the skate to fit different-sized shoes.

The object is to make a comparatively-cheap skate in two or three sizes, and the intermediate sizes are secured by the above-described adjustment.

In Figs. 3 and 4 I have shown a roller-skate in which my invention is carried out. In this case the sole-plate D is practically dispensed with, the foot resting on the clamp-frame E, which also carries the front rollers *a a* and their bearings *a'*. The frame E in this instance is guided by a projection B', extending from the heel-plate B, lips *c c* of the frame extending down on each side of the extension B', thereby preventing any twisting of the parts. It will be understood that the extension B' can carry the lips, instead of the frame E. The block F is pivoted to the frame E at *g* in the same manner as shown in Figs. 1 and 2; but the pivot-pin passes through a slot *c'* in the extension B', so as to allow for the adjustment of the two parts.

The heel-plate carries the two rollers *a a* and their bearings *a'*, and the rod H has the adjusting-nut G, and is connected to the disk I, at *i*, in the same manner as that shown in Figs. 1 and 2.

I claim as my invention—

1. The combination, in a skate, of the heel-clamp and the sole-clamp, confined transversely, but free to move longitudinally, with mechanism for the longitudinal adjustment of one in respect to the other to accommodate different sizes of shoes, and additional mechanism for adjusting the said clamps to clamp the sole to the skate, substantially as described.

2. The combination of the heel-plate, the

disk thereon, and screw-rod pivoted to said disk and provided with a nut confined in a block, with the sole-clamping frame pivoted to said block and confined transversely, but free to move longitudinally, substantially as and for the purpose set forth.

3. The combination, in a skate, of the heel-plate B and the sole-plate D, both carried by the skate-runner A, with a longitudinal clamp-plate E, confined transversely to said sole-plate D, but free to move longitudinally therein, and mechanism for moving said clamp-plate, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM L. PARMALEE.

Witnesses:
C. A. G. RIEGÉ,
F. R. MERLITZ.