

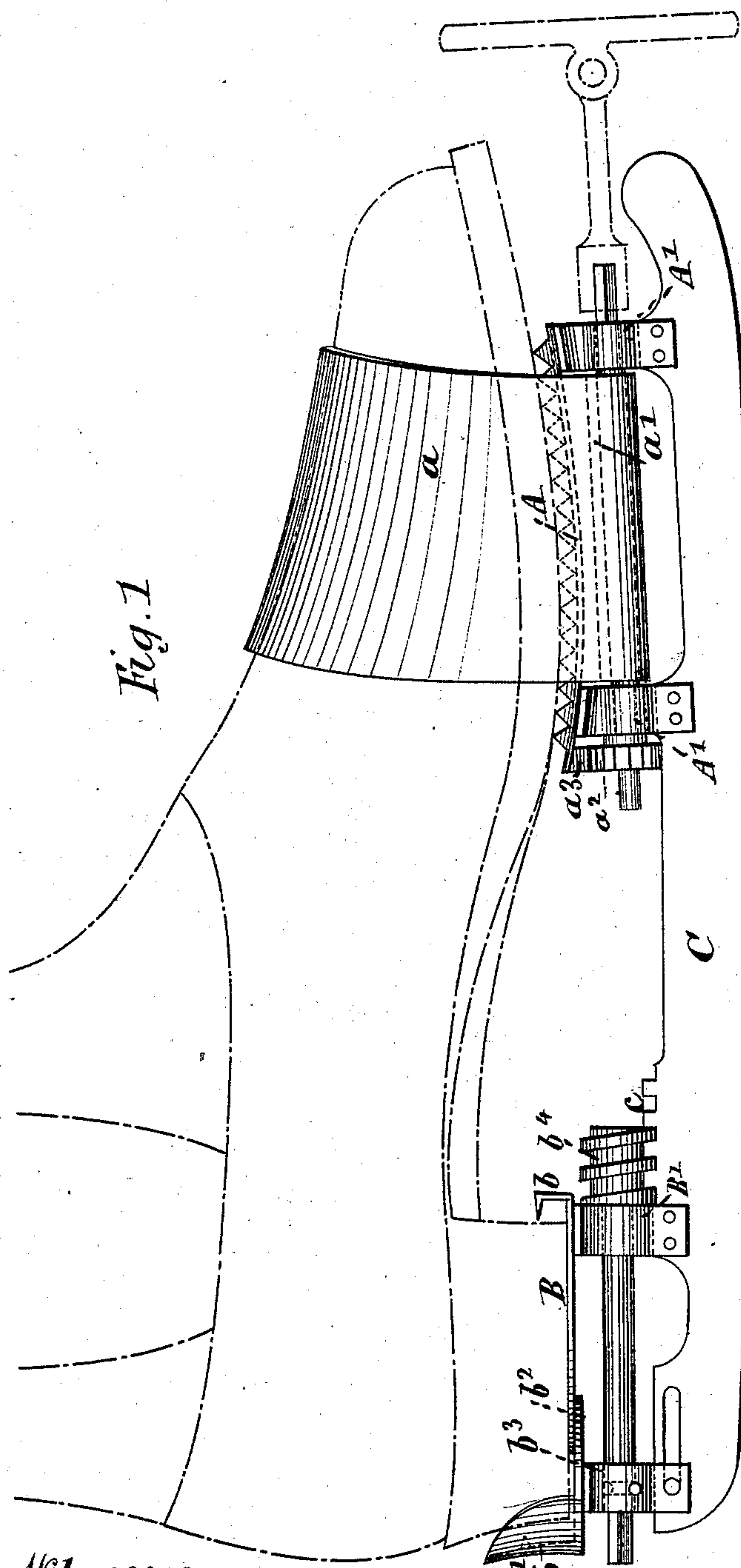
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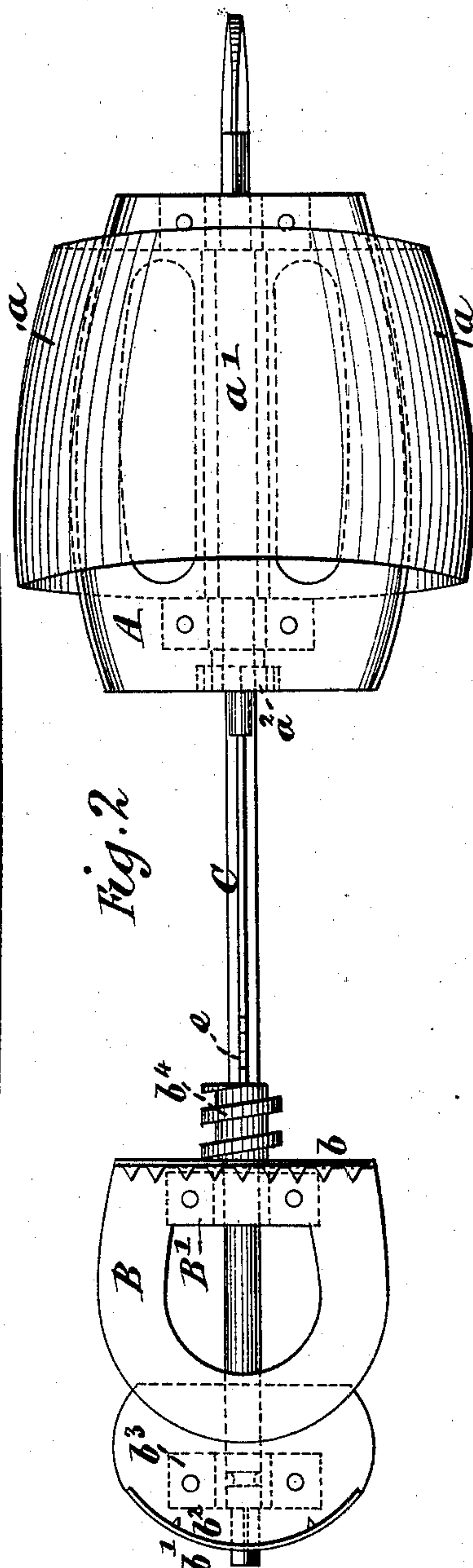
P. EVERITT.
Skate.

No. 242,904.

Patented June 14, 1881.



Witnesses:
D. W. Wagner
Ed. Glatzmayer



Inventor:
Percival Everitt
by his Attorneys
Brown & Brown

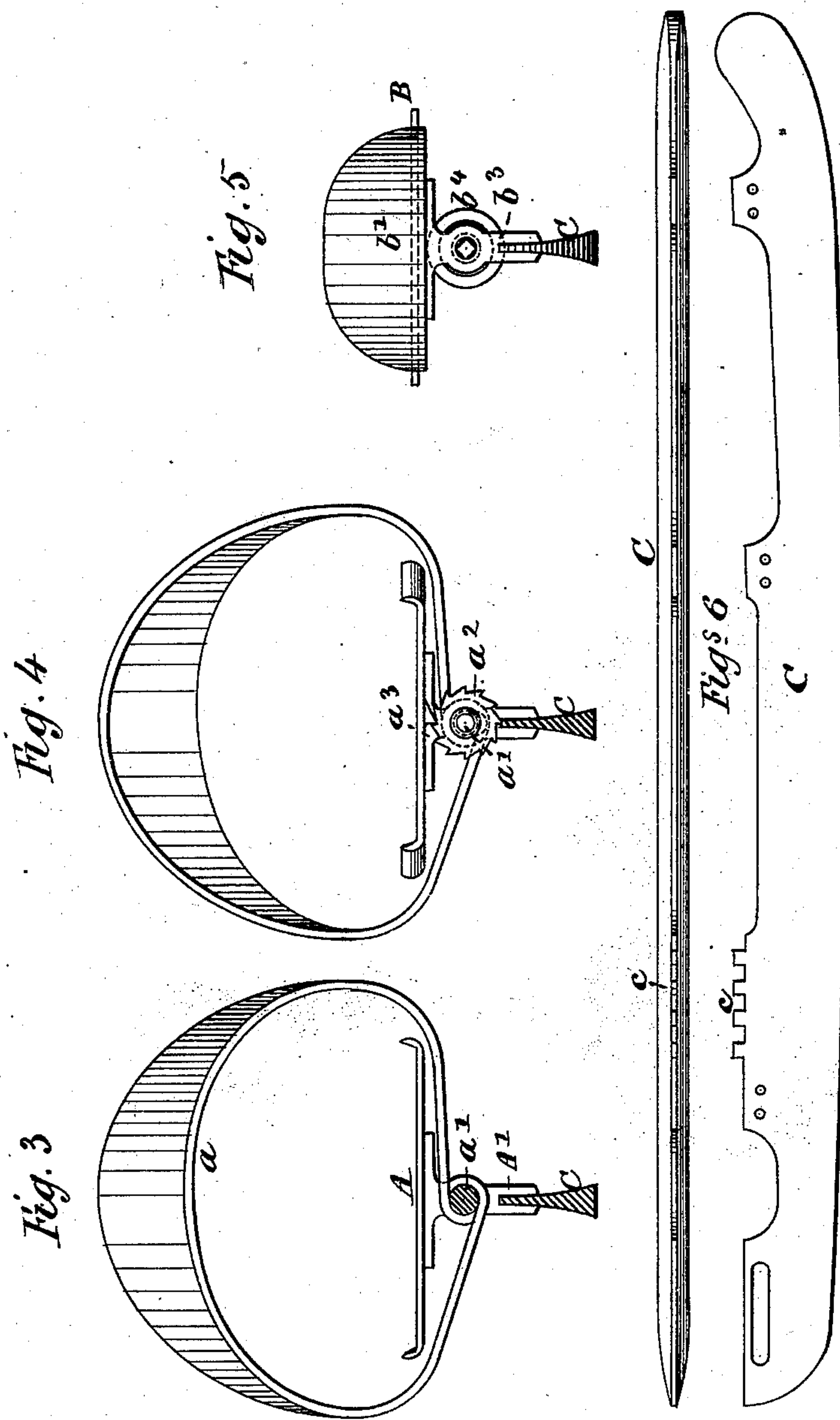
(No Model.)

3 Sheets—Sheet 2.

P. EVERITT.
Skate.

No. 242,904.

Patented June 14, 1881.



Witnesses:-
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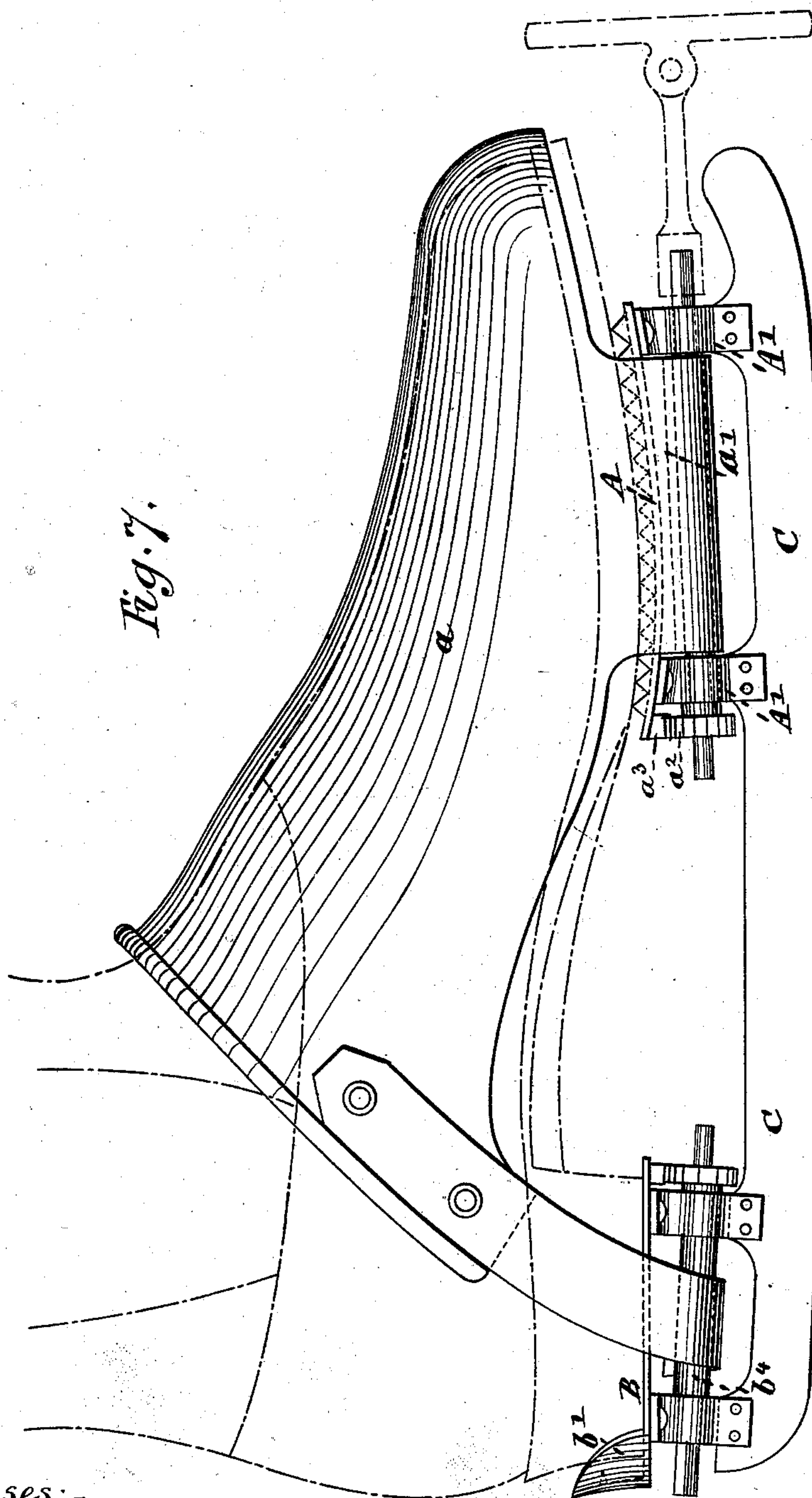
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3 Sheets—Sheet 3.

P. EVERITT.
Skate.

No. 242,904.

Patented June 14, 1881.



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Inventor:
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UNITED STATES PATENT OFFICE.

PERCIVAL EVERITT, OF LONDON, ENGLAND.

SKATE.

SPECIFICATION forming part of Letters Patent No. 242,904, dated June 14, 1881.

Application filed January 6, 1881. (No model.)

To all whom it may concern:

Be it known that I, PERCIVAL EVERITT, of Queen Victoria Street, in the city of London, England, engineer, have invented certain Improvements in Skates, of which the following is a specification.

The object of this invention is to provide a skate which will admit of being firmly secured to the boot of the skater and disengaged therefrom with facility.

Instead of relying upon metal clips, as in the most approved skates, for gripping the sole of the boot, I provide a toe-strap to receive the forward part of the boot, which strap may be tightened up by the turning of a roller, to which the two ends of the strap are attached, until the boot is firmly held to the skate; and the heel of the boot I secure to the skate by gripping it, as in a vise, between a fixed jaw furnished with teeth and a sliding heel-piece; or, in place of the gripping device, I extend the toe-piece rearward to form a gaiter, which, being tightened over the instep by a similar device to that used for tightening the toe-piece, will secure the heel of the boot in place.

In Sheets I and II of the accompanying drawings I have shown, in several views, one mode of carrying out the object of my invention.

Figure 1 is a side elevation of a skate complete, and Fig. 2 is a plan view of the same.

This skate, it will be seen, is made without a sole-plate, it being provided, in lieu thereof, with two tread-plates, A B, which are made fast to the steel blade C, that gives to the skate its required stiffness.

Fitted to the tread A is a strap, *a*, which overlies the toe of the boot, and is caused to bind thereon, so as to hold the skate firmly in position.

The heel of the boot is secured in a manner somewhat like that ordinarily adopted in the best construction of skates; but the details of construction of this part of the skate are novel, as will be presently explained.

The toe-strap *a* is made capable of adjustment to suit various sizes of boots, and it is tightened upon the boot in a simple and efficient manner. The ends of the strap *a* are made fast by screws or rivets to opposite sides of a metal roller, *a'*, mounted in the brackets A',

which connect the tread-plate A to the blade B. This roller is shown in place in the section, Fig. 3, and the connection of the strap therewith is clearly illustrated. Keyed to the spindle of this roller (see the cross-section, Fig. 4) is a ratchet-wheel, *a*², into the teeth of which a retaining-pawl, *a*³, takes. This pawl is attached by a rivet to the under side of the tread-plate A, and to disconnect it from the ratchet-wheel the latter is depressed, the bearing of the roller-spindle being slotted for that purpose. The outer end of the spindle of the roller *a'* is squared to receive a key, by the turning of which the roller is caused to exert a pull upon the two ends of the strap *a*, and thereby secure the toe of the skate to the boot of the wearer.

For securing the heel of the boot a fixed toothed jaw, *b*, is provided, which, together with the sliding heel-piece *b'*, will gripe the heel as in a vise. This toothed jaw *b* is formed out of an extension of the heel-plate B, which extension is bent upward vertically, and its edge is then turned over and serrated to meet the front of the heel. The heel-plate B is made fast to the blade C by means of a T-shaped bracket-piece, B', which is riveted both to the blade and to the plate. The heel-piece *b'* has a horizontal extension, *b*², which underlies the plate B, and riveted to the under side of this extension-piece *b*² (see the back view, Fig. 5) is a T-shaped pendent bracket, *b*³.

In Fig. 1, *b*⁴ is a screw of coarse pitch, which gears into teeth *c* cut in the upper edge of the blade C, as shown best in the detached views, Fig. 6. The spindle of the screw *b*⁴ has its bearings in the two brackets B' and *b*³. In the former it is free to turn and also to move endwise, and in the latter it is free to turn, but it is secured thereto by a transverse pin entering a groove formed around the spindle. The rear end of the spindle is squared to receive a key for turning it, and when the boot is in place on the skate the heel-piece *b'*, which is furnished with gripping-pins, is advanced to the heel of the boot and caused to press against it by turning the screw *b*⁴ to the right. This will cause the screw to advance and draw with it the bracket *b*³, and with it the parts attached thereto. By means, therefore, of a winding-key I am enabled to tighten the toe-strap on the boot and to secure

the heel as in a vise, the whole strain being borne by the steel blade C.

In Sheet III of the drawings, Fig. 7 represents, in side elevation, a skate in which the toe-strap *a* is expanded into a gaiter, which covers the greater part of the foot, and is intended to be lined to protect the foot from the cold. The gaiter, it will be seen, is extended downward, like the toe-strap in Fig. 1, and is similarly connected with a roller for bringing it to tension. In this figure the gaiter, it will be seen, terminates rearward in an instep-strap, which supersedes the griping arrangement of Fig. 1.

In Figs. 5 and 7 is shown a roller, *b*⁴, which takes the place of the screw-spindle, and is acted upon precisely in the same manner as the roller *a*'. The heel-piece *b*' is, in this example, made a fixture to the tread-plate B, and spikes may be provided in this plate to take into the heel of the boot.

I am aware that it is old to connect one end of a skate-strap rigidly to the tread-plate, and the other end to a spindle or rod beneath the tread-plate, which may be turned to draw upon one end only of said strap to tighten the same.

I am also aware that it is old to connect the two ends of a skate-strap to a windlass below the tread-plate, and to turn said windlass to draw upon both ends of the strap by means of a worm or screw which engages with a worm-wheel upon the windlass.

I am also aware that it is old to provide a skate with a fixed jaw at the back of the heel, and a movable jaw adapted to be forced against the front of the heel by a screw, thus pressing the foot out of the gripe of the toe-strap.

I do not, therefore, claim either of the above as of my invention.

Having now explained the nature of my invention, I wish it to be understood that I claim—

1. In combination with an adjustable toe-strap and a fixed griping-jaw, *b*, a sliding heel-piece for pressing forward the foot into the gripe of the toe-strap, and a screw-spindle or equivalent device for actuating said sliding heel-piece, substantially as specified.

2. The combination of a toe-strap, *a*, secured to opposite sides of the roller *a*', the slotted bracket-bearing A', in which said roller is mounted, the ratchet-wheel *a*², carried by said roller, and the fixed pawl *a*³, which engages with said ratchet-wheel, and is disengaged therefrom by the depression of the axle of the roller in its slotted bracket-bearing, substantially as specified.

3. In combination with a toe-strap or gaiter which is capable of being drawn to tension by a roller or equivalent device mounted below the tread-plate, an adjustable heel-piece for griping, with the aid of a fixed jaw, the heel of the skater's boot, such griping device being actuated by a screw-spindle the thread of which gears into notches cut in the upper edge of the skate-iron, as and for the purpose above set forth.

Dated the 9th day of December, 1880.

PERCIVAL EVERITT.

Witnesses:

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