

J. A. DODGE.
SKATES.

No. 181,319.

Patented Aug. 22, 1876.

Fig. 1.

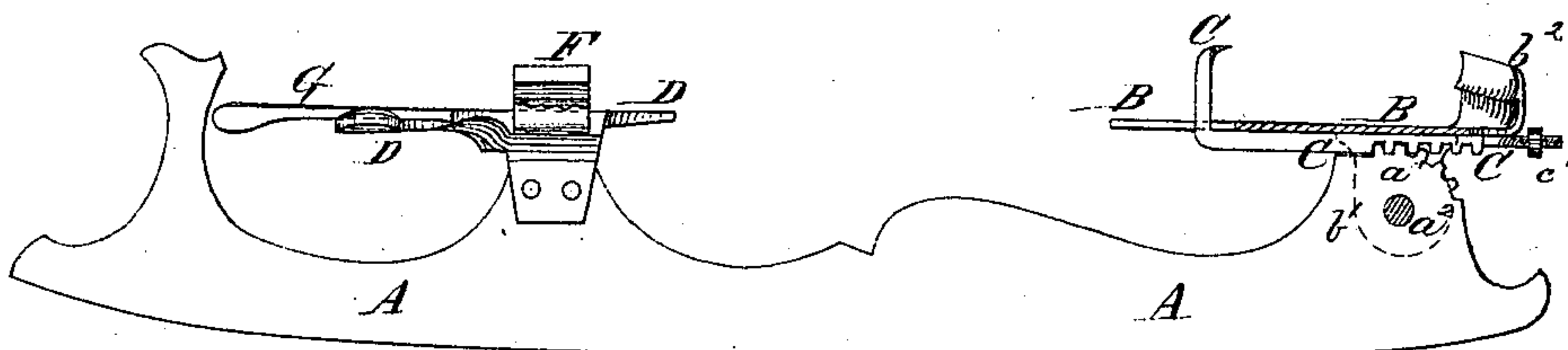
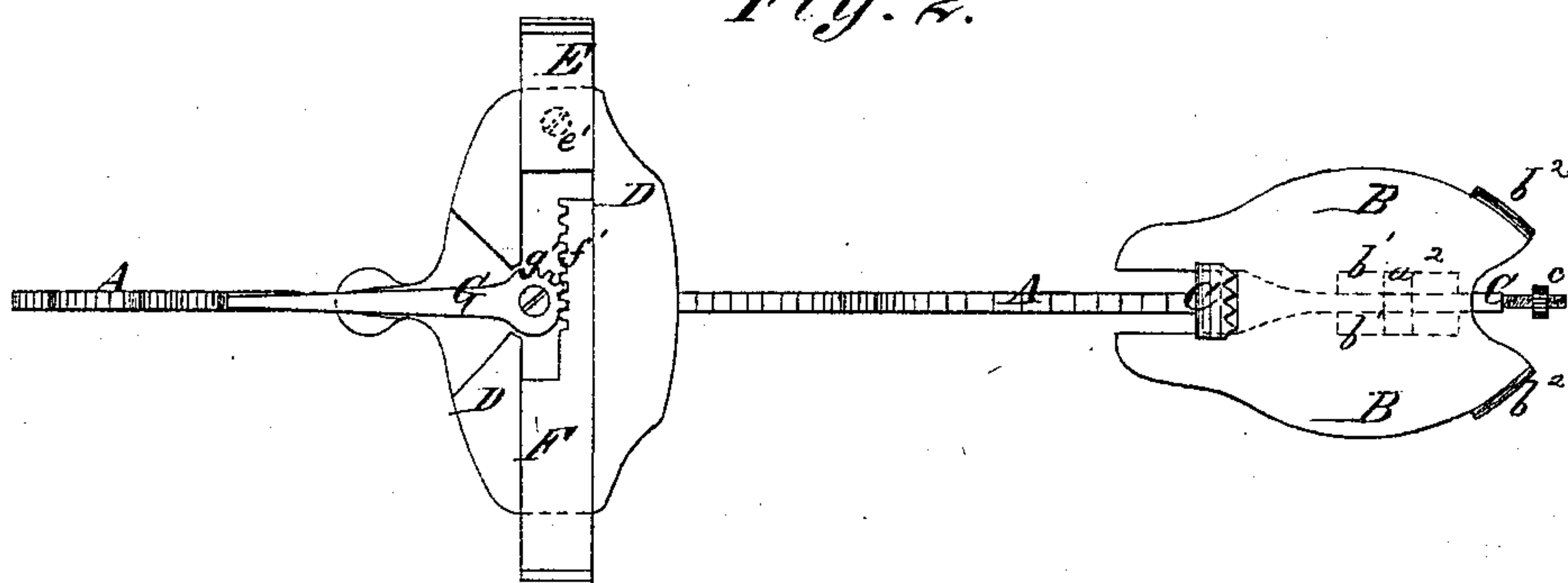


Fig. 2.



WITNESSES:

H. Nydquist.
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UNITED STATES PATENT OFFICE.

JOHN A. DODGE, OF AMHERST, NOVA SCOTIA, CANADA.

IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. **181,319**, dated August 22, 1876; application filed June 6, 1876.

To all whom it may concern:

Be it known that I, JOHN A. DODGE, of the town of Amherst, county of Cumberland, Province of Nova Scotia, and Dominion of Canada, have invented a new and useful Improvement in Skates, of which the following is a specification:

Figure 1 is a side view of one of my improved skates, part being broken away to show the construction. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved skate which shall be so constructed that it may be easily and quickly attached to, and detached from, the boot of the skater, and when attached will be securely held.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

A represents the blade or runner of the skate, upon the rear part of the upper edge of which is formed a segment of a gear-wheel, a^1 . B is the heel-plate, upon the under side of which are formed two lugs, b^1 , which pass down upon the opposite sides of the runner A, and are pivoted to it by the pin a^2 . Upon the lower side of the heel-plate B, between the lugs b^1 , is placed the clamp C, the forward end of which passes up through a slot in the forward part of the said heel-plate, and has rearwardly-projecting teeth formed upon it to take hold of the front of the boot-heel. Upon the lower side of the clamp C are formed teeth, to mesh into the teeth of the segment a^1 , so that by swinging the forward end of the skate-runner A downward, the clamp C will be moved forward, withdrawing its teeth from the boot-heel and releasing the skate. By swinging the forward end of the skate-runner upward into a position parallel with the heel-plate B, the clamp C will be drawn back, clamping the boot-heel securely. By turning the blade A down at right angles, or nearly so, with the heel-plate B, the teeth of the clamp C will be released from the segment a^1 , so that the said clamp can be ad-

justed to clamp a larger or a smaller boot-heel, as may be desired.

Upon the rear end of the clamp C is cut a screw-thread, upon which is screwed a nut, c' , to prevent the said clamp from dropping out when thrown out of gear with the segment a^1 , and also to keep the said clamp from getting out of place when adjusted to the size of the boot-heel. Upon the rear part of the heel-plate B are formed lugs or flanges b^2 , which have inclined ribs or edges formed upon their inner sides, to take hold of the rear side of the boot-heel, and the inclination of which, when they are drawn against the boot-heel, draws the heel-plate up against the boot-heel.

To the upper edge of the forward part of the runner A is attached the toe-plate D, in the upper side of which is formed a dovetail transverse groove, in which are placed the clamps E F. The clamp E is secured in place, when adjusted, by a set-screw, e' , which passes up through the plate D, and presses against the under side of the said clip E. The forward part of the inner end of the clamp F is cut away, and upon its edge are formed teeth f' , into which mesh the teeth of a segment of a gear-wheel, g' , formed upon the inner end of the spring-lever G, which rests in a notch in the forward part of the plate D.

By raising the lever G out of its notch and moving it in one direction, the clamp F will be pushed outward to release the boot-sole, and by moving it back to its place the clamp F will be drawn inward, to clamp the boot-sole. By moving the lever G from its notch in the other direction, the teeth of the segment g' will be thrown out of gear with the teeth of the clamp F, so that the said clamp can be adjusted according to the width of the boot-sole.

By this construction, after the clamp C and the clamps E F have been properly adjusted, the skate can be detached by moving the lever G to one side and allowing the forward end of the runner A to drop downward, and can be attached by placing the boot-heel upon the heel-plate, raising the forward end of the

skate-runner against the boot-sole, and moving the lever G into its notch. The forward part of the toe-plate D, at the sides of the notch, should be rabbeted, so that the lever can be moved between it and the boot-sole.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of the sliding clamp C,

provided with rack-teeth, with the pivoted heel-plate B and toothed segment a^1 , formed upon the skate-runner A, substantially as herein shown and described.

JOHN ALBERT DODGE.

Witnesses:

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