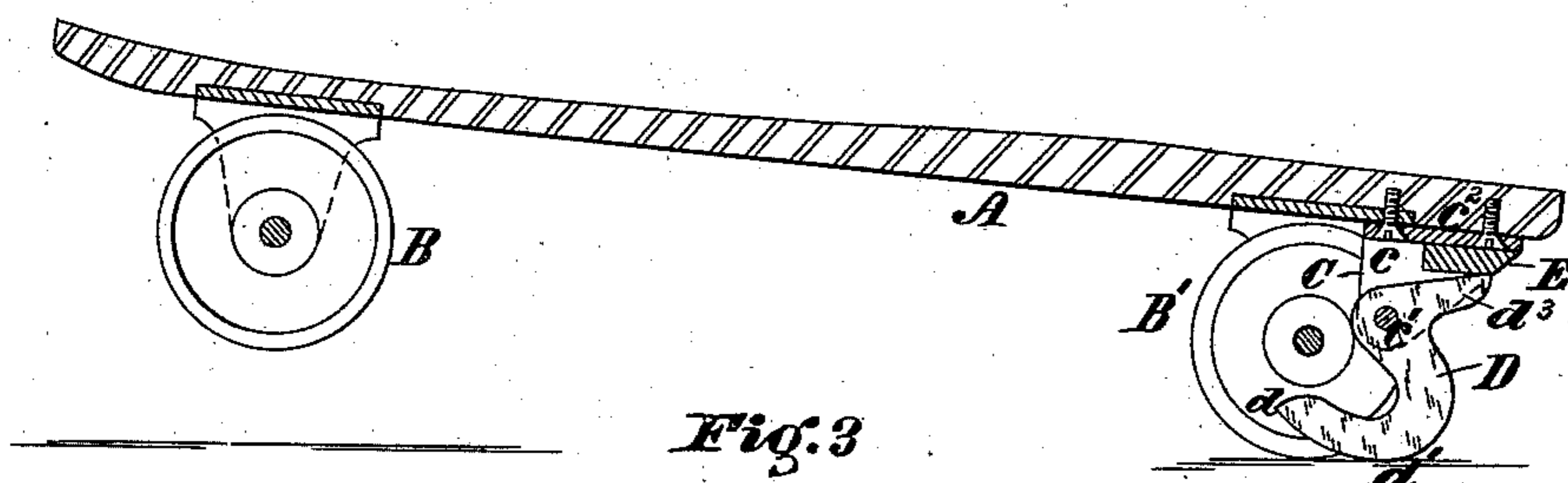
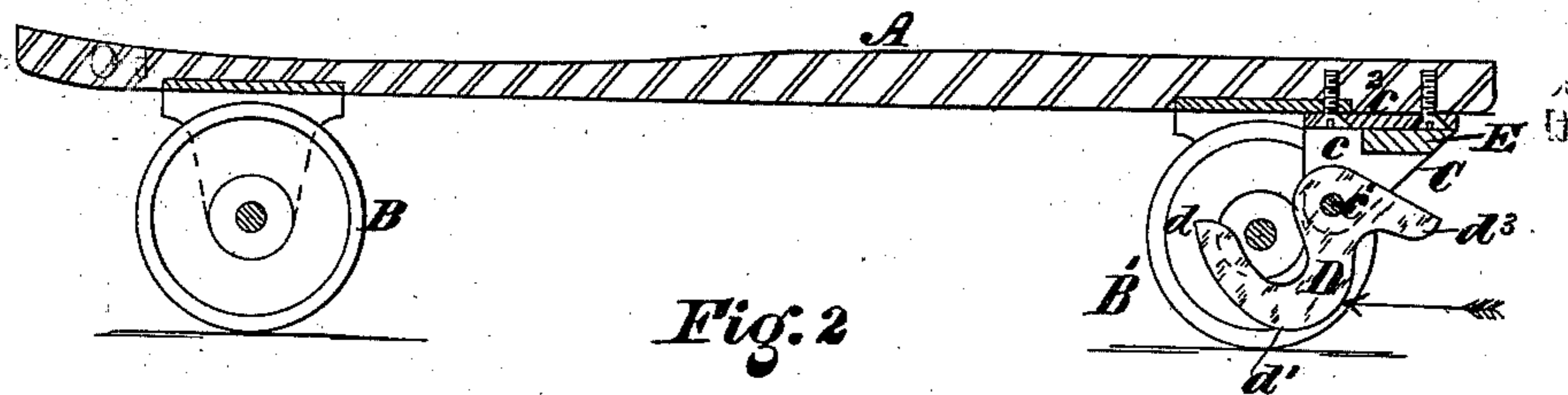
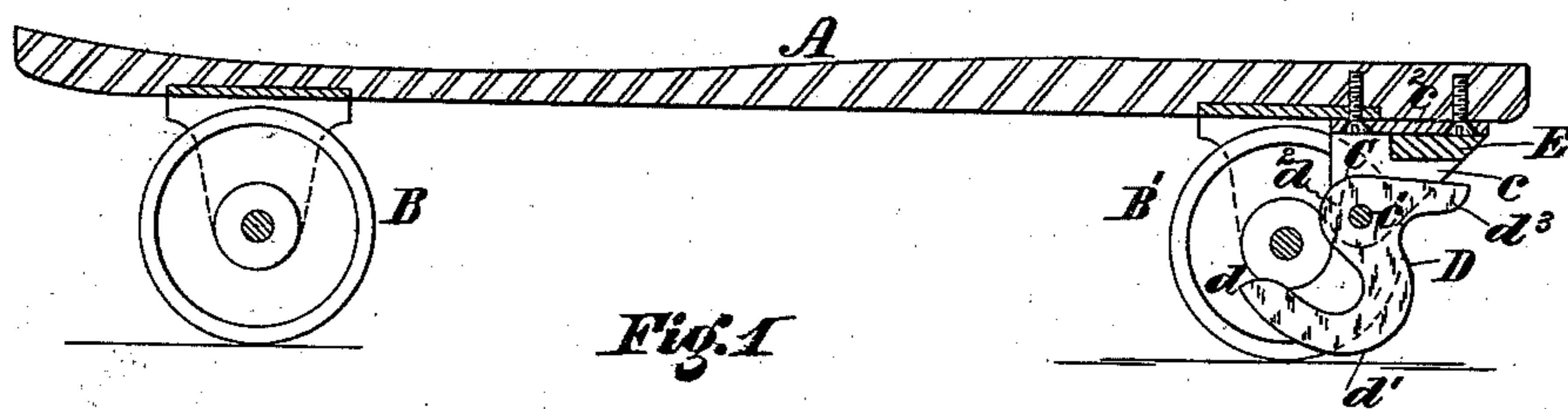
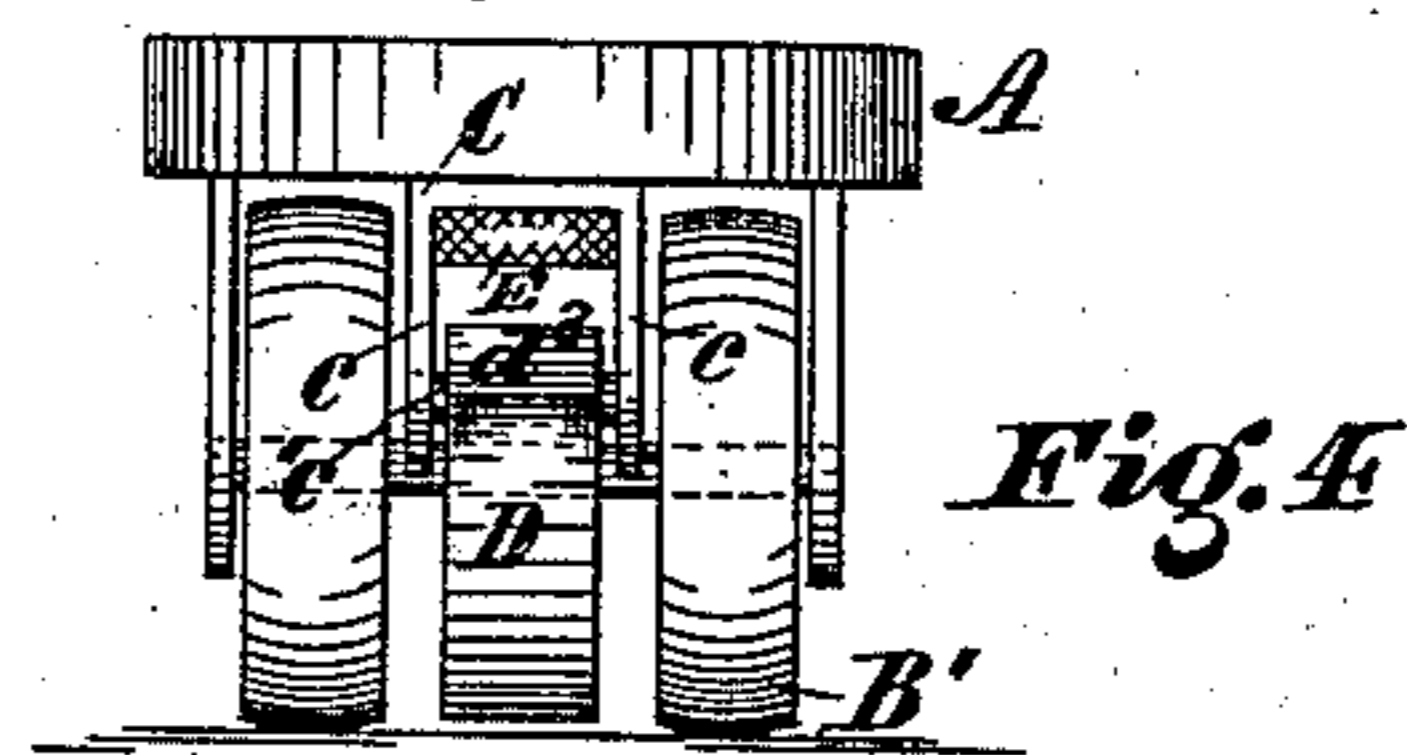
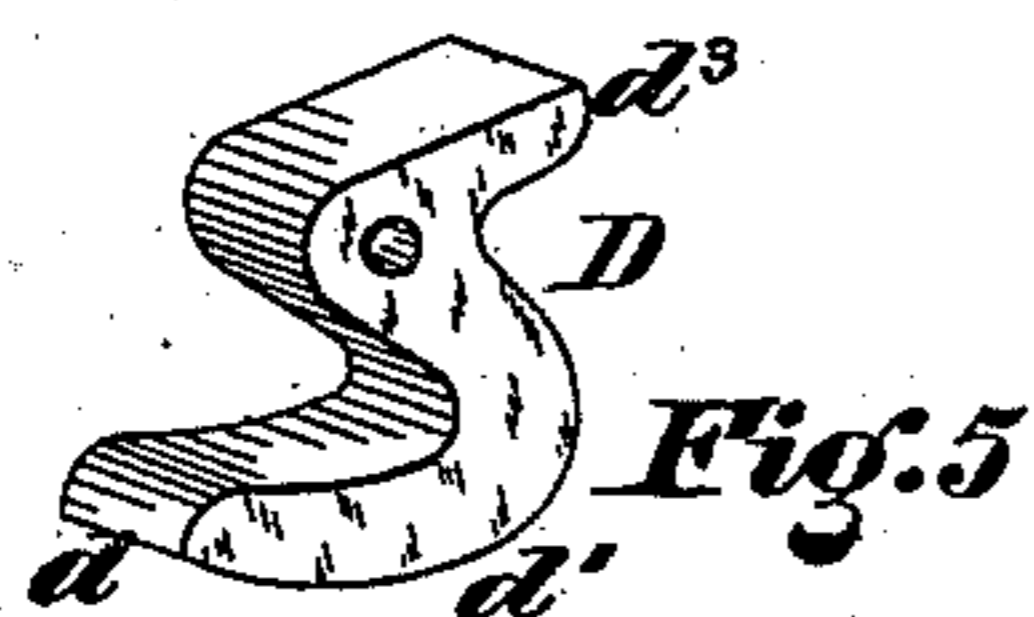


A. FRENCH.  
Roller-Skate.

No. 225,361.

Patented Mar. 9, 1880.



WITNESSES:  
Saml. J. VanStavoren.

Jos B. Connolly

INVENTOR,

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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

ANDREW FRENCH, OF PHILADELPHIA, PENNSYLVANIA.

## ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 225,361, dated March 9, 1880.

Application filed June 17, 1879.

*To all whom it may concern:*

Be it known that I, ANDREW FRENCH, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Brakes for Roller-Skates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figures 1, 2, and 3 are longitudinal vertical sections of a skate with my improved brake applied thereto, illustrating the different positions the brake assumes under varying movements of the skate. Fig. 4 is an elevation of the rear end of the skate, and Fig. 5 is a perspective detail of the brake-shoe.

My invention has for its object to provide for a roller-skate a brake of such construction that it will come into operation when the toe of the skate is raised in going forward, but will not operate to interfere with the skate or impede its movement when rolling backward or when going forwardly with the front rollers on the floor or ground.

My invention has for its further object to prevent shock or jar resulting from the sudden application of a perfectly rigid brake.

My improvements consist, first, of a brake-shoe constructed as hereinafter described, and hung loosely between the rear or heel rollers of a skate, so that when the toe of the skate is raised in going forwardly said shoe will come in contact with the floor or ground beneath and operate as a brake, while when the skate is moving backward, or when going forward with the toe-rollers on the ground or floor, said shoe will be swung up and out of operative position; and, second, in the combination, with the brake-shoe, of a cushion or buffer so applied as to relieve or lessen the jar or shock occasioned by the meeting of said shoe with the surface of the floor or ground, and thereby prevent the too sudden stoppage of the forward movement of the skate.

Referring to the accompanying drawings, A indicates the foot-plate or body, and B and B', respectively, the front and rear or toe and

heel rollers, of a roller-skate of the usual or any suitable construction.

C represents a bracket or hanger secured to the foot-plate A, between the rear rollers, B', and having lugs or links *c*, which afford bearings or supports for a rod, *c'*, on which is loosely hung a brake-shoe, D. Said brake-shoe is of segmental form, its perimeter from *d* to *d'* being the segment of a circle described from the rod *c'* as a center.

*d*<sup>2</sup> shows the arm of the shoe through which the rod *c'* passes, and *d*<sup>3</sup> a dog projecting rearwardly from said arm.

E is a rubber cushion or buffer fastened to the plate *c*<sup>2</sup> of the bracket in such position that when the shoe D swings backwardly, as hereinafter described, the dog *d*<sup>3</sup> will come in contact with said buffer or cushion and press upon it.

The operation is substantially as follows: When the skate is in use and moving forwardly or backwardly, with its front and rear rollers on the ground, the shoe D hangs in the position shown in Fig. 1, where it is inoperative, and where it will not affect or impede the movement of the skate. If in going backward the toe of the skate be raised, the shoe D will be brought in contact with the ground, but will swing forwardly, as shown in Fig. 2, causing the dog *d*<sup>3</sup> to move farther away from the cushion E, and no brake action will be produced; but if the toe of the skate be raised in going forward, the shoe D will be brought into contact with the ground and caused to swing backwardly, raising the dog *d*<sup>3</sup> until it meets and presses against the buffer or cushion E, as shown in Fig. 3. This will produce a brake action on the ground or floor, and will impede the forward movement of the skate, so as to prevent the skater's falling. By reason of the yielding of the cushion E sudden jar or shock will be avoided when the shoe comes in contact with the floor or ground, and the skate will not be suddenly and abruptly stopped.

By reason of the segmental construction of the shoe it will not act to further raise the toe of the skate when the brake is applied.

What I claim as my invention is—

1. The combination, with a roller-skate, of a swinging brake-shoe arranged at the heel of

the skate, and constructed and designed substantially as described, to operate when the toe of the skate is raised in going forward and to be inoperative when the skate is moving backward.

2. The swinging brake-shoe D, having a projection or dog,  $d^3$ , which limits the backward swing of said shoe and produces a brake action, substantially as shown and set forth.

10 3. The swinging segmental shoe D, having its perimeter  $d$   $d'$  described from the rod  $c'$ , on which said shoe is hung as a center, as set forth.

4. In combination with the swinging brake shoe D, having projection or dog  $d^3$ , the buffer 15 or cushion E, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand.

ANDREW FRENCH.

Witnesses:

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SAML. J. VAN STAVOREN.