

(No Model.)

O. ARNOLD.  
ROLLER SKATE.

No. 308,547.

Patented Nov. 25, 1884.

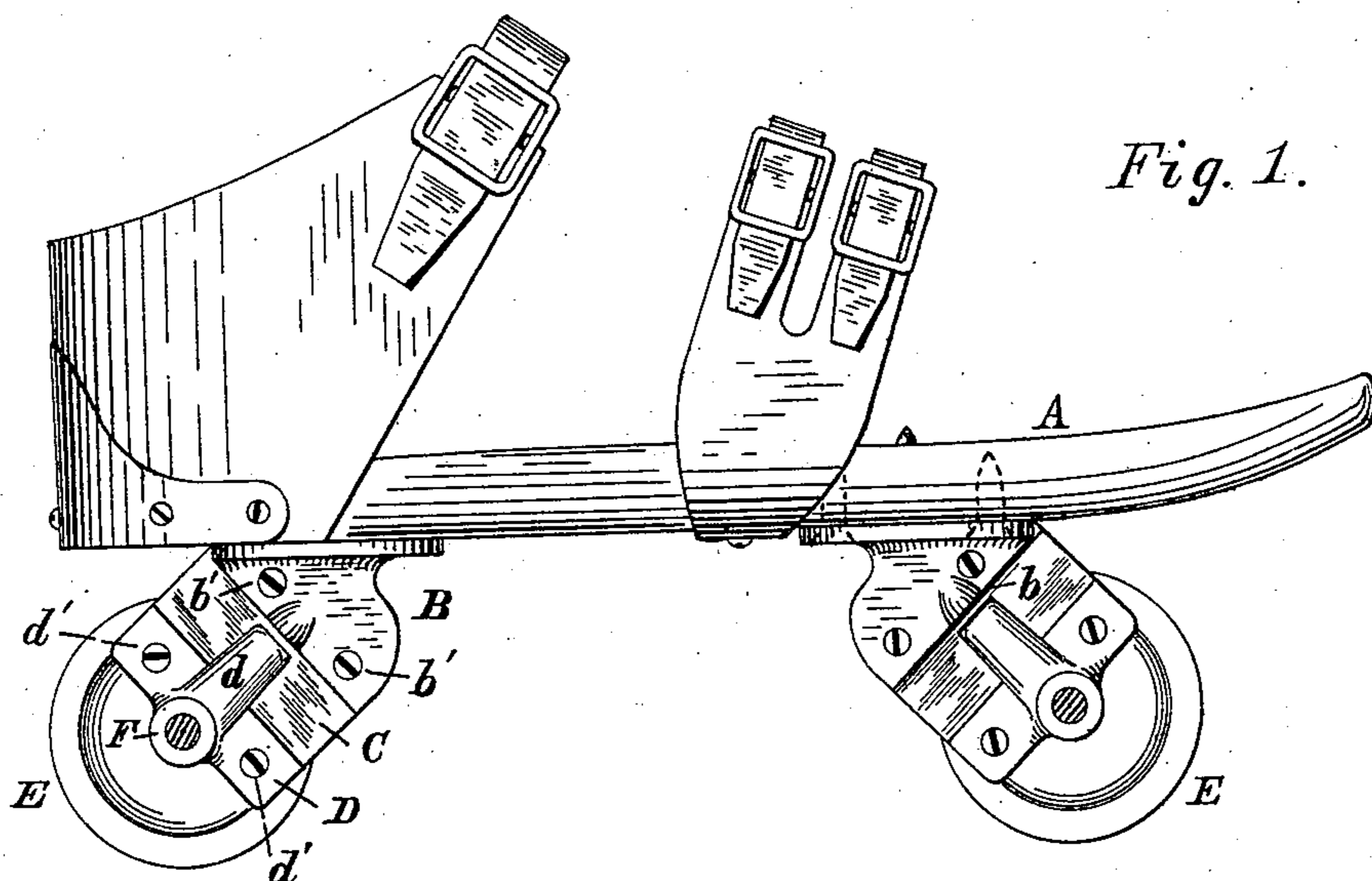


Fig. 1.

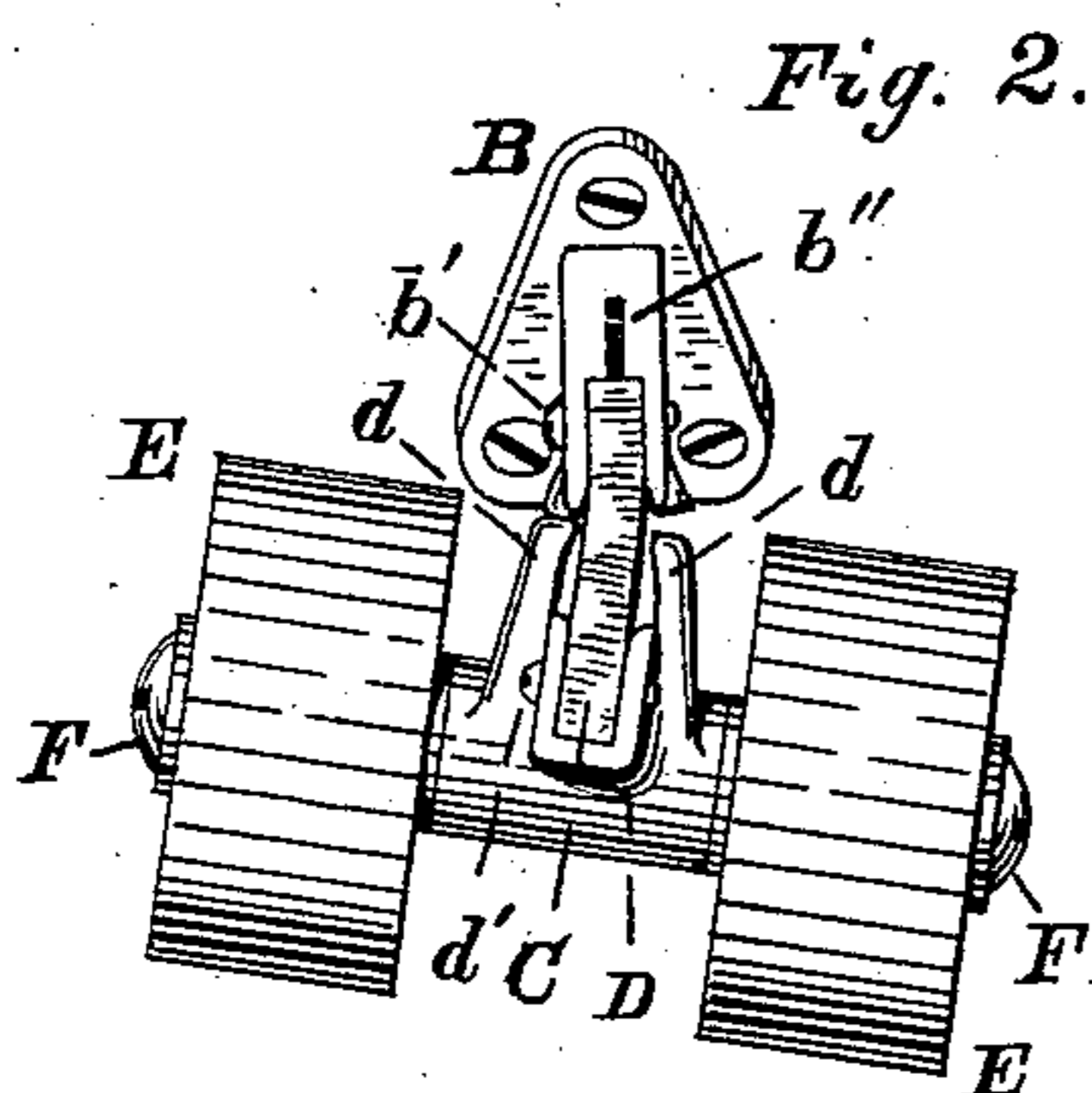


Fig. 2.

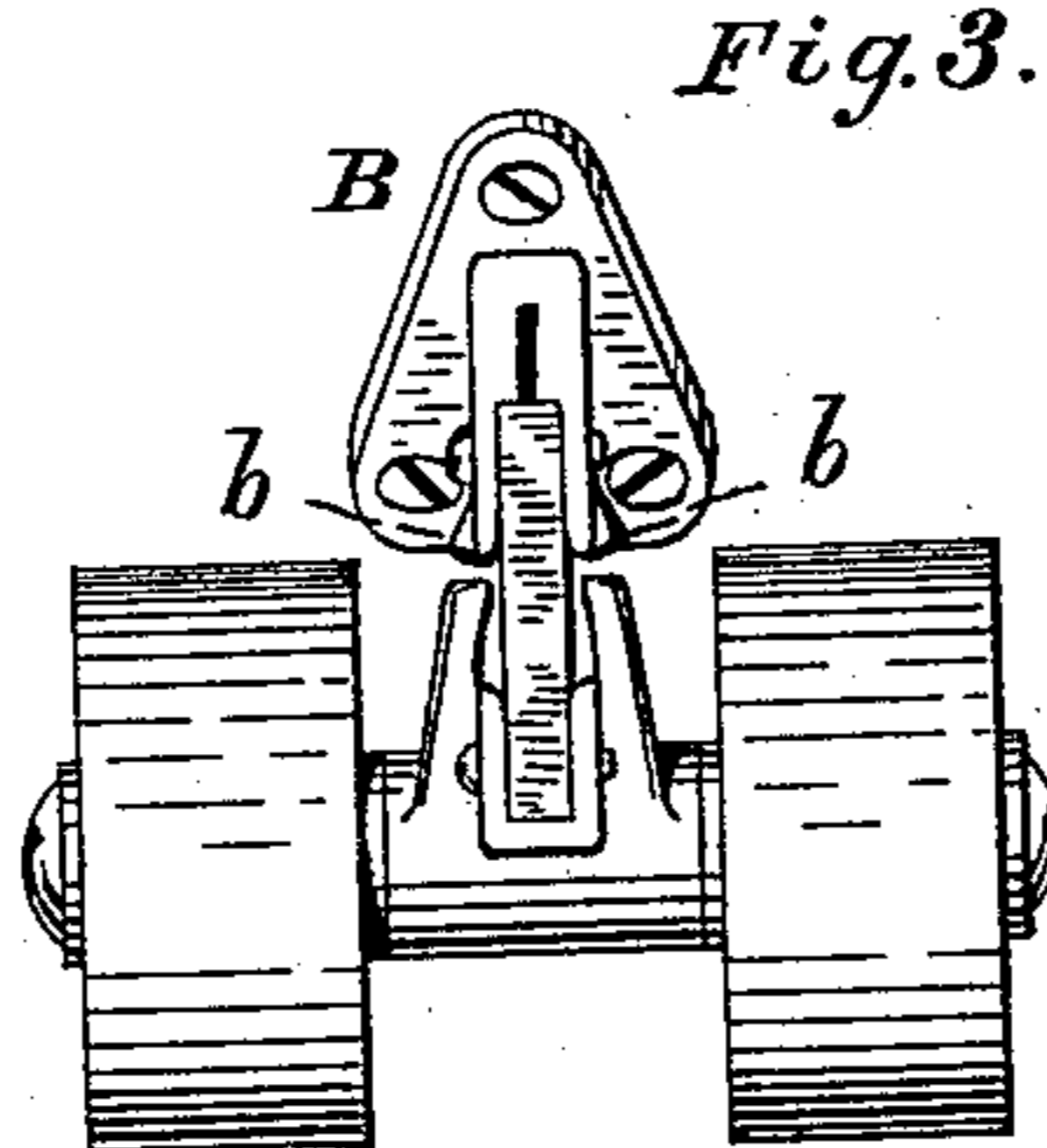


Fig. 3.

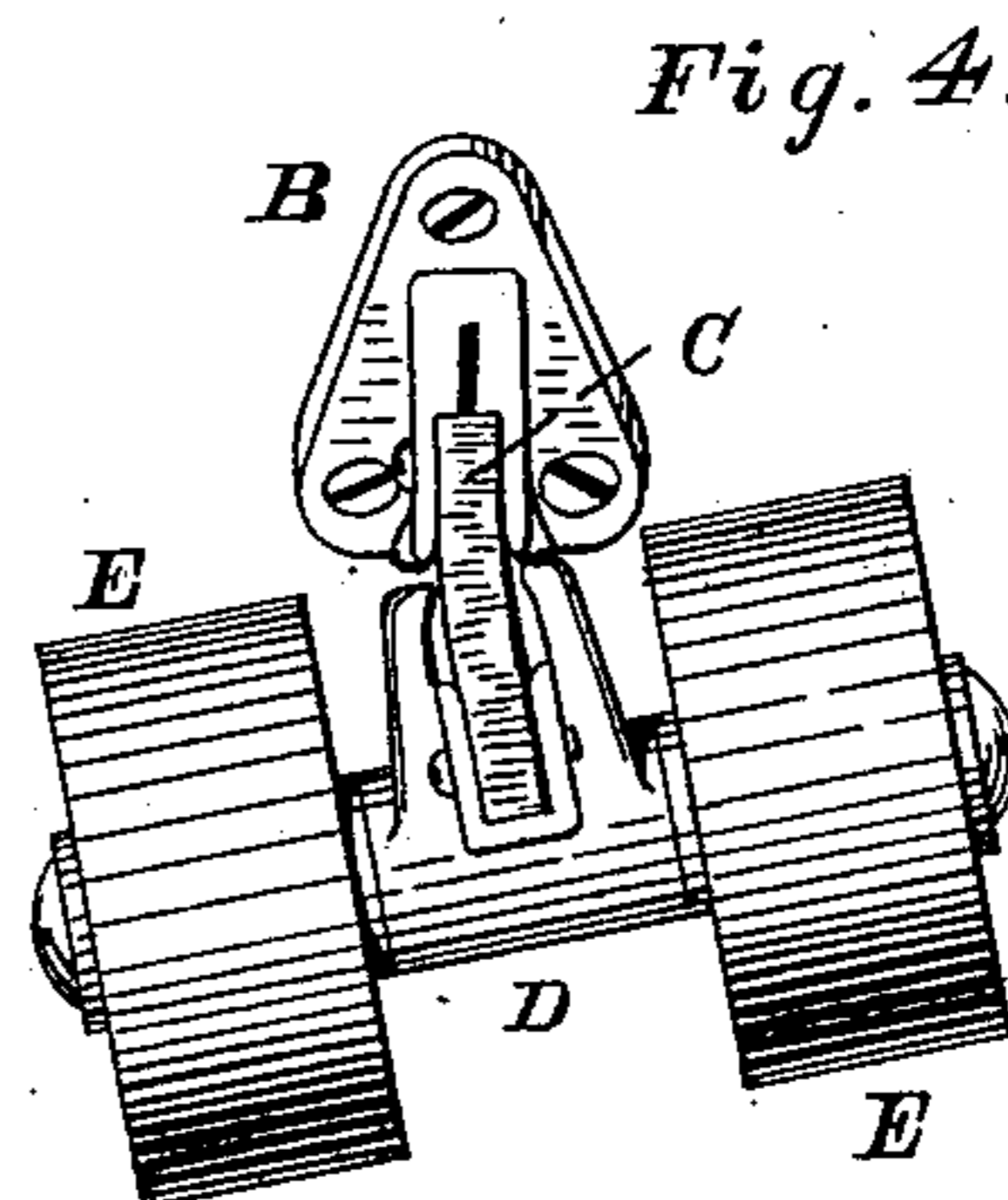


Fig. 4.

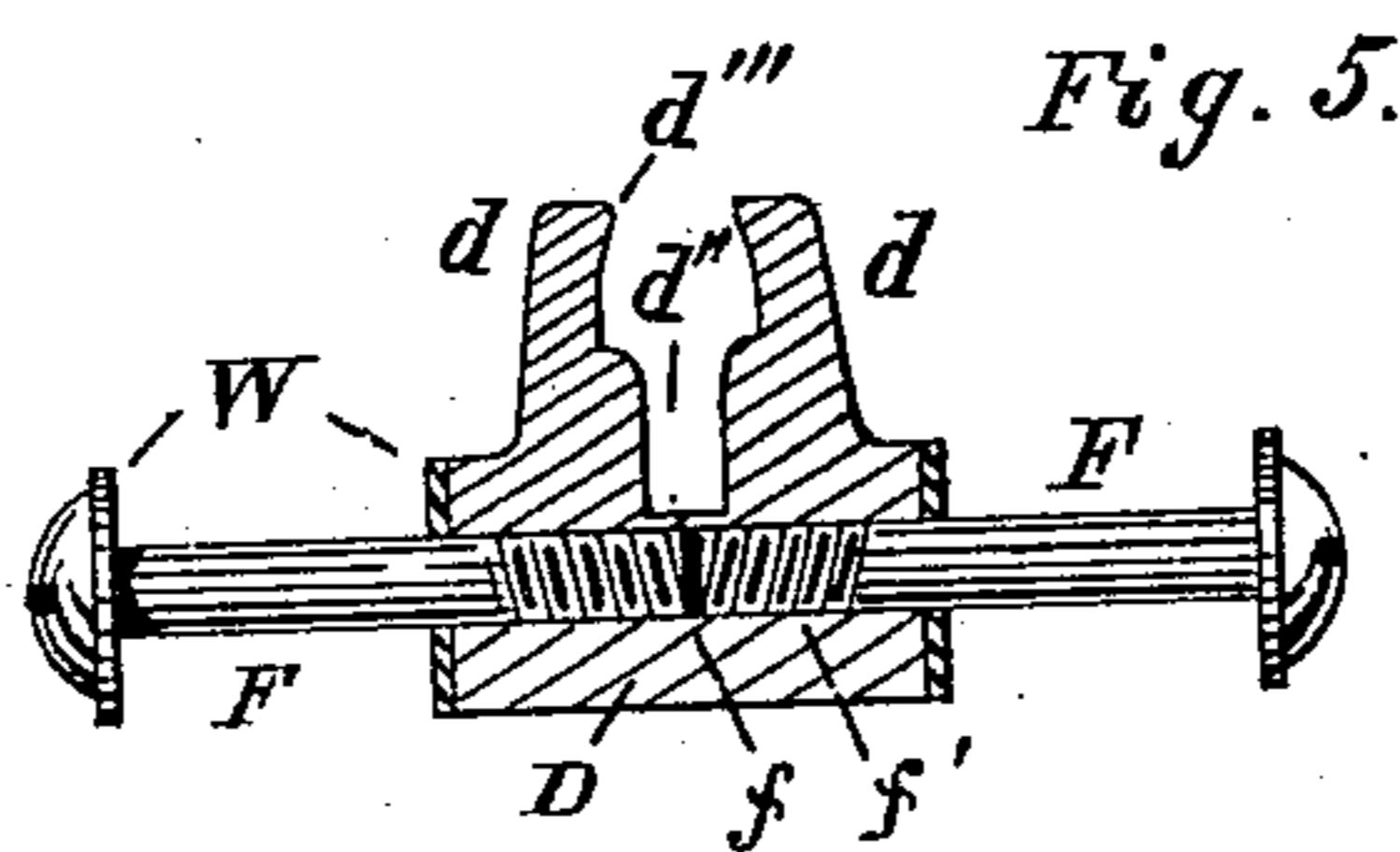


Fig. 5.

WITNESSES:  
William B. Hamming,  
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# UNITED STATES PATENT OFFICE.

OLIVER ARNOLD, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-FOURTH TO WILLIAM B. FANNING, OF SAME PLACE.

## ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 308,547, dated November 25, 1884.

Application filed April 30, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, OLIVER ARNOLD, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Roller-Skate, of which the following is a specification.

My invention relates to improvements in roller-skates in which two diagonally-slotted hangers or controllers are firmly attached to the under side of the foot-rest, the slots in said hangers being inverted and lengthwise with the foot-rest, and in opposition to each other at forty-five degrees, more or less. One or more pieces of rawhide or any other flexible substance are inserted into said slots, and firmly secured therein with rivets, screws, or any suitable fastening device, the rawhide or other flexible substance to extend downward at angles of forty-five degrees, more or less, and in opposite directions; one toward the toe and the other toward the heel of foot-rest. The said rawhide is cut off parallel with the edges of the inverted slots of the hangers and of suitable length. The ends of said rawhide are then inserted into slotted axle-holders, and firmly secured therein with rivets, screws, or other suitable device, as in said hangers. Round-headed or other smooth-bodied screws are inserted into each side of axle-holders and at right angles with slots of the same, and of suitable length and size to be passed freely through the rollers, and the ends of said screws or axles to meet at or near the center of axle-holder, and of suitable length to allow the rollers to revolve freely thereon; and the objects of my improvements are, first, to provide a strong serviceable device for obtaining the curved course to the rollers; second, to simplify and thereby reduce the cost of manufacturing roller-skates. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a skate as it would appear if the two rollers nearest were removed; Fig. 2, an end view of an inverted truck, showing slight bend in flexible substance to the left, thereby canting the rollers; Fig. 3, an upright view of an inverted truck, showing the flexible substance in its natural position; Fig. 4, the

same as Fig. 2, except showing bend in flexible substance to the right; Fig. 5, a view of axle-holder, showing slot and axles in place.

Similar letters refer to similar parts throughout the several views.

To the under side of the foot-rest A are firmly attached, by suitable device at the required places, the hangers or controllers B. Into reversed diagonal slots *b''* of the hangers B are inserted a strip or strips, of rawhide or a combination of rawhide and rubber or any other flexible substance, C, and firmly secured in place by rivets or screws *b'*, and extending downward at forty-five degrees, more or less, and of the suitable length required and in reversed directions. The ends of said rawhide are then inserted into slots *d''* of axle-holder D, and firmly secured therein with screws or rivets *d'*. To the outer side of the slots of the axle-holders D are attached fingers or guards *d*, and to the outer side of the slots of the hangers B are attached stops or lugs *b*. At right angle through the hubs of axle-holder D a hole is drilled and threaded, and the said hole enlarged for a short distance to admit of part of the smooth body of axles F, as shown in Fig. 5. The axle-screws F are of the required length to receive rollers E and washers W, and the ends of said axles meet in or about the center *f* of the threaded hole *f'*, thereby binding each other and obviating the necessity of providing split pins, nuts, or other device to secure the rollers to the axles, and thus allowing facility for obtaining a neat and smooth end to axles. An inclination or tilt sidewise of the foot-rest A will cause the hangers B to oscillate, and the flexible substance C being firmly secured in diagonal slots *b''* of controllers B, protruding from said slots *b''* downward at about forty-five degrees and inserted into slotted axle-holder D in reversed directions with pressure of the rollers on the skating-surface, in combination with the tilt, will produce a bend in the flexible substance C, and at an angle of forty-five degrees, more or less, from the perpendicular, thereby compelling the rollers to assume a curved direction. The stops or fingers *d* of the axle-holder D and the lugs *b* of the controllers B touch when the flexible substance C is bent to a required

distance to prevent overstraining the said flexible substance and prevent the rollers from colliding with the foot-rest, as shown in Figs. 2 and 4.

5 I am aware that prior to my invention circular-running roller-skates have been in use, and I therefore do not claim the same, broadly; but

What I do claim as my invention, and desire  
10 to secure by Letters Patent, is—  
A roller-skate in which diagonally-slotted

hangers B are attached to the under side of foot-rest A, and slotted axle-holders D are connected to said hangers by a strip or strips of rawhide or any other flexible substance or 15 combination of flexible substances, substantially as set forth.

OLIVER ARNOLD.

Witnesses:

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