

(No Model.)

W. B. HIGGINS.

ROLLER SKATE.

No. 280,821.

Patented July 10, 1883.

FIG. 1.

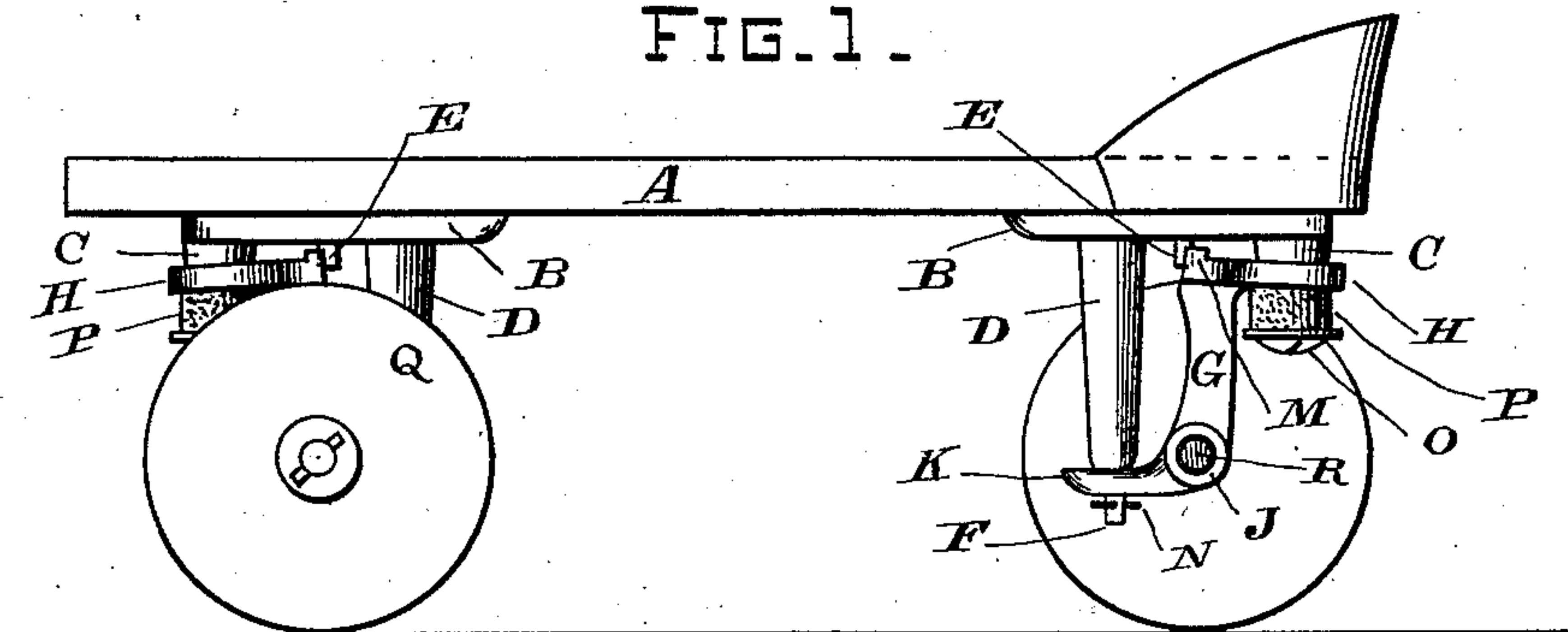


FIG. 2.

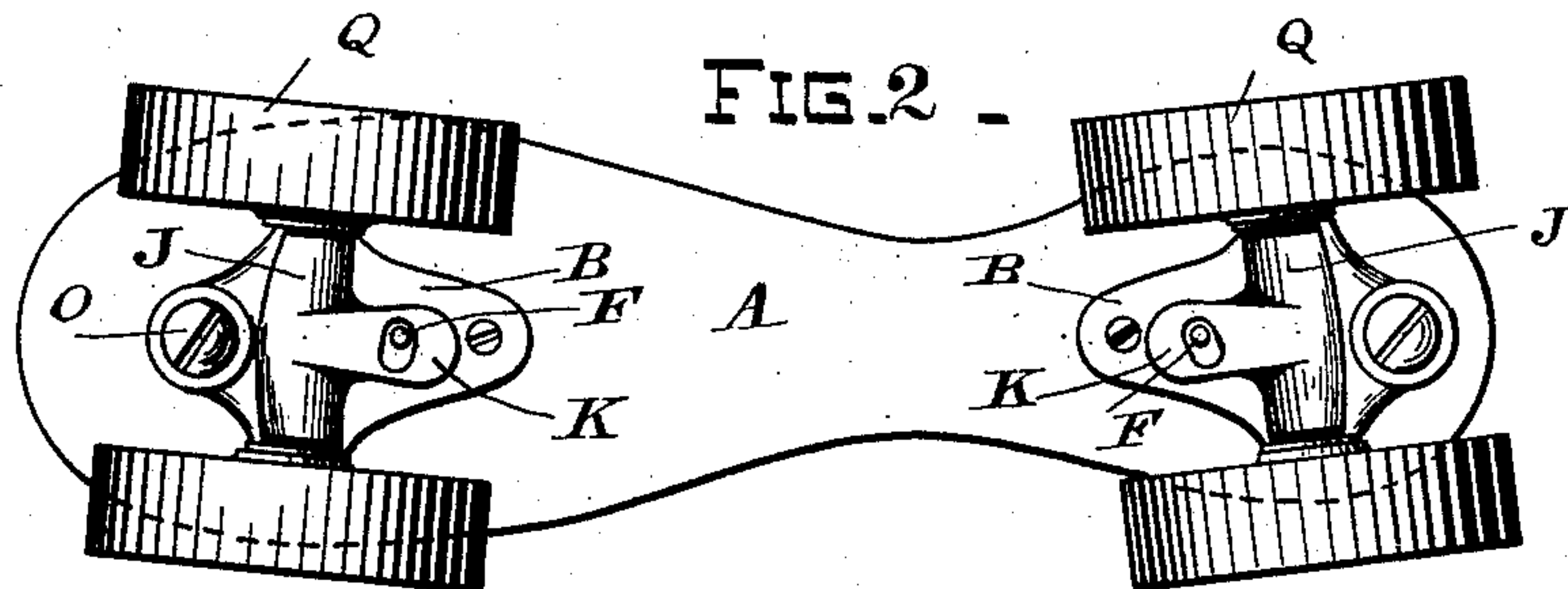


FIG. 3.

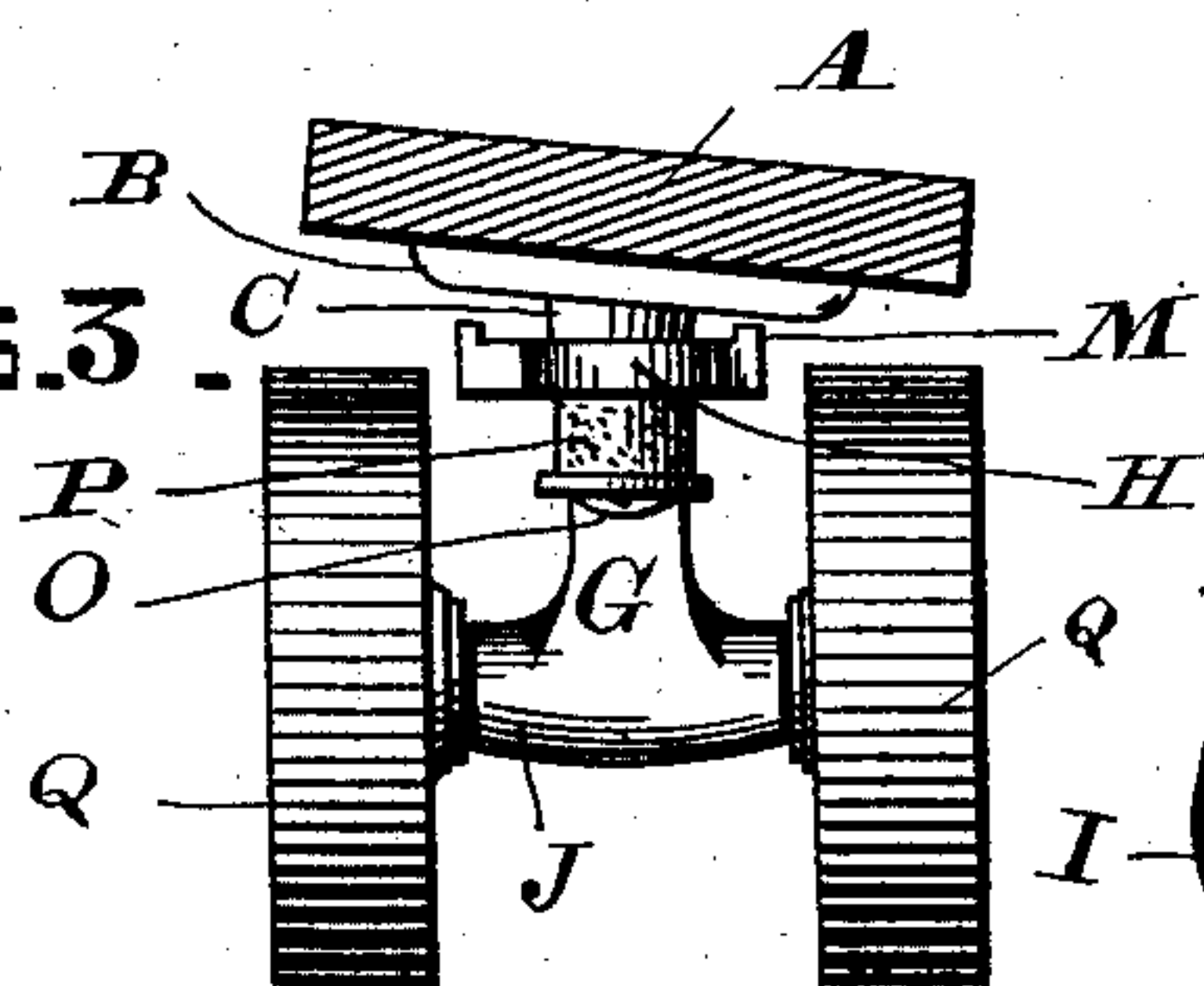
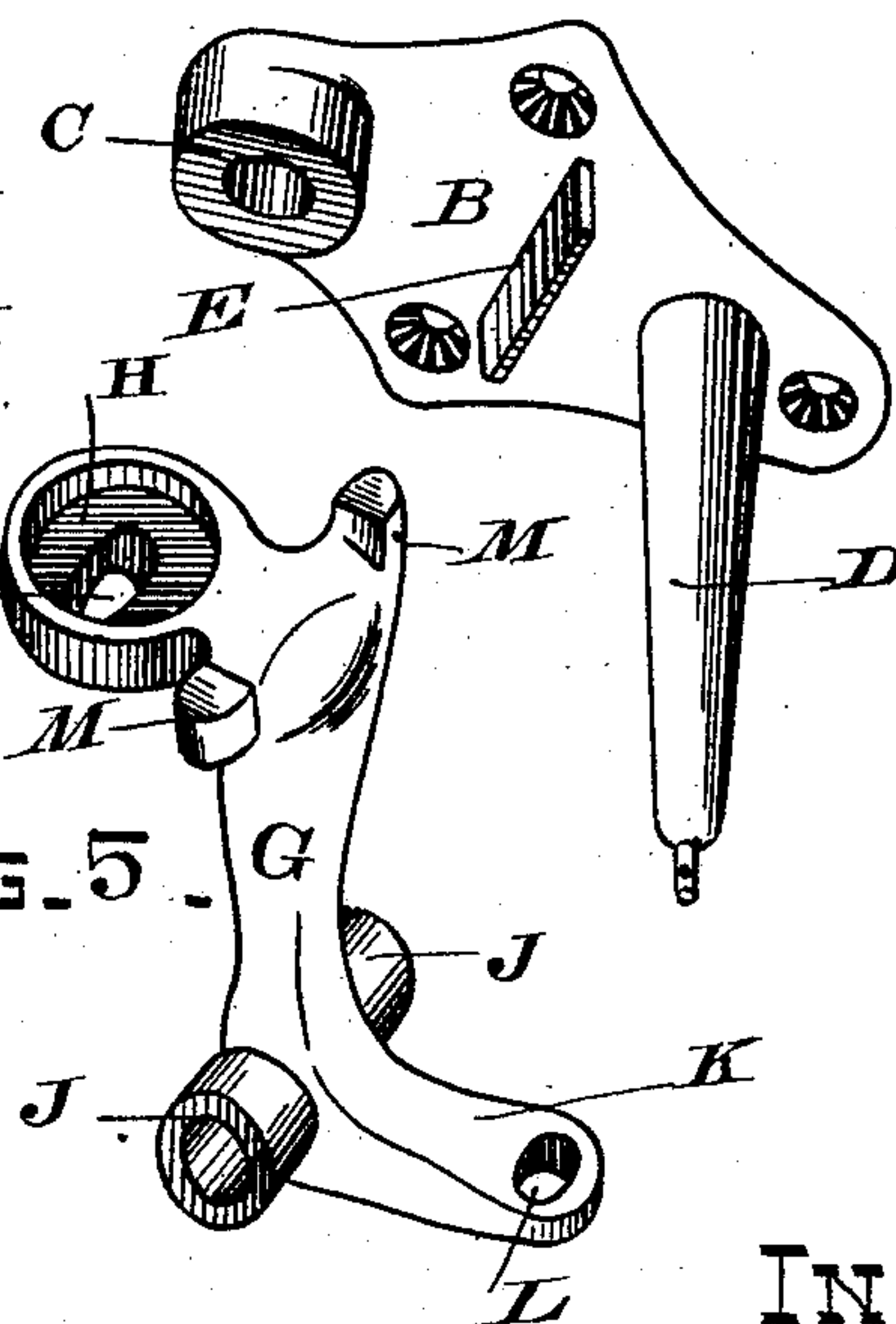


FIG. 4.

FIG. 5.



WITNESSES

Walter Bradford  
Edwin Derby

INVENTOR.

Walter B Higgins.  
Per L W M Smith  
Attorney.



# UNITED STATES PATENT OFFICE.

WALTER B. HIGGINS, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO SIDNEY M. BALDWIN, OF SAME PLACE.

## ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 280,421, dated July 10, 1883.

Application filed April 25, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER B. HIGGINS, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a certain new and useful Improvement in Roller-Skates; and I hereby declare the following to be a sufficiently full, clear, and exact description thereof to enable one skilled in the art to which my invention relates to make and use the same, reference being had to the accompanying drawings, making part of this specification.

My invention relates to improvements in that class of roller-skates in which the rollers are adjusted for curved lines by the action of the body of the skater in natural skating movements; and the objects of my improvement is to provide a self-adjusting hanger for the roller-axles attached to the foot-board plate in such a manner that the pressure of the skater's foot upon either the inside or outside edge of the skate-stock will cause the axles of the rollers to incline toward one another, or, in other words, to assume a radial position coincident to the radius of the arc or curve being traveled upon. This object I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a roller-skate embodying my invention. Fig. 2 is a bottom view, showing the position of the wheels when in the act of turning a curve. Fig. 3 is an edge view of one of the trucks when turning a curve. Fig. 4 is a perspective view of one of the standards, and Fig. 5 is a perspective view of one of the hangers.

Similar letters of reference are used to indicate like parts throughout the several views.

A is the stock or foot-board, which is provided with the customary straps or other devices for securing it to the skater's boot. At each end of the stock, and on the under side thereof, I firmly secure a plate, B, which is provided at one end with a stud, C, and at the opposite end with a post or standard, D, while midway between the two, and extending transversely across the plate, is constructed a rib or projecting tenon, E. The standard D is rounded off at the lower end, and has an extension or pintle, F, projecting downwardly, as shown in Fig. 4.

The hanger or roller-carrying frame G is made in the form shown in Fig. 5, having a cup-shaped recess, H, the base of which is perforated by a slot, I; the said recess being adapted to partially receive the stud C upon the plate B, as shown in Fig. 1. The lower end of the shank of this hanger is provided with an axle-bearing, J, extending at right angles to the shank and transversely to the stock or foot-board. The lower end of the shank is also bent lengthwise at right angles, and forms a tongue or step, K, in which a slot, L, is made for the reception of the pintle F. Studs or lugs M M are cast upon opposite sides of the top face of the hanger and directly over the axle-bearing J, and the oscillation or swiveling capacity of the truck or hanger is regulated by the length of the rib E and the distance between the studs M M, which are so arranged as to come opposite each end of the rib. When the hanger is placed in position upon its bearing-plate, the pintle F projects through the slot L in the tongue or step K, and a key or pin, N, is employed to keep it in position.

The stud C is received within the socket H, and a screw, O, having a thick india-rubber washer, P, is inserted through the slot I and screwed into the stud C, by which means the two portions are securely yet loosely connected together.

It should here be remarked that the truck-carriages are so placed upon the stock that the standards D and the tongues K will face each other.

The mode of operation of my improved roller-skate will be as follows, to wit: The rollers Q are arranged so as to turn independently of each other upon the axles R, and when the skater is moving in a straight line and the pressure of his foot comes upon the central line of the stock the rollers will stand in a straight fore-and-aft position. Should the operator desire to move in a curved line, the natural leaning of the body or the pressure of his foot upon that side or edge of the stock next to the center of the curve upon which he is traveling will cause the standards D to be deflected from a perpendicular line, throwing the lower end of the said standard outwardly. This movement will cause the tongues K to be



similarly deflected, and the hangers G, in moving upon their pivotal points or studs C and screw-bolts O, will cause the inner ends of the wheel-axles to converge or approach each other and assume a radial position to the curve being traveled upon at the time; and the thick elastic washer P will permit of sufficient "give" or torsional play of the stud C within its socket to admit of the necessary side inclination of the stock without raising either roller from the floor, as seen in Fig. 4, thus enabling the skater to keep a firm foothold and to turn curves with great ease and facility.

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

1. The hanger G, provided with a flat-bottomed slotted cup H, adapted to receive the post or stud C of the plate B, in which it operates, substantially in the manner as herein set forth and specified.

2. In a roller-skate, the plate B, provided

with a stud, C, and post D, in combination with the hanger G, having a flat-bottomed slotted cup adapted to receive the stud C, and be united by the set-screw O, passing through a rubber spring or packing, P, constructed, arranged, and operating substantially in the manner as herein set forth and specified.

3. In a roller-skate, the bearing-plate B, having a stud, C, rib E, and standard D, in combination with the hanger G, having lugs M M, and suitable axle-bearings, J, slotted tongue K, and socket H, adapted to be pivoted to the frame B by a set-bolt, O, having an elastic washer, P, the whole constructed and arranged to operate substantially in the manner and for the purpose set forth.

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

WALTER B. HIGGINS. [L. S.]

Witnesses:

C. W. M. SMITH,  
CHAS. E. KELLY.