

(No Model.)

W. AKIN.  
Roller Skate.

No. 241,270.

Patented May 10, 1881.

Fig. 1.

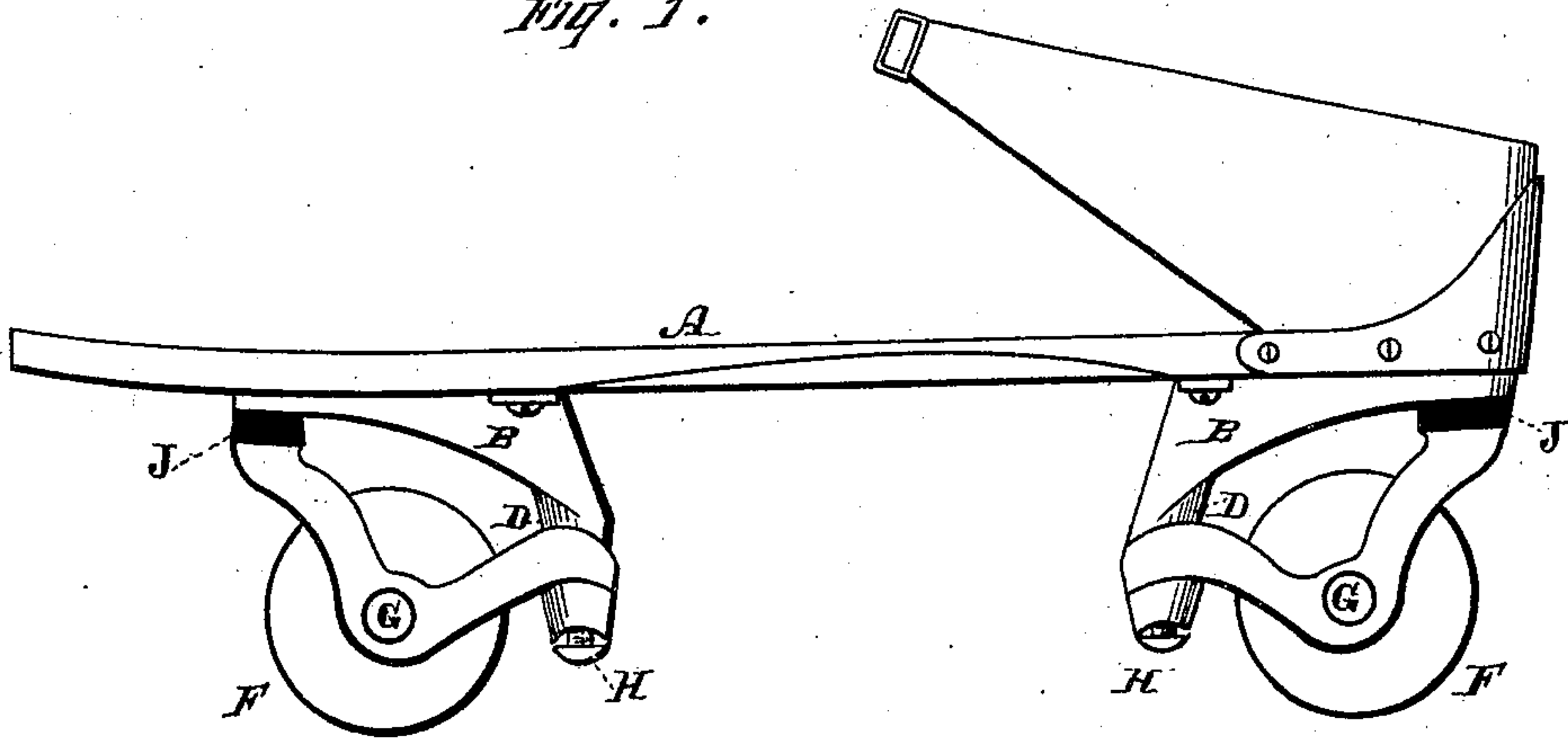


Fig. 2.

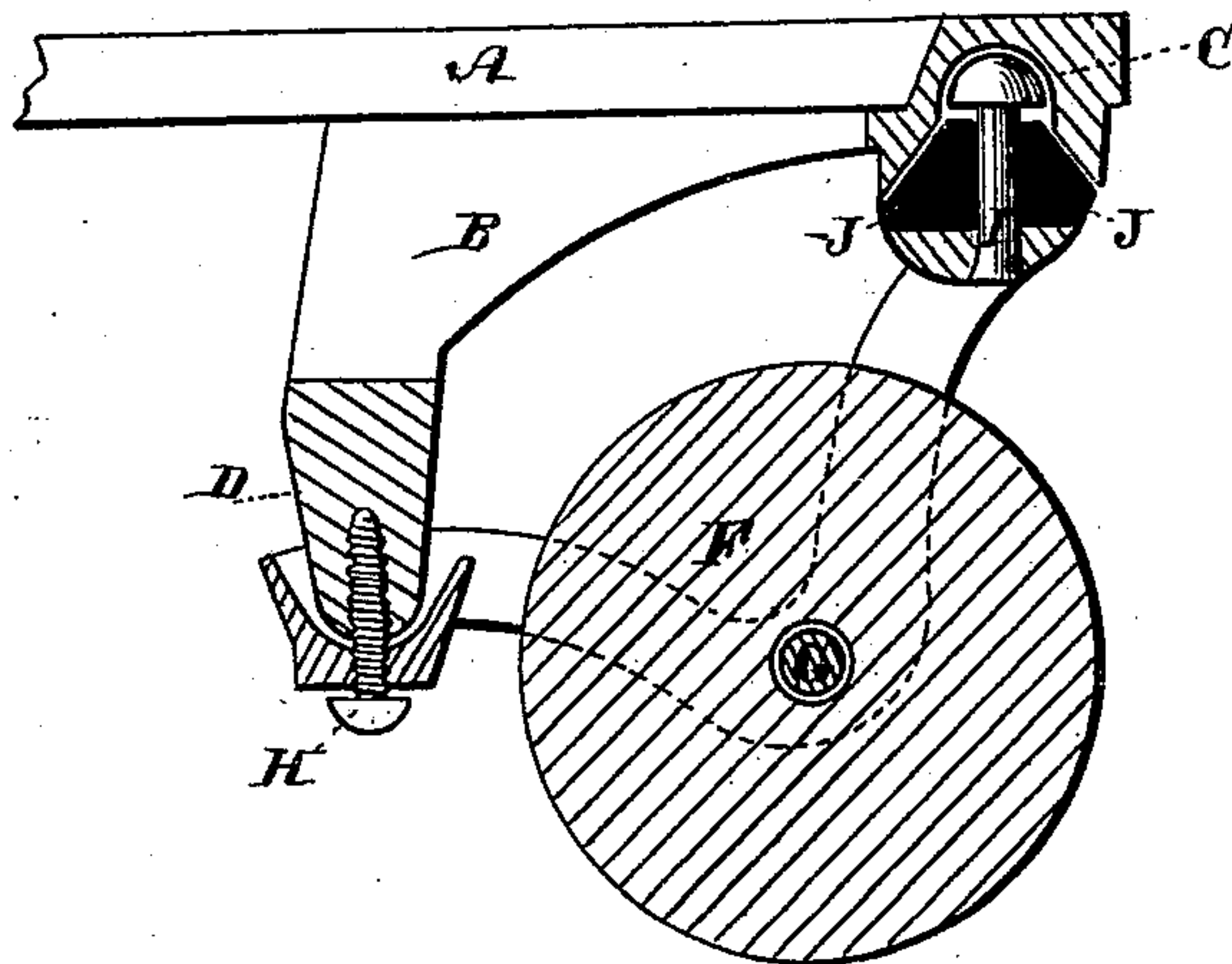
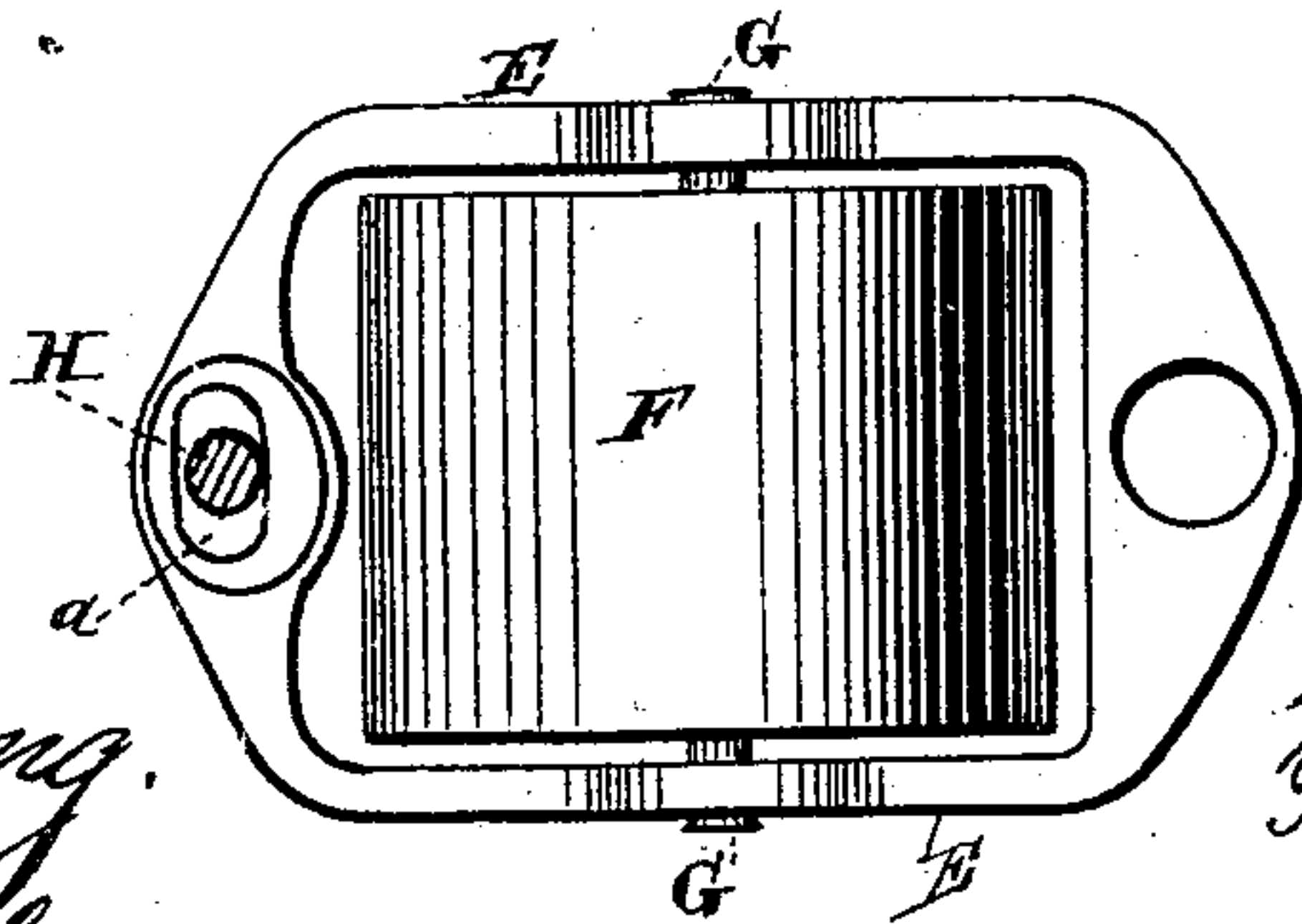


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 241,270, dated May 10, 1881.

Application filed February 16, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM AKIN, of the city and county of San Francisco, State of California, have invented an Improved Roller-Skate; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to certain improvements in roller-skates of that class in which the roller-frames are supported upon axes which stand at an angle to a horizontal plane, so that when the foot-stand is turned to one side the rollers upon that side will be cramped or drawn nearer together, and the skate will thus be caused to run in a curve.

My invention consists, first, in such a construction of a roller-frame that a single roller may be used at each end of the skate and entirely surrounded or inclosed by its frame; and, secondly, in the formation of ball-and-socket joints, upon which the roller-frame turns to give the angle by which the skate is caused to run in a curve. The socket next the foot-stand is deeply concaved, so that the ball stands as high as possible, which is of great advantage, as it gives the roller a greater throw to each side and greater facility in turning. The rubber or other elastic returning-spring is fitted upon the shank of this ball-joint and sets in the concave below the head or ball. It is regulated, so as to give greater or less stiffness of action, by means of a screw at the opposite end of the roller-frame, and by which it is compressed or slackened.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a side elevation of my skate. Fig. 2 is a section taken through the ball-joint. Fig. 3 is a view of the roller and its frame separated from the standard, to which it is to be secured.

A is a skate-block or foot-stand of any ordinary or suitable construction, and B B are standards or hangers, which are secured to the foot-stand at each end. The front and rear ends, respectively, of these hangers are deeply recessed, being projected up into the block or foot-stand, so that a socket, C, is formed close to the upper surface of the foot-stand to receive the balls which form the front and rear supports, about which the roller-frames turn. The opposite ends of the hangers which are nearest together project downward, and have

their lower ends rounded or formed into heads D, which serve as balls or supports, upon which the roller-frames turn at that point. The roller-frame E has sides separated sufficiently to admit the roller F between them, and these sides are brought together before and behind the roller, so as to form a continuous frame, within which the roller is held by a pin or axle, G, which passes through the sides, where they form an apex. This construction produces a strong support for each end of the roller, and one which is not easily broken by concussion. A socket is formed in the frame to bear upon the rounded head D of the hanger, and a transverse slot, a, is made through the bottom of this socket to admit a screw, H, which passes through and into the head D, into which it screws. The head of the screw is large enough to hold the frame in place, while the slot allows a free motion from side to side about the shank of the screw, so that the socket turns freely upon the ball at this end of the hanger. A stem or shank, I, projects upward from the opposite end of the roller-frame, so as to enter the socket C, and it has a rounded head, which turns in this socket. A rubber block, J, or other elastic spring surrounds the shank I, and the lower part of the socket C is enlarged or made flaring, so that the spring will set into the space thus formed. The adjustment of the spring to give a greater or less tension is effected by turning the screw H at the opposite end of the hanger.

By this construction I form ball-and-socket joints for the roller-frame to turn about; and, by placing the socket C deep or near the upper surface of the foot-block, I secure a greater throw of the roller from side to side in turning. The rollers F are made broad, and are each supported in the frame E, which completely encircles it, and it is carried down to an angle between the points on which it oscillates. The axle of the wheel passes through these angles, and the whole frame is thus greatly strengthened.

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

1. In a roller-skate, the hanger B, secured to the foot-stand A, and having the ball or head D at the inner end and the socket C in its



upper and outer end, in combination with the roller-frame E, having corresponding socket and head, and the holding-screw H, as herein described.

5 2. The frame E, having a central opening for inclosing the single roller, and having the sides forming an apex to receive the ends of the roller-axle, while the ends of the frame have the ball-and-socket joints in line with the cen-  
10 ter of the roller-face, so that it serves as a base, about which the foot-stand turns, substantially as herein described.

3. The hanger B, with the socket C at one

end made flaring to receive the ball or head from the roller-frame and the elastic returning- 15  
spring J, and having the head D fitting the socket at the opposite end of the roller-frame, in combination with the screw H, fitted to the head D, substantially as herein described.

In witness whereof I have hereunto set my 20  
hand.

WILLIAM AKIN.

Witnesses:

S. H. NOURSE,

FRANK A. BROOKS.