J. FORSYTH.
Roller-Skate.

No. 200,186. Patented Feb. 12, 1878.

Fig: 1.

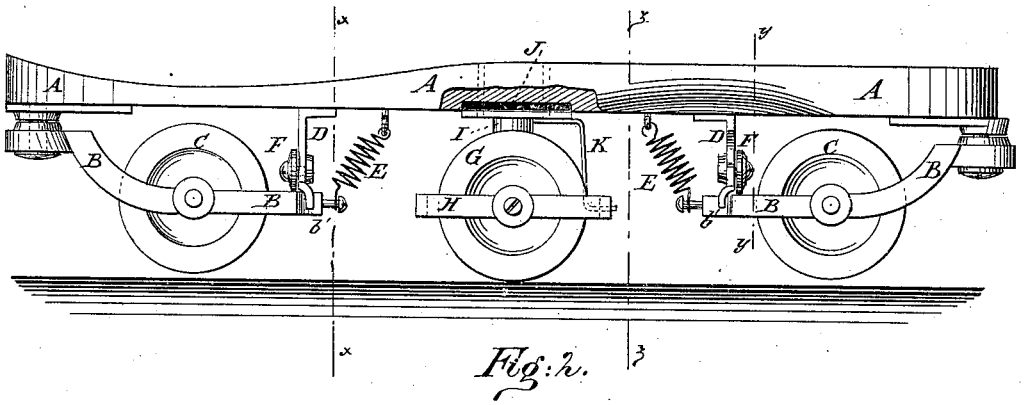


Fig: 2.

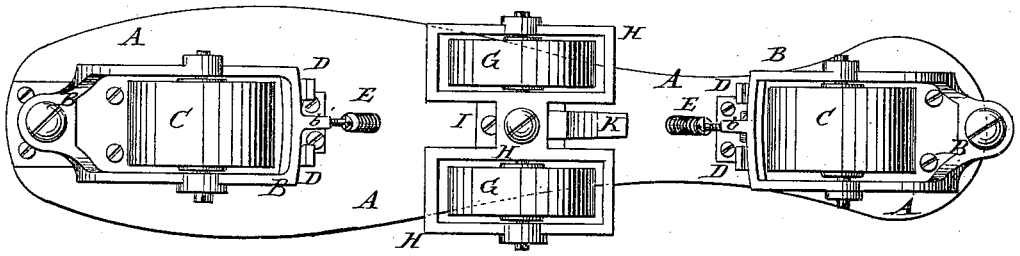


Fig: 3.

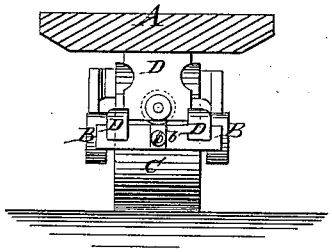


Fig: 5.

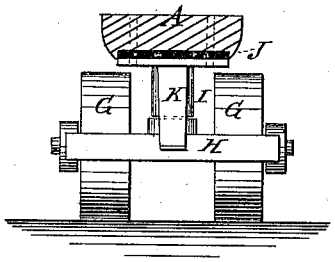
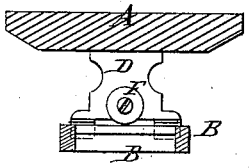


Fig: 4.



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UNITED STATES PATENT OFFICE.

JAMES FORSYTH, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND JOHN P. HOUGHTON, OF SAME PLACE.

IMPROVEMENT IN ROLLER-SKATES.

Specification forming part of Letters Patent No. **200,186,** dated February 12, 1878; application filed November 30, 1877.

To all whom it may concern:

Be it known that I, JAMES FORSYTH, of the city, county, and State of New York, have invented a new and useful Improvement in Roller-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 bottom view of the same. Fig. 3 is a cross-section of the same, taken through the line *x x*, Fig. 1. Fig. 4 is a cross-section of the same, taken through the line *y y*, Fig. 1. Fig. 5 is a cross-section of the same, taken through the line *z z*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish roller-skates so constructed that the operator may guide the skate forward, backward, or diagonally in any direction by tipping the foot forward or backward, and without rocking or oscillating the foot.

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

In the drawing, A represents the block or foot-plate of the skate, to the lower side of the ends of which are pivoted the outer ends of the caster-frames B. To the side bars of the frame B are pivoted the caster-rollers C, and upon the inner ends of said frames are formed projections or arms *b'*, which rest in long notches in the lower ends of the standards D. The upper ends of the standards D are attached to the block or plate A. To the ends of the arms *b'* are attached the lower ends of spiral springs E, the upper ends of which are attached to the block or foot-plate A, so as to hold the inner ends of the caster-frames B up against the standards D. The friction between the caster-frames B and the standards D is relieved by a small wheel, F, pivoted to the inner sides of the said standards D, so as to bear against the upper sides of the end bars of the caster-frames B.

G are the intermediate rollers, one or two of which may be used, and which are pivoted to a frame, H. The frame H is swiveled to the lower end of a standard, I, the upper end or base of which is attached to the middle part of the block or foot-plate A.

J is a rubber block interposed between the base of the standard I and the block or plate A. K is a stop attached to the standard I, or block or foot-plate A, to limit the movement of the swiveled frame H.

The standard I should be of such a length that the intermediate roller or rollers G may project a little lower than the end rollers C, so that the operator, by tilting his foot forward or backward, may throw his weight upon the intermediate and forward rollers, or upon the intermediate and rear rollers, as desired, and may guide himself in any desired direction—forward, backward, or diagonally—without any danger of his skates throwing him.

The rubber block J is compressed when the skater throws his whole weight upon the intermediate rollers, and thus brings the said intermediate rollers nearer to a level with the end rollers. The rubber block J expands when the weight is thrown forward or backward upon the end rollers, and increases the difference in height between the said end rollers and the intermediate rollers, thus making the changes more easy and gradual, and preventing any jar or shock.

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

1. The combination, with swiveled front and rear rollers C, of intermediate rolls G, journaled in a swiveled frame and projecting a little lower than the end rolls, as and for the purpose described.

2. The roller-frame B, swiveled at one end to the end of foot-plate A, and at the other end connected by arm *b'* and spring E with the foot-plate A, as set forth.

3. The combination of the swiveled frame H and the stationary standard I with the intermediate roller or rollers G and the foot block or plate A, substantially as herein shown and described.

4. The combination of the stop K, with the swiveled frame H of the intermediate roller or rollers G and the foot block or plate A, substantially as herein shown and described.

5. The combination of the rubber block J

with the standard I, to which the frame H of the intermediate roller or rollers G is swiveled, and with the foot block or plate A, substantially as herein shown and described.

6. The standard D, depending from plate A, and provided with notches in the lower part that receive a rear arm, b', of the roller-frame B, as shown and described.

7. The combination of the friction-rollers F with the standards D and the swiveled frames B of the caster-rollers C, substantially as herein shown and described.

JAMES FORSYTH.

Witnesses:

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