(No Model.)

J. G. HAVENS.

ROLLER SKATE.

No. 345,781. Patented July 20, 1886.

Fig. 1.

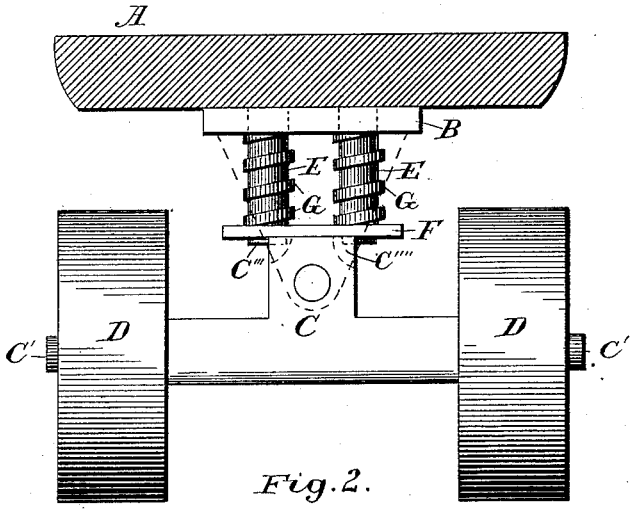

Fig. 2.

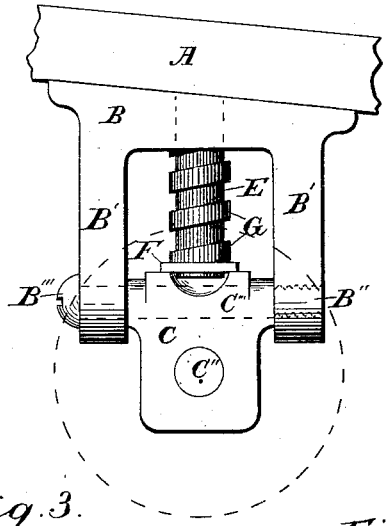

Fig. 3.

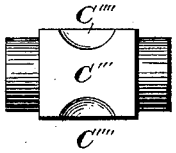

Fig. 4.

Witnesses:
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JOSEPH G. HAVENS, OF TRENTON, NEW JERSEY.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 345,781, dated July 20, 1886.

Application filed March 7, 1885. Serial No. 158,089. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH G. HAVENS, a citizen of the United States, residing in the city of Trenton, county of Mercer, and State of New Jersey, have invented a new and useful Improvement in Roller-Skates, of which the following is a specification.

My invention relates to improvements in that part of the mechanism of a roller-skate whereby the rocking motion of the skate imparted by the foot of the wearer in describing a curve with the skate is regulated. This mechanism of mine is shown in the accompanying drawings, in which drawings similar letters of reference indicate similar parts.

In the drawings, Figure 1 shows a front view of my mechanism. Fig. 2 shows a side view, and Figs. 3 and 4 show a view in detail of the oscillating axle-support and plate F.

In Fig. 1, A is a view in section of the foot-piece of the skate. To this is fastened the plate B, provided with bearings B′ B′. These bearings, for the sake of clearness, are omitted in Fig. 1, but are indicated simply by dotted lines. To these bearings is pivoted the oscillating axle-support C. Through this support C runs the axle C′, upon which are hung the rollers D D. Fixed firmly in the plate B are posts E E. Moving freely up and down these posts is the plate F. A separate top view of this plate is shown at Fig. 4. It is, as shown, provided with holes or openings, through which the posts E E pass. Between this plate F and the plate B, and preferably one encircling each post E, I place the springs G. These springs are, as shown, spiral, and for their manufacture I preferably employ the best of steel.

Fig. 2 shows a side view of the same mechanism, save that the roller D is omitted, being indicated simply by dotted lines. It also shows the opening C″, through which the axle C′ passes. The top of the axle-support C is provided with a square level face, C‴, resting upon the plate F. A top view of this face C‴ is shown in Fig. 3. In this face are notches C⁗, cut to clear the posts E when the oscillation occurs.

Fig. 4 shows a top view of the plate F.

The operation of my mechanism is as follows: When the skate is describing a curve, the foot-piece A is thrown out of level, and one side or the other, as the curve is to the right or left, is pressed nearer the floor. The rollers D being upon the floor, and requiring for the safety and comfort of the skater to rest firmly upon the floor, and, in fact, kept there by his weight, this brings the plate F more firmly against the side of the face C‴ nearest the inner part of the curve. This pressure causes the plate F to travel up the posts E, compressing the springs G, allowing a yielding or oscillating side motion to the skate, and at the same time retaining the outer rollers of the skate firmly upon the floor. As will be seen by an inspection of the drawings, Fig. 1, the bearing-surfaces of the face C‴ being between the posts E E, the retraction of the plate F compresses both of the springs G G, insuring greater firmness, and also an equal wear upon both springs, whether in use the greater number of curves be made either to the right or to the left. I also use a peculiar contrivance in pivoting the axle-support C to the hangers B′ B′. In one of the hangers I cut a thread, B″, as shown in Fig. 2. Through the opening in one hanger I pass the screw B‴. This screw passes through an opening, B‴, in the axle-support, (indicated by dotted lines,) and into the other hanger, and, being screwed into the thread in the other hanger, is thereby kept in place. The opening B‴ being round, and the body of the screw being round, this pivots the axle-support C in the hangers.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a roller-skate, the springs G G, in combination with the plate F, for the uses and purposes set forth.

2. In a roller-skate, the springs G G, in combination with the plate F and face C‴, combined and arranged as shown and described.

3. In a roller-skate, the plate B, provided with the posts E E, in combination with the springs G G and plate F, substantially as shown and described.

4. In a roller-skate, the plate B, provided with the posts E E, in combination with the springs G G, plate F, and face C‴, substantially as shown and described.

5. In a roller-skate, the plate B, provided with the posts E E, in combination with the

springs G G, plate F, and axle-support C, provided with the face C‴, substantially as shown and described.

6. In a roller-skate, the plate B, provided with the posts E E, in combination with the springs G G, plate F, and axle-support C, provided with the face C‴, and pivoted as shown and described.

7. In a roller-skate, the axle-support C, provided with the face C‴, having the notches C⁗ C⁗, all for the uses and purposes mentioned and described.

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