John L. Boone

Skate.

No. 120,147.

Patented Oct. 24, 1871.

Fig. 1.

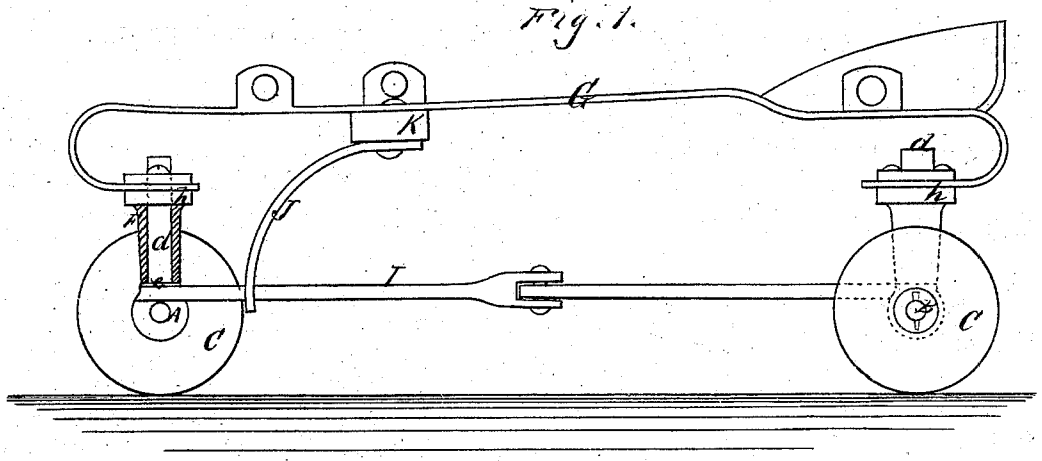


Fig. 2.

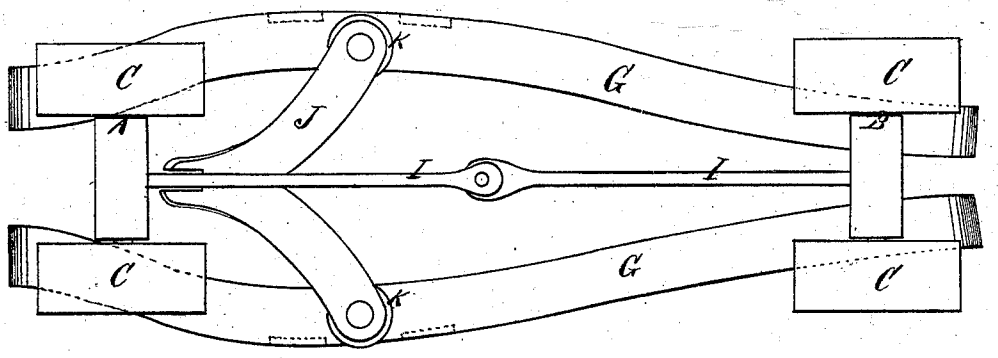
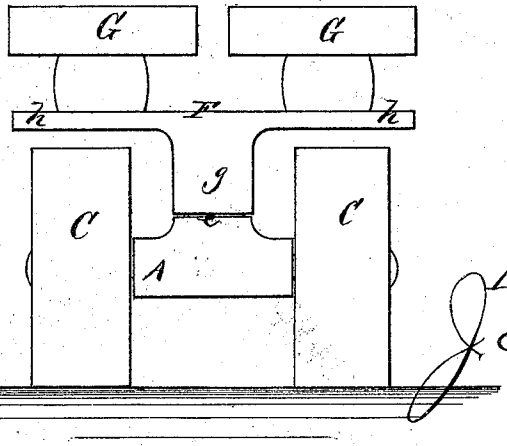


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN L. BOONE, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO HIMSELF AND MILTON A. WHEATON, OF SAME PLACE.

IMPROVEMENT IN ROLLER-SKATES.

Specification forming part of Letters Patent No. 120,147, dated October 24, 1871; antedated October 3, 1871.

To all whom it may concern:

Be it known that I, JOHN L. BOONE, of the city and county of San Francisco, State of California, have invented an Improvement in Skates; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

My invention relates more particularly to parlor or roller-skates; and it consists in the employment of longitudinal side springs as a support for the feet of the skater in place of the ordinary block or foot-stand. These springs are connected with the axle upon which the wheels revolve in such a manner as to cause the wheels to turn to the proper position to run the skate in a curved line to the right or left by the turning of the foot of the skater, so as to depress the spring upon the side which it is desired to run the skate. It also consists in an improved arrangement of the parts of the skates in order to transmit the proper motion from the springs to the axles to turn them to the proper position.

In order to explain my invention reference is had to the accompanying drawing forming a part of this specification, in which—

A represents the front and B the rear of a parlor or roller-skate, upon the ends of which the wheels or rollers C revolve. These axles are cast or otherwise formed with a spindle, *d*, projecting upward from their middles, a shoulder, *e*, being left near the base of the spindle, as shown. A metal bolster, F, is then cast with a hub, *g*, and arms *h*. The hub *g* has a hole through it of sufficient size to permit the spindle *d* to pass up through it until the lower end of the hub bears upon the shoulder *e*. The spindle then can be secured in place by a rivet passing through its upper end above the bolster, or by other equivalent means, which will permit the axle to turn independent of the bolster. The arms *h* extend to each side of the hub above the wheels. The front and rear bolsters are then united by two springs, G G, the ends of which are secured to the arms *h* above each wheel, so as to pass along each side of the foot, and serve as a support for the feet of the skater. These springs are here represented as having their ends curved into the form known as C-springs; but they can be formed into various curves; or the simple straight spring can be used, as desired. The springs are also shown as conforming to the shape or curve of the side of the foot which is to rest upon them, which is preferable; but they can also be made straight, if desired. The ends of these springs are secured to the arms by means of rivets, or otherwise, so that the bolster can turn slightly, if required; or, if desired, rigid side pieces can be employed, which rest at each end upon a cushion or spring. The axles A B are united by a reach, I, which is jointed in the middle, so as to allow its center to be thrown from side to side to give direction to the rollers. A forked lever-bar, J, has one end split and the parts separated, as shown. The two arms thus formed are then secured to the under side of the spring G about their middle, an elastic or half-round washer, *k*, being inserted between them and the springs. This bar is then bent forward until it approaches the front axle A. The opposite or forward end of this bar is also slotted sufficiently to allow it to straddle the reach. Thus, when one of the springs is depressed by the weight of the skater, the slotted or lower end of the bar J will be thrown in an opposite direction, carrying the hinged reach to one side, and also turning the axle to the proper position to cause the wheels to run in a curve.

The springs G provide an easy and elastic support for the skater, and by throwing his weight to either side the spring upon that side will be depressed vertically, and the opposite one elevated, so as to cause the bar J to carry the axles A B and wheels C to a position suitable for running the skates in a curved line. The direct up-and-down movement of the side springs gives a much more easy and pleasant movement to the skates than when the axles are united by a block, especially when the floor upon which they move is rough or uneven. Besides, on account of the elasticity and flexibility of the support, the feet of the skater do not become tired and cramped. The skate can also be made much lighter than when the block is employed.

Various devices may be employed for connecting the axles with the springs in order to turn them to the curving position; but

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

1. The longitudinal side springs G, secured to

the arms *h* of the bolster I so as to connect the two axles A and B, substantially as and for the purpose above described.

2. The axles A and B with their spindles *d*, in combination with the hub *g* having the arms *h* and the springs G G, all arranged and operated substantially as and for the purpose described.

3. The forked lever J, constructed as described, in combination with the springs G G and the hinged reach I, all arranged substantially as and for the purpose set forth.

In witness that the above-described invention is claimed by me I have hereunto set my hand and seal.

JOHN L. BOONE. [L. S.]

Witnesses:
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