

(No Model.)

R. L. EDMAN.
ROLLER SKATE.

No. 579,640.

Patented Mar. 30, 1897.

Fig. 1.

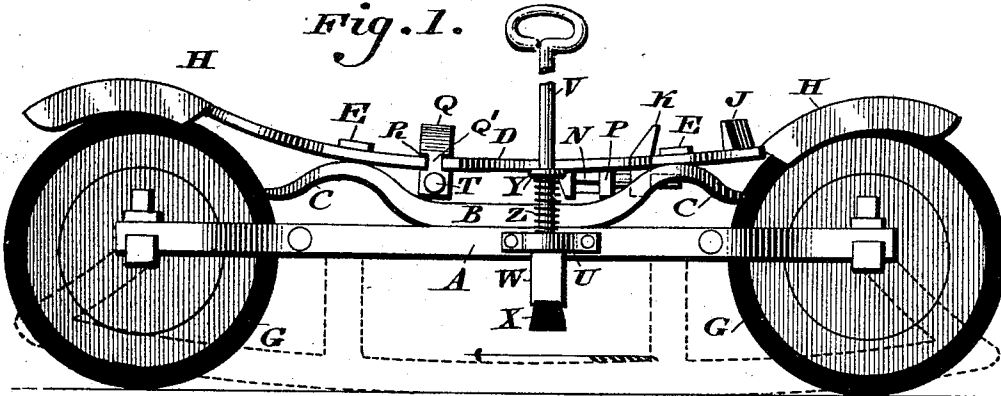


Fig. 2.

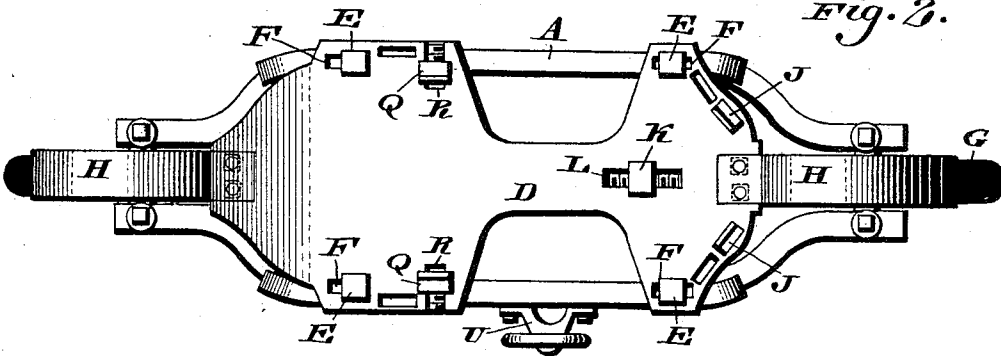


Fig. 3.

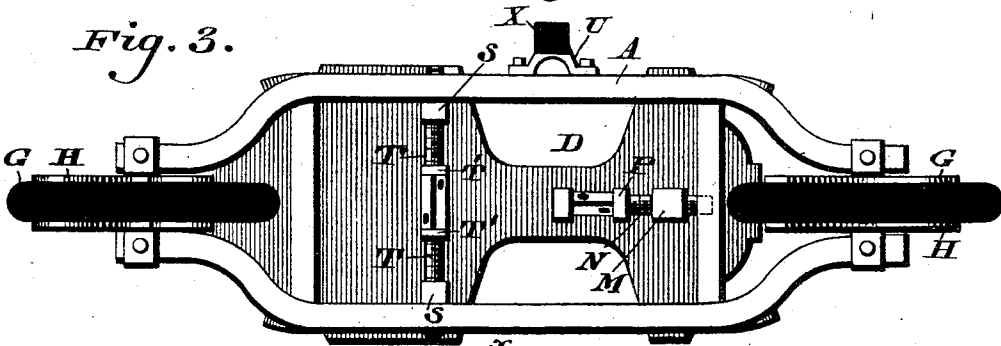


Fig. 5.

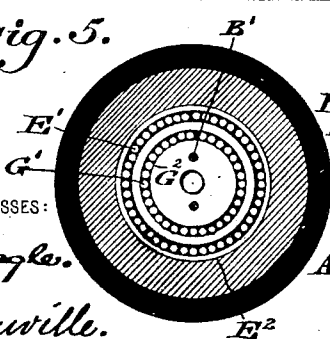


Fig. 4.

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ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 579,640, dated March 30, 1897.

Application filed April 2, 1896. Serial No. 585,873. (No model.)

To all whom it may concern:

Be it known that I, ROBERT L. EDMAN, a subject of the King of Sweden and Norway, (having resided in the United States for one year last past and having declared my intention of becoming a citizen thereof,) residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Roller-Skates, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a roller-skate whose foot-rest is firmly supported, while great resiliency is provided therefor, as will be hereinafter described.

It further consists of the combination and arrangements of parts hereinafter described and claimed.

Figure 1 represents a side elevation of a roller-skate embodying my invention. Fig. 2 represents a top or plan view thereof. Fig. 3 represents a bottom plan view thereof. Fig. 4 represents a diametrical section of one of the rollers. Fig. 5 represents a section at a right angle to that shown in Fig. 4.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a horizontally-extending frame on whose sides are supported the springs B, the same being in the form of inverted arches, whose crowns are secured to said sides of the frame, and having ends C, which are also arch shape, and support the foot-rest D, to which said ends are connected by means of the headed bolts or pins E, whose shanks pass freely through longitudinally-extending slots F in said foot-rest. On the ends of the frame A are mounted the rollers G, above which latter are the guards H, which are connected with the ends of the foot-rest and may be removed, if desired. Rising from the foot-rest at the rear end thereof are the stationary lips J for engagement of the sides of the heel of the shoe of persons using the skate. In front of said lips J is the movable clamp K, which is adapted to engage with the breast of said heel and passes upwardly through the slot L in the foot-rest, the under side of said clamp K having a threaded eye M connected therewith for the engagement of the screw N, which is swiveled in the ears P on the under

side of the foot-rest, whereby the clamp K may be moved to effect its engagement with the heel, thus firmly taking hold of the latter. 55

Q designates clamps for engagement with the sides of the sole of the shoe adjacent to the ball of the foot, the same having guiding and supporting necks Q' passing through slots R in the foot-rest and having threaded eyes S on their under side for the engagement of a right and left threaded screw T, which is swiveled in ears T' on the under side of the foot-rest, by which provision said clamps Q may be tightened against and released from the sole of the shoe. 60 65

Connected with the frame A at the side thereof is an ear U, in which is freely fitted the vertically-movable stem V, on whose lower end is the head W, which carries the flexible or elastic shoe X, which, as will be seen, is below the frame A and removed from the tires of the wheels. The stem V is also passed freely through the guide Y, which is attached to the foot-rest. 70 75

Suitably connected with the stem V is the spring Z, whose tendency is to hold the stem and connected parts in elevated position, it being seen that when the stem is depressed the shoe X comes in contact with the floor or ground and provides a brake for stopping the skate. When said stem is let go, the shoe rises and clears the ground or floor, as is evident, the stem being provided with a suitable handle, which is within reach at the side of the person using the skate. 80 85

It will be seen that owing to the construction of the spring B the foot-rest will be firmly supported, while providing great resiliency therefor, as all of the ends of said springs and also the bodies thereof will yield as they are subjected to pressure or weight superimposed on the foot-rest, and furthermore conform to the positions assumed by the person using the skate, as his weight is transmitted to either or all of said ends of the springs. 90 95

The rollers are constructed of the stationary hub portions A', which are connected by screws or bolts B', or other suitable means, there being a peripheral space C' between the side pieces constituting said hub portion, into which space freely projects the neck D' on the inner periphery of the rotatable rim, the latter being circumscribed by the elastic tire 100

D². Interposed between the side pieces A' of the hub portion and the neck D' of the rim are balls E', which freely occupy circular channels E² in the opposite faces of said parts A' D'.

Interposed between the inner periphery of the neck D' and the shoulder F' of the hub portion is a double row of balls G', which occupy the existing space G² between said neck and shoulder. By these provisions the rim E' rotates with reduced friction, and consequently with great freedom, while the parts are nicely sustained on each other.

It is evident that the parts, excepting the rollers, are serviceable for ice-skates, in which case said rollers are removed and a runner is secured to the frame A, as shown in dotted lines in Fig. 1.

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

1. A skate having a frame, springs of the form of inverted arches having their crowns

secured to the sides of said frame, the ends of said springs being also arch-shaped, a foot-rest secured to the crown of said ends, a roller at each end of said frame, and means connected with said foot-rest for clamping the foot in place thereon, said parts being combined substantially as described.

2. A skate having a frame formed of side members with rollers journaled in the ends thereof, arch-shaped springs having their crowns secured to said side members, a foot-rest having slots therein, bolts securing the crowns of the arch-shaped ends of said springs to said rest, guards for said rollers secured to said foot-rest, and means connected with said foot-rest, for clamping the foot in place thereon, said parts being combined substantially as described.

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Witnesses:

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