(No Model.)

O. ARNOLD.

ROLLER SKATE.

No. 287,607. Patented Oct. 30, 1883.

Fig. 1.

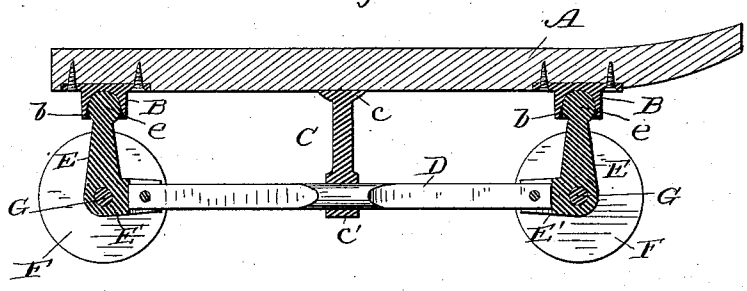


Fig. 2.

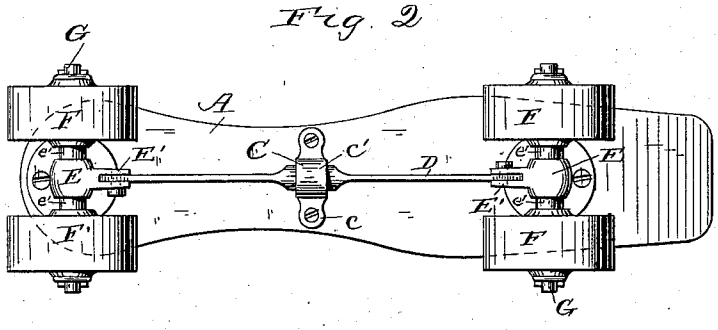
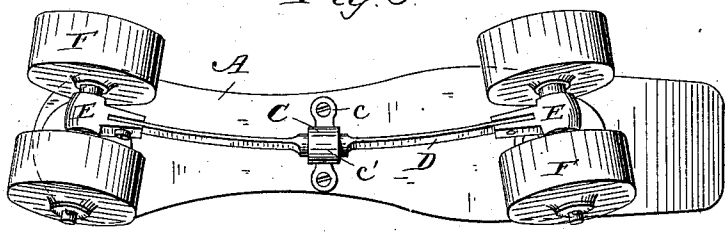


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

OLIVER ARNOLD, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO JOHN L. TRUAX, OF SAME PLACE.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 287,607, dated October 30, 1883.

Application filed March 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, OLIVER ARNOLD, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Roller-Skates, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

The object of my invention is to produce a roller-skate which is very simple in construction, efficient in operation, and strong and durable, my construction permitting the skater to control the motion of the trucks in making curves with great ease by simply inclining the body, and thus throwing the weight on one side or the other of the tread or stock with which the trucks or roller frames are connected.

In the accompanying drawings, in which like letters indicate corresponding parts in the several figures, Figure 1 is a longitudinal sectional view of my improved skate. Fig. 2 is a reverse plan view of the same with the trucks in their natural positions. Fig. 3 is a view similar to Fig. 2, but showing the trucks and spring-bar in the positions which they will occupy when the skater is describing a curve.

A indicates the stock or tread, to which are secured, by screws or otherwise, the bearing-plates B, provided with concave sockets *b*. A guide-arm or support, C, is also firmly secured to the stock or tread A, near the center thereof. Said guide-arm or support may consist of a straight bar having a flanged portion, *c*, at its upper end, through which the screws securing it to the stock A are passed, and at its lower end an eye, *c'*, in which a spring rod or bar, D, is supported; or, instead of the construction just described, the guide-arm may be forked or U form in shape, the spring rod or bar D being sustained in the lower portion thereof.

The roller frames or trucks consist of right-angular brackets E, the upper ends of their vertical portions being rounded to form ball-bearings *e*, adapted to the sockets *b* in the bearing-plates B. The horizontal portions E' of the brackets E are secured to a spring rod or bar, D, sustained by the guide-arm C, said spring rod or bar thus serving to connect the brackets E firmly together and to hold the same in their bearings in the plates B. The rollers F of the trucks are mounted on axles or pins G, passing through the brackets E, said rollers being secured on said axles or pins in any suitable manner, the brackets E being provided with lateral extensions *e'*, to afford a wide bearing for the axles G.

From the foregoing description it will be evident that the trucks or roller frames are held in their straightforward or normal positions by the spring bar or rod D, and that they are held to their bearings in the plates B by this same spring bar or rod. It will also be apparent that the ball-and-socket or universal-joint connections of the trucks with the stock or tread will permit said trucks to move in any desired direction relative to the said stock, to accommodate the movements of the skater. Thus, as the skater inclines his body to one side, throwing his weight on the side of the stock or tread, the latter will be slightly inclined, causing the trucks to assume the position indicated by Fig. 3, when the skater will move in a curve, the spring-bar D bending, as indicated by said figure, to permit of the inclined movement of the trucks. As soon, however, as the skater assumes a vertical position with his weight central on the stock of the skate, the resiliency of the spring-bar will cause the trucks to assume the position indicated by Fig. 2, and the skater will again move straight forward.

I am aware that prior to my invention roller-skates have been made in which the trucks were constructed to turn in different directions by inclining the stock or tread sidewise.

I am also aware that it is not broadly new to join the trucks or roller frames together by a spring-bar, or to connect the trucks or roller-frames with the stock or tread by a ball-and-socket joint, and hence I do not broadly claim any of these constructions; but

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

1. The combination, with the stock or tread A, of the bearing-plates B, secured to said stock or tread, and having concave sockets *b*, the

right-angular brackets E, having ball-bearings *e*, adapted to said sockets, and means for elastically connecting said right-angular brackets and for holding the same in their bearings, substantially as set forth.

2. The combination, with the stock or tread A, the bearing-plates B, having concave sockets, the right angular brackets E, having ball-bearings adapted to said sockets, the spring-bar D, serving to elastically connect said brackets E and hold the same in their bearings, and the guide C, attached to said stock or tread, and serving to sustain said spring-bar, substantially as described.

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