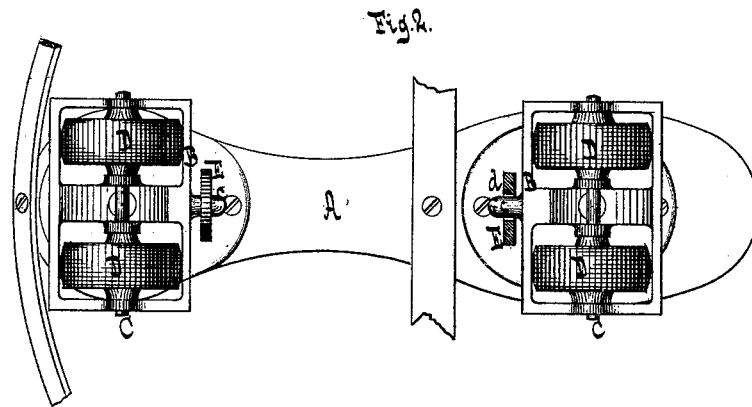
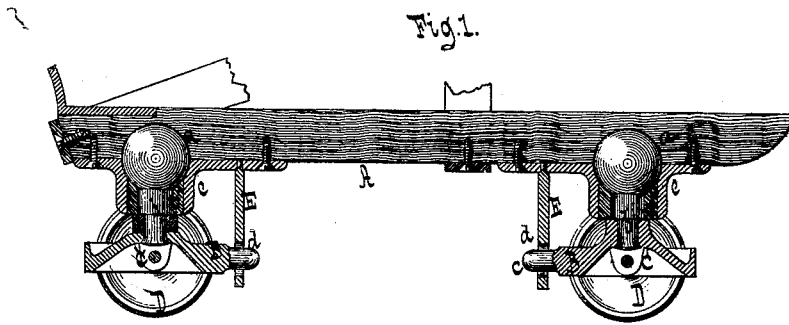


R. GIBSON.  
 ROLLER-SKATES.

No. 189,451.

Patented April 10, 1877.



Witnesses.

Otto Skjeldand.  
 Hugo Amegemann

Inventor.

Robert Gibson  
 by  
 Van Santwood & Hauff

his attorney.

# UNITED STATES PATENT OFFICE.

ROBERT GIBSON, OF NEW YORK, N. Y.

## IMPROVEMENT IN ROLLER-SKATES.

Specification forming part of Letters Patent No. **189,451**, dated April 10, 1877; application filed March 24, 1877.

*To all whom it may concern:*

Be it known that I, ROBERT GIBSON, of the city, county, and State of New York, have invented a new and useful Improvement in Roller-Skates, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a longitudinal vertical section. Fig. 2 is an inverted plan, partly in section.

Similar letters indicate corresponding parts.

This invention consists in the combination of a vertical swivel standard and of a regulator with the roller frame or truck, and with the foot-plate of a roller-skate, said roller-frame being provided with a pin which projects through a hole in the regulator, so that by bringing the weight of the body to bear on one side of the foot-plate the roller-frame is caused to adjust itself in an oblique position, and the skate describes a curve, while at the same time the roller-frame is prevented by the regulator from swiveling clear round or from assuming an impracticable or dangerous position. The connection between the standard of the roller-frame and the foot-plate is effected by a ball-and-socket joint, which allows said roller-frame to assume a compound motion in relation to the foot-plate, whereby the operation of describing a curve is facilitated. With the swivel-standard of the roller-frame, and with the socket which forms the bearing for said swivel-standard, is combined an elastic packing for preventing said standard from wearing against the edges of its sockets.

In the drawing, the letter A designates the foot-plate of a roller-skate, which may be made of wood or any other suitable material, in the form best adapted for the purpose which it is to serve. On the under surface of this foot-plate are formed two sockets, *a a*, which form the bearings for standards *b b*, rising from roller-frames B B, so that said standards, together with the roller-frames, can swivel freely in their sockets.

In the example shown in the drawing, the ends of the standards are globe-shaped, and the sockets are formed to correspond to this shape, so that ball-and-socket joints are pro-

duced which allow the standards a certain freedom of motion advantageous for skating. This freedom of motion may, however, also be obtained to a certain extent by making the ends of the standards hemispherical, and placing an elastic cushion between them and the segmental plate which holds it in place, as shown in Fig. 3, or said ends may be made disk-shaped, and elastic cushions placed above and below, as shown in Fig. 4. The roller-frames B B form the bearings for axles C C, each of which supports one or two rollers, D D, said axles being by preference firmly mounted in the roller-frames, while the rollers turn loosely on the same.

From each of the roller-frames B B projects a pin, *c*, through a hole, *d*, formed in a standard, E, which is firmly secured to the under surface of the foot-plate, and which forms the regulator. The holes *d* are made somewhat larger than the pins *c*, so that the roller-frames B B are free to turn in a horizontal plane, and the foot-plate is allowed to assume a slightly oblique position. If the skater brings the weight of his body to bear on one side of the foot-plate, the roller-frames assume an oblique position, so as to enable the skater to describe any desired curve, while at the same time the regulators E prevent the roller-frames from swiveling round to such an extent that the stability of the skater would be endangered.

The standards *b* are retained in their sockets *a* by means of segmental plates *e*, which are firmly secured to the under surface of the foot-plate, and which embrace the shanks of said standards. These shanks are protected by elastic cushions *f*, so that they do not wear against the edges of the segmental plates.

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

1. In a roller-skate, the combination of a vertical swivel-standard, *b*, and a regulator, E, with the roller frame or truck supporting the axle of the rollers, and the foot-plate A, all constructed and arranged to operate substantially as and for the purpose herein described.

2. The combination, with the foot-plate A, standard *b*, and roller-frame B, which con-

tains the rollers D D, of a ball-and-socket joint, substantially as and for the purpose set forth.

3. The combination, with the foot-plate A, swivel standard *b*, roller-frame B, and the segmental plates *e*, which retain the standards in their sockets, of elastic cushions *f*, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 21st day of March, 1877.

ROBT. GIBSON. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.