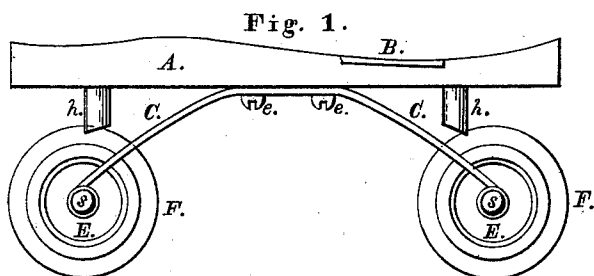
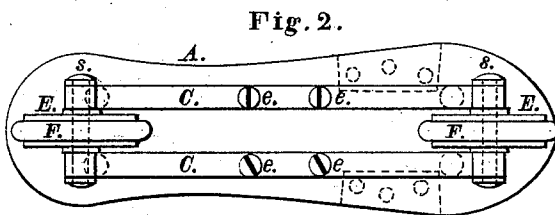
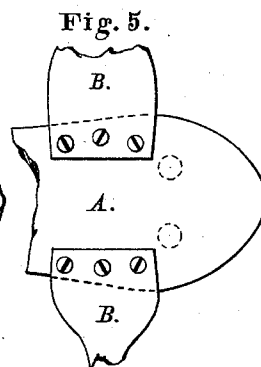
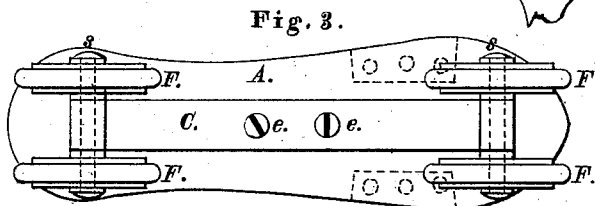
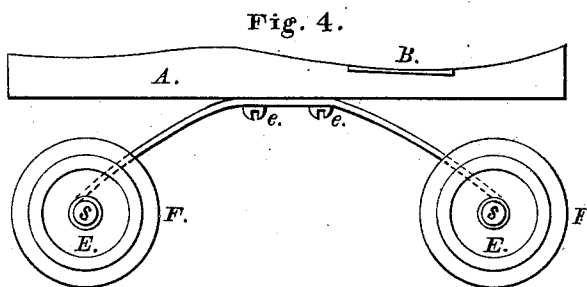


(No Model.)

T. MITCHELL.
ROLLER SPRING SKATE.

No. 304,949.

Patented Sept. 9, 1884.



WITNESSES:

W. B. Radenorth *Thomas Mitchell*
John L. Mitchell

INVENTOR:

UNITED STATES PATENT OFFICE.

THOMAS MITCHELL, OF BROOKLYN, NEW YORK.

ROLLER-SPRING SKATE.

SPECIFICATION forming part of Letters Patent No. 304,949, dated September 9, 1884.

Application filed April 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MITCHELL, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented an Improved Roller-Spring Skate, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention consists of a roller-spring skate in which the rollers are journaled directly in the forward and rear ends of a spring or springs attached to the under side of the skate-body without intermediate bearings, and in certain details of construction, as hereinafter more specifically described and claimed.

In the annexed drawings, Figure 1 is a side elevation of my improved roller-skate provided with two springs and two wheels or rollers. Fig. 2 is a bottom plan view of the same. Fig. 3 is a bottom plan view of my single-spring skate with four wheels or rollers. Fig. 4 is a side view of the same; and Fig. 5 is an enlarged plan view of the forward part of the skate, showing the attachment of the front strap.

Like letters designate like parts.

The skate-body A is made of wood or other suitable material in any of the usual forms, and is provided with a front strap, B, the ends of which are let into the skate-body, on the upper side thereof, the full thickness of the strap, as shown, and secured by any convenient means, so as to clasp the foot firmly, the strap being thus readily self-adjustable to various sizes of foot without exerting undue pressure.

To the under side of the skate-body A, at or near its center, are secured one or more springs, C C, by means of screws or rivets *e e* or other suitable fastenings. If desired, two springs, C C, may be used, as shown in Fig. 2; or only one spring may be employed, as shown in Fig. 3.

The wheels or rollers E E are journaled directly in the curved ends of the springs C by means of axles or journals *s s*, attached to or hung in said springs without intermediate

bearings, thus combining strength and simplicity of construction. In some instances the rollers of skates have heretofore been journaled in lugs or bearings attached to the ends of springs; but such bearings are liable to become detached. This difficulty is obviated by hanging the rollers directly in the ends of the springs, a construction which involves less parts than hitherto required, besides effecting considerable economy in cost, as well as adding to the durability, lightness, and finish of the skate.

It will be observed that the springs C are bowed or curved downward at each end, and when two springs are employed they are secured to the skate-body in parallel longitudinal lines.

Two rollers are employed with a skate having two springs, said rollers being journaled—one at each end of the skate—between the ends of the parallel springs, as shown in Fig. 2. When the skate is provided with four rollers, as shown in Fig. 3, only one spring is required, its width, however, being slightly increased. The axles or journals of the wheels or rollers, in either case, are attached or hung directly in the curved ends of the spring or springs without the intervention of intermediate lugs or bearings, as commonly employed, and are made to hug the springs so firmly as not to revolve with the friction of the wheels. The two-roller or four-roller spring-skates, as the case may be, thus combine strength, durability, and lightness of structure with the smallest practicable number of parts, and is therefore not liable to get out of order.

The wheels E E may be made of any suitable material, and are preferably provided on the periphery with elastic bands F, F, that are shrunk or sprung thereon, so as to increase the friction upon the floor or sidewalk, and lessen the noise of running.

In order to prevent the peripheries of the wheels or rollers from coming in contact with the skate-body under sudden jars, stops or buffers *h h* are attached to the under side of the skate near each end, as shown in Fig. 1.

A roller-skate of this construction has the

advantage of an easy carriage, with little danger of breaking the wheels by sudden contact with abrupt ridges or inequalities in the roadway.

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

A roller-skate consisting of the body A, having buffers *h h*, and one or two longitudinal springs, C C, the axles *ss*, attached or hung

directly in the ends of said spring or springs 10 without intermediate bearings, and the wheels E E, mounted on said axles, substantially as shown and described.

THOMAS MITCHELL.

Witnesses:

WM. B. WADMOUTH,

J. L. MITCHELL.