

(No Model.)

C. H. WHITE.

ROLLER SKATE.

No. 308,025.

Patented Nov. 11, 1884.

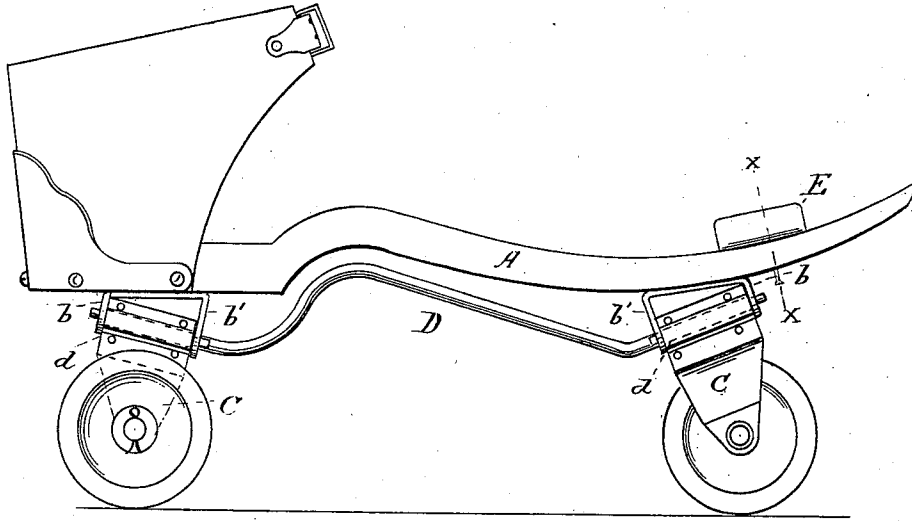


Fig. 1.

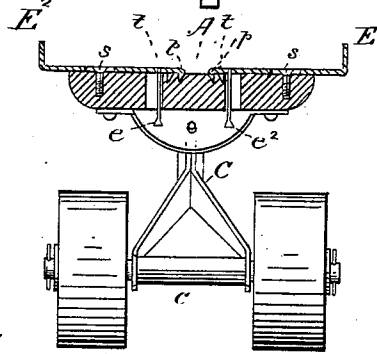


Fig. 2.

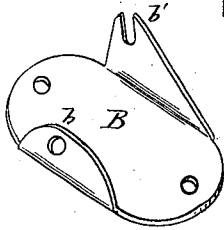


Fig. 3.

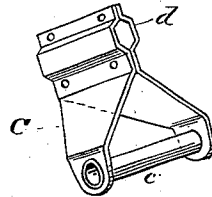


Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES H. WHITE, OF MALDEN, ASSIGNOR OF ONE-HALF TO JAMES D. THORNDIKE, OF BOSTON, MASSACHUSETTS.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 308,025, dated November 11, 1884.

Application filed May 8, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. WHITE, of Malden, in the county of Middlesex and Commonwealth of Massachusetts, have invented
5 new and useful Improvements in Roller-Skates, of which the following is a specification.

My invention relates to that class known as "roller-skates," and has for its object extreme simplicity of construction, combined
10 with strength and great durability.

My invention consists, in general, in the means I use whereby I am enabled to obtain both a vertical and lateral elasticity for the foot-support, and particularly in the improved
15 form and material in which the roller-frame and truck-frame are made, and, further, in the spring and improved clamp. The roller-frames are so connected to the hanger-frames that they are easily detachable.

Hitherto in roller-skates the elasticity of the foot-support has been best obtained by means of an elastic cushion or its equivalent, generally placed between a foot-standard, or a pressure-plate therein, and the upper surface
20 of a truck-frame.

My invention enables me to entirely do away with any elastic cushion or other mechanism, and yet attain all the elasticity necessary for the performer to describe all the various evolutions desired while accomplishing dextrous and complicated movements.

In the accompanying drawings, Figure 1 is an elevation, with one of the front wheels removed, of my improved roller-skate. Fig. 2
35 is a detail sectional view of the same on line *xx*. Fig. 3 is a perspective view of the hanger-frame or bearings. Fig. 4 is a perspective view of the truck-frame or roller-frame.

Similar letters of reference indicate corresponding parts.

The foot support or standard is designated by the letter A, to which may be attached heel and toe straps or clamps, as desired. The foot-support may be composed of any suitable material. I preferably, however, make it of
45 struck-up sheet-steel.

B is a hanger-frame, firmly secured by screws to the foot-standard, and provided with bearings or coupling-ears *b b'* for the spring D.

C is a truck or roller frame, provided with 50 a bearing, *c*, for the roller-axle, and socket *d* for the spring-rod D.

Both the hanger and roller frame I preferably make of struck-up steel. I make the hanger-frame and roller-frame the same for both
55 the toe and heel of the foot-standard. These parts are thus interchangeable.

The spring D, I preferably make of steel of the sectional shape to fit the socket *d* of the truck-frame, and of the general form shown; 60 but I do not limit myself to this shape or form, as this rod or torsion-spring could be round and nearly straight, in which case, however, it would not be so effectual in its action.

My improved clamp is composed of the two 65 sections *E E'*. Each section is firmly secured by a screw, *s*, to the foot-standard. This screw passes through an oblong slot in its section and allows the clamp to be moved in the line of the slot to and away from the center of
70 the standard. A point or catch, *p*, on the end of the sections *E E'* is arranged to connect with sockets *t*, and hold firmly the sections of the clamp after the foot is inserted and the sections are pushed together. The pins *e e'* 75 are an integral part of the sections *E E'*, and move with the sections in the slots in the foot-standard, as shown. They serve to raise the point *p* out of the socket, where it is held by the spring action of the socket, and allow the
80 clamp to be opened. This clamp so made, as shown and described, has no rough surface to abrade the foot-covering, and while being very simple in operation is yet very effective in service.

In the construction a hanger-frame, B, is first secured to the toe and heel of the standard, and both ends of the spring D, having been inserted through the socket *d* of a roller-
90 frame, are sprung into position in the bearings of the hanger-frame, as shown in Fig. 1.

The peculiar construction and material of the hanger-frame and roller-frame, and the manner of their combination with the spring D, all unite to give a vertical elasticity. The
95 spring D causes both the foot-standard and the roller-frames always quickly to assume a horizontal position when either has received a lat-

eral motion by the movements of the performer. Any lateral movement of the standard or roller-frame operates to twist the spring D, the automatic resistance of which causes it to resume its normal position and produce the desired result.

My improved skate is shown with four rollers; but I do not limit myself to any particular number.

I am aware that I am not the first to use a torsional spring in a parlor-skate; and I do not broadly claim this as my invention. It has been used for the purpose of keeping coupling-bars in roller-skates on a line with each other and the central line of the skate. I know, however, of no roller-skate which has a torsional spring combined, as described, with a hanger-frame and roller-frame.

I believe I am the first to so use a torsional spring, whereby I obtain both a vertical and lateral elasticity from the foot-standard.

What I claim as my invention is—

1. In a roller-skate, the combination of the torsional spring D with the roller-frame C and

hanger-frame B, substantially as described, and for the purpose set forth.

2. In a roller-skate, a hanger-frame consisting of the plate B, provided with the pierced ear *b* and slotted ear *b'*, to receive the spring D, substantially as described.

3. In a roller-skate, a roller-frame, C, provided with the socket *d* for the spring D, and bearing *c* for the roller-axle, substantially as described.

4. In a skate, a foot-clamp consisting of the sections E E', each section having as an integral part of it a point or catch, *p*, and a pin, *e*, in combination with a foot-standard of a skate having slots, as shown, and sockets *t*, to receive the points *p*, all constructed and operated substantially as described.

In witness whereof I have hereunto set my hand.

CHARLES H. WHITE.

Witnesses:

WM. B. H. DOWSE,
WM. T. GILBERT.