

No. 289,099.

Patented Nov. 27, 1883.

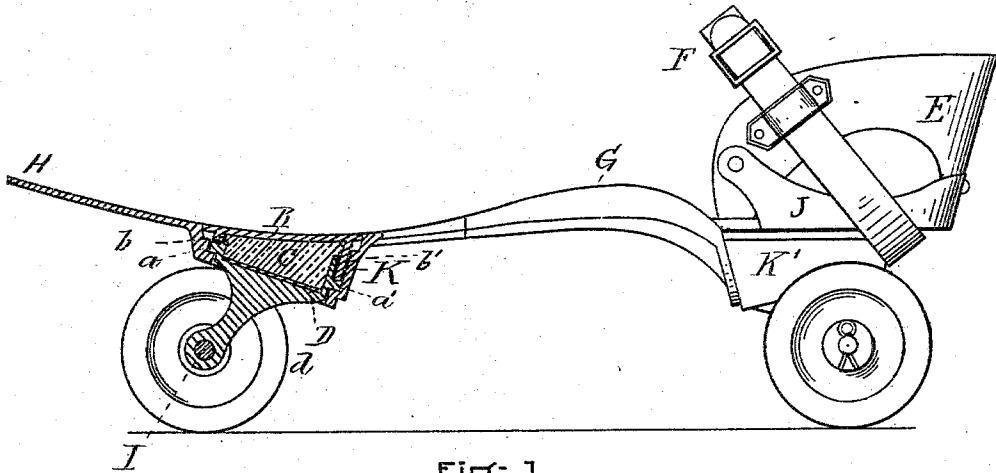


Fig: 1-

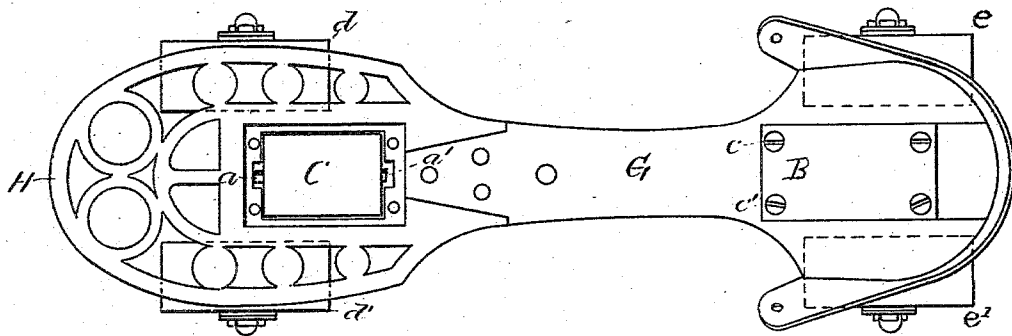


Fig. 2.

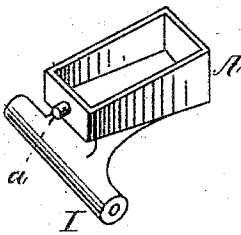


Fig. 3.

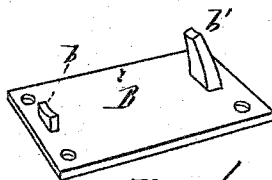


Fig-4.

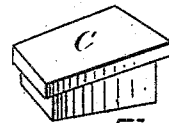


Fig. 4.

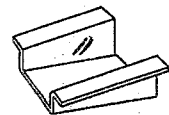


Fig. 5.

WITNESSES

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SAMUEL HIPKISS, OF STONEHAM, MASSACHUSETTS.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 289,099, dated November 27, 1883.

Application filed June 4, 1883. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL HIPKISS, of Stoneham, in the county of Middlesex and Commonwealth of Massachusetts, have invented new and useful Improvements in Roller-Skates, of which the following is a specification.

My invention relates to the class known as "roller-skates," and has for its object simplicity of construction, strength, and durability.

The devices whereby the wheels and rollers are attached to the foot-support of the skate are arranged in such a manner as to enable the performer to describe all the various evolutions desired while accomplishing complicated and dexterous movements.

In the accompanying drawings, Figure 1 is an elevation, partly in section, of my improved roller-skate. Fig. 2 is a plan view of the same. Fig. 3 is a perspective view of the roller hanger and frame. Fig. 4 is a perspective view of the rubber packing or cushion. Fig. 5 is a perspective view of the guard for the rubber packing or cushion. Fig. 6 is a perspective view of the adjustable plate which covers the packing-box K, which forms an integral part of the foot support or standard of the skate.

Similar letters of reference indicate corresponding parts.

The foot-support or the standard is designated by the letters H and G, to which are connected heel and toe straps. The toe-straps are connected in the usual manner. At the heel are used the support E, connected to the metal plate J, (which is by preference an integral part of the foot-support,) and the adjustable heel-strap F, which passes through the loop *e* and under the heel of the foot-standard. The foot-standard H and G, composed of some suitable material, as iron or wood, I preferably make in two parts, as shown in the plan view, Fig. 2. These are connected in the usual manner, and are each provided with a packing or hanger box, K K', in which the roller-hanger A is secured. The roller-hanger consists of the packing-box A, provided with the pivots *a a'* and the roller-frame I. The same roller-hanger is used in both the toe and heel of the foot-standard, and is connected with the packing-box K and K' by the

pivots *a a'*, which rest in bearings made for them in the interior of the packing-box K K', as shown in Figs. 1 and 2. The elastic cushion C (preferably of rubber) is made of such form and proportion as to fill the hanger-box A and the upper portion of the packing-boxes K K'. The guard D, for the rubber packing or cushion, consists, preferably, of a thin elastic piece of rubber or metal, and is made of such shape as to conform to the rubber packing or cushion C and the hanger-box A. The adjustable plate B is provided with two projecting prongs, *b b'*, adapted to act as bearings on the pivots *a a'*, to prevent, if desired, the perpendicular motion of the hanger A, and also to protect the rubber cushion C. The rollers *d d' e e'* are attached to the roller-frame I, as shown in Fig. 2. The hanger A has an upward motion, and the hanger-frame I a lateral motion, both regulated and adjusted by the rubber packing or cushion C.

The action of the hanger A and the adjacent members is as follows: The hanger A is placed in position in the outside packing or hanger box, K K', and the rubber cushion C, upon which has been placed the guard D, is inserted in the hanger-box A. The adjustable plate B is placed upon the top of the rubber cushion C, so that its bearings *b b'* project down toward the pivots *a a'*. The plate B is secured to the foot-standard by screws *c c'*. If no perpendicular motion of the hanger A is desired, the plate B is secured firmly to the foot-standard, as shown in Fig. 2. If a slight pressure is required, the plate B is eased by slightly loosening the screws by which it is attached. In the same way the lateral pressure is regulated which is communicated by the packing-box A from the rubber cushion and the hanger-frame I, so that the hanging frame always quickly assumes a horizontal position automatically when it has received a lateral motion by the movements of the performer. The superiority of this mode of attaching the roller-frame to the foot-standard of the skate is readily seen by the ease with which the roller-frame can be removed when it is desired to repair the same, or to otherwise adjust the parts. The rubber packing is confined in such a manner that it cannot be expanded externally, and its whole resistive power is brought to bear on the sides of the hanger or packing box A, on

the sides of the hanging or outside packing boxes, K K', and on the plate B. It will be seen that the elastic cushion C gives an easy perpendicular motion to the hanger A when desired, and also a lateral elastic resistance, and that the adjustable plate may be so pressed upon the cushion that by the aid of the projecting prongs *b b'* the packing or elastic cushion C, in its perpendicular action, becomes a non-elastic body. To prevent the wear of the rubber by the friction of the sides of the packing-box A and its adjacent parts, it is provided with a guard, which I preferably make of thin elastic metal. Both the toe and heel of the foot-standard are provided with the same hanger-box and frame, which are connected to the foot-standard in the same manner and act in the same way, excepting that the frames are oppositely inclined toward the two ends of the foot-standard, as shown in Fig. 1.

My invention is shown with four rollers; but I do not limit the invention to that special class, as it can be applied to skates having any number of wheels, ranging from two to eight.

The heel strap or guard E is provided with an adjustable strap, F, which moves loosely through the loop on the support E under the heel of the foot-standard. By this arrangement I am enabled to effect a much more easy and snug connection of the heel of the standard with the foot of the performer.

I am aware that an elastic cushion has been used between a pressure-plate and the upper surface of a truck-frame, and that the pressure-plate has been regulated in its operation by a screw, and I do not claim such invention.

Having thus described my invention, what I claim is—

1. In a roller-skate, the adjustable plate B, provided with the projecting prongs *b b'*, and operated substantially as described, whereby the motion of the roller hanger and frame is adjusted and regulated.

2. In a roller-skate, the roller hanger and frame, consisting of the inner packing-box, A, adapted to receive an elastic packing, the pivots *a a'*, and roller-frame I, substantially as described.

3. In a roller-skate, the outside packing-box, K, forming an integral part of the foot-standard, provided with bearings in its interior for receiving the pivots of the roller-hanger, substantially as described.

4. In a roller-skate, the hanging or packing box K, provided with bearings, as described, in combination with the hanger-frame A, provided with the pivots *a a'*, the adjustable plate B, an elastic cushion, and the guard, all arranged substantially as described, and for the purpose set forth.

5. In a roller-skate, the combination of a hanger or packing box, forming an integral part of the foot-standard, with a hanger-frame consisting of an inner packing-box having pivots, an adjustable plate adapted to cover the hanger or packing box, and an elastic cushion arranged between the adjustable plate and the inner packing-box, all arranged substantially as described, and for the purpose set forth.

In witness whereof I have hereunto set my hand.

SAMUEL HIPKISS.

Witnesses:

WM. B. H. DOWSE,
HARVEY H. PRATT.