

J. L. Plimpton,

Parlor Skate,

N^o 55,901.

Fig. 1.

Patented June 26, 1866.

Fig. 12.

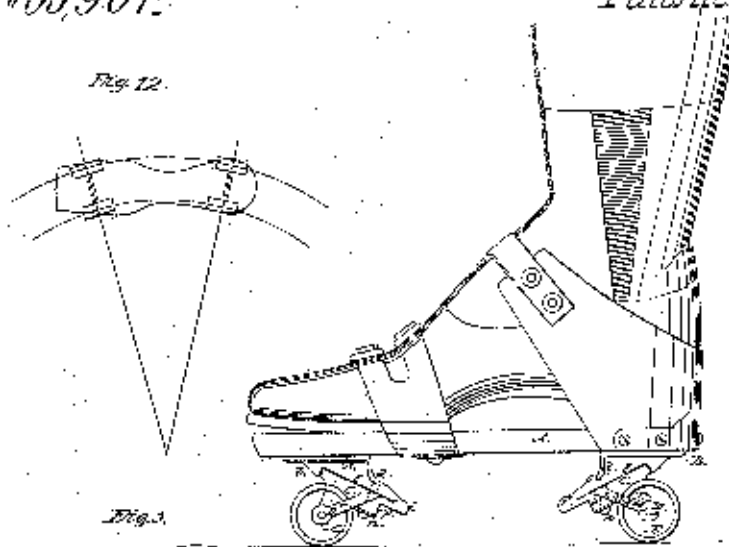


Fig. 3.

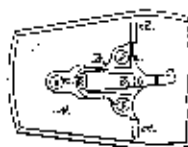


Fig. 2.

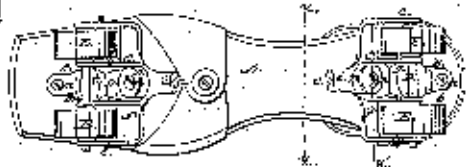


Fig. 4.

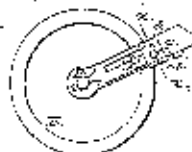


Fig. 5.

Fig. 6.

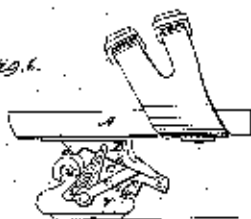


Fig. 8.



Fig. 10.

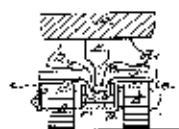


Fig. 7.

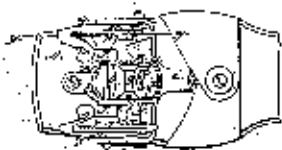
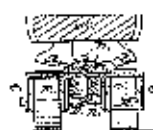


Fig. 9.



Fig. 11.



Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

JAMES L. PLIMPTON, OF NEW YORK, N. Y.

IMPROVED SKATE.

Specification forming part of Letters Patent No. 55,961, dated June 26, 1895.

To all whom it may concern:

Be it known that I, JAMES LEONARD PLIMPTON, of the city, county, and State of New York, have invented a new and improved Skate; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of a parlor or roller skate applied to the foot; Fig. 2, a bottom or under view of the same; Fig. 3, an under view of a plate pertaining to the same; Fig. 4, a side view of a roller pertaining to the same, with its outside bearing and catch or fastening for holding it on its shaft; Fig. 5, a section of Fig. 4, taken in the line *x x*; Fig. 6, a side view of the front part of the skate with runners attached; Fig. 7, a bottom or under view of Fig. 6; Fig. 8, a section of Fig. 6, taken in the line *y y*; Fig. 9, a detached inner side view of a plate pertaining to the runners of the skate; Fig. 10, a transverse vertical section of Fig. 2, taken in the line *z z*; Fig. 11, a transverse vertical section of Fig. 2, taken in the line *z' z'*; Fig. 12, a diagram showing the position assumed by the rollers or runners in turning a curve.

Similar letters of reference indicate corresponding parts.

This invention relates to certain improvements in roller and other skates patented by me January 6, 1863; and it consists in a novel and improved construction and arrangement of the several parts, whereby several advantages are obtained over the old or original mode of construction, as hereinafter fully set forth.

A represents the stock or foot-stand of the skate, which may be constructed in any proper manner; and B B represent two metal plates, which are firmly secured to the under side of the stock or foot-stand, one near the toe and the other at the heel of the same. These plates B B are of triangular form, (see Fig. 3,) and may be secured to the stock or foot-stand by a screw, *a*, one near each angle or corner.

At the angular end of each plate B there is a socket, *h*, and from the socket of each plate there extends longitudinally and centrally an inclined ledge, *b*, the outer end of which is rounded to form a journal, *c*, (shown clearly in

Fig. 3,) and at the broad ends of the plates B B there are pendant projections *d d*, which are shown clearly in Figs. 10 and 11. These plates, it will be seen by referring to Fig. 1, are secured to the stock or foot-stand in opposite positions, so that the inclined ledges *b b* will extend down from the front and rear ends of the same toward a point in a vertical line passing about through the center of the stock or foot-stand.

C C represent what may be termed the hangers, the same being composed of four inclined pendent bars *e e e' e'*, extending down from a bar, *f*, having a bar, *g*, crossing it at right angles. The bars *g* have at one end a journal to fit into a socket of the plates B B, and the opposite ends of the bars *g* are provided with sockets *i* to receive the journals *e* of said plates B. This arrangement admits of the stock or foot-stand having a lateral tilting movement either to the right or left.

In the lower parts of the inclined pendent bars *e e e' e'* of each hanger C there is inserted a shaft, D, on which rollers E are placed so as to turn loosely. This shaft has a head at one end, and a sliding key, F, passes through the opposite end, said key being flattened at one part sufficiently to admit of an oblong slot, *j*, being made longitudinally through it to allow a pin, *k*, in one of the bars *e* to pass through, said pin *k* serving as a guide for the key. The key is prevented from casually drawing out from the hole in shaft D by having a slot, *l*, (see Fig. 4,) at the outer end of slot *j*, at right angles to it, in which slot *l* the pin *k* may be fitted, and the key F is prevented from being shoved laterally, so as to prevent the pin *k* from casually getting out of *l* by means of a button, G, which is fitted on the pin *k*, and has a flange in it at one end to fit over the side of E. When the key is to be withdrawn from the hole in shaft D, to admit of the removal of the latter, the button G is turned so that its flange *m* will be at the outer end of the key F and admit of the key F being shoved laterally, so that the pin *k* may be adjusted in the slot *j* and admit of a longitudinal movement of the key. By this arrangement the shafts D are firmly secured in the hangers, and at the same time may be readily removed therefrom when necessary or required.

The rollers E are placed on the shafts be-

tween the arms *e e'*, as shown in Fig. 2, and said rollers have their peripheries covered with emery, or have a roughened surface produced in any proper way, in order to prevent them from slipping.

The hangers *C C* are secured to the plates *B B* by screws *n*, which pass through the center of the bars *g* of the hangers and into the inclined ledges *b b* of the plates *B*, said screws having a plate, *o*, on them, between which and the bars *g* a spring, *p*, of india-rubber or other suitable material, is placed. These springs *p* keep the hangers in contact with the plates *B*, and prevent all unnecessary play or vibration of the same in an upward direction, and control the turning, tilting, or canting of the stock or foot-stand.

In consequence of the ledges *b b* of the plates *B B* being inclined, it will be seen that if the stock or foot-stand *A* be lifted or inclined either to the right or left the shaft-hangers *C C*, and consequently the shafts *D*, will be cramped, so as to form radii of a circle, (see Fig. 12,) and the skate will consequently move in or describe a curve. The skater, therefore, has perfect command over the skates, and is enabled to perform curves, gyrations, and evolutions with the greatest facility.

When the invention is to be used on ice runners are employed, constructed and applied as follows: Upon the shafts *D* there are placed loosely what may be termed "clamps," *H*, composed of two parts, *g r*. The parts *g* may be of any ornamental design, (that of a swan is here represented,) and the other part, *r*, is simply a plate secured to *g* by a screw, *s*, the runner *I* being between *g r*. The runners *I* have smooth running surfaces, with angular edges, so that they may be reversed when the inner edges lose their angularity by wear, and a fresh, sharp edge obtained; and when both edges of one surface become worn the runner may be inverted and two more angular or sharp edges obtained. Thus, each runner has four angular edges, which may be successively used before the runner will require to be sharpened.

The clamps *H* are retained in proper position on the shafts *D* by india-rubber or other washers, *J*, (shown clearly in Fig. 7.) The stock or foot-stand is prevented from tilting beyond a proper distance in consequence of the bars *f* of the hangers coming in contact with the pendent projections *d d* of the plates *B B*, while the clamps *H* on the shafts *D* have their movement thereon limited by the ends of the wings of the swan and the tail coming in contact with the bars *f*.

By this mode of construction I obtain a far stronger and more durable skate than the one originally devised. The stock or foot-stand is more firmly supported, and the ankle of the skater is relieved from that constant and tedious effort to keep the stock or foot-stand in a horizontal position, or to prevent it from casually tilting or canting laterally. All unnecessary play of the parts, and consequently much wear and tear, is avoided.

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

1. The construction of the plates *B* and hangers *C*, arranged and applied to the stock or foot-stand, to operate in the manner substantially as and for the purpose set forth.
2. The key *E*, provided with the slot *j l* and the button *G*, and arranged in connection with the pin *k*, substantially as and for the purpose set forth.
3. The springs *p*, applied to the screws *n*, which secure the hangers *C* to the plates *B*, for the purpose of preventing vertical or upward-and-downward play of the hangers, and controlling the turning, tilting, or canting of the stock or foot-stand, as set forth.
4. The clamps *H*, composed of two parts, *g r*, for holding the reversible runners *I*.
5. The reversible runners, arranged substantially as shown, for the purpose specified.

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Witnesses:

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