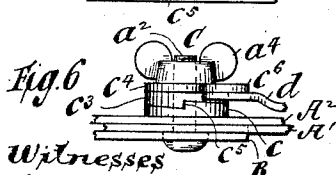
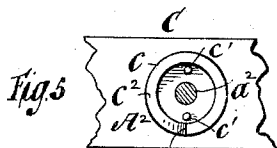
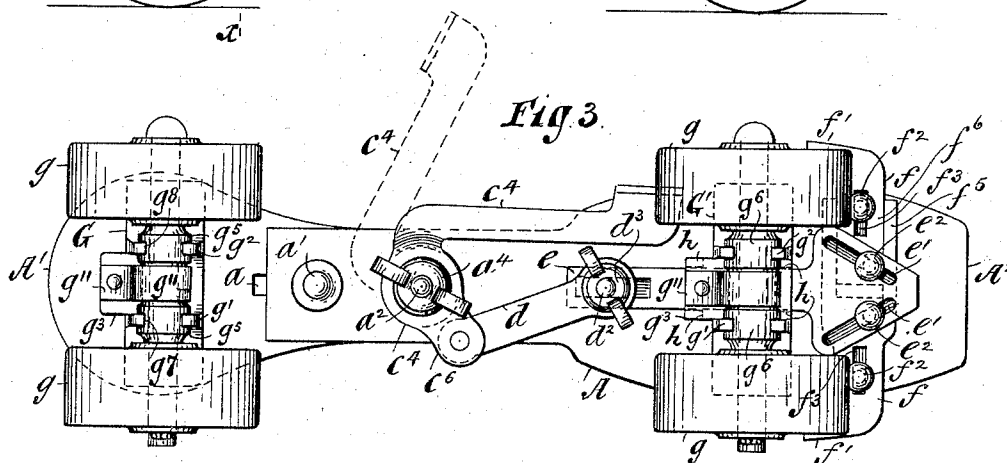
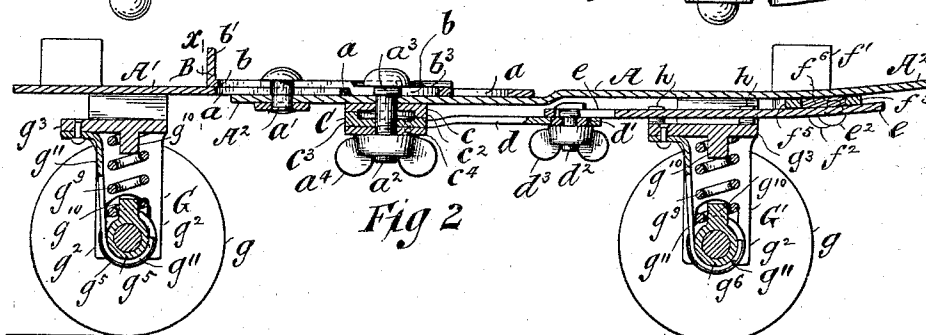
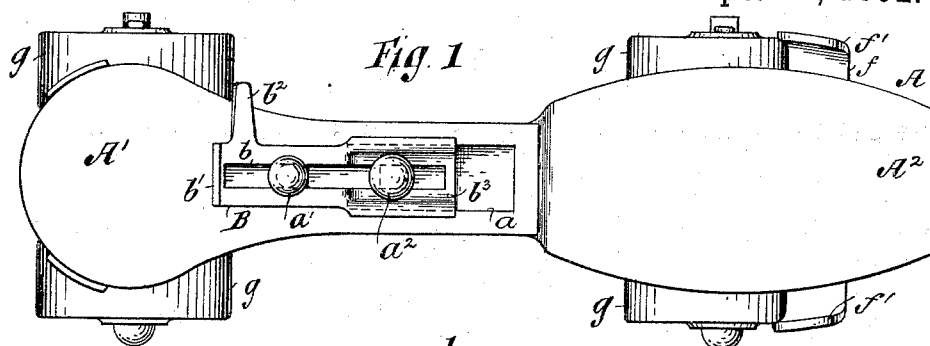
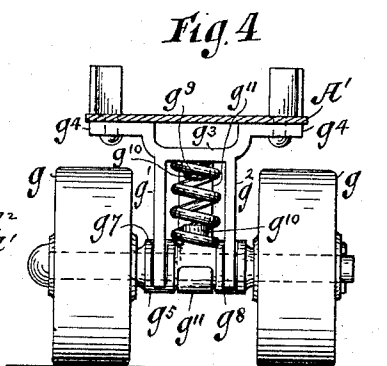


J. CARRIE.
ROLLER SKATE.

Patented Sept. 20, 1892.



Witnesses
Geo. Wadman
H. Schmidt



Inventor

June Carrio

UNITED STATES PATENT OFFICE.

JAMES CARRIE, OF BROOKLYN, NEW YORK.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 482,721, dated September 20, 1892.

Application filed May 18, 1892. Serial No. 433,426. (No model.)

To all whom it may concern:

Be it known that I, JAMES CARRIE, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Roller-Skates, of which the following is a specification.

I will describe a roller-skate embodying my improvement, and then point out the novel features in the claims.

In the accompanying drawings, Figure 1 is a top view of a roller-skate constructed according to my invention. Fig. 2 is a central longitudinal section of the same. Fig. 3 is an inverted plan view thereof. Fig. 4 is a transverse section taken at the line xx , Fig. 2. Figs. 5 and 6 are respectively an inverted plan and elevation of certain parts of a locking device.

A designates a foot-plate made in two sections $A^1 A^2$, having overlapping end portions adjustably secured together.

B is a heel-grip provided with a slot b and having an upwardly-turned end b' , capable of being adjusted against the heel of a shoe by means of a finger-piece b^2 . The opposite end of this grip has its central portion b^3 sunk to fit an enlargement of a slot a contained in the section A^1 . The sections $A^1 A^2$ of the foot-plate and the grip B are connected together by means of a rivet a' and a bolt a^2 , each having their head portions resting on the grip B and their shanks extending through the slots b and a and through holes in the section A^2 . The rivet a' is rigidly secured to the section A^2 and is fitted to slide freely in the slots a and b . The bolt a^2 has a square neck portion a^3 to prevent its turning, and its head portion rests on the sunk part b^3 in order to avoid having the shoe of the user resting thereon. The shank of this bolt extends through a locking device C and is provided with a thumb-nut a^4 . This locking device comprises a disk c , secured to the section A^2 by rivets c' and provided with an annular inclined rim c^2 , forming a cam-surface.

c^3 is a disk rigidly secured to or integral with a lever c^4 and has an inclined rim corresponding to that of the disk c , against which it is held by the thumb-nut a^4 .

c^5 is a shoulder formed in each disk to limit the motion of the lever when turned in a di-

rection to release the parts. The lever c^4 has an arm c^6 , to which is pivotally connected a link d , whose other end is loosely mounted on a washer d' , adjustably secured to the slotted end of a reciprocating bar e . This washer is clamped to the bar e by means of a bolt d^2 and thumb-nut d^3 . The bar e has its forward end provided with slots e' , converging toward each other, and in which are fitted to slide the shanks of rivets e^2 . These rivets are rigidly secured to the inner extensions f of toe-grips f' , which are supported by means of rivets f^2 , fitted in slots f^3 and rigidly secured to the shoe-plate A. The inner extension of one of these toe-grips has a bifurcated or forked extremity f^5 , as shown in Figs. 2 and 3, and in which is fitted to slide the extremity or tongue portion f^6 of the other or opposite toe-grip. By this construction the toe-grips are guided to move to and fro transversely of the skate.

G G' are brackets, in which the rollers g have their bearings. Each bracket consists of two vertical side portions $g^1 g^2$, united by a cross portion g^3 and provided with flanges g^4 , by which the brackets are rigidly secured to the shoe-plate. $g^5 g^6$ are journal-boxes extending between the hubs of each pair of rollers and having the axles of the latter loosely mounted therein. The journal-boxes $g^5 g^6$ are provided with grooves $g^7 g^8$, fitted to slide on bifurcated end portions of the sides $g^1 g^2$.

g^9 is a coil-spring arranged between the journal-box and the cross portion g^3 of the bracket and is secured in position by projecting studs g^{10} , extending from the journal-box and the said cross-piece g^3 .

g^{11} is a stop-plate secured at one end to the cross-piece g^3 of the bracket and extending around the under side of an annular groove in the journal-box to limit the downward motion thereof. By this construction the coil-spring serves as a cushion to afford an easy movement in use.

The bracket G' may be provided with projections h , formed integral therewith, and between which the reciprocating bar e may be fitted to slide and caused to move in a direction longitudinally of the shoe-plate.

The operation of the device is as follows: The lever c^4 is turned to a position shown

dotted in Fig. 3, which loosens the parts sufficiently to adjust them to a shoe of any size. The nut d^3 is then loosened and the bar e moved forward or backward to impart the requisite degree of lateral motion to the toe-grips to fit the shoe of the user, after which the nut d^3 is tightened to secure the washer d' rigidly to the bar e . The skate is then applied to the foot and the two sections $A' A^2$ brought together to fit the shoe lengthwise, after which the heel-grip B is moved against the heel and the parts tightened together by the thumb-nut a^4 . The lever c^4 is then turned to a position shown in full lines in Fig. 3, which imparts a movement to the toe-grips to grip the shoe and at the same time locks the two sections $A' A^2$ and the heel-grip B rigidly together.

Having now described my improvement, what I claim as new, and desire to secure by Letters Patent, is—

1. A support for a roller-skate axle, comprising a bracket G, secured to the shoe-plate and having two side portions $g' g^2$, provided with perpendicular slots open at the bottom, a journal-box extending the entire width of the axle between the hubs of the rollers g and having flat-sided and parallel grooves $g^7 g^8$, in which are loosely fitted the slotted portions of the sides $g' g^2$, a spring g^9 , and a stop-plate g^{11} , substantially as described.

2. The combination, in a roller-skate, of a shoe-plate, toe-grips having slotted extensions connected thereto and arranged to slide transversely thereof, a reciprocating bar provided with slots converging toward each other and engaging with pins secured to the extensions of the toe-grips, a link pivotally and adjustably connected to the reciprocating bar, means for guiding the latter to move longitudinally of the skate, a lever having an arm pivotally connected to the said link, a heel-grip adjustably connected to the shoe-plate, a locking device, as C, for locking or unlocking the skate to or from a shoe, and a bolt, secured from turning, extending through the heel-grip, shoe-plates, locking device, and lever and provided with a thumb-nut to clamp the said parts together, substantially as described.

3. In a roller-skate, the combination of a

shoe-plate, toe-grips, each having a slotted extension, one of which is fitted to slide within a bifurcated end portion of the other, rivets secured to the shoe-plate and extending through the slots of the extensions to support and guide the same, a bar fitted to move longitudinally of the shoe-plate and having slots converging toward each other and in which are fitted to slide pins secured to the extensions of the toe-grips, and means for reciprocating the said bar and locking the same in position, substantially as described.

4. In a roller-skate, the combination of a shoe-plate composed of two overlapping sections, a heel-grip adjustably connected thereto, a locking device comprising a disk secured to the front section and having an annular inclined rim forming a cam-surface against which bears a corresponding cam-surface of a disk secured to the hub of a lever, and a bolt, prevented from turning, extending through the heel-grip, front and rear sections of the shoe-plate, and locking device for clamping the said parts together, substantially as described.

5. In a roller-skate, the combination of the shoe-plate A, composed of two longitudinally-adjustable sections $A' A^2$, overlapping each other, the heel-grip B, and toe-grips $f f'$, adjustably connected thereto, the reciprocating bar e , having slots converging toward each other and adapted to impart a lateral to-and-fro motion to the toe-grips, the link d , pivotally and adjustably connected to the bar e and to an arm of a lever c^4 , and the locking device C, comprising the cam-disks cc^3 , the bolt a^2 , thumb-nut a^4 , and lever c^4 , the latter being arranged to operate the toe-grips and lock the same, together with the heel-grip and the two sections of the shoe-plate, together simultaneously, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 10th day of May, 1892.

JAMES CARRIE.

Witnesses:

GEO. WADMAN,
SAMUEL CROWE.