2 Sheets—Sheet 1.

J. W. POST.

PARLOR SKATE.

No. 189,783. Patented April 17, 1877.

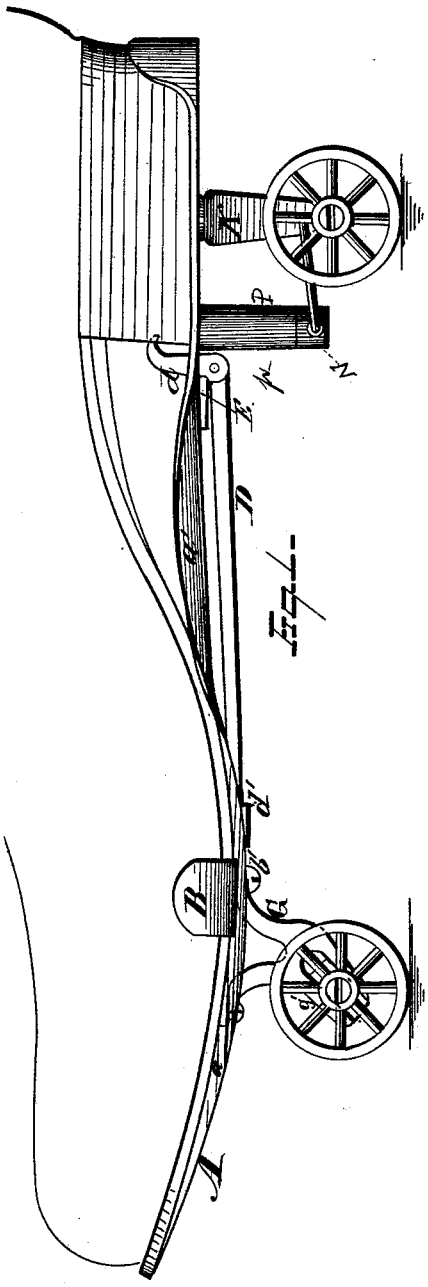

Fig. 1.

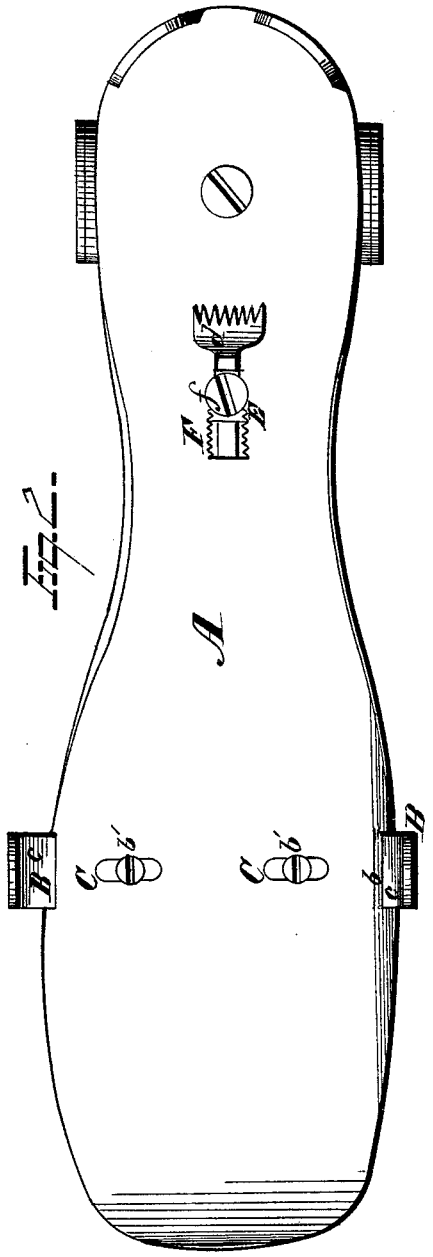

Fig. 2.

WITNESSES

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INVENTOR

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by J. R. Nottingham

ATTORNEY

2 Sheets—Sheet 2.

J. W. POST.

PARLOR SKATE.

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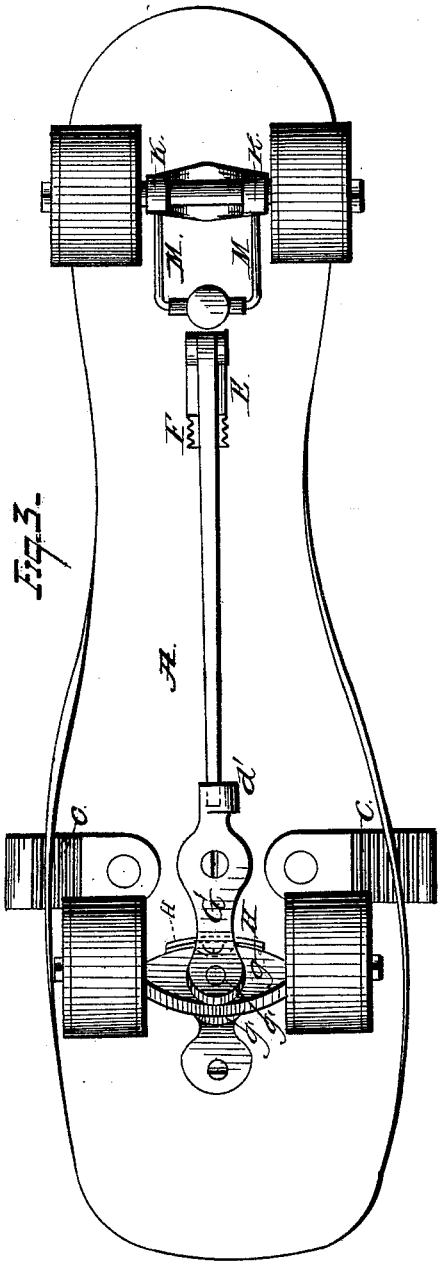

Fig. 3.

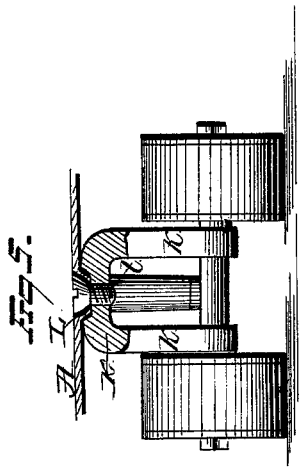

Fig. 5.

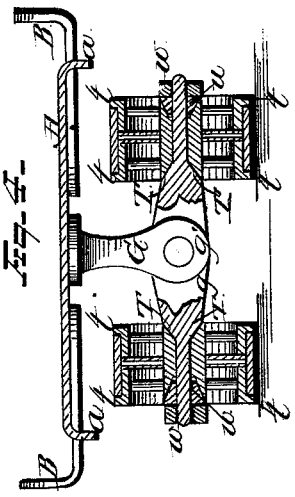

Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN W. POST, OF NEW YORK, N. Y.

IMPROVEMENT IN PARLOR-SKATES.

Specification forming part of Letters Patent No. **189,783**, dated April 17, 1877; application filed April 4, 1877.

To all whom it may concern:

Be it known that I, JOHN W. POST, of New York, in the city and county of same name, have invented certain new and useful Improvements in Skates, which improvements are fully set forth in the following specification and accompanying drawing, in which—

Figure 1 is a view in side elevation; Fig. 2, a top-plan view; Fig. 3, a reverse plan view; Fig. 4, a similar view of the axle and rollers of the skate detached; and Fig. 5 is a modification view of the rear roller-frame, all being the respective views of a skate made according to my invention.

The object of the said invention is to furnish a skate, commonly known as "roller" or "parlor" skates, which shall be of as light construction as possible, free from disagreeable rattling and loose action caused by wear, and which, by its simplicity of parts, will lessen the cost of first production, and also reduce the expense attendant upon consequent wear.

The foot-supporting plate A is made of sheet metal, as light as is consistent with good wear, and has lateral strengthening-ribs formed on either side thereof by the downwardly-projecting flange or flanges *a* on the forward part of the skate, while the rear part has the upwardly-projecting flanges *a'*. The forward flanges *a* have the horizontal slots *b*, through which the sole-clamping plates B pass, and are secured to the main plate A by the adjustable screw-bolts *b'*, which latter have transversely-adjustable engagement in the slots C. The under or reverse sides of these clamping-plates are grooved longitudinally with the length of the skate, and so that the tightening of the screws *b'* will cause the flanges *a* to be seated in the said grooves *c*, and thus the clamps will be secured against transverse displacement relative to the main plate A. The intricate engaging mechanism heretofore used in adjustably connecting the clamps to the main plate is thus dispensed with, and at the same time the strain is reduced, and also easily sustained by the engagement of these flanges with the groove-faced clamping-plates.

The heel-clamp consists of the swinging lever-arm D, pivoted to the fulcrum-plate E, which latter has toothed sides corresponding to the double rack-side of the slot F in the foot-supporting plate. By means of the screw-bolt *f* this fulcrum-plate is adjusted longitudinally of the skate, according to the length of the skater's heel, and the serrated jaw *d* is caused to bite or engage with the front part of the heel. A catch, *d'*, allows the lever-arm D to spring and become secured after griping the jaw *d* in the skater's heel.

The forward rollers are secured to the standard G by a pivot engaging the axle *g* between the bifurcated arms *g'*, and this axle directly connects with the standard by a rocking bearing-joint. Springs H on either side of the central projection of this standard serve to give a tensioned lateral bearing to the axle, so that the rollers will always tend to be kept in a line of direction parallel with that of the foot-supporting plate A, and, when pressed to one side by the weight of the skater, will return automatically to their former position upon release of such lateral pressure. Rubber blocks, padded cushions, or other similar elastic material, may be substituted for the springs made of metal, as they will accomplish the same purpose. Since the axle of the roller has direct bearing relative to the standard G, the number of parts is reduced to as few and simple in construction as is possible.

Since the line of the center of gravity passes through the pivotal point of the roller-frame, it follows that, as the weight of the skater is inclined to one side in excess of the other, the roller will be turned in a line of direction angular to that of the main plate, and thus, to turn in any given direction, the skater throws his weight on that side, and the lateral spring-bearings serve to cause the parts to resume their former position as the side pressure is relieved.

The rear or heel standard K has its upper extremity formed with the annular or globular recessed bearing *k*, in which seats the corresponding annular countersunk walls of the slot L in the foot-supporting plate A. A pivot, *l*, screw-threaded at its lower extremity, connects the two together, so that the standard has free rotary motion under the said plate, while, at the same time, it gives full vertical bearing to the latter.

The U-formed lever-arm M is loosely secured

to the front uprights of the standard, and at its free or swinging cross-extremity it carries the sleeve-bearing of the stem N, which latter works in the socket of the standard P. A pin, *p*, passing through a conical slot of the stem N, secures the latter in its socket, while allowing it to have free rotary movement in a horizontal plane.

While I have shown the roller-supporting standard G as bearing the forward portion of the skate, it is evident that it may be interchanged with the roller-frame and foot-supporting-plate connection, (shown as supporting the rear of the skate;) or both of the same may be singly used on the front and rear of a skate, independently of the other, and I desire to be understood in claiming such a construction as within the principle of my invention.

The rollers have their rims wide, and made of one continuous piece of metal, and their spokes are hollow cylinders, so that as large a surface as possible can be obtained, and, at the same time, the roller will be light and easy in travel. Between the side flanges *t* of the rollers india-rubber or other elastic bearing-surfaces are secured, so as to render the skate noiseless, and also springy in its tread.

To still further prevent noise, and, at the same time, obviate any loose working of the parts, the journal-bearings are made compensating, so as to take up all loose wear. The inner shoulder T of the axle, against which the hub abuts, is made with tapering or inclined sides instead of square, and the independent conical-faced sleeve *u* is placed in the outer end of the hub of the roller. An ordinary washer-nut, *w*, secures the parts in place, and by tightening the same the conical sleeve *u* forces the hub close upon the tapering-sided shoulder T, and thus takes up all lost wear.

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

1. The lateral strengthening-ribs, formed on the foot-supporting plate by the downwardly-projecting flange or flanges along the forward part of the plate, and the upwardly-projecting flanges along the rear part of the same, substantially as described.

2. The combination, with the heel-clamp and engaging-screw, of the independent fulcrum-plate, the latter having notched sides engaging with the double rack-side of the foot-supporting-plate slot, in which it is longitudinally adjustable, substantially as described.

3. The downwardly-turned flange or flanges, in combination with the sole-clamp plates, the latter having grooved faces, in which the flanges are seated, so as to secure the clamps against transverse displacement, while the same are adjustable by an ordinary stud-and-slot engagement, substantially as described.

4. The front standard, formed of a metallic piece directly secured to the main plate, and having the bifurcated-arm extremity, in combination with a roller-axle, the latter seating in a rocking bearing between the said bifurcated arms, and connected thereto by a single engaging-pin, the said standard having elastic cushions or springs on either side of its pivotal center, on which the axle directly bears, substantially as described.

5. The combination of the rear standard and the foot-supporting plate, the two connected by the countersunk wall of the annular slot seating in the globular bearing of the standard, the said standard carrying the U-formed lever-arm, upon the free extremity of which the guiding-stem has a sleeve bearing as it rotates, in its fixed socket, substantially as described.

6. A skate-roller the rim of which is made of one continuous piece of metal, and the spokes of which are made tubular, substantially as described.

7. The combination, with a skate-roller, of the inner tapering axle-shoulder and the loose outer conical sleeve, whereby lost wear is taken up by the tightening of the ordinary washer-nut, in connection with an oscillating axle pivoted to the standards of a roller-skate, arranged to operate substantially as described.

In testimony whereof I hereunto set my hand this 3d day of April, A. D. 1877.

JOHN W. POST.

Witnesses:
J. R. NOTTINGHAM,
OTTO DE MOLL.