(No Model.)

J. MORSS.

ROLLER SKATE.

No. 305,837. Patented Sept. 30, 1884.

Fig 1

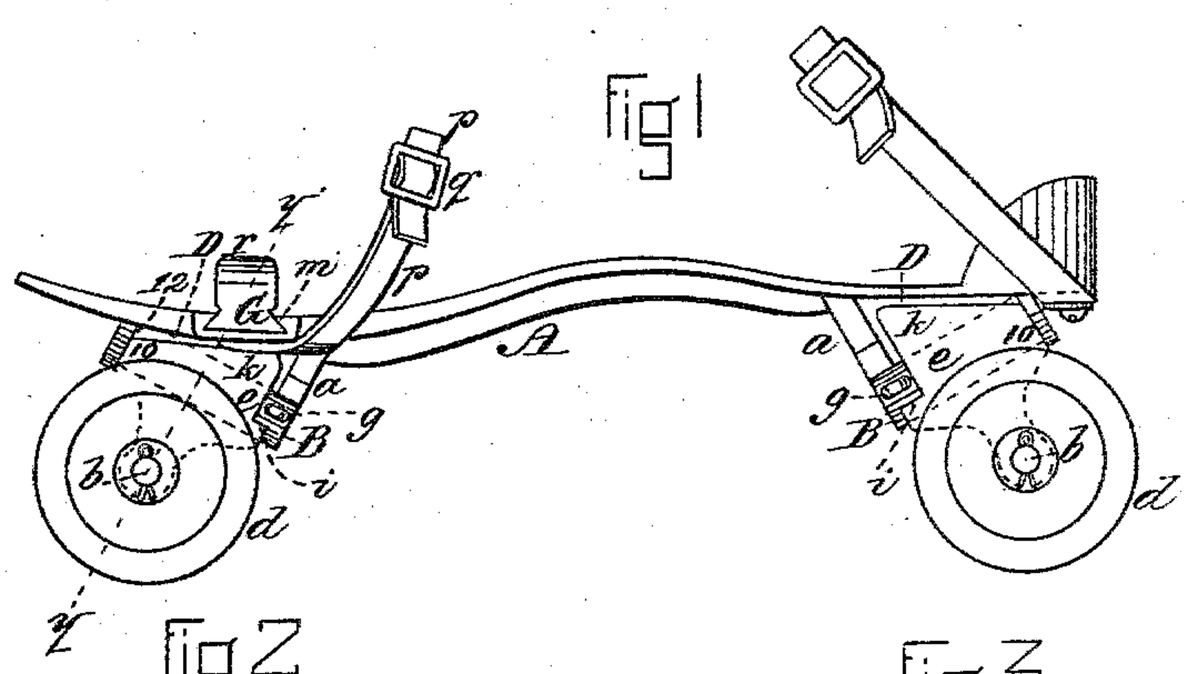


Fig 2

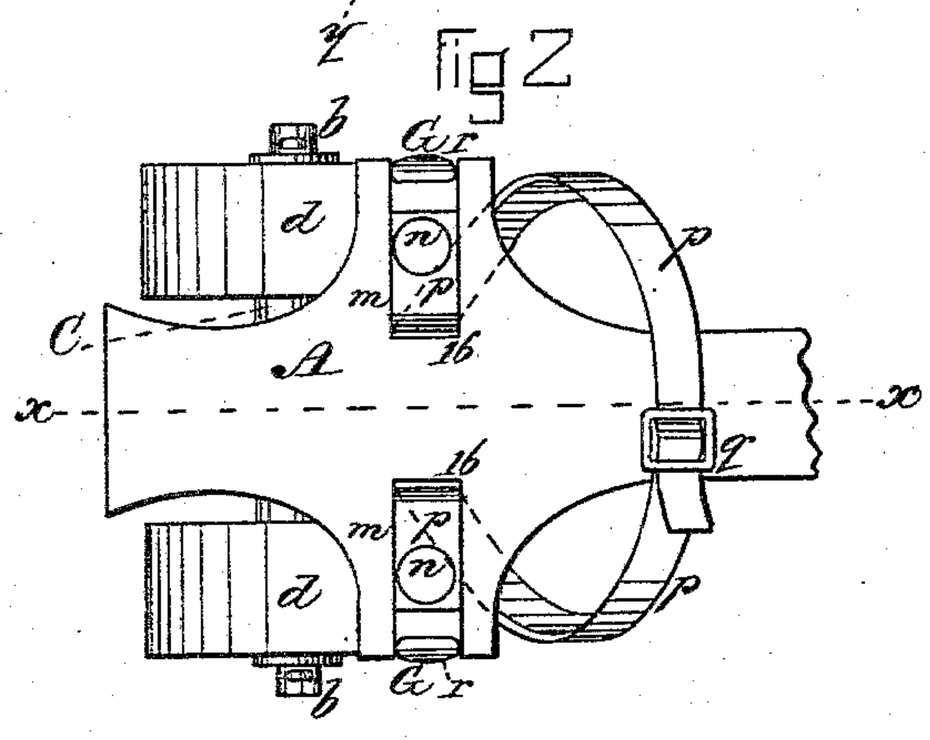


Fig 3

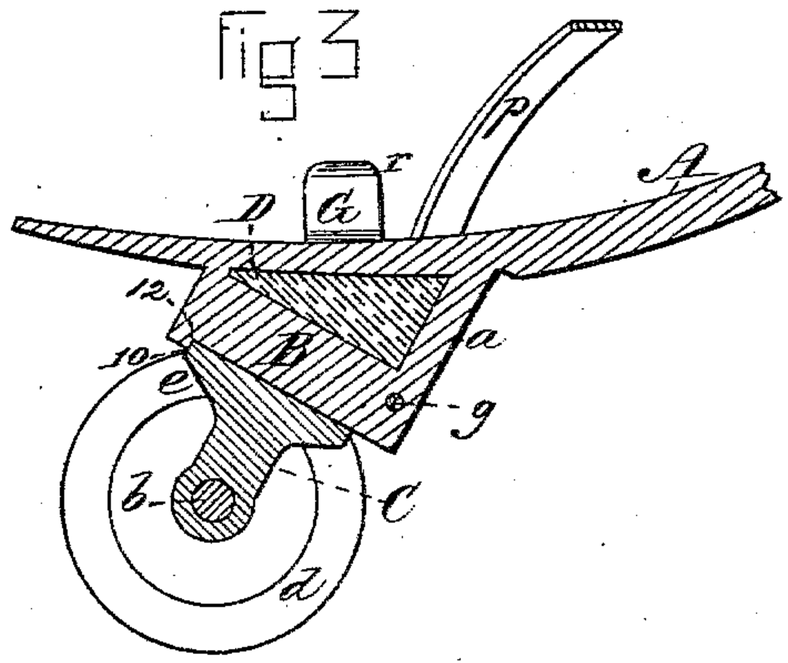


Fig 4

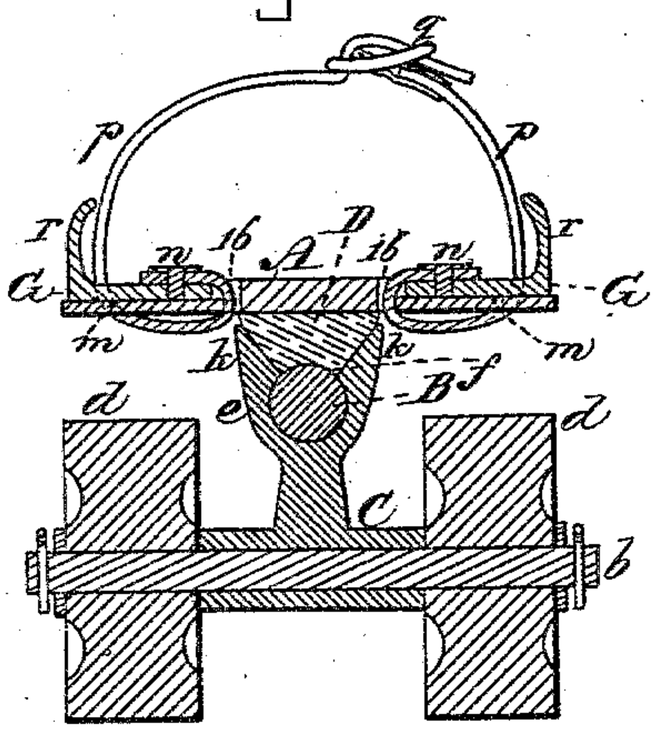


Fig 5

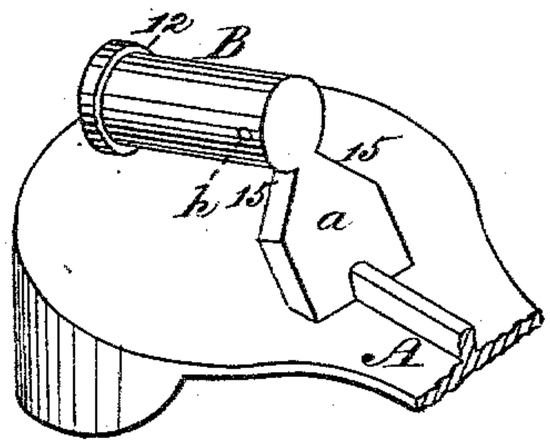
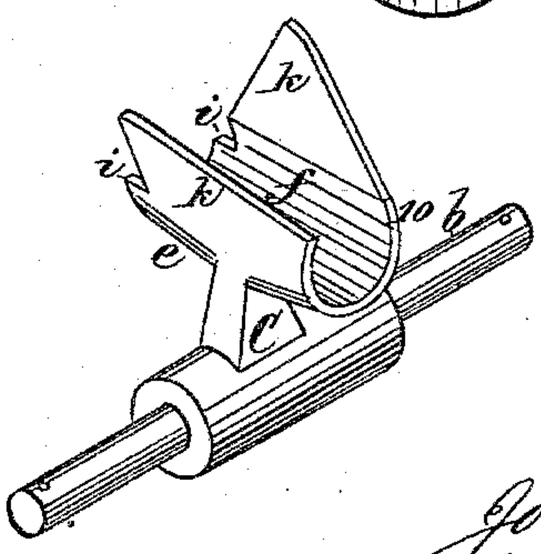


Fig 6



WITNESSES

W. J. Cambridge

W. Dearjud -

INVENTOR

Joseph Morss

per P. E. Teschemacher

Atty

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH MORSS, OF MEDFORD, MASSACHUSETTS, ASSIGNOR TO AMOS B. MORSS, OF SAME PLACE.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 305,837, dated September 30, 1884.

Application filed May 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MORSS, a citizen of the United States, residing at Medford, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Roller-Skates, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of a roller-skate constructed in accordance with my invention. Fig. 2 is a plan of a portion of the same, enlarged. Fig. 3 is a longitudinal vertical section on the line *x x* of Fig. 2. Fig. 4 is a section on the line *y y* of Fig. 1, enlarged. Fig. 5 is a perspective view of the rear end of the sole-plate inverted, the roller-carrier and rubber cushion being removed therefrom. Fig. 6 is a perspective view of one of the roller-carriers detached.

My invention relates to an improved means of connecting the oscillating roller-carriers of a roller-skate with the sole or foot plate, whereby the construction is simplified, greater strength and durability secured, and the wear reduced to a minimum; and my invention consists in the combination of a bearing-bar of circular form in cross-section, secured to the bottom of the sole-plate, with a roller-carrier having a sleeve or tubular socket adapted to be slipped over said bearing-bar and oscillate thereon, the sleeve being secured in place upon the bar by a pin or other fastening device, and a rubber cushion being placed between the sole-plate and the roller-carrier, to return the latter to its proper central position after being rocked or oscillated to one side or the other.

My invention also consists in the combination, with the sole-plate, of a pair of sliding foot-clamps operated by straps adapted to be buckled together over the foot, by which construction the clamps, after being adjusted to the width of the foot, are held immovably in place, and all liability of the skate slipping laterally on the foot thus avoided.

In the said drawings, A represents the metallic sole or foot plate of a roller-skate, which is provided on the under side, near each end, with an inclined bearing-bar, B, cast integral therewith, and of circular form in cross-section, one end of the bar being in contact with or close to the plate A, while the opposite end is separated therefrom, and is connected therewith by an inclined portion, *a*.

C C are the roller-carriers, each of which is provided, as usual, with an axle, *b*, upon the opposite ends of which are mounted the skate-rollers *d d*. Each of the roller-carriers is provided with a sleeve or tubular socket, *e*, which is open from one end to the other on its upper side, as seen at *f*, Fig. 6, and is adapted to be slid over the bearing-bar B, upon which it is free to oscillate as soon as it has cleared the portion *a*, the roller-carrier being secured in place after being slipped upon the bar by means of a spring-pin, *g*, passing through an aperture, *h*, in the said bar, the inner end, 10, of the socket being in contact with a shoulder, 12, at the end of the bar B, which lies close to the plate A, which shoulder thus serves as a stop for the socket.

On each side of the socket *e*, at one end, is formed a shoulder, *i*, which is brought into contact with the pin *g* as the roller-carrier is rocked, and thus serves as a stop to limit the oscillating movement of the carrier in this direction. The tubular sleeve *e* is provided on each side of the longitudinal opening *f* with an outwardly-extending tapering flange or portion, *k*, which bears firmly upon a wedge-shaped rubber block or cushion, D, which is introduced between the sole-plate A and the oscillating roller-carrier, and serves the usual purpose of holding the carrier firmly and steadily in place and returning it to its proper central position after having been rocked to one side or the other. The inclined portion *a* is cut away on each side, as seen at 15, Fig. 5, to allow of the passage of the flanges *k* of the socket *e* as the latter is slid over the bearing-bar B.

I prefer to so locate the fastening-pin *g* as to permit a slight longitudinal movement of the socket *e* on the bar B, in order that as the socket is oscillated it may ride up on the inclined face of the rubber cushion D toward the thick end thereof, and thus relieve the thin end of the same from undue pressure, and consequently reduce the wear thereon.

The above-described socket and bearing-bar form a strong, simple, and durable joint or connection between the sole-plate and the roller-carrier, while the cost of manufacture is considerably reduced, as the usual pivot-pin is dispensed with, as are also the holes heretofore drilled at the lower ends of the hangers and through the roller-carrier for the passage of the pivot-pin, a considerable saving in labor in fitting up the parts and putting them together being thus effected, as no filing or finishing of the bar B or tubular socket *e* is required, both being smoothly cast in such manner as to fit and properly operate together without subsequent finishing.

The sole-plate A is provided on its upper side, near its front end, with a pair of transverse dovetail grooves, *m m*, in which are fitted to slide therein two foot-clamps, G G, to the inner ends of which are secured at *n n* two leather straps, *p p*, which pass down through suitable apertures, 16, in the sole-plate, and thence over the outer edges of the latter up over the foot of the wearer, where they are secured together by means of a suitable buckle, *q*. When the straps are unbuckled, the foot-clamps G G can be readily adjusted to correspond to the width of the foot by sliding them in the grooves *m*, after which the straps are buckled tightly over the foot, the strain upon the straps causing the upper bent ends, *r*, of the clamps to be drawn toward each other tightly against the edges of the sole of the boot, which is thus confined securely upon the sole-plate A in such a manner as to render it impossible for the skate to have any lateral movement whatever with respect to the foot of the wearer, it being impossible for the clamps to slide in their grooves when the straps are buckled tightly over the foot; and by thus operating the sliding foot-clamps by means of straps instead of by a screw or screws, as heretofore, the construction is greatly simplified and the cost of manufacture materially reduced.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a roller-skate, the combination of the sole-plate A, provided on its bottom with a bearing-bar, B, of circular form in cross-section, the roller-carrier C, having a sleeve or tubular socket, *e*, open longitudinally at *f* from end to end, and adapted to be slid over the bearing-bar from one end thereof, and having an outwardly-extending flange, *k*, on each side of its opening *f*, means for securing the said sleeve in place upon the bar, and the rubber block or cushion D, all constructed and arranged to operate substantially in the manner and for the purpose set forth.

2. In a roller-skate, the combination, with the inclined bearing-bar B on the under side of the sole-plate A, and the rubber cushion D, of the roller-carrier C, provided with a sleeve or tubular socket, *e*, having a compound longitudinal and oscillating movement upon the said bar B, whereby the thin end of the rubber cushion D is relieved of undue pressure when the roller-carrier is oscillated, substantially as described.

3. In a skate, the combination, with the sole-plate A, of the adjustable foot-clamps G G, sliding in transverse grooves or guides therein, and having secured to their inner ends straps *p p*, passing down through apertures in the sole-plate, and thence up over its outer edges, and adapted to be buckled together over the foot to hold the clamps in place, all operating substantially in the manner and for the purpose described.

Witness my hand this 27th day of May, A. D. 1884.

JOSEPH MORSS.

In presence of—
P. E. TESCHEMACHER,
W. J. CAMBRIDGE.