(No Model.)

G. D. BURTON.

ROLLER SKATE.

No. 307,840. Patented Nov. 11, 1884.

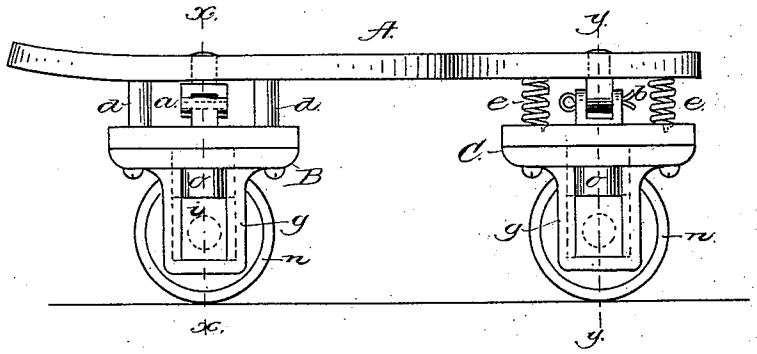


Fig. 1.

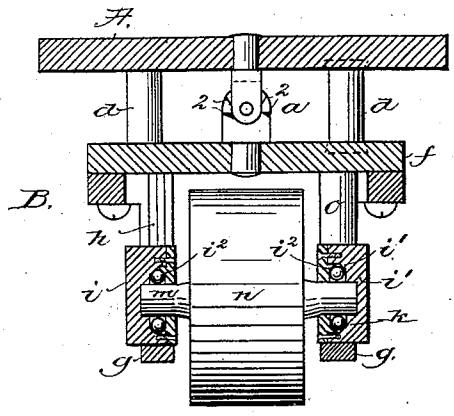


Fig. 2.

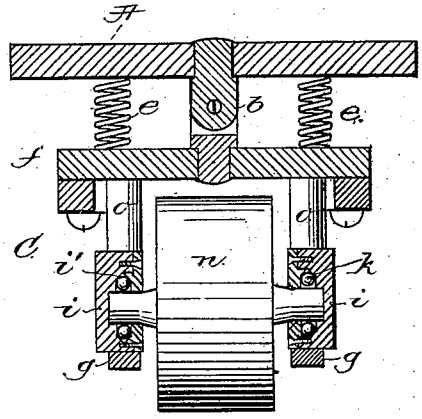


Fig. 3.

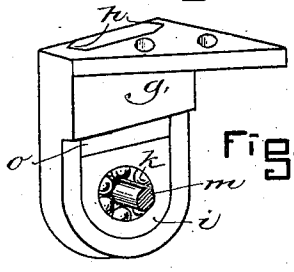


Fig. 5.

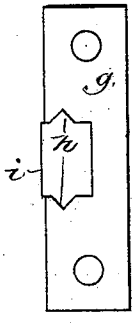


Fig. 4.

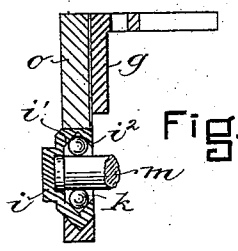


Fig. 6.

WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE D. BURTON, OF NEW IPSWICH, NEW HAMPSHIRE.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 307,840, dated November 11, 1884.

Application filed August 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. BURTON, of New Ipswich, county of Hillsborough, State of New Hampshire, have invented an Improvement in Roller-Skates, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention, relating to roller-skates, is embodied in a skate the foot-board of which is pivotally connected with trucks at the forward and rear ends, springs being interposed between the said trucks and foot-board at either side of the pivot, thus giving a yielding rocking movement to the foot-board upon the trucks. Each truck consists of a platform having pedestals at either side, provided with guides in which the bearing-boxes for the ends of the axles may slide vertically. The said bearing-boxes have conical surfaces to receive a series of anti-friction balls surrounding the roller-axle.

Figure 1 is a side elevation of a skate embodying this invention; Figs. 2 and 3, transverse vertical sections on lines *x x* and *y y*, Fig. 1; Fig. 4, a plan view of one of the pedestals for the roller-bearings; Fig. 5, a perspective view of a somewhat different form of pedestal, and Fig. 6 a vertical section thereof.

The foot-board A, of any suitable or usual construction, is connected by hinges or pivots *a b* with pedestals B C, near the ends of the said foot-board, the said hinges *a b* being so constructed as to permit the foot-board to rock laterally with relation to the said trucks, which have no lateral or rocking movement with relation to the floor. The hinge *a* is shown as having a stop or shoulder, 2, to limit the rocking movement of the foot-board.

Springs *d e* are interposed between the under side of the foot-board and the platform *f*, forming the upper portion of the trucks B C, to afford an elastic or yielding resistance to the lateral or rocking movement of the said foot-board, the springs *d* being shown as composed of rubber, while the springs *e* are metallic helical openings.

The platforms *f* have rigidly connected with them at either side pedestals *g*, provided with guides *h*, (shown in this instance V-shaped,) to receive the bearing-boxes *i*, (shown in Figs. 2 and 3 as made in two parts,) each having a conical bearing-surface, *i' i²*, for a series of anti-friction balls, *k*, surrounding the axles *m* of the rollers *n*, one of which is shown in this instance as used in each truck.

The boxes *i* are preferably free to slide vertically in the guides *h*, and are provided with springs or cushions *o*, (shown as composed of rubber,) interposed between the said bearing-boxes and the platform *f*, and serving to prevent the jar or vibration arising from an uneven floor from being felt by the wearer of the skate.

As shown in Figs. 5 and 6, the boxes *i* are made each of a single piece, and the conical surfaces *i' i²* may be finished by a suitable cutting-tool. In this construction the balls are dropped into the box before the axle *m* is inserted, and the latter, when in place, prevents the balls from escaping from their conical or V-shaped channel. The pedestal *g* shown in Figs. 5 and 6 is somewhat different in shape from those shown in the other figures, but the construction and operation are essentially the same.

If desired, the springs or cushions *o* may be omitted and the bearing-boxes *i* supported directly against the platform *f* or a rigid block or stop in the pedestal above the said boxes.

I claim—

1. The combination of the foot-board with trucks hinged thereto, each composed of a platform, pedestals rigidly fixed to the said platform, bearing-boxes therein, springs or cushions interposed between the said platform and bearing-boxes, and a roller having its axle journaled in the said boxes, and the springs interposed between the said platform and foot-board at either side of the hinge, substantially as described.

2. The trucks, each composed of a platform, pedestals rigidly fixed thereon and provided with vertical guides, bearing-boxes in the said guides provided with co-operating conical bearing-surfaces, anti-friction balls in the said boxes, and a roller having its axle bearing on the said balls, in combination with a foot-board hinged on the said platforms, and springs interposed between the said platform and foot-board at either side of the hinge, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEO. D. BURTON.

Witnesses:

JOS. P. LIVERMORE,

W. H. SIGSTON.