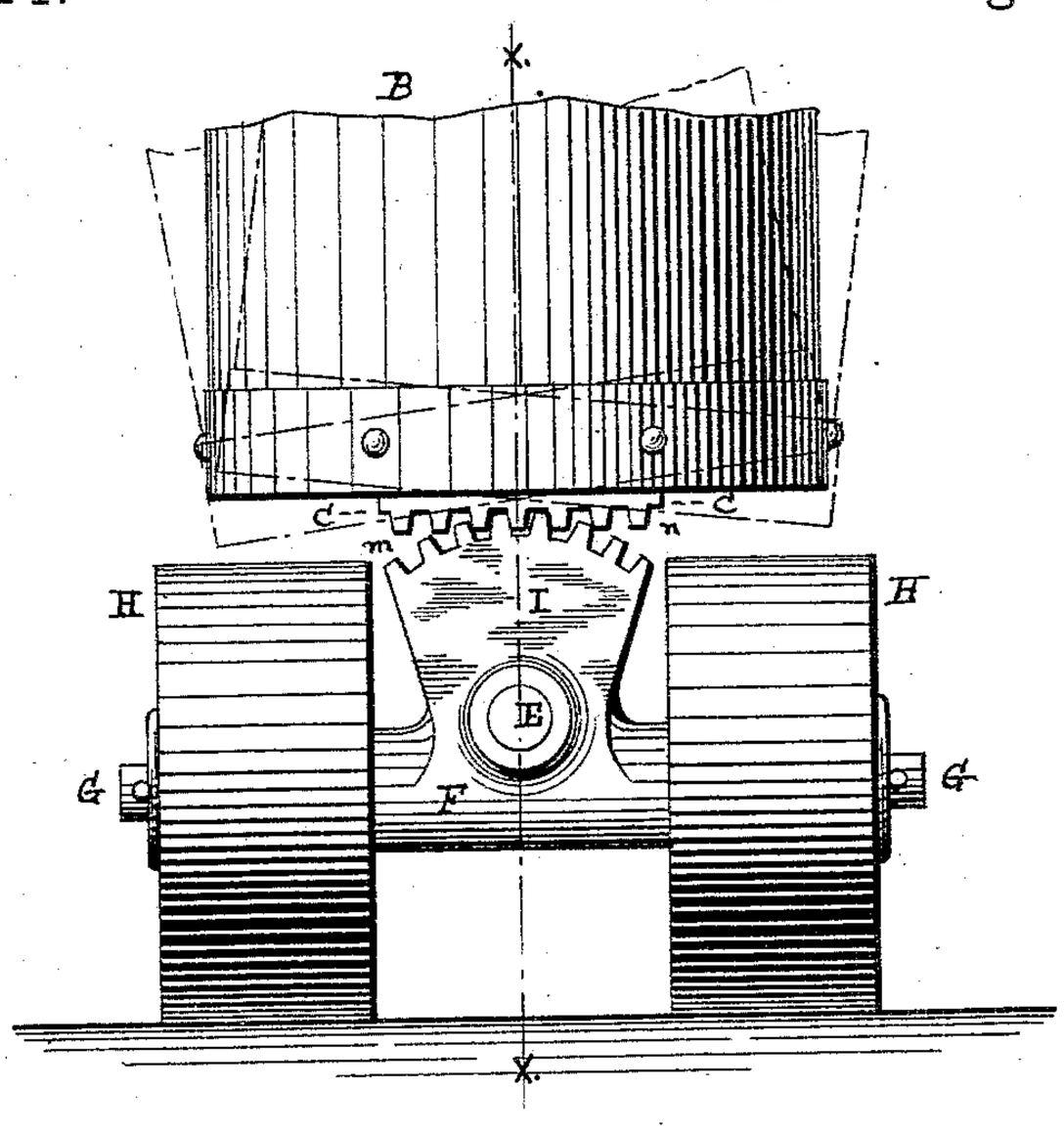
(No Model.)

H. T. LINCOLN.

ROLLER SKATE.

No. 304,014. Patented Aug. 26, 1884.

FIG. 1.



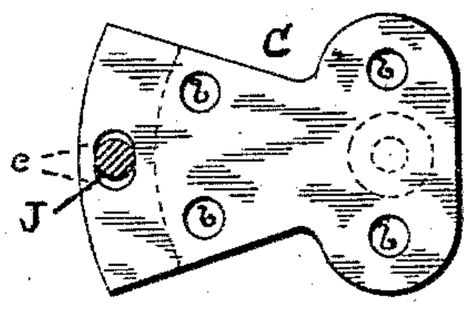


FIG. 3.

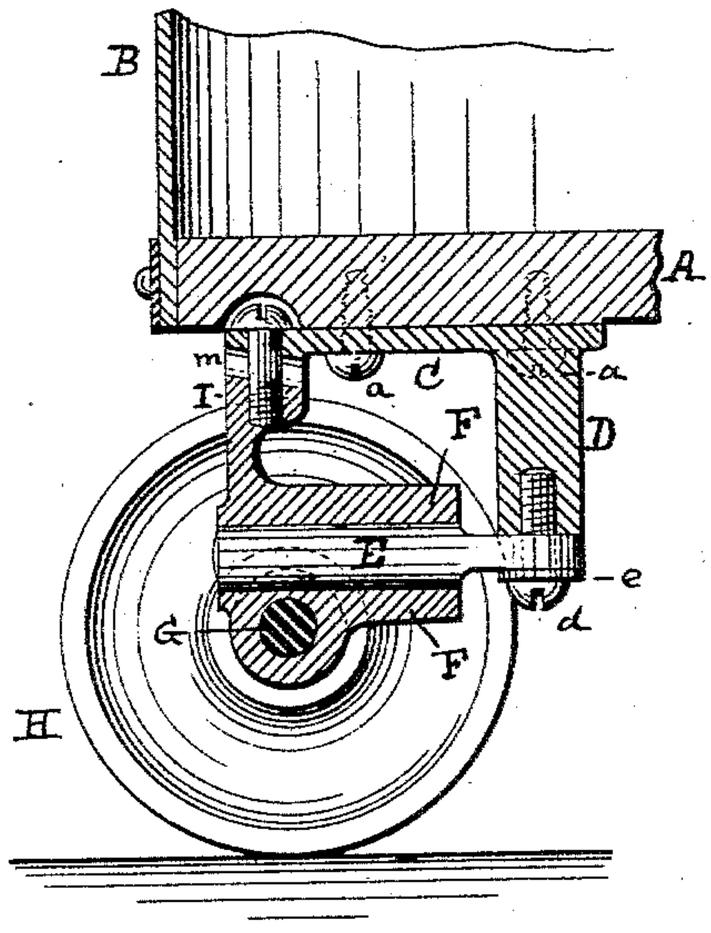


FIG. 2.

WITNESSES:

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ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 304,014, dated August 26, 1884.

Application filed March 31, 1884. (No model.)

To all whom it may concern:

Be it known that I, HARVEY T. LINCOLN, of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Roller-Skates; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Like letters indicate like parts.

Figure 1 is an end elevation of my improved skate. Fig. 2 is a vertical section on line *x x* of Fig. 1. Fig. 3 is a top plan of the bed-plate, showing the upper side thereof and illustrating the action of the stop-pin.

In the drawings, A represents the foot-board, having the heel-strap B fastened thereto in the usual manner.

On the under side of the foot-board A is the bed-plate C, which is fastened to the foot-board by screws *a*, passing through the holes *b*.

At the center of the arc portion of the bed-plate C is a slot, *c*. A stem or hanger, D, cast solid with the bed-plate C, extends downward therefrom at a right angle. The rocker-shaft E is fastened to the lower end of the hanger D, as shown in Fig. 2, by means of the screw *d*, passing through an eye in the end of said rocker-shaft. The screw *d* enters a bore in the hanger D, and a check-nut, *e*, secures the fastening. A truck, F, has a slight oscillation on the rocker-shaft E, which passes through it, and it supports the axle G in the usual manner, whereon are hung the rollers H. A rocker, I, cast solid with the truck F, in the sector shape shown, extends upward from the truck F, at a right angle transversely with the rocker-shaft bore, and has its bearing at its upper end against the lower surface of the bed-plate C. The upper end of the rocker I is formed in a curve or arc, as shown in Fig. 1, and is there provided with beveled gears *m*, to engage with corresponding gears, *n*, on the outer portion of the bed-plate C. A screw, J, passing through the slot *c* of the bed-plate C, enters firmly the rocker I, as shown in Fig. 2, and the under side of the foot-board A is countersunk or cut away to make room for its head.

The advantage of my improved device is that it entirely dispenses with the springs, which hitherto have been considered necessary in the construction of roller-skates.

The various inclinations of the foot-board necessarily assumed in turning a corner or describing a curve in skating, and which hitherto have been obtained by the depression of a rubber cushion or spring interposed between the foot-board and the truck, are in my improved skate secured simply by the rocking of the bed-plate C upon the curved upper end of the rocker I, as shown in dotted lines in Fig. 1. To limit such rocking motion to a safe degree, the stop-pin J is used, which has a lateral play as far as is allowed by the slot *c* of the bed-plate C. Said pin J, being screwed firmly into the rocker I, moves laterally with it until it strikes against the end of the slot *c*, thus limiting the oscillation. It will be seen that the truck F has a slight rotary motion upon the rocker-shaft E, and that the bearing of the bed-plate C upon the end of the rocker I allows the automatic adjustment of the skate to the truck, as the skater maintains his equilibrium in whatever position.

In the use of skates provided with spring-trucks it is found that the tension of the spring rapidly increases by its compression as the foot is tipped sidewise, and therefore such springs interfere with the free movements of the foot and ankle by the resistance of such increased tension; but my improved skate, having no springs, turns easily and with uniform pressure, thereby enabling free and unrestricted use of the foot and ankle, and consequently it is better adapted than the ordinary roller-skate for use in fancy or trick skating.

I have shown the rocker and bed-plate provided with beveled gears *n m*, to engage each other, but such gearing is not absolutely essential, and good results may be obtained if the curved end of the rocker I is smooth, bearing against a plane surface of the bed-plate C; but such a construction is equally within my invention, the characteristic feature of which is the use of a curved rocker bearing against a bed-plate, thereby dispensing with the use of all springs.

I claim as a novel and useful invention and desire to secure by Letters Patent—

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

foot-board A, having a slotted bed-plate, C, provided with a hanger, D, the truck F, provided with a rocker, I, that has a direct bearing on the bed-plate without the interposition of springs, the rocker shaft E, secured to the lower end of the hanger by means of a screw, *d*, and the stop-pin J, for connecting the rocker and slotted bed-plate, substantially as shown and described.

2. In a roller-skate, the combination with the bed-plate C, having hanger D and slot *c*, of the truck F, mounted on a rocker-shaft, E, connected to said hanger and provided with a rocker, I, having a fixed stop-pin, J, for engaging the slot *c*, the head of said pin being countersunk in the bottom of the bed-plate, substantially as shown and described.

3. In a roller-skate, the combination, with the bed-plate C, having a hanger, D, of the rocker-shaft E, connected to said hanger by a screw, *d*, and check-nut *e*, and the truck F, mounted on said shaft and provided with a fixed rocker, I, the upper end of which is curved and has a direct bearing on the under side of the bed-plate, substantially as shown and described.

4. The roller-skate herein described, consisting of the foot-board A, the bed-plate C, secured to said board by screws *a a*, and having hanger D, slot *c*, and segmental gear *n*, the rocker-shaft E, secured to the hanger by screw *d* and check-nut *e*, the truck F, having a slight oscillation on said shaft and provided with axle G, rollers H, and a fixed rocker, I, having a segmental gear, *m*, and the fixed stop-pin J, secured to the rocker and engaged in the slot *c*, substantially as set forth.

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Witnesses:
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