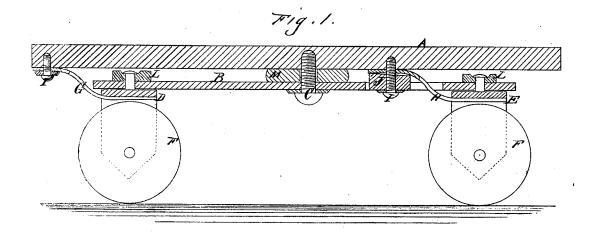
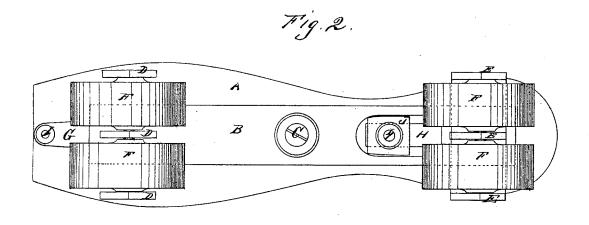
## P. R. BOREIN. Improvement in Roller-Skates.

No. 114,398.

Patented May 2, 1871.





Witnesses. Geo. N. Girong MM Haumely Peter R. Berein Byhis attys Dewey & So.

## Anited States Patent Office.

## PETER R. BOREIN, OF SAN LEANDRO, CALIFORNIA.

Letters Patent No. 114,398, dated May 2, 1871.

## IMPROVEMENT IN ROLLER-SKATES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, Peter R. Borein, of San Leandro, county of Alameda, State of California, have invented an Improved Roller-Skate; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

The object of my invention is to provide an im-

proved roller-skate; and

It consists principally in a novel device for cramping or turning the rollers without cauting the footstand or skate-block.

It further consists in the application of elastic blocks or springs, by which the skate is made to ride easily, and also in the particular application of the rubber or other elastic spring for returning the rollers to their parallelism after the weight is removed.

Referring to the accompanying drawing for a more

complete explanation of my invention-

A is a foot-stand or skate-block, which may be con-

structed in any of the ordinary forms.

B is a sort of secondary block or rib, which extends longitudinally beneath the block A, and is pivoted to it at or near the center, as shown at C.

Two trucks or frames, D and E, are suitably constructed, and are so attached to the rib B as to turn from side to side, as desired.

These trucks carry the four bearing-wheels, F, as shown.

To the front of each truck is secured an arm, G H, which extend forward and are pivoted to the skate-block A by stout bolts or rivets I, about which they move when the skate-block is turned from side to side about its point of connection C with the rib B.

The rear arm H may be so formed as to pass each side of the rib B, or it may pass through an opening

in the rib, as shown.

In either case a block of rubber, J, is secured, so that the movement of the rib B to one side or the other about its point of attachment to the skate-block will compress the rubber, and when the pressure is

removed the rubber will instantly bring the rib back to its place.

The operation will be as follows:

The rib and skate-block lying in line, the arms G and H, which attach the trucks to the block, will also lie in a line, and the wheels or rollers will stand so that the skate will move in a straight line. If it be desired to move to one side or the other, the foot is slightly twisted with the toe in that direction, and this causes the skate-block to turn to one side, moving over the rib B about the center-pin C. This movement throws the arms G and H one to each side of a longitudinal axis, and thus turns the trucks and their wheels so that the skate will move in a curve. The rubber block J will, by its pressure, return the parts to their first position the instant the pressure of the foot is removed.

A small friction roller may be placed at each end of the rib so as to relieve the friction as the block A moves from side to side, or blocks of rubber L may be

employed, as shown.

A rubber block, M, may be employed at the point C for the same purpose, thus giving a very elastic and easily-moving skate with a very natural motion.

Having thus described my invention,

What I claim, and desire to secure by Letters Pat-

ent, is-

1. The combination of the roller-frame, consisting of the lugs I hinged to the bridge-piece K, with the stock-plates, the roller-frame being slotted in front to permit an oscillating movement upon the stud F, as described.

2. The elastic block or spring J, in combination with and working in a slot in the rib C, skate-block A, and truck E, substantially as herein shown and described.

In witness that the above-described invention is claimed by me I have hereunto set my hand and seal.

PETER R. BOREIN. [L. S.]

Witnesses:

ROBERT LEE, LEO WATKINS.