

(No Model.)

J. NAYLOR, Jr.

ROLLER SKATE.

No. 328,332.

Patented Oct. 13, 1885.

Fig. 1.

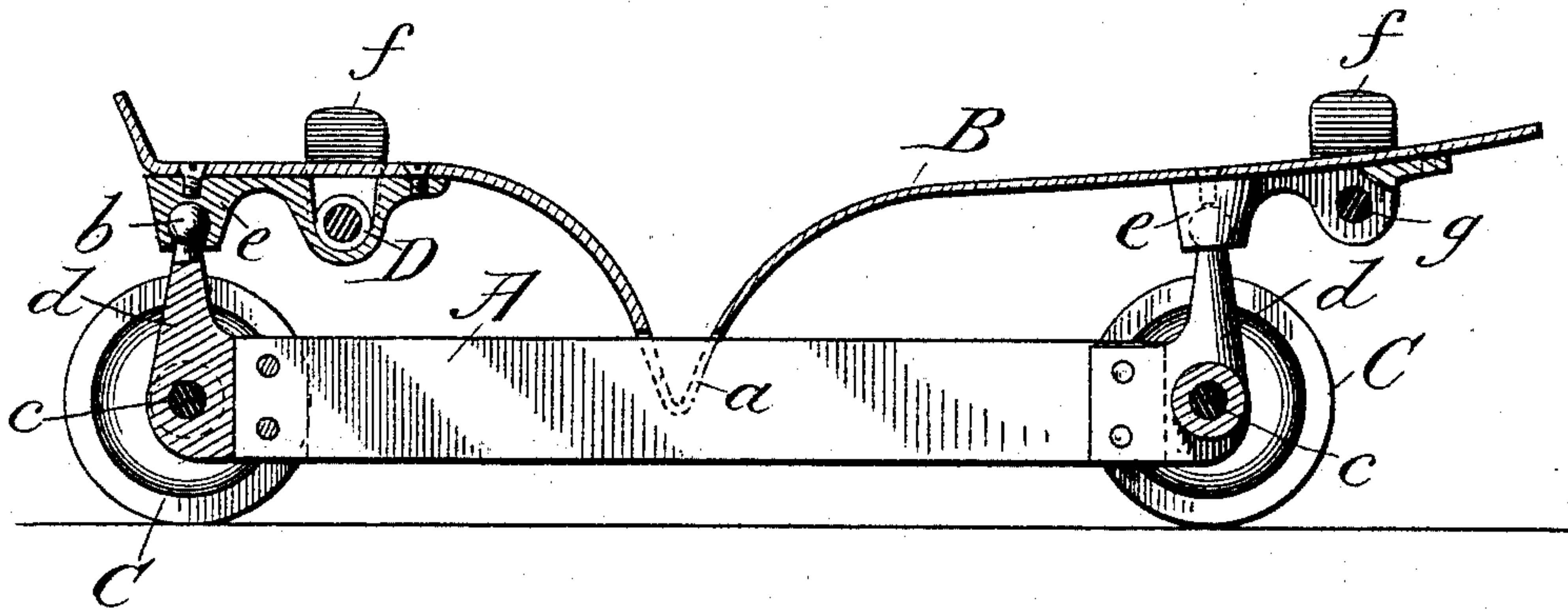


Fig. 2.

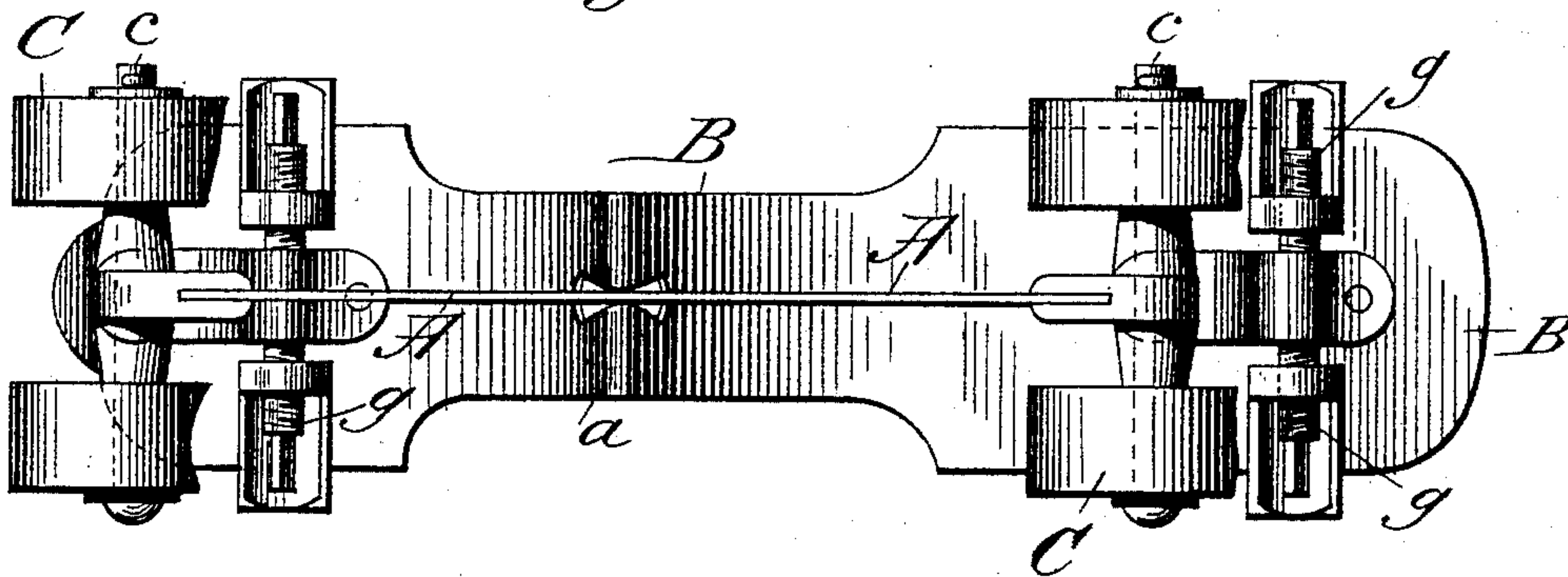
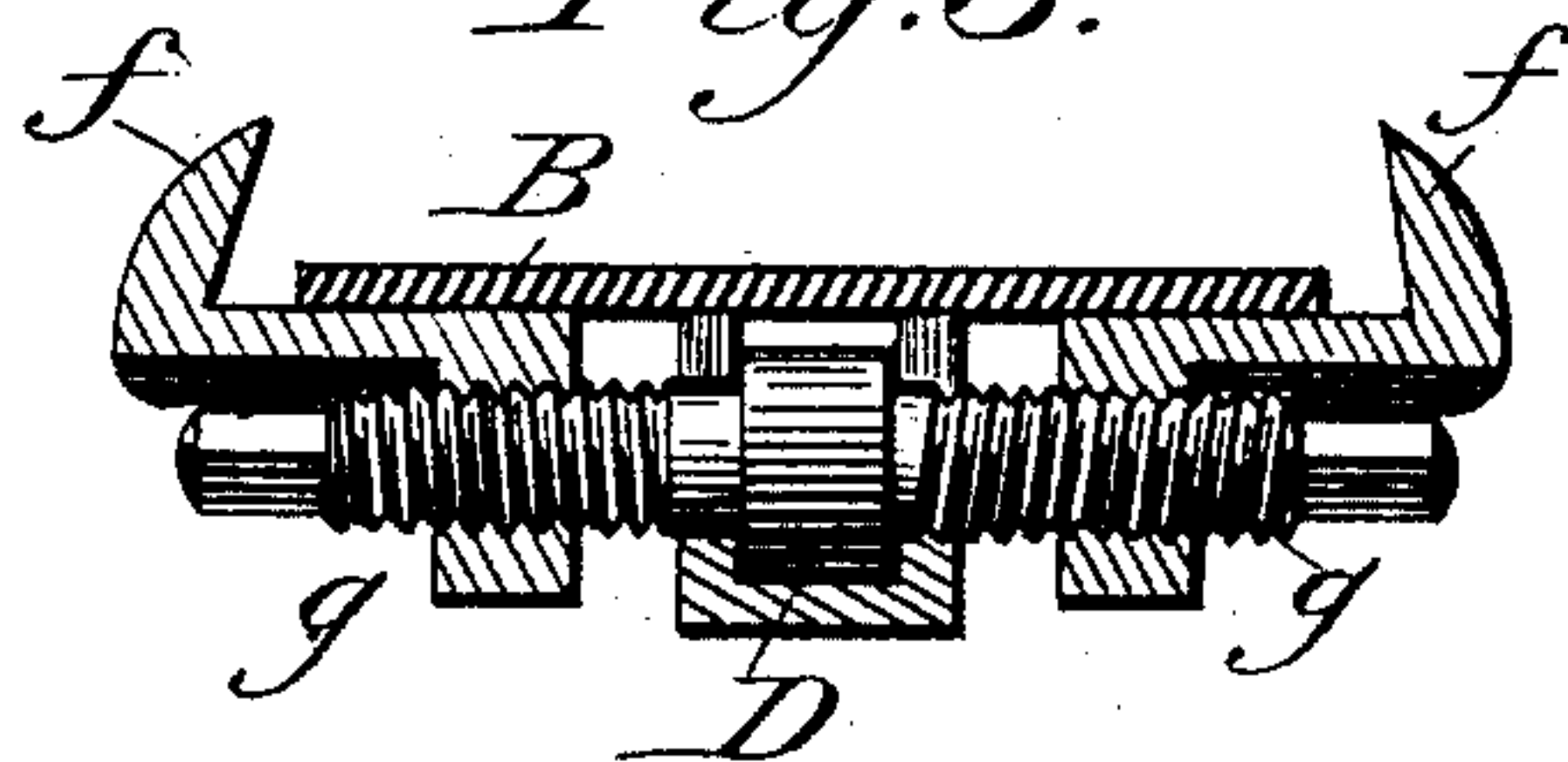


Fig. 3.



Attest:

J. H. Schott

b. j. Stockman

Inventor:

*James Naylor Jr.,
Cpr John C. Tasker atty.*

UNITED STATES PATENT OFFICE.

JAMES NAYLOR, JR., OF POUGHKEEPSIE, NEW YORK.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 328,332, dated October 13, 1885.

Application filed August 4, 1885. Serial No. 173,563. (No model.)

To all whom it may concern:

Be it known that I, JAMES NAYLOR, Jr., a citizen of the United States, residing at Poughkeepsie, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Roller-Skates; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in roller-skates; and it consists in the construction and arrangement of parts, as will be hereinafter set forth.

In the annexed drawings, illustrating my invention, Figure 1 is a vertical section lengthwise of the skate. Fig. 2 is a bottom plan view, and Fig. 3 is a section of the clamping devices.

Like letters of reference indicate like parts in the several views.

A represents a flexible metallic bar, preferably of steel, which serves to unite the parts *d d* into which the shafts *c* for rollers C are journaled. These rollers C are placed upon the shafts *c* in any ordinary and suitable manner, and the axle-carriers *d* are T-shaped pieces of metal, bored longitudinally to receive the spindles for the rollers, and having their top ends fashioned as balls *b*, which move loosely in sockets formed in bars *e*, to which the sole-plate B is attached. These bars *e* are short strips of metal fashioned to the sole-plate lengthwise thereof by means of screws, rivets, or other suitable means. One end of the bar *e* has a conical enlargement for containing the socket for the ball *b*, while the other end is enlarged to afford a concavity, within which is located the central ring, D, of a screw-threaded rod, by means of which the clamps *f f* are rendered adjustable to the shoe of the skater. Fig. 3 shows the location and arrangement of the ring D. This ring is permitted to revolve freely within its concavity, the side walls of which regulate the revolution. The rod of which the ring D is a part extends outward therefrom on each side, and is screw-threaded, the screw-threads of the part on

the one side having their pitch inclined in a direction opposite to that of the pitch of the screw on the other part. The ends of these screw-threaded portions are fashioned for manipulation with a wrench or other suitable device, and they pass, respectively, through screw-threaded perforations in the clamps *f f*. These clamps *f f* are inclined, and the inclined faces are horizontally curved, which gives the best results in clamping the shoe to the skate; hence it will be noticed that by actuating the screw on one side both clamps will be forced up against the sides of the shoe. The sole and heel portions are both provided with clamps arranged in like manner; also, the arrangement of the front rollers is the same as that of the rear rollers.

The sole-plate to be used with this skate is designated by B, and is of that improved pattern which allows very great elasticity and ease of movement, thus permitting the foot to take its most natural position in every instance. This sole-plate consists, essentially, of a plate of flexible metal, preferably of steel, which is bent at its middle portion into a loop or V shape, said loop or V shape being in turn provided at its bottom with a slot which is V-shaped when viewed from behind—that is to say, such a slot is cut as will make a V-shaped aperture in each arm of the original bend of the sole-plate, as is shown in Fig. 2. This slot is provided in order that the straight bar A may enter it, and thus a connection be established between said bar and the sole-plate B. Accordingly the bend in the sole-plate must be deep enough to allow said plate to embrace the bar A after the V-shaped slot has been cut.

Thus it will be noted of how exceedingly simple a construction my skate is, and yet how strong and durable it is also, and what great flexibility of movement is secured by the ball-bearings and the loose middle connection of sole-plate and connecting-plate A, for the sole-plate may, under the action of the foot, bend down on either side sufficiently to allow the skater great ease of movement, since the ball-bearings give the rollers a great amount of play, and still the loose connection between the bar A and plate B serves to maintain all the parts in their proper relative po-

sition; also, as the top plate takes hold of the spring-plate near the center it will, by rocking on the ball-joints, throw the spring-plate A in or out, so as to deflect the axles or spindles of the rollers in such a manner as to allow the skate to effect a curve of greater or less extent, as desired.

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

1. In a roller-skate, the combination of the sole-plate B, formed with a loop or V-shaped bend near its middle position, which loop is itself provided with a V-shaped slot, and the flexible bar A, passing through the latter slot, substantially as shown and described.

2. In a roller-skate, the combination of the bar A, axle-carriers *d*, provided with balls *b*, V-shaped sole-plate B, having a V-shaped slot which incloses the bar A, and having also secured to its under side bars *e*, which afford

sockets for the balls *b* and bearings for the clamps *f f*, substantially as shown and described.

3. In a roller-skate, the V-shaped sole-plate B, substantially as shown and described. 25

4. In a roller-skate, the sole-plate B, formed with a loop or V-shaped bend, which loop itself is provided with a V-shaped slot, substantially as shown and described. 30

5. In a roller-skate, the combination of the sole-plate B, looped at the middle, the bars *e e*, having sockets for the ball-bearings, and provided with clamps *f f*; the flexible plate A, and axle-carriers *d d*, provided with balls *b*, substantially as shown and described. 35

In testimony whereof I affix my signature in presence of two witnesses.

JAMES NAYLOR, JR.

Witnesses:

SAML. J. SMITH,
E. W. PRINDEY.