Feb. 15, 1927. 1,617,984

J. BIGGIO

ROLLER SKATE

Filed July 13, 1925

Fig. 1.

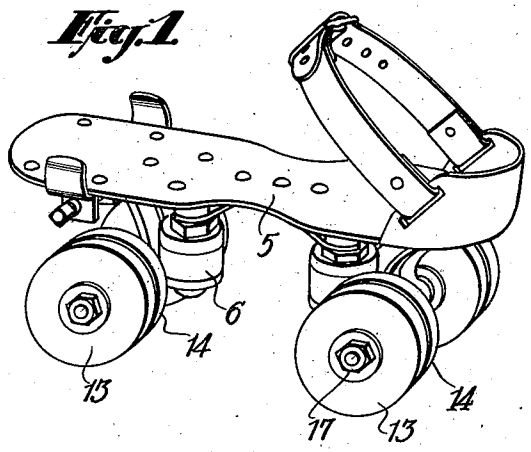
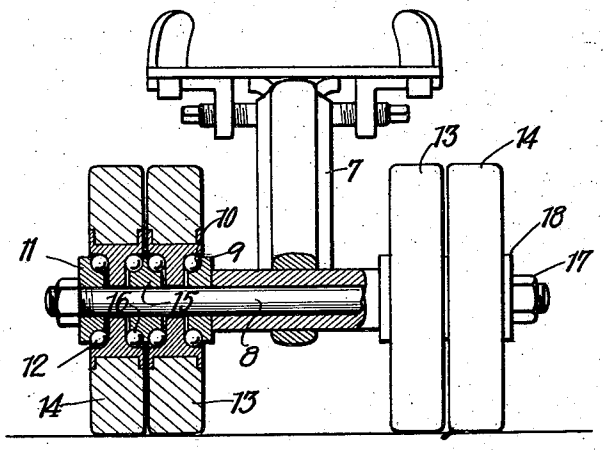


Fig. 2.



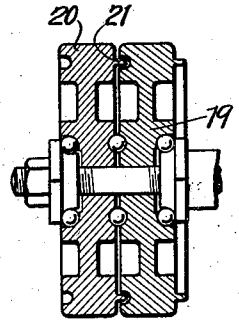


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN BIGGIO, OF LITTLE FALLS, NEW JERSEY.

ROLLER SKATE.

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This invention relates to roller skates and more particularly to what I term a new roller mounting for the front and rear skate axles whereby a greater roller contact surface is permitted and also prevents side slipping as when turning corners at a rapid rate of speed.

One of the objects of my invention is to provide a front and rear axle of a roller skate with a double set of rollers, thus producing practically an eight wheel skate, instead of the usual four wheel, so that the inner rollers of each set and the outer rollers may travel at different rates of speed when turning sharp corners during fancy or speed skating.

To enable others skilled in the art to fully comprehend the underlying features of my invention that they may embody the same in the various modifications in structure and relation contemplated, drawings depicting a preferred form have been annexed as a part of this disclosure and in such drawings, similar reference characters denote corresponding parts throughout all the views, of which,

Figure 1 is a view of the roller skate embodying my invention.

Figure 2 is a front view, partly in section.

Figure 3 is a modified form of roller mounting.

Referring now to the drawings wherein like reference characters designate corresponding parts throughout the several views, 5 designates the body of the skate, having the usual front and rear buffers 6 and the front and rear axle supporting frames 7. The front and rear axles of the skate being the same, it will only be necessary to describe the roller mounting on the front axle 8 and the modified form of the invention.

It will be observed that the axle 8 is of considerable length so as to extend beyond the sides of the frame 5 to support the rollers. Instead of using a single set or two rollers for the front and rear of the skate, I provide double sets of rollers in the form shown in Figure 2, being preferably of fibre or other materials and mounted on the axle 8 so as to provide a contact or bearing surface for the purposes presently to appear. On the shaft, I provide an inside cone 9 having suitable bearings 10 and an outside cone 11, having the same type of ball bearings 12. Between the said cones, there is an inside roller 13 and an outside roller 14 independently rotatable, there being a central, common cone 15, which may be solid or split, and provided with ball bearings 16, to assist in the operation of the respective rollers. It will be readily appreciated that when making a sharp turn, the outside roller 14 may rotate much faster than the inside roller and at the same time, there is afforded a greater roller contact surface with the floor or cement so as to prevent slipping. This is particularly useful during fancy skating and speed skating and since the rollers 13, and 14, both at the front and rear of the skate, provide a wider contact surface, it also permits beginners to learn skating more quickly. Of course, the ends of the threaded shaft 8 are provided with the usual nut and washers 17, 18 for the obvious purpose. The shaft 8 may be threaded throughout its length or may be slotted to receive suitable cones and bearings for proper cooperation on the shaft.

In Figure 3 I have shown a slightly modified form of the invention which prevents the admission of foreign matter between the inner and outer rollers 19, 20, by providing a groove 21, near the outer edges of the said rollers 19, 20. In this form of the invention it is preferable to construct the rollers 19, 20, of steel with a suitable groove engaging flange and as above described the usual type of cones and bearings are provided for the shaft on which said rollers are mounted.

While I have illustrated and described my invention with some degree of particularity, I realize that in practice various alterations therein may be made. I therefore reserve the right and privilege of changing the form of the details of construction or otherwise altering the arrangement of the correlated parts without departing from the spirit of the invention or the scope of the appended claims.

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

1. In a roller skate, a frame, front and rear supporting axles, double sets of independently revolvable rollers on each of said axles, cones on the shaft for each of the sets of rollers, and ball bearings mounted in said cones upon which the rollers revolve.

2. In a roller skate, a frame, front and rear supporting axles, double sets of inde-

pendently revolvable rollers on each of the said axles, outside bearings for each roller a bearing between each of the said rollers, and means formed on the adjacent faces of the rollers for preventing accumulation of dirt therebetween.

3. In a roller skate, a frame, front and rear supporting axles, double sets of independently revolvable rollers on each of the said axles, outside cones bearings on the cones intermediate cones and bearings on the said intermediate cones located between the said rollers, one of the rollers being provided with a flange and the adjacent roller being grooved to receive said other roller flange, whereby the accumulation of dirt between the rollers is prevented.

In testimony whereof I affix my signature.

JOHN BIGGIC. [L. S.]