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C. VOGT

2,126,359

ROLLER SKATE

Original Filed May 22, 1936

Fig. 1.

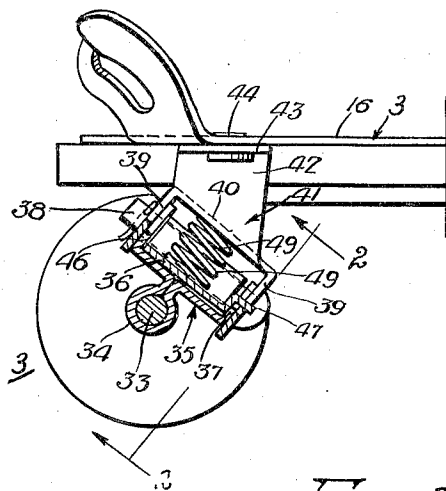


Fig. 2.

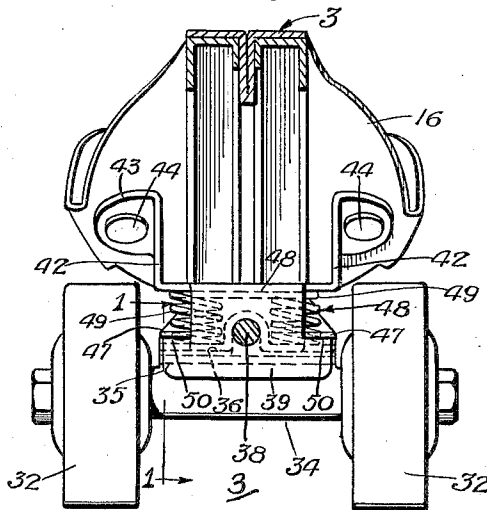
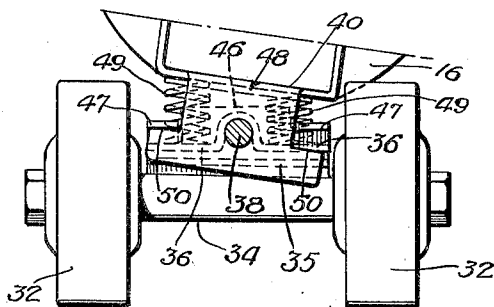


Fig. 3.



Inventor:—
 Clarence Vogt
 by his attorney,
 Lawson & Lawson

UNITED STATES PATENT OFFICE

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ROLLER SKATE

Clarence Vogt, Wenonah, N. J.

Original application May 22, 1936, Serial No. 81,325. Divided and this application December 3, 1936, Serial No. 114,090

6 Claims. (Cl. 280—11.28)

This invention relates to new and useful improvements in roller skates and more particularly to improvements in wheel mountings therefor, and is a division of my co-pending application Serial No. 81,325, filed May 22, 1936.

The principal object of the present invention is to provide a device of the stated character having wheel mountings constructed and arranged to permit the skater to describe arcuate figures or curves of substantially small radii.

These and other objects of the invention and the features and details of construction thereof are set forth hereinafter and shown in the accompanying drawing, in which:

Fig. 1 is a view partially in section on line 1—1, Fig. 2.

Fig. 2 is a view in elevation taken along 2—2, Fig. 1; and

Fig. 3 is a view similar to the disclosure in Fig. 2 showing the wheel assembly in pivoted relation with respect to the supporting section.

Referring now more particularly to the drawing, reference numeral 3 designates generally the rear or heel section or portion of a foot rest or plate of a roller or other skate which is adapted to be adjustably secured or connected to a front section or portion (not shown) in any suitable manner.

In accordance with the present invention the wheels 32 of the rear wheel assembly are rotatably mounted upon a shaft or axle 33 supported within the tubular portion 34 of a bracket or the like designated generally as 35 which includes a substantially flat surface portion 36 and upwardly extending flanges 37 at the front and rear end edges thereof, said flanges having apertures or holes therein for the passage of a spindle or pin 38 which constitutes a bearing about which said bracket 35 may pivot.

In the present instance the spindle or pin 38 is supported at a rearwardly inclined angle by means of relatively spaced flanges 39 which decline rearwardly from the front and rear end edges of the flat portion 40 of a bracket structure designated generally as 41. The bracket structure 41 is provided with upwardly projecting relatively spaced flange portions 42 having outwardly projecting angular portions 43 at the upper ends thereof through which the said bracket 41 is secured to the under side of the flat heel supporting portion 16 of the rear section 3 by means of rivets or the like 44.

A plate 46 having upwardly offset spaced projecting lugs 47 at its forward edge is disposed upon the flat surface portion 36 of the bracket

35, and a member 48 comprising relatively spaced coil springs 49 is interposed between said plate 46 and the flat portion 40 of the bracket 41. The coil springs 49 of the member 48 are disposed at respectively opposite sides of the spindle or pin 38 and function to resist relative rotation of the wheel assembly with respect to the pivot pin 38 and bracket 41 and normally maintain said skate in a substantially level position. It will be observed by reference to Figs. 1, 2 and 3 of the drawing that the upwardly offset lugs 47 of plate 46 are normally engaged by the upper edges of oppositely or outwardly projecting portions 50 at the lower end of the forward flange 42 of the bracket 41 so that upon relative rotation of the brackets 35 and 41 said portions 50 will actuate the plate 46 upwardly and effect a proportionate relative compression of both coil springs 49 of the member 48 irrespective of the direction of such relative rotation of said brackets. Thus, as shown in Figure 3 of the drawing, upon clockwise rotation of the foot supporting plate 16 and bracket 41, the right hand coil spring 49 of the member 48 will, of course, be compressed and by providing the plate 46 with the portions 47 for engagement by the portions 50 of said bracket 41, the left-hand of said portions 50, upon such rotation of the bracket 41, will cause the plate 46 to be actuated upwardly through the left-hand upwardly off-set portion 47 to also cause a relative proportionate compression of the left-hand coil spring 49 which ordinarily would undergo an expansion and not compression. By providing or effecting compression in both of the coil springs 49, as described, unnecessary rocking of the foot support plate with respect to the wheel assembly about the spindle or pin 38 is reduced to a minimum and the weight of the skater distributed more evenly between both wheels 32 thus affording a firm, stable support for the skater's foot when executing figures, curves and the like in contrast to the lop-sided weight distribution and the unstable, wobbly nature of the support afforded the skater by devices which do not operate to effect a proportionate relative compression of both springs.

While a specific embodiment of the structural features and details of the invention have been set forth and described, it is not intended that said invention shall be precisely limited thereto, but that changes and modifications in the details of construction thereof may be incorporated where within the scope of the annexed claims.

I claim:

1. In a device of the character set forth, a foot

supporting structure, a bracket secured to the underside of said structure, a pin mounted in said bracket and extending axially thereof at an outwardly inclined angle with respect thereto, a second bracket mounted on said pin, a wheel assembly carried by said second bracket, a plate residing intermediate the first and second brackets, resilient means interposed between said plate and said first mentioned bracket tending to resist relative rotation of the second bracket and wheel assembly with respect to the first mentioned bracket, and means forming a part of the plate including upwardly offset portions arranged for engagement by portions of said first bracket to actuate said plate upwardly and effect a compression of said resilient means upon rotation of said brackets relative to each other in either direction.

2. In a device of the character set forth, a foot supporting structure, a bracket secured to the underside of said structure and including portions projecting laterally from one end thereof, a pin mounted in said bracket and extending axially thereof at an outwardly inclined angle with respect thereto, a second bracket mounted on said pin, a wheel assembly carried by said second bracket, a plate residing intermediate the first and second brackets, relatively spaced coiled resilient elements interposed between said plate and said first mentioned bracket at opposite sides of the pin tending to resist rotation of the second bracket and wheel assembly with respect to the first mentioned bracket, and means forming a part of the plate including upwardly offset portions arranged for engagement by said laterally projecting portions of said first bracket to actuate said plate upwardly and effect a proportionate compression of both of the coiled resilient elements of said member upon relative rotation of said brackets with respect to each other and irrespective of the direction of such relative rotation.

3. In a device of the character set forth, a foot supporting structure, a bracket secured to the underside of said structure, a pin mounted in said bracket and extending axially thereof at an outwardly inclined angle with respect thereto, a second bracket mounted on said pin, a wheel assembly carried by said second bracket, a plate residing intermediate the first and second brackets, resilient means interposed between said plate and said first mentioned bracket tending to resist rotation of the second bracket and wheel assembly

with respect to the first mentioned bracket, and means forming a part of the plate arranged for engagement by said first bracket to actuate said plate upwardly and effect a relative compression of said resilient means upon relative rotation of said brackets in either direction.

4. In a device of the character set forth, a foot supporting structure, a bracket secured to the underside of said structure, a pin mounted in said bracket and extending axially thereof at an outwardly inclined angle with respect thereto, a second bracket mounted on said pin, a wheel assembly carried by said second bracket, a plate residing intermediate the first and second brackets, relatively spaced coiled resilient elements interposed between said plate and said first mentioned bracket at opposite sides of the pin tending to resist rotation of the second bracket and wheel assembly with respect to the first mentioned bracket, and means forming a part of the plate arranged for engagement by said first bracket and effect a proportionate relative compression of both of the coiled resilient elements of said member upon relative rotation of said brackets and irrespective of the direction of such relative rotation.

5. In a device of the character set forth, a bracket, a pin mounted in said bracket, a second bracket mounted on said pin, a plate residing intermediate the first and second brackets, resilient means interposed between said plate and said first bracket tending to resist relative rotation of the second bracket with respect to the first mentioned bracket, and means forming a part of the plate arranged for engagement by said first bracket to actuate said plate upwardly and effect a compression of said resilient means upon rotation of said brackets relative to each other.

6. In a device of the character set forth, a bracket, a pin mounted in said bracket, a second bracket mounted on said pin, and a plate residing intermediate the first and second brackets, resilient means interposed between said plate and said first bracket tending to resist relative rotation of the second bracket with respect to the first mentioned bracket, said plate and first bracket including portions constructed and arranged to engage one another upon relative rotation of the brackets so that the first bracket will actuate the plate toward said first bracket to effect a compression of said resilient means therebetween.

CLARENCE VOGT.