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2,366,866

SKATE-SCOOTER

Filed June 19, 1944

2 Sheets-Sheet 1

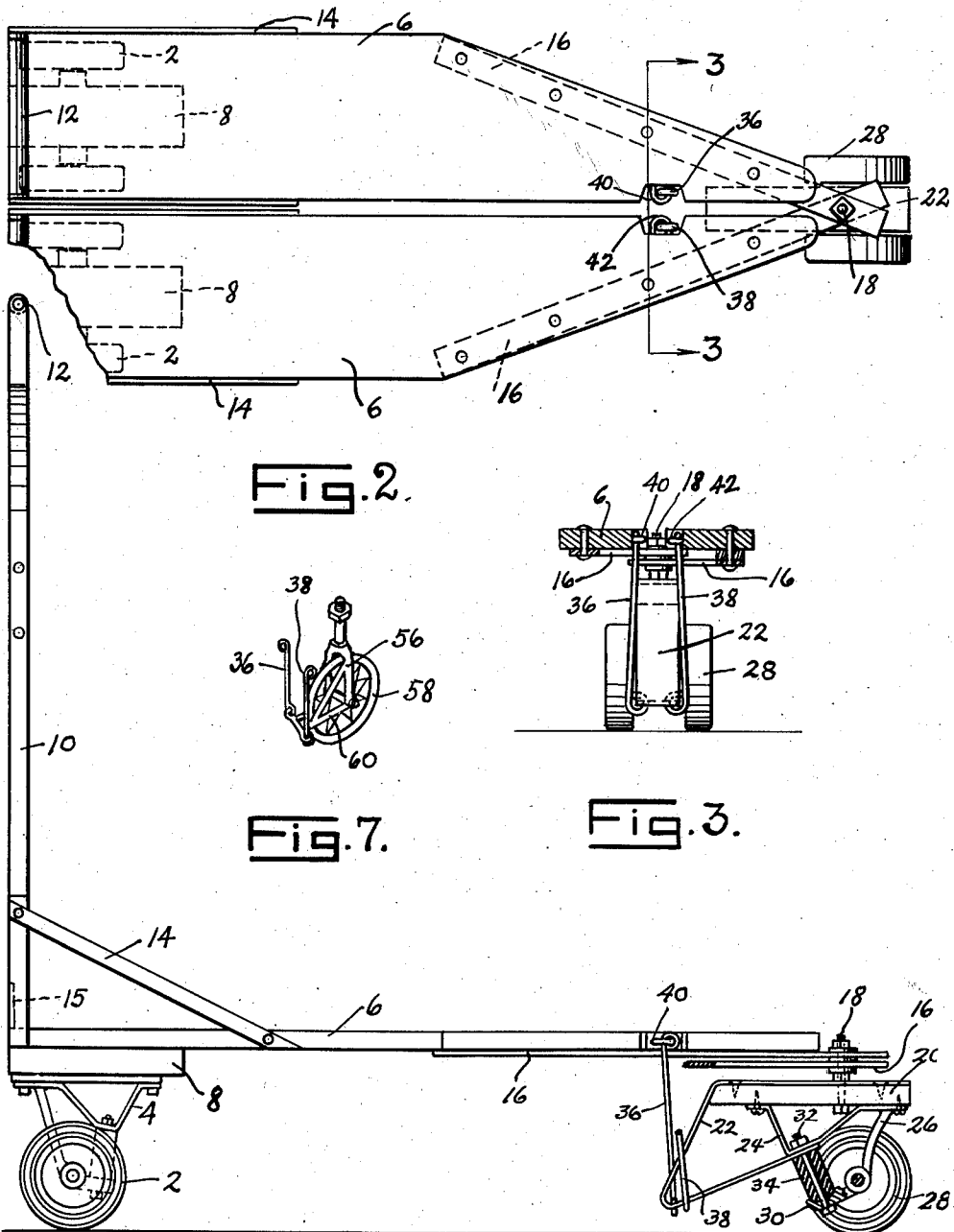


Fig. 1

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2 Sheets-Sheet 2

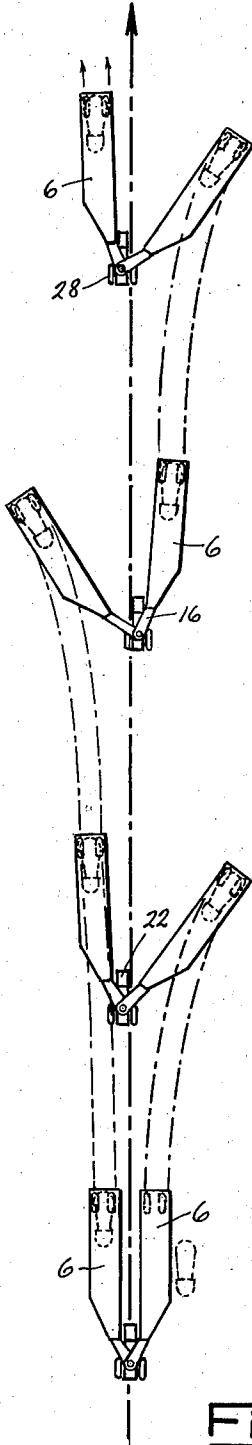


Fig. 5.

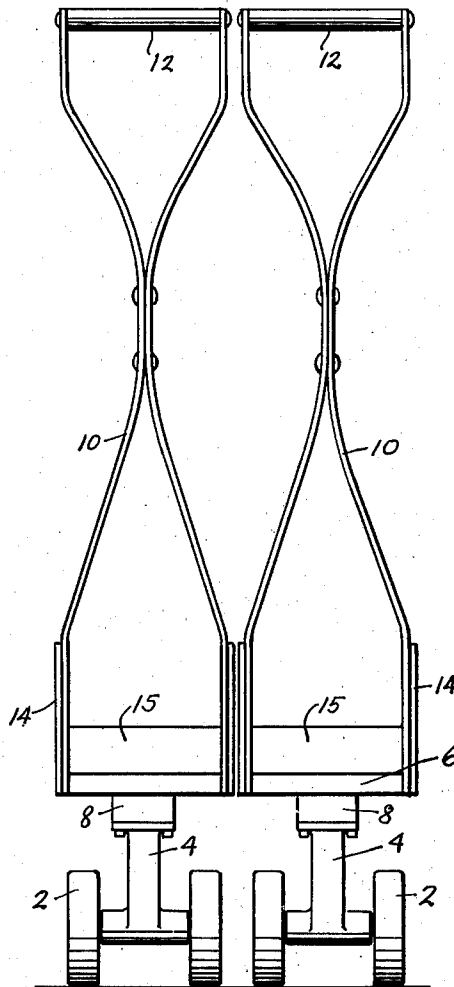


Fig. 4.

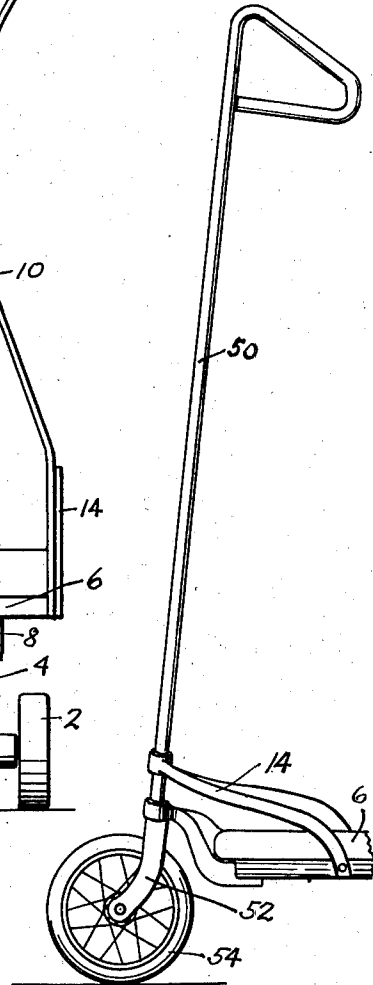


Fig. 6.

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SKATE-SCOOTER

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6 Claims. (Cl. 280—87.04)

My invention relates to a skate-scooter. The skate-scooter is operated much in the manner of conventional roller-skates, but is provided with only two pairs of forward wheels and one set of rear wheels, and is fastened together in a manner to produce a skate-scooter having three wheels or three pairs of wheels.

An object of my invention is to provide a toy or means of locomotion which is manipulated much as a conventional pair of skates would be.

A further object is to provide a skate-scooter which in reality is composed of two scooters, but which utilize one rear wheel for the two.

A further object is to provide a skating toy having three sets of wheels, two sets attached to the forward ends of foot-rests or platforms, and one set pivotally attached to the rear ends of the two platforms or foot-rests.

A still further object is to provide handles extending upwardly from the forward end of the skate-scooter and braces for supporting said handles in their vertical position and also serving as foot-guards.

A still further object is to provide means whereby the rear wheel supporting the rear ends of the two foot-rests or platforms of the scooters is guided by links guiding the said rear wheel approximately in the direction of desired forward motion.

In the accompanying drawings:

Fig. 1 is a side elevation partly in section, showing only the foot-rest and wheels for the right foot;

Fig. 2 is a plan view showing the entire skate-scooter;

Fig. 3 is a vertical cross-section on the line 3—3 of Fig. 2 looking in the direction of the arrows;

Fig. 4 is a front elevation;

Fig. 5 is a diagrammatic representation and plan view of the manner in which the skate scooter is operated so that it will advance in the direction of the arrows as the operator moves his feet laterally in the manner of conventional roller-skating;

Fig. 6 is a side elevation of the front wheel of a modified form; and

Fig. 7 is a side elevation of the rear wheel of a modified form.

In the preferred form, the front wheels 2 are similar to conventional roller skate wheels and are preferably mounted in the same manner as roller skate wheels or trucks by the use of a conventional axle extending between two wheels 2, and through a metallic axle carrier 4, which is

suitably secured to the forward or front end of the scooter or foot-rest 6 by means of conventional screws or bolts which are driven into the foot-rest 6 and pass through a rubber block 8.

5 Extending upwardly from the forward end of the foot-rest 6 I provide suitable rods 10, to the upper end of which is secured a handle 12. To serve as a brace for the vertical rods 10 forming part of the handle, I provide additional rods or braces 14 which are secured to the rods 10 at a point above the foot-rest 6 and slanting downwardly to a point away from the forward end of the foot-rest 6 to be secured thereto, and thus forming a brace for the handle and also a stop 15 or brace for the foot of the operator so that it may be held against accidental sideways slippage from the foot-rest 6. A brace 15 is provided across the front end of the foot-rest 6 to prevent the operator's foot from slipping forward.

20 The two foot-rests 6 of the two separate front end constructions are suitably secured to metallic braces 16, which at their ends remote from, and extending outwardly from, the said foot-rests are pivotally secured together by the bolt 18. The bolt 18 extends downwardly, having been pivotally secured to the two braces 16, and is fastened securely to a platform 20 forming the main supporting element for the rear wheels.

The platform 20 has secured to its upper surface 30 a steel strap 22 which is bent downwardly from the forward end of the platform 20, and then is bent back upon itself as clearly shown in Fig. 1, until it comes into alignment with a steel strap 24 secured to the under surface of the platform 20. This steel strap 24 is also provided 35 with a downwardly extending arm 26 which is provided at its end remote from the platform 20 with an axle-bearing for the axle supporting the rear wheel 28.

40 Extending downwardly and forwardly from the rear wheel axle bearing, I provide an arm 30, which will be in approximate alignment with the strap 24, so that the bolt 32 may be secured to the strap 24 and the arm 30 and hold therebetween a suitable rubber block or cushion 34. To the forward end of the strap 22 I hingedly secure suitable links 36 and 38, which extend upwardly therefrom and are secured by means of suitable bolts or staples 40 and 42 to the foot-rests 6 for the right and left feet, respectively.

55 By this construction I am able to provide a skate-scooter which has three sets of wheels, two forward wheels for separate and independent foot-rests or platforms, and one wheel pivoted to the rear ends of the two separate and independent

foot-rests or platforms. The foot-rests or platforms are pivotally secured to the rear wheel by means of suitable links which are adapted to guide the direction of travel of the rear wheel to follow a desired course of motion, yet allowing each separate foot-rest or platform to be moved laterally from the direction of travel to effect forward motion.

In the modified form shown in Figs. 6 and 7, I have illustrated a single wheel used for the forward ends of the foot-rests or platforms 6 (Fig. 6), and for the rear end of the foot-rests or platforms secured at the point of pivoting said foot-rests or platforms together (Fig. 7).

In the modified form of the front end of the skate-scooter, as shown in Fig. 6, it will be noted that the handle construction is different, it being composed of a vertical tube or axle 50, which is secured to a fork 52 which in turn supports an axle for the wheel 54. The tube or axle 50 may be utilized so that by turning the handle formed on the upper end thereof, the fork 52, and consequently the wheel 54, may be turned or steered, or it may be found preferable to allow the fork 52 and wheel 54 to have free rotary motion in the manner of the well-known commercial caster, and to have the vertical rod 50 held securely and non-rotatable. The modified form of the remaining part of the structure is substantially the same as described above, and is provided with foot-rest or platform to which braces 14 are secured and extend upwardly to be secured to the vertical tube or axle 50, the braces 14 providing a means whereby the vertical axle 50 may be securely held relative to the foot-rest or platform 6, and also providing a guard so that the operator's foot may not slip from the foot-rest or platform 6.

In the modified form shown in Fig. 7, I have disclosed a single wheel form of rear wheel. In this form the construction is relatively similar to the preferred form, but the pivot 18 forming the pivot point between the two foot-rests or platforms 6 is continued downwardly and is provided with a fork 56 forming bearings for an axle to support the rear wheel 58. As an extension from the fork 56 I provide arms 60 which are secured to the fork 56 at two suitable points, and converge to a point where the links 36 and 38 may be attached and may therefrom extend upwardly and be secured to the foot-rests or platforms in the same manner as described above relative to the preferred form.

Operation

By the construction described above, it will be understood that the rear wheel or truck is pivotally mounted so that it may be swung slightly from side to side in the manner of a conventional caster. By the links 36 and 38 extending between the rear truck and the platforms or foot-rests, the rear wheels or trucks will be guided in their direction of motion by the action taken by the operator in skating or making the vehicle or toy advance in a forward direction. For example, when the rider is pushing his right foot sideways or laterally of the direction of desired travel, he raises his left foot slightly from its then rearward or lateral position to bring it forwardly into approximate line with the direction of desired travel.

This raising motion of the left foot tends to draw the rear wheel or truck toward the left foot, and thus counter the inclination of the rear truck or wheel to otherwise follow the right foot which is moving laterally toward the right to force the operator forward. In this manner the linkage between the rear truck or wheel and the foot-rests or platforms tends to keep the rear wheel or truck headed in the direction of desired motion, and to prevent the wheel or truck from weaving from side to side as the operator forces one foot and then the other foot laterally from the desired direction of travel, to effect the desired forward motion.

I claim:

1. In a skate-scooter, a rear wheel carriage pivotally secured to two foot-rests, a front wheel carriage secured to each foot-rest at the end thereof remote from said pivot, handles extending upwardly from approximately above the said front wheel carriages, and links secured to the said rear wheel carriage and each of the said foot-rests.

2. In a skate-scooter, a pair of foot-rests pivotally secured together, a wheel carriage secured to the said foot-rests at the pivot point, independent wheel carriages attached to said foot-rests at their ends remote from their pivotal connection, and handles extending from the said foot-rests at points approximately above the said independent wheel carriages.

3. In a skate-scooter, two foot-rests pivotally secured together at their ends, a wheel carriage secured to the pivot of said pivotal connection, independent wheel carriages secured to the said foot-rests at their ends remote from their said pivotal connection, handles extending from said foot-rests approximately above the said independent wheel carriages, braces for said handles forming guards on the sides of said foot-rests, and links secured to the said foot-rests and the said wheel carriage secured to the said pivot.

4. A skate-scooter including a pair of foot-rests pivotally secured together at their ends, a wheel carriage secured to the said pivot, wheel carriages secured to said foot-rests at their ends remote from their pivotal connection, handles extending approximately vertically from said foot-rests at approximately the ends thereof remote from the said pivot point, and links extending between the said wheel carriage at the pivot point to the foot-rests.

5. In a skate-scooter, a rear wheel carriage pivotally secured to two foot-rests, a front wheel carriage secured to each foot-rest at the end thereof remote from said pivot, means for holding in contact with the foot of an operator the front end portion of each of said foot-rests, and links secured to the said rear wheel carriage and each of the said foot-rests.

6. In a skate-scooter, a pair of foot-rests pivotally secured together, a wheel carriage secured to the said foot-rests substantially at the pivot point, independent wheel carriages attached to said foot-rests at their ends remote from their pivotal connection, and means for holding the last mentioned ends of said foot-rests in contact with the feet of an operator respectively.

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