United States Patent

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[54] SCOOTER-LIKE TOY VEHICLE

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[51] **Int. Cl.** **B62k 9/00**, B62b 11/00

[58] **Field of Search** ..... 280/87.04 B, 87.04 A, 87.04, 280/87.01

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[57] **ABSTRACT**

A scooter-like toy vehicle embodying a modified three wheel construction including a forward steering wheel and two widely separated rear wheels between which a platform of very substantial area is supported. The steering wheel, when rotated 180°, may be used as a tow for pulling the vehicle, such as when the platform is loaded with groceries, newspapers or the like. Upstanding side handles are provided for steadying the rider.

5 Claims, 6 Drawing Figures

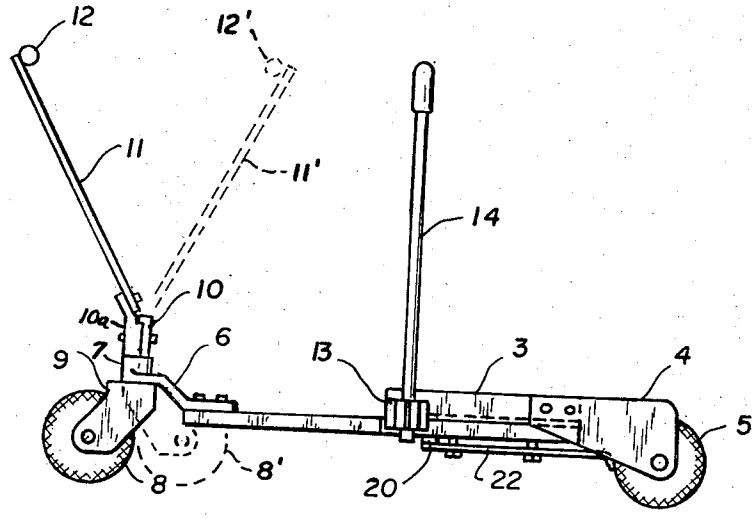
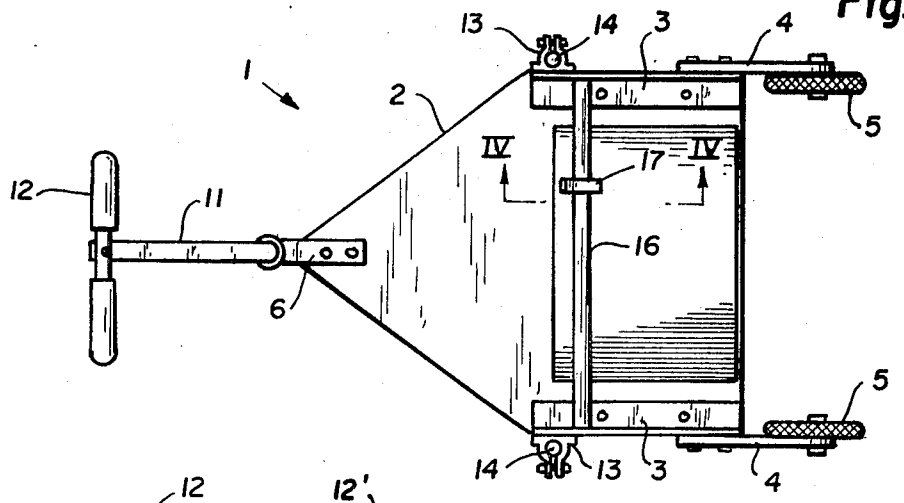


Fig. 1.



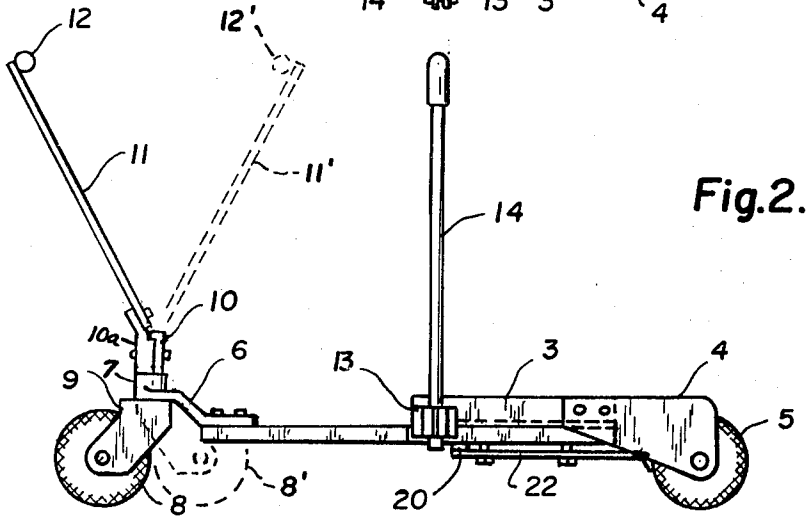


Fig. 2.

Fig. 4.

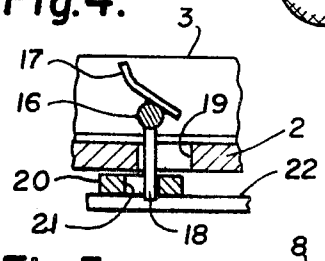


Fig. 5.

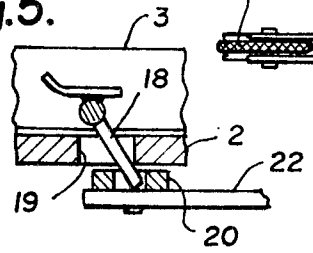


Fig. 3.

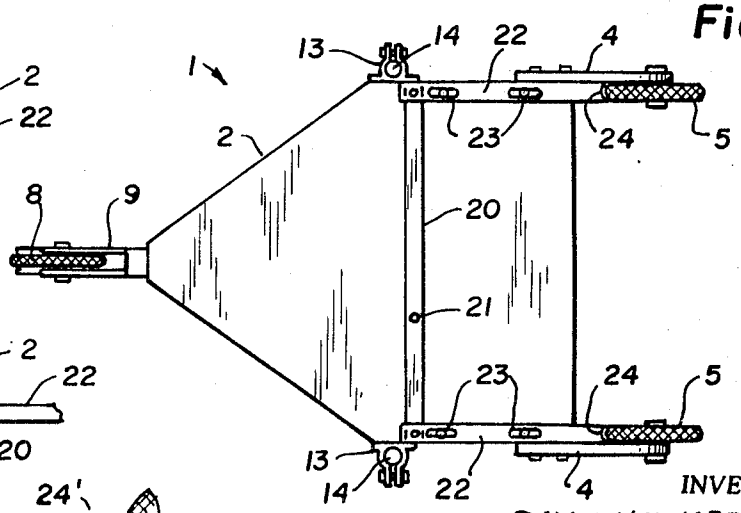
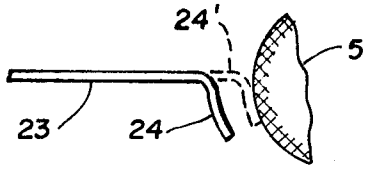


Fig. 6.



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SCOOTER-LIKE TOY VEHICLE

This invention relates to a scooter-like toy vehicle but which is mounted on three wheels instead of two.

An outstanding disadvantage of conventional, foot operated, two wheeled scooters is that small children have difficulty in balancing themselves thereon, making the vehicle unsafe for small children.

Another disadvantage is that scooters have no utilitarian use other than to provide a ride for the driver.

An object of the present invention is to provide a novel, three wheeled toy vehicle which is devoid of the above named disadvantages of scooters and which provides greater safety for small children in that little or no skill is required for balancing the driver.

Another object of the present invention is to provide a dual purpose, three wheeled, scooter-like toy vehicle which serves both as a wide track scooter and which, by turning the steering wheel handle 180° will enable such handle to be used to tow the vehicle to enable carrying of very heavy objects, such as a load of groceries, stacks of newspapers to facilitate delivery thereof by newsboys, etc.

Other objects and advantages will become more apparent from a study of the following description taken with the accompanying drawing wherein:

FIG. 1 is a top or plan view of a three wheeled toy vehicle embodying the present invention;

FIG. 2 is a side view thereof;

FIG. 3 is a bottom view thereof;

FIG. 4 is a cross sectional view taken along line IV—IV of FIG. 1;

FIG. 5 is a similar view showing the brake in applied position; and

FIG. 6 is a fragmentary side view of the braking element.

Referring more particularly to the drawing, numeral 1 generally denotes a scooter-like vehicle embodying the invention and comprising a platform or base 2 of very substantial width and area mounted on three wheels, namely, two rear wheels 5 and a front steering wheel 8.

The front steering wheel 8 is pivotally mounted on a caster comprising a supporting bracket 9 rigidly secured to a vertical shaft 10 which is journaled within an integral sleeve or bearing portion 7 of a front bracket 6. A semi-circular sleeve portion 10*a* is attached to the front of shaft 10 so that its bottom is slidably rotatable on the top of bearing portion 7. A handle 11, 12 is rigidly secured to an integral extension of the semi-circular sleeve portion 10*a* by bolts or similar fastening elements. Thus as the handle is steered to the right or left, it will rotate the shaft 10 within the bearing portion 7 so as to correspondingly steer the front steering wheel 8 to the right or left, respectively.

It will be noted that when the handle 11, 12 is in the dotted-line position shown in FIG. 2, it will be used for steering the vehicle, such as the handle of an ordinary scooter. However, when the handle is rotated 180° so as to assume the position shown in full lines in FIG. 2, it will be useful as a tow, so that the housewife or newsboy may pull the handle and tow the vehicle when loaded with groceries, newspapers, or other objects resting on platform 2.

Attached to the upper sides of platform 2 are angle irons 3 whose bottom flanges are bolted to the side edge portions of platform 2 and onto the side flanges of which are bolted wheel mounting plates or brackets 4, which carry the axles for mounting the rear wheels 5.

In order toaid the driver in steadying or balancing himself, rods or handles 14 are mounted, at their lower ends, on clamps or brackets 13 which are attached to the front ends of angle irons 3.

A braking system is provided comprising a metal rod or tube 16 whose end portions extend through snugly fitting holes in the front portions of the angle irons 3 to provide journals therefor. A brake pedal 17 is rigidly secured to the right side portion of said rod or tube 16. The brake is applied by depressing the front portion of the pedal, since the tube is turned within its bearings in the angle irons 3 and by virtue of

a link 18 which extends through the center of the rod or tube 16 and is rigidly bolted thereto, which link 18 passes through a hole 21 of an equalizing bar 20, which bar is pivoted at its ends to the front ends of braking bars or links 22 which have downturned ends 24 serving as brake shoes which frictionally engage the rear wheels 5. Slots 23 are provided in the braking bars 22 so that such bars may be guided in their forward and rearward sliding movement with respect to similarly shaped top supporting plates (not shown) rigidly fastened to the underside of the platform 2. A return spring (not shown) may encircle tube 16 to normally release the brakes.

In operation, brake pedal 17 is pushed forwardly so as to rock the tube 16 as well as the driving pin 18 from the position shown in FIG. 4 to that shown in FIG. 5. This will push the equalizing bar 20 rearwardly together with the braking bars 22 so as to bring the braking shoes, that is, the rear, downwardly turned flanges 24 (see FIG. 6) of the braking bars, into frictional engagement with the rear wheels 5 in the dotted line position 24'. Of course, brake shoes (not shown) may be attached to the downwardly turned ends 24 of the braking bars, if so desired.

It should be particularly noted that the three-wheeled toy vehicle described has an extremely low bed or platform 2 relative to the height of the ground by virtue of the specific construction shown for mounting the rear wheels, which is devoid of the usual axle therebetween. This provides greater safety because of the considerably reduced likelihood of overturning when negotiating a turn.

Moreover, it will be noted that very simple and inexpensive standard parts are used for assembling the entire vehicle, therefore considerably reducing the manufacturing cost thereof while at the same time improving the performance of the toy vehicle.

It will be further noted that while handles 14 are shown on both sides of the vehicle to allow steadying of the driver, one or both may be omitted if so desired.

Thus it will be seen that I have provided an extremely versatile toy vehicle which is useful either as a wide track, low bed scooter-like toy for steering by the driver while pushing with one foot while the other foot rests on the platform, or which by turning the steering handle 180 °, from the dotted line position 11' to the full line position in FIG. 2, may be used as a dolly or towing vehicle for towing groceries, newspapers, or other heavy loads which are otherwise very difficult to carry.

While I have described a single specific embodiment of my invention, it will be understood that this is by way of illustration only, and that various changes and modifications may be made within the contemplation of my invention and within the scope of the following claims.

I claim:

1. A multi-purpose toy vehicle comprising a platform having a width comparable to its length and having a pair of rear wheels, flanges attached to the sides of said platform for separately mounting said rear wheels independently of each other, a front steering wheel mounted on a caster on the front of said platform for providing a swivel joint, said caster comprising a bracket attached to the front center of said platform, said bracket having an upwardly extending bearing portion from its front end portion, a swivel rod extending through said bearing portion, a bifurcated steering wheel mount connected to the bottom of said rod, and a semi-circular tube connected to said rod in a manner so that its lower edge is rotatably slidable on the top edge of said bearing portion, a handle extending upwardly at an acute angle from the vertical axis of said caster for steering said front wheel, so that when the handle extends forwardly of the vehicle, it may be used to pull or tow the vehicle, and when rotated 180° about said vertical axis, it may be used by the driver, while standing on the platform, for steering the vehicle.

2. A vehicle as recited in claim 1, including wheel mounting plates attached to the sides of said platform each carrying an axle for providing separate mountings for said rear wheels at a

position slightly below the lower surface of said platform to provide a low bed.

3. A vehicle as recited in claim 2, together with angles irons attached to the sides of said platform, wheel mounting plates attached to the outside of said angle irons, each including axles for rotatably supporting said rear wheels.

4. A vehicle as recited in claim 3, together with a brake operating rod having ends rotatably supported on said angle irons, a brake pedal rigidly attached to the top portion of said brake operated rod, and brake equalizing linkage means mounted underneath said platform for braking said rear wheels.

5. A vehicle as recited in claim 4, wherein said brake equalizing means comprises a pin rigidly secured to said braking rod and extending through a slot in said platform and into a hole in the center of an equalizing bar, brake operating bars extending longitudinally along the sides and underneath said platform and including brake shoes at the rear end thereof for braking the rear wheels as a result of longitudinal rearward movement of said bars as a consequence of rearward movement by said pin of said equalizing bar.

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