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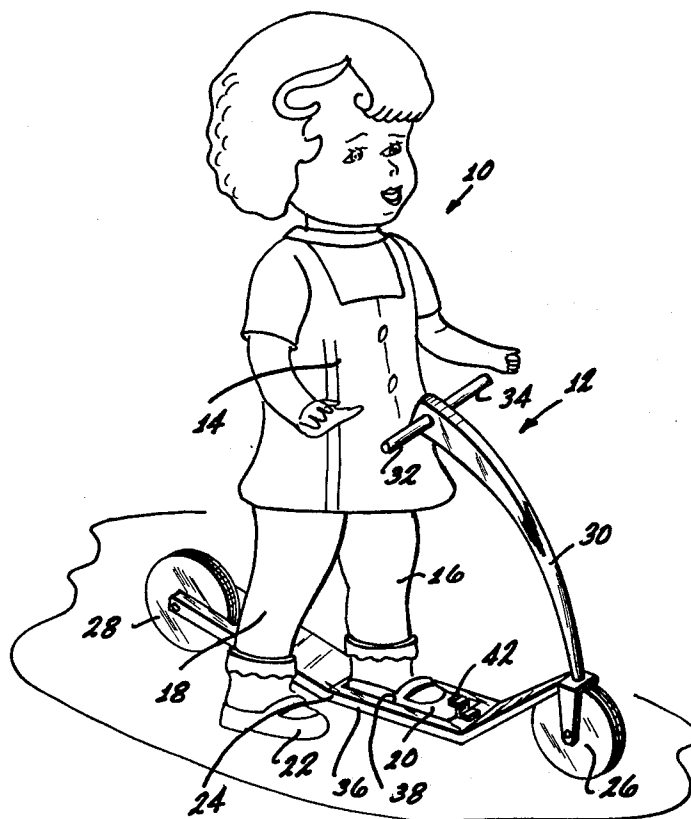
[56] References Cited			
UNITED STATES PATENTS			
1,461,313	7/1923	Hebrard	46/107
2,566,141	8/1951	Poli	46/107
1,686,427	10/1928	Wallgren	280/87.04
1,890,755	12/1932	Shepherd	280/87.04X
FOREIGN PATENTS			
396,141	1/1909	France	280/87.04
421,899	1/1911	France	46/102
593,974	6/1925	France	280/87.04

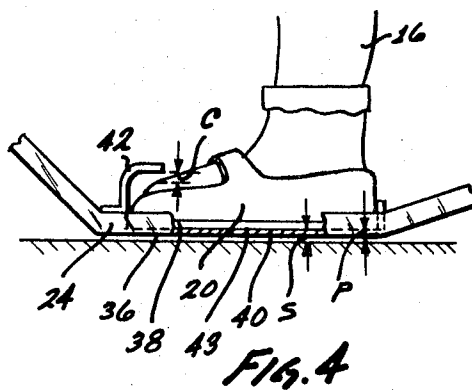
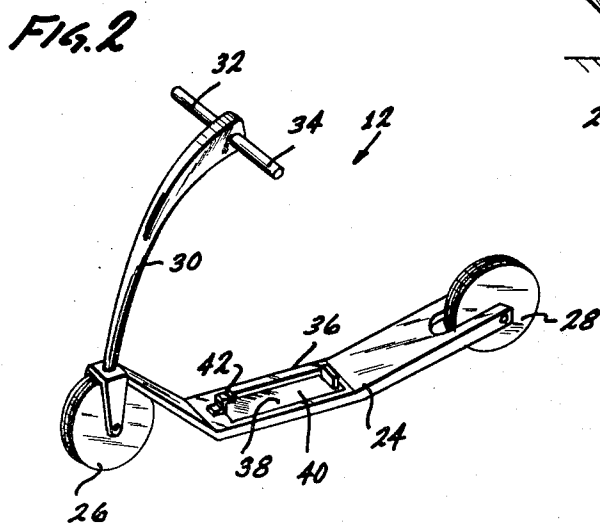
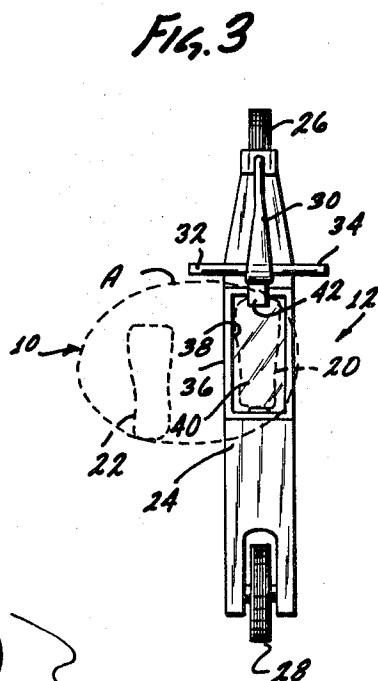
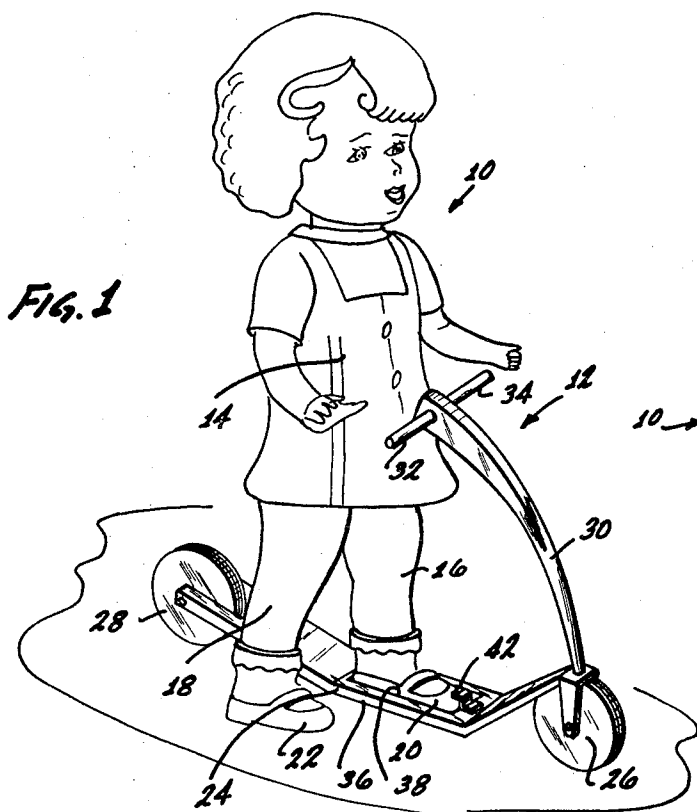
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[54] **A WALKING DOLL AND WHEELED SCOOTER**
COMBINATION
5 Claims, 4 Drawing Figs.

[52] U.S. Cl. **46/101,**
46/107, 46/150, 46/206, 280/87.04R
[51] Int. Cl. **A63h 11/02**
[50] Field of Search **280/87.04;**
46/101, 102, 149, 150, 201, 202, 206, 106, 107

ABSTRACT: A miniature scooter for use with a walking doll to allow the doll to push and ride the scooter. The scooter includes a low flexible platform for receiving one foot of the doll, a hook for loosely capturing the foot on the scooter, and a handlebar that lies immediately in front of the doll's abdomen to prevent forward tipping.





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A WALKING DOLL AND WHEELED SCOOTER COMBINATION

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to scooter-type apparatus for use with a walking doll.

2. Description of the Prior Art

Baby dolls which can walk and perform other acts which toddlers learn, provide highly interesting toys for children. Among the most interesting acts which are similar to walking, and which a walking doll might be supposed to be able to perform, is pushing a scooter. While scooter-pushing dolls are known, they generally are not able to also walk when detached from the scooter. Conversely, realistic scooters are not able to accommodate an ordinary walking doll so as to enable the doll to push the scooter in a lifelike manner. A simple scooter which could accommodate a walking doll to enable it to ride the scooter in a lifelike manner without requiring any adjustment of the doll, would provide an interesting accessory for such a doll.

OBJECTS AND SUMMARY OF THE INVENTION

An object of the present invention is to provide a scooter which can be efficiently pushed along by a walking doll.

Another object is to provide a scooter for a walking doll, which can be moved by the doll in a lifelike manner without any adjustment of the walking doll.

In accordance with the present invention, a scooter is provided for a walking doll, which enables the doll to ride the scooter without adjustment of the doll's walking mechanism. The scooter includes a platform for holding one foot of the doll, wheels at either end of the platform, and a handlebar extending upwardly from the front of the platform. The portion of the platform which receives the doll's foot is flexible to aid in rocking the doll sideways even though the foot which is on the scooter is raised slightly above the floor. A hook on the scooter loosely captures the doll's foot to allow a limited amount of sideward doll rocking.

The novel features of the invention are set forth with particularity in the appended claims. The invention will best be understood from the following description when read in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a scooter and doll constructed in accordance with the present invention;

FIG. 2 is a perspective view of the scooter of FIG. 1;

FIG. 3 is a plan view of the scooter of FIG. 1; and

FIG. 4 is a partial side elevation view of the scooter of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The FIGS. illustrate a doll 10 positioned on a scooter 12 constructed in accordance with the invention. The doll is a self-standing and walking doll such as the type described in U.S. Pat. No. 3,267,608 by John W. Ryan. The doll has a torso 14 supported by a pair of legs 16,18, and has a battery-powered mechanism within the torso that tilts the torso from one side to the other. The legs 16,18 are coupled to a mount in the torso that causes each leg to step forward as the torso sways to the opposite side. The shoes 20,22 of the doll feet are large enough to give substantial stability against falling backward or forward during normal walking, and the legs are spaced apart to prevent falls to the side. In order for the doll to walk properly, the torso sway must be close to a predetermined magnitude for a doll with given dimensions and weights of its torso, legs and leg mount. The scooter 12 is constructed so that a doll which is designed for walking without outside support, can ride the scooter effectively without any adjustments made to the doll's walking mechanism.

The scooter 12 includes a beam 24 extending in a generally horizontal direction with wheels 26,28 at either end, a handle 30 extending upwardly from the forward end, and a pair of handlebars 32,34 at the upper end of the handle. The beam 24 includes a center portion 36 which has a slot or depression 38 for receiving one foot or shoe 20 of the doll. A thin platform member 40 which extends across the bottom of the depression supports the doll shoe. A hook or bracket 42 at the front of the center beam portion extends over the front of the depression and over the toe of the shoe therein, to retain the shoe on the scooter.

If the doll-operating mechanism is turned on while the doll is positioned on the scooter, it will walk with its right shoe 20 pushing the scooter along. If the scooter is properly constructed, the doll can scoot along approximately as fast as it normally walks, sometimes scooting even faster than it walks. Furthermore, while many dolls do not walk in a straight line, it has been found that they will move straight along when they ride the scooter, if the scooter wheels are made of a high-friction material (against wooden floor or the like). A thermoclastic material, or synthetic rubber, has been found satisfactory for this purpose, while harder and lower coefficient materials such as a hard polypropylene does not assure straight scooting. The doll can be removed from the scooter to walk by itself without requiring any adjustment (although the doll's arms may be raised or lowered to obtain a position which is usually best for both walking and scooting).

The platform member 40 must be held above the ground on which the wheels move as the doll tilts to step on its free leg 22, so that the platform does not scrape on the ground. However, it must be placed close to the ground and made thin to minimize sideward tipping of the doll. The distance S (FIG. 4) by which the platform member raises the bottom 43 of one doll foot above the other can be made small, but even this small amount will appreciably affect the walking capability of the doll, inasmuch as the doll is designed to walk with the bottom of both shoes at ground level. It has been found that by constructing the platform member 40 of a highly resilient material, such as an elastomeric material that will deflect down by the weight of the doll thereon when it takes a step, the doll scoots along about as fast or faster than it walks. When a stiff platform member is used, such as one made of a stiff steel plate of the same thickness, the doll scoots along at a much slower speed. The better results with an elastic platform member are believed due to increased sideward swaying caused by the elastic rebound from the platform member, which compensates for the fact that one doll shoe 20 is raised above the ground which limits doll swaying to that side.

The bracket 42 which captures the shoe 20 has been found to be necessary for the doll to scoot along. Without the bracket or other means for holding down the doll foot, a doll of the type described above is found to rock in a manner that raises the shoe 20 to a substantial height above the platform member 40. However, the doll does not move along, but remains stationary while rocking from side-to-side. If the bracket is made so tight that the shoe 20 cannot raise up slightly in rocking, the doll is found to rock to only a limited extent, and it does not scoot along. A tight bracket prevents scooting because it requires the doll to lift up the relatively heavy scooter, which prevents sufficient sideward swaying to enable the doll legs to take steps. A bracket 42 which provides a vertical clearance C on the order of magnitude of the leg lifting off the ground which occurs during normal doll walking, allows an amount of sideward swaying that enables the legs to take forward steps. Such a bracket construction has been found to result in considerable forward doll motion.

When the doll rides the scooter, it may sometimes become less stable in the forward and backward directions. The shoe bracket 42 which captures the toe of the shoe prevents backward falling. The handlebar 32 can abut the stomach A of the doll's to prevent excessive forward tipping. The handle 30 extends with a backward component which is greater than in an ordinary scooter wherein the handlebars are grasped by

reaching forward with the arms. In the scooter 12 of this invention, the backward extension of the handle allows the handlebar 32 to be positioned only a small distance in front of the center of the doll's stomach, as shown in FIG. 3. If the doll starts to tip forward, it abuts the handlebar before it can tip far, so that it then tends to right itself. The doll's hands should not engage the handlebars, as this can prevent sideward swaying and therefore prevent the doll from scooting along. Where precautions are taken to assure sufficient forward doll stability, a scooter without a front handle can be used.

Scooters have been constructed for the walking dolls described above. A platform member 40 of a thickness P of approximately 0.03 inch mounted on the beam so that its upper surface was a distance S of approximately 0.08 inch above the ground level (as defined by a line connecting the bottom of the wheels 26, 28) were found to provide good walking action with a doll which was about 1 foot high and which took steps that raised each foot about one-eighth inch above the ground, (i.e., the distance S and the foot raising during walking were of the same order of magnitude). A clearance C between the doll's toe and the bracket 42 on the order of one-eighth inch was found to be an optimum level, (i.e., the clearance C and the foot raising during walking were of the same order of magnitude). The doll scoots as well whether the platform member 40 deflects against the ground or only to a position slightly above the ground, so long as it deflects most of the 0.05-inch clearance between its upper position and the position it assumes when fully deflected down.

The doll is installed on the scooter by fitting one shoe, such as shoe 20, under the bracket 42 and into the shoe-receiving depression 38. Either shoe 20 or 22 can be installed in the depression, so the doll can ride the scooter from either side. The doll can be removed from the scooter for standing or walking without support, without requiring adjustments.

Although particular embodiments of the invention have been described and illustrated herein, it is recognized that modifications and variations may readily occur to those skilled in the art and, consequently, it is intended that the claims be interpreted to cover such modifications and equivalents.

We claim:

1. A scooter for use with a walking doll comprising:
 - a beam with a center portion and front and rear ends;
 - a wheel rotatably mounted on said beam at each of said ends thereof;
 - platform means disposed at said center portion of said beam

for receiving a foot of said doll to hold it slightly above ground level, said platform means comprising a thin sheet mounted on said beam so that its upper surface is on the order of 0.08 inch above the ground as defined by a line connecting the bottoms of the wheels when undeflected and said wheels rest on the ground; and

bracket means for loosely capturing the foot of said doll to enable only limited raising of the foot above said platform.

2. In combination with a walking doll of the type that walks without side supports by swaying from side-to-side so that the feet are alternately raised by a predetermined maximum distance above the ground and moved forward, a scooter comprising:

a beam;

wheels rotatably mounted at opposite end portions of said beam, for rolling on the ground as defined by a line connecting the bottoms of said wheels;

a platform disposed at a center portion of said beam for supporting one of said feet, said platform having an upper surface on which said one of said feet can rest, said wheels and said beam being dimensioned and arranged with respect to said platform so that said upper surface of said platform is positioned above the ground by no more than approximately said predetermined maximum distance to which said doll feet are raised when walking; and

a bracket mounted on said beam adjacent said platform for retaining said one of said feet in position thereon.

3. The combination described in claim 2 wherein:

said bracket is so dimensioned and arranged with respect to said beam that the amount by which said one of said feet can lift off said upper surface of said platform is limited to a distance which is on the order of magnitude of said predetermined maximum distance to which said doll feet are raised when walking.

4. The combination described in claim 2 including:

a handle extending upwardly from a forward end of said beam and including a rearwardly curved portion at the upper end thereof disposed immediately forward of the torso of said doll to limit forward doll tilting.

5. The combination described in claim 2 wherein:

said platform comprises a sheet of elastic material to aid said side-to-side swaying of said doll.