

[54] ROLL-O-WHEEL TOY DEVICE

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[58] Field of Search **46/220, 114**

[56] References Cited

UNITED STATES PATENTS

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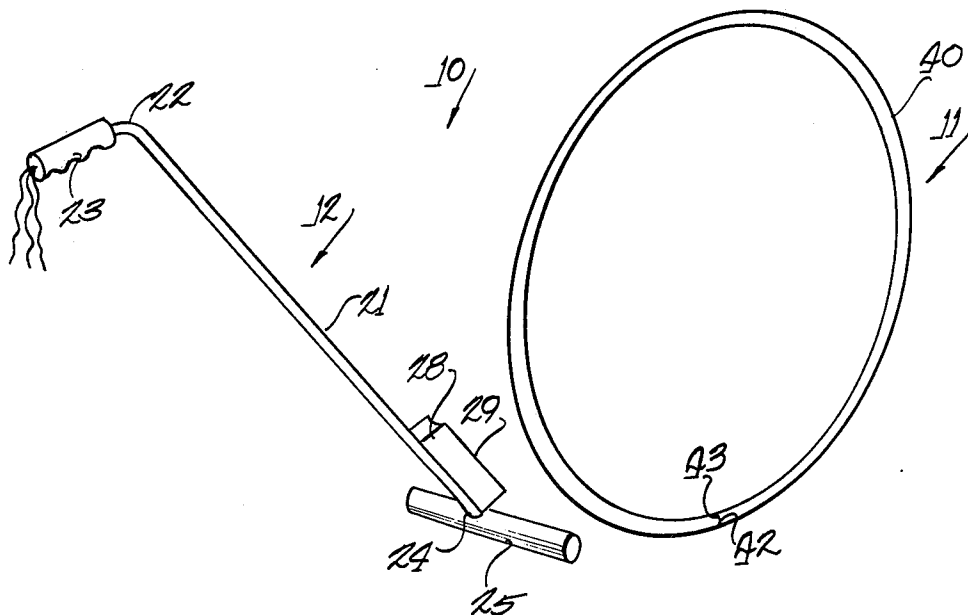
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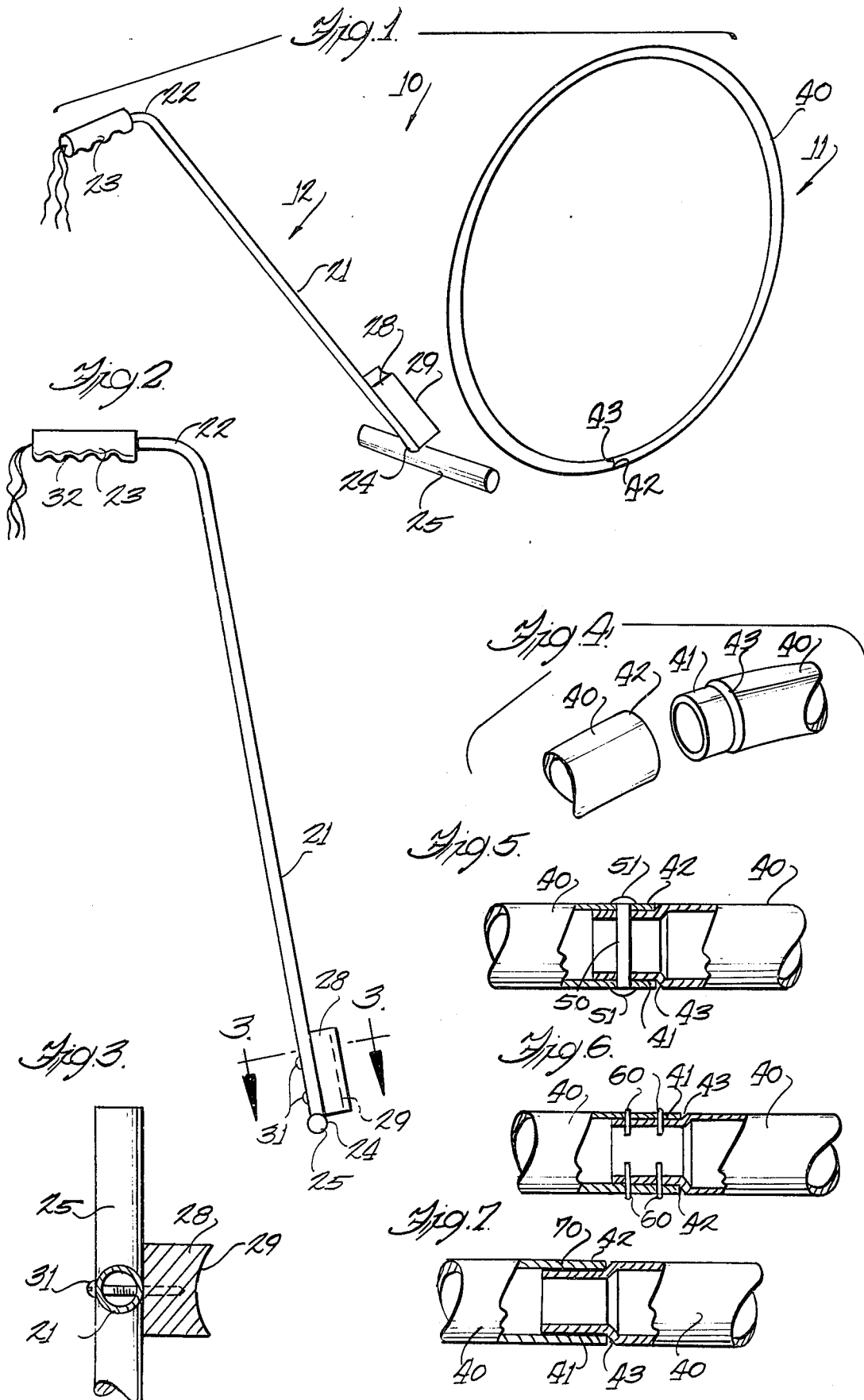
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[57] ABSTRACT

A roll-o-wheel toy device comprised, in combination, of a hollow or solid tube formed into a circle to define a hoop, and a pushing and guide stick having a handle portion and a head portion with the head portion including a pusher member extending longitudinally along the stick and having an arcuate groove extending therealong adapted to receive the periphery of the hoop therein for guiding and propelling the hoop, with the head portion further including rod members extending transversely in symmetrical manners on each side of the stick and adapted for use in the guiding and manipulating of the hoop in any desired path.

1 Claim, 7 Drawing Figures





ROLL-O-WHEEL TOY DEVICE

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to toys and more particularly to a novel and improved roll-o-wheel toy device including a hoop and an associated guide stick therefor whereby a child can guide, manipulate and easily direct a hoop into desired maneuvers as it is rolled along or spun about on any suitable surface.

2. Description of the Prior Art

While it has been known in the prior art to provide toys of the hoop and stick variety, such toys suffer from one or more disadvantages either in manufacture or in use by children such that they are either excessively expensive and/or do not provide the required enjoyment to a child who soon discards the toy after a short period of use therewith in favor of other more enjoyable toys.

Examples of such prior art toy devices are found in U.S. Pats. by Olson No. 3,254,443; Barta No. 2,979,860; Le Brooy No. 2,985,985; and Walker No. 3,001,324.

SUMMARY OF THE INVENTION

The present invention recognizes the deficiencies and disadvantages of presently available toy devices of the hoop and guide stick variety and provides a novel roll-o-wheel toy device which overcomes all of such deficiencies and disadvantages to provide a toy which will be utilized by children for many hours on end due to the great variety of rotating, spinning, and guiding maneuvers available to the child in the use of the toy.

It is a feature of the present invention to provide a roll-o-wheel toy device which is relatively simple in its construction and which therefore may be readily manufactured at a relatively low cost and by simple manufacturing methods.

A further feature of the present invention is to provide a roll-o-wheel toy device which can be safely used by children without fear of harmful effects.

A further feature of the present invention provides a roll-o-wheel device which is devoid of moving parts and which therefore is unlikely to get out of order.

Still a further feature of the present invention provides a roll-o-wheel toy device which is rugged and durable and which therefore may be guaranteed by the manufacturer to withstand many years of rough usage as would be expected when the toy is played with for many hours on end by children.

Still a further feature of the present invention provides a roll-o-wheel toy device which is easy to use and reliable and efficient in operation and which is adapted to be used by children having different athletic prowess and skills such that as the child's ability progresses in the use of the toy device he does not tire of the same as he is then able to perform more difficult and harder feats of skill with the device.

Still a further feature of the present invention provides a roll-o-wheel toy device which is aesthetically pleasing and refined in appearance and which may be provided in a variety of colors and designs to make the same appealing to children.

Still a further feature of the present invention provides a roll-o-wheel toy device which can be retailed at a sufficiently low price to encourage widespread use thereof.

Other features and advantages of this invention will be apparent during the course of the following description.

BRIEF DESCRIPTION OF THE DRAWINGS

In the accompanying drawings forming a part of this specification, and in which like reference characters are employed to designate like parts throughout the same:

FIG. 1 is a perspective view of the hoop and guide stick defining the roll-o-wheel toy device of the present invention;

FIG. 2 is a side elevational view of the guide stick;

FIG. 3 is an enlarged cross-sectional view taken along Line 3—3 of FIG. 2;

FIG. 4 is an enlarged perspective view of the adjacent ends of the tubing preparatory to being joined together to form the hoop;

FIG. 5 is a fragmentary side elevational view of the adjacent ends of the tubing joined together and partially broken away to illustrate the means of joining as being by a rivet;

FIG. 6 is a view similar to FIG. 5 and illustrates a modified form of the joining of the ends of the tubing by use of staples; and

FIG. 7 is a side elevational view similar to FIG. 5 and illustrates yet a further modified form of the joining of the adjacent ends of the tubing by use of a suitable adhesive.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings in detail there is illustrated a preferred form of a roll-o-wheel toy device constructed in accordance with the principles of the present invention and designated generally in its entirety by the reference numeral 10 and which is comprised of two component parts, namely a circular hoop 11 and a pushing or guide stick 12.

The guide stick 12 is defined by an elongated tubular shaft 21 bent at its top end 22 and terminating in a handle or gripping member 23, the shaft terminating in its opposite end 24 by being secured centrally of a rod 25 projecting symmetrically from opposite sides of the shaft 21 in a direction normal to the plane defined by the shaft 21 and handle 23. Affixed to the front surface of the bottom end portion of the shaft 21 is a pushing block 28 which extends upwardly along the shaft from rod 25 and which is of a substantially rectangular cross-section provided with an arcuate concave groove 29 defining the front face thereof and adapted to engage the peripheral edge of the hoop 11 as will be later described. The pusher block 28 is affixed to the shaft 21 by suitable fasteners 31 such as nails, screws, and the like.

The handle member 23 is preferably formed of a resilient material having an axial bore opening out of one end thereof and adapted to be slipped over the stick portion 22 to provide for a firm grip of the stick by an individual, with there preferably being provided grooves 32 in the bottom of the handle member adapted to receive the fingers of an individual hand firmly therein to assist the individual in firm holding and guiding of the stick 12.

The hoop 11 is made of seamless extruded plastic tubing 40 of a desired diameter, and is provided with a reduced end portion 41 having an exterior diameter

adapted to be telescopically engaged in the opposite end portion 42 up to the point where the opposite end portion 42 engages an annular shoulder 43 defined between the reduced end portion and the normal tubing diameter.

As seen in FIG. 5 the reduced end portion 41 is telescopically received in the opposite end portion 42 and is secured therein by a diametrically extending rivet 50 having enlarged head portions 51 at each end thereof and which diametrically extends through the telescopically overlapped end portions to secure the same firmly together.

As seen in FIG. 6 a modified form of the invention is illustrated where the reduced end portion 41 is telescopically received in the opposite end portion 42 and is secured therein by a multiplicity of staples 60 disposed about the circumference thereof and penetrating through the telescopic end portions to permanently affix the same firmly together.

As seen in FIG. 7 yet a further modified form of the invention is illustrated wherein the reduced end portion 41 is telescopically received in the opposite end portion 42 with there being a coating of suitable adhesive 70 disposed intermediate the juxtapositioned surfaces of the end portions and which permanently affixes the end portions firmly together, the adhesive being of the solvent type or the epoxy type or the like.

It is seen from the drawings and above description that once the hoop 11 is assembled it is very solid and secure and cannot easily be taken apart or forced out of its circular shape and configuration.

It is to be further understood that the hoop 11 may be empty, or if desired to add weight or stability thereto, the hoop may be either partially or wholly filled with granular type material such as sand, small stones, and the like, or may be partially or wholly filled with a liquid such as water or the like in which case the joining of the ends of the tube would be by the adhesive means of FIG. 7 such that the interior of the tube remains liquid tight.

Still further it is to be understood that the hoop 11 may be manufactured of a solid tubing with one end portion provided with a cylindrical recess therein adapted to receive a reduced opposite end portion in the recess with the same being secured in the same manner as disclosed in FIGS. 5, 6 or 7.

In operation, an individual grips the handle portion 23 of stick 12 and engages the periphery of the hoop 11 in the arcuate concave groove 29 in a manner to push and guide the hoop in a propelling manner along a suitable surface, the individual using the rods 25 for purposes of guiding and maneuvering the hoop by engaging side portions of the hoop depending upon the path the individual desires the hoop to follow.

It is to be understood that the form of this invention herewith shown and described is to be taken as preferred examples of the same, and that this invention is not to be limited to the exact arrangement of parts shown in the accompanying drawings or described in this specification as various changes in the details of construction as to shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention, the scope of the novel concepts thereof, or the scope of the sub-joined claims.

What is claimed is:

1. A roll-o-wheel toy device comprising, in combination:

a circular hoop formed of a length of seamless extruded plastic hollow tubing of a substantially circular cross-section;

said tubing having a first end and a second end;

5 said first end of said tubing being of the same cross-section configuration as the length of said tubing;

said second end of said tubing being of a reduced exterior diameter having an exterior diameter thereof adapted to be snugly telescopically received within said first end of said tubing;

an annular shoulder portion defined between said reduced portion of said second end of said tubing and said main body length of said tubing, said shoulder being of a truncated conical configuration having its truncated apex portion formed contiguous with said reduced portion and having its base portion formed contiguous with said main body length of said tubing;

the outermost edge of said first end of said tubing adapted to engage said shoulder portion of said second end of said tubing when said reduced portion of said second end is axially inserted into said first end;

a coating of adhesive disposed about the exterior circumference of the cylindrical side walls of said reduced portion of said second end of said tubing and engaging the juxtapositioned interior circumferential surfaces of said first end of said tubing when the reduced end portion is telescopically inserted into the first tubing end to fixedly secure said ends of said tubing permanently together and seal the hollow interior of said tubing from the atmosphere;

a liquid disposed in said hollow interior of said tubing to provide varying characteristics to said hoop as to weight and stability as it is rolled along on its peripheral edge with the liquid constantly shifting its position within the hollow tubing;

a guide stick for effecting the propelling, rolling, guiding and maneuvering of said hoop along any desired path, said guide stick including a shaft, a handle portion, a head portion, a guide rod, and a push block;

said shaft being of an elongated cylindrical configuration having said handle portion formed at the top end thereof and having said head portion formed along the bottom end thereof;

said handle portion being of a tubular configuration formed integrally with said shaft and bent at an angle to the axis of said shaft rearwardly thereof;

50 a handle member received about the projecting free end of the handle portion and provided with a series of adjacent finger gripping partially annular grooves disposed along a bottom segment of the circumference thereof adapted to receive the fingers of an individual's hand firmly therein to assist the individual in the firm holding and guiding of the guide stick;

said head portion being formed integrally with said shaft and axially aligned therewith;

60 said guide rod being of an elongated cylindrical configuration fixed at a mid point to the bottom end of said head portion and projecting symmetrically from opposite sides of said head portion normal to the plane defined by said shaft and said handle portion;

65 said push block being of elongated box like rectangular configuration having a face surface and a back surface with the back surface affixed to said head

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portion and the face surface projecting outwardly therefrom in a direction opposed to the direction of said handle portion and with the push block extending longitudinally along said head portion from a position adjacent said guide rod to a position spaced upwardly therefrom along said head portion;

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an arcuate concave groove extending longitudinally completely through the face surface of said push block and adapted to engage the peripheral edge of said hoop therealong for use in the maneuvering of said hoop by said guide stick.

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