July 27, 1954 C. M. WILLIAMS 2,684,850

BALL TOSSING AND CATCHING TOY

Filed June 4, 1951

Fig. 1

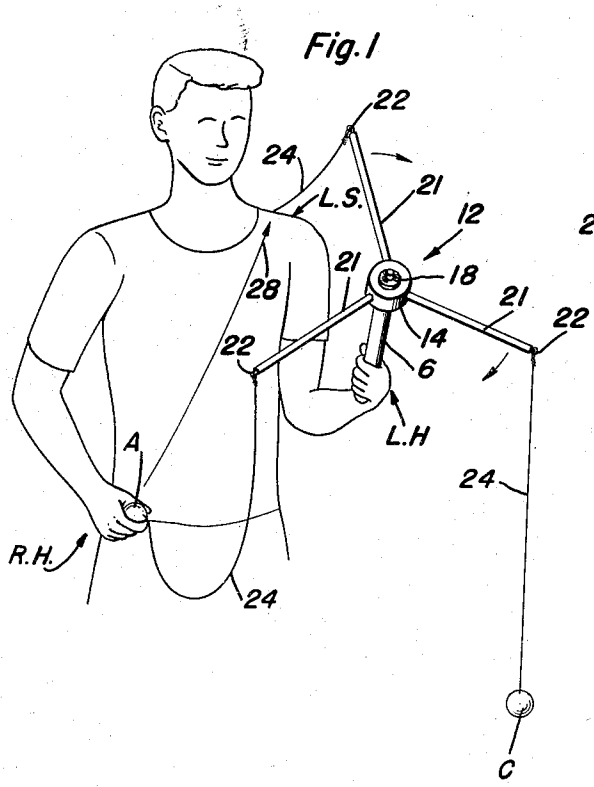


Fig. 2

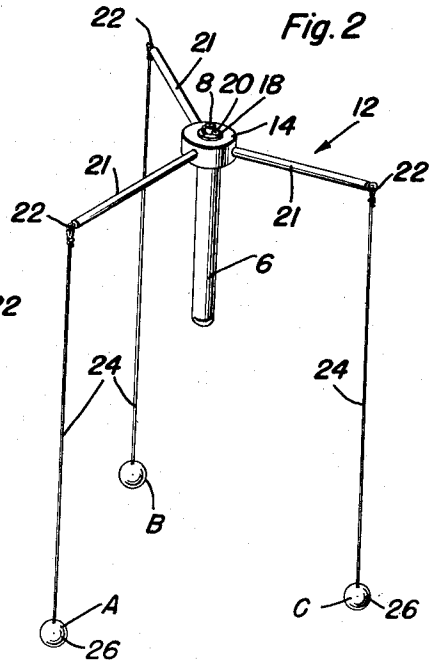
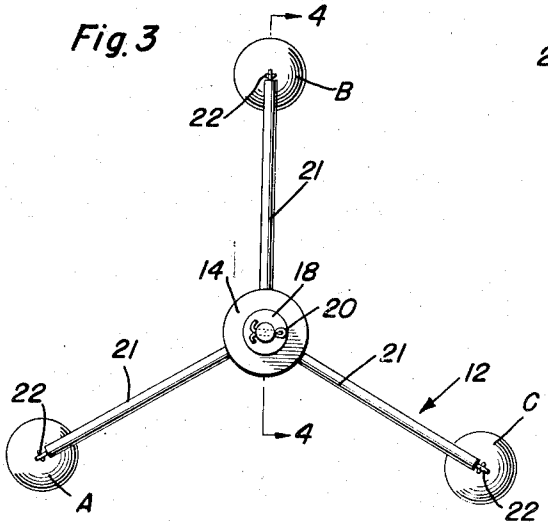


Fig. 3



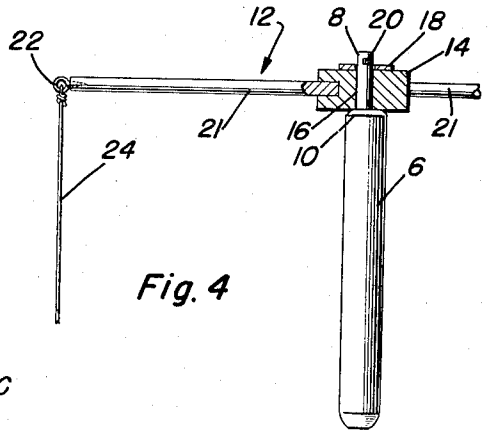


Fig. 4

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BALL TOSSING AND CATCHING TOY

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3 Claims. (Cl. 273—95)

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The present invention relates to certain new and useful improvements in amusement devices and toys and has more particular reference to a hand-held toy characterized by several tethered balls which are adapted to be skillfully tossed and caught in rather rapid predetermined succession.

More specifically, the invention has to do with a handle which is grasped and held in one hand by the user, and a freely rotatable wheel which is mounted on said handle, said wheel being characterized by radial spokes and said spokes being provided on their outer ends with tethering cords or the like which are, in turn, provided on their outer ends with rubber balls of appropriate sizes and weights.

An object of the invention is to teach the user how to properly toss the balls, one by one, with the right hand over the left shoulder for example, and to retrieve said balls with the same hand adjacent to the right hip and again toss the thus caught or retrieved balls in the same manner, in a technique to be hereinafter more specifically revealed.

A significant object of the invention is to provide a simple, practical and economical contrivance which teaches the principle of handling wheel revolved tethered balls in a new way and through the medium of a unique construction and, in so doing, to provide a highly clever toy in which manufacturers, users and others will find their essential requirements and needs fully met, contained and novelly available.

Other objects and advantages will become more readily apparent from the following description and the accompanying sheet of illustrative drawings.

In the accompanying sheet of drawings wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is a perspective view of a toy constructed in accordance with the principles of the present invention showing the manner in which the same is held and used.

Figure 2 is a perspective view of the toy per se.

Figure 3 is a top plan view of the toy appearing in Figures 1 and 2.

Figure 4 is a section taken on the plane of line 4—4 of Figure 3, looking in the direction of the arrows.

Referring now to the drawings by distinguishing reference numerals and with particular reference to Figure 2, it will be seen that the numeral 6 designates a stick which may be referred to as a handle or hand-grip. This may be of wood or any suitable material and in practice it is approximately eight inches long and one-half inch in diameter. As best shown in Figure 4 the upper end of the stick is reduced to provide a spindle or journal 8 and an associated shoulder 10. The aforementioned rotor or wheel is denoted by the numeral 12 and here again this may be of wood or any suitable material, said wheel being characterized by an annulus or hub 14 having a bearing 16 at its center to accommodate the journal 8. There is a washer at 18 and an insertable and removable cotter pin at 20 which is passed through an opening in the journal and which coacts with the washer and hub in rotatably mounting the wheel, as a unit, on the handle. Radiating from the hub are several spokes 21, these all being equivalent in length. Each spoke is approximately eight inches long. Connected to the respective outer ends of the respective spokes are eyescrews 22 and these serve to accommodate the balls and tethering elements. Here each tethering element is a simple length of cord 24 which may be some eighteen inches long. Suitably threaded or otherwise mounted on the outer end of the tethering cord is a rubber ball 26 of appropriate weight and diameter, preferably a solid rubber ball and also preferably one which is sponge rubber and not likely to do injury if in the course of use it whacks or otherwise strikes the user.

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In using the unique skill and talent developing ball tossing and catching contrivance, it is obvious that the handle 6 may be grasped and held in either hand. For the sake of illustration, and with reference to Figure 1, it is to be assumed that the handle is in the grasp of the left hand L. H. And the handle should be poised at an approximate 45° angle in front of the adjacent left shoulder L. S. The right hand R. H. is located at a level or adjacent to the right hip in the manner shown. Let it be assumed that the tethering cord 24 for the second ball, which may be designated B is loosely draped or hung over the left shoulder somewhat in the manner shown. The first or starting ball A is held in the right hand. The remaining or third ball C is suspended as shown. As far as possible the right hand should be kept within the range of the right hip for both (1) tossing and (2) catching or retrieving purposes. Now, with the device set up in the manner shown and described the ball A is held in the right hand and is tossed clear of the left cheek and over the left shoulder with sufficient force that it yanks the wheel 12 and starts the wheel to spin in proportion to the rate of the force exerted thereon by the ball tossed. As

soon as the ball A is released, the ball C will swing around on its tethering cord and the player may catch the ball C and then throw it in the direction of the arrow 28 over the left shoulder. By tossing the balls one by one and retrieving them one by one the ball return wheel may be caused to rotate more or less continuously and the slower and more rhythmical the tossing catching and turning motions, the more easily one may toss and catch the balls over and over to prove his skill in using the toy. With some it would be difficult to even get the wheel into smooth rotation and only by trial and error and experience is it possible to get the knack of doing what is necessary to quickly toss one ball and catch the next ball and toss and catch the next ball and so on.

Minor changes in shape, size, materials and rearrangement of parts may be resorted to in actual practice provided no departure is made from the invention as claimed.

Having described the invention, what is claimed as new is:

1. A toy through the medium of which several captive balls may be tossed by hand into the air one after another over the left shoulder of the user, using the right hand and while the latter is situated and deftly handled and otherwise maneuvered in the area adjacent the side of the right hip, said balls constituting weights to be subsequently caught and thus retrieved in the same hand and quickly again tossed over the left shoulder in repeated tossing and catching procedure, comprising a relatively short rigid handle adapted to be grasped and held in an approximately upright position with the left hand of the user, a position which coincides, generally speaking, with the approximate plane of the user's left shoulder, a freely rotatable wheel adapted to be given a required impetus and then kept in motion solely by the flight of the balls, said wheel having a relatively small hub mounted for idling and free rotation on the upper end of said handle, a plurality of elongate equidistant circumferentially spaced spokes, said spokes being substantially rigid and joined at their inner ends with the hub at circumferentially spaced places and radiating from said hub in a plane at right angles to the axis of said handle, each spoke being of a length greater than the diameter of said hub, a flexible tethering element secured to the outer end of each spoke, said flexible element being of a prescribed length, a length greater than the lengths of the handle and spokes respectively, and a ball affixed to the outer free end of each tethering element, the flight of each ball resulting from the aforementioned tossing step and motion of said balls flying through space one after the other serving to set the wheel into motion and to keep it in motion, aided by the pulling forces of the flexible elements exerted on their respective spokes.

2. The structure defined in claim 1 wherein the upper end of said handle is provided with an integral journal and an associated shoulder, said hub being removably mounted for idling on said journal and resting in rotatable contact with said shoulder.

3. A toy through the medium of which several captive balls may be tossed by hand into predetermined general paths of flight one after another over the left shoulder of the user by way of the right hand and while the latter is held and deftly handled and otherwise utilized in the area adjacent the side of the right hip of the user, said balls being adapted to be subsequently caught one by one in the right hand and quickly and again tossed over the left shoulder in sequential routine of tossing, catching and again tossing each ball, comprising a rigid handle adapted to be grasped and held in an approximately upright position with the left hand of the user, a position which coincides, generally speaking, with the approximate plane of the user's left shoulder, said handle being provided on its upper end with a fixed journal and a complemental endthrust and journalling shoulder, a freely rotatable wheel adapted to be given its required impetus and kept in motion as continuously as is reasonably possible by the flight of the balls in timed order one after the other, said wheel having a relatively small hub mounted for free idling on said journal and resting on said endthrust shoulder, a plurality of elongate equidistant circumferentially spaced spokes, said spokes being substantially rigid and linearly straight and joined at their respective inner ends with the hub at equidistant circumferentially spaced points and radiating from said hub in a plane at right angles to the axis of the handle, each spoke being of a length greater than the diameter of said hub, a flexible tethering element secured to the outer end of each spoke, said flexible element being of a prescribed length, a length greater than the lengths of the handle and spokes respectively, and a ball affixed to the outer free end of each tethering element, the flight of each ball through its predetermined path of travel serving to set the wheel into motion and to keep it in motion, aided by the pulling forces of the flexible tethering elements exerted on their respective spokes.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
124,915	Rix	Mar. 26, 1872
139,533	Batchelder	June 3, 1873
1,141,434	Tosta	June 1, 1915
1,278,228	Schmidt	Sept. 10, 1918
1,780,385	Guyot	Nov. 4, 1930
1,915,868	Rogers	June 27, 1933

FOREIGN PATENTS

Number	Country	Date
328,863	Germany	Nov. 4, 1920
744,430	France	Jan. 21, 1933