

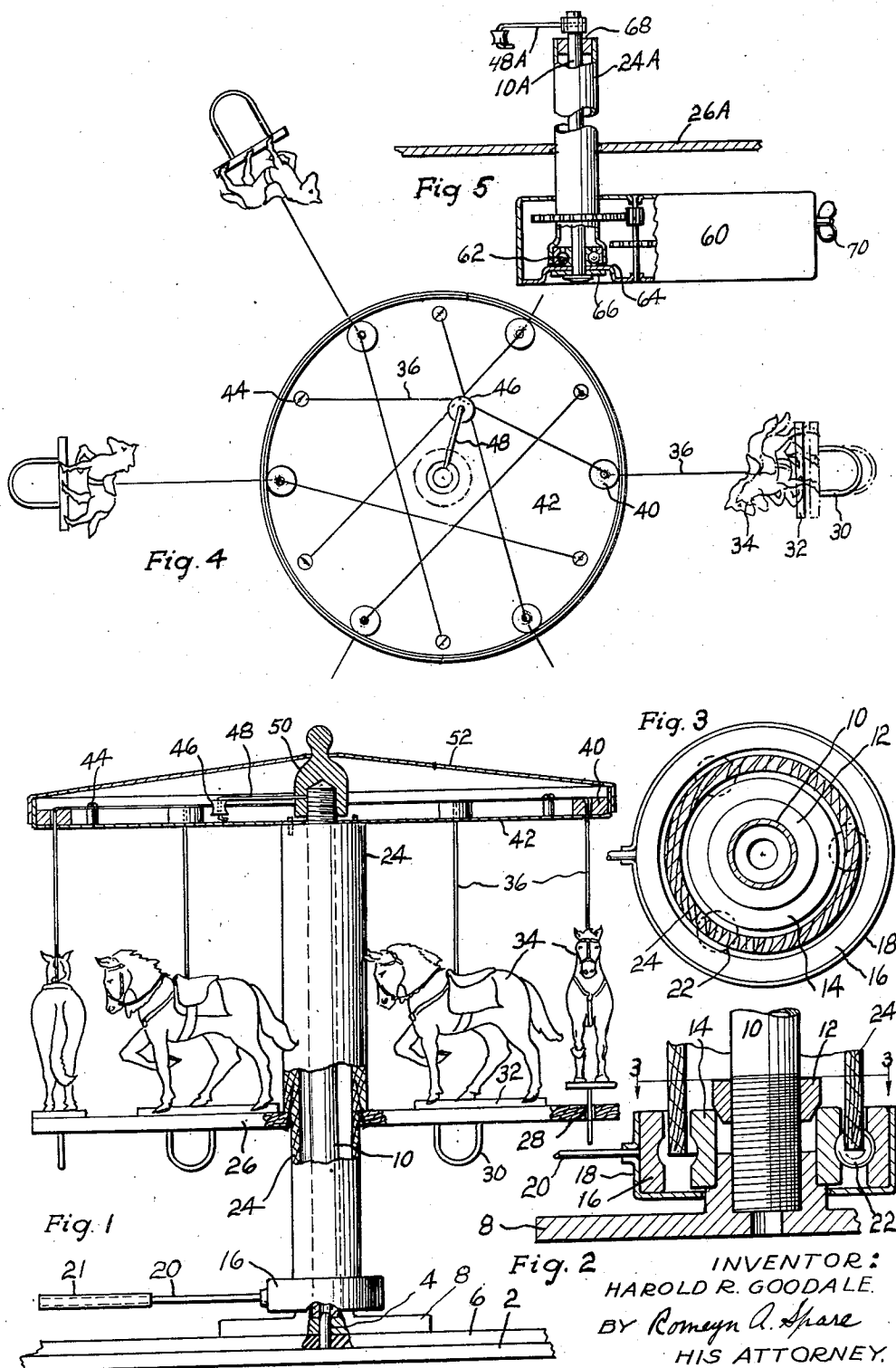
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TOYS, MORE PARTICULARLY TOY MERRY-GO-ROUNDS

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TOY, MORE PARTICULARLY TOY
MERRY-GO-ROUND

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7 Claims. (Cl. 272-31)

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This invention relates to toys, more particularly toy merry-go-rounds run by phonographs, and comprises all of the features of novelty herein disclosed. An object of the invention is to provide an attractive and interesting toy for children. Another object is to provide a toy having moving figures actuated by simple means and adapted to be mounted on and actuated by existing phonographs or by spring actuated clock-work. Another object is to provide improved means for driving one rotary member from another to get a desired speed ratio.

To these ends and also to improve generally upon devices of this character, the invention consists in the various matters hereinafter described and claimed. In its broader aspects, the invention is not necessarily limited to the specific constructions selected for illustrative purposes in the accompanying drawings in which

Fig. 1 is a front view with parts in diametric section.

Fig. 2 is an enlarged central section of certain elements near the base which effect speed reduction.

Fig. 3 is a section on line 3-3 of Fig. 2.

Fig. 4 is a top view of Fig. 1 to smaller scale and having a canopy removed.

Fig. 5 is a sectional view of a modification.

The numeral 2 indicates the turntable of a phonograph, the usual centering stud 4 entering the usual hole in a record 6 which is intended to be played while the toy is in use although the use of the record is optional. Resting on the central portion of the record or the turntable and turning at the same speed is a step plate or base 8 in which an upright tubular post 10 is threaded. A nut 12 clamps the inner race ring 14 of a ball bearing against a shoulder on the step plate. The outer race ring 16 of the ball bearing is secured in a cup 18 which is anchored against rotation by an anchoring bar 20 extending radially and having a telescoping extension 21 adapted to engage any suitable fixed part of the phonograph container, such as a corner thereof.

The ball bearing contains only three balls 22 which make one half a revolution within the outer race ring while the inner race ring and attached parts make a full revolution. Supported on the balls is a sleeve 24, having half round notches or pockets at the lower end, one for each ball. The sleeve 24 thus turns at one half the speed of the inner race ring and attached parts. Fastened to a shoulder on the rotary sleeve 24 is a rotary disc or platform 26

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having a series of elongated slots 28 near the periphery, each slot containing a projection such as a staple 30 fastened to a pedestal 32 on which an animal 34 or other figure is mounted. These animals go around with the platform and jump up and down as they go, the staples 30 holding them from twisting on the supporting wires or strings 36 by which they are suspended, the various strings being actuated in quick succession as will appear.

Each string 36 passes upwardly through a hole in a guiding washer 40 secured near the periphery of a flanged plate or disc 42 which is fastened to the top of the rotary sleeve 24. Each string then passes to an anchoring screw 44 on the disc 42, each anchoring screw being nearly but not exactly diametrically opposite to the respective washer 40 so that the string follows a chord of a circle whose center is at the axis of the turntable. In the absence of a certain pulley 46 on a bar 48 attached to a threaded thimble 50 on the post 10, the six strings shown would define a hexagonal area near the center of the disc. The string which has the numeral 36 in Fig. 4 is displaced from a straight course by the pulley 46 and the corresponding animal is raised as indicated at the right of Figs. 1 and 4. The sleeve 24, together with the platform 26 and the disc 42, form a rotary carrier. Due to the speed of the post 10 and pulley arm 48 being twice that of the rotary carrier, there is a relative rotation of the pulley arm with respect to the strings within the hexagon of strings and the latter are successively moved out of a straight line, thus lifting and lowering the animals in quick succession and making an attractive toy running with music. A flanged canopy or decorative cover 52 is secured to the periphery of the disc 42, the center clearing the thimble 50 which of course is revolving twice as fast. In the absence of the record 6, the device may be mounted directly on the turntable 2.

Fig. 5 indicates a modification wherein the post 10A is anchored from revolution and the sleeve 24A is driven by spring actuated gears. The relative rotation provides for the successive actuation of the strings (not shown). A casing 60 contains the gearing which drives the sleeve, the lower end of the sleeve being journaled on a ball bearing 62 whose inner race ring is press fitted on the post and rests on a raised portion 64 of the casing. The lower end of the post is headed to engage a washer 66. A plain bearing sleeve 68 is interposed between the upper end of the rotary sleeve and the stationary post.

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A pulley carrying arm 48A corresponding to the pulley arm 48 of Figs. 1 and 4 is fixed to the upper end of the post 10A and hence will effect the displacement of the strings when the latter are arranged as in Figs 1 and 4 and rotate with the sleeve and the attached platform 26A. A thumb piece 70 provides for winding up the clock-work gearing.

I claim:

1. In a toy of the character indicated, a carrier, means for rotating the carrier around an axis, a series of figures distributed around the periphery of the carrier, a figure suspending string attached to each figure and anchored to the carrier, and means actuated by the rotation of the carrier for successively actuating the strings, said means comprising a post having a radially projecting bar.

2. In a toy of the character indicated, a carrier, means for rotating the carrier around an axis, a series of figures distributed around the periphery of the carrier, a string for suspending each figure, a pulley, and means responsive to rotation of the carrier for causing the pulley to successively engage and displace the strings.

3. In a toy of the character indicated, a carrier, means for rotating the carrier around an axis, a series of figures distributed around the periphery of the carrier, a guide above each figure, a string attached to each figure and passing through the guide and along one side of the carrier axis to an anchor, the series of strings defining an area near the axis of the carrier, a bar extending from the axis of the carrier, and means responsive to rotation of the carrier for causing the bar to successively engage and displace the strings.

4. In a toy of the character indicated, a driven sleeve, a carrier comprising upper and lower discs attached to the sleeve, a supporting post extending through the sleeve, a bar extending radially from the post, a series of figures distributed about the carrier between the discs, a string attached to each figure and passing upwardly through the upper disc and thence along a chord

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to an anchor, and means for rotating the sleeve to cause the bar to successively displace the strings.

5. In combination with a phonograph having a driven turntable, a post supported on and rotated by the turntable, a carrier mounted for rotation around the post, a series of figures mounted on the carrier for travel therewith, means for driving the carrier at a different speed than the supporting post, and means responsive to the relative rotation for causing movement of the figures with respect to the carrier.

6. In combination with a phonograph having a driven turntable, a post supported on and rotated by the turntable, a driven carrier surrounding the post and having a platform, a series of figures suspended by strings and travelling with the platform, and a bar rotating with the post for causing the strings to raise and lower the figures.

7. In a toy merry-go-round, a rotary carrier having a series of figures distributed thereon, a string connected to each figure and anchored to the carrier, and string actuating means for successively moving the figures and comprising a bar rotating with respect to the carrier and having means at the end thereof for displacing the strings.

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Certificate of Correction

Patent No. 2,457,460.

December 28, 1948.

HAROLD R. GOODALE

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows:

Column 4, line 10, claim 5, for the word "responsible" read *responsive*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 26th day of April, A. D. 1949.

[SEAL]

THOMAS F. MURPHY,
Assistant Commissioner of Patents.