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E. J. ROBERTS.
TOY.

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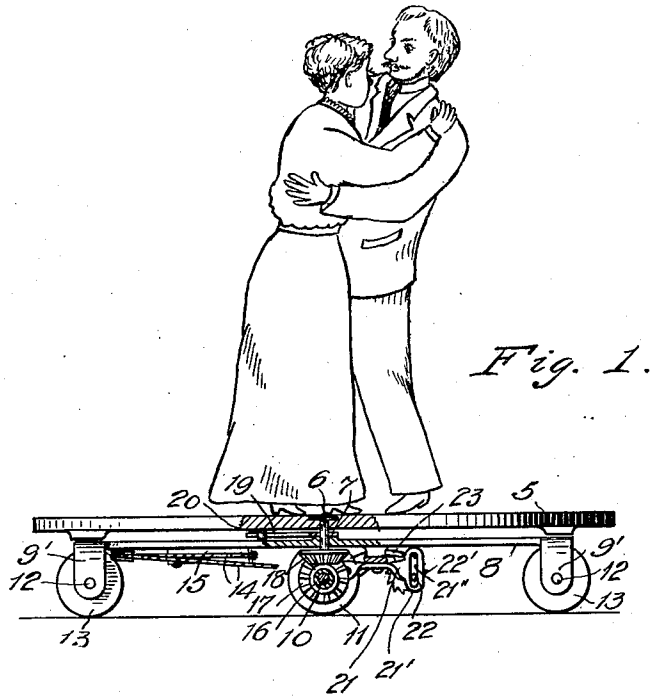
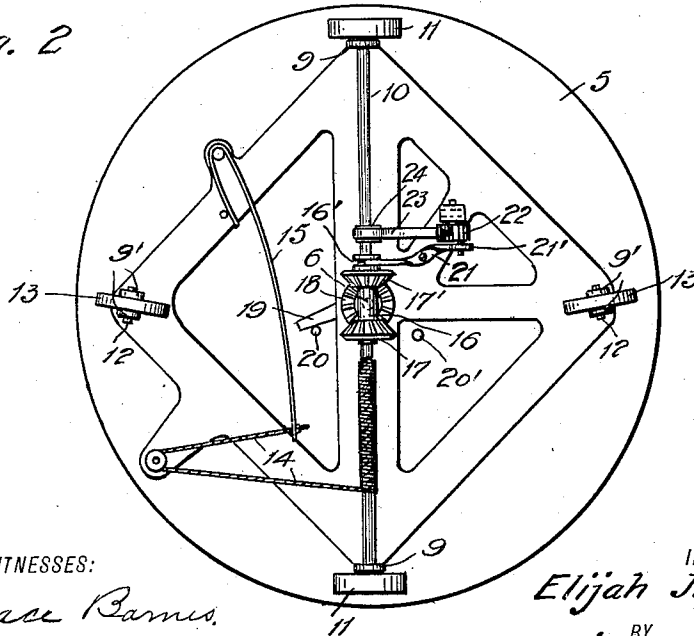


Fig. 2



WITNESSES:

Horace Barnes.
Olof Ohlson

INVENTOR

Elijah J. Roberts

BY

Pierre Barnes
ATTORNEY

UNITED STATES PATENT OFFICE.

ELIJAH J. ROBERTS, OF SEATTLE, WASHINGTON, ASSIGNOR OF ONE-HALF TO FREDERICK W. COUNTER, OF SEATTLE, WASHINGTON.

TOY.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ELIJAH J. ROBERTS, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Toys, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a vertical elevation, partly in section of devices embodying my invention; and Fig. 2, an underside plan view of the same.

The object of this invention is the provision of devices for the amusement of the younger members of society and, more, particularly, to furnish an exhibition of figures actuated by mechanical means to cause them to assume characteristic positions and go through various motions of a couple dancing, and is alike suited for home amusement or as an advertising display in store windows.

The invention consists in the novel construction and combination of parts as will be hereinafter described and claimed.

Referring to the drawings, the numeral 5 represents a platform, desirably of circular shape, and pivotally mounted upon a vertical spindle 6 which is journaled in a bearing 7 of a base 8. This base is provided with apertured pendent lugs 9 through which extend an axle 10 of traction wheels 11 arranged, desirably, to extend transversely through the prolonged axis of the said vertical spindle. The base is likewise provided with apertured lugs 9' to receive the journaled ends of axles 12 for trailing or guide wheels 13 which are obliquely arranged, as shown, so that they will cause the base to which attached to take a curved path as it is propelled through the action of the power mechanism. Such power mechanism consists of a flexible line or cord 14 having one of its ends reliably secured to axle 10 and is wound thereabout through manipulating one of the wheels 11 and against the action of a spring 15 which is attached to the base and is deflected by the winding up of the cord to which it is attached and, in tending to recover its normal shape acts to rotate the axle whereby the device is propelled.

Rotatable with axle 10 but slidable lengthwise thereof is a sleeve 16 carrying two oppositely arranged bevel gear wheels 17 and 17' which are severally adapted to mesh with an intermediately disposed bevel wheel 18 which is fixedly mounted upon said spindle and thus is rotated through the turning of the axle in one direction or the other according to the particular one of the bevel-wheels upon the sleeve with which it is temporarily engaged. Secured to said spindle is an arm 19 which is revolved therewith and will engage with the depending pin 20, or 20', of the platform to rotate the latter therewith through the medium of the bevel wheels in mesh.

In practice the bevel-wheels 17 and 17' are alternately thrust into and out of engagement with the other, 18, by means of the sleeve 16 being engaged in an annular groove 16' thereof by the forked arm of a vibratile bell-crank 21 which is provided in its other arm 21' with a slot 21'' through which protrudes the crank-pin 22 of an intermittently actuated wheel 22'. This motion is conveniently imparted to the wheel by serrating the periphery of the same to furnish ratchet teeth which are successively engaged by a pawl 23 reciprocated by the rotary motion of the axle 10. A convenient manner of accomplishing such movement to the pawl is by means of wheel 24, mounted eccentrically upon the axle, being fitted within the end of the pawl.

The operation of the invention is as follows: The cord being wound about the axle 10 as before described, the device is placed upon the floor of a room, whereupon the spring in asserting its power effects the turning of the traction wheels to propel the device and which being influenced through the oblique disposition of the wheels 13, the device is moved in a circular path. Coincidentally the spindle 6 is caused to rotate by its bevel wheel 18 being turned by the driving wheel 17, or 17' as the case may be, and the arm 19 sweeps about and rotates, through the engagement of the pin 20, the platform 5 and the figures thereupon. After the figures have made a certain number of complete turns in one rotary direction the then active bevel gear, as 17, is withdrawn from mesh with its couple 18 and rotary motion of the figures thereby interrupted until the previously unoccupied bevel wheel 17' is operatively meshed with the wheel 18 and then bringing the arm 19 to other of the pins 20', whereupon the figures are rotated in a reverse direction until the wheels 17' and 18 are disconnected when the figures are idle, and so on. The number of times that the figures are turned in one direction or the other will obviously be dependent upon the length of time either of the driving gear wheels are engaged with the driven one, as well as the time consumed while the arm 19 is being brought to reversely engage the platform. The actions of the figures are strikingly realistic by their turning first in one direction, then for a short interval relatively immobile, and then oppositely turned during the progressive travel of the whole device in a curved track which conveys to the beholder the idea that the figures are performing a waltz.

Having described my invention, what I claim as new and desire to secure by Letters-Patent, is—

1. A toy of the character described comprising a base provided with traction and supporting wheels, spring actuated means for rotating the traction wheels, an axle for the traction wheels, a driven gear wheel, a sleeve secured to the axle to rotate therewith and carrying two driving gear wheels arranged upon opposite sides of said

- driven gear wheel, a platform mounted upon said base, a vertical spindle for said last named wheel, an arm upon this spindle adapted to engage with said platform and rotate the same in one direction or the other according to
- 5 which of said driving wheels are operative, a ratchet wheel, a pawl actuated by said axle to impart intermittent motion to said ratchet wheel, and mechanical connection between the said ratchet wheel and sleeve whereby the latter is shifted to alternately engage the driving wheels with
- 10 said driven wheel, and figures carried by said platform.
2. A toy of the character described comprising in combination with the rotary platform and the figures carried thereon, a base supporting said platform, wheels supporting the base, spring actuated means for rotating the wheels
- 15 to impart a progressive movement to the base, said means also serving to effect the intermittent reversed rotary movements to the platform, and the mechanism whereby such last named movements are imparted to the platform.

3. A toy of the character described, comprising figures mounted upon a platform so as to move therewith, said platform rotatably mounted upon a base, said base which is provided with traction wheels, spring actuated means for imparting motion to said wheels to propel the base, and means whereby the platform is controlled to alternately rotate the same in opposite directions with an interval of rest between such changes in direction of the platform.

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In testimony whereof I affix my signature in presence of two witnesses.

ELIJAH J. ROBERTS.

Witnesses:

PIERRE BARNES,
OLOF OHLSON.