April 6, 1954 R. M. RAGO 2,674,457

ROTARY JUMPING FIGURINE TOY

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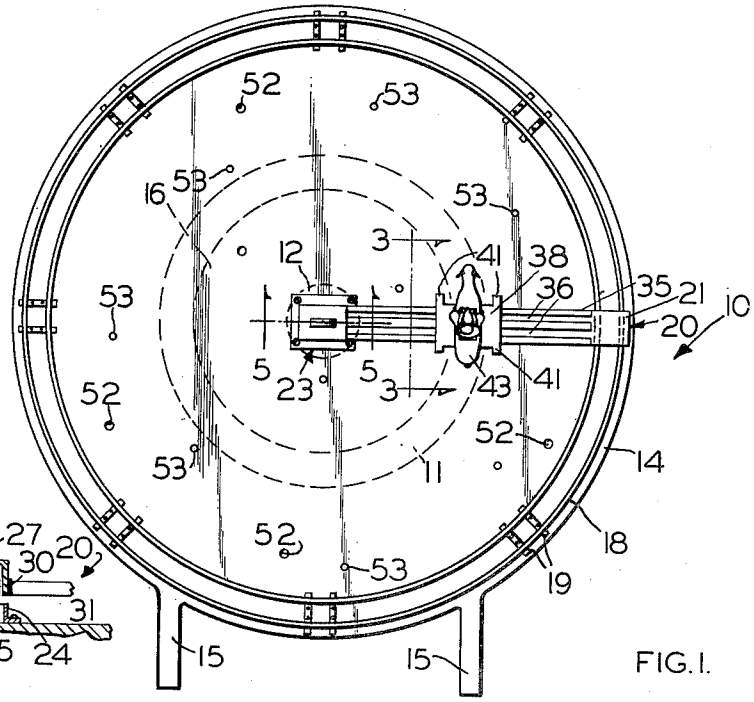

FIG. 1.

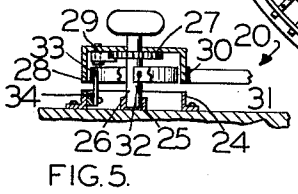

FIG. 5.

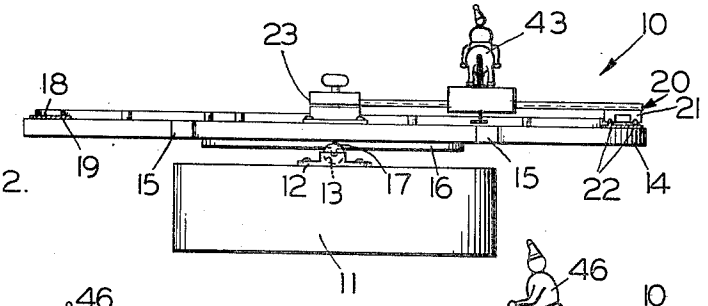

FIG. 2.

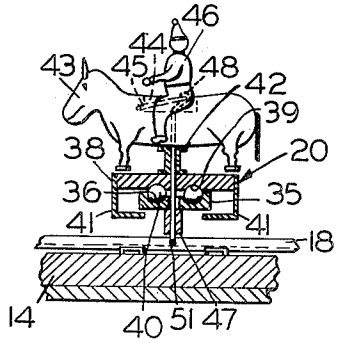

FIG. 3.

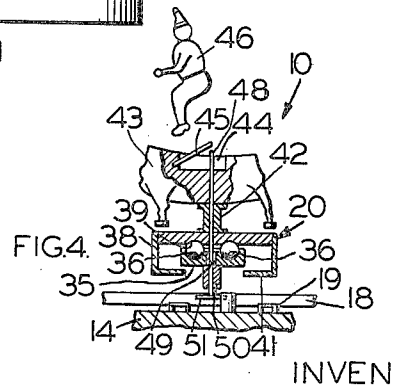

FIG. 4.

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ROTARY JUMPING FIGURINE TOY

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10 Claims. (Cl. 273—110)

1

This invention relates to an improvement in toys. More particularly it relates to a releasable or jumping figurine toy, the operation of which is dependent on the skill of the operator.

It is a prime object of this invention to provide an improved releasable toy device wherein a figurine is resiliently ejected from a rotating track section when a releasable latch mechanism is engaged by a stationary peg.

It is a more specific object to provide an improved toy comprising an oscillating or tilting and rotating table tiltable by an operator and adapted to contain a plurality of pegs, the table having an annular track which supports an end of a radially extending track section, the track section being connected at its other end to the table for clockwise or counterclockwise rotation by means of a windup mechanism, the track section supporting a freely movable, by gravity, carriage on which a figurine is supported, the figurine being ejected by a spring latch when a latch member engages one of the pegs during swinging movement of the track section.

These and further objects will become more readily apparent during a reading of the specification when examined in connection with the accompanying drawings.

In the drawings:

Figure 1 is a plan view of an improved toy or game device;

Figure 2 is a side elevational view of the device shown in Figure 1;

Figure 3 is a sectional view taken along the line 3—3 of Figure 1;

Figure 4 is a detail view similar to Figure 3, showing a figurine ejection mechanism in a certain stage of operation; and

Figure 5 is a cross sectional view taken along the line 5—5 of Figure 1.

Referring now particularly to Figures 1 and 2 a toy apparatus or game is generally designated by the reference character 10. The toy apparatus 10 comprises a base or support 11 on which a pivot bracket 12 is mounted. The pivot bracket 12 includes a socket 13. A table 14 is positioned above the base 11, the table 14 including a pair of handle members or grips 15. A plate 16 is suitably connected to the lower surface of the table 14 and a ball 17 is suitably connected to the plate 16. The ball 17 is positioned in the socket 13 so that the table has relative rotating and tilting or oscillating motion with respect to the base 11.

An annular track 18 is suitably connected to the table 14 by means of a plurality of track ties 19.

2

A rotating track section is generally indicated at 20. The rotating track section 20 includes at its outermost end an end support 21 which is suitably provided with a pair of laterally spaced recesses 22 which engage the track 18 in relative sliding relation. It is of course apparent that the end support 21 could also suitably be provided with wheels which would track on the track 18. The innermost end of the track section 20 is provided with a spring motor mechanism 23. The spring motor mechanism 23 can be of conventional construction adapted to rotate the track section 20 in a clockwise or counterclockwise direction whichever is desired. The spring motor mechanism 23 comprises a lower housing bracket 24 rigidly secured to the table 14. The housing bracket 24 encloses a central pivot bracket 25 in which the lower end of a turnkey 26 is pivotally mounted. A ratchet 27 is rigidly secured to the turnkey 26 the said ratchet 27 supporting an upper housing portion 28. A pawl 29 is suitably pivotally connected to the upper housing portion 28 for engagement with the ratchet 27. The upper housing portion 28 has suitably connected thereto by means of welding or other fastening means as indicated at 30 one end of the track section 20. A suitable spiral spring 31 is suitably disposed within the upper housing portion 28. The innermost end of the spring 31 is suitably connected to the turnkey 26 as indicated at 32. The outermost end of the spring 31 is suitably connected as indicated at 33 to an arm 34 which is also connected to the lower housing portion.

The track section 20 includes a track 35 which is provided with a pair of laterally spaced grooves 36. A carriage 38 is positioned for longitudinal movement on the track 35. The carriage 38 is provided with a pair of laterally spaced sockets 39 in which are positioned ball bearings 40, the ball bearings 40 being adapted to travel in the longitudinally extending grooves 36. The carriage 38 is also provided with a pair of L-shaped arms 41 which are so disposed that they will limit the upward movement of the carriage 38 relative to the track 35. The carriage is provided with an upwardly extending pedestal 42 on which a toy animal 43 is supported. The toy animal 43 is provided at its uppermost end with a recess 44 in which a blade spring 45 is positioned. A figurine 46 is seated upon the animal 43 over the recess 44 and on top of the blade spring 45. The spring 45 is normally held in a retracted position within the recess 44 by means of a latch element 47. The latch element 47 may be of a wire having an upper hook arm 48

which is adapted to engage the spring 45 and hold it within the recess 44. The latch element 47 extends through a groove 49 in the track 35 and is provided at its lower end with a sleeve 50 which is loosely journalled on the lower end of said latch element 47. The lowermost end of the latch element 47 is provided with a T-member 51. Rotation of the latch element 47 will rotate the hook away from holding engagement with the blade spring 45, whereupon the spring 45 springs upwardly. The two positions are shown in Figures 3 and 4. The latch element is easily rotated but a sufficiently tight fit between it and the animal 43 are provided so that it does not drop down any appreciable degree upon release of the spring 45.

The platform includes a plurality of openings 52 in which upwardly extending removable obstructions such as pegs 53 may be positioned.

During the operation the operator grasps the handles 15 of the table 14. The table 14 is so positioned that it can tilt or in other words oscillate on the base 11. The table may also be rotated on the said base. The spring motor mechanism 23 may be wound up to wind up the coil spring 31 whereupon the track section 20 may be rotated in a counterclockwise direction. It must be understood that the spring mechanism can be of conventional design so that by reversing the position of the spring 31 the track section 20 can also be operated in the clockwise direction. The direction in which the track section 20 pivots is not deemed important nor are the claims limited to clockwise but the term "clockwise" is used to include counterclockwise. On the table 14 a plurality of obstructions in the form of pegs 53 are provided. As the track section 20 is rotated any of the pegs 53 may be in the path of the carriage 38. The object of the game is to tilt the table 14 so that the carriage 38 moves out of the path of the obstructions 53 and this movement of the carriage 38 is accomplished by gravity upon tilting of the table. Thus as the operator sees the track section 20 moving in a manner wherein the carriage is likely to come into contact with one of the obstructions 53 he tilts the table 14' in such a manner that the carriage 38 by-passes the obstruction.

Should the operator fail to tilt the table 14 in such a manner that the carriage 38 is placed out of the path of the obstruction 53 then as indicated in Figure 4 the T-member 51 may be engaged by one of the obstructions 53 whereupon the latch element 47 is rotated and the hook arm 48 serves to release the blade spring 45 whereupon the figure is ejected from the animal 43.

Longitudinal movement of the carriage 38 is limited on the track section 20 at one end by means of the housing portion 28 and at its other end by means of the end support 21.

Thus it can be seen that the objects of the invention have been fully achieved and a new and improved toy game is provided. It must be understood that changes and modifications may be made which do not depart from the spirit of the invention as disclosed nor from the scope thereof as defined in the appended claims.

What is claimed is:

1. A device of the character described comprising a base, a table disposed above said base, means pivotally mounting said table for rotating and oscillating movement on said base, handle means on said table, an annular track on said table, a rotating track section having one end pivotally connected to a substantially central portion of said table, a track engaging member connected to the other end of said track section for engaging and being supported on said annular track, means connected to said track section for rotating said track section on its centrally pivoted connection, a carriage supported on said track section, said carriage being freely movable longitudinally on said track section during oscillating movement of said table, stop means on opposite ends of said track section for limiting the longitudinal movement of said carriage, a figure carried on said carriage, a resilient member on said carriage in contact with said figure, a latch element releasably locking said resilient member under tension, and a plurality of movably mounted obstacles on said table engageable with said latch element during rotation of said track section whereby said latch element is released and said resilient member ejects said figure from said carriage.

2. A device of the character described comprising a base, a table disposed above said base, means pivotally mounting said table for rotating and oscillating movement on said base, handle means on said table, an annular track on said table, a rotating track section having one end pivotally connected to a substantially central portion of said table, a track engaging member connected to the other end of the track section for engaging and being supported on said annular track, means connected to said track section for rotating said track section on its centrally pivoted connection, a carriage supported on said track section, said carriage being freely movable longitudinally on said track section during oscillating movement of said table, a figure carried on said carriage, a resilient member on said carriage in contact with said figure, a latch element releasably locking said resilient member under tension, and a plurality of movably mounted obstacles on said table in engagement with said latch element during rotation of said track section whereby said latch element is released and said resilient member ejects said figure from said carriage.

3. A device of the character described comprising a base, a table disposed above said base, means pivotally mounting said table for rotating and oscillating movement on said base, handle means on said table, an annular track on said table, a rotating track section having one end pivotally connected to a substantially central portion of said table, a track engaging member connected to the other end of said track section for engaging and being supported on said annular track, means connected to said track section for rotating said track section on its centrally pivoted connection, a carriage supported on said track section, said carriage being freely movable longitudinally on said track section during oscillating movement of said table, a figure carried on said carriage, a resilient member on said carriage in contact with said figure, a latch element releasably connected to said resilient member to lock the same under tension, and an obstacle on said table engageable with said latch element during rotation of said track section whereby said latch element is released and said resilient member engages and ejects said figure from said carriage.

4. A device of the character described comprising a base, a table disposed above said base, means pivotally mounting said table for rotating and oscillating movement on said base, handle means on said table, an annular track on said table, a rotating track section having one end pivotally connected to a substantially central portion of

said table, a track engaging member connected to the other end of said track section for engaging and being supported on said annular track, means connected to said track section for rotating said track section on its centrally pivoted connection, a carriage supported on said track section, said carriage being freely movable longitudinally on said track section during oscillating movement of said table, stop means on opposite ends of said track section for limiting the longitudinal movement of said carriage, a responsive element on said carriage, an obstacle on said table, and means on said carriage connected to said responsive means, said means being engageable with said obstacle during rotation of said track section whereby said responsive element is actuated.

5. A device of the character described comprising a base, a generally horizontal table connected to said base for relative rotating and oscillating movement, an annular track on said table, a rotating track section, means pivotally connecting one end of said track section to said table whereby said section may be rotated in clockwise fashion, power means connected to said track section for rotating the same, a track section support connected to the second end of said track section for supporting said second end on said annular track during rotation, a carriage carried on said track section for longitudinal movement in response to gravity during oscillation of said table, a figure seated on said carriage, a spring means on said carriage, a releasable latch member on said carriage engageable with said spring means for holding said spring means in a tensioned position, and a movably mounted obstacle on said table, said obstacle being engageable with said latch member during rotation of said track section whereby said spring means is released to engage and eject said figure from said carriage.

6. A device of the character described comprising a base, a generally horizontal table connected to said base for relative rotating and oscillating movement, a rotating track section, means pivotally connecting one end of said track section to said table whereby said section may be rotated in clockwise fashion, power means connected to said track section for rotating the same, a track section support connected to the second end of said track section for supporting said second end on said table during rotation, a carriage carried on said track section for longitudinal movement in response to gravity during oscillation of said table, a figure seated on said carriage, a spring means on said carriage, a releasable latch member on said carriage engageable with said spring, means for holding said spring means in a tensioned position, and a movably mounted obstacle on said table, said obstacle being engageable with said latch member during rotation of said track section whereby said spring means is released to engage and eject said figure from said carriage.

7. A device of the character described comprising a base, a generally horizontal table connected to said base for relative rotating and oscillating movement, a rotating track section, means pivotally connecting one end of said track

section to said table whereby said section may be rotated in clockwise fashion, power means connected to said track section for rotating the same, a carriage carried on said track section for longitudinal movement in response to gravity during oscillation of said table, a figure seated on said carriage, a spring means on said carriage, a releasable latch member on said carriage engageable with said spring means for holding said spring means in a tensioned portion, and a movably mounted obstacle on said table, said obstacle being engageable with said latch member during rotation of said track section whereby said spring means is released to engage and eject said figure from said carriage.

8. A device of the character described comprising a base, a generally horizontal table connected to said base for relative rotating and oscillating movement, a rotating track section having one end pivotally connected to said table whereby said track section may be rotated in clockwise fashion, a carriage on said track section, said carriage being longitudinally movable by gravity on said track section during oscillation of said table, a figure carried by said carriage, ejection means on said carriage engaging said figure, a movably mounted obstacle on said table, and actuating means on said ejection means engageable with said obstacle during rotation of said track section whereby said ejection means ejects said figure from said carriage.

9. A device of the character described comprising an oscillating and rotatable table, a rotating track section having one end pivotally connected to said table whereby said track section may be rotated in clockwise fashion, a carriage on said track section, said carriage being longitudinally movable by gravity on said track section during oscillation of said table, a figure carried by said carriage, ejection means on said carriage engaging said figure, an obstacle on said table, and actuating means on said ejection means engageable with said obstacle during rotation of said track section whereby said ejection means ejects said figure from said carriage.

10. A device of the character described comprising an oscillating and rotatable table, a rotating track section having one end pivotally connected to said table whereby said track section may be rotated in clockwise fashion, a carriage on said track section, said carriage being longitudinally movable by gravity on said track section during oscillation of said table, a responsive means on said carriage, an actuating element on said carriage and connected to said responsive means, and at least one obstacle on said table engageable with said actuating element during rotation of said track section whereby said responsive means is actuated.

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