



## UNITED STATES PATENT OFFICE

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## TOP ACTUATED RACING GAME DEVICE

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This invention relates to games, and more particularly to a game utilizing the rotary motion of a spun top for transmitting movement to figures which may simulate race horses, dogs or other objects, the motion of the figures being determined by the chance contact of the rotating top with drive pulleys through which the rotary motion of the top is transmitted to the figures.

An object of the invention is to provide an improved and entertaining toy capable of affording entertainment either to a single operator or to a group.

Further objects will more particularly appear in the course of the following detailed description.

The invention consists in the novel construction, arrangement and combinations of parts hereinafter more particularly described and claimed.

One sheet of drawings accompanies this specification as part thereof, in which like reference characters indicate like parts throughout.

In the drawings:

Figure 1 is a longitudinal cross-section through a game board incorporating the present invention.

Fig. 2 is a top plan view of a game board partially broken away to show operative structure.

Fig. 3 is a transverse cross-section taken on line 3-3 of Fig. 2.

In the embodiment of the invention illustrated in the accompanying drawing the invention is applied to a game board provided to accommodate a plurality of figures simulating race horses and so arranged that the spinning of a top T will, by chance, operate one or another of the drive pulleys so as to advance by varying amounts one or another of the race horse figures. Obviously, the figures could represent other animals or things and the means associating the figures with the drive pulleys can be varied both in location and direction as a matter of taste and to produce various results.

Referring more particularly to the drawings, the device comprises essentially a board 1 having at one end a top pit 8, the board 1 being provided with a plurality of longitudinally extending parallel spaced slots 11 through which portions of the figures 25 extend beneath the board where they are doubled upon themselves to frictionally engage endless cords 24.

The top plate or board 1 is herein illustrated as being stamped from sheet metal having a central orifice at one end to define the top pit 8 and

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a depending flange 2, the lower portion of which is intumed as at 3 to form a connecting flange with a bottom portion 4, one end of which constitutes the bottom of the top pit 8, this end of the bottom plate 4 having a marginal flange 5 intumed to provide a connecting flange 6 by means of which the bottom plate 4 is connected to the top plate 1 as by screws 7. The bottom plate 4 is bent upwardly adjacent the top pit 8 as at 13<sup>a</sup> to form a medial wall 12 from which depend marginal flanges 13. The medial wall 12 is secured to flanges 3 of the board 1 by screws 14.

Adjacent the top pit 8 are positioned a plurality of vertically disposed spindles 20 journaled in suitable journals 18 and 19 secured to the top and bottom plates 1 and 4, each of these spindles 20 carrying a cord directing pulley 23 and a drive pulley 21, both of which pulleys are fixedly secured to the freely rotatable spindle 20. Preferably the drive pulley 21 is provided with a frictional peripheral surface 22 of rubber or some other suitable material so as to improve the frictional contact of the top therewith and portions of these peripheral drive portions of the drive wheels 21 extend within the top pit 8 as is well illustrated in Fig. 2. The spindles 20 are preferably positioned on an arc of a circle concentric with the circular top pit 8 so that an equal amount of the periphery of each of the drive pulleys extends into the top pit 8, thus equalizing the chance of the top T's contacting one or the other of these drive pulleys.

At the end of the bottom 4, remote from the top pit 8, are similarly journaled a plurality of cord pulleys 17 and the endless cords 24 are carried by each pair of cord pulleys 23-17 in such manner that one reach of each of the cord pulleys 24 extends parallel with and directly below one of the through slots 11 so that rotation of the cord pulleys 23 by reason of rotation of the drive pulleys 21 will be effective to advance one reach of the endless cord 24 associated with that particular pair of pulleys, thus advancing that particular figure associated with that cord.

To minimize the frictional resistance of the wall 9 of the top pit when contacted by the spinning top T it is desirable to form the said wall with an inwardly directed flange 10, the innermost surface of which is preferably narrower than the driving surface of the pulleys 21.

It will be apparent that, if desired, the more remote cord pulley 17 can be otherwise positioned and that additional guide pulleys for the cords may be introduced, as desired, so as to translate the rotary motion of the top T into

horizontal, vertical or inclined motion of the figures as may be desired to add variety to the forms in which the game may be designed.

In operation the top will be spun in the top pit 8 in which it will successively contact the peripheral flange 10 and rebound to contact one or the other of the exposed drive pulleys 21, thereby transmitting motion by chance and in varying amounts to one or the other of the endless cords 24 and thereby to the figures 25 so that the motion of the figures is produced purely as a matter of chance and is due to the contacting of the spinning top with one or another of the drive pulleys.

As indicated above, various modifications can be introduced as to the arrangement of the drive cords and figures, the salient feature of the invention being the arrangement of drive pulleys with a top pit as more particularly specified in the following claims.

Having thus fully described my invention, I claim:

1. Game comprising a board formed with a plurality of parallel slots, a depressed top pit spaced from one end of said slots and within which a top can be spun, a plurality of driving pulleys mounted on vertical spindles beneath the board and between the top pit and the said ends of the slots, a portion of the perimeters of said drive pulleys projecting into the top pit, cord guiding pulleys on said spindles, complementary cord guiding pulleys mounted beneath the board at the end remote from the top pit, endless cords carried by said cord pulleys, each cord having one stretch extending parallel with and immediately below one of the slots and figures secured on said cords and extending through said slots to positions above the board.

2. Device of claim 1 in which the top pit has a horizontal floor and an inwardly directed peripheral flange in horizontal alignment with the drive pulleys.

3. Device of claim 1 in which the top pit is circular, and has a flat floor and an inwardly directed peripheral flange in the same horizontal plane with the drive pulleys and in which device the spindles for the drive pulleys are concentrically positioned with respect to the pit.

4. Device of claim 1 in which the drive pulleys are formed with a peripheral friction surface.

5. Game comprising a plurality of endless cords, freely rotatable guide pulleys for said cords, drive pulleys fixedly associated with one of the guide pulleys for each cord, figures se-

cured on the cords and means defining an area for confining a spinning top, into which area portions of the peripheries of the drive pulleys project.

6. Game comprising a board formed at one end with a depressed top pit, figures movably positioned with respect to the top of the board, and driving means for the figures including driving pulleys having frictional peripheral surfaces, portions of said frictional surfaces projecting into the top pit and being exposed to contact with a spinning top therein.

7. Game comprising a board, a top pit at one end of the board defined by a circular wall formed with slot openings, drive pulleys having a frictional peripheral surface, said pulleys being mounted on the board so that a portion of their frictional peripheral surfaces extend through the slots formed in the wall, figures and means connecting the figures with the drive pulleys whereby rotation of said pulleys by contact with a top spinning in said pit will transmit motion to said figures.

8. Game comprising a board having a longitudinally extending slot, a depressed top pit at one end of the board defined by an enclosing wall formed with a slot opening directed toward the said slot in the board, a drive pulley mounted below the board with a portion of its periphery projecting through the slot for engagement by a top spinning in the top pit, a guide pulley mounted under the board at the remote end of the slot, an endless cord carried by the driving and guiding pulleys with one stretch in alignment with the slot in the board and a figure positioned above the board with means extending through the slot to engage the said stretch of the cord.

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#### REFERENCES CITED

The following references are of record in the file of this patent:

#### UNITED STATES PATENTS

Number	Name	Date
1,052,581	Hamilton	Feb. 11, 1913
1,423,035	Schreyer	July 18, 1922

#### FOREIGN PATENTS

Number	Country	Date
179,418	Great Britain	May 11, 1922
216,787	Great Britain	June 5, 1924
705,511	Germany	Apr. 30, 1941