Feb. 28, 1956 W. G. DASHER 2,736,556

INDIVIDUALLY CONTROLLED RACE TRACK

Filed Feb. 27, 1953 2 Sheets-Sheet 1

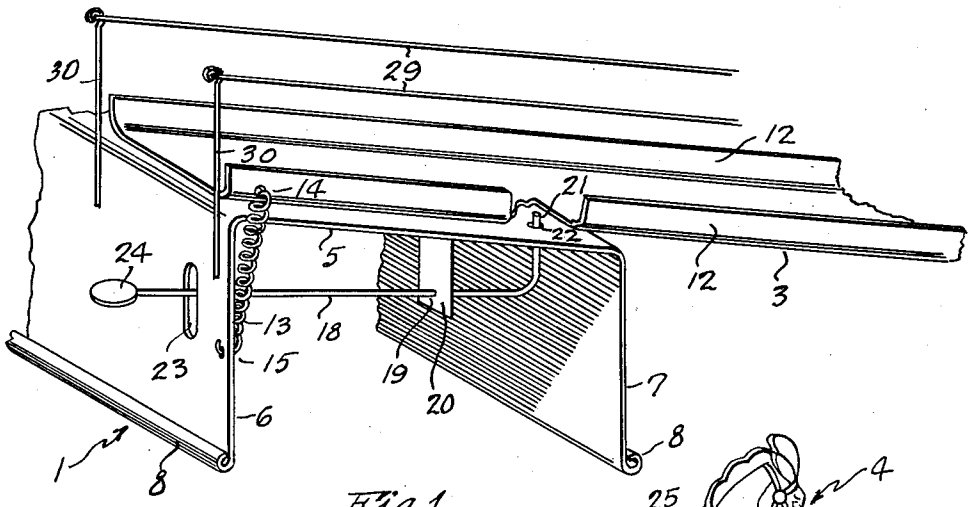


Fig. 1.

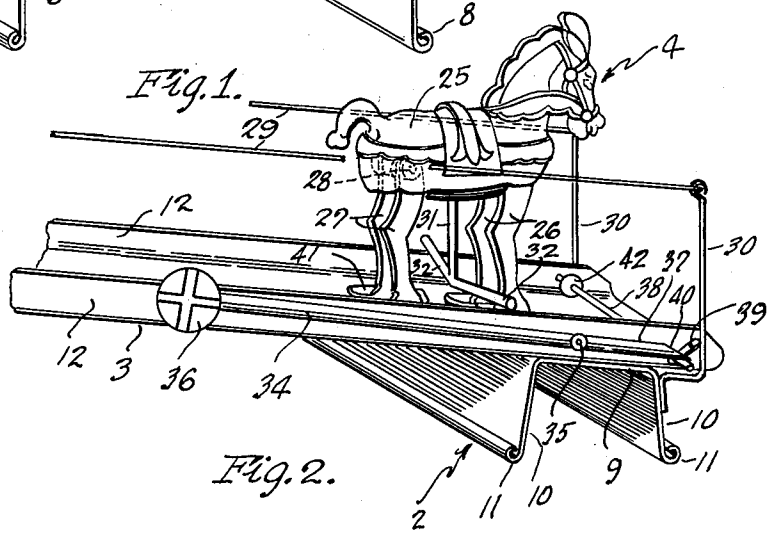


Fig. 2.

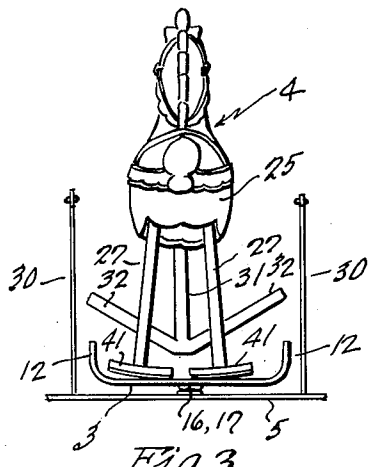


Fig. 3.

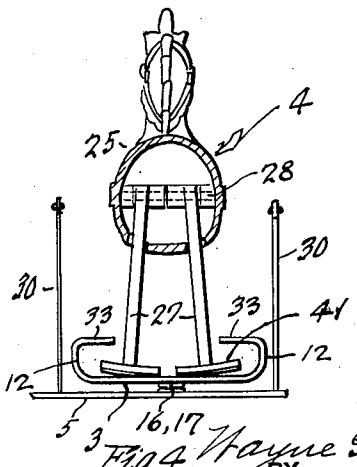


Fig. 4.

INVENTOR
Wayne G. Dasher
BY
Webster, Davis
ATTORNEYS.

Feb. 28, 1956 W. G. DASHER 2,736,556

INDIVIDUALLY CONTROLLED RACE TRACK

Filed Feb. 27, 1953 2 Sheets-Sheet 2

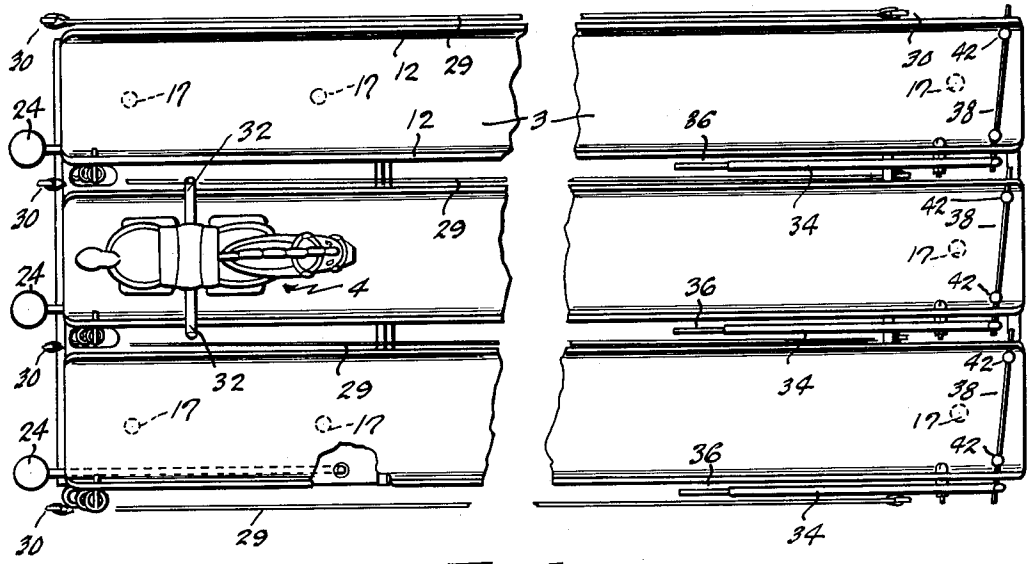


Fig. 5.

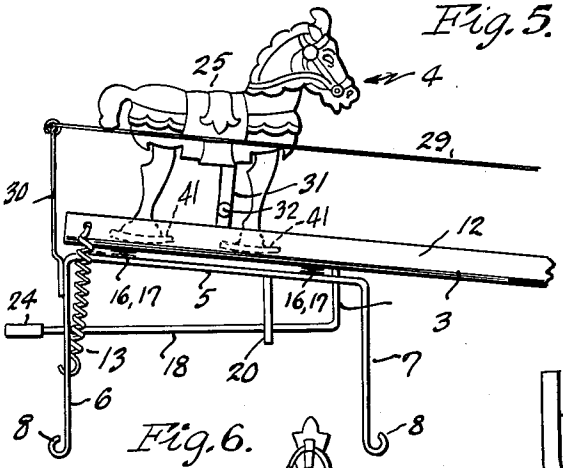


Fig. 6.

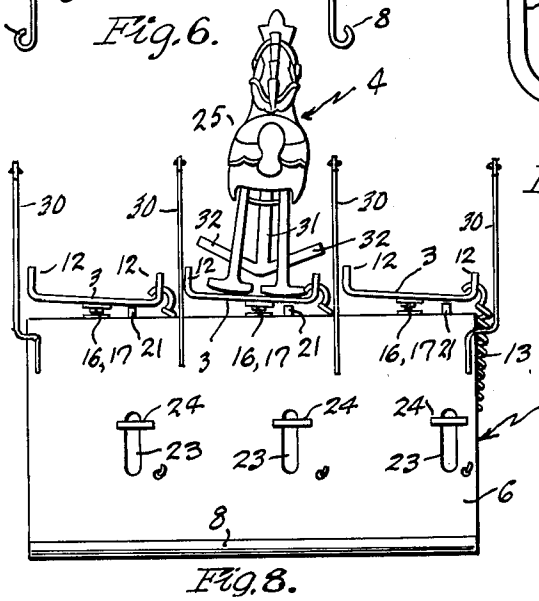


Fig. 8.

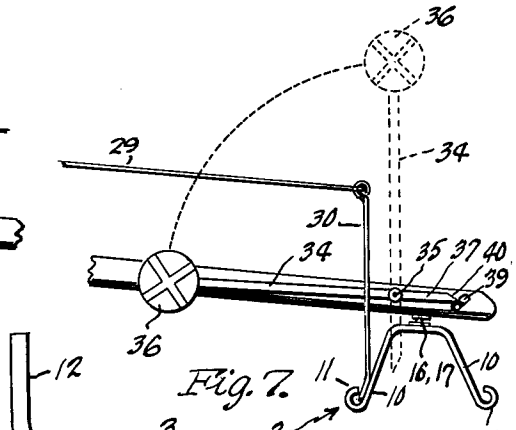


Fig. 7.

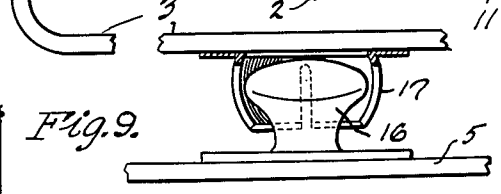


Fig. 9.

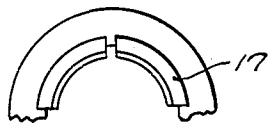


Fig. 10.

INVENTOR.
Wayne G. Dasher
BY
Wooster & Davis
Attorneys.

United States Patent Office 2,736,556 Patented Feb. 28, 1956

2,736,556

INDIVIDUALLY CONTROLLED RACE TRACK

Wayne G. Dasher, Danbury, Conn.

Application February 27, 1953, Serial No. 339,369

9 Claims. (Cl. 273—86)

This invention relates to a game or toy comprising individually controlled race tracks to be played by two or more persons.

It has for an object to provide a toy or game of this character in which there are provided a plurality of tracks (two or more) inclined so that walking toy figures, such, for example, as horses, can travel down them, and in which the individual tracks are so mounted that in certain positions the horses remain stationary while in other positions the horses will travel down them of their own accord, and in which the tracks are so mounted that they may be individually shifted to and from these positions by manually controlled means, one for each track, so the different players may control the progress of their particular horses from a starting to a finishing position.

With the foregoing and other objects in view I have devised the construction illustrated in the accompanying drawings forming a part of this specification. It is, however, to be understood the invention is not limited to the specific details of construction and arrangement shown, but may embody various changes and modifications within the scope of the invention.

In these drawings:

Fig. 1 is a perspective view of a portion of the starting end of the device showing a portion of one track and its control means;

Fig. 2 is a similar view of the lower or finish end of the track;

Fig. 3 is an end view of one form of track and horse for use thereon;

Fig. 4 is a similar view of a modified form of track and horse to be used with it;

Fig. 5 is a top plan view of the device showing one comprising three tracks for use by two or three players;

Fig. 6 is a side view of the upper or starting end of the device;

Fig. 7 is a similar view of the lower end or finish;

Fig. 8 is an end view looking from the left of Fig. 5;

Fig. 9 is a detail view partially in side elevation and partially in section of the mounting means for each track, and on an enlarged scale, and

Fig. 10 is a bottom view of a portion of the upper member of the track mounting means.

The device comprises a front end support 1 and a rear end support 2 on which the various elements of the device are mounted. They each comprise inverted substantially U-shaped members, of any suitable material, preferably sheet metal. The tracks 3 for the horses or other figures 4 to run on are supported at their opposite ends on these supports. There may be two or more of these tracks as desired, depending on the number of players it is intended shall play at one time, three tracks being shown on the drawings. The front end support 1 is higher than the rear end support 2, so that the tracks 3 are longitudinally inclined from the front or starting end to the rear or finish end, so that the horses will run or walk down them as will presently be more fully described.

The front and higher support 1 includes a top wall 5 and spaced depending or upright side walls 6 and 7 and their lower edges are preferably rolled over to form a bearing bead or rim 8. The rear support 2 is of substantially the same shape except it is lower and narrower. It also comprises a top wall 9 and spaced depending or upright walls 10, the lower edges of which are rolled over to form the beads 11. The lengths of the supports 1 and 2 may be anything desired, depending on the number of tracks 3 to be supported on them.

The tracks are preferably sheet metal strips bent to trough shape with longitudinal upwardly extending side flanges 12, and they are mounted loosely at their opposite ends on the top walls of the supports 1 and 2 by any suitable means so that they may rock laterally to a given extent. Manually operable control means is provided for tilting the track laterally to control walking movements of self-walking figures down the inclined tracks. This control means may take different forms, but preferably each track is normally held laterally inclined, as shown in Fig. 8, by a suitable yieldable means, preferably a resilient yieldable means such as the coil spring 13, connected at one end 14 to one of the side flanges 12 and at its other end 15 to one of the legs of the support 1. This spring is tensioned so as to tend to rock or tip the track laterally and maintain it normally in this laterally tipped or inclined position. Some loose pivotal means is used to secure the tracks to the supports 1 and 2 for limited lateral rocking movement, that preferred and as shown on the drawings being snap fasteners comprising headed stud and socket members 16 and 17 respectively mounted one on the supports and the other on the under side of the track. In the present case the stud members 16 are mounted on the top walls of the supports and secured thereto by any suitable means, such as riveting, soldering, welding and so forth, and the socket members 17 are secured on the under side of the tracks by similar means. The socket is a spring socket so it may be sprung over the head of the stud and removed therefrom so the device may be packed in a box or container in the knocked-down condition. The socket is made somewhat larger than the head of the stud to provide sufficient looseness or play between the socket and the stud to permit the lateral rocking movement of the track on the stud. Manually operable control means is provided for rocking each track in the opposite direction against the action of the spring 13. In the form shown this comprises a lever 18 pivoted at 19 in a suitable depending support 20 mounted on the under side of the wall 5. One free end portion of this lever is bent upwardly with its free end 21 passing through an opening 22 in the wall 5 to locate this end under the lower side of the track 3. The other end portion of the lever passes through a guide slot 23 in the upright wall 6 and terminates in a head or finger grip 24 at the forward side of the wall. If the free end of the lever is positively connected to the track the spring 13 could be dispensed with and the the hand lever used to tilt the track in both directions and bring it to and retain it in proper position to control walking movement of a figure down the inclined track. There is one of these levers for each track to be used in playing the game, as will presently be described.

The game is played with walking figures, such for example, as a plastic horse 4, one for each track. These figures, such as horses for example, are known articles and may be purchased as toys on the market. They comprise a hollow body 25 of light weight plastic material and four legs 26 and 27 pivoted in the body in pairs, as indicated at 28, so as to swing back and forth, or forwardly and backwardly, in upright planes, and at

their lower ends each leg is provided with an enlarged foot 41 in the general form of a rectangular block or plate the under surface of which is convexly curved longitudinally and may be slightly convexly curved laterally or transversely and arranged with the feet of each pair oppositely inclined outwardly and upwardly somewhat, as shown in Figs. 3 and 4. It is characteristic of these articles or figures that they wlil stand up on a flat surface and if this surface is inclined at a certain angle to the horizontal they will walk down this surface with the feet moving back and forth. But this surface must be substantially level in the transverse direction. That is, if the surface is tilted laterally to a small angle the figure will not walk down the longitudinally inclined surface but will remain stationary. This characteristic is taken advantage of in this device. The springs 13 tilt or rock the tracks laterally or to a sufficient angle, as indicated in Fig. 8 (or if no spring is used and the lever connected to the track, this may be done by the lever), so the figures will not walk down the longitudinally inclined track. However, by pressing downwardly on the finger grip 24 and depressing this end of lever 18 the other free end 21 will be pressed against the under side of the track, and as the lever is located laterally to one side of the pivotal supports for the track, this pressure will tend to tilt or rock the track in the opposite direction against the action of the spring 13. The player attempts to bring the track to a substantially level position as this is the only position the figure, as the horse in this case, will advance down the longitudinally inclined track. If the track is tipped too far in the opposite direction or to the left, the effect is the same as if it is tipped to the right by the spring and the figure will not advance. It is therefore the object of the player to keep the track at just the right intermediate or substantially level or transversely horizontal position to keep the figure moving or advancing down the track at a continuous and maximum speed.

Means are provided to keep the figure from toppling off the track should the player tip the track too far or too quickly. One means of doing this is by means of guide wires, threads or rubber bands 29 strung along the opposite sides of the tracks at the proper height or level. They may be carried by suitable supports 30, such, for example, as upright wires having eyes or hooks, and secured to the supports 1 and 2, or they could be mounted on the tracks. They are preferably of a height so as to form guides or guards at the sides of the bodies of the figures and act as guiding means to keep them on the tracks.

Another means of keeping the figures from tipping off the tracks is shown in Figs. 2, 3, 5, 6 and 8. This comprises an inverted T rod or bar 31 depending from the body of the figure at substantially its longitudinal center and between the two pairs of legs. At its lower end it is provided with the cross bar 32 inclined upwardly and outwardly at opposite sides of the bar 31. The upright flanges 12 act as guides to cooperate with the feet to keep the moving figure on the track. Should it tip laterally the inclined bar 32 will engage the top edge of the adjacent flange and keep the figure from tipping or toppling off the track. The bars 32 must be of a length to overhang the flanges 12 in all positions.

Another way to keep the figure from tipping off the track is shown in Fig. 4. Here the top edges of the flanges 12 of the track are bent over inwardly at 33 so as to overlap the outer side portions of the feet 41 on the figure. They are spaced high enough above the bottom of the track to provide the proper clearance for the feet in their forward and back movements for the forward walking movement of the figure, but if the figure tips too far laterally so it would topple or fall off the track, then the upper or outer foot would catch under the overhanging portion 33 and retain the figure on the track.

At the lower or finish ends of the tracks are flags or signals, one for each track, to indicate the order of finish of the figures or horses. They are shown more clearly in Figs. 5 and 7, and in the form shown comprise a hollow tube or bar 34 pivoted to one side of the track at 35 to swing in an upright plane. At one end it carries a flag or signal 36 and the other end portion 37 is weighted so as to overbalance or bias the flag and tend to shift it to the upright or dotted line position of Fig. 7. This may be done by means of a light spring, by fastening a weight to the bar, or if a tube by filling the end portion 37 with a weighting material. This flag or signal is normally held in the retracted or full line position by a suitable releasable catch which may be tripped by the figure moving down the track as it reaches the lower or finish end. The device shown comprises a light wire 38 extending across the track and extending at its opposite ends through openings in the flanges of the track, that in the flange adjacent the flag being an elongated slot 39 inclined upwardly and forwardly. The weight of the wire tends to hold it in the bottom end of this slot and under the free end of the portion 37 of the flag rod to retain it in the horizontal or retracted position. The wire may be retained in the flanges by enlargements 42. When the figure moving down the track reaches the finish line its forward legs contact the wire 38 and shift it upwardly and forwardly in the slot carrying its free end from under the end of the bar 34 and releasing the flag so its weighted end 37 swings it to the upright position to indicate the horse or figure in that track has reached the finish. It also stops forward movement of the horse. The wire 38 returns to the lower end of slot 39, but the free end of bar 34 is inclined as shown at 40, so that to return the flag or signal to the retracted position all that is necessary is to swing it to this position and in doing so the inclined end 40 will shift the wire so as to pass it and then the wire drops to the lower end of the slot and under the end of the bar to hold it in this position.

In playing the game, one of these plastic walking figures, preferably a horse, is placed in each track at its higher or starting end. As previously stated, because of the pivoted legs and shape of the enlarged feet, they will stand by themselves and will walk by themselves down the flat surface of the track if the track is inclined longitudinally at or beyond a given angle. If the track is level, or substantially so, transversely, the horse would walk down the longitudinally inclined track, but it is a characteristic of these figures that if the track is tipped laterally, even a relatively small amount, as shown in Fig. 8, the horse will not walk. Therefore it is the object of each player to tip or rock his track to just the right position and keep it there so his horse will continue to walk down its track and at its maximum speed so as to beat the other horses if he can. This requires considerable skill, as if the track is tilted either not enough or too much the horse will not walk. Each player controls the tipping or rocking of his track and therefore the forward movement of his horse by manipulating the finger grip 24 and lever 18. By pressing downwardly on the finger grip the track is tipped or rocked to the left as viewed in Fig. 8, against action of spring 13 and the amount of this tipping will depend on the pressure applied. If tipped too much, by decreasing pressure on the finger grip, the track will be tipped or rocked in the opposite direction by the spring 13. There is considerable skill involved in controlling the track and the forward movement of the horse, and the horse which reaches the finish or lower end and trips his flag first wins the race.

The snap fastener mounting or connecting means 16, 17 for the tracks are detachable so that when not in use the tracks may be removed from the supports 1 and 2 for packing in a box or container and occupy less space than when assembled.

Having thus set forth the nature of my invention, I claim:

1. In a game of the character described, a plurality of tracks forming runways for self-walking figures incapable of walking the tracks when they are laterally inclined or tilted beyond a certain limit, mounting means for the tracks supporting them longitudinally inclined and for limited lateral rocking movement, yieldable means tending to tilt each track laterally so that it is normally inclined laterally in one direction an amount at least equal to said limit to hold a figure on it stationary, and manually operable control means to tilt each track laterally in the opposite direction against the action of said first tilting means.

2. In a game of the character described, a plurality of trough shaped tracks, mounting means for the tracks supporting them longitudinally inclined to form runways for self walking figures incapable of walking when the track is tilted laterally beyond a determined angle and for limited lateral rocking movements for each track, yieldable means tending to tilt each track laterally and hold it in a laterally inclined position at least equal to said angle, and manually operable control means for each track to tilt it in the opposite direction against the action of said yieldable means.

3. In a game of the character described, a plurality of tracks, mounting means for the tracks supporting them longitudinally inclined to form runways for walking figures and for lateral rocking movements for each track, a self-walking figure for each track capable of walking down the inclined track and incapable of walking when the track is tilted laterally beyond a determined angle, yieldable means tending to tilt each track laterally and hold it in a laterally inclined position at least equal to said angle to prevent walking of the figure on the track, and manually operable control means for each track to tilt it in the opposite direction against the action of said yieldable means and control walking movement of the figure down the track.

4. In a game of the character described, a plurality of trough shaped tracks, mounting means for the tracks supporting them longitudinally inclined to form runways for walking figures and for limited lateral rocking movements for each track, a self-walking figure for each track capable of walking down the inclined track when it is substantially level laterally and incapable of walking when the track is tilted laterally beyond a determined angle, yieldable resilient means tending to tilt each track laterally and hold it in a laterally inclined position at least equal to said angle to prevent walking of the figure on the track, and manually operable control means for each track to tilt it in the opposite direction against the action of said resilient means and control walking movement of the figure down the track.

5. In a game of the character described, the combination of a plurality of tracks, mounting means for the tracks supporting them in a determined longitudinally inclined position to form runways for walking figures and for lateral rocking movements for each track, a self-walking figure for each track capable of walking down the inclined track when it is substantially level laterally and incapable of walking when the track is tilted laterally beyond a determined angle, and separate manually operable control means for each track to determine the lateral rocking movements of the track and by said movements to control walking movements of each figure down its inclined track.

6. In a game of the character described, a plurality of tracks, mounting means for the tracks supporting them longitudinally inclined to form runways for walking figures and for lateral rocking movements for each track, a pivoted signal adjacent the lower end of each track including biasing means for the signal, a releasable means for retaining the signal in a retracted position comprising

a wire extending across the track adjacent its lower end movably mounted at one end in an opening larger than the wire in position to be engaged by the legs of the figure as it reaches the lower end of the track and be shifted to release the signal, said wire when in the lower side of the opening forming means to retain the signal in the retracted position, and manually operable control means for each track to determine the lateral rocking movements of the track and control walking movements of the figure down the inclined track.

7. In a game of the character described, a plurality of tracks, mounting means for the tracks including supports at the opposite ends of the tracks one of which is of greater height than the other to support the tracks longitudinally inclined to form runways for walking figures, means detachably securing each track member to the support members comprising snap fasteners including a headed stud secured to one of said members and a spring socket secured to the other member to receive the stud, the socket being larger than the head of the stud providing clearance for limited lateral rocking movements of the tracks, and manually operable control means for each track to determine the lateral rocking movements of the track and control walking movements of the figure down the inclined track.

8. In a game of the character described, a plurality of tracks, mounting means for the tracks supporting them longitudinally inclined to form runways for walking figures and for lateral rocking movements for each track, a self-walking figure for each track capable of walking down the inclined track and incapable of walking when the track is tilted laterally beyond a determined angle, each track being provided with upwardly extending longitudinal flanges at its opposite edges, manually operable control means for each track to determine the lateral rocking movements of the track and control walking movements of the figure down the track, and means preventing the figure from toppling laterally off the track as it is rocked laterally comprising a central bar depending from the under side of the figure and a cross bar at the lower end of the first bar comprising arms extending laterally in opposite directions from the first bar and inclined upwardly over and spaced above the flanges in position to engage these flanges on tipping of the figure.

9. In a game of the character described, a plurality of tracks, mounting means for the tracks supporting them longitudinally inclined to form runways for walking figures and for lateral rocking movements for each track, a self-walking figure for each track capable of walking down the inclined track and incapable of walking when the track is tilted laterally beyond a determined angle, said figure including a body and supporting feet at the lower ends of legs pivoted in the body, the feet being wider than the legs so as to project from the outer sides thereof, manually operable control means for each track to determine the lateral rocking movements of the track and control walking movements of the figure down the track, and each track being provided with longitudinal flanges at its opposite edges extending upwardly and over the projecting portions of the feet and cooperating therewith to retain the figure in an upright position on the track.

References Cited in the file of this patent

UNITED STATES PATENTS

1,746,839	Main et al.	Feb. 11, 1930
2,601,739	Nicholls	July 1, 1952
2,661,214	Rose et al.	Dec. 1, 1953

FOREIGN PATENTS

108,427	Great Britain	Aug. 9, 1917
426,710	Great Britain	Apr. 4, 1935
470,716	Great Britain	Aug. 20, 1937