No. 834,016. PATENTED OCT. 23, 1906.

L. B. MAY.

AMUSEMENT APPARATUS.

APPLICATION FILED JAN. 24, 1906.

3 SHEETS—SHEET 1.

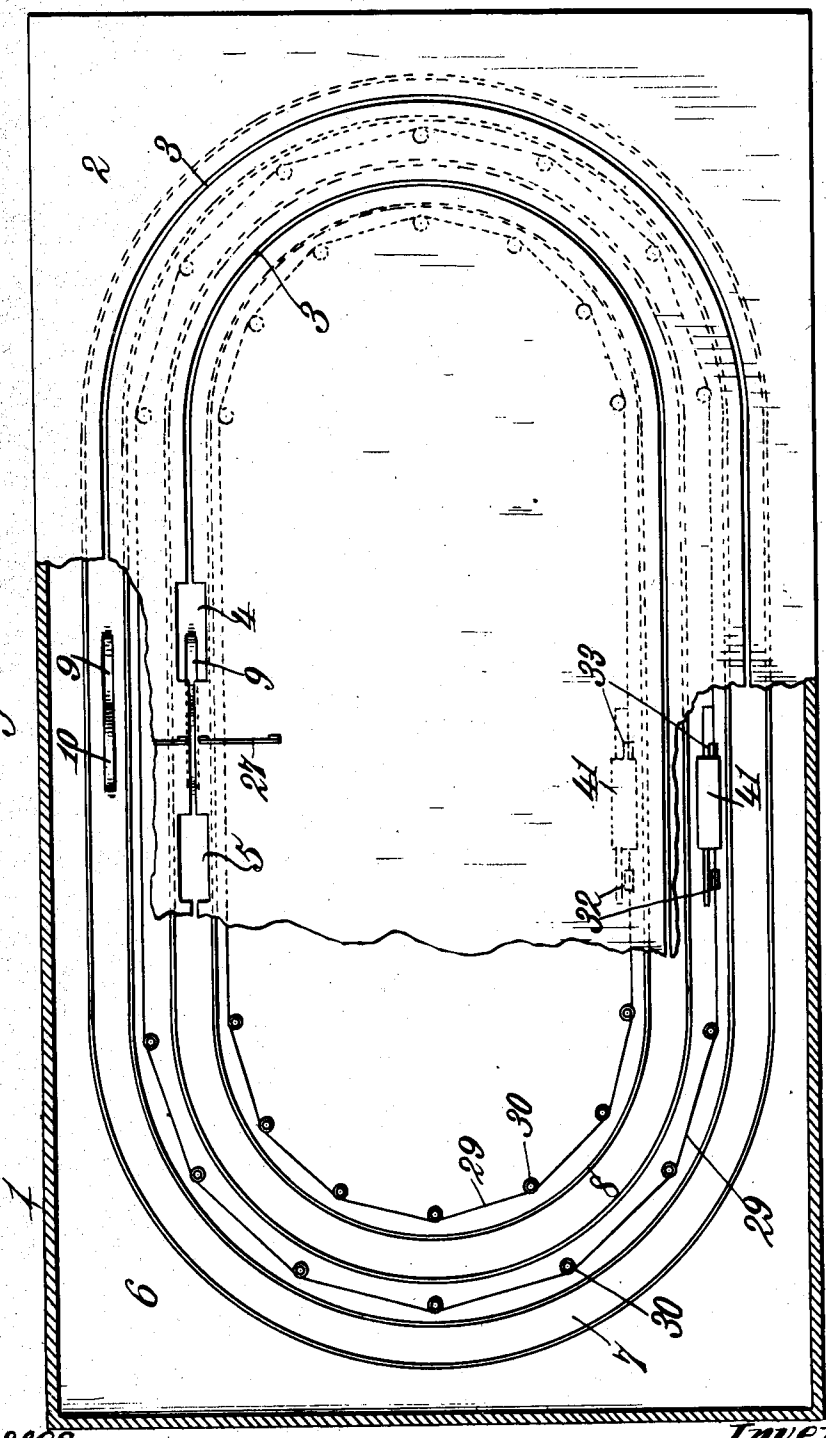

Fig. 1.

Witnesses.
Robt Arnott.
J. B. Keller

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3 SHEETS—SHEET 2.

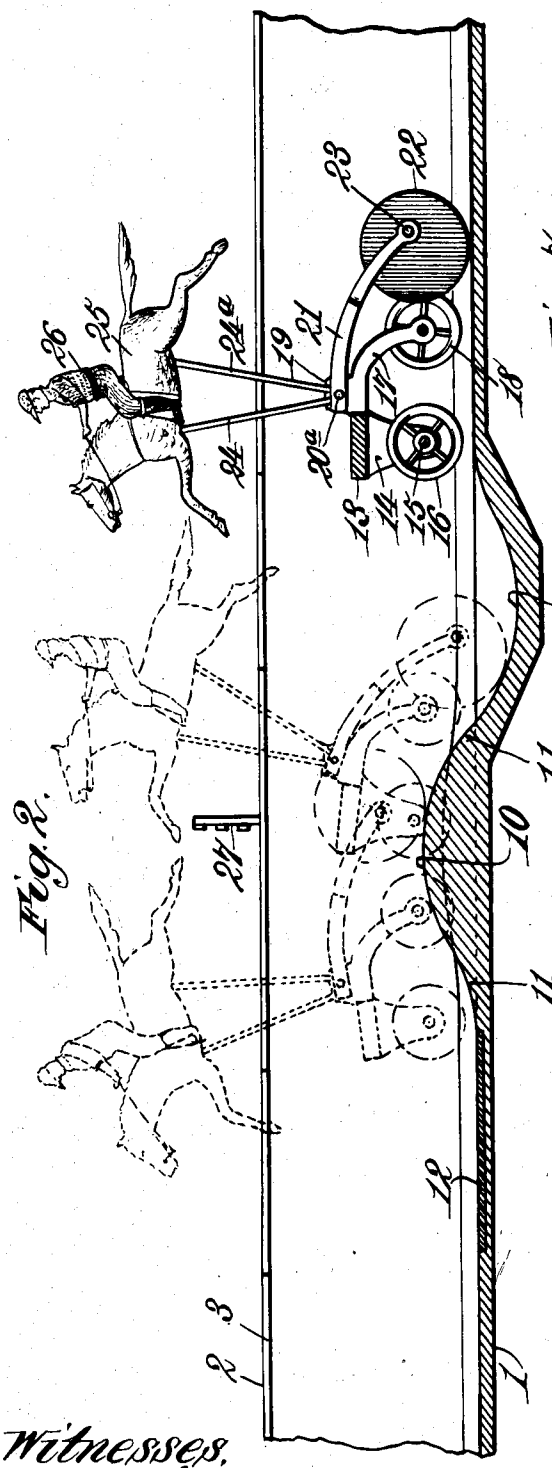

Fig. 2.

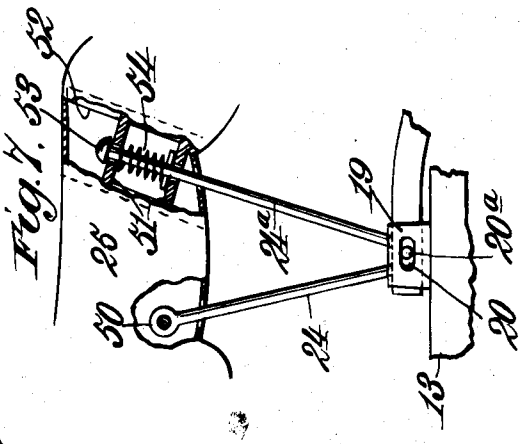

Fig. 4.

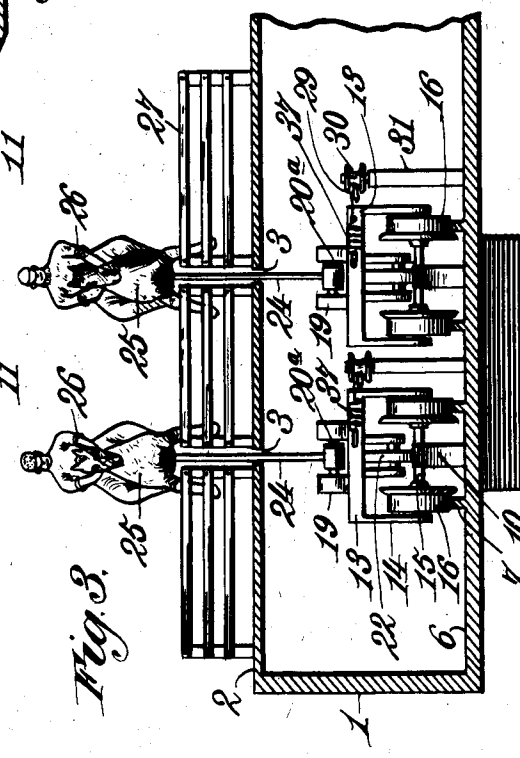

Fig. 3.

Witnesses.
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3 SHEETS—SHEET 3.

Fig. 4.

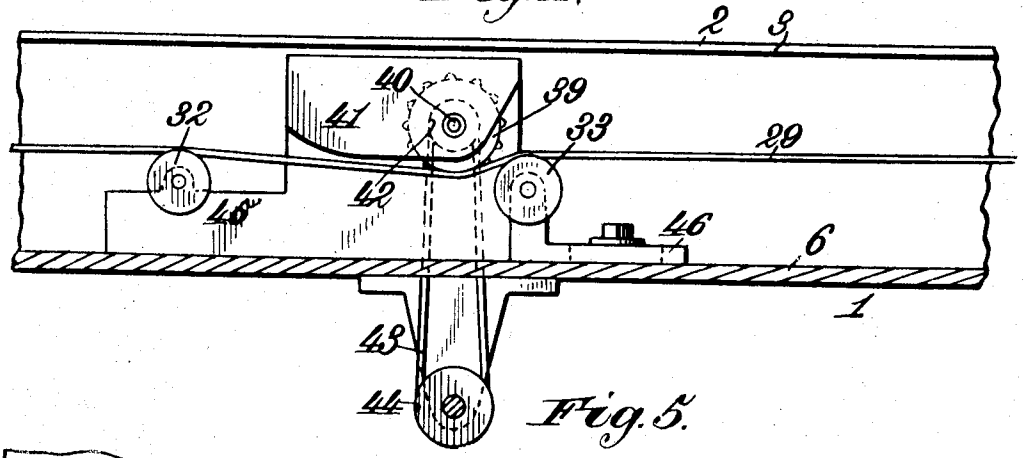


Fig. 5.

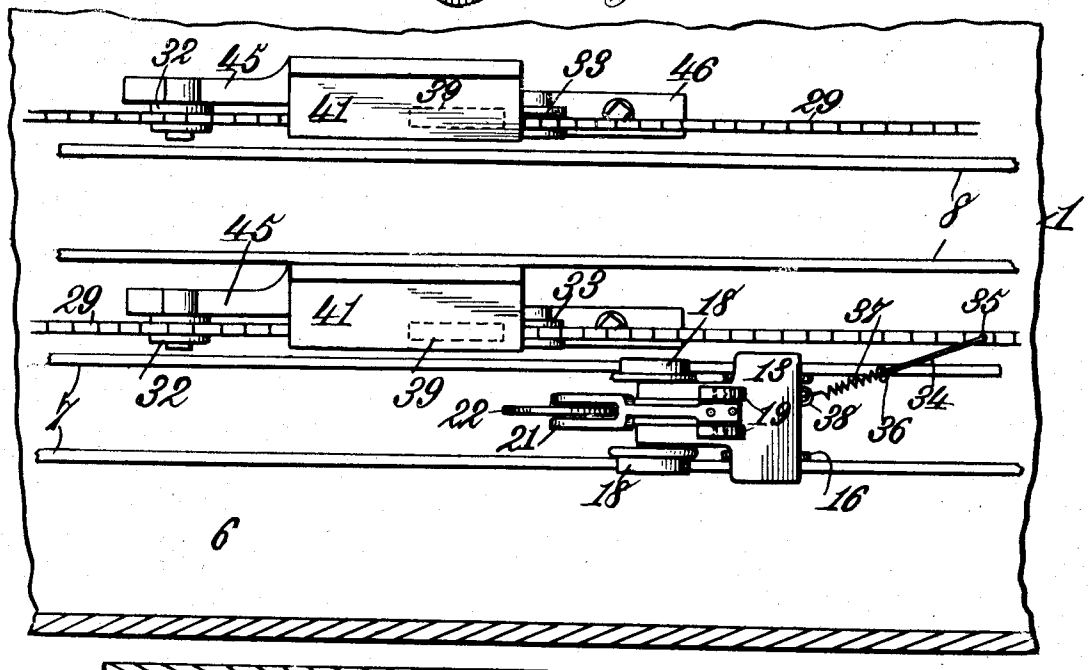
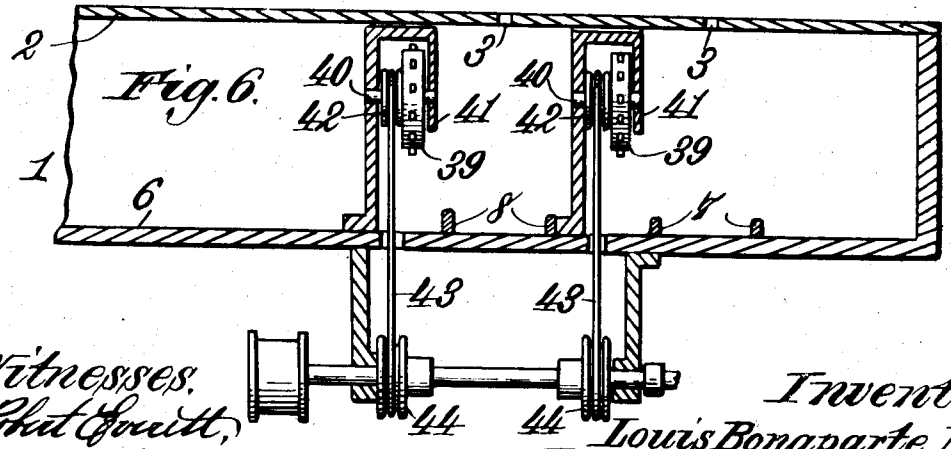


Fig. 6.



Witnesses.
Robt. Gravitt,
[illegible]

Inventor.
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UNITED STATES PATENT OFFICE.

LOUIS BONAPARTE MAY, OF NEW YORK, N. Y., ASSIGNOR TO THE INTERNATIONAL AMUSEMENT & RACING ASSOCIATION, OF AUGUSTA, MAINE, A CORPORATION OF MAINE.

AMUSEMENT APPARATUS.

No. 834,016. Specification of Letters Patent. Patented Oct. 23, 1906.

Application filed January 24, 1906. Serial No. 297,661.

To all whom it may concern:

Be it known that I, LOUIS BONAPARTE MAY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Amusement Apparatus, of which the following is a specification.

This invention relates to an amusement apparatus illustrated and described, by way of example, as a mechanical or artificial race-course designed solely for amusement purposes and which can be used as a toy or a carousel, and aims to provide means, as hereinafter more specifically referred to, whereby bodies in the form of horses or other animals or other objects upon which persons or dummy figures or other objects may be mounted or carried are caused to travel along the course through the medium of suitable traction devices traveling in conduits and suitably connected with the animal-form or other object.

The invention further aims to provide the apparatus in a manner as hereinafter set forth when used as a mechanical or artificial race-course with hurdles or hedges extending transversely of the course; and to further provide means, as hereinafter set forth, for causing the animal-form to appear to leap over said hurdles or hedges when the animal-form is caused to travel over the course through the medium of a traction device.

The invention further aims to provide an amusement apparatus which shall be simple in its construction, easily operated, amusing when used, strong, durable, and comparatively inexpensive to set up, whether said apparatus be used as a toy or a carousel or other purposes.

With the foregoing and other objects in view the invention consists of the novel construction, combination, and arrangement of parts, hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown, by way of example, an amusement apparatus in accordance with this invention in the form of a toy race-course; but it is to be understood that changes, variations, and modifications can be resorted to which come within the scope of the claims hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings, wherein like characters of reference denote corresponding parts throughout the several views, and in which—

Figure 1 is a top plan view of the amusement apparatus in accordance with this invention, said apparatus being illustrated in the form of a toy race-course. Fig. 2 is a longitudinal sectional view broken away at each end, showing in full lines an animal-body, and in dotted lines the position the animal-body assumes before and after leaping the hurdle. Fig. 3 is a transverse section showing a pair of animal-bodies approaching the hurdle. Fig. 4 is a longitudinal section showing the traction device and the operating means therefor. Fig. 5 is a plan showing the traction device, with one of the trucks for carrying the animal-body connected to the traction device. Fig. 6 is a transverse section showing one form of an operating means for the traction device, and Fig. 7 is a sectional elevation showing the manner of connecting the supporting-rods with the animal-form.

As before stated, by way of example, the amusement apparatus is illustrated in the form of a toy race-course with provision for the travel of a pair of animal-bodies; but it is evident that the race-track can be constructed so as to provide for the travel of two or more animal-bodies.

When the amusement apparatus is set up in the form of a toy race-track, the means for supporting and propelling the animal-bodies is inclosed in a suitable box or casing, but when the amusement apparatus is used as a carousel underground conduits are provided for the said means. It will be evident that the employment of the conduits is an obvious change and readily comes within the scope of the invention.

Referring to the drawings, 1 denotes a rectangular box or casing provided with a cover 2, formed with a plurality of elliptical-shaped slots 3, which, as at 4 5, are enlarged for a purpose to be hereinafter referred to. The bottom 6 for the receptacle 1 has secured thereto a pair of elliptical-shaped tracks 7 8, which are positioned in such a manner with respect to the slots 3 that the said slots 3 will be directly over the center of the tracks 7 8. The bottom 6 below the plane thereof and centrally of each track 7 8 is provided with a

depression 9 above the plane of the bottom and a raised portion 10 is provided, the outline of said depression 9 and raised portion 10 being upon a compound curve. The function of said raised portion 10 and depression 9 will be hereinafter referred to. Those portions of the track-rails which are arranged parallel with the raised portions 10 and which project rearwardly and forwardly of said raised portions 10 are formed in a segment-shaped manner, as at 11, for a function to be hereinafter referred to. The bottom 6 in advance of the raised portion 10 has suitably connected thereto a cushioning or deadening medium 12, for a purpose also to be hereinafter referred to.

Adapted to be propelled upon each of the tracks 7 and 8 is a truck formed of a body portion 13, having a pair of depending brackets 14, in which is journaled a shaft 15, carrying a pair of flanged wheels 16 to travel upon the tracks. Projecting rearwardly from the body portion 13 is a pair of curvilinear depending arms 17 in which are journaled the flanged wheels 18, which travel upon the tracks. The wheels 16 are the forward wheels of the truck and the wheels 18 are the rear wheels of the truck. Pivoted to a bearing 19, formed at the inner side of the body portion 13 through the medium of an oval-shaped slot 20 and a pin 20^a is a rearwardly-extending arm 21, which extends between the rear wheels 18 and carries on its rear end a weighted disk 22, which is eccentrically mounted, as at 23, on said arm 21. The said weighted disk 22 travels upon the bottom 6 of the receptacle and the circumference thereof should be equal and in proportion to the stride or leap of the animal-body, and said disk 22 is so weighted as to give a regular movement and maintain an equal balance when the animal-body takes a hurdle—for example, when the weight of the animal-form and rider or dummy figure are thrown entirely on the forward rod of a pair of supporting-rods, to be hereinafter referred to. The arranging of the bearing 19 on the inside of the body portion 13 is adapted to prevent the disk 22 from taking or scraping the outside rail of the track when the truck is taking the curves. Connected to the forward part of the arm 21 is a pair of upwardly-extending supporting-rods 24 24^a, which project from a slot 3 and carry on their upper ends an animal-body 25, upon which is mounted a dummy-figure 26. The rods 24 are of such length as to support the animal-body 25 above the top 2 of the receptacle 1. The truck is propelled forwardly in a manner as hereinafter referred to through the medium of a suitable traction device. During the travel of the truck the action of the eccentrically-mounted disk 22 will be such as to cause the arm 21 to swing on its pivot 20, and as said arm 21 has connected thereto the rods 24 said arm 21, owing to the action of the disk 22, will shift the rods 24 in what may be termed an "oscillatory" manner, carrying the animal-body 25 therewith and imparting to the animal-body what may be termed a "galloping" movement during the travel of the truck.

Extending transversely of the slots 3 at a point between the enlargements 4 5 is secured a hurdle or hedge 27, which is provided with a pair of vertical openings 28 to permit of the passage of the rods 24 during the travel of the animal-body 25. The hurdle 27 is positioned over the raised portions 10. (See Fig. 2.) The function of the depressions 9 and raised portions 10 is to cause the animal-body to take the hurdle in what may be termed a "life-like manner," the segment-shaped portions 11 of the track-rails also assisting.

By reference to Fig. 2 the manner in which the hurdle is jumped by the animal-body 25 is shown in dotted lines. However, it will be stated that as the truck is propelled forwardly upon the track the forward wheels 16 strike the segment-shaped portions 11, which causes a momentary halt, so that to the animal-body an appearance will be given similar to that of the beginning of the leap of an animal. As the truck moves forward over the segment-shaped portions 11 the disk 22 will travel in the depression 9, which will throw the animal-body rearwardly, as shown in dotted lines, so that the front legs of the animal-body will be elevated so as to properly clear the hurdle. As the truck travels upwardly upon the segment-shaped portions 11 and over the raised portions 10 the truck will be elevated, so that to the animal-body an appearance will be given as leaping over the hurdle. After the truck has reached the limit of its upward movement it will then start to descend. As it descends the animal-body 25 will be shifted, so as to lower the fore legs thereof and raise the rear legs, giving to the animal-body the appearance of landing. As the truck moves downwardly upon the segment-shaped portions 11 and the disk 22 moves off the raised portions 10 the disk will eventually come into contact with the deadening or cushioning medium 12, consequently preventing noise, and which also cushions the movement of the animal-body as the same at this time is shifted to resume its normal position, owing to the action of the disk 22 traveling upon a flat surface. The function of the enlarged portion 4 of the slot 3 is to prevent the rear legs of the animal engaging the top 2 of the cover as the animal is positioned for the leap, and the function of the enlarged portion 5 of the slot 3 is to prevent the fore legs of the animal contacting with the cover 2 when the leap has been completed.

The traction device consists of an endless cable for each truck. The cables are in the

form of sprocket-chains and are indicated by the reference character 29. Each of the cables travels over the idler-rollers 30, carried by a vertically-extending support 31, secured to the top and bottom of the casing 1, and each of the cables 29 also travels over the guide-rollers 32 33. Each truck is connected to its respective cable through the medium of a flexible member 34, attached, as at 35, to the cable and also secured, as at 36, to a tension-spring 37, which is secured to the forward portion of the truck, as at 38.

Each cable is operated by a sprocket-wheel 39, carried by a shaft 40, supported in a housing 41, and upon the shaft 40 is secured a pulley 42, over which travels means in the form of a belt connection 43, which also travels over a pulley 44, driven from a prime mover of any suitable construction. The guide-roller 32 is journaled in a projection 45, arranged at the rear of the sprocket-wheel 39, and the guide-roller 33 is journaled in the bracket 46, which is arranged slightly forward of the sprocket-wheel 39. It will be evident from the operating means for the traction device, said operating means shown by way of example, that owing to the rotation of the sprocket-wheels 39 and their engagement in the cables 29 the cables will be caused to travel, carrying the trucks therewith, and that as the trucks are propelled forwardly the animal-bodies will be carried by the trucks, and said animal-bodies will be caused to move in what may be termed a "galloping" manner, owing to the action of the eccentric disk 22 and arm 21. Furthermore, when the wheels 15 18 travel over the segment-shaped portions 11 and the disk 22 travels down and out of the depression and up and over the raised portions 10 the dummy figure will have given to it the appearanee of leaping the hurdle and landing after the leap, and then, owing to the fact that the wheels 15 and 18 and disk 22 after riding over the segment-shaped portions 11 and raised portions 10 and onto the flat surface, the animal-form will be caused to resume its normal position, and the disk 22 will then give to the animal-form the appearanee of galloping.

The manner of connecting the supporting-rods 24 24^a in position, as shown in Fig. 7, consists in extending the upper end of the rod 24 into the fore part of the animal-body 25 and pivotally attaching the upper end of the rod 24, as at 50, to the animal-body, while the lower end of said rod 24 is suitably secured to the pivoted end of the arm 21. The upper end of the rod 24^a slidably extends through the pair of cross members 51, which are suitably spaced apart and attached to stay members 52, secured in the rear part of the animal-body 25. The upper end of the rod 24^a is provided with an enlargement 53 to prevent the separation of said arm 24^a from the cross members 51, and interposed between the said cross members 51 and mounted upon said arm 24^a is a compression-spring 54, which is adapted to give a more life-like movement to the animal, especially when taking a hurdle, and also to render the riding of the animal-form more comfortable. The lower end of the rod 24^a is suitably connected to the pivoted end of the arm 21.

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

1. An amusement apparatus comprising a track having a portion thereof formed in a segment-shaped manner, a bed for the track having a portion thereof raised and arranged in parallelism with the segment-shaped portions of the track, said track-bed further provided with a depression in advance of said raised portion, combined with a truck traveling upon said track, and a supporting element connected to the truck, said truck provided with means connected with said supporting member and adapted to travel into and out of said depression and over said raised portion for the purpose set forth, said truck adapted to travel over said segment-shaped portion of the track for the purpose set forth, and a cushioning means arranged rearwardly of said raised portion.

2. An amusement apparatus comprising a track having a portion thereof formed in a segment-shaped manner, a bed for the track having a portion thereof raised and arranged in parallelism with the segment-shaped portions of the track, said track-bed further provided with a depression in advance of said raised portion, combined with a truck traveling upon said track, and a supporting element connected to the truck, said truck provided with means connected with said supporting member and adapted to travel into and out of said depression and over said raised portion for the purpose set forth, said truck adapted to travel over said segment-shaped portion of the track for the purpose set forth, a cushioning means arranged rearwardly of said raised portion, and a traction means for said truck.

3. An amusement apparatus comprising a track, a bed therefor, a truck adapted to travel upon said track, a rearwardly-extending arm pivoted to the truck, a support attached to said arm, an object carried by the support, and a disk eccentrically connected to said arm and adapted to travel over the track-bed for shifting said arm, thereby oscillating said support.

4. An amusement apparatus comprising a track, a bed therefor, an inclosure for the track provided with a slot having a pair of enlarged portions suitably spaced apart, a hurdle extending transversely of the slot between said enlarged portions, said track-bed provided with a raised portion and a depres-

sion in alinement with the said slot, said track provided with segment-shaped portions in parallelism with said raised portion, a truck adapted to travel upon said track, a rearwardly-extending arm pivoted to the truck, a disk eccentrically connected to said arm and adapted to travel upon the track-bed and into and out of the said depression and up and over said raised portion, a support attached to said arm and extending upwardly through said slot, and an object connected to said support.

5. An amusement apparatus comprising a track, a bed therefor, an inclosure for the track provided with a slot having a pair of enlarged portions suitably spaced apart, a hurdle extending transversely of the slot between said enlarged portions, said track-bed provided with a raised portion and a depression in alinement with the said slot, said track provided with segment-shaped portions in parallelism with said raised portion, a truck adapted to travel upon said track, a rearwardly-extending arm pivoted to the truck, a disk eccentrically connected to said arm and adapted to travel upon the track-bed and into and out of said depression and up and over said raised portion, a support attached to said arm and extending upwardly through said slot, an object connected to said support, and a cushioning medium arranged rearwardly of said raised portion.

6. An amusement apparatus comprising a track, a bed therefor, an inclosure for the track provided with a slot having a pair of enlarged portions suitably spaced apart, a hurdle extending transversely of the slot between said enlarged portions, said track-bed provided with a raised portion and a depression in alinement with the said slot, said track provided with segment-shaped portions in parallelism with said raised portion, a truck adapted to travel upon said track, a rearwardly-extending arm pivoted to the truck, a disk eccentrically connected to said arm and adapted to travel upon the track-bed and into and out of said depression and up and over said raised portion, a support attached to said arm and extending upwardly through said slot, an object connected to said support, a cushioning medium arranged rearwardly of said raised portion, and a traction device connected with said truck.

7. An amusement apparatus comprising a track, a truck adapted to travel thereon, an object carried by the truck, means connected with the truck for oscillating said object, a traction device, a flexible member attached at one end to said traction device, and a spring connected at one end to said flexible member and at its other end to said truck.

8. An amusement apparatus comprising a track, a bed therefor, said bed provided with a raised portion intermediate the track and a depression intermediate the track and in advance of the raised portion, a truck adapted to travel on said track, an eccentrically-mounted means pivotally connected with the truck and adapted to travel into and out of said depression and up and over the said raised portion, and an object connected with said eccentrically-mounted means.

9. An amusement apparatus comprising a track, a bed therefor, said bed provided with a raised portion and a depression in advance of the raised portion, a truck adapted to travel on said track, an eccentrically-mounted means pivotally connected with the truck and adapted to travel into and out of said depression and up and over said raised portion, an object connected with said eccentrically-mounted means, a hurdle arranged transversely of the track, and a cushioning medium positioned in operative relation with respect to said raised portion.

10. An amusement apparatus comprising a track, a bed therefor, said bed provided with a raised portion and a depression in advance of the raised portion, a truck adapted to travel on said track, an eccentrically-mounted means pivotally connected with the truck and adapted to travel into and out of said depression and up and over said raised portion, an object connected with said eccentrically-mounted means, a hurdle arranged transversely of the track, a cushioning medium positioned in operative relation with respect to said raised portion, and a traction device suitably connected with said track.

11. An amusement apparatus comprising a truck adapted to travel upon a track, a rearwardly-extending arm pivoted to the truck, a pair of supporting-rods connected to said arm, an object, means for pivoting one of said arms to said object, means for slidably connecting the other of said rods to said object, a spring element arranged in operative relation with respect to said slidably-connected rod, and a disk eccentrically connected to said arm and adapted when traveling to oscillate said rods, thereby imparting a like movement to said object.

12. An amusement apparatus comprising a truck adapted to travel upon a track, a rearwardly-extending arm pivoted to the truck, a pair of supporting-rods connected to said arm, an object, means for pivoting one of said arms to said object, means for slidably connecting the other of said rods to said object, a spring element arranged in operative relation with respect to said slidably-connected rod, and a weighted disk eccentrically connected to said arm and adapted when traveling to oscillate said rods, thereby imparting a like movement to said object.

13. An amusement apparatus, comprising a traveling truck, a rearwardly-extending arm pivoted to the truck, a supporting means attached to said arm, an object carried by said supporting means, and a weighted disk

eccentrically connected to said arm, traveling with said truck and adapted during the travel thereof to shift said support, thereby oscillating said object.

14. An amusement apparatus comprising a track, a bed therefor, said bed provided with a raised portion and a depression in advance of the raised portion, a truck adapted to travel on said track, a weighted eccentrically-mounted means pivotally connected with the truck and adapted to travel into and out of said depression and up and over the said raised portion, and an object connected with said eccentrically-mounted means and adapted to have movement imparted thereto during the travel of said means.

15. An amusement apparatus, comprising a track having a portion formed in a segment-shaped manner, a bed for the track having a portion thereof raised and arranged in parallelism with and projecting above the segment-shaped portion of the track, said track-bed further provided with a depression in advance of said raised portion, said depression arranged below the plane of that portion of the track extending at each side thereof, combined with a truck traveling upon said track, and a supporting element connected to the truck, said truck provided with an oscillating means for said supporting element, said oscillating means connected with said supporting element and adapted to travel into and out of said depression and over said raised portion of the track-bed, said truck during the travel of said oscillating means adapted to travel over said segment-shaped portion of the track.

16. An amusement apparatus comprising a track, a bed therefor, said bed provided with a raised portion and a depression in advance of the raised portion, said track provided with a segment-shaped portion at each side of said raised portion, said depression arranged below the plane of the track at each side thereof, a truck adapted to travel on said track, an eccentrically-mounted means pivotally connected with the truck and adapted to travel into and out of said depression and up and over the said raised portion, said truck when said depression is traveling over said raised portion, adapted to travel over the segment-shaped portion of the track, and an object connected with said eccentrically-mounted means.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LOUIS BONAPARTE MAY.

Witnesses:
R. DELANEY WHITING,
JOHN B. NORRIS.