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L. MARX
CIRCUS TOY

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Fig. 1.

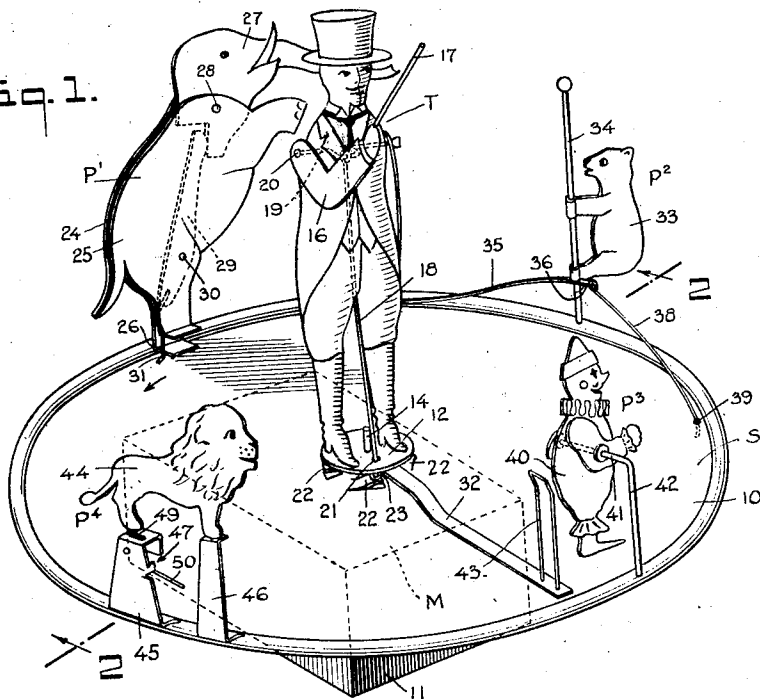
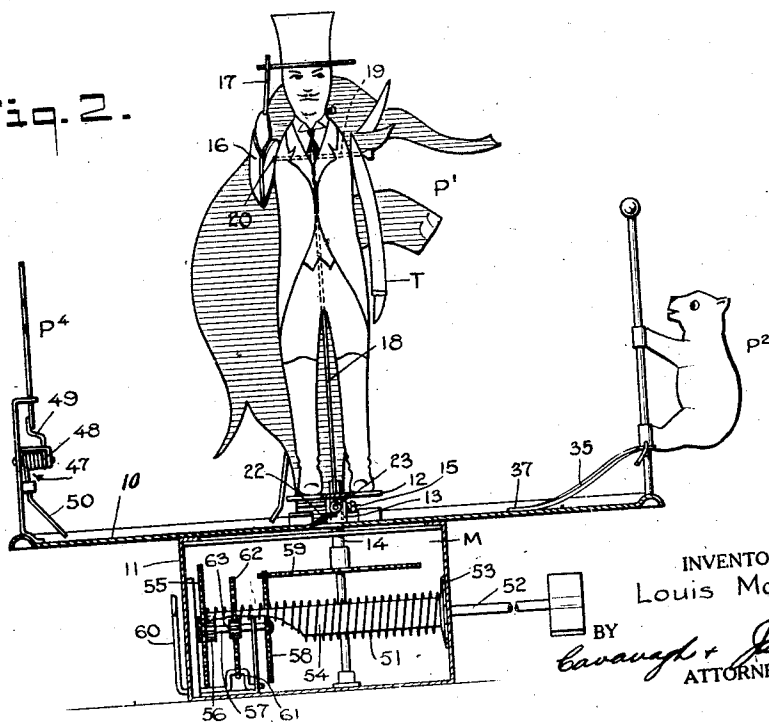


Fig. 2.



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CIRCUS TOY.

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This invention relates to an amusement device and more particularly to an amusement device or toy simulating a circus performance.

5 A principal object of my present invention comprehends the provision of a circus simulating toy embodying a plurality of figures or manikins designed and constructed to represent in appearance and simulate in action a circus performance.

10 More specific prime objects of the invention include the provision of a circus simulating toy in which a plurality of toy figures representing circus performers are operated in succession by motor means for producing circus performance actions characteristic of such figures; the further provision of a circus toy of this character in which the performing figures are arranged circumferentially about a central figure representing a circus trainer, the said central figure being rotatable for cooperating with the performing figures in succession; the still further provision of a circus toy of this nature in which the circumferentially arranged performing figures or manikins are independent of any motor mechanism the said figures and manikins being constructed and mounted to assume normal positions and to return to such normal positions after being actuated, the motor mechanism of the circus toy being exclusive to the centrally arranged circus trainer figure with the construction such that operation of the latter will impart the circus performing actions to the performing figures.

15 A correlated and important object of the invention relates to the provision of a circus toy of the character referred to in which the operating parts are reduced to a minimum, the manikins or performing figures being so inter-related as to permit operation thereof with relatively simple motor mechanism, the parts of the toy assembly being so associated and combined as to minimize any likelihood of derangement of the parts and to permit facile adjustment and repair by the child, the simplicity of organization further permitting the manufacture of the toy at comparatively low cost.

20 To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in the elements

and their relation one with respect to the other as hereinafter sought to be defined in the claims, reference being had to the following specification and drawings in which—

Figure 1 is a perspective view of the circus simulating toy of my invention; and

Figure 2 is an elevational view thereof with parts shown in section and other parts broken away to disclose the interior construction thereof.

Referring now more in detail to the drawings, the circus toy embodying my invention in its preferred form comprises a platform representing a stage S on which are mounted a plurality of movable figures or manikins representing in appearance and adapted to simulate in action a plurality of circus performers, said circus performing figures, generally designated at P¹ P² P³ and P⁴, being arranged circumferentially about a centrally located figure T simulating a circus trainer which figure is preferably arranged for rotation and operated by means of a motor mechanism M, operation of the circus training figure T being adapted to set into actuation in succession the circus performing figures P¹ to P⁴.

The platform or stage S may comprise a disc-shaped member 10 which may be made of sheet metal, the said disc-shaped platform being fixed to and supported by a motor casing 11, the said disc-shaped platform 10 being provided for supporting the plurality of circus performing figures P¹ to P⁴ as will be described hereinafter.

The centrally arranged figure T representing the circus trainer is mounted for rotation so as to be movable into cooperation with the circus performing figures in succession, and to this end the trainer manikin which may be of any appropriate design and which is preferably made out of sheet metal is fixedly mounted on a rotatable disc 12 which disc is provided with a collar 13 removably attachable to a shaft 14 forming part of the motor mechanism M, the said removable attachment being by means of a set screw 15. The manikin or figure T is preferably provided with a movable part such as an oscillatable arm 16 carrying a stick or baton 17 which is adapted to be moved in relation to each of the performing figures P¹—P⁴ in characterization of impart-

ing instructing signals to the circus performing manikins.

The oscillating arm and baton 16 and 17 are operated during the rotation of the trainer manikin T by means of a rod 18 extending within the body of the figure T the said rod being connected to a crank shaft 19 arranged transversely within the body of the manikin and to which crank shaft the arm 16 is fixedly attached as at 20, the said rod 18 extending beneath the disc 12 through an aperture 21 thereof so as to be movable into engagement with a plurality of upstanding cam portions 22, 22, which for convenience and simplicity of construction may be struck up from the platform member 10. The lower end of the rod 18 may be appropriately looped as at 23 to limit the upward movement of the rod and to facilitate the riding of the bottom terminal of the rod over the cam shaped upstanding portions 22, 22. By means of this construction it will be apparent that upon rotation of the motor shaft 14 the circus trainer figure will be rotated and the arm and baton thereof will be appropriately oscillated during rotation of the figure, and as will become clearer hereinafter the oscillation of the arm and baton will synchronize with the movement imparted to the circus performing figures P¹ to P⁴.

The circus performing figure P¹ in the construction embodied in the drawings comprises an elephant made of sheet metal the body of which includes the mating sheet metal sections 24 and 25 fixedly attached to the stage platform 10 as at 26, the said elephant figure being provided with a movable head and trunk 27 pivoted to the body section as at 28, the said movable head and trunk being adapted to be actuated by means of a lever 29 arranged between the body sections 24 and 25 and pivoted thereto as at 30 the said lever being provided with an actuating arm 31. The movable parts of the elephant figure are adapted to gravitationally assume the normal positions shown in Figure 1 of the drawings, and with the construction provided it will be evident that when the actuating arm 31 is moved in the direction indicated by the arrow the head and trunk 27 of the elephant figure will be moved in response. The actuating arm 31 is movable in the direction indicated by the arrow by means of an operating member 32 which is fixed to the disc 12 for rotation therewith; and when the circus trainer figure T moves in the direction of the performing figure P¹ the operating member or arm 32 engages or strikes the actuating arm 31 to impart motion to the elephant head and trunk 27. It will now be apparent that when the actuating arm 31 is released by the operating member 32 in the further rotation of the same the movable parts of the

elephant figure will return to their normal positions as indicated in Figure 1 of the drawings.

The circus performing figure P² is preferably constructed to simulate a climbing animal 33 of any appropriate configuration or design slidably movable on a pole or standard 34 which latter is fixedly attached to the platform 10. The said climbing figure 33 normally assumes by gravitation the position shown in Figure 1 of the drawings being held in this position by means of a leaf spring 35 provided with a loop 36 at one end which loop is engaged by the figure 33, the said leaf spring being fixedly attached as at 37 to the platform 10. Connected to the loop end 36 of the leaf spring is a resilient element 38 which may appropriately be formed of rigid metal wire which resilient element is fixed as at 39 to the platform 10 and is arranged so as to be engaged by the outer end of the rotatably operating member or arm 32. With this construction it will be seen that when the central figure T is rotated into a position facing the climbing figure P² the resilient element 38 will be depressed by engagement of the operating arm 32 therewith and the leaf spring 35 will be tensioned. In the further rotation of the operating arm 32 the outer end thereof disengages the resilient element 38 releasing the now tensioned leaf spring 35, which leaf spring now returns to its normal position and impels the figure 33 upwardly along the pole or standard 34 in simulation of a climbing action.

The figure P³ in the preferred embodiment of the invention represents an acrobatic performer and comprises a figure 40 made of sheet material and arranged for free rotation on a transverse portion 41 of a bracket 42 which bracket is fixedly attached to the rim of the platform or stage 10. For actuating the acrobatic performer the operating arm 32 is provided with a yoke-shaped element 43 arranged so as to engage the body of the figure 40 below its axis of suspension. The construction is such that when the operating arm 32 with its yoke-shaped element 43 strikes the acrobatic figure the latter will be set into rapid rotation in natural simulation of an acrobatic act. The performer 40 is so weighted as to normally assume and return to the vertical position shown in Figure 1 of the drawings.

The figure P⁴ may comprise another animal of any desirable configuration or form such as a lion 44 movable relatively to the brackets 45 and 46 simulating props, which brackets are fixedly attached to the rim of the platform or stage 10. The figure 44 is weighted so as to assume the position shown in Figure 1 of the drawings with its fore legs on the prop 46 and with its hind legs

on the prop 45. For operating the figure 44 the same is provided with an actuating device 47 shown more particularly in Figure 2 of the drawings, which actuating device comprises a lever having its fulcrum at 48, the upper arm 49 of said lever being fixed to the hind legs of the figure 44 and the lower arm 50 of the lever being free to be struck by the rotatable operating arm 32. With this construction it will be seen that as the central figure T is moved into position facing the performing figure 44 the operating arm 32 strikes the lower end 50 of the lever 47 moving the animal figure 44 to an elevated position, the said animal figure returning to its normal position when the operating lever 47 is released by the onward movement of the operating arm 32.

With the construction thus far described it will be seen that each of the circumferentially arranged performing figures P¹ to P⁴ is disconnected from any motor mechanism and is free to be operated by a common operating or actuating member, thus permitting all of the performing figures to be controlled and operated by relatively simple motor mechanism. Moreover, by means of this construction the performing figures are mounted for movement independently of each other and independent of the motor mechanism, so that each figure may be operated or manipulated by the child separately and apart from the other figures and the motor mechanism, thus inhibiting the liability of deranging or affecting the integrity of the motor parts when any of such figures be so independently operated or manipulated. It will be further seen that simultaneously with the action imparted to the performing figures, the circus trainer T is moved into cooperation with the figures and the arm and baton thereof is actuated in synchronism with the performers.

For operating all of the parts the motor mechanism M heretofore referred to is provided and the said mechanism is encased in the motor casing 11 above referred to. This motor mechanism comprises any well known or preferred construction and includes a spring motor 51 having a winding means 52 the spring motor being fixed at one end to a stop ratchet means 53 and being fixed at its other end to a drum 54 which drum carries an operating gear 55. The operating gear 55 meshes with a pinion 56 fixed to a shaft 57 which shaft carries a gear 58 meshing with a gear 59 which latter is fixed to the shaft 14. With this construction it will be evident that when the spring motor is wound and released the gear train will operate to rotate the shaft 14 and to set all of the figures into actuation. Preferably the motor mechanism is provided with a start and stop device comprising an oscillatable lever 60 having a crank portion 61 which is adapted to move into and out of engagement with a gear 62 rotatable on a suitable shaft (not shown) which gear meshes with a pinion 63 fixed to the shaft 57. When the lever 60 is moved to engage the gear 62 the motor mechanism is stopped and when the said lever is moved out of engagement with the gear 62 the motor mechanism is released to permit operation of the motor.

The use and operation of my improved circus toy will in the main be fully apparent from the above detailed description thereof. It will be further apparent that I have provided a relatively simple organization of parts operated by a motor mechanism of simple design, the parts including the performing figures and the circus trainer figure being associated so as to be capable of rendering an amusing performance in natural characterization of a circus. It will be further seen that the parts are interrelated to permit a single motor mechanism for operating all the figures, the assembly or circus ensemble being capable of being manufactured economically and being capable of being used by the child with a minimum liability of breakage or derangement. It will be further apparent that numerous changes may be made in the parts and their relation one to the other and the design of the figures without departing from the spirit of the invention defined in the following claims.

I claim:—

1. A toy of the character described comprising a centrally arranged toy figure, a stationary support, a plurality of independently movable figures representing circus performers arranged on said support about the central figure and a motor means unconnected to said performing figures whereby said figures are movable independently of the motor means and independently of each other, said motor means including an operating member movable cyclically into cooperation with the performing figures when the motor means is operated to impart to such figures in succession circus performing actions characteristic of such figures.

2. A toy of the character described comprising a plurality of circumferentially arranged toy figures mounted for movement independent of each other and representing circus performers and a motor means unconnected to said performing figures whereby said figures are movable independently of the motor means and independently of each other, said motor means including an operating member movable cyclically into cooperation with the performing figures when the motor is operated to impart to such figures in succession circus performing actions characteristic of such figures.

3. A toy of the class described comprising

a platform, a stationary support, a plurality of toy figures representing circus performers mounted on said support for movement independently of each other and arranged circumferentially on said platform, a centrally arranged motor shaft and an operating member fixed to said shaft unconnected but arranged relatively to the said figures so that when the shaft is rotated the operating member is moved cyclically into cooperation with the figures in succession to impart thereto circus performing actions characteristic of such figures.

4. A toy of the character described comprising a centrally arranged rotatable figure representing a circus trainer, a plurality of toy figures representing circus performers mounted for movement independently of each other and arranged about the central figure, an operating member rotatable with said central figure disconnected from said performing figures but arranged for cyclical cooperation with the performing figures for imparting to such figures in succession circus performing actions characteristic of such figures and a motor mechanism for rotating the central figure.

5. A toy of the character described comprising a rotatably mounted toy figure representing a circus trainer, the said figure having a movable arm and baton, a stationary support, a plurality of toy figures representing circus performers mounted for independent movement and arranged on said support about the circus trainer figure, a member rotatable with said circus trainer figure and arranged so as to coact with the performing figures when the member is rotated for imparting to such figures in succession circus performing actions characteristic of such figures, mechanism for rotating said circus trainer figure and means for moving the arm and baton on the circus trainer figure when each performing figure is set into action.

6. A toy of the character described comprising a rotatably mounted toy figure representing a circus trainer, the said figure having an oscillatable arm and baton, a stationary support, a plurality of independently movable toy figures representing circus performers arranged on said support about the circus trainer figure, a member rotatable with said circus trainer figure and arranged so as to coact with the performing figures when the member is rotated for imparting to such figures in succession circus performing actions characteristic of such figures, mechanism for rotating said circus trainer figure and means operated by the rotation of the circus trainer figure for oscillating the arm and baton thereon in cooperation with the action imparted to the performing figures.

7. A toy of the character described com-

prising a rotatably mounted toy figure representing a circus trainer, the said figure having a movable arm and baton, a stationary platform, a plurality of toy figures representing circus performers mounted for independent movement and arranged on said platform about the circus trainer figure, means for actuating said performing figures in succession, mechanism for rotating said circus trainer figure and means for moving the arm and baton on the circus trainer figure each time a performing figure is set into action.

8. A toy of the character described comprising a circus toy figure mounted for vertical movement in simulation of a climbing action, means for vertically moving the figure, a rotatably mounted toy figure representing a circus trainer provided with a movable arm and baton and having a member disconnected from but cyclically movable into cooperation with said means to impart the vertical movement to the climbing figure, the said climbing toy figure having means for causing it to assume a normal position and to return to said normal position after being actuated, motor mechanism for rotating said member and means for moving the arm and baton of the circus trainer figure in timed relation with the actuation of said climbing figure.

9. A toy of the character described comprising a circus toy figure having a movable part, a rotatable figure representing a circus trainer having an operating member movable therewith and cyclically movable into cooperation with the movable part of said circus toy figure for imparting a movement thereto in simulation of a circus performing action, the said movable part being movable independently of said operating member and being constructed to assume a normal position and to return to such normal position after being actuated and motor mechanism for rotating said rotatable figure.

10. A toy of the character described comprising a circus toy figure having a movable part, a rotatable figure representing a circus trainer having a movable arm and baton and having an operating member rotatable with the figure and cyclically movable into cooperation with the movable part of said circus toy figure for imparting a movement thereto in simulation of a circus performing action, the said movable part being movable independently of said operating member and being constructed to assume a normal position and to return to such normal position after being actuated, motor mechanism for rotating said rotatable figure and means for moving the arm and baton of the circus trainer figure in timed relation with the operation of the circus toy figure.

11. A toy of the character described comprising a rotatably mounted circus toy figure simulating an acrobatic performer, a rotatable figure representing a circus trainer 10
5 having an actuating member cyclically movable into engagement with the acrobatic figure for imparting rotary movement to the same, the said acrobatic figure including means for causing it to assume a normal position and to return to said normal position 10 after being actuated, and motor mechanism for rotating said member.

Signed at New York city in the county of New York and State of New York, this 30th day of December, A. D. 1924.

LOUIS MARX.