

Jan. 19, 1926.

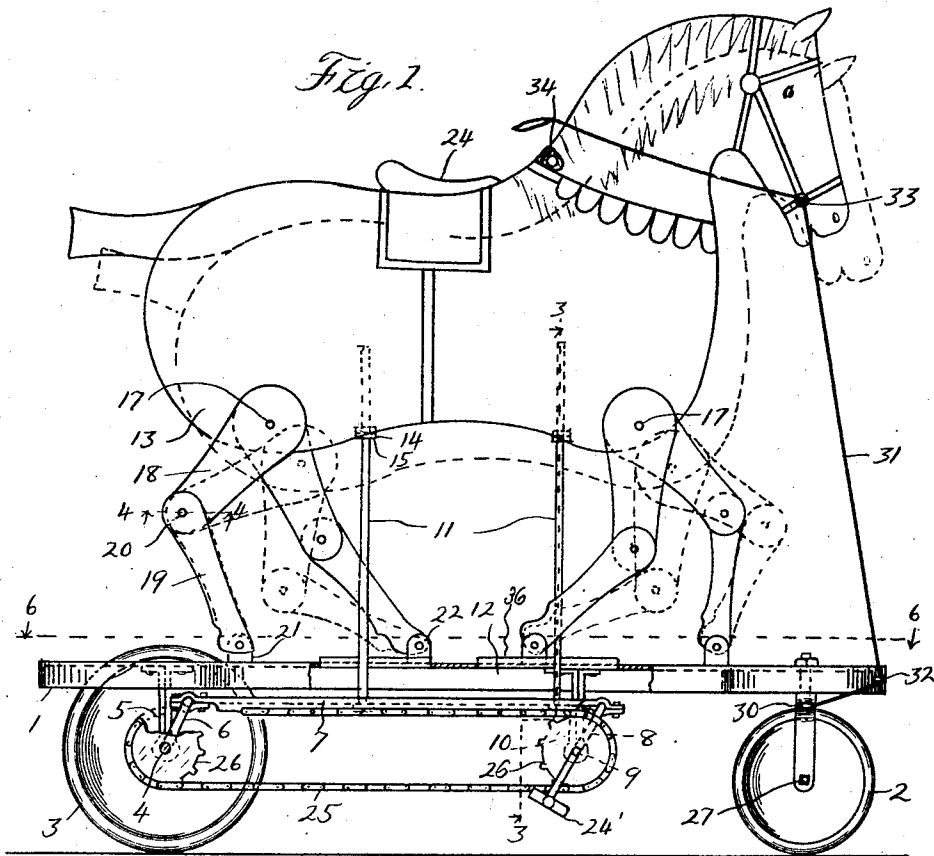
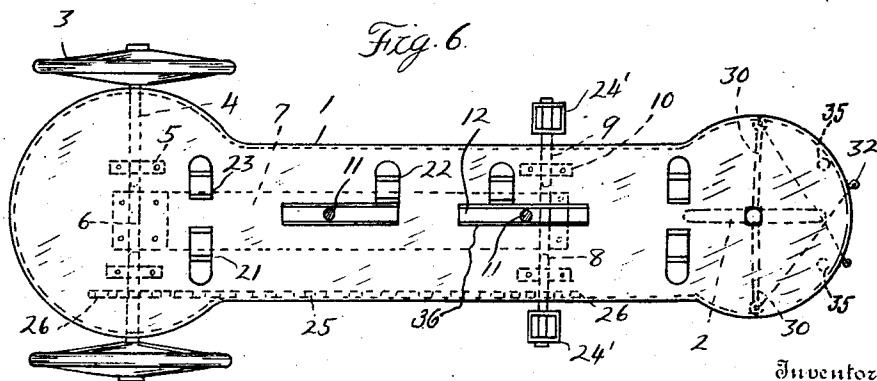
W. H. APPLEBY

1,570,546

VEHICULAR TOY

Filed Jan. 10, 1925

2 Sheets-Sheet 1



Inventor
William H. Appleby

By

J. D. Murray
Attorney

Jan. 19, 1926.

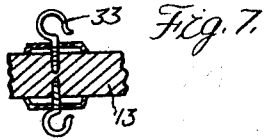
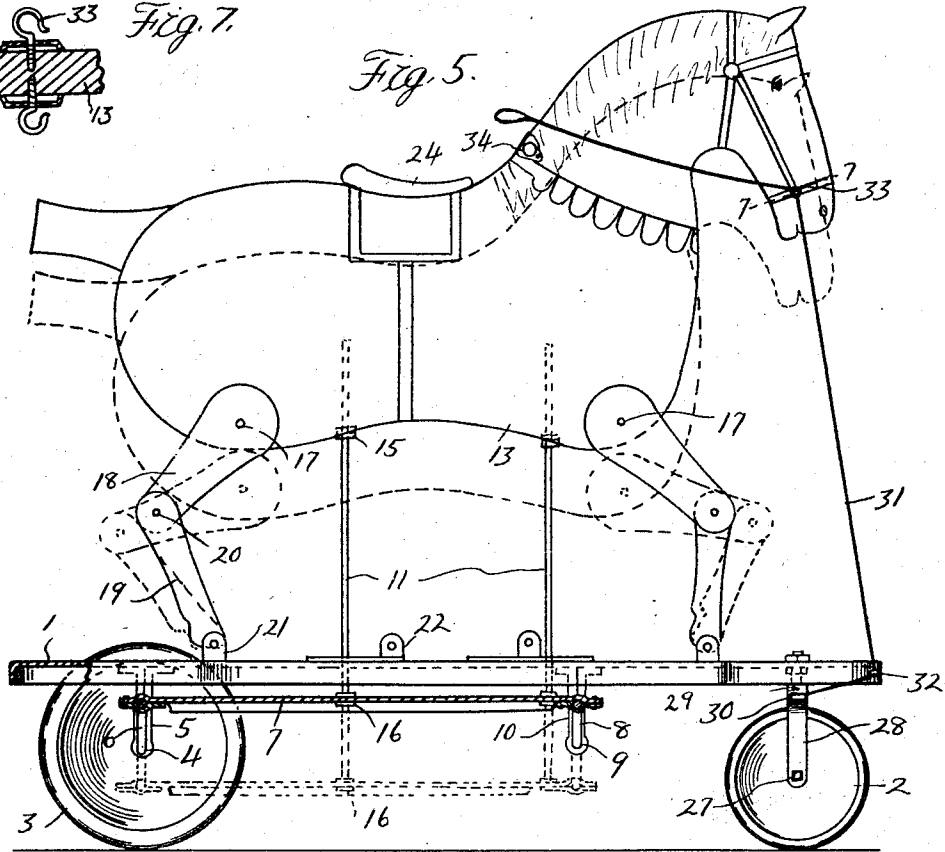
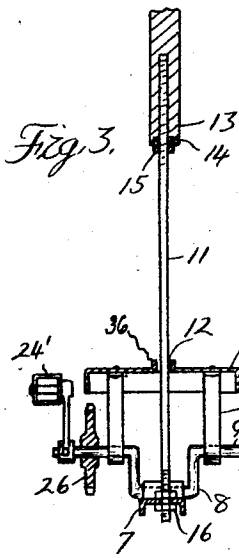
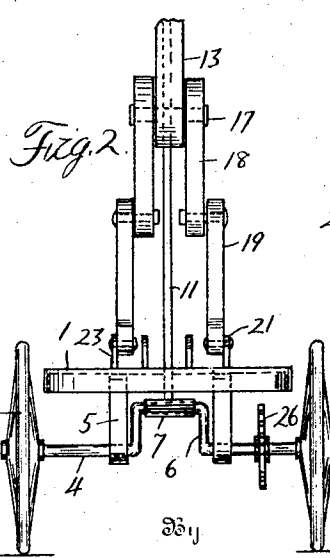
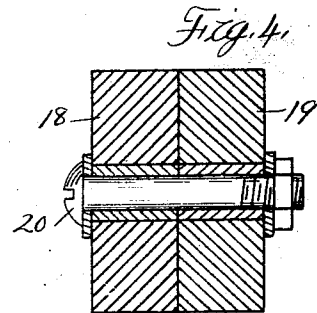
W. H. APPLEBY

VEHICULAR TOY

Filed Jan. 10, 1925

2 Sheets-Sheet 2

1,570,546



Inventor
William H. Appleby

J. S. Murray
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. APPLEBY, OF WINDSOR, ONTARIO, CANADA, ASSIGNOR OF ONE-FOURTH
TO ROY RODD, OF WINDSOR, ONTARIO, CANADA.

VEHICULAR TOY.

Application filed January 10, 1925. Serial No. 1,645.

To all whom it may concern:

Be it known that I, WILLIAM H. APPLEBY, a subject of the King of Great Britain and Ireland, residing at Windsor, Ontario, Canada, have invented a new and useful Vehicular Toy, of which the following is a specification.

This invention relates to toys and particularly relates to vehicular toys.

It is an object of the invention to provide a toy comprising a wheeled base and a figure upon said base representing a horse or other animal, said figure being provided with a saddle or the like, whereby a child may sit astride the animal, and mechanism being provided for the propulsion of the toy by said child.

Another object is to provide a toy of the described character, in which the legs of the figure will be jointed and the body of the figure will be actuated up and down during propulsion of the toy so that there will be imparted to said legs a fairly life-like simulation of animate motion, and so that the rider will be moved with the body of said figure, much as if he (or she) were riding an actual horse.

Still another object of the invention is to provide a toy of the described character in which an adjustment may readily be made to permit simulation either of a galloping or of a trotting horse.

A further object is to provide mechanism pedally operable by the rider for both propelling the toy and effecting the desired up and down motion of the animal figure.

A still further object is to provide for steering the toy by means of reins which engage both the head of the figure and a swiveled post mounting the front wheel so that the analogy to horse-back riding is carried out.

These and various other objects the invention attains by means of the construction hereinafter described and illustrated in the accompanying drawings, wherein:

Figure 1 is a view in side elevation of one embodiment of the invention, two positions of the animal figure and its actuating mechanism being shown.

Figure 2 is a rear view of the same.

Figure 3 is a vertical cross section view, taken upon the line 3—3 of Figure 1.

Figure 4 is a cross sectional detail of the

pivotal joint between the two sections of one of the legs, the plane of section being indicated at 4—4 in Fig. 1.

Figure 5 is a view similar to Figure 1, but showing an adjustment of the legs such as to simulate a galloping movement.

Figure 6 is a horizontal sectional view taken upon the line 6—6 of Figure 1, showing the base and the connections of the legs thereto.

Figure 7 is a cross sectional detail taken upon the line 7—7 of Fig. 5, and showing hooks secured to the head of the animal body for detachable engagement by reins.

In these views the reference character 1 designates a supporting base which as shown is formed of sheet metal but may be made of any suitable material. Said base is equipped with a single front wheel 2, swiveled for steering purposes and with a pair of rear wheels 3 fast upon the extremities of an axle 4. Said axle is journaled in a suitable pair of bearings 5 secured to the under face of the base 1. A crank 6, formed substantially centrally in the axle 4 is pivotally engaged by the rear end of a bar 7, the forward end of which is pivoted to a crank 8 formed substantially centrally of a shaft 9 journaled beneath and transversely to the base 1 in a pair of bearings 10 secured to the under face of said base. The bar 7 is preferably metallic and of a channel shape.

To the bar 7 there are secured rigidly the lower ends of a pair of spaced posts 11, preferably metallic, said posts rising respectively through slots 12 longitudinally extending in the base 1. The upper portions of said posts rigidly carry the body 13 of an animal figure which in the illustrated embodiment of the invention is the figure of a horse. Preferably said posts extend upwardly within the body 13 for a considerable distance, interiorly threaded bushings 14 being secured to the under face of said body and the posts having threaded portions engaging in said bushings. Lock nuts 15 upon said threaded portions beneath said bushings bear upon the latter and may be adjusted to permit the elevation of the body 13 upon said posts to be varied. Lock nuts 16 engaging the threaded lower end portions of said posts clamp the latter to the bar 7. The body 13 of the animal figure is provided

with front and rear pairs of legs, the legs of each pair being pivoted to the body of said figure at opposite sides thereof by a common pin 17. Each leg comprises upper and lower sections 18 and 19, pivoted to each other at the knee, as indicated at 20. The lower extremities of the legs are pivotally connected to the base and preferably to brackets 21 and 22 upon said base. The brackets 21 engaged by the legs at one side of the figure are spaced forwardly from those engaged by the other two legs, this relation of said brackets being essential to the simulation of a trotting movement by said legs. With each of the brackets 21, there is aligned transversely of the base a bracket 23, and when it is desired to effect a movement of the legs simulating that of the galloping horse, the two legs engaged with the brackets 22 are disconnected therefrom and are connected to the brackets 23.

Upon the body 13 there is provided a saddle 24, suitably secured to said body, and upon said saddle the child who is operating the toy may sit astride of said body. The shaft 9 is terminally formed with crank-arms carrying pedals 24' for engagement by the feet of the operator, and a drive connection from said shaft to the rear axle 4 is established through a chain 25, engaging sprocket wheels 26, fast upon said shaft and axle respectively. These two wheels are necessarily of the same size, since the connection established between said shaft and axle by the bar 7 requires rotation thereof at the same speed. Said bar and the chain 25 establish in effect a double drive connection, the bar alone being inadequate because of its dead center positions.

The front wheel 2 is journaled upon a stub axle 27 mounted in the forked lower end of a steering post 28, for which a depending journal bearing 29 is carried by the forward portion of the base 1. Below said base, the post 28 carries a pair of arms 30 projecting oppositely laterally from said post. To the free ends of said arms there are attached reins 31 which are extended forwardly to pass through eyelets 32 upon the front edge of the base 1 and which extend upwardly from said eyelets to hooks 33 carried by the head of the animal figure at each side thereof simulating bridle rings. Passing freely through said rings, the reins are extended rearwardly, permitting the operator to control the direction of travel of the device, as a horse is controlled by its rider.

To assist the operator in maintaining his (or her) position upon the saddle 24, it is preferred to provide a handle 34 upon the body 13 forward of the saddle which the rider may grasp, if necessary.

The described toy will afford to a child much the same exercise and excitement that would be derived from horse-back riding,

the muscular exertion required to propel the toy making the latter even superior for the purpose of exercise to an actual horse.

Furthermore said toy by the simple change in the attachment of the legs to the base, as has been described, permits both the appearance and the effect (upon the rider) of either galloping or trotting to be simulated.

It is to be noted that the reins are crossed beneath the base 1 in order that a pull exerted by the rider upon either rein will turn the toy toward the side thereof at which said rein extends. Also the hooks 33 permit the reins to be detached from the head, so as to better permit the toy to be drawn forward, through said reins by a person walking. Said hooks are preferably somewhat resilient so that they must be sprung slightly to engage the reins therewith or disengage the reins therefrom. 35 designates a pair of stop pins secured to the base 1, therebeneath, and engageable by the arms 30 to limit the swivel steering movement of the post 28.

Flanges 36 are preferably formed upstanding upon the base 1 marginally of the slots 12 by metal struck out of said slots, providing wearing surfaces for the posts 11 as the latter are moved in said slots.

What I claim is:

1. In a device of the character described, the combination with an animal figure providing a seat for an operator, and front and rear wheels upon which said figure is adapted to travel, the front wheel being swiveled for steering purposes, of a pair of reins controlling swivel movement of said front wheel, and guide members for said reins carried upon opposite sides of the head of the animal figure and simulating bridle rings.

2. In a device of the character described, the combination with an animal figure providing a seat for an operator, and wheels upon which said figure is adapted to travel, of drive mechanism for one of said wheels actuable by an operator upon said seat, and mechanism for bodily raising and lowering the figure a substantial distance actuable by a wheel of said device.

3. In a device of the character described, the combination with a wheeled base, of an animal figure having legs pivotally joined to the body of said figure and pivotally mounted upon said base, and pivotally jointed at their knees, the body of said figure providing a seat for an operator, mechanism actuable by an operator upon said seat for propelling the device, and mechanism for actuating the body of said figure up and down during propulsion of the device.

4. In a device of the character described, the combination with a longitudinally slotted base and wheels upon which said base is adapted to travel, of an animal figure com-

prising a body, and jointed legs mounting said body upon said base, said body providing a seat for an operator, parallel crank shafts journaled upon said base beneath the same, a bar pivotally mounted upon cranks of said shafts, drive means for said shafts and for a wheel of said base actuatable by an operator upon said seat, and a post rigidly carried by said bar and rising through the slot of the base to engage the body of said animal figure.

5. In a device of the character described, the combination with a wheeled base, of an animal figure comprising a body providing a seat for an operator and jointed legs mounting said body upon said base, a bar longitudinally extended beneath said base and mounted to travel in a circular path, mechanism for propelling the device and for effecting the specified travel of said bar, actuatable by an operator upon said seat, and a post carried by said bar and engaging said body for communicating the motion of said bar to said body.

6. In a device of the character described, the combination with a base, of an animal figure comprising a body providing a seat for an operator and further comprising legs pivotally joined to said body and to said base and having pivotal knee joints, and mechanism operable by an operator upon said seat for moving said figure in simulation of animate motion.

7. In a device of the character described, the combination with a base, of an animal figure mounted upon said base and movable relative to said base, a pair of parallel crank shafts journaled upon said base, a bar extending between said shafts and pivotally engaging cranks thereof, means carried by

said bar engaging said figure for actuating the same in simulation of animate motion, and drive mechanism for said shafts operable by an operator upon said seat.

8. In a device of the character described, the combination with an animal figure providing a seat for an operator, and wheels upon which said figure is adapted to travel, of mechanism for steering said figure, a pair of reins controlling said mechanism, and retaining means for said reins carried by the head of said figure, affording said reins a free lengthwise movement and providing for detachment of said reins by movement thereof transverse to their length.

9. In a device of the character described, the combination with a wheeled base, and an animal figure surmounting said base, one of the wheels of said base being swiveled for steering movement, of steering mechanism controlling said wheel, and means carried by said base therebeneath limiting steering actuation of said wheel by said mechanism.

10. In a device of the character described, the combination with a wheeled base, of an animal figure, a support engaging said figure, and mechanism engaging said support and driven by a wheel of said base, and bodily raising and lowering said figure and support.

11. In a device of the character described, the combination with a pair of parallel crankshafts, a bar pivotally engaging cranks of said shafts, means upon one of said shafts for pedally actuating the same, an animal figure providing a seat for an operator, and means mounting said figure upon said bar.

In testimony whereof I sign this specification.

WILLIAM H. APPLEBY.