Nov. 5, 1929. A. B. OSTBY 1,734,775

TOY VEHICLE

Filed July 11, 1928

Fig. 7.

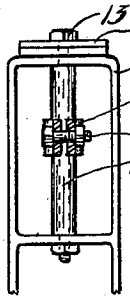


Fig. 1.

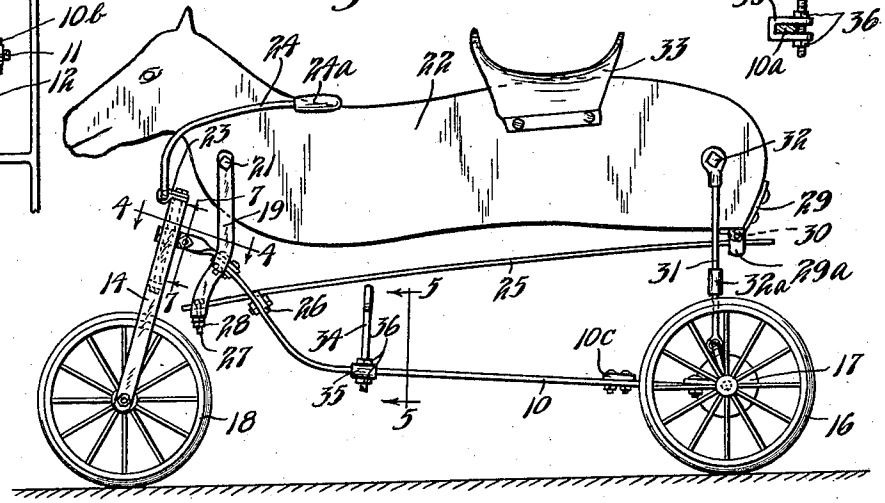


Fig. 5.

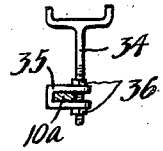


Fig. 2.

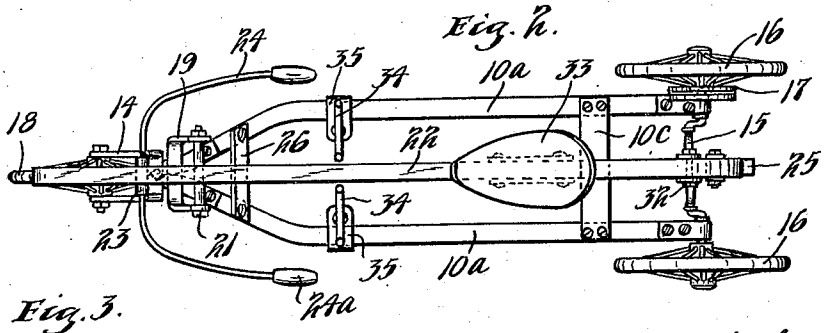


Fig. 3.

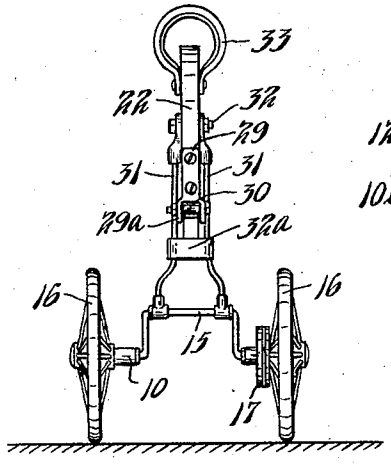


Fig. 4.

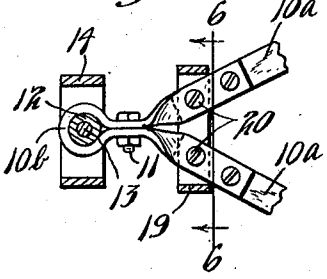
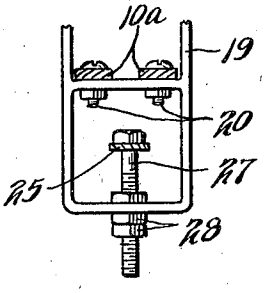


Fig. 6



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UNITED STATES PATENT OFFICE

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TOY VEHICLE

Application filed July 11, 1928. Serial No. 291,825.

This invention relates to a toy device which is in the nature of a vehicle. It is desirable to have a toy simulating a horse or any other animal, fish or fowl or figure on which children can ride and play and it is also desirable to have such a device which can be progressed by the riding action of a child thereon.

It is an object of this invention to provide a simple, convenient and easily operated toy device which will simulate the motions of a horse or other animal being ridden and which is in the form of a vehicle and adapted to be progressed by the riding action.

It is a further object of the invention to provide a toy device comprising a frame, a fork carrying a front wheel journaled in the front end of said frame, a seat-carrying body pivoted to the front end of said frame, a crank axle carried at the rear end of said frame beneath said body, said body having slidable engagement with the rear end of said spring and being connected to the rear end of said axle by a pitman.

These and other objects and advantages of the invention will be fully set forth in the following description made in connection with the accompanying drawings, in which like reference characters refer to similar parts throughout the several views and in which:—

Fig. 1 is a view in side elevation of the device;

Fig. 2 is a top plan view thereof;

Fig. 3 is a view in rear elevation thereof;

Fig. 4 is a section taken on line 4—4 of Fig. 1 as indicated by the arrows;

Fig. 5 is a vertical section taken on line 5—5 of Fig. 1 as indicated by the arrows;

Fig. 6 is a vertical section on line 6—6 of Fig. 4, as indicated by the arrows; and

Fig. 7 is a section taken on line 7—7 of Fig. 1 as indicated by the arrows.

Referring to the drawings, a device is shown comprising a frame 10 having horizontally spaced bars 10^a which extend in parallel relation throughout the greater portion of their length, but converge at their forward ends and extend upwardly. Said bars have extensions bolted thereto which are twisted through a 90° turn and brought into engagement adjacent the front end of the frame, where they are connected by the headed and nutted bolt 11. The front end of bars 10^a is formed into a circular or cylindrical portion 10^b in which is clamped a sleeve 12. The sleeve 12 is journaled on a headed and nutted bolt 13, which bolt extends through the transverse members of a yoke fork member 14. The bars 10^a are connected adjacent their rear ends by a cross bar 10^c and are formed at their rear ends with bearings in which is journaled a crank shaft or axle 15 having secured to its ends the rear supporting wheels 16. A brake such as the well known bicycle coasting brake 17 is applied to the wheels 16 and said bearings to prevent backward rotation of said wheels. The front wheel 18 is journaled in the lower fork member of member 14. A yoke bracket 19 is bolted to the front portion of bars 10^a by the headed and nutted bolts 20. The upper portion of member 19 receives between its arms and has pivoted thereto by the headed and nutted bolt 21 the front portion of a body 22, which, in the embodiment of the invention illustrated is shaped to simulate the body of a horse. The member 14 has a bracket 23 secured to its top to which are connected the handle bars 24 extending at each side of the body 22 and rearwardly thereof, being equipped with handle portions 24^a at their ends. A plate spring 25 is provided, which rests in a notch on the cross bar 26 extending between the bars 10^a and has passing through its forward end a headed bolt 27 which is threaded through the bottom of the member 19 and locked in position therein by the lock nuts 28. The spring 25 engages the head of the bolt 27. The spring 25 extends rearwardly beneath the body 22 and at its rear end is received between the downwardly turned ends 29^a of a bifurcated bracket 29 secured to the rear of body 22. Said bracket 29 has journaled between the sides 29^a the roller 30 which engages the top of spring 25. A pair of pitman rods 31 are pivoted at their upper ends to body 22 by the headed and nutted pivot bolt 32 and are pivoted at their lower ends by suitable connections to the crank portion of axle 15, said rods being connected by the clip 32^a. A seat member 33 is secured to the top

of body 22 adjacent its rear end. Foot rests or pedals 34 are secured in U-shaped clips 35 embracing the bars 10^a, said foot rests being threaded and held in place by locking nuts 36.

In the operation of the device the rider, such as a child, will straddle the body 2 and sit in the seat 33. The rider's feet may be placed on the foot rest 34. The rider will grasp the handle 24^a and steer the vehicle by turning the handle bars 24. The weight of the rider will depress the rear end of the body 22 and flex the spring 25. This action will press downward on the crank portion of axle 15 so that the axle and wheel 16 will be rotated. This will progress the device forwardly. The rider can then, by pressing on the foot rest 34 and placing his weight largely thereon, lift himself in the seat or saddle 33 and allow the rear end of body 22 to rise. This rising movement will be caused by the spring 25 which tends normally to raise the body. By alternately letting his weight rest on the saddle 33 and thus raising himself, the axle 15 can be kept rotating and the vehicle continuously moved forward. It will be seen that the tension on spring 25 can be varied by varying the position of bolt 27. The position of the foot rests 34 can also be changed on the bars 10^a to suit the rider. The roller 30 rolls on top of the spring 25 so that there is little friction in the relative movement of the spring and body or roller. The device, preferably, will be kept from movement rearwardly by the brake 17 which will act when the wheels 16 rotate rearwardly.

From the above description it is seen that applicant has provided a very simple and yet a very efficient and easily operated toy device which simulates the action of riding and which is adapted to be progressed by said action. The parts of the device are few and are quite rugged and effectively disposed so that a strong, simple and durable vehicle is obtained. The device has been amply demonstrated in actual practice and found to be very successful.

It will, of course, be understood, that various changes may be made in the form, details, arrangement and proportion of the parts without departing from the scope of applicant's invention which, generally stated, consists in a device capable of carrying out the objects above set forth and as disclosed and described in the claims.

What is claimed is:—

1. A toy device comprising a frame, a forked journaled in the front end of said frame, a front wheel journaled in said fork, a spring fixed at the front portion of said frame and extending rearwardly therefrom, a body pivoted at its front end to the front end of said frame, the rear end of said body being slidably supported on said spring, a crank shaft journaled in the rear portion of said frame, wheels secured to the end of said shaft, and a pitman connected to said crank shaft and to the rear end of said body.

2. A toy having in combination, a frame, a fork journaled in the front end of said frame, a front wheel journaled to said fork, a bracket upstanding from the front of said frame, a body pivotally connected at its front end to said bracket, handle bars connected to said fork disposed at each side of said body, a plate spring carried by said frame and extending rearwardly therefrom, the rear end of said body resting on and slidably engaging the rear end of said spring, means for adjusting said spring, and a crank axle journaled in said frame beneath the rear end of said spring, a pitman connecting the rear end of said body and crank shaft, and a seat carried by the rear end of said body.

3. A toy device having in combination, a frame comprising spaced longitudinally extending members converging and extending upwardly at their forward ends, an upwardly extending fork at the forward end of said frame, a pivot member carried in said fork embraced by said frame, said fork being rotatable about the axis of said pivot member, a bracket secured to said frame adjacent said fork but at the rear thereof and upstanding from said frame, a body pivoted at its front end to said bracket, a plate spring supported at the foward portion of said frame adjacent the end of said spring and extending rearwardly beneath said body, said body slidably engaging said spring at its rear end, means for varying the position of the free end of said spring, a crank axle journaled in said frame beneath the rear end of said body and spring, a pitman pivotally connecting said axle and body, and a seat carried by said body.

4. A vehicle comprising a frame, a supporting and steering wheel at the front of said frame, means for turning said wheel, a body pivoted at its front portion adjacent the front of said frame, a rearwardly extending spring secured to said frame and disposed beneath said body for elevating said body, a wheel-equipped axle at the rear of said frame having a crank portion, and a pitman connected to the rear of said body and to said crank portion.

5. A vehicle device comprising, a frame, a pivot member, a body separate from said frame pivoted at its front end on said pivot member and oscillatable about the axis thereof, a downwardly and forwardly extending fork journaled in said frame at the front thereof below and in front of said pivot and below said body, said body extending forwardly of said fork, a steering wheel journaled in said fork, means secured to the top of said fork and extending upwardly and rearwardly at each side of said body for

turning said fork, a spring carried by said frame and engaging said body in the rear of said pivot for elevating said body, a wheel-equipped axle at the rear portion of said frame having a crank portion therein, and means connecting the rear portion of said body and crank portion of said axle whereby when said body is oscillated said axle will be turned.

6. A vehicle device comprising, a frame, a pivot, a body separate from said frame mounted at its front end on said pivot and oscillatable thereabout, a wheel at the front of said frame constituting a steering wheel, means at the front of said body for turning said wheel, a spring secured at one end to said frame and operatably connected to said body at its other end to be flexed by downward movement of said body about said pivot, said spring being disposed between said pivot and the rear end of said body, a wheel-equipped axle at the rear portion of said frame having a crank portion and a rod pivotally connected at one end to said body and at its other end to said crank portion whereby said axle will be turned when said body is oscillated.

In testimony whereof I affix my signature.

ARNE B. OSTBY.