April 9, 1946. J. F. MARTIN, JR., ET AL 2,398,025

TOY

Filed Oct. 23, 1944 2 Sheets-Sheet 1

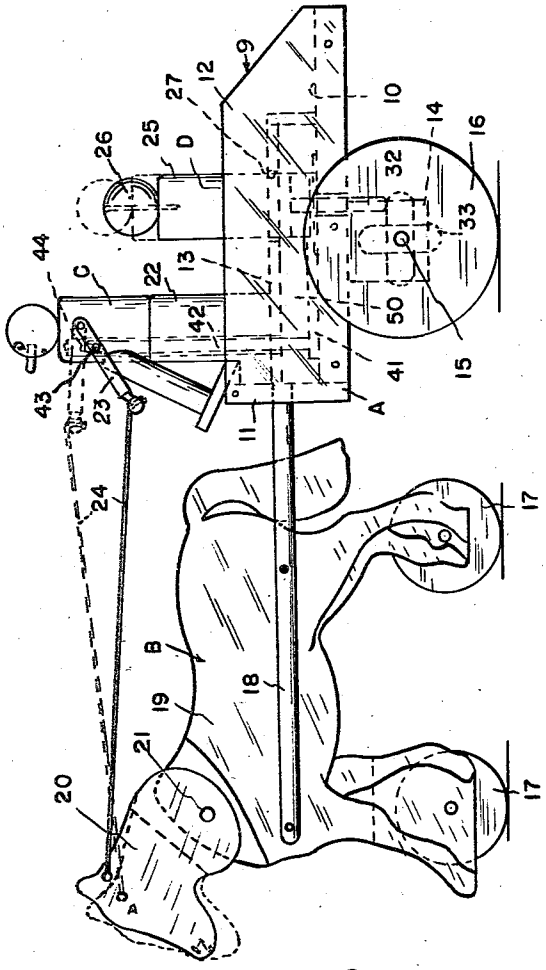


FIG.1.

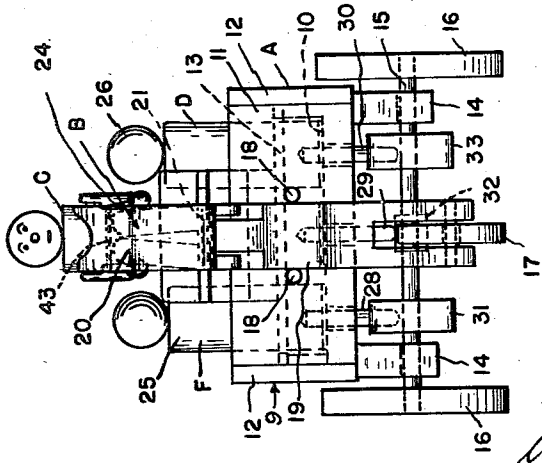


FIG.3.

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Filed Oct. 23, 1944 2 Sheets-Sheet 2

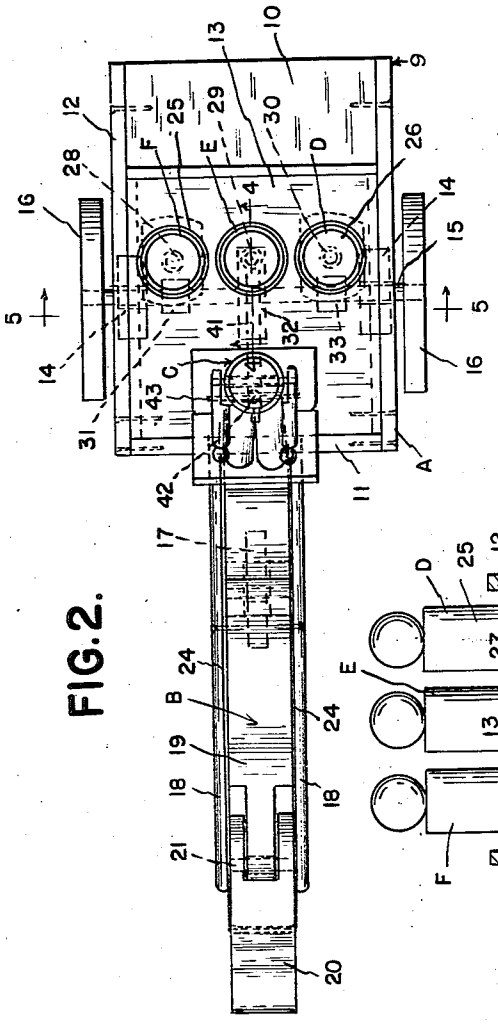


FIG. 2.

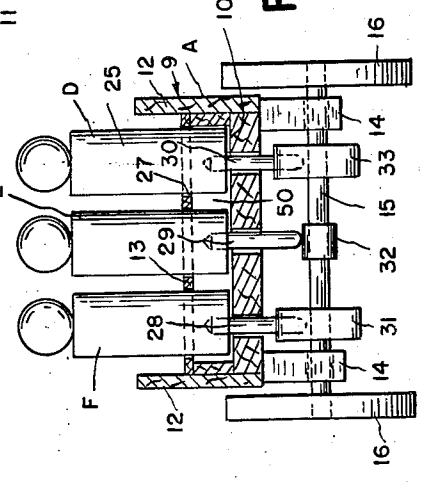


FIG. 5.

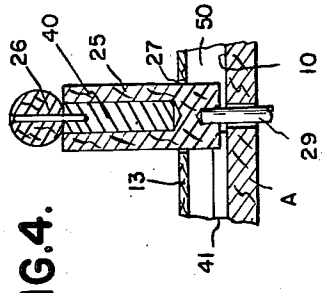


FIG. 4.

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Patented Apr. 9, 1946 2,398,025

UNITED STATES PATENT OFFICE

2,398,025

TOY

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Application October 23, 1944, Serial No. 559,942

8 Claims. (Cl. 46—101)

This invention relates generally to toys and refers more particularly to wheeled toys adapted to be pulled or pushed over a suitable surface for the amusement of children and others.

One of the essential objects of this invention is to provide a toy of this type wherein a reciprocating object and a pair of pivoted arms of an object simulating a person are actuable from a single element on an axle for two of the wheels of the toy.

Another object is to provide a toy wherein a pivoted head of an object simulating a horse is actuable by reins connected to the pivoted arms aforesaid, whereby the pivoted head is actuated when the pivoted arms and reciprocating object are actuated.

Another object is to provide a toy wherein the reciprocating object aforesaid is positively moved in one direction by the element aforesaid and is weighted so that it will definitely move in the opposite direction when released from said element.

Another object is to provide a toy wherein the operating connection between the reciprocating object and the pivoted arms includes a member rigid with said reciprocating object, and a cooperating member mounted to slide in the object simulating the person and having pin and slot connections with the pivoted arms.

Another object is to provide a toy wherein other reciprocating objects are actuated by other elements on the axle aforesaid.

Another object is to provide a toy that is simple in construction, economical to manufacture, efficient in operation and capable of attracting and holding the attention of children and others, while in operation.

Other objects, advantages and novel details of construction of this invention will be made more apparent as this description proceeds, especially when considered in connection with the accompanying drawings, wherein:

Figure 1 is a side elevation of a toy embodying our invention;

Figure 2 is a top plan view thereof;

Figure 3 is an end view of the toy illustrated in Figure 1; and

Figure 4 is a sectional view taken substantially on the line 4—4 of Figure 2;

Figure 5 is a sectional view taken substantially on the line 5—5 of Figure 2.

Referring now to the drawings, A is a two wheel cart, B is a wheeled figure simulating a horse, C is an object on the cart simulating a person, and D, E and F respectively are reciprocating objects on the cart in rear of the object C of a toy embodying our invention.

As shown, the cart A has a body portion 9 comprising a floor 10, and front and side walls 11 and 12 respectively. A raised platform 13 is located within the cart and is rigid with the front and side walls 11 and 12 respectively thereof. On the underside of the floor 10, substantially midway its ends, are laterally spaced depending blocks 14 that receive and form bearings for an axle 15 for supporting wheels 16.

The figure B has supporting wheels 17, and is spaced a predetermined distance in front of the cart A by means of shafts 18 rigid with the body portion 19 of said figure and the front wall 11 of the cart. A part 20 of the figure B simulates the head of the horse and is pivoted at 21 to the body portion 19 of said figure.

The object C simulating a person has a body portion 22 extending upwardly from and rigid with the raised platform 13 adjacent the forward end thereof and has two pivotally mounted arms 23 connected by reins 24 to the pivoted head 20 of the horse.

The reciprocating objects D, E and F respectively are similar in outward appearance and are preferably arranged in a row extending transversely of the cart. Each of said objects has a cylindrical portion 25 and a sphere 26 on top thereof. Such objects D, E and F extend through holes 27 in the raised platform 13 and are provided at their lower ends with depending pins 28, 29 and 30 respectively that ride on cams 31, 32 and 33 respectively fixed to the axle 15. Preferably the outermost cams 31 and 33 are in the same fixed position on the axle 15 for moving the outer objects D and F respectively at one time, while the intermediate cam 32 is in a position substantially at right angles to the outer cams 31 and 33 for moving the intermediate object E at a different time during rotation of the axle 15 as the toy is pulled or pushed over a suitable surface. As shown the pins 28, 29, and 30 respectively are in rear of the axle 15, hence the cams 31, 32 and 33 will raise the pins 28, 29 and 30 respectively to lift the objects D, E and F when the axle 15 is rotated as aforesaid. After the cams 31, 32 and 33 complete such raising movement of the pins 28, 29 and 30 they will move clear of the pins during continued rotation of the axle 15, hence the objects D, E and F will fall by gravity onto the floor 10 of the cart where they will remain until the pins 28, 29 and 30 are again engaged by the cams 31, 32 and 33 respectively and raised as described.

In the present instance the intermediate object E is weighted at 40 and is provided with a forwardly extending bar 41 that extends underneath and is preferably rigid with a vertical rod 42 slidably mounted in the object C. A cross pin 43 carried by the pivoted arms 23 engages a longitudinally extending slot 44 in the vertical rod 42 to provide an operating connection between the rod 42 and the arms 23.

In use, when the toy is pulled or pushed over a suitable surface, the outer cams 31 and 33 will raise the pins 28 and 30 in unison so that the outer objects D and F will be moved upward simultaneously from the full line to the dotted line positions (Figure 1). When these cams 31 and 33 clear the pins 28 and 30 during continued rotation of the axle 15 the outer objects D and F will fall by gravity onto the floor 10 of the cart, and the intermediate cam 32 is then in position to raise the pin 29 and cause the intermediate object E to move upwardly. When the intermediate object E moves upwardly it carries with it the bar 41 which raises the rod 42 and causes the pivoted arms 23 to move upwardly from the full line to the dotted line position (Figure 1). Upward movement of the pivoted arms 23 permits the reins 24 to move forward from the full line to the dotted line positions (Figure 1) and thus permits the pivoted head 20 of the horse to swing about its pivot 21 from the full line to the lowered dotted line positions (Figure 1). When the intermediate cam 32 clears the pin 29 during continued rotation of the axle 15, the intermediate weighted object E will fall by gravity onto the floor 10 of the cart and thereby will cause the bar 41 to be lowered. As a result, the rod 42 will be moved downwardly by the bar 41, the pivoted arms 23 will be lowered to their full line position (Figure 1), the reins 24 will be drawn rearwardly by said arms 23 to their full line position (Figure 1), and the pivoted head 20 will be returned by the reins 24 to its raised full line position (Figure 1).

Sufficient space 50 is provided between the raised platform 13 and the floor 10 of the cart for movement of the bar 41 as described, and such bar is effectively covered and concealed by the raised platform 13. Any suitable means such as a cord or string (not shown) may be connected to the toy at the forward end thereof to pull the same, as desired.

What we claim as our invention is:

1. A toy having a cart provided with supporting wheels and an axle for said wheels, a wheeled figure simulating an animal in advance of and rigidly connected to said cart, said wheeled figure having a pivoted part simulating the head of the animal, an object rigid with the cart and having one or more pivoted arms, a cam on said axle, means operable by said cam for actuating said pivoted arms, and one or more reins operable by said pivoted arms for actuating said pivoted part of the wheeled figure.

2. A toy having a cart provided with supporting wheels and an axle for said wheels, a wheeled figure simulating an animal in advance of and rigidly connected to said cart, said wheeled figure having a pivoted part simulating the head of the animal, an object rigid with the cart and having one or more pivoted arms, a reciprocating object on said cart and having a depending pin, a cam on said axle engageable with said pin to actuate the reciprocating object, means operable by said reciprocating object for actuating said pivoted arms, and one or more reins operable by said pivoted arms for actuating the pivoted part of the wheeled figure.

3. A toy having a cart provided with supporting wheels and an axle for said wheels, a wheeled figure simulating an animal in advance of and rigidly connected to said cart, said wheeled figure having a pivoted part simulating the head of the animal, an object rigid with the cart and having one or more pivoted arms, a reciprocating object on said cart and having a depending pin, a cam on said axle engageable with said pin to actuate the reciprocating object, means operable by said reciprocating object for actuating said pivoted arms, and means operable by said pivoted arms for actuating the pivoted part of the wheeled figure.

4. A toy having a cart provided with supporting wheels and an axle for said wheels, a wheeled figure simulating an animal in advance of and rigidly connected to said cart, said wheeled figure having a pivoted part simulating the head of the animal, an object rigid with the cart and having one or more pivoted arms, a reciprocating object on said cart and having a depending pin, a cam on said axle engageable with said pin to actuate the reciprocating object, a bar rigid with the reciprocating object and movable therewith, a rod operable by said bar for actuating said pivoted arms, and means operable by said pivoted arms for actuating the pivoted part of the wheeled figure.

5. A toy comprising a wheeled figure and a cart arranged in tandem, the figure simulating an animal and having a pivoted portion simulating the head thereof, the cart having a floor, supporting wheels, an axle for said wheels, and bearings for the axle carried by said floor, an upright object rigid with said cart and having one or more movable arms, an operating connection between said arms and the pivoted portion of the figure, an upright object above and mounted to reciprocate relative to the floor of said cart, said last mentioned object having a pin rigid therewith and projecting downward through said floor, a cam on said axle engageable with said pin to cause said last mentioned object to reciprocate, and means for actuating the arms of the first mentioned object, including a rod movable lengthwise of said first mentioned object and operatively connected to said arms, and a bar projecting from the last mentioned object and connected to said rod.

6. A toy comprising a cart having a floor, supporting wheels, an axle for said wheels, and bearings for the axle carried by said floor, an upright object rigid with said cart and having one or more movable arms, an upright object above and mounted to reciprocate relative to the floor of said cart, said last mentioned object having a pin rigid therewith and projecting downward through said floor, a cam on said axle engageable with said pin to cause said last mentioned object to reciprocate, and means for actuating the arms of the first mentioned object, including a rod movable lengthwise of said first mentioned object and operatively connected to said arms, and a bar projecting from the last mentioned object and connected to said rod.

7. A toy comprising a wheeled figure and a cart arranged in tandem, the figure simultating an animal and having a pivoted portion simulating the head thereof, the cart having a floor, supporting wheels, an axle for said wheels, and bearings for the axle carried by said floor, an upright object rigid with said cart and having one or

more movable arms, an operating connection between said arms and the pivoted portion of the figure, an upright object above and mounted to reciprocate relative to the floor of said cart, said last mentioned object having a pin rigid therewith and projecting downward through said floor, a cam on said axle engageable with said pin to cause said last mentioned object to reciprocate, and means operable by said last mentioned object for actuating the arms of the first mentioned object.

8. A toy comprising a cart having a floor, supporting wheels, an axle for said wheels, and bearings for the axle carried by said floor, an upright object rigid with said cart and having one or more movable arms, an upright object above and mounted to reciprocate relative to the floor of said cart, said last mentioned object having a pin rigid therewith and projecting downward through said floor, a cam on said axle engageable with said pin to cause said last mentioned object to reciprocate, and means operable by said last mentioned object for actuating the arms of the first mentioned object.

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