Feb. 15, 1938. A. ORLOFF 2,108,345

WALKING TOY

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Fig. 1

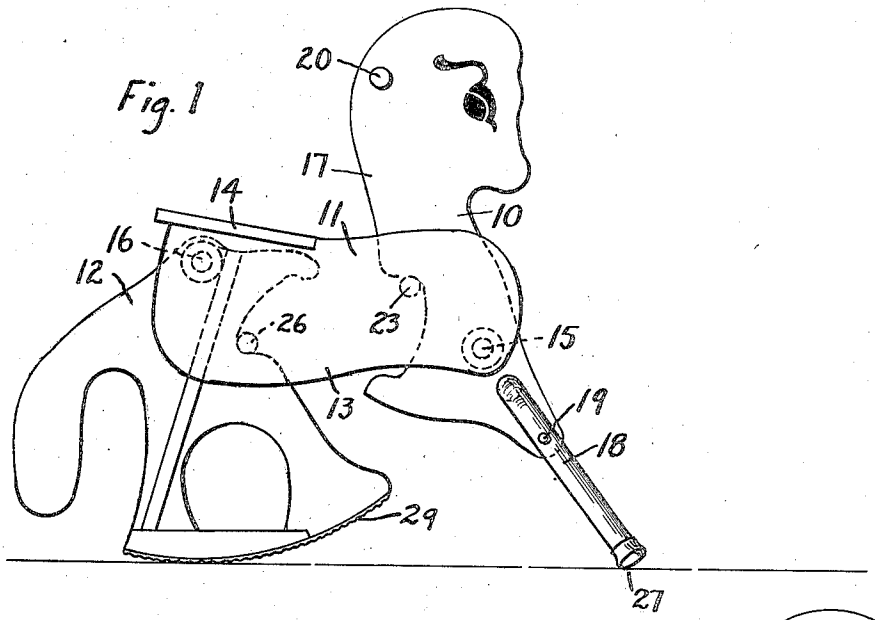
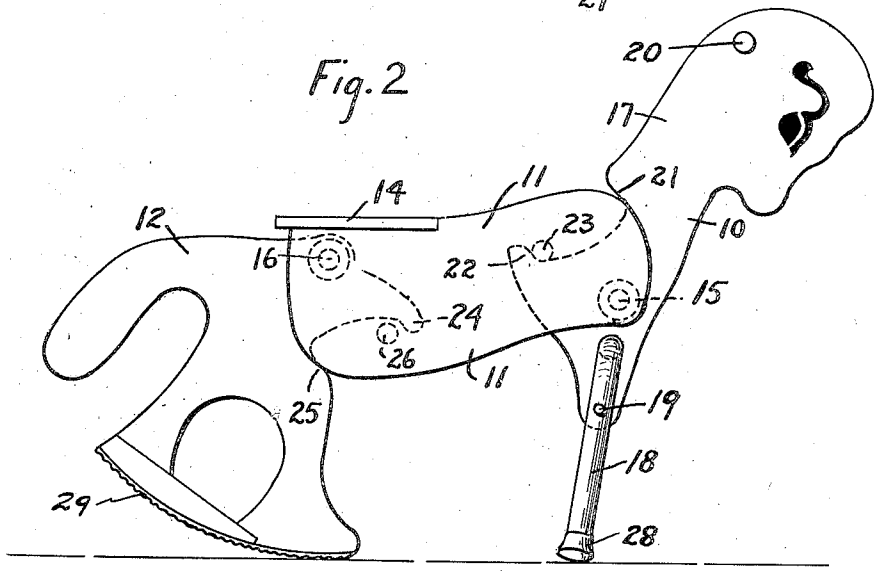


Fig. 2



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Fig. 4

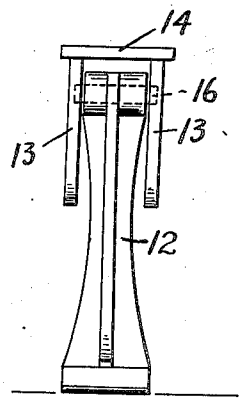


Fig. 3

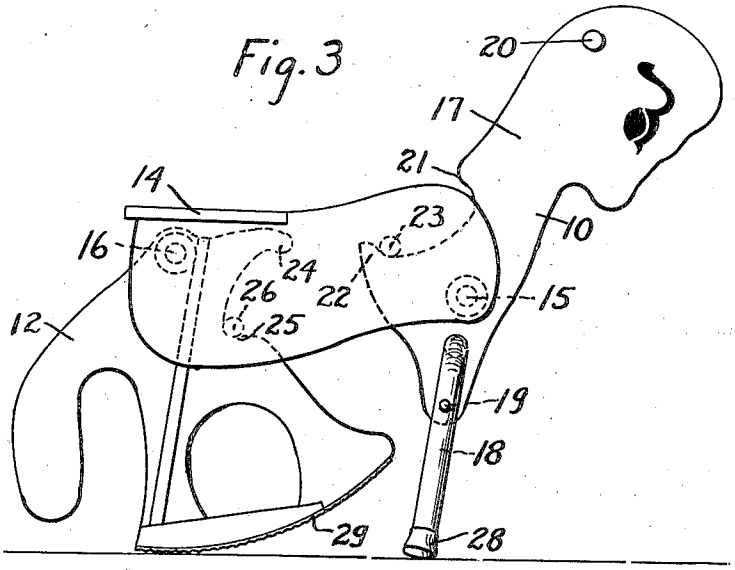
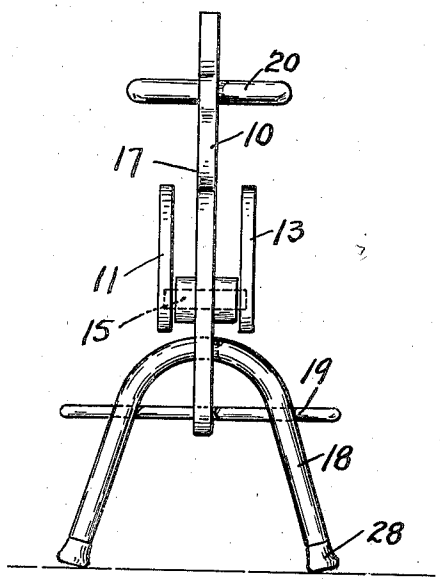


Fig. 5



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UNITED STATES PATENT OFFICE

2,108,345

WALKING TOY

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Application January 9, 1937, Serial No. 119,734

3 Claims. (Cl. 272—53)

The invention relates to toys and more particularly to a walking hobby horse.

The general object of the invention is to provide a toy animal of the type above described which is composed of but three main parts and in which the use of springs and other connections between the parts to bring about a walking action is eliminated.

A further object of the invention is to provide a walking animal of the hobby horse type in which the rear part of the body of the animal is supported by a radial quadrant or leg whose center of gravity is definitely back of its pivot so as to have a closing effect only when it is relieved of pressure on the ground. This keeps the body of the rider on a level plane of travel, and the rider does not have to store up energy in a spring or to elevate himself until his inward swinging of the front legs acts to slightly raise the body and permits the rear quadrant to swing itself forwardly. With the present arrangement it is a simple matter to learn to ride the horse since there is a natural tendency for the novice to rock the body back and forth about the pivot points of the leg portions, and then, when he exerts a greater pressure on the head portion and transfers his weight to a greater extent upon the front legs, the body portion of the horse will momentarily rise sufficiently to allow the rear leg or support to move forward under the action of its own weight.

The invention further consists in the several features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings;

Figs. 1, 2, and 3 show side elevation views of the toy animal embodying the invention in different operative positions;

Fig. 4 is an end elevation view of the rear portion of the device;

Fig. 5 is a front end elevation view of the device.

The walking animal comprises a front support 10, a body 11, and a back support 12. The body 11 is formed of spaced side plates or boards 13 connected together by a seat board 14 at the rear and carrying a front pivot 15 and a rear pivot 16.

The front support 10 is formed as a two armed lever pivoted on the pivot 15 and having a head and neck portion 17 and legs 18 through which a stirrup member 19 passes, the head having a grip bar 20 mounted therein. The support 10 is limited in its movements by providing spaced stop portions 21 and 22 cooperating with a stop 23 on the body.

The rear support 12 is formed as a rocker member or quadrant pivoted at its upper end on the rear pivot 16 which pivot is so disposed as to bias said member to a forward swinging position as shown in Fig. 3 when the weight of the rider is relieved therefrom. This member has spaced stop portions 24 and 25 cooperating with a stop 26 on the body.

Fig. 1 shows the walking horse in what might be termed a normal position. The rider sits on the saddle or seat 14 grasping the handle or bar 20 with his hands and resting his feet on the cross bar or stirrup 19. In this position the rider's weight is distributed between the front legs 18 and the rear rocker 12. If the rider now pushes on the handle 20, the front element 10 will rotate in a clockwise sense about its point of contact with the ground at 27. This rotation of the front element 10 will cause the body 11 to move forward in a substantially horizontal manner. More exactly the front part of the body at the pivot 15 will rotate about the point 27 while the rear part of the body at the pivot 16 will travel in a horizontal line because the pivot 16 is the center of the arc of a circle bounding the bottom portion of the element 12. This action keeps the rider seated on the saddle 14 at a constant level. Rotation of the member 10, back support 12, and translation of the body 11 continues until the stop portion 22 contacts the stop 23 in the body, the parts being then in the position shown in Fig. 2.

Subsequent rotation of the member 10 in the same direction will now cause said member 10 and body 11 to act as one unit. At this time the rider exerts somewhat more pressure on the handle 20 at the same time hunching forward and bearing with more pressure on the stirrups 19 which action causes the back end of the body 11 to swing upwardly so as to raise the pivot 16 slightly, thus providing momentary clearance for the rocker member 12 with respect to the ground. This action permits the element 12 to then rotate smartly about its axis 16 in a counter-clockwise rotation because the center of gravity of this element is substantially to the rear of its pivot 16. The position of the horse now is as shown in Fig. 3.

The rider now pulls back on the handles 20 at the same time pushing ahead with his feet on the stirrups 19. This action causes a slight shift of weight of the rider momentarily relieving part of the weight from the front element 10 allowing

it to assume the initial position shown in Fig. 1. This completes the cycle of one step and prepares the horse for the succeeding step.

It will be observed from Fig. 3 that it is not necessary to swing the leg **18** back very far from an upright position in order to lift the body so that the rocker member may swing forwardly, and after this movement has been effected, a very slight pull back on the handle **20** will cause the front element **10** to assume the position shown in Fig. 1.

As the rear part of the body **11** is supported by the rocker member **12** whose center of gravity is definitely back of its pivot, the rocker member will have a closing effect only when it is relieved of pressure on the ground. This keeps the body of the rider on an even keel or level plane of travel. No effort of the rider is necessary to extend a spring or elevate himself until contact is established between the stops **22** and **23**. It has been demonstrated that novices will oscillate the horse between positions as shown in Figs. 1 and 2 as a preliminary gesture. To this extent it is to them merely a rocking horse. When they exert a forward pressure on the member **10** with more force and transfer their weight to a greater extent on the stirrups **19**, the body portion **11** of the horse will momentarily rise sufficiently to allow the member **12** to move forward under the influence of its own gravity.

With this construction it is possible for the rider (1) to merely rock on the horse oscillating between the positions shown in Figs. 1 and 2, (2) employ but a fraction of a complete stroke of the front element **10** subsequent to the position shown in Fig. 3 which will result in a regulation of the speed of travel, and (3) utilize the full stroke of the element **10** as defined by the limits **22** and **21** against the stop **23**.

The front legs are shown as provided with rubber crutch tips **28**, and the rocker member may have its surface contacting portion provided with a rough faced rubber tread **29** to improve the gripping qualities of these parts, so that the toy may be used on hardwood floors and without danger of scratching or marring the floors.

I desire it to be understood that this invention is not to be limited to any particular form or arrangement of parts except in so far as such limitations are included in the claims.

What I claim as my invention is:

1. In a toy of the type described, the combination of a body, a front support pivoted to one end of said body intermediate said support, a rocker member pivotally connected to the other end of said body, said rocker member having a foot substantially radially curved from its pivot point as a center and having its center of gravity offset rearwardly of its pivot, and means for limiting the pivotal motions of said support and rocker member relative to said body.

2. In a toy of the type described, the combination of a body, a front support pivotally connected to the front end portion of said body and having a leg portion below its pivot provided with a foot rest and a head portion above its pivot provided with a hand grip, and a rocker member pivotally connected to the back end of said body and having a foot substantially radially curved from its pivot point as a center and turned by direct connection with said body during the forward swinging movement of the head portion of said support.

3. In a toy of the type described, the combination of a body, a front support pivotally connected to the lower part of the front end of said body and having a leg portion below its pivot provided with a foot rest and a head portion above its pivot provided with a hand grip, and a rocker member pivotally connected to the upper part of the back end of said body and having a foot substantially radially curved from its pivot point as a center and having its center of gravity offset rearwardly of its pivot, and means for limiting the pivotal motions of said support and rocker member relative to said body.

ARTHUR ORLOFF.